

3.3.2 PROCEDURE FOR REPLACING THE MEMORY IC

1. Power off

Switch the power off and unplug the power cord from the wall outlet.

2. Replacing the memory IC

Replace the memory IC with new one. Be sure to use the memory IC written with the initial data values.

3. Power on

Plug the power cord into the wall outlet and switch the power on.

4. Receive channel setting

Refer to the **OPERATING INSTRUCTIONS** and set the receive channels (channels preset).

5. User setting

Check the user setting values in Table 1 and Table 2. If setting value is different, set the correct value. For setting, refer to the **OPERATING INSTRUCTIONS**.

6. Setting of SERVICE MENU

Verify the setting for each setting item in the SERVICE MENU.(See Table 3.) If readjustment is necessary, perform adjustment referring to “ADJUSTMENTS PROCEDURE”.

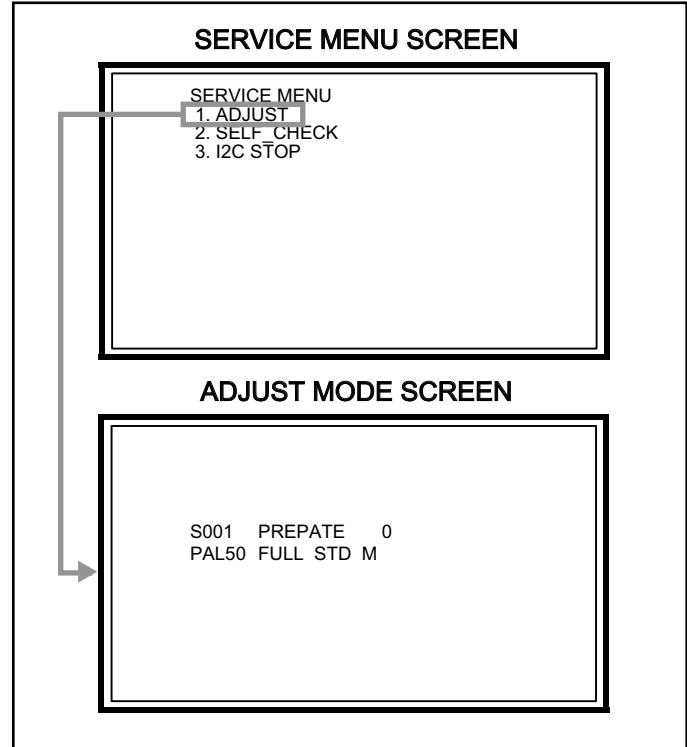


Fig.1

3.3.3 FACTORY SETTING VALUE

3.3.3.1 SETTING OF SWITCHES ON FRONT SIDE OF MAIN BODY AND REMOTE CONTROL UNIT

Setting item	Setting value
POWER	OFF
SUB POWER	ON
CHANNEL	PR1
VOLUME	10
ZOOM	PANORAMIC
MULIT PICTURE	1 SCREEN
3D SOUND	OFF

Table 1

3.3.3.2 SETTING OF MENU SCREEN

		Setting item	Setting value
PICTURE SETTING		FEATURES	
PICTURE MODE	BRIGHT	SLEEP TIMER	OFF
CONTRAST	+8	CHILD LOCK	ID No. 0000 ALL CH : OFF
BRIGHT	0	APPEARANCE	TYPE A
SHARP	+5	BLUE BACK	ON
COLOUR	0	REFRESH	OFF
COLOUR TEMP.	NORMAL	SET UP	
PICTURE FEATURES		AUTO PROGRAM	UNITED KINGDOM
DIGITAL VNR	MIN	EDIT / MANUAL	Only for PR / CH
Super DigiPure	AUTO	LANGUAGE	ENGLISH
MOVIE THEATRE	AUTO	DECODER (EXT-2)	ALL CH : OFF
COLOUR MANAGEMENT	ON	PICTURE SHIFT	FAST
PICTURE MANAGEMENT	ON	EXT SETTING	
COLOUR SYSTEM	MAIN : AUTO SUB: AUTO	S-IN	Space
4:3 AUTO ASPECT	PANORAMIC	ID LIST	Space
SOUND SETTING		DUBBING	EXT-1 → EXT-2
STEREO / I•II	Stereo sound		
BASS	Center		
TREBLE	Center		
BALANCE	Center		
3D SOUND	OFF		
A.H.B.	MID		
BBE	OFF		
SPEAKER	TV		

Table 2

3.3.3.3 SERVICE MENU SETTING ITEMS

Service menu	Setting item
1. ADJUST	S001 ~ S039 T001 ~ T010 P001 ~ P010 D001 ~ D187 Z001 ~ Z010
2. SELF CHECK	[Refer to "SECTION 5 TROUBLESHOOTING" (page 1-47)]
3. I2C STOP	[Do not adjust]

Table 3

CAUTION

When a number key other than the [1] to [3] key is pressed in the SERVICE MENU screen, the other relevant screen may be displayed. This is not used in the adjustment procedure.
Press the [MENU] key to return to the SERVICE MENU.

ADJUSTMENT

4.1 ADJUSTMENT PREPARATION

- (1) You can make the necessary adjustments for this unit with either the remote control unit or with the adjustment equipment and parts as given below.
- (2) Adjustment with the remote control unit is made on the basis of the initial setting values, however, the new setting values which set the screen to its optimum condition may differ from the initial settings.
- (3) Make sure that AC power is turned on correctly.
- (4) Turn on the power for the set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
- (5) Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
- (6) Never touch any adjustment parts, which are not specified in the list for this variable resistors, transformers, trimmer capacitors, etc.
- (7) Presetting before adjustment.
Unless otherwise specified in the adjustment instructions, preset the following functions with the remote control unit.

4.2 PRESETTING BEFORE ADJUSTMENT

Unless otherwise specified in the adjustment instructions, preset the following functions with the remote control unit.

Setting item	Settings
PICTURE MODE	STANDARD
PICTURE adjustments	All center (00)
COLOUR TEMP.	NORMAL
DIGITAL VNR	MIN
Super DigiPure	AUTO
MOVIE THEATRE	AUTO
COLOUR MANAGEMENT	ON
PICTURE MANAGEMENT	ON
SOUND adjustments	All center (00)
3D SOUND	OFF
A.H.B	MID
BBE	OFF
ZOOM	FULL

4.3 MEASURING INSTRUMENT AND FIXTURES

- DC voltmeter (or Digital voltmeter)
- Signal generator (Pattern generator)
[PAL / SECAM / NTSC / 625i COMPONENT / 1125i / PC (VGA)]
- Remote control unit

4.4 BASIC OPERATION OF THE SERVICE MENU

4.4.1 TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the remote control unit.

4.4.2 HOW TO ENTER THE SERVICE MENU MODE

- (1) Press the [INFORMATION] key and the [MUTING] key of the REMOTE CONTROL UNIT simultaneously, and the SERVICE MENU screen of Fig.1 will be displayed.
- (2) When the Main Menu is displayed, press any key of the [1] to [3] key to enter the corresponding menu mode.

CAUTION:

When a number key other than the [1] to [3] key is pressed in the SERVICE MENU screen, the other relevant screen may be displayed.

This is not used in the adjustment procedure.

Press the [MENU] key to return to the SERVICE MENU.

- (3) Select the service item using the [FUNCTION (▲/▼)] key.
- (4) Set the value using the [FUNCTION (◀/▶)] key.
- (5) Press the [MUTING] key to memorize the set value.

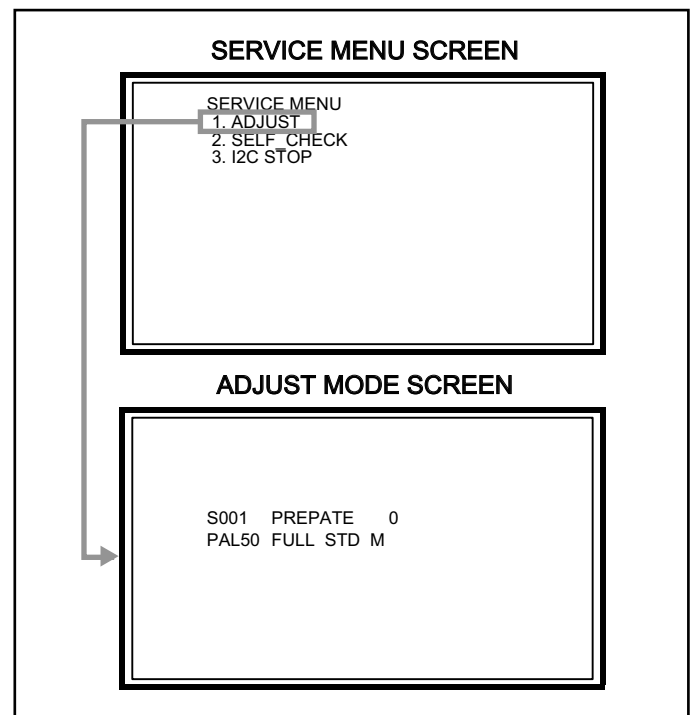
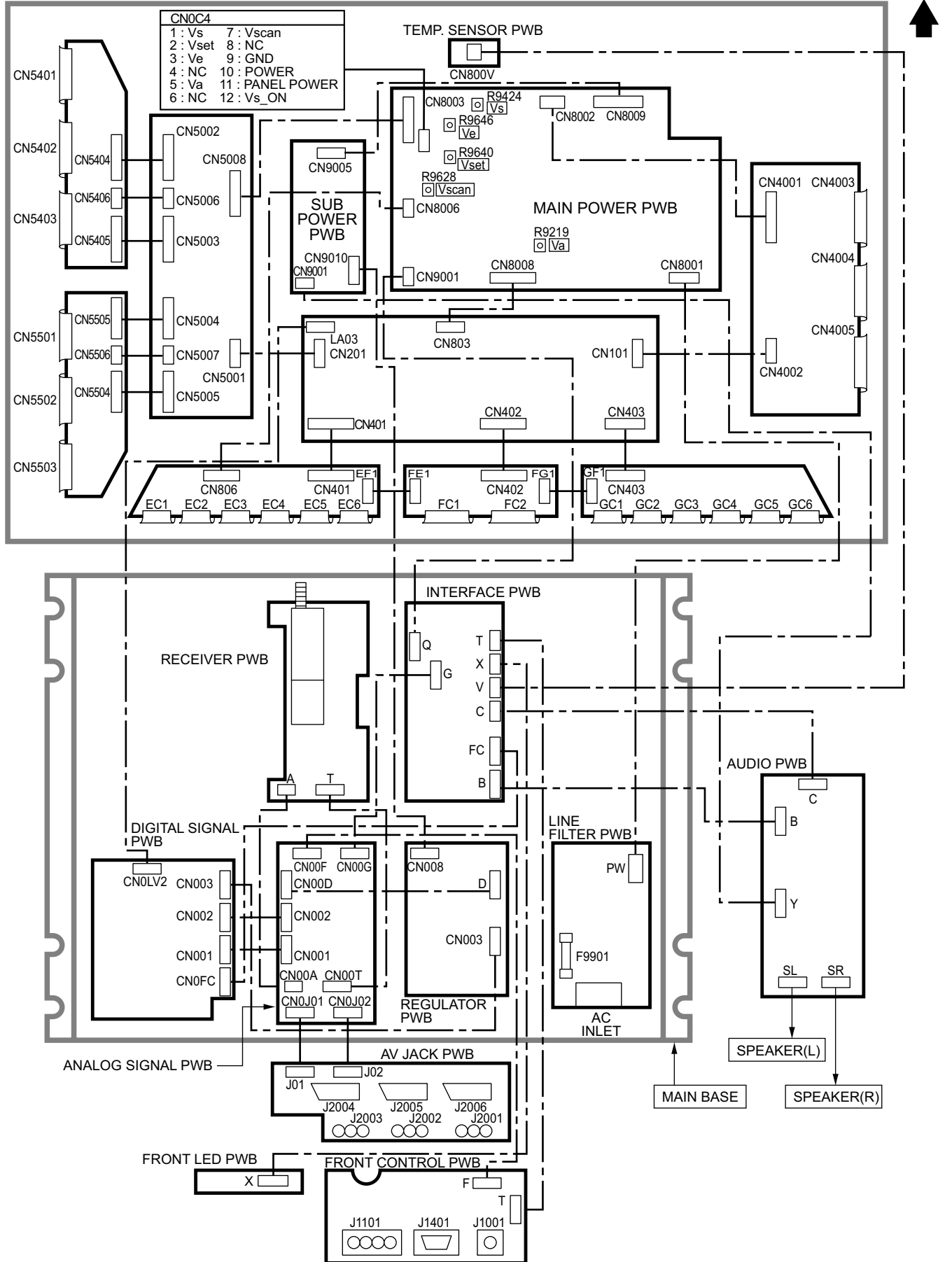


Fig.1

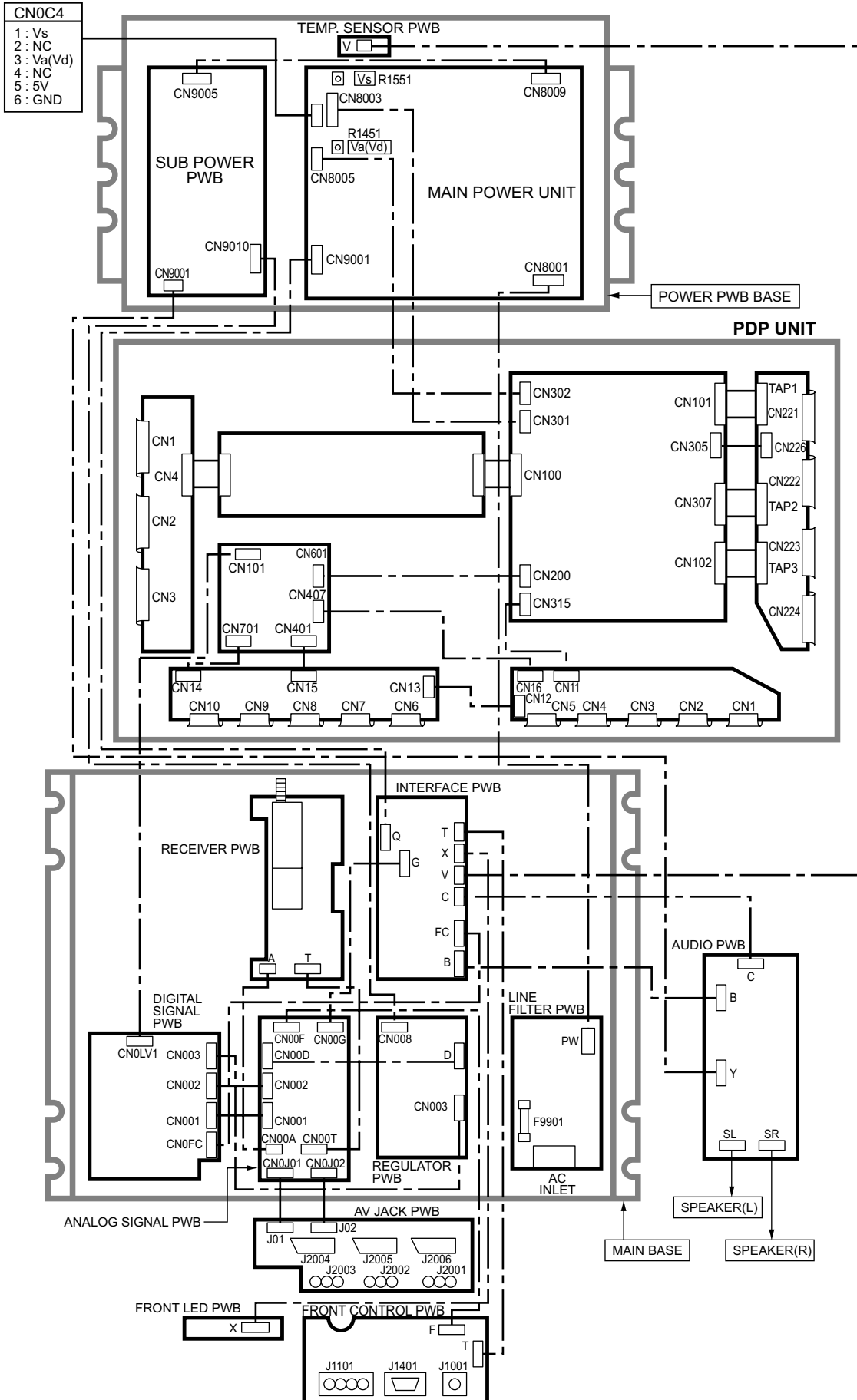
4.5 MAIN PARTS LOCATIONS

4.5.1 [PD-42B50BJ, PD-42B50BU]

PDP UNIT



4.5.2 [PD-35B50BJ, PD-35B50BU]



4.5 INITIAL SETTING VALUES IN THE SERVICE MENU SETTING MODE

- Perform fine-tuning based on the “initial setting values” using the remote control when in the SERVICE MENU setting mode.
- The “initial setting values” serve only as an indication rough standard and therefore the values with which optimal display can be achieved may be different from the initial setting values. But, don't change the values that are not written in “ADJUSTMENT PROCEDURE”. They are fixed values.

4.5.1 [1.ADJUST]

4.5.1.1 VIDEO SYSTEM

Item No.	Item	Variable range	Setting value		
			PAL	SECAM	NTSC
S001	PREPARE	0~31	0	0	0
S002	NTSC BL	0~15	1	1	1
S003	NTSC CNT	0~255	44	44	44
S004	NT CR OF	0~15	4	4	4
S005	NT CB OF	0~15	4	4	4
S006	525i BL	0~15	1	1	1
S007	525i CNT	0~255	44	44	44
S008	5i CB OF	0~15	0	0	0
S009	5i CR OF	0~15	0	0	0
S010	5i CR GN	0~15	4	4	4
S011	5i CB GN	0~15	4	4	4
S012	HD BL	0~63	0	0	0
S013	HD CB OF	0~63	0	0	0
S014	HD CR OF	0~63	0	0	0
S015	RT CONT	0~15	7	7	7
S016	RT CB OF	0~15	2	2	2
S017	RT CR OF	0~15	5	5	5
S018	RT CL GA	0~15	4	4	4
S019	PC CL MB	0~7	0	0	0
S020	PC CL LB	0~31	0	0	0
S021	PC CL MR	0~7	0	0	0
S022	PC CL LR	0~31	0	0	0
S023	(NO DISPLAY)	0~255	0	0	0
S024	(NO DISPLAY)	0~255	0	0	0
S025	(NO DISPLAY)	0~255	0	0	0
S026	(NO DISPLAY)	0~255	0	0	0
S027	(NO DISPLAY)	0~255	0	0	0
S028	(NO DISPLAY)	0~255	0	0	0
S029	(NO DISPLAY)	0~255	0	0	0
S030	R DRIVE	0~255	0	0	0
S031	G DRIVE	0~255	0	0	0
S032	B DRIVE	0~255	0	0	0
S033	(NO DISPLAY)	0~255	0	0	0
S034	(NO DISPLAY)	0~255	0	0	0
S035	(NO DISPLAY)	0~255	0	0	0
S036	(NO DISPLAY)	0~255	0	0	0
S037	(NO DISPLAY)	0~255	0	0	0
S038	(NO DISPLAY)	0~255	0	0	0
S039	(NO DISPLAY)	0~255	0	0	0

4.5.1.2 AUDIO SYSTEM

Item No.	Item	Variable range	Setting value		
			PAL	SECAM	NTSC
T001	IN LEVEL	0~255	0	0	0
T002	LOW SEP	0~255	0	0	0
T003	HIGH SEP	0~255	0	0	0
T004	AFC	0~255	0	0	0
T005	(NO DISPLAY)	0~255	0	0	0
T006	ATT V ON	0~1	0	0	0
T007	ATT U ON	0~1	0	0	0
T008	ATT C ON	0~1	0	0	0
T009	(NO DISPLAY)	0~255	0	0	0
T010	(NO DISPLAY)	0~255	0	0	0

4.5.1.3 PANEL CONTROL SYSTEM

Item No.	Item	Variable range	Setting value		
			PAL	SECAM	NTSC
P001	TM HOR H	0~FF	0	0	0
P002	TM HOR L	0~FF	0	0	0
P003	TM MIN	0~FF	0	0	0
P004	TEMP	0~255	0	0	0
P005	(NO DISPLAY)	0~255	0	0	0
P006	(NO DISPLAY)	0~255	0	0	0
P007	(NO DISPLAY)	0~255	0	0	0
P008	(NO DISPLAY)	0~255	0	0	0
P009	(NO DISPLAY)	0~255	0	0	0
P010	(NO DISPLAY)	0~1	0	0	0

4.5.1.4 DRIVE SYSTEM

Item No.	Item	Variable range	Setting value		
			PAL	SECAM	NTSC
D001	SLV GN	0~3F	00	00	00
D002	SLVH GN	0~3F	00	00	00
D003	SLH GN	0~3F	00	00	00
D004	SLV Pf	0~03	00	00	00
D005	SLH Pf H	0~01	00	00	00
D006	SLH Pf L	0~03	00	00	00
D007	SL EGCON	0~3F	00	00	00
D008	SL EGONF	0~01	00	00	00
D009	SL CRGON	0~3F	00	00	00
D010	SL CRGON	0~01	00	00	00
D011	SL ON OF	0~01	00	00	00
D012	SV GN	0~3F	00	00	00
D013	SVH GN	0~3F	00	00	00
D014	SH GN	0~3F	00	00	00
D015	SV Pf	0~03	00	00	00
D016	SV Pf H	0~01	00	00	00
D017	SV Pf L	0~03	00	00	00
D018	SYL CON	0~3F	00	00	00
D019	SYL CONF	0~01	00	00	00
D020	SYH CON	0~3F	00	00	00
D021	SYH CONF	0~01	00	00	00
D022	SC CON	0~3F	00	00	00
D023	SC CNONF	0~01	00	00	00
D024	SPM BLC	0~3F	00	00	00
D025	SPM BLCO	0~01	00	00	00
D026	SLIM	0~3F	00	00	00
D027	SLIMONF	0~01	00	00	00
D028	SCRG	0~3F	00	00	00
D029	SRGONF	0~01	00	00	00
D030	S ONF	0~01	00	00	00
D031	pb GN	0~3F	00	00	00
D032	pb Pf H	0~01	00	00	00
D033	pb Pf L	0~03	00	00	00
D034	pb CRG	0~3F	00	00	00
D035	pb CRGON	0~01	00	00	00
D036	pb ONF	0~01	00	00	00
D037	pr GN	0~3F	00	00	00
D038	pr Pf H	0~01	00	00	00
D039	pr Pf L	0~03	00	00	00
D040	pr CRG	0~3F	00	00	00
D041	pr CRGON	0~01	00	00	00

Item No.	Item	Variable range	Setting value		
			PAL	SECAM	NTSC
D042	pr ONF	0~01	00	00	00
D043	ENH ONF	0~01	00	00	00
D044	(NO DISPLAY)	0~FF	00	00	00
D045	(NO DISPLAY)	0~FF	00	00	00
D046	(NO DISPLAY)	0~FF	00	00	00
D047	(NO DISPLAY)	0~FF	00	00	00
D048	(NO DISPLAY)	0~FF	00	00	00
D049	(NO DISPLAY)	0~FF	00	00	00
D050	(NO DISPLAY)	0~FF	00	00	00
D051	(NO DISPLAY)	0~FF	00	00	00
D052	(NO DISPLAY)	0~FF	00	00	00
D053	(NO DISPLAY)	0~FF	00	00	00
D054	(NO DISPLAY)	0~FF	00	00	00
D055	(NO DISPLAY)	0~FF	00	00	00
D056	(NO DISPLAY)	0~FF	00	00	00
D057	(NO DISPLAY)	0~FF	00	00	00
D058	(NO DISPLAY)	0~FF	00	00	00
D059	(NO DISPLAY)	0~FF	00	00	00
D060	(NO DISPLAY)	0~FF	00	00	00
D061	(NO DISPLAY)	0~FF	00	00	00
D062	(NO DISPLAY)	0~FF	00	00	00
D063	(NO DISPLAY)	0~FF	00	00	00
D064	(NO DISPLAY)	0~FF	00	00	00
D065	(NO DISPLAY)	0~FF	00	00	00
D066	(NO DISPLAY)	0~FF	00	00	00
D067	(NO DISPLAY)	0~FF	00	00	00
D068	(NO DISPLAY)	0~FF	00	00	00
D069	(NO DISPLAY)	0~FF	00	00	00
D070	(NO DISPLAY)	0~FF	00	00	00
D071	(NO DISPLAY)	0~FF	00	00	00
D072	(NO DISPLAY)	0~FF	00	00	00
D073	(NO DISPLAY)	0~FF	00	00	00
D074	(NO DISPLAY)	0~FF	00	00	00
D075	(NO DISPLAY)	0~FF	00	00	00
D076	(NO DISPLAY)	0~FF	00	00	00
D077	(NO DISPLAY)	0~FF	00	00	00
D078	(NO DISPLAY)	0~FF	00	00	00
D079	(NO DISPLAY)	0~FF	00	00	00
D080	(NO DISPLAY)	0~FF	00	00	00
D081	(NO DISPLAY)	0~FF	00	00	00
D082	(NO DISPLAY)	0~FF	00	00	00
D083	(NO DISPLAY)	0~FF	00	00	00
D084	(NO DISPLAY)	0~FF	00	00	00
D085	(NO DISPLAY)	0~FF	00	00	00
D086	(NO DISPLAY)	0~FF	00	00	00
D087	(NO DISPLAY)	0~FF	00	00	00
D088	(NO DISPLAY)	0~FF	00	00	00
D089	(NO DISPLAY)	0~FF	00	00	00
D090	(NO DISPLAY)	0~FF	00	00	00
D091	(NO DISPLAY)	0~FF	00	00	00
D092	(NO DISPLAY)	0~FF	00	00	00
D093	(NO DISPLAY)	0~FF	00	00	00
D094	(NO DISPLAY)	0~FF	00	00	00
D095	(NO DISPLAY)	0~FF	00	00	00
D096	(NO DISPLAY)	0~FF	00	00	00

Item No.	Item	Variable range	Setting value		
			PAL	SECAM	NTSC
D097	(NO DISPLAY)	0~FF	00	00	00
D098	(NO DISPLAY)	0~FF	00	00	00
D099	(NO DISPLAY)	0~FF	00	00	00
D100	(NO DISPLAY)	0~FF	00	00	00
D101	(NO DISPLAY)	0~FF	00	00	00
D102	(NO DISPLAY)	0~FF	00	00	00
D103	(NO DISPLAY)	0~FF	00	00	00
D104	(NO DISPLAY)	0~FF	00	00	00
D105	(NO DISPLAY)	0~FF	00	00	00
D106	(NO DISPLAY)	0~FF	00	00	00
D107	(NO DISPLAY)	0~FF	00	00	00
D108	(NO DISPLAY)	0~FF	00	00	00
D109	(NO DISPLAY)	0~FF	00	00	00
D110	(NO DISPLAY)	0~FF	00	00	00
D111	(NO DISPLAY)	0~FF	00	00	00
D112	(NO DISPLAY)	0~FF	00	00	00
D113	(NO DISPLAY)	0~FF	00	00	00
D114	(NO DISPLAY)	0~FF	00	00	00
D115	(NO DISPLAY)	0~FF	00	00	00
D116	(NO DISPLAY)	0~FF	00	00	00
D117	(NO DISPLAY)	0~FF	00	00	00
D118	(NO DISPLAY)	0~FF	00	00	00
D119	(NO DISPLAY)	0~FF	00	00	00
D120	(NO DISPLAY)	0~FF	00	00	00
D121	(NO DISPLAY)	0~FF	00	00	00
D122	(NO DISPLAY)	0~FF	00	00	00
D123	(NO DISPLAY)	0~FF	00	00	00
D124	(NO DISPLAY)	0~FF	00	00	00
D125	(NO DISPLAY)	0~FF	00	00	00
D126	(NO DISPLAY)	0~FF	00	00	00
D127	(NO DISPLAY)	0~FF	00	00	00
D128	(NO DISPLAY)	0~FF	00	00	00
D129	(NO DISPLAY)	0~FF	00	00	00
D130	(NO DISPLAY)	0~FF	00	00	00
D131	(NO DISPLAY)	0~FF	00	00	00
D132	(NO DISPLAY)	0~FF	00	00	00
D133	(NO DISPLAY)	0~FF	00	00	00
D134	(NO DISPLAY)	0~FF	00	00	00
D135	(NO DISPLAY)	0~FF	00	00	00
D136	(NO DISPLAY)	0~FF	00	00	00
D137	(NO DISPLAY)	0~FF	00	00	00
D138	(NO DISPLAY)	0~FF	00	00	00
D139	(NO DISPLAY)	0~FF	00	00	00
D140	(NO DISPLAY)	0~FF	00	00	00
D141	(NO DISPLAY)	0~FF	00	00	00
D142	(NO DISPLAY)	0~FF	00	00	00
D143	(NO DISPLAY)	0~FF	00	00	00
D144	(NO DISPLAY)	0~FF	00	00	00
D145	(NO DISPLAY)	0~FF	00	00	00
D146	(NO DISPLAY)	0~FF	00	00	00
D147	(NO DISPLAY)	0~FF	00	00	00
D148	(NO DISPLAY)	0~FF	00	00	00
D149	(NO DISPLAY)	0~FF	00	00	00
D150	(NO DISPLAY)	0~FF	00	00	00

Item No.	Item	Variable range	Setting value		
			PAL	SECAM	NTSC
D151	(NO DISPLAY)	0~FF	00	00	00
D152	(NO DISPLAY)	0~FF	00	00	00
D153	(NO DISPLAY)	0~FF	00	00	00
D154	(NO DISPLAY)	0~FF	00	00	00
D155	(NO DISPLAY)	0~FF	00	00	00
D156	(NO DISPLAY)	0~FF	00	00	00
D157	(NO DISPLAY)	0~FF	00	00	00
D158	(NO DISPLAY)	0~FF	00	00	00
D159	(NO DISPLAY)	0~FF	00	00	00
D160	(NO DISPLAY)	0~FF	00	00	00
D161	(NO DISPLAY)	0~FF	00	00	00
D162	(NO DISPLAY)	0~FF	00	00	00
D163	(NO DISPLAY)	0~FF	00	00	00
D164	(NO DISPLAY)	0~FF	00	00	00
D165	(NO DISPLAY)	0~FF	00	00	00
D166	(NO DISPLAY)	0~FF	00	00	00
D167	(NO DISPLAY)	0~FF	00	00	00
D168	(NO DISPLAY)	0~FF	00	00	00
D169	(NO DISPLAY)	0~FF	00	00	00
D170	(NO DISPLAY)	0~FF	00	00	00
D171	(NO DISPLAY)	0~FF	00	00	00
D172	(NO DISPLAY)	0~FF	00	00	00
D173	(NO DISPLAY)	0~FF	00	00	00
D174	(NO DISPLAY)	0~FF	00	00	00
D175	(NO DISPLAY)	0~FF	00	00	00
D176	(NO DISPLAY)	0~FF	00	00	00
D177	(NO DISPLAY)	0~FF	00	00	00
D178	(NO DISPLAY)	0~FF	00	00	00
D179	(NO DISPLAY)	0~FF	00	00	00
D180	(NO DISPLAY)	0~FF	00	00	00
D181	(NO DISPLAY)	0~FF	00	00	00
D182	(NO DISPLAY)	0~FF	00	00	00
D183	(NO DISPLAY)	0~FF	00	00	00
D184	(NO DISPLAY)	0~FF	00	00	00
D185	(NO DISPLAY)	0~FF	00	00	00
D186	(NO DISPLAY)	0~FF	00	00	00
D187	(NO DISPLAY)	0~FF	00	00	00

4.5.1.5 MAIN CPU SETTING

Item No.	Item	Variable range	Setting value		
			PAL	SECAM	NTSC
Z001	(NO DISPLAY)	0~0F	00	00	00
Z002	(NO DISPLAY)	0~0F	00	00	00
Z003	(NO DISPLAY)	0~0F	00	00	00
Z004	(NO DISPLAY)	0~FF	00	00	00
Z005	(NO DISPLAY)	0~FF	00	00	00
Z006	(NO DISPLAY)	0~FF	00	00	00
Z007	(NO DISPLAY)	0~FF	00	00	00
Z008	(NO DISPLAY)	0~FF	00	00	00
Z009	(NO DISPLAY)	0~FF	00	00	00
Z010	(NO DISPLAY)	0~FF	00	00	00

ADJUSTMENT PROCEDURE

Item	Measuring instrument	Test point	Adjustment part	Description
PDP POWER VOLTAGE [42V]	DC voltmeter Signal generator Resistor (1kΩ) DC power supply	Connector CN0C4 [MAIN POWER PWB] Vs Vset Ve Va Vscan	[MAIN POWER PWB] Vs VR:170V ADJ (R9424) Vset VR:160V ADJ (R9640) Ve VR:155V ADJ (R9646) Va VR:70V ADJ (R9219) Vscan VR:-60V ADJ (R9628)	CAUTION: • During adjustment operation of PDP POWER VOLTAGE, don't touch the heat sink of the MAIN POWER PWB. If you touch it, electric shock may be caused. < When MAIN POWER PWB is not replaced > (1) Connect the DC voltmeter, load resistor (1kΩ), DC power supply and switch SW1 to the CN0C4 connector and turn on the main power and switch SW1. (See Fig.2) (2) Adjust Vs (170V ADJ) VR, Vset (160V ADJ) VR, Ve (155V ADJ) VR, Va (70V ADJ) VR and Vscan (-60V ADJ) VR so that the Vs, Vset, Ve, Va and Vscan voltage coincides with the values in the voltage label. (3) Input a PAL all-black signal and check that it coincides with the values in the voltage label. (4) Readjust if the adjusted value is different from those in the voltage label. NOTE: • Designed value for the panel is printed on a label on the upper-right at the back of the PDP. (See Fig.3) < When MAIN POWER PWB is replaced > CAUTION: • Before making adjustments, be sure not to turn on the power when the CN8002, CN8003, CN8005, CN8006 and CN8008 connectors are connected, as this may cause the PDP to break down. (1) Disconnect the CN8002, CN8003, CN8005, CN8006 and CN8008 connectors on the MAIN POWER PWB. (2) Connect the DC voltmeter, load resistor (1kΩ), DC power supply and switch SW1 to the CN0C4 connector and turn on the main power and switch SW1. (See Fig.2) (3) Adjust Vs (170V ADJ) VR, Vset (160V ADJ) VR, Ve (155V ADJ) VR, Va (70V ADJ) VR and Vscan (-60V ADJ) VR so that the Vs, Vset, Ve, Va and Vscan voltage coincides with the values in the voltage label. (4) Turn off the main power and switch SW1, and connect the CN8002, CN8003, CN8005, CN8006 and CN8008 connectors and turn on the power again. (5) Input a PAL all-black signal and check that it coincides with the values in the voltage label. (6) If the adjusted value is different from those in the voltage label, fine-tune without unplugging the connectors. CAUTION: • Designated power supply voltage of the panel (Vs, Vset, Ve, Va, Vscan) varies according to the PDP unit. • Pay careful attention during adjustment, as any error in procedure may cause the PDP to break down.

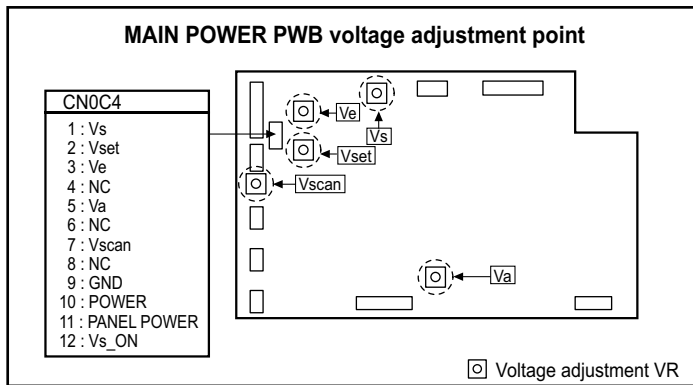


Fig. 1

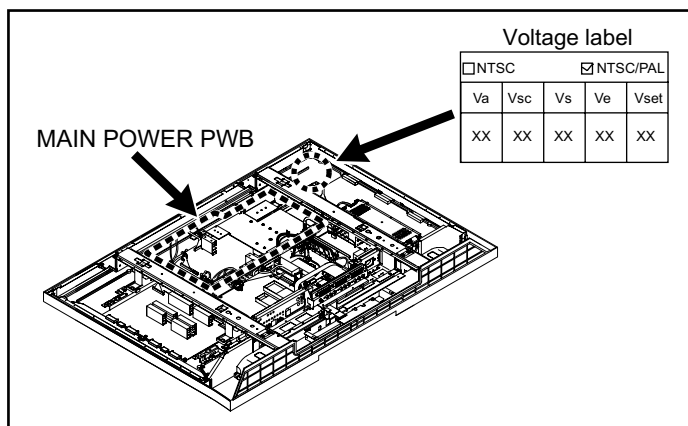
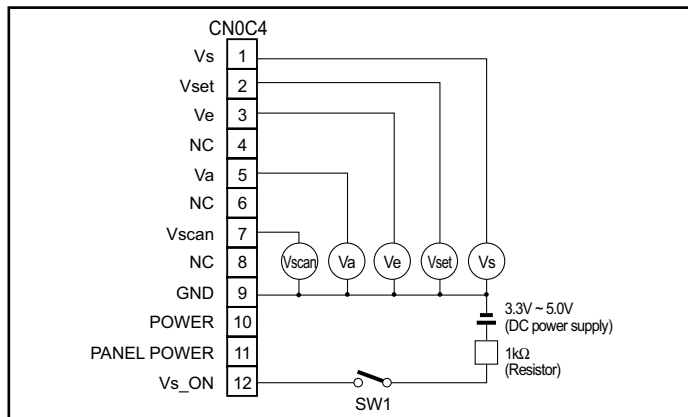


Fig. 3

Item	Measuring instrument	Test point	Adjustment part	Description
PDP POWER VOLTAGE [35V]	DC voltmeter Signal generator	Connector CN0C4 [MAIN POWER UNIT] Vs Va(Vd)	[MAIN POWER UNIT] Vs VR:190V ADJ (R1551) Va VR:60V ADJ (R1451)	CAUTION: • During adjustment operation of PDP POWER VOLTAGE, don't touch the heat sink of the MAIN POWER UNIT. If you touch it, electric shock may be caused. < When MAIN POWER UNIT is not replaced > (1) Connect the DC voltmeter to the CN0C4 connector and turn on the power. (See Fig.5) (2) Adjust Vs (190V ADJ) VR and Va (60V ADJ) VR so that the Vs and Va voltage coincides with the values in the voltage label. (3) Input a PAL all-black signal and check that it coincides with the values in the voltage label. (4) Readjust if the adjusted value is different from those in the voltage label. NOTE: • Designed value for the panel is printed on a label on the upper-left at the back of the PDP. (See Fig.6) < When MAIN POWER UNIT is replaced > CAUTION: • Before making adjustments, be sure not to turn on the power when the CN8003 and CN8005 connectors are connected, as this may cause the PDP to break down. (1) Disconnect the CN8003 and CN8005 connectors on the MAIN POWER UNIT. (2) Connect DC voltmeter to the CN0C4 connector and turn on the power. (See Fig.5) (3) Adjust Vs (190V ADJ) VR and Va (70V ADJ) VR so that the Vs and Va voltage coincides with the values in the voltage label. (4) Turn off the power, and connect the CN8003 and CN8005 connectors and turn on the power again. (5) Input a PAL all-black signal and check that it coincides with the values in the voltage label. (6) If the adjusted value is different from those in the voltage label, fine-tune without unplugging the connectors. CAUTION: • Designated power supply voltage of the panel (Vs, Va) varies according to the PDP unit. • Pay careful attention during adjustment, as any error in procedure may cause the PDP to break down.

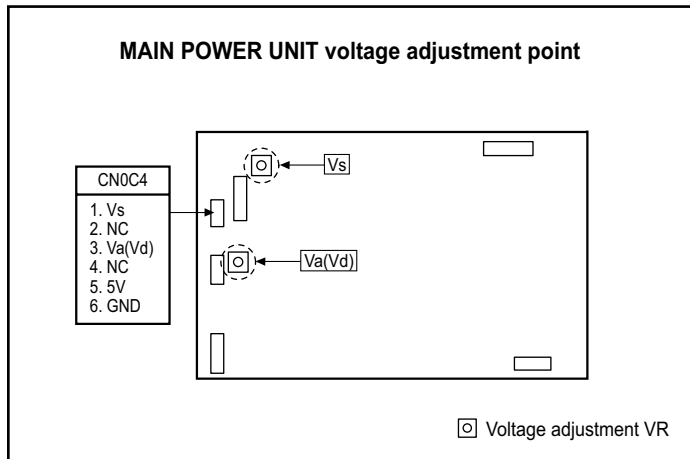


Fig. 4

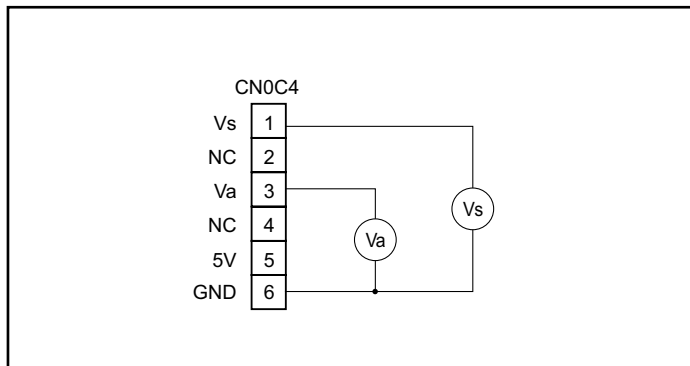


Fig. 5

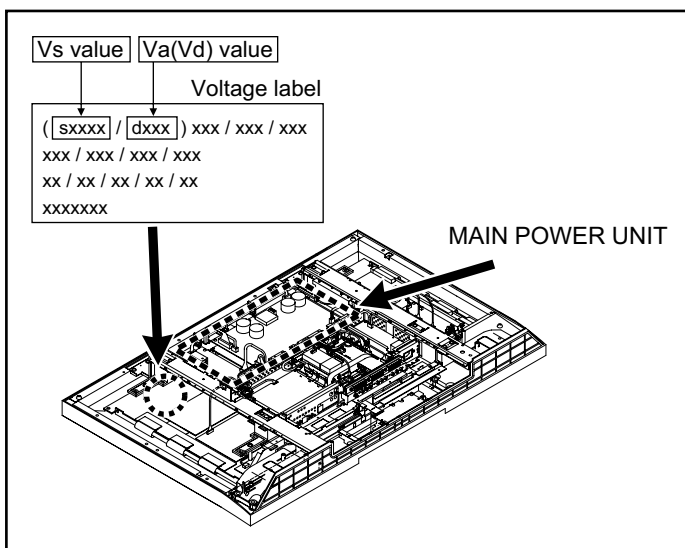
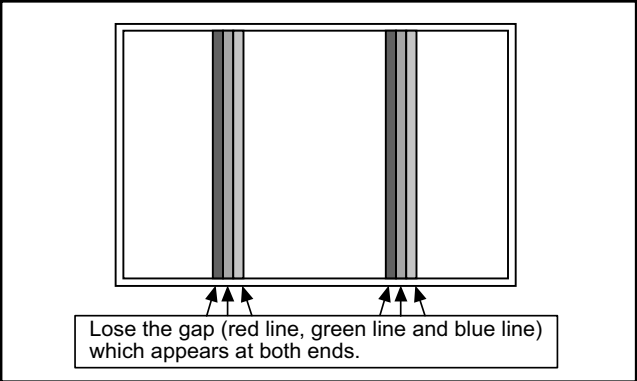
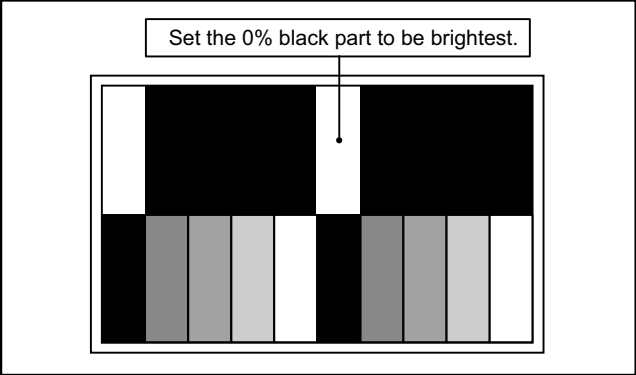
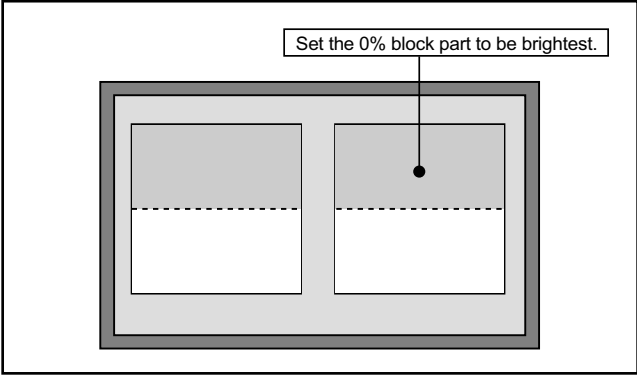


Fig. 6

Item	Measuring instrument	Test point	Adjustment part	Description
625i A-D OFFSET	Remote control unit Signal generator		[1. ADJUST] S001:PREPARE (adjustment setting mode change) S008:5i CB OF (625i blue offset) S009:5i CR OF (625i red offset) S030:R DRIVE (Red drive) S031:G DRIVE (Green drive) S032:B DRIVE (Blue drive)	<ol style="list-style-type: none"> (1) Receive a 625i component ramp pattern signal. (2) Set PICTURE MODE to "STANDARD". (3) Select "1.ADFJUST" from the SERVICE MENU. (4) Set < S030 > (Red drive), < S031 > (Green drive) and < S032 > (Blue drive) to set "255". (5) Set < S001 >(adjustment setting mode change) to set "008" and it change to the 625i A-D offset adjustment setting mode. (6) Set < S008 > (625i blue offset) and < S009 > (625i red offset) to lose the gap (red line, green line and blue line) which appears at both ends of a white part at the center of the screen. (See Fig.7) (7) Set < S001 > to set "000" and it change to the normal mode. (8) Press the [MUTING] key to memorize the set value.
 <p>Fig. 7</p>				
1125i BRIGHTNESS	Remote control unit Signal generator		[1. ADJUST] S001:PREPARE (adjustment setting mode change) S012:HD BL (1125i brightness) S030:R DRIVE (Red drive) S031:G DRIVE (Green drive) S032:B DRIVE (Blue drive)	<ol style="list-style-type: none"> (1) Receive a 1125i (50 Hz) black and white pattern signal (including 0% black signal). (2) Set PICTURE MODE to "STANDARD". (3) Select "1.ADFJUST" from the SERVICE MENU. (4) Set < S030 > (Red drive), < S031 > (Green drive) and < S032 > (Blue drive) to set "255". (5) Set < S001 > (adjustment setting mode change) to set the values "012" and it change to the 1125i black level adjustment setting mode. (6) Set < S012 > (1125i brightness) to set the 0% black part in the upper half of the screen to be brightest. (See Fig.8) (7) Set < S001 > to set "000" and it change to the normal mode. (8) Press the [MUTING] key to memorize the set value.
 <p>Fig.8</p>				

Item	Measuring instrument	Test point	Adjustment part	Description
1125i A-D OFFSET	Remote control unit Signal generator		[1.ADJUST] S001:PREPARE (adjustment setting mode change) S013:HD CB OF (1125i blue offset) S014:HD CR OF (1125i res offset) S030:R DRIVE (Red drive) S031:G DRIVE (Green drive) S032:B DRIVE (Blue drive)	<ol style="list-style-type: none"> (1) Receive a 1125i (50 Hz) 30% all-white pattern signal. (2) Set PICTURE MODE to "STANDARD". (3) Select "1.ADFJUST" from the SERVICE MENU. (4) Set < S030 > (Red drive), < S031 > (Green drive) and < S032 > (Blue drive) to set "255". (5) Set < S001 > (adjustment setting mode change) to set "013" and it change to the 1125i A-D offset adjustment setting mode. (6) Set < S013 > (1125i blue offset) to minimize the blue noise in the upper half of the screen. (See Fig.9) (7) Set < S014 > (1125i red offset) to minimize the red noise in the upper half of the screen. (See Fig.9) (8) Readjust < S013 > and < S014 > to set the upper half of the screen to be the blackest. (See Fig.9) (9) Set < S001 > to set "000" and it change to the normal mode. (10) Press the [MUTING] key to memorize the set value.
<div data-bbox="207 663 842 1037" data-label="Image"> </div> <p data-bbox="493 1050 558 1077">Fig. 9</p>				
RGB CLAMP LEVEL	Remote control unit Signal generator		[1.ADJUST] S001:PREPARE (adjustment setting mode change) S020:PC CL LB (VGA blue clamp level) S022:PC CL LR (VGA red clamp level) S030:R DRIVE (Red drive) S031:G DRIVE (Green drive) S032:B DRIVE (Blue drive)	<ol style="list-style-type: none"> (1) Receive a PC (VGA) 0% all-black pattern signal. (2) Set PICTURE MODE to "STANDARD". (3) Select "1.ADFJUST" from the SERVICE MENU. (4) Set < S030 > (Red drive), < S031 > (Green drive) and < S032 > (Blue drive) to set "255". (5) Set < S001 > (adjustment setting mode change) to set "020" and it change to the PC (VGA) RGB clamp level adjustment setting mode. (6) Set < S020 > (VGA blue clamp level) to set the upper half of the screen to be the reddest. (See Fig.10) (7) Set < S022 > (VGA red clamp level) to set the upper half of the screen to be the bluest. (See Fig.10) (8) Readjust < S020 > and < S022 > to set the upper half of the screen to be the blackest. (See Fig.10) (9) Set < S001 > to set "000" and it change to the normal mode. (10) Press the [MUTING] key to memorize the set value.
<div data-bbox="212 1608 847 1957" data-label="Image"> </div> <p data-bbox="493 1963 570 1990">Fig. 10</p>				

Item	Measuring instrument	Test point	Adjustment part	Description
SUB-SCREEN A-D OFFSET	Remote control unit Signal generator		[1. ADJUST] S001:PREPARE (adjustment setting mode change) S016:RT CB OF (Sub screen blue offset) S017:RT CR OF (Sub screen red offset) S030:R DRIVE (Red drive) S031:G DRIVE (Green drive) S032:B DRIVE (Blue drive)	<p>(1) Receive a PAL black and white pattern signal (including 0% black signal).</p> <p>(2) Set PICTURE MODE to "STANDARD".</p> <p>(3) Set MULTI-PICTURE to "TWIN-PICTURE".</p> <p>(4) Select "1.ADFJUST" from the SERVICE MENU.</p> <p>(5) Set < S030 > (Red drive), < S031 > (Green drive) and < S032 > (Blue drive) to set "255".</p> <p>(6) Set < S001 > (adjustment setting mode change) to set "017" and it change to the sub-screen A-D offset adjustment setting mode.</p> <p>(7) Set < S016 > (Sub-screen blue offset) to minimize the blue noise in the upper half of the screen. (See Fig.11)</p> <p>NOTE:</p> <ul style="list-style-type: none"> • If you select an adjustment item < S016 >, then the screen automatically turn to twin pictures mode. <p>(8) Set < S017 > (Sub-screen red offset) to minimize the red noise in the upper half of the screen. (See Fig.11)</p> <p>(9) Readjust < S016 > and < S017 > to set the upper half of the screen to be the blackest. (See Fig.11)</p> <p>(10) Adjust < S001 > to set "000" and it change to the normal mode.</p> <p>(11) Press the [MUTING] key to memorize the set value.</p>
 <p>Fig. 11</p>				
WHITE BALANCE (HIGH LIGHT)	Remote control unit Signal generator		[1. ADJUST] S030:R DRIVE (Red drive) S031:G DRIVE (Green drive) S032:B DRIVE (Blue drive)	<p>(1) Receive a PAL 75% all-white pattern signal.</p> <p>(2) Set PICTURE MODE to "STANDARD".</p> <p>(3) Set COLOUR TEMPERATURE to "NORMAL".</p> <p>(4) Select "1.ADFJUST" from the SERVICE MENU.</p> <p>(5) Keep one of < S030 > (Red drive), < S031 > (Green drive) or < S032 > (Blue drive) unchanged, then lower the other two so that the all-white screen is equally white throughout.</p> <p>NOTE:</p> <ul style="list-style-type: none"> • Set one or more of < S030 >, < S031 > and < S032 > to set values "128". <p>(6) Check that white balance is properly tracked from low light to high light. If the white balance tracking is deviated, adjust to correct it.</p> <p>(7) Press the [MUTING] key to memorize the set value.</p>

TROUBLESHOOTING

5.1 SELF-CHECK FEATURE

5.1.1 OUTLINE

This model has a "Self-check function", which checks the operation state of the circuits and informs us of a failure by flashing POWER LED when a failure occurs.

Diagnosis is performed when power is turned on, and information input to the main microcomputer is monitored at all time.

Failure detection is based on input state of I²C bus and the various control lines connected to the main microcomputer.

5.1.2 HOW TO ENTER THE SELF-CHECK MODE

- (1) Press the [INFORMATION] key and the [MUTING] key of REMOTE CONTROL UNIT simultaneously, then the SERVICE MENU screen will be displayed. (See Fig.1)
- (2) In the SERVICE MENU, press the [2] key. Then, the SELF-CHECK MODE screen will be displayed. (See Fig.2)
- (3) Press the [ZOOM (red)] key, then the second page of the SELF-CHECK MODE screen will be displayed.

NOTE:

- When the [ZOOM (red)] key pressed, the first page and the second page change screen.

5.1.3 HOW TO EXIT THE SELF-CHECK MODE

- (1) **When you leave the failure history**
Press the [MENU] key to exit the SELF-CHECK MODE.
- (2) **When you not leave the failure history**
In the SELF-CHECK MODE, press the [POWER] key. Then the power is turned off.

5.1.4 FAILURE HISTORY

Failure history can be counted up to 9 times for each item. When the number exceeds 9, display will remain as 9. Failure history will be stored in the memory unless it has been deleted.

NOTE:

Only SYNC (with/without sync signals) will be neither counted nor stored.

5.1.5 POINTS TO NOTE WHEN USING THE SELF-CHECK FEATURE

In addition to circuit failures (abnormal operation), the following cases may also be diagnosed as "Abnormal" and displayed and counted as "NG".

- (1) Temporary defective transmissions across circuits due to pulse interruptions.
- (2) Misalignment in the on/off timing of power for I²C bus (Vcc) when turning on/off the main power.

Diagnosis may be impeded if a large number of items are displayed as "NG". As such, start self-check only after 5 seconds in the case of panels upon turning on the power. If recurrences are expected, ensure to clear (reset) the failure history and record the new self-check results.

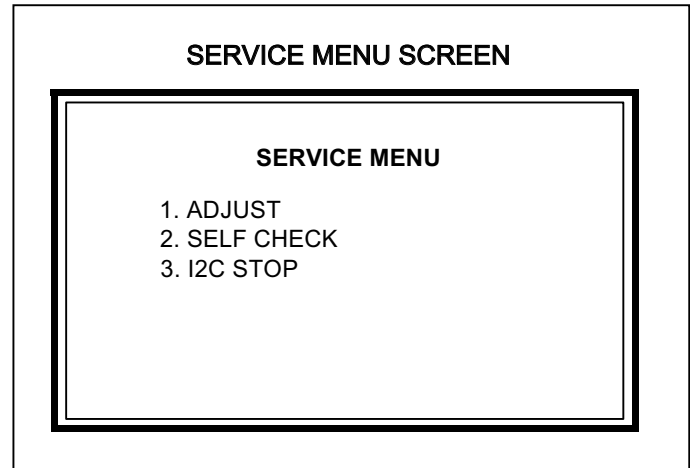


Fig. 1

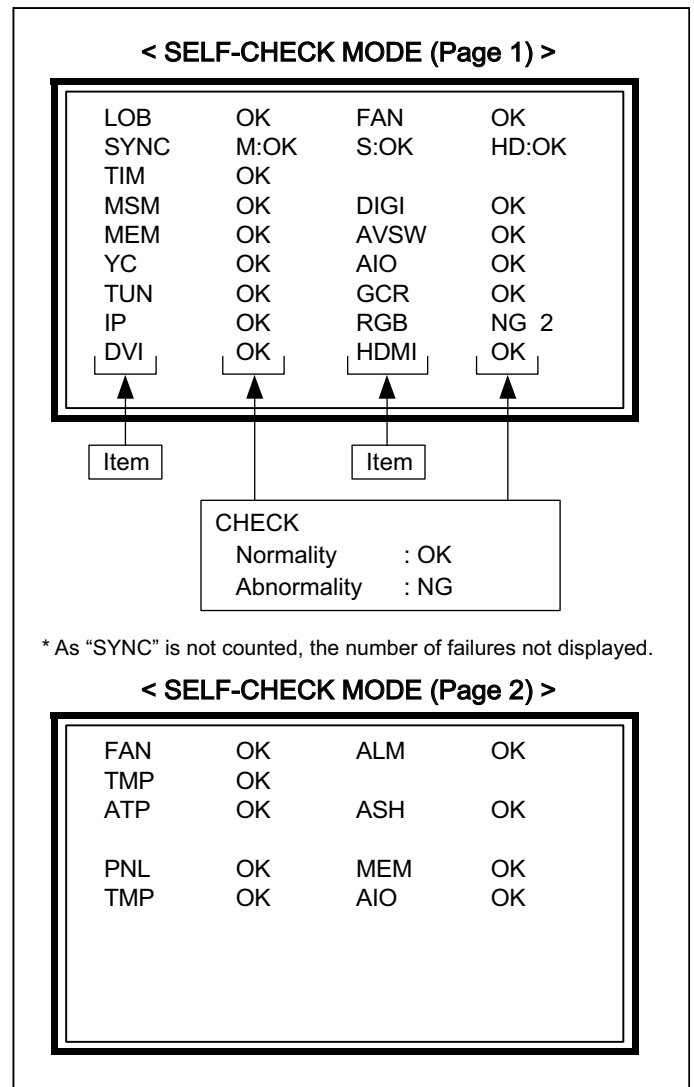


Fig. 2

5.1.6 DETAILS

Self- check is performed for the following items.

< Page 1 of screen >

Detection item	Item name	Detection content	Detection signal (line)	Detection timing
Low bias line short	LOB	Confirm the operation of the low bias (2.5V / 3.3V / 5V / 9V) protection circuit. Q9822 [REGULATOR PWB]	LB_PRO	Detection starts 3 seconds after the power is turned on. If error continues between 400ms, the power is turned off.
Fan lock	FAN	Not used.	---	Not used.
Presence of sync signal	SYNC	Confirmation of presence of video sync signal. M : Main sync signal S : Sub sync signal HD : Component sync signal IC201 [ANALOG SIGNAL PWB]	SDA	Confirmation of presence of sync signal in video signal.
AC power input	TIM	Not used.	---	Not used.
Main CPU communication	MSM	Confirmation of ACK (response) signal which uses sync communications with Chassis CPU. IC7501 [DIGITAL SIGNAL PWB]	WAKE	If it checks whenever sync communication with SHM performed, and no reply of ACK signal, an error will be counted.
BS digital tuner	DIGI	Not used.	---	Not used.
Main memory	MEM	Confirmation of reply of ACK signal which uses I ² C communication. IC7602 [DIGITAL SIGNAL PWB]	SDA	If it checks whenever I ² C communication is performed, and no reply of ACK signal, an error will be counted.
AV select switch	AVSW	Same as above. IC301, IC501 [ANALOG SIGNAL PWB]	SDA	Same as above.
3 dimensions YC separator	YC	Same as above. IC1001 [DIGITAL SIGNAL PWB]	SDA	Same as above.
Multi sound processor	AIO	Same as above. IC3501 [RECEIVER PWB]	SDA	Same as above.
RF tuner	TUN	Same as above. IC3001 [RECEIVER PWB]	SDA	Same as above.
Ghost reduction	GCR	Not used.	---	Not used.
DIST process	IP	Confirmation of reply of ACK signal which uses I ² C communication. IC3001 [DIGITAL SIGNAL PWB]	SDA	If it checks whenever I ² C communication is performed, and no reply of ACK signal, an error will be counted.
RGB process	RGB	Same as above. IC4001 [DIGITAL SIGNAL PWB]	SDA	Same as above.
DVI (Digital communication)	DVI	Not used.	---	Not used.
HDMI input	HDMI	Not used.	---	Not used.

Detection item	Item name	Detection content	Detection signal (line)	Detection timing
Fan lock	FAN	Not used.	---	Not used.
Abnormal of operation of PDP (PANEL)	ALM	Confirm the operation of the panel protection. [PDP UNIT]	SDA	Detection starts 8 seconds after the power is turned on. Detection is performed every 16ms. If errors continues between 300ms, the power is turned off.
Abnormal rise of temperature in PDP (PANEL)	TMP	It detects whether the temperature in a display unit is normal. IC8101 [TEMP. SENSOR PWB]	SDA	Detection starts 8 seconds after the power is turned on. Detection is performed every 0.5 seconds. If a temperature rises beyond the temperature of 71°C for detection of error over the predetermined 120 times, the power is turned off.
Abnormal rise of temperature in AUDIO PWB	ATP	It detects whether the temperature in a AUDIO PWB is normal. TH6401 [AUDIO PWB]	AMP_PRO1	Detection starts 5 seconds after the LOB is turned on. Detection is performed every 1 seconds. If the temperature of 110°C is detected for 10 seconds or more, the power is turned off.
Short circuit detection of AUDIO PWB	ASH	Not used.	---	Not used.
Panel communication	PNL	It confirm whether panel communication is normal. [PDP UNIT]	SDA	If it checks whenever I ² C communication is performed, and no reply of ACK signal, an error will be counted.
Sub memory	MEM	Confirmation of reply of ACK signal which uses I ² C communication. IC805 [INTERFACE PWB]	SDA	If it checks whenever I ² C communication is performed, and no reply of ACK signal, an error will be counted.
Temp. sensor	TMP	Same as above. IC8101 [TEMP. SENSOR PWB]	SDA	Same as above.
Audio control	AIO	Same as above. IC6521 [AUDIO PWB]	SDA	Same as above.

5.1.7 METHOD OF DISPLAY WHEN A RASTER IS NOT OUTPUT

In the state where a raster is not output by breakdown of the set, an error is displayed by blink of the POWER LED.

Type of error	Item name	POWER LED flash cycle
Low bias line short	LOB	Low luminance blue Flash 1.0 second / Low luminance blue Out 1.0 seconds
Abnormal of operation of PDP (PANEL)	ALM	High luminance blue Flash 1.0 second / High luminance blue Out 1.0 seconds
Abnormal rise of temperature in PDP (PANEL)	TMP	High luminance blue Flash 2.0 second / High luminance blue Out 2.0 seconds
Abnormal rise of temperature in AUDIO PWB	ATP	High luminance blue Flash 0.1 second / Low luminance blue Out 0.1 seconds

< Explanation of operation >

If error is detected, the power is turned off.

Shortly after a power is turned off, POWER LED will be blinked.

Power cannot be turned on until the power cord takes out and inserts, after a power is turned off.