

SERVICE MANUAL

BA-4D CHASSIS

<i>MODEL</i>	<i>COMMANDER</i>	<i>DEST</i>	<i>CHASSIS NO.</i>
KV-13M42	RM-Y156	US	SCC-S27D-A
KV-13M42	RM-Y156	CND	SCC-S28A-A
KV-13M52	RM-Y156	US	SCC-S27E-A
KV-13M53	RM-Y156W	US	SCC-S27F-A
KV-14MB42	RM-Y156	E	SCC-S25P-A
KV-14MB42C	RM-Y156	E	SCC-S25Q-A



KV-13M52



RM-Y156



SPECIFICATIONS

	KV-13M42	KV-13M52 KV-13M53	KV-14MB42 KV-14MB42C
Power Requirements	120V, 60 Hz	120V, 60 Hz	AUTO VOLT 120-220V, 50/60 Hz
Number of inputs/outputs			
Video Input ⁽¹⁾	1	2	1
Audio Input ⁽²⁾	1	1	1
Speaker Output (W)	3W	3W	3W
Power Consumption (W)			
In Use (Max)	75	75	75
In Standby	1	1	1
Dimensions (W/H/D)			
(mm)	358 x 355 x 401.4 mm	358 x 355 x 401.4 mm	358 x 355 x 401.4 mm
(in)	14 1/8 x 14 x 15 7/8 in	14 1/8 x 14 x 15 7/8 in	14 1/8 x 14 x 15 7/8 in
Mass			
(kg)	10 kg	10 kg	10 kg
(lbs)	22 lbs	22 lbs	22 lbs

¹⁾ 1 Vp-p 75 ohms unbalanced, sync negative

²⁾ 500 mVrms (100% modulation), impedance: 47 kilohms

Television system

American TV standard/NTSC

Channel coverage

VHF:2-13/UHF:14-69/CATV:1-125

Visible screen size

13" picture measured diagonally

Actual screen size

14" picture measured diagonally

Antenna

75 ohm external terminal for VHF/UHF

Supplied Accessories

Remote Commander (RM-Y156)
 Remote Commander (RM-Y156W) (KV-13M53 ONLY)
 Size AA (R6) batteries (2)
 Antenna connector
 Antenna dipole
 Converter (EAC-25)

(●) SRS (SOUND RETRIEVAL SYSTEM)

The (●) SRS (SOUND RETRIEVAL SYSTEM) is manufactured by Sony Corporation under license from SRS Labs, Inc. It is covered by U.S. Patent No. 4,748,669. Other U.S. and foreign patents pending.

The word 'SRS' and the SRS symbol (●) are registered trademarks of SRS Labs, Inc.

BBE and BBE symbol are trademarks of BBE Sound, Inc. and are licensed by BBE Sound, Inc. under U.S. Patent No. 4,638,258 and 4,482,866.

Design and specifications are subject to change without notice.

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WARNINGS AND CAUTIONS

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.

WARNING!!

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

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK Δ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS, AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

ATTENTION

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

ATTENTION!!

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

ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MARQUE Δ SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMERO DE PIECE EST INDIQUE DANS LE PRESENT MANUEL OU DANS DES SUPPLEMENTS PUBLIES PAR SONY. LES REGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRESENT MANUEL. SUIVRE CES PROCEDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT SUSPECTE.

SELF-DIAGNOSTIC FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER LED 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.

Diagnostic Test Indicators

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

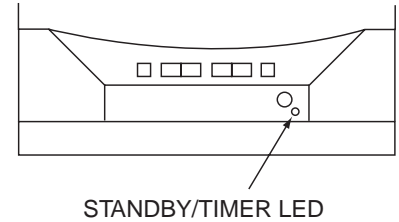
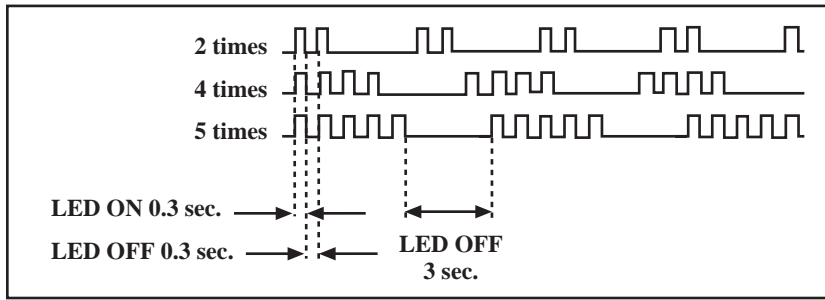
Results for all of the following diagnostic items are displayed on screen. No error has occurred if the screen displays a "0".

Diagnostic Item Description	No. of Times STANDBY/TIMER LED 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 (F601). 	<ul style="list-style-type: none"> • Power does not come on. • No power is supplied to the TV. • AC power supply is faulty.
+B overcurrent (OCP)*	2 times	2:0 or 2:1	<ul style="list-style-type: none"> • H.OUT (Q502) is shorted. (A Board) • IC751 is shorted. (C Board) 	<ul style="list-style-type: none"> • Power does not come on. • Load on power line is shorted.
Vertical deflection stopped*	4 times	4:0 or 4:1	<ul style="list-style-type: none"> • +13V is not supplied. (A Board) • IC541 is faulty. (A Board) 	<ul style="list-style-type: none"> • Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
White balance failure (not balanced)	5 times	5:0 or 5:1	<ul style="list-style-type: none"> • Video OUT (Q392–Q394) is faulty (A Board) • IC301 is faulty. (A Board) • Screen (G2) is improperly adjusted.** 	<ul style="list-style-type: none"> • No raster is generated. • CRT cathode current detection reference pulse output is small.

* 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.

** Refer to Screen (G2) Adjustments in Section 3-4 of this manual.

Display of Standby/Timer LED Flash Count



Diagnostic Item	Flash Count*
+B overcurrent	2 times
Vertical deflection stopped	4 times
White balance failure	5 times

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

Stopping the Standby/Timer LED Flash

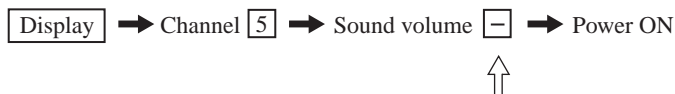
Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER LED from flashing.

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 on the screen for confirmation.

To Bring Up Screen Test

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



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

Self Diagnostic Screen Display

SELF DIAGNOSTIC			
2:		0	← Numeral “0” means that no fault was detected.
3:	N/A	0	
4:		0	
5:		1	← Numeral “1” means a fault was detected one time only.
101:	N/A	0	

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

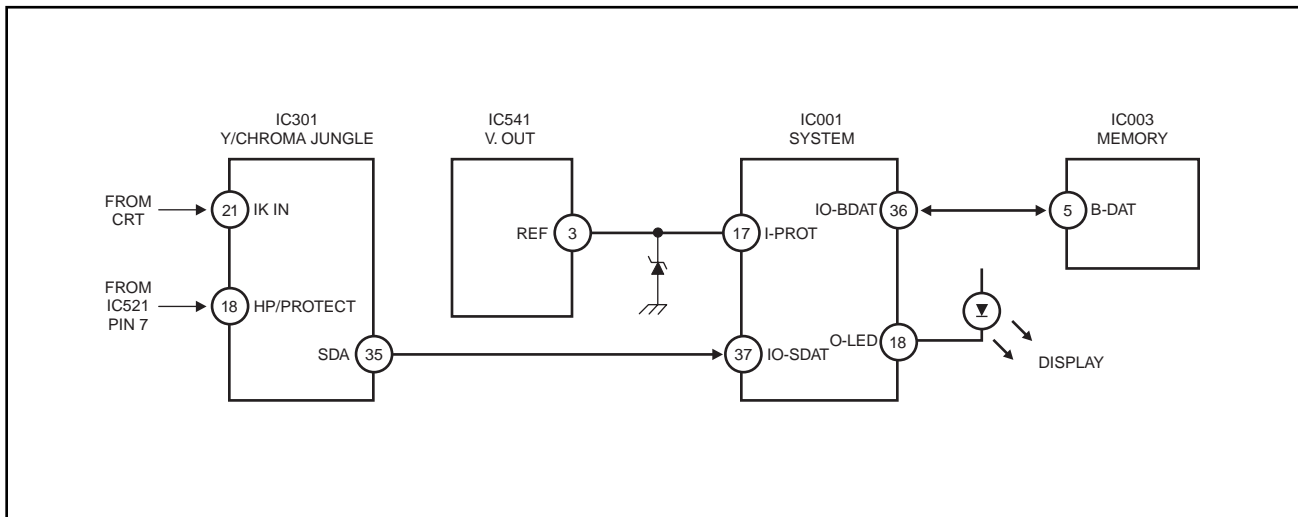
To clear the result display to "0", press buttons on the Remote Commander sequentially when the diagnostic screen is displayed, as shown below:

Channel **8** → **ENTER**

Quitting the Self-Diagnostic Screen

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

Self-diagnostic Circuit



+B overcurrent (OCP)

Occurs when an overcurrent on the +B (115V) line is detected by pin 18 of IC301. If the voltage of pin 18 of IC 301 is less than 1V 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 pin 17 of IC001. Power supply will shut down when waveform interval exceeds 2 seconds.

White balance failure

If the RGB levels* do not balance within 2 seconds after the power is turned on, 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 1K.)

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or touching high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

Leakage Test

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampere). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63Trd are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).

How to Find a Good Earth Ground

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60- to 100-watt trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure B).

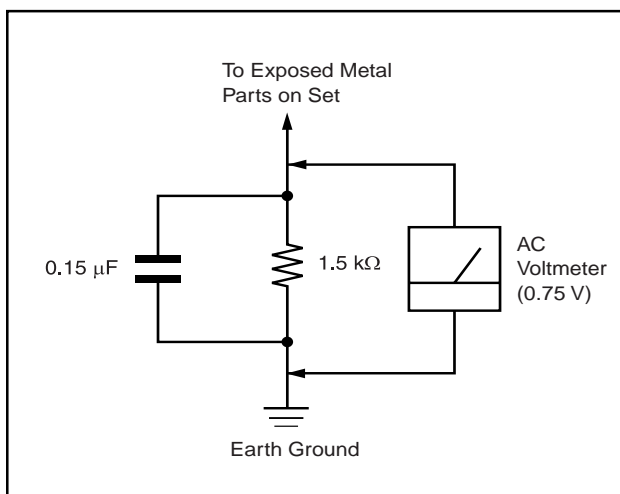


Figure A. Using an AC voltmeter to check AC leakage.

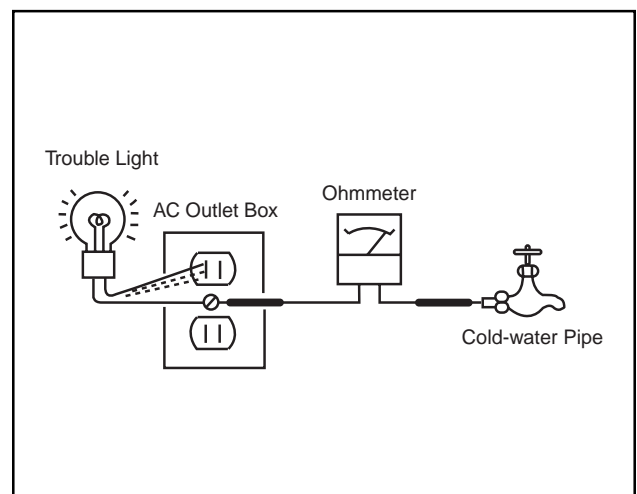


Figure B. Checking for earth ground.

The instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers shown reflect those of the Operating Instruction Manual.

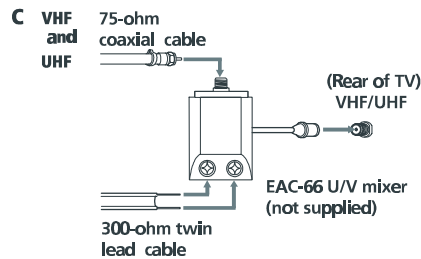
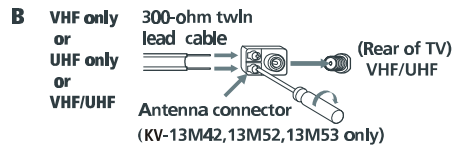
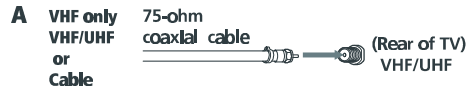
Connecting Your TV

Read this chapter before setting up your TV for the first time. This section covers basic connections in addition to any optional equipment you may be connecting.

Basic Connections

TV with indoor or outdoor antenna, or CATV cable

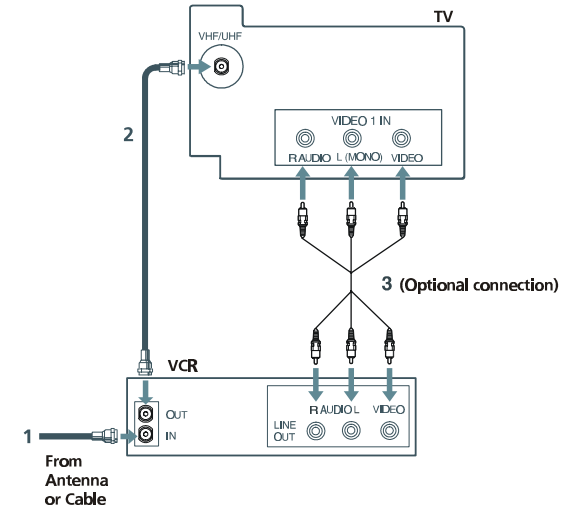
Depending on the cable available in your home, choose one of the connections below:



If you are connecting to an indoor or outdoor antenna, it will be necessary to adjust the orientation of the antenna for best reception.

Connecting Additional Equipment

TV and VCR



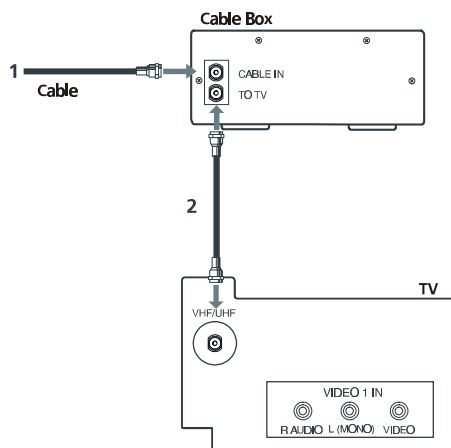
- 1 Connect the coaxial cable from your TV antenna or cable TV to the IN jack on your VCR.
- 2 Connect a coaxial cable (not supplied) from the OUT jack on your VCR to the VHF/UHF IN jack on the TV.

To watch video programs from your VCR, tune your TV to channel 3 or 4 (as set on the rear of your VCR).

(Optional Connection)

- 3 If your VCR is equipped with video inputs, for best picture quality you should connect A/V connectors to AUDIO/VIDEO OUT on your VCR to AUDIO/VIDEO IN on your TV. You can use the button to switch between the TV and VCR inputs.

TV and Cable Box

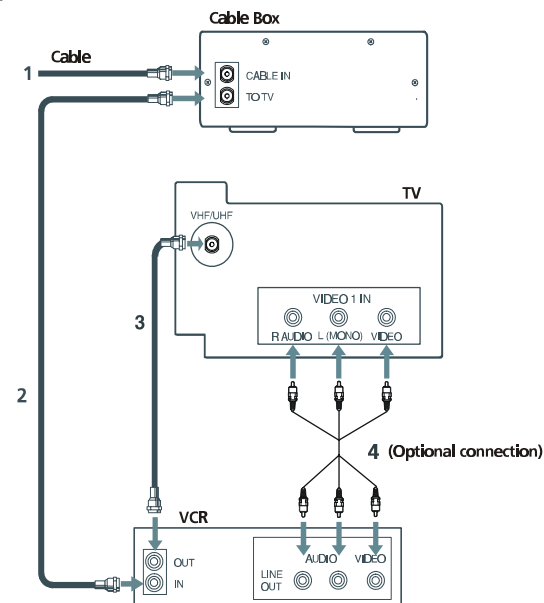


- 1 Connect the coaxial cable from the wall to the IN jack on your cable box.
- 2 Connect a coaxial cable (not supplied) from the OUT jack on your cable box to the VHF/UHF IN jack on the TV.

To view channels from your cable box, tune your TV to channel 3 or 4 (as set on the rear panel of your cable box) and use the cable box's remote control to change channels.

If you will be controlling all channel selection through your cable box, you should consider using the CHANNEL FIX feature on page 17.

TV, VCR, and Cable box



- 1 Connect the coaxial cable from the wall to the IN jack on your cable box.
- 2 Connect a coaxial cable (not supplied) from the OUT jack on your cable box to the IN jack on your VCR.
- 3 Connect a coaxial cable from OUT on your VCR to VHF/UHF IN on your TV.

If you will be controlling all channel selection through your cable box, you should consider using the CHANNEL FIX feature on page 17.

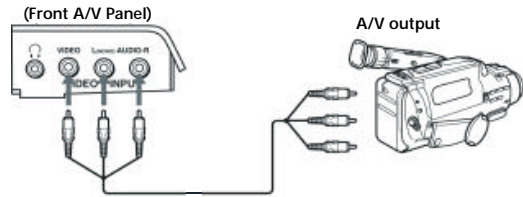
(Optional Connection)

- 4 If your VCR is equipped with video inputs, for best picture quality you should connect A/V connectors to AUDIO/VIDEO OUT on your VCR to AUDIO/VIDEO IN on your TV. You can use the button to switch between the TV and VCR inputs.

Connecting Your TV

Connecting a Camcorder
















Using A/V cables, connect AUDIO and VIDEO OUT on your camcorder to AUDIO and VIDEO IN on your TV.



For model KV-13M42, this connection can be made to the A/V input located on the rear of the TV.

Using the Remote Control and Basic Functions

This section shows you how to use more advanced buttons on the remote control and how to use the on-screen menus.

	Turns the TV off automatically in approximately 30, 60 or 90 minutes. Cancel by pressing until SLEEP OFF appears.
	Instantly turns off the sound. Press again or press  to restore sound.
	Cycles through the available video inputs.
	Press once to show current time, (if set) and channel number. Press again to activate CAPTION VISION settings, if available. To cancel, press again until DISPLAY OFF appears.
	Cycles through the Multi-Channel TV Sound (MTS) options: STEREO, SAP (Second Audio Programming) and MONO, (KV-20S42, 20S43 only).
	Press for channel selection, the channel will change after 2 seconds.
	Press after selecting a channel using the  buttons to immediately activate selection.
	Alternates back and forth between the last two channels selected with the  buttons.
	Displays the on-screen menu. Press again to exit the menu at any time.
	Activates highlighted selections in the on-screen menu.
	Moves the cursor in the on-screen menu.
	Press to restore factory settings while in the on-screen menu.

Buttons shown are for remote control RM-Y155, your remote control may not look exactly like the one illustrated.

Other Information

Troubleshooting

If you are having a problem with your TV, try the suggestions below. If the problem persists, contact your nearest Sony dealer.

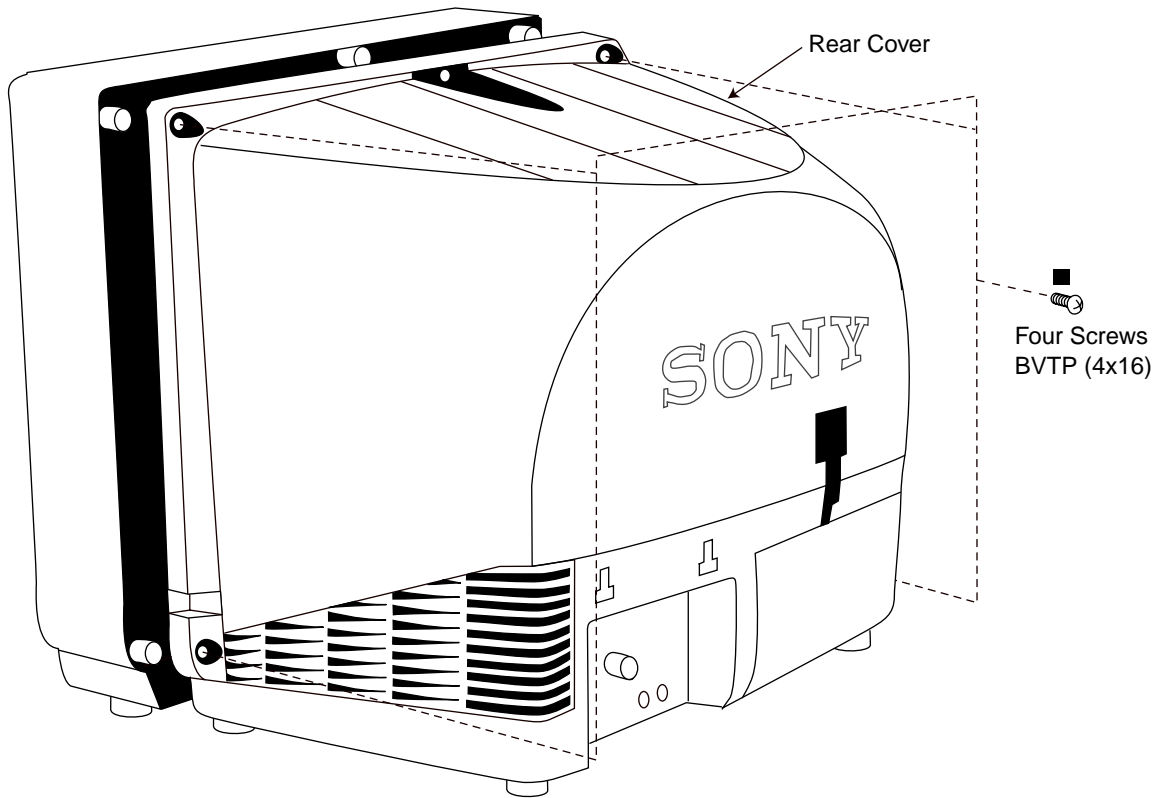
No picture, no sound	<ul style="list-style-type: none"> <input type="checkbox"/> Make sure the power cord is plugged in. <input type="checkbox"/> If a red light is flashing on the front of your TV for more than a few minutes, call your local service center. <input type="checkbox"/> Check the TV/VIDEO settings: when watching TV, set to TV; when watching video equipment, set to VIDEO (page 13). <input type="checkbox"/> Check your PARENTAL CONTROL settings, (see pages 22-23). <input type="checkbox"/> Make sure the batteries have been inserted correctly into the remote control. <input type="checkbox"/> Try another channel, it could be station trouble.
Poor or no picture, good sound	<ul style="list-style-type: none"> <input type="checkbox"/> Adjust PICTURE in the VIDEO menu (page 13). <input type="checkbox"/> Adjust BRIGHTNESS in the VIDEO menu (page 13). <input type="checkbox"/> Check the antenna and/or cable connections (page 3).
Good picture, no sound	<ul style="list-style-type: none"> <input type="checkbox"/> Press MUTING so that MUTING disappears from the screen (page 9). <input type="checkbox"/> Check your AUDIO settings. Your TV may be set to SAP (page 14).
No color	<ul style="list-style-type: none"> <input type="checkbox"/> Adjust COLOR in the VIDEO menu (page 13).
Only snow appears on the screen	<ul style="list-style-type: none"> <input type="checkbox"/> Check the CABLE setting in the SET UP menu (page 17). <input type="checkbox"/> Check the antenna and/or cable connections (page 3). <input type="checkbox"/> Make sure the channel selected is currently broadcasting.
Dotted lines or stripes	<ul style="list-style-type: none"> <input type="checkbox"/> Adjust the antenna. <input type="checkbox"/> Move the TV away from other electronic equipment. Some electronic equipment can create electrical noise, which can interfere with TV reception.
Double images or ghosts	<ul style="list-style-type: none"> <input type="checkbox"/> Check your outdoor antenna or call your cable service.

Cannot receive higher number channels (UHF) when using an antenna	<ul style="list-style-type: none"> <input type="checkbox"/> Make sure CABLE is set to OFF in the SET UP menu (page 17). <input type="checkbox"/> Use AUTO PROGRAM to add channels that are not presently in the memory (page 17).
Cable stations don't seem to work	<ul style="list-style-type: none"> <input type="checkbox"/> Make sure CABLE is set to ON in the SET UP menu (page 16). <input type="checkbox"/> Use AUTO PROGRAM to add channels that are not presently in the memory (page 17).
Remote control does not operate	<ul style="list-style-type: none"> <input type="checkbox"/> Batteries could be weak. Replace them (page 2). <input type="checkbox"/> Move the TV 3-4 feet away from fluorescent lights.
The TV needs to be cleaned	<ul style="list-style-type: none"> <input type="checkbox"/> Clean the TV with a soft dry cloth. Never use strong solvents such as thinner or benzine, which might damage the finish of the cabinet.
Lost password for PARENTAL CONTROL	<ul style="list-style-type: none"> <input type="checkbox"/> In the password screen, enter the following master password: 4357. After using the master password, you must create a new password, it cannot be used to unlock currently blocked programs.

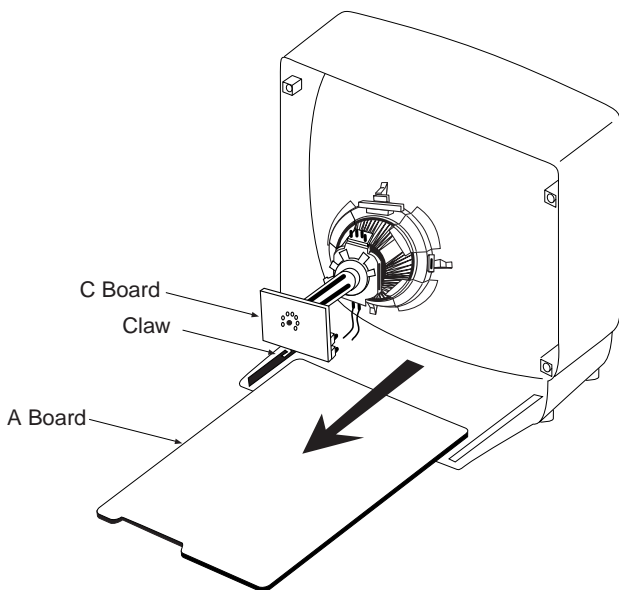
If, after reading these operating instructions, you have additional questions related to the use of your Sony television, please call our Direct Response Center at 1-800-222-SONY (7669) (U.S. customers only) or (416) 499-SONY (7669) (Canadian customers only).

SECTION 2 DISASSEMBLY

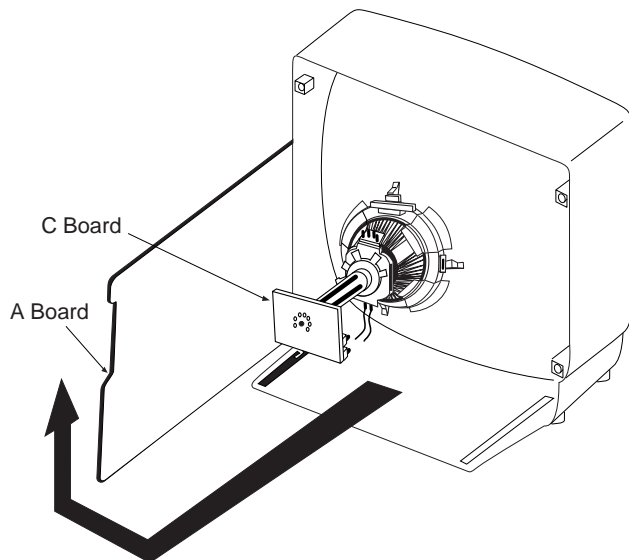
2-1. REAR COVER REMOVAL



2-2. A BOARD REMOVAL



2-3. SERVICE POSITION

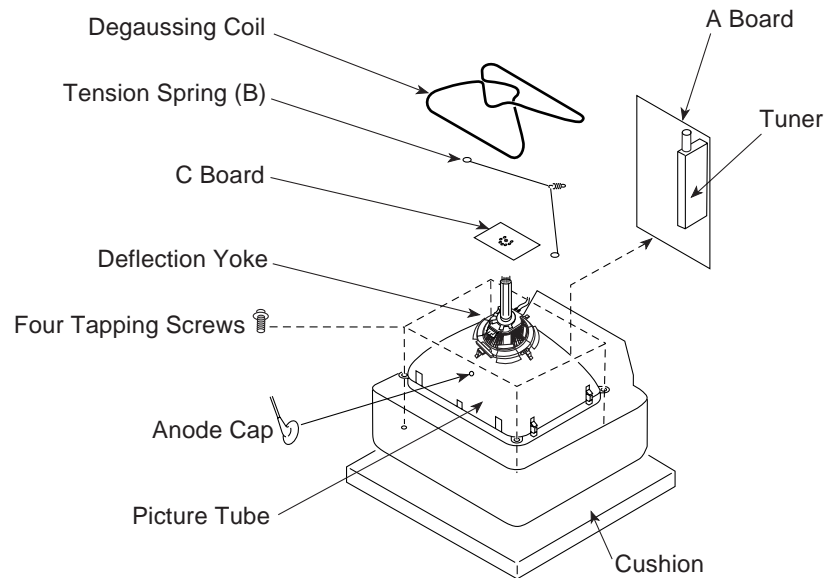
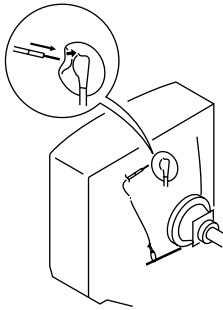


2-4. PICTURE TUBE REMOVAL

WARNING: BEFORE REMOVING THE ANODE CAP

High voltage remains in the CRT even after the power is disconnected.

To avoid electric shock, discharge CRT *before* attempting to remove the anode cap. Short between anode and CRT mounting bracket.

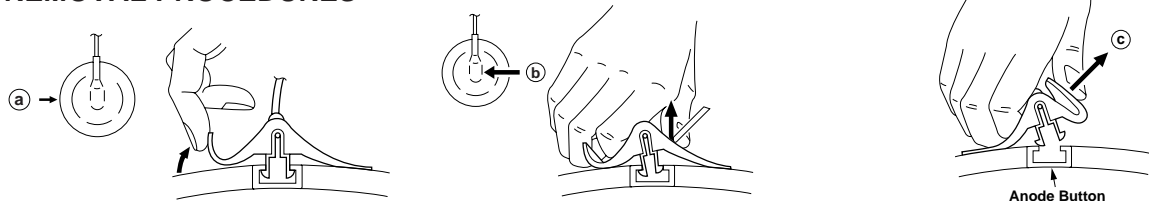


ANODE CAP REMOVAL

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

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

REMOVAL PROCEDURES



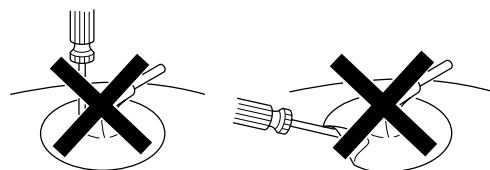
① Turn up one side of the rubber cap in the direction indicated by arrow (a).

② Use your thumb to pull the rubber cap firmly in the direction indicated by arrow (b).

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

HOW TO HANDLE AN ANODE CAP

- ① Do not use sharp objects which may cause damage to the surface of the anode cap.
- ② To avoid damaging the anode cap, do not squeeze the rubber covering too hard. A material fitting called a shatter-hook terminal is built into the rubber.
- ③ Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.



SECTION 3 SET-UP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or when a new picture tube is installed.

These adjustments should be performed with rated power supply voltage unless otherwise noted.

Set the controls as follows unless otherwise noted.

PICTURE control..... Normal
BRIGHTNESS control..... Normal

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G2)
5. White Balance

Note: Test equipment required:

- Color bar pattern generator
- Degausser
- DC power supply
- Digital multimeter

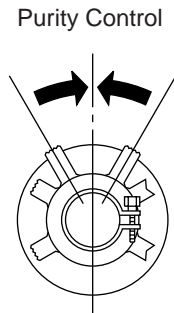
3-1. BEAM LANDING

Before beginning adjustment procedure:

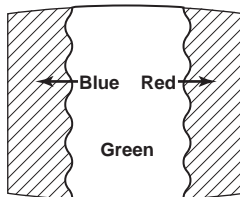
1. Degauss the entire screen.
2. Feed in the white pattern signal.

Adjustment Procedure

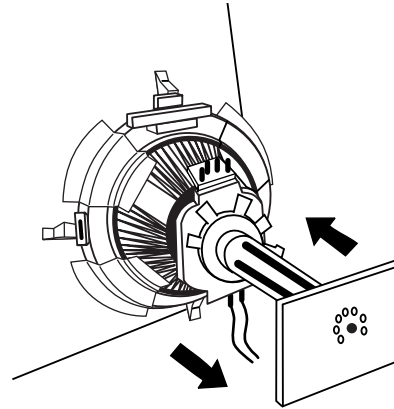
1. Input a raster signal with the pattern generator.
2. Loosen the deflection yoke mounting screw and set the purity control to the center as shown below.



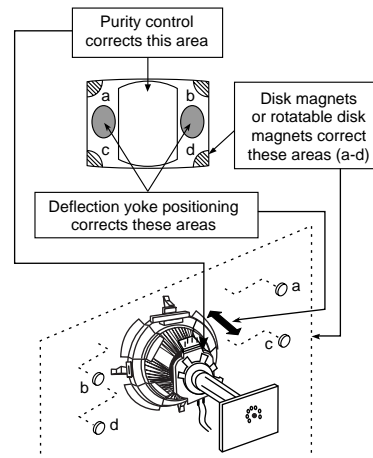
3. Turn the raster signal of the pattern generator to green.
4. Move the deflection yoke backward and adjust the purity control so that green is in the center and red and blue are at the sides evenly.



5. Move the deflection yoke forward and adjust so that the entire screen becomes green.



6. Switch over the raster signal to red and blue and confirm the condition.
7. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.
8. If landing at the corner is not right, adjust by using the disk magnets.



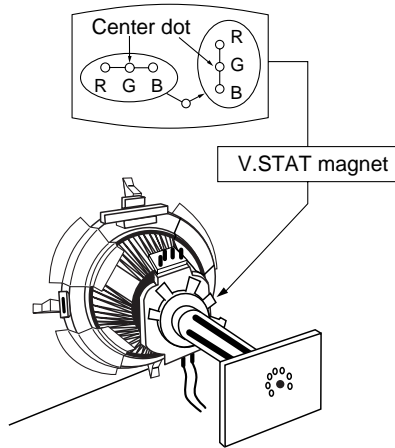
3-2. CONVERGENCE

Before starting convergence adjustments:

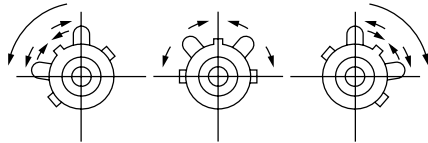
1. Perform FOCUS, V.LIN AND V.SIZE adjustments.
2. Set BRIGHTNESS control to minimum.
3. Feed in dot pattern.

Vertical Static Convergence

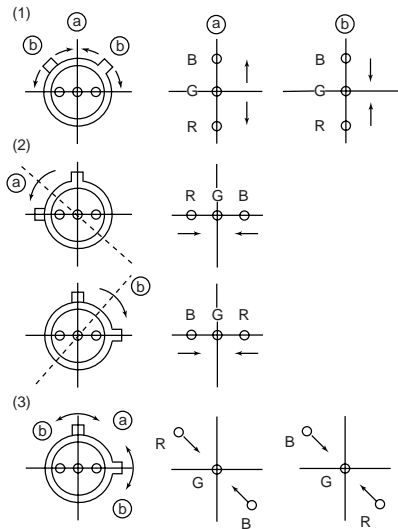
1. Adjust V.STAT magnet to converge red, green and blue dots in the center of the screen (vertical movement).



2. Tilt the V.STAT magnet and adjust static convergence to open or close the V.STAT magnet.

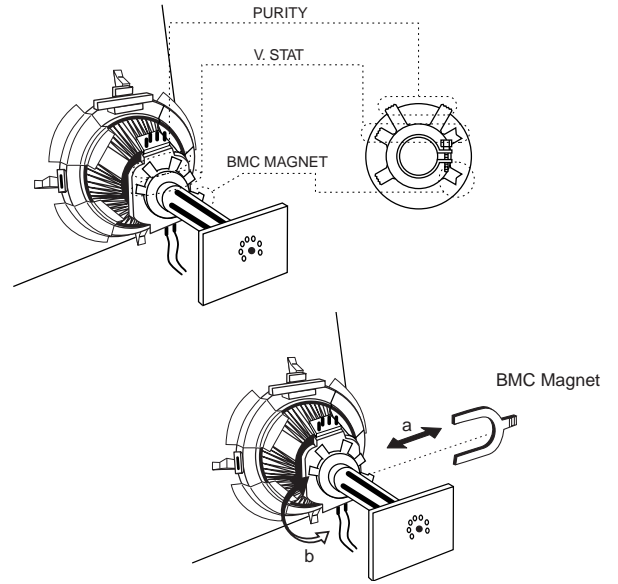


When the V.STAT magnet is moved in the direction of arrows (a) and (b), red, green, and blue dots move as shown below:



If the blue dot does not converge with the red and green dots, perform the following:

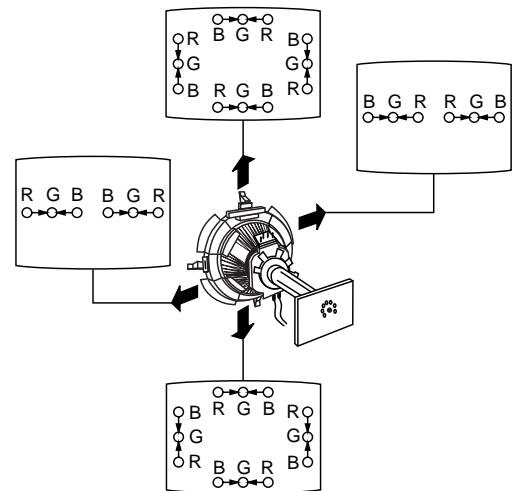
1. Move BMC magnet (a) to correct insufficient H. Static convergence.
2. Rotate BMC magnet (b) to correct insufficient V. Static convergence.
3. In either case, repeat Beam Landing Adjustment.



Dynamic Convergence Adjustment

Before performing this adjustment, perform Horizontal and Vertical Static Convergence Adjustment.

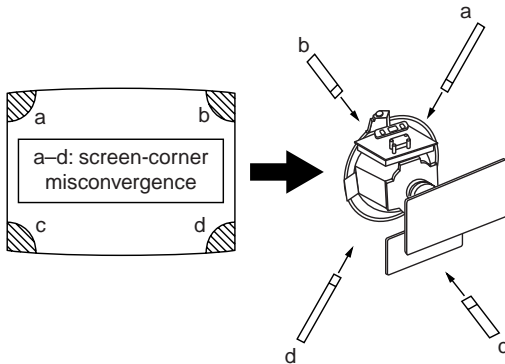
1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence, as shown below:



4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.

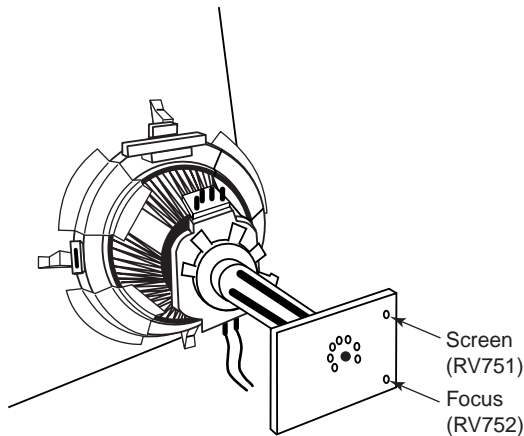
Screen-Corner Convergence

1. Affix a permalloy assembly corresponding to the misconverged areas.



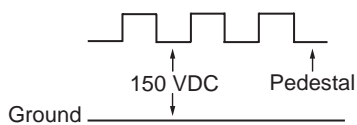
3-3. FOCUS

1. Adjust FOCUS control (RV752 on C Board) for best picture.



3-4. SCREEN (G2)

1. Input a dots pattern.
2. Set the PICTURE and BRIGHTNESS controls at minimum and COLOR control at normal.
3. Adjust SBRT, GCUT, BCUT in service mode with an oscilloscope as shown below so that voltages on the red, green, and blue cathodes are 150 VDC.



4. Observe the screen and adjust SCREEN (G2) RV751 to obtain the faintly visible background of dot signal.

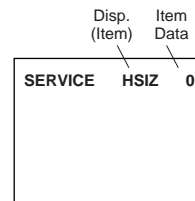
3-5. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

Service Mode Procedure

1. Standby mode (power off).
2. **Display** → Channel **5** → Sound volume **+** → Power on the Remote Commander (press each button within a second).

Service Adjustment Mode In

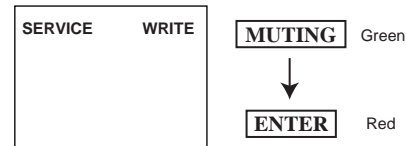
1. The CRT displays the item being adjusted.



2. Press **1** or **4** on the Remote Commander to select the item.
3. Press **3** or **6** on the Remote Commander to change the data.
4. Press **MUTING** then **ENTER** to save into the memory.

Service Adjustment Mode Memory

Turn set off then on to exit service adjustment mode.



3-6. WHITE BALANCE ADJUSTMENTS

1. Input an entire white signal.
2. Set to Service Adjustment Mode.
3. Set DCOL to "0".
4. Set the PICTURE and BRIGHTNESS to minimum.
5. Adjust with SBRT if necessary.
6. Select GCUT and BCUT with **1** and **4**.
7. Adjust with **3** and **6** for the best white balance.
8. Set PICTURE and BRIGHTNESS to maximum.
9. Select GDRV and BDRV with **1** and **4**.
10. Adjust with **3** and **6** for the best white balance.
11. Reset DCOL to "1".
12. To write into memory, press **MUTING** then **ENTER**.

SECTION 4 SAFETY RELATED ADJUSTMENTS

4-1. X R582 CONFIRMATION METHOD (HV HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components which are marked with X on the schematic diagram.

DY, C511, C574, C575, D572, D573, D574, R582, R583, R584, R585, R586, R578, R625, R626, R634, R635, T504, IC301, IC521, IC602

Preparation Before Confirmation

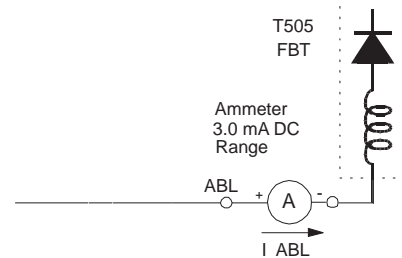
1. Turn the POWER switch ON. Input an entirely white signal and set the PICTURE and BRIGHTNESS controls to maximum.
2. Confirm that the voltage between C574 (+) and ground is more than 95 VDC when the set is operating normally with 120.0 ± 2.0 VAC (or $120\text{--}220 \pm 2.0$ VAC for KV-14MB42/42C).

Hold-down Operation Confirmation

1. Connect the current meter between Pin 11 of the FBT (T504) and the PCB land where Pin 11 would normally attach. (See Figure 1 on the next page.)
2. Input a dot signal and set PICTURE and BRIGHTNESS to minimum: $I_{ABL} = 40 + 100/-40\mu\text{A}$.
3. Confirm the voltage of A Board TP-600 is 117 ± 0.3 VDC.
4. Connect the digital voltmeter and the DC power supply via diode 1SS119 to C574 (+) and ground. (See Figure one on the next page.)
5. Increase the DC power voltage gradually until the picture blanks out.
6. Read the digital voltmeter indication.
7. Turn DC power source off immediately. (standard: less than or equal to 117.75 VDC).
8. Input a white signal and set PICTURE and BRIGHTNESS to maximum: (standard: less than or equal to 117.75 VDC).
9. Repeat steps 4 to 7.

Hold-down Readjustment

If the setting indicated in step 2 of Hold-down Operation Confirmation cannot be met, readjustment should be performed by altering the resistance value of R582, a component marked with X.



4-2. B+ VOLTAGE CONFIRMATION AND ADJUSTMENT

Note: The following adjustments should always be performed when replacing the following components, which are marked with X on the schematic diagram.

IC001, IC602, R030, R624, R626, R632, R633, R635, R636, R637, R638, R639

1. Supply 130 ± 2 VAC (or $120\text{--}220 \pm 2.0$ VAC for KV-14MB42/42C) to the set with a variable auto transformer.
2. Input a dot signal.
3. Set the PICTURE and BRIGHTNESS controls to minimum.
4. Set to Service Adjustment Mode.
5. Select PADJ with 1 and 4.
6. Adjust with 6 to the 0 level.
7. Confirm the voltage of A board TP-600 is less than 125 VDC.
8. If step 7 is not satisfied, replace the components and repeat the above steps.
9. Supply 120 ± 2 VAC (or $120\text{--}220 \pm 2.0$ VAC for KV-14MB42/42C) to the set with a variable auto transformer.
10. Adjust with 3 and 6 for $117 \pm .3$ VDC.
11. Press MUTING then ENTER to save into the memory.

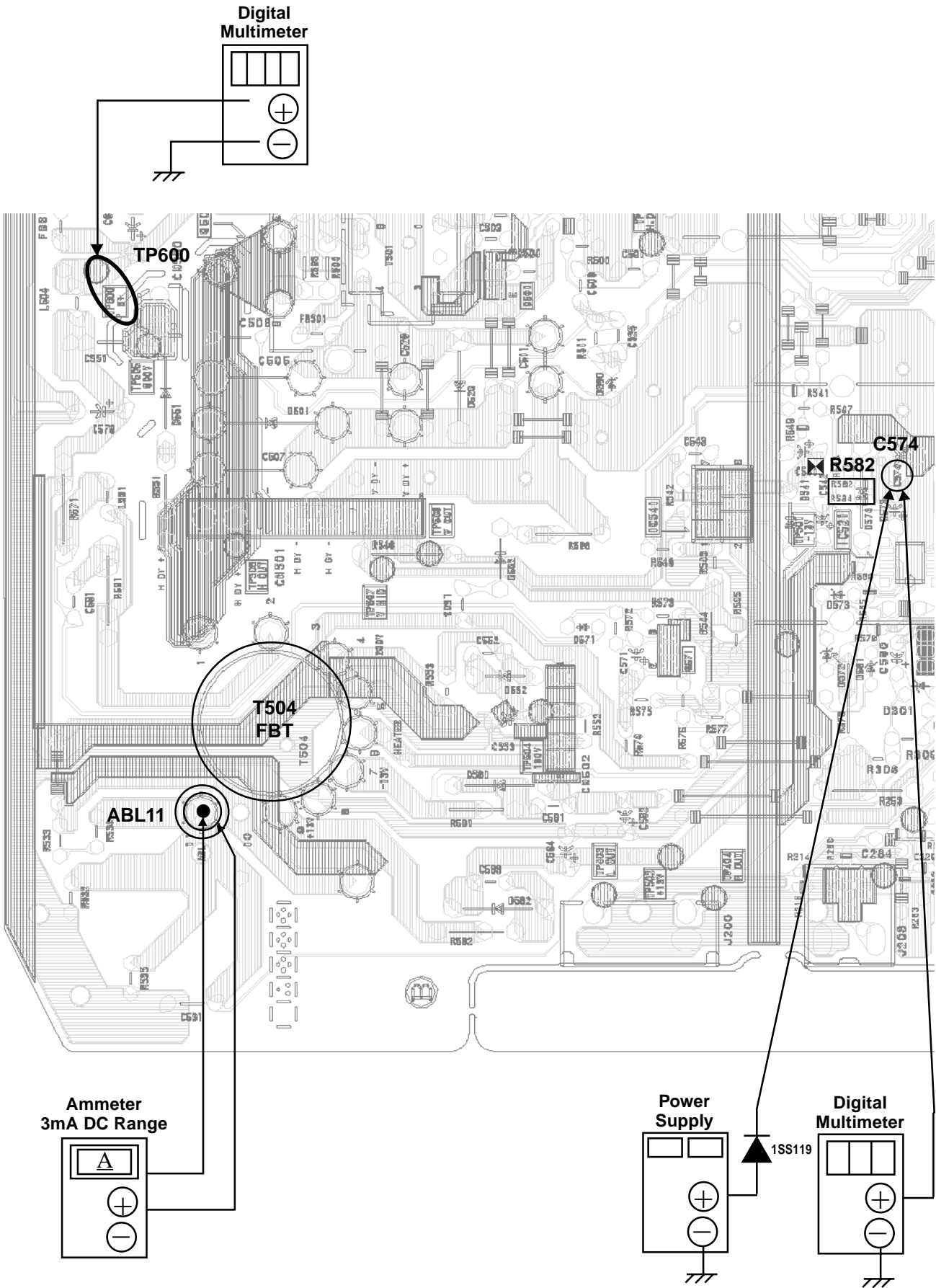


Figure 1

SECTION 5 CIRCUIT ADJUSTMENTS

Electrical Adjustment by Remote Commander

Use the Remote Commander (RM-Y156) to perform the circuit adjustments in this section.

NOTE: Test Equipment Required:

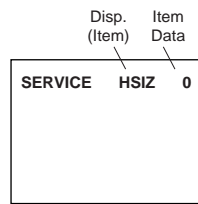
- Pattern generator
- Frequency counter
- Digital multimeter
- Audio oscillator

5-1. Setting the Service Adjustment Mode

1. Standby mode (power off).
2. **Display** → Channel **5** → Sound volume **+** → Power ON
on the Remote Commander (press each button within a second).

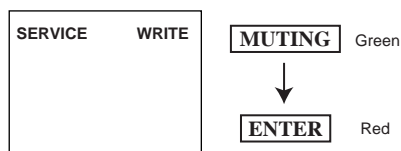
Service Adjustment Mode On

1. The CRT displays the item being adjusted.

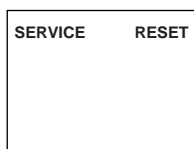


2. Press **1** or **4** on the Remote Commander to select an item.
3. Press **3** or **6** on the Remote Commander to change the data.
4. Press **MUTING** then **ENTER** to save into the memory.

Service Adjustment Mode Memory



1. Press **8** then **ENTER** on the Remote Commander to initialize.



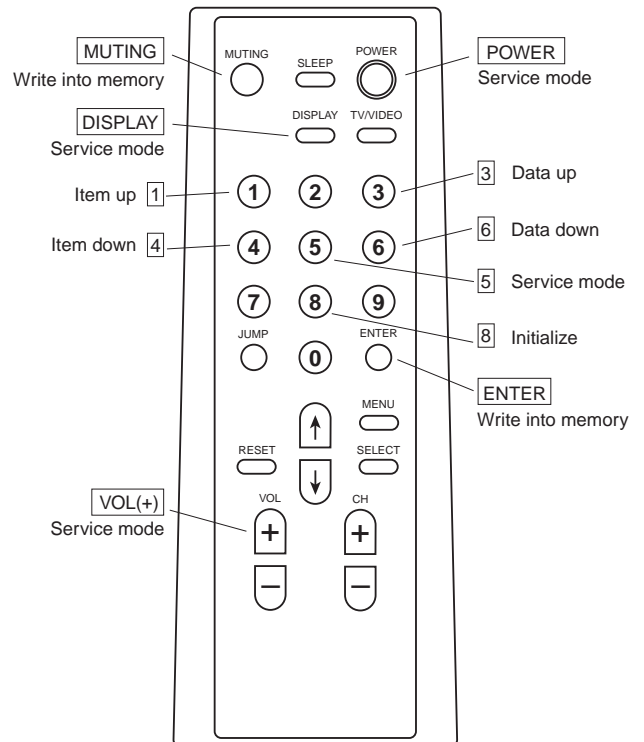
Carry out step 1 when adjusting IDs 0-4 and when replacing and adjusting IC003.

2. Turn set off then on to exit service adjustment mode.

5-2. Memory Write Confirmation Method

1. After adjustment, remove the power plug from the AC outlet, then plug it in again.
2. Turn the power switch ON and set to service mode.
3. Call the adjusted items again to confirm they were adjusted.

5-3. Adjust Buttons and Indicators



RM-Y156

Adjustment Items

NO.	ITEM	FUNCTION	DATA RANGE	INITIAL DATA	AVERAGE DATA
1	HSIZ	HORIZONTAL SIZE ADJ.	0-63	31	31
2	HPOS	HORIZONTAL POS. ADJ.	0-63	31	21
3	VBOW	VRT LINE BOWING ADJ.	0-15	7	6
4	VANG	VRT LINE BOW SLANT ADJ.	0-15	7	6
5	TRAP	HORIZ. TRAPEZOID ADJ.	0-15	7	15
6	PAMP	HORIZ. PIN DISTORTION ADJ.	0-63	31	31
7	CPIN	SAME AS PAMP-SCRN TP/BTM	0-63	31	31
8	VSIZ	VERTICAL SIZE ADJ.	0-63	31	43
9	VPOS	VERTICAL POSITION ADJ.	0-63	31	38
10	VLIN	VERTICAL LINEARITY ADJ.	0-15	7	7
11	SCOR	VERTICAL "S" CORRECTION ADJ.	0-15	7	7
12	VZOM	16:9 CRT Z MODE ON/OFF	0, 1	0	0
13	EHT	VRT HI-VOLT. CORRECTION	0-15	7	15
14	ASP	ASPECT RATIO CONTROL	0-63	63	47
15	SCRL	16:9 CRT Z MODE TRANS SCROLL	0-63	31	31
16	HBLK	HORIZONTAL BLANKING ON/OFF	0, 1	0	1
17	LBLK	LEFT BLANKING ADJ.	0-15	7	15
18	RBLK	RIGHT BLANKING ADJ.	0-15	7	3
19	VUSN	V SAW WAVEFORM COMPRESS	0, 1	0	0
20	HDW	H. DRIVE PULSE WIDTH	0, 1	0	0
21	EWDC	"PARABOLA" EW/DC ADJ.	0, 1	0	0
22	LVLN	LOWER SCREEN BTM VRT LIN ADJ.	0-15	0	0
23	UVLN	UPPER SCREEN BTM VRT LIN ADJ.	0-15	0	0
24	RDRV	R OUTPUT DRIVE CONTROL	0-63	31	18
25	GDRV	G OUTPUT DRIVE CONTROL	0-63	31	15
26	BDRV	B OUTPUT DRIVE CONTROL	0-63	31	15
27	RCUT	R OUTPUT CUTOFF CONTROL	0-15	7	10
28	GCUT	G OUTPUT CUTOFF CONTROL	0-15	7	6
29	BCUT	B OUTPUT CUTOFF CONTROL	0-15	7	6
30	DCOL	DYNAMIC COLOR ON/OFF	0, 1	0	0
31	SHUE	SUB HUE	0-31	14	15
32	SCOL	SUB COLOR	0-31	14	18
33	SBRT	SUB BRIGHTNESS	0-31	14	10
34	RON	R OUTPUT ON/OFF	0, 1	0	1
35	GON	G OUTPUT ON/OFF	0, 1	0	1
36	BON	B OUTPUT ON/OFF	0, 1	0	1
37	AXPL	AXIS PAL	0, 1	0	0
38	AXNT	AXIS NTSC	0, 1	0	0
39	CBPF	CHROMA BPF ON/OFF	0, 1	0	1
40	CTRP	Y TRAP FILTER ON/OFF	0, 1	0	0
41	COFF	COLOR ON/OFF	0, 1	0	0
42	KOFF	SET COLOR KILLER	0, 1	0	0
43	SSHP	SUB SHARPNESS	0-15	8	7
44	SHPF	SHARPNESS CIRCUIT F0	0, 1	0/0 *2	1/1 (*2)
45	PREL	PRE/OVR SHOOT SWITCHING	0, 1	0	1
46	Y-DC	DC TRANS RATIO SWITCHING	0, 1	0	1
47	GAMM	GAMMA CORRECTION AMNT	0-3	0	0
48	ABLM	ABL MODE SWITCHING	0, 1	1	1
49	VTH	ABL CD VHT SWITCHING	0, 1	0	1
50	YDEL	Y DELAY TIME CONTROL	0-15	7	7
51	NCOL	NO COLOR ID	0, 1	0	1
52	FSC	FSC OUT ON/OFF	0, 1	0	0
53	K-ID	KILLER ID CONTROL SW	0, 1	0	0
54	HOSC	H VCO OSCILLATION FREQ	0-15	7	7
55	VSS	V SYNC SLICE LEVEL	0, 1	0	0
56	HSS	H SYNC SLICE LEVEL	0, 1	0	0
57	HMSK	H SYNC MASK WIDTH	0, 1	0	1
58	VTMS	SELECT SIGNAL VTIM PIN	0-3	0	0
59	CDMD	V CNT DWN MODE SWITCHING	0-3	0/1 *2	0/1 (*2)
60	AFC	AFC LOOP GAIN SWITCHING	0-3	0/0 *2	0/0 (*2)
61	FIFR	FIELD FREQUENCY	0-3	0	3
62	SBAS	SUB BASS	0-15	7	8
63	STRE		0-15	7	9

NO.	ITEM	FUNCTION	DATA RANGE	INITIAL DATA	AVERAGE DATA
64	SBAL	SUB BALANCE	0-31	14	13
65	DISP	O.S.D DISPLAY POSITION	0-127	0	12
66	PADJ	POWER ADJUSTMENT	0-63	3	48
67	HCHM		0-255	69	69
68	HCLM		0-255	16	16
69	HCHS		0-255	69	69
70	HCLS		0-255	16	16
71	PVCH		0-1	0	0
72	PVON		0-1	0	1
73	PVLN		0-31	17	17
74	PVSB		0-255	64	64
75	PVLV		0-255	130	130
76	ID1	ID1	0-255	3	See ID Map below
77	ID2	ID2	0-255	11	See ID Map below
78	ID3	ID3	0-255	1	See ID Map below
79	ID4	ID4	0-255	23	See ID Map below
80	ID5	ID5	0-255	0	See ID Map below
81	ID6	ID6	0-255	0	See ID Map below
82	ID7	ID7	0-255	64	See ID Map below

*2: TV/VIDEO

Notes:

No. 1-77 show the order that each adjustment mode may be selected while in service mode.

Data Range shows the range of possible settings for each adjustment mode.

Initial Data shows the standard settings for each adjustment mode.

SERVICE	ID0	25

Feature ID Map

MODEL	DEST.	ID-0	ID-1	ID-2	ID-3	ID-4	ID-5	ID-6	ID-7
KV-13M42	US	25	1	0	35	3	0	0	0
KV-13M42	CND	89	1	0	19	3	0	0	0
KV-13M52	US	25	3	0	35	3	1	0	0
KV-13M53	US	25	3	0	35	3	1	0	0
KV-14MB42	E	17	1	0	3	115	1	0	0
KV-14MB42C	E	17	1	0	3	115	1	0	0

5-4. A BOARD ADJUSTMENTS

H. Frequency Adjustment

1. Input a monoscope signal.
2. Set to Service Adjustment Mode.
3. Connect a frequency counter to base of Q501 (TP-500 H. DRIVE).
4. Select the item of AFC, set to 3 level (free run).
5. Check H. Frequency for the 15735 ± 200 Hz.
6. Select the AFC item again and adjust level to 0.
7. Press **MUTING** then **ENTER** to save into the memory.

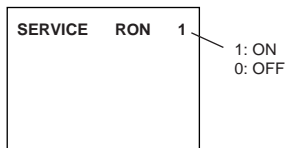
V. Frequency Adjustment

1. Select video 1 with no signal input.
2. Set the conditions for a standard setting.
3. Connect the frequency counter across TP-508 or CN501 VDY (+) pin ⑥ connector and ground.
4. Check that V. Frequency shows 60 ± 2 Hz.

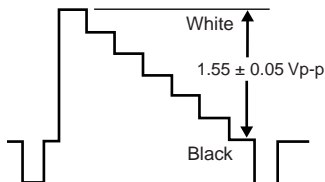
Sub Contrast Adjustment (RDRV)

1. Input a color-bar signal.
2. Set the red color.
3. Set to Service Adjustment Mode.
4. Select the item DCOL level to 0.
5. Set the conditions as follows:

PICTURE: MAX
 COLOR: MIN
 BRIGHT: CENTER
 R ON: ON (1)
 G ON: OFF (0)
 B ON: OFF (0)



6. Connect an oscilloscope probe to CN752 pin ② (R OUT of C Board) and ground.
7. Select RDRV with **1** and **4**.
8. Adjust with **3** and **6** for $1.55 \pm .05$ Vp-p

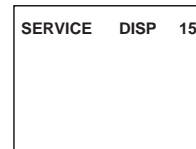


9. Reset the item DCOL to 1.
10. Press **MUTING** then **ENTER** to save into the memory.
11. Return the following back to normal after adjustment.

PICTURE: MAX
 COLOR: CENTER
 BRIGHT: CENTER
 R ON: ON (1)
 G ON: OFF (0)
 B ON: OFF (0)

Display Position Adjustment (DISP)

1. Input a color-bar signal.
2. Set to Service Adjustment Mode.
3. Select DISP with **1** and **4**.
4. Adjust with **3** and **6** to adjust characters to the center.
5. Press **MUTING** then **ENTER** to save into the memory.
6. Check to see if the text is displayed on the screen.

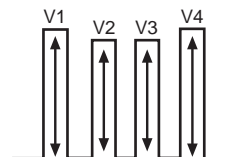


Sub Bright Adjustment (SBRT)

1. Input a crosshatch signal.
2. Set to Service Adjustment Mode.
3. Set the PICTURE and BRIGHTNESS to minimum.
4. Select the SBRT item with **1** and **4**.
5. Adjust with **3** and **6** to obtain a faintly visible crosshatch.
6. Press **MUTING** then **ENTER** to save into the memory.

Sub Hue, Sub Color Adjustment (SHUE, SCOL)

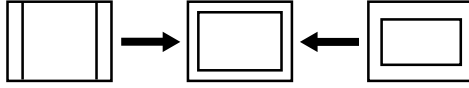
1. Input a color-bar signal.
2. Set to Service Adjustment Mode.
3. Select the DCOL item and set the value to 0.
4. Connect an oscilloscope probe to CN752 Pin ④ (BLUE OUT) of the C Board and ground.
5. Select SHUE and SCOL with **1** and **4**.
6. Adjust with **3** and **6** for the $V1 = V4 \pm 0.2$ Vp-p (SCOL) and $V2 = V3 \pm 0.2$ Vp-p (SHUE).



7. Reset the DCOL level to 1.
8. Press **MUTING** then **ENTER** to save into the memory.

V. Size Adjustment (VSIZ)

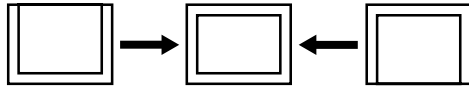
1. Input a crosshatch signal.
2. Set to Service Adjustment Mode.
3. Select the VSIZ item with **[1]** and **[4]**.
4. Adjust value of VPOS with **[3]** and **[6]** for the best vertical center.



5. Press **[MUTING]** then **[ENTER]** to save into the memory.

V. Center Adjustment (VPOS)

1. Input a crosshatch signal.
2. Set to Service Adjustment Mode.
3. Select the VPOS item with **[1]** and **[4]**.
4. Adjust value of VPOS with **[3]** and **[6]** for the best vertical center.

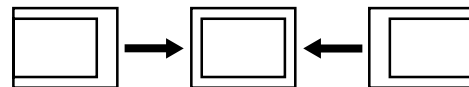


5. Press **[MUTING]** then **[ENTER]** to save into the memory.

H. Center Adjustment (HPOS)

Perform this adjustment after checking H. Frequency.

1. Input a crosshatch signal.
2. Set to Service Adjustment Mode.
3. Select the HPOS item with **[1]** and **[4]**.
4. Adjust the value of HPOS with **[3]** and **[6]** for the best horizontal center.

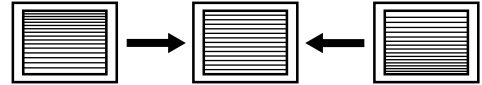


5. Press **[MUTING]** then **[ENTER]** to save into the memory.

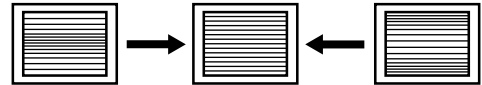
V. Linearity (VLIN), V Correction

1. Input a crosshatch signal.
2. V. correction is automatically adjusted from the circuit and should satisfy the conditions below.

V LINEARITY (VLIN)



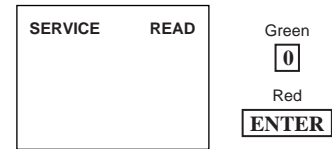
V CORRECTION



Service Adjustment Mode Memory

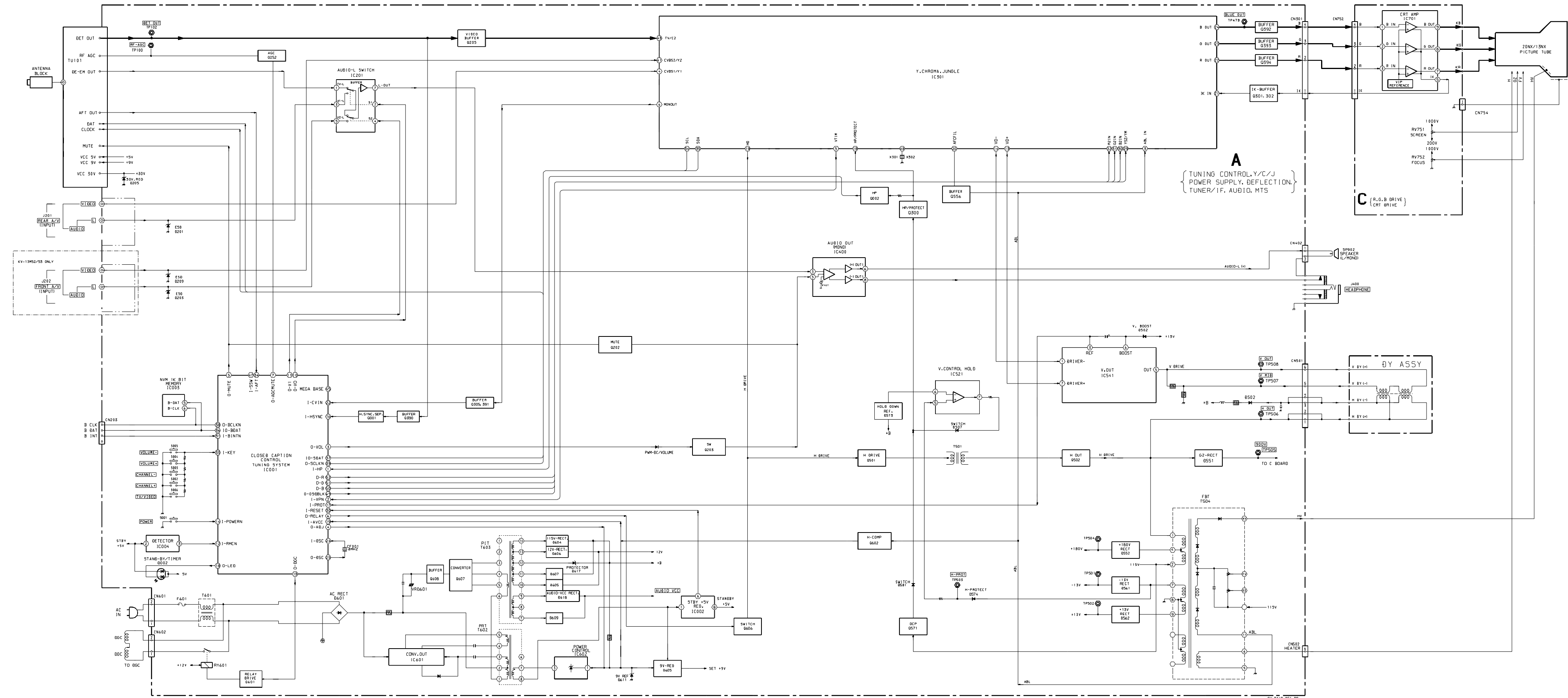
1. Change the value of the DCOL item to 1.
2. After completing all adjustments, press **[0]** then **[ENTER]**.

Read From Memory

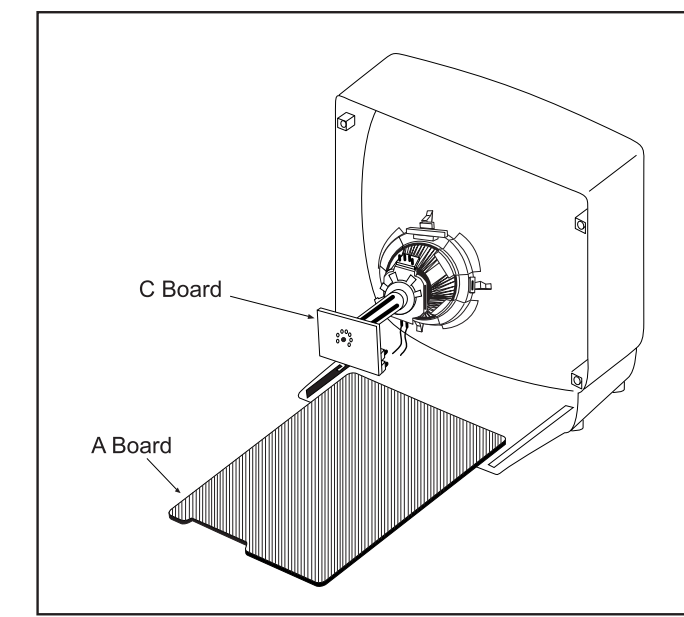


6.1 BLOCK DIAGRAM

SECTION 6
DIAGRAMS



6.2 CIRCUIT BOARD LOCATIONS



6-3. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytic and tantalums.
- All electrolytics are 50V unless otherwise specified.
- Indication of resistance, which does not have one for rating electrical power, is as follows:
Pitch: 5mm
Rating electrical power 1/4W (CHIP: 1/10W)
- All resistors are in ohms.
 $\text{K}\Omega = 1000\Omega$ $\text{M}\Omega = 1000\text{K}\Omega$
- : nonflammable resistor
- : fusible resistor
- Δ : internal component
- : panel designation and adjustment for repair
- \perp : earth-ground
- : earth-chassis

The components identified by in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved (refer to Safety Related Adjustments on page 17).

When replacing parts shown in the table below, be sure to perform the related adjustments.

Part Replaced ()	Adjustment ()
DY, C511, C574, C575, D572, D573, D574, R582, R583, R584, R585, R586, R578, R625, R626, R634, R635, T504, IC301, IC521, IC602	HV HOLD-DOWN (R582)
IC001, IC602, R030, R624, R626, R632, R633, R635, R636, R637, R638, R639	B+ VOLTAGE CONFIRMATION

- All voltages are in Volts
- Voltage is DC with respect to ground unless otherwise noted.
- Readings are taken with a 10M Ω digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerance.
- Circled numbers are waveform references.
- * : cannot be measured
- : B + Line
- : B - Line
- : Signal path

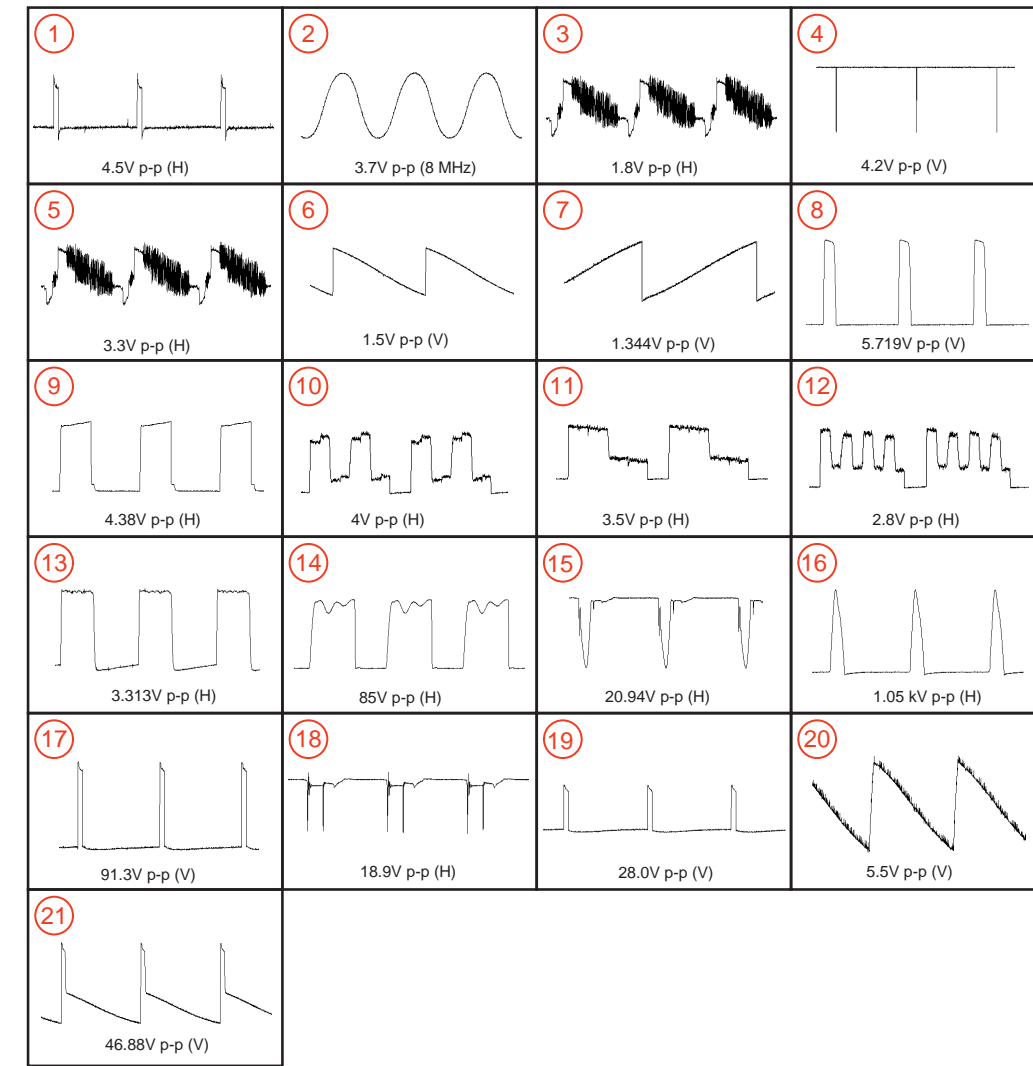
Reference Information

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

Note:
The components identified by and Δ mark are critical for safety. Replace only with the part number specified.
The symbol (displayed on component side of the circuit board) indicates fast operating fuse. Replace only with fuse of the same rating as marked.

Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
Le symbole indique une fusible à action rapide. Doit être remplacée par une fusible de même valeur, comme marque.

A BOARD WAVEFORMS



A BOARD IC VOLTAGE LIST

IC001	40	0	IC201	27	4.1	IC521		
PIN	VOLT		PIN	VOLT		PIN	VOLT	
1	9		1	6.1		1	11.1	
2	5.0		2	2.4		2	8	
3	1.5	44 4.9	3	6.2		3	1.1	
4	2.6	45 0	4	1		4	GND	
5	0	46 4.9	5	6.2		5	8.8	
6	0	47 0	6	9.2		6	10.0	
7	0	48 0	7	5.4		7	1.3	
8	.3	49 0	8	GND		8	11.6	
9	0	50 0	9	GND		9		
10	0	51 0	10	3.5		10	2.4	
11	0	52 0	11	3.5		11	2.4	
12	4.9		12	5.3		12	11.6	
13	0		13	1.3		13	-10.4	
14	5	1 7.1	14	5.3		14	2.4	
15	4.9	2 GND	15	5.0		15	2	
16	.05	3 5.4	16	4.6		16	12	
17	-3	4 GND	17	1		17	2.4	
18	4.9	5 GND	18	4.9		18	0	
19	5.0	6 5.0	19	5.3		19	1.5	
20	1.9	7 GND	20	0		20	-37.7	
21	0	8 5.0	21	3.7		21	-39.0	
22	2.3		22	2.4		22	60.0	
23	0		23	3.6		23	-0.4	
24	2.3	1 GND	24	3.4		24	14.0	
25	2.3	2 GND	25	5.9		25	2.4	
26	0	3 GND	26	7.6		26	0	
27	4.9	4 GND	27	8		27	1.1	
28	0	5 4.9	28	3.3		28	6.5	
29	0	6 4.9	29	3.1		29	0	
30	5.0	7 GND	30	2.6		30	10.9	
31	5.0	8 5.0	31	1.0		31	0	
32	.3		32	1.8		32	0	
33	5.0		33	1.5		33	0	
34	2.5	1 0	34	1.5		34	0	
35	0	2 5.0	35	.08		35	0	
36	4.9	3 5.0	36	4.1		36	0	
37	4.9							
38	4.9							
39	4.9							

A BOARD TRANSISTOR VOLTAGE LIST

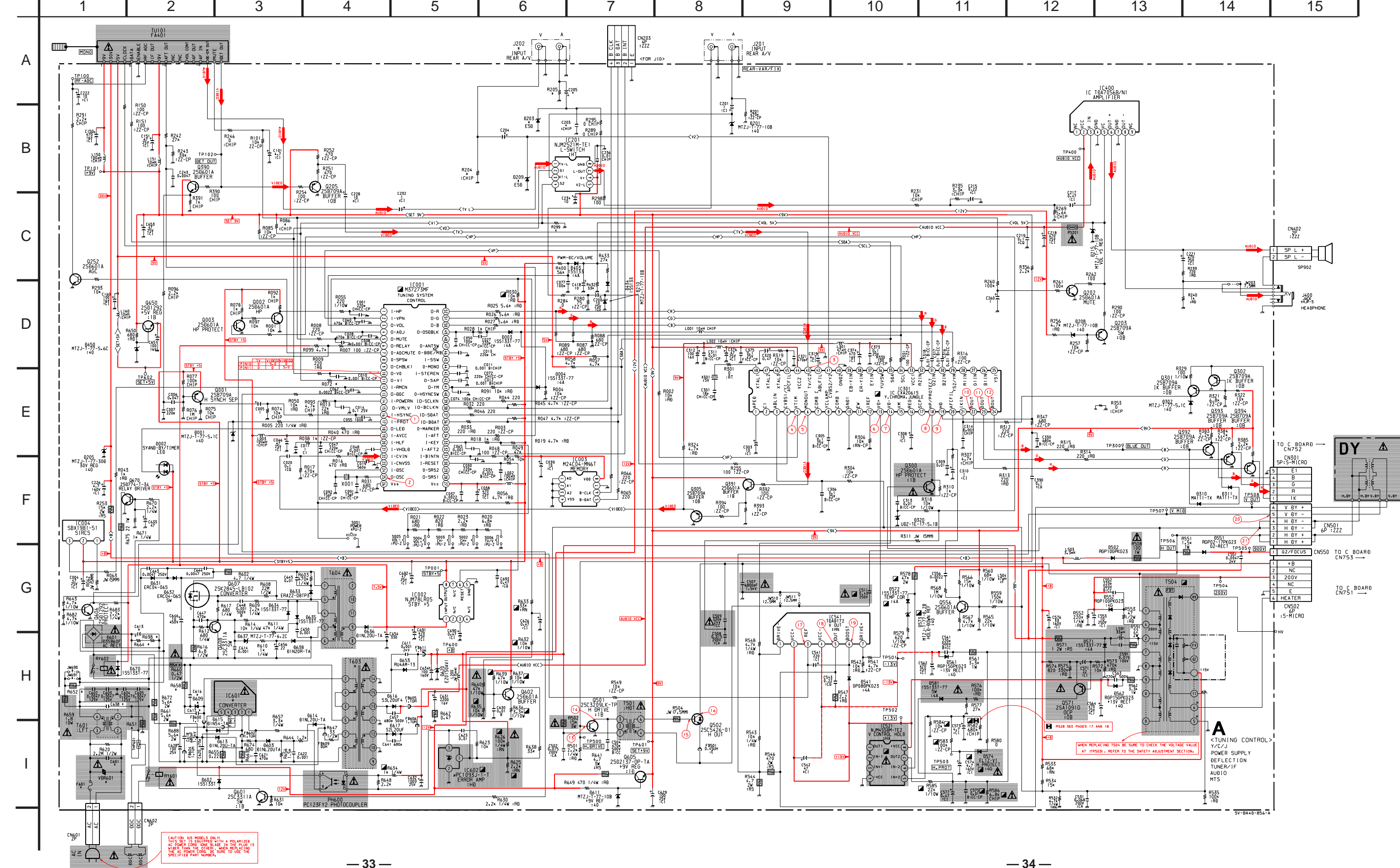
	B	C	E
Q001	4.9	5.2	7
Q002	0.4	0	.9
Q003	0	4	.9
Q202	0	0	6
Q203	2.4	0	0
Q204	0	5	0
Q205	4.6	0	5.3
Q252	0	7.3	0
Q300	5	3.4	0
Q301	3.7	.9	3.7
Q302	3.7	0	3.9
Q305	3.9	0	4.4
Q390	4.3	5.0	9.0
Q391	4.5	9.1	3.9
Q392	1.5	0	2.2
Q393	1.5	0	2.2
Q394	1.8	0	2.5
O501	8	42.8	0
O502	2.1	112.6	1.5
O556	2.1	4.3	1.5
O571	111.8	7.0	113
Q601	0	13.1	0
Q602	.9	7.3	.3
Q605	9.2	11.7	9.8
Q606	.1	3.9	0
Q608	.3	1.0	0
Q650	5.7	9.2	5.1
Q670	.7	.1	0
	G	D	S
Q607	1.0	107.2	0

A BOARD MARK (*) LIST

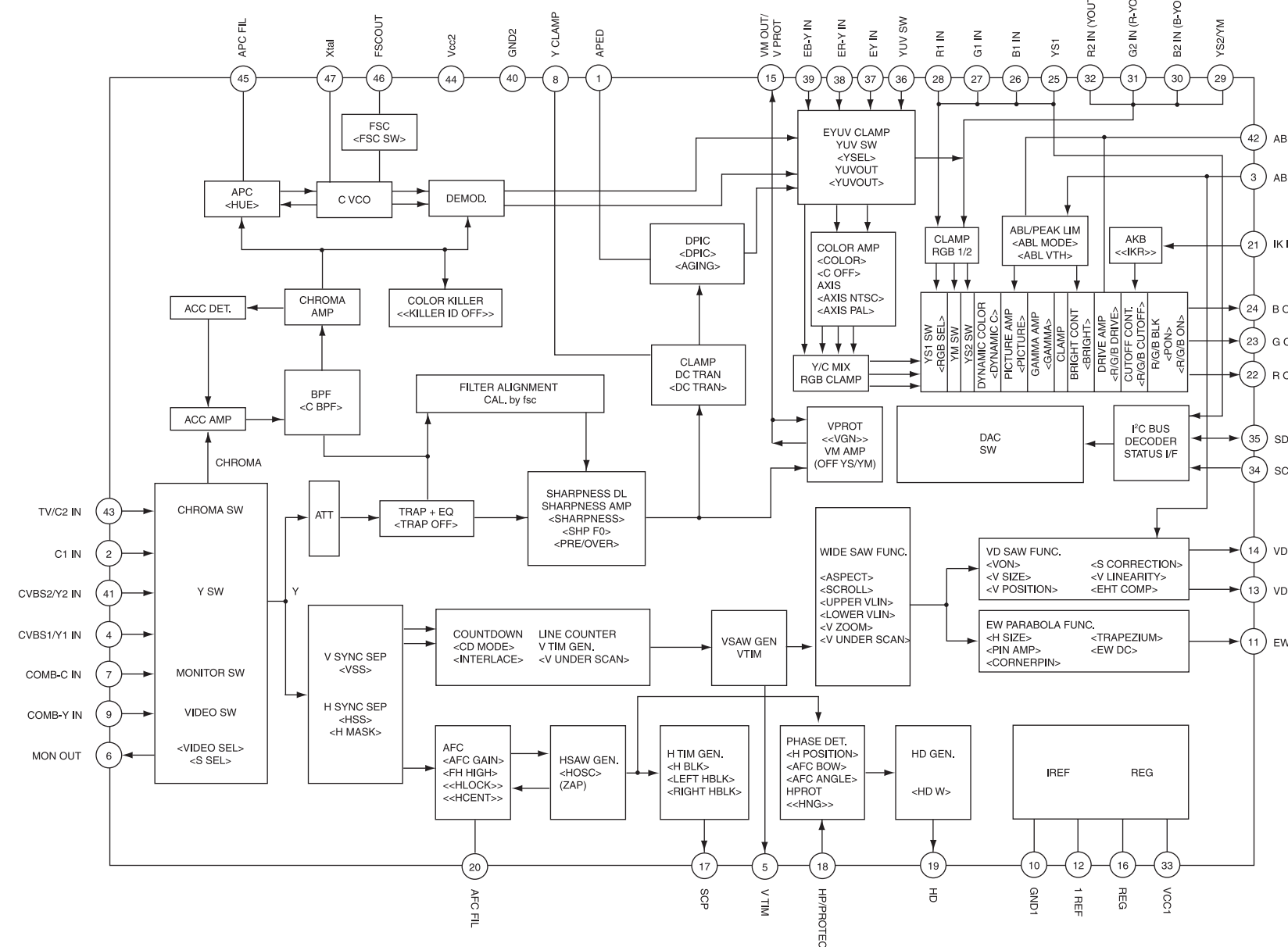
REF NO.	LOC.	KV-13M42	KV-13M52 KV-13M53	KV-14MB42 KV-14MB42C
C203	B-6	#	0 001	#
C204	B-6	#	10 25V	#
C205	A-6	#	1	#
C601	H-1	0.47 125V	0.47 125V	0.47 300V
C613	G-2	470 250V	470 250V	330 400V
C616	H-2	#	#	0.022 400V
C617	H-2	#	#	220pF 1KV
C638	G-1	0.47 125V	0.47 125V	#
D203	B-6	#	MTZJ-T-77-10B	#
D209	B-5	#	MTZJ-T-77-10B	#
D609	H-3	#	#	8-719-311-31
F601	I-1	1-533-795-11	1-533-795-11	1-532-506-51
IC601	H-3	STR-F6624	STR-F6624	STR-F6654
J202	A-6	#	2P	#
JW690	G-1	5MM	5MM	#
JW691	G-1	5MM	5MM	#
R072	D-3	#	220	#
R086	C-3	#	10K	#
R204	B-5	#	75	#
R205	A-6	#	470K	0
R299	C-6	#	#	0
R651	H-2	4.7M	4.7M	8.2M
R652	G-1	#	#	1.8
R658	G-2	#	#	100K
R664	G-2	390K	390K	270K
R698	G-2	5MM	5MM	270K
T603	H-4	1-433-816-11	1-433-816-11	1-433-817-11
VDR601	I-1	1-803-585-11	1-803-585-11	1-803-587-11

: NOT MOUNTED

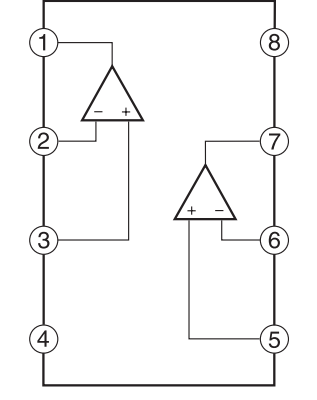
A BOARD SCHEMATIC DIAGRAM



A BOARD: IC301 CXA2061S



A BOARD: IC521 NJM4558M-TE2

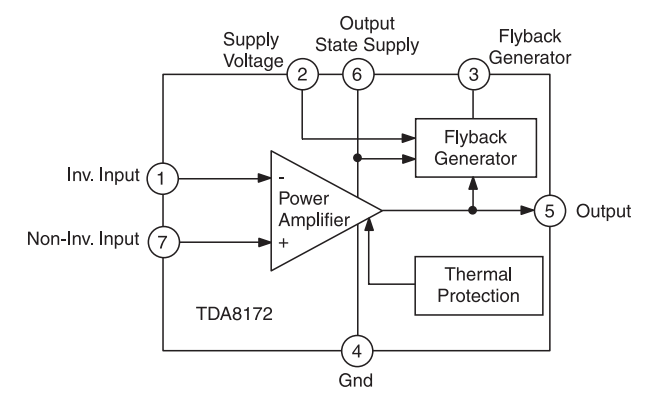


NOTE:
Portions of the circuit marked as shown are high voltage areas. Use care to prevent electric shocks during inspection or repair.

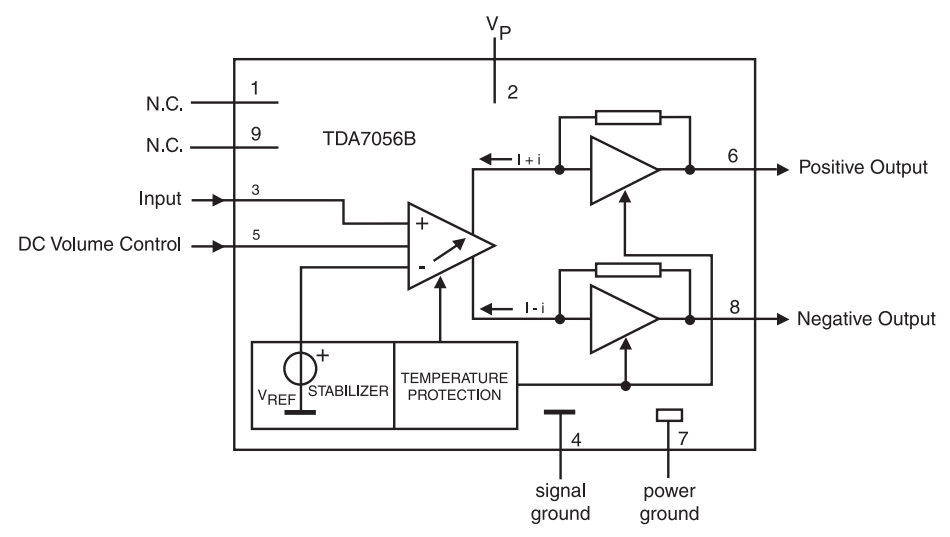
A BOARD LOCATION LIST

DIODE	D571	C-2	D650	H-6	Q301	F-7	
D001	F-9	D572	E-2	D653	A-5	Q302	F-7
D002	F-10	D573	E-3	D670	D-9	Q305	F-8
D003	H-7	D574	E-3	IC	Q390	F-8	
D004	H-7	D581	E-2	IC001	G-9	Q391	F-6
D201	F-2	D601	C-7	IC002	H-9	Q392	F-8
D203	H-11	D602	D-8	IC003	H-9	Q393	F-8
D205	D-5	D603	B-8	IC004	F-11	Q394	G-8
D208	E-8	D609	B-6	IC201	F-4	Q501	C-5
D209	G-2	D611	D-6	IC301	G-7	Q502	B-5
D210	H-2	D613	C-7	IC400	E-5	Q556	E-8
D215	E-6	D614	C-7	IC521	E-3	Q571	D-2
D302	F-7	D615	C-7	IC541	D-3	Q601	D-7
D310	F-8	D616	B-6	IC601	B-8	Q602	F-8
D311	F-8	D617	C-6	IC602	D-6	Q605	D-6
D320	F-7	D620	B-5	TRANSISTOR	Q606	E-8	
D403	E-10	D631	C-9	Q001	F-9	Q607	B-10
D434	E-9	D632	B-9	Q002	F-8	Q608	D-8
D502	C-3	D633	B-10	Q003	E-8	Q650	G-6
D541	E-3	D634	A-11	Q202	E-6	Q670	E-9
D551	B-4	D635	A-11	Q203	E-9		
D552	C-2	D636	C-10	Q205	G-6		
D561	C-2	D637	A-11	Q252	G-9		
D562	C-1	D638	C-10	Q300	F-8		

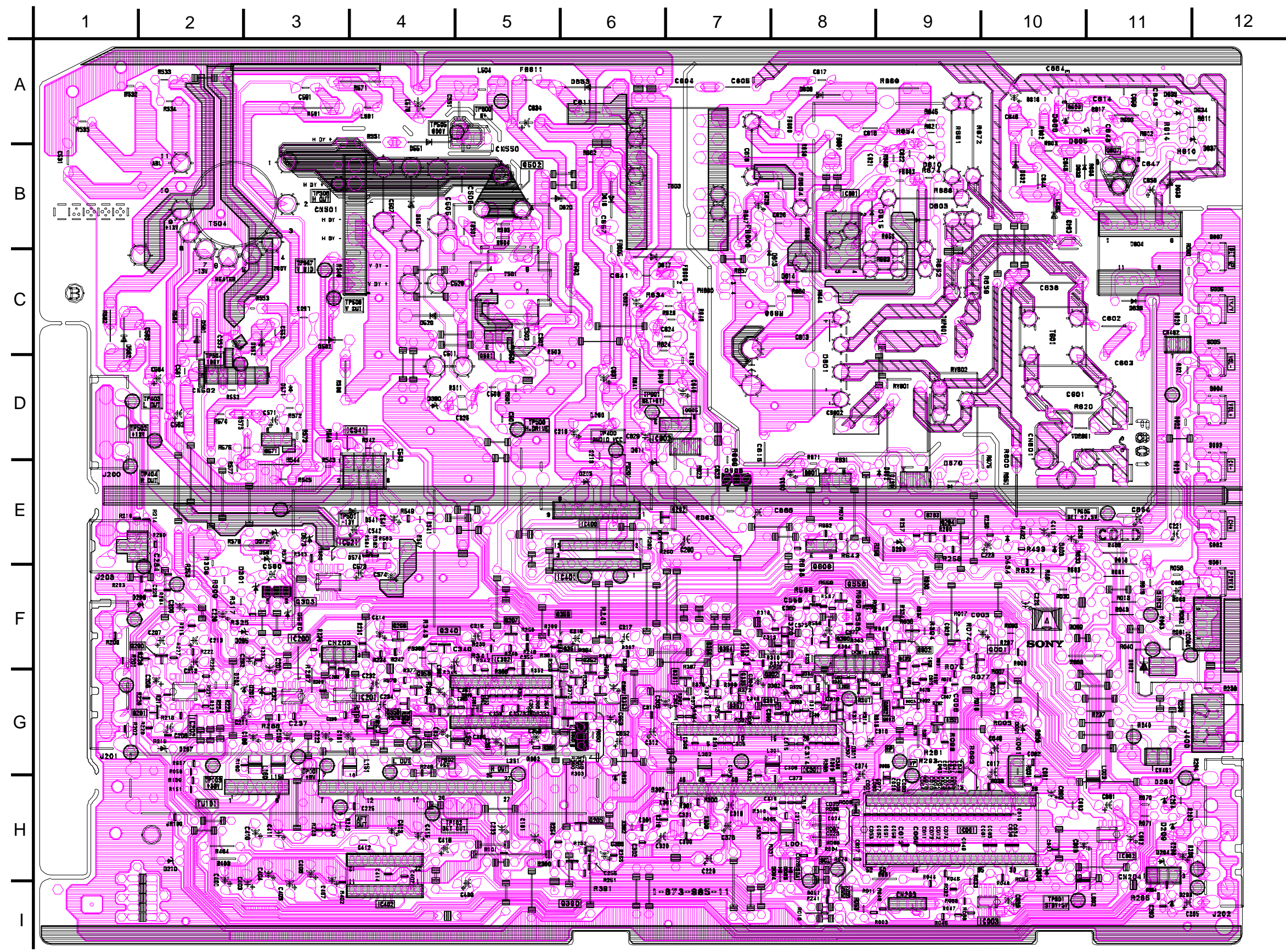
A BOARD: IC541 TDA8172



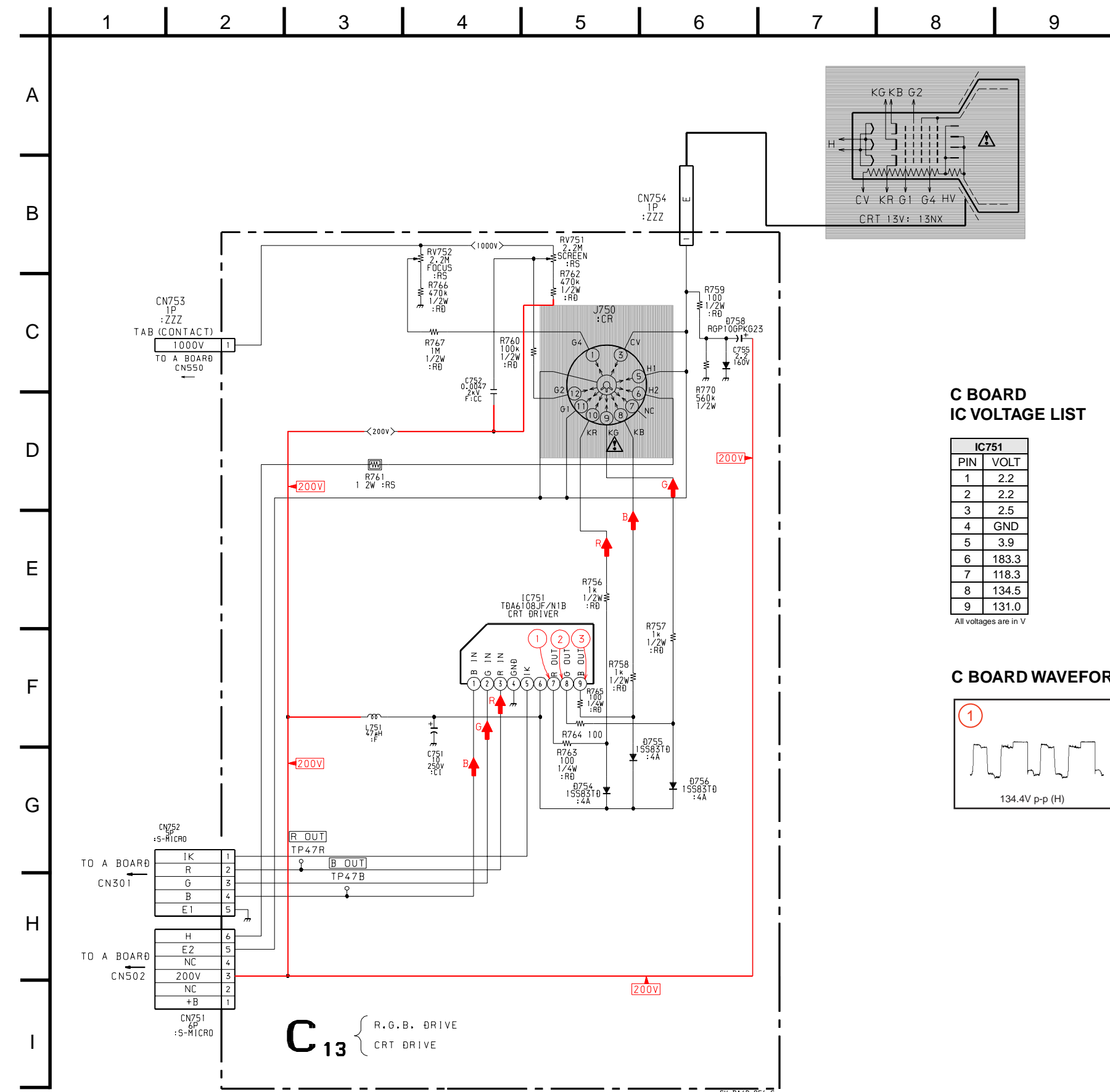
A BOARD: IC400 TDA7056B/N1



A [TUNING CONTROL, Y/C/J, POWER SUPPLY, DEFLECTION, TUNER/IF, AUDIO MTS]



C BOARD SCHEMATIC DIAGRAM

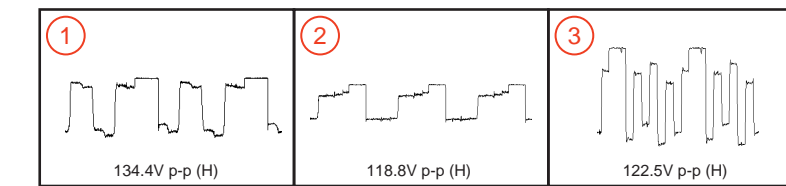


C BOARD IC VOLTAGE LIST

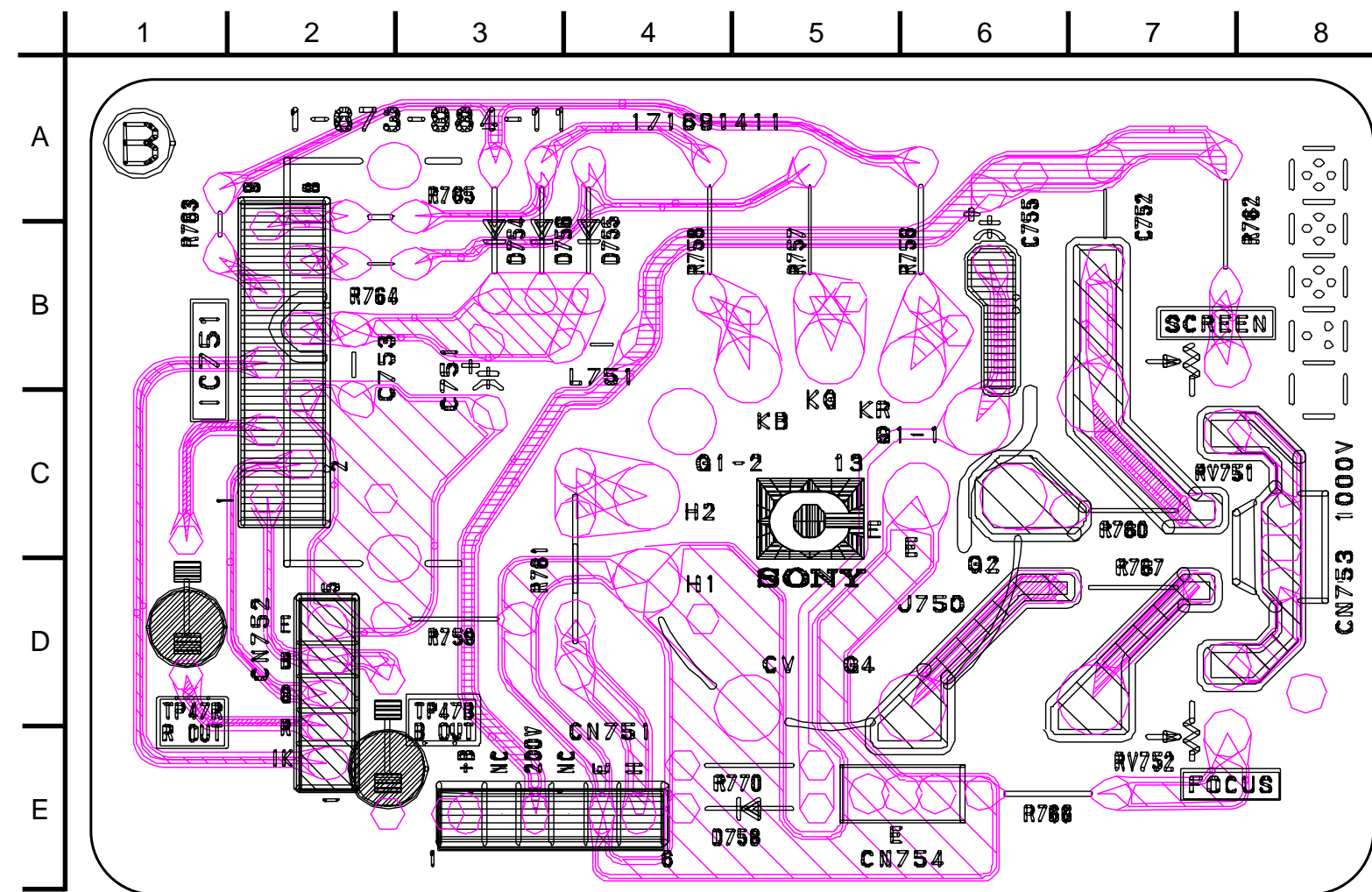
IC751	
PIN	VOLT
1	2.2
2	2.2
3	2.5
4	GND
5	3.9
6	183.3
7	118.3
8	134.5
9	131.0

All voltages are in V

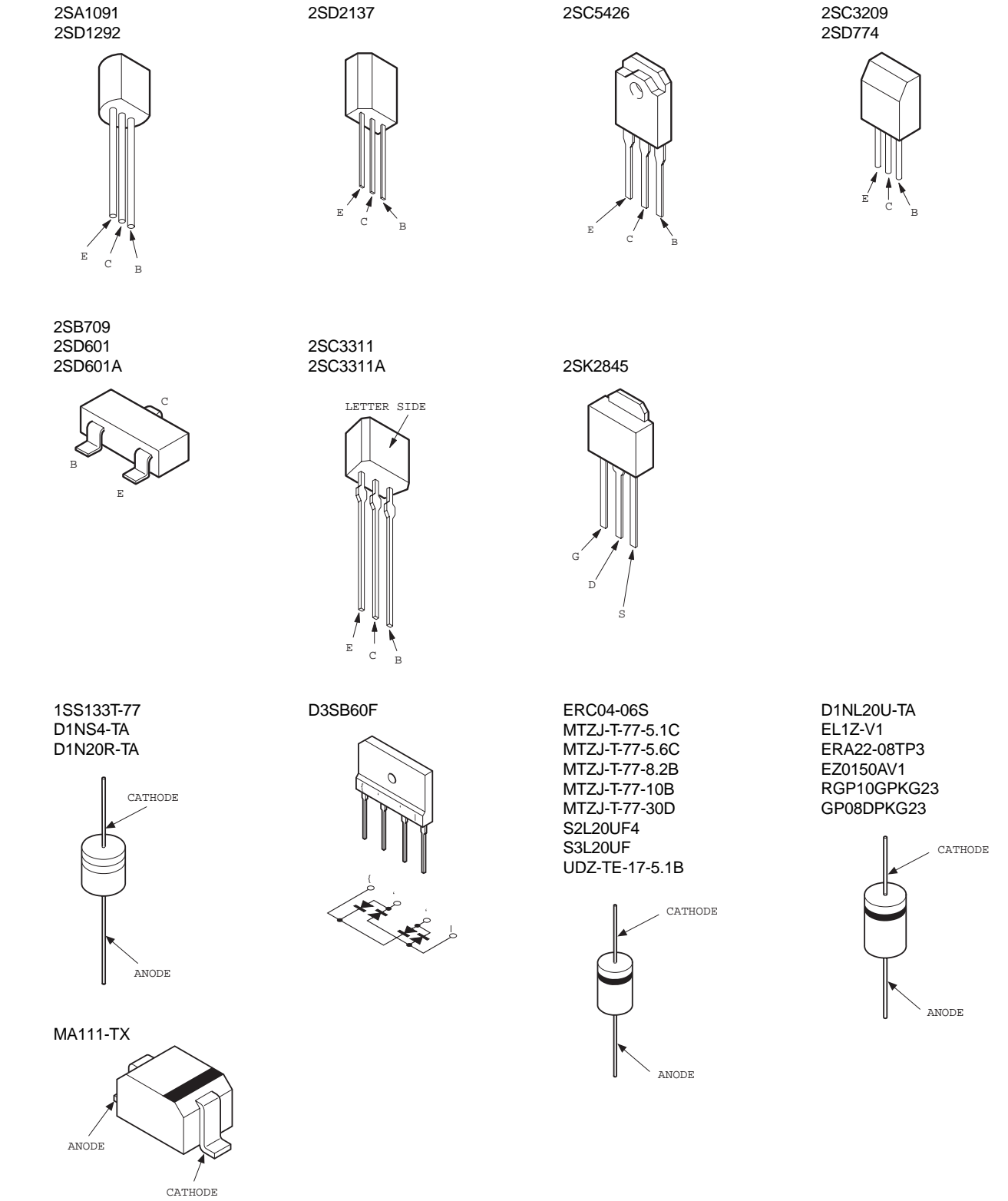
C BOARD WAVEFORMS



C [R.G.B. DRIVE, CRT DRIVE]



6-4. SEMICONDUCTORS



SECTION 7 EXPLODED VIEW

- Items with no part number and no description are not stocked because they are seldom required for routine service.

- The component parts of an assembly are indicated by the reference numbers in the remarks column.

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

Note:

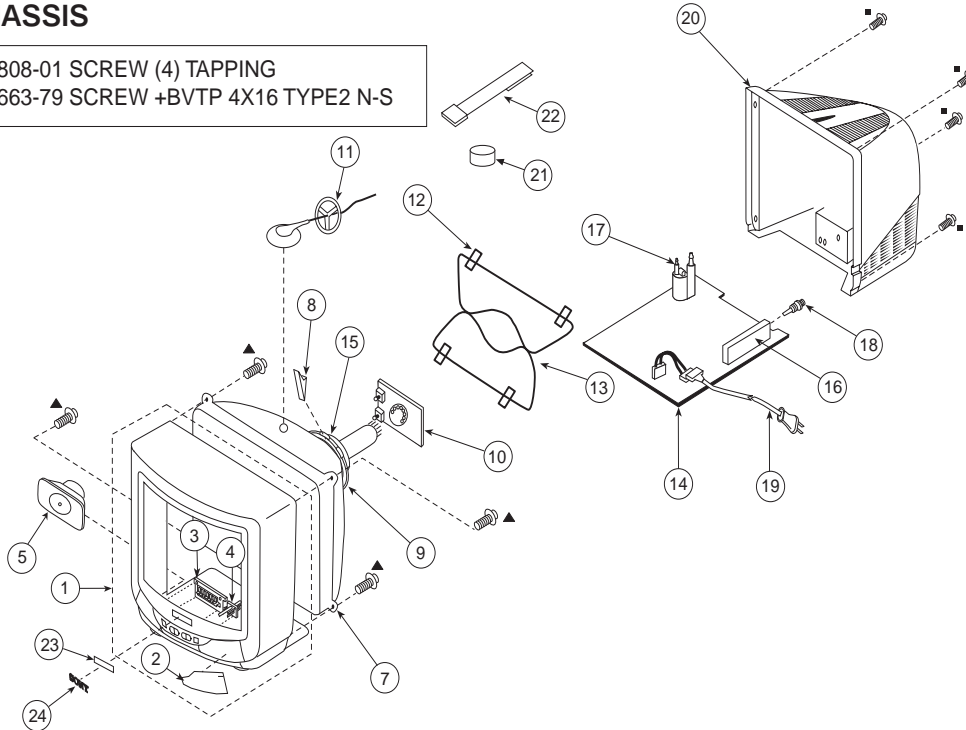
The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

Note:

Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. CHASSIS

- 4-365-808-01 SCREW (4) TAPPING
- ▲ 7-685-663-79 SCREW +BVTP 4X16 TYPE2 N-S



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	X-4036-793-1	BEZNET ASSY (KV-13M42)	1-4	14	* A-1298-836-A	A COMPLETE PC BOARD (KV-14MB42/42C)	
1	X-4036-794-1	BEZNET ASSY (KV-13M52)	1-4	14	* A-1298-894-A	A COMPLETE PC BOARD (KV-13M52/53)	
1	X-4036-795-1	BEZNET ASSY (KV-13M53)	1-4	14	* A-1298-895-A	A COMPLETE PC BOARD (KV-13M42)	
1	X-4036-796-1	BEZNET ASSY (KV-14MB42/42C)	1-4	15	1-452-277-00	MAGNET, BMC	
2	4-051-569-21	DOOR		16	Δ 1-693-454-11	TUNER FA401	
2	4-051-569-31	DOOR (KV-13M53 ONLY)		17	Δ 1-453-210-11	TRANSFORMER ASSY, FLYBACK (NX-1731//X4E4)	
3	4-051-567-31	MULTIBUTTON		18	1-766-374-11	PLUG, F-PIN	
3	4-051-567-41	MULTIBUTTON (KV-13M53 ONLY)		19	Δ 1-769-796-71	CORD, POWER (WITH CONNECTOR) (KV-14MB42C)	
4	4-051-568-11	FILTER, REMOTE (A)		19	Δ 1-790-316-31	CORD, POWER (WITH CONNECTOR) (KV-13M53)	
5	1-529-270-11	SPEAKER (9X5CM)		19	Δ 1-790-001-21	CORD, POWER (WITH CONNECTOR) (KV-13M42/13M52)	
7	Δ 8-735-562-05	CRT 14NDXM (SDS) (A34JBU70X)		19	Δ 1-751-057-11	CORD, POWER (WITH CONNECTOR) (KV-14MB42)	
8	4-053-005-01	SPACER, DY		20	4-051-570-51	COVER, REAR	
9	Δ 8-451-418-72	DY (Y14NDA2-X)		20	4-051-570-11	COVER, REAR (KV-13M53 ONLY)	
10	* A-1331-918-A	C MOUNTED PC BOARD		21	1-452-032-00	MAGNET, DISC	
11	3-704-372-31	HOLDER, HV CABLE		22	4-051-735-22	PIECE A (75), CONV. CORRECT	
12	* 4-055-079-01	HOLDER, DGC		23	* 4-031-698-01	SHEET, ADHESIVE	
13	Δ 1-426-145-00	COIL, DEGAUSSING (KV-14MB42/42C)		24	4-046-162-01	EMBLEM (NO.6), SONY	
13	Δ 1-411-985-31	COIL, DEGAUSSING (KV-13M42/13M52/13M53)					

SECTION 8 ELECTRICAL PARTS LIST

Note:

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

Note:

Les composants identifiés par un trame et une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- The components identified by \square in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

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

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center; font-size: 2em; margin-bottom: 10px;">A</div> <p>* A-1298-895-A A COMPLETE PC BOARD (KV-13M42) * A-1298-894-A A COMPLETE PC BOARD (KV-13M52/13M53) * A-1298-836-A A COMPLETE PC BOARD (KV-14MB42/42C) 1-533-223-11 HOLDER, FUSE 4-382-854-11 SCREW (M3X10), P, SW (+)</p> <p>CAPACITOR</p>				C065	1-163-009-11	CERAMIC CHIP	0.001 μ F 10% 50V
				C072	1-163-259-91	CERAMIC CHIP	220pF 5% 50V
				C074	1-163-251-11	CERAMIC CHIP	100pF 5% 50V
				C077	1-163-251-11	CERAMIC CHIP	100pF 5% 50V
				C091	1-163-231-11	CERAMIC CHIP	15pF 5% 50V
C001	1-163-259-91	CERAMIC CHIP	220pF 5% 50V	C092	1-163-231-11	CERAMIC CHIP	15pF 5% 50V
C004	1-104-664-11	ELECT	47 μ F 20% 25V	C101	1-126-963-11	ELECT	4.7 μ F 20% 50V
C005	1-126-960-11	ELECT	1 μ F 20% 50V	C150	1-126-935-11	ELECT	470 μ F 20% 16V
C006	1-163-035-00	CERAMIC CHIP	0.047 μ F 50V	C151	1-104-664-11	ELECT	47 μ F 20% 25V
C007	1-163-259-91	CERAMIC CHIP	220pF 5% 50V	C160	1-126-382-11	ELECT	100 μ F 20% 16V
C008	1-163-009-11	CERAMIC CHIP	0.001 μ F 10% 50V	C200	1-107-698-11	ELECT	10 μ F 20% 25V
C010	1-163-009-11	CERAMIC CHIP	0.001 μ F 10% 50V	C201	1-126-960-11	ELECT	1 μ F 20% 50V
C011	1-163-009-11	CERAMIC CHIP	0.001 μ F 10% 50V	C203	1-163-009-11	CERAMIC CHIP	0.001 μ F 10% 50V
C012	1-163-009-11	CERAMIC CHIP	0.001 μ F 10% 50V			(KV-13M52/13M53 ONLY)	
C013	1-163-259-91	CERAMIC CHIP	220pF 5% 50V	C204	1-107-698-11	ELECT	10 μ F 20% 25V
C014	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V			(KV-13M52/13M53 ONLY)	
C017	1-126-960-11	ELECT	1 μ F 20% 50V	C205	1-126-960-11	ELECT	1 μ F 20% 50V
C019	1-163-135-00	CERAMIC CHIP	560pF 5% 50V			(KV-13M52/13M53 ONLY)	
C020	1-130-495-00	FILM	0.1 μ F 5% 50V	C215	1-126-957-11	ELECT	0.22 μ F 20% 50V
C027	1-163-259-91	CERAMIC CHIP	220pF 5% 50V	C217	1-126-959-11	ELECT	0.47 μ F 20% 50V
C028	1-163-005-11	CERAMIC CHIP	470pF 10% 50V	C218	1-126-941-11	ELECT	470 μ F 20% 25V
C030	1-163-259-91	CERAMIC CHIP	220pF 5% 50V	C219	1-130-495-00	FILM	0.1 μ F 5% 50V
C034	1-163-037-11	CERAMIC CHIP	0.022 μ F 10% 50V	C221	1-126-941-11	ELECT	470 μ F 20% 25V
C037	1-164-161-11	CERAMIC CHIP	0.0022 μ F 10% 50V	C222	1-126-964-11	ELECT	10 μ F 20% 50V
C038	1-126-941-11	ELECT	470 μ F 20% 25V	C226	1-107-635-11	ELECT	4.7 μ F 20% 160V
C039	1-126-964-11	ELECT	10 μ F 20% 50V	C228	1-126-964-11	ELECT	10 μ F 20% 50V
C046	1-104-664-11	ELECT	47 μ F 20% 25V	C232	1-126-960-11	ELECT	1 μ F 20% 50V
C047	1-163-259-91	CERAMIC CHIP	220pF 5% 50V	C234	1-126-964-11	ELECT	10 μ F 20% 50V
C048	1-163-009-11	CERAMIC CHIP	0.001 μ F 10% 50V	C236	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V
C050	1-163-251-11	CERAMIC CHIP	100pF 5% 50V	C243	1-163-017-00	CERAMIC CHIP	0.0047 μ F 10% 50V
C055	1-163-251-11	CERAMIC CHIP	100pF 5% 50V	C260	1-126-960-11	ELECT	1 μ F 20% 50V
C060	1-163-005-11	CERAMIC CHIP	470pF 10% 50V	C301	1-163-233-11	CERAMIC CHIP	18pF 5% 50V
C062	1-164-161-11	CERAMIC CHIP	0.0022 μ F 10% 50V	C303	1-126-964-11	ELECT	10 μ F 20% 50V
				C305	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V
				C306	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V
				C308	1-126-964-11	ELECT	10 μ F 20% 50V
				C309	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V
				C310	1-126-960-11	ELECT	1 μ F 20% 50V
				C311	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V
				C312	1-126-933-11	ELECT	100 μ F 20% 16V

Note:

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Note:

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C313	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V	C605	\triangle 1-113-941-11	CERAMIC	0.0047 μ F 20% 125V
C314	1-163-009-11	CERAMIC CHIP	0.001 μ F 10% 50V	C611	1-117-214-11	CERAMIC	0.001 μ F 10% 2KV
C316	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V	C613	1-117-893-11	ELECT	470 μ F 20% 250V
C317	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V			(ALL EXCEPT KV-14MB42/42C)	
C318	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V	C613	1-128-714-11	ELECT	330 μ F 20% 400V
						(KV-14MB42/42C ONLY)	
C319	1-126-963-11	ELECT	4.7 μ F 20% 50V	C614	1-130-471-00	MYLAR	0.001 μ F 5% 50V
C320	1-126-959-11	ELECT	0.47 μ F 20% 50V	C616	1-130-202-00	FILM	0.022 μ F 10% 400V
C321	1-163-133-00	CERAMIC CHIP	470pF 5% 50V			(KV-14MB42/42C ONLY)	
C330	1-163-007-11	CERAMIC CHIP	680pF 10% 50V	C617	1-107-824-11	CERAMIC	220pF 5% 1KV
C373	1-163-038-91	CERAMIC CHIP	0.1 μ F 25V			(KV-14MB42/42C ONLY)	
C374	1-126-935-11	ELECT	470 μ F 20% 16V	C618	1-125-893-11	FILM	680pF 3% 1.5KV
C375	1-163-038-91	CERAMIC CHIP	0.1 μ F 25V	C620	1-102-114-00	CERAMIC	470pF 10% 50V
C376	1-104-664-11	ELECT	47 μ F 20% 25V	C621	1-136-356-11	FILM	470pF 5% 50V
C390	1-130-495-00	FILM	0.1 μ F 5% 50V	C622	1-136-479-11	FILM	0.001 μ F 5% 50V
C418	1-126-964-11	ELECT	10 μ F 20% 50V	C623	1-136-153-00	FILM	0.01 μ F 5% 50V
C502	1-106-371-00	MYLAR	0.015 μ F 20% 200V	C626	1-126-959-11	ELECT	0.47 μ F 20% 50V
C504	1-102-228-00	CERAMIC	470pF 10% 500V	C628	1-104-665-11	ELECT	100 μ F 20% 25V
C507	\triangle 1-117-836-11	FILM	6800pF 3% 1.5KV	C629	1-104-665-11	ELECT	100 μ F 20% 25V
C508	\triangle 1-106-371-00	MYLAR	0.015 μ F 20% 200V	C630	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V
C509	\triangle 1-162-115-00	CERAMIC	330pF 10% 2KV	C631	1-126-768-11	ELECT	2200 μ F 20% 16V
C511	\triangle 1-119-967-11	FILM	0.43 μ F 5% 250V	C632	1-126-942-61	ELECT	1000 μ F 20% 25V
C531	1-106-387-00	MYLAR	0.068 μ F 10% 200V	C633	1-126-967-11	ELECT	47 μ F 20% 50V
C541	1-126-969-11	ELECT	220 μ F 20% 50V	C634	1-124-347-00	ELECT	100 μ F 20% 160V
C542	1-126-967-11	ELECT	47 μ F 20% 50V	C638	1-136-311-51	FILM	0.47 μ F 20% 125V
C543	1-136-169-00	FILM	0.22 μ F 5% 50V			(ALL EXCEPT KV-14MB42/42C)	
C551	1-162-114-00	CERAMIC	0.0047 μ F 2KV	C641	1-102-002-00	CERAMIC	680pF 10% 500V
C552	1-102-244-00	CERAMIC	220pF 10% 500V	C643	1-113-924-11	CERAMIC	0.0047 μ F 20% 250V
C553	1-107-652-11	ELECT	10 μ F 20% 250V	C644	1-113-924-11	CERAMIC	0.0047 μ F 20% 250V
C556	1-164-161-11	CERAMIC CHIP	0.0022 μ F 10% 50V	C645	1-137-605-11	FILM	0.01 μ F 10% 250V
C561	1-102-244-00	CERAMIC	220pF 10% 500V	C646	1-107-679-91	ELECT	10 μ F 20% 450V
C562	1-126-941-11	ELECT	470 μ F 20% 25V	C647	1-130-467-00	MYLAR	470pF 5% 50V
C563	1-102-244-00	CERAMIC	220pF 10% 500V	C648	1-162-318-11	CERAMIC	0.001 μ F 10% 500V
C564	1-126-941-11	ELECT	470 μ F 20% 25V	C650	1-130-471-00	MYLAR	0.001 μ F 5% 50V
C571	\triangle 1-126-965-11	ELECT	22 μ F 20% 50V	C651	1-126-382-11	ELECT	100 μ F 20% 16V
C573	1-126-963-11	ELECT	4.7 μ F 20% 50V	C653	1-104-664-11	ELECT	47 μ F 20% 25V
C574	1-107-635-11	ELECT	4.7 μ F 20% 160V	C654	1-126-970-11	ELECT	330 μ F 20% 50V
C575	\triangle 1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V	C656	1-126-965-11	ELECT	22 μ F 20% 50V
C576	1-123-024-21	ELECT	33 μ F 160V	C657	1-102-002-00	CERAMIC	680pF 10% 500V
C577	\triangle 1-126-959-11	ELECT	0.47 μ F 20% 50V	C690	1-126-959-11	ELECT	0.47 μ F 20% 50V
C591	\triangle 1-137-350-11	MYLAR	0.015 μ F 10% 100V	C691	1-126-941-11	ELECT	470 μ F 20% 25V
C601	\triangle 1-136-311-61	FILM	0.47 μ F 20% 300V	C692	1-104-664-11	ELECT	47 μ F 20% 25V
		(KV-14MB42/42C ONLY)		C693	1-137-194-81	FILM	0.47 μ F 5% 50V
C601	\triangle 1-136-311-51	FILM	0.47 μ F 20% 125V	CONNECTOR			
		(ALL EXCEPT KV-14MB42/42C)		CN203	* 1-560-124-00	PLUG, CONNECTOR (2.5MM) 4P	
C602	\triangle 1-113-941-11	CERAMIC	0.0047 μ F 20% 125V	CN301	* 1-564-508-11	PLUG, CONNECTOR 5P	
C603	\triangle 1-113-941-11	CERAMIC	0.0047 μ F 20% 125V				
C604	\triangle 1-113-941-11	CERAMIC	0.0047 μ F 20% 125V				

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
CN402	* 1-564-505-11	PLUG, CONNECTOR 2P		D620	8-719-057-52	DIODE EZ0150AV1	
CN501	* 1-580-798-11	CONNECTOR PIN (DY) 6P		D631	8-719-911-55	DIODE ERC04-06S	
CN502	* 1-564-509-11	PLUG, CONNECTOR 6P		D632	8-719-911-55	DIODE ERC04-06S	
CN601	* 1-580-843-11	PIN, CONNECTOR (POWER)		D633	8-719-948-45	DIODE ERA22-08	
CN602	* 1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		D634	8-719-991-33	DIODE 1SS133T-77	
DIODE				D635	8-719-991-33	DIODE 1SS133T-77	
D001	8-719-921-44	DIODE MTZJ-5.1C		D636	8-719-063-70	DIODE D1NL20U	
D002	1-810-039-21	LED UNIT		D637	8-719-109-93	DIODE RD6.2ESB2	
D003	8-719-991-33	DIODE 1SS133T-77		D638	8-719-510-48	DIODE D1N20R	
D004	8-719-991-33	DIODE 1SS133T-77		D650	8-719-109-89	DIODE RD5.6ESB2	
D201	8-719-110-17	DIODE MTZJ-T-77-10B		D653	8-719-312-10	DIODE RU4AM-T3	
D203	8-719-110-17	DIODE MTZJ-T-77-10B (KV-13M52/13M53 ONLY)		D670	8-719-991-33	DIODE 1SS133T-77	
D205	8-719-982-22	DIODE MTZJ-30D		FUSE			
D208	8-719-110-17	DIODE MTZJ-T-77-10B		F601	Δ 1-532-506-51	FUSE 6.3A/250V (KV-14MB42/42C ONLY)	
D209	8-719-110-17	DIODE MTZJ-T-77-10B (KV-13M52/13M53 ONLY)		F601	Δ 1-533-795-11	LINK, FUSE (ALL EXCEPT KV-14MB42/42C)	
D210	8-719-110-17	DIODE MTZJ-T-77-10B		FERRITE BEAD			
D215	8-719-110-17	DIODE MTZJ-T-77-10B		FB501	1-410-396-41	FERRITE	0.45 μ H
D302	8-719-921-44	DIODE MTZJ-5.1C		FB600	1-410-397-21	FERRITE	1.1 μ H
D310	8-719-404-50	DIODE MA111-TX		FB601	1-410-397-21	FERRITE	1.1 μ H
D311	8-719-404-50	DIODE MA111-TX		FB602	1-410-397-21	FERRITE	1.1 μ H
D320	8-719-976-99	DIODE DTZ5.1B		FB604	1-410-397-21	FERRITE	1.1 μ H
D403	8-719-991-33	DIODE 1SS133T-77		FB605	1-410-397-21	FERRITE	1.1 μ H
D434	8-719-991-33	DIODE 1SS133T-77		FB606	1-410-397-21	FERRITE	1.1 μ H
D502	8-719-302-43	DIODE EL1Z		FB609	1-412-911-11	FERRITE	
D541	8-719-908-03	DIODE GP08D		FB611	1-410-397-21	FERRITE	1.1 μ H
D551	8-719-028-72	DIODE RGP02-17EL-6433		IC			
D552	8-719-302-43	DIODE EL1Z		IC001	8-759-562-90	IC M37273MF-252SP	
D561	8-719-979-85	DIODE EGP20G		IC002	8-759-575-47	IC NJM78LR05BM-TE2	
D562	8-719-979-85	DIODE EGP20G		IC003	8-759-527-75	IC M24C04-MN6T	
D571	Δ 8-719-991-33	DIODE 1SS133T-77		IC004	8-742-014-11	HYB IC SBX1981-51	
D572	8-719-991-33	DIODE 1SS133T-77		IC201	8-759-450-93	IC NJM2521M-TE1	
D573	8-719-110-08	DIODE RD8.2ESB2		IC301	8-752-083-09	IC CXA2061S	
D574	Δ 8-719-302-43	DIODE EL1Z		IC400	8-759-490-18	IC TDA7056B/N1	
D581	Δ 8-719-991-33	DIODE 1SS133T-77		IC521	Δ 8-759-100-96	IC NJM4558M-TE2	
D601	Δ 8-719-510-51	DIODE D3SB60F		IC541	8-759-980-58	IC TDA8172	
D602	8-719-991-33	DIODE 1SS133T-77		IC601	Δ 8-749-013-75	IC STR-F6654 (KV-MB42/42C ONLY)	
D603	8-719-063-70	DIODE D1NL20U		IC601	Δ 8-749-015-60	IC STR-F6624 (ALL EXCEPT KV-14MB42/42C)	
D609	8-719-311-31	DIODE RU-1P (KV-13MB42/42C ONLY)		IC602	Δ 8-759-198-31	IC UPC1093J-1-T	
D611	8-719-110-17	DIODE MTZJ-T-77-10B					
D613	8-719-063-70	DIODE D1NL20U					
D614	8-719-063-70	DIODE D1NL20U					
D615	8-719-510-02	DIODE D1NS4					
D616	8-719-510-73	DIODE S3L20UF4					
D617	8-719-027-43	DIODE S2L20UF					

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
JACK							
J201	1-580-441-71	JACK, PIN 2P		Q571	\triangle 8-729-200-17	TRANSISTOR 2SA1091-O-TPE2	
J202	1-580-441-41	JACK, PIN 2P (KV-13M52/13M53 ONLY)		Q601	8-729-119-78	TRANSISTOR 2SC3311A	
J400	1-568-267-21	JACK		Q602	8-729-422-27	TRANSISTOR 2SD601A-Q	
				Q605	8-729-423-99	TRANSISTOR 2SD2137-OP	
				Q606	8-729-111-55	TRANSISTOR 2SD1292	
				Q607	8-729-044-30	TRANSISTOR 2SK2845-LB102	
				Q608	8-729-119-78	TRANSISTOR 2SC3311-A	
				Q650	8-729-111-55	TRANSISTOR 2SD1292	
				Q670	8-729-140-96	TRANSISTOR 2SD774-34	
COIL				RESISTOR			
L001	1-414-267-11	INDUCTOR CHIP	10 μ H	R001	1-216-073-00	RES, CHIP	10K 5% 1/10W
L002	1-414-273-11	INDUCTOR CHIP	100 μ H	R002	1-249-429-11	CARBON	10K 5% 1/4W
L003	1-414-273-11	INDUCTOR CHIP	100 μ H	R003	1-216-033-00	RES, CHIP	220 5% 1/10W
L150	1-414-273-11	INDUCTOR CHIP	100 μ H	R004	1-216-073-00	RES, CHIP	10K 5% 1/10W
L151	1-414-267-11	INDUCTOR CHIP	10 μ H	R005	1-216-033-00	RES, CHIP	220 5% 1/10W
L160	1-414-267-11	INDUCTOR CHIP	10 μ H	R007	1-216-025-91	RES, CHIP	100 5% 1/10W
L301	1-414-267-11	INDUCTOR CHIP	47 μ H	R008	1-216-033-00	RES, CHIP	220 5% 1/10W
L302	1-414-267-11	INDUCTOR CHIP	10 μ H	R009	1-247-815-91	CARBON	220 5% 1/4W
L503	1-412-553-11	INDUCTOR	3.3mH	R013	1-247-863-91	CARBON	22K 5% 1/4W
L504	1-412-533-21	INDUCTOR	47 μ H	R016	1-249-413-11	CARBON	470 5% 1/4W
L591	\triangle 1-412-531-31	INDUCTOR	33mH	R017	1-216-113-00	RES, CHIP	470K 5% 1/10W
PHOTO COUPLER				R018	1-249-417-11	CARBON	1K 5% 1/4W
PH600	\triangle 8-749-010-64	PHOTO COUPLER PC123FY2		R019	1-249-425-11	CARBON	4.7K 5% 1/4W
IC LINK				R020	1-249-427-11	CARBON	6.8K 5% 1/4W
PS201	\triangle 1-532-637-00	LINK, IC 1A/150V		R021	1-249-415-11	CARBON	680 5% 1/4W
TRANSISTOR				R022	1-249-416-11	CARBON	820 5% 1/4W
Q001	8-729-216-22	TRANSISTOR 2SB709A		R023	1-249-421-11	CARBON	2.2K 5% 1/4W
Q002	8-729-422-27	TRANSISTOR 2SD601A-Q		R025	1-249-426-11	CARBON	5.6K 5% 1/4W
Q003	8-729-422-27	TRANSISTOR 2SD601A-Q		R026	1-249-426-11	CARBON	5.6K 5% 1/4W
Q202	8-729-422-27	TRANSISTOR 2SD601A-Q		R027	1-249-426-11	CARBON	5.6K 5% 1/4W
Q203	8-729-216-22	TRANSISTOR 2SB709A		R028	1-216-049-91	RES, CHIP	1K 5% 1/10W
Q205	8-729-216-22	TRANSISTOR 2SB709A		R030	1-249-429-11	CARBON	10K 5% 1/4W
Q252	8-729-422-27	TRANSISTOR 2SD601A-Q		R031	1-216-045-00	RES, CHIP	680 5% 1/10W
Q300	\triangle 8-729-422-27	TRANSISTOR 2SD601A-Q		R032	1-216-033-00	RES, CHIP	220 5% 1/10W
Q301	8-729-216-22	TRANSISTOR 2SB709A		R033	1-247-815-91	CARBON	220 5% 1/4W
Q302	8-729-216-22	TRANSISTOR 2SB709A		R038	1-216-049-91	RES, CHIP	1K 5% 1/10W
Q305	8-729-216-22	TRANSISTOR 2SB709A		R040	1-249-413-11	CARBON	470 5% 1/4W
Q390	8-729-422-27	TRANSISTOR 2SD601A-Q		R043	1-249-417-11	CARBON	1K 5% 1/4W
Q391	8-729-422-27	TRANSISTOR 2SD601A-Q		R044	1-216-033-00	RES, CHIP	220 5% 1/10W
Q392	8-729-216-22	TRANSISTOR 2SB709A		R045	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
Q393	8-729-216-22	TRANSISTOR 2SB709A		R046	1-216-033-00	RES, CHIP	220 5% 1/10W
Q394	8-729-216-22	TRANSISTOR 2SB709A		R047	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
Q501	8-729-140-50	TRANSISTOR 2SC3209LK-TP		R048	1-216-025-91	RES, CHIP	100 5% 1/10W
Q502	8-729-043-43	TRANSISTOR 2SC5426-01		R049	1-216-089-91	RES, CHIP	47K 5% 1/10W
Q556	8-729-422-27	TRANSISTOR 2SD601A-Q		R050	1-249-429-11	CARBON	10K 5% 1/4W
				R054	1-216-073-00	RES, CHIP	10K 5% 1/10W
				R055	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
R056	1-249-425-11	CARBON	4.7K 5% 1/4W	R262	1-216-025-91	RES, CHIP	100 5% 1/10W
R057	1-216-065-91	RES, CHIP	4.7K 5% 1/10W	R269	1-216-067-00	RES, CHIP	5.6K 5% 1/10W
R058	1-216-065-91	RES, CHIP	4.7K 5% 1/10W	R280	1-216-022-00	RES, CHIP	75 5% 1/10W
R065	1-216-033-00	RES, CHIP	220 5% 1/10W	R284	1-216-295-91	SHORT	
R066	1-216-033-00	RES, CHIP	220 5% 1/10W	R289	1-216-295-91	SHORT	
R072	1-247-815-91	CARBON	220 5% 1/4W	R290	1-216-025-91	RES, CHIP	100 5% 1/10W
		(KV-13M52/13M53 ONLY)		R291	1-216-057-00	RES, CHIP	2.2K 5% 1/10W
R074	1-216-073-00	RES, CHIP	10K 5% 1/10W	R293	1-249-429-11	CARBON	10K 5% 1/4W
R075	1-216-073-00	RES, CHIP	10K 5% 1/10W	R295	1-216-295-91	SHORT	
R076	1-216-121-91	RES, CHIP	1M 5% 1/10W	R298	1-216-025-91	RES, CHIP	100 5% 1/10W
R077	1-216-097-91	RES, CHIP	100K 5% 1/10W	R299	1-216-295-91	SHORT	
R078	1-216-049-91	RES, CHIP	1K 5% 1/10W			(ALL EXCEPT KV-13M52/13M53)	
R085	1-216-073-00	RES, CHIP	10K 5% 1/10W	R301	1-216-295-91	SHORT	
R086	1-216-073-00	RES, CHIP	10K 5% 1/10W	R304	1-216-073-00	RES, CHIP	10K 5% 1/10W
		(KV-13M52/13M53 ONLY)		R306	1-216-675-11	METAL CHIP	10K 0.5% 1/10W
R087	1-216-045-00	RES, CHIP	680 5% 1/10W	R307	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
R088	1-216-045-00	RES, CHIP	680 5% 1/10W	R310	1-216-049-91	RES, CHIP	1K 5% 1/10W
R089	1-216-045-00	RES, CHIP	680 5% 1/10W	R312	1-216-033-00	RES, CHIP	220 5% 1/10W
R091	1-249-429-11	CARBON	10K 5% 1/4W	R313	1-247-815-91	CARBON	220 5% 1/4W
R092	1-216-049-91	RES, CHIP	1K 5% 1/10W	R314	1-247-815-91	CARBON	220 5% 1/4W
R093	1-249-425-11	CARBON	4.7K 5% 1/4W	R315	1-247-815-91	CARBON	220 5% 1/4W
R096	1-216-057-00	RES, CHIP	2.2K 5% 1/10W	R316	1-216-025-91	RES, CHIP	100 5% 1/10W
R097	1-216-073-00	RES, CHIP	10K 5% 1/10W	R318	1-216-073-00	RES, CHIP	10K 5% 1/10W
R099	1-249-425-11	CARBON	4.7K 5% 1/4W	R319	1-216-073-00	RES, CHIP	10K 5% 1/10W
R101	1-216-073-00	RES, CHIP	10K 5% 1/10W	R321	1-216-069-00	RES, CHIP	6.8K 5% 1/10W
R150	1-216-025-91	RES, CHIP	100 5% 1/10W	R322	1-216-073-00	RES, CHIP	10K 5% 1/10W
R151	1-216-025-91	RES, CHIP	100 5% 1/10W	R324	1-249-425-11	CARBON	4.7K 5% 1/4W
R201	1-216-113-00	RES, CHIP	470K 5% 1/10W	R329	1-216-025-91	RES, CHIP	100 5% 1/10W
R204	1-216-022-00	RES, CHIP	75 5% 1/10W	R330	1-216-025-91	RES, CHIP	100 5% 1/10W
		(KV-13M52/13M53 ONLY)		R331	1-216-025-91	RES, CHIP	100 5% 1/10W
R205	1-247-895-91	CARBON	470K 5% 1/4W	R347	1-216-045-00	RES, CHIP	680 5% 1/10W
		(KV-13M52/13M53 ONLY)		R353	1-216-295-91	SHORT	
R231	1-216-073-00	RES, CHIP	10K 5% 1/10W	R356	1-216-057-00	RES, CHIP	2.2K 5% 1/10W
R235	1-208-794-11	RES, CHIP	3.3K 0.5% 1/10W	R383	1-216-057-00	RES, CHIP	2.2K 5% 1/10W
R239	1-247-815-91	CARBON	220 5% 1/4W	R384	1-216-057-00	RES, CHIP	2.2K 5% 1/10W
R240	1-249-417-11	CARBON	1K 5% 1/4W	R385	1-216-057-00	RES, CHIP	2.2K 5% 1/10W
R242	1-249-434-11	CARBON	27K 5% 1/4W	R390	1-216-025-91	RES, CHIP	100 5% 1/10W
R243	1-216-689-11	RES, CHIP	39K 5% 1/10W	R391	1-216-049-91	RES, CHIP	1K 5% 1/10W
R246	1-216-295-91	SHORT		R392	1-216-025-91	RES, CHIP	100 5% 1/10W
R251	1-216-041-00	RES, CHIP	470 5% 1/10W	R393	1-216-049-91	RES, CHIP	1K 5% 1/10W
R252	1-216-041-00	RES, CHIP	470 5% 1/10W	R394	1-247-807-31	CARBON	100 5% 1/4W
R253	1-215-899-11	METAL OXIDE	15K 5% 2W F	R400	1-249-438-11	CARBON	56K 5% 1/4W
R254	1-216-025-91	RES, CHIP	100 5% 1/10W	R432	1-249-435-11	CARBON	33K 5% 1/4W
R255	1-216-025-91	RES, CHIP	100 5% 1/10W	R433	1-216-083-00	RES, CHIP	27K 5% 1/10W
R256	1-249-425-11	CARBON	4.7K 5% 1/4W	R501	1-249-421-11	CARBON	2.2K 5% 1/4W
R257	1-216-073-00	RES, CHIP	10K 5% 1/10W	R502 Δ	1-215-924-00	METAL OXIDE	15K 5% 3W F
R260	1-216-097-91	RES, CHIP	100K 5% 1/10W	R508 Δ	1-215-863-11	METAL OXIDE	100 5% 1W F
R261	1-216-097-91	RES, CHIP	100K 5% 1/10W	R532	1-215-437-00	METAL	4.7K 1% 1/4W

Note:

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

Note:

The components identified by \boxtimes in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding x-ray radiation. Should replacement be required, replace only with the value originally used.

A

REF. NO.	PART NO.	DESCRIPTION	REMARK			REF. NO.	PART NO.	DESCRIPTION	REMARK		
R533	1-215-465-00	METAL	68K	1%	1/4W	R620	1-219-512-11	CARBON	2.2M	5%	1/2W
R534	1-215-449-00	METAL	15K	1%	1/4W	R623	1-249-429-11	CARBON	10K	5%	1/4W
R535	1-249-441-11	CARBON	100K	5%	1/4W	R625 Δ	1-215-429-00	METAL	2.2K	1%	1/4W
R541	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	R626 Δ	1-215-469-00	METAL	100K	1%	1/4W
R542	1-249-429-11	CARBON	10K	5%	1/4W	R630	1-249-421-11	CARBON	2.2K	5%	1/4W
R543	1-249-429-11	CARBON	10K	5%	1/4W	R631	1-249-429-11	CARBON	10K	5%	1/4W
R544	1-216-377-11	METAL OXIDE	4.7	5%	2W F	R632	1-208-806-11	RES, CHIP	10K	0.5%	1/10W
R546	1-215-890-11	METAL OXIDE	470	5%	2W F	R633	1-215-457-00	METAL	33K	1%	1/4W
R547	1-249-385-11	CARBON	2.2	5%	1/4W F	R634	1-249-417-11	CARBON	1K	5%	1/4W
R548	1-249-425-11	CARBON	4.7K	5%	1/4W	R635 Δ	1-216-073-00	RES, CHIP	10K	5%	1/10W
R549	1-216-073-00	RES, CHIP	10K	5%	1/10W	R636	1-208-794-11	RES, CHIP	3.3K	0.5%	1/10W
R551	1-215-870-11	METAL OXIDE	1.5K	5%	1W F	R637	1-208-806-11	RES, CHIP	10K	0.5%	1/10W
R552	1-247-887-00	CARBON	220K	5%	1/4W	R638	1-208-818-11	RES, CHIP	33K	0.5%	1/10W
R553	1-260-312-11	CARBON	47	5%	1/2W	R639	1-216-089-91	RES, CHIP	47K	5%	1/10W
R559	1-216-101-00	RES, CHIP	150K	5%	1/10W	R640 Δ	1-216-089-91	RES, CHIP	47K	5%	1/10W
R560	1-216-093-91	RES, CHIP	68K	5%	1/10W	R641	1-216-397-11	METAL OXIDE	4.7	5%	3W F
R561	1-216-355-11	METAL OXIDE	3.3	5%	1W F	R643	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R562	1-216-355-11	METAL OXIDE	3.3	5%	1W F	R644	1-249-418-11	CARBON	1.2K	5%	1/4W
R565	1-216-081-00	RES, CHIP	22K	5%	1/10W	R647	1-260-081-11	CARBON	33	5%	1/2W
R566	1-216-077-00	RES, CHIP	15K	5%	1/10W	R648	1-249-421-11	CARBON	2.2K	5%	1/4W
R567	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	R649	1-249-413-11	CARBON	470	5%	1/4W
R568	1-216-121-91	RES, CHIP	1M	5%	1/10W	R650	1-249-415-11	CARBON	680	5%	1/4W
R571 Δ	1-216-369-00	METAL OXIDE	1	5%	2W F	R651 Δ	1-247-289-00	CARBON	8.2M	5%	1W
R572 Δ	1-249-429-11	CARBON	10K	5%	1/4W			(KV-14MB42/42C ONLY)			
R573 Δ	1-247-895-91	CARBON	470K	5%	1/4W	R651 Δ	1-219-513-11	CARBON	4.7M	5%	1/2W
R574 Δ	1-249-416-11	CARBON	820	5%	1/4W F			(ALL EXCEPT KV-14MB42/42C)			
R575 Δ	1-247-891-00	CARBON	330K	5%	1/4W	R652	1-202-961-11	CEMENTED	1.8	5%	10W
R576 Δ	1-249-441-11	CARBON	100K	5%	1/4W			(KV-14MB42/42C ONLY)			
R577	1-249-434-11	CARBON	27K	5%	1/4W	R655	1-216-361-00	METAL OXIDE	0.22	5%	2W F
R578	1-215-902-11	METAL OXIDE	47K	5%	2W F	R656	1-249-419-11	CARBON	1.5K	5%	1/4W
R579	1-208-777-11	RES, CHIP	620	0.5%	1/10W	R657	1-247-843-11	CARBON	3.3K	5%	1/4W
R580	1-216-295-91	SHORT				R658	1-215-929-11	METAL OXIDE	100K	5%	3W F
\boxtimes R582	1-208-850-11	RES, CHIP	680K	0.5%	1/10W			(KV-14MB42/42C ONLY)			
R583	1-208-830-11	RES, CHIP	100K	0.5%	1/10W	R659 Δ	1-202-961-11	CEMENTED	1.8	5%	10W
R584	1-208-806-11	RES, CHIP	10K	0.5%	1/10W	R660 Δ	1-220-926-11	FUSIBLE	0.47	10%	1/2W F
R585	1-216-081-00	RES, CHIP	22K	5%	1/10W	R661	1-216-461-00	METAL OXIDE	5.6K	5%	2W F
R586 Δ	1-216-069-00	RES, CHIP	6.8K	5%	1/10W	R662	1-249-377-11	CARBON	0.47	5%	1/4W F
R591	1-215-882-00	METAL OXIDE	22	5%	2W F	R663	1-216-369-00	METAL OXIDE	1	5%	2W F
R602	1-249-389-11	CARBON	4.7	5%	1/4W F	R664	1-215-479-00	METAL	270K	1%	1/4W
R603	1-247-895-91	CARBON	470K	5%	1/4W			(KV-14MB42/42C ONLY)			
R608	1-240-205-91	CARBON	22M	5%	1/2W	R664	1-215-483-00	METAL	390K	1%	1/4W
R609	1-249-421-11	CARBON	2.2K	5%	1/4W			(ALL EXCEPT KV-14MB42/42C)			
R610	1-249-417-11	CARBON	1K	5%	1/4W	R670	1-249-421-11	CARBON	2.2K	5%	1/4W
R611	1-249-437-11	CARBON	47K	5%	1/4W	R671	1-249-417-11	CARBON	1K	5%	1/4W
R612	1-249-415-11	CARBON	680	5%	1/4W	R672	1-216-461-00	METAL OXIDE	5.6K	5%	2W F
R614	1-249-429-11	CARBON	10K	5%	1/4W	R674	1-249-415-11	CARBON	680	5%	1/4W
R616	1-260-302-51	CARBON	6.8	5%	1/2W	R675	1-215-859-00	METAL OXIDE	22	5%	1W F
R617	1-249-415-11	CARBON	680	5%	1/4W	R682	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
						R683	1-249-421-11	CARBON	2.2K	5%	1/4W

A	C
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Note:

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Note:

Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK
R688	1-216-461-00	METAL OXIDE	5.6K 5% 2W F
R698	1-215-479-00	METAL	270K 1% 1/4W
		(KV-14MB42/42C ONLY)	

RELAY

RY601 Δ	1-755-146-11	RELAY	
RY602 Δ	1-755-266-11	RELAY, AC POWER	

SWITCH

S001	1-571-532-21	SWITCH, TACTILE	
S002	1-571-532-21	SWITCH, TACTILE	
S003	1-571-532-21	SWITCH, TACTILE	
S004	1-571-532-21	SWITCH, TACTILE	
S005	1-571-532-21	SWITCH, TACTILE	
S006	1-571-532-21	SWITCH, TACTILE	

TRANSFORMER

T501 Δ	1-437-210-11	TRANSFORMER, HORIZONTAL DRIVE	
T504 Δ	1-453-210-11	TRANSFORMER ASSY, FLYBACK (NX-1731//X4E4)	
T601 Δ	1-423-895-11	TRANSFORMER, LINE FILTER (LFT)	
T603 Δ	1-433-817-11	TRANSFORMER, REGULATOR (KV-14MB42/42C ONLY)	
T603 Δ	1-433-816-11	TRANSFORMER, REGULATOR (ALL EXCEPT KV-14MB42/42C)	
T604 Δ	1-431-852-11	TRANSFORMER, CONVERTER (SRT)	

THERMISTOR

THP601	1-810-597-11	THERMISTOR, POSITIVE	
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TUNER

TU101 Δ	1-693-454-11	TUNER FA401	
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VARISTOR

VDR601 Δ	1-803-587-11	VARISTOR (KV-14MB42/42C ONLY)	
VDR601 Δ	1-803-585-11	VARISTOR (ALL EXCEPT KV-14MB42/42C)	

CRYSTAL

X001	1-767-487-11	VIBRATOR, CRYSTAL	
X301	1-567-505-11	OSCILLATOR, CRYSTAL	

REF. NO.	PART NO.	DESCRIPTION	REMARK
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C

* A-1331-918-A C MOUNTED PC BOARD
4-382-854-11 SCREW (M3X10), P, SW (+)

CAPACITOR

C751	1-107-652-11	ELECT	10 μ F	20%	250V
C752	1-162-114-00	CERAMIC	0.0047 μ F		2KV
C755	1-107-667-11	ELECT	2.2 μ F	20%	160V

CONNECTOR

CN751 *	1-564-509-11	PLUG, CONNECTOR 6P	
CN752 *	1-564-508-11	PLUG, CONNECTOR 5P	
CN754	1-695-915-11	TAB (CONTACT)	

DIODE

D754	8-719-901-83	DIODE 1SS83	
D755	8-719-901-83	DIODE 1SS83	
D756	8-719-901-83	DIODE 1SS83	
D758	8-719-302-43	DIODE EL1Z	

IC

IC751	8-759-562-43	IC TDA6108JF/N1B	
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JACK

J750 Δ	1-251-192-11	SOCKET, CRT	
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COIL

L751	1-410-478-11	INDUCTOR	47 μ H
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RESISTOR

R756	1-260-099-11	CARBON	1K	5%	1/2W
R757	1-260-099-11	CARBON	1K	5%	1/2W
R758	1-260-099-11	CARBON	1K	5%	1/2W
R759	1-260-087-11	CARBON	100	5%	1/2W
R760	1-260-123-11	CARBON	100K	5%	1/2W

R761	1-216-369-00	METAL OXIDE	1	5%	2W F
R762	1-260-131-11	CARBON	470K	5%	1/2W
R763	1-247-807-31	CARBON	100	5%	1/4W
R764	1-247-807-31	CARBON	100	5%	1/4W

Note:

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

Note:

Les composants identifiés par un trame et une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

C

<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>		<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
R765	1-247-807-31	CARBON	100	5%	1/4W			
R766	1-260-131-11	CARBON	470K	5%	1/2W			
R767	1-260-135-11	CARBON	1M	5%	1/2W			
R770	1-260-132-11	CARBON	560K	5%	1/2W			
<u>VARIABLE RESISTOR</u>								
RV751	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M						
RV752	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M						

PACKING LIST AND ACCESSORIES

- 1-417-182-11 CONVERTER (EAC-25)
- 1-501-730-41 ANTENNA, TELESCOPIC
- 3-866-072-21 MANUAL, INSTRUCTION (KV-13M42/52/53)
- 3-866-072-31 MANUAL, INSTRUCTION (KV-13M42 CND ONLY)
- 3-866-073-41 MANUAL, INSTRUCTION (KV-14MB42/42C)
- 4-041-253-01 BAG, PROTECTION
- * 4-052-620-11 CUSHION (LOWER) (ASSY)
- * 4-052-621-11 CUSHION (UPPER) (ASSY)
- * 4-064-117-11 CARTON, INDIVIDUAL

REMOTE COMMANDER

- 1-475-632-11 REMOTE COMMANDER (RM-Y156)
- 1-475-632-11 REMOTE COMMANDER (RM-Y156W)
(KV-13M53 ONLY)
- 9-939-830-11 BATTERY COVER, REMOTE

9-965-856-01

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