

SERVICE MANUAL

BG-3S CHASSIS

MODEL

COMMANDER

DEST.

CHASSIS NO.

KV-XG29M61 RM-952

Malaysia SCC-U21H-A

KV-XG29M61 RM-952

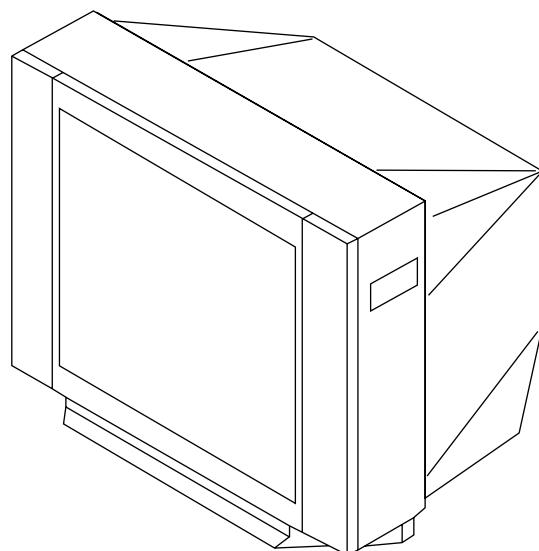
Singapore SCC-U29C-A

MODEL

COMMANDER

DEST.

CHASSIS NO.



MICROFILM

TRINITRON® COLOR TV
SONY®

SPECIFICATIONS

		Note
Power requirements	110-220 V AC, 50/60 Hz	
	220-240 V AC, 50/60 Hz	Malaysia only
Power consumption (W)	Indicated on the rear of the TV	
Television system	B/G, I, D/K, M	
Color system	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
Stereo/Bilingual System	NICAM Stereo/Bilingual B/G, I; A2 Stereo/Bilingual (German) B/G	
Teletext language	English, Arabic, French	
Channel coverage		
B/G	VHF : E2 to E12 UHF : E21 to E69 CATV : S01 to S03, S1 to S41	
I	UHF : B21 to B68 CATV : S01 to S03, S1 to S41	
D/K	VHF : C1 to C12, R1 to R12 UHF : C13 to C57, R21 to R60 CATV: S01 to S03, S1 to S41, Z1 to Z39	
M	VHF : A2 to A13 UHF : A14 to A79 CATV : A-8 to A-2, A to W+4, W+6 to W+84	
Ter (Antenna)	75-ohm external terminal	
Audio output	5W + 5W	
Number of terminal		
 (Video)	Input: 2 Output: 1	Phono jacks; 1 Vp-p, 75 ohms
 Audio	Input: 2 Output: 1	Phono jacks; 500 mVrms
 (Headphone)	Output: 1	Minijack
Picture tube	29 inch	
Tube size (cm)	72	Measured diagonally
Screen size (cm)	68	Measured diagonally
Dimension (w/h/d, mm)	794 × 573 × 517	
Mass (kg)	48	

Design and specifications are subject to change without notice.

CAUTION

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

SAFETY-RELATED COMPONENT WARNING!!

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

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SELF DIAGNOSTIC FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER lamp will automatically begin to flash.

The number of times the lamp flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER lamp flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

1. DIAGNOSTIC TEST INDICATORS

When an errors occurs, the STANDBY/TIMER lamp will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

Result for all of the following diagnostic items are displayed on screen. No error has occurred if the screen displays a "0".

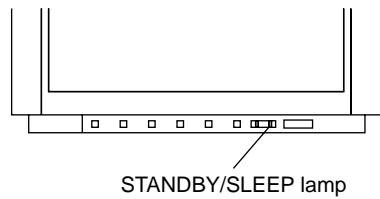
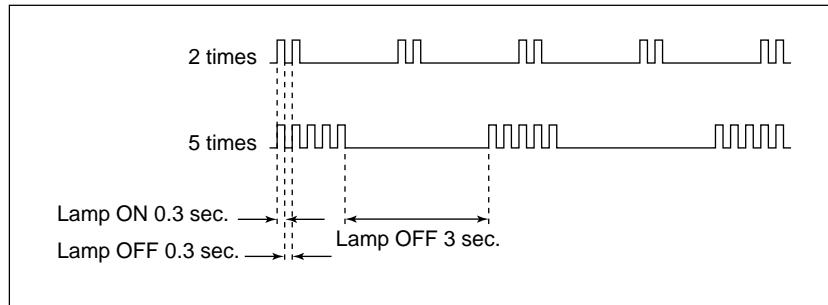
Diagnostic Item Description	No. of times STANDBY/TIMER lamp flashes	Self-diagnostic display/Diagnostic result	Probable Cause Location	Detected Symptoms
• Power does not turn on	Does not light	—	<ul style="list-style-type: none"> Power cord is not plugged in. Fuse is burned out F8601 (B6) 	<ul style="list-style-type: none"> Power does not come on. No power is supplied to the TV. AC power supply is faulty.
<ul style="list-style-type: none"> +B overcurrent (OCP) or overvoltage (OVP) Vertical deflection stopped Horizontal deflection overdrive 	2 times	002:000 or 002:001~255 003:001~255 004:001~255 at the same time	<ul style="list-style-type: none"> H.OUT Q511 is shorted. (A board) IC701 is shorted. (C6 board) -13V is not supplied. (A board) IC 503 faulty (A board) 	<ul style="list-style-type: none"> Power does not come on. Load on power line is shorted. Has entered standby state after horizontal raster. Vertical deflection pulse is stopped. Power line is shorted or power supply is stopped.
• White balance failure (no PICTURE)	5 times	005:000 or 005:001~225	<ul style="list-style-type: none"> G2 is improperly adjusted. (Note 2) CRT problem. Video OUT IC701 is faulty. (C6 board) IC301 is faulty. (A board) No connection A board to C6 board. 	<ul style="list-style-type: none"> No raster is generated. CRT cathode current detection reference pulse output is small.
• Micro reset	—	101:00 or 101:001~225	<ul style="list-style-type: none"> Discharge CRT (C6 Board) Static discharge External noise 	<ul style="list-style-type: none"> Power is shut down shortly, after this return back to normal. Detect Micro latch up.

Note 1: If a + B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously.

The symptom that is diagnosed first by the microcontroller is displayed on the screen.

Note 2: Refer to screen (G2) Adjustment in section 3-4 of this manual.

2. DISPLAY OF STANDBY/TIMER LIGHT FLASH COUNT



<u>Diagnostic Item</u>	<u>Flash Count*</u>
+B overcurrent/overvoltage	2 times
Vertical deflection stopped	
White balance failure	5 times

* One flash count is not used for self-diagnostic.

3. STOPPING THE STANDBY/TIMER FLASH

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER lamp from flashing.

4. SELF-DIAGNOSTIC SCREEN DISPLAY

For errors with symptoms such as "power sometimes shuts off" or "screen sometimes goes out" that cannot be confirmed, it is possible to bring up past occurrences of failure for confirmation on the screen:

[To Bring Up Screen Test]

In standby mode, press buttons on the remote commander sequentially in rapid succession as shown below:

Screen display → channel 5 → Sound volume [-] → Power ON



Note that this differs from entering the service mode (mode volume [+]).

Self-Diagnosis screen display

SELF DIAGNOSTIC	
002 : 000	Numeral "0" means that no fault has been detected.
003 : 000	
004 : 000	
005 : 001	Numeral "1" means a fault has been detected.
101 : 000	

5. HANDLING OF SELF-DIAGNOSTIC SCREEN DISPLAY

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to "0".

Unless the result display is cleared to "0", the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

[Clearing the result display]

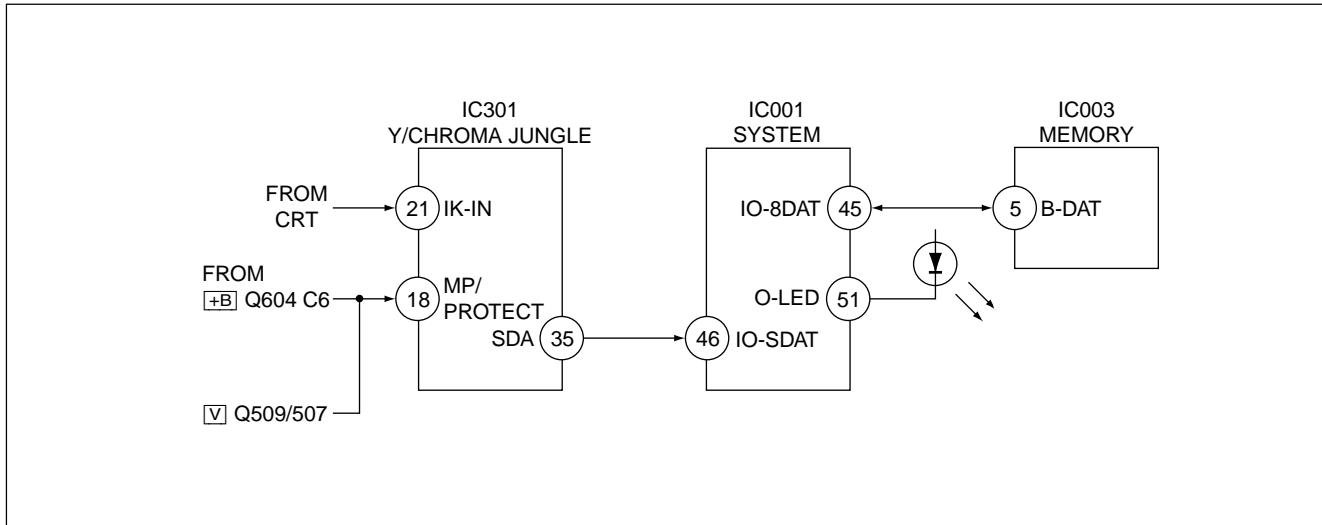
To clear the result display to "0", press buttons on the remote commander sequentially as shown below when the diagnostic screen is being displayed.

Channel 8 → 0

[Quitting Self-diagnostic screen]

To quit the entire self-diagnostic screen, turn off the power switch on the remote commander or the main unit.

6. SELF-DIAGNOSTIC CIRCUIT



+B overcurrent (OCP)

Occurs when an overcurrent on the +B(135) line is detected by Q604. If Q604 go to ON and the voltage to pin 18 of IC301 should go down when V.SYNC is more than seven verticals in a period, the unit will automatically turn off.

Vertical deflection stopped

Occurs when an absence of the vertical deflection pulse is detected by Q509 and IC001 shut down the power supply.

Vertical deflection overcurrent

Occurs when an overcurrent on V drive line is detected by Q507. Power supply will be shut down when detect this by IC001.

White balance failure

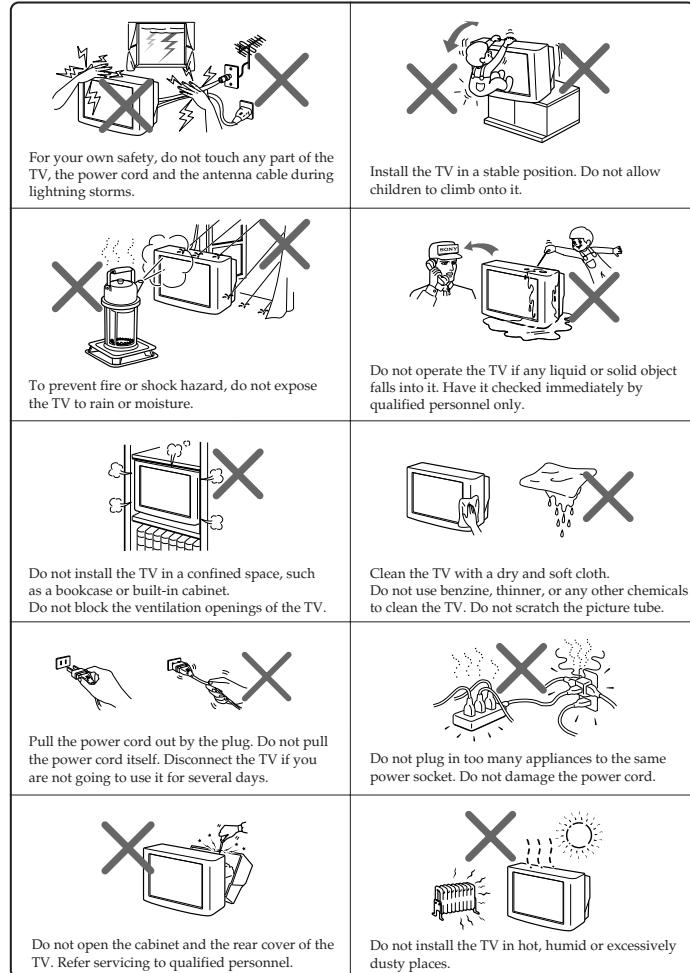
If the RGB levels* do not balance or become low level within 5 seconds, this error will be detected by IC301. TV will stay on, but there will be no picture.

* (Refers to the RGB levels of the AKB detection Ref pulse that detects IK.)

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.

WARNING

- Dangerously high voltages are present inside the TV.
- Operate the TV only between 110 – 240 V AC. (For Malaysia only: 220 – 240 V AC).



SECTION 1 GENERAL

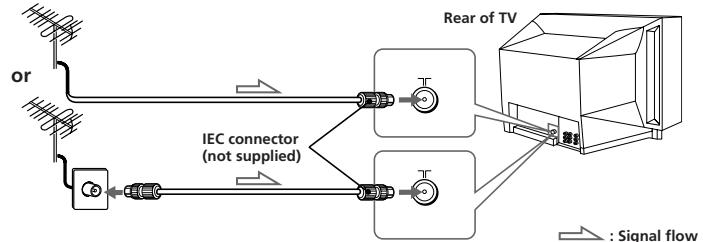
Using Your New TV

Getting Started

Step 1

Connect the antenna

If you wish to connect a VCR, see the "Connecting a VCR" diagram below.

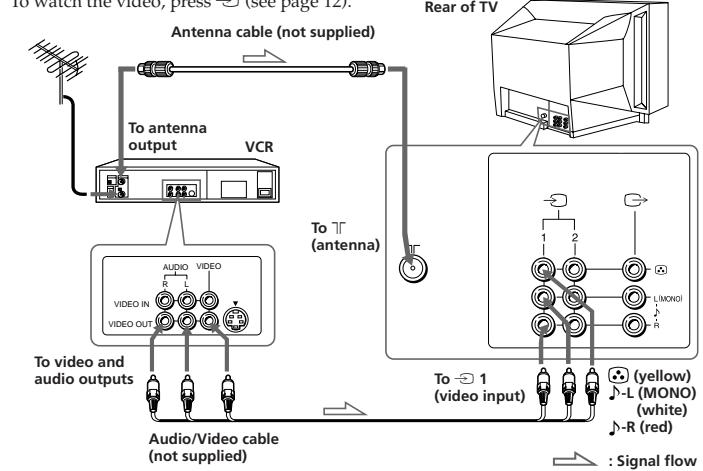


CAUTION

Do not connect the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.

Connecting a VCR

To watch the video, press \ominus (see page 12).

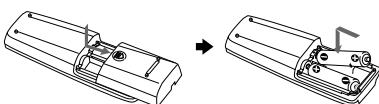


Notes

- If you connect a monaural VCR, connect the yellow plug to \odot (the yellow jack) and the black plug to Δ -L (MONO) (the white jack).
- If you connect a VCR to the $\overline{1}$ (antenna) terminal, preset the signal output from the VCR to the program number 0 on the TV.
- Do not connect video equipment to the \odot 2 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.
- When no signal is input to the connected video equipment, the TV screen becomes blue.

Step 2

Insert the batteries into the remote



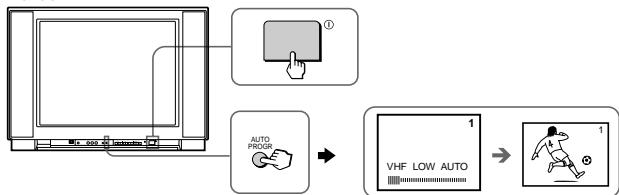
Note

- Do not use old batteries nor use different types of batteries together.

Step 3

Preset the channels automatically

Front of TV



Tips

- If you want to stop automatic channel presetting, press SELECT twice.
- If your TV has preset an unwanted channel or cannot preset a particular channel, then preset your TV manually (see page 9).

Note

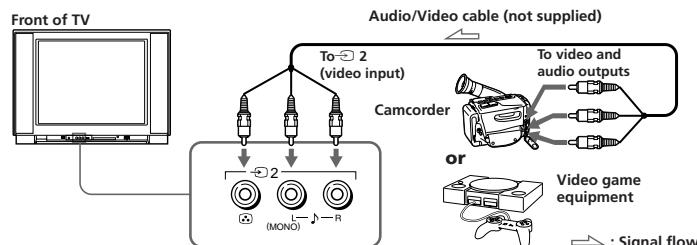
- During automatic channel presetting, your TV screen will indicate "B/G", "I", "D/K" or "M" for the TV system.

Connecting optional components

You can connect optional audio/video components, such as a VCR, multi disc player, camcorder, video game or stereo system.

To watch the picture of the connected equipment, press \odot (see page 12).

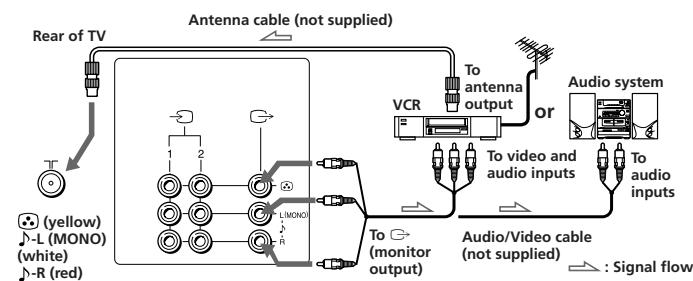
Connecting a camcorder/video game equipment using the \odot (video input) jacks



Notes

- You can also connect video equipment to the \odot 1 or 2 (video input) jacks at the rear of your TV.
- Do not connect video equipment to the \odot 2 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.

Connecting audio/video equipment using the \odot (monitor output) jacks



Note

- When connecting a monaural VCR, connect the yellow plug to \odot (the yellow jack) and the black plug to Δ -L (MONO) (the white jack).

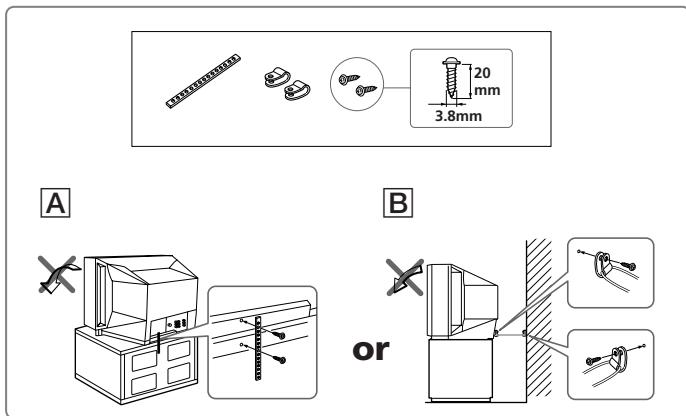
Securing the TV

To prevent the TV from falling, secure the TV using one of the following methods:

A With the supplied screws, attach the band to the TV stand and to the rear of the TV using the provided hole.

or

B Put the cord or chain through the clamps to secure the TV against a wall or pillar.



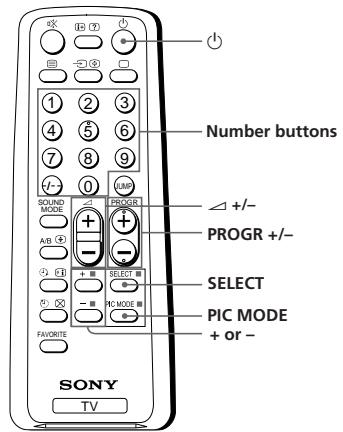
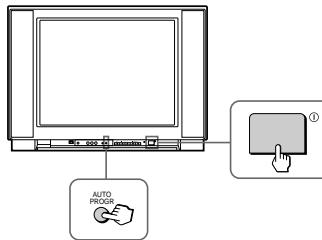
Note

- Use only the supplied screws. Use of other screws may damage the TV.

Using Your New TV

Presetting channels

You can preset up to 100 TV channels in numerical sequence from program number 1 using the remote and the buttons on your TV as well.

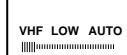


Presetting channels automatically

1 Press ① to turn on the TV.



2 Press AUTO PROGR.



Note (KV-XG29M50 only)

- During automatic channel presetting, your TV screen will indicate "B/G" , "T" , "D/K" or "M" for the TV system.

To preset channels automatically from a specified program number

- (1) Press SELECT until "AUTO PROGRAM" appears.
- (2) Press + or -. The on-screen display will start flashing.
- (3) Press PROGR +/- or the number buttons until the desired program number appears.
- (4) Press + or -.

Presetting channels manually

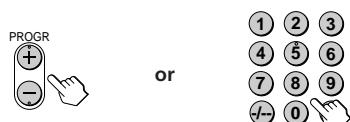
- 1** Press SELECT until "MANUAL PROGRAM" appears.



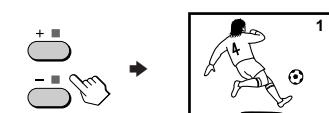
- 2** Press + or -.



- 3** Press PROGR +/- or the number buttons until the desired program number appears.



- 4** Press + or - until the desired channel picture appears.



- 5** Press SELECT.



Note

- If you preset a locked channel, that particular channel will be unlock automatically (page 17).

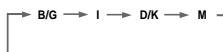
To change the TV system setting

If the picture or sound is abnormal when receiving programs through the I^{T} (antenna) terminal

- (1) Press SELECT until "TV SYS" appears.



- (2) Press + or - to select the appropriate TV system until the picture or sound quality is optimal.



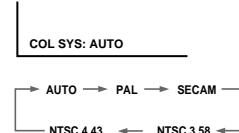
continued

Presetting channels (continued)

To change the color system setting

If the color is abnormal when receiving programs through the I^{T} (antenna) terminal or the D (video input) jack

- (1) Press SELECT until "COL SYS" appears.



- (2) Press + or - to select the appropriate color system until the color is optimal.

Tip

- Normally set "COL SYS" to "AUTO".

Skipping program numbers

- 1** Press PROGR +/- or the number buttons until the unused or unwanted program number appears.

- 2** Press SELECT until "MANUAL PROGRAM" appears.

- 3** Press + or -.

- 4** Press PIC MODE.

- 5** Press SELECT.

To preset the skipped program number again

Preset the channel automatically or manually.

Tip

- You can also use SELECT and Δ +/- on the TV to preset channels and skip program numbers.

To use the fine tuning (FINE) function

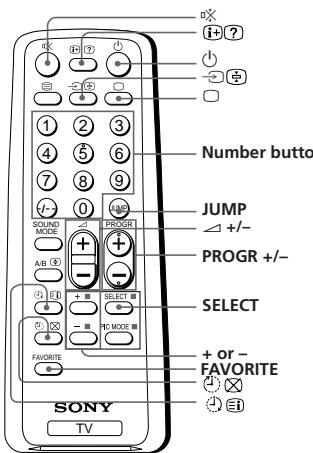
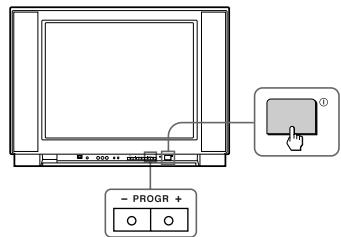
The fine tuning (FINE) function may help to reduce the following problems: incomplete Teletext display (KV-XG29M61 only), double images and lines moving across the TV screen.

You can use the fine tuning function as below:

- Select the program number you want to adjust.
- Press SELECT until "MANUAL PROGRAM" appears on the screen.
- Press + or - on the remote control once.
- Press F1 to display "FINE" on the screen.
- Press + or - continuously until the above problems are minimized. The + or - icon on the screen flashes while tuning.
- Press SELECT to return to normal screen.

Watching the TV

This section explains functions used while watching the TV. Most operations can be done using the remote.



Using Your New TV

1 Press ① to turn on the TV.

When the TV is in the standby mode (the indicator on the TV is lit red), press on the remote or PROGR +/- on the TV.

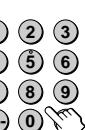


2 Press PROGR +/- or the number buttons to select the TV program.

For double digit numbers, press , then the number (e.g., for 25, press , then 2 and 5).



or



3 Press +/- to adjust the volume.



continued

Watching the TV (continued)

Additional tasks

To	Do this
Turn off temporarily	Press . The indicator on the TV lights up red.
Turn off completely	Press ① on the TV.
Mute the sound	Press .
Watch the video input (VCR, camcorder, etc.)	Press to select "VIDEO 1" or "VIDEO 2". To return to the TV program, press .
Jump back to the previous channel	Press JUMP.
Display the on-screen information*	Press .
Adjust the volume of each TV program automatically	Press SELECT repeatedly until "INTELLIGENT VOL" appears, then press + or - to select "ON". To cancel, select "OFF".
Adjust the picture position when it is not aligned to the TV screen	Press SELECT repeatedly until "PIC ROTATION" appears, then press + or - to adjust the alignment of the picture position.

PIC ROTATION

The or icon on the screen flashes while adjusting.

* The picture, sound, and either the program number or video mode are displayed. The on-screen display for the picture and sound information disappears after about 3 seconds.

Changing the on-screen display language

1 Press SELECT until "LANGUAGE / 语言: ENGLISH" appears on the screen.



2 Press + or - to select "中文".



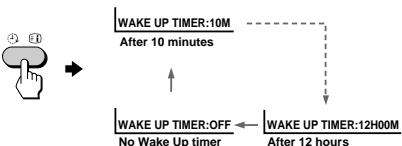
Tip

- You can also use SELECT and +/- on the TV to select the on-screen display language.

Setting the Wake Up timer

- 1 Press  until the desired period of time appears.

The Wake Up timer starts immediately after you have set it.



- 2 Select the TV program or video mode you want to display when you wake up.

- 3 Press  or set the Sleep timer if you want the TV to turn off automatically.

The  indicator on the TV lights up orange.

To cancel the Wake Up timer

Press  until "WAKE UP TIMER: OFF" appears or turn off the TV's main power.

Note

- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up timer, the TV automatically goes into the standby mode. To continue watching the TV, press any button or control on the TV or the remote.

Setting the Sleep timer

- Press  until the desired period of time appears.

The Sleep timer starts immediately after you have set it.



To cancel the Sleep timer

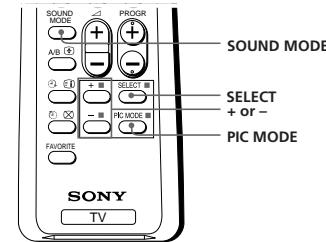
Press  until "SLEEP TIMER: OFF" appears or turn the TV off.

Advanced Operations

Customizing the picture and sound

You can customize the picture and sound by selecting the picture and sound modes or by adjusting its settings.

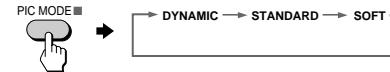
You can change the sound effect by selecting the surround mode.



Selecting the picture and sound modes

To select the picture mode

Press PIC MODE repeatedly until you get the desired picture mode.



Select To

"DYNAMIC"	receive high contrast pictures.
"STANDARD"	receive normal contrast pictures.
"SOFT"	receive mild pictures.

To select the sound mode

Press SOUND MODE repeatedly until you get the desired sound mode.

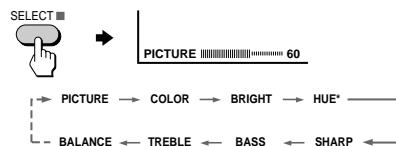


Select To

"DYNAMIC"	listen to dynamic and clear sound that emphasizes the low and high sound.
"DRAMA"	listen to sound that emphasizes vocals and background music.
"SOFT"	receive soft sound.

Adjusting the picture and sound settings

- 1** Press SELECT until the desired setting appears.



Each time you press SELECT, the setting item will change as follows:

- 2** Press + or - to adjust the item.



- 3** To adjust other items, repeat steps 1 to 2.

* "HUE" can be adjusted for the NTSC system only.

Notes

- When you select a picture or sound mode, the adjusted settings will be reset according to the selected mode.
- You can also use SELECT and ▲/▼/+/- on the TV to adjust the picture and sound settings.

Selecting the surround mode

- 1** Press SELECT repeatedly until "SURROUND" appears.



- 2** Press + or - to select the desired surround sound.

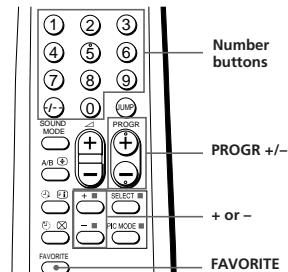


Select	To
"MOVIE"	listen to sound that spreads out over a large area, giving the feeling of being at a movie theatre.
"MUSIC"	listen to the sound that gives the feeling of being at a live concert.
"OFF"	turn off the surround sound.

Advanced Operations

Viewing your favorite channels

You can display six of your favorite channels for quick and easy selection. You can change the favorite channel setting as well.

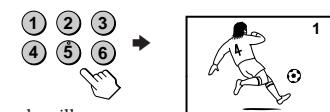


Selecting a favorite channel

- 1** Press FAVORITE.



- 2** Press the number button from 1 to 6 to select the desired channel.



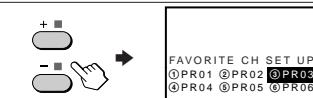
When you use the "FAVORITE CH" feature for the first time, six preset channels will appear.

Changing the favorite channel setting

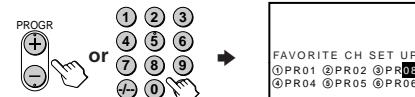
- 1** Press SELECT until "FAVORITE CH SET UP" appears.



- 2** Press + or - to select the favorite channel you want to change (e.g. ③ PR03).



- 3** Press PROGR +/-, or number buttons to change the program number.

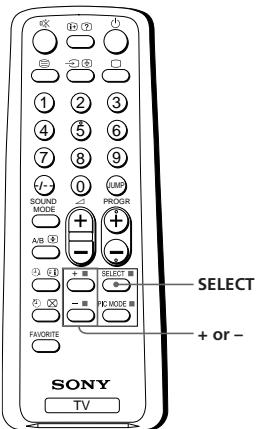


- 4** Repeat steps 2 and 3 to set other favorite channels.

- 5** Press SELECT.

Blocking the channels (CHILD LOCK)

You can prevent a child from watching certain channels by using the buttons on the remote control.



1 Select the channel you want to lock.

2 Press SELECT until "CHILD LOCK" appears on the screen.



3 Press + or - to select "ON".

The symbol appears on the screen.

To unlock the channel, press + or - to select "OFF". The symbol disappears from the screen.



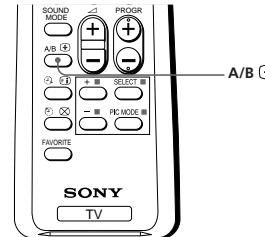
Note

- If you preset a locked channel, that particular channel will be unlocked automatically (page 8).

Enjoying stereo or bilingual programs

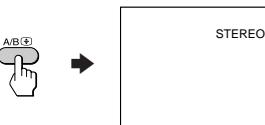
(KV-XG29M61 only)

You can enjoy stereo sound or bilingual programs of NICAM and A2 (German) stereo systems.

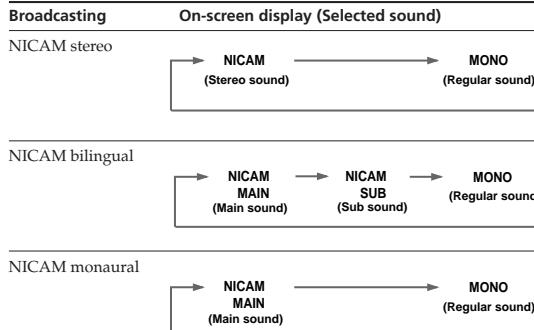


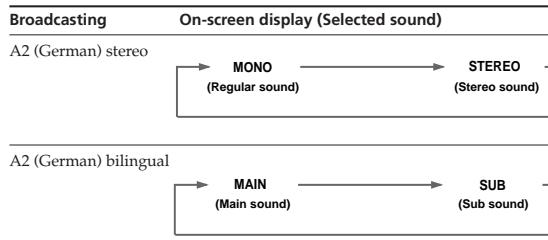
Press A/B repeatedly until you receive the sound you want.

The on-screen display changes to show the selected sound and the  indicator on the TV lights up red.



When receiving a NICAM program



When receiving an A2 (German) program**Receiving area for NICAM and A2 (German) programs**

System	Receiving area
NICAM	Hong Kong, Singapore, New Zealand, Malaysia, Thailand, etc.
A2 (German)	Australia, Malaysia, Thailand, etc.

Notes

- If the signal is very weak, the sound becomes monaural automatically.
- If the stereo sound is noisy when receiving a NICAM program, select "MONO". The sound becomes monaural, but the noise is reduced.

If the sound is distorted or noisy when receiving a monaural program through the $\text{\textcircled{T}}$ (antenna) terminal

Press A/B repeatedly until "MONO" appears on the screen.

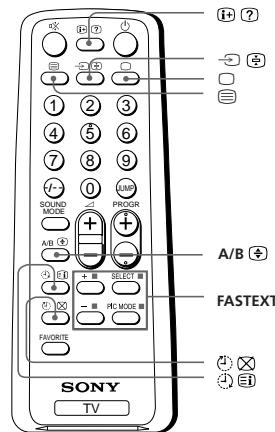
To cancel the monaural sound setting, press A/B again until "AUTO" appears on the screen.

**Notes**

- The "MONO" or "AUTO" setting is memorized for each program position.
- You cannot receive stereo broadcast signal when the TV is in the "MONO" setting. Normally set the TV to "AUTO."

Viewing Teletext
(KV-XG29M61 only)

TV stations broadcast an information service called Teletext via some TV channels. Teletext allows you to receive various information, such as shares market or news.

**Displaying Teletext**

- Select a TV channel that carries the Teletext broadcast you want to watch.

- Press \square to display the text.

A Teletext page (normally the index page) is displayed. If there is no Teletext broadcast, "100" is displayed at the top left corner of the screen.

**To turn off Teletext**

Press \square .

Additional Teletext tasks

To	Do this
display a Teletext page on the TV picture	Press  . Each time you press  , the screen changes as follows: Teletext → Teletext and TV → TV.
check the contents of a Teletext service	Press  . An overview of the Teletext contents and page numbers appear on the screen.
select a Teletext page	Press the number buttons to enter the three-digit page number of the desired Teletext page.* If you make a mistake, reenter the correct page number. To access the next or previous page, press PROGR +/-.
hold a Teletext page (stop the page from scrolling)	Press  to display the symbol “  ” at the top left corner of the screen. To resume normal Teletext operation, press  or  .
reveal concealed information (e.g., an answer to a quiz)	Press  . To conceal the information, press the button again.
enlarge the Teletext display	Press  . Each time you press  , the Teletext display changes as follows: Enlarge upper half → Enlarge lower half → Normal size.
wait for a Teletext page while watching a TV program	1 Enter the Teletext page number that you want to refer to, then press  2 When the page number is displayed, press  to show the text.

* You can also select a Teletext page of any page number that appears in the colored column at the bottom of the screen using the corresponding color-coded button on the remote.

Using FASTEXT

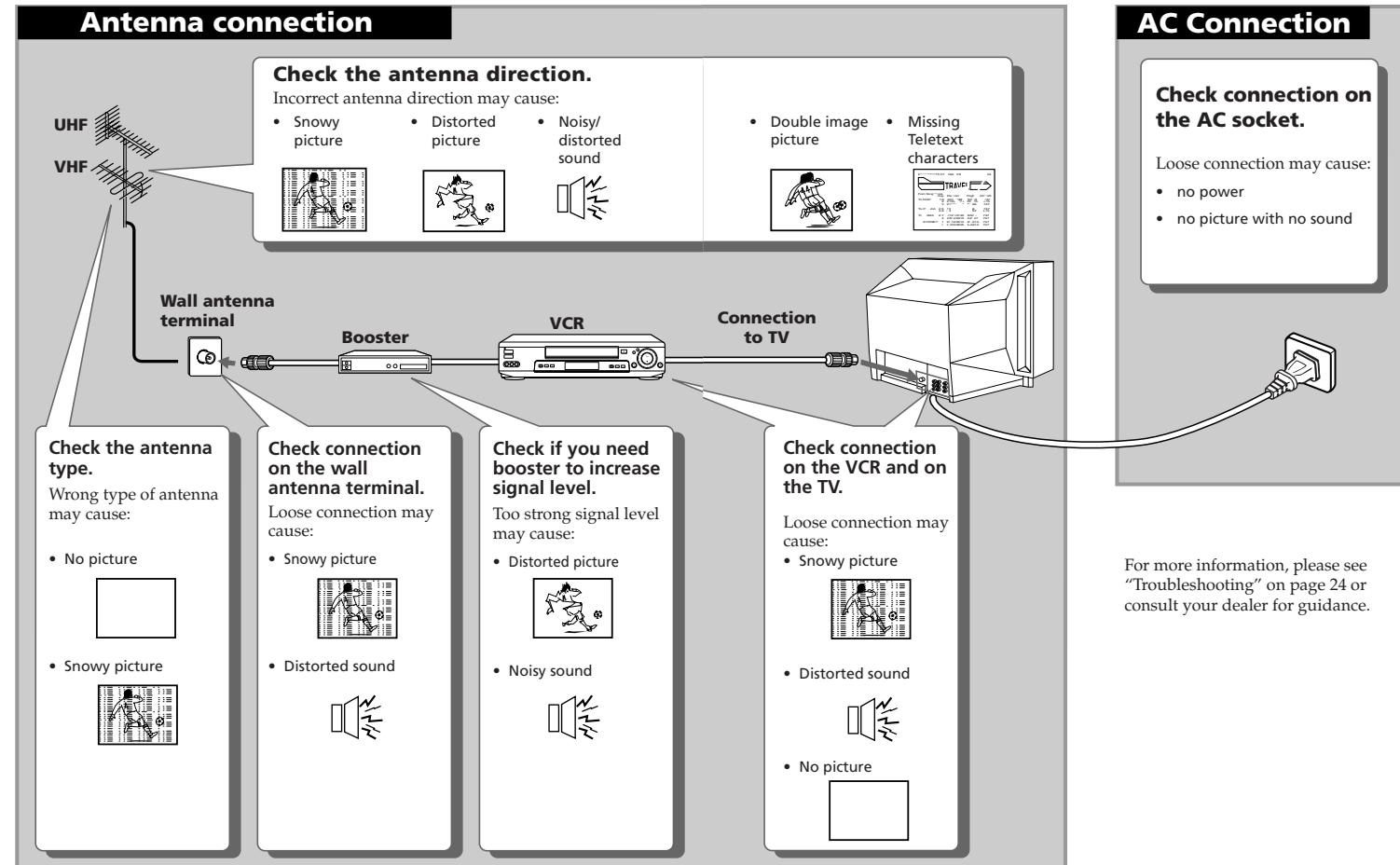
This feature allows you to quickly access a Teletext page that uses FASTEXT. When a FASTEXT program is broadcasted, the colored menus appear at the bottom of the screen. The colors of the menus correspond to the red, green, yellow, and blue color-coded buttons on the remote.

To access a FASTEXT menu

Press the color-coded button on the remote corresponding to the menu you want. The menu page appears on the screen after several seconds.

Additional Information**Troubleshooting Shortcuts**

For better viewing, please check the following connections.

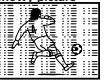
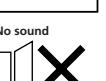


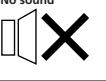
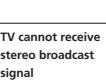
For more information, please see
“Troubleshooting” on page 24 or
consult your dealer for guidance.

Additional Information

Troubleshooting

If you find any problem while viewing your TV, please check the following guide. If any problem persists, contact your Sony dealer.

Symptom	Possible cause	Solutions	Page
	<ul style="list-style-type: none"> • Connection is loose or the cable is damaged. • Channel presetting is inappropriate or incomplete. 	<ul style="list-style-type: none"> • Check the antenna cable and connection on the TV, VCR and on the wall. • Press SELECT until "MANUAL PROGRAM" appears on the screen, then preset the channel again. 	4 9
	<ul style="list-style-type: none"> • The antenna type is inappropriate. • The antenna direction is inappropriate. • Signal transmission is low. 	<ul style="list-style-type: none"> • Check the antenna type (VHF/UHF). Contact a Sony dealer for advice. • Adjust the antenna direction. Contact a Sony dealer for advice. • Try using a booster. 	— — —
	<ul style="list-style-type: none"> • Broadcast signals are too strong. 	<ul style="list-style-type: none"> • Turn off or disconnect the booster if it is in use. 	—
			
	<ul style="list-style-type: none"> • The TV system setting or channel presetting is inappropriate or incomplete. 	<ul style="list-style-type: none"> • If the sound of all the channels are noisy, check the TV system (TV SYS) setting, then press AUTO PROGR to preset the channels again. • If the sound of some channels are noisy, select the channel, then select the appropriate TV system (TV SYS). 	8 9
	<ul style="list-style-type: none"> • The power cord, antenna or VCR is not connected. • The TV is not turned on. 	<ul style="list-style-type: none"> • Check the power cord, antenna and the VCR connections. • Press \oplus (power). • Press \ominus (main power) on the TV to turn off the TV for about five seconds, then turn it on again. 	4 12 11
			

Symptom	Possible cause	Solutions	Page
	<ul style="list-style-type: none"> • The volume level is too low. • The sound is muted. • Broadcast signal has a transmission problem. 	<ul style="list-style-type: none"> • Press $\triangleleft +$ to increase the volume level. • Press \otimes to cancel the muting. • Press A/B until a better sound is heard. 	12 12 18
			
	<ul style="list-style-type: none"> • There is local interference from cars, neon signs, hair dryers, power generators, etc. 	<ul style="list-style-type: none"> • Do not use a hair dryer or other equipment near the TV. • Adjust the antenna direction for minimum interference. Contact a Sony dealer for advice. 	— —
	<ul style="list-style-type: none"> • Broadcast signals are reflected by nearby mountains or buildings. • The antenna direction is inappropriate. • Use of a booster is inappropriate. 	<ul style="list-style-type: none"> • Use a highly directional antenna. • Use the fine tuning (FINE) function. • Adjust the antenna direction. Contact a Sony dealer for advice. • Turn off or disconnect the booster if it is in use. 	— 10 — —
	<ul style="list-style-type: none"> • The color level setting is too low. • The color system setting is inappropriate. • The antenna direction is inappropriate. 	<ul style="list-style-type: none"> • Press SELECT until "COLOR" appears on the screen, then press + or - to adjust the color level. • Press SELECT until "COL SYS" appears on the screen, then check the color system setting (usually set this to "AUTO"). • Adjust the antenna direction. Contact a Sony dealer for advice. 	15 10 —
	<ul style="list-style-type: none"> • The magnetic disturbance from external speakers or other electrical equipment away from the TV. Do not move the TV while the TV is turned on. Press \ominus (main power) on the TV to turn off the TV for about five minutes, then turn it on again. 	<ul style="list-style-type: none"> • Keep external speakers or other electrical equipment away from the TV. Do not move the TV while the TV is turned on. Press \ominus (main power) on the TV to turn off the TV for about five minutes, then turn it on again. 	—
	<ul style="list-style-type: none"> • The stereo reception setting is inappropriate. 	<ul style="list-style-type: none"> • Press A/B until "AUTO" appears on the screen. 	18

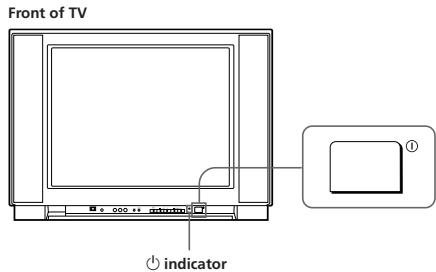
continued

Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
Stereo broadcast sound switches on and off or is distorted.	<ul style="list-style-type: none"> • Connection is loose or the cable is damaged. 	<ul style="list-style-type: none"> • Check the antenna cable and connection on the TV, VCR and on the wall. 	4
Or			
The sound switches between monaural and stereo frequently.	<ul style="list-style-type: none"> • The antenna direction is inappropriate. • Broadcast signal has a transmission problem. 	<ul style="list-style-type: none"> • Adjust the antenna direction. Contact a Sony dealer for advice. • Press A/B until a better sound is heard. 	— 18
"100" appears on the top of the screen and there is no Teletext display.	• The channel carries no Teletext broadcast.	—	20
Teletext display is incomplete (snowy picture or double images).	<ul style="list-style-type: none"> • Connection is loose or the cable is damaged. • The antenna direction is inappropriate. • Signal transmission is too low. 	<ul style="list-style-type: none"> • Check the antenna cable and connection on the TV, VCR, and at the wall. • Adjust the antenna direction. Contact a Sony dealer for advice. • Try using a booster. • Use the fine tuning (FINE) function. 	4 — — 10
Picture slant	 <ul style="list-style-type: none"> • The terrestrial magnetism affects your TV set. 	<ul style="list-style-type: none"> • Please "SELECT" until "PIC ROTATION" appears on the screen, then press + or - to align the picture to the TV screen. 	12
Lines moving across the TV screen.	<ul style="list-style-type: none"> • There is interference from external sources, e.g., heavy machineries, nearby broadcast station. 	<ul style="list-style-type: none"> • Use the fine tuning (FINE) function. 	10
The  indicator on your TV flashes red a number of times between 3-second intervals.	• Your TV may service.	<ul style="list-style-type: none"> • Contact your nearest Sony service center. 	27
TV cabinet creaks.	<ul style="list-style-type: none"> • Changes in room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction. 	—	—
A "boom" sound is heard when the TV is turned on.	<ul style="list-style-type: none"> • The TV's demagnetizing function is working. This does not indicate a malfunction. 	—	—

Self-diagnosis function

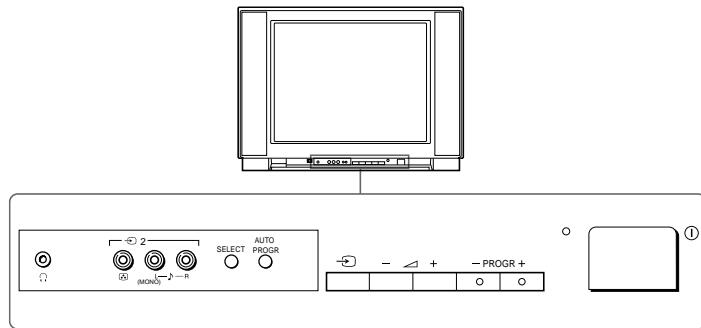
Your TV is equipped with a self-diagnosis function. If there is a problem with your TV, the  indicator flashes red. The number of times the  indicator flashes indicates the possible causes.



- 1 Check that the  indicator flashes red a number of times between 3-second intervals.
- 2 Count the number of times the  indicator flashes.
- 3 Press ① (main power) to turn off your TV.
- 4 Inform your nearest Sony service center about the number of times the  indicator flashes.
Be sure to note the model name and serial number located on the rear of your TV.

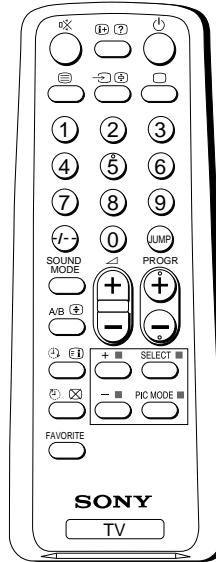
Identifying parts and controls

Front panel



Button	Function	Page
AUTO PROGR	Preset channels automatically.	5
SELECT	Select the desired item.	9
PROGR +/-	Select program number.	11
①	Turn off completely or turn on the TV.	11
△ +/-	Adjust volume.	11
②	Select TV or video input.	12
③	Headphone jack.	-

Remote Control



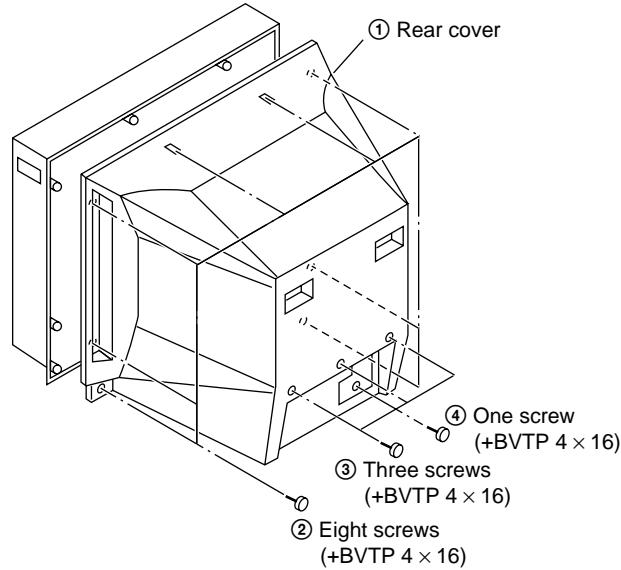
The names/symbols of buttons on the remote are indicated in different colors to represent the available functions.

Label color	Button function
White	For general TV operations
Green	For Teletext operations

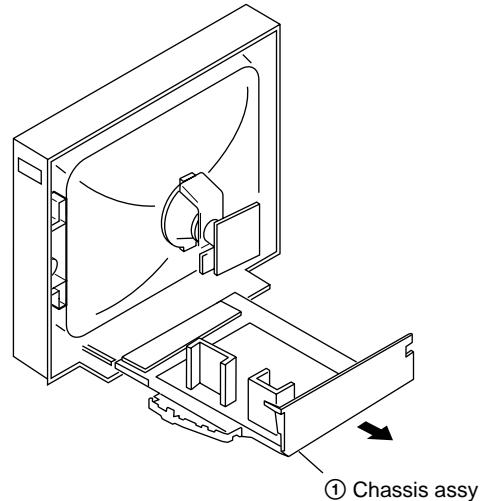
Button	Function	Page
SELECT	Select the desired item.	9
+/-	Adjust value.	9
PROGR +/-	Select program number.	11
0 - 9, +/-	Input numbers.	11
△ +/-	Adjust volume.	11
①	Turn off temporarily or turn on the TV.	12
②	Select TV or video input.	12
□	Display the TV program.	12
ⓧ	Mute the sound.	12
④	Display on-screen information.	12
JUMP	Jump to previous channel.	12
Timer operations		
⑤	Set TV to turn on automatically.	13
⑥	Set TV to turn off automatically.	13
PIC MODE	Select picture mode.	14
SOUND MODE	Select sound mode.	14
FAVORITE	Display favorite channels.	16
A/B	Select stereo/bilingual mode. (KV-XG29M61 only)	18
Teletext operations (KV-XG29M61 only)		
⑦	Display Teletext broadcast.	20
⑧	Enlarge the Teletext display.	21
⑨	Reveal concealed information.	21
⑩	Stop Teletext page from scrolling.	21
⑪	Display Teletext service contents.	21
ⓧ	Show TV screen while waiting for Teletext page.	21
■ (red, green, yellow, blue)	Access a FASTEXT menu.	21

SECTION 2 DISASSEMBLY

2-1. REAR COVER REMOVAL



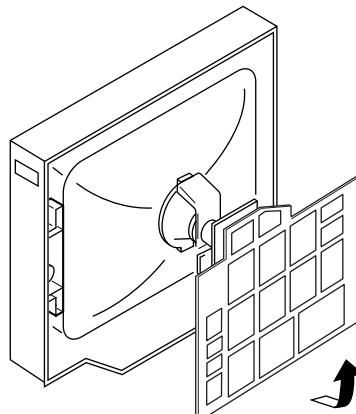
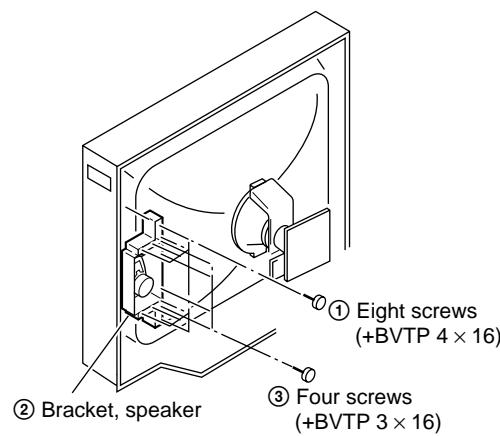
2-3. CHASSIS ASSY REMOVAL



2-4. SERVICE POSITION

(Note: Remove F Bracket first.)

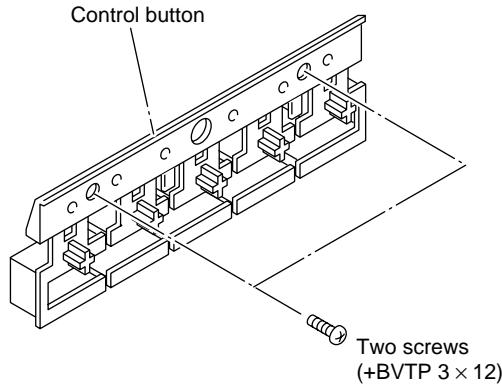
2-2. SPEAKER REMOVAL



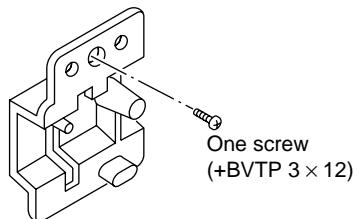
2-5. REPLACEMENT OF PARTS

For replacement of the Control Button and Light Guide, unscrew them, exchange with the new parts, and fix them with screws (+BVTP) respectively.

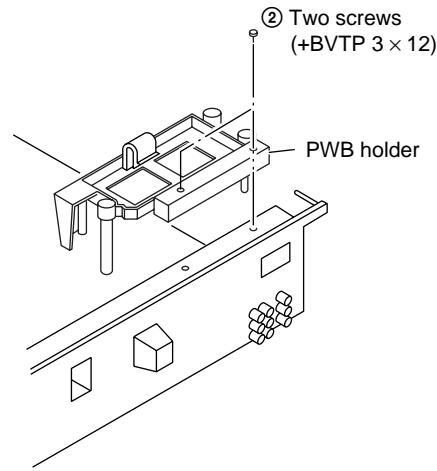
2-5-1. REPLACEMENT OF CONTROL BUTTON



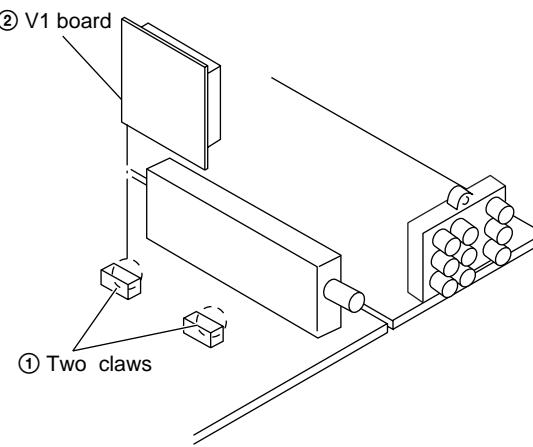
2-5-2. REPLACEMENT OF LIGHT GUIDE

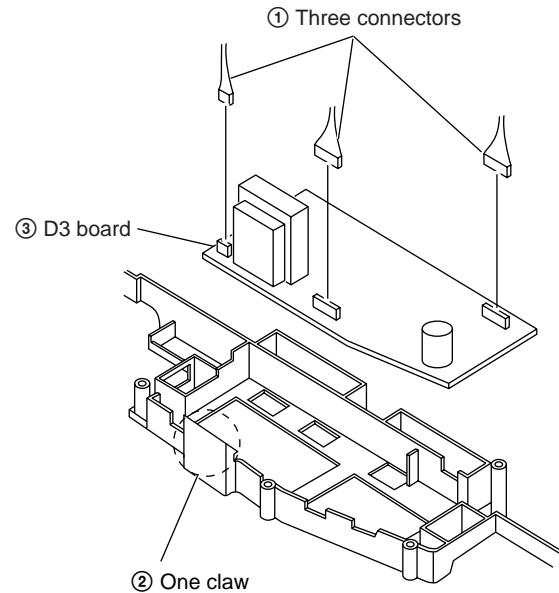
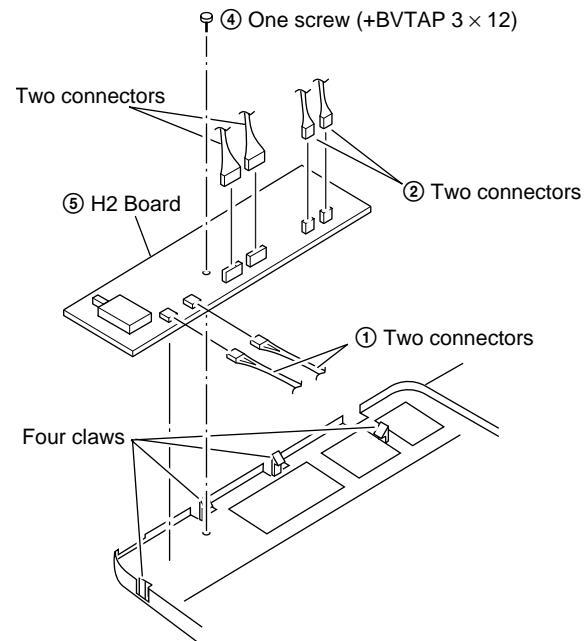
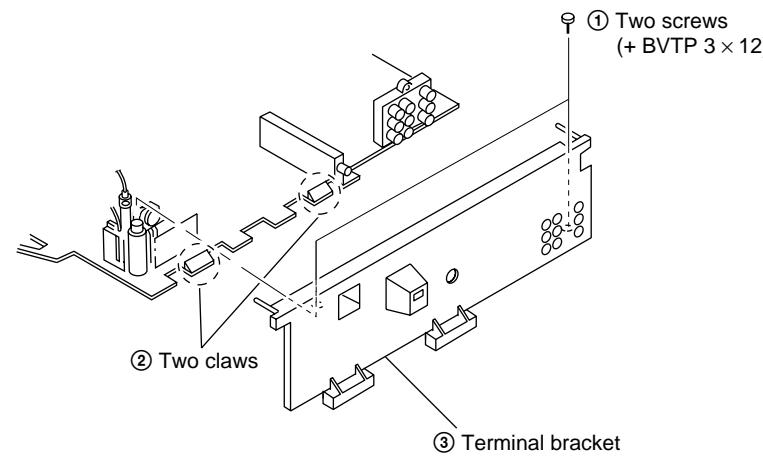
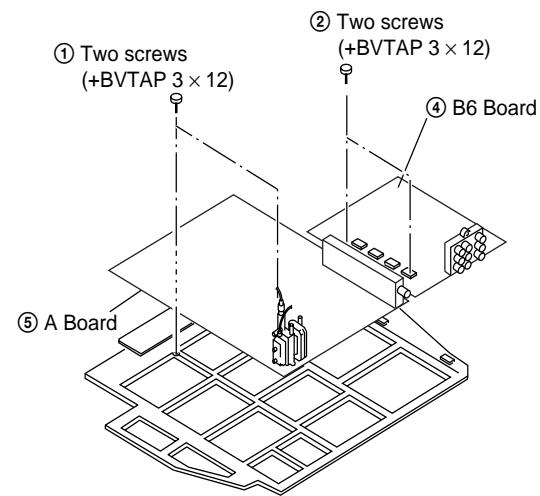


2-6. PWB HOLDER REMOVAL

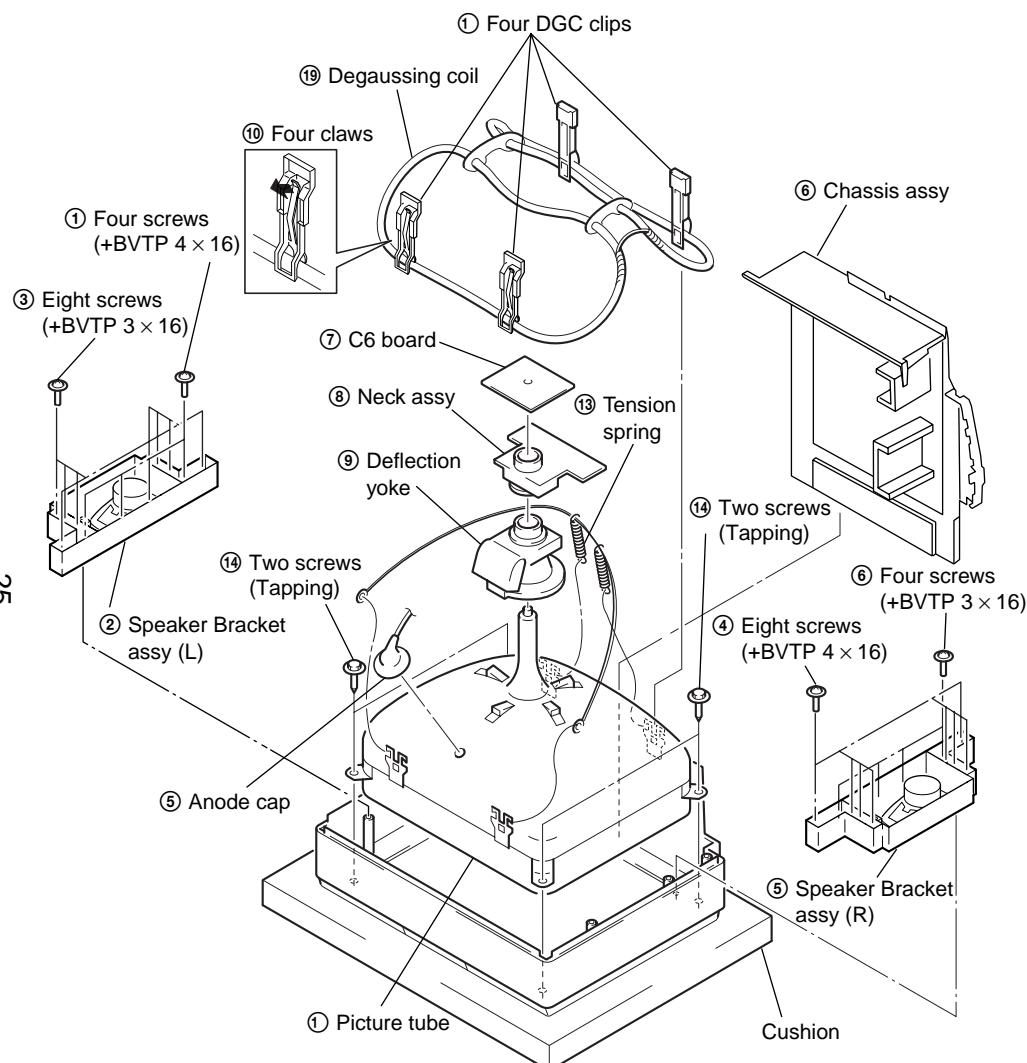


2-7. V1 BOARD REMOVAL



2-8. D3 BOARD REMOVAL**2-10. H2 BOARD REMOVAL****2-9. TERMINAL BRACKET REMOVAL****2-11. A AND B6 BOARDS REMOVAL**

2-12. PICTURE TUBE REMOVAL



- 25 -

• REMOVAL OF ANODE-CAP

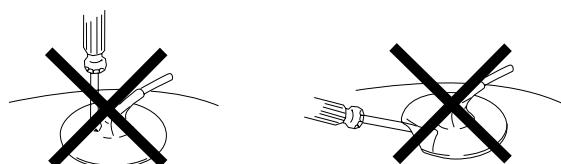
NOTE : After removing the anode, short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.

• 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 AN ANODE-CAP

- ① Do not damage the surface of anode-caps with sharp shaped objects.
- ② Do not press the rubber too hard so as not to damage the inside of anode-cap. A metal fitting called the shatter-hook terminal is built into the rubber.
- ③ Do not turn the foot of rubber over too hard. The shatter-hook terminal will stick out or damage the rubber.



SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switches should be set as follows unless otherwise noted:

PICTURE control normal
BRIGHTNESS control normal

Perform the adjustments in the following order :

- Beam Landing
- Convergence
- Focus
- White Balance

Note : Test Equipment Required.

- Color-bar/Pattern Generator
- Degausser
- Oscilloscope

Preparation :

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

- Input a white signal with the pattern generator.
Contrast } normal
 Brightness }
- Position neck assy as shown in Fig3-2.
- Set the pattern generator raster signal to a green raster.
- Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.
(See Figures 3-1 through 3-4.)
- Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 3-2.)
- Switch the raster signal to blue, then to red and verify the condition.
- When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws and DY spacers.
- If the beam does not land correctly in all the corners, use a magnet to adjust it.
(See Figure 3-5.)

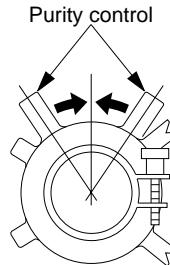


Fig. 3-3

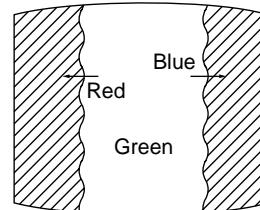


Fig. 3-4

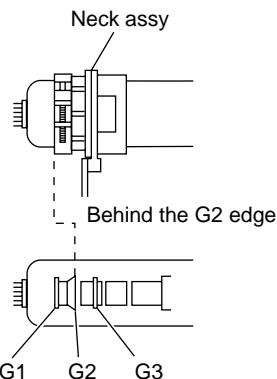


Fig. 3-1

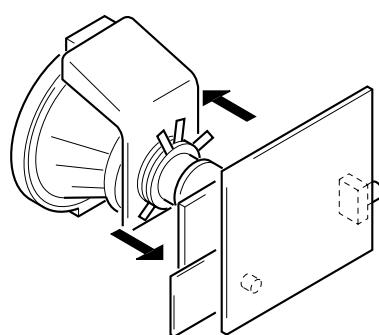


Fig. 3-2

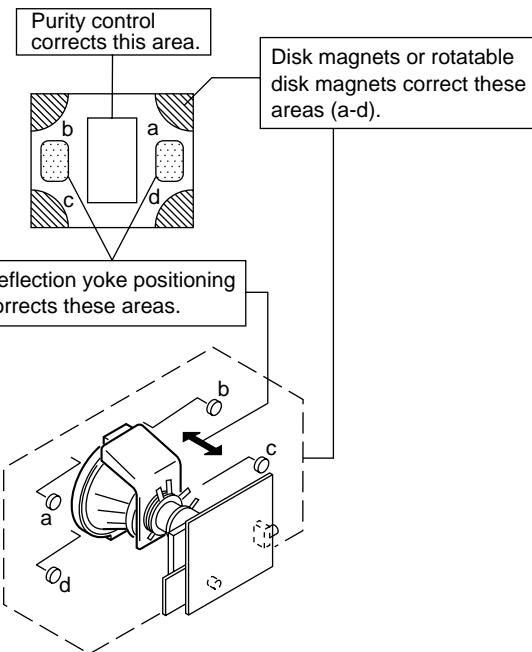


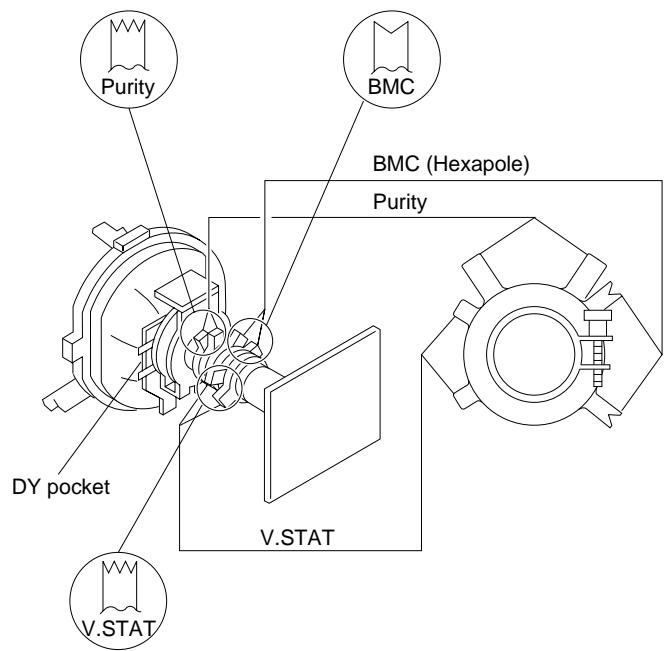
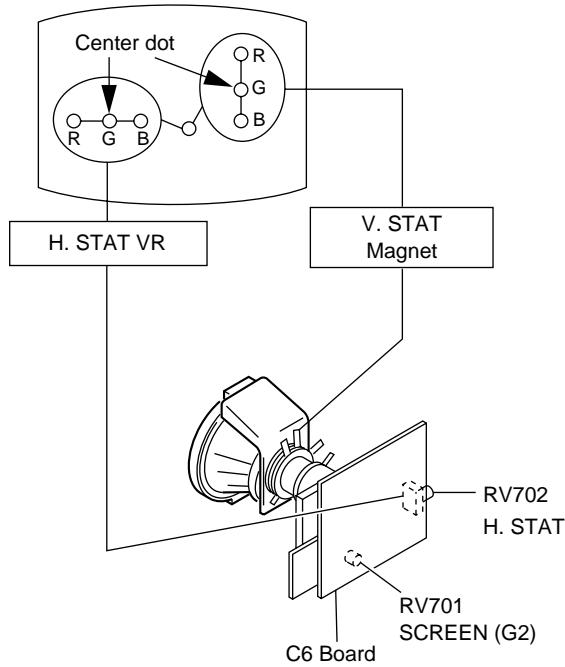
Fig. 3-5

3-2. CONVERGENCE

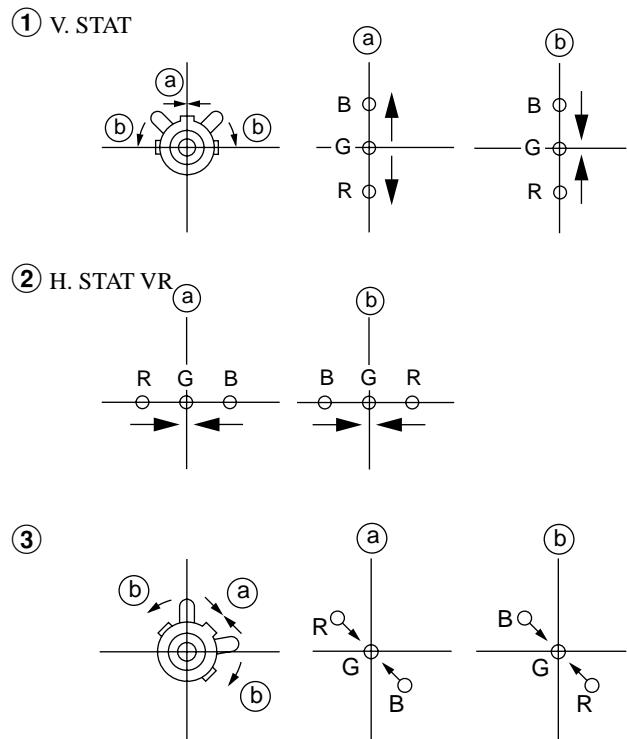
Preparation :

- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and Vertical Static Convergence

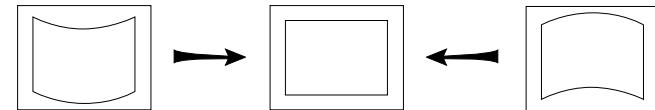
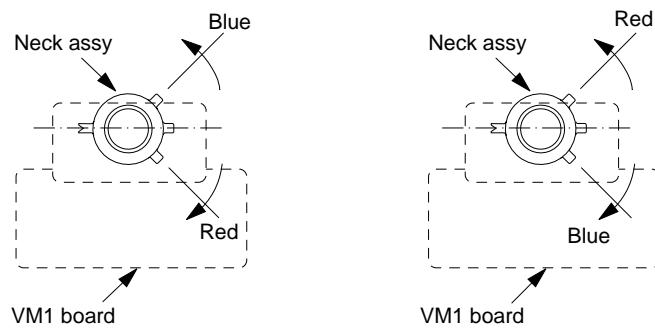
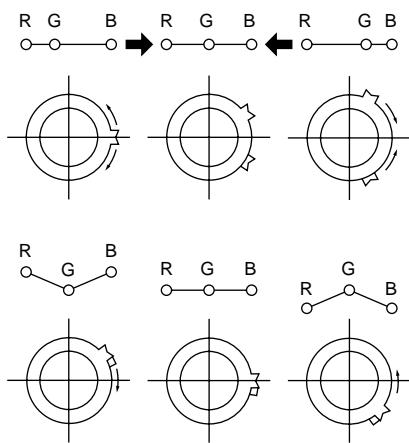


1. (Moving horizontally), adjust the H.STAT control so that the red, green and blue dots are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue dots are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green and blue dots together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other, so be sure to perform adjustments while tracking.)



④ BMC (Hexapole) Magnet.

If the red, green and blue dots are not balanced or aligned, then use the BMC magnet to adjust in the manner described below.



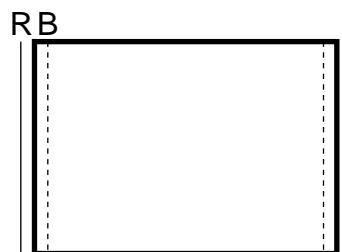
⑤ Y separation axis correction magnet adjustment.

1. Receive the cross-hatch signal and adjust [PICTURE] to [MIN] and [BRIGHTNESS] to [STANDARD].
2. Adjust the Y separation axis correction magnet on the neck assembly so that the horizontal lines at the top and bottom of the screen are straight.

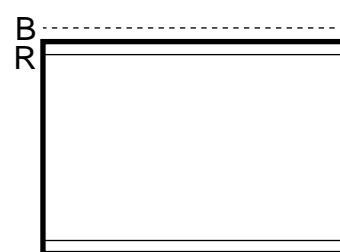
(2) Dynamic Convergence Adjustment

Preparation:

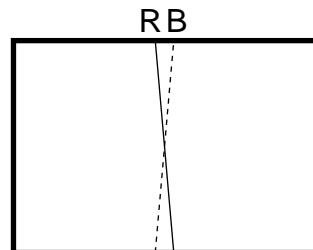
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence



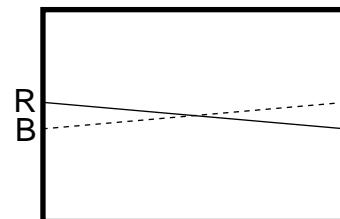
TLH



TLV



YCH



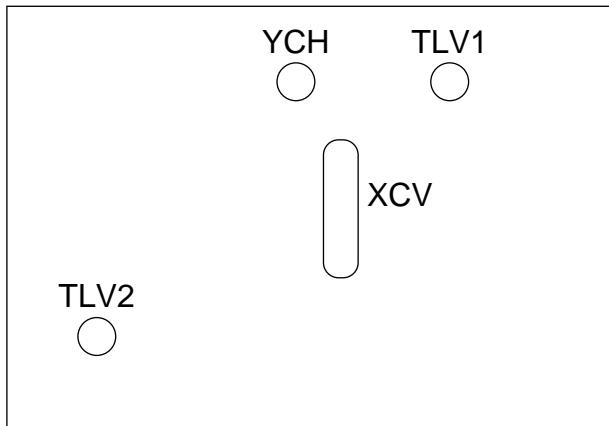
XCV

Note

1. The Red and Blue magnets should be equally far from the horizontal center line.
2. Do not separate the Red and Blue magnets too far. (Less than 8 mm)

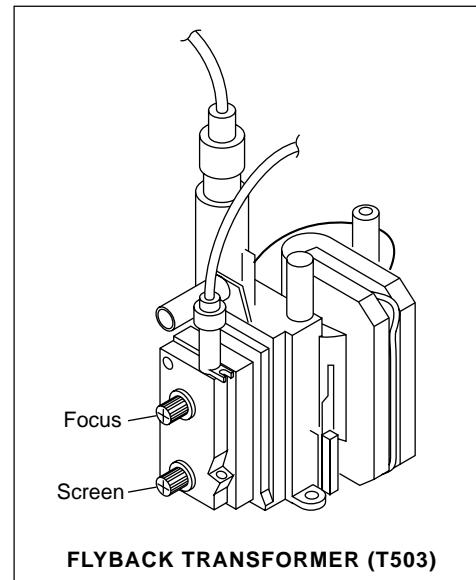
TLV Rotate TLV-2 VOL (29", 34") on DY
 Rotate TLV VOL (25") on DY
 XCV Rotate XCV Adj core on DY
 YCH Rotate YCH VOL on DY
 TLH Insert TLH Correction Plate to DY Pocket (Left or Right)

ON DY:

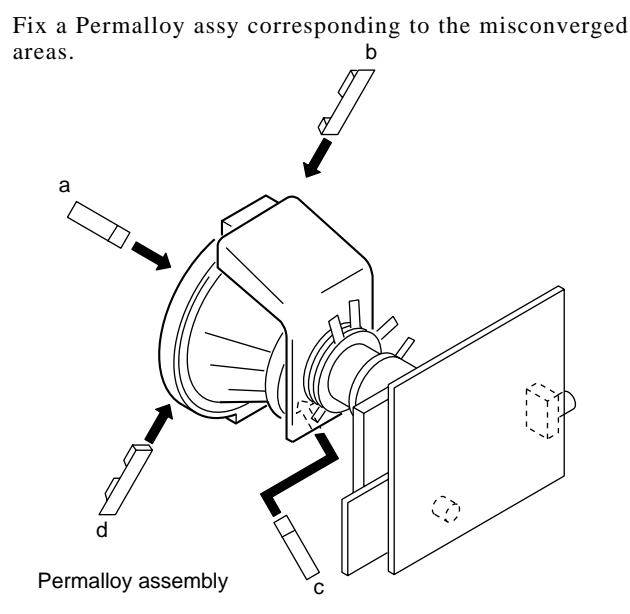
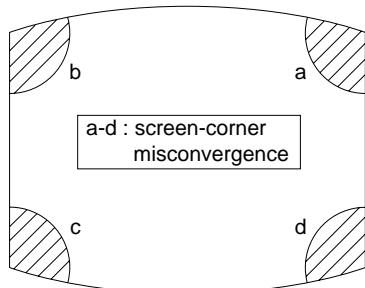


3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for the best focus.



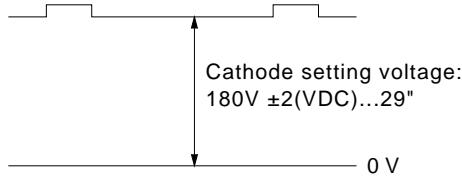
(3) Screen-corner Convergence



3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

1. G2 (SCREEN) ADJUSTMENT

- 1) Set the PICTURE to normal.
- 2) Put to VIDEO input mode without signals.
- 3) Connect R, G and B of the C6 board cathode to the oscilloscope.
- 4) Adjust BRIGHTNESS to obtain the cathode voltage to the value below.
- 5) Adjust G2 (screen) on the FBT until picture shows the point before cut off.

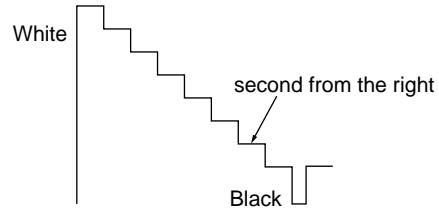


2. WHITE BALANCE ADJUSTMENT

- 1) Set to Service Mode (Refer Section 4-1: ADJUSTMENTS WITH COMMANDER).
- 2) Input white raster signal.
- 3) Set the PICTURE to minimum.
- 4) Select GCT (WHB 4) and BCT (WHB 5) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
- 5) Set the PICTURE to maximum.
- 6) Select GDR (WHB 1) and BDR (WHB 2) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
- 7) Write into the memory by pressing [MUTING] then [0].

3. SUB BRIGHT ADJUSTMENT

- 1) Set to service mode.
- 2) Input a staircase signal of black to white from the pattern generator.
- 3) BRIGHTNESS 50%.
PICTURE MINIMUM
- 4) Select SBR (WHB7) with [1] and [4], and adjust SBR (WHB7) level with [3] and [6] so that the second stripe from the right is dimly lit.



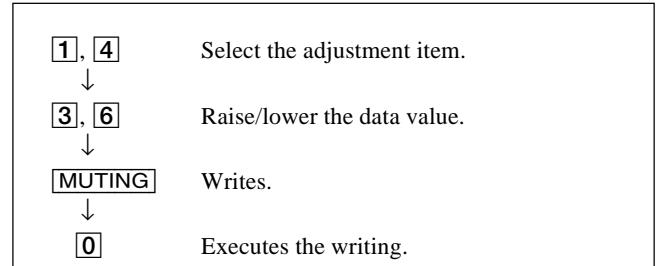
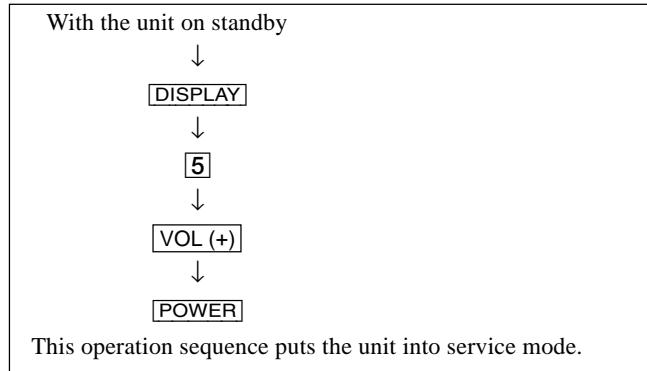
SECTION 4

CIRCUIT ADJUSTMENTS

4-1. ADJUSTMENTS WITH COMMANDER

Service adjustments are made with the RM-952 that comes with this unit.

a. ENTERING SERVICE MODE



[7, 0]	All the data becomes the values in memory.
[8, 0]	All user control goes to the standard state.
[5, 0]	Service data initialization (Be sure not to use usually.)
[2, 0]	Write 50Hz adjustment data to 60Hz, or vice versa.

b. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press [POWER] button on the commander), then press [POWER] button again, hereupon it becomes TV mode.

c. METHOD OF WRITE INTO MEMORY

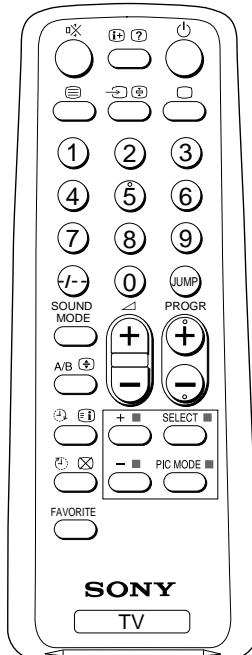
- 1) Set to Service Mode.
- 2) Press [1] (UP) and [4] (DOWN), select an item of adjustment.
- 3) Press [MUTING] button and it will indicate WRITE on the screen.
- 4) Press [0] button to write into memory.

d. MEMORY WRITE CONFIRMATION METHOD

- 1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again to confirm adjustments were made.

The screen display is :

Device Name	Item Name	Marking of virgin NVM				
Item No	Data				Mode	
GEO	00	HPS	1C	■	SERVICE	50
627S	1.0C	59	7F	0	000A	
Suffix No (OEM Code)	Software version				Total Power-On time (hours)	
					PAL, SECAM : 50	
					NTSC	: 60



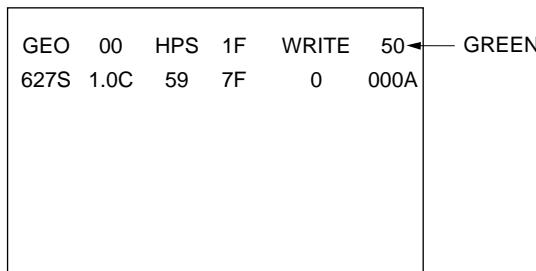
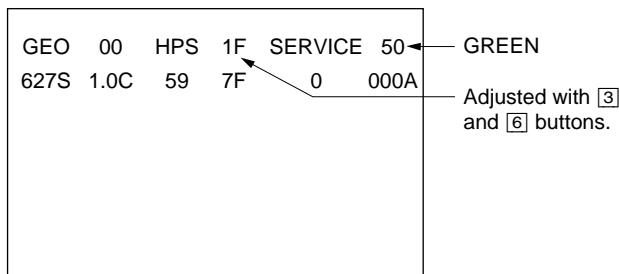
RM-952

4-2. ADJUSTMENT METHOD

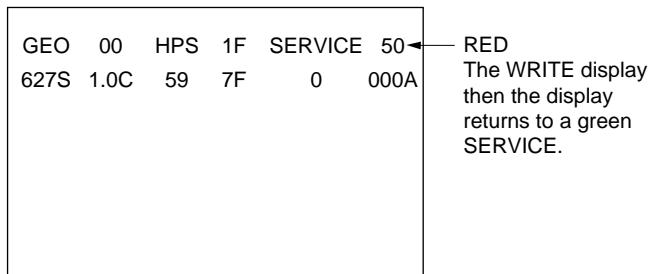
Item Number 00 of device GEO

This explanation uses H-Position as an example.

1. Select “GEO 00 HPS” with the **[1]** and **[4]** buttons.
2. Raise/lower the data with the **[3]** and **[6]** buttons.
3. Select the optimum state. (The standard is 1F for PAL reception.)
4. Write with the **[MUTING]** button. (The display changes to WRITE.)
5. Execute the writing with the **[0]** button. (The WRITE display will be changed to red color while executing, and back to SERVICE.)



Written with **[MUTING]**



Write executed with **[0]**

Use the same method for all Items. Use **[1]** and **[4]** to select the adjustment item, use **[3]** and **[6]** to adjust, write with **[MUTING]**, then execute the write with **[0]**.

- Note :**
1. In **[WRITE]**, the data for all items are written into memory together.
 2. For adjustment items that have different standard data between 50Hz or 60Hz, be sure to use the respective input signal after adjustment.

Adjustment Item Table

Device Name	Functionality		Note	Data Range	Function	Note for Different Data	Register No. (bit)	Slava Address	RAM Address (bit)
	No	Name							
GEO	0	HPS	7	3F	H Position	50/60HZ	12 (7-2)	CXA2130S(88H)	99 (7-2)
	1	HSZ	1F	3F	H Size	50/60HZ	11 (7-2)		98 (7-2)
	2	PAP	1F	3F	Pin Amp	50/60HZ	13 (7-2)		9A (7-2)
	3	TLT	7	0F	Trapezium	50/60HZ	15 (7-4)		9C (7-4)
	4	VPS	1F	3F	V Position	50/60HZ	0F (7-2)		96 (7-2)
	5	VSZ	1F	3F	V Size	50/60HZ	0E (7-2)		95 (7-2)
	6	SCO	7	0F	S Correction	50/60HZ	10 (7-4)		97 (7-4)
	7	VLN	7	0F	V Linearity	50/60HZ	10 (3-0)		97 (3-0)
	8	BOW	7	0F	AFC Bow	50/60HZ	16 (7-4)		9D (7-4)
	9	AGL	7	0F	AFC-Angle	50/60HZ	16 (3-0)		9D (3-0)
	0A	UPN	1F	3F	Upper Pin	50/60HZ	14 (7-2)		9B (7-2)
	0B	LPN	2F	3F	Lower Pin	50/60HZ	18 (7-2)		9F (7-2)
	0C	HBL	1	1	H Blanking on/off		18 (1)		6F (1)
	0D	LBL	0F	0F	Left H Blanking	50/60HZ	17 (7-4)		9E (7-4)
	0E	RBL	2	0F	Right H Blanking	50/60HZ	17 (3-0)		9E (3-0)
WHB	0	RDR	1F	3F	R Drive	DYNAMIC/others	09 (7-2)	CXA2130S(88H)	A6 (7-2)
	1	GDR	1F	3F	G Drive	DYNAMIC/others	0A (7-2)		A7 (7-2)
	2	BDR	1F	3F	B Drive	DYNAMIC/others	0B (7-2)		A8 (7-2)
	3	RCT	7	0F	R Cutoff	SECAM/others	07 (3-0)		AA (3-0)
	4	GCT	7	0F	G Cutoff	SECAM/others	08 (7-4)		AB (7-4)
	5	BCT	7	0F	B Cutoff	SECAM/others	08 (3-0)		AB (3-0)
	6	BMN	15	1F	Brightness Minimum Data		06 (7-2)		106
	7	SBR	1F	3F	Sub Brightness Control		06 (7-2)		107
SAJ	0	PMX	33	3F	Picture Maximum Data		03 (7-2)	CXA2130S(88H)	105
	1	SHU	8	0F	Sub Hue Control	TV/Video	05 (7-2)		108
	2	SSH	8	0F	Sub Sharpness Control	TV/Video	07 (7-4)		109
	3	SCL	1F	3F	Sub Color Control	NTSC/others	04 (7-2)		10A
VP	0	EHT	5	0F	EHT Comp	50/60HZ	15 (3-0)	CXA2130S(88H)	9C (3-0)
	1	GMA	2	03	Gamma Correction (seperated in STD mode)	NTSC/others	268 (1-0)		268 (1-0)
	2	YDL	6	0F	Y Delay	PAL/SECAM/NTSC	0C (3-0)		26B (3-0)
	3	SST	1	03	SECAM ID Start Position		1B (1-0)		72 (1-0)
	4	SSP	1	03	SECAM ID Stop Position		1B (3-2)		72 (3-2)
	5	SLV	2	03	SECAM ID Level		1C (1-0)		73 (1-0)
	6	SBF	22	3F	SECAM BELL fO		1C (7-2)		73 (7-2)
	7	DYC	1	1	Dynamic Color on/off		0A (1)		61 (1)
	8	ABL	1	1	ABL Mode Switching (except STANDARD mode)		09 (1)		60 (1)
	9	VTH	1	1	ABL Detection Vth Switching		09 (0)		60 (0)
	0A	SFO	1	1	FO Switching for Sharpness	NTSC/others	05 (1)		259 (1)
	0B	DCX	1	1	DC Trans. Ratio Switching		06 (1)		5D (1)
	0C	SHT	1	1	Pre-/Overshoot ratio Switch	NTSC/others	06 (0)		25A (0)

Adjustment Item Table

Device Name	Functionality		Note	Data Range	Function	Note for Different Data	Register No. (bit)	Slava Address	RAM Address (bit)
	No	Name							
VP	0D	HDW	0	1	H Drive Pulse Width Switch	TV/Video/Text 50/60Hz Video only not memorized	00 (6)		57 (6)
	0E	AFC	1	03	AFC Gain Control		0F (1-0)		A4 (1-0)
	0F	HOS	7	0F	H Oscillation		0C (7-4)		63 (7-4)
	10	HSS	0	1	Slice Level of H Sync Sep.		0D (1)		64 (1)
	11	VSS	0	1	Slice Level of V Sync Sep.		0D (0)		64 (0)
	12	HMS	1	1	Macro Vision C/m off/on		0E (0)		95 (0)
	13	YUV	0	1	YUV Switch Control		01 (0)		58 (0)
	14	CDV	1	3	CD mode for Video		0D (5-4)		266 (5-4)
	15	RON	1	1	R ON		01 (3)		58 (3)
	16	GON	1	1	G ON		01 (2)		58 (2)
	17	BON	1	1	B ON		01 (1)		58 (1)
	18	PON	1	1	P ON		00 (7)		57 (7)
	19	BLK	0	1	BLK Off		12 (0)		69 (0)
	1A	VMC	0	1	VM Off		13 (0)		6A (0)
AP	0	BCS	1	3	Bass Center Shift	#4 (3-0) #5 (3-0) #5 (3-0)	TDA7315(80H)	25B (1-0) 25C (1-0) 265 (1-0)	25B (1-0)
	1	TCS	1	3	Treble Center Shift				
	2	TRF	2	3	RF Treble Offset				
MSP	0	WST	15	FF	W/G Stereo Threshold	MSP3415D(84H)	00BB (7) 00BB (6-1) 00BB (9) 0083 (5) 000E (14-8) 000E (14-8) 000E (14-8) 000E (14-8) 0010 (14-8) 0021 (10-3) 0000 (15-4)	165 166 167 168 169 16A 16B 116 (7) 116 (6-1) 115 (9) 11A (5) 221 222 223 224 225 14F 174 261	165 166 167 168 169 16A 16B 116 (7) 116 (6-1) 115 (9) 11A (5) 221 222 223 224 225 14F 174 261
	1	WBT	EA	FF	W/G Bilingual Threshold				
	2	WLL	5	FF	W/G Monaural Threshold				
	3	WAC	1	0F	W/G Agreement Count				
	4	WDL	30	FF	W/G Search Delay				
	5	NDL	20	FF	NICAM Search Delay				
	6	SDL	10	FF	Stereo status Read Delay				
	7	AGC	1	1	AGC Switch Auto/Constant				
	8	REL	28	3F	AGC Gain at Constant Mode				
	9	CRM	0	1	Carrier muting on/off				
	0A	ACO	1	1	Audio Clock out on/off				
	0B	FP	1B	7F	FM Prescale for non-M system				
	0C	FPM	32	7F	FM Prescale for M system				
	0D	FH	36	7F	FM Prescale for HDEV				
	0E	FHM	65	7F	FM Prescale for HDEV and M				
	0F	WGP	2A	7F	W/G Prescale				
	10	NIP	6D	7F	NICAM Prescale				
	11	ERR	50	FF	Auto FM switch Threshold				
	12	VOL	6D	FF	Loud Speaker gain 7000h to 7ff0h				

Adjustment Item Table

Device Name	Functionality		Note	Data Range	Function	Note for Different Data	Register No. (bit)	Slave Address	RAM Address (bit)
	No	Name							
SVP	0	SBF	22	3F	SECAM BELL f0	TV/Video NTSC/others	1C (7-2)	CXA2060AS(8AH)	88 (7-2)
	1	HOS	7	0F	H Oscillation		0C (7-4)		83 (7-4)
	2	SHU	8	0F	Sub Hue Control		05 (7-2)		21E
	3	SCL	1F	3F	Sub Color Control		04 (7-2)		21F
PIP	0	SDL	1	0F	Delay of output SELECT	TV/Video NTSC/others	01 (6-3)	SDA9288X(D6H)	190 (6-3)
	1	PPH	15	FF	H Position of TOP-LEFT Pin P		01/02		1AF
	2	PPV	2E	FF	V Position of TOP-LEFT Pin P		03 (7-0)		1B0
	3	YDL	0	07	Delay of Luminance Input		04 (2-0)		193 (2-0)
	4	HDI	0	0F	H Sync Delay for Inset		06 (3-0)		195 (3-0)
	5	ISC	0	1	Inset Clock Selection		06 (4)		195 (4)
	6	CLP	1	1	Clamp Pulse Selection		06 (5)		195 (5)
	7	CLC	0	1	Clamp Cycle Selection		06 (6)		195 (6)
	8	CON	1	0F	Contrast Adjustment for inset		09 (7-4)		198 (7-4)
	9	PLL	2	03	H Position For A-ch		0D (6-5)		19C (6-5)
	0A	PDV	0	0F	PIP V Pedestal Level		0E (7-4)		19D (7-4)
	0B	PDU	0	0F	PIP U Pedestal Level		0E (3-0)		19D (3-0)
TXT	0	TXH	1	3	Teletext Horizontal Position		10 (1-0)	SAA5261(58H)	257 (1-0)
	1	TXV	0	3	Teletext Vertical Position		10 (6-4)		257 (5-4)
OPM	0	OSH	0A	3F	OSD H Position	Option-Misc	1F1	CXP86461(60H)	17B (7-2)
	1	COM	1	03	Comb Selection				24D (7-6)
	2	APC	1	1	APC Switch				24C (5)
	3	TSY	0	03	TV Sys at Auto TV Sys				24C (4-3)
	4	MUT	0	1	No Signal Mute				24C (0)
	5	AFM	1	1	Auto FM switch				24C (1)
	6	RFB	0	3	C-BPF Control				24D (5-4)
	7	TVO	0	7	Tilt to V-Angle offset				24D (2-0)
	8	DBL	0	1	Disable Blueback Function				24C (2)
OPB	0	OP1	51	FF	Optional Bits 1 (see below)	Option-Bits		CXP86461(60H)	4B
	1	OP2	1	FF	Optional Bits 2 (see below)				4C
	2	OP3	28	FF	Optional Bits 3 (see below)				4D

NOTE

- shaded items are fixed data.
- Standard data listed on the Adjustment Item Table are reference values, therefore it may be different for each model and for each mode.
- Note for Different Data Those are the standard data values written on the microprocessor. Therefore, the data values of the modes are stored respectively in the memory.
In case of a device replacement, adjustment by rewriting the data value is necessary for some items.

ITEM INFORMATION.

No. OPB0 OP1

Item	XTAL 4.43	XTAL 3.58	SECAM	2nd. Lang	B/G	I	D/K	M
KV-XG29M61 (Malaysia)	1	1	1	1	1	1	1	1
KV-XG29M61 (Singapore)	1	1	1	1	1	1	1	1

No. OPB1 OP2

Item	TOP	NICAM	HDEV	Thai Bil	Dis Fav.	DVD Input	AV Input	
KV-XG29M61 (Malaysia)	0	1	1	0	0	0	1	1
KV-XG29M61 (Singapore)	0	1	1	0	0	0	1	1

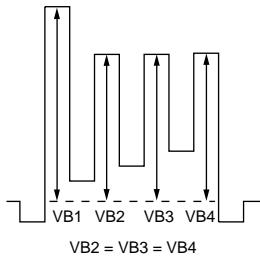
No. OPB2 OP3

Item	PIC Rotate	2199 Curve	Auto PIC	Auto TV sys	US ST	AV Mono	11 KEY	Color SW
KV-XG29M61 (Malaysia)	1	0	1	1	0	0	0	0
KV-XG29M61 (Singapore)	1	0	1	1	0	0	0	0

4-3. PICTURE QUALITY ADJUSTMENTS

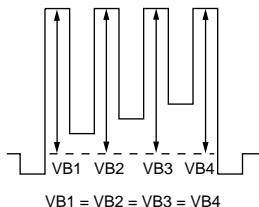
SUB COLOR ADJUSTMENT

1. Input a PAL color-bar.
2. Set to the following condition:
PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
3. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
4. Set to Service Mode and select SAJ 3 'SCL' with [1] and [4] of the commander then adjust to VB2=VB3=VB4 with [3] and [6].
5. Press **MUTING** → [0] of the commander to write the data.
6. Adjust SAJ 3 'SCL' as step 2 to 5 when receiving NTSC color-bar.



SUB HUE ADJUSTMENT

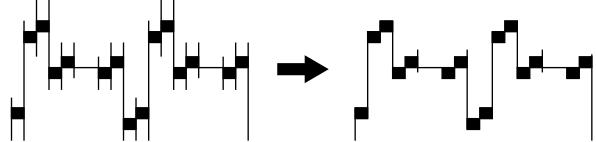
1. Select Video 1.
2. Input a NTSC color-bar, video into Video 1.
3. Set the following condition:
PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
4. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
5. Select SAJ 1 'SHU' with [1] and [4] of the commander by setting to Service Mode and adjust to VB1=VB2=VB3=VB4 with [3] and [6].



6. Press **MUTING** → [0] of the commander to write the data.

BELL FILTER ADJUSTMENT

1. Input SECAM color-bar signal.
2. Connect the dual-trace oscilloscope to CN303 pin ⑨ (not mounted).
3. Adjust SERVICE MODE, ITEMS 'SBF' as shown below.



4-4. A BOARD ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

When replacing IC003 (MEMORY), be sure to change IC001 (μ -COM) to the following new IC at the same time.

IC001(μ -CON):

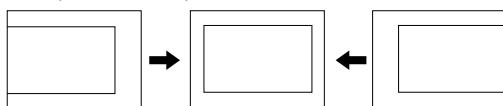
CXP86461-627S

1. Enter to Service Mode.
2. Press commander buttons [5] and [0] (Data Initialize), and [2] and [0] (Data Copy) to initialize the data.
3. Call each item number and check if the respective screen shows the normal picture.
In cases where items are not well adjusted, rectify the items with fine adjustment.
Write the data per each item number ([**MUTING**] + [0]).
4. Select item numbers "OPB0" (OP1), "OPB1" (OP2) and "OPB2" (OP3) and respectively set the bit per model with command buttons [3] and [6].
5. Press commander buttons [8] and [0] (Test Normal) to return to the data that was set on the shipment from the factory.
(This will also cancel Service Mode.)

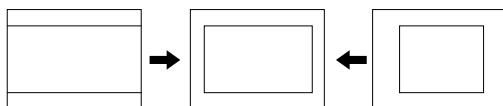
4-5. PICTURE DISTORTION ADJUSTMENT (1)

Item Number 00 – 0B

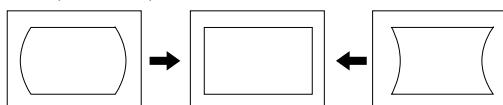
GEO 0 HPS (H POSITION)



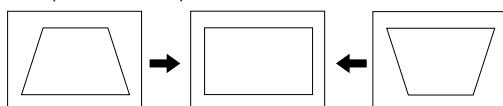
GEO 1 HSZ (H SIZE)



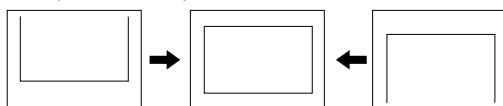
GEO 2 PAP (PIN AMP)



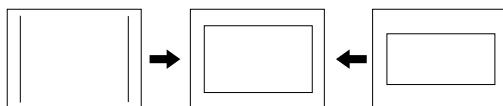
GEO 3 TLT (TRAPEZIUM)



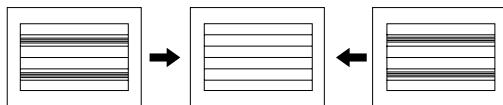
GEO 4 VPS (V POSITION)



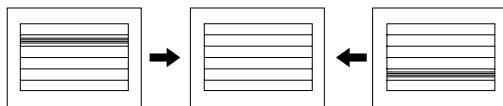
GEO 5 VSZ (V SIZE)



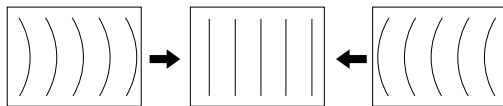
GEO 6 SCO (VERTICAL S-Correction)



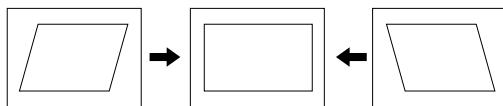
GEO 7 VLN (V LINEARITY)



GEO 8 BOW (AFC.BOW)

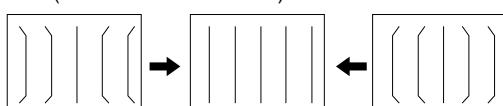


GEO 9 AGL (AFC.ANGLE)



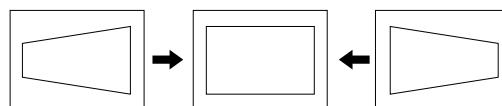
GEO 0A UCP (UPPER CORNER PIN)

GEO 0B LCP (LOWER CORNER PIN)



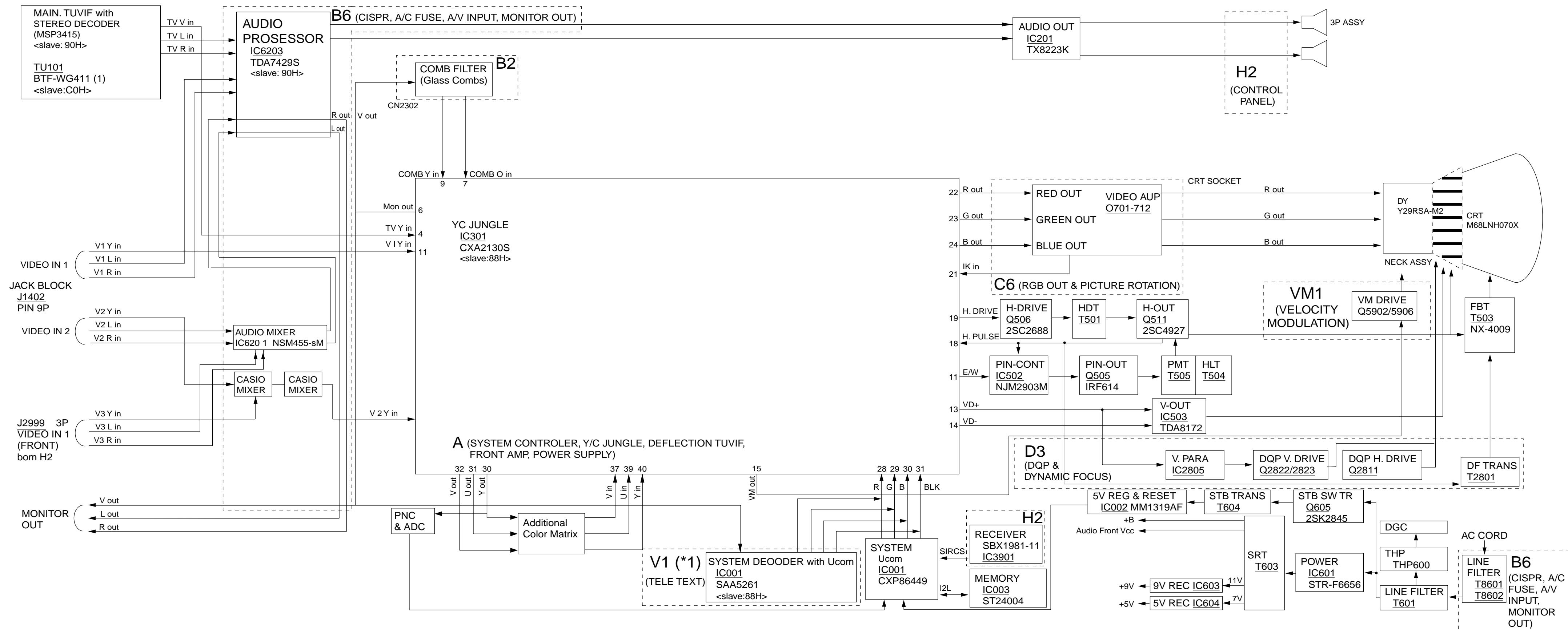
PICTURE DISTORTION ADJUSTMENT (2)

H-TRAPEZOID (Rotate RV1801)

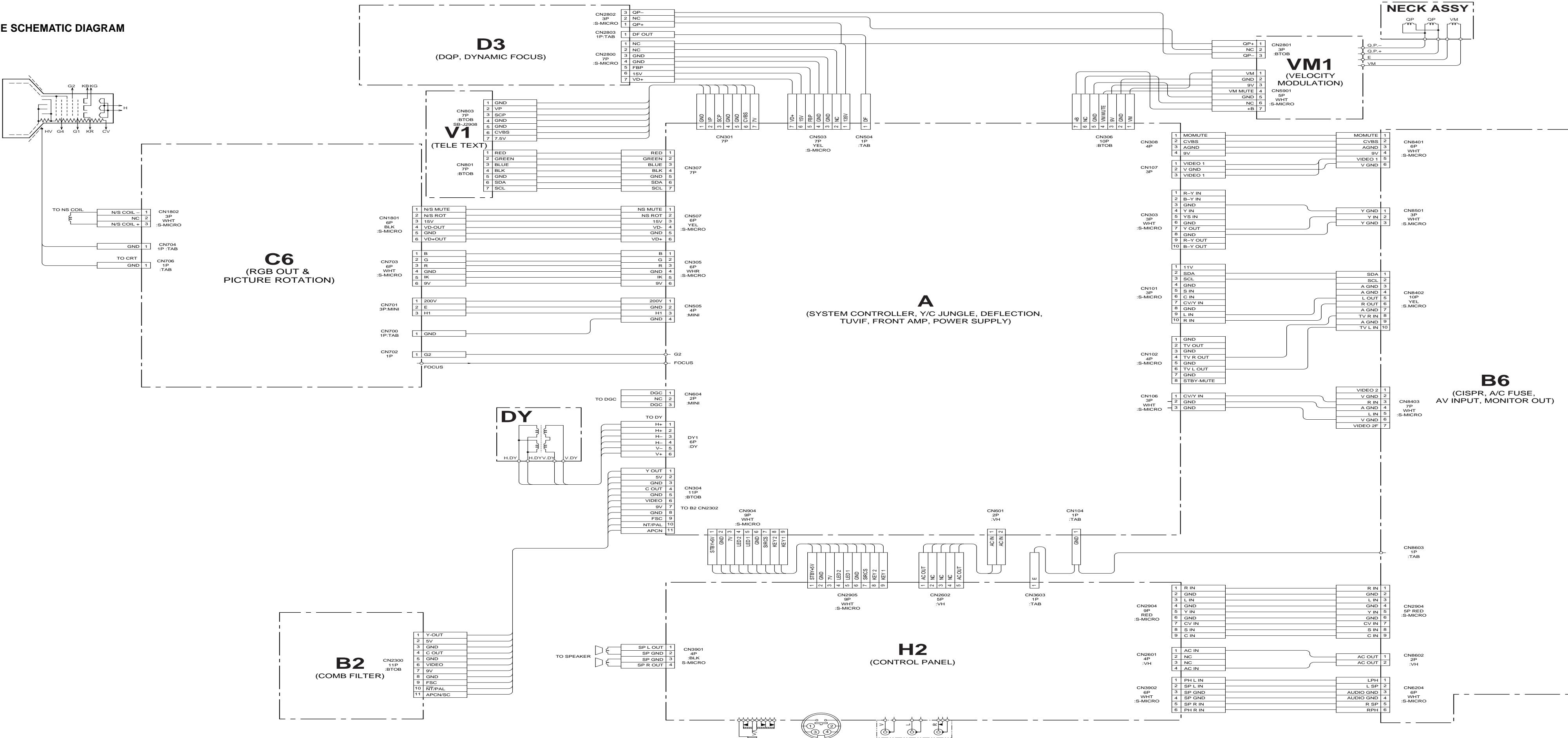


SECTION 5
DIAGRAM

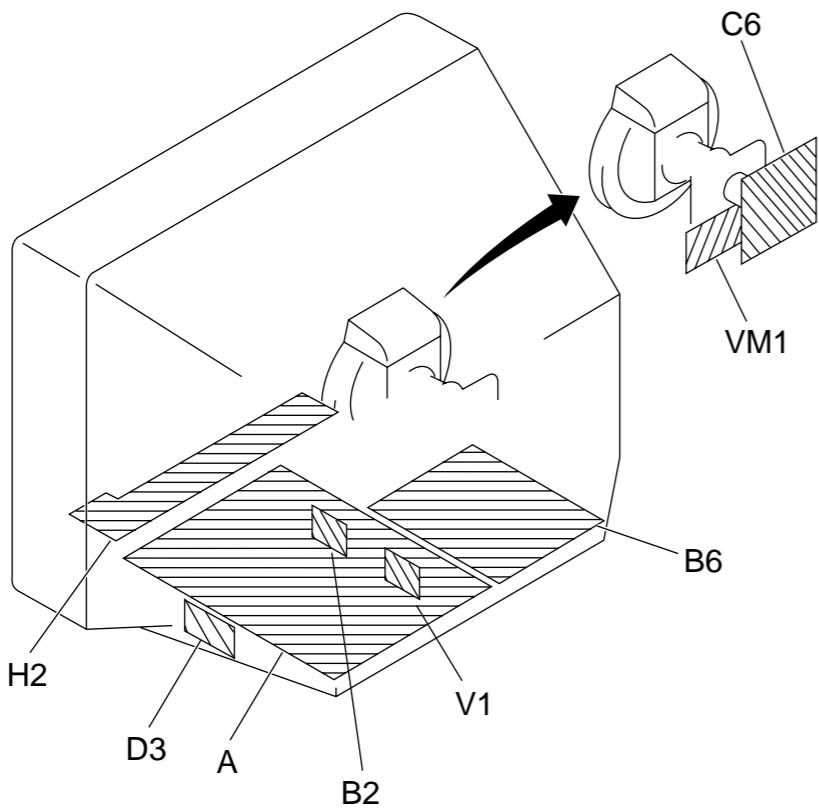
5-1. BLOCK DIAGRAM



5-2. FRAME SCHEMATIC DIAGRAM



5-3. CIRCUIT BOARDS LOCATION



5-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted.
- All electrolytic capacitors are rated at 50V unless otherwise noted.
- All resistors are in ohms.
 $\text{k}\Omega = 1000\Omega$, $\text{M}\Omega = 1000\text{k}\Omega$
- Indication of resistance which does not have rating electrical power is as follows.

Pitch: 5 mm
Rating electrical power 1/4W (CHIP: 1/10W)

- : nonflammable resistor.
- : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B unless otherwise noted.
- Readings are taken with a color-bar signal input.
- no mark : PAL
() : SECAM
[] : NTSC 3.58
« » : NTSC 4.43
- Readings are taken with a 10 $\text{M}\Omega$ digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- * : Cannot be measured.
- Circled numbers are waveform references.
- : B + bus.
- : B - bus.
- : signal path.

Reference information

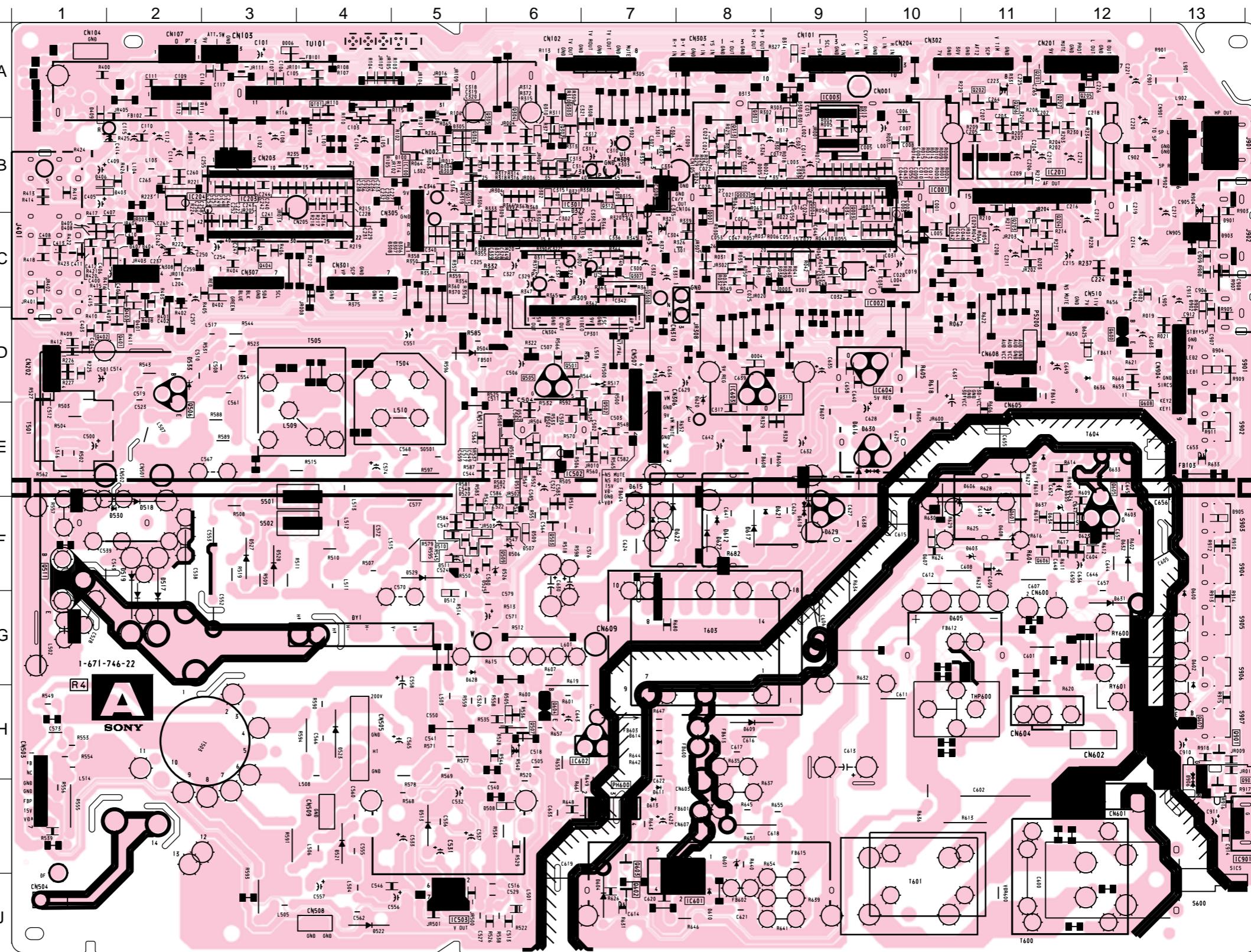
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: *	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR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

Note: The component identified by shading and mark are critical for safety. Replace only with part number specified.

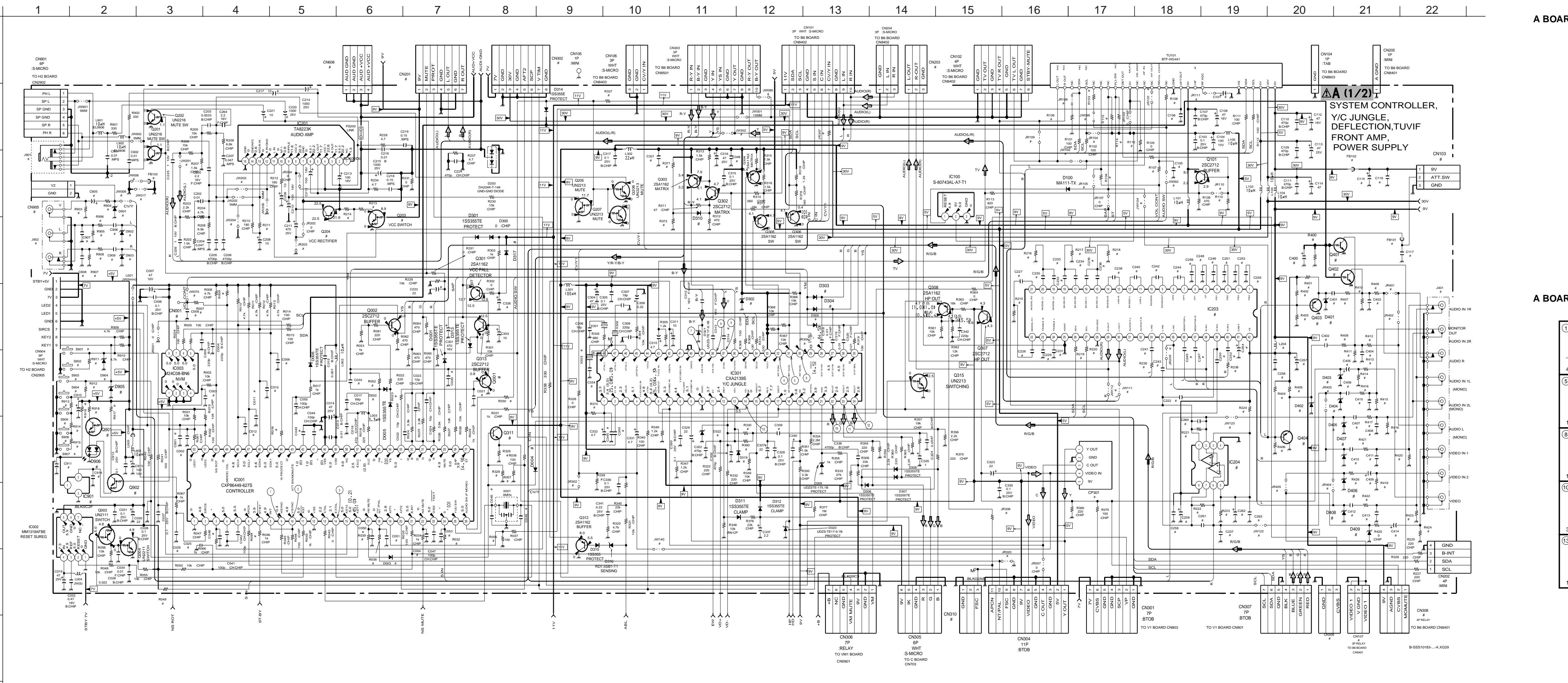
A BOARD

IC	D002	B-7	D617	E-7
IC001	B-9	D618	E-8	
IC002	C-8	D620	D-7	
IC003	B-7	D621	E-7	
IC100	B-4	D622	E-6	
IC201	B-10	D623	E-10	
IC203	B-3	D624	E-10	
IC204	B-2	D625	C-10	
IC301	B-6	D627	E-7	
IC502	E-6	D628	F-5	
IC503	H-4	D629	E-8	
IC601	H-7	D630	D-8	
IC602	G-6	D631	F-10	
IC603	D-7	D632	E-10	
IC604	D-8	D633	D-10	
IC901	H-12	D634	E-10	
PH600	G-6	D635	E-10	
TRANSISTOR	D311	C-5	D636	D-10
Q001	B-7	D637	E-10	
Q002	B-7	D638	D-10	
Q003	B-8	D901	B-11	
Q004	B-8	D902	C-11	
Q101	A-3	D904	C-11	
Q201	A-10	D905	E-12	
Q202	A-9	D906	G-11	
DIODE	D001	B-7		
D613				
D614				
D615				
D616				

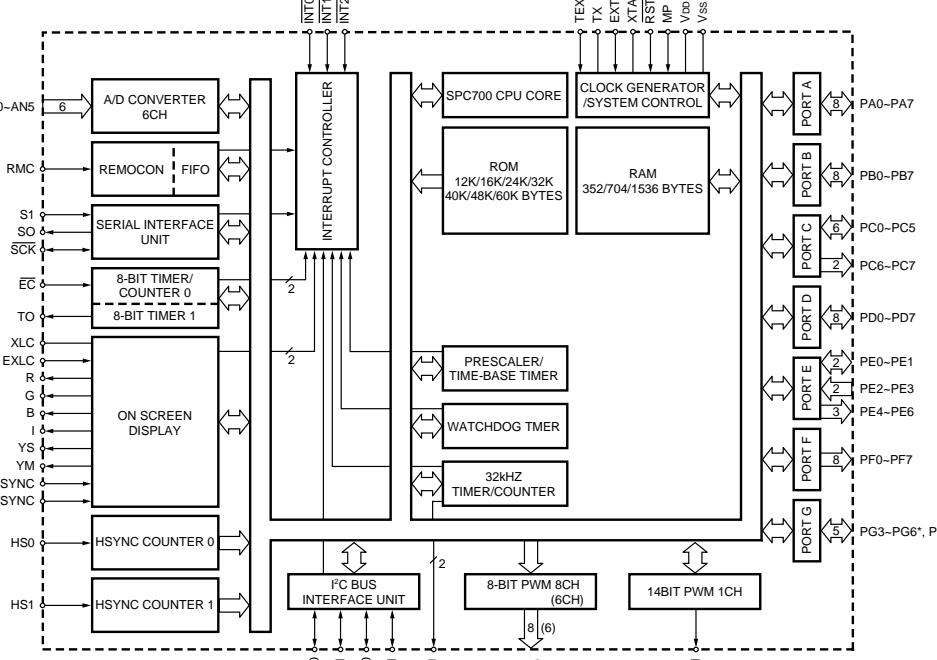
A [SYSTEM CONTROLLER, Y/C JUNGLE,
DEFLECTION, TUVIF, FRONT AMP, POWER SUPPLY]

PRINTED WIRING BOARD**- A Board -**

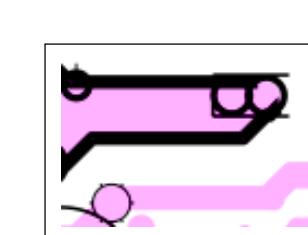
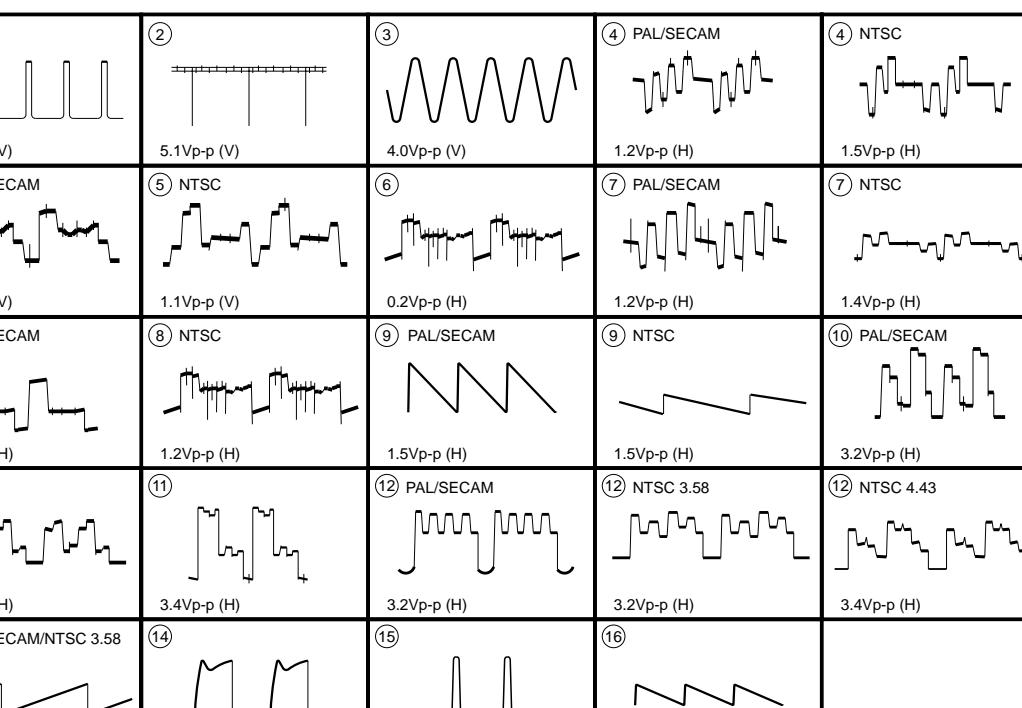
) Schematic Diagram of A(1/2) Board



001 G

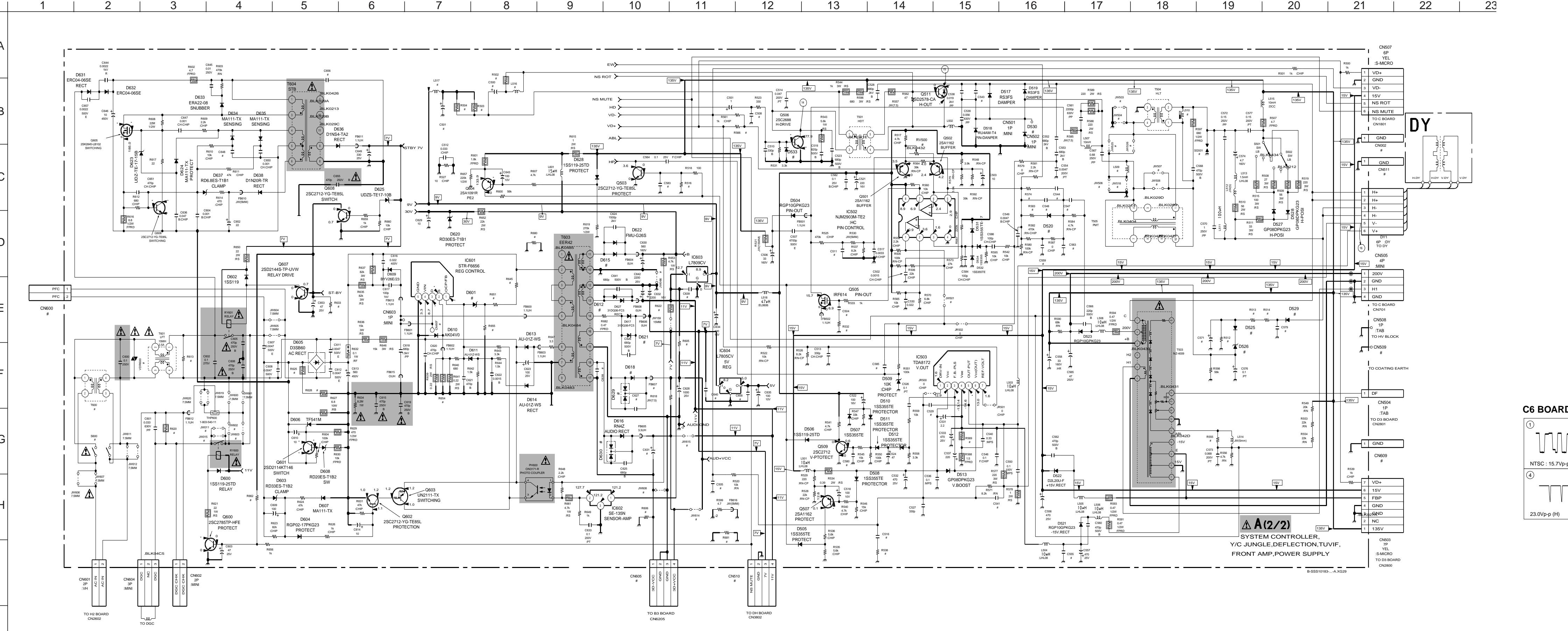


WAVEFORMS



NOTE:
The circuit indicated at left contains high voltage of over 600 Vp-p. Please pay attention when inspecting or repairing it to prevent an electric shock.

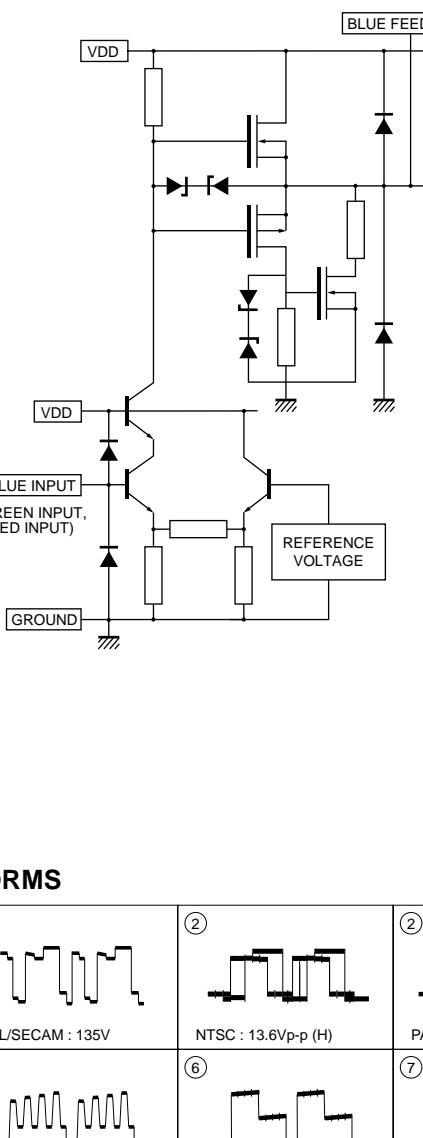
2) Schematic Diagram of A(2/2) Board



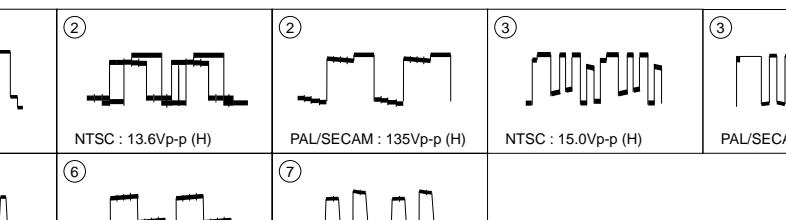
Chemical diagram

A (1/2) board

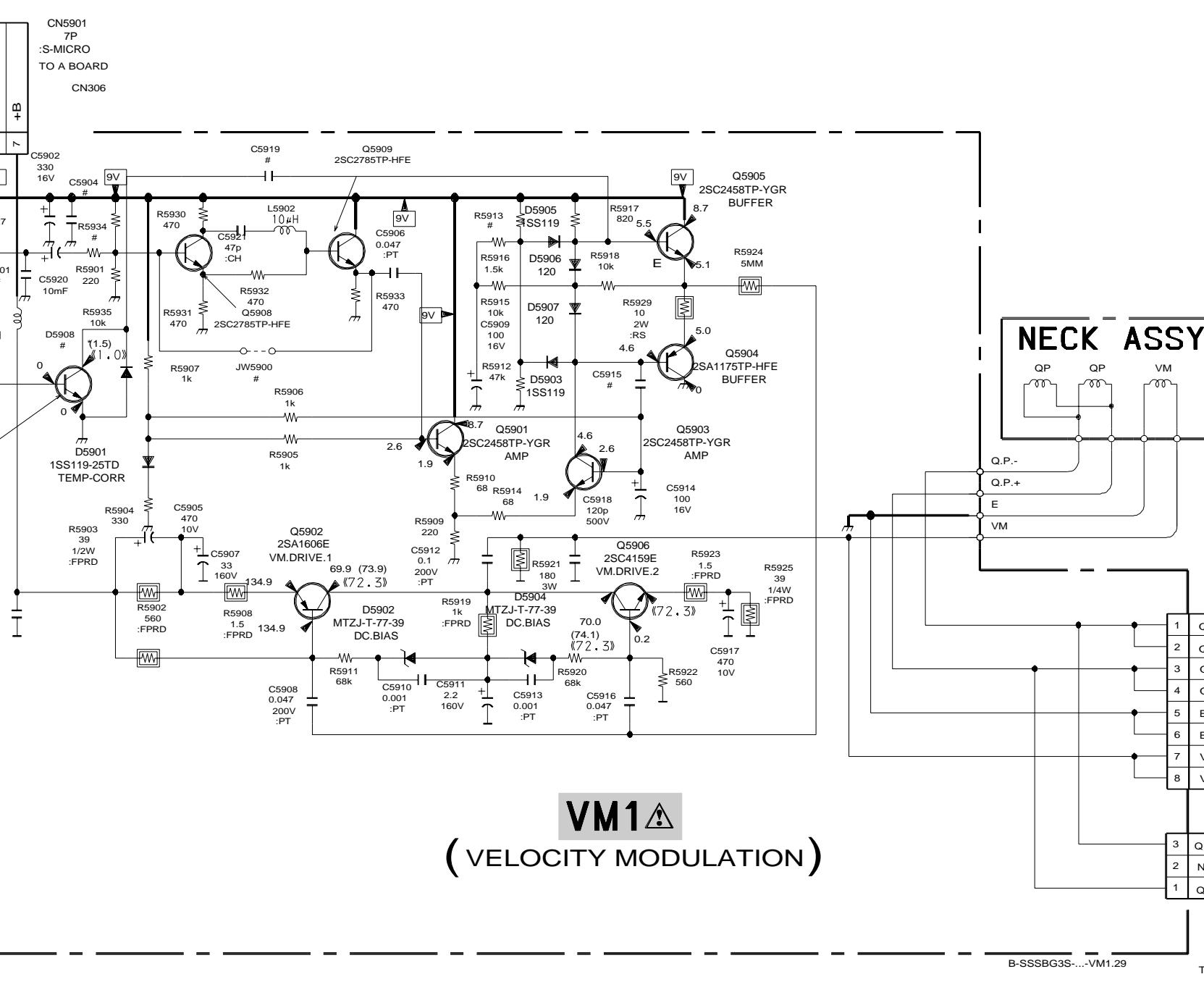
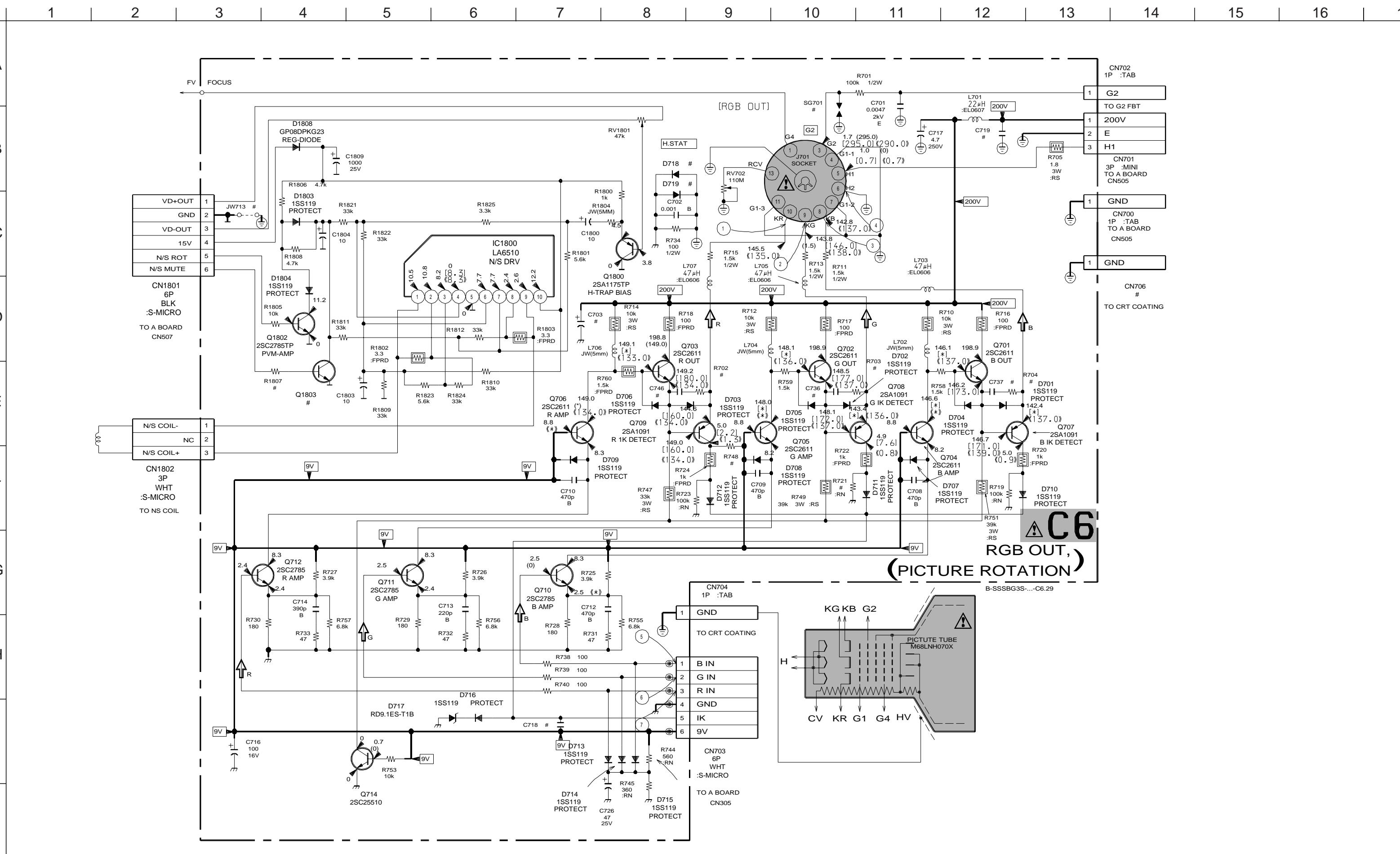
C6



WAVEFORMS

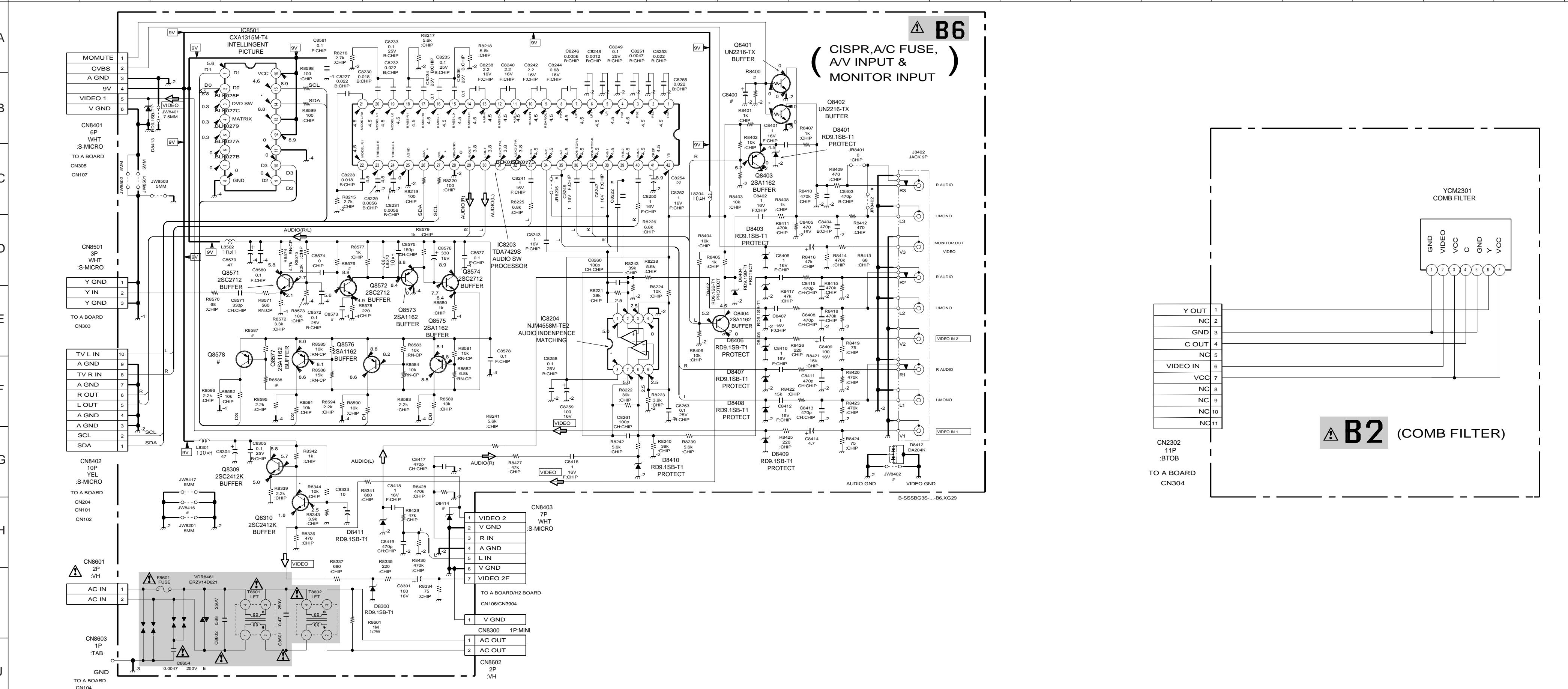


3) Schematic Diagrams of C6 and VM1 Boards



4) Schematic Diagrams of B6 and B2 Boards

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |



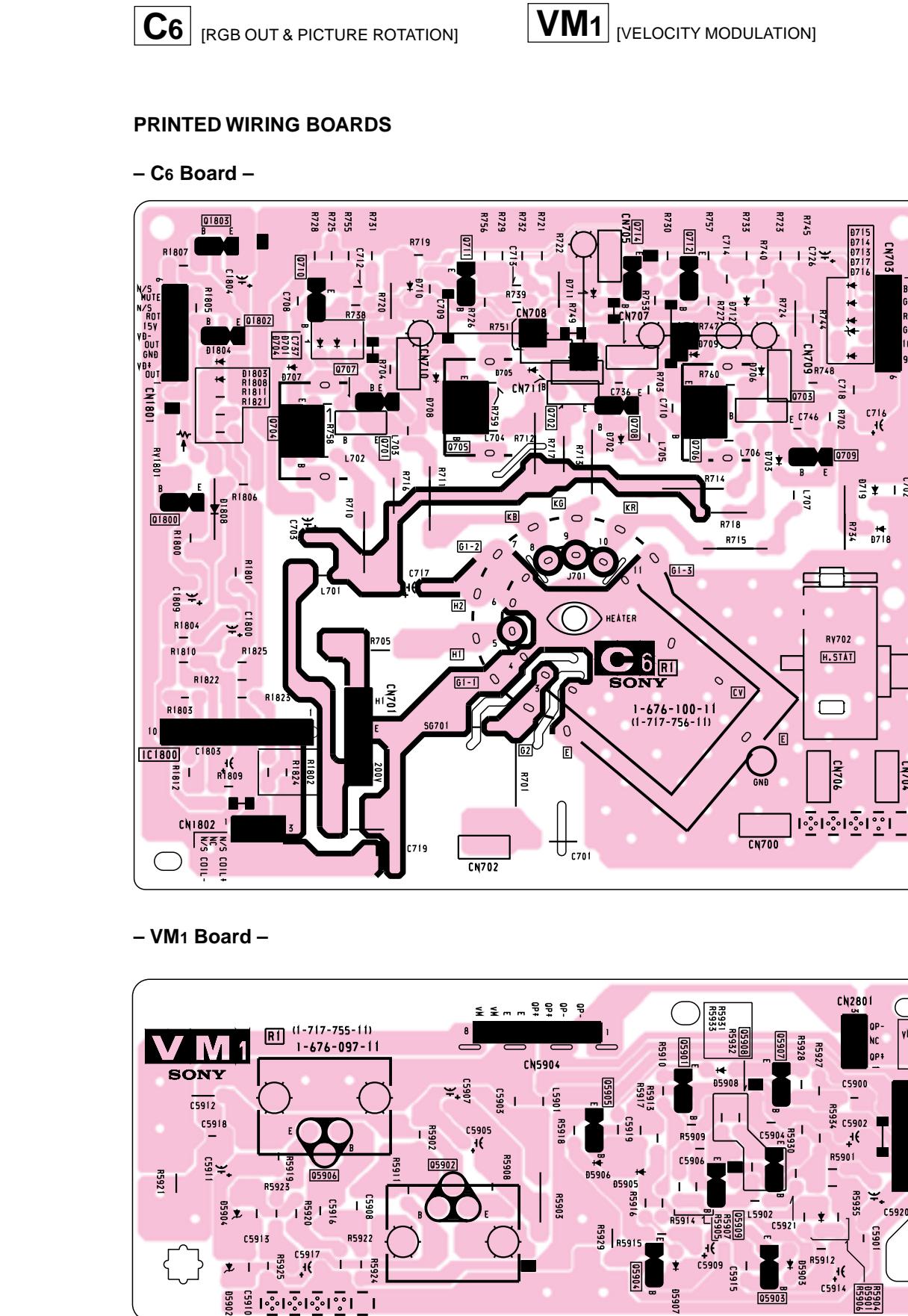
Chemical diagrams

C6 VM1 boards

3

S

→



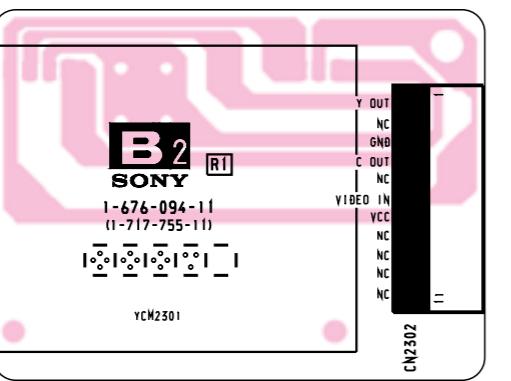
二

B2 [COMB FILTER]

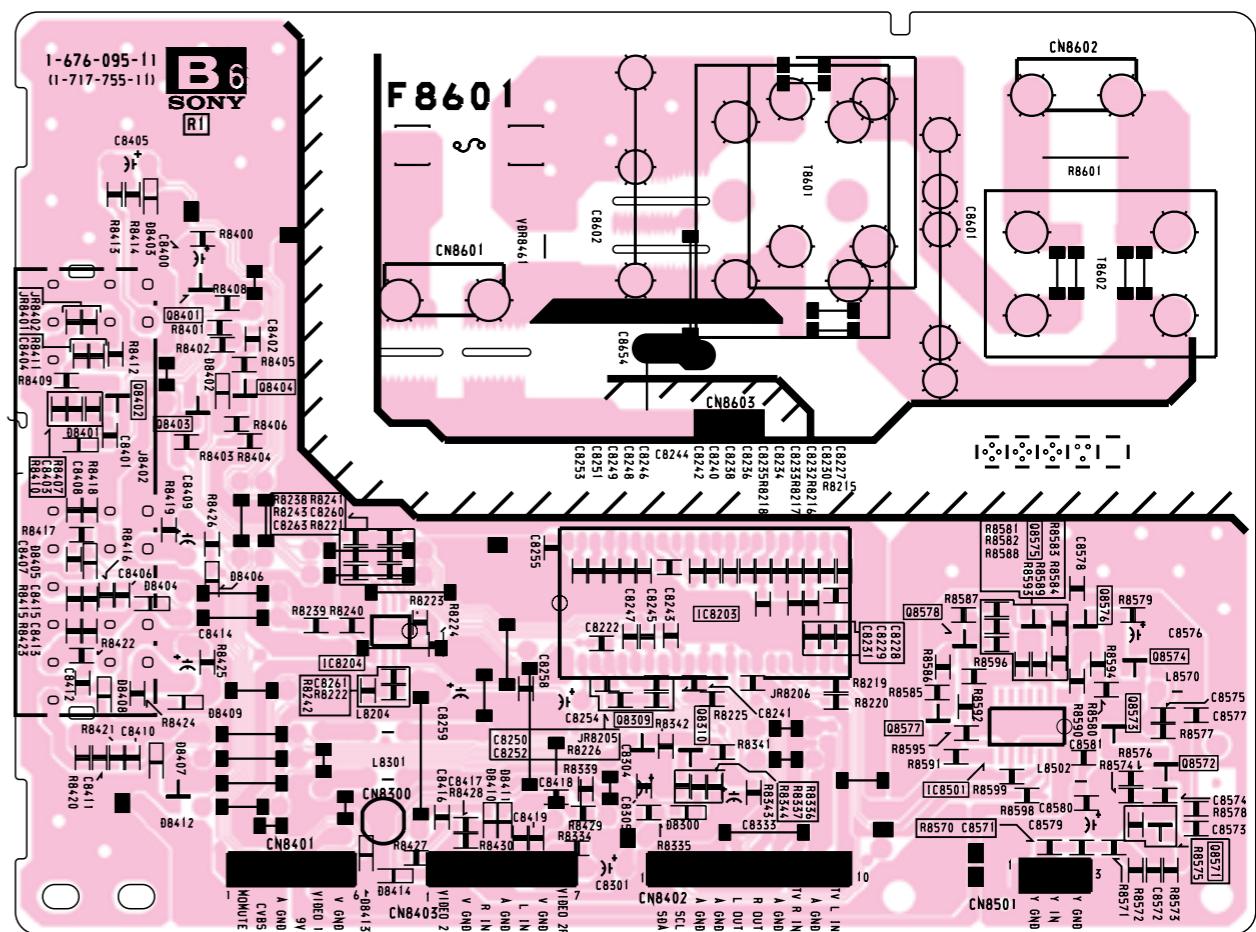
B6 [CISPR, A/C FUSE, AV INPUT,
MONITOR INPUT]

PRINTED WIRING BOARDS

- B2 Board -



- B6 Board -

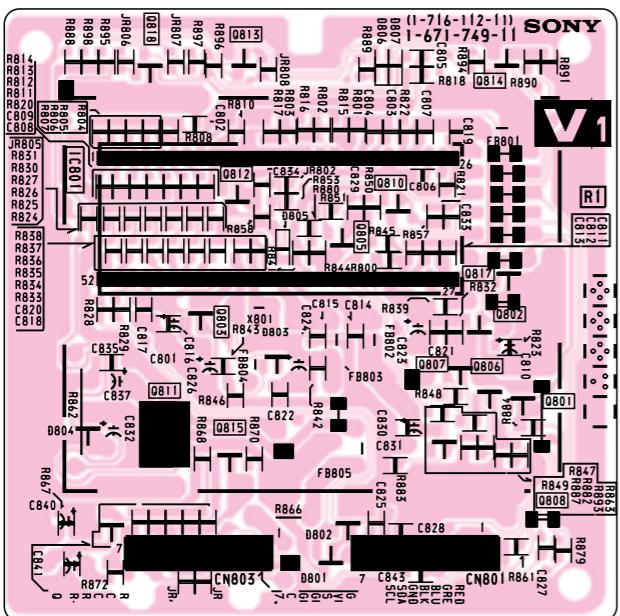


V1 [TELE TEXT]

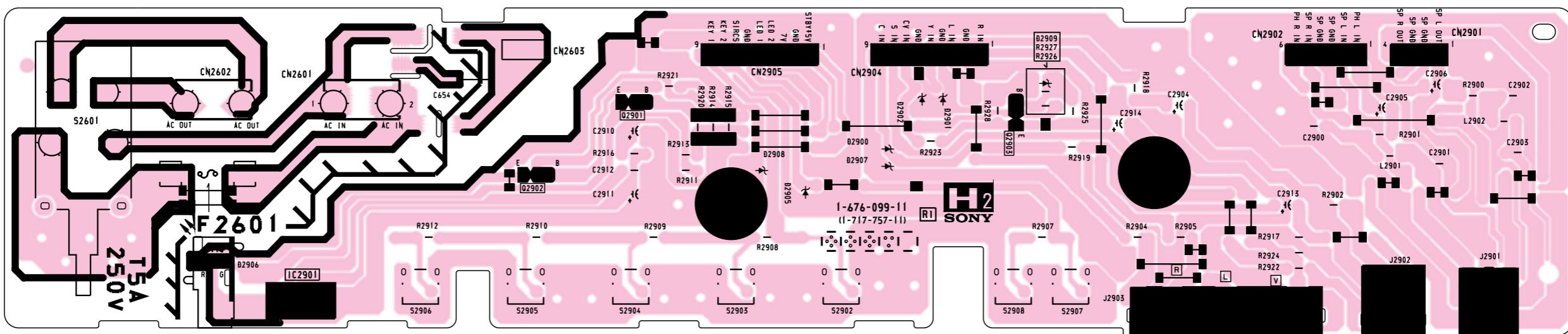
H2 [CONTROL PANEL]

PRINTED WIRING BOARDS

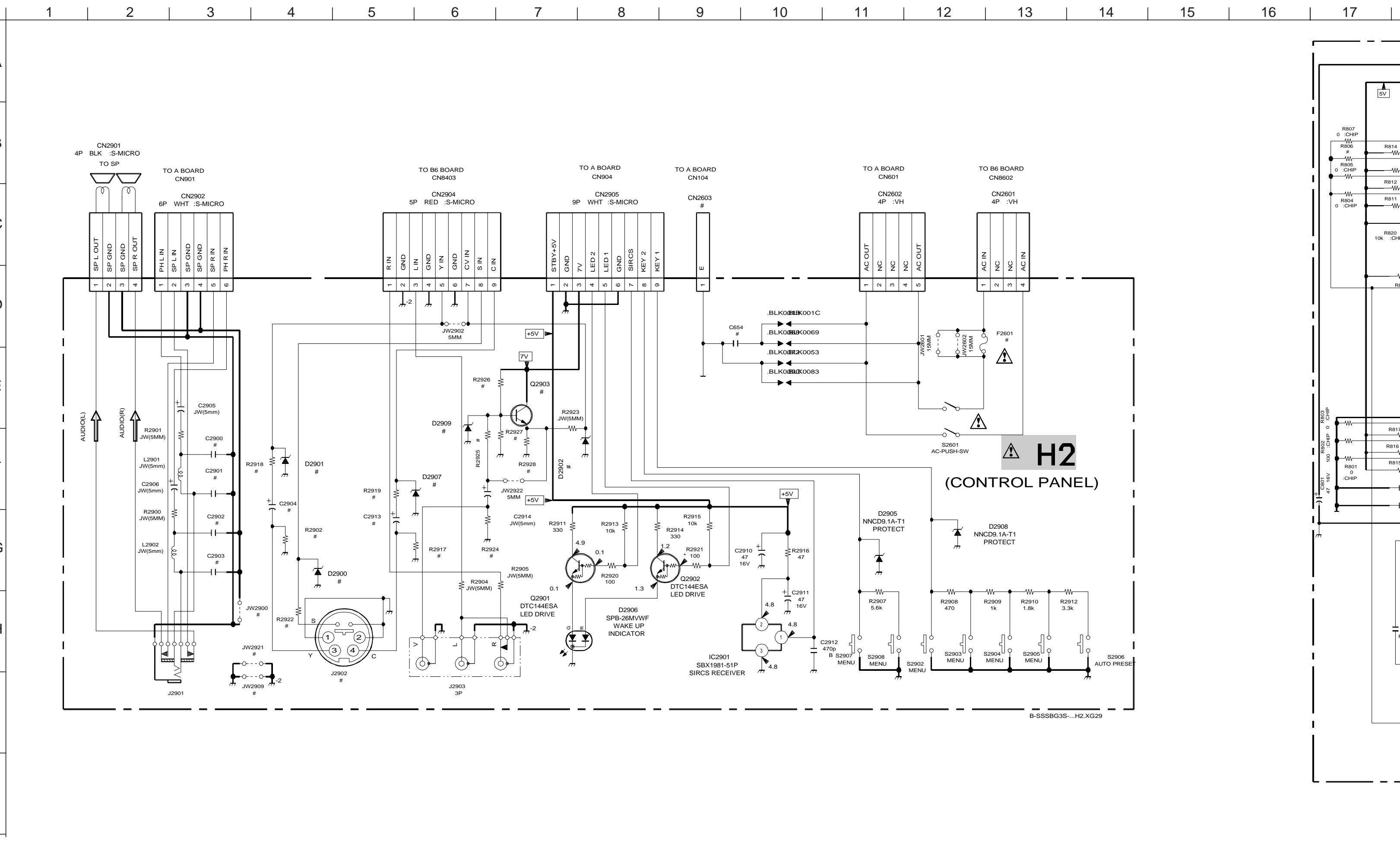
– V1 Board –



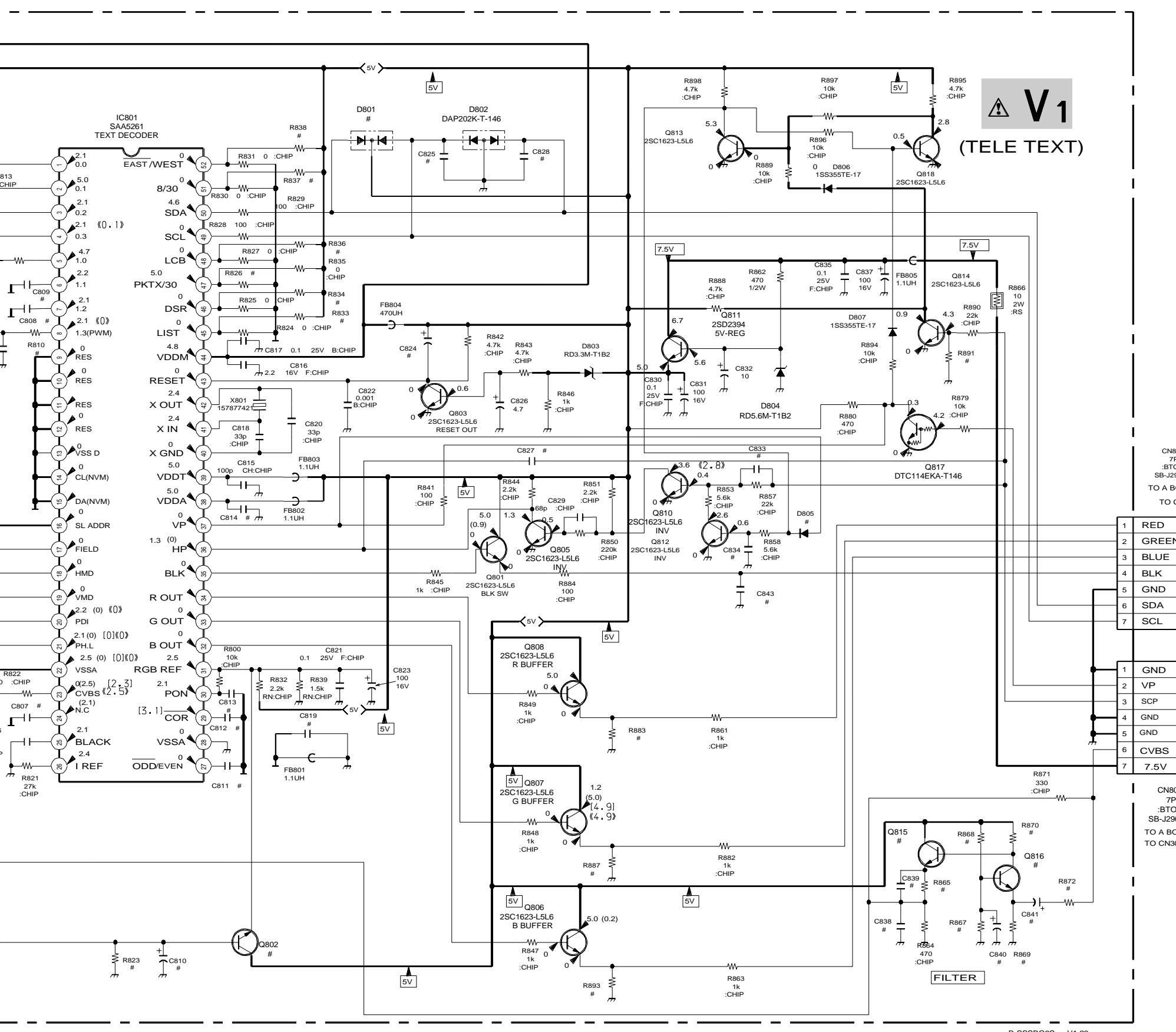
– H2 Board –



(5) Schematic Diagrams of H2 and V1 Boards

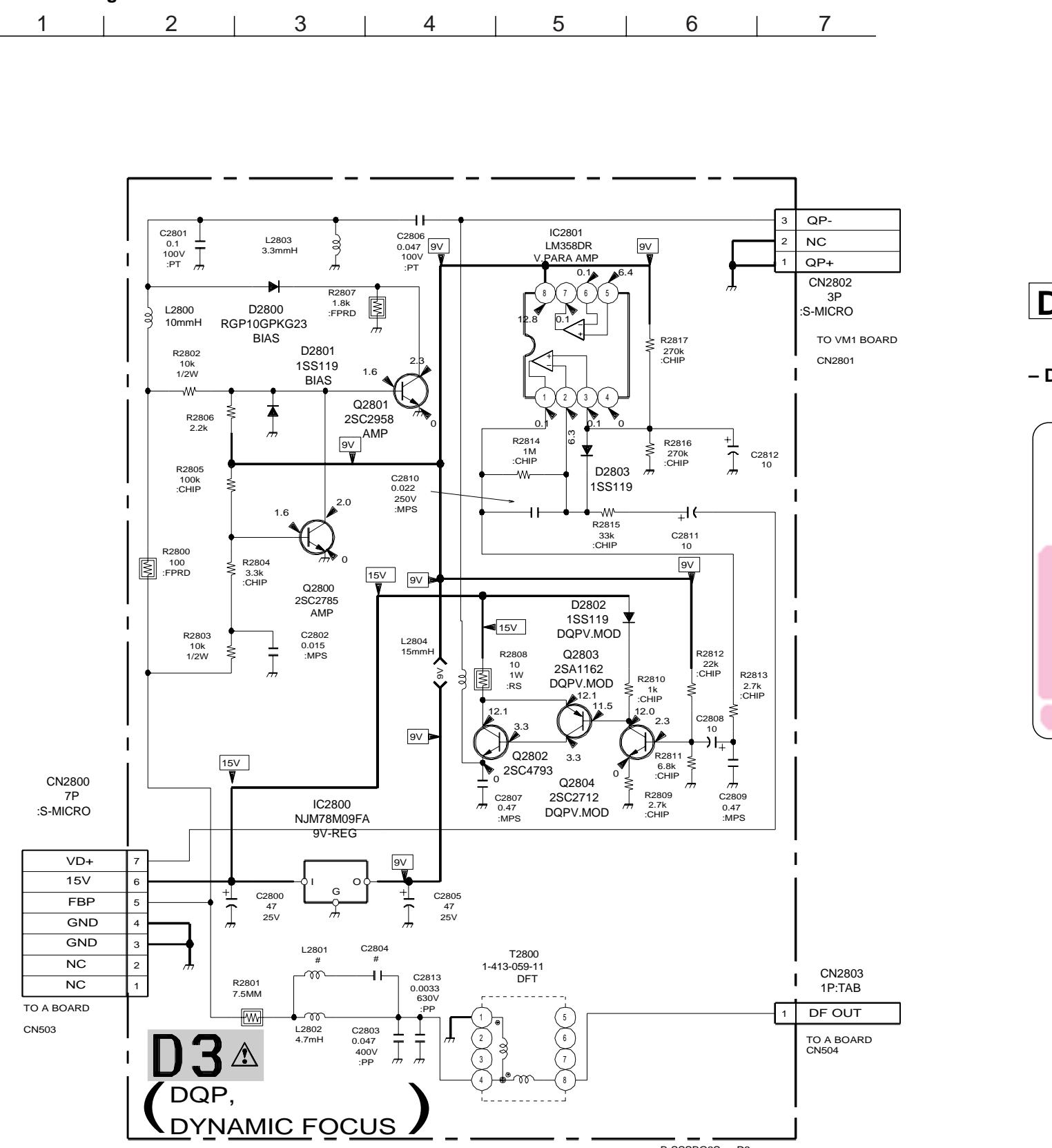


**H2
(CONTROL PANEL)**



**V1
(TELE TEXT)**

(6) Schematic Diagram of D3 Board



Schematic diagrams

H2

V1

boards

KV-XG29M61

RM-952

KV-XG29M61

RM-952

KV-XG29M61

RM-952

5-5. SEMICONDUCTORS

DIODE

AK04V0
AU-01Z-V1
D1N20R
RD20ES-B2
EL1Z
ERA22-08
GP08D
NNCD9.1A-T1
RD33EB3T
RGP02-17EL-6433



TRANSISTOR

D1NS4
D1N20R
RD3.3M-B2
RD5.6M-B2



RU4AM-T4

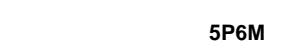


D4SB60L



ERC04-06SE

RN4Z
RS3FS
31DQ06-FC5



LED

5P6M



FMU-G26S



DAP202K



ON3171-R



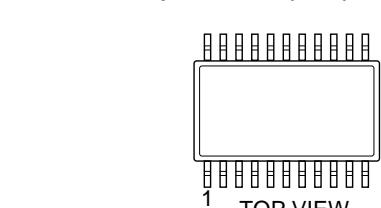
IC

CXA1315M (16PIN)
CXA1239 (48PIN)
CXP86449-627S (64PIN)
SAA5261 (48PIN)
M24C08-BN6 (8PIN)
TDA7429S (15PIN)

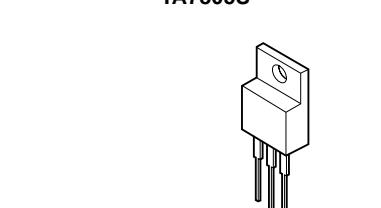


Dual In-line Package
Pin 6~98

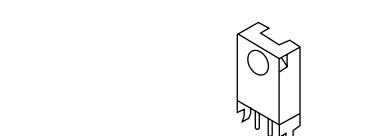
LM358 (8PIN)
MM1319AFBE (7PIN)
NJM2903M (8PIN)
μPC4558G2 (8PIN)



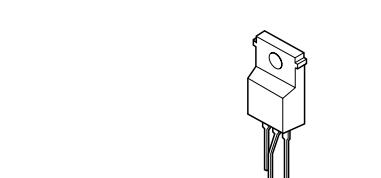
NJM78M09FA
TA7805S



SBX1981-51P

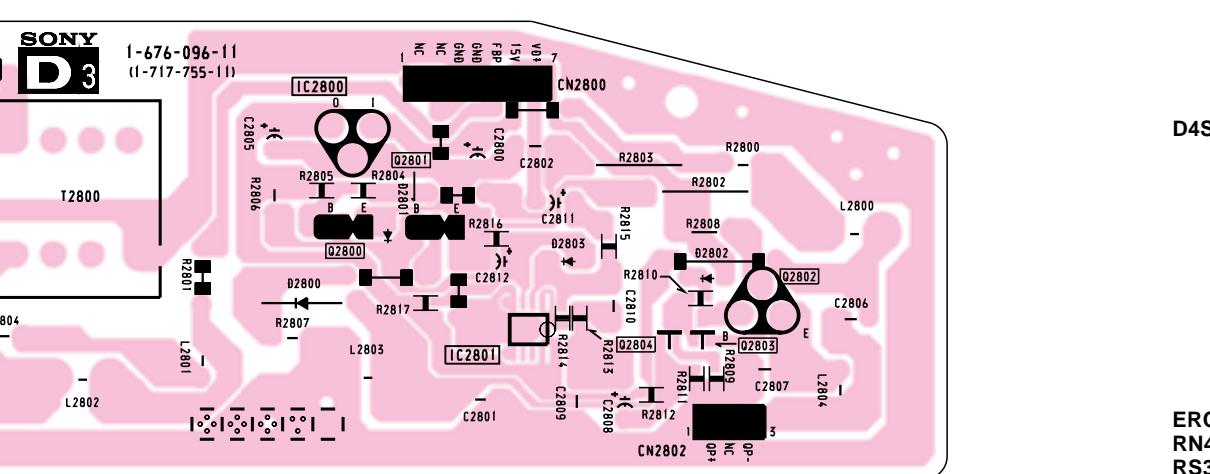


SE-135N

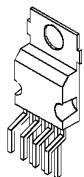


D3 [DQP, DYNAMIC FOCUS]

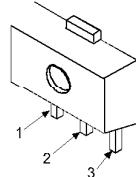
- D3 Board -



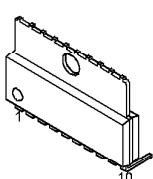
TDA8172



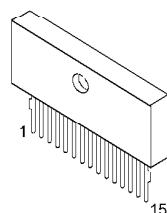
S-80743AL-A7-S



LA6510

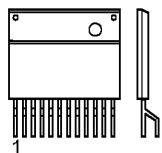


TA8223K



STR-F6656

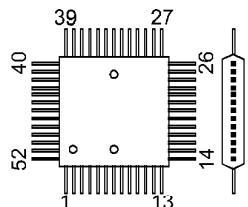
MARKING SIDE VIEW



Zig-zag In-line Package
Pin 6~99

RU-1P

MARKING SIDE
VIEW



SECTION 6

EXPLODED VIEWS

NOTE:

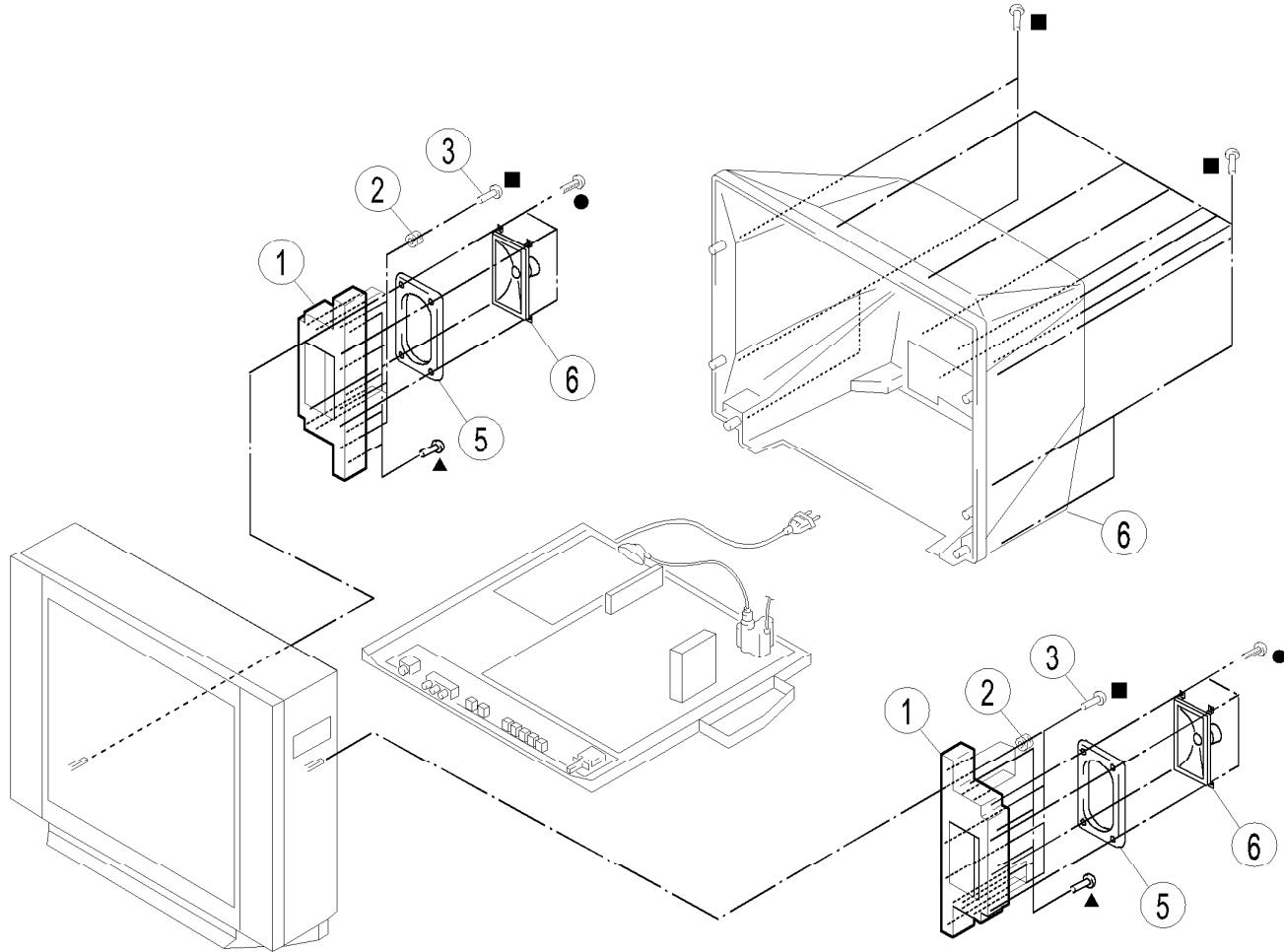
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a callout number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service.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

The components identified by shading and mark ▲ are critical for safety.

Replace only with part number specified.

6-1. SPEAKER BRACKET

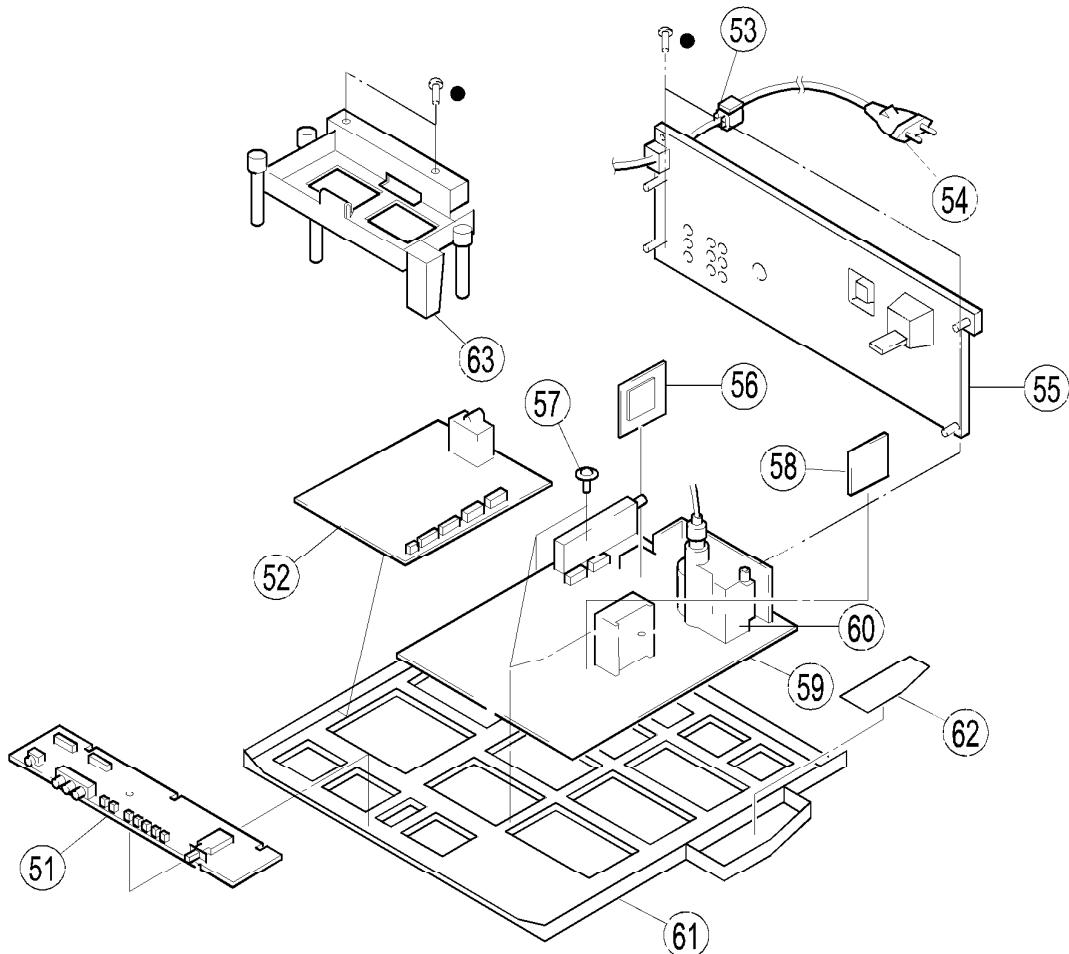
- : 7-685-663-71 SCREW +DVTP 4 x 16
 ●: 7-685-648-71 SCREW +BVTP 3 x 12
 ▲: 7-685-650-71 SCREW +BVTP 3 x 16



1	*	4-071-045-01	BRACKET, SPEAKER
2		4-374-745-21	CUSHION (A)
3		4-054-981-01	SCREW, STEP TAPPING
4		1-505-503-11	SPEAKER (15X6.5CM)
5	*	4-038-987-11	CUSHION, SPEAKER
6		4-065-506-02	COVER, REAR

6-2. CHASSIS

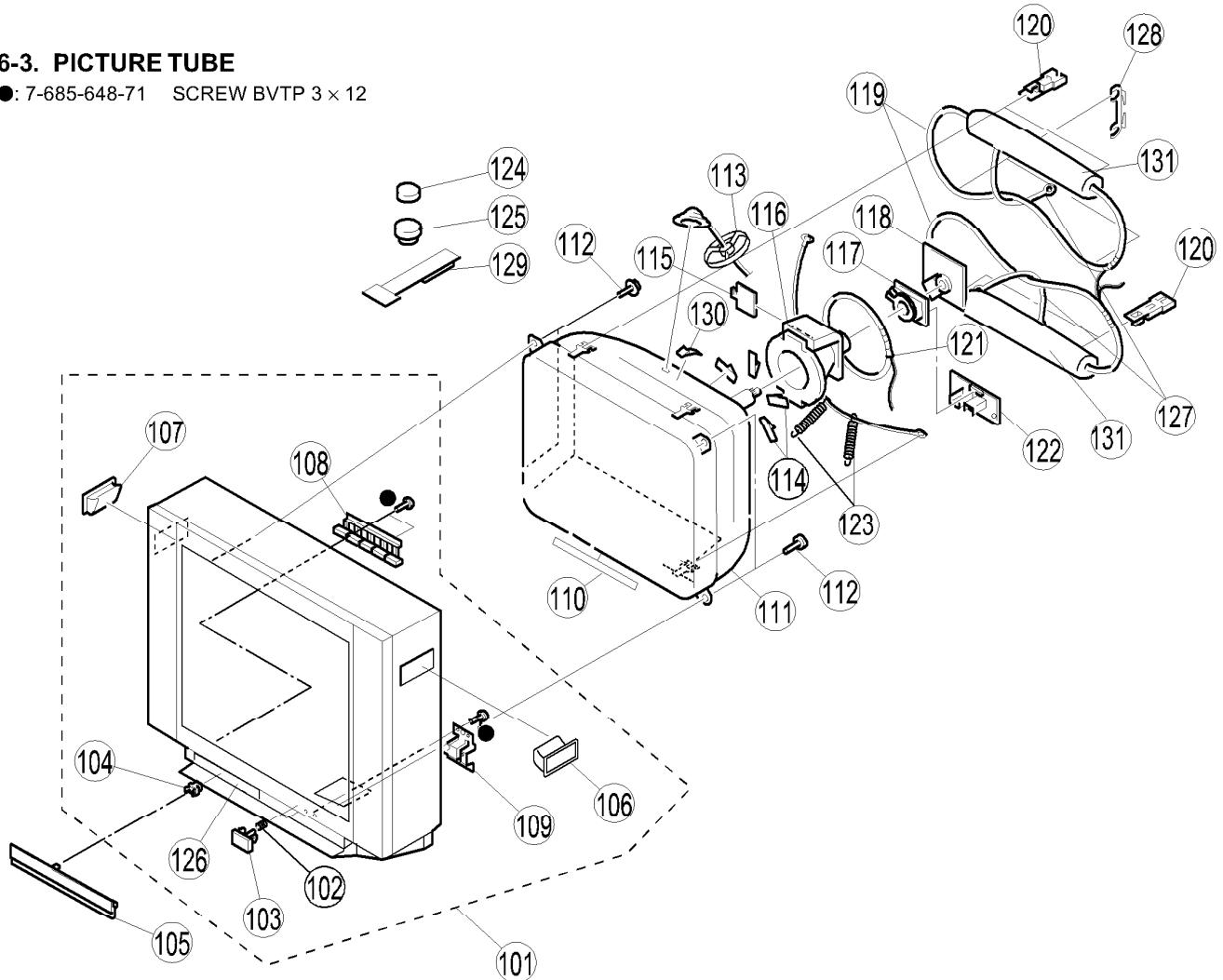
●: 7-685-648-71 SCREW BVTP 3×12



REF. NO.	PART NO.	DESCRIPTION	REMARK
51	* A-1372-742-A	H2 BOARD MOUNTED	
52	* A-1136-065-A	B6 BOARD COMPLETE	
53	4-022-115-00	HOLDER, AC CORD	
54	△ 1-574-062-11	CORD, POWER (WITH CONNECTOR) 2.5A/250V	
55	4-066-684-11	BRACKET, TERMINAL	
56	* A-1347-155-A	V1 BOARD COMPLETE	
57	4-046-797-01	SCREW (3X12), (+)BVTAP	
58	* A-1131-525-A	B2 BOARD MOUNTED	
59	* A-1299-089-A	A BOARD COMPLETE (KV-XG29M61 (Malaysia))	
	* A-1299-084-A	A BOARD COMPLETE (KV-XG29M61 (Singapore))	
60	1-453-284-11	TRANSFORMER ASSY, FLYBACK (NX-4009//M314)	
61	* 4-066-681-12	BRACKET, MAIN	
62	* A-1343-763-A	D3 BOARD MOUNTED	
63	* 4-070-963-01	HOLDER, PWB	
64	8-598-541-20	TUNER, FSS BTF-WG441	

6-3. PICTURE TUBE

●: 7-685-648-71 SCREW BVTP 3 x 12



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
101	X-4037-072-1	BEZNET ASSY	102-104, 106-109, 126	116	△ 8-451-494-31	DEFLECTION YOKE (Y29RSA-S)	
102	4-036-405-11	SPRING, COMPRESSION		117	8-453-011-11	NA299-M	
103	4-065-508-01	BUTTON, POWER		118	* A-1332-011-A	C6 BOARD MOUNTED	
104	4-047-464-01	CATCHER, PUSH		119	△ 1-419-323-11	COIL, DEGAUSSING (FOR MALAYSIA)	
105	4-071-047-01	DOOR, CONTROL		120	△ 1-419-294-11	COIL, DEGAUSSING (FOR SINGAPORE)	
106	4-070-957-01	HANDLE (R)		121	1-452-896-11	COIL, NA ROTATION (RT200)	
107	4-070-956-01	HANDLE (L)		122	* A-1342-519-A	VM1 BOARD MOUNTED	
108	4-065-509-01	BUTTON, CONTROL		123	4-369-318-61	SPRING, TENSION	
109	* 4-065-510-01	GUIDE, LIGHT		124	1-452-032-00	MAGNET,DISC	
110	4-072-569-11	SHEET, BLOTTING		125	1-452-094-00	CIRCULAR DISC MAGNET B	
111	△ 8-735-056-01	PICTURE TUBE (M68LNH070X)		126	4-032-761-01	SHAFT (S), DOOR	
112	4-046-765-12	SCREW, TAPPING 7+CROWN WASHER		127	4-068-028-31	BAND, DGC	
113	* 3-704-372-11	HOLDER, HV CABLE		128	4-064-883-11	HOLDER, DGC	
114	4-072-365-01	SPACER, DY		129	X-4387-214-3	PERMALOY ASSY, CORRECTION	
115	2-163-920-01	PLATE, TLH CORRECTION		130	4-046-600-11	SPACER, DY	
				131	* 4-063-935-11	CUSHION (50 x 550),DGC	

SECTION 7

ELECTRICAL PARTS LIST



NOTE:

The components identified by shading and mark  are critical for safety.
Replace only with part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS

- MF : μF , PF : $\mu\mu\text{F}$

COILS

- MMH : mH, UH : μH

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1299-089-A	A BOARD COMPLETE (MALAYSIA)		C207	1-136-164-00	MYLAR	0.082MF 5% 50V
	* A-1299-084-A	A BOARD COMPLETE (SINGAPORE)	*****	C208	1-126-964-11	ELECT	10MF 20% 50V
				C209	1-126-964-11	ELECT	10MF 20% 50V
	4-382-854-11	SCREW (M3X10), P, SW (+)		C210	1-126-933-11	ELECT	100MF 20% 16V
	4-382-854-21	SCREW (M3X14), P, SW (+)		C211	1-126-941-11	ELECT	470MF 20% 25V
		<CAPACITOR>		C212	1-126-933-11	ELECT	100MF 20% 16V
C004	1-163-001-11	CERAMIC CHIP	220PF 10% 50V	C213	1-126-933-11	ELECT	100MF 20% 16V
C005	1-163-001-11	CERAMIC CHIP	220PF 10% 50V	C214	1-126-942-61	ELECT	1000MF 20% 25V
C006	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C215	1-126-942-61	ELECT	1000MF 20% 25V
C007	1-104-664-11	ELECT	47MF 20% 16V	C216	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C013	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	C217	1-126-964-11	ELECT	10MF 20% 50V
C014	1-104-664-11	ELECT	47MF 20% 25V	C218	1-136-167-00	MYLAR	0.15MF 5% 50V
C015	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V	C219	1-136-167-00	MYLAR	0.15MF 5% 50V
C016	1-163-243-11	CERAMIC CHIP	47PF 5% 50V	C220	1-126-942-61	ELECT	1000MF 20% 25V
C017	1-163-113-00	CERAMIC CHIP	68PF 5% 50V	C221	1-126-964-11	ELECT	10MF 20% 50V
C019	1-104-664-11	ELECT	47MF 20% 25V	C223	1-126-965-11	ELECT	22MF 20% 50V
C022	1-163-227-11	CERAMIC CHIP	10PF 0.5PF 50V	C224	1-163-133-00	CERAMIC CHIP	470PF 5% 50V
C023	1-163-227-11	CERAMIC CHIP	10PF 0.5PF 50V	C225	1-109-982-11	CERAMIC CHIP	1MF 10% 10V
C024	1-163-227-11	CERAMIC CHIP	10PF 0.5PF 50V	C226	1-109-982-11	CERAMIC CHIP	1MF 10% 10V
C026	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C264	1-164-505-11	CERAMIC CHIP	2.2MF 16V
C027	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C265	1-164-505-11	CERAMIC CHIP	2.2MF 16V
C028	1-163-037-11	CERAMIC CHIP	0.022MF 10% 50V	C301	1-126-935-11	ELECT	470MF 20% 16V
C030	1-126-965-11	ELECT	22MF 20% 50V	C302	1-163-005-11	CERAMIC CHIP	470PF 10% 50V
C031	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C303	1-126-964-11	ELECT	10MF 20% 50V
C032	1-107-823-11	CERAMIC CHIP	0.47MF 10% 16V	C304	1-126-967-11	ELECT	47MF 20% 50V
C034	1-163-031-11	CERAMIC CHIP	0.01MF 50V	C305	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C041	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C306	1-163-233-11	CERAMIC CHIP	18PF 5% 50V
C042	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C307	1-163-233-11	CERAMIC CHIP	18PF 5% 50V
C044	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C308	1-163-259-91	CERAMIC CHIP	220PF 5% 50V
C047	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C309	1-126-957-11	ELECT	0.22MF 20% 50V
C055	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C310	1-126-963-11	ELECT	4.7MF 20% 50V
C103	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C311	1-126-964-11	ELECT	10MF 20% 50V
C104	1-104-665-11	ELECT	100MF 20% 10V	C312	1-164-346-11	CERAMIC CHIP	1MF 16V
C107	1-163-005-11	CERAMIC CHIP	470PF 10% 50V	C313	1-164-346-11	CERAMIC CHIP	1MF 16V
C108	1-104-664-11	ELECT	47MF 20% 16V	C315	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C109	1-163-005-11	CERAMIC CHIP	470PF 10% 50V	C316	1-104-664-11	ELECT	47MF 20% 25V
C110	1-163-005-11	CERAMIC CHIP	470PF 10% 50V	C317	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C111	1-163-005-11	CFRAMIC CHIP	470PF 10% 50V	C318	1-163-031-11	CERAMIC CHIP	0.01MF 50V
C112	1-104-664-11	ELECT	47MF 20% 16V	C319	1-163-031-11	CERAMIC CHIP	0.01MF 50V
C113	1-104-664-11	ELECT	47MF 20% 25V	C320	1-163-031-11	CERAMIC CHIP	0.01MF 50V
C114	1-126-967-11	ELECT	47MF 20% 50V	C322	1-163-005-11	CERAMIC CHIP	470PF 10% 50V
C202	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	C323	1-126-965-11	ELECT	22MF 20% 50V
C203	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	C324	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V
C204	1-136-164-00	MYLAR	0.082MF 5% 50V	C325	1-126-960-11	ELECT	1MF 20% 50V
C205	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V	C327	1-126-965-11	ELECT	22MF 20% 50V
C206	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V	C328	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
				C329	1-126-965-11	ELECT	22MF 20% 50V

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The components identified by shading
and mark Δ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK								
C330	I-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	C577	I-106-395-00	MYLAR	0.15MF	10%	200V
C331	I-126-963-11	ELECT	4.7MF	20%	50V	C582	I-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C332	I-126-963-11	ELECT	4.7MF	20%	50V	C584	I-163-251-11	CERAMIC CHIP	100PF	5%	50V
C335	I-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	C586	I-163-251-11	CERAMIC CHIP	100PF	5%	50V
C336	I-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	C600	Δ I-104-705-11	MYLAR	0.1MF	20%	250V
C337	I-126-961-11	ELECT	2.2MF	20%	50V	C601	I-102-050-00	CERAMIC	0.01MF	99%	500V
C338	I-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	C602	Δ I-104-705-11	MYLAR	0.1MF	20%	250V
C341	I-115-340-11	CERAMIC CHIP	0.22MF	10%	25V	C603	I-104-664-11	ELEC1	4/MF	20%	25V
C342	I-163-259-91	CERAMIC CHIP	220PF	5%	50V	C604	I-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C502	I-163-145-00	CERAMIC CHIP	0.0015MF	5%	50V	C605	Δ I-119-886-51	CERAMIC	470PF	10%	250V
C503	I-126-964-11	ELECT	10MF	20%	50V	C606	Δ I-119-886-51	CERAMIC	470PF	10%	250V
C506	I-107-638-11	ELECT	33MF	20%	160V	C607	I-161-830-00	CERAMIC	0.0047MF	99%	500V
C507	I-161-830-00	CERAMIC	0.0047MF		500V	C608	I-161-830-00	CERAMIC	0.0047MF	99%	500V
C510	I-102-112-00	CERAMIC	330PF	10%	50V	C609	I-126-968-11	ELECT	100MF	20%	50V
C513	I-163-263-11	CERAMIC CHIP	330PF	5%	50V	C610	I-126-964-11	ELECT	10MF	20%	50V
C514	I-106-383-00	MYLAR	0.047MF	10%	200V	C611	I-161-830-00	CERAMIC	0.0047MF	99%	500V
C517	I-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V	C612	I-161-830-00	CERAMIC	0.0047MF	99%	500V
C518	I-104-665-11	ELECT	100MF	20%	10V	C613	I-125-906-11	ELECT	560MF	20%	450V
C519	I-102-212-00	CERAMIC	820PF	10%	500V	C614	I-126-964-11	ELECT	10MF	20%	50V
C521	I-126-934-11	ELECT	220MF	20%	16V	C615	Δ I-119-886-51	CERAMIC	470PF	10%	250V
C522	I-126-933-11	ELECT	100MF	20%	16V	C616	I-130-202-00	FILM	0.022MF	5%	400V
C523	I-102-002-00	CERAMIC	680PF	10%	500V	C617	I-107-792-11	CERAMIC	100PF	5%	1KV
C524	I-126-967-11	ELECT	47MF	20%	50V	C618	I-125-893-11	FILM	680PF	3%	1.5KV
C526	I-130-495-00	MYLAR	0.1MF	5%	50V	C619	Δ I-119-886-51	CERAMIC	470PF	10%	250V
C527	I-102-820-00	CERAMIC	330PF	5%	50V	C620	I-163-133-00	CERAMIC CHIP	470PF	5%	50V
C528	I-162-116-00	CERAMIC	680PF	10%	2KV	C621	I-102-114-00	CERAMIC	470PF	10%	50V
C530	I-137-372-11	MYLAR	0.022MF	5%	50V	C622	I-102-119-00	CERAMIC	0.0015MF	10%	50V
C531	I-107-903-11	ELECT	2.2MF	20%	50V	C623	I-104-665-11	ELECT	100MF	20%	25V
C532	I-126-941-11	ELECT	470MF	20%	25V	C624	I-125-772-91	CERAMIC	1500PF	10%	2KV
C533	I-126-941-11	ELECT	470MF	20%	25V	C626	I-102-002-00	CERAMIC	680PF	10%	500V
C536	I-136-165-00	MYLAR	0.1MF	5%	50V	C627	I-102-002-00	CERAMIC	680PF	10%	500V
C537	I-126-969-11	ELECT	220MF	20%	50V	C628	I-126-942-61	ELECT	1000MF	20%	25V
C538	I-136-617-11	FILM	0.019MF	3%	2KV	C629	I-126-964-11	ELECT	10MF	20%	50V
C539	I-129-723-00	FILM	0.056MF	5%	630V	C630	I-125-494-11	ELECT(BLOCK)	560MF	20%	160V
C540	I-136-171-00	MYLAR	0.33MF	5%	50V	C632	I-128-339-11	ELECT	2200MF	20%	16V
C546	I-165-319-11	CERAMIC CHIP	0.1MF		50V	C633	I-104-999-11	MYLAR	0.1MF	10%	200V
C549	I-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	C634	I-126-933-11	ELECT	100MF	20%	16V
C550	I-106-220-00	MYLAR	0.1MF	10%	100V	C635	I-104-663-11	ELECT	100MF	20%	10V
C551	I-126-960-11	ELECT	1MF	20%	50V	C636	I-104-760-11	CERAMIC CHIP	0.047MF	10%	50V
C552	I-162-116-00	CERAMIC	680PF	10%	2KV	C641	I-102-002-00	CERAMIC	680PF	10%	500V
C553	I-162-116-00	CERAMIC	680PF	10%	2KV	C642	I-126-943-11	ELECT	2200MF	20%	25V
C554	I-137-417-11	MYLAR	0.0047MF	10%	200V	C643	I-104-665-11	ELECT	100MF	20%	10V
C556	I-126-941-11	ELECT	470MF	20%	25V	C644	I-104-331-11	CERAMIC	0.0022MF	10%	1KV
C557	I-126-941-11	ELECT	470MF	20%	25V	C645	I-137-605-11	MYLAR	0.01MF	10%	250V
C558	I-123-024-21	ELECT	33MF		160V	C646	I-107-679-91	ELECT	10MF	20%	450V
C560	I-102-228-00	CERAMIC	470PF	10%	500V	C647	I-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C561	I-129-898-00	FILM	0.0022MF	5%	630V	C649	I-126-940-11	ELECT	330MF	20%	25V
C562	I-102-228-00	CERAMIC	470PF	10%	500V	C650	I-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C564	I-163-038-91	CERAMIC CHIP	0.1MF		25V	C651	I-163-133-00	CERAMIC CHIP	470PF	5%	50V
C565	I-107-655-11	ELECT	47MF	20%	250V	C652	I-126-965-11	ELECT	22MF	20%	50V
C566	I-102-244-00	CERAMIC	220PF	10%	500V	C653	I-104-664-11	ELECT	47MF	20%	25V
C567	I-115-520-11	FILM	0.68MF	5%	250V	C655	Δ I-119-886-51	CERAMIC	470PF	10%	250V
C568	I-102-228-00	CERAMIC	470PF	10%	500V	C657	I-101-821-00	CERAMIC	0.0022MF		500V
C570	I-115-522-11	FILM	1MF	5%	250V	C901	I-136-153-00	MYLAR	0.01MF	5%	50V
C572	I-117-661-21	FILM	0.15MF	5%	250V	C902	I-136-153-00	MYLAR	0.01MF	5%	50V
C573	I-106-387-00	MYLAR	0.068MF	10%	200V	C912	I-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C574	I-104-709-11	ELECT	4.7MF	0	160V	C913	I-104-665-11	ELECT	100MF	20%	10V
C576	I-130-495-00	MYLAR	0.1MF	5%	50V						



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<CONNECTOR>							
CN101	* 1-564-506-11	PLUG, CONNECTOR 3P		D510	8-719-988-61	DIODE 1SS355TE-17	
CN102	* 1-564-507-11	PLUG, CONNECTOR 4P		D511	8-719-988-61	DIODE 1SS355TE-17	
CN104	1-695-915-11	TAB (CONTACT)		D512	8-719-988-61	DIODE 1SS355TE-17	
CN105	* 1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D513	8-719-908-03	DIODE GP08D	
CN106	* 1-564-506-11	PLUG, CONNECTOR 3P		D517	8-719-312-71	DIODE RS3FS	
CN202	* 1-508-847-00	PIN, CONNECTOR 4P		D518	8-719-074-35	DIODE RU4AM-T4	
CN204	* 1-564-506-11	PLUG, CONNECTOR 3P		D519	8-719-312-71	DIODE RS3FS	
CN205	* 1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D521	8-719-302-43	DIODE EL1Z	
CN301	* 1-774-813-11	CONNECTOR, BOARD TO BOARD 7P		D522	8-719-028-45	DIODE D2L20U	
CN303	* 1-564-506-11	PLUG, CONNECTOR 3P		D523	8-719-302-43	DIODE EL1Z	
CN304	* 1-766-955-11	CONNECTOR, BOARD TO BOARD 11P		D527	8-719-908-03	DIODE GP08D	
CN305	* 1-564-509-11	PLUG, CONNECTOR 6P		D528	8-719-908-03	DIODE GP08D	
CN307	* 1-774-813-11	CONNECTOR, BOARD TO BOARD 7P		D531	8-719-988-61	DIODE 1SS355TE-17	
CN501	* 1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D532	8-719-988-61	DIODE 1SS355TE-17	
CN502	* 1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D534	8-719-988-61	DIODE 1SS355TE-17	
CN503	* 1-564-510-11	PLUG, CONNECTOR 7P		D600	8-719-911-19	DIODE 1SS119-25	
CN504	1-695-915-11	TAB (CONTACT)		D602	8-719-911-19	DIODE 1SS119-25	
CN505	* 1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		D603	8-719-150-92	DIODE RD33EB3T	
CN507	* 1-564-509-11	PLUG, CONNECTOR 6P		D604	8-719-028-72	DIODE RGP02-17EL-6433	
CN508	1-695-915-11	TAB (CONTACT)		D605	8-719-510-53	DIODE D4SB60L	
CN601	* 1-580-843-11	PIN, CONNECTOR (POWER)		D606	8-719-108-18	THYRISTOR 5P6M	
CN602	* 1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		D607	8-719-073-01	DIODE MA111-(K8).S0	
CN603	* 1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D608	8-719-110-53	DIODE RD20ESB2	
CN604	* 1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P		D609	8-719-311-31	DIODE RU-1P	
CN901	* 1-564-509-11	PLUG, CONNECTOR 6P		D610	8-719-043-76	DIODE AK04V0	
CN904	* 1-564-512-11	PLUG, CONNECTOR 9P		D611	8-719-046-74	DIODE AU-01Z-V1	
CN2302	* 1-766-952-11	CONNECTOR, BOARD TO BOARD 11P		D613	8-719-046-74	DIODE AU-01Z-V1	
<DIODE>							
D001	8-719-988-61	DIODE 1SS355TE-17		D614	8-719-046-74	DIODE AU-01Z-V1	
D005	8-719-988-61	DIODE 1SS355TE-17		D617	8-719-073-84	DIODE 31DQ06-FC5	
D006	8-719-988-61	DIODE 1SS355TE-17		D618	8-719-067-18	DIODE RN4Z	
D100	8-719-073-01	DIODE MA111-(K8).S0		D620	8-719-110-72	DIODE RD30ESB2	
D203	8-719-914-42	DIODE DA204K		D622	8-719-071-39	DIODE FMU-G26S	
D300	1-216-295-91	SHORT 0		D623	8-719-978-65	DIODE DTZ-TT11-15B	
D301	8-719-988-61	DIODE 1SS355TE-17		D624	8-719-073-01	DIODE MA111-(K8).S0	
D306	8-719-988-61	DIODE 1SS355TE-17		D625	8-719-977-28	DIODE DTZ10B	
D307	8-719-988-61	DIODE 1SS355TE-17		D627	8-719-073-84	DIODE 31DQ06-FC5	
D308	8-719-988-61	DIODE 1SS355TE-17		D628	8-719-911-19	DIODE 1SS119-25	
D309	8-719-069-54	DIODE UDZS-TE17-5.1B		D631	8-719-068-00	DIODE ERC04-06SE	
D311	8-719-988-61	DIODE 1SS355TE-17		D632	8-719-068-00	DIODE ERC04-06SE	
D312	8-719-988-61	DIODE 1SS355TE-17		D633	8-719-948-45	DIODE ERA22-08	
D313	8-719-988-61	DIODE 1SS355TE-17		D634	8-719-073-01	DIODE MA111-(K8).S0	
D314	8-719-988-61	DIODE 1SS355TE-17		D635	8-719-073-01	DIODE MA111-(K8).S0	
D315	8-719-988-61	DIODE 1SS355TE-17		D636	8-719-510-02	DIODE D1NS4	
D316	8-719-037-06	DIODE RD7.5SB1-T1		D637	8-719-109-96	DIODE RD6.8ESB1	
D320	8-719-069-60	DIODE UDZS-TE17-9.1B		D638	8-719-510-48	DIODE D1N20R	
D321	8-719-069-60	DIODE UDZS-TE17-9.1B		<CONNECTOR>			
D504	8-719-302-43	DIODE EL1Z		DY1	* 1-580-798-11	CONNECTOR PIN (DY) 6P	
<FERRITE BEAD>							
D505	8-719-988-61	DIODE 1SS355TE-17		FB501	1-410-397-21	FERRITE	1.1UH
D506	8-719-911-19	DIODE 1SS119-25		FB502	1-410-397-21	FERRITE	1.1UH
D507	8-719-988-61	DIODE 1SS355TE-17		FB600	1-410-397-21	FERRITE	1.1UH
D508	8-719-988-61	DIODE 1SS355TE-17		FB601	1-410-397-21	FERRITE	1.1UH
D509	1-216-073-00	RES,CHIP 10K	5% 1/10W	FB602	1-410-397-21	FERRITE	1.1UH

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The components identified by shading
and mark \triangle are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
FB603	1-410-397-21	FERRITE	1.1UH	L103	1-414-856-11	INDUCTOR	10UH
FB604	1-412-911-31	FERRITE	0UH	L104	1-414-856-11	INDUCTOR	10UH
FB606	1-412-911-31	FERRITE	0UH	L105	1-414-856-11	INDUCTOR	10UH
FB607	1-412-521-11	INDUCTOR	4.7UH	L301	1-414-189-31	INDUCTOR	100UH
FB608	1-412-911-31	FERRITE	0UH	L302	1-414-185-41	INDUCTOR	22UH
FB611	1-410-397-21	FERRITE	1.1UH	L501	1-412-525-31	INDUCTOR	10UH
FB612	1-410-397-21	FERRITE	1.1UH	L502	1-422-613-11	COIL, AIR CORE	
FB613	1-410-397-21	FERRITE	1.1UH	L503	1-412-525-31	INDUCTOR	10UH
FB615	1-412-911-31	FERRITE	0UH	L504	1-412-525-31	INDUCTOR	10UH
		<IC>		L505	1-412-525-31	INDUCTOR	10UH
IC001	8-752-910-12	IC CXP86449-627S		L506	1-412-525-31	INDUCTOR	10UH
IC002	8-759-371-21	IC MM1319AFBE		L507	1-459-111-00	INDUCTOR	10MMH
IC003	8-759-527-71	IC M24C08-BN6		L508	1-412-525-31	INDUCTOR	10UH
IC100	8-759-042-02	IC S-80743AL-A7-S		L511	1-406-977-21	INDUCTOR	100UH
IC201	8-759-336-30	IC TA8223K		L513	1-412-551-31	INDUCTOR	1.5MMH
IC301	8-752-090-41	IC CXA2139S		L515	1-459-104-00	COIL, WITH CORE	
IC502	8-759-700-07	IC NJM2903M		L518	1-414-187-11	INDUCTOR	47UH
IC503	8-759-980-58	IC TDA8172		L601	1-412-527-11	INDUCTOR	15UH
IC601	8-749-014-48	IC STR-F6656		L901	1-408-603-31	INDUCTOR	10UH
IC602	8-749-920-61	IC SE-135N		L902	1-408-603-31	INDUCTOR	10UH
IC603	8-759-701-59	IC NJM78M09FA		L905	1-414-856-11	INDUCTOR	10UH
IC604	8-759-231-53	IC TA7805S					<PHOTO COUPLER>
		<CHIP CONDUCTOR>					PH600 \triangle 8-749-924-35 PHOTO COUPLER ON3171-R
JR001	1-216-295-91	SHORT	0				<IC LINK>
JR002	1-216-295-91	SHORT	0				
JR004	1-216-295-91	SHORT	0	PS200	1-532-675-21	LINK, IC 1.5A/150V	
JR005	1-216-295-91	SHORT	0				
JR006	1-216-295-91	SHORT	0				
JR007	1-216-295-91	SHORT	0				<TRANSISTOR>
JR008	1-216-295-91	SHORT	0	Q002	8-729-230-49	TRANSISTOR 2SC2712-YG	
JR010	1-216-295-91	SHORT	0	Q003	8-729-424-08	TRANSISTOR UN2111	
JR012	1-216-295-91	SHORT	0	Q004	8-729-421-22	TRANSISTOR UN2211	
JR014	1-216-295-91	SHORT	0	Q101	8-729-230-49	TRANSISTOR 2SC2712-YG	
JR015	1-216-295-91	SHORT	0	Q201	8-729-424-67	TRANSISTOR UN2216	
JR016	1-216-295-91	SHORT	0	Q202	8-729-424-67	TRANSISTOR UN2216	
JR019	1-216-295-91	SHORT	0	Q203	8-729-421-19	TRANSISTOR UN2213	
JR102	1-216-295-91	SHORT	0	Q204	8-729-216-22	TRANSISTOR 2SA1162-G	
JR107	1-216-295-91	SHORT	0	Q205	8-729-421-19	TRANSISTOR UN2213	
JR202	1-216-295-91	SHORT	0	Q206	8-729-421-19	TRANSISTOR UN2213	
JR309	1-216-295-91	SHORT	0	Q207	8-729-421-19	TRANSISTOR UN2213	
JR500	1-216-295-91	SHORT	0	Q301	8-729-216-22	TRANSISTOR 2SA1162-G	
JR501	1-216-295-91	SHORT	0	Q302	8-729-230-49	TRANSISTOR 2SC2712-YG	
JR502	1-216-295-91	SHORT	0	Q303	8-729-216-22	TRANSISTOR 2SA1162-G	
JR503	1-216-295-91	SHORT	0	Q304	8-729-216-22	TRANSISTOR 2SA1162-G	
JR600	1-216-295-91	SHORT	0	Q305	8-729-216-22	TRANSISTOR 2SA1162-G	
		<COIL>		Q306	8-729-216-22	TRANSISTOR 2SA1162-G	
L002	1-414-856-11	INDUCTOR	10UH	Q307	8-729-230-49	TRANSISTOR 2SC2712-YG	
L003	1-414-180-11	INDUCTOR	3.3UH	Q308	8-729-216-22	TRANSISTOR 2SA1162-G	
L005	1-414-233-22	INDUCTOR CHIP	0UH	Q312	8-729-216-22	TRANSISTOR 2SA1162-G	
L101	1-414-856-11	INDUCTOR	10UH	Q313	8-729-230-49	TRANSISTOR 2SC2712-YG	
L102	1-414-856-11	INDUCTOR	10UH	Q315	8-729-421-19	TRANSISTOR UN2213	
				Q501	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q502	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q503	8-729-230-49	TRANSISTOR 2SC2712-YG	

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q505	8-729-931-45	TRANSISTOR IRF614		R056	1-216-073-00	RES,CHIP	10K 5% 1/10W
Q506	8-729-119-80	TRANSISTOR 2SC2688-LK		R061	1-216-033-00	RES,CHIP	220 5% 1/10W
Q507	8-729-216-22	TRANSISTOR 2SA1162-G		R062	1-216-041-00	RES,CHIP	470 5% 1/10W
Q509	8-729-230-49	TRANSISTOR 2SC2712-YG		R063	1-216-041-00	RES,CHIP	470 5% 1/10W
Q511	8-729-048-07	TRANSISTOR 2SD2578-CA		R064	1-216-041-00	RES,CHIP	470 5% 1/10W
Q600	8-729-119-78	TRANSISTOR 2SC2785-HFE		R065	1-216-041-00	RES,CHIP	470 5% 1/10W
Q601	8-729-023-22	TRANSISTOR 2SD2114K		R066	1-216-049-91	RES,CHIP	1K 5% 1/10W
Q602	8-729-230-49	TRANSISTOR 2SC2712-YG		R067	1-216-049-91	RES,CHIP	1K 5% 1/10W
Q603	8-729-424-08	TRANSISTOR UN2111		R101	1-216-025-91	RES,CHIP	100 5% 1/10W
Q604	8-729-200-17	TRANSISTOR 2SA1091-O		R102	1-216-025-91	RES,CHIP	100 5% 1/10W
Q605	8-729-044-30	TRANSISTOR 2SK2845-LB102		R105	1-216-295-91	SHORT	0
Q606	8-729-230-49	TRANSISTOR 2SC2712-YG		R109	1-216-041-00	RES,CHIP	470 5% 1/10W
Q607	8-729-922-37	TRANSISTOR 2SD2144S-UVW		R111	1-216-025-91	RES,CHIP	100 5% 1/10W
Q608	8-729-230-49	TRANSISTOR 2SC2712-YG		R112	1-216-025-91	RES,CHIP	100 5% 1/10W
<RESISTOR>				R113	1-216-047-91	RES,CHIP	820 5% 1/10W
R001	1-414-233-22	INDUCTOR CHIP 0UH		R202	1-216-053-00	RES,CHIP	1.5K 5% 1/10W
R002	1-216-025-91	RES,CHIP	100 5% 1/10W	R203	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R003	1-216-073-00	RES,CHIP	10K 5% 1/10W	R204	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R004	1-216-025-91	RES,CHIP	100 5% 1/10W	R205	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R005	1-216-025-91	RES,CHIP	100 5% 1/10W	R206	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R008	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R207	1-216-053-00	RES,CHIP	1.5K 5% 1/10W
R010	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R208	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R011	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R209	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R012	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R210	1-216-031-00	RES,CHIP	180 5% 1/10W
R013	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R212	1-216-031-00	RES,CHIP	180 5% 1/10W
R014	1-216-025-91	RES,CHIP	100 5% 1/10W	R213	1-216-073-00	RES,CHIP	10K 5% 1/10W
R015	1-216-025-91	RES,CHIP	100 5% 1/10W	R214	1-216-073-00	RES,CHIP	10K 5% 1/10W
R017	1-216-049-91	RES,CHIP	1K 5% 1/10W	R225	1-216-033-00	RES,CHIP	220 5% 1/10W
R018	1-216-033-00	RES,CHIP	220 5% 1/10W	R226	1-216-033-00	RES,CHIP	220 5% 1/10W
R019	1-216-073-00	RES,CHIP	10K 5% 1/10W	R227	1-216-033-00	RES,CHIP	220 5% 1/10W
R021	1-216-073-00	RES,CHIP	10K 5% 1/10W	R228	1-249-389-11	CARBON	4.7 5% 1/4W
R022	1-216-033-00	RES,CHIP	220 5% 1/10W	R229	1-216-073-00	RES,CHIP	10K 5% 1/10W
R024	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R230	1-216-073-00	RES,CHIP	10K 5% 1/10W
R025	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R231	1-216-295-91	SHORT	0
R026	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R234	1-249-389-11	CARBON	4.7 5% 1/4W
R027	1-216-073-00	RES,CHIP	10K 5% 1/10W	R237	1-216-308-00	RES,CHIP	4.7 5% 1/10W
R028	1-216-073-00	RES,CHIP	10K 5% 1/10W	R301	1-216-073-00	RES,CHIP	10K 5% 1/10W
R029	1-216-049-91	RES,CHIP	1K 5% 1/10W	R302	1-216-295-91	SHORT	0
R031	1-216-049-91	RES,CHIP	1K 5% 1/10W	R303	1-216-049-91	RES,CHIP	1K 5% 1/10W
R034	1-216-049-91	RES,CHIP	1K 5% 1/10W	R304	1-216-073-00	RES,CHIP	10K 5% 1/10W
R035	1-216-025-91	RES,CHIP	100 5% 1/10W	R305	1-216-051-00	RES,CHIP	1.2K 5% 1/10W
R036	1-216-025-91	RES,CHIP	100 5% 1/10W	R306	1-216-085-00	RES,CHIP	33K 5% 1/10W
R037	1-216-025-91	RES,CHIP	100 5% 1/10W	R308	1-216-025-91	RES,CHIP	100 5% 1/10W
R040	1-216-025-91	RES,CHIP	100 5% 1/10W	R309	1-216-025-91	RES,CHIP	100 5% 1/10W
R041	1-216-025-91	RES,CHIP	100 5% 1/10W	R310	1-216-025-91	RES,CHIP	100 5% 1/10W
R042	1-216-295-91	SHORT	0	R311	1-216-017-91	RES,CHIP	47 5% 1/10W
R043	1-216-049-91	RES,CHIP	1K 5% 1/10W	R312	1-216-041-00	RES,CHIP	470 5% 1/10W
R044	1-216-025-91	RES,CHIP	100 5% 1/10W	R313	1-216-053-00	RES,CHIP	1.5K 5% 1/10W
R045	1-414-233-22	INDUCTOR CHIP 0UH		R314	1-216-043-91	RES,CHIP	560 5% 1/10W
R046	1-216-049-91	RES,CHIP	1K 5% 1/10W	R315	1-216-053-00	RES,CHIP	1.5K 5% 1/10W
R047	1-414-233-22	INDUCTOR CHIP 0UH		R316	1-216-053-00	RES,CHIP	1.5K 5% 1/10W
R048	1-216-073-00	RES,CHIP	10K 5% 1/10W	R317	1-216-077-91	RES,CHIP	15K 5% 1/10W
R050	1-216-073-00	RES,CHIP	10K 5% 1/10W	R318	1-216-051-00	RES,CHIP	1.2K 5% 1/10W
R053	1-216-049-91	RES,CHIP	1K 5% 1/10W	R319	1-216-025-91	RES,CHIP	100 5% 1/10W
R055	1-216-073-00	RES,CHIP	10K 5% 1/10W	R320	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
				R321	1-216-073-00	RES,CHIP	10K 5% 1/10W
				R322	1-216-033-00	RES,CHIP	220 5% 1/10W

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R326	1-216-295-91	SHORT	0	R533	1-249-417-11	CARBON	1K 5% 1/4W
R331	1-216-295-91	SHORT	0	R534	1-216-361-00	METAL OXIDE	0.22 5% 2W F
R332	1-216-033-00	RES,CHIP	220 5% 1/10W	R535	1-216-067-00	RES,CHIP	5.6K 5% 1/10W
R333	1-216-083-00	RES,CHIP	27K 5% 1/10W	R536	1-216-067-00	RES,CHIP	5.6K 5% 1/10W
R334	1-216-129-00	RES,CHIP	2.2M 5% 1/10W	R537	1-208-804-11	METAL CHIP	8.2K 0.50% 1/10W
R335	1-216-045-00	RES,CHIP	680 5% 1/10W	R539	1-216-049-91	RES,CHIP	1K 5% 1/10W
R338	1-216-037-00	RES,CHIP	330 5% 1/10W	R540	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R340	1-216-025-91	RES,CHIP	100 5% 1/10W	R541	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R345	1-216-081-00	RES,CHIP	22K 5% 1/10W	R542	1-216-073-00	RES,CHIP	10K 5% 1/10W
R346	1-216-051-00	RES,CHIP	1.2K 5% 1/10W	R543	1-216-437-00	METAL OXIDE	5.6K 5% 1W F
R347	1-216-051-00	RES,CHIP	1.2K 5% 1/10W	R544	1-215-917-11	METAL OXIDE	1K 5% 3W F
R348	1-208-806-11	METAL CHIP	10K 0.50% 1/10W	R545	1-216-077-91	RES,CHIP	15K 5% 1/10W
R349	1-216-073-00	RES,CHIP	10K 5% 1/10W	R546	1-216-077-91	RES,CHIP	15K 5% 1/10W
R350	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R547	1-216-085-00	RES,CHIP	33K 5% 1/10W
R351	1-216-053-00	RES,CHIP	1.5K 5% 1/10W	R548	1-208-796-11	METAL CHIP	3.9K 0.50% 1/10W
R354	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R549	1-215-452-00	METAL	20K 1% 1/4W
R355	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R550	1-216-097-91	RES,CHIP	100K 5% 1/10W
R356	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R551	1-249-441-11	CARBON	100K 5% 1/4W
R357	1-216-079-00	RES,CHIP	18K 5% 1/10W	R552	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R358	1-216-049-91	RES,CHIP	1K 5% 1/10W	R553	1-215-453-00	METAL	22K 1% 1/4W
R359	1-216-033-00	RES,CHIP	220 5% 1/10W	R554	1-215-453-00	METAL	22K 1% 1/4W
R360	1-216-033-00	RES,CHIP	220 5% 1/10W	R556	1-215-437-00	METAL	4.7K 1% 1/4W
R361	1-216-073-00	RES,CHIP	10K 5% 1/10W	R558	1-247-843-11	CARBON	3.3K 5% 1/4W
R362	1-216-075-00	RES,CHIP	12K 5% 1/10W	R559	1-249-429-11	CARBON	10K 5% 1/4W
R363	1-216-079-00	RES,CHIP	18K 5% 1/10W	R560	1-216-073-00	RES,CHIP	10K 5% 1/10W
R364	1-216-295-91	SHORT	0	R561	1-216-049-91	RES,CHIP	1K 5% 1/10W
R365	1-216-033-00	RES,CHIP	220 5% 1/10W	R562	1-249-401-11	CARBON	47 5% 1/4W
R366	1-216-073-00	RES,CHIP	10K 5% 1/10W	R564	1-208-820-11	METAL CHIP	39K 0.50% 1/10W
R367	1-216-073-00	RES,CHIP	10K 5% 1/10W	R565	1-216-073-00	RES,CHIP	10K 5% 1/10W
R368	1-216-073-00	RES,CHIP	10K 5% 1/10W	R567	1-216-105-91	RES,CHIP	220K 5% 1/10W
R370	1-216-033-00	RES,CHIP	220 5% 1/10W	R568	1-249-383-11	CARBON	1.5 5% 1/4W F
R375	1-216-025-91	RES,CHIP	100 5% 1/10W	R570	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R376	1-216-081-00	RES,CHIP	22K 5% 1/10W	R571	1-215-443-00	METAL	8.2K 1% 1/4W
R377	1-216-121-91	RES,CHIP	1M 5% 1/10W	R573	1-216-083-00	RES,CHIP	27K 5% 1/10W
R378	1-216-031-00	RES,CHIP	180 5% 1/10W	R575	1-208-796-11	METAL CHIP	3.9K 0.50% 1/10W
R425	1-216-295-91	SHORT	0	R577	1-215-913-11	METAL OXIDE	220 5% 3W F
R500	1-249-417-11	CARBON	1K 5% 1/4W	R578	1-216-369-00	METAL OXIDE	1 5% 2W F
R501	1-216-049-91	RES,CHIP	1K 5% 1/10W	R579	1-216-295-91	SHORT	0
R505	1-216-699-91	METAL CHIP	100K 0.50% 1/10W	R580	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
R506	1-216-081-00	RES,CHIP	22K 5% 1/10W	R581	1-208-790-11	METAL CHIP	2.2K 0.50% 1/10W
R507	1-249-389-11	CARBON	4.7 5% 1/4W F	R582	1-208-846-11	METAL CHIP	470K 0.50% 1/10W
R508	1-216-471-11	METAL OXIDE	27 5% 3W F	R584	1-208-798-11	METAL CHIP	4.7K 0.50% 1/10W
R509	1-216-473-11	METAL OXIDE	56 5% 3W F	R587	1-216-295-91	SHORT	0
R510	1-216-449-11	METAL OXIDE	56 5% 2W F	R588	1-215-888-00	METAL OXIDE	220 5% 2W F
R511	1-215-908-00	METAL OXIDE	33 5% 3W F	R589	1-215-888-00	METAL OXIDE	220 5% 2W F
R515	1-215-911-11	METAL OXIDE	100 5% 3W F	R590	1-215-465-00	METAL	68K 1% 1/4W
R517	1-208-798-11	METAL CHIP	4.7K 0.50% 1/10W	R591	1-260-288-11	CARBON	0.47 5% 1/2W F
R518	1-247-807-31	CARBON	100 5% 1/4W	R592	1-208-820-11	METAL CHIP	39K 0.50% 1/10W
R519	1-215-913-11	METAL OXIDE	220 5% 3W F	R593	1-260-288-11	CARBON	0.47 5% 1/2W F
R520	1-215-445-00	METAL	10K 1% 1/4W	R594	1-260-288-11	CARBON	0.47 5% 1/2W F
R522	1-208-806-11	METAL CHIP	10K 0.50% 1/10W	R595	1-216-073-00	RES,CHIP	10K 5% 1/10W
R523	1-249-411-11	CARBON	330 5% 1/4W	R596	1-215-916-00	METAL OXIDE	680 5% 3W F
R525	1-218-768-11	METAL CHIP	470K 0.50% 1/10W	R597	1-247-750-11	CARBON	680 5% 1/2W F
R526	1-208-804-11	METAL CHIP	8.2K 0.50% 1/10W	R598	1-249-438-11	CARBON	56K 5% 1/4W
R527	1-216-001-00	RES,CHIP	10 5% 1/10W	R599	1-249-389-11	CARBON	4.7 5% 1/4W
R528	1-208-814-91	METAL CHIP	22K 0.50% 1/10W	R600	1-249-438-11	CARBON	56K 5% 1/4W
R529	1-208-766-11	METAL CHIP	220 0.50% 1/10W	R601	1-249-420-11	CARBON	1.8K 5% 1/4W F
R531	1-247-843-11	CARBON	3.3K 5% 1/4W				

The components identified by shading and mark \triangle are critical for safety.
Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION	REMARK		REF. NO.	PART NO.	DESCRIPTION	REMARK			
R602	1-249-389-11	CARBON	4.7	5%	1/4W F		<SWITCH>				
R603	1-215-485-00	METAL	470K	1%	1/4W	S501	1-572-707-11	SWITCH, LEVER			
R604	1-216-097-91	RES,CHIP	100K	5%	1/10W	S502	1-572-707-11	SWITCH, LEVER			
R607	1-249-425-11	CARBON	4.7K	5%	1/4W						
R608	1-240-205-91	CARBON	22M	5%	1/2W						
R609	1-216-057-00	RES,CHIP	2.2K	5%	1/10W						
R610	1-216-073-00	RES,CHIP	10K	5%	1/10W						
R611	1-216-089-91	RES,CHIP	47K	5%	1/10W	T501	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE			
R612	1-216-045-00	RES,CHIP	680	5%	1/10W	T503	▲ 8-598-831-00	FBT ASSY, NX-4009			
R614	1-216-041-00	RES,CHIP	470	5%	1/10W	T504	1-431-693-11	TRANSFORMER, HORIZONTAL LINEAR			
R615	1-216-369-00	METAL OXIDE	1	5%	2W F	T505	1-426-981-11	TRANSFORMER, FERRITE (PMT)			
R616	1-260-302-51	CARBON	6.8	5%	1/2W F	T601	1-431-536-11	TRANSFORMER, LINE FILTER			
R617	1-247-791-91	CARBON	22	5%	1/4W	T603	▲ 1-431-976-11	TRANSFORMER, CONVERTER (SRT)			
R619	1-260-128-11	CARBON	270K	5%	1/2W	T604	▲ 1-431-852-11	TRANSFORMER, CONVERTER (SRT)			
R621	1-215-859-00	METAL OXIDE	22	5%	1W F						
R623	1-216-095-00	RES,CHIP	82K	5%	1/10W						
R624	1-216-089-91	RES,CHIP	47K	5%	1/10W						
R626	1-216-049-91	RES,CHIP	1K	5%	1/10W	THP600	1-803-540-11	THERMISTOR			
R627	1-240-251-11	CMT,MELF	6.8	5%	10W						
R629	1-247-747-11	CARBON	470	5%	1/2W F						
R630	1-249-429-11	CARBON	10K	5%	1/4W F						
R631	1-216-089-91	RES,CHIP	47K	5%	1/10W	TU101	8-598-451-20	TUNER, FSS BTF-WG441			
R632	1-220-886-11	FUSIBLE	0.1	10%	1W F						
R634	▲ 1-218-265-11	METAL	8.2M	5%	1W						
R635	1-216-492-11	METAL OXIDE	82K	5%	3W F						
R636	1-215-924-00	METAL OXIDE	15K	5%	3W F						
R637	1-216-492-11	METAL OXIDE	82K	5%	3W F	X001	1-579-125-11	VIBRATOR, CERAMIC			
R639	1-216-361-21	METAL OXIDE	0.22	5%	2W F	X301	1-781-134-21	VIBRATOR, CRYSTAL			
R640	1-249-415-11	CARBON	680	5%	1/4W	X302	1-781-132-21	VIBRATOR, CRYSTAL			
R641	1-216-361-21	METAL OXIDE	0.22	5%	2W F						
R642	1-249-419-11	CARBON	1.5K	5%	1/4W						
R643	1-247-843-11	CARBON	3.3K	5%	1/4W						
R644	1-249-419-11	CARBON	1.5K	5%	1/4W						
R646	1-215-924-00	METAL OXIDE	15K	5%	3W F						
R647	1-249-387-11	CARBON	3.3	5%	1/4W						
R648	1-216-057-00	RES,CHIP	2.2K	5%	1/10W						
R649	1-249-417-11	CARBON	1K	5%	1/4W						
R650	1-215-882-00	METAL OXIDE	22	5%	2W F	CN2302*	1-766-952-11	CONNECTOR, BOARD TO BOARD 11P			
R652	1-215-900-11	METAL OXIDE	22K	5%	2W F						
R653	1-215-873-00	METAL OXIDE	4.7K	5%	1W F						
R656	1-249-417-11	CARBON	1K	5%	1/4W						
R657	1-260-127-11	CARBON	220K	5%	1/2W						
R659	1-216-049-91	RES,CHIP	1K	5%	1/10W						
R660	1-216-073-00	RES,CHIP	10K	5%	1/10W						
R661	1-215-873-00	METAL OXIDE	4.7K	5%	1W F						
R682	1-249-377-11	CARBON	0.47	5%	1/4W F						
R901	1-249-411-11	CARBON	330	5%	1/4W						
R902	1-249-411-11	CARBON	330	5%	1/4W						
R909	1-216-065-91	RES,CHIP	4.7K	5%	1/10W						
R910	1-216-065-91	RES,CHIP	4.7K	5%	1/10W						
***** * A-1131-525-A B2 BOARD MOUNTED *****											
***** * A-1136-065-A B6 BOARD COMPLETE *****											
***** * 1-533-223-11 CLIP, FUSE *****											
***** * 4-374-846-01 COVER, CAPACITOR, CAP TYPE *****											
<RELAY>											
<CAPACITOR>											
RY600	▲ 1-755-276-21	RELAY, POWER				C8227	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
RY601	▲ 1-755-299-11	RELAY				C8228	1-163-024-00	CERAMIC CHIP	0.018MF	10%	50V
						C8229	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V
						C8230	1-163-024-00	CERAMIC CHIP	0.018MF	10%	50V
						C8231	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V

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REF. NO.	PART NO.	DESCRIPTION	REMARK		REF. NO.	PART NO.	DESCRIPTION	REMARK			
C8232	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V	C8579	1-126-967-11	ELECT	47MF	20%	50V
C8233	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	C8580	1-165-319-11	CERAMIC CHIP	0.1MF	50V	
C8234	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	C8581	1-165-319-11	CERAMIC CHIP	0.1MF	50V	
C8235	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	C8601 \triangle	1-104-708-11	MYLAR	0.47MF	20%	250V
C8236	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	C8602 \triangle	1-109-835-11	MYLAR	0.68MF	20%	250V
C8238	1-164-505-11	CERAMIC CHIP	2.2MF		16V	C8654 \triangle	1-117-703-11	CERAMIC	0.0047MF	99%	250V
C8240	1-164-505-11	CERAMIC CHIP	2.2MF		16V						
C8241	1-164-346-11	CERAMIC CHIP	1MF		16V						
C8242	1-164-505-11	CERAMIC CHIP	2.2MF		16V						
C8243	1-164-346-11	CERAMIC CHIP	1MF		16V						
C8244	1-164-700-11	CERAMIC CHIP	0.68MF		16V	CN8300*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P			
C8245	1-164-346-11	CERAMIC CHIP	1MF		16V	CN8401*	1-564-509-11	PLUG, CONNECTOR 6P			
C8246	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V	CN8402*	1-564-513-11	PLUG, CONNECTOR 10P			
C8247	1-164-346-11	CERAMIC CHIP	1MF		16V	CN8403*	1-564-510-11	PLUG, CONNECTOR 7P			
C8248	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V	CN8501*	1-564-506-11	PLUG, CONNECTOR 3P			
C8249	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	CN8601*	1-580-843-11	PIN, CONNECTOR (POWER)			
C8250	1-164-346-11	CERAMIC CHIP	1MF		16V	CN8602*	1-580-843-11	PIN, CONNECTOR (POWER)			
C8251	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	CN8603	1-695-915-11	TAB (CONTACT)			
C8252	1-164-346-11	CERAMIC CHIP	1MF		16V						
C8253	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V						
C8254	1-126-965-11	ELECT	22MF	20%	50V	D8300	8-719-158-35	DIODE RD9.1SB			
C8255	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V	D8401	8-719-158-35	DIODE RD9.1SB			
C8258	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	D8402	8-719-158-35	DIODE RD9.1SB			
C8259	1-126-933-11	ELECT	100MF	20%	16V	D8403	8-719-158-35	DIODE RD9.1SB			
C8260	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	D8404	8-719-158-35	DIODE RD9.1SB			
C8261	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	D8405	8-719-158-35	DIODE RD9.1SB			
C8263	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	D8406	8-719-158-35	DIODE RD9.1SB			
C8301	1-126-933-11	ELECT	100MF	20%	16V	D8407	8-719-158-35	DIODE RD9.1SB			
C8304	1-126-967-11	ELECT	47MF	20%	50V	D8408	8-719-158-35	DIODE RD9.1SB			
C8305	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	D8409	8-719-158-35	DIODE RD9.1SB			
C8333	1-126-964-11	ELECT	10MF	20%	50V	D8410	8-719-158-35	DIODE RD9.1SB			
C8401	1-164-346-11	CERAMIC CHIP	1MF		16V	D8411	8-719-158-35	DIODE RD9.1SB			
C8402	1-164-346-11	CERAMIC CHIP	1MF		16V	D8412	8-719-914-42	DIODE DA204K			
C8403	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	D8413	8-719-158-35	DIODE RD9.1SB			
C8404	1-163-005-11	CERAMIC CHIP	470PF	10%	50V						
C8405	1-126-935-11	ELECT	470MF	20%	16V						
C8406	1-164-346-11	CERAMIC CHIP	1MF		16V						
C8407	1-164-346-11	CERAMIC CHIP	1MF		16V						
C8408	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	F8601 \triangle	1-532-299-00	FUSE, TIME-LAG 5A/250V			
C8409	1-126-933-11	ELECT	100MF	20%	16V						
C8410	1-164-346-11	CERAMIC CHIP	1MF		16V						
C8411	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	IC8203	8-759-553-40	IC TDA7429S			
C8412	1-164-346-11	CERAMIC CHIP	1MF		16V	IC8204	8-759-100-96	IC UPC4558G2			
C8413	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	IC8501	8-752-058-68	IC CXA1315M			
C8414	1-126-963-11	ELECT	4.7MF	20%	50V						
C8415	1-163-133-00	CERAMIC CHIP	470PF	5%	50V						
C8416	1-164-346-11	CERAMIC CHIP	1MF		16V						
C8417	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	J8402	1-778-388-11	JACK BLOCK, PIN 9P			
C8418	1-164-346-11	CERAMIC CHIP	1MF		16V						
C8419	1-163-133-00	CERAMIC CHIP	470PF	5%	50V						
C8571	1-163-263-11	CERAMIC CHIP	330PF	5%	50V						
C8572	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V						
C8574	1-216-295-91	SHORT	0			JR8206	1-216-295-91	SHORT	0		
C8575	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	JR8401	1-216-295-91	SHORT	0		
C8576	1-104-661-91	ELECT	330MF	20%	16V						
C8577	1-165-319-11	CERAMIC CHIP	0.1MF		50V						
C8578	1-165-319-11	CERAMIC CHIP	0.1MF		50V						
						L8204	1-414-856-11	INDUCTOR	10UH		
						L8301	1-414-189-31	INDUCTOR	100UH		

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
L8502	1-414-856-11	INDUCTOR	10UH	R8411	1-216-113-00	RES,CHIP	470K 5% 1/10W				
L8570	1-410-470-11	INDUCTOR	10UH	R8412	1-216-041-00	RES,CHIP	470 5% 1/10W				
\triangle TRANSISTOR											
Q8309	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R8413	1-216-021-00	RES,CHIP	68 5% 1/10W				
Q8310	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R8414	1-216-113-00	RES,CHIP	470K 5% 1/10W				
Q8401	8-729-424-67	TRANSISTOR UN2216		R8415	1-216-113-00	RES,CHIP	470K 5% 1/10W				
Q8402	8-729-424-67	TRANSISTOR UN2216		R8416	1-216-089-91	RES,CHIP	47K 5% 1/10W				
Q8403	8-729-216-22	TRANSISTOR 2SA1162-G		R8417	1-216-089-91	RES,CHIP	47K 5% 1/10W				
Q8404	8-729-216-22	TRANSISTOR 2SA1162-G		R8418	1-216-113-00	RES,CHIP	470K 5% 1/10W				
Q8571	8-729-230-49	TRANSISTOR 2SC2712-YG		R8419	1-216-022-00	RES,CHIP	75 5% 1/10W				
Q8572	8-729-230-49	TRANSISTOR 2SC2712-YG		R8420	1-216-113-00	RES,CHIP	470K 5% 1/10W				
Q8573	8-729-216-22	TRANSISTOR 2SA1162-G		R8421	1-216-077-91	RES,CHIP	15K 5% 1/10W				
Q8574	8-729-230-49	TRANSISTOR 2SC2712-YG		R8422	1-216-077-91	RES,CHIP	15K 5% 1/10W				
Q8575	8-729-216-22	TRANSISTOR 2SA1162-G		R8423	1-216-113-00	RES,CHIP	470K 5% 1/10W				
Q8576	8-729-216-22	TRANSISTOR 2SA1162-G		R8424	1-216-022-00	RES,CHIP	75 5% 1/10W				
Q8577	8-729-216-22	TRANSISTOR 2SA1162-G		R8425	1-216-033-00	RES,CHIP	220 5% 1/10W				
\triangle RESISTOR											
R8215	1-216-059-00	RES,CHIP	2.7K 5% 1/10W	R8426	1-216-033-00	RES,CHIP	220 5% 1/10W				
R8216	1-216-059-00	RES,CHIP	2.7K 5% 1/10W	R8427	1-216-089-91	RES,CHIP	47K 5% 1/10W				
R8217	1-216-067-00	RES,CHIP	5.6K 5% 1/10W	R8428	1-216-113-00	RES,CHIP	470K 5% 1/10W				
R8218	1-216-067-00	RES,CHIP	5.6K 5% 1/10W	R8429	1-216-089-91	RES,CHIP	47K 5% 1/10W				
R8219	1-216-025-91	RES,CHIP	100 5% 1/10W	R8430	1-216-113-00	RES,CHIP	470K 5% 1/10W				
R8220	1-216-025-91	RES,CHIP	100 5% 1/10W	R8570	1-216-021-00	RES,CHIP	68 5% 1/10W				
R8221	1-216-689-11	RES,CHIP	39K 5% 1/10W	R8571	1-216-645-11	METAL CHIP	560 0.50% 1/10W				
R8222	1-216-689-11	RES,CHIP	39K 5% 1/10W	R8572	1-216-061-00	RES,CHIP	3.3K 5% 1/10W				
R8223	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R8573	1-216-073-00	RES,CHIP	10K 5% 1/10W				
R8224	1-216-073-00	RES,CHIP	10K 5% 1/10W	R8574	1-216-667-11	METAL CHIP	4.7K 0.50% 1/10W				
R8225	1-216-069-00	RES,CHIP	6.8K 5% 1/10W	R8575	1-216-081-00	RES,CHIP	22K 5% 1/10W				
R8226	1-216-069-00	RES,CHIP	6.8K 5% 1/10W	R8577	1-216-049-91	RES,CHIP	1K 5% 1/10W				
R8228	1-216-067-00	RES,CHIP	5.6K 5% 1/10W	R8578	1-216-033-00	RES,CHIP	220 5% 1/10W				
R8229	1-216-067-00	RES,CHIP	5.6K 5% 1/10W	R8579	1-216-049-91	RES,CHIP	1K 5% 1/10W				
R8240	1-216-689-11	RES,CHIP	39K 5% 1/10W	R8580	1-216-049-91	RES,CHIP	1K 5% 1/10W				
R8241	1-216-067-00	RES,CHIP	5.6K 5% 1/10W	R8581	1-216-675-91	METAL CHIP	10K 0.50% 1/10W				
R8242	1-216-067-00	RES,CHIP	5.6K 5% 1/10W	R8582	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W				
R8243	1-216-689-11	RES,CHIP	39K 5% 1/10W	R8583	1-216-675-91	METAL CHIP	10K 0.50% 1/10W				
R8334	1-216-022-00	RES,CHIP	75 5% 1/10W	R8584	1-216-675-91	METAL CHIP	10K 0.50% 1/10W				
R8335	1-216-033-00	RES,CHIP	220 5% 1/10W	R8585	1-216-675-91	METAL CHIP	10K 0.50% 1/10W				
R8336	1-216-041-00	RES,CHIP	470 5% 1/10W	R8586	1-216-679-11	METAL CHIP	15K 0.50% 1/10W				
R8337	1-216-045-00	RES,CHIP	680 5% 1/10W	R8589	1-216-073-00	RES,CHIP	10K 5% 1/10W				
R8339	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R8590	1-216-073-00	RES,CHIP	10K 5% 1/10W				
R8341	1-216-045-00	RES,CHIP	680 5% 1/10W	R8591	1-216-073-00	RES,CHIP	10K 5% 1/10W				
R8342	1-216-049-91	RES,CHIP	1K 5% 1/10W	R8592	1-216-073-00	RES,CHIP	10K 5% 1/10W				
R8343	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R8593	1-216-057-00	RES,CHIP	2.2K 5% 1/10W				
R8344	1-216-073-00	RES,CHIP	10K 5% 1/10W	R8594	1-216-057-00	RES,CHIP	2.2K 5% 1/10W				
R8401	1-216-049-91	RES,CHIP	1K 5% 1/10W	R8595	1-216-057-00	RES,CHIP	2.2K 5% 1/10W				
R8402	1-216-073-00	RES,CHIP	10K 5% 1/10W	R8596	1-216-057-00	RES,CHIP	2.2K 5% 1/10W				
R8403	1-216-073-00	RES,CHIP	10K 5% 1/10W	R8598	1-216-025-91	RES,CHIP	100 5% 1/10W				
R8404	1-216-073-00	RES,CHIP	10K 5% 1/10W	R8599	1-216-025-91	RES,CHIP	100 5% 1/10W				
R8405	1-216-049-91	RES,CHIP	1K 5% 1/10W	R8601	\triangle 1-202-719-00	SOLID	1M 10% 1/2W				
R8406	1-216-073-00	RES,CHIP	10K 5% 1/10W	\triangle TRANSFORMER							
R8407	1-216-049-91	RES,CHIP	1K 5% 1/10W	T8601	\triangle 1-431-536-11	TRANSFORMER, LINE FILTER					
R8408	1-216-049-91	RES,CHIP	1K 5% 1/10W	T8602	\triangle 1-431-182-11	TRANSFORMER, LINE FILTER					
\triangle VARISTOR											
R8409	1-216-041-00	RES,CHIP	470 5% 1/10W	VDR8461	\triangle 1-801-830-31	VARISTOR ERZV14D621					
R8410	1-216-113-00	RES,CHIP	470K 5% 1/10W	*****							

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1332-011-A	C6 BOARD MOUNTED				<JACK>	
		*****		J701	\triangle 1-540-071-22	SOCKET, CRT	
	4-382-854-11	SCREW (M3X10), P, SW (+)					
		<CAPACITOR>				<COIL>	
C701	1-162-114-00	CERAMIC	0.0047MF	L701	1-410-667-31	INDUCTOR	22UH
C702	1-102-074-00	CERAMIC	0.001MF	L703	1-408-611-31	INDUCTOR	47UH
C708	1-102-114-00	CERAMIC	470PF	L705	1-408-611-31	INDUCTOR	47UH
C709	1-102-114-00	CERAMIC	470PF	L707	1-408-611-31	INDUCTOR	47UH
C710	1-102-114-00	CERAMIC	470PF				
C712	1-102-114-00	CERAMIC	470PF			<TRANSISTOR>	
C713	1-102-110-00	CERAMIC	220PF	Q701	8-729-326-11	TRANSISTOR 2SC2611	
C714	1-102-113-00	CERAMIC	390PF	Q702	8-729-326-11	TRANSISTOR 2SC2611	
C716	1-126-933-11	ELECT	100MF	Q703	8-729-326-11	TRANSISTOR 2SC2611	
C717	1-107-651-11	ELECT	4.7MF	Q704	8-729-326-11	TRANSISTOR 2SC2611	
C726	1-104-664-11	ELECT	47MF	Q705	8-729-326-11	TRANSISTOR 2SC2611	
C1800	1-126-964-11	ELECT	10MF	Q706	8-729-326-11	TRANSISTOR 2SC2611	
C1803	1-126-964-11	ELECT	10MF	Q707	8-729-200-17	TRANSISTOR 2SA1091-O	
C1804	1-126-964-11	ELECT	10MF	Q708	8-729-200-17	TRANSISTOR 2SA1091-O	
C1809	1-126-942-61	ELECT	1000MF	Q709	8-729-200-17	TRANSISTOR 2SA1091-O	
				Q710	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		<CONNECTOR>		Q711	8-729-119-78	TRANSISTOR 2SC2785-HFE	
CN700	1-695-915-11	TAB (CONTACT)		Q712	8-729-119-78	TRANSISTOR 2SC2785-HFE	
CN701	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		Q714	8-729-255-12	TRANSISTOR 2SC2551-O	
CN702	1-695-915-11	TAB (CONTACT)		Q1800	8-729-119-76	TRANSISTOR 2SA1175-HFE	
CN703	* 1-564-509-11	PLUG, CONNECTOR 6P		Q1802	8-729-119-78	TRANSISTOR 2SC2785-HFE	
CN704	1-695-915-11	TAB (CONTACT)				<RESISTOR>	
CN1801*	1-564-509-11	PLUG, CONNECTOR 6P		R701	1-249-496-11	CARBON	100K 5% 1/2W
CN1802*	1-564-506-11	PLUG, CONNECTOR 3P		R705	1-216-392-11	METAL OXIDE	1.8 5% 3W F
		<DIODE>		R710	1-215-923-00	METAL OXIDE	10K 5% 3W F
D701	8-719-911-19	DIODE 1SS119-25		R711	1-260-101-11	CARBON	1.5K 5% 1/2W
D702	8-719-911-19	DIODE 1SS119-25		R712	1-215-923-00	METAL OXIDE	10K 5% 3W F
D703	8-719-911-19	DIODE 1SS119-25		R713	1-260-101-11	CARBON	1.5K 5% 1/2W
D704	8-719-911-19	DIODE 1SS119-25		R714	1-215-923-00	METAL OXIDE	10K 5% 3W F
D705	8-719-911-19	DIODE 1SS119-25		R715	1-260-101-11	CARBON	1.5K 5% 1/2W
D706	8-719-911-19	DIODE 1SS119-25		R716	1-249-405-11	CARBON	100 5% 1/4W F
D707	8-719-911-19	DIODE 1SS119-25		R717	1-249-405-11	CARBON	100 5% 1/4W F
D708	8-719-911-19	DIODE 1SS119-25		R718	1-249-405-11	CARBON	100 5% 1/4W F
D709	8-719-911-19	DIODE 1SS119-25		R719	1-215-469-00	METAL	100K 1% 1/4W
D710	8-719-911-19	DIODE 1SS119-25		R720	1-249-923-11	CARBON	1K 5% 1/4W F
D711	8-719-911-19	DIODE 1SS119-25		R722	1-249-923-11	CARBON	1K 5% 1/4W F
D712	8-719-911-19	DIODE 1SS119-25		R723	1-215-469-00	METAL	100K 1% 1/4W
D713	8-719-911-19	DIODE 1SS119-25		R724	1-249-923-11	CARBON	1K 5% 1/4W F
D714	8-719-911-19	DIODE 1SS119-25		R725	1-249-424-11	CARBON	3.9K 5% 1/4W
D715	8-719-911-19	DIODE 1SS119-25		R726	1-249-424-11	CARBON	3.9K 5% 1/4W
D716	8-719-911-19	DIODE 1SS119-25		R727	1-249-424-11	CARBON	3.9K 5% 1/4W
D717	8-719-121-26	DIODE RD9.1ESL2		R728	1-249-408-11	CARBON	180 5% 1/4W
D1803	8-719-911-19	DIODE 1SS119-25		R729	1-249-408-11	CARBON	180 5% 1/4W
D1804	8-719-911-19	DIODE 1SS119-25		R730	1-249-408-11	CARBON	180 5% 1/4W
D1808	8-719-908-03	DIODE GP08D		R731	1-249-401-11	CARBON	47 5% 1/4W
		<IC>		R732	1-249-401-11	CARBON	47 5% 1/4W
IC1800	8-759-822-38	IC LA6510		R733	1-249-401-11	CARBON	47 5% 1/4W
				R734	1-247-739-11	CARBON	100 5% 1/2W
				R738	1-247-807-31	CARBON	100 5% 1/4W

C6

D3

REF. NO.	PART NO.	DESCRIPTION	REMARK			REF. NO.	PART NO.	DESCRIPTION	REMARK				
R739	1-247-807-31	CARBON	100	5%	1/4W			<CONNECTOR>					
R740	1-247-807-31	CARBON	100	5%	1/4W			CN2800* 1-564-510-11	PLUG, CONNECTOR 7P				
R744	1-215-415-00	METAL	560	1%	1/4W			CN2801 1-695-915-11	TAB (CONTACT)				
R745	1-215-410-00	METAL	360	1%	1/4W			CN2802* 1-564-506-11	PLUG, CONNECTOR 3P				
R747	1-215-926-00	METAL OXIDE	33K	5%	3W F								
R749	1-216-490-11	METAL OXIDE	39K	5%	3W F								
R751	1-216-490-11	METAL OXIDE	39K	5%	3W F								
R753	1-249-429-11	CARBON	10K	5%	1/4W								
R755	1-249-427-11	CARBON	6.8K	5%	1/4W			D2800	8-719-302-43	DIODE EL1Z			
R756	1-249-427-11	CARBON	6.8K	5%	1/4W			D2801	8-719-911-19	DIODE 1SS119-25			
R757	1-249-427-11	CARBON	6.8K	5%	1/4W			D2802	8-719-911-19	DIODE 1SS119-25			
R758	1-249-419-11	CARBON	1.5K	5%	1/4W			D2803	8-719-911-19	DIODE 1SS119-25			
R759	1-249-419-11	CARBON	1.5K	5%	1/4W								
R760	1-249-419-11	CARBON	1.5K	5%	1/4W F								
R1800	1-249-417-11	CARBON	1K	5%	1/4W			IC2800	8-759-701-59	IC NJM78M09FA			
R1801	1-249-426-11	CARBON	5.6K	5%	1/4W			IC2801	8-759-998-98	IC LM358D			
R1802	1-249-387-11	CARBON	3.3	5%	1/4W F								
R1803	1-249-387-11	CARBON	3.3	5%	1/4W F								
R1805	1-249-429-11	CARBON	10K	5%	1/4W								
R1806	1-249-425-11	CARBON	4.7K	5%	1/4W			L2800	1-406-989-21	INDUCTOR	10MMH		
R1808	1-249-425-11	CARBON	4.7K	5%	1/4W			L2802	1-406-987-21	INDUCTOR	4.7MMH		
R1809	1-249-435-11	CARBON	33K	5%	1/4W			L2803	1-406-986-21	INDUCTOR	3.3UH		
R1810	1-249-435-11	CARBON	33K	5%	1/4W			L2804	1-406-678-11	INDUCTOR	15MMH		
R1811	1-249-435-11	CARBON	33K	5%	1/4W								
R1812	1-249-435-11	CARBON	33K	5%	1/4W								
R1821	1-249-435-11	CARBON	33K	5%	1/4W								
R1822	1-249-435-11	CARBON	33K	5%	1/4W			Q2800	8-729-119-78	TRANSISTOR 2SC2785-HFE			
R1823	1-249-426-11	CARBON	5.6K	5%	1/4W			Q2801	8-729-195-82	TRANSISTOR 2SC2958-L			
R1824	1-249-435-11	CARBON	33K	5%	1/4W			Q2802	8-729-017-06	TRANSISTOR 2SC4793			
R1825	1-247-843-11	CARBON	3.3K	5%	1/4W			Q2803	8-729-216-22	TRANSISTOR 2SA1162-G			
								Q2804	8-729-230-49	TRANSISTOR 2SC2712-YG			
<VARIABLE RESISTOR>													
RV702	1-241-656-21	RES, ADJ, METAL FILM 110M											
RV1801	1-223-241-11	RES, ADJ, CARBON 47K											

* A-1343-763-A D3 BOARD MOUNTED													

<CAPACITOR>													
C2800	1-104-664-11	ELECT	47MF	20%	25V			R2800	1-249-405-11	CARBON	100	5%	1/4W F
C2801	1-106-220-00	MYLAR	0.1MF	10%	100V			R2802	1-260-111-11	CARBON	10K	5%	1/2W
C2802	1-136-155-00	MYLAR	0.015MF	5%	50V			R2803	1-260-111-11	CARBON	10K	5%	1/2W
C2803	1-130-959-61	FILM	0.047MF	5%	400V			R2804	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
C2805	1-104-664-11	ELECT	47MF	20%	25V			R2805	1-216-097-91	RES,CHIP	100K	5%	1/10W
C2806	1-106-383-00	MYLAR	0.047MF	5%	100V			R2806	1-249-421-11	CARBON	2.2K	5%	1/4W
C2807	1-137-194-81	MYLAR	0.47MF	5%	50V			R2807	1-249-420-11	CARBON	1.8K	5%	1/4W F
C2808	1-126-964-11	ELECT	10MF	20%	50V			R2808	1-215-857-11	METAL OXIDE	10	5%	1W F
C2809	1-137-194-81	MYLAR	0.47MF	5%	50V			R2809	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
C2810	1-106-375-12	MYLAR	0.022MF	10%	250V			R2810	1-216-049-91	RES,CHIP	1K	5%	1/10W
C2811	1-126-964-11	ELECT	10MF	20%	50V			R2811	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
C2812	1-126-964-11	ELECT	10MF	20%	50V			R2812	1-216-081-00	RES,CHIP	22K	5%	1/10W
C2813	1-129-708-61	FILM	0.0033MF	5%	630V			R2813	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
<TRANSFORMER>													
								T2800	1-413-059-00	TRANSFORMER, FERRITE (DFT)			

H2**V1**

REF. NO.	PART NO.	DESCRIPTION				REMARK	REF. NO.	PART NO.	DESCRIPTION				REMARK
	* A-1372-742-A	H2 BOARD MOUNTED				*****			<SWITCH>				
	* 4-055-304-01	HOLDER, LED					S2601	1-571-433-21	SWITCH, PUSH (AC POWER)				
		<CAPACITOR>					S2902	1-692-431-21	SWITCH, TACTILE				
C2910	1-104-664-11	ELECT	47MF	20%	16V		S2903	1-692-431-21	SWITCH, TACTILE				
C2911	1-104-664-11	ELECT	47MF	20%	16V		S2904	1-692-431-21	SWITCH, TACTILE				
C2912	1-102-114-00	CERAMIC	470PF	10%	50V		S2905	1-692-431-21	SWITCH, TACTILE				
C2914	1-126-933-11	ELECT	100MF	20%	16V		S2906	1-692-431-21	SWITCH, TACTILE				
		<CONNECTOR>				*****	S2907	1-692-431-21	SWITCH, TACTILE				
	CN2601 * 1-580-844-11	PIN, CONNECTOR (POWER)					S2908	1-692-431-21	SWITCH, TACTILE				
	CN2602 * 1-695-292-11	PIN, CONNECTOR (POWER)							<CONNECTOR>				
	CN2901 * 1-564-507-11	PLUG, CONNECTOR 4P							*****				
	CN2902 * 1-564-509-11	PLUG, CONNECTOR 6P							<CAPACITOR>				
	CN2904 * 1-564-508-11	PLUG, CONNECTOR 5P							*****				
	CN2905 * 1-564-512-11	PLUG, CONNECTOR 9P					C801	1-104-664-11	ELECT	47MF	20%	16V	
		<DIODE>					C805	1-163-038-91	CERAMIC CHIP	0.1MF	25V		
	D2902	8-719-070-16	DIODE NNCD9.1A-T1				C806	1-163-038-91	CERAMIC CHIP	0.1MF	25V		
	D2905	8-719-070-16	DIODE NNCD9.1A-T1				C815	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
	D2906	8-719-045-19	DIODE SPB-26MVWF				C816	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
	D2908	8-719-070-16	DIODE NNCD9.1A-T1										
		<IC>					C817	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
	IC2901	8-742-134-00	HYB IC SBX1981-51P				C818	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
		<JACK>					C820	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
	J2901	1-770-786-11	JACK				C821	1-163-038-91	CERAMIC CHIP	0.1MF		25V	
	J2903	1-770-329-11	JACK, PIN 3P				C822	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
		<TRANSISTOR>											
	Q2901	8-729-030-02	TRANSISTOR DTC144ESA				C823	1-126-933-11	ELECT	100MF	20%	16V	
	Q2902	8-729-030-02	TRANSISTOR DTC144ESA				C826	1-126-963-11	ELECT	4.7MF	20%	50V	
		<CONNECTOR>					C829	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
							C830	1-163-038-91	CERAMIC CHIP	0.1MF		25V	
		<RESISTOR>					C831	1-126-933-11	ELECT	100MF	20%	16V	
	R2907	1-249-426-11	CARBON	5.6K	5%	1/4W							
	R2908	1-249-413-11	CARBON	470	5%	1/4W	D802	8-719-914-44	DIODE DAP202K				
	R2909	1-249-417-11	CARBON	1K	5%	1/4W	D803	8-719-105-46	DIODE RD3.3M-B2				
	R2910	1-249-420-11	CARBON	1.8K	5%	1/4W	D804	8-719-105-91	DIODE RD5.6M-B2				
	R2911	1-249-411-11	CARBON	330	5%	1/4W	D806	8-719-988-61	DIODE 1SS355TE-17				
	R2912	1-247-843-11	CARBON	3.3K	5%	1/4W	D807	8-719-988-61	DIODE 1SS355TE-17				
	R2913	1-249-429-11	CARBON	10K	5%	1/4W							
	R2914	1-249-411-11	CARBON	330	5%	1/4W							
	R2915	1-249-429-11	CARBON	10K	5%	1/4W							
	R2916	1-249-401-11	CARBON	47	5%	1/4W	FB801	1-410-397-21	FERRITE	1.1UH			
	R2920	1-247-807-31	CARBON	100	5%	1/4W	FB802	1-410-397-21	FERRITE	1.1UH			
	R2921	1-247-807-31	CARBON	100	5%	1/4W	FB803	1-410-397-21	FERRITE	1.1UH			
	R2923	1-247-815-91	CARBON	220	5%	1/4W	FB804	1-410-682-31	INDUCTOR	470UH			
	R2924	1-247-804-11	CARBON	75	5%	1/4W	FB805	1-410-397-21	FERRITE	1.1UH			

V1

VM1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK		
<IC>									
IC801	8-759-476-87	IC SAA5261		R845	1-216-049-91	RES,CHIP	1K 5% 1/10W		
				R846	1-216-049-91	RES,CHIP	1K 5% 1/10W		
				R847	1-216-049-91	RES,CHIP	1K 5% 1/10W		
				R848	1-216-049-91	RES,CHIP	1K 5% 1/10W		
				R849	1-216-049-91	RES,CHIP	1K 5% 1/10W		
<CHIP CONDUCTOR>									
JR801	1-216-295-91	SHORT	0	R850	1-216-105-91	RES,CHIP	220K 5% 1/10W		
JR802	1-216-295-91	SHORT	0	R851	1-216-057-00	RES,CHIP	2.2K 5% 1/10W		
JR804	1-216-295-91	SHORT	0	R853	1-216-067-00	RES,CHIP	5.6K 5% 1/10W		
JR805	1-216-295-91	SHORT	0	R857	1-216-081-00	RES,CHIP	22K 5% 1/10W		
JR806	1-216-295-91	SHORT	0	R858	1-216-067-00	RES,CHIP	5.6K 5% 1/10W		
JR807	1-216-295-91	SHORT	0	R861	1-216-049-91	RES,CHIP	1K 5% 1/10W		
JR808	1-216-295-91	SHORT	0	R862	1-260-095-11	CARBON	470 5% 1/2W		
<TRANSISTOR>									
Q801	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R863	1-216-049-91	RES,CHIP	1K 5% 1/10W		
Q803	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R864	1-216-041-00	RES,CHIP	470 5% 1/10W		
Q805	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R866	1-215-880-00	METAL OXIDE	10 5% 2W F		
Q806	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R871	1-216-037-00	RES,CHIP	330 5% 1/10W		
Q807	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R879	1-216-073-00	RES,CHIP	10K 5% 1/10W		
Q808	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R880	1-216-041-00	RES,CHIP	470 5% 1/10W		
Q810	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R882	1-216-049-91	RES,CHIP	1K 5% 1/10W		
Q811	8-729-019-01	TRANSISTOR 2SD2394-EF		R884	1-216-025-91	RES,CHIP	100 5% 1/10W		
Q812	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R888	1-216-065-91	RES,CHIP	4.7K 5% 1/10W		
Q813	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R889	1-216-073-00	RES,CHIP	10K 5% 1/10W		
Q814	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R890	1-216-081-00	RES,CHIP	22K 5% 1/10W		
Q817	8-729-900-53	TRANSISTOR DTC114EK		R894	1-216-073-00	RES,CHIP	10K 5% 1/10W		
Q818	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R895	1-216-065-91	RES,CHIP	4.7K 5% 1/10W		
<RESISTOR>									
R800	1-208-806-11	METAL CHIP	10K	0.50%	1/10W	R896	1-216-073-00	RES,CHIP	10K 5% 1/10W
R801	1-216-295-91	SHORT	0	R897	1-216-073-00	RES,CHIP	10K 5% 1/10W		
R802	1-216-025-91	RES,CHIP	100	5%	1/10W	R898	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R803	1-216-295-91	SHORT	0						
R804	1-216-295-91	SHORT	0						
R805	1-216-295-91	SHORT	0						
R807	1-216-295-91	SHORT	0						
R813	1-216-295-91	SHORT	0						
R820	1-216-073-00	RES,CHIP	10K	5%	1/10W	4-382-854-11	SCREW (M3X10), P, SW (+)		
R821	1-216-083-00	RES,CHIP	27K	5%	1/10W				
R822	1-216-025-91	RES,CHIP	100	5%	1/10W				
R824	1-216-295-91	SHORT	0						
R825	1-216-295-91	SHORT	0						
R827	1-216-295-91	SHORT	0						
R828	1-216-025-91	RES,CHIP	100	5%	1/10W				
R829	1-216-025-91	RES,CHIP	100	5%	1/10W				
R830	1-216-295-91	SHORT	0						
R831	1-216-295-91	SHORT	0						
R832	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W				
R835	1-216-295-91	SHORT	0						
R839	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W				
R841	1-216-025-91	RES,CHIP	100	5%	1/10W				
R842	1-216-065-91	RES,CHIP	4.7K	5%	1/10W				
R843	1-216-065-91	RES,CHIP	4.7K	5%	1/10W				
R844	1-216-057-00	RES,CHIP	2.2K	5%	1/10W				
<CRYSTAL>									
X801	1-578-774-11	VIBRATOR, CRYSTAL							

* A-1342-519-A VM1 BOARD MOUNTED									

<CAPACITOR>									
C5902	1-104-661-91	ELECT	330MF	20%	16V				
C5903	1-161-830-00	CERAMIC	0.0047MF		500V				
C5905	1-126-925-11	ELECT	470MF	20%	10V				
C5906	1-130-491-00	MYLAR	0.047MF	5%	50V				
C5907	1-107-638-11	ELECT	33MF	20%	160V				
C5908	1-106-383-00	MYLAR	0.047MF	10%	200V				
C5909	1-126-933-11	ELECT	100MF	20%	16V				
C5910	1-130-471-00	MYLAR	0.001MF	5%	50V				
C5911	1-107-949-11	ELECT	2.2MF	20%	160V				
C5912	1-104-999-11	MYLAR	0.1MF	10%	200V				
C5913	1-130-471-00	MYLAR	0.001MF	5%	50V				
C5914	1-126-933-11	ELECT	100MF	20%	16V				
C5916	1-130-491-00	MYLAR	0.047MF	5%	50V				
C5917	1-126-925-11	ELECT	470MF	20%	10V				
C5918	1-115-341-51	CERAMIC	120PF	10%	500V				

VM1

The components identified by shading
and mark \triangle are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK		REF. NO.	PART NO.	DESCRIPTION	REMARK			
C5920	1-126-964-11	ELECT	10MF	20%	50V	R5920	1-249-439-11	CARBON	68K	5%	1/4W
C5921	1-102-852-91	CERAMIC	47PF	5%	50V	R5921	1-216-476-11	METAL OXIDE	180	5%	3W F
<CONNECTOR>											
CN2801*	1-564-506-11	PLUG, CONNECTOR 3P				R5922	1-249-414-11	CARBON	560	5%	1/4W
CN5901*	1-564-510-11	PLUG, CONNECTOR 7P				R5923	1-249-383-11	CARBON	1.5	5%	1/4W F
CN5904*	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P				R5925	1-249-400-11	CARBON	39	5%	1/4W F
<DIODE>											
D5901	8-719-911-19	DIODE 1SS119-25				R5929	1-215-880-00	METAL OXIDE	10	5%	2W F
D5902	8-719-110-88	DIODE RD39ESB2				R5930	1-249-413-11	CARBON	470	5%	1/4W
D5903	8-719-911-19	DIODE 1SS119-25				R5931	1-249-413-11	CARBON	470	5%	1/4W
D5904	8-719-110-88	DIODE RD39ESB2				R5932	1-249-413-11	CARBON	470	5%	1/4W
D5905	8-719-911-19	DIODE 1SS119-25				R5933	1-249-413-11	CARBON	470	5%	1/4W
D5906	1-249-406-11	CARBON	120	5%	1/4W	R5934	1-249-430-11	CARBON	12K	5%	1/4W
D5907	1-249-406-11	CARBON	120	5%	1/4W	R5935	1-249-429-11	CARBON	10K	5%	1/4W

MISCELLANEOUS											
L5901	1-414-187-11	INDUCTOR	47UH			1-251-317-12	CAP ASSY, HIGH-VOLTAGE				
L5902	1-414-856-11	INDUCTOR	10UH			\triangle 1-419-294-11	COIL, DEGAUSSING (FOR SINGAPORE)				
<COIL>						\triangle 1-419-323-11	COIL, DEGAUSSING (FOR MALAYSIA)				
Q5901	8-729-230-45	TRANSISTOR 2SC2458-YGR				1-452-094-00	CIRCULAR DISC MAGNET B				
Q5902	8-729-809-26	TRANSISTOR 2SA1606-E				1-452-032-00	MAGNET,DISC				
Q5903	8-729-230-45	TRANSISTOR 2SC2458-YGR				1-452-896-11	COIL, NA ROTATION (RT200)				
Q5904	8-729-119-76	TRANSISTOR 2SA1175-HFE				1-505-503-11	SPEAKER (15X6.5CM)				
Q5905	8-729-230-45	TRANSISTOR 2SC2458-YGR				\triangle 1-574-062-11	CORD, POWER (WITH CONNECTOR) 2.5A/250V				
Q5906	8-729-809-29	TRANSISTOR 2SC4159-E				\triangle 8-451-494-31	DEFLECTION YOKE (Y29RSA-S)				
Q5908	8-729-119-78	TRANSISTOR 2SC2785-HFE				8-453-011-11	NA299-M				
Q5909	8-729-119-78	TRANSISTOR 2SC2785-HFE				\triangle 8-735-056-05	PICTURE TUBE (M68LNH070X)				

ACCESSORIES AND PACKING MATERIALS											
R5901	1-247-815-91	CARBON	220	5%	1/4W	3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)				
R5902	1-249-414-11	CARBON	560	5%	1/4W F	3-868-153-11	MANUAL, INSTRUCTION				
R5903	1-247-734-11	CARBON	39	5%	1/2W F	4-392-003-11	BAND, HOLD				
R5904	1-249-411-11	CARBON	330	5%	1/4W	4-392-004-11	CLIP				
R5905	1-249-417-11	CARBON	1K	5%	1/4W	* 4-029-168-01	BAG, PROTECTION				
R5906	1-249-417-11	CARBON	1K	5%	1/4W	* 4-054-319-01	TRAY				
R5907	1-249-417-11	CARBON	1K	5%	1/4W	4-065-210-01	JOINT				
R5908	1-249-383-11	CARBON	1.5	5%	1/4W F	* 4-066-926-03	CUSHION (UPPER) (ASSY)				
R5909	1-247-815-91	CARBON	220	5%	1/4W	* 4-066-927-02	CUSHION (LOWER) (ASSY)				
R5910	1-249-403-11	CARBON	68	5%	1/4W	* 4-072-591-01	INDIVIDUAL CARTON				
R5911	1-249-439-11	CARBON	68K	5%	1/4W	*****					
R5912	1-249-437-11	CARBON	47K	5%	1/4W	*****					
R5914	1-249-403-11	CARBON	68	5%	1/4W	*****					
R5915	1-249-429-11	CARBON	10K	5%	1/4W	*****					
R5916	1-249-419-11	CARBON	1.5K	5%	1/4W	*****					
R5917	1-249-416-11	CARBON	820	5%	1/4W	*****					
R5918	1-249-429-11	CARBON	10K	5%	1/4W	*****					
R5919	1-249-417-11	CARBON	1K	5%	1/4W F	1-418-163-11	REMOTE COMMANDER (RM-952)				
						9-939-697-01	BATTERY COVER, REMOTE COMMANDER				

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