Service Manual

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ORDER NO. ITD0008011C0

D10

Service Manual

Wide Plasma Display

- TH-42PW3/TH-42PWD3

GP3D Chassis

Specifications

Power Source:	AC 230V 50/60Hz (A B and E version)	
	AC110V 50/60Hz (U version)	
Power Consumption:	295 W	
	2.3W (stand-by condition)	
	1.4W (Main off condition)	
Terminal:		
AV		
Video Input/ Output (BNC)		
	1.0 Vp-p (75ohm)	
	NTSC PAL PAL-60 SECAM M-NTSC	
	S-Video input (Mini Din 4 pin)	
		Y 1.0 Vp-p (75ohm)
		C 0.286 Vp-p (75ohm)
	Audio	0.5 Vrms (RCA type)
Component/RGB In (RCA type)		
Y/G	1.0 Vp-p (including Sync.)	
	PB/B	±0.35 Vp-p
	PR/R	±0.35 Vp-p
	HD	1.0 - 5.0 Vp-p
	VD	1.0 - 5.0 Vp-p
PC	VGA	
	SVGA XGA SXGA UXGS(Compatible)	
	(High-density D-sub 15 pin)	
	Audio (3.0 mm) 0.5 Vrms	
Speakers External speakers		
	Impedance 6 ohm rated input 8 W or more recommended.	
SERIAL	RS-232C compatible (D-Sub 9PIN)	
TUNER	Optional (High-density D-Sub 26PIN)	
Display :	Type 42 inch (106 cm diagonal 16:9)+ RC	
No. of Pixels	(W853 x H480)	
No. of Dots	(W 2559 x H 480)	
Dimensions:		
	Display unit	
	Height	610 mm
	Width	1020 m m
	Depth	89 mm
Weight (Mass)	29.5kg net (main unit only)	
	33.7kg (with speakers)	

8 Adjustment Procedure

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8.1 + B Set-up

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8.1.1 Item / Preparation

8.1.2 Adjustments

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8.1.1 Item/ Preparation

1. Input a Grey scale signal.
2. Set the picture controls: -

   Picture mode: Normal

   White balance: Normal

8.1.2 Adjustments

Adjust and confirm indicated test point for the specified voltage.

Adjust

Name	Volume	Voltage	Test Point	Remarks
Vsus	R605	170V ± 1V	P11 pin 2	
Vda	R590	67V ± 0.5V	P12 pin 1	

Confirm

Name	Voltage	Test Point	Remarks
15V	15.4V ± 0.5V	P23 pin 1	
15V	15.2V ± 0.5V	P7 pin 1	
12V	11.8V ± 0.5V	P25 pin 1	
Audio 12V	12.5V ± 0.8V	P5 pin 7	
5V	5.1V ± 0.3V	P25 pin 5	
STB 5V	5.0V ± 0.3V	P27 pin 4	
Fan 15V	15.4V ± 0.5V	P10 pin 1	
Fan 5V	5.1V ± 0.3V	P10 pin 4	
PFC	380V ± 15V	C468(+), C468(-)	

8.2 Driver Set-up

8.2.1 Item/ Preparation

1. Input an APL 100 % white signal.
2. Set the picture controls: -

   Picture mode: Normal

   White balance: Cool

   Aspect: 16:9

8.2.2 Adjustments

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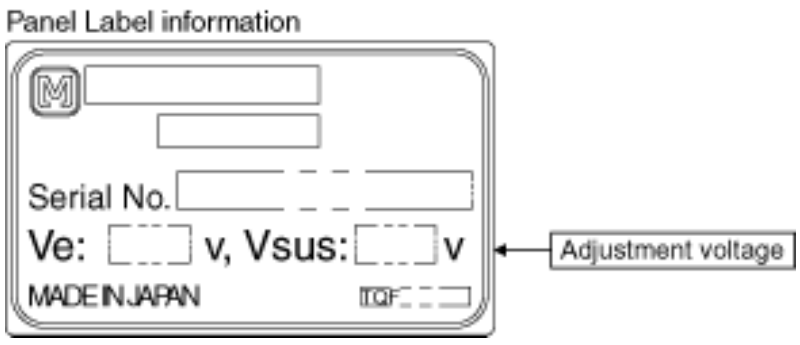
Adjust driver section voltages referring the panel data on the panel data label.

Name	Test Point	Voltage	Volume	Remarks
Vsus	TPVSUS (SS)	170V ± 1V	R605 (P)	
Vbk	TPVBK (SC)	155V ± 5V	R6443 (SC)	
Ve	TPVE (SS)	158V ± 1V	R6774 (SS)	
Vset	TPVSET (SC)	218V ± 6V	---	
Vad	TPVAD (SC)	-90V ± 1V	R6477 (SC)	
Vscn	TPVSCN (SC)	Vad*+118V ± 2V	---	
Vda	TPVDA (SS)	67V ± 1V	R590 (P)	

*See the Panel label.



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8.3 Initialization Pulse Adjust

1. Input a Cross hatch signal.
2. Set the picture controls: -

   Picture mode: Normal

   White balance: Cool

Adjust the indicated test point for the specified wave form.

	Test point	Volume	Level
T1	TPSC1 (SC)	R6523 (SC)	20 ± 15µ Sec
T2	TPSS1 (SS)	R6557 (SC)	170 ± 20µ Sec

8.4 P.C.B. (Printed Circuit Board) exchange

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8.4.1 Caution

1. To remove P.C.B. , wait 1 minute after power was off for discharge from electrolysis capacitors.

8.4.2 Quick adjustment after P.C.B. exchange

P.C.B.	Name	Test Point	Voltage	Volume	Remarks
P Board	Vsus	TPVSUS (SS)	170V ± 1V	R605 (P)	
	Vda	TPVDA (SS)	67V ± 1V	R590 (P)	
SC Board	Vbk	TPVBK (SC)	155V ± 5V	R6443 (SC)	
	Vad	TPVAD (SC)	-90V ± 1V	R6477 (SC)	
	Vset	TPVSET (SC)	218V ± 6V	---	
	Vscn	TPVSCN (SC)	Vad + 118 ± 2V	---	
SS Board	Ve	TPVE (SS)	158V ± 1V	R6774 (SS)	
D, J Board	White blance, Pedestal and Sub brightness for NTSC, PAL, HD, PC and 625i signals				

*See the Panel label.

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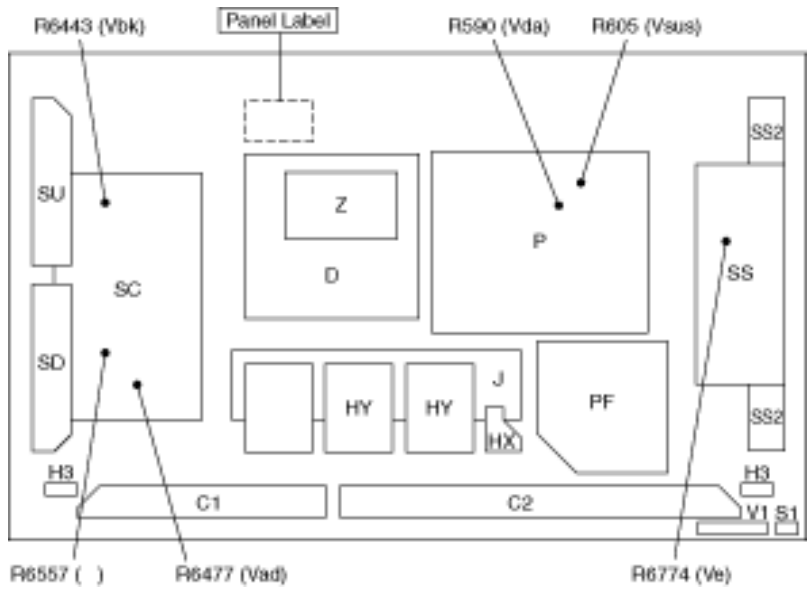
8.5 Adjustment Volume Location



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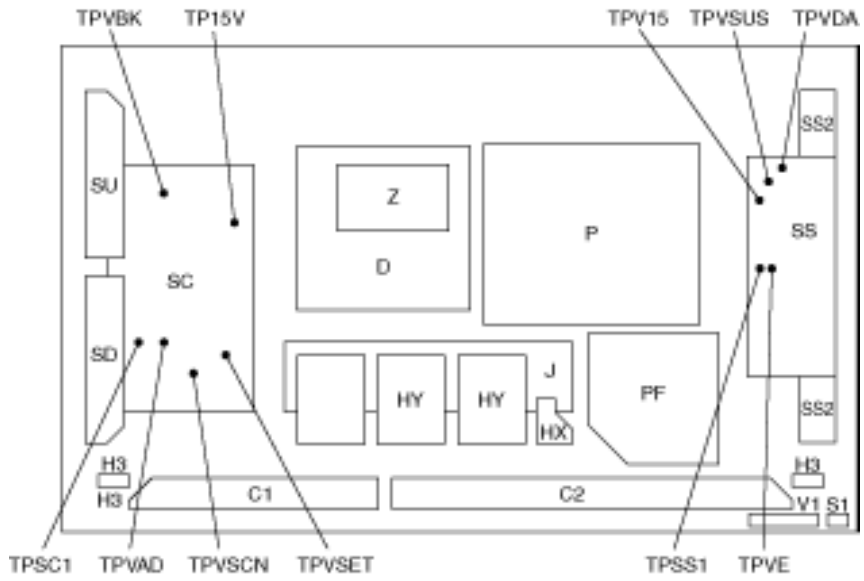
8.6 Test Point Location



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9 Service mode

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9.1 CAT (computer Aided Test) mode

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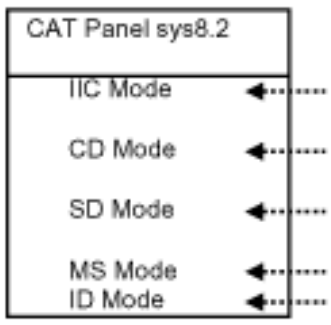
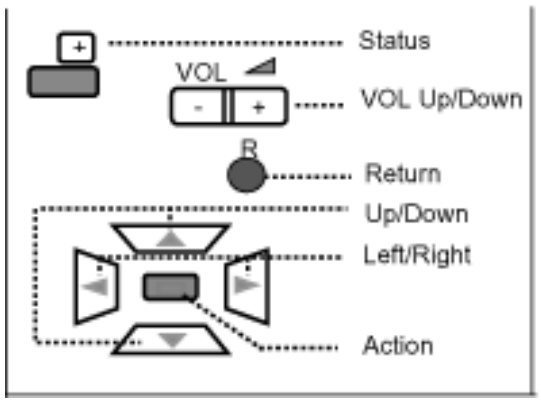
CAT mode menu



Mode	Function	Access button
IIC	Service Alignment	Action
CD(Complete Diagnostics)	Software version information EEPROM edit	Mute more than 5 seconds
SD(Status Display)	MTBF parameter	Action
MS Mode	Not use	-----
ID	Not use	-----

Remote control



How to access the CAT mode.

Press and the hold the Volume down / - buton on the front panel of the unit and press the status button on the remote control 3 times quickly within 1 second, this will place the unit into the CAT mode.

To exit the CAT mode , access the ID mode and switch off the main power.

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9.1.1 IIC mode

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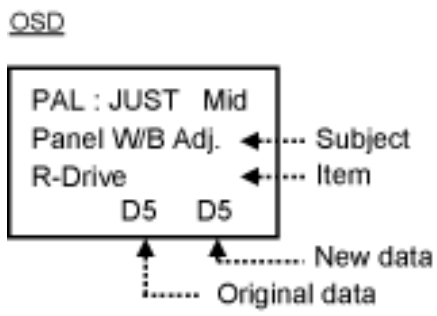
Select the IIC mode by Up/Down button on the remote control at the front page of CAT mode then press the Action button on the remote control.



How to use the IIC mode.

1. Select the alignment **Subject** by **Up/Down buttons** on the remote control.
2. Select the alignment **Item** by **Left/Right buttons** on the remote control.
3. Adjust **optimum setting** by **Volume Up/Down buttons** on the remote control.
4. The **data is memorized** when press the **R button** on the remote control or change the alignment Subject (or Items).

Subject and item are mentioned on page 14.

To exit the IIC mode, press the R button on the remote control.

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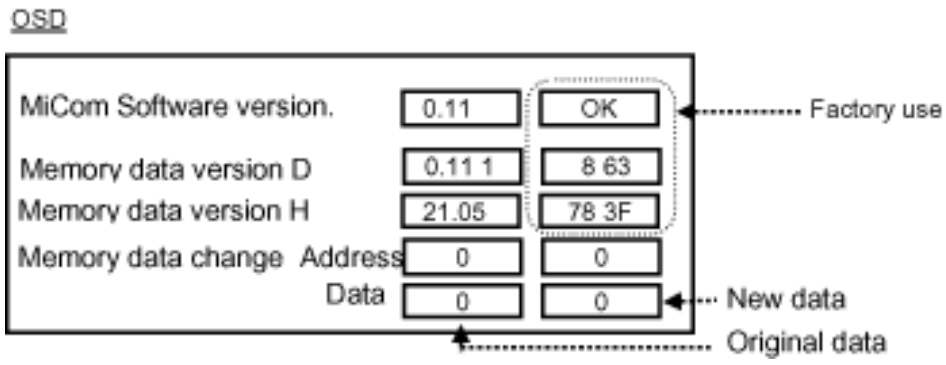
9.1.2 CD mode

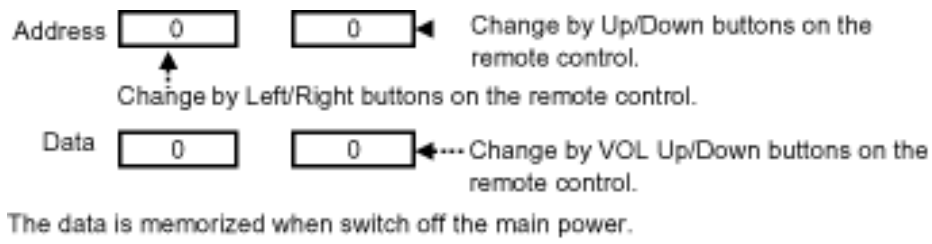
Select the CD mode by Up/Down button on the remote control at the front page of CAT mode then press the Mute button on the remote control more than 5 sec.



Micom software version (IC9354), this version can be upgrade by

1. replace of new version IC
2. Loading the new version software from loader tool, TZSC07036.

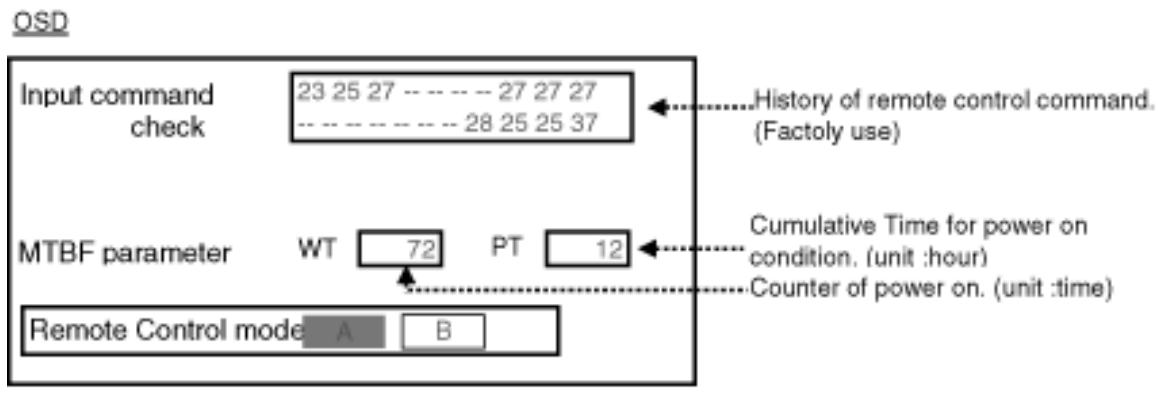
Memory data change



To exit the CD mode, press the R button on the remote control.

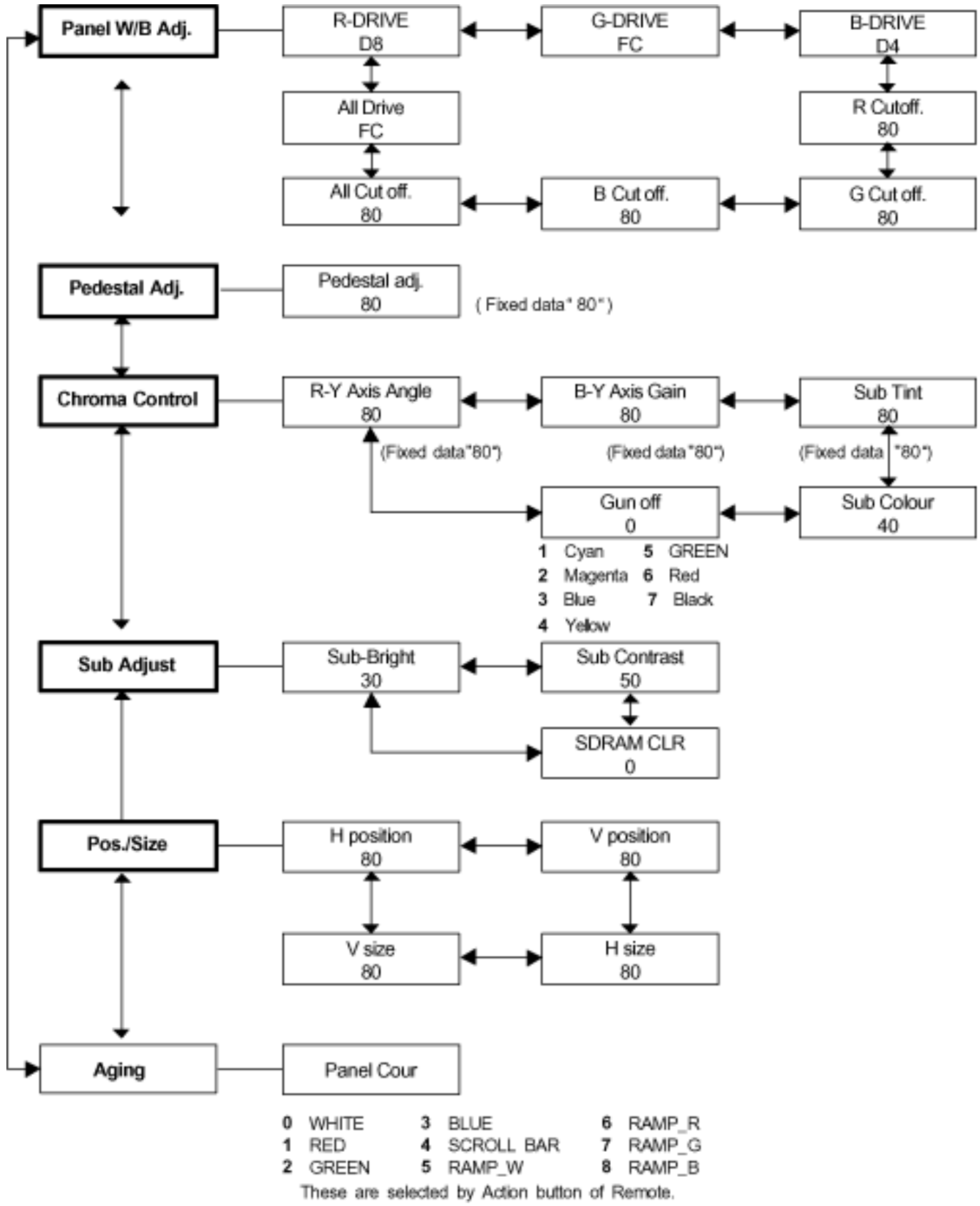
9.1.3 SD mode

Select the SD mode by Up/Down button on the remote control at the front page of CAT mode then press the Action button on the remote control.



To exit the SD mode, press the R button on the remote control.

9.2 IIC mode structure (following items value is sample data.)



10 Alignment

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10.1 Pedestal setting (C)

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Note:

OSD is the difference between UY model and Except UY model.
Picture: Normal (Except UY)/Standard (UY model)
White balance (Except UY)/Color Temp (UY model)

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10.2 Pedestal setting (B)

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Note:

OSD is the difference between UY model and Except UY model.
Picture: Normal (Except UY)/Standard (UY model)
White balance (Except UY)/Color Temp (UY model)

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10.3 NTSC panel white balance

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10.4 PAL/ SECAM panel white balance

10.5 PC/ RGB panel white balance

10.6 HD/ 525i/ 525p/ 625I/ 625P panel white balance

11 Trouble shooting guide

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11.1 Self Check

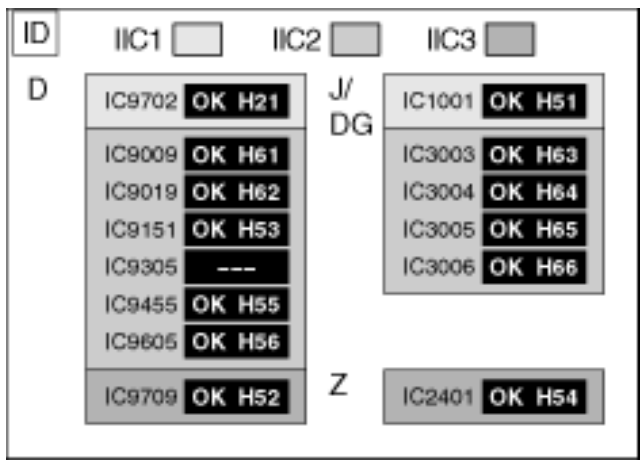
11.1.1 Display Indication

1. Self-check is used to automatically check the bus line controlled circuit of the Plasma display.

2. To get into the Self-check mode, press the volume down button on the customer controls at the front of the set, at the same time pressing the OFF-TIMER button on the remote control, and the screen will show :-

If the CCU ports have been checked and found to be incorrect

Or not located then " - - " will appear in place of " OK "



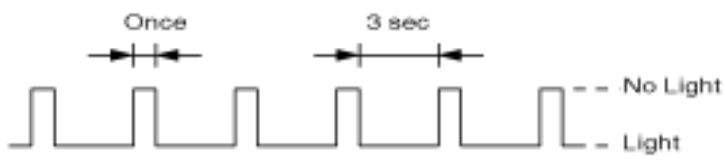
11.1.2 Power LED Blinking timing chart

1. Subject

   Information of LED Flashing timing chart.

2. Contents

   When an abnormality has occurred the unit, the protection circuit operates and reset to the stand by mode. At this time, the defective block can be identified by the number of blinkes of the Power LED on the front panel of the unit.

Blinking times	Blinking timing	Contents & Check point
1		Main Micom Power
2		SCAN Driver1
3		3.3V SOS
4		5V SOS
5		Power SOS
6		FAN
7		SCAN Driver2
8		TEMP (Not used)
9		SUS Driver

3. Remarks

   Above Fan function is operated during the fans are installed.

11.2 No Power

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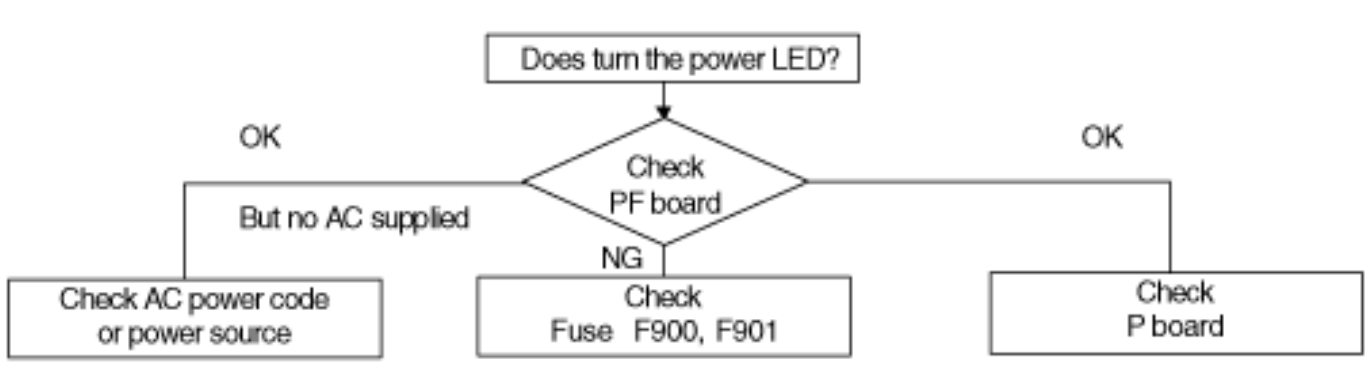
[First check point]

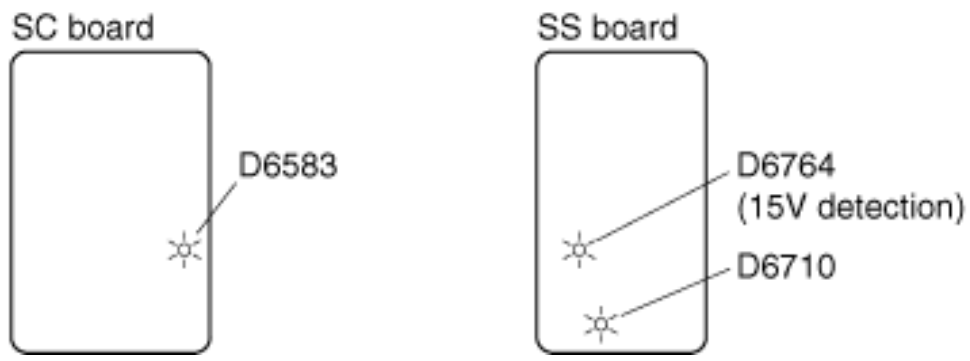
There are following 3 states of No Power indication by power LED.

1. No lit
2. Green is lit then turns red blinking a few seconds later.
3. Only red is lit.

1. No lit



Drive circuits LED indicator



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11.3 No Picture

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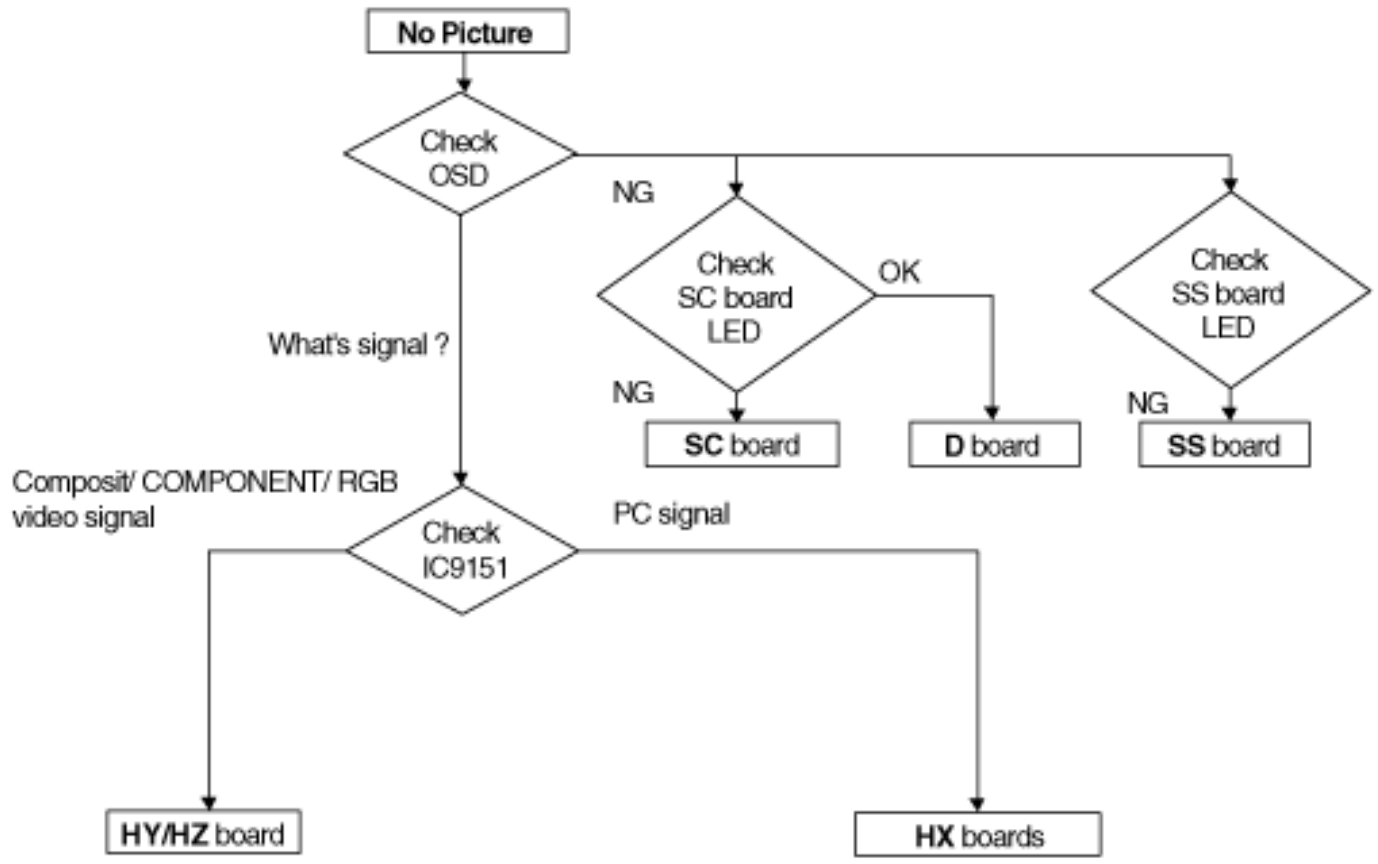

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11.4 Local screen failure

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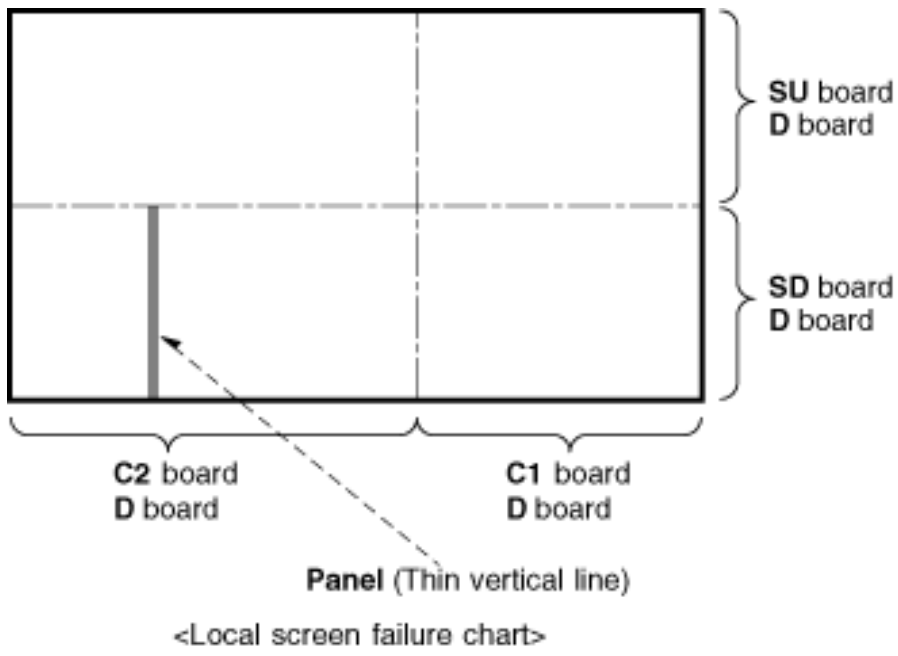
Plasma display may have local area failure on the screen. Fig - 1 is the possible defect P.C.B. for each local area.

Fig - 1



<Local screen failure chart>

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12 Option Setting

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Hidden Option Menu for GP6D series

GP6D chassis series have special function and operation setting facility called Option Menu. This Option Menu is useful for special function required customers. This should be set at the installation stage. The end user could not set or change these becauseof hidden On screen menu.

Option menus	default setting	Contents
Off-timer function	Enable	Off-timer operation Enable/Disable.
On Screen display	On	Enable/Disable to display input mode indication after power on and no signal indication.
Initial Input	Off	Sets the initial input mode when the power is turned on . Allow input mode selection while power is on.
Initial VOL. level	Off	Sets the initial volume level when the power is turned on. Allow Volume control while power is on.
Maximum VOL. Level	Off	Sets the maximum volume to desired level. Volume cannot exceed this level.
INPUT lock	Off	Fixes the input mode to AV, Component/RGB or PC. Can not change input mode by input selection key.
Button lock	Off	Enable/Disable front operation buttons (Input and/or volume up/down)
Studio W/B	Off	Set warm mode color temperature to 3,200 Kelvin.
Remocon User Level	Off	Remote key invalidation. Off : Valid key is all key of remote. User1 : Valid key are only Stand-by (ON/OFF), Input, Status, Surround, Sound mute On/Off, and volume adjustment. User2: Valid key is only Stand-by (ON/OFF). User3 : All keys are null and void
ID Select	0 to 100	Set ID number from 001 to 100.
Remote ID	Off	Remote ID function On/Off. (While the Remote ID on, standard remote function can not control the unit.)
Serial	Off	Serial ID function On/Off
Slot power	Off	Sets the slot power mode the power is turned on. Allow Optional Terminal Board insert Slots while power is on.

Note :

How to set Remocon User Level and Remote ID off

1. Access service mode (CAT-mode) and press SET UP key on remote.
2. Accsess Hidden option menu.
3. Change Remocon User Level and/ or Remote ID set to Off.

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14 Block and Schematic Diagrams

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18 Schematic Diagram for printing with A4

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