



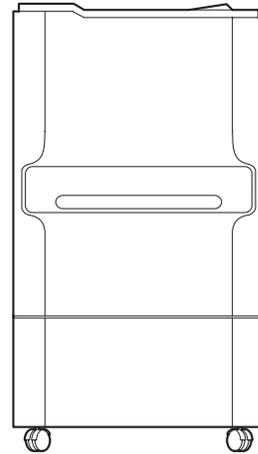
KONICA MINOLTA

**LASER IMAGER**

# **DRYPRO MODEL 771**

## **SERVICE MANUAL**

**CODE NO.**  
**0582 (UL), 0583 (CE)**



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## Cautions Relating to Repairs and Installation

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The following cautions must be observed when carrying out repair or installation work.

1. To avoid accidents, only personnel properly trained and authorized by the manufacturer should remove covers or touch internal parts.
2. The DRYPRO 771 incorporates a laser beam device (Class IIIb). Direct exposure of the skin or eyes to the laser beam may cause serious damage. Always use protective goggles when carrying out repairs or adjustments.
3. Under no circumstances should any attempts be made to carry out operational procedures or adjustments other than those described in this manual: exposure to harmful electromagnetic waves may result.
4. To ensure safety while using or working on the DRYPRO 771, cautions shown on warning labels must be observed at all times.
5. The DRYPRO 771 contains internal parts that carry high voltage that may cause electrocution if touched. Extreme caution must be exercised at all times.
6. Be careful to avoid parts of the body or clothing becoming trapped or entangled in moving parts such as fans.
7. The DRYPRO 771 weighs approximately 150kg. Ensure that there is sufficient work space when carrying out unpacking or installation work.
8. Electrical circuitry in the DRYPRO 771 may be damaged by static electricity. Due care must be exercised when handling the main body or any electrical parts removed during repair work.
9. The DRYPRO 771 power supply must be switched off when removing circuit boards, disconnecting or connecting connectors or cables. Under no circumstances should such procedures be carried out with the power supply switched on: doing so may result in serious accidents.
10. A wrist band must always be worn when handling circuit boards.
11. The DRYPRO 771 incorporates a lithium battery. Improper replacement of the battery may cause damage: only a qualified service engineer may carry out this procedure.
12. The DRYPRO 771 is a Class I laser device furnished with interlocks. The procedures described in this manual must be followed when disengaging interlocks.
13. Do not move the device with the LAN cable connected as this may result in exposure of the cable to tension resulting in damage to the LAN connector.
14. The specification of the RTC (real-time clock) used on the main board of the device is day differential  $\pm 1$  second or less. The time and date should be checked every month.

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## Cautions Relating to Repairs and Installation

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**CAUTION** When disposing of the DRYPRO 771 main body, accessories, optional parts, consumables or media. Strictly follow relevant local ordinances and regulations must be followed for disposal.

# Warning Label

## Signal Word

- Signal words indicate the degree of potential hazards in the product.
- There are 3 degrees of caution labels, and each is used depending on the level of risk and damage caused by incorrect use and mishandling.

**DANGER :** Failure to observe the caution will produce high risk of serious or fatal injury.



**WARNING :** Failure to observe the caution will produce moderate risk of serious or fatal injury.



**CAUTION :** Failure to observe the caution will produce moderate risk of serious or fatal injury or damage to property.



		Risk of the damage	
		High	Low
<b>Bodily injury (and damage to property)</b>	Loss of life or serious injury (Damage is serious)	DANGER	WARNING
	Moderate damage or light injury (Damage is light)	WARNING or CAUTION	CAUTION
<b>Damage to property only</b>		CAUTION	

# Warning Label List

1. Caution label-1 warning of high-temperature (60°C)



2. Caution label warning of high-temperature (100°C)



3. Caution label-2 warning of high-temperature (60°C)

	<p><b>注意</b> 火傷に注意してください。60°Cになっています。フィルムガイド部に触れないように注意してください。フィルムの取り出しをする際はフロントカバーを解放し、十分に時間を置き冷ましてから実施してください。</p>
	<p><b>CAUTION</b> Avoid touching the film guide to prevent burns. The film guide heats up to 60°C (140°F). Be careful not to touch the film guide parts. When removing the film, first open the front cover and wait for 20 minutes to allow the film guide to cool down before replacing it.</p>
	<p><b>PRECAUCION</b> Procure no tocar la guía de la película para evitar quemarse. La guía de la película se calienta hasta 60°C (140°F). Tenga cuidado de no tocar las partes de la guía de la película. Cuando vaya a extraer la película, primero abra la cubierta delantera y espere durante 20 minutos para dejar que la guía de la película se enfrie antes de reemplazarla.</p>
	<p><b>VORSICHT</b> Vermeiden Sie Berührung der Filmführung, um Verbrennungen zu vermeiden. Die Filmführung erhitzt sich auf bis zu 60°C (140°F). Achten Sie darauf, die Teile der Filmführung nicht zu berühren. Beim Entfernen des Films öffnen Sie zuerst die Frontabdeckung und warten Sie 20 Minuten, um die Filmführung abkühlen zu lassen, bevor Sie ihn ersetzen.</p>
	<p><b>ATTENTION</b> Éviter de toucher le guide-film pour ne pas se brûler. Le guide-film peut atteindre 60°C (140°F). Faire attention à ne pas toucher les pièces du guide-film. Lorsque le film doit être remplacé, ouvrir le capot avant et attendre 20 minutes pour laisser refroidir le guide-film avant de le remplacer.</p>
	<p><b>CUIDADO</b> Evite tocar na guia do filme para não sofrer queimaduras. A guia do filme pode aquecer-se até 60°C (140°F). Tome o cuidado de não tocar nas partes da guia do filme. Para remover o filme, primeiro abra a tampa frontal e então aguarde 20 minutos para que a guia do filme se esfrie antes de trocar o filme.</p>
<p><b>ATTENZIONE</b> Evitare di toccare la guida pellicola per evitare ustioni. La guida pellicola può raggiungere 60°C (140°F). Fare attenzione a non toccare le parti della guida pellicola. Quando si estrae la pellicola, aprire il coperchio anteriore e attendere 20 minuti che la guida pellicola si raffreddi prima di procedere alla sostituzione.</p>	
<p><b>注意</b> 请注意烫伤。此处温度高达60°C (140°F)。注意不要触摸片槽部分。在取出胶片时，请打开前面盖，过20分钟后再取出。</p>	

4. Caution label-1 warning of high-temperature (130°C)

<p><b>注意 CAUTION ACHTUNG</b></p>
<p> <b>130°C</b> <b>高温注意</b> <b>HIGH TEMPERATURE</b> <b>HOHE TEMPERATUR</b></p>
<p>このカバーの中は130°Cになっていることがあります。火傷に注意してください。現象部カバーを解放し、十分に冷めたことを確認した後、作業を行ってください。</p> <p>The parts inside the HPRO cover may heat up to 130°C (266°F). Avoid touching them to prevent burns. After opening the HPRO cover, allow it to cool down first, before proceeding with work.</p> <p>Die Teile innerhalb der HPRO-Abdeckung können sich auf bis zu 130°C erhitzen. Vermeiden Sie Berührungen, um Verbrennungen zu vermeiden. Nach dem Öffnen der HPRO-Abdeckung lassen Sie diese zuerst abkühlen, bevor Sie mit der Arbeit fortfahren.</p>

5. Caution: Laser-1

<p><b>注意</b></p> <p>ここを開くと不可視レーザー光がです。光源を直接見たり、のぞき込んだり、照射を受けないようにして下さい。</p> <p><b>CAUTION</b></p> <p>INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.</p> <p><b>VORSICHT</b></p> <p>UNSIHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.</p>
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6. Class-1 Laser Product Label

<p>クラス1レーザー製品</p> <p>CLASS 1 LASER PRODUCT</p> <p>LASER KLASSE 1</p>
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7. Caution: Laser-2

<p>Maximum Output maximaler Ausgangswert</p> <p>100mW</p> <p>Wavelength Wellenlänge</p> <p>810nm</p> <p>Continuous Wave Dauerstrichlaser</p> <p>IEC 825-1 (1993-11)</p>
---

<p><b>注意</b></p> <p>ここを開くと不可視レーザー光がです。光源を直接見たり、のぞき込んだり、照射を受けないようにして下さい。</p> <p><b>CAUTION</b></p> <p>INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.</p> <p><b>VORSICHT</b></p> <p>UNSIHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.</p>
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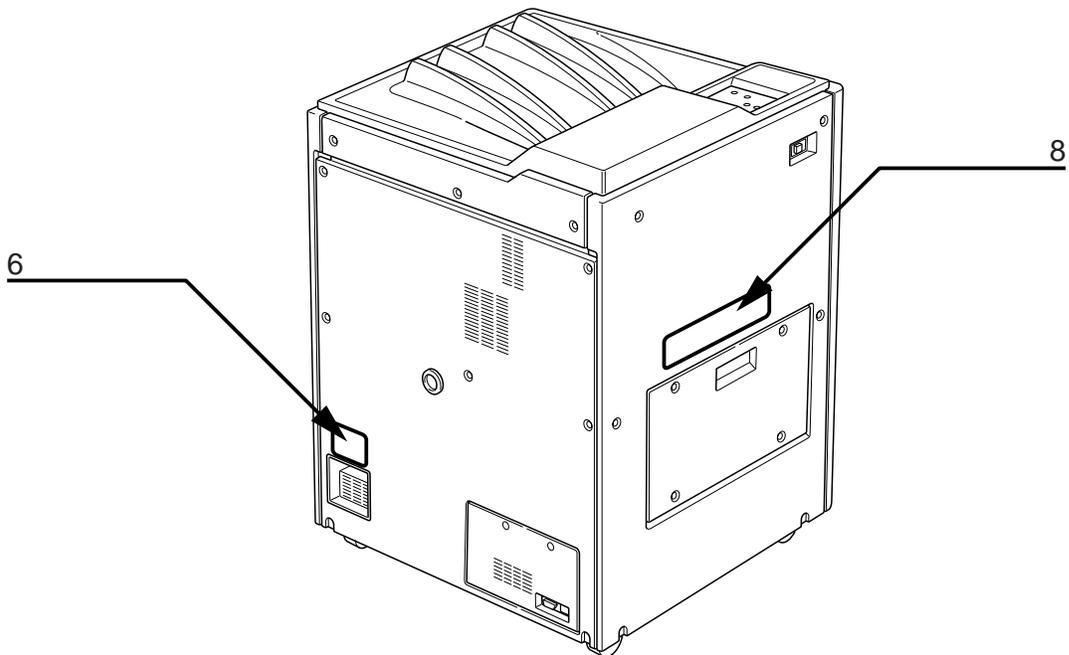
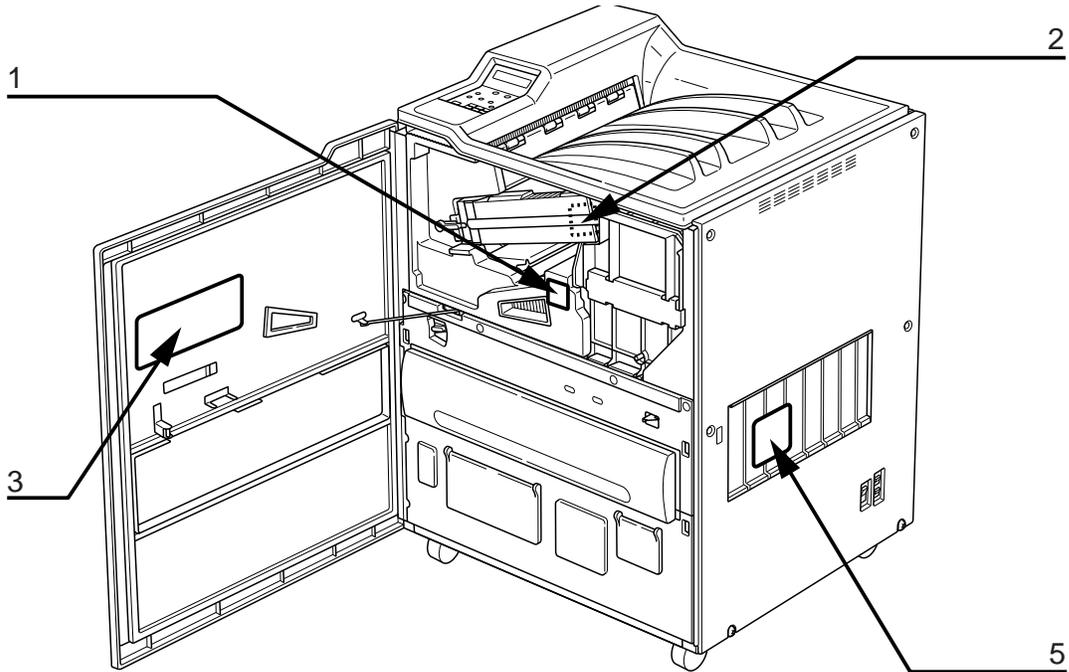
## 8.Caution: Laser-3

	<p><b>注意 CAUTION PRECAUTION VORSICHT ATTENTION ATENÇÃO ATTENZIONE 注意</b></p> <p>万が一の場合、ここを開くと不可視レーザー光がでる恐れがあります。のぞき込んだり、照射を受けないように注意して下さい。</p> <p>When this cover is open, an invisible laser beam may be emitted and the potential for laser beam radiation exists. Avoid peaking inside the cover as a precaution against injury from laser beam radiation.</p> <p>Cuando se abra esta cubierta, podrá emitirse un pequeño rayo láser invisible y existe la posibilidad de poder sufrir radiación de rayo láser. Evite hurgar dentro de la cubierta como precaución contra heridas por radiación de rayo láser.</p>	<p>Wenn die Abdeckung offen ist, kann ein unsichtbarer Lasersrahl austreten, und es besteht die Gefahr, dass Personen einer Laserbestrahlung ausgesetzt werden. Blicken Sie nicht unter die Abdeckung, um Verletzungen durch Laserstrahlung zu vermeiden.</p> <p>Lorsque le capot est ouvert, un faisceau laser invisible peut être émis, et il existe un risque de radiation. Pour éviter tout risque de radiation et de blessure ne pas ouvrir le capot et toucher l'intérieur.</p> <p>Ao abrir esta tampa, um raio laser invisível poderá ser emitido e existe o risco em potencial de uma exposição à radiação de raios laser. Tome o cuidado de não tocar na parte saliente da tampa para evitar possíveis lesões provocadas por radiações de raios laser.</p>	<p>Quando questo coperchio è aperto, de esso può fuoriuscire un fascio laser invisibile all'occhio umano ma potenzialmente pericoloso. Come precauzione contro le lesioni causate dall'irradiazione di questo fascio laser, evitare pertanto di guardare all'interno del coperchio.</p> <p>当打开此盖时，可能会有肉眼不可见的激光射出。注意不要窥视，以免受到激光的照射。可能会有肉眼不可见的激光射出。</p>

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## Locations of Warning Labels

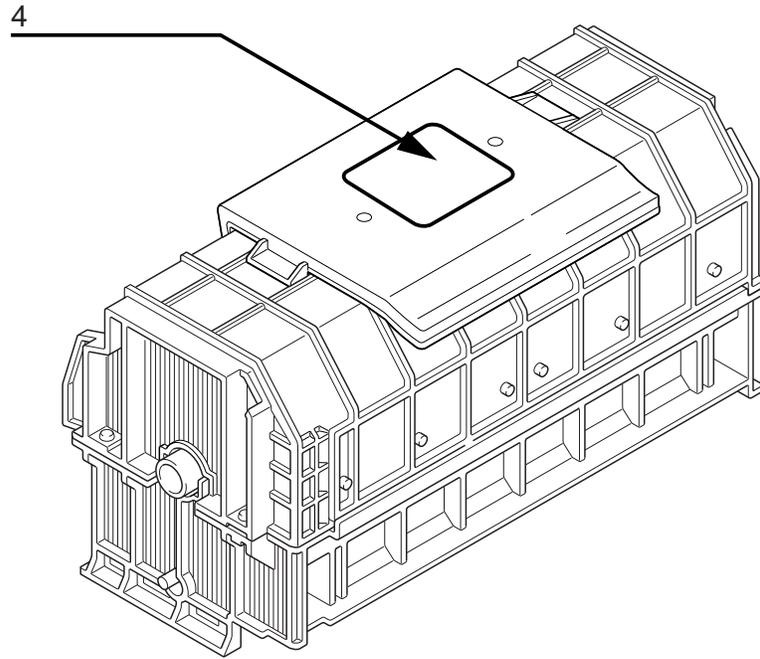
- Main Body



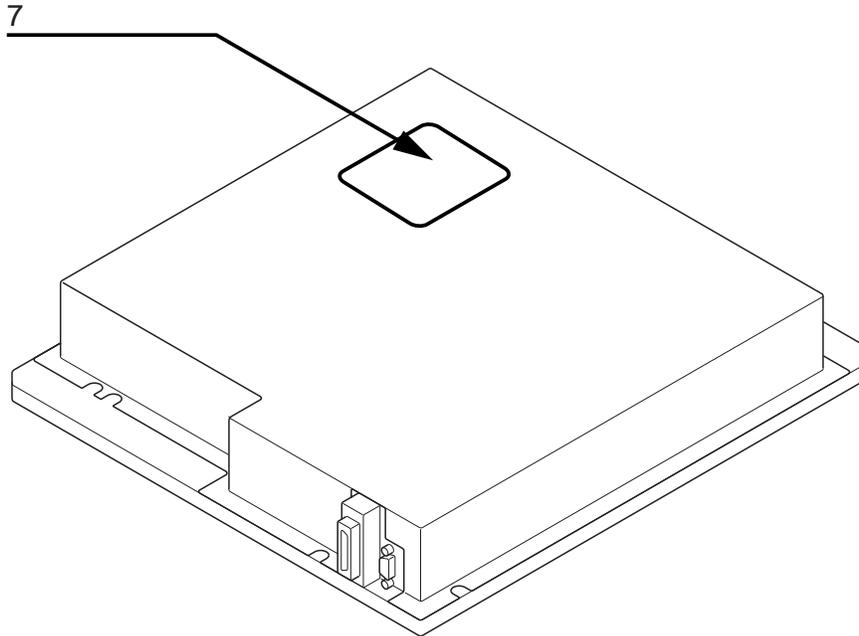
**CAUTION** To avoid the risk of electrocution or burns, do not remove or soil labels.

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- Heat Processing Unit



- Main-scan Unit



**CAUTION** Labels that have become illegible must be replaced.

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# ***Chapter 1 Product Outline***

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## 1.1 Specification

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Product Name	: Laser Imager DRYPRO MODEL 771
CODE No.	: UL: 0582 CE: 0583
Model	: DRYPRO MODEL 771
Laser Source	: Semiconductor Laser
Film Type	: Medical Imaging Film SD-P, SD-PC, DR-P
Film Size	: 14 x 17 inch 14 x 14 inch 11 x 14 inch Size to be determined when unit is installed.
Input Interface	: Ethernet 10 base-T / 100 base-TX
Protocol	: DICOM Print Management
Image Memory	: Hard Disk : 80GB Standard : Print Memory : 128MB Standard
Processing Capacity	: Approx.110 sheets/hr. (Continuous printing of 14 X 17 inch size)
External Dimensions	: 630(W) x 600(D) x 1125(H)mm (with stand)
Weight	: 175kg (with stand)
External Dimensions (Packed)	: 780(W) x 790(D) x 1410(H)mm (with stand)
Weight (Packed)	: 205kg (with stand)
Power Source	: UL : Single Phase AC120V / 8.5A (60Hz) CE : Single Phase AC220 ~ 240V / 4.5A (50 / 60 Hz)
Generated Heat	: Approx.950kJ (Approx. 226kcal / hr.)
Environmental Condi- tions (when running)	: 15 ~ 30 °C / 30 ~ 70 %RH (No condensation)
Conditions for Trans- port and Storage	: - 20 ~ 60 °C / 20 ~ 90 %RH (No condensation)
Noise Level	: 55dB or less
Operation Panel	: LCD with membrane switch panel
Film Supply	: Tray No. of Trays : 1(125 sheets / tray)
Image Data Input	: 8 bits (256-step gradation) or 12bits (4096-step gradation) (Depends on modality image signal.)
Output Gradation	: 16384-step gradation (14 bits)
Image Mode	: Pixel replication / Function interpolation process.
Pixel Size	: 78.6µm fixed.

Image Matrix :	When Connected to REGIUS	When Connected to Units Other than REGIUS
14X17	4,503 x 5,419 pixel	4,351 x 5,114 pixel
14X14	4,500 x 4,452 pixel	4,351 x 4,236 pixel
11x14	3,498 x 4,503 pixel	3,396 x 4,236 pixel

Number of Recorded : 1, 2, 4, 6, 8, 9, 12, 15, 16, 20, 24, 25, 30, 35, 36, 42, 48, 54, 56, 60, 63, 64  
Frames

Positive / Negative : Available.

Trim : Available.

Border : Black or Clear.

Stamp : Recorded on 1 line or 2 line of film (May be printed at top/bottom/left/right).

Deisity Correction : Furnished in main body.

Start Timer : Day / time settings possible.

Applicable Standards : IEC60601-1-2 : 2001, IEC60601-1, IEC60825

Remarks : DRYPRO 771 is manufactured in factories certified in compliance with ISO9001 : 2000, EN ISO13485 : 2000, 93/42/EEC quality control standards as well as with medical device directive FDA Pre market Notification 510(k) and GMP.

Accessories : Deodorant filter unit, Suction cups (spare), cutter, One-touch Spacers (2 pcs), Power cable, Clamp (2 pcs), Exhaust duct, Warranty, Operation manual, Operation sheet, Attached document for doctors, Inspection Sheet, Protective Parts (Red Parts), Recycle Bag, Accessory List

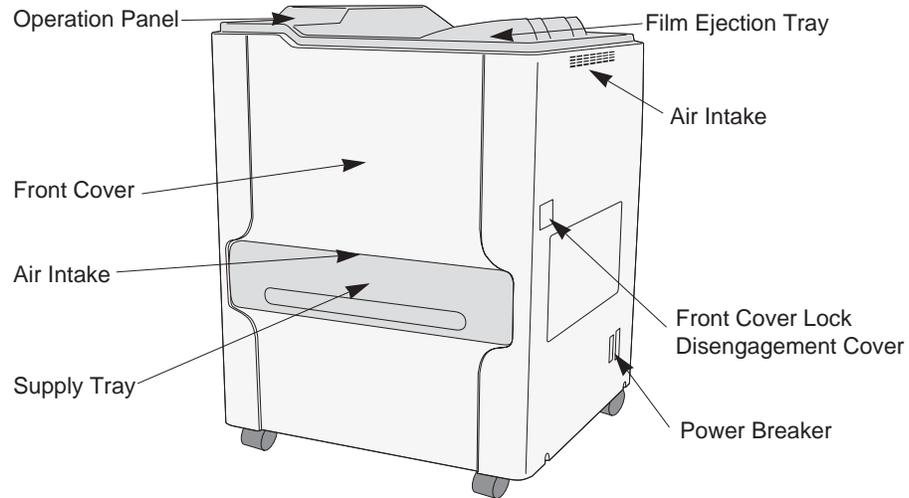
Consumable Parts : Deodorant filter

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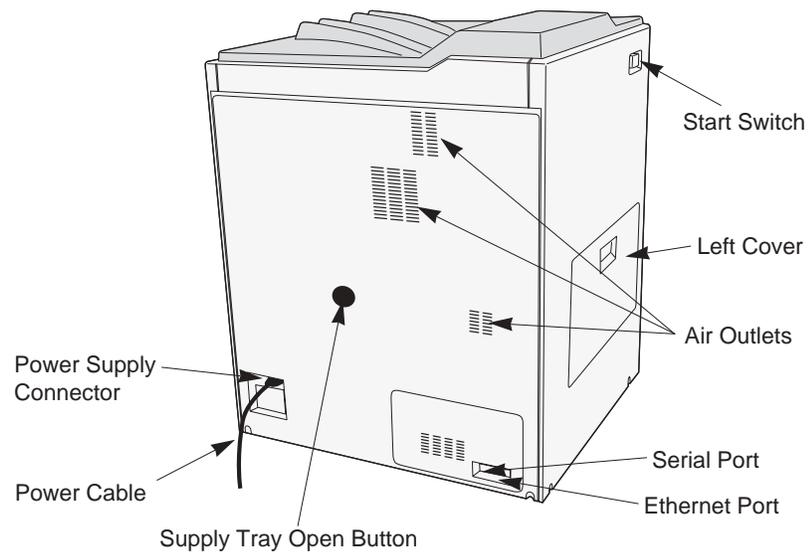
## 1.2 Part Names

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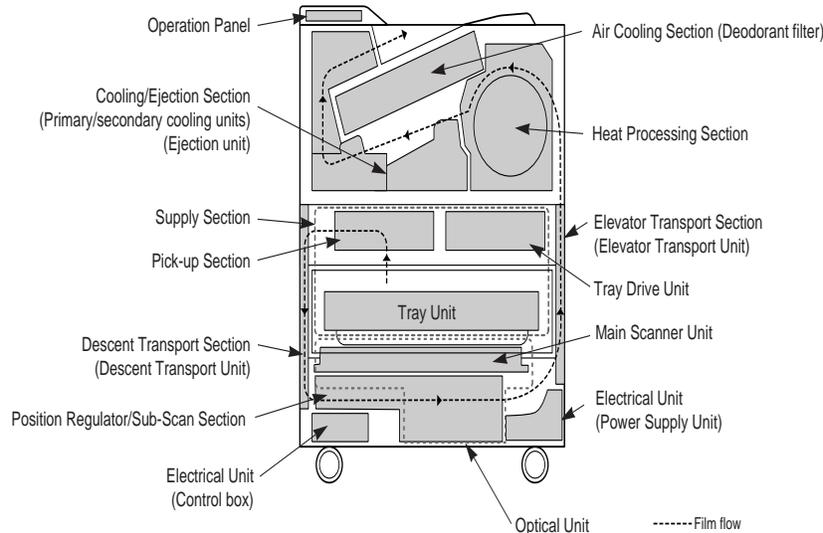
### 1.2.1 Front of DRYPRO Main Body



### 1.2.2 Rear of DRYPRO Main Body



## 1.3 Functions of Each Part and Layout of Units



### 1. Supply Section

The supply unit is comprised of tray unit(1), pick-up(2) and tray drive unit(3).

The pick-up unit uses suction cups to pick up film one sheet at a time and convey the film to the descent transport unit.

The tray drive unit operates the shutter (open/close), winds up the film package and locks/unlocks the tray and front cover.

### 2. Descent Transport Section

The descent transport section is comprised of descent transport unit(4).

The descent transport unit conveys film picked up from the supply tray to the position regulator and exposure section.

### 3. Position Regulator Section

The position regulator unit is comprised of position regulator unit(5).

The left/right positioning of the film fed by the descent transport unit is regulated by the position regulator and sent to the sub-scan unit.

### 4. Exposure Section

The exposure section is comprised of main-scan unit(6) and sub-scan unit(7). Laser scanning is carried out along the film transportation to expose the image on the film.

### 5. Elevator Transport Section

The elevator transport unit is comprised of elevator transport unit.

The elevator transport unit feeds exposed film to the heat processing unit.

### 6. Heat Processing Section

This section is comprised of heat processing unit(9), heat processing drum drive and cleaning mechanisms and develops the exposed film by exposure to heat, and to the cooling section.

### **7. Cooling Section**

This unit is comprised of primary(10) and secondary cooling unit(11) as well as the cooling fan.

The cooling section cools the heat-developed film and feeds it to the ejection unit.

Each transport rollers in the cooling section are driven by the heat processing drum drive motor in the heat processing section.

### **8. Ejection section**

This section is comprised of ejection unit(12) and densitometer unit(13).

The ejection unit ejects the cooled film to the ejection tray.

The densitometer unit measures the density of the developed film.

### **9. Deodorant section**

The deodorant section is comprised of deodorant fan mounted on the cooling fan unit and deodorant filter unit(14).

Odors generated through heat processing will be removed by the deodorant filter.

### **10. Electrical Unit.**

This unit is comprised of power supply unit(15) and the control box(16) as well as the mechanical control and H-DRV boards located at the rear of the DRYPRO main body.

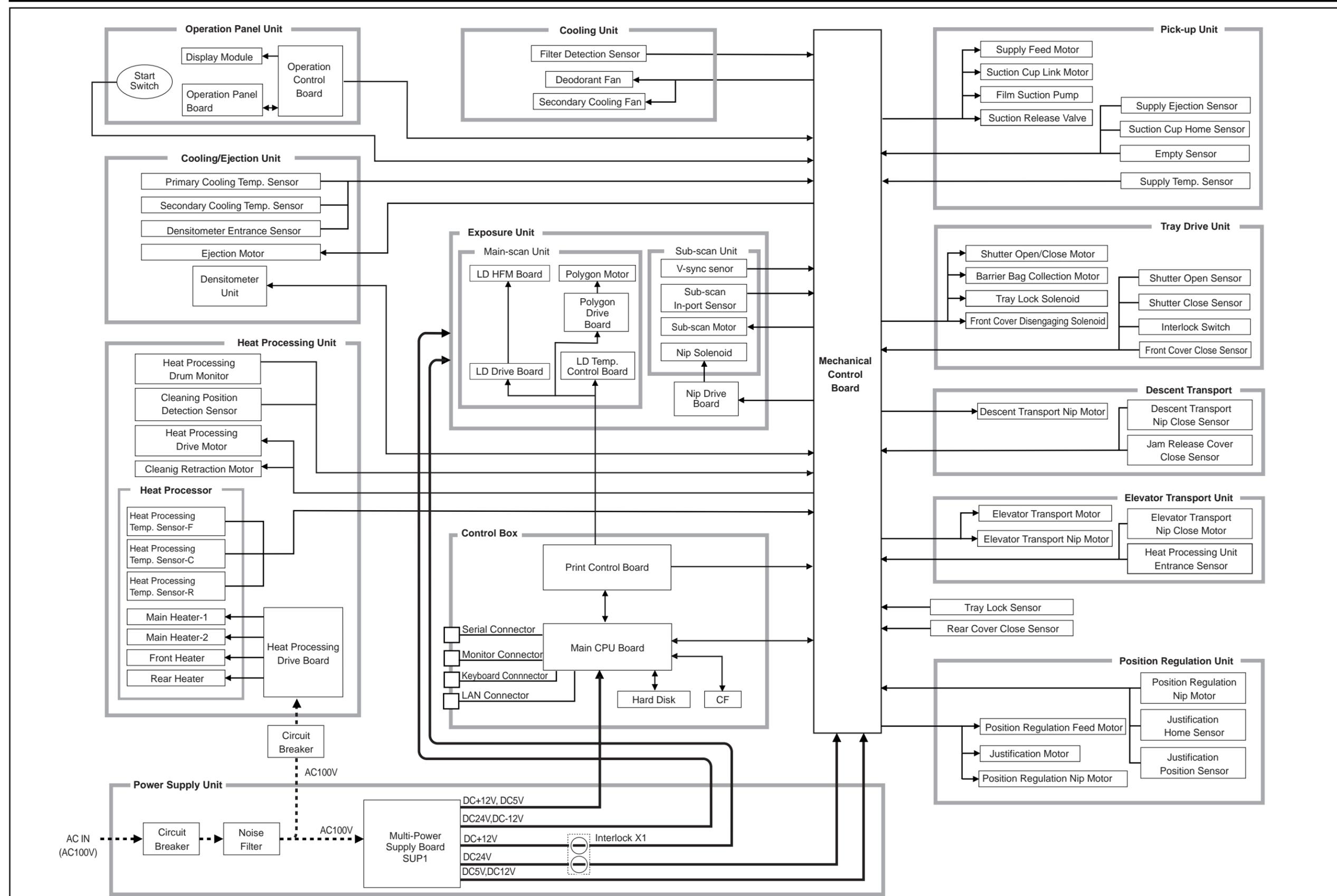
The power supply unit supplies power to the interior of the DRYPRO. The control box and mechanical control board carry out overall control of the DRYPRO, communication with diagnostic devices and image data processing/control.

### **11. Operation Panel**

The operation panel is comprised of operation panel unit(17), and used to control the DRYPRO and to make settings.

The operation switch used to start up the DRYPRO is located on this unit.

1.4 Block Diagram



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## 1.5 Tools, Measuring Devices, Jigs, etc., Required for Servicing

In addition to standard tools recommended by the manufacturer, the following tools are required for servicing of the DRYPRO.

Name	Remarks	Main Service Applications
Interlock release key	Supplied	
Allen keys	L shape type	
Tape (gum tape, etc.)		
Laser-protective goggles	LS-5-LD2 manufactured by Sigma Koki	
Light power meter		
IR card	06DLA01 manufactured by Melles Griot	
Exposure data output check jig*1	Supplied	
Extension cables for exposure unit*2	Supplied	
Densitometer		
Isopropyl Alcohol		
Triflow (Lubricant)		
Lens cleaner		
Vacuum cleaner		
Work gloves		
Clock drivers*3	Flat Head Driver	
Precision scraper	Automatic pen may also be used.	
Push/pull gauge	Standard value: 50gf - 1kgf	
Display Monitor*4	Monitor capable of display of 1024 X 768 or more.	
101 keyboard (English)*5	Compatible with PS/2 connector	

\*1 The exposure data output check jig is used to check data output from the control box to the exposure unit. Since this is inserted in the middle of the cable, one more exposure I/F cable is provided.

\*2 This is a set of extension cables used when pulling out the exposure unit for testing. The set comprises four cables, two for connection to the main-scan unit and two for connection to the position regulator/sub-scan unit.

\*3 This is useful when removing the lithium button battery from the main board.

\*4 This monitor is for a PC with DSUB15 pin video connector, and is capable to monitor XGA (1024 x 768: H-Freq 48.4kHz, V-Freq 60Hz) images. A monitor normally used for PC may be sufficient, but one that is exclusively for VGA may not display properly. Characters may be mis-positioned depending on the monitor, but this may be corrected using the monitor adjustment function.

\*5 A USB keyboard cannot be connected. Note that although a Japanese keyboard can be used, certain of the key positions will differ from those on an English keyboard.

- Remove the control box cover located on the rear panel of the DRYPRO and connect the monitor and 101 keyboard to the control box connectors.

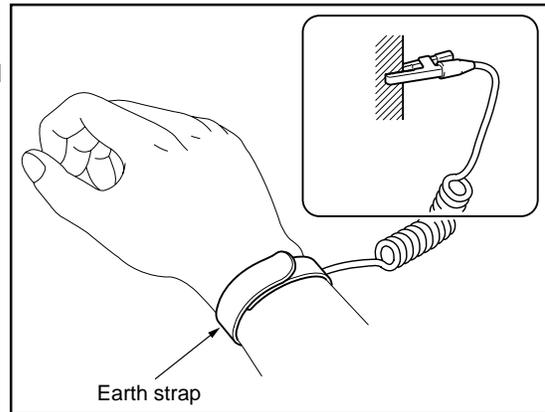
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# ***Chapter 2 Disassembly and Assembly***

## 2.1 Before Disassembling

### 2.1.1 Cautions Regarding Disassembly/Assembly

- To avoid the risk of electrocution, switch off the main body or facility breaker after ensuring that the main body power supply is switched off before proceeding with work.
- The heat processing unit and its periphery will retain high temperature for a time after the main body power supply has been switched off. To avoid the risk of burns, be sure to allow a sufficient cooling-off period before commencing work.
- To avoid the risk of electrocution when handling circuit boards, always wear an earth strap on the wrist and ensure that the clip at the end of the strap cord is attached to a metallic part of the main body suitable for earth connection.
- To protect circuitry, always wear an earth strap.
- When carrying out assembly work, re-attach cable bundle fasteners and ensure that cables are not entangled in or pulled taught by components.

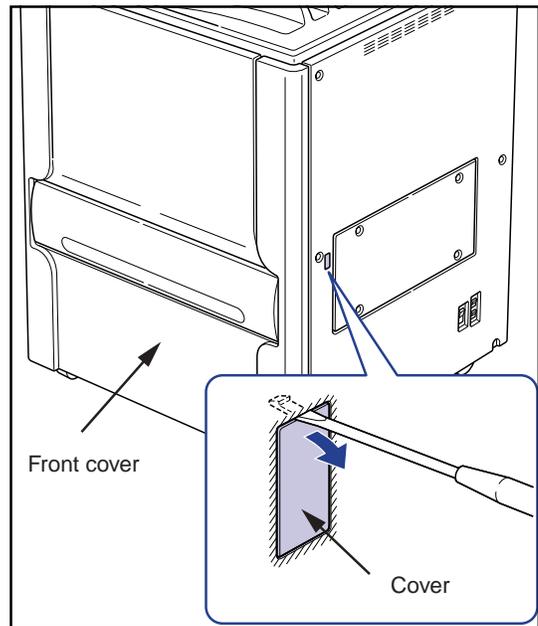


### 2.1.2 Opening the Front Cover

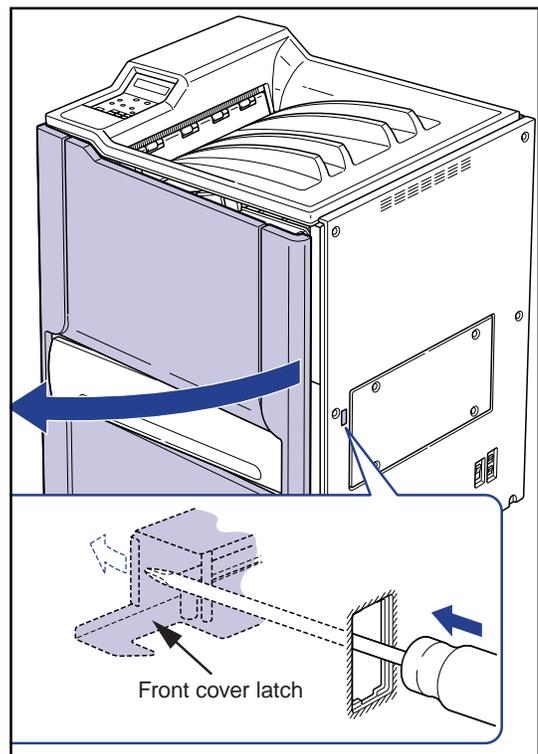
The following procedure should be followed to open the front cover when the DRYPRO 771 power supply is switched off.

1. Using a flat head screwdriver with a narrow tip, remove the plastic cover at the front of the right cover.

**CAUTION** Make sure that the plastic cover is replaced to protect the film from light after the work, otherwise the film may be get fogged.



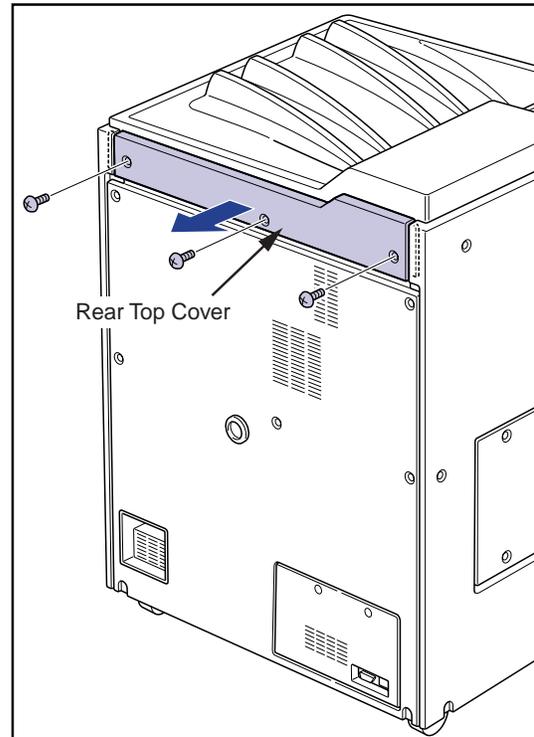
2. Insert the narrow shaft of the screwdriver (120mm or longer) into the uncovered opening and press and disengage the front cover latch.
3. Open the front cover by pulling on the right edge.



## 2.2 Removing External Covers

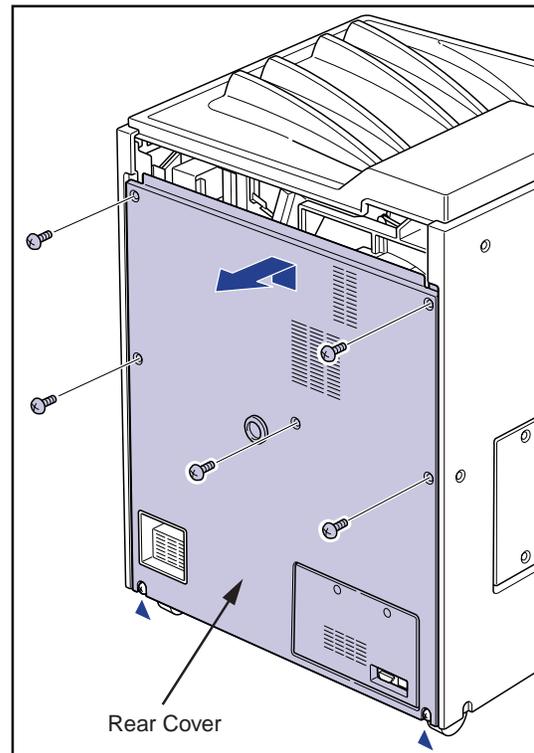
### 2.2.1 Removing the Rear Top Cover

1. Remove the three screws(M4x12) securing the rear top cover.
2. Loosen the right and left screws “a” at the top of the rear cover.
3. Remove the rear top cover while slightly pulling the top of right and left covers outward.



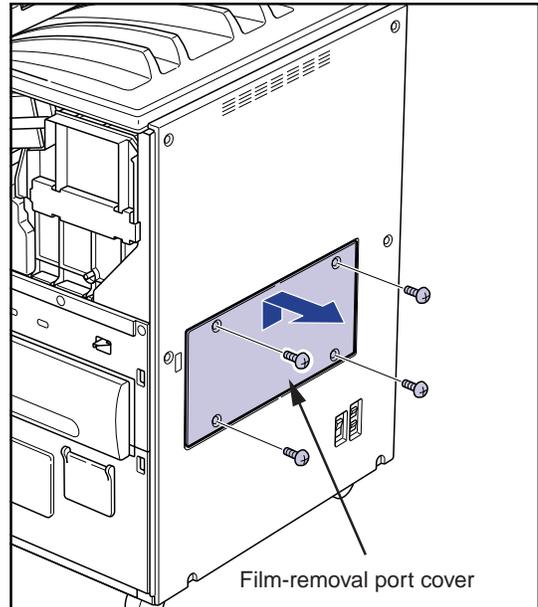
### 2.2.2 Removing the Rear Cover

1. Remove the Rear Top Cover.
2. Remove the eight screws (M4x12) securing the rear cover.
3. Lift the rear cover slightly and remove.



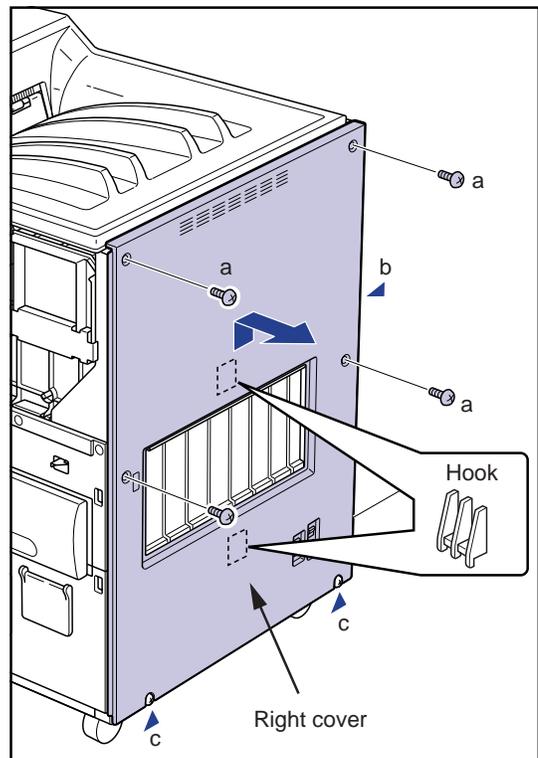
### 2.2.3 Removing the Right Cover

1. Open the front cover.
2. Remove the rear top cover.
3. Remove the rear cover.
4. Remove the four screws(M4x6) securing the film-removal port cover.
5. Remove the film-removal port cover by lifting slightly and pulling forward.



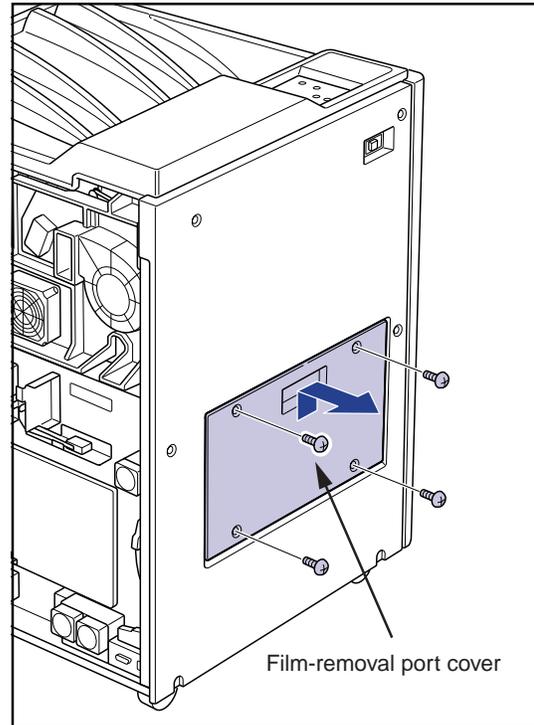
6. Loosen one truss screw(M4x12) on the back panel.
7. Remove the six screws (M4x12) securing the right cover.
8. Lift the right cover slightly and remove.

- Remarks for reinstallation of the right cover
  - The right cover is attached to the main body's frame with its two hooks on the back of the cover. Make sure these hooks are properly engaged before securing the screws.
  - The screw securing the film-removal port cover is short truss screws(M4x6). Do not mix up these with the screw securing the right cover. Doing so may cause a film jam at the elevator transport section.

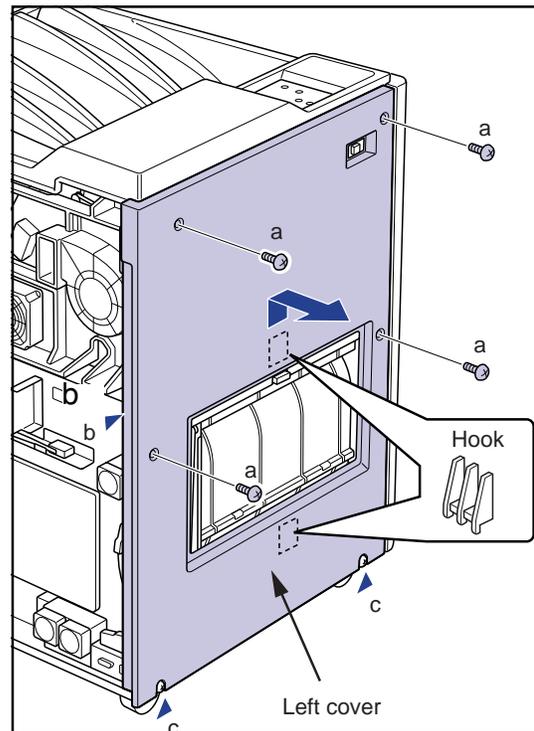


### 2.2.4 Removing the Left Cover

1. Open the front cover.
2. Remove the rear top cover.
3. Remove the rear cover.
4. Remove the four truss screws(M4x6) securing the film-removal port cover.
5. Remove the film-removal port cover by lifting slightly and pulling forward.



6. Loosen one truss screw(M4x12, "a") on the back panel.
7. Remove the six truss screws (M4x12) securing the left cover.
8. Lift the left cover slightly and remove.

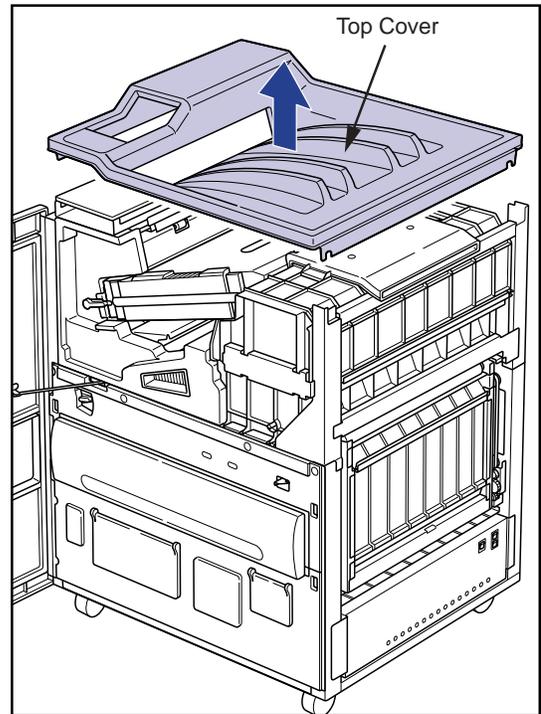


- Remarks for reinstallation of the right cover
  - The right cover is attached to the main body's frame with its two hooks on the back of the cover. Make sure these hooks are properly engaged before securing the screws.
  - The screw securing the film-removal port cover is short truss screws(M4x6). Do not mix up these with the screw securing the right cover. Doing so may cause a film jam at the elevator transport section.
  - When replacing the film -removal port cover, pull out the stopper from the descent transport unit, and insert the plastic part of the stopper in the position shown in the right figure. If the stopper is hanging inside the descent transport unit, it may cause film jam in the descent transport section.

### 2.2.5 Removing the Top Cover

1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Remove the right cover. (refer to p.2-4)
5. Remove the left cover. (refer to p.2-5)
6. Lift and remove the top cover.

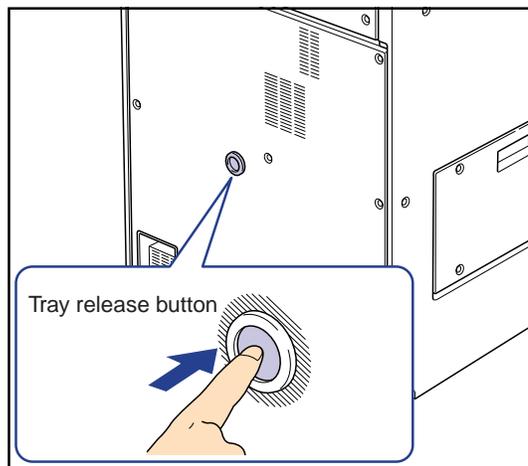
**HINT :** When the maintenance is possible only by removing the top cover, remove only two screws each on the top of rear, left and right covers after removing the rear top cover.



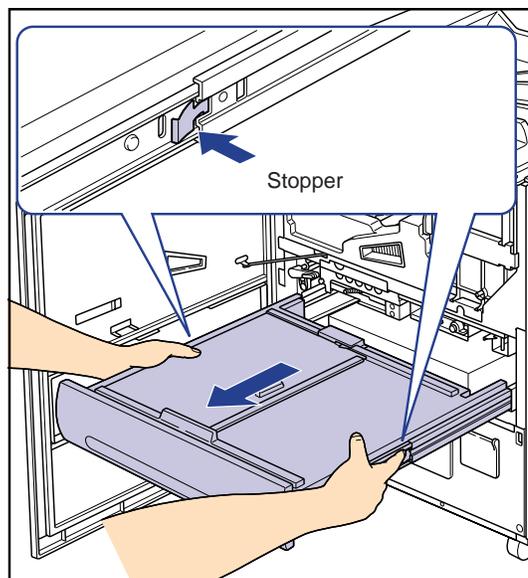
## 2.3 Tray Unit

### 2.3.1 Removing the Tray Unit

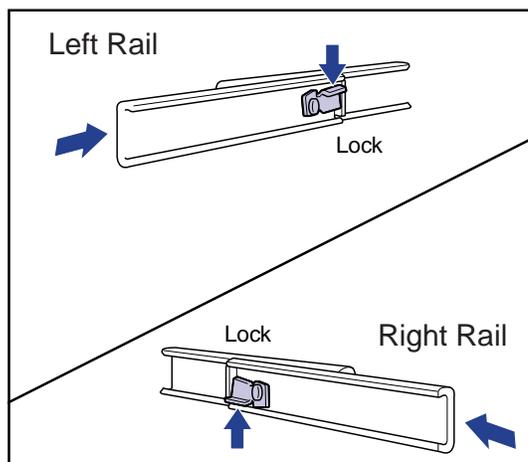
1. Open the front cover.
2. Press the tray release button on the rear panel.
  - The tray unit lock will disengage and the tray will slide out a few centimeters.
3. Pull out the tray unit to its fullest extent.



4. Remove the tray unit from the rails by pulling forward at the same time as pressing in the stoppers (metal part that can be located under the black plastic cover at the rail end) on each side of the tray unit.



- Cautions for removal of the tray unit.
  - Continuing the work with the slide rail pulled out after the tray unit is removed may result in damage of the rail or injury by being caught on the rail, Push the rail back in the main body before starting the work. Pressing in the lock metal at the rear end of the rail (push down at the left, push up at the right) releases the lock and enables to push the rail back.



- Installing the tray unit

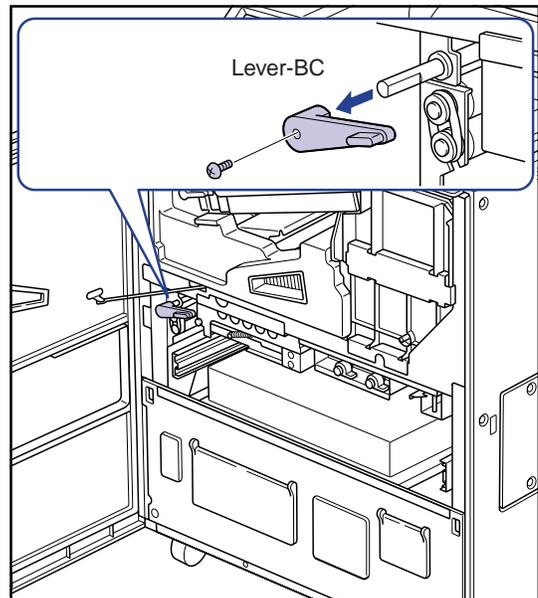
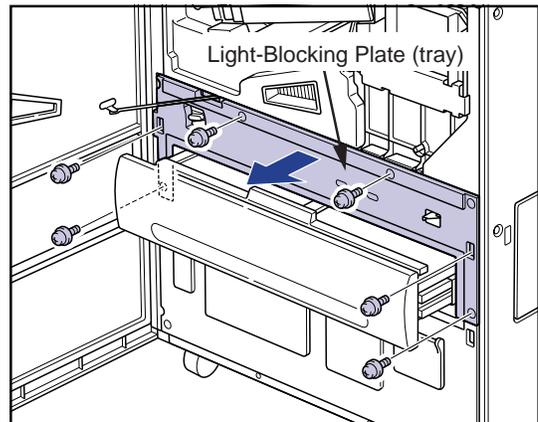
Reverse the procedure for removal to install the tray unit.

- Installation of the tray unit shall be carried out with the slide rail pushed into the main body.
- Placing the rear slide part at the rear end of the tray on the slide rail, and pushing in the tray horizontally makes the installation of the tray on the rail easier.

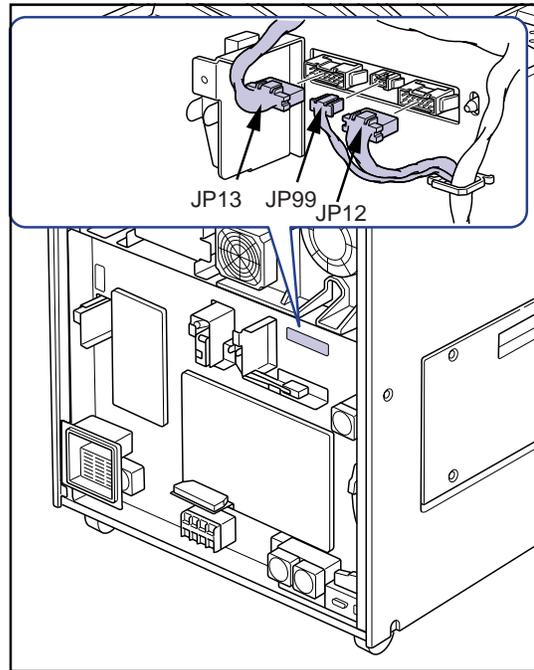
## 2.4 Pick Up Unit

### 2.4.1 Removing the Pick-up Unit

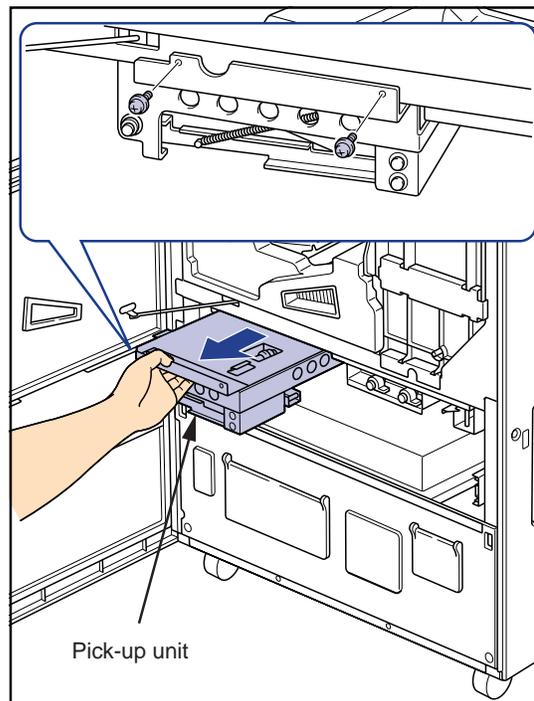
1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Disengage the tray lock and remove the tray unit. (refer to p.2-8)
5. Remove the six TP screws(M3x6) and remove the light blocking cover.
6. Remove the TP screws(M3x6) securing lever-BC and remove the lever from its spindle.



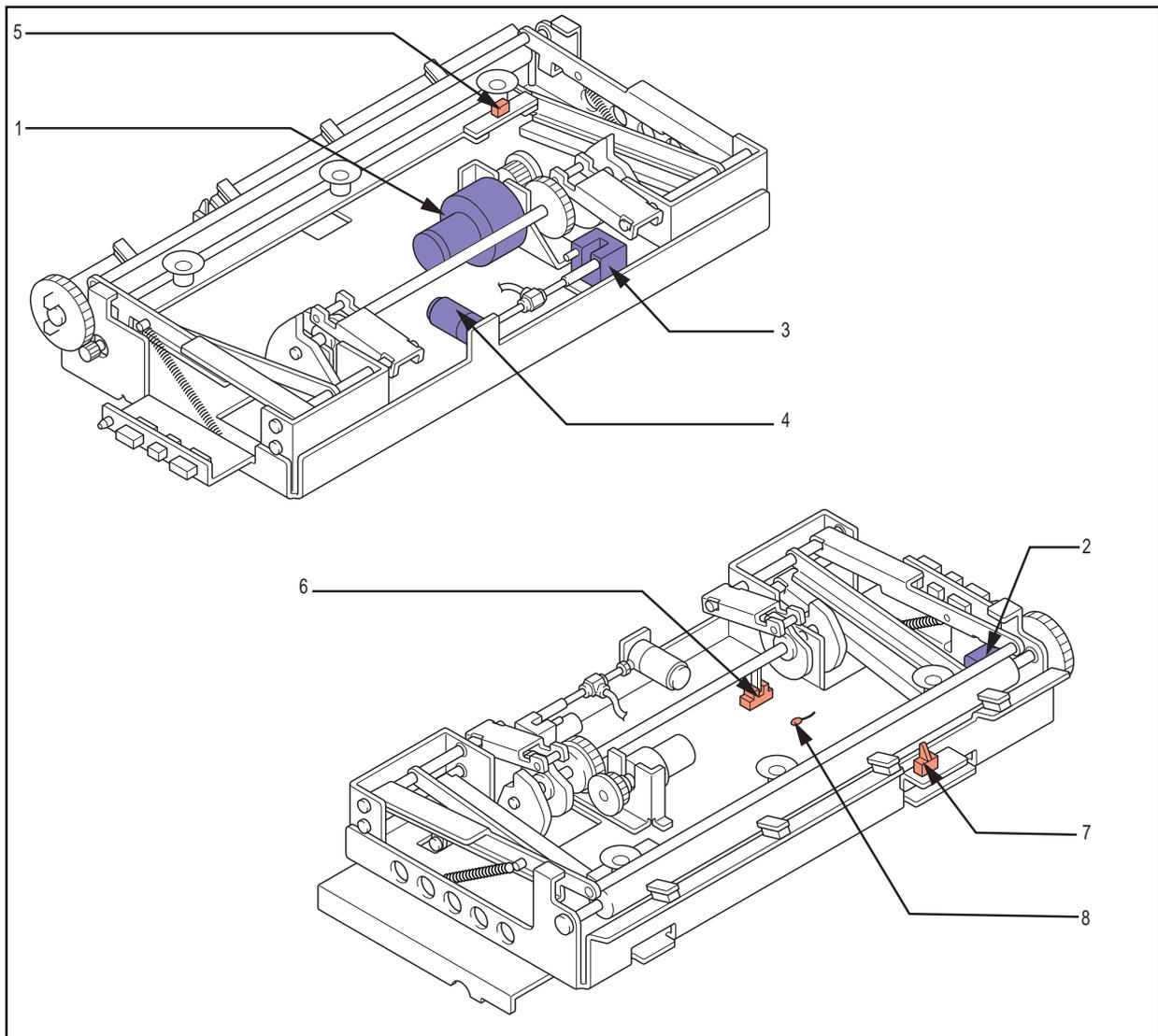
7. Disconnect three connectors (JP12, JP13 and JP99) located on the rear panel of the main body.



8. Remove the two securing screws (M4x8) and remove the pick-up unit by pulling it out from the front of the main body.



## 2.4.2 Parts Layout of Pick Up Unit



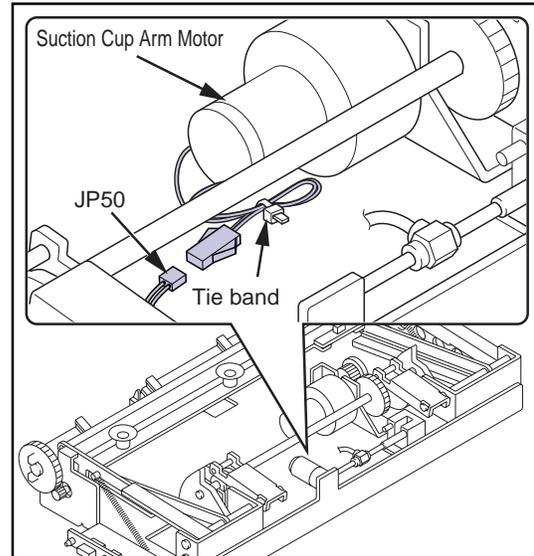
1. Suction cup arm motor (M2)
2. Supply feed motor (PM1)
3. Film suction pump (P1)
4. Suction release valve (MV1)

5. Empty sensor (SE4)
6. Suction cup home sensor (PS10)
7. Supply Exit sensor (PS17)
8. Supply temperature sensor (TH6)

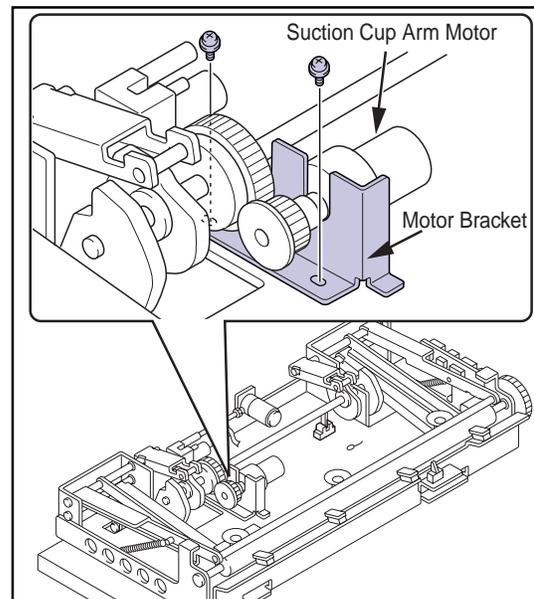
### 2.4.3 Replacing the Suction Cup Arm Motor

- Removing the suction cup arm motor.

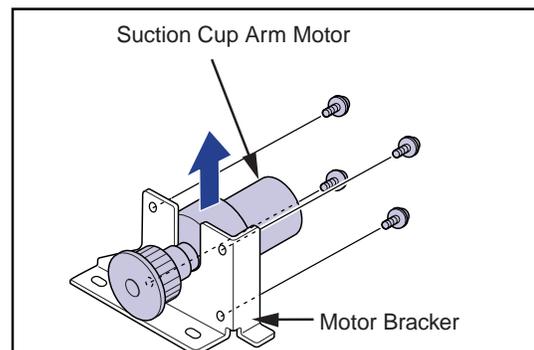
1. Cut the tie band that secures the cable for the suction cup arm motor, and unplug the relay connector (JP50).



2. Remove the two screws, and remove the suction cup arm motor together with entire motor bracket.



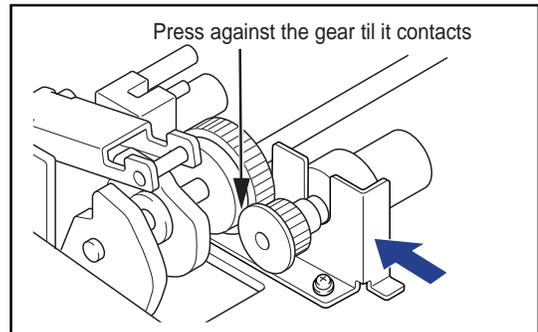
3. Remove the four screws, and remove the suction cup arm motor from the motor bracket.



- Installing the suction cup arm motor.

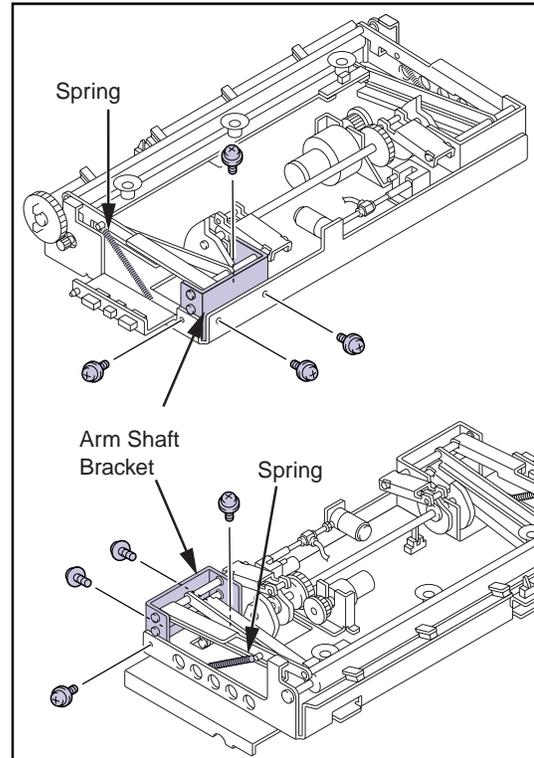
Reverse the procedure for removal to install the suction cup arm motor.

- When securing the screws to attach the motor bracket to the pick up unit, press the motor bracket against the pick up unit so that the motor shaft gear contacts with the cam gear before securing the screws.
- Fix the cable for the suction cup arm motor on the pick up unit using a new tie band.

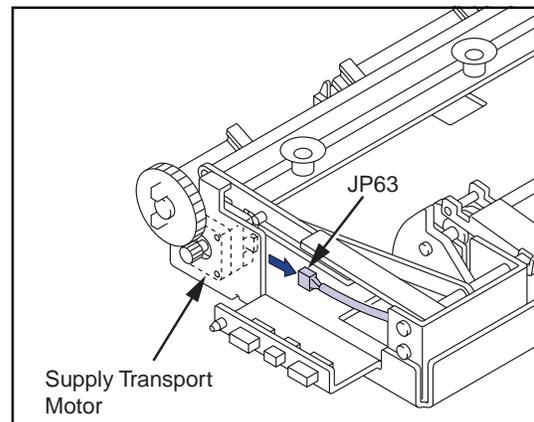


### 2.4.4 Replacing the supply transport motor

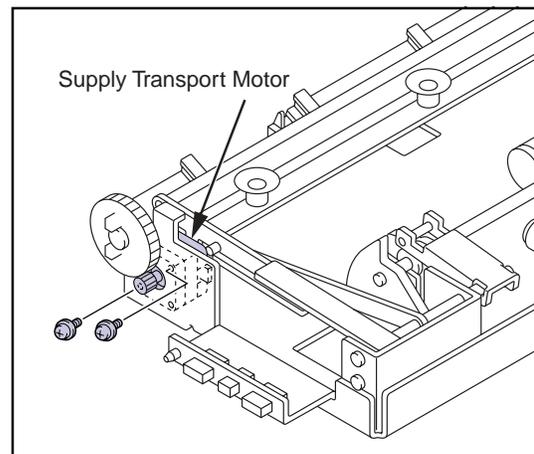
- Removing the supply transport motor
1. Remove a spring from the suction cup arm located on the rear of the pick up unit.
  2. Remove the three screws securing the arm shaft bracket.



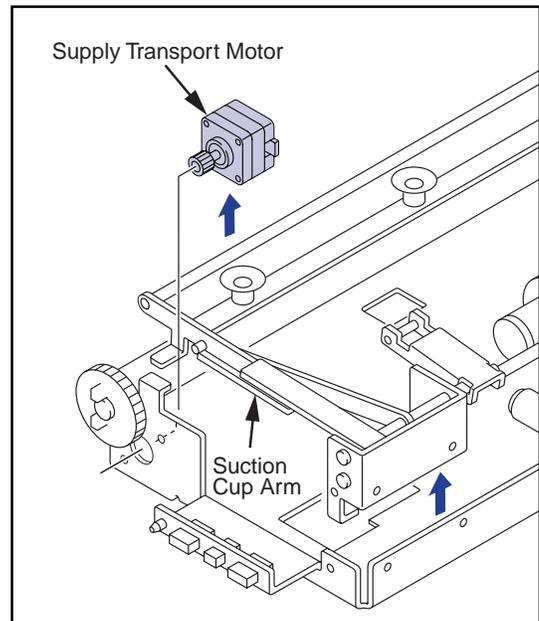
3. Unplug a connector (JP63) from the supply transport motor.



4. Remove the two screws securing the supply transport motor.



5. Slightly lift the suction cup arm, and remove the supply transport motor.



- Installing the supply transport motor

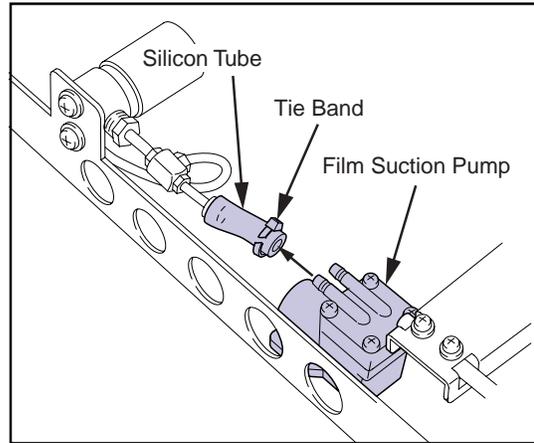
Reverse the procedure for removal to install the supply transport motor.

- Make sure to hook the sprint on the suction cup arm after securing the arm shaft bracket with screws.

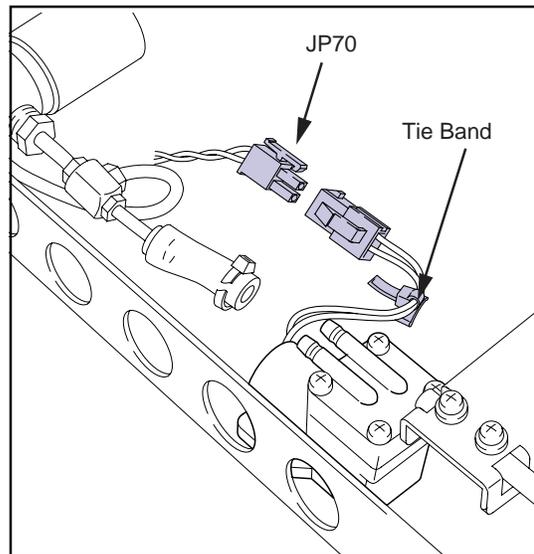
### 2.4.5 Replacing the film suction pump

- Removing the film suction pump

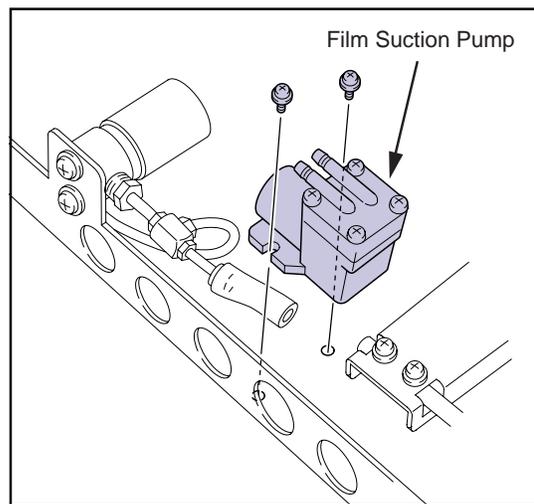
1. Cut the tie band, and pull out the silicon tube from the film suction pump.



2. Cut the tie band that is fixing the cable for film suction pump, and unplug the relay connector(JP70).



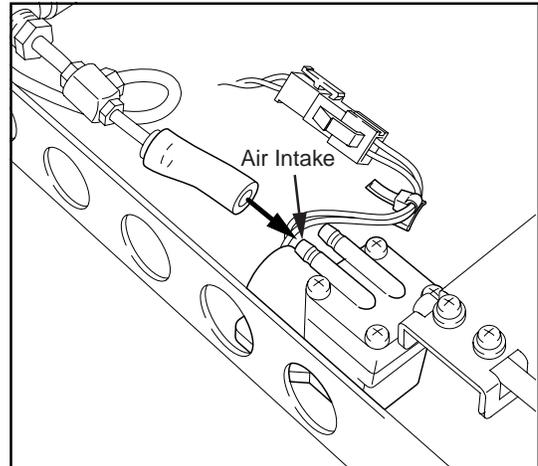
3. Remove the two screws, and remove the film suction pump.



- Installing the film suction pump

Reverse the procedure for removal to install the film suction pump

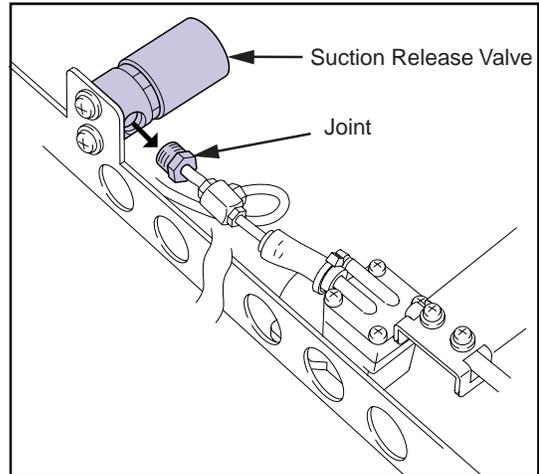
- Attach the silicon tube at the intake port side of the pump, and secure it using a tie band.
- Fix the cable for the film suction pump on the pick up unit using a new tie band.



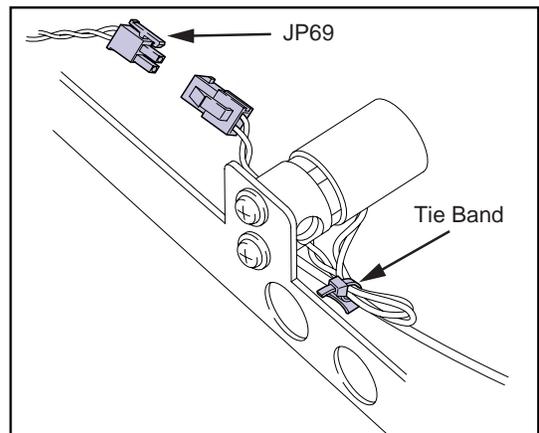
### 2.4.6 Replacing the suction release valve

- Removing the suction release valve

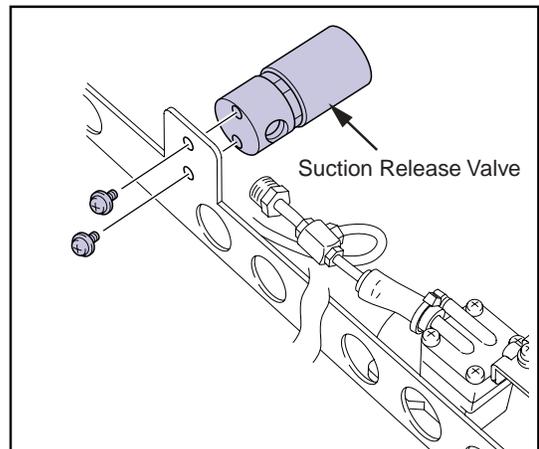
1. Remove the tube joint from the suction release valve.



2. Cut the tie band that is securing the cable for suction release valve, and remove the relay connector (JP69).



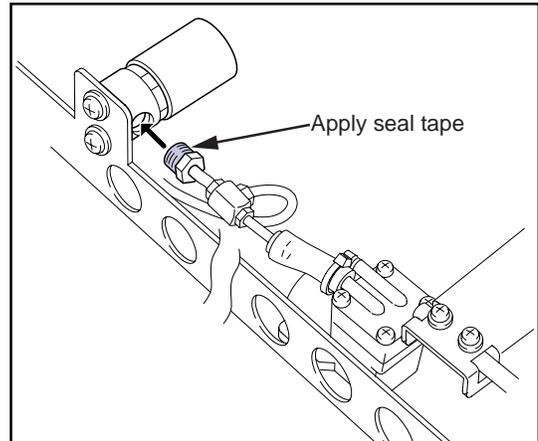
3. Remove the two screws, and remove the suction release valve.



- Installing the suction release valve

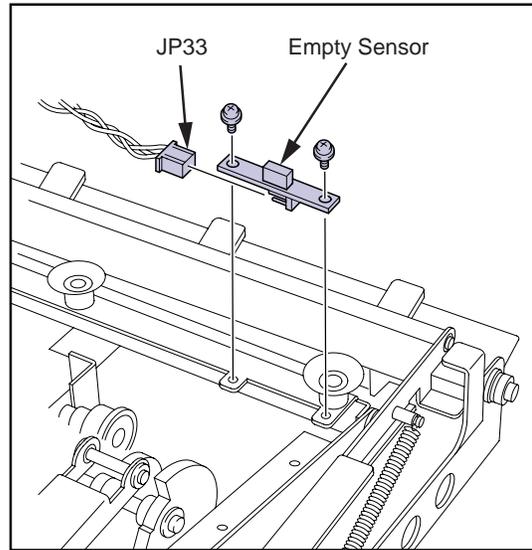
Reverse the procedure for removal to install the suction release valve.

- When connecting the tube joint to the suction release valve, connect it after applying a new seal tape around the screw of the joint.
- Fix the cable for the suction release valve on the pick up unit using a new tie band.



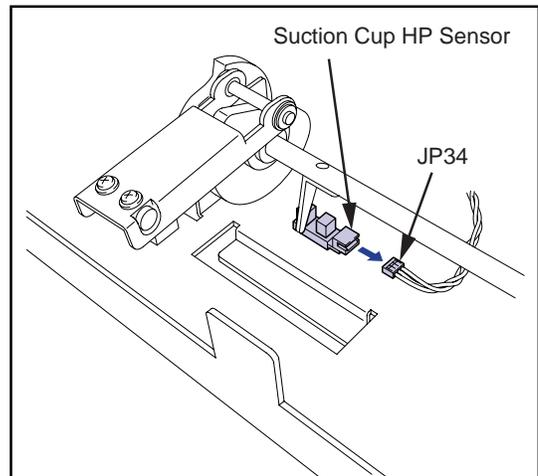
### 2.4.7 Replacing the empty sensor

1. Remove the two TP screws(M3x6) securing the empty sensor.
2. Unplug the connector (JP33) from the empty sensor.
3. Connect the connector to the new empty sensor, and secure it with the two screws.

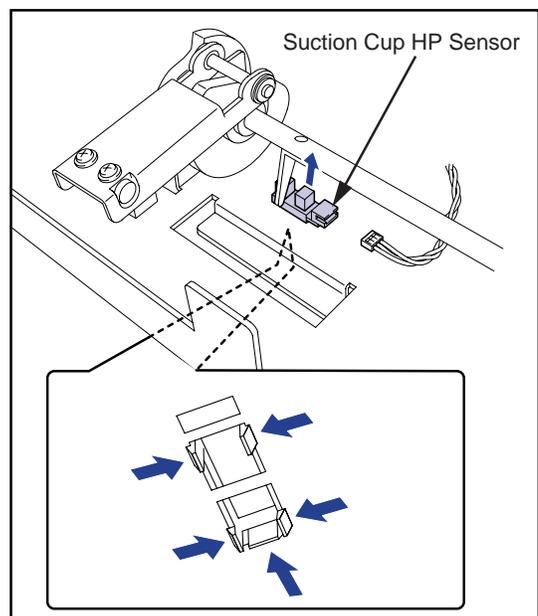


### 2.4.8 Replacing the suction cup home sensor

1. Remove the connector (JP34) from the suction cup home sensor.

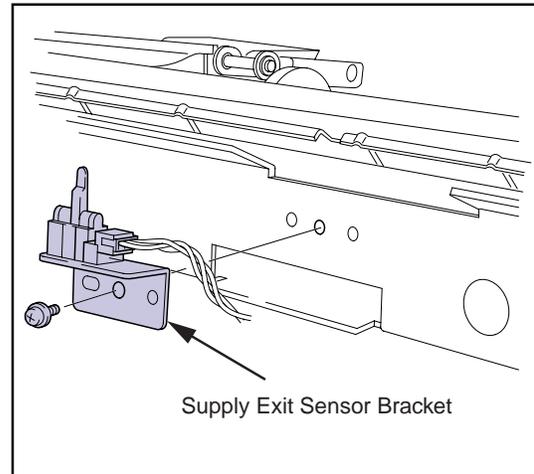


2. Press the claw of the suction cup home inward, and remove the suction cup home sensor.
3. Install the new suction cup home sensor in the mount hole, and plug the connector.

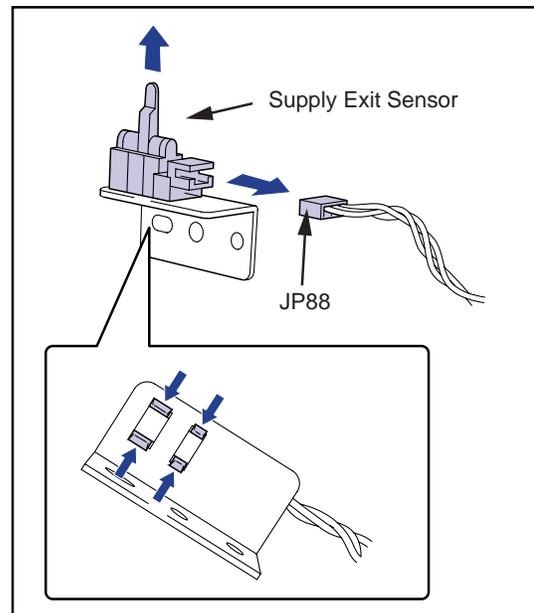


### 2.4.9 Replacing the supply exit sensor

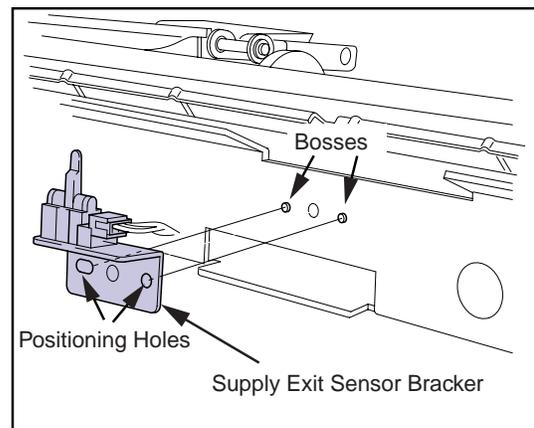
1. Remove one TP screw (M3x6), and remove the supply exit sensor together with bracket.



2. Unplug the connector (JP88) from the supply exit sensor.

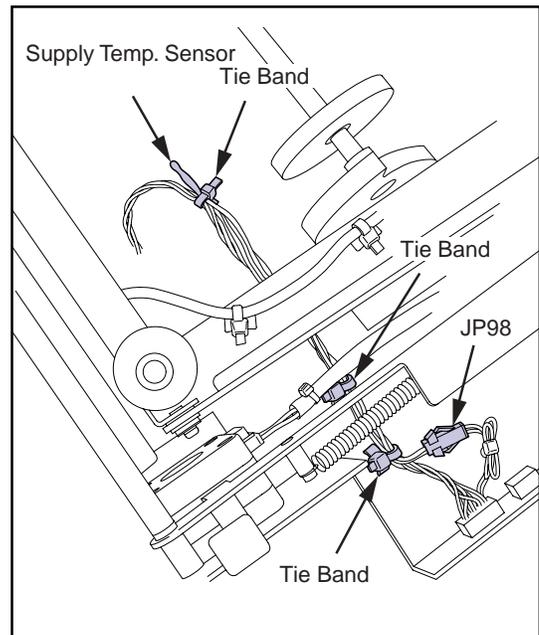


3. Press the claws (4 locations) of the supply exit sensor inward, and remove the supply exit sensor.
4. Install the new supply exit sensor in the mount hole, and plug the connector.
5. Secure the bracket on the pick up unit with screws.
  - When securing the bracket with screws, make sure that the two bosses of the chassis are correctly engaged with the holes on the bracket.



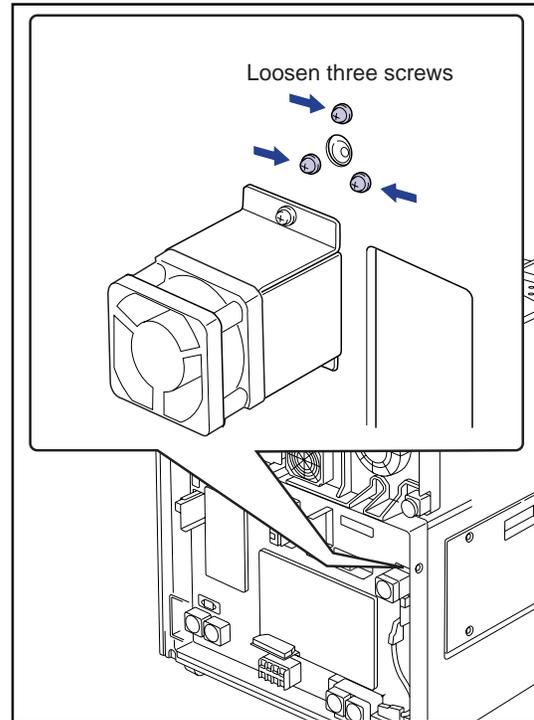
### 2.4.10 Replacing the supply temp. sensor

- Removing the supply temp. sensor
1. Cut the tie band securing the cable for supply temp. sensor, and unplug the relay connector.
  2. Connect the new supply temp. sensor, and secure it with the tie band.

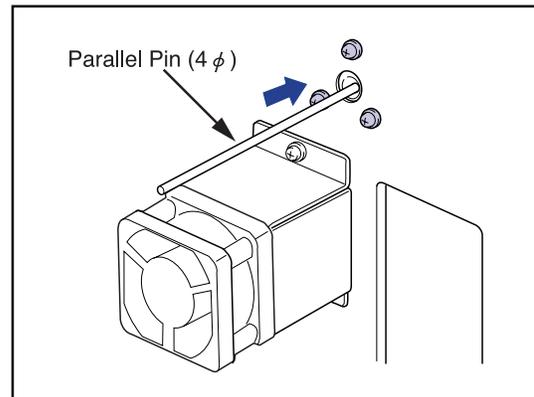


### 2.4.11 Installing the pick up unit

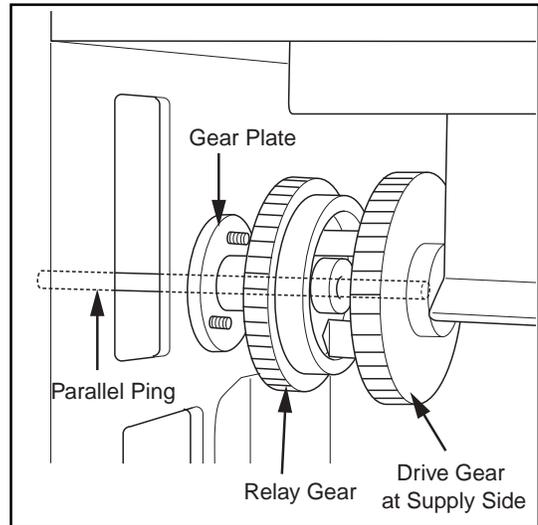
1. Engage the pick up unit with the rail of the main body's frame, and push it back horizontally till it stops.
2. Secure the pick up unit on the main body with two TP screws(M4x12).
3. Loosen the three screws securing the plate for the relay gear in the rear of the main body.



4. Insert a parallel pin (4φ) into the center hole of the gear plate.
  - Insert the parallel pin 45 to 50mm in depth so that the tip of the pin reaches through the hole on the gear shaft of the pick up unit.



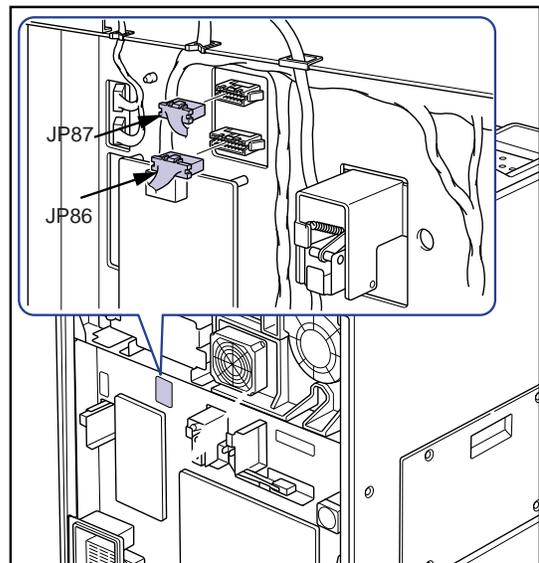
5. With the tip of parallel pin being inserted into the hole on the gear shaft of the pick up unit, secure the three screws on the gear plate.
6. Unplug the parallel pin, and connect the three connectors (JP12, JP13, JP99).



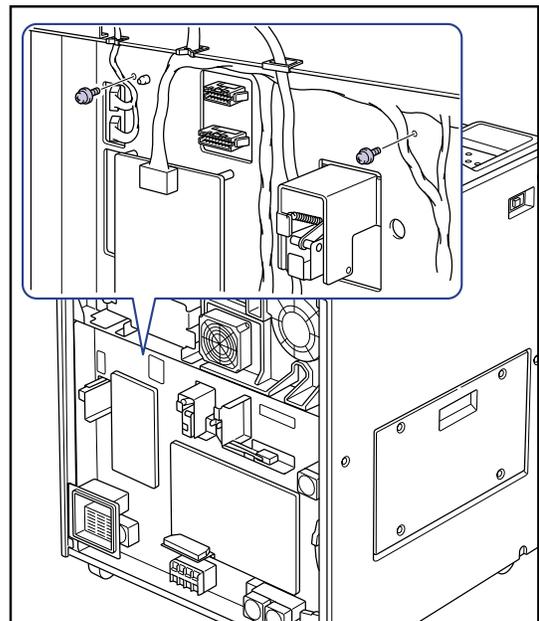
## 2.5 Tray Drive Unit

### 2.5.1 Tray Drive Unit

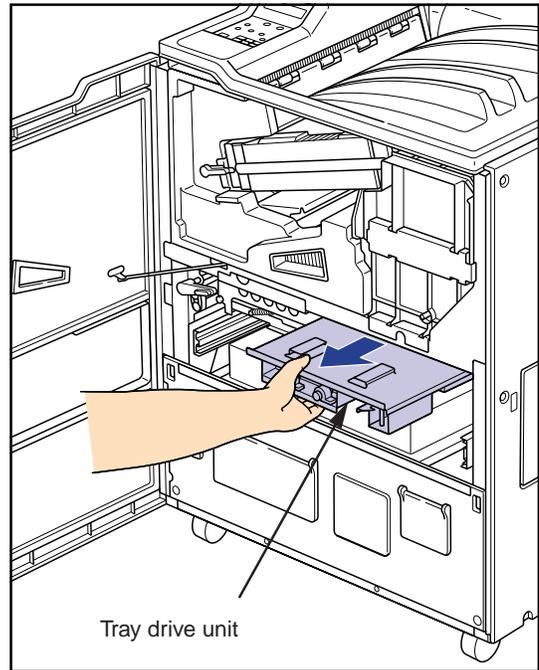
1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Disengage the tray lock, and remove the tray unit.
5. Remove the light-blocking plate (tray).
6. Disconnect two connectors (JP86 and JP87) located on the rear panel of the main body.



7. Remove the two TP screws(M4x8) securing the tray drive unit from the rear panel of the main body.

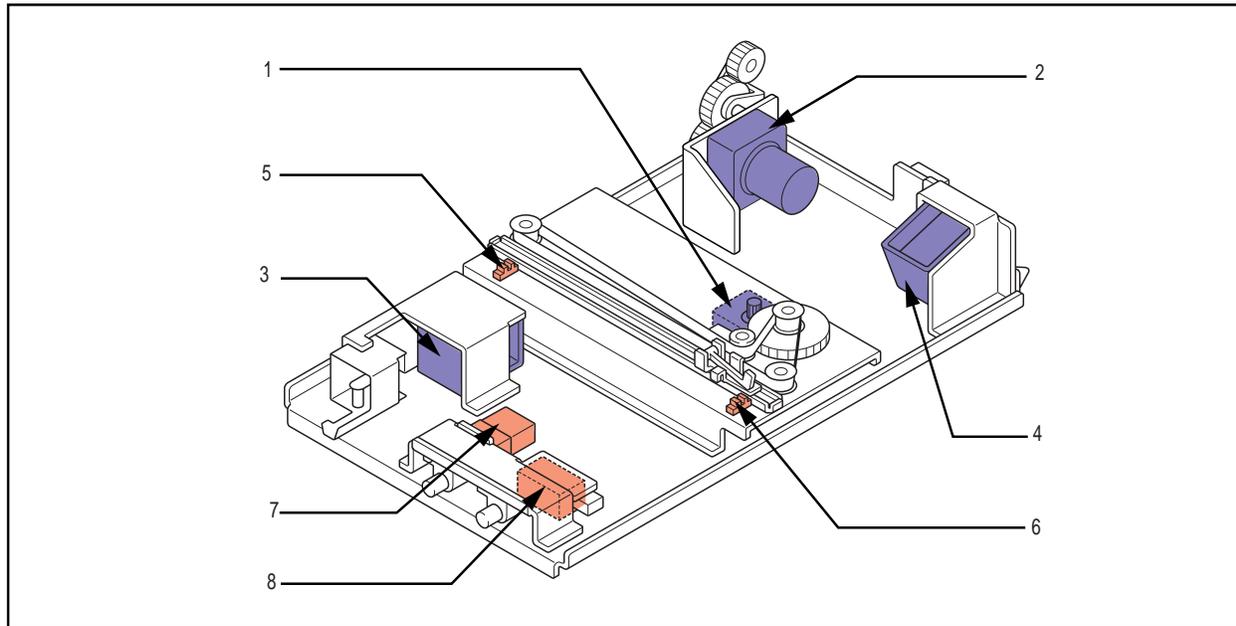


8. Remove the tray drive unit by pulling it out from the front of the main body.



## 2.5.2 Parts Layout of Tray Drive Unit

- Tray Drive Unit



1. Shutter open/close motor (PM8)

2. Barrier wrapping removal motor (M3)

3. Front cover release solenoid (SOL2)

4. Tray lock solenoid (SOL1)

5. Shutter open sensor (PS11)

6. Shutter close sensor (PS12)

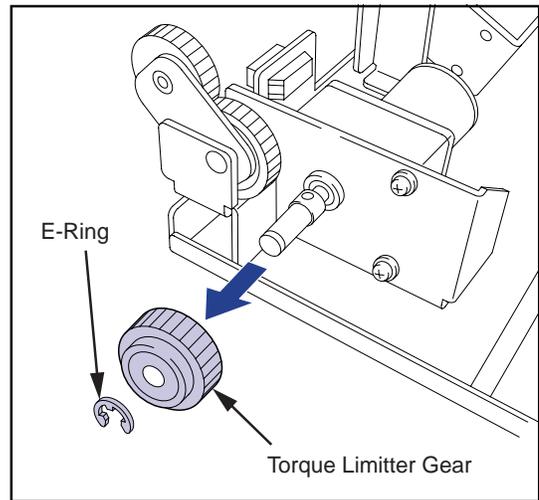
7. Interlock switch (S3)

8. Front cover close sensor (MS1)

### 2.5.3 Replacing the Film Package Rewind Motor

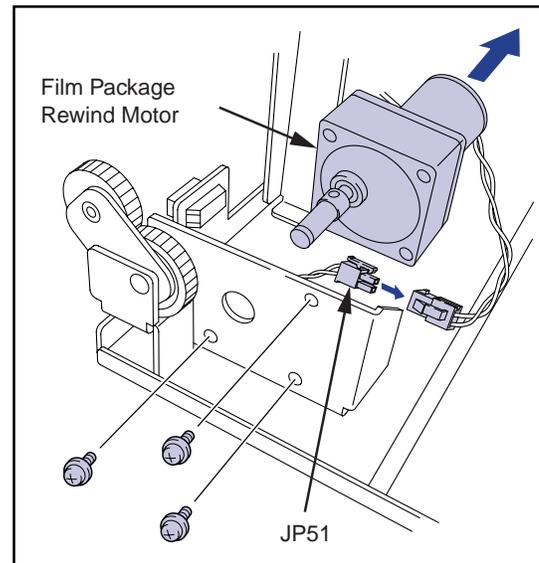
- Removing the film package rewind motor

1. Remove the E-ring from the gear shaft of the film package rewind motor and the torque limiter gear.

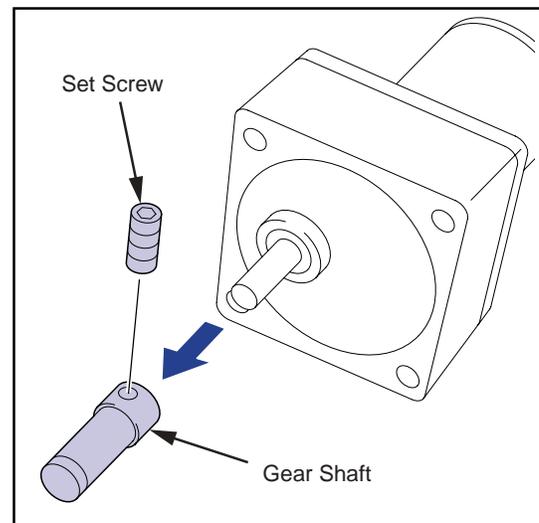


2. Remove the three TP screws(M4x8), and remove the film package rewind motor from the motor bracket.

3. Unplug the relay connector(JP51) for the motor cable.



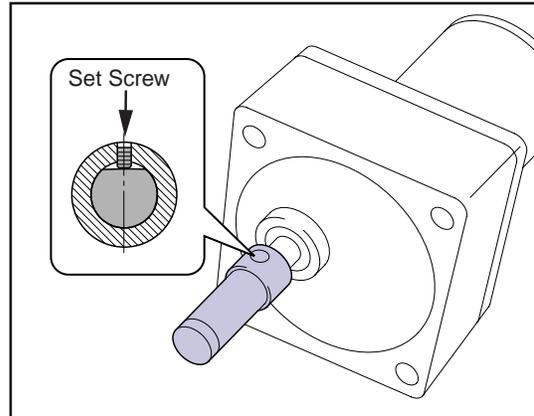
4. Loosen the set screw and pull out the gear shaft from the motor shaft.



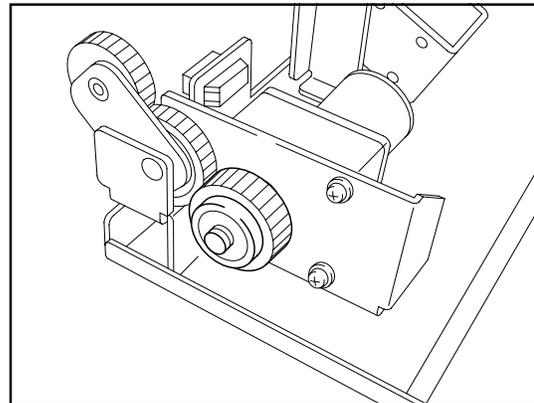
- Installing the film package rewind motor

Reverse the procedure for removal of the film package rewind motor to install the motor.

- When installing the gear shaft on the motor shaft, insert the gear shaft into the motor shaft to its full end, then secure it with set screw. At this point, make sure that the set screw is pressed against the flat edge of D-cut motor shaft.



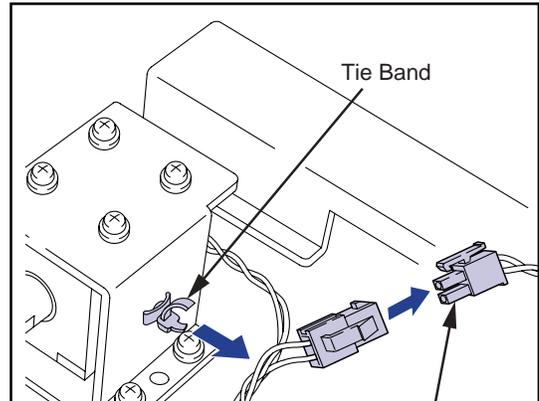
- Since the torque limiter has a one-way clutch structure, failure to install it in correct orientation will result in failure to rewind the film package due to the slippage of the shaft. Make sure the orientation is correct as shown in the figure in the right.



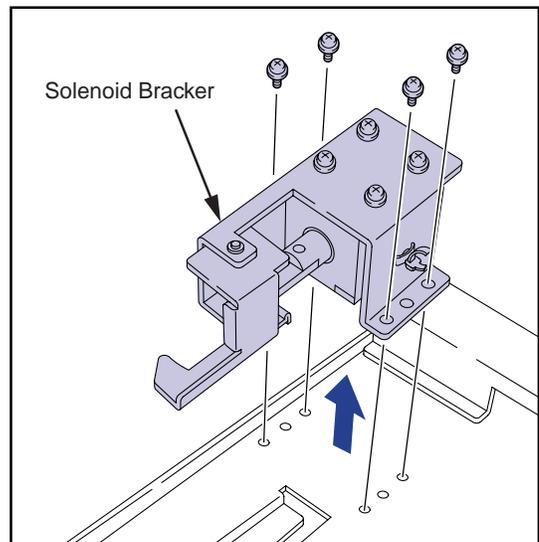
## 2.5.4 Replacing the Front Cover Release Solenoid

- Removing the front cover release solenoid

1. Cut the tie band securing the solenoid cable on the solenoid bracket, and unplug the relay connector(JP58).

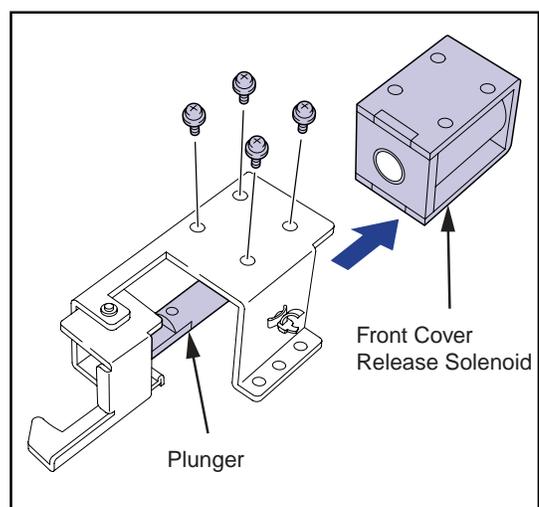


2. Remove the three TP screws(M4x8) securing the solenoid mount plate, and remove the mount plate from the tray drive unit .



3. Remove the four TP screws(M4x8), and remove the coil assy of the front cover release solenoid from the solenoid bracket.

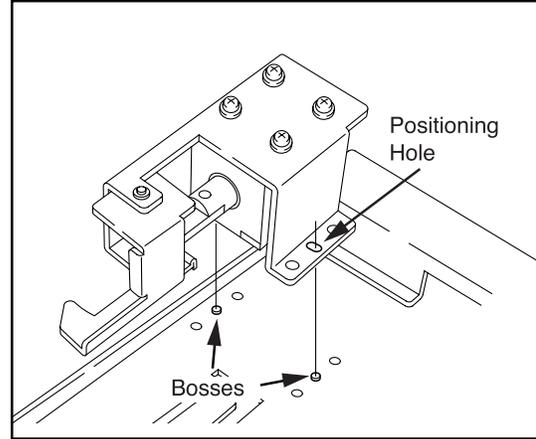
- Plunger of the solenoid cannot be removed.



- Installing the front cover release solenoid

Reverse the procedure for removal of the front cover release solenoid to install it.

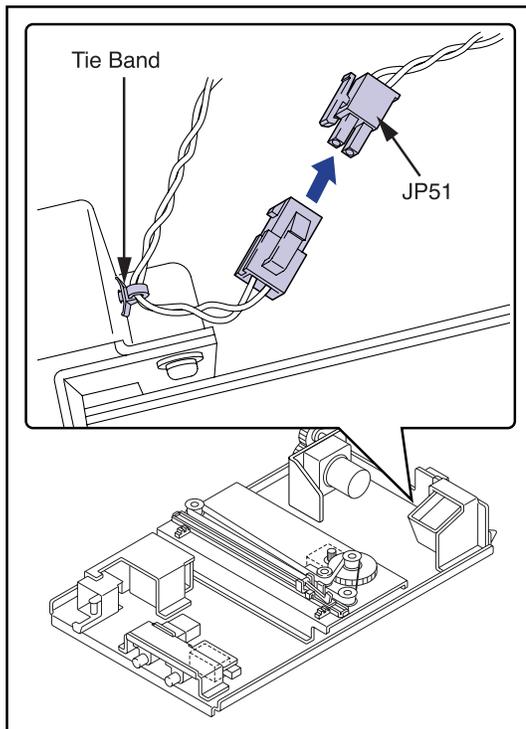
- Because the plunger cannot be replaced, pull out the plunger from the new solenoid, and use the coil assy to replace the defective one.
- When installing the solenoid bracket on the tray drive unit, make sure that the bosses (two locations) on the top panel of the unit are engaged with the positioning holes of the bracket.



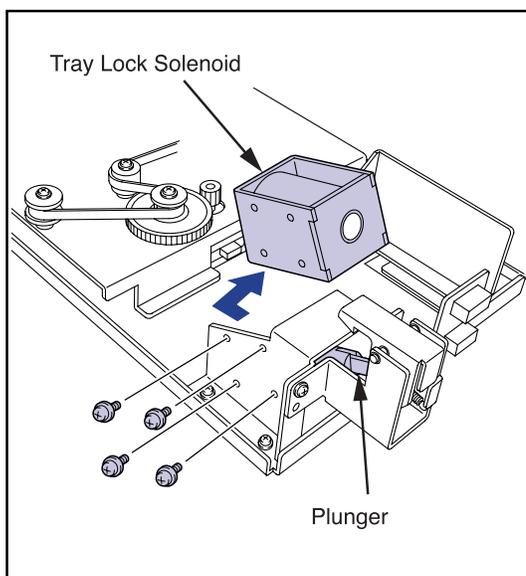
## 2.5.5 Replacing the Tray Lock Solenoid

- Removing the tray lock solenoid

1. Cut the tie band securing the solenoid cable on the solenoid bracket, and unplug the relay connector(JP51).



2. Remove the three TP screws(M4x8), and remove the coil assy of the tray lock solenoid from the bracket.
  - The plunger of the solenoid cannot be removed from the link plate.



- Installing the tray lock solenoid

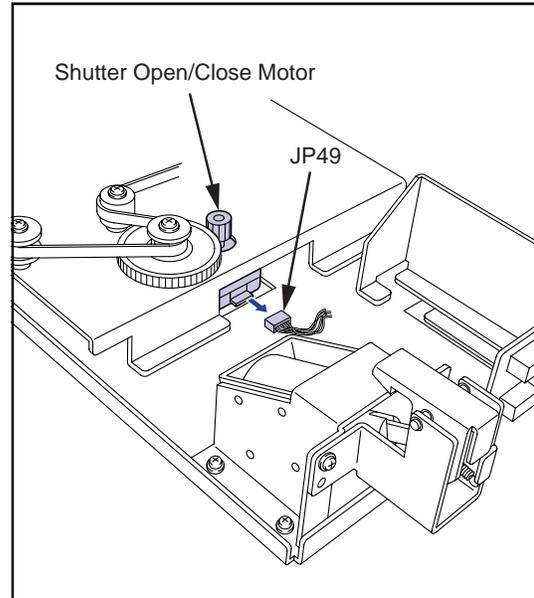
Reverse the procedure for removal of the tray lock solenoid to install it.

- Because the plunger of the solenoid cannot be replaced, pull out the plunger from the new solenoid, and use the coil assy to replace the defective one.

### 2.5.6 Replacing the Shutter Open/Close Motor

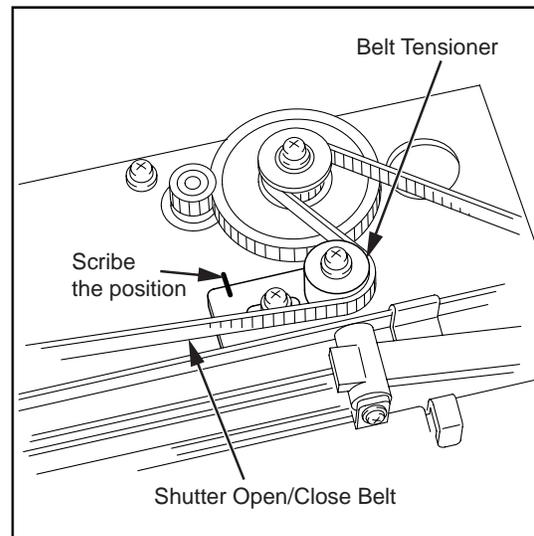
- Removing the shutter open/close motor

1. Unplug the connector(JP49) from the shutter open/close motor.

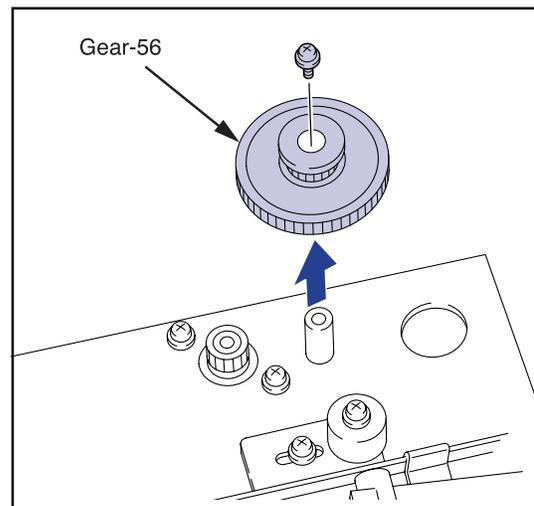


2. Mark the original position of the belt tensioner on the plate using a scribe.

3. Loosen the screw of the belt tensioner, and remove the shutter open/close belt.

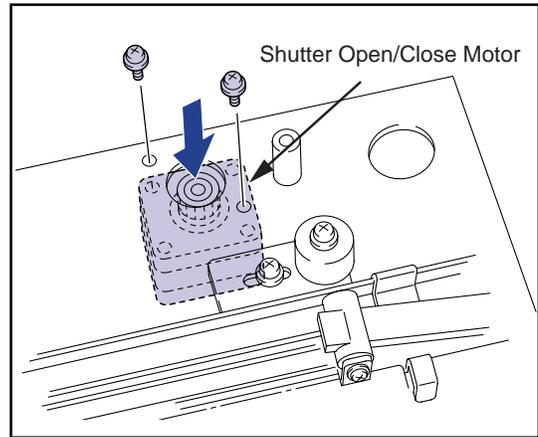


4. Remove the TP screw(M3x6), and pull out the gear-56 from the shaft.



5. Remove the two TP screws(M3x6), and remove the shutter open/close motor.

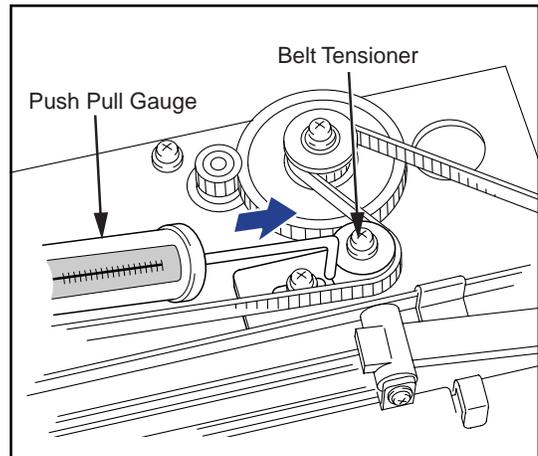
- The shutter open/close motor can be pulled out through the rectangular hole on the tray drive unit.



- Installing the shutter open/close motor

Reverse the procedure for removal of the shutter open/close motor to install it.

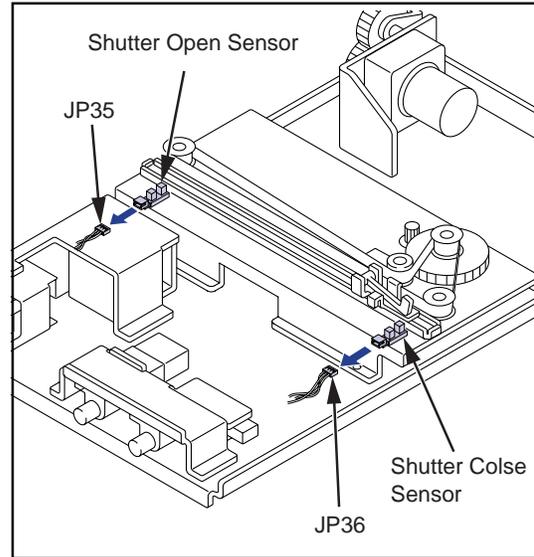
- When securing the belt tensioner, align the belt tensioner to the position marked with a scribe before removal.
- Whenever the shutter open/close belt is replaced, measure the belt tension using a push pull gauge. Press the belt of the belt tensioner with the push pull gauge, and secure the screw when it measures 600gf.



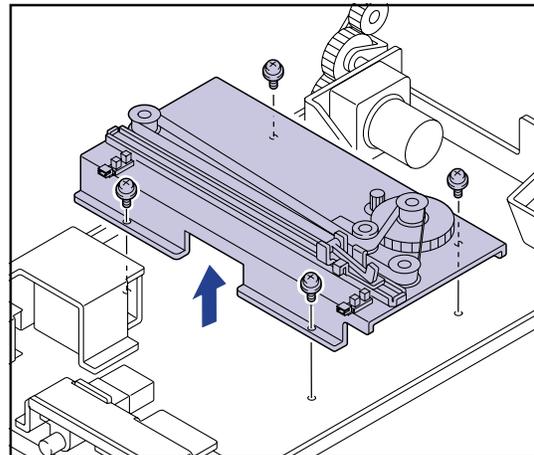
## 2.5.7 Replacing the Shutter Open Sensor/Shutter Close sensor

1. Unplug the connectors from the both sensors.

- Shutter open sensor : JP35
- Shutter close sensor : JP36

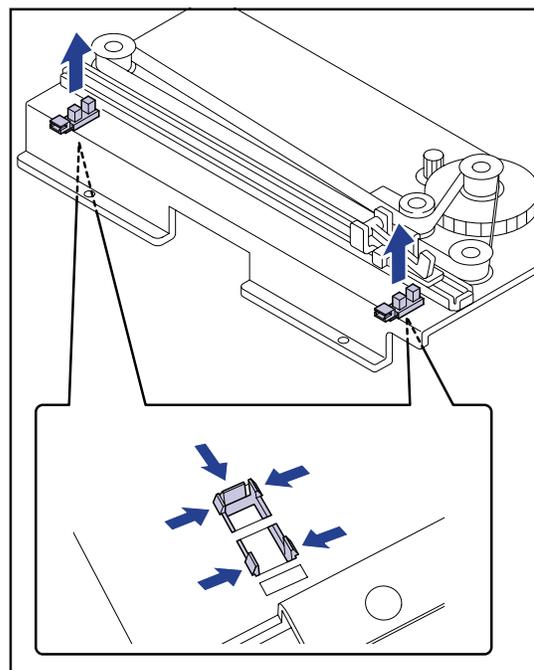


2. Remove the four TP screws(M4x8), and lift the plate part of the shutter open/close mechanism.

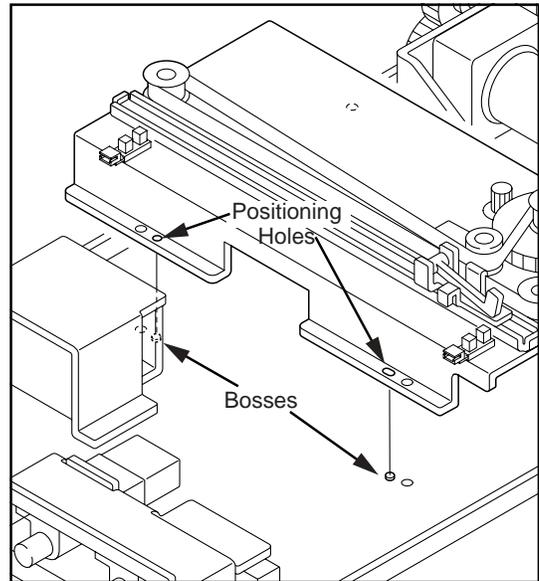


3. Press the claw of the sensor to be replaced inward, and remove it from the plate.

4. Install the new sensor in the installation hole of the plate.



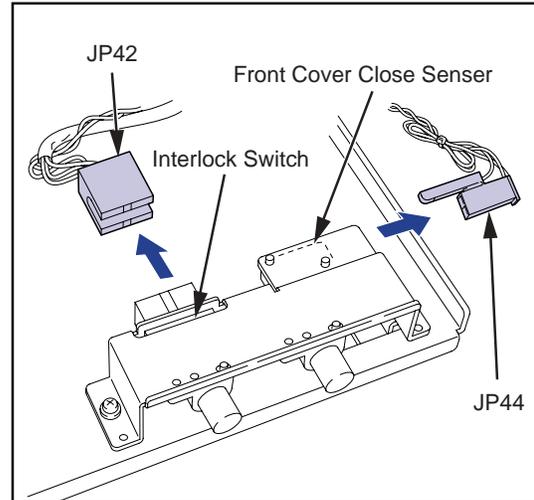
5. Secure the plate of the shutter open/close mechanism on the tray drive unit with screws.
  - When securing the plate on the tray drive unit, make sure that the four bosses on the top panel of the unit engage with the positioning holes of the plate.
6. Plug the connector to the sensor.



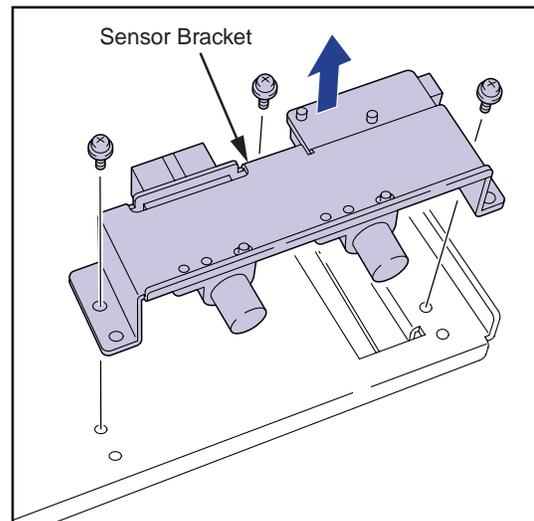
### 2.5.8 Replacing the Interlock Switch/Front cover Close Sensor

1. Unplug the connector from the sensor/switch to be replaced.

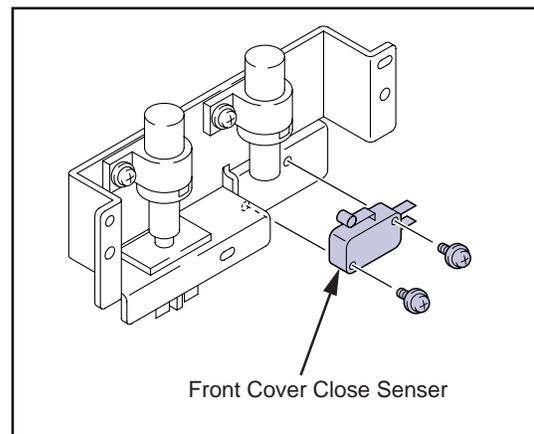
- Interlock Switch : JP42
- Front cover close sensor : JP44



2. Remove the three TP screws(M4x8), and lift the sensor bracket.

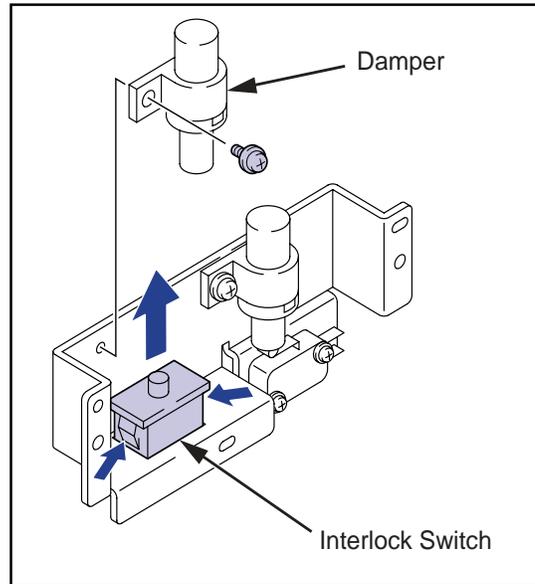


3. When replacing the front cover close sensor, remove the two TP screws(M3x15) from the sensor (micro-switch), and remove the sensor.

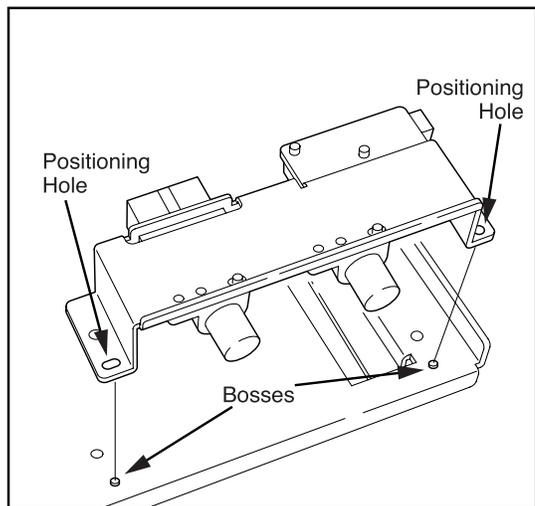


4. Secure the new sensor with screws.

5. When replacing the interlock switch, remove the TP screw(M3x6) to detach the damper, then pull out in the direction shown in the figure in the right while pressing inward the claws located at both side of the interlock switch.
6. Install the new interlock switch in the installation hole, and secure the damper with screws.



7. Secure the sensor bracket on the tray drive unit with screws.
  - When installing the sensor bracket on the tray drive unit, make sure that the two bosses on the top panel of the unit are engaged with the positioning holes (two locations) on the sensor bracket.
8. Plug the connector to each sensor.



### 2.5.9 Installing the Tray Drive Unit

1. Engage the tray drive unit with the rail of the main body's frame, and push back horizontally till it stops.
2. Secure the tray drive unit on the main body with two TP screws(M4x8).
3. Plug the two connectors(JP86, JP87).

## 2.6 Main-scan Unit

### 2.6.1 Removing the Main-scan Unit

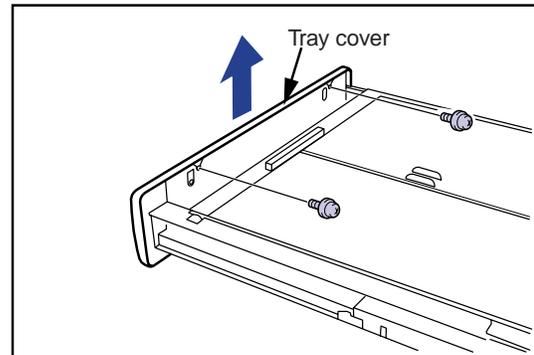
**CAUTION** Do not attempt to disassemble nor adjust the main-scan unit. Should any failure happen on the main-scan unit, replace the entire unit.

**CAUTION** Be careful not to apply any shock to the unit when removing or transporting the main-scan unit. Failure to protect the unit from shock may adversely affect the image quality.

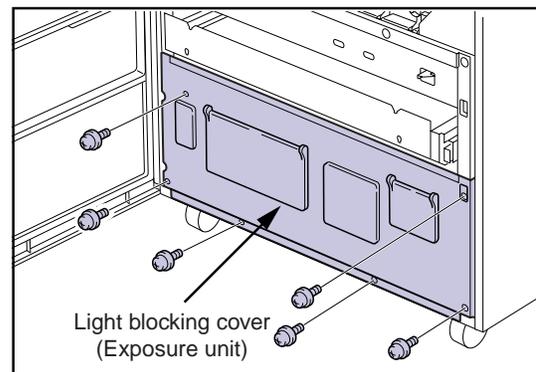
**IMPORTANT** Always measure and check the beam power whenever the main-scan unit is replaced.

- Removing the main-scan unit

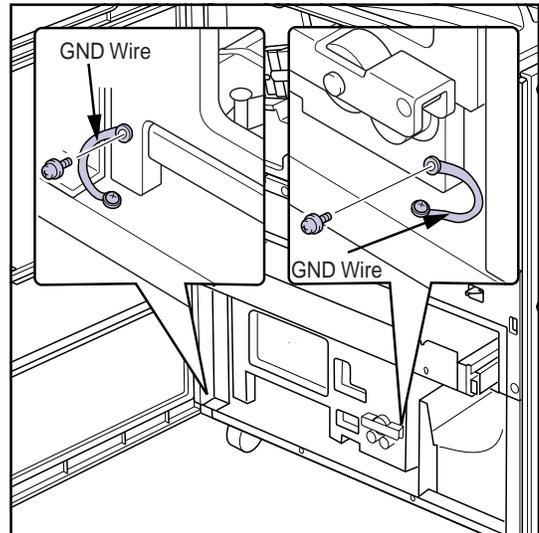
1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Press the tray release button and disengage the tray lock.
5. Pull out the tray and loosen the two TP screws(M4x8) on the tray cover.
6. Lift and remove the tray cover.



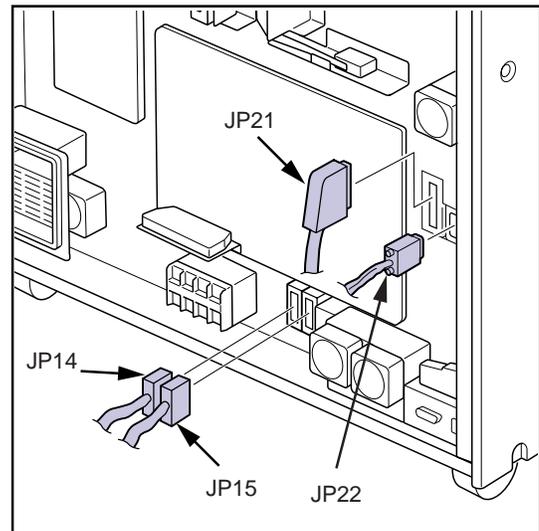
7. Remove the six TP screws(M3x6) and remove the light blocking cover (exposure unit).



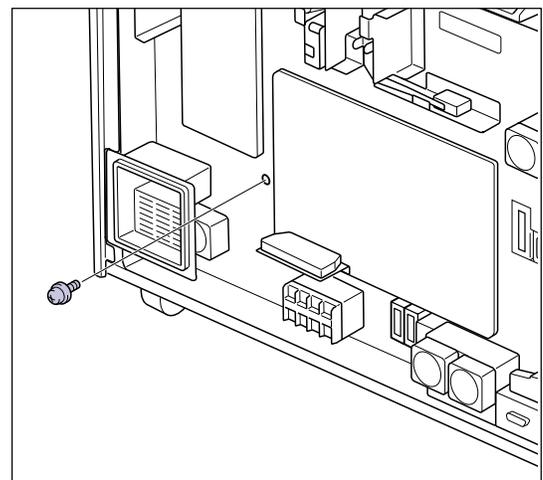
8. Remove the two TP screws(M4x8) and remove the ground wire(2pcs) from teh both sides of the sub-scan unit.



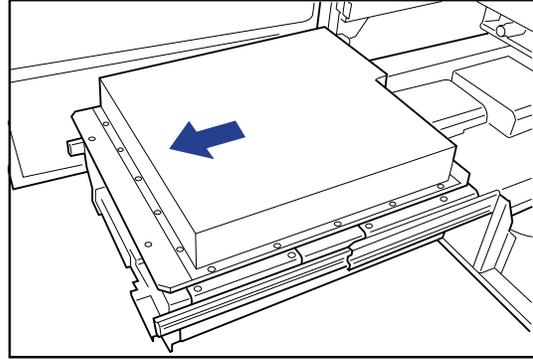
9. Disconnect four connectors (JP14, JP15, JP21 and JP22) located on the rear panel of the main body.



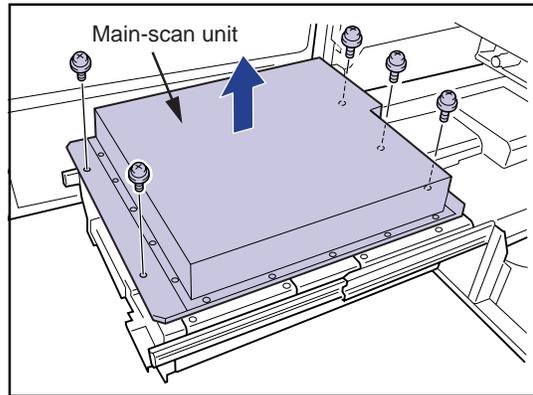
10. Remove the TP screw(M4x8) securing the exposure unit from the rear of the main body.



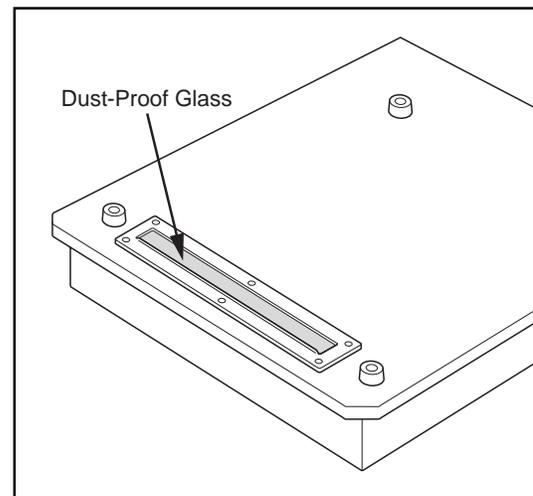
**11.** Remove the entire exposure unit from the front of the main body.



**12.** Remove the five TP screws (M4x18) securing the main-scan unit and lift and remove the unit.



- Installing the Main-scan Unit
- The main-scan unit may be installed by reversing the procedure for removal.
- The dust-proof glass at laser exit port should be cleaned before installing the main-scan unit.  
A lens cleaner should be used for this purpose and the dust-proof glass wiped always moving the cloth in the same direction and at a constant speed.



## 2.7 Sub-Scan Unit

### 2.7.1 Sub-scan Unit

**CAUTION** If the sub-scan unit is left removed for an extended period of time, any accumulated dust should be removed from the sub-scan guides and rollers using a blower or duster before re-installing the unit. Dust accumulation may adversely affect image quality.

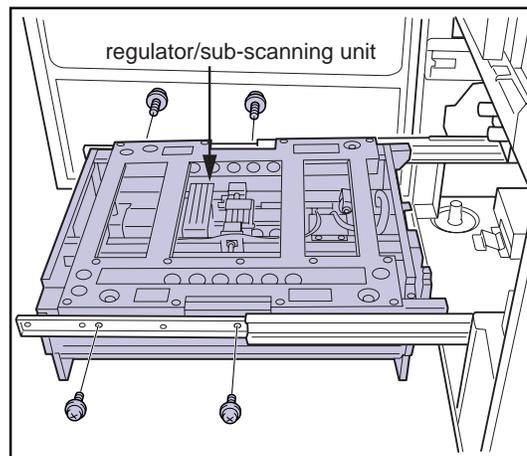
- Dust accumulation on the guides may produce sharp, vertical black lines on the image.
- Dust accumulation on the rollers may produce 63mm pitch horizontal lines on the image.

**CAUTION** Be careful not to touch the belts on the front and back of the position regulator/sub-scan unit when handling.

1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Remove the tray cover and the light blocking cover (exposure unit). (refer to p.2-41)
5. Remove the entire exposure unit, and remove main-scan unit. (refer to p.2-41)
6. Remove the four TP screws(M4x8) securing the scan unit (two screws on each of the slide rails).

**CAUTION** Do not remove the yellow painted screws from the slide rails. Doing so may result in the position regulator/sub-scan unit dropping.

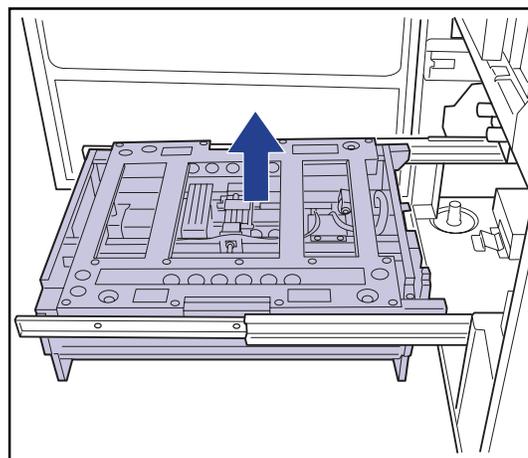
- A driver with a short handle, such as a stubby screwdriver, should be used to remove these screws since space between the left side of the of the unit and the front cover is limited.



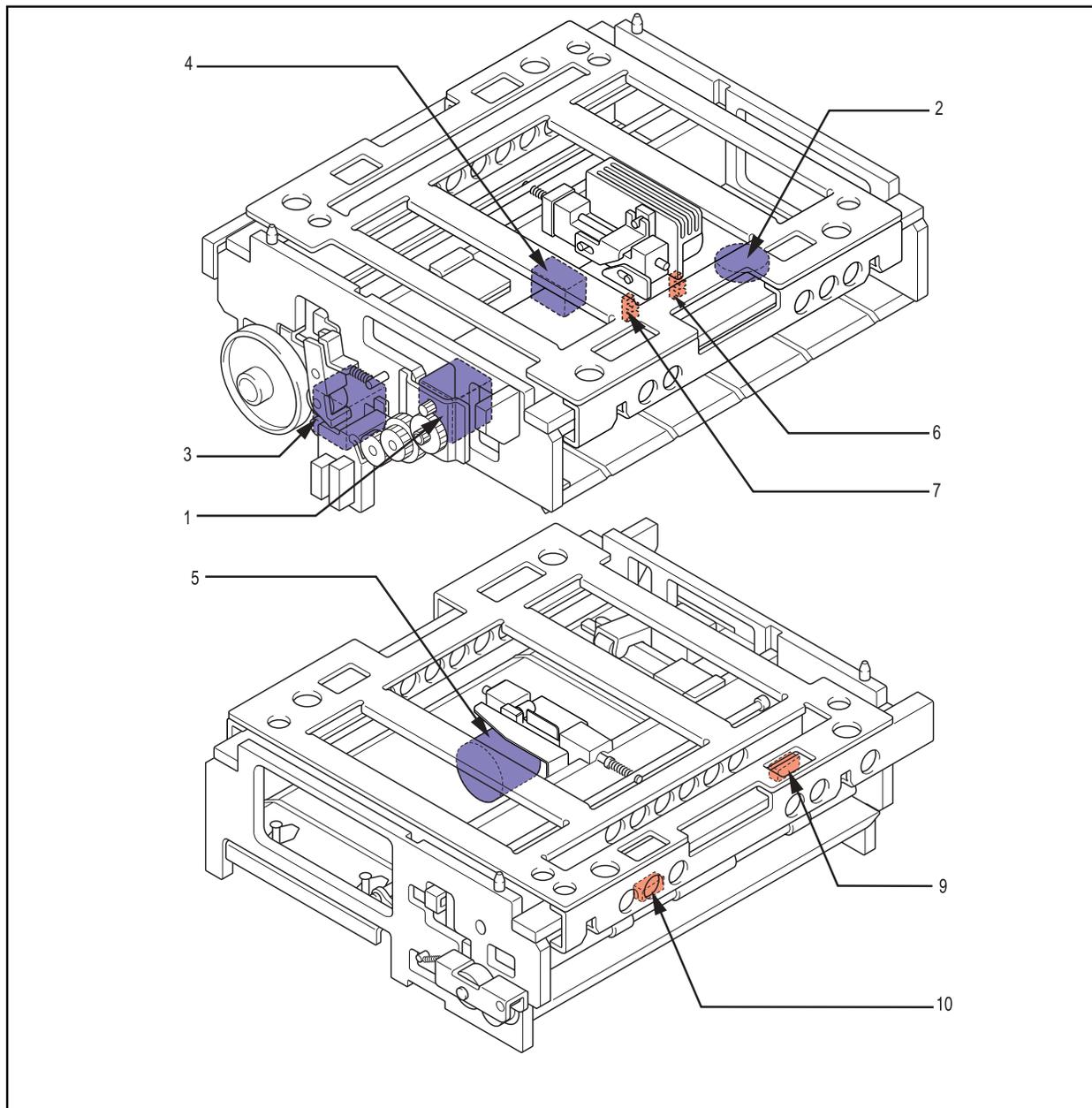
7. Lift straight up and remove the sub-scan unit.

**CAUTION** The following cautions should be observed when handling the sub-scan unit and work carried out with due care.

- Avoid exposing the position regulator/sub-scan unit to shock. Such exposure may adversely affect image quality.
- Be careful not to touch the belts on the front and back of the position regulator/sub-scan unit when handling.



## 2.7.2 Parts Layout of Sub-scan Unit



- |  |   |
|--|---|
| 1. Position regulator feed motor (PM7) | 6. Justification home position sensor (PS6) |
| 2. Justification motor (PM6)           | 7. Justification position sensor (PS8)      |
| 3. Sub-scan motor (PM5)                | 8. Position regulator nip home sensor (PS7) |
| 4. Position regulator nip motor (M7)   | 9. Sub-scan Entrance sensor (SE2)           |
| 5. Sub-scan nip solenoid (SOL3)        | 10. V-sync sensor (SE1)                     |

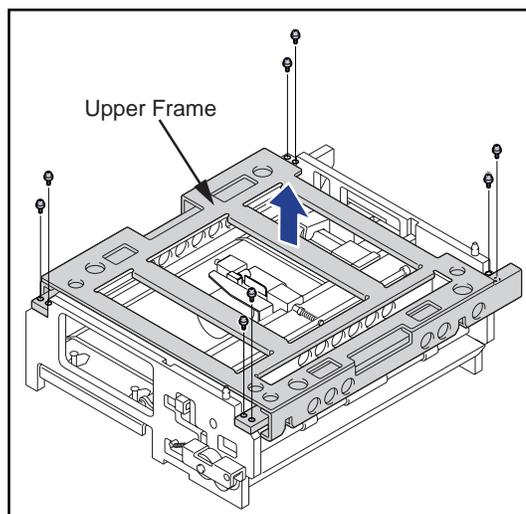
**IMPORTANT** The position regulator unit is located under the sub-scan unit and coupled with it. When replacing the sub-scan unit, first remove the position regulator unit, and install it on the new sub-scan unit.

### 2.7.3 Replacing the Position Regulator Feed Motor

**CAUTION** The position regulator feed motor is mounted and secured on the motor bracket after having adjusted the backrush. Therefore it is not possible to adjust this assy at the site. Replace the whole assy when it is to be replaced.

- Removing the position regulator feed motor

1. Remove the eight TP screws(M4x18), and remove the upper frame from the sub-scan unit.

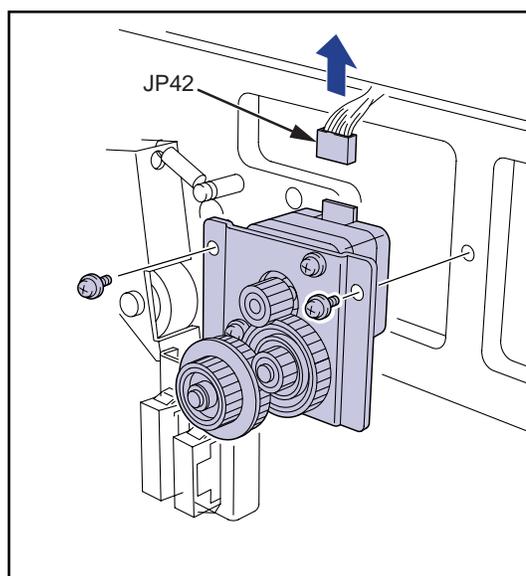


2. Remove the connector(JP83) from the position regulator feed motor.

3. Remove the two TP screws(M4x8) from the motor bracket.

4. Slightly pull down the position regulator feed motor assy, and remove from the sub-scan unit.

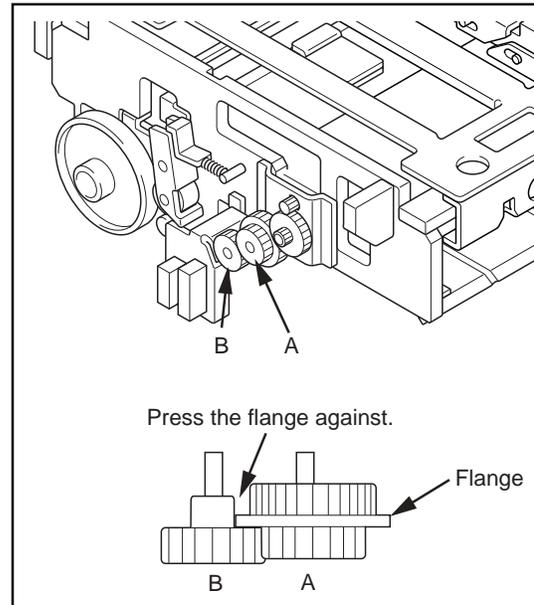
**CAUTION** Do not remove the gear or the position regulator feed motor from the motor bracket. It is not possible to adjust the backrush at the site.



- Installing the position regulator feed motor

Reverse the procedure for removal of the position regulator feed motor to install it.

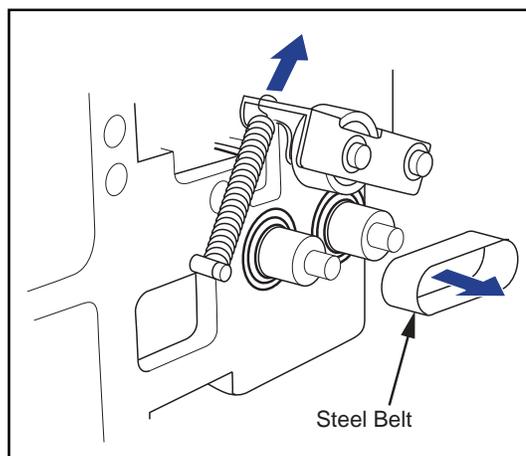
- When securing the position regulator feed motor with screws, press the flange of the gear illustrated in the figure in the right against the gear of the sub-scan unit, then secure with the screws.



### 2.7.4 Replacing the Steel Belt

**IMPORTANT** Avoid touching the steel belt except the occasion when it should be serviced.

1. While lifting the tension roller, remove the steel belt from the pulley.
2. Set the new belt on the pulley.
3. Turn the nip roller a few times so that the steel belt is aligned to the center of the pulley.



### 2.7.5 Installing the Sub-Scan Unit

Reverse the procedure for removal to install the sub-scan unit.

- When setting the sub-scan unit on the slide rail, align the notches(2 on right and left) to the bosses on the rails, and lower the unit vertically to settle on the rail.

## 2.8 Position Regulator Unit

### 2.8.1 Removing the Position Regulator Unit

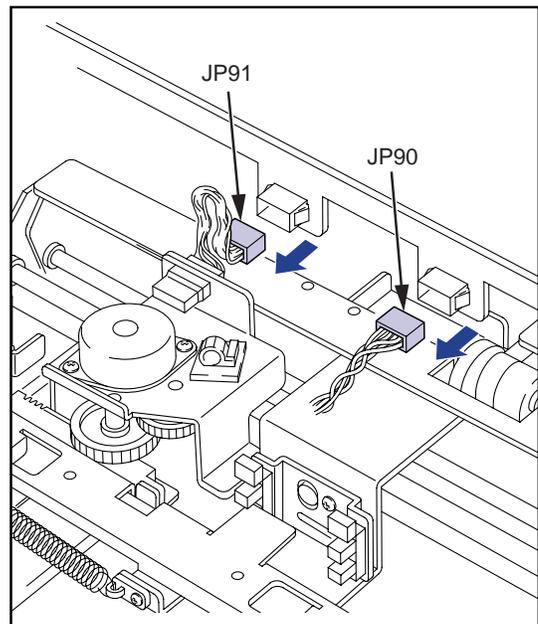
1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Remove the tray cover and the light-blocking plate (exposure).
5. Remove the main-scan unit. (refer to p.2-41)
6. Remove the sub-scan unit from the slide rail.

**CAUTION** Do not remove the yellow painted screw. Doing so may cause fall of the sub-scan unit.

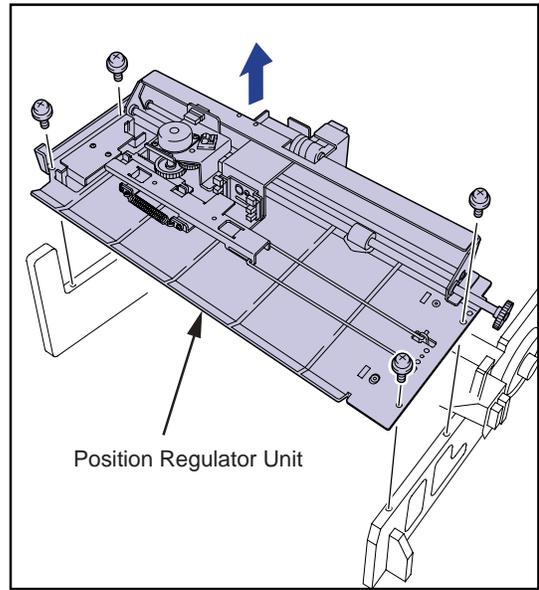
7. Turn the sub-scan unit upside down.

**CAUTION** When reversing the sub-scan unit, be careful not to apply shock to the unit.

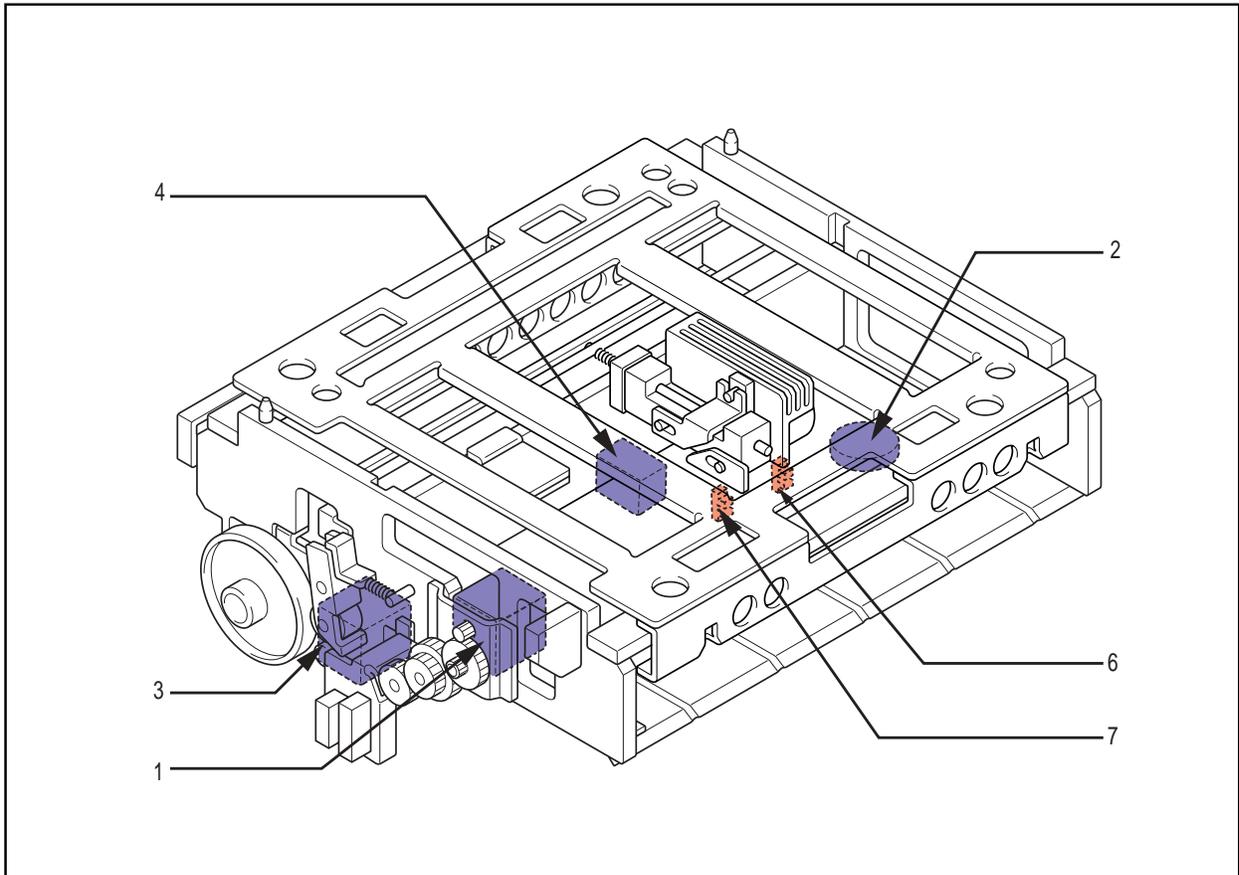
8. Unplug the relay connectors(JP90, JP91).



9. Remove the four TP screws(M4x8), and lift and remove the position regulator unit.



## 2.8.2 Parts Layout of Position Regulator Unit



- |   |   |
|---|---|
| 1. Justification motor (PM6)                | 4. Justification position sensor (PS8)      |
| 2. Position regulator nip motor (M7)        | 5. Position regulator nip home sensor (PS7) |
| 3. Justification home position sensor (PS6) |   |

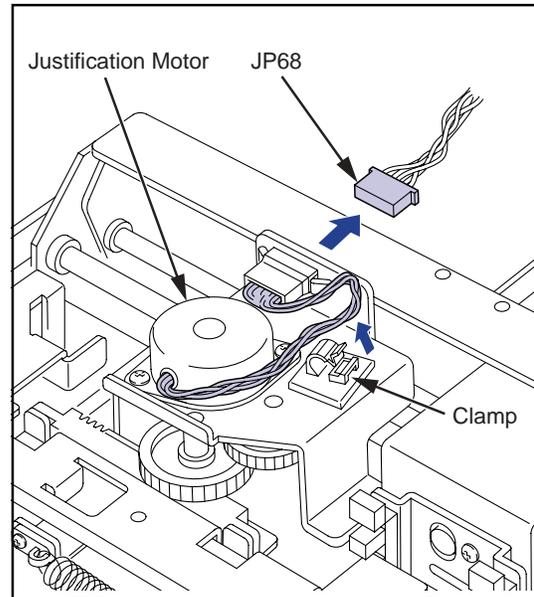
**IMPORTANT** The position regulator feed motor is coupled with the sub-scan unit.(refer to p.2-41)

### 2.8.3 Replacing the Justification Motor

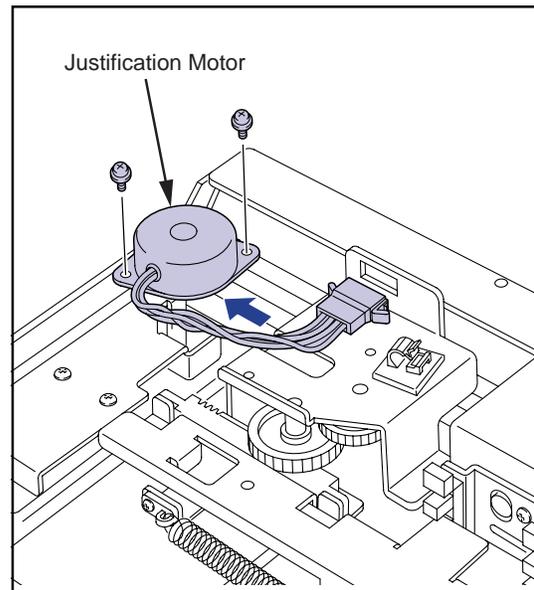
- The justification motor can be replaced without separating the position regulator unit from the sub-scan unit.

- Removing the justification motor

1. Unplug the relay connector(JP68).
2. Unplug the connector for the justification motor cable from the motor bracket, and remove the cable from the clamp.



3. Remove the two semi screws(M3x6), and slide the justification motor to the direction shown in the figure, and remove.



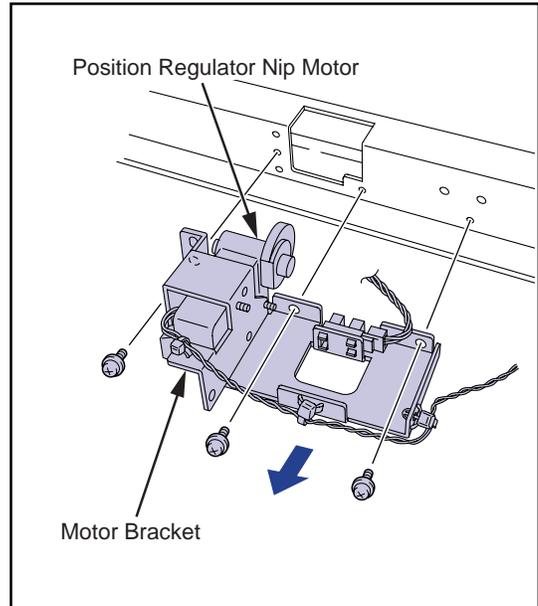
- Installing the justification motor

Reverse the procedure for removal to install the justification motor.

### 2.8.4 Replacing the Position Regulator Nip Motor

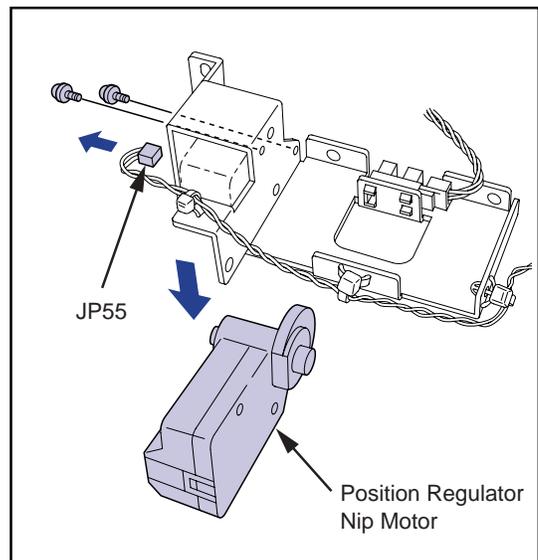
- Removing the position regulator nip motor

1. Remove the three TP screws(M3x6) from the motor bracket, and remove the position regulator motor coupled with the motor bracket from the position regulator unit.

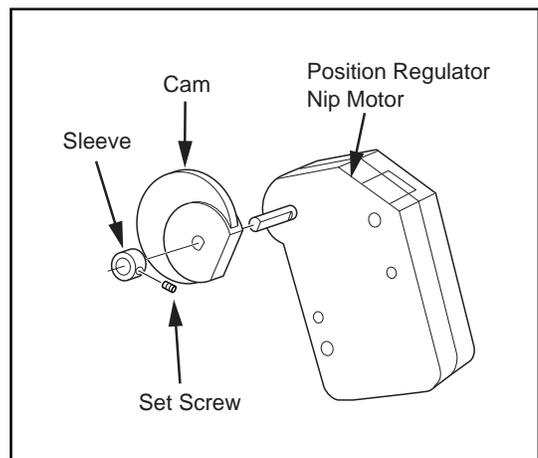


2. Unplug the connector(JP55) from the position regulator nip motor.

3. Remove the two sems screws(M3x25), and remove the position regulator nip motor from the motor bracket.



4. Loosen the set screw on the sleeve, and pull out the sleeve and cum from the motor shaft.



- Installing the position regulator nip motor

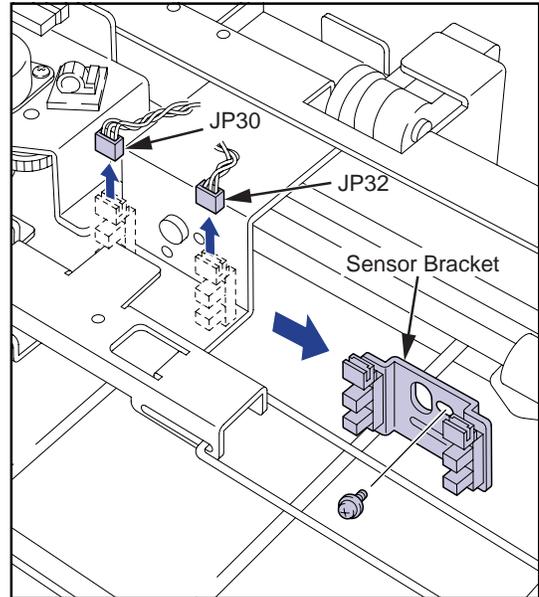
Reverse the procedure for removal to install the position regulator nip motor.

- When installing the position regulator nip motor on the motor bracket, make sure that the bosses on the motor bracket are engaged with the positioning holes on the positioning regulator nip motor.
- When installing the motor bracket on the position regulator unit, make sure that the bosses on the position regulator unit are engaged with the installation holes on the motor bracket, then secure the screws.

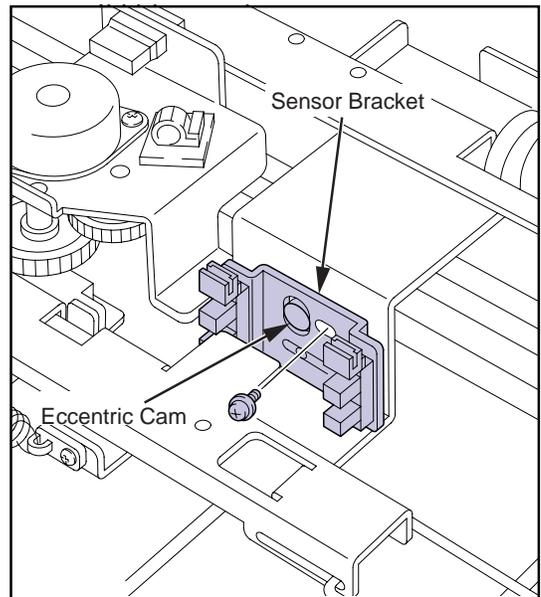
### 2.8.5 Replacing the Justification Home Position Sensor/Justification Position sensor

- The justification home position sensor and the justification position sensor can be replaced without separating the position regulator unit from the sub-scan unit.

1. Unplug the connectors from both sensors.
  - Justification home position sensor : JP30
  - Justification position sensor : JP32
2. Remove the sems screw(M3x6), and remove the sensor together with the sensor bracket.
3. Press the claw of the sensor to be replaced inward, and remove the sensor from the sensor bracket.
4. Insert the new sensor in the installation hole.

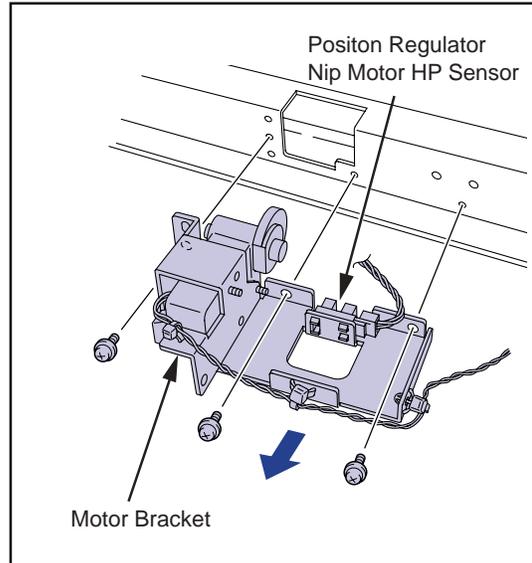


5. Secure the sensor bracket on the position regulator unit with screws.
  - When securing the sensor bracket with screws, make sure that the eccentric cam is correctly positioned in the positioning hole of the sensor bracket. At this point, never attempt to rotate the eccentric cam.



### 2.8.6 Replacing the Position Regulator Nip Home Sensor

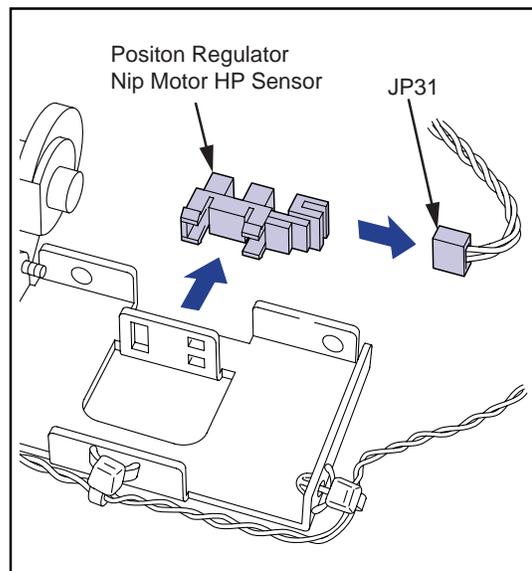
1. Remove the three TP screws(M3x6) from the motor bracket, and remove the motor bracket from the position regulator unit.



2. Unplug the connector(JP31) from the position regulator nip home sensor.

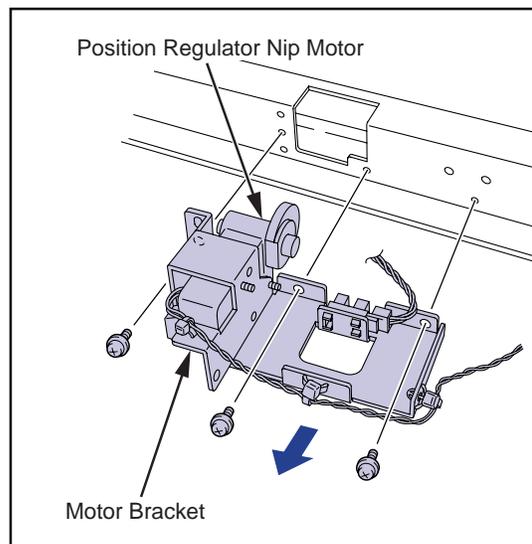
3. Press the claw of the sensor inward, and remove the sensor from the motor bracket.

4. Insert the new sensor in the installation hole, and plug the connector.



5. Secure the motor bracket on the position regulator unit with screws.

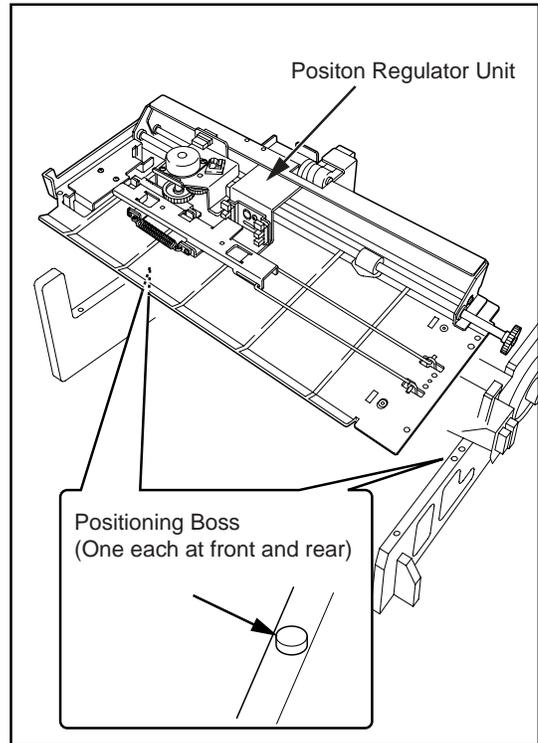
- Make sure that the bosses on the position regulator unit are engaged with the installation holes on the motor bracket, then secure the screws.



### 2.8.7 Installing the Position Regulator Unit

Reverse the procedure for removal to install the position regulator unit.

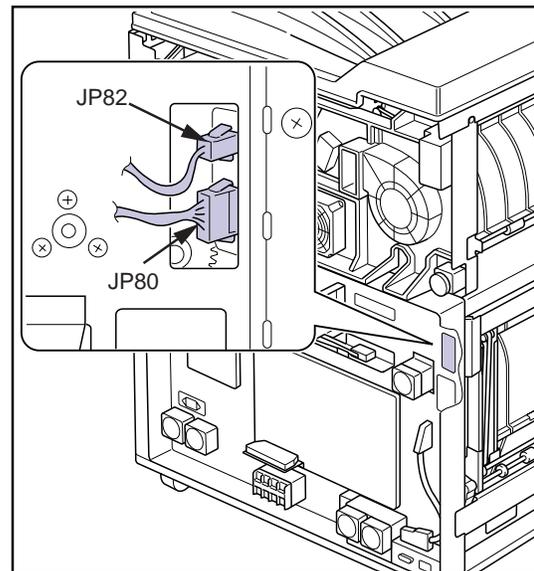
- When installing the position regulator unit on the sub-scan unit, make sure that the bosses on the sub-scan unit are engaged with the positioning holes on the position regulator unit before tightening the screws.



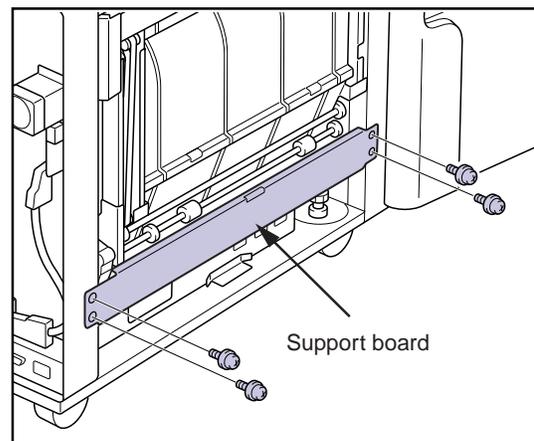
## 2.9 Descent Transport Unit

### 2.9.1 Removing the Descent Transport Unit

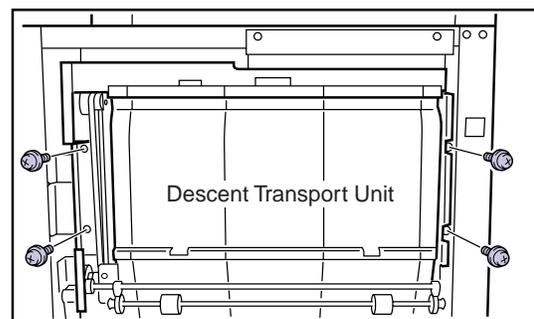
1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Remove the left cover. (refer to p.2-5)
5. Disconnect the connectors JP80 and JP82 at the rear of the main body.



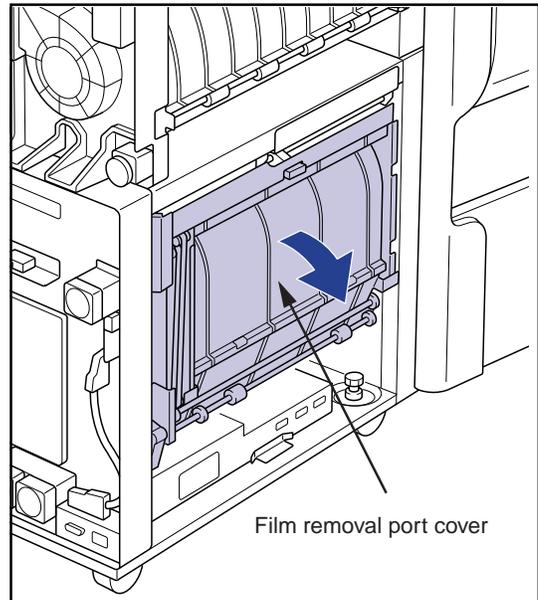
6. Remove the four securing screws and remove the support board.



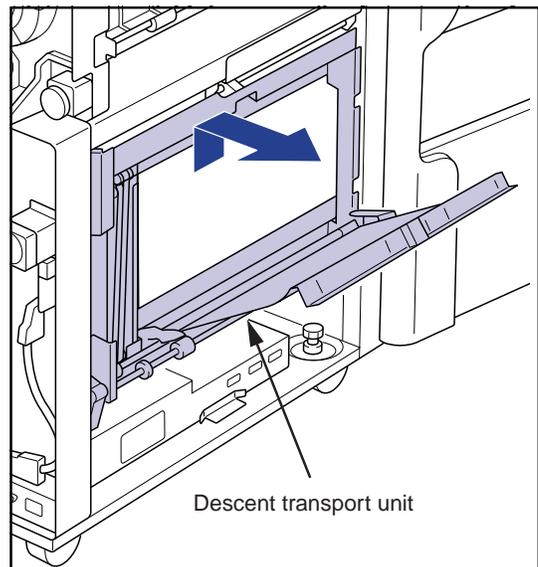
7. Remove the four screws securing the Descent Transport Unit.



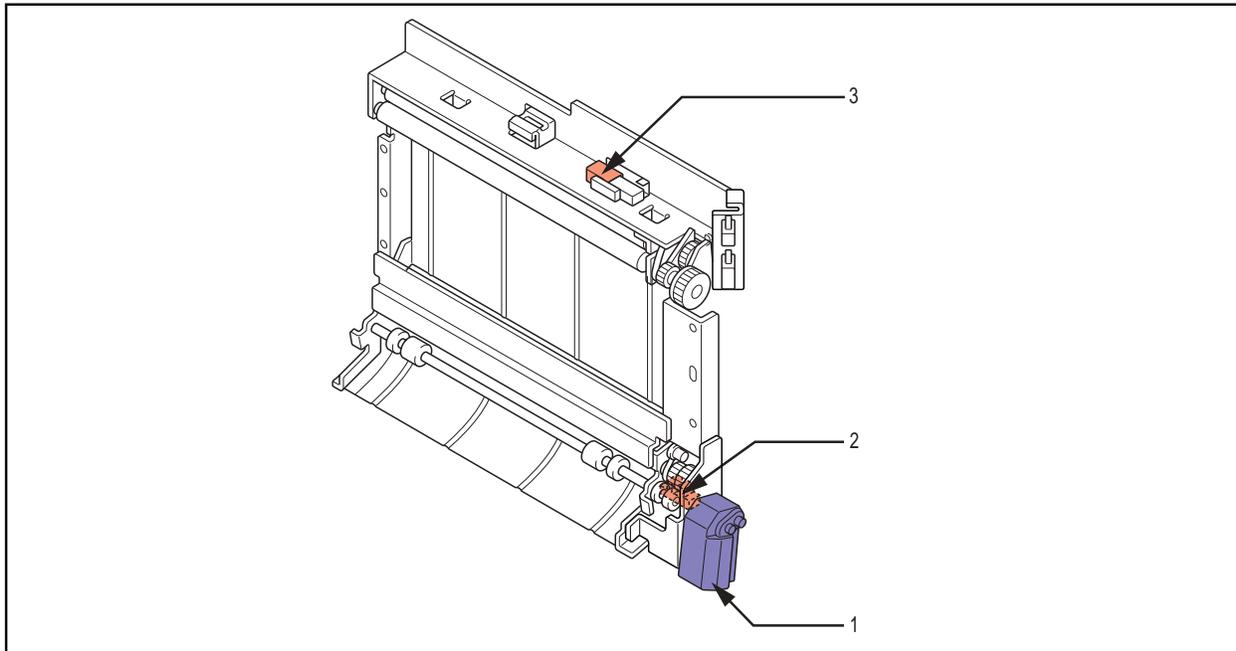
8. Push lever-BC down and open the film removal port cover.
- The descent transport unit will catch on the hook on the film removal port cover preventing removal of the unit unless the cover is opened.



9. Slightly lift the descent transport unit up and pull out to remove.



### 2.9.2 Descent Transport Unit

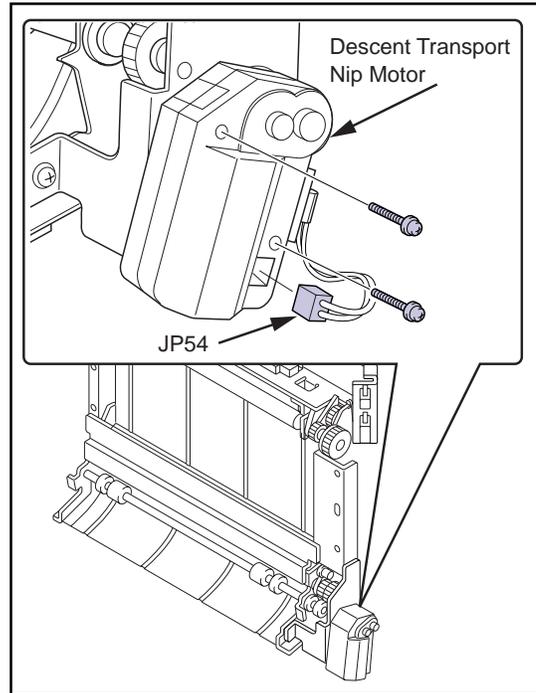


1. Descent transport nip motor (M6)
2. Descent transport nip close sensor (PS5)
3. Film release-port cover close sensor (MS3)

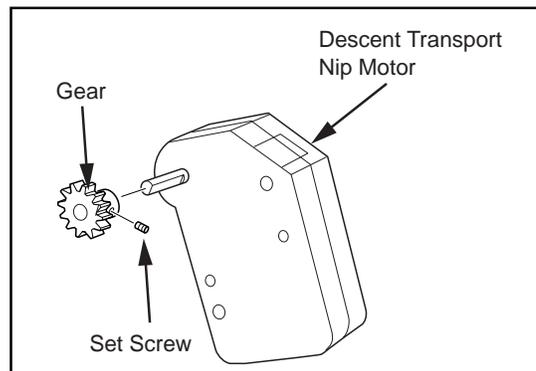
### 2.9.3 Replacing the Descent Transport Nip Motor

- Removing the descent transport nip motor

1. Unplug the connector(JP54) from the descent transport nip motor.
2. Remove the two TP screws(M3x25), and remove the descent transport nip motor.



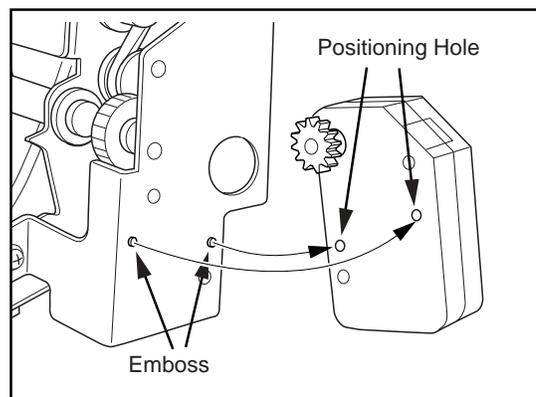
3. Loosen the set screw , and pull out the gear from the descent transport nip motor shaft.



- Installing the descent transport nip motor

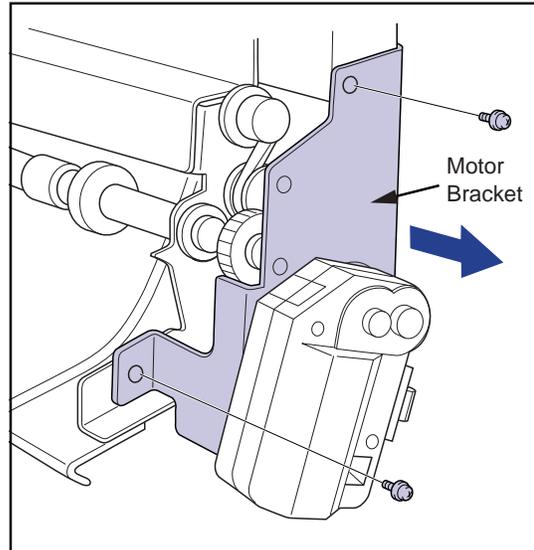
Reverse the procedure for removal to install the descent transport nip motor.

- When installing the descent transport nip motor, make sure that the bosses on the motor bracket are engaged with the two holes on the back of the motor before tightening the screws.

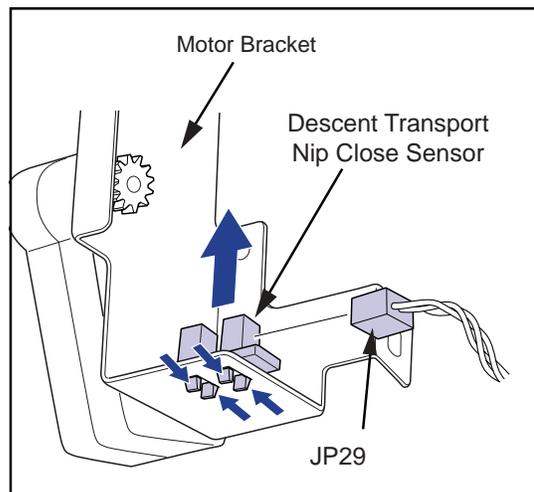


### 2.9.4 Replacing the Descent Transport Nip Close Sensor

1. Remove the three TP screws(M3x6), and remove the motor bracket from the descent transport unit.

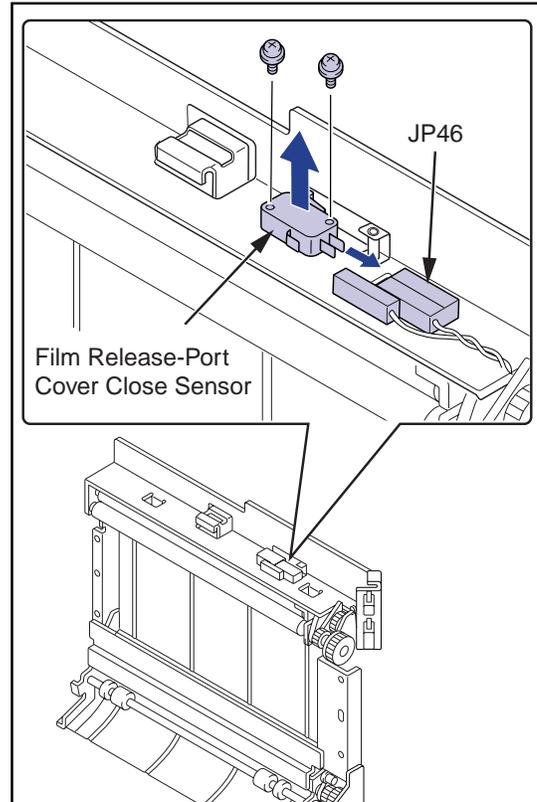


2. Unplug the connector(JP29) from the descent transport nip close sensor.
3. Press the claw of the sensor inward, and remove the descent transport nip close sensor.
4. Insert the new sensor in the installation hole, and plug the connector.
5. Secure the motor bracket on the descent transport unit with screws.



### 2.9.5 Replacing the Film Release-Port Cover Close Sensor

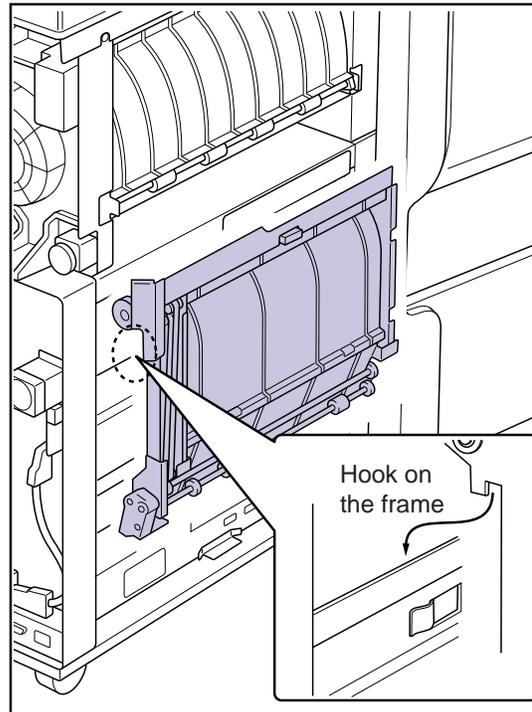
1. Unplug the connector(JP46) from the film release-port cover close sensor.
2. Remove the two TP screws(M3x15), and remove the film release-port cover close sensor.
3. Secure the new sensor with screws, and plug the connector.



## 2.9.6 Installing the Descent Transport Unit

The descent transport unit may be installed by reversing the procedure for removal.

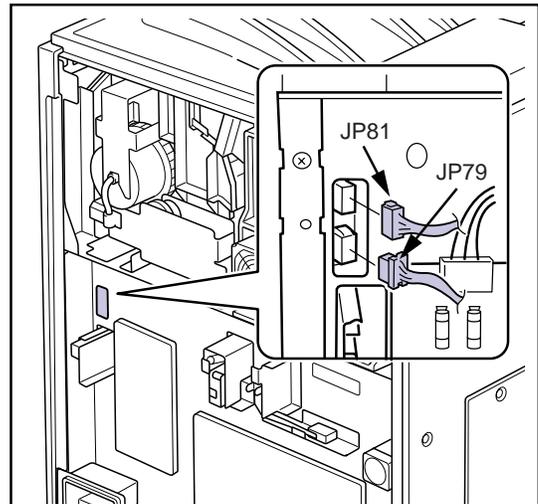
- When re-installing the descent transport unit, ensure that the hook on the back of the unit latches into the corresponding receptor hole on the frame and that the positioning holes on the unit are matched with the embossed areas of the frame before screwing the unit into place.
- When the descent transport unit is installed, make sure that the stopper is thoroughly pulled out of the jam release cover.



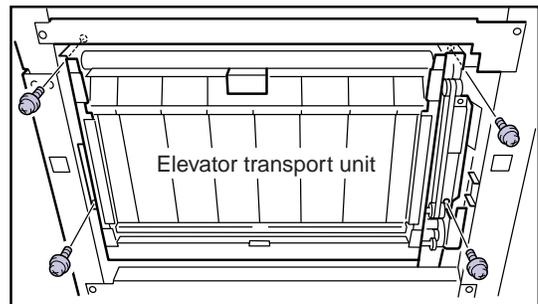
## 2.10 Elevator Transport Unit

### 2.10.1 Elevator Transport Unit

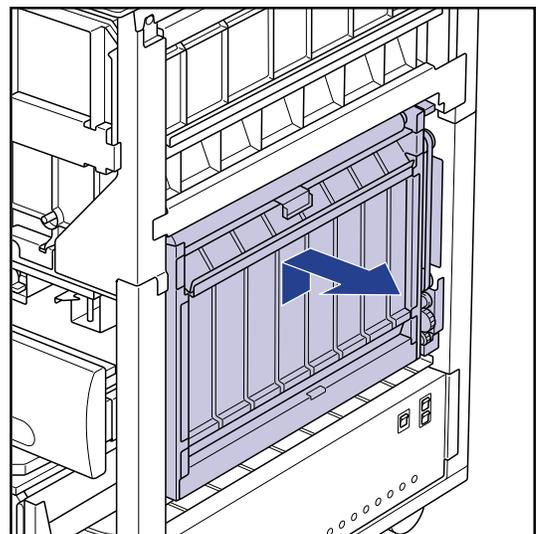
1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Remove the right cover. (refer to p.2-4)
5. Disconnect the connectors (JP79, JP81) at the rear of the main body.



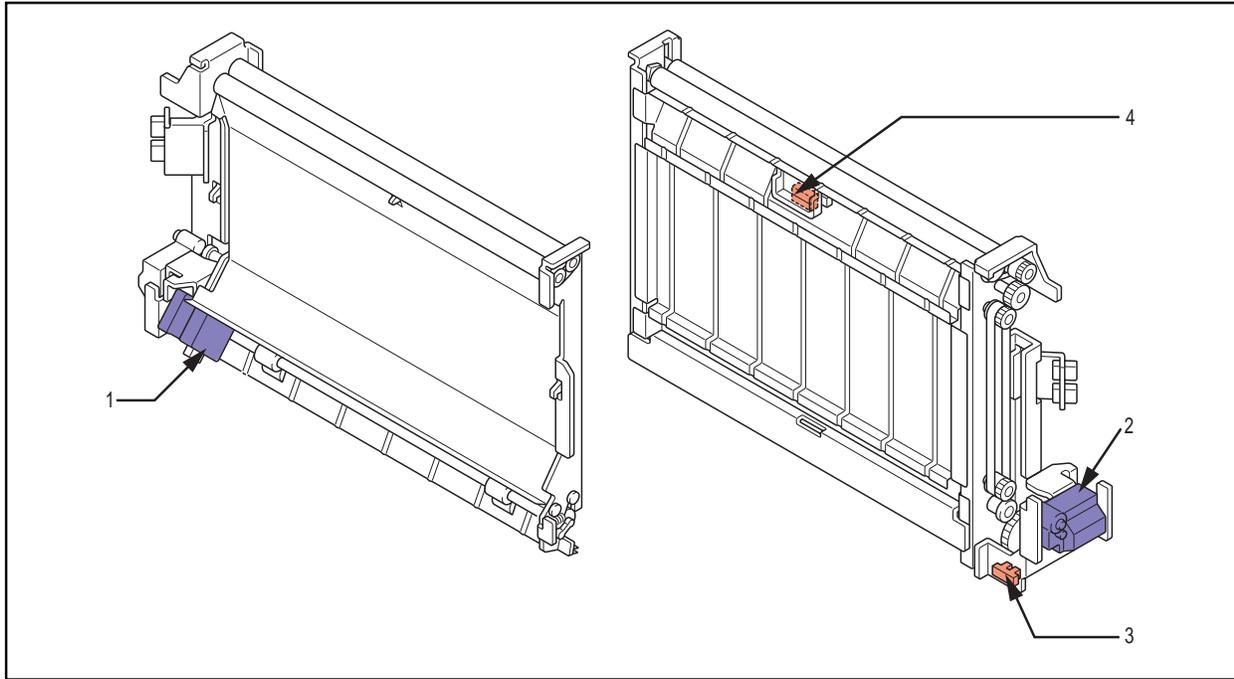
6. Remove the four screws securing the elevator transport unit.



7. Lift the elevator transport unit slightly and pull forward to remove.



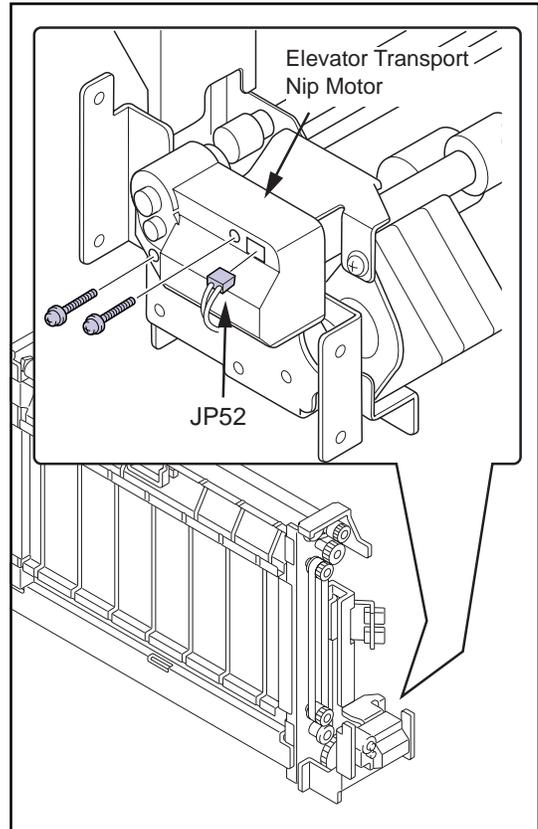
### 2.10.2 Elevator Transport Unit



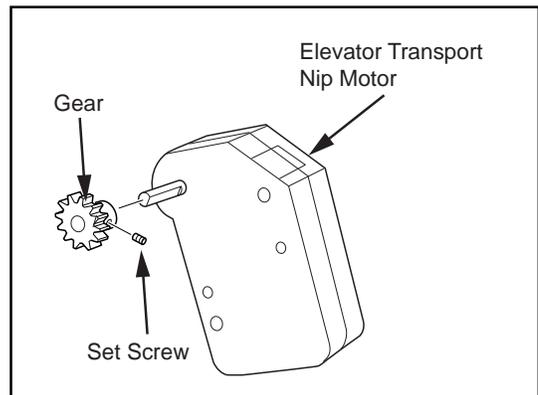
- 1. Elevator transport motor (PM2)
- 2. Elevator transport nip motor (M4)
- 3. Elevator transport nip close sensor (PS2)
- 4. Heat processing unit entrance sensor (PS15)

### 2.10.3 Replacing the Elevator Transport Nip Motor

- Removing the elevator transport nip motor
1. Disconnect the connector(JP52) from the elevator transport nip motor.
  2. Remove the two TP screws(M3x25), and remove the elevator transport nip motor.



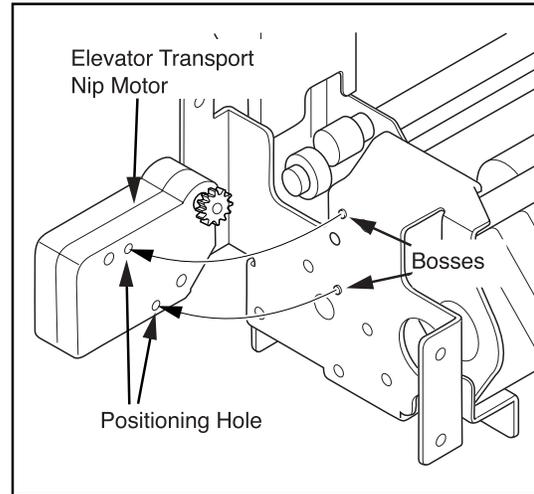
3. Loosen the set screw, and pull out the gear from the elevator transport nip motor shaft.



- Installing the elevator transport nip motor.

Reverse the procedure for removal to install the elevator transport nip motor.

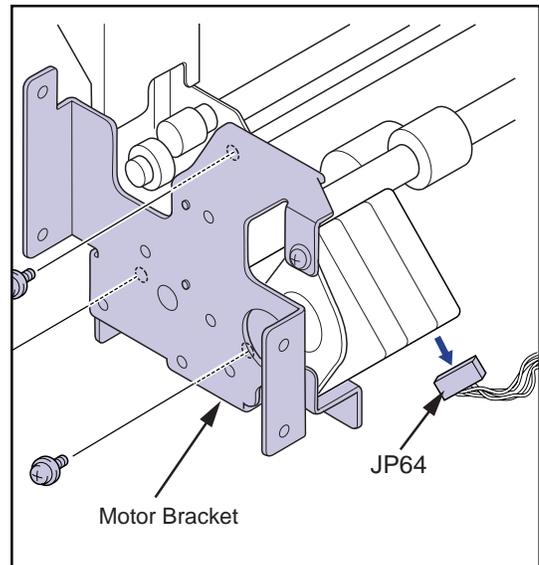
- When installing the elevator transport nip motor, make sure that the bosses on the motor bracket are engaged with the two holes on the rear of the motor before tightening the screws.



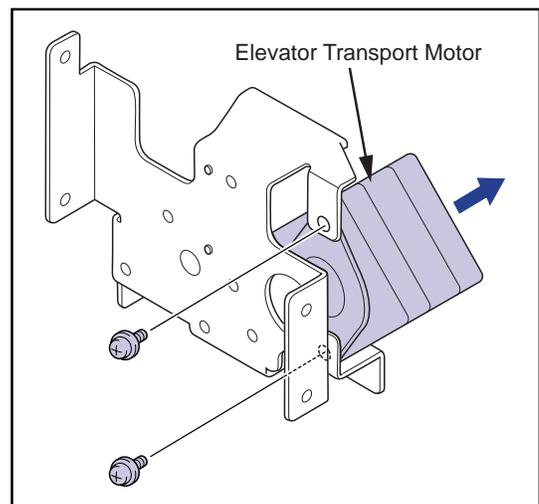
### 2.10.4 Replacing the Elevator Transport Motor

- Removing the elevator transport motor

1. Remove the elevator transport nip motor from the motor bracket. (refer to p.2-68)
2. Disconnect the connector(JP64) from the elevator transport motor.
3. Remove the three TP screws(M3x6), and remove the elevator transport motor together with the motor bracket.



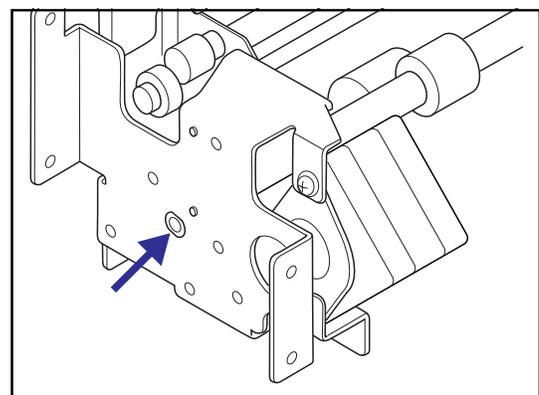
4. Remove the two TP screws(M3x6), and remove the elevator transport motor from the motor bracket.



- Installing the elevator transport motor

The elevator transport motor may be installed by reversing the procedure for removal.

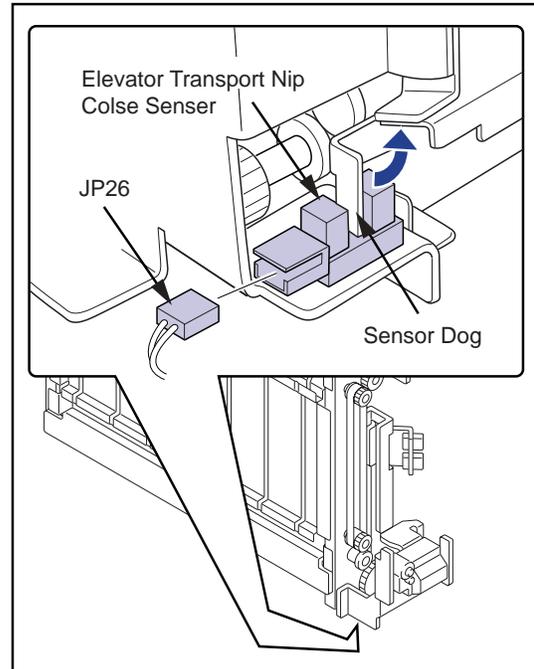
- When re-installing the elevator transport motor, make sure that the shaft bearing shown in the right figure firmly engaged with the hole on the motor bracket before tightening the screws.



### 2.10.5 Replacing the Elevator Transport Nip Close Sensor

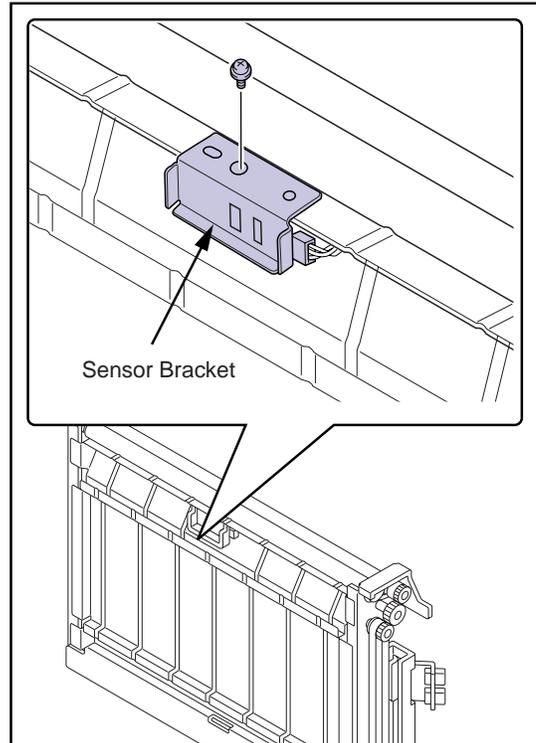
The elevator transport nip close sensor is located on the bottom of the elevator transport unit.

1. Disconnect the connector(JP26) from the elevator transport nip close sensor.
2. Press the claw of the sensor inward, and remove the elevator transport nip close sensor.
3. Insert the new sensor in the installation hole, and connect the connector.

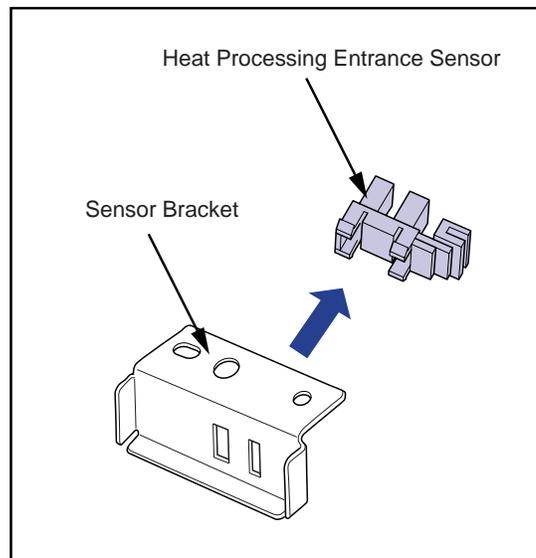


### 2.10.6 Replacing the Heat Processing Unit Entrance Sensor

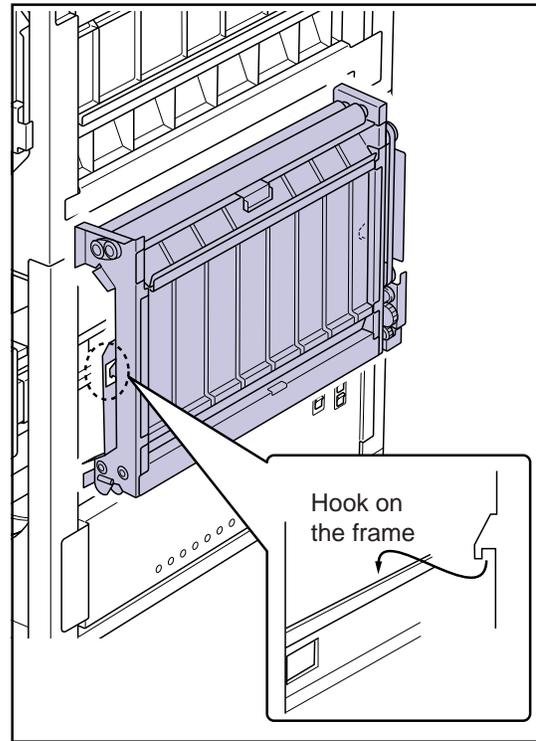
1. Disconnect the connector(JP26) from the heat processing unit entrance sensor.
2. Remove one TP screw(M3x6) , and remove the heat processing unit entrance sensor together with the sensor bracket.



3. Press the claw of the sensor inward, and remove the heat processing unit entrance sensor from the sensor bracket.
4. Insert the new sensor in the installation hole.
5. Secure the sensor bracket on the elevator transport unit with screws, and connect the connector.



- Installing the Elevator Transport Unit
  - The elevator transport unit may be installed by reversing the procedure for removal.
  - When re-installing the elevator transport unit, ensure that the claws on the back of the unit latch on to the main body frame and that the positioning holes on the unit are matched with the embossed areas of the frame before screwing the unit into place.



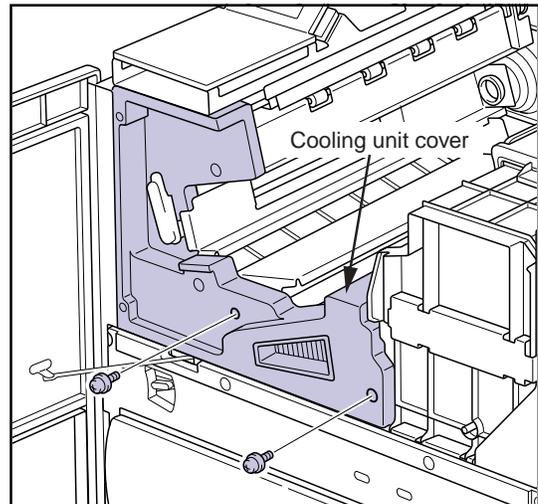
## 2.11 Primary Cooling Unit

### 2.11.1 Replacing the Primary Cooling Unit

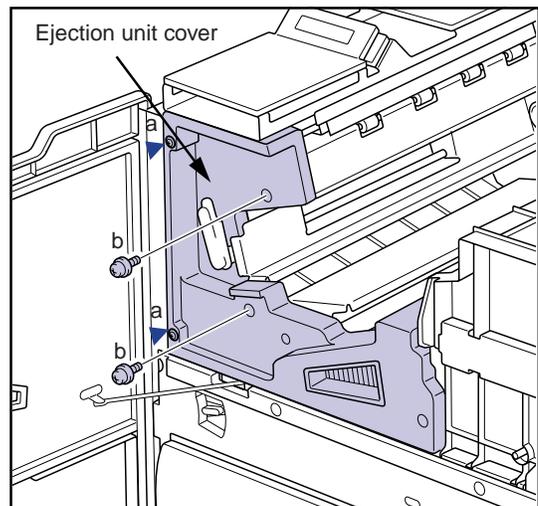
- Removing the Primary Cooling Unit

**CAUTION** The heat processing unit and its periphery generate high temperatures and can cause burns. Adequate cooling time must be allowed before proceeding with work.

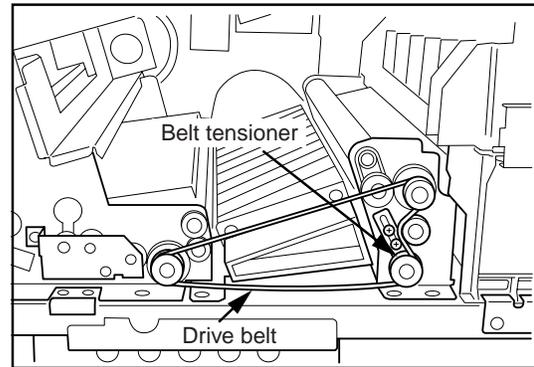
1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Lift lever-A and remove the deodorant filter case.
5. Remove the two truss screws(M4x12), TP screw(M4x8), and remove the cooling unit cover.
  - Note that truss screws are used on the left side.



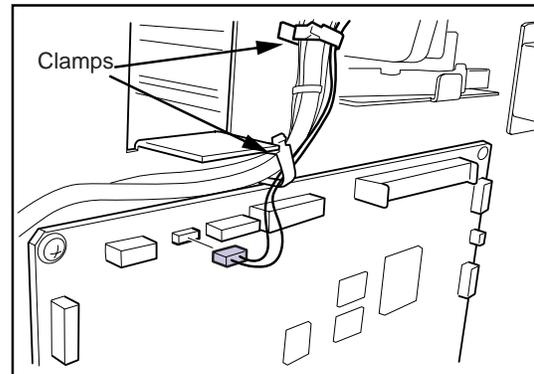
6. Loosen the two TP screws(M3x6) and remove the two TP screws(M3x6), and remove the ejection unit cover.



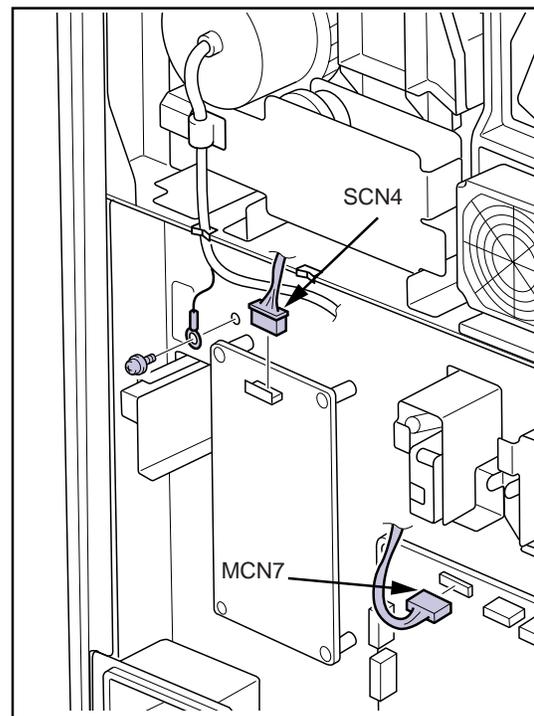
7. Mark the original position of the belt tensioner on the plate using the scriber.
8. Loosen the two belt-tensioner screws and remove the drive belt.



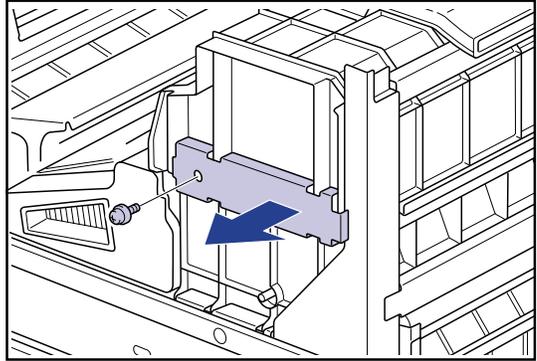
9. Disconnect the primary cooling temperature sensor connector (MCN15) from the mechanical control board and unclamp the cooling temperature sensor cable.



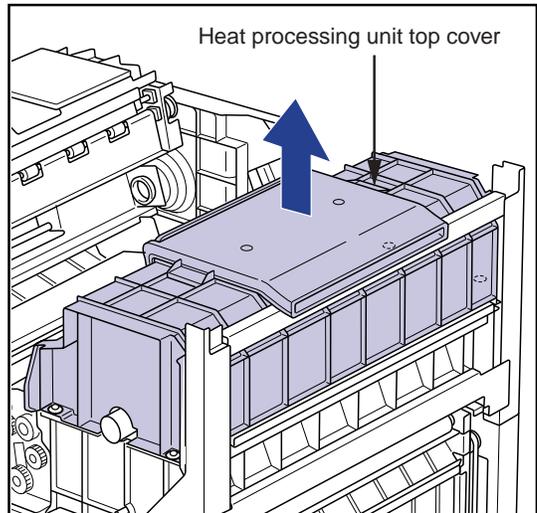
10. Disconnect the connector (MCN7) from the mechanical control board and the connector (SCN4) from the heat processing drive board.
11. Remove the TP screw (M4x8) securing the earth cable to the main body frame.
12. Unclamp all cables from the clamp.



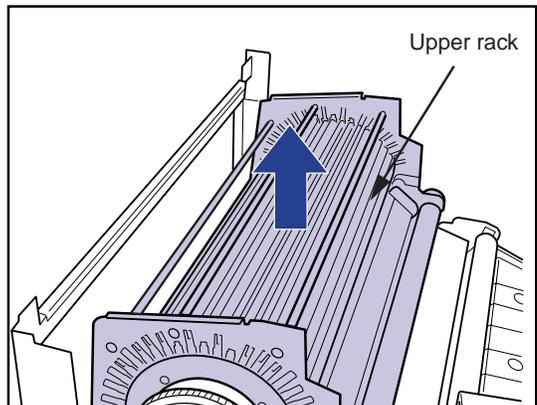
- 13.** Remove one TP screw, and remove the protective cover from the front of the heat processing unit.



- 14.** Loosen the four securing screws and lift and remove the heat processing unit top cover.
- Turn the removed cover over and set it down underside up on a stable surface.
  - The screws in the heat processing unit top cover cannot be removed.

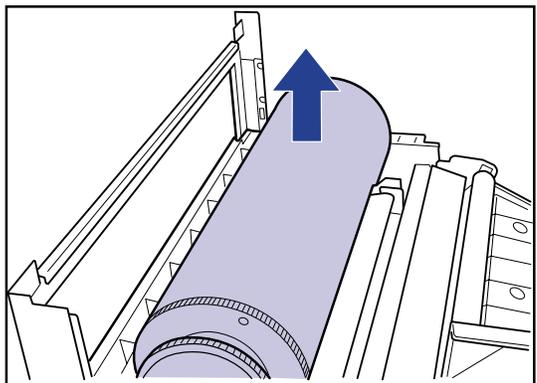


- 15.** Lift and remove the upper rack.



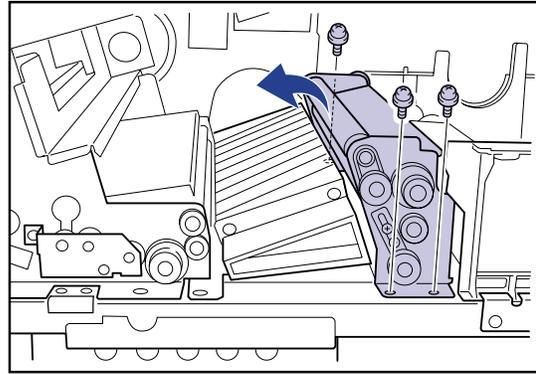
- 16.** Lift and remove the heat processing drum.

- Place the removed drum on the top cover set down underside up as described in step-14 above.

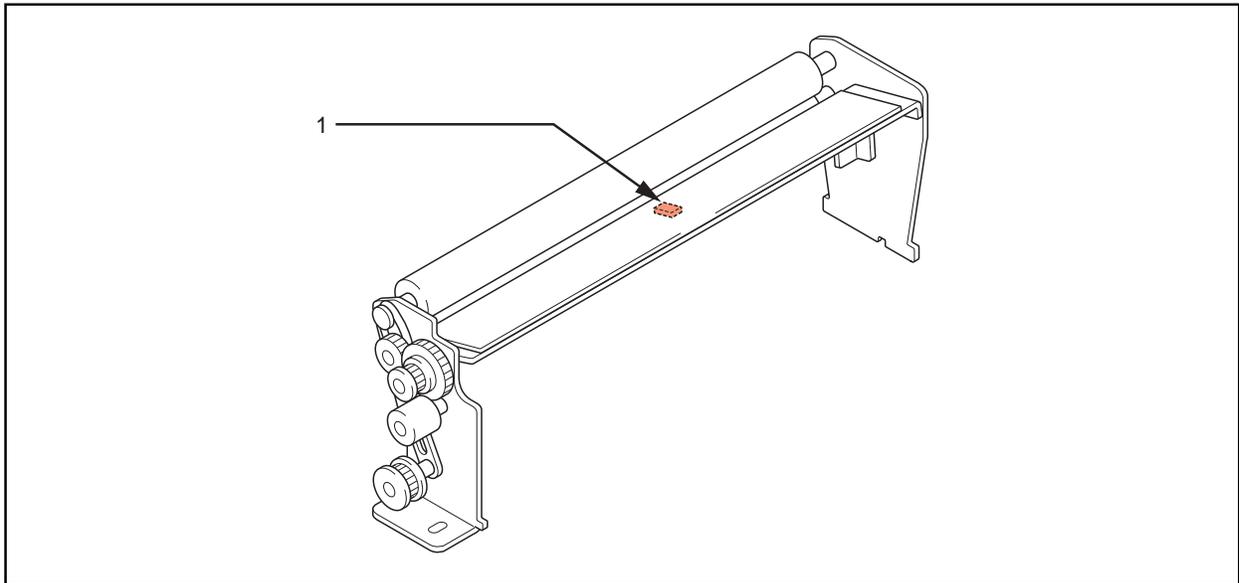


- 17.** Remove the three TP screws(M4x8) securing the primary cooling unit (two screws at the front, one at the rear of the main body) and remove the primary cooling unit.

**IMPORTANT** A temperature sensor is incorporated into the rear panel of the primary cooling unit. Be careful not to apply undue tension to the sensor cable.



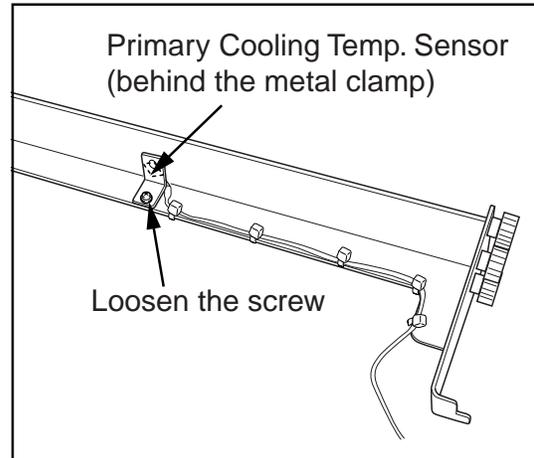
### 2.11.2 Parts Layout of Primary Cooling Unit



1. Primary Cooling temp. sensor (TH4)

### 2.11.3 Replacing the Primary Cooling temp. Sensor

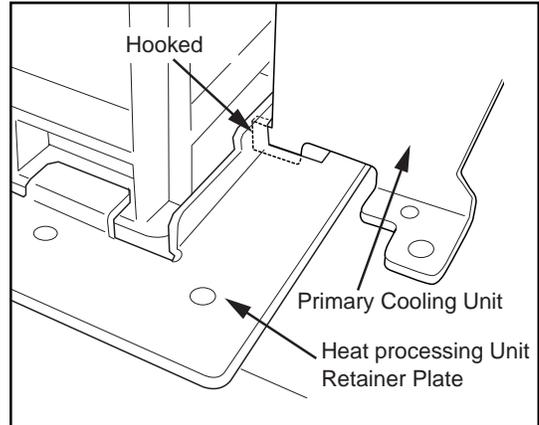
1. Loosen the screw securing the sensor bracket on the rear of the primary cooling unit, and remove the primary cooling temp. sensor.
2. Cut the tie bands (5 locations) securing the sensor cables.
3. Replace the primary cooling temp. sensor, and secure the sensor bracket with screws.
4. Secure the sensor cables with the new tie bands.



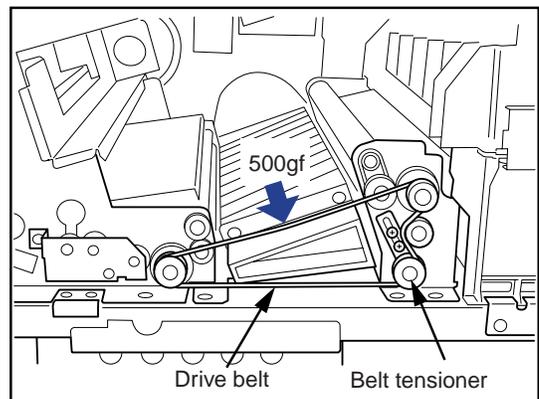
### 2.11.4 Installing the Primary Cooling Unit

Reverse the procedure for removal to install the primary cooling unit.

- The primary cooling unit may be installed by reversing the procedure for removal.



- When securing the belt tensioner, align the tensioner to the original position that is marked by scribe before tightening screws.
- When re-installing the primary cooling unit, adjust the drive belt tension to 500gf when the belt is depressed by 5mm at the position indicated in the figure before tightening the belt tensioner screws.

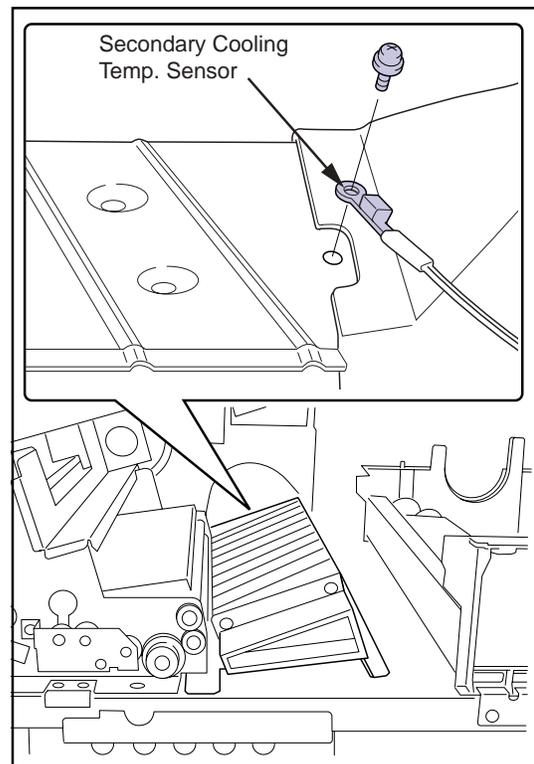


## 2.12 Secondary Cooling Unit

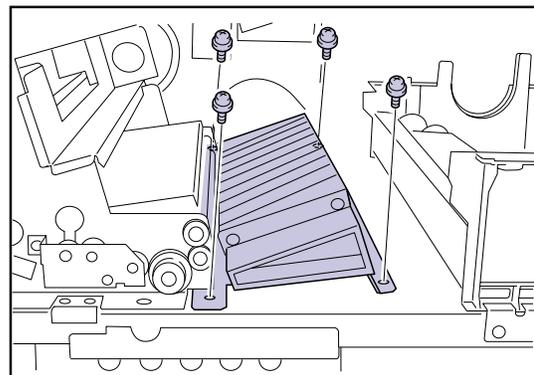
### 2.12.1 Removing the Secondary Cooling Unit

**CAUTION** The heat processing unit and its periphery generate high temperatures and can cause burns. Adequate cooling time must be allowed before proceeding with work.

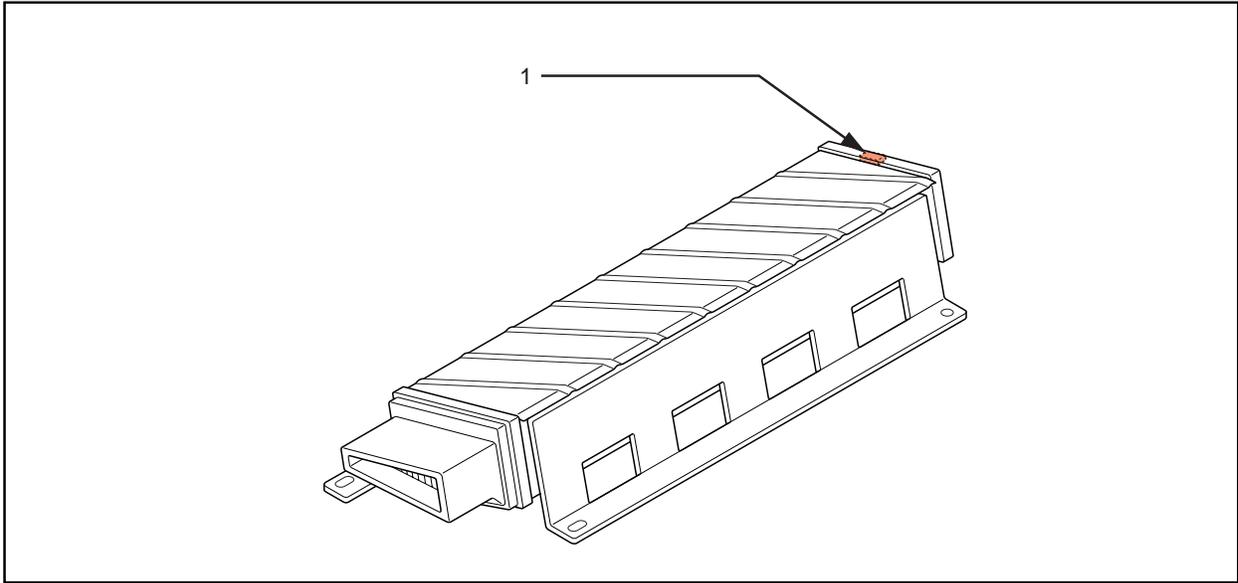
1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Turn the lever-A up, and pull out the deodorant filter case.
5. Remove the primary cooling unit. (refer to p.2-74)
6. Remove one TP screw(M3x6), and remove the secondary cooling temp. sensor.



7. Remove the four TP screws(M4x8), and remove the secondary cooling unit.



### 2.12.2 Parts Layout of Secondary Cooling Unit

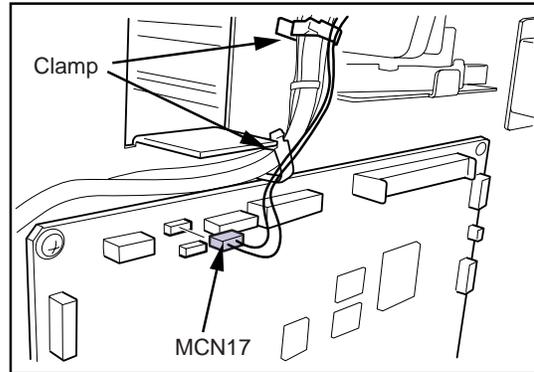


1. Secondary cooling temp. sensor (TH5)

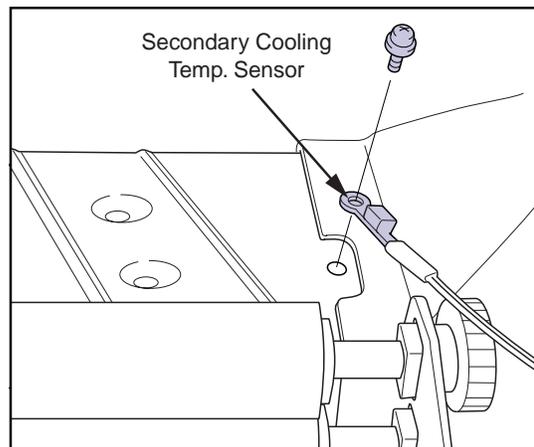
### 2.12.3 Replacing the Secondary Cooling Temp. Sensor

The secondary cooling temp. sensor can be replaced without separating the secondary cooling unit from the main body.

1. Disconnect the connector(MCN17) for the secondary cooling temp. sensor from the mechanical control board.



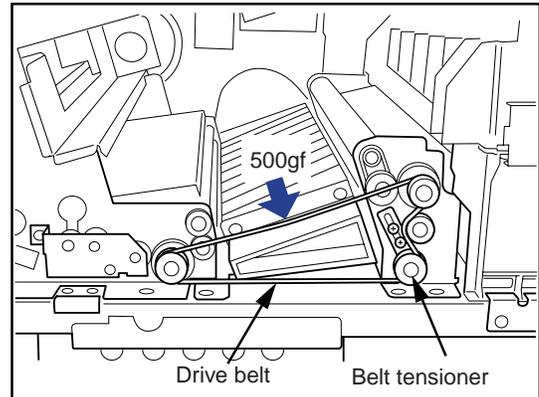
2. Remove one screw(M3x6) securing the secondary cooling temp. sensor on the secondary cooling unit, and remove the secondary cooling temp. sensor.
3. Secure the new secondary cooling temp. sensor on the secondary cooling unit with screws.
4. Connect the connector(MCN17) for the secondary cooling temp. sensor to CN17 on the mechanical control board, and secure the sensor cables with clamp.



### 2.12.4 Installing the Secondary Cooling Unit

The secondary cooling unit may be installed by reversing the procedure for removal.

- When securing the belt tensioner, align the tensioner to the original position that is marked by scribe before tightening screws.
- When re-installing the primary cooling unit, adjust the drive belt tension to 500gf when the belt is depressed by 5mm at the position indicated in the figure before tightening the belt tensioner screws.

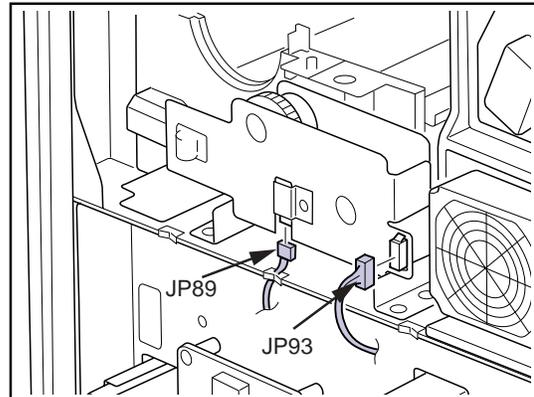


## 2.13 Heat Processing Drive Unit

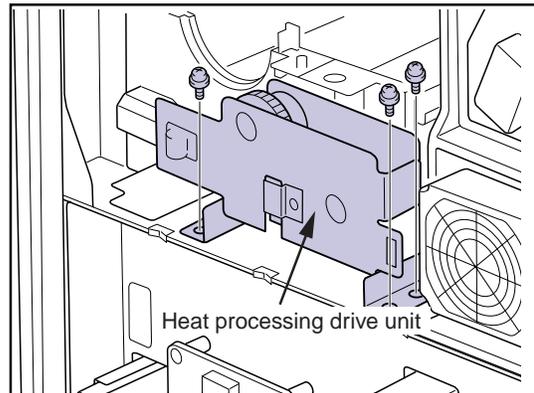
### 2.13.1 Removing the Heat Processing Drive Unit

**CAUTION** The backrush of the heat processing drive unit cannot be adjusted at the site. Never attempt to disassemble the heat processing drive unit nor to remove the heat processing drive motor. Should any failure happen on the heat processing drive motor, replace whole assembly.

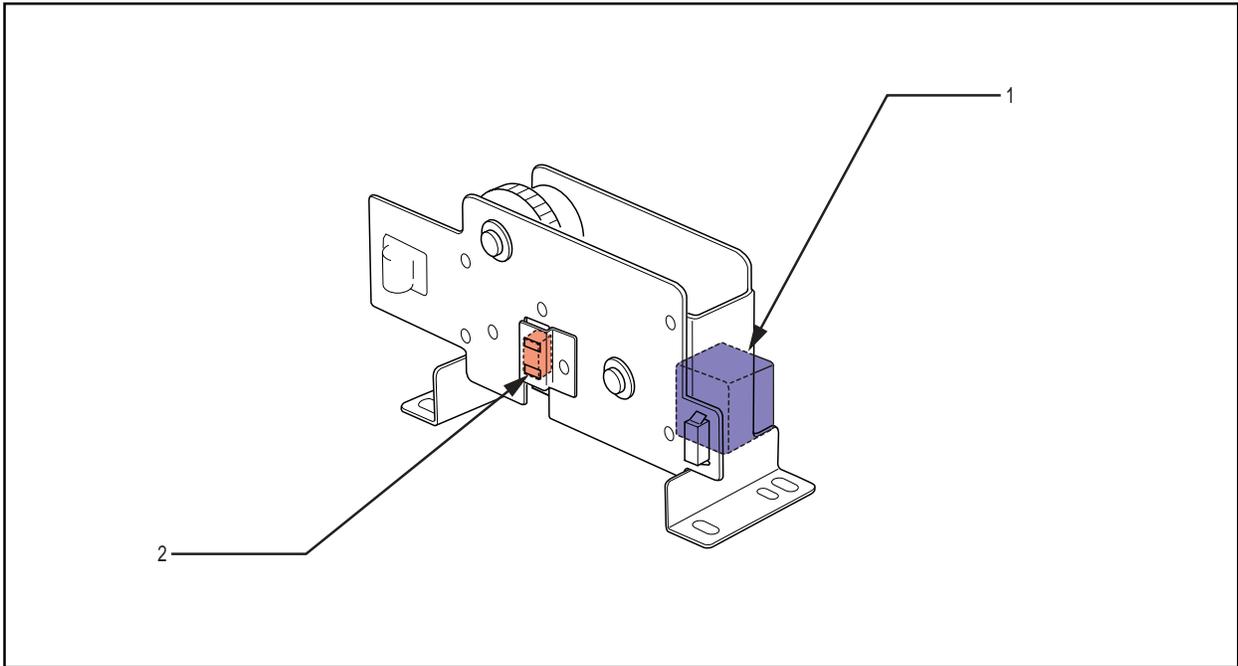
1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Remove the primary cooling unit. (refer to p.2-74)
5. Disconnect the heat processing drive unit connectors (JP89, JP93).



6. Remove the three TP screws(M4x8), and remove the heat processing drive unit.



### 2.13.2 Parts Layout of Heat Processing Drive Unit



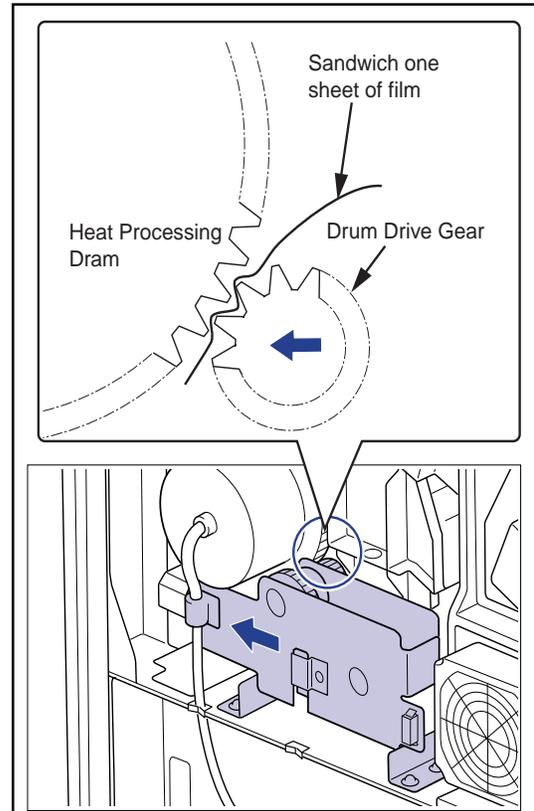
1. Heat processing drum drive motor (PM3)
2. Heat processing drum monitor sensor (PS6)

**Important** Heat Processing Drive Motor cannot be replaced.

### 2.13.3 Installing the Heat Processing Drive Unit

Reverse the procedure for removal to install the heat processing drive unit.

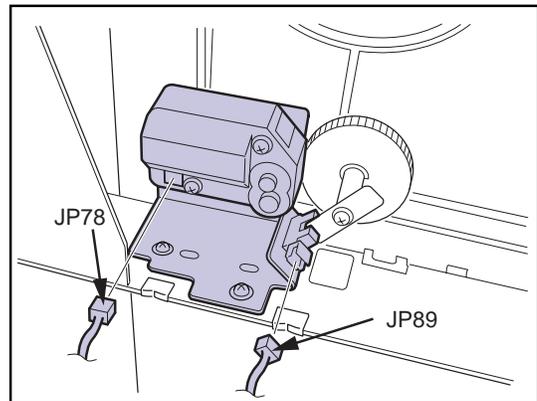
- When installing the heat processing drive unit, loosely fix the screws. After installing the primary cooling unit, heat processing drum, upper rack and heat processing unit top cover, adjust the backrush of the heat processing drive unit and drum gear.
  - Adjusting the backrush of the heat processing drive gear
    1. Loosen the screw securing the heat processing drive unit to the main body.
    2. Insert a film of 5mm width between the drum gear and the drum drive gear of the heat processing drive unit.
    3. While press the heat processing drive unit against drum gear side with the film kept sandwiched, tighten the screws.
    4. Remove the film between the gears.



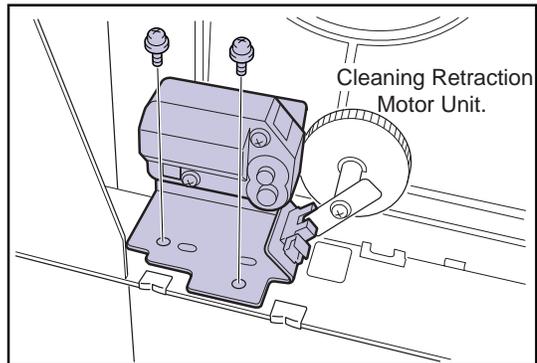
## 2.14 Heat Processing Unit

### 2.14.1 Removing the Heat Processing Unit

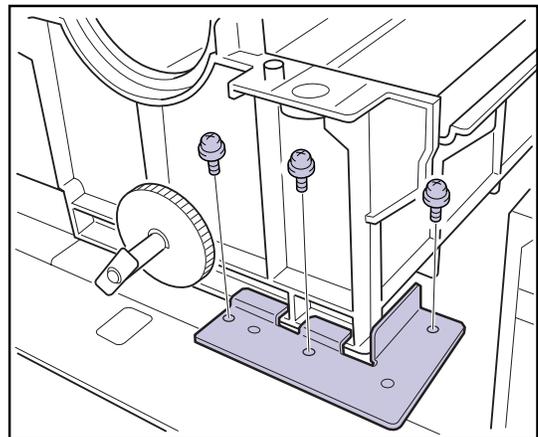
1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Remove the heat processing unit top cover, upper rack, and heat processing drum.
5. Remove the heat processing drive unit. (refer to p.2-85)
6. Disconnect the connectors (JP78, JP89) from the cleaning retraction motor unit.



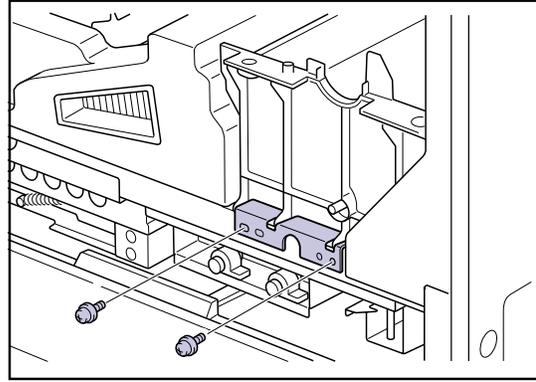
7. Remove the two TP screws (M4x8), and remove the cleaning retraction motor unit.



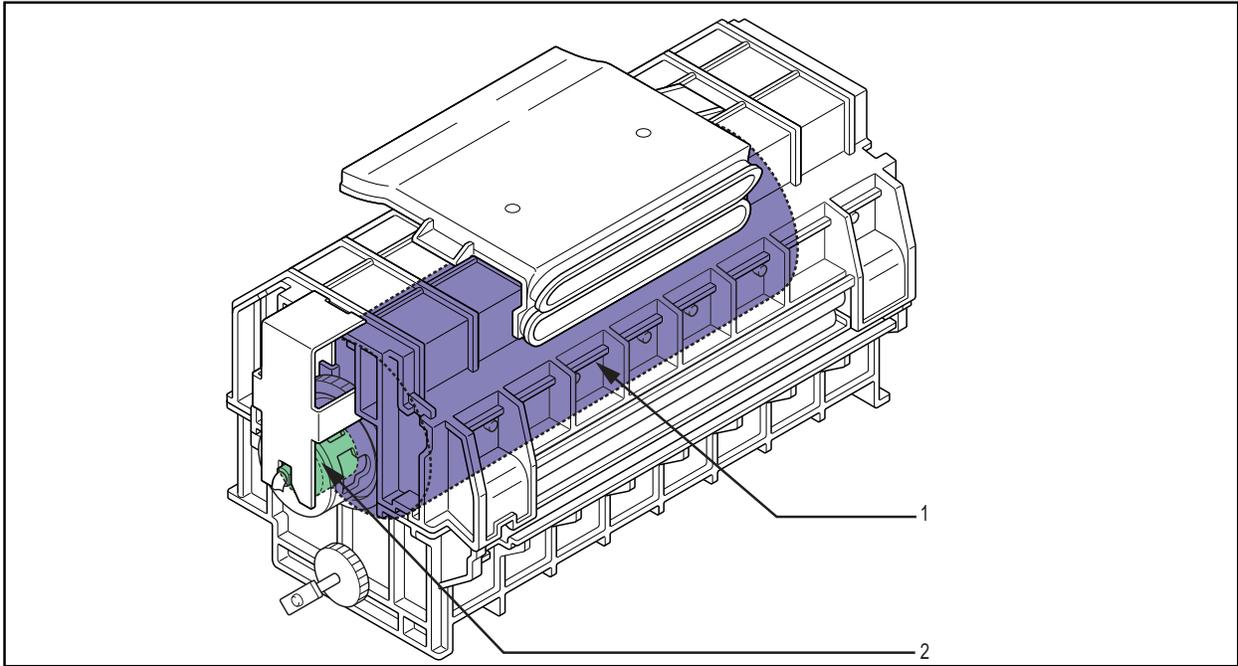
8. Remove the two TP screws (M4x8), and remove the heat processing unit fixing bracket at the rear.



9. Remove the two TP screws (M4x8), and remove the retaining plate for the front of the heat processing unit.
10. Slightly lift the heat processing unit's lower cover, and remove the unit.



### 2.14.2 Parts Layout of Heat Processing Unit

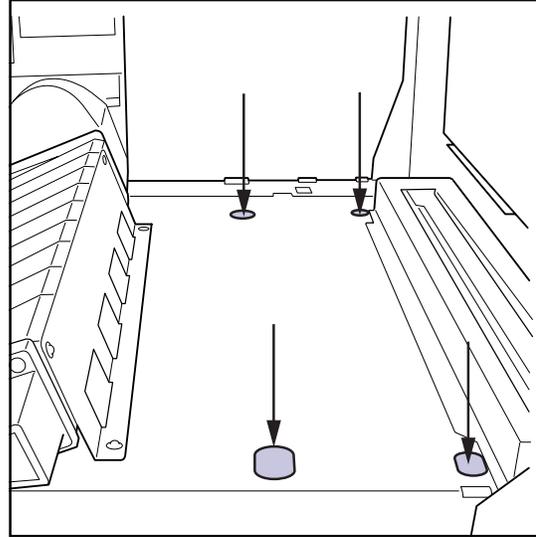


1. Heat processing drum
2. Slip ring

### 2.14.3 Installing the Heat Processing Unit

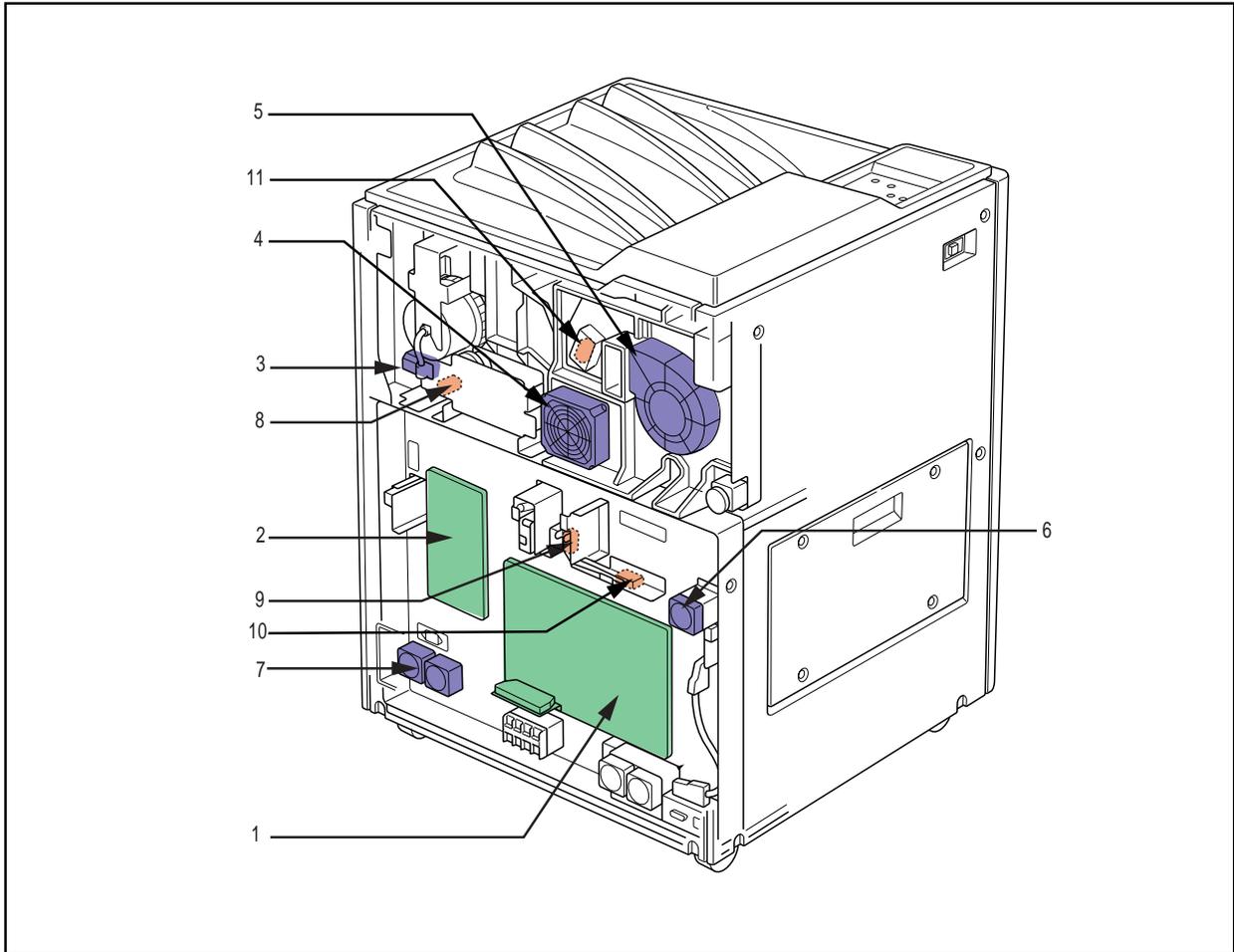
Reverse the procedure for removal to install the heat processing unit.

- When installing the heat processing unit's lower cover on the main body, the four bosses on the rear of the unit are engaged with the holes on the main body before tightening the screws to secure the retaining plate.



## 2.15 Deodorant Section Peripherals

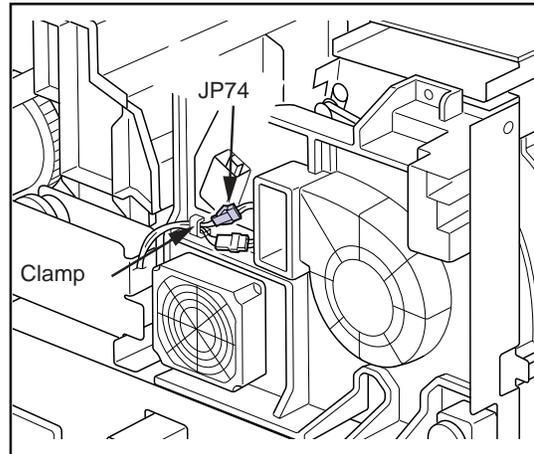
### 2.15.1 Parts Layout of the Deodorant Section Peripherals



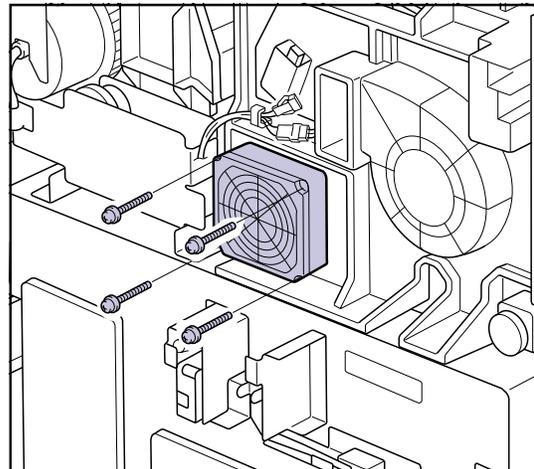
1. Secondary cooling fan (FM4)
2. Deodorant fan (FM5)
3. Deodorant filter sensor(PS4)

### 2.15.2 Replacing the Secondary Cooling Fan

1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Disconnect the relay connector(JP74) for the secondary cooling fan cable, and remove the cable from the hook.

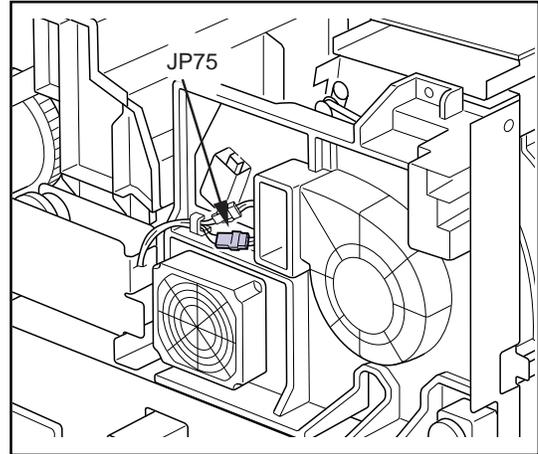


5. Remove the four TP screws(M4x30), and remove the secondary cooling fan from the cooling fan unit.
6. Secure the new fan with screws, and connect the relay connector.

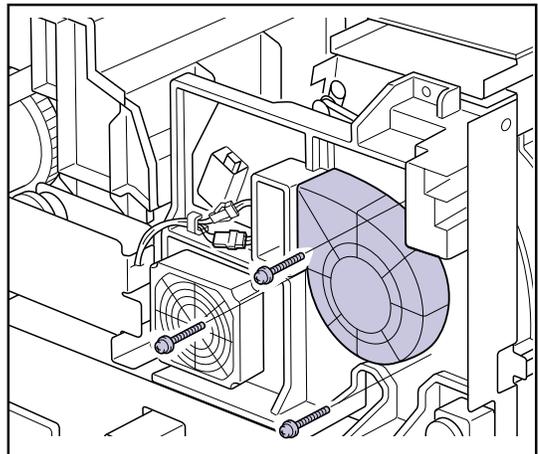


### 2.15.3 Replacing the Deodorant Fan

1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Disconnect the relay connector(JP75) for the deodorant fan cable, and remove the cable from the hook.



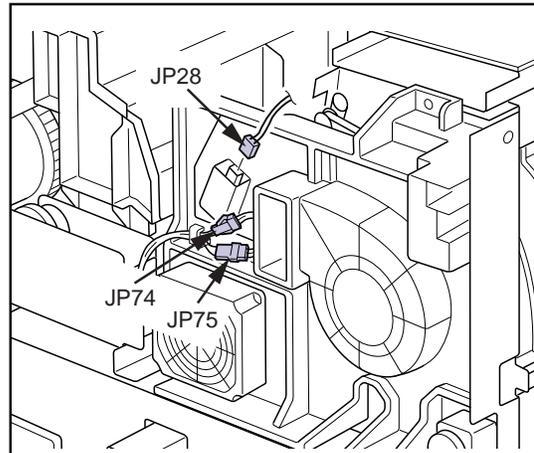
5. Remove the three tapping screws(M4x10), and remove the deodorant fan from the cooling fan unit.
6. Secure the new fan with screws, and connect the relay connector.
  - After connecting the connector, secure the cables in peripheral on the hook.



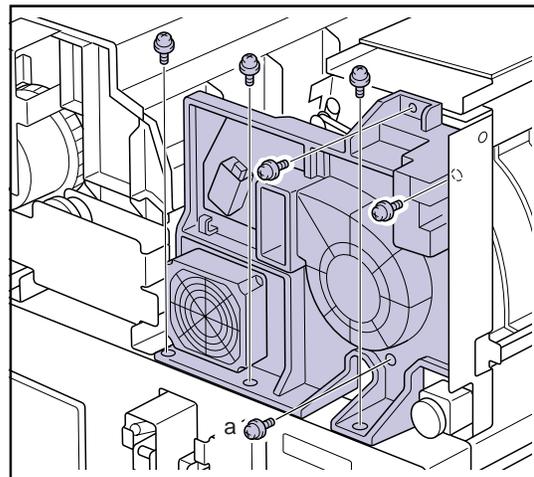
### 2.15.4 Replacing the Cooling Fan Unit

- Removing the Air Cooling Fan Unit

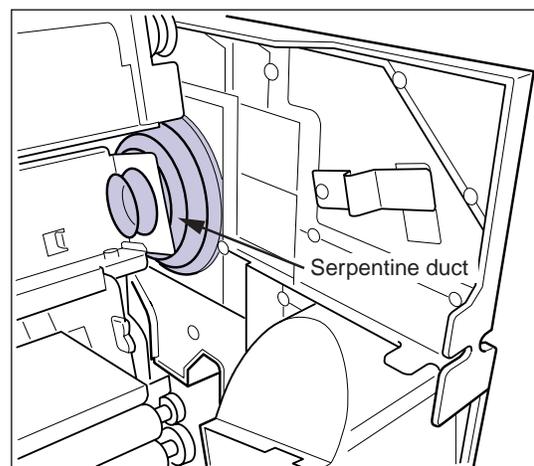
1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Disconnect the secondary cooling fan and deodorant fan relay connectors (JP74, JP75).
5. Disconnect the connector from the filter detection sensor (JP28) and unclamp the cable.
6. Disconnect connectors DCN1, DCN2 and DCN3 from the operation control board in the operation panel unit.



7. Remove the five TP screws(M4x8), one TP screw(M3x6) securing the cooling fan unit.
  - Only the screw "a" in the right figure is M3 type.



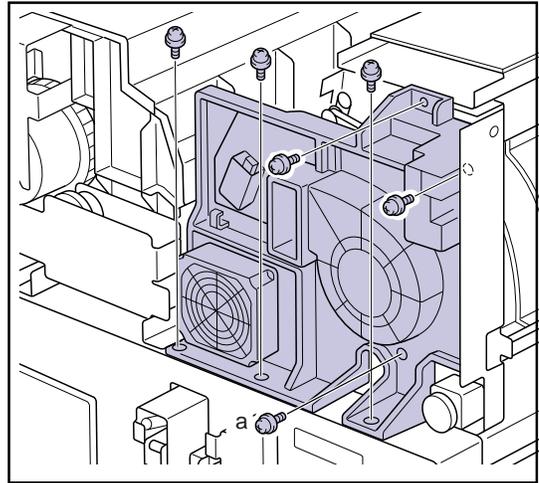
8. Pull out the end of the accordion duct located in the rear of the cooling fan unit through the hole in the ejection unit.
  - Pay attention not to damage the duct when pulling it out.
9. Remove the cooling fan unit, freeing the cable from the cable hook on the right side of the unit.



- Installing the Cooling Fan Unit

The cooling fan unit may be re-installed by reversing the procedure for removal.

- Note that only one screw-"a" is an M3 type (other screws are M4 types). Make sure that the screws match the receptor holes.



## 2.16 Densitometer Unit

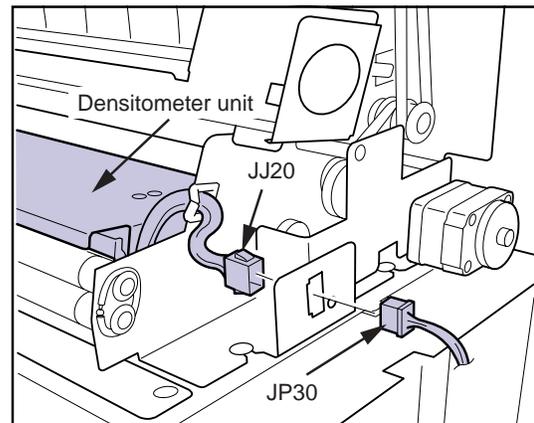
### 2.16.1 Replacing the Densitometer Unit

**CAUTION** The densitometer unit cannot be disassembled at the site. Should any failure happen on the densitometer unit, replace whole densitometer unit.

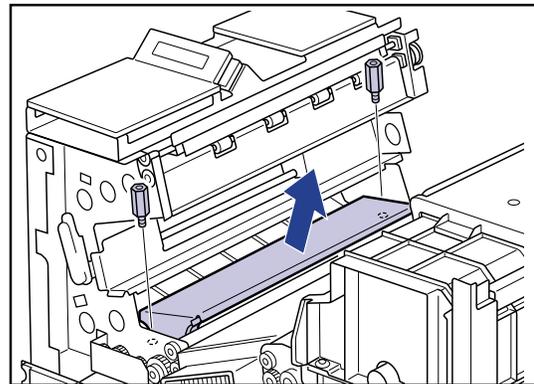
**Important** After replacing the densitometer unit, carry out densitometer calibration.

- Removing the Densitometer Unit

1. Open the front cover. (refer to p.2-2)
2. Remove the rear top cover. (refer to p.2-3)
3. Remove the rear cover. (refer to p.2-3)
4. Remove the cooling fan unit.(refer to p.2-95)
5. Disconnect the connector(JP30) from the relay connector.
6. Disconnect the relay connector(JJ20), and remove the relay connector JJ20 for the densitometer unit cable from the ejection unit frame.



7. Using a box wrench, remove the two studbolts(M3), one on each side of the densitometer unit.
8. Lift and remove the densitometer unit.



- Installing the densitometer unit

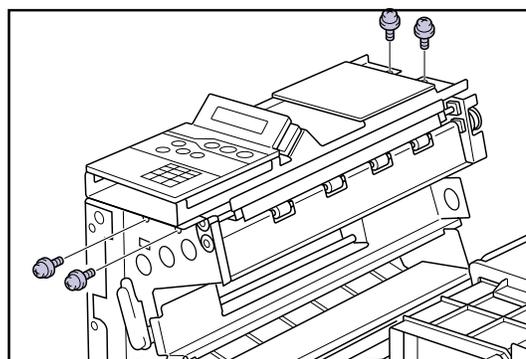
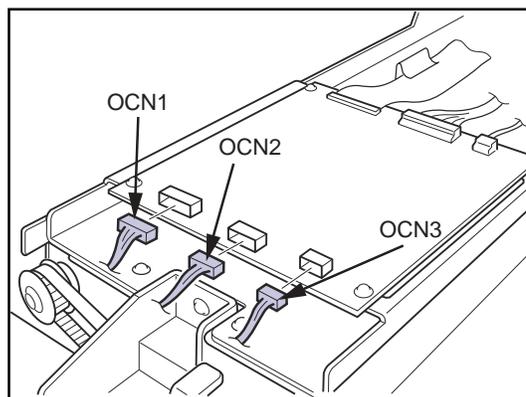
The densitometer unit may be re-installed by reversing the procedure for removal.

- When re-installing the densitometer unit, make sure that the bosses on the ejection unit side engage with the positioning holes on the densitometer unit before tightening the screws.

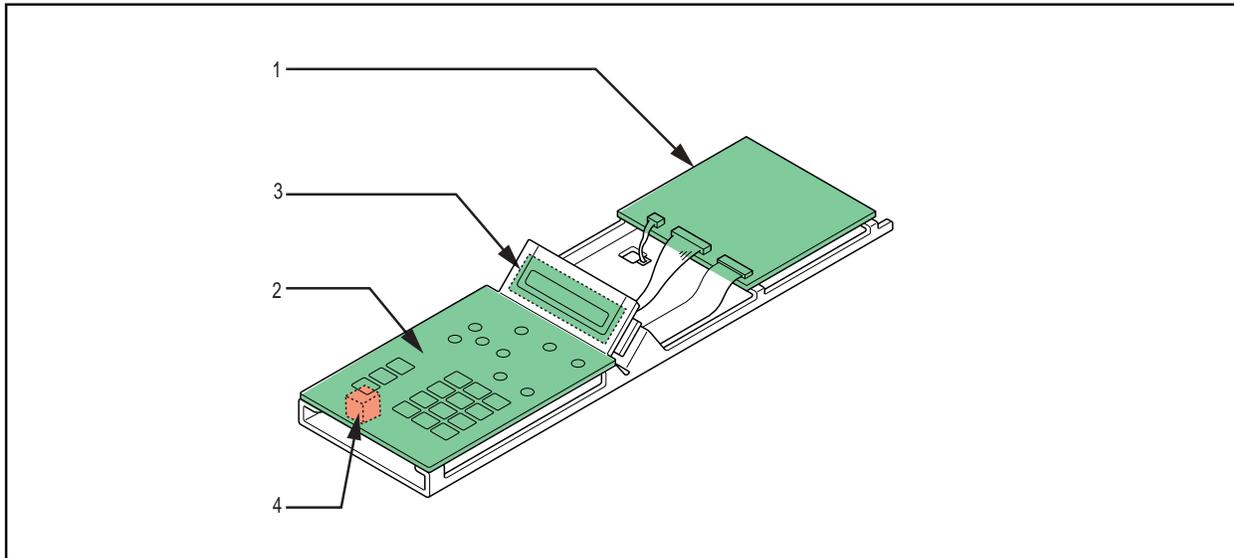
## 2.17 Operation Unit

### 2.17.1 Removing the Operation Panel Unit

- Removing the Operation Panel Unit
1. Open the front cover. (refer to p.2-2)
  2. Remove the rear top cover. (refer to p.2-3)
  3. Remove the rear cover. (refer to p.2-3)
  4. Disconnect the connectors(OCN1, OCN2, OCN3) from the operation control board.
  5. Remove the four TP screws(M4x8) securing the operation panel unit to the ejection unit and remove the operation panel unit.



### 2.17.2 Parts Layout of Operation Unit



- 1. Operation control board (OPE CTL)
- 2. Operation panel board (OPE PNE)

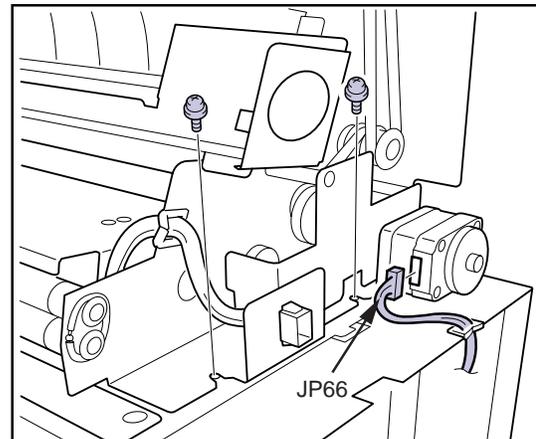
- 3. LCD
- 4. Operation switch (S4)

### 2.17.3 Installing the Operation Panel Unit

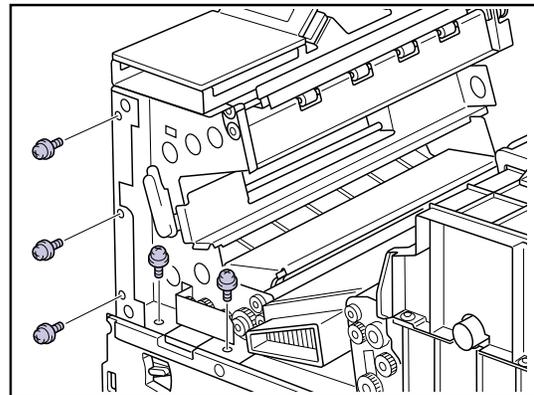
Reverse the procedure for removal to install the operation panel unit.

## 2.18 Ejection Unit

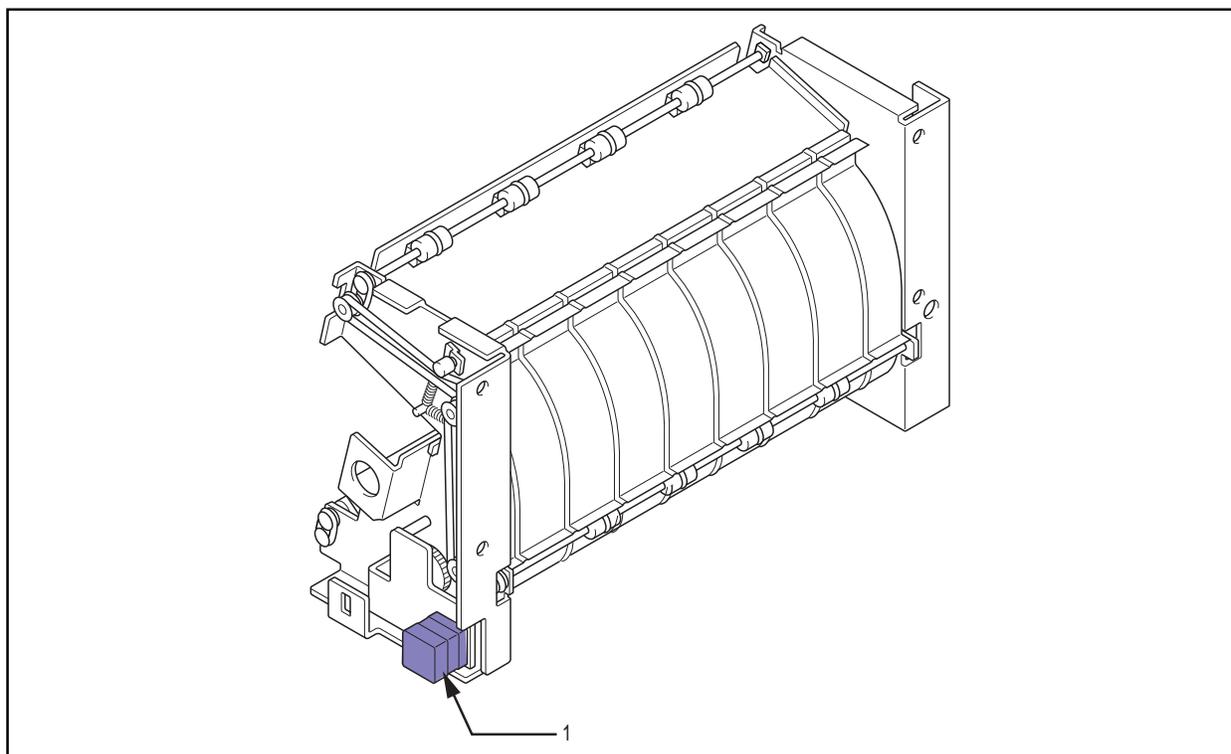
- Removing the Ejection Unit
  1. Open the front cover. (refer to p.2-2)
  2. Remove the rear top cover. (refer to p.2-3)
  3. Remove the rear cover. (refer to p.2-3)
  4. Remove the cooling fan unit. (refer to p.2-95)
  5. Remove the densitometer unit. (refer to p.2-97)
  6. Remove the operation panel unit. (refer to p.2-98)
  7. Disconnect the connector(JP66) from the ejection motor.
  8. Remove the two TP screws(M4x8) from the back of the ejection unit.



9. Remove the five TP screws(M3x6) from the front of the ejection unit, and remove the ejection unit.



### 2.18.1 Parts Layout of Ejection Unit

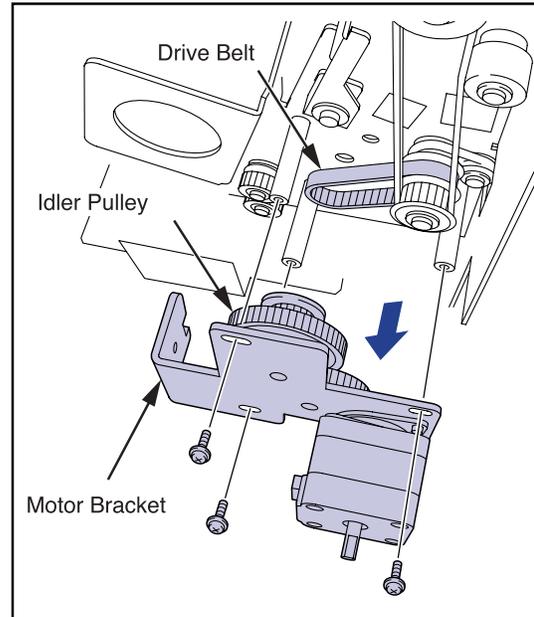


1. Ejection motor (PM4)

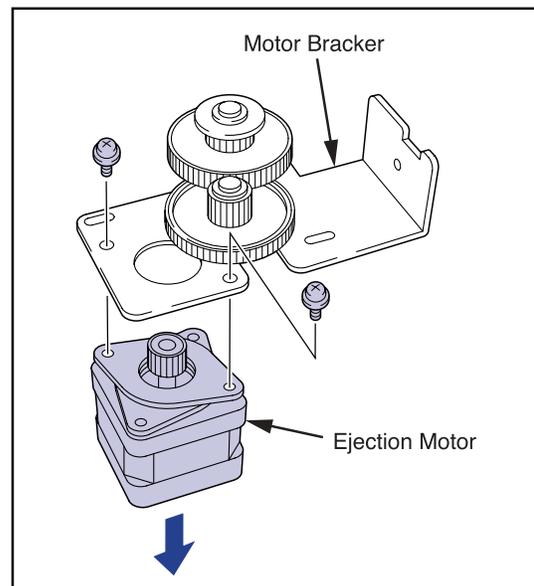
### 2.18.2 Replacing the Ejection Motor

- Removing the ejection motor

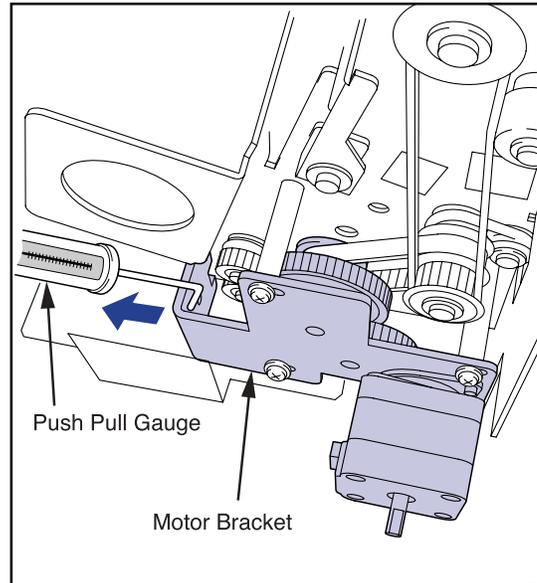
1. Remove the three TP screws(M3x6).
2. Disengage the driving belt from the idler pulley of the motor bracket, and remove the ejection motor together with the motor bracket.



3. Remove the two TP screws(M3x6), remove the ejection motor from the motor bracket.



- Installing the ejection motor
  1. Secure the new motor on the motor mount plate with screws.
  2. Engage the driving belt on the idler pulley of the motor bracket, and loosely fix it to the ejection unit with screws.
  3. Pull the motor mount plate to the direction indicated in the figure using the push pull gauge.
  4. Tighten the screws to secure the motor when the tension on the push pull gauge reads 700 ~ 800gf.



### **2.18.3** Installing the Ejection Unit

- The ejection unit may be re-installed by reversing the procedure for removal.

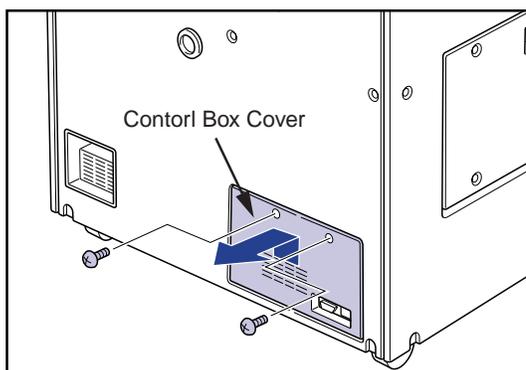
## 2.19 Control Box

### 2.19.1 Removing the Control Box

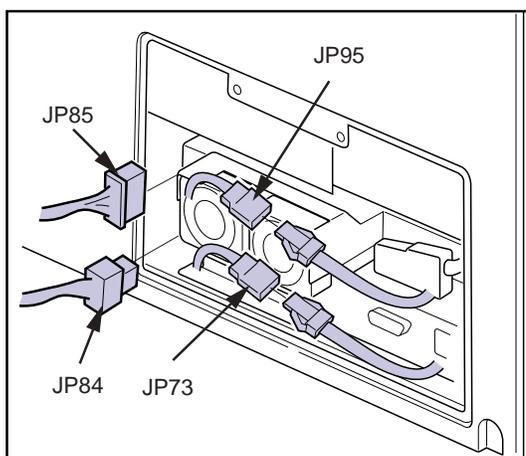
**WARNING** Check that the DRYPRO main body power cable is disconnected before proceeding with removal/installation of the control box. Failure to do so may result in electrocution or damage to the equipment.

**CAUTION** Carrying out work with the LAN and serial cables connected may result in damage to the cables or connectors. LAN and serial cables and connectors must be disconnected before proceeding with control box removal/installation.

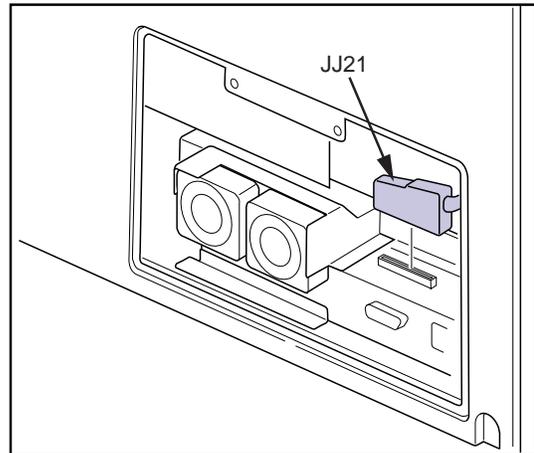
1. Remove the two truss screws(M4x8) and remove the control box cover located at the bottom of the rear cover.



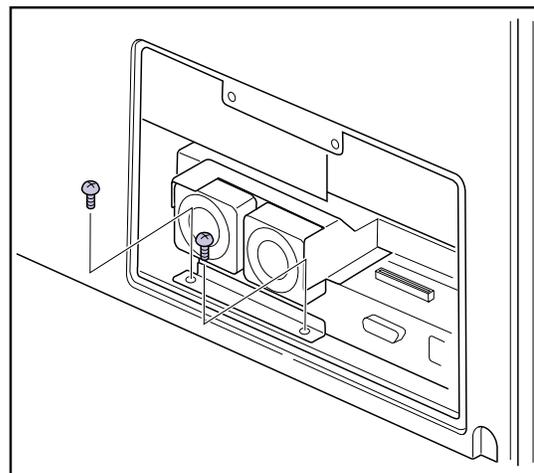
2. Disconnect connectors JP84 and JP85 from the control box.
3. Disconnect main cooling fan relay connectors JP73 and JP95.



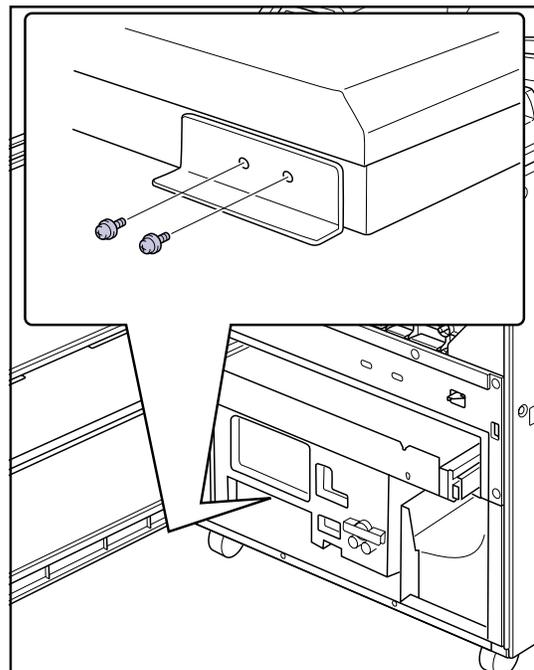
4. Disconnect exposure I/F cable connector JJ21 from the control box.



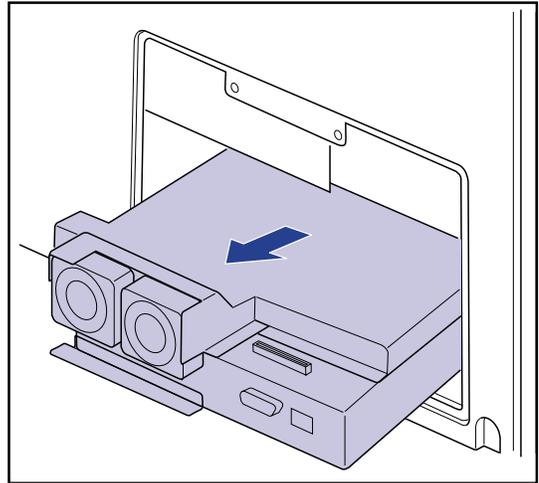
5. Remove the two TP screws(M4x8) securing the control box.
6. Open the front cover.
7. Remove the tray cover and remove the light blocking cover (exposure unit).



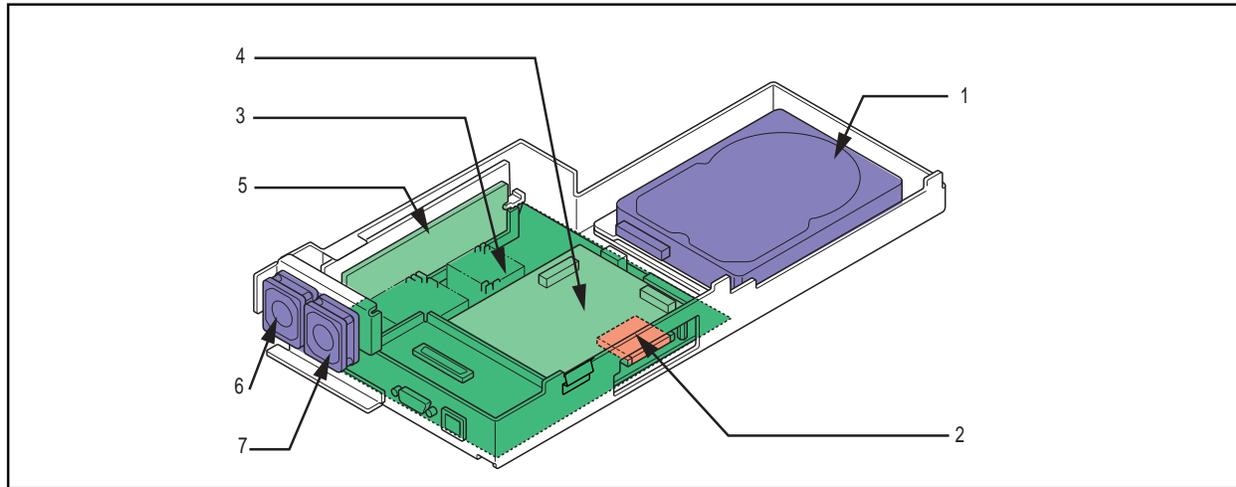
8. Remove the two screws((M4x8) securing the control box from the front of the main body.



9. Pull out the control box from the rear of the main body.



### 2.19.2 Parts Layout of Control Box



- |                       |                             |
|-----------------------|-----------------------------|
| 1. Hard disk          | 5. DIMM                     |
| 2. CF (Compact flash) | 6. Main cooling fan-1 (FM3) |
| 3. Main CPU board     | 7. Main cooling fan-2 (FM6) |
| 4. Print engine board |                             |

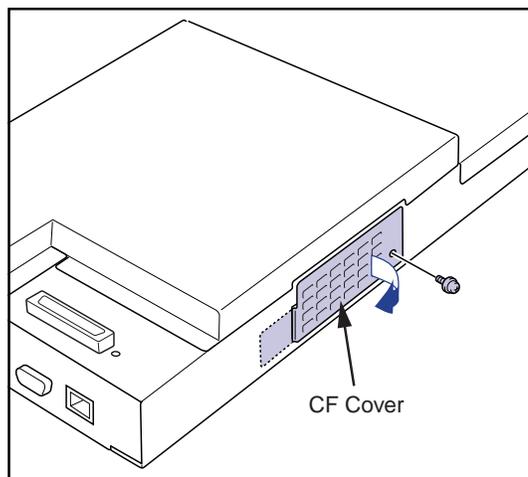
### 2.19.3 Replacing the CF

Various settings and data such as OS, software, etc. to control the DryPro 771 is stored in the CF(Compact Flash Memory) contained in the control box.

If the initial screen of the DryPro771 “Welcome to DRYPRO” freezes and does not change to next screen, the CF may have been damaged. In this case, replace the CF following the procedure detailed below.

Described below is the case that the replacement is carried out with the control box removed. However, with the left cover removed, it is possible to replace the CF without separating the control box from the main body. In such case, make sure that the power breaker on the DryPro771 is turned OFF, and the LAN cable is pulled off before starting the work.

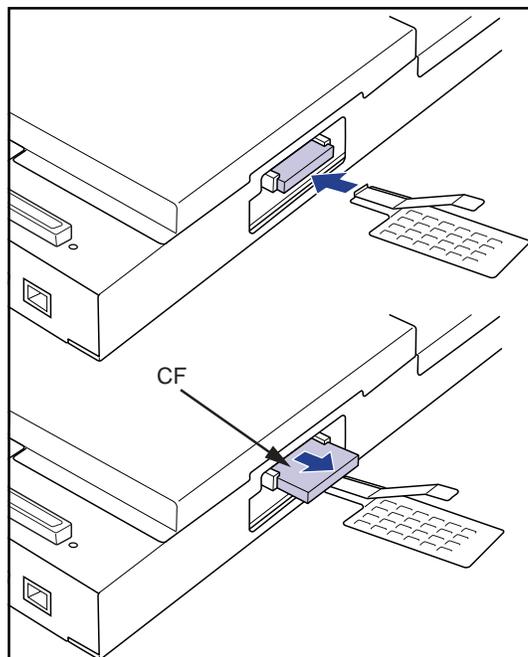
1. Remove one securing screw and remove the CF cover from the side of the control box.



2. Insert the upturned edge of the spring on the CF cover between the CF and the main board, and pull out the CF, ensuring that it is kept level.

**IMPORTANT** The CF must be kept perfectly level while removing. Tilting of the CF during removal may result in damage to the connector.

3. Insert the new CF into the socket.
  - Firmly insert the CF until it is flush with the circuit board edge.
  - Replace the CF cover and fix it in place with the securing screw.

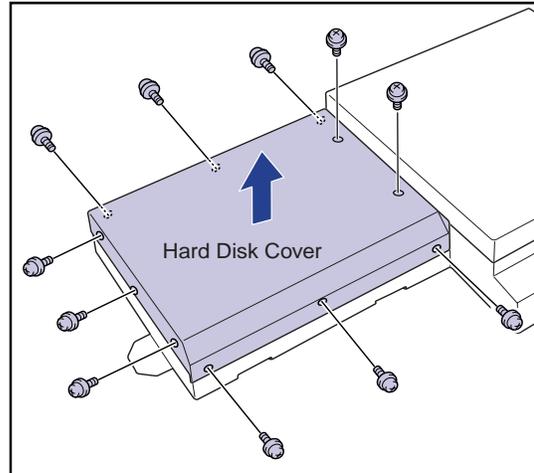


After completing the replacement of CF, enter the service maintenance mode using the control panel, and restore onto the CF the program and settings of DryPro771 backed up on the hard disk. Refer to “[4.2.21 Restore of CF](#)”.

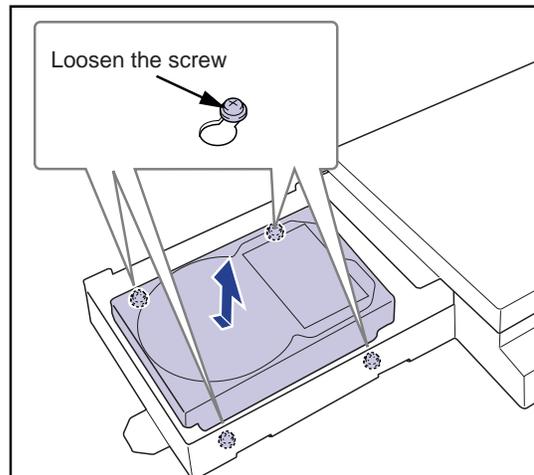
### 2.19.4 Replacing the Hard Disk

To replace the hard disk, the control box must be removed from the main body.

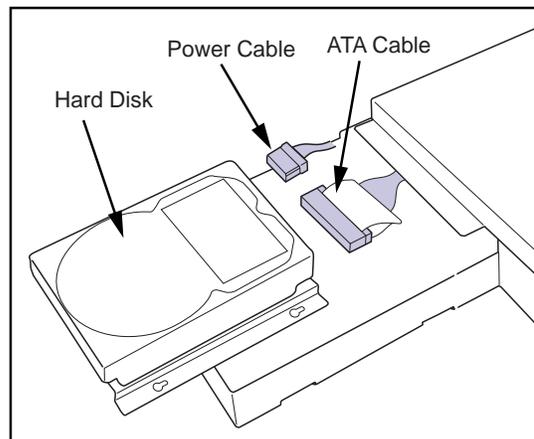
1. Remove the control box from the main body of the DRYPRO.
2. Remove the eleven TP screws(M3x6) and remove the hard disk cover from the control box.



3. Loosen the four TP screws(M3x6) securing the hard disk mounting.
  - It is not necessary to remove the screws.
  - Loosen the two screws securing the control box battery cover (indicated by the arrow).
4. Slide the hard disk together with its mounting slightly forward.



5. Disconnect the ATA and power cable from the hard disk and remove it from the control box.



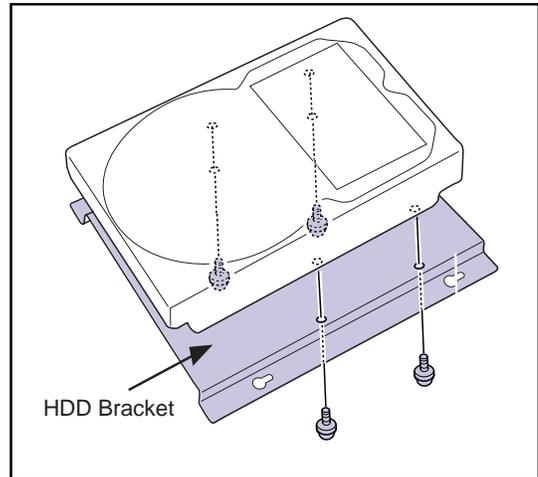
6. Remove the four inch screws and remove the hard disk from its bracket.
7. Screw the new hard disk on to the bracket.
  - Be sure that the hard disk is mounted in the correct orientation.
8. Reversing the procedure for removal, re-connect the cables and replace the hard disk in the control box.

**IMPORTANT** Even though the hard disk is unformatted when mounted, the system will carry out automatic check and formatting: there is, therefore, no need to manually copy programmes, etc., on to the hard disk.

**IMPORTANT** After replacement of the hard disk, log data and output image data recorded prior to replacement cannot be used.

**CAUTION** Be careful when handling the hard disk. A hard disk that has been dropped or that has been accidentally exposed to shock by bumping should not be used. Even though such a disk may seem to be functioning normally initially, malfunctions may appear with the passage of time.

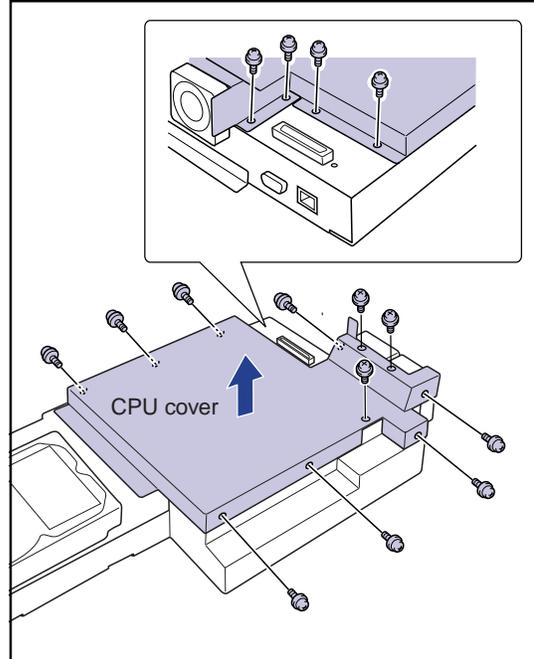
**CAUTION** There are two ATA cable connectors; one for the board (blue) and one for the HDD (black). Check the name on the tags ("BOARD" or "HDD") when connecting.



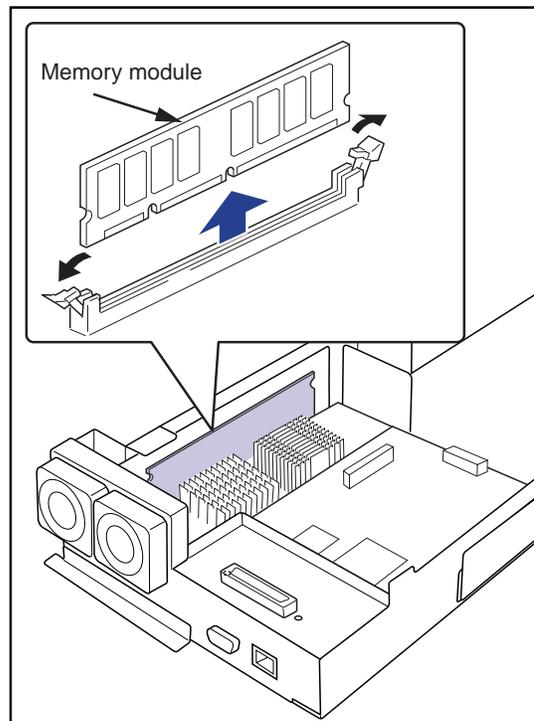
### 2.19.5 Replacing the Memory Module

To replace the memory module, the control box must be removed from the main body.

1. Remove the hard disk cover from the control box.
2. Remove the fifteen TP screws(M3x6) and remove the CPU cover from the control box.



3. Open the lock levers on each side of the DIMM socket and remove the memory module.
4. Insert the new memory module into the DIMM socket and close the lock levers, ensuring that the locks firmly engage.
5. Replace the control box covers reversing the procedure for removal.



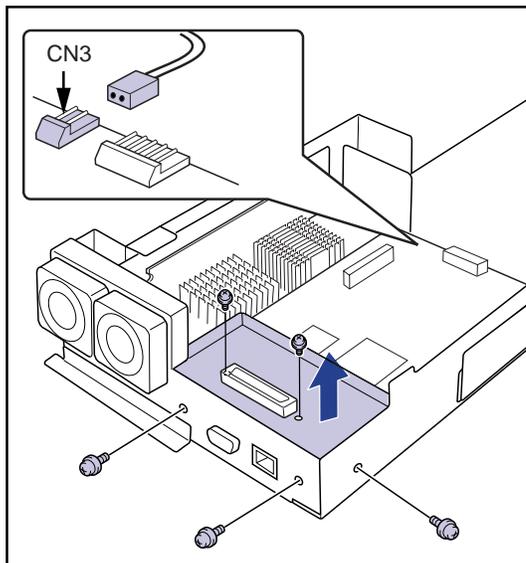
**CAUTION** Do not touch the gold plated edge of the memory module.

**CAUTION** There are two indentations (centre and edge) on the gold plated edge of the memory module. When inserting the memory module, ensure that the indentations mesh properly with the bosses on the socket.

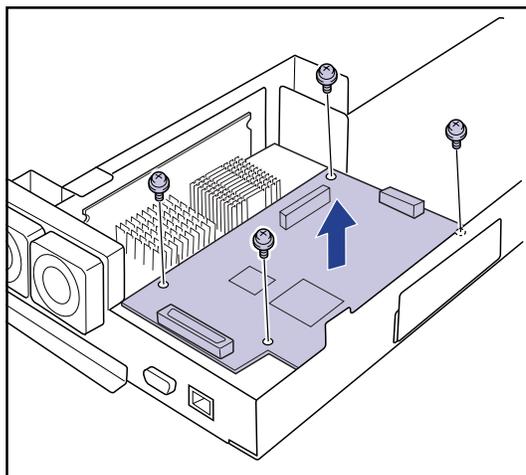
### 2.19.6 Replacing the Print Engine Board

To replace the print engine board, the control box must be removed from the main body.

1. Remove the hard disk cover and CPU covers from the control box.
2. Remove the two screws for the exposure unit I/F connector, and three TP screws, and remove the exposure unit connector cover.
3. Disconnect the connector from CN3 on the print engine board.



4. Remove the four securing screws and take out the print engine board.
5. Screw the new print engine board into place and re-connect the connector to CN3.
6. Replace the control box covers reversing the procedure for removal.

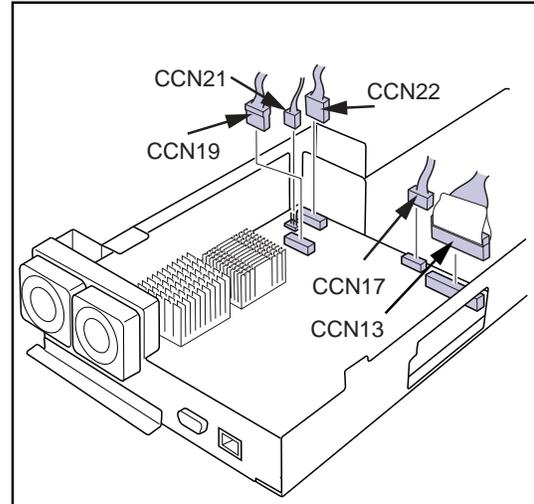


**IMPORTANT** When replacing the exposure unit connector cover, screw down the chassis before replacing the two screws in the exposure unit I/F connector.

**CAUTION** When re-installing the print engine board, do not change the jumper and dip switch settings on the board. When replacing the print engine board, check the on-board settings before setting it into place. (For details, see the appendix on the print engine board).

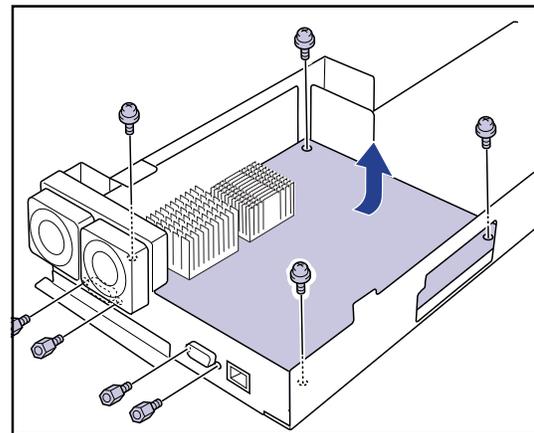
### 2.19.7 Replacing the Main CPU Board

1. Remove the hard disk cover and CPU covers from the control box.
2. Remove the print engine board and memory module.
3. Disconnect the five connectors (CCN17, CCN18, CCN19, CCN21, CCN22) from the main CPU board.
4. Remove the four hexagonal screws securing the D-SUB connectors on the back of the unit and the four screws securing the main CPU board.



5. Pull the main CPU board slightly toward the hard disk and remove.
  - Care must be exercised when removing since the LAN connector on the board is inserted through the hole in the chassis.

6. Screw the new CPU board into place.
7. Re-connect the cables disconnected in step-3 above to the main CPU board connectors.
8. Reversing the procedure for removal, re-install the print engine board and memory module and replace the control box covers.



**CAUTION** When re-installing the main CPU board, do not change the jumper and dip switch settings on the board. When replacing the main CPU board, check the on-board settings before setting it into place. (For details, see the appendix on the main CPU board).

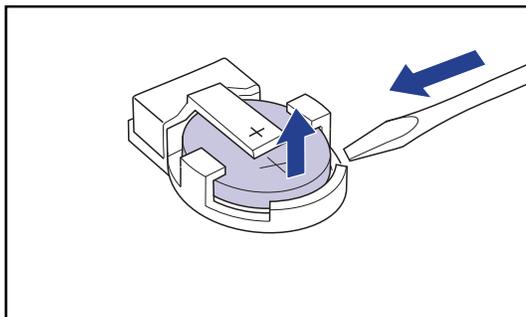
### 2.19.8 Replacing the Lithium Button Battery

To replace the lithium button battery, the control box must be removed from the main body.

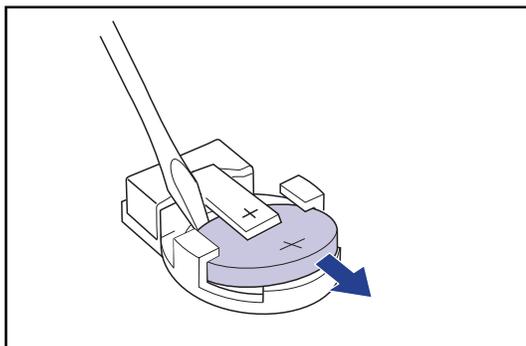
**Important** The life of the lithium button battery is longer than that of the DRYPRO unit (7 years). If the battery needs replacing before expiry of the life of the DRYPRO unit, this may indicate that there is a fault on the main board. In such cases, the main board should be replaced.

**CAUTION** Be careful not to damage the battery socket when removing or replacing the battery.

1. Remove the hard disk cover and CPU covers from the control box.
2. Remove the print engine board.
3. Insert the tip of a narrow driver beneath the battery and rise up one edge.

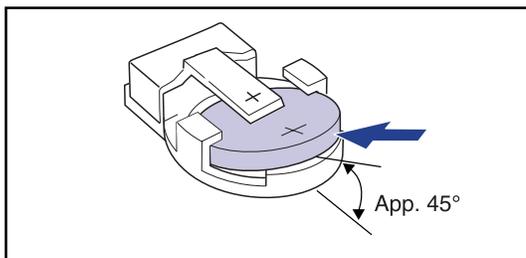


4. Insert the tip of a narrow gauge driver at the back of the battery socket and slide the battery out at an angle.



5. Insert the new lithium button battery into the socket at a 45 degree angle.

**IMPORTANT** The lithium button battery must be inserted with the positive (+) side up. The socket is designed so that the battery cannot be inserted positive (+) side down.



6. Insert the battery horizontally and press it into position from the top.

- Caution Regarding Disposal

**CAUTION** Pertinent local ordinances and regulations must be observed when disposing of the removed lithium button battery.

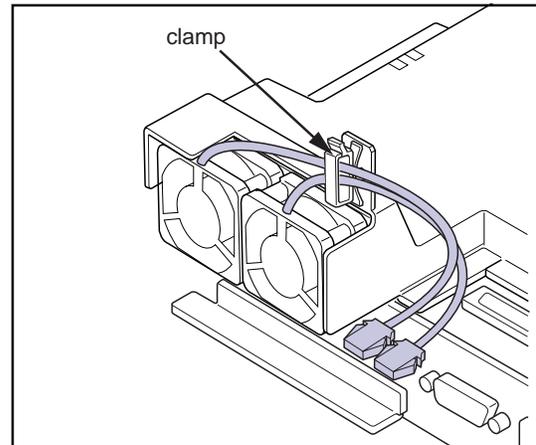
### 2.19.9 Replacing the Main Cooling Fan

Display of error code "E4A34" indicates that malfunction has occurred in the two main cooling fans in the control box. The procedure for replacing the fans is set out below.

Display of error code "C4A35" indicates that only one of the main cooling fans has malfunctioned. Fan rotation should be stopped and replacement carried out as necessary after checking which fan has malfunctioned.

The control box must be removed from the main body in order to replace the main cooling fans.

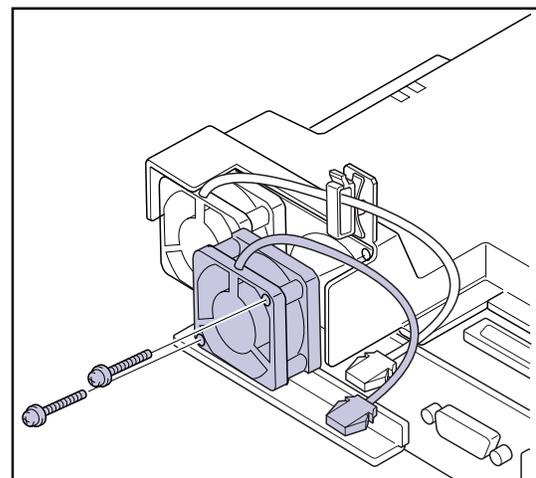
1. Remove the fan cable from the clamp.



2. Remove the two TP screws(M3x?) and remove the fan.

3. Screw the replacement fan into position and set the cable into the clamp.

**IMPORTANT** To ensure that the fan flow direction is correct (i.e. so that the flow is directed out of the control box), make sure that the label on the fan hub is facing out from the control box.



---

### 2.19.10 Installing the Control Box

- The control box may be re-installed by reversing the procedure for removal.

**IMPORTANT** When connecting the cable to the exposure unit, grip the lock firmly and ensure that the connector is fully connected before releasing.

After connection, check that the connector is not tilted.

**IMPORTANT** When replacing the entire control box, use a CF (currently in use) on which settings specific to the device are stored. If there is a possibility that the CF may be broken, a new CF should be used and settings specific to the device re-stored from a backup.

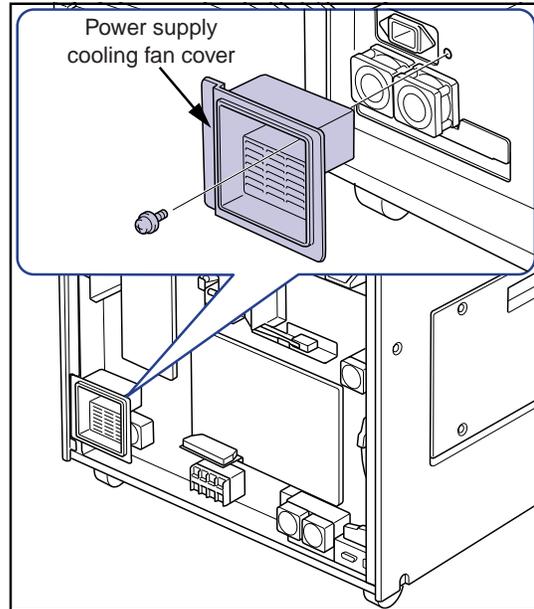
**IMPORTANT** When replacing the entire control box, note that previous image or log data on the hard disk will not be transferred.

## 2.20 Power Supply Unit

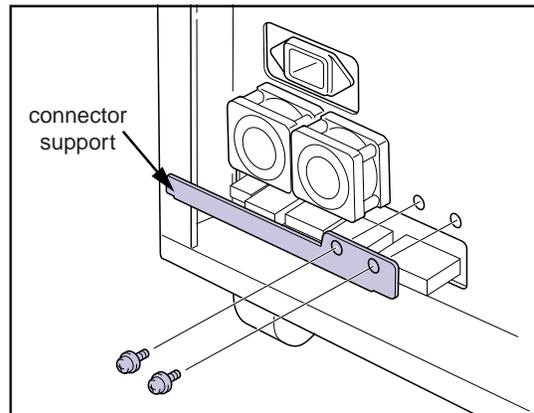
### 2.20.1 Removing the Power Supply Unit

**CAUTION** When removing the power supply unit, always turn OFF the power breaker, and unplug the AC plug before starting the work.

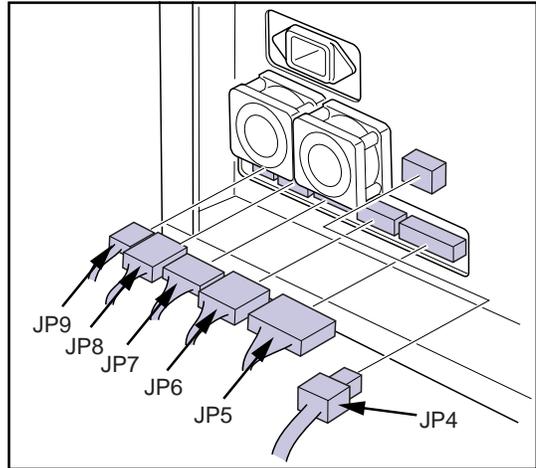
1. Open the front panel and remove the rear top cover, the rear cover and the right cover.
2. Remove the two truss screws(M4x12) and take out the power supply cooling fan cover.



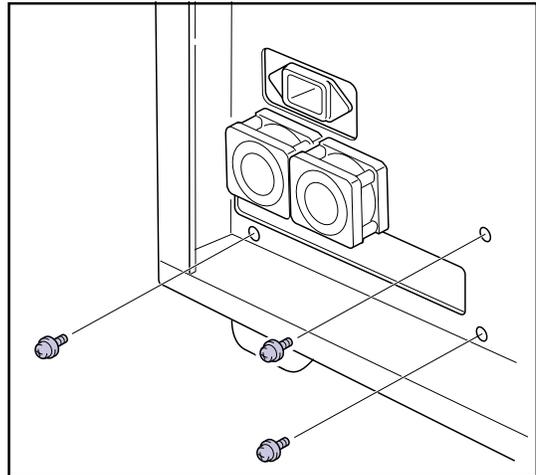
3. Remove the two screw(M4x8) and remove the connector support.



- 4.** Disconnect connectors JP4, JP5, JP6, JP7, JP8 and JP9 from the power supply unit.

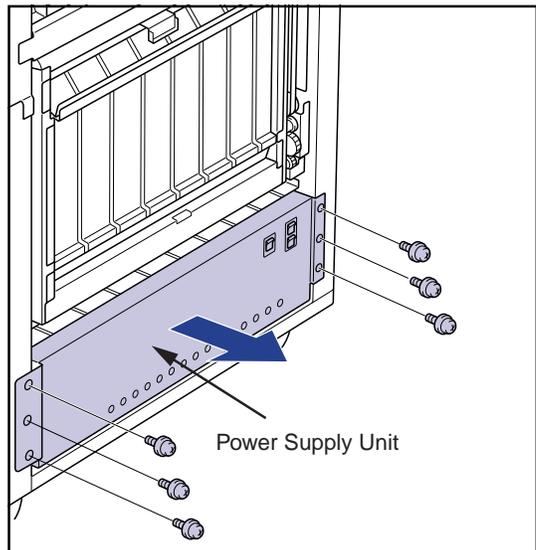


- 5.** Remove the three TP screws (M3x6) securing the power supply unit at the rear of the main body.

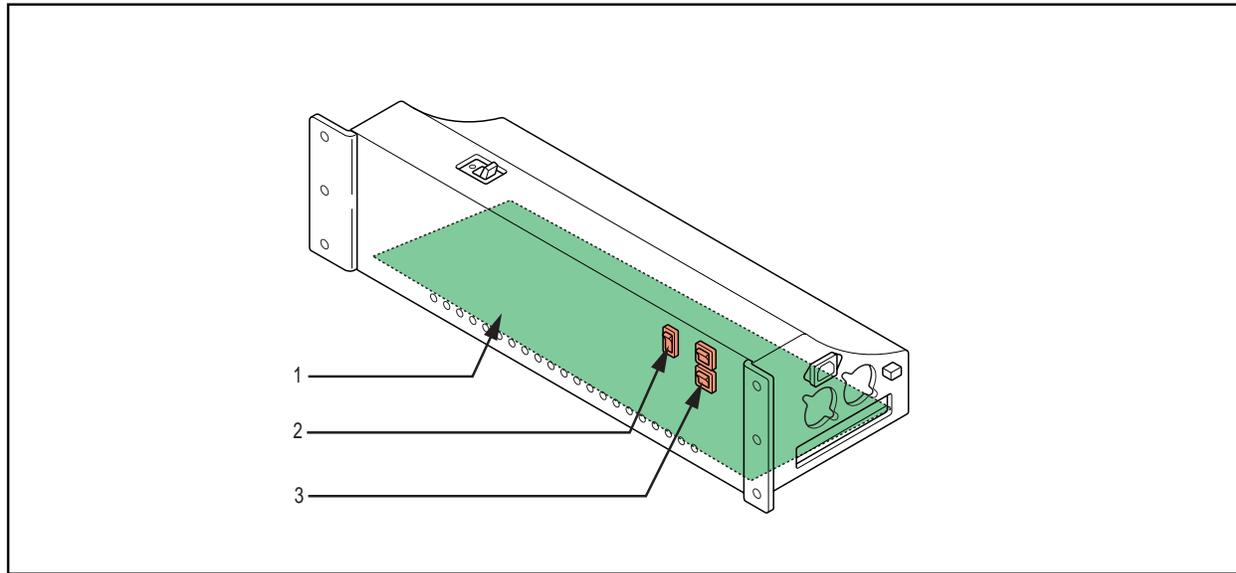


- 6.** Remove the six TP screws (M4x12) securing the power supply unit at the right side of the main body.

- 7.** Slightly slide the power supply unit to the front of the main body, and pull the power supply unit out from the right side of the main body.



## 2.20.2 Power Supply Unit



1. Multi-power supply board (SUP1)

3. NF (F1, F2)

2. Power supply breaker (SW1)

**CAUTION** There still remains the risk of electrocution because the high voltage is not yet discharged immediately after the power breaker on the main body is turned OFF. Wait minimum 3 minutes before starting disassembly of the power supply unit.

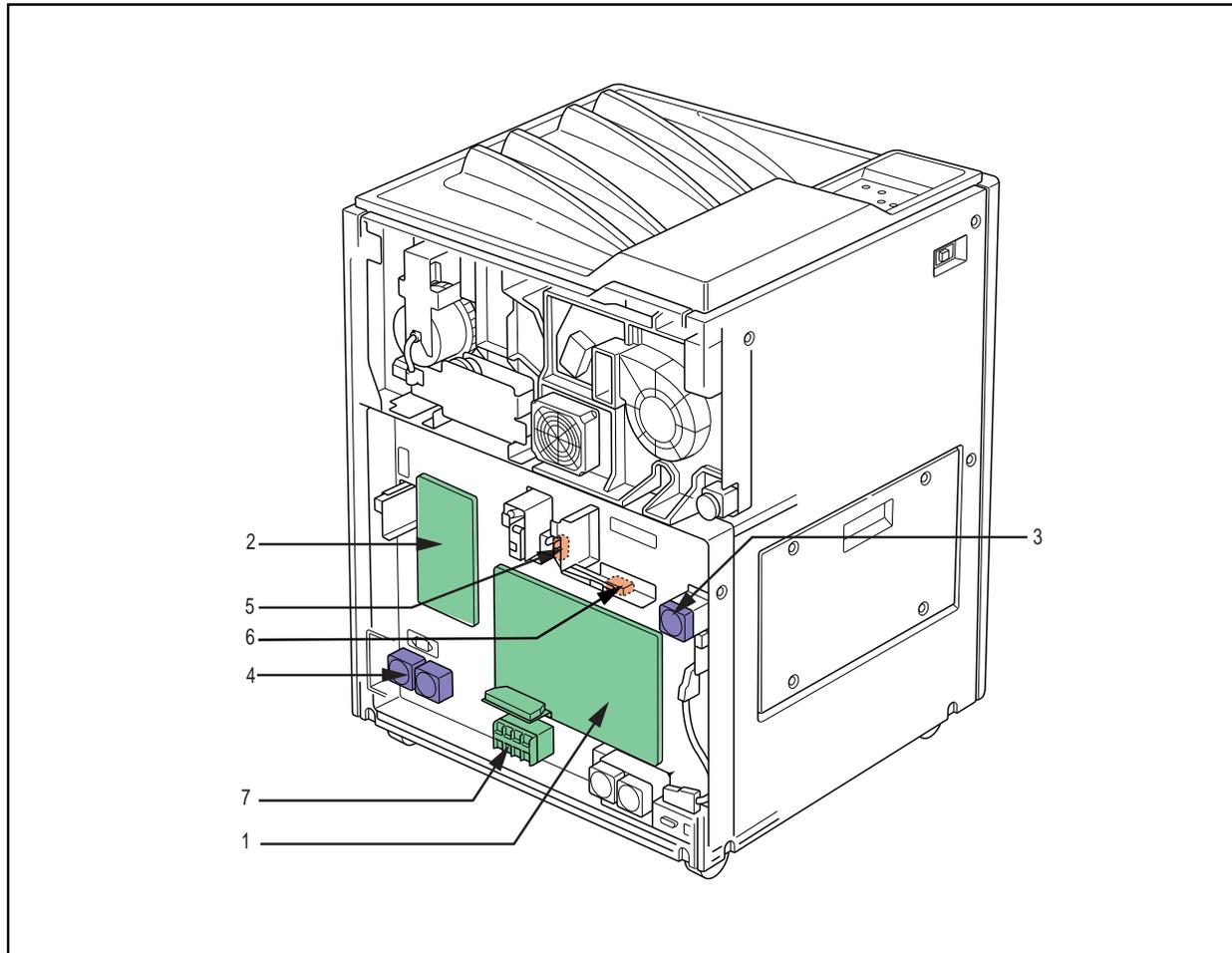
### 2.20.3 Installing the Power Supply Unit

Reverse the procedure for removal to install the power supply unit.

- Make sure that the retainer plate is also screwed after the power supply unit is installed.

## 2.21 Main Body Rear

### 2.21.1 Parts Layout of Main Body Rear

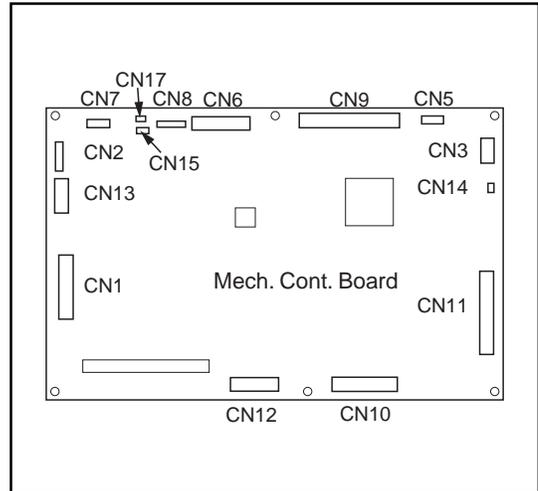


- |  |                                  |
|--|----------------------------------|
| 1. Mechanical control board            | 5. Rear cover close sensor (MS2) |
| 2. Heat processing drive board         | 6. Tray lock sensor (MS4)        |
| 3. Supply cooling fan (FM2)            | 7. Interlock relay (X1)          |
| 4. Power supply cooling fan (FM1, FM7) |                                  |

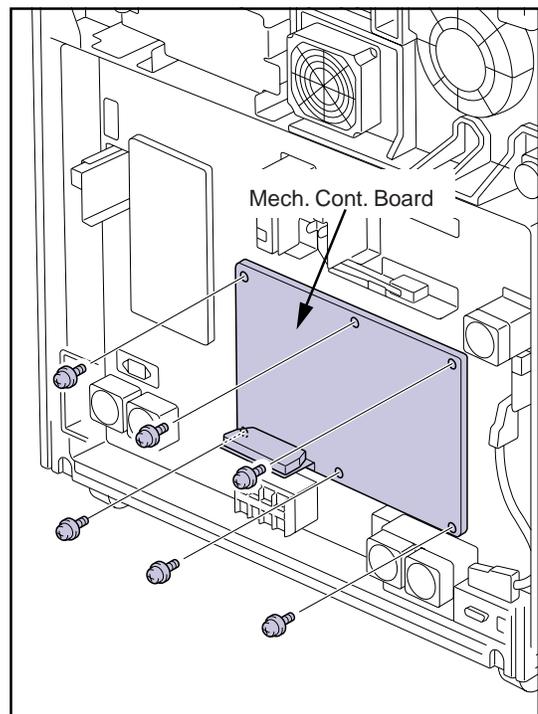
## 2.21.2 Replacing the Mechanical Control (MC) Board

**CAUTION** Always turn OFF the power breaker and unplug the AC plug before starting board replacement.

1. Disconnect the fifteen connectors (MCN1, MCN2, MCN3, MCN5, MCN6, MCN7, MCN8, MCN9, MCN10, MCN11, MCN12, MCN13, MCN14, MCN15, MCN17) from the MC board.



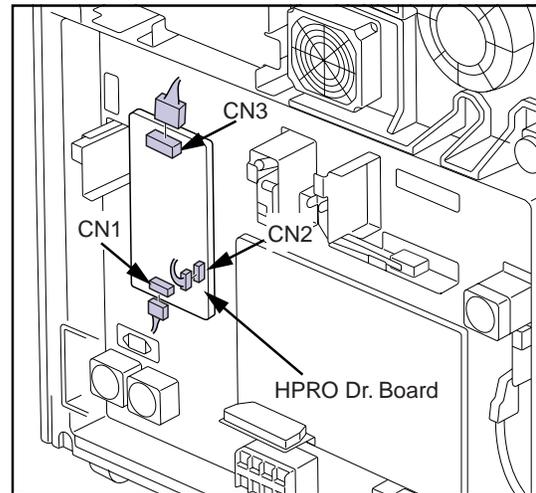
2. Remove the six TP screws(M4x8), and remove the MC board.
3. Screw the new MC board, and connect each connector.
  - Because the MC board is grounded by the screw located on the lower left, pay special attention to this screw so that it is securely tightened.



### 2.21.3 Replacing the Heat Processing (HPRO) Drive Board

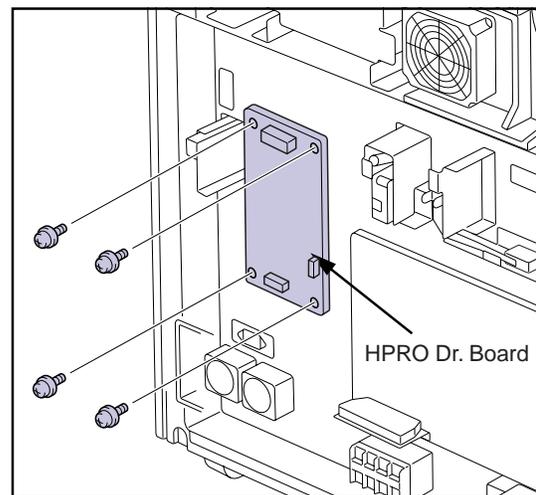
**CAUTION** Always turn OFF the power breaker and unplug the AC plug before starting board replacement.

1. Disconnect the three connectors (MCN1, MCN2, MCN3) from the HP drive board.



2. Remove the four TP screws(M4x8), and remove the HP drive board.
3. Screw the new HPRO drive board, and connect each connector.

**CAUTION** If the fuses(F1, F2, F3) on the HPRO drive board have blown, investigate the cause, and take necessary remedy before turning the power ON. It may be necessary to replace the heat processing drum together with the HP drive board.



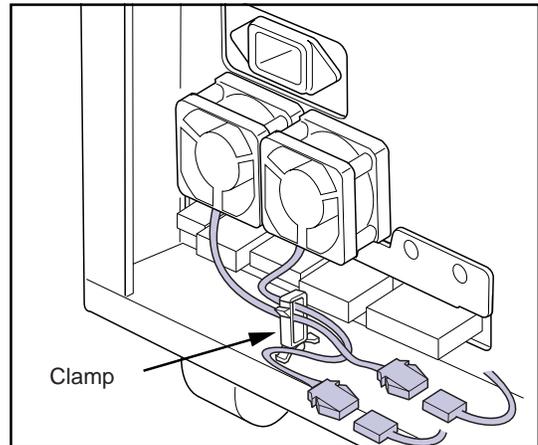
### 2.21.4 Replacing the Power Supply Cooling Fan

Display of error code "E4A32" indicates that malfunction has occurred in the two power supply cooling fans. The procedure for replacing the fans is set out below.

Display of error code "C4A33" indicates that only one of the power supply cooling fans has malfunctioned. Fan rotation should be stopped and replacement carried out as necessary after checking which fan has malfunctioned.

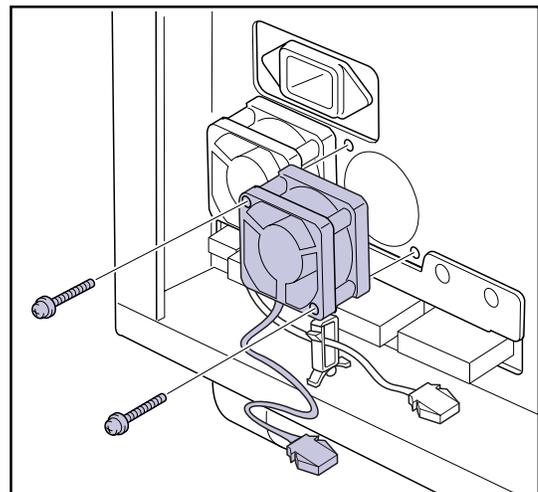
Power supply cooling fans are mounted on the main body's frame.

1. Disconnect the fan cable relay connector and free the cable from the clamp.



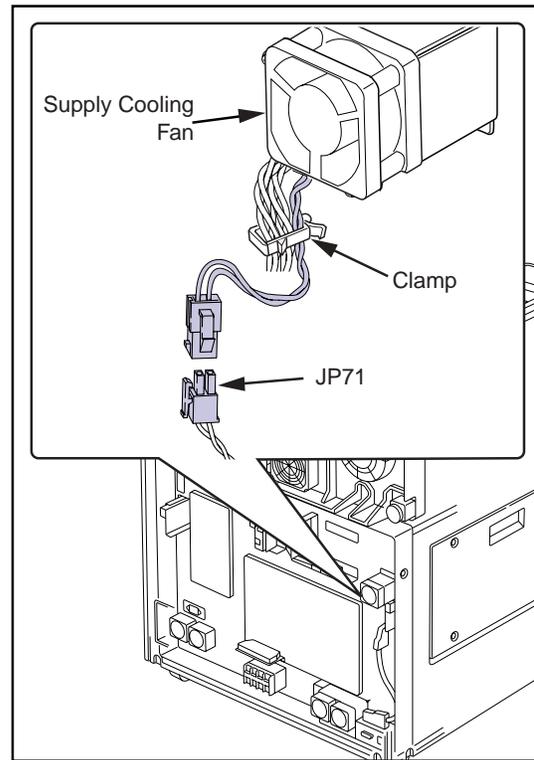
2. Remove the two screws and remove the fan.
3. Screw the replacement fan into position and set the cable into the clamp.

**IMPORTANT** To ensure that the fan flow direction is correct (i.e. so that the flow is directed out of the power supply unit), make sure that the label on the fan hub is facing out from the power supply unit.



## 2.21.5 Replacing the Supply Cooling Fan

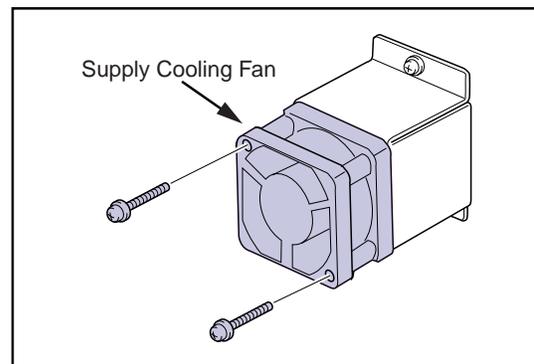
1. Disconnect the relay connector from the fan cable, and disengage the cable from the clamp.



2. Remove the two screws, and remove the fan.
3. Screw the new fan, and connect the relay connector to the fan cable.

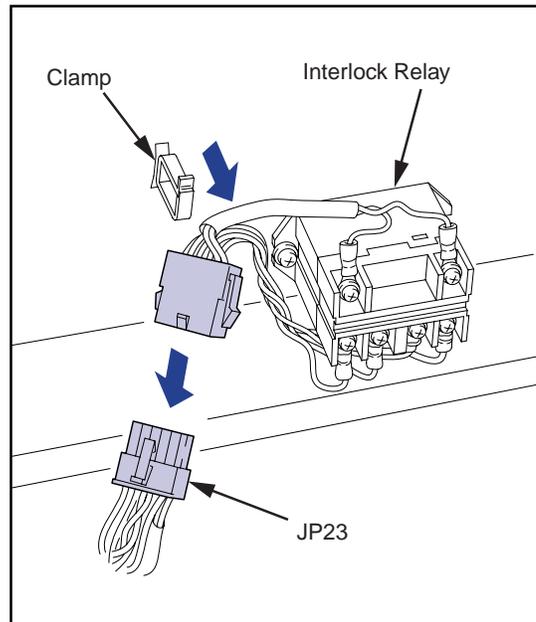
**IMPORTANT** To ensure that the fan flow direction is correct (i.e. so that the flow is directed out of the power supply unit), make sure that the label on the fan hub is facing out from the power supply unit.

4. Put the fan cable through the clamp, and secure it.

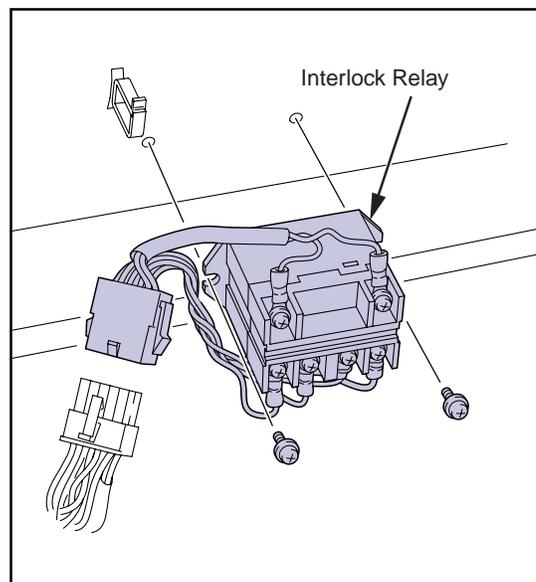


### 2.21.6 Replacing the Interlock Relay

1. Disconnect the relay connector(JP23) from the interlock relay cable, and disengage the cable from the clamp.
  - It is not necessary to free the cable from each terminal of the interlock relay.

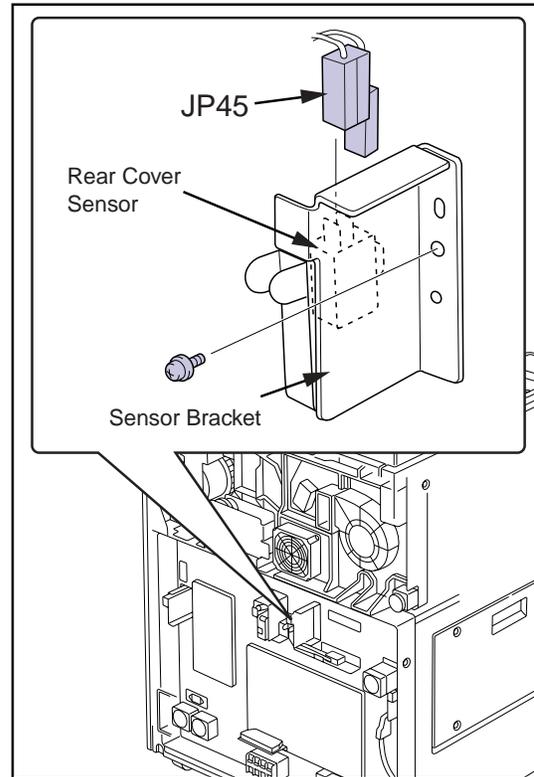


2. Remove the two TP screws(M4x8), and remove the interlock relay from the main body's frame.
3. Screw the new interlock relay, and connect the relay connector.
4. Put the relay cable through the clamp, and secure it.

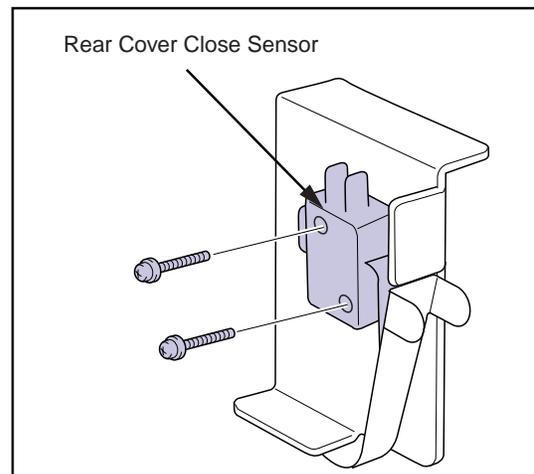


### 2.21.7 Replacing the Rear Cover Close sensor

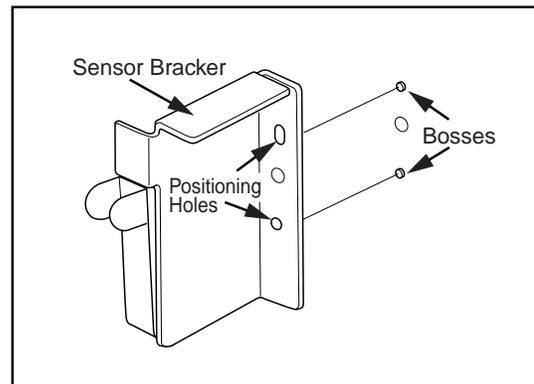
1. Disconnect the connector(JP45) from the rear cover close sensor.
2. Remove the TP screw(M4x8), and remove the rear cover close sensor together with the sensor bracket.



3. Remove the two TP screw(M3x15), and remove the rear cover close sensor from the sensor bracket.
4. Screw the new sensor on the sensor bracket.
5. Screw the sensor bracket on the main body's frame, and connect the connectors.

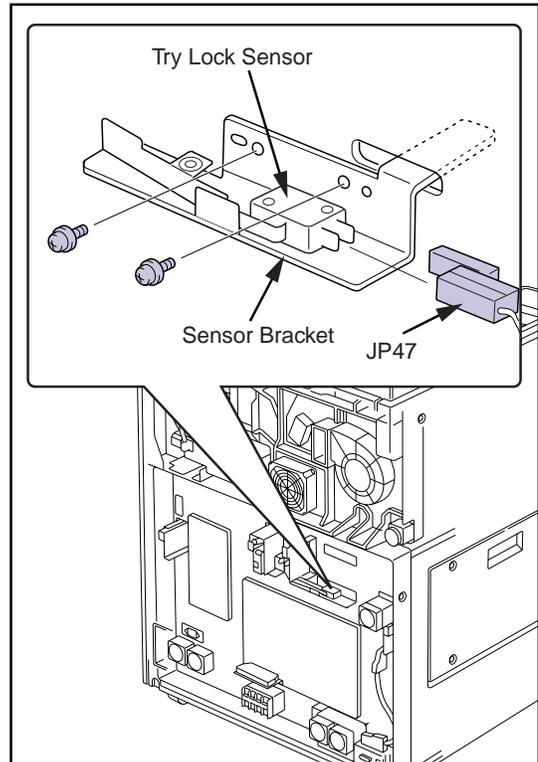


- When screwing the sensor bracket, make sure that the bosses on the main body's frame engage with the positioning holes on the sensor bracket.

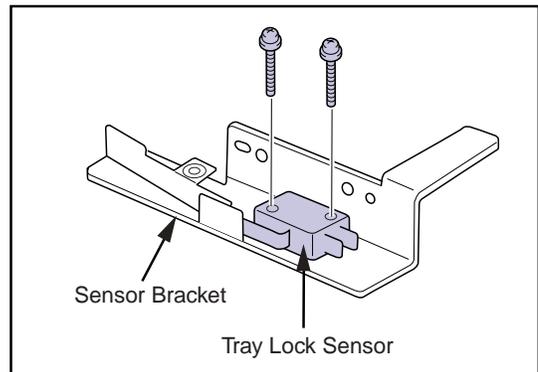


### 2.21.8 Replacing the Tray Lock Sensor

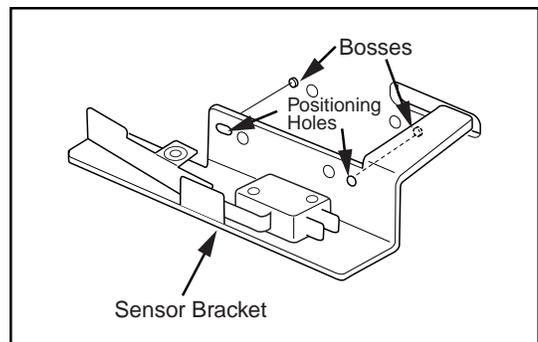
1. Disconnect the connector(JP47) from the tray lock sensor.
2. Remove the two TP screws(M4x8), and remove the tray lock sensor together with the sensor bracket.



3. Remove the two TP screws(M3x15), and remove the tray lock sensor from the sensor bracket.
4. Screw the new sensor on the sensor bracket.
5. Screw the sensor bracket on the main body's frame, and connect the connectors.



- When screwing the sensor bracket, make sure that the bosses on the main body's frame engage with the positioning holes on the sensor bracket.





# ***Chapter 3 Check & Adjustment***

## 3.1 How to Check the Image

### 3.1.1 Test Patterns Available from DryPro771

DryPro771 is equipped with a print function that can print various test patterns to check the resulted image.

Print these patterns to check at the occasion when the DryPro771 is first installed, regular maintenance is completed or technical claim is reported from the user.

Use [S60 TEST PRINT] menu in the service mode to print the test patterns. For details of service maintenance mode, refer to "[Chapter 4 Service Maintenance Mode](#)".

Following test patterns are available using the [S60 TEST PRINT] menu in the service mode.

Test Pattern	Check Items	Refer to
SMPTE Pattern	to check LUT and density control	
Flat Pattern	to check the uneven density caused by film and/or by DryPro	
Frame Pattern	to check and adjust the aspect ratio of the image	
Increment Pattern	to check the loss of data bit of the image	
Calibration Pattern	used for density correction of DryPro	

In addition to the test patterns listed above, [S60 TEST PRINT] menu can also print "CHAR PATTERN", "SCALE PATTERN", "PRODUCT PATTERN", "STRIPE PATTERN" and "GENERAL PATTERN". These patterns are used at the factory for production and R&D purposes, and normally not used in the field service.

### 3.1.2 Printing SMPTE patterns

1. Open the service maintenance mode using the keys on the control panel.

```
S00 DICOM SCP /.
```

2. Use the [↑] / [↓] keys to select [S60 TEST PRINT] from the service maintenance menu.

```
S60 TEST PRINT /.  
# SMPTE PATTERN#
```

3. Check that <SMPTE PATTERN> is displayed, and press the [enter] key.

- [S61 CHANNEL SELECT] will be displayed.
- If a pattern name other than <SMPTE PATTERN> is displayed, bring <SMPTE PATTERN> to the display using the [←] / [→] keys and press [enter] key.

4. Use the [←] / [→] keys to select the channel to be connected and press the [enter] key.

```
S61 CHANNEL SELECT /.  
#CH#1#Regius170
```

- [S62 FORMAT] will be displayed.

5. Use the [←] / [→] keys to select the format (frame count).

- The relationship between frame counts available for selection and formats is as follows.

```
S62 FORMAT *.  
# 4#
```

Frame Count	Format
1	1x1
2	2x1
4	2x2
6	3x2
9	3x3
12	4x3
45	5x3

6. Use the [↓] key to select [S63 COPY COUNT] and use the numerical keys to input the number of sheets to be printed.

```
S63 COPY COUNT *.  
# [001]
```

- Proceeding to the step 12 at this point will print the SMPTE pattern based on the LUT set on the diagnostic device selected in the step 4. To print the test pattern with further variation, proceed to the step 7 onward.

7. Use the [↓] key to select [S65 DENSITY VALUE] and use the [←] / [→] keys to select the print density adjustment value.

```
S65 DENSITY VALUE *.  
# -7#
```

- Fine adjustments of density will be made on the LUT to be used.
- Setting should be made within a range of -7 - +7. If no adjustments are to be made, set a value of "0."

8. Use the [↓] key to select [S66 CONTRAST VALUE] and use the [←] / [→] keys to select the contrast adjustment value.

- Fine adjustments of contrast will be made on the LUT to be used.
- Setting should be made within a range of -7 - +7. If no adjustments are to be made, set a value of "0."

```
S66 CONTRAST VALUE*.  
# ←-7→
```

9. Use the [↓] key to select [S67 SMOOTHING VALUE] and use the [←] / [→] keys to input the smoothing type.

- Setting should be made within a range of 0 - +7. Default value : 2

```
S67 SMOOTH VALUE *.  
# ←1→
```

10. Use the [↓] key to select [S68 DENSITY MAX] and use the [←] / [→] keys to input the maximum density value.

- The required value multiplied by 100 (X100) should be input here.
- Default value : 300

```
S68 DENSITY MAX *.  
# [300]×0.01D.
```

11. Use the [↓] key to select [S69 DENSITY MIN] and use the [←] / [→] keys to input the minimum density value.

- The required value multiplied by 100 (X100) should be input here.
- Default value : 20

```
S69 DENSITY MIN *.  
# [020]×0.01D.
```

12. Press the [enter] key after completion of steps-3 ~ 10.

- The SMPTE pattern set here will be registered in the queue and display returned to the [S60 TEST PRINT] menu.

```
S60 TEST PRINT /.  
# ←SMPTE PATTERN→
```

13. Press the [exit] key.

- Exits the service maintenance mode, and returns to the normal mode.
- At this point, printing of the SMPTE pattern data registered in the print queue starts.

Measure the printed SMPTE pattern with the densitometer, and check that the pattern is printed with the designated density. If the difference in density is significant ( $\pm 0.05D$ ), implement the procedure in "3.3 Densitometer Correction"

### 3.1.3 Printing Flat Patterns

1. Open the service maintenance mode using the keys on the control panel.

```
S00 DICOM SCP  /.
```

2. Use the [↑] / [↓] keys to select [S60 TEST PRINT] from the service maintenance menu.

```
S60 TEST PRINT  /.  
⌕ ◀SMPTE PATTERN▶
```

3. Use the [←] / [→] keys to select <FLAT PATTERN> and press the [enter] key.

```
S60 TEST PRINT  /.  
⌕ ◀FLAT PATTERN▶
```

- [S61 FLAT BASE] will be displayed.

4. Use the numerical keys to input the density value for printing.

```
S61 FLAT BASE  *.  
⌕ [380]x0.010
```

- The required value multiplied by 100 (X100) should be input here.

5. Use the [↓] key to select [S62 COPY COUNT] and use the numerical keys to input the number of sheets to be printed.

```
S62 COPY COUNT *.  
⌕ [001]
```

6. Press the [enter] key after completion of steps-2 and 3.

- The flat pattern set here will be registered in the queue and display returned to the [S60 TEST PRINT] menu.

```
S60 TEST PRINT  /.  
⌕ ◀SMPTE PATTERN▶
```

7. Press the [exit] key.

- Exits the service maintenance mode, and returns to the normal mode.
- At this point, printing of the SMPTE pattern data registered in the print queue starts.

Check the unevenness of image density, density differences between right and left areas on the printed flat pattern. If the difference or unevenness is significant, refer to "[3.2 Image Correction](#)".

### 3.1.4 Printing Frame Patterns

1. Open the service maintenance mode using the keys on the control panel.

```
S00 DICOM SCP /.
```

2. Use the [↑] / [↓] keys to select [S60 TEST PRINT] from the service maintenance menu.

```
S60 TEST PRINT /.
◄ FRAME PATTERN ►
```

3. Use the [←] / [→] keys to select <FRAME PATTERN> and press the [enter] key.

- [S61 FRAME BASE] will be displayed.

4. Use the numerical keys to input the density value for printing.

```
S61 FRAME BASE *.
◄ [380]x0.01D
```

- The required value multiplied by 100 (X100) should be input here.

5. Use the [↓] key to select [S62 COPY COUNT] and use the numerical keys to input the number of sheets to be printed.

```
S62 COPY COUNT *.
◄ [001]
```

6. Press the [enter] key after completion of steps-2 and 3.

- The frame pattern set here will be registered in the queue and display returned to the [S60 TEST PRINT] menu.

```
S60 TEST PRINT /.
◄ SMPTE PATTERN ►
```

7. Press the [exit] key.

- Exits the service maintenance mode, and returns to the normal mode.
- At this point, printing of the SMPTE pattern data registered in the print queue starts.

Measure the distance of the grid(interval of 40mm) on the printed frame pattern, and check that the print size falls within size allowance.

### 3.1.5 Printing Increment Patterns

1. Open the service maintenance mode using the keys on the control panel.

```
S00 DICOM SCP  /.
```

2. Use the [↑] / [↓] keys to select [S60 TEST PRINT] from the service maintenance menu.

3. Use the [←] / [→] keys to select <INCREMENT PATTERN> and press the [enter] key.

```
S60 TEST PRINT  /.  
← INCREMENT PATTERN →
```

- [S61 INCREMENT PTN.] will be displayed.

4. Use the [←] / [→] keys to select density increment direction.

- Increment may be selected for main-scan or sub-scan directions (<MAIN SCAN> and <SUB SCAN> respectively).

```
S61 INCREMENT PTN.*.  
↑ MAIN SCAN ↓
```

5. Use the [↓] key to select [S62 COPY COUNT] and use the numerical keys to input the number of sheets to be printed.

```
S62 COPY COUNT  *.  
↓ [001]
```

6. Press the [enter] key after completion of steps-2 and 3.

- The increment pattern set here will be registered in the queue and display returned to the [S60 TEST PRINT] menu.

```
S60 TEST PRINT  /.  
← SMPTE PATTERN →
```

7. Press the [exit] key.

- Exits the service maintenance mode, and returns to the normal mode.
- At this point, printing of the SMPTE pattern data registered in the print queue starts.

Check on the printed pattern whether the density is gradually and smoothly changing. If the density shows no gradual change or shows steep change, bit loss may happen on the print data.

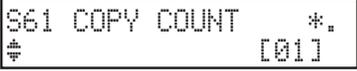
### 3.1.6 Printing Calibration Patterns

Printing this pattern will automatically correct the print density on the DryPro.

1. Use the [↑] / [↓] keys to select [S60 TEST PRINT] from the service maintenance menu.
2. Use the [←] / [→] keys to select <CALIBRATION> and press the [enter] key.
  - [S61 COPY COUNT] will be displayed.
3. Use the numerical keys to input the number of sheets to be printed.
4. Press the [enter] key after completion of settings.
  - The calibration pattern set here will be registered in the queue and display returned to the [S60 TEST PRINT] menu.
5. Press the [exit] key.
  - Exits the service maintenance mode, and returns to the normal mode.
  - At this point, printing of the SMPTE pattern data registered in the print queue starts.



```
S60 TEST PRINT /.  
⬆ CALIBRATION ⬆
```



```
S61 COPY COUNT *.  
⬆ [01] ⬆
```



```
S60 TEST PRINT /.  
⬆ SMPTE PATTERN ⬆
```

## 3.2 Image Correction

### 3.2.1 Density Evenness Correction

This process is designed to provide the greatest degree of evenness possible in the image pitch direction. The procedure comprises three steps: [ST16A] setting, [ST16B] setting and storage of correction data.

The procedure to be followed is detailed below.

1. Use the [↑] / [↓] keys to select [S80 CORRECT] from the service maintenance menu.

```
S80 CORRECT /
# DATA INPUT#
```

2. Use the [←] / [→] keys to select <DATA INPUT> and press the [enter] key.

```
S81 TEST GAIN *
#TEST[00]
```

- [S81 TEST GAIN] will be displayed.

3. Use the [↑] / [↓] keys to select [S84 BASE DENSITY].

```
S84 BASE DENSITY *
# [000]x0.01D.
```

4. Use the numerical keys to input the base density of the unevenness correction pattern.

```
S84 BASE DENSITY *
# [150]x0.01D.
```

- A value of 150 is recommended.

5. Use the [↑] / [↓] keys to select [S81 TEST GAIN].

```
S81 TEST GAIN *
#TEST[00]
```

6. Use the numerical keys to input a provisional gain value at the right of TEST.

```
S81 TEST GAIN *
#TEST[08]
```

- Range : 1 ~ 16. A value of approximately 8 should be input here.

7. Press the [enter] key.

```
S80 CORRECT /
# DATA INPUT#
```

- Data changes will be stored and display returned to the [S80 CORRECT] menu.
- Pressing the [exit] key after changing the value will produce display of the request for confirmation shown at right. Pressing the [enter] key after selection of <YES> will result in storage of the changed value and return to [S80 CORRECT]. Pressing the [enter] key after selection of <NO> will result in return to [S80 CORRECT] without storage of the changed value.

```
Data was changed
Save the data? #YES#
```

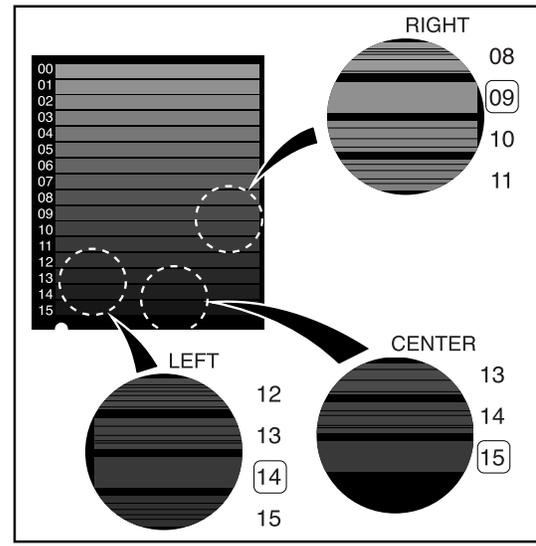
8. Use the [←] / [→] keys to select <ST16A> and press the [enter] key.

```
S80 CORRECT *
# ST16A#
```

- A message requesting confirmation to proceed with printing will be displayed.

9. Use the [←] / [→] keys to select <YES> and press the [enter] key.
  - The ST16A pattern will be registered in the queue and display returned to the [S80 CORRECT] menu.
10. Press the [exit] key to return to the user maintenance menu.
11. Press the [exit] key to exit the maintenance mode.
  - The ST16A pattern will be printed when normal display is resumed.
12. Check the ST16A pattern (printed) and determine the value that will give the greatest evenness at the left, centre and right of the image.
  - In the example shown at right, these values are 14, 15 and 09 respectively.

```
Print Test Pattern?
  ◀YES▶
```



13. Invoke the service maintenance mode again and use the [↑] / [↓] keys to select [S80 CORRECT].
14. Use the [←] / [→] keys to select <DATA INPUT> and press the [enter] key.
  - [S81 TEST GAIN] will be displayed.
15. Use the [↑] / [↓] keys to select [S82 PHASE].
16. Input the left, centre and right values determined in step-12 above after [L], [C] and [R] and press the [enter] key.
  - Data changes will be stored and display returned to the [S80 CORRECT] menu.
  - Pressing the [exit] key after changing the value will produce display of the request for confirmation shown at right. Pressing the [enter] key after selection of <YES> will result in storage of the changed value and return to [S80 CORRECT]. Pressing the [enter] key after selection of <NO> will result in return to [S80 CORRECT] without storage of the changed value.

```
S80 CORRECT /
  ◀DATA INPUT▶
```

```
S81 TEST GAIN *
  ◀TEST[00]
```

```
S82 PHASE *
  ◀L[00]C[00]R[00]
```

```
S82 PHASE *
  ◀L[14]C[15]R[09]
```

```
Data was changed
Save the data? ◀YES▶
```

17. Use the [←] / [→] keys to select <ST16B> and press the [enter] key.

- A message requesting confirmation to proceed with printing will be displayed.

```
S80 CORRECT      *.  
#                #ST16B#
```

18. Use the [←] / [→] keys to select <YES> and press the [enter] key.

- The ST16B pattern will be registered in the queue and display returned to the [S80 CORRECT] menu.

```
Print Test Pattern?  
#YES#
```

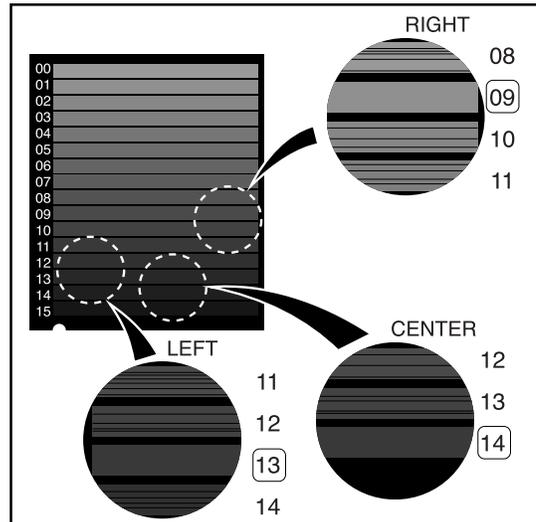
19. Press the [exit] key to return to the user maintenance menu.

20. Press the [exit] key to exit the maintenance mode.

- The ST16B pattern will be printed when normal display is resumed.

21. Check the ST16B pattern and determine the value that will give the greatest evenness at the left, centre and right of the image.

- In the example shown at right, these values are 13, 14 and 09 respectively.



22. Invoke the service maintenance mode again and use the [↑] / [↓] keys to select [S80 CORRECT].

```
S80 CORRECT      /.  
#                #DATA INPUT#
```

23. Use the [←] / [→] keys to select <DATA INPUT> and press the [enter] key.

- [S81 TEST GAIN] will be displayed.

```
S81 TEST GAIN    *.  
#TEST[00]
```

24. Use the [↑] / [↓] keys to select [S83 GAIN].

```
S83 GAIN         *.  
#L[00]C[00]R[00]
```

25. Input the left, centre and right values determined in step-21 above after [L], [C] and [R] and press the [enter] key.

- Data changes will be stored and display returned to the [S80 CORRECT] menu.

```
S83 GAIN         *.  
#L[13]C[14]R[09]
```

- Pressing the [exit] key after changing the value will produce display of the request for confirmation shown at right. Pressing the [enter] key after selection of <YES> will result in storage of the changed value and return to [S80 CORRECT]. Pressing the [enter] key after selection of <NO> will result in return to [S80 CORRECT] without storage of the changed value.

```
Data was changed
Save the data? ◀YES▶
```

**IMPORTANT** The values determined for ST16A already input under [S82 PHASE] must not be changed.

### 3.2.2 Shading Correction

This process is designed to provide the smallest degree of density differential possible in the image left/right direction. The procedure comprises two steps: [ST16C] setting and storage of shading correction data.

The procedure to be followed is detailed below.

1. Use the [↑] / [↓] keys to select [S80 CORRECT] from the service maintenance menu.

```
S80 CORRECT /.  
# DATA INPUT#
```

2. Use the [←] / [→] keys to select <DATA INPUT> and press the [enter] key.

```
S81 TEST GAIN *.  
#TEST[00]
```

- [S81 TEST GAIN] will be displayed.

3. Use the [←] / [→] keys to select [S84 BASE DENSITY].

```
S84 BASE DENSITY *.  
# [000]x0.01D.
```

4. Use the numerical keys to input the base density of the shading correction pattern.

```
S84 BASE DENSITY *.  
# [150]x0.01D.
```

- A value of 150 is recommended.

5. Press the [enter] key.

- Data changes will be stored and display returned to the [S80 CORRECT] menu.
- Pressing the [exit] key after changing the value will produce display of the request for confirmation shown at right. Pressing the [enter] key after selection of <YES> will result in storage of the changed value and return to [S80 CORRECT]. Pressing the [enter] key after selection of <NO> will result in return to [S80 CORRECT] without storage of the changed value.

```
S80 CORRECT /.  
# DATA INPUT#
```

```
Data was changed  
Save the data? #YES#
```

6. Use the [←] / [→] keys to select <ST16C> and press the [enter] key.

```
S80 CORRECT *.  
# ST16C#
```

- A message requesting confirmation to proceed with printing will be displayed.

7. Use the [←] / [→] keys to select <YES> and press the [enter] key.

```
Print Test Pattern?  
#YES#
```

- The ST16C pattern will be registered in the queue and display returned to the [S80 CORRECT] menu.

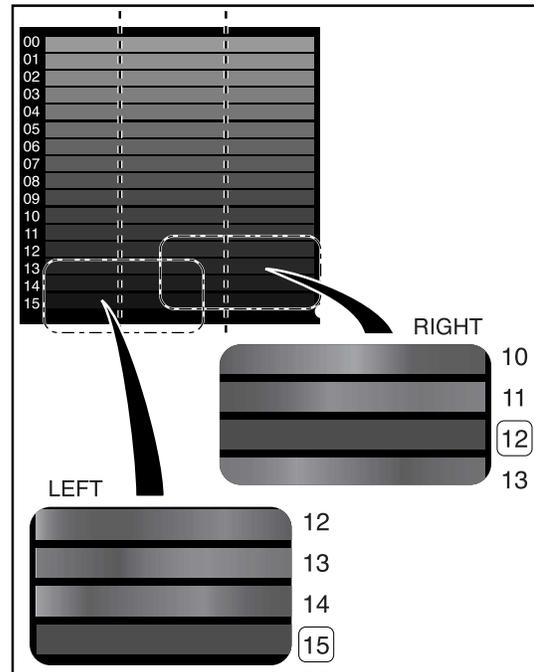
8. Press the [exit] key to return to the user maintenance menu.

9. Press the [exit] key to exit the maintenance mode.

- The ST16C pattern will be printed when normal display is resumed.

10. Check the ST16A pattern (printed) and, using the density at the film centre as criteria, determine the value that will give the smallest density differential between the left and centre and the right and centre of the image.

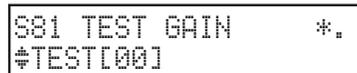
- In the example shown at right, these values are 15 and 12 respectively.



11. Invoke the service maintenance mode again and use the [↑] / [↓] keys to select [S80 CORRECT].



12. Use the [←] / [→] keys to select <DATA INPUT> and press the [enter] key.



- [S81 TEST GAIN] will be displayed.

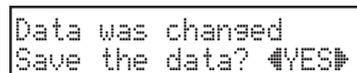
13. Use the [↑] / [↓] keys to select [S85 OFFSET].



14. Input the left and right values determined in step-10 above after [L] and [R] and press the [enter] key.



- Data changes will be stored and display returned to the [S80 CORRECT] menu.
- Pressing the [exit] key after changing the value will produce display of the request for confirmation shown at right. Pressing the [enter] key after selection of <YES> will result in storage of the changed value and return to [S80 CORRECT]. Pressing the [enter] key after selection of <NO> will result in return to [S80 CORRECT] without storage of the changed value.



**IMPORTANT** The values already input under [S82 PHASE] and [S83 GAIN] for unevenness correction must not be changed.

### 3.3 Densitometer Correction

This function is designed for calibration of read-out from the densitometer incorporated into the DRYPRO unit. The procedure for densitometer calibration is set out below.

1. Use the [↑] / [↓] keys to select [S50 DENSITOMETER] from the service maintenance menu.

```
S50 DENSITOMETER  *.
# ◀ DENSITY PATTARN ▶
```

2. Use the [←] / [→] keys to select <DENSITY PATTERN> and press the [enter] key.

- A message requesting confirmation to proceed with printing will be displayed.

3. Use the [←] / [→] keys to select <YES> and press the [enter] key.

```
Print Test Pattern?
          ▶ YES ◀
```

- The wedge pattern for density calibration will be registered in the queue and display returned to the [S50 DENSITOMETER] menu.

4. Press the [exit] key to return to the user maintenance menu.

5. Press the [exit] key to exit the maintenance mode.

- The wedge pattern will be printed when normal display is resumed.

6. Measure the density at each of the points on the wedge pattern using a densitometer.

- A calibrated densitometer used at the facility should be used for measurement of the wedge pattern density.

7. Invoke the service maintenance mode again and use the [↑] / [↓] keys to select [S50 DENSITOMETER] from the service maintenance menu.

```
S50 DENSITOMETER  *.
# ◀ DENSITY PATTARN ▶
```

8. Use the [←] / [→] keys to select <INPUT DENSITY> and press the [enter] key.

```
S51 OUT DENSITY  *.
# POINT01 [0000] x0.01D.
```

- [S51 OUT DENSITY] will be displayed.

9. Use the numerical keys to input the density measured at point-1 [POINT01] on the screen.

- The actual measured value multiplied by 100 (X100) should be input here.

10. Using the [↓] key to switch the POINT display, input the densities measured at each point.

```
S5A OUT DENSITY  *.
# POINT10 [0000] x0.01D.
```

11. Press the [enter] key after inputting values as far as [POINT10].

- Data changes will be stored and display returned to the [S50 DENSITOMETER] menu.
- Pressing the [exit] key after changing the value will produce display of the request for confirmation shown at right. Pressing the [enter] key after selection of <YES> will result in storage of the changed value and return to [S50 DENSITOMETER]. Pressing the [enter] key after selection of <NO> will result in return to [S50 DENSITOMETER] without storage of the changed value. Press the [exit] key to return to the user maintenance menu.

```
Data was changed
Save the data? ◀YES▶
```

• **Checking Calibrated Values**

To check whether or not calibration of the densitometer value has been more or less completed, use the [←] / [→] keys to select <LAST TIME> or <NOW DENSITY> and press the [enter] key.

```
S50 DENSITOMETER / .
◀◀LAST TIME DENSITY▶▶
```

```
S50 DENSITOMETER / .
◀◀NOW DENSITY▶▶
```

In this way, it is possible to check the densities measured at each point on the wedge pattern the previous and current times (LASTTIME DENS. and NOW DENSITY respectively).

```
S51 LASTTIME DENS. .
▶POINT01=000x0.01D.
```

⋮

```
S5A LASTTIME DENS. .
▶POINT10=000x0.01D.
```

Movement between the points displayed may be effected using the [↑] / [↓] keys

```
S51 NOW DENSITY .
▶POINT01=000x0.01D.
```

⋮

```
S5A NOW DENSITY .
▶POINT10=000x0.01D.
```

## 3.4 Checking the Exposure Section

### 3.4.1 Laser Intensity Measurement

Measures the laser power of the main-scan unit using a light power meter.

Carry out the measurement when the exposure unit is doubtful or when the main-scan unit is replaced.

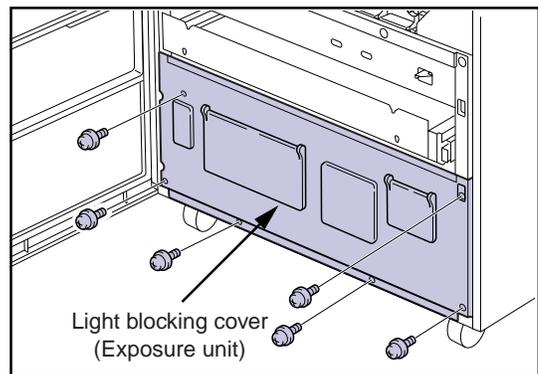
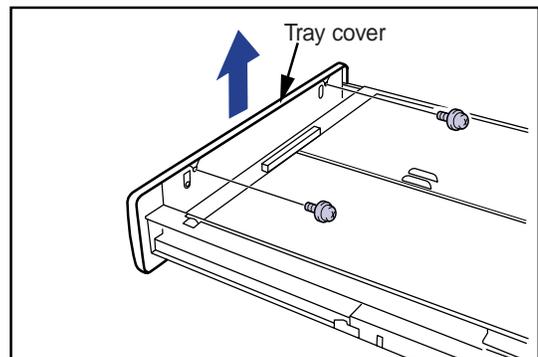
In this measurement procedure, a PC to use the Web maintenance tool needs to be connected to the DryPro via network. For details of the Web maintenance tool, refer to "[Chapter 5 Web Maintenance Tool](#)"

**CAUTION** Always wear laser protective goggles when measuring laser power. Light from the laser may leak outside the unit.

**DANGER** Carrying out this operation with the DRYPRO outer cover removed may result in leakage of light from the laser out of the unit. Check that there are no personnel in the vicinity before proceeding with work.  
Direct exposure of the eyes to the laser may result in loss of sight.

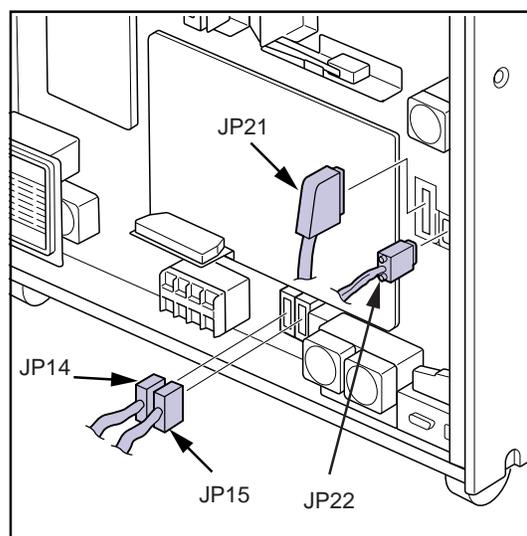
The following is the procedure for measurement.

1. Open the front cover and remove the rear top cover and the rear cover.
2. Press the tray release lever to disengage the tray lock.
3. Pull out the tray and loosen the two tray cover screws.
4. Lift and remove the tray cover.
5. Remove the six screws securing the light blocking cover (exposure unit) and remove the cover.

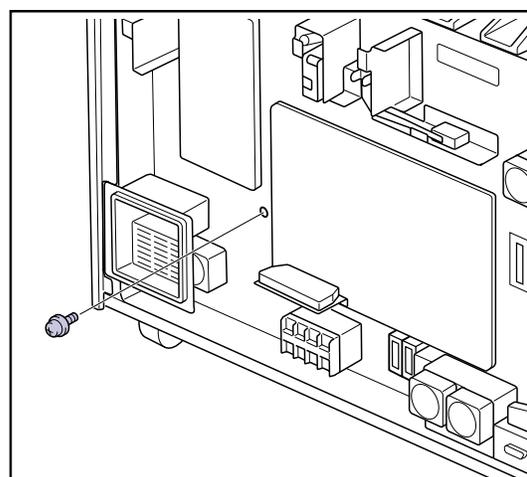


**6.** Disconnect connectors JP14, JP15, JP 21 and JP22 at the back of the main body.

**7.** Connect the exposure unit extension cords between the connectors disconnected in step-6 above and the main operation unit, the position regulator/sub-scan unit connectors.



**8.** Remove the screws securing the position regulator/sub-scan unit at the back of the main body.



**9.** Pull the entire exposure unit out from the front of the main body.

**10.** Insert the interlock release key into interlock hole and turn 90° to disengage the interlock.

**11.** Connect the LAN cable to the DRYPRO and connect the maintenance PC to the LAN.

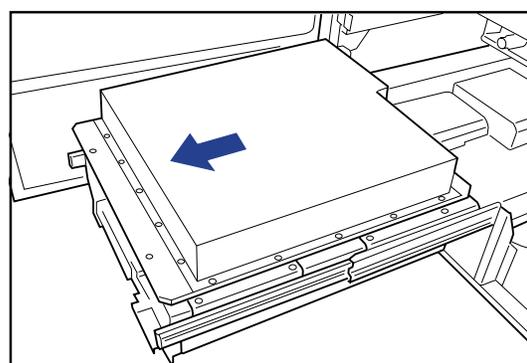
**12.** Press the operation switch to reboot the DRYPRO unit.

**13.** Log in to the Web maintenance tool.

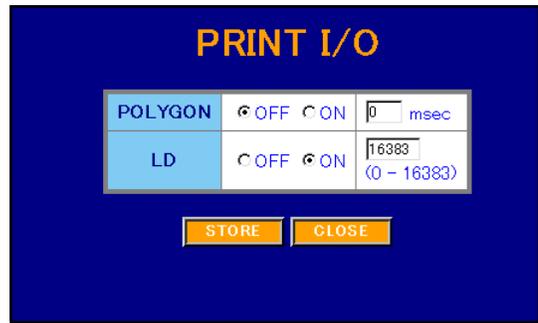
- The top screen of the Web maintenance tool will be displayed.

**14.** Click [PRINT I/O] in the menu frame (DIAG MEC) on the left of the screen.

- The PRINT I/O setting screen will be displayed.



15. Select [ON] under [LD] and input an output value of "16383."
- This completes preparation for illumination of the laser diode at maximum output.

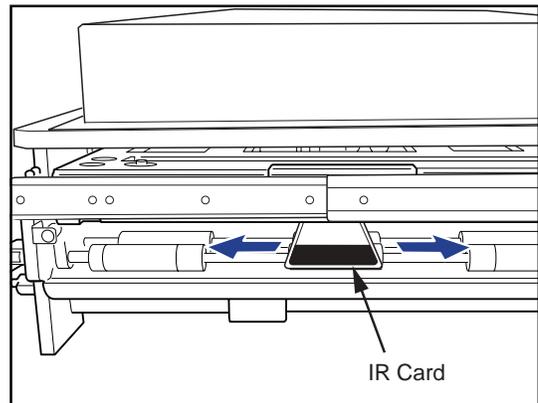


**CAUTION** The procedure from this point on involves laser illumination. Protective goggles must be worn. Check the vicinity again to ensure that there are no personnel at risk.

16. Click [STORE].
- The PRINT I/O results will be displayed.
  - The laser diode will illuminate and the laser outputs. Since at this point the polygon motor is not running, the laser will be output on one spot within the laser scanning range.



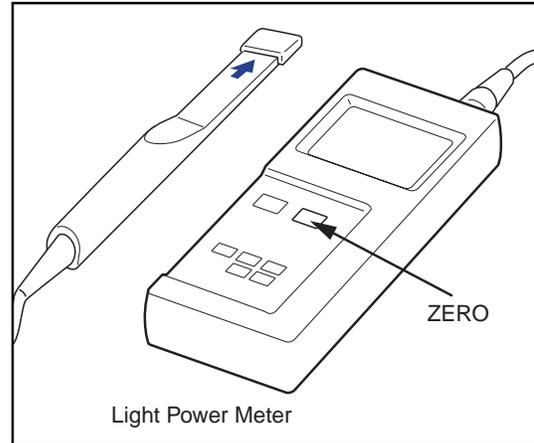
17. Insert the IR card from the right side of the main body between the rollers of the sub-scan unit to find the spot where the laser is focused.
- Move the IR card in main-scan direction and locate the position where a red point of focus can be observed.
18. If the point of focus cannot be found, click [TEST END] on the PRINT I/O results display screen and return to the PRINT I/O setting screen.
19. Select [ON] under [POLYGON] and input a value between 1 - 4 for the polygon motor running time.



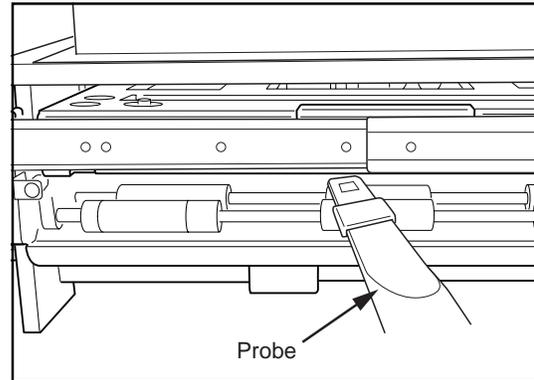
20. Click [STORE].
- The PRINT I/O results screen will be displayed.
  - Clicking [STORE] will result in the polygon motor running for the length of time (seconds) input and consequent shifting of the laser focal point.
  - The focal point will shift approximately 10mm ~ 30mm depending on the input value (1 ~ 4 msec.)

21. Check the laser focal point using the IR card.

22. Repeat steps 19 - 22 until the laser focal point is located.
23. Repeat steps 19 - 22 using the IR card to check the position of the focal point and shift the point to as near as possible a central position.
24. Put the cover on the light power meter probe and carry out zero adjustment by pressing the [ZERO] button.



25. Apply the power meter probe to the focal point location and carry out measurement.
  - Check that the laser power is 14mW or more.
  - A measured value of less than 14mW indicates either a problem with the signal output from the print engine board or deterioration of the laser itself. Carry out an "exposure data output check" and replace the print engine board if a malfunction is detected. If no malfunction is found, replace the main-scan unit.



**Important** The light power meter probe surface should be applied at a slight angle to the light axis. Aligning the probe surface with the light axis will result in reflection of the laser back to the main-scan unit and consequent instability in the LD emission.

26. After completion of measurement, click [TEST END] on the I/O results screen followed by [CLOSE] on the PRINT I/O setting screen to return to the top screen.
  - Exiting the results screen will automatically switch off laser emission.
27. Click [LOGOUT] at the top left of the screen to log out.
28. Switch off the DRYPRO power supply and replace the sub-scan unit, the light blocking cover (exposure unit), the rear panel, the front cover and the supply tray.

**Important** When inserting the exposure cable connector (JJ21), ensure that it is locked firmly and fully inserted at both edges.

### 3.4.2 Checking Exposure Data Output

Checks the signal between the print engine board and the main-scan unit using the exposure data output check jig.

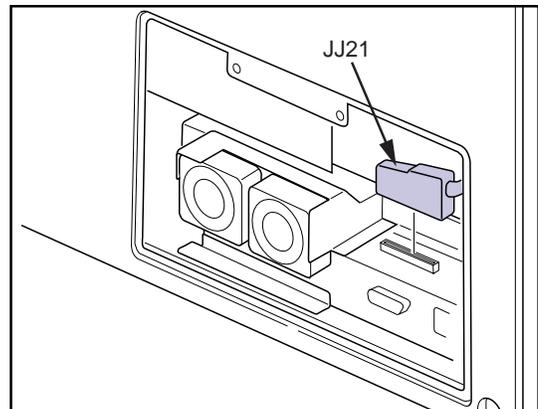
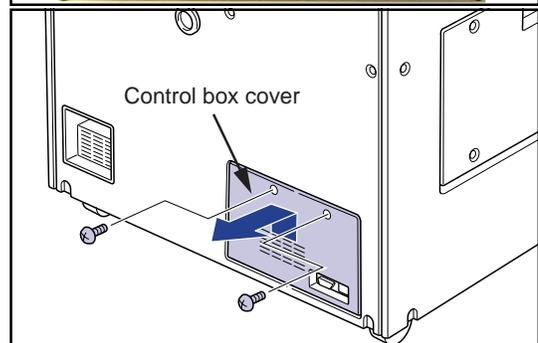
In this measurement procedure, a PC to use the Web maintenance tool needs to be connected to the DryPro via network. For details of the Web maintenance tool, refer to "[Chapter 5 Web Maintenance Tool](#)"

The procedure is detailed below.

1. Remove the two securing screws and take off the control box cover located at the bottom of the rear cover.



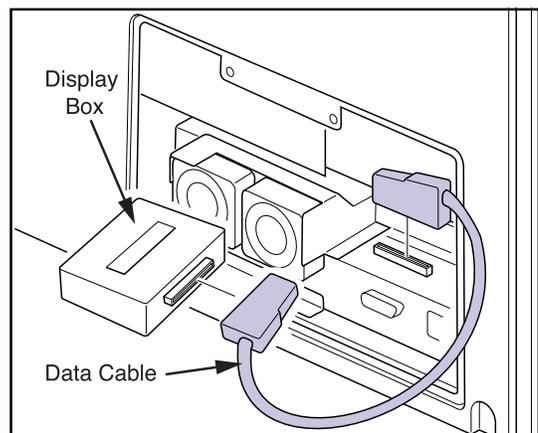
2. Disconnect the exposure cable connector (JJ21) from the control box.



3. Connect the data cable provided with the exposure data output check jig (hereinafter referred to as "the data cable") to the exposure data output check jig display box (hereinafter referred to as "the display box") connector and the control box connector.

- Connect the end of the connector marked "CONTROL" to the control box and the end marked "JIG BOX" to the display box.
- Do not connect the exposure cable (main-scan unit) to the display box yet.

4. Connect the LAN cable to the DRYPRO unit and the maintenance PC to the LAN.

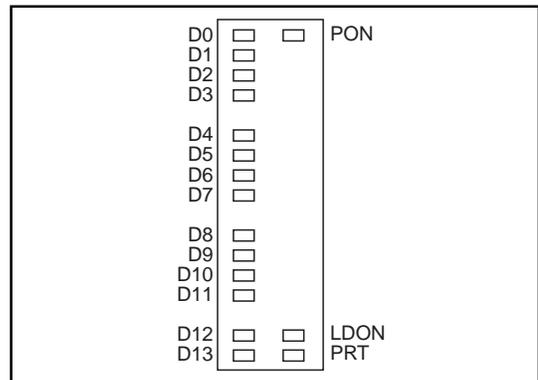


• **Print Output Signal Check**

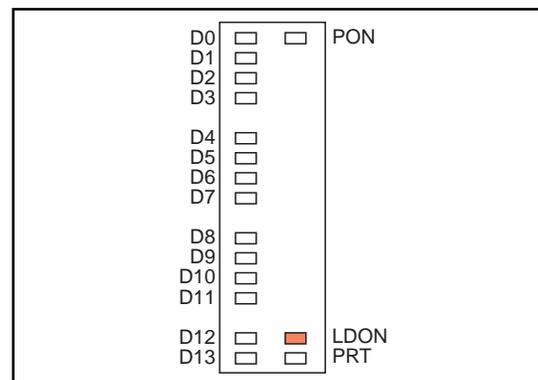
Checks the signal output from the print engine board.

1. Press the operation switch and reboot the DRYPRO unit.
2. Log in to the Web maintenance tool.
  - The top screen of the Web maintenance tool will be displayed.
3. Click [PRINT I/O] in the menu frame (DIAG MEC) on the left of the screen.
  - The PRINT I/O setting screen will be displayed.
4. Check the print engine board output signal.

- (1)
  - a) Select [ON] under [POLYGON], input "0" (continuous operation) as the polygon motor running time and click [STORE].
  - b) Ensure that the illuminated "PON" LED on the display box extinguishes.
  - c) Click [TEST END] to return to the PRINT I/O setting screen.



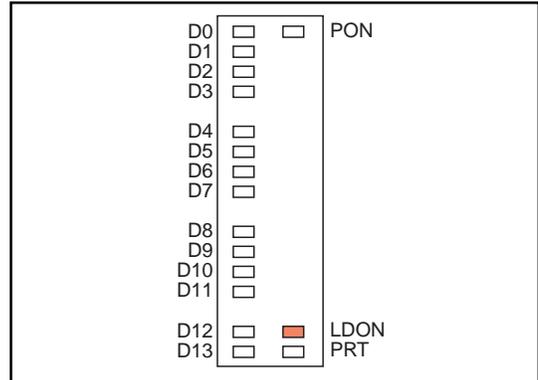
- (2)
  - a) Select [OFF] under [POLYGON], [ON] under [LD], input "1638" (default value) as the output value and click [STORE].
  - b) Ensure that the "LDON" LED on the display box illuminates.
  - c) Click [TEST END] to return to the PRINT I/O setting screen.



- (3)
- a) Select [ON] under [LD], input an output value from the chart shown below and click [STORE].
  - b) Ensure that the LED status shown on the chart below matches the set value. (Only LEDs D0 ~ D13 and PRT need to be checked in procedure-(3). All other LEDs should be ignored.)



Set Value	LED Status (D0 - D13, PRT)
0	All extinguished.
1	D0, PRT only illuminated.
2	D1, PRT only illuminated.
4	D2, PRT only illuminated
8	D3, PRT only illuminated
16	D4, PRT only illuminated
32	D5, PRT only illuminated
64	D6, PRT only illuminated
128	D7, PRT only illuminated
256	D8, PRT only illuminated
512	D9, PRT only illuminated
1024	D10, PRT only illuminated
2048	D11, PRT only illuminated
4096	D12, PRT only illuminated
8192	D13, PRT only illuminated
16383	PRT extinguished, D0 - D13 illuminated.



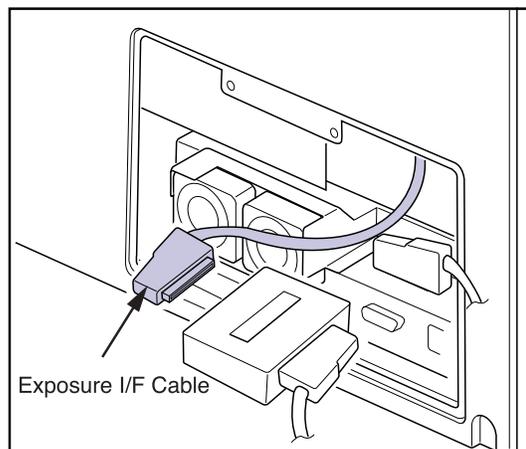
- c) Click [TEST END] to return to the PRINT I/O setting screen.
- d) Repeat steps (a) - (c) for each of the combinations shown above.

Any irregularities detected during procedures (1) ~ (3) above indicate problems with the print engine board or data cable. If the irregularity is not rectified by replacement of the print engine board, the data cable should be replaced.

5. If no problems are detected in step-8, press the operation switch and shut down the DRYPRO power supply.

6. Connect the exposure cable connected to the main-scan unit to the other connector on the display box.
7. Press the operation switch to reboot the DRYPRO unit and log in to the Web maintenance tool.
8. Repeat procedures (1) ~ (3) in step-8 above. Any irregularity detected indicates a problem with the exposure I/F cable or the main-scan unit.

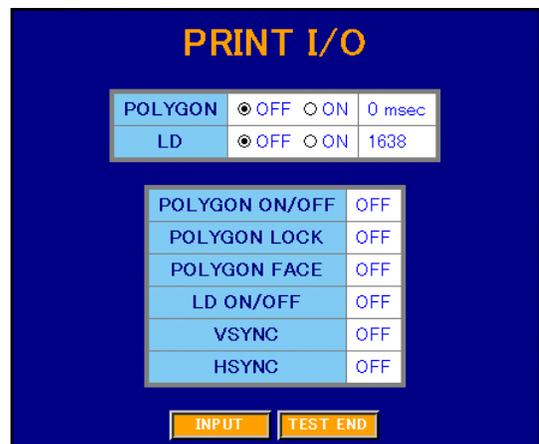
If the irregularity is not rectified by replacement of the exposure cable, the main-scan unit should be replaced.



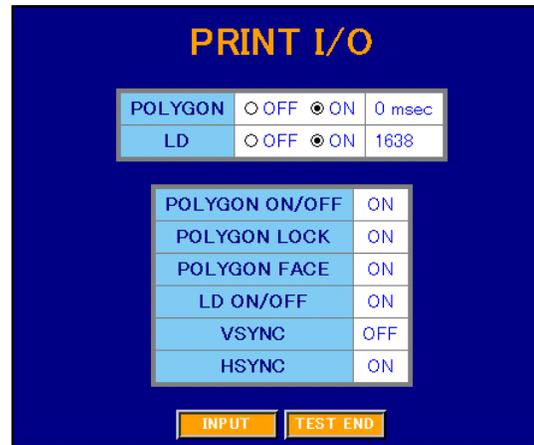
### • Main-scan Unit Output Signal Check

Checks the signal output by the main-scan unit. This check should be carried out after checking that the print output signal is normal.

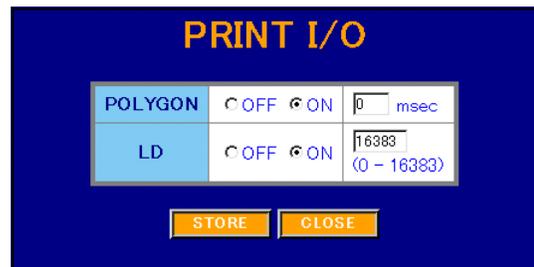
1. Log in to the Web maintenance tool.
  - The top screen of the Web maintenance tool will be displayed.
2. Click [PRINT I/O] in the menu frame (DIAG MEC) on the left of the screen.
  - The PRINT I/O setting screen will be displayed.
3. Check the main-scan unit output signal.
  - (1)
    - a) Leaving default settings in force ("POLYGON" [OFF], "LD" [OFF]), click [STORE].
    - b) The PRINT I/O results screen will be displayed.
      - c) Check that "POLYGON LOCK," "POLYGON FACE" and "HSYNC" are all off.
      - d) Click [TEST END] to return to the PRINT I/O setting screen.
  - (2)
    - a) Select [ON] under [POLYGON], input a value of "0" (continuous operation) as the polygon motor running time and click [STORE].
    - b) Select [ON] under [LD], input "1638" (default value) as the output value and click [STORE].
    - c) Wait for 10 seconds after the screen has switched to display of PRINT I/O results screen and click [INPUT].
    - d) PRINT I/O results screen will be displayed again.



- e) Check that "POLYGON LOCK," "POLYGON FACE" and "HSYNC" are all on.
- f) Click [TEST END] to return to the PRINT I/O setting screen.



- (3)
  - a) When "HSYNC" only cannot be turned ON in procedure-2 above, input "1638" as the output value under [LD] and click [STORE].
  - b) Display of "HSYNC" as ON in the PRINT I/O results screen indicates the possibility of laser deterioration. Check by carrying out laser power measurement.



If "POLYGON LOCK" or "POLYGON FACE" in procedure-2 or "HSYNC" in procedure-3 cannot be turned ON, problem with the print engine board, the exposure cable or the main-scan unit will be a probable cause.

If the problem remains after replacing the print engine board, first the exposure cable and then the main-scan unit should be replaced.

4. Switch off the DRYPRO power supply, disconnect the exposure data output check jig and the data cable and restore the original connections.
  - When inserting connectors, ensure that they are locked firmly and fully inserted at both edges.

# ***Chapter 4 Service Maintenance Mode***

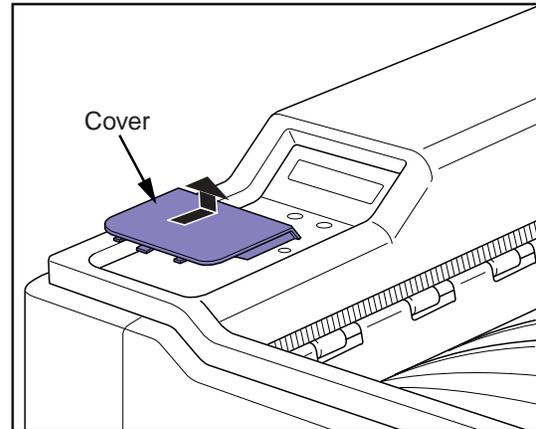
## 4.1 Using the Service Maintenance Mode

### 4.1.1 Switching to the Service Maintenance Mode

- Starting up the Service Maintenance Mode

The procedure for starting up the service maintenance mode is detailed below.

- Remove the service maintenance key cover on the operation panel.
  - Lift off the cover after pressing lightly toward the LCD.
- Press the [maintenance] key.



- Display will switch to the maintenance mode (user maintenance mode) and the top item of the maintenance menu ([U00 FILM DATA]) will appear on the LCD.

```
U00 FILM DATA / .
⬆ ⬇ ⬅ DAYLY ➡
```

- Repeatedly press the [↓] key until [U90 PASSWORD] appears on the LCD.

```
U90 PASSWORD / .
```

- Press the [enter] key.

- A request for input of the password will appear.

```
U91 INPUT PASSWORD .
[   ]
```

- Use the service maintenance numerical keys to input the service maintenance mode password (4 digits: 5678).

- The input password will not be displayed on the LCD: asterisks ( ) will be shown in place of the digits input.
- Password [5678] is fixed and cannot be changed.
- If an error is made when inputting the password, press the [exit] key to clear input and type in the correct password.

```
U91 INPUT PASSWORD
[****]
```

- Press the [enter] key.

- The display will return to [U90 PASSWORD].
- If the correct password has been input, the service maintenance mode will be activated.
- Once the service maintenance mode has been activated, [U80 SERVICE MODE] will be added to the mode menu.

```
U90 PASSWORD / .
```

8. Press the menu/select [ $\uparrow$ ] button.

- [U80 SERVICE MODE] will be displayed.

9. Pressing the [enter] key at this point will produce display of the service maintenance mode menu.

```
U80 SERVICE MODE /.
```

- Continuation of the Service Maintenance Mode

Although pressing the [exit] key for any of the service maintenance menu items will effect return to the normal display on the LCD, the service maintenance mode will remain activated.

Pressing the [maintenance] key again to enter the maintenance mode will produce display of the [U80 SERVICE MODE] service maintenance menu without input of the password.

- Terminating the Service Maintenance Mode

The procedure for termination of the service maintenance mode is shown below.

1. Invoke display of [U90 PASSWORD] on the LCD.

```
U90 PASSWORD /.
```

2. Press the [enter] key.

- A request for input of the password will appear.

```
U91 INPUT PASSWORD .  
[  ]
```

3. Press the [enter] key without inputting the password.

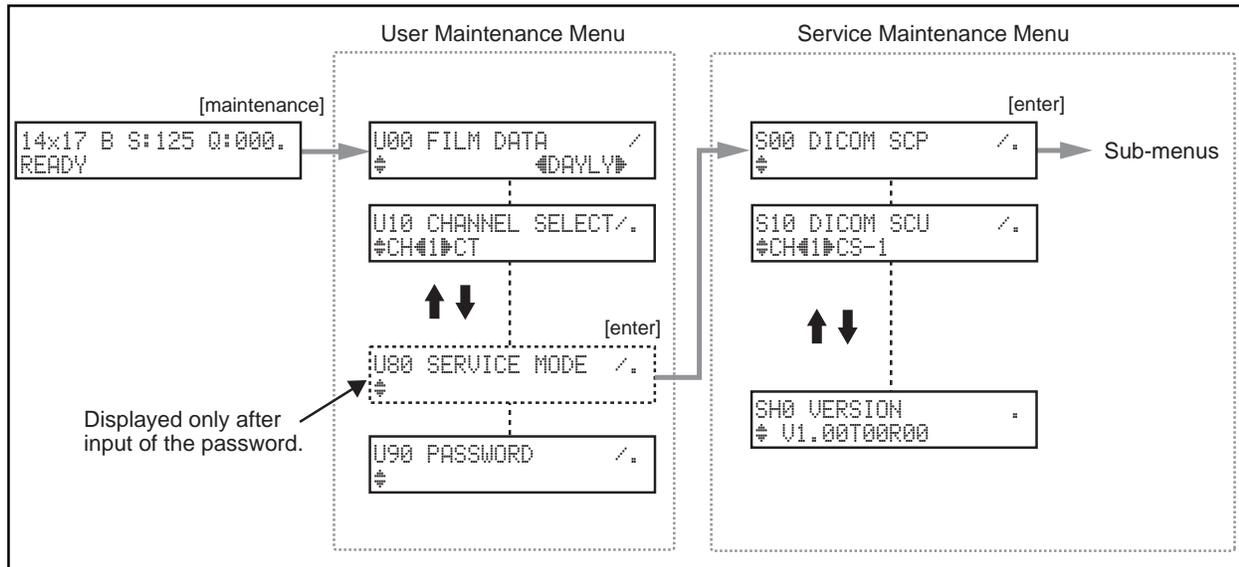
- The service maintenance mode will be terminated and the normal maintenance menu (user maintenance menu) displayed.
- Pressing the operation switch and terminating the DRYPRO will also result in termination of the service maintenance mode.

### 4.1.2 Operation of the Service Maintenance Mode

- Executing Service Maintenance Items

Invoke display of the required service maintenance menu on the LCD and press the [enter] key to display setting and operation execution menu items for the selected item.

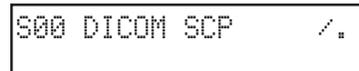
- Menu Configuration



- Moving Between Menus

Pressing the [↑] or [↓] keys for menu items for which ◊ is displayed at the left bottom of the LCD will result in moving forward to the next menu or back to the previous menu.

Menu items with multiple operation and setting items are indicated by display of a slash (/) to the right of the item (see the example at right).



Pressing the [enter] key will produce display of the sub-menu network.

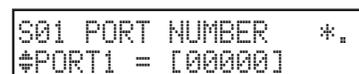
- Selection/Input of Items

An asterisk (\*) displayed at the right of a menu item indicates that there are no further setting item menus. Value settings or selections should be made here.

Options are shown enclosed in < > on the bottom line of the menu item name. Parameters to be selected or set may be displayed by pressing the [←]/[→] of [select] key.



Items for which numerical or character input is required are shown enclosed in [ ] on the bottom line of the menu item



name. Required values may be input using the operation panel keys.

Pressing the [enter] key after item selection or input will confirm the input and return the display to the top menu item. Pressing the [exit] key will cancel input and return the display to the top menu item.

- Inputting Numericals or Characters

Input of numerals or characters in the service maintenance mode may be made using the following keys.

### 1. Inputting Numericals

1. Press the service maintenance key [mode] to display [0-9] lamp.
2. Input the required numerals using the numerical keys.
3. If an error is made, bring the cursor to the numerical to be deleted, and press [del/BS] key.

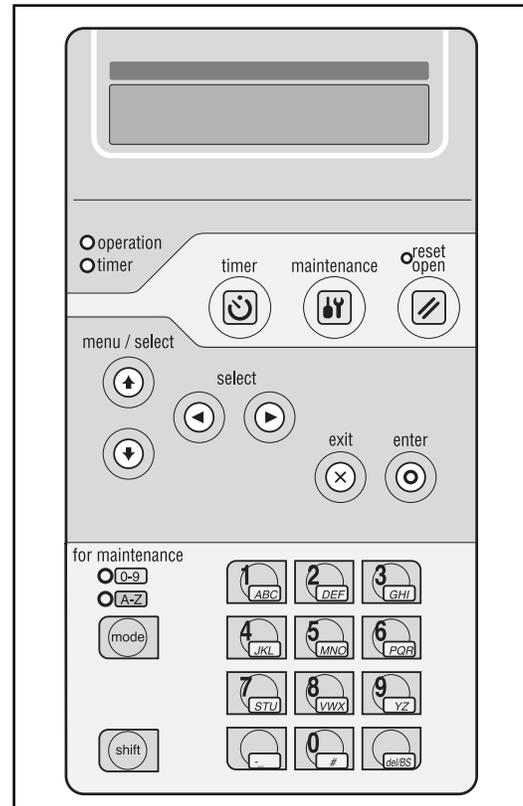
### 2. Inputting Characters

1. Press the service maintenance key [mode] to display [A-Z] lamp.
2. Pressing a numerical key will result in input of the character shown on that key. Each numerical key is assigned three characters: press the key repeatedly until the required character is shown.

For example, pressing numerical key [1] once will result in input of "A," while pressing the same key three times will result in input of "C."

To input lower case characters, keep the [shift] key depressed while pressing the required numerical key.

3. If an error is made, bring the cursor to the character to be deleted, and press [del/BS] key.



## 4.2 Service Maintenance Mode Screens

### 4.2.1 Service Maintenance Menu

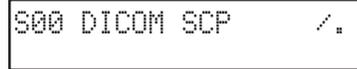
The following is the menu displayed in the service maintenance mode.

Menu	Content of Settings	Reference
S00 DICOM SCP /.	Sets DICOM data for the DRYPRO unit itself.	p.4-7
S10 DICOM SCU /. #CH#1#Resius170	Registers diagnostic devices connected to the DRYPRO and sets DICOM and N-EVENT REPORT data for those devices.	p.4-9
S20 PRINT COND. /. #CH#1#Resius170	Sets print parameters for each of the connected diagnostic devices.	p.4-12
S30 DICOM PRIORITY/. #CH#1#Resius170	Makes DICOM data enable/disable settings.	p.4-15
S40 FILM SETUP /. #	Sets size and type of film in the supply tray.	p.4-17
S50 DENSITOMETER *. # #DENSITY PATTARN#	Corrects the internal densitometer.	p.4-19
S60 TEST PRINT /. # #SMPTE PATTERN#	Prints SMPTE and other test parameters for density control.	p.4-21
S70 SYSTEM SETUP /. #	Sets the data for system operation.	p.4-25
S80 CORRECT /. # #DATA INPUT#	Sets or changes density calibration parameters.	p.4-27
S90 PRODUCT MAINTEN./. # #PRODUCT SETUP#	Sets the mechanical control initial status. This has been set at the factory before shipment, but should be changed when so instructed.	p.4-29
SA0 MEC MAINTEN. /. # #FILM CONVEYANCE#	Carries out test of various parts of DRYPRO.	p.4-32
SB0 BACKUP RESTORE*. # #BACKUP#	Backs up the data stored in the CF onto the HD. Also restores the back up data onto the CF.	p.4-38
SC0 F-DATA MODIFY /. #	Checks accumulated film data. Also sets film type, day and date to be collected.	p.4-41

Menu	Content of Settings	Reference
<pre>SD0 QUEUE CLEAR  *. #  ◀ALL QUEUE▶</pre>	Deletes unprinted data registered in the queue.	p.4-42
<pre>SE0 TRAY OPEN   *. #</pre>	Opens the supply tray.	p.4-43
<pre>SF0 CALIB INTERVAL/. #  ◀CALIB MODE▶</pre>	Sets the method and schedule for automatic density calibration.	p.4-44
<pre>SG0 SCHEDULE    *. #  ◀MNT.A RESET▶</pre>	Sets the schedule for maintenance and calibration.	p.4-47
<pre>SH0 VERSION     . # V1.00R00T00</pre>	Displays the DRYPRO version.	p.4-51

### 4.2.2 S00 DICOM SCP

Sets DICOM data for the DRYPRO unit itself. This setting should be made when the main body is installed or when the connected network is changed.



This menu is comprised of the following setting menu items.

- Setting Menu Items

Menu	Content of Settings
<pre>S01 PORT NUMBER  *. #PORT1 = [00000]</pre>	Sets the port number through which the DRYPRO receives print data from the network. A maximum of four different DRYPRO port numbers may be set.
<pre>S02 PORT NUMBER  *. #PORT2 = [00000]</pre>	
<pre>S03 PORT NUMBER  *. #PORT3 = [00000]</pre>	
<pre>S04 PORT NUMBER  *. #PORT4 = [00000]</pre>	
	Sets the DRYPRO IP address. The IP address setting is unnecessary where DHCP is used.
<pre>S06 SUBNET MASK  *. #255.255.255.0</pre>	Sets the network sub-net mask.
<pre>S07 GATEWAY      *. #0.0.0.0</pre>	Sets the gateway address on the network.
<pre>S08 AE TITLE     *. #[KIC_DPRO2_P001 ]</pre>	Sets the DRYPRO AE title. A maximum of 16 characters may be input.
<pre>S09 SCP DEFAULT CH*. # [NO]</pre>	Sets the channel that is used by DRYPRO as a default. Select [NO] when the default channel is not used, any of [CH1] through [CH4] when it is to be used.
<pre>S0A HOST NAME    *. #[ ]</pre>	Sets the DRYPRO name used on the network. A maximum of 16 characters may be input.
<pre>S0B DHCP         *. # [OFF]</pre>	Makes DHCP server enable/disable settings. Set to [ON] if a DHCP is used, [OFF] if not.

- Operation Keys

Key	Function
Numerical keys	Used for numerical/character input.
[mode]	Switches the input mode when using numerical keys (numerical/character input).
[←] / [→]	Allows selection of parameters for setting items.
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Stores settings and returns to [S00 DICOM SCP].
[exit]	Returns to [S00 DICOM SCP] without storing settings.

- Procedure for Making DRYPRO Settings

1. Press the [enter] key when [S00 DICOM SCP] is displayed.

- [S01 PORT NUMBER] will be displayed.

```
S00 DICOM SCP  /.
```

2. Use the numerical keys to input the port number through which DRYPRO will receive image data.

- A maximum of four port numbers may be set. When setting multiple port numbers, use the [↓] key to move to the next port number input window and input the required port number.

```
S01 PORT NUMBER  *.  
#PORT1 = [00000]
```

3. Press the [↓] key to move to [S05 IP ADDRESS].

4. Use the numerical keys to input the DRYPRO IP address.

5. Continue in the same way, making settings for each of the setting menu items.

6. Press the [enter] key after completing settings as far as [S0B DHCP].

- Set data will be stored and the display returned to [S00 DICOM SCP].
- Pressing the [exit] key after changing settings will produce display of the request for confirmation shown at right. Pressing the [enter] key after selection of <YES> will result in storage of changed settings and return to [S00 DICOM SCP]. Pressing the [enter] key after selection of <NO> will result in return to [S00 DICOM SCP] without storage of changed settings.

```
Data was changed  
Save the data? ◀YES▶
```

7. Press the [exit] key, and exit the service maintenance mode.

8. Press the operation switch of the DryPro to restart the DryPro.

- DICOM SCP settings become effective after the restart of the DryPro.

### 4.2.3 S10 DICOM SCU

Registers diagnostic devices connected to the DRYPRO and sets DICOM data and N-EVENT-REPORT for those devices.

```
S10 DICOM SCU /
#CH#1#Regius170
```

A maximum of four diagnostic devices (channels) may be registered.

This menu is comprised of the following setting menu items.

- Setting Menu Items

Menu	Content of Settings
S11 CHANNEL USE *. # [ON]	Sets whether to use or not to use the channel of the diagnostic device. Sets to [ON] to use it, to [NO] to neglect it.
S12 SCU NAME *. #[ ]	Sets diagnostic device names. These names are used only in the DRYPRO unit.
S13 N-EVENT PORT *. # [00000]	Sets N-EVENT REPORT port numbers when communication with the diagnostic device is to be made using N-EVENT-REPORT. <ul style="list-style-type: none"> <li>At present, only CS-1 and Printlink can accept N-EVENT-REPORT for communication.</li> </ul>
S14 IP ADDRESS *. #255.255.255.255	Sets diagnostic device IP addresses.
S15 AE TITLE *. #[ ]	Sets diagnostic device AE titles. <ul style="list-style-type: none"> <li>A maximum of 16 characters may be input.</li> </ul>
S16 HOST NAME *. #[ ]	Sets diagnostic device names used on the network. <ul style="list-style-type: none"> <li>A maximum of 16 characters may be input.</li> </ul>
S17 BORDER SIZE *. # [REGIUS]	Sets the border size. <ul style="list-style-type: none"> <li>[REGIUS] : Sets a border with almost no margin used by the CR like Regius.</li> <li>[CT/MRI] : Sets a border most suitable for CT or MRI multi-format images.</li> </ul>
S18 FILM SIZETYPE *. # [NO CHECK]	Sets the reaction when command for film size/type that is not present in the film tray is received. <ul style="list-style-type: none"> <li>[NO CHECK] : Carry out print neglecting the film size/type specified.</li> <li>[CHECK] : Displays an error, and cancels printing.</li> </ul>
S19 EMPTY NOTICE *. # [ON]	Allows setting of whether or not to show a message when the supply tray is empty.

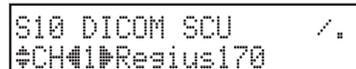
Menu	Content of Settings
S1A DICOM ERR LV *. # STANDARD	<p>Selects the method of error return from DRYPRO to diagnostic devices.</p> <p>[STANDARD] : When the diagnostic device send a query to the DryPro to check the status, returns "WARNING Error" when the tray is empty, etc., while "FAILURE" when the error is fatal.</p> <p>{FAILURE} : Returns "FAILURE" for all errors.</p> <p>{N-ACTION} : If the diagnostic device does not send query to the DryPro to check the status, forcefully shut the DICOM connection using print command(N-ACTION). (ABORT of association)</p> <ul style="list-style-type: none"> <li>This setting should not be changed unless otherwise instructed.</li> </ul>
S1B FRAME LAYOUT *. # CENTER	<p>Sets spaces between frames for multi-image format printing.</p> <p>[EVEN] : The space between frames is made as wide as possible, leaving top/bottom/left/right margins unchanged.</p> <p>[CENTER] : The space between frames remains fixed with the top/bottom/left/right margins widened.</p> <p>[H EVEN] : Equal layout of images in Hitachi format.</p> <p>[H CENTER] : Centred printing of images in Hitachi format.</p>
S1C DMAX/DMIN *. #DEFAULT #DICOM	<p>Sets maximum/minimum density for printing.</p> <p>[DICOM] : Uses density data sent by the diagnostic device.</p> <p>[P-CON] : Uses maximum/minimum density data set in the DRYPRO.</p>
S1D P-VALUE RCV *. # OFF	<p>Sets the method of gradation conversion.</p> <p>[OFF] : As with previous units, film is output with pixel value as a linear value of density. This item should also be set to off for printing of data using the SCU in compliance with DICOM GSDF.</p> <p>[ON] : Set when the SCU outputs at P value to maintain consistency of image gradation visibility throughout the system.</p> <p>Film is output with the pixel value automatically set to P even when the SCU is not printing out data according DICOM GSDF.</p> <p>Print conditions ILLUMINATION (light table brilliance) and AMBIENT LIGHT must be set. Where ILLUMINATION and AMBIENT LIGHT cannot be measured, the following default values should be set: ILLUMINATION : 2000, AMBIENT LIGHT : 10.</p>

- Operation Keys

Key	Function
Numerical keys	Used for numerical/character input.
[mode]	Switches the input mode when using numerical keys (numerical/character input).
[←]/[→]	Allows selection of parameters for setting items.
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Stores settings and returns to [S10 DICOM SCU].
[exit]	Returns to [S10 DICOM SCU] without storing settings.

- Procedure for Setting Diagnostic Devices

1. Use the [←][→] keys to select the channel where the diagnostic device is to be registered when [S10 DICOM SCU] is displayed.



```
S10 DICOM SCU /.  
◆CH#1◆Resius170
```

2. Press the [enter] key.

- [S11 CHANNEL USE] will be displayed.

3. Use the [←][→] keys to select <ON.>.

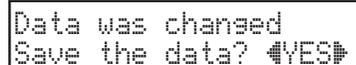
4. Use the [↓] key to move to the next item on the menu.

5. Use the [←][→] keys to select parameters for setting, or use the [mode] and numerical keys to input set values.

6. Repeat steps-2 and 3 to complete settings as far as [S1C DMAX/DMIN].

7. Press the [enter] key after completion of all the necessary settings.

- Set data will be stored and display returned to [S10 DICOM SCU].
- Pressing the [exit] key after changing settings will produce display of the request for confirmation shown at right. Pressing the [enter] key after selection of <YES> will result in storage of changed settings and return to [S10 DICOM SCU]. Pressing the [enter] key after selection of <NO> will result in return to [S10 DICOM SCU] without storage of changed settings.



```
Data was changed  
Save the data? ◆YES◆
```

#### 4.2.4 S20 PRINT COND.

Sets print conditions for each of the diagnostic devices connected.

```
S20 PRINT COND.  /
#CH#1#Regius170
```

This menu is comprised of the following setting menu items.

- Setting Menu Items

Menu	Content of Settings
S21 STAMP SELECT *. #TIME/DATE #ON#	Determines whether or not to print the date on the stamp.
S22 STAMP SELECT *. #COPY NO. #ON#	Determines whether or not to print the print count on the stamp.
S23 STAMP SELECT *. #PATIENT ID. #ON#	Determines whether or not to print the patient ID and name on the stamp.
S24 STAMP SELECT *. #SCU ID/PAGE #ON#	Determines whether or not to print the SCU ID and PAGE ID on the stamp.
S25 STAMP SELECT *. #STAMP MESSAGE #ON#	Determines whether or not to print a message on the stamp.
S26 STAMP SELECT *. #PATIENT DAT#ASCII#	Selects the character type used to express patient data on the stamp. <ul style="list-style-type: none"> <li>[ASCII] or [2BYTE] may be selected.</li> </ul>
S27 STAMP MESSAGE *. #[ ]	Sets the message to be printed on the stamp. <ul style="list-style-type: none"> <li>A maximum of 32 characters may be input.</li> </ul>
S28 STAMP DIRECT. *. # #LOWER#	Sets the stamp position. <ul style="list-style-type: none"> <li>[UPPER], [LOWER], [RIGHT] or [LEFT] may be selected.</li> </ul>
S29 YEAR FORMAT *. # #YYYY#	Selects the year format. <ul style="list-style-type: none"> <li>[YY: year expressed in 2 digits] or [YYYY: year expressed in 4 digits] may be selected.</li> </ul>
S2A MONTH FORMAT *. # #NUMERIC#	Selects the month format. <ul style="list-style-type: none"> <li>[NUMERIC (month expressed as a numerical value)] or [TEXT (month expressed in abbreviated text format)] may be selected.</li> </ul>
S2B DATE FORMAT *. # #TIME+DATE#	Selects the time and date format. <ul style="list-style-type: none"> <li>[TIME+DATE (expressed in the order time, date)], [DATE+TIME (expressed in the order date, time)], [TIME ONLY (only the time is expressed)] or [DATE ONLY (only the date is expressed)] may be selected.</li> </ul>
S2C REQ. IMAGESIZE *. # #EFFECTIVE#	Sets the size of a single frame. <ul style="list-style-type: none"> <li>[EFFECTIVE] : Prints the image at specified size. If the specified size is larger than the film, prints according to [S2F REQ.BEHAVIOR].</li> <li>[INVALID] : Prints the image as large as possible to suit to the film neglecting the specified size.</li> </ul>

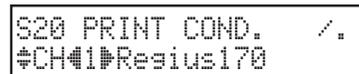
Menu	Content of Settings
S2D EXPANSION CHAR*. # OFF	Determines whether or not the patient ID and name format shall be expanded to a 2-line display.
S2E EDGE ENHANCE *. # OFF	Determines whether or not characters displayed on the image shall be made slightly brighter for ease of viewing.
S2F RED. BEHAVIOR *. # DECIMATE	Selects the method when the specified image size is larger than the film. <ul style="list-style-type: none"> <li>• [DECIMATE]: Reduces the size to suit to the film size.</li> <li>• [CROP] : Trims the image according to the film size.</li> </ul>
S2G FLIP ON/OFF *. # ON	Determines whether or not the image shall be inverse-displayed.

• Operation Keys

Key	Function
Numerical keys	Used for numerical/character input.
[mode]	Switches the input mode when using numerical keys (numerical/character input).
[←] / [→]	Allows selection of parameters for setting items.
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Stores settings and returns to [S20 PRINT COND.].
[exit]	Returns to [S20 PRINT COND.] without storing settings.

• Procedure for Setting Print Conditions

1. Use the [←][→] keys to select the channel of the diagnostic device for which print conditions are to be set when [S20 PRINT COND.] is displayed.
2. Press the [enter] key.
  - [S21 STAMP SELECT] will be displayed.
3. Use the [←][→] keys to select conditions to be set.
  - Use the [mode] and numerical keys to make settings for items requiring numerical/character input.
4. Use the [↓] key to move to the next item on the menu.
5. Repeat steps-2 and 3 to complete settings as far as [S2G FLIP ON/OFF].



**6.** Press the [enter] key after completion of all the necessary settings.

- Set data will be stored and display returned to [S20 PRINT COND.].
- Pressing the [exit] key after changing settings will produce display of the request for confirmation shown at right. Pressing the [enter] key after selection of <YES> will result in storage of changed settings and return to [S20 PRINT COND.].  
Pressing the [enter] key after selection of <NO> will result in return to [S20 PRINT COND.] without storage of changed settings.

```
Data was changed
Save the data? ◀YES▶
```

### 4.2.5 S30 DICOM PRIORITY

This setting determines whether the information from the diagnostic device or the DRYPRO unit shall be given priority in regard to each of the print condition setting items when printing.

```
S30 DICOM PRIORITY/.
#CH#1#Resius170
```

This menu is comprised of the following setting menu items.

- Setting Menu Items

Menu	Content of Settings
S31 DEFAULT LUT *. # #DICOM#	When [DICOM] has been selected for each of the set items, information sent from the diagnostic device shall be given priority. When [P-CON] has been selected, DRYPRO unit settings shall be given priority.
S32 SMOOTH *. # #DICOM#	<ul style="list-style-type: none"> <li>DRYPRO print conditions may be set from the [U30 PRINT COND.] menu in the user maintenance mode.</li> </ul>
S33 DMAX *. # #DICOM#	[DEFAULT LUT] : LUT to be applied to the image
S34 DMIN *. # #DICOM#	[SMOOTH] : Smoothing type
S35 POLARITY *. # #DICOM#	[DMAX]: Maximum density
S36 ORIENTATE *. # #DICOM#	[DMIN]: Minimum density
S37 TRIM *. # #DICOM#	[POLARITY]: Neg or pos of the image
S38 BORDER *. # #DICOM#	[ORIENTATE]: Print orientation
	[TRIM]: Trimmed or non-trimmed print
	[BORDER]: Border color

- Operation Keys

Key	Function
[←] / [→]	Selects [DICOM] or [P-CON] as the device given priority for each of the set items.
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Stores settings and returns to [S30 DICOM PRIORITY].
[exit]	Returns to [S30 DICOM PRIORITY] without storing settings.

- Procedure for Making Film Settings

1. Press the [enter] key when [S30 DICOM PRIORITY] is displayed.

- [S31 DEFAULT LUT] will be displayed.

```
S31 DEFAULT LUT  *.  
#                #DICOM#
```

2. Use the [←][→] keys to select the device to be given priority.

3. Use the [↓] key to move to the next item on the menu.

4. Repeat steps-2 and 3 to complete settings as far as [S38 BORDER].

5. Press the [enter] key after completion of all the necessary settings.

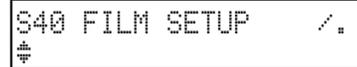
- Set data will be stored and display returned to [S30 DICOM PRIORITY].
- Pressing the [exit] key after changing settings will produce display of the request for confirmation shown at right. Pressing the [enter] key after selection of <YES> will result in storage of changed settings and return to [S30 DICOM PRIORITY]. Pressing the [enter] key after selection of <NO> will result in return to [S30 DICOM PRIORITY] without storage of changed settings.

```
Data was changed  
Save the data? #YES#
```

## 4.2.6 S40 FILM SETUP

Sets the size and type of film in the supply tray.

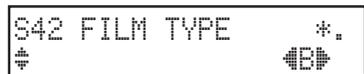
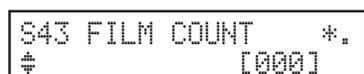
This menu may be used to make settings whenever film is changed due to service requirements.



S40 FILM SETUP /.

This menu is comprised of the following setting menu items.

- Setting Menu Items

Menu	Content of Settings
 <p>S41 FILM SIZE *. 14X14</p>	Use the [←] / [→] keys to set the film size. [11 X 14], [14 X 14] or [14 X 17] may be selected.
 <p>S42 FILM TYPE *. B</p>	Use the [←] / [→] keys to set the film type. [B] (blue), [C] (clear) or [DB] (DR blue) may be selected.
 <p>S43 FILM COUNT *. [0000]</p>	Input the number of sheets held by the supply tray. <ul style="list-style-type: none"> <li>A maximum of 126 sheets may be set.</li> </ul>

- Operation Keys

Key	Function
Numerical keys	Used to input set value for the FILM COUNT.
[←] / [→]	Used to select film size and type.
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Stores settings and returns to [S40 FILM SETUP].
[exit]	Returns to [S40 FILM SETUP] without storing settings.

- Procedure for Making Film Settings

1. Press the [enter] key when [S40 FILM SETUP] is displayed.

- [S41 FILM SIZE] will be displayed.

```
S41 FILM SIZE      *.
#                14X14#
```

2. Use the [←] / [→] keys to set the size of the film in the supply tray.

3. Use the [↓] key to move to [S42 FILM TYPE].

```
S42 FILM TYPE      *.
#                B#
```

4. Use the [←] / [→] keys to set the type of the film in the supply tray.

5. If film is already loaded in the supply tray, use the [↓] key to move to [S43 FILM COUNT].

```
S43 FILM COUNT     *.
#                [000]
```

6. Use the numerical keys to input the number of sheets in the supply tray.

7. Press the [enter] key after completion of all the necessary settings.

- Set data will be stored and display returned to [S40 FILM SETUP].
- Pressing the [exit] key after changing settings will produce display of the request for confirmation shown at right. Pressing the [enter] key after selection of <YES> will result in storage of changed settings and return to [S40 FILM SETUP]. Pressing the [enter] key after selection of <NO> will result in return to [S40 FILM SETUP] without storage of changed settings.

```
Data was changed
Save the data? YES#
```

### 4.2.7 S50 DENSITOMETER

Corrects read-out from the densitometer furnished in the DRYPRO unit.

Items may be selected from the [S50 DENSITOMETER] menu and set/checked using the [enter] key.

```
S50 DENSITOMETER *.
# DENSITY PATTARN#
```

This menu is comprised of the following setting menu items.

- Menu Items to be Set/Checked

Menu	Content of Settings
<pre>S50 DENSITOMETER *. # DENSITY PATTARN#</pre>	Prints (registers in the queue) the WEDGE pattern for the densitometer.
<pre>S50 DENSITOMETER /. # INPUT DENSITY#</pre>	Allows input of the density at each point on the WEDGE pattern read out by the densitometer. <ul style="list-style-type: none"> <li>• Refer to "3.3 Densitometer Correction"</li> </ul>
<pre>S50 DENSITOMETER /. # LAST TIME DENSITY#</pre>	Displays density values corrected previously for each point.
<pre>S50 DENSITOMETER /. # NOW DENSITY#</pre>	Displays current density values for each point.

- Operation Keys

Key	Function
[←] / [→]	Selects items to be executed.
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Prints a WEDGE pattern when the DENSITY PATTERN is on a display. For other items on the menu, this key enables shift to the input/checking menus.
[exit]	Returns to [U80 SERVICE MODE].

- INPUT DENSITY Sub-menu Network

Menu	Content of Settings
<pre>S51 OUT DENSITY *. #POINT01[000]x0.01D.</pre>	Use the [↓] to switch the display and input density for each point. <ul style="list-style-type: none"> <li>• The value input should be the actual density read out by the densitometer multiplied by 100 (X 100).</li> </ul>
<pre>S5A OUT DENSITY *. #POINT10[000]x0.01D.</pre>	

- **LAST TIME DENSITY Sub-menu Network**

Menu	Content of Settings
S51 LASTTIME DENS. . #POINT01=000x0.01D.	Use the [↓] to switch the display and check density for each point.
S5A LASTTIME DENS. . #POINT10=000x0.01D.	

- **NOW DENSITY Sub-menu Network**

Menu	Content of Settings
S51 NOW DENSITY . #POINT01=000x0.01D.	Use the [↓] to switch the display and check density for each point.
S5A NOW DENSITY . #POINT10=000x0.01D.	

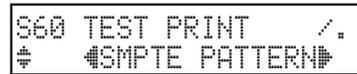
- **Procedure for Calibrating the Densitometer**

For details of calibrating the densitometer using the [S50 DENSITOMETER] menu, refer to "3.3 Densitometer Correction".

### 4.2.8 S60 TEST PRINT

Prints out test patterns used to check the DRYPRO status.

The setting items displayed when the [enter] key is pressed will differ depending upon the test pattern selected from the [S60 TEST PRINT] menu.



The following test patterns are available.

- Prints SMPTE patterns.

Menu	Content of Settings
	Prints SMPTE patterns.
	Prints flat patterns (even density).
	Prints frame patterns.
	Prints out a list of characters furnished in the DRYPRO unit. <ul style="list-style-type: none"> <li>This pattern is intended for R&amp;D purposes and is not used for normal servicing.</li> </ul>
	Prints increment patterns.
	Prints patterns for manufacturing.
	Prints scale pattern patterns. <ul style="list-style-type: none"> <li>This pattern is intended for R&amp;D purposes and is not used for normal servicing.</li> </ul>
	Prints stripe patterns. <ul style="list-style-type: none"> <li>This pattern is intended for R&amp;D purposes and is not used for normal servicing.</li> </ul>
	Prints GENERAL patterns. <ul style="list-style-type: none"> <li>This pattern is intended for R&amp;D purposes and is not used for normal servicing.</li> </ul>
	Prints DRYPRO calibration patterns.

- Operation Keys

Key	Function
[←] / [→]	Selects the test pattern to be printed.
[↑]	Moves back to the previous setting menu item.

Key	Function
[↓]	Moves forward to the next setting menu item.
[enter]	Prints the selected test pattern.
[exit]	Returns to [U80 SERVICE MODE].

• **SMPTE PATTERN Sub-menu Items**

Menu	Content of Settings
<pre>S61 CHANNEL SELECT*. #CH#1#Regius170</pre>	Use the [←] / [→] keys to select the channel of the diagnostic device from which a print is required.
[enter]	
<pre>S62 FORMAT *. # #4#</pre>	Use the [←] / [→] keys to select the pattern frame count. <ul style="list-style-type: none"> <li>[1], [2], [4], [6], [9], [12] or [15] frames may be selected.</li> </ul>
<pre>S63 COPY COUNT *. # [001]</pre>	Input the number of sheets to be printed.
<pre>S64 LUT SELECT *. # #1#</pre>	Use the [←] / [→] keys to select the print-target LUT.
<pre>S65 DENSITY VALUE *. # #-7#</pre>	Use the [←] / [→] keys to increase or decrease density if changes to the value are required. <ul style="list-style-type: none"> <li>Changes may be made within a range of -7 - +7.</li> </ul>
<pre>S66 CONTRAST VALUE*. # #-7#</pre>	Use the [←] / [→] keys to select the contrast applied to printing. <ul style="list-style-type: none"> <li>Changes may be made within a range of -7 - +7.</li> </ul>
<pre>S67 SMOOTH VALUE *. # #1#</pre>	Use the [←] / [→] keys to select the smoothing type applied to printing.
<pre>S68 DENSITY MAX *. # [380]x0.01D.</pre>	Input the maximum density value for printing if changes are required. <ul style="list-style-type: none"> <li>Input the required density value X 100.</li> </ul>
<pre>S69 DENSITY MIN *. # [020]x0.01D.</pre>	Input the minimum density value for printing if changes are required. <ul style="list-style-type: none"> <li>Input the required density value X 100.</li> </ul>

• **FLAT PATTERN Sub-menu Items**

Menu	Content of Settings
<pre>S61 FLAT BASE *. # [380]x0.01D</pre>	Input the density value for flat pattern printing. <ul style="list-style-type: none"> <li>Input the required density value X 100.</li> </ul>
<pre>S62 COPY COUNT *. # [001]</pre>	Input the number of sheets to be printed.

### • FRAME PATTERN Sub-menu Items

Menu	Content of Settings
<pre>S61 FRAME BASE   *. #                [380]x0.01D</pre>	Input the density value for frame pattern printing. <ul style="list-style-type: none"> <li>Input the required density value X 100.</li> </ul>
<pre>S62 COPY COUNT  *. #                [001]</pre>	Input the number of sheets to be printed.

### • INCREMENT PATTERN Sub-menu Items

Menu	Content of Settings
<pre>S61 INCREMENT PTN. *. #                ◀MAIN SCAN▶</pre>	Select the direction for density change. [MAIN SCAN] : Selection of the main scan direction. [SUB SCAN]  : Selection of the sub-scan direction.
<pre>S62 COPY COUNT  *. #                [001]</pre>	Input the number of sheets to be printed.

### • PRODUCT PATTERN Sub-menu Items

Menu	Content of Settings
<pre>S61 TARGET BASE  *. #                [000]x0.01D</pre>	Input the density value for product pattern printing. <ul style="list-style-type: none"> <li>Input the required density value X 100.</li> </ul>
<pre>S62 COPY COUNT  *. #                [001]</pre>	Input the number of sheets to be printed.

### • CALIBRATION PATTERN Sub-menu Items

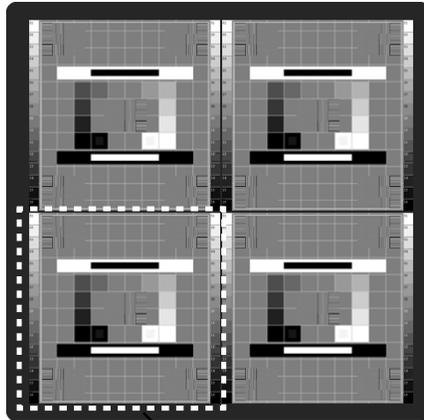
Menu	Content of Settings
<pre>S61 COPY COUNT  *. #                [01]</pre>	Input the number of sheets to be printed.

### • Procedure for Test Printing

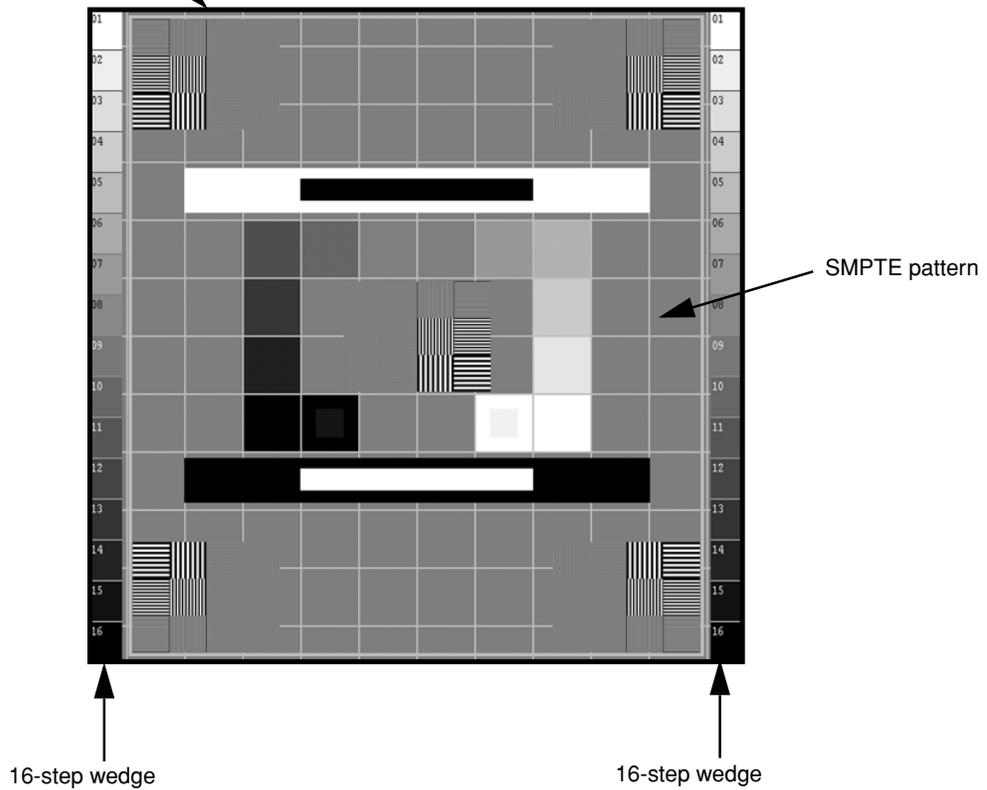
For details of test printing using the [S60 TEST PRINT] menu, refer to "3.1 How to Check the Image".

## • Density Control

Each frame of the SMPTE pattern for the DRYPRO unit printed using the TEST PRINT menu comprises a 16-step wedge, the SMPTE pattern and a 1024-step grey scale. The density of the 16-step wedge may be measured for density control.

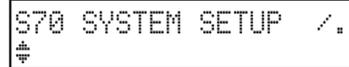


- IMPORTANT**
- The SMPTE pattern should be used for density control.
  - Do not use the calibration sheet printed using the CALIBRATION menu.
  - The calibration sheet is intended for use as raw data for automatic density calibration.



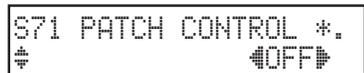
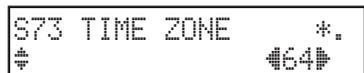
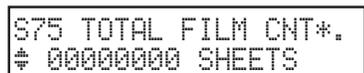
## 4.2.9 S70 SYSTEM SETUP

This menu allows setting of information relating to system operation and checking of the running status.



This menu is comprised of the following setting menu items.

### n Set Menu Items

Menu	Content of Settings
	Determines whether or not to use the density patch for density control. [OFF] : Density control disabled. [ON] : Density control enabled.
	Selects the recording level of the log where system operational data is recorded. [NORMAL] : Records normal data. [DETAILS] : Records detailed data. Unless otherwise instructed, this setting should be left at <NORMAL>.
	Selects the time zone code for the country/region where the DRYPRO unit is installed. <ul style="list-style-type: none"> <li>For details of regions and time zone codes, refer to the appendix "<a href="#">Time Zone Number Correspondence List</a>".</li> </ul>
	Selects the language used on the operation panel LCD. <ul style="list-style-type: none"> <li>[ENGLISH], [GERMAN], [FRENCH], [SPANISH], [ITALIAN], [PORTUGUESE] or [SCANDINAVIAN] may be selected.</li> <li>All display on the current DRYPRO version is in English.</li> </ul>
	Displays the total print count from the time when the DRYPRO unit was installed to the present.
	Displays the total running time from the time when the DRYPRO unit was installed to the present.

### • Operation Keys

Key	Function
[←] / [→]	Selects setting parameters for each menu.
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Stores settings and returns to [S70 SYSTEM SETUP].
[exit]	Returns to [S70 SYSTEM SETUP] without storing settings.

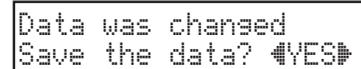
---

**n Procedure for System Setup**

1. Press the [enter] key when [S70 SYSTEM SETUP] is displayed.
  - [S71 PATCH CONTROL] will be displayed.
2. Use the [↑] / [↓] keys to move to the menu item to be set and set parameters using the [←] / [→] keys.
3. Press the [enter] key after completion of all the necessary settings.
  - Set data will be stored and display returned to [S70 SYSTEM SETUP].
  - Pressing the [exit] key after changing settings will produce display of the request for confirmation shown at right. Pressing the [enter] key after selection of <YES> will result in storage of changed settings and return to [S70 SYSTEM SETUP]. Pressing the [enter] key after selection of <NO> will result in return to [S70 SYSTEM SETUP] without storage of changed settings.



```
S71 PATCH CONTROL *.  
#          ◀OFF▶
```



```
Data was changed  
Save the data? ◀YES▶
```

### 4.2.10 S80 CORRECT

This menu serves to correct unevenness and shading of the image.



Set parameters for correction after printing a test pattern.

Select the required parameters from the [S80 CORRECTION] menu and carry out settings and execution using the [enter] key.

#### n Menu Items for Setting/Execution

Menu	Content of Settings
	Input data for correction of unevenness and shading.
	Prints the ST16A pattern.
	Prints the ST16B pattern.
	Prints the ST16C pattern.

#### • Operation Keys

Key	Function
[←] / [→]	Selects smoothing/shading items for setting/execution.
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Executes the selected setting/execution menu item.
[exit]	Terminates correction operation and returns to [U80 SERVICE MODE].

- **DATA INPUT Sub-menu Items**

Menu	Content of Settings
S81 TEST GAIN *. #TEST[00]	Used to input the provisional gain value used when printing the correction test pattern.
S82 PHASE *. #L[00]C[00]R[00]	Check the test pattern printed out using the STA16A and input a number for the least unevenness at [L] (left), [C] (centre) and [R] (right) positions.
S83 GAIN *. #L[00]C[00]R[00]	Check the test pattern printed out using the STA16B and input a number for the least unevenness at [L] (left), [C] (centre) and [R] (right) positions.
S84 BASE DENSITY *. # [000]x0.01D.	Input the base density for use when printing out the correction test pattern. <ul style="list-style-type: none"> <li>• Input the required density value X 100.</li> </ul>
S85 OFFSET *. #L[00]C[08]R[00]	Check the test pattern printed out using the STA16C and input a number for the least unevenness at [L] (left), [C] (centre) and [R] (right) positions.

- **Procedure for Unevenness and Shading Correction**

For details of correction using the [S80 CORRECTION] menu, refer to "3.2 Image Correction".

### 4.2.11 S90 PRODUCT MAINTENANCE

This menu enables checking/changing of constants used for hardware control by the mechanical control unit or for temperature control of the heat processing drum.

```
S90 PRODUCT MAINTENANCE/
┆ ◀PRODUCT SETUP▶
```

**CAUTION** Each constant has been adjusted to its best at the factory. Do not change it unless otherwise instructed.

#### • Setting/Execution Menu Items

Menu	Content of Settings
<pre>S90 PRODUCT MAINTENANCE/ ┆ ◀PRODUCT SETUP▶</pre>	Allows checking of the serial number and control constants.
<pre>S90 PRODUCT MAINTENANCE/ ┆ ◀H-DRUM SETUP▶</pre>	Allows checking of the heat processing drum temperature control constants.

#### • Operation Keys

Key	Function
[←] / [→]	Selects PRODUCT MAINTENANCE display items.
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Executes the selected setting/execution menu item.
[exit]	Terminates correction operation and returns to [U80 SERVICE MODE].

#### • PRODUCT SETUP Sub-menu Items

Menu	Content of Settings
<pre>P11 SERIAL NUMBER *.       [00000]</pre>	Displays the DRYPRO serial number. <ul style="list-style-type: none"> <li>This cannot be changed.</li> </ul>
<pre>P12 HDOFFSET      *. ┆ [00000]x0.01mm</pre>	Displays the adjustment value for the image-write position in the main scan direction.
<pre>P13 VDOFFSET      *. ┆ [00000]x0.01mm</pre>	Displays the adjustment value for the image-write position in the sub-scan direction.
<pre>P14 U-SIZE TUNING *. ┆ [000000]x0.01%</pre>	Displays the image size adjustment value.
<pre>P15 FILM REDUCE   *. ┆ [000000]x0.01%</pre>	Displays the image size adjustment value.

Menu	Content of Settings
P16 H-STANDARD SPD*. # [ +000 ]%	Displays the heat processing drum speed adjustment value.
P17 STRONG NIP LV *. # [ 000 ]%	Displays the strong-nip level.
P18 1ST DECOMP LV *. # [ 000 ]%	Displays the primary pressure reduction level.
P19 2ND DECOMP LV *. # [ 000 ]%	Displays the secondary pressure reduction level.
P1A 3RD DECOMP LV *. # [ 000 ]%	Displays the tertiary pressure reduction level.
P1B WEAK NIP LV *. # [ 000 ]ms	Displays the weak-nip level.
P1C STRONG NIP TM *. # [ 000 ]ms	Displays the strong-nip time.
P1D 1ST DECOMP TM *. # [ 0000 ]ms	Displays the slow-down time from the strong-nip level to primary pressure reduction.
P1E 2ND DECOMP TM *. # [ 0000 ]ms	Displays the slow-down time from primary pressure reduction to secondary pressure reduction.
P1F 3RD DECOMP TM *. # [ 0000 ]ms	Displays the slow-down time from secondary pressure reduction to tertiary pressure reduction.
P1G WEAK NIP-S TM *. # [ 0000 ]ms	Displays the slow-down time from tertiary pressure reduction to weak-nip.
P1H WEAK NIP TM *. # [ 0000 ]ms	Display the weak-nip time.

• **H-DRUM SETUP Sub-menu Items**

Menu	Content of Settings
P21 H-DRUM OFFSET *. # C [ +000 ]	Displays the offset value for the heat processing drum temperature control. <ul style="list-style-type: none"> <li>The offset value is different from one heat processing to drum to the other. When the drum is replaced, input the value indicated on the drum.</li> </ul>
P22 H-DRUM OFFSET *. # F [ +000 ]	
P23 H-DRUM OFFSET *. # R [ +000 ]	

Menu	Content of Settings
P24 H-DRUM TEMP *. ⚙ [00000]	Displays the set temperature of the heat processing drum set temperature.
P25 PATCH FF *. ⚙ [00000]	Display parameters for patch control.
P26 PATCH GAIN *. ⚙ [00000]	
P27 PATCH INTERVAL*. ⚙ [00000]	
P28 DRUM CONTROL *. ⚙ ◀ON▶	
P29 DRUM CONTROL *. ⚙ A[00000]	Displays parameters for heat processing drum rotation control.
P2A DRUM CONTROL *. ⚙ B[00000]	
P2B DRUM CONTROL *. ⚙ C[00000]	
P2C DRUM CONTROL *. ⚙ D[00000]	
P2D DRUM CONTROL *. ⚙ E[00000]	
P2E DRUM CONTROL *. ⚙ F[00000]	
P2F DRUM CONTROL *. ⚙ G[00000]	
P2G LUT CORRECT *. ⚙ +[000]	
P2H HEAT CUT MODE *. ⚙ ◀OFF▶	Runs the DRYPRO unit without waiting for drum temperature to rise.

## 4.2.12 SA0 MEC MAINTE

Runs the mechanical control and executes load and sensor tests.

```
SA0 MEC MAINTE.  /
# #FILM CONVEYANCE#
```

- Setting/Execution Menu Items

Menu	Content of Settings
<pre>SA0 MEC MAINTE.  / # #FILM CONVEYANCE#</pre>	Executes film feed from pick-up to ejection.
<pre>SA0 MEC MAINTE.  / # #MEC TEST MODE#</pre>	Executes load tests using mechanical control.
<pre>SA0 MEC MAINTE.  / # #MEC STATUS#</pre>	Checks sensor inputs, time required for printing, and software versions for mechanical control and heat processing control.
<pre>SA0 MEC MAINTE.  / # #DEBUG STATUS#</pre>	Displays the status for debugging.
<pre>SA0 MEC MAINTE.  / # #MEC HEAT STATUS#</pre>	Checks the correction value of the heat processing drum temperature sensor.

- Operation Keys

Key	Function
[←] / [→]	Selects MEC MAINTE setting/execution items.
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Executes the selected setting/execution menu item.
[exit]	Terminates correction operation and returns to [U80 SERVICE MODE].

- FILM CONVEYANCE Sub-menu Items

Menu	Content of Settings
<pre>M10 CONVEYANCE CNT*. # #001#</pre>	Input the test count (print count) for a specific test.

- MEC TEST MODE Sub-menu Items

Menu	Content of Settings
<pre>M20 MEC TEST MODE *. Cmd.[000] 0000 0000</pre>	Executes testing after input of the test-target command number (number corresponding to targeted load).

• **MEC STATUS Sub-menu Items**

Menu	Content of Settings	
<pre>M30 PS10 ON MS4 -- #1#PS11 ON PS12 --</pre>	<p>Displays input signals from each sensor.</p> <ul style="list-style-type: none"> <li>• OFF is indicated by display of "--," ON by display of "ON."</li> <li>• Four sensor statuses can be displayed on one page: use the [←] / [→] keys to move between pages.</li> </ul>	
<pre>M31 H TempC=123.0°C # H TempF=123.0°C</pre>	<p>Displays read values of each DRYPRO temperature sensor.</p>	
<pre>M32 H TempR=123.0°C # TH6 =028.0°C</pre>		
<pre>M33 TH4 =045.0°C # TH5 =031.4°C</pre>		
<pre>M34 Pick#0#00000ms # Desc#0#00000ms</pre>	<p>Displays the processing time for each of the processes indicated on the LCD when printing. Refer to "Operation Status Check, p.4-38".</p>	
<pre>M35 Resu#0#00000ms # Expo#0#00000ms</pre>		
<pre>M36 Rnif#0#00000ms # Rise#0#00000ms</pre>		
<pre>M37 Heat#0#00000ms # Disc#0#00000ms</pre>		
<pre>M38 Cycl#0#00000 # (10ms)</pre>		
<pre>M39 Mecha Version # V1.00R00T00</pre>		<p>Displays the mechanical control software version.</p>
<pre>M3A HPRO Version # V1.00R00</pre>		<p>Displays the heat processing unit control software version.</p>

### • DEBUG STATUS Sub-menu Items

Menu	Content of Settings
M40 DEBUG STATUS00 # 0000000000000000	Displays the debugging status (00 - 14) and FIFO error data. • This function is intended for R&D purposes and is not required for servicing.
I	
M4E DEBUG STATUS14 # 0000000000000000	
M4F DEBUG STATUS #FIFO ERROR = 000000	

### • MEC HEAT STATUS Sub-menu Items

Menu	Content of Settings
M50 MEC DRM OFFSET*. # OFFSET C [+0000]	Displays the correction value of the heat processing drum temperature sensor (center).
M51 MEC DRM OFFSET*. # OFFSET F [+0000]	Displays the correction value of the heat processing drum temperature sensor (front).
M52 MEC DRM OFFSET*. # OFFSET R [+0000]	Displays the correction value of the heat processing drum temperature sensor (rear).

### • Film Conveyance Test

Carries out film conveyance using the same timing as for normal printing.

1. Select <FILM CONVEYANCE> from the [SA0 MEC MAINTE.] menu and press the [enter] key.
  - [M10 CONVEYANCE CNT] will be displayed.
2. Use the [←] / [→] keys to set the required number of repetitions.
3. Press the [enter] key.
  - The conveyance process from pick-up to ejection will be executed the specified number of times. Film will actually be conveyed, but not exposed.
  - The message shown at right will be displayed on the LCD during conveyance.
  - Display will return to the [SA0 MEC MAINTE.] menu after completion of the specified number of tests.

```
M10 CONVEYANCE CNT*.  
# 0001
```

```
Film Transporting..  
Please wait...
```

**• Checking Load Operation**

The selected load is operated for approximately five seconds.

**CAUTION** Although a check that the tray shutter is open when the suction cup arm motor is operated is carried out, operation of other loads is forced without checking the DRYPO status. Forcing incompatible operations may cause malfunction: due caution must be exercised.

**CAUTION** Operation of any of the loads will produce instability in the DRYPRO status: initialization should be carried out after first switching the power supply off, then back on.

1. Select <MEC TEST MODE> from the [SA0 MEC MAINT.] menu and press the [enter] key.

```
M20 MEC TEST MODE *.
Cmd.[0000] 0000 0000
```

- [M20 MEC TEST MODE] will be displayed.

2. Input the command corresponding to the load target to be tested from the list below.

Command	Load Operated	Command	Load Operated
001	Supply conveyance motor (high speed, normal revolution)	014	Elevator transport motor
002	Suction cup arm motor	015	Elevator transport nip motor
003	Film suction pump	016	Heat processing drum drive motor
004	Suction release solenoid valve	017	Cleaning retraction motor
005	Barrier wrapping removal motor	018	-
006	Tray lock solenoid	022	Ejection motor
007	Position regulator conveyance motor (high speed, normal revolution)	023	Deodorant fan
008	Descent conveyance nip motor	024	Secondary cooling fan
009	Justification motor	025	Front cover release solenoid
010	-	032	-
011	Position regulator nip motor	038	Shutter open/close motor (close operation)
012	Sub-scan nip solenoid	039	Shutter open/close motor (open operation)
013	Sub-scan motor		

3. Press the [enter] key.

- The selected load target will operate for approximately five seconds.
- The message at right will be displayed on the LCD during operation.
- If an error occurs during load test, an error No. will be shown at "XXXX" of the display in the right. ("0000" listed to the right is spare with current version)

```
MEC Testina...
Please wait...
```

```
M20 MEC TEST MODE *.
Cmd.[0000] XXXX 0000
```

4. Press the [exit] key after completion of testing.

- The [SA0 MEC MAINT.] menu will be displayed.

## • Sensor Status Check

Checks the status of sensors and fan operation in the DRYPRO unit.

1. Select <MEC STATUS> from the [SA0 MEC MAINT.] menu and press the [enter] key.

```
M30 PS10 ON MS4 --
←41→PS11 ON PS12 --
```

- The status of the first four sensors will be displayed.
- [ON] in the right of the sensor name(code) denotes "Sensor ON", [ - - ] denotes "Sensor OFF".

2. Use the [→] key to select the page where the sensor to be checked is displayed.

- One page shows the status of four sensors. There are seven pages in total.
- Sensor codes and names are shown as follows.

Code	Sensor Name	Code	Sensor Name
PS10	Suction cup HP sensor SUCKER HOME	MS4	Tray lock sensor TRAY LOCK
PS11	Shutter open sensor SHUTTER OPEN	PS12	Shutter close sensor SHUTTER CLOSE
SE4	Empty sensor EMPTY	PS17	Supply exit sensor SUPPLY EXIT
SE1	V-sync sensor V-SYNC	SE2	Sub-scan entrance sensor SUBSCAN ENTRANCE
PS5	Descent conveyance nip close sensor TRANSPORT NIP CLOSE (DESCENT )	PS7	Position regulator nip home sensor POSITION NIP HEME
PS6	Justification home position sensor WIDTH HOME POSITION	PS8	Justification position sensor WIDTH POSITION
PS15	Heat processing entrance sensor HPRO ENTRANCE	PS16	Densitometer entrance sensor DENSITOMETER ENTRANCE
PS2	Elevator transport nip close sensor TRANSPORT NIP CLOSE (ELEVATOR)	PS3	Cleaning position detection sensor CLEANING POSITION
PS4	Deodorant filter sensor FILTER	PS6	Heat Drum monitor ROLLER ROTATION
DF1	Deodorant fan monitor  FILTER FAN	LB1	Lineback signal (flicker board present/ absent)  LINEBACK SIGNAL
MS1	Front cover close sensor FRONT COVER CLOSE	MS2	Rear cover close sensor REAR COVER CLOSE
MS3	Jam cover close sensor JAM COVER	S3	Interlock switch INTERLOCK LOWER
SF1	Power supply cooling fan monitor -	SF2	Power supply cooling fan monitor -
MF1	Main cooling fan monitor -	MF2	Main cooling fan monitor -

- The English names shown below the sensor names are the names displayed under [MEC I/O] in the Web maintenance tool.

3. Press the [enter] or [exit] keys after completion of testing.
  - Display will return to the [SA0 MEC MAINTE] menu.

## • Operation Status Check

Checks the current heat processing drum temperature, the temperature at each sensor and the time taken to execute each process during the most recent printing operation.

Where one sheet is printed at a time, processing time for the last five prints is recorded. The [←] / [→] keys may be used for checking.

Note, however, that whenever continuous printing is carried out, all records are cleared.

For continuous printing, "0" represents the first printing time, and "1" onwards the printing time for the second sheet onwards.

1. Select <MEC STATUS> from the [SA0 MEC MAINT.] menu and press the [enter] key.

```
M30 PS10 ON M34 --
#41#PS11 ON PS12 --
```

- The current status of four sensors will be displayed.

2. Press the [↓] key.

```
M31 H TempC=123.0°C
# H TempF=123.0°C
```

- The heat processing drum temperature will be displayed.
- M31 to M33 represent the current temperature at each position while M34 to M38 represent processing time.
- The processing time for the last five times may be checked for M34 -M38 using the [←] / [→] keys.
- The meaning of each menu display is as follows.

Display	Temperature/Process
H Temp C	Temperature of heat processing sensor-C
H Temp F	Temperature of heat processing sensor-F
H Temp R	Temperature of heat processing sensor-R
TH6	Temperature at supply temperature sensor
TH4	Temperature at secondary cooling temperature sensor
TH5	Temperature at primary cooling temperature sensor
Pick	Pick-up start ~ supply exit detection (supply conveyance start) (app.6sec.)
Desc	Descent conveyance start ~ sub-scan entrance sensor detection (app.3sec.)
Regu	Position regulator operation (app.2.5sec.)
Expo	Exposure conveyance (14x17: app.18sec./14x14: app.15sec./11x14: app.12sec.) (continuous conveyance; 14x17: app.22sec./14x14: app.16sec./11x14: app.12sec.)
Rnip	Elevator nip operation (app.1.5sec.)
Rise	Elevator transport high-speed ~ elevator transport stop (14x17: app.33sec./14x14: app.13.5sec./11x14: app.19.5sec.)
Heat	Elevator transport stop ~ densitometer entrance sensor detection (14x17: app.7.5sec./14x14: app.13.5sec./11x14: app.19.5sec.)
Disc	Ejection conveyance start ~ ejection conveyance stop (14x17: app.35sec./14x14: app.29sec./11x14: app.24sec.)

Display	Temperature/Process
Cycl	First printing time or continuous printing cycle time (first print : 14x17: app.110sec./14x14: app.100sec./11x14: app.90sec.) (cycle time : 14x17: app.34sec./14x14: app.30sec./11x14: app.26sec.)

- The above time is only for reference. It may vary depending on the serial number, environment, machine status. Process time longer than the specified triggers an error.
- 3.** Press the [enter] or [exit] keys after completion of testing.
- Display will return to the [SA0 MEC MAINTE] menu.

### 4.2.13 SB0 BACK UP RESTORE

When the control box or the CF in the control box is replaced, data recorded on the CF (setting parameters) must be temporarily backed up on the hard disk. After replacement of the CF, the back up data must be restored on the CF from the hard disk.

```
SB0 BACKUP RESTORE*.
#          ◀BACKUP▶
```

- **Setting/Execution Menu Items**

Menu	Content of Settings
<pre>SB0 BACKUP RESTORE*. #          ◀BACKUP▶</pre>	Backs up the CF data on the hard disk.
<pre>SB0 BACKUP RESTORE/. #          ◀RESTORE▶</pre>	Restores data back up from the hard disk to the CF.

- **Operation Keys**

Menu	Content of Settings
[←] / [→]	Selects operation. [BACKUP] : Backs up the CF data on the hard disk. [RESTORE] : Restores back up data from the hard disk to the CF.
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Executes the back up/restore.
[exit]	Cancels back up/restore operation and returns to [U80 SERVICE MODE].

- **Procedure for Back Up and Restore**

For the procedure how to back up or restore, refer to “4.2.20 Back Up of CF”, “4.2.21 Restore of CF”.

### 4.2.14 SC0 F-DATA MODIFY

This menu is used to check/change accumulated film count for the day.



To check data, press the [enter] key to display the following menu item.

- **Setting Menu Items**

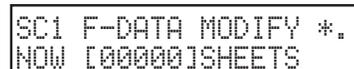
Menu	Content of Settings
<p>SC1 F-DATA MODIFY *. NOW [000000]SHEETS</p>	The number of sheets printed during the day is displayed to the right of [NOW.] <ul style="list-style-type: none"> <li>• Use the numerical keys to input the required numerical value if accumulation data is to be changed.</li> </ul>

- **Operation Keys**

Key	Function
Numerical keys	Used to input numerical values when changing accumulation data.
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Stores changed data and returns to the [SC0 F-DATA MODIFY] menu.
[exit]	Returns to the [SC0 F-DATA MODIFY] menu without storing changed data.

- **Procedure for Checking/Changing Accumulation Data**

1. Press the [enter] key when [SC0 F-DATA MODIFY] is displayed.



- [SC1 F-DATA MODIFY] will be displayed.

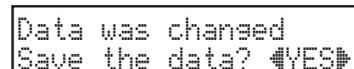
2. To exit the menu without making changes after checking accumulation data, press the [exit] key.

- If data has not been changed, display will return to the [SC0 F-DATA MODIFY] menu.

3. To change data, input the required numerical value using the numerical keys and press the [enter] key.

- Changed data will be stored and display returned to the [SC0 F-DATA MODIFY] menu.

- Pressing the [exit] key after changing the value will produce display of the request for confirmation shown at right. Pressing the [enter] key after selection of <YES> will result in storage of the changed value and return to [SC0 F-DATA MODIFY]. Pressing the [enter] key after selection of <NO> will result in return to [SC0 F-DATA MODIFY] without storage of the changed value.



### 4.2.15 SD0 QUEUE CLEAR

Clears unprinted data remaining in the print queue.

Selection of clearance of either only data received from diagnostic devices or of all data including that registered in the queue during maintenance is possible.

```
SD0 QUEUE CLEAR  *.  
# ←ALL QUEUE→
```

#### • Operation Keys

Key	Function
[←] / [→]	Selects the queue to be cleared. [ALL QUEUE] : Deletes all data in the queue. [CH QUEUE] : Deletes all data received from diagnostic devices through channels 1 ~ 4.
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Executes queue clearance.
[exit]	Cancel execution of queue clearance and returns to the [U80 SERVICE MODE] menu.

#### • Procedure for Queue Clearance

1. Use the [←] / [→] keys to select the type of data to be cleared.

- Select [ALL QUEUE] to delete all data in the queue.
- Select [CH QUEUE] to delete only the data received from the diagnostic device while keeping the test print data generated using the service maintenance mode.

```
SD0 QUEUE CLEAR  *.  
# ←ALL QUEUE→
```

2. Press the [enter] key.

- The message requesting confirmation shown at right will be displayed.

```
Clear the queue?  
←YES→
```

3. Use the [←] / [→] keys to select <YES> and press the [enter] key.

- The selected data will be deleted from the queue and display returned to the [SD0 QUEUE CLEAR] menu.

## 4.2.16 SE0 TRAY OPEN

Disengages the tray lock allowing the tray to be pulled out.

The tray may be pulled out even when film is remaining.

This menu contains no other menu items.

```
SE0 TRAY OPEN   *.
┆
```

### • Operation Keys

Key	Function
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Disengages the tray lock.
[exit]	Returns to the [U80 SERVICE MODE] menu.

### • Procedure for Opening the Tray

#### 1. Press the [enter] key.

- The message requesting confirmation shown at right will be displayed.

```
SE0 TRAY OPEN   *.
┆
```

#### 2. Use the [←] / [→] keys to select <YES> and press the [enter] key.

- A message will be displayed during the opening process.
- Upon the completion of the tray opening process, the lock will disengage and the tray will slide out a few centimetres.
- The message shown at right will be displayed and remain on screen while the tray is removed.
- After completion of work, return the tray to the main body and slide it in until the lock engages. Display will return to the [SE0 TRAY OPEN] menu after display of the message at right.

```
Tray open OK?
┆YES┆
```

```
Shutter closing...
Please wait...
```

```
Please close tray
when work finish.
```

```
shutter opening...
Please wait...
```

### 4.2.17 SF0 CALIB INTERVAL

Sets the method and timing of automatic density calibration.

Select the required items from the [SF0 CALIB INTERVAL] menu and press the [enter] key to set or execute.

```
SF0 CALIB INTERVAL/.
#          ←CALIB MODE→
```

- Setting Menu Items

Menu	Content of Settings
<pre>SF0 CALIB INTERVAL/. #          ←CALIB MODE→</pre>	<p>Selects whether or not to carry out automatic calibration after a fixed period of time has elapsed.</p> <p>Sets the interval at which automatic calibration will be carried out.</p>
<pre>SF0 CALIB INTERVAL/. #          ←CALIB MODIFY→</pre>	<p>Sets the interval at which an automatic calibration shall be carried out.</p>

- Operation Keys

Key	Function
[←] / [→]	<p>Selects items to be set.</p> <p>[CALIB MODE] : Selects the calibration mode setting.</p> <p>[MODIFY] : Selects the calibration interval setting.</p>
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Actuates the selected settings.
[exit]	Returns to the [U80 SERVICE MODE] menu.

- CALIB MODE Sub-menu Items

Menu	Content of Settings
<pre>SF1 CALIB MODE *. #          ←NONE→</pre>	<p>Selects the method of automatic calibration.</p> <p>[NONE] : Automatic density calibration is not carried out.</p> <p>[MESSAGE] : Displays a message on the LCD recommending calibration after the set interval has elapsed. Actual density correction should be carried out by the user using the user maintenance menu.</p> <p>[AUTO] : Executes automatic density calibration after the set interval has elapsed.</p>
<pre>SF2 AUTO CALIB *. #          ←NORMAL→</pre>	<p>Selects the timing after the film is loaded, at which the calibration is carried out.</p> <p>[NORMAL] : Carries out calibration when a first print queue (test print, print command from SCU) is created after the film is loaded.</p> <p>[AT ONCE] : Carries out calibration immediately after the film is loaded.</p>

**CAUTION** If a new film package is loaded in the tray while one or more sheet of film still remains in the tray, calibration upon film change will not be initiated. When it is required to change the film in such case, change the film after setting "S43 FILM COUNT" to "000".

• **CALIB HOURS Sub-menu Items**

Menu	Content of Settings
<pre>SF1 CALIB HOURS  *. #  [000000]/[000000]</pre>	<p>Displays the time elapsed from the last calibration and the set automatic calibration interval. The interval may be changed by inputting the required numerical value.</p>

- **Procedure for Automatic Density Calibration**

1. Use the [←] / [→] keys to select <CALIB MODE> from the [SF0 CALIB INTERVAL] menu.

```
SF0 CALIB INTERVAL/.
┆
┆ CALIB MODE
```

2. Press the [enter] key.

- [SF1 CALIB MODE] will be displayed.

3. Use the [←] / [→] keys to select the mode for automatic density calibration.

```
SF1 CALIB MODE *.
┆
┆ NONE
```

4. Press the [enter] key.

- The selected mode for calibration will be set and display returned to the [CALIB INTERVAL] menu.

5. Unless <NONE> has been selected in step-3 above, use the [←] / [→] keys to select <MODIFY>.

```
SF0 CALIB INTERVAL/.
┆
┆ CALIB MODIFY
```

6. Press the [enter] key.

- [SF1 CALIB HOURS] will be displayed.

7. Use the numerical keys to input the required automatic calibration interval value in the input window shown at right and press the [enter] key.

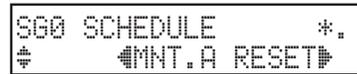
```
SF1 CALIB HOURS *.
┆ [000000]/[000000]
```

- Data changes will be stored and display returned to the [SF0 CALIB INTERVAL] menu.
- Pressing the [exit] key after changing the value will produce display of the request for confirmation shown at right. Pressing the [enter] key after selection of <YES> will result in storage of the changed value and return to [SF1 CALIB INTERVAL]. Pressing the [enter] key after selection of <NO> will result in return to [SF1 CALIB INTERVAL] without storage of the changed value.

```
Data was changed
Save the data? YES
```

### 4.2.18 SG0 SCHEDULE

This menu allows checking, resetting and changing of time elapsed from the last time regular maintenance or replacement was carried out.



Setting/execution may be carried out by selecting the required item from the [SG0 SCHEDULE] menu and pressing the [enter] key.

- **Setting Menu Items**

Menu	Content of Settings
	Resets time elapsed/print count for regular maintenance schedule-A. • This menu has no sub-menu items.
	Resets days elapsed for regular maintenance schedule-B. • This menu has no sub-menu items.
	Resets print count for regular maintenance schedule-C. • This menu has no sub-menu items.
	Resets print count for regular maintenance schedule-D. • This menu has no sub-menu items.
	Allows checking of time elapsed/print count and schedule changes for regular maintenance schedule-A. • Initial value : 17250 hours, 40000 sheets.
	Allows checking of days elapsed and schedule changes for regular maintenance schedule-B. • Initial value : 4390 hours.
	Allows checking of print count and schedule changes for regular maintenance schedule-C. • Initial value : 20000 sheets.
	Allows checking of print count and schedule changes for regular maintenance schedule-D. • Initial value : 40000 sheets.
	Resets days elapsed/time elapsed for the regular HDD replacement schedule.
	Allows checking of days elapsed/time elapsed and schedule changes for the regular HDD replacement schedule. • Initial value : 1825 days, 20000 hours.
	Resets days elapsed/print count for the regular filter replacement schedule.
	Allows checking of days elapsed/print count and schedule changes for the regular filter replacement schedule. • Initial value : 183 days, 10000 hours.

- **Operation Keys**

Key	Function
[←] / [→]	Selects items to be set/reset.
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.
[enter]	Actuates the selected settings.
[exit]	Returns to the [U80 SERVICE MODE] menu.

- **MAINTE A MODIFY Sub-menu Items**

Menu	Content of Settings
<pre>SG1 MNT.A HOURS  *. #  [000000]/[000000]</pre>	<p>Displays time elapsed/maintenance schedule (17250 hours) for regular maintenance schedule-A.</p> <ul style="list-style-type: none"> <li>• The time elapsed and schedule may be changed by inputting the required numerical values.</li> </ul>
<pre>SG2 MNT.A SHEETS *. #  [000000]/[000000]</pre>	<p>Displays print count/maintenance schedule (40000 schedule) for regular maintenance schedule-A.</p> <ul style="list-style-type: none"> <li>• The print count and schedule may be changed by inputting the required numerical values.</li> </ul>

- **MAINTE B MODIFY Sub-menu Items**

Menu	Content of Settings
<pre>SG1 MNT.B HOURS  *. #  [000000]/[000000]</pre>	<p>Displays time elapsed/maintenance schedule (4390 hours) for regular maintenance schedule-B.</p> <ul style="list-style-type: none"> <li>• The time elapsed and schedule may be changed by inputting the required numerical values.</li> </ul>

- **MAINTE C MODIFY Sub-menu Items**

Menu	Content of Settings
<pre>SG1 MNT.C SHEETS *. #  [000000]/[000000]</pre>	<p>Displays print count/maintenance schedule (20000 sheets) for regular maintenance schedule-C.</p> <ul style="list-style-type: none"> <li>• The print count and schedule may be changed by inputting the required numerical values.</li> </ul>

- **MAINTE D MODIFY Sub-menu Items**

Menu	Content of Settings
<pre>SG1 MNT.D SHEETS *. #  [000000]/[000000]</pre>	<p>Displays print count/maintenance schedule (40000 sheets) for regular maintenance schedule-D.</p> <ul style="list-style-type: none"> <li>• The print count and schedule may be changed by inputting the required numerical values.</li> </ul>

• **HDD MODIFY Sub-menu Items**

Menu	Content of Settings
<pre>SG1 HDD DAYS      *. # [000000]/[000000]</pre>	Displays days elapsed/schedule for the regular HDD replacement schedule. <ul style="list-style-type: none"> <li>The days elapsed and schedule may be changed by inputting the required numerical values.</li> </ul>
<pre>SG2 HDD HOURS     *. # [000000]/[000000]</pre>	Displays time elapsed/schedule for the regular HDD replacement schedule. <ul style="list-style-type: none"> <li>The time elapsed and schedule may be changed by inputting the required numerical values.</li> </ul>

• **FILTER MODIFY Sub-menu Items**

Menu	Content of Settings
<pre>SG1 FILTER DAYS   *. # [000000]/[000000]</pre>	Displays days elapsed/schedule for the regular filter replacement schedule. <ul style="list-style-type: none"> <li>The days elapsed and schedule may be changed by inputting the required numerical values.</li> </ul>
<pre>SG1 FILTER SHEETS *. # [000000]/[000000]</pre>	Displays time elapsed/schedule for the regular filter replacement schedule. <ul style="list-style-type: none"> <li>The time elapsed and schedule may be changed by inputting the required numerical values.</li> </ul>

• **Procedure for Resetting Days Elapsed and Print Count**

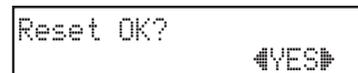
After completion of regular maintenance procedures, the days elapsed/print count should be reset as detailed below.

- On the [SG0 SCHEDULE] screen, use the [←] / [→] keys to select <MNT x RESET> (or <HDD RESET>, <FILTER RESET>) for the maintenance item to be reset.



- Press the [enter] key.
  - The request for confirmation shown at right will be displayed.

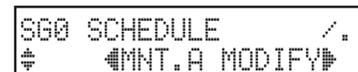
- Use the [←] / [→] keys to select <YES> and press the [enter] key.



- Days elapsed/print count for the selected maintenance item will be reset and display returned to the [SG0 SCHEDULE] menu.

• **Procedure for Checking and Changing Days Elapsed/ Print Count**

- On the [SG0 SCHEDULE] screen, use the [←] / [→] keys to select <MNT x MODIFY> (or <HDD MODIFY>, <FILTER MODIFY>) for the maintenance item to be checked/ changed.



**2.** Press the [enter] key.

- The setting menu for the maintenance item selected in step-1 above will be displayed.

**3.** If changes are required to the maintenance schedule, use the numerical keys to input the required values in the input window at right of the menu item.

```
SG1 MNT.A HOURS  *.  
# [000000]/[000000]
```

- If changes are required to time elapsed/print count, use the numerical keys to input the required values in the input windows at the left.

**Important** There are two setting menus each for regular maintenance schedule-A and the HDD/filter maintenance schedules.

**4.** Press the [enter] key.

- Data changes will be stored and display returned to the [SG0 SCHEDULE] menu.
- Pressing the [exit] key after changing the value will produce display of the request for confirmation shown at right.

```
Data was changed  
Save the data?#YES#
```

Pressing the [enter] key after selection of <YES> will result in storage of the changed value and return to [SG0 SCHEDULE].

Pressing the [enter] key after selection of <NO> will result in return to [SG0 SCHEDULE] without storage of the changed value.

### 4.2.19 SH0 VERSION

Displays the current DRYPRO software version.

This menu does not incorporate any other menu items.



- **Operation Keys**

Key	Function
[↑]	Moves back to the previous setting menu item.
[↓]	Moves forward to the next setting menu item.

## 4.2.20 Back Up of CF

Various setting data, OS and other software to control the DryPro771 is stored in the CF(Compact Flash Memory) contained in the control box of the DryPro771. To prepare for damage of the CF, back up the program and setting data of the DryPro771 in the hard disk incorporated in the control box beforehand.

Carry out the backup not only at the first time installation , but also at the occasion when the settings of DryPro are changed using the service maintenance mode or when the software is upgraded.

1. Press the [maintenance] key on the operation panel to switch to the maintenance mode(user maintenance mode).

```
U80 SERVICE MODE /.
```

2. Press the [ ↓ ] key several times, and display the [U90 PASSWORD] on the LCD.

```
U90 PASSWORD /.
```

3. Press [enter] key.
  - Password input screen will be displayed.

```
U91 INPUT PASSWORD .  
[   ]
```

4. Input the password, and press the [enter] key.
  - Display returns to the service maintenance mode.

```
U91 INPUT PASSWORD  
[****]
```

5. Press the [ ↑ ] key, and display the [U80 SERVICE MODE] menu.

```
U80 SERVICE MODE /.
```

6. Press the [enter] key.
  - Menu of the service maintenance mode will be displayed.

7. Press the [ ↓ ] / [ ↑ ] key, and display [SB0 BACKUP RESTORE] menu.

```
SB0 BACKUP RESTORE*.  
#          #BACKUP#
```

8. Use the [←] / [→] keys to select <BACKUP> and press the [enter] key.
  - Confirmation message will be displayed.

9. Use the [←] / [→] keys to select <YES> and press the [enter] key.

- Data on the CF will be backed up on the hard disk and display returned to the [SB0 BACKUP RESTORE] menu.

```
BACKUP (CF#HDD) .  
OK?          #YES#
```

### 4.2.21 Restore of CF

Restores the program and setting data backed up in the hard disk onto the CF. Restore shall be required when the CF is replaced due to the damage, etc.

Do not connect a LAN cable to the DryPro until the restore completes.

1. Start the DryPro, and check that it boots up without failure.

2. Press the [maintenance] key on the operation panel to switch to the maintenance mode(user maintenance mode).

```
U80 SERVICE MODE /.
```

3. Press the [ ↓ ] key several times, and display the [U90 PASSWORD] on the LCD.

```
U90 PASSWORD /.
```

4. Press [enter] key.

- Password input screen will be displayed.

```
U91 INPUT PASSWORD .  
[   ]
```

5. Input the password, and press the [enter] key.

- Display returns to the service maintenance mode.

```
U91 INPUT PASSWORD  
[*****]
```

6. Press the [ ↑ ] key, and display the [U80 SERVICE MODE] menu.

```
U80 SERVICE MODE /.
```

7. Press the [enter] key.

- Menu of the service maintenance mode will be displayed.

8. Press the [ ↓ ] / [ ↑ ] key, and display [SB0 BACKUP RESTORE] menu.

```
SB0 BACKUP RESTORE*.  
↑                ◀BACKUP▶
```

9. Use the [←] / [→] keys to select <RESTORE> and press the [enter] key.

- Confirmation message will be displayed.

```
SB0 BACKUP RESTORE/.  
↑                ◀RESTORE▶
```

10. Use the [←] / [→] keys to select <YES> and press the [enter] key.

- Data backed up on the HD will be restored on the CF and display returned to the [SB0 BACKUP RESTORE] menu.

```
RESTORE (HDD▶CF) .  
OK?                ◀YES▶
```

11. Turn the Drypro OFF, and connect the LAN cable.

12. Restart the DryPro, and carry out calibration.

13. Carry out print receiving image data from each diagnostic device, and check the printed image and its density.

# ***Chapter 5 Web Maintenance Tool***

## 5.1 Outline of the Web Maintenance Tool

---

### 5.1.1 Web Maintenance Tool Functions

The DRYPRO 771 unit is furnished with a web server function for maintenance purposes which allows execution of DRYPRO settings and maintenance procedures using a Windows PC with an Ethernet port.

The following functions are available for DRYPRO 771 maintenance purposes.

- **DRYPRO Settings**

Settings made using the DRYPRO service maintenance menu can be effected on the Web.

- **DRYPRO Data Back up**

Files on the DRYPRO unit hard disk can be backed up on the PC: thus in the event of a malfunction, or replacement of the control box or the hard disk, the DRYPRO unit can be returned to its status prior to malfunction or replacement simply by transferring the back up files.

- **Log Acquisition**

Operational status of system software or/and internal units are stored as log files in the DRYPRO unit. In addition, error log files recording any errors occurring in the system are maintained.

The Web maintenance tool may be used to download these log files so that problems occurring in the DRYPRO unit can be analyzed.

- **System Software Upgrades**

The DRYPRO software can be upgraded by transferring new versions of system software via the network.

- **System Requirements**

The PC used for the Web maintenance tool must satisfy the following requirements.

- The PC must be capable of using Internet Explorer 5.x or 6.x.
- The PC must be equipped with an Ethernet port (10/100Base).
- The PC environment must be capable of handling Java script on the Web browser.  
If you are uncertain about any of the above, please download and install "j2re\_1\_3\_1\_win\_i.exe" from the SUN homepage.
- Set on the Web browser that the proxy server is not used.

- **Web Maintenance Tool Log-in Privilege**

Log-in to the Web maintenance tool requires one of the following two privileges: SERVICE, PRODUCT. The operational procedures differ depending on the privilege and are as follows.

SERVICE : Used for servicing.

PRODUCT : Used for adjustments in the shipping configuration.

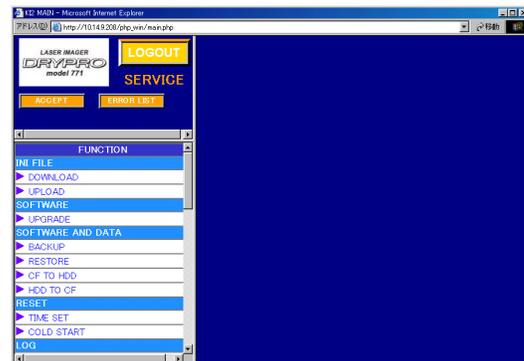
The privilege is determined by the password input when logging into the Web maintenance tool.

- Only one user is allowed to connect to the Web maintenance tool. Plural users cannot connect at the same time.

## 5.2 Using the Web Maintenance Tool

### 5.2.1 Starting up the Web Maintenance Tool

1. Either double click the Internet Explorer icon on the desktop, or select [programme] → [Internet Explorer] from the [start] menu on the task bar.
2. Input the DRYPRO IP address after "HTTP://" in the "address (D)" text box.
  - Input should be made in one of the following formats:  
 http://<IP Address>/  
 http://<IP Address>/index.htm  
 http://<IP Address>/index.html  
 http://<IP Address>/login.html
  - The Web maintenance tool log-in screen will be displayed.
3. Click [SERVICE] in the [MODE] box and input the SERVICE privilege password (5678) in the "PASSWORD" box.
  - The input password will not be displayed, but will be shown as a series of asterisks ( ).
  - The password "5678" is fixed and cannot be changed.
4. Click [LOGIN].
  - The top screen of the Web maintenance tool in the service mode will be displayed.



---

## 5.2.2 Shutting Down the Web Maintenance Tool

Follow the procedure below to shut down the web maintenance tool.

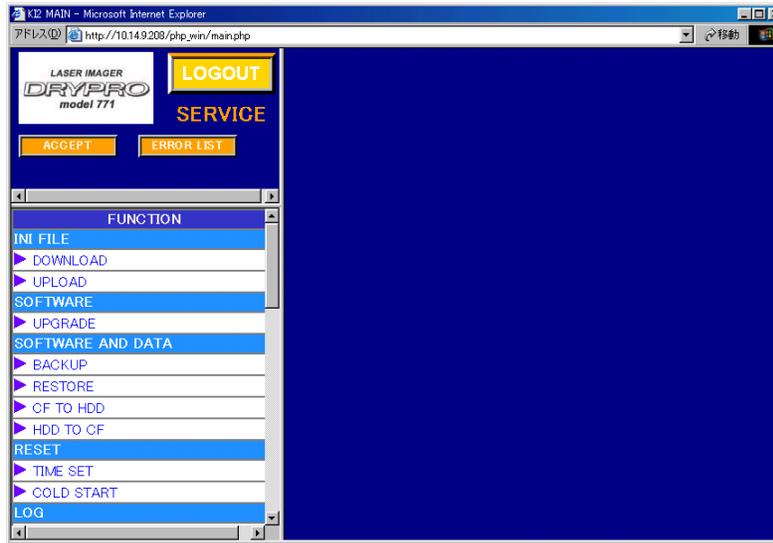
**Important** When shutting down the web maintenance tool, always follow the procedure below to log out. Exiting the web browser by clicking the close button ([X] on the upper right corner) of the web browser disables the other PC to log in.

•Reconnecting from the same PC again will enable the log in after displaying the confirmation screen.

1. Click [LOGUT] while the initial screen is on the display.
  - Confirmation screen will be displayed.
2. Click [OK].
  - Communication to the web maintenance tool will be interrupted, and the message in the right will be displayed.
3. Click [WINDOW CLOSE].
  - At this point, clicking [LOGIN>>] will allow log in to the web maintenance tool again.

### 5.2.3 Configuration of the Web Maintenance Tool

Basically, the Web maintenance tool screen is comprised of three frames.



- **Title Frame**

This frame displays the DRYPRO logo, [LOGOUT], [ACCEPT] and [ERROR LIST] buttons as well as the privilege used to log in.

LOGOUT : Log out from the web maintenance tool

ACCEPT : Overwrites the setting on the DryPro with the settings made on web maintenance tool screens.

ERROR LIST : Displays the window listing error numbers and its contents.

- **Menu Frame**

This frame displays a menu listing items available for selection for use in the Web maintenance tool.

- **Operation/Setting Frame**

The information displayed in this frame differs depending on items selected from the menu frame. Settings and test execution may be carried out from this frame.

- The operation/setting frame may be divided into multiple frames depending on the item selected from the menu.

## 5.2.4 Web Maintenance Tool Menu

Items in the service mode menu are shown below.

FUNCTION		
INI FILE		
▶ DOWNLOAD		
▶ UPLOAD		
SOFTWARE		
▶ UPGRADE		
SOFTWARE AND DATA		
▶ BACK UP		
▶ RESTORE		
▶ CF TO HDD		
▶ HDD TO CF		
RESET		
▶ TIME SET		
▶ COLD START		
LOG		
▶ DOWNLOAD LOG		

SCP		
▶ START TIMER		
▶ FILM SETUP		
▶ FILM DATA SETUP		
▶ FILM DATA		
▶ NETWORK/DICOM SCP		
▶ VERSDN		
▶ HPRO SETUP		
▶ SCHEDULE		
▶ SYSTEM SETUP		

SCU		
NO	NAME	USE
▶ 1	Regus170	ON
2	Printlink2	ON
3	SCU3	
4	SCU4	
▶ DICOM SCU		
▶ LUT		
▶ USER LUT		
PRINT CONDITION		
▶ DEFAULT SETUP		
▶ PRIORITY SETUP		
▶ STAMP		
STATUS		
▶ STATUS		
▶ QUEUE INFO		
DIAG MEC		
▶ PRINT I/O		
▶ MEC I/O		

Details of the Web maintenance tool menu are set out below.

Item Name	Details of Setting	Reference
INI FILE		
DOWNLOAD	Downloads DRYPRO settings into the PC.	p.5-8
UPLOAD	Uploads PC settings into the DRYPRO unit.	p.5-9
SOFTWARE		
UPGRADE	Upgrades DRYPRO software and set values.	p.5-11
SOFTWARE AND DATA		
BACK UP	Backs up DRYPRO system software and set data on the PC.	p.5-12
RESTORE	Restores system software and set data back up to the DRYPRO unit.	p.5-13
CF TO HDD	Backs up CF data on the hard disk.	p.5-14
HDD TO CF	Restores back up data on the hard disk to the CF.	p.5-15
RESET		
TIME SET	Sets the DRYPRO internal clock.	p.5-16
COLD START	Reboots the DRYPRO unit.	p.5-17
LOG		
DOWNLOAD LOG	Downloads DRYPRO log files to the PC.	p.5-18
SCP		
START TIMER	Sets the start timer.	p.5-20
FILM SETUP	Sets the supply tray film size, type, etc.	p.5-21
FILM DATA SETUP	Sets film accumulation parameters.	p.5-22
FILM DATA	Checks film accumulation data.	p.5-23

Item Name	Details of Setting	Reference
NETWORK/DICOM SCP	Sets DRYPRO network parameters and DICOM parameters.	p.5-28
VERSION	Displays the DRYPRO version.	p.5-29
HPRO SETUP	Sets operational parameters for the heat processing unit.	p.5-29
SCHEDULE	Checks/changes information relating to regular maintenance and calibration schedules.	p.5-30
SYSTEM SETUP	Sets system operation parameters.	p.5-32
SCU		
DICOM SCU	Sets parameters for the SCU connected to the DRYPRO unit.	p.5-33
LUT	Selects the LUT applied to the SCU.	p.5-35
USER LUT	Creates user LUTs.	p.5-36
DEFAULT SETUP	Sets default print parameters.	p.5-38
PRIORITY SETUP	Sets print parameter priorities.	p.5-40
STAMP	Sets stamp parameters.	p.5-41
STATUS		
STATUS	Checks the DRYPRO operational status.	p.5-43
QUEUE INFO	Checks print data registered in the queue.	p.5-46
DIAG MEC		
PRINT I/O	Tests the exposure unit.	p.5-50
MEC I/O	Carries out operational testing of each unit in the DRYPRO.	p.5-52

**IMPORTANT** Set data will be stored when [OK] on the SCP and SCU screens is clicked: note, however, that settings for the DRYPRO unit itself will not be updated until [ACCEPT] is clicked.

Clicking [ACCEPT] once will update settings made on both the SCP and SCU setting screens. [ACCEPT] needs therefore be clicked only after completion of settings on both screens.

**IMPORTANT** If, when the cursor is moved to the menu frame while one of the setting/operation frames is displayed on screen the menu item at the cursor location turns blue, moving to that item may be effected simply by clicking.

If the item does not turn blue, movement to other menu items will not be possible until the current setting/operation screen is exited.

## 5.3 Web Maintenance Tool Screens

### 5.3.1 FUNCTION Menu Screen

#### ◆ DOWNLOAD

Downloads set data used in the DRYPRO to the PC in INI file format.



#### • Screen Operation

##### 1. Click [OK].

- The file download icon will be displayed.

##### 2. Select [store this file on disk] and click [OK].



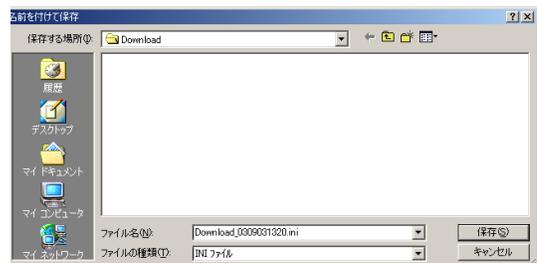
- Downloading will begin and messages showing the download status displayed.
- To abort the download and return to the top screen, click [CANCEL].



- Upon completion of the download, a file-save dialogue will be displayed.

##### 3. Specify the save destination folder and click [save (S)].

- The file name "Download\_XXXXXXXXX.ini" (XXXXXXXXXX shows the date and time in 10 digits) will be automatically assigned to the file.
- The file name assigned to the file to be saved can be changed anyway on this window.
- After completion of file save, display will return to the top screen.



## ◆ UPLOAD

Uploads setting value parameters to the DRYPRO in INI file format.



### • Screen Operation

#### 1. Click [Browse...].

- A file selection dialogue will be displayed.



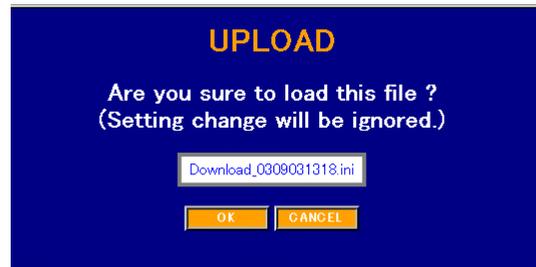
#### 2. Select the INI file to be uploaded and click [OK].

- The name and path of the selected file will be displayed on the UPLOAD screen.

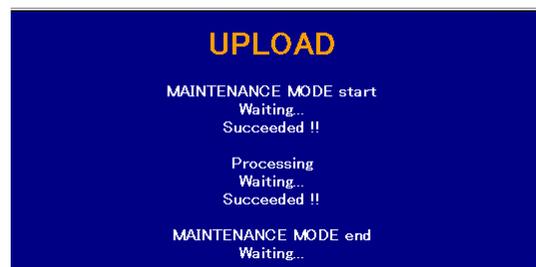
#### 3. Click [OK].

- A request for confirmation will be displayed.

#### 4. Click [OK].



- Uploading will begin and messages showing the upload status displayed.



- Upon successful completion of the upload, the message will be replaced by the top screen.
- To abort the upload and return to the top screen, click [CANCEL] in step-1 above.

**5.** Click [ACCEPT].

- Setting on the DryPro will be updated using the settings described in the uploaded “ini” file.
- A message to indicate the progress will be displayed, and the message shown in the right will be displayed upon completion of setting.
- Click [CLOSE] to return to the initial screen.

**Important** The setting that is not described in the uploaded “ini” file will not be updated. Because the “ini” file is a text file, creating such files that are deemed to be necessary at the time of installation, immediate set up of the DryPro is made possible by uploading these files to the DryPro.

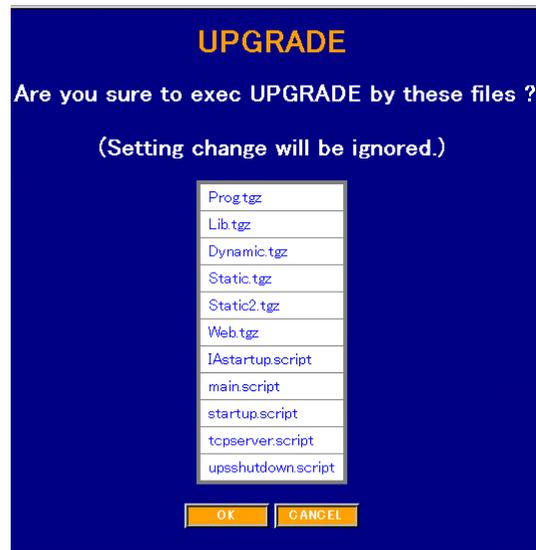
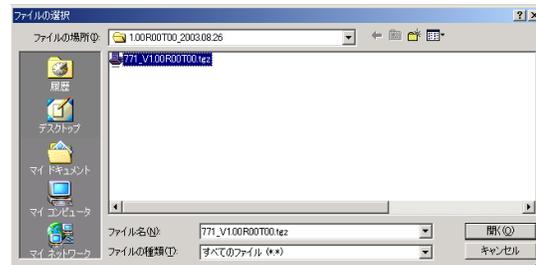
◆ UPGRADE

Upgrades the DRYPRO system software and set data.



• Screen Operation

1. Click [Browse...].
  - A file selection dialogue will be displayed.
2. Select the required new-version upgrade file and click [OK].
  - The name and path of the selected file will be displayed on the UPGRADE screen.
3. Click [OK].
  - A request for confirmation will be displayed.
4. Click [OK].
  - The file will be uploaded to the DRYPRO and updating of software and set values initiated.



- Upon successful completion of the upgrade, results will be displayed and automatic rebooting of the DRYPRO carried out.
5. After the DRYPRO has been rebooted, either click [LOGIN>>] to restart the Web maintenance tool, or exit the tool by clicking [WINDOW CLOSE].
    - To abort the upgrade and return to the top screen, click [CANCEL] in steps-1, 3 or 4 above.



## ◆ BACK UP

Backs up the DRYPRO system software and set data in the PC.

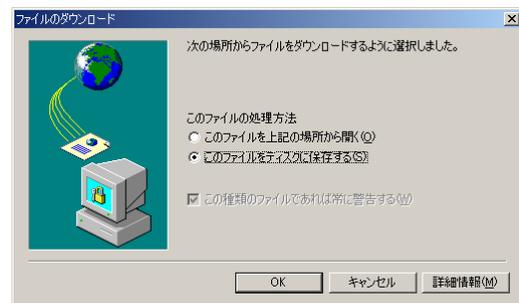


### • Screen Operation

#### 1. Click [OK].

- A file download dialogue will be displayed.

#### 2. Select [store this file on disk] and click [OK].



- Back up will begin and messages showing the backup status displayed.
- To abort the download and return to the top screen, click [CANCEL].



- Upon completion of the backup, a file-save dialogue will be displayed.

#### 3. Specify the save destination folder and click [save (S)].

- The file name "Backup\_XXXXXXXXX.tgz" (XXXXXXXXXX shows the date and time in 10 digits) will be automatically assigned to the file.
- The file name assigned to the file to be saved can be changed anyway on this window.
- After completion of file save, display will return to the top screen.



◆ RESTORE

Restores the DRYPRO system software and set data back up from the PC to the DRYPRO.



• Screen Operation

1. Click [Browse...].
  - A file selection dialogue will be displayed.
2. Select the required back up file and click [OK].
  - The name and path of the selected file will be displayed on the RESTORE screen.
3. Click [OK].
  - A request for confirmation will be displayed.
4. Click [OK].
  - The file will be uploaded to the DRYPRO and updating of software and set values initiated.



- A request for confirmation will be displayed.
5. After the DRYPRO has been rebooted, either click [LOGIN>>] to restart the Web maintenance tool, or exit the tool by clicking [WINDOW CLOSE].
    - To abort the restore operation and return to the top screen, click [CANCEL] in steps-1 or 3 above.



### ◆ CF TO HDD Menu Screen

Backs up set data stored on the CF to the control box hard disk when the CF in the control box is to be replaced.



#### • Screen Operation

##### 1. Click [OK].

- Back up of data from the CF in the control box to the HDD will be initiated and status messages displayed.
- To abort back up from the CF to the HDD and return to the top screen, click [CANCEL].



- A message indicating successful completion will be displayed after back up from the CF to the HDD has been completed.

##### 2. Click [CLOSE].

- Display will return to the top screen.



◆ **HDD TO CF Menu Screen**

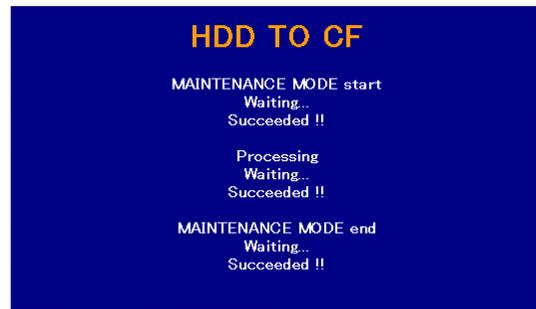
Restores setting files backed up on the control box hard disk to the CF after replacement of the control box CF.



• **Screen Operation**

1. Click [OK].

- Restoring of data from the hard disk in the control box to the CF will be initiated and status messages displayed.
- To abort restoration of data from the HDD to the CF and return to the top screen, click [CANCEL].
- Upon successful completion of the restore operation, results will be displayed and automatic rebooting of the DRYPRO carried out.



2. After the DRYPRO has been rebooted, either click [LOGIN>>] to restart the Web maintenance tool, or exit the tool by clicking [WINDOW CLOSE].

- To abort the restore operation and return to the top screen, click [CANCEL] in steps-1 or 3 above.



## 5.3.2 RESET Menu Screen

### ◆ TIME SET

Sets the time and date in the internal clock incorporated into the DRYPRO unit.

#### • Display/Setting Items

Item Name	Details of Setting
NOW	Displays the time and date currently set in the DRYPRO unit. <ul style="list-style-type: none"> <li>This display is automatically updated every 30 seconds.</li> </ul>
DATE	Sets the new time and date. D : Day M : Month (the month should be input in abbreviated English format) Y : Year
TIME	Sets the new time. H: Hour (the time should be input in 24-hour format) M: Minute
TIME ZONE	Sets the time zone of the region where the DRYPRO unit is installed. <ul style="list-style-type: none"> <li>Select the appropriate time zone by clicking the arrow at the right of the TIME ZONE window.</li> </ul>

#### • Screen Operation

- Input the required setting item and click [OK].
  - DRYPRO setting will be initiated and status messages displayed.
  - Upon completion of setting, display will return to the top screen.

## ◆ COLD START

Cold starts (reboots) the DRYPRO unit.

**Important** Implementing the cold start will delete all unprinted data stored in the queue.



### • Screen Operation

1. Click [OK].

- Status messages will be displayed.
- To abort cold start and return to the top screen, click [CANCEL].
- Upon completion of cold start, results will be displayed on screen.



2. After the DRYPRO has been rebooted, either click [LOGIN>>] to restart the Web maintenance tool, or exit the tool by clicking [WINDOW CLOSE].



## ◆ DOWNLOAD LOG

Downloads log files stored in the DRYPRO unit to the PC.

- This screen is divided into upper and lower frames.

The upper frame is a search screen for acquisition of the required log file by specification of the date while the lower frame displays a list of search results. The lower screen is not displayed until a search is executed.

**DOWNLOAD LOG**

From  /  /

To  /  /

DICOM    Density    Tendency  

Main Soft    Else

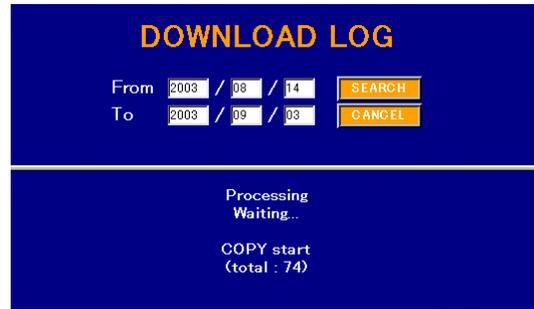
SEARCH :2003/08/14-2003/09/03  
The file applicable to search conditions :491

LOG FILE	
<input checked="" type="checkbox"/>	20030818_ErrorLog.txt
<input checked="" type="checkbox"/>	20030818_FileMngProc.txt
<input checked="" type="checkbox"/>	20030818_ImageFile.txt
<input checked="" type="checkbox"/>	20030818_ImgMngProc.txt
<input checked="" type="checkbox"/>	20030818_MainToMecLog.txt
<input checked="" type="checkbox"/>	20030818_MainteProc.txt
<input checked="" type="checkbox"/>	20030818_MecIFProc.txt

### • Screen Operation

1. Input the date and time of the logs to be acquired in both the "FROM" and "TO" boxes.
2. Click [SEARCH].
  - A list of log files found will be displayed in the lower frame.
  - When the whole list cannot be displayed on the screen, scroll the window using the scroll box in the right.
3. For acquisition of log special files, click the button corresponding to the log type to be found and then click [SELECT].
  - The log list in the lower frame will change so that only files of the specified type are shown.
4. Enter a check in the check box at the left of the log files to be downloaded.
5. Click [DOWNLOAD].

- [DOWNLOAD] button is located under the list. If this button is not displayed on the screen, scroll the window using the scroll box in the right.
- Downloading will be initiated and status messages displayed.



- Upon completion of downloading, a file save dialogue will be displayed.

**6.** Specify the save destination folder and click [save (S)].

- The file name "Log\_XXXXXXXXX.tgz" (XXXXXXXXXX shows the date and time in 10 digits) will be automatically assigned to the file.
- After completion of file save, display will return to the top screen.



**7.** Click [CANCEL].

- Screen returns to the initial screen.

### 5.3.3 SCP Menu Screen

#### ◆ START TIMER

Day	OFF	ON	H	M
MON	<input type="radio"/>	<input checked="" type="radio"/>	8	00
TUE	<input type="radio"/>	<input checked="" type="radio"/>	8	00
WED	<input type="radio"/>	<input checked="" type="radio"/>	8	00
THU	<input type="radio"/>	<input checked="" type="radio"/>	8	00
FRI	<input type="radio"/>	<input checked="" type="radio"/>	8	00
SAT	<input type="radio"/>	<input checked="" type="radio"/>	8	00
SUN	<input type="radio"/>	<input checked="" type="radio"/>	8	00

OK CANCEL

#### • Setting Items

Item Name	Details of Setting
MON - SUN	Makes start timer ON/OFF settings per day.
H, M	<p>Sets the time in hours and minutes (H and M) when the DRYPRO unit will be put into ready status.</p> <ul style="list-style-type: none"> <li>Click the arrow at the right of the H and M list boxes to select the required time. Minute settings may be made in 10-minute steps.</li> </ul>

#### • Screen Operation

- Input the required setting items and click [OK].
  - The input settings will be memorized. Note, however, that DRYPRO settings are not changed yet.
  - Other SCP items may be set, if required, by clicking the desired menu items in the menu frame.
- Click [ACCEPT] to set the DRYPRO.
  - Status messages will be displayed.
  - Completion of DRYPRO settings will be followed by return to the top screen.

## ◆ FILM SETUP

Sets the size, type and count of film in the supply tray.

### • Display/Setting Items

Item Name	Details of Setting
FILM SIZE	Sets the film size. <ul style="list-style-type: none"> <li>Select the film size by clicking the arrow at the right of the list box.</li> </ul>
FILM TYPE	Sets the film type. <ul style="list-style-type: none"> <li>Select the film type by clicking the arrow at the right of the list box.</li> </ul>
FILM COUNT	Sets the number of sheets of film in the supply tray. <ul style="list-style-type: none"> <li>The last sheet remaining in the tray is for dummy printing: therefore a value representing the actual count required plus one (+1) should be input.</li> </ul>

### • Screen Operation

- Input the setting items and click [OK].
  - The input settings will be memorized. Note, however, that DRYPRO settings are not changed yet.
  - Other SCP items may be set, if required, by clicking the desired menu items in the menu frame.
- Click [ACCEPT] to set the DRYPRO.
  - Status messages will be displayed.
  - Completion of DRYPRO settings will be followed by return to the top screen.

## ◆ FILM DATA SETUP

Sets film accumulation parameters.

### • Display/Setting Items

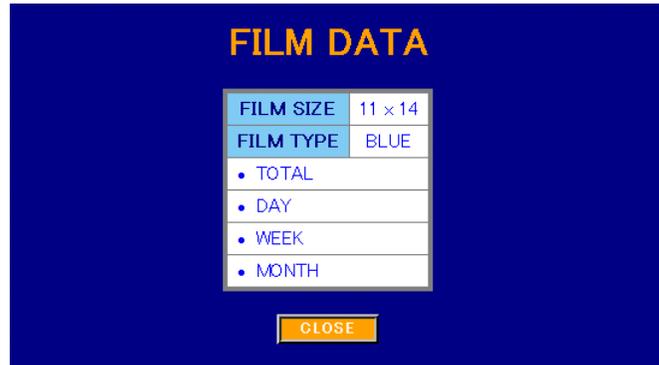
Item Name	Details of Setting
WEEKLY DATA	Sets the day when data is accumulated each week. <ul style="list-style-type: none"> <li>• Select the day by clicking the arrow at the right of the list box.</li> </ul>
MONTHLY DATA	Sets the day when data is accumulated each month. <ul style="list-style-type: none"> <li>• To specify the end of the month, input a value of 31.</li> </ul>
CURRENT FILM DATA	Display the number of sheets accumulated today. <ul style="list-style-type: none"> <li>• The count may be changed by inputting the required numerical value.</li> </ul>

### • Screen Operation

- Input the setting items and click [OK].
  - The input settings will be memorized. Note, however, that DRYPRO settings are not changed yet.
  - Other SCP items may be set, if required, by clicking the desired menu items in the menu frame.
- Click [ACCEPT] to set the DRYPRO.
  - Status messages will be displayed.
  - Completion of DRYPRO settings will be followed by return to the top screen.

## ◆ FILM DATA

Displays film data to date per day, week and month.



### • Display/Setting Items

Item Name	Details of Setting
FILM SIZE	Display the film size currently set for the supply tray.
FILM TYPE	Display the film type currently set for the supply tray.
TOTAL	Displays the total print count.
DAY	Clicking here produces display of accumulation data per day. <ul style="list-style-type: none"> <li>• A separate window is opened for data display.</li> </ul>
WEEK	Clicking here produces display of accumulation data per week. <ul style="list-style-type: none"> <li>• A separate window is opened for data display.</li> </ul>
MONTH	Clicking here produces display of accumulation data per month. <ul style="list-style-type: none"> <li>• A separate window is opened for data display.</li> </ul>

### • Screen Operation

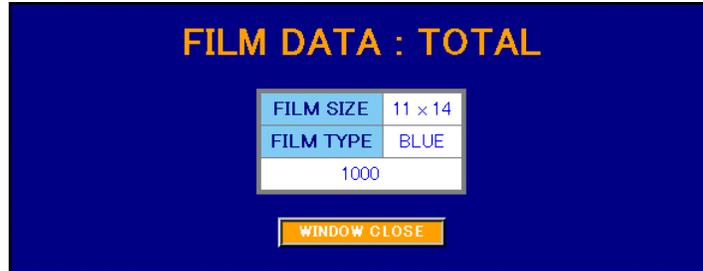
1. Click [TOTAL], [DAY], [WEEK] or [MONTH].
  - A separate window will open for display of the selected film accumulation data.
2. Click [CLOSE] to return to the top screen.

---

**◆ FILM DATA:TOTAL**

This screen is displayed when [TOTAL] is clicked on the FILM DATA screen.

Displays the total print count.



- **Screen Operation**

1. Click [WINDOW CLOSE] to close the window.

### ◆ FILM DATA:DAY

This screen is displayed when [DAY] is clicked on the FILM DATA screen.

Film accumulation data is displayed per day for 32 days.

FILM DATA : DAY			
FILM SIZE	11 x 14		
FILM TYPE	BLUE		
NOW [1]		[Next]	
[1]	[2]	[3]	[4]
[5]	[6]	[7]	[8]
[9]	[10]	[11]	[12]
DAY	COUNT	DAY	COUNT
2003.Sep.03	0	2003.Aug.18	0
2003.Sep.02	0	2003.Aug.17	0
2003.Sep.01	8	2003.Aug.16	0
2003.Aug.31	0	2003.Aug.15	0
2003.Aug.30	0	2003.Aug.14	0
2003.Aug.29	0	2003.Aug.13	15
2003.Aug.28	504	2003.Aug.12	0
2003.Aug.27	439	2003.Aug.11	0
2003.Aug.26	13	2003.Aug.10	0
2003.Aug.25	0	2003.Aug.09	0
2003.Aug.24	0	2003.Aug.08	0

#### • Screen Operation

1. Clicking [1] - [12] will produce display of daily accumulation data for the month selected.

Display of data from the previous month to twelve months previous is possible.

2. Click [WINDOW CLOSE] to close the window.
3. If all the data cannot be displayed on the screen, use the scroll bar to scroll down the data display.

### ◆ FILM DATA:WEEK

This screen is displayed when [WEEK] is clicked on the FILM DATA screen.

Film accumulation data is displayed per week for 51 weeks.

FILM DATA : WEEK											
FILM SIZE			11 x 14			FILM TYPE			BLUE		
FROM	TO	COUNT	FROM	TO	COUNT	FROM	TO	COUNT			
2003.Sep.01	2003.Sep.07	8	2003.Apr.28	2003.May.04	0	2002.Dec.23	2002.Dec.29	0			
2003.Aug.25	2003.Aug.31	956	2003.Apr.21	2003.Apr.27	0	2002.Dec.16	2002.Dec.22	0			
2003.Aug.18	2003.Aug.24	34	2003.Apr.14	2003.Apr.20	0	2002.Dec.09	2002.Dec.15	0			
2003.Aug.11	2003.Aug.17	15	2003.Apr.07	2003.Apr.13	0	2002.Dec.02	2002.Dec.08	0			
2003.Aug.04	2003.Aug.10	0	2003.Mar.31	2003.Apr.06	0	2002.Nov.25	2002.Dec.01	0			
2003.Jul.28	2003.Aug.03	0	2003.Mar.24	2003.Mar.30	0	2002.Nov.18	2002.Nov.24	0			
2003.Jul.21	2003.Jul.27	0	2003.Mar.17	2003.Mar.23	0	2002.Nov.11	2002.Nov.17	0			
2003.Jul.14	2003.Jul.20	0	2003.Mar.10	2003.Mar.16	0	2002.Nov.04	2002.Nov.10	0			
2003.Jul.07	2003.Jul.13	0	2003.Mar.03	2003.Mar.09	0	2002.Oct.28	2002.Nov.03	0			
2003.Jun.30	2003.Jul.06	0	2003.Feb.24	2003.Mar.02	0	2002.Oct.21	2002.Oct.27	0			
2003.Jun.23	2003.Jun.29	0	2003.Feb.17	2003.Feb.23	0	2002.Oct.14	2002.Oct.20	0			
2003.Jun.16	2003.Jun.22	0	2003.Feb.10	2003.Feb.16	0	2002.Oct.07	2002.Oct.13	0			
2003.Jun.09	2003.Jun.15	0	2003.Feb.03	2003.Feb.09	0	2002.Sep.30	2002.Oct.06	0			
2003.Jun.02	2003.Jun.08	0	2003.Jan.27	2003.Feb.02	0	2002.Sep.23	2002.Sep.29	0			

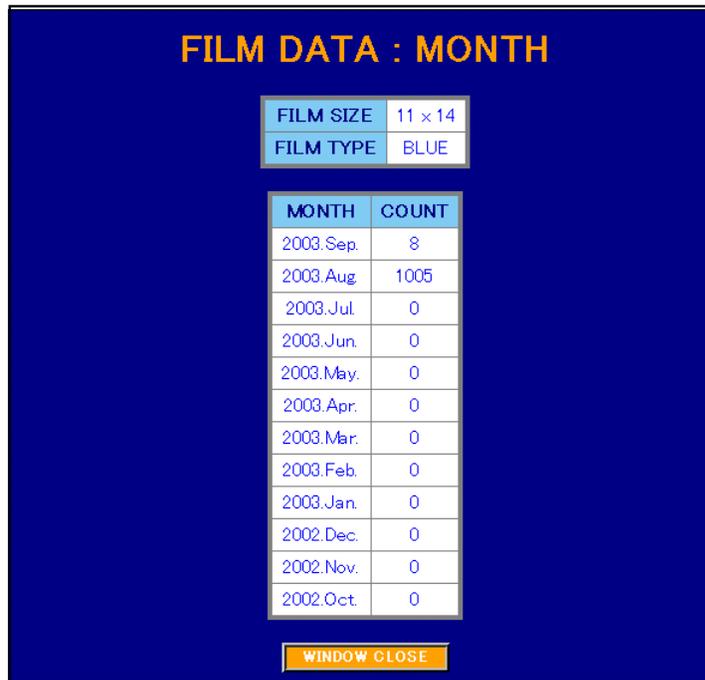
#### • Screen Operation

1. Click [WINDOW CLOSE] to close the window.
  2. If all the data cannot be displayed on the screen, use the scroll bar to scroll down the data display.
- The [WINDOW CLOSE] button is located at the bottom of the list.

◆ **FILM DATA:MONTH**

This screen is displayed when [MONTH] is clicked on the FILM DATA screen.

Film accumulation data is displayed per month.



• **Screen Operation**

1. Click [WINDOW CLOSE] to close the window.

## ◆ NETWORK/DICOM SCP

Sets DICOM and network parameters for the DRYPRO unit itself.

NETWORK/DICOM SCP	
IP ADDRESS	10 . 14 . 9 . 208
SUBNET MASK	255 . 255 . 240 . 0
GATEWAY	10 . 14 . 0 . 1
HOST NAME	localhost
DHCP	OFF ON
AE TITLE	KC_DPRO2_P001
PORT NO (0, 100 - 65535)	1 6000
	2 104
	3 0
	4 0
SCP DEFAULT CH	NO

### • Setting Items

Item Name	Details of Setting
IP ADDRESS	Sets the DRYPRO IP address. <ul style="list-style-type: none"> <li>This setting is not necessary where a DHCP is used.</li> </ul>
SUBNET MASK	Sets the sub-net mask for the network. <ul style="list-style-type: none"> <li>This setting is not necessary where a DHCP is used.</li> </ul>
GATEWAY	Sets the address of the gateway on the network. <ul style="list-style-type: none"> <li>A value of 0.0.0.0 should be input where no gateway exists.</li> </ul>
HOST NAME	Sets the DRYPRO name used on the network. <ul style="list-style-type: none"> <li>A maximum of 16 characters may be input.</li> </ul>
DHCP	Sets presence/absence of the DHCP server. <ul style="list-style-type: none"> <li>Select [ON] if a DHCP is used, [OFF] if not.</li> </ul>
AE TITLE	Sets the AE address of the DRYPRO itself. <ul style="list-style-type: none"> <li>A maximum of 16 characters may be input.</li> </ul>
PORT NO	Sets port numbers through which the DRYPRO unit receives print data from the network. <ul style="list-style-type: none"> <li>A total of four different DRYPRO port numbers may be set.</li> <li>PORT NO. 1 must be set.</li> </ul>
SCP DEFAULT CH	Sets the channel which the DRYPRO uses as a default. Select [NO] if the default channel is not used, select any from [CH1] through [CH4] if used.

• **Screen Operation**

1. Input the setting items and click [OK].
  - The input settings will be memorized. Note, however, that DRYPRO settings are not changed yet.
  - Other SCP items may be set, if required, by clicking the desired menu items in the menu frame.
2. Click [ACCEPT] to set the DRYPRO.
  - Status messages will be displayed followed by the message shown at right to indicate completion of settings.
3. Click [CLOSE] to return to the top screen.



◆ **VERSION**

Displays a set comprising all DRYPRO versions.



• **Display Items**

Item Name	Details of Setting
GENERAL	Displays a set comprising all DRYPRO versions.

• **Screen Operation**

1. Click [CLOSE] to return to the top screen.

◆ **HPRO SETUP**

Sets the heat processing unit temperature.

**CAUTION** The heat processing temperature should not be changed unless otherwise instructed.



• **Setting Items**

Item Name	Details of Setting
TEMP	Sets the heat processing drum temperature when printing. <ul style="list-style-type: none"> <li>The actual value required multiplied by ten should be input here.</li> </ul>

• **Screen Operation**

1. Input the setting items and click [OK].
  - The input settings will be memorized. Note, however, that DRYPRO settings are not changed yet.
  - Other SCP items may be set, if required, by clicking the desired menu items in the menu frame.
2. Click [ACCEPT] to set the DRYPRO.
  - Status messages will be displayed followed by the message shown at right to indicate completion of settings.
3. Click [CLOSE] to return to the top screen.



◆ **SCHEDULE**

Checks/resets days elapsed from the last maintenance procedure or replacement and makes schedule changes.

SCHEDULE		
PATTERN	COUNT	INTERVAL
FILTER CHANGE	8 DAYS PASSED	183 DAYS
	1000 SHEETS PRINTED	10000 SHEETS
CALIBRATION INTERVAL	<input type="radio"/> NONE <input checked="" type="radio"/> AUTO <input type="radio"/> MESSAGE	
	13 HOURS PASSED	160 HOURS
MAINTENANCE A	93 HOURS PASSED	17520 HOURS
	1000 SHEETS PRINTED	40000 SHEETS
MAINTENANCE B	93 HOURS PASSED	4380 HOURS
MAINTENANCE C	1000 SHEETS PRINTED	20000 SHEETS
MAINTENANCE D	1000 SHEETS PRINTED	40000 SHEETS
HARD DISK MAINTENANCE	8 DAYS PASSED	1825 DAYS
	93 HOURS PASSED	20000 HOURS

• **Display/Setting Items**

Item Name	Details of Setting
FILTER CHANGE	Checks days elapsed/print count of the regular deodorant filter replacement schedule and allows schedule changes.
CALIBRATION INTERVAL	Checks whether or not automatic calibration is set and the interval at which calibration is executed and allows schedule changes. <ul style="list-style-type: none"> <li>• The following buttons may be used to select the automatic calibration mode.</li> </ul> [NONE] : Automatic density calibration is not carried out. [AUTO] : Executes automatic density calibration after the set interval has elapsed. [MESSAGE] : Displays a message on the LCD recommending calibration after the set interval has elapsed.
MAINTENANCE A	Checks time elapsed/print count of the maintenance-A execution schedule and allows schedule changes.
MAINTENANCE B	Checks time elapsed of the maintenance-B execution schedule and allows schedule changes.
MAINTENANCE C	Checks print count of the maintenance-C execution schedule and allows schedule changes.
MAINTENANCE D	Checks print count of the maintenance-D execution schedule and allows schedule changes.
HARD DISK MAINTENANCE	Checks the days elapsed of the regular control box hard disk replacement schedule and allows schedule changes.

- The time elapsed from execution of maintenance for each item is shown in the "COUNT" column. The currently available maintenance schedule for each item is displayed in the "INTERVAL" column. The schedule may be changed by inputting the required numerical value.

• **Screen Operation**

1. Input the setting items and click [OK].
  - The input settings will be memorized. Note, however, that DRYPRO settings are not changed yet.
  - Other SCP items may be set, if required, by clicking the desired menu items in the menu frame.
2. Click [ACCEPT] to set the DRYPRO.
  - Status messages will be displayed followed by the message shown at right to indicate completion of settings.
3. Click [CLOSE] to return to the top screen.



## ◆ SYSTEM SETUP

Sets operational parameters of DRYPRO System Software.

SYSTEM SETUP	
PATCH CONTROL	<input type="radio"/> OFF <input checked="" type="radio"/> ON
LOG WRITE MODE	<input checked="" type="radio"/> NORMAL <input type="radio"/> DETAIL
OPERATION PANEL LANGUAGE	ENGLISH
OPERATION HOURS	93

OK CANCEL

### • Setting Items

Item Name	Details of Setting
PATCH CONTROL	Determines whether or not to use the density patch for density control. [OFF] : Density control disabled. [ON] : Density control enabled.
LOG WRITE MODE	Selects the recording level of the log where system operational data is recorded. [NORMAL] : Records normal data. [DETAILS] : Records detailed data. • Unless otherwise instructed, this setting should be left at [NORMAL].
OPERATION PANEL LANGUAGE	Selects the language used on the operation panel LCD. • [ENGLISH], [GERMAN], [FRENCH], [SPANISH], [ITALIAN], [PORTUGUESE] or [SCANDINAVIAN] may be selected. • All display on the current DRYPRO version is in English.
OPERATION HOURS	Displays the total running time from the time when the DRYPRO unit was installed to the present

### • Screen Operation

- Input the setting items and click [OK].
  - The input settings will be memorized. Note, however, that DRYPRO settings are not changed yet.
  - Other SCP items may be set, if required, by clicking the desired menu items in the menu frame.
- Click [ACCEPT] to set the DRYPRO.
  - Status messages will be displayed followed by the message shown at right to indicate completion of settings.
- Click [CLOSE] to return to the top screen.



### 5.3.4 SCU Menu Screen

#### ◆ DICOM SCU

Registers the SCU devices connected to the DRYPRO unit and sets DICOM and N-EVENT REPORT data for those devices. A maximum of four SCU devices (4CH) may be registered.

- Before making SCU settings and changes, select the SCU CH to be set on the menu screen.

#### • Display/Setting Items

Item Name	Details of Setting
Title Bar	Displays the SCU CH selected from the menu screen and currently registered SCU names.
SCU CH USE	The [ON], [OFF] buttons for “SCU CH USE” may be used to set the presence of the SCU.
SCU NAME	Sets the SCU name.
AE TITLE	Sets the SCU AE title. <ul style="list-style-type: none"> <li>• A maximum of 16 characters may be input.</li> </ul>
N-EVENT PORT NO	Sets the port number used for N-EVENT REPORT. <ul style="list-style-type: none"> <li>• Input "0" if N-EVENT REPORT is not to be used.</li> </ul>
DHCP	Sets presence/absence of DHCP server. <ul style="list-style-type: none"> <li>• The DHCP absent/present setting is made from the NETWORK/DICOM SCP.</li> </ul>
IP ADDRESS	Sets the SCU IP address. <ul style="list-style-type: none"> <li>• A maximum of 16 characters may be input.</li> </ul>
HOST NAME	Sets the SCU name on the network. <ul style="list-style-type: none"> <li>• A maximum of 16 characters may be input.</li> </ul>
SIZE TYPE CHECK	Determines whether or not to inform film size and type check.

Item Name	Details of Setting
BORDER SIZE	Sets the border size. [REGIUS] : Sets a border with almost no margin used for Regius CR, etc. [CT/MRI] : Sets a border suitable for the multi-image format used with CT or MRI.
EMPTY NOTICE	Determines whether or not to display a message indicating when the tray is empty.
FRAME LAYOUT	Sets spaces between frames for multi-image format printing. [EVEN] : The space between frames is made as wide as possible, leaving top/bottom/left/right borders unchanged. [CENTER] : The space between frames remains fixed with the top/bottom/left/right borders widened. [H EVEN] : Even layout of images in Hitachi format. [H CENTER] : Centred layout of images in Hitachi format.
DICOM ERROR LEVEL	Selects the method of error return from the DRYPRO unit to diagnostic devices. • This setting should not be changed unless otherwise instructed.
DEFAULT DMAX DMIN	Selects the method of selection of maximum/minimum density applied when printing. [DICOM] : Uses the density data sent from the SCU. [P-CON] : Uses the maximum/minimum density data set in the DRYPRO unit.

### • Screen Operation

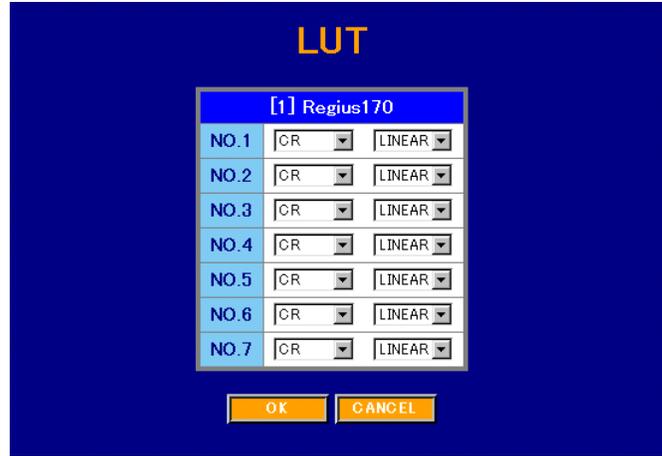
1. Input the setting items and click [OK].
  - The input settings will be memorized. Note, however, that DRYPRO settings are not changed yet.
  - If [SCU NAME] and [SCU CH USE] are changed, the SCU CH displayed in the menu frame will also change accordingly.
  - Other SCP items may be set, if required, by clicking the desired menu items in the menu frame.
2. Click [ACCEPT] to set the DRYPRO.
  - Status messages will be displayed followed by the message shown at right to indicate completion of settings.
3. Click [CLOSE] to return to the top screen.



◆ **LUT**

Sets the LUT to be applied to the selected SCU from the LUT library incorporated into the DRYPRO unit.

- If the LUT setting is to be changed, the SCU CH should first be selected on the menu screen.
- A maximum of seven LUTs may be selected for one SCU.



• **Display/Setting Items**

Item Name	Details of Setting
Title Bar	Displays the SCU CH selected on the menu screen together with currently registered SCU names.
No.1 - No.7	Select the LUT type in the left column and the LUT name to be applied in the right column.

• **Screen Operation**

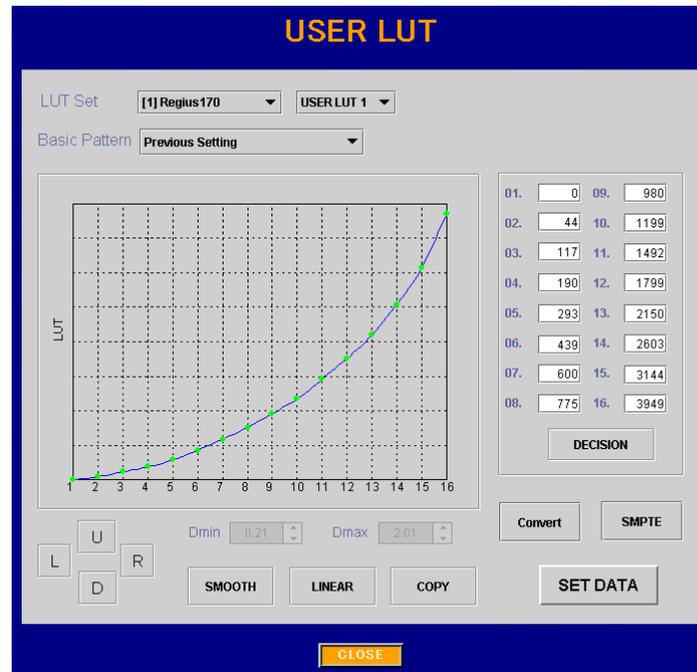
1. For each LUT number, click the arrow in the left column to select the LUT type from the list box and the arrow in the right column to select the LUT name from the list box.
  - The LUT names available for selection in the right column will change depending on the LUT type selected in the left column.
2. Input the setting items and click [OK].
  - The input settings will be memorized. Note, however, that DRYPRO settings are not changed yet.
  - Other SCP items may be set, if required, by clicking the desired menu items in the menu frame.
3. Click [ACCEPT] to set the DRYPRO.
  - Status messages will be displayed followed by the message shown at right to indicate completion of settings.
4. Click [CLOSE] to return to the top screen.



## ◆ USER LUT

Creates user LUTs by allowing changes to the LUT curve using LUTs from the LUT library incorporated into the DRYPRO unit as base.

- If the LUT setting is to be changed, the SCU CH should first be selected on the menu screen.
- A maximum of seven LUTs may be selected for one SCU.



### • Display Items

Item Name	Details of Setting
LUT graph	Display the LUT in graph format. When changes to the LUT curve are made, the new curve is shown as a green line and the old curve as a red line. The vertical and horizontal axes of the graph may be changed using the [CONVERT] and [SMPTE] buttons.
DMIN	Displays the minimum density value set using the PRINT CONDITION menu.
DMAX	Displays the maximum density value set using the PRINT CONDITION menu.
Density display	In the initial status, the 16-point values comprising the LUT curve are displayed as a digital values (0 - 4095). Clicking the [CONVERT] button produces display of density values multiplied by 100 at the 16 points comprising the LUT curve. Clicking the [SMPTE] button produces display of each of the SMPTE percentage values as 12-bit digital values. Clicking the [CONVERT] and [SMPTE] buttons produces display of each of the SMPTE percentage values as density values multiplied by 100.

• **Operation Items**

Item Name	Details of Setting
LUT Set	The target SCU channel and name are displayed in the left column. The user LUT to be set may be set in the right column. <ul style="list-style-type: none"> <li>• Click the arrow and select the user LUT number from the list box.</li> <li>• A maximum of four user LUTs may be set.</li> </ul>
Basic Pattern	Select the LUT name incorporated in the DRYPRO unit from the list box. Characteristic data of the LUT is shown in the LUT graph and density display.
Density display	Click each point box and input the required numerical value.
DECISION	Fixes and reflects on the graph the value input in the density display box .
Convert	Displays values on the vertical axis of the LUT graph and in the density display as density values multiplied by 100.
SMPTE	Displays each of the points on the horizontal axis of the LUT graph and in the density display as percentages.
SMOOTH	Interpolates data to ensure smooth LUT changes.
LINEAR	Converts the area between maximum and minimum LUT values to data connected by a straight line
COPY	Copies LUT data from one user LUT to another. The Copy LUT Data window is displayed.
U D R L	Enables vertical and horizontal movement of the entire LUT graph when clicked.

• **Screen Operation**

1. Select the user LUT number to be set from the right column of the "LUT Set" item.
2. Create the desired LUT characteristics by either manipulating the graph or inputting the required numerical values in the point boxes of the density display.
  - After inputting a numerical value in a density display box, clicking [DECISION] will reflect that value on the graph.
3. Click [SET DATA].
  - The user LUT will be updated using characteristics shown on the graph.
  - Note, however, that DRYPRO settings will not be changed.
  - Movement to other menu items is possible only after clicking [CLOSE] and closing the screen.
4. Click [ACCEPT] to set the DRYPRO.
  - Status messages will be displayed followed by the message shown at right to indicate completion of settings.
5. Click [CLOSE] to return to the top screen.



## ◆ DEFAULT SETUP

Sets print parameters for each SCU.

- Select the target SCU CH from the menu screen before making parameter settings or changes.

[1] Regius170	
LUT NO	1 = LINEAR
DENSITY	0
CONTRAST	0
SMOOTH TYPE	2
MAX DENSITY	300
MIN DENSITY	20
ILLUMINATION	2000
AMBIENT LIGHT	10
ORIENTATION	<input checked="" type="radio"/> PORTRAIT <input type="radio"/> LANDSCAPE
POLARITY	<input checked="" type="radio"/> POSI <input type="radio"/> NEGA
TRIM	<input checked="" type="radio"/> OFF <input type="radio"/> ON
BORDER	<input checked="" type="radio"/> BLACK <input type="radio"/> CLEAR
FLIP	<input checked="" type="radio"/> OFF <input type="radio"/> ON
EDGE ENHANCE	<input checked="" type="radio"/> OFF <input type="radio"/> ON
REQUESTED IMAGE SIZE	<input checked="" type="radio"/> EFFECTIVE <input type="radio"/> INVALID
REQUESTED BEHAVIOR	<input checked="" type="radio"/> DECIMATE <input type="radio"/> CROP

OK CANCEL

### • Setting Items

Item Name	Details of Setting
Title Bar	Displays the SCU CH number selected from the menu screen together with currently registered SCU names.
LUT NO	Selects the LUT number to be applied.
DENSITY	Adjusts image density. <ul style="list-style-type: none"> <li>• Settings may be made within a range of -7 - 7. The lower the value set, the lower the density, the higher the value set, the higher the density.</li> </ul>
CONTRAST	Sets the contrast. <ul style="list-style-type: none"> <li>• Settings may be made within a range of -7 - 7. The lower the value set, the lower the contrast, the higher the value set, the higher the contrast.</li> </ul>
SMOOTH TYPE	Sets the image smoothing type. <ul style="list-style-type: none"> <li>• Settings may be made within a range of 1 - 7. The higher the value set, the higher the degree of smoothness.</li> </ul>
MAX DENSITY	Sets the maximum density for printing.
MIN DENSITY	Sets the minimum density for printing.
ILLUMINATION	Sets the light table brilliance.
AMBIENT LIGHT	Sets the film reflection brilliance.

Item Name	Details of Setting
ORIENTATION	Selects the image direction. PORTRAIT : Vertical LANDSCAPE : Horizontal
POLARITY	Selects image positive/negative.
TRIM	Enables/disables film trimming.
BORDER	Selects the border color.
FLIP	Selects image inversion. ON : Image inverted OFF : Image not inverted
EDGE ENHANCE	Selects enhancement of characters. ON : Characters enhanced OFF : Characters not enhanced
REQUESTED IMAGE SIZE	Sets the frame size. • [EFFECTIVE] (size specified) or [INVALID] (frame size not specified) may be selected.
REQUESTED BEHAVIOR	Displays the ratio for overprint processing. • [DECIMATE] (ratio displayed) or [CROP] (length displayed) may be selected.

- **Screen Operation**

1. Input the setting items and click [OK].

- The input settings will be memorized. Note, however, that DRYPRO settings are not changed yet.
- Other SCU items may be set, if required, by clicking the desired menu items in the menu frame.

2. Click [ACCEPT] to set the DRYPRO.

- Status messages will be displayed followed by the message shown at right to indicate completion of settings

3. Click [CLOSE] to return to the top screen.



## ◆ PRIORITY SETUP

Determines whether each print parameter specified by SCU information or DRYPRO settings (DEFAULT SETUP settings) will be used as print parameters when printing.

- Select the target SCU CH from the menu screen before making PRIORITY settings or changes.

[1] Regius170		
LUT NO	<input checked="" type="radio"/> DICOM	<input type="radio"/> PCON
SMOOTH TYPE	<input checked="" type="radio"/> DICOM	<input type="radio"/> PCON
MAX DENSITY	<input checked="" type="radio"/> DICOM	<input type="radio"/> PCON
MIN DENSITY	<input checked="" type="radio"/> DICOM	<input type="radio"/> PCON
ORIENTATION	<input checked="" type="radio"/> DICOM	<input type="radio"/> PCON
POLARITY	<input checked="" type="radio"/> DICOM	<input type="radio"/> PCON
TRIM	<input checked="" type="radio"/> DICOM	<input type="radio"/> PCON
BORDER	<input checked="" type="radio"/> DICOM	<input type="radio"/> PCON

OK CANCEL

### • Setting Items

Item Name	Details of Setting
Item priority	For each set item, items for which [DICOM] has been selected are printed in accordance with SCU parameters and items for which [PCON] has been selected are printed in accordance with DRYPRO settings.

### • Screen Operation

1. Input the setting items and click [OK].
  - The input settings will be memorized. Note, however, that DRYPRO settings are not changed yet.
  - Other SCU items may be set, if required, by clicking the desired menu items in the menu frame.
2. Click [ACCEPT] to set the DRYPRO.
  - Status messages will be displayed followed by the message shown at right to indicate completion of settings.
3. Click [CLOSE] to return to the top screen.



## ◆ STAMP

Sets stamp parameters.

- Select the target SCU CH from the menu screen before making stamp parameter settings or changes.

### • Setting Items

Item Name	Details of Setting
STAMP DIRECTION	Selects the position where the stamp will be printed on the film.
STAMP SELECT	Input checks in the check boxes corresponding to the items to be printed on the film.
TIME/DATE	Date and time.
COPY NO	Copy count.
SCU ID/PAGE NO	SCU name and page number.
STAMP MESSAGE	Stamp message.
PATIENT ID/NAME	Patient ID and name. <ul style="list-style-type: none"> <li>• To print the patient name, select the character type ("CHAR CODE" : ACSII (English characters) or 2BYTE : Japanese characters) and enable/disable 2-line printing ("TWO LINE MODE").</li> </ul>
FORMAT	Select the format for Time and Date.
YEAR/MONTH	Select the date format from the following. YY-MMM-DD : Year (2 digits), month name, day (numerical value) YYYY-MMM-DD : Year (4 digits), month name, day (numerical value) YY-mm-DD : Year (2 digits), month (numerical value), day (numerical value) YYYY-mm-DD : Year (4 digits), month (numerical value), day (numerical value)
DATE/TIME	Selects the order in which the time and date are printed. TIME+DATE : Printed in the order time, date. DATE+TIME : Printed in the order date, time. TIME : Time only printed. DATE : Date only printed.

Item Name	Details of Setting
STAMP MESSAGE	Input the message to be printed on the stamp. Input may be in 1 or 2 BYTE characters.

- **Screen Operation**

1. Input the setting items and click [OK].
  - The input settings will be memorized. Note, however, that DRYPRO settings are not changed yet.
  - Other SCP items may be set, if required, by clicking the desired menu items in the menu frame.
2. Click [ACCEPT] to set the DRYPRO.
  - Status messages will be displayed followed by the message shown at right to indicate completion of settings.
3. Click [CLOSE] to return to the top screen.

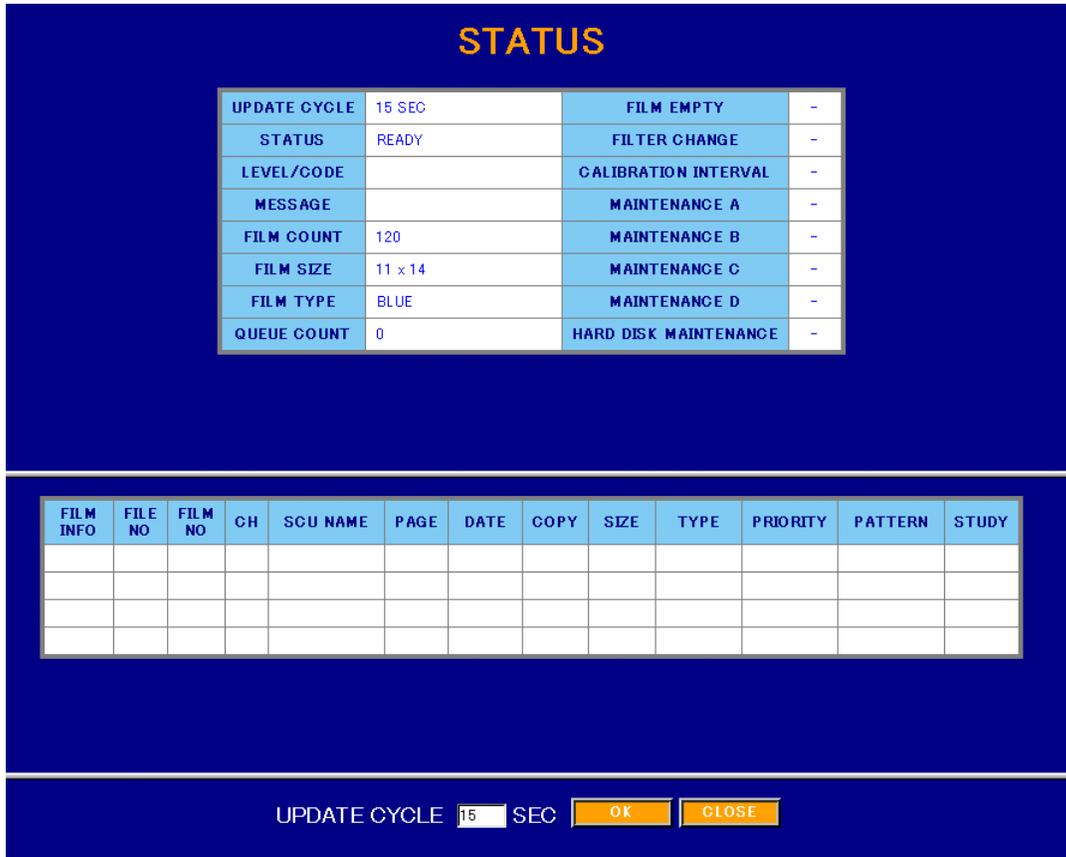


### 5.3.5 STATUS Screen

#### ◆ STATUS

Displays the real-time DRYPRO status.

- This screen comprises three frames.



#### • Display Items (DISPLAY)

Details of display in the first frame are as follows.

Item Name	Details of Setting
UPDATE CYCLE	Displays the interval (seconds) at which the status display is automatically updated.
STATUS	Displays the DRYPRO status as follows. INIT: Initializing WARM UP: Warming up READY: Ready START TIMER: Morning standby enabled MORNING CANCEL: Morning standby cancelled PRINTING: Printing FILM LOAD: Loading film ERROR : Error ERROR RESET: Resetting error USER MAINTENANCE: Maintenance in process OPERATION OFF: In operation off sequence
LEVEL/CODE	Displays the error level and a 4-digit error code when an error occurs.
MESSAGE	Displays an error message when an error occurs.

Item Name	Details of Setting
FILM COUNT	Displays the number of sheets of film remaining in the supply tray.
FILM SIZE	Displays the supply tray film size.
FILM TYPE	Displays the supply tray film type.
QUEUE COUNT	Displays the number of print jobs remaining in the print queue.
FILM EMPTY	Displays [ON] when the supply tray is empty.
FILTER CHANGE	Displays [ON] when the filter replacement interval has elapsed.
CALIBRATION INTERVAL	Displays [ON] when the automatic calibration interval has elapsed.
MAINTENANCE A	Displays [ON] when the regular maintenance schedule-A interval has elapsed.
MAINTENANCE B	Displays [ON] when the regular maintenance schedule-B interval has elapsed.
MAINTENANCE C	Displays [ON] when the regular maintenance schedule-C interval has elapsed.
MAINTENANCE D	Displays [ON] when the regular maintenance schedule-D interval has elapsed.
HARD DISK MAINTENANCE	Displays [ON] when the hard disk maintenance interval has elapsed.

- **Display Items (PRINTING QUEUE)**

- Information relating to print data currently remaining in the print queue is displayed in the second frame. Details of display are as follows.

Item Name	Details of Setting
FILM INFO	Clicking [CALL] (orange) produces display of film data in the corresponding queue in a separate browser window. <ul style="list-style-type: none"> <li>• Displays only when the queue contains data.</li> </ul>
FILE NO	Displays the file number.
FILM NO	Displays the film number.
CH	Displays the SCU CH through which the print data was received. <ul style="list-style-type: none"> <li>• An asterisk (*) indicates test printing.</li> </ul>
SCU NAME	Displays the name of the SCU through which the print data was received. <ul style="list-style-type: none"> <li>• Asterisks (****) indicate test printing.</li> </ul>
PAGE NO	Displays the page number.
DATE	Displays the DICOM receipt time.
COPY	Displays the copy count.
SIZE	Displays the film size.
TYPE	Displays the film type.
PRIORITY	Displays the print priority as [HIGH], [MID] or [LOW].
PATTERN	Displays the type of printing. <ul style="list-style-type: none"> <li>• Display of [NORMAL] indicates regular printing while test printing is indicated by display of the test pattern.</li> </ul>
STUDY	STUDY is displayed in the format group branch number/group branch number maximum value. <ul style="list-style-type: none"> <li>• Where not applicable, this display is blank.</li> </ul>

- **Setting Items**

- Details of display in the third frame are as follows.

Item Name	Details of Setting
UPDATE CYCLE	Displays the interval (seconds) at which the status display is automatically updated.

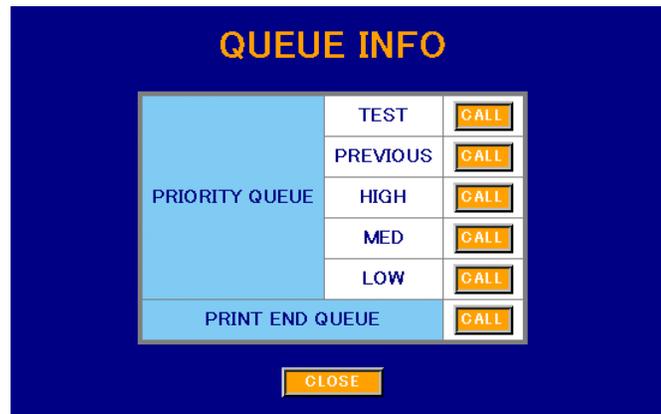
- **Screen Operation**

1. To change the interval at which the status is automatically updated, input the required value under "UPDATE CYCLE" and click [OK].
2. To close the screen, click [CLOSE].
  - Display will return to the top screen.
3. If all data cannot be displayed on the screen, use the scroll bar to scroll down.
  - To make the PRINTING QUEUE frame easier to view, enlarge the operation/setting frame by dragging the edge.

## ◆ QUEUE INFO

Displays information relating to print data registered in the print queue.

A new browser window is opened for display of this information.



### • Operation Items

Item Name	Details of Setting
PRIORITY QUEUE	<p>Determines which print data will be displayed from the print queue.</p> <p>TEST : Displays test print data.</p> <p>PREVIOUS : Displays the newest data in the queue.</p> <p>HIGH : Displays data with high priority.</p> <p>MID : Displays data with medium priority.</p> <p>LOW : Displays data with low priority.</p> <ul style="list-style-type: none"> <li>Click [CALL] to the right of the data to be displayed.</li> </ul>
PRINT END QUEUE	Displays data already printed.

### • Screen Operation

- Click the [CALL] button corresponding to the data to be checked.
  - A separate browser window will be opened for display of the specified data.
- To close the screen, click [CLOSE].
  - Display will return to the top screen.

## ◆ Queue Display Screen

Displays print data currently remaining in the queue selected under QUEUE INFO.

A list of data in the queue will be displayed. Items displayed are the same whichever queue is selected. The example below is based on selection of PRINT END QUEUE.

PRINT END QUEUE												
QUEUE COUNT = 2												
FILM INFO	FILE NO	FILM NO	CH	SCU NAME	PAGE	DATE	COPY	SIZE	TYPE	PRIORITY	PATTERN	STUDY
<b>CALL</b>	0000	0001	1	PLNK2-67	1	03.09.03 14.33.06	01/01	14 x 17	BLUE	LOW	NORMAL	
<b>CALL</b>	0001	0002	1	PLNK2-67	2	03.09.03 14.33.38	01/01	14 x 17	BLUE	LOW	NORMAL	

**WINDOW CLOSE**

### • Display Items

Item Name	Details of Setting
FILM INFO	Clicking [CALL] (orange) produces display of film data in the corresponding queue in a separate browser window. <ul style="list-style-type: none"> <li>Displayed only when there is data in the queue.</li> </ul>
FILE NO	Displays the file number.
FILM NO	Displays the film number.
CH	Displays the SCU CH through which the print data was received. <ul style="list-style-type: none"> <li>An asterisk (*) indicates test printing.</li> </ul>
SCU NAME	Displays the name of the SCU through which the print data was received. <ul style="list-style-type: none"> <li>Asterisks (****) indicate test printing.</li> </ul>
PAGE NO	Displays the page number.
DATE	Displays the DICOM receipt time.
COPY	Displays the copy count.
SIZE	Displays the film size.
TYPE	Displays the film type.
PRIORITY	Displays the print priority as [HIGH], [MID] or [LOW].
PATTERN	Displays the film type. <ul style="list-style-type: none"> <li>Display of [NORMAL] indicates regular printing while test printing is indicated by display of the test pattern.</li> </ul>
STUDY	STUDY is displayed in the format group branch number/group branch number maximum value. <ul style="list-style-type: none"> <li>Where not applicable, this display is blank.</li> </ul>

- Display of the message "This is no data" indicates that the applicable data does not exist in the queue.

## ◆ FILM INFO

The screen shown below is displayed when the [CALL] button for [FILM INFO] is clicked on either the STATUS or QUEUE INFO screens. Detailed information relating to print data registered in the queue is shown.

- This screen comprises the two frames shown below.

FILM INFO

<b>QUEUE</b>	FILE NO	0001	FILM NO	0002	
	DICOM DATA DIRECTORY				030903143338001
<b>FILM SESSION</b>	AE TITLE				KC_PLNK2_SCU067
	NUMBER OF COPIES	1	PRINT PRIORITY	LOW	
	MEDIUM TYPE	BLUE FILM	FILM DESTINATION	BIN_1	
	ILLUMINATION	2000	REFLECTED AMBIENT	10	
<b>FILM BOX</b>	IMAGE DISPLAY FORMAT				STANDARD#3.4
	ANNOTATION DISPLAY FORMAT ID				P1
	FILM ORIENTATION	PORTRAIT	FILM SIZE ID	14INX17IN	
	MAGNIFICATION TYPE	REPLICATE	SMOOTHING TYPE	2	
	BORDER DENSITY	WHITE	TRIM	YES	
	MAX DENSITY	300	MIN DENSITY	20	
	CONFIGURATION INFORMATION				KC_LUT=1
	PATIENT NAME				
	PATIENT ID				PLNK2-067-TESTOPURINTO
	DENSITY	0	CONTRAST	0	
	GLOSSY				NORMAL
	OTHER INFORMATION				
<b>IMAGE BOX</b>	[1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12]				

DOWNLOAD
WINDOW CLOSE

IMAGE POSITION	1	POLARITY	NORMAL	REQUESTED IMAGE SIZE	
REQUESTED BEHAVIOR		INTERPRETATION	MONOCHROME2	ROWS	512
COLUMNS	512	PIXEL ASPECT RATIO	1000:1000	BITS ALLOCATED	8
BITS STORED	8	HIGH BIT	7	PIXEL PRESENTATION	0
IMAGE FILE NAME	Img00000016.raw				

### • Display Items (Upper Frame)

Item Name	Details of Setting
QUEUE	Displays information relating to print data handled inside the DRYPRO unit.
FILM SESSION	Displays print parameters set in print data.
FILM BOX	Displays format parameters for printing of one sheet of film.
IMAGE BOX	Displays numerical buttons as many as frames when printed in multi-format. <ul style="list-style-type: none"> <li>Clicking a numerical button produces display of information relating to the corresponding frame image in the lower frame.</li> <li>Where there is only one image, only [1] is displayed.</li> </ul>

### • Display Items (Lower Frame)

Displays parameters for imprinting images on the film.

- Information relating to the image corresponding to the number selected under "IMAGE BOX" (frame position) is displayed in this frame.

- **Screen Operation**

1. To close the screen, click [WINDOW CLOSE].
2. Information shown in [DOWNLOAD] screen may be downloaded to a PC as a file.

- **Downloading FILM INFO**

3. Click [DOWNLOAD].
  - Downloading will commence and status messages displayed.
  - After completion of the download, results will be shown on screen and a file save dialogue displayed.
4. Specify the save destination folder and click [SAVE (S)].
5. To close the window after completion of storage, click [WINDOW CLOSE].



### 5.3.6 DIAG MEC Screen

#### ◆ PRINT I/O (Setting)

Tests the exposure unit.

#### • Setting Items

Item Name	Details of Setting
POLYGON	<p>Runs the polygon motor for the set length of time only.</p> <ul style="list-style-type: none"> <li>Click [ON] and input the required running time in the box at the right (msec).</li> <li>To set continuous running, input a value of "0."</li> </ul>
LD	<p>Illuminates the laser diode at the set level.</p> <ul style="list-style-type: none"> <li>Click [ON] and input the required level in the box at the right (digital value).</li> </ul>

#### • Screen Operation

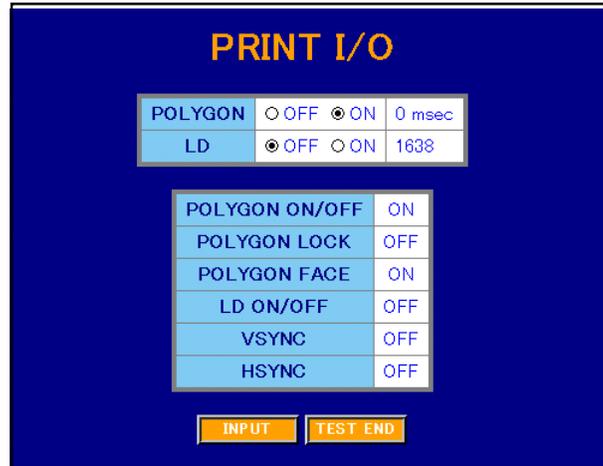
**WARNING** Laser protective goggles must be worn when illuminating the laser with the outer cover of the DRYPRO unit removed. Light from the laser may leak out of the unit.

**DANGER** Carrying out this operation with the DRYPRO outer cover removed may result in leakage of light from the laser out of the unit. Check that there are no personnel in the vicinity before proceeding with work. Direct exposure of the eyes to the laser may result in loss of sight.

- To run the polygon motor, select [ON] under [POLYGON] and input the required running time in the box at the right.
- To illuminate the laser diode, select [ON] under [LD] and input the illumination level in the box at the right.
- Click [STORE].
  - Runs the polygon motor for the set length of time when [ON] has been set under [POLYGON].
  - The laser diode is illuminated at the set level when [ON] has been set under [LD]. Beep sound will continue while the LD is ON.
  - The exposure unit operational status is displayed in the lower frame.
- To stop the polygon motor and extinguish the laser diode, click [TEST END].
  - Beep sound will also stop.

### ◆ PRINT I/O (Status Display)

This screen is displayed during exposure unit testing.



#### • Display Items

Item Name	Details of Setting
POLYGON ON/OFF	Displays the polygon motor operational status.
POLYGONLOCK	Displays the POLYGON LOCK signal status.
POLYGON FACE	Displays the face sensor signal status.
LD ON/OFF	Displays the lighting status of the LD.
VSYNC	Displays the V-sync signal status.
HSYNC	Displays the H-sync signal status.

#### • Screen Operation

1. To terminate the test, stop the polygon motor and extinguish the laser diode, click [TEST END].
2. To check the current exposure unit status, click [INPUT].
  - The screen will change to the exposure unit status display at the time of clicking the [INPUT].

## ◆ MEC I/O

Checks the DRYPRO status and tests mechanical control load operation.

- This screen comprises three frames.

MEC I/O							
SUPPLY	EMPTY	-	COOLING / DISCHARGE	DENSITOMETER ENTRANCE	-		
	SUCKER HOME	ON		FILTER	FILTER	ON	
	SHUTTER OPEN	ON	FILTER FAN		ON		
	SHUTTER CLOSE	-	MAIN BODY		INTERLOCK LOWER	-	
	TRAY LOCK	-			FRONT COVER CLOSE	-	
	SUPPLY EXIT	-			REAR COVER CLOSE	-	
DESCENT TRANSPORT	TRANSPORT NIP CLOSE	-			JAM COVER	-	
	WIDTH HOME POSITION	ON		CONNECTER OUT	CN2	ON	
	POSITION NIP HOME	-			CN6	ON	
WIDTH POSITION	-	CN7	ON				
SUBSCAN	V-SYNC	-	CN10	ON			
	SUBSCAN ENTRANCE	-	CN12	ON			
ELEVATOR TRANSPORT	HPRO ENTRANCE	-	LINEBACK SIGNAL	ON			
	TRANSPORT NIP CLOSE	-					
HPRO	CLEANING POSITION	-					
	ROLLER ROTATION	-					

### • Setting Items (MEC I/O)

Item Name	Details of Setting
SUPPLY	Displays the status of the supply unit sensors.
DESCENT TRANSPORT	Displays the status of the descent conveyance and position regulating unit sensors.
SUBSCAN	Displays status of the sub-scan unit sensors
ELEVATOR TRANSPORT	Displays the status of the elevator unit sensors.
HPRO	Displays the status of the heat processing unit sensors.
COOLING/DISCHARGE	Displays the status of the cooling and ejection unit sensors.
FILTER	Displays the status of the air cooling sensors.
MAIN BODY	Displays the status of the main body frame sensors.

- The display status is updated at the interval set under "UPDATE CYCLE."
- Sensor status is displayed as "-" (OFF) or "ON" (ON).

◆ STATUS Display

STATUS		TEMPERATURE		
RUN STATUS	IDLING	SUPPLY		32.1
SUPPLY SHUTTER	OPEN	DRUM HEATER	CENTER	122.9
COVER	CLOSE		FRONT	122.9
TRAY	CLOSE		REAR	123.0
FILM LOADING	OK	COOL ZONE	1 ST	51.1
ERROR	0000		2 ND	33.5
UPDATE CYCLE				
UPDATE CYCLE	15			

• Display Items (Status Display)

Item Name	Details of Setting
RUN STATUS	Displays the DRYPRO status.
SUPPLY SHUTTER	Displays the tray shutter status.
COVER	Displays the front cover status.
TRAY	Displays the supply tray status.
FILM LOADING	Displays the film conveyance status.
ERROR	Displays error level and number when an error occurs.
SUPPLY	Displays the supply unit temperature.
DRUM HEATER	Displays the temperature at the centre, front and rear of the drum (CENTER, FRONT, REAR).
COOL ZONE	Displays the primary and secondary cooling unit temperatures (1ST, 2ND).
UPDATE CYCLE	Displays the data update cycle time (seconds).

• Test Operation Selection

UPDATE CYCLE  SEC

UNIT

• Setting Items

Item Name	Details of Setting
UPDATE CYCLE	Input the interval at which STATUS is to be automatically updated.
UNIT	Selects the operation load to be tested from the list.

### ◆ Screen Operation

1. To change the interval at which STATUS is automatically updated, input the required time under "UPDATE CYCLE" and click [OK].
2. To close the screen, click [CLOSE].
  - Display will return to the top screen.
3. If all data cannot be displayed on the screen, use the scroll bar to scroll down.

### ◆ Procedure for Mechanical Testing

1. Select the operation to be tested from the "NIT" list.
  - Operations available for selection are shown in the list at right.
2. Click [SEND].
  - The selected operation will commence and status display at each sensor changes according to the operational status (display will change at the interval set under "UPDATE CYCLE").
  - Operation will return to the idle status after completion of one run.
3. To terminate the test, click [CLOSE].
  - Display will return to the top screen.

For the correspondence between sensors and the English names displayed on the screen, refer to "4.2.12 SA0 MEC MAINTE".

Operation Name	Details
SUSUPPLY INI	Supply initial operation
DECENT INI	Descent conveyance initial operation
EXPOSURE INI	Exposure initial operation
RISE INI	Elevator transport initial operation
DISCHARGE INI	Ejection initial operation
PICKUP	Pick up initial operation
CONVEYANCE	Conveyance operation
DISCHARGE	Ejection operation
SHUTTER TEST	Shutter open/close operation
FILM SET TEST	Film loading operation
DOOR OPEN TEST	Front cover operation
TRAY OPEN TEST	Tray lock release operation
CLEANING TEST	Cleaning operation

### 5.3.7 Handling UPGRADE Failure

In the event that failure occurs when attempting DRYPRO upgrade using the UPGRADE function of the Web maintenance tool (when normal start up of the DRYPRO unit is not possible), the following procedure should be followed to carry out a forced upgrade.

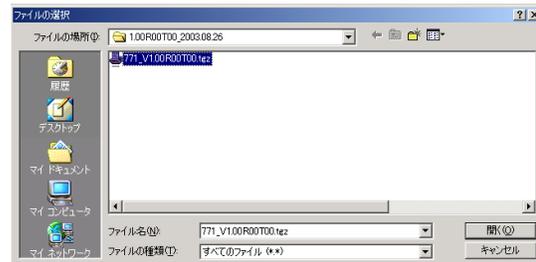
1. Invoke display of the log-in screen following the usual Web maintenance tool operation procedure.
2. Input the password "0119" and click [LOGIN].
  - The EMERGENCY screen (forced upgrade) will be displayed.



3. Click [REFERENCE].
  - A file selection dialogue will be displayed.



4. Select the upgrade file again and click [OK].
  - The name and path of the file selected will be displayed on the UPGRADE screen.
5. Click [OK].
  - The forced upgrade screen will be displayed.



6. Click [OK].
  - The file will be uploaded to the DRYPRO and updating of software and set values initiated.



- Upon successful completion of the update, results will be displayed on screen.

**7.** Press the operation switch to reboot the DRYPRO unit.



## 5.4 Setting and Adjustments Used in the Web Maintenance Tool

### 5.4.1 Laser Intensity Measurement

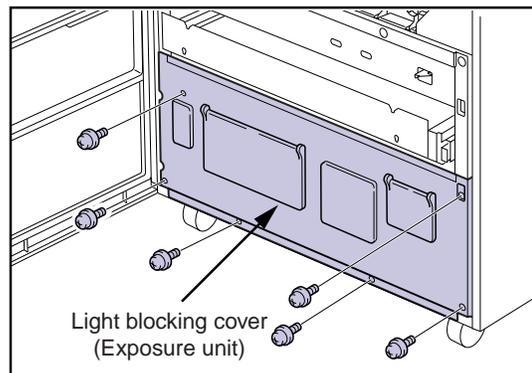
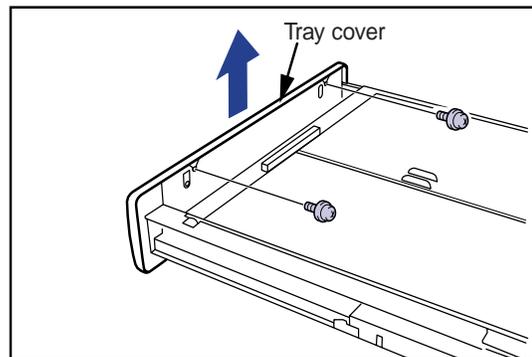
Measures the laser power of the main-scan unit using a light power meter.

**CAUTION** Always wear laser protective goggles when measuring laser power. Light from the laser may leak outside the unit.

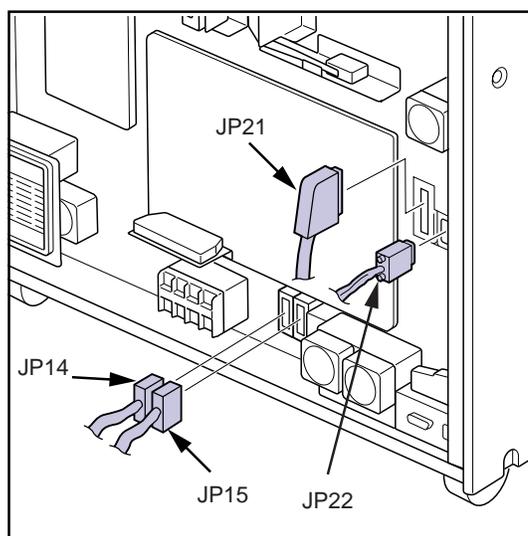
**DANGER** Carrying out this operation with the DRYPRO outer cover removed may result in leakage of light from the laser out of the unit. Check that there are no personnel in the vicinity before proceeding with work.  
Direct exposure of the eyes to the laser may result in loss of sight.

The following is the procedure for measurement.

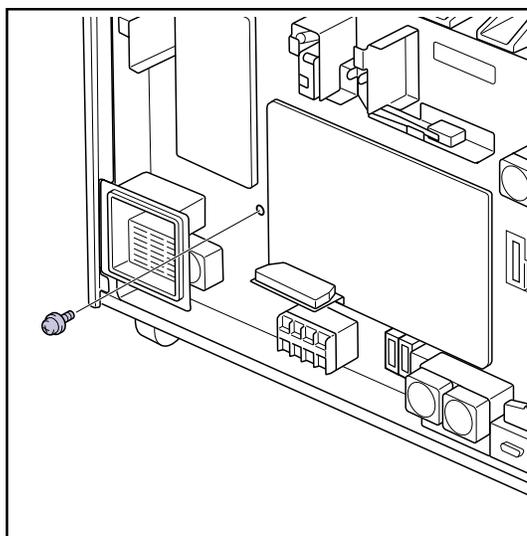
1. Open the front cover and remove the rear top cover and the rear cover.
2. Press the tray release lever to disengage the tray lock.
3. Pull out the tray and loosen the two tray cover screws.
4. Lift and remove the tray cover.
5. Remove the six screws securing the light blocking cover (exposure unit) and remove the cover.



6. Disconnect connectors JP14, JP15, JP 21 and JP22 at the back of the main body.
7. Connect the exposure unit extension cords between the connectors disconnected in step-6 above and the main operation unit, the position regulator/sub-scan unit connectors.



8. Remove the screws securing the position regulator/sub-scan unit at the back of the main body.



9. Pull the entire exposure unit out from the front of the main body.

10. Insert the interlock release key into interlock hole and turn 90° to disengage the interlock.

11. Connect the LAN cable to the DRYPRO and connect the maintenance PC to the LAN.

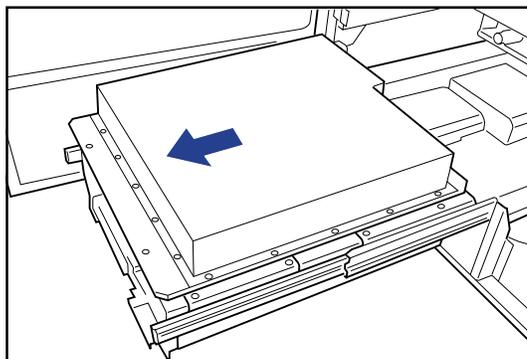
12. Press the operation switch to reboot the DRYPRO unit.

13. Log in to the Web maintenance tool.

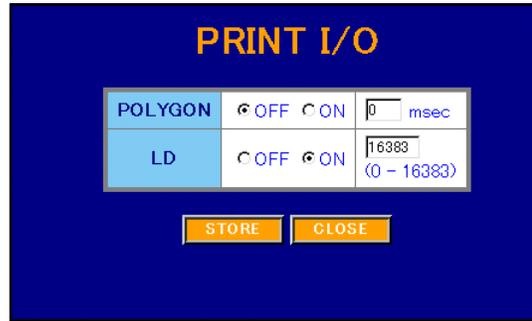
- The top screen of the Web maintenance tool will be displayed.

14. Click [PRINT I/O] in the menu frame (DIAG MEC) on the left of the screen.

- The PRINT I/O setting screen will be displayed.



15. Select [ON] under [LD] and input an output value of "16383."
  - This completes preparation for illumination of the laser diode at maximum output.

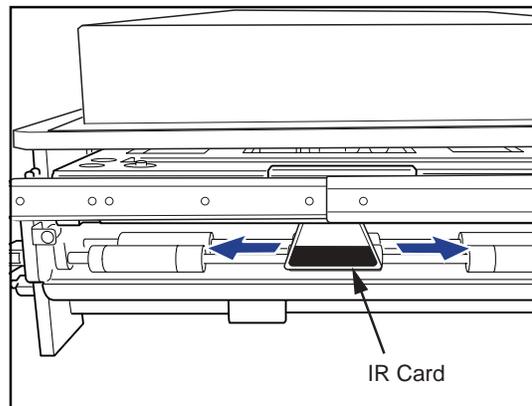


**CAUTION** The procedure from this point on involves laser illumination. Protective goggles must be worn. Check the vicinity again to ensure that there are no personnel at risk.

16. Click [STORE].
  - The PRINT I/O results will be displayed.
  - The laser diode will illuminate and the laser outputs. Since at this point the polygon motor is not running, the laser will be output on one spot within the laser scanning range.



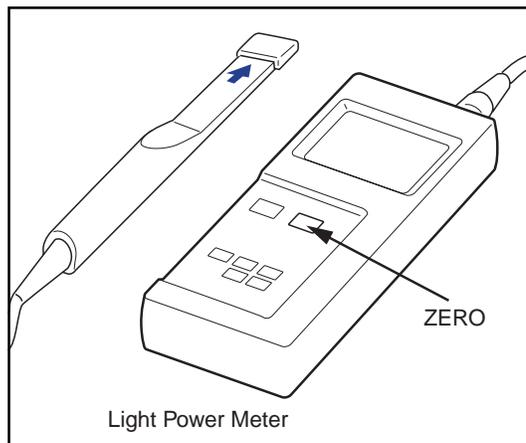
17. Insert the IR card from the right side of the main body between the rollers of the sub-scan unit to find the spot where the laser is focused.
  - Move the IR card in main-scan direction and locate the position where a red point of focus can be observed.
18. If the point of focus cannot be found, click [TEST END] on the PRINT I/O results display screen and return to the PRINT I/O setting screen.



19. Select [ON] under [POLYGON] and input a value between 1 - 4 for the polygon motor running time.
20. Click [STORE].
  - The PRINT I/O results screen will be displayed.
  - Clicking [STORE] will result in the polygon motor running for the length of time (seconds) input and consequent shifting of the laser focal point.
  - The focal point will shift approximately 10mm ~ 30mm depending on the input value (1 ~ 4 msec.)

21. Check the laser focal point using the IR card.
22. Repeat steps 19 - 22 until the laser focal point is located.

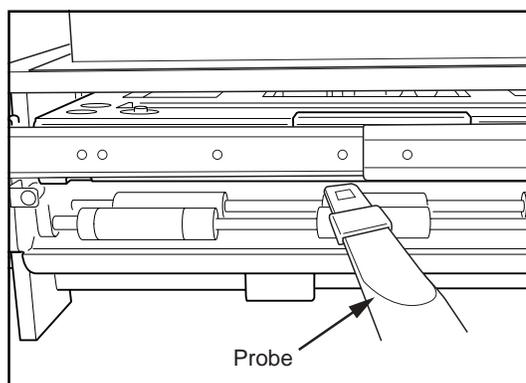
- 23.** Repeat steps 19 - 22 using the IR card to check the position of the focal point and shift the point to as near as possible a central position.
- 24.** Put the cover on the light power meter probe and carry out zero adjustment by pressing the [ZERO] button.



- 25.** Apply the power meter probe to the focal point location and carry out measurement.

- Check that the laser power is 14mW or more.
- A measured value of less than 14mW indicates either a problem with the signal output from the print engine board or deterioration of the laser itself. Carry out an "exposure data output check" and replace the print engine board if a malfunction is detected. If no malfunction is found, replace the main-scan unit.

**IMPORTANT** The light power meter probe surface should be applied at a slight angle to the light axis. Aligning the probe surface with the light axis will result in reflection of the laser back to the main-scan unit and consequent instability in the LD emission.



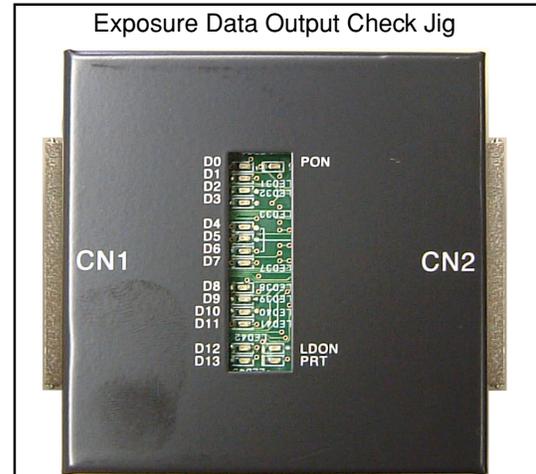
- 26.** After completion of measurement, click [TEST END] on the I/O results screen followed by [CLOSE] on the PRINT I/O setting screen to return to the top screen.
- Exiting the results screen will automatically switch off laser emission.
- 27.** Click [LOGOUT] at the top left of the screen to log out.
- 28.** Switch off the DRYPRO power supply and replace the sub-scan unit, the light blocking cover (exposure unit), the rear panel, the front cover and the supply tray.

**IMPORTANT** When inserting the exposure cable connector (JJ21), ensure that it is locked firmly and fully inserted at both edges.

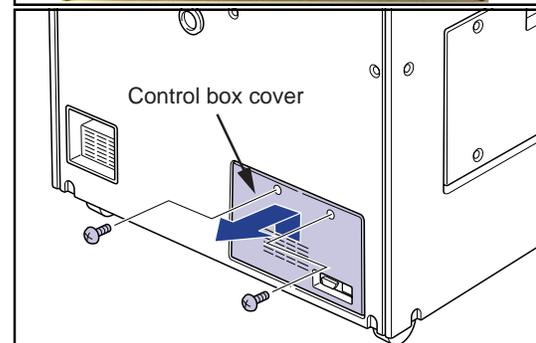
## 5.4.2 Checking Exposure Data Output

Checks the signal between the print engine board and the main-scan unit using the exposure data output check jig.

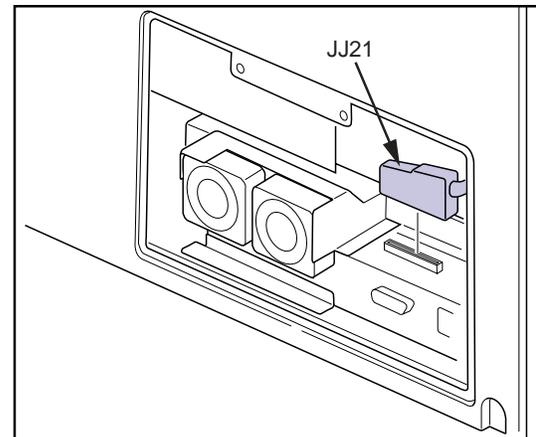
The procedure is detailed below.



1. Remove the two securing screws and take off the control box cover located at the bottom of the rear cover.



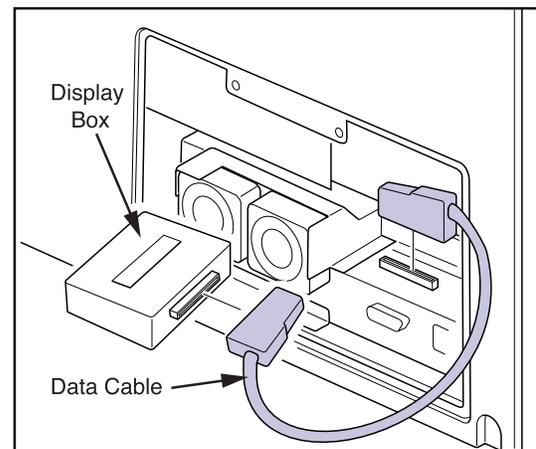
2. Disconnect the exposure cable connector (JJ21) from the control box.



3. Connect the data cable provided with the exposure data output check jig (hereinafter referred to as "the data cable") to the exposure data output check jig display box (hereinafter referred to as "the display box") connector and the control box connector.

- Connect the end of the connector marked "CONTROL" to the control box and the end marked "JIG BOX" to the display box.
- Do not connect the exposure cable (main-scan unit) to the display box yet.

4. Connect the LAN cable to the DRYPRO unit and the maintenance PC to the LAN.



• **Print Output Signal Check**

Checks the signal output by the print engine board.

5. Press the operation switch and reboot the DRYPRO unit.

6. Log in to the Web maintenance tool.

- The top screen of the Web maintenance tool will be displayed.

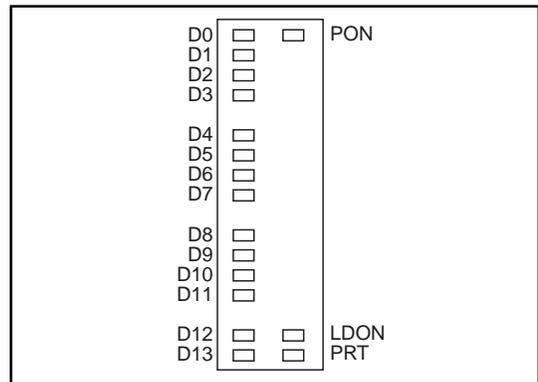
7. Click [PRINT I/O] in the menu frame (DIAG MEC) on the left of the screen.

- The PRINT I/O setting screen will be displayed.

8. Check the print engine board output signal.

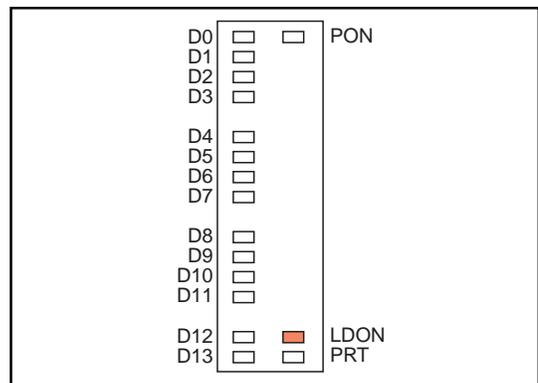
(1)

- Select [ON] under [POLYGON], input "0" (continuous operation) as the polygon motor running time and click [STORE].
- Ensure that the illuminated "PON" LED on the display box extinguishes.
- Click [TEST END] to return to the PRINT I/O setting screen.



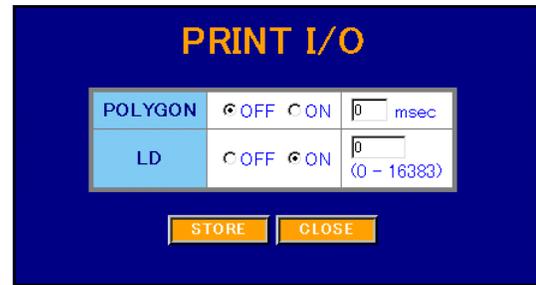
(2)

- Select [OFF] under [POLYGON], [ON] under [LD], input "1638" (default value) as the output value and click [STORE].
- Ensure that the "LDON" LED on the display box illuminates.
- Click [TEST END] to return to the PRINT I/O setting screen.

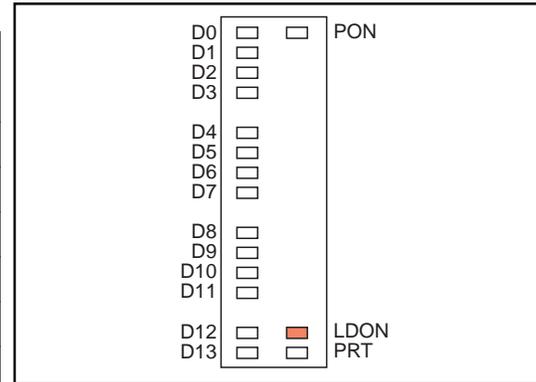


(3)

- a) Select [ON] under [LD], input an output value from the chart shown below and click [STORE].
- b) Ensure that the LED status shown on the chart below matches the set value. (Only LEDs D0 ~ D13 and PRT need to be checked in procedure-(3). All other LEDs should be ignored.)



Set Value	LED Status (D0 - D13, PRT)
0	All extinguished.
1	D0, PRT only illuminated.
2	D1, PRT only illuminated.
4	D2, PRT only illuminated.
8	D3, PRT only illuminated.
16	D4, PRT only illuminated.
32	D5, PRT only illuminated.
64	D6, PRT only illuminated.
128	D7, PRT only illuminated.
256	D8, PRT only illuminated.
512	D9, PRT only illuminated.
1024	D10, PRT only illuminated.
2048	D11, PRT only illuminated.
4096	D12, PRT only illuminated.
8192	D13, PRT only illuminated.
16383	PRT extinguished, D0 - D13 illuminated.



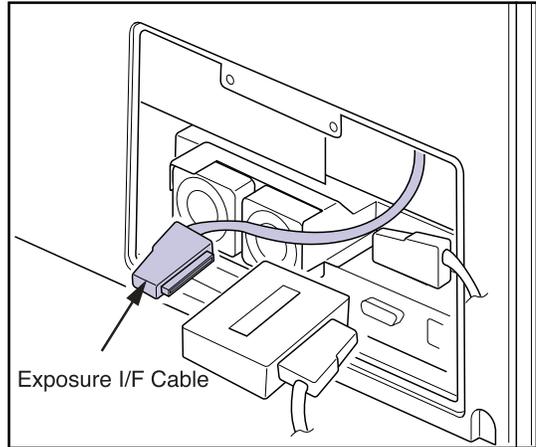
- c) Click [TEST END] to return to the PRINT I/O setting screen.
- d) Repeat steps (a) - (c) for each of the combinations shown above.

Any irregularities detected during procedures (1) ~ (3) above indicate problems with the print engine board or data cable. If the irregularity is not rectified by replacement of the print engine board, the data cable should be replaced.

9. If no problems are detected in step-8, press the operation switch and shut down the DRYPRO power supply.

10. Connect the exposure cable connected to the main-scan unit to the other connector on the display box.
11. Press the operation switch to reboot the DRYPRO unit and log in to the Web maintenance tool.
12. Repeat procedures (1) ~ (3) in step-8 above. Any irregularity detected indicates a problem with the exposure I/F cable or the main-scan unit.

If the irregularity is not rectified by replacement of the exposure cable, the main-scan unit should be replaced.



• **Main-scan Unit Output Signal Check**

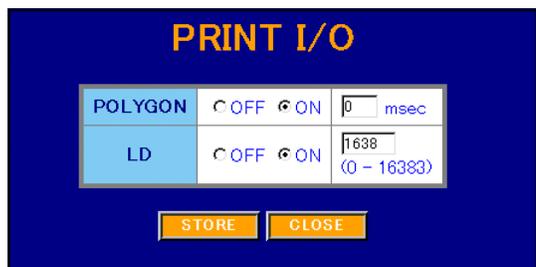
Checks the signal output by the main-scan unit. This check should be carried out after checking that the print output signal is normal.

13. Log in to the Web maintenance tool.
  - The top screen of the Web maintenance tool will be displayed.
14. Click [PRINT I/O] in the menu frame (DIAG MEC) on the left of the screen.
  - The PRINT I/O setting screen will be displayed.
15. Check the main-scan unit output signal.

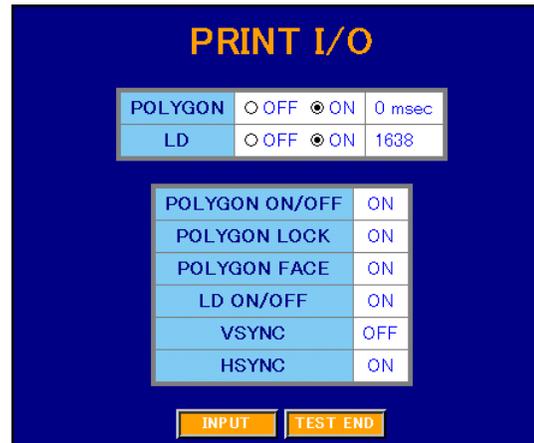
- (1)
  - a) Leaving default settings in force ("POLYGON" [OFF], "LD" [OFF]), click [STORE].
  - b) The PRINT I/O results screen will be displayed.
  - c) Check that "POLYGON LOCK," "POLYGON FACE" and "HSYNC" are all off.
  - d) Click [TEST END] to return to the PRINT I/O setting screen.



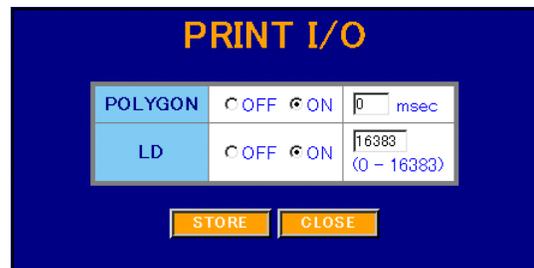
- (2)
  - a) Select [ON] under [POLYGON], input a value of "0" (continuous operation) as the polygon motor running time and click [STORE].
  - b) Select [ON] under [LD], input "1638" (default value) as the output value and click [STORE].



- c) Wait for 10 seconds after the screen has switched to display of PRINT I/O results screen and click [INPUT].
- d) PRINT I/O results screen will be displayed again.
- e) Check that "POLYGON LOCK," "POLYGON FACE" and "HSYNC" are all on.
- f) Click [TEST END] to return to the PRINT I/O setting screen.



- (3)
  - a) When "HSYNC" only cannot be turned ON in procedure-2 above, input "1638" as the output value under [LD] and click [STORE].
  - b) Display of "HSYNC" as ON in the PRINT I/O results screen indicates the possibility of laser deterioration. Check by carrying out laser power measurement.



If "POLYGON LOCK" or "POLYGON FACE" in procedure-2 or "HSYNC" in procedure-3 cannot be turned ON, problem with the print engine board, the exposure cable or the main-scan unit will be a probable cause.

If the problem remains after replacing the print engine board, first the exposure cable and then the main-scan unit should be replaced.

- 16.** Switch off the DRYPRO power supply, disconnect the exposure data output check jig and the data cable and restore the original connections.
  - When inserting connectors, ensure that they are locked firmly and fully inserted at both edges.

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## 5.5 Log Analysis Tool

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### 5.5.1 Outline of the Log Analysis Tool

The log analysis tool for the DRYPRO unit is a software tool for analysis of logs downloaded using the Web maintenance tool.

This tool can be used whenever a malfunction occurs in the DRYPRO unit to facilitate investigation of the cause of the problem by log analysis.

The log analysis tool is furnished with three programmes that provide the functions detailed below.

- **Error Code Analysis**
  - Lists errors recorded in the error log file.
  - Displays the cause of the error and methods of resolution based on the error code.
  - Allows input of error codes to find details of the error, possible causes and methods of resolution.
- **User Setting History Analysis**
  - Analyses and lists setting changes, etc., made by the user (film loading, error reset settings).
  - Searches for logs using operation command names. Search results are displayed in chronological order.
  - Displays in color-differentiated format setting items where an error has occurred, or where an irregular value may exist.
  - Allows search for items where errors have occurred or where irregular values may exist.
- **DICOM Log Analysis**
  - Analyses the DICOM log and the DICOM communication status.

To use the log analysis tool, first download the log to be analyzed from the DRYPRO unit using the Web maintenance tool.

File types that may be analyzed by each of the analysis programmes are as follows.

Error Code Analysis : xxxxxxxx\_ErrorLog.txt (xxxxxxx :date, time)

User Setting History Analysis : xxxxxxxx\_MainToMecLog.txt (xxxxxxx :date, time)

DICOM Log Analysis : DCM\_xxxxxxxxxxxx.log (xxxxxxx :date, time)

## 5.5.2 Installing the Log Analysis Tool

### ◆ PC Requirements

The log analysis tool may be installed on PCs meeting the following requirements.

- PCs operating on Microsoft Windows 98/Me/2000/XP.
- PCs capable of XGA (1024 X 768) display.

### ◆ Procedure for Installation

1. Insert the log analysis tool installation disk into the PC and double click "setup.exe".

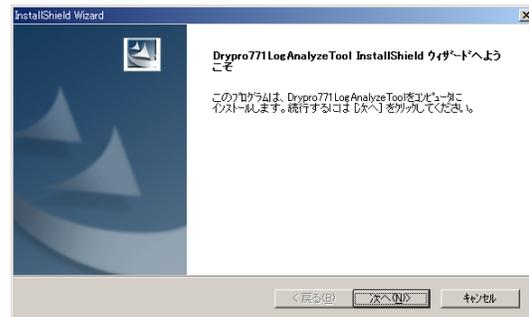
- The installer will be activated and the InstallShield Wizard displayed.



- Display of the screen shown at right indicates that the system is ready for installation.

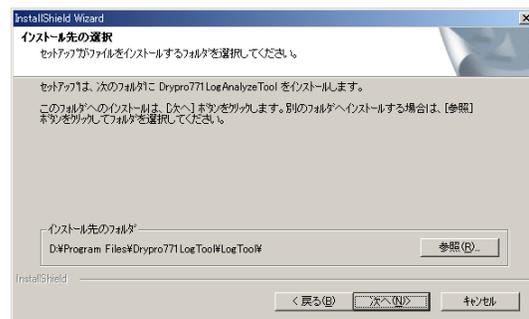
2. Click [Next (N)].

- The installation destination folder selection screen will be displayed.



3. If the default folder is to be used, click [Next (N)].

- To use a different folder, click [Browse...] and select the required folder name.
- Folder copying will be initiated.
- Upon completion of installation, the wizard exit screen will be displayed.



4. Click [Exit].

- The PC will be automatically rebooted.
- After rebooting, a "Drypro771Log Tool" icon will be displayed on the desktop and will also be added to "Programme (P)" in the start menu.



### 5.5.3 Starting up and Quitting the Log Analysis Tool

#### ◆ Starting up the Log Analysis Tool

1. Double click the "Drypro771Log Tool" icon on the desktop or click "Start" on the task bar and select "Programme (U)" Æ "Drypro771Log Tool" Æ "Drypro771Log Tool."

- The log analysis tool launcher will be displayed.

2. To start up the one of the analysis programmes, click the required button on the screen.

- All three programmes may be activated simultaneously. After clicking one of the buttons, the launcher will return to the task bar. Click again to return to full size and click the next required button.



#### ◆ Quitting the Log Analysis Tool

1. Click "Drypro771Log Tool" on the task bar to display the launcher.

2. Click [Quit].

- The log analysis tool as well as all open analysis programme screens will be terminated.

## 5.5.4 Using the Error Code Analysis Programme

### ◆ Starting up the Error Code Analysis Programme

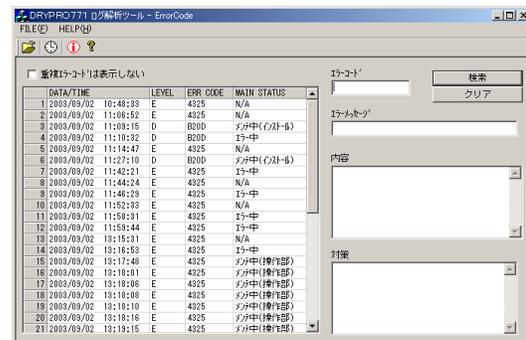
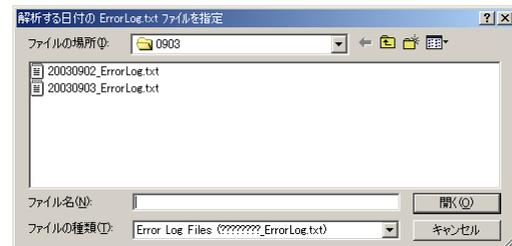
#### 1. Click [Error code analysis] on the log analysis tool launcher.

- Log selection dialogue will be displayed.



#### 2. Select the log to be analyzed and click [Open (O)].

- Multiple files (a maximum of ten) may be selected simultaneously
- The error code analysis main screen will be displayed and a list of errors recorded in the selected log file shown at the left side of the screen.
- For details of each segment of the screen, refer to "5.5.7 Log Analysis Tool Screens".



## ◆ Screen Operation

1. Double click the error to be checked in the list on the left side of the screen.

- The selected line will highlighted in blue and the corresponding error code, details and method of resolution will be displayed on the right side of the screen.

DRYPRO771 ログ解析ツール - ErrorCode

FILE(F) HELP(H)

重複エラーコードは表示しない

	DATA/TIME	LEVEL	ERR_CODE	MAIN STATUS
1	2003/09/02 10:49:39	E	4325	N/A
2	2003/09/02 11:06:52	E	4325	N/A
3	2003/09/02 11:09:15	D	B20D	リテ中(リテール)
4	2003/09/02 11:10:32	D	B20D	リテ中
5	2003/09/02 11:14:47	E	4325	N/A
6	2003/09/02 11:27:10	D	B20D	リテ中(リテール)
7	2003/09/02 11:42:21	E	4325	リテ中
8	2003/09/02 11:44:24	E	4325	N/A
9	2003/09/02 11:46:29	E	4325	リテ中
10	2003/09/02 11:52:39	E	4325	N/A
11	2003/09/02 11:58:31	E	4325	リテ中
12	2003/09/02 11:59:44	E	4325	リテ中
13	2003/09/02 13:15:31	E	4325	N/A
14	2003/09/02 13:16:53	E	4325	リテ中
15	2003/09/02 13:17:48	E	4325	リテ中(操作部)
16	2003/09/02 13:18:01	E	4325	リテ中(操作部)
17	2003/09/02 13:18:06	E	4325	リテ中(操作部)
18	2003/09/02 13:18:08	E	4325	リテ中(操作部)
19	2003/09/02 13:18:10	E	4325	リテ中(操作部)
20	2003/09/02 13:18:16	E	4325	リテ中(操作部)
21	2003/09/02 13:19:15	E	4325	リテ中(操作部)

2. Clicking on another line in the error list will produce display of the corresponding error details and method of resolution.

3. To find the error code, details and method of resolution of an error not listed, input the last four digits of the required error code in the "Error Code" box on the right of the screen and click [Search].

- The details and method of resolution of the input error code will be displayed.

エラーコード

4325

検索

クリア

エラーメッセージ

WIDTH HOME SENS OFF ERR

内容

メカコン部 幅規制ホームセンサーがOFF  
しません

対策

幅規制ホームセンサー、幅規制モータ、  
副注巻ユニットのいずれかが異常です。  
確認、交換して下さい。

## ◆ Quitting the Error Code Analysis Programme

1. Click "FILE (F)" on the menu bar and select "QUIT (E)."

- The error code analysis programme will be terminated and the screen closed.
- Alternately, click [QUIT] on the launcher: this will terminate the log analysis tool and close the error code analysis screen.

### 5.5.5 Using the User Setting History Analysis Programme

◆ **Starting up the User Setting History Analysis Programme**

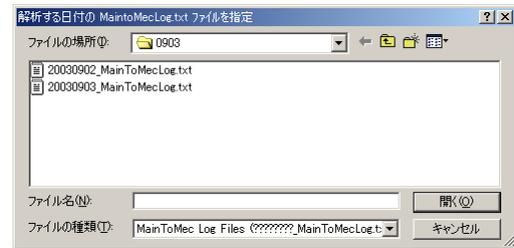
1. Click [User setting history analysis] on the log analysis tool launcher.

- A log selection dialogue will be displayed.



2. Select the log to be analyzed and click [Open (O)].

- Multiple files (a maximum of ten) may be selected simultaneously.
- The user setting history analysis main screen will be displayed and a list of user setting commands recorded in the selected log file shown on the screen.



- On the list, error lines are shown in red, setting operation lines in light blue and operations from the Web maintenance tool in light green.
- For details of each segment of the screen, refer to "5.5.7 Log Analysis Tool Screens".



◆ **Screen Operation**

1. Double click the command to be checked in the list on the screen.

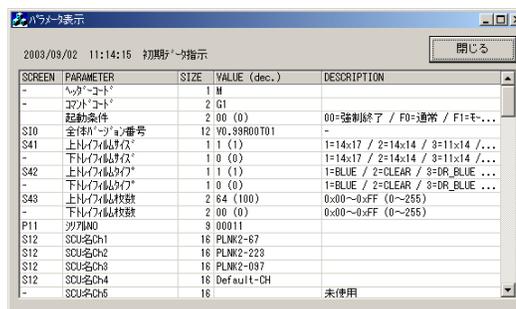
- The selected line will be highlighted in blue and the corresponding parameter display screen shown (see the following page).



- To find errors or particular commands on the list, click the magnifying glass icon on the menu line.

- A "search or error extraction" dialogue will be displayed.

- Select [Search] and click [Error search] or [Command search].



SCREEN	PARAMETER	SIZE	VALUE (dec.)	DESCRIPTION
-	ハットコード*	1 M		
-	コマンド*	2 G1		
S10	起動条件	2 00 (0)		00=強制終了 / F0=通常 / F1=E...
-	全行カウンタ番号	12 00.S9R00T01		
S41	上ノリ幅分*	1 1 (1)		1=14x17 / 2=14x14 / 3=11x14 / ...
-	下ノリ幅分*	1 0 (0)		1=14x17 / 2=14x14 / 3=11x14 / ...
S42	上ノリ幅分*	1 1 (1)		1=BLUE / 2=CLEAR / 3=DR_BLUE ...
-	下ノリ幅分*	1 0 (0)		1=BLUE / 2=CLEAR / 3=DR_BLUE ...
S43	上ノリ幅検査	2 64 (100)		0x00~0xFF (0~255)
-	下ノリ幅検査	2 00 (0)		0x00~0xFF (0~255)
P11	プログラムID	9 00011		
S12	SCU名CH1	16 PLNK2-67		
S12	SCU名CH2	16 PLNK2-223		
S12	SCU名CH3	16 PLNK2-097		
S12	SCU名CH4	16 Default-CH		
-	SCU名CH5	16		未使用

- If [Command search] is selected, choose the search-target command from the list displayed below that line.

- To search for a line above the current line, click [Upper search], to search for a line below the current line, click [Lower search].

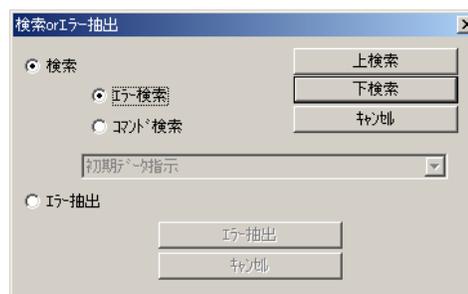
- A search will be executed based on set parameters and first line found selected (highlighted in blue).

- To carry out a further search of upper lines, click [=] on the menu bar, to carry out a further search of lower lines, click [0].

- The next line found will be selected (highlighted in blue).

- To find the number of errors in the list displayed, select "Extract error" from the search or error extraction dialogue and click [Extract error].

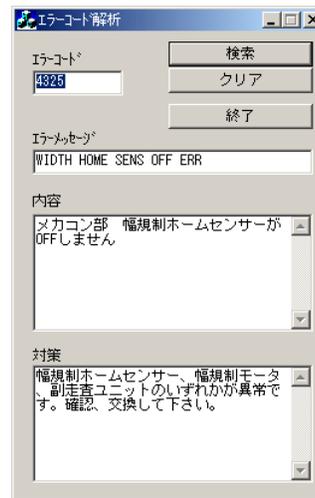
- An error extraction window showing only errors on the list will be displayed (see the following page).



- Double clicking an error line from the error extraction window will close the error extraction window and select lines in the list on the user setting history analysis screen where errors occurred.



- To find details of the error and methods of resolution, click the corresponding error line on the list and click the "Err" icon on the menu bar.
  - The error analysis window will be displayed and the error code, details and method of resolution of the selected error shown.
- To find the error code, details and method of resolution of an error not listed, input the last four digits of the required error code in the "Error Code" box in the error code analysis window and click [Search].
  - The details and method of resolution of the input error code will be displayed.



#### ◆ Quitting the User Setting History Analysis Programme

- Click "FILE (F)" on the menu bar and select "QUIT (X)".
  - The user setting history analysis programme will be terminated and the screen closed.
  - Alternately, click [QUIT] on the launcher: this will terminate the log analysis tool and close the user setting history analysis screen.

## 5.5.6 Using the DICOM Log Analysis Programme

### ◆ Starting up the DICOM Log Analysis Programme

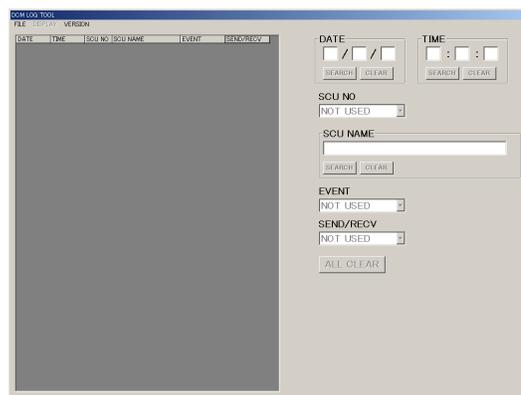
#### 1. Click [DICOM log analysis] on the log analysis tool launcher.

- The DICOM log analysis main screen will be displayed.



#### 2. Click the "FILE" menu and select "LOG FILE OPEN."

- A file selection dialogue to select the log to be analyzed will be displayed.

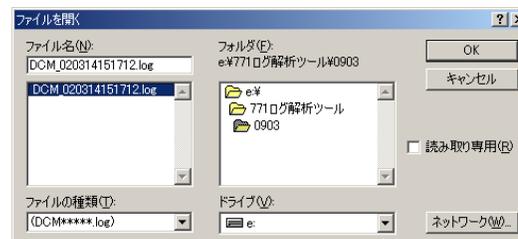


#### 3. Select the log to be analyzed and click [Open (O)].

- Multiple files (a maximum of ten) may be selected simultaneously.

#### 4. The contents of the selected file will be shown on the DICOM log analysis main screen.

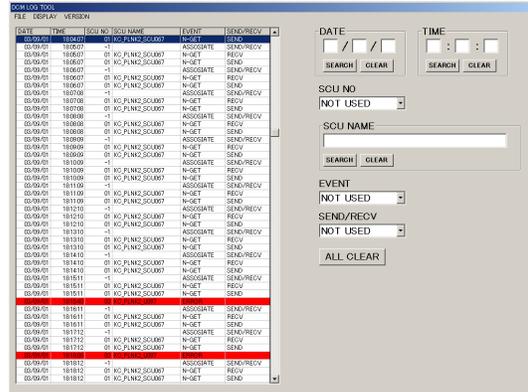
- Normal DICOM events are shown in white lines, DICOM errors in red lines.
- For details of each segment of the screen, refer to ["5.5.7 Log Analysis Tool Screens"](#).



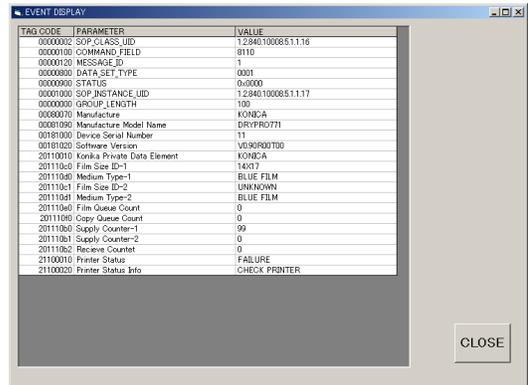
## ◆ Screen Operation

### 1. Double click the line to be checked in DICOM log list.

- An EVENT DISPLAY screen will be displayed for listing the DICOM event details (see the following page).



- The content of the display will differ depending on the type of event in the selected line.



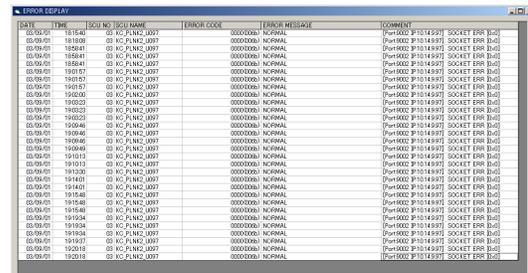
### 2. To search the DICOM log list using special parameters to produce a more specific display, set the search parameters at the right side of the screen.

- To limit the search to a specific date, input the required date in the "DATE" box and click [SEARCH].
- To limit the search to a specific time, input the required time in the "TIME" box and click [SEARCH].
- To limit the search to a specific SCU, select the SCU channel in the "SCU NO" box or input the AE title of the required SCU in the "SCU NAME" box and click [SEARCH].
- To display only a specific DICOM event, select the event name from the "EVENT" box.
- To display DICOM transmission/receiving only, select [SEND] or [RECV] from the "SEND/RECV" box.
- Multiple search parameters may be combined.



### 3. To extract DICOM errors only, click the "DISPLAY" menu and select "ERROR."

- A list of DICOM errors only will be displayed in the ERROR DISPLAY window.



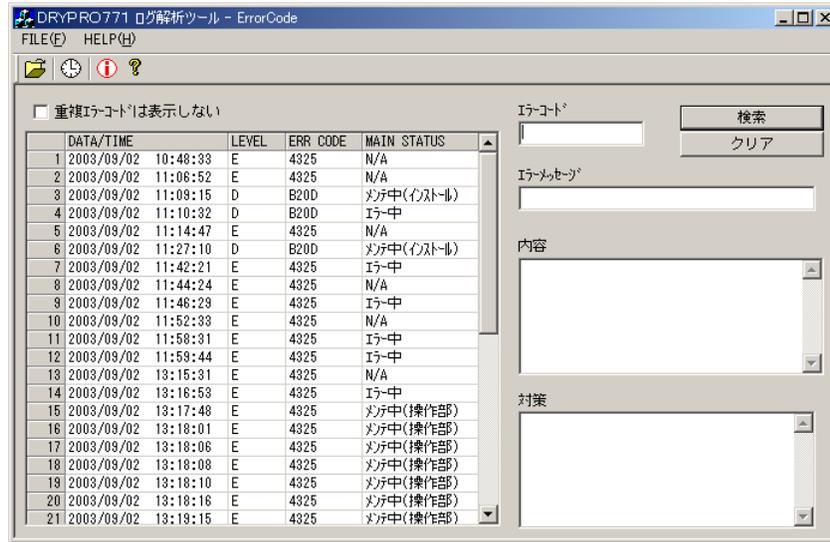
## ◆ Quitting the DICOM Log Analysis Programme

### 1. Click "FILE (F)" on the menu bar and select "QUIT".

- The DICOM log analysis programme will be terminated and the window closed.
- Alternately, click [QUIT] on the launcher: this will terminate the log analysis tool and close the DICOM log analysis window.

## 5.5.7 Log Analysis Tool Screens

### ◆ Error Code Analysis Screen



### • Log List Display

Item Name	Details of Display
DATE/TIME	Display the time and date the error occurred.
LEVEL	Displays the error level.
ERR CODE	Displays the error code.
MAIN STATUS	Displays the DRYPRO status.

Clicking on one item will result in sorting of the list based on that selection. Clicking once will produce display in ascending order, clicking again descending order.

### • Menu Items

Item Name	Details of Display
FILE(F)	
LOG FILE OPEN(N)	Reads the error log and displays a list.
QUIT(E)	Quits the error log analysis programme.
HELP(H)	
ErrorCode VersionInformation(A)	Display the error log analysis programme version. <ul style="list-style-type: none"> <li>An ErrorCode VersionInformation dialogue is displayed.</li> </ul>
	Reads the error log and displays a list.
	Searches for logs based on time and date. <ul style="list-style-type: none"> <li>A time search dialogue is displayed.</li> </ul>
	Displays a list of log files under analysis. <ul style="list-style-type: none"> <li>An analysis log file name list dialogue is displayed.</li> </ul>
	Displays the error log analysis programme version. <ul style="list-style-type: none"> <li>An ErrorCode VersionInformation dialogue is displayed.</li> </ul>

- **Operation/Setting/Display Items**

Item Name	Details of Display
Duplicated error codes not displayed	Putting a check on this item will display a list of error codes with duplicated error code lines deleted.
Error code	Displays the error code for the double clicked line in the list display. To search for an error code, input the required code.
Error message	Displays error code messages.
Contents	Displays details corresponding to error codes.
Method of resolution	Displays methods of resolution corresponding to error codes.
[SEARCH] button	Searches for error messages, contents and methods of resolution of error codes input in the "ERROR CODE" box.
[CLEAR] button	Clears "Error Code", "Error Message", "Contents" and "Method of Resolution" display.

### ◆ Time Search Dialogue

Displayed when the clock icon is clicked on the error code analysis screen.



#### • Operation/Setting Items

Item Name	Details of Display
Date setting window	Clicking the arrow produces display of a calendar from which the required date for the search may be set.
Time setting window	Sets the time used as criteria for the search.
[SEARCH] button	Executes a search based on set parameters. <ul style="list-style-type: none"> <li>Lines on the error code analysis screen list containing errors occurring immediately after the set time/date are selected.</li> </ul>
[CANCEL] button	Cancels the search.

### ◆ Analysis Log File Name List Dialogue

Displayed when the log information icon on the error code analysis screen is clicked.

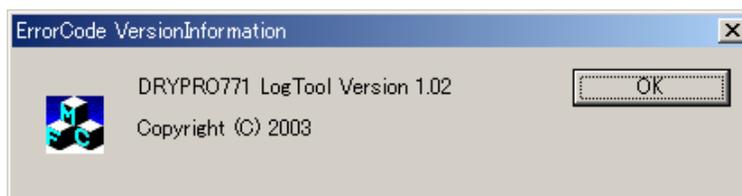


#### • Operation/Setting Items

Item Name	Details of Display
FILE NAME	Displays log file names shown on the error code analysis screen list.
[Close] button	Closes the analysis file name list dialogue.

**◆ ErrorCode VersionInformation Dialogue**

Displayed when the [HELP(H)] menu is selected from the error code analysis screen or when the help icon is clicked.

**• Operation/Setting Items**

Item Name	Details of Display
Version display	Displays the error code analysis programme version.
[OK] button	Closes the ErrorCode VersionInformation dialogue

## ◆ User Setting History Analysis Screen

DATA/TIME	MESSAGE	ERROR	STATUS	OTHER INFO
2003/09/02 10:48:01	初期設定指示		実行中	
2003/09/02 10:48:33	初期設定通知		実行中	
2003/09/02 10:48:34	表示指示	0x4325	実行中	
2003/09/02 11:04:53	ネットワーク通知		実行中	
2003/09/02 11:06:20	初期設定指示		実行中	
2003/09/02 11:06:52	初期設定通知		実行中	
2003/09/02 11:08:53	表示指示	0x4325	実行中	
2003/09/02 11:09:11	WEB メソッド取得要求 IP:10.14.9.70		N/A	
2003/09/02 11:12:58	ネットワーク通知		実行中	
2003/09/02 11:14:15	初期設定指示		実行中	
2003/09/02 11:14:47	初期設定通知		実行中	
2003/09/02 11:14:48	表示指示	0x4325	実行中	
2003/09/02 11:16:56	WEB メソッド取得要求 IP:10.14.9.70		N/A	
2003/09/02 11:36:56	WEB メソッド取得要求 IP:10.14.9.70		N/A	
2003/09/02 11:42:21	WEB メソッド解除要求		N/A	
2003/09/02 11:42:21	初期設定指示 (WEBメソッド後)		実行中	
2003/09/02 11:42:21	初期設定通知		実行中	
2003/09/02 11:42:32	ネットワーク通知		実行中	
2003/09/02 11:43:52	初期設定指示		実行中	
2003/09/02 11:44:24	初期設定通知		実行中	
2003/09/02 11:44:25	表示指示	0x4325	実行中	
2003/09/02 11:45:08	WEB メソッド取得要求 IP:10.14.9.70		N/A	
2003/09/02 11:46:29	WEB メソッド解除要求		N/A	
2003/09/02 11:46:29	初期設定指示 (WEBメソッド後)		実行中	
2003/09/02 11:46:29	初期設定通知		実行中	
2003/09/02 11:50:43	ネットワーク通知		実行中	

### • User Setting Command List Display

Item Name	Details of Display
DATE/TIME	Displays the time/date when user setting commands were executed.
MESSAGE	Displays user setting command types.
ERR	Displays codes for errors that occurred.
STATUS	Displays the DRYPRO status.

Clicking on one item will result in sorting of the list based on that selection. Clicking once will produce display in ascending order, clicking again descending order.

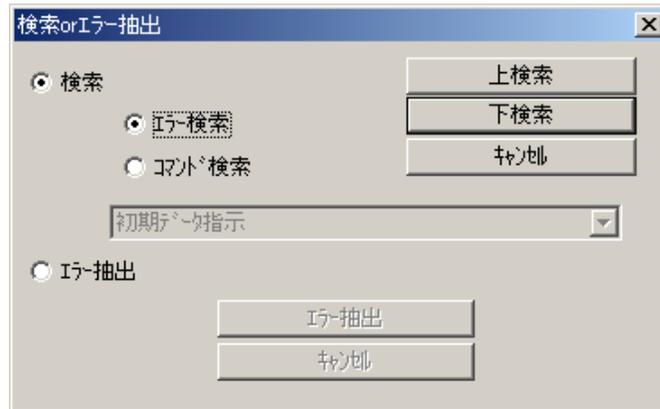
### • Menu Items

Item Name	Details of Display
FILE(F)	
LOG FILE OPEN(O)	Reads the new log and displays a list.
OUTPUT TO FILE(A)	Outputs user setting commands displayed on the list as files in text format.
QUIT(X)	Quits the user setting history analysis programme.
HELP(H)	
UserSetup VersionInformation(A)	Displays the user setting history analysis programme version. <ul style="list-style-type: none"> <li>A UserSetup VersionInformation dialogue is displayed.</li> </ul>
	Reads the new log and displays a list.
	Outputs user setting commands displayed on the list as files in text format.
	Executes list searches or error extraction. <ul style="list-style-type: none"> <li>A search or error extraction dialogue will be displayed.</li> </ul>

Item Name	Details of Display
	Continues the search in descending direction.
	Continues the search in ascending direction.
	Analyses error codes. • An error code analysis dialogue is displayed.
	Searches logs based on time/date. • A time/date search dialogue is displayed.
	Displays a list of log files under analysis. • An analysis log file name list dialogue is displayed.
	Displays the user setting history analysis programme version. • A UserSetup VersionInformation dialogue is displayed.

### ◆ Search or Error Extraction Dialogue

Displayed when the magnifying glass icon on the user setting history analysis screen is clicked.

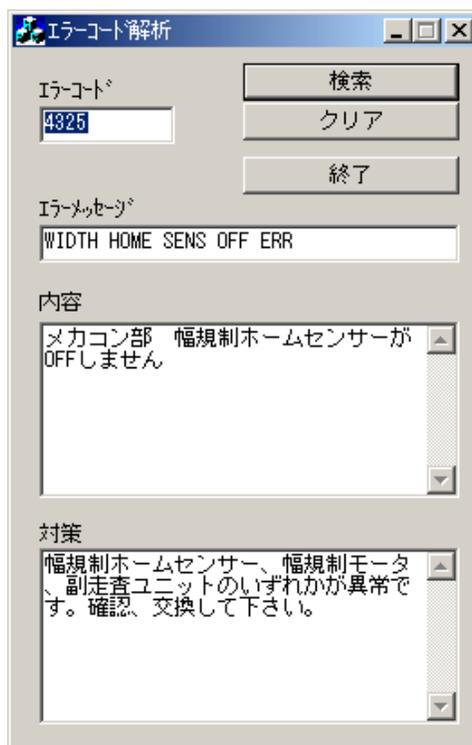


#### • Operation/Setting Items

Item Name	Details of Display
Search	Specifies error or command search.
Error search	Specifies error search.
Command search	Specifies command search.
Command list	Selects search-target commands from the list when "command search" is selected. <ul style="list-style-type: none"> <li>Displayed only when "command search" is selected.</li> </ul>
Extrad Errors	Specifies error extraction.
[Extrad Errors] button	Executes error extraction.
[CANCEL] button (Extrad Errors)	Cancels error extraction.
[Search Above] button	Executes a search of lines above the current line.
[Search Below] button	Executes a search of lines below the current line.
[CANCEL] button	Cancels the search.

### ◆ Error Code Analysis Dialogue

Displayed when a line where an error occurred is selected from the user setting history analysis screen and the Err icon clicked.

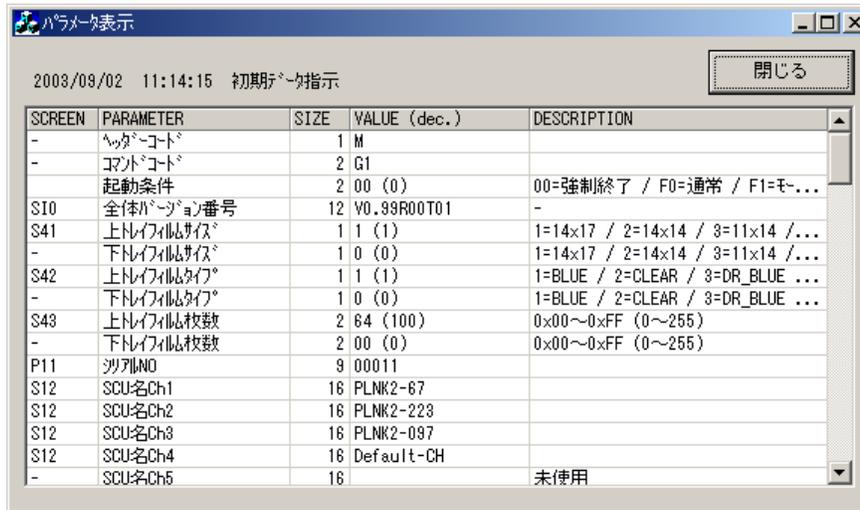


#### • Operation/Setting/Display Item

Item Name	Details of Display
Error code	Displays the error code corresponding to the line selected from the user setting history analysis screen list. Input the error code when a search is made by the error code.
Error message	Displays the error message corresponding to the error code.
Contents	Displays the contents of the error code.
Method of resolution	Displays the method of resolution corresponding to the error code.
[SEARCH] button	Displays the message, contents and method of resolution for the error code input in the "ERROR CODE" box.
[CLEAR] button	Clears "error code," "error message," "contents" and "method of resolution" display.
[QUIT] button	Quits the error code analysis programme and closes the dialogue.

### ◆ Parameter Display Dialogue

Displayed when a line from the user setting history analysis screen is double clicked.



### • Operation/Setting

Item Name	Details of Display
Parameter display	Displays detailed information relating to commands and parameters set by the user. <ul style="list-style-type: none"> <li>Items displayed in this dialogue differ depending on the command in the line selected from the user setting history analysis screen list.</li> </ul>
[CLOSE] button	Closes the dialogue.

### ◆ Time Search Dialogue

Displayed when the clock icon on the user setting history analysis screen is clicked.



#### • Operation/Setting

Item Name	Details of Display
Date setting window	Clicking the arrow produces display of a calendar from which the required search-target date may be set.
Time setting window	Sets the search-target time.
[SEARCH] button	Executes a search according to set parameters. <ul style="list-style-type: none"> <li>Command lines on the user setting history analysis screen immediately following the search-target time/date are selected.</li> </ul>
[CANCEL] button	Cancels the search.

### ◆ Analysis Log File Name List Dialogue

Displayed when the log information icon on the user setting history analysis screen is clicked.

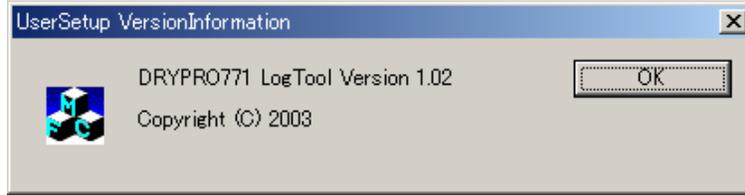


#### • Operation/Setting

Item Name	Details of Display
FILE NAME	Displays log file names shown on the user setting history analysis screen list.
[CLOSE] button	Closes the log file name list dialogue.

◆ **UserSetup VersionInformation Dialogue**

Displayed when the [HELP(H)] menu is selected from the user setting history analysis screen or when the help icon is clicked.



• **Operation/Display Items**

Item Name	Details of Display
Version display	Displays the user setting history analysis programme version.
[OK] button	Closes the UserSetup VersionInformation dialogue

## ◆ DICOM Log Analysis Screen

DATE	TIME	SCU NO	SCU NAME	EVENT	SEND/RECV
03/09/01	180407	01	KC_PLNK2_SCU067	N-GET	SEND
03/09/01	180507	-1		ASSOCIATE	SEND/RECV
03/09/01	180507	01	KC_PLNK2_SCU067	N-GET	RECV
03/09/01	180507	01	KC_PLNK2_SCU067	N-GET	SEND
03/09/01	180607	-1		ASSOCIATE	SEND/RECV
03/09/01	180607	01	KC_PLNK2_SCU067	N-GET	RECV
03/09/01	180607	01	KC_PLNK2_SCU067	N-GET	SEND
03/09/01	180708	-1		ASSOCIATE	SEND/RECV
03/09/01	180708	01	KC_PLNK2_SCU067	N-GET	RECV
03/09/01	180708	01	KC_PLNK2_SCU067	N-GET	SEND
03/09/01	180808	-1		ASSOCIATE	SEND/RECV
03/09/01	180808	01	KC_PLNK2_SCU067	N-GET	RECV
03/09/01	180808	01	KC_PLNK2_SCU067	N-GET	SEND
03/09/01	180809	-1		ASSOCIATE	SEND/RECV
03/09/01	180909	01	KC_PLNK2_SCU067	N-GET	RECV
03/09/01	180909	01	KC_PLNK2_SCU067	N-GET	SEND
03/09/01	181009	-1		ASSOCIATE	SEND/RECV
03/09/01	181009	01	KC_PLNK2_SCU067	N-GET	RECV
03/09/01	181009	01	KC_PLNK2_SCU067	N-GET	SEND
03/09/01	181109	-1		ASSOCIATE	SEND/RECV
03/09/01	181109	01	KC_PLNK2_SCU067	N-GET	RECV
03/09/01	181109	01	KC_PLNK2_SCU067	N-GET	SEND
03/09/01	181210	-1		ASSOCIATE	SEND/RECV
03/09/01	181210	01	KC_PLNK2_SCU067	N-GET	RECV
03/09/01	181210	01	KC_PLNK2_SCU067	N-GET	SEND
03/09/01	181310	-1		ASSOCIATE	SEND/RECV
03/09/01	181310	01	KC_PLNK2_SCU067	N-GET	RECV
03/09/01	181310	01	KC_PLNK2_SCU067	N-GET	SEND
03/09/01	181410	-1		ASSOCIATE	SEND/RECV
03/09/01	181410	01	KC_PLNK2_SCU067	N-GET	RECV
03/09/01	181410	01	KC_PLNK2_SCU067	N-GET	SEND
03/09/01	181511	-1		ASSOCIATE	SEND/RECV
03/09/01	181511	01	KC_PLNK2_SCU067	N-GET	RECV
03/09/01	181511	01	KC_PLNK2_SCU067	N-GET	SEND
03/09/01	181540	03	KC_PLNK2_007	ERROR	
03/09/01	181611	-1		ASSOCIATE	SEND/RECV
03/09/01	181611	01	KC_PLNK2_SCU067	N-GET	RECV
03/09/01	181611	01	KC_PLNK2_SCU067	N-GET	SEND
03/09/01	181712	-1		ASSOCIATE	SEND/RECV
03/09/01	181712	01	KC_PLNK2_SCU067	N-GET	RECV
03/09/01	181712	01	KC_PLNK2_SCU067	N-GET	SEND
03/09/01	181712	03	KC_PLNK2_007	ERROR	
03/09/01	181812	-1		ASSOCIATE	SEND/RECV
03/09/01	181812	01	KC_PLNK2_SCU067	N-GET	RECV
03/09/01	181812	01	KC_PLNK2_SCU067	N-GET	SEND

### • DICOM Log List Display

Item Name	Details of Display
DATE	Displays the date of communication between the DICOM and the SCU.
TIME	Displays the time of communication between the DICOM and the SCU.
SCU NO	Displays the SCU channel used for DICOM communication.
SCU NAME	Displays the SCU AE title used for DICOM communication.
EVENT	Displays DICOM communication events.

Clicking on one of the titles will result in sorting of the list based on the selected title. Clicking once will produce display in ascending order, clicking again display in descending order.

### • Menu Items

Item Name	Details of Display
FILE	
LOG FILE OPEN)	Reads the log and displays a list.
QUIT	Quits the DICOM log analysis programme.
DISPLAY	
ERROR	Displays a list of errors occurring during DICOM communication. <ul style="list-style-type: none"> <li>An ERROR DISPLAY dialogue will be displayed.</li> </ul>
HELP	
VERSION INFORMATION	Displays the DICOM log analysis programme version. <ul style="list-style-type: none"> <li>A VersionInformation dialogue will be displayed.</li> </ul>

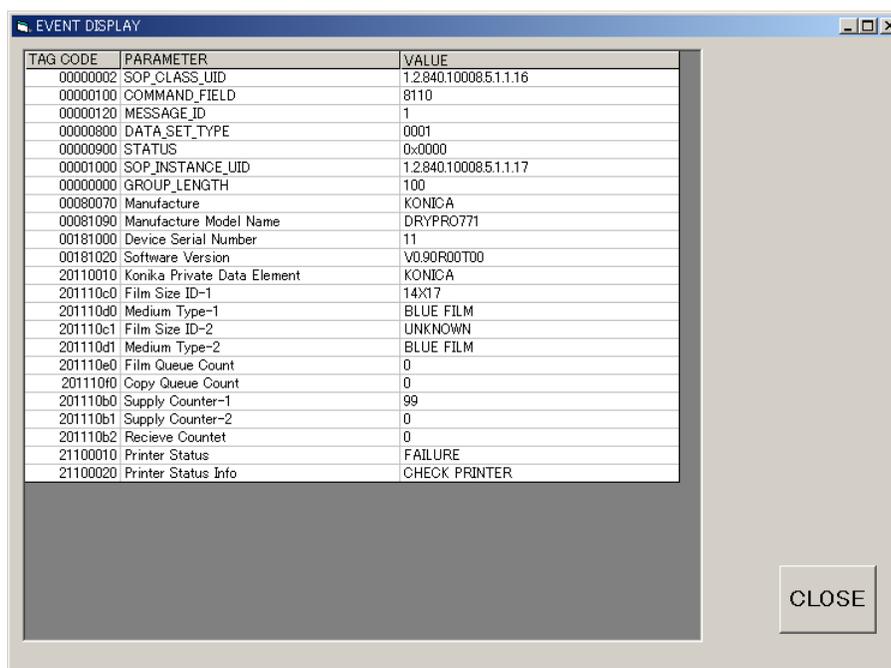
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**• Operation/Setting Items**

Item Name	Details of Display
DATE	
Date input window	Input the date (year/month/day) to be used as a parameter for specific display.
[SEARCH] button	Executes a specific search based on the set date.
[CLEAR] button	Clears the input date. <ul style="list-style-type: none"> <li>• The list display produced by the search is also restored to its pre-search form.</li> </ul>
TIME	
Time input window	Input the time (hour/minute/second) to be used as a parameter for a specific search.
[SEARCH] button	Executes a specific search based on the set time.
[CLEAR] button	Clears the input time. <ul style="list-style-type: none"> <li>• The list display produced by the search is also restored to its pre-search form.</li> </ul>
SCU NO	Selects the SCU channel to be used as criteria for a specific search. <ul style="list-style-type: none"> <li>• The specific search is executed immediately upon input of a channel number.</li> <li>• Selection of "NOT USED" restores the list display to its pre-search form.</li> </ul>
SCU NAME	
AE TITLE input window	Selects the AE title of the SCU to be used as criteria for a specific search.
[SEARCH] button	Executes a specific search based on the set AE title.
[CLEAR] button	Clears the input AE title. <ul style="list-style-type: none"> <li>• The list display produced by the search is also restored to its pre-search form.</li> </ul>
EVENT	Selects the event to be used as criteria for a specific search. <ul style="list-style-type: none"> <li>• Selection of "NOT USED" restores the list display to its pre-search form.</li> </ul>
SEND/RECV	Determines whether to display SEND (transmission) only or RECV (receive) only. <ul style="list-style-type: none"> <li>• Selection of "NOT USED" restores the list display to its pre-search form.</li> </ul>
[ALL CLEAR] button	Clears all search parameters. <ul style="list-style-type: none"> <li>• The list display returns to its initial form.</li> </ul>

## ◆ EVENT DISPLAY Dialogue

Displayed when one of the lines on the DICOM log analysis screen is double clicked.



### • Operation/Setting Items

Item Name	Details of Display
Event detail display	<p>Displays detailed information relating to DICOM event parameters and set values.</p> <ul style="list-style-type: none"> <li>The items displayed in this event dialogue differ depending on the event in the line double clicked on the DICOM log analysis screen list.</li> </ul>
[CLOSE] button	Closes the dialogue.

◆ **ERROR DISPLAY Dialogue**

Displayed when [ERROR] is selected from the "DISPLAY" menu on the DICOM log analysis screen.

DATE	TIME	SCU NO	SCU NAME	ERROR CODE	ERROR MESSAGE	COMMENT
03/09/01	18:15:40	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	18:18:08	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	18:58:41	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	18:58:41	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	18:58:41	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:01:57	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:01:57	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:01:57	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:02:00	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:03:23	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:03:23	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:03:23	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:09:46	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:09:46	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:09:46	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:09:49	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:10:13	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:10:13	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:13:30	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:14:01	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:14:01	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:15:48	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:15:48	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:15:48	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:15:48	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:19:34	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:19:34	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:19:34	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:19:37	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:20:18	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]
03/09/01	19:20:18	03	KC_PLNK2_U097	0000(006b)	NORMAL	[Port9002 IP:10.14.9.97] SOCKET ERR [0x0]

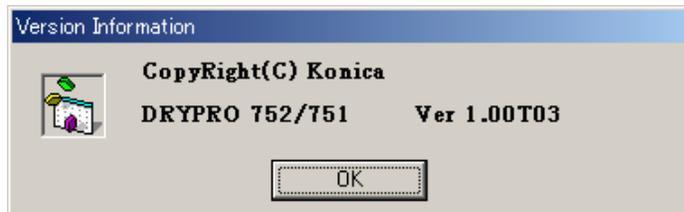
• **Operation/Setting Items**

Item Name	Details of Display
Error list display	Displays a list of errors only, which is contained in DICOM log files.

- There is no close button in this dialogue: to close the dialogue, use the [X] button in the title bar.

◆ **VersionInformation Dialogue**

Displayed when the [VERSION] menu is selected on the DICOM log analysis screen.



• **Operation/Setting Items**

Item Name	Details of Display
Version display	Displays the DICOM log analysis programme version.
[OK] button	Closes the Version Information dialogue.

# ***Chapter 6 Maintenance***

## 6.1 Items Requiring Regular Maintenance

### 6.1.1 Regular Maintenance Content and Cycle

Unit	Part Serviced	Details of Service	Cycle	Corresponding Maint. Schedule	Page
Heat processing section	Opposing rollers	Cleaning by alcohol	Every 20,000 sheets	C	p.6-5
	Heat processing drum	Cleaning by alcohol	Every 20,000 sheets	C	p.6-5
	Heat processing roller bearing	Replacement	Every 20,000 sheets	C	p.6-6
	Separator unit	Replacement	Every 20,000 sheets	C	p.6-7
	Anti-static brush	Replacement	Every 40,000 sheets	D	p.6-10
	Non-woven cloth sheet	Replacement	Every 40,000 sheets	D	p.6-8
	Non-woven cloth sheet retaining spring	Replacement	Every 40,000 sheets	D	p.6-8
Cooling section	Primary cooling unit	Replacement	Every 40,000 sheets	D	p.2-72
	Secondary cooling guide surface	Cleaning by alcohol	Every 20,000 sheets	C	-
	Secondary cooling fan outlet periphery	Dust removal	Every 20,000 sheets	C	-
Deodorant section	Deodorant filter case	Replacement	Every 2 years or 40,000 sheets	A	-
	Deodorant filter case periphery	Dust removal	Every 20,000 sheets	C	-
Descent conveyance section	Adhesive rollers	Cleaning by water	Every 20,000 sheets	C	p.6-11
Control box	Hard disk	Replacement	Every 5 years or 20,000 hours	HDD	p.2-118
Supply section	Suction cup	Cleaning by alcohol	Every 20,000 hours	C	p.2-118
Whole unit		Dust Removal	Every 20,000 sheets	C	-

- **Cautions Relating to Maintenance Work**

**CAUTION** To eliminate the risk of electrocution, the main body breaker must be switched off before proceeding with work.

**CAUTION** The heat processing unit generates high temperatures. Work must be carried out with extreme caution to avoid burns. Gloves must always be worn when disassembling the heat processing unit.

**CAUTION** When the maintenance work is completed, reset the lapsed days or print count of maintenance schedule, whichever corresponds to the work done using [SG0 SCHEDULE] of service maintenance mode.

- **Cautions to be Observed when Disposing of the Unit**

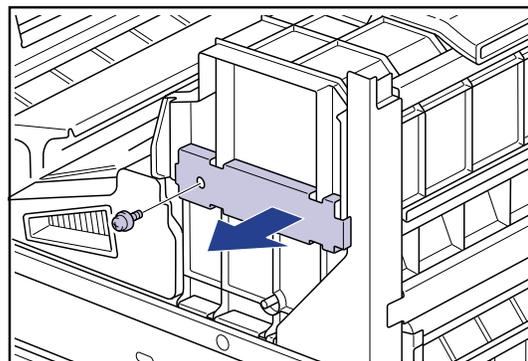
**CAUTION** Strictly observe the local regulations and ordinances when disposing of the DRYPRO main body (including the lithium battery), accessories, options, consumables and media.

## 6.2 Heat Processing Unit Maintenance

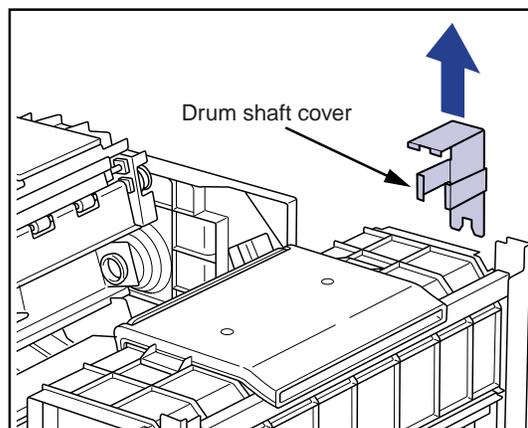
### 6.2.1 Disassembling the Heat Processing Unit

**CAUTION** The heat processing unit and its periphery retain extreme heat immediately after use. To avoid burns, check that the heat processing unit has cooled sufficiently before proceeding with work.

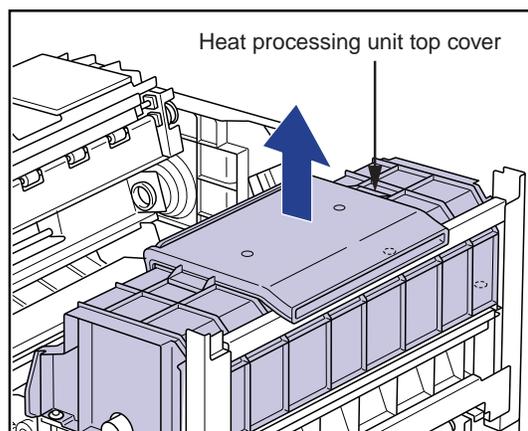
1. Open the front cover.
2. Remove the rear top cover, the rear cover and right cover.
3. Remove the two screws at the top of the left covers and remove the top cover.
4. Remove the screw, and remove the protection cover from the front of the heat processing unit.



5. Lift off the drum shaft cover from the rear of the heat processing unit.

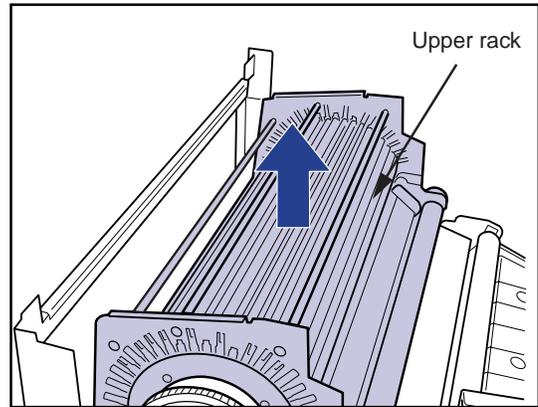


6. Remove the four securing screws and lift off the heat processing unit top cover.
  - Turn over the removed top cover, and leave it on a stable table surface.
  - The screw cannot be removed from the heat processing top cover.



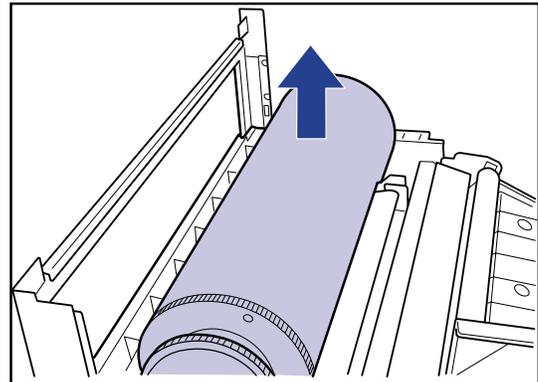
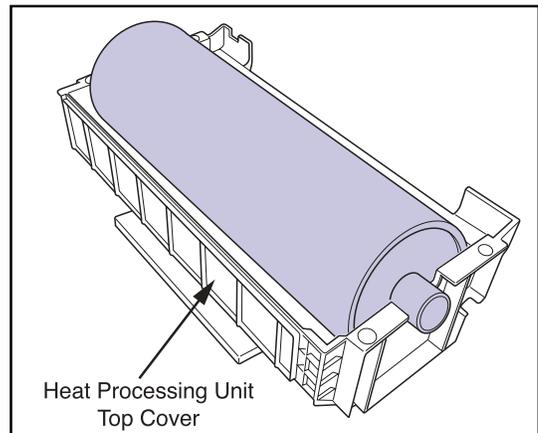
**7.** Lift and remove the upper rack.

**CAUTION** The upper rack may be heated very hot. Due care must be taken in handling to avoid burns.

**8.** Hold the shaft of the heat processing drum, and lift it up to remove from the unit.

**CAUTION** The heat processing drum may be heated very hot. Due care must be taken in handling to avoid burns.

**CAUTION** Be careful not to touch or scratch the surface of the heat processing drum with a hard substance.

**9.** Set the removed heat processing drum down on the heat processing unit top cover that was placed upside down in step-4 above.

## 6.2.2 Cleaning the Opposing Rollers

**CAUTION** The upper rack may retain extreme heat immediately after use. To avoid burns, check that the upper rack has cooled sufficiently before proceeding with work.

1. To remove any accumulation of grime, wipe the opposing rollers one at a time using cloth dampened with isopropyl alcohol.

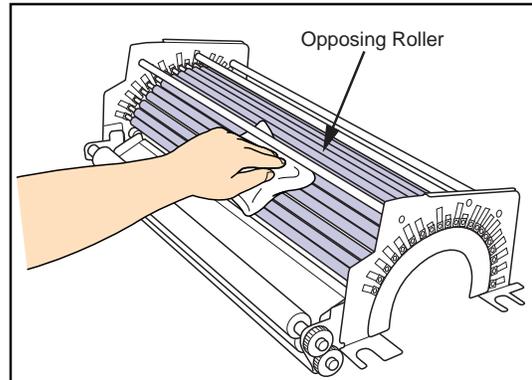
- Any crystal projections that have formed should be removed using a resin spatula.
- The rollers may also be removed and soaked in warm water.

**IMPORTANT** All crystal projections that have formed on the surface of the opposing rollers must be completely removed. If such projections are not removed, indentations will be formed on the roller surface causing image unevenness.

- Yellow crystal accumulations may be left.
- Discoloration of the rollers caused by heat cannot be removed.

2. Check that the opposing rollers rotate smoothly.

- Check that all the opposing rollers rotate smoothly.



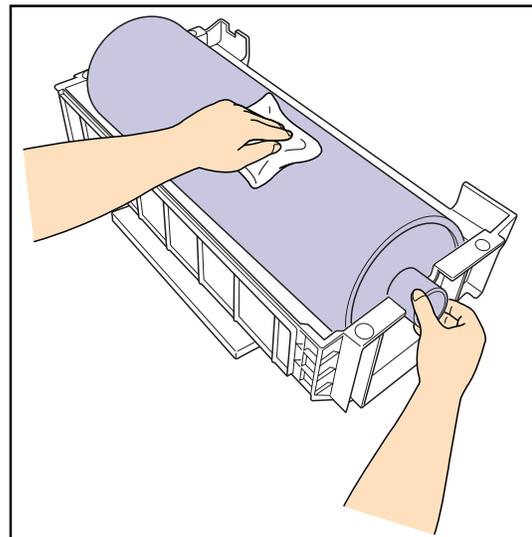
## 6.2.3 Cleaning the Heat Processing Drum

**CAUTION** The heat processing drum retains extreme heat immediately after use. To avoid burns, check that the upper rack has cooled sufficiently before proceeding with work.

1. Wipe the surface of the heat processing drum with a cloth moistened with isopropyl alcohol.

**IMPORTANT** Be careful not to drop a metal substance, etc, over the heat processing drum, which may result in scratch on the drum surface. For example, pens in a chest pocket should be put away before starting the work.

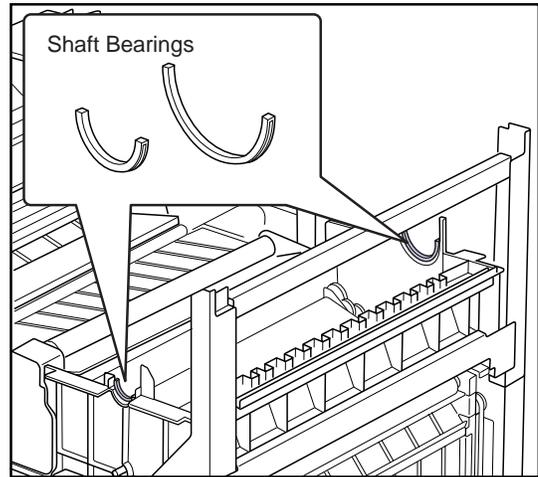
**IMPORTANT** Thoroughly wipe the surface of the heat processing drum so that no convex-shaped substance remains on the surface. Failure to remove the hard substances on the surface may result in density unevenness.



### 6.2.4 Replacing the Heat Processing Shaft Bearings

The heat processing drum shaft bearings are affixed to the heat processing unit lower cover.

1. Remove the old heat processing drum shaft bearings from the lower cover and set the new ones in place.



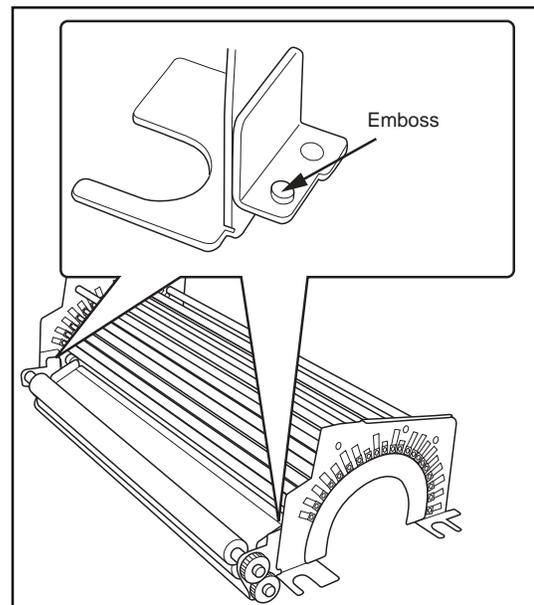
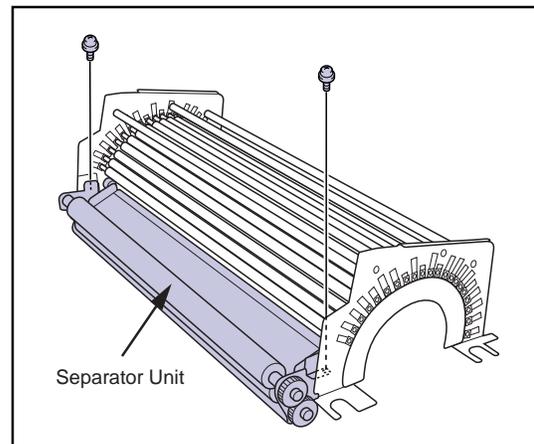
## 6.2.5 Replacing the Separator Unit

The separator unit is affixed to the upper rack.

**CAUTION** The upper rack may retain extreme heat immediately after use. To avoid burns, check that the upper rack has cooled sufficiently before proceeding with work.

**CAUTION** After replacing the separator unit, always check the clearance between the separator unit claws and the heat processing drum. If clearance is less than that specified, adjustments should be made as necessary.

1. Remove the two securing screws and remove the separator unit from the upper rack.
2. Secure the new separator unit into place using the screws removed in step-1 above.
  - Separator unit positioning emboss is furnished at the screw receptor locations on the upper rack. Ensure that the positioning emboss is properly inserted into the receptor holes on the separator unit before screwing the unit into place.



### • Checking Clearance

After replacing the separator unit, check the clearance between the separator unit claws and the heat processing drum.

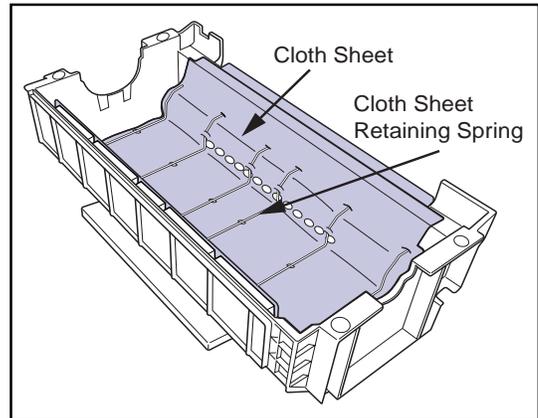
Ensure that the clearance between the separator unit claws and the heat processing drum is sufficient to allow passage of one sheet of PPC paper, but not film. Ensure also that the same clearance exists at both ends of the heat processing drum.

### 6.2.6 Replacing the Unwoven Cloth

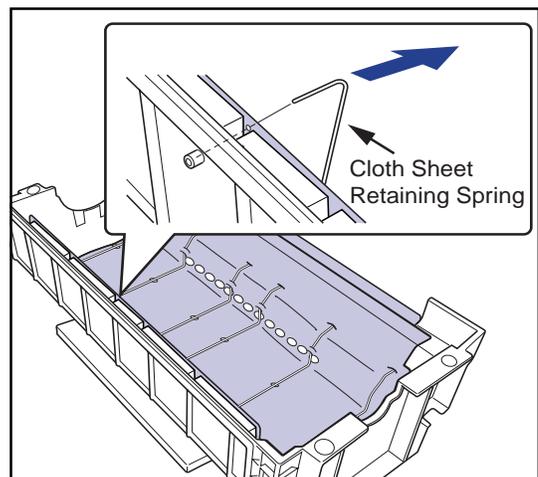
The unwoven cloth is affixed to the underside of the heat processing unit top cover by retaining springs.

**CAUTION** Inside of the heat processing top cover retains extreme heat immediately after use. To avoid burns, check that the top cover has cooled sufficiently before proceeding with work.

1. Turn the heat processing unit top cover upside down.



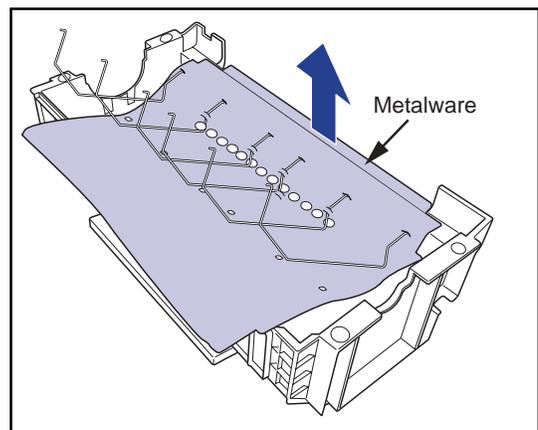
2. Pull on the edge of the unwoven cloth retaining spring and remove through the hole in the heat processing unit top cover.



3. When the entire retaining spring has been released, remove the unwoven cloth together with its retaining spring.

4. Remove the metal plate at the edge of the unwoven cloth (located on the side at the heat processing unit exit) from the top cover.

- The metal plate of the unwoven cloth is attached to the heat processing upper clover by double-sided adhesive tape.

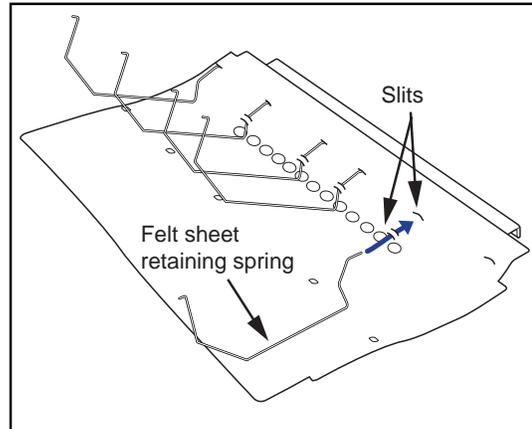


**5.** Insert the new retaining spring through the slits in the new unwoven cloth.

- Inserting the retaining spring through the slits in the unwoven cloth after the cloth has been placed into the upper rack of the heat processing unit is difficult.

**6.** Set the unwoven cloth into the top cover of the heat processing unit.

- Position the unwoven cloth so that the projections on the heat processing unit top cover are inserted into the small holes in the sheet.

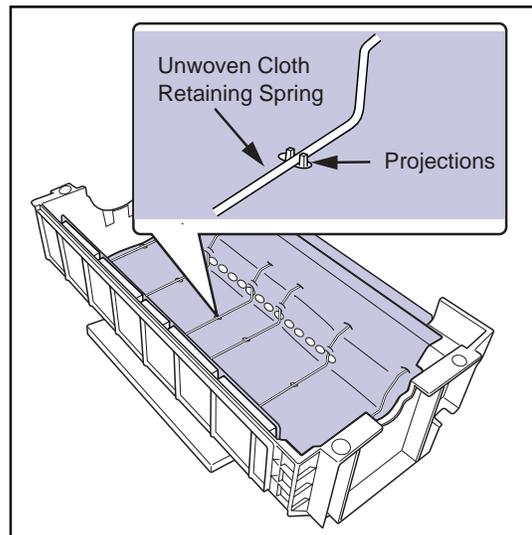


**7.** Remove the peeler sheet from double-sided adhesive tape stuck to the back side of the metal plate that is attached to the edge of the unwoven cloth, and stick the metal plate on the heat processing upper cover.

- 

**8.** Insert both ends of the unwoven cloth retaining spring into the receptor holes in the heat processing unit top cover.

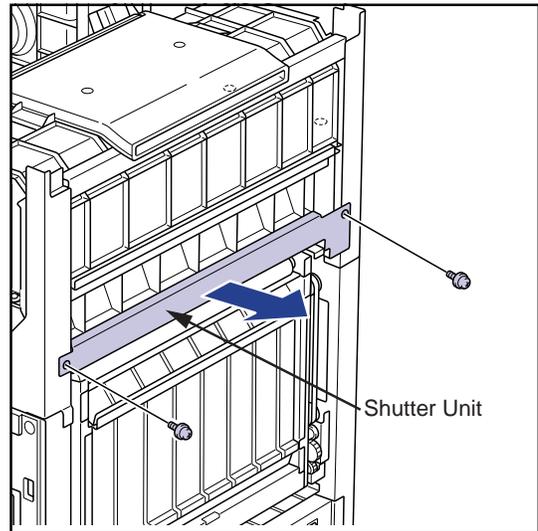
- If the unwoven cloth has been positioned correctly, the unwoven cloth retaining spring should latch into the slots in the projections on the heat processing unit top cover.



### 6.2.7 Replacing the Antistatic Brush

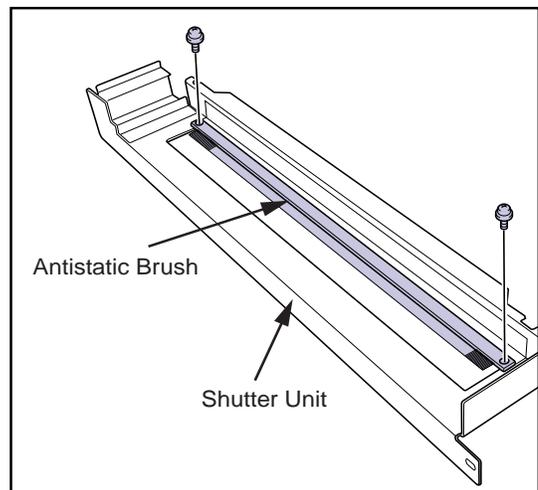
An anti-static brush is affixed to the shutter unit at the right side of the main body.

1. Remove the two screws from the right side of the main body, and remove the shutter unit.



2. Turn the shutter unit upside down. Remove the two screws, and remove the anti-static brush.
3. Screw the new anti-static brush on the shutter unit, and attach the shutter unit on the main body frame

**CAUTION** Be careful not to deform or damage the shutter blade (transparent film plate) of the shutter unit when replacing the anti-static brush.

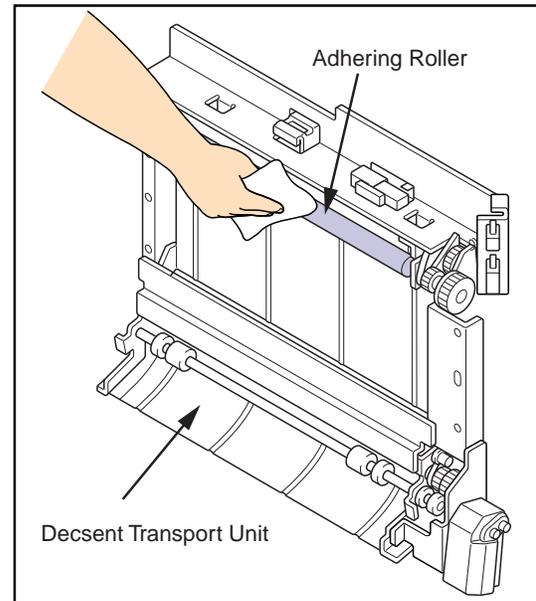


## 6.3 Other Maintenance Items

### 6.3.1 Cleaning the Adhesive Roller

The adhesive roller is located in the descent transport unit.

1. Remove the rear top cover, rear cover and left cover take out the descent transport unit (p.2-5).
2. Wipe the surface of the adhesive roller (white semi-transparent roller) using a cloth dampened with clean water
3. Check that no water is left on the surface of the roller and replace the descent transport unit in the main body.



## *Chap.7 Trouble Shooting*

## 7.1 Troubleshooting

- Unable to Boot

Check Point	Cause	Remedy	Remarks
Phenomena : OPERATION LED does not light even the breaker and operation switch are turned ON.			
AC cable (unit or supply side) is unplugged.	Faulty connection.	Connect AC cable. Check the power supply.	Check the AC cable with tester.
Power is not supplied from the main supply or UPS.	Faulty in main supply or UPS.	Check UPS is in normal operation if it is used.	If the supply side is faulty, entrust the repair to the facility.
Circuit protector is shut down.	<ul style="list-style-type: none"> <li>• Overcurrent caused by thunder.</li> <li>• AC line shorted.</li> </ul>	Check the cables of the power supply line. If it is OK, turn on the circuit protector. If NG, replace the unit corresponding to the items in the right column.	<p>Check the cables with tester in order listed below.</p> <ol style="list-style-type: none"> <li>1. Remove SCN4(H-DRV BOARD), and check between 1st pin of SCN4 and FG, 3rd pin and FG, 7th pin and FG. No conductivity(insulated)-OK, conductivity detected-NG. Replace the HPRO(Heat Processing) drum.</li> <li>2. Remove JP3(in the electric box), check between JP3-1 pin and FG, 2 pin and FG. No conductivity(insulated)-OK, conductivity detected-NG. Replace the H-DRV board.</li> <li>3. Check between NF1(in the electric box)-1pin and FG. No conductivity(insulated)-OK, conductivity detected-NG. Replace the Power Supply unit.</li> </ol>
STB5V is not output.	Power supply unit is faulty.	Replace power supply unit.	Check STB5V(in the power supply unit, JP5-4pin as "+", 1pin as "-") with tester.
Beep sound is not heard when the operation SW is turned on.	Operation control board is faulty.	Replace the operation control board.	

- Interrupted during Boot Up

Check Point	Cause	Remedy	Remarks
<b>Phenomenon 1 : Initial message "Welcome to DRYPRO" is not displayed.</b>			
Nothing is shown on the monitor.	Power supply or control box is faulty.	Replace the power supply unit or control box.	Check DC5V (in the power supply unit, JP6-3pin as "+", 1pin as "-") with tester.
Constantly interrupted beep sound (2sec ON, 2 sec OFF) is heard from the control box.	DIMM is unplugged or not recognized due to damage.	If not corrected after reinstalling the DIMM, replace the DIMM.	
Monitor displays, and the mechanism started initialization.	LCD Assy is faulty.	Check the connection of the cable (RS-232C) between the mech. cont. and main board, or change the cable. If not corrected, replace the mech. cont. board and operation panel.	Connect the monitor to the connector on the control box, and check the display.
Monitor displays, but the mechanism does not start initialization.	Faulty communication between mech. cont. board and operation panel.	Check the connection of the cable (RS-232C) between the mech. cont. and main board, or change the cable. If not corrected, replace the mech. cont. board and operation panel unit.	
<b>Phenomenon 2: Frozen with the initial message "WELCOME TO DRYPRO" displayed</b>			
"PCI device listing •••" is displayed on the monitor, and Frozen at this point.	CF is not correctly recognized.	Check the CF is correctly installed. If not corrected, replace the CF.	Connect the monitor to the connector on the control box, and check the display.
"PCI device listing •••" is displayed on the monitor followed by "DISK BOOT FAILURE, INSTART SYSTEM DISK AND PRESS ENTER", then frozen	Both CF and HDD are not correctly recognized.	Check the CF is correctly installed or HDD cable is correctly connected. If they are OK, replace the CF and HDD. If not corrected, replace the control box.	
Constantly interrupted short beep sound (0.1ms interval) is heard from the control box.	OS cannot start due to faulty kernel.		
Constantly interrupted long beep sound (3sec interval) is heard from the control box.	Error occurred during disk check. Disk may be damaged.		
<b>Phenomenon 3: Message does not switch to "WARM UP&gt;&gt;&gt;"</b>			
Frozen at "SYSCHECKPROC START ERR"	Incompatible software version, or application boot error due to damaged OS.	Update the software version. If not corrected, replace the CF.	Check the Error Log of the date when the error occurred.
Frozen at "SHMPROC START ERR"			
Frozen at "SHMWAIT START ERR"			
Frozen at "POWERPROC START ERR"	Abnormality occurred in power control driver, or application boot error due to damaged OS.		
Frozen at "TERMINALMODULE START ERR"			
Frozen at "System Check 1"	Access to print board failed due to reason of driver or hardware.	Replace print engine board or control box.	
Frozen at "System Check 2"	Access to mech. cont. board failed.	Check the connection of cable (RS-232C) between mech. cont.-main board. If not corrected, update the software version or replace the CF. If not corrected, replace the mech. cont. board.	

- Error message is displayed
- Refer to "7.3 Error Message and Remedy" for the remedies corresponding to each error.
- Film jam
- Refer to "7.5 Responding to the Film Jam" for film jam errors.

- Trouble during Use

Check Point	Cause	Remedy	Remarks
<b>Phenomenon 1 : Time stamp always results in 01.01.2002</b>			
Time setting menu on the control panel is also set to "01.01.2003".	Button battery on the main CPU board is almost exhausted.	Replace the main CPU board or control box.	The battery should last for more than 7 years under normal use. Exhaustion before its life may suggest the main CPU board is faulty.
<b>Phenomenon 2: Shut down is implemented without pressing the start switch.</b>			
Communication error with UPS is recorded in the log.	Failure in cable connection.	Check the connection of serial communication cable to UPS.	
Battery error of UPS is recorded in user log.	Battery of UPS reached the life end. (needs regular change)	Replace the battery of UPS.	Refer to the spec. sheet for replacement.
Power supply error of UPS is recorded in the log.	UPS detected power failure.	Check the power supply.	
Abnormal temp. of CPU is recorded in the log.	Temp. of main CPU increased due to the failure of cooling fan.	Two fans on the control box may have stopped. Check the fan cable and its operation.	
<b>Phenomenon 3 : Unable to connect to the network</b>			
Check the setting of IP address, sub-net mask, gateway, AE, HOSTNAME in the DICOM SCP menu of control panel.	Setting of IP ADDRESS, SUNET MASK, GATEWAY, AE TITLE, HOSTNAME are wrong.	Set them correctly.	
Check the network using ping command generated by maintenance PC.	Depending on the type of switching hub, it may have memorized the connection counter part for that port, thus not accepting the DryPro.	Turn off the power of the switching hub, and restart the hub. It may not be effective only by unplug/plug the LAN cable.	
	Depending on the switching hub, connection cannot be established by auto-negotiation.	Set the port to which the DryPro is interfaced to 100Base/TX, full duplex.	
LED for the LAN port is not lighting.	LAN function of the main CPU board is faulty.	Disconnect the LAN from the facility's network, and check the connection using other hub and PC. If not communicating, replace the main CPU board.	
Unable to establish connection with PrintLink despite the address and AE title are correct. (Film empty occurred on DryPro771, which followed by Print Link2 sending a film empty error. )	N-EVEN port is correctly set. But the setting of receive port is not compatible to PrintLink.	Set correctly.	From the faulty list of production trial.
<b>Phenomenon 4 : Error code not listed in the error code list is displayed.</b>			
"EFF30 NOT ASSIGNED" or "ECA40 UNKNON ERROR" has occurred.	Setting of DIPSW or JP on the print engine board is wrong.	Check the setting. If it is correct, replace the print engine board (or control box).	From the faulty list of production trial.
<b>Phenomenon 5 : Process interrupted during printing process</b>			
Operation panel frozen with the message "PRINT" shown.	Communication error occurs between mech. cont. board and operation panel.	Check the connection of the cable (RS-232C) between the mech. cont. and main board, or change the cable. If not corrected, replace the mech. cont. board and operation panel.	Check the error log of the day when the error occurred.
<b>Phenomenon 6 : Operation is not initiated by pressing the keys on the operation panel</b>			
LCD display does not change even the key on the control panel is pressed.	Communication error occurs between mech. cont. board and operation control board.	Check the wire harness between mech. cont. board and operation control board, or replace it. If not corrected, replace the mech. cont. board and operation panel unit.	

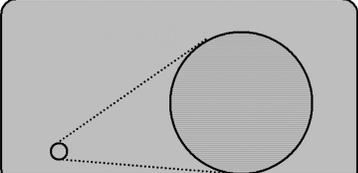
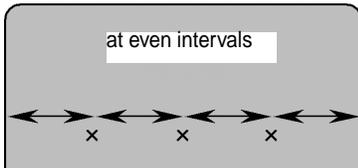
## 7.1 Troubleshooting

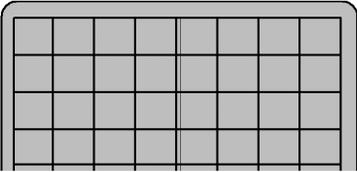
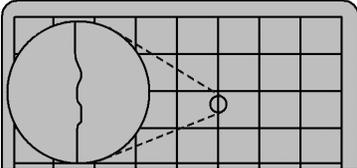
Check Point	Cause	Remedy	Remarks
<b>Phenomenon 7 : Abnormal noise is heard</b>			
Supply unit vibrates vertically as the abnormal noise is heard.	Faulty adjustment of the transport gear.	Adjust the transport gear to engage correctly.	
Abnormal noise when open/close the supply tray shutter.	Faulty adjustment of the transport gear.	Adjust the transport gear to engage correctly.	
Sounds gotten one time at the lower part of descent transport unit during film transportation. The sound disappears when the left cover is open.	Nip roller's actuating part of descent transport unit is touching the left cover.	Check the precision of assembly of the descent transport unit.	
Abnormal noise from cooling section.	Transport belt tension of the cooling section is loose or tight.	Adjust the belt tension of cooling section.	
Others	Damage, abrasion, fault of parts	Replace the unit generating the noise.	
<b>Phenomenon 8: Abnormal smell</b>			
Burning smell	Faulty contact, short-circuit of each board or wire harness is possible case. Search the cause.	Replace the burnt parts after locating the cause.	
Strong film smell	Deodorant filter expired.	Replace the deodorant filter.	
	Deodorant fan faulty.	Replace the deodorant fan.	
	Packing around the deodorant filter is falling off.	Attach the packing to original position.	
<b>Phenomenon 9: Front cover lock faulty.</b>			
Difficult to lock the front cover.	Hook on the back of front cover is misaligned.	Shift the hook position toward the rear of the unit.	
Thought front cover is locked, but shaky.			
<b>Phenomenon 10: Supply tray lock faulty.</b>			
Lock disabled when the tray is pushed back. Difficult to lock.	Tray lock is faulty.	Replace the tray drive unit.	
Shaky even when the tray is fully inserted into the unit.			
<b>Phenomenon 11 : Film empty error</b>			
"Film empty" is displayed despite the film is still present in the tray.	Missetting of film counter.	Load a new film package.	Reset the film count to "0" using [S43 FILM COUNT] of service maintenance menu before loading a new film package.
"Film empty" is not displayed despite the tray is empty.	Sensor detected dust in the supply tray.	Clean inside of the supply tray.	
	Anti-reflection sheet in the supply tray fell off.	Replace the supply tray.	

- Unable to Shut Down

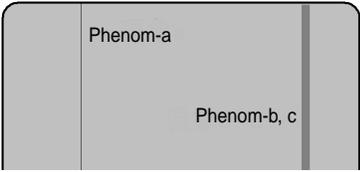
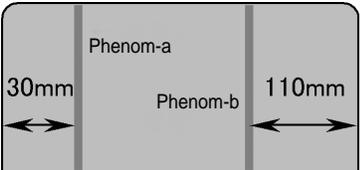
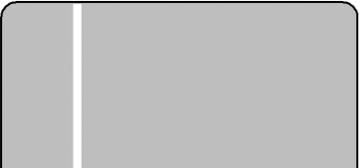
Check Point	Cause	Remedy	Remarks
Phenomenon 1: OPERATION LED does not light despite the operation switch is pressed.			
No beep sound like "Pi" is not heard when the operation switch is pressed.	Operation panel or cable for operation switch is faulty.	Replace the operation control board or operation switch.	
Phenomenon 2: OPERATION LED flashes when the operation switch is pressed, but unable to shut down.			
Measurement between the relay connector JJ85-13pin(+) and 12pin(-) in the control box with tester shows no change from 5V.	Shutdown request signal is not output.	Check the cable between operation panel unit and control box. If it is not corrected, replace the operation control board.	
Measurement between the relay connector JJ85-13pin(+) and 12pin(-) in the control box with tester shows app. 0V.	Unable to receive shutdown request signal.	Check the cable between operation panel unit and control box. Check cable and connectors connected to CCN21 on the main CPU board. If it is not corrected, replace the main CPU board(or control box).	
Phenomenon 3: Unable to cut the power.			
Measurement between the relay connector JJ85-13pin(+) and 12pin(-) in the control box with tester shows app. 0V.	Unable to receive power cut off signal.	Check the cable between operation panel unit and control box. If it is not corrected, replace the operation control board.	
Measurement between the relay connector JJ85-13pin(+) and 12pin(-) in the control box with tester shows no change from 5V.	Power cut off signal is not output.	Check the cable between operation panel unit and control box. Check cable and connectors connected to CCN21 on the main CPU board. If it is not corrected, replace the main CPU board(or control box).	

## 7.2 Trouble on the Printed Image.

Phenomenon	Cause	Remedy
<p><b>Uneven Pitch.</b> Check the FLAT pattern (approx. 1.5D) with a loupe:</p> <ul style="list-style-type: none"> <li>• Uneven pitch occurs in a 157 <math>\mu\text{m}</math> cycle. &lt;Show the item “a” and “b”.&gt;</li> <li>• Another periodical uneven pitch occurs. &lt;Show the item “c” and “d”.&gt;</li> </ul> 	<ul style="list-style-type: none"> <li>a The uneven pitch correction was not completely carried out before shipping.</li> <li>b The correction value is reset or damaged.</li> <li>c A vibration, damage, temperature or humidity may cause the output image.</li> <li>d The sub-scan unit may be shaken.</li> </ul>	<ul style="list-style-type: none"> <li>a Correct the uneven pitch.</li> <li>b Correct the uneven pitch.</li> <li>c Correct the uneven pitch. If the same malfunction repeats, replace the exposure unit.</li> <li>d Regulate the sub-scan unit position or replace the sub-scan unit.</li> </ul>
<p><b>Uneven Density on both sides of the image.</b> Measure the X (3 points) on the FLAT pattern (approx. 1.5D) illustrated below.</p> <ul style="list-style-type: none"> <li>• If there is approximately 0.15D or more density difference, it is abnormal.</li> </ul> 	<ul style="list-style-type: none"> <li>• The shading correction was not completely carried out before shipping.</li> <li>• The film has its peculiar density distribution.</li> <li>• The optical section is contaminated.</li> <li>• The temperature of heat processing drum is uneven or the temperature setting is abnormal.</li> </ul>	<p>Even though a film itself causes the uneven density, the shading correction is effective in resolving the uneven density that occur on the films in the same package.</p>
<p><b>Image size to main-scan direction is abnormal.</b></p>	<ul style="list-style-type: none"> <li>1. The rotation of exposure polygon is abnormal.</li> <li>2. The distance between the exposure unit and film surface is abnormal.</li> </ul> <p>If the horizontal image size setting in the “Requested image size” menu is not carried out precisely.</p>	<ul style="list-style-type: none"> <li>1. Check the connection of the connector.</li> <li>2. Check if the exposure unit is installed properly.</li> </ul> <p>If no problem is found, replace the exposure unit.</p> <p>Adjust the setting value, by following the “FILM REDUCE” in the “SERVICE MAINTENANCE PRODUCT SETUP” screen.</p> <p>Ex. If the vertical size of output film is 303mm contrary to the 300mm setting, set FILM REDUCE to 99%.</p>
<p><b>Image size to sub-scan direction is abnormal.</b></p>	<p>The setting value is not suitable.</p>	<p>Adjust the setting value, by following the “V-SIZE TUNING” in the “SERVICE MAINTENANCE PRODUCT SETUP” screen.</p> <p>Ex. If the vertical size of output film is 1% larger than that of setting, set the V-SIZE TUNING to 99%.</p>

Phenomenon	Cause	Remedy
<p><b>Character pattern is displayed. White hairline is not displayed clearly.</b></p> <p>Output the PRODUCT pattern (3.0D) to measure the average density of the white hairline (thicker line) on the center. If the result is 2.0D or more, it is abnormal.</p> <p>The white hairline is apparently dark or fogged.</p>	<ol style="list-style-type: none"> <li>1. The optical section is contaminated.</li> <li>2. The exposed light amount is too large.</li> <li>3. The beam diameter is too large/modulation response is degraded.</li> <li>4. The temperature of the heat processing drum is too high.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace the exposure unit.</li> <li>2. Check the light amount on the exposed surface. If the result exceeds the specified value, replace the exposure unit. (Indication value for a judgement: 25mW or more.)</li> </ol>
<p><b>There is a ghost image at the center of the film.</b></p> <p>There is a thin vertical line near the center vertical line on the FRAME pattern (1.5D).</p> 	The optical section is abnormal.	Replace the exposure unit.
<p><b>There is a ghost image (black vertical line) at 50mm area from left edge of the film.</b></p> <p>There is a black vertical line at 50mm area from left edge of the FLAT pattern (1.5D).</p> 	The optical section is abnormal.	Replace the exposure unit.
<p><b>The vertical line is curved.</b></p> <p>Check the vertical line on the FRAME pattern (1.5D). The vertical line gets particularly curved at the right area. (30 <math>\mu</math>m or more.)</p> 	The exposure unit (polygon rotation) is abnormal.	Replace the exposure unit.

7.2 Trouble on the Printed Image.

Phenomenon	Cause	Remedy
<p><b>Vertical Black Line.</b></p> <p>The vertical black line is output on the FLAT pattern (1.5D). The line is not at the same position each output.</p> 	<p>a The sub-scan guide plate is contaminated or scratched. (There may be approx. 0.5mm thin line.)</p> <p>b The optical parts is out of alignment or the film is fogged.</p> <p>c There is a line on the film itself.</p>	<ol style="list-style-type: none"> <li>1. Remove the exposure unit to check if there is a foreign object or scratch on the sub-scan guide plate.</li> <li>2. Check if the image position is moved right or left. If the image is out of position, set to the proper position to check if there is a vertical line. If the same malfunction repeats, replace the exposure unit.</li> <li>3. Insert a film in the other package or insert back to front in order to check the position of the vertical line.</li> </ol>
<p><b>Vertical Black Line.</b></p> <p>The vertical black line is output on the FLAT pattern (1.5D). The line is at the same position each output.</p> 	<p>The film is fogged by the photoelectric sensor.</p> <p>a Sensor in front of the sub-scan.</p> <p>b Sensor in the sub-scan.</p>	<p>Adjust the light amount of the photoelectric sensor or replace the photoelectric sensor.</p>
<p><b>Vertical White Line.</b></p> <p>The vertical white line is output on the FLAT pattern (1.5D). The line is not at the same position each output.</p> 	<ol style="list-style-type: none"> <li>1. The optical part is contaminated.</li> <li>2. There is a line on the film itself.</li> <li>3. The light path is blocked.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check if there is any foreign object or dirt on the dust-proof glass on the backside of exposure unit. Otherwise, replace the exposure unit.</li> <li>2. Insert a film in the other package.</li> <li>3. Check if there is any obstacle between the exposure unit and sub-scan unit (exposing position).</li> </ol>
<p><b>Calibration Pattern is not output.</b></p> <p>a No data is output from the print engine board. (Check print I/O.)</p> <p>b The polygon is not rotating. (The polygon lock is not activated.) No laser beam is radiated.</p>	<p>a The print engine board or exposure I/F cable is disconnected.</p> <p>b The exposure unit is abnormal or the exposure I/F cable is disconnected.</p>	<p>Check the exposure I/F cable connection. If the same malfunction repeats, replace the exposure unit or exposure I/F cable.</p>
<p><b>Densitometer Correction Pattern is not output.</b></p> <p>The calibration pattern is output.</p>	<p>The density data cannot be accept properly.</p>	<p>Replace the densitometer.</p>
<p><b>SMPTE Test Pattern is not output.</b></p> <p>a The densitometer correction pattern is output but the SMPTE test pattern is not output under the condition that "No Select" is selected.</p> <p>b The densitometer correction pattern is output but the SMPTE test pattern is not output under the condition that "Ch1 to 4" is selected.</p>	<p>a The internal file is abnormal.</p> <p>b The setting of Dmax, Dmin or LUT is abnormal.</p>	<p>Turn OFF and ON the power source or cold start the device. If the same malfunction repeats, upgrade the software or replace the CF.</p> <p>Set up each setting as below and check again. Dmax=3.00, Dmin=0.20, Lut=linear</p>

Phenomenon	Cause	Remedy
<b>DICOM image is not output.</b> a The SMPTE test pattern is output but the DICOM image is not output under the condition that a particular SCU is selected. (Check the log file that is generated when the error occurs.) b The SMPTE test pattern is output but the DICOM image is not output under the condition that any of SCU is selected. (Check the log file that is generated when the error occurs.)	a DICOM parameter or image is abnormal.  b DICOM input process is incorrect.	Check if the DICOM parameter sent from the SCU is correct with reference to the error code list.  Turn OFF and ON the power source or cold start the device. If the same malfunction repeats, upgrade the software or replace the CF.
<b>Film is scorched.</b> Check that the separation claw on the heat processing unit has no contact with the film.	The transport guide is scratched or any foreign object is on the guide. The angle of the claw is not properly adjusted. The transport roller is slipping.	If the scratch is found on almost all the film surface, replace the separation claw unit. Any other scratch is found, search what causes the scratch.
<b>The front edge of film is folded.</b> If the image is normally output, the film may be folded between exposure finish and ejection.	The sub-scan unit cannot transport the film properly. The nip of the elevator transport section doesn't work properly.	If the image is normally output, replace the elevator transport section; the image is abnormal, replace the sub-scan unit.
<b>Film Curl</b> Check the temperature of the air cooling section.	The second cooling fan is broken.	Check the rotation of the second cooling fan. If it doesn't rotate, replace the fan.
<b>Black line is found on the film to main-scan direction in 63mm interval.</b>	The transport roller of the sub-scan unit is contaminated. The roller surface is scratched.	Clean the transport roller of the sub-scan unit. Check if a scratch is on the roller surface.
<b>Image is output on a tilt.</b> If the image tilts over 1mm to 17inch direction, the position regulator is abnormal.	The position regulator is abnormal.	Replace the sub-scan unit and position regulator.

<b>Image on the area 68mm from the front edge is uneven.</b> Check the FLAT pattern.	The sub-scan ejection guide is disposition.	Replace the sub-scan unit and position regulator.
<b>Image on the area 175mm from the back end is uneven.</b> Check the FLAT pattern.	The film is damaged by the convex part of the film cutter on the rear side of the device.	Replace the film.
<b>Image on the area 115mm from the front edge of 14'x17' film is uneven.</b> Check the FLAT pattern.	The descent transport section R guide is deformed.	Replace the descent transport section.
<b>Image on the front edge is uneven.</b> Check the FLAT pattern.	The pressure of nip on the sub-scan and ejection roller side is not adjusted properly.	Replace the sub-scan unit and position regulator.
<b>Image size to sub-scan direction is not right.</b> Measure the image size.	The sub-scan transport speed is abnormal.	Check the software version. Replace the mechanical control board.
<b>Solid image is uneven.</b> Check the FLAT pattern.	Check a gap between the nonwoven cloth of drum cover and nonwoven cloth roller of separation claw unit.	Make 1mm gap.
<b>Uneven image in 73mm pitch.</b> Check the FLAT pattern.	There is dusts in the sub-scan unit and inside of the tensioner bearing.	Replace the sub-scan unit and position regulator.

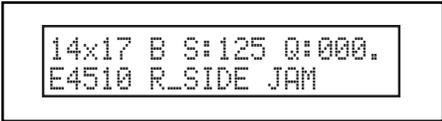
7.2 Trouble on the Printed Image.

Phenomenon	Cause	Remedy
<b>Uneven image in 73mm pitch. (It occurs on the area 140mm from the front edge.)</b> Check the FLAT pattern.	The sub-scan unit and motor shaft is contaminated.	Clean the motor shaft.
<b>Horizontal line on the point 16mm and 70mm from the back end.</b>	The pressure of nip on the sub-scan and ejection roller side is not adjusted properly.	Replace the unit.
<b>Band of uneven image.</b> Band of uneven image with a range of 20mm to 80mm (0.01D~0.02D) occur in a 200mm interval.	The earth connection of the exposure unit is not proper.	Secure the screws (2pcs) of the earth that connects between the sub-scan unit and main unit chassis.
<b>Black dots.</b>	Pressure is applied to the film.	Clean the film transport path.
<b>White spots.</b>	The film is contaminated.	Clean the adhesive roller.
<b>Density of the front edge is low.</b>	The front edge of film is in contact with the separation claw.	Replace the separation claw unit.
<b>Image is output from its half-way.</b>	The V-sync sensor malfunction.	Replace the sub-scan unit.
<b>Density linearity is abnormal.</b> a The image density is normal but the density measurement value is abnormal. b Density of image is uneven. While the film is in the device, the density varies with time. c Although the calibration is carried out, the density linearity is not improved. d The density varies as the characteristic curve moves in parallel. e The density varies irregularly or with a tone jump. f The density varies with a tone jump but doesn't vary with time. g The density rise in a continuous processing.	a The densitometer is abnormal.	Measure the density with a improved densitometer.
	b The film sensitivity is changed.	Confirm the duration of guarantee for the film. If the film is out of guarantee, replace it.
	c LUT malfunction, LUT setting value malfunction.	Check and correct the LUT setting value.
	d The exposure light amount of optical section is abnormal.	After the optical unit is replaced, carry out the shading correction and uneven pitch correction.
	e The temperature of heat processing drum is abnormal: The drum temperature sensor and slip-ring is abnormal.	Replace the heat processing drum together with the slip-ring, input "H-DRUM OFFSET."
	f The temperature of heat processing drum is abnormal: "H-DRUM OFFSET" is abnormal.	IF "H-DRUM OFFSET" is wrong, correct it. In other cases, replace the heat processing drum together with the slip-ring, input "H-DRUM OFFSET".
	g The air cooling section and deodorant filter is broken.	Check the fan. If the fan is abnormal (it will not rotate or abnormal noise is generated), replace it.

## 7.3 Error Message and Remedy

### 7.3.1 Error Code Structure

When an error occurs on the DRYPRO, the error code and its detail message are displayed in the message column of the operation panel.



```
14x17 B S:125 O:000.
E4510 R_SIDE JAM
```

This error code consists of two parts. One is a single-digit alphabet which shows the error level, the other is 4-digits code which shows the details about each error.

	4-digits Error Code
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└─ A single-digit level code

- A : Not in use.
- B : Not in use.
- C : This shows a warning that is displayed in the operation panel and recorded in the error log. Even if an error occurs, printing process is not aborted.
- D : This shows a warning that is not displayed in the operation panel but recorded in the error log. Even if an error occurs, printing process is not aborted.
- E : This shows an error that is displayed in the operation panel and recorded in the error log. If an error occurs, push [RESET] button to return to the original state.
- F : This shows an error that is displayed in the operation panel and recorded in the error log. Simply pushing [RESET] button cannot return the device to its original state.

Error Code	Error Occurrence Part	Remarks
<b>0000~FFF</b>	(Not in use)	“1000~1FFF“ is not error messages but shows a status information for upgrade process.
<b>3000~3FFF</b>	Relating with a mechanical section.	Relating with a heat processing unit.
<b>4000~4FFF</b>		Relating with a mechanical control.
<b>5000~5FFF</b>	Relating with a printing section.	
<b>6000~AFFF</b>	(Not in use)	
<b>B000~CFFF</b>	Relating with a main processing section.	
<b>D000~DFFF</b>	Relating with a DICOM.	
<b>E000~FFFF</b>	(Not in use)	

## 7.4 Error Code and Remedy

### ◆ Errors Relating with Mechanical Section.

Code	Level	Error Message	Meanings	Cause	Remedy
3004	E	HEAT CNTL TIMEOUT	Temperature control time over.	<ul style="list-style-type: none"> <li>The fuse of heat processing drum burned out.</li> </ul>	Check the heater resistance. Replace the heat processing drum.
3011		HEAT CNTL SENS R BREAK	Heat processing temperature sensor R is disconnected.	<ul style="list-style-type: none"> <li>The fuse of heat processing board burned out.</li> </ul>	Check the heater resistance. Replace the heat processing drum. Replace the H-DRV board.
3012		HEAT TEMP R MAX ERR	Temperature maximum limit error (R)		
3013		HEAT TEMP R MIN ERR	Temperature minimum limit error (R)	<ul style="list-style-type: none"> <li>Mechanical control board offset is abnormal.</li> </ul>	Replace the mechanical control board.
3021		HEAT CNTL SENS C BREAK	Heat processing temperature sensor C is disconnected.	<ul style="list-style-type: none"> <li>Ground-fault interrupter is short-circuited.</li> <li>Temperature sensor disconnected.</li> </ul>	Replace the heat processing drum. Replace the heat processing drum. Restart the DRYPRO.
3022		HEAT TEMP C MAX ERR	Temperature maximum limit error (C)	<ul style="list-style-type: none"> <li>Control software bug.</li> </ul>	
3023		HEAT TEMP C MIN ERR	Temperature minimum limit error (C)		
3031		HEAT CNTL SENS L BREAK	Heat processing temperature sensor F is disconnected.		
3032		HEAT TEMP L MAX ERR	Temperature maximum limit error (F)		
3033		HEAT TEMP L MIN ERR	Temperature minimum limit error (F)		
3A01		WIRING BREAK DETECT 1	Wiring disconnection 1	<ul style="list-style-type: none"> <li>CN7 connector disconnection.</li> <li>Heat processing drum breakage.</li> </ul>	Check connector. Replace the heat processing drum.
3A02		WIRING BREAK DETECT 2	Wiring disconnection 2		
3A03		WIRING BREAK DETECT 3	Wiring disconnection 3		
3A04		FILTER FAN ERR	Deodorant fan is abnormal.	<ul style="list-style-type: none"> <li>Deodorant fan is damaged.</li> <li>Mechanical control board driver is damaged.</li> </ul>	Check the operation, if broken, replace it. Check the cables. If they are normal, replace the mechanical control board.
4110		PICKUP ERR	Pickup error occurs.	<ul style="list-style-type: none"> <li>Supply ejection sensor is damaged.</li> <li>Empty sensor is damaged.</li> <li>Suction cup is damaged.</li> <li>Film suction pump is damaged.</li> <li>Suction electromagnetic valve is damaged.</li> <li>Mechanical control board driver is damaged.</li> <li>Film jam.</li> <li>Pickup unit malfunction.</li> </ul>	Check the operation, if broken, replace it. Replace the sensor. Replace the sensor. Check the operation, if broken, replace it. Check the operation, if broken, replace it. Check the cables. If they are normal, replace the mechanical control board. Remove the film. Replace the pickup unit.

Code	Level	Error Message	Meanings	Cause	Remedy
4111		L_SIDE JAM: CHECK B	Film jams at the supply ejection sensor.	<ul style="list-style-type: none"> <li>Supply ejection sensor is damaged.</li> <li>Supply transport motor is damaged.</li> <li>Supply transport roller is damaged.</li> <li>Descent transport roller is damaged.</li> <li>Mechanical control board driver is damaged.</li> <li>Film jam.</li> <li>Pickup unit malfunction.</li> <li>Descent transport unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace it. Adjust the belt tension.</p> <p>Check the cables. If they are normal, replace the mechanical control board.</p> <p>Remove the film.</p> <p>Replace the pickup unit.</p> <p>Replace the descent transport unit.</p>
4120		SHUTTER OPEN NOT DETECT	Shutter open sensor is not turned ON.	<ul style="list-style-type: none"> <li>Shutter open sensor is damaged.</li> <li>Shutter motor is damaged.</li> <li>Shutter drive belt is damaged.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Adjust the belt tension.</p>
4121		SHUTTER CLOSE NOT DETECT	Shutter close sensor is not turned ON.	<ul style="list-style-type: none"> <li>Shutter close sensor is damaged.</li> <li>Shutter motor is damaged.</li> <li>Shutter drive belt is damaged.</li> <li>Film jam at the supply exit.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Adjust the belt tension.</p> <p>Remove the film.</p>
4122	E	SHUTTER POSI NOT DETECT	Shutter open/close sensors are not turned ON.	<ul style="list-style-type: none"> <li>Shutter open sensor is damaged.</li> <li>Shutter close sensor is damaged.</li> <li>Shutter motor is damaged.</li> <li>Shutter drive belt is damaged.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Adjust the belt tension.</p>
4123		SHUTTER OPEN & SUCKER ERR	Shutter open sensor is not turned ON, that causes the suction cup not to return to the home position.	<ul style="list-style-type: none"> <li>Shutter open sensor is damaged.</li> <li>Shutter motor is damaged.</li> <li>Shutter drive belt is damaged.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Adjust the belt tension.</p>
4124		SUCKER HOME NOT DETECT	Home detection of the suction cup is not turned ON.	<ul style="list-style-type: none"> <li>Suction cup home sensor is damaged.</li> <li>Suction cup motor is damaged.</li> <li>Pickup unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the pickup unit.</p>
4125		TRAY NOT OPEN	Tray lock cannot be released.	<ul style="list-style-type: none"> <li>Tray lock sensor is damaged.</li> <li>Tray lock solenoid is damaged.</li> <li>Film jam at the supply exit.</li> <li>Foreign object is on the tray.</li> <li>Tray drive unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Remove the film.</p> <p>Remove the foreign object.</p> <p>Replace the tray drive unit.</p>
4126		TRAY LOCK ERR	Tray is open.	<ul style="list-style-type: none"> <li>Tray lock sensor is damaged.</li> <li>Tray drive unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Replace the tray drive unit.</p>
4127		FILTER NOT EXIST	No deodorant filter is installed.	<ul style="list-style-type: none"> <li>Deodorant filter detective sensor is damaged.</li> <li>Deodorant filter is not properly installed.</li> <li>Deodorant filter case is damaged.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Properly install the deodorant filter.</p> <p>Replace the deodorant filter case.</p>

## 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause	Remedy
4140		PICKUP SEQUENCE ERR	Supply request is received in an abnormal timing.	Operation software bug.	Restart the DRYPRO.
4310		L_SIDE JAM: CHECK C	Film doesn't reach the sub-scan entrance sensor.	<ul style="list-style-type: none"> <li>Sub-scan entrance sensor is damaged.</li> <li>Position regulator feed motor is damaged.</li> <li>Descent transport roller malfunction. (Lack of transport ability.)</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the roller to adjust the belt tension.</p>
4320		L_SIDE NOT NIP. CHECK C	Descent transport nip close sensor is not turned ON.	<ul style="list-style-type: none"> <li>Descent transport nip close sensor is damaged.</li> <li>Descent transport nip motor is damaged.</li> <li>Descent transport unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the descent transport unit.</p>
4321		L_SIDE NIP OFF ERR	Descent transport nip home sensor is not turned ON.		
4322		POSI_NIP NOT HOME: CHECK C	Position regulator nip home sensor is not turned ON.	<ul style="list-style-type: none"> <li>Position regulator nip home sensor is damaged.</li> <li>Position regulator nip motor is damaged.</li> <li>Position regulator unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the position regulator unit.</p>
4323		POSI_NIP HOME OFF ERR	Position regulator nip home sensor is not turned OFF.		
4324		WIDTH HOME NOT DETECT	Justification home position sensor is not turned ON.	<ul style="list-style-type: none"> <li>Justification home position sensor is damaged.</li> <li>Justification motor is damaged.</li> <li>Position regulator unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the position regulator unit.</p>
4325		WIDTH HOME SENS OFF ERR	Justification home position sensor is not turned OFF.		
4326		W_POSI NOT DETECT: CHECK C	Justification home position sensor is not turned ON.	<ul style="list-style-type: none"> <li>Justification home position sensor is damaged.</li> <li>Justification motor is damaged.</li> <li>Position regulator unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the position regulator unit.</p>
4327		W_POSI SENS OFF ERR	Justification home position sensor is not turned OFF.		
4410		LOWER JAM: CHECK C	Film doesn't reach the V-Sync sensor.	<ul style="list-style-type: none"> <li>V-Sync sensor is damaged.</li> <li>Position regulator transport motor is damaged.</li> <li>Position regulator nip roller malfunction. (Lack of transport ability.)</li> <li>Film jam.</li> <li>Sub-scan transport belt is out of position.</li> <li>Sub-scan unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the nip roller.</p> <p>Remove the film.</p> <p>Check the condition to repair.</p> <p>Replace the sub-scan unit.</p>

Code	Level	Error Message	Meanings	Cause	Remedy
4411	E	LOWER JAM	Film jams at the V-sync sensor.	<ul style="list-style-type: none"> <li>• V-Sync sensor is damaged.</li> <li>• Sub-scan motor is damaged.</li> <li>• Sub-scan nip is abnormal. (Lack of transport ability.)</li> <li>• Film jam.</li> <li>• Sub-scan transport belt is out of position.</li> <li>• Sub-scan unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the nip.</p> <p>Remove the film.</p> <p>Check and repair.</p> <p>Replace the sub-scan unit.</p>
4412		LOWER JAM: CHECK C	Film doesn't reach the sub-scan entrance sensor.	<ul style="list-style-type: none"> <li>• Sub-scan entrance sensor is damaged.</li> <li>• Position regulator transport motor is damaged.</li> <li>• Position nip roller malfunction. (Lack of transport ability.)</li> <li>• Film jam.</li> <li>• Sub-scan transport belt is out of position.</li> <li>• Sub-scan unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the nip.</p> <p>Remove the film.</p> <p>Check and repair.</p> <p>Replace the sub-scan unit.</p>
4510		R_SIDE JAM	Film doesn't reach the heat processing entrance sensor.	<ul style="list-style-type: none"> <li>• Heat processing entrance sensor is damaged.</li> <li>• Elevator transport motor is damaged.</li> <li>• Elevator transport nip malfunction. (Lack of transport ability.)</li> <li>• Film jam.</li> <li>• Elevator transport belt malfunction.</li> <li>• Elevator transport unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the nip.</p> <p>Remove the film.</p> <p>Check and repair.</p> <p>Replace the elevator transport unit.</p>
4511		R_SIDE JAM	Film jams at the heat processing entrance sensor.	<ul style="list-style-type: none"> <li>• Heat processing entrance sensor is damaged.</li> <li>• Elevator transport motor is damaged.</li> <li>• Elevator transport nip malfunction. (Lack of transport ability.)</li> <li>• Film jam.</li> <li>• Heat processing drive motor is damaged.</li> <li>• Elevator transport unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the nip.</p> <p>Remove the film.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the elevator transport unit.</p>
4520		R_SIDE NIP NOT RELEASE	Nip release solenoid is not turned ON.	<ul style="list-style-type: none"> <li>• Elevator transport nip close sensor is damaged.</li> </ul>	<p>Check the operation, if broken, replace it.</p>
4521		R_SIDE NIP RELEASE OFF ERR	Nip release solenoid is not turned OFF.	<ul style="list-style-type: none"> <li>• Elevator transport nip motor is damaged.</li> <li>• Elevator transport unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Replace the elevator transport unit.</p>
4610		UPPER JAM: CHECK A	Film doesn't reach the densitometer entrance sensor.	<ul style="list-style-type: none"> <li>• Densitometer entrance sensor is damaged.</li> <li>• Heat processing drive motor is damaged.</li> <li>• Heat processing drum malfunction. (Lack of transport ability.)</li> <li>• Film jam.</li> <li>• Densitometer unit malfunction.</li> <li>• Cooling unit is contaminated. (Nonwoven cloth, roller and separation claw.)</li> </ul>	<p>Replace the densitometer unit.</p> <p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Remove the film.</p> <p>Replace the densitometer unit.</p> <p>Replace the target unit.</p>

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause	Remedy
4611		UPPER JAM: CHECK A	Film jams at the densitometer entrance sensor. (It is not detected normally.)	<ul style="list-style-type: none"> <li>Densitometer entrance sensor is damaged.</li> <li>Heat processing drive motor is damaged.</li> <li>Ejection motor is damaged.</li> </ul>	<p>Replace the densitometer unit.</p> <p>Check the operation, if broken, replace it.</p>
4710		UPPER JAM: CHECK A	Film jams at the densitometer entrance sensor.	<ul style="list-style-type: none"> <li>Ejection motor is damaged.</li> <li>Motors around the densitometer malfunction. (Lack of transport ability.)</li> <li>Film jam.</li> <li>Cooling unit is contaminated. (Nonwoven cloth, roller and separation claw.)</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the motors.</p> <p>Remove the film.</p> <p>Replace the target unit.</p>
4A20		FRONT COVER OPEN	Front cover is opened abnormally.	<ul style="list-style-type: none"> <li>Front cover open sensor is damaged.</li> <li>Tray drive unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Replace the tray drive unit.</p>
4A21		FRONT COVER NOT OPEN	Front cover cannot be opened.	<ul style="list-style-type: none"> <li>Front cover close sensor is damaged.</li> <li>Front cover release solenoid is damaged.</li> <li>Tray drive unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the tray drive unit.</p>
4A22		L_SIDE COVER OPEND	Film ejection cover is opened abnormally.	<ul style="list-style-type: none"> <li>Film ejection cover close sensor is damaged.</li> <li>Film ejection cover lock unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Replace the film ejection cover lock unit.</p>
4A24	E	CLEANING ESCAPE NOT DETECT	Cleaning position sensor is not turned ON.	<ul style="list-style-type: none"> <li>Cleaning position sensor is damaged.</li> </ul>	<p>Check the operation, if broken, replace it.</p>
4A25		CLEANING ESCAPE OFF ERR	Cleaning position sensor is not turned OFF.	<ul style="list-style-type: none"> <li>Cleaning retraction motor unit malfunction.</li> </ul>	<p>Replace the cleaning retraction motor.</p>
4A26		TRAY OPEND	Tray is opened abnormally.	<ul style="list-style-type: none"> <li>Tray lock sensor is damaged.</li> <li>Tray drive unit malfunction.</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Replace the tray drive unit.</p>
4A31		HEAT DRUM LOCK_SIG ERR	Heat processing drum monitor signal is abnormal.	<ul style="list-style-type: none"> <li>Heat processing drum monitor is damaged.</li> <li>Heat processing drive motor is damaged.</li> <li>Film jam.</li> <li>Heat processing unit is contaminated. (Facing roller, etc.)</li> </ul>	<p>Check the operation, if broken, replace it.</p> <p>Check the operation, if broken, replace it.</p> <p>Replace the film.</p> <p>Clean or replace the heat processing unit.</p>
4A32		POWER SUPPLY FAN ERR	Power source cooling fan is abnormal.	Power source cooling fan is damaged.	Replace the power source cooling fan.
4A33	C	WARNING POWER SUPPLY FAN	Power source cooling fan is abnormal. (C error)	Power source cooling fan is damaged.	Replace the power source cooling fan.
4A34	E	CPU COOLING FAN ERR	Main cooling fan is abnormal.	Main cooling fan is damaged.	Replace the main cooling fan.
4A35	C	WARNING CPU COOLING FAN	Main cooling fan is abnormal. (C error)	Main cooling fan is damaged.	Replace the main cooling fan.

Code	Level	Error Message	Meanings	Cause	Remedy
4A39	E	EEPROM DATA NOT STORED	EEPROM is abnormal. Data is not stored.	Mechanical control board is damaged.	Replace the mechanical control board.
4A3A		EEPROM ERR	EEPROM is abnormal.		
4A3B		CN2 DISCONNECT ERR	CN2 connector is disconnected.	<ul style="list-style-type: none"> <li>• Connector is disconnection.</li> <li>• Mechanical control board is damaged.</li> </ul>	Check the connector. Replace the mechanical control board.
4A3C		CN10 DISCONNECT ERR	CN10 connector is disconnected.		
4A3D		CN6 DISCONNECT ERR	CN6 connector is disconnected.		
4A3E		CN12 DISCONNECT ERR	CN12 connector is disconnected.		
4A3F		CN7 DISCONNECT ERR	CN7 connector is disconnected.		
4A40		MEC INITIALIZATION ERR	Initialization of each load is not completed.	Web maintenance tool is finished with the initialization is not completed.	Reset the error.
4A4C	HEAT SEQUENCE ERR	Sequence from the heat processing to eject transport is abnormal.	Control software bug.	Restart the DRYPRO.	
4F20	MAIN TO MEC COM ERR	Communication between main and mechanical control is abnormal.	<ul style="list-style-type: none"> <li>• Communication between main and mechanical control board is abnormal. (Communication line.)</li> <li>• Control software bug.</li> </ul>	Check the connection cable, if broken, replace it.  Reset the error.	

## ◆ Print Section Errors

Code	Level	Error Message	Meanings	Cause
5000	E	UNKNOWN ERR	General exception. (Unexpected errors)	Hardware may be damaged. Replace the print engine board. If the same error repeats, replace the main board. Ensure the boards in the control box and CF are secured and the all cables including HDD are properly connected.
5002		FLASH WRITE FAILED	Writing error to the FLASH memory.	Access to the FLASH memory is abnormal. Replace the print engine board. Ensure the boards in the control box and CF are secured and the all cables including HDD are properly connected.
5003		INVALID_ADDRESS	Writing address is invalid.	
5004		INVALID_S_RECORD	Invalid S record is detected.	The file (S Format) from the main board is invalid. When this error is caused by a hardware, replace the main board or print engine board; caused by a software, upgrade is required. Ensure the boards in the control box and CF are secured and the all cables including HDD are properly connected.
5005		INVALID_S_ADDRESS	Invalid S record address is detected.	
5008		INVALID_COMMAND	Invalid command is received.	Command communication between the main board and print engine board is abnormal. When this error is caused by a hardware, replace the main board or print engine board; caused by a software, upgrade is required. Ensure the boards in the control box and CF are secured and the all cables including HDD are properly connected.
5009		PCIDMA_TIMEOUT	PCIDMA transport time error.	DMA communication between the main board and print engine board is abnormal. When this error is caused by a hardware, replace the main board or print engine board; caused by a software, upgrade is required. Ensure the boards in the control box and CF are secured and the all cables including HDD are properly connected.
500A		PCIDMA_INVALID_ADD	PCIDMA transport address is invalid.	
500B		PCIDMA_INVALID_SIZE	PCIDMA transport size is invalid.	
500C		NOT_IMPLEMENT	Main software is required to be upgraded.	FPGA configuration request from the main board. Upgrade the main software.
500D		UNEXPECTED_CR	Unexpected line feed is used in the S record.	Normally this error code is not displayed. When this error is caused by a hardware, replace the main board or print engine board; caused by a software, upgrade is required. Ensure the boards in the control box and CF are secured and the all cables including HDD are properly connected.
5E100		FPGA_IMG_TIMEOUT	FPGA image processing is timeout.	Image processing cannot be completed. When this error is caused by a hardware, replace the main board or print engine board; caused by a software, upgrade is required. Ensure the boards in the control box and CF are secured and the all cables including HDD are properly connected.
5101		VSYNC_TIMEOUT	V-Sync detection is timeout.	This code shows that after the printing process is started, V-sync signal that shows a film has reached is not received. Follow the procedure below.  <ol style="list-style-type: none"> <li>1. Check the operation of the V-sync sensor through the service mode. If the V-sync doesn't work, check the connection from the sensor to mechanical control board. When the error caused by a software, replace the sub-scan unit sensor or mechanical control board.</li> <li>2. Check the connection from the mechanical control board via control box to print engine board. <ul style="list-style-type: none"> <li>• V-Sync connector of the mechanical control board.</li> <li>• Signal relay connector of the control box.</li> <li>• V-Sync connector in the control box.</li> </ul> </li> <li>3. When this error is caused by a hardware, replace the print engine board, mechanical control board or cables.</li> </ol>

Code	Level	Error Message	Meanings	Cause
5102	E	EXPOSE_TIMEOUT	Exposure time out.	<p>After the print is started, H-Sync signal that shows the main-scan timing cannot be received as much times as it required. Check following items.</p> <ol style="list-style-type: none"> <li>1. Check the cable between the exposure section and control box (print engine board). <ul style="list-style-type: none"> <li>• Exposure I/F cable connector in the exposure section.</li> <li>• Exposure I/F cable connector in the control box.</li> </ul> </li> <li>2. When the all cables are connected properly, check the video output signal through the service mode, then check if the polygon lock signal from the polygon which shows a rotating status, surface detection signal and H-Sync is output or not.</li> <li>3. When the error is caused by a hardware, replace the print engine board, sub-scan unit or exposure I/F cable.</li> </ol>
5103		DMA_ADDRESS	DMAC address error.	DMA transport error which occurs when the print engine board outputs the exposure data. When the error is caused by a hardware, replace the main board or print engine board; caused by a software, upgrade is required.
5104		POLYGON_LOCK	Polygon is not locked.	Even if the polygon ON signal is sent to the exposure section, the polygon lock signal which shows a rotating status is not returned. Remedy this error by following the same procedure as CODE5102.
5105		PRINTMEM_SIZE OVER	Print memory size exceeds the specified capacity.	When processing an image with a specified parameter, the memory exceeds the assigned capacity. When the error is caused by a software, upgrade is required.
5110		FILMSIZE_ID	Film size ID abnormal.	When the parameter to be used exceeds the specified range, this error code is displayed. When this error is caused by a software, upgrade is required.
5111		FILM_H_SIZE_PARAM	Film size in the main-scan direction is abnormal.	
5112		FILM_V_SIZE_PARAM	Film size in the sub-scan direction is abnormal.	
5113		H_POS_FINE_ADJUST	Position in the main-scan direction is abnormal.	
5114		VD_POS_FINE_ADJUST	Position in the sub-scan direction is abnormal.	
5115		PATCH_FLAG	Presence of the density patch is abnormal.	
5116		PATCH_H_POSITION	Density patch position in the main-scan direction is abnormal.	
5117		PATCH_V_POSITION	Density patch position in the sub-scan direction is abnormal.	
5118		PATCH_H_SIZE	Density patch size in the main-scan direction is abnormal.	
5118		PATCH_V_SIZE	Density patch size in the sub-scan direction is abnormal.	
511A		NUMBER OF STR_ROW	Character string in the film is abnormal.	
511B		STRING ORIENTATION	Direction of the character string is abnormal	
511C		FONT_TYPE	Font type is abnormal.	
511D		NUMBER OF CHARACTER	Number of character string is abnormal.	
5120		NUMBER OF H_PIXEL	Number of the image horizontal pixel is abnormal.	

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
5121		NUMBER OF V_PIXEL	Number of the image vertical pixel is abnormal.	
5122		IMG_SRORE ADDRESS	Image storage address (A0-A28) is abnormal.	
5123		H_PRT_START_POSITION	Image print position in the main-scan direction is abnormal.	
5124		V_PRT_START_POSITION	Image print position in the sub-scan direction is abnormal.	
5125		H_PRINT_SIZE	Image print size in the main-scan direction is abnormal.	
5126		V_PRINT_SIZE	Image print size in the sub-scan direction is abnormal.	
5127		SMOOTH_TYPE	Interpolating magnification type is abnormal.	
5128	E	PRINT_MEMORY_OFFSET	Left offset in the main-scan direction on the print memory is abnormal.	When the parameter to be used exceeds the specified range, this error code is displayed. When this error is caused by a software, upgrade is required.
5129		TRIM_WIDTH	Trimming width is abnormal.	
512A		IMG_ROTATION	Image rotation is abnormal.	
512B		NUMBER OFFRAME	Number of the image frame is abnormal.	
512C		INVALID_MAGNIFICATION	Pace of magnification is abnormal.	
5140		POLYGON_NOT_LOCK	Exposure section status. Polygon is not locked.	While exposure status check command, the polygon lock signal which shows a rotating status is not returned. Remedy this error by following the same procedure as CODE5102.
5141		H_SYNC NOT DETECT	Exposure section status. H-Sync is not detected.	While exposure status check command, the H-Sync signal is not received. Remedy this error by following the same procedure as CODE5102.
5142		EXPOSURE_PARITY_ERR	Exposure section status. Parity error.	While exposure status check command, the parity error occurs. Remedy this error by following the same procedure as CODE5102. Especially when wither of 2 connectors of the exposure I/F cable is locked properly, this error occurs.
5143		POL_FACE DETECT ERR	Exposure section status. Polygon surface is not detected.	While exposure status check command, if the polygon surface detect signal is not received, this error occurs. When this error is caused by a software, upgrade is required.

Code	Level	Error Message	Meanings	Cause
5160		TEST_PATTERN_KIND	Test pattern type is abnormal.	When the test pattern is output, if the parameter to be used exceeds the specified range, this error code is displayed. When this error is caused by a software, upgrade is required.
5161		NUMBER OF CALIB_STEP	Calibration pattern step is abnormal.	
5162		CALIB_PATCH_WIDTH	Calibration patch width is abnormal.	
5163		CALIB_PATCH_INTERVAL	Calibration patch interval is abnormal.	
5164		DATA_KIND	Data type is abnormal.	
5165		CALIB_PATCH_LENGTH	Calibration patch length is abnormal.	
5166		SCALE_PATTERN_TYPE	Scale pattern type is abnormal.	
5167		SCALE_PATTERN_PITCH	Scale pattern interval is abnormal.	
5168		STRIPE_ORIENTATION	Stripe pattern direction is abnormal.	
5169		STRIPE_PATCH	Stripe pattern interval is abnormal.	
516A		PRINT SIZE OVER	Sum of all pattern exceeds the print memory range (5522pixel).	
516B		INVALID_DENS_SETTING	Pattern for producing ( $D_{max} < D_{min}$ ) is abnormal.	
516C		INVALID_TARGET_DENS	Pattern for producing ( $D_{max} < D_{min}$ or $D_{max} < target$ ) is abnormal.	
5200		NOT EXEC ON TEST-MODE	Print engine board is under the test mode.	

## ◆ Main Process Errors

Code	Level	Error Message	Meanings	Cause
<b>Status Control Process</b>				
B000	D	EXTERIOROPN	Outer cover is opened.	Simply a log file is generated. Nothing is displayed in the operation panel.
B001		EXTERIORCLS	Outer cover is closed.	
B002		UTRAYOPEN	Upper tray is opened.	
B003		UTRAYCLOSE	Upper tray is closed.	
B004		LTRAYOPEN	Lower tray is opened.	
B005		LTRAYCLOSE	Lower tray is closed.	
B010	F	SetupInfoCreateErr	Shared memory create error.	Caused by the OS or software. Replace the control box.
B011		StatusInfoCreateErr	Shared memory create error.	
B012		DebugInfoCreateErr	Shared memory create error.	
B013		PipeCreateErr	PIPE create error. (maintenance process)	
B014		PipeCreateErr	PIPE create error. (maintenance pipe process )	
B015		PipeCreateErr	PIPE create error. (file control process)	
B016		PipeCreateErr	PIPE create error. (queue control process)	
B017		PipeCreateErr	PIPE create error. (heat processing I/F process)	
B018		PipeCreateErr	PIPE create error. (imager control process)	
B019		PipeCreateErr	PIPE create error. (print I/F process)	
B01A		PipeCreateErr	PIPE create error. (mechanical control I/F process)	
B01B		PipeCreateErr	PIPE create error. (time control process)	
B01C		PipeCreateErr	PIPE create error. (operation process)	
B050	F	ProclllegalEnd	Maintenance process end abnormally.	Caused by a software or hardware. Turn OFF/ON the power source. If the same error repeats, upgrade the software or replace the control box.
B051		ProclllegalEnd	Maintenance pipe process end abnormally.	
B052		ProclllegalEnd	File control process end abnormally.	
B053		ProclllegalEnd	Queue control process end abnormally.	
B054		ProclllegalEnd	Heat processing I/F process end abnormally.	
B055		ProclllegalEnd	Imager control process end abnormally.	
B056		ProclllegalEnd	Print I/F process end abnormally.	
B057		ProclllegalEnd	Mechanical control process end abnormally.	
B058		ProclllegalEnd	Time control process end abnormally.	
B059		ProclllegalEnd	Operation process end abnormally.	
B060		ReadyRepTimeout	Start up ready report of the maintenance process is timeout.	
B061		ReadyRepTimeout	Start up ready report of the maintenance pipe process is timeout.	
B062		ReadyRepTimeout	Start up ready report of the file control process is timeout.	

Code	Level	Error Message	Meanings	Cause
B063	F	ReadyRepTimeout	Start up ready report of the queue control process is timeout.	Caused by a software or hardware. Turn OFF/ON the power source. If the same error repeats, upgrade the software or replace the control box.
B064		ReadyRepTimeout	Start up ready report of the heat processing I/F process is timeout.	
B065		ReadyRepTimeout	Start up ready report of the imager control process is timeout.	
B066		ReadyRepTimeout	Start up ready report of the print I/F process is timeout.	
B067		ReadyRepTimeout	Start up ready report of the mechanical control process is timeout.	
B068		ReadyRepTimeout	Start up ready report of the time control process is timeout.	
B069		ReadyRepTimeout	Start up ready report of the operation process is timeout.	
B070		InitEndRepTimeout	Initialization ready report of the maintenance process is timeout.	
B071		InitEndRepTimeout	Initialization ready report of the maintenance pipe process is timeout.	
B072		InitEndRepTimeout	Initialization ready report of the file control process is timeout.	
B073		InitEndRepTimeout	Initialization ready report of the queue control process is timeout.	
B074		InitEndRepTimeout	Initialization ready report of the heat processing I/F process is timeout.	
B075		InitEndRepTimeout	Initialization ready report of the imager control process is timeout.	
B076		InitEndRepTimeout	Initialization ready report of the print I/F process is timeout.	
B077		InitEndRepTimeout	Initialization ready report of the mechanical control process is timeout.	
B078		InitEndRepTimeout	Initialization ready report of the time control process is timeout.	
B079		InitEndRepTimeout	Initialization ready report of the operation process is timeout.	
B080		ErrResetFinTimeout	Error reset ready report of the maintenance process is timeout.	
B081		ErrResetFinTimeout	Error reset ready report of the maintenance pipe process is timeout.	
B082		ErrResetFinTimeout	Error reset ready report of the file control process is timeout.	
B083	ErrResetFinTimeout	Error reset ready report of the queue control process is timeout.		
B084	ErrResetFinTimeout	Error reset ready report of the heat processing I/F process is timeout.		
B085	ErrResetFinTimeout	Error reset ready report of the imager control process is timeout.		
B086	ErrResetFinTimeout	Error reset ready report of the print I/F process is timeout.		
B087	ErrResetFinTimeout	Error reset ready report of the mechanical control process is timeout.		
B088	ErrResetFinTimeout	Error reset ready report of the time control process is timeout.		

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
B089	F	ErrResetFinTimeout	Error reset ready report of the operation process is timeout.	Caused by a software or hardware. Turn OFF/ON the power source. If the same error repeats, upgrade the software or replace the control box.
B08A	F	ErrResetFinT.OutMechHard	Error reset ready report (RS232C) of the mechanical control is timeout.	Caused by a software or hardware. Turn OFF/ON the power source and check the RS-232C cable. If the same error repeats, upgrade the software or replace the control box or mechanical control board.
B090	F	EndRspTimeout	Processing end report of the maintenance process is timeout.	Caused by a software. Any other internal problem is not found. Turn OFF/ON the power source. If the same error repeats, upgrade the software or replace the control box.
B091		EndRspTimeout	Processing end report of the maintenance pipe process is timeout.	
B092		EndRspTimeout	Processing end report of the file control process is timeout.	
B093		EndRspTimeout	Processing end report of the queue control process is timeout.	
B094		EndRspTimeout	Processing end report of the heat processing I/F process is timeout.	
B095		EndRspTimeout	Processing end report of the imager control process is timeout.	
B096		EndRspTimeout	Processing end report of the print I/F process is timeout.	
B097		EndRspTimeout	Processing end report of the mechanical control process is timeout.	
B098		EndRspTimeout	Processing end report of the time control process is timeout.	
B099		EndRspTimeout	Processing end report of the operation process is timeout.	
B0A0	F	StatusDirectionRspTimeout	Response to the status request of the mechanical control (RS232C) is timeout.	Caused by a software or hardware. Turn OFF/ON the power source and check the RS-232C cable. If the same error repeats, upgrade the software or replace the control box or mechanical control board.
B0A1		DisplayRspTimeout	Response to the display request of the mechanical control (RS232C) is timeout.	
B0B0	F	DICOMFileDeleteError	Failed to delete the DICOM file (DICOM image information etc) while starting up.	Caused by the OS or software. Upgrade the software or replace the control box.
B0B1		QUEFileDeleteError	Failed to delete the queue control file while cold starting.	
B0B2		FILFileDeleteError	Failed to delete the file control file while cold starting.	
B0B3		DICOMFileDeleteError	Failed to delete the DICOM file while cold starting.	
B0B4		IMAGEFileDeleteError	Failed to delete the image information file while cold starting.	
B0B5		MEC_INIT_REPORTNoRec	Mechanical control initialization report (1Ah) is not received.	
B100	F	EXPOSTS	Communication to the mechanical control I/F (RS232C) is not available.	Caused by a software or hardware. Turn OFF/ON the power source and check the RS-232C cable. If the same error repeats, upgrade the software or replace the control box or mechanical control board.

Code	Level	Error Message	Meanings	Cause
Maintenance Process				
B200	F	SetupInfoCreateError	Failed to OPEN the shared memory (SetupInfo).	Caused by the OS or software. Upgrade the software or replace the control box.
B201		StatusInfoCreateError	Failed to OPEN the shared memory (Status).	
B202		DebugInfoCreateError	Failed to OPEN the shared memory (Debug).	
B203		QueMemOpenError	Failed to OPEN the queue control memory.	
B204		FilmMemOpenError	Failed to OPEN the film count memory.	
B205		PipeError	Failed to create the pipe.	
B206		SocketError	System call error (socket).	
B207		EnvGetError	Environment parameter (KI2_MAINTENANCE_SOCKET_PORT) error.	
B208		BindError	System call error (bind).	
B209		ListenError	System call error (listen).	
B20A		TimerCreateError	Failed to create the timer.	
B20B		EnvGetError	Environment parameter (KI2_MAINTENANCE_INTERVAL_TIME) error.	
B20C		MsgSendError	Failed to send the ready report.	
B20D	D	LoginContinueError	Failed to keep login.	
B20E	F	AcceptError	System call error (accept).	Caused by the OS or software. Upgrade the software or replace the control box.
B20F	D	IdMsgRecvError	Unexpected message is received. (Illegal ID)	Simply a log file is generated. Nothing is displayed in the operation panel.
B210		LenMsgRecvError	Unexpected message is received. (Illegal data length)	
B211		IpGetError	Failed to acquire the IP address.	
B212		HostNameGetError	Failed to acquire the host name.	
B213		MsgSendError	Failed to send "maintenance mode acquisition request MSG".	
B214		BackupError	Failed to backup to the static data CF.	
B215		MsgSendError	Failed to send "area code change".	
B216		MsgSendError	Failed to send "time change report".	
B217		TimeModifyError	Failed to change the system time.	
B218		MsgSendError	Failed to send "cold start request MSG".	
B219		DataGetError	Failed to acquire the accessory replacing flag.	
B21A		DataGetError	Failed to acquire the processing queue.	
B21B		FileCreateError	Failed to create the CSV file for the queue.	
B21C		EnvGetError	Failed to acquire the environment parameter (KI12_WEB_QUEUE_FILE_DIR).	
B21D		DataGetError	Failed to acquire the film information.	
B21E		ParamRecvError	Failed to receive the status check shift parameter.	
B21F		DataGetError	Failed to acquire the film count parameter.	
B220		DataGetError	Failed to count the film.	
B221		MsgSendError	Failed to send "request to change film setting".	
B222		MsgSendError	Failed to send "communication between maintenance PC and mechanical control report".	

7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
B223	D	ParamRecvError	MEC I/O response acquisition parameter error.	Simply a log file is generated. Nothing is displayed in the operation panel.
B224		MsgSendError	Failed to send "exposure test start report".	
B225		MsgSendError	Failed to send "exposure test status acquisition report".	
B226		MsgSendError	Failed to send "exposure end report".	
B227		ParamRecvError	Exposure test start report parameter error.	
B228		ParamRecvError	Exposure test status acquisition parameter error.	
B229		DataGetError	Failed to acquire the rate data.	
B22A		DataGetError	Failed to acquire the default LUT.	
B22B		DataGetError	Failed to acquire the user LUT.	
B22C		DataConvertError	Failed to convert the user LUT.	
B22D		DataUpdateError	Failed to update the user LUT.	
B22E		AcceptDataReadError	ACCEPT file READ error.	
B22F		AcceptDataDataError	ACCEPT file data error.	

Code	Level	Error Message	Meanings	Cause
<b>File control Process</b>				
B600	E	SetupInfoCreateError	Failed to open the shared memory. (SetupInfo)	Caused by a software or hardware. Reset the error or turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
B601		StatusInfoCreateError	Failed to open the shared memory. (Status)	
B602		DebugInfoCreateError	Failed to open the shared memory. (Debug)	
B603		EnvGetError	Failed to acquire the environment parameter. (K112_DICOM_DIR)	
B604		EnvGetError	Failed to acquire the environment parameter. (K112_IMAGE_DIR)	
B605		EnvGetError	Failed to acquire the environment parameter. (K112_LOG_DIR)	
B606		EnvGetError	Failed to acquire the environment parameter. (K112_QUE_DIR)	
B607		EnvGetError	Failed to acquire the environment parameter. (K112_HD_DYNAMIC_DIR)	
B608		FileMngReadError	Failed to acquire the file control data.	
B609		FileDeleteError	Failed to delete the unnecessary file.	
B60A		DataSetupError	Failed to create the directory of setting data.	
B60B		DataSetupError	Failed to create the setting file in the DICOM directory.	
B60C		PipeCreateError	Failed to create the PIPE for the file control and file process.	
B60D		EventCreateError	Failed to create the event.	
B60E		EventCreateError	Failed to create the event.	
B60F		EventCreateError	Failed to create the event.	
B610		DicomThreadExecError	Failed to start up the DICOM send/receive thread.	
B611	ExecMsgSendError	Failed to send the start up ready message.		
B612	TimerCreateError	Failed to create the timer.		
B613	FilmRegisterError	Failed to receive the film information registration message.		
B614	DicomInitialError	Failed to receive the INI file error message.		
B615	DICOMABNORMAL-ENDERR	DCM end unexpectedly.		
B616	DICOMEXECENDERR	Failed to start up the DCM.		

7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
<b>Queue Control Process.</b>				
B800	D	ILLEGALMESSRCVD	Illegal message is received from other process.	Simply a log file is generated. Nothing is displayed in the operation panel.
B801	E	ERRRESET-NOWQREADERR	During error reset, failed to read the printing film queue.	Caused by a software or hardware. Reset the error or turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
B802		ERRRESETPICK-UPQDELERR	During error reset, failed to delete the final pick up film queue.	
B803		ERRRESETQUPDTERR	During error reset, failed to update the priority queue.	
B804		ERRRESETCPYCNTUP-DTERR	During error reset, failed to update the copy counter.	
B805		ERRRESETPRVQCNTUP-TUPDTERR	During error reset, failed to update the previous and priority counter.	
B806		ERRRESETCHCNTUP-DTERR	During error reset, failed to update the receive CH counter.	
B807		ROLLBAKNOWQREAD-ERR	During roll back process for film empty, failed to read the printing film queue.	
B808		ROLLBAKPICK-UPQDELERR	During roll back process for film empty, failed to delete the final pick up film queue.	
B809		ROLLBAKUPDTQSE-TERR	During roll back process for film empty, failed to specify the update queue.	
B80A		ROLLBAKQUPDTERR	During roll back process for film empty, failed to update the queue.	
B80B		ROLLBAKCPYCNTUP-DTERR	During roll back process for film empty, failed to update the copy counter.	
B80C		ROLLBAKPRVQCNTUP-DTERR	During roll back process for film empty, failed to update the previous and priority counter.	
B80D		ROLLBAKCHCNTUP-DTERR	During roll back process for film empty, failed to update the receive CH counter.	
B80E		ROLLBAKQINFOS-ENDERR	During roll back process for film empty, failed to send the queue change report.	
B80F	FILMREGPRIORIQUPTERR	Although the film information registration request is received from the file control process, it is failed to be registered in the priority queue.		
B810	FILMREGQREGR-SPSENDERR	Although the film information registration request is received from the file control process, failed to send the film information registration message to the file control process.		
B811	FILMREGQREGREPS-ENDERR	Although the film information registration request is received from the file control process, failed to send the queue registration message to the imager control process.		
B812	FILMREGQINFMDFY-SENDERR	Although the film information registration request is received from the file control process, failed to send the queue information change report to the status control process.		
B813	TESTPRNPRIORIQUPTERR	Although the test print report is received from the mechanical control I/F process, failed to register in the test queue.		
B814	TESTPRNQREGREPS-ENDERR	Although the test print report is received from the main queue control process and mechanical control I/F process, failed to send the queue registration report.		

Code	Level	Error Message	Meanings	Cause
B815		TESTPRNQINFMDFY-SENDERR	Although the test print report is received from the mechanical control I/F process, failed to queue information change report.	
B816	E	PRNPREVPREVQUPD-TERR	Although the previous is received from the mechanical control I/F process, failed to register in the previous queue.	Caused by a software or hardware. Reset the error or turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
B817		PRNPREVQREGREPS-ENDERR	Although the previous is received from the mechanical control I/F process, failed to send the queue registration report to the imager control process.	
B818		PRNPREVQINFMDFY-SENDERR	Although the previous is received from the mechanical control I/F process, failed to send the queue information change report.	
B819		PRNPREVPREVDIRC-SENDERR	Although the previous is received from the mechanical control I/F process, failed to send the previous direction to the status control process.	
B81A		QFILMSETHIGHQUPD-TERR	Film loading priority error. Failed to clear the illegal type of high-size film.	
B81B		QFILMSETMIDQUPD-TERR	Film loading priority error. Failed to clear the illegal type of middle-size film.	
B81C		QFILMSETLOWQUPD-TERR	Film loading priority error. Failed to clear the illegal type of small-size film.	
B81D		QFILMSETPREVQUPD-TERR	Film loading priority error. Failed to clear the illegal type of previous.	
B81E		CPYSTPLASTPICKACESERR	After copy is stopped, failed to acquire the final pick up film queue.	
B81F		CPYSTPTTLCPYCN-TUPDTERR	After copy is stopped, failed to update whole copy count.	
B820		CPYSTPPRIORIQUPD-TERR	After copy is stopped, failed to update priority print queue.	
B821		QFILMFILMREGSENDE RR0	Although the film request is received, failed to return the film answer message to the imager control process.	
B823		QFILMFILMREGSENDE RR1	Although the film request is received from the imager control process, failed to return the film answer message to the whole control process.	
B824		QFILMFILMREGSENDE RR2	Although the film request is received from the imager control process, failed to return the film answer message to the whole control process.	
B825		QFILMFILMREGSENDE RR3	Although the film request is received from the imager control process, failed to return the film answer message to the whole control process.	
B826		QFILMTARGETQUPD-TERR	Although the film request is received from the imager control process, failed to return the film answer message to the priority queue.	
B827		QFILMNOWQUPDTERR	Although the film request is received from the imager control process, failed to update the printing film information queue.	
B828		QFILMPICKUPQUPD-TERR	Although the film request is received from the imager control process, failed to update the final pick up queue.	
B829		QFILMFILMREGUPD-TERR	Although the film request is received from the imager control process, failed to send the film answer message.	

7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
B82B		QFILMENDNOWQAC-ESERR	Although the film end report is received from the imager control process, failed to update the printing film information queue.	
B82C	E	QFILMENDPICK-UPQACESERR	Although the film end report is received from the imager control process, failed to update the final pick up information queue.	Caused by a software or hardware. Reset the error or turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
B82D		QFILMENDCPYCNTUP-DTERR	Not in use.	
B82E		QFILMENDQDELERR	Although the film end report is received from the imager control process, failed to update the test queue.	
B830		QFILMENDNOWQUPD-TERR	Although the film end report is received from the imager control process, failed to update the printing film information queue.	
B831		QFILMENDPICK-UPQUPDTERR	Although the film end report is received from the imager control process, failed to update the final pick up information queue.	
B832		QFILMENDENDQUPDTE-RR1	Although the film end report is received from the imager control process, failed to update the print end film information queue.	
B833		QFILMENDENDQUPDTE-RR2	Although the film end report is received from the imager control process, failed to update the print end film information queue.	
B834		QFILMENDUP-DTQSPECERR	Although the film end report is received from the imager control process, failed to specify the queue to be updated.	
B835		QFILMENDPRIORIQAC-ESERR	Although the film end report is received from the imager control process, failed to read the priority print queue.	
B836		QFILMENDCPYCNTUP-DTERR	Not in use.	
B837		QFILMENDAC-CESSQSPECERR	Although the film end report is received from the imager control process, failed to send the image file delete report to the file control process.	
B838		QFILMENDQINFMDFY-SENDERR	Not in use.	
B839		QDELDELCHSPECERR	Failed to specify the CH (1-32) included in the queue delete report.	
B83A		QDELTESTQDELERR	While deleting the test print queue, a mismatch occurs.	
B83B		QDELPREVQDELERR	While deleting the previous queue, a mismatch occurs.	
B83C		QDELALLCH-HIGHQDELERR	When all the CH are specified to delete queue, a mismatch occurs while deleting "High priority queue".	
B83D		QDELALLCHMIDQDEL-ERR	When all the CH are specified to delete queue, a mismatch occurs while deleting "Middle priority queue".	
B83E		QDELALLCHLOWQDEL-ERR	When all the CH are specified to delete queue, a mismatch occurs while deleting "Low priority queue".	
B83F		QDELCHSPECCHIQDEL-ERR	When a certain CH is specified to delete queue, a mismatch occurs while deleting "High priority queue".	

Code	Level	Error Message	Meanings	Cause
B840		QDELCHSPEC-MIDQDELERR	When a certain CH is specified to delete queue, a mismatch occurs while deleting "Middle priority queue".	
B841		QDELCHSPEC-CLOWQDELERR	When a certain CH is specified to delete queue, a mismatch occurs while deleting "Low priority queue".	
B842	E	QDELQINFOMDFY-SENDERR	Failed to send the queue information change report to the file control process.	Caused by a software or hardware. Reset the error or turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
B843		QDELPRNQDATAACCESS-ERR	A mismatch occurs while deleting the priority queue.	
B844		QDELNOWQDATAACCESS-ERR	A mismatch occurs while deleting the print queue.	
B845		QDELPREVQACCESS-ERR	A mismatch occurs while deleting the previous queue.	
B846		QDELDELETEERR1	A mismatch occurs while deleting the queue.	
B847		QDELIMAGEFILE-DELSENDERR	Failed to send the delete report to the file control process.	
B848		QDELDELETEERR2	A mismatch occurs while deleting the queue.	
B849		QFILMENDPRIOR-IQDELERR	Film end report: Failed to delete the priority queue.	
B84A	D	ILLEGALFILMSIZETYPE	Illegal film size/type queue information is received from the file control process.	Simply a log file is generated. Nothing is displayed in the operation panel.
B84B	C	QUEUECOUNTMAX-OVER	Queue information that exceeded the maximum capacity is received from the file control process.	A log file is generated or displayed in the operation panel. Processing can be continued.
B84C		QUEUESPACENOLEFT	Failed to receive the queue information from the file control process because of a lack of the disk capacity.	
B84D	E	MSGSENDERR	Failed to send the data delete report to the file control process.	Caused by a software or hardware. Reset the error or turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
B84E		RECOVQUEUEINSERR	Data mismatch occurs while the recovery queue is updated.	
B84F		RECOVQUEUEDELERR	Data mismatch occurs while the recovery queue is updated.	

7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
<b>Shared Memory Control Process</b>				
BA00	F	REGCREATEERR	Failed to create the registry while starting up.	Caused by a software or hardware. Turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA01		REGPIDSETERR	Failed to write the registry (own process ID) while starting up.	
BA02		SETUP_INFOALLOCERR	Failed to allocate the SetupInfo space while starting up.	
BA03		DEBUG_INFOALLOCERR	Failed to allocate the DebugInfo space while starting up.	
BA04		SETUP_INFOCREATEERR	Failed to allocate the shared memory space for the CommSetupInfo.	
BA05		STATUS_INFOCREATEERR	Failed to allocate the shared memory space for the CommStatusInfo.	
BA06		DEBUG_INFOCREATEERR	Failed to allocate the shared memory space for the CommDebugInfo.	
BA07		DSR_CTRLCREATEERR	Failed to allocate a free space for the semaphore "MEC_DSR_CONTROL" while starting up.	
BA08		MES_QUECREATEERR	Failed to allocate a free space for the semaphore "RS232C_MES_QUE" while starting up.	
BA09	D	REGKEYDELERR	Failed to delete the registry key while starting up.	Simply a log file is generated. Nothing is displayed in the operation panel.
BA0A	F	REGGETERR	Failed to create the flag file which shows that loading a shared memory is completed while starting up.	Caused by a software or hardware. Turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA0B	E	TIMEZONEINITERR	Failed to initialize the time zone while starting up. (The time zone is set as setting file d401b in order to ensure consistency.)	Caused by a software or hardware. Reset the error or turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA20	E	D001GETERR	Failed to read the static data 2 d001.csv (Film size table).	The data in the setting file cannot be read properly. Upload the static setting file 2 (Static2.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA21	E	D002GETERR	Failed to read the static data d002.csv (Film print condition).	The data in the setting file cannot be read properly. Upload the static setting file (Static.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA22	E	D002CRGETERR	Failed to read the static data 2 d002CR.csv (CR film print condition).	The data in the setting file cannot be read properly. Upload the static setting file 2 (Static2.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA23		D002CTGETERR	Failed to read the static data 2 d002CT.csv (CT film print condition).	
BA24	E	D003GETERR	Failed to read the static data d003.csv (Individual difference adjusting parameter).	The data in the setting file cannot be read properly. Upload the static setting file (Static.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA25		D004GETERR	Failed to read the static data d004.rec (Character display information).	

Code	Level	Error Message	Meanings	Cause
BA26	E	D005_1GETERROR	Failed to read the static data 2 d005_1.csv (DICOM character display position).	The data in the setting file cannot be read properly. Upload the static setting file 2 (Static2.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA27		D005_2GETERROR	Failed to read the static data 2 d005_2.csv (Film information character display position).	
BA29	E	D005_4GETERROR	Failed to read the static data 2 d005_4.csv (Format specification for DICOM character data).	The data in the setting file cannot be read properly. Upload the static setting file (Static.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA2A		D006GETERROR	Failed to read the static data d006.csv (Density patch).	
BA2B	E	D007GETERROR	Failed to read the static data 2 d007.rec (Custom format reference table).	The data in the setting file cannot be read properly. Upload the static setting file 2 (Static2.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA2C		D008GETERROR	Failed to read the static data 2 d008.csv (Standard custom format reference table).	
BA2D		D010GETERROR	Failed to read the static data 2 d010.csv (Custom format fixed value).	
BA2E		D011GETERROR	Failed to read the static data 2 d011.csv (Test print condition).	
BA30	E	D013_1GETERROR	Failed to read the static data 2 d013_1.csv (DICOM character display for a test print).	The data in the setting file cannot be read properly. Upload the static setting file 2 (Static2.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA31		D013_2GETERROR	Failed to read the static data 2 d013_2.csv (Test print film information).	
BA33		D013_4GETERROR	Failed to read the static data 2 d013_4.csv (DICOM character data format specification for a test print).	
BA38	E	D015GETERROR	Failed to read the static data d015.csv (Stamp message).	The data in the setting file cannot be read properly. Upload the static setting file (Static.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA39	E	D016GETERROR	Failed to read the static data 2 d016.csv (HITACH format table).	The data in the setting file cannot be read properly. Upload the static setting file 2 (Static2.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA3A	E	D102GETERROR	Failed to read the static data d102.csv (Image magnification).	The data in the setting file cannot be read properly. Upload the static setting file (Static.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA3B		D103BGETERROR	Failed to read the static data d103.csv (Uneven correction B).	
BA3D		D201BGETERROR	Failed to read the static data d201b.csv (Densitometer B).	
BA3E		D202AGETERROR	Failed to read the static data d202a.csv (Calibration A).	
BA3F	E	D202BGETERROR	Failed to read the dynamic data d202b.csv (Calibration B).	The data in the setting file cannot be read properly. Upload the dynamic setting file (Dynamic.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA41		D203BGETERROR	Failed to read the dynamic data d203b.csv (Density correction B).	
BA42		D203CGETERROR	Failed to read the dynamic data d203c.csv (Density correction C).	
BA44		D207GETERROR	Failed to read the dynamic data d207.csv (Luminance conversion table setting).	

## 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
BA45	E	D208GETERROR	Failed to read the static data 2 d208.csv (SMPTE-PRINT data).	The data in the setting file cannot be read properly. Upload the static setting file 2 (Static2.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA46		D209GETERROR	Failed to read the static data 2 d209.csv (DUMMYP-PRINT data).	
BA47	E	D210AGETERROR	Failed to read the static data d210.csv (Calibration LUT pattern for a densitometer correction).	The data in the setting file cannot be read properly. Upload the static setting file (Static.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA48	E	D211GETERROR	Failed to read the dynamic data d211.csv (Density correction data).	The data in the setting file cannot be read properly. Upload the dynamic setting file (Dynamic.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA49		D212GETERROR	Failed to read the dynamic data d212.csv (Density correction result).	
BA4C	E	D215GETERROR	Failed to read the static data 2 d215.csv (General pattern).	The data in the setting file cannot be read properly. Upload the static setting file 2 (Static2.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA4D	E	D301GETERROR	Failed to read the static data d301.rec (DICOM-SCU).	The data in the setting file cannot be read properly. Upload the static setting file (Static.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA4E		D303GETERROR	Failed to read the static data d303.csv (DICOM-SCP).	
BA4F		D304GETERROR	Failed to read the static data d304.rec (SCULUT setting).	
BA50		D401AGETERROR	Failed to read the static data d401a.csv (Device setting A).	
BA51		D401BGETERROR	Failed to read the static data d401b.csv (Device setting B).	
BA52		D401CGETERROR	Failed to read the dynamic data d401c.csv (Device setting C).	
BA53		D402GETERROR	Failed to read the static data d402.csv (Device status).	
BA54		D403GETERROR	Failed to read the static data d403.csv (Film count).	
BA55	E	D404GETERROR	Failed to read the dynamic data d404.csv (Each part version).	The data in the setting file cannot be read properly. Upload the dynamic setting file (Dynamic.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA56	E	D406GETERROR	Failed to read the static data d406.csv (Morning standby setting).	The data in the setting file cannot be read properly. Upload the static setting file (Static.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA57	E	D407GETERROR	Failed to read the static data 2 d407.rec (Area code setting).	The data in the setting file cannot be read properly. Upload the static setting file 2 (Static2.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.

Code	Level	Error Message	Meanings	Cause
BA58	E	D501GETERROR	Failed to read the static data d501.csv (Consumption replacement information).	The data in the setting file cannot be read properly. Upload the static setting file (Static.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA59	E	D502GETERROR	Failed to read the dynamic data d502.csv (Consumption replacement information 2).	The data in the setting file cannot be read properly. Upload the dynamic setting file (Dynamic.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA5A		D602GETERROR	Failed to read the dynamic data d602.csv (Function parameter).	
BA5C		D604GETERROR	Failed to read the dynamic data d604.csv (Calibration status parameter).	
BA5D		D605GETERROR	Failed to read the dynamic data d605.csv (Temperature information).	
BA5F		D851GETERROR	Failed to read the dynamic data d851.csv (Error history).	
BA60		D901GETERROR	Failed to read the dynamic data d901.csv (Heat processing section setting).	
BA62	E	DEBUGGETERROR	Failed to read the static data debug.csv (Log output information).	
BA63	E	D216GETERROR	Failed to read the static data 2 d216.csv (Product test print).	The data in the setting file cannot be read properly. Upload the static setting file 2 (Static2.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA64		D217GETERROR	Failed to read the static data 2 d217.csv (Common test print).	
BA66	D	D003GETERROR	Because the static data d003 "Correction for the exposure section/film reduction ratio" is out of 9500~10500, it is corrected to 10000.	Simply a log file is generated. Nothing is displayed in the operation panel.
BA76	E	MAKELUTERROR	Failed to expand the LUT data GLUT-XX.csv.	The data in the setting file cannot be read properly. Upload the static setting file (Static.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA80	E	D202BPUTERROR	Failed to read the dynamic data d202b.csv (Calibration B).	The data in the setting file cannot be read properly. Upload the dynamic setting file (Dynamic.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA81		D203BPUTERROR	Failed to read the dynamic data d203b.csv (Density correction B).	
BA82		D202CPUTERROR	Failed to read the dynamic data d203c.csv (Density correction C).	
BA83		D207PUTERROR	Failed to read the dynamic data d207.csv (Luminescence conversion table).	
BA84		D211PUTERROR	Failed to read the dynamic data d211.csv (Density correction data).	
BA85		D212PUTERROR	Failed to read the dynamic data d212.csv (Density correction result).	

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
BA86	E	D301PUTERROR	Failed to write the static data d301.csv (DICOM-SCU).	The data in the setting file cannot be read properly. Upload the static setting file (Static.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA87	E	D401CPUTERROR	Failed to write the dynamic data d401.csv (Device setting C).	The data in the setting file cannot be read properly. Upload the dynamic setting file (Dynamic.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA88		D404PUTERROR	Failed to write the dynamic data d404.csv (Each part version).	
BA89	E	D501PUTERROR	Failed to write the static data d501.csv (Consumption replacement information).	The data in the setting file cannot be read properly. Upload the static setting file (Static.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA8A	E	D502PUTERROR	Failed to write the static data d501.csv (Consumption replacement information 2).	The data in the setting file cannot be read properly. Upload the dynamic setting file (Dynamic.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BA8B		D602PUTERROR	Failed to write the dynamic data d602.csv (Function parameter).	
BA8D		D604PUTERROR	Failed to write the dynamic data d604.csv (Calibration status parameter).	
BA8E		D605PUTERROR	Failed to write the dynamic data d605.csv (Temperature information).	
BA8F		D851PUTERROR	Failed to write the dynamic data d851.csv (Error history).	
BA90		D901PUTERROR	Failed to write the dynamic data d901.csv (Heat processing section setting).	
BAA0		D	CPHDTOCFERROR	
BAE0	E	SMPTE_IMAGESTATEROR	Failed to acquire the file status of the static data 2 smpte.image (SMPTE image).	The data in the setting file cannot be read properly. Upload the static setting file 2 (Static2.tgz) to turn OFF/ON. If the same error repeats, upgrade the software or replace the control box.
BAE1		SMPTE_IMAGESIZEERROR	File size of the static data 2 smpte.image (SMPTE image) is illegal.	
BAE2		DUMMY_IMAGESTATEROR	Failed to acquire the file status of the static data 2 dummy.image (DUMMYPRINT image).	
BAE3		DUMMY_IMAGESIZEERROR	File size of the static data 2 dummy.image (DUMMYPRINT image) is illegal.	
BAEA		COMMON_IMAGESTATERROR	Failed to acquire the file status of the static data 2 tobi114pl.raw (General pattern image).	
BAEB		COMMON_IMAGESIZEERROR	File size of the static data 2 tobi114pl.raw (General pattern image) is illegal.	
BAEC		USER_IMAGESTATERROR	Failed to acquire the file status of the static data 2 user1Kx1K.raw,user800x800.raw (General pattern image).	
BAED		USER_IMAGESIZEERROR	File size of the static data 2 user1Kx1K.raw,user800x800.raw (General pattern image) is illegal.	

Code	Level	Error Message	Meanings	Cause
<b>System Check Process</b>				
BB00	C	DIRECTORYMAKEERR	Failed to create the registry.	Log file is generated and displayed in the operation panel. Processing can be continued. If the same error repeats, turn OFF/ON.
BB01		EXTRACTFILESERR	Failed to expand the data.	
BB02		SYSTEMFILESCHECK-ERR	Failed to check the file.	
BB03		DATACOPYERR	Failed to copy the LUT data.	
BB04		QUEDATACORRESPONDERR	Failed to check the queue matching.	
BB05	F	Compact Flash Error	Failed to expand the file because of CF malfunction.	
BB06		Compact Flash Error	Failed to expand the file because of CF malfunction.	

7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
<b>Imager control process</b>				
BC00	D	ILLEGALMESSRCVD	Received exceptional message from others•process.	Output only logs. No indication on the display panel.
BC01	E	STARTSTARTR-SPSENDERR	Transmission error of initialization end message to the status control•process occurred.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
BC02		QREGISTERQFILM-SENDERR	Transmission error of film request message to the queue control•process occurred.	
BC03		QFILMFILMREGTIMER-ERR	Error in setting film response timer occurred.	
BC04		FILMREGQUPDTERR	Update error of film information queue. Inconsistency occurred in queue control information.	
BC05		FILMREGPRNDIREC-SENDERR	Transmission error of print operation command message to the process occurred.	
BC06		FILMREGPRNSPLY-SENDERR	Transmission error of supply request message to the process occurred.	
BC07		FILMREGPRNREADYSENDERR	Transmission error of print preparation request message to the process occurred.	
BC08		FILMREGRDYDIRC-SENDERR	Transmission error of Ready operation command message to the process occurred.	
BC09		FILMREGPRNSUPPLYREQ	Supply request	
BC0A		FILMREGPRNSTATUPDTERR	Update of film process status (supply request) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC0B	FILMREGSPPLYTIMER-ERR	Error in setting film response wait timer occurred.		
BC0C	SPLYRSPRNSTATUPDTERR	Update of film process status (supply request) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.		
BC0D	SPLYRSPTIMERERR	Error in setting supply end wait timer occurred.		
BC0E	SPLYFINPRNSTATUPDTERR	Update of film process status (supply request) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.		
BC0F	SPLYFINFILMCNT-SENDERR	Transmission error of film sheet report message to the status control•process occurred.		
BC10	SPLYFINFILMNUMGETERR	Film number described in supply end report message not present in imager control information. Illegal film number for film being transported or inconsistency of imager control information occurred.		

Code	Level	Error Message	Meanings	Cause
BC11	E	SPLYFINQROLLBAK-SENDERR	Transmission error of roll back report message to the queue control process receiving supply end report occurred.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
BC12		SPLYFINPRNCAN-CESENDERR	Transmission error of print cancel request to the print I/F process receiving supply end report occurred.	
BC13		SPLYFINPRNEXPOSE-SENDERR	Transmission error of exposure request to the mech. cont. I/F process receiving supply end report occurred.	
BC14		FILMCNTFILMCNT-SENDERR	Transmission error of film sheet report message to the status control process occurred.	
BC15		CANCELREPCAN-CESENDERR	Transmission error of print cancel request message to the print I/F process occurred.	
BC16		CANCELREPPRN-STATUPDTERR	Update of film process status (print cancel request) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC17		CANCELREPTIMER-ERR	Error in setting print cancel request wait timer setting occurred.	
BC18		CANCELRSPPRN-STATUPDTERR	Update of film process status (print cancel response) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC19		CANCELRSPFILM-NUMGETERR	Acquisition error of film number in print cancel response report. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC1A		CANCELRSPPRNRDYS-SENDERR	Transmission error of roll back report message to the queue control process receiving print cancel response report occurred.	
BC1B		PRNREADYPRN-READYSENDERR	Transmission error of print ready request message to the print I/F process occurred.	
BC1C		PRNREADYPRN-STATUPDTERR	Update of film process status (print ready request) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC1D		PRNREADYTIMERERR	Error in setting print ready report timer setting occurred.	
BC1E		PRN-READYRESSTATUPDTERR	Update of film process status (print ready report) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC1F		PRNREADYRESPRN-RDYSENDERR	Transmission error of print request message to the print I/F process occurred. A system call error that normally not happen.	
BC20		PRNREADYRESFILM-NUMGETERR	Update of film process status (print ready report) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC21		PRNREADYRESEXPOS-ESENDERR	Transmission error of exposure request message to the process occurred.	
BC22		PRINTREQPRINT-REQSENDERR	Transmission error of print request message to the process occurred.	
BC23		PRINTREQPRNSTATUPDTERR	Update of film process status (print request report) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	

7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
BC24	E	PRINTREQTIMERERR	Error in setting print end report timer.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
BC25		PRINTRSPRNSTATUPDTERR	Update of film process status (print response report) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC26		PRNEXPOSEFILMNUMGETERR	Film number described in exposure request message not present in imager control information. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC27		PRNEXPOSEPRNEXPOSESENDERR	Transmission error of exposure request report.	
BC28		PRNEXPOSEPRNSTATUPDTERR	Update of film process status (exposure request report) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC29		PRNEXPOSETIMERERR	Error in setting exposure request response wait timer occurred.	
BC2A		EXPOREQRSPREPSTATUPDTERR	Update of film process status (exposure request report) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC2B		EXPOREQRSPREPTIMERERR	Error in setting exposure request end report timer occurred.	
BC2C		EXPOSEFINPRNSTATUPDTERR	Update of film process status (exposure request end report) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC2D		EXPOSEFINFILMSETSENDERR	Transmission error of film feed request occurred.	
BC2E		EXPOSEFINQREGSENDERR	Transmission error of queue registration report occurred.	
BC2F		FILMSETFILMSIZEGETERR	Error in acquiring film size occurred.	
BC30		FILMSETFILMSETSENDERR	Transmission error of film feed request occurred.	
BC31		FILMSETPRNSTATUPDTERR	Update of film process status (film feed request) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC32		FILMSETTIMERERR	Error in setting film feed response wait timer occurred.	
BC33		FILMSETREQSTATUPDTERR	Update of film process status (film feed response) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC34		DENSGETPRNSTATUPDTERR	Update of film process status (densitometer read report) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC35		DENSGETTIMERERR	Error in setting densitometer read start timer occurred.	
BC36		PRNEXHAUSTFILMCNTUPDTERR	Update of total count of processed film failed.	
BC37		PRNEXHAUSTPRNSTATUPDTERR	Update of film process status (ejection end report) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	
BC38		QFILMENDFILMNUMGETERR	Error in acquiring imager control data corresponding to film number at end of film process occurred.	
BC39		QFILMENDQFILMENDSENDERR	Transmission error of film process end report to queue control process.	

Code	Level	Error Message	Meanings	Cause	
BC3A	E	QFILMENDPRNSTATUSP-DTERR	Update of film process status (film process end) failed. Illegal film number for film being transported or inconsistency of imager control information occurred.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.	
BC3B		QFILMENDQDATADEL-ERR	Error in deleting film information queue data at film process end occurred.		
BC3C		QFILMENDRDYDIRC-SENDERR	Transmission error of Ready operation command to status control process at film process end occurred.		
BC3D		COMMSTATUSQFILM-SENDERR	Error in sending film request occurred.		
BC3E		COMMSTATUSSUPPLY-SENDERR	Error in sending supply request occurred.		
BC3F		COMMSTATUSPRN-READYSENDERR	Error in sending print ready request occurred.		
BC40		COMMONFILMNUMGETERR	Error in acquiring corresponding film number occurred.		
BC41		COMMONFILMNUM-STATERR	Error in setting status for corresponding film number occurred.		
BC42		COMMONPRNSTATUSP-DTERR	Error in outputting print status log.		
BC43		COMMONPRINTINGACESERR	Main imager control process, spare		
BC44	F	INIT ERR	System error at process initialization(densitometer DLL, OS system call) occurred.		
BC45	D	SUPPLY_FIN_REPMECERR	Transmission error of Ready operation command message to status control process.		Only log is output. No indication on the control panel.
BC46		EXPOSURE_FIN_REPMECERR	Mechanical error when receiving exposure end report is reported.		
BC47		DENSITY_GET_REPMECERR	Mechanical error when receiving densitometer read report is reported.		
BC48		EXHAUST_REPMECERR	Mechanical error when receiving ejection end report is reported.		
BC49	E	FILM_REGIST_RSPTIMERERR	Time out of film response wait timer. Unable to receive film response message within specified time.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.	
BC4A		SUPPLY_RSPWAIT	Time out of supply response wait timer. Unable to receive supply response message within specified time.		
BC4B		SUPPLY_FIN_REPWAIT	Time out of supply end report wait timer. Unable to receive supply end report message within specified time.		
BC4C		PRN_READY_RSPWAIT	Time out of print ready end wait timer. Unable to receive print ready end report message within specified time.		
BC4D		PRN_RSP_REPWAIT	Time out of print end wait timer. Unable to receive print end report message within specified time.		
BC4E		PRN_EXPOSURE_REQWAIT	Time out of exposure request response wait timer. Unable to receive supply response report message within specified time.		
BC4F		PRN_EXPOSURE_FIN_REPWAIT	Time out of exposure request end wait timer. Unable to receive exposure request report message within specified time.		

7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
BC50	E	HOT_FILM_SET_RSPWAIT	Time out of film feed response wait timer. Unable to receive film feed response message within specified time.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
BC51		PRN_CANCEL_RSP_REPWAIT	Time out of print cancel response wait timer. Unable to receive print cancel response message within specified time.	
BC52	C	PRN_READY_RSPFALSE	Error in status for print ready end report from print I/F process.	Errors are output only as log and on the operation panel. Able to continue processing. (If the error repeats, turn the power OFF/ON)
BC53		PRN_RSP_REPFALSE	Error in status for print end report from print I/F process.	
BC54	E	EXHAUST_REPTIMERS ETERR	Error in setting ejection report wait timer.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
BC55		DENSITY_GETTIMERTIMEOUT	Unable to receive densitometer read report from mech. cont. within specified time.	
BC56		EXHAUST_REPTIMERTIMEOUT	Unable to receive ejection report from mech. cont. within specified time.	
BC57	C	CALCPATHCHDENS-ERR	Densitometer open error. (K11_DENS_DUPLICATE_OPEN) occurred.	Errors are output only as log and on the operation panel. (If the error repeats, turn the power OFF/ON)
BC58		DENSITOMETERI/FERR	Densitometer open error. (K11_DENS_EXT_MEM_FAILED) occurred.	
BC59		DENSITOMETERI/FERR	ĩZixãvÉIÁ[ÉvÉiÉGÉãÀ((K11_DENS_PARAL_TIMEOUT) occurred.	
BC5A		DENSITOMETERI/FERR	Densitometer open error. (K11_DENS_WATCH_DOC) occurred.	
BC5B		DENSITOMETERI/FERR	Densitometer open error. (K11_DENS_UNRECOGNIZED) occurred.	
BC5C		DENSITOMETERI/FERR	Densitometer open error. (K11_DENS_FAILED) occurred.	
BC5D		DENSITOMETERI/FERR	Densitometer open error. (K11_DENS_USER_VERSION) occurred.	
BC5E		DENSITOMETERI/FERR	Densitometer open error. (K11_DENS_DUPLICATE_OPEN) occurred.	
BC5F		DENSITOMETERI/FERR	Densitometer open error. (K11_DENS_EXT_MEM_FAILED) occurred.	
BC60		DENSITOMETERI/FERR	Densitometer open error. (K11_DENS_PARAL_TIMEOUT) occurred.	
BC61		DENSITOMETERI/FERR	Densitometer open error. (K11_DENS_WATCH_DOC) occurred.	
BC62		DENSITOMETERI/FERR	Densitometer open error. (K11_DENS_UNRECOGNIZED) occurred.	
BC63		DENSITOMETERI/FERR	Densitometer re-open error. (K11_DENS_FAILED) occurred.	
BC64		DENSITOMETERI/FERR	Densitometer close error. (K11_DENS_DEVICE_NOT_OPEN) occurred.	
BC65		DENSITOMETERI/FERR	Densitometer close error. (K11_DENS_FAILED) occurred.	
BC66		DENSITOMETERI/FERR	Densitometer read request error. (K11_DENS_DEVICE_NOT_OPEN) occurred.	
BC67		DENSITOMETERI/FERR	Densitometer read request error. (K11_DENS_PARAL_TIMEOUT) occurred.	

Code	Level	Error Message	Meanings	Cause
BC68	C	DENSITOMETERI/FERR	Densitometer read request error. (K11_DENS_FAILED) occurred.	Errors are output only as log and on the operation panel. Able to continue processing. (If the error repeats, turn the power OFF/ON)
BC69		DENSITOMETERI/FERR	Densitometer read end error. (K11_DENS_DEVICE_NOT_OPEN) occurred.	
BC6A		DENSITOMETERI/FERR	Densitometer read end error. (K11_DENS_READ_NO_REQ) occurred.	
BC6B		DENSITOMETERI/FERR	Densitometer read end error. (K11_DENS_PARAL_TIMEOUT) occurred.	
BC6C		DENSITOMETERI/FERR	Densitometer read end error. (K11_DENS_READ_TIMEOUT) occurred.	
BC6D		DENSITOMETERI/FERR	Densitometer read end error. (K11_DENS_FAILED) occurred.	
BC6E		DENSITOMETERI/FERR	Densitometer read end error. (K11_DENS_USER_TIMEOUT) occurred.	
BC6F		CALIBPRINTEN-DREPORTERR	Transmission error of calibration print end report to status control•process occurred.	
BE00	E	SYSCHECKPROCSTARTERR	Boot up of system check•process failed.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
BE01		SHMPROCSTARTERR	Boot up of common memory control•process failed.	
BE02		SHMWAITSTARTERR	Boot up of common memory control•process failed.	
BE03		POWERPROCSTARTERR	Boot up of power supply control•process failed.	
BE04		TERMINALMODULE-STARTERR	Access to shared library failed.	
<b>Time Management Process</b>				
C000	E	MEC TIMEOUT ERR	Communication error of main-mech.cont.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C200	E	MORNING TIMER ON ERR	Start of morning standby timer failed. Acquisition of next start up time data from registry may have failed.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C201		FILMSUM TIMER ON ERR	Start of film data collection timer failed.	
C202		PIPE SEND ERR	Transmission error of morning standby cancel to status control•process.	
C203		PIPE SEND ERR	Transmission error of heat processing status request timing to status control•process.	
C204		PIPE SEND ERR	Transmission error of error reset report to status control•process.	
C205		PIPE SEND ERR	Transmission error of process end response to status control•process.	
C206		STARTREP NOT RCVD ERR	Received internal message before receiving process start report.	
C207		PIPE SEND ERR	Transmission error of initialization end to status control•process.	

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
C208	E	LOG FILE DELETE ERR	Error caused by log file delete function returning failure. (Normally error not returned when failed to delete file. Returns error only when the system is faulty [unable to acquire environment parameters, etc.])	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C209		PIPE SEND ERR	Transmission error of filter change report to status control•process.	
C20A		PIPE SEND ERR	Transmission error of regular maintenance report to status control•process.	
C20B		PIPE SEND ERR	Transmission error of regular calibration report to status control•process.	
C20C		FILTER TIMER ON ERR	Failed to turn ON filter change timer.	
C20D		MAINTE TIMER ON ERR	Failed to turn ON regular maintenance timer.	
C20E		CALIB TIMER ON ERR	Failed to turn ON regular calibration timer.	
C20F		ILLEGAL REG MORNING_VALUE	Morning standby start time in registry is abnormal. Acquired start time for next time may have exceed the limit of CTime.	
C210		ILLEGAL FILTER_VALUE	Filter change timer start time in shared memory is abnormal. Time data in common memory may have exceed the limit of CTime.	
C211		ILLEGAL MAINTE_VALUE	Regular maintenance start time in common memory is abnormal.	
C212		ILLEGAL CALIB_VALUE	Regular calibration start time in common memory is abnormal.	
C213		MAINTE_B TIMER ON ERR	Failed to turn ON regular maintenance timer "B".	
C214		HDD TIMER ON ERR	Failed to turn ON HDD change timer.	
C215		ILLEGAL MAINTE_B_VALUE	Regular maintenance start time "B" in common memory is abnormal.	
C216		ILLEGAL HDD_VALUE	HDD change start time in common memory is abnormal.	
C217		PIPE SEND ERR	Transmission error of regular maintenance "B" message to status control•process.	
C218		PIPE SEND ERR	Transmission error of regular HDD change message to status control•process.	
C219		PIPE SEND ERR	Transmission error of internal command (report of regular calibration, regular maintenance "A", regular maintenance "B", HDD change) for consumable parts changes to status control•process.	
C21A		FILE WRITE ERR	Failed to write function in file. (d502)	
C21B		SIGNAL SEND ERR	Error of outputting regular data save signal to common memory control•process.	

Code	Level	Error Message	Meanings	Cause
<b>Power supply control process</b>				
C301	E	SETUPINFO OPEN ERR	Failed to open "CommSetupInfo" of common memory at boot up.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C302		STATUSINFO OPEN ERR	Failed to open "CommStatusInfo" of common memory at boot up.	
C303		DEBUGINFO OPEN ERR	Failed to open "CommDebugInfo" of common memory at boot up.	
C304		REG OPEN ERR	Failed to open registry at boot up.	
C305		POWER DRIVER OPEN ERR	Failed to open power supply driver at boot up.	
C306		KEEP ALIVE SEND ERR	Failed to output "KEEP ALIVE" to power supply driver. Temp. monitor of CPU is no more valid.	
C307		KILL ERR	Failed to output signal. Carries out forceful shutdown because the power switch is pressed.	
C308		REG PID SET ERR	Failed to write (process ID of own) in registry at boot up.	
C30A		UPS TIMER CREATE ERR	Failed to create a timer for power restore after power failure at boot up.	
C30B		RETRY TIMER CREATE ERR	Failed to create a timer for signal output retry at boot up.	
C30C		POWER TIMER CREATE ERR	Failed to create a timer for power supply OFF.	
C30D		ILLEGAL SHUTDOWN SEQUENCE	Abnormality occurred in shutdown sequence. Carries out forceful shutdown because the power switch is pressed.	
<b>Operation process</b>				
C400	E	STARTREP NOT RCVD ERR	Error caused by receiving other internal command before receiving process start command.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C410		PIPE SEND ERR	Failed to send internal command for acquisition of current time.	
C411		TIMEZONE GET ERR	No value found in time zone of current time acquisition setting file "d401b.csv".	
C412		MAKE SEND DATA ERR	Failed to create transmission data for current time acquisition.	
C413		TIMEZONE GET ERR	Failed to acquire current time & time zone of current time acquisition.	
C414	D	TIMEZONE GET ERR	Warning to report that the code is initialized for Japan local because time zone value of setting file "d401b.csv" is "0".	Only log is output. No indication on the control panel.
C415	E	PIPE SEND ERR	Failed to send internal command for acquisition of current time.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
C416	E	SET TO MEMORY ERR	Failed to set received data for current time setting to common memory.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C417		TIMEZONE SET ERR	Failure in time for current time setting, time zone setting function.	
C418		WRITE FILE ERR	Write error of current time setting file.(d602)	
C419		TIME DATA RANGE ERR	Received date data for current time setting is out of "CTime" range.	
C41A		NON MAINTENANCE-MODE ERR	Error caused by attempting setting while current time setting maintenance mode is invalid.	
C41B		DATA COMPRESS ERR	Failed to compress & copy current time setting static data onto CF.	
C41C		LOG DEL ENTRY ERR	Failed to prepare log deletion.	
C41D		LOG DEL ERR	Log deletion error.	
C420		PIPE SEND ERR	Failed to acquire internal command for acquiring film tray information.	
C421		MAKE SEND DATA ERR	Failed to create transmission data from common memory data for film tray information acquisition.	
C422		PIPE SEND ERR	Failed to send internal command for film tray setting.	
C423		SET TO MEMORY ERR	Failed to set received data for film tray setting to common memory.	
C424		WRITE FILE ERR	Write error of film tray setting file. (d401b)	
C425		FILM SIZE ERR	Upper tray size or type for film tray setting is out of specified range.	
C426		FILM TYPE ERR	Lower tray size or type for film tray setting is out of specified range.	
C427		WRITE FILE ERR	Write error of film tray setting file. (d401c)	
C428		NON MAINTENANCE-MODE ERR	Error caused by attempting setting while film tray setting maintenance mode is invalid.	
C429		DATA COMPRESS ERR	Failed to compress & copy film tray setting static data onto CF.	
C430		PIPE SEND ERR	Failed to send internal command for acquiring unevenness correction data.	
C431		MAKE SEND DATA ERR	Failed to create transmission data for unevenness correction data acquisition.	
C432		PIPE SEND ERR	Failed to send internal command for unevenness correction setting.	
C433		SET TO MEMORY ERR	Failed to set received data for film tray setting to common memory.	
C434		WRITE FILE ERR	Write error of unevenness setting file.(d103b)	
C435		CALCCORRECTCO-EFF() ERR	Error in unevenness correction value calculation function for KonicaMinolta's unevenness setting function.	

Code	Level	Error Message	Meanings	Cause
C436	E	NON MAINTENANCE-MODE ERR	Error caused by attempting setting while unevenness correction setting maintenance mode is invalid.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C437		DATA COMPRESS ERR	Failed to compress & copy unevenness correction setting static data onto CF.	
C440		PIPE SEND ERR	Failed to send internal command for DICOM SCP acquisition.	
C441		MAKE SEND DATA ERR	Failed to create transmission data from common memory for DICOM SCP acquisition.	
C442		IPADDRESS GET ERR	Error in IPAddress acquisition function for DICOM SCP.	
C443		HOSTNAME GET ERR	Error in Host Name acquisition function for DICOM SCP acquisition.	
C444		PIPE SEND ERR	Failed to send internal command for DICOM SCP setting.	
C445		SET TO MEMORY ERR	Failed to set received data for DICOM SCP setting to common memory.	
C446		IPADDRESS SET ERR	Error in IPAddress setting function for DICOM SCP.	
C447		HOSTNAME SET ERR	Error in Host Name setting function for DICOM SCP acquisition.	
C448		WRITE FILE ERR	Write error for DICOM SCP setting file. (d303)	
C449		NON MAINTENANCE-MODE ERR	Error caused by attempting setting while DICOM SCP setting maintenance mode is invalid.	
C44A		DATA COMPRESS ERR	Failed to compress & copy DICOM SCP setting static data onto CF.	
C450		PIPE SEND ERR	Failed to send internal command for DICOM SCU acquisition.	
C451		SET TO MEMORY ERR	Failed to acquire "Ch" number from received data for DICOM SCU acquisition.	
C452		MAKE SEND DATA ERR	Failed to create transmission data from common memory for DICOM SCU acquisition.	
C453		ILLEGAL CH NO.	Acquired "Ch" number for DICOM SCU acquisition is out of specified range.	
C454		PIPE SEND ERR	Failed to send internal command for DICOM SCU setting.	
C455		SET TO MEMORY ERR	Failed to acquire "Ch" number from received data for DICOM SCU setting.	
C456		SET TO MEMORY ERR	Failed to set received data for DICOM SCU setting to common memory.	
C457	WRITE FILE ERR	Write error for DICOM SCU setting file. (d301)		
C458	WRITE FILE ERR	Write error for DICOM SCU setting file. (d002)		
C45A	WRITE FILE ERR	Write error for DICOM SCU setting file. (d207)		

**7.4 Error Code and Remedy**

<b>Code</b>	<b>Level</b>	<b>Error Message</b>	<b>Meanings</b>	<b>Cause</b>
C45B	E	NON MAINTENANCE-MODE ERR	Error caused by attempting setting while DICOM SCU setting maintenance mode is invalid.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C45C		DATA COMPRESS ERR	Failed to compress & copy DICOM SCU setting static data onto CF.	
C460		PIPE SEND ERR	Failed to send internal command for consumable acquisition.	
C461		MAKE SEND DATA ERR	Failed to create transmission data from common memory for consumable acquisition.	
C462		SUPPLY DATE IS FUTURE	Warning to report the date for consumable change for consumable acquisition is specified as future date.	

Code	Level	Error Message	Meanings	Cause
C463	E	WRITE FILE ERR	Write error of consumable acquisition. (d501)	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C464		WRITE FILE ERR	Write error of consumable acquisition. (d502)	
C465		PIPE SEND ERR	Failed to send internal command for consumable setting.	
C466		SET TO MEMORY ERR	Failed to set received data for consumable setting to common memory.	
C467		SUPPLY DATE CHANGE ERR	Error in consumable elapsed date change function for consumable setting.	
C468		WRITE FILE ERR	Write error for consumable setting file. (d501)	
C469		WRITE FILE ERR	Write error for consumable setting file. (d502)	
C46A		NON MAINTENANCE-MODE ERR	Error caused by attempting setting while consumable setting maintenance mode is invalid.	
C46B		DATA COMPRESS ERR	Failed to compress & copy consumable setting static data onto CF.	
C470		PIPE SEND ERR	Failed to send internal command for product mode acquisition.	
C471		MAKE SEND DATA ERR	Failed to create transmission data from common memory for product mode acquisition.	
C472		PIPE SEND ERR	Failed to send internal command for product mode setting.	
C473		SET TO MEMORY ERR	Failed to set received data for product mode setting to common memory.	
C474		WRITE FILE ERR	Write error of product mode setting file. (d401a)	
C475		WRITE FILE ERR	Write error of product mode setting file. (d602)	
C476		WRITE FILE ERR	Write error of product mode setting file. (d003)	
C477		WRITE FILE ERR	Write error of product mode setting file. (d102)	
C479		WRITE FILE ERR	Write error of product mode setting file. (d203c)	
C47A		WRITE FILE ERR	Write error of product mode setting file. (Debug.csv)	
C47B		WRITE FILE ERR	Write error of product mode setting file. (d301)	

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
C47C	E	NON MAINTENANCE-MODE ERR	Error caused by attempting setting while product mode setting maintenance mode is invalid.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C47D		DATA COMPRESS ERR	Failed to compress & copy product mode setting static data onto CF.	
C480		PIPE SEND ERR	Failed to send internal command for print condition acquisition.	
C481		ILLEGAL CH NO.	Failed to acquire "Ch" number from received data for print condition acquisition.	
C482		MAKE SEND DATA ERR	Failed to create transmission data from common memory for print condition acquisition.	
C483		PIPE SEND ERR	Failed to send internal command for print condition setting.	
C484		ILLEGAL CH NO.	Failed to acquire "Ch" number from received data for print condition setting.	
C485		SET TO MEMORY ERR	Failed to set received data for print condition setting to common memory.	
C486		WRITE FILE ERR	Write error of print condition setting file. (d301)	
C487		WRITE FILE ERR	Write error of print condition setting file. (d015)	
C488		LUT_LIB_GET() ERR	Error in LUT library acquisition function for print condition setting.	
C489		LUT_LIB_SET() ERR	Error in LUT expansion function for print condition setting.	
C48A		LUT NAME DOES NOT EXIST	Lut name for print condition setting after change not present in LUT library.	
C48B		WRITE FILE ERR	Write error of print condition setting file. (d005_4)	
C48C		NON MAINTENANCE-MODE ERR	Error caused by attempting setting while print condition setting maintenance mode is invalid.	
C48D		DATA COMPRESS ERR	Failed to compress & copy print condition setting static data onto CF.	
C4A0		PIPE SEND ERR	Failed to send internal command for film data acquisition.	
C4A1		DAILY DATA GET ERR	Error in daily collection data acquisition function for film data acquisition.	
C4A2		WEEKLY DATA GET ERR	Error in weekly collection data acquisition function for film data acquisition.	
C4A3		MONTHLY DATA GET ERR	Error in monthly collection data acquisition function for film data acquisition.	
C4A4		RCV MESSAGE FORMAT ERR	Received data for film data acquisition is out of specified range.	
EC4B0		PIPE SEND ERR	Failed to send internal command for current film data acquisition.	

Code	Level	Error Message	Meanings	Cause
C4B3	E	PIPE SEND ERR	Failed to send internal command for current film data setting.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C4B4		SET TO MEMORY ERR	Failed to set received data for current film data setting to common memory.	
C4B5		NON MAINTENANCE-MODE ERR	Error caused by attempting setting while current film data setting maintenance mode is invalid.	
C4C0		PIPE SEND ERR	Failed send internal command for calibration mode acquisition.	
C4C1		MAKE SEND DATA ERR	Failed to create transmission data from common memory for calibration mode acquisition.	
C4C2		PIPE SEND ERR	Failed send internal command for calibration mode setting.	
C4C3		SET TO MEMORY ERR	Failed to set received data for calibration mode setting to memory.	
C4C4		WRITE FILE ERR	Write error of calibration mode setting file. (d401b)	
C4C5		NON MAINTENANCE-MODE ERR	Error caused by attempting setting while calibration mode setting maintenance mode is invalid.	
C4C6		DATA COMPRESS ERR	Failed to compress & copy calibration mode setting static data onto CF.	
C4D0		PIPE SEND ERR	Failed to send internal command for LUT registration data acquisition.	
C4D1		ILLEGAL CH NO.	Acquired "Ch" number for LUT registration data acquisition is out of specified range.	
C4D2		MAKE SEND DATA ERR	Failed to create transmission data from common memory for LUT registration data acquisition.	
C4D3		SET TO MEMORY ERR	Failed to acquire "Ch" number from received data for LUT registration data acquisition.	
C4D4		PIPE SEND ERR	Failed to send internal command for LUT registration data setting.	
C4D5		SET TO MEMORY ERR	Failed to set received data for LUT registration data setting to common memory.	
C4D6		WRITE FILE ERR	Write error of LUT registration data setting file. (d304)	
C4D7		ILLEGAL CH NO.	Acquired "Ch" number for LUT registration data setting is out of specified range.	
C4D8		SET TO MEMORY ERR	Failed to acquire "Ch" number from received data for LUT registration data setting.	
C4D9		LUT_LIB_GET() ERR	Error in LUT library acquisition function for LUT registration data setting.	
C4DA	LUT_LIB_SET() ERR	Error in LUT expansion function for LUT registration data setting.		
C4DB	LUT NAME DOES NOT EXIST	LUT name for LUT registration data setting after change not present in LUT library.		

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
C4DC	E	NON MAINTENANCE-MODE ERR	Error caused by attempting setting while LUT registration data setting maintenance mode is invalid.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C4DD		DATA COMPRESS ERR	Failed to compress & copy LUT registration data setting static data onto CF.	
C4F0		PIPE SEND ERR	Failed to send internal command for LUT library acquisition.	
C4F1		SET TO MEMORY ERR	Failed to acquire "Ch" number from received data for LUT library acquisition.	
C4F2		ILLEGAL CH NO.	Acquired "Ch" number for LUT library acquisition is out of specified range.	
C4F3		LUT_LIB_GET() ERR	Error in LUT library acquisition function for LUT library acquisition.	
C4F4		PIPE SEND ERR	Failed to send internal command for LUT library setting.	
C4F5		NON MAINTENANCE-MODE ERR	Error caused by attempting setting while LUT library setting maintenance mode is invalid.	
C4F6		SET TO MEMORY ERR	Failed to set received data for LUT library setting to common memory.	
C4F7		LUT_LIB_SET() ERR	Error in LUT library setting function for LUT library setting.	
C4F8		ILLEGAL CH NO.	Acquired "Ch" number for LUT library setting is out of specified range.	
C4F9		DATA COMPRESS ERR	Failed to compress & copy LUT library setting static data onto CF.	
C4FA		LUT NAME DOES NOT EXIST	LUT name for LUT library setting after change not present in LUT library.	
C4FB		LUT_LIB_SET() ERR	Error in LUT expansion function for LUT library setting.	
C4FC		LUT_LIB_GET() ERR	Error in LUT library acquisition function for LUT library setting.	
C500		PIPE SEND ERR	Failed to send internal command for morning standby acquisition.	
C501		MAKE SEND DATA ERR	Failed to create transmission data from common memory for morning standby acquisition	
C502		PIPE SEND ERR	Failed to send internal command for morning standby setting.	
C503		SET TO MEMORY ERR	Failed to set received data for morning standby setting to common memory.	
C504		WRITE FILE ERR	Write error of morning standby setting file. (d406)	
C505		NON MAINTENANCE-MODE ERR	Error caused by attempting setting while morning standby setting maintenance mode is invalid.	
C506		DATA COMPRESS ERR	Failed to compress & copy morning standby setting static data onto CF.	

Code	Level	Error Message	Meanings	Cause
C510	E	PIPE SEND ERR	Failed to send internal command for density correction data acquisition.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C511		MAKE SEND DATA ERR	Failed to create transmission data from common memory for density correction data acquisition	
C512		PIPE SEND ERR	Failed to send internal command for density correction data setting.	
C513		SET TO MEMORY ERR	Failed to set received data for density correction data setting to common memory.	
C514		WRITE FILE ERR	Write error of density correction data setting file. (d211)	
C515		CORRECTDENSITOMETER() ERR	Error in densitometer correction function (CorrectDensitometer) for KonicaMinolta's function.	
C516		WRITE FILE ERR	Write error of density correction data setting file. (d201b)	
C517		WRITE FILE ERR	Write error of density correction data setting file. (d212)	
C518		NON MAINTENANCE-MODE ERR	Error caused by attempting setting while density correction data setting maintenance mode is invalid.	
C519		DATA COMPRESS ERR	Failed to compress & copy density correction data setting static data onto CF.	
C51A		PIPE SEND ERR	Failed to send internal command for density correction result acquisition.	
C51B		MAKE SEND DATA ERR	Failed to create transmission data from common memory for density correction result acquisition	
C520		PIPE SEND ERR	Failed to send internal command for heat processing temp. information acquisition.	
C521		MAKE SEND DATA ERR	Failed to create transmission data from common memory for heat processing temp. information acquisition.	
C522		PIPE SEND ERR	Failed to send internal command for heat processing temp. information setting.	
C523		SET TO MEMORY ERR	Failed to set received data for heat processing temp. information setting to common memory.	
C524		WRITE FILE ERR	Write error of heat processing temp. information setting file. (D901)	
C525		WRITE FILE ERR	Write error of heat processing temp. information setting file. (d203c)	
C526		NON MAINTENANCE-MODE ERR	Error caused by attempting setting while heat processing temp. information setting maintenance mode is invalid.	
C527		DATA COMPRESS ERR	Failed to compress & copy heat processing temp. information setting static data onto CF.	
C530	PIPE SEND ERR	Failed to send internal command for backup•restore control report.		
C531	NON MAINTENANCE-MODE ERR	Error caused by attempting setting while backup•restore control report maintenance mode is invalid.		
C532	ENV GET ERR	Failed to acquire backup•restore control report environment parameter.		

7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
C533	E	COPY CF TO HD ERR	Error in copying file specified by backup•restore control report from CF to HD backup folder.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C534		SCANDIR ERR	Error in backup•restore control report "scandir" function.	
C535		ARC FILES DO NOT EXIST	Target file for backup•restore control report not present in "ARC_BACKUP" folder.	
C536		FILE CREATE ERR	Failed to create flag file for reporting restore end for backup•restore control report.	
C537		RCV MESSAGE FORMAT ERR	Value of backup•restore control report is out of specified range.	
C538		WRITE FILE ERR	Write error of backup•restore control report file.	
C539		DATA COMPRESS ERR	Failed to compress & copy backup•restore control report static data onto CF.	
<b>Version Up Process</b>				
C800	F	REG OPEN ERR	Failed to open registry at boot up.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C801		RS232C INIT ERR	Failed to initialize RS232C for mech. cont. at boot up.	
C802		TIMER CREATE ERR	Failed to create I/O timer for mech. cont. at boot up.	
C803		RS232C CLOSE ERR	Failed to close I/O timer at shutdown.	
C804		REG PID SET ERR	Failed to write on registry (process ID of own) at boot up.	
C805		REG INIT ERR	Failed to initialize registry at boot up.	
C806		REG DEL ERR	Failed to delete registry at boot up.	
C807		FILE WRITE ERR	Write error of setting file. (d404)	
C810		REG ENTRY CREATE ERR	Failed to create registry entry at boot up.	
C811		REG ENTRY ADD ERR	Failed to add registry entry at boot up.	
C812		REG SET ERR	Failed to reset registry error code at boot up.	
C813		REG SET ERR	Failed to set version of each part on registry at boot up.	
C814		ENVGET ERR	Failed to acquire environment parameter at boot up.	
C816		REG GET ERR	Failed to acquire registry end flag for last time at boot up.	
C817		REG SET ERR	Failed to reset registry program boot up flag at boot up.	
C818		VERSION GET ERR	Failed to read version info. file for each part at boot up.	

Code	Level	Error Message	Meanings	Cause
C830	E	1AH RECV ERR	Time out to receive "1AH" from mech. cont. occurred when upgrading mech. cont.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C831		RS232C SEND ERR	Failed to send version request (M1) when upgrading mech. cont.	
C832		RS232C RECV ERR	Failed to receive version response (m1) when upgrading mech. cont.	
C833		RS232C SEND ERR	Failed to send download status report (M5) when upgrading mech. cont.	
C834		RS232C RECV ERR	Failed to receive download status response (m5) when upgrading mech. cont.	
C835		RS232C CLOSE ERR	Failed to close RS232C for mech. cont. when upgrading mech. cont.	
C836		RS232C INIT ERR	Failed to initialize RS232C for mech. cont. when upgrading mech. cont.	
C837		RS232C SEND ERR	Failed to send version verification end (MA) when upgrading mech. cont.	
C838		RS232C RECV ERR	Failed to receive version verification end response (mA) when upgrading mech. cont.	
C839		RS232C SEND ERR	Failed to send display request (M2) when upgrading mech. cont.	
C83A		RS232C RECV ERR	Failed to receive display response (m2) when upgrading mech. cont.	
C83B		ENVGET ERR	Failed to acquire environment function when upgrading mech. cont. (KI2_HD_VERSIONUP_PROG_DIR)	
C83C		FILE DOES NOT EXIST	"DOWNLOAD.EXE" not present when upgrading mech. cont.	
C83D		ENVGET ERR	Failed to acquire environment function when upgrading mech. cont. (KI2_HD_MEC_PROG_DIR)	
C83E		FILE DOES NOT EXIST	Data file (OS.mot) for download not present when upgrading mech. cont.	
C83F		FORK ERR	Error in "fork" function when upgrading mech. cont.	
C840		WAIT ERR	Error in "wait" function when upgrading mech. cont.	
C843		DOWNLOAD DOES NOT WORK	Failed to boot up "DOWNLOAD.EXE" when upgrading mech. cont.	
C844		REG GET ERR	Failed to acquire mech. cont. version from registry when upgrading mech. cont.	

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
C860	E	ENVGET ERR	Failed to acquire environment function when upgrading print section. (KI2_HD_PRINT_PROG_DIR)	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C861		FILE DOES NOT EXIST	Data file for download not present when upgrading print section.	
C862		FILE DOES NOT EXIST	Size of data file for download is "0" when upgrading print section.	
C863		FILE OPEN ERR	Failed to open data file for download when upgrading print section.	
C864		FSEEK ERR	Error in "seek" function when upgrading print section.	
C865		DMA INIT ERR	Failed to initialize DMA transfer class when upgrading print section.	
C866		FILE READ ERR	Failed to read data file for download when upgrading print section.	
C880		PRN FUNC INIT ERR	Failed to initialize driver in print section when upgrading print section.	
C8A0		FPGA CONFIG ERR	Failed to configure "FPGA" when upgrading print section.	
C8C0		DSET ERR	Error in DMA transfer function (DataSet) when upgrading print section.	
C8C1		DSET CP USR KERNEL ERR	Error in DMA transfer function (DataSet) - "Ki2PrnFuncCopyUserToKernel" when upgrading print section.	
C8C2		DSET TIMEOUT ERR	Timeout of DMA transfer function (DataSet) when upgrading print section.	
C8F0		FLSH ERR	Error in DMA transfer function (Flush) when upgrading print section.	
C8F1		FLSH CP USR KERNEK ERR	Error in DMA transfer function (Flush)- "Ki2PrnFuncCopyUserToKernel" when upgrading print section.	
C8F2		FLSH TIMEOUT ERR	Timeout of DMA transfer function (Flush) response when upgrading print section.	
C910		DMA PRN REQ START	Boot request (KI2_PRN_REQ_START) is returned under abnormal response status of print section after DMA transfer when upgrading print section.	
C911		DMA PRN_REQ_DOWNLOAD	Program download request (KI2_PRN_REQ_DOWNLOAD) is returned under abnormal response status of print section after DMA transfer when upgrading print section.	

Code	Level	Error Message	Meanings	Cause
C912	E	DMA PRN_REQ_INIT	Initialization request (KI2_PRN_REQ_INIT) is returned under abnormal response status of print section after DMA transfer when upgrading print section.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C913		DMA PRN_REQ_PRINT	Print ready request (KI2_PRN_REQ_PRINT) is returned under abnormal response status of print section after DMA transfer when upgrading print section.	
C914		DMA PRN_REQ_TESTPRINT	Test print ready request (KI2_PRN_REQ_TESTPRINT) is returned under abnormal response status of print section after DMA transfer when upgrading print section.	
C915		DMA PRN_REQ_EXPOSE	Print request (KI2_PRN_REQ_EXPOSE) is returned under abnormal response status of print section after DMA transfer when upgrading print section.	
C916		DMA PRN_REQ_TEST_START	Test process start request (KI2_PRN_REQ_TEST_START) is returned under abnormal response status of print section after DMA transfer when upgrading print section.	
C917		DMA PRN_REQ_TEST_GETSTAT	Test status acquisition request (KI2_PRN_REQ_TEST_GETSTAT) is returned under abnormal response status of print section after DMA transfer when upgrading print section.	
C918		DMA PRN_REQ_TEST_END	Test end request (KI2_PRN_REQ_TEST_END) is returned under abnormal response status of print section after DMA transfer when upgrading print section.	
C919		DMA PRN_REQ_TRANS_IMAGE	Image transfer request (KI2_PRN_REQ_TRANS_IMAGE) is returned under abnormal response status of print section after DMA transfer when upgrading print section.	
C91A		DMA PRN_REQ_STATUS	Status request (KI2_PRN_REQ_STATUS) is returned under abnormal response status of print section after DMA transfer when upgrading print section.	
C91B		DMA REQ_PCIBUS_DMA	Expansion download request (KI2_REQ_PCIBUS_DMA) is returned under abnormal response status of print section after DMA transfer when upgrading print section.	
C91C		DMA PRN_REQ_EXP_STAT	Exposure unit status request (KI2_PRN_REQ_EXP_STAT) is returned under abnormal response status of print section after DMA transfer when upgrading print section.	
C91D		DMA PRN_REQ_FPGA_CFG	FPGA configuration request (KI2_PRN_REQ_FPGA_CFG) is returned under abnormal response status of print section after DMA transfer when upgrading print section.	

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
C91E	E	DMA PRN_REQ_OTHER	Other status is returned under abnormal response status of print section after DMA transfer when upgrading print section.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C930		DL ERR	Error in download request function when upgrading print section.	
C931		DL RECV ERR	Failed to receive download request function command (CommandStatusWait3) when upgrading print section.	
C932		DL RECV TIMEOUT	Timeout of download request function response when upgrading print section.	
C933		DL PRN_REQ_START	Boot request (KI2_PRN_REQ_START) is returned under abnormal response status of print section after requesting download when upgrading print section.	
C934		DL PRN_REQ_DOWNLOAD	Initialization request (KI2_PRN_REQ_INIT) is returned under abnormal response status of print section after requesting download when upgrading print section.	
C935		DL PRN_REQ_INIT	Print ready request (KI2_PRN_REQ_PRINT) is returned under abnormal response status of print section after requesting download when upgrading print section.	
C936		DL PRN_REQ_PRINT	Test print ready request (KI2_PRN_REQ_TESTPRINT) is returned under abnormal response status of print section after requesting download when upgrading print section.	
C937		DL PRN_REQ_TESTPRINT	Print request (KI2_PRN_REQ_EXPOSE) is returned under abnormal response status of print section after requesting download when upgrading print section.	
C938		DL PRN_REQ_EXPOSE	Test operation start request (KI2_PRN_REQ_TEST_START) is returned under abnormal response status of print section after requesting download when upgrading print section.	
C939		DL PRN_REQ_TEST_START	Test operation status acquisition request (KI2_PRN_REQ_TEST_GETSTAT) is returned under abnormal response status of print section after requesting download when upgrading print section.	
C93A		DL PRN_REQ_TEST_GETSTAT	Test operation end request (KI2_PRN_REQ_TEST_END) is returned under abnormal response status of print section after requesting download when upgrading print section.	
C93B		DL PRN_REQ_TEST_END	Image transfer request (KI2_PRN_REQ_TRANS_IMAGE) is returned under abnormal response status of print section after requesting download when upgrading print section.	

Code	Level	Error Message	Meanings	Cause
C93C	E	DL PRN_REQ_TRANS_IMAGE	Status request (KI2_PRN_REQ_STATUS) is returned under abnormal response status of print section after requesting download when upgrading print section.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C93D		DL PRN_REQ_STATUS	PCI bus/DMA transfer request (KI2_REQ_PCIBUS_DMA) is returned under abnormal response status of print section after requesting download when upgrading print section.	
C93E		DL REQ_PCIBUS_DMA	Expansion download request (KI2_REQ_PCIBUS_DMA) is returned under abnormal response status of print section after requesting download when upgrading print section.	
C93F		DL PRN_REQ_EXP_STAT	Exposure unit status request (KI2_PRN_REQ_EXP_STAT) is returned under abnormal response status of print section after requesting download when upgrading print section.	
C940		DL PRN_REQ_FPGA_CFG	FPGA configuration request (KI2_PRN_REQ_FPGA_CFG) is returned under abnormal response status of print section after requesting download when upgrading print section.	
C941		DL PRN_REQ_OTHER	Other request is returned under abnormal response status of print section after requesting download when upgrading print section.	
C950		START ERR	Error in boot request function when upgrading print section.	
C951		START RECV ERR	Failed to receive boot request function command (CommandStatusWait3) when upgrading print section.	
C952		START RECV TIMEOUT	Timeout of boot request function response when upgrading print section.	
C953		START PRN REQ START	Program download request (KI2_PRN_REQ_DOWNLOAD) is returned under abnormal response status of print section after requesting boot up when upgrading print section.	
C954		START PRN_REQ_DOWNLOAD	Initialization request (KI2_PRN_REQ_INIT) is returned under abnormal response status of print section after requesting boot up when upgrading print section.	
C955		START PRN_REQ_INIT	Print ready request (KI2_PRN_REQ_PRINT) is returned under abnormal response status of print section after requesting boot up when upgrading print section.	
C956		START PRN_REQ_PRINT	Test print ready request (KI2_PRN_REQ_TESTPRINT) is returned under abnormal response status of print section after requesting boot up when upgrading print section.	

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
C957	E	START PRN_REQ_TESTPRINT	Print request .(KI2_PRN_REQ_EXPOSE) is returned under abnormal response status of print section after requesting boot up when upgrading print section.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C958		START PRN_REQ_EXPOSE	Test operation start request .(KI2_PRN_REQ_TEST_START) is returned under abnormal response status of print section after requesting boot up when upgrading print section.	
C959		START PRN_REQ_TEST_START	Operation status acquisition request .(KI2_PRN_REQ_TEST_GETSTAT) is returned under abnormal response status of print section after requesting boot up when upgrading print section.	
C95A		START PRN_REQ_TEST_GETSTAT	Test operation end request .(KI2_PRN_REQ_TEST_END) is returned under abnormal response status of print section after requesting boot up when upgrading print section.	
C95B		START PRN_REQ_TEST_END	Image transfer request .(KI2_PRN_REQ_TRANS_IMAGE) is returned under abnormal response status of print section after requesting boot up when upgrading print section.	
C95C		START PRN_REQ_TRANS_IMAGE	Status request .(KI2_PRN_REQ_STATUS) is returned under abnormal response status of print section after requesting boot up when upgrading print section.	
C95D		START PRN_REQ_STATUS	PCI bus/DMA transfer request .(KI2_REQ_PCIBUS_DMA) is returned under abnormal response status of print section after requesting boot up when upgrading print section.	
C95E		START REQ_PCIBUS_DMA	Expansion download request .(KI2_REQ_PCIBUS_DMA) is returned under abnormal response status of print section after requesting boot up when upgrading print section.	
C95F		START PRN_REQ_EXP_STAT	Exposure unit status request .(KI2_PRN_REQ_EXP_STAT) is returned under abnormal response status of print section after requesting boot up when upgrading print section.	
C960		START PRN_REQ_FPGA_CFG	FPGA configuration request .(KI2_PRN_REQ_FPGA_CFG) is returned under abnormal response status of print section after requesting boot up when upgrading print section.	
C961		START PRN_REQ_OTHER	Other status is returned under abnormal response status of print section after requesting boot up when upgrading print section.	
C970		STAT ERR	Error in status request function when upgrading print section.	
C971		STAT RECV ERR	Failed to receive status request function command (CommandStatusWait3) when upgrading print section.	

Code	Level	Error Message	Meanings	Cause
C972	E	STAT_RECV_TIMEOUT	Timeout of status request function response when upgrading print section.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
C973		STAT_PRN_REQ_START	Boot request (KI2_PRN_REQ_START) is returned under abnormal response status of print section after requesting status when upgrading print section.	
C974		STAT_PRN_REQ_DOWNLOAD	Program download request (KI2_PRN_REQ_DOWNLOAD) is returned under abnormal response status of print section after requesting status when upgrading print section.	
C975		STAT_PRN_REQ_INIT	Initialization request (KI2_PRN_REQ_INIT) is returned under abnormal response status of print section after requesting status when upgrading print section.	
C976		STAT_PRN_REQ_PRINT	Print ready request (KI2_PRN_REQ_PRINT) is returned under abnormal response status of print section after requesting status when upgrading print section.	
C977		STAT_PRN_REQ_TESTPRINT	Test print ready request (KI2_PRN_REQ_TESTPRINT) is returned under abnormal response status of print section after requesting status when upgrading print section.	
C978		STAT_PRN_REQ_EXPOSE	Print request (KI2_PRN_REQ_EXPOSE) is returned under abnormal response status of print section after requesting status when upgrading print section.	
C979		STAT_PRN_REQ_TEST_START	Test operation start request (KI2_PRN_REQ_TEST_START) is returned under abnormal response status of print section after requesting status when upgrading print section.	
C97A		STAT_PRN_REQ_TEST_GETSTAT	Test operation status acquisition request (KI2_PRN_REQ_TEST_GETSTAT) is returned under abnormal response status of print section after requesting status when upgrading print section.	
C97B		STAT_PRN_REQ_TEST_END	Test operation end request (KI2_PRN_REQ_TEST_END) is returned under abnormal response status of print section after requesting status when upgrading print section.	
C97C		STAT_PRN_REQ_TRANS_IMAGE	Image transfer request (KI2_PRN_REQ_TRANS_IMAGE) is returned under abnormal response status of print section after requesting status when upgrading print section.	
C97D		STAT_PRN_REQ_STATUS	PCI bus/DMA transfer request (KI2_REQ_PCIBUS_DMA) is returned under abnormal response status of print section after requesting status when upgrading print section.	

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Code	Level	Error Message	Meanings	Cause
C97E	E	STAT REQ_PCIBUS_DMA	Expansion download request (KI2_REQ_PCIBUS_DMA) is returned under abnormal response status of print section after requesting status when upgrading print section.	
C97F		STAT PRN_REQ_EXP_STAT	Exposure unit status request (KI2_PRN_REQ_EXP_STAT) is returned under abnormal response status of print section after requesting status when upgrading print section.	
C980		STAT PRN_REQ_FPGA_CFG	FPGA configuration request (KI2_PRN_REQ_FPGA_CFG) is returned under abnormal response status of print section after requesting status when upgrading print section.	
C981		STAT PRN_REQ_OTHER	Other status is returned under abnormal response status of print section after requesting status when upgrading print section.	
<b>Print I/F•Process</b>				
CA00	E	SHAREDMEMORY OPEN ERR1	Open error of common memory.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CA01		SHAREDMEMORY OPEN ERR2	Open error of common memory.	
CA02		SHAREDMEMORY OPEN ERR3	Open error of common memory.	
CA03		INIT PIPE OPEN ERR	Open error of PIPE (against status control•process)	
CA04		PRN LIB ERROR	Open error of print I/F driver.	
CA05		MOMORY ALLOC ERR	Unable to secure memory.	
CA40		PRN LIB ERROR	Error in print I/F driver when requesting initialization.	
CA41		COMMANDCODE ERR	Received unexpected command response (boot request) from print section when requesting initialization. .	
CA43		COMMANDCODE ERR	Received unexpected command response (program download request) from print section when requesting initialization.	
CA44		COMMANDCODE ERR	Received unexpected command response (expansion download request) from print section when requesting initialization.	
CA45		COMMANDCODE ERR	Received unexpected command response (print ready request) from print section when requesting initialization.	
CA46		COMMANDCODE ERR	Received unexpected command response (test print ready request) from print section when requesting initialization.	
CA47		COMMANDCODE ERR	Received unexpected command response (print request) from print section when requesting initialization.	
CA48		COMMANDCODE ERR	Received unexpected command response (test operation start request) from print section when requesting initialization.	

Code	Level	Error Message	Meanings	Cause
CA49	E	COMMANDCODE ERR	Received unexpected command response (test operation status acquisition request) from print section when requesting initialization.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CA50		COMMANDCODE ERR	Received unexpected command response (test operation end request) from print section when requesting initialization.	
CA51		COMMANDCODE ERR	Received unexpected command response (image transfer request) from print section when requesting initialization.	
CA52		COMMANDCODE ERR	Received unexpected command response (PCI bus/DMA transfer end report) from print section when requesting initialization.	
CA53		COMMANDCODE ERR	Received unexpected command response (status request) from print section when requesting initialization.	
CA54		COMMANDCODE ERR	Received unexpected command response (exposure unit status request) from print section when requesting initialization.	
CA55		COMMANDCODE ERR	Received unexpected command response (FPGA configuration request) from print section when requesting initialization.	
CA60		PRN LIB ERROR	Error in print I/F driver during DMA transfer.	
CA61		PRN LIB ERROR	Error in print I/F driver during DMA transfer.	
CA62		PRN LIB ERROR	Error in print I/F driver during DMA transfer.	
CA63		COMMANDCODE ERR	Received unexpected command response (boot request) from print section during DMA transfer.	
CA64		COMMANDCODE ERR	Received unexpected command response (initialization request) from print section during DMA transfer.	
CA65		COMMANDCODE ERR	Received unexpected command response (program download request) from print section during DMA transfer.	
CA66		COMMANDCODE ERR	Received unexpected command response (expansion download request) from print section during DMA transfer.	
CA67		COMMANDCODE ERR	Received unexpected command response (print ready request) from print section during DMA transfer.	
CA68		COMMANDCODE ERR	Received unexpected command response (test print ready request) from print section during DMA transfer.	
CA69		COMMANDCODE ERR	Received unexpected command response (print request) from print section during DMA transfer.	
CA6A		COMMANDCODE ERR	Received unexpected command response (test operation start request) from print section during DMA transfer.	

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Code	Level	Error Message	Meanings	Cause
CA6B	E	COMMANDCODE ERR	Received unexpected command response (test operation status acquisition request) from print section during DMA transfer.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CA6C		COMMANDCODE ERR	Received unexpected command response (test operation end request) from print section during DMA transfer.	
CA6D		COMMANDCODE ERR	Received unexpected command response (image transfer request) from print section during DMA transfer.	
CA6F		COMMANDCODE ERR	Received unexpected command response (status request) from print section during DMA transfer.	
CA70		COMMANDCODE ERR	Received unexpected command response (exposure unit status request) from print section during DMA transfer.	
CA71		COMMANDCODE ERR	Received unexpected command response (FPGA configuration request) from print section during DMA transfer.	
CA80		PRN LIB ERROR	Error in print I/F driver when requesting image transfer.	
CA81		COMMANDCODE ERR	Received unexpected command response (boot request) from print section when requesting image transfer.	
CA82		COMMANDCODE ERR	Received unexpected command response (initialization request) from print section when requesting image transfer.	
CA83		COMMANDCODE ERR	Received unexpected command response (program download request) from print section when requesting image transfer.	
CA84		COMMANDCODE ERR	Received unexpected command response (expansion download request) from print section when requesting image transfer.	
CA85		COMMANDCODE ERR	Received unexpected command response (print ready request) from print section when requesting image transfer.	
CA86		COMMANDCODE ERR	Received unexpected command response (test print ready request) from print section when requesting image transfer.	
CA87		COMMANDCODE ERR	Received unexpected command response (print request) from print section when requesting image transfer.	
CA88		COMMANDCODE ERR	Received unexpected command response (test operation start request) from print section when requesting image transfer.	
CA89		COMMANDCODE ERR	Received unexpected command response (test operation status acquisition request) from print section when requesting image transfer.	
CA8A		COMMANDCODE ERR	Received unexpected command response (test operation end request) from print section when requesting image transfer.	
CA8C		COMMANDCODE ERR	Received unexpected command response (PCI bus/DMA transfer request) from print section when requesting image transfer.	

Code	Level	Error Message	Meanings	Cause
CA8D	E	COMMANDCODE ERR	Received unexpected command response (status request) from print section when requesting image transfer.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CA8E		COMMANDCODE ERR	Received unexpected command response (exposure unit status request) from print section when requesting image transfer.	
CA8F		COMMANDCODE ERR	Received unexpected command response (FPGA configuration request) from print section when requesting image transfer.	
CAA0		PRN LIB ERROR	Error in print I/F driver when requesting exposure unit status.	
CAA1		COMMANDCODE ERR	Received unexpected command response (boot request) from print section when requesting exposure unit status.	
CAA2		COMMANDCODE ERR	Received unexpected command response (initialization request) from print section when requesting exposure unit status.	
CAA3		COMMANDCODE ERR	Received unexpected command response (program download request) from print section when requesting exposure unit status.	
CAA4		COMMANDCODE ERR	Received unexpected command response (expansion download request) from print section when requesting exposure unit status.	
CAA5		COMMANDCODE ERR	Received unexpected command response (print ready request) from print section when requesting exposure unit status.	
CAA6		COMMANDCODE ERR	Received unexpected command response (test print ready request) from print section when requesting exposure unit status.	
CAA7		COMMANDCODE ERR	Received unexpected command response (print request) from print section when requesting exposure unit status.	
CAA8		COMMANDCODE ERR	Received unexpected command response (test operation start request) from print section when requesting exposure unit status.	
CAA9		COMMANDCODE ERR	Received unexpected command response (test operation status acquisition request) from print section when requesting exposure unit status.	
CAAA		COMMANDCODE ERR	Received unexpected command response (test operation end request) from print section when requesting exposure unit status.	
CAAB		COMMANDCODE ERR	Received unexpected command response (image transfer request) from print section when requesting exposure unit status.	
CAAC		COMMANDCODE ERR	Received unexpected command response (PCI bus/DMA transfer request) from print section when requesting exposure unit status.	
CAAD		COMMANDCODE ERR	Received unexpected command response (status request) from print section when requesting exposure unit status.	

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Code	Level	Error Message	Meanings	Cause
CAAF	E	COMMANDCODE ERR	Received unexpected command response (FPGA configuration request) from print section when requesting exposure unit status.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAC0		PRN LIB ERROR	Error in print I/F driver during normal print	
CAC1		COMMANDCODE ERR	Received unexpected command response (boot request) from print section during normal print.	
CAC2		COMMANDCODE ERR	Received unexpected command response (initialization request) from print section during normal print.	
CAC3		COMMANDCODE ERR	Received unexpected command response (program download request) from print section during normal print.	
CAC4		COMMANDCODE ERR	Received unexpected command response (expansion download request) from print section during normal print.	
CAC5		COMMANDCODE ERR	Received unexpected command response (print ready request) from print section during normal print.	
CAC6		COMMANDCODE ERR	Received unexpected command response (test print ready request) from print section during normal print.	
CAC7		COMMANDCODE ERR	Received unexpected command response (print request) from print section during normal print.	
CAC8		COMMANDCODE ERR	Received unexpected command response (test operation start request) from print section during normal print.	
CAC9		COMMANDCODE ERR	Received unexpected command response (test operation status acquisition request) from print section during normal print.	
CACA		COMMANDCODE ERR	Received unexpected command response (test operation end request) from print section during normal print.	
CACB		COMMANDCODE ERR	Received unexpected command response (image transfer request) from print section during normal print.	
CACC		COMMANDCODE ERR	Received unexpected command response (PCI bus/DMA transfer request) from print section during normal print.	
CACD		COMMANDCODE ERR	Received unexpected command response (status request) from print section during normal print.	
CACE		COMMANDCODE ERR	Received unexpected command response (exposure unit status request) from print section during normal print.	
CACF		COMMANDCODE ERR	Received unexpected command response (FPGA configuration request) from print section during normal print.	

Code	Level	Error Message	Meanings	Cause
CAD0	E	IMAGE DIR GET ERR	Unable to acquire image data standard directory during normal printing. Received data is lost.	Error attributed to software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAD1		IMAGE FILE OPEN ERR	Error when opening image file. Received data is lost.	
CAD2	E	IMAGE FILE READ ERR	Error when reading image file. Received data is lost or abnormal size of image file.	Check the image data size sent from the image generator device. DICOM :[7FE0,0010] Pixel Data Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAE0	E	DICOM (2020	IMAGE BOX image position error. Received data is abnormal.	Check the image position sent from the image generator device. DICOM :[2020,0010] Image Position Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAE1	E	DICOM (2020	IMAGE BOX polarity error. Received data is abnormal.	Check the image polarity sent from the image generator device. DICOM :[2020,0020] Image Polarity Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAE2	E	DICOM (0028	IMAGE BOX pixel allocation error. Received data is abnormal.	Check the allocated bit sent from the image generator device. DICOM :[0028,0100] Bits Allocated Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAE3	E	DICOM (0028	IMAGE BOX pixel bit count error. Received data is abnormal.	Check the stored bit sent from the image generator device. DICOM :[0028,0101] Bits Stored Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAE4	E	DICOM (0028	IMAGE BOX high bit error. Received data is abnormal.	Check the high bit sent from the image generator device. DICOM :[0028,0102] High Bit Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.

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Code	Level	Error Message	Meanings	Cause
CAE5	E	DICOM (0028	IMAGE BOX pixel data representation error. Received data is abnormal.	Check the pixel representation sent from the image generator device. DICOM :[0028,0103] Pixel Representation Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAE6	E	DICOM (0028	IMAGE BOX photometric interpretation error. Received data is abnormal.	Check the photometric interpretation sent from the image generator device. DICOM :[0028,0004] Photometric Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAE7	E	FILMBOX FORMAT ERR	FILM BOX format check error. Format that the DryPro771 does not support.	Check the image display format sent from the image generator device. DICOM :[2010,0010] Image Display Format Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box. Note : DryPro771 rejects the slide format.
CAE8	E	FILMBOX FILM ORIENT ERR	FILM BOX film orientation error. Format that the DryPro771 does not support.	Check the film orientation sent from the image generator device. DICOM :[2010,0040] Film Orientation Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAE9	E	FILMBOX FILM SIZE ERR	FILM BOX film size error. Format that the DryPro771 does not support.	Check the film size ID sent from the image generator device. DICOM :[2010,0050] Film Size ID Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAEA	E	FILMBOX PORTRAIT NOPRINT	Unable to print portrait receiving "FILM BOX PORTRAIT". Format that the DryPro771 does not support.	Check the film orientation sent from the image generator device. DICOM :[2010,0040] Film Orientation Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.

Code	Level	Error Message	Meanings	Cause
CAEB	E	FILMBOX LANDSCAPE NOPRINT	Unable to print landscape receiving "Film BOX LANDSCAPE". Format that the DryPro771 does not support.	Check the film orientation sent from the image generator device. DICOM :[2010,0040] Film Orientation Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAEC	E	FILMBOX STANDARD ERR	FILM BOX Image Format information (STANDARD) error. Format that the DryPro771 does not support.	Check the image display format sent from the image generator device. DICOM :[2010,0010] Image Display Format Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box. Note : DryPro771 rejects the slide format.
CAED		FILMBOX ROW ERR	FILM BOX Image Format information (ROW) error. Format that the DryPro771 does not support.	
CAEE		FILMBOX SLIDE ERR	FILM BOX Image Format information (SLIDE) error. Format that the DryPro771 does not support.	
CAEF		FILMBOX CUSTOM ERR	FILM BOX Image Format information (CUSTOM) error. Format that the DryPro771 does not support.	
CAF0	E	FILMBOX MAGNIFICATION ERR	FILM BOX magnification error. Format that the DryPro771 does not support.	Check the magnification type sent from the image generator device. DICOM :[2010,0060] Magnification Type Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAF1	E	FILMBOX INTERPOLATION ERR	FILM BOX interpolation type error. Format that the DryPro771 does not support.	Check the smoothing type sent from the image generator device. DICOM :[2010,0080] Smoothing Type Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAF2	E	FILMBOX BORDER ERR	FILM BOX boarder error. Format that the DryPro771 does not support.	Check the border density sent from the image generator device. DICOM :[2010,0100] Border Density Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAF3	E	FILMBOX TRIM ERR	FILM BOX trim error. Format that the DryPro771 does not support.	Check the trim sent from the image generator device. DICOM :[2010,0140] Trim Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.

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Code	Level	Error Message	Meanings	Cause
CAF4	E	FILMBOX CONTRAST ERR	FILM BOX contrast error. Format that the DryPro771 does not support.	Check the contrast sent from the image generator device. DICOM :[2011,1031] Contrast Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAF5	E	FILMBOX DENSITY ERR	FILM BOX density error. Format that the DryPro771 does not support.	Check the density sent from the image generator device. DICOM :[2011,1030] Border Density Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAF6	E	FILMBOX GLOSSY ERR	FILM BOX glossy error. Format that the DryPro771 does not support.	Check the glossy sent from the image generator device. DICOM :[2011,1080] Glossy Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAF7	E	NO IMAGE DATA	No information for received image. Received data is abnormal.	Check the image information sent from the image generator device. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAF8	E	NO FILM SESSION	Corresponding film session under normal print not present. Received data is abnormal.	Check the film session sent from the image generator device. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAF9	E	NO FILM BOX	Corresponding film box under normal print not present. Received data is abnormal.	Check the film box sent from the image generator device. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CAFA	E	NO IMAGE BOX	Corresponding image box under normal print not present. Received data is abnormal.	Check the image box sent from the image generator device. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.

Code	Level	Error Message	Meanings	Cause
CB00	E	PRN LIB ERROR	Error in print I/F driver when requesting print.	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CB01		COMMANDCODE ERR	Unexpected command for command response (boot request) is received from print section.	
CB02		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received from print section.	
CB03		COMMANDCODE ERR	Unexpected command for command response (program download request) is received from print section.	
CB04		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received from print section.	
CB05		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received from print section.	
CB06		COMMANDCODE ERR	Unexpected command for command response (test print ready request) is received from print section.	
CB08		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received from print section.	
CB09		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received from print section.	
CB0A		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received from print section.	
CB0B		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received from print section.	
CB0C		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received from print section.	
CB0D		COMMANDCODE ERR	Unexpected command for command response (status request) is received from print section.	
CB0E		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received from print section.	
CB0F		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received from print section.	
CB20		PRN LIB ERROR	Error in print I/F driver when printing CALIB.	
CB21		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when printing CALIB.	
CB22		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when printing CALIB.	

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Code	Level	Error Message	Meanings	Cause
CB23	E	COMMANDCODE ERR	Unexpected command for command response (program download request) is received when printing CALIB.	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CB24		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when printing CALIB.	
CB25		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when printing CALIB.	
CB27		COMMANDCODE ERR	Unexpected command for command response (print request) is received when printing CALIB.	
CB28		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received when printing CALIB.	
CB29		COMMANDCODE ERR	Unexpected command for command response (test operation status request) is received when printing CALIB.	
CB2A		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when printing CALIB.	
CB2B		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when printing CALIB.	
CB2C		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when printing CALIB.	
CB2D		COMMANDCODE ERR	Unexpected command for command response (status request) is received when printing CALIB.	
CB2E		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received when printing CALIB.	
CB2F		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when printing CALIB.	
CB40		PRN LIB ERROR	Error in print I/F driver when printing "INCLEMENT".	
CB41		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when printing "INCLEMENT".	
CB42		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when printing "INCLEMENT".	
CB43	COMMANDCODE ERR	Unexpected command for command response (program download request) is received when printing "INCLEMENT".		
CB44	COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when printing "INCLIMENT".		

Code	Level	Error Message	Meanings	Cause
CB45	E	COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when printing "INCLEMENT". "INCLEMENT".	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CB47		COMMANDCODE ERR	Unexpected command for command response (print request) is received when printing "INCLEMENT".	
CB48		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received when printing "INCLEMENT".	
CB49		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when printing "INCLEMENT".	
CB4A		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when printing "INCLEMENT".	
CB4B		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when printing "INCLEMENT".	
CB4C		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transmission end report) is received when printing "INCLEMENT".	
CB4D		COMMANDCODE ERR	Unexpected command for command response (status request) is received when printing "INCLEMENT".	
CB4E		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received when printing "INCLEMENT".	
CB4F		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when printing "INCLEMENT".	
CB60		PRN LIB ERROR	Error in print I/F driver when printing "SPOTS"	
CB61		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when printing "SPOTS"	
CB62		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when printing "SPOTS"	
CB63		COMMANDCODE ERR	Unexpected command for command response (program download request) is received when printing "SPOTS"	
CB64		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when printing "SPOTS"	
CB65		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when printing "SPOTS"	
CB67		COMMANDCODE ERR	Unexpected command for command response (print request) is received when printing "SPOTS"	

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Code	Level	Error Message	Meanings	Cause
CB68	E	COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received when printing "SPOTS"	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CB69		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when printing "SPOTS"	
CB6A		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when printing "SPOTS"	
CB6B		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when printing "SPOTS"	
CB6C		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when printing "SPOTS"	
CB6D		COMMANDCODE ERR	Unexpected command for command response (status request) is received when printing "SPOTS"	
CB6E		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received when printing "SPOTS"	
CB6F		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when printing "SPOTS"	
CB80		PRN LIB ERROR	Error in print I/F driver when printing "FLAT".	
CB81		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when printing "FLAT".	
CB82		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when printing "FLAT".	
CB83		COMMANDCODE ERR	Unexpected command for command response (program download request) is received when printing "FLAT".	
CB84		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when printing "FLAT".	
CB85		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when printing "FLAT".	
CB87		COMMANDCODE ERR	Unexpected command for command response (print request) is received when printing "FLAT".	
CB88		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received when printing "FLAT".	
CB89		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when printing "FLAT".	

Code	Level	Error Message	Meanings	Cause
CB8A	E	COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when printing "FLAT".	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CB8B		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when printing "FLAT".	
CB8C		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when printing "FLAT".	
CB8D		COMMANDCODE ERR	Unexpected command for command response (status request) is received when printing "FLAT".	
CB8E		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received when printing "FLAT".	
CB8F		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when printing "FLAT".	
CBA0		PRN LIB ERROR	Error in print I/F driver when printing "FRAME".	
CBA1		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when printing "FRAME".	
CBA2		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when printing "FRAME".	
CBA3		COMMANDCODE ERR	Unexpected command for command response (program download request) is received when printing "FRAME".	
CBA4		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when printing "FRAME".	
CBA5		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when printing "FRAME".	
CBA7		COMMANDCODE ERR	Unexpected command for command response (print request) is received when printing "FRAME".	
CBA8		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received when printing "FRAME".	
CBA9	COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when printing "FRAME".		
CBAA	COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when printing "FRAME".		
CBAB	COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when printing "FRAME".		
CBAC	COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when printing "FRAME".		

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
CBAD	E	COMMANDCODE ERR	Unexpected command for command response (status request) is received when printing "FRAME".	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CBAE		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received when printing "FRAME".	
CBAF		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when printing "FRAME".	
CBC0		PRN LIB ERROR	Error in print I/F driver when printing "CHAR".	
CBC1		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when printing "CHAR".	
CBC2		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when printing "CHAR".	
CBC3		COMMANDCODE ERR	Unexpected command for command response (program download request) is received when printing "CHAR".	
CBC4		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when printing "CHAR".	
CBC5		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when printing "CHAR".	
CBC7		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when printing "CHAR".	
CBC8		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received when printing "CHAR".	
CBC9		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when printing "CHAR".	
BCBA		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when printing "CHAR".	
CBCB		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when printing "CHAR".	
CBCC		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when printing "CHAR".	
CBCD		COMMANDCODE ERR	Unexpected command for command response (status request) is received when printing "CHAR".	
CBCE		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received when printing "CHAR".	

Code	Level	Error Message	Meanings	Cause
CBCF	E	COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when printing "CHAR".	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CBE0		PRN LIB ERROR	Error in print I/F driver when printing 'LILF'.	
CBE1		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when printing "CHAR".	
CBE2		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when printing "CHAR".	
CBE3		COMMANDCODE ERR	Unexpected command for command response (program download request) is received when printing "CHAR".	
CBE4		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when printing "CHAR".	
CBE5		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when printing "CHAR".	
CBE7		COMMANDCODE ERR	Unexpected command for command response (print request) is received when printing "CHAR".	
CBE8		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received when printing "CHAR".	
CBE9		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when printing "CHAR".	
CBEA		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when printing "CHAR".	
CBEB		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when printing "CHAR".	
CBEC		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when printing "CHAR".	
CBED		COMMANDCODE ERR	Unexpected command for command response (status request) is received when printing "CHAR".	
CBEE		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received when printing "CHAR".	
CBEF		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when printing "CHAR".	
CC00		PRN LIB ERROR	Error in print I/F driver when printing "densitometer correction".	
CC01		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when printing "densitometer correction".	

7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
CC02	E	COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when printing "densitometer correction".	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CC03		COMMANDCODE ERR	Unexpected command for command response (program download request) is received when printing "densitometer correction".	
CC04		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when printing "densitometer correction".	
CC05		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when printing "densitometer correction".	
CC07		COMMANDCODE ERR	Unexpected command for command response (print request) is received when printing "densitometer correction".	
CC08		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received when printing "densitometer correction".	
CC09		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when printing "densitometer correction".	
CC0A		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when printing "densitometer correction".	
CC0B		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when printing "densitometer correction".	
CC0C		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when printing "densitometer correction".	
CC0D		COMMANDCODE ERR	Unexpected command for command response (status request) is received when printing "densitometer correction".	
CC0E		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received when printing "densitometer correction".	
CC0F		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when printing "densitometer correction".	
CC20		PRN LIB ERROR	Error in print I/F driver when starting exposure test.	
CC21		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when starting exposure test.	
CC22		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when starting exposure test.	
CC23		COMMANDCODE ERR	Unexpected command for command response (program download request) is received when starting exposure test.	

Code	Level	Error Message	Meanings	Cause
CC24		COMMANDCODE ERR	Unexpected command for command response (expansion program request) is received when starting exposure test.	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CC25		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when starting exposure test.	
CC26		COMMANDCODE ERR	Unexpected command for command response (test print ready request) is received when starting exposure test.	
CC27		COMMANDCODE ERR	Unexpected command for command response (print request) is received when starting exposure test.	
CC29		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when starting exposure test.	
CC2A		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when starting exposure test.	
CC2B		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when starting exposure test.	
CC2C		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when starting exposure test.	
CC2D		COMMANDCODE ERR	Unexpected command for command response (status request) is received when starting exposure test.	
CC2E		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received when starting exposure test.	
CC2F		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when starting exposure test.	
CC40		PRN LIB ERROR	Error in print I/F driver when acquiring exposure test status.	
CC41		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when acquiring exposure test status.	
CC42		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when acquiring exposure test status.	
CC43		COMMANDCODE ERR	Unexpected command for command response (program download request) is received when acquiring exposure test status.	
CC44		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when acquiring exposure test status.	
CC45		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when acquiring exposure test status.	

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
CC46	E	COMMANDCODE ERR	Unexpected command for command response (test print ready request) is received when acquiring exposure test status.	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CC47		COMMANDCODE ERR	Unexpected command for command response (print request) is received when acquiring exposure test status.	
CC48		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received when acquiring exposure test status.	
CC4A		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when acquiring exposure test status.	
CC4B		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when acquiring exposure test status.	
CC4C		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when acquiring exposure test status.	
CC4D		COMMANDCODE ERR	Unexpected command for command response (status request) is received when acquiring exposure test status.	
CC4E		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received when acquiring exposure test status.	
CC4F		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when acquiring exposure test status.	
CC60		PRN LIB ERROR	Error in print I/F driver at the end of exposure test.	
CC61		COMMANDCODE ERR	Unexpected command for command response (boot request) is received at the end of exposure test.	
CC62		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received at the end of exposure test.	
CC63		COMMANDCODE ERR	Unexpected command for command response (program download request) is received at the end of exposure test.	
CC64		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received at the end of exposure test.	
CC65	COMMANDCODE ERR	Unexpected command for command response (print ready request) is received at the end of exposure test.		
CC66	COMMANDCODE ERR	Unexpected command for command response (test print ready request) is received at the end of exposure test.		
CC67	COMMANDCODE ERR	Unexpected command for command response (print request) is received at the end of exposure test.		

Code	Level	Error Message	Meanings	Cause
CC68	E	COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received at the end of exposure test.	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CC69		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received at the end of exposure test.	
CC6B		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received at the end of exposure test.	
CC6C		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received at the end of exposure test.	
CC6D		COMMANDCODE ERR	Unexpected command for command response (status request) is received at the end of exposure test.	
CC6E		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received at the end of exposure test.	
CC6F		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received at the end of exposure test.	
CC80		PRN LIB ERROR	Error in print I/F driver when printing "SCALE".	
CC81		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when printing "SCALE".	
CC82		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when printing "SCALE".	
CC83		COMMANDCODE ERR	Unexpected command for command response (program download request) is received when printing "SCALE".	
CC84		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when printing "SCALE".	
CC85		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when printing "SCALE".	
CC87		COMMANDCODE ERR	Unexpected command for command response (print request) is received when printing "SCALE".	
CC88		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received when printing "SCALE".	
CC89		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when printing "SCALE".	
CC8A		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when printing "SCALE".	

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
CC8B	E	COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when printing "SCALE".	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CC8C		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when printing "SCALE".	
CC8D		COMMANDCODE ERR	Unexpected command for command response (status request) is received when printing "SCALE".	
CC8E		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received when printing "SCALE".	
CC8F		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when printing "SCALE".	
CCA0		PRN LIB ERROR	Error in print I/F driver when printing "STRIPE".	
CCA1		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when printing "STRIPE".	
CCA2		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when printing "STRIPE".	
CCA3		COMMANDCODE ERR	Unexpected command for command response (program download request) is received when printing "STRIPE".	
CCA4		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when printing "STRIPE".	
CCA5		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when printing "STRIPE".	
CCA7		COMMANDCODE ERR	Unexpected command for command response (print request) is received when printing "STRIPE".	
CCA8		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received when printing "STRIPE".	
CCA9		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when printing "STRIPE".	
CCAA		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when printing "STRIPE".	
CCAB	COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when printing "STRIPE".		
CCAC	COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when printing "STRIPE".		

Code	Level	Error Message	Meanings	Cause
CCAD	E	COMMANDCODE ERR	Unexpected command for command response (status request) is received when printing "STRIPE".	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CCAE		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received when printing "STRIPE".	
CCAF		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when printing "STRIPE".	
CCC0		PRN LIB ERROR	Error in print I/F driver when printing "SMPTE".	
CCC1		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when printing "SMPTE".	
CCC2		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when printing "SMPTE".	
CCC3		COMMANDCODE ERR	Unexpected command for command response (program download request) is received when printing "SMPTE".	
CCC4		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when printing "SMPTE".	
CCC6		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when printing "SMPTE".	
CCC7		COMMANDCODE ERR	Unexpected command for command response (print request) is received when printing "SMPTE".	
CCC8		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received when printing "SMPTE".	
CCC9		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when printing "SMPTE".	
CCCA		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when printing "SMPTE".	
CCCB		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when printing "SMPTE".	
CCCC		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when printing "SMPTE".	
CCCD		COMMANDCODE ERR	Unexpected command for command response (status request) is received when printing "SMPTE".	
CCCE		COMMANDCODE ERR	Unexpected command for command response (exposure unit status request) is received when printing "SMPTE".	

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
CCCF	E	COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when printing "SMPTE".	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CCE0		PRN LIB ERROR	Error in print I/F driver when printing "DUMMYi".	
CCE1		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when printing "DUMMYi".	
CCE2		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when printing "SMPTE".	
CCE3		COMMANDCODE ERR	Unexpected command for command response (program download request) is received when printing "DUMMYi".	
CCE4		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when printing "DUMMYi".	
CCE6		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when printing "DUMMYi".	
CCE7		COMMANDCODE ERR	Unexpected command for command response (print request) is received when printing "DUMMYi".when printing "DUMMYi".	
CCE8		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received when printing "DUMMYi".	
CCE9		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when printing "DUMMYi".	
CCEA		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when printing "DUMMYi".	
CCEB		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when printing "DUMMYi".	
CCEC		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when printing "DUMMYi".	
CCED		COMMANDCODE ERR	Unexpected command for command response (status request) is received when printing "DUMMYi".	
CCEE		COMMANDCODE ERR	Unexpected command for command response (exposure unit status acquisition request) is received when printing "DUMMYi".	
CCFE		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when printing "DUMMYi".	
CD40		PRN LIB ERROR	Error in print I/F driver when printing "general purpose pattern".	

Code	Level	Error Message	Meanings	Cause
CD41	E	COMMANDCODE ERR	Unexpected command for command response (boot request) is received when printing "general purpose pattern".	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CD42		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when printing "general purpose pattern"	
CD43		COMMANDCODE ERR	Unexpected command for command response (program download request) is received when printing "general purpose pattern".	
CD44		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when printing "general purpose pattern".	
CD46		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when printing "general purpose pattern".	
CD47		COMMANDCODE ERR	Unexpected command for command response (print request) is received when printing "general purpose pattern".	
CD48		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received "general purpose pattern".	
CD49		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when printing "general purpose pattern".	
CD4A		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when printing "general purpose pattern".	
CD4B		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when printing "general purpose pattern".	
CD4C		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when printing "general purpose pattern".	
CD4D		COMMANDCODE ERR	Unexpected command for command response (status request) is received when printing "general purpose pattern".	
CD4E		COMMANDCODE ERR	Unexpected command for command response (exposure unit status acquisition request) is received when printing when printing "general purpose pattern".	
CD4F		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when printing "general purpose pattern".	
CD60		PRN LIB ERROR	Error in print I/F driver when requesting "Status".	
CD61		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when requesting "Status".	
CD62		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when requesting "Status".	

7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
CD63	E	COMMANDCODE ERR	Unexpected command for command response (program download request) is received when requesting "Status".	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CD64		COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when requesting "Status".	
CD65		COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when requesting "Status".	
CD66		COMMANDCODE ERR	Unexpected command for command response (print request) is received when requesting "Status".	
CD67		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received "general purpose pattern".	
CD68		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when requesting "Status".	
CD69		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when requesting "Status".	
CD6A		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when requesting "Status".	
CD6B		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when requesting "Status".	
CD6C		COMMANDCODE ERR	Unexpected command for command response (status request) is received when requesting "Status".	
CD6E		COMMANDCODE ERR	Unexpected command for command response (exposure unit status acquisition request) is received when printing when requesting "Status".	
CD6F		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when requesting "Status".	
CD80		PRN LIB ERROR	Error in print I/F driver when requesting "exposure unit status".	
CD81		COMMANDCODE ERR	Unexpected command for command response (boot request) is received when requesting "exposure unit status".	
CD82		COMMANDCODE ERR	Unexpected command for command response (initialization request) is received when requesting "exposure unit status".when requesting "exposure unit status".	
CD83		COMMANDCODE ERR	Unexpected command for command response (program download request) is received when requesting "exposure unit status".	
CD84	COMMANDCODE ERR	Unexpected command for command response (expansion download request) is received when requesting "exposure unit status".		
CD85	COMMANDCODE ERR	Unexpected command for command response (print ready request) is received when requesting "exposure unit status".		

Code	Level	Error Message	Meanings	Cause
CD86	E	COMMANDCODE ERR	Unexpected command for command response (test print ready request) is received when requesting "exposure unit status".	Errors attributed to the software or hardware. Carry out error reset or turn OFF/ON of the power. If not corrected, update the software version or replacement of the control box.
CD87		COMMANDCODE ERR	Unexpected command for command response (print request) is received when requesting "exposure unit status".	
CD88		COMMANDCODE ERR	Unexpected command for command response (test operation start request) is received "general purpose pattern".	
CD89		COMMANDCODE ERR	Unexpected command for command response (test operation status acquisition request) is received when requesting "exposure unit status".	
CD8A		COMMANDCODE ERR	Unexpected command for command response (test operation end request) is received when requesting "exposure unit status".	
CD8B		COMMANDCODE ERR	Unexpected command for command response (image transfer request) is received when requesting "exposure unit status".	
CD8C		COMMANDCODE ERR	Unexpected command for command response (PCI bus/DMA transfer end report) is received when requesting "exposure unit status".	
CD8D		COMMANDCODE ERR	Unexpected command for command response (status request) is received when requesting "exposure unit status".	
CD8F		COMMANDCODE ERR	Unexpected command for command response (FPGA configuration request) is received when requesting "exposure unit status".	
CD90	E	REC DATA ERR	STANDARD format error. Format that DryPro771 does not support.	
CD91		REC DATA ERR	STANDARD format not present in "d007.rec". Setting data "d007.rec" table is abnormal.	
CD92		REC DATA ERR	ROW format error. Format that DryPro771 does not support.	
CD93		REC DATA ERR	ROW format not present in "d007.rec". Setting data "d007.rec" table is abnormal.	
CD94		REC DATA ERR	SLIDE format not present in "d007.rec". Setting data "d007.rec" table is abnormal.	
CD95		REC DATA ERR	CUSTOM format error. Format that DryPro771 does not support.	
CD96		PRINT READY ERR	Error occurred between image transfer to print ready end.	
CD97		PRINT ERR	Error occurred between print request to print end.	

7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
<b>DICOM Check Process</b>				
CE00	C	DCHK INIT ERROR	Unable to secure common memory (1)	Error output only to log and on operation panel. Operation can be continued. (if it repeats, turn the power OFF/ON)
CE01		DCHK INIT ERROR	Unable to secure common memory (2)	
CE02		DCHK INIT ERROR	Unable to secure common memory (3)	
CE10		DCHK CH NO ERR	Channel number error	
CE11		DCHK FILM SESSION ERROR	Film session error[	
CE12		DCHK FILM BOX ERROR	Film box error	
CE13		DCHK IMAGE BOX ERROR	Image box error	
CE14	C	DCHK CUSTOM FORMAT ERROR	Custom format error	Check the image display format sent from the image generator device. DICOM :[2010,0010] Image Display Format Note : DryPro771 rejects the slide format. Error output only to log and on operation panel. Operation can be continued.
CE15		DCHK POSITION ERROR	Position info. error	
CE20	C	DCHK IMAGE BOX ERROR	IMAGE BOX image position error	Check the image position sent from the image generator device. DICOM :[2020,0010] Image Position Error output only to log and on operation panel. Operation can be continued.
CE21	C	DCHK IMAGE BOX ERROR	IMAGE BOX polarity error	Check the image polarity sent from the image generator device. DICOM :[2020,0020] Image Polarity Error output only to log and on operation panel. Operation can be continued.
CE22	C	DCHK IMAGE BOX ERROR	IMAGE BOX pixel allocation bit error	Check the stored bit sent from the image generator device. DICOM :[0028,0100] Bits Stored Error output only to log and on operation panel. Operation can be continued.
CE23	C	DCHK IMAGE BOX ERROR	IMAGE BOX pixel bit count error	Check the stored bit sent from the image generator device. DICOM :[0028,0101] Bits Stored Error output only to log and on operation panel. Operation can be continued.
CE24	C	DCHK IMAGE BOX ERROR	IMAGE BOX high bit error	Check the high bit sent from the image generator device. DICOM :[0028,0102] High Bit Error output only to log and on operation panel. Operation can be continued.
CE25	C	DCHK IMAGE BOX ERROR	IMAGE BOX pixel data representation error	Check the pixel representation sent from the image generator device. DICOM :[0028,0103] Pixel Representation Error output only to log and on operation panel. Operation can be continued.

Code	Level	Error Message	Meanings	Cause
CE26	C	DCHK IMAGE BOX ERROR	IMAGE BOX photometric interpretation error	Check the photometric interpretation sent from the image generator device. DICOM :[0028,0004] Pixel Representation Error output only to log and on operation panel. Operation can be continued.
CE27	C	DCHK FILM BOX ERROR	FILM BOX format check error	Check the image display format sent from the image generator device. DICOM :[2010,0010] Image Display Format Error output only to log and on operation panel. Operation can be continued.
CE28	C	DCHK FILM BOX ERROR	FILM BOX film orientation error	Check the film orientation sent from the image generator device. DICOM :[2010,0040] Film Orientation Error output only to log and on operation panel. Operation can be continued.
CE29	C	DCHK FILM BOX ERROR	FILM BOX film size error	Check the film size ID sent from the image generator device. DICOM :[2010,0050] Film Size ID Error output only to log and on operation panel. Operation can be continued.
CE2A	C	DCHK FILM BOX ERROR	Unable to print portrait receiving "FILM BOX PORTRAIT"	Check the film orientation sent from the image generator device. DICOM :[2010,0040] Film Orientation Error output only to log and on operation panel. Operation can be continued.
CE2B	C	DCHK FILM BOX ERROR	Unable to print landscape receiving "FILM BOX LANDSCAPE"	Check the film orientation sent from the image generator device. DICOM :[2010,0040] Film Orientation Error output only to log and on operation panel. Operation can be continued.
CE2C	C	DCHK FILM BOX ERROR	FILM BOX Image Format info.(STANDARD) error	Check the image display format sent from the image generator device. DICOM :[2010,0010] Image Display Format Error output only to log and on operation panel. Operation can be continued. Note : DryPro771 rejects the slide format.
CE2D		DCHK FILM BOX ERROR	FILM BOX Image Format info. (ROW) error	
CE2E		DCHK FILM BOX ERROR	FILM BOX Image Format info. (SLIDE) error	
CE2F		DCHK FILM BOX ERROR	FILM BOX Image Format info. (CUSTOM) error	
CE30	C	DCHK FILM BOX ERROR	FILM BOX magnification error	Check the magnification type sent from the image generator device. DICOM :[2010,0060] Magnification Type Error output only to log and on operation panel. Operation can be continued.
CE31	C	DCHK FILM BOX ERROR	FILM BOX interpolation type error	Check the smoothing type sent from the image generator device. DICOM :[2010,0080] Smoothing Type Error output only to log and on operation panel. Operation can be continued.

#### 7.4 Error Code and Remedy

Code	Level	Error Message	Meanings	Cause
CE32	C	DCHK FILM BOX ERROR	FILM BOX border error	Check the border density sent from the image generator device. DICOM :[2010,0100] Border Density Error output only to log and on operation panel. Operation can be continued.
CE33	C	DCHK FILM BOX ERROR	FILM BOX trim error	Check the trim sent from the image generator device. DICOM :[2010,0140] Trim Error output only to log and on operation panel. Operation can be continued.
CE34	C	DCHK FILM BOX ERROR	FILM BOX contrast error	Check the contrast sent from the image generator device. DICOM :[2011,1031] Contrast Error output only to log and on operation panel. Operation can be continued.
CE35	C	DCHK FILM BOX ERROR	FILM BOX density error	Check the density sent from the image generator device. DICOM :[2011,1030] Border Density Error output only to log and on operation panel. Operation can be continued.
CE36	C	DCHK FILM BOX ERROR	FILM BOX glossy error	Check the glossy sent from the image generator device. DICOM :[2011,1080] Glossy Error output only to log and on operation panel. Operation can be continued.
CE37	C	DCHK STANDARD MAG	Image magnification error (0.8 ~ 16.0)	Check the following parameters sent from the image generator device. DICOM : [0028,0010] Rows DICOM : [0028,0011] Columns DICOM : [0028,0101] Bits Stored DICOM : [2010,0010] Image Display Format DICOM : [7FE0,0010] Pixel Data Error output only to log and on operation panel. Operation can be continued.
CE38		DCHK STANDARD REQIMAGE MAG	Image magnification error (0.8 ~ 16.0)	
CE39		DCHK STANDARD CROP MAG	Image magnification error (0.8 ~ 16.0)	
CE3A		DCHK ROW MAG	Image magnification error (0.8 ~ 16.0)	
CE3B		DCHK ROW REQIMAGE MAG	Image magnification error (0.8 ~ 16.0)	
CE3C		DCHK ROW CROP MAG	Image magnification error (0.8 ~ 16.0)	
CE3D		DCHK CUSTOM MAG	Image magnification error (0.8 ~ 16.0)	
CE3E		DCHK CUSTOM REQIMAGE MAG	Image magnification error (0.8 ~ 16.0)	
CE3F	DCHK CUSTOM CROP MAG	Image magnification error (0.8 ~ 16.0)		
CE40	C	DCHK EXPANSION ERROR	Image expansion error (others)	Check the parameters sent from the image generator device. Error output only to log and on operation panel. Operation can be continued.

Code	Level	Error Message	Meanings	Cause
CE41	C	DCHK COLUMNS LESS THAN 64	columns is less than 64PIXEL	Check the columns sent from the image generator device. (DICOM : [0028,0010] Columns Error output only to log and on operation panel. Operation can be continued.
CE42	C	DCHK ROWS LESS THAN 64	rows is less than 64PIXEL	Check the rows sent from the image generator device. (DICOM : [0028,0010] Rows Error output only to log and on operation panel. Operation can be continued.
CE43	C	DCHK IMAGE SIZE OVER	PIXEL sum exceeds 26M	Check the following parameters sent from the image generator device. DICOM : [0028,0010] Rows DICOM : [0028,0011] Columns DICOM : [0028,0101] Bits Stored DICOM : F [7FE0,0010] Pixel Data Error output only to log and on operation panel. Operation can be continued.
CE44	C	DCHK IMAGE SIZE OVER	Expanded image exceeds image area when SMOOTH=7	Check the following parameters sent from the image generator device. DICOM : [0028,0010] Rows DICOM : [0028,0011] Columns DICOM : [0028,0101] Bits Stored DICOM : [2010,0010] Image Display Format DICOM : [2010,0060] Magnification Type DICOM : [2010,0080] Smooth Type DICOM : [7FE0,0010] Pixel Data Error output only to log and on operation panel. Operation can be continued.

## ◆ DICOM TEMP Error

DICOM TEMP errors are the errors that will be displayed temporarily during DICOM communication.

DryPro returns to the normal status when the communication cycle to follow completes without failure.

However, if the error repeats, it is possible that some trouble has occurred on the DryPro, diagnostic device or network devices. Remedy the problem according to the procedures below.

Code	Level	Message	Description	Remedy
D100	C	ERR A-ASSOCIATE	Failed to process the request for establishing the association.	Error output only to log and on operation panel.
D101		ERR A-RELEASE	Failed to process the request for cancelling the association.	Check the following parameters sent from the image generator device. DICOM : Request for establishing association • PDU length : rejects data shorter than 101 byte. • Protocol edition : rejects 0x0000 • Applied context : "1.2.840.10008.3.1.1.1" Operation can be continued.
D102	C	ERR N-CREATE	Failed to process the request for N-CREATE(Film Session)	Error output only to log and on operation panel.
D103		ERR N-CREATE	Failed to process the request for N-CREATE(Film Box)	Check the parameters sent from the image generator device. DICOM : N-CREATE Request (FilmSession, Film-Box)
D104		ERR N-CREATE	Failed to process the request for N-CREATE(Presentation LUT)	Operation can be continued.
D105	C	ERR N-SET	Failed to process the request for N-SET(Film Session)	Error output only to log and on operation panel.
D106		ERR N-SET	Failed to process the request for N-SET(Film Box)	Check the parameters sent from the image generator device. DICOM : N-SET Request (FilmSession, FilmBox) Operation can be continued.
D107	C	ERR N-SET	Failed to process the request for N-SET(Image Box)	Error output only to log and on operation panel. Check the following parameters sent from the image generator device. DICOM : N-SET Request (Image Box) • [2020,0010] Image Position AF 1A`64 • [0028,0002] Samples per Pixel AF 0a»è,, • [0028,0004] Photometric Interpretation AF MONOCHROME1, MONOCHROME2 • [0028,0010] Rows "0" or more • [0028,0011] Columns "0" or more • [0028,0034] Pixel Aspect Ratio "0" or more • [0028,0100] Bits Allocated "0" or more • [0028,0101] Bits Stored "0" or more • [0028,0102] High Bit "0" or more • [0028,0103] Pixel Representation "0" or more • [7FE0,0010] Pixel Data Operation can be continued.
D108	C	ERR N-ACTION	Failed to process the request for N-ACTION	Error output only to log and on operation panel. Check the following parameters sent from the image generator device. DICOM : N-ACTION Request Also check that the queue data output from the image generator device is normal and the number of queues waiting for print on the printer is within the limitation. Operation can be continued.

Code	Level	Message	Description	Remedy
D109	C	ERR N-DELETE	Failed to process the request for N-DELETE	Error output only to log and on operation panel. Check the DICOM parameters sent from the image generator device. Operation can be continued.
D10A		ERR N-GET	Failed to process the request for N-GET	
D10B		ERR N-EVENT	Failed to process the request for N-EVENT_REPORT	
D10C		ERR C-ECHO	Failed to process the request for C_ECHO	
D110		ERR A-ASSOCIATE	Failed to process the response for establishing the association	
D111	C	ERR A-RELEASE	Failed to process the response for cancelling the association.	Error output only to log and on operation panel. Check the DICOM parameters sent from the image generator device. Operation can be continued.
D112		ERR N-CREATE	Failed to process the response for N-CREATE(Film Session)	
D113		ERR N-CREATE	Failed to process the response for N-CREATE(Film Box)	
D114		ERR N-CREATE	Failed to process the response for N-CREATE(Presentation LUT)	
D115		ERR N-SET	Failed to process the response for N-SET(Film Session)	
D116		ERR N-SET	Failed to process the response for N-SET(Film Box)	
D117		ERR N-SET	Failed to process the response for N-SET(Image Box)	
D118		ERR N-ACTION	Failed to process the response for N-ACTION	
D119		ERR N-DELETE	Failed to process the response for N-DELETE	
D11A		ERR N-GET	Failed to process the response for N-GET	
D11B		ERR N-EVENT	Failed to process the response for N-EVENT_REPORT	
D11C		ERR C-ECHO	Failed to process the response for C_ECHO	
D120		C	ILLEGAL PDU	
D121	C	ILLEGAL AE	Received illegal AE title	Error output only to log and on operation panel. Check the DICOM parameters sent from the image generator device. DICOM : Request for establishing association • SCU side AE Title : [DICOM SCU] - registered in AE title. Operation can be continued. Allocating channel as [DICOM SCP] - [SCP DEFAULT CH] will avoid the problem.

#### 7.4 Error Code and Remedy

Code	Level	Message	Description	Remedy
D122	C	ILLEGAL CLS UID	Received illegal SOP class UID	<p>Error output only to log and on operation panel.</p> <p>Check the following parameters sent from the image generator device.</p> <p>DICOM : N-CREATE, N-SET, N-ACTION, N-DELETE</p> <ul style="list-style-type: none"> <li>• [0000,0002] Affected SOP Class UID</li> <li>• [0000,0003] Requested SOP Class UID</li> </ul> <p>Operation can be continued.</p>
D123	C	ILLEGAL INST UID	Received illegal SOP instance UID	<p>Error output only to log and on operation panel.</p> <p>Check the following parameters sent from the image generator device.</p> <p>DICOM : N-CREATE, N-SET, N-ACTION, N-DELETE</p> <ul style="list-style-type: none"> <li>• [0000,1000] Affected SOP Instance UID</li> <li>• [0000,1001] Requested SOP Instance UID</li> </ul> <p>Operation can be continued.</p>
D124	C	ILLEGAL FILMSIZE	Received illegal film size	<p>Error output only to log and on operation panel.</p> <p>Check the following parameters sent from the image generator device.</p> <p>DICOM : N-CREATE (FilmBox)</p> <ul style="list-style-type: none"> <li>• [2010,0050] Film Size ID : currently loaded film size (11INX14IN, 14INX14IN, 14INX17IN)</li> </ul> <p>Operation can be continued.</p> <p>Note : Setting [DICOM SCU] - [FILM SIZETYPE] to &lt;NO CHECK&gt; will avoid the problem.</p> <p>In this case, the size will be changed to that of currently loaded film size.</p>
D125	C	ILLEGAL MEDIUM	Received illegal media type	<p>Error output only to log and on operation panel.</p> <p>Check the following parameters sent from the image generator device.</p> <p>DICOM : N-CREATE (FilmBox)</p> <ul style="list-style-type: none"> <li>• [2000,0030] Medium Type : currently loaded film type (BLUE FILM, CLEAR FILM, DR BLUE FILM, DR CLEAR FILM)</li> </ul> <p>Operation can be continued.</p> <p>Note : Setting [DICOM SCU] - [FILM SIZETYPE] to &lt;NO CHECK&gt; will avoid the problem.</p> <p>In this case, the type will be changed to that of currently loaded film type.</p>
D126	C	ILLEGAL FORMAT	Received illegal image format	<p>Error output only to log and on operation panel.</p> <p>Check the following parameters sent from the image generator device.</p> <p>DICOM : N-CREATE (FilmBox)</p> <ul style="list-style-type: none"> <li>• [2010,0010] Image Display Format : (refer to DRYPRO771 DICOM Conformance Appendix-B)</li> </ul>

Code	Level	Message	Description	Remedy
D127	C	ILLEGAL PIXEL	Received illegal image size	Error output only to log and on operation panel. Check the following parameters sent from the image generator device. DICOM : N-SET Request (Image Box) <ul style="list-style-type: none"> <li>• [0028,0010] Rows</li> <li>• [0028,0011] Columns</li> <li>• [0028,0101] Bits Stored</li> <li>• [7FE0,0010] Pixel Data</li> </ul> The above data should comply with the equation below. <ul style="list-style-type: none"> <li>• [Pixel Data Size] = [Rows] * [Columns] * ([Bits Stored] + 7) / 8</li> </ul> Operation can be continued.
D128	C	RECV A-ABORT	Received request for interrupting the association	Error output only to log and on operation panel.
D130		ERR ELEC SW	Other DICOM error	Carry out error reset or turn OFF/ON of the power. (If it repeats, update the software version or replacement of the control box)
<b>Default File Setting</b>				
D140	C	ERR ELEC SW	Default file read error	Error output only to log and on operation panel.
D141		ERR ELEC SW	"Ap_ThreadID" in default file is illegal	Carry out error reset or turn OFF/ON of the power.
D142		ERR ELEC SW	"SectionCode" in default file is illegal	(If it repeats, update the software version or replacement of the control box)
D143		ERR ELEC SW	"SystemCode" in default file is illegal	
D144		ERR ELEC SW	"SerialNo" in default file is illegal	
D145		ERR ELEC SW	"ImpleClassUID" in default file is illegal	
D146		ERR ELEC SW	"ImpleVersionName" in default file is illegal	
D147		ERR ELEC SW	"SCP_CallingAETitle" in default file is illegal	

<b>Thread Related Items</b>				
D1A0	C	ERR ELEC SW	Failed to set the thread priority	Error output only to log and on operation panel.
D1A1		ERR ELEC SW	Failed to restart the thread	Carry out error reset or turn OFF/ON of the power.
D1A2		ERR ELEC SW	Failed to interrupt the thread	(If it repeats, update the software version or replacement of the control box)
D1A3		ERR ELEC SW	Failed to forcefully interrupt the thread	
D1A4		ERR ELEC SW	Failed to start the thread	
D1A5		ERR ELEC SW	Illegal thread info.	
D1A6		ERR ELEC SW	Illegal thread function pointer	

## 7.4 Error Code and Remedy

Code	Level	Message	Description	Remedy
<b>Other File Related Items</b>				
D1B0	C	ERR ELEC SW	Failed to create the directory	Error output only to log and on operation panel. Carry out error reset or turn OFF/ON of the power. (If it repeats, update the software version or replacement of the control box)
D1B1		ERR ELEC SW	Failed to delete the directory	
D1B2		ERR ELEC SW	Specified directory not exist	
D1B3		ERR ELEC SW	Failed to open the file	
D1B4		ERR ELEC SW	Failed to close the file	
D1B5		ERR ELEC SW	Failed to create the file	
D1B6		ERR ELEC SW	Failed to delete the file	
D1B7		ERR ELEC SW	Failed to read the file	
D1B8		ERR ELEC SW	Failed to write the file	
D1B9		ERR ELEC SW	File already opened	
D1BA		ERR ELEC SW	File already closed	
D1BB		ERR ELEC SW	File not exist	
D1BC		ERR ELEC SW	File used by other and not available	
<b>Message Related Items</b>				
D1C0	C	ERR ELEC SW	Failed to create the thread message	Error output only to log and on operation panel. Carry out error reset or turn OFF/ON of the power. (If it repeats, update the software version or replacement of the control box)
D1C1		ERR ELEC SW	Failed to send the thread message	
D1C2		ERR ELEC SW	Failed to receive the thread message	
D1C3		ERR ELEC SW	Failed to wait for receiving the thread message	
D1C4		ERR ELEC SW	Failed to acquire the thread message	
D1C5		ERR ELEC SW	Timeout of waiting the thread message	
D1C6		ERR ELEC SW	Thread message ID not compatible	
<b>Socket Connection Related Items</b>				
D1D0	C	ERR ELEC SW	Failed to initialize the socket	Error output only to log and on operation panel. Check the connection counterpart, network setting (including LAN cable, HUB, etc.), then reset the error or carry out error reset or turn OFF/ON of the power. (If it repeats, update the software version or replacement of the control box)
D1D1		ERR ELEC SW	Software version not compatible	
D1D2		ERR ELEC SW	Failed to create the socket on server side	
D1D3	C	ERR ELEC SW	Failed to allocate the address on client side	Error output only to log and on operation panel. Check that the setting value in [DICOM SCP] - [PORT NUMBER] are not duplicated. Check the network setting (including LAN cable, HUB, etc.), then reset the error or carry out error reset or turn OFF/ON of the power. (If it repeats, update the software version or replacement of the control box)
D1D4	C	ERR ELEC SW	Failed to publicize the connection request	Error output only to log and on operation panel. Check the connection counterpart, network setting (including LAN cable, HUB, etc.), then reset the error or carry out error reset or turn OFF/ON of the power. (If it repeats, update the software version or replacement of the control box)
D1D5		ERR ELEC SW	Failed to create the socket on client side	
D1D6		ERR ELEC SW	Failed to acquire IP address of server	
D1D7		ERR ELEC SW	Failed to establish socket connection to server	

Code	Level	Message	Description	Remedy
D1D8	C	ERR ELEC SW	Failed to send the message	Error output only to log and on operation panel. Check the connection counterpart, network setting (including LAN cable, HUB, etc.). Operation can be continued. (If it repeats, update the software version or replacement of the control box)
D1D9		ERR ELEC SW	Failed to receive the message	
D1DA		ERR ELEC SW	Socket already closed	
D1DB		ERR ELEC SW	Failed to accept the connection	
D1DC		ERR ELEC SW	Socket timeout	
D1DD		ERR ELEC SW	Socket waiting the connection forcefully closed	
D1DE		ERR ELEC SW	Socket status unchanged	
D1DF		ERR ELEC SW	Failed to wait the status changes except for socket I/O.	
D1E0		ERR ELEC SW	Failed to wait the socket send ready	
D1E1		ERR ELEC SW	Failed to wait the socket receive ready	
<b>System Related Items</b>				
D1F0	C	ERR ELEC SW	Memory allocation error	Error output only to log and on operation panel. Reset the error or carry out error reset or turn OFF/ON of the power. (If it repeats, update the software version or replacement of the control box)
D1F1		ERR ELEC SW	Boot parameter error	
D1F2		ERR ELEC SW	Application initialization error	
D1F3		ERR ELEC SW	Other system error	

## 7.5 Responding to the Film Jam

DryPro771 is designed so that the user can take the jam film out of the main body when such occurs.

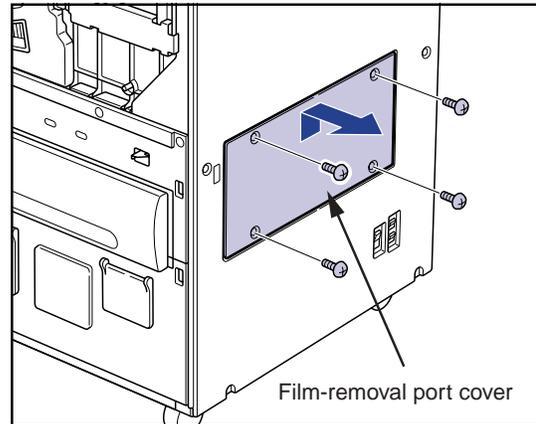
For the details of how to take out the jam film, refer to the "Operation Manual" of the DryPro771.

Exceptions are when error code [E4510R\_SIDE JAM] or [E4511 R\_SIDE JAM] is displayed on the operation panel. These error codes indicate that the film is jammed in between the elevator transport section and heat processing section, and it is not possible for the user to take the jam film out of the main unit.

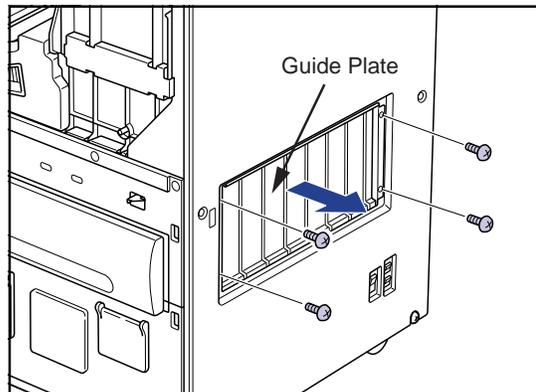
Should such happen, follow the procedure below to take the jammed film out.

**CAUTION** A film reached to the heat processing section is heated very hot. Care should be taken when doing the service.

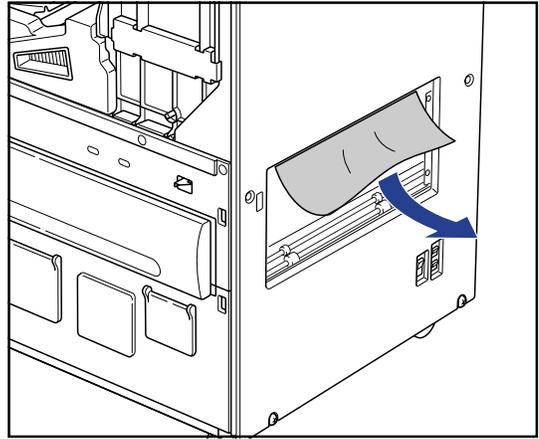
1. Open the front cover pressing [reset/open] key.
2. Remove the four screws, and remove the film release-port cover on the right cover.



3. Remove the four screws, and remove the guide plate in the elevator transport unit.



4. Take out the jammed film.
5. Replace the guide plate, film release-port cover to the original position.
6. Close the front cover.





# ***Appendix***

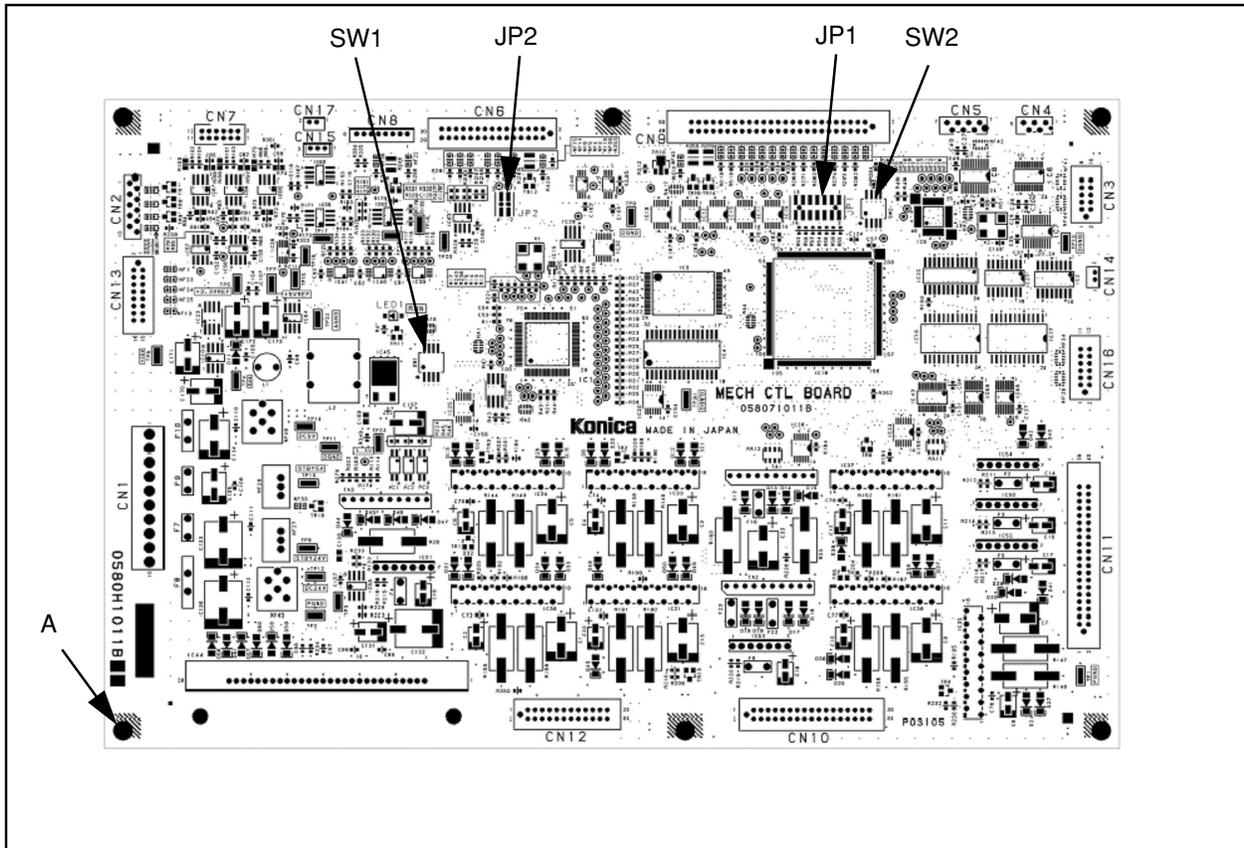
## Time Zone Number Correspondence List

Code No.	Time Zone	Summer Time	Code No.	Time Zone	Summer Time
1	Afghanistan Standard Time	OFF	38	Israel Standard Time	OFF
2	Alaskan Standard Time	ON	39	Korea Standard Time	OFF
3	Arab Standard Time	OFF	40	Mexico Standard Time	ON
4	Arabian Standard Time	OFF	41	Mid-Atlantic Standard Time	ON
5	Arabic Standard Time	ON	42	Mountain Standard Time	ON
6	Atlantic Standard Time	ON	43	Myanmar Standard Time	OFF
7	AUS Central Standard Time	OFF	44	N. Central Asia Standard Time	ON
8	AUS Eastern Standard Time	ON	45	Nepal Standard Time	OFF
9	Azores Standard Time	ON	46	New Zealand Standard Time	ON
10	Canada Central Standard Time	OFF	47	Newfoundland Standard Time	ON
11	Cape Verde Standard Time	OFF	48	North Asia East Standard Time	ON
12	Caucasus Standard Time	ON	49	North Asia Standard Time	ON
13	Cen. Australia Standard Time	ON	50	Pacific SA Standard Time	ON
14	Central America Standard Time	OFF	51	Pacific Standard Time	ON
15	Central Asia Standard Time	OFF	52	Romance Standard Time	ON
16	Central Europe Standard Time	ON	53	Russian Standard Time	ON
17	Central European Standard Time	ON	54	SA Eastern Standard Time	OFF
18	Central Pacific Standard Time	OFF	55	SA Pacific Standard Time	OFF
19	Central Standard Time	ON	56	SA Western Standard Time	OFF
20	China Standard Time	OFF	57	Samoa Standard Time	OFF
21	Dateline Standard Time	OFF	58	SE Asia Standard Time	OFF
22	E. Africa Standard Time	OFF	59	Singapore Standard Time	OFF
23	E. Australia Standard Time	OFF	60	South Africa Standard Time	OFF
24	E. Europe Standard Time	ON	61	Sri Lanka Standard Time	OFF
25	E. South America Standard Time	ON	62	Taipei Standard Time	OFF
26	Eastern Standard Time	ON	63	Tasmania Standard Time	ON
27	Egypt Standard Time	ON	64	Tokyo Standard Time	OFF
28	Ekaterinburg Standard Time	ON	65	Tonga Standard Time	OFF
29	Fiji Standard Time	OFF	66	US Eastern Standard Time	OFF
30	FLE Standard Time	ON	67	US Mountain Standard Time	OFF
31	GMT Standard Time	ON	68	Vladivostok Standard Time	ON
32	Greenland Standard Time	ON	69	W. Australia Standard Time	OFF
33	Greenwich Standard Time	OFF	70	W. Central Africa Standard Time	OFF
34	GTB Standard Time	ON	71	W. Europe Standard Time	ON
35	Hawaiian Standard Time	OFF	72	West Asia Standard Time	OFF
36	India Standard Time	OFF	73	West Pacific Standard Time	OFF
37	Iran Standard Time	ON	74	Yakutsk Standard Time	ON



# Board Diagram

## Mechanical Control Board



CN 1 : DC power supply connector	CN 9 : Main unit input connector
CN 2 : Drum heater control output connector	CN 10 : Supply output connector
CN 3 : Main CPU communication connector	CN 11 : Transport output connector (elevator, descend, high speed, drum)
CN 4 : Communication connector for debug (spare)	CN 12 : Justification, sub-scan output connector
CN 5 : Communication connector for control unit	CN 13 : Cooling fan control connector
CN 6A : Supply input connector.	CN 14 : V-sync relay connector
CN 7 : Drum heater sensor input connector	CN 15 : Cooling zone sensor input connector
CN 8 : Densitometer I/F connector	CN 16 : Spare

**CAUTION** Always turn the DRYPRO 771 off before plugging or unplugging the connector.

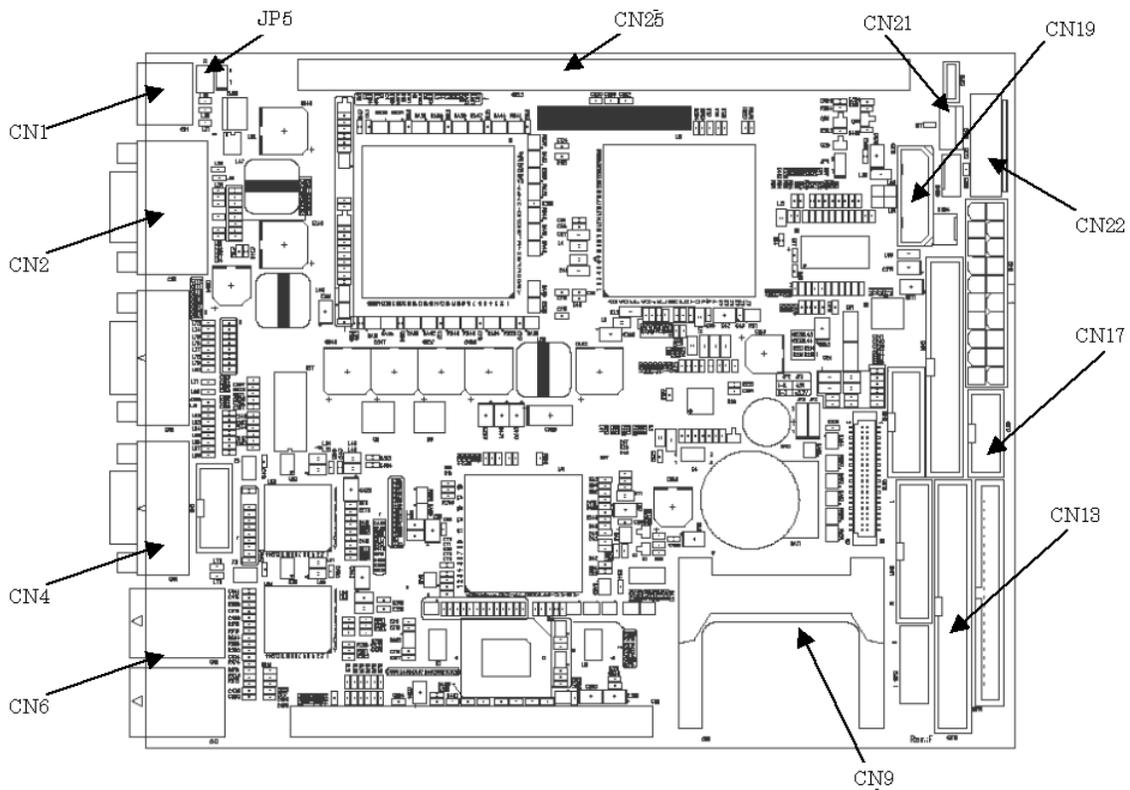
SW1	1 : OFF 2 : OFF 3 : OFF 4 : OFF
SW2	1 : OFF 2 : OFF 3 : OFF 4 : OFF
JP 1	Spare (all OPEN) -> Setting for writing on H8
JP 2	Spare (all OPEN) -> JTAG-I/F

**CAUTION** Do not change the setting of JP\* and SW\*. It may cause damage to the device.

**CAUTION** Make sure that the screw (A) is secured when installing the PC board.

**CAUTION** Make sure that the power breaker is turned off and the AC power cable is unplugged from the outlet before starting the board replacement.

## Main CPU Board (Main Board)



CN1 : Keyboard / Mouse connector	CN13 : Connector for 3.5in HDD
CN2 : Display connector	CN17 : Internal connector of the serial port (COM1)
CN4 : Serial Port (COM2) connector	CN19 : Power connector for HDD
CN6 : LAN connector	CN21 : Power control connector
CN8 : PCI BUS I/F connector	CN22 : Power supply connector
CN9 : CF connector	CN25 : DIMM socket

**Note** All connectors other than those listed above are not used, and not implemented on the board.

JP5	1-2:Short
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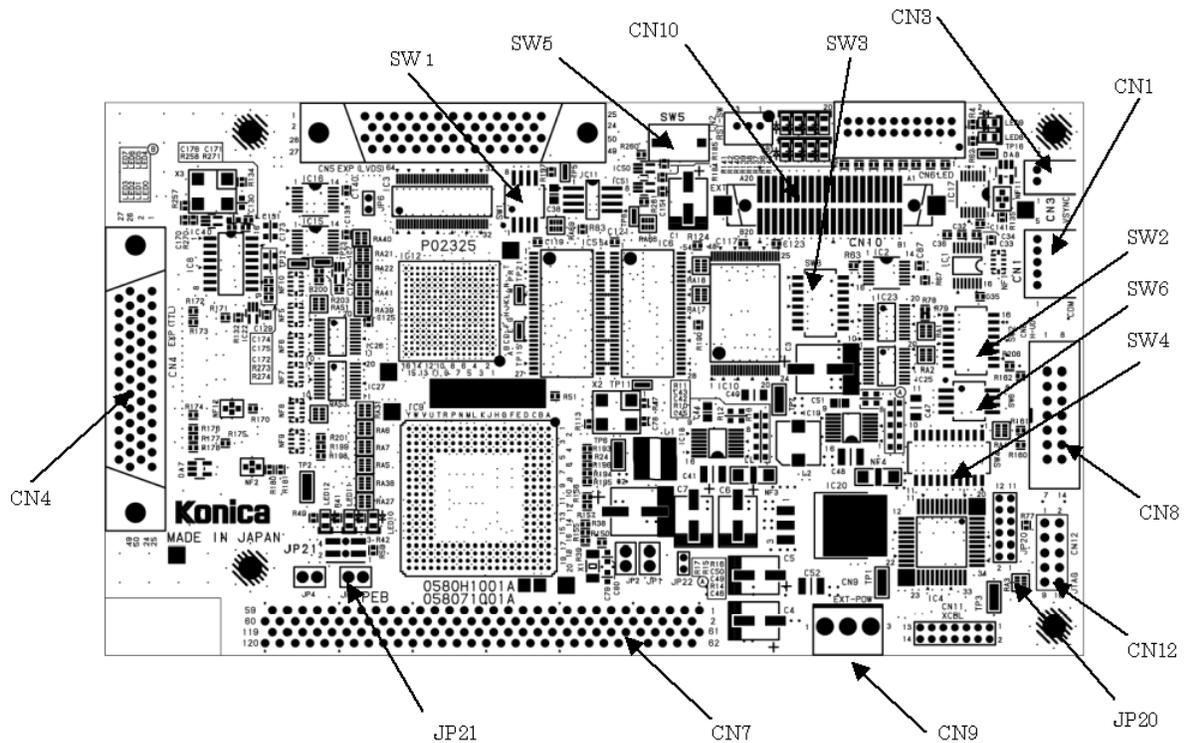
**Note** All jumpers other than those listed above are not used, and not implemented on the board.

**CAUTION** Do not change the setting of JP\*. It may cause damage to the device.

**CAUTION** The main CPU board contained in the control box is equipped with lithium batteries (CR2032). When disposing of or replacing these batteries, strictly follow the regulations and rules of the local government. Also observe the following cautions when handling the detached batteries.

1. Do not attempt to recharge, disassemble, deform, heat, solder or throw the battery into a fire.
2. Do not reinstall or reuse the battery with its polarity reversed.
3. Do not keep the battery within the reach of children. Should it happen that the battery is swallowed, immediately contact a doctor.
4. Do not intentionally make short-circuit, nor keep or carry it with metal materials such as necklace.
5. When keeping or disposing the battery, attach tape or similar to the electric poles so that the battery is electrically isolated from other batteries or metals.

## Print Engine Board (Print Board)



CN1 : Serial communication connector (for debug/factory use)	CN8 : Connector for ICE (for debug/factory use)
CN3 : V-Sync connector	CN9 : Power connector (for debug/factory use)
CN4 : Connector at the exposure unit	CN10 : Return check connector (for debug/factory use)
CN7 : PCI connector	CN12 : Connector for JTAG (for debug/factory use)

**Note** All connectors other than those listed above are not used, and not implemented on the board.

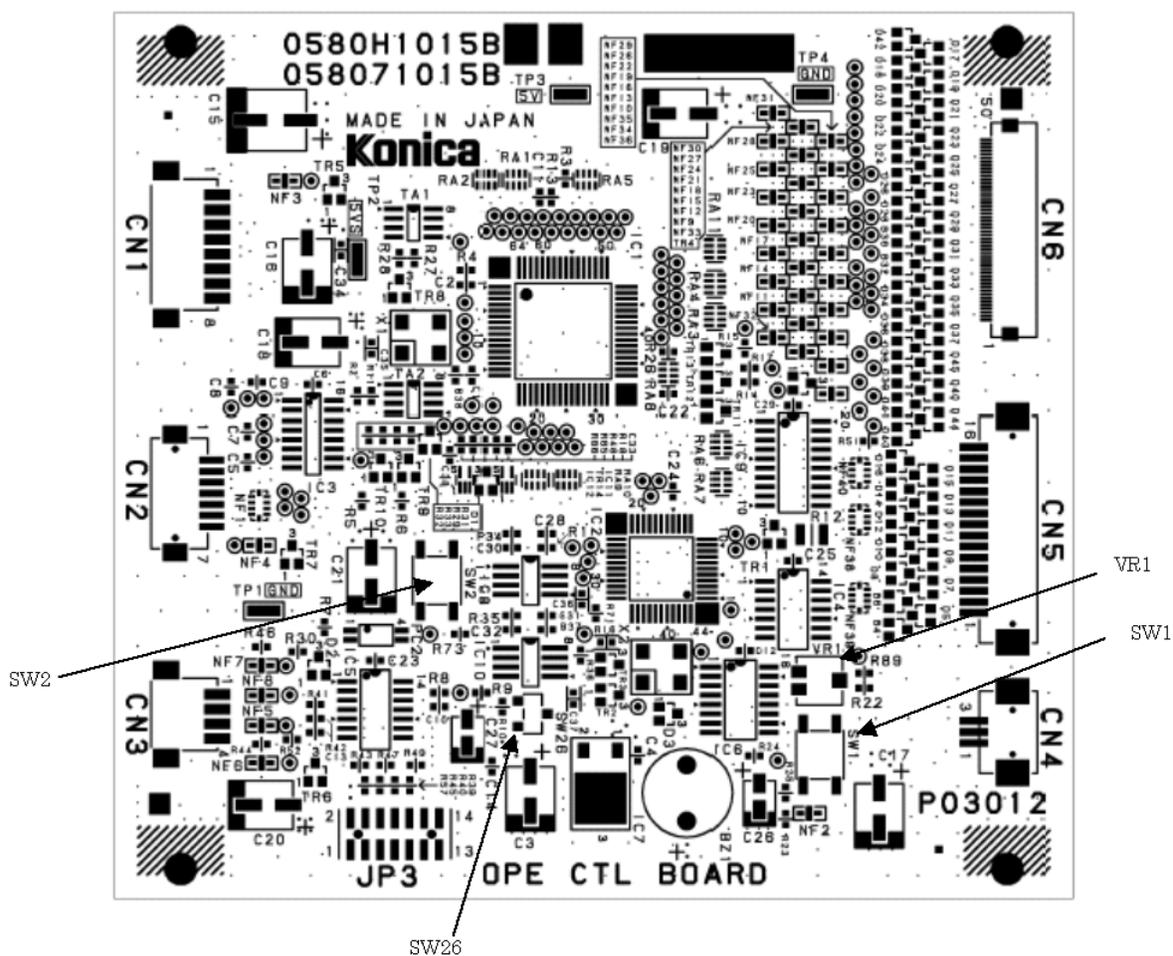
JP20	1-2:Open 3-4:Open 5-6:Open 7-8:Short 9-10:Short 11-12:Open
JP21	1-2:Open 3-4:Open

**Note** All connectors other than those listed above are not used, and not implemented on the board.

SW1	1:OFF 2:OFF 3:OFF 4:OFF
SW2	1:OFF 2:OFF 3:ON 4:ON 5:OFF 6:OFF 7:OFF 8:OFF
SW3	1:OFF 2:OFF 3:OFF 4:OFF 5:OFF 6:OFF 7:OFF 8:OFF
SW4	1:OFF 2:OFF 3:OFF 4:OFF 5:OFF 6:ON 7:ON 8:ON 9:ON 10:ON
SW6	1:OFF 2:ON 3:ON 4:OFF
SW5	RESET SW (for debug/factory use)

**CAUTION** Do not change the setting of JP\* and SW\*. It may cause damage to the device.

## Operation Control Board (OPE CTL)



CN 1 : DC power supply connector	CN 4 : OPE-SW input connector
CN 2 : Mechanical control communication connector	CN 5 : LCD I/F connector
CN 3 : Main CPU shutdown I/O connector	CN 6 : Operation panel input connector

**CAUTION** Always turn the DRYPRO 771 off before plugging or unplugging the connector.

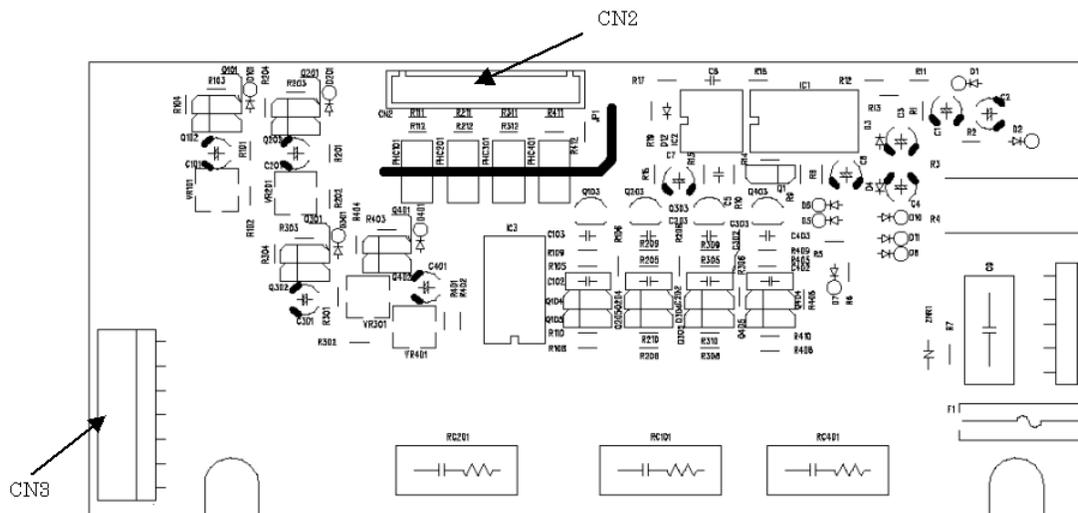
SW1	Push SW (OPE-SW equivalent -> use prohibited. It is for debug/factory use only)
SW2	Push SW (Main CPU shutdown dummy signal -> use prohibited. It is for debug/factory use only)
SW26	Push SW (BOOT-SW -> use prohibited. It is for debug/factory use only)
JP 3	Spare (all open) -> JTAG-I/F
VR 1	LCD-VEE adjusting trimmer

**CAUTION** Do not change the setting of VR\*(rotary trimmer). It may cause damage to the device.

**CAUTION** Make sure that the power breaker is turned off and the AC power cable is unplugged from the outlet before starting the board replacement.



## Heat Processing Drive Board



CN 1 : AC supply (primary) connector
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CN 2 : Heater control timing connector (from the mechanical control board)
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CN 3 : AC output connector (heater side)
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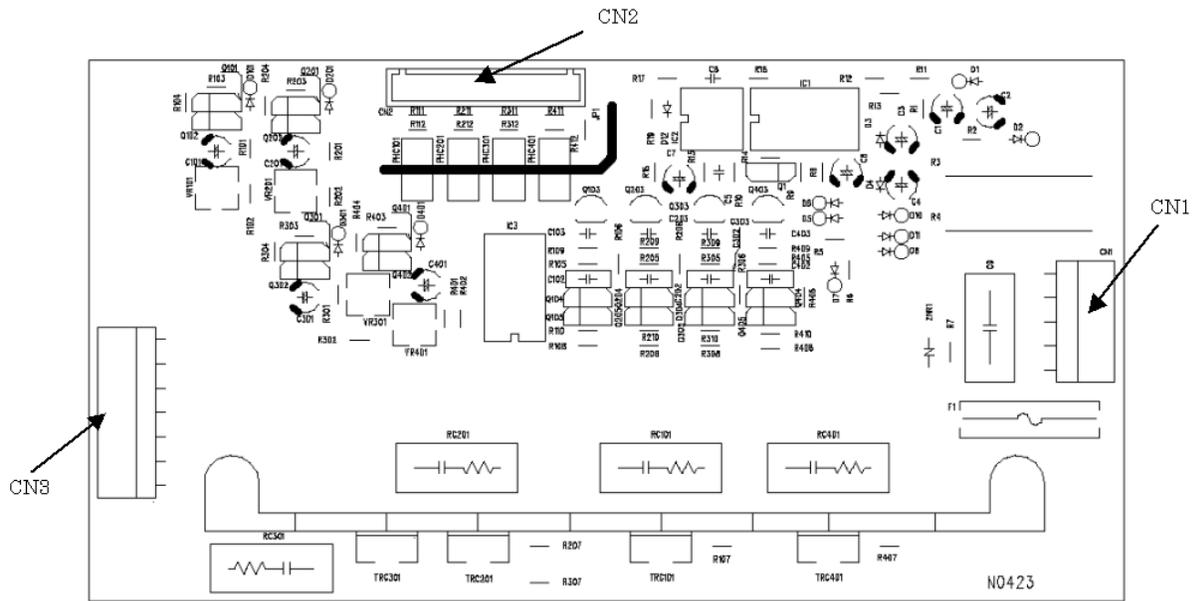
LED 1	Center heater control timing display (AC electrified when it lights)
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LED 2	Front heater control timing display (AC electrified when it lights)
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LED 3	Rear heater control timing display (AC electrified when it lights)
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**CAUTION** Make sure that the power breaker is turned off and the AC power cable is unplugged from the outlet before starting the board replacement. It may cause an electric shock because a primary electric voltage is supplied to the board.

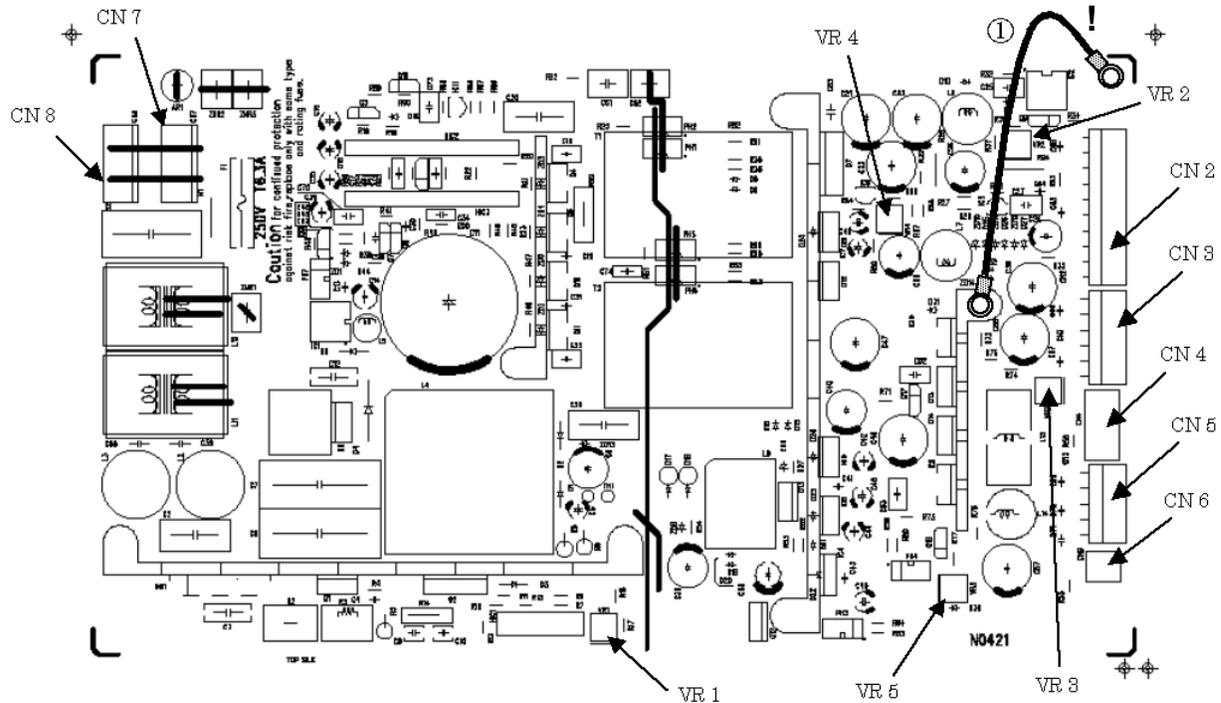
## Heat Process Driver Board (anti-flicker) (HF-DRV)



CN 1 : AC supply (primary) connector
CN 2 : Heater control timing connector (from the mechanical control board)
CN 3 : AC output connector (heater side)

**CAUTION** Make sure that the power breaker is turned off and the AC power cable is unplugged from the outlet before starting the board replacement. It may cause an electric shock because a primary electric voltage is supplied to the board.

## Multi-Power Supply Board (contained in the electrical unit)



Secondary	CN 1 : N/A (missing number)
	CN 2 : DC supply connector for mechanical control board
	CN 3 : DC supply connector for control box (main CPU, PC board, HDD)
	CN 4 : DC supply connector for control panel
	CN 5 : DC supply connector for exposure unit
	CN 6 : DC supply connector for densitometer
Primary	CN 7 : Not implemented (AC supply 2)
	CN 8 : AC supply connector

**CAUTION** Make sure that the power breaker is turned off and the AC power cable is unplugged from the outlet before starting the board replacement.

VR 1	Feedback adjustment trimmer for high voltage section (do not touch)
VR 2	Fine adjustment trimmer for DC24V (for factory use)
VR 3	Fine adjustment trimmer for DC5V (for factory use)
VR 4	Adjustment trimmer for DC26.4V (do not touch)
VR 5	Fine adjustment trimmer for DC12V (for factory use)

**CAUTION** Do not change the setting of VR\*(rotary trimmer). It may cause damage to the device.

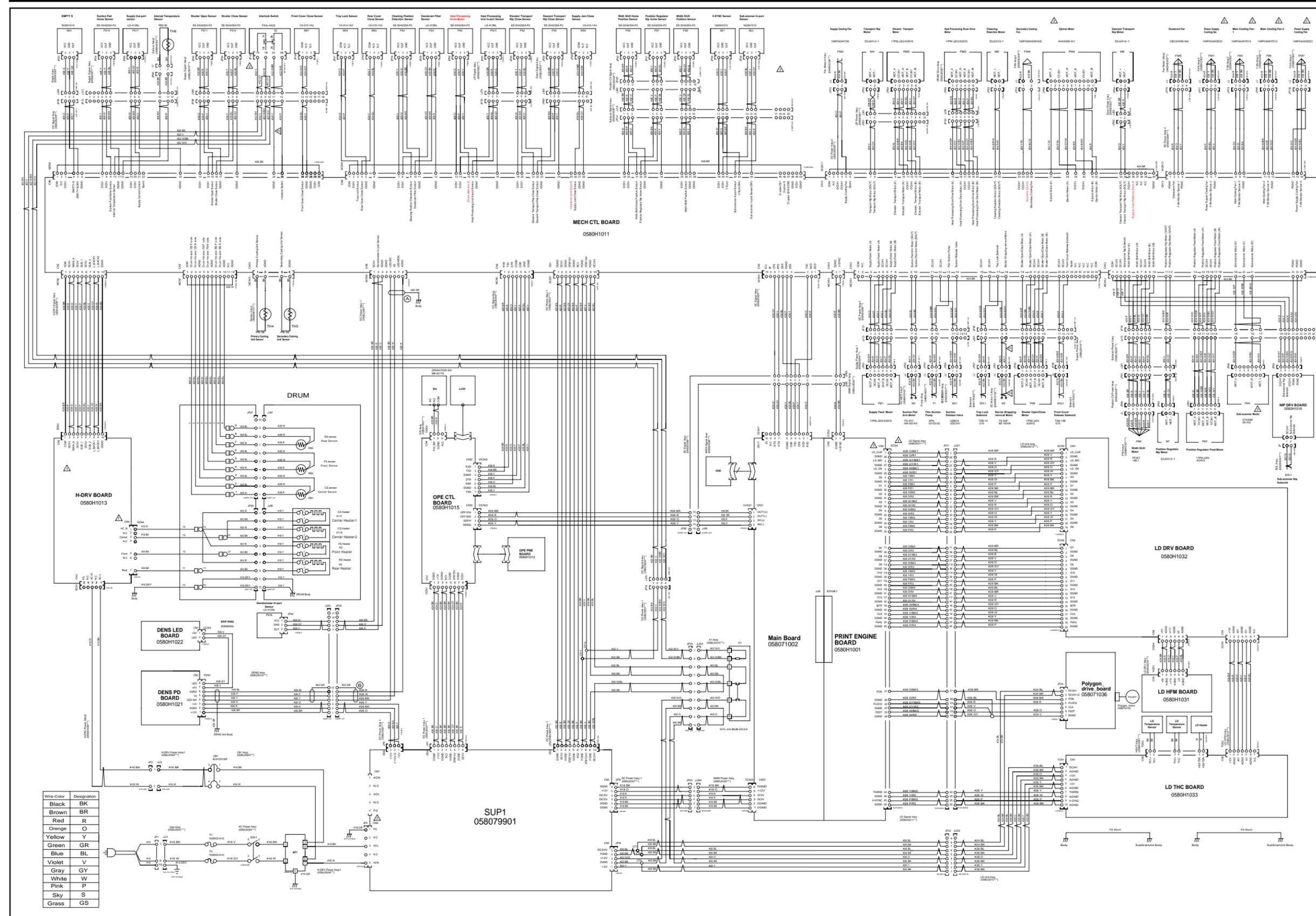
**CAUTION** When installing the board, secure the GND wire (marked with "!") together with the board so that the electric conduction to the body frame is made sure.

**CAUTION** Make sure that the power breaker is turned off and the AC power cable is unplugged from the outlet before starting the board replacement.

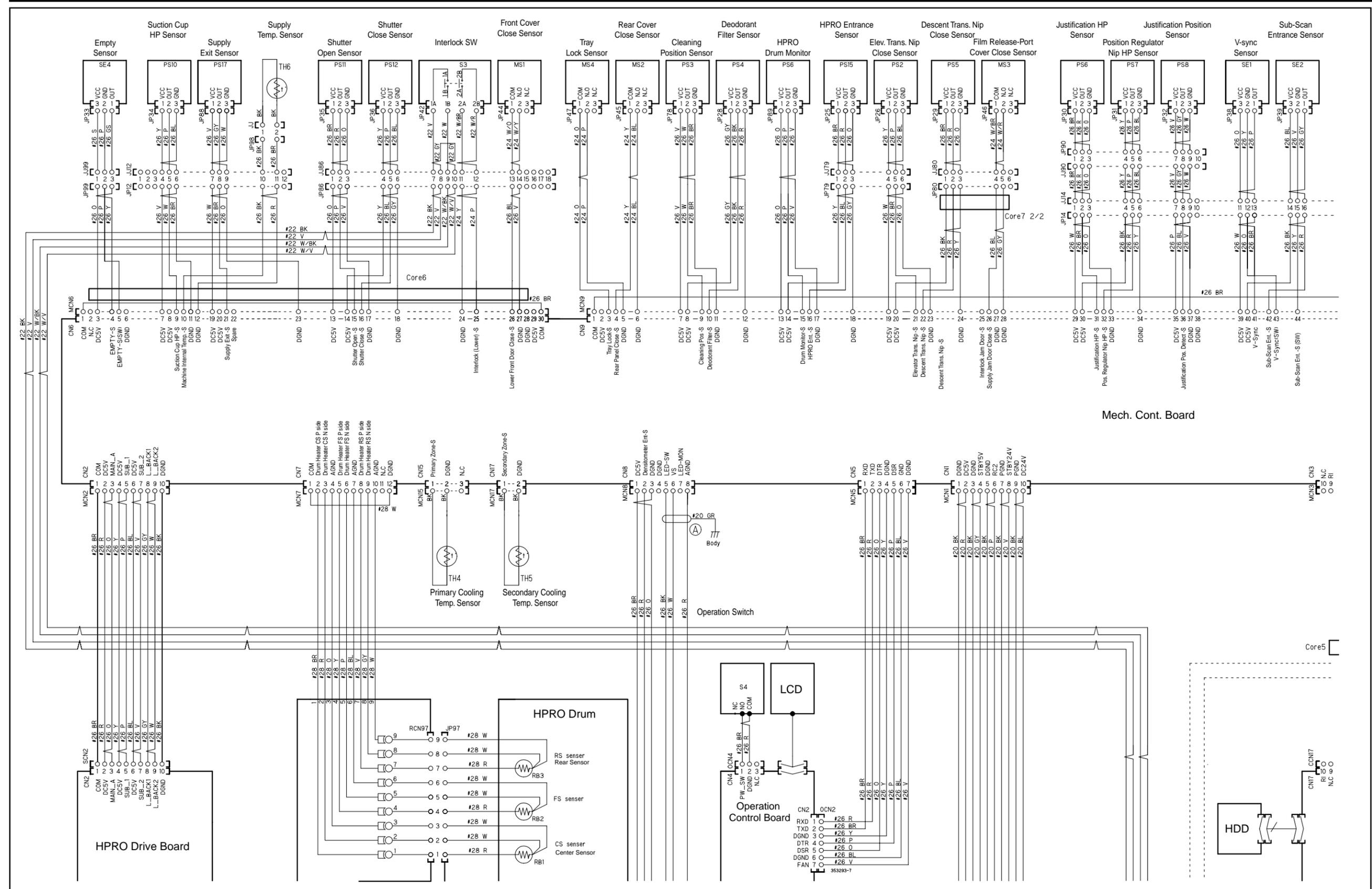
**CAUTION** There still remains a risk of high voltage immediately after the shutdown. Wait for minimum 3 minutes after the shutdown to start working on the device in order to avoid the risk of electric shock.



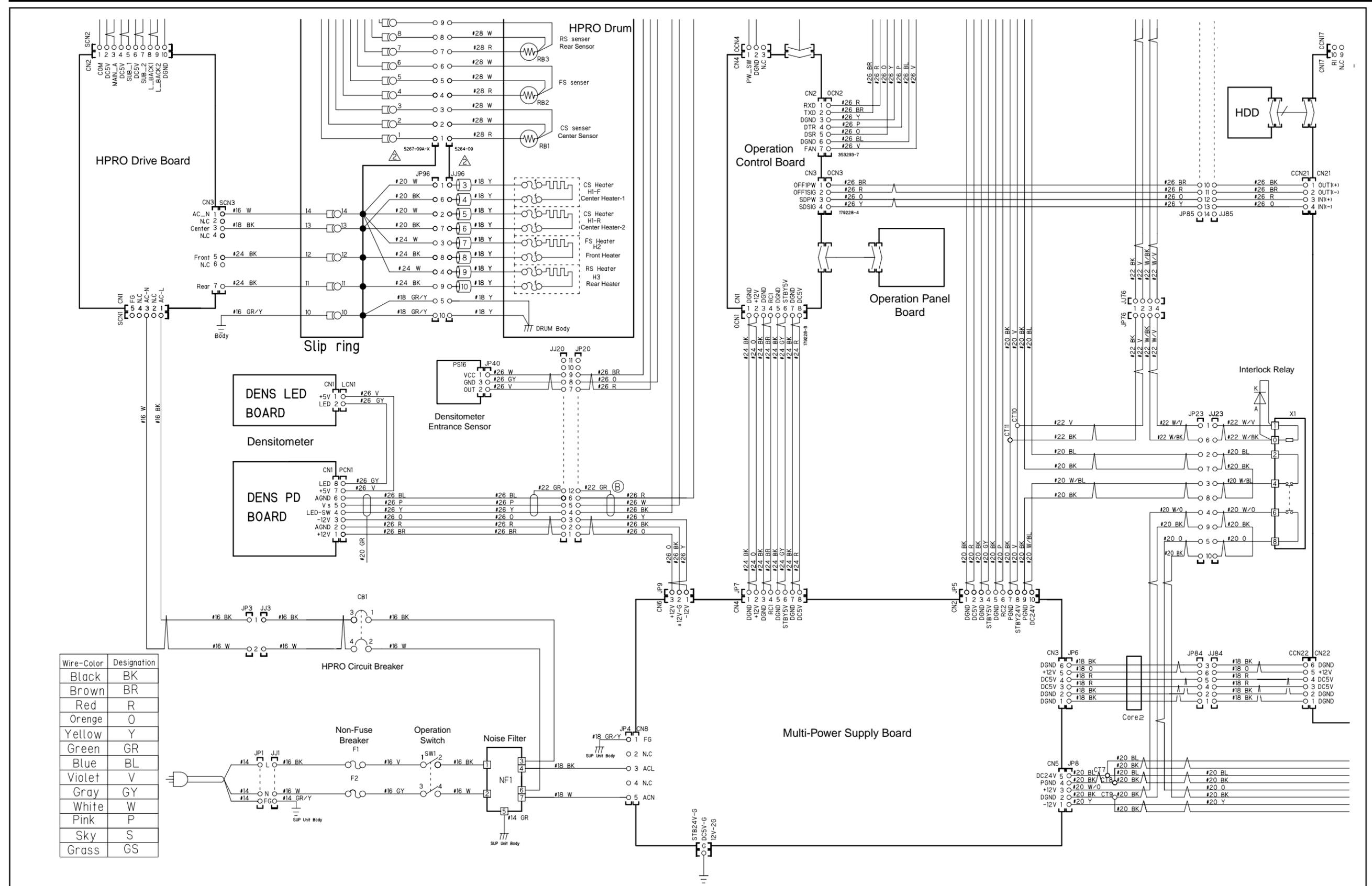
# Overall Wiring Diagram



# Wiring Diagram 1/4

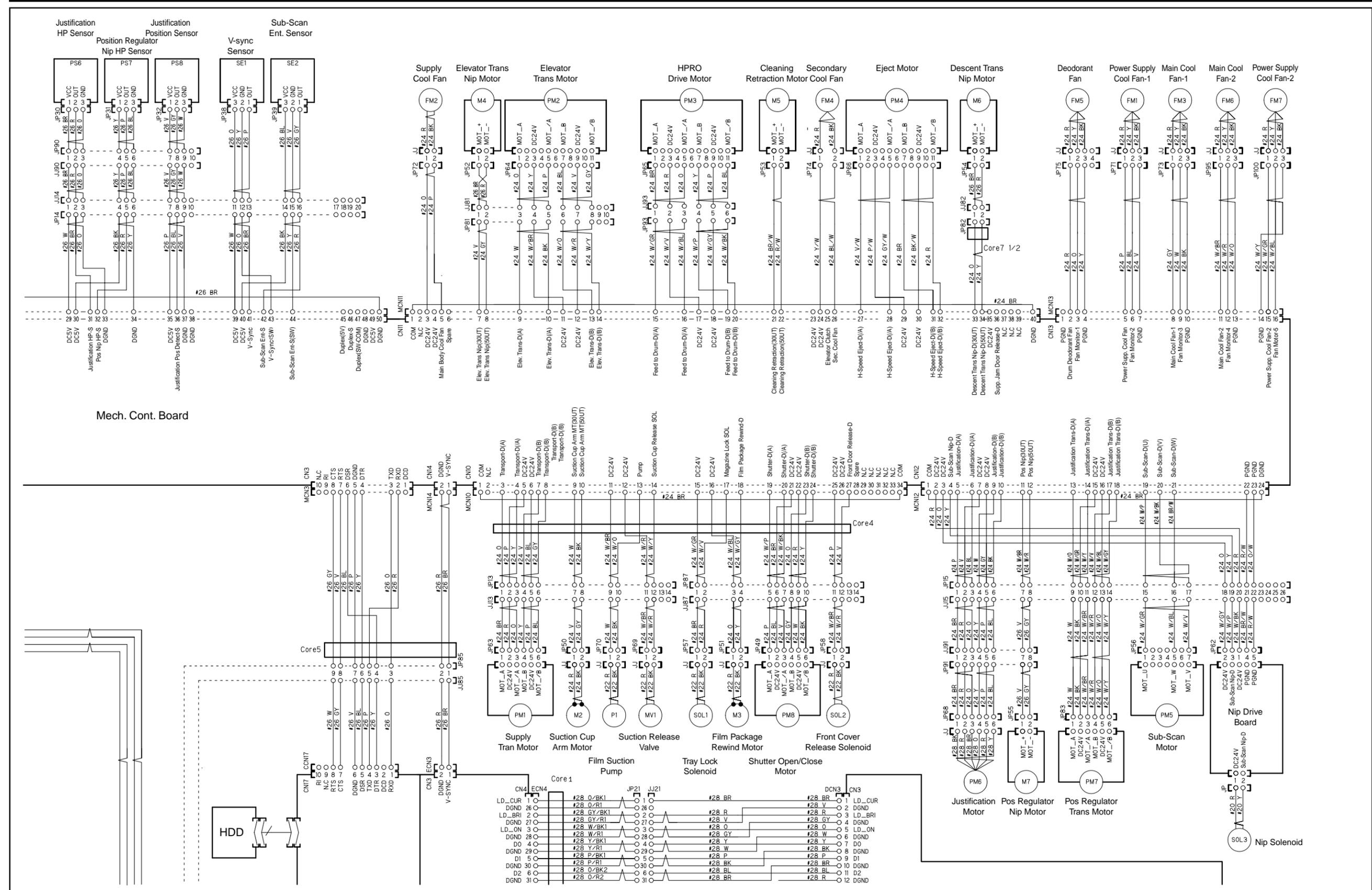


Wiring Diagram 2/4

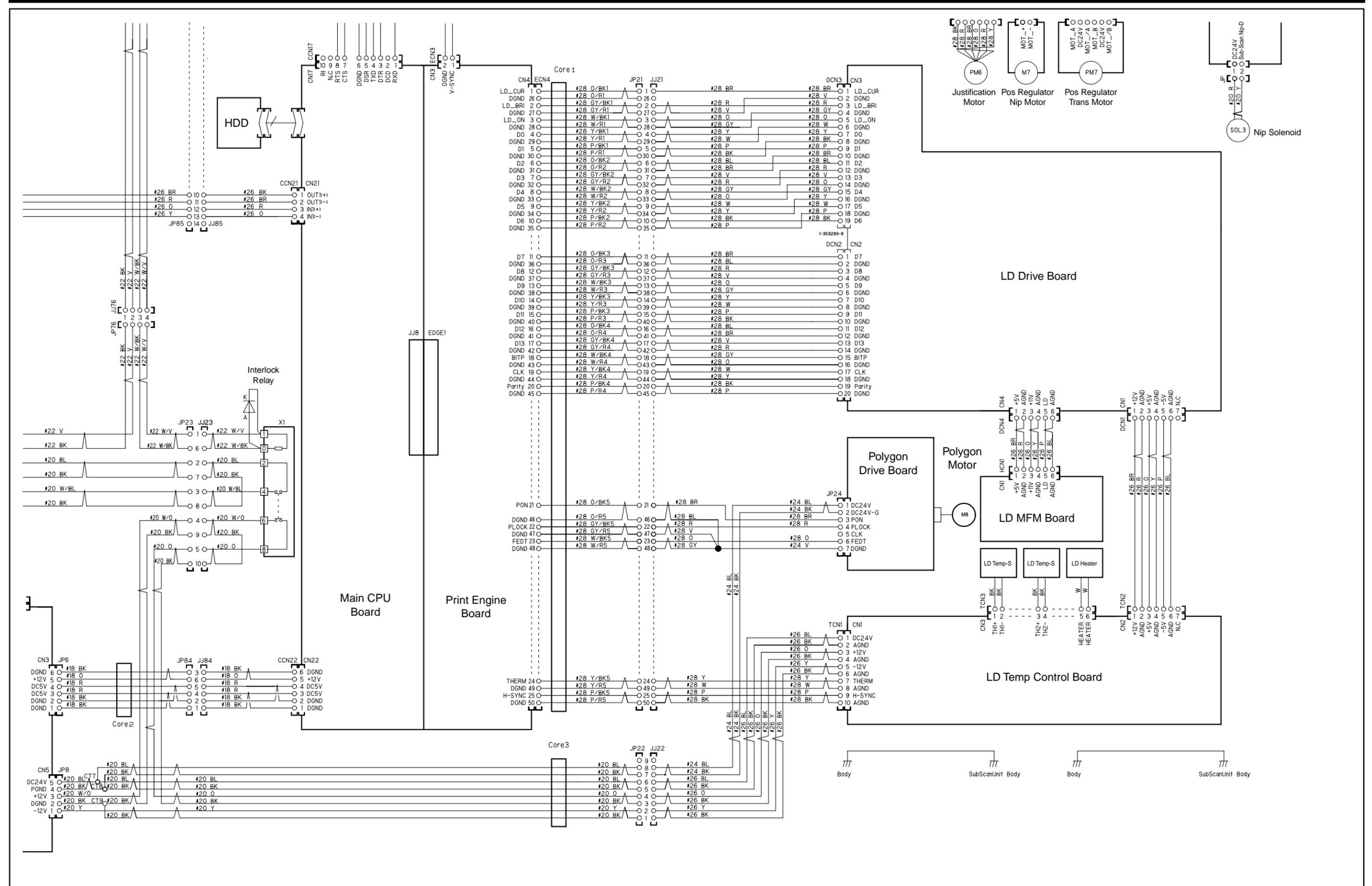


Wire-Color	Designation
Black	BK
Brown	BR
Red	R
Orange	O
Yellow	Y
Green	GR
Blue	BL
Violet	V
Gray	GY
White	W
Pink	P
Sky	S
Grass	GS

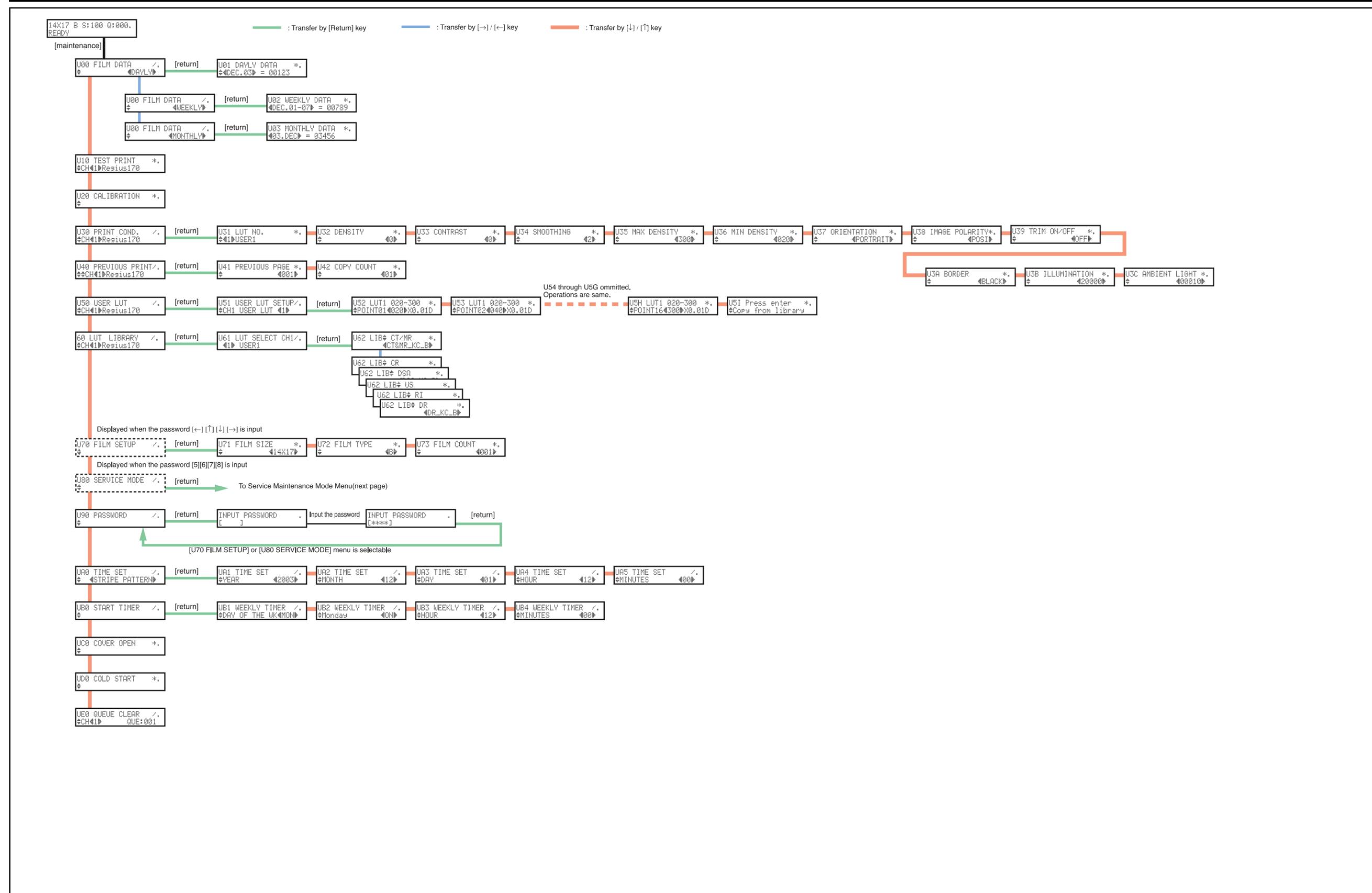
# Wiring Diagram 3/4



# Wiring Diagram4/4



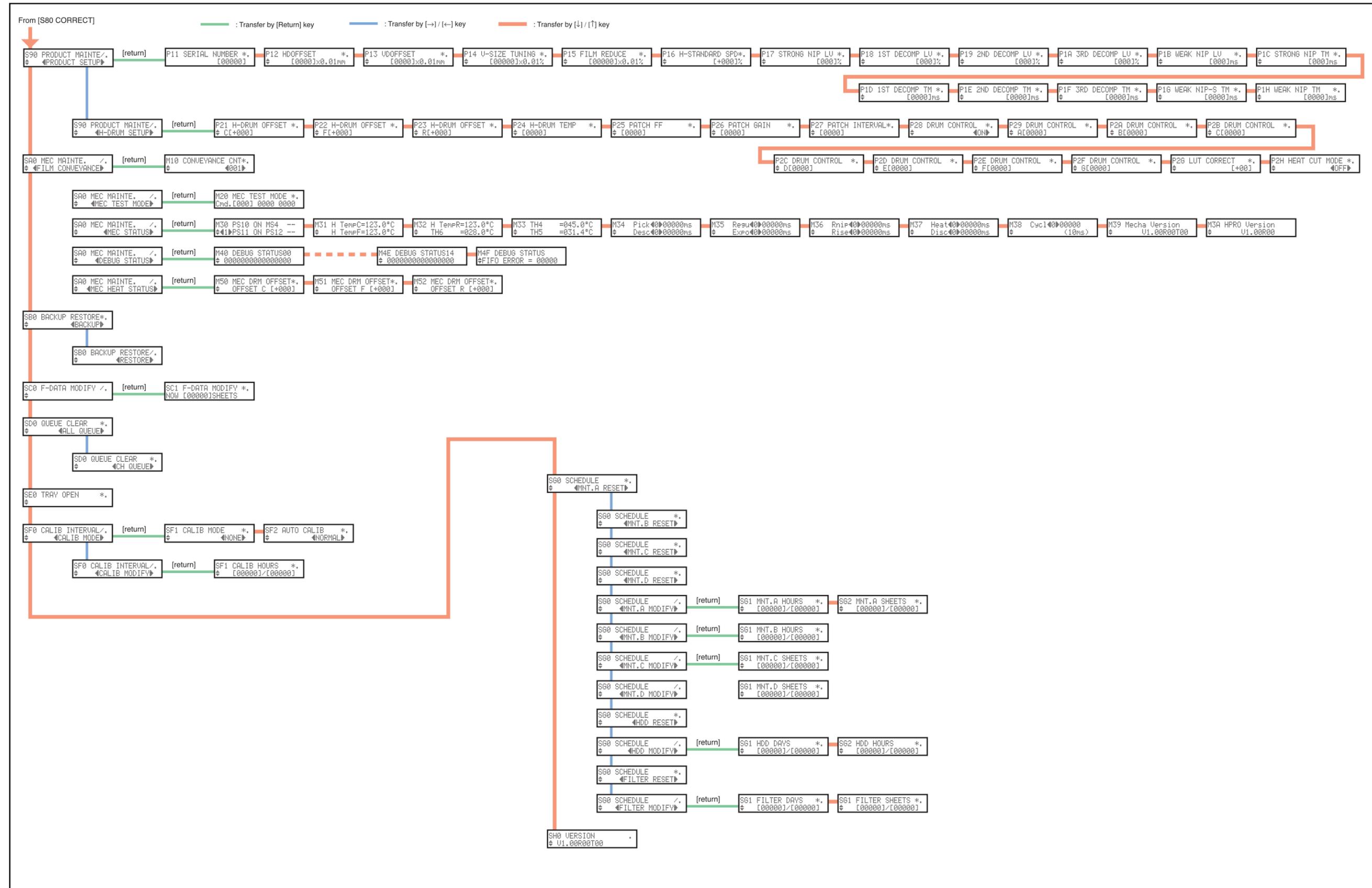
# User Maintenance Menu



# Service Maintenance Menu



# Service Maintenance Menu





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