

SERVICE MANUAL

FE-2 CHASSIS

MODEL	COMMANDER	DEST	CHASSIS NO.	MODEL	COMMANDER	DEST	CHASSIS NO.
KV-24LS35B	RM-932	FR	SCC-Q54M-A	KV-24LS35U	RM-932	UK	SCC-Q52J-A
KV-24LS35E	RM-932	ESP	SCC-Q53N-A				

FD Trinitron



TRINITRON[®] COLOR TV
SONY[®]

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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR THE CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD DUE TO LIVE CHASSIS, THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED Δ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!


LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE Δ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÉCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
B	B/G/H, D/K, I, L	GERMAN/NICAM Stereo	VHF : E2-E12, F2-F10 UHF : E21-E69, F21-F69, B21-B69 CABLE TV : S01-S03, S1-S20, B-Q HYPER : S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
E	B/G/H, D/K	GERMAN/NICAM Stereo	VHF : E2-E12 UHF : E21-E69 CABLE TV : S01-S03, S1-S20 HYPER : S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
U	I	NICAM Stereo	I UHF : E21-E69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

Picture Tube	Flat Display FD Trinitron Approx 61 cm (24 inches) (Approx 56 cm picture measured diagonally)	Sound output	
		Right and Left speaker	2x14W (Music Power) 2x7W (RMS)
Input/Output Terminals [REAR]		General Specifications	
1: 21-pin Euro connector (CENELEC standard)	Inputs for Audio and Video signals. Inputs for RGB. Outputs of TV Video and Audio signals.	Power Requirements	220 - 240V
2: 21-pin Euro connector	Inputs for Audio and Video signals. Inputs for S Video. Outputs of TV Video and Audio signals. (selectable)	Power Consumption	68 W
Phono Jacks	Output Connectors variable for Audio Signals	Dimensions	Approx 693x441x491mm
Input/Output Terminals [SIDE]		Weight	Approx 28.5kg
Headphone jack	stereo mini jack	Supplied Accessories	RM-932 Remote Commander (1) IEC designated R6 battery (2)
Audio inputs	phono jacks	Other Features	TV system Autodetection, Teletext Virtual Dolby
Video inputs	phono jacks	Remote Control System : Infrared Control	
S Video input	4 pin DIN	Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Design and specifications are subject to change without notice.			

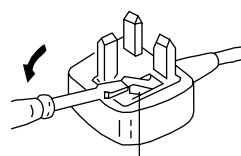
Model Name Item	KV-24LS35B	KV-24LS35E	KV-24LS35U
Pal Comb	OFF	OFF	OFF
PIP	OFF	OFF	OFF
RGB Priority	ON	ON	ON
Woofer Box	OFF	OFF	OFF
Scart 1	ON	ON	ON
Scart 2	ON	ON	ON
Front in (3)	ON	ON	ON
Scart 4	OFF	OFF	OFF
Projector	OFF	OFF	OFF
Norm B/G	ON	ON	OFF
Norm I	ON	OFF	ON
Norm D/K	ON	ON	OFF
Norm AUS	OFF	OFF	OFF
Norm L	ON	OFF	OFF
Norm SAT	OFF	OFF	OFF
Norm M	OFF	OFF	OFF
Teletext	ON	ON	ON
Nicam Stereo	ON	ON	ON

WARNING (UK Models only)

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** rating. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by ASTA to **BS 1362**, ie one that carries the  mark.

IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR THE OUTLET SOCKETS IN YOUR HOME, IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET.

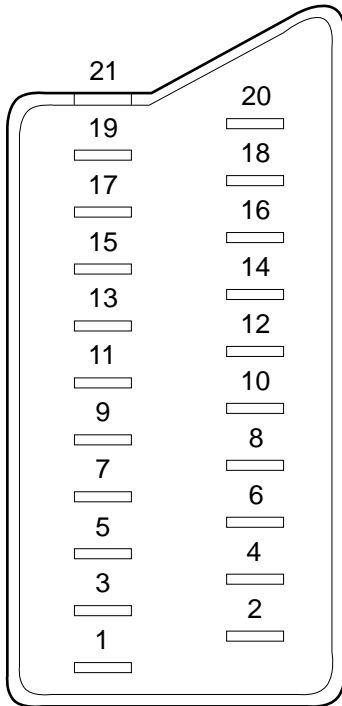
When an alternative type of plug is used, it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.
Open the fuse compartment with a screwdriver blade and replace the fuse.

FUSE

21 pin connector



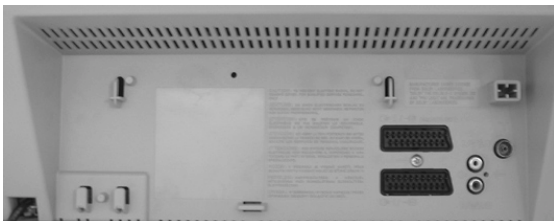
Pin No	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
2	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedance : More than 10kohm*
7	○	●	●	Blue input	0.7 +/- 3dB, 75 ohms positive
8	○	○	○	Function select (AV control)	High state (9.5-12V) : Part mode Low state (0-2V) : TV mode Input impedance : More than 10K ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 +/- 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground (blanking)	
15	○	-	-	Red input	0.7 +/- 3dB, 75 ohms, positive
	-	○	○	(S signal Chroma input)	0.3 +/- 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1-3V) Low state (0-0.4V) Input impedance : 75 ohms
17	○	○	○	Ground (video output)	
18	○	○	○	Ground (video input)	
19	○	○	○	Video output	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
20	○	-	-	Video input	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
	-	○	○	Video input Y (S signal)	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected



Not Connected (open) * at 20Hz - 20kHz

Rear Connection Panel



Front Connection Panel

S-Video socket



S Video socket pin configuration		
Pin No	Signal	Signal Level
1	Ground	-
2	Ground	-
3	Y (S signal) input	1V +/- 3dB 75ohm, positive Sync. 0.3V -3 +10dB
4	C (S signal) input	0.3V +/- 3dB 75ohm, positive Sync.

FE-2 SELF DIAGNOSTIC SOFTWARE

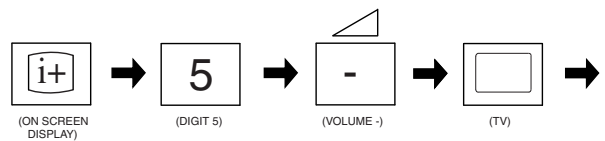
The identification of errors within the FE-2 chassis is triggered in one of two ways :- 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED (Series of flashes which must be counted) See table 1., non fatal errors are reported using this method. Each time the software detects an error it is stored within the NVM. See Table 2.

Table 1

Error Message	LED Code
No error	00
Reserved	01
OCP (Over Current Protection)	02
Not Used	03
No Vertical Sync	04
IKR Error at power on	05
IIC bus clock and/or data lines low at power on	06
NVM no IIC bus acknowledge at power on	07
Not Used	08
Tuner no acknowledge at power on	09
Sound Processor Error	10
Jungle controller 8 volts error	11

How to enter into Table 2

1. Turn on the main power switch of the TV set and enter into the 'Standby Mode'.
2. Press the following sequence of buttons on the Remote Commander.



3. The following table will be displayed indicating the error count.

Flash Timing Example : e.g. error number 3

SiBy LED

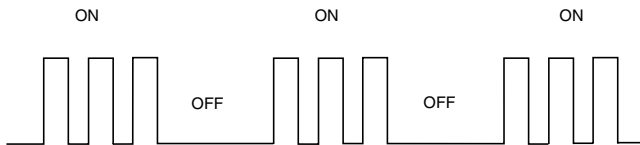



Table 2

ERROR MENU			
E02	OCP	(0, 255)	0
E03	OVP N/A	(0, 255)	0
E04	VSYNC	(0, 255)	0
E05	IKR	(0, 255)	0
E06	IIC	(0, 255)	0
E07	NVM	(0, 255)	0
E08	JUNGLE	(0, 255)	0
E09	TUNER	(0, 255)	0
E10	SOUNDP	(0, 255)	0
E11	8V	(0, 255)	0
WORKING TIME			
HOURS			2
MINUTES			11

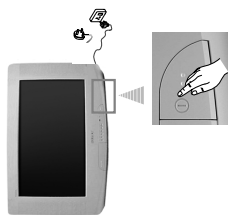
Note: To clear the error count data press '80' on the Remote commander.

The operating instructions mentioned here are partial abstracts from the 'Operating Instruction Manual'. The page numbers of the 'Operating Instruction Manual' remain as in the manual.

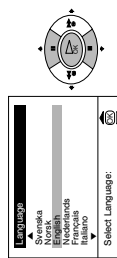
Switching On the TV and Automatically Tuning

- 1** The first time you switch on your TV, a sequence of menu screens appear on the TV enabling you to: 1) choose the language of the menu screen, 2) adjust the picture slant 3) search and store all available broadcast channels and 4) change the order in which the broadcast channels appear on the screen.
However, if you need to change any of these settings at a later date, you can do that by selecting the appropriate option in the **Set Up** menu) or by pressing the **Auto Start Up** Button  on the TV set.

- 1** Connect the TV plug to the mains socket (220-240V AC, 50Hz)
The first time the TV set is connected, it is usually turned on. If the TV is off, press the **On/Off** button on the TV set to turn on the TV.
The first time you switch on the TV, a **Language** menu displays automatically on the TV screen.

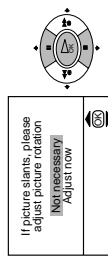


- 2** Press the **Down** or **Left** button on the remote control to select the language, then press the **OK** button to confirm your selection. From now on all the menus will appear in the selected language.



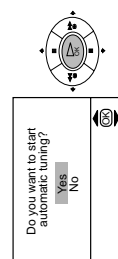
- 3** Because of the earth's magnetism, the picture might slant. The **Picture Rotation** menu allows you to correct the picture slants if it is necessary.

- a)** If it is not necessary, press **Down** or **Left** to select **Not necessary** and press **OK**.
b) If it is necessary, press **Down** or **Left** to select **Adjust now**, then press **OK** and correct any slant of the picture between -5 and +5 by pressing **Down** or **Left**. Finally press **OK** to store.

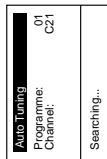


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SECTION 1 GENERAL

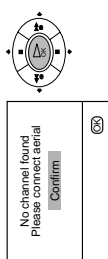



- 4** The Auto Tuning menu appears on the screen. Press the **OK** button to select **Yes**.

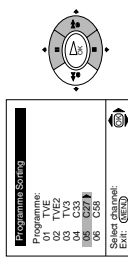


- 5** The TV starts to automatically search and store all available broadcast channels for you.

 This procedure could take some minutes. Please be patient and do not press any buttons, otherwise the automatic tuning will not be completed.



 If no channels were found during the auto tuning process then a new menu appears automatically on the screen asking you to connect the aerial. Please connect the aerial (see page 6) and press **OK**. The auto tuning process will start again.

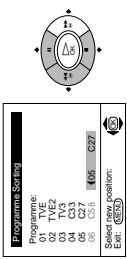


- 6** After all available broadcast channels are captured and stored, the **Programme Sorting** menu appears automatically on the screen enabling you to change the order in which the broadcast channels appear on the screen.

- a)** If you wish to keep the broadcast channels in the tuned order, go to step 7.

- b)** If you wish to store the broadcast channels in a different order:

- 1** Press the **Down** or **Left** button to select the programme number with the broadcast channel you wish to rearrange, then press the **Right** button.
- 2** Press the **Down** or **Left** button to select the new programme number position for your selected broadcast channel, then press **OK**.
- 3** Repeat steps b)1 and b)2 if you wish to change the order of the other broadcast channels.



MENU

- 7** Press the **MENU** button to remove the menu from the screen.



 Your TV is now ready for use

Introducing and Using the Menu System

i Your TV uses an on-screen menu system to guide you through the operations. Use the following buttons on the Remote Control to operate the menu system:

- 1 Press the MENU button to switch the first level menu on.
- 2 • To highlight the desired menu or option, press **↕** or **↔**.
 • To enter to the selected menu or option, press **↵**.
 • To return to the last menu or option, press **↶**.
 • To alter settings of your selected option, press **↕** / **↔** or **↵**.
 • To confirm and store your selection, press **OK**.

- 3 Press the MENU button to remove the menu from the screen.

GB

Menu Guide

Level 1	Level 2	Level 3 / Function
		PICTURE ADJUSTMENT The "Picture Adjustment" menu allows you to alter the picture adjustments. To do this: after selecting the item you want to alter press ↕ , then press repeatedly ↕ / ↔ or ↵ to adjust it and finally press OK to store the new adjustment. This menu also allows you to customise the picture mode based on the programme you are watching: <ul style="list-style-type: none"> ➔ Personal (for individual settings). ➔ Live (for live broadcast programmes, DVD and Digital Set Top Box receivers). ➔ Movie (for films).

- **Brightness, Colour and Sharpness** can only be altered if "Personal" mode is selected.
- **Hue** is only available for NTSC colour signal (e.g. USA video tapes).
- Select **Reset** and press **OK** to reset the picture to the factory preset levels.

continued...

Level 1	Level 2	Level 3 / Function
		SOUND ADJUSTMENT The "Sound Adjustment" menu allows you to alter the sound adjustments. To do this: after selecting the item you want to alter, press ↕ ; then press repeatedly ↕ / ↔ or ↵ to adjust it and finally press OK to store the new adjustment. This menu also contains two submenus as following: <ul style="list-style-type: none"> ➔ Mode <ul style="list-style-type: none"> ➔ Personal (for individual settings) ➔ Rock ➔ Pop ➔ Jazz ➔ Detail Adjustment <ul style="list-style-type: none"> ➔ Dolby* Virtual: <ul style="list-style-type: none"> ➔ Off: Normal. ➔ On: Simulates the sound effect of Dolby Pro Logic surround. ➔ Auto volume: <ul style="list-style-type: none"> ➔ Off: Volume level changes according to the broadcast signal. ➔ On: Volume level of the channels will stay the same, independent of the broadcast signal (e.g. in the case of advertisements). ➔ TV Speakers: <ul style="list-style-type: none"> ➔ Off: Sound from external amplifier connected to the audio outputs on the rear of the TV set. ➔ On: Sound from the TV set.

- **Treble and Bass** can only be altered if "Personal" mode is selected.
- Select **Reset** and press **OK** to reset the sound to the factory preset levels.
- In case of a bilingual broadcast select **Dual Sound** and set **A** for sound channel **1**, **B** for sound channel **2** or **Mono** for mono channel if available. For a stereo broadcast you can choose **Stereo** or **Mono**.
- If you are listening to the TV through headphones, "Dolby Virtual" option will automatically be switched to "Off".
- If you switch "Dolby Virtual" to "On", the "Auto volume" option will automatically be switched to "Off" and vice versa.

i * This TV has been designed to create the "Dolby Surround" sound effect by simulating the sound of four speakers with two speakers, when the broadcast audio signal is Dolby Surround encoded. The sound effect can also be improved by connecting a suitable external amplifier (for details refer to "Connecting to external audio Equipment" on page 19).

* Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

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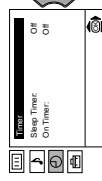
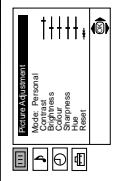
Level 1 Level 2 Level 3 / Function

SLEEP TIMER

The "Sleep Timer" option in the "Timer" menu allows you to select a time period for the TV to switch itself automatically into the standby mode.

To do this: after selecting the option, press **↵** then press **↵** or **↵** to set the time period delay (max. of 4 hours) and finally press **OK** to store.

- While watching the TV, you can press the **⏻** button on the remote control to display the time remaining.
- One minute before the TV switches itself into standby mode, the time remaining is displayed on the TV screen automatically.



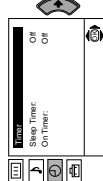
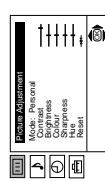
ON TIMER

The "On Timer" option in the "Timer" menu allows you to select a time period for the TV to switch itself automatically on from standby mode.

To do this: after selecting the option, press **↵** then press **↵** or **↵** to set the time period delay (max. 12 hours) and press **OK** to store. Finally press the standby button **⏻** on the remote control. After the selected length of time the TV switches on automatically.

- The standby indicator **⏻** on the TV set flashes regularly to indicate that "On Timer" is active.
- Any loss of power will cause these settings to be cleared.

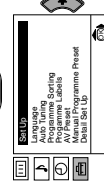
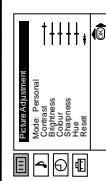
⚠ If you have not activated the "On Timer" option but the indicator **⏻** on the TV set flashes, please contact to your nearest Sony Service Centre.



LANGUAGE

The "Language" option in the "Set Up" menu allows you to select the language that the menus are displayed in.

To do this: after selecting the option, press **↵** and then proceed in the same way as in the step 2 of the section "Switching On the TV and Automatically Tuning".

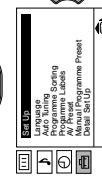
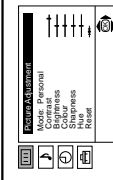


Level 1 Level 2 Level 3 / Function

AUTO TUNING

The "Auto Tuning" option in the "Set Up" menu allows you to automatically search for and store all available TV broadcast channels.

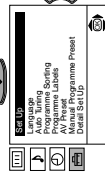
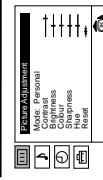
To do this: after selecting the option, press **↵** and then proceed in the same way as in TV steps 4 and 5 of the section "Switching On the TV and Automatically Tuning".



PROGRAMME SORTING

The "Programme Sorting" option in the "Set Up" menu allows you to change the order in which the broadcast channels appear on the screen.

To do this: after selecting the option, press **↵** and then proceed in the same way as in step 6 b) of the section "Switching On the TV and Automatically Tuning".

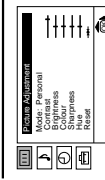


PROGRAMME LABELS

The "Programme Labels" option in the "Set Up" menu allows you to name a broadcast channel using up to five characters (letters or numbers).

To do this:

- 1 After selecting the option, press **↵** then press **↵** or **↵** to select the programme number with the broadcast channel you wish to name.
- 2 Press **↵**. With the first element of the Label column highlighted, press **↵** or **↵** to select a letter or number (select "-" for a blank), then press **↵** to confirm this character. Select the other four characters in the same way. Finally press **OK** to store.



AV PRESET

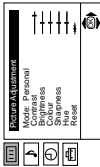
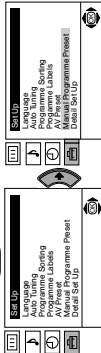


The "AV Preset" option in the "Set Up" menu allows you to designate a name to the external equipment you have connected to the sockets of this TV.

To do this:

- 1 After selecting the option, press **↵**, then press **↵** or **↵** to select the input source you wish to name (AV1 and AV2 are for the rear Scarts and AV3 for front connectors). Then press **↵**.



continued...

Level 1	Level 2	Level 3 / Function
<p>2 In the label column automatically appears a label:</p> <p>a) If you want to use one of the 6 predefined labels (CABLE, GAME, CAM, DVD, VIDEO or SAT), press ↵ or ⬅ to select the desired label and finally press OK to store.</p> <p>b) If you want to set a different label, select Edit and press ↵. Then with the first element highlighted, press ↵ or ⬅ to select a letter, number or “-” for a blank, then press ↵ to confirm this character. Select the other four characters in the same way and finally press OK to store.</p>	 	<p>b) Label a channel using up to five characters.</p> <p>To do this: Highlighting the Programme option, press the PROG +/- button to select the programme number with the broadcast channel you wish to name. When the TV screen, select the Label option and press ↵. Next press ↵ or ⬅ to select a letter, number or “-” for a blank. Press ↵ to confirm this character. Select the other four characters in the same way. After selecting all the characters, press OK twice to store.</p> <p>c) Normally the automatic fine tuning (AFT) is operating, however you can manually fine tune the TV to obtain a better picture if the picture is distorted.</p> <p>To do this: while watching the channel (TV Broadcast) you wish to fine tune, select the AFT option and press ↵. Next press ↵ or ⬅ to adjust the fine tuning between -15 and +15. Finally press OK twice to store.</p> <p>d) Skip any unwanted programme numbers when they are selected with the PROG +/- buttons.</p> <p>To do this: Highlighting the Programme option, press the PROG +/- button to select the programme number you want to skip. When the programme you want to skip appears on the screen, select the Skip option and press ↵. Next press ↵ or ⬅ to select Yes. Finally press OK twice to confirm and store.</p> <p><i>To cancel this function afterwards, select “No” instead of “Yes” in the step above.</i></p>
<p>MANUAL PROGRAMME PRESET</p> <p>The “Manual Programme Preset” option in the “Set Up” menu allows you to:</p> <p>a) Preset broadcast channels or a video input source one by one to the programme order of your choice. To do this:</p> <p>1 After selecting the “Manual Programme Preset” option, press ↵ then with Programme option highlighted press ↵. Press ↵ or ⬅ to select on which programme number you want to preset the broadcast channel (for VCR, select programme number “0”). Then press ⬅.</p> <p>2 After selecting the Channel option, press ↵. Then press the number buttons to enter directly the channel number of the TV Broadcast or the channel of the VCR signal. If you do not know the channel number, press ↵ or ⬅ to search for it. When you tune the desired channel, press OK twice to store.</p> <p><i>Repeat all the above steps to tune and store more channels.</i></p>	 	<p>GB</p> <p>continued...</p>

Specifications

TV system:
I

Colour system:

PAL,
SECAM, NTSC 3.58, 4.43 (only Video In)

Channel Coverage:
I: UHF B21-B69

Picture Tube:

Flat Display FD Trinitron WIDE
24" (approx. 56 cm. measured
diagonally)

Rear Terminals

☞1/☞

21-pin scart connector
(CENELEC standard)
including audio / video
input, RGB input, TV
audio / video output.

☞2/☞

(SMARTLINK)
21-pin Scart connector
including audio / video
input, S video input,
selectable audio / video
output and Smartlink
interface.

☞

audio outputs (Left/
Right) - phono jacks

Front Terminals

☞3 S Video input - 4 pin DIN

☞3 video input - phono jack

☞3 audio input - phono jacks

☞ headphones jack

Design and specifications are subject to change without notice.



Ecological Paper- Totally Chlorine Free

Troubleshooting

i Here are some simple solutions to the problems which may affect the picture and sound.

Problem	Solution
No picture (screen is dark) and no sound.	<ul style="list-style-type: none"> • Check the aerial connection. • Plug the TV in and press the ⏻ button on the front of the TV. • If the standby indicator ⏻ is on, press TV I/⏻ button on the remote control.
Poor or no picture (screen is dark), but good sound.	<ul style="list-style-type: none"> • Using the menu system, select the "Picture Adjustment" menu and select "Reset" to return to the factory settings.
No picture or no menu information from equipment connected to the Scart connector.	<ul style="list-style-type: none"> • Check that the optional equipment is on and press the ⏻ button repeatedly on the remote control until the correct input symbol is displayed on the screen.
Good picture, no sound.	<ul style="list-style-type: none"> • Press the ⏻ +/- button on the remote control. • Check that "TV Speakers" is "On" on the "Sound Adjustment" menu. • Check that headphones are not connected.
No colour on colour programmes.	<ul style="list-style-type: none"> • Using the menu system, select the "Picture Adjustment" menu and select "Reset" to return to factory settings.
Distorted picture when changing programmes or selecting teletext.	<ul style="list-style-type: none"> • Turn off any equipment connected to the Scart connector on the rear of the TV.
Picture slanted	<ul style="list-style-type: none"> • Using the menu system, select the "Picture Rotation" option in the "Detail Set Up" menu to correct the picture slant.
Noisy picture when viewing a TV channel.	<ul style="list-style-type: none"> • Using the menu system, select the "Manual Programme Preset" menu and adjust Fine Tuning (AFT) to obtain better picture reception. • Using the menu system, select the "Noise Reduction" option in the "Detail Set Up" menu and select "Auto" to reduce the noise in the picture.
No unscrambling or unstable picture whilst viewing a scrambling channel with a decoder connected through the Scart connector ☞2/☞.	<ul style="list-style-type: none"> • Using the menu system, select the "Set Up" menu. Then enter to "Detail Set Up" option and set "AV2 Output" to "TV".
Remote control does not function.	<ul style="list-style-type: none"> • Check that the Media Selector on the remote control is set according to the device you are using (VCR, TV or DVD). • If the remote control does not operate the VCR or DVD even when the Media Selector has been set correctly. Enter the necessary code set as explained on "Remote Control Configuration for VCR/DVD" chapter of this instruction manual. • Replace the batteries. • Contact your nearest Sony service centre.

The standby indicator **⏻** on the TV flashes even though the "On Timer" function is not in use.



If you continue to experience problems, have your TV serviced by qualified personnel. Never open the casing yourself.

GB

Sound Output:
2 x 14 W (music power)
2 x 7 W (RMS)

Power Consumption:
68 W

Standby Power Consumption:
0.54 W

Dimensions (w x h x d) :
Approx. 693 x 441 x 491 mm.

Weight:
28.5 Kg.

Accessories supplied:

1 Remote Control (RM-932)
2 Batteries (IEC designated)

Other features:

- Teletext, Fastext, TOPtext
- Sleep Timer
- On Timer
- Smartlink (direct link between your TV set and a compatible VCR. For more information on Smartlink, please refer to the Instruction Manual of your VCR).
- Dolby Virtual
- Auto Format

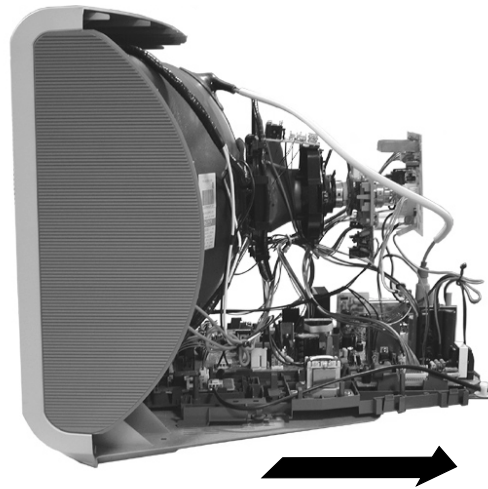
SECTION 2 DISASSEMBLY

2-1. Rear Cover Removal



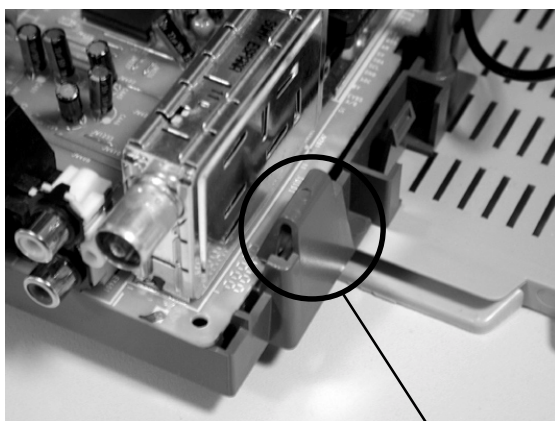
Release the mains power cable from its securing posts. Remove the rear cover fixing screws indicated. Pull the rear cover away from the front beznet.

2-2. Chassis Removal



To remove lift the main bracket rear slightly and slide the chassis away from the beznet. Ensure that the interconnecting leads are released from their purse locks to prevent damage being caused.

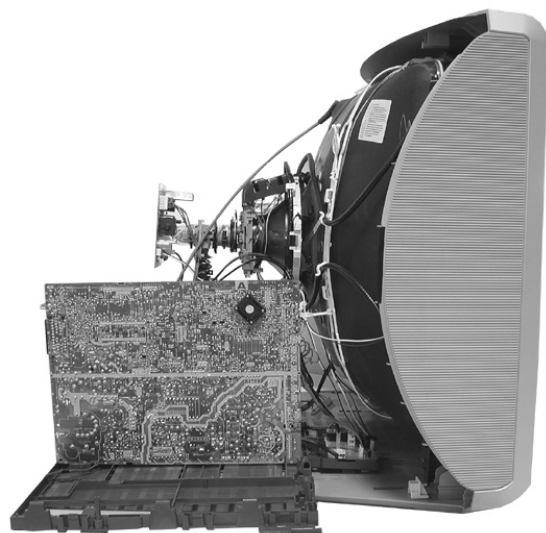
2-3. A Board PWB Removal



Clip.

Release the 5 securing clips located at the side and front of the chassis and slide the PWB clear of the bracket.

2-4. Service Position

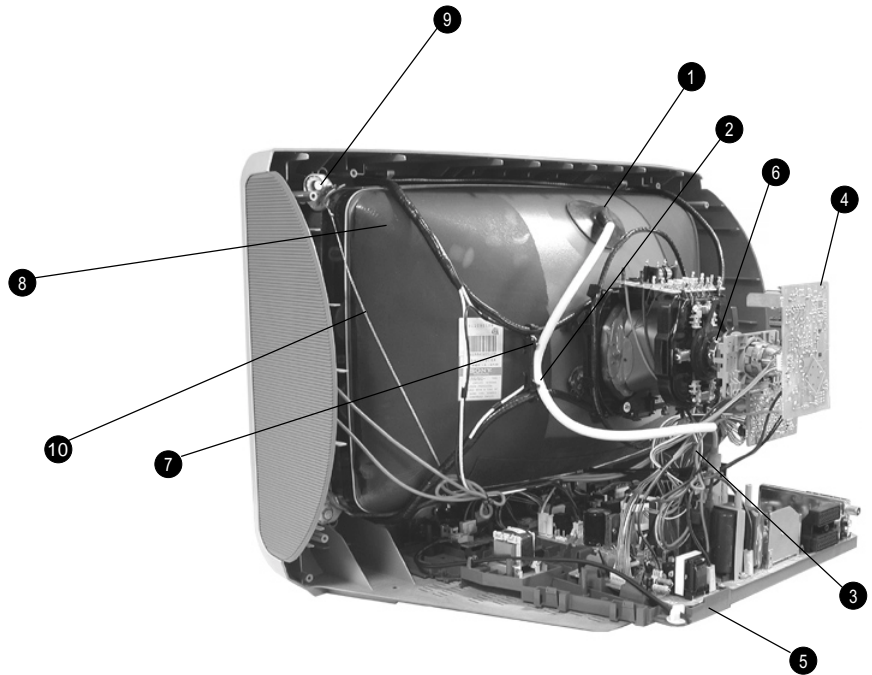
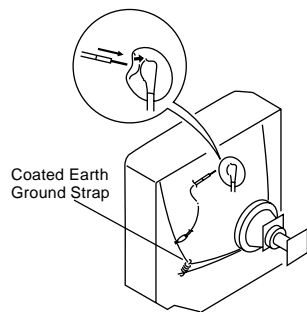


Place the A Board PWB in the position indicated to carry out servicing.

2-5. Picture Tube Removal

WARNING: BEFORE REMOVING THE ANODE CAP

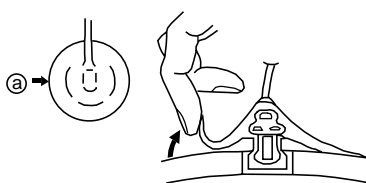
High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT **before** attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.



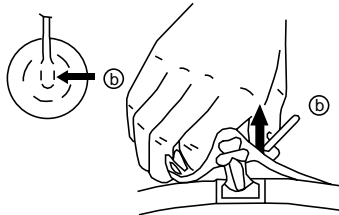
1. Discharge the anode of the CRT and remove the anode cap.
2. Release the EHT lead from its CRT support bracket.
3. Unplug all interconnecting leads from the Deflection yoke, degaussing coils and CRT grounding strap.
4. Remove the C Board from the CRT.
5. Remove the chassis assembly.
6. Loosen the Deflection yoke fixing screw and remove.
7. Remove the Degaussing Coil holders.
8. Place the set with the CRT face down on a cushion.
9. Unscrew the four CRT fixing screws [located on each CRT corner] and remove the CRT.
10. Remove the Degaussing Coils.
Remove the CRT grounding strap and spring tentioners.
[Take care not to handle the CRT by the neck.]

Removal of the Anode-Cap

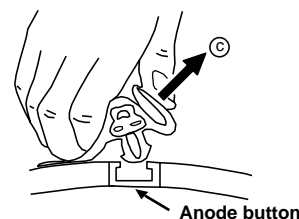
* REMOVING PROCEDURES.



- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a)



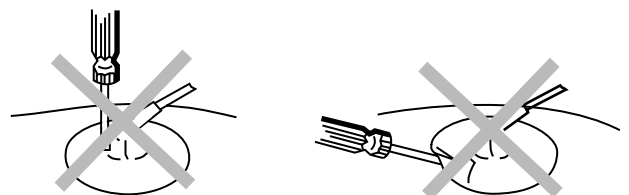
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b)



- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow (c)

How to handle the Anode-Cap

1. To prevent damaging the surface of the anode-cap do not use sharp materials.
2. Do not apply too great a pressure on the rubber, as this may cause damage to the anode connector.
3. A metal fitting called a shatter hook terminal is fitted inside the rubber cap.
4. Do not turn the rubber foot over excessively, this may cause damage if the shatter hook sticks out.



SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to the following settings :

Contrast 80% [or remote control normal]

Brightness 50%

Carry out the adjustments in the following order :

- 3-1. Beam Landing.
- 3-2. Convergence.
- 3-3. Focus.
- 3-4. White Balance.

Note : Test equipment required.

1. Color bar/pattern generator.
2. Degausser.
3. Oscilloscope.
4. Digital multimeter.

Preparation:

1. In order to reduce the influence of geomagnetism on the set's picture tube, face it in an easterly or westerly direction.
2. Switch on the set's power and degauss with the degausser.

3-1. Beam Landing

1. Input an all white signal from the pattern generator. Set the Contrast and Brightness to normal.
2. Set the pattern generator raster signal to Red.
3. Move the deflection yoke forward and adjust with the purity control so that the Red is at the centre and the Blue and Green take up equally sized areas on each side of the screen. [See Fig.3-1 - 3-3].
4. Move the deflection yoke backwards and adjust so that the entire screen becomes Red. [See Fig.3-1]
5. Switch the raster signal to Blue, then to Green and verify the condition.
6. When the position of the deflection yoke has been determined, fasten the deflection yoke with the screws.
7. If the beam does not land correctly in all the corners, use a magnet to correct it. [See Fig.3-4]

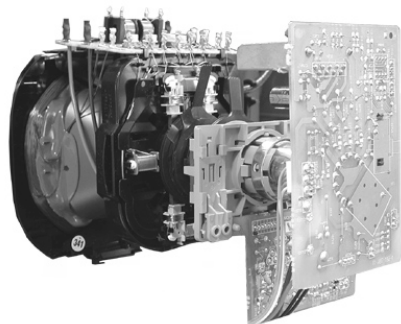


Fig. 3-1.

Caution :

High voltages are present on the Deflection yoke terminals - take care when handling the Deflection yoke whilst carrying out adjustments.

Fig. 3-2.

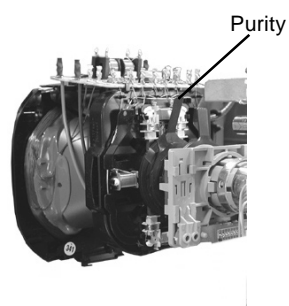


Fig. 3-3.

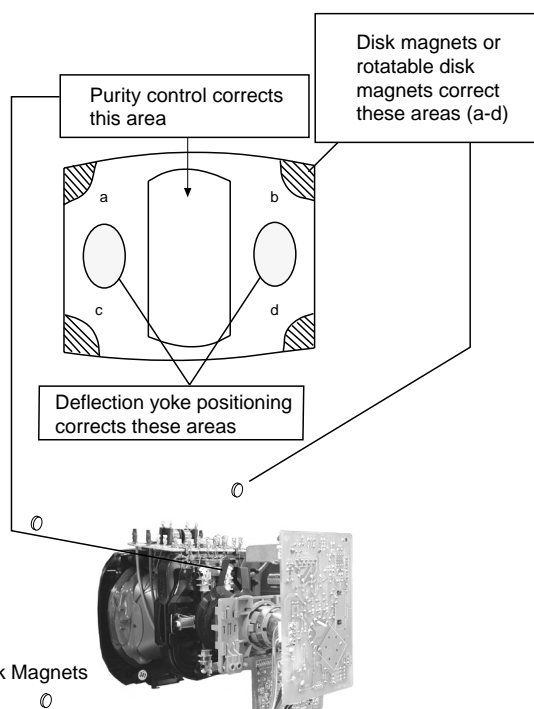
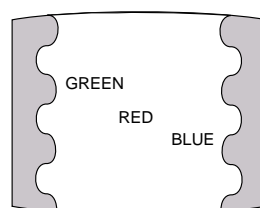


Fig.3-4

3-2. Convergence

Preparation:

- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Minimize the Brightness setting.
- Input a dot pattern from the pattern generator.

Horizontal and Vertical Static Convergence

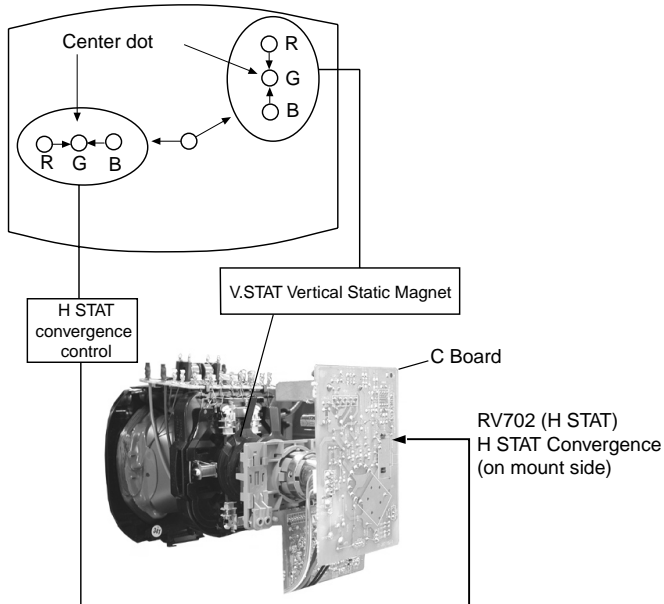
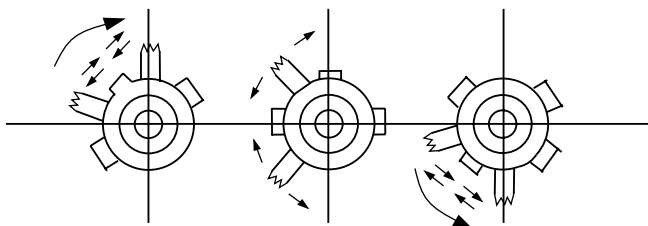


Fig.3-5

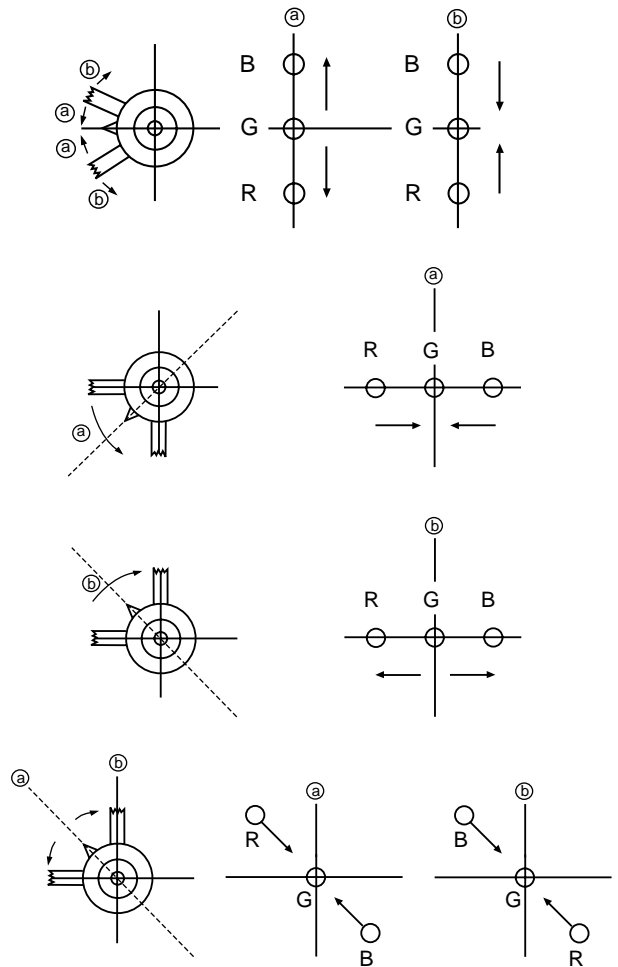
1. [Moving horizontally], adjust the H.STAT control so that the Red, Green and Blue points are on top of each other at the centre of the screen.
2. [Moving vertically], adjust the V.STAT magnet so that the Red, Green and Blue points are on top of each other at the centre of the screen.
3. If the H.STAT variable resistor is unable to bring the Red, Green and Blue points together at the centre of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner indicated below.

[In this case, the H.STAT variable resistor and the V.STAT magnet influence each other].

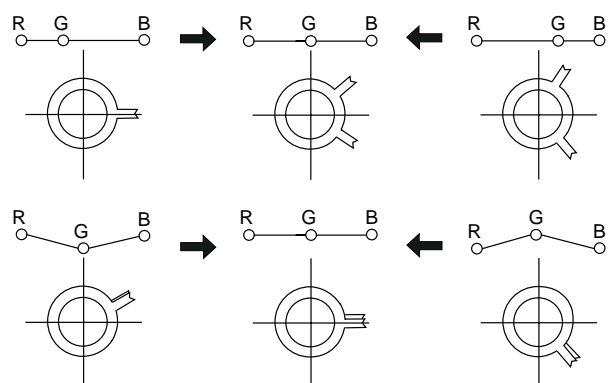
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the Red, Green and Blue points move as indicated below.



Operation of the BMC (Hexapole) magnet.



The movement of the magnets interact with each other and so the respective dot position should be monitored while carrying out this adjustment.

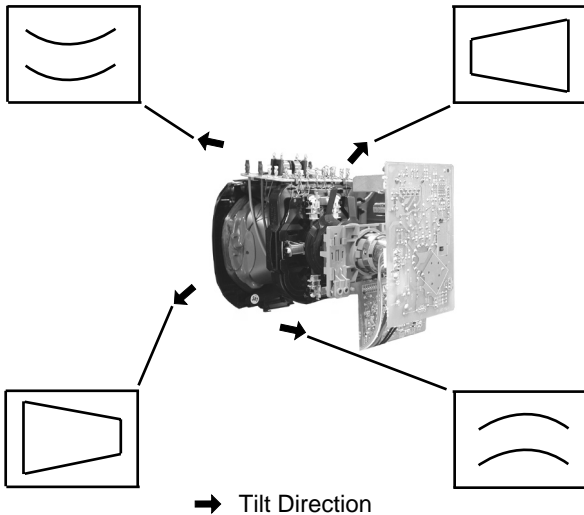
Use the H.STAT VR to adjust the Red, Green and Blue dots so that they coincide at the centre of the screen (by moving the dots in the horizontal direction).

Geometry Adjustment.

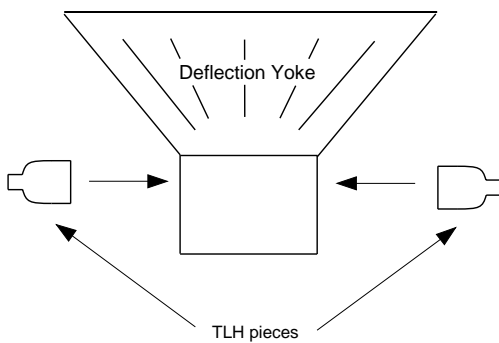
Preparation:

Before starting this adjustment, adjust the horizontal and vertical static convergence.

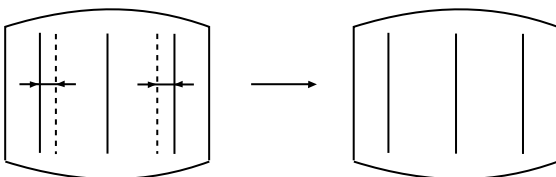
1. Remove the deflection yoke spacer.
2. Tilt the deflection yoke as indicated in the figure below and optimise the geometry.
Tilting the DY Up and Down will balance the upper and lower pin adjustment.
Tilting the DY Left and Right will balance the H-Trap adjustment.
3. Re-install the deflection yoke spacer.



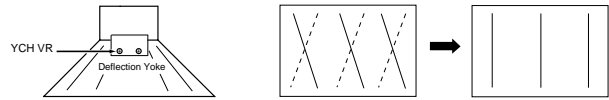
HTIL Adjustment



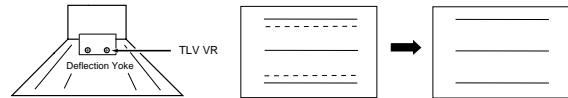
HTIL correction can be performed by adding a TLH correction assembly to the Deflection yoke.



YCH Adjustment

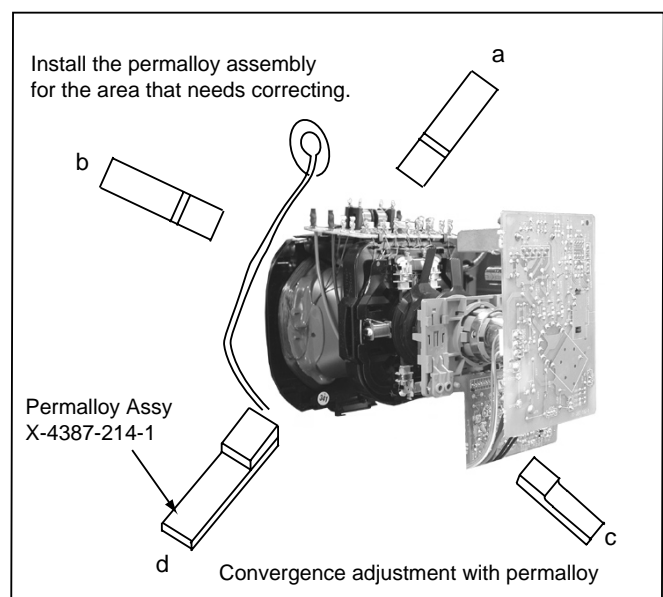
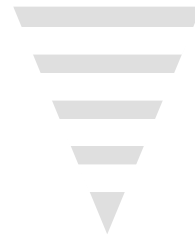
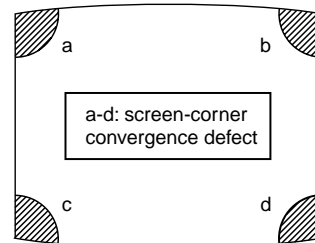


TLV Adjustment

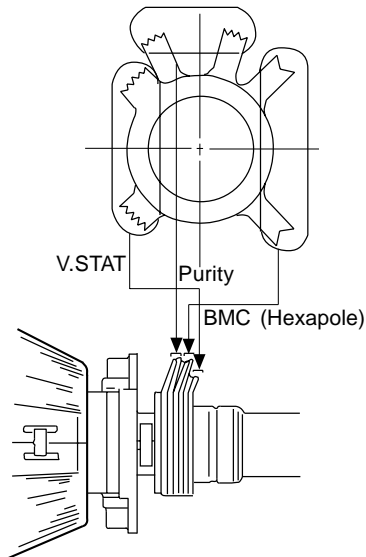


Screen Corner Convergence

If you are unable to adjust the corner convergence properly, this can be corrected with the use of permalloy magnets.

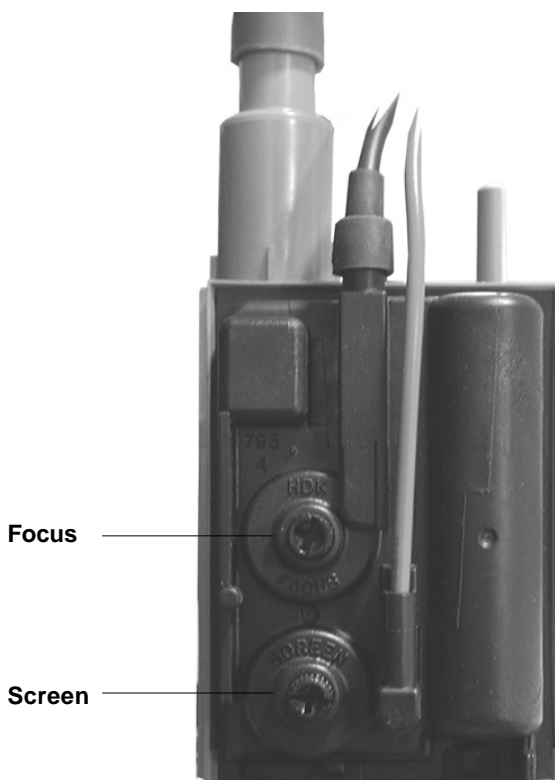


Layout of each control



3-3. Focus Adjustment

1. Receive a television broadcast signal.
2. Normalize the picture setting.
3. Adjust the focus control located on the flyback transformer to obtain the best focus at the centre of the screen.
Bring only the centre area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



3-4. Screen (G2), White Balance

[Adjustment in the service mode using the remote commander]

G2 adjustment

1. Input a dot signal from the pattern generator.
2. Set the Picture, Brightness and Colour to minimum.
3. Apply 175V DC from an external power supply to the R, G and B cathodes of the CRT.
4. Whilst watching the picture, adjust the G2 control [SCREEN] located on the Flyback Transformer to the point just before the flyback return lines disappear.

White balance adjustment for TV mode

1. Input an all-white signal from the pattern generator.
2. Enter into the 'Service Mode' by pressing 'TEST', 'TEST' and 'MENU' on the Service Commander.
3. Select 'Service' from the on screen menu display and press the right arrow button on the remote commander.
4. The 'Service' menu will appear on the screen.
[See Page 18]
5. Set the 'Contrast' to MAX.
6. Set the 'R-Drive' to 25.
7. Adjust the 'G-Drive' and the 'B-Drive' so that the white balance becomes optimum.
8. Press the 'OK' button to write the data for each item.
9. Set the 'Contrast' to MIN.
10. Adjust the 'G-Cutoff', and the 'R-Cutoff' with the left and right buttons on the remote commander so that the white balance becomes optimum.
11. Press the 'OK' button to write the data for each item.

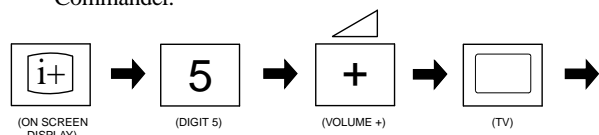
SECTION 4 CIRCUIT ADJUSTMENTS

4-1. Electrical Adjustments

Service adjustments to this model can be performed using the supplied remote Commander RM-932.

How to enter into the Service Mode

1. Turn on the main power switch and enter into the stand-by mode.
2. Press the following sequence of buttons on the Remote Commander.



'TT—' will appear in the upper right corner of the screen.
Other status information will also be displayed.

3. Press 'MENU' on the remote commander to obtain the following menu on the screen.

Geometry
Service
Design
Status
Sound
IF adjust
Error Menu
FE-2 Stereo v1.30
Factory data FFh FFh
MSP Device : MSP3411G

4. Move to the corresponding adjustment item using the up or down arrow buttons on the Remote Commander.
5. Press the right arrow button to enter into the required menu item.
6. Press the 'Menu' button on the Remote Commander to quit the Service Mode when all adjustments have been completed.

Note :

- Before performing any adjustments ensure that the correct model has been selected in the 'Model Setting' menu.
- After carrying out the service adjustments, to prevent the customer accessing the 'Service Menu' switch the TV set OFF and then ON.

ERROR MENU

E02	OCP	(0, 255)	0
E03	OVP N/A	(0, 255)	0
E04	VSYNC	(0, 255)	0
E05	IKR	(0, 255)	0
E06	IIC	(0, 255)	0
E07	NVM	(0, 255)	0
E08	JUNGLE	(0, 255)	0
E09	TUNER	(0, 255)	0
E10	SOUNDP	(0, 255)	0
E11	8V	(0, 255)	0

WORKING TIME

HOURS	2
MINUTES	11

SERVICE

Offset-R	(0, 63)	Adj
Offset-G	(0, 63)	Adj
R-Drive	(0, 63)	25
G-Drive	(0, 63)	Adj
B-Drive	(0, 63)	Adj
Peak-Freq	(0, 3)	0
Luma-Delay	(0, 15)	8
SC0	(0, 3)	2
White-Peak	(0, 15)	15
Subcont	(0, 15)	4
Subbright	(0, 63)	31
Subcol	(0, 63)	Adj
Subsharp	(0, 63)	31
Cutoff Br.	(0, 63)	60
Br OSD	(0, 15)	10
Br TXT	(0, 15)	9

GEOMETRY

V-Linearity	(0, 63)	Adj
V-Scroll	(0, 63)	32
Left-HBlk	(0, 15)	8
Right-HBlk	(0, 15)	6
V-Angle	(0, 63)	Adj
V-Bow	(0, 63)	Adj
H-Centre	(0, 63)	Adj
H-Size	(0, 63)	Adj
Pin-Amp	(0, 63)	Adj
U-Corner-Pin	(0, 63)	Adj
L-Corner-Pin	(0, 63)	Adj
Pin Phase	(0, 63)	Adj
V-Slope	(0, 63)	35
V-Size	(0, 63)	Adj
S-Correction	(0, 63)	Adj
V-Centre	(0, 63)	Adj
V-Zoom	(0, 63)	23
Magenta	(0, 63)	40

IF ADJUST

AGC Adjust	(-16, +15)	+0
Automute		1
Audio Gain		0
L Gating		0

Sub Brightness Adjustment

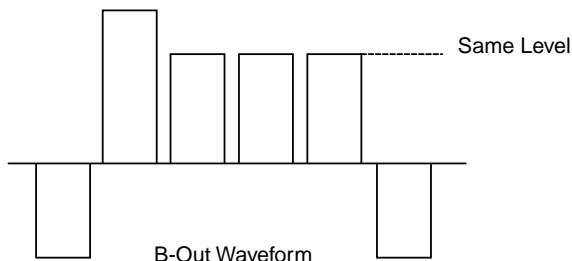
1. Input a Monoscope pattern.
2. Press 'TEST' 'TEST' 13 on the Remote Commander.
3. Adjust the 'Sub-Brightness' data so that there is barely a difference between the 0 IRE and 10 IRE signal levels.

Sub Contrast Adjustment

1. Input a video signal that contains a small 100% white area on a black background.
2. Connect an digital voltmeter to Pin 10 of J701 [C Board].
3. Adjust the Sub-Contrast ['TT11'] to obtain a voltage of 95 +/-5V.

Sub Colour Adjustment

1. Receive a PAL colour bar signal.
2. Connect an oscilloscope to Pin 5 of CN003 [A Board].
3. Enter into the 'Service' service menu.
4. Adjust the 'Sub Colour' data so that the Cyan, Magenta and Blue colour bars are of equal levels as indicated below.

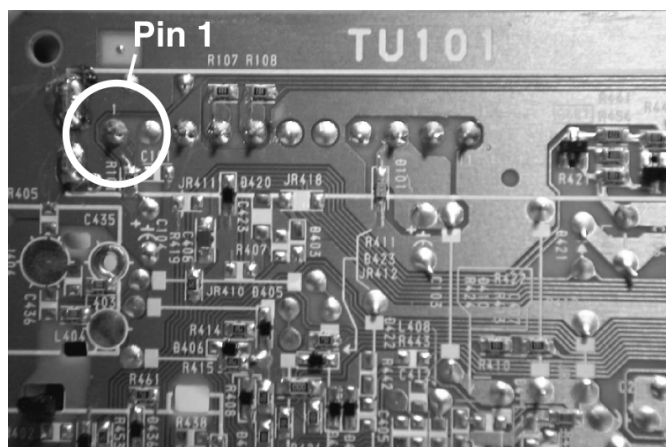


Tuner AGC Adjustment

Note:

There should be no need to adjust the AGC as this is pre-adjusted during manufacture of the FRONTEND. If the AGC does need adjustment then follow steps 1. to 4. below.

1. Receive a signal of 62dBuV / 75 ohm terminated via the tuner antenna socket.
2. Connect a voltmeter to pin1 of TU101 [print side of A Board] or to the AGC pin of CN001 [mount side of A Board].
3. Confirm that the AGC voltage is 3.5volts +/- 0.3volts.
4. If adjustment is required, then re-adjust the AGC variable resistor (located at the top rear of the FRONTEND) to obtain a voltage of 3.5V +/- 0.3V.



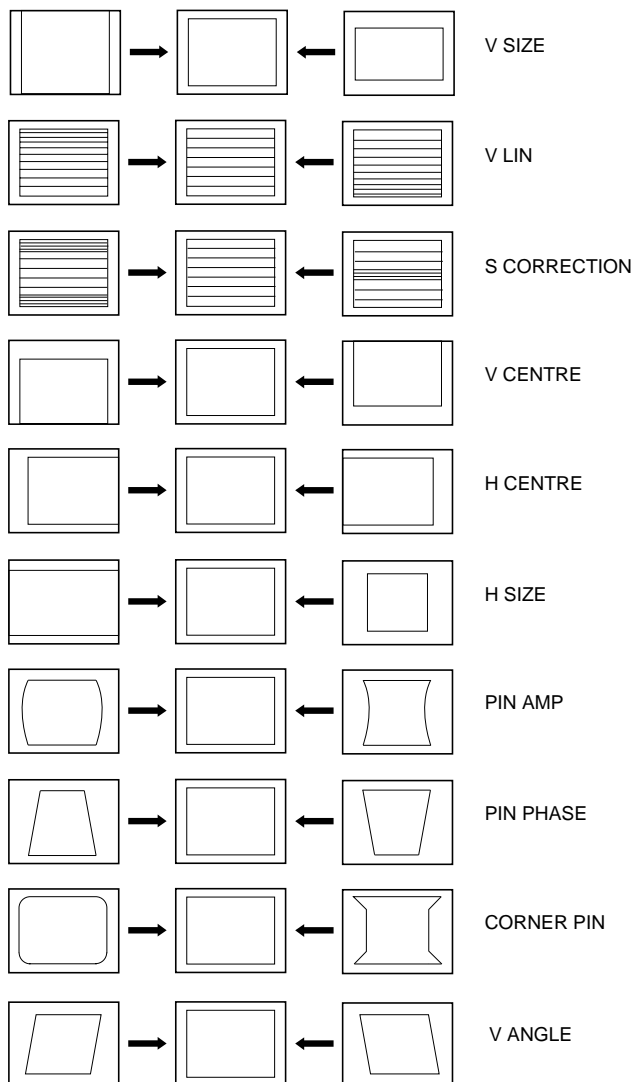
[Print side of A board]

Deflection System Adjustment

1. Enter into the 'Geometry' service menu.
2. Select and adjust each item in order to obtain the optimum image.

GEOMETRY

V-Linearity	(0, 63)	Adj
V-Scroll	(0, 63)	32
Left-HBlk	(0, 15)	8
Right-HBlk	(0, 15)	6
V-Angle	(0, 63)	Adj
V-Bow	(0, 63)	Adj
H-Centre	(0, 63)	Adj
H-Size	(0, 63)	Adj
Pin-Amp	(0, 63)	Adj
U-Corner-Pin	(0, 63)	Adj
L-Corner-Pin	(0, 63)	Adj
Pin Phase	(0, 63)	Adj
V-Slope	(0, 63)	35
V-Size	(0, 63)	Adj
S-Correction	(0, 63)	Adj
V-Centre	(0, 63)	Adj
V-Zoom	(0, 63)	23
Magenta	(0, 63)	40



4-2. TEST MODE 1:

Test Mode 1 is available by pressing the 'TEST' button once, OSD 'T' appears. The functions described below are available by selecting the indicated keys. The 'T' is released automatically after each command is executed.

KEY	T-MODE FUNCTION
volume +	volume maximum
volume -	Picture minimum
picture +	Picture maximum
picture -	Picture minimum
colour up	colour maximum
colour down	colour minimum
brightness - bright	brightness maximum
brightness - dark	brightness minimum
hue - purplish	hue - purplish
hue - greenish	hue - greenish
sharpness - sharp	sharpness maximum
sharpness - soft	sharpness minimum
balance left	balance full left
balance right	balance full right
treble up	treble maximum
treble down	treble minimum
bass up	bass maximum
bass down	bass minimum

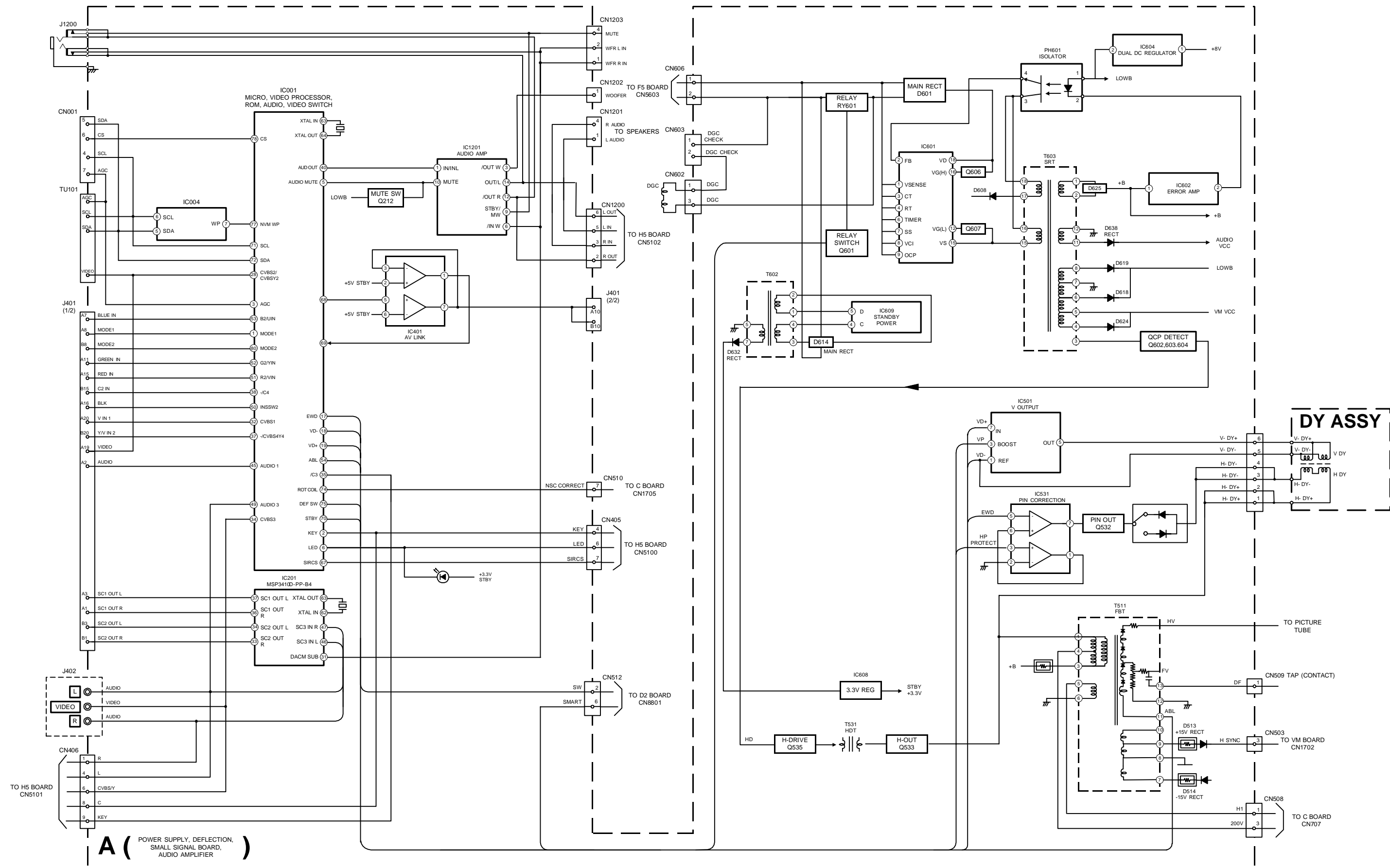
4-3. TEST MODE 2:

Test Mode 2 is available by pressing the 'TEST' button twice, OSD 'TT' appears. The functions described below are available by selecting the two numbers. To release the 'Test mode 2', press 00, 10, 20 ... twice or switch the TV set into Stand-by mode. In 'TT Menu' mode, it is possible to remove the Menu from the screen by pressing the Speaker Off button once. Pressing the Speaker OFF button a second time will cause the Menu to reappear. The function is kept even when the menu is not displayed on screen !!.

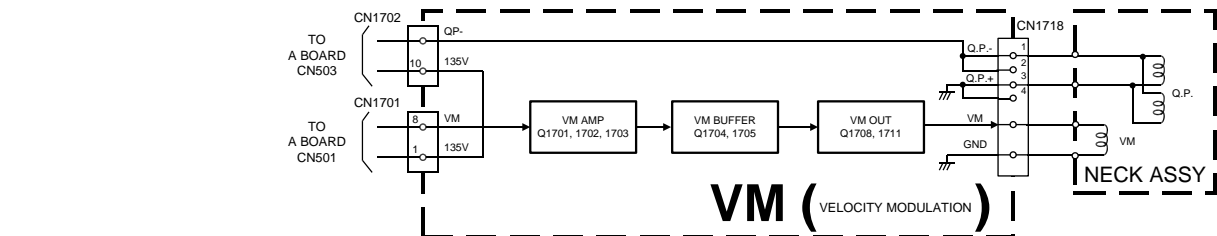
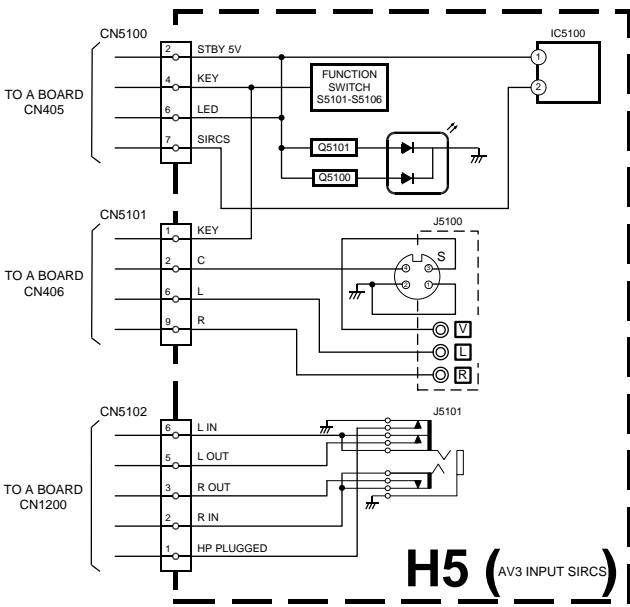
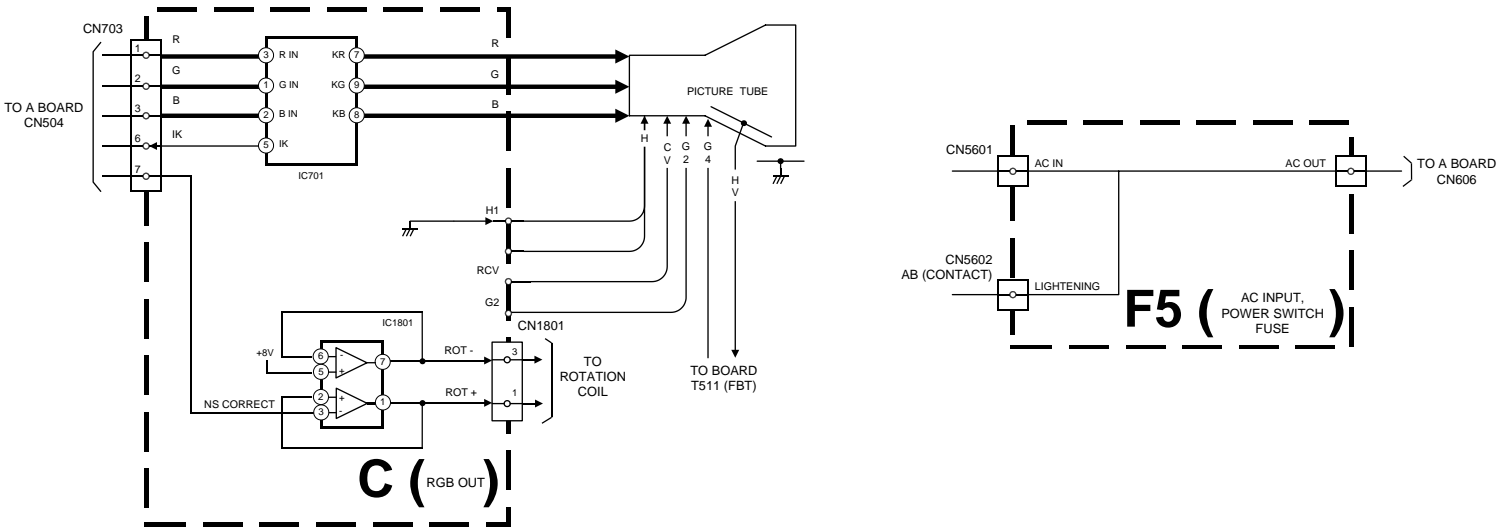
00	'TT' mode off
01	Picture maximum
02	Picture minimum
03	Set speaker/headphone Volume to 35%
04	Set speaker/headphone Volume to 50%
05	Set speaker/headphone Volume to 65%
06	Set speaker/headphone Volume to 80%
07	Ageing mode
08	Shipping Condition
11	Sub picture adjustment
12	Sub colour adjustment
13	Sub Brightness adjustment
14	Text H Position adjustment
15	Rotation Coil Test
16	Picture level 50%
19	Factory Mode Enable/Disable
21	Destination ADEKR
22	Destination BL
23	Destination ADEKR
24	Destination U
25	Destination ADEKR
26	Destination BL

27	Destination ADEKR
28	Destination ADEKR
31	Auto Shutoff Enable/Disable
33	Rotation ON/OFF
35	CRT 4:3 <> 16:9 ; Display TV status
36	Velocity Modulation (VM) OFF/ON test
38	G2 adjustment
41	Re-initialise NVM
43	Select Dual A sound
44	Select Dual B sound
45	Select Mono sound
46	Select Stereo sound
48	Set NVM as non virgin
49	Set NVM as virgin
51	Virtual Dolby on/off
52	Subwoofer / MPB (Bass enhancement) Enable
54	Dot structure C/M (chroma trap)ination ADEKR
55	Tuner selection (SONY/ALPS)
56	BBE enable/disable
57	BBE menu line enable/disable
61	Auto AGC Adjustment
62	AM from baseband enable/disable
63	Enable/Disable YC3 connector
64	Enable/Disable RGB priority
65	RGB auto-detect enable/disable
66	On timer enable/disable
67	Manual AGC Adjustment
68	Enable/Disable X26 countermeasure (N problem)
69	Enable/Disable ACI feature
71	Force PAL video
72	Un-force PAL (restore normal video condition)
73	Enable Zweiton D/K2 system (6.5/6.74)
74	Enable Zweiton D/K3 system (6.5/5.74)
78	Balance full left
79	Balance full right
87	Local keys test
89	Enable/Disable watchdog
91	Set 14:9 zoom mode
92	Set SMART zoom mode
93	Set 16:9 zoom mode
94	Set ZOOM mode
95	Set 4:3 zoom mode
99	Display Error and Working Time menu

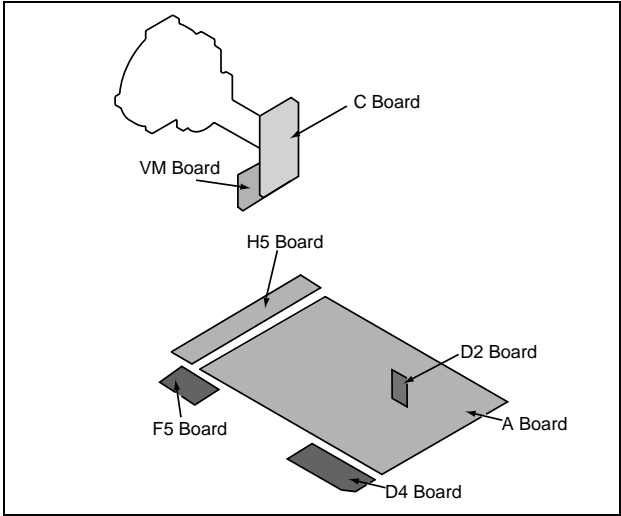
5-1. BLOCK DIAGRAMS (1)



5-1. BLOCK DIAGRAMS (2)



5-2. CIRCUIT BOARD LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

- Note :**
- All capacitors are in μF unless otherwise noted.
 - pF : μF 50WV or less are not indicated except for electrolytic types.
 - Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm
Electrical power rating : 1/4W

- Chip resistors are 1/10W
- All resistors are in ohms.
k = 1000 ohms, M = 1000,000 ohms
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in Volts.
- Readings are taken with a 10Mohm digital mutimeter.
- Readings are taken with a color bar input signal.
- Voltage variations may be noted due to normal production tolerances.

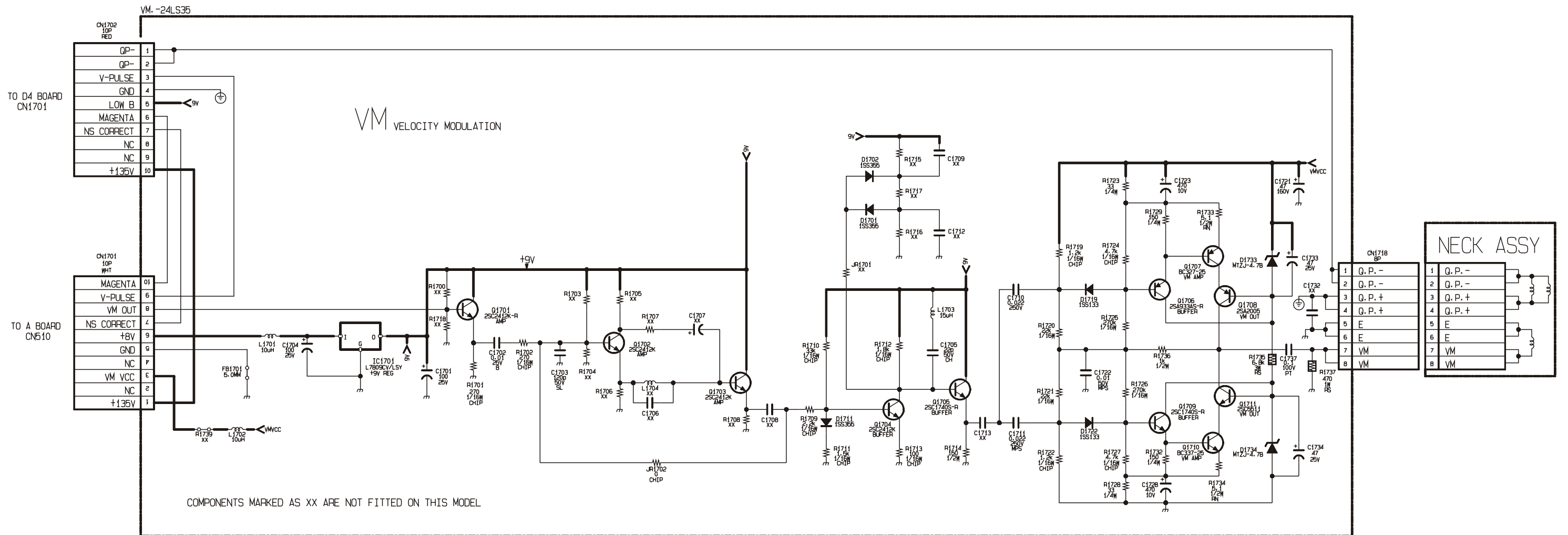
- : B + bus.
- : B - bus.
- : RF signal path.
- : earth - ground.
- : earth - chassis.

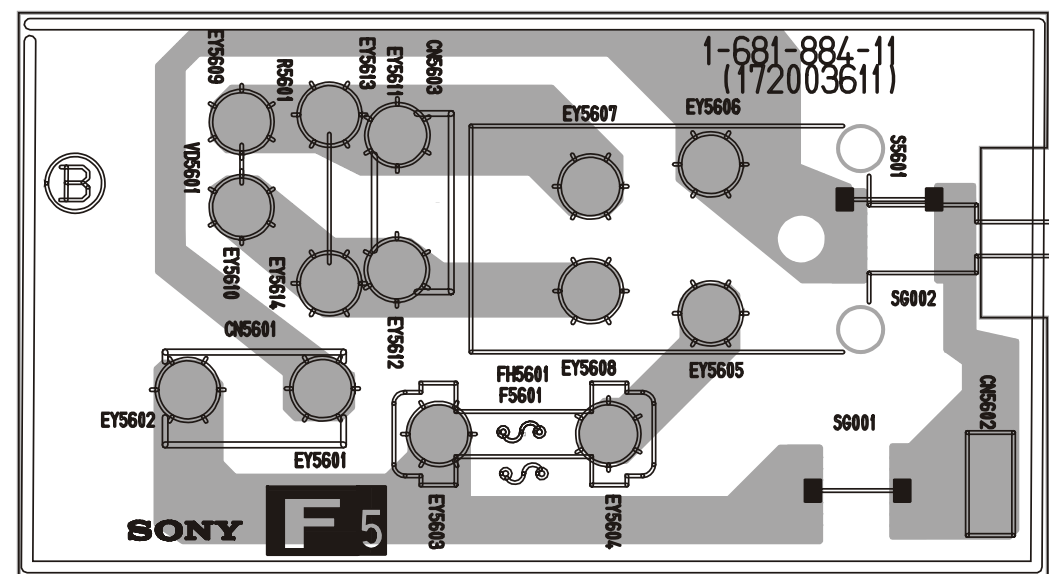
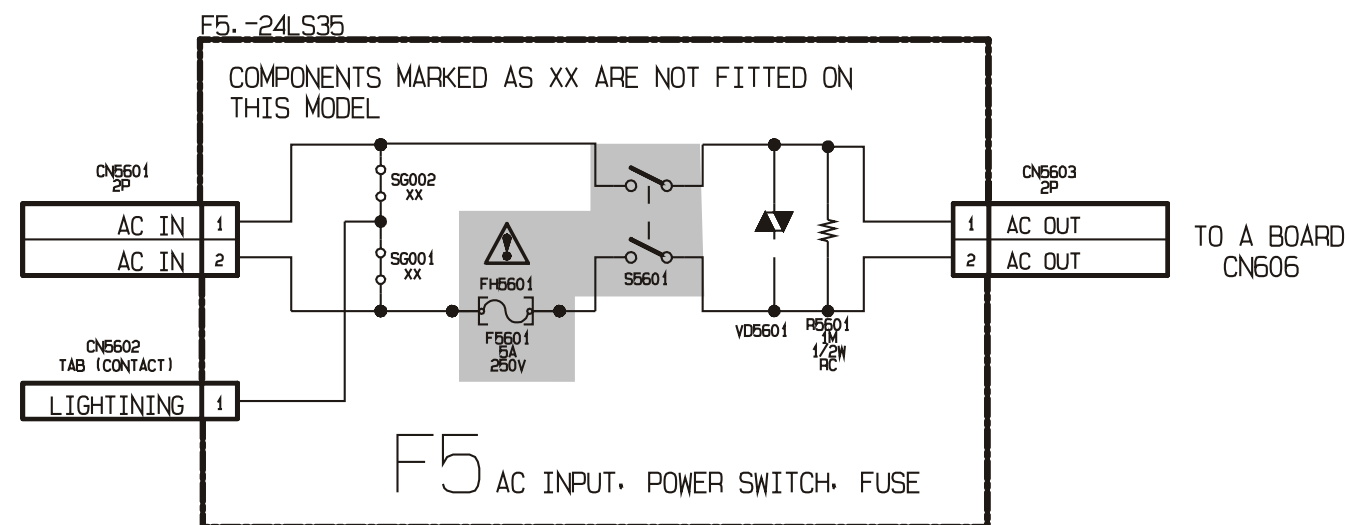
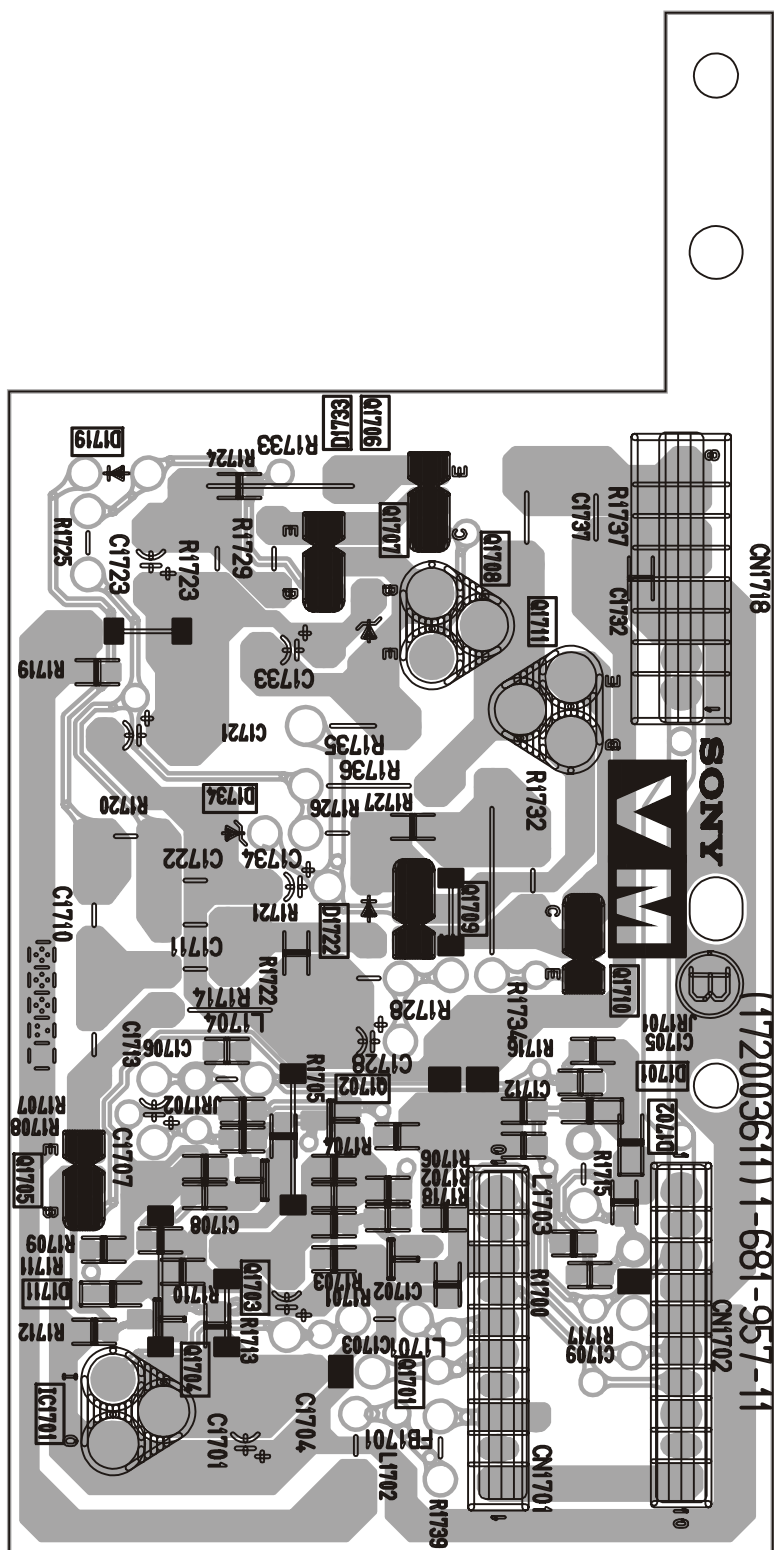
Reference Information

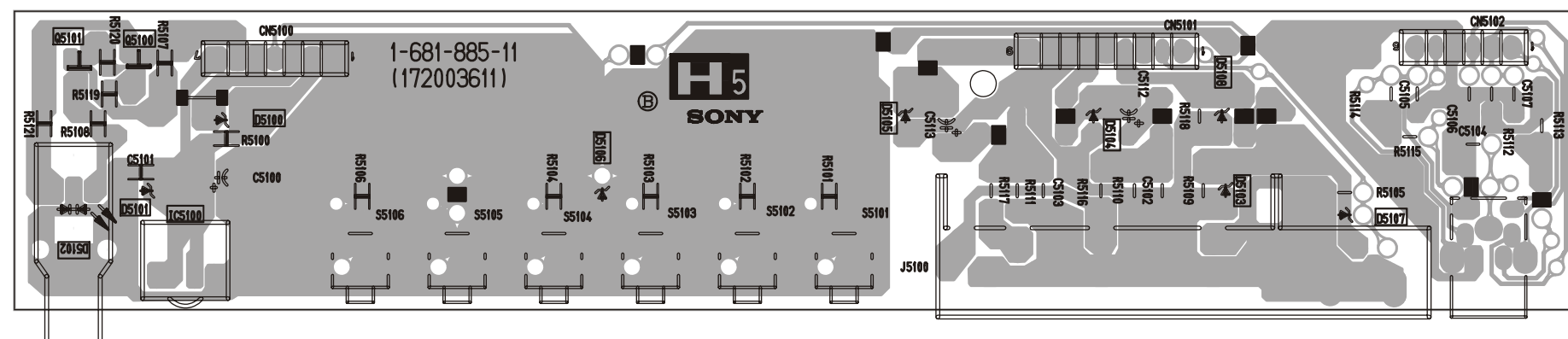
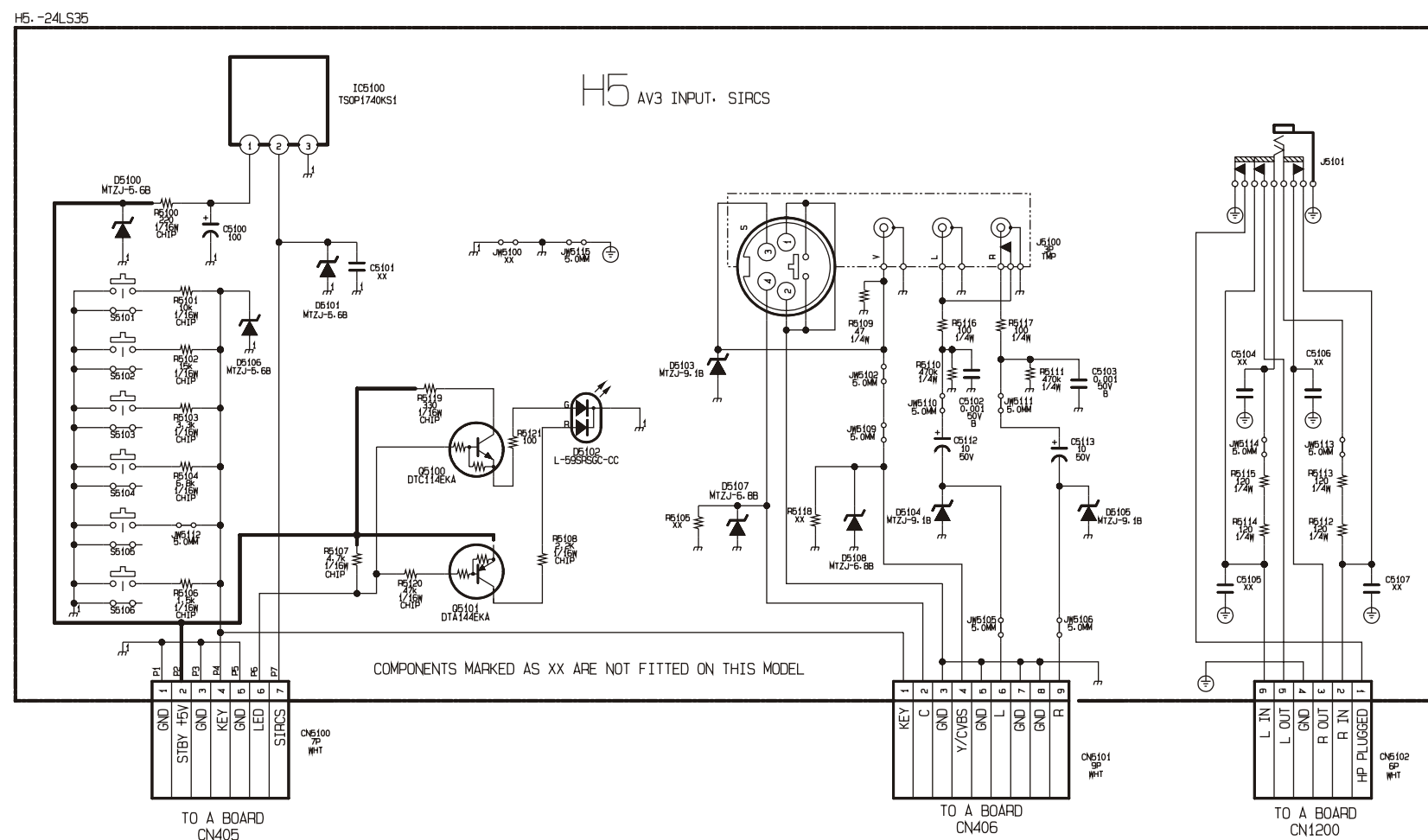
RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NON FLAMMABLE CARBON
	FUSE	: NON FLAMMABLE FUSIBLE
	RS	: NON FLAMMABLE METAL OXIDE
	RB	: NON FLAMMABLE CEMENT
	RW	: NON FLAMMABLE WIREWOUND
		: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

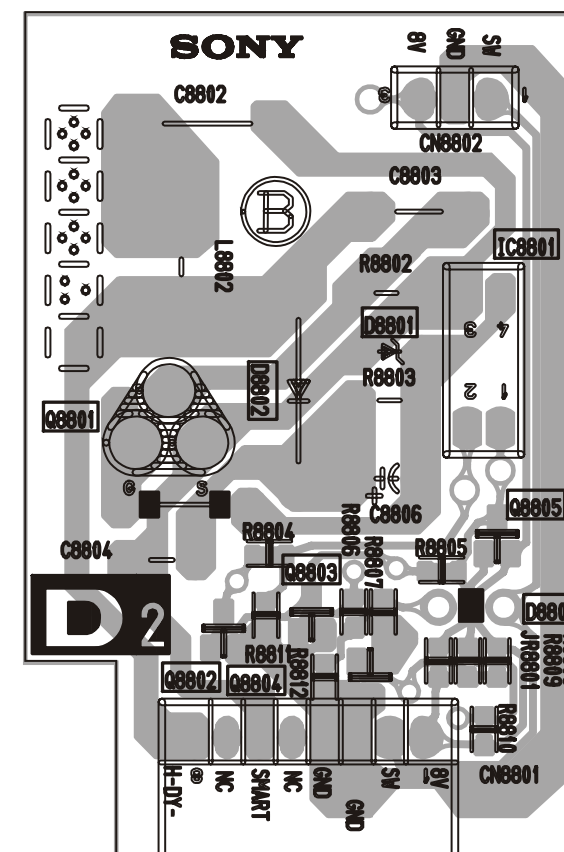
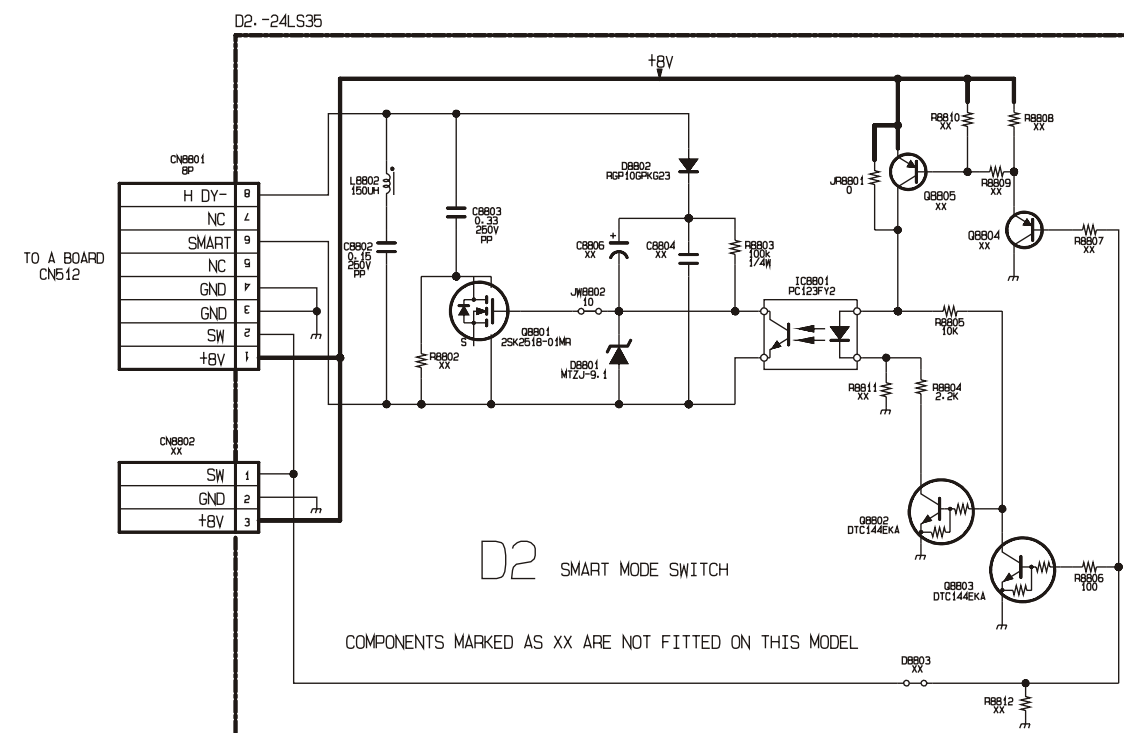
Note : Les composants identifiés par une trame et par une marque Δ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.



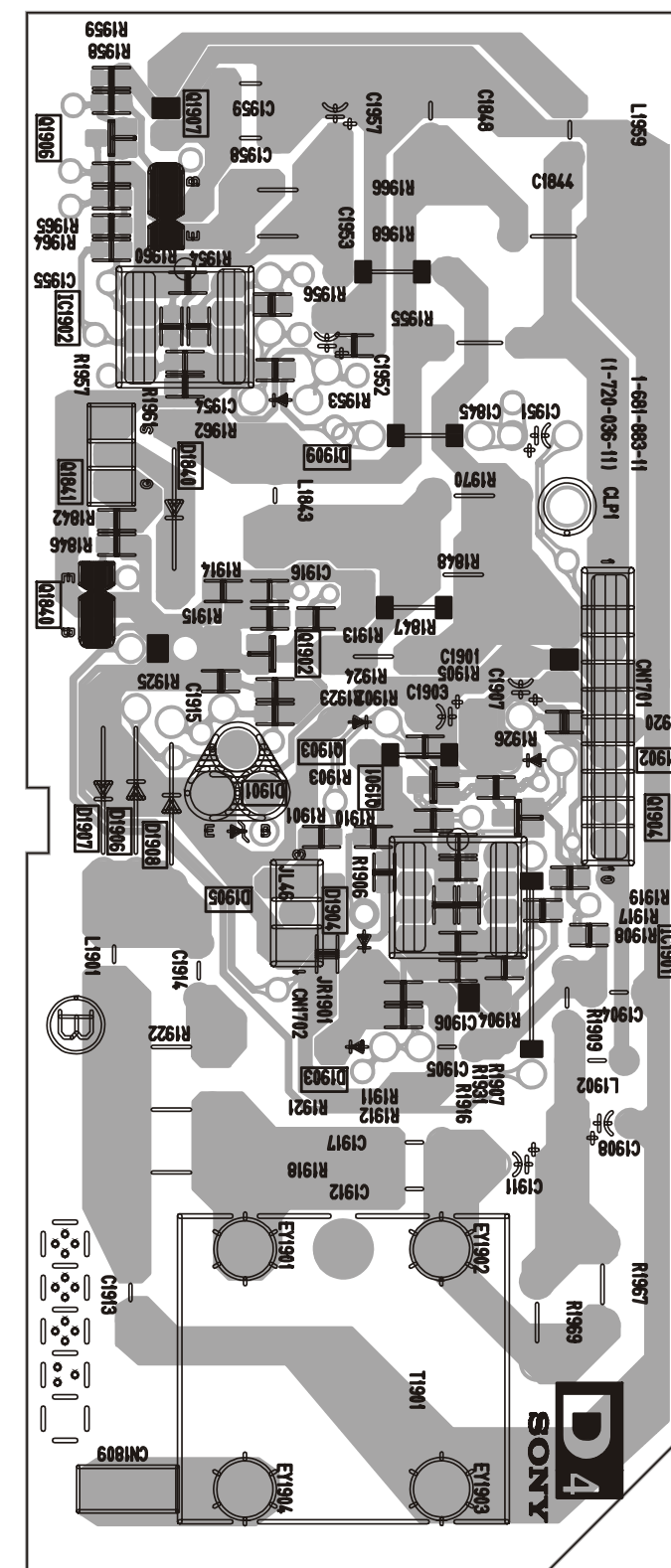
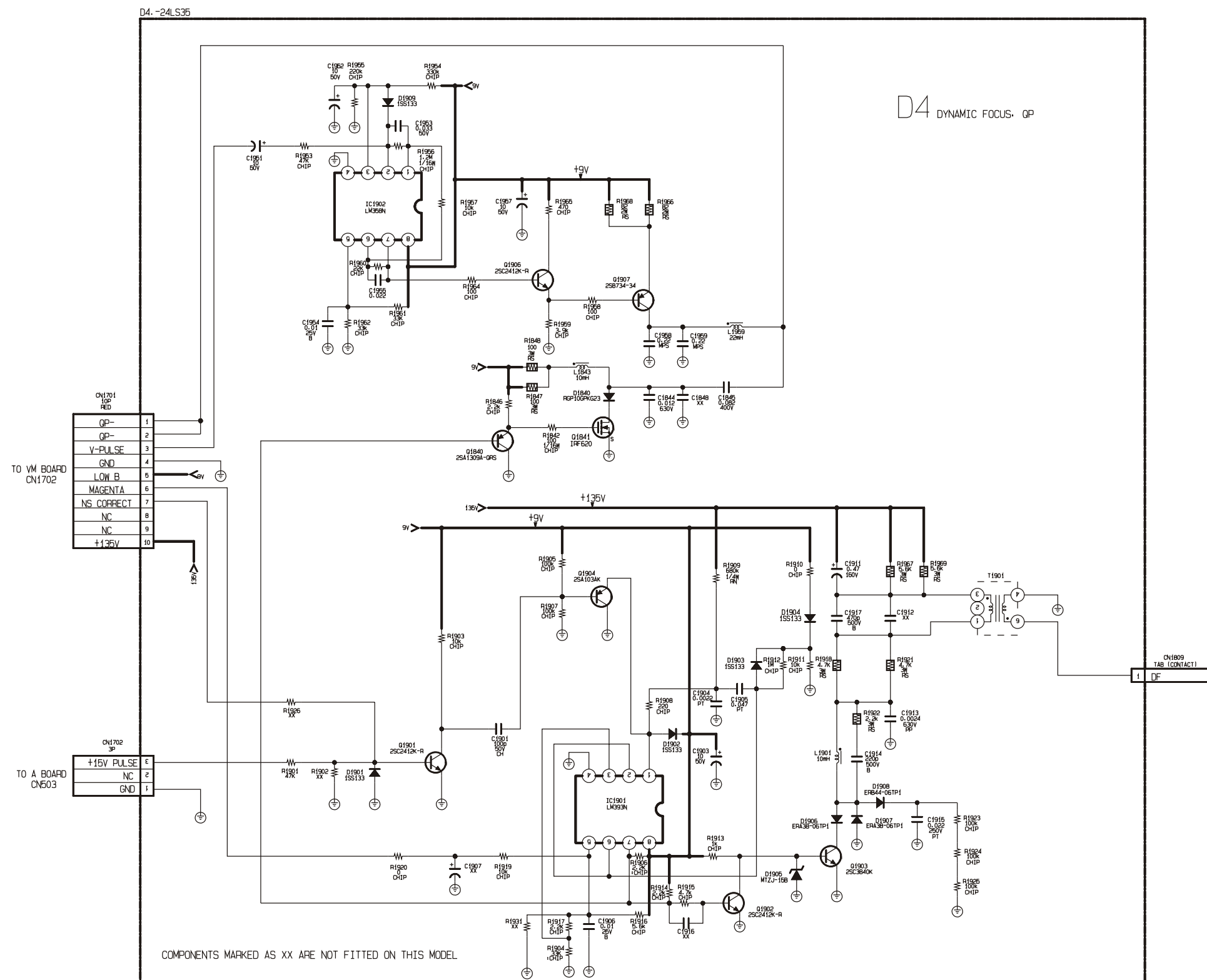


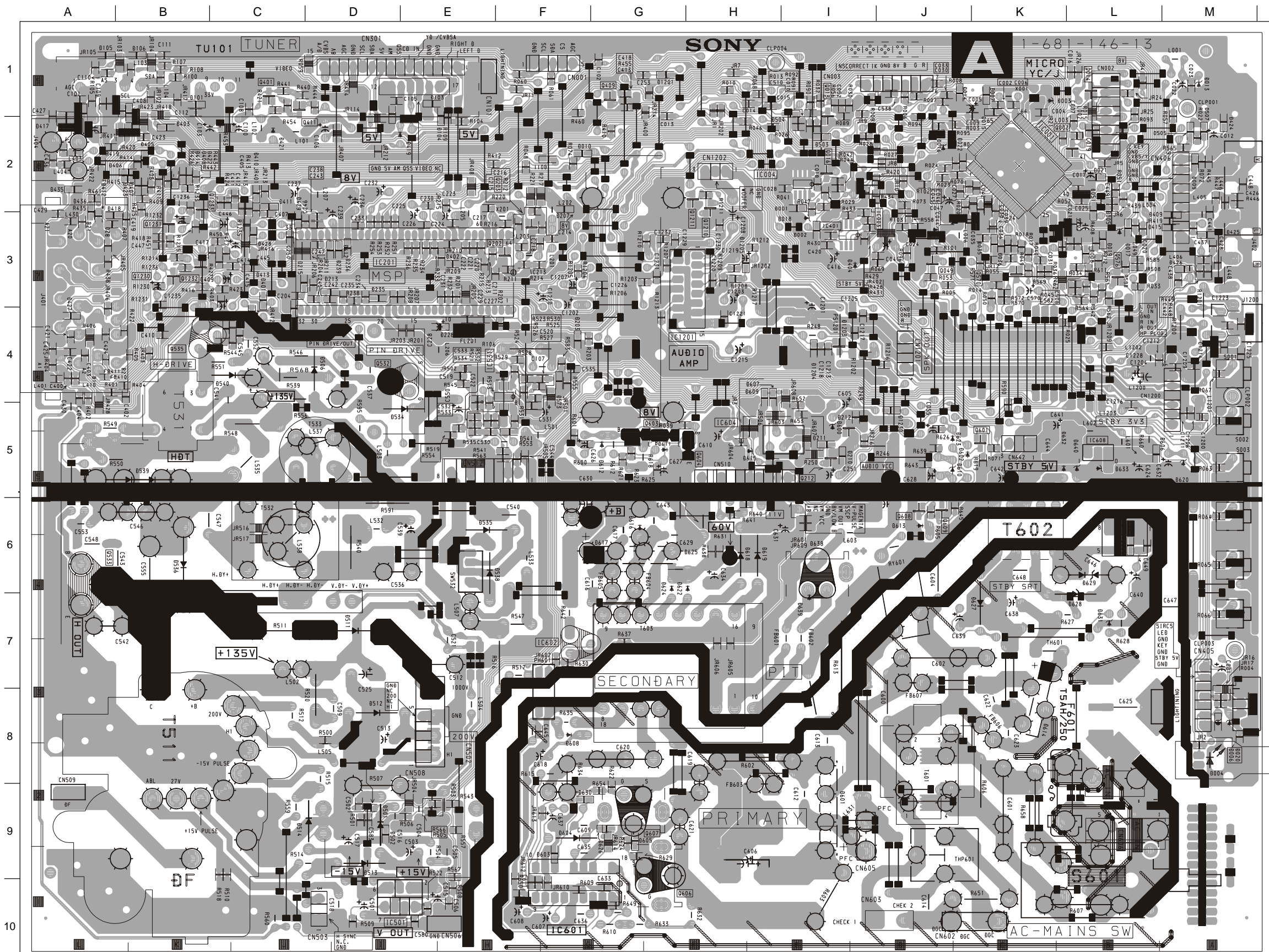



H5 [AV3 INPUT, SIRCS]



D2 [SMART MODE SWITCH]





 **NOTE:**
Portions of the circuit marked as shown are high voltage areas. Use care to prevent electric shock during inspection or repair.

A [PRINTED WIRING BOARD]

Semiconductor Location Table

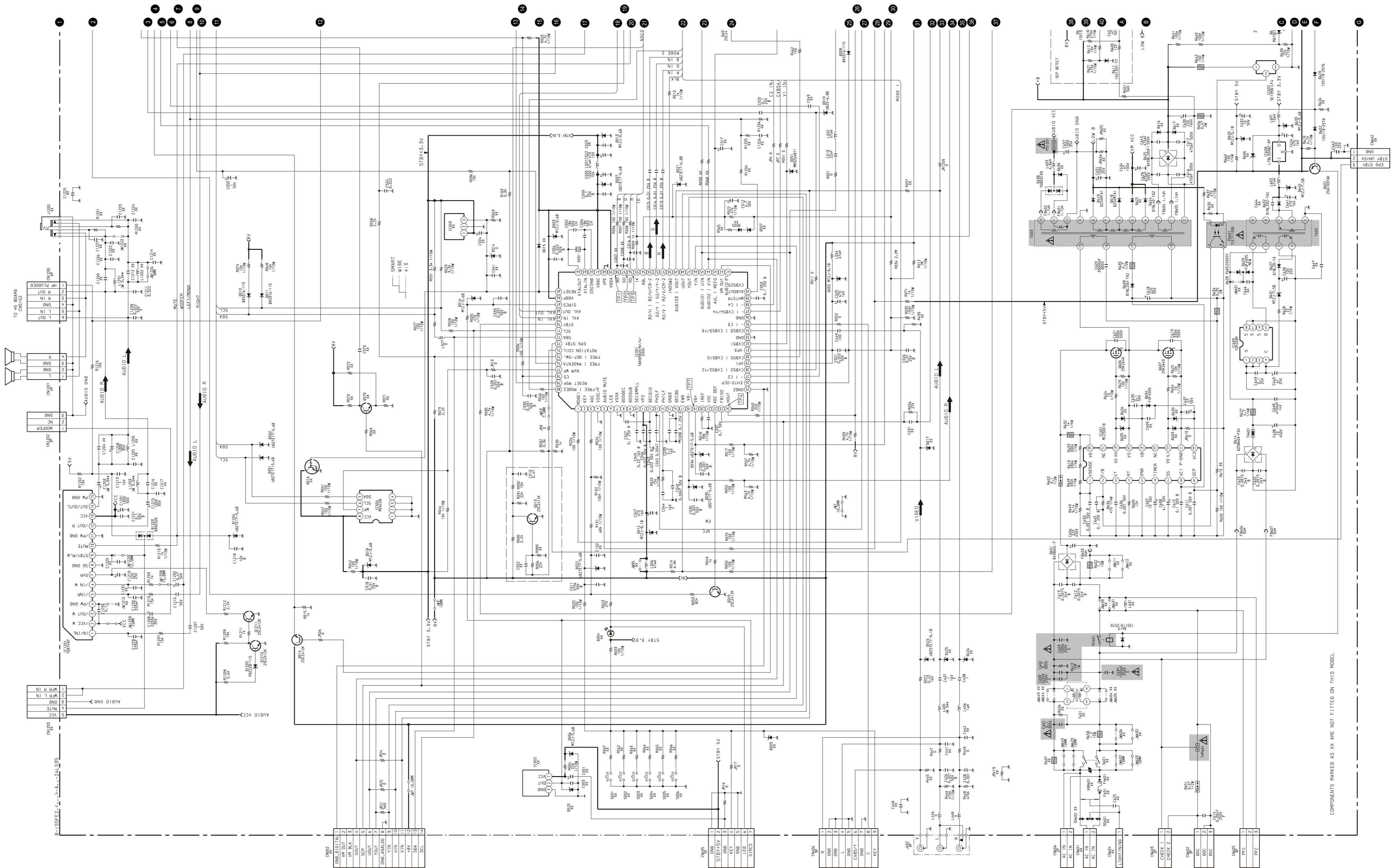
DIODE		D013	M - 1	D103	E - 1	D236	D - 3	D411	C - 3	D424	M - 2	D505	M - 2	D538	E - 6	D612	G - 5	D625	H - 6	TRANSISTOR		Q532	D - 4	Q609	J - 6	IC004	H - 2
D001	I - 2	D016	J - 2	D104	E - 2	D239	D - 3	D412	D - 3	D427	A - 4	D506	D - 4	D539	B - 5	D613	J - 6	D627	K - 7	Q013	I - 3	Q533	A - 6	Q1210	H - 3	IC401	I - 3
D002	I - 3	D018	I - 3	D105	A - 1	D402	E - 3	D413	C - 3	D428	C - 3	D507	M - 2	D541	F - 5	D614	K - 8	D628	L - 7	Q014	L - 1	Q535	B - 4	Q1211	H - 3	IC501	E - 10
D003	K - 2	D020	M - 8	D106	B - 1	D403	B - 2	D414	B - 2	D429	D - 3	D512	D - 8	D573	F - 5	D615	H - 5	D629	L - 7	Q049	J - 3	Q601	K - 5	Q1230	B - 3	IC531	F - 4
D004	M - 4	D021	L - 2	D107	B - 2	D404	I - 3	D418	B - 3	D435	A - 2	D513	D - 9	D601	I - 9	D618	H - 6	D631	L - 7	Q202	E - 3	Q602	G - 5	Q1231	B - 3	IC601	F - 10
D006	M - 8	D022	J - 2	D207	F - 3	D405	B - 2	D419	E - 2	D436	A - 2	D514	C - 9	D602	J - 5	D619	H - 6	D632	K - 5	Q203	F - 2	Q603	G - 5	Q1232	B - 3	IC602	F - 7
D007	K - 1	D035	K - 3	D210	I - 5	D406	B - 2	D420	B - 2	D501	D - 9	D534	E - 5	D604	F - 9	D620	M - 5	D633	L - 5	Q212	I - 5	Q604	H - 5	Q1233	C - 2	IC604	H - 5
D008	L - 3	D036	K - 3	D211	I - 5	D407	B - 2	D421	C - 2	D502	D - 9	D535	E - 6	D608	F - 8	D621	J - 5	D638	I - 6	Q401	C - 1	Q606	G - 10	IC'S		IC608	L - 5
D010	G - 2	D051	L - 3	D212	I - 5	D408	B - 2	D422	C - 2	D503	I - 2	D536	B - 6	D610	J - 5	D622	H - 7	D640	L - 5	Q409	G - 1	Q607	G - 9	IC001	K - 2	IC609	L - 6
D011	F - 2	D101	B - 1	D228	E - 4	D410	C - 2	D423	C - 2	D504	I - 2	D537	C - 4	D611	G - 5	D623	J - 5			Q411	D - 2	Q608	J - 6	IC002	M - 8	IC1201	H - 4

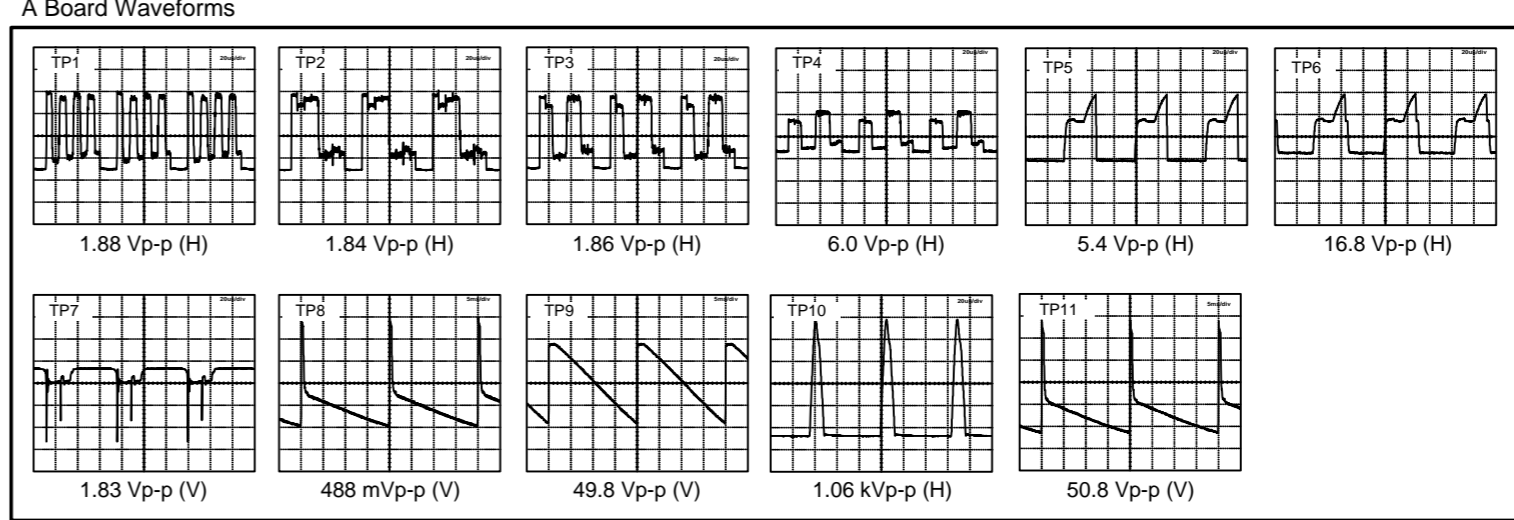
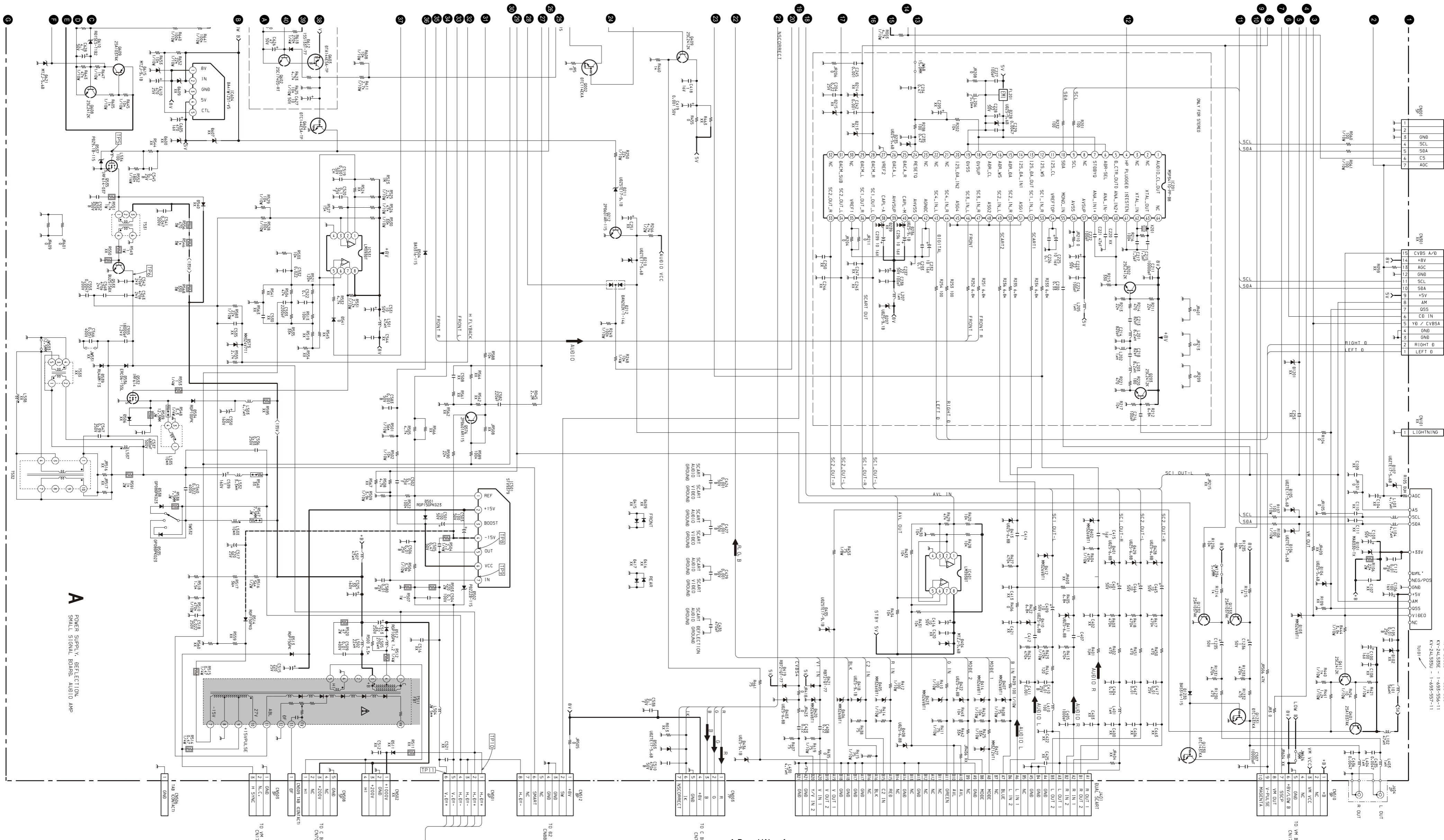
IC Voltage Table

Ref No	Pin No	Volts (V)	Ref No	Pin No	Volts (V)	Ref No	Pin No	Volts (V)
IC001	1	0	IC001	50	0.2	IC501	6	13.9
	2	3.2		51	2.5		7	0.3
	3	2.9		52	2.5	IC531	1	1.4
	5	0		53	2.5		2	2.3
	6	2.0		54	2.1		3	1.8
	8	2.3		55	5.2		5	2.4
	9	8.0		56	3.0		6	1.6
	10	5.0		57	3.1		7	6.4
	12	0		58	3.1	IC601	1	-80.4
	13	0		59	3.2		2	-80.5
	14	4.0		62	0		3	-80.2
	16	1.4		63	0		4	-80.2
	17	1.5		64	0		5	-81.5
	18	0		65	0		6	-81.6
	19	0		67	4.8		7	-77.8
	20	3.8		68	0.4		9	-81.8
	21	3.8		69	0		10	-76
	22	5.0		70	0		11	-81.9
IC501	26	0		71	0		12	-79.4
	28	3.5		72	0		14	16.5
	29	3.6		73	7.1		15	11
	30	1.9		74	5.0		16	14.4
	31	0.3		75	8.1		18	86.4
	32	3.6		76	-3.5	IC1201	1	11
	34	1.9		77	0		3	4.9
	35	1.4		78	3.2		5	0
	36	3.9		79	3.2		6	0
	38	1.8		80	0		7	11.3
	40	3.3		1	1.4		9	0.3
	42	3.3		2	2.3		10	0
	43	1.4		3	1.8		12	0
	45	0		5	2.4		14	11.35

Semiconductor Voltage Table

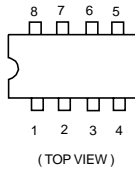
Ref	(e)	(b)	(c)
Q013	0	0.7	0
Q016	0	0	3.3
Q212	0	0.7	0
Q401	4.8	4.2	1.8
Q411	1.1	1.7	4.2
Q601	5.6	4.8	5.3
Q602	14.2	5.1	8
Q603	8	8	0
Q604	0	0	2.5
Q608	0	0	5.6
Q609	5.6	5.6	0
Ref	(s)	(g)	(d)
Q606	10.9	14.5	86.7
Q607	-82.4	-79.9	10.9
Q535	0	2.5	95.2



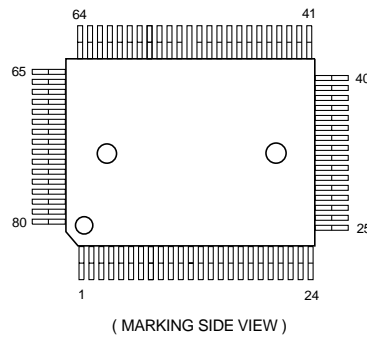


5-4. SEMICONDUCTORS

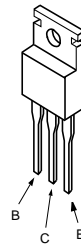
LM358N
LM393DT
LM393N
M5216P
TDA2822M
TEA2124



TDA9394H



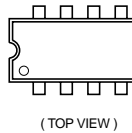
IRF614-005
IRF614-037
IRF620



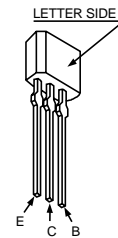
MSP3411G-PP-B9



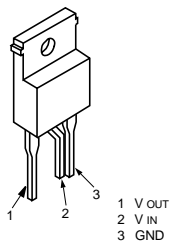
TOP209P



2SA933AS-QT
2SAG33ASQT
2SA933AS-RT
2SC1740S-RT
2SC2785-HFE



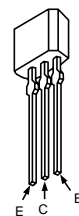
SE-135N
SE135N-LF4



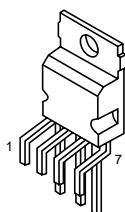
BF421-AMMO
2SA1091-O



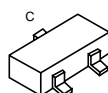
2SC2785-HFE



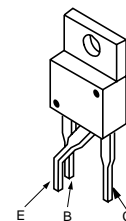
STV9379



DTA144ESA
DTA144ESA
DTC114ESA
DTC114EKA-T146
DTC143TKA-T146
DTC144EKA-T-146R
R2SA1162-G
2SA1037AK-T146
2SC1623-L5L6
2SD601A-Q-TX
2SC1623-L5-L6
2SC2412K-QR
2SC2412K-T-146-QR



2SK2518-01MR
2SK2251-01-F19
2SK2640-01MR

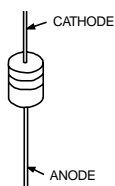
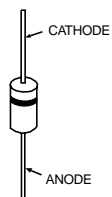


AK04-V1
 AU-01Z-V1
 BYD33G
 BYD33G-AMMO
 DINL20-TA
 D1NL20U
 DINL40-U-TR2
 ERB44-06TP1
 EGP20G
 EG-1Z-V1
 EL1Z
 ERD28-06S

ERD28-06S
 ERC06-15S
 FMN-G12S
 GP08D
 RGP10GPKG23
 RG15GPKG23
 RG1CLF-B1
 RU-3AM
 RU3YX-LF-C4
 RU3YX-V1
 RU-4AM-T3
 1SS292T-77

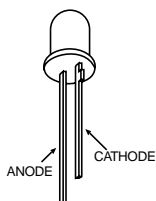
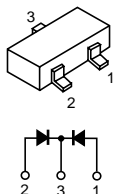
ERA38-06
 ERA81-004TP1
 ERA83-006
 MTZJ-3.6A
 MTZJ-T-77-2.2A
 HZS9.1NB2
 MTZJ-T-77-3.6B
 MTZJ-4.7C
 MTZJ-T-77-5.1B
 MTZJ-T-77-5.6B
 MTZJ-T-77-6.8A
 MTZJ-T-77-8.2B
 MTZJ-7.5B
 MTZJ-T-77-9.1A
 MTZJ-T-77-9.1B
 MTZJ-T-77-10
 MTZJ-T-72-10A

MTZJ-T-72-10B
 MTZJ-T-77-15B
 MTZJ-T-77-33A
 MTZJ-33C
 MTZJ-7.5B
 P6KE200ASY
 RD3.6ES-B2
 RD3.9ES-B2
 RD5.1ESB2
 RD5.6ESB2
 RD6.8ES-B2
 RD7.5ESB2
 RD9.1ES-B3
 RD10ESB2
 RD15ESB2
 1SS119-25
 1SS133T-77



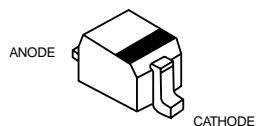
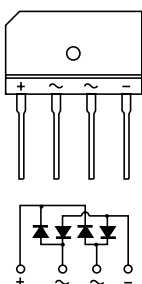
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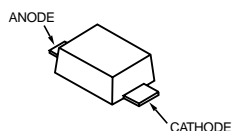


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 DTZ-TT11-6.8B
 RD12SB2
 UDZS-TE-17-4.7B
 UDZSTE-175.6B
 UDZSTE-176.8B
 UDZSTE-179.1B
 UDZ-TE-17-22B

D4SB60L

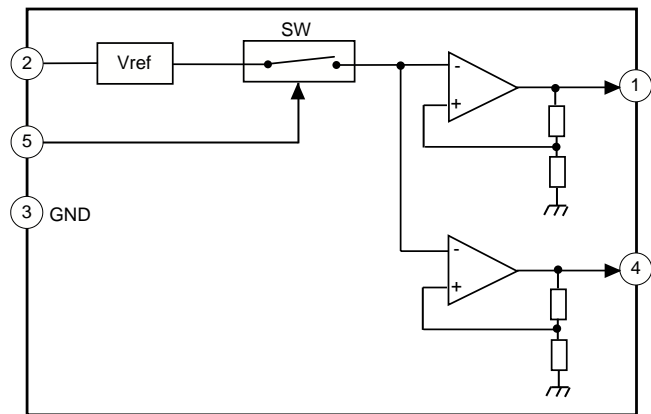


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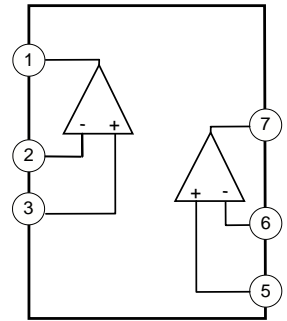


5-5 IC BLOCK DIAGRAMS

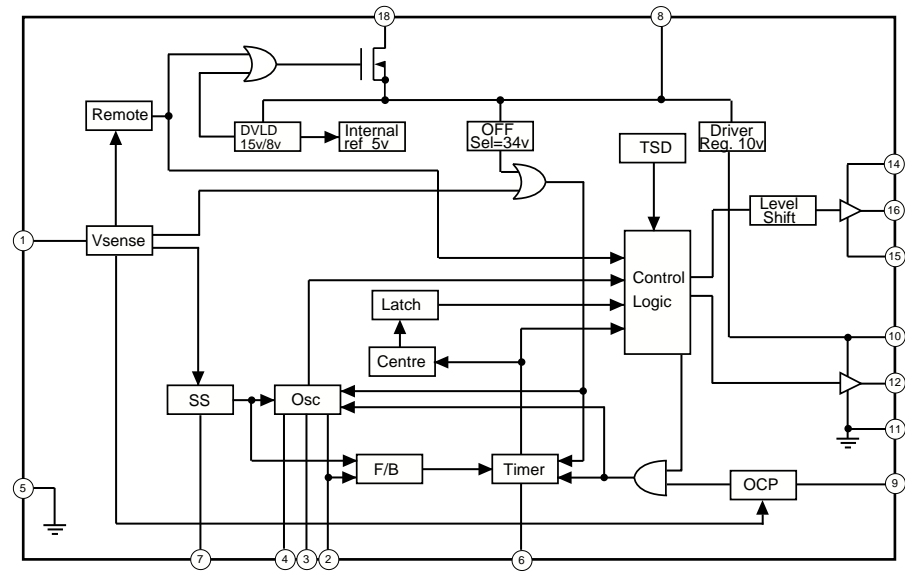
A BOARD IC604 BA41W12ST-V5



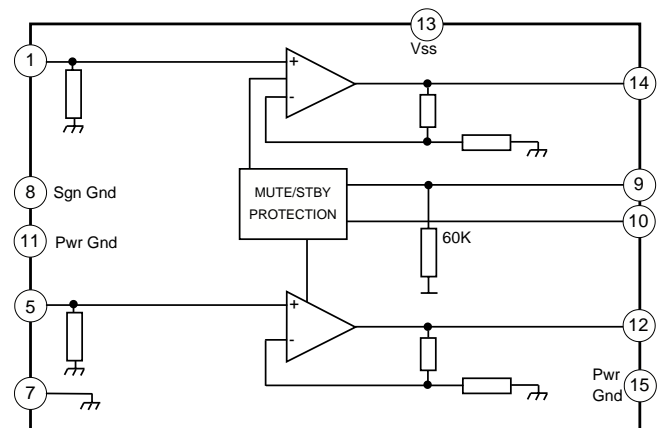
A BOARD IC401/IC531 LM393DT



A BOARD IC601 MCZ3001D



A BOARD IC1201 TDA7497



SECTION 6 EXPLODED VIEWS

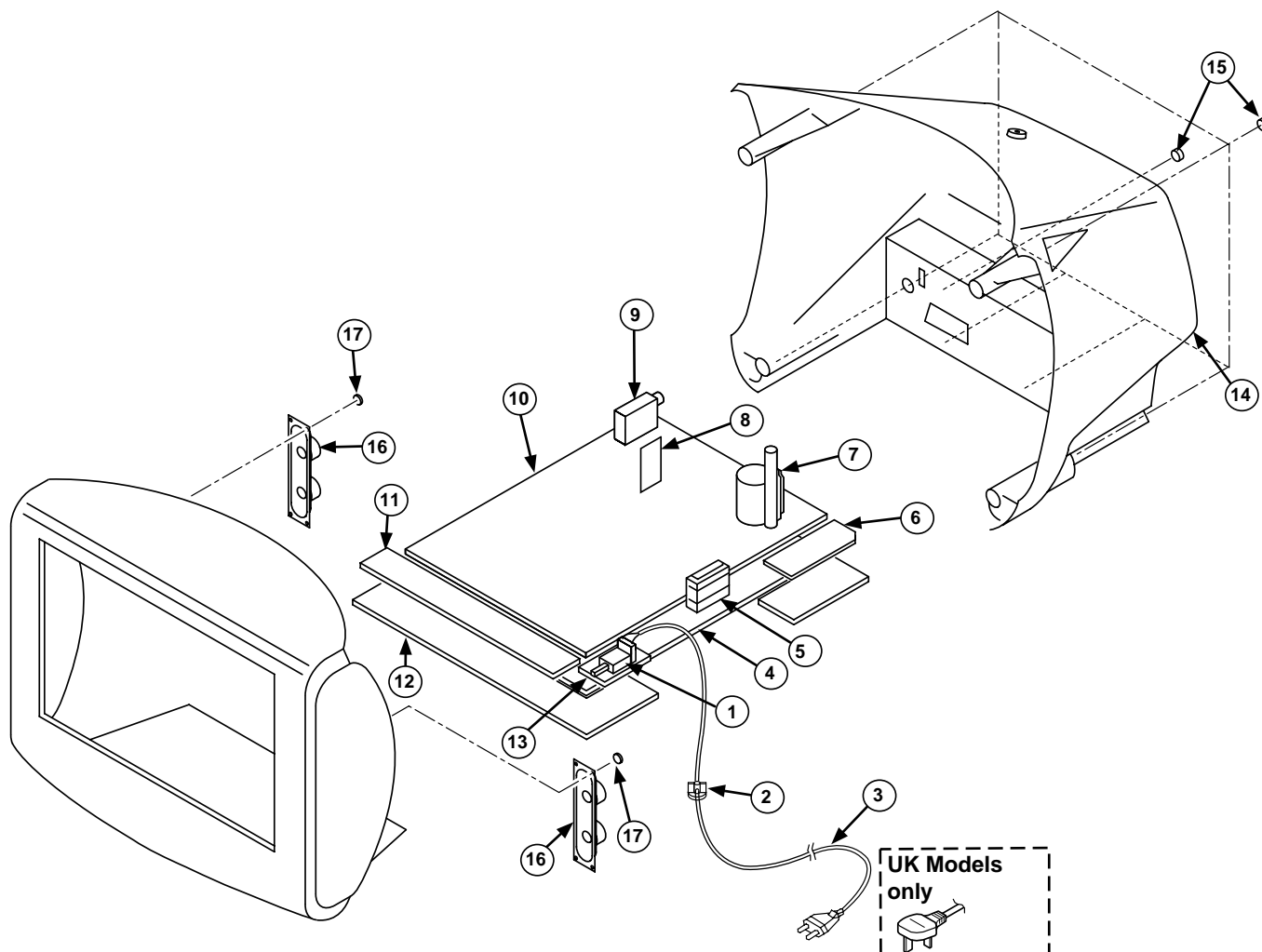
NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

6-1. CHASSIS

Note : Les composants identifiés par une trame et par une marque Δ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces du numéro spécifié.

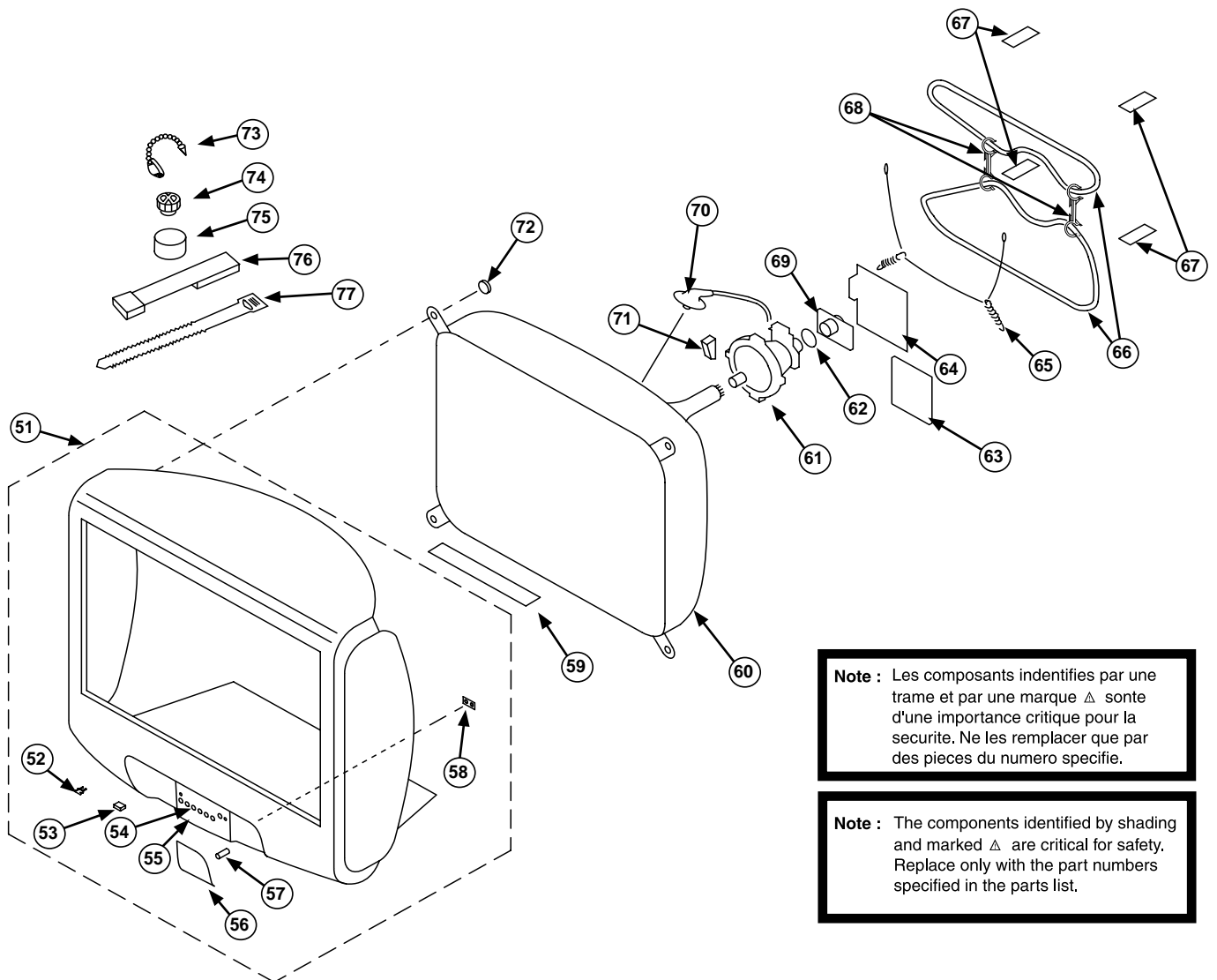
Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.



REF.NO.	PART.NO	DESCRIPTION	REMARK
1	Δ 1-571-433-21	SWITCH, PUSH (AC POWER)	
2	*4-202-531-01	AC CORD LOCK (SC)	
3	Δ 1-783-083-11	CORD, POWER (WITH FILTER)	
		(KV-24LS35B/24LS35E)	
	Δ 1-776-204-12	CORD, POWER (FILTER) (KV-24LS35U)	
4	*4-206-048-21	BRACKET, MAIN	
5	1-419-893-11	COIL, CHOKE 26MMH	
6	*A-1640-434-A	D4 BOARD, COMPLETE	
7	Δ 1-453-372-11	TRANSFORMER ASSY, FLYBACK (NX4521//Z2B14)	
8	*A-1642-282-A	D2 BOARD, COMPLETE	
9	1-693-555-11	TUNER STEREO (KV-24LS35B)	
	1-693-556-11	TUNER STEREO (KV-24LS35E)	

REF.NO.	PART.NO	DESCRIPTION	REMARK
	1-693-557-11	TUNER STEREO (KV-24LS35U)	
10	*A-1632-943-A	A BOARD, COMPLETE (KV-24LS35B)	
	*A-1632-944-A	A BOARD, COMPLETE (KV-24LS35E)	
	*A-1632-935-A	A BOARD, COMPLETE (KV-24LS35U)	
11	*A-1646-244-A	H5 BOARD, COMPLETE	
12	*4-206-154-01	H & F BRACKET	
13	*A-1624-105-A	F5 BOARD, COMPLETE	
14	4-206-064-01	COVER, REAR	
15	4-039-358-01	SCREW (4x16), (+) BV TAPPING	
16	1-529-408-11	SPEAKER (4.2x24CM)	
17	4-384-096-01	SCREW (4x16), BV TAPPING, +P	

6-2. PICTURE TUBE



REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
51	X-4200-735-1	BEZNET ASSY	52-58	65	4-200-433-01	SPRING, EXTENSION	
52	4-047-464-01	CATCHER, PUSH		66	Δ 1-424-800-11	COIL, DEGAUSSING	
53	4-202-555-01	SHAFT DOOR		67	*4-203-390-21	CUSHION, DGC	
54	4-205-376-01	MULTI BUTTON		68	4-064-883-03	HOLDER, DGC	
55	4-205-550-01	COVER MULTI BUTTON		69	8-453-011-11	NECK ASSY, (NA299-M)	
56	4-206-153-01	POWER BUTTON		70	Δ 1-251-317-63	CAP ASSY, HIGH VOLTAGE	
57	4-202-964-11	SPRING		71	3-078-658-01	SPACER, DY	
58	4-205-375-01	GUIDE, LIGHT		72	4-036-188-01	SCREW, SELF TAPPING	
59	4-203-128-41	SHEET, BLOTING		73	4-308-870-00	CLIP, LEAD WIRE	
60	Δ 8-733-008-05	PICTURE TUBE (W56LUP010X)		74	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM	
61	8-451-529-11	DEFLECTION YOKE (Y24REA)		75	1-452-032-00	MAGNET, DISK; 10MM	
62	1-452-896-11	COIL, NA ROTATION (RT-200)		76	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
63	*A-1644-122-A	VM BOARD, COMPLETE		77	3-701-007-00	BAND, BINDING	
64	*A-1638-160-A	C BOARD, COMPLETE					

SECTION 7 ELECTRICAL PARTS LIST

PARTS LISTING TABLE OF CONTENTS

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A BOARD VARIANT Parts List :	Parts that belong only to the model specified
Model	
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<u>KV-24LS35E</u>	56
<u>KV-24LS35U</u>	56
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Note : Refer to the designated variant parts list when seeking a part indicated by an asterisk (*)
Parts indicated (XX) on the Schematic Diagram are not used in this model and therefore do not appear in the Parts List.

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
*A-1632-943-A A Board, Complete (KV-24LS35B)				C106	1-126-933-11	ELECT 100UF	20.00% 16V
*A-1632-944-A A Board, Complete (KV-24LS35E)				C112	1-162-970-91	CERAMIC CHIP 0.01UF	10.00% 25V
*A-1632-935-A A Board, Complete (KV-24LS35U)				C204	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
A Board Common Parts				C211	1-162-970-91	CERAMIC CHIP 10000PF	10.00% 50V
	1-900-900-22	LEAD ASSY, FOCUS		C213	1-163-249-11	CERAMIC CHIP 82PF	5.00% 50V
	4-382-854-01	SCREW (M3X8), P, SW (+)					
	< CAPACITOR >			C214	1-163-139-00	CERAMIC CHIP 820PF	5.00% 50V
C002	1-163-233-91	CERAMIC CHIP 18PF	5.00% 50V	C215	1-163-084-00	CERAMIC CHIP 1.5PF	0.25PF 50V
C004	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V	C216	1-163-117-00	CERAMIC CHIP 100PF	5.00% 50V
C005	1-126-926-91	ELECT 1000UF	20.00% 10V	C217	1-163-084-00	CERAMIC CHIP 1.5PF	0.25PF 50V
C006	1-163-233-91	CERAMIC CHIP 18PF	5.00% 50V	C218	1-163-249-11	CERAMIC CHIP 82PF	5.00% 50V
C009	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V				
C010	1-164-005-11	CERAMIC CHIP 0.47UF	16V	C221	1-163-109-00	CERAMIC CHIP 47PF	5.00% 50V
C011	1-163-005-91	CERAMIC CHIP 470PF	10.00% 50V	C222	1-163-117-00	CERAMIC CHIP 100PF	5.00% 50V
C012	1-126-963-11	ELECT 4.7UF	20.00% 50V	C223	1-126-965-91	ELECT 22UF	20.00% 50V
C013	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V	C224	1-163-117-91	CERAMIC CHIP 100PF	5.00% 50V
C014	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V	C225	1-126-157-11	ELECT 10UF	20.00% 16V
C015	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V				
C016	1-216-295-91	SHORT 0		C226	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C018	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V	C227	1-163-117-91	CERAMIC CHIP 100PF	5.00% 50V
C019	1-162-919-11	CERAMIC CHIP 22PF	5.00% 50V	C228	1-126-965-91	ELECT 22UF	20.00% 50V
C020	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C229	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C021	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V	C230	1-164-336-11	CERAMIC CHIP 0.33UF	25V
C022	1-126-935-11	ELECT 470UF	20.00% 10V				
C025	1-126-935-11	ELECT 470UF	20.00% 16V	C232	1-126-157-11	ELECT 10UF	20.00% 16V
C026	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V	C233	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C027	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C234	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C028	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V	C235	1-164-005-11	CERAMIC CHIP 0.47UF	25V
C030	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V	C236	1-126-157-11	ELECT 10UF	20.00% 16V
C033	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V				
C035	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V	C237	1-126-965-91	ELECT 22UF	20.00% 50V
C036	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V	C238	1-163-117-91	CERAMIC CHIP 100PF	5.00% 50V
C037	1-136-244-01	FILM 0.1UF	2.00% 50V	C239	1-126-157-11	ELECT 10UF	20.00% 16V
C038	1-163-038-91	CERAMIC CHIP 0.1UF	25V	C242	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V
C039	1-164-505-11	CERAMIC CHIP 2.2UF	16V	C245	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V
C040	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V				
C042	1-162-625-11	CERAMIC CHIP 0.0047UF	5.00% 50V	C401	1-126-964-11	ELECT 10UF	20.00% 50V
C043	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V	C404	1-162-970-91	CERAMIC CHIP 0.01UF	10.00% 25V
C044	1-164-346-11	CERAMIC CHIP 1UF	16V	C405	1-163-009-91	CERAMIC CHIP 1000PF	10.00% 50V
C045	1-164-489-11	CERAMIC CHIP 0.22UF	10.00% 16V	C407	1-164-346-11	CERAMIC CHIP 1UF	16V
C046	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V	C408	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C047	1-126-935-11	ELECT 470UF	20.00% 16V				
C053	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C409	1-126-964-11	ELECT 10UF	20.00% 50V
C055	1-126-960-11	ELECT 1UF	20.00% 50V	C410	1-162-970-91	CERAMIC CHIP 0.01UF	10.00% 25V
C100	1-126-933-11	ELECT 100UF	20.00% 16V	C411	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V
C103	1-126-965-91	ELECT 22UF	20.00% 50V	C412	1-164-346-11	CERAMIC CHIP 1UF	16V
C105	1-162-970-91	CERAMIC CHIP 0.01UF	10.00% 25V	C414	1-164-346-11	CERAMIC CHIP 1UF	16V
				C415	1-164-346-11	CERAMIC CHIP 1UF	16V
				C416	1-126-964-11	ELECT 10UF	20.00% 50V
				C417	1-162-970-91	CERAMIC CHIP 0.01UF	10.00% 25V
				C418	1-164-346-91	CERAMIC CHIP 1UF	16V
				C419	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
				C423	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
				C424	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V
				C426	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V
				C427	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V
				C428	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V

REF.NO.	PART.NO	DESCRIPTION	REMARK
C429	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V
C430	1-102-114-00	CERAMIC 470PF	10.00% 50V
C435	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C436	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C437	1-164-346-11	CERAMIC CHIP 1UF	16V
C438	1-164-346-11	CERAMIC CHIP 1UF	16V
C445	1-126-964-11	ELECT 10UF	20.00% 50V
C446	1-126-964-11	ELECT 10UF	20.00% 50V
C447	1-162-970-91	CERAMIC CHIP 0.01UF	10.00% 25V
C449	1-216-025-91	RES CHIP 100	5% 1/10W
C501	1-126-968-11	ELECT 100UF	20.00% 50V
C502	1-163-038-91	CERAMIC CHIP 0.1UF	25V
C503	1-115-832-91	ELECT 100UF	20.00% 50V
C504	1-106-220-00	MYLAR 0.1UF	10.00% 100V
C505	1-137-194-81	FILM 0.47UF	5.00% 50V
C506	1-162-970-91	CERAMIC CHIP 0.01UF	10.00% 25V
C507	1-162-970-91	CERAMIC CHIP 10000PF	10.00% 25V
C509	1-107-364-11	MYLAR 0.01UF	10.00% 400V
C510	1-163-005-91	CERAMIC CHIP 470PF	10.00% 50V
C513	1-107-662-11	ELECT 22UF	20.00% 250V
C515	1-104-666-11	ELECT 220UF	20.00% 25V
C517	1-115-781-91	ELECT 220UF	20.00% 25V
C518	1-106-375-12	MYLAR 0.022UF	10.00% 250V
C519	1-163-275-11	CERAMIC CHIP 0.001UF	5.00% 50V
C520	1-163-038-91	CERAMIC CHIP 0.1UF	25V
C522	1-130-495-00	MYLAR 0.1UF	5.00% 50V
C524	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V
C525	1-123-024-21	ELECT 33UF	160V
C531	1-126-964-11	ELECT 10UF	20.00% 50V
C532	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V
C533	1-164-690-91	CERAMIC CHIP 2200PF	5.00% 50V
C536	1-117-665-21	FILM 0.33UF	5.00% 250V
C537	1-102-002-91	CERAMIC CHIP 680PF	10.00% 500V
C538	1-165-319-11	CERAMIC CHIP 0.1UF	50V
C539	1-111-230-11	ELECT 1UF	20.00% 160V
C540	1-136-205-11	MYLAR 0.022UF	10.00% 400V
C541	1-106-383-00	MYLAR 0.047UF	10.00% 200V
C542	1-162-134-11	CERAMIC 470PF	10.00% 2KV
C543	1-162-134-11	CERAMIC 470PF	10.00% 2KV
C545	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C546	1-130-118-00	FILM 0.051UF	5.00% 400V
C547	1-117-666-11	FILM 0.39UF	5.00% 250V
C548	1-162-134-11	CERAMIC 470PF	10.00% 2KV
C550	1-107-638-11	ELECT 33UF	20.00% 160V
C552	1-102-212-00	CERAMIC 820PF	10.00% 500V
C553	1-137-417-11	MYLAR 0.0047UF	10.00% 200V
C555	1-117-650-11	FILM 18000PF	3.00% 1.2KV
C580	1-162-970-91	CERAMIC CHIP 0.01UF	10.00% 25V
C582	1-163-259-91	CERAMIC CHIP 220PF	5.00% 50V
C583	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V

REF.NO.	PART.NO	DESCRIPTION	REMARK
C600	Δ 1-119-888-51	CERAMIC 2200PF	20.00% 250V
C601	Δ 1-136-516-12	FILM 0.1UF	20.00% 300V
C602	Δ 1-136-516-12	FILM 0.1UF	20.00% 300V
C603	Δ 1-119-899-51	CERAMIC 1000PF	10.00% 250V
C604	Δ 1-119-899-51	CERAMIC 1000PF	10.00% 250V
C605	1-111-036-91	ELECT 470UF	20.00% 16V
C606	1-117-751-11	ELECT (BLOCK) 220UF	20.00% 450V
C607	1-126-964-11	ELECT 10UF	20.00% 50V
C608	1-126-963-11	ELECT 4.7UF	20.00% 50V
C610	1-126-941-11	ELECT 470UF	20.00% 25V
C611	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V
C612	1-104-571-91	CERAMIC 0.0015UF	10.00% 2KV
C613	1-104-571-91	CERAMIC 0.0015UF	10.00% 2KV
C614	1-161-964-51	CERAMIC 0.0047UF	250V
C615	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V
C616	1-165-127-11	CERAMIC 470PF	10.00% 500V
C617	1-165-127-11	CERAMIC 470PF	10.00% 500V
C618	1-126-949-11	ELECT 220UF	20.00% 35V
C619	1-164-644-11	CERAMIC 330PF	10.00% 500V
C620	1-137-990-21	FILM 33000PF	3.00% 800V
C621	1-164-644-11	CERAMIC 330PF	10.00% 500V
C622	1-104-571-91	CERAMIC 0.0015UF	10.00% 2KV
C623	1-104-571-91	CERAMIC 0.0015UF	10.00% 2KV
C624	1-126-935-11	ELECT 470UF	20.00% 16V
C626	1-126-967-11	ELECT 47UF	20.00% 50V
C627	1-126-964-91	ELECT 10UF	20.00% 50V
C628	1-126-963-11	ELECT 4.7UF	20.00% 50V
C629	1-165-127-11	CERAMIC 470PF	10.00% 500V
C630	1-107-641-11	ELECT 220UF	20.00% 160V
C631	1-126-942-61	ELECT 1000UF	20.00% 25V
C632	1-126-964-11	ELECT 10UF	20.00% 50V
C633	1-163-009-91	CERAMIC CHIP 0.001UF	10.00% 50V
C634	1-128-562-11	ELECT 47UF	20.00% 100V
C635	1-136-165-00	FILM 0.1UF	5.00% 50V
C636	1-136-479-11	FILM 0.001UF	2.00% 50V
C637	1-126-967-11	ELECT 47UF	20.00% 50V
C638	1-107-679-91	ELECT 10UF	20.00% 450V
C639	1-104-665-11	ELECT 100UF	20.00% 25V
C640	1-104-664-11	ELECT 47UF	20.00% 25V
C641	1-115-785-11	ELECT 470UF	20.00% 16V
C642	1-104-665-11	ELECT 100UF	20.00% 25V
C643	1-165-127-11	CERAMIC 470PF	10.00% 500V
C645	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C648	1-125-782-91	CERAMIC 4700PF	10.00% 1KV
C649	1-163-038-91	CERAMIC CHIP 0.1UF	25V
C657	1-126-952-11	ELECT 1000UF	20.00% 35V
C1201	1-126-972-11	ELECT 1000UF	20.00% 50V
C1202	1-126-959-91	ELECT 0.47UF	20.00% 50V
C1203	1-535-143-61	LEAD, JUMPER (5.0MM)	
C1207	1-126-960-11	ELECT 1UF	20.00% 50V

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
C1208	1-126-953-11	ELECT 2200UF	20.00% 35V	D018	8-719-109-69	DIODE RD3.6ES-B2	
C1209	1-163-033-91	CERAMIC CHIP 0.022UF	50V	D019	8-719-978-33	DIODE DTZ-TT116.8B	
C1210	1-126-960-11	ELECT 1UF	20.00% 50V	D021	8-719-978-33	DIODE DTZ-TT116.8B	
C1211	1-163-033-91	CERAMIC CHIP 0.022UF	50V	D022	8-719-069-55	DIODE UDZSTE-175.6B	
C1213	1-164-346-91	CERAMIC CHIP 1UF	16V	D035	8-719-069-55	DIODE UDZSTE-175.6B	
C1215	1-126-952-11	ELECT 1000UF	20.00% 35V	D036	8-719-069-55	DIODE UDZSTE-175.6B	
C1218	1-109-982-11	CERAMIC CHIP 1UF	10.00% 10V	D051	8-719-081-98	DIODE MM3Z6V8T1	
C1219	1-104-666-11	ELECT 220UF	20.00% 25V	D101	8-719-977-81	DIODE DTZ33B	
C1221	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V	D103	8-719-081-98	DIODE MM3Z6V8T1	
C1228	1-126-952-11	ELECT 1000UF	20.00% 35V	D104	8-719-069-55	DIODE UDZSTE-175.6B	
C1229	1-163-001-11	CERAMIC CHIP 220PF	10.00% 50V	D105	8-719-069-55	DIODE UDZSTE-175.6B	
C1230	1-163-001-11	CERAMIC CHIP 220PF	10.00% 50V	D106	8-719-069-55	DIODE UDZSTE-175.6B	
C1232	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V	D107	8-719-069-55	DIODE UDZSTE-175.6B	
C1235	1-126-960-11	ELECT 1UF	20.00% 50V	D207	8-719-069-60	DIODE UDZSTE-179.1B	
C1236	1-126-960-11	ELECT 1UF	20.00% 50V	D210	8-719-069-55	DIODE UDZSTE-175.6B	
< CONNECTOR >				D211	8-719-069-60	DIODE UDZSTE-179.1B	
CN001	*1-564-508-11	PLUG, CONNECTOR 5P		D212	8-719-914-43	DIODE DAN202K	
CN003	*1-564-510-51	PLUG, CONNECTOR 7P		D228	8-719-069-55	DIODE UDZSTE-175.6B	
CN405	*1-564-510-11	PLUG, CONNECTOR 7P		D235	8-719-069-55	DIODE UDZSTE-175.6B	
CN406	*1-564-512-11	PLUG, CONNECTOR 9P		D236	8-719-069-60	DIODE UDZSTE-179.1B	
CN501	1-580-798-11	CONNECTOR PIN (DY)		D401	8-719-069-57	DIODE UDZSTE-176.8B	
CN503	*1-564-506-11	PLUG, CONNECTOR 3P		D402	8-719-081-98	DIODE MM3Z6V8T1	
CN506	1-695-915-11	TAB (CONTACT)		D403	8-719-978-33	DIODE DTZ-TT116.8B	
CN508	*1-564-508-11	PLUG, CONNECTOR 5P		D404	8-719-109-89	DIODE RD5.6ESB2	
CN509	1-695-915-11	TAB (CONTACT)		D405	8-719-081-98	DIODE MM3Z6V8T1	
CN510	1-691-771-11	PLUG (MICRO CONNECTOR) 9P		D406	8-719-081-98	DIODE MM3Z6V8T1	
CN512	*1-770-723-11	CONNECTOR, BOARD TO BOARD 8P		D407	8-719-081-98	DIODE MM3Z6V8T1	
CN602	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		D408	8-719-069-57	DIODE UDZSTE-176.8B	
CN603	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		D410	8-719-069-57	DIODE UDZSTE-176.8B	
CN605	*1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P		D411	8-719-069-57	DIODE UDZSTE-176.8B	
CN606	*1-695-292-11	PIN, CONNECTOR (POWER)		D412	8-719-081-98	DIODE MM3Z6V8T1	
CN1200	*1-564-509-11	PLUG, CONNECTOR 6P		D413	8-719-069-57	DIODE UDZSTE-176.8B	
CN1201	*1-564-507-11	PLUG, CONNECTOR 4P		D414	8-719-081-98	DIODE MM3Z6V8T1	
CN1202	*1-564-506-11	PLUG, CONNECTOR 3P		D418	8-719-069-60	DIODE UDZSTE-179.1B	
< DIODE >				D419	8-719-049-26	DIODE RB721Q	
D001	8-719-069-55	DIODE UDZSTE-175.6B		D420	8-719-081-98	DIODE MM3Z6V8T1	
D002	8-719-069-55	DIODE UDZSTE-175.6B		D421	8-719-049-26	DIODE RB721Q	
D003	8-719-109-69	DIODE RD3.6ES-B2		D422	8-719-069-57	DIODE UDZSTE-176.8B	
D005	8-719-929-15	DIODE HZS9.1NB2		D423	8-719-081-98	DIODE MM3Z6V8T1	
D006	8-719-109-89	DIODE RD5.6ESB2		D424	8-719-069-60	DIODE UDZSTE-179.1B	
D007	8-719-069-55	DIODE UDZSTE-175.6B		D427	8-719-082-01	DIODE MM3Z12VT1	
D008	8-719-074-43	DIODE BAS316-115		D428	8-719-069-57	DIODE UDZSTE-176.8B	
D010	8-719-074-43	DIODE BAS316-115		D429	8-719-069-57	DIODE UDZSTE-176.8B	
D011	8-719-074-43	DIODE BAS316-115		D435	8-719-069-60	DIODE UDZSTE-179.1B	
D012	8-719-929-15	DIODE HZS9.1NB2		D436	8-719-069-60	DIODE UDZSTE-179.1B	
D013	8-719-109-69	DIODE RD3.6ES-B2		D501	8-719-979-85	DIODE EGP20G	
D014	1-216-295-91	SHORT 0		D502	8-719-081-90	DIODE PDZ22B-115	
D016	8-719-109-89	DIODE RD5.6ESB2		D503	8-719-069-55	DIODE UDZSTE-175.6B	
				D504	8-719-074-43	DIODE BAS316-115	
				D512	8-719-302-43	DIODE EL1Z	

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
D513	8-719-979-85	DIODE EGP20G				< FILTER >	
D514	8-719-979-85	DIODE EGP20G					
D534	8-719-302-43	DIODE EL1Z		FL201	1-239-803-11	FILTER, EMI	
D535	8-719-908-03	DIODE GP08D				< IC >	
D536	8-719-945-80	DIODE ERC06-15S					
D537	8-719-070-62	DIODE PDZ9.1B-115		IC001	6-800-338-01	IC TDA9394H/N1/4/0334	
D538	8-719-908-03	DIODE GP08D		IC004	8-759-575-72	IC M24C08-WMN6T	
D539	8-719-312-10	DIODE RU4AM-T3		IC201	6-700-411-01	IC MSP3411G-PP-B8	
D541	1-216-295-91	SHORT 0		IC401	8-759-665-11	IC LM393DT	
D573	8-719-082-00	DIODE MM3Z4V7T1		IC501	8-759-192-71	IC STV9379	
D601	8-719-510-53	DIODE D4SB60L		IC531	8-759-665-11	IC LM393DT	
D602	8-719-911-19	DIODE 1SS119-25		IC601	8-759-670-30	IC MCZ3001D	
D604	8-719-083-94	DIODE FUF4005		IC602	8-749-016-19	IC SE135N-LF4	
D608	8-719-063-70	DIODE D1NL20U		IC604	8-759-668-87	IC BA41W12ST-V5	
D610	8-719-110-41	DIODE RD15ES-B2		IC608	8-759-591-02	IC L78L33ABZ-AP	
D611	8-719-991-33	DIODE 1SS133T-77		IC609	8-759-468-89	IC TOP209P	
D612	8-719-991-33	DIODE 1SS133T-77		IC1201	8-759-831-56	IC TDA7497	
D613	8-719-911-19	DIODE 1SS119-25				< JACK >	
D614	8-719-077-76	DIODE D2SB60A-F04		J401	1-766-296-21	CONNECTOR, DUAL SCART	
D615	8-719-929-15	DIODE HZS9.1NB2		J402	1-770-329-11	JACK, PIN 3P	
D618	8-719-022-97	DIODE D2S4MF		J404	1-784-632-11	JACK, PIN 2P	
D619	8-719-022-97	DIODE D2S4MF				< COIL >	
D620	8-719-109-85	DIODE RD5.1ESB2		L001	1-408-611-31	INDUCTOR 47UH	
D621	8-719-109-89	DIODE RD5.6ESB2		L002	1-414-187-31	INDUCTOR 47UH	
D623	8-719-911-19	DIODE 1SS119-25		L004	1-408-611-31	INDUCTOR 47UH	
D624	8-719-052-91	DIODE D4SBS4-F		L006	1-408-611-31	INDUCTOR 47UH	
D625	8-719-062-39	DIODE D4SBL20UF1		L027	1-216-295-91	SHORT 0	
D627	8-719-063-70	DIODE D1NL20U		L101	1-412-534-41	INDUCTOR 56UH	
D628	8-719-083-49	DIODE P6KE200ASY		L102	1-408-611-31	INDUCTOR 47UH	
D629	8-719-083-94	DIODE FUF4005		L103	1-412-002-31	INDUCTOR 4.7UH	
D631	8-719-921-63	DIODE MTZJ-7.5B		L104	1-412-002-31	INDUCTOR 4.7UH	
D632	8-719-063-70	DIODE D1NL20U		L201	1-408-602-31	INDUCTOR 8.2UH	
D633	8-719-109-69	DIODE RD3.6ESB2		L202	1-408-591-11	INDUCTOR 1UH	
D638	8-719-083-92	DIODE YG802C09RF122		L203	1-408-602-31	INDUCTOR 8.2UH	
D640	8-719-921-63	DIODE MTZJ-7.5B		L205	1-408-591-21	INDUCTOR 1UH	
D1203	8-719-914-43	DIODE DAN202K		L206	1-535-143-61	LEAD, JUMPER (5.0MM)	
D1204	8-719-069-55	DIODE UDZSTE-175.6B		L207	1-408-591-21	INDUCTOR 1UH	
D1205	8-719-081-90	DIODE PDZ22B-115		L401	1-410-993-42	INDUCTOR 1UH	
D1230	8-719-074-43	DIODE BAS316-115		L403	1-410-993-42	INDUCTOR 1UH	
		< FERRITE BEAD >		L404	1-410-993-42	INDUCTOR 1UH	
FB601	1-410-397-21	FERRITE 1.1UH		L405	1-535-143-61	LEAD, JUMPER (5.0MM)	
FB602	1-410-397-21	FERRITE 1.1UH		L406	1-414-177-31	INDUCTOR 1UH	
FB603	1-412-911-11	FERRITE 0UH		L410	1-216-025-11	RES-CHIP 100 5% 1/10W	
FB604	1-410-397-21	FERRITE 1.1UH		L430	1-412-002-31	INDUCTOR 4.7UH	
FB605	1-410-397-21	FERRITE 1.1UH		L446	1-216-295-91	SHORT 0	
FB606	1-412-911-11	FERRITE 0UH		L448	1-216-295-91	SHORT 0	
FB607	1-412-911-11	FERRITE 0UH		L501	1-414-187-11	INDUCTOR 47UH	

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

A

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
L502	1-412-529-11	INDUCTOR	22UH	Q1232	8-729-026-49	TRANSISTOR 2SA1037AK-T146	
L503	1-412-521-31	INDUCTOR	4.7UH	Q1233	8-729-026-49	TRANSISTOR 2SA1037AK-T146	
L504	1-535-143-61	LEAD, JUMPER	(5.0MM)	< RESISTOR >			
L505	1-412-542-41	INDUCTOR	270UH	JR3	1-216-296-11	SHORT	0
L507	1-412-533-21	INDUCTOR	47UH	JR4	1-216-295-91	SHORT	0
L532	1-412-553-11	INDUCTOR	3.3MH	JR5	1-216-295-91	SHORT	0
L533	1-406-989-21	INDUCTOR	10MH	JR5	1-216-295-91	SHORT	0
L534	1-216-025-11	RES-CHIP	100 5% 1/10W	JR7	1-216-295-91	SHORT	0
L535	1-459-111-00	INDUCTOR	10MH	JR9	1-216-295-91	SHORT	0
L537	1-424-870-11	COIL HOR LINEARITY		JR10	1-216-295-91	SHORT	0
L601	1-408-603-31	INDUCTOR	10UH	JR16	1-216-296-11	SHORT	0
L602	1-408-611-31	INDUCTOR	47UH	JR17	1-216-295-91	SHORT	0
L603	1-412-523-41	INDUCTOR	6.8UH	JR21	1-216-818-11	RES-CHIP	560 5% 1/16W
L1201	1-535-143-61	LEAD, JUMPER	(5.0MM)	JR24	1-216-295-91	SHORT	0
L1203	1-535-143-61	LEAD, JUMPER	(5.0MM)	JR25	1-216-295-91	SHORT	0
< PHOTO COUPLER >				JR26	1-216-295-91	SHORT	0
PH601	Δ 8-749-016-21	IC TCET1103G		JR101	1-216-295-91	SHORT	0
< IC LINK >				JR105	1-216-295-91	SHORT	0
PS1201	Δ 1-533-597-31	LINK, IC		JR204	1-216-296-11	SHORT	0
< TRANSISTOR >				JR206	1-216-295-91	SHORT	0
Q002	8-729-027-43	TRANSISTOR DTC114EKA-T146		JR208	1-216-295-91	SHORT	0
Q013	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR209	1-216-295-91	SHORT	0
Q014	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR210	1-216-295-91	SHORT	0
Q049	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR211	1-216-296-11	SHORT	0
Q202	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR213	1-216-295-91	SHORT	0
Q203	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR401	1-216-295-91	SHORT	0
Q212	8-729-422-33	TRANSISTOR 2SD601A-Q-TX		JR418	1-216-296-11	SHORT	0
Q401	8-729-026-49	TRANSISTOR 2SA1037AK-T146		JR423	1-216-296-11	SHORT	0
Q409	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR505	1-216-295-91	SHORT	0
Q411	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR506	1-216-238-91	RES-CHIP	47K
Q532	8-729-053-33	TRANSISTOR IRF614-037		JR601	1-216-295-91	SHORT	0
Q533	8-729-049-08	TRANSISTOR BU2515DX-127		JR609	1-216-295-91	SHORT	0
Q535	8-729-053-33	TRANSISTOR IRF614-037		JR610	1-216-295-91	SHORT	0
Q576	8-729-422-33	TRANSISTOR 2SD601A-Q-TX		JR1209	1-216-295-91	SHORT	0
Q601	8-729-026-49	TRANSISTOR 2SA1037AK-T146		R001	1-216-295-91	SHORT	0
Q602	8-729-119-78	TRANSISTOR 2SC2785-HFE		R003	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
Q603	8-729-029-56	TRANSISTOR DTA144ESA		R004	1-216-033-00	RES-CHIP	220 5% 1/10W
Q604	8-729-030-02	TRANSISTOR DTC144ESA		R005	1-216-041-00	RES-CHIP	470 5% 1/10W
Q606	8-729-053-36	TRANSISTOR 2SK2640-01MR		R006	1-216-025-11	RES-CHIP	100 5% 1/10W
Q607	8-729-053-36	TRANSISTOR 2SK2640-01MR		R007	1-216-025-11	RES-CHIP	100 5% 1/10W
Q608	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R008	1-216-025-11	RES-CHIP	100 5% 1/10W
Q609	8-729-026-49	TRANSISTOR 2SA1037AK-T146		R009	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q1210	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R010	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q1211	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R011	1-216-295-91	SHORT	0
Q1230	8-729-027-56	TRANSISTOR DTC143TKA-T146		R012	1-216-121-11	RES-CHIP	1M 5% 1/10W
Q1231	8-729-027-56	TRANSISTOR DTC143TKA-T146		R014	1-216-069-00	RES-CHIP	6.8K 5% 1/10W
				R015	1-216-198-91	RES-CHIP	1K 5% 1/8W
				R017	1-216-025-11	RES-CHIP	100 5% 1/10W

REF.NO.	PART.NO	DESCRIPTION	REMARK		
R018	1-208-820-11	METAL CHIP	39K	0.5%	1/10W
R020	1-216-077-91	RES-CHIP	15K	5%	1/10W
R022	1-216-089-91	RES-CHIP	47K	5%	1/10W
R023	1-216-035-00	RES-CHIP	270	5%	1/10W
R024	1-216-025-11	RES-CHIP	100	5%	1/10W
R025	1-216-025-11	RES-CHIP	100	5%	1/10W
R026	1-216-025-11	RES-CHIP	100	5%	1/10W
R027	1-216-025-11	RES-CHIP	100	5%	1/10W
R028	1-216-025-11	RES-CHIP	100	5%	1/10W
R029	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R030	1-216-821-11	RES-CHIP	1K	5%	1/16W
R031	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R032	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R033	1-216-073-91	RES-CHIP	10K	5%	1/10W
R034	1-216-129-00	RES-CHIP	2.2M	5%	1/10W
R035	1-216-101-00	RES-CHIP	150K	5%	1/10W
R036	1-216-083-00	RES-CHIP	27K	5%	1/10W
R039	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R040	1-216-033-00	RES-CHIP	220	5%	1/10W
R041	1-216-025-11	RES-CHIP	100	5%	1/10W
R042	1-216-025-11	RES-CHIP	100	5%	1/10W
R044	1-216-073-91	RES-CHIP	10K	5%	1/10W
R045	1-216-129-00	RES-CHIP	2.2M	5%	1/10W
R046	1-216-025-11	RES-CHIP	100	5%	1/10W
R047	1-216-025-11	RES-CHIP	100	5%	1/10W
R048	1-216-073-91	RES-CHIP	10K	5%	1/10W
R049	1-216-049-11	RES-CHIP	1K	5%	1/10W
R050	1-216-025-11	RES-CHIP	100	5%	1/10W
R051	1-216-295-91	SHORT	0		
R052	1-216-295-91	SHORT	0		
R053	1-216-095-91	RES-CHIP	82K	5%	1/10W
R055	1-216-025-11	RES-CHIP	100	5%	1/10W
R056	1-216-081-00	RES-CHIP	22K	5%	1/10W
R060	1-216-025-11	RES-CHIP	100	5%	1/10W
R061	1-216-025-11	RES-CHIP	100	5%	1/10W
R070	1-216-025-11	RES-CHIP	100	5%	1/10W
R071	1-216-049-11	RES-CHIP	1K	5%	1/10W
R072	1-164-489-91	CERAMIC-CHIP	0.22UF10%	16V	
R073	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R074	1-216-073-91	RES-CHIP	10K	5%	1/10W
R090	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R091	1-216-081-00	RES-CHIP	22K	5%	1/10W
R092	1-216-073-91	RES-CHIP	10K	5%	1/10W
R094	1-216-025-11	RES-CHIP	100	5%	1/10W
R095	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R096	1-216-073-91	RES-CHIP	10K	5%	1/10W
R101	1-216-093-91	RES-CHIP	68K	5%	1/10W
R102	1-216-097-11	RES-CHIP	100K	5%	1/10W
R103	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R104	1-216-295-91	SHORT	0		

REF.NO.	PART.NO	DESCRIPTION	REMARK		
R105	1-414-813-11	FERRITE	0UH		
R106	1-215-900-11	METAL OXIDE	22K	5%	2W
R107	1-216-025-11	RES-CHIP	100	5%	1/10W
R108	1-216-025-11	RES-CHIP	100	5%	1/10W
R201	1-216-025-11	RES-CHIP	100	5%	1/10W
R202	1-216-073-91	RES-CHIP	10K	5%	1/10W
R211	1-216-081-00	RES-CHIP	22K	5%	1/10W
R212	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R213	1-216-081-00	RES-CHIP	22K	5%	1/10W
R214	1-216-041-00	RES-CHIP	470	5%	1/10W
R215	1-216-037-00	RES-CHIP	330	5%	1/10W
R216	1-216-097-11	RES-CHIP	100K	5%	1/10W
R217	1-216-222-00	RES-CHIP	10K	5%	1/8W
R220	1-216-031-00	RES-CHIP	180	5%	1/10W
R221	1-216-190-00	RES-CHIP	470	5%	1/8W
R232	1-216-025-11	RES-CHIP	100	5%	1/10W
R233	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R234	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R235	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R236	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R238	1-216-025-11	RES-CHIP	100	5%	1/10W
R246	1-260-107-11	CARBON	4.7K	5%	1/2W
R248	1-249-429-11	CARBON	10K	5%	1/4W
R249	1-216-097-11	RES-CHIP	100K	5%	1/10W
R250	1-216-230-00	RES-CHIP	22K	5%	1/8W
R251	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R252	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R253	1-216-025-11	RES-CHIP	100	5%	1/10W
R254	1-216-025-11	RES-CHIP	100	5%	1/10W
R401	1-410-993-42	INDUCTOR	1UH		
R402	1-216-041-00	RES-CHIP	470	5%	1/10W
R403	1-216-113-00	RES-CHIP	470K	5%	1/10W
R404	1-216-113-00	RES-CHIP	470K	5%	1/10W
R405	1-216-831-91	RES-CHIP	6.8K	5%	1/10W
R406	1-216-296-11	SHORT	0		
R407	1-216-022-00	RES-CHIP	75	5%	1/10W
R408	1-216-022-00	RES-CHIP	75	5%	1/10W
R409	1-216-025-11	RES-CHIP	100	5%	1/10W
R410	1-216-025-11	RES-CHIP	100	5%	1/10W
R411	1-216-022-00	RES-CHIP	75	5%	1/10W
R412	1-216-025-11	RES-CHIP	100	5%	1/10W
R413	1-216-113-00	RES-CHIP	470K	5%	1/10W
R414	1-216-022-00	RES-CHIP	75	5%	1/10W
R415	1-216-022-00	RES-CHIP	75	5%	1/10W
R416	1-216-027-00	RES-CHIP	120	5%	1/10W
R417	1-216-113-00	RES-CHIP	470K	5%	1/10W
R418	1-216-113-00	RES-CHIP	470K	5%	1/10W
R419	1-216-022-00	RES-CHIP	75	5%	1/10W
R420	1-216-073-91	RES-CHIP	10K	5%	1/10W
R421	1-216-049-11	RES-CHIP	1K	5%	1/10W

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

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REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
R422	1-216-831-91	RES-CHIP	6.8K 5% 1/10W	R521	1-216-099-91	RES-CHIP	120K 5% 1/10W
R423	1-216-113-00	RES-CHIP	470K 5% 1/10W	R522	1-216-097-11	RES-CHIP	100K 5% 1/10W
R424	1-216-113-00	RES-CHIP	470K 5% 1/10W	R523	1-216-121-11	RES-CHIP	1M 5% 1/10W
R425	1-216-085-91	RES-CHIP	33K 5% 1/10W	R525	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R426	1-216-073-91	RES-CHIP	10K 5% 1/10W	R526	1-216-089-91	RES-CHIP	47K 5% 1/10W
R427	1-216-113-00	RES-CHIP	470K 5% 1/10W	R527	1-216-077-91	RES-CHIP	15K 5% 1/10W
R428	1-216-073-91	RES-CHIP	10K 5% 1/10W	R528	1-216-097-11	RES-CHIP	100K 5% 1/10W
R429	1-216-089-91	RES-CHIP	47K 5% 1/10W	R529	1-216-073-91	RES-CHIP	10K 5% 1/10W
R430	1-216-073-91	RES-CHIP	10K 5% 1/10W	R530	1-216-085-91	RES-CHIP	33K 5% 1/10W
R431	1-216-073-91	RES-CHIP	10K 5% 1/10W	R531	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R433	1-216-073-91	RES-CHIP	10K 5% 1/10W	R532	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R434	1-216-073-91	RES-CHIP	10K 5% 1/10W	R533	1-216-073-91	RES-CHIP	10K 5% 1/10W
R435	1-216-295-91	SHORT	0	R534	1-216-089-91	RES-CHIP	47K 5% 1/10W
R438	1-216-022-00	RES-CHIP	75 5% 1/10W	R535	1-216-085-91	RES-CHIP	33K 5% 1/10W
R440	1-216-049-11	RES-CHIP	1K 5% 1/10W	R538	1-535-143-71	LEAD, JUMPER (7.5MM)	
R441	1-216-051-00	RES-CHIP	1.2K 5% 1/10W	R539	1-535-143-21	LEAD, JUMPER (12.5MM)	
R442	1-216-085-91	RES-CHIP	33K 5% 1/10W	R540	1-212-970-00	FUSIBLE	33 5% 1/2W
R443	1-216-073-91	RES-CHIP	10K 5% 1/10W	R543	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R444	1-216-061-91	RES-CHIP	3.3K 5% 1/10W	R546	1-215-917-11	METAL OXIDE	1K 5% 3W
R446	1-216-113-00	RES-CHIP	470K 5% 1/10W	R547	1-535-143-71	LEAD, JUMPER (7.5MM)	
R447	1-216-295-91	SHORT	0	R548	1-249-387-11	CARBON	3.3 5% 1/4W
R448	1-216-113-00	RES-CHIP	470K 5% 1/10W	R549	1-216-349-21	METAL OXIDE	1 5% 1W
R449	1-216-295-91	SHORT	0	R551	1-215-873-00	METAL OXIDE	4.7K 5% 1W
R450	1-216-041-00	RES-CHIP	470 5% 1/10W	R552	1-216-848-91	RES-CHIP	180K 5% 1/16W
R451	1-216-041-00	RES-CHIP	470 5% 1/10W	R553	1-249-381-11	CARBON	1 5% 1/4W
R453	1-216-171-00	RES-CHIP	75 5% 1/8W	R555	1-216-059-00	RES-CHIP	2.7K 5% 1/10W
R454	1-216-001-00	RES-CHIP	10 5% 1/10W	R556	1-215-915-11	METAL OXIDE	470 5% 3W
R455	1-216-295-91	SHORT	0	R557	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R460	1-216-049-11	RES-CHIP	1K 5% 1/10W	R558	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R461	1-216-022-00	RES-CHIP	75 5% 1/10W	R568	1-215-914-11	METAL OXIDE	330 5% 3W
R462	1-216-178-91	RES-CHIP	150 5% 1/8W	R583	1-216-081-91	RES-CHIP	22K 5% 1/10W
R500	1-216-061-91	RES-CHIP	3.3K 5% 1/10W	R588	1-216-222-91	RES-CHIP	10K 5% 1/8W
R501	1-216-091-00	RES-CHIP	56K 5% 1/10W	R589	1-216-097-11	RES-CHIP	100K 5% 1/10W
R502	1-216-073-91	RES-CHIP	10K 5% 1/10W	R590	1-216-230-00	RES-CHIP	22K 5% 1/8W
R503	1-215-888-00	METAL OXIDE	220 5% 2W	R591	1-215-892-11	METAL OXIDE	1K 5% 2W
R504	1-249-385-11	CARBON	2.2 5% 1/4W	R600	1-216-629-91	METAL	120 0.5% 1/10W
R505	1-216-667-11	METAL CHIP	4.7K 0.5% 1/10W	R601	1-216-645-11	METAL CHIP	560 0.5% 1/10W
R506	1-208-796-11	METAL CHIP	3.9K 0.5% 1/10W	R602	1-202-968-11	CEMENTED	1.2 5% 10W
R507	1-216-349-00	METAL OXIDE	1 5% 1W	R603	1-202-933-61	FUSIBLE	0.1 10% 1/2W
R508	1-216-667-11	METAL CHIP	4.7K 0.5% 1/10W	R605	1-216-049-11	RES-CHIP	1K 5% 1/10W
R509	1-208-796-11	METAL CHIP	3.9K 0.5% 1/10W	R608	1-216-073-91	RES-CHIP	10K 5% 1/10W
R510	1-216-113-00	RES-CHIP	470K 5% 1/10W	R609	1-216-677-11	METAL CHIP	12K 0.5% 1/10W
R512	1-249-382-11	CARBON	1.2 5% 1/4W	R610	1-215-481-00	METAL	330K 1% 1/4W
R513	1-216-097-11	RES-CHIP	100K 5% 1/10W	R611	1-216-059-00	RES-CHIP	2.7K 5% 1/10W
R514	1-249-377-11	CARBON	0.47 5% 1/4W	R612	1-249-429-11	CARBON	10K 5% 1/4W
R515	1-249-377-11	CARBON	0.47 5% 1/4W	R613	Δ 1-219-720-91	METAL	10M 5% 1W
R516	1-214-907-00	METAL	56K 1% 1/2W	R615	1-215-385-00	METAL	33 1% 1/4W
R517	1-215-458-91	METAL	36K 1% 1/4W	R618	1-247-889-00	CARBON	270K 5% 1/4W
R518	1-216-202-00	RES-CHIP	1.5K 5% 1/8W	R619	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R520	1-215-884-11	METAL OXIDE	47 5% 2W	R621	1-216-113-00	RES-CHIP	470K 5% 1/10W

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C

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.	PART.NO	DESCRIPTION	REMARK
R622	1-216-073-91	RES-CHIP 10K 5%	1/10W
R623	1-216-065-91	RES-CHIP 4.7K 5%	1/10W
R624	1-216-001-00	RES-CHIP 10 5%	1/10W
R625	1-216-073-91	RES-CHIP 10K 5%	1/10W
R627	1-249-389-11	CARBON 4.7 5%	1/4W
R628	1-247-791-91	CARBON 22 5%	1/4W
R629	1-216-073-91	RES-CHIP 10K 5%	1/10W
R632	1-249-417-11	CARBON 1K 5%	1/4W
R633	1-215-481-00	METAL 330K 1%	1/4W
R634	1-217-625-00	METAL 0.05 10%	2W
R635	1-260-300-11	CARBON 4.7 5%	1/2W
R636	1-249-413-11	CARBON 470 5%	1/4W
R637	1-216-041-00	RES-CHIP 470 5%	1/10W
R639	1-208-814-91	METAL CHIP 22K 0.5%	1/10W
R640	1-208-830-11	METAL CHIP 100K 0.5%	1/10W
R641	1-216-097-11	RES-CHIP 100K 5%	1/10W
R642	1-249-405-11	CARBON 100 5%	1/4W
R643	1-216-089-91	RES-CHIP 47K 5%	1/10W
R645	1-216-073-91	RES-CHIP 10K 5%	1/10W
R647	1-216-049-11	RES-CHIP 1K 5%	1/10W
R648	1-215-481-00	METAL 330K 1%	1/4W
R649	1-208-805-11	METAL CHIP 9.1K 0.5%	1/10W
R650	1-208-758-11	METAL CHIP 100 0.5%	1/10W
R651	1-220-926-11	FUSIBLE 0.47 10%	1/2W
R652	1-216-081-00	RES-CHIP 22K 5%	1/10W
R653	1-216-073-91	RES-CHIP 10K 5%	1/10W
R654	1-216-001-00	RES-CHIP 10 5%	1/10W
R656	1-216-365-00	METAL OXIDE 0.47 5%	2W
R658	1-202-968-11	CEMENTED 1.2 5%	10W
R660	1-247-807-31	CARBON 100 5%	1/4W
R1202	1-216-073-91	RES-CHIP 10K 5%	1/10W
R1203	1-216-049-11	RES-CHIP 1K 5%	1/10W
R1207	1-216-077-91	RES-CHIP 15K 5%	1/10W
R1208	1-216-067-00	RES-CHIP 5.6K 5%	1/10W
R1209	1-216-073-91	RES-CHIP 10K 5%	1/10W
R1210	1-216-077-91	RES-CHIP 15K 5%	1/10W
R1211	1-216-049-11	RES-CHIP 1K 5%	1/10W
R1212	1-216-057-00	RES-CHIP 2.2K 5%	1/10W
R1213	1-216-049-11	RES-CHIP 1K 5%	1/10W
R1214	1-216-049-11	RES-CHIP 1K 5%	1/10W
R1215	1-216-049-11	RES-CHIP 1K 5%	1/10W
R1216	1-216-025-91	RES-CHIP 100 5%	1/10W
R1230	1-216-041-00	RES-CHIP 470 5%	1/10W
R1231	1-216-113-00	RES-CHIP 470K 5%	1/10W
R1232	1-216-041-00	RES-CHIP 470 5%	1/10W
R1233	1-216-113-00	RES-CHIP 470K 5%	1/10W
R1235	1-216-073-91	RES-CHIP 10K 5%	1/10W
R1236	1-216-073-91	RES-CHIP 10K 5%	1/10W

REF.NO. PART.NO DESCRIPTION REMARK

< RELAY >

RY601 Δ 1-755-388-11 RELAY (AC POWER)

< SWITCH >

SW532 1-572-707-11 SWITCH, LEVER

< TRANSFORMER >

T511 Δ 1-453-372-11 TRANSFORMER ASSY, FLYBACK (NX4521//Z2B14)

T531 1-437-210-11 TRANSFORMER, HORIZONTAL DRIVE

T532 1-435-802-21 TRANSFORMER, PIN MOD

T602 Δ 1-431-732-31 TRANSFORMER, CONVERTER (SRT)

T603 Δ 1-435-976-11 TRANSFORMER, CONVERTER (PIT)

< THERMISTOR >

TH601 1-803-586-41 THERMISTOR

THP601 Δ 1-803-951-11 THERMISTOR, PTC

< CRYSTAL >

X001 1-578-774-71 VIBRATOR, CRYSTAL

X201 1-760-628-11 VIBRATOR, CRYSTAL

A Board Variant Parts

< TUNER >

TU101 1-693-555-11 TUNER STEREO (KV-24LS35B)

1-693-556-11 TUNER STEREO (KV-24LS35E)

1-693-557-11 TUNER STEREO (KV-24LS35U)

*A-1638-160-A C Board, Complete

< CAPACITOR >

C701 1-136-189-00 MYLAR 0.1UF 10.00% 250V

C702 1-126-964-11 ELECT 10UF 20.00% 50V

C703 1-101-004-00 CERAMIC 0.01UF 50V

C704 1-107-649-11 ELECT 2.2UF 20.00% 250V

C705 1-162-318-11 CERAMIC 0.001UF 10.00% 500V

C706 1-162-318-11 CERAMIC 0.001UF 10.00% 500V

C708 1-162-114-00 CERAMIC 0.0047UF 2KV

C710 1-107-652-11 ELECT 10UF 20.00% 250V

C1803 1-101-005-00 CERAMIC 0.022UF 50V

C1804 1-126-964-11 ELECT 10UF 20.00% 50V

C1805 1-101-880-00 CERAMIC 47PF 5.00% 50V

< CONNECTOR >

CN702 1-695-915-11 TAB (CONTACT)

CN703 *1-564-510-11 PLUG, CONNECTOR 7P

CN706 1-695-915-11 TAB (CONTACT)

CN707 *1-564-508-11 PLUG, CONNECTOR 5P

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

C

VM

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
CN1801	*1-564-506-11	PLUG, CONNECTOR 3P		< VARIABLE RESISTOR >			
	< DIODE >			RV702	1-241-656-21	RES, ADJ, METAL FILM 110M	
D701	8-719-991-33	DIODE 1SS133T-77		*A-1644-122-A VM Board, Complete			
D702	8-719-901-83	DIODE 1SS83		< CAPACITOR >			
D703	8-719-901-83	DIODE 1SS83		C1701	1-104-665-11	ELECT 100UF 20.00% 25V	
D705	8-719-302-43	DIODE EL1Z		C1702	1-162-970-11	CERAMIC CHIP 0.01UF 10.00% 25V	
D706	8-719-901-83	DIODE 1SS83		C1703	1-162-954-11	CERAMIC CHIP 120PF 5.00% 50V	
D707	8-719-901-83	DIODE 1SS83		C1704	1-104-665-11	ELECT 100UF 20.00% 25V	
D708	8-719-109-97	DIODE RD6.8ES-B2		C1705	1-162-919-11	CERAMIC CHIP 22PF 5.00% 50V	
D709	8-719-109-97	DIODE RD6.8ES-B2		C1710	1-106-375-12	MYLAR 0.022UF 10.00% 250V	
D710	8-719-109-97	DIODE RD6.8ES-B2		C1711	1-106-375-12	MYLAR 0.022UF 10.00% 250V	
D1801	8-719-110-17	DIODE RD10ESB2		C1721	1-107-639-11	ELECT 47UF 20.00% 160V	
D1802	8-719-110-17	DIODE RD10ESB2		C1722	1-136-153-00	FILM 0.01UF 5.00% 50V	
D1803	8-719-110-17	DIODE RD10ESB2		C1723	1-126-935-11	ELECT 470UF 20.00% 10V	
	< IC >			C1728	1-126-935-11	ELECT 470UF 20.00% 10V	
IC701	8-759-562-43	IC TDA6108JF/N1B		C1733	1-104-664-11	ELECT 47UF 20.00% 25V	
IC1801	8-759-603-37	IC M5216P		C1734	1-104-664-11	ELECT 47UF 20.00% 25V	
	< SOCKET >			C1737	1-137-354-11	FILM 0.01UF 5.00% 100V	
J701	Δ 1-251-732-11	SOCKET, CRT		< CONNECTOR >			
	< COIL >			CN1701	*1-764-333-11	PLUG, CONNECTOR 10P	
L704	1-414-183-41	INDUCTOR 10UH		CN1702	*1-764-333-11	PLUG, CONNECTOR 10P	
	< RESISTOR >			CN1718	*1-770-723-11	CONNECTOR, BOARD TO BOARD 8P	
R701	1-247-903-00	CARBON 1M 5% 1/4W		< DIODE >			
R702	1-249-429-11	CARBON 10K 5% 1/4W		D1701	8-719-988-61	DIODE 1SS355TE-17	
R703	1-247-903-00	CARBON 1M 5% 1/4W		D1702	8-719-988-61	DIODE 1SS355TE-17	
R704	1-535-143-21	LEAD, JUMPER (12.5)		D1711	8-719-988-61	DIODE 1SS355TE-17	
R705	1-215-869-11	METAL OXIDE 1K 5% 1W		D1719	8-719-991-33	DIODE 1SS133T-77	
R706	1-249-411-11	CARBON 330 5% 1/4W		D1722	8-719-991-33	DIODE 1SS133T-77	
R712	1-215-869-11	METAL OXIDE 1K 5% 1W		D1733	8-719-921-40	DIODE MTZJ-4.7C	
R716	1-249-411-11	CARBON 330 5% 1/4W		D1734	8-719-921-40	DIODE MTZJ-4.7C	
R718	1-202-814-11	SOLID 33K 10% 1/2W		< FERRITE BEAD >			
R726	1-215-869-11	METAL OXIDE 1K 5% 1W		FB1701	1-535-143-61	LEAD, JUMPER (5.0MM)	
R727	1-249-411-11	CARBON 330 5% 1/4W		< IC >			
R728	1-247-777-91	CARBON 5.6 5% 1/4W		IC1701	8-759-648-19	IC L7809CV/LSY	
R741	1-202-549-00	SOLID 100 20% 1/2W		< COIL >			
R1801	1-249-441-11	CARBON 100K 5% 1/4W		L1701	1-414-183-41	INDUCTOR 10UH	
R1805	1-249-429-11	CARBON 10K 5% 1/4W		L1702	1-414-183-41	INDUCTOR 10UH	
R1806	1-247-899-11	CARBON 680K 5% 1/4W		L1703	1-412-527-11	INDUCTOR 15UH	
R1807	1-249-429-11	CARBON 10K 5% 1/4W					
R1808	1-249-429-11	CARBON 10K 5% 1/4W					
R1809	1-249-429-11	CARBON 10K 5% 1/4W					
R1810	1-249-429-11	CARBON 10K 5% 1/4W					

REF.NO.	PART.NO	DESCRIPTION	REMARK
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< TRANSISTOR >

Q1701	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1702	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1703	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1704	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1705	8-729-119-78	TRANSISTOR 2SC2785-HFE	

Q1706	8-729-026-39	TRANSISTOR 2SA933AS	
Q1707	8-729-049-09	TRANSISTOR BC327-25	
Q1708	8-729-045-05	TRANSISTOR 2SA2005	
Q1709	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1710	8-729-049-10	TRANSISTOR BC337-25	

Q1711	8-729-045-04	TRANSISTOR 2SC5511	
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< RESISTOR >

JR1702	1-216-864-11	SHORT	0		
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R1701	1-216-814-11	RES-CHIP	270	5%	1/16W
R1702	1-216-814-11	RES-CHIP	270	5%	1/16W
R1709	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R1710	1-216-839-11	RES-CHIP	33K	5%	1/16W
R1711	1-216-823-11	RES-CHIP	1.5K	5%	1/16W

R1712	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R1713	1-216-809-11	RES-CHIP	100	5%	1/16W
R1714	1-260-089-11	CARBON	150	5%	1/2W
R1719	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R1720	1-216-837-11	RES-CHIP	22K	5%	1/16W

R1721	1-216-837-11	RES-CHIP	22K	5%	1/16W
R1722	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R1723	1-249-399-11	CARBON	33	5%	1/4W
R1724	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R1725	1-216-850-11	RES-CHIP	270K	5%	1/16W

R1726	1-216-850-11	RES-CHIP	270K	5%	1/16W
R1727	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R1728	1-249-399-11	CARBON	33	5%	1/4W
R1729	1-249-407-11	CARBON	150	5%	1/4W
R1732	1-249-407-11	CARBON	150	5%	1/4W

R1733	1-214-809-81	METAL	5.1	1%	1/2W
R1734	1-214-809-81	METAL	5.1	1%	1/2W
R1735	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R1736	1-260-328-11	CARBON	1K	5%	1/2W
R1737	1-215-867-00	METAL OXIDE	470	5%	1W

***A-1624-105-A F5 Board, Complete**

*4-374-846-01 COVER, CAPACITOR, CAP TYPE

< CONNECTOR >

CN5601	*1-580-843-11	PIN, CONNECTOR (POWER)
CN5602	1-695-915-11	TAB (CONTACT)
CN5603	*1-580-843-11	PIN, CONNECTOR (POWER)

REF.NO.	PART.NO	DESCRIPTION	REMARK
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< FUSE >

F5601	Δ 1-576-232-21	FUSE (H.B.C.) 5A/250V
	*1-533-725-11	HOLDER, FUSE (F5601)

< RESISTOR >

R5601	1-202-719-00	SOLID	1M	10%	1/2W
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< SWITCH >

S5601	Δ 1-571-433-21	SWITCH, PUSH (AC POWER)
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< VARISTOR >

VD5601	1-803-830-11	VARISTOR (ERZV14D621)
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***A-1646-244-A H5 Board, Complete**

< CAPACITOR >

C5100	1-104-665-11	ELECT	100UF	20.00%	16V
C5102	1-102-074-00	CERAMIC	0.001UF	10.00%	50V
C5103	1-102-074-00	CERAMIC	0.001UF	10.00%	50V
C5112	1-126-964-11	ELECT	10UF	20.00%	50V
C5113	1-126-964-11	ELECT	10UF	20.00%	50V

< CONNECTOR >

CN5100	*1-564-510-11	PLUG, CONNECTOR 7P
CN5101	*1-564-512-11	PLUG, CONNECTOR 9P
CN5102	*1-564-509-11	PLUG, CONNECTOR 6P

< DIODE >

D5100	8-719-109-89	DIODE RD5.6ES-B2
D5101	8-719-109-89	DIODE RD5.6ES-B2
D5102	8-719-081-56	DIODE L-59SRSGC-CC
D5103	8-719-929-15	DIODE HZS9.1NB2
D5104	8-719-929-15	DIODE HZS9.1NB2
D5105	8-719-929-15	DIODE HZS9.1NB2
D5106	8-719-109-89	DIODE RD5.6ES-B2
D5107	8-719-109-97	DIODE RD6.8ES-B2
D5108	8-719-109-97	DIODE RD6.8ES-B2

< IC >

IC5100	8-749-014-59	IC TSOP1740KS1
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< JACK >

J5100	1-779-947-11	TERMINAL BLOCK, S
J5101	1-750-264-11	JACK

< TRANSISTOR >

Q5100	8-729-027-43	TRANSISTOR DTC114EKA-T146
Q5101	8-728-027-38	TRANSISTOR DTA144EKA-T146

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
< RESISTOR >				< TRANSISTOR >			
R5100	1-216-813-91	CARBON	220 5% 1/4W	Q8801	8-729-034-09	TRANSISTOR 2SK2518-01MR	
R5101	1-216-833-91	CARBON	10K 5% 1/16W	Q8802	8-729-027-59	TRANSISTOR DTC144EKA-T146	
R5102	1-216-835-91	CARBON	15K 5% 1/16W	Q8803	8-729-027-59	TRANSISTOR DTC144EKA-T146	
R5103	1-216-827-91	CARBON	3.3K 5% 1/16W	< RESISTOR >			
R5104	1-216-831-91	CARBON	6.8K 5% 1/16W	JR8801	1-216-864-91	SHORT	0
R5106	1-216-823-91	CARBON	1.5K 5% 1/16W	R8803	1-249-441-11	CARBON	100K 5% 1/4W
R5107	1-216-829-91	CARBON	4.7K 5% 1/16W	R8804	1-216-825-91	RES-CHIP	2.2K 5% 1/16W
R5108	1-216-825-91	CARBON	2.2K 5% 1/16W	R8805	1-216-833-91	RES-CHIP	10K 5% 1/16W
R5109	1-249-401-11	CARBON	47 5% 1/4W	R8806	1-216-809-91	RES-CHIP	100 5% 1/16W
R5110	1-247-895-91	CARBON	470K 5% 1/4W	*A-1640-434-A D4 Board, Complete			
R5111	1-247-895-91	CARBON	470K 5% 1/4W	< CAPACITOR >			
R5112	1-249-406-11	CARBON	120 5% 1/4W	C1844	1-129-715-00	FILM	0.012UF 5.00% 630V
R5113	1-249-406-11	CARBON	120 5% 1/4W	C1845	1-129-725-00	FILM	0.082UF 5.00% 400V
R5114	1-249-406-11	CARBON	120 5% 1/4W	C1901	1-162-927-11	CERAMIC CHIP	100PF 5.00% 50V
R5115	1-249-406-11	CARBON	120 5% 1/4W	C1903	1-126-964-11	ELECT	10UF 20.00% 50V
R5116	1-247-807-31	CARBON	100 5% 1/4W	C1904	1-137-366-11	MYLAR	0.0022UF 5.00% 50V
R5117	1-247-807-31	CARBON	100 5% 1/4W	C1905	1-137-374-11	MYLAR	0.047UF 5.00% 50V
R5119	1-216-815-91	CARBON	330 5% 1/16W	C1906	1-162-970-11	CERAMIC CHIP	0.01UF 10.00% 25V
R5120	1-216-841-91	CARBON	47K 5% 1/16W	C1911	1-109-954-11	ELECT	0.47UF 20.00% 160V
R5121	1-216-809-91	RES-CHIP	100 5% 1/16W	C1913	1-129-992-00	FILM	0.0024UF 5.00% 630V
< SWITCH >				C1914	1-102-244-00	CERAMIC	220PF 10.00% 500V
S5101	1-571-532-21	SWITCH, TACTIL		C1915	1-136-205-11	MYLAR	0.022UF 10.00% 250V
S5102	1-571-532-21	SWITCH, TACTIL		C1917	1-102-228-00	CERAMIC	470PF 10.00% 500V
S5103	1-571-532-21	SWITCH, TACTIL		C1951	1-126-964-11	ELECT	10UF 20.00% 50V
S5104	1-571-532-21	SWITCH, TACTIL		C1952	1-126-964-11	ELECT	10UF 20.00% 50V
S5105	1-571-532-21	SWITCH, TACTIL		C1953	1-130-489-00	MYLAR	0.033UF 5.00% 50V
S5106	1-571-532-21	SWITCH, TACTIL		C1954	1-162-970-11	CERAMIC CHIP	0.01UF 10.00% 25V
*A-1642-282-A D2 Board, Complete				C1955	1-125-779-21	CAP, CERAMIC	0.022MF B (1608)
< CAPACITOR >				C1957	1-126-964-11	ELECT	10UF 20.00% 50V
C8802	1-117-661-11	FILM	0.15UF 5.00% 250V	C1958	1-136-169-00	FILM	0.22UF 5.00% 50V
C8803	1-117-665-11	FILM	0.33UF 5.00% 250V	C1959	1-136-169-00	FILM	0.22UF 5.00% 50V
< CONNECTOR >				< CONNECTOR >			
CN8801	*1-778-770-11	CONNECTOR, BOARD TO BOARD (PLUG)		CN1701	*1-764-333-11	PLUG, CONNECTOR 10P	
< DIODE >				CN1702	*1-564-506-51	PLUG, CONNECTOR 3P	
D8801	8-719-923-60	DIODE MTZJ-T-77-9.1A		CN1809	1-695-915-11	TAB (CONTACT)	
D8802	8-719-302-43	DIODE EL1Z		< DIODE >			
< IC >				D1840	8-719-302-43	DIODE EL1Z	
IC8801	8-749-010-64	PHOTO COUPLER PC123F2		D1901	8-719-991-33	DIODE 1SS133T-77	
< COIL >				D1902	8-719-991-33	DIODE 1SS133T-77	
L8802	1-406-978-21	COIL CHOKE	150UH	D1903	8-719-991-33	DIODE 1SS133T-77	
				D1904	8-719-991-33	DIODE 1SS133T-77	
				D1905	8-719-110-41	DIODE RD15ES-B2	
				D1906	8-719-970-87	DIODE ERA38-06	

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
D1907	8-719-970-87	DIODE ERA38-06		R1923	1-216-097-91	RES-CHIP 100K 5%	1/10W
D1908	8-719-300-33	DIODE RU-3AM		R1924	1-216-097-91	RES-CHIP 100K 5%	1/10W
D1909	8-719-991-33	DIODE 1SS133T-77		R1925	1-216-097-91	RES-CHIP 100K 5%	1/10W
	< IC >			R1953	1-216-841-91	RES-CHIP 47K 5%	1/16W
				R1954	1-216-851-11	RES-CHIP 330K 5%	1/16W
IC1901	8-759-450-95	IC LM393N		R1955	1-216-849-11	RES-CHIP 220K 5%	1/16W
IC1902	8-759-008-70	IC LM358N		R1956	1-216-858-11	RES-CHIP 1.2M 5%	1/16W
	< COIL >			R1957	1-216-833-11	RES-CHIP 10K 5%	1/16W
				R1958	1-216-809-11	RES-CHIP 100 5%	1/16W
				R1959	1-216-828-11	RES-CHIP 3.9K 5%	1/16W
L1843	1-406-989-21	INDUCTOR 10MH		R1960	1-216-837-91	RES-CHIP 22K 5%	1/16W
L1901	1-406-677-11	INDUCTOR 10MH		R1961	1-216-839-91	RES-CHIP 33K 5%	1/16W
L1959	1-406-679-11	INDUCTOR 22MH		R1962	1-216-839-11	RES-CHIP 33K 5%	1/16W
	< TRANSISTOR >			R1964	1-216-809-11	RES-CHIP 100 5%	1/16W
				R1965	1-216-817-11	RES-CHIP 470 5%	1/16W
Q1840	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q1841	8-729-039-68	TRANSISTOR IRF620		R1966	1-216-450-00	METAL OXIDE 82 5%	2W
Q1901	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1967	1-216-485-11	METAL OXIDE 5.6K 5%	3W
Q1902	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1968	1-216-450-00	METAL OXIDE 82 5%	2W
Q1903	8-729-043-95	TRANSISTOR 2SC3840(3)		R1969	1-216-485-11	METAL OXIDE 5.6K 5%	3W
					< TRANSFORMER >		
Q1904	8-729-026-49	TRANSISTOR 2SA1037AK-T146					
Q1906	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
Q1907	8-729-140-97	TRANSISTOR 2SB734-34		T1901	1-424-584-11	TRANSFORMER, DYNAMIC FOCUS	
	< RESISTOR >						
R1842	1-216-809-11	RES-CHIP 100 5%	1/16W				
R1846	1-216-825-11	RES-CHIP 2.2K 5%	1/16W				
R1847	1-215-911-11	METAL OXIDE 100 5%	3W				
R1848	1-215-911-11	METAL OXIDE 100 5%	3W				
R1901	1-216-841-11	RES-CHIP 47K 5%	1/16W				
R1903	1-216-833-11	RES-CHIP 10K 5%	1/16W				
R1904	1-216-839-11	RES-CHIP 33K 5%	1/16W				
R1905	1-216-845-11	RES-CHIP 100K 5%	1/16W				
R1906	1-216-825-11	RES-CHIP 2.2K 5%	1/16W				
R1907	1-216-845-11	RES-CHIP 100K 5%	1/16W				
R1908	1-216-813-11	RES-CHIP 220 5%	1/16W				
R1909	1-215-489-00	METAL 680K 1%	1/4W				
R1910	1-216-864-11	SHORT 0					
R1911	1-216-833-11	RES-CHIP 10K 5%	1/16W				
R1912	1-216-857-11	RES-CHIP 1M 5%	1/16W				
R1913	1-216-821-11	RES-CHIP 1K 5%	1/16W				
R1914	1-216-825-11	RES-CHIP 2.2K 5%	1/16W				
R1915	1-216-829-11	RES-CHIP 4.7K 5%	1/16W				
R1916	1-216-830-11	RES-CHIP 5.6K 5%	1/16W				
R1917	1-216-825-91	RES-CHIP 2.2K 5%	1/16W				
R1918	1-215-921-11	METAL OXIDE 4.7K 5%	3W				
R1919	1-216-833-11	RES-CHIP 10K 5%	1/16W				
R1920	1-216-295-91	SHORT 0					
R1921	1-215-921-11	METAL OXIDE 4.7K 5%	3W				
R1922	1-215-919-11	METAL OXIDE 2.2K 5%	3W				

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
MISCELLANEOUS							
Δ	1-571-433-21	SWITCH, PUSH (AC POWER)					
Δ	1-783-083-11	CORD, POWER (WITH FILTER) (KV-24LS35B/24LS35E)					
Δ	1-776-204-12	CORD, POWER (FILTER) (KV-24LS35U)					
	1-419-893-11	COIL, CHOKE 26MMH					
Δ	1-453-372-11	TRANSFORMER ASSY, FLYBACK (NX4521//Z2B14)					
	1-693-555-11	TUNER STEREO (KV-24LS35B)					
	1-693-556-11	TUNER STEREO (KV-24LS35E)					
	1-693-557-11	TUNER STEREO (KV-24LS35U)					
	1-529-408-11	SPEAKER (4.2x24CM)					
Δ	8-733-008-05	PICTURE TUBE (W56LUP010X)					
	8-451-529-11	DEFLECTION YOKE (Y24REA)					
	1-452-896-11	COIL, NA ROTATION (RT-200)					
Δ	1-424-800-11	COIL, DEGAUSSING					
	8-453-011-11	NECK ASSY, (NA299-M)					
Δ	1-251-317-63	CAP ASSY, HIGH VOLTAGE					
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM					
	1-452-032-00	MAGNET, DISK; 10MM					
ACCESSORIES AND PACKAGING MATERIALS							
	*4-395-957-01	BAG, PROTECTION					
	*4-205-933-01	INDIVIDUAL CARTON					
	4-206-159-21	INSTRUCTION MANUAL (KV-24LS35B) (GERMAN/FRENCH/ITALIAN/DUTCH)					
	4-206-159-11	INSTRUCTION MANUAL (KV-24LS35E) (GERMAN/GREEK)					
	4-206-159-41	INSTRUCTION MANUAL (KV-24LS35E) (ITALIAN)					
	4-206-159-51	INSTRUCTION MANUAL (KV-24LS35E) (DANISH/SPANISH/NORWEGIAN/PORTUGUESE SWEDISH/FINNISH)					
	4-206-159-31	INSTRUCTION MANUAL (KV-24LS35U) (ENGLISH)					
REMOTE COMMANDER							
	1-476-702-11	REMOTE COMMANDER (RM-932)					

TRACE

A new TV Repair Assistance Tool that combines ease of use and powerful PC software tools to allow you to save valuable time during many TV repairs.



The TRACE interface connects to the PC's serial port. It provides connection to the TV's I²C bus and can be provided with an InfraRed transmitter (optional).

The interface is powered by a standard 9 V PP3 battery for portable use, and can also be powered by an external 9V/25mA DC power supply.

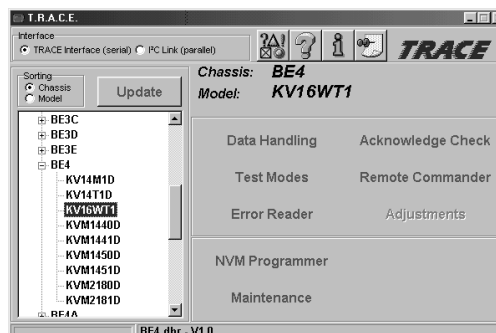
The TRACE software that is supplied with the interface allows you to:

- Read, restore and compare NVM contents via the I²C bus
- Acknowledge check of all I²C devices in the TV set
- Read Error Codes (emulation of the Error Reader tool)

With the optional IR Add-on kit, the following features can be added:

- Remote Commander emulation
- User programmable Functional Check through Infrared
- Fast and documented Test Mode setting of all Sony TV chassis

Additional features such as Adjustments and Troubleshooting are available in chassis-dependent software modules. Please contact your local Sony Service organisation for the latest information.



Note: For workshops already using the existing I²C Link parallel port interface (9-948-320-30), this software can be used as well, replacing the TV Data Handling software (9-948-340-50), but Error Reader and IR functions can only be accessed with the TRACE interface.

Partnumbers:	TRACE Starter Kit (TRACE interface + software):	9-948-320-70
	TRACE Software (for users of the I ² C Link interface):	9-948-340-80
	TRACE IR Add-on (IR interface + Remote Commander software):	9-948-320-80

PC requirements: IBM-compatible PC with operating system Windows95, Windows98, or WindowsNT*.

* WindowsNT only supported with TRACE interface

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