

REPLACEMENT OF MEMORY ICs

1. Memory ICs

This TV uses memory ICs. In the memory ICs, there are memorized data for correctly operating the video and deflection circuits. When replacing memory ICs, be sure to use ICs written with the initial values of data.

2. Procedure for replacing memory ICs

PROCEDURE	
(1) Power off	Switch the power off and unplug the power cord from the outlet.
(2) Replace ICs.	Be sure to use memory ICs written with the initial data values.
(3) Power on	Plug the power cord into the outlet and switch the power on.
(4) Check and set SYSTEM CONSTANT SET:	<ul style="list-style-type: none"> * It must not adjust without signal. <ol style="list-style-type: none"> 1) Press the INFORMATION key and the MUTING key of the REMOTE CONTROL UNIT simultaneously. 2) The SERVICE MENU screen of Fig. 1 will be displayed. 3) While the SERVICE MENU is displayed, press the INFORMATION key and MUTING key simultaneously, and the SYSTEM CONSTANT SET screen of Fig. 2 will be displayed. 4) Check the setting values of the SYSTEM CONSTANT SET of Table 1. If the value is different, select the setting item with the FUNCTION UP/DOWN key, and set the correct value with the FUNCTION -/+ key. 5) Press the MENU key to memorize the setting value. 6) Press the INFORMATION key twice, and return to the normal screen.
(5) Setting of receive channels	<p>Set the receive channel. For setting, refer to the OPERATING INSTRUCTIONS.</p>
(6) User settings	<p>Check the user setting values of Table 2, and if setting value is different, set the correct value. For setting, refer to the OPERATING INSTRUCTIONS.</p>
(7) Setting of SERVICE MENU	<p>Verify the setting items of the SERVICE MENU of Table 3, and reset where necessary. For setting, refer to the SERVICE ADJUSTMENTS.</p>

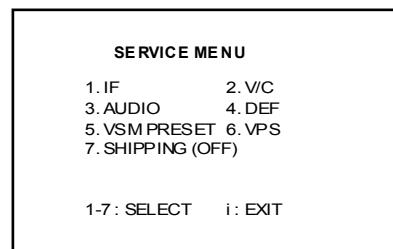


Fig.1



Fig.2

NAME OF REMOTE CONTROL KEY

Names of key	key
INFORMATION	
MUTING	
MENU	
FUNCTION UP/DOWN	
FUNCTION -/+	

SETTING VALUES OF SYSTEM CONSTANT SET (TABLE 1)

Setting item	Setting content	Setting value	Setting item	Setting content	Setting value
1.DESTINATION	►EK ►EI ►EP	EK	5.COMB	YES ←→ NO	NO
2.DOLBY	YES ←→ NO	YES	6.PICTUR TILT	YES ←→ NO	NO
3.BBE	YES ←→ NO	NO	7.FLAT	YES ←→ NO	YES
4.TV SPEAKER	YES ←→ NO	YES	8.3-D	YES ←→ NO	NO

USER SETTING VALUES (TABLE 2)

SOUND LEVEL	10	SUB POWER	ON
SHIPPING CHANNEL	1	ZOOM MODE	PANORAMIC

USER MENU SETTING					
PICTURE SETTING		EXT SETTING			
TINT CONTRAST BRIGHT SHARP COLOUR		COOL REFER to VSM PRESET		DUBBING	EXT-1→EXT-2
AUTO VNR COLOUR SYSTEM 4:3 AUTO ASPECT		AUTO TV : According to preset CH EXT : AUTO PANORAMIC		SLEEP TIMER BLUE BACK CHILD LOCK DECODER (EXT-2)	OFF ON ID : No.**** ALL CH OFF OFF
PICTURE FEATURES			FEATURES		
STEREO / I · II BASS		CENTER		LANGUAGE	ENGLISH
TREBLE		CENTER		EDIT/MANUAL	PRESET CH only The others : BLANK
SOUND SETTING			INSTALL		
PRO LOGIC 3-D PHONIC LEVEL		CINEMA / SPORT CENTER		DEMO	OFF
DIGITAL SURROUND					

SERVICE MENU SETTING ITEMS (TABLE 3)

Setting item	Setting value	Setting item	Setting value
1. IF	VCO	4. DEF.	1. V-SHIFT 2. V-SIZE 3. SUBTITLE 4. H-CENT 5. H-SIZE 6. EW-PIN 7. TRAPEZ 8. EW. COR. L 9. EW. COR. H 10. V. S-COR 11. V- LIN 12. H-BLK-R 13. H-BLK-L 14. V-EHT 15. H-EHT 16. EHT-GAIN
2. V / C	1. CUT OFF 2. DRIVE 3. BRIGHT 4. CONT. 5. COLOUR 6. HUE 7. BLACK OFFSET (Only SECAM) 8. SHARP	5. VSM PRESET COOL NORMAL WARM	1. BRIGHT 2. CONT. 3. COLOUR 4. SHARP 5. HUE 6. R DRIVE 7. B DRIVE
3. AUDIO (Do not adjust)	1. ERROR LIMIT 2. A2 ID THR 3. BASS 4. TREBLE	6. VPS (Do not adjust)	VPS PDC WSS
		7. SHIPPING (Do not adjust)	ON / OFF

SERVICE ADJUSTMENTS

BEFORE STARTING SERVICE ADJUSTMENT

1. There are 2 ways of adjusting this TV: One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.
2. The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
3. Make sure that connection is correctly made to AC power source.
4. Turn on the power of the TV and measuring instrument for warming up for at least 30 minutes before starting adjustment.
5. If the receive or input signal is not specified, use the most appropriate signal for adjustment.
6. Never touch parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.
7. Preparation for adjustment (presetting):
Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT:
 - Setting position

PICTURE MODE (VSM)	NORMAL
SLEEP TIMER	OFF
BALANCE	CENTER
ZOOM	PANORAMIC

MEASURING INSTRUMENT AND FIXTURES

1. DC voltmeter (or digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator) [PAL / NTSC]
4. Remote control unit

ADJUSTMENT ITEMS

- B1 POWER SUPPLY check.
- HIGH VOLTAGE check.
- FOCUS Adjustment.
- IF circuit adjustment.
- VSM preset adjustment.
- VIDEO / CHROMA circuit adjustment.
- DEFLECTION circuit adjustment.
- H BLANKING adjustment.
- AUDIO circuit adjustment. (Do not adjust)

BASIC OPERATION SERVICE MENU

1. TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

2. SERVICE MENU ITEMS

With the SERVICE MENU, various settings (adjustments) can be made, and they are broadly classified in the following items of settings (adjustments):

- (1) **1. IF** This mode adjusts the setting values of the IF circuit.
- (2) **2.V/C** This mode adjusts the setting values of the VIDEO / CHROMA circuit.
- (3) **3.AUDIO** This mode adjusts the setting values of the multiplicity SOUND circuit. (**Do not adjust**)
- (4) **4.DEF** This mode adjusts the setting values of the DEFLECTION circuit for each aspect mode given below.

REGULAR	(50/60Hz)
PANORAMIC	(50/60Hz)
14:9 ZOOM	(50/60Hz)
16:9 ZOOM	(50/60Hz)
16:9 SUB TITLE	(50/60Hz)
FULL	(50/60Hz)

- (5) **5.VSM PRESET** This mode adjusts the initial setting values of COOL, NORMAL and WARM.
(VSM : Video Status Memory)
- (6) **6.VPS** This mode shows the monitor of the VPS, PDC and WSS. (**Do not adjust**)
(VPS : Video Program System, PDC : Program Delivery Code, WSS : Wide Screen Signalling)
- (7) **7.SHIPPING** This menu is set at shipping. (**Do not adjust**)

3. BASIC OPERATION OF SERVICE MENU

(1) How to enter SERVICE MENU

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.

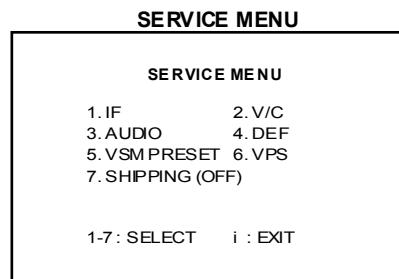


Fig.1

(2) Selection of SUB MENU SCREEN

Press one of keys 1~7 of the REMOTE CONTROL UNIT and select the SUB MENU SCREEN (See Fig. 3), from the SERVICE MENU.

SERVICE MENU → SUB MENU

- 1. IF
- 2. V / C
- 3. AUDIO
- 4. DEF.
- 5. VSM PRESET
- 6. VPS
- 7. SHIPPING

NAME OF REMOTE CONTROL KEY	
Names of key	key
INFORMATION	
MUTING	
MENU	
FUNCTION UP/DOWN	
FUNCTION -/+	

Fig.2

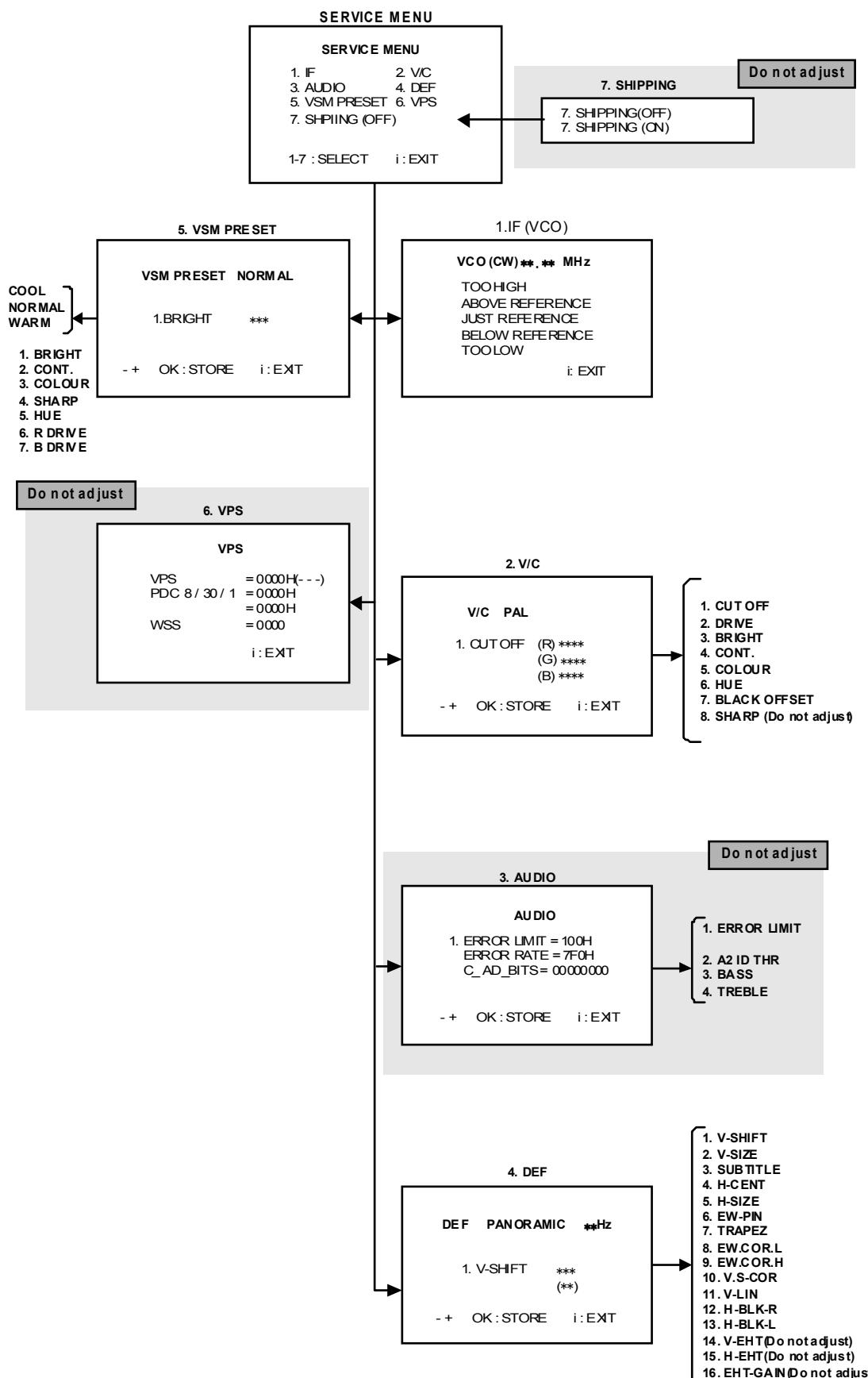


Fig. 3 SUB MENU SCREEN

(3) **Method of Setting**

1) Method of Setting **1.IF**

[VCO]

- ① 1 Key Select 1.IF.
- ② The VCO (CW) screen will be displayed in yellow when the AFC voltage is at a certain level and in blue when it is at other levels.
- ③ INFORMATION Key Return to the SERVICE MENU screen.

2) Method of setting **2.V/C, 3.AUDIO, 4.DEF** and **5.VSM PRESET**.

- ① 2~5 Key Select one from **2.V/C, 3.AUDIO, 4.DEF** and **5.VSM PRESET**.
- ② FUNCTION UP / DOWN Key Select setting items.
- ③ FUNCTION -/+ Set (adjust) the setting values of the setting items.
(Use the number keys of the REMOTE CONTROL UNIT for setting of WHITE BALANCE.
For the setting, refer to each item concerned.)
- ④ MENU Key Memorize the setting value.
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF key -
if you do, the values will not be stored in memory.)
- ⑤ INFORMATION Key Return to the **SERVICE MENU** screen.

3) Method of setting **6.VPS** and **7.SHIPPING**.

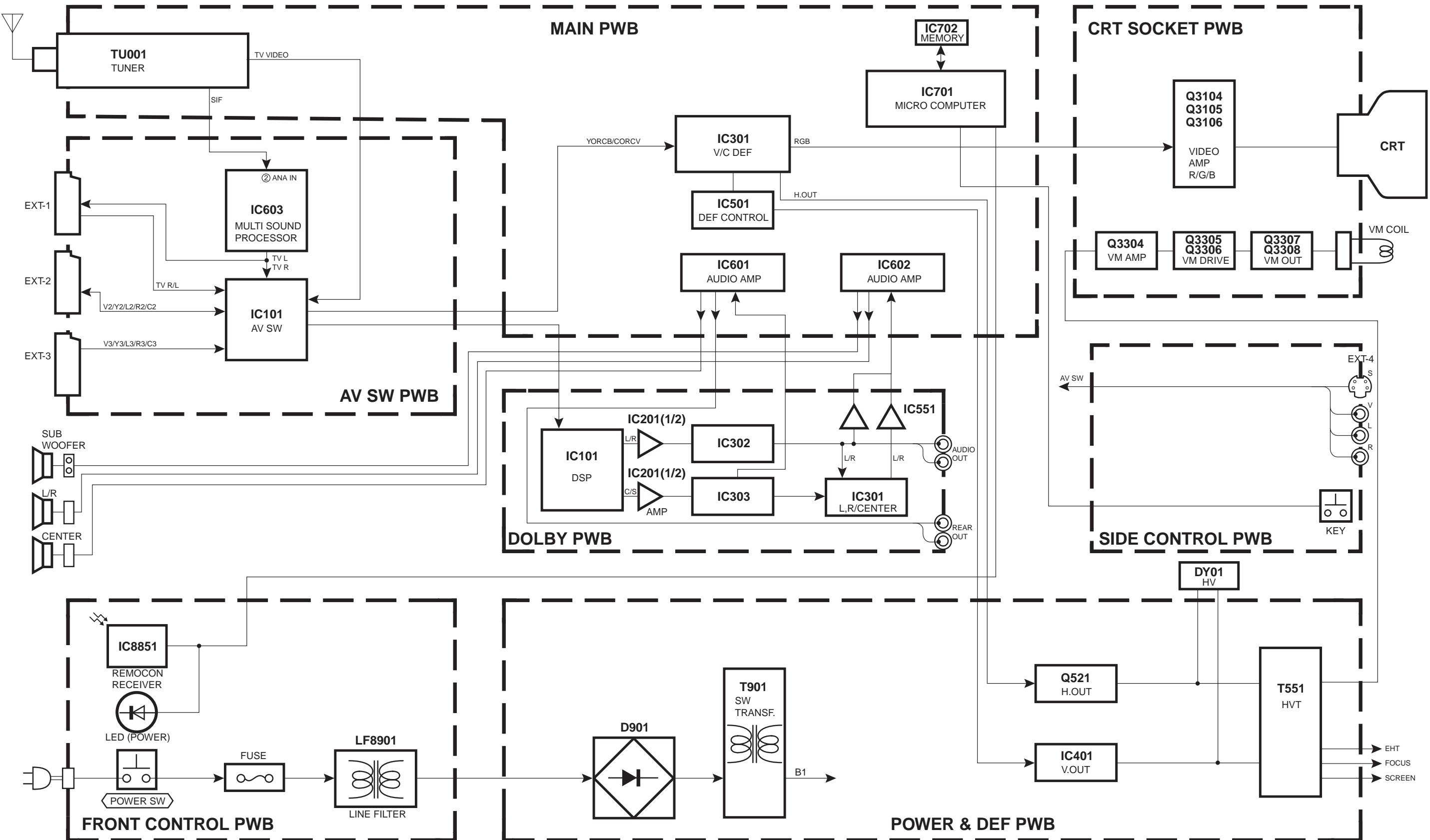
6.VPS This mode displayed monitor of VPS systems. (**Do not adjust**)

7.SHIPPING When the MAIN POWER is turned on with the state of SHIPPING ON, you get a mode that initializes every existing set value including language selection. Because this mode is set at the factory upon completion of the adjustment, you need not to use it for service.
(**Do not adjust in this mode.**)

(4) **Release of SERVICE MENU**

- 1) After completing the setting, return to the SERVICE MENU, then again press the INFORMATION key.

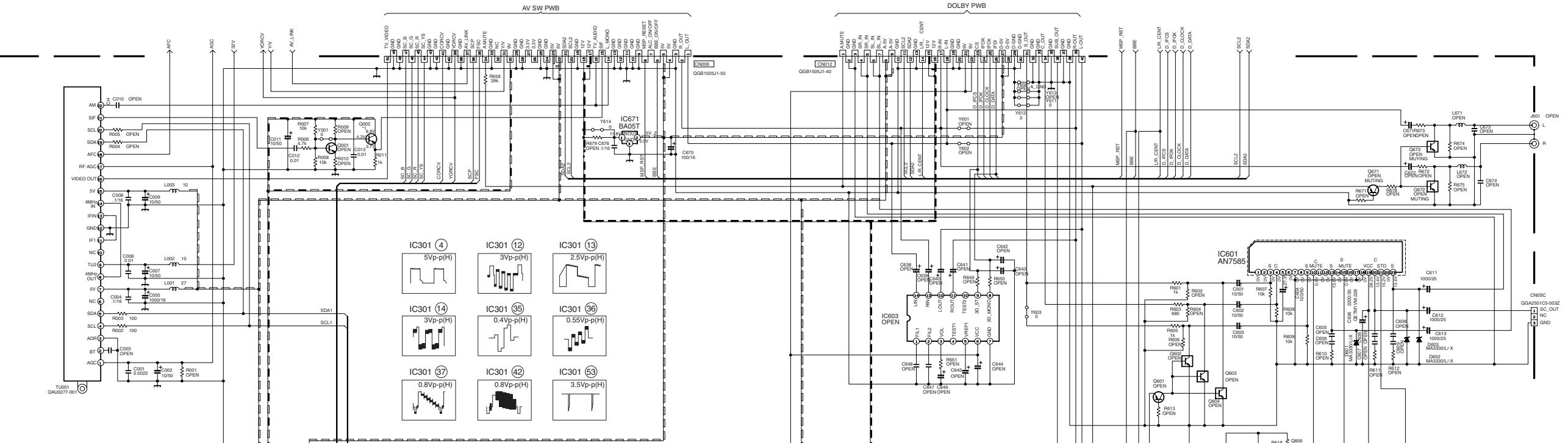
BLOCK DIAGRAM



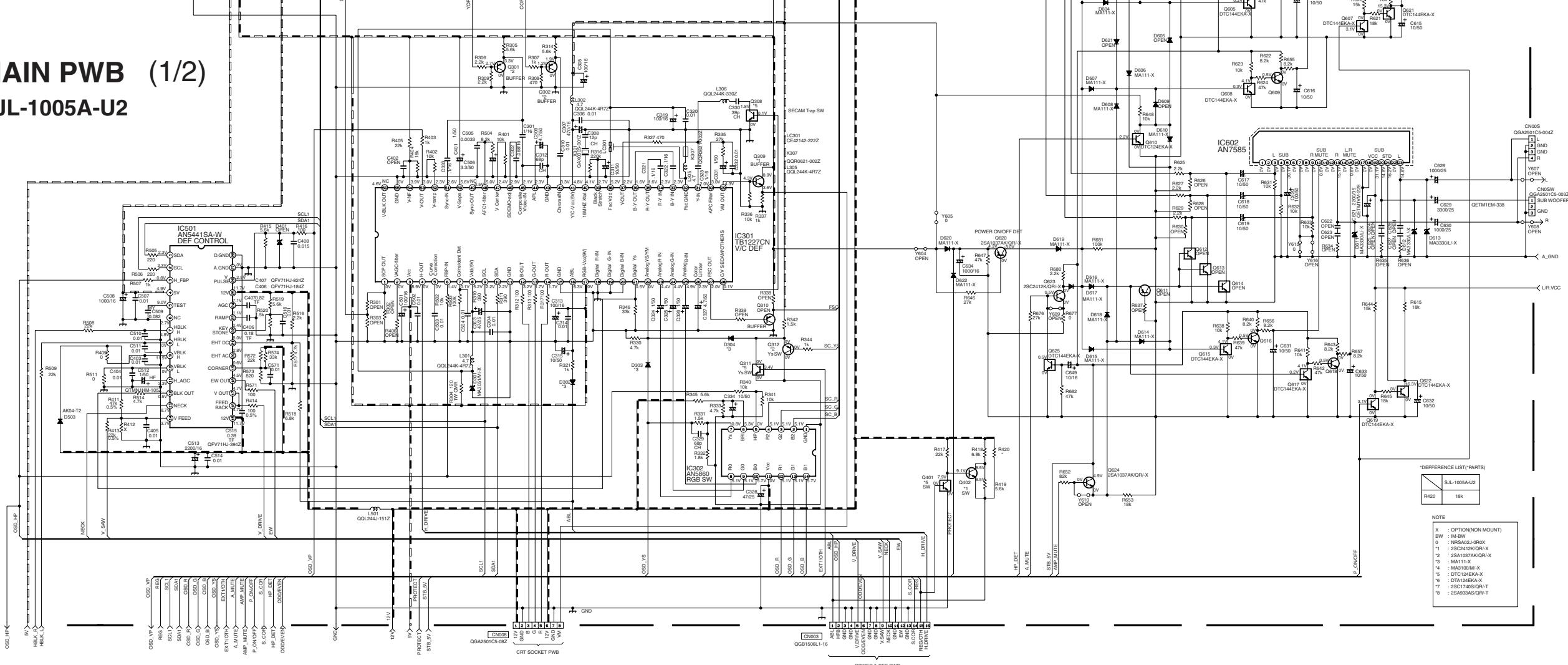
CIRCUIT DIAGRAMS MAIN PWB CIRCUIT DIAGRAMS [1/2]

AV28R25EKS
AV28R250EKS

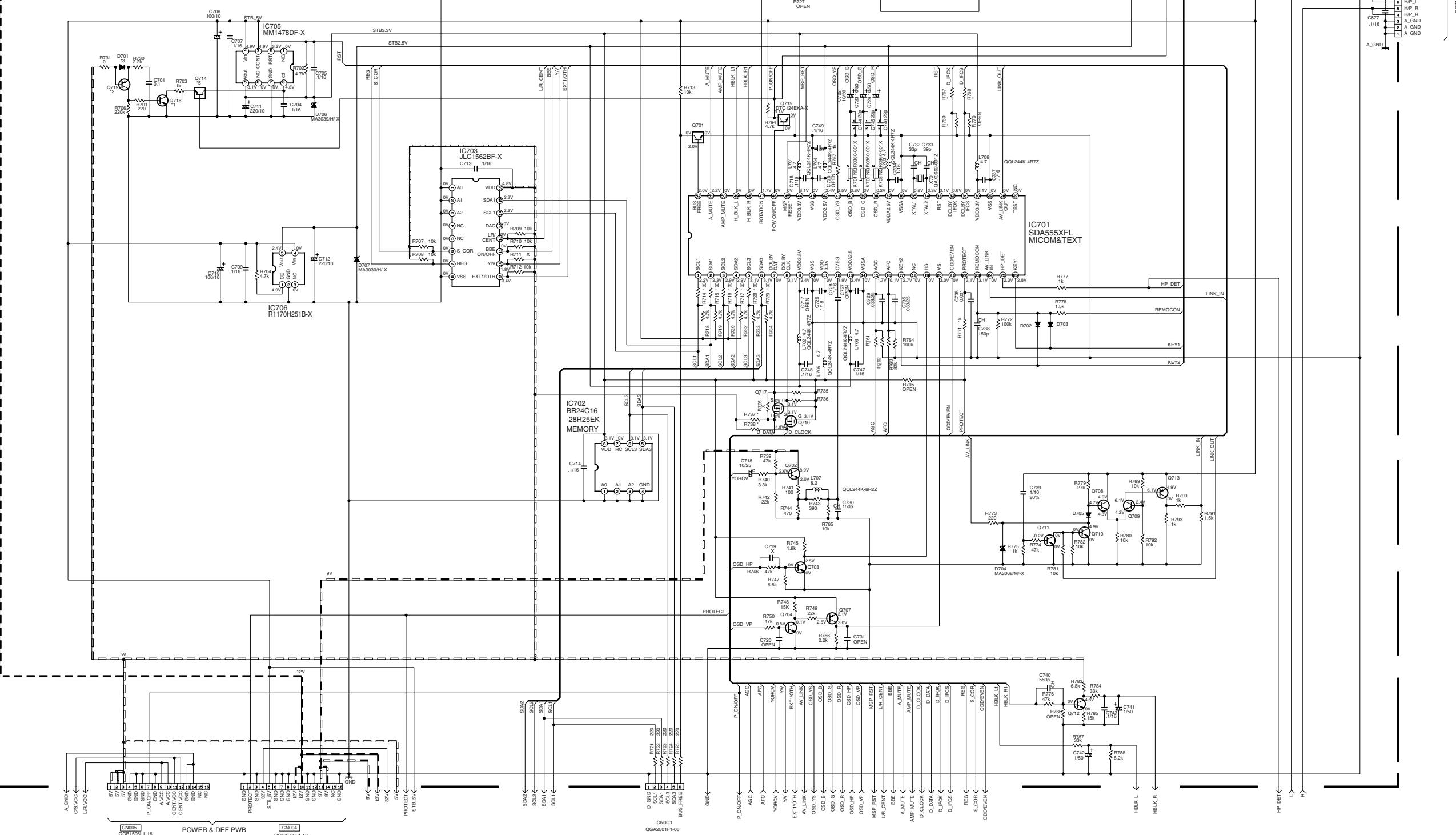
AV28R25EKS
AV28R250EKS



MAIN PWB (1/2)
SJL-1005A-U2



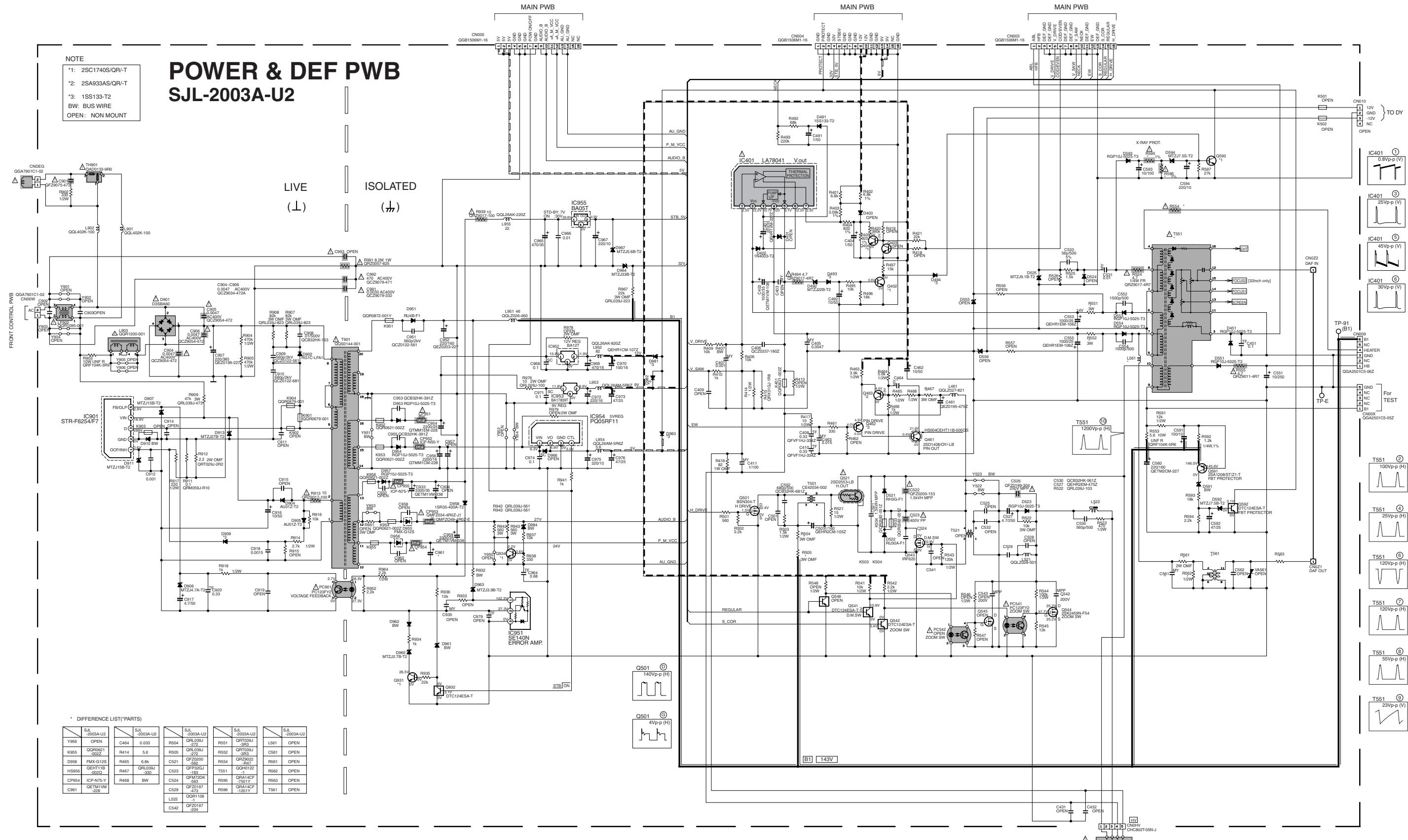
MAIN PWB CIRCUIT DIAGRAM [2/2]

MAIN PWB
(2/2)
SJL-1005A-U2

POWER & DEF PWB CIRCUIT DIAGRAM

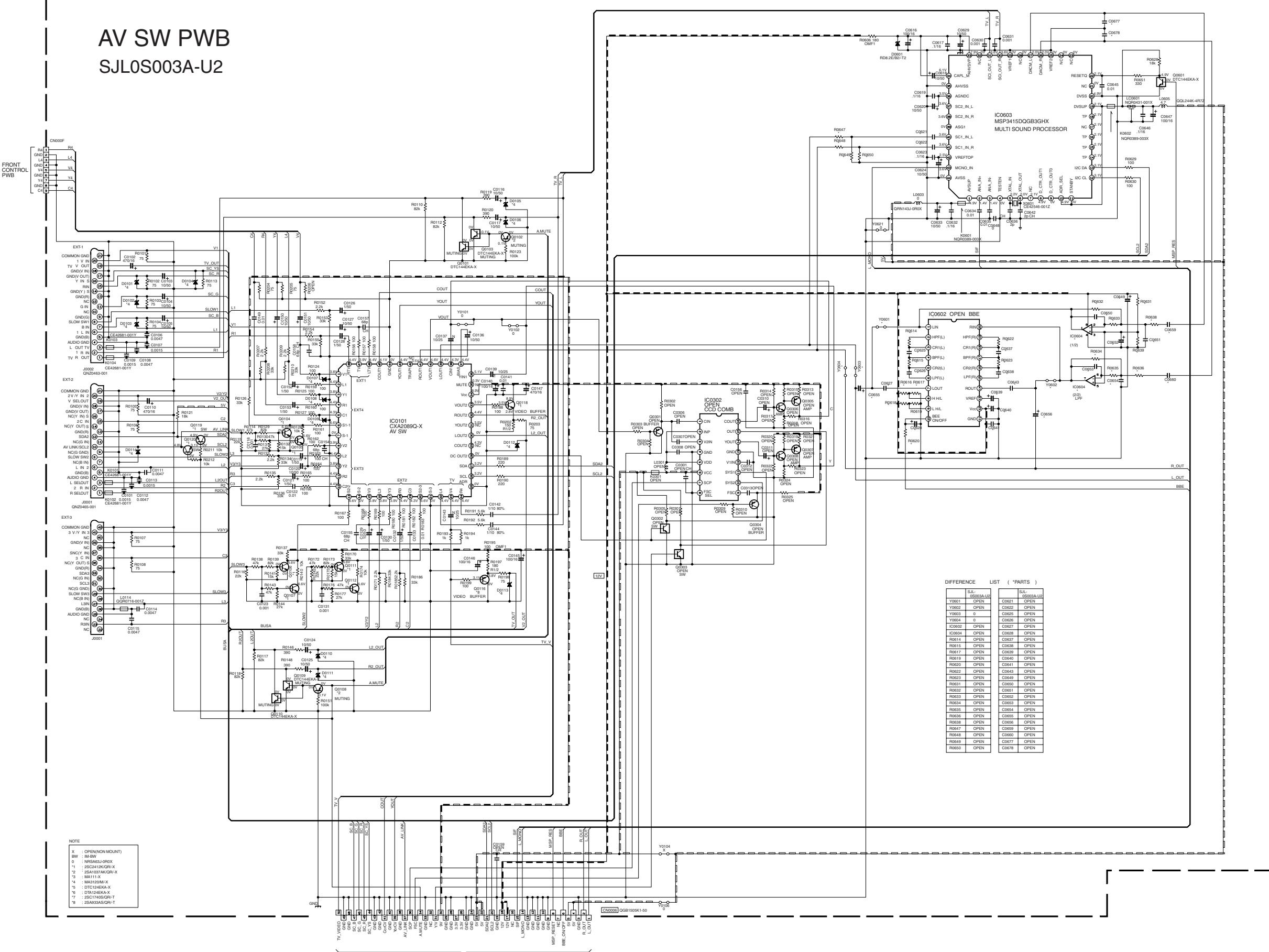
AV28R25EKS
AV28R250EKS

AV28R25EKS
AV28R250EKS

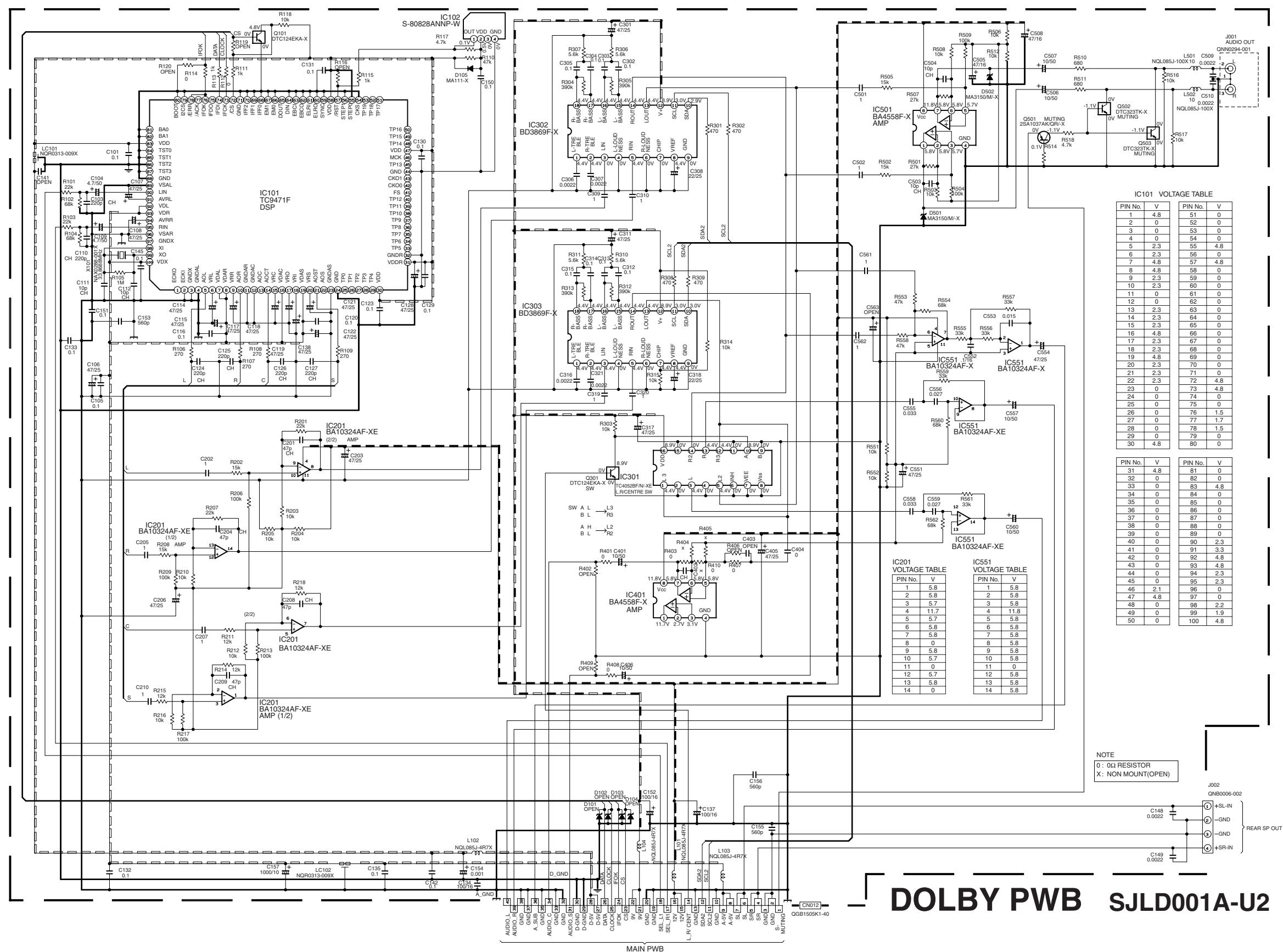


AV SW PWB CIRCUIT DIAGRAM

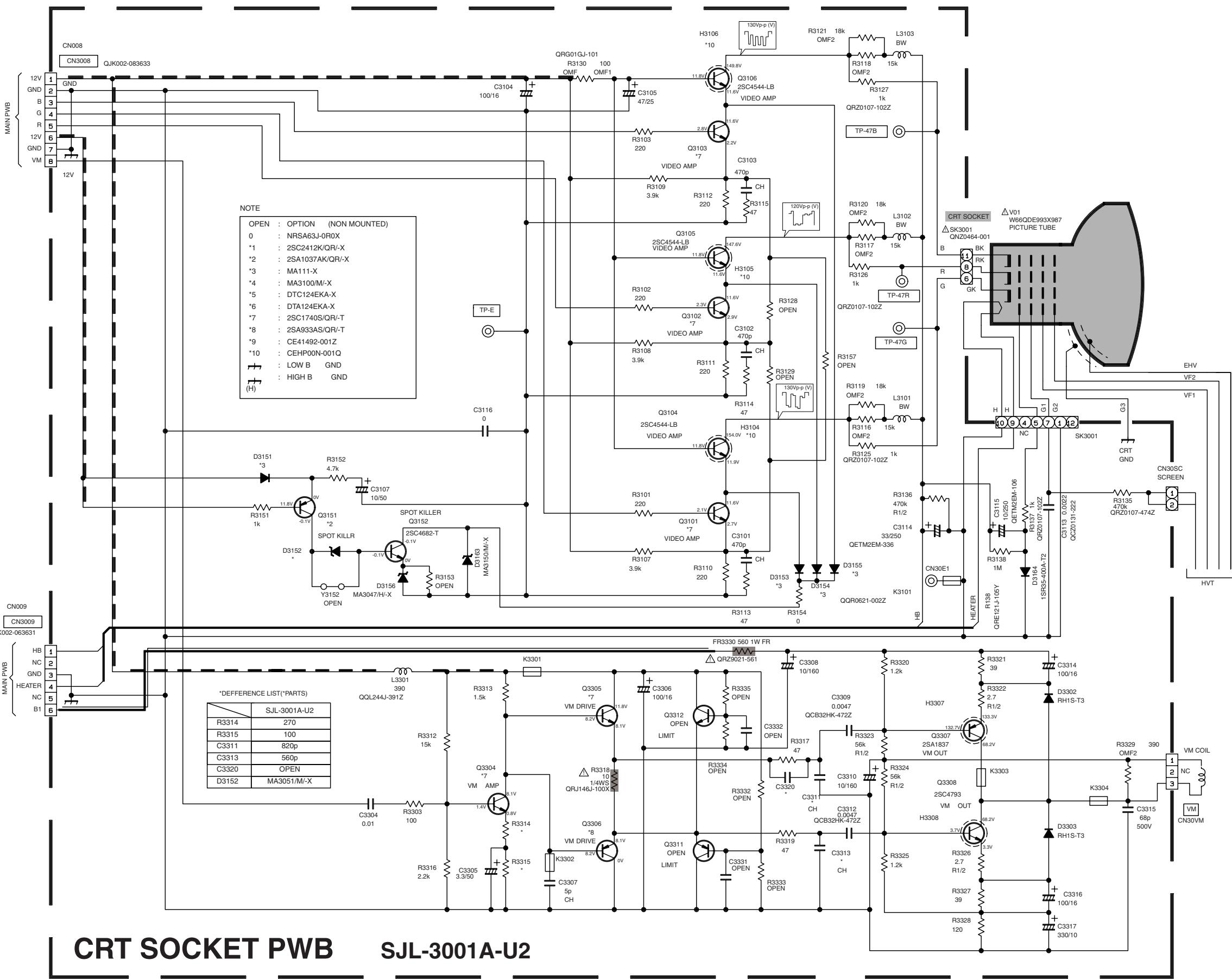
AV SW PWB
SJL0S003A-U2



DOLBY PWB CIRCUIT DIAGRAM



CRT SOCKET PWB CIRCUIT DIAGRAM

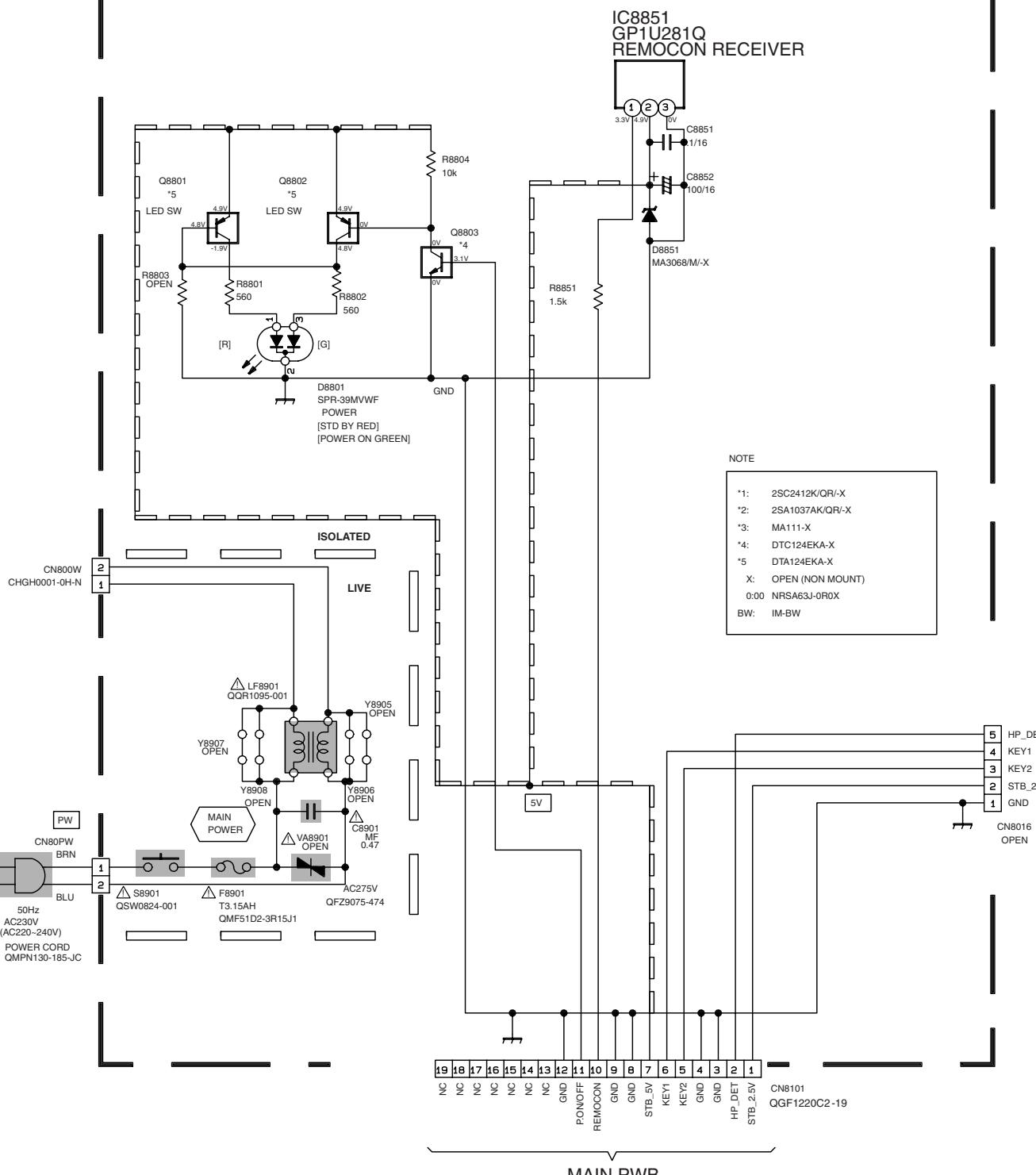


FRONT CONTROL PWB CIRCUIT DIAGRAM

AV28R25EKS
AV28R250EKS

AV28R25EKS
AV28R250EKS
SIDE CONTROL PWB CIRCUIT DIAGRAM

FRONT CONTROL PWB
SJL-8003A-U2



SIDE CONTROL PWB
SJL-8101A-U2

