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Plasma Field Service Guide
PDP-V401, PDP-V402
& PDP-501MX

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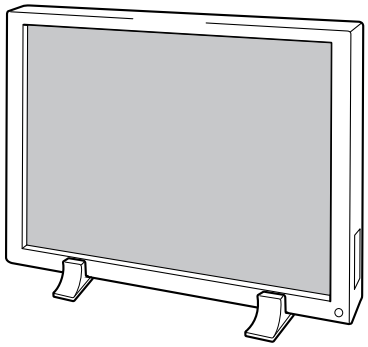
Pioneer
SERVICE

Contents

Pioneer

Selecting The correct service manual for Models PDP-V402 & PDP-V401



ORDER NO.
ARP3081

PLASMA DISPLAY

PDP-V402

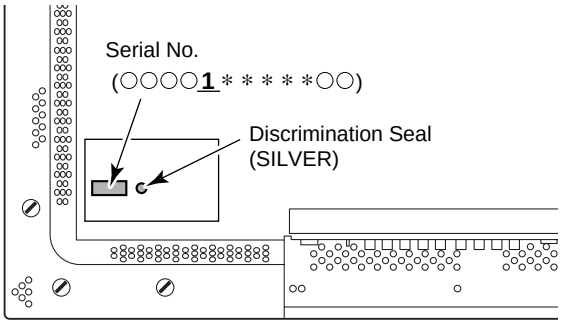
THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	PDP-V402		
LUBW/CA/1	○	AC120V	

Confirm it

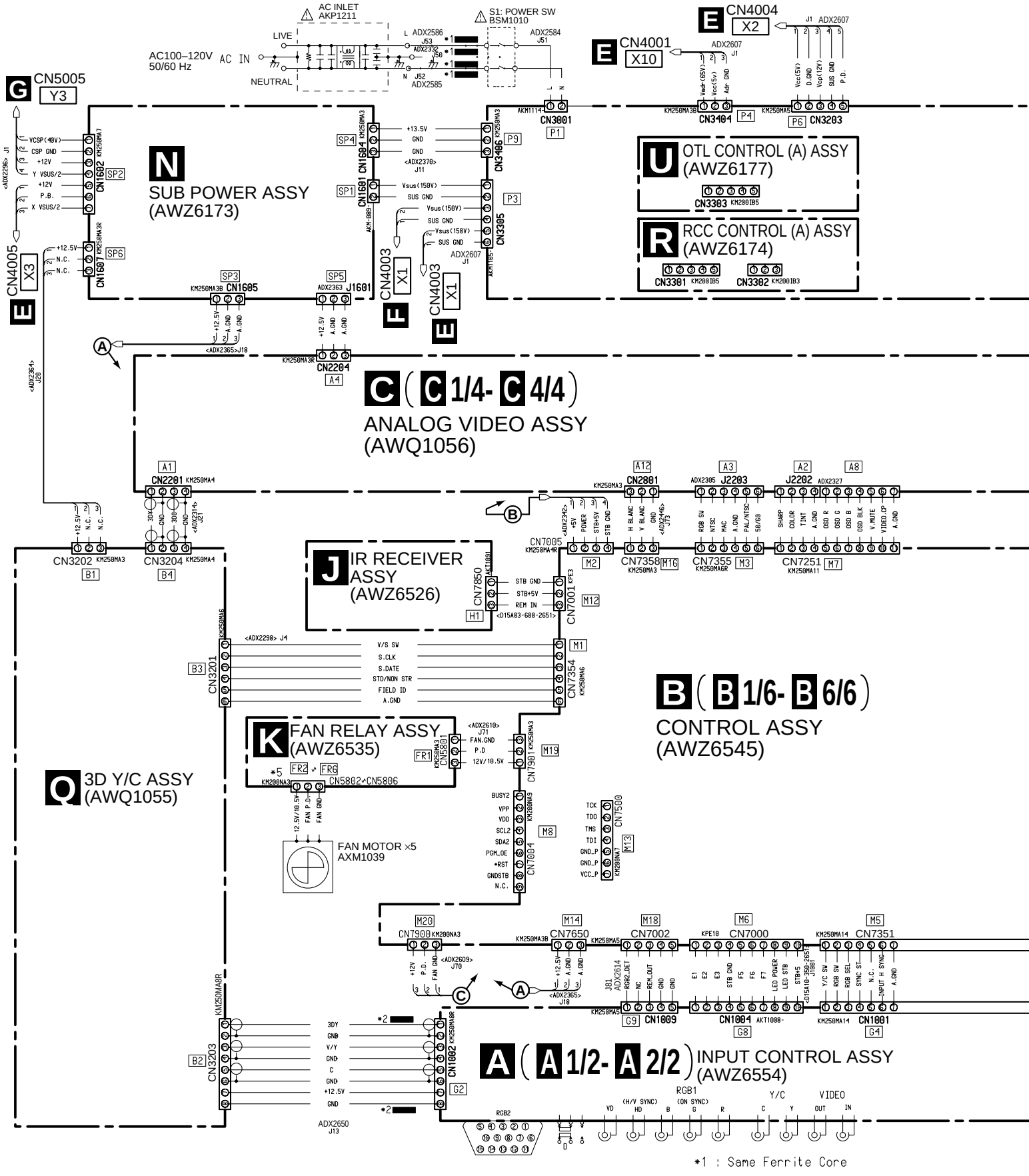
- **In PDP-V402, there are two different models (original model and value analysis model). Confirm the mark and serial No. of the product rear side, and use each service manual.**

■ PRODUCT REAR SIDE

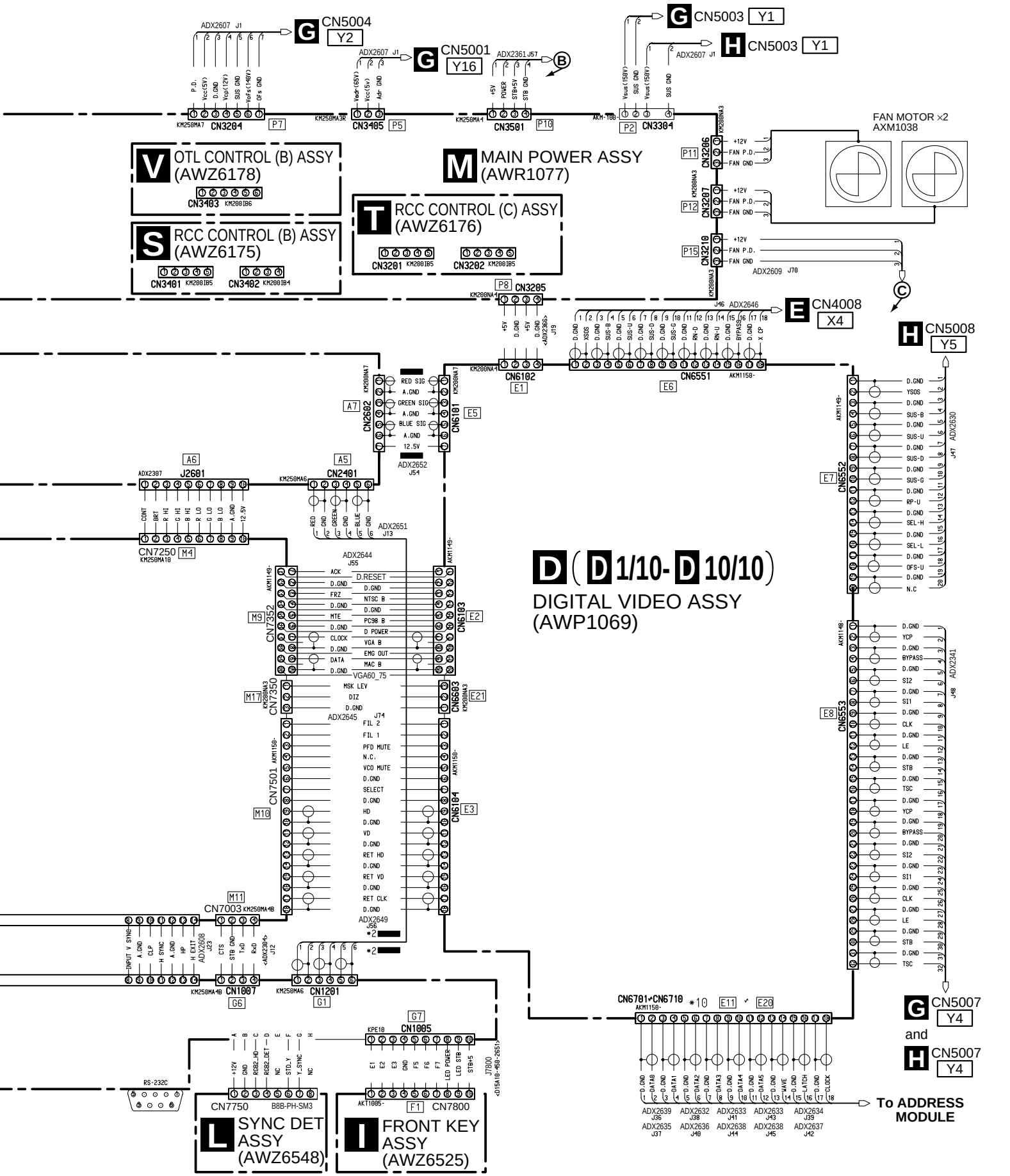


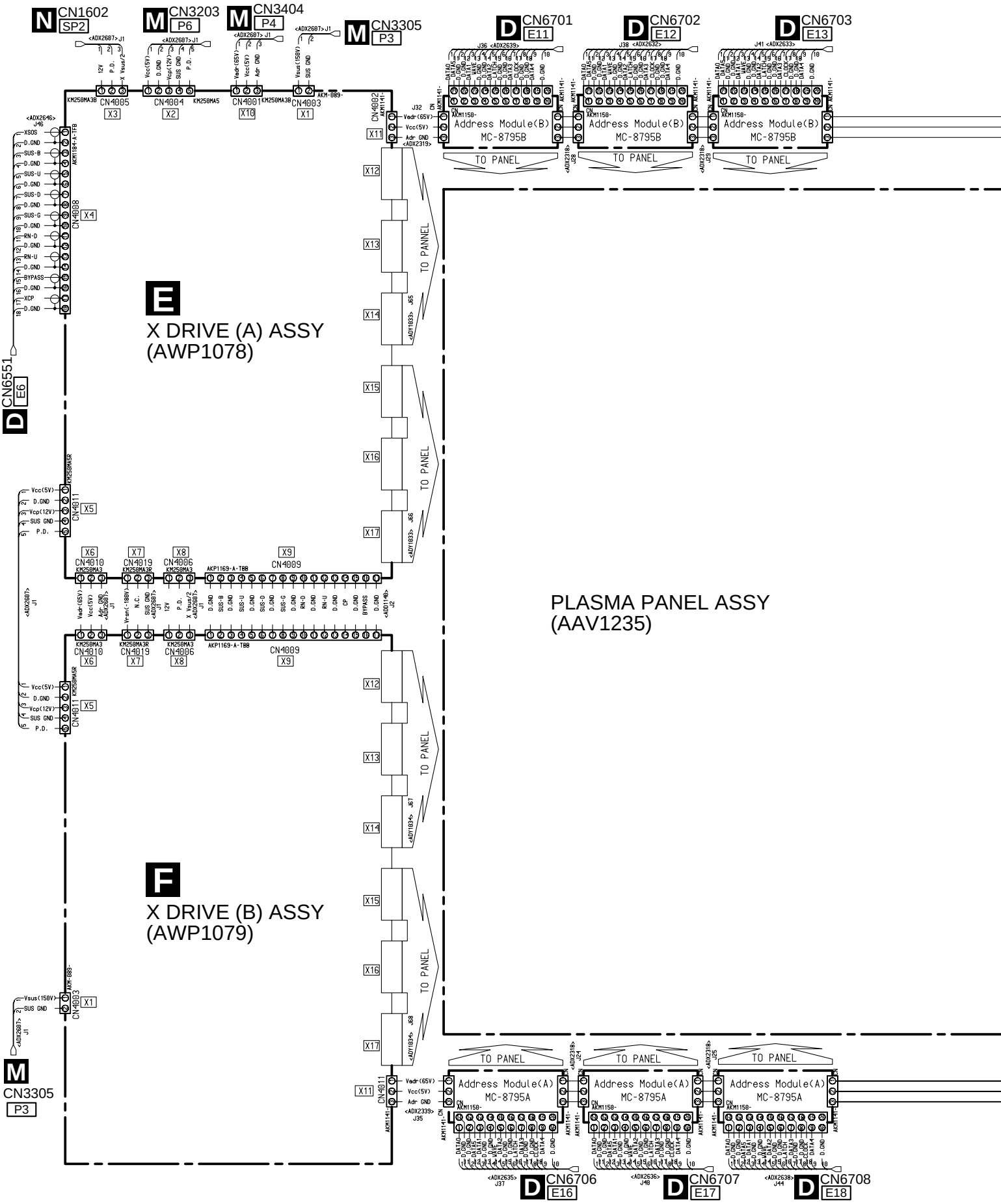
■ SERIAL NO.

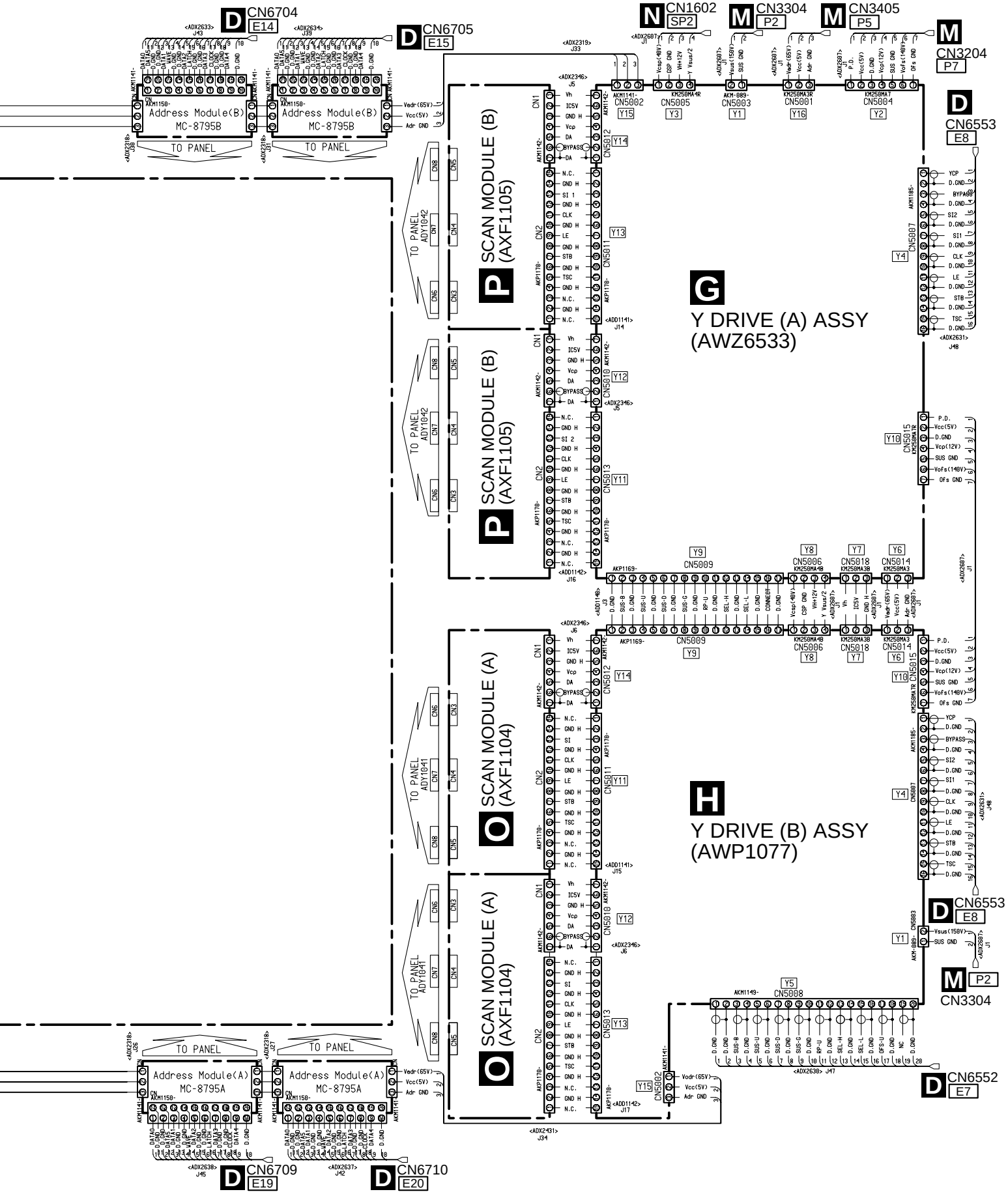
Serial No.	Service Manual
○○○○1＊＊＊＊＊○○	ARP3081 [This manual]
OTHER	ARP3034
	ARP2981 (PDP-V401)


AC INLET
AKP1211
S1: POWER SW
BSM1010
AC100–120V
50/60 Hz
AC IN
LIVE
NEUTRAL
CN5005
Y3
CN4004
X2
CN4001
X10
CN3001
CN3404
CN3203
N
SUB POWER ASSY
(AWZ6173)
U
OTL CONTROL (A) ASSY
(AWZ6177)
CN3303
R
RCC CONTROL (A) ASSY
(AWZ6174)
CN3301
CN3302
CN4005
X3
CN4003
X1
C (C 1/4- C 4/4)
ANALOG VIDEO ASSY
(AWQ1056)
CN2201
CN2801
J2203
J2202
CN3202
CN3204
J
IR RECEIVER
ASSY
(AWZ6526)
CN7850
CN7005
CN7358
CN7355
CN7251
B (B 1/6- B 6/6)
CONTROL ASSY
(AWZ6545)
CN3201
CN7354
K
FAN RELAY ASSY
(AWZ6535)
FR1
FR2
FR6
CN5802
CN5806
Q
3D Y/C ASSY
(AWQ1055)
FAN MOTOR ×5
AXM1039
CN7004
CN7500
CN7900
CN7650
CN7002
CN7000
CN7351
CN1004
CN1009
CN1001
CN3203
CN1002
A (A 1/2- A 2/2)
INPUT CONTROL ASSY
(AWZ6554)
RGB1
RGB2
Y/C
VIDEO
*1 : Same Ferrite Core
*2 : Same Ferrite Core

Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".




N CN1602 SP2
M CN3203 P6
M CN3404 P4
M CN3305 P3
D CN6701 E11
D CN6702 E12
D CN6703 E13
Address Module(B) MC-8795B
TO PANEL
E
X DRIVE (A) ASSY (AWP1078)
D CN6551 E6
TO PANNEL
PLASMA PANEL ASSY (AAV1235)
F
X DRIVE (B) ASSY (AWP1079)
Address Module(A) MC-8795A
D CN6706 E16
D CN6707 E17
D CN6708 E18


D CN6704 E14
D CN6705 E15
N CN1602 SP2
M CN3304 P2
M CN3405 P5
M CN3204 P7
D CN6553 E8
Address Module(B) MC-8795B
TO PANEL
SCAN MODULE (B) (AXF1105)
TO PANEL ADY1042
G Y DRIVE (A) ASSY (AWZ6533)
SCAN MODULE (A) (AXF1104)
TO PANEL ADY1041
H Y DRIVE (B) ASSY (AWP1077)
D CN6553 E8
M P2 CN3304
D CN6552 E7
Address Module(A) MC-8795A
D CN6709 E19
D CN6710 E20

ADJUSTMENT

ADJUSTMENTS REQUIRED WHEN REPAIRING OR REPLACING EACH ASSY

■ 3D Y/C ASSY

1) (Procedure 9) White balance adjustment
(if white balance is deviated)

■ ANALOG VIDEO ASSY

1) (Procedure 1) Blanking pulse width adjustment
(VBLK, HBLK)
2) (Procedure 9) White balance adjustment

■ CONTROL ASSY

1) (Procedure2) VCO control voltage adjustment
2) (Procedure 3) Vertical sync freerunning frequency adjustment
3) (Procedure 8) Factory data setting (At ASSY replacement)
(Read the preset data before replacing ASSY)
4) (Procedure 9) White balance adjustment
(if white balance is deviated)

■ MAIN POWER ASSY

1) (Procedure 4) VADR voltage (60V) adjustment
VSUS voltage (170V) adjustment
VOFS voltage (140V) adjustment

■ X DRIVE ASSY, Y DRIVE ASSY

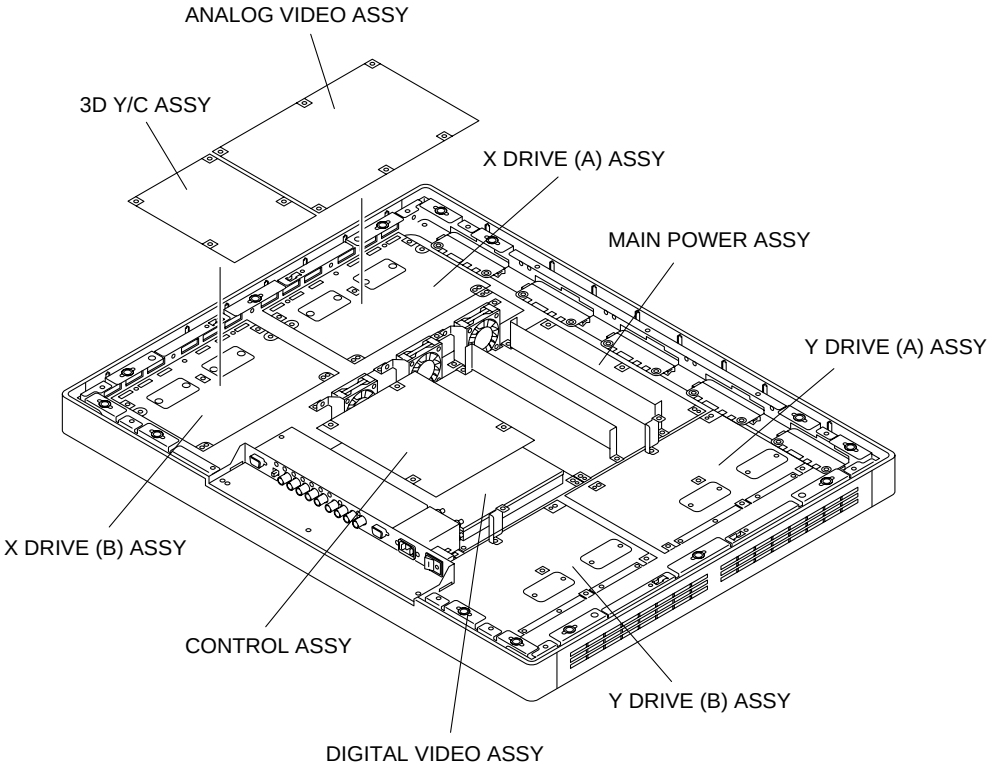
1) (Procedure 5) VRN voltage adjustment
VH voltage adjustment
2) (Procedure 7) Sustain pulse waveform adjustment
(X PSUS, Y PSUS)
3) (Procedure 9) White balance adjustment
(if white balance is deviated)

■ DIGITAL VIDEO ASSY

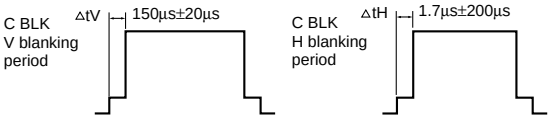
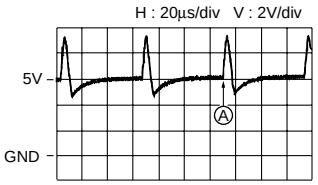
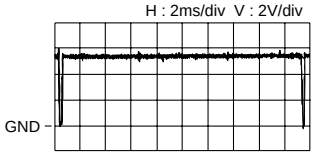
1) (Procedure 6) DIP SW setting of the pulse value
2) (Procedure 7) Sustain pulse waveform adjustment
(X PSUS, Y PSUS)
3) (Procedure 9) White balance adjustment
(if white balance is deviated)

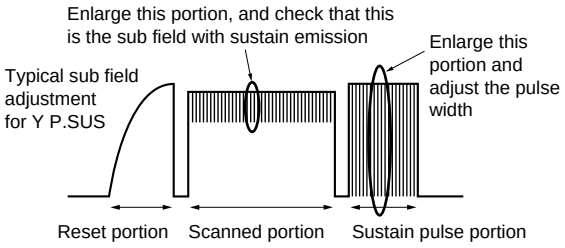
■ PDP PANEL ASSY

1) (Procedure 4) VADR voltage (60V) adjustment
VSUS voltage (170V) adjustment
VOFS voltage (140V) adjustment
2) (Procedure 5) VRN voltage adjustment
VH voltage adjustment
3) DIP SW setting of the pulse value
4) (Procedure 7) Sustain pulse waveform adjustment
(X PSUS, Y PSUS)
5) (Procedure 9) White balance adjustment



ADJUSTMENTS OF PARTS

Procedure	Adjustment	Input Signal	Adjusting Point	Adjusting Method
1	Blanking pulse width adjustment (CBLK)	100% white signal	VR2802 (VBLK) VR2803 (HBLK) (ANALOG VIDEO ASSY)	Observe Pin 7 (CBLK) of IC2801, adjust ΔtV shown in Fig. 1 to 150mS ± 20mS, and ΔtH to 1.7mS ± 200nS.  Fig. 1 **Note**: When this adjustment is not performed properly, the black level correction circuit does not operate. The 100% white signal waveform does not fall towards the black side, and emission points become inconsistent on the screen.
2	VCO control voltage adjustment	No-input (NO SYNC displayed on screen)	L7650 (CONTROL ASSY)	Adjust TP 7651 so that the DC voltage of point Ⓐ of the waveform in Fig. 2 becomes 5V ± 0.1V.  Fig. 2 **Note**: When this adjustment is not performed properly, the screen flows slantingly when NTSC signals are input.
3	Vertical sync freerunning frequency adjustment	No-input (NO SYNC displayed on screen)	VR7650 (CONTROL ASSY)	1. Connect TP K7503 to TP K7502 (GND). 2. Check the waveform of TP 7655 in Fig. 3, and adjust so that the frequency becomes 43.0Hz ± 0.5 Hz. 3. Then disconnect the TP K7503 and TP K7502 (GND), and check that the frequency is 52.5 Hz ± 3 Hz.  Fig. 3 **Note**: When this adjustment is not performed properly, the screen moves or flows up and down when NTSC signals are input.
4	VADR, VSUS, VOFS voltage adjustment	100% white signal	VR3301 (VSUS)VR3401 (VADR) VR3601 (VOFS) (MAIN POWER Assy)	**VSUS (sustain power supply voltage)** Check the drive voltage label value (Note 4), adjust VR3301 so that value between TP3301 (VSUS) and TP3302 (SUS. GND) becomes this value. **VADR (address power supply voltage)** Check the drive voltage label value, adjust VR3401 so that value between TP3401 (VADR) and TP3402 (ADR. GND) becomes this value. **VOFS (offset power supply voltage)** Check the drive voltage label value, adjust VR3601 so that value between TP3601 (VOFS) and TP3602 (OFS. GND) becomes this value. **Note**: When the V sus voltage adjustments are not performed properly, dot-like blinking luminance points appear. If deviated greatly from the right adjustment, PDP will stop discharging. When the VADR and VOFS voltage adjustments are not performed properly, dot-like blinking luminance points appear. If deviated greatly from the right adjustment, these will become white.

Procedure	Adjustment	Input Signal	Adjusting Point	Adjusting Method
5	VRN, VH voltage adjustment	All white 100% signal	VR4002 (VRN) (X DRIVE (A) Assy) VR5002 (VH) (Y DRIVE (A) Assy)	**V_{RN} (minus reset power supply voltage)** Check the drive voltage label value at the top inside the unit, adjust VR4002 so that value between TP4021 (VRN) and TP4022 (RNGND) becomes this value. **V_H (scan IC power supply voltage) (Note 1)** Check the drive voltage label value at the top inside the unit, adjust VR5002 so that value between TP5035 (VHY) and TP5034 (GNDH) becomes this value. **Note**: When the V_{RN} voltage adjustment is not performed properly, dot-like blinking luminance points appear. If deviated greatly from the right adjustment, PDP will stop discharging. When the V_H voltage adjustment is not performed properly, dot-like blinking luminance points appear. If deviated greatly from the right adjustment, these will become white.
6	DIP SW setting of the pulse value	———	S6603 (DIGITAL VIDEO Assy)	Check the pulse value when replacing the DIGITAL VIDEO ASSY and set the data again for the new Assy with the DIP SW. **Note**: If set incorrectly, the number of drive pulses generated will change, and affect the brightness of the screen. PD operates if the power consumption exceeds the normal level.
7	Sustain pulse waveform adjustment	All white 100% signal	VR6551 (XSUS-U) VR6552 (YSUS-U) VR6553 (XSUS-D) VR6554 (YSUS-D) (DIGITAL VIDEO Assy)	Check the waveforme shown in Fig.4 at TP4027 (XPSUS), TP4012 (XPSUS) on the X DRIVE (A) ASSY and X DRIVE (B) ASSY, TP5004 (YPSUS), TP5002 (YPSUS) on the Y DRIVE (A) ASSY and Y DRIVE (B) ASSY, then look at the waveform of the scanned portion, and find the sub field with sustain emission (refer to **Note 2**: Sustain emission.) Enlarge the waveform of the sustain pulse portion shown in Fig. 4 in the sub field with sustain emission, and adjust as shown in Fig. 5. If not adjusted properly, the slanting portion and base portion will distort as shown in Fig. 6 and Fig. 7.  Fig. 4  Fig. 5 Fig. 6 Fig. 7 **Note**: When the adjustment is not performed properly, dot-like blinking luminance points will increase.
8	Factory data setting	———	Memory data (CONTROL ASSY)	When replacing the CONTROL ASSY, read the following data before ASSY replacement. 1) picture quality, white balance, phase data 2) HOUR METER data (Panel operating time from shipment) Set the above data again for the new ASSY using the RS232C command.
9	White balance adjustment	———	Adjust based on the "6.3 WHITE BALANCE ADJUSTMENT". After adjusting, memorize the setting.	

Note 1: Take note that GND H differs from the GND potential in unit.

Note 2: Sustain emission
The sustain waveform must be adjusted using the sub field with sustain emission. As the scanned portion becomes the waveform shown in Fig. 8 in the sub field with sustain emission when 100% white signal is input, find and adjust this portion. Find it by differentiating it from the scanned portion of sub fields without sustain emission which has a distorted waveform as shown in Fig. 9.

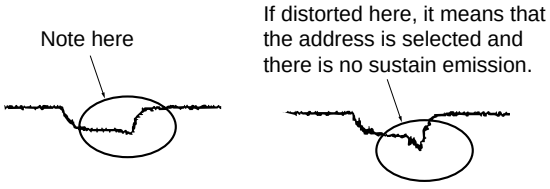
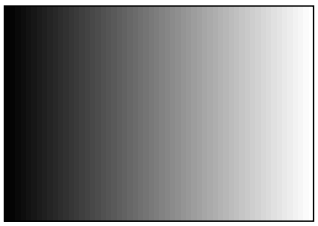
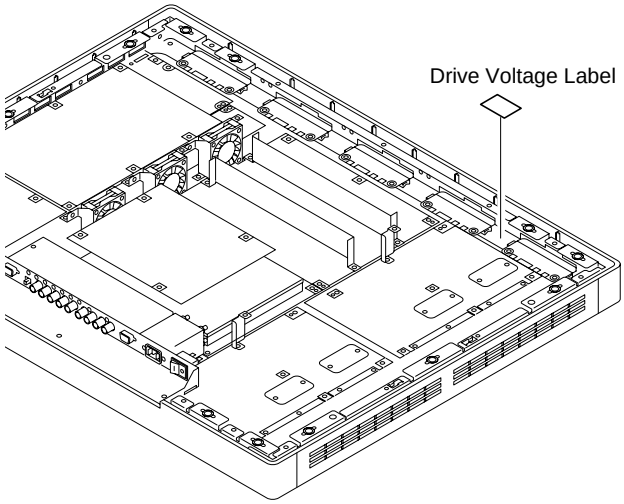


Fig. 8 Fig. 9

Note 3: Screen when RAMP signal is input



Note 4: Position where drive voltage label is pasted



Notes:

- The ANALOG VIDEO ASSY (Procedure 1), and CONTROL ASSY (Procedure 2) (Procedure 3) adjustments need not be performed again in this unit if these ASSYs have been replaced.
- Other adjusting points which need not be adjusted again in this unit when other ASSYs are replaced are as follows.

MAIN POWER ASSY
VR3501 (STB+5V)
VR3201 (Vcc+5V)
VR3101 (+B 215V)
VR3801 (VSUS UVP)

SUB POWER ASSY
VR1601 (VCSP 40V)

- If adjusted VRs of the above MAIN POWER ASSY and SUB POWER ASSY are rotated accidentally, adjust to the following values.

MAIN POWER ASSY

VR3501 (STB+5V): Adjust the DC voltage value between TP3501 (STB+5V) and TP3503 (STB. GND) to +5V±0.1V.

VR3201 (Vcc+5V): Adjust the DC voltage value between TP3201 (Vcc+5V) and TP3202 (D. GND) to +5.05V±0.1V.

VR3101 (+B 215V): Adjust the DC voltage value between TP3101 (+B) and TP3102 (P.GND) to +215V±0.5V.

VR3801 (Vsus UVP): Adjust the DC voltage value between the R3860 lead (Pin 6 of IC3805) and R3863 lead (+ lead of C3814) to 0±10mV.

SUB POWER ASSY

VR1601 (VCSP 40V): Check the drive voltage label value, and adjust the DC voltage value between TP1603 (VCSP) and TP1604 (CSP. GND) becomes this value.

Note: Take note that the CSP.GND or GND_H differs from the GND potential of this unit.
Never short between CSP. GND and other GND or GND_H and other GND.

TROUBLESHOOTING

1. MAIN POWER ASSY

Check the power supply voltages.

Measurement Points	
VADR (60V) (TP3401) — ADR. GND (TP3402)	If normal, LED (D3405) lights.
VSUS (170V) (TP3301) — SUS. GND (TP3302)	If normal, LED (D3305) lights. (which displays the timing of VCC and VSUS) POWER ON: lights in red (VCC ON) → lights in yellow (VSUS ON) at 1–2sec POWER OFF: lights in yellow → lights in red at 1–2sec → LED OFF (VSUS OFF earlier than VCC OFF) abnormal POWER OFF: lights in yellow → lights in green → LED OFF (VCC OFF earlier than VSUS OFF)
VOFS (140V) (TP3601) — OFS.GND (TP3602)	
+B (215V) (TP3101) — P. GND (TP3102)	
VCP (12V) (TP3203) — CP. GND (TP3204)	
+13.5V (TP3205) — A. GND (TP3206)	
VCC (5V) (TP3201) — D. GND (TP3202)	If normal, LED (D3205) lights.

2. SUB POWER ASSY

Check the power supply voltages.

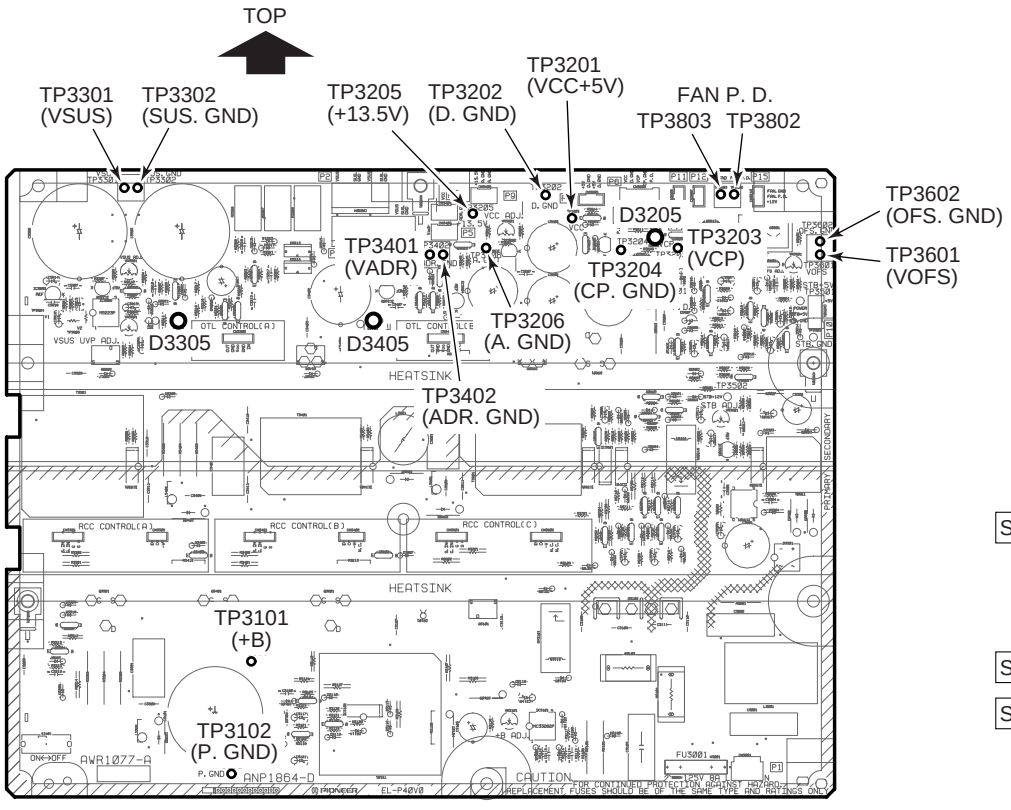
VCSP (40V) ..... TP1603 CSP. GND TP1604

+12V – YVSUS/2	SP2	→	Y DRIVE (A) ASSY
+12V – XVSUS/2	SP2	→	X DRIVE (A) ASSY
+12.5V – GND	SP3	→	CONTROL ASSY
+12.5V – GND	SP5	→	ANALOG VIDEO ASSY
+12.5V – GND	SP6	→	INPUT CONTROL ASSY

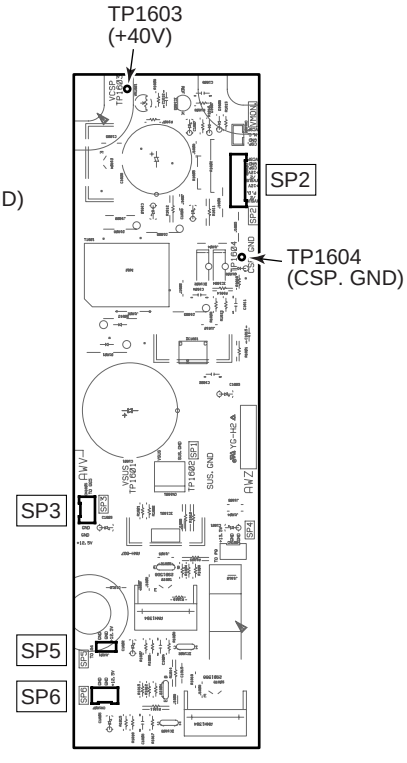
Note: Take note that the CSP. GND differs from the GND potential of the unit.

[Precautions for servicing]

1. As the P.D. circuit starts operating when the rear cover is removed and the CN5801 connector of the FAN RELAY ASSY is disconnected, short between TP3802 and TP3803.
2. For normal signals, set the rear selection SW S1201 (INPUT CONTROL ASSY) to OFF. When G on sync signals are output by Mac, set the switch to ON to prevent overlapping of the sync. signal.



MAIN POWER ASSY



SUB POWER ASSY

GENERAL INFORMATION

DIAGNOSIS

BURN-IN PROBLEM

Definition of burn-in

One dot consists of red (R), green (G), and blue (B) phosphors on plasma display as on CRT. The luminance of each phosphor deteriorates depending on the cumulative light emission time. The unbalance of deterioration among the phosphors causes burn-in.

■ Tendency and Comparison of Burn-In

Tendency of burn-in

On our plasma display, the blue phosphor deteriorates comparatively earlier than the other two types of phosphors. A burnt area tends to be yellow.

Comparison with PTV

The tendency of burn-in can be compared between PDP-V402 and PTV as follows:

- A burnt area tends to be yellow in PDP-V402 and PTV.
- PDP-V402 shows a lower level of burn-in (inconspicuous) than PTV at high-intensity display.
- At low-level display, however, burn-in is slightly more conspicuous on PDP-V402 than on PTV.
- Despite the differences of tendency, the level of burn-in is about equal between PDP-V402 and PTV.

■ Prevention or Easing of Burn-In

1. For static display, it is recommended to give priority to red and green. Avoid static display that partially contains blue peaks.
2. Avoid keeping static display for a long time. Switch static and dynamic displays as frequently as possible.
3. After static display, use dynamic display three to five times longer than the static image display.
4. When using static display, vary the pattern to avoid burn-in.
5. For static display, use a screen saver not to keep the same pattern for a long.
6. When using static display for a long time, set the white balance as close to yellow as possible (minimize the blue level) in integrator mode to make burn-in inconspicuous.

Afterimage

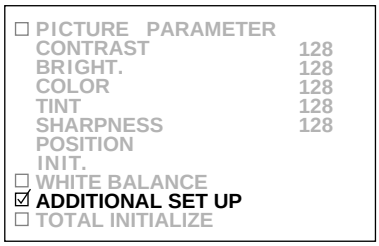
PDP is also subject to the problem of afterimage whose symptoms are close to those of burn-in. Afterimage is a phenomenon of a residual static pattern that occurs if the display changes from a long-time static image of a high intensity level to a low-intensity image. Displaying a dynamic image for some time clears this phenomenon.

■ Panel Burn-In Easing Method

PDP-V402 supports full-frame output in integrator mode.
When an image is burnt on the panel, full-frame output for considerably long time may ease burn-in.

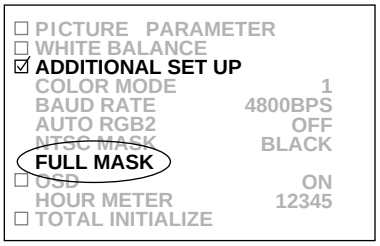
Full-frame Output Procedure

1. Press the MENU button then the STANDBY/ON button to start up the device in integrator mode.
2. Select "ADDITIONAL SETUP" using the ↑ or ↓ key.

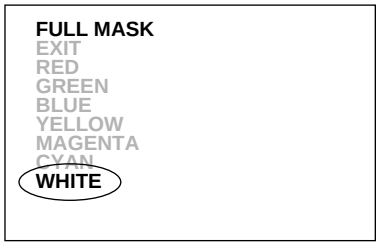


(The above menu is when NTSC is input to the VIDEO function.)

3. Select "FULL MASK" using the ↑ or ↓ key and press the SET key.



4. Select "WHITE" using the ↑ or ↓ key and press the SET key. Then the display immediately changes to the full-color mask screen.



Note: OSD display is disabled during full-frame output. Turn the power off using the STANDBY/ON key or press the SET key to clear the screen.

SERVICE INFORMATION

Date: Jan 25, 2001 **No.:** **SI-D01019-G** **(1/1)**

MODEL No.	*	**SER.No.**	**S/M No.**	**PG**
PDP-V401/LU/CA		ALL		
PDP-V401E/WYVLD		ALL		

	#	**DETAIL**
SYMPTOM	*	A picture turns yellow / A cell defect appears at a part of a panel after 20,000 hours used.
CAUSE	*	A radiative characteristic of a cell is reduced by Long Term Panel Drive. This happens only on a panel of the first generation.
SERVICE REMEDY	*	Adjust Vofs from 140V to 150V. Adjust the voltage of VR3601 between TP3601 and TP3602 in Main Power Assy; AWR1077.
FACTORY COUNTER -MEASURE	*	Only Service Remedy

Ref		**CURRENT**	**PARTS**	**CO**	**NEW**	**PARTS**
*	#	**SYMBOL/DESCRIPTION**	**PART NUMBER**	**DE**	**PART NUMBER**	**SYMBOL/DESCRIPTION**

PIONEER SERVICE NETWORK CORPORATION

M.EGASHIRA ,MANAGER

BS Service Administration Group

BS Service Division

NOTE:PARTS CODE
1:Changeable from old to new.
2:Not Interchangeable an all.
3:Interchangeable in both ways
5:Do not use old parts

Memo: MTV01-062

Classify: NM-70

Pioneer

SERVICE INFORMATION

Date: Dec.16,1999 **No.:** **SI-B54045** **(1/1)**

MODEL No.	*	SER.No.	S/M No.	PG
PDP-V401/LU/CA	A	-		
PDP-V401E/WYVLD	A	-		
PDP-V402/LUBW/CA	A	301-		
PDP-V402E/WYVLDK	A	701-		

	#	DETAIL
SYMPTOM	1	A half or quarter of picture becomes white
CAUSE	1	The scan module is not drived normally by change of the specification of photocaplor
SERVICE REMEDY	1	Please replace all of drive boards. X drive A assy - AWP1057 Y drive A assy - AWZ6261 X drive B assy - AWP1058 Y drive B assy - AWP1060
FACTORY COUNTER -MEASURE	1	The current for drive of photocaplor is increased by changing the constants in X driveA,B and Y drive A,B.

Note This service remedy is decided replace the board because of it needs to change many constants and it is difficult to perform the factory countermeasure at site.

The spare parts number is not changed.

The stock parts in Tokyo has been modified.

Ref *	#	CURRENT SYMBOL/DESCRIPTION	PARTS PART NUMBER	CO DE	NEW PART NUMBER	PARTS SYMBOL/DESCRIPTION

PIONEER ELECTRONIC CORPORATION

M.EGASHIRA ,MANAGER

BS

Service Engineering Section

Service Division

NOTE:PARTS CODE
1:Changeable from old to new.
2:Not Interchangeable an all.
3:Interchangeable in both ways
5:Do not use old parts

Memo: MCA54-045
AA-D1586B
AA-D1729

Classify:

Welcome to Pioneer Service!

Service Bulletins

Service Manuals

Tech Tips

Search Results for pdpv4

The link below shows all information available for that model number you selected. Navigating through these links will only display information related to that specific model number. To retrieve information on another model, type the number on the field at the top right corner of your screen or click home to start over. You can also navigate throught the top menu and start you search over.

Back to Search

Symptom: Unit displays video for only 1 sec, then goes dark with no on screen display or video.
Cure: Replace AWP1058 and AWZ6173
Models Covered: PDPV402
Tip Date: February 12 2001
The Tech Name: Jeff Andrews

Symptom: Picture is all white and shuts down. Standby light seems normal.
Cure: VH is low. Scan module is loading. Disconnect and check for short to isolate.
Models Covered: PDPV401, PDPV402, PDPV402/1
Tip Date: January 31 2001
The Tech Name: Bob Shoemaker

Symptom: A bright white horizontal stripe appears across the screen. The width of the stripe is 1/4 of the screen height.
Cure: If stripe is in the upper half of the screen, swap the cables in connectors Y11 and Y13 of the Y-Drive A module. If the problem is in the lower half of the screen, swap the same connectors on Y-Drive B. If after swapping the cables, the stripe moves to the new screen position, replace the Ydrive. If the stripe stays in the same position, replace the corresponding scan module. Don't forget to put the cables back in the original positions.
Models Covered: PDPV401, PDPV402
Tip Date: January 24 2001
The Tech Name: Jeff Andrews

Symptom: Dark pix (no luminance) on video or Y/C.
Cure: Solder bridge on R2851 Analog Video.
Models Covered: PDPV401, PDPV402
Tip Date: July 25 2000
The Tech Name: Bob Shoemaker

Symptom: Makes "chirping" sound every second. Shuts down after 10 seconds. Video is dark with lots of snow.
Cure: Found VCSP on sub-power board reading 3V. Should be 42V. Replaced sub-power board.
Models Covered: PDPV401, PDPV402
Tip Date: July 17 2000
The Tech Name: Bernie Shelton

Symptom: "Out of Range" displayed while in RGB mode.
Cure: Limit of video resolution is 640 X 480. Reset computer to lower resolution output.
Models Covered: PDPV400, PDPV401, PDPV402
Tip Date: July 12 2000
The Tech Name: Jeff Andrews

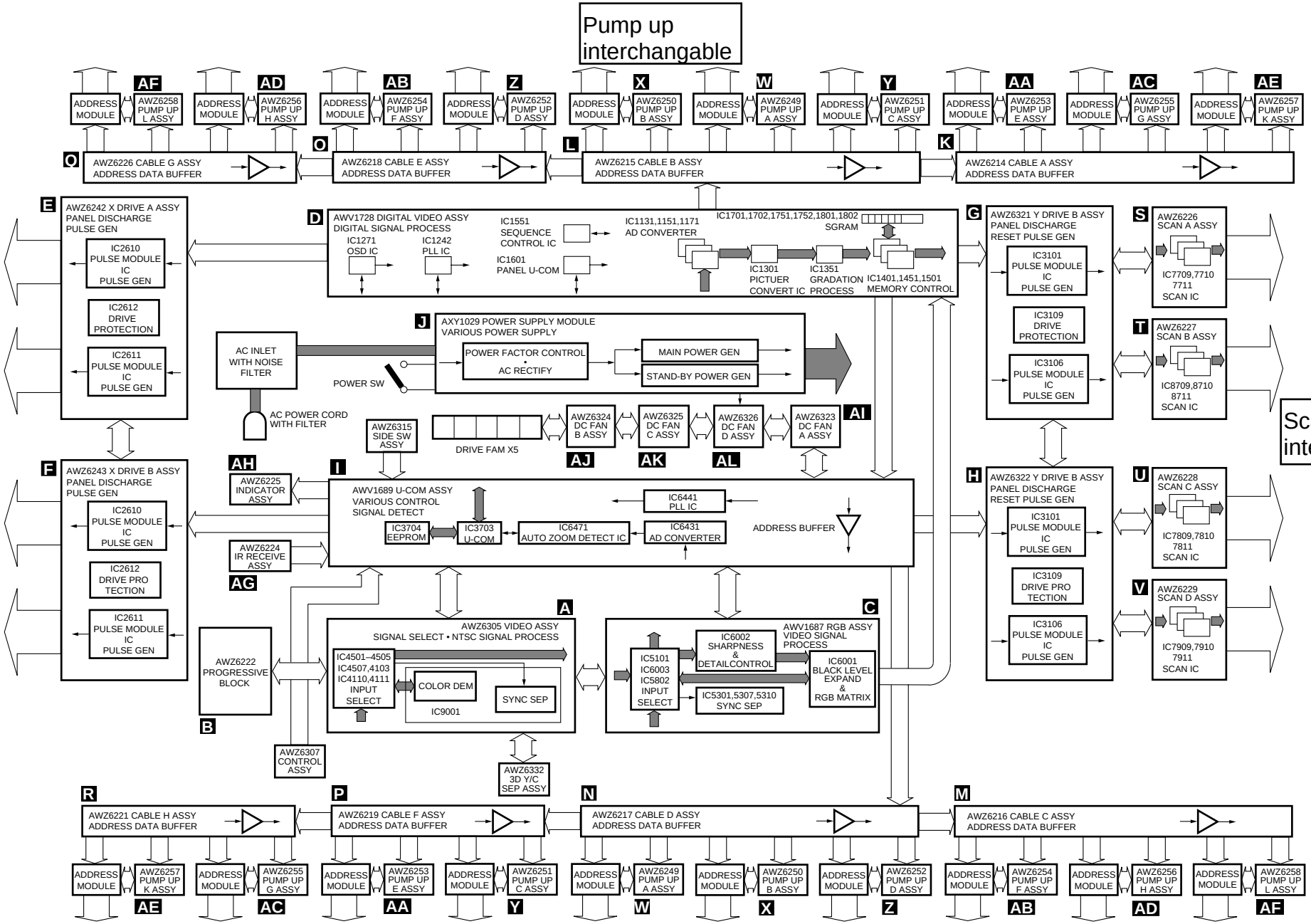
Symptom: Set goes in to "power Down" mode within 1 or 2 seconds after turning on.
Cure: Unplug connector P6 from the power supply assy and power up again. If the unit stays on longer, quickly turn off the unit to prevent further damage. Replace X Drive A and X Drive B. If there is no change after removing P6, replace the connector and remove P7. It the unit stays on longer, quickly turn it off. The problem is on the "A" side. Further troubleshooting will be needed to determine where the problem is (Y Drive A, Y drive B, or scan modules). DO NOT USE THIS METHOD IF THE UNIT STAYS ON LONGER THAN 2 SECONDS TO BEGIN WITH.
Models Covered: PDPV401, PDPV402
Tip Date: July 10 2000
The Tech Name: Jeff Andrews

Symptom: Remote control commands will not pass through the PDPV402 to the PDA4003 down-converter.
Cure: You must use a VGA cable between the plasma and the down-converter that has all 15 pins wired.
Models Covered: PDA4003, PDPV402
Tip Date: February 01 2000
The Tech Name: Bernie Shelton

Symptom: When a XDRIVE A or XDRIVE B is found to be bad.
Cure: Replace both A and B together.
Models Covered: PDPV400, PDPV401
Tip Date: October 26 1999
The Tech Name: Dennis Walden

Symptom: Intermittent no video after turning set off & on.
Cure: The plasma set should be turned on BEFORE the video source.
Models Covered: PDPV400, PDPV401, PDPV402
Tip Date: February 08 1999
The Tech Name: Bernie Shelton

Back to Search



PDP-501MX

Overall Block Diagram

Diagnosis of Malfunctions when Power Down (PD) Occurs

ASSY Name	TP NO.	+5V Generation Point	Operating PD	Faulty Point
X DRIVE(A)ASSY X DRIVE(B)ASSY	When K2609 is H	D2604 anode	VCP+12V over-current	• Pulse module IC2610, IC2611 peripheral circuit
		D2703 anode	(+) reset circuit over-current	• (+) reset circuit Q2702 peripheral circuit • Q2702G-S signal • X_{PR-U} signal terminal K2611 (5V amplitude)
Y DRIVE(A)ASSY Y DRIVE(B)ASSY	When K3109 is H	D3104 anode	VCP+12V over-current	• Pulse module IC3101, IC3106 peripheral circuit • Y_{SUS_MSK} FET-Q3206-Q3209 peripheral circuit • C_{SP_MSK} FET-Q3005-Q3006 peripheral circuit • Scan assembly internal bypass FET Q7701, Q7702 peripheral circuit
		D3209 anode	(–) reset circuit over-current	• Y_{NR_D} output FET Q3204 peripheral circuit • Y_{NR_U} output FET Q3201 peripheral circuit • Q3204 G-S control signal • Q3201 G-S control signal • Y_{NR_D} signal terminal K3117 • Y_{NR_U} signal terminal K3118
		D3320 anode (YA) D3310 anode (YB)	VH150V over-current	• D-D converter circuit mis-operations

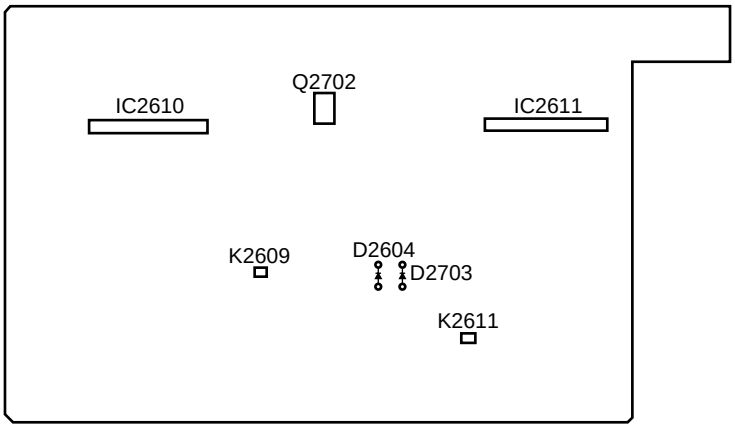
		D3322 anode (YA)
		D3324 anode (YB)
			VH150V over-current	• When short-circuited between VH150V and GND
				  • Scan IC fault
				  • D-D converter fault
				• When not short-circuited between VH150V and GND
				  • VH over-current mode (BYPASS FET is always ON)
				  [• BYPASS output FET short-circuited
				  • Digital section BYPASS control signal fault
				  • Control signal stuck]
				  • VH over-current mode (Scan IC mis-operations)
				  [• Scan IC fault
				  • Scan IC control signal fault]
				  • V_{SUS} 175V line fault

POWER SUPPLY MODULE	When the following are L
	P12 Pin ⑤ (PD.XA)
	Pin ⑦ (PD.XB)
	P6 Pin ⑧ (PD.YA)
	Pin ⑩ (PD YB)
			PD only at small signal block
			(Large Power line off)
			Note)
				• When small signal block power overload
				  • Fault of small signal block power supply of assemblies
				  • Fault of only the POWER SUPPLY MOD.
				• When not small signal block power overload
				  • Fault of the POWER SUPPLY MOD. when PD occurs in the POWER SUPPLY MOD. alone
				  • Fault of assembly when PD does not occur in the POWER SUPPLY MODULE alone

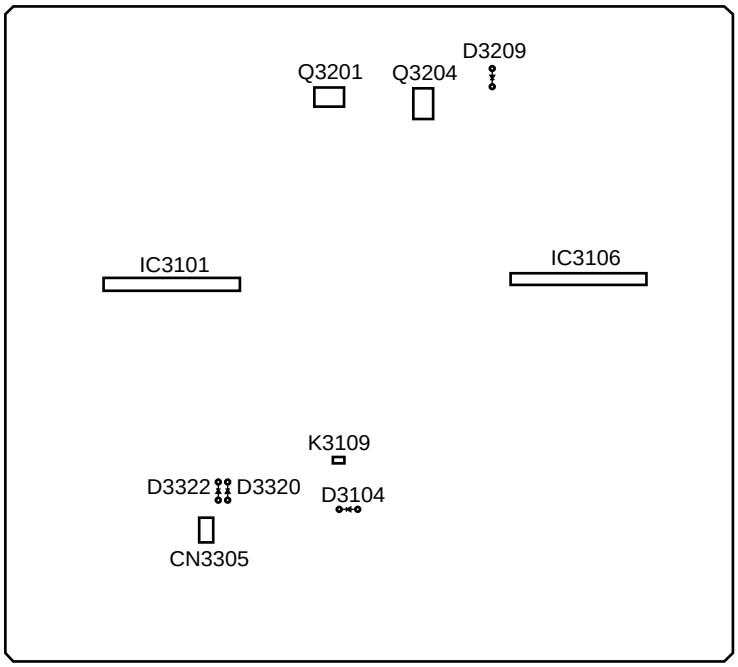
			PD at the large power block
			V_{CSP} +40V
			V_{SUS} +175V
			V_{OFS} +150V
			V_{RN} –190V
				• When large power block overload
				  • Fault of power supply of each drive assemblies
				  • Fault of the POWER SUPPLY MOD.
				• When not large power block overload
				  • Fault of the POWER SUPPLY MOD. when PD occurs in the POWER SUPPLU MOD. alone
				  • Drive circuit mis-operations when PD occurs due to drive assembly operations
				  [• Drive control signal fault
				  • Pulse module IC input signal fault
				  Between SUS-B ④ and ⑥ of IC2610 (XA)
				  Between SUS-U ⑤ and ⑥ of IC2611 (XB)
				  Between SUS-D ⑭ and ⑮ of IC3101-1 (YA)
				  Between SUS-G ㉑ and ㉒ of IC3106 (YA)
				  • Fault between FET and G of each output]

Note) If PD occurs without +5V supplied to the PD terminal of the drive assembly, overload of the power supply or malfunction of the POWER SUPPLY MOD. may be suspected. Turn OFF the large power ON/OFF switch SW1 of POWER SUPPLY MOD., and short-circuit Pins ① to ③ of CN3305 of each assembly of Y DRIVE (A)/(B) so that only the small signal block can be checked.

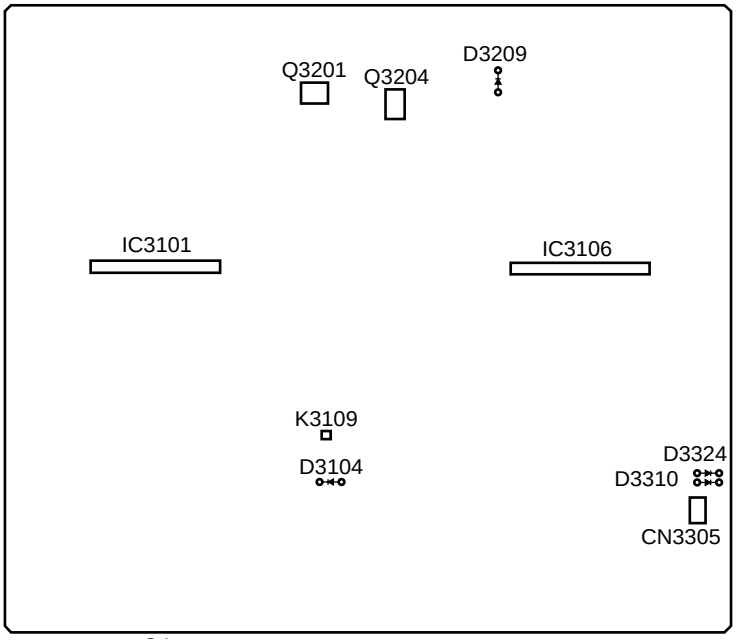
E X DRIVE A/B ASS'Y



G Y DRIVE A ASS'Y



H Y DRIVE B ASS'Y

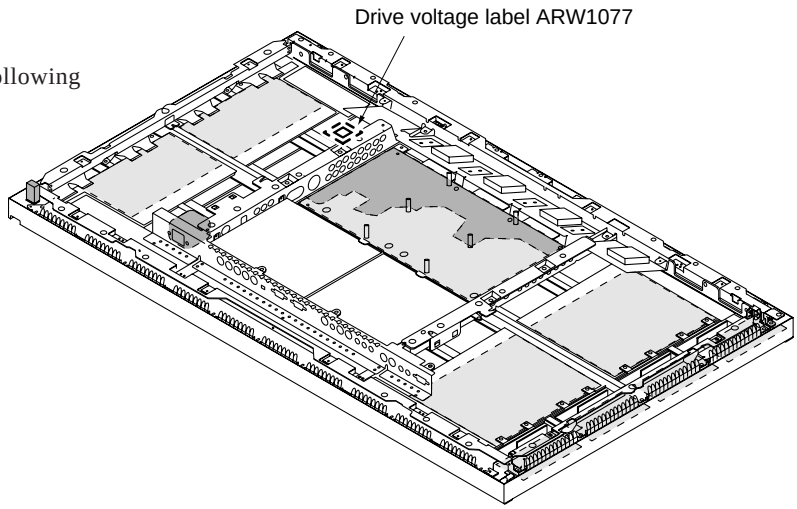


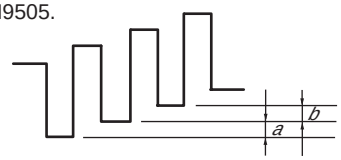
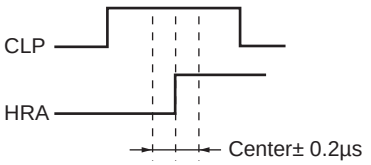
ADJUSTMENT

Adjustments of Parts

Note)
In these adjustments, assembly are indicated by the following symbols.
A:ANALOG VIDEO ASSEMBLY
B:PROGRESSIVE BLOCK
J:POWER SUPPLY MODULE
G:Y DRIVE (A) ASSEMBLY
H:Y DRIVE (B) ASSEMBLY

Note: Position for pasting the drive voltage label



Procedure	Adjusting Item	Input Signal	Adjusting Point	Adjusting Method
1	TINT	Chroma modulation ramp signal	VR9002 (**A**)	Adjust so that the output of Pin ② (R-Y signal) of CN9505 becomes minimum.
2	B-Y demodulation angle	EIA colour bar	VR9005 (**A**)	Adjust so that the amplitudes of a and b become equal at the output of Pin ④ of CN9505. 
3	Colour (B-Y)	EIA colour bar (Colour saturation 75% only)	VR9003 (**A**)	Adjust so that the output of Pin ④ (B-Y signal) of CN9505 becomes 0.525 Vp-p ±10 mV.
4	Colour (R-Y)	EIA colour bar (Colour saturation 75% only)	VR9004 (**A**)	Adjust so that the output of Pin ② of CN9505 becomes 0.525 Vp-p ±10 mV.
5	Deflection PLL adjustment	Any standard signal	L4715 (**B**)	Adjust so that the voltage of TP K4701 becomes 2.6 ± 0.1V.
6	Acquisition PLL adjustment	Any standard signal	L4706 (**B**)	Adjust the timing of the waveforms of Pin ③ (CLP) of CN4703 and TP K4702 (HRA) so that the rising edge of the HRA pulse are at the center of the CLP pulse. 
7	VCO free-run frequency for 910 fH clock	NTSC RAMP signal (with burst and chroma)	VR3350 (**AP**)	Set the input to "C.VIDEO", observe the voltage of Pin ⑦ of IC3352 (TP P3350), and adjust so that the voltage becomes 2.5V ± 0.1V using the digital voltmeter.
8	Y/C mode chroma signal output level	NTSC RAMP signal (S terminal signal with burst and chroma)	VR3351 (**AP**)	Set the input to "S.VIDEO", observe the Q3354 emitter using the oscilloscope, and adjust so that the level of the chroma signal becomes 400 mV ± 20 mV.
9	V_{H_A}, V_{H_B} voltage adjustment	100% white signal	VR3302 (**G**) VR3301 (**H**)	V_{H_A} (Scan IC power supply voltage A) Check the drive voltage label value at the upper left side of the unit inside, and adjust RV3302 so that the voltage between Pin ① (VH_A) and Pin ④ (GND H_A) of the check connector CN3303 becomes that value. V_{H_B} (Scan IC power supply voltage B) Check the drive voltage label value at the upper left side of the unit inside, and adjust VR3301 so that the voltage between Pin ① (VH_B) and Pin ④ (GND H_B) of the check connector CN3304 becomes that value.

Procedure	Adjusting Item	Input Signal	Adjusting Point	Adjusting Method
10	VSUS, VOFS, VADR, VCSP, VRN voltage adjustment	100% white signal	RV7, RV5, RV3, RV4, RV9 (J)	VSUS (Sustain power supply voltage) Check the drive voltage label value at the upper left side of the unit inside, and adjust RV7 so that the value between TP CH24 (175V) and TP-CH25 (175 GND) becomes that value. VOFS (Offset power supply voltage) Check the drive voltage label value at the upper left side of the unit inside, and adjust RV5 so that the value between Pin ① of CN3106 (150V) and Pin ④ of CN3105 (SUS, GND) inside the Y drive assembly becomes that value. VADR (Address power supply voltage) Check the drive voltage label value at the upper left side of the unit inside, and adjust RV3 so that the value between TP CH22 (30V) and TP-CH23 (30V GND) becomes that value. VCSP (CSP power supply voltage) Check the drive voltage label value at the upper left side of the unit inside, and adjust RV4 so that the potential between Pin ④ (CSP) and Pin ① (150V) of CN3106 of the Y drive assembly becomes that value. VRN (Minus reset power supply voltage) Check the drive voltage label value at the upper left side of the unit inside, and adjust RV9 so that the value between TP CH26 (190V) and TP CH25 (175 GND) becomes that value.

If the U-COM assembly has been replaced, mount the former EEPROM (IC3704 24LC64 (I) SN) in the new U-COM assembly.

Note: CSP, GNDH_A, and GNDH_B differ from the GND potential in the unit. The GND potentials are also different each other.

- The adjustment tolerance of the drive voltage label is ± 0.5V.
- The adjustments of the ANALOG VIDEO ASSEMBLY (step 1), (step 2), (step 3), (step 4), (step 5), and (step 6) is not necessary when replacing this assembly.
- Adjusting points which need not be adjusted again in the unit after replacing other assemblies are as follows.

  SW power supply RV8 (+5V)
  RV6 (+3.3V)
  RV2 (+12V)
  RV1 (+5VSTB)
- If the above adjustment controls are rotated by mistake, adjust to the following values;

  RV8 (+5V): Adjust the DC voltage between TP CH16 (5V) and TP CH19 (5V GND) to 5.0V ± 0.1V.
  RV6 (+3.3V): Adjust the DC voltage between TP CH17 (3.3V) and TP CH19 (5V GND) to 3.3V ± 0.066V.
  RV2 (+12V): Adjust the DC voltage between TP CH18 (12V) and TP CH19 (5V GND) to 12.0V ± 0.24V.
  RV1 (+5VSTB): Adjust the DC voltage between TP CH4 (5V) and TP CH19 (5V GND) to 5.0V ± 0.1V.

White Balance Adjustment

Set COLOUR to minimum and the other video settings to the standard setting in the following measurements.

1. Black level adjustment

1) Input the RAMP signal.
2) Monitor the output TP terminals of the RGB assembly (R:P5802, G:P5801, B:P5803), and adjust R,G,B LOW LIGHT so that the black level (0IRE) becomes 2.6V.

2. LOW LIGHT adjustment

Input the RAMP signal, and adjust R, G, B:LOW LIGHT so that the point which starts to light up becomes gray.

3. HIGH LIGHT adjustment

1) Input the RAMP signal.
2) Monitor the TP terminals of the RGB assembly (R:P5802, G:P5801, B:P5803), and adjust R,G,B HIGH LIGHT so that the white level (100IRE) becomes 4.4V.
3) Input the white signal (80IRE).
4) Adjust R,G,B HIGH LIGHT so that the screen becomes reddish white (T=7200K, dev=0.000uv).

4. Adjusting voltage check

Input the RAMP signal, monitor the TP terminals of the RGB assembly (R:P5802, G:P5801, B:P5803), and check that the black level (0IRE) is 2.6V ± 0.1. The white level (100IRE) value is not specified.

(Reference)

Adjustment values using the Minolta colour-difference meter CA-100
80% window step 0dB

[NTSC] [HDTV]	[RGB]
x=300	x=290
y=315	y=315
Y=58 ± 15cd/m²	Y=35 ± 10cd/m² (20% 2.5cd/m²)
(20% 4.0cd/m² (NTSC) 3.0cd/m² (HDTV))	

Checking picture quality

1. Face colour check (Colour balance check)

After adjusting the white balance, check the face colour of figures in LD still pictures.

If the colour is not natural, adjust COLOUR and TINT and memorize the value.

2. Picture quality check

Set the sharpness to 120 for both NTSC and HDTV, and the detail setting to 70 for NTSC and 65 for HDTV, and check the picture quality.

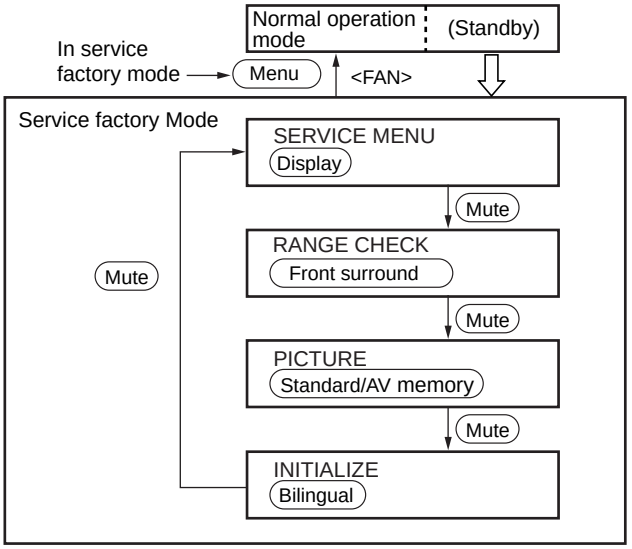
Note: Adjust the white balance and check the picture quality in each NTSC screen mode (natural wide, zoom, etc.) and HDTV (MUSE).

Service Factory Mode

This mode is used for checking the operations and setting the picture quality.
Perform the operations of the service factory mode using the remote control unit provided with the PDP-501MX (CU-PDP002: AXD1437) and the remote control unit provided with the PDP-501HD (CU-PDP001: AXD1432).

1. Entering the factory mode

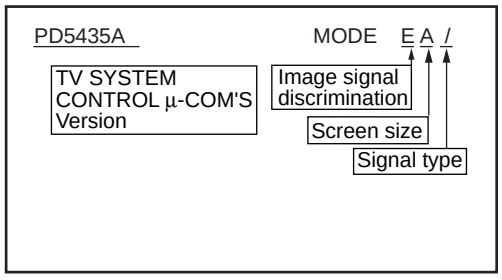
In the standby state, press the remote control keys (Menu) , (Set) , and (Power) in this order within 3 seconds. (See figure below ⇩.)
Or in the ON state, send the <FAY> command of RS-232C.



- When the service factory mode is set, the video and the screen will be reset.
- In the service factory mode, the (Mute) key functions to change the mode in the following order;
  SERVICE MENU→RANGE CHK.→PICTURE→INIT.
  The other keys (Display) , (Front Surround) , (Standard/AV memory) , and (Bilingual) function to switch the mode directly.
- In the factory mode, press the (Menu) key to set the normal operation mode.

2. SERVICE MENU ((Display Call) key)

Information mode

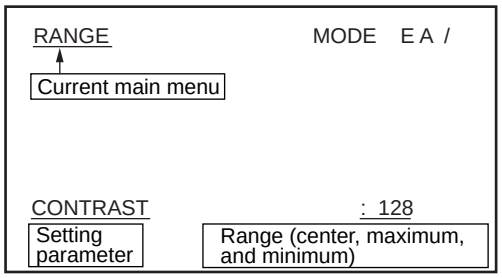


- Refer to the table on the next page for details on the video signal type and screen size.
- Signal state [/]:Composite, Y/C
  [+]:Component (Colour difference signal)
  [None]:RGB

Note: The EA/ in the above example indicates that the signal input is the NTSC (15.7 kHz/60 Hz) and screen size is NATURAL WIDE.

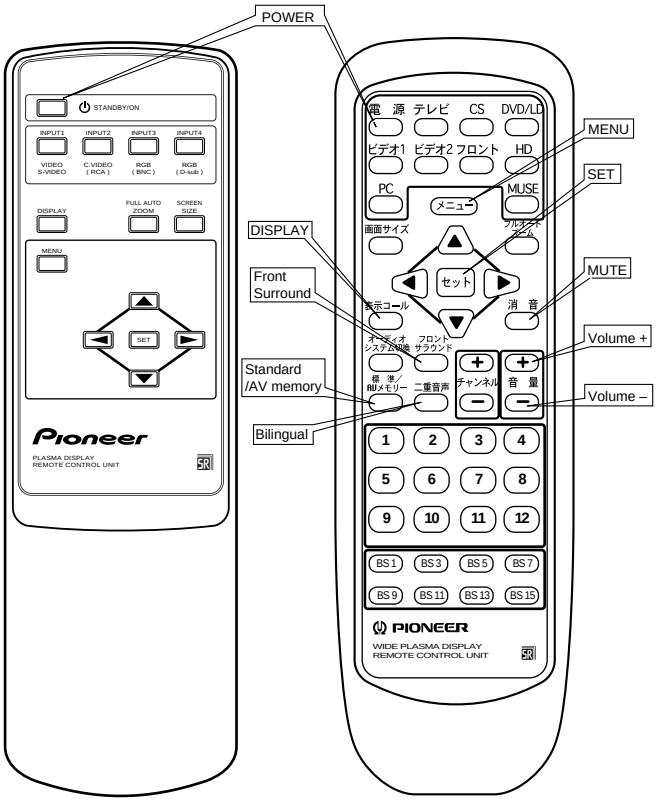
3. RANGE CHECK ((Front Surround) key)

Mode for checking the operations of the circuits.
Each time this key is pressed, the mode changes from center, maximum, to minimum.



Keys
1 COLOUR
  Center→Maximum→Minimum (Each time key 1 is pressed)
2 CONTRAST
  Center→Maximum→Minimum (Each time key 2 is pressed)
3 SHARP (NESS)
  Center→Maximum→Minimum (Each time key 3 is pressed)
4 CLK FRQ.
  Center→Maximum→Minimum (Each time key 4 is pressed)

COLOUR and SHARP cannot be used for RGB (PC/VIDEO (RGB input)).



Remote control unit provided with the PDP-501MX (CU-PDP002: AXD1437)

Remote control unit provided with the PDP-501HD (CU-PDP001: AXD1432)

<Note> Do not press keys nor make changes in the factory mode other than the adjustment items indicated in the service manual.

List of Input Signals

(1) Table of video input signals (When setting INPUT 1,2/INPUT 3,4:VIDEO)

Input signal	Horizontal frequency Fh (kHz)	Vertical frequency Fv (Hz)	Signal format	Screen size...On Screen Display				
				4:3NORMAL	FULL	ZOOM	CINEMA WIDE	NATURAL WIDE
NTSC, SDTV480i	15.734	60.0	S/video	E6/	E7/	E8/	E9/	EA/
			Component	E6+	E7+	E8+	E9+	EA+
			RGB (Note)	EB	EC	ED	EE	EF
Double-speed NTSC, SDTV480i	31.5	60.0	Component	F6+	F7+	F8+	F9+	FA+
			RGB	F6	F7	F8	F9	FA
HDTV 720P	45.0	60.0	Component		J2+			
			RGB		J2			
HDTV1080i	33.75	60.0	Component		G2+			
			RGB		G2			

Note: The NTSC-RGB signal can be used only when the key 10 STD-RGB (standard speed RGB enable setting) of "5. INITIALIZE MODE" is set to on. It is not displayed at the factory setting (OFF).

(2) List of PC input signals (When setting INPUT 3, 4:PC)

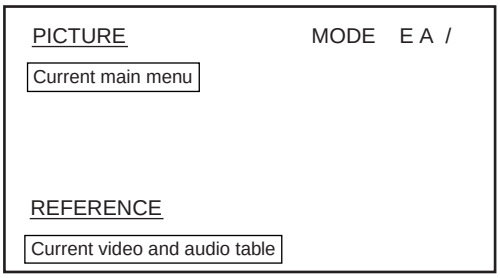
Model	Input signal Dot x line	Horizontal Frequency Fh (kHz) (Note)	Vertical Frequency Fv (Hz) (Note)	Screen size .... On Screen Display			
				ORIGINAL or ORIGINAL (TYPE)	4:3 NORMAL or 4:3 (TYPE)	FULL or FULL (TYPE)	ZOOM
NEC PC-9800 series	640∗400	24.8	56.4	B0	B1	B2	
		31.5	70.1	N0	N1	N2	
	640∗480	31.5	59.9	F0	F1	F2	
		37.5	75.0	R0			
	800∗600	37.9	60.3	I0	I1	I2	
		46.9	75.0	S0	S1	S2	
	1024∗768	56.5	70.1	O1		O2	
		60.0	75.0	U1		U2	
	1280∗1024	64.0	60.0		L1	L2	L3
IBM PC/AT compatibility	640∗400	31.5	70.1	N0	N1	N2	
	640∗480	31.5	59.9	F0	F1	F2	
		37.9	72.8	P0			
		37.5	75.0	R0			
	800∗600	35.2	56.3	C0	C1	C2	
		37.9	60.3	I0	I1	I2	
		48.1	72.2	Q0	Q1	Q2	
		46.9	75.0	S0	S1	S2	
	1024∗768	48.4	60.0	K1		K2	
		56.5	70.1	O1		O2	
		60.0	75.0	U1		U2	
		35.5	87.0	21		22	
	1280∗1024	64.0	60.0		L1	L2	L3
Apple Macintosh	640∗480	35.0	66.7	M0	M1	M2	
	832∗624	49.7	74.6	T0	M2	T3	
	1024∗768	60.2	74.9	U1		U2	
	1152∗870	68.7	75.1		V1	V2	
Exclusive Videocard	1280∗768	45.1	56.3		D1	D2	

Note: The input signal frequency displayed when the remote control key DISPLAY is pressed is the typical values of each signal mode, and may differ from the actual input signal frequency.

4. PICTURE (Standard/AV Memory Key)

Mode for selecting the video tables to be adjusted.

(1) Menu in mode



Keys

- 1 REFERENCE
- 5 COLOUR TEMP1
- 6 COLOUR TEMP2
- 7 COLOUR TEMP3
- 8 COLOUR TEMP4

Colour temperature offset
Not necessary to readjust
Fix at the factory setting

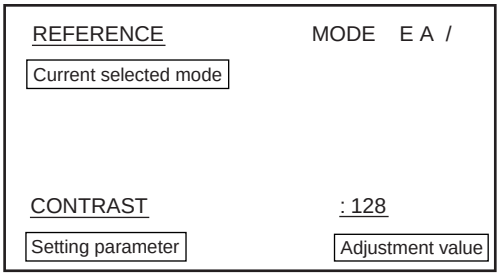
- 9 GAME
- 10 LIVING
- 11 CINEMA
- 12 SPORTS

Offset memorized for selection
Not necessary to readjust
Fix at the factory setting

Keys 2 to 12 cannot be used when INPUT SETTING is set to PC.

→ (Set) key
Sets the mode and moves to the lower level.

(2) Parameter adjustment (When REFERENCE is selected)



Keys			Commands
1	CONTRAST	(000 to 255)	<CNT>
2	BRIGHT (NESS)	(000 to 255)	<BRT>
3	COLOUR	(000 to 127)	<COL>
4	TINT	(000 to 127)	<TNT>
5	SHARP (NESS)	(000 to 255)	<SHP>
6	DETAIL	(000 to 255)	<DTL>
7	R HIGH	(000 to 255)	<RHI>
8	G HIGH	(000 to 255)	<GHI>
9	B HIGH	(000 to 255)	<BHI>
10	R LOW	(000 to 255)	<RLW>
11	G LOW	(000 to 255)	<GLW>
12	B LOW	(000 to 255)	<BLW>
(BS5)	B-Y GAIN	(000 to 063)	
(BS9)	BLK LEV START	(000 to 015)	
(BS11)	BLK LEV GAIN	(000 to 015)	

Not necessary to readjust
Fix at the factory setting

Note: Do not change the factory settings for (BS1) and (BS3). If changed, the panel may be damaged.

→ (Volume +) Increases the value of the parameter selected for adjustment <UPn> *

(Volume –) Decreases the value of the parameter selected for adjustment <DWn> *

(Set) Memorizes the adjusted value and moves to a higher level

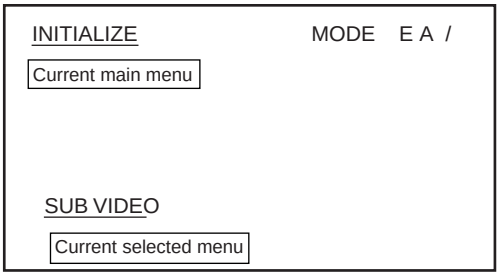
* n: 0~9, F
1→1
2→2
•
•
•
0→10
F→Full

<NOTE>
When messages not indicated in the service manual are displayed on the screen, turn OFF the power promptly. And exit the service factory mode.
Changing the data not indicated in the service manual unintentionally may result in the damage of the unit.

5. INITIALIZE (Bilingual key)

Mode for changing and checking the initial settings.

(1) Menu in mode



Keys	Commands
1	SUB VIDEO (Set using the SET key.)
2	MIRROR_MODE (Inverted Picture mode) OFF/XY cyclic (OFF at the factory setting) <MMN>/<MMZ>
3	FULL MASK ON/OFF-cyclic (OFF at the factory setting) <FMY>/<FMN>
5	HOUR METER (Displays the current hours meter) <HMD>
6	BAUD RATE (Sets the RS-232C communication speed with PC) <BRm> * 1200 to 19200 cyclic (4800) at the factory setting
7	EEPROM INIT. (For manufacturing line only)
8	MASK CONTROL (Automatic mask position change setting) ON/OFF cyclic (ON at the factory setting) <MCY>/<MCN>
10	STD-RGB (Standard speed (15. 734kHz) RGB enable setting) ON/OFF (OFF at the factory setting) <NRY>/<NRN>
11	INTE. MODE (Integrator mode setting) FREE, ON, LOCK cyclic (FREE at the factory setting) (Menu OFF) <IMF>/<IMY>/<IMN>
BS1	FINAL SETUP (factory setting) Set using the Set key (Recovers the initial setting) Refer to next page. <FST>
BS3	IPQ ADJ (Progressive conversion parameter adjustment) — Not necessary to readjust / Fix at the factory setting

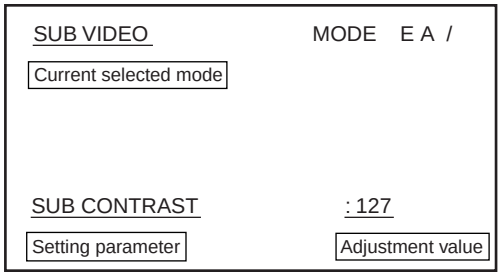
Set (1, BS1)
Sets the mode and moves to the lower level.

Note: 1) Do not change the factory settings for the modes of keys 9 . If changed, the panel may be damaged.
2) Be sure to turn the key 3 FULL MASK off when the power is turned off.

* (m: 1~5
1→1200bps
2→2400bps
3→4800bps
4→9600bps
5→19200bps)

(2) Parameter adjustments (SUB VIDEO)

Common picture quality adjustment for all input signal modes.



Keys

1	SUB CONTRAST	(000 to 127)
2	ACL START	(000 to 015)
3	ACL GAIN	(000 to 015)
9	ACL SW	ACL SW ON/OFF cyclic
10	VAP GAIN	(000 to 007)
11	VAP INV	(000 to 031)
BS3	R SIDE LEV	(000 to 255)
BS5	G SIDE LEV	(000 to 255)
BS7	B SIDE LEV	(000 to 255)
BS11	R FULL LEV	(000/255)
BS13	G FULL LEV	(000/255)
BS15	B FULL LEV	(000/255)

Not necessary to readjust / Fix at the factory setting

Note: Do not change the factory settings for keys 6 and 8. If changed, the panel may be damaged.

Volume +	Increases the value of the parameter selected for adjustment
Volume –	Decreases the value of the parameter selected for adjustment
Set	Memorizes the adjusted value and moves to a higher level

(3) Details of FINAL SETUP

Item	Initial Setting	Remarks	Commands
Input function	INPUT1		<IN1~4>
FULL AUTO ZOOM	OFF	Common for all input functions	<AZY> / <AZN>
Screen size	NATURAL WIDE	VIDEO	<SM0~5> note 1
	PC① 4:3 NORMAL (Including TYPE)	mode D,E,L,V	
	PC② ORIGINAL (Including TYPE)	mode B,C,F,I,K,M,N,O,P,Q,R,S,T,U,X,Y,Z,2	
V.POSITION	0	Input functions	<UPS>
KEY LOCK	UNLOCK		<KLY> / <KLN>
PICTURE	Center value for all adjustment items		note 2
SCREEN	Center value for all adjustment items		note 3
V MEMORY (RECALL)	STANDARD	Input functions (VIDEO)	
	STANDARD	Input functions (VIDEO-RGB)	
	STANDARD	Input functions (PC-RGB)	
V MEMORY (MEMORY)	GAME (MEMORY 1)	VIDEO	
	LIVING (MEMORY 2)		
	CINEMA (MEMORY 3)		
	SPORTS (MEMORY 4)		
	USER A to D (STANDARD for all memory contents)	RGB	
	USER A to D (STANDARD for all memory contents)	PC	
AUTO POWER OFF	OFF	Common for all input functions	<APY> / <APN>
3D Y/C MODE	STILL		<YCS / <YCM>
INPUT SETTING SIGNAL	COMPONENT 2(SMPTE170M)	INPUT2	
	PC / RGB (Fixed) (PDP-V501X) / VIDEO / COMPONENT 1 (PDP-501MX/KUC)	INPUT3	
	PC / RGB (Fixed)	INPUT4	
CLAMP	MODE1	For each setting-INPUT 3, 4	<CL1> / <CL2>
ABL	ON	For each setting-INPUT 3, 4 PC	<ABY> / <ABN>
MP MODE	ON	For each setting-INPUT 3, 4 PC	<MPY> / <MPN>
PICTURE	(Adjustment values for all adjustment items)	Memory contents cleared for PC	note 2
WHITE BALANCE	(Adjustment values for all adjustment items)	Memory contents cleared for PC	
SCREEN	Center value for all adjustment items		note 3
COLOUR MODE	1		<CM1> / <CM2>
BAUD RATE	4800BPS		<BR1~5>
HOUR METER	————		
MIRROR MODE	OFF	Common for all input functions	<MMN> / <MMZ>
STD-RGB	OFF	Common for input functions	<NRY> / <NRN>
SIDE MASK	R LEVEL: 56		<RSL>
	G LEVEL: 56		<GSL>
	B LEVEL: 112		<BSL>
FULL MASK	OFF		<FMY> / <FMN>
MASK CONTROL	ON		<MCY> / <MCN>
INTE. MODE	FREE (PDP-V501X) LOCK (PDP-501MX/KUC)		<IMF>/<IMY>/<IMN>
ACL SW	ON		
CTI	ON		
VNR	3		
ID No.	——		<IDS> / <IDC>
OSD	ON		<DIY> / <DIN>

note 1
<SM0>: Original
<SM1>: 4:3 Normal
<SM2>: Full
<SM3>: Zoom
<SM4>: Cinema Wide
<SM5>: Natural Wide

note 2
<CNT>: Contrast
<COL>: Color
<TNT>: Tint
<SHP>: Sharp
<BRT>: Bright
<DTL>: Detail
<RHI>: R High
<RLW>: R Low
<GHI>: G High
<GLW>: G Low
<BHI>: B High
<BLW>: B Low

note 3
<VPS>: V. Pos 1
<HPS>: H. Pos 1
<CFR>: CLK FRQ
<CPH>: CLK PHS

Search Results for pdpv501

The link below shows all information available for that model number you selected. Navigating through these links will only display information related to that specific model number. To retrieve information on another model, type the number on the field at the top right corner of your screen or click home to start over. You can also navigate throught the top menu and start you search over.

Back to Search

Symptom: Picture tears with 480P component. New!
Cure: Replace RGB, AWV1687.
Models Covered: PDP501MX, PDPV501X
Tip Date: July 27 2005
The Tech Name: Bob Shoemaker

Symptom: Unit turns on, but no pix or OSD. No scan pulses from Dvid.
Cure: Replace RGB, AWV1687. No VD out.
Models Covered: PDP501MX, PDPV501X
Tip Date: January 21 2004
The Tech Name: Bob Shoemaker

Symptom: 1" WIDE LINE IN TOP OR BOTTOM 1/2 THAT CHANGE COLOR, ETC WHEN TOUCHING RIBBONS TO OR FROM CABLE ASSY.
Cure: CHECK FOR UNLOCKED OR CRACKED CONNECTORS ON UCON OR DVID.
Models Covered: PDP501MX, PDPV501X
Tip Date: December 31 2002
The Tech Name: Bob Shoemaker

Symptom: Intermittant power down. No PD pulse and all supplies OK.
Cure: 27k resistor had cracked solder. Located by RV4 & 5. Probably 150V OVP detector.
Models Covered: PDP501MX, PDPV501X
Tip Date: January 17 2002
The Tech Name: Bob Shoemaker

Symptom: Distorted, out of sync, or no picture with PC connected on input #3 or #4. Other sources on other inputs were fine. Tried several computers with numerous settings with no result. Replaced the RGB board assy.(AWV1687) and still had same symptom.
Cure: Replaced the system control board (AWV1689) and restored normal operation.
Models Covered: PDPV501
Tip Date: October 22 2001
The Tech Name: Tony Perkins

Symptom: Top 1/2 of pix is white after replacing YA & scan for PD.
Cure: CN7111 (T15) of Cable B plugged in crooked (no Vadr or 3vcc).
Models Covered: PDP501MX, PDPV501X
Tip Date: December 12 2000
The Tech Name: Bob Shoemaker

Symptom: Shuts down after 6 seconds. Gives no display.
Cure: Y Drive B board PD (power down) test point went high just before the unit shut down, but the problem was in one of the scan boards connected to Y Drive A board. Troubleshoot by unplugging the scan assemblies one at a time. You must leave power off at least a minute before reconnecting the scan board to allow charge to dissipate.
Models Covered: PDP501MX, PDPV501X
Tip Date: October 10 2000
The Tech Name: Bernie Shelton

Symptom: When replacing the protective panel, page 8, #4,
Cure: you must also replace the "Panel Cushions" and "Shield Gaskets" because the are sticky and can't be removed from the old protective panel.
Models Covered: PDP501, PDPV501
Tip Date: May 12 2000
The Tech Name: Bernie Shelton

Symptom: Troubleshooting procedure for P.D.
Cure: Check for PD pulse at Power Supply connectors- P4 pin 8 (Temp_PD), P12 pin 5 (X Drv A), P12 pin 7 (X Drv B), P6 pin 8 (Y Drv A), and P6 pin 10 (Y Drv B). (P2 pin 9 is labeled PD AU, but is not connected to anything on the U-CON Assy.)
Models Covered: PDP501MX, PDPV501X
Tip Date: December 20 1999
The Tech Name: Dennis Walden

Symptom: When replacing the U-Com Assy AWV1689, some original PCB's did not have a connector for E15 (3 wires from Side Sw Assy). The wires may be soldered to the PCB.
Cure: The new PCB is different. There are 3 solder pads located next to E13 connector labeled Blue Wire, White Wire, and Red wire.
Models Covered: PDP501MX, PDPV501
Tip Date: December 14 1999
The Tech Name: Dennis Walden

Symptom: Power LED comes on in Green when main pwr is applied, but no video or OSD.
Cure: Listen for noise level of unit to drop after a few seconds. Unit is shutting down. Troubleshooting in s/m is incorrect. Display LED will not blink. See Diagnosis on page 83 and PD Block on page 85.
Models Covered: PDP501MX, PDPV501X
Tip Date: December 01 1999
The Tech Name: Dennis Walden

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