SANYO

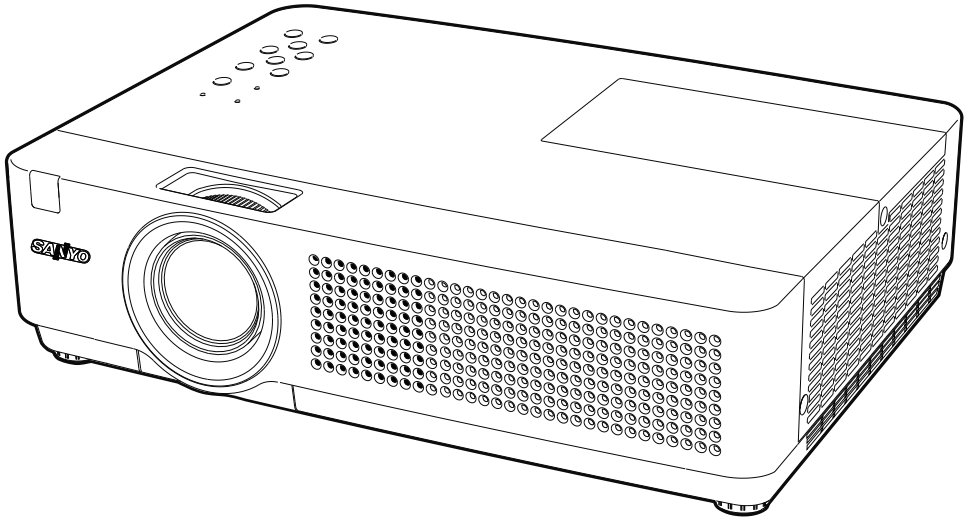
FILE NO.

SERVICE MANUAL

Multimedia Projector

Model No. PLC-XU4000

U.S.A, Canada,
Europe, U.K, Asia
Brazil



Chassis No. KA2-XU400000

Match the Chassis No. on the rating label of the projector with the Chassis No. in the Service Manual.
If the Original Version Service Manual Chassis No. does not match, additional Service Literature is required. You must refer to “Notices” to the Original Service Manual prior to servicing.

PRODUCT CODE
PLC-XU4000

1 122 542 00 (KA2AC)
1 122 542 04 (KA2EC)
1 122 547 00 (LA2AC)
1 122 547 02 (LA2CC)
1 122 547 03 (LA2DC)

REFERENCE NO. SM5111301-00

Contents

Safety Instructions

Safety Precautions

WARNING:
The chassis of this projector is isolated (COLD) from AC line by using the converter transformer. Primary side of the converter and lamp power supply unit circuit is connected to the AC line and it is hot, which hot circuit is identified with the line (⏦) in the schematic diagram. For continued product safety and protection of personnel injury, servicing should be made with qualified personnel.

The following precautions must be observed.

1: An isolation transformer should be connected in the power line between the projector and the AC line before any service is performed on the projector.

2: Comply with all caution and safety-related notes provided on the cabinet back, cabinet bottom, inside the cabinet or on the chassis.

3: When replacing a chassis in the cabinet, always be certain that all the protective devices are installed properly, such as, control knobs, adjustment covers or shields, barriers, etc.

DO NOT OPERATE THIS PROJECTOR WITHOUT THE PROTECTIVE SHIELD IN POSITION AND PROPERLY SECURED.

4: Before replacing the cabinet cover, thoroughly inspect the inside of the cabinet to see that no stray parts or tools have been left inside.

Before returning any projector to the customer, the service personnel must be sure it is completely safe to operate without danger of electric shock.

Product Safety Notice

Product safety should be considered when a component replacement is made in any area of the projector. Components indicated by mark ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. It is, therefore, particularly recommended that the replacement of there parts must be made by exactly the same parts.

Service Personnel Warning

Eye damage may result from directly viewing the light produced by the Lamp used in this equipment. Always turn off Lamp before opening cover. The Ultraviolet radiation eye protection required during this servicing.
Never turn the power on without the lamp to avoid electric-shock or damage of the devices since the stabilizer generates high voltages (15kV - 25kV) at its starts.
Since the lamp is very high temperature during units operation replacement of the lamp should be done at least 45 minutes after the power has been turned off, to allow the lamp cool-off.

Specifications

Mechanical Information

Projector Type	Multi-media Projector
Dimensions (W x H x D)	13.78" x 3.44" x 10.02" (350.0 mm X 87.5 mm X 254.4 mm) (Not including protrusions)
Net Weight	7.28 lbs (3.3 kg)
Feet Adjustment	0˚ to 12˚

Panel Resolution

LCD Panel System	0.63" TFT Active Matrix type, 3 panels
Panel Resolution	1,024 x 768 dots
Number of Pixels	2,359,296 (1,024 x 768 x 3 panels)

Signal Compatibility

Color System	PAL, SECAM, NTSC, NTSC4.43, PAL-M, and PAL-N
SD/HD TV Signal	480i, 480p, 575i, 575p, 720p, 1035i and 1080i
Input Scanning Frequency	H-sync. 15 kHz–100 kHz, V-sync. 50–100 Hz

Optical Information

Projection Image Size (Diagonal)	Adjustable from 40” to 300”
Throw Distance	4.6' ~ 41.7' (1.4 m ~ 12.7 m)
Projection Lens	F 1.60 ~ 1.76 lens with f 22.3 mm ~ 26.8 mm with manual zoom and focus
Projection Lamp	245 W

Interface

Video Input Jack	RCA Type x 1
S-video Input Jack	Mini DIN 4 pin x 1
Audio Input Jacks	RCA Type x 2
Computer 1/Computer 2 Audio Input Jacks	Mini Jack (stereo) x 2
Computer In 1/Component Input Terminal	Mini D-sub 15 pin x 1
Computer In 2/Monitor Output Terminal	Mini D-sub 15 pin x 1
Control Port	D-sub 9 pin x 1
Audio Output Jack	Mini Jack (stereo) x 1 (variable)
LAN Connection Terminal	RJ-45

Audio

Internal Audio Amp	10.0 W RMS
Built-in Speaker	1 speaker, ø1.1"(37 mm)

Power

Voltage and Power Consumption	AC 100–240 V (3.8-1.8 A Max. Ampere), 50/60 Hz

Operating Environment

Operating Temperature	41˚F–95˚F (5 ˚C–35 ˚C)
Storage Temperature	14˚F–140˚F (-10˚C–60 ˚C)

Remote Control

Battery	AAA or LR03 1.5V ALKALINE TYPE x 2
Operating Range	16.4' (5 m)/±30˚
Dimensions	2.0" (W) x 0.7" (H) x 4.3" (D) (52 mm x 18 mm x 110 mm)
Net Weight	2.37 oz (67 g) (including batteries)

- The specifications are subject to change without notice.
- LCD panels are manufactured to the highest possible standards. Even though 99.99% of the pixels are effective, a tiny fraction of the pixels (0.01% or less) may be ineffective by the characteristics of the LCD panels.

c UL US LISTED

This symbol on the nameplate means the product is Listed by Underwriters Laboratories Inc. It is designed and manufactured to meet rigid U.L. safety standards against risk of fire, casualty and electrical hazards.

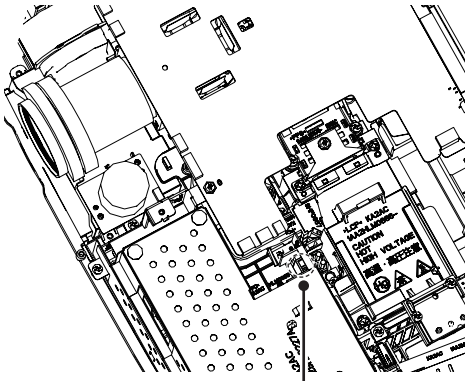
Circuit Protections

This projector provides the following circuit protections to operate in safety. If the abnormality occurs inside the projector, it will automatically turn off by operating one of the following protection circuits.

Thermal switch

There is the thermal switch (SW902) inside of the projector to detect the internal temperature rising abnormally. When the internal temperature reaches near 115˚C, the thermal switch opens to stop the operation of the power supply circuit.

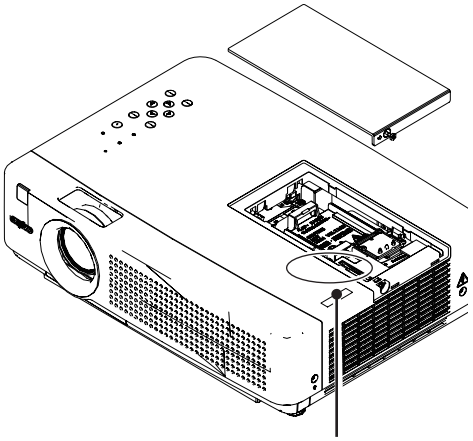
When the internal temperature reaches near 75˚C, the thermal switch returns automatically.



Thermal switch (SW902)

Lamp cover switch

The lamp cover switch (SW901) cuts off the drive signal to the lamp circuit when the lamp cover is removed or not closed completely. After opening the lamp cover for replacing the lamp ass'y, place the lamp cover correctly otherwise the projector can not turn on.



Lamp cover switch
(SW901)

Fuse

A fuse is located inside of the projector. When the POWER indicator is not lighting, the fuse may be opened. Check the fuse as following steps.
The fuse should be used with the following type;

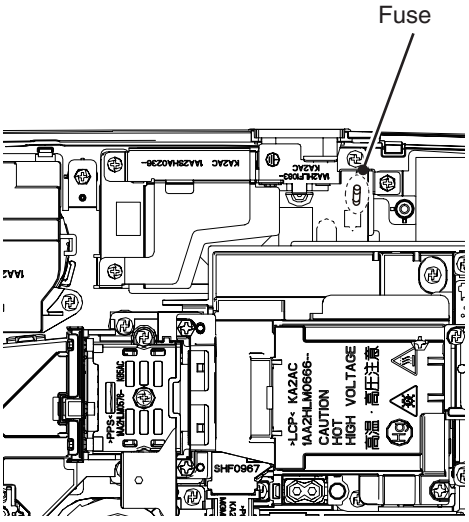
Fuse Part No.: 323 021 7804
TYPE T6.3AH 250V FUSE
LITTEL FUSE INC. TYPE 21506.3

or

Fuse Part No, : 423 034 4101
TYPE T6.3AH 250V FUSE
Hollyland Co, Ltd. TYPE 50CT063H

How to replace the fuse

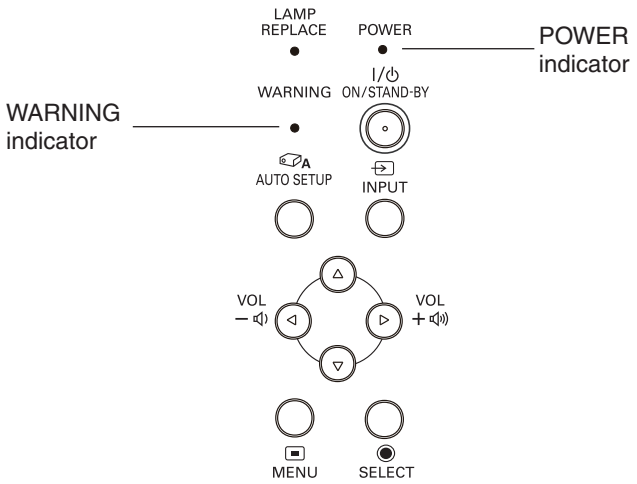
1. The fuse is placed on the filter board. Remove the cabinet top following the "Mechanical Disassembly" .
2. Take the fuse off from the fuse holder, and replace the new one with the specified type.



Warning temperature and power failure protection

The projector will be automatically turned off when the internal temperature of the projector is abnormally high, or the cooling fans stop spinning, or the power supplies in the projector are failed.

LED indicator



The projector is shut down and the WARNING indicator is blinking red.

When the temperature inside the projector reaches a certain level, the projector will be automatically shut down to protect the inside of the projector and the WARNING and POWER indicators start blinking. When the projector has cooled down enough (to its normal operating temperature), the POWER indicator stops blinking and lights red, The projector can be turned on again by pressing the ON/STAND-BY button.

✔ **Note:**
The WARNING indicator continues to blink even after the temperature inside the projector returns to normal. When the projector is turned on again, the WARNING indicator stops blinking.

Check items
- Remove dust arround the air filter.
- Ventilation slots of the projector are blocked. In such an event, reposition the projector so that ventilation slots are not obstructed.
- Check if projector is used at higher temperature place (Normal operating temperature is 5 to 35 ˚C or 41 to 95˚F)

The projector is shut down and the WARNING indicator lights red.

When the projector detects an abnormal condition, it is automatically shut down to protect the inside of the projector and the WARNING indicator lights red. In this case, unplug the AC power cord and reconnect it, and then turn the projector on once again to verify operation.

✔**Note:**
- If the WARNING indicator lights red, it may defect the cooling fans or power supply circuits. Check fans operation and power supply lines referring to the chapter “Power supply & protection circuit” and "Fan control circuit" in the Chassis Block Diagram section.

WARNING
DO NOT LEAVE THE PROJECTOR WITH THE AC POWER CORD CONNECTED UNDER AN ABNORMAL CONDITION. IT MAY RESULT IN FIRE OR ELECTRIC SHOCK.

Maintenance

Replace the Filters

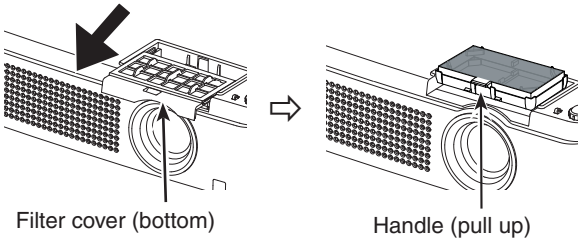
Filter prevents dust from accumulating on the optical elements inside the projector. Should the filter become clogged with dust particles, it will reduce cooling fans' effectiveness and may result in internal heat buildup and adversely affect the life of the projector. If a "Filter warning" icon appears on the screen, replace the filters immediately. Replace the filters by following the steps below.

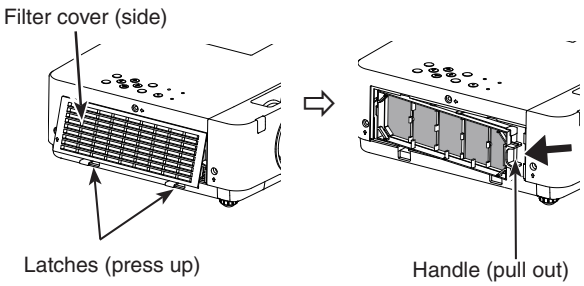
1 Turn off the projector and unplug the AC power cord from the AC outlet.

2 Turn over the projector and pull out the filter cover (bottom); pull up the handle and take out the whole filter (bottom.)
Press up the latches and pull out the filter cover (side); pull out the handle and take out the side filter.

3 Put new filters back into the position. Make sure that the filters are fully inserted to the projector.

4 Connect the AC power cord to the projector and turn on the projector.





CAUTION

–Do not operate the projector with the filters removed. Dust may accumulate on the optical elements degrading picture quality.

–Do not put anything into the air vents. Doing so may result in malfunction of the projector.

–Do not wash the filters with water or any other liquid matter. Otherwise the filters may be damaged.

RECOMMENDATION

We recommend avoiding dusty/smoky environments when you operate the projector. Usage in these environments may cause poor image quality.
When using the projector under dusty or smoky conditions, dust may accumulate on a lens, LCD panels, or optical elements inside the projector degrading the quality of a projected image. When the symptoms above are noticed, contact your authorized dealer or service center for proper cleaning.

Resetting the Filter Counter

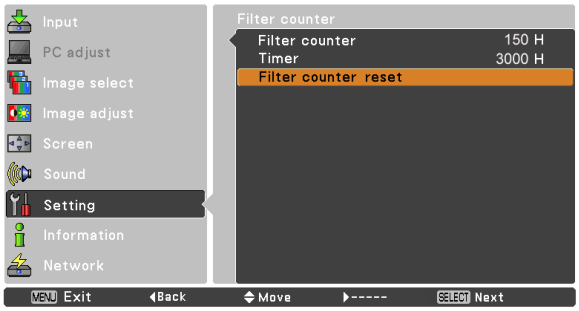
Be sure to reset the Filter counter after replacing the filters.

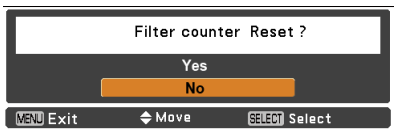
1 Press the MENU button to display the On-Screen Menu. Use the Point ▲▼ buttons to select the **Setting** Menu and then press the Point ▶ or the SELECT button.

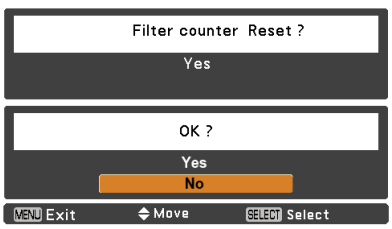
2 Use the Point ▲▼ buttons select Filter counter and then press the Point ▶ or the SELECT button. Use the Point▲▼ buttons to select **Filter counter reset** and then press the SELECT button. The **Filter counter Reset?** appears. Select **Yes** to continue.

3 Another confirmation dialog box appears, select **Yes** to reset the Filter counter.

Filter counter







The **Filter counter Reset?** appears.

Select **Yes**, then another confirmation box appears.

Select **Yes** again to reset the Filter counter.

Cleaning

After long periods of use, dust and other particles will accumulate on the LCD panel, prism, mirror, polarized glass, lens, etc., causing the picture to darken or color to blur. If this occurs, clean the inside of optical unit.
Remove dust and other particles using air spray. If dirt cannot be removed by air spray, disassemble and clean the optical unit.

Cleaning with air spray

Remove the cabinet top following to “Mechanical Disassembly”. Clean up the LCD panel and polarizing plate by using the air spray from the cabinet top opening.

Caution:
Use a commercial (inert gas) air spray designed for cleaning camera and computer equipment. Use a resin-based nozzle only. Be very careful not to damage optical parts with the nozzle tip. Never use any kind of cleanser on the unit. Also, never use abrasive materials on the unit as this may cause irreparable damage.

Disassembly Cleaning

Disassembly cleaning method should only be performed when the unit is considerable dirty and cannot be sufficientlycleaned by air spraying alone.
Be sure to readjust the optical system after performing disassembly cleaning.

1. Remove the cabinet top and main units following to “Mechanical Disassembly”.
2. Remove the optical base top following to “Optical Unit Disassembly”. If the LCD panel needs cleaning, remove the LCD panel unit following to “LCD panel replacement”.
3. Clean the optical parts with a soft cloth. Clean extremely dirty areas using a cloth moistened with alcohol.

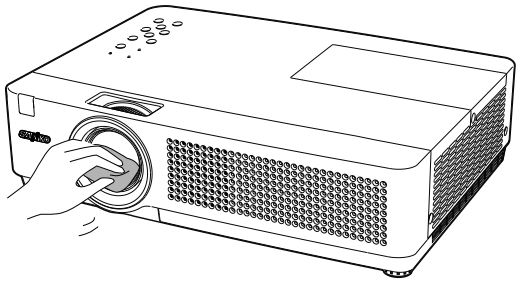
Caution:
The surface of the optical components consists of multiple dielectric layers with varying degrees of refraction. Never use organic solvents (thinner, etc.) or any kind of cleanser on these components.
Since the LCD panel is equipped with an electronic circuit, never use any liquids (water, etc.) to clean the unit. Use of liquid may cause the unit to malfunction.

Cleaning the Projection Lens

Unplug the AC power cord before cleaning.

Gently wipe the projection lens with a cleaning cloth that contains a small amount of non-abrasive camera lens cleaner, or use a lens cleaning paper or commercially available air blower to clean the lens.

Avoid using an excessive amount of cleaner. Abrasive cleaners, solvents, or other harsh chemicals might scratch the surface of the lens.

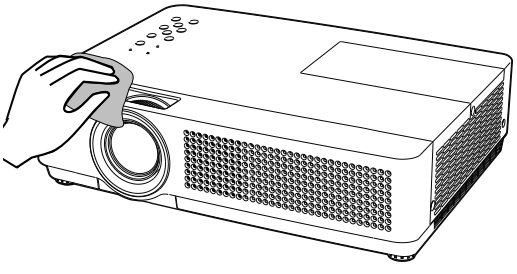


Cleaning the Projector Cabinet

Unplug the AC power cord before cleaning.

Gently wipe the projector body with a soft dry cleaning cloth. When the cabinet is heavily soiled, use a small amount of mild detergent and finish with a soft dry cleaning cloth. Avoid using an excessive amount of cleaner. Abrasive cleaners, solvents or other harsh chemicals might scratch the surface of the cabinet.

When the projector is not in use, put the projector in an appropriate carrying case to protect it from dust and scratches.



Lamp Replacement

Lamp replacement

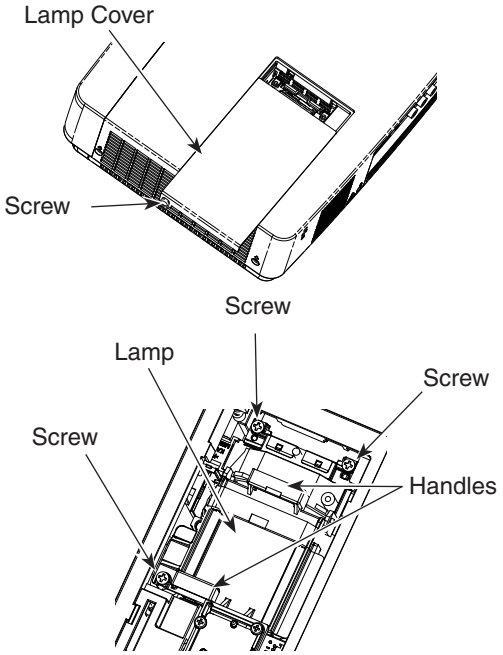
WARNING:
- For continued safety, replace with a lamp assembly of the same type.
- Allow the projector to cool for at least 45 minutes before you open the lamp cover. The inside of the projector can become very hot.
- Do not drop the lamp module or touch the glass bulb! The glass can shatter and cause injury.

Procedure

1. Unplug the AC power cord. Let the projector cool for at least 45 minutes.
2. Loosen the screw and open the lamp cover.
3. Loosen the three (3) screws that secure the lamp. Lift the lamp out of the projector by using the handles.
4. Replace the lamp with a new one and secure the three (3) screws. Make sure that the lamp is set properly. Push the lamp cover and secure the screw.
5. Connect the AC power cord to the projector and turn on the projector.

ORDER REPLACEMENT LAMP

Type No.	**POA-LMP148**
Service Parts No.	**610 352 7949**



WARNING : TURN OFF THE UV LAMP BEFORE OPENING THE LAMP COVER.
USE UV RADIATION EYE AND SKIN PROTECTION DURING SERVICING.

CAUTION

Allow a projector to cool for at least 45 minutes before you open the Lamp Cover. The inside of the projector can become very hot.

CAUTION

For continued safety, replace with a lamp of the same type. Do not drop a lamp or touch a glass bulb! The glass can shatter and may cause injury.

CAUTION

When replacing the lamp because it has stopped illuminating, there is a possibility that the lamp may be broken.
If replacing the lamp of a projector which has been installed on the ceiling, you should always assume that the lamp is broken, and you should stand to the side of the lamp cover, not underneath it. Remove the lamp cover gently. Small pieces of glass may fall out when the lamp cover is opened. If pieces of glass get into your eyes or mouth, seek medical advice immediately.

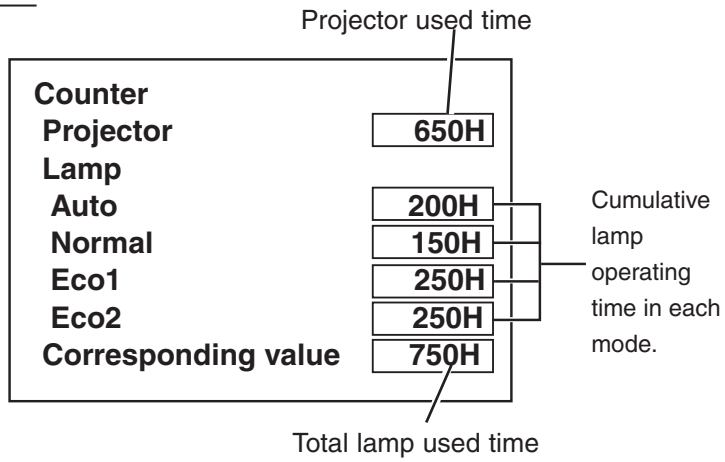
How to check Lamp Used Time

The LAMP REPLACE indicator will light yellow when the total lamp used time (Corresponding value) reaches 5,000 hours. This is to indicate that lamp replacement is required.

You can check the lamp used time following to the below procedure.

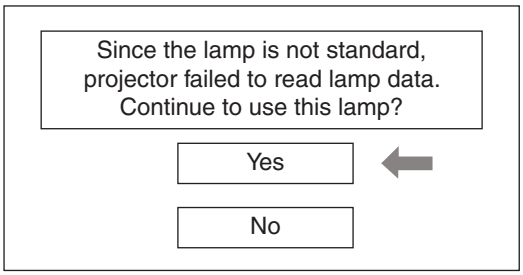
1 Press and hold the **ON/STAND-BY** button on the projector or the remote control for more than 20 seconds.

2 The projector used time and lamp used time will be displayed on the screen briefly as follows.



Warning Message on the non-standard lamp used

If the non-standard lamp is used, the warning and confirmation messages will appear on the screen every startup. Some of the functions are limited when the non-standard lamp is used in spite of the warning.



Security Function Notice

This projector provides security functions such as "Key lock", "PIN code lock" and "Logo PIN code lock". When the projector has set these security function on, you are required to enter correct PIN code to use the projector. If you do not know the correct PIN code to the projector, the projector can no longer be operated or started. In this case, you must reset those function first according to the resetting procedure described below and then check up on the projector.

Function	Description
Key lock	Locks operation of the top control or the remote control. If the Key lock is enabled with top control lock, the projector can no longer be started. Initial setting: Key lock function is disabled
PIN code lock	Prevents the projector from being operated by an unauthorized person. Initial code: “1234”
Logo PIN code lock	Prevents an unauthorized person for changing the start-up logo on the screen. Initial code: “4321”

Resetting procedure

1 Disconnect the AC power cord from the AC outlet.
2. As pressing the **SELECT** button, connect the AC power cord into an AC outlet again.
3. Keep pressing the **SELECT** button and then press the **ON/STAND-BY** button.
4. Release the **ON/STAND-BY** button first and then release the **SELECT** button.
   - The PIN code lock and Logo PIN code lock will be reset as the initial PIN code at the factory and the key lock function is disabled.

Please refer to the owner's manual for further information of the security functions.

Standby mode Notice

This projector provides 2 types of standby mode, Eco standby and Network standby. According to the standby mode "Eco" or "Network", several functions are restricted as shown in the table below. To change the standby mode, use the projector's menu "Setting".

Network..... Supply the power to the network function even after turning off the projector. You can turn on/ off the projector via network, modify network environment, and receive an e-mail about projector status while the projector is powered off.

Eco..... Select “Eco” when you do not use the projector via network. The projector’s network function will stop when turning off the projector.

When "Eco" is selected, several functions will be restricted.

Restricted Function in the standby mode

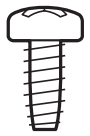
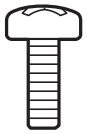
Function	Eco	Network
Serial command control	✔*1	✔
Network Function	--	✔
Monitor Out	--	✔
Audio Out	--	--
Mic Out (MIC Volume)	--	✔ *2
Direct on	✔	✔

*1 Effective only power-on command "C00".

*2 MIC volume can be output when the Standby MIC Out function is set to **On**.

Mechanical Disassembly

Mechanical disassembly should be made following procedures in numerical order.
Following steps show the basic procedures, therefore unnecessary step may be ignored.
Caution:
The parts and screws should be placed exactly the same position as the original otherwise it may cause loss of performance and product safety.

Screws Expression (Type Diameter x Length) mm	
T type	M Type
	

1. Filter cover (side), Cabinet Top, Front, RC Board removal

1. Pull up two Latches to take off the Filter cover(side).
2. Loosen 1 screw-A to remove the Lamp Cover.
3. Remove 7 screws-B (M3x8) and 1 screw-C(M3x8) to remove the Cabinet Top.
4. Remove 3 screws-D (M3x8) and 3 screws-E (T3x8) to remove the Cabinet Front.

Note on mounting the Cabinet top
When mounting the Cabinet top, mount the Cabinet top first and then mount the Lamp Cover, otherwise the Lamp Cover switch(SW901) on the Fan holder may fail.

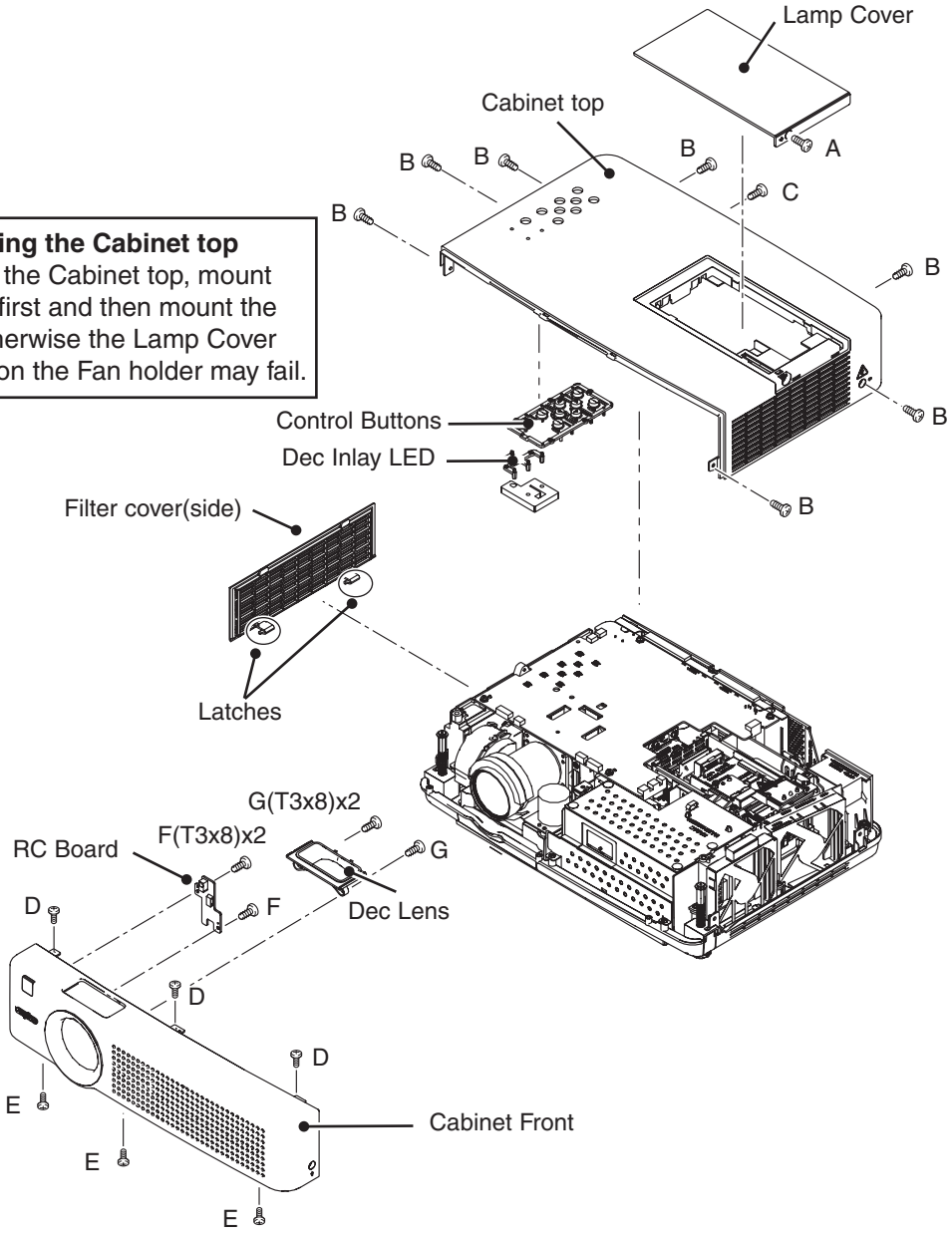


Fig.1

2. Main Board, AV Board and Fans(FN904 and FN905) removal

1. Remove 3 screws-A (T3x8) and remove the fans (FN904 and FN905).
2. Remove 5 screws-B (M2.5x6) and 2 screws-C (M3x8) to remove the Main Board.
3. Release the hooks to remove the AV Panel, remove 3 screws-D (T3x6) and 2 hex screws E to remove the AV Board.

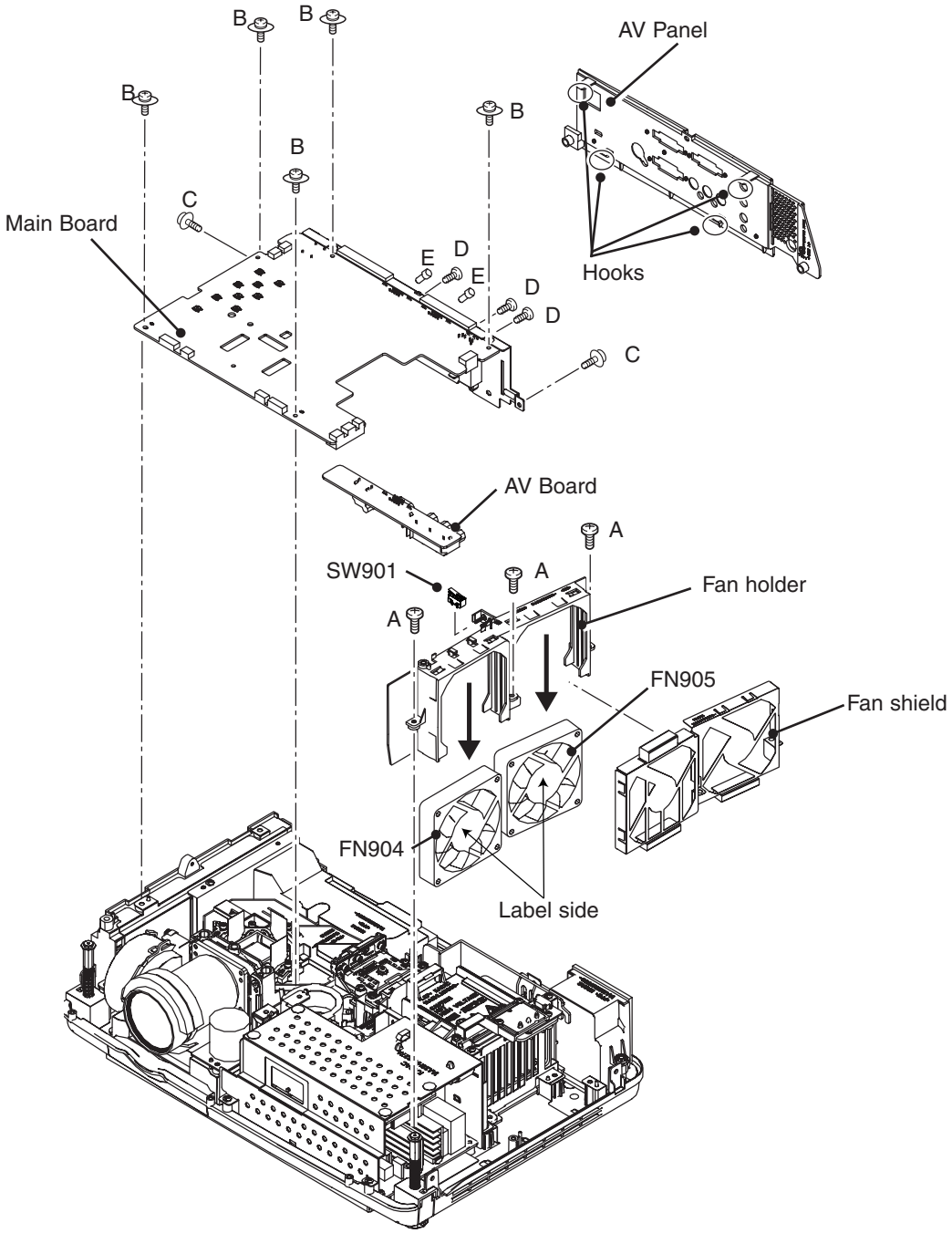


Fig.2

3. Speaker(SP901),Lamp assy(LP900), Optical Unit removal

1. Remove the 2 screws-A(T3x12) to remove the speaker holder.Remove the 2 screws-B(T3x8) to remove the speaker(SP901).
2. Loosen 3 screws-C to remove the Lamp assy (LP900).
3. Remove 4 screws-D (T3x8) to remove the Optical unit.
4. Remove 3 screws-E (T3x8) and 1 screw-F(M3x8) to remove the Lamp holder. Remove 2 screws-G(T3x8) to remove the ID Connect board.
5. Remove 2 screws-H(T3x8) to remove the Sub Power board.
6. Remove 3 screws-K (M3x8) and 1 screw-J (T3x8) to remove the Filter board.

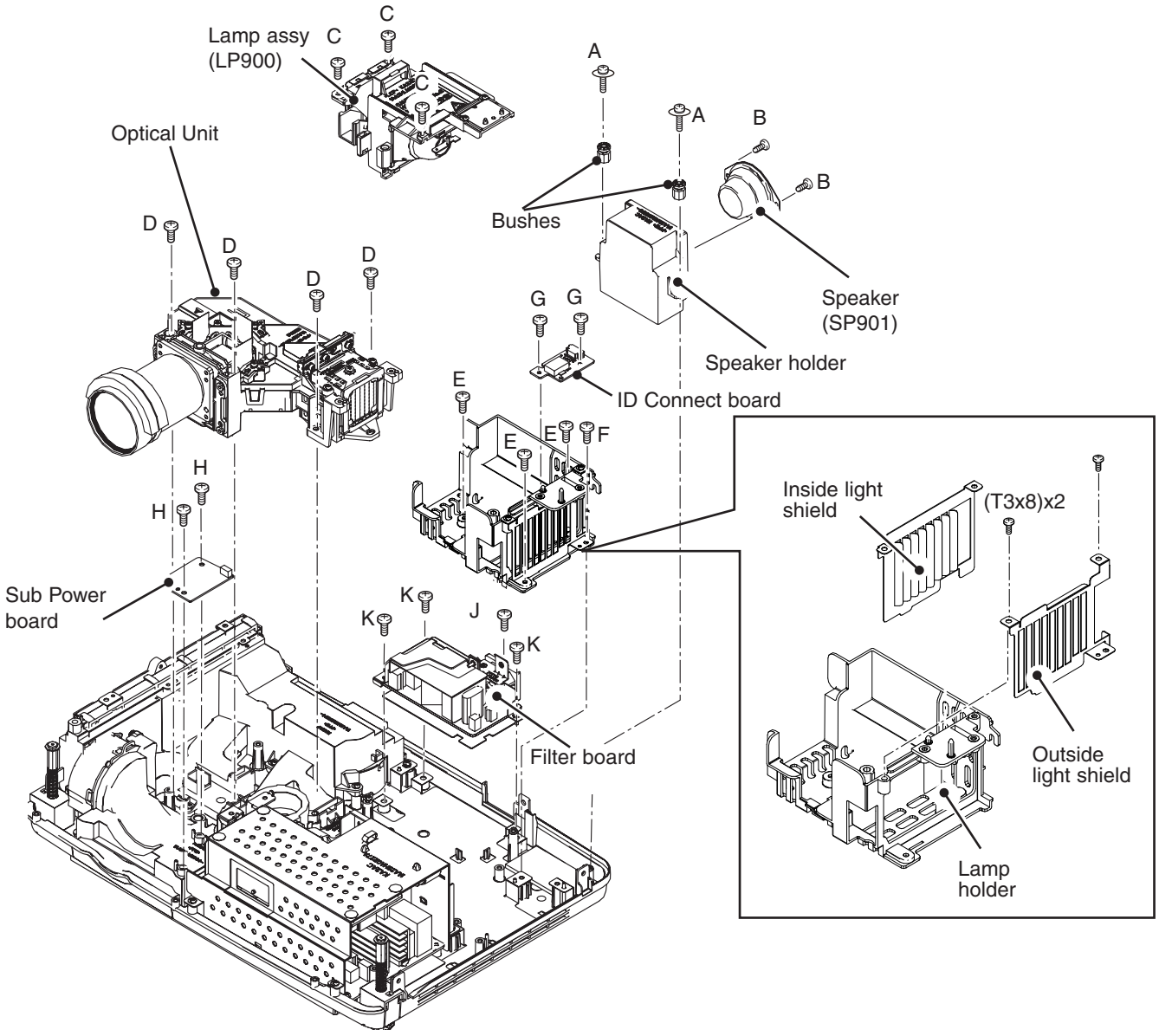


Fig.3

4. Fan (FN906) and Power Board removal

1. Remove 2 screws-A (T3x8) to remove the Cabinet front holder. Remove 1 screw-B (T3x8) to remove the Sensor holder and Thermal Switch(SW902).
2. Remove 2 screws-C(T3x8) to remove the Lamp fan duct ass'y. Remove 2 screws-D (T3x12) and 1 screw-E (T3x8) to remove the fan (FN906) and Lamp fan duct.
3. Remove 1 screw F (T3x8) and 2 screws-G (T3x8) to remove the Lamp Socket and Socket plug.
4. Remove 2 screws H (T3x8) and 1 screw-J (M3x8) to remove the Power board holder.
5. Remove 3 screws-K (T3x8) and 1 screw-L (M3x8) to remove the Power board.

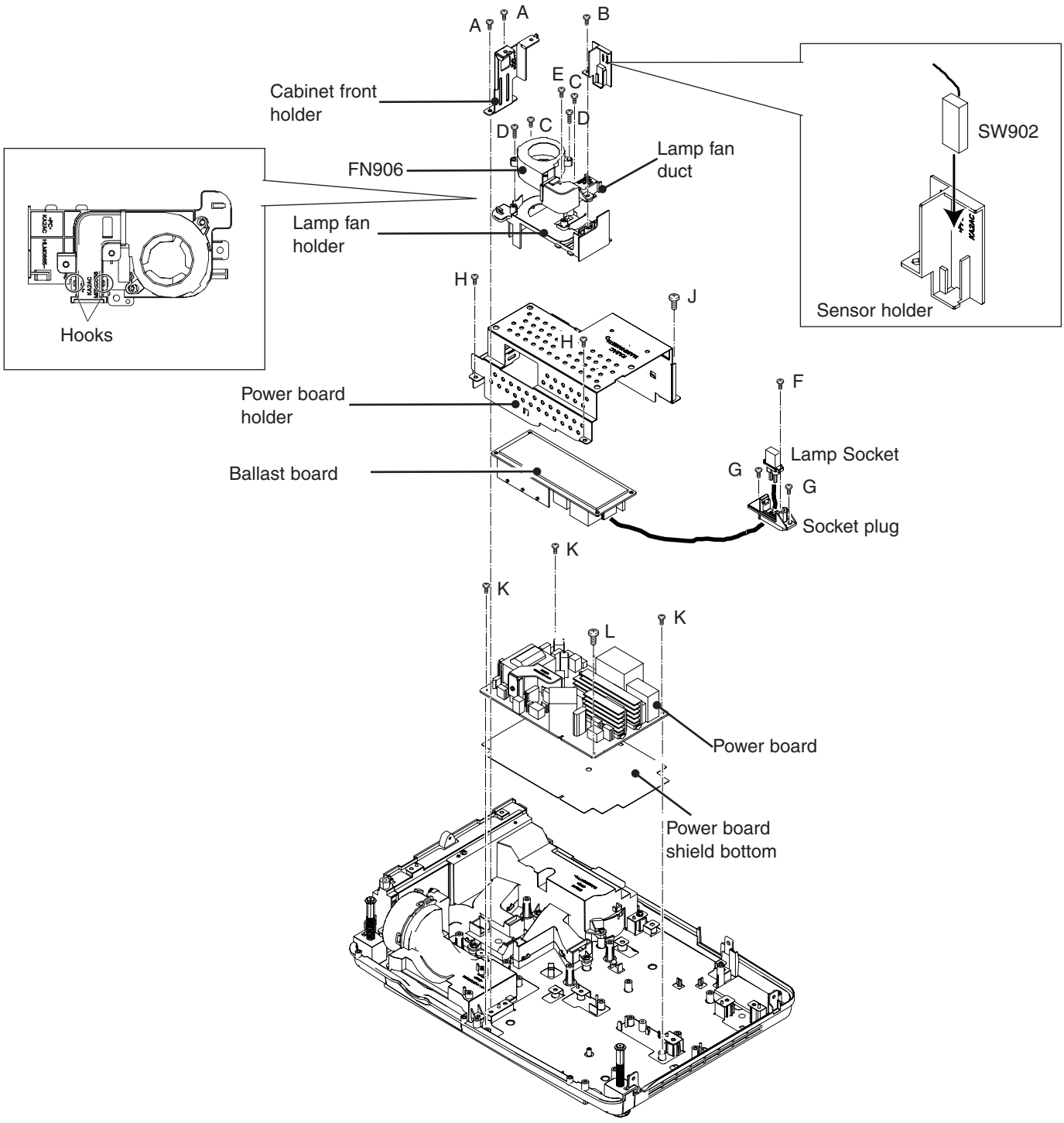


Fig.4

5. Mounting Duct, Fans(FN901, FN902, FN903) and Side Filter removal

1. Remove 5 screws-A (T3x8) and 2 screws-B (T3x12) to remove the Panel Mouting Duct top.
2. Remove 2 screws-C (T3x12) to remove fans (FN902 and FN903). Remove the Panel Mounting Duct bottom.
3. Remove 3 screws-D (T3x8) to remove the Filter Mounting Duct and remove 2 screws-E(T3x12) to remove fan (FN901).
4. Take out the Filter Box(side), and then remove 2 screws-F(T3x8) to remove the Side Filter Holder.
5. Take off the Filter Box(bottom) and Filter cover(bottom).

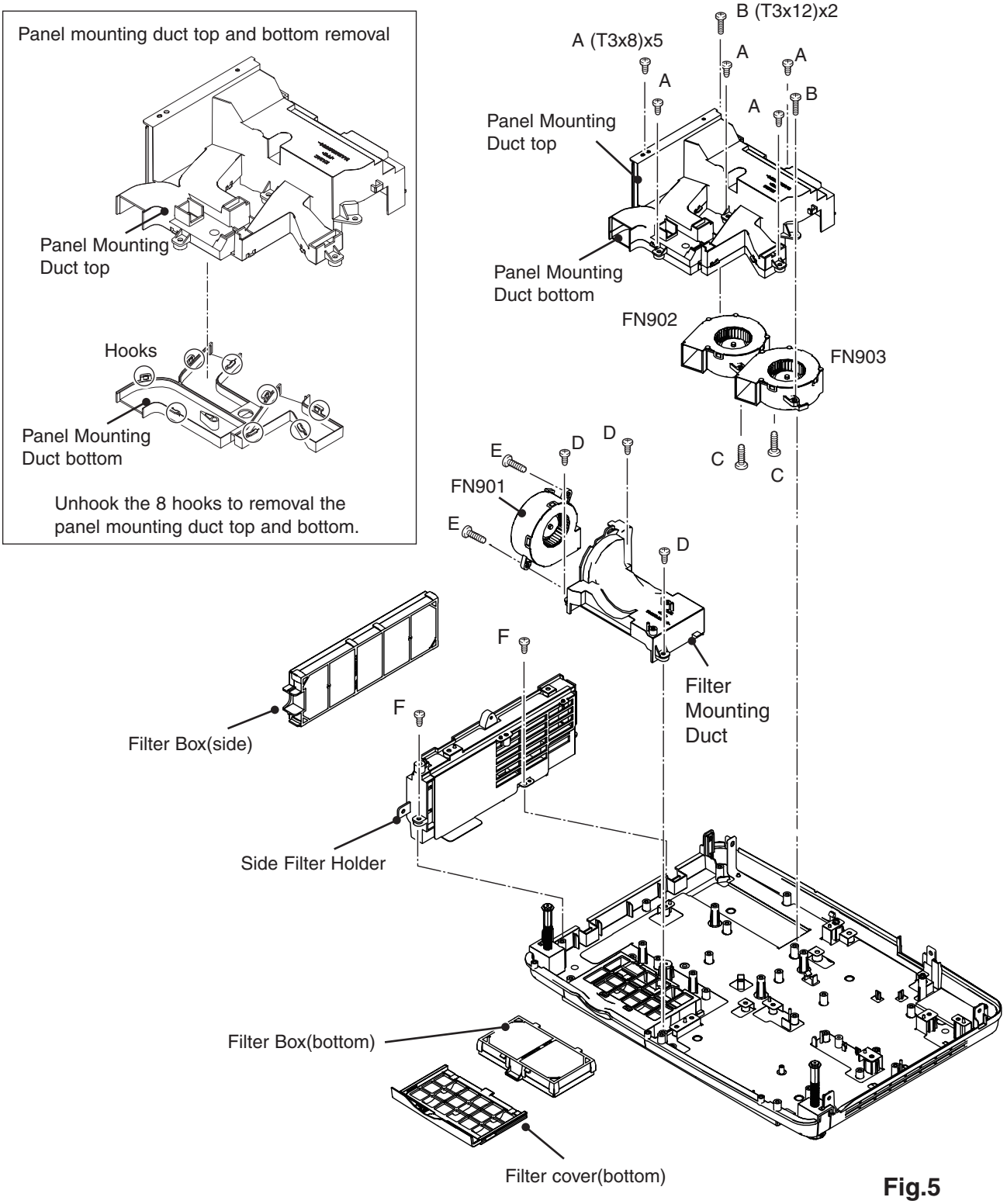
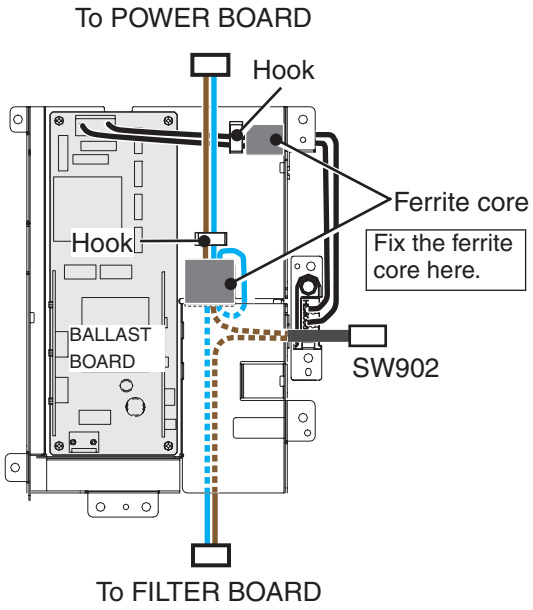


Fig.5

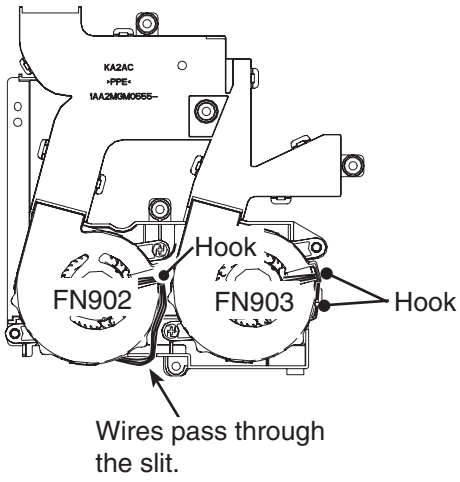
6. Cable Reforming

Reform cables as shown below.

Bottom view of the power box



Bottom view of the panel mounting duct top



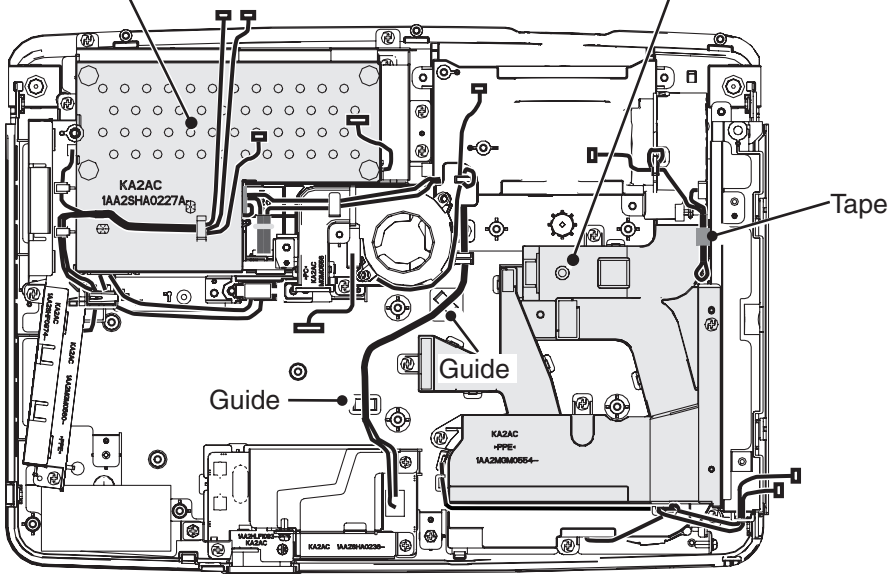
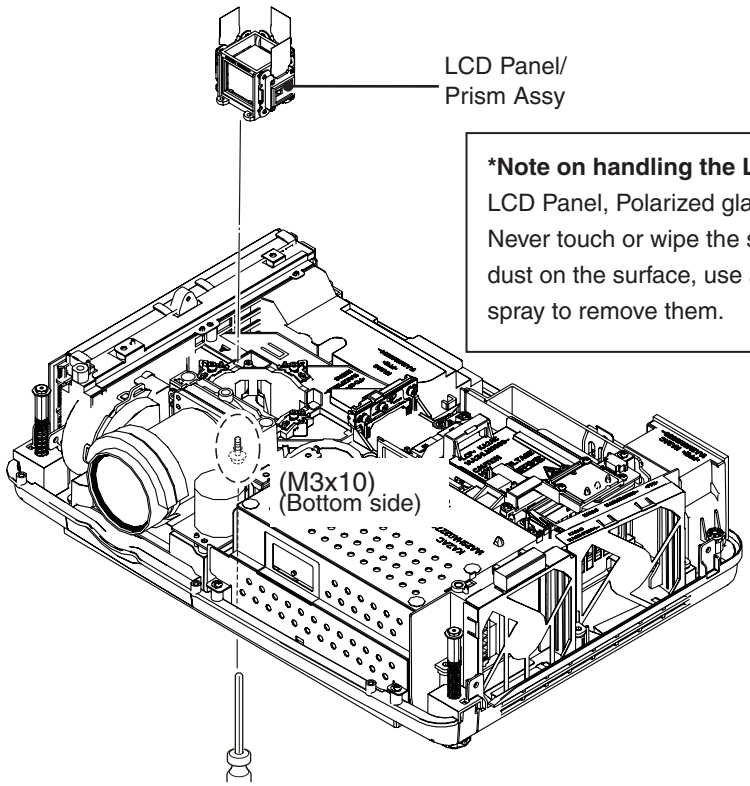


Fig.6

Optical Parts Disassembly

Before taking this procedure, remove Cabinet Top and Main Board following to the “Mechanical Disassembly”. Disassembly requires a 2.0mm hex wrench.

1. LCD Panel/Prism Assy removal



***Note on handling the LCD Panel/Prism Assy**
LCD Panel, Polarized glasses are very sensitive parts. Never touch or wipe the surface. When removing the dust on the surface, use a commercial (inert gas) air spray to remove them.

Fig.1

IMPORTANT NOTICE on LCD Panel/Prism Assy Replacement
LCD panels used for this model can not be replaced separately. Do not disassemble the LCD Panel/Prism Assy. These LCD panels are installed with precision at the factory. When replacing the LCD panel, should be replaced whole of the LCD panels and prism assy at once.
When replacing the LCD Panel/Prism assy, take the optical and electrical adjustments following to the chapter "Adjustment".

2. Polarized glass-in assy removal

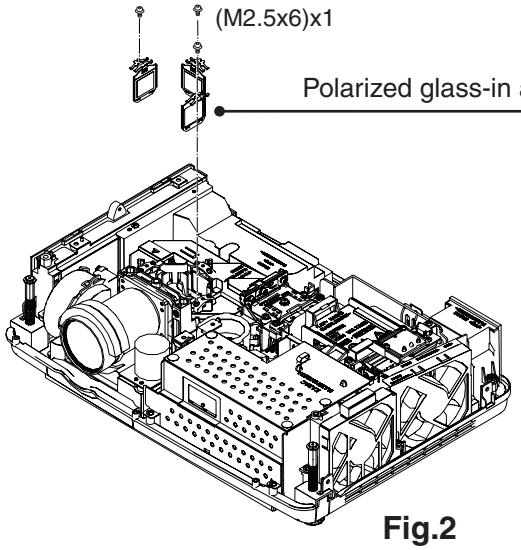


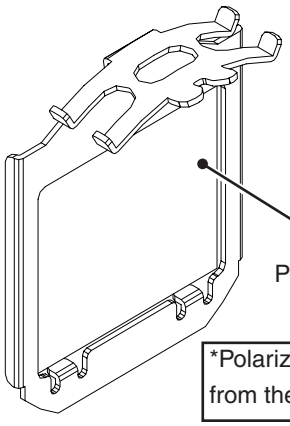
Fig.2

***Note on handling the polarized glass**

B-Polarized glass-in is very sensitive parts. Never touch or wipe the surface. Grab the mounting base when handling the polarized glass assy. When removing the dust on the surface, use a commercial (inert gas) air spray to remove them. Never use organic solvents.

Note on mounting the Polarized glass-in assy

When mounting the R-Polarized glass-in assy and B-Polarized glass-in assy, make sure thet mounting position of the holder shuld be center.



*Polarized glass is not removed from the mounting base.

3. Projection lens removal

Note: The optical unit should be removed from the cabinet bottom before removing the projection lens.

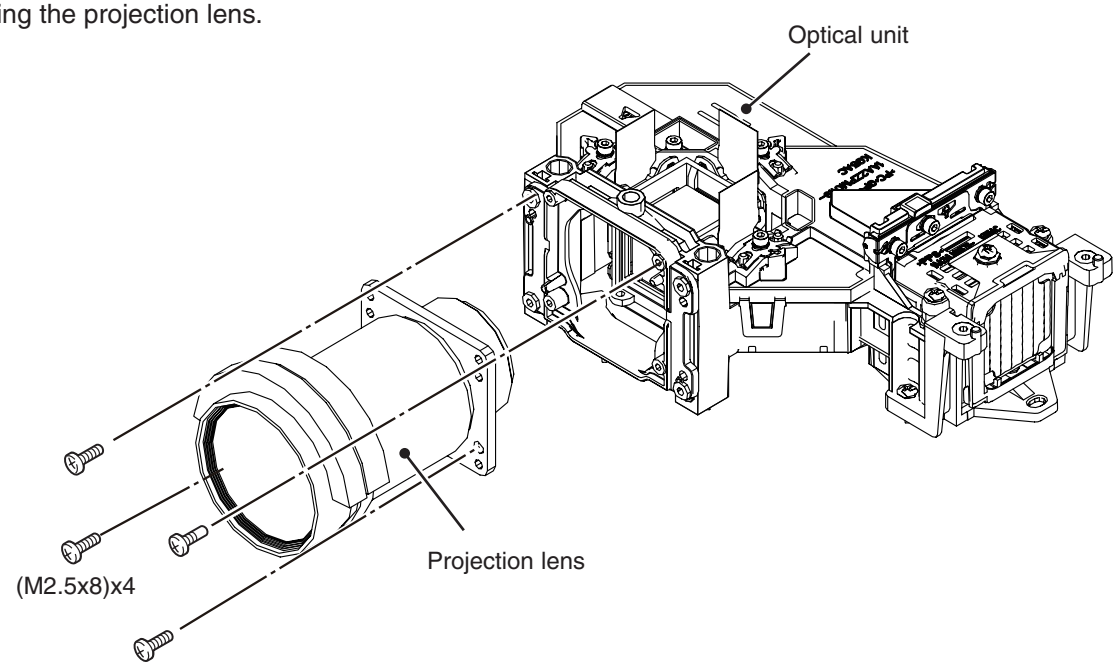


Fig.3

4. Integrator and Condenser out lens disassembly

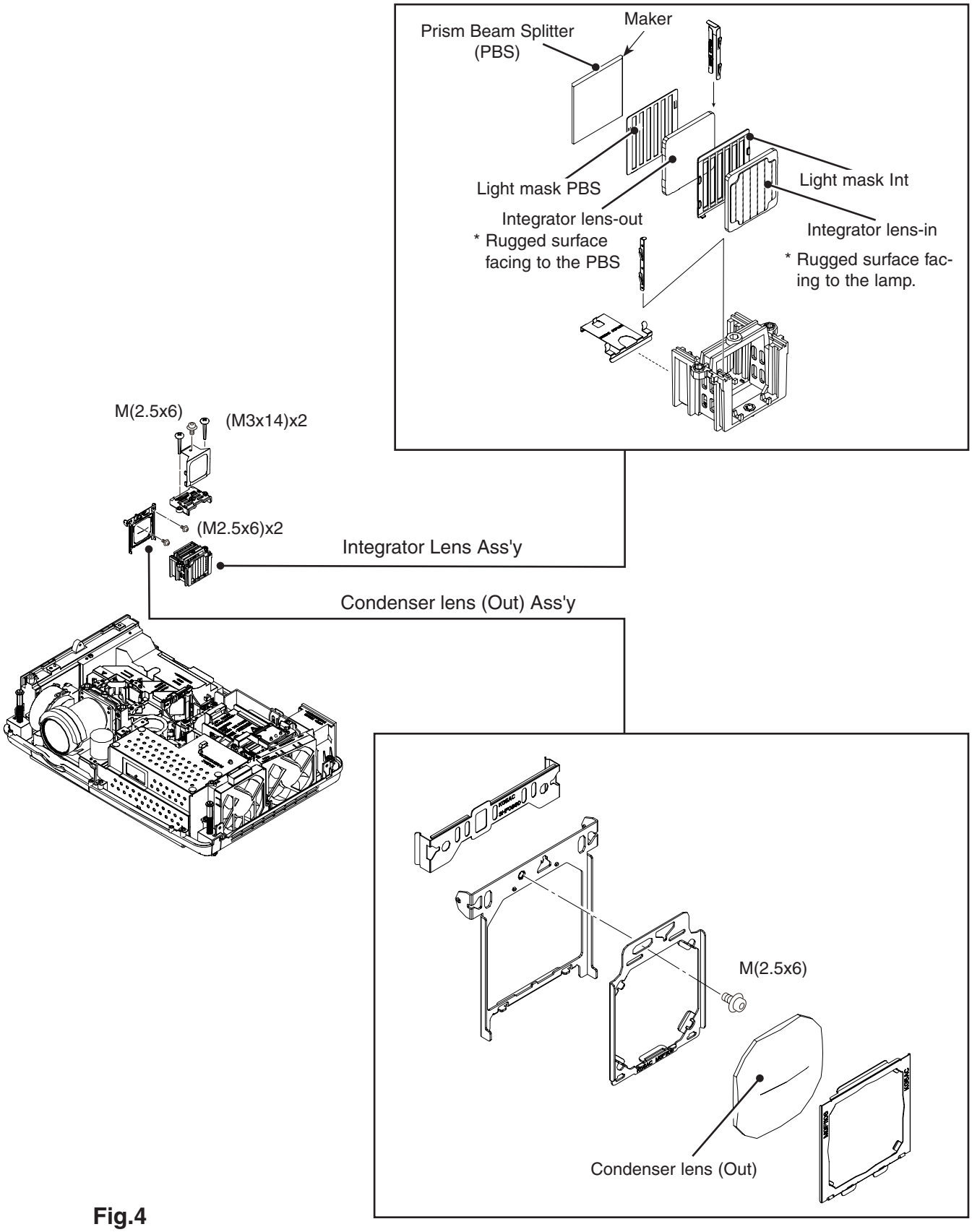


Fig.4

5. Optical unit top removal

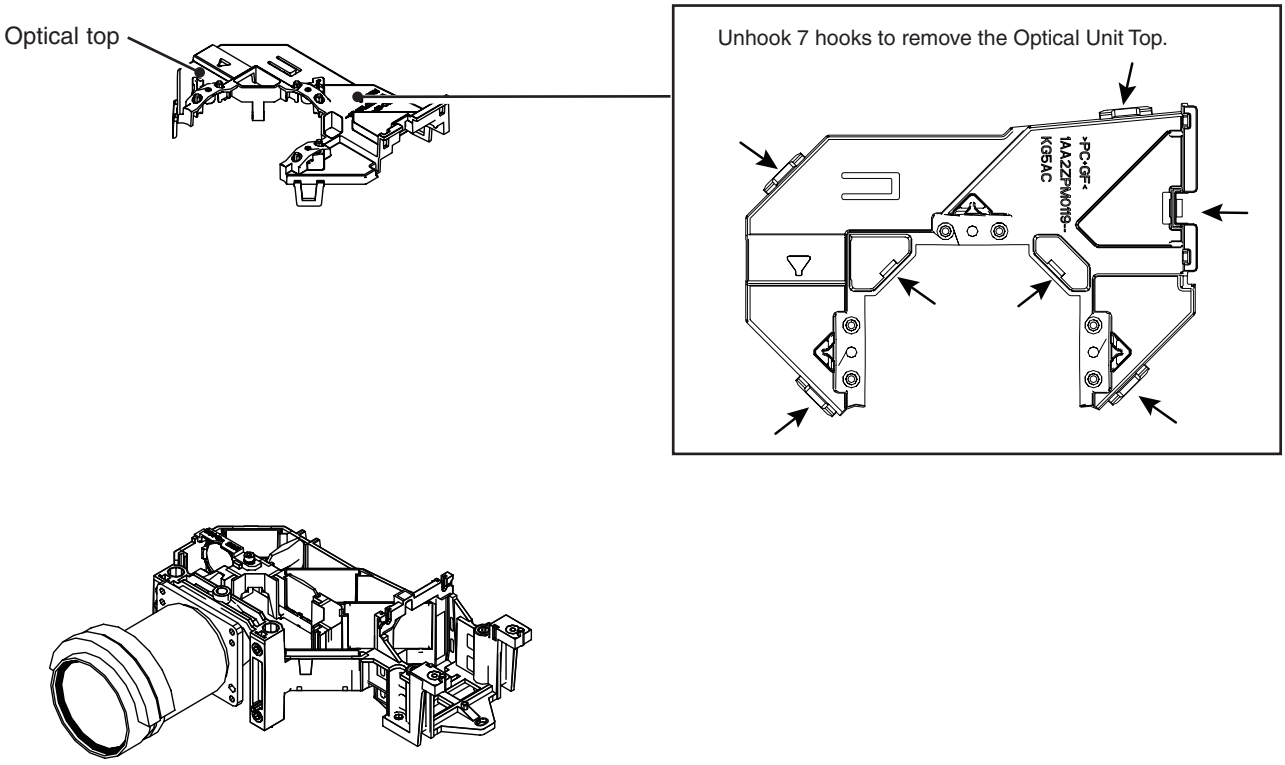


Fig.5

6. Relay lens removal

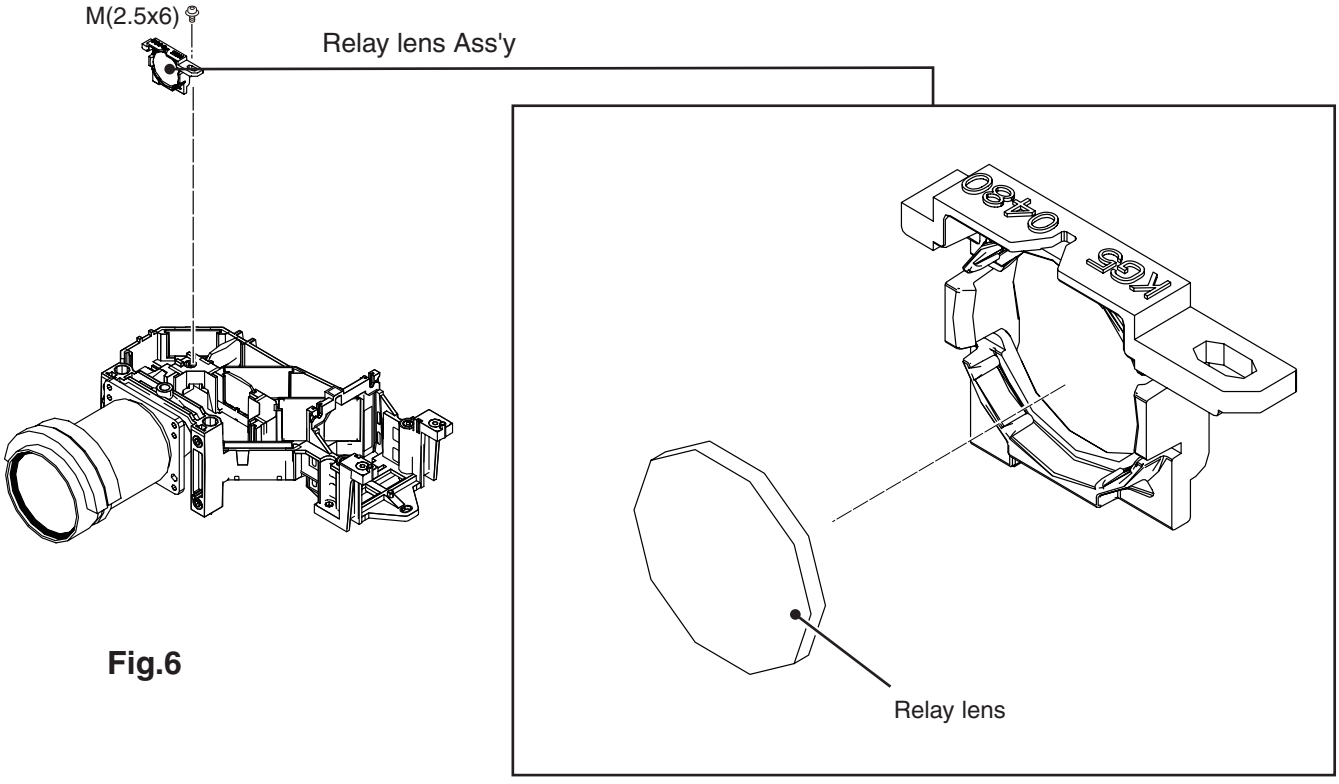


Fig.6

7. Locations and Directions

When mounting or assembling the optical parts in the optical unit, the parts must be mounted in the specified location and direction as shown in figure below.

No.	Parts Name
1	Dichroic mirror (B)
2	Dichroic mirror (G)
3	Condenser lens (G)
4	Mirror (R)
5	Relay lens (IN)
6	Mirror (B)

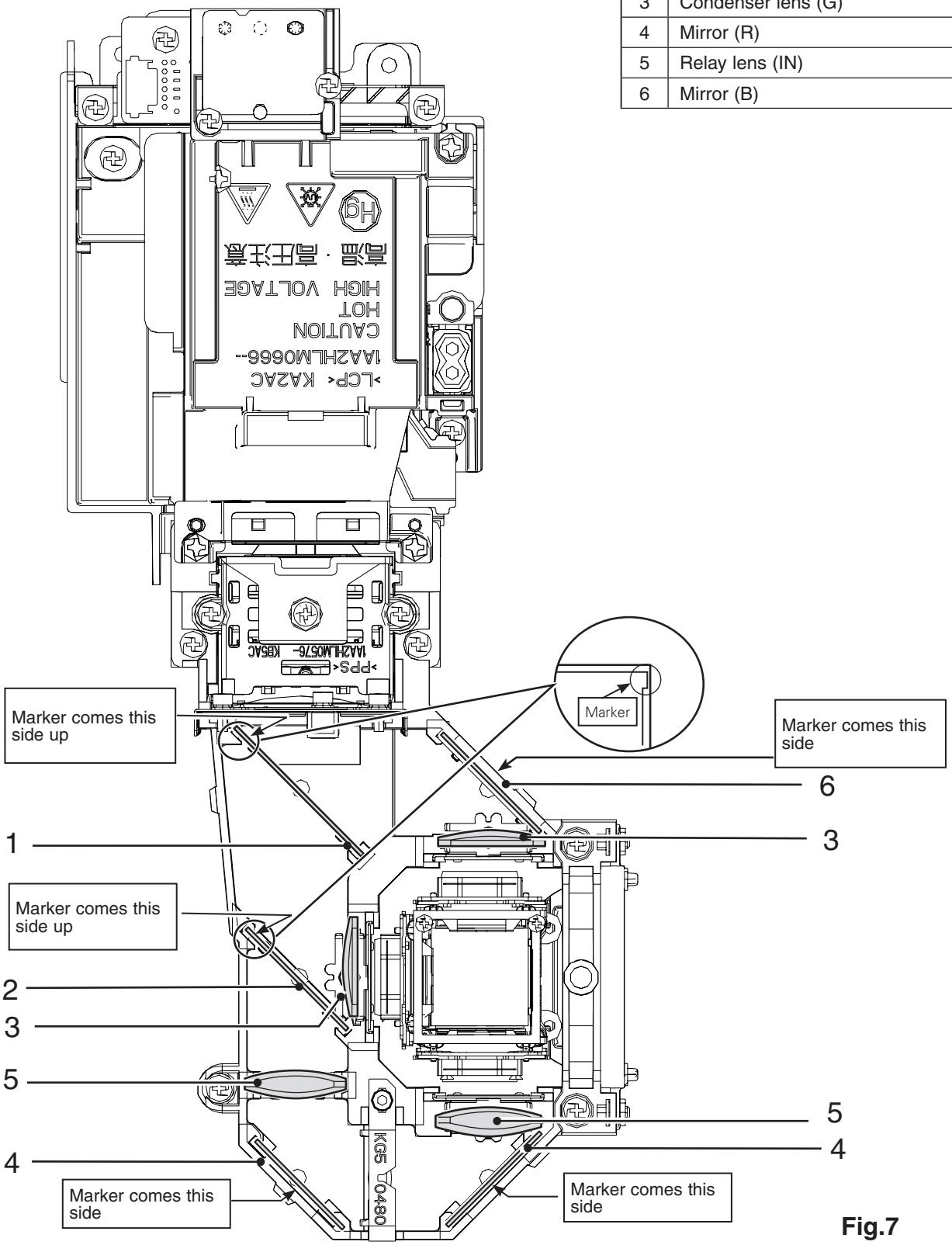


Fig.7

Adjustments

Adjustments after Parts Replacement

● : Adjustment necessary ❍ : Check necessary

		Disassembly / Replaced Parts							
		LCD/ Prism assy	Condenser Lens (OUT)	Relay Lens (OUT)	Polarized Glass			Power Board	Main Board
					R	G	B		
Optical Adjustments	Contrast Adjustment	❍				●			
	Optical center adjustment	❍	●	●					
Electrical Adjustments	Fan control adjustment							●	●
	Auto calibration adjustment [PC]								❍
	Auto calibration adjustment [Component]								❍
	Auto calibration adjustment [Video]								❍
	Common center adjustment	●							●
	Gamma shipment setting-up *	●							●
	White balance adjustment	❍							❍
	Color shading correction adjustment *	❍			❍	❍	❍		❍
	Keystone offset adjustment								●

* To setup or adjust those items, the Projector Service Tool v. 4.20 software is needed. Refer to the owner's manual for this software for the further details.

Note on Main Board Replacement

Take the following setting when the main board is replaced.
- Shipment data setting (Color Shading Correction, Gamma Shipment)
- Serial No. Setting

● Adjustment Ship Data Setting

This projector stores "Color Shading Correction Data" and "Gamma Data" in the memory IC on the main board. Those shipping data have been setup according to the optical characteristics of the mounted LCD panels preciously in the factory. When replacing the main board, you need to read out the those setting data stored in the memory IC on the previous main board and write down them into the memory IC on the new main board. By this way, the projector enables to reproduce the picture which has properly adjusted color shading correction, gamma correction. For further details, refer to the operation manual of the software [PROJECTOR SERVICE TOOL v4.20].

● Serial No. Setting

The serial no. displayed on the on-screen menu "Information" is stored in the memory IC on the main board. After replacing the main board, if the value of "SERIAL NO." on the "Information" menu is not displayed correctly,use the serial no. setting tool to write the correct serial no. referring to the serial no. printed on the rating label. For further details, refer to the operation manual of the software "Serial No. Setting Tool v1.00". The serial no. setting tool is included in the service CD-ROM below;

PROJECTOR SERVICE TOOL CD-ROM v4.20
SERVICE CODE: 610 343 5596

Caution:
Don't unplug the AC Cord without pressing the power button in the serving.

Optical Adjustments

Before taking optical adjustments below, remove the Cabinet Top following to the “Mechanical Disassembly”.
Adjustments require a 2.0mm hex wrench and a slot screwdriver.
Note: Do not disconnect connectors on the main board, because the projector cannot turn on due to operate the power failure protection.

WARNING : USE UV RADIATION EYE AND SKIN PROTECTION DURING SERVICING

CAUTION: To prevent suffer of UV radiation, those adjustment must be completed within 25 minutes.

Contrast adjustment

[Before Adjustment]
- Input a 100% of black raster signal.

1 Loosen a screw **A (Fig.1)** on the G-polarized glass mounting base.
2 Adjust the slot **B** to obtain the darkest brightness on the screen by using a hex screwdriver.
3 Tighten the screw **A** to fix the polarized glass mounting base.

- This adjustment should be performed in the darkest room to improve the precision of adjustment.

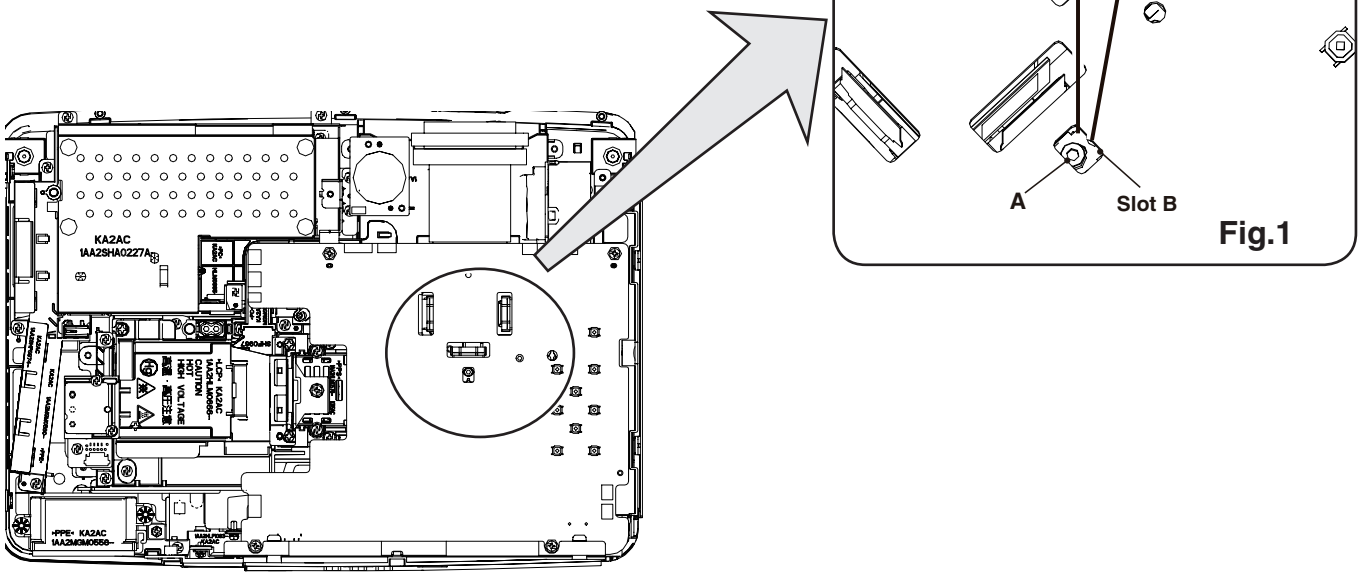


Fig.1

Optical center adjustment

Take step-1 to step-3 sequentially for the optical center adjustment.

[Before Adjustment]
- Input a 100% of white raster signal.

1 Condenser lens adjustment-1

1 Loosen 2 screws **A** on the condenser lens (OUT) base and insert a slot screwdriver into the slots **B** and turn it to disappear the color shading on the top or bottom of the screen as shown in **Fig.2**.
2 Tighten screws **A** to fix the condenser lens (OUT) unit.

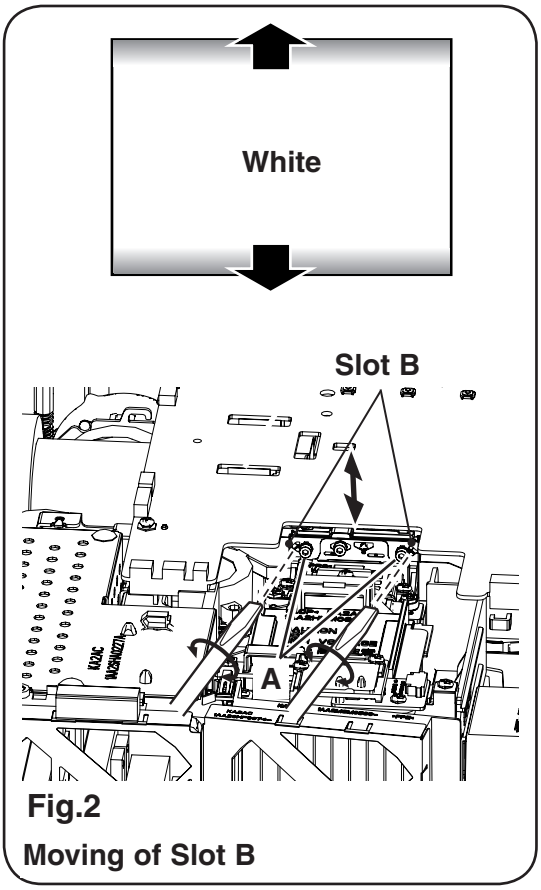
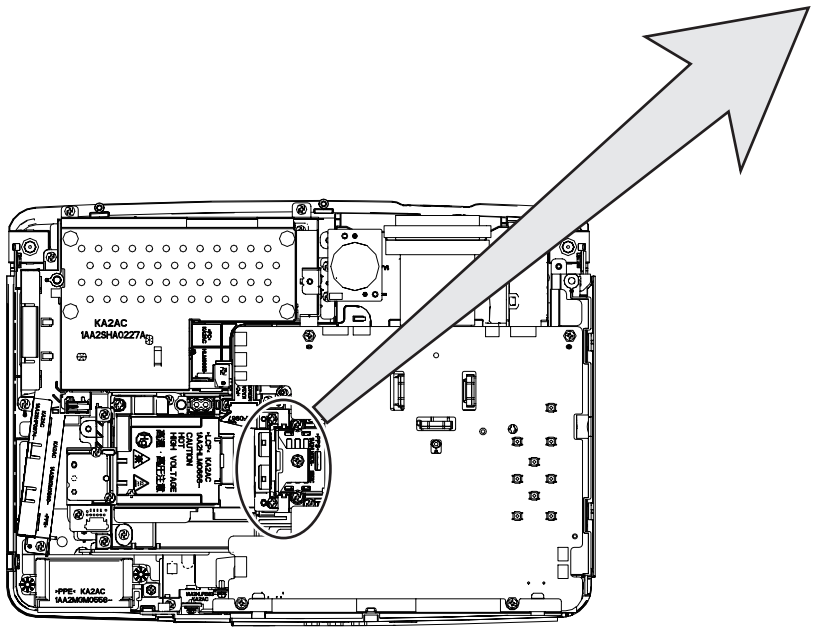


Fig.2
Moving of Slot B



2 Relay lens adjustment

1 Loosen 1 screw **C** on the condenser lens (OUT) base and insert a slot screwdriver into the slots **D** and turn it to show the color shading on the both left and right of the screen as shown in **Fig.3-1**.

2 Loosen 1 screw **A** on the relay lens (OUT) base and insert a slot screwdriver into the slots **B** and turn it to make the same band of color shading on the left and right of the screen as shown in **Fig.3-2**.

3 Tighten the screw **A** to fix the relay lens unit.

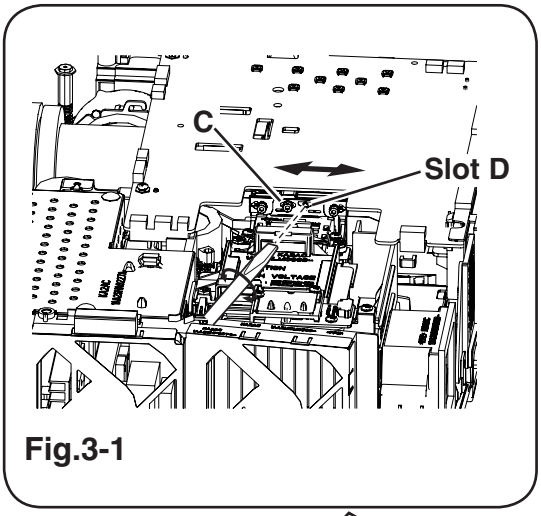


Fig.3-1

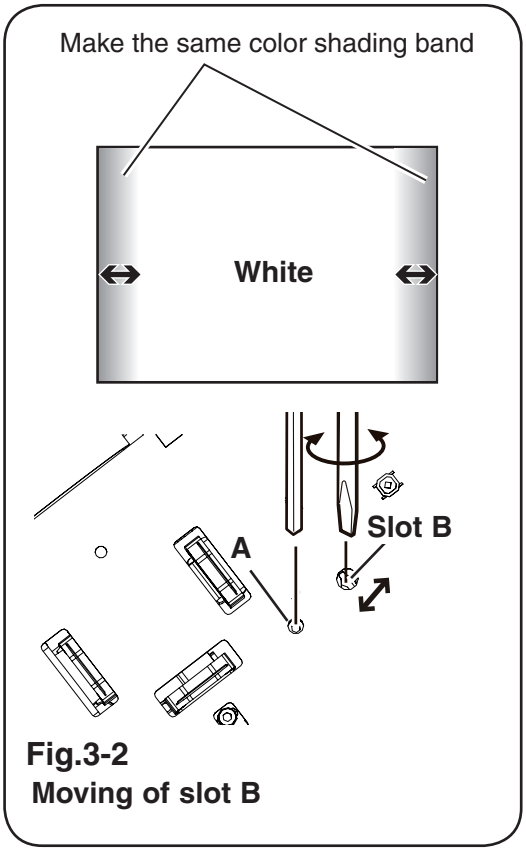
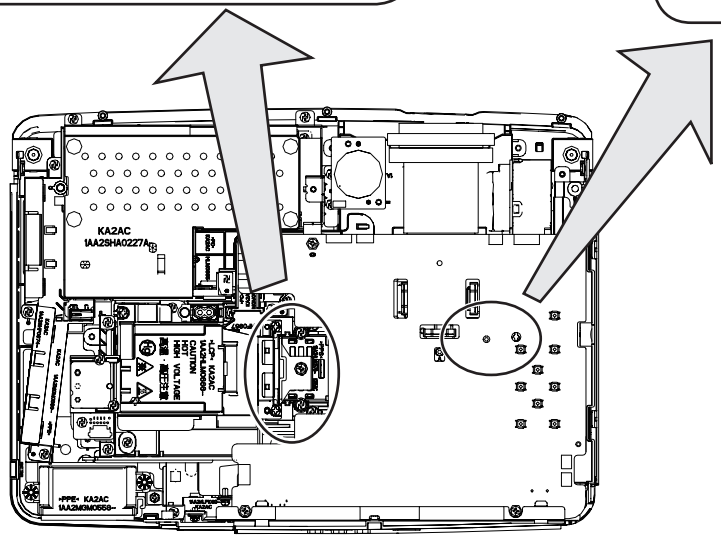
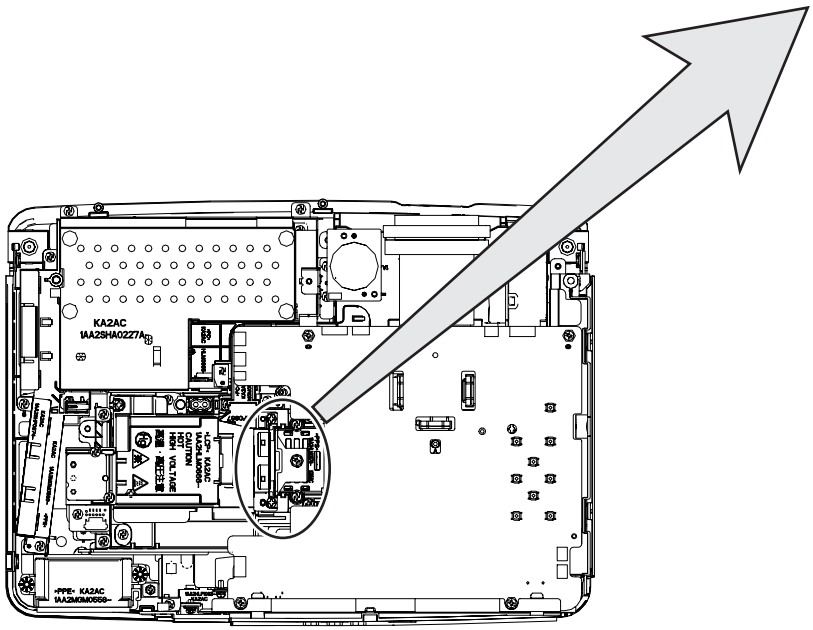


Fig.3-2
Moving of slot B



3 Condenser lens adjustment-2

1 Loosen 1 screw **C** on the condenser lens (OUT) base and insert a slot screwdriver into the slots **D** and turn it to disappear the color shading on the left and right of the screen as shown in **Fig.4**.
2 Tighten screw **C** to fix the condenser lens (OUT) unit.



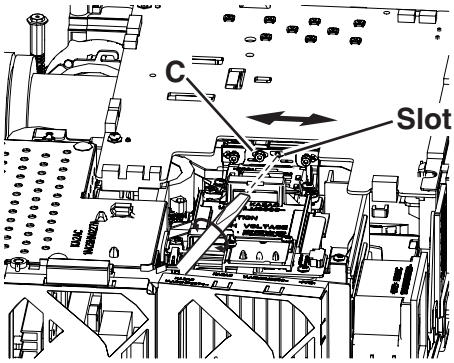


Fig.4
Moving of Slot D

Electrical Adjustments

Service Adjustment Menu Operation

To enter the service mode

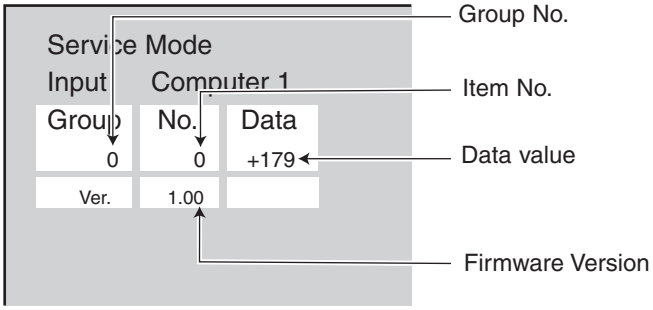
To enter the “Service Mode”, press and hold the **MENU button** and **SELECT button** on the projector for more than 3 seconds or press and hold the **MENU button** on the remote control for more than 20 seconds. The service menu appears on the screen as follows.

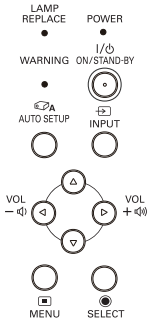
To adjust service data

Select the adjustment group no. by pressing the **MENU button** (increase) or **SELECT button** (decrease), and select the adjustment item no. by pressing the pointer ▲ or ▼ **button**, and change the data value by pressing the ◀ or ▶ **button**. Refer to the “Service Adjustment Data Table” for further description of adjustment group no., item no. and data value.

To exit the service mode

To exit the service mode, press the **ON/STAND-BY button**.





Circuit Adjustments

CAUTION: The each circuit has been made by the fine adjustment at factory. Do not attempt to adjust the following adjustments except requiring the readjustments in servicing otherwise it may cause loss of performance and product safety. Before adjustment, please turn on the projector more than ten minutes.

WARNING : USE UV RADIATION EYE AND SKIN PROTECTION DURING SERVICING.

CAUTION:
To prevent suffer of UV radiation, those adjustments must be completed within 25 minutes.

[Adjustment Condition]

- Input signal

Video signal .....1.0Vp-p/75Ω terminated, 16 steps gray scale (Composite video signal)

Component Video signal.....1.0Vp-p/75Ω terminated, 8 color 100% color bar or 16 step gray scale (Component video signal)

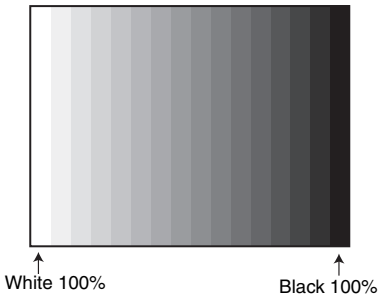
Computer signal.....0.7Vp-p/75Ω terminated, 16 steps gray scale pattern

- Image control mode .....“STANDARD” mode unless otherwise noted.

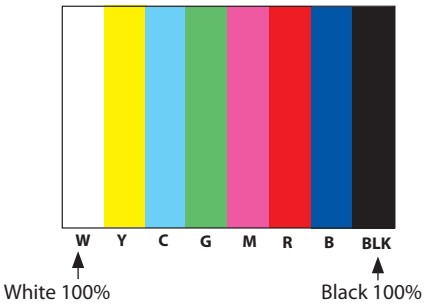
Note:

* Please refer to “Service Adjustment Menu Operation” for entering the service mode and adjusting the service data.

16 steps gray scale pattern



8 color 100% color bar



1. Fan Control adjustment

1. Enter the service mode.
2. Connect a digital voltmeter to test point "**TPFANA**" (+) and chassis ground (-). Select group no. "**250**", item no. "**0**" and change data value to adjust voltage to be **4.0 ±0.1V**.
3. Connect a digital voltmeter to test point "**TPFANA**" (+) and chassis ground (-). Select item no. "**1**" and change data value to adjust voltage to be **13.5 ±0.1V**.
4. Connect a digital voltmeter to test point "**TPFANB**" (+) and chassis ground (-). Select item no. "**2**" and change data value to adjust voltage to be **5.2 ±0.1V**.
5. Connect a digital voltmeter to test point "**TPFANB**" (+) and chassis ground (-). Select item no. "**3**" and change data value to adjust voltage to be **13.5 ±0.1V**.
6. Connect a digital voltmeter to test point "**TPFANC**" (+) and chassis ground (-). Select item no. "**4**" and change data value to adjust voltage to be **3.5 ±0.1V**.
7. Connect a digital voltmeter to test point "**TPFANC**" (+) and chassis ground (-). Select item no. "**5**" and change data value to adjust voltage to be **12 ±0.1V**.

Adjustments item no. [2] and [4] are carried out at the spare parts shipment in the factory, therefore they are not required when the main board is replaced with new one.

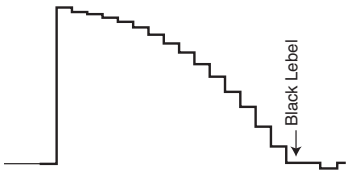
2. Auto Calibration adjustment [PC]

1. Enter the service mode.
2. Receive the 16-step grey scale computer signal with **Computer1 [RGB]** mode.
3. To start the auto-calibration for PC adjustment, select group no. "**260**", item no. "**0**" and then change data value from "**0**" to "**1**". After the auto-calibration completed, "OK" will appear on the screen.

Below adjustments are performed when the above auto calibration is failed.

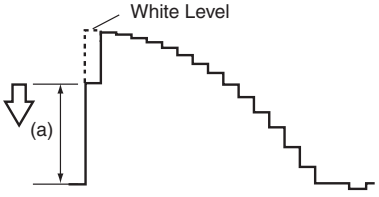
Pedestal adjustment [PC]

1. Enter the service mode.
2. Receive the 16-step grey scale computer signal with **Computer1 [RGB]** mode.
3. Connect an oscilloscope to test point "**TP35G**" (+) and chassis ground (-).
4. Select Group No. "**0**", Item No. "**0**" and change data value to adjust the black level to be minimum.
5. Connect an oscilloscope to test point "**TP35R**" (+) and chassis ground (-).
6. Select Item No. "**1**" and change data value to adjust the black level to be minimum.
7. Connect an oscilloscope to test point "**TP35B**" (+) and chassis ground (-).
8. Select Item No. "**2**" and change data value to adjust the black level to be minimum.



Gain adjustment [PC]

1. Enter the service mode.
2. Receive the 16-step grey scale computer signal with **Computer1 [RGB]** mode.
3. Connect an oscilloscope to test point "**TP35G**" (+) and chassis ground (-).
4. Select group no. "**0**", item no. "**3**" and adjust the amplitude "**a**" to be minimum by changing the Data value.
5. Connect an oscilloscope to test point "**TP35R**" (+) and chassis ground (-).
6. Select group no. "**0**", item no. "**4**" and adjust the amplitude "**a**" to be minimum by changing the Data value.
7. Connect an oscilloscope to test point "**TP35B**" (+) and chassis ground (-).
8. Select group no. "**0**", item no. "**5**" and adjust the amplitude "**a**" to be minimum by changing the Data value.



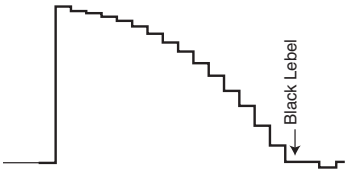
3. Auto Calibration adjustment [Component]

1. Enter the service mode.
2. Receive the 8 color 100% color bar 480i-component signal with **Computer1 [Component]** mode.
3. To start the auto-calibration for Component adjustment, select group no. "**260**", item no. "**0**" and then change data value from "**0**" to "**1**". After the auto-calibration completed, "OK" will appear on the screen.

Below adjustments are performed when the above auto calibration is failed.

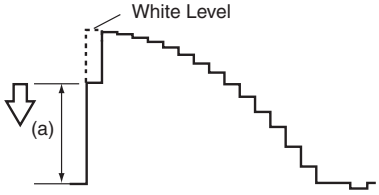
Pedestal adjustment [Component]

1. Enter the service mode.
2. Receive the 16-step grey scale 480i-component signal with **Computer1 [Component]** mode.
3. Connect an oscilloscope to test point "**TP35G**" (+) and chassis ground (-).
4. Select Group No. "**0**", Item No. "**0**" and change data value to adjust the black level to be minimum.
5. Connect an oscilloscope to test point "**TP35R**" (+) and chassis ground (-).
6. Select Item No. "**1**" and change data value to adjust the black level to be minimum.
7. Connect an oscilloscope to test point "**TP35B**" (+) and chassis ground (-).
8. Select Item No. "**2**" and change data value to adjust the black level to be minimum.



Gain adjustment [Component]

1. Enter the service mode.
2. Receive the 16-step grey scale 480i-component signal with **Computer1 [Component]** mode.
3. Connect an oscilloscope to test point "**TP35G**" (+) and chassis ground (-).
4. Select group no. "**0**", item no. "**3**" and adjust the amplitude "**a**" to be minimum by changing the Data value.



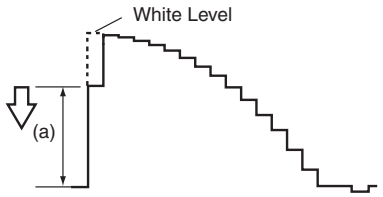
4. Auto Calibration adjustment [Video]

1. Enter the service mode.
2. Receive the 16-step grey scale composite video signal with **Video** mode.
3. To start the auto-calibration for Component adjustment, select group no. "**260**", item no. "**0**" and then change data value from "**0**" to "**1**". After the auto-calibration completed, "OK" will appear on the screen.

Below adjustment is performed when the above auto calibration is failed.

Gain adjustment [Video]

1. Enter the service mode.
2. Receive the 16-step grey scale composite video signal with **Video [Video]** mode.
3. Connect an oscilloscope to test point "**TP35G**" (+) and chassis ground (-).
4. Select group no. "**20**", item no. "**0**" and adjust the amplitude "**a**" to be minimum by changing the Data value.



5. Common Center adjustment

1. Enter the service mode.
2. Receive the 50%-Whole Gray computer signal with **Computer1 [RGB]** mode.
3. Select Group No. "**100**", Item No. "**92**" and change data value to "**2**" to reduce the panel frequency.
4. Project only green light component to the screen.
5. Select Group No. "**101**", Item No. "**1**" and change data value to obtain the minimum flicker on the screen.
6. Project only red light component to the screen.
7. Select Item No. "**0**" and change data value to obtain the minimum flicker on the screen.
8. Project only blue light component to the screen.
9. Select Item No. "**2** and change data value to obtain the minimum flicker on the screen.
10. Select Group No. "**100**", Item No. "**92**" and change data value to "**0**" to reset the panel frequency.

6. Gamma shipment adjustment

Software PROJECTOR SERVICE TOOL v4.20

Use the software to obtain the proper gray scale. See the further information of the software instruction manual.

7. White Balance adjustment

1. Enter the service mode,
2. Receive the 16-step gray scale computer signal with **Computer1 [RGB]** mode.
3. Select Group No. "**100**" Item No. "**7**" (Red) or "**8**" (Blue), and change Data values respectively to make a proper white balance.

8. Color Shading Correction adjustment

If the correction of the Color shading adjustment is necessary, please adjust the "Color shading" by using the "COLOR SHADING CORRECTION" software included in the PROJECTOR SERVICE TOOL CD-ROM supplied separately.
The color shading correction adjustment for this model should be performed with the whole-gray patterns specified as below.

4-input patterns:
6% gray, 13% gray, 30% gray, 60% gray

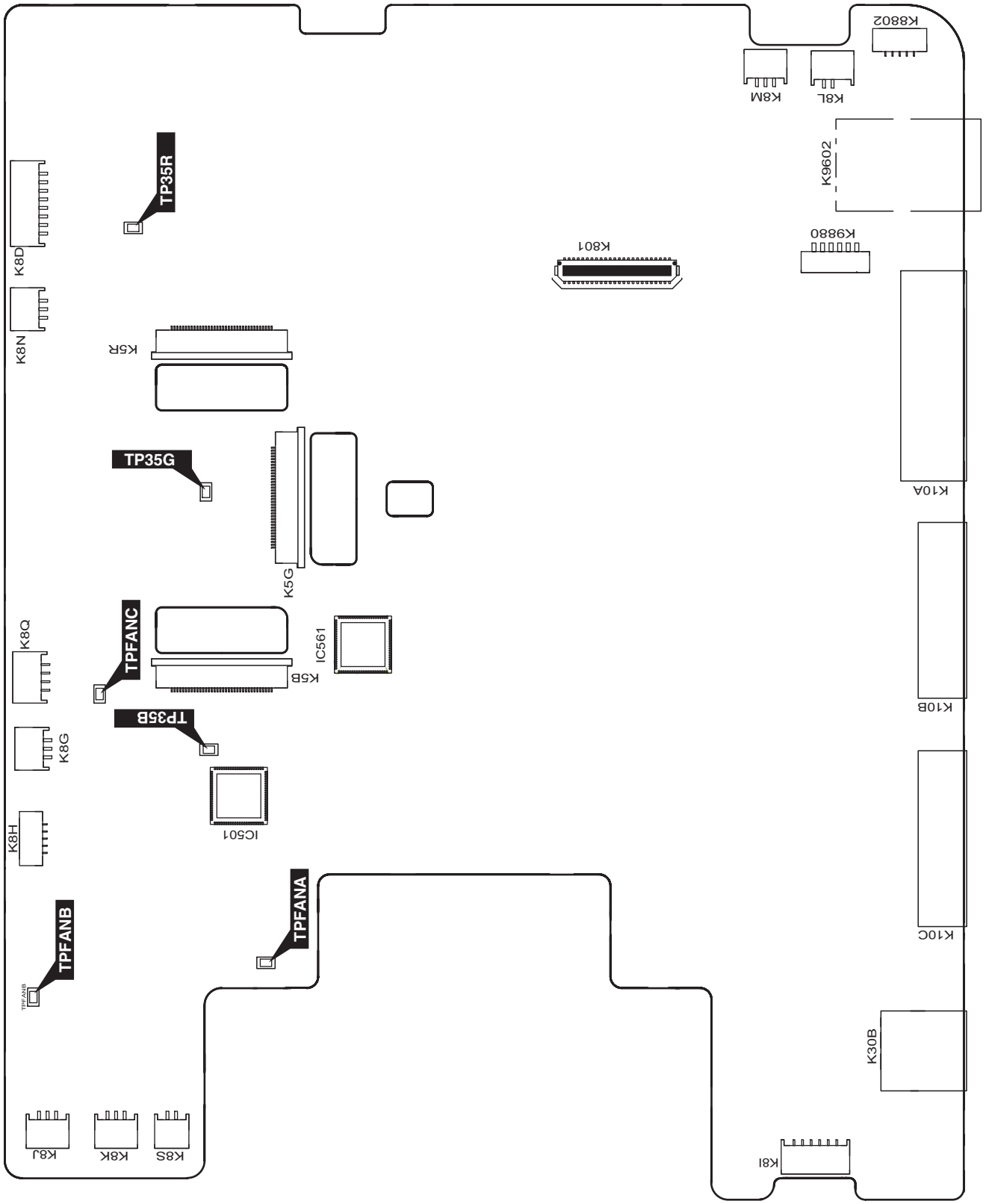
9 .Keystone Offset adjustment

After replacing the G-sensor circuit (IC3850), readjust the Keystone Offset adjustment as follows.

1. Put the projector on a horizontal place with the adjustable feet being minimum range and then enter the service mode.
2. Select group no. "**102**", item no. "**3**" and set data value from "**0**" to "**5**".
3. By pressing the **OK** button, the Keystone Offset adjustment will start.
4. When it has completed, the "OK" message will appear on the screen.
5. By pressing any button on the projector or the remote control, the "OK" message will disappear. (Data value of Group no. "**102**", item no. "**3**" will be back from "**5**" to "**0**" for initial value.)

Test Points and Locations

MAIN BOARD



Service Adjustment Data Table

These initial values are the reference data written from the CPU ROM to memory IC when replaced new memory IC. The adjustment items indicated with "*" are required to readjust following to the "Electrical adjustments". Other items should be used with the initial data value.

Group/ Item	Item Name	Function	Initial	Range	Note
Group 0	**AD Converter (PW190)**				
0	ADC G-OFFSET	PC / Component / SCART	128/120/128	0 - 255	* G-Pedestal Adjustment
1	ADC R-OFFSET	PC / Component / SCART	128/140/128	0 - 255	* R-Pedestal Adjustment
2	ADC B-OFFSET	PC / Component / SCART	128/140/128	0 - 255	* B-Pedestal Adjustment
3	ADC G-GAIN	PC / Component / SCART	50/50/50	0 - 255	* G-Gain Adjustmen
4	ADC R-GAIN	PC / Component / SCART	40/40/40	0 - 255	* R-Gain Adjustmen
5	ADC B-GAIN	PC / Component / SCART	40/40/40	0 - 255	* B-Gain Adjustmen
6	GRAAFLTR/RBAAFLTR	Green (Red and Blue) Anti-Alias Filter	4 / R / R	0 - 7	
7	GRNAADWNSMPL / RBAADWNSMPL	Green (Red and Blue) Anti-Alias Downsample	0 / R / R	0 - 3	Composite & S-Video / Component / PC *R: Read only value
8	GRNAAHF / RBAAHF	Green (Red and Blue) Anti-Alias High Frequency	3 / R / R	0 - 3	
10	SOGTH	PC / Component / SCART SyncOn Green Threhould	6 / 4 / 4	0 - 15	
11	SOGHYSDIS	PC / Component / SCART Sync On Green Hsysterisis Enable	0	0 - 1	
12	HS1TH		4	0 - 7	
13	HS0TH		4	0 - 7	
100	PreCoast PC Signal		3	0 - 63	
101	PostCoast PC Signal		8	0 - 63	
120	PreCoast PC Video 480i		7	0 - 63	
121	PostCoast PC Video 480i		13	0 - 63	
122	PreCoast PC Video 575i		7	0 - 63	
123	PostCoast PC Video 575i		13	0 - 63	
124	PreCoast PC Video 480p		7	0 - 63	
125	PostCoast PC Video 480p		13	0 - 63	
126	PreCoast PC Video 575p		7	0 - 63	
127	PostCoast PC Video 575p		13	0 - 63	
128	PreCoast PC Video 720p 60Hz		7	0 - 63	
129	PostCoast PC Video 720p 60Hz		13	0 - 63	
130	PreCoast PC Video 720p 50Hz		7	0 - 63	
131	PostCoast PC Video 720p 50Hz		13	0 - 63	
132	PreCoast PC Video 1080i 60Hz		7	0 - 63	
133	PostCoast PC Video 1080i 60Hz		13	0 - 63	
134	PreCoast PC Video 1080i 50Hz		7	0 - 63	
135	PostCoast PC Video 1080i 50Hz		13	0 - 63	
136	PreCoast PC Video 1035i		7	0 - 63	
137	PostCoast PC Video 1035i		13	0 - 63	
138	PreCoast PC Video 1080p 60Hz		7	0 - 63	
139	PostCoast PC Video 1080p 60Hz		13	0 - 63	
140	PreCoast PC Video 1080p 50Hz		7	0 - 63	
141	PostCoast PC Video 1080p 50Hz		13	0 - 63	
142	PreCoast PC Video 1080p 30Hz		7	0 - 63	
143	PostCoast PC Video 1080p 30Hz		13	0 - 63	
144	PreCoast PC Video 1080p 25Hz		7	0 - 63	
145	PostCoast PC Video 1080p 25Hz		13	0 - 63	
146	PreCoast PC Video 1080p 24Hz		7	0 - 63	
147	PostCoast PC Video 1080p 24Hz		13	0 - 63	

Electrical Adjustments

Group/ Item	Item Name	Function	Initial	Range	Note
150	PreCoast YCbCr 480i		7	0 - 63	
151	PostCoast YCbCr 480i		13	0 - 63	
152	PreCoast YCbCr 575i		7	0 - 63	
153	PostCoast YCbCr 575i		13	0 - 63	
154	PreCoast YCbCr 480p		7	0 - 63	
155	PostCoast YCbCr 480p		13	0 - 63	
156	PreCoast YCbCr 575p		7	0 - 63	
157	PostCoast YCbCr 575p		13	0 - 63	
158	PreCoast YCbCr 720p 60Hz		7	0 - 63	
159	PostCoast YCbCr 720p 60Hz		13	0 - 63	
160	PreCoast YCbCr 720p 50Hz		7	0 - 63	
161	PostCoast YCbCr 720p 50Hz		13	0 - 63	
162	PreCoast YCbCr 1080i 60Hz		7	0 - 63	
163	PostCoast YCbCr 1080i 60Hz		13	0 - 63	
164	PreCoast YCbCr 1080i 50Hz		7	0 - 63	
165	PostCoast YCbCr 1080i 50Hz		13	0 - 63	
166	PreCoast YCbCr 1035i		7	0 - 63	
167	PostCoast YCbCr 1035i		13	0 - 63	
180	PreCoast SCART 480i		7	0 - 63	
181	PostCoast SCART 480i		13	0 - 63	
182	PreCoast SCART 575i		7	0 - 63	
183	PostCoast SCART 575i		13	0 - 63	
Group 10	**Sync Processor**				
0	SYNCAMPHLCKTOLOW	Minimum sync amplitude threshold for HLCK 1 to 0 tansition	1792	0 - 9999	
1	SYNCAMPHLCKTOHI	Minimum sync amplitude threshold for HLCK 0 to 1 tansition	4096	0 - 9999	
Group 20	**Video Decoder** *R : Read Only Value				
0	Y Level	Composite / S-Video - Y Level (ADC RGB Gain)	10 / 10	0 - 255	Composite / S-Video * Gain Adjustment [Video]
1	C Level	Composite / S-Video - C Level (ADC Saturation)	115 / 115	0 - 255	Composite / S-Video
3	XCXL Level	Cross-Chroma, Cross-Luma Level	3	0 - 5	
4	C2DNBANDWIDTH	Comb 2D Narrow Bandwidth	3 / 3	0 - 3	NTSC/PAL
5	C2DWBANDWIDTH	Comb 2D Wide Bandwidth	4 / 4	0 - 7	NTSC/PAL
6	C2DCNMINLEAK	Comb 2D Chroma Narrow Band Minimum Leakage	0 / 3	0 - 3	Left Values are adjustable if CXCL Level = 5.
7	C2DCNSLOPELEAK	Comb 2D Narrow Band Slope Leakage	7 / 7	0 - 7	NTSC/PAL
8	C2DCWMINLEAK	Comb 2D Wide Band Minimum Leakage	1 / 3	0 - 3	NTSC/PAL
9	C2DCWSLOPELEAK	Comb 2D CW Slope Leakage	6 / 6	0 - 7	NTSC/PAL
10	COMBLEAK2BPGAIN	Comb Leak To Ban Pass Gain	1 / 0	0 - 3	NTSC/PAL
11	C2DBDIAGONALGAIN	Comb 2D Band Pass Diagonal Gain	1 / 3	0 - 3	NTSC/PAL
12	C2DNBCWBCLGAIN	Comb 2D Narrow Band Comb Wide Band Comb	1 / 1	0 - 3	NTSC/PAL
13	RLUMASETUP-Enable	7.5IRE Setup Enable	0	0 - 1	Effective only NTSC Signal
Group 40	**General**				
0	IP Mode	Sets for IP Off	1	0 - 1	0: IP Block not used 1: IP OFF used with IP Block
1	3:2 PullDown Mode		1	1 - 3	bit0 : Global Motion bit1 : Video Motion
2	Detect Film Mode Enable		0	0 - 2	0 : 2:3pull down & 2:2pull down 1 : 2:3pull down 2 : 2:2pull down
3	Force IP Mode		2	0 - 2	0 : IP Process Disable 1 : Force Normal IP Mode 2 : Force Film Mode Effective only for PSF Signal.
Group 41	**Deinterlacer setting** Effective only for Progressive ON-L1 mode.				

Electrical Adjustments

Group/ Item	Item Name	Function	Initial	Range	Note
0	Motion Adaptive Weight Value	<KDEINT>	30	0 - 255	
1	Angle Interpolation Level	0 : Conservative <====> 4 : Aggressive	4	0 - 4	
2	CUE Low Pass Filter Enable	<CUELPFEN>	0	0 - 1	
Group 42	**Deinterlacer setting** Effective only for Progressive ON-L2 mode.				
0	Motion Adaptive Weight Value	<KDEINT>	0	0 - 255	
1	Angle Interpolation Level	0 : Conservative <====> 4 : Aggressive	2	0 - 4	
2	CUE Low Pass Filter Enable	<CUELPFEN>	0	0 - 1	
Group 43	**Deinterlacer setting** Effective only for Progressive ON/Film mode.				
0	Motion Adaptive Weight Value	<KDEINT>	30	0 - 255	
1	Angle Interpolation Level	0 : Conservative <====> 4 : Aggressive	4	0 - 4	
2	CUE Low Pass Filter Enable	<CUELPFEN>	0	0 - 1	
Group 45	**Noise Reduction (Time)** Effective only for N.R - Off				
0	Noise Pixel Range	<NSRANGEY> / <NSRANGEUV>	1	0 - 2	
1	Noise Region 0	<NSREGIONY0> / <NSREGIONUV0>	12	0 - 1023	
2	Noise Region 1	<NSREGIONY1> / <NSREGIONUV1>	24	0 - 1023	
3	Noise Region 2	<NSREGIONY2> / <NSREGIONUV2>	40	0 - 1023	
4	Noise Gain Level	<NSFILTERY**> / <NSFILTERUV**>	0	0 - 255	
Group 47	**Noise Reduction (Time)** Effective only for N.R L1				
0	Noise Pixel Range	<NSRANGEY> / <NSRANGEUV>	1	0 - 2	
1	Noise Region 0	<NSREGIONY0> / <NSREGIONUV0>	12	0 - 1023	
2	Noise Region 1	<NSREGIONY1> / <NSREGIONUV1>	24	0 - 1023	
3	Noise Region 2	<NSREGIONY2> / <NSREGIONUV2>	40	0 - 1023	
4	Noise Gain Level	<NSFILTERY**> / <NSFILTERUV**>	50	0 - 255	
Group 49	**Noise Reduction (Time)** Effective only for N.R L2				
0	Noise Pixel Range	<NSRANGEY> / <NSRANGEUV>	1	0 - 2	
1	Noise Region 0	<NSREGIONY0> / <NSREGIONUV0>	12	0 - 1023	
2	Noise Region 1	<NSREGIONY1> / <NSREGIONUV1>	24	0 - 1023	
3	Noise Region 2	<NSREGIONY2> / <NSREGIONUV2>	40	0 - 1023	
4	Noise Gain Level	<NSFILTERY**> / <NSFILTERUV**>	100	0 - 255	
Group 50	**2:2pull down setting**				
0	22Film Mode Sensitivity	Film Detection Sensitivity <FILMSTVT22>	4	1 - 5	
1	22Film Mode Threshold Low	<FILMTHRD22A>	80	0 - 32767	
2	22Film Mode Threshold High	<FILMTHRD22B>	120	0 - 32767	
3	VOFTHR13	<VOFTHR13>	124	0 - 1023	Read only
4	VOFTHR12	<VOFTHR12>	124	0 - 1023	Read only
5	VOFTHR23	<VOFTHR23>	124	0 - 1023	Read only
6	Video Motion Window Start X	<VOFSTARX>	10	0 - 2047	Range of detective for Film mode
7	Video Motion Window Stop X	<VOFSTOPX>	10	0 - 2047	Range of detective for Film mode
8	Video Motion Window Start Y	<VOFSTARY>	10	0 - 1023	Range of detective for Film mode
9	Video Motion Window Stop Y	<VOFSTOPY>	10	0 - 1023	Range of detective for Film mode
Group 51	**2:3pull down setting**				

Group/ Item	Item Name	Function	Initial	Range	Note
0	Global Motion Sensitivity	Film Detection Sensitivity <FILMSTVT23>	4	1 - 5	
1	Video Motion Sensitivity	Film Detection Sensitivity <VOFSTVT>	4	1 - 5	
2	Video Motion Threshold Low	<VOFTHRDA>	120	0 - 32767	
3	Video Motion Threshold High	<VOFTHRDB>	180	0 - 32767	
4	Global Motion Threshold	<GMDTHRD>	124	0 - 1023	Read only value
5	23Film Mode Threshold	<FILMTHRD23>	100	0 - 32767	
6	Global Motion Window Start X	<GMDSTARX>	10	0 - 2047	Range of detective for Film mode
7	Global Motion Window Stop X	<GMDSTOPX>	10	0 - 2047	Range of detective for Film mode
8	Global Motion Window Start Y	<GMDSTARY>	10	0 - 1023	Range of detective for Film mode
9	Global Motion Window Stop Y	<GMDSTOPY>	10	0 - 1023	Range of detective for Film mode
Group 60	**Image**				
0	Center Contrast		534/578/534/534/492/492	0 - 1023	Video(S-Video) / Component / SCART / ANALOG / DIGITAL / HDCP Setting Value= (MENU Value - MENU Center Value) x Alpha / 10 + Center [Setting Value to PW] Contrast [Max] 1023 [Min] 0 Brightness [Max] 1023 [Min] 0 Color [Max] 1023 [Min] 0 Tint [Max] 180 [Min] 0 Sharpness [Max] 57 [Min] 0
1	Center Brightness		512/496/512/500/512/512	0 - 1023	
2	Center Color		512/512/512/512/512/512	0 - 1023	
3	Center Tint		90/90/90/90/90/90	0-180	
4	Center Sharpness		16/16/16/16/16/16	16	
5	Alpha Contrast		40/40/40/40/40/40	0-1000	
6	Alpha Brightness		140/140/140/140/140/140	0-1000	
7	Alpha Color		70/70/70/70/70/70	0-1000	
8	Alpha Tint		10/10/10/10/10/10	0-1000	
9	Alpha Sharpness		10/10/10/10/10/10	0-1000	
10	Center WB Red		512/512/512/512/512/512	0-1023	Composite / S-Video / Component / Digital /D-RGB-Video /AnalogRGB / RGB-Video / HDCP-PC /HDCP-AV /SCART/ PJ-Net Setting Value= MENU Value - MENU Center Value) x Alpha / 10 + Center WB R/G/B [Max] 1023 [Min] 0
11	Center WB Green		512/512/512/512/512/512	0-1023	
12	Center WB Blue		512/512/512/512/512/512	0-1023	
13	Alpha WB Red		40/40/40/40/40/40	0-1000	
14	Alpha WB Green		40/40/40/40/40/40	0-1000	
15	Alpha WB Blue		40/40/40/40/40/40	0-1000	
Group 100	**Panel Service**				
0	G-SubGain		2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048	0-4095	PCStandard/PCDynamic/PCReal/ PCBlackBoard/PCColBoaR/PCColBoaG/PCColBoaB/PCColBoaY/ AVStandard/AVDynamic/AVCinema/ AVBlackBoard/AVColBoaR/AVColBoaG/AVColBoaB/AVColBoaY/
1	R-SubGain		2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048	0-4095	
2	B-SubGain		2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048/2048	0-4095	
3	G-SubBright		0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0	0-4095	PCStandard/PCDynamic/PCReal/ PCBlackBoard/PCColBoaR/PCColBoaG/PCColBoaB/PCColBoaY/ AVStandard/AVDynamic/AVCinema/ AVBlackBoard/AVColBoaR/AVColBoaG/AVColBoaB/AVColBoaY/
4	R-SubBright		0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0	0-4095	
5	B-SubBright		0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0	0-4095	
6	G-GammaShift		0	0-4095	PC/AV Center=512 [R] and [B] are linked with [G]
7	R-GammaShift		0	0-4095	
8	B-GammaShift		0	0-4095	
9	G-ReferH		0/0	0-4095	[R] and [B] are linked with [G] Scan Direction (Normal/Ceiling)
10	G-ReferL		3280/3280	0-4095	[R] and [B] are linked with [G] Scan Direction (Normal/Ceiling)
11	R-ReferH		0/0	0-4095	Scan Direction (Front/Rear)
12	R-ReferL		3280/3280	0-4095	Scan Direction (Front/Rear)
13	B-ReferH		0/0	0-4095	Scan Direction (Front/Rear)
14	B-ReferL		3280/3280	0-4095	Scan Direction (Front/Rear)
15	DXOutR		242	0-1023	
16	DXOutG		242	0-1023	
17	DXOutB		242	0-1023	
18	H_Change_Pos		43	0-255	
19	SH_Base		1092	0-4095	
20	NRG_Pos		26	0-127	
21	NRG_Width		35	0-255	
22	OSD_Pos		2	0-3	
23	OSD_Ptn		0	0-9	
24	GammaCtrl		1	0-1	
25	REF_GatePos		6	0-1023	

Electrical Adjustments

Group/ Item	Item Name	Function	Initial	Range	Note
26	REF_GateDur		169	0-1023	
27	R-BasePos		3	0-15	
28	G-BasePos		3	0-15	
29	B-BasePos		3	0-15	
30	RGB-Adjust		0	0-7	
31	RGB-AdjLv		0	0-4095	Operation STEP=256[0<->256<->512<->768<->1023]
32	LineR0		0	0-1023	(MIN<-->MAX Cyclic Operation)
33	LineR1		0	0-1023	(MIN<-->MAX Cyclic Operation)
34	LineR2		0	0-1023	(MIN<-->MAX Cyclic Operation)
35	LineR3		0	0-1023	(MIN<-->MAX Cyclic Operation)
36	LineR4		0	0-1023	(MIN<-->MAX Cyclic Operation)
37	LineG0		0	0-1023	(MIN<-->MAX Cyclic Operation)
38	LineG1		0	0-1023	(MIN<-->MAX Cyclic Operation)
39	LineG2		0	0-1023	(MIN<-->MAX Cyclic Operation)
40	LineG3		0	0-1023	(MIN<-->MAX Cyclic Operation)
41	LineG4		0	0-1023	(MIN<-->MAX Cyclic Operation)
42	LineB0		0	0-1023	(MIN<-->MAX Cyclic Operation)
43	LineB1		0	0-1023	(MIN<-->MAX Cyclic Operation)
44	LineB2		0	0-1023	(MIN<-->MAX Cyclic Operation)
45	LineB3		0	0-1023	(MIN<-->MAX Cyclic Operation)
46	LineB4		0	0-1023	(MIN<-->MAX Cyclic Operation)
47	GhostR-Pos		8	0-31	
48	GhostG-Pos		8	0-31	
49	GhostB-Pos		8	0-31	
50	GhostR-Cent		0	0-2047	
51	GhostR-Start		128	0-255	
52	GhostR-End		128	0-255	
53	GhostG-Cent		0	0-2047	
54	GhostG-Start		128	0-255	
55	GhostG-End		128	0-255	
56	GhostB-Cent		0	0-2047	
57	GhostB-Start		128	0-255	
58	GhostB-End		128	0-255	
59	BlockR1		0	0-2047	(MIN<-->MAX Cyclic Operation)
60	BlockG1		0	0-2047	(MIN<-->MAX Cyclic Operation)
61	BlockB1		0	0-2047	(MIN<-->MAX Cyclic Operation)
62	BlockR2		0	0-2047	(MIN<-->MAX Cyclic Operation)
63	BlockG2		0	0-2047	(MIN<-->MAX Cyclic Operation)
64	BlockB2		0	0-2047	(MIN<-->MAX Cyclic Operation)
65	ReverceR		0	0-2047	(MIN<-->MAX Cyclic Operation)
66	ReverceG		0	0-2047	(MIN<-->MAX Cyclic Operation)
67	ReverceB		0	0-2047	(MIN<-->MAX Cyclic Operation)
68	BackCrossR-Cent		0	0-2047	
69	BackCrossR-Start		128	0-255	
70	BackCrossR-End		128	0-255	
71	BackCrossG-Cent		0	0-2047	
72	BackCrossG-Start		128	0-255	
73	BackCrossG-End		128	0-255	
74	BackCrossBR-Cent		0	0-2047	
75	BackCrossB-Start		128	0-255	
76	BackCrossB-End		128	0-255	
77	ColshdSelect		1	0-1	
78	R-Min		312	0-1023	
79	R-Mid2		365	0-1023	
80	R-Mid1		439	0-1023	
81	R-Max		534	0-1023	
82	G-Min		240	0-1023	
83	G-Mid2		331	0-1023	
84	G-Mid1		414	0-1023	
85	G-Max		498	0-1023	
86	B-Min		261	0-1023	
87	B-Mid2		334	0-1023	
88	B-Mid1		411	0-1023	
89	B-Max		495	0-1023	
90	H-OutPos		109	0-2047	
91	OutAreaLv		2048	0-4095	
92	FlickerAdj		0	0/2	
93	FRC_Bit		3	0-3	

Group/ Item	Item Name	Function	Initial	Range	Note
94	FrontCTalkR-Cent		0	0-2047	
95	FrontCTalkR-Start		128	0-255	
96	FrontCTalkR-End		128	0-255	
97	FrontCTalkG-Cent		0	0-2047	
98	FrontCTalkG-Start		128	0-255	
99	FrontCTalkG-End		128	0-255	
100	FrontCTalkB-Cent		0	0-2047	
101	FrontCTalkB-Start		128	0-255	
102	FrontCTalkB-End		128	0-255	
103	R-DCOffset-NGain		0	0-1023	Scan Direction (Front/Rear)
104	R-DCOffset-N1		16	0-2047	Scan Direction (Front/Rear)
105	R-DCOffset-N2		0	0-2047	Scan Direction (Front/Rear)
106	R-DCOffset-N3		0	0-2047	Scan Direction (Front/Rear)
107	R-DCOffset-N4		0	0-2047	Scan Direction (Front/Rear)
108	R-DCOffset-N5		0	0-2047	Scan Direction (Front/Rear)
109	R-DCOffset-N6		0	0-2047	Scan Direction (Front/Rear)
110	R-DCOffset-N7		0	0-2047	Scan Direction (Front/Rear)
111	R-DCOffset-N8		0	0-2047	Scan Direction (Front/Rear)
112	R-DCOffset-N9		0	0-2047	Scan Direction (Front/Rear)
113	R-DCOffset-N10		0	0-2047	Scan Direction (Front/Rear)
114	R-DCOffset-N11		0	0-2047	Scan Direction (Front/Rear)
115	R-DCOffset-N12		32	0-2047	Scan Direction (Front/Rear)
116	G-DCOffset-NGain		0	0-1023	Scan Direction (Front/Rear)
117	G-DCOffset-N1		16	0-2047	Scan Direction (Front/Rear)
118	G-DCOffset-N2		0	0-2047	Scan Direction (Front/Rear)
119	G-DCOffset-N3		0	0-2047	Scan Direction (Front/Rear)
120	G-DCOffset-N4		0	0-2047	Scan Direction (Front/Rear)
121	G-DCOffset-N5		0	0-2047	Scan Direction (Front/Rear)
122	G-DCOffset-N6		0	0-2047	Scan Direction (Front/Rear)
123	G-DCOffset-N7		0	0-2047	Scan Direction (Front/Rear)
124	G-DCOffset-N8		0	0-2047	Scan Direction (Front/Rear)
125	G-DCOffset-N9		0	0-2047	Scan Direction (Front/Rear)
126	G-DCOffset-N10		0	0-2047	Scan Direction (Front/Rear)
127	G-DCOffset-N11		0	0-2047	Scan Direction (Front/Rear)
128	G-DCOffset-N12		32	0-2047	Scan Direction (Front/Rear)
129	B-DCOffset-NGain		0	0-1023	Scan Direction (Front/Rear)
130	B-DCOffset-N1		16	0-2047	Scan Direction (Front/Rear)
131	B-DCOffset-N2		0	0-2047	Scan Direction (Front/Rear)
132	B-DCOffset-N3		0	0-2047	Scan Direction (Front/Rear)
133	B-DCOffset-N4		0	0-2047	Scan Direction (Front/Rear)
134	B-DCOffset-N5		0	0-2047	Scan Direction (Front/Rear)
135	B-DCOffset-N6		0	0-2047	Scan Direction (Front/Rear)
136	B-DCOffset-N7		0	0-2047	Scan Direction (Front/Rear)
137	B-DCOffset-N8		0	0-2047	Scan Direction (Front/Rear)
138	B-DCOffset-N9		0	0-2047	Scan Direction (Front/Rear)
139	B-DCOffset-N10		0	0-2047	Scan Direction (Front/Rear)
140	B-DCOffset-N11		0	0-2047	Scan Direction (Front/Rear)
141	B-DCOffset-N12		32	0-2047	Scan Direction (Front/Rear)
142	R-DCOffset-PGain		0	0-1023	Scan Direction (Front/Rear)
143	R-DCOffset-P1		0	0-2047	Scan Direction (Front/Rear)
144	R-DCOffset-P2		0	0-2047	Scan Direction (Front/Rear)
145	R-DCOffset-P3		0	0-2047	Scan Direction (Front/Rear)
146	R-DCOffset-P4		0	0-2047	Scan Direction (Front/Rear)
147	R-DCOffset-P5		0	0-2047	Scan Direction (Front/Rear)
148	R-DCOffset-P6		0	0-2047	Scan Direction (Front/Rear)
149	R-DCOffset-P7		0	0-2047	Scan Direction (Front/Rear)
150	R-DCOffset-P8		0	0-2047	Scan Direction (Front/Rear)
151	R-DCOffset-P9		0	0-2047	Scan Direction (Front/Rear)
152	R-DCOffset-P10		0	0-2047	Scan Direction (Front/Rear)
153	R-DCOffset-P11		0	0-2047	Scan Direction (Front/Rear)
154	R-DCOffset-P12		2016	0-2047	Scan Direction (Front/Rear)
155	G-DCOffset-PGain		0	0-1023	Scan Direction (Front/Rear)
156	G-DCOffset-P1		0	0-2047	Scan Direction (Front/Rear)
157	G-DCOffset-P2		0	0-2047	Scan Direction (Front/Rear)
158	G-DCOffset-P3		0	0-2047	Scan Direction (Front/Rear)
159	G-DCOffset-P4		0	0-2047	Scan Direction (Front/Rear)
160	G-DCOffset-P5		0	0-2047	Scan Direction (Front/Rear)
161	G-DCOffset-P6		0	0-2047	Scan Direction (Front/Rear)
162	G-DCOffset-P7		0	0-2047	Scan Direction (Front/Rear)

Group/ Item	Item Name	Function	Initial	Range	Note
163	G-DCOffset-P8		0	0-2047	Scan Direction (Front/Rear)
164	G-DCOffset-P9		0	0-2047	Scan Direction (Front/Rear)
165	G-DCOffset-P10		0	0-2047	Scan Direction (Front/Rear)
166	G-DCOffset-P11		0	0-2047	Scan Direction (Front/Rear)
167	G-DCOffset-P12		2016	0-2047	Scan Direction (Front/Rear)
168	B-DCOffset-PGain		0	0-1023	Scan Direction (Front/Rear)
169	B-DCOffset-P1		0	0-2047	Scan Direction (Front/Rear)
170	B-DCOffset-P2		0	0-2047	Scan Direction (Front/Rear)
171	B-DCOffset-P3		0	0-2047	Scan Direction (Front/Rear)
172	B-DCOffset-P4		0	0-2047	Scan Direction (Front/Rear)
173	B-DCOffset-P5		0	0-2047	Scan Direction (Front/Rear)
174	B-DCOffset-P6		0	0-2047	Scan Direction (Front/Rear)
175	B-DCOffset-P7		0	0-2047	Scan Direction (Front/Rear)
176	B-DCOffset-P8		0	0-2047	Scan Direction (Front/Rear)
177	B-DCOffset-P9		0	0-2047	Scan Direction (Front/Rear)
178	B-DCOffset-P10		0	0-2047	Scan Direction (Front/Rear)
179	B-DCOffset-P11		0	0-2047	Scan Direction (Front/Rear)
180	B-DCOffset-P12		2016	0-2047	Scan Direction (Front/Rear)
181	ENBX-R		0	0-127	
182	ENBX-G		0	0-127	
183	ENBX-B		0	0-127	
184	DXOutPos		0	0-1	
185	R_V_INPUT_SETP_0		0	0-1023	
186	R_V_INPUT_SETP_512		0	0-1023	
187	R_V_INPUT_SETP_1024		0	0-1023	
188	R_V_INPUT_SETP_1536		0	0-1023	
189	R_V_INPUT_SETP_2048		0	0-1023	
190	R_V_INPUT_SETP_2560		0	0-1023	
191	R_V_INPUT_SETP_3072		0	0-1023	
192	R_V_INPUT_SETP_3584		0	0-1023	
193	R_V_INPUT_SETP_4096		0	0-1023	
194	G_V_INPUT_SETP_0		0	0-1023	
195	G_V_INPUT_SETP_512		0	0-1023	
196	G_V_INPUT_SETP_1024		0	0-1023	
197	G_V_INPUT_SETP_1536		0	0-1023	
198	G_V_INPUT_SETP_2048		0	0-1023	
199	G_V_INPUT_SETP_2560		0	0-1023	
200	G_V_INPUT_SETP_3072		0	0-1023	
201	G_V_INPUT_SETP_3584		0	0-1023	
202	G_V_INPUT_SETP_4096		0	0-1023	
203	B_V_INPUT_SETP_0		0	0-1023	
204	B_V_INPUT_SETP_512		0	0-1023	
205	B_V_INPUT_SETP_1024		0	0-1023	
206	B_V_INPUT_SETP_1536		0	0-1023	
207	B_V_INPUT_SETP_2048		0	0-1023	
208	B_V_INPUT_SETP_2560		0	0-1023	
209	B_V_INPUT_SETP_3072		0	0-1023	
210	B_V_INPUT_SETP_3584		0	0-1023	
211	B_V_INPUT_SETP_4096		0	0-1023	
212	ERPPOL		84	0-4095	
213	FRP_POS		32	0-255	
214	SWAP		1296	0-2047	
215	PRE_COLSHD_SEL		0	0-255	
216	HSYNC_FLLOW		0	0-1	
217	DELAY_HSYNC		0	0-2047	
218	DELAY_VSYNC		0	0-255	
219	VSYNC_FOLLOW		0	0-1	
220	BLANK_RCENTER		0	0-2047	
221	BLANK_RSTART		128	0-255	
222	BLANK_REND		128	0-255	
223	BLANK_GCENTER		0	0-2047	
224	BLANK_GSTART		128	0-255	
225	BLANK_GEND		128	0-255	
226	BLANK_BCENTER		0	0-2047	
227	BLANK_BSTART		128	0-255	
228	BLANK_BEND		128	0-255	
229	Output limit R		4095/4095/4095/4095	0-4095	
230	Output limit G		4095/4095/4095/4095	0-4095	
231	Output limit B		4095/4095/4095/4095	0-4095	

Group/ Item	Item Name	Function	Initial	Range	Note
232	CROSSTALK_COEF_R		1023	0-1023	
233	CROSSTALK COEF_G		1023	0-1023	
234	CROSSTALK COEF_B		1023	0-1023	
235	LCCON_ENABLE		0	0-1	
236	ENBY_L1		11	0-255	
237	ENBY_H1		670	0-1023	
238	ENBY_L2		11	0-255	
239	ENBY_H2		670	0-1023	
Group 101	**Panel Service(6200)**				
0	R_LCCOM		0	0-255	
1	G_LCCOM		18	0255	
2	B-LCCOM		0	0-255	
3	R-ENBX-PW		5	0-15	
4	G-ENBX-PW		5	0-15	
5	B-ENBX-PW		5	0-15	
6	R-DXIN		6	0-127	
7	G-DXIN		6	0-127	
8	B-DXIN		6	0-255	
9	R-ENB11N		16	0-31	
10	G-ENBX11N		16	0-31	
11	B-ENBX11N		16	0-31	
12			0/0	0-3	
13	R-FPDDR1M		0/1	0-1	
14			0/1	0-1	
15	R-PARA1		0	0-7	
16			1	0-1	
17	R-PARA2		505	0-1023	
18	R-PARA3		504	0-1023	
19	R-FPDDR1		718	0-1023	
20	R-FPDDR11		0	0-1023	
21			0/0	0-3	
22	G-FPDDR1M		0/1	0-1	
23			0/1	0-1	
24	G-PARA1		1	0-7	
25			0	0-1	
26	G-PARA2		505	0-1023	
27	G-PARA3		504	0-1023	
28	G-FPDDR1		718	0-1023	
29	G-GPDDR11		0	0-1023	
30			0/0	0-3	
31	B-FPDDR1M		0/1	0-1	
32			0/1	0-1	
33	B-PARA1		1	0-7	
34			0	0-1	
35	B-PARA2		505	0-1023	
36	B-PARA3		504	0-1023	
37	B-FPDDR1		718	0-1023	
38	B-FPDDR11		0	0-1023	
Group 102	**Auto Keystone Setup Value**				
0	OFFSET		0	-1056 - 1056	
1	OFFSET SWITCH		0	0 - 1	
2	DEBUG MODE		0	0 - 1	
3	SERVICE CALIBRATION		0	0 - 10	
4	LOCK COUNT		5	1 - 255	
5	DELT VERT RESULT		64	1 - 255	
6	ANGLE 1 COUNT		1	1 - 10	
7	ANGLE 2 COUNT		5	1 - 10	
8	BLIND SECTOR 1		160	0 - 1024	
9	BLIND SECTOR 3		32	0 - 1024	
10	BLIND SECTOR BIAS		61	0 - 1024	
Group 105	**Panel Service (8030)**				

Electrical Adjustments

Group/ Item	Item Name	Function	Initial	Range	Note
0	Vsync input		0	0 - 1	0: Enable / 1:Disable
1	Timer for Recovery starting		0	0 - 1	0: Enable / 1:Disable
2	Color correction		0	0 - 1	0: Enable / 1:Disable
3	SPI receiver		0	0 - 1	0: Enable / 1:Disable
4	UART(UPUside)		0	0 - 1	0: Enable / 1:Disable
5	3Wire serial command generator		0	0 - 1	0: Enable / 1:Disable
6	Outputof 3 wire serial I/F		0	0 - 1	0: Enable / 1:Disable
7	ColorCorrectionTable_R		1878 / 1878	0 - 4095	AV / PC
8	ColorCorrectionTable_R		1878 / 1878	0 - 4095	AV / PC
9	ColorCorrectionTable_R		1878 / 1878	0 - 4095	AV / PC
10	ColorCorrectionTable_R		1977 / 1977	0 - 4095	AV / PC
11	ColorCorrectionTable_R		2044 / 2044	0 - 4095	AV / PC
12	ColorCorrectionTable_R		2048 / 2048	0 - 4095	AV / PC
13	ColorCorrectionTable_R		2048 / 2048	0 - 4095	AV / PC
14	ColorCorrectionTable_R		2048 / 2048	0 - 4095	AV / PC
15	ColorCorrectionTable_R		2048 / 2048	0 - 4095	AV / PC
16	ColorCorrectionTable_R		2048 / 2048	0 - 4095	AV / PC
17	ColorCorrectionTable_G		1612 / 1612	0 - 4095	AV / PC
18	ColorCorrectionTable_G		1612 / 1612	0 - 4095	AV / PC
19	ColorCorrectionTable_G		1612 / 1612	0 - 4095	AV / PC
20	ColorCorrectionTable_G		1842 / 1842	0 - 4095	AV / PC
21	ColorCorrectionTable_G		1974 / 1974	0 - 4095	AV / PC
22	ColorCorrectionTable_G		1966 / 1966	0 - 4095	AV / PC
23	ColorCorrectionTable_G		2015 / 2015	0 - 4095	AV / PC
24	ColorCorrectionTable_G		2034 / 2034	0 - 4095	AV / PC
25	ColorCorrectionTable_G		2048 / 2048	0 - 4095	AV / PC
26	ColorCorrectionTable_G		2048 / 2048	0 - 4095	AV / PC
27	ColorCorrectionTable_B		2048 / 2048	0 - 4095	AV / PC
28	ColorCorrectionTable_B		2048 / 2048	0 - 4095	AV / PC
29	ColorCorrectionTable_B		2048 / 2048	0 - 4095	AV / PC
30	ColorCorrectionTable_B		2048 / 2048	0 - 4095	AV / PC
31	ColorCorrectionTable_B		2048 / 2048	0 - 4095	AV / PC
32	ColorCorrectionTable_B		2048 / 2048	0 - 4095	AV / PC
33	ColorCorrectionTable_B		2048 / 2048	0 - 4095	AV / PC
34	ColorCorrectionTable_B		2048 / 2048	0 - 4095	AV / PC
35	ColorCorrectionTable_B		2048 / 2048	0 - 4095	AV / PC
36	ColorCorrectionTable_B		2048 / 2048	0 - 4095	AV / PC
37	VSYNC pulse width		13	0 - 4095	
38	Vsync generation interval		313	0 - 1023	
39	SCIOUT L-period		7	0 - 255	
40	Interval setting for recovery		8	0 - 1023	
Group 200	**Option**				
0	Logo Prohibition	Logo Prohibition (0: Menu, 1: Forced)	0	0 - 1	Effective after AC On
1	RS232C Baudrate	Baud Rate	0	0 - 2	0: 19200bps, 1: 9600bps, 2: 115200bps
2	PJLink Enable	PJLink	1	0 - 1	0: Disable 1: Enable
4	CABLE SW	Long Cable	0	0 - 1	0: Disable, 1: Enable
5	PW Debug Command Enable		0	0 - 1	0:Disable (Serial Command Eanble) 1: Enable (PW Debug Mode)
6	Device Refresh Disable		0	0 - 1	0:Enable, 1:Disable No last memory
7	Device Access Disable		0	0 - 1	0:Enable (Normal), 1:Disable No last memory
40	Lamp PWM PresAv 50Hz		80	0-255	
41	Lamp PWM PresAv 60Hz		67	0-255	
42	Lamp PWM PresUnlock		65	0-255	
43	Lamp PWM PresPcA		2	0-255	
44	Lamp PWM PresPcB		3	0-255	
45	Lamp PWM PrefHAv50Hz		5000	0-65535	
46	Lamp PWM PrefHAv60Hz		5000	0-65535	
47	Lamp PWM PrefHUnlock		5000	0-65535	
50	Lamp Replacement Display		1	0-1	

Electrical Adjustments

Group/ Item	Item Name	Function	Initial	Range	Note
51	Filter Warning Display	Filter Warning Display On / Off	1	0-1	1: On, 0: Off
52	Lamp Counter Reset Times	Reset Times of Lamp Counter	0	0-255	Read only
53	Filter Counter Reset Times	Filter Counter Reset Times	0	0-255	
54	Factory Default Execute Times	Reset times of Fanctory Default	0	0 - 255	Read only
56	Menu Position	Move menu (X asis)	0	0 - 1024	
57	Menu Position	Move menu (Y asis)	0	0 - 1024	
59	Source Search Enable	Source Search Enable (0: Disable 1:Enable)	1	0-1	
60	Language Default Setting	Language Default setting (0: English 1:Japanese)	0	0-1	
65	Mute Setting In Freeze status	Mute On/Off in Freeze status	1	0-1	1: On, 0: Off
Group 201	**Option (signal)**				
0	FrameLock Option		1	0 - 1	0: FrameLockOFF at PC signal 1: FrameLockON at PC signal and 47Hz (Vfreq) ~ Panel frequency of input signal
2	Field Sense Invert Enable		0	0 - 1	Reverse Processing of FLDINVSetting Value 0: Disable - Used FLDINV Setting Value 1: Enable - Used Reversed FLDINV Setting Value
4	Sub Image Enable		1	0 - 1	0:Disable (Service Adjustment Dsiable, Used all the Center Values 1:Enable (Service Adjustment Enable)
6	Zoom Accelerator Enable		0	0 - 1	0:Zoom Accelerator OFF, 1:Zoom Accelerator ON No last memory
7	DZoom Reset by Keystone		0	0 - 1	0:Enable (Normal), 1:Disable (Dzoom is not cancelled even if Keystone is cancelled) No last memory
8	Stability Count	Count Value of V-missing	5	0 - 255	
9	Sensivity for Signal Lost (HSYNC)	Only used this value for No Signal Judgement(Hz)	350	0 - 32767	
10	Sensivity for Signal Lost (VSYNC)	Only used this value for No Signal Judgement(Line)	3	0 - 255	
11	Keystone Filter Center Value	Reference Value	16	0 - 30	
Group 205	**Spread Spetrum**				
0	Enable	0=Enable, 1=Disable	1	0 - 1	
1	Modulation frequency		300	1 - 500	
2	Diffusivity		200	0 - 300	
Group 210	**Lamp Control**				
0	DIMMER_CTRL_LEVEL_MIN	Luminance Level 1 Data for Dimmer: Dim Level 1 at the less than the Value	13	0-255	
1	DIMMER_CTRL_LEVEL1	Luminance Level 1 Data for Dimmer: Dim Level 2 at the less than the Value	24	0-255	
2	DIMMER_CTRL_LEVEL2	Luminance Level 1 Data for Dimmer: Dim Level 3 at the less than the Value	35	0-255	
3	DIMMER_CTRL_LEVEL3	Luminance Level 1 Data for Dimmer: Dim Level 4 at the less than the Value	46	0-255	
4	DIMMER_CTRL_LEVEL4	Luminance Level 1 Data for Dimmer: Dim Level 5 at the less than the Value	57	0-255	
5	DIMMER_CTRL_LEVEL5	Luminance Level 1 Data for Dimmer: Dim Level 6 at the less than the Value	69	0-255	
6	DIMMER_CTRL_LEVEL6	Luminance Level 1 Data for Dimmer: Dim Level 7 at the less than the Value	100	0-255	
7	DIMMER_CTRL_LEVEL7	Luminance Level 1 Data for Dimmer: Dim Level 8 at the less than the Value	150	0-255	
8	DIMMER_CTRL_LEVEL_MAX	Luminance Level 1 Data for Dimmer: Dim Level 9 at the less than the Value	200	0-255	
11	Cooling Gain	Current cooling gain value	-	0 - 255	* Read only
12	DIMMER_LEVEL_AUTO_Max	Max Dimmer Level for Lamp mode=Auto	128	0 - 128	
13	DIMMER_LEVEL_AUTO_Min	Min Dimmer Level for Lamp mode=Auto	38	0 - 128	
14	Rate of dimmer level's step	Rate of Dimmer Level for Lamp mode=Auto	128	0 - 128	
15	DIMMER_AVERAGE_POINT	Luminance Data Avarage Point for Mimmer	2	1 - 16	
16	DIMMER_AVERAGE_DATA	Luminance Data Avarage Value for Dimmer	-	0 - 255	* Read only

Electrical Adjustments

Group/ Item	Item Name	Function	Initial	Range	Note
17	DIMMER_LEVEL_AUTO	Current Dimmer Leverl	-	0 - 128	* Read only
18	DIMMER_LEVEL_NORMAL	Normal Dimmer Level	128	0 - 128	
19	DIMMER_LEVEL_ECO	Eco Dimmer Level	95	0 - 128	
20	Lamp check enable		0	0 - 1	0: Lamp Failure Detection OFF (White 50% Back), 1 : ON (Blue 100% Back)
21	VOLTAGE_LEVEL	Lamp Voltage	-		Unit: 8bit(Raw Data) * Read only
22	DIMMER_LEVEL_HIGH	Dimmer level High	71	0 - 128	
Group 230	**VBI Slice Level**				
0	Generic Initial Slicing Level	PW190 register 0xE344	9	0-255	
1	Generic High Level Threshold	PW190 register 0xE345	0	0-255	
2	Generic Low Level Threshold	PW190 register 0xE346	0	0-255	
3	Generic Minimum Low Level	PW190 register 0xE347	0	0-255	
4	Generic Maximum High Level	PW190 register 0xE348	255	0-255	
Group 250	**FAN Control**				
0	FAN1 MIN ADJUST (DAC)	DAC Output for Fan Adjust the tolerance of DAC and Fan Volage. * Lamp mode is forced Eco	18	0-255	
1	FAN1 MAX ADJUST (DAC)		207	0-255	
2	FAN2 MIN ADJUST (DAC)		45	0-255	
3	FAN2 MAX ADJUST (DAC)		207	0-255	
4	FAN3 MIN ADJUST (DAC)		34	0-255	
5	FAN3 MAX ADJUST (DAC)		194	0-255	
Group 252	**FAN Option**				
0	HI-LAND SWITCH	0: Normal, 1: Hi-Land, 2-4: Hi-Land 1-3	0	0 - 5	
1	SAFETY SWITCH	For test purpose	0	0 - 6	
2	FAN MANUAL SWITCH	0: Auto, 1: Manual	0	0 - 3	
3	FAN1 MANUAL VOLTAGE	Fan Voltage (unit : 0.1V) Effective only when Fan Manual switch is 1	100	0-255	
4	FAN2 MANUAL VOLTAGE		100	0-255	
5	FAN3 MANUAL VOLTAGE		100	0-255	

Group 253	Fan Tem Error Setting (Memorized)		Normal	Ceiling	HiLand-Normal ON1/ ON2	HiLand-Ceiling ON1/ ON2	
0	Temp A Warning (High)			9999			-
1	Temp B Warning (High)			9999			-
2	Temp C Warning (High)			9999			-
3	Temp B-A Warning(High)			9999			-
4	Temp C-A Warning(High)			9999			-
5	Temp A Warning (Normal)	Temp. A to judge the Temp Error at Normal (Room)	38	38	35/35	35/35	30-100
6	Temp B Warning (Normal)	Temp. B to judge the Temp Error at Normal (Panel)	52	52	51/52	51/52	30-100
7	Temp C Warning (Normal)	Temp. C to judge the Temp Error at Normal (Lamp)	67	66	64/65	64/65	30-100
8	Temp B-A Warning (Normal)	Temp. B-A to judge the Temp Error at Normal (Clogging Det.)	100	100	100/100	100/100	0-100
9	Temp C-A Warning(Normal)	Temp. C-A to judge the Temp Error at Normal (Clogging Det.)	100	100	100/100	100/100	0-100
10	Temp A Warning (Eco)	Temp. A to judge the Temp Error at Eco (Room)	38	38	35/35	35/35	30-100
11	Temp B Warning (Eco)	Temp. B to judge the Temp Error at Eco(Panel)	52	52	50/52	50/52	30-100
12	Temp C Warning (Eco)	Temp. C to judge the Temp Error at Eco(Panel)	58	58	55/58	55/58	30-100
13	Temp B-A Warning (Eco)	Temp. B-A to judge the Temp Error at Normal (Clogging Det.)	100	100	100/100	100/100	0-100

Electrical Adjustments

Group/ Item	Item Name	Function	Initial				Range	Note
14	Temp C-A Warning (Eco)	Temp. C-A to judge the Temp Error at Normal (Clogging Det.)	100	100	100/100	100/100	0-100	
15	Temp A Warning Offset (Temp)	Offset of Temp Error (Temp.) Error Setting Value is increased XC at the below condition * Standby * Right to turn on the lamp * Right to change the Lamp mode	5				0-100	
16	Temp B Warning Offset (Temp)		5				0-100	
17	Temp C Warning Offset (Temp)		10				0-100	
18	Temp B-A Warning Offset (Temp)		0				0-100	
19	Temp C-A Warning Offset (Temp)		0				0-100	
20	Temp A Warning Offset (Time)	Offset of Temp Error (Minutes) Error Setting Value is increased X minute at the below condition * Standby * Right to turn on the lamp * Right to change the Lamp mode	3				0-5	
21	Temp B Warning Offset (Time)		3				0-5	
22	Temp C Warning Offset (Time)		3				0-5	
23	Temp B-A Warning Offset (Time)		3				0-5	
24	Temp C-A Warning Offset (Time)		3				0-5	

Group 254	Fan Control Range Setting (Temp./Voltage)		Normal	Ceiling	HiLand-Normal ON1/ON2	HiLand-Ceiling ON1/ON2		
0	High Fan Control Min Temp				9999		-	
1	High Fan Control Max Temp				9999		-	
2	High Fan1 Min				9999		-	
3	High Fan1 Max				9999		-	
4	High Fan2 Min				9999		-	
5	High Fan2 Max				9999		-	
6	High Fan3 Min				9999		-	
7	High Fan3 Max				9999		-	
10	Normal Fan Control Min Temp	Temp Sensor Control Start/End Temp at Normal	28	27	27/27	27/26	20-100	
11	Normal Fan Control Max Temp		36	35	32/32	32/32	20-100	
12	Normal Fan1 Min	Fan voltage value at Normal (unit: 0.1V)	65	65	78/90	78/90	0-255	
13	Normal Fan1 Max		130	130	135/135	135/135	0-255	
14	Normal Fan2 Min		67	70	85/100	85/100	0-255	
15	Normal Fan2 Max		120	120	130/135	130/135	0-255	
16	Normal Fan3 Min		70	70	90/105	90/105	0-255	
17	Normal Fan3 Max		75	75	95/112	95/115	0-255	
20	Eco Fan Control Min Temp	Temp Sensor Control Start/End Temp at Eco	28	28	26/26	26/26	20-100	
21	Eco Fan Control Max Temp		35	35	32/32	32/32	20-100	
22	Eco Fan1 Min	Fan voltage value at Eco (unit: 0.1V)	50	50	67/67	67/67	0-255	
23	Eco Fan1 Max		120	120	125/130	125/130	0-255	
24	Eco Fan2 Min		55	57	67/85	67/85	0-255	
25	Eco Fan2 Max		100	100	110/120	110/120	0-255	
26	Eco Fan3 Min		35	35	47/55	47/55	0-255	
27	Eco Fan3 Max		38	38	52/60	52/60	0-255	

Group 255	Fan Start/Cooling Setting			
0	Fan1 Initial Volt	Fan Start Voltage(0.1V)	60	0-255
1	Fan2 Initial Volt		60	0-255
2	Fan3 Initial Volt		50	0-255
4	Fan1 Cooling Speed	Fan Voltage at Power Off (0.1V)	135	0-255
5	Fan2 Cooling Speed		135	0-255
6	Fan3 Cooling Speed		135	0-255
8	Cooling Time L1	Cooling Time setting at Fan Mode L1 (x 30 sec) 1: 30, 3: 90, 15: 450 sec.	2	1-15
9	Cooling Time L2	Cooling Time setting at Fan Mode L2 (x 30 sec) 1: 30, 3: 90, 15: 450 sec.	3	1-15
10	Temp Error Cooling Time	Cooling Time setting at Temp Erro (x 30 sec)	3	1-15

Electrical Adjustments

Group/ Item	Item Name	Function	Initial	Range	Note
11	OnStart Cooling Start Threshold		38	0-100	
12	After shutdown cooling	Cooling after shutdown (0: No, 1: Yes)	1	0-1	
Group 256	**Fan/Lamp Voltage Dimmer Setting**				
0	Lamp Voltage		-	0-1792	
1	Lamp Vol Threshold		0	30-90	
2	Fan 1 Speed Gain		10	0-255	
3	Fan 2 Speed Gain		10	0-255	
4	Fan 3 Speed Gain		10	0-255	
Group 257	**Fan Dimmer Setting**				
0	Dimmer Average Chech Period	Dimmer Average measurement Time (0:10sec. 1:30sec. 2:60 sec. 3:90sec...10:300sec.)	0	0-10	
1	Dimmer Average	Dimmer Average Value (Read only)	-		
2	Last Voltage Difference		-		
3	Voltage Difference Goal		-		
Group 258	**Fan Network IC temperature rising resolve**				
0	Standby Cooling Check Cycle		9999		
1	Standby Cooling Start Threshold		9999		
2	Standby Cooling Enable		9999		
Group 259	**Fan MIC IC temperature rising resolve**				
0	Standby Fan C Voltage		52		
Group 260	**Auto Calibration(Common)*Auto Calibration**				
0	Execute Calibration		0	0 - 1	Executes Auto-Calibration when changiing the Value (PC White 100%)
1	Loop Count	Maximum Execution Times (OFFSET->GAIN)	10	1 - 30	
2	Auto Status	Result of Auto-Calibration (Last Memory)	0	0 / 1 / 9	0: OK, 1: Adjusting,9: Error * ReadOnly
3	AutoWait	Wait Value for each setting	1	1 - 20	
4	CHECK -Tolelance	Torelance of OFFSET	2	1 - 255	
Group 261	**Auto Calibration (RGB)**				
0	OFFSET AREA H START	Black Level Acquiring Area H-Start Position	975	0 - 1000	
1	OFFSET AREA V START	Black Level Acquiring Area V-Start Position	500	0 - 1000	
2	GAIN AREA H START	White Level Acquiring Area H-Start Position	25	0 - 1000	
3	GAIN AREA V START	White Level Acquiring Area V-Start Position	500	0 - 1000	
4	Image AREA H WIDTH	Black/White Level Acquiring Area	13	0 - 4095	
5	Image AREA V HIGHT	Black/White Level Acquiring Area Height	9	0 - 4095	
6	OFFSET target	Target Value of Black Level Adj.	3	0 - 127	
7	OFFSET torelance	Torelance of Black Level Adj.	1	1 - 127	
8	GAIN target	Target Value of White Level Adj.	238	0 - 255	
9	GAIN torelance	Torelance of White Level Adj.	1	1-255	
Group 262	**Auto Calibration (CVBS/SVIDEO)**				
0	Y Image Area Start X	Y Acquiring Area H-Start Position	20	0-1000	
1	Y Image Area Start Y	Y Acquiring Area V-Start Position	200	0-1000	
6	Image Area H Width	Image Level Acquiring Area	8	0-4095	
7	Image Area V Hight	Image Level Acquiring Area Height	9	0-4095	
8	Y Target Level	Target Value of Y Level Adj.	217	0-255	
11	Gain Tolerance	Torelance of Level Adj.	1	0-255	
12	Delta Gain	Deviation Width of Gain Value	9	0-255	
Group 264	**Auto Calibration (YCbCr)**				
0	Y-OFFSET AREA H START	Y - Offset Acquiring Area H-Start Position	925	0 - 1000	

Electrical Adjustments

Group/ Item	Item Name	Function	Initial	Range	Note
1	Y-OFFSET AREA V START	Y - Offset Acquiring Area V-Start Position	500	0 - 1000	
2	CB - OFFSET AREA H START	CB - Offset Acquiring Area H-Start Position	925	0 - 1000	
3	CB - OFFSET AREA V START	CB - Offset Acquiring Area V-Start Position	500	0 - 1000	
4	CR - OFFSET AREA H START	CR - Offset Acquiring Area H-Start Position	925	0 - 1000	
5	CR - OFFSET AREA V START	CR - Offset Acquiring Area V-Start Position	500	0 - 1000	
6	Y - GAIN AREA H START		50	0 - 1000	
7	Y - GAIN AREA V START		500	0 - 1000	
8	CB - GAIN AREA H START		800	0 - 1000	
9	CB - GAIN AREA V START		500	0 - 1000	
10	CR - GAIN AREA H START		700	0 - 1000	
11	CR - GAIN AREA V START		500	0 - 1000	
12	Image AREA H WIDTH	YCBCR Level Acquiring Area	13	0 - 4095	
13	Image AREA V HIGHT	YCBCR Level Acquiring Area Height	9	0 - 4095	
14	Y - OFFSET TARTGET		4	1 - 255	
15	CB OFFSET TARGET		128	1 - 255	
16	CR OFFSET TARGET		128	1 - 255	
17	Y-GAIN TARGET		217	1 - 255	
18	CB-GAINTARGET		237	1 - 255	
19	CR-GAINTARGET		237	1 - 255	
20	OFFSET torelance	Torelance of OFFSET Adj.	1	1 - 255	
21	GAIN torelance	Torelance of GAIN Adj.	1	1 - 255	
Group 270	**CUSTOM(Aspect)**				
0	Scaler Horizontal	Horizontal Scaler Edit	100	68-132	
1	Sclaler Vertical	Vertical Scaler Edit	100	68-132	
2	Connect	Seperate/Connect Edit	0	0-1	0:Seperate, 1: Connect
3	Position Horizontal	Horizontal Postion Correction	100	85-115	
4	Position Vertical	Vertical Position Correct	100	85-115	
5	Aspect Enable		0	0 - 1	0: False, 1: True
Group 280	**AutoPC Adjust**				
0	AutoPCAdjustEnable	Auto-PC Adj Operation Enable if Un-supported Signal Input	0	0-1	0:Enabel, 1:Disable
1	Frequency Step	Frequency Steps of Total Dot	1	0-3	
2	Frequency Threshold	Total Dot Freqency Threshold	5	0-10	0[]<-- - --> 10[Not matched]
3	Fine Phase	Do Phase Adj after Total Dot Adj.	1	0-1	0;Excutes Fine Phase; 1:Not Excute
4	BLKDET	Black Level Detection Area	1	0 - 7	
5	PHASEMSK	Phase Detection Filter	0	0 - 3	0: Effective All Bit, 1: Disable Lower 1 bit 2: Disable Lower 2 bit, 3: Disable Lower 3 bit
Group 290	**PanelType * Not used for this model**				
0	GammaL/R-View	Current Setting Check	0	0-20	0: Gamma for L-Turn 20: Gamma for R-Turn * Read only
1	GammaL/R-Change	Setting of Gamma	10	0-20	Sets L-Turn Gamma if the Value is set to 0. Sets R-Turn Gamma if the Value is set to 20.
Group 500	**Composite (NTSC) Composite / S-Video**				
1	Disp Dots		668	0 ~ 4095	
2	H Back Porch		28	0 ~ 4095	
3	V Back Porch		18	0 ~ 4095	
4	Disp Line		458	0 ~ 4095	
Group 501	**Composite (PAL) Composite / S-Video**				
1	Disp Dots		658	0 ~ 4095	
2	H Back Porch		34	0 ~ 4095	
3	V Back Porch		22	0 ~ 4095	
4	Disp Line		536	0 ~ 4095	
Group 502	**Composite (SECAM) Composite / S-Video**				
1	Disp Dots		652	0 ~ 4095	
2	H Back Porch		28	0 ~ 4095	
3	V Back Porch		22	0 ~ 4095	

Electrical Adjustments

Group/ Item	Item Name	Function	Initial	Range	Note
4	Disp Line		536	0 ~ 4095	
Group 510	**SCART(480i)**				
1	Disp Dots		674	0 ~ 4095	
2	H Back Porch		132	0 ~ 4095	
3	V Back Porch		43	0 ~ 4095	
4	Disp Line		452	0 ~ 4095	
Group 511	**SCART (575i)**				
1	Disp Dots		650	0 ~ 4095	
2	H Back Porch		152	0 ~ 4095	
3	V Back Porch		68	0 ~ 4095	
4	Disp Line		514	0 ~ 4095	
Group 520	**YCbCr (480i)**				
0	Total Dots		858	0 ~ 4095	
1	Disp Dots		670	0 ~ 4095	
2	H Back Porch		146	0 ~ 4095	
3	V Back Porch		48	0 ~ 4095	
4	Disp Line		458	0 ~ 4095	
Group 521	**YCbCr (575i)**				
0	Total Dots		864	0~4095	
1	Disp Dots		656	0~4095	
2	H Back Porch		162	0~4095	
3	V Back Porch		64	0~4095	
4	Disp Line		534	0~4095	
Group 522	**YCbCr (480P)**				
0	Total Dots		858	0 ~ 4095	* Read only
1	Disp Dots		684	0 ~ 4095	
2	H Back Porch		136	0 ~ 4095	
3	V Back Porch		46	0 ~ 4095	
4	Disp Line		460	0 ~ 4095	
Group 523	**YCbCr (575P)**				
0	Total Dots		864	0 ~ 4095	* Read only
1	Disp Dots		690	0 ~ 4095	
2	H Back Porch		142	0 ~ 4095	
3	V Back Porch		56	0 ~ 4095	
4	Disp Line		550	0 ~ 4095	
Group 524	**YCbCr (720P - 60)**				
0	Total Dots		1650	0 ~ 4095	* Read only
1	Disp Dots		1248	0 ~ 4095	
2	H Back Porch		313	0 ~ 4095	
3	V Back Porch		34	0 ~ 4095	
4	Disp Line		700	0 ~ 4095	
Group 525	**YCbCr (720P - 50)**				
0	Total Dots		1980	0 ~ 4095	* Read only
1	Disp Dots		1248	0 ~ 4095	
2	H Back Porch		338	0 ~ 4095	
3	V Back Porch		36	0 ~ 4095	
4	Disp Line		700	0 ~ 4095	
Group 526	**YCbCr (1080i - 60)**				
0	Total Dots		2200	0 ~ 4095	* Read only
1	Disp Dots		1872	0 ~ 4095	
2	H Back Porch		256	0 ~ 4095	
3	V Back Porch		54	0 ~ 4095	

Electrical Adjustments

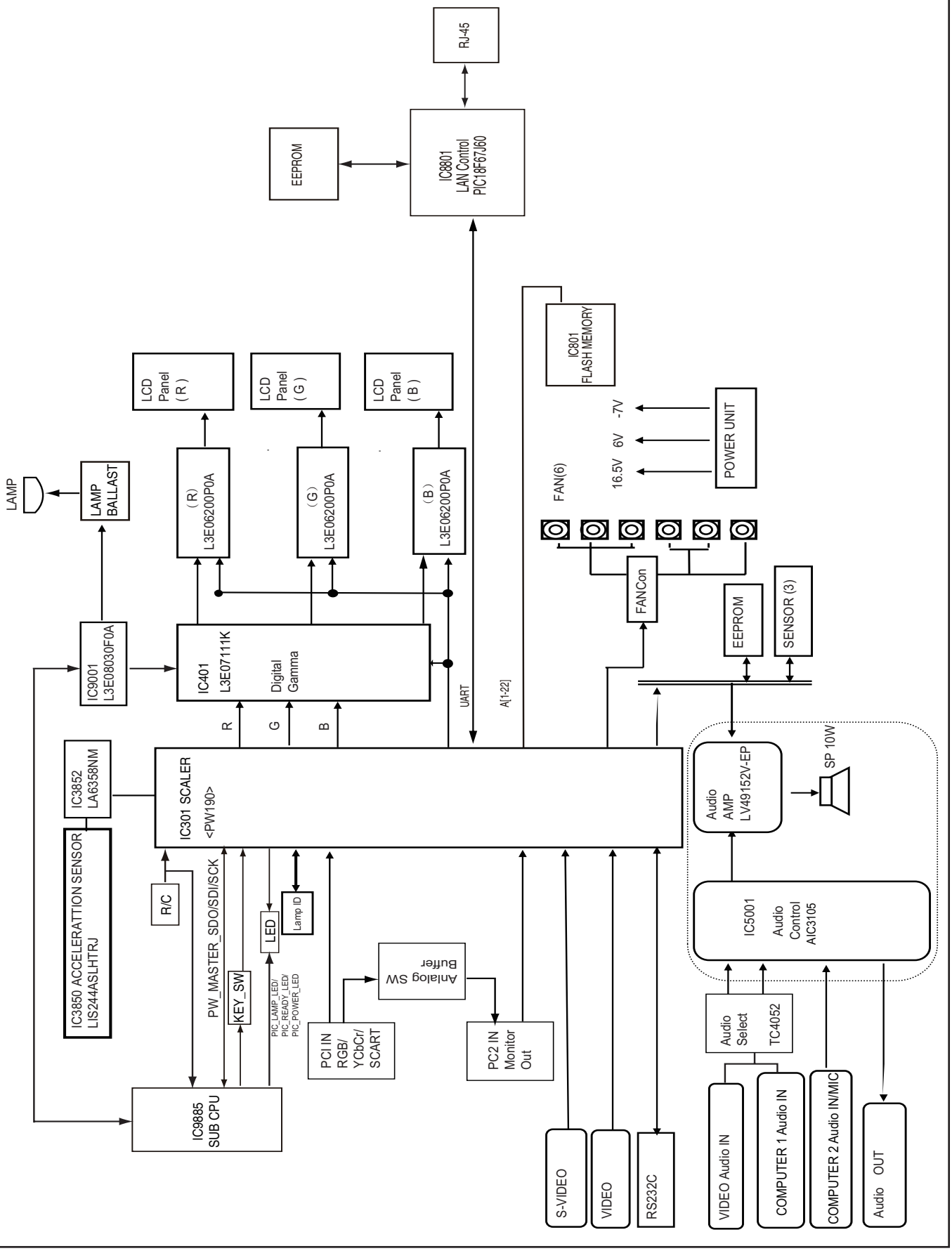
Group/ Item	Item Name	Function	Initial	Range	Note
4	Disp Line		1052	0 ~ 4095	
Group 527	**YCbCr (1080i - 50)**				
0	Total Dots		2640	0 ~ 4095	* Read only
1	Disp Dots		1870	0 ~ 4095	
2	H Back Porch		257	0 ~ 4095	
3	V Back Porch		54	0 ~ 4095	
4	Disp Line		1052	0 ~ 4095	
Group 528	**YCbCr (1035i)**				
0	Total Dots		2200	0 ~ 4095	* Read only
1	Disp Dots		1872	0 ~ 4095	
2	H Back Porch		256	0 ~ 4095	
3	V Back Porch		92	0 ~ 4095	
4	Disp Line		1012	0 ~ 4095	
Group 540	**RGB Video (480i)**				
0	Total Dots		960	0 ~ 4095	
1	Disp Dots		752	0 ~ 4095	
2	H Back Porch		166	0 ~ 4095	
3	V Back Porch		48	0 ~ 4095	
4	Disp Line		460	0 ~ 4095	
Group 541	**RGB Video (575i)**				
0	Total Dots		966	0 ~ 4095	
1	Disp Dots		736	0 ~ 4095	
2	H Back Porch		182	0 ~ 4095	
3	V Back Porch		66	0 ~ 4095	
4	Disp Line		536	0 ~ 4095	
Group 542	**RGB Video (480P)**				
0	Total Dots		960	0 ~ 4095	
1	Disp Dots		766	0 ~ 4095	
2	H Back Porch		156	0 ~ 4095	
3	V Back Porch		46	0 ~ 4095	
4	Disp Line		460	0 ~ 4095	
Group 543	**RGB Video (575P)**				
0	Total Dots		986	0 ~ 4095	
1	Disp Dots		774	0 ~ 4095	
2	H Back Porch		174	0 ~ 4095	
3	V Back Porch		62	0 ~ 4095	
4	Disp Line		540	0 ~ 4095	
Group 544	**RGB Video (720P - 60)**				
0	Total Dots		1650	0 ~ 4095	
1	Disp Dots		1246	0 ~ 4095	
2	H Back Porch		318	0 ~ 4095	
3	V Back Porch		36	0 ~ 4095	
4	Disp Line		698	0 ~ 4095	
Group 545	**RGB Video (720P - 50)**				
0	Total Dots		1980	0 ~ 4095	
1	Disp Dots		1246	0 ~ 4095	
2	H Back Porch		310	0 ~ 4095	
3	V Back Porch		34	0 ~ 4095	
4	Disp Line		702	0 ~ 4095	
Group 546	**RGB Video (1080i - 60)**				
0	Total Dots		2200	0 ~ 4095	
1	Disp Dots		1872	0 ~ 4095	
2	H Back Porch		260	0 ~ 4095	
3	V Back Porch		58	0 ~ 4095	

Electrical Adjustments

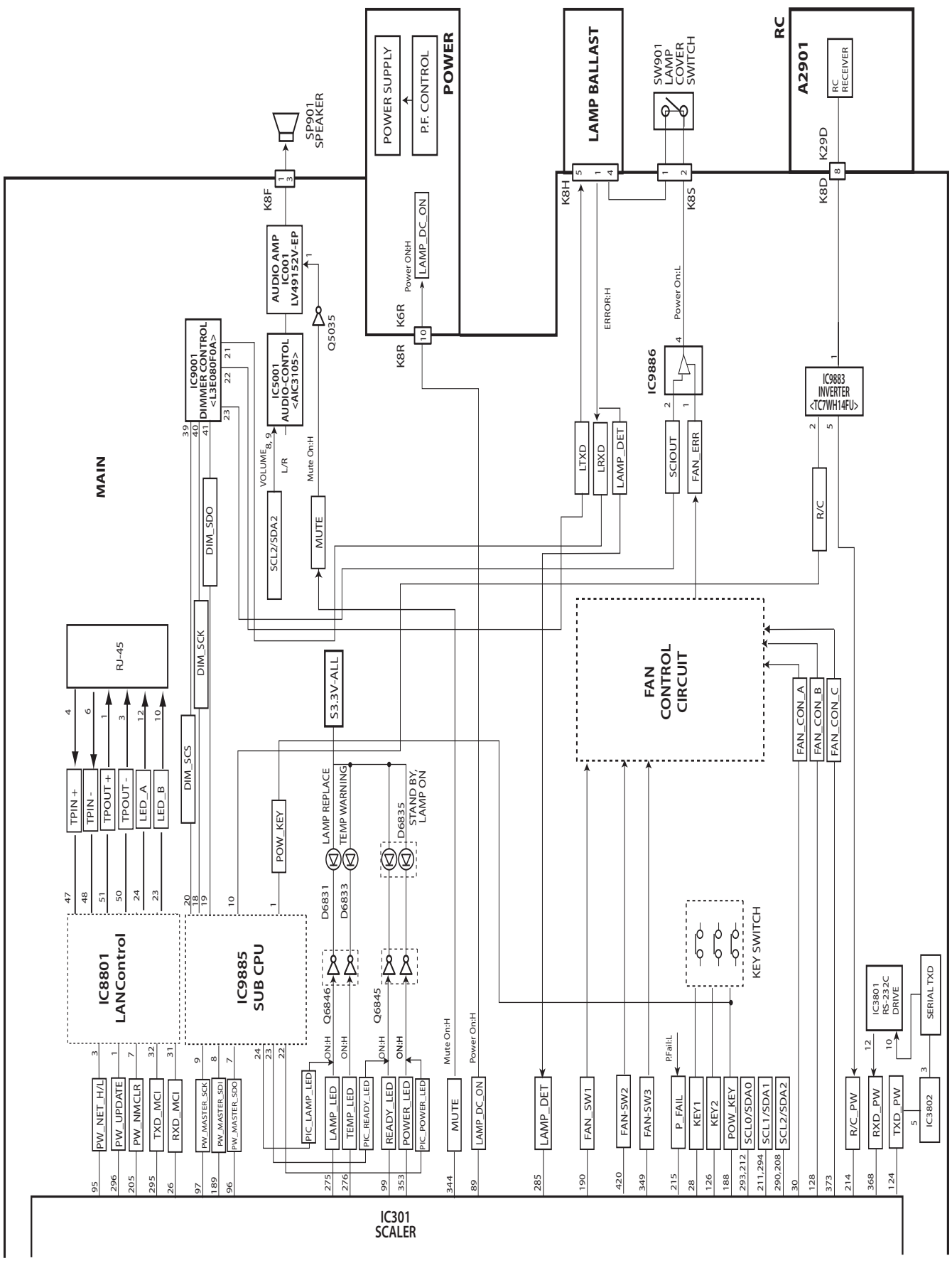
Group/ Item	Item Name	Function	Initial	Range	Note
4	Disp Line		1046	0 ~ 4095	
Group 547	**RGB Video (1080i - 50)**				
0	Total Dots		2640	0 ~ 4095	
1	Disp Dots		1872	0 ~ 4095	
2	H Back Porch		260	0 ~ 4095	
3	V Back Porch		56	0 ~ 4095	
4	Disp Line		1050	0 ~ 4095	
Group 548	**RGB Video (1035i)**				
0	Total Dots		2200	0 ~ 4095	
1	Disp Dots		1872	0 ~ 4095	
2	H Back Porch		260	0 ~ 4095	
3	V Back Porch		92	0 ~ 4095	
4	Disp Line		1008	0 ~ 4095	
Group 981	**Color Shading Adj Offset**				
0	R-Max		128	0 - 255	
1	R-Mid1		128	0 - 255	
2	R-Mid2		128	0 - 255	
3	R-Min		128	0 - 255	
4	G-Max		128	0 - 255	
5	G-Mid1		128	0 - 255	
6	G-Mid2		128	0 - 255	
7	G-Min		128	0 - 255	
8	B-Max		128	0 - 255	
9	B-Mid1		128	0 - 255	
10	B-Mid2		128	0 - 255	
11	B-Min		128	0 - 255	

Chassis Block Diagrams

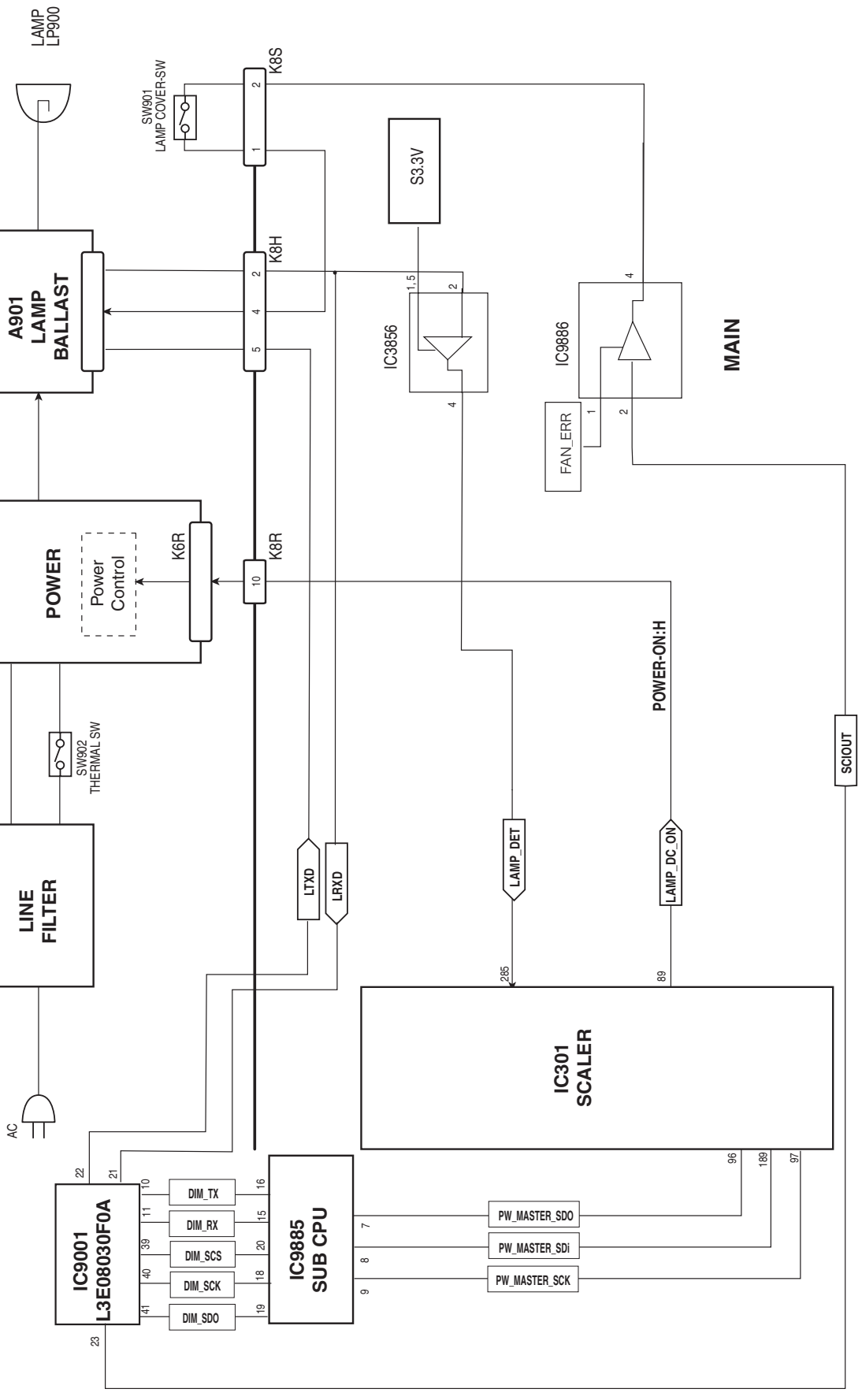
Chassis over view



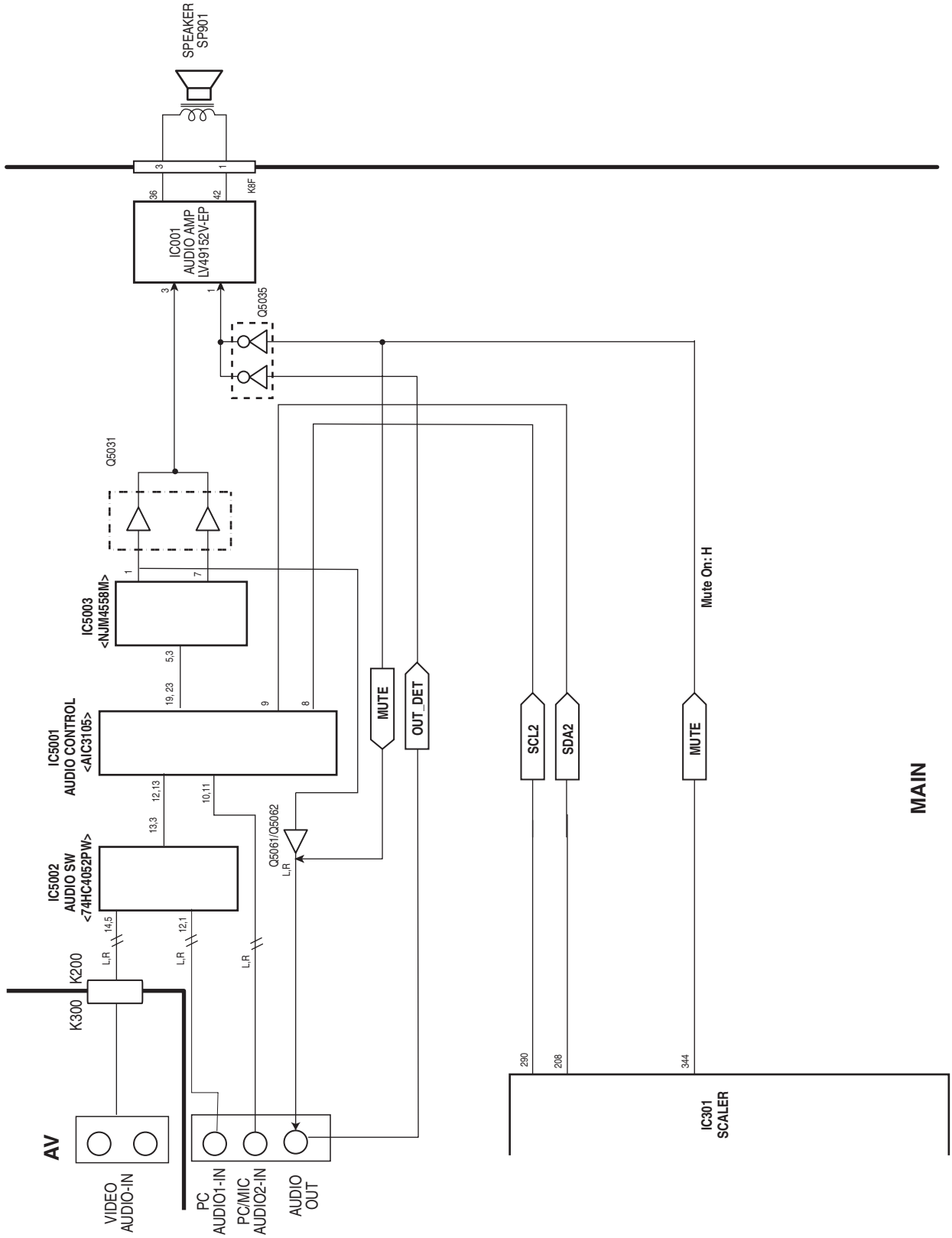
System control



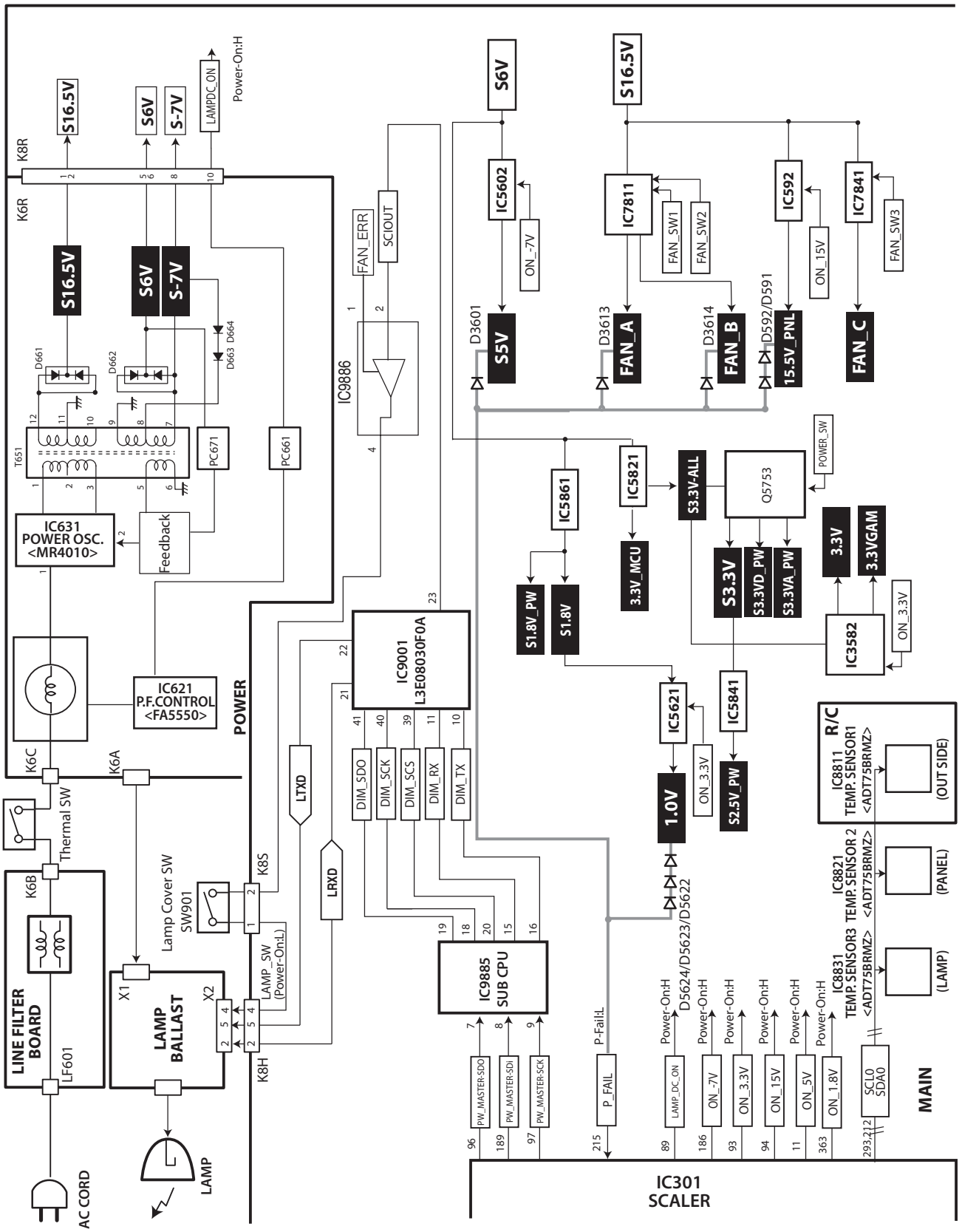
Lamp control



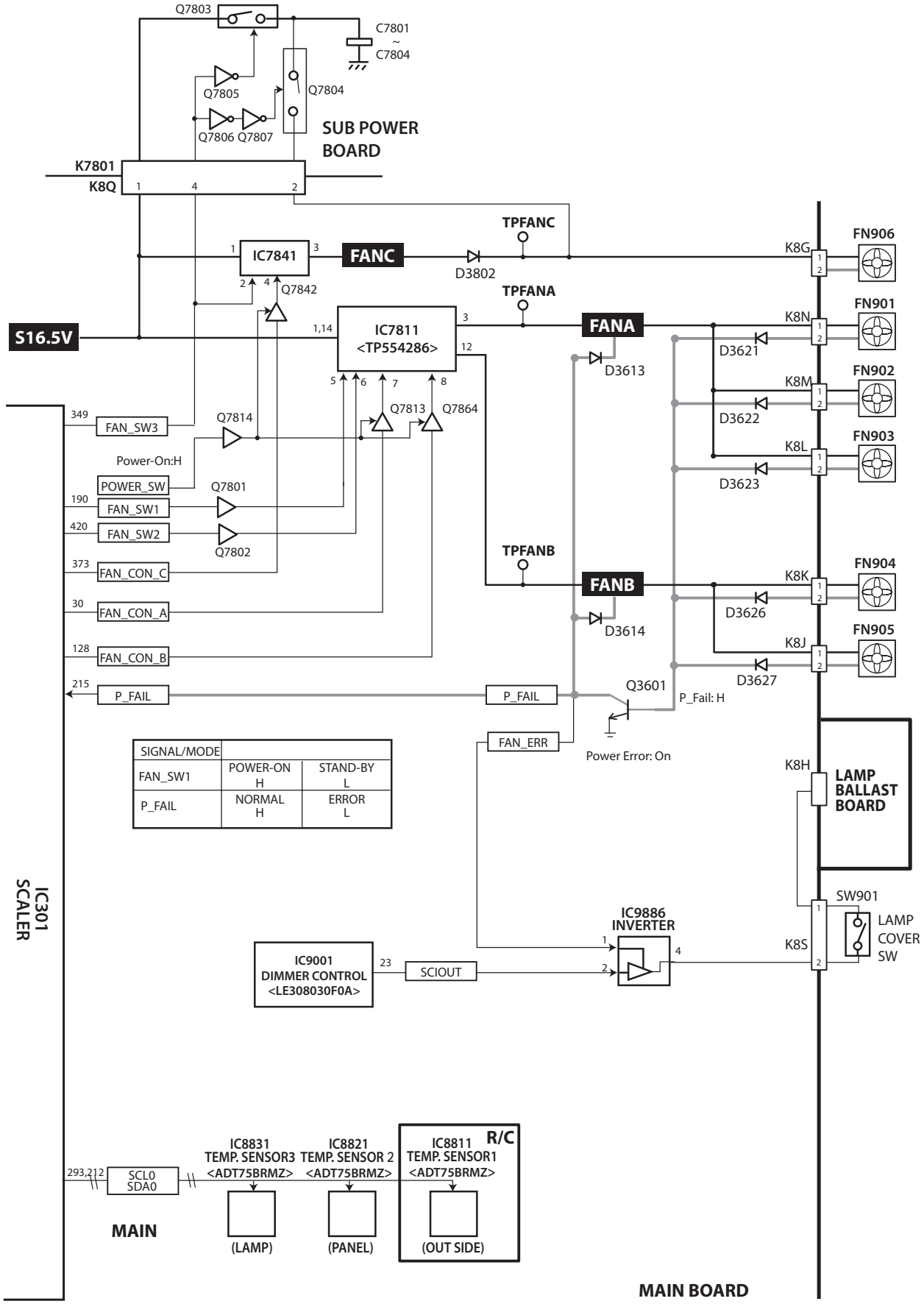
Audio circuit



Power supply & protection circuit



Fan control circuit



Troubleshooting

Indicators and Projector Condition

Check the indicators for projector condition.

Indicators			Projector Condition
POWER **red/green**	WARNING **red**	LAMP REPLACE **yellow**	
●	●	●	The projector is off. (The AC power cord is unplugged.)
◍	●	✻	The projector is in stand-by mode. Press the ON/STAND-BY button to turn on the projector.
○	●	✻	The projector is operating normally.
◍ blinks	●	✻	The projector is preparing for stand-by or the projection lamp is being cooled down. The projector cannot be turned on until cooling is completed and the POWER indicator stops blinking.
○ blinks	●	✻	The projector is in the Power management mode.
◍ blinks	◍ blinks	✻	The temperature inside the projector is abnormally high. The projector cannot be turned on. When the projector is cooled down enough and the temperature returns to normal, the POWER indicator stops blinking and the projector can be turned on. (The WARNING indicator keeps blinking.)
◍	◍ blinks	✻	The projector has been cooled down enough and the temperature returns to normal. When turning on the projector, the WARNING indicator stops blinking.
●	◍	✻	The projector detects an abnormal condition and cannot be turned on. Unplug the AC power cord and plug it again to turn on the projector. If the projector is turned off again, unplug the AC power cord and contact the dealer or the service center for service and checkup. Do not leave the projector on. It may cause an electric shock or a fire hazard.

○ • • • green. ◍ • • • red ● • • • off

○ blinks • • • blinks green. ◍ blinks • • • blinks red.

✻ When the projection lamp reaches its end of life, the LAMP REPLACE indicator lights yellow. When this indicator lights yellow, replace the projection lamp with a new one promptly.

No Power

This projector provides a function which can be specified a defective area simply by indicating the LEDs. Connect the AC cord and press the Power button once and then check the LED indication.

- **When all ofLED indicators are not lighting**, the symptom indicates that the primary power supply circuit does not operate properly. Check the power primary circuit and parts as follow;
  AC cord, F601 (Fuse), Power board,
  SW902 (Thermal sw.) short in normal
  SW902 opens when the surrounding temperature of the switch exceeds 115°C.

- **When the WARNING (red) and POWER (red) indicators are flashing**, the symptom indicates that the projector detected an abnormal temperature risen inside the projector. Check the air filters and remove the object near the intake and exhaust fan openings, and wait until the POWER indicator stops flashing, and then try to turn on the projector.
  The internal temperature is monitored by sensor ICs, IC8831, IC8821 on the Main board and IC8811 on the R/C board.

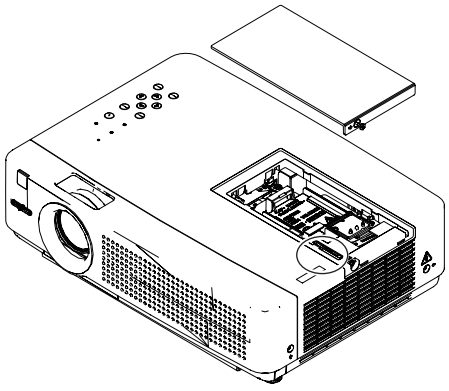
- **When the WARNING indicator lights red**, the symptom indicates that the projector detected an abnormality in the cooling fan operation or in the power supply secondary circuits. Check fan operation and power supply lines, and the driving signal status.
  The P_FAIL signal (Error: L), FAN_ERR_B signal (Error: L), FAN_ERR_C signal (Error: H) are sent to pins 215, 267 and 29 of IC301<SYSTEM CONTROL> respectively when the abnormality occurred inside the projector, and then the IC301 sends the shutdown signal, LAMP_DC_ON, to the power supply circuit to stop its operation, and signal SCIOUT to the lamp ballast board via IC9886 and SW901<lamp cover switch> to stop operation of the lamp circuit.

  An abnormality occurs on the secondary power supply;
  Check power supplies S16.5V, S6V, S-7V. P_FAIL signal becomes Low when the abnormality occurs on any of the power supply lines.

  An abnormality occurs on the fan control circuit;
  If fans FN901, FN902 or FN903 has an error, the FAN_ERR and P_FAIL signals become "L". If fans FN904 or FN905 has an error, the FAN_ERR and F_FAIL signals become "L". If fan FN906 has an error, the FAN_ERR_C signal becomes "H". The FAN_ERR signal is sent to lamp ballast board to stop lamp circuit.

  An abnormality occurs on the drive signals;
  ON_15V signal (Power-on: H) is output from pin 94 of IC301 and switches IC592,15.5V_PNL supply circuit, ON_3.3V signal (Power-on: H) is output from pin 93 of IC301 and switches IC5621, 1.0V, Q3582, 3.3V and 3.3VGAM power supply.
  LAMP_DC_ON signal (Power-on: H) is output from pin 89 of IC301 and supplied to the PFC Control IC, IC621, on the power supply board.
  SCIOUT signal (Power-on: H) is output from pin 23 of IC9001 and applied to pin 2 of IC9886 and output pin 4 and then supplied to the lamp ballast board through SW901<Lamp Cover SW>.
  LAMP_DET signal at the pin 285 of IC301 is applied from the lamp ballast unit. If the abnormality occurred on the lamp ballast unit, LAMP_DET signal becomes “High” and then IC301 shuts down the power supply circuit.

Lamp Cover switch
Make sure that the lamp cover is mounted correctly. If not or the lamp cover removed, the lamp does not light on for the safety. Check the lamp cover and lamp cover switch (SW901).



No Picture

Check following steps.

No picture with all of input sources

Yes →

Check signal processing stage and LCD driving stage;
- Check RGB S&H signals at test points TP35B, TP35G, TP35R.
- Check power supply circuit 15.5V_PNL and peripheral circuit.
- Check ICs IC501, IC531, IC561, IC401, IC301 and peripheral circuits.

No ↓

No picture with PC1 input source only

Yes →

Check IC301<Scaler>, IC5301<HV Sync SW> and peripheral circuits.
- R1, G1, B1 signals are applied at pins 82, 260, 258 of IC301.
- HS1, VS1 signals are pins 331 and 161 of IC301.

No ↓

No picture with PC2 input source only

Yes →

Check IC301<Scaler>, IC5301<HV Sync SW> and peripheral circuits.
- R2, G2, B2 signals are applied at pins 172, 78, 256 of IC301.
- HS2, VS2 signals are pins 253 and 66 of IC301.
- MONIT_OUT signal is output from IC301 and applied to IC4701 and IC4001.
- Monitor-out selected; Pin 413 at IC301: H
  Pins 1, 7 at IC4701: L
  Pins 2, 4, 7 at IC4001: L

No ↓

No picture with video input sources

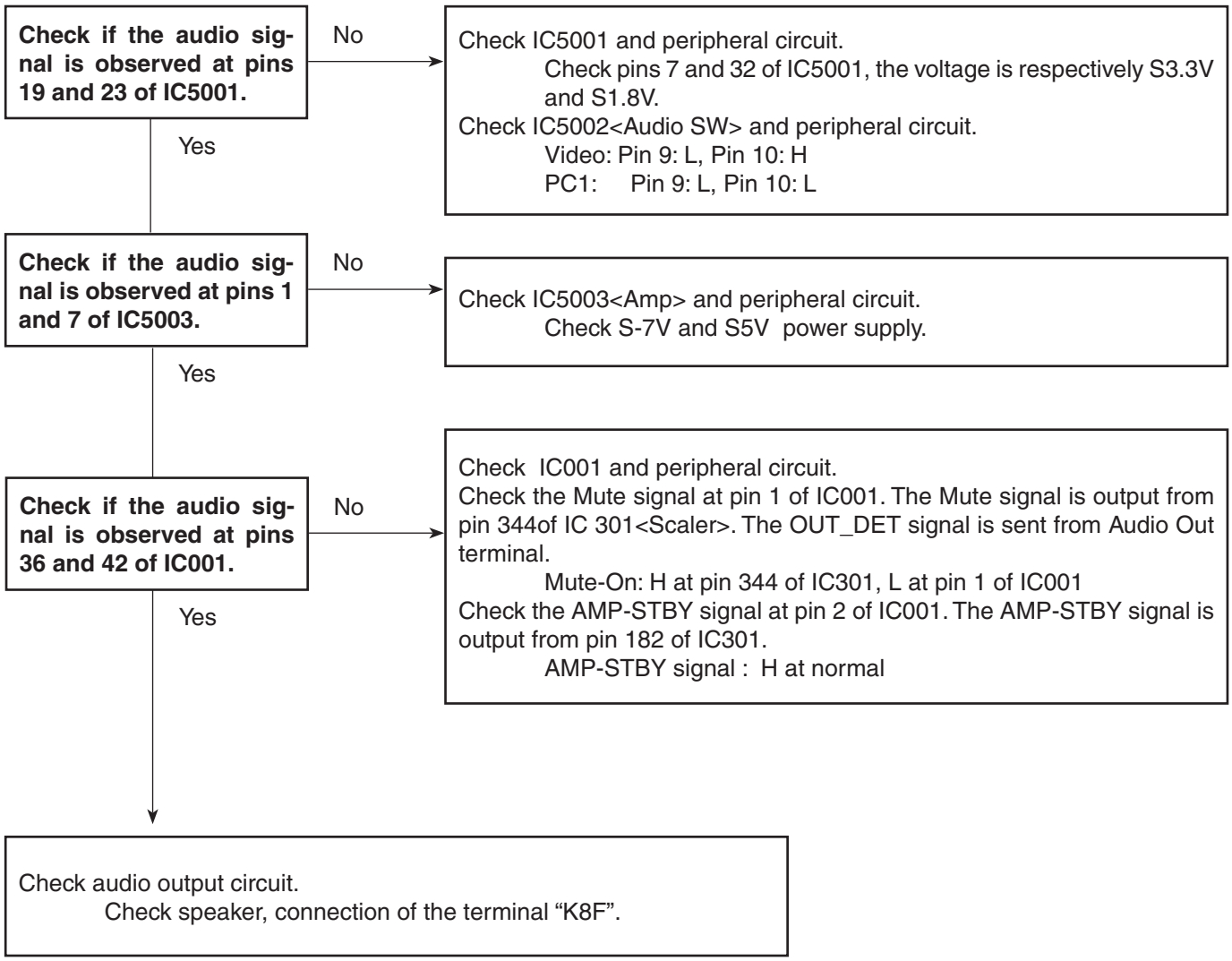
Yes →

S-Video source
- Check S-video signal (Y/C).
- S_CHROMA signal is applied to pin 265 of IC301<Scaler>, and S-Y signal is applied on pin 264 of IC301.

Composite video source
- Check composite video signal (Video).
- The composite video signal is applied to pins 262 of IC301 <Scaler>.

No Sound

Check following steps.



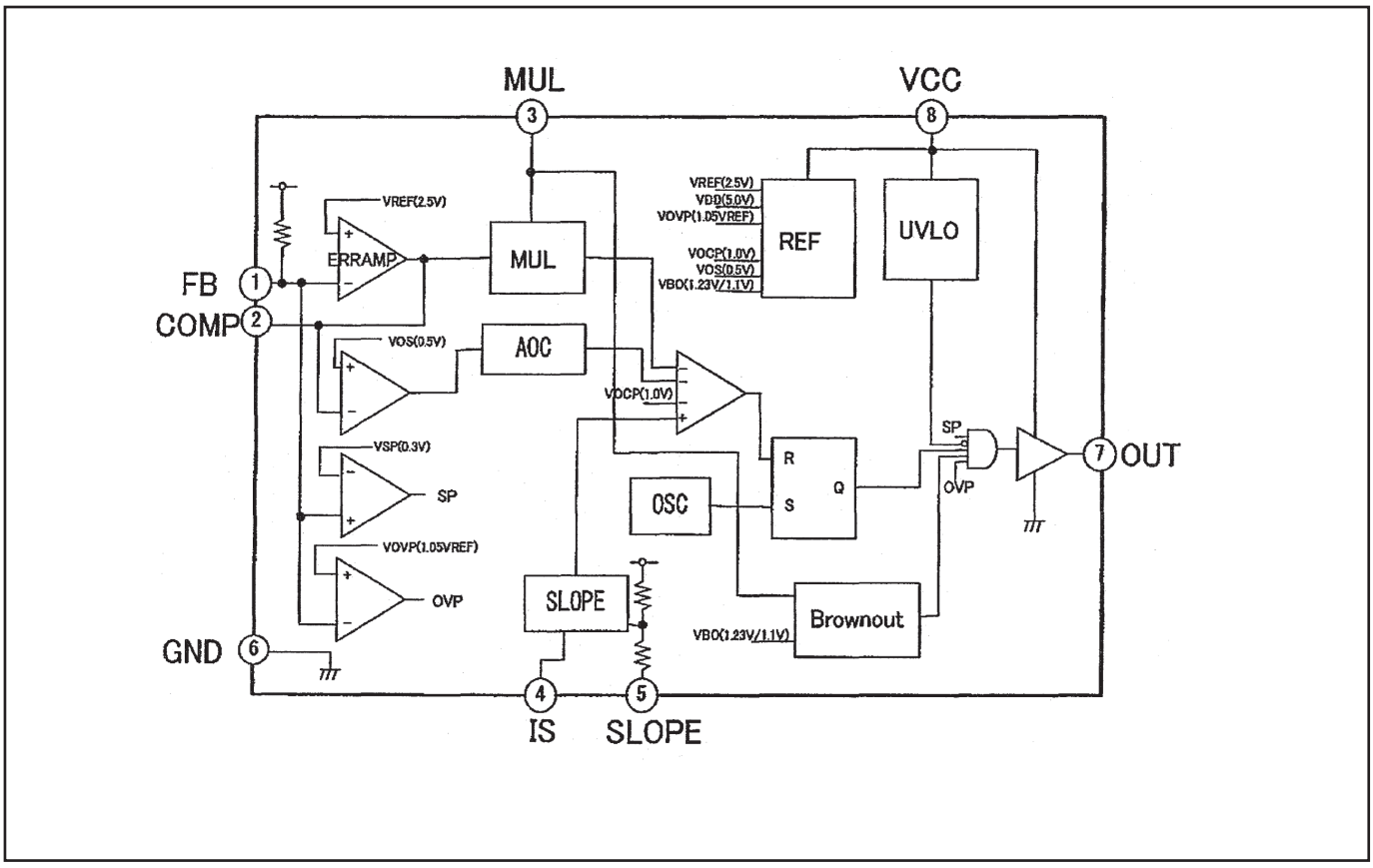
Control Port Functions

Scaler I/O Port Functions (PW190)

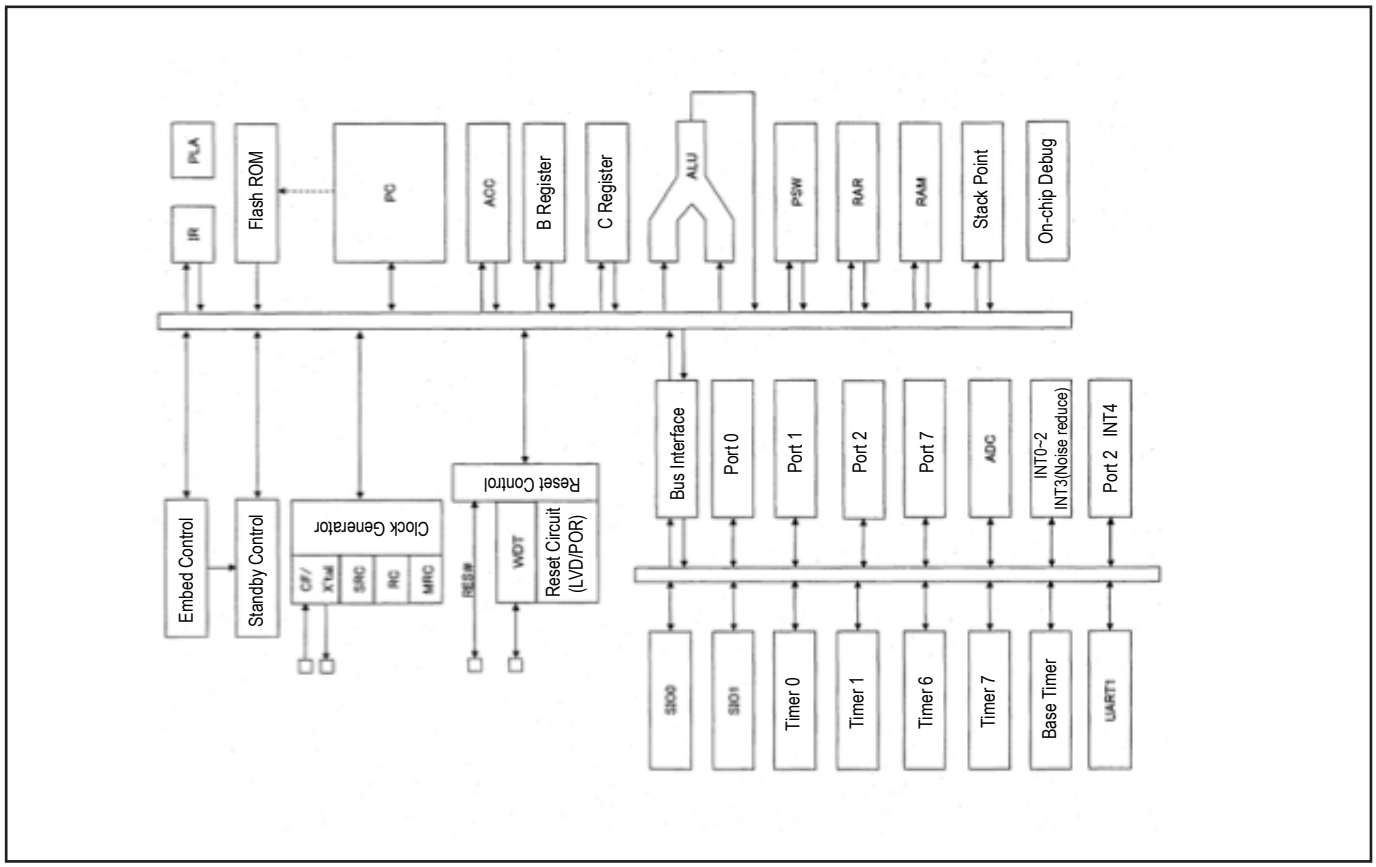
PIN NO.	PORT NO.	FUNCTION	SIGNAL NAME	DESCRIPTION	I/O
93	J1		ON_3.3V	3.3V Power Drive, Power On: H	O
187	H2		RESET_MIC		O
111	B12		PW_SCS		O
124	B25		TXD_PW	Serial Control TXD	O
94	H1		ON_15V	15V Power Driver,Pow on:H	O
201	C11		MIC_OFF	MIC Control, MIC On:H	O
202	C12		SDATA_PW	3-Wired Serial Control Data	O
205	C15		PW_NMCLR	LAN control	I
208	C18	2-Wire Serial Data 2	SDA2	IIC Bus Switch IC DAC, SoundIC[5V_SW]	O
211	C21	2-Wire Serial Clock 1	SCL1		O
212	C22	2-Wire Serial Data 0	SDA0	IIC Bus Temp Sensor [S3.3V]	O
28	C26		KEY1	Input/Select/Keystone	I
278	D5		ID_PWR_SW	lamp ID power 5V ON/OFF	I
285	D12		LAMP_DET	Lamp Error Det	I
290	D17	2-Wire Serial Clock 2	SCL2	IIC Bus Control Clock	O
293	D20	2-Wire Serial Clock 0	SCL0	IIC Bus Control Clock	O
294	D21	2-Wire Serial Data 1	SDA1	IIC Bus Control Data	O
296	D23		PW_UPDATE	LAN control	O
215	D24	ADC0	P-FAIL		I
126	D25	ADC2	KEY2	Key Control Input	I
29	D26	ADC6	FAN_ERR_C	FAN C error alarm	I
190	E2		FAN_SW1	FAN A Control, FAN A ON: H	O
362	E14		IRM_RST	L3E07111 reset	O
368	E20		RXD_PW	Serial Control RXD	I
370	E22	ADC5	P_FAIL_FAN		I
30	E26	DAC1	FAN_CON_A	FAN CON_A	O
420	F5		FAN_SW2	FAN B Control. FAN B ON: H	O
128	F25	DAC2	FAN_CON_B	FAN CON_B	O
349	H4		FAN_SW3	FAN C Control, FAN C ON: H	O
373	H22	DAC0	FAN_CON_C	FAN_CON_C	O
271	J3		RST_DB	DB IC9001 RESET	O
182	N2		AMP_STBY		O
92	K1		DG[1]		I
185	K2		DB[1]		I
347	K4		PC1_L_OFF	PC1_L Control	O
91	L1		DR[1]		I
184	L2		PW_LAMP_ID_A	lamp ID	O
346	L4		DR[0]		I
183	M2		AUDIO_IN_MUTE		O
268	M3		DB[0]		I
345	M4		DG[0]		I
89	N1		LAMP_DC_ON	Power Control, Power On: H	O
267	N3		FAN_ERR_B	FAN B error alarm	I
344	N4		MUTE	Mute_ON : H	O
413	N5		MONIT_OUT	Low=in, High=Monit OUT	O
329	AC9	A[22]	A[22]		O
160	AE12	A[20]	A[20]		O
65	AF12	A[21]	A[21]		O
186	J2		ON_-7V	-7V Power Driver, Power On:H	O
110	B11		AUDIO SEL		O
96	F1		PW_MASTER_SDO	SUB CPU COMMUNICATION	O
189	F2		PW_MASTER_SDI	SUB CPU COMMUNICATION	O
97	E1		PW_MASTER_SCK	SUB CPU COMMUNICATION	O

IC Block Diagrams

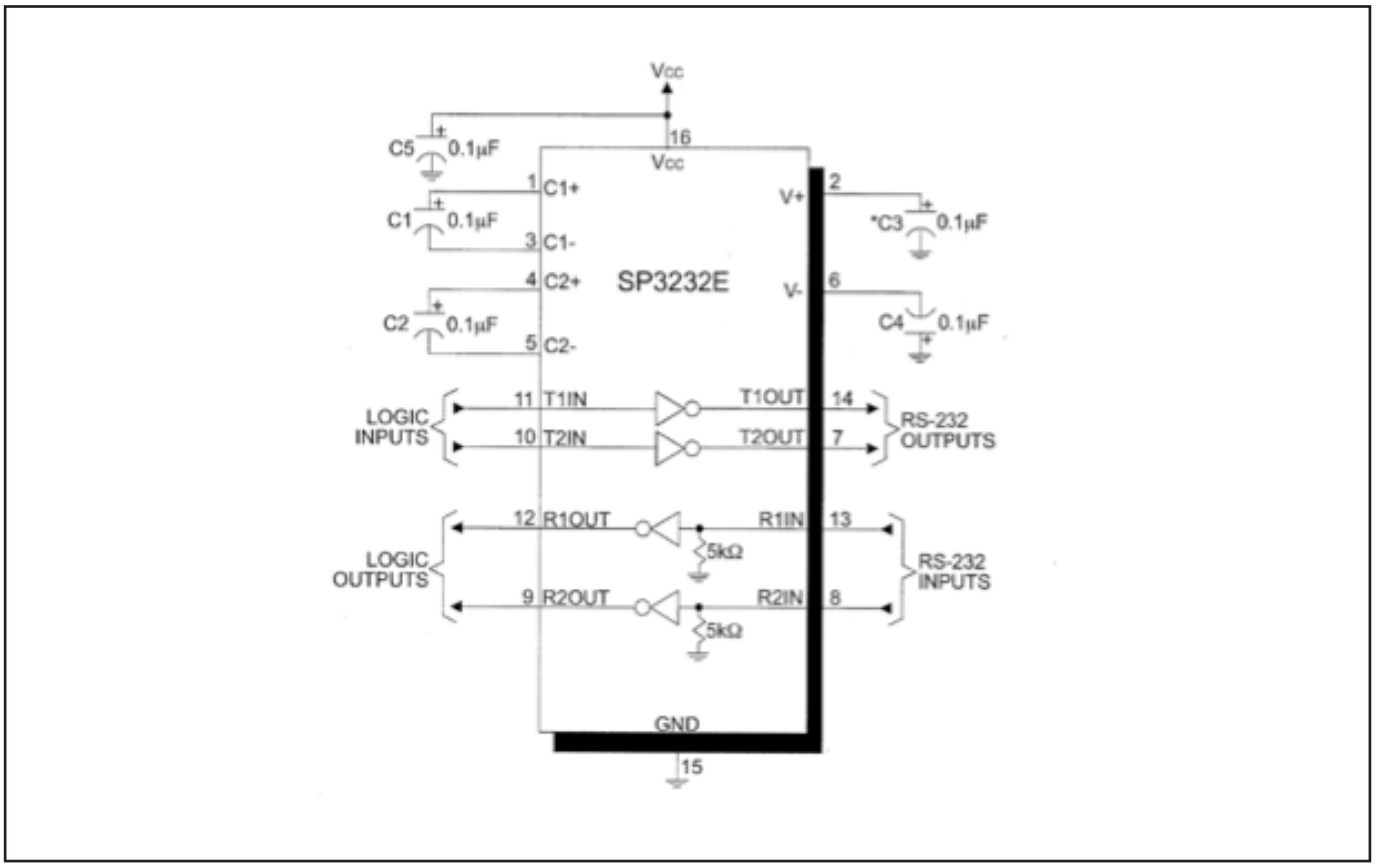
● FA5550NG <P.F. Control, IC621>



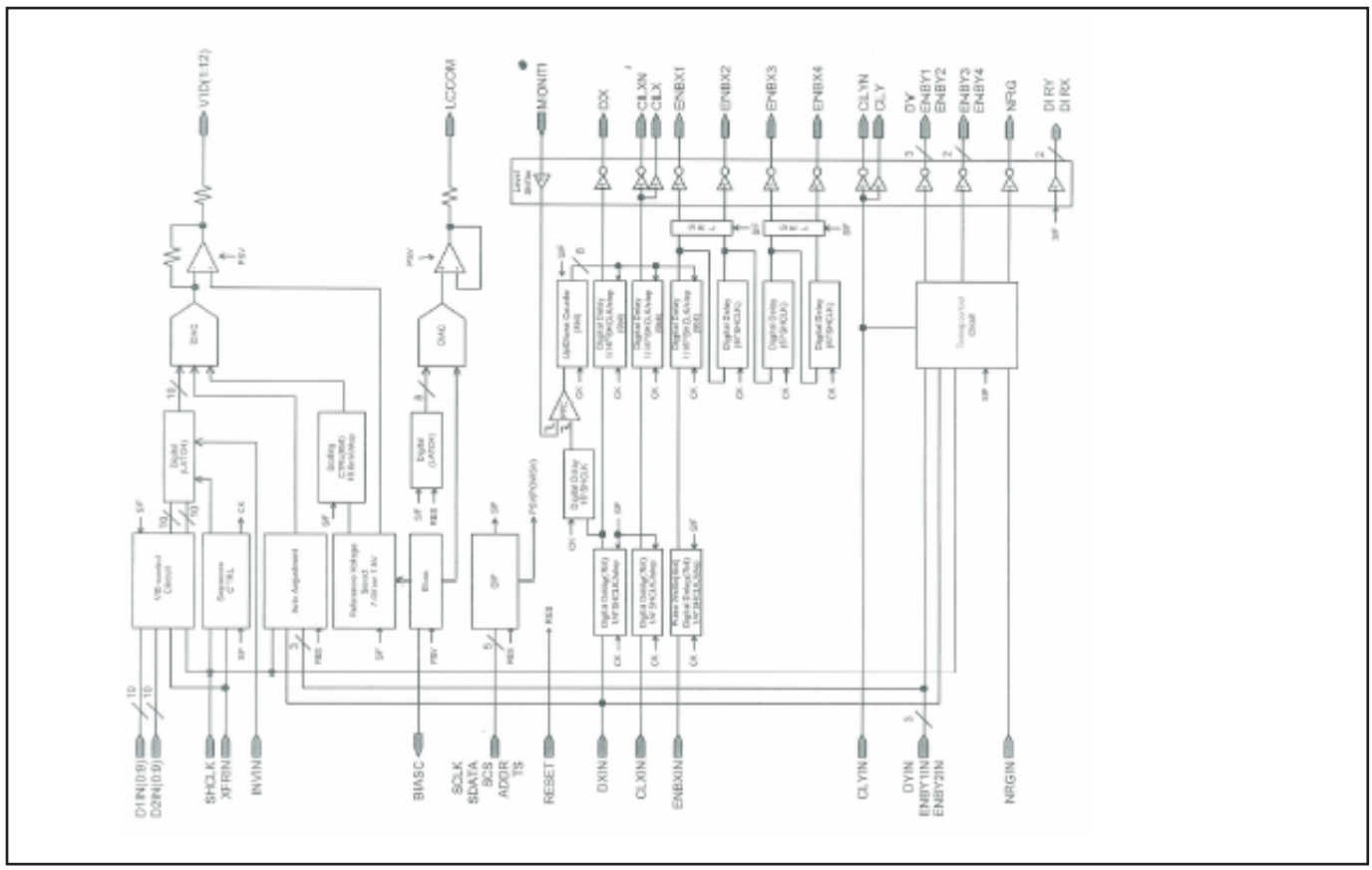
● LC87F2G08AUSSOP <SUB CPU, IC9885>



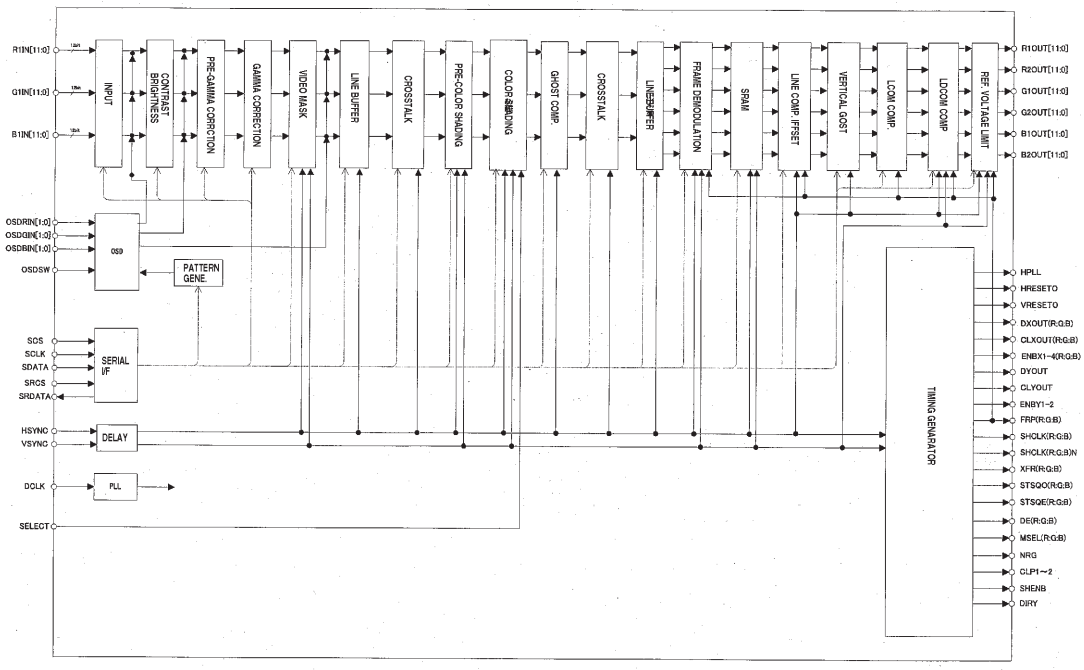
● SP3232ECYP <RS-232C Driver, IC3801>



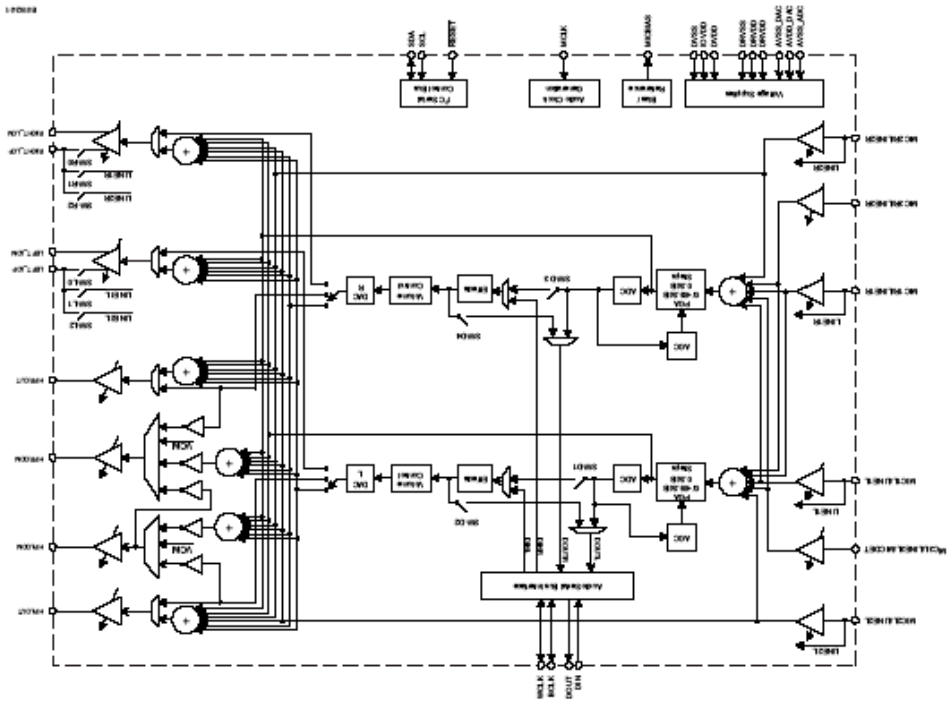
● L3E06200P0A<D/A, S/H-LCD Driver, IC501, IC531, IC561>



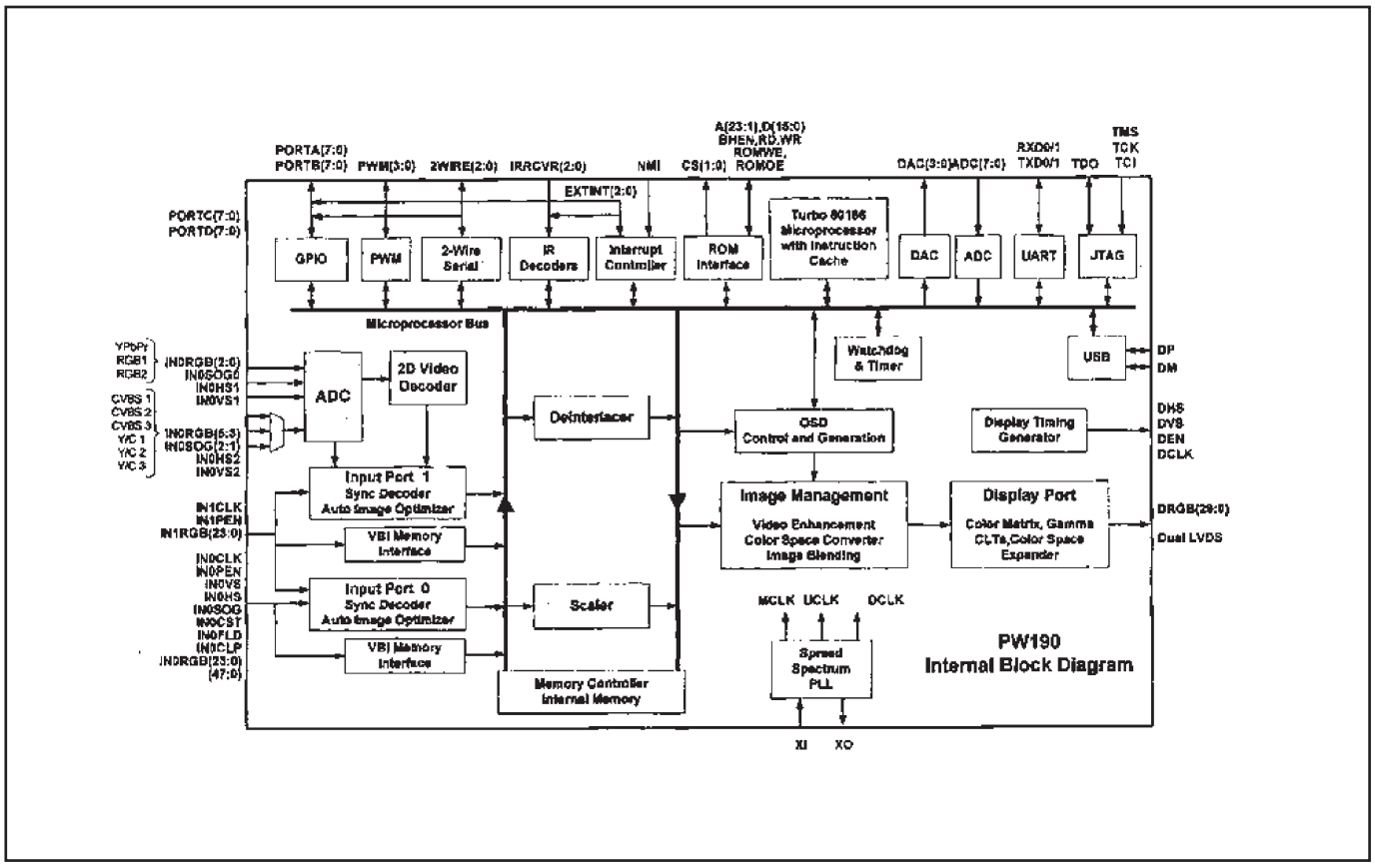
● L3E07111 <Digital Gamma Correction, IC401>



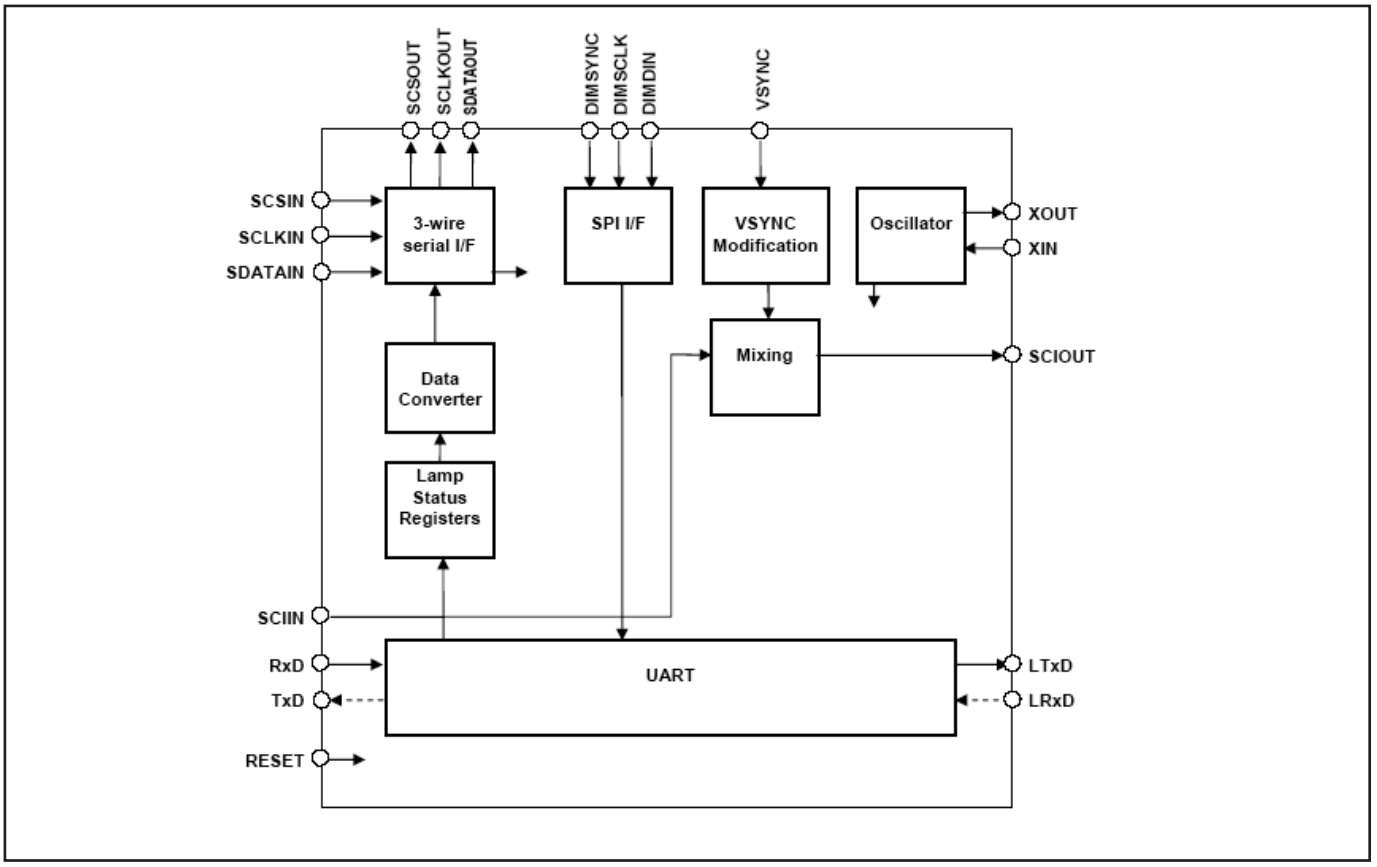
● TLV320AIC3105 <Audio Control, IC5001>



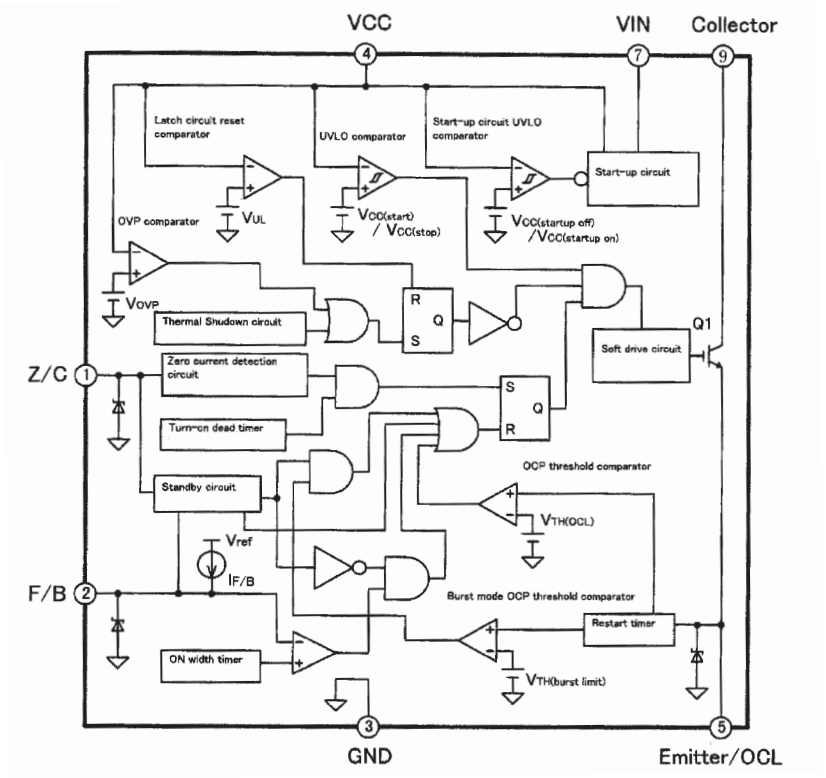
● PW190 <Scaler, IC301>



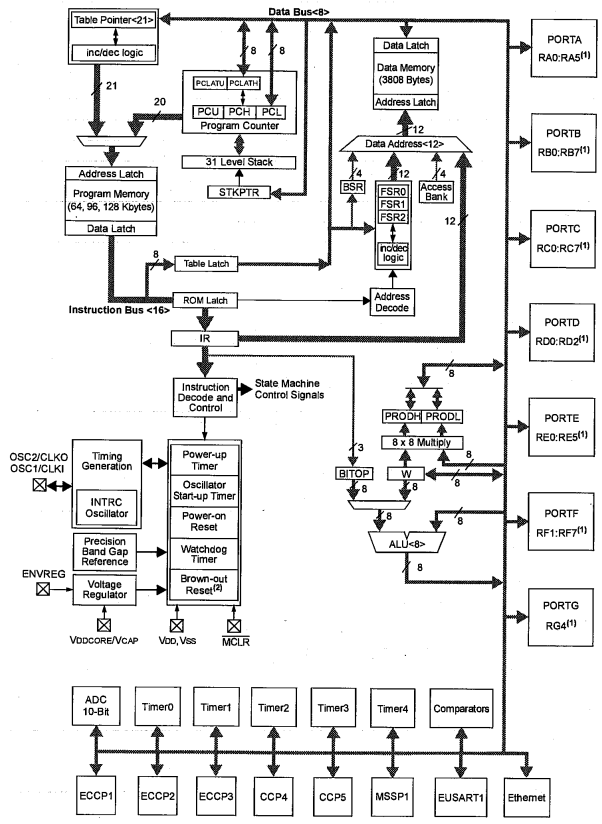
● L3E08030F0A <Dimmer Control, IC9001>



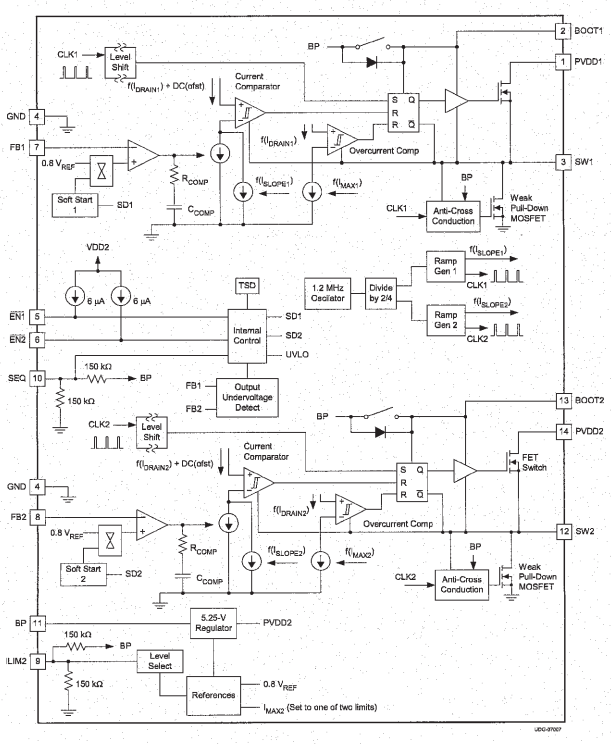
● MR4010 <Power OSC, IC631>



● PIC18F67J60<LAN CONTROL,IC8801>

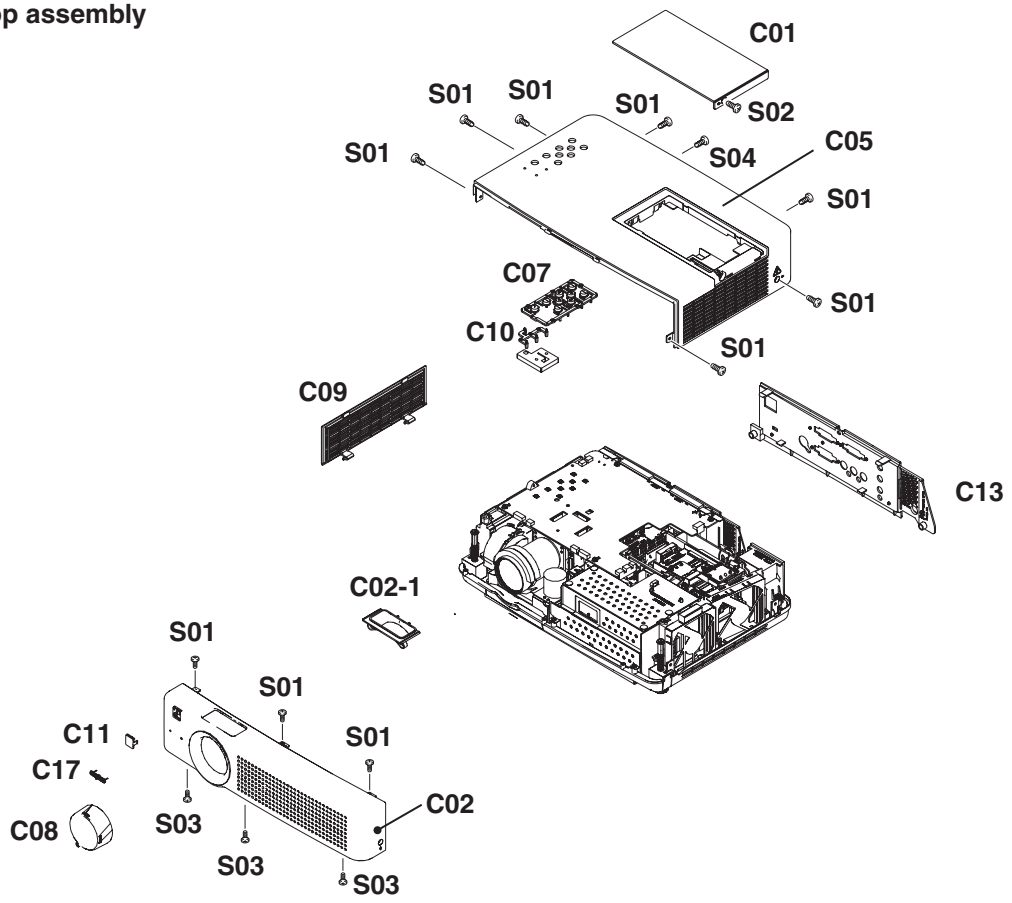


● TPS54286 <DC-DC Converter, IC7811>

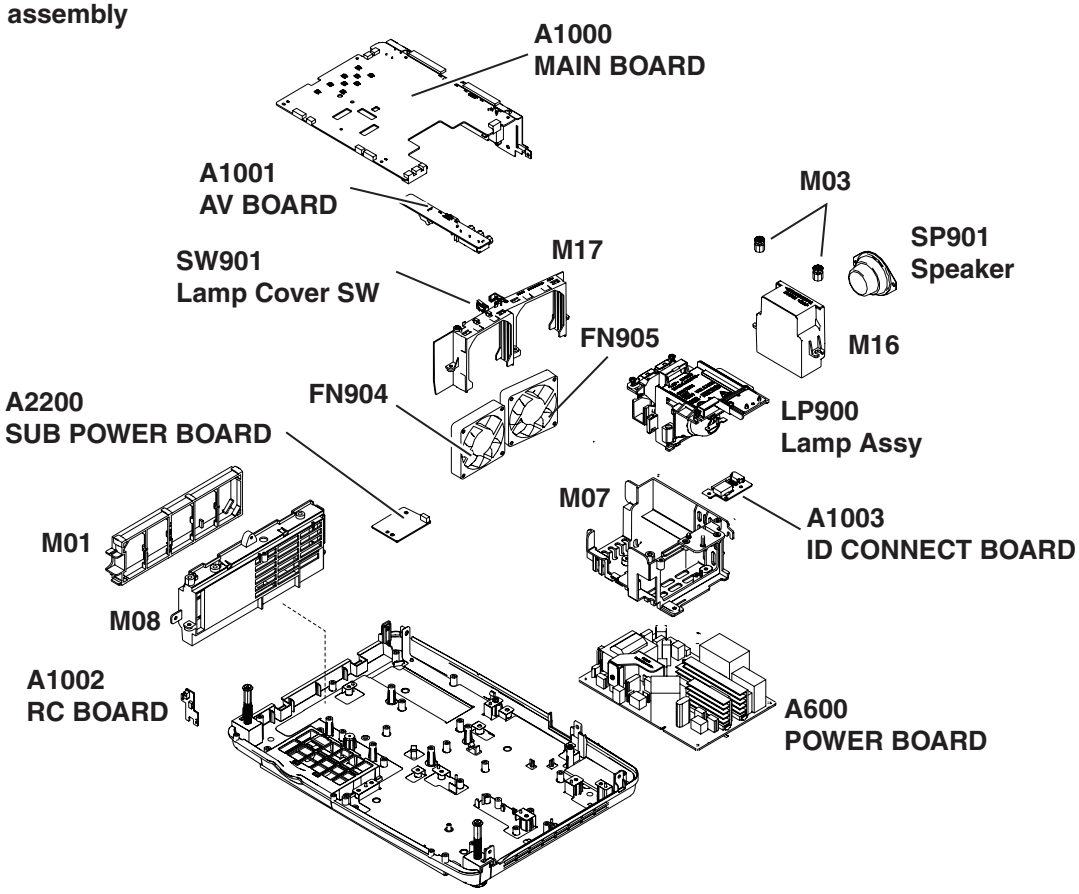


Parts Location Diagrams

Cabinet top assembly

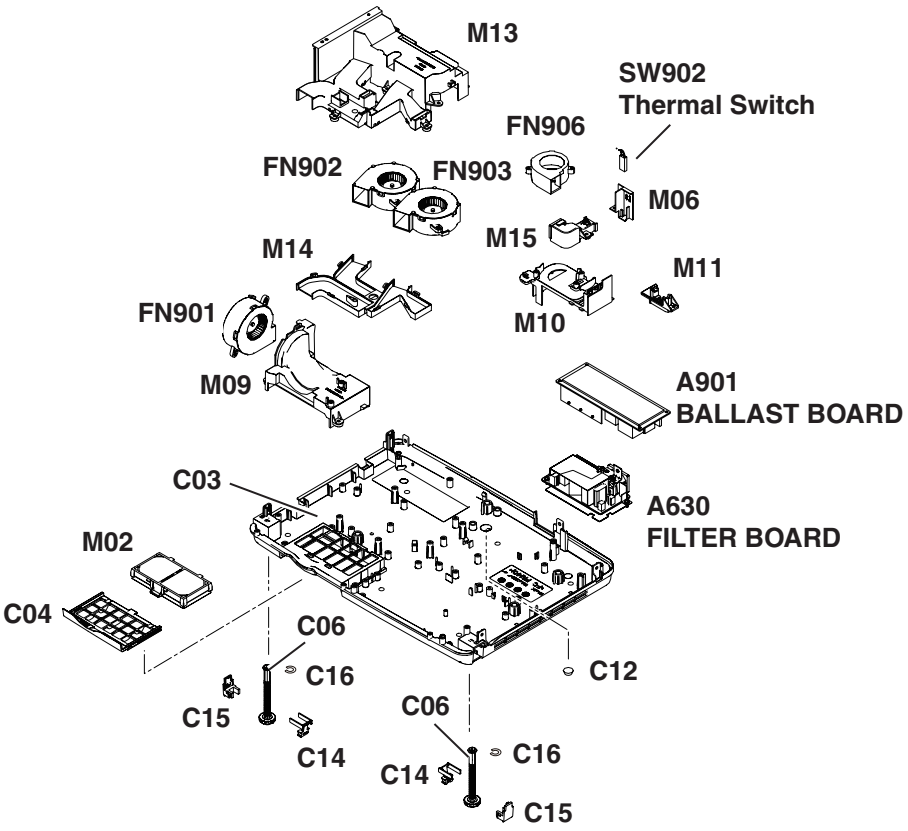


Cabinet bottom-1 assembly

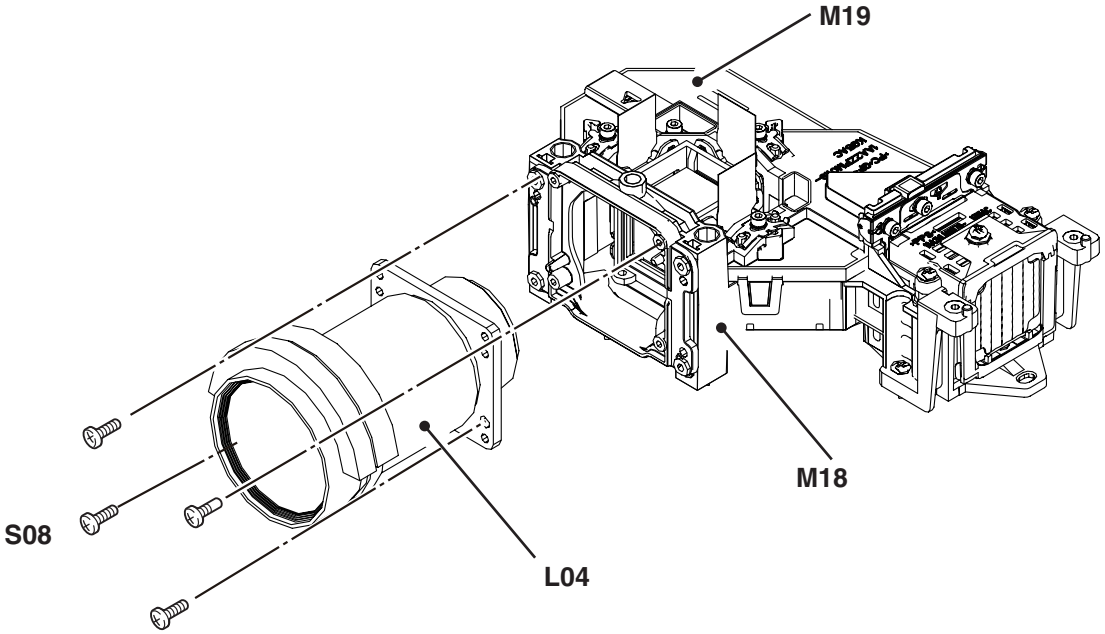


Parts Location Diagrams

Cabinet bottom-2 assembly

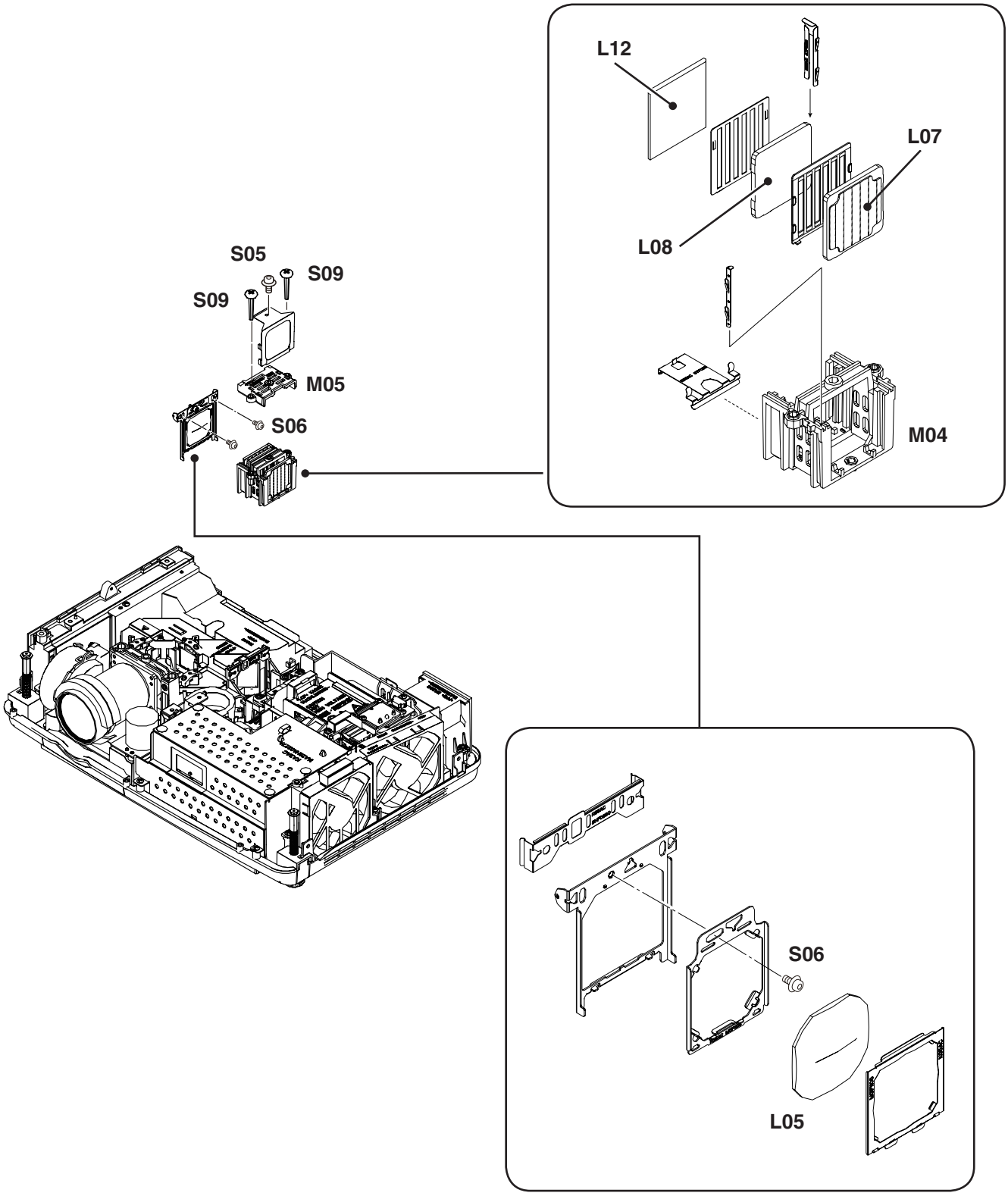


Projection Lens



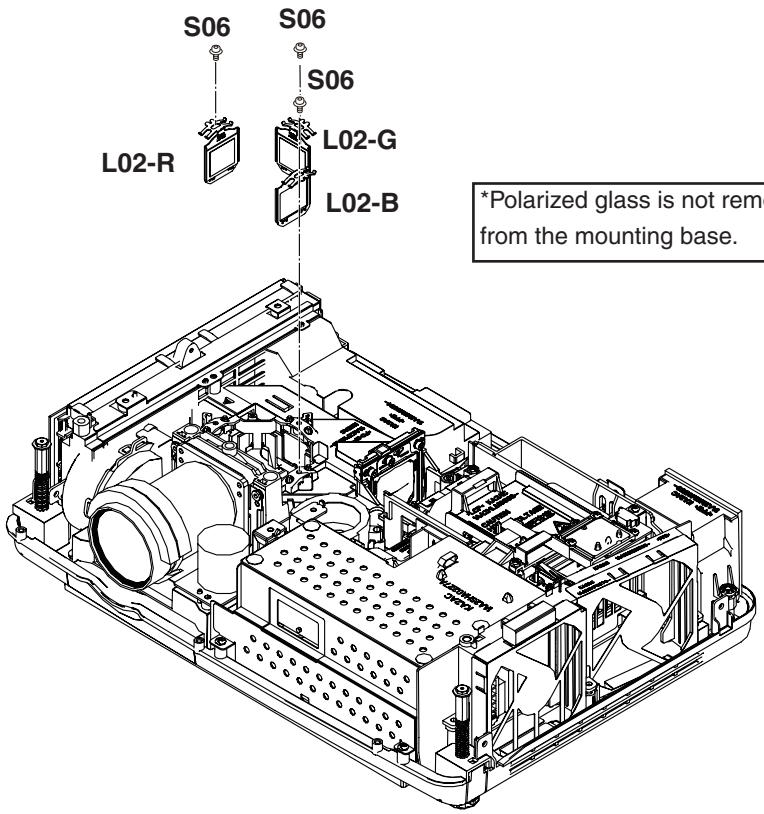
Parts Location Diagrams

Integrator lens and Condenser lens (Out) assembly

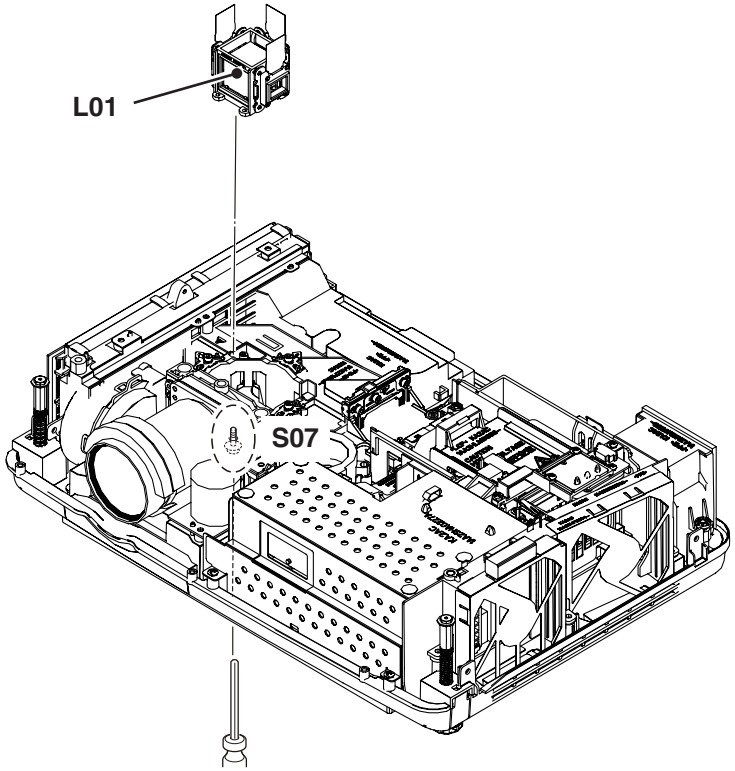


Parts Location Diagrams

Polarized glass-in assembly

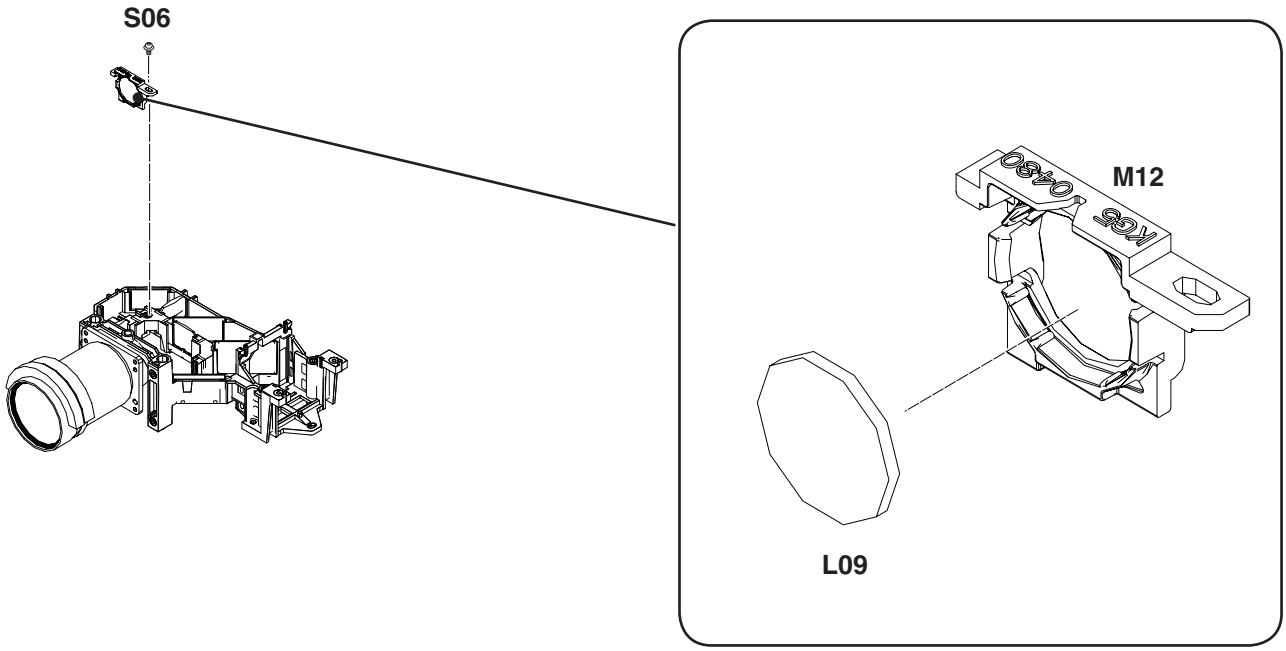


LCD Panel/Prism Assembly

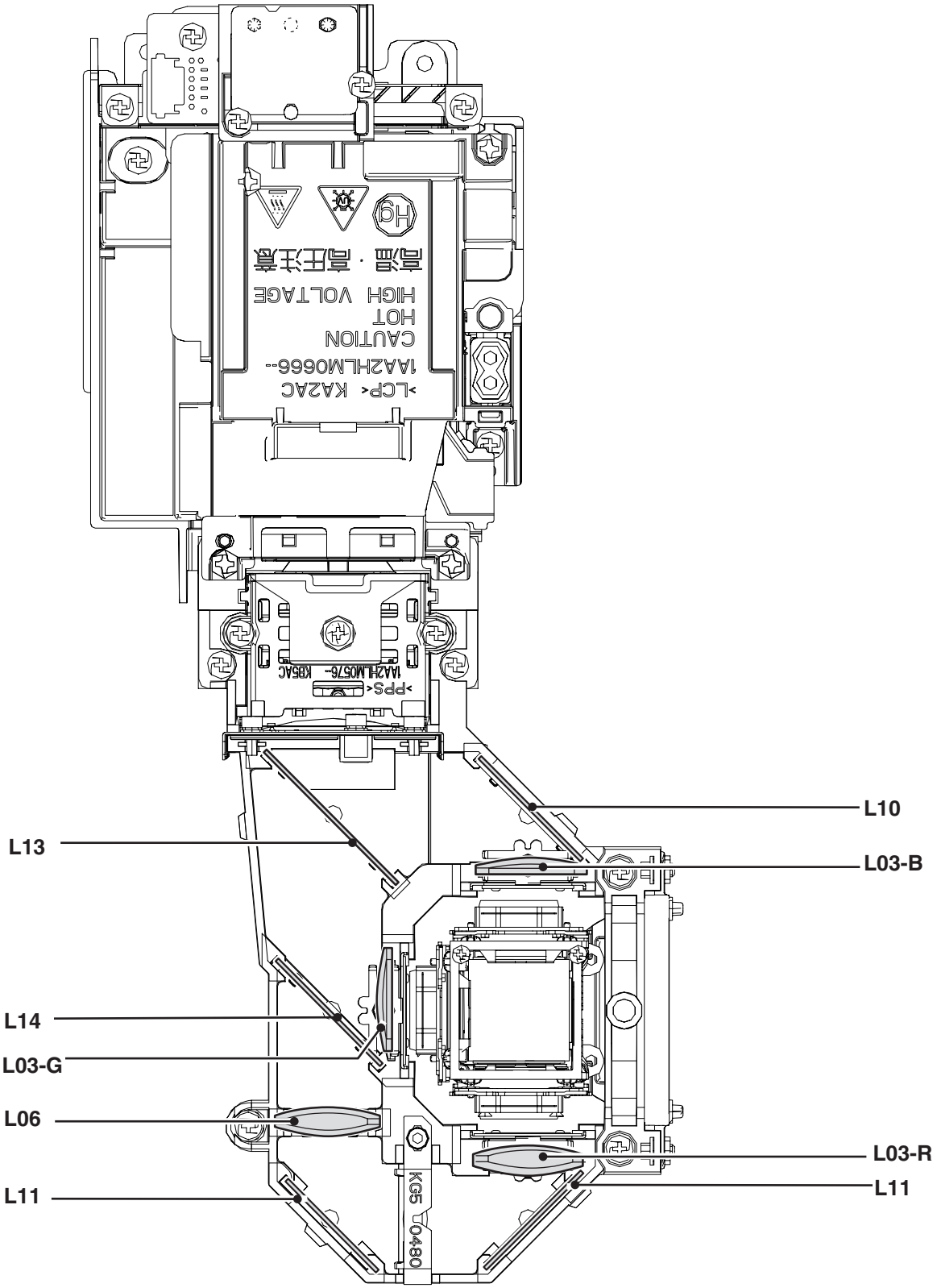


Parts Location Diagrams

Relay lens (Out) assembly



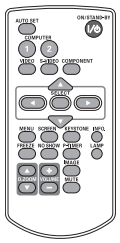
● In the optical unit



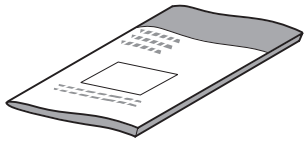
CAUTION:
Part must be placed in specified direction when replacing the optical parts. Please see “Optical Parts Disassembly” for further instructions.

● Accessories (see accessories parts list)

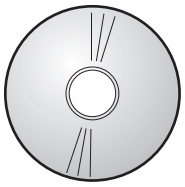
REMOTE CONTROL



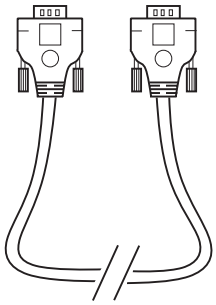
MANUAL



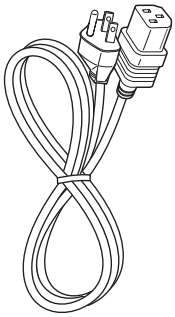
CD-ROM



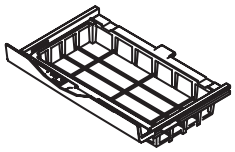
VGA CABLE



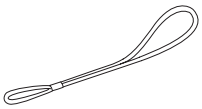
AC CORD



FILTER COVER



STRAP



CARRYING CASE

Mechanical Parts List

Note: Parts order must contain Chassis No., Part No., and Descriptions.

Key No.	Part No.	Description
PACKING MATERIALS		
	610 352 7819	CARTON CASE-KA2AC
	610 354 7756	POLY BAG 0440*0480*NC
	610 353 7382	CASE ACC-KA2AC
	610 352 7857	CUSHION TOP-KA2AC
	610 352 7833	CUSHION BTM-KA2AC
ACCESSORIES DIRECTORY		
OWNER'S MANUAL		
	610 353 0895	CD-ROM,OWNERS MANUAL-KA2AC
	655 004 1180	SETUP INST-KA2AC
REMOTE CONTROL		
	645 099 3213	ASSY,REMOCON CXZR
	610 344 9944	RC-BATTERY LID-MXAC
AC CORD		
⚠ US	645 093 3028	CORD,POWER-2.3MK,US
⚠ EU	645 093 2984	CORD,POWER-2.3MK,EU
⚠ UK	645 093 3004	CORD,POWER-2.3MK,UK
⚠ BRA	645 102 6996	CORD,POWER-2.5MK,BRA
MISCELLANEOUS		
	610 343 0249	STRAP CAP-KT7AC
	610 354 1525	COVER,FLT BOTTOM TTR-KA2AC
	610 355 0220	CARRY BAG-KL6A
	945 073 4855	CABLE,INTERFACE VGA
	645 093 1642	CABLE,INTERFACE VGA
	652 002 9552	CABLE,INTERFACE VGA
MECHANICAL PARTS		
CABINET PARTS		
C01	610 352 7161	COVER LMP-KA2AC
C02	610 353 7276	ASSY CAB FR-KA2AC
C02-1	610 352 9004	DEC LNS-KA2AC
C03	610 353 3407	CAB BTM-KA2AC
C04	610 352 7260	COVER FLT BTM-KA2AC
C05	610 355 4334	CAB TOP SERVICE-KA2AC
C06	610 353 9010	ASSY,ADJ SCREW STEM-KA2AC
C07	610 343 0959	BUTTON CONTROL-KG5AC
C08	610 352 7222	CAP LNS-KA2AC
C09	610 352 7253	COVER FLT SD-KA2AC
C10	610 344 1788	DEC INLAY LED-KF5AC
C11	610 343 0942	DEC INLAY RC-KG5AC
C12	910 325 2477	DEC LEG-PT5EC
C13	610 352 7598	PNL AV-KA2AC
C14	610 343 1017	ADJ_CORE_KG5AC
C15	610 352 7659	STD ADJ BTN-KA2AC
C16	411 001 0300	RING E 5
C17	945 047 8032	BADGE,SANYO*26.2X5.7L26.0
CHASSIS PARTS		
M01	610 353 6996	FILTER BOX SD-KA2AC
M02	610 353 7009	FILTER BOX BTM-KA2AC
M03	610 349 0830	BUSH -KJ8AC
M04	610 342 5795	HOLDER INT PBS BTM-KG5AC
M05	610 342 5788	HOLDER INT PBS TOP-KG5AC
M06	610 352 7413	HLD SN-KA2AC
M07	610 352 7420	HOUSE LMP-KA2AC
M08	610 352 7451	HLD FLT DUCT SD-KA2AC
M09	610 352 7499	HLD FLT DUCT BTM-KA2AC
M10	610 352 7482	HLD FN LMP-KA2AC
M11	610 352 9097	HLD PULG-KA2AC
M12	610 343 1314	MTG RELAY OUT-KG5AC
M13	610 352 6713	MTG DUCT PNL TOP-KA2AC
M14	610 352 6720	MTG DUCT PNL BTM-KA2AC
M15	610 352 7536	MTG DUCT LMP T-KA2AC
M16	610 352 7581	MTG SP-KA2AC
M17	610 353 1137	MTG EXH FN-KA2AC
M18	610 353 4442	OPTICAL BASE BTM-KA2AC
M19	610 353 3759	OPTICAL BASE TOP(A)-KG5AC
SCREWS		
S01	411 031 9304	SCR BIN 3X8
S02	412 077 9105	SPECIAL SCREW
S03	411 077 8606	SCR TPG FLT 3X8
S04	411 042 0406	SCR PAN 3X8
S05	411 192 5108	SCR PAN+SW+W 2.5X6
S06	412 077 8108	SPECIAL SCREW-2.5X6
S07	312 070 3400	SPECIAL SCREW-3.0X10V
S08	411 191 6304	SCR BIN 2.5X8
S09	411 189 8303	SCR BIN 3X14
OPTICAL PARTS		
L01	610 355 2170	ASSY,PNL/PSM-KA2AC
L02-R	610 346 5562	ASSY,POL R IN-KG5AC
L02-G	610 355 2798	ASSY POL G IN-KA2AC
L02-B	610 355 2804	ASSY POL B IN-KA2AC
L03-R	645 099 0571	LENS,RELAY(IN)
L03-G	645 096 4657	LENS,CONDENSER(G)
L03-B	645 096 4657	LENS,CONDENSER(G)
L04	645 096 9218	LENS,PROJECTION
L05	645 099 0564	LENS,CONDENSER(OUT)
L06	645 099 0571	LENS,RELAY(IN)
L07	645 104 0114	LENS,INTEGRATOR(IN)
L08	645 099 0595	LENS,INTEGRATOR(OUT)
L09	645 099 0601	LENS,RELAY(OUT)
L10	645 096 4701	MIRROR(B)
	645 101 0247	MIRROR(B)
L11	645 096 4718	MIRROR(R)
	645 101 0254	MIRROR(R)
L12	645 104 4631	PRISM(PBS)
L13	645 104 6918	DICHROIC MIRROR (B)
L14	645 104 6901	DICHROIC MIRROR (G)
SERVICE TOOLS		
	610 343 5596	CD-ROM,PJ SVC TOOL V420

Electrical Parts List

Product safety should be considered when a component replacement is made in any area of a projector.
Components indicated by a ⚠ mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark.

● **Read Description in the parts list**

Read description in the Capacitor and Resistor as follows:

CAPACITOR CERAMIC 100P K 50V

Rated Voltage

Tolerance Symbols:

Less than 10pF

A : Not specified	B : ±0.1pF	C : ±0.25pF
D : ±0.5pF	E : +0 -1pF	F : ±1PF
G : ±2pF	H : +0.1 -0pF	L : +0 -0.1pF
R : ±0.25 -0pF	S : +0-0.25pF	

More than 10pF

A : Not specified	B : ±0.1%	C : ±0.25%
D : ±0.5%	F : ±1%	G : ±2%
H : ±3%	J : ±5%	K : ±10%
L : ±15%	M : ±20%	N : ±30%
P : +100-0%	Q : +30-10%	T : +50-10%
U : +75-10%	V : +20-10%	W : +100-10%
X : +40-20%	Y : +150-10%	Z : +80-20%

Rated value: P=pico farad, U=micro farad

Material:

CERAMIC	Ceramic
MT-PAPER	Metallized Paper
POLYESTER	Polyester
MT-POLYEST	Metallized Polyester
POLYPRO	Polypropylene
MT-POLYPRO	Metallized Polypropylene
COMPO FILM	Composite film
MT-COMPO	Metallized Composite
STYRENE	Styrene
TA-SOLID	Tantalum Oxide Solid Electrolytic
AL-SOLID	Aluminium Solid Electrolytic
ELECT	Aluminum Foil Electrolytic
NP-ELECT	Non-polarised Electrolytic
OS-SOLID	Aluminium Solid with Organic Semiconductive Electrolytic
POS-SOLID	Polymerized Organic Semiconductive
DL-ELECT	Double Layered Electrolytic
PPS-FILM	Polyphenylene Sulfide Film
MT-PPS-FILM	Metalized Polyphenylene Sulfide Film
MT-PEN-FILM	Metalized Polyethylenenaphthalate Film
CAPACITOR	Other

RESISTOR CARBON 4.7K J A 1/4W

Rated Wattage

Performance Symbols:
A: General B: Non flammable Z: Low noise
Other: Temperature coefficient

T: ±10ppm/°C	U: ±25ppm/°C	C: ±50ppm/°C
D: ±100ppm/°C	E: ±200ppm/°C	F: ±250ppm/°C
G: ±350ppm/°C	H: ±1000ppm/°C±10%	W: ±1200ppm/°C±10%
Y: ±1400ppm/°C±10%	J: ±2000ppm/°C±10%	K: ±2400ppm/°C±10%
L: ±2700ppm/°C±10%	M: ±3000ppm/°C±10%	N: ±3300ppm/°C±10%
P: ±3600ppm/°C±10%	Q: ±3900ppm/°C±10%	R: ±4200ppm/°C±10%
S: ±4300ppm/°C±10%	V: ±4500ppm/°C±10%	X: ±8000ppm/°C±10%

Tolerance Symbols:
A: ±0.05% B: ±0.1% C: ±0.25% D: ±0.5%
F: ±1% G: ±2% J: ±5% K: ±10%
M: ±20% P: +5-15% Z: 0 ohm

Rated value, ohms:
K: 1,000, M: 1,000,000

Material:

CARBON	Carbon
MT-FILM	Metal Film
OXIDE-MT	Oxide Metal Film
SOLID	Composition
MT-GLAZE	Metal Glaze
WIRE WOUND	Wire Wound
CERAMIC RES.	Ceramic
FUSIBLE RES.	Fusible
RESISTOR	Other

Electrical Parts List

Key No.	Part No.	Description
ASSEMBLED BOARDS		
⚠A600	655 004 1418	ASSY,PWB,POWER KZ8AC
⚠A630	655 004 1401	ASSY,PWB,FILTER KZ8AC
⚠A1000	655 004 1470	ASSY,PWB,MAIN KA2AC
⚠A1001	655 004 1463	ASSY,PWB,AV KA2AC
⚠A1002	655 004 1456	ASSY,PWB,RC KA2AC
⚠A1003	655 004 1449	ASSY,PWB,ID CONNECT KA2AC
⚠A2200	655 004 3313	ASSY,PWB,SUB POWER KA2AC
OUT OF CIRCUIT BOARD		
L601	945 033 2228	CORE,FERRITE
	952 001 9431	CORE,CLAMP
⚠A901	645 103 7121	UNIT,BALLAST
A901A	610 345 4276	CABLE,BALLAST KR5AC
⚠LP900	610 352 7949	COMPL OPTICAL LAMP-KA2AC
⚠FN901	645 103 9774	MOTOR,BLW DC 2.4W
⚠FN902	645 103 9774	MOTOR,BLW DC 2.4W
⚠FN903	645 103 9774	MOTOR,BLW DC 2.4W
⚠FN904	645 104 1098	MOTOR,FAN DC 2.52W
⚠FN905	645 104 1104	MOTOR,FAN DC 2.52W
⚠FN906	645 104 1081	MOTOR,BLW DC 2.04W
K10B1	312 073 0406	SPECIAL SCREW
K10B2	312 073 0406	SPECIAL SCREW
K10C1	312 073 0406	SPECIAL SCREW
K10C2	312 073 0406	SPECIAL SCREW
K20A1	312 073 0406	SPECIAL SCREW
K20A2	312 073 0406	SPECIAL SCREW
SP901	652 003 2699	SPEAKER,8
SW901	645 097 3925	SWITCH,MICRO 1P-2T
⚠Z6B&6C(SW902)		
	652 003 3672	ASSY,WIRE
A600	**655 004 1418**	**ASSY,PWB,POWER KZ8AC**
TRANSISTOR		
Q611	305 217 6600	TR 2SK3934
Q612	305 217 6600	TR 2SK3934
Q621	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q622	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q641	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q642	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q643	405 223 4406	TR 2S4085LS
Q651	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q661	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
INTEGRATED CIRCUIT		
IC621	409 690 7918	IC FA5550N
IC631	309 653 7405	IC MR4010-7101
IC671	409 692 2515	IC TA76L431FB
CAPACITOR		
C611	303 222 1316	CERAMIC 1000P K 1K
C612	303 222 1316	CERAMIC 1000P K 1K
C613	303 451 4119	MT-POLYEST 1U K 450V
C614	303 451 4119	MT-POLYEST 1U K 450V
C615	404 125 6501	ELECT 220U M 420V
C621	303 336 3510	CERAMIC 0.47U K 16V
C622	304 091 4504	CERAMIC 0.047U K 50V
C623	304 090 1207	CERAMIC 0.01U K 50V
C625	304 090 1108	CERAMIC 1000P K 50V
C626	303 396 9613	CERAMIC 1U K 25V
	403 478 5912	CERAMIC 1U K 25V
C627	304 091 3309	CERAMIC 2200P K 50V
C629	303 265 3216	CERAMIC 1000P J 50V
C631	303 157 4215	CERAMIC 220P J 50V
C632	303 245 4417	CERAMIC 470P K 2K
C633	303 265 3216	CERAMIC 1000P J 50V
C634	304 091 3309	CERAMIC 2200P K 50V
C641	304 091 2609	CERAMIC 0.1U K 50V
C644	303 417 9912	CERAMIC 4.7U K 25V
C651	304 108 0901	ELECT 220U M 25V
C653	303 370 1510	CERAMIC 0.1U K 50V
C661	403 468 6219	ELECT 1500U M 25V
C662	303 367 0410	CERAMIC 0.1U K 50V
	304 091 2609	CERAMIC 0.1U K 50V
C663	303 367 0410	CERAMIC 0.1U K 50V
	304 091 2609	CERAMIC 0.1U K 50V
C664	303 429 6718	ELECT 1500U M 10V
C665	303 409 9913	ELECT 470U M 16V
C666	303 392 0733	ELECT 1000U M 25V
C671	304 091 2609	CERAMIC 0.1U K 50V
C674	403 477 6514	MT-POLYEST 0.01U J 630V
C691	304 104 9502	CERAMIC 1500P M 250V
C692	304 104 9502	CERAMIC 1500P M 250V
⚠C693	304 073 4508	CERAMIC 2200P M 250V
RESISTOR		
R611	401 353 0311	MT-GLAZE 430K JA 1/3W
R612	401 353 0212	MT-GLAZE 360K JA 1/3W
R613	301 256 6314	MT-GLAZE 47K JA 1/10W
R614	302 106 5508	RESISTER 0.075 KB 5W
R615	402 122 0409	MT-GLAZE 680K DD 1/4W
R616	402 122 0409	MT-GLAZE 680K DD 1/4W
R617	301 256 6314	MT-GLAZE 47K JA 1/10W
R618	401 361 2314	MT-GLAZE 750K JA 1/3W

Electrical Parts List

Key No.	Part No.	Description		
R619	301 150 6014	MT-GLAZE	0.000 ZA	1/10W
R620	301 256 5614	MT-GLAZE	47 JA	1/10W
R621	301 326 1812	MT-GLAZE	8.2K DA	1/10W
R622	301 309 8517	MT-GLAZE	330 DA	1/10W
R623	401 360 8010	MT-GLAZE	470 DA	1/10W
R624	301 162 2912	MT-GLAZE	220 JA	1/10W
R625	301 256 5614	MT-GLAZE	47 JA	1/10W
R626	301 150 6014	MT-GLAZE	0.000 ZA	1/10W
R627	301 150 5918	MT-GLAZE	10K JA	1/10W
R628	301 150 5918	MT-GLAZE	10K JA	1/10W
R629	301 255 7312	MT-GLAZE	510K JA	1/10W
R631	301 255 7718	MT-GLAZE	11K JA	1/10W
R632	401 361 2314	MT-GLAZE	750K JA	1/3W
R633	301 150 6014	MT-GLAZE	0.000 ZA	1/10W
R634	301 256 1715	MT-GLAZE	33K JA	1/10W
R635	402 122 1802	OXIDE-MT	0.39JA	1W
	302 099 6308	OXIDE-MT	0.39JA	1W
R636	301 162 3018	MT-GLAZE	22K JA	1/10W
R637	301 255 6117	MT-GLAZE	20K JA	1/10W
R638	301 256 6314	MT-GLAZE	47K JA	1/10W
R639	301 277 7215	MT-GLAZE	470 JA	1/3W
R640	301 150 6014	MT-GLAZE	0.000 ZA	1/10W
R641	301 150 5918	MT-GLAZE	10K JA	1/10W
R642	301 255 9514	MT-GLAZE	220K JA	1/10W
R643	301 150 5918	MT-GLAZE	10K JA	1/10W
R644	301 150 5918	MT-GLAZE	10K JA	1/10W
R646	301 256 7212	MT-GLAZE	18K JA	1/10W
R648	301 256 7212	MT-GLAZE	18K JA	1/10W
R651	301 150 5918	MT-GLAZE	10K JA	1/10W
R652	301 292 1915	MT-GLAZE	22 FA	1/2W
R662	301 152 3219	MT-GLAZE	330 JA	1/10W
R665	402 109 6806	OXIDE-MT	100KJA	2W
	302 093 4805	OXIDE-MT	100KJA	2W
R671	301 256 7618	MT-GLAZE	3.9K JA	1/10W
R672	301 150 6212	MT-GLAZE	1K JA	1/10W
R673	301 264 2919	MT-GLAZE	12K FA	1/10W
R674	301 264 7518	MT-GLAZE	2.7K FA	1/10W
R675	301 162 3711	MT-GLAZE	4.7K JA	1/10W
R676	301 264 2810	MT-GLAZE	1.2K FA	1/10W
R683	301 265 0211	MT-GLAZE	390 FA	1/10W
R684	301 264 9314	MT-GLAZE	3.3K FA	1/10W
R692	301 037 5413	MT-GLAZE	1K JA	1/10W
R693	301 037 6717	MT-GLAZE	1.2K JA	1/10W
TRANSFORMER				
⚠T651	645 097 6483	TRANS,POWER,PULSE		
COIL				
L611	945 081 4878	LINE FILTER		
L612	645 089 2561	INDUCTOR,700U		
L613	910 229 3532	CORE		
L614	910 229 3532	CORE		
L631	952 001 0124	CORE,PIPE		
	910 078 5954	PIPE CORE		
L661	910 229 3532	CORE		
L662	910 229 3532	CORE		
L663	652 002 8500	INDUCTOR 330OHM, P		
DIODE				
D611	307 253 7405	DIODE FMXA-1106S		
D611D	645 098 1715	CORE,FERRITE		
D611E	645 098 1715	CORE,FERRITE		
D612	307 163 0414	DIODE 1SS352-(TPH3)		
	307 149 0810	DIODE 1SS355-TE-17		
	408 062 7201	DIODE 1SS355		
D613	307 163 0414	DIODE 1SS352-(TPH3)		
	307 149 0810	DIODE 1SS355-TE-17		
	408 062 7201	DIODE 1SS355		

Key No.	Part No.	Description		
D631	307 163 0414	DIODE 1SS352-(TPH3)		
	307 149 0810	DIODE 1SS355-TE-17		
	408 062 7201	DIODE 1SS355		
D632	307 247 8827	DIODE RF101L2S		
D633	307 146 8116	DIODE EG01C		
D651	307 247 8827	DIODE RF101L2S		
D661	407 269 8400	DIODE FMEN-210A		
	407 267 3100	DIODE SG10SC9M		
D662	407 269 8509	DIODE FMW-2106		
	407 267 3001	DIODE SG10SC6M		
D663	307 247 8827	DIODE RF101L2S		
	307 190 4119	DIODE SFPL-52V		
D664	307 210 5416	DIODE RB551V-30-TE-17		
D666	307 146 8116	DIODE EG01C		
DB611	307 202 7708	DIODE D10XB60		
MISCELLANEOUS				
⚠F631	324 006 1305	FUSE	250V	2.5A
⚠PC661	307 223 7315	PC TLP421F(D4-GB-TP4)		
	307 223 8312	PC TLP421F(D4-GR-TP4)		
	407 265 7813	PC TLP781F(D4-GB-TP7)		
⚠PC663	307 223 7315	PC TLP421F(D4-GB-TP4)		
	307 223 8312	PC TLP421F(D4-GR-TP4)		
	407 265 7813	PC TLP781F(D4-GB-TP7)		
⚠PC671	307 223 7315	PC TLP421F(D4-GB-TP4)		
	307 223 8312	PC TLP421F(D4-GR-TP4)		
	407 265 7813	PC TLP781F(D4-GB-TP7)		
PTH611	308 037 5501	THERMISTOR NTPDB5R0LDHB0		
PTH641	408 062 4606	TH PRF18BD471QB1RB		
ZD631	307 206 5413	ZD UDZS-TE-178.2B		
ZD632	307 179 1214	ZENER DIODE PTZ13B-TE25		
A630	**655 004 1401**	**ASSY,PWB,FILTER KZ8AC**		
CAPACITOR				
⚠C601	404 113 2904	MT-POLYEST	0.33U K	275V
⚠C602	404 117 6403	MT-POLYEST	1U K	275V
	404 117 8902	MT-POLYEST	1U K	310V
⚠C603	304 073 3907	CERAMIC	1000P M	250V
⚠C604	304 073 3907	CERAMIC	1000P M	250V
RESISTOR				
⚠R601	301 287 5416	MT-GLAZE	200K JA	1W
⚠R602	301 287 5416	MT-GLAZE	200K JA	1W
VARIABLE RESISTOR				
⚠VA601	408 066 1700	VD TND14SE471KB0SLAA0		
COIL				
⚠L601	645 099 6825	LINE FILTER		
⚠LF601	645 093 1765	SOCKET,INLET AC 3P		
MISCELLANEOUS				
⚠F601	423 034 4101	FUSE	250V	6.3A
	323 021 7804	FUSE	250V	6.3A
A1000	**655 004 1470**	**ASSY,PWB,MAIN KA2AC**		
TRANSISTOR				
Q1001	406 021 7804	TR 2SC4617		
Q1002	406 021 7804	TR 2SC4617		
Q1003	305 217 7815	TR HN1B04FE-Y TE85L		
Q1004	305 217 7815	TR HN1B04FE-Y TE85L		
Q1005	406 021 7804	TR 2SC4617		
Q1006	305 217 7815	TR HN1B04FE-Y TE85L		
Q1007	406 021 7804	TR 2SC4617		
Q1008	406 021 7804	TR 2SC4617		
Q1021	406 021 7804	TR 2SC4617		

Electrical Parts List

Key No.	Part No.	Description
Q1031	305 217 7815	TR HN1B04FE-Y TE85L
Q1041	305 217 7815	TR HN1B04FE-Y TE85L
Q1051	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q1062	406 021 7804	TR 2SC4617
Q2011	406 021 7804	TR 2SC4617
Q2021	406 021 7804	TR 2SC4617
Q2031	406 021 7804	TR 2SC4617
Q3051	406 021 7804	TR 2SC4617
Q3601	406 021 7804	TR 2SC4617
Q3603	406 021 7804	TR 2SC4617
Q4012	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q4014	305 217 7815	TR HN1B04FE-Y TE85L
Q5021	406 021 7804	TR 2SC4617
Q5030	406 021 7804	TR 2SC4617
Q5031	405 221 7914	TR HN1C01FE-Y
Q5032	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q5033	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q5035	405 221 7914	TR HN1C01FE-Y
Q5036	305 217 7815	TR HN1B04FE-Y TE85L
Q5037	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q5060	406 021 7804	TR 2SC4617
Q5061	405 221 7914	TR HN1C01FE-Y
Q5062	405 221 7914	TR HN1C01FE-Y
Q5615	305 217 7815	TR HN1B04FE-Y TE85L
Q5700	305 217 7815	TR HN1B04FE-Y TE85L
Q5701	305 174 1819	TR CPH3424-TL-E
Q5753	305 217 6917	TR TPC6107 TE85L
Q5755	406 021 7804	TR 2SC4617
Q6845	405 221 7914	TR HN1C01FE-Y
Q6846	405 221 7914	TR HN1C01FE-Y
Q7801	406 021 7804	TR 2SC4617
Q7802	406 021 7804	TR 2SC4617
Q7813	305 217 7815	TR HN1B04FE-Y TE85L
Q7814	305 217 7815	TR HN1B04FE-Y TE85L
Q7842	305 217 7815	TR HN1B04FE-Y TE85L
Q7864	305 217 7815	TR HN1B04FE-Y TE85L
Q9602	305 211 1918	TR RJU002N06
Q9603	305 211 1918	TR RJU002N06
Q9604	305 211 1918	TR RJU002N06
Q9631	305 217 7815	TR HN1B04FE-Y TE85L

Key No.	Part No.	Description		
INTEGRATED CIRCUIT				
IC1051	409 697 3913	IC LE24C023M-TLM-E		
IC3582	409 695 9313	IC RT9711CGB		
IC3801	309 495 2517	IC SP3232ECY/TR		
IC3802	310 349 4103	IC TC7W241FU(TE12L)		
IC3803	310 349 4103	IC TC7W241FU(TE12L)		
IC3804	310 349 4103	IC TC7W241FU(TE12L)		
IC3852	309 246 9710	IC LA6358NM-TE-L-E		
IC3856	310 474 1503	IC HD74LV1G126A		
IC4001	410 686 4702	IC EL5306IUZ-T7		
IC4701	309 428 8428	IC TC7WT125FU-TE12L		
IC5001	410 718 8708	IC TLV320AIC3105IRHBR		
IC5002	309 438 5513	IC TC4052BFT		
IC5003	309 039 7817	IC NJM4558M-TE2		
IC5602	309 578 6210	IC PQ1M505M2SPQ		
IC5621	410 651 0104	IC R1131D101B-TR-F		
IC5821	410 706 4804	IC TPS54225PWPR		
IC5841	309 598 5217	IC TAR5S25		
IC5861	410 706 4804	IC TPS54225PWPR		
IC592	309 461 7822	IC PQ20WZ11		
IC7811	410 706 4705	IC TPS54286PWPR		
IC7841	309 461 7822	IC PQ20WZ11		
IC801	410 718 2102	IC M29W640FT70N6E-KA2AC		
IC841	409 699 3010	IC PT7M7809STE		
IC8801	410 718 9705	IC PIC18F67J60-I/PT-KA2AC		
IC8821	410 654 4802	IC ADT75BRMZ-REEL		
IC8831	410 654 4802	IC ADT75BRMZ-REEL		
IC9886	310 474 1503	IC HD74LV1G126A		
CAPACITOR				
C016	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C017	303 393 0019	ELECT	470U M	25V
	303 420 1415	ELECT	470U M	25V
	403 458 4614	ELECT	470U M	25V
C018	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C019	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C021	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C022	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C023	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C024	303 367 0410	CERAMIC	0.1U K	50V
	303 370 1510	CERAMIC	0.1U K	50V
C025	303 367 0410	CERAMIC	0.1U K	50V
	303 370 1510	CERAMIC	0.1U K	50V
C027	303 450 2215	CERAMIC	0.22U K	25V
C028	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C029	303 367 0410	CERAMIC	0.1U K	50V
	303 370 1510	CERAMIC	0.1U K	50V
C030	303 367 0410	CERAMIC	0.1U K	50V
	303 370 1510	CERAMIC	0.1U K	50V
C031	303 398 4418	ELECT	10U M	25V
C032	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V

Electrical Parts List

Key No.	Part No.	Description		
C033	303 450 2215	CERAMIC	0.22U K	25V
C035	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C038	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C039	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C041	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C042	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C047	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C049	403 469 6317	CERAMIC	0.47U K	50V
C1002	303 437 4614	CERAMIC	10U K	25V
C1004	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C1006	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C1007	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C1008	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C1009	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C1011	303 454 0415	CERAMIC	0.068U K	16V
	303 442 0519	CERAMIC	0.068U K	16V
C1012	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C1014	303 454 0415	CERAMIC	0.068U K	16V
	303 442 0519	CERAMIC	0.068U K	16V
C1016	303 454 0415	CERAMIC	0.068U K	16V
	303 442 0519	CERAMIC	0.068U K	16V
C1017	303 454 0415	CERAMIC	0.068U K	16V
	303 442 0519	CERAMIC	0.068U K	16V
C1018	303 454 0415	CERAMIC	0.068U K	16V
	303 442 0519	CERAMIC	0.068U K	16V
C1019	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C1021	303 396 9514	CERAMIC	2.2U K	10V
	303 382 7814	CERAMIC	2.2U K	10V
C1041	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C1042	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C1051	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C1054	303 453 6319	CERAMIC	100P J	50V
	303 454 0910	CERAMIC	100P J	50V
	303 294 6110	CERAMIC	100P J	50V
C1055	403 456 4616	CERAMIC	27P J	50V
	303 309 2519	CERAMIC	27P J	50V

Key No.	Part No.	Description		
C1056	303 453 6814	CERAMIC	68P J	50V
	303 454 0019	CERAMIC	68P J	50V
C1061	303 437 4614	CERAMIC	10U K	25V
C1092	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C1103	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C1105	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C1331	303 276 1911	CERAMIC	22P J	50V
C1332	403 456 4616	CERAMIC	27P J	50V
	303 309 2519	CERAMIC	27P J	50V
C1371	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C1871	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C1872	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C2003	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C2007	303 398 3312	ELECT	47U M	10V
C2891	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C2892	303 453 7217	CERAMIC	47P J	50V
	303 454 1610	CERAMIC	47P J	50V
	303 305 8812	CERAMIC	47P J	50V
C3001	303 453 6319	CERAMIC	100P J	50V
	303 454 0910	CERAMIC	100P J	50V
	303 294 6110	CERAMIC	100P J	50V
C301	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3011	303 453 6319	CERAMIC	100P J	50V
	303 454 0910	CERAMIC	100P J	50V
	303 294 6110	CERAMIC	100P J	50V
C302	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C3021	303 453 6319	CERAMIC	100P J	50V
	303 454 0910	CERAMIC	100P J	50V
	303 294 6110	CERAMIC	100P J	50V
C303	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C3031	303 453 6319	CERAMIC	100P J	50V
	303 454 0910	CERAMIC	100P J	50V
	303 294 6110	CERAMIC	100P J	50V
C304	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3051	303 453 6319	CERAMIC	100P J	50V
	303 454 0910	CERAMIC	100P J	50V
	303 294 6110	CERAMIC	100P J	50V
C3052	303 396 9514	CERAMIC	2.2U K	10V
	303 382 7814	CERAMIC	2.2U K	10V
C3053	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C306	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V

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Key No.	Part No.	Description		
C3061	303 453 6319	CERAMIC	100P J	50V
	303 454 0910	CERAMIC	100P J	50V
	303 294 6110	CERAMIC	100P J	50V
C307	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C308	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C309	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C310	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C311	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C312	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C313	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C314	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C315	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C316	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C317	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C318	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C319	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C320	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C321	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C322	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C323	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C324	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C326	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C327	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C328	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C329	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C330	403 457 2512	CERAMIC	0.47U K	10V
	303 376 6311	CERAMIC	0.47U K	10V
C331	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C332	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C333	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C334	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C335	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C336	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C337	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C338	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C339	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C341	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C342	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C343	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C344	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C346	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C347	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C348	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3501	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C3502	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C3503	403 467 0911	CERAMIC	0.1U K	25V
C3504	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C3506	303 381 5316	ELECT	100U M	16V
	303 369 3211	ELECT	100U M	16V
C3508	303 437 4614	CERAMIC	10U K	25V
	403 478 5714	CERAMIC	10U K	25V
C3509	303 396 9613	CERAMIC	1U K	25V

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Key No.	Part No.	Description		
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C351	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3511	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C352	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3524	303 157 4215	CERAMIC	220P J	50V
	303 235 1013	CERAMIC	220P J	50V
C353	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3531	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C3532	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C3533	403 467 0911	CERAMIC	0.1U K	25V
C3534	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C3536	303 381 5316	ELECT	100U M	16V
	303 369 3211	ELECT	100U M	16V
C3538	303 437 4614	CERAMIC	10U K	25V
	403 478 5714	CERAMIC	10U K	25V
C3539	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C354	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3541	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C355	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3554	303 157 4215	CERAMIC	220P J	50V
	303 235 1013	CERAMIC	220P J	50V
C356	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3561	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C3562	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C3563	403 467 0911	CERAMIC	0.1U K	25V
C3564	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C3566	303 381 5316	ELECT	100U M	16V
	303 369 3211	ELECT	100U M	16V
C3568	303 437 4614	CERAMIC	10U K	25V
	403 478 5714	CERAMIC	10U K	25V
C3569	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C357	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3571	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C358	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3584	303 157 4215	CERAMIC	220P J	50V
	303 235 1013	CERAMIC	220P J	50V
C3598	303 394 5815	CERAMIC	4.7U K	16V
C3599	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C361	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C362	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C3621	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C3622	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C3623	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C3625	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C3626	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C3627	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C363	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C364	303 454 0613	CERAMIC	10000P K	50V
	303 441 9810	CERAMIC	0.01U K	50V
C365	303 454 0415	CERAMIC	0.068U K	16V
	303 442 0519	CERAMIC	0.068U K	16V
C366	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C367	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C368	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C369	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C370	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C371	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C372	403 457 2512	CERAMIC	0.47U K	10V
	303 376 6311	CERAMIC	0.47U K	10V
C373	403 457 2512	CERAMIC	0.47U K	10V
	303 376 6311	CERAMIC	0.47U K	10V
C374	403 457 2512	CERAMIC	0.47U K	10V
	303 376 6311	CERAMIC	0.47U K	10V
C377	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C378	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C379	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C380	303 453 8917	CERAMIC	0.1U K	16V

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Key No.	Part No.	Description		
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3801	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C3802	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C3803	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C3804	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C3806	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C3807	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3808	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3809	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C381	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C382	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C383	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C384	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C385	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C3851	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3857	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3858	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C3859	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3860	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C3861	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C4001	303 382 7814	CERAMIC	2.2U K	10V
C4002	303 409 3426	CERAMIC	0.1U K	16V
C4004	303 396 9514	CERAMIC	2.2U K	10V
	303 382 7814	CERAMIC	2.2U K	10V
C401	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C402	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C403	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C404	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C406	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C407	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C411	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C412	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C413	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C414	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C416	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C417	303 396 9514	CERAMIC	2.2U K	10V
	303 382 7814	CERAMIC	2.2U K	10V
C421	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C422	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C423	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C424	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C426	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C427	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C431	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C432	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C433	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C434	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C436	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C437	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C438	303 454 0613	CERAMIC	10000P K	50V
	303 441 9810	CERAMIC	0.01U K	50V
C439	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C441	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C442	403 455 1012	CERAMIC	1U K	10V

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Key No.	Part No.	Description		
	303 433 1112	CERAMIC	1U K	10V
C443	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V
C480	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C4805	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C4808	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C481	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C482	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C483	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C5001	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C5002	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C5022	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5023	303 139 6916	CERAMIC	1P C	50V
C5025	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C5026	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C5027	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C5028	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C5029	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C503	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5030	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C5031	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C5032	303 139 6916	CERAMIC	1P C	50V
C5033	303 139 6916	CERAMIC	1P C	50V
C5034	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C5035	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C5036	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C5037	303 139 6916	CERAMIC	1P C	50V
C5038	303 454 0613	CERAMIC	10000P K	50V
	303 441 9810	CERAMIC	0.01U K	50V
C5039	303 454 0613	CERAMIC	10000P K	50V
	303 441 9810	CERAMIC	0.01U K	50V
C504	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5040	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5041	303 454 0613	CERAMIC	10000P K	50V
	303 441 9810	CERAMIC	0.01U K	50V
C5042	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C5043	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C5044	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5045	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C5046	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C5047	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5048	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5049	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5050	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5051	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5052	303 401 2219	ELECT	100U M	6.3V
	403 458 7219	ELECT	100U M	6.3V
C5053	403 467 0911	CERAMIC	0.1U K	25V
C5054	303 437 4614	CERAMIC	10U K	25V
C5055	303 437 4614	CERAMIC	10U K	25V
C5058	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C5059	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C5060	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C5061	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C5062	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5063	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5066	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5069	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C507	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C5072	303 403 0312	ELECT	220U M	10V
C5075	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C5076	303 396 5516	ELECT	470U M	16V
	303 378 1611	ELECT	470U M	16V
	303 381 9918	ELECT	470U M	16V
C508	303 401 4312	ELECT	47U M	25V
	303 419 5219	ELECT	47.0UM	25V

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Key No.	Part No.	Description		
C509	303 396 9514	CERAMIC	2.2U K	10V
	303 382 7814	CERAMIC	2.2U K	10V
C511	303 397 8219	CERAMIC	2.2U K	25V
	403 454 6414	CERAMIC	2.2U K	25V
C512	403 467 0911	CERAMIC	0.1U K	25V
C513	403 467 0911	CERAMIC	0.1U K	25V
C514	403 467 0911	CERAMIC	0.1U K	25V
C516	403 467 0911	CERAMIC	0.1U K	25V
C517	403 467 0911	CERAMIC	0.1U K	25V
C519	403 467 0911	CERAMIC	0.1U K	25V
C521	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C523	303 342 3313	CERAMIC	0.1U K	25V
C524	303 342 3313	CERAMIC	0.1U K	25V
C527	403 467 0911	CERAMIC	0.1U K	25V
C528	403 467 0911	CERAMIC	0.1U K	25V
C5304	303 454 0613	CERAMIC	10000P K	50V
	303 441 9810	CERAMIC	0.01U K	50V
C5315	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5316	303 454 0415	CERAMIC	0.068U K	16V
	303 442 0519	CERAMIC	0.068U K	16V
C533	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5332	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C534	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C537	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C538	303 401 4312	ELECT	47U M	25V
	303 419 5219	ELECT	47.0UM	25V
C539	303 396 9514	CERAMIC	2.2U K	10V
	303 382 7814	CERAMIC	2.2U K	10V
C541	303 397 8219	CERAMIC	2.2U K	25V
	403 454 6414	CERAMIC	2.2U K	25V
C542	403 467 0911	CERAMIC	0.1U K	25V
C543	403 467 0911	CERAMIC	0.1U K	25V
C544	403 467 0911	CERAMIC	0.1U K	25V
C546	403 467 0911	CERAMIC	0.1U K	25V
C547	403 467 0911	CERAMIC	0.1U K	25V
C549	403 467 0911	CERAMIC	0.1U K	25V
C551	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C553	303 342 3313	CERAMIC	0.1U K	25V
C554	303 342 3313	CERAMIC	0.1U K	25V
C557	403 467 0911	CERAMIC	0.1U K	25V
C558	403 467 0911	CERAMIC	0.1U K	25V
C5611	303 398 3312	ELECT	47U M	10V
	303 387 6119	ELECT	47U M	10V
C5612	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5613	303 392 1215	ELECT	47U M	6.3V
	303 387 5310	ELECT	47U M	6.3V
C5614	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5615	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5621	303 383 5215	CERAMIC	4.7U K	6.3V
	303 393 2112	CERAMIC	4.7U K	6.3V
C5623	303 383 5215	CERAMIC	4.7U K	6.3V
	303 393 2112	CERAMIC	4.7U K	6.3V
C563	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C564	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5667	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C567	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C568	303 401 4312	ELECT	47U M	25V
	303 419 5219	ELECT	47.0UM	25V
C569	303 396 9514	CERAMIC	2.2U K	10V
	303 382 7814	CERAMIC	2.2U K	10V
C5705	303 401 4312	ELECT	47U M	25V
	303 419 5219	ELECT	47.0UM	25V
C5706	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5707	303 324 6417	CERAMIC	0.022U K	16V
C5708	303 397 5713	ELECT	100U M	10V
C571	303 397 8219	CERAMIC	2.2U K	25V
	403 454 6414	CERAMIC	2.2U K	25V
C572	403 467 0911	CERAMIC	0.1U K	25V
C573	403 467 0911	CERAMIC	0.1U K	25V
C574	403 467 0911	CERAMIC	0.1U K	25V
C5751	303 396 9514	CERAMIC	2.2U K	10V
	303 382 7814	CERAMIC	2.2U K	10V
C576	403 467 0911	CERAMIC	0.1U K	25V
C577	403 467 0911	CERAMIC	0.1U K	25V
C579	403 467 0911	CERAMIC	0.1U K	25V
C581	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5821	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C5822	303 453 9518	CERAMIC	3300P K	50V
	303 279 5114	CERAMIC	3300P K	50V
C5823	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5824	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C5825	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C5827	303 392 5015	CERAMIC	22U M	6.3V
	403 455 9216	CERAMIC	22U M	6.3V
	303 443 9214	CERAMIC	22U M	6.3V
C5828	303 392 5015	CERAMIC	22U M	6.3V
	403 455 9216	CERAMIC	22U M	6.3V
	303 443 9214	CERAMIC	22U M	6.3V
C583	303 342 3313	CERAMIC	0.1U K	25V
C584	303 342 3313	CERAMIC	0.1U K	25V
C5841	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C5843	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C5844	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5860	303 342 3313	CERAMIC	0.1U K	25V

Electrical Parts List

Key No.	Part No.	Description		
C5862	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C5863	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C5864	403 455 1616	CERAMIC	10U K	16V
	403 478 5813	CERAMIC	10U K	16V
C5866	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
	403 478 5912	CERAMIC	1U K	25V
C5867	303 284 4317	CERAMIC	0.022U K	50V
C5869	303 392 5015	CERAMIC	22U M	6.3V
	403 455 9216	CERAMIC	22U M	6.3V
	303 443 9214	CERAMIC	22U M	6.3V
C587	403 467 0911	CERAMIC	0.1U K	25V
C5871	303 392 5015	CERAMIC	22U M	6.3V
	403 455 9216	CERAMIC	22U M	6.3V
	303 443 9214	CERAMIC	22U M	6.3V
C588	403 467 0911	CERAMIC	0.1U K	25V
C596	403 467 0911	CERAMIC	0.1U K	25V
C597	303 437 4614	CERAMIC	10U K	25V
	403 478 5714	CERAMIC	10U K	25V
C598	403 467 0911	CERAMIC	0.1U K	25V
C599	303 437 4614	CERAMIC	10U K	25V
	403 478 5714	CERAMIC	10U K	25V
C6801	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C6802	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C6803	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C7812	303 437 4614	CERAMIC	10U K	25V
	403 478 5714	CERAMIC	10U K	25V
C7813	303 437 4614	CERAMIC	10U K	25V
	403 478 5714	CERAMIC	10U K	25V
C7814	303 397 8219	CERAMIC	2.2U K	25V
	403 454 6414	CERAMIC	2.2U K	25V
C7815	303 275 3015	CERAMIC	0.047U K	16V
C7816	303 453 7217	CERAMIC	47P J	50V
	303 454 1610	CERAMIC	47P J	50V
	303 305 8812	CERAMIC	47P J	50V
C7817	303 454 0613	CERAMIC	10000P K	50V
	303 441 9810	CERAMIC	0.01U K	50V
C7821	403 457 2512	CERAMIC	0.47U K	10V
	303 376 6311	CERAMIC	0.47U K	10V
C7822	403 457 2512	CERAMIC	0.47U K	10V
	303 376 6311	CERAMIC	0.47U K	10V
C7825	303 397 8219	CERAMIC	2.2U K	25V
	403 454 6414	CERAMIC	2.2U K	25V
C7827	303 381 5613	ELECT	220U M	16V
	303 423 8916	ELECT	220U M	16V
	403 458 4812	ELECT	220U M	16V
C7831	303 275 3015	CERAMIC	0.047U K	16V
C7832	303 453 7217	CERAMIC	47P J	50V
	303 454 1610	CERAMIC	47P J	50V
	303 305 8812	CERAMIC	47P J	50V
C7833	303 381 5613	ELECT	220U M	16V
	303 423 8916	ELECT	220U M	16V
	403 458 4812	ELECT	220U M	16V
C7837	303 454 0613	CERAMIC	10000P K	50V
	303 441 9810	CERAMIC	0.01U K	50V
C7839	303 394 5815	CERAMIC	4.7U K	16V
C7841	303 437 4614	CERAMIC	10U K	25V
	403 478 5714	CERAMIC	10U K	25V
C7842	403 467 0911	CERAMIC	0.1U K	25V
C7843	303 376 3112	ELECT	100U M	25V
C7844	403 467 0911	CERAMIC	0.1U K	25V
C801	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C841	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C842	303 392 1215	ELECT	47U M	6.3V
	303 387 5310	ELECT	47U M	6.3V
C843	303 454 0613	CERAMIC	10000P K	50V
	303 441 9810	CERAMIC	0.01U K	50V
C844	303 453 8511	CERAMIC	1000P K	50V
	303 454 1214	CERAMIC	1000P K	50V
C8801	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C8802	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C8806	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C8807	303 453 7019	CERAMIC	33P J	50V
	303 453 9617	CERAMIC	33P J	50V
	303 276 3113	CERAMIC	33P J	50V
C8808	303 453 7019	CERAMIC	33P J	50V
	303 453 9617	CERAMIC	33P J	50V
	303 276 3113	CERAMIC	33P J	50V
C8809	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C8810	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C8811	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C8812	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C8813	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C8814	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C8815	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C8817	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C8818	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C8819	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C8820	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C8821	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C8823	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V

Electrical Parts List

Key No.	Part No.	Description		
C9007	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C9011	303 392 1215	ELECT	47U M	6.3V
	303 387 5310	ELECT	47U M	6.3V
C9012	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C9013	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C9014	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C9015	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C9016	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C9017	303 392 1215	ELECT	47U M	6.3V
	303 387 5310	ELECT	47U M	6.3V
C9019	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C9020	303 392 1215	ELECT	47U M	6.3V
	303 387 5310	ELECT	47U M	6.3V
C9021	403 455 5713	CERAMIC	15P J	50V
	403 455 5218	CERAMIC	15P J	50V
	303 305 8515	CERAMIC	15P J	50V
C9022	403 455 5713	CERAMIC	15P J	50V
	403 455 5218	CERAMIC	15P J	50V
	303 305 8515	CERAMIC	15P J	50V
C9306	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C9631	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C9878	303 324 6417	CERAMIC	0.022U K	16V
C9880	303 453 7217	CERAMIC	47P J	50V
	303 454 1610	CERAMIC	47P J	50V
	303 305 8812	CERAMIC	47P J	50V
C9882	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C9883	303 392 1215	ELECT	47U M	6.3V
	303 387 5310	ELECT	47U M	6.3V
C9884	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C9885	303 409 3426	CERAMIC	0.1U K	16V
C9886	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C9887	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
C9889	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
RESISTOR				
R008	301 276 4710	MT-GLAZE	0.000 ZA	1/3W
R009	301 301 3817	MT-GLAZE	820 FA	1/16W
R011	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R012	301 276 4710	MT-GLAZE	0.000 ZA	1/3W
R013	301 226 1516	MT-GLAZE	0.000 ZA	1/16W

Key No.	Part No.	Description		
R015	301 265 2611	MT-GLAZE	5.1K FA	1/10W
R016	301 265 1713	MT-GLAZE	4.7K FA	1/10W
R021	301 150 6014	MT-GLAZE	0.000 ZA	1/10W
R022	301 150 6014	MT-GLAZE	0.000 ZA	1/10W
R1000	301 238 4512	MT-GLAZE	47 JA	1/3W
R1001	301 260 4115	MT-GLAZE	75 JA	1/3W
R1003	301 225 8110	MT-GLAZE	10 JA	1/16W
R1012	301 224 8814	MT-GLAZE	100 JA	1/16W
R1021	301 260 4115	MT-GLAZE	75 JA	1/3W
R1022	301 224 8814	MT-GLAZE	100 JA	1/16W
R1025	301 260 4214	MT-GLAZE	82 JA	1/3W
R1026	301 260 4214	MT-GLAZE	82 JA	1/3W
R1028	301 260 4214	MT-GLAZE	82 JA	1/3W
R1029	301 225 2019	MT-GLAZE	680 JA	1/16W
R1030	301 225 1418	MT-GLAZE	47K JA	1/16W
R1035	301 225 1814	MT-GLAZE	47 JA	1/16W
R1036	301 225 1814	MT-GLAZE	47 JA	1/16W
R1037	301 225 1814	MT-GLAZE	47 JA	1/16W
R1038	301 224 8814	MT-GLAZE	100 JA	1/16W
R1039	301 225 1814	MT-GLAZE	47 JA	1/16W
R1040	301 225 3818	MT-GLAZE	1.5K JA	1/16W
R1041	301 225 1418	MT-GLAZE	47K JA	1/16W
R1042	301 224 9316	MT-GLAZE	1K JA	1/16W
R1043	301 037 5017	MT-GLAZE	0.000 ZA	1/10W
R1044	301 224 9316	MT-GLAZE	1K JA	1/16W
R1046	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R1047	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R1048	301 224 8814	MT-GLAZE	100 JA	1/16W
R1049	301 224 9316	MT-GLAZE	1K JA	1/16W
R1050	301 225 3818	MT-GLAZE	1.5K JA	1/16W
R1051	301 225 0718	MT-GLAZE	56K JA	1/16W
R1052	301 263 7420	MT-GLAZE	75 JA	1/16W
R1053	301 294 2910	MT-GLAZE	560 FA	1/16W
R1054	301 224 9316	MT-GLAZE	1K JA	1/16W
R1055	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R1057	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R1060	301 225 3818	MT-GLAZE	1.5K JA	1/16W
R1062	301 263 7420	MT-GLAZE	75 JA	1/16W
R1063	301 225 2019	MT-GLAZE	680 JA	1/16W
R1064	301 225 2019	MT-GLAZE	680 JA	1/16W
R1065	301 225 3818	MT-GLAZE	1.5K JA	1/16W
R1066	301 224 9316	MT-GLAZE	1K JA	1/16W
R1067	301 224 9019	MT-GLAZE	10K JA	1/16W
R1068	301 224 9019	MT-GLAZE	10K JA	1/16W
R1069	301 224 9316	MT-GLAZE	1K JA	1/16W
R1070	301 263 7420	MT-GLAZE	75 JA	1/16W
R1072	301 263 7420	MT-GLAZE	75 JA	1/16W
R1075	301 263 7420	MT-GLAZE	75 JA	1/16W
R1077	301 263 7420	MT-GLAZE	75 JA	1/16W
R1078	301 263 7420	MT-GLAZE	75 JA	1/16W
R1079	301 263 7420	MT-GLAZE	75 JA	1/16W
R1080	301 263 7420	MT-GLAZE	75 JA	1/16W
R1081	301 225 1418	MT-GLAZE	47K JA	1/16W
R1083	301 225 1814	MT-GLAZE	47 JA	1/16W
R1084	301 225 3818	MT-GLAZE	1.5K JA	1/16W
R1085	301 225 1814	MT-GLAZE	47 JA	1/16W
R1088	301 225 3818	MT-GLAZE	1.5K JA	1/16W
R1089	301 224 9514	MT-GLAZE	2.2K JA	1/16W
R1090	301 225 0619	MT-GLAZE	5.6K JA	1/16W
R1091	301 225 1418	MT-GLAZE	47K JA	1/16W
R1093	301 225 1814	MT-GLAZE	47 JA	1/16W
R1094	301 224 9316	MT-GLAZE	1K JA	1/16W
R1096	301 224 9019	MT-GLAZE	10K JA	1/16W
R1099	301 225 8615	MT-GLAZE	560K JA	1/16W
R1101	301 224 8814	MT-GLAZE	100 JA	1/16W
R1105	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R1111	301 260 4115	MT-GLAZE	75 JA	1/3W

Electrical Parts List

Key No.	Part No.	Description		
R1130	301 037 5017	MT-GLAZE	0.000 ZA	1/10W
R1134	301 225 1814	MT-GLAZE	47 JA	1/16W
R1141	301 037 5017	MT-GLAZE	0.000 ZA	1/10W
R1150	301 150 6014	MT-GLAZE	0.000 ZA	1/10W
R1181	301 037 5017	MT-GLAZE	0.000 ZA	1/10W
R1191	301 037 5017	MT-GLAZE	0.000 ZA	1/10W
R1331	301 224 9415	MT-GLAZE	1M JA	1/16W
R1871	301 224 9019	MT-GLAZE	10K JA	1/16W
R1872	301 224 9019	MT-GLAZE	10K JA	1/16W
R1890	301 225 8110	MT-GLAZE	10 JA	1/16W
R2000	301 150 6014	MT-GLAZE	0.000 ZA	1/10W
R2006	301 225 3818	MT-GLAZE	1.5K JA	1/16W
R2011	301 037 5116	MT-GLAZE	10 JA	1/10W
R2016	301 225 3818	MT-GLAZE	1.5K JA	1/16W
R2026	301 225 3818	MT-GLAZE	1.5K JA	1/16W
R2036	301 224 8814	MT-GLAZE	100 JA	1/16W
R2037	301 224 8814	MT-GLAZE	100 JA	1/16W
R2038	301 224 8814	MT-GLAZE	100 JA	1/16W
R2043	301 225 8110	MT-GLAZE	10 JA	1/16W
R2053	301 225 8110	MT-GLAZE	10 JA	1/16W
R2892	301 224 8814	MT-GLAZE	100 JA	1/16W
R300	301 224 9019	MT-GLAZE	10K JA	1/16W
R3001	301 224 8913	MT-GLAZE	100K JA	1/16W
R3002	301 224 8814	MT-GLAZE	100 JA	1/16W
R3011	301 224 8913	MT-GLAZE	100K JA	1/16W
R3012	301 224 8814	MT-GLAZE	100 JA	1/16W
R302	301 227 5612	MT-GLAZE	8.2K JA	1/16W
R3021	301 224 8913	MT-GLAZE	100K JA	1/16W
R303	301 224 9316	MT-GLAZE	1K JA	1/16W
R3031	301 224 8913	MT-GLAZE	100K JA	1/16W
R3036	301 224 8814	MT-GLAZE	100 JA	1/16W
R304	301 224 9316	MT-GLAZE	1K JA	1/16W
R3051	301 224 8913	MT-GLAZE	100K JA	1/16W
R3053	301 224 8913	MT-GLAZE	100K JA	1/16W
R3054	301 224 8913	MT-GLAZE	100K JA	1/16W
R3056	301 224 9415	MT-GLAZE	1M JA	1/16W
R3057	301 287 2227	MT-GLAZE	22K FA	1/16W
R306	401 342 7314	MT-GLAZE	23.2K FA	1/16W
R3061	301 224 8814	MT-GLAZE	100 JA	1/16W
R3063	301 224 8913	MT-GLAZE	100K JA	1/16W
R3064	301 224 8814	MT-GLAZE	100 JA	1/16W
R307	301 224 9712	MT-GLAZE	22 JA	1/16W
R308	301 224 9712	MT-GLAZE	22 JA	1/16W
R309	301 224 9316	MT-GLAZE	1K JA	1/16W
R310	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R311	301 224 9316	MT-GLAZE	1K JA	1/16W
R315	301 225 1814	MT-GLAZE	47 JA	1/16W
R317	301 225 1814	MT-GLAZE	47 JA	1/16W
R319	301 224 9019	MT-GLAZE	10K JA	1/16W
R320	301 225 1814	MT-GLAZE	47 JA	1/16W
R321	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R322	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R323	301 225 1814	MT-GLAZE	47 JA	1/16W
R324	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R325	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R326	301 225 8011	MT-GLAZE	330 JA	1/16W
R327	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R328	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R339	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R341	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R342	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R343	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R344	301 225 1814	MT-GLAZE	47 JA	1/16W
R345	301 225 1814	MT-GLAZE	47 JA	1/16W
R346	301 225 1814	MT-GLAZE	47 JA	1/16W
R348	301 224 8814	MT-GLAZE	100 JA	1/16W
R349	301 225 1814	MT-GLAZE	47 JA	1/16W
R350	301 263 7420	MT-GLAZE	75 JA	1/16W
R3502	301 225 1418	MT-GLAZE	47K JA	1/16W
R3504	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R3505	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R3506	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R3507	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R3509	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R351	301 224 8814	MT-GLAZE	100 JA	1/16W
R3511	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R352	301 224 8814	MT-GLAZE	100 JA	1/16W
R353	301 263 7420	MT-GLAZE	75 JA	1/16W
R3532	301 225 1418	MT-GLAZE	47K JA	1/16W
R354	301 224 8814	MT-GLAZE	100 JA	1/16W
R355	301 224 8814	MT-GLAZE	100 JA	1/16W
R3562	301 225 1418	MT-GLAZE	47K JA	1/16W
R3580	301 037 5017	MT-GLAZE	0.000 ZA	1/10W
R3583	301 224 9019	MT-GLAZE	10K JA	1/16W
R3587	301 224 9316	MT-GLAZE	1K JA	1/16W
R3588	301 224 9019	MT-GLAZE	10K JA	1/16W
R359	301 225 0015	MT-GLAZE	270 JA	1/16W
R360	301 225 0015	MT-GLAZE	270 JA	1/16W
R3602	301 225 2118	MT-GLAZE	12K JA	1/16W
R3605	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R3606	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R361	301 256 1517	MT-GLAZE	13K JA	1/10W
R3620	301 190 1710	MT-GLAZE	0.000 ZA	1W
R3621	301 224 9019	MT-GLAZE	10K JA	1/16W
R3622	301 224 9019	MT-GLAZE	10K JA	1/16W
R3623	301 224 9019	MT-GLAZE	10K JA	1/16W
R3626	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R3627	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R3628	301 224 9019	MT-GLAZE	10K JA	1/16W
R363	301 224 9316	MT-GLAZE	1K JA	1/16W
R3635	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R3636	301 225 2118	MT-GLAZE	12K JA	1/16W
R3637	301 224 9019	MT-GLAZE	10K JA	1/16W
R3638	301 224 9019	MT-GLAZE	10K JA	1/16W
R364	301 224 9316	MT-GLAZE	1K JA	1/16W
R366	301 224 9316	MT-GLAZE	1K JA	1/16W
R367	301 225 1814	MT-GLAZE	47 JA	1/16W
R368	301 225 1814	MT-GLAZE	47 JA	1/16W
R371	301 225 8110	MT-GLAZE	10 JA	1/16W
R372	301 225 8110	MT-GLAZE	10 JA	1/16W
R373	301 225 8110	MT-GLAZE	10 JA	1/16W
R376	301 225 8110	MT-GLAZE	10 JA	1/16W
R378	301 224 9019	MT-GLAZE	10K JA	1/16W
R3801	301 225 8110	MT-GLAZE	10 JA	1/16W
R3803	301 225 8110	MT-GLAZE	10 JA	1/16W
R3804	301 225 8110	MT-GLAZE	10 JA	1/16W
R3805	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R3809	301 224 9316	MT-GLAZE	1K JA	1/16W
R3812	301 225 8110	MT-GLAZE	10 JA	1/16W
R3816	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R382	301 263 7420	MT-GLAZE	75 JA	1/16W
R3856	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R3857	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R3858	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R3861	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R3863	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R3865	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R3866	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R3867	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R3868	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R395	301 225 0817	MT-GLAZE	68K JA	1/16W
R396	301 224 9019	MT-GLAZE	10K JA	1/16W
R4001	301 224 8814	MT-GLAZE	100 JA	1/16W
R4009	301 150 6014	MT-GLAZE	0.000 ZA	1/10W

Electrical Parts List

Key No.	Part No.	Description			Key No.	Part No.	Description		
R401	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R5041	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R4014	301 225 1210	MT-GLAZE	4.7K JA	1/16W	R5042	301 224 9019	MT-GLAZE	10K JA	1/16W
R4016	301 224 9514	MT-GLAZE	2.2K JA	1/16W	R5043	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R4017	301 224 9514	MT-GLAZE	2.2K JA	1/16W	R5044	301 224 9019	MT-GLAZE	10K JA	1/16W
R402	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R5046	301 224 9019	MT-GLAZE	10K JA	1/16W
R4023	301 224 9019	MT-GLAZE	10K JA	1/16W	R5047	301 299 4810	MT-GLAZE	2.7K FA	1/16W
R4024	301 225 1210	MT-GLAZE	4.7K JA	1/16W	R5048	301 224 9316	MT-GLAZE	1K JA	1/16W
R403	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R5049	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R404	301 224 9019	MT-GLAZE	10K JA	1/16W	R505	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R4072	301 224 8814	MT-GLAZE	100 JA	1/16W	R5050	301 294 3511	MT-GLAZE	27K FA	1/16W
R4077	301 224 8814	MT-GLAZE	100 JA	1/16W	R5055	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R409	301 224 8814	MT-GLAZE	100 JA	1/16W	R5060	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R411	301 224 8814	MT-GLAZE	100 JA	1/16W	R5061	301 224 8814	MT-GLAZE	100 JA	1/16W
R412	301 225 1814	MT-GLAZE	47 JA	1/16W	R5062	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R414	301 225 1814	MT-GLAZE	47 JA	1/16W	R5063	301 224 9316	MT-GLAZE	1K JA	1/16W
R415	301 224 8814	MT-GLAZE	100 JA	1/16W	R5064	301 224 8814	MT-GLAZE	100 JA	1/16W
R416	301 225 1814	MT-GLAZE	47 JA	1/16W	R5065	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R418	301 225 1814	MT-GLAZE	47 JA	1/16W	R5066	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R419	301 225 1814	MT-GLAZE	47 JA	1/16W	R5067	301 224 9316	MT-GLAZE	1K JA	1/16W
R422	301 225 1814	MT-GLAZE	47 JA	1/16W	R5069	301 150 6014	MT-GLAZE	0.000 ZA	1/10W
R423	301 225 1814	MT-GLAZE	47 JA	1/16W	R507	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R424	301 225 1210	MT-GLAZE	4.7K JA	1/16W	R5070	301 225 8011	MT-GLAZE	330 JA	1/16W
R425	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R5072	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R472	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R5073	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R4830	301 225 3818	MT-GLAZE	1.5K JA	1/16W	R5075	301 224 9514	MT-GLAZE	2.2K JA	1/16W
R4833	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R5078	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R4834	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R508	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R4841	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R509	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R4842	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R511	301 224 8814	MT-GLAZE	100 JA	1/16W
R4861	301 037 5017	MT-GLAZE	0.000 ZA	1/10W	R512	301 224 8814	MT-GLAZE	100 JA	1/16W
R4862	301 225 1616	MT-GLAZE	390 JA	1/16W	R513	301 224 8814	MT-GLAZE	100 JA	1/16W
R4863	301 225 1616	MT-GLAZE	390 JA	1/16W	R5213	301 224 8814	MT-GLAZE	100 JA	1/16W
R4864	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R5215	301 224 8814	MT-GLAZE	100 JA	1/16W
R4868	301 224 8814	MT-GLAZE	100 JA	1/16W	R5220	301 224 8814	MT-GLAZE	100 JA	1/16W
R5001	301 287 2227	MT-GLAZE	22K FA	1/16W	R5223	301 224 8814	MT-GLAZE	100 JA	1/16W
R5002	301 287 2227	MT-GLAZE	22K FA	1/16W	R530	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R5003	301 287 2227	MT-GLAZE	22K FA	1/16W	R5303	301 225 1814	MT-GLAZE	47 JA	1/16W
R5004	301 287 2227	MT-GLAZE	22K FA	1/16W	R531	301 224 8814	MT-GLAZE	100 JA	1/16W
R5005	301 299 4810	MT-GLAZE	2.7K FA	1/16W	R541	301 224 8814	MT-GLAZE	100 JA	1/16W
R5006	301 294 2811	MT-GLAZE	2.2K FA	1/16W	R542	301 224 8814	MT-GLAZE	100 JA	1/16W
R5007	301 225 2019	MT-GLAZE	680 JA	1/16W	R543	301 224 8814	MT-GLAZE	100 JA	1/16W
R501	301 224 8814	MT-GLAZE	100 JA	1/16W	R546	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R5010	301 299 4810	MT-GLAZE	2.7K FA	1/16W	R560	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R5011	301 294 2811	MT-GLAZE	2.2K FA	1/16W	R5606	301 162 2219	MT-GLAZE	10 JA	1/10W
R5012	301 225 2019	MT-GLAZE	680 JA	1/16W	R561	301 224 8814	MT-GLAZE	100 JA	1/16W
R5013	301 224 9910	MT-GLAZE	22K JA	1/16W	R5611	301 224 8814	MT-GLAZE	100 JA	1/16W
R5014	301 224 9910	MT-GLAZE	22K JA	1/16W	R5615	301 224 9019	MT-GLAZE	10K JA	1/16W
R5017	301 224 9316	MT-GLAZE	1K JA	1/16W	R5616	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R5018	301 224 9316	MT-GLAZE	1K JA	1/16W	R5617	301 225 3818	MT-GLAZE	1.5K JA	1/16W
R5019	301 225 8110	MT-GLAZE	10 JA	1/16W	R5627	301 190 1710	MT-GLAZE	0.000 ZA	1W
R5020	301 162 2219	MT-GLAZE	10 JA	1/10W	R5637	301 224 9316	MT-GLAZE	1K JA	1/16W
R5022	301 225 8011	MT-GLAZE	330 JA	1/16W	R5668	301 224 8814	MT-GLAZE	100 JA	1/16W
R5024	301 294 4112	MT-GLAZE	30K FA	1/16W	R5701	301 287 2227	MT-GLAZE	22K FA	1/16W
R5025	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R5702	301 225 0718	MT-GLAZE	56K JA	1/16W
R5026	301 294 3313	MT-GLAZE	15K FA	1/16W	R5703	301 224 9019	MT-GLAZE	10K JA	1/16W
R5027	301 294 3313	MT-GLAZE	15K FA	1/16W	R5705	301 224 9019	MT-GLAZE	10K JA	1/16W
R5028	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R5706	301 224 9019	MT-GLAZE	10K JA	1/16W
R5029	301 294 4112	MT-GLAZE	30K FA	1/16W	R571	301 224 8814	MT-GLAZE	100 JA	1/16W
R503	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R5712	301 035 4111	MT-GLAZE	0.000 ZA	1/8W
R5030	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R572	301 224 8814	MT-GLAZE	100 JA	1/16W
R5033	301 225 0213	MT-GLAZE	3.3K JA	1/16W	R573	301 224 8814	MT-GLAZE	100 JA	1/16W
R5034	301 224 9316	MT-GLAZE	1K JA	1/16W	R5755	301 224 9019	MT-GLAZE	10K JA	1/16W
R5035	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	R5757	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R5036	301 225 0213	MT-GLAZE	3.3K JA	1/16W	R5758	301 224 9019	MT-GLAZE	10K JA	1/16W
R5037	301 224 9316	MT-GLAZE	1K JA	1/16W	R5759	301 224 9316	MT-GLAZE	1K JA	1/16W
R5039	301 224 8814	MT-GLAZE	100 JA	1/16W	R5803	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R5040	301 224 8814	MT-GLAZE	100 JA	1/16W	R5822	301 224 8913	MT-GLAZE	100K JA	1/16W

Electrical Parts List

Key No.	Part No.	Description		
R5823	301 265 4516	MT-GLAZE	68K FA	1/10W
R5824	401 343 0512	MT-GLAZE	7.5K FA	1/16W
R5825	301 287 2227	MT-GLAZE	22K FA	1/16W
R5841	301 294 3115	MT-GLAZE	1K FA	1/16W
R5842	301 037 5017	MT-GLAZE	0.000 ZA	1/10W
R5860	301 224 8913	MT-GLAZE	100K JA	1/16W
R5863	301 294 3511	MT-GLAZE	27K FA	1/16W
R5864	301 301 8119	MT-GLAZE	3.9K FA	1/16W
R5865	301 287 2227	MT-GLAZE	22K FA	1/16W
R595	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R596	301 294 3016	MT-GLAZE	10K FA	1/16W
R597	301 294 4419	MT-GLAZE	1.8K FA	1/16W
R598	301 301 0410	MT-GLAZE	240 FA	1/16W
R599	301 224 9316	MT-GLAZE	1K JA	1/16W
R6801	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R6803	301 224 9019	MT-GLAZE	10K JA	1/16W
R6804	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R6806	301 224 9217	MT-GLAZE	15K JA	1/16W
R6807	301 336 8818	MT-GLAZE	6.8K FA	1/16W
R6808	301 225 1517	MT-GLAZE	3.9K JA	1/16W
R6809	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R6811	301 225 1517	MT-GLAZE	3.9K JA	1/16W
R6812	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R6813	301 224 9019	MT-GLAZE	10K JA	1/16W
R6822	301 224 9316	MT-GLAZE	1K JA	1/16W
R6823	301 224 9019	MT-GLAZE	10K JA	1/16W
R6842	301 224 8814	MT-GLAZE	100 JA	1/16W
R6845	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R6848	301 263 7420	MT-GLAZE	75 JA	1/16W
R6851	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R6858	301 263 7420	MT-GLAZE	75 JA	1/16W
R6867	301 150 6014	MT-GLAZE	0.000 ZA	1/10W
R6873	301 229 3913	MT-GLAZE	180 JA	1/16W
R6874	301 224 9019	MT-GLAZE	10K JA	1/16W
R6876	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R6877	301 224 9019	MT-GLAZE	10K JA	1/16W
R6879	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R6881	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R6882	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R6883	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R7801	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R7803	301 224 8913	MT-GLAZE	100K JA	1/16W
R7805	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R7813	301 224 8913	MT-GLAZE	100K JA	1/16W
R7816	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R7817	301 224 9019	MT-GLAZE	10K JA	1/16W
R7818	301 299 4810	MT-GLAZE	2.7K FA	1/16W
R7819	301 264 6115	MT-GLAZE	20K FA	1/10W
R7821	301 294 2910	MT-GLAZE	560 FA	1/16W
R7823	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R7824	301 301 8010	MT-GLAZE	1.5K FA	1/16W
R7826	301 225 8110	MT-GLAZE	10 JA	1/16W
R7827	301 225 8110	MT-GLAZE	10 JA	1/16W
R7828	301 224 9019	MT-GLAZE	10K JA	1/16W
R7829	301 224 9316	MT-GLAZE	1K JA	1/16W
R7830	301 224 9019	MT-GLAZE	10K JA	1/16W
R7831	301 224 9316	MT-GLAZE	1K JA	1/16W
R7832	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R7833	301 224 9514	MT-GLAZE	2.2K JA	1/16W
R7836	301 225 1517	MT-GLAZE	3.9K JA	1/16W
R7839	301 225 1517	MT-GLAZE	3.9K JA	1/16W
R7840	301 225 1517	MT-GLAZE	3.9K JA	1/16W
R7841	301 336 8818	MT-GLAZE	6.8K FA	1/16W
R7842	301 294 2811	MT-GLAZE	2.2K FA	1/16W
R7843	301 225 1616	MT-GLAZE	390 JA	1/16W
R7844	301 294 3115	MT-GLAZE	1K FA	1/16W
R7845	301 224 9316	MT-GLAZE	1K JA	1/16W
R7846	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R7847	301 294 4112	MT-GLAZE	30K FA	1/16W
R7848	301 224 9019	MT-GLAZE	10K JA	1/16W
R7863	301 224 9316	MT-GLAZE	1K JA	1/16W
R7865	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R7871	301 301 8010	MT-GLAZE	1.5K FA	1/16W
R7872	301 294 2910	MT-GLAZE	560 FA	1/16W
R7873	301 264 6115	MT-GLAZE	20K FA	1/10W
R7874	301 299 4810	MT-GLAZE	2.7K FA	1/16W
R7878	301 224 9019	MT-GLAZE	10K JA	1/16W
R7879	301 224 9316	MT-GLAZE	1K JA	1/16W
R7881	301 224 9316	MT-GLAZE	1K JA	1/16W
R7882	301 225 0213	MT-GLAZE	3.3K JA	1/16W
R7883	301 224 9514	MT-GLAZE	2.2K JA	1/16W
R801	301 224 9019	MT-GLAZE	10K JA	1/16W
R8039	301 341 0616	MT-GLAZE	49.9 FA	1/16W
R804	301 224 9019	MT-GLAZE	10K JA	1/16W
R8049	301 341 0616	MT-GLAZE	49.9 FA	1/16W
R8059	301 341 0616	MT-GLAZE	49.9 FA	1/16W
R806	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R8069	301 341 0616	MT-GLAZE	49.9 FA	1/16W
R807	301 224 9019	MT-GLAZE	10K JA	1/16W
R808	301 224 9019	MT-GLAZE	10K JA	1/16W
R8086	301 150 6014	MT-GLAZE	0.000 ZA	1/10W
R809	301 294 4419	MT-GLAZE	1.8K FA	1/16W
R812	301 224 9316	MT-GLAZE	1K JA	1/16W
R813	301 224 9316	MT-GLAZE	1K JA	1/16W
R851	301 224 9316	MT-GLAZE	1K JA	1/16W
R852	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R8801	301 224 9316	MT-GLAZE	1K JA	1/16W
R8802	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R8804	301 225 1210	MT-GLAZE	4.7K JA	1/16W
R8805	301 224 9316	MT-GLAZE	1K JA	1/16W
R8807	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R8808	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R8812	301 225 8110	MT-GLAZE	10 JA	1/16W
R8814	301 224 9415	MT-GLAZE	1M JA	1/16W
R8816	301 264 6511	MT-GLAZE	2.2K FA	1/10W
R8821	301 225 8110	MT-GLAZE	10 JA	1/16W
R8833	301 229 3913	MT-GLAZE	180 JA	1/16W
R8837	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R8838	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R8839	301 229 3913	MT-GLAZE	180 JA	1/16W
R8840	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R8841	301 224 9019	MT-GLAZE	10K JA	1/16W
R8843	301 224 9019	MT-GLAZE	10K JA	1/16W
R8844	301 224 9019	MT-GLAZE	10K JA	1/16W
R8846	301 224 8913	MT-GLAZE	100K JA	1/16W
R8850	301 035 4111	MT-GLAZE	0.000 ZA	1/8W
R8861	301 225 8110	MT-GLAZE	10 JA	1/16W
R8864	301 225 8110	MT-GLAZE	10 JA	1/16W
R8881	301 224 9019	MT-GLAZE	10K JA	1/16W
R9002	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R9004	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R9005	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R9006	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R9007	301 224 9316	MT-GLAZE	1K JA	1/16W
R9008	301 224 8814	MT-GLAZE	100 JA	1/16W
R9009	301 224 8814	MT-GLAZE	100 JA	1/16W
R9010	301 224 8814	MT-GLAZE	100 JA	1/16W
R9014	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R9015	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R9016	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
R9018	301 150 6014	MT-GLAZE	0.000 ZA	1/10W
R9019	301 150 6014	MT-GLAZE	0.000 ZA	1/10W
R9020	301 150 6014	MT-GLAZE	0.000 ZA	1/10W
R9021	301 226 1516	MT-GLAZE	0.000 ZA	1/16W

Electrical Parts List

Key No.	Part No.	Description
R9022	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R9023	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R9024	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R9028	301 224 9415	MT-GLAZE 1M JA 1/16W
R9029	301 224 9514	MT-GLAZE 2.2K JA 1/16W
R9035	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R9036	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R9305	301 225 8110	MT-GLAZE 10 JA 1/16W
R9312	301 224 8913	MT-GLAZE 100K JA 1/16W
R9317	301 225 8110	MT-GLAZE 10 JA 1/16W
R9318	301 225 8110	MT-GLAZE 10 JA 1/16W
R9319	301 225 8110	MT-GLAZE 10 JA 1/16W
R9611	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R9612	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R9613	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R9631	301 224 9316	MT-GLAZE 1K JA 1/16W
R9632	301 224 9019	MT-GLAZE 10K JA 1/16W
R9633	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R9634	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R9755	301 224 9316	MT-GLAZE 1K JA 1/16W
R9869	301 225 8110	MT-GLAZE 10 JA 1/16W
R9873	301 255 7312	MT-GLAZE 510K JA 1/10W
R9876	301 225 8110	MT-GLAZE 10 JA 1/16W
R9878	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R9882	301 225 8110	MT-GLAZE 10 JA 1/16W
R9884	301 225 8110	MT-GLAZE 10 JA 1/16W
R9888	301 224 9316	MT-GLAZE 1K JA 1/16W
R9889	301 225 8110	MT-GLAZE 10 JA 1/16W
R9890	301 225 8110	MT-GLAZE 10 JA 1/16W
R9891	301 225 8110	MT-GLAZE 10 JA 1/16W
R9892	301 224 9019	MT-GLAZE 10K JA 1/16W
R9893	301 224 9019	MT-GLAZE 10K JA 1/16W
R9894	301 224 9019	MT-GLAZE 10K JA 1/16W
R9899	301 224 9712	MT-GLAZE 22 JA 1/16W
R9907	301 224 8814	MT-GLAZE 100 JA 1/16W
R9908	301 224 8814	MT-GLAZE 100 JA 1/16W
R9914	301 224 9019	MT-GLAZE 10K JA 1/16W
R9915	301 224 9019	MT-GLAZE 10K JA 1/16W
R9916	301 224 9019	MT-GLAZE 10K JA 1/16W
R9927	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R9928	301 224 9019	MT-GLAZE 10K JA 1/16W
RB312	945 037 0831	R-NETWORK 47X4 1/16W
RB313	945 037 0831	R-NETWORK 47X4 1/16W
RB316	945 037 0831	R-NETWORK 47X4 1/16W
RB318	945 037 0831	R-NETWORK 47X4 1/16W
RB319	945 037 0831	R-NETWORK 47X4 1/16W
RB411	945 037 0831	R-NETWORK 47X4 1/16W
RB412	945 037 0831	R-NETWORK 47X4 1/16W
RB413	945 037 0831	R-NETWORK 47X4 1/16W
RB414	945 037 0831	R-NETWORK 47X4 1/16W
RB416	945 037 0831	R-NETWORK 47X4 1/16W
RB417	945 037 0831	R-NETWORK 47X4 1/16W
RB418	945 037 0831	R-NETWORK 47X4 1/16W
RB419	945 037 0831	R-NETWORK 47X4 1/16W
RB421	945 037 0831	R-NETWORK 47X4 1/16W
RB422	945 037 0831	R-NETWORK 47X4 1/16W
RB423	945 037 0831	R-NETWORK 47X4 1/16W
RB424	945 037 0831	R-NETWORK 47X4 1/16W
RB426	945 037 0831	R-NETWORK 47X4 1/16W
RB427	945 037 0831	R-NETWORK 47X4 1/16W
RB428	945 037 0831	R-NETWORK 47X4 1/16W
RB429	945 037 0831	R-NETWORK 47X4 1/16W
RB431	945 037 0831	R-NETWORK 47X4 1/16W
RB432	945 037 0831	R-NETWORK 47X4 1/16W
RB433	945 037 0831	R-NETWORK 47X4 1/16W
RB434	945 037 0831	R-NETWORK 47X4 1/16W
RB436	945 037 0831	R-NETWORK 47X4 1/16W

Key No.	Part No.	Description
RB437	945 037 0831	R-NETWORK 47X4 1/16W
RB501	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB503	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB504	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB506	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB531	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB533	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB534	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB536	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB561	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB563	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB564	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB566	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB9881	945 028 0697	R-NETWORK 100X4 1/16W
COIL		
L001	945 041 1978	INDUCTOR,330 OHM
L011	945 062 2855	INDUCTOR,33U M
L012	945 062 2855	INDUCTOR,33U M
L1002	945 086 7577	FILTER,EMI 400MHZ
L1012	945 086 7577	FILTER,EMI 400MHZ
L1022	945 086 7577	FILTER,EMI 400MHZ
L1051	945 086 7577	FILTER,EMI 400MHZ
L1053	945 032 8344	INDUCTOR,39U J
L1061	945 086 7577	FILTER,EMI 400MHZ
L1071	945 086 7577	FILTER,EMI 400MHZ
L2891	945 086 5368	IMPEDANCE,220 OHM P
L2892	945 018 9327	INDUCTOR,1000 OHM
L2893	945 018 9327	INDUCTOR,1000 OHM
L2894	945 086 6037	IMPEDANCE,330 OHM P
L2895	945 086 6037	IMPEDANCE,330 OHM P
L2896	945 086 6037	IMPEDANCE,330 OHM P
L2897	945 086 6037	IMPEDANCE,330 OHM P
L2898	945 086 6037	IMPEDANCE,330 OHM P
L2899	945 018 9327	INDUCTOR,1000 OHM
L301	945 086 5368	IMPEDANCE,220 OHM P
L302	945 086 5368	IMPEDANCE,220 OHM P
L303	945 086 5368	IMPEDANCE,220 OHM P
L304	945 086 5368	IMPEDANCE,220 OHM P
L305	945 086 5368	IMPEDANCE,220 OHM P
L306	945 086 5368	IMPEDANCE,220 OHM P
L307	945 086 5368	IMPEDANCE,220 OHM P
L308	945 086 5368	IMPEDANCE,220 OHM P
L309	945 086 5368	IMPEDANCE,220 OHM P
L311	945 086 5368	IMPEDANCE,220 OHM P
L312	945 086 5368	IMPEDANCE,220 OHM P
L313	945 086 5368	IMPEDANCE,220 OHM P
L314	945 086 5368	IMPEDANCE,220 OHM P
L3501	945 041 1978	INDUCTOR,330 OHM
L3531	945 041 1978	INDUCTOR,330 OHM
L3534	945 041 2210	INDUCTOR,0.12U K
L3561	945 041 1978	INDUCTOR,330 OHM
L3620	945 086 5368	IMPEDANCE,220 OHM P
L3621	945 086 5368	IMPEDANCE,220 OHM P
L3622	945 086 5368	IMPEDANCE,220 OHM P

Electrical Parts List

Key No.	Part No.	Description
L3624	945 086 5368	IMPEDANCE,220 OHM P
L3626	945 086 5368	IMPEDANCE,220 OHM P
L3627	945 086 5368	IMPEDANCE,220 OHM P
L3630	945 086 5368	IMPEDANCE,220 OHM P
L3631	945 086 5368	IMPEDANCE,220 OHM P
L3632	945 086 5368	IMPEDANCE,220 OHM P
L3633	945 086 5368	IMPEDANCE,220 OHM P
L3634	945 086 5368	IMPEDANCE,220 OHM P
L3635	945 086 5368	IMPEDANCE,220 OHM P
L3636	945 086 5368	IMPEDANCE,220 OHM P
L3637	945 086 5368	IMPEDANCE,220 OHM P
L402	945 041 1978	INDUCTOR,330 OHM
L4809	945 018 9327	INDUCTOR,1000 OHM
L4810	945 018 9327	INDUCTOR,1000 OHM
L4811	945 018 9327	INDUCTOR,1000 OHM
L4812	945 086 5368	IMPEDANCE,220 OHM P
L4813	945 018 9327	INDUCTOR,1000 OHM
L4814	945 018 9327	INDUCTOR,1000 OHM
L501	945 041 1978	INDUCTOR,330 OHM
L502	945 041 1978	INDUCTOR,330 OHM
L5031	945 086 5368	IMPEDANCE,220 OHM P
L5032	945 086 5368	IMPEDANCE,220 OHM P
L531	945 041 1978	INDUCTOR,330 OHM
L532	945 041 1978	INDUCTOR,330 OHM
L5602	945 040 6455	INDUCTOR,4.7U M
L5606	945 041 1978	INDUCTOR,330 OHM
L5608	945 041 1978	INDUCTOR,330 OHM
L5609	945 041 1978	INDUCTOR,330 OHM
L561	945 041 1978	INDUCTOR,330 OHM
L5611	945 041 1978	INDUCTOR,330 OHM
L562	945 041 1978	INDUCTOR,330 OHM
L5701	945 041 1978	INDUCTOR,330 OHM
L5703	945 041 1978	INDUCTOR,330 OHM
L5721	945 086 5368	IMPEDANCE,220 OHM P
L5802	945 041 1978	INDUCTOR,330 OHM
L5821	945 062 2879	INDUCTOR,4.7U M
L5822	945 041 1978	INDUCTOR,330 OHM
L5825	945 041 1978	INDUCTOR,330 OHM
L5826	945 041 1978	INDUCTOR,330 OHM
L5827	301 037 5017	MT-GLAZE 0.000 ZA 1/10W
L5832	945 086 5368	IMPEDANCE,220 OHM P
L5842	945 086 5368	IMPEDANCE,220 OHM P
L5848	945 041 1978	INDUCTOR,330 OHM
L5861	945 062 2879	INDUCTOR,4.7U M
L5862	945 041 1978	INDUCTOR,330 OHM
L5867	301 037 5017	MT-GLAZE 0.000 ZA 1/10W
L5868	945 041 1978	INDUCTOR,330 OHM
L7811	645 104 1159	INDUCTOR,15U M
L7861	645 104 1159	INDUCTOR,15U M
L8801	945 068 8318	FILTER,EMI 100MHZ
L8806	945 041 1978	INDUCTOR,330 OHM
L8835	645 100 9340	IMPEDANCE,120 OHM P
L8836	645 100 9340	IMPEDANCE,120 OHM P
DIODE		
D011	307 247 8827	DIODE RF101L2S
	307 190 4119	DIODE SFPL-52V
D013	307 247 8827	DIODE RF101L2S
	307 190 4119	DIODE SFPL-52V
D1041	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D1042	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D1091	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D1092	307 205 5216	DIODE RB521S-30-TE61
D2891	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D2892	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D2893	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D2894	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D3051	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D3601	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D3613	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D3614	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D3617	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D3621	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D3622	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D3623	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D3626	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D3627	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D3636	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D3637	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D3802	307 210 5416	DIODE RB551V-30-TE-17
D4802	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D4811	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D4812	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D4813	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D4816	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D5002	307 210 5416	DIODE RB551V-30-TE-17
D5021	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D5061	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D5062	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D5302	307 210 5416	DIODE RB551V-30-TE-17
D5602	307 210 5416	DIODE RB551V-30-TE-17
D5603	307 210 5416	DIODE RB551V-30-TE-17
D5622	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D5623	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D5624	307 235 0816	DIODE 1SS387 TPL3

Electrical Parts List

Key No.	Part No.	Description
	307 210 1923	DIODE 1SS400 TE-61
D591	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D592	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D6801	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D6802	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D6803	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D6831	408 068 5508	LED KPT-2012YC
D6833	408 071 8503	LED KPT-2012SRC-PRV
D6835	408 068 5201	LED KPTB-1612ESGC
D6841	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D6842	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D6845	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D6846	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
	408 063 7507	ZENER DIODE MM3Z6V2B
D6848	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D6850	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D6851	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D6852	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D6853	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D6877	307 235 0816	DIODE 1SS387 TPL3
	307 210 1923	DIODE 1SS400 TE-61
D7812	407 272 1415	DIODE SS3P4-M3/84A
D7862	407 272 1415	DIODE SS3P4-M3/84A
MISCELLANEOUS		
FB3620	945 086 6037	IMPEDANCE,330 OHM P
FB3621	945 086 6037	IMPEDANCE,330 OHM P
FB3622	945 086 6037	IMPEDANCE,330 OHM P
FB3624	945 086 6037	IMPEDANCE,330 OHM P
FB3626	945 086 6037	IMPEDANCE,330 OHM P
FB3627	945 086 6037	IMPEDANCE,330 OHM P
FB3633	945 086 6037	IMPEDANCE,330 OHM P
K10B	952 001 8601	SOCKET,D-SUB 15P
K10C	952 001 8571	SOCKET,D-SUB 15P
K30B	652 002 6704	JACK,PHONE D3.6
K9602	645 093 6760	TRANS,PULSE
	652 003 2743	TRANS,PULSE
SC1030	945 076 3503	SURGE-ABSORBER
SC1041	945 076 3503	SURGE-ABSORBER
SC1081	945 076 3503	SURGE-ABSORBER
SC1091	945 076 3503	SURGE-ABSORBER
SC3001	945 076 3503	SURGE-ABSORBER
SC3011	945 076 3503	SURGE-ABSORBER
SC3021	945 076 3503	SURGE-ABSORBER
SC3031	945 076 3503	SURGE-ABSORBER
SC3051	945 076 3503	SURGE-ABSORBER
SC3061	945 076 3503	SURGE-ABSORBER
SC5031	945 076 3503	SURGE-ABSORBER
SC5032	945 076 3503	SURGE-ABSORBER
SW6801	945 026 2792	SWITCH,PUSH 1P-1TX1
	952 001 8830	SWITCH,PUSH 1P-1TX1
SW6802	945 026 2792	SWITCH,PUSH 1P-1TX1
	952 001 8830	SWITCH,PUSH 1P-1TX1
SW6803	945 026 2792	SWITCH,PUSH 1P-1TX1
	952 001 8830	SWITCH,PUSH 1P-1TX1
SW6804	945 026 2792	SWITCH,PUSH 1P-1TX1
	952 001 8830	SWITCH,PUSH 1P-1TX1
SW6806	945 026 2792	SWITCH,PUSH 1P-1TX1
	952 001 8830	SWITCH,PUSH 1P-1TX1
SW6807	945 026 2792	SWITCH,PUSH 1P-1TX1
	952 001 8830	SWITCH,PUSH 1P-1TX1
SW6808	945 026 2792	SWITCH,PUSH 1P-1TX1
	952 001 8830	SWITCH,PUSH 1P-1TX1
SW6810	945 026 2792	SWITCH,PUSH 1P-1TX1
	952 001 8830	SWITCH,PUSH 1P-1TX1
SW6811	945 026 2792	SWITCH,PUSH 1P-1TX1
	952 001 8830	SWITCH,PUSH 1P-1TX1
X1331	645 102 6934	OSC,CRYSTAL 27.000MHZ
X5001	645 103 8722	OSC,CRYSTAL 12.288MHZ
X8802	945 083 7556	OSC,CRYSTAL 25.0MHZ
X9001	645 103 6254	OSC,CRYSTAL 16.0MHZ
X9885	945 060 9900	OSC,CERAMIC 8.00MHZ

A1001 655 004 1463 ASSY,PWB,AV KA2AC

CAPACITOR				
C2051	303 453 6319	CERAMIC	100P J	50V
	303 454 0910	CERAMIC	100P J	50V
	303 294 6110	CERAMIC	100P J	50V
C2052	303 453 6319	CERAMIC	100P J	50V
	303 454 0910	CERAMIC	100P J	50V
	303 294 6110	CERAMIC	100P J	50V
RESISTOR				
R2001	301 260 4115	MT-GLAZE	75 JA	1/3W
R2015	301 260 4115	MT-GLAZE	75 JA	1/3W
R2025	301 260 4115	MT-GLAZE	75 JA	1/3W
R2051	301 224 8913	MT-GLAZE	100K JA	1/16W
R2052	301 224 8913	MT-GLAZE	100K JA	1/16W
MISCELLANEOUS				
K20A	652 002 8135	PLUG,D-SUB 9P		
K20B	645 089 9041	SOCKET,DIN 4P		
	952 001 4740	SOCKET,DIN 4P		
K50A	945 068 3740	JACK,RCA-3		
SC2001	945 076 3503	SURGE-ABSORBER		
SC2011	945 076 3503	SURGE-ABSORBER		
SC2021	945 076 3503	SURGE-ABSORBER		
SC2051	945 076 3503	SURGE-ABSORBER		
SC2052	945 076 3503	SURGE-ABSORBER		
SC2061	945 076 3503	SURGE-ABSORBER		
SC2062	945 076 3503	SURGE-ABSORBER		

A1002 655 004 1456 ASSY,PWB,RC KA2AC

INTEGRATED CIRCUIT				
IC8811	410 654 4802	IC ADT75BRMZ-REEL		
CAPACITOR				
C2901	403 455 1012	CERAMIC	1U K	10V
	303 433 1112	CERAMIC	1U K	10V
C2902	303 453 8719	CERAMIC	470P K	50V
	303 453 9211	CERAMIC	470P K	50V
	303 282 5118	CERAMIC	470P K	50V

Electrical Parts List

Key No.	Part No.	Description		
C2903	303 358 3215	CERAMIC	10U K	6.3V
	303 370 0018	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V
C8836	303 453 8917	CERAMIC	0.1U K	16V
	303 453 8610	CERAMIC	0.1U K	16V
	303 409 3426	CERAMIC	0.1U K	16V
RESISTOR				
R2901	301 225 1814	MT-GLAZE	47 JA	1/16W
R2903	301 224 8814	MT-GLAZE	100 JA	1/16W
R8847	301 225 8110	MT-GLAZE	10 JA	1/16W
R8848	301 225 8110	MT-GLAZE	10 JA	1/16W
MISCELLANEOUS				
A2901	645 102 3773	UNIT,REMOCON RECEIVER		
A1003	**655 004 1449**	**ASSY,PWB,ID CONNECT KA2AC**		
RESISTOR				
R8738	301 226 1516	MT-GLAZE	0.000 ZA	1/16W
COIL				
L8731	945 086 6037	IMPEDANCE,330 OHM P		
L8732	945 086 6037	IMPEDANCE,330 OHM P		
L8733	945 086 6037	IMPEDANCE,330 OHM P		
L8734	945 086 6037	IMPEDANCE,330 OHM P		
L8737	945 086 6037	IMPEDANCE,330 OHM P		
A2200	**655 004 3313**	**ASSY,PWB,SUB POWER KA2AC**		
TRANSISTOR				
Q7803	305 002 8327	TR 2SA1203-Y-TE12L		
Q7804	305 002 8327	TR 2SA1203-Y-TE12L		
Q7805	305 014 4512	TR 2SC2412K T146 R		
	305 014 4611	TR 2SC2412K T146 S		
	305 015 8727	TR 2SC2812-L6-TB		
	305 015 8925	TR 2SC2812-L7-TB		
	305 163 1615	TR 2SC2812N-L6-TB0		
	305 173 9816	TR 2SC3928A1R		
	305 173 9915	TR 2SC3928A1S		
Q7806	305 014 4512	TR 2SC2412K T146 R		
	305 014 4611	TR 2SC2412K T146 S		
	305 015 8727	TR 2SC2812-L6-TB		
	305 015 8925	TR 2SC2812-L7-TB		
	305 163 1615	TR 2SC2812N-L6-TB0		
	305 173 9816	TR 2SC3928A1R		
	305 173 9915	TR 2SC3928A1S		
Q7807	305 014 4512	TR 2SC2412K T146 R		
	305 014 4611	TR 2SC2412K T146 S		
	305 015 8727	TR 2SC2812-L6-TB		
	305 015 8925	TR 2SC2812-L7-TB		
	305 163 1615	TR 2SC2812N-L6-TB0		
	305 173 9816	TR 2SC3928A1R		
	305 173 9915	TR 2SC3928A1S		
Q7811	305 128 9618	TR 2SC2411K-T146-Q		
Q7812	305 128 9618	TR 2SC2411K-T146-Q		
CAPACITOR				
C7801	403 485 9910	DL-ELECT	3.3F M	2.5V
C7802	403 485 9910	DL-ELECT	3.3F M	2.5V
C7803	403 485 9910	DL-ELECT	3.3F M	2.5V
C7804	403 485 9910	DL-ELECT	3.3F M	2.5V
C7805	303 396 9613	CERAMIC	1U K	25V
	303 397 7618	CERAMIC	1U K	25V
RESISTOR				

Key No.	Part No.	Description		
R7802	301 104 6015	MT-GLAZE	100 JA	1W
R7804	301 102 7519	MT-GLAZE	22 JA	1W
R7806	301 150 5918	MT-GLAZE	10K JA	1/10W
R7807	301 150 5918	MT-GLAZE	10K JA	1/10W
R7808	301 150 5918	MT-GLAZE	10K JA	1/10W
R7809	301 150 5918	MT-GLAZE	10K JA	1/10W
R7810	301 162 3711	MT-GLAZE	4.7K JA	1/10W
R7811	301 150 5918	MT-GLAZE	10K JA	1/10W
R7812	301 256 2613	MT-GLAZE	2.4K JA	1/10W
R7814	301 256 2613	MT-GLAZE	2.4K JA	1/10W
R7815	301 256 2613	MT-GLAZE	2.4K JA	1/10W
R7851	301 162 3612	MT-GLAZE	470 JA	1/10W
R7853	301 150 6212	MT-GLAZE	1K JA	1/10W
R7855	301 150 5918	MT-GLAZE	10K JA	1/10W
R7856	301 256 2613	MT-GLAZE	2.4K JA	1/10W
DIODE				
D7801	307 224 6515	ZD UDZS4.7B-TE-17		
D7802	307 224 6515	ZD UDZS4.7B-TE-17		
D7803	307 210 5416	DIODE RB551V-30-TE-17		
D7804	307 210 1111	ZENER DIODE UDZS7.5BTE-17		

(KA2AC) March 2011 DC 50 Printed in Japan

SANYO Electric Co., Ltd.

Diagrams & Drawings

Schematic Diagrams Printed Wiring Board Drawings

Model	Chassis No.
PLC-XU4000	KA2-XU400000

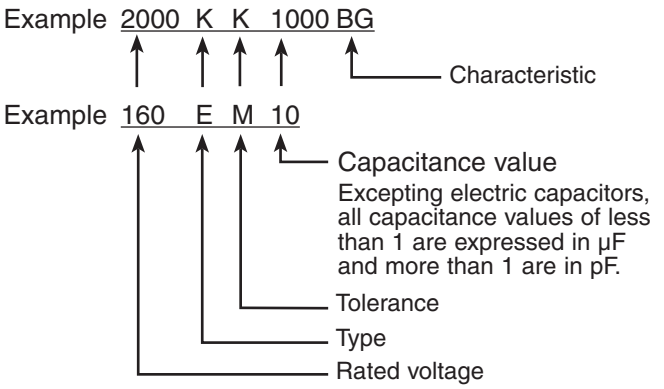
These schematic diagrams and printed wiring board drawings are part of the service manual original for chassis No. KA2-XU400000, model PLC-XU4000.
File with the service manual No. SM5111301-00.

Note:
All the information of part numbers and values indicated on these diagrams are at the beginning of production. To improve the performance, there may be some differences to the actual set. When you order the service parts, use service parts code mentioned on the parts list in this service manual.

Parts description and reading in schematic diagram

1. The parts specification of resistors, capacitors and coils are expressed in designated code. Please check the parts description by the following code table.
2. Some of transistors and diodes are indicated in mark for the substitution of parts name. Please check the parts name by the following code table.
3. Voltages and waveforms were taken with a video color bar signal (1Vp-p at 75 ohms terminated) and controls to normal.
4. Voltages were taken with a high-impedance digital voltmeter.

Capacitor Reading



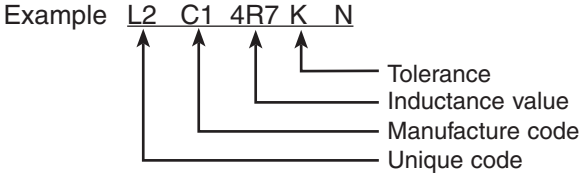
● **Material table**

Mark	Material
E	Electrolytic
P	Electrolytic (non-polarized)
C	Ceramic (temperature compensation)
K	Ceramic
F	Polyester
N	Polypropylene
M	Metalized polypropylene
H	Metalized polypromylar
B	Ceramic (semiconductor)
G	Metalized polyestel
Y	Composite film
S	Styrol
T	Tantalum oxide solid electrolytic
U	Organic semiconductive electrolyte
D	Electric double layer electrolytic

● **Tolerance table**

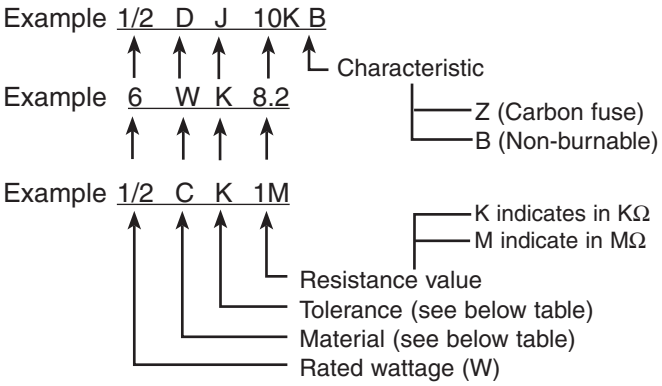
Mark	Tolerance	
A	not specified	
B	±0.1	
C	±0.25	
D	±0.5	
F	±1	
G	±2	
E	±2.5	
H	±3	
J	±5	
K	±10	
M	±20	
N	±30	
P	+100	-0
Q	+30	-10
T	+50	-10
U	+75	-10
V	+20	-10
W	+100	-10
X	+40	-20
Y	+150	-10
Z	+80	-20

Coil Reading



Mark	Tolerance (nH)	Mark	Tolerance (%)
C	±0.25	G	±2
D	±0.5	J	±5
S	±0.3	K	±10
A	±0.2	L	±15
		M	±20

Resistor Reading



Note: Resistor which is indicated with resistance value only are 1/6W carbon resistor. Resistor which is indicated with material, tolerance and value are 1/4W rated wattage.

● **Material table**

Mark	Material
D	Carbon
N	Metal film
S	Oxide metal film
C	Solid
G	Metal glaze
W	Wire wounding or cement
H	Ceramic
F	Fusible

● **Tolerance table**

Mark	Tolerance
A	±0.05
B	±0.1
C	±0.25
D	±0.5
F	±1
G	±2
J	±5
K	±10
M	±20
P	+5 -15
Z	used in 0 ohm

Diode/Transistor Type Reading

● **Diode**

Mark	Type number
R	1S2076A,1S2473,1N4148
AA	1S2076A,1S2473,1SS133,1N4148

● **Transistor**

(1) NPN type

Mark	Type number				
--	2SC536	2SC945A	2SC1815	2SC1740S	
AD	NF, NG	PA, QA	Y, GR	Q, R, S	
AE	NF, NG	PA, QA, RA	O, Y, GR	Q, R, S	

(2) PNP type

Mark	Type number				
--	2SA608	2SA564A	2SA1015	2SA933S	
AB	NF	R	Y, GR	R	
AC	NF	Q, R	O, Y, GR	Q, R	

(3) Chip type

Mark	Type number				
--	2SA1179N	2SA1037K	2SA1037AK	2SC2812/N	2SC2412K
AJ	M6, M7	R, S	R, S		
AH				L6, L7	R, S

Schematic Diagrams

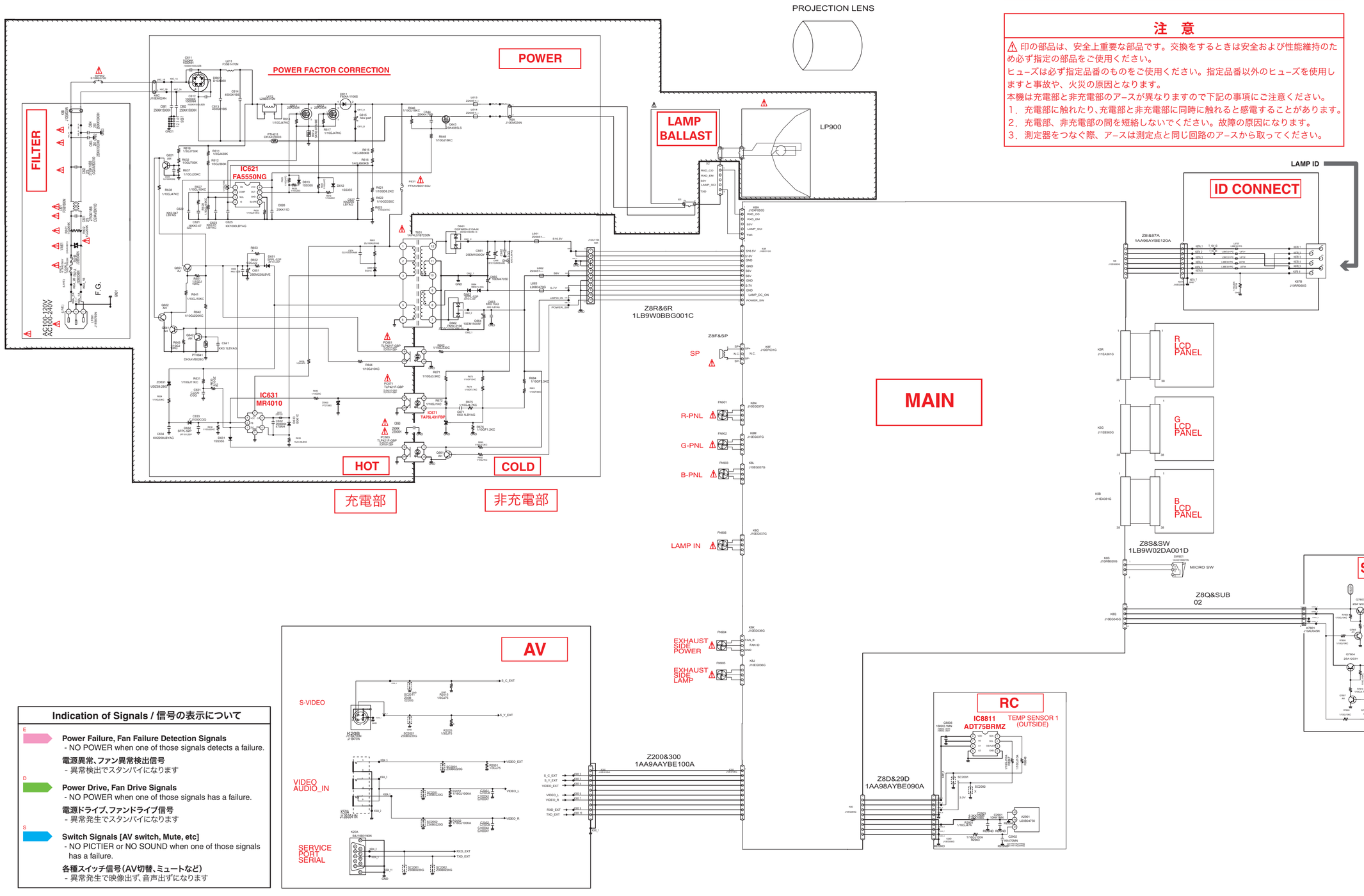
CAUTION

Components indicated by a mark ⚠ in this schematic diagram have the special significance in the safety. It is therefore, particularly recommended that the replacement of those parts must be made by exactly the same parts. Must be used with a specified fuse. Unauthorized substitutions may result in fire or accident.
This projector is isolated from AC line by using the internal converter transformer. Please pay attention to the following notes in servicing.

1. Do not touch the part on hot side (primary circuit) or both parts on the hot and cold sides (secondary circuit) at the same time.
2. Do not shorten the circuit between hot and cold sides.
3. The grounding lead must be connected to the ground of the same circuit when measuring the voltages and waveform.

注　意

⚠ 印の部品は、安全上重要な部品です。交換をするときは安全および性能維持のため必ず指定の部品をご使用ください。
ヒューズは必ず指定品番のものをご使用ください。指定品番以外のヒューズを使用しますと事故や、火災の原因となります。
本機は充電部と非充電部のアースが異なりますので下記の事項にご注意ください。
1．充電部に触れたり、充電部と非充電部に同時に触れると感電することがあります。
2．充電部、非充電部の間を短絡しないでください。故障の原因になります。
3．測定器をつなぐ際、アースは測定点と同じ回路のアースから取ってください。



Indication of Signals / 信号の表示について

E
Power Failure, Fan Failure Detection Signals
- NO POWER when one of those signals detects a failure.

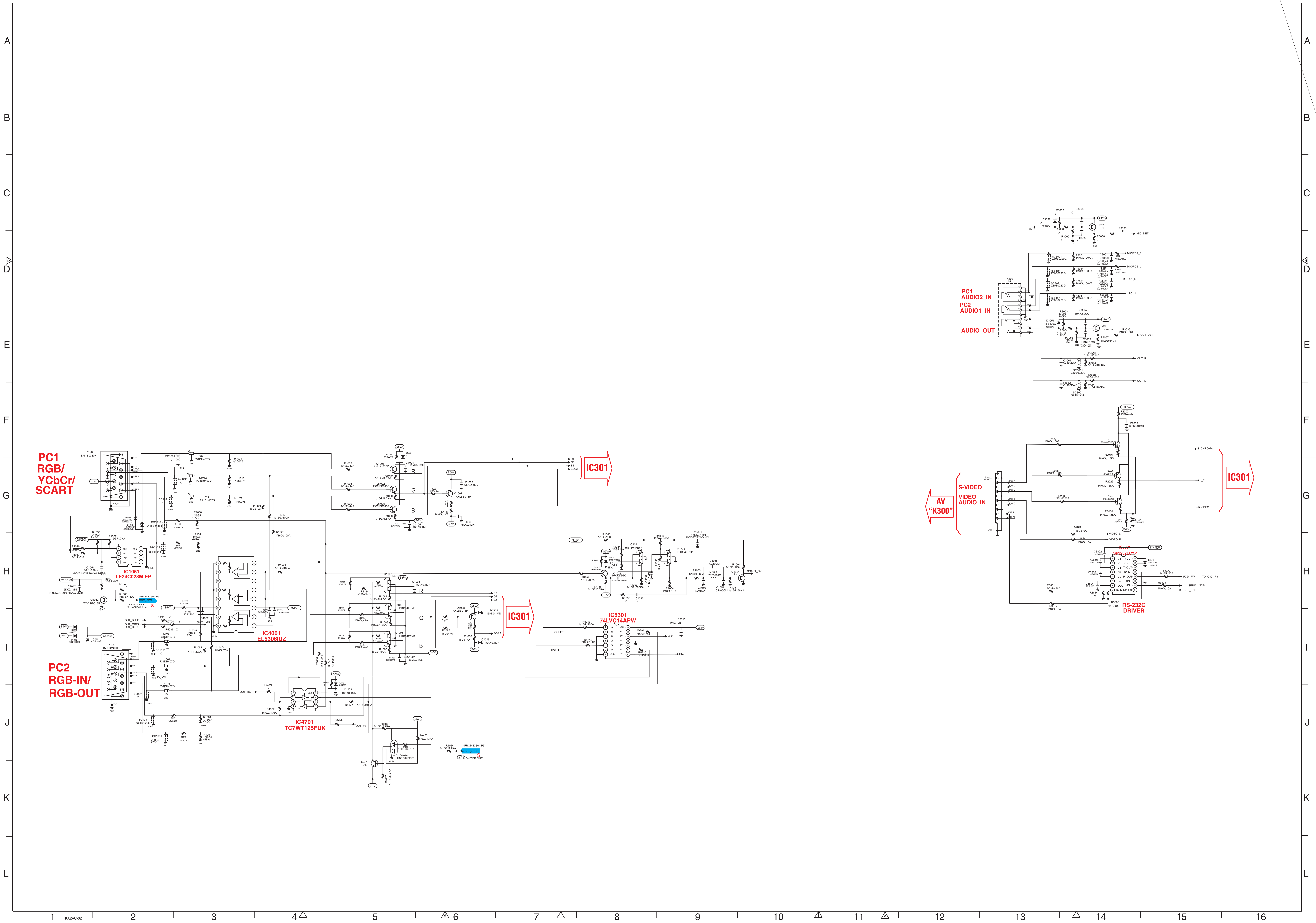
電源異常、ファン異常検出信号
- 異常検出でスタンバイになります

D
Power Drive, Fan Drive Signals
- NO POWER when one of those signals has a failure.

電源ドライブ、ファンドライブ信号
- 異常発生でスタンバイになります

S
Switch Signals [AV switch, Mute, etc]
- NO PICTIER or NO SOUND when one of those signals has a failure.

各種スイッチ信号（AV切替、ミュートなど）
- 異常発生で映像出ず、音声出ずになります


PC1
RGB/
YCbCr/
SCART
PC2
RGB-IN/
RGB-OUT
IC1051
LE24C023M-EP
IC4001
EL5306IUZ
IC4701
TC7WT125FUK
IC5301
74LVC14APW
IC301
PC1
AUDIO2_IN
PC2
AUDIO1_IN
AUDIO_OUT
S-VIDEO
VIDEO
AUDIO_IN
AV
"K300"
RS-232C
DRIVER
KA2AC-02

IC401

IC301
PW190-10LM
SCALER
<TOP_VIEW>

IC801(FLASH)
K801(ICE)

IC801
FLASH MEMORY

IC841
PT7M7809STEP

IC5602
PQ1M505M2SPP

IC5821
TPS54225

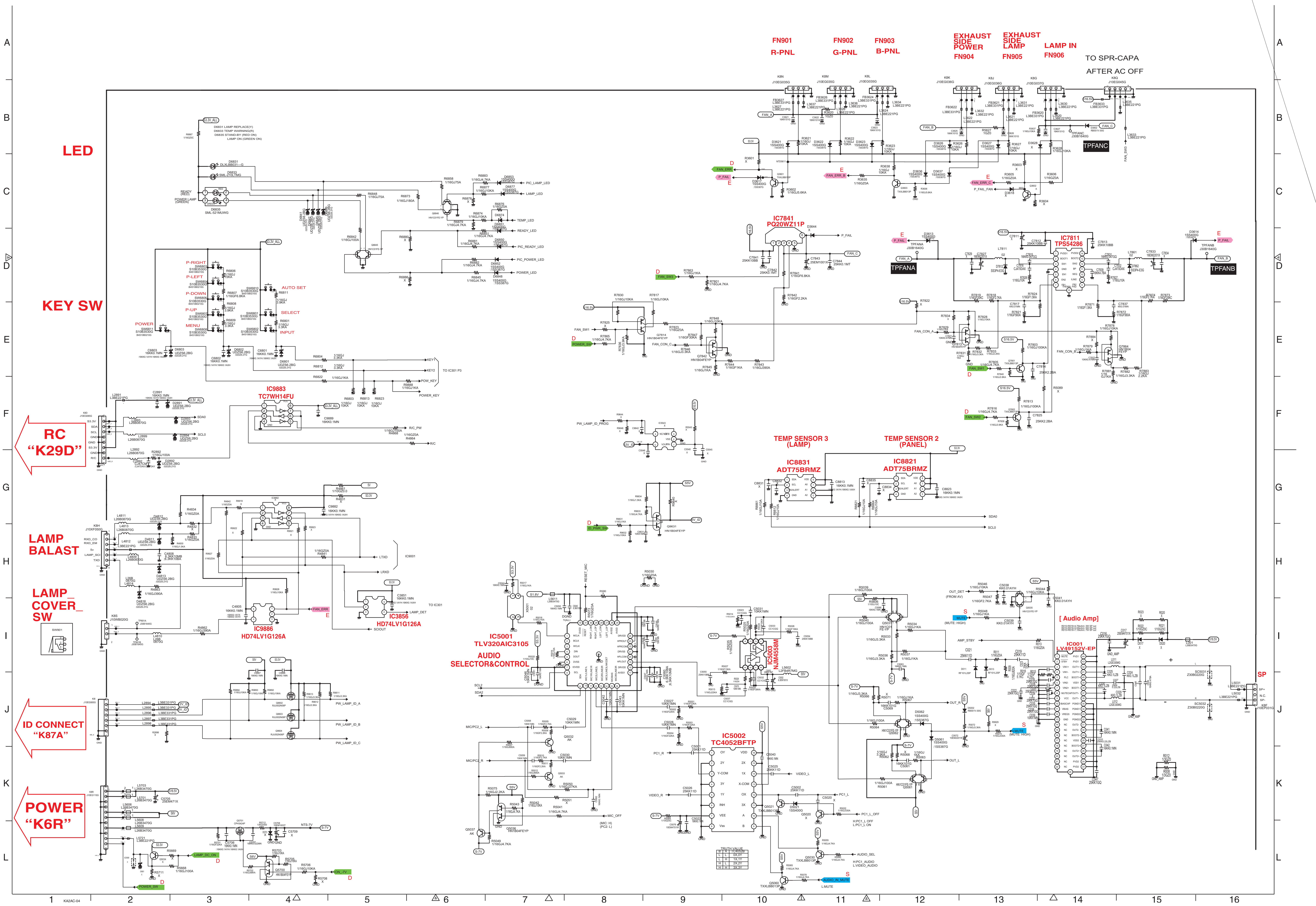
IC5841
TAR5S25P
1.4A
75mA

IC5861
TPS54225
2A DC-DC
260mA
1375mA

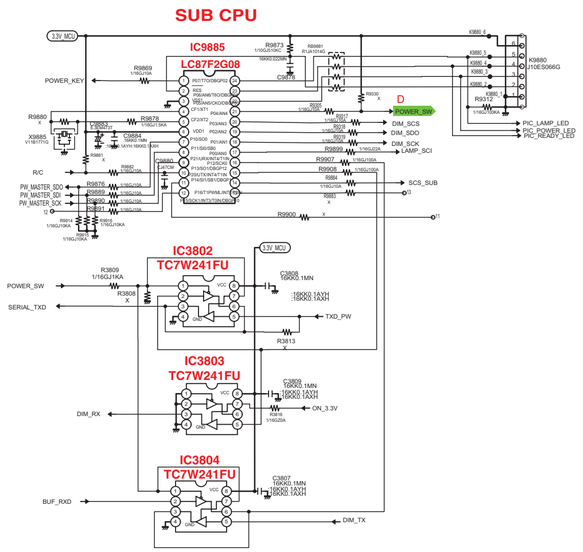
IC1371
24AA64T-I/MS
MOMERY

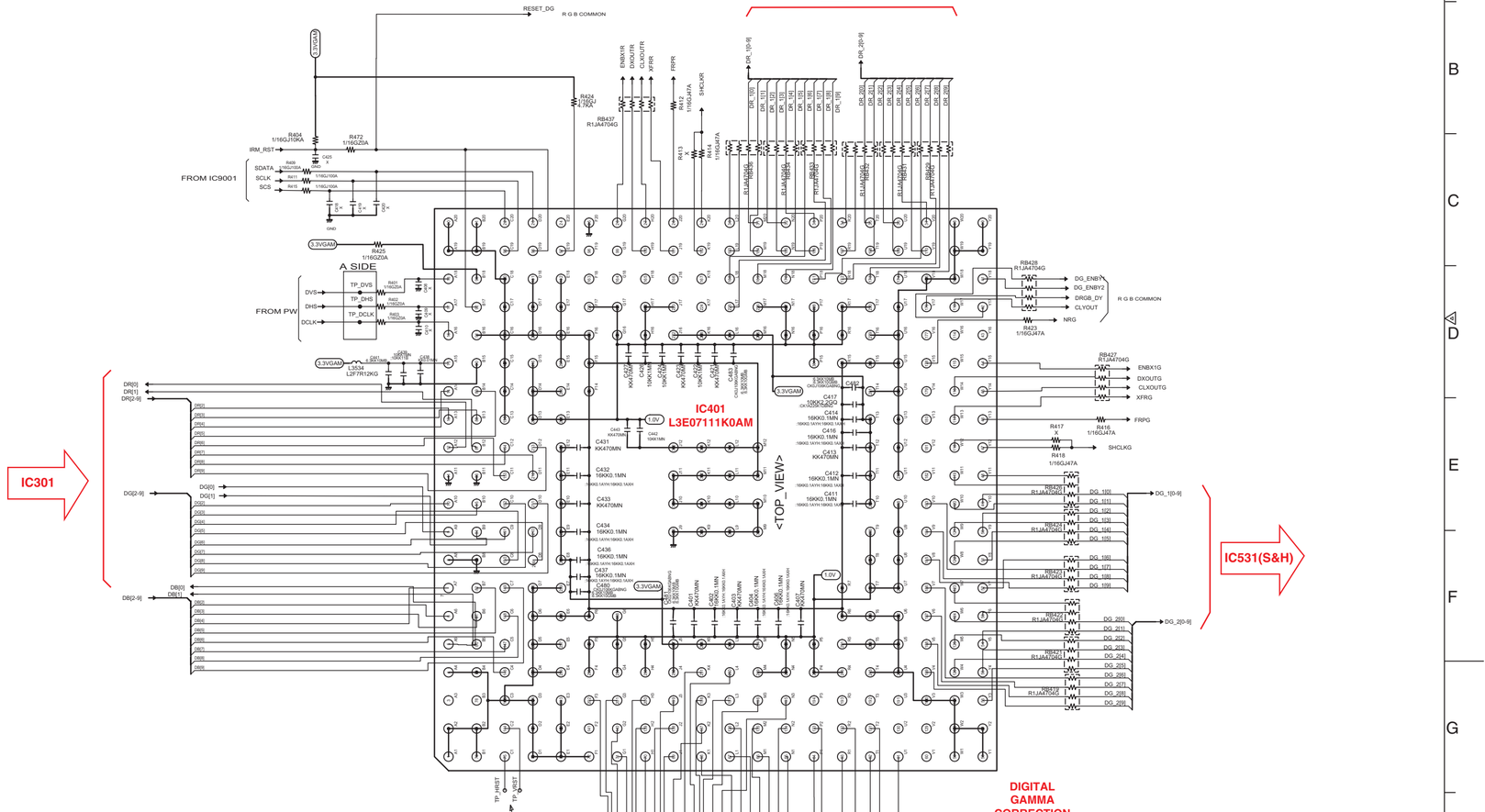
Accelerator Sensor
IC3850
LIS244ALHTRJ

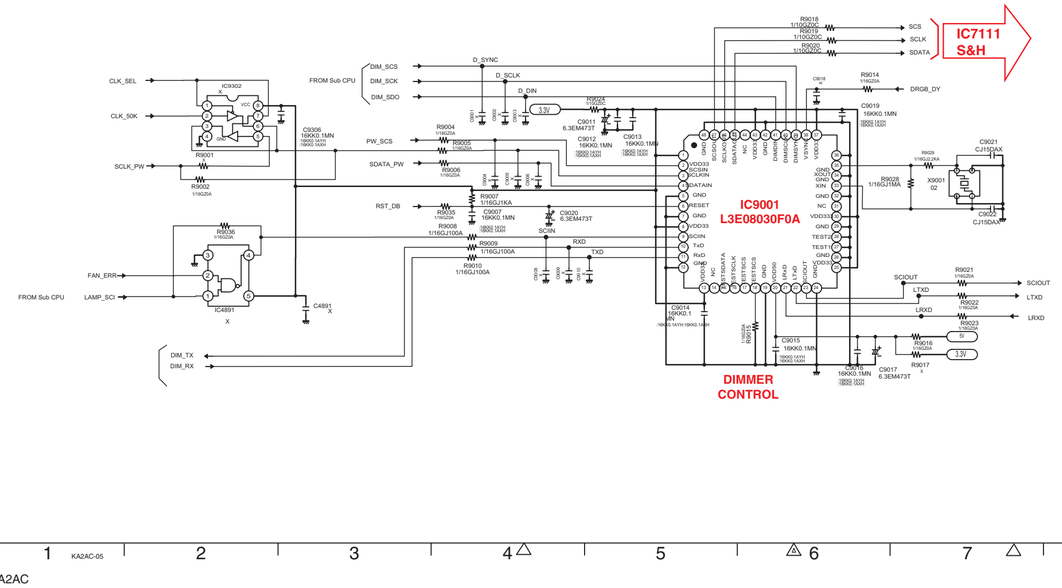
IC3852
LA6358NM-LP

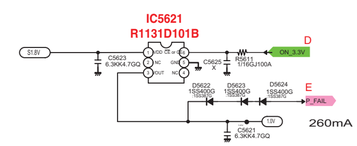


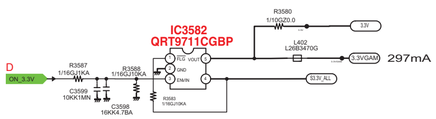
LED
KEY SW
RC "K29D"
LAMP BALAST
LAMP_ COVER_ SW
ID CONNECT "K87A"
POWER "K6R"
FN901 R-PNL
FN902 G-PNL
FN903 B-PNL
EXHAUST SIDE POWER FN904
EXHAUST SIDE LAMP FN905
LAMP IN FN906
TO SPR-CAPA AFTER AC OFF
IC7841 PQ20WZ11P
IC7811 TPS54286
TPFANA
TPFANB
TPFANC
IC9883 TC7WH14FU
IC9886 HD74LV1G126A
IC3856 HD74LV1G126A
TEMP SENSOR 3 (LAMP)
TEMP SENSOR 2 (PANEL)
IC8831 ADT75BRMZ
IC8821 ADT75BRMZ
IC5001 TLV320AIC3105
AUDIO SELECTOR&CONTROL
IC5003 NJM4558M
IC5002 TC4052BFTP
[Audio Amp]
IC001 LV49152V-EP
SP
P-RIGHT
P-LEFT
P-DOWN
P-UP
MENU
POWER
AUTO SET
SELECT
INPUT

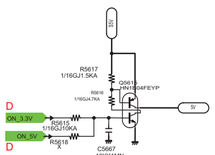

SUB CPU
IC9885
LC87F2G08
3.3V MCU
POWER_KEY
R/C
PW_MASTER_SDO
PW_MASTER_SDI
PW_MASTER_SCK
POWER_SW
DIM_SCS
DIM_SDO
DIM_SCK
LAMP_SCI
SCS_SUB
IC3802
TC7W241FU
SERIAL_TXD
TXD_PW
IC3803
TC7W241FU
DIM_RX
ON_3.3V
IC3804
TC7W241FU
BUF_RXD
DIM_TX

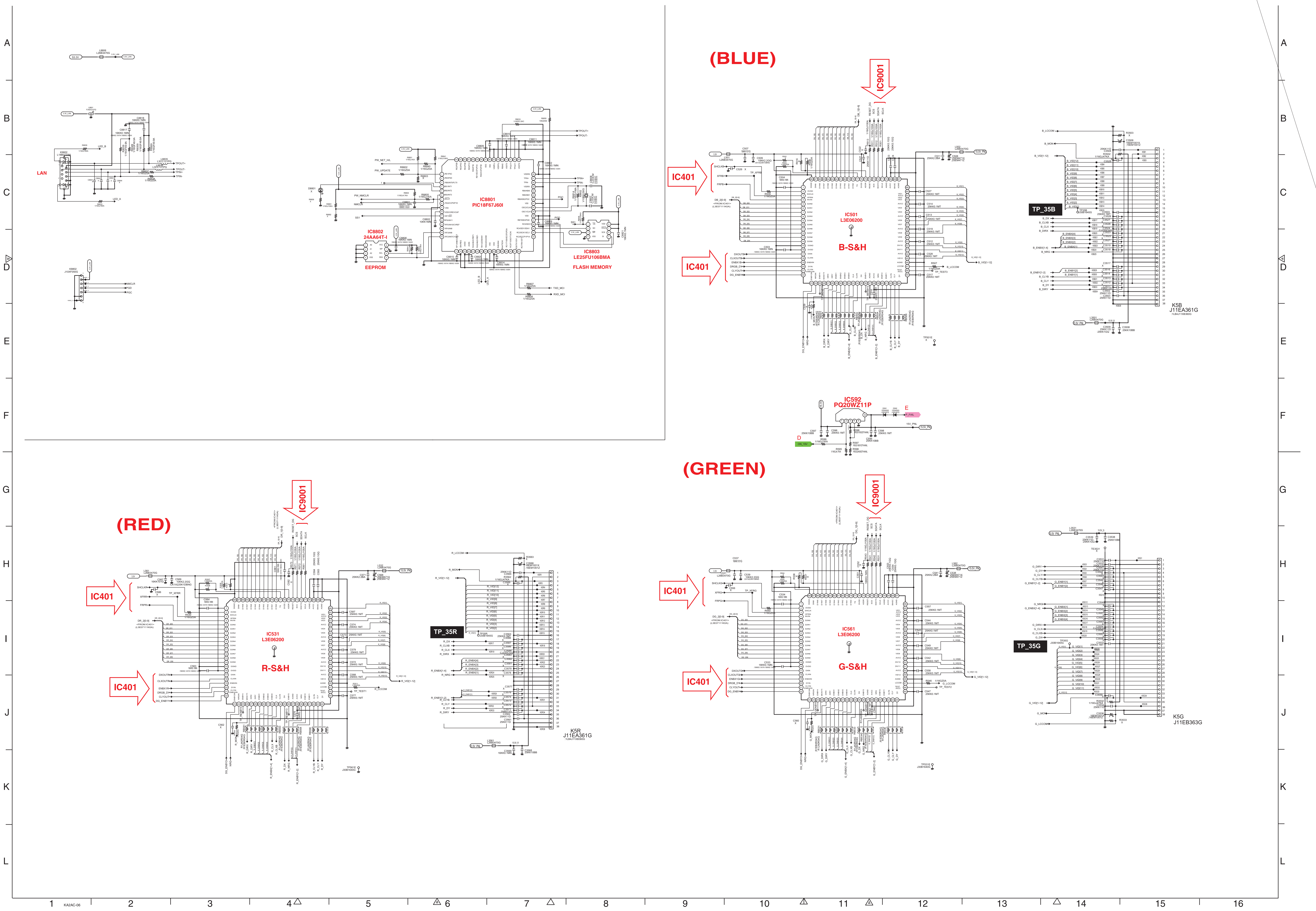

IC301
IC401
L3E07111K0AM
<TOP_VIEW>
IC561(S&H)
IC531(S&H)
IC501
(S&H)
DIGITAL
GAMMA
CORRECTION
FROM IC9001
A SIDE
FROM PW
RESET_DG
R G B COMMON


IC7111
S&H
IC9001
L3E08030F0A
DIMMER
CONTROL
FROM Sub CPU
CLK_SEL
CLK_50K
SCLK_PW
PW_SCS
SDATA_PW
RST_DB
FAN_ERR
LAMP_SCI
DIM_SCS
DIM_SCK
DIM_SDO
DIM_TX
DIM_RX
SCS
SCLK
SDATA
DRGB_DY
SCIOUT
LTXD
LRXD


IC5621
R1131D101B
ON_3.3V
P_FAIL
260mA


IC3582
QRT9711CGBP
ON_3.3V
3.3VGAM
297mA

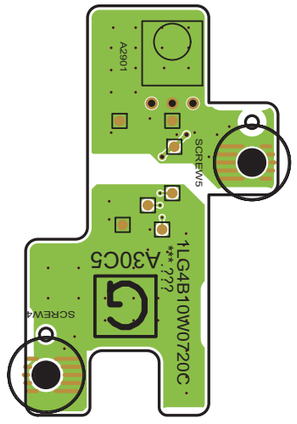

ON_3.3V
ON_5V
5V



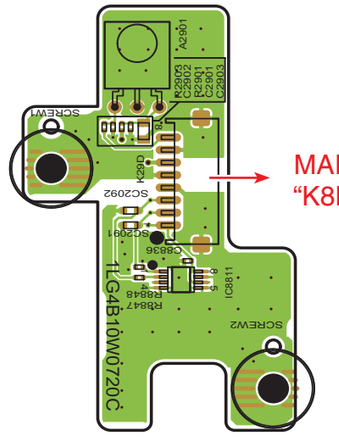
LAN
IC8801
PIC18F67J60I
IC8802
24AA64T-I
EEPROM
IC8803
LE25FU106BMA
FLASH MEMORY
(BLUE)
IC9001
IC401
IC401
IC501
L3E06200
B-S&H
TP_35B
K5B
J11EA361G
IC592
PQ20WZ11P
(GREEN)
IC9001
IC401
IC401
IC561
L3E06200
G-S&H
TP_35G
K5G
J11EB363G
(RED)
IC9001
IC401
IC401
IC531
L3E06200
R-S&H
TP_35R
K5R
J11EA361G
KA2AC-06

Printed Wiring Board Drawings

RC (SIDE:A)



RC (SIDE:B)



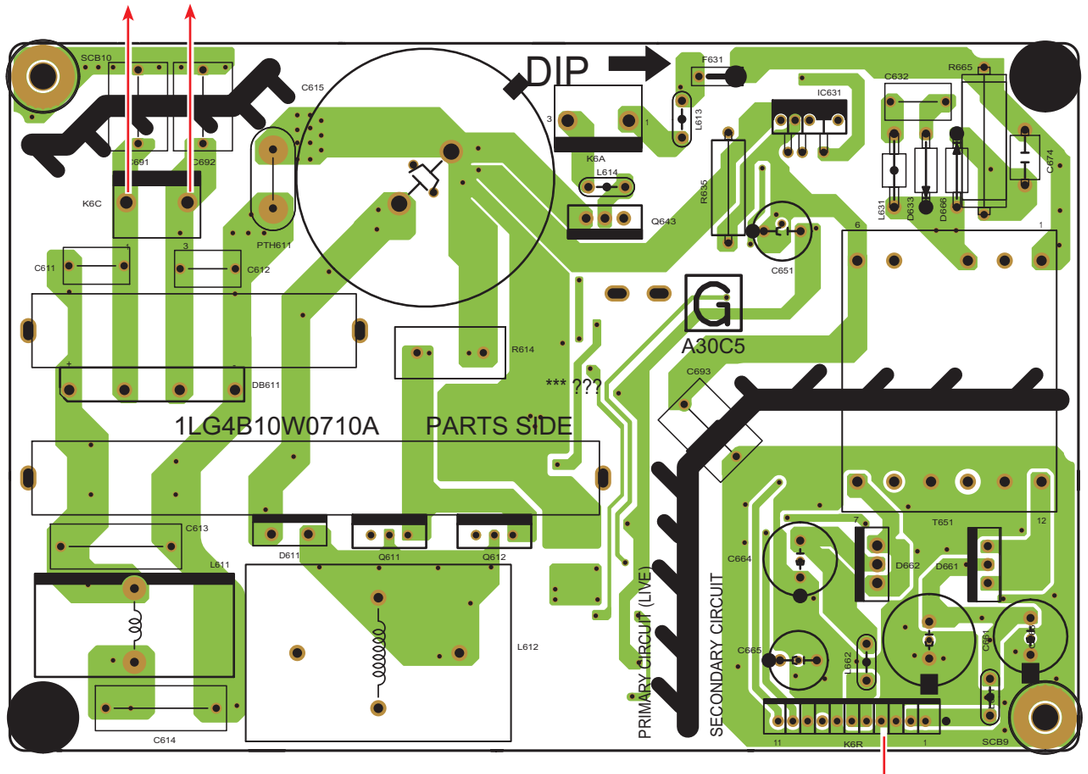
MAIN
"K8D"

> **⚠ CAUTION**
>
> This projector is isolated from AC line by using the internal converter transformer.
> Please pay attention to the following notes in servicing
> 1. Do not touch the part on hot side (primary circuit) or both parts on hot and cold sides (secondary circuit) at the same time.
> 2. Do not shorten the circuit between hot and cold sides.
> 3. The grounding lead must be connected to the ground of the same circuit when measuring of voltages and waveforms.

POWER (SIDE:A)

THERMAL SW
SW902

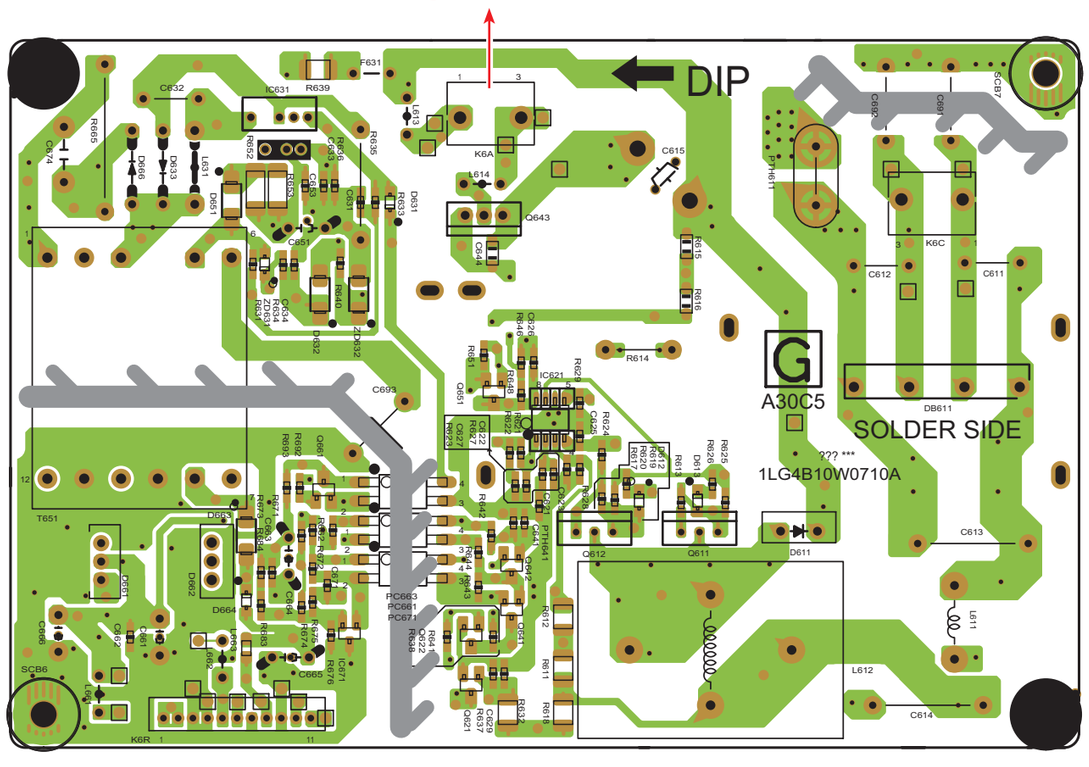
FILTER
"K6B"



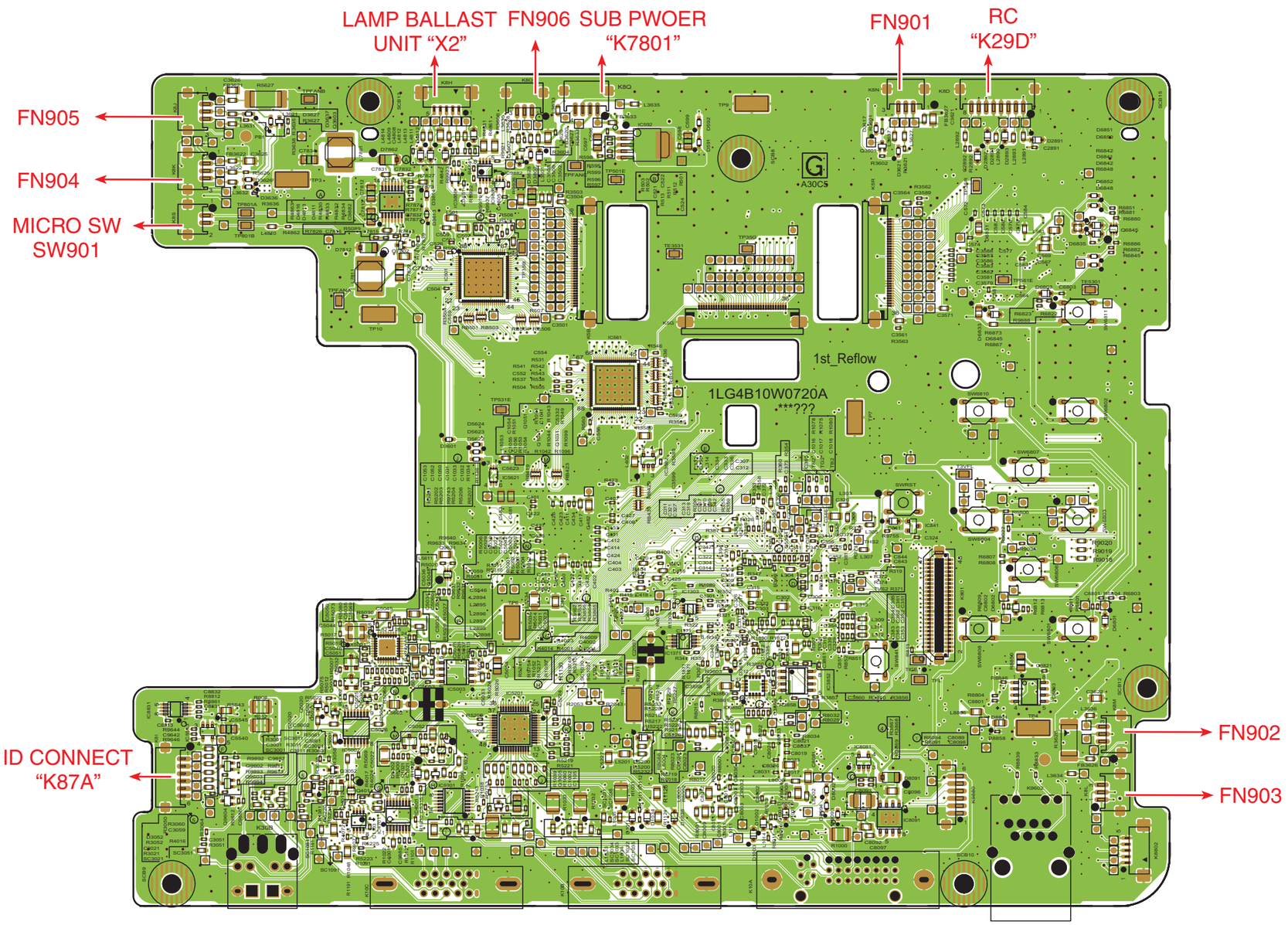
MAIN
"K8R"

POWER (SIDE:B)

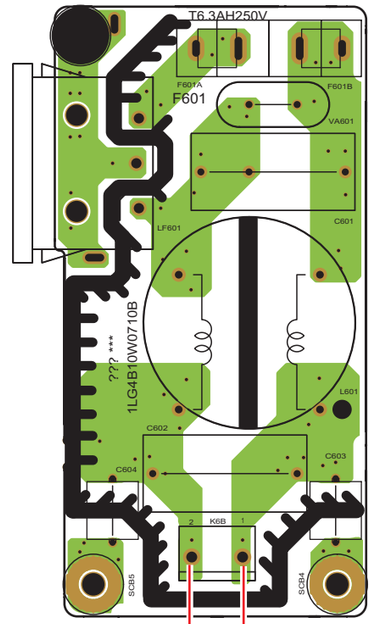
LAMP BALLAST
UNIT "X1"



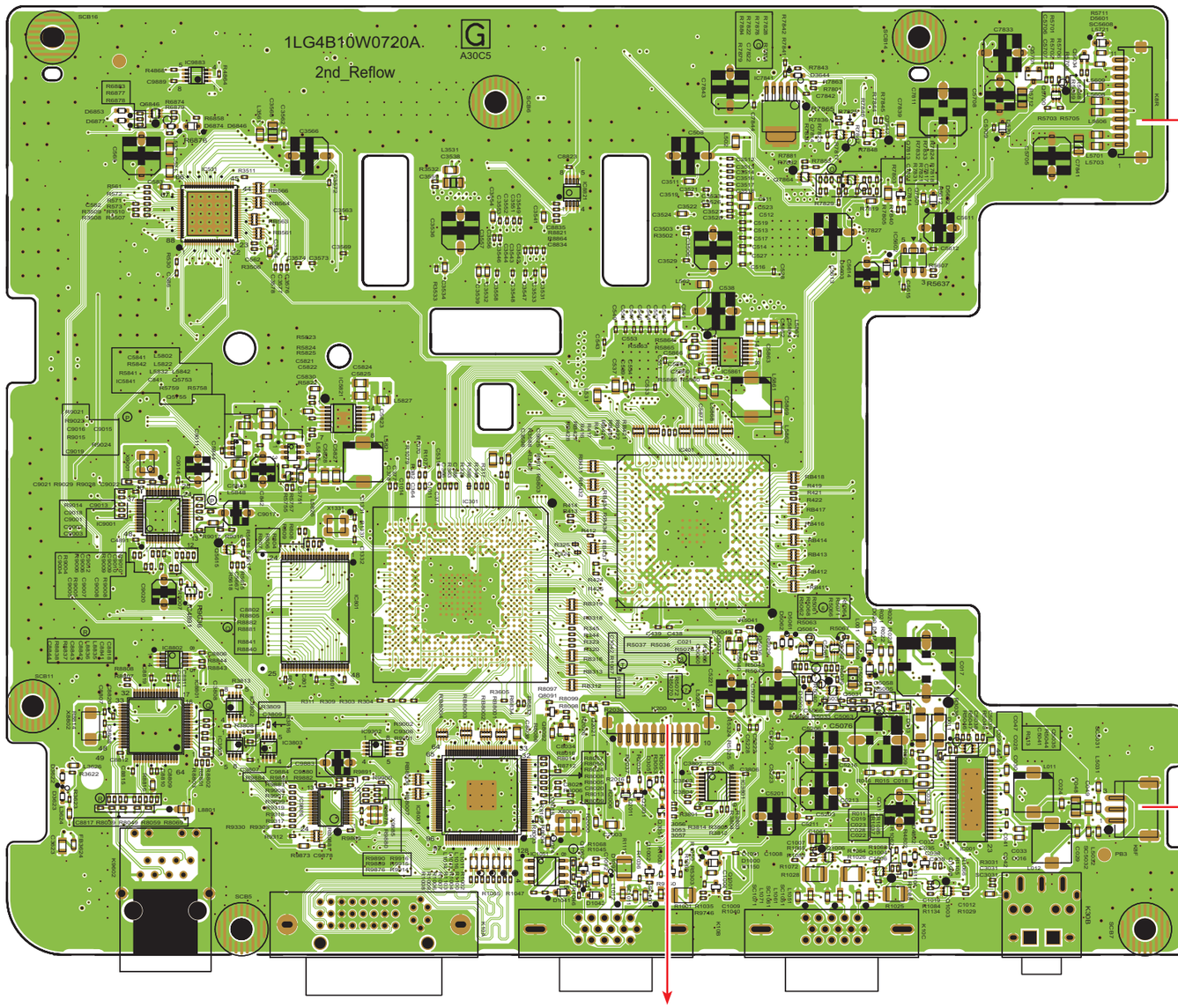
MAIN (SIDE:A)



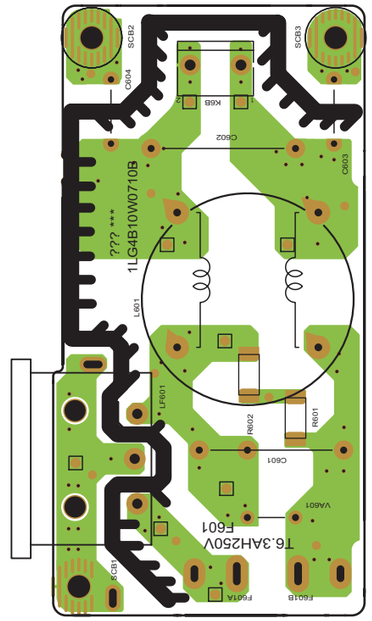
FILTER (SIDE:A)



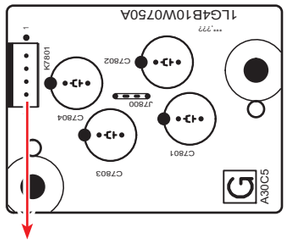
MAIN (SIDE:B)



FILTER (SIDE:B)

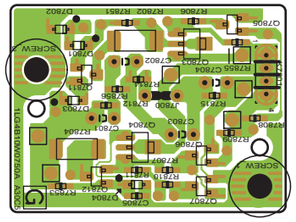


SUB POWER (SIDE:A)

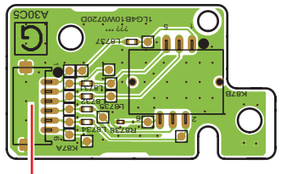


MAIN

SUB POWER (SIDE:B)

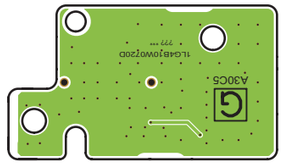


ID CONNECT (SIDE:A)

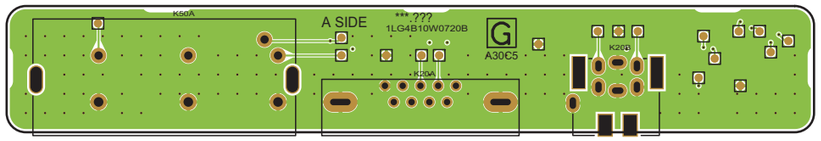


MAIN
"K8I"

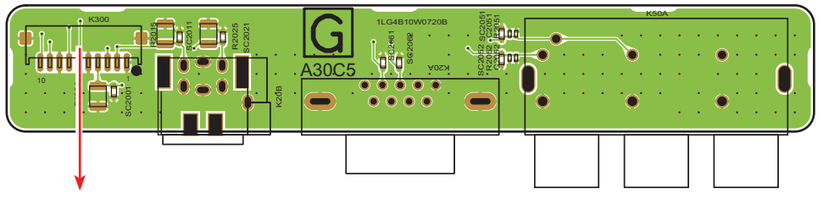
ID CONNECT (SIDE:B)



AV (SIDE:A)



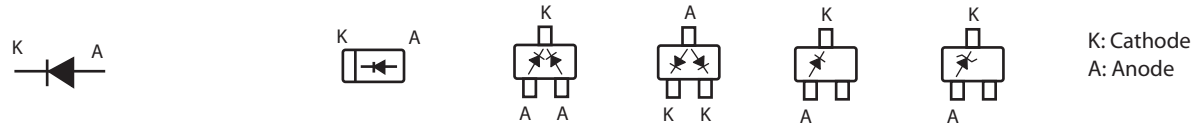
AV (SIDE:B)



MAIN
"K200"

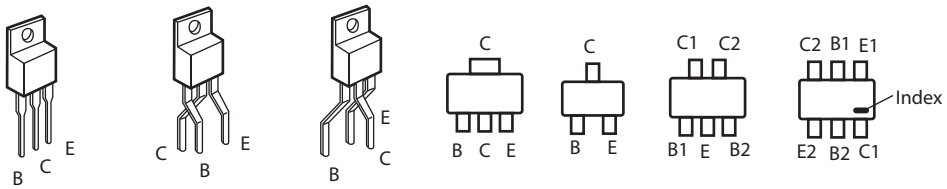
Pin description of diode, transistor and IC

● Diode



K: Cathode
A: Anode

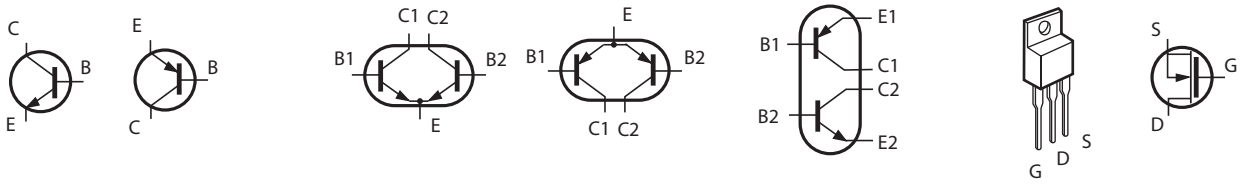
● Transistor/FET



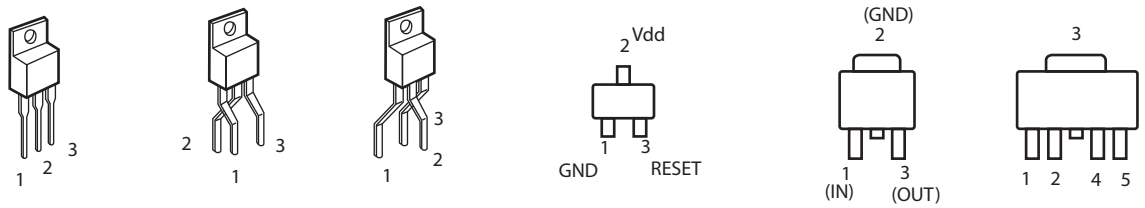
C: Collector
B: Base
E: Emitter

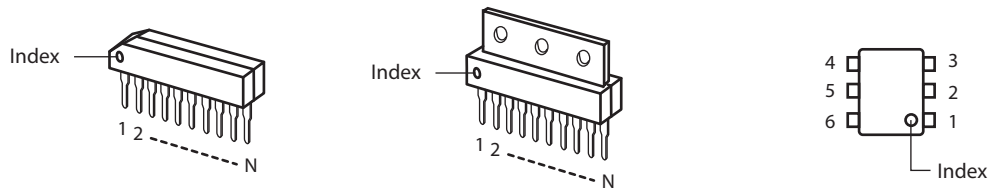
D: Drain
G: Gate
S: Source

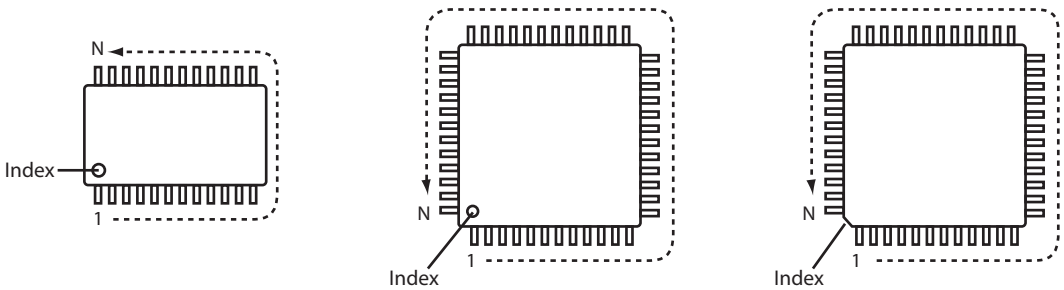
FET

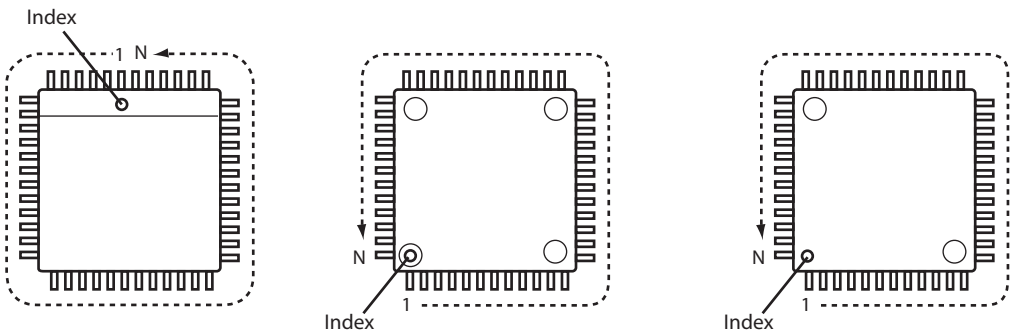


● IC









Note on Soldering

Do not use solder containing lead.

This product has been manufactured using lead-free solder in order to help preserve the environment.

Because of this, be sure to use lead-free solder when carrying out repair work, and never use solder containing lead.

Lead-free solder has a melting point that is 30–40 °C (86–104 °F) higher than solder containing lead, and moreover it does not contain lead which attaches easily to other metals. As a result, it does not melt as easily as solder containing lead, and soldering will be more difficult even if the temperature of the soldering iron is increased.

The extra difficulty in soldering means that soldering time will increase and damage to the components or the circuit board may easily occur.

Because of this, you should use a soldering iron and solder that satisfy the following conditions when carrying out repair work. Also, soldering work must be done in a short time.

Soldering iron

Use a soldering iron which is 70 W or equivalent, and which lets you adjust the tip temperature up to 450 °C (842 °F) It should also have as good temperature recovery characteristics as possible.

Solder

Use solder with the metal content and composition ratio by weight given in the table below. Do not use solders which do not meet these conditions.

Metal content	Tin (Sn)	Silver (Ag)	Copper (Cu)
Composition ratio by weight	96.5 %	3.0 %	0.5 %

Note:

If replacing existing solder containing lead with lead-free solder in the soldered parts of products that have been manufactured up until now, remove all of the existing solder at those parts before applying the lead-free solder.