

KV-27XBR35/32XBR35

RM-Y113/TDR-IF310

SERVICEMANUAL



(Photo : KV-32XBR35)

US Model

KV-27XBR35

Chassis No. SCC-F16D-A

KV-32XBR35

Chassis No. SCC-F16A-A

Canadian Model

KV-27XBR35

Chassis No. SCC-F17C-A

KV-32XBR35

Chassis No. SCC-F17A-A

FN CHASSIS

MODELS OF THE SAME SERIES

KV-27XBR35/32XBR35	

SPECIFICATIONS

Television system American TV standards

Channel coverage

VHF: 2-13

UHF: 1669

CABLE TV: 1-125

Picture tube

Microblack™ Trinitron® tube

27-inch picture measured diagonally

29-inch picture tube measured diagonally

(KV-27XBR35)

32-inch picture measured diagonally

34-inch picture tube measured diagonally

(KV-32XBR35)

Antenna

75 ohm external antenna

terminal for VHF/UHF

Input jacks

VIDEO IN 1, 2 and 3

S VIDEO IN (4-pin mini DIN)

Y : 1 Vp-p, 75-ohms unbalanced,
sync negative

C : 0.286 Vp-p (Burst signal)
75-ohms

Video (phono jacks) : 1 Vp-p, 75-ohms

unbalanced, sync negative

Audio (phono jacks) :

500 mVrms (100% modulation)

Impedance : 47 kilohms

Output jacks

MONITOR OUT

S VIDEO MONITOR OUT

(4-pin mini DIN)

Y: 1 Vp-p, 75-ohms

unbalanced, sync negative

Video (phono jacks) : 1 Vp-p, 75-ohms

unbalanced, sync negative

Audio (phono jacks) : 500 mVrms

(100% modulation)

Impedance : 10 kilohms

AUDIO OUTPUT (VARIABLE)

(phono jacks)

More than 900 mVrms (100%

modulation) at the maximum volume
setting (variable)

Impedance : 5 kilohms

AUDIO LINE OUT

(phono jacks)

900 mVrms (100% modulation)

Impedance : 5 kilohms

• Continued on next page •



TRINITRON® COLOR TV

SONY®

Speaker output	13W X2 (8 ohms)
Speaker size	Tweeter 25 mm (1 in.) X2 units Woofer 100 mm (4 in.) X2 units
Audio frequency response	Tweeter 8 kHz-20 kHz Woofer 50 Hz-8 kHz
Power requirements	120 V AC, 60 Hz
Power consumption	(KV-27XBR35) 250W (KV-32XBR35) 225W
Dimensions (w/h/d)	(KV-27XBR35) Approx. 756×578×519 mm (297/8 × 227/8 × 201/2 inches) (KV-32XBR35) Approx. 870 × 663 × 575.2 mm (343/8 × 261/8 × 223/4 inches)
Weight	(KV-27XBR35) Approx. 57.1kg (125 lb 15 oz) (KV-32XBR35) Approx. 77.3kg (170 lb 7 oz)
Supplied accessories	Remote Commander RM-Y113 (1) with 2 size AA (R6) EVEREADY batteries Wireless headphones TDR-IF310 (1) with 2 size AA (R6) EVEREADY batteries

Optional accessories	U/V mixer EAC-66 Connecting cable RK-74A VMC-810S/820S YC-15V/30V TV stand SU-27XBR3 (KV-27XBR35) TV stand SU-32XBR3 (KV-32XBR35)
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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.

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 TO 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 TO 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 RISQUE D'ELECTROCUTION PROVENANT D'UN CHASSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISE LORS DE TOUT DEPANNAGE.
 LE CHASSIS DE CE RECEPTEUR EST DIRECTEMENT RACCORDE A L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS Á LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MAPQUE Δ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÉCES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

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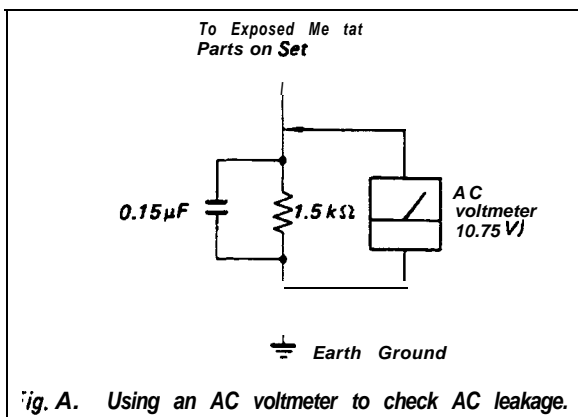
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SAFETY CHECK-OUT

(US Model only)

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 contact 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 cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the **monopole** antenna (if any). Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.



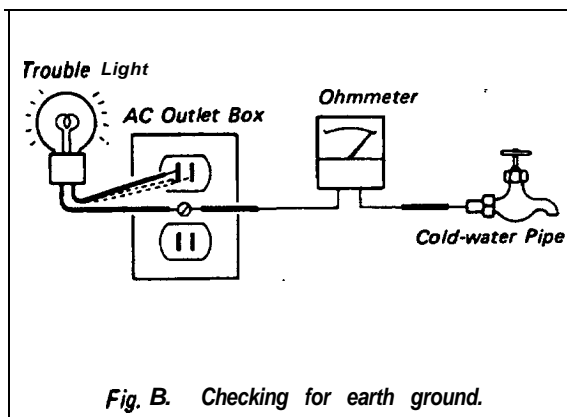
LEAKAGE TEST

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 microamperes)**. Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-S40A. Follow the manufacturers' instructions to use these instruments.
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 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. 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 60-100 watts 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 of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)



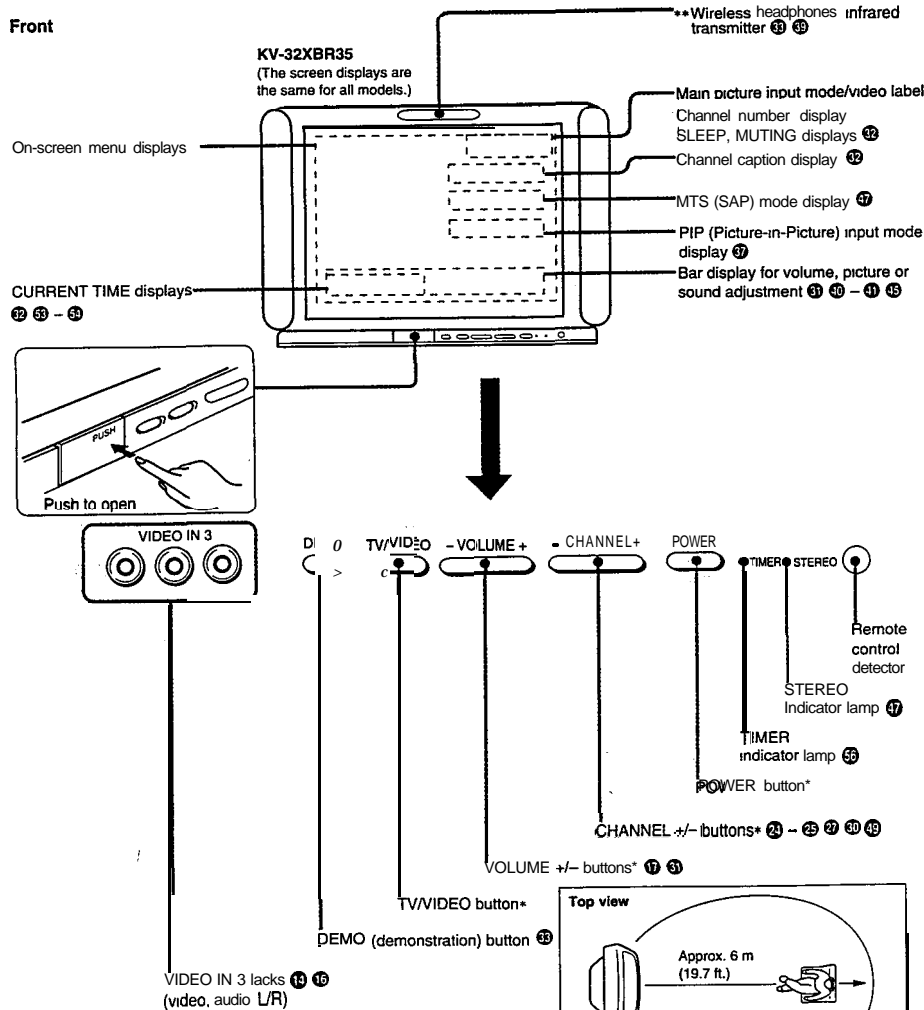
SECTION 1 GENERAL

This section is extracted from instruction manual.

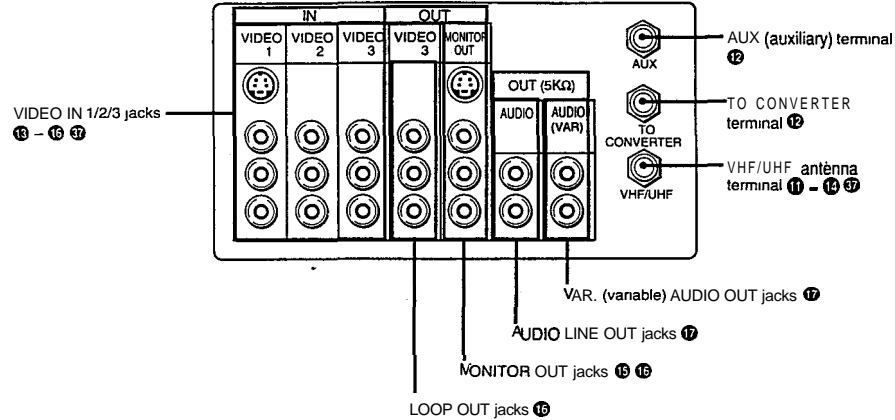
1-1. LOCATING CONTROLS AND CONNECTORS

For details, see the pages indicated by the numbered black circles ●.

Front

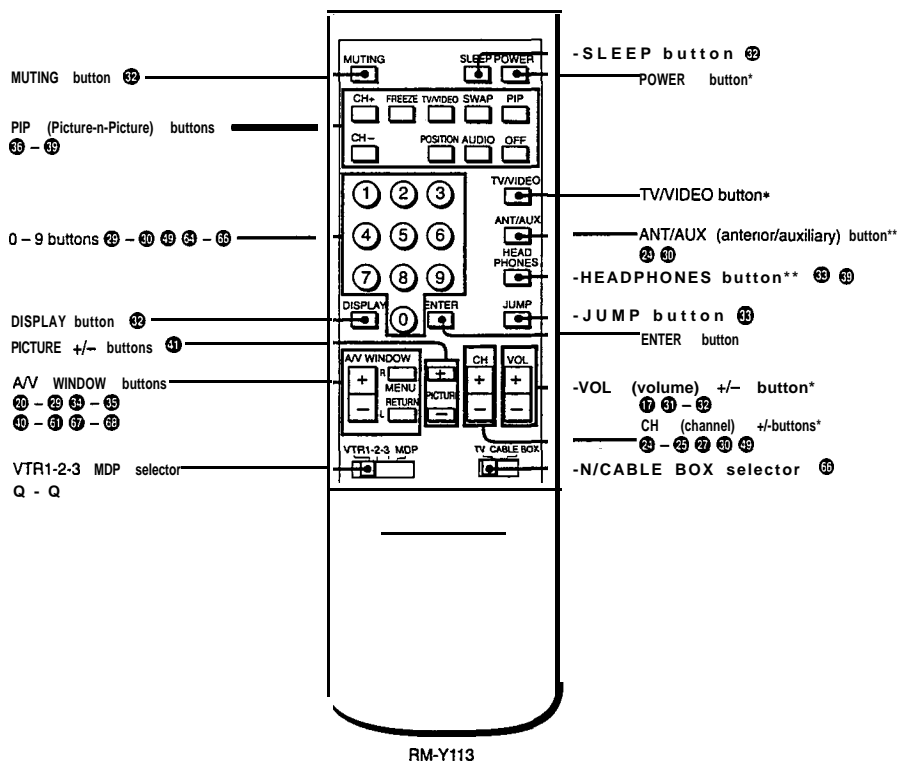


Rear

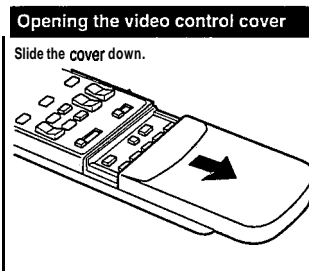


Locating Controls and Connectors

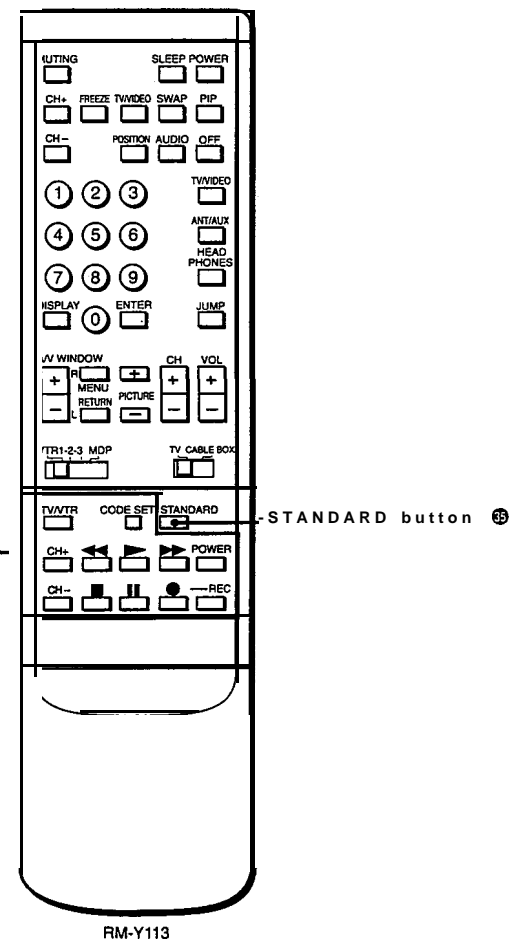
Remote Commander (with the video control cover closed)



Remote Commander (with the video control cover open)



Video operating buttons (62-65)



* Buttons with the same function are also located on the N (p. 6).

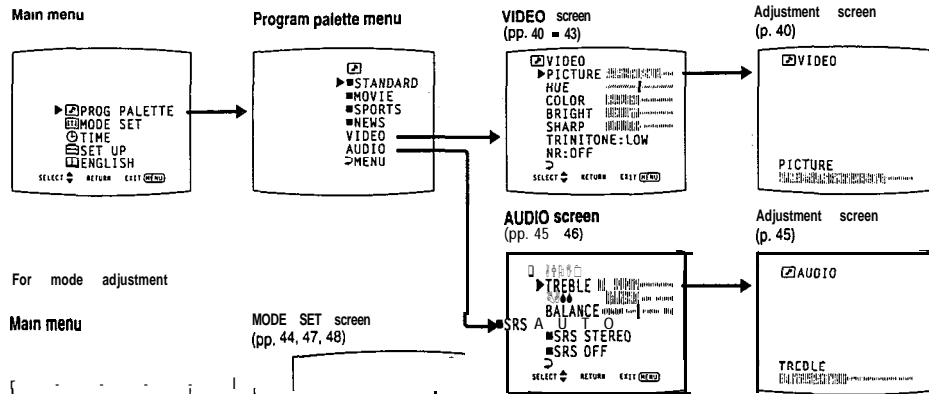
Note

If the TV/CABLE BOX selector is set to CABLE BOX, the Remote Commander is able to control a connected cable box, not the TV (p. 66). Set the selector to TV to control the N with the Remote Commander.

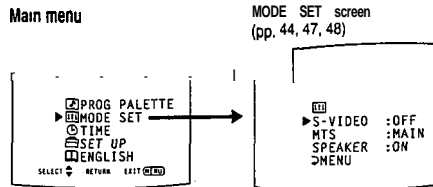
1-2. USING THE ON-SCREEN MENUS

The following flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings. See the indicated pages for instructions on using each feature.

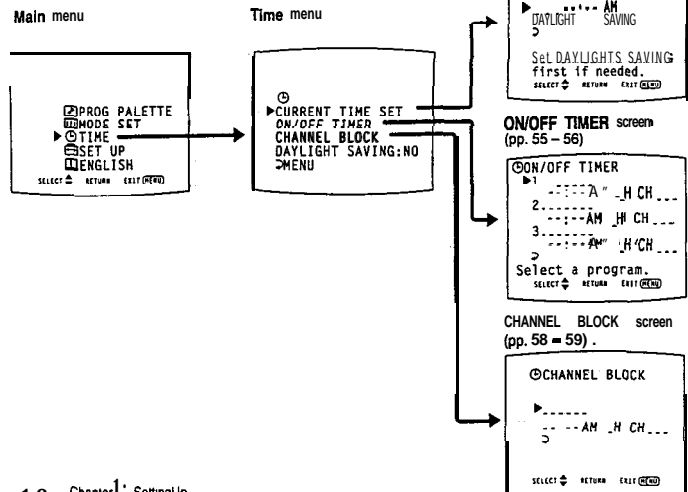
For picture and sound quality adjustment



For mode adjustment

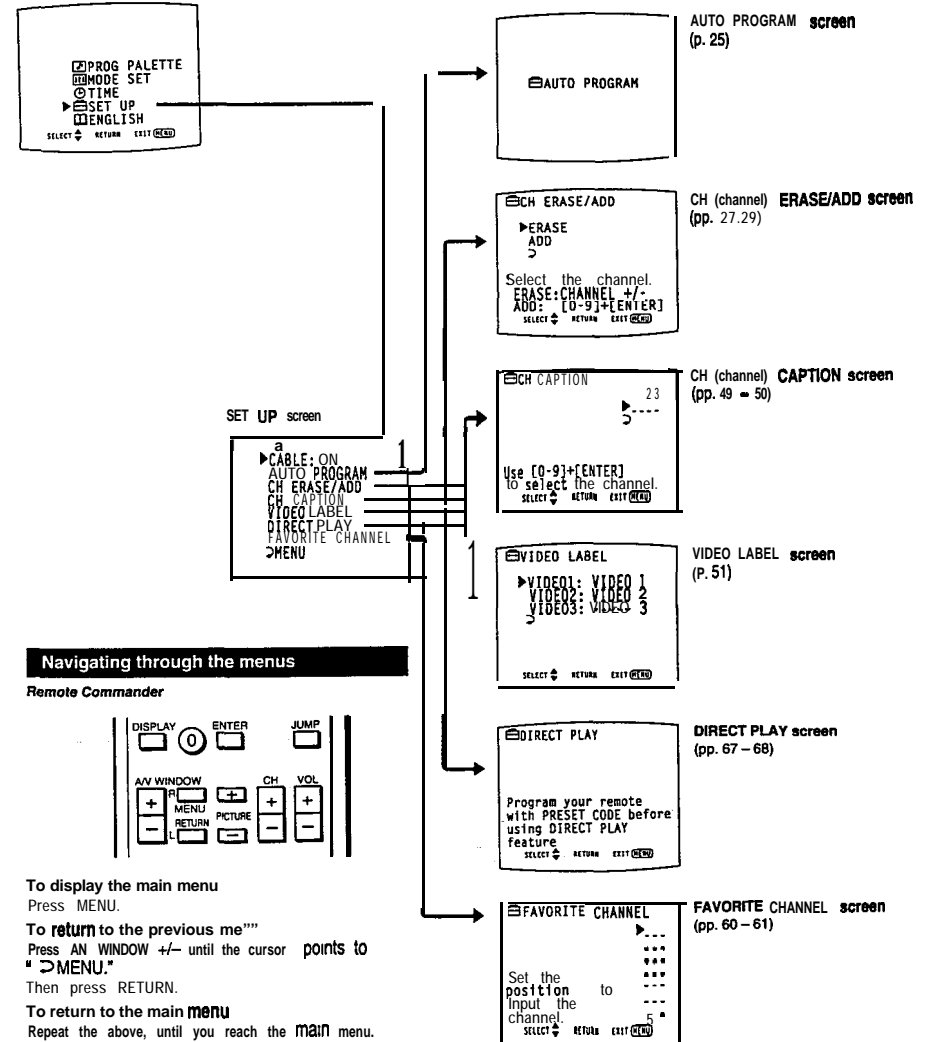


For time-related settings



For presetting and other functions

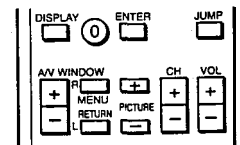
Main menu



Using the On-Screen Menus

Navigating through the menus

Remote Commander



To display the main menu

Press MENU.

To return to the previous menu

Press AN WINDOW +/- until the cursor points to "MENU."

Then press RETURN.

To return to the main menu

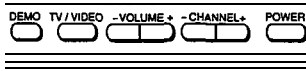
Repeat the above, until you reach the main menu.

To return to the normal screen

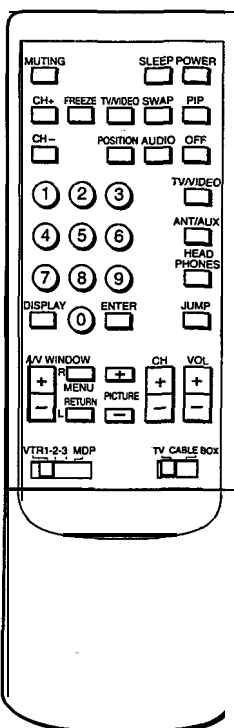
Press MENU on the Remote Commander.

Note

The menus disappear automatically. If you do not press a button within 90 seconds.



Front of N



RM-Y113

Changing the menu language

The menu language is factory-set to **ENGLISH**. Follow these instructions to change the menu language to **Spanish** or **French**. Or back to **English**.

1 Press **POWER** on the TV or on the Remote Commander to turn on the TV

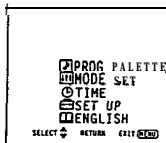
POWER

8

2 Press **MENU**. The "main men" appears.



3 Press **AN WINDOW +/-** until the cursor points to 'ENGLISH'. Then press **RETURN**. The language display turns red.



4 Press **AN WINDOW +/-** to select the language. Each time you press **AN WINDOW +/-**, the "ESPAÑOL", "FRANÇAIS" and "ENGLISH" menus appear.



Note
Certain parts of the "ESPAÑOL" and "FRANÇAIS" menus remain in English.

5 Press **RETURN**. The language is selected.



Spanish menu

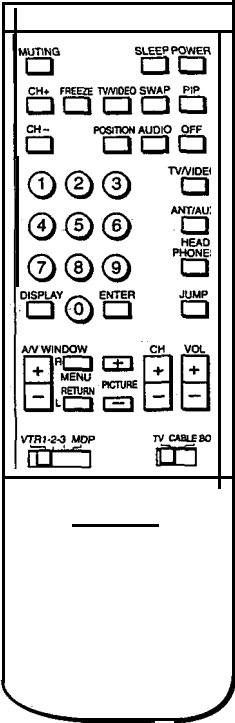
To return to the normal screen
Press **MENU** on the Remote Commander.

- Notes concerning menus**
- During PIP (Picture-in-Picture) mode, the on-screen menus may overlap the window picture.
 - Screen displays (VOLUME, MUTE, CHANNEL, etc.) may overlap the on-screen menus.
 - The menus disappear automatically, if you do not press a button within 90 seconds.

1-3. SETTING CABLE ON OR OFF



Front of TV

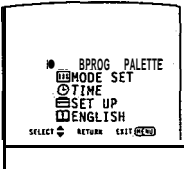


RM-Y113

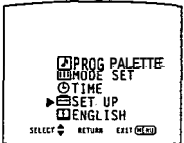
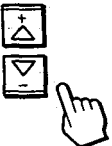
If you have cable connected to the TV, follow the steps below to set the cable connection on or off. Set CABLE OFF to preset or watch VHF or UHF channels, and set CABLE ON to preset or watch cable TV channels.

Note
If the TV is in video mode, the "CABLE" display is shaded and cannot be selected. Press TV/VIDEO on the TV or on the Remote Commander to change to N mode.

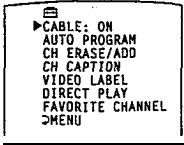
- 1 Press MENU.
The main menu appears.



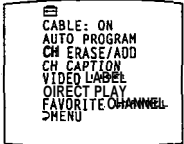
- 2 Press AN WINDOW +/- until the cursor points to "SET UP."



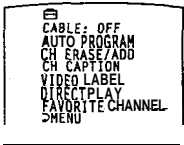
- 3 Press RETURN.
The set up menu appears, and the cursor points to "CABLE."



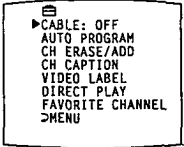
- 4 Press RETURN again.
The mode display turns red.



- 5 Press AN WINDOW +/- to select "ON" or "OFF"



- 6 Press RETURN.
The setting is complete.



To return to the previous menu

Press AN WINDOW +/- until the cursor points to "MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen

Press MENU on the Remote Commander.

Cable TV channel chart*
Cable N systems use letters or numbers to designate channels. To tune in a channel, refer to the chart below.

Number on this TV	Corresponding CAN channel
1	A-11
2	A-7
6	A-6
14	A
15	B
16	C
17	D
18	E
20	G
21	H
22	I
23	J
24	K
25	L
26	M
27	N
28	O
29	P
30	a
31	R
32	S
33	T
34	U
35	V
36	W
37	W+1
38	W+2
39	W+3

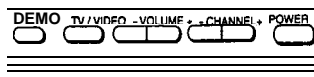
93	W+57
94	W+58
95	A-5
96	A-4
97	A-3
99	A-1
100	W+59
101	W+60
102	W+61
...	...
123	W+82
124	W+83
125	W+84

Check with your local cable N company for more complete information on the available channels.
The designation of the cable N channels conforms to the EIA/NCTA recommendation

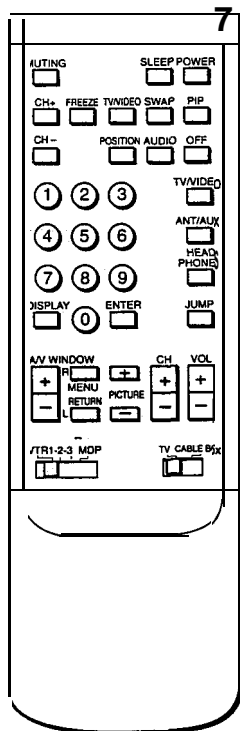
Setting CABLE ON or OFF

1-4. PRESETTING TV CHANNELS

By pressing N channels to the TV, you can select channels by pressing CHANNEL +/- on the N or CH +/- on the Remote Commander.



Front of N



RM-Y113

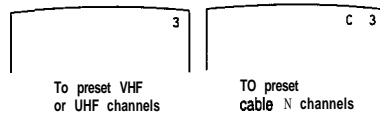
Presetting all receivable channels automatically

Follow these instructions to preset all the receivable VHF, UHF or cable N channels to the TV.

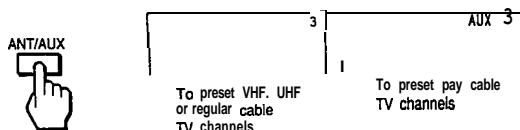
Notes

- N the N is in video mode, the "AUTO PROGRAM" display is shaded and cannot be selected. Press TV/VIDEO on the Nor on the Remote Commander to change to N mode.
- Perform auto programming during the day rather than late at night, when some channels may not be broadcasting.

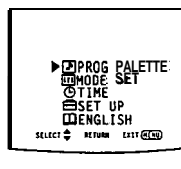
- Set the cable connection on or off (pp. 22 - 23) to select the type of channel you want to preset, VHF/UHF or cable N.



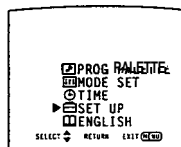
Press ANT/AUX to select the type of channel you want to preset, VHF/UHF/regular cable N or pay cable TV.



- Press MENU. The main menu appears.



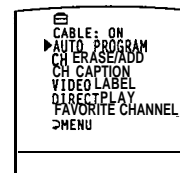
- Press A/V WINDOW +/- until the cursor points to "SET UP."



- Press RETURN. The set up menu appears.



- Press AN WINDOW +/- until the cursor points to "AUTO PROGRAM."



- Press RETURN.



"AUTO PROGRAM" appears on the screen and receivable channels (other than the channels already preset) are preset in numerical sequence. The channels previously preset will not remain in the TV's memory. When no more channels are found, auto programming stops and the screen returns automatically to the set up menu.

- Press CH +/- to check or view the preset channels.



Receivable channels for this TV

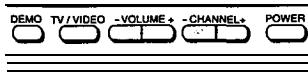
VHF: 2 - 13
UHF: 14 - 62
Cable: 1 - 125

To select TV channels without presetting
press the 0 - 9 buttons and ENTER.

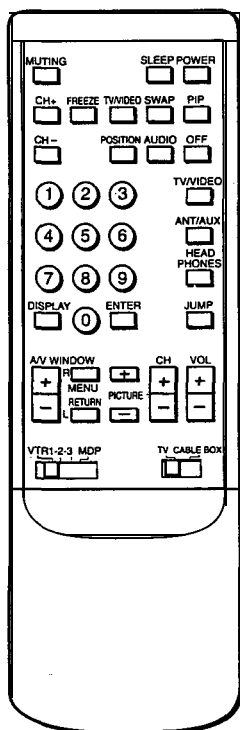
To return to the previous menu
Press A/V WINDOW +/- until the cursor points to "MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.



Front of N



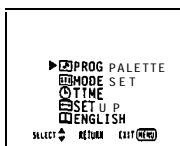
RM-Y113

Erasing TV channels

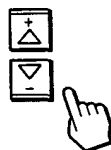
Follow these instructions to erase unnecessary N channels, so that when you press CH +/-, the channel(s) are skipped.

1 Press MENU

The main menu appears.

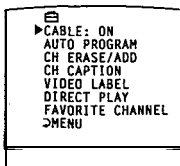


2 Press AV WINDOW +/- until the cursor points to "SET UP"

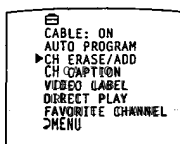


3 Press RETURN

The set up menu appears.



4 Press AV WINDOW +/- until the cursor points to "CH ERASE/ADD."



5 Press RETURN.

The CH ERASE/ADD screen appears, and the cursor points to "ERASE."

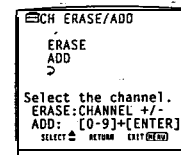


6 Press CHANNEL +/- on the N or CH +/- on the Remote Commander to select the channel you want to erase.



7 Press RETURN.

A "-" sign appears in front of the channel number display, indicating that the channel is erased; then the CH ERASE/ADD screen automatically reappears.



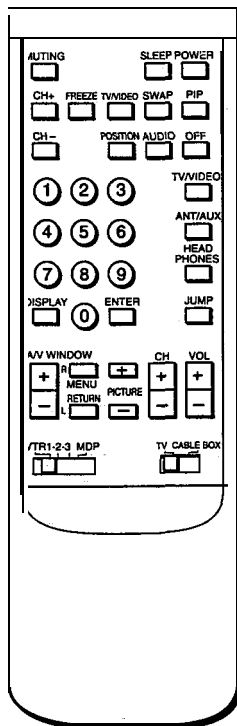
To erase another channel
Repeat steps 6 - 7.

To return to the previous menu
Press AV WINDOW +/- until the cursor points to "3 MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

Note
If you erase a VHF or UHF channel, the same number cable TV channel is also erased (and vice versa).

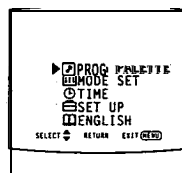


RM-Y113

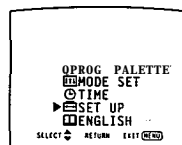
Adding TV channels

Follow these instructions to add TV channels one by one to the selection memory. Or to replace a N channel you previously erased (pp. 26 ■ 27).

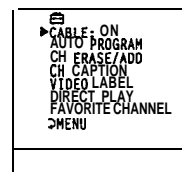
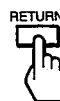
- 1 Press MENU.
The main menu appears.



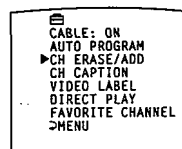
- 2 Press A/V WINDOW +/- until the cursor points to "SET UP."



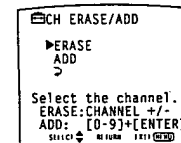
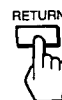
- 3 Press RETURN.
The set up menu appears.



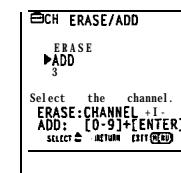
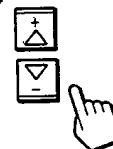
- 4 Press A/V WINDOW +/- until the cursor points to "CH ERASE/ADD."



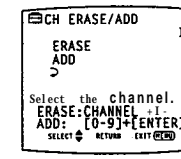
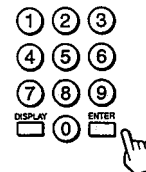
- 5 Press RETURN.
The CH ERASE/ADD screen appears



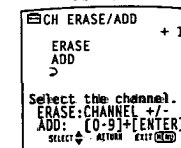
- 6 Press A/V WINDOW +/- until the cursor points to "ADD."



- 7 Press 0 ■ 9 and ENTER on the Remote Commander to select the channel you want to add.
The channel display appears.



- 8 Press RETURN.
A "+" sign appears in front of the channel number display, indicating that the channel is added; then the CH ERASE/ADD screen automatically reappears.



To add another channel
Repeat steps 7 ■ 6.

To **return** to the previous menu
Press A/V WINDOW +/- until the cursor points to "3 MENU."
Then press RETURN.

To **return** to the **main** menu
Repeat the above, until you reach the **main** menu.

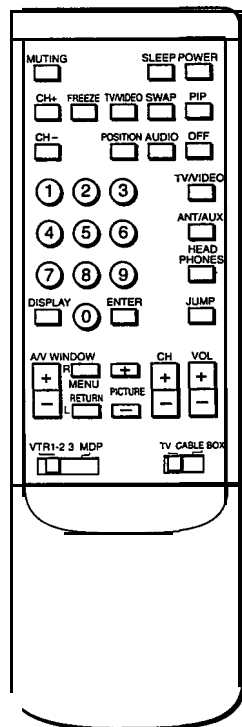
To return to the normal **screen**
Press MENU on the Remote Commander.

Note
If you add a VHF or UHF channel, the same number cable TV channel is also added (and vice versa).

1-5. WATCHING TV PROGRAMS



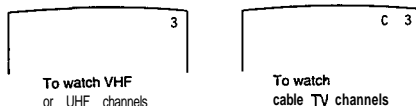
Front of N



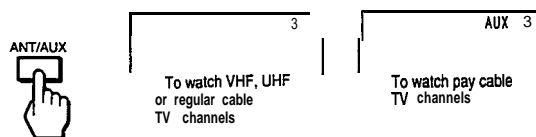
RM-Y113

Make sure that the TV/CABLE BOX selector on the Remote Commander is set to TV. In order to control the N with the Remote Commander.

1 Set the cable connection on or off (pp. 22 - 23) to select the type of channel you want to watch, VHF/UHF or cable N.



Press **ANT/AUX** to select the type of channel you want to watch, VHF/UHF/regular cable N or pay cable N.

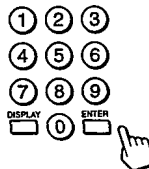


2 Select a channel in one of the following two ways:

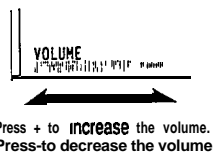
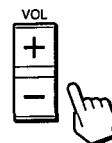
To scan the preset channels in numerical sequence, press CH +/-



To select a channel directly, press 0 - 9 and then ENTER. For example, to select channel 10, press 1, 0 and ENTER



3 Press VOL +/- to adjust the volume.



Press + to increase the volume. Press - to decrease the volume.

If VIDEO 1, VIDEO 2, VIDEO 3, S VIDEO, LD or VTR appears on the screen

Press **TV/VIDEO** on the N or on the Remote Commander until a N channel number appears.

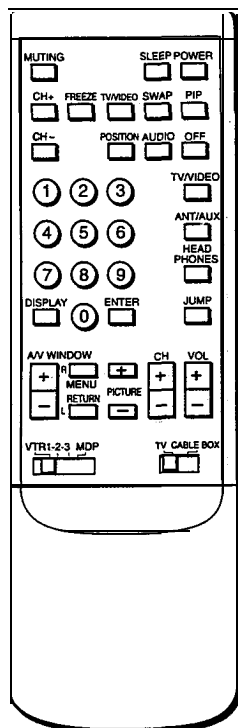
To select channels more easily

Set FAVORITE CHANNEL (pp. 60 - 61).

To turn off the N

Press **POWER** on the N or on the Remote Commander.

I-6. USING CONVENIENT FEATURES

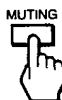


RM-Y113

Muting the sound — MUTING

Press **MUTING**.
"MUTING" appears on the screen.

To restore the sound
 Press **MUTING** again, or press **VOL +**.



Keeping the displays on-screen — DISPLAY

Press **DISPLAY**.
 All the **existing** displays appear: channel number, channel caption (if set), **MTS mode ("SAP" only)**, window picture input mode, and the **current time ("AM" or "PM" disappears after about three seconds)**.

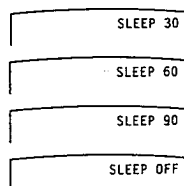
To turn off the displays
 Press **DISPLAY** again.



Setting the sleep timer — SLEEP

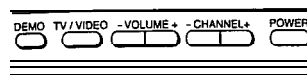
The sleep timer turns off the TV automatically after the amount of time you select.

Press **SLEEP**.
 Each time you press **SLEEP**, the time increments "30," "60," "90" and **OFF** mode appear in sequence.

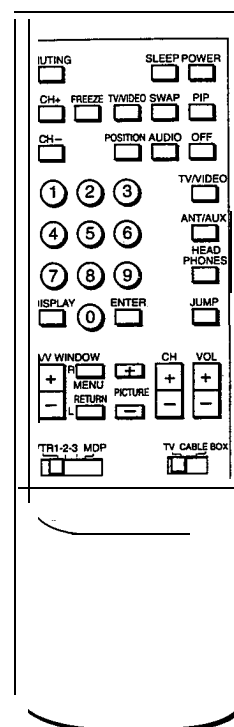


A red **"SLEEP"** display appears about one minute before the TV goes on.

To cancel the setting.
 Press **SLEEP** until **OFF** mode appears.
 A green **"SLEEP OFF"** display appears for about three seconds.
 Or
 Turn the TV off.
 The sleep timer setting is cancelled.



Front of TV



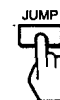
RM-Y113

Switching quickly between two channels — JUMP

Use this function to keep track of two programs alternately.

To recall the channel you were watching previously
 Press **JUMP**.

To switch back to the first channel
 Press **JUMP** again.



Using the wireless headphones — HEADPHONES

Turning on the headphones does not affect the sound from the TV speakers. If you want to listen to the sound from the headphones only, turn off the TV speaker sound by pressing **VOLUME-** on the TV or **VOL -** on the Remote Commander.

To turn on the headphones
 Press **HEADPHONES**.
 The **display** appears for about three seconds.

To control the headphones volume/
 To turn the headphones power on or off
 Use the controls on the headphones.

To turn off the headphones
 Press the headphones power button first, then press **HEADPHONES**.

To use the headphones to listen to sound from the window picture (PIP function)
 See "Selecting the headphones audio source" (p. 39).

Notes

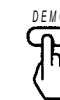
- When using the headphones, you cannot adjust sound quality or select sound modes (pp. 45 – 47) or use the muting feature (p. 32).
- After using the headphones, if you press **HEADPHONES** without pressing the headphones power button first, you may hear noise. This does not indicate a malfunction.

Previewing the features — DEMO

Press **DEMO**.
 Functions and menus are displayed one by one.

To restart DEMO from the beginning
 Press **DEMO** again.

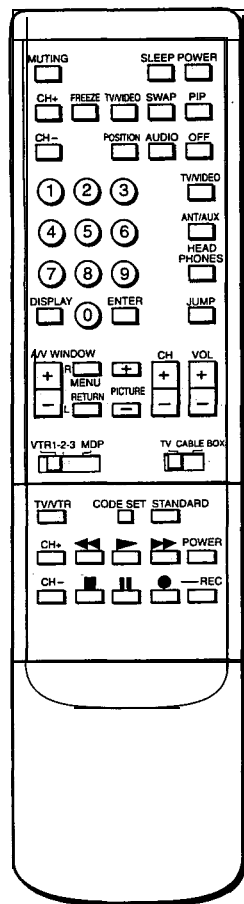
To stop DEMO
 Press any button.



1-7. SELECTING A PICTURE AND SOUND MODE

This TV features four modes (STANDARD, MOVIE, SPORTS, NEWS) that offer different **picture** and sound qualities. Choose the one that best suits the type of program that you want to watch.

Example: Select MOVIE mode for **picture** and sound that gives you the sense of **being in a movie** theater.



RM-Y113
(with video control
cover open)

- 1 Press **MENU**.
The main menu appears, and the cursor points to "PROG PALETTE."
- 2 Press **RETURN**.
The program **palette menu** appears.
- 3 Press **A/V WINDOW +/-** until the cursor points to "MOVIE."
- 4 Press **RETURN**.
The "MOVIE" display turns green, indicating that MOVIE mode is selected.

To select a different mode
Repeat steps 3 - 4.

Selecting standard mode (without using the menus)

Follow these instructions to select standard mode without using the on-screen menus.

Press **STANDARD**.

STANDARD

8

When you select STANDARD mode
You receive standard **picture** and sound quality. Any **video** or audio adjustments you made ("Adjusting the TV," pp. 40 - 48) are **cancelled** and the **original** factory settings are restored.

When you select **MOVIE** mode
You receive a finely detailed **picture**, and a **theatrical** audio effect.
To further adjust **picture** and sound qualities, follow the **instructions** on pp. 40 - 48.

When you select **SPORTS** mode
You receive a **vivid, bright picture**, and sound with a **sports** stadium effect.
To further adjust **picture** and sound qualities, follow the **instructions** on pp. 40 - 48.

When you **select** **NEWS** mode
Picture **noise** is reduced, and you receive clear **voice** reproduction.
To further adjust **picture** and sound qualities, follow the **instructions** on pp. 40 - 48.

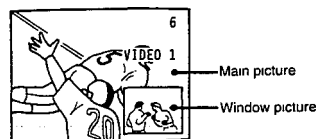
To **return** to the **previous** menu
Press **AN WINDOW +/-** until the **cursor** points to "➔ MENU." Then press **RETURN**.

To return to the main menu
Repeat the above, until you reach the **main** menu.

To **return** to the normal **screen**
Press **MENU** on the Remote Commander.

1-8. WATCHING TWO PICTURES AT ONCE (PIP)

You can watch both the **main picture** and a **window picture** **simultaneously**, using the Picture-m-Picture (PIP) function. Models KV-27XBR35/32XBR35 are equipped with two-tuner PIP, allowing you to watch two N channels at once.



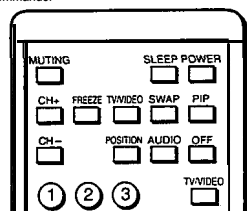
Picture-in-Picture special features

When **watching** the **main picture** and a **window picture**, you can:

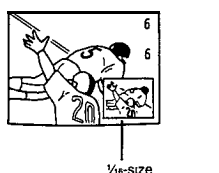
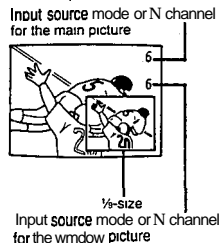
- Swap the **main** and **window pictures** (SWAP).
- Change the position of the **window picture** (POSITION).
- Display a **still picture** (FREEZE).
- Choose the sound from the **main** or **window picture** (AUDIO).
- Listen to the **window picture** sound through the supplied **wireless headphones** (HEADPHONES). (KV-27XBR35/32XBR35 only)

Displaying a window picture

Remote Commander



Press PIP to display a window picture



A window picture appears in the last mode you watched. Each time you press PIP, a 1/9 or 1/16 size window picture appears alternately.

To turn PIP function off

Press OFF

The window picture disappears.

To receive the window picture sound

Press AUDIO.

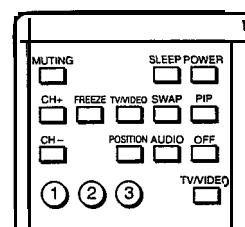
The J display appears for a few seconds, indicating that the window picture sound is being received.

To restore the main picture sound

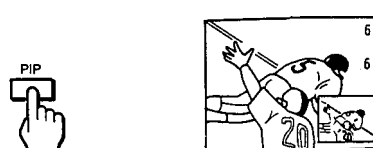
Press AUDIO again.

Changing the window picture input mode

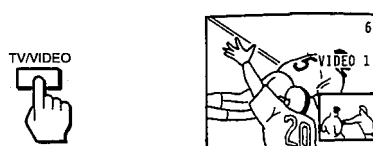
Remote Commander



1 Press PIP to display a window picture.



2 Press TV/VIDEO in the Picture-m-Picture control area to select the input mode. Each time you press TV/VIDEO, "TV," "VIDEO 1," "VIDEO 2" and "VIDEO 3" appear in sequence.

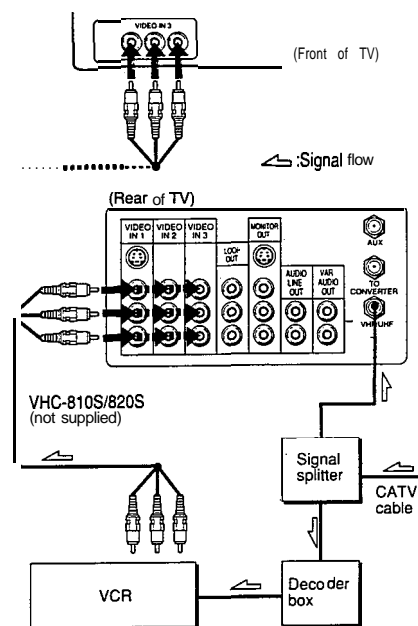


To change N channels in the window picture

Press CH +/- in the PIP control area.

Displaying CATV input as a window picture

To use Picture-m-Picture with pay cable N input, make the connections to your cable converter boxes shown below.



After making the above connections, turn the cable connection on by following the Steps on pp. 22 - 23; then continue with the steps below.

1-2 Follow steps 1-2 in "Changing the window picture input mode" on this page to select the video input mode for your connected VCR.

3 Put your VCR on an inactive channel (channel 3 or 4).

4 Change pay cable N channels with the decoder box.

To control your cable converter box with the supplied Remote Commander See p. 66.

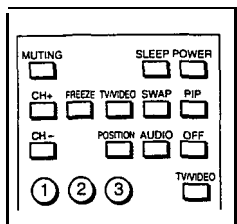
Notes

- The window picture sound is also output from the VAR. AUDIO OUT jacks. The AUDIO LINE OUT and MONITOR OUT jacks output the main picture sound only.
- The video label and channel caption will not appear with the window picture even if you have set them.
- If you select a blocked channel in the window picture, the display "BLOCKED" appears with the window picture. (See "Setting CHANNEL BLOCK," pp. 58 - 59.)

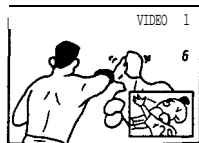
Changing the position of the window picture

Follow these **instructions** to change the **position** of the window picture on the screen

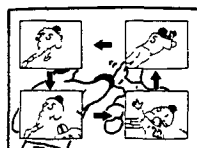
Remote Commander



1 Press PIP to display a window picture.

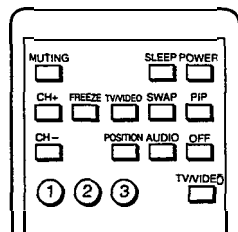


2 Press POSITION
Each time you press POSITION, the window picture moves as illustrated

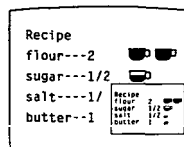


Use the FREEZE function to display a still picture. This function is useful when you want to write down a recipe from a cooking program, a displayed address or phone number and so on

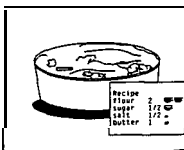
Remote Commander



1 Press PIP to display a window picture.



2 Press FREEZE.
The window picture image remains still on the screen.

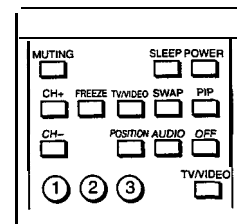


To restore the normal picture
Press FREEZE again.

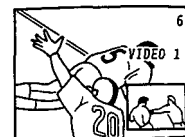
Swapping the main and window pictures

Follow these instructions to swap the input signals of the main and window pictures

Remote Commander



1 Press PIP to display a window picture



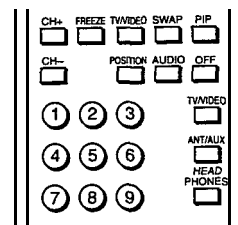
2 Press SWAP
Each time you press SWAP, the images from the main and window pictures switch places



Selecting the headphones audio source (KV-27XBR35/32XBR35 only)

Follow these **instructions** to select the **audio** source that you want to **receive** through the **supplied wireless** headphones (main or window picture). If you want to listen to sound from the window picture, make sure that the sound from the window picture is being received (p. 36).

Remote Commander (RM-Y113)



1 Press PIP to display a window picture.



2 Press HEADPHONES.
Each time you press HEADPHONES the audio source changes to main picture, window picture and "OFF" in sequence
The display appears with the input mode

Notes

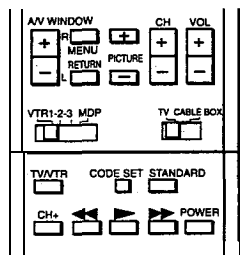
- If you turn PIP function off, the sound from the wireless headphones changes to the main picture sound
- If you turn off the TV, the next time you turn on the TV the headphones are off

1-9. ADJUSTING THE TV

You can adjust the picture and sound for each input mode (TV, VIDEO 1, VIDEO 2, VIDEO 3) by pressing TV/VIDEO on the N or on the Remote Commander to select the input mode, before making the adjustments. These adjustments are retained in memory even when you turn off the TV, but are cancelled after you change the adjustments, or select a picture and sound mode (pp. 34 - 35).

Follow these instructions to adjust PICTURE, HUE, COLOR, BRIGHT (brightness) and SHARP (sharpness).

Remote Commander (with video control cover open)



- 1 Press MENU. The menu appears, and the cursor points to "PROG PALETTE."

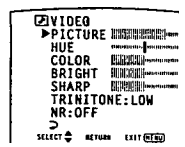


- 2 Press RETURN. The program palette menu appears.



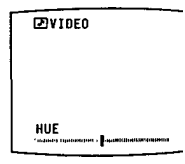
- 3 Press AV WINDOW +/- until the cursor points to "VIDEO."

- 4 Press RETURN. The VIDEO screen appears.



- 5 Press AV WINDOW +/- until the cursor points to the item you want to adjust.

- 6 Press RETURN. The adjustment screen appears.



- 7 Press AN WINDOW +/- to make the adjustment.

Picture quality	Press AV WINDOW -	Press AV WINDOW +
PICTURE	For decreased picture contrast with soft color	For increased picture contrast with mid color
HUE	Skin tones become purplish	Skin tones become greenish
COLOR	For less color intensity	For more color intensity
BRIGHT	For less brightness	For more brightness
SHARP	For less sharpness	For more sharpness

- 8 Press RETURN. The adjustment is complete, and the VIDEO screen automatically reappears.



To adjust other items
Repeat steps 5 - 8.

To restore the factory settings for all the items

Select "STANDARD" on the program palette menu, and press RETURN.

Or, press STANDARD on the Remote Commander.

AN the items, including TRINITONE (p. 42) and NR (p. 43) return to their original factory settings.

To adjust picture contrast

You can also adjust picture contrast with the PICTURE +/- buttons on the Remote Commander.



- 1 Press + to increase picture contrast with vivid color. Press - to decrease picture contrast with soft color. The picture adjustment screen appears.

- 2 Press RETURN twice.

The adjustment is set, and the VIDEO screen automatically reappears.

To return to the previous menu

Press AN WINDOW +/- until the cursor points to "MENU."

Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

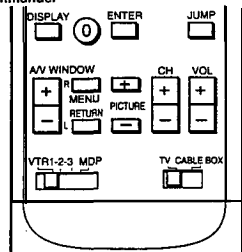
To return to the normal screen

Press MENU on the Remote Commander.

Setting the TRINITONE mode

Color picture tubes are usually manufactured with a fixed color temperature (tint) that determines the "warmth" (red tint) or "coolness" (blue tint) of the picture. Use the Sony Trinitone feature to adjust the picture color to your preference.

Remote Commander



- 1 Press **MENU**.
The **main menu** appears, and the **cursor points to "PROG PALETTE."**



- 2 Press **RETURN**.
The **program palette menu** appears.



- 3 Press **AV WINDOW +/-** until the **cursor points to "VIDEO."**

- 4 Press **RETURN**.
The **VIDEO screen** appears.



- 5 Press **AN WINDOW +/-** until the **cursor points to "TRINITONE."**

- 6 Press **RETURN**.
The **mode display turns red**.

- 7 Press **AV WINDOW +/-** to select "HIGH" or "LOW."
Select "HIGH" to make the **picture cool** (bluish).
Select "LOW" to make the **picture warm** (reddish).

- 8 Press **RETURN**.
The **setting is complete**.

To return to the previous menu

Press **AV WINDOW +/-** until the **cursor points to "3 MENU."**
Then press **RETURN**.

To return to the **main menu**
Repeat the **above**, until you reach the **main menu**.

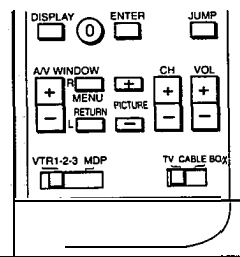
To return to the normal screen

Press **MENU** on the **Remote Commander**.

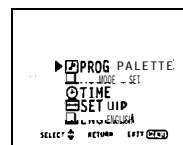
Setting NR (picture noise reduction) ON or OFF

Follow these **instructions** to **reduce picture noise**.

Remote Commander



- 1 Press **MENU**.
The **main menu** appears and the **cursor points to "PROG PALETTE."**



- 2 Press **RETURN**.
The **program palette menu** appears.

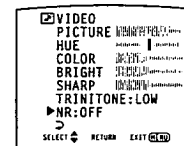


- 3 Press **AN WINDOW +/-** until the **cursor points to "VIDEO."**

- 4 Press **RETURN**.
The **VIDEO screen** appears.



- 5 Press **AN WINDOW +/-** until the **cursor points to "NR."**



- 6 Press **RETURN**.
The **mode display turns red**.

- 7 Press **AV WINDOW +/-** to select "ON" or "OFF."
Select "ON" to **reduce picture noise**.
Select "OFF" to **restore the normal picture**.

- 8 Press **RETURN**.
The **setting is complete**.

To return to the previous menu

Press **AN WINDOW +/-** until the **cursor points to "3 MENU."**
Then press **RETURN**.

To return to the main menu

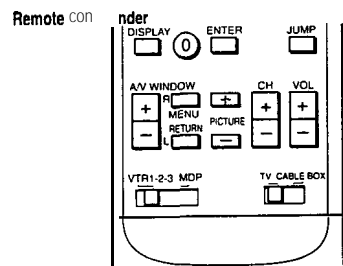
Repeat the **above**, until you reach the **main menu**.

To return to the **normal screen**
Press **MENU** on the **Remote Commander**.

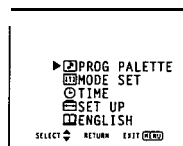
Setting S-VIDEO ON or OFF

Follow these instructions to set S-VIDEO on or off, depending on the kind of **video equipment** you have connected to the TV. For Instructions on connecting video equipment, see pp. 13 = 16.

Note
If the TV is in TV, VIDEO 2 or VIDEO 3 mode, the 'S-VIDEO' display is shaded and cannot be selected.
Press TV/VIDEO on the TV or on the Remote Commander to change to VIDEO 1 mode.

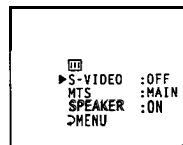


- 1 Press MENU.
The main menu appears.



- 2 Press AN WINDOW +/- until the cursor points to "MODE SET."

- 3 Press RETURN.
The mode set menu appears, with the cursor pointing to "S-VIDEO."



- 4 Press RETURN.
The mode display turns red.

- 5 Press AV WINDOW +/- to select "ON" or "OFF."

- 6 Press RETURN.
The setting is complete.

To return to the previous menu:
Press AV Window +/- until the cursor points to "3 MENU."
Then press RETURN.

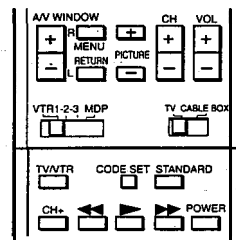
To return to the main menu:
Repeat the above, until you reach the main menu.

To return to the normal screen:
Press MENU on the Remote Commander.

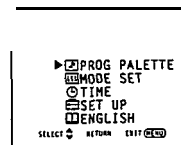
Adjusting the sound

Follow these instructions to adjust the TREBLE, BASS and BALANCE.

Remote Commander (with video control cover open)



- 1 Press MENU.
The main menu appears, and the cursor points to "PROGRAM PALETTE."

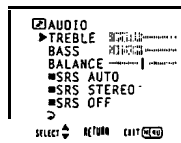


- 2 Press RETURN.
The program palette menu appears.



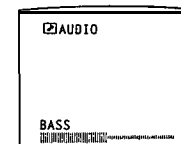
- 3 Press AN WINDOW +/- until the cursor points to "AUDIO."

- 4 Press RETURN.
The AUDIO screen appears.



- 5 Press AN WINDOW +/- until the cursor points to the item you want to adjust.

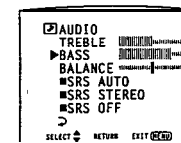
- 6 Press RETURN.
The adjustment screen appears.



- 7 Press AV WINDOW +/- to make the adjustment

Sound quality	Press AV WINDOW -	Press AV WINDOW +
TREBLE	To decrease the treble response	To increase the treble response
BASS	To decrease the bass response	To increase the bass response
BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

- 8 Press RETURN.
The adjustment is complete, and the AUDIO screen automatically reappears.



To adjust other items:
Repeat steps 5 = 9.

To restore the factory settings for all the items:
Select "STANDARD" on the program palette menu, and press RETURN; or, press STANDARD on the Remote Commander.
All the items, including SRS mode (p. 46) return to their original factory settings.

To return to the previous menu:
Press AV WINDOW +/- until the cursor points to "3 MENU."
Then press RETURN.

To return to the main menu:
Repeat the above, until you reach the main menu.

To return to the normal screen:
Press MENU on the Remote Commander.

Selecting an SRS (Sound Retrieval System) mode

For lifelike sound reproduction, follow the instructions below to select the SRS mode you prefer.

In SRS AUTO mode, SRS functions in both monaural and stereo modes.

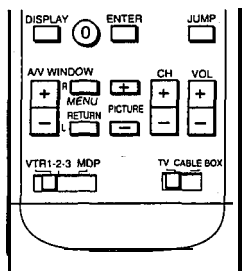
Monaural sound programs will have a 'simulated stereo' effect.

In SRS STEREO mode, SRS functions only when a stereo program is received.

The STEREO lamp on the TV lights up whenever a stereo broadcast is received.

Select SRS OFF mode to return to normal sound mode.

Remote Commander



Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."

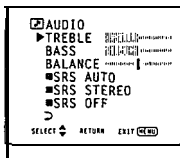


2 Press RETURN.
The main menu appears.



3 Press AN WINDOW +/- until the cursor points to "AUDIO."

4 Press RETURN.
The AUDIO screen appears.



5 Press A/V WINDOW +/- until the cursor points to the SRS mode you want.

6 Press RETURN.
The mode is selected.

To change the SRS mode
Repeat steps 5 and 6.

To return to the previous menu
Press A/V WINDOW +/- until the cursor points to "MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

Selecting an MTS (Multichannel TV Sound) mode

Follow these instructions to select an MTS mode.

Select MAIN mode to listen to stereo sound.

The STEREO lamp on the TV lights up whenever a stereo broadcast is received.

Select SAP mode to listen to Second Audio Programs.

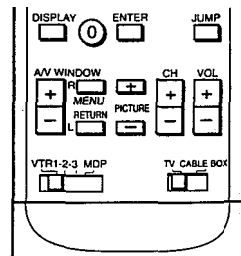
Select MONO mode to eliminate excessive noise during stereo broadcasts, caused by a weak incoming signal.

Note

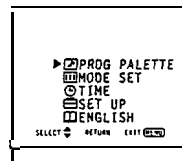
If the N is in video mode, the "MTS" display is shaded and cannot be selected.

Press TV/VIDEO on the N or on the Remote Commander to change to N mode.

Remote Commander

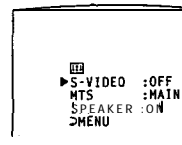


1 Press MENU.
The main menu appears.



2 Press AN WINDOW +/- until the cursor points to "MODE SET."

3 Press RETURN.
The mode set menu appears.



4 Press A/V WINDOW +/- until the cursor points to "MTS."

5 Press RETURN.
The mode display turns red.

6 Press A/V WINDOW +/- to select the mode you want.
Each time you press A/V WINDOW +/-, "MAIN," "SAP" and "MONO" appear in sequence.

7 Press RETURN.
The mode is selected.

To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "MENU."

Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

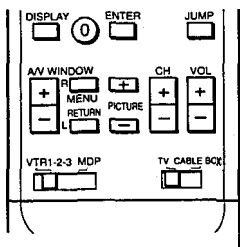
To return to the normal screen

Press MENU on the Remote Commander

Setting SPEAKER ON or OFF

Follow these instructions to turn the TV speakers off when you connect an audio system (p.17), and on when you want to listen to the sound from the TV speakers.

Remote Commander

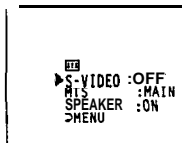


- 1 Press MENU.
The main menu appears.



- 2 Press A/V WINDOW +/- until the cursor points to "MODE SET."

- 3 Press RETURN.
The mode set menu appears.



- 4 Press A/V WINDOW +/- until the cursor points to "SPEAKER."

- 5 Press RETURN.
The mode display turns red.

- 6 Press A/V WINDOW +/- to select "ON" or "OFF"

- 7 Press RETURN.
The setting is complete.

To return to the **previous menu**
Press A/V WINDOW +/- until the cursor points to "MENU."
Then press RETURN.

To return to the **main menu**
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

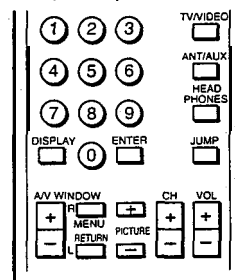
I-1 0. CUSTOMIZING THE SCREEN DISPLAY

Setting channel captions — CH CAPTION

Follow these instructions to caption each channel number display with a name. For instance, the television station call letters. (You can set up to four letters or numbers)

Example: Caption channel 15 as 'NBC.'

Remote Commander (RM-Y113)

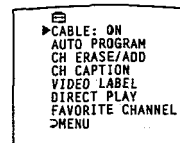


- 1 Press MENU.
The main menu appears.



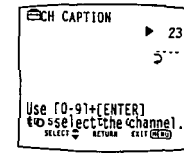
- 2 Press A/V WINDOW +/- until the cursor points to "SET UP."

- 3 Press RETURN.
The set up menu appears

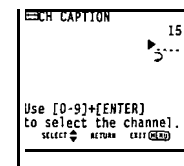


- 4 Press A/V WINDOW +/- until the cursor points to "CH CAPTION."

- 5 Press RETURN.
The CH CAPTION screen appears.

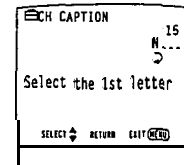


- 6 Press CH +/-, or press 1, 5 and ENTER to set channel '15.'



- 7 Press RETURN.
The first caption space turns red.

- 8 Press A/V WINDOW +/- to select "N."
Each time you press A/V WINDOW +/-, "0" - "9," "A" - "Z,"
"X," "Y," "Z" and " " (blank space) appear in sequence.



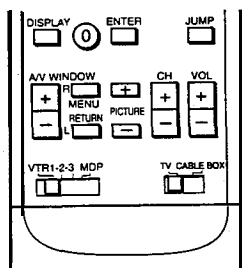
- 9 Press RETURN.
The second caption space turns red

(Continued)

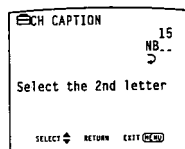
Setting channel captions – CH CAPTION

(Cont'd. from prev. page)

Remote Commander

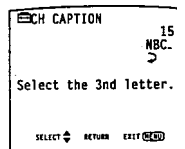


10 Press AN WINDOW +/- to select "B."



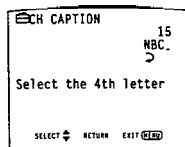
11 Press RETURN.
The third caption space turns red.

12 Press AN WINDOW +/- to select "C."



13 Press RETURN.
The fourth caption space turns red.

14 Press AN WINDOW +/- to select a blank space.



15 Press RETURN.
The setting is complete.
When you select or display the channel number, the channel caption also appears.

To caption mom channels
Repeat steps 6 – 15.

To erase unnecessary captions
Display the CH CAPTION screen. select the channel with the caption you want to erase, and select blank spaces for the channel caption; then press RETURN.
The caption for that channel is erased.

To return to the previous menu
Press A/V WINDOW +/- until the cursor pants to "MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

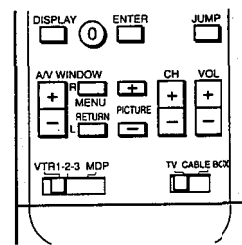
Note
You can set up to 32 channel captions. If the memory is full, "The memory is full, sorry" appears on the screen. Erase any unnecessary captions, and begin again.

Setting VIDEO LABEL

Follow these instructions to label each input mode in order to identify the equipment connected to each input terminal.

Example: Label VIDEO IN 1 as "VHS."

Remote Commander

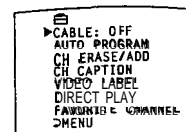


1 Press MENU.
The main menu appears.



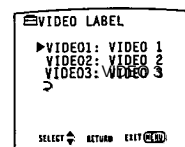
2 Press AN WINDOW +/- until the cursor pants to "SET UP."

3 Press RETURN.
The set up menu appears.



4 Press AN WINDOW +/- until the cursor points to "VIDEO LABEL."

5 Press RETURN.
The VIDEO LABEL screen appears.



6 Press AN WINDOW +/- until the cursor points to the input mode you want to label. (In this case, the cursor is already panting to "VIDEO 1.")

7 Press RETURN.
The label display turns red.

8 Press AN WINDOW +/- to select "VHS."



Each time you press A/V WINDOW +/-, the label changes:

VIDEO 1 → BETA → 8mm → VHS → LD → S-VIDEO

VIDEO 2 → BETA → 8mm → VHS → LD

VIDEO 3 → BETA → 8mm → VHS → LD

9 Press RETURN.
The setting is complete.
When you select or display the video mode, the video label appears.

To label other input modes
Repeat steps 6 – 9.

To change a label
Same as above.

To return to the previous menu
Press A/V WINDOW +/- until the cursor points to "MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

I-1 1. USING TIMER-ACTIVATED FUNCTIONS

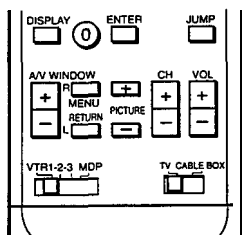
Setting DAYLIGHT SAVING

If you live in an area that uses daylight savings time, set DAYLIGHT SAVING to "YES" or "NO" depending on the season. Before setting the current time. At the next daylight savings date, you will be able to automatically adjust all the time-related settings (CURRENT TIME, ON/OFF TIMER and CHANNEL BLOCK) simply by changing the DAYLIGHT SAVING setting.

When setting DAYLIGHT SAVING:

- After the first Sunday in April (spring daylight savings) Set to "YES" before setting the current time. Then, on the last Sunday in October (fall daylight savings), set to "NO."
At the time-related settings automatically move one hour back.
- After the last Sunday in October (fall daylight savings) Set to "NO" before setting the current time. Then, on the first Sunday in April (spring daylight savings), set to "YES."
At the time-related settings automatically move one hour ahead.

Remote Commander



Follow these instructions to set DAYLIGHT SAVING to "YES" or "NO."

- 1 Press MENU.
The main menu appears.



- 2 Press AV WINDOW +/- until the cursor points to "TIME."

- 3 Press RETURN.
The time menu appears.

&RENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
DAYLIGHT SAVING:NO
MENU

- 4 Press AV WINDOW +/- until the cursor points to "DAYLIGHT SAVING:"

- 5 Press RETURN.
The mode display turns red.

- 6 Press AV WINDOW +/- to select "YES" or "NO."

- 7 Press RETURN.
The setting is complete.

To return to the previous menu

Press AN WINDOW +/- until the cursor points to "MENU".
Then press RETURN.

To return to the main menu

Repeat the above, until you reach the "main" menu.

To return to the normal screen

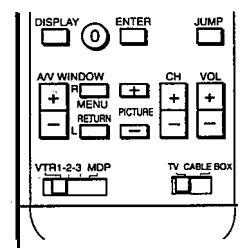
Press MENU on the Remote Commander.

Setting the clock — CURRENT TIME SET

Follow these instructions to set the current time. The correct current time must be set in order to use the other time-related functions (DAYLIGHT SAVING, ON/OFF TIMER, CHANNEL BLOCK).

Example: Set the time to 3:15 PM, Monday.

Remote Commander



- 1 Press MENU.
The main menu appears.

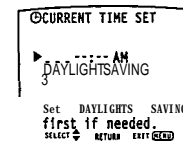


- 2 Press AV WINDOW +/- until the cursor points to "TIME."

- 3 Press RETURN.
The time menu appears, and the cursor points to "CURRENT TIME SET."

CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
DAYLIGHT SAVING:NO
MENU

- 4 Press RETURN again.
The CURRENT TIME SET screen appears, with a reminder to set DAYLIGHT SAVING.



If you do not need to set DAYLIGHT SAVING, press RETURN and continue from step 5.

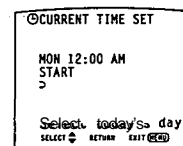
To set daylight saving

- a Press AN WINDOW +/- until the cursor points to "DAYLIGHT SAVING."
- b Press RETURN.
The time menu appears, and the cursor points to "DAYLIGHT SAVING."
- c Press RETURN.
- d Press AV WINDOW +/- to select "YES" or "NO."
- e Press RETURN.
The setting is complete.

To set the time, press AV WINDOW +/- until the cursor points to "CURRENT TIME SET"; press RETURN, then continue from step 5.

- 5 Press RETURN.
The CURRENT TIME SET screen appears, and the "SUN" display appears (red).

- 6 Press AN WINDOW +/- to select "MON." Each time you press AV WINDOW +/-, the day changes consecutively.

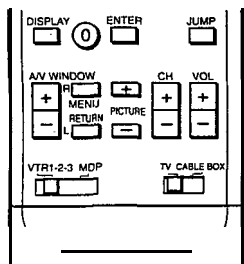


(Continued)

Setting the clock — CURRENT TIME SET

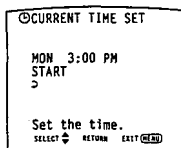
(Cont'd. from prev. page)

Remote Commander



7 Press RETURN.
The hour and am/pm displays turn red.

8 Press AA' WINDOW +/- to set "3:00PM."
Each time you press A/V WINDOW +/-, the hour changes in sequence beginning with "12:00AM."



9 Press RETURN.
The minute display turns red.

10 Press A/V WINDOW +/- to select "15" (minutes).
Each time you press A/V WINDOW +/-, the minutes change in sequence.



11 Press RETURN.
The cursor points to START..

12 Check the actual time. and press RETURN to start the clock.
The setting is complete.

To reset the **time**
Display the CURRENT TIME SET screen and repeat steps 5-12.

To display the current **time**
Press DISPLAY.

To return to the **previous** menu
Press AN WINDOW +/- until the cursor points to "MENU."
Then press RETURN.

To return to the **main** menu
Repeat the above, until you reach the main menu.

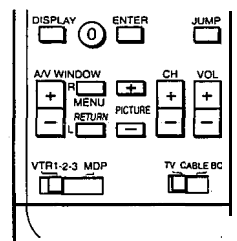
To return to the normal **screen**
Press MENU on the Remote Commander.

Setting the ON/OFF TIMER

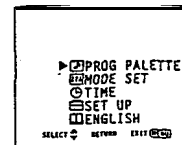
Follow these instructions to make the program of your choice appear on the screen at a specified time.

Example: Set the timer to turn on the TV every Monday through **Friday** at 1:30 AM for 3 hours. on channel 8, as PROGRAM 1. (You can set up to three programs.)

Remote Commander



1 Press MENU.
The main menu appears.



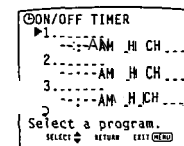
2 Press A/V WINDOW +/- until the cursor points to TIME."

3 Press RETURN.
The time menu appears.



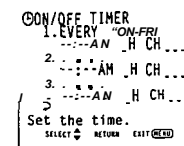
4 Press A/V WINDOW +/- until the cursor points to "ON/OFF TIMER."

5 Press RETURN.
The ON/OFF TIMER screen appears. and the cursor points to "1."

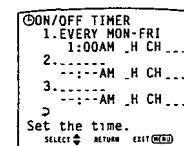


6 To set program 1. press RETURN.
(To set program 2 or 3, press AN WINDOW +/- until the cursor points to that program; then press RETURN.)
The day input space turns red.

7 Press A/V WINDOW +/- to select "EVERY MON-FRI"; then press RETURN.
Each time you press AN WINDOW +/-, the days of the week change as show" in Fig. 1 (p. 57).



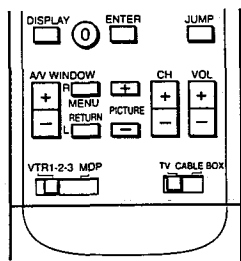
8 Press AN WINDOW +/- to select "1:00AM"; then press RETURN.
Each time you press A/V WINDOW +/-, the hour changes in sequence.



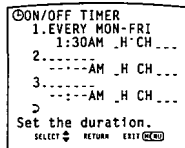
(Continued)

Setting the ON-OFF TIMER (Cont'd from prev. page)

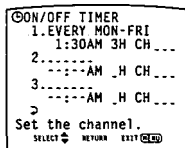
Remote Commander



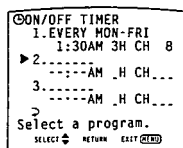
- 9** Press A/V WINDOW +/- to select "30" (minutes); then press RETURN.
Each time you press A/V WINDOW +/-, the minutes change in sequence.



- 10** Press A/V WINDOW +/- to select "3" (hour duration); then press RETURN.
Each time you press A/V WINDOW +/-, the duration changes from "1" = "6" in sequence.



- 11** Press A/V WINDOW +/- to select "8" (channel); then press RETURN.
The **TIMER** lamp lights, indicating that the setting is complete.
Each time you press A/V WINDOW +/-, the channel number changes from 1 - 125 in sequence.



The display "TIMER WILL BE OFF" appears on the screen one minute before the timer duration ends.

To set program 2 or 3.
Press RETURN and repeat steps 6 - 11.

To erase an ON/OFF **TIMER** setting
Display the ON/OFF TIMER screen. select the setting you want to erase, and **select** a blank space for the day.
The ON/OFF TIMER setting **IS** erased.

To enter a new ON/OFF **TIMER** setting
Display the ON/OFF TIMER screen and repeat steps 6 - 11.

To **return** to the previous menu
Press A/V WINDOW +/- until the cursor points to "MENU".
Then press RETURN.

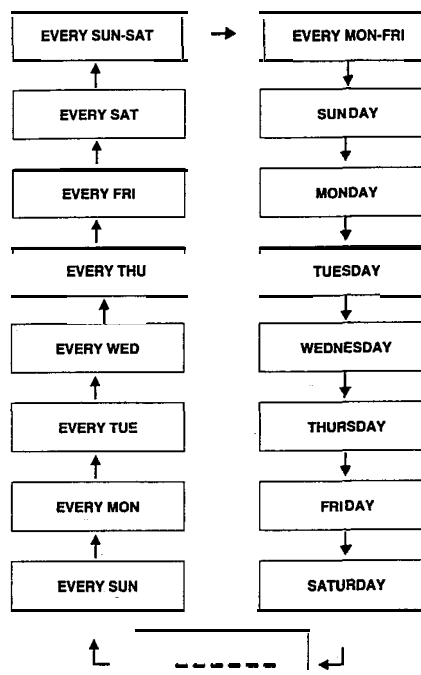
To **return** to the main menu
Repeat the above. until you reach the main menu

To **return** to the normal **screen**
Press MENU on the Remote Commander.

Note
If you unplug the TV or a power failure occurs, both the clock and timer settings will be erased. Reset the current time; then set the

Fig. 1

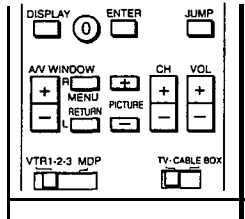
Selecting the day(s) of the week
When you press AN WINDOW +, the days of th.3 week appear in the following order:



Follow these instructions to prevent a channel from appearing on the screen during the time that you specify. You can use this function to prevent children from watching unsuitable programs.

Example: Set CHANNEL BLOCK every Saturday at 4:30 PM for 1 hour, on Channel 12.

Remote Commander



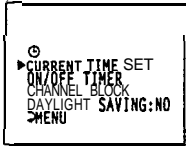
Note
If you have not set the current time, the "CHANNEL BLOCK" display is shaded and cannot be selected.

1 Press MENU.
The main menu appears.



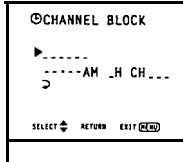
2 Press AV WINDOW +/- until the cursor points to "TIME."

3 Press RETURN.
The time menu appears.



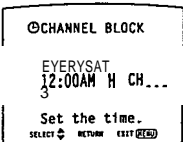
4 Press AN WINDOW +/- until the cursor points to "CHANNEL BLOCK."

5 Press RETURN.
The CHANNEL BLOCK screen appears, and the cursor points to the day input space.

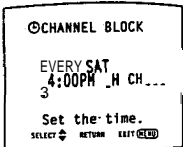


6 Press RETURN.
The day input space turns red.

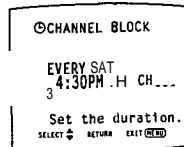
7 Press AN WINDOW +/- to select "EVERY SAT"; then press RETURN.
Each time you press AV WINDOW +/-, the days of the week change as shown in Fig. 1 (p. 57).



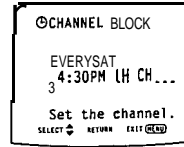
8 Press AV WINDOW +/- to select "4:00PM"; then press RETURN.
Each time you press AN WINDOW +/-, the hour changes in sequence.



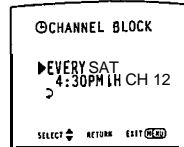
9 Press AN WINDOW +/- to select "30" (minutes); then press RETURN.
Each time you press AN WINDOW +/-, the minutes change in sequence.



10 Press AN WINDOW +/- to select "1" (hour duration); then press RETURN.
Each time you press AV WINDOW +/-, the duration changes from "1" - "6" in sequence.



11 Press AN WINDOW +/- to select "12" (channel); then press RETURN.
The setting is complete.
Each time you press AV WINDOW +/-, the channel number changes from "1" - "125" in sequence.



At the specified time, "BLOCKED" appears in red on the screen, and the picture of the specified channel is blocked and the sound is muted.



To erase a CHANNEL BLOCK setting
Display the CHANNEL BLOCK screen, select the setting you want to erase, and select a blank space for the day. The CHANNEL BLOCK setting is erased.

To enter a new CHANNEL BLOCK setting
Display the CHANNEL BLOCK screen and repeat steps 4 - 10. (You can only set one CHANNEL BLOCK at a time.)

To return to the previous menu
Press AN WINDOW +/- until the cursor points to "MENU."
Then press RETURN.

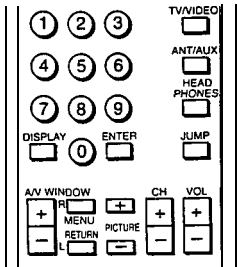
To return to the main menu
Repeat the above, until you reach the main menu.
Press MENU on the Remote Commander

Note
If the ON/OFF TIMER is set for an overlapping time (pp. 55 - 57), the later time setting takes precedence. For example, if CHANNEL BLOCK is set for 2:00 PM and ON/OFF TIMER is set for 3:00 PM, ON/OFF TIMER will take effect at 3:00 PM.

1-12.SETTING FAVORITE CHANNEL

By **setting** FAVORITE CHANNEL, you can select the channels you use most frequently (up to **seven** channels) simply by pressing RETURN on the Remote Commander

Remote Commander (RM-Y113)



Follow these instructions to set the channels.

1 Press MENU
The *main* menu appears



2 Press **AV WINDOW +/-** until the *cursor* points to "SET UP"

3 Press RETURN.
The *set up* menu appears.



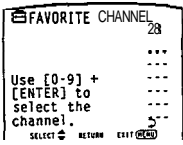
4 Press **AV WINDOW +/-** until the *cursor* points to "FAVORITE CHANNEL."

5 Press RETURN.
The *FAVORITE CHANNEL* screen appears, and the *cursor* points to the first channel position



6 Press **AN WINDOW +/-** to select the channel position; then press RETURN.

7 Press 0 - 9 and ENTER to set the channel number.



8 Press RETURN.
The *setting* is complete.

To set other channels
Repeat steps 6 - 8.

To **erase** a favorite channel setting
Press **AN WINDOW +/-** until the *cursor* points to the channel number you want to erase; then press 0 and ENTER.

To reset a favorite channel **setting**
Display the FAVORITE CHANNEL screen and repeat steps 6 - 8.

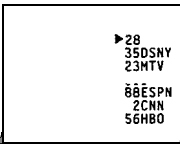
To return to the previous menu
Press **AN WINDOW +/-** until the *cursor* points to "3 MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the *main* menu

To **return** to the normal screen
Press MENU on the Remote Commander.

Selecting a favorite channel
After **setting** the channels, follow these instructions to select the channel you want to watch.

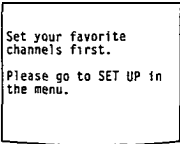
1 Press RETURN.
The *FAVORITE CHANNEL* display appears



Note
If you have set channel captions (pp 49 - 50), the captions appear with the channel numbers

2 Press **AN WINDOW +/-** to select the channel you want to watch; then press RETURN.
The *channel* is selected

If you press RETURN on the Remote Commander before setting FAVORITE CHANNEL, this screen appears.



Follow step 3 1 - 8 to set your favorite channels, and then make the selection

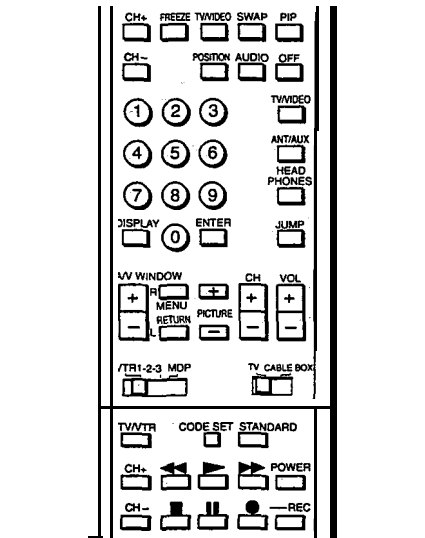
I-13. USING THE PRE-PROGRAMMED REMOTE COMMANDER

You can operate other video equipment (such as VCRs, video disc players and cable boxes) that have an infrared remote detector with this supplied Remote Commander.

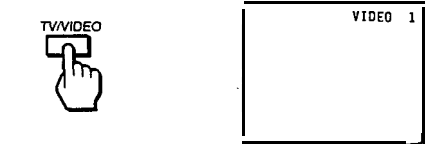
Operating Sony video equipment

Follow these instructions to operate Sony video cassette recorders (Beta, 8 mm and VHS) and video disc players (including multi-disc players).

Remote Commander (RM-Y113)
(with video control cover open)

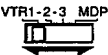


1 Press TV/VIDEO to select the input mode of your connected equipment (VIDEO 1, VIDEO 2 or VIDEO 3).



You can skip this step and go directly to video mode with the VTR1-2-3 MDP selector, by using the DIRECT PLAY function (pp. 67 - 68).

2 Set the VTR1-2-3 MDP selector according to the video equipment you want to operate.



Pig. 2: Video equipment settings

If you want to operate a:	set to:
Beta, ED Beta VCR	VTR 1
8 mm VCR	VTR 2
VHS VCR	VTR 3
Video disc player	MDP

3 Use the video operating buttons to control the connected equipment.

Fig. 3: Operating a VCR (VTR1, 2, 3)	
To turn on or off	Press POWER.
To change channels (when watching TV programs through the VCR's tuner)	Press CH +/-.
To record	Press and REC simultaneously.
To play	Press ►.
To stop	Press ■.
To fast forward	Press ►►.
To rewind the tape	Press ◄◄.
To pause	Press ||.
To search the picture forward and backward	Keep pressing ►► or ◄◄ during playback. To resume normal playback, press again.
To change input mode	Press TV/VTR.

Fig. 4: Operating a Video Disc Player (MDP)	
To turn on or off	Press POWER.
To play	Press ►.
To stop	Press ■.
To pause	Press ||.
To resume normal playback, press again.	
Note This function is effective only for CAV (standard-play disc). With CLV (extended-play disc), the TV goes off (standby mode) if you press ||.	
To search the picture forward and backward	Keep pressing ►► or ◄◄ during playback. To resume normal playback, release the button.

- Notes**
- If the video equipment does not have a certain function, the corresponding button on this Remote Commander Will not operate.
 - If you set another manufacturer's code to a VTR1-2-3 MDP selector position (pp. 64 - 65), you must also set the Sony code to operate Sony equipment.

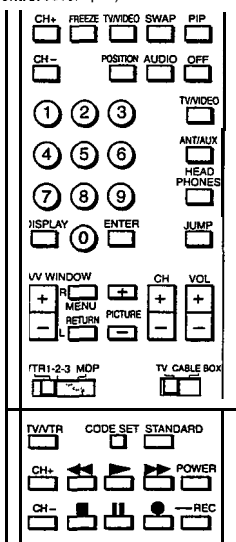
caution
When you replace the batteries, do it within approximately 30 minutes. Otherwise Sony equipment settings and the settings you made under the Pre-Programmed function (pp. 64 - 66) may be erased.

Operating non-Sony or Sony video equipment

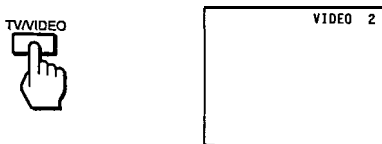
Follow these instructions to set the manufacturer's code, which will enable you to operate non-Sony and Sony video equipment with the pm-programmed Remote Commander.

Example: Operate an RCA video cassette recorder connected to the VIDEO IN 2 jacks.

Remote Commander (RM-Y113)
(with video control cover open)

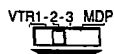


1 Press TV/VIDEO to select VIDEO 2.



You can skip this step and go directly to video mode with the VTR1-2-3 MDP selector, by using the DIRECT PLAY function (pp 67 - 68)

2 Set the VTR1-2-3 MDP selector to VTR2.



Note

You can use the VTR1-2-3 settings, but not MDP. By using these settings, you can use the Remote Commander to operate up to three pieces of equipment. To use another manufacturer's equipment besides a Sony VCR, set the selector to a position "a", being used for your Sony video equipment.

- Set the selector to MDP only to use your Sony multi-disc player (pp 62 - 63)

3 While pressing CODE SET, press 0.7 and ENTER to set RCA's code number. (For manufacturer code numbers, see Figs. 5.6 and 7 on p. 65.)



4 Use the video operating buttons to operate the connected equipment. (see Fig. 3 on p. 62 and Fig. 4 on p. 63.)

Fig. 5: VCR manufacturer code numbers

MANUFACTURER	CODE
SONY	01, 02, 03
CANON	05
EMERSON	22, 30, 33
FISHER	10, 11, 12, 15
FUNAI	29
GENERAL ELECTRIC	05, 08
GOLDSTAR	25
HITACHI	07, 08, 36
JVC	16, 35
MAGNAVOX	05, 06, 09
MITSUBISHI	18, 19, 26, 27
MULTITECH	29
NEC	16, 23, 31
PANASONIC	05, 06
PHILCO	05, 06
PHILIPS	05, 06, 09
QUASAR	05, 06
RCA	07, 06
SAMSUNG	24, 32
SANYO	11, 15
scol-r	21
SHARP	13, 14
SHINTOM	34
SYLVANIA	05, 06, 09
SYMPHONIC	29
TEKNIKA	28, 29
TOSHIBA	20, 21
TOTE VISION	25
ZENITH	17

Fig. 6: MDP manufacturer code numbers

MANUFACTURER	CODE
SONY	04
KENWOOD	58
MAGNAVOX	52
MARANZ	54
MITSUBISHI	51
PANASONIC	55
PHILIPS	52
PIONEER	51
RCA	51
SANYO	57
SHARP	56
YAMAHA	53

Fig. 7: Sony Equipment and Code Numbers

SONY EQUIPMENT	CODE
Beta, ED Beta VCR	01
6 mm VCR	02
VHS VCR	03
Video disc player	04

Note

In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied Remote Commander. This is because your equipment may use a code that is not provided with this Remote Commander. In this case, please use the equipment's own remote control unit.

For your convenience

Write the manufacturer name and code number for your equipment onto one of the supplied self-adhesive labels and affix the label to the Remote Commander for easy reference.

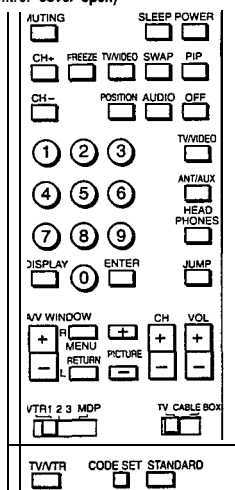
	BRAND	CODE
1		
2		
3		

Operating a cable converter box

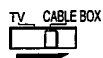
Follow these instructions to set the manufacturer's code, which will enable you to operate a connected cable converter box with the pre-programmed Remote Commander.

Example: Operate a connected Zenith cable converter box.

Remote Commander (RM-Y113)
(with video control cover open)



1 Set the TV/CABLE BOX selector to CABLE BOX.



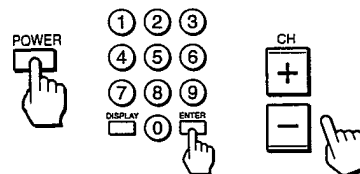
Notes

- If more than one code number is listed, try entering them one by one, until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some rare cases, your equipment may use a code that is not provided with this Remote Commander and you may not be able to operate your cable converter box with the supplied Remote Commander. In this case, use the equipment's own remote control unit.

2 While pressing CODE SET, press 6 and 6 (Zenith's code number — see Fig 5) and ENTER



3 Use the TV control buttons (POWER, 0 - 9, ENTER and CH +/-) to operate the cable converter box



To return to the normal screen

Set the TV/CABLE BOX selector to TV, then use the TV control buttons to control the TV.

For more details on operating the cable box

Refer to the operating instructions that come with the cable box.

Fig. 8: Cable box manufacturer code numbers

MANUFACTURER	CODE
JERROLD	60, 61, 62, 63, 64, 65
PIONEER	69, 70
SCIENTIFIC ATLANTA	66, 67
TOCOM	71-72
ZENITH	66

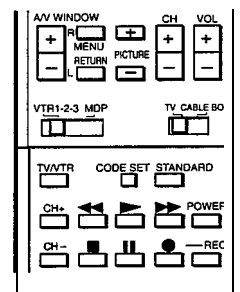
Selecting a VCR mode directly — DIRECT PLAY

Follow these instructions to switch from N to VCR mode by simply pressing the ► (playback) button on the supplied Remote Commander.

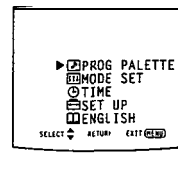
Example: Connect your VCR to the VIDEO IN 1 jacks, and set the VTR1-2-3 MDP selector to VTR2. When you press 5, the input mode changes to the VCR connected to the VIDEO IN 1 jacks.

After completing the steps below, the VTR selector position is retained in the TV's memory.

Remote Commander With video control cover open

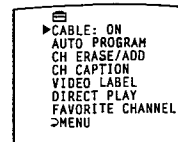


1 Press MENU.
The main menu appears



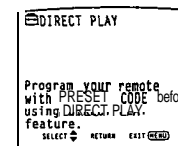
2 Press AN WINDOW +/- until the cursor points to "SET UP"

3 Press RETURN.
The set up menu appears



4 Press A/V WINDOW +/- until the cursor points to "DIRECT PLAY."

5 Press RETURN.
A message screen appears



Note
This screen reminds you to set the manufacturer's code, if you have not already done so (pp 64 - 65)

6 Press RETURN again.
The DIRECT PLAY screen appears





7 Press AN WINDOW +/- until the cursor points to the video input mode. (When the video equipment is connected to VIDEO IN 1, select "VIDEO1.")

8 Press RETURN.
The mode display turns red

(Continued)

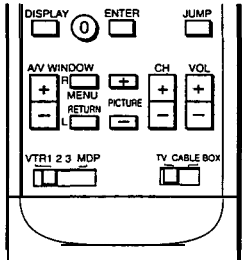
1-14.TROUBLESHOOTING

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed here. If the problem still cannot be solved, contact your nearest service facility.

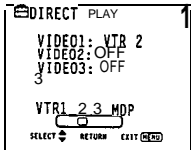
Symptom	Possible causes and remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none">Make sure POWER is switched on.Check the power cord connection.Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly.Make sure that the TV/CABLE BOX selector is set to TV.
Poor or no picture (screen not lit), good sound	<ul style="list-style-type: none">Adjust the picture using the VIDEO screen (pp. 40 - 43).Check the antenna/cable connections.
Good picture, no sound	<ul style="list-style-type: none">Press VOLUME + on the TV or VOL + on the Remote Commander.Press MUTE on the Remote Commander.Check the MTS setting (p. 47).Check that the I-V/VIDEO and VTR1-2-3 MDP controls are set correctly.Make sure SPEAKER is set to ON (p. 48).
No color for color programs	<ul style="list-style-type: none">Check the HUE and COLOR settings (pp. 40 - 41).
Snow and noise only	<ul style="list-style-type: none">Check that it is an active or correct channel.Check the cable setting.Check the ANT/AUX button setting (KV-27XBR35/32XBR35 only).Check antenna/cable connections.
 Dotted lines or stripes	This is often caused by local interference (for example, cars, neon signs and hairdryers). Adjust the telescopic aerial for minimum interference.
 Double images or ghosts	Reflections from nearby mountains or buildings often cause this problem. Connecting a highly directional outdoor antenna or a CATV cable may improve the picture.
Try another channel. It could be station trouble.	

Selecting a VCR mode directly – DIRECT PLAY
(Cont'd. from prev. page)

Remote Commander



9 Press AN WINDOW +/- to select the VTR selector mode you have set on the Remote Commander. (When the VTR1-2-3 MDP selector is set to VTR2, select "VTR 2.")
Each time you press AN WINDOW +/-, "VTR 1," "VTR 2," "VTR 3," "MDP" and "OFF" appear in sequence.



10 Press RETURN
The direct play setting is complete.

To set direct play for other connected video equipment
Repeat steps 7 - 10.

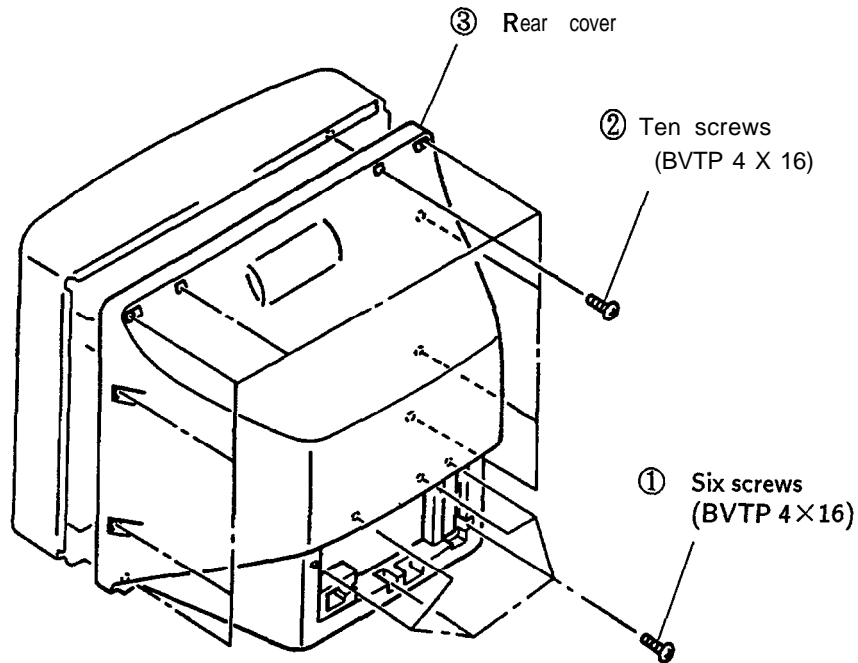
To return to the previous menu
Press AN WINDOW +/- until the cursor points to "3 MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

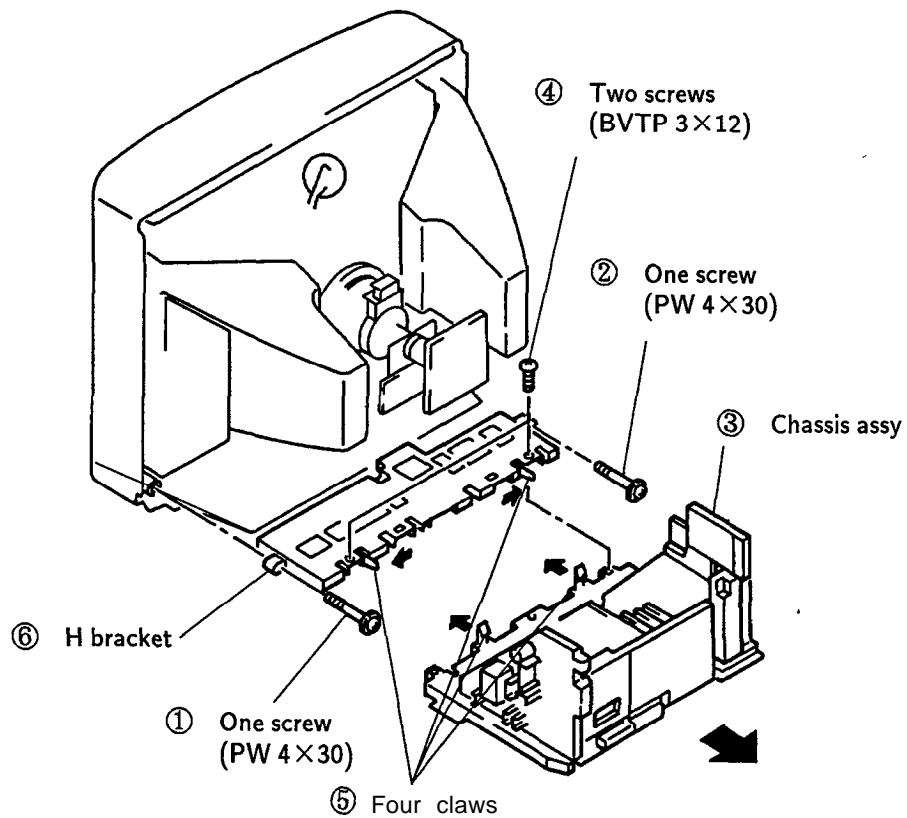
To return to the normal screen
Press MENU on the Remote Commander.

SECTION 2 DISASSEMBLY

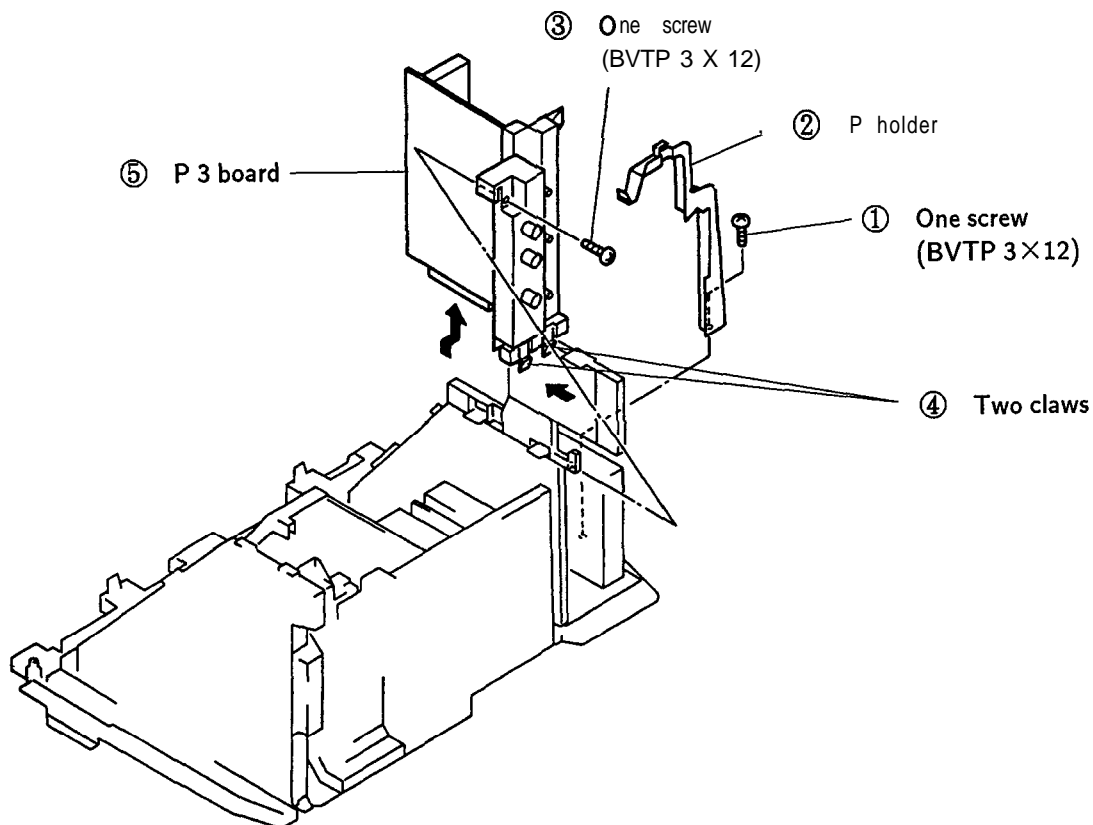
2-1. REAR COVER REMOVAL



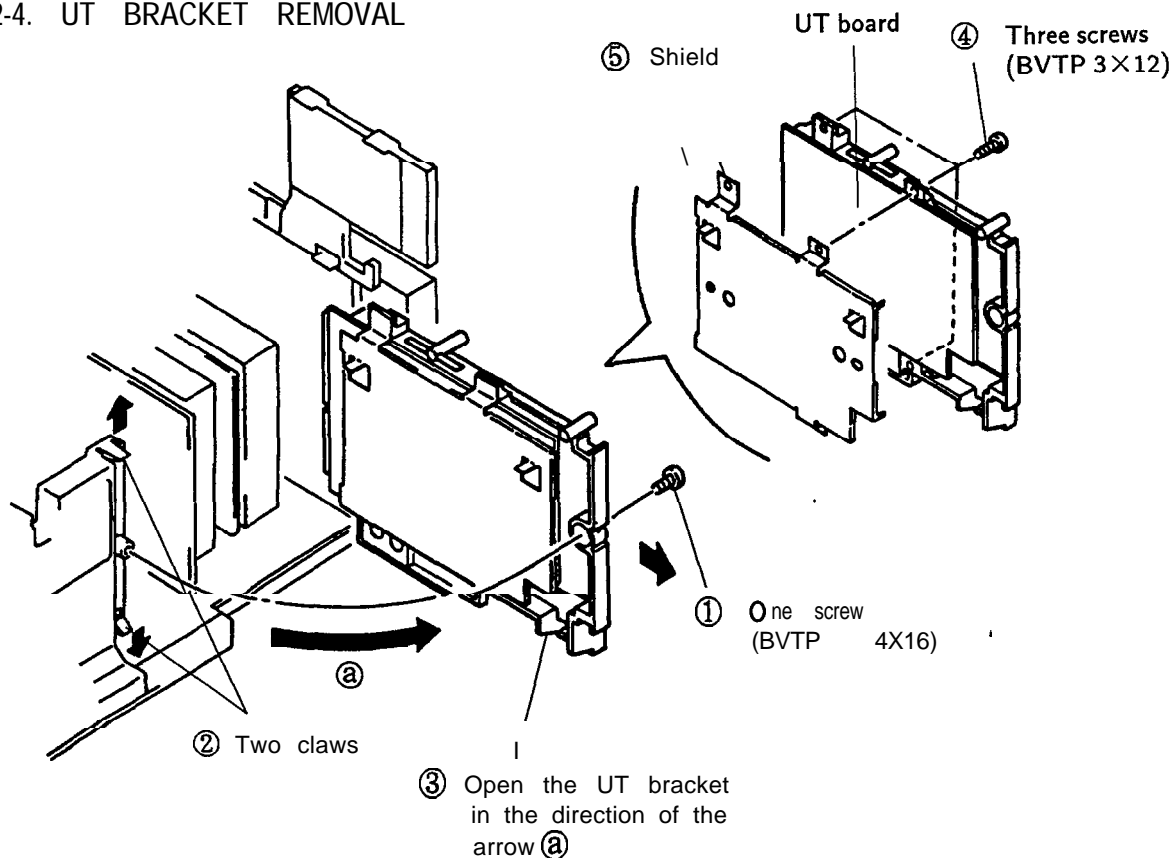
2-2. CHASSIS ASSY AND H BRACKET REMOVAL



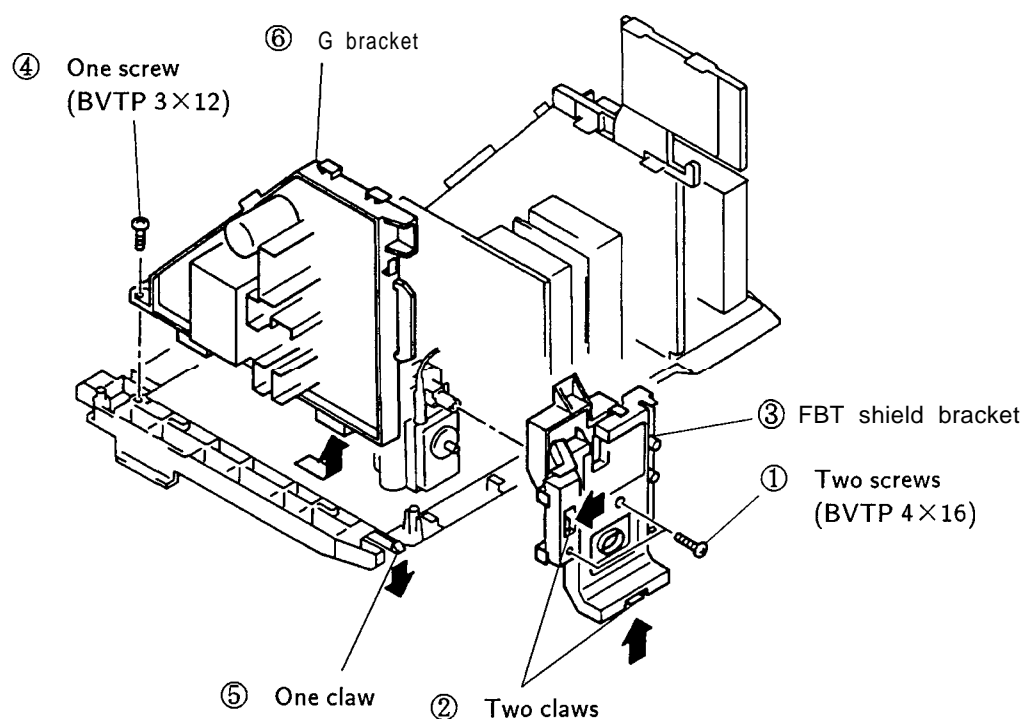
2-3. P3 BOARD REMOVAL



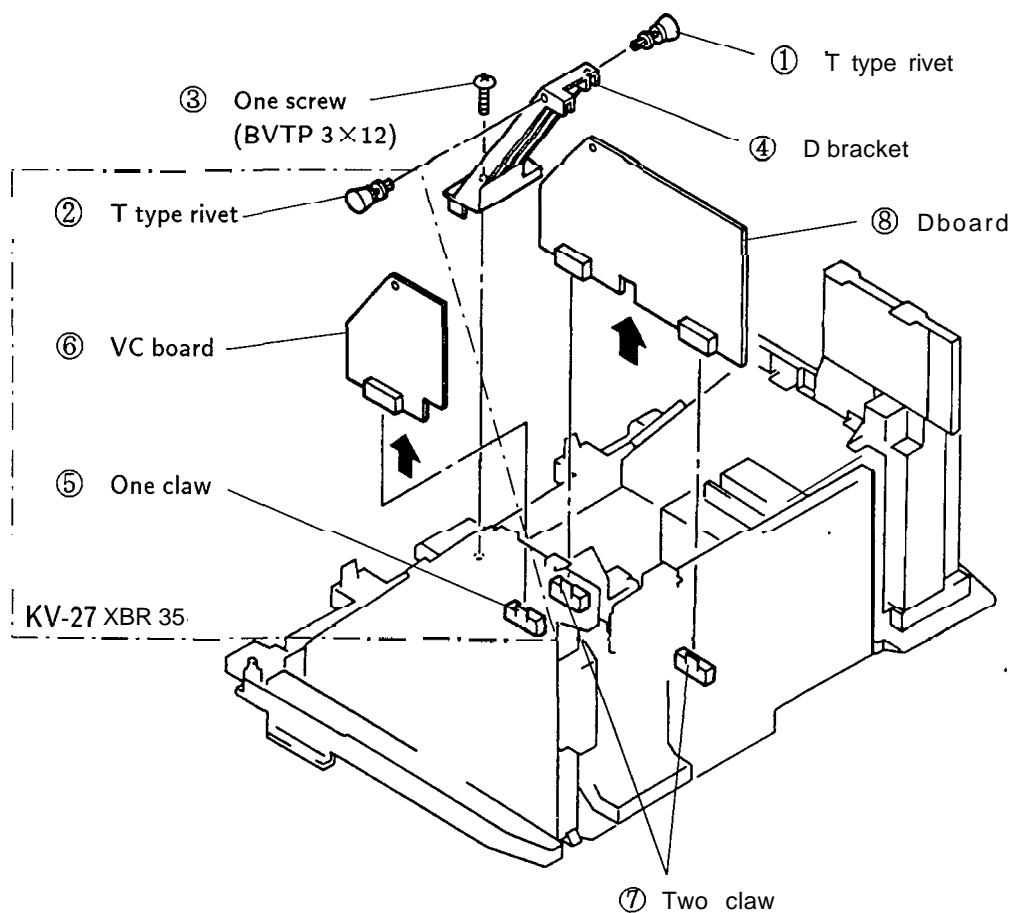
2-4. UT BRACKET REMOVAL



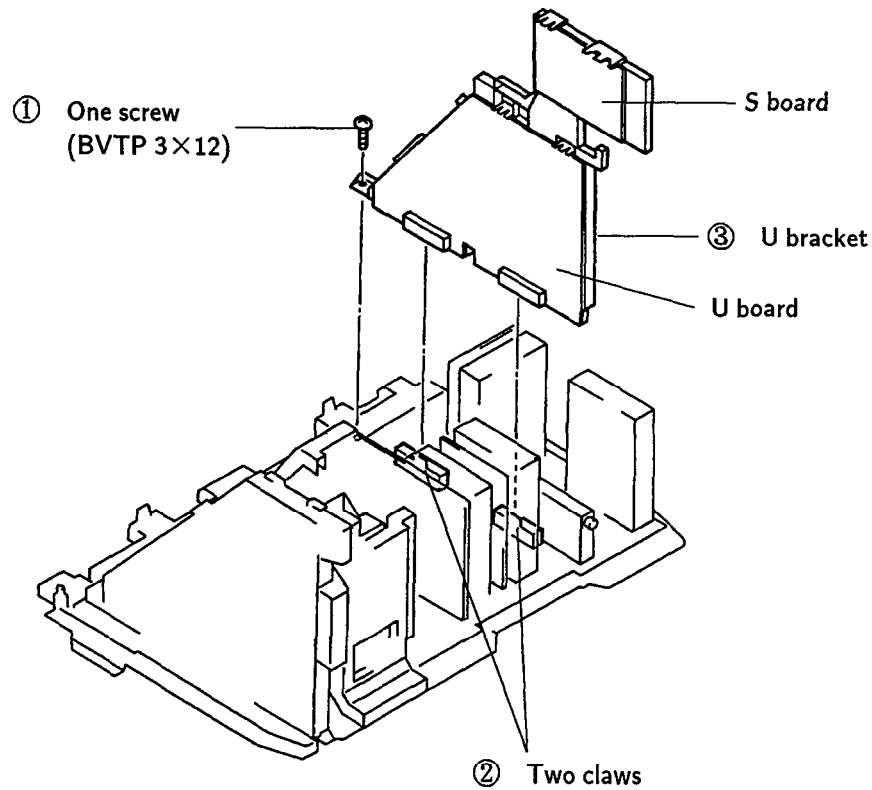
2-5. G BRACKET REMOVAL



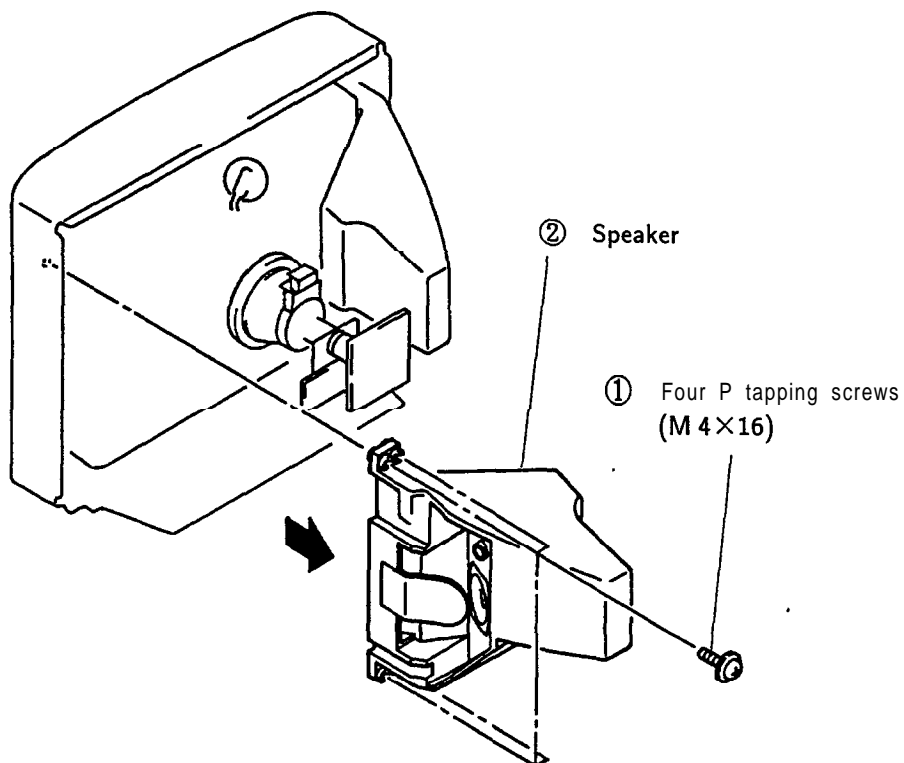
2-6. D BOARD REMOVAL



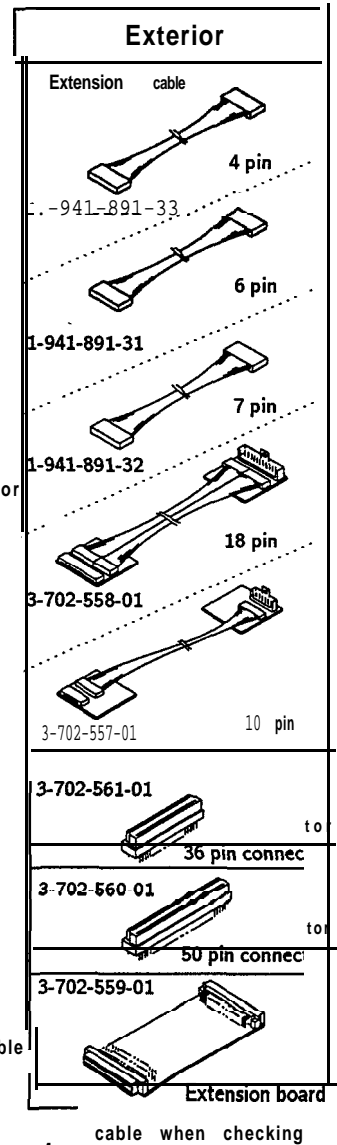
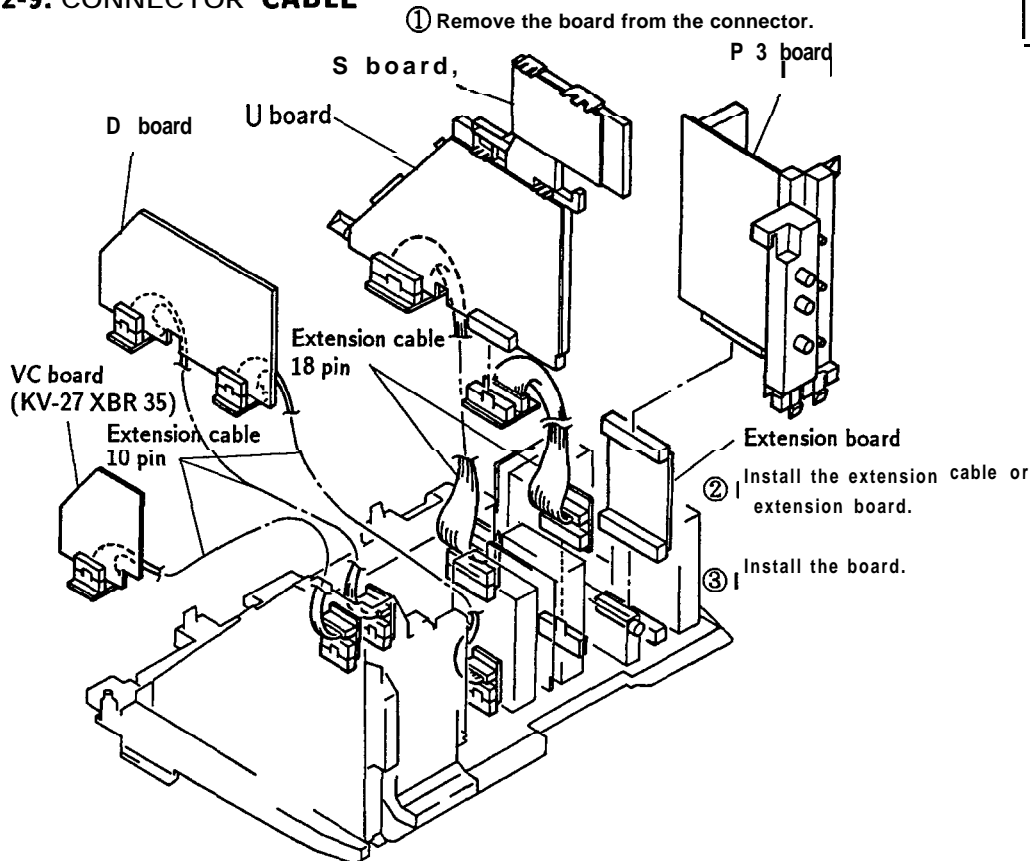
2-7. U BRACKET REMOVAL



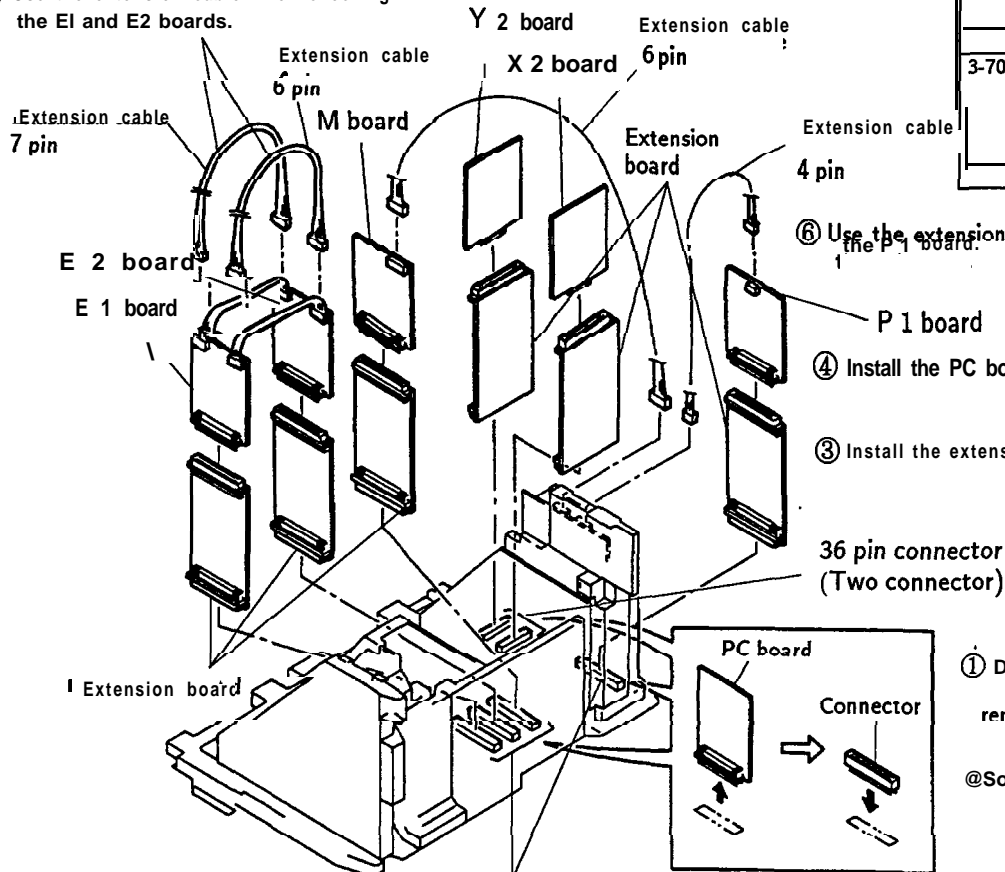
2-8. SPEAKER REMOVAL



2-9. CONNECTOR CABLE

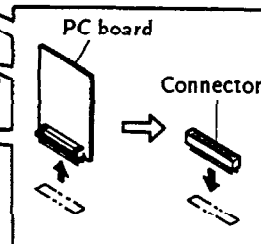


- ⑤ Use the extension cable when checking the E1 and E2 boards.

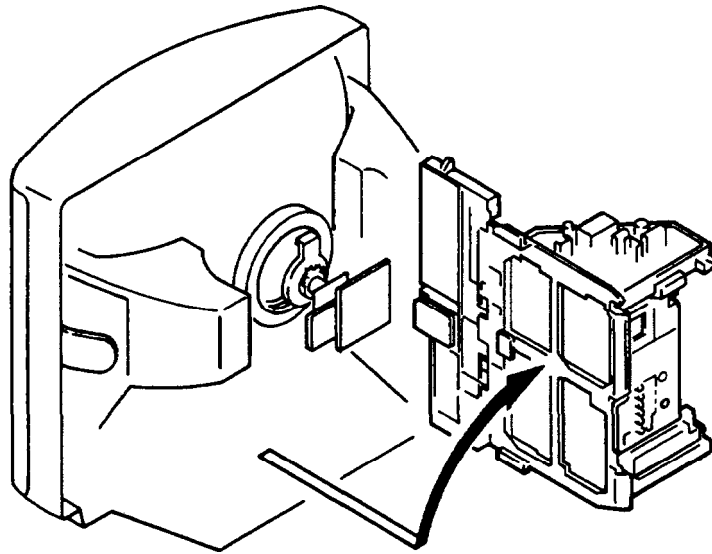


- ① De-solder the PC board and remove it.

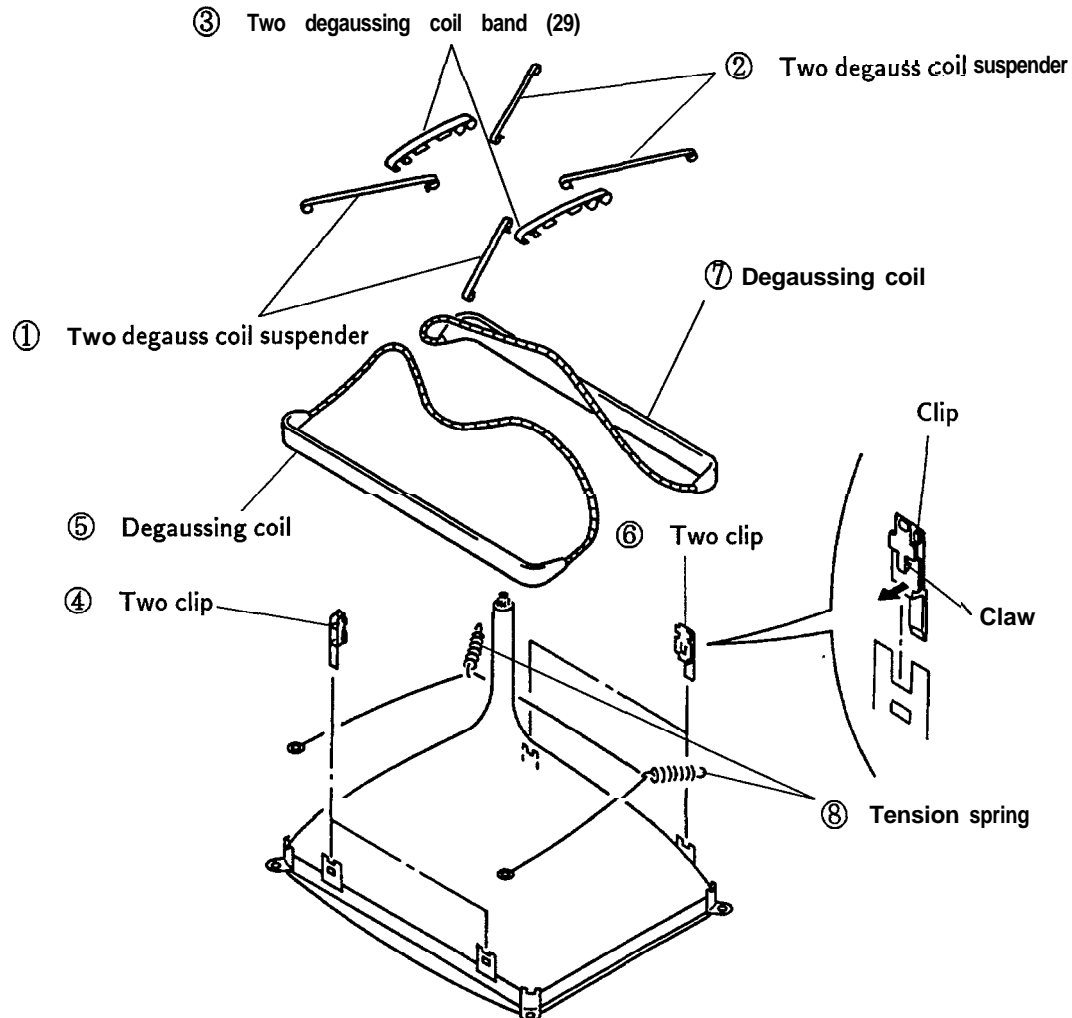
@Solder the connector.



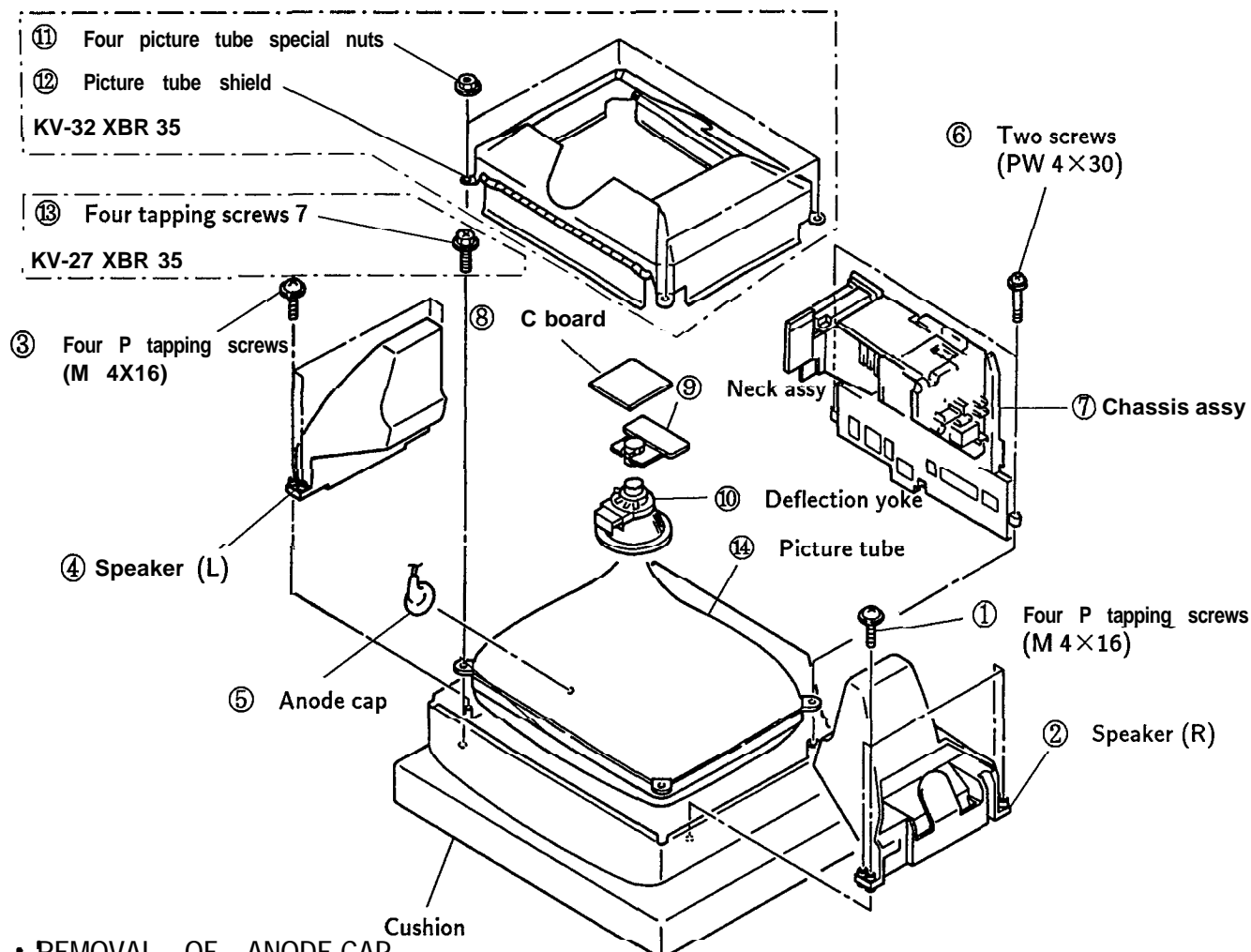
2-10. SERVICE POSITION



2-11 . DEGAUSSING COIL REMOVAL (KV-27 XBR 35)



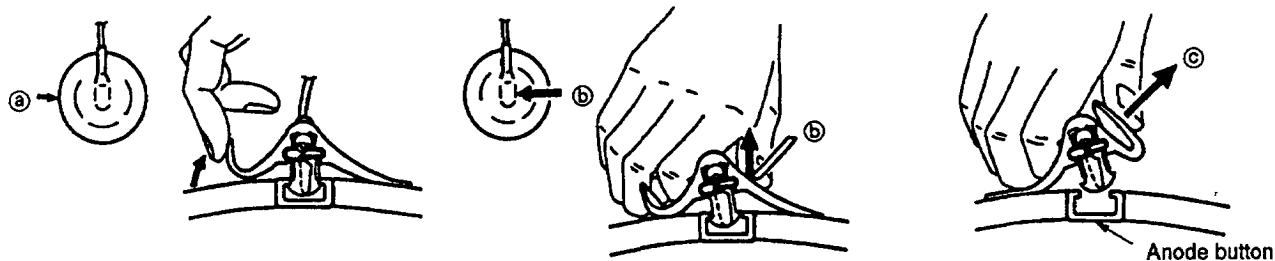
2-12. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

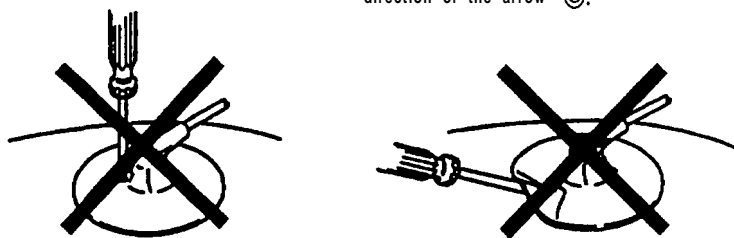
NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

• REMOVING PROCEDURES



• HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.



2-13. REPAIR OF CHIP COMPONENT CIRCUIT BOARD

2-13-1. POINTS OF COMPONENT REMOVAL

Handling of blower type soldering iron

If hot blast is too strong or applied from a slanting direction, small components and solder near the component being removed can be blown off. Do not use blower type without temperature control.

2-13-2. NOTES ON SOLDERING FOR CHIP COMPONENTS

- 1) During soldering a chip component, if a soldering iron is applied for a long time, the heat may damage the component or cause pattern peeling.
- 2) Do not reuse a removed component. The characteristics of such a component **may** deteriorate.
- 3) Use wire solder containing silver (ϕ 0.3 or ϕ 0.6).
(The pin electrodes of the laminated chip capacitor are silver +palladium, so if wire solder which does not contain silver is used, the silver of the pin electrode will be sucked into the solder.)

2-13-3. REMOVAL AND MOUNTING OF COMPONENTS

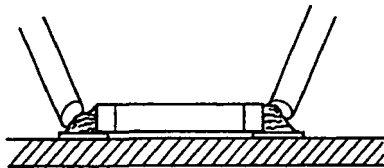
Chip resistor and chip capacitor

REMOVAL

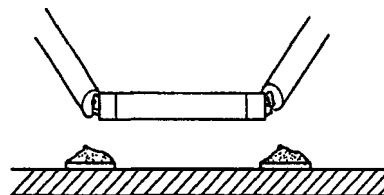
- Using two soldering irons
- 1) Mounted state



- 2) Melt the solder.

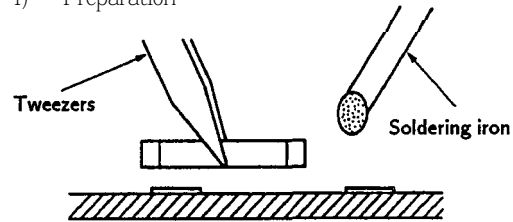


- 3) Remove the component.



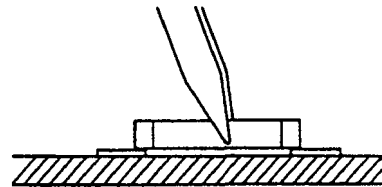
SOLDERING

- 1) Preparation

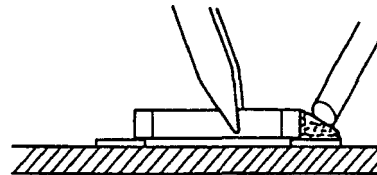


- 2) Location

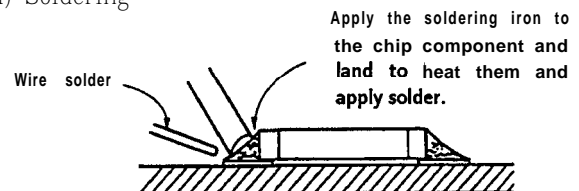
Be careful not to misposition.



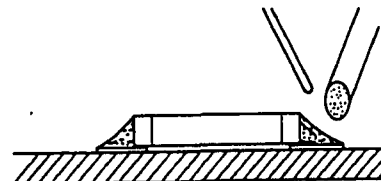
- 3) Tack soldering and flux application



- 4) Soldering



- 5) Soldering (Fix the fillet)



- 6) Visual inspection

Check for the following defects :

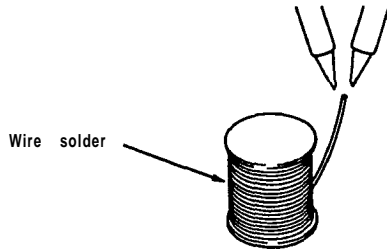
- No-soldered part
- Bridge (to other components or lands)
- Mispositioning
- Other defects

2-13-4. MINI-TRANSISTOR

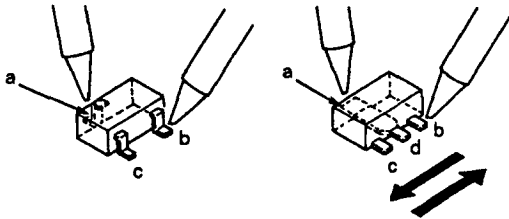
REMOVAL

- Using two soldering irons

1) Put a little solder on the tip of two soldering irons.



2) Apply the tip of one soldering iron to the point "a" and the other to the points "b" → "c" (or "b" → "d" → "c") and move the component in the directions indicated by arrows in the figure to remove it.

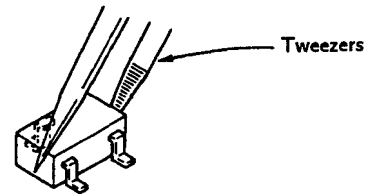


MOUNTING

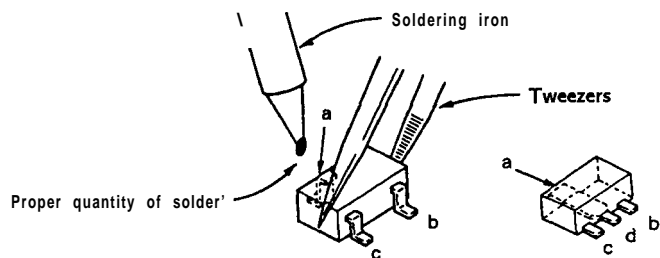
1) Apply a little flux to the land with a brush.



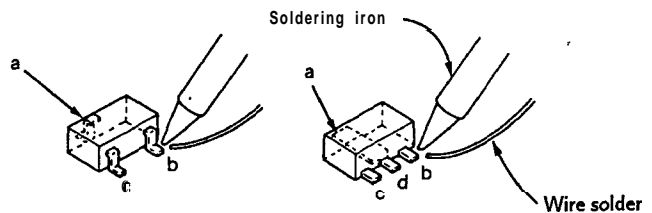
2) Place the component in position using tweezers.



3) Put a little solder on the tip of the soldering iron and solder the point "a" to **fix** the component.

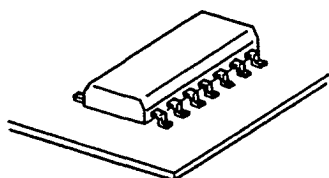
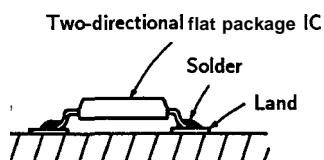


4) Bring the tip of the soldering iron and the wire solder close to the point to be soldered. Solder the points "b" → "c" (or "b" → "d" → "c") in order.

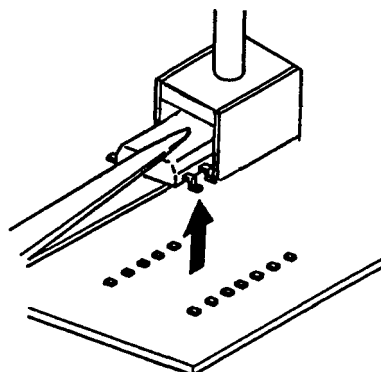


2-13-5. TWO-DIRECTIONAL FLAT PACKAGE IC

MOUNT CONDITION

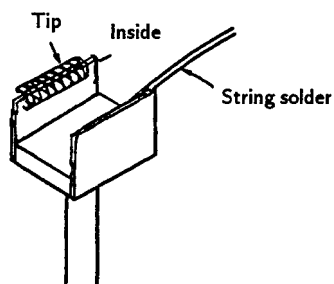


- 3) When the solder melts, lift the IC with a pair of tweezers and remove.

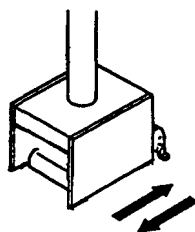


REMOVAL

- 1) Apply some solder on the inside and the tip of the iron tip jig.

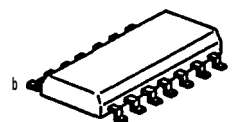


- 2) Place the iron tip jig over the IC, and move the jig to and fro as shown in the figure.

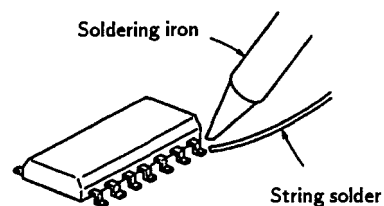


INSTALLATION

- 1) Place the two-directional flat package IC at the appointed position, solder pins a and b on the diagonal, and fasten it.

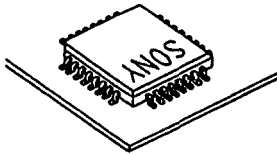
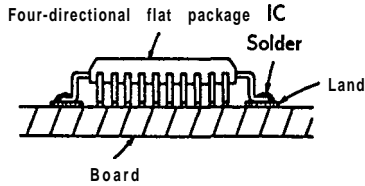


- 2) Solder the remaining pins with the soldering iron.



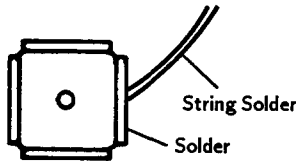
2-13-6. FOUR-DIRECTIONAL FLAT PACKAGE IC

MOUNT CONDITION

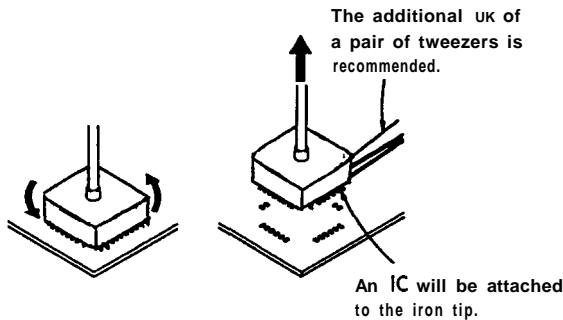


REMOVAL

- 1) Apply solder on the tip of the iron tip jig.



- 2) Place the iron tip jig over the IC, wait about two to three seconds, rotate the iron slightly and lift it up.



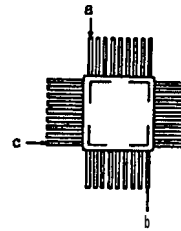
Note : For flat ICs of above 52 P, the IC may not be completely attracted when the iron tip jig is lifted up. In these cases, use a pair of tweezers to remove.

INSTALLATION

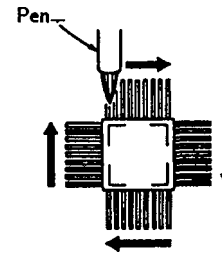
- 1) Place the four-directional flat package IC at the appointed position.



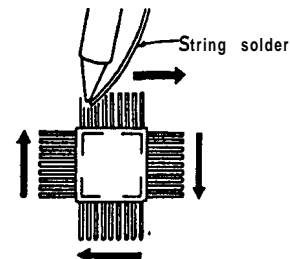
- 2) Apply a slight amount of solder on the iron tip, and solder the three sections in the order of a → b → c, and fix.



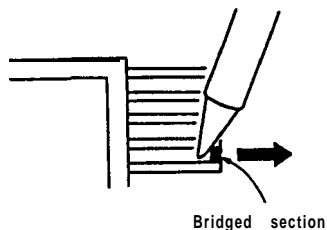
- 3) Apply a slight amount of flux with a pen on all four directions.



- 4) Apply solder on the iron tip and the string solder, and slide and solder in the directions of the arrows.



Note : 1) After soldering, if there are bridged sections, correct by **sliding** the soldering iron in the direction of the arrow.



If the bridges cannot be corrected using the above method, apply some flux with a pen and try again.

2) Soldering can be carried out more easily by sliding the iron tip near the tip of the IC leg. (Fig. A)

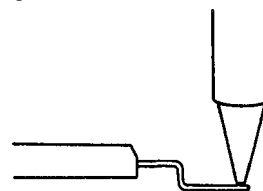


Fig. A

Be careful not to slide the bent sections of the leg as shown in Fig. B as soldering bridges will be formed.

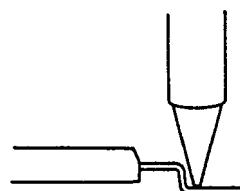
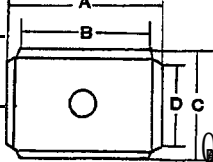
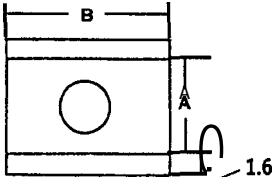
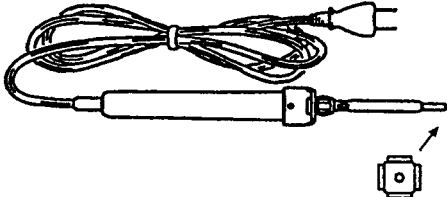
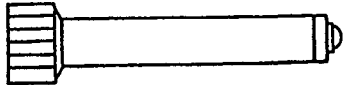


Fig. B

	Description	Part No	Measure (mm)			
			A	B	C	D
	jig package for removing IC 4-sided flat	3-702-552-01	178.25	101.10	105.45	101.10
	jig for removing 2-sided flat package IC	3-702-553-01	69.00	100.2	515.28	
	soldering iron	3-702-552-01	55 w 60 g length 210 mm			
	soldering holder	3-702-553-01				

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 switch should be set as follows unless otherwise noted :

PICTURE control RESET
BRIGHTNESS control center

Preparations :

- 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

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

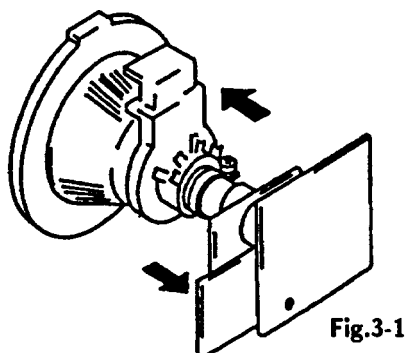


Fig.3-1

Perform the adjustments in order as follows :

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

Note : Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

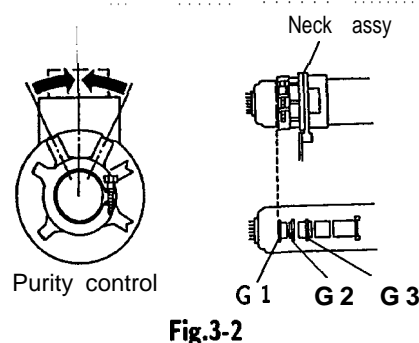


Fig.3-2

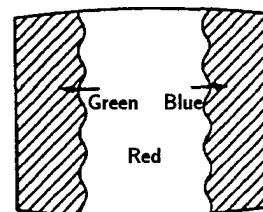


Fig.3-3

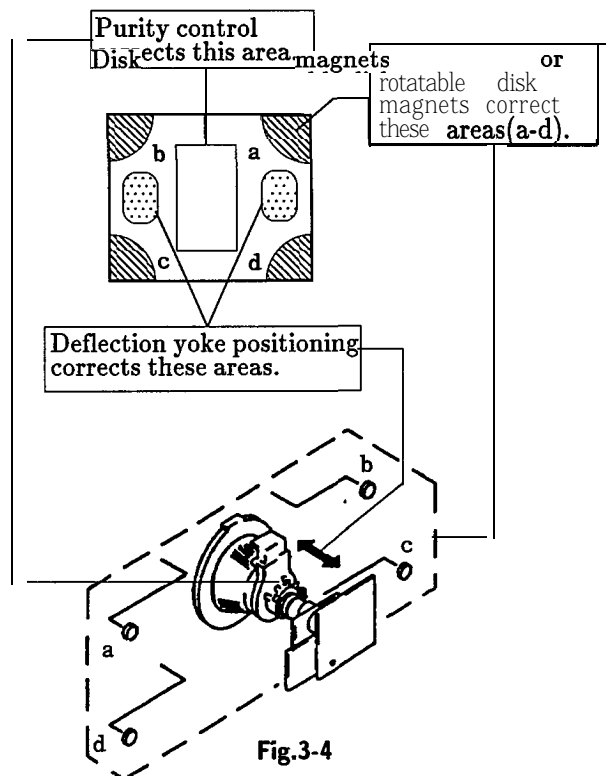


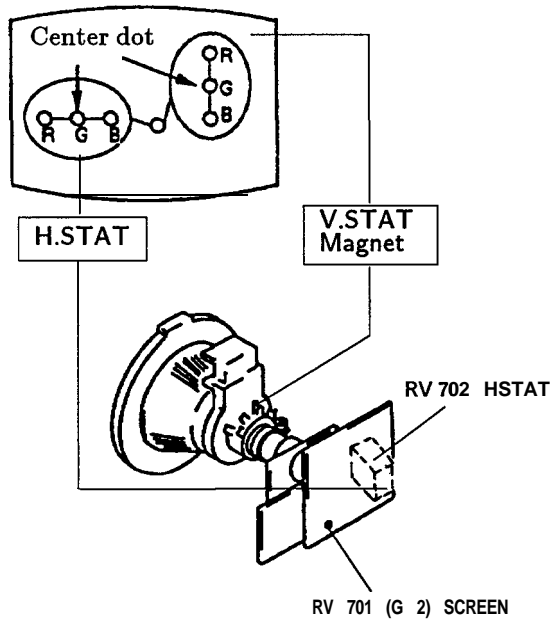
Fig.3-4

3-2. CONVERGENCE

Preparation :

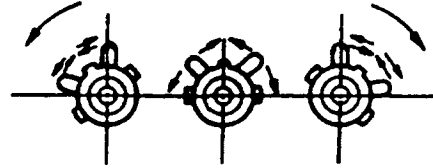
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and Vertical Static Convergence

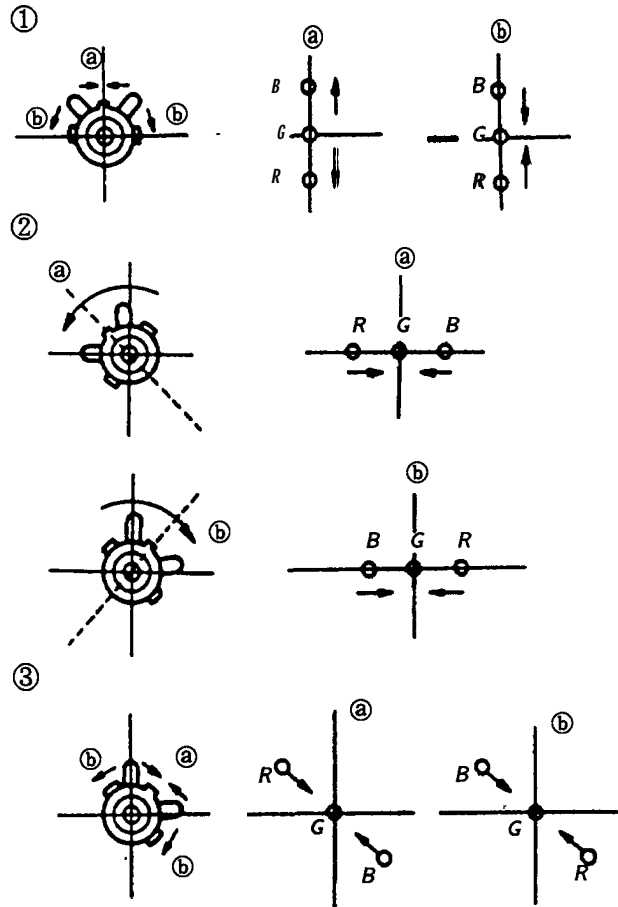


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the **V.STAT** magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points 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)

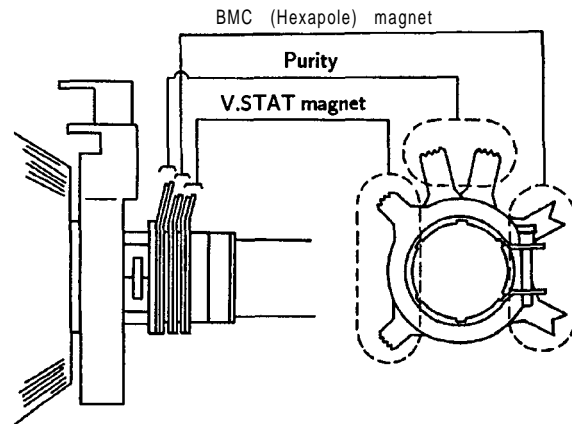
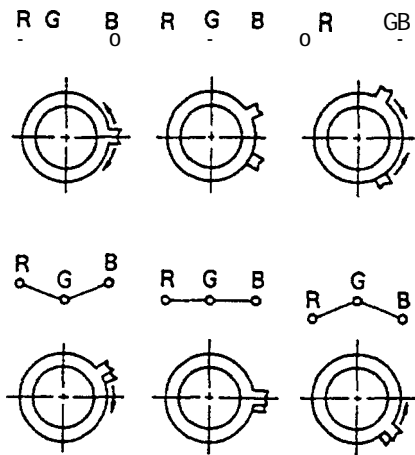
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



4. If the V.STAT magnet is moved in the direction of the **(a)** and **(b)** arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet

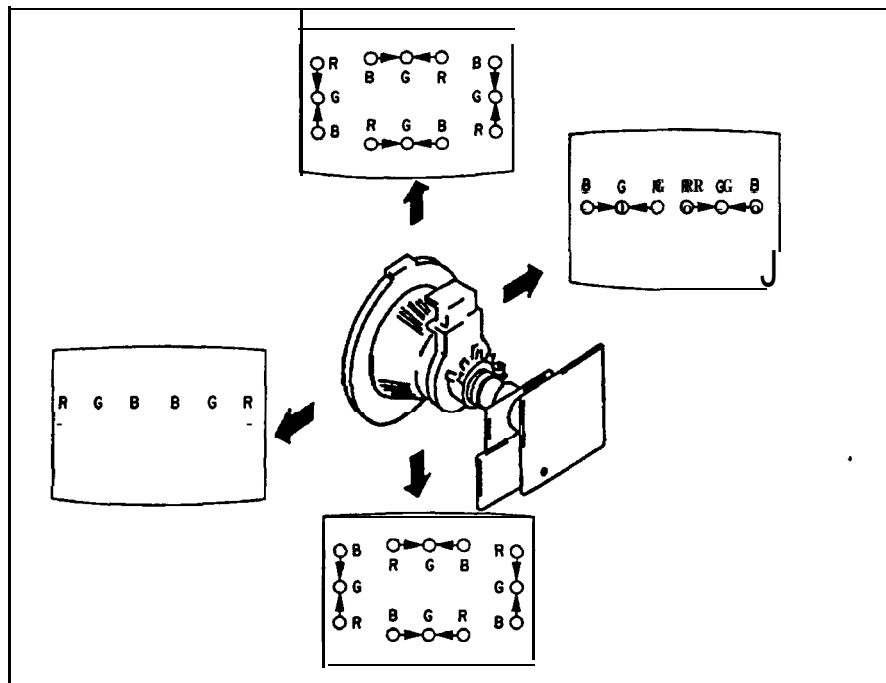


- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
Use the **H.STAT** VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

(2) Dynamic Convergence Adjustment

Preparations :

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
- Slightly loosen the deflection yoke screws.
 - Remove the deflection yoke spacer.
 - Move the deflection yoke as shown in the figure below and optimize the convergence.
 - Tighten the deflection yoke screws.
 - Install the **deflection** yoke spacer.



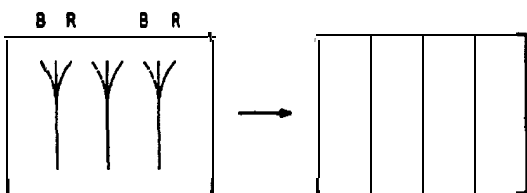
(3) Dynamic Convergence Circuit Adjustment

- Set to Service Mode.
- Input a cross-hatch signal.
- Press **[1]** and **[4]** **serect** an item of adjustments.
- Adjust **[3]** and **[6]** to the best picture.

ITEM	REFERENCE DATA	NAME REGISTER	
UYBO	39	VP	U. YBOW
LYBO	39	VP	L. YBOW
HAMP	26	VP	H. AMP
HTILT	36	VP	H. TILT
UCBO	20	VP	U. CBOW
UTIL	44	VP	U. TILT
LCBO	31	VP	L. CBOW
LTIL	63	VP	L. TILT
DCSH	19	VP	DC. SHIFT

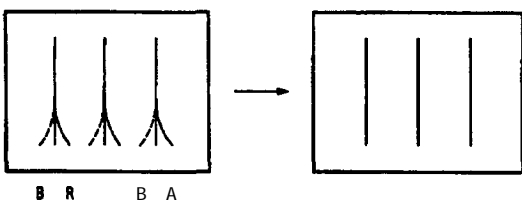
U. YBOW

Select UYBO with **[1]** and **[4]**



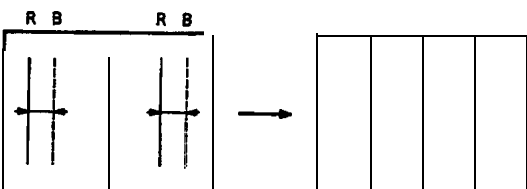
L. YBOW

Select LYBO with **[1]** and **[4]**



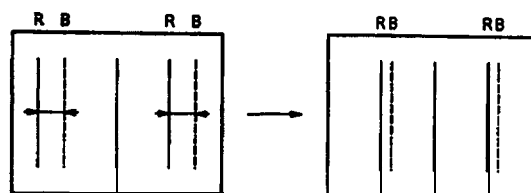
H. AMP

Select HAMP with **[1]** and **[4]**



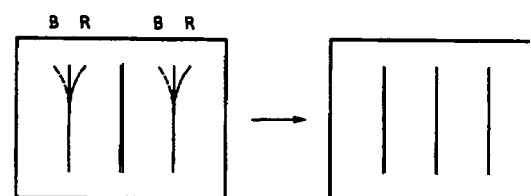
H. TILT

Select HTILT with **[1]** and **[4]**



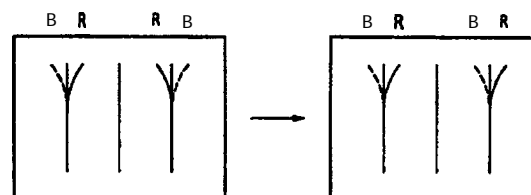
U. CBOW

Select UCBO with **[1]** and **[4]**



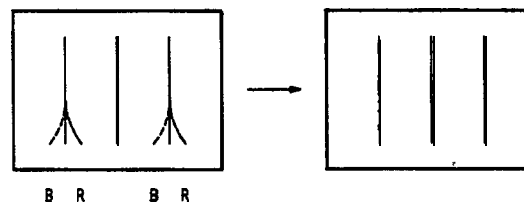
U. TILT

Select UTIL with **[1]** and **[4]**



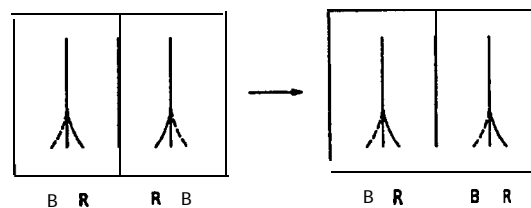
L. CBOW

Select LCBO with **[1]** and **[4]**

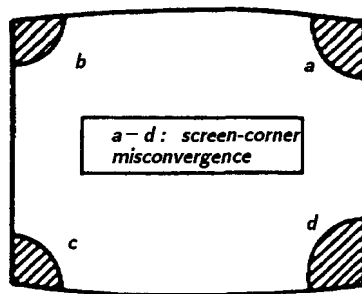


L. TILT

Select L. TIL with **[1]** and **[4]**

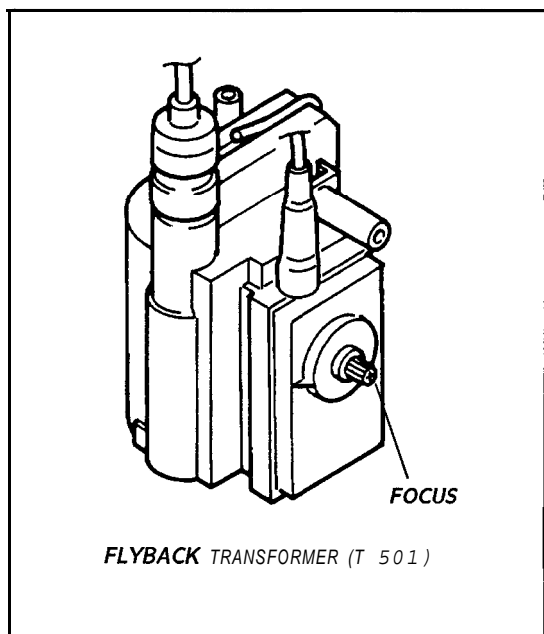
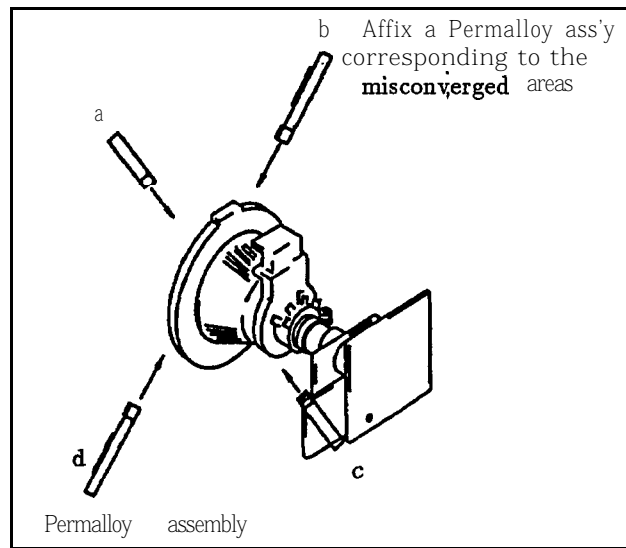


(4) Screen-corner Convergence



3-3. FOCUS ADJUSTMENT

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



a. AN ITEM OF ADJUSTMENT

ITEM	REFERENCE DATA	NAME	REGISTER
GAMP	19	VP	GREEN AMP.
BAMP	9	VP	BLUE AMP.
GCUT	8	VP	GREEN CUT OFF.
BCUT	6	VP	BLUE CUT OFF
SBRT	40	VP	BRIGHT

b . METHOD OF CANCELLATION FROM SERVICE MODE

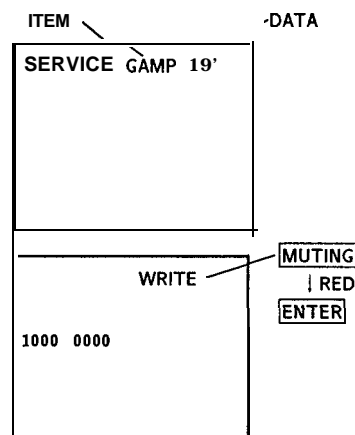
Set the standby condition (Press **POWER** button on the commander) in the next place, press **POWER** button again, hereupon it becomes TV mode.

c . METHOD OF WRITE FOR MEMORY

- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN), select an item of adjustments.
- 3) Press **MUTING** button indicate WRITE on screen.
- 4) Press **ENTER** button to write for memory.

d . MEMORY WRITE CONFIRMATION METHOD

- 1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again, confirm they were adjusted.



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

1. G 2 (SCREEN) ADJUSTMENT(RV 701)

- 1) Set the PICTURE and BRIGHTNESS to normal.
- 2) Confirm G 1 voltage is within 30.0 ± 5 V.
- 3) Apply DC voltage of 180 V to the cathodes of R,G and B from DC stabilized power source.
- 4) While watching the picture, adjust the G2 control (RV 701) to the just the retrace line disappears.

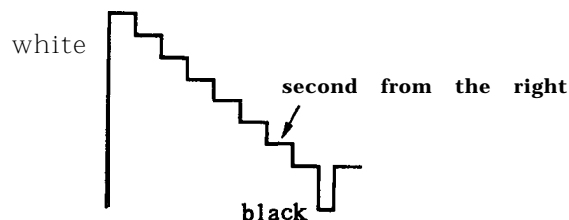
(Using the Remote Commander)

2. WHITE BALANCE ADJUSTMENTS

- 1) Set to service mode.
- 2) Press **STANDARD** to normal and if necessities "TRINITONE" set to "LOW" by **0** form .
- 3) Input an entire white signal.
- 4) Set the PICTURE to minimum.
- 5) Select **S BRT** with **1** and **4**, and then set the level to minimum with **3** and **6**.
- 6) Select G CUT and B CUT with **1** and **4**. And adjust the level with **3** and **6** for the best white balance.
- 7) Set the PICTURE to maximum.
- 8) Select G AMP and B AMP with **1** and **4**, and adjust the level with **3** and **6** for the best white balance.
- 9) Write into the memory by pressing **MUTING** → then **ENTER**.

3. SUB BRIGHT ADJUSTMENT

- 1) Set to service mode.
- 2) Input a staircase signal of black and white from the pattern generator.
- 3) BRIGHTNESS ... RESET
PICTURE minimum
- 4) Select **SBRT** with **1** and **4**, and adjust SUB BRIGHT level with **3** and **6** so that the stripe second from the right is dimly lit.



SECTION 4

SAFETY RELATED ADJUSTMENTS

A BOARD

☒ R565 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ☒ on the schematic diagram).

IC502, Q509, Q510, R565, R567, R568, R569

①

1. Preparation before confirmation

- 1) Remove R651 on the G board and connect a variable resistor (**RV1** : about **10k Ω**) between pin ① of IC651 and **B+** line.
- 2) Supply **120 \pm 2.0V** AC to with variable auto-transformer.

2. Hold-down operation confirmation

- 1) Turn the **POWER** switch ON, and input an entirely white signals and adjust ABL current to **1910 \pm 50 μ A** (27 in.) **1640 \pm 20 μ A** (32 in.) with **PICTURE** and **BRIGHT** etc controls.
- 2) Increase B+ line voltage gradually by adjusting the resistor of **RV1**. Confirm that the minimum voltage is less than **147.0V** DC (27 in.) **152.0V** DC (32 in.) whereby the raster disappears during operation of hold-down circuit.

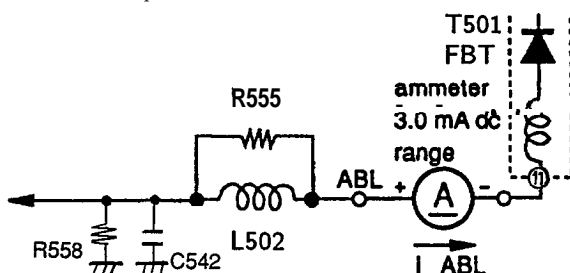
NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

- 3) Turn the POWER switch ON, and input a dot signals and adjust ABL current to **110 \pm 30 μ A** (27 in.) **140 \pm 20 μ A** (32 in.) with **PICTURE** and **BRIGHT** etc controls.
- 4) Increase B+ line voltage gradually by adjusting the resistor of **RV1**. Confirm that the minimum voltage is lower than **148.5V** DC (27 in.) **154.5V** DC (32 in.) whereby the raster disappears during operation of hold-down circuit.

NOTE: When the Hold-down circuit starts operating, switch **OFF** the POWER of the set immediately.

3. Hold-down readjustment

When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R565 (a component marked with ☒).



A BOARD

☒ R566 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ☒ on the schematic diagram).

IC502, IC651, Q509, Q510, D502, C531, R554, R566, R567, R568, R569, R651, R1506, T501

②

1. Preparation before confirmation

- 1) Turn the POWER switch ON, and input an entirely white signals and set the **PICTURE** and **BRIGHT** controls to maximum.
- 2) Confirm that voltage of the check terminal of pin② of A-O connector is more than **127.0V** DC (**27 in.**) **100.0V** DC (**32 in.**) when the set is operating normally with **120.0 \pm 2.0V** AC supply.

2. Hold-down operation confirmation

- 1) Turn the POWER switch ON, and input an entirely white signals and set the **PICTURE** and **BRIGHT** controls to maximum.
- 2) Apply DC voltage of over **130 \pm 2.0V** DC gradually to the check terminal of pin ② of A-O connector via **1SS119** from the DC stabilized power source.

Confirm that the minimum voltage is lower than **149.0V** DC (27 in.) **120.5V** DC (32 in.) whereby the raster disappears during operation of **hold-down** circuit.

NOTE : When the hold-down circuit starts operating, switch **OFF** the POWER of the set immediately.

3. Hold-down readjustment

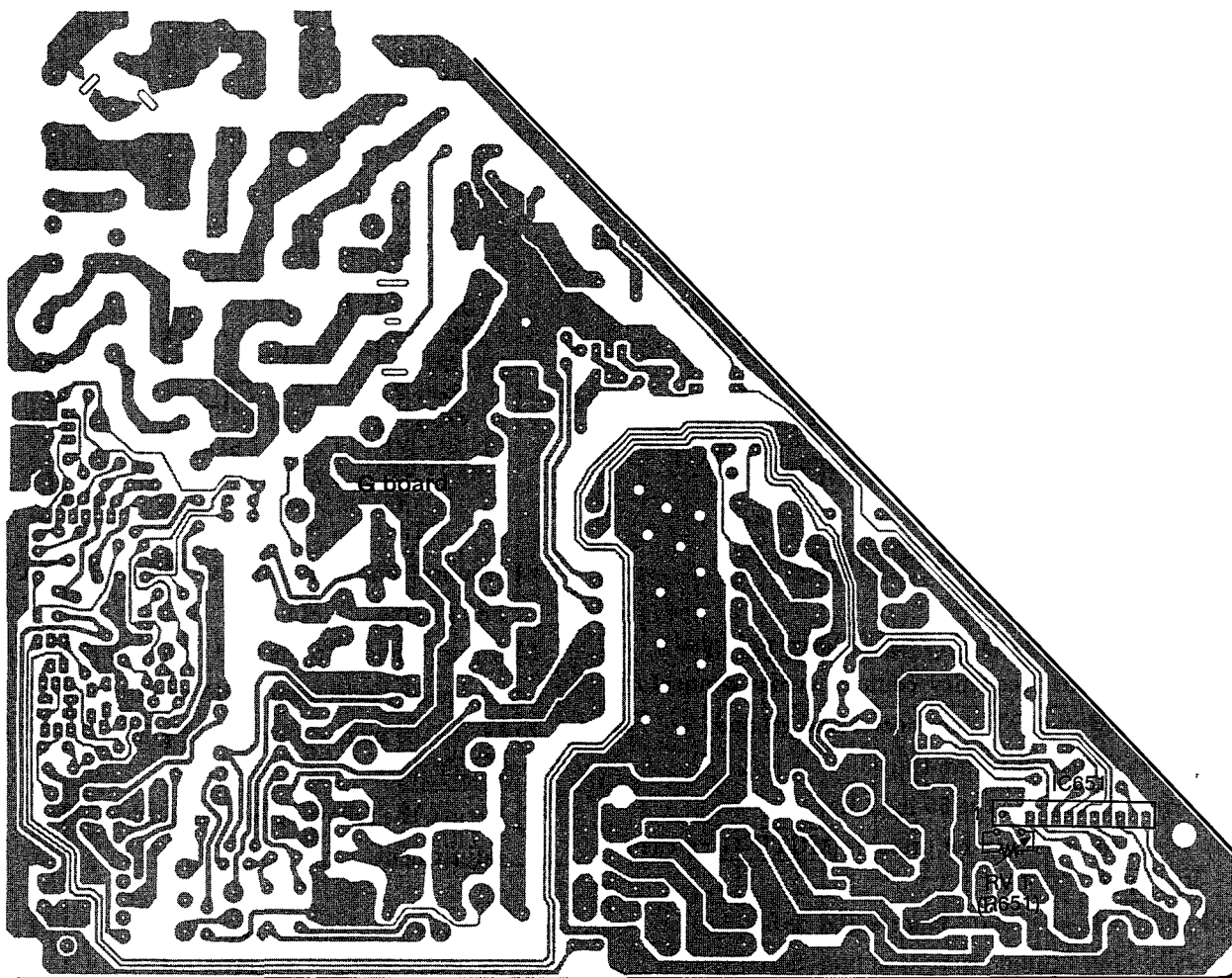
When step 2 is not satisfied, readjustment should be performed by altering the resistance value of **R566** CARBON **1/4W** (a component marked with ☒).

G BOARD

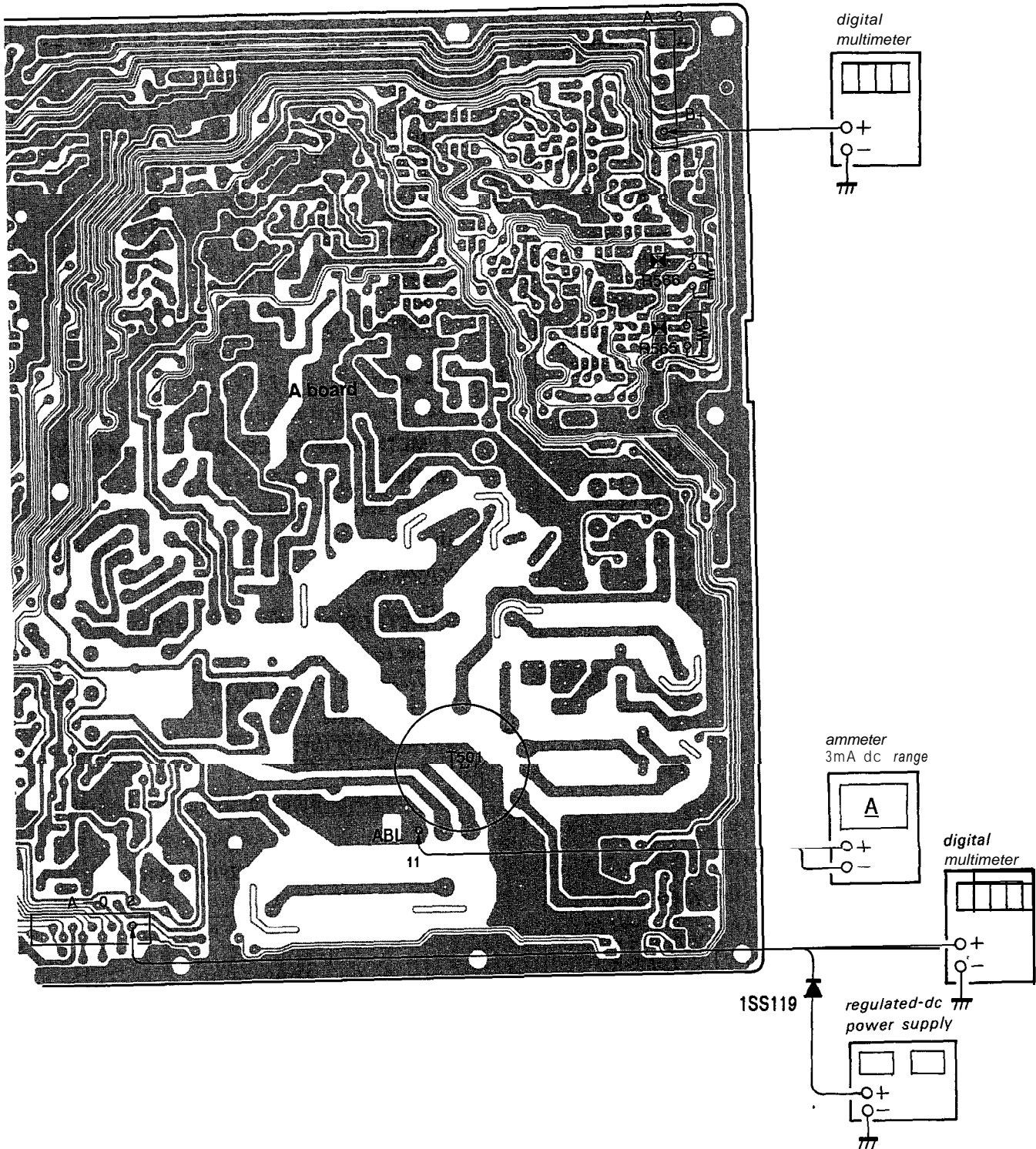
B+ VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC651 and R651.

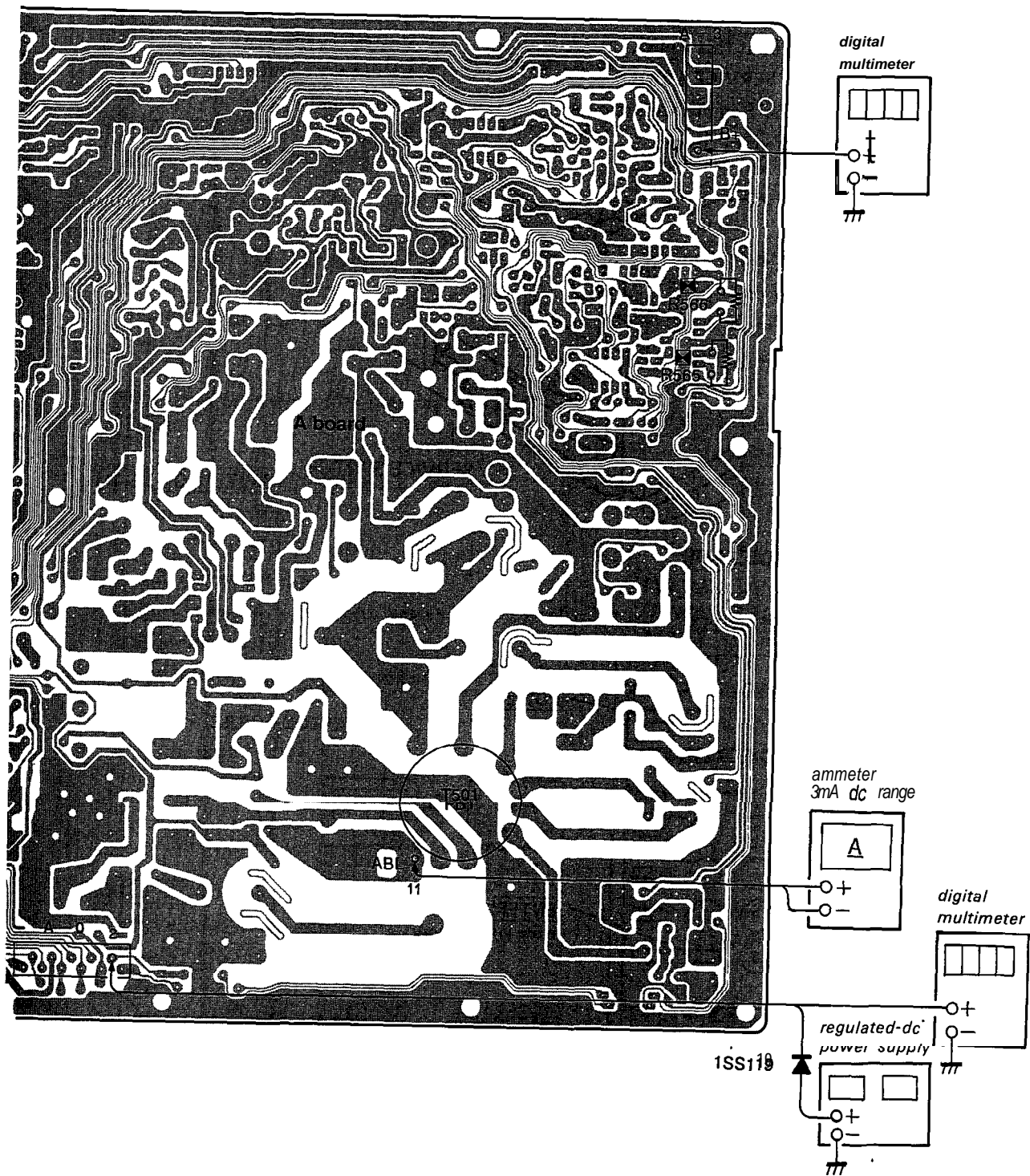
- 1) Supply $130 \pm 2\text{V}$ AC to with variable autotransformer.
- 2) Input an entirely monoscope signal.
- 3) Set the PICTURE control and the BRIGHT controls in to initial reset.
- 4) Confirm the voltage of A BOARD ① pin A-3 connector is less than **136.5V** DC.
- 5) If step 4) is not satisfied, replace IC651 and R651 repeat above steps.



(KV-27XBR35)



KV-32XBR35)



SECTION 5 CIRCUIT ADJUSTMENTS

5-I. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

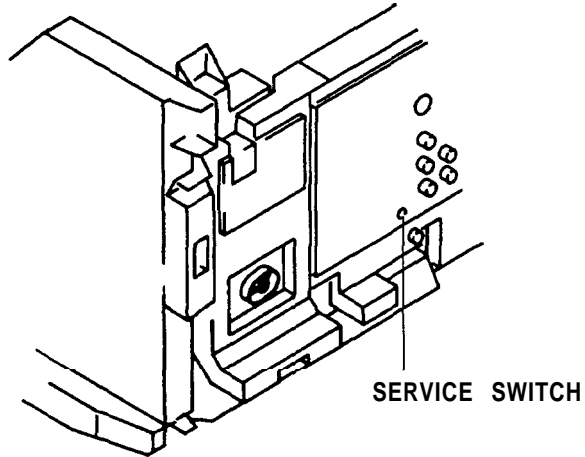
Use of Remote Commander (RM-Y113) can be performed circuit adjustments about this model.

1. METHOD OF SETTING THE SERVICE MODE

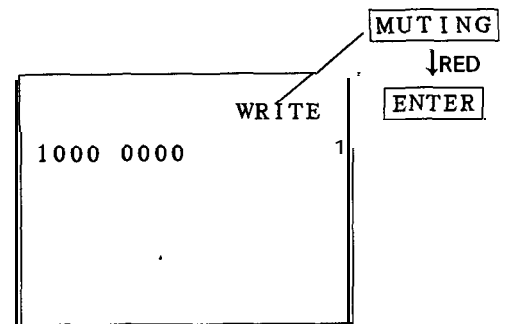
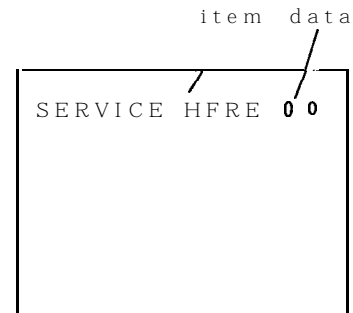
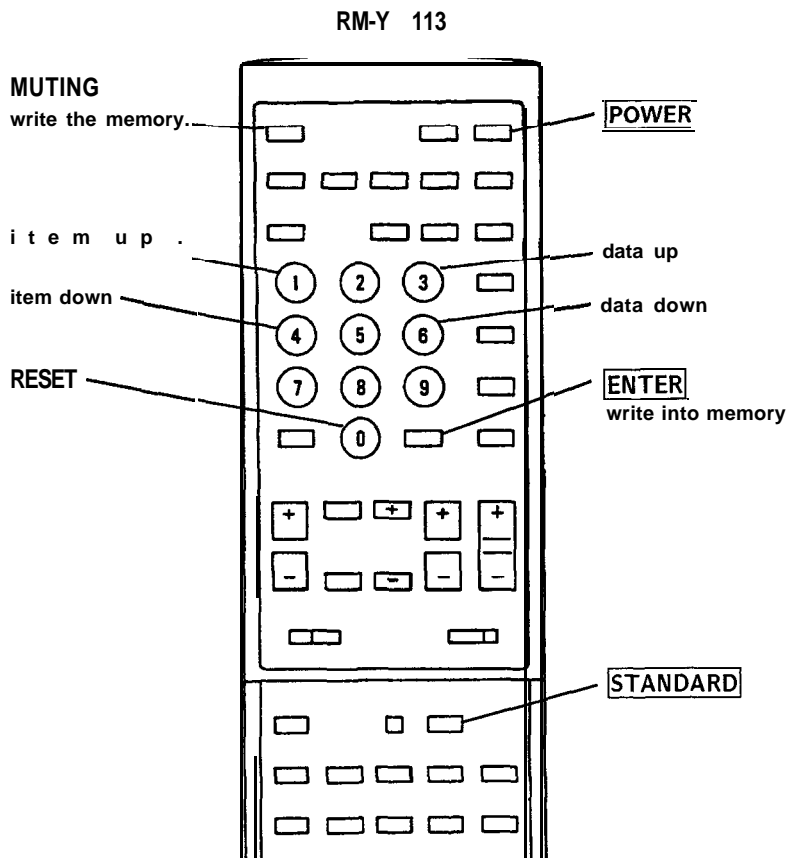
- 1) Press **POWER** button on the Remote Commander while pressing switch on the rear of the set.

NOTE : Test Equipment Required.

1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio OSC



2. ADJUST BUTTONS AND INDICATOR



3. AN ITEM OF ADJUSTMENT

ITEM	REFERENCE DATA	NAME REGIST	
AFC	1	VP	AFC 1.0
HFRE	93	VP	H. FREQUENCE
VFRE	15	VP	V. FREQUENCE
VPOS	19	VP	V. SHIFT
VSIZ	32	VP	V. SIZE
VLIN	2	VP	V. LINEARITY
vsco	3	VP	VS. CORRECTION
HPOS	9	VP	H. PHASE
HSIZ	25	VP	H. SIZE
PAMP	17	VP	PIN. AMP.
CPIN	4	VP	CORNER PIN
PPHA	8	VP	PIN. PHASE
VCOM	2	VP	V. COMP
GAMP	19	VP	GREEN AMP.
BAMP	9	VP	BLUE AMP.
GCUT	8	VP	GREEN CUT OFF.
BCUT	6	VP	BLUE CUT OFF
SPIX	40	VP	PICTURE
SHUE	29	VP	HUE
SCOL	30	VP	COLOR
SBRT	40	VP	BRIGHT
RGBP	28	VP	RGB PICTURE
SHAP	7		SHARPNESS
DISP	35		OUTPUT
VSMO	0	VP	VSMO
REF	2	VP	REF 1.0
ROFF	1	VP	OFF NR
GOFF	1	VP	OFF NC
BOFF	1	VP	OFF NB
ABLM	0	VP	ABLM
DRGB	1	VP	D RGB
YBOW	31	DE	Y BOW
VANG	35	DE	V. ANGLE
HTAP	31	DE	H. TRAP
TEST	0	AP	T
MPX	7	AP	ATT
FILO	31	AP	I 1
DEEM	7	AP	I 2
STEVE	31	AP	osc 1
SAPV	31	AP	osc 2
PILO	7	AP	PILOT
SEP	31	AP	WIDE BAND
VD	7	AP	SPECTRAL
LVOL	0	AP	VOLUME-L
RVOL	0	AP	VOLUME-R
BASS	7	AP	BASS
TRE	7	AP	TREBLE

UYBO	39	DC	U.Y. BOW
LYBO	39	DC	L.Y. BOW
HAMP	26	DC	H.AMP
HTIL	36	DC	H TILT
UCBO	20	DC	U.C. BOW
UTIL	44	DC	U.TILT
LCBO	31	DC	L.C. BOW
LTIL	63	DC	L.TILT
DCSH	19	DC	DC. SHIFT
PHPO	34	PI	READ DELAY H
PVPO	8	PI	READ DELAY V
PLEV	14	PI	PICTURE LEVEL
PFCO	11	PI	FRAME COLOR
NRLE	30		NR LEVEL
DSPP	31		

4. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press **POWER** button on the commander) in the next place, press **POWER** button again, hereupon it becomes TV mode.

5. METHOD OF WRITE FOR MEMORY

- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN), select an item of adjustments.
- 3) Press **MUTING** button indicate **WRITE** on screen.
- 4) Press **ENTER** button to write for memory.

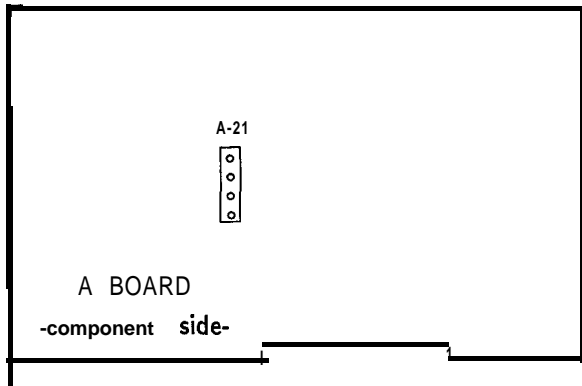
6. MEMORY WRITE CONFIRMATION METHOD

WRITE

1000 0000

- 1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again, confirm they were adjusted.

5-2. A BOARD ADJUSTMENTS



RF AGC ADJUSTMENT (IF BLOCK VR)

- 1) Input a color-bar signal.
- 2) Adjust AGC VR of TU 101 so that snow noise and cross-modulation disappear from the picture.
- 3) Confirm them at every channel.

H.FREQUENCY ADJUSTMENT (HFRE)

- 1) Set to Service Mode.
- 2) Input a color-bar signal.
- 3) Connect a frequency counter to base of Q 507.
- 4) Call the item of AFC, set to 3 level (free run).
- 5) Select HFRE with **[1]** and **[4]**.
- 6) Adjust **[3]** and **[6]** to the 15735 ± 60 Hz level.
- 7) Call the item of AFC again, adjust the level "01".
- 8) Write into the memory by pressing **[MUTING]** then **[ENTER]**.

V.FREQUENCY ADJUSTMENT (VFRE)

- 1) Set the Service Mode.
- 2) Input an off-air signal (VIDEO IN → no signal).
- 3) Connect the frequency counter across connector VDY — ⊕ of DY-1 connector and ground.
- 4) Select VFRE with **[1]** and **[4]**.
- 5) Adjust **[3]** and **[6]** to the 55 ± 0.5 Hz.
- 6) Write the memory by pressing **[MUTING]** → then **[ENTER]**.

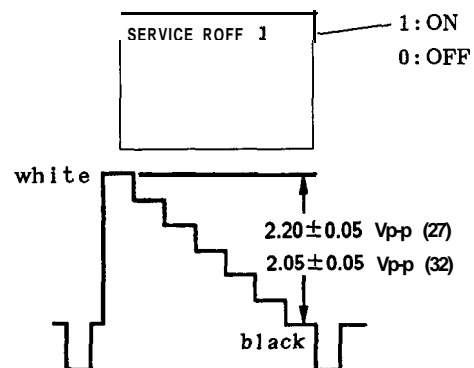
SUB CONTRAST ADJUSTMENT (SPIX)

- 1) Set to Service Mode.
- 2) Input a color-bar signal. (75 IRE)
- 3) Set the conditions as follows.

PICTURE	.....	MAX
COLOR	.....	MIN
BRIGHT	.....	MIN
R OFF	.....	ON
G OFF	.....	OFF
B OFF	.....	OFF

Press **[MENU]** and select VIDEO MENU → **[]** (L)
(It becomes minimum).

Select **[3]** (ON) and **[6]** (OFF) with **[1]** and **[4]**.

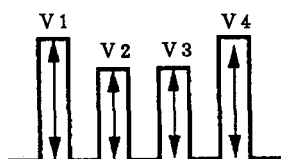


- 4) Connect an oscilloscope to TP 49 **B** of C board and ground.
- 5) Adjust **[3]** and **[6]** to the 2.20 (27) 2.05 (32) ± 0.05 Vp-p level by selecting SPIX with **[1]** and **[4]**.
- 6) Write the memory by pressing **[1]** → then **[ENTER]**.
- 7) Return the following back to normal after adjustment.

G OFF	.....	ON
B OFF	.....	ON
COLOR	.....	CENTER
BRIGHT	.....	CENTER
PICTURE	.....	80%

SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)

- 1) Input a color-bar signal.
- 2) Press **STANDARD** to normal.
- 3) Set to Service Mode.
- 4) Connect an oscilloscope to TR 49 R of C board and ground.
- 5) Adjust **[3]** and **[4]** to the $V1=V4$ and $V2=V3$ by select to SHUE and SCOL with **[1]** and **[4]**.



- 6) Write into the memory by pressing **MUTING** → then **ENTER**.

V.SIZE ADJUSTMENT (VSIZ)

- 1) Set to Service Mode.
- 2) Press **STANDARD** to normal.
- 3) Input a cross-hatch signal.
- 4) Adjust **[3]** and **[6]** to the best vertical size by selecting VSIZ with **[1]** and **[4]**.
- 5) Write into the memory by pressing **MUTING** → then **ENTER**.

V SIZE (VSIZ)



H.SIZE ADJUSTMENT (HSIZ)

- 1) Input a cross-hatch signal.
- 2) Press **STANDARD** to normal.
- 3) Set to Service Mode.
- 4) Adjust **[3]** and **[6]** to best horizontal size by selecting HSIZ with **[1]** and **[4]**.
- 5) Write into the memory by pressing **MUTING** → then **ENTER**.

H SIZE (HSIZ)



H.CENTER ADJUSTMENT (H POS)

Note: Perform this adjustment after H.FREQUENCY ADJUSTMENT (HFRE).

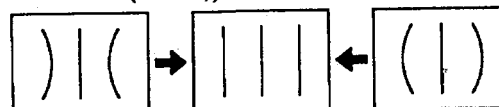
- 1) Input a color bar signal.
- 2) Set the Service mode.
- 3) Select HSIZ with **[1]** and **[4]**.
- 4) Press **[F]** so that the Horizontal size set to min.
- 5) Adjust A-21 connector position so that both-size blanking width of the Raster should be same on the Scrnne.
- 6) Unplug Set then plug in Set.
- 7) Set to Service mode.
- 8) Select HPOS with **[1]** and **[4]**.
- 9) Adjust **[3]** and **[6]** so that the color bars center should be set to the CRT Screen center position.
- 10) White into the memory by the pressing **MUTING** → then **ENTER**.



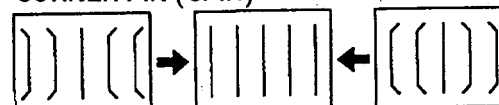
PIN AMP (PAMP), CORNER PIN (CPIN) PIN PHASE: (PPHA), H TRAPIZOID (HTRA) V LINEARITY (VLIN), V ANGLE (VANG), VS CORRECTION (VSCO), Y BOW (YBOW), V SHIFT (VPOS), AND V COMP (VCOM) ADJUSTMENTS

- 1) Input a cross-hatch signal.
- 2) Press **STANDARD** to normal.
- 3) Set to Service Mode.
- 4) Select PAMP, CPIN, PPHA, H TRA, VPOS, VCOM, LVIN, VANG, VSCO and YBOW with **[1]** and **[4]**.
- 5) Adjust **[3]** and **[6]** to the best picture.
- 6) Write the memory by **[ENTER]** →

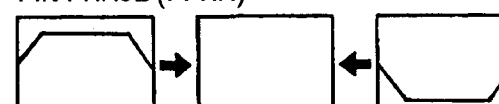
PIN AMP (PAMP)



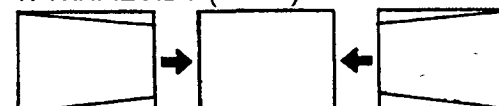
CORNER PIN (CPIN)



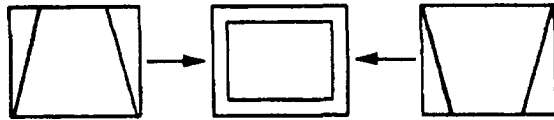
PIN PHASE (PPHA)



H TRAPIZOIDO (HTRA)



V-SHIFT (VPOS)



V COMP (VCOM)



V LINEARITY (VLIN)



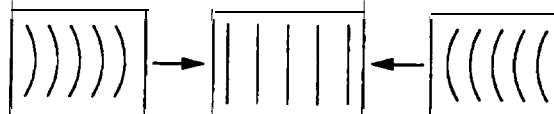
V ANGLE (VANG)



VS CORRECTION (VSCO)

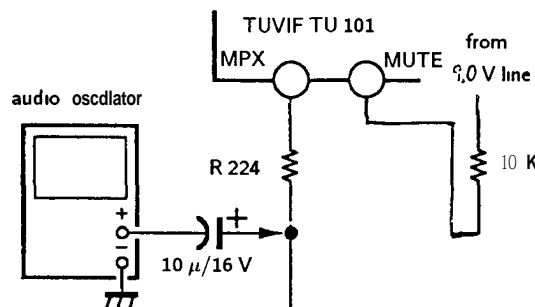


Y BOW (Y BOW)



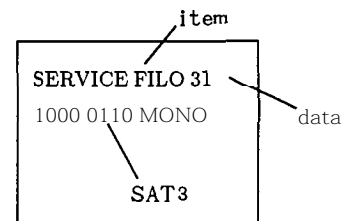
FILTER ADJUSTMENT (MPX, FILO)

- 1) Set to Service Mode.
- 2) Select to **TEST** with **1** and **4**, set the data to "1". Then select MPX and change data to "08".
- 3) Connect an audio oscillator to R224 using a capacitor (10μ F/16V), set frequency to 62.936 kHz ± 0.1 kHz. And then, through the 10kΩ resistor, feed 9.0V into the mute of TUVIF TU 101.



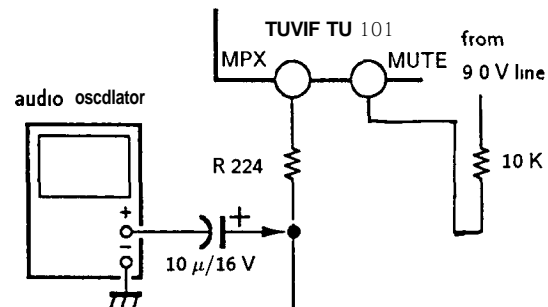
V 4fh SINE-WAVE 15 734 KHz ± 0.1 KHz
LEVEL 0 28 Vp-p

- 4) Make the data "00" by selecting FILO with **1** and **4** And then, send up the data gradually by pressing **6**. Set the data to **D1** before SAT3 changing to 1 from 0.
- 5) Send up the data gradually. Set data D2 when SAT3 changes 0 from 1.
- 6) Adjust the data of FILO to $\frac{D1 + D2}{2}$.
- 7) Write into the memory by pressing **1** then **ENTER**.



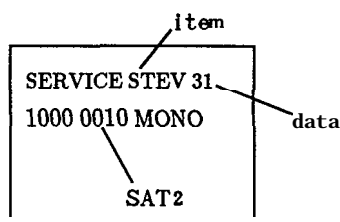
ST VCO ADJUSTMENT (MPX, STEV)

- 1) Set to Service Mode.
- 2) Select TEST with **1** and **4**, set the data to "1". And then press **MTS** to MONO.
- 3) Select MPX, set the data "8".
- 4) Connect an audio oscillator to R 224 using electrolytic capacitor (10μ F/16V) and apply the frequency **Vst**. Then, apply DC voltage to mute of TUVIF TU 101 using 10kΩ connect to 9.0 V line



V 4fh SINE-WAVE 15 734 KHz ± 0.1 KHz
LEVEL 0 28 Vp-p

- 5) Select STEV with **1** and **4**, set the data to "00" with **6**. And then, send up the data gradually. Set the data to **D1** before SAT2 changes from 0 to 1.
- 6) Send up data gradually, set the data to D2 when SAT2 changes 1 from 0.
- 7) Adjust the data of STEV to
- 8) Write into the memory by pressing **MUTING** then **ENTER**



MPX IN LEVEL ADJUSTMENT (MPX)]

- 1) Set to Service Mode.
- 2) Select TEST with **[1]** and **[4]**, set the data to "0" with **[6]**. And then press **[MTS]** to MONO.
- 3) Select MPX with **[1]** and **[4]**, set the data to "08" with **[3]** and **[6]**.
- 4) Write into the memory by pressing **[MUTING]** → then **[ENTER]**.

PILOT CANCEL ADJUSTMENT (PILO)]

- 1) Set to the Service Mode.
- 2) Select PILO with **[1]** and **[4]**, set the data to "08" with **[3]** and **[6]**.
- 3) Write into the memory by pressing **[MUTING]** → then **[ENTER]**.

SAP VCO f, ADJUSTMENT (SAPV)]

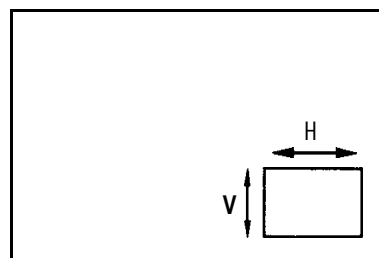
- 1) Set to Service Mode.
- 2) Input a stereo broadcast signal with SAP.
- 3) Select TEST with **[1]** and **[4]**, set the data to "0". And then, press **[MTS]** to MAIN.
- 4) Connect a digital multimeter to TP-1(DBX). This voltage reading will equal V 1.
- 5) Press MTS to SAP and this voltage will equal V 2.
- 6) Select SAPV with **[1]** and **[4]**, adjust **[3]** and **[6]** so that $V\ 2 = V\ 1 \times 0.03\ VDC$.
- 7) Write the memory by **[MUTING]** → **[ENTER]**.

SEPARATION ADJUSTMENT (SEP)]

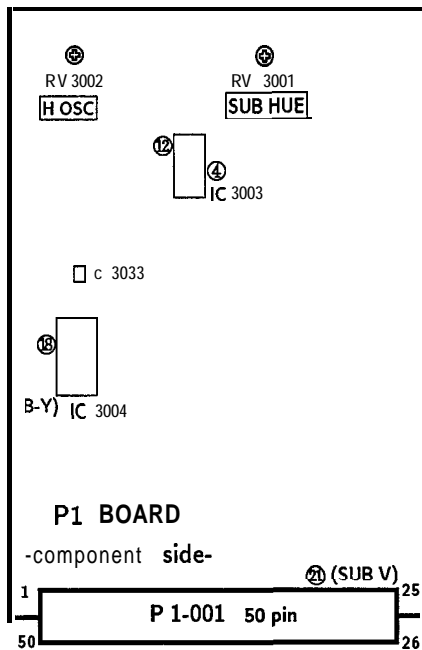
- 1) Set to Service Mode.
- 2) Press **[MTS]** to MAIN and receive a monoral broadcast signal.
In the next step, receive a stereo broadcast signal.
- 3) Select SEP and VD with **[1]** and **[4]**, adjust **[3]** and **[6]** so that a clear stereo sound is effected.

READ DELAY H/V (PHPO, PVPO)]

- 1) Input a cross hatch signal.
- 2) Set to service mode.
- 3) Press P/P a display a window picture. (RIGHT LOWER Position)
- 4) Select PHPO, PVPO with **[1]** and **[4]**.
- 5) Adjust **[3]** and **[6]** to the READ DELAY H/V.
- 6) Write the memory by pressing **[MUTING]** → then **[ENTER]**.

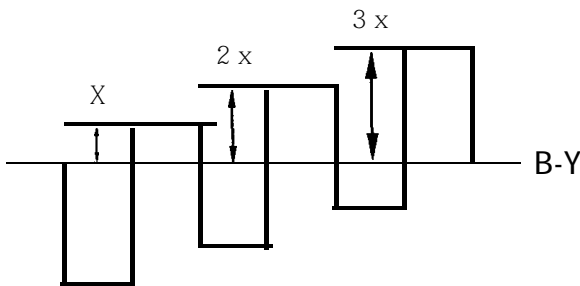


5-3. P1 BOARD ADJUSTMENTS



SUB HUE ADJUSTMENT (RV 3001)

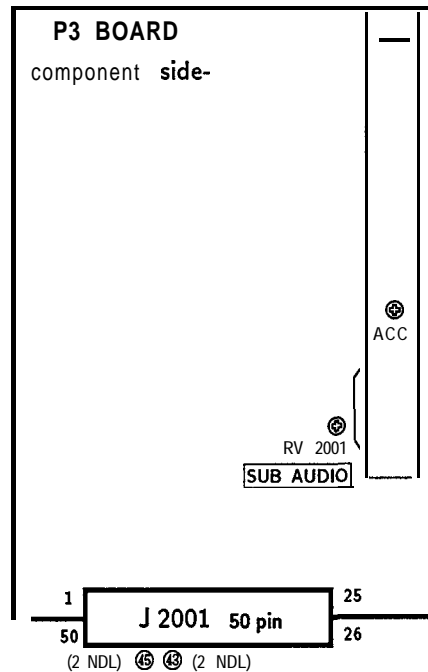
- 1) Set HUE and COLOR to the standard condition.
- 2) Make adjustment so that B-Y signal as shown to the right is obtained at the crossing point of R 3009 (0 Ω) and C 3033.
- 3) Supply the color bar signal of 75 IRE (white) at 2 Vpp to Pin 21 (SUB V) of P 1-001 and make adjustment by turning RV 3001.



[H. FREQUENCY (H OSC) ADJUSTMENT (RV-3002)]

- 1) Connect a frequency counter to Pin ④ (H OUT) of IC 3003.
- 2) Connect Pin ⑫ of IC 3003 to ground.
- 3) Adjust **RV3002** for a frequency of 15.734 kHz \pm 50 Hz at Pin ④ of IC 3003.
(or until the frequency comes to a standstill.)

5-4. P3 BOARD ADJUSTMENTS



RF AGC ADJUSTMENT(IF BLOCK VR)

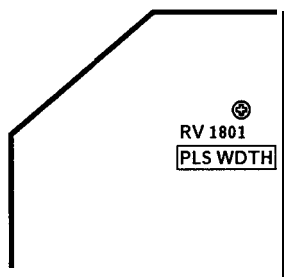
- 1) Input a color-bar signal.
- 2) Set to PICTURE IN PICTURE mode.
- 3) Adjust AGC VR of TU 2001 so that snow noise and cross-modulation disappear from the picture.
- 4) Confirm them at every channel.

SUB PICTURE SOUND VOLUME LEVEL (SUB AUDIO) ADJUSTMENT(RV2001)

- 1) **Receine** an audio signal of 400 Hz. (100% mod.)
- 2) Adjust RV 2001 for the following level at Pin 43 (2 NDR) or Pin 45 (2 NDL) of J 2001.

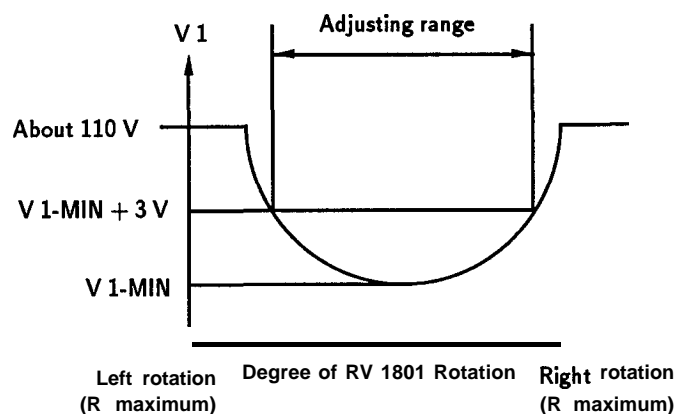
500 mVrms \pm 2 dB

5-5. VC BOARD ADJUSTMENT (KV-27 XBR 35 only)

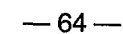


DRIVE PULSE PHASE ADJUSTMENT(RV 1801)

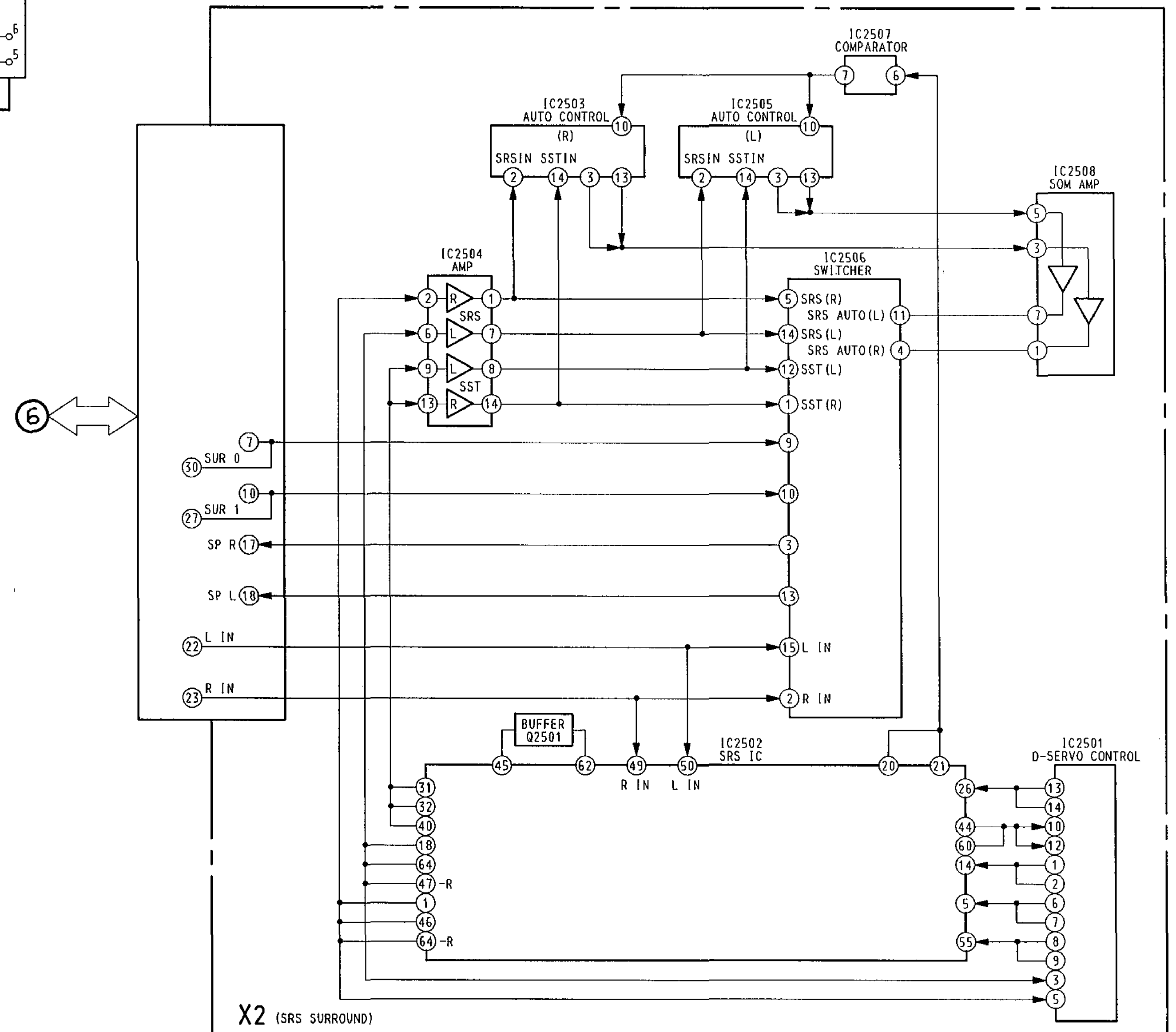
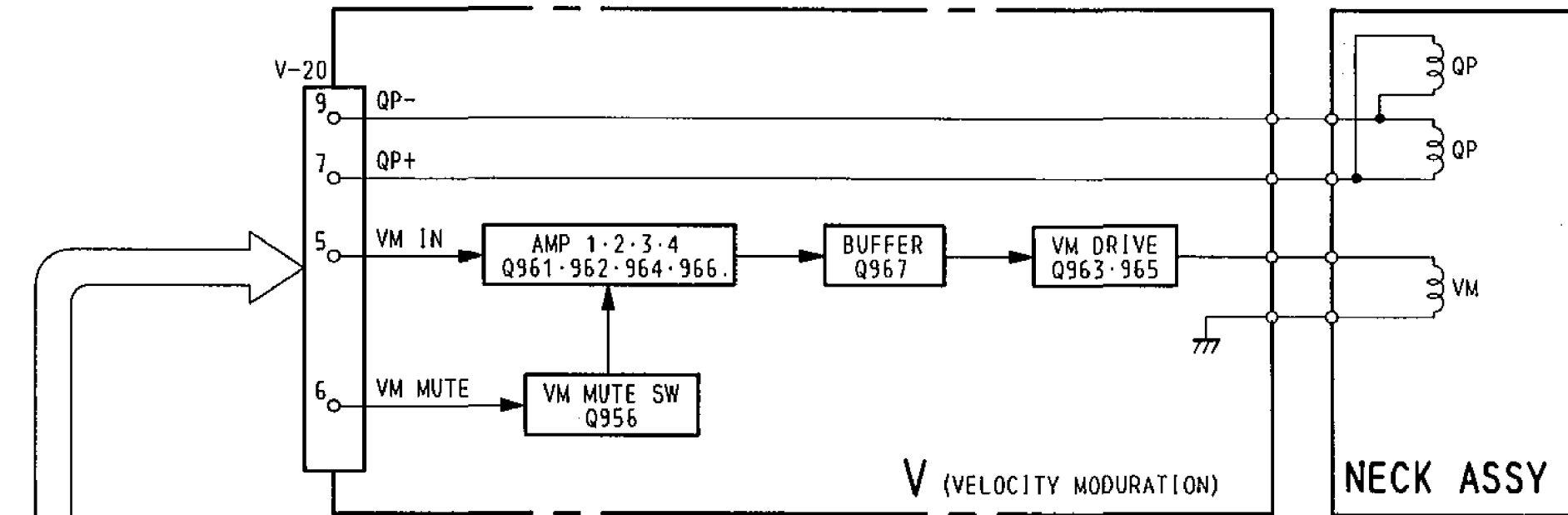
- 1) While measuring the voltage V 1 at both edges of C 1809, rotate RV 1801 so that it becomes minimum.
The adjusting range is from (the voltage at which V 1 becomes minimum) V 1 MIN to 3 V, which means, adjust to between V 1 MIN to V 1 MIN + 3 V.



6-1. BLOCK DIAGRAMS (1)



KV-27XBR35/32XBR35
RM-Y113/TDR-IF310



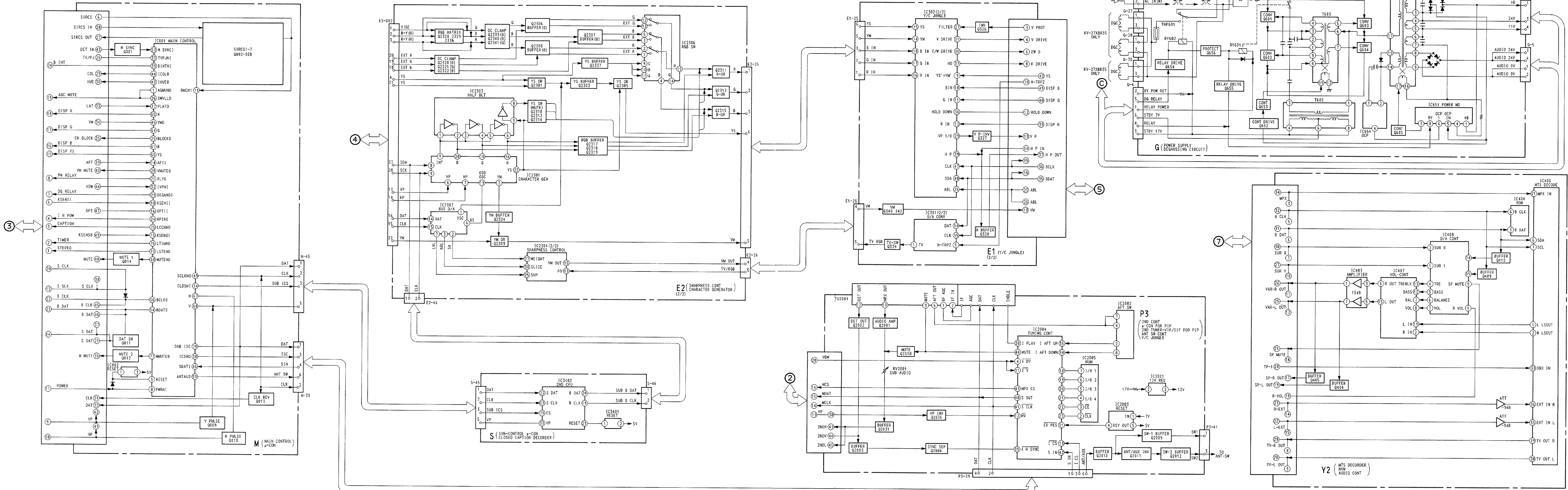
6-3. BLOCK DIAGRAMS (3)

KV-27XBR35/32XBR35
RM-Y113/TDR-IF310

KV-27XBR35/32XBR35
RM-Y113/TDR-IF310

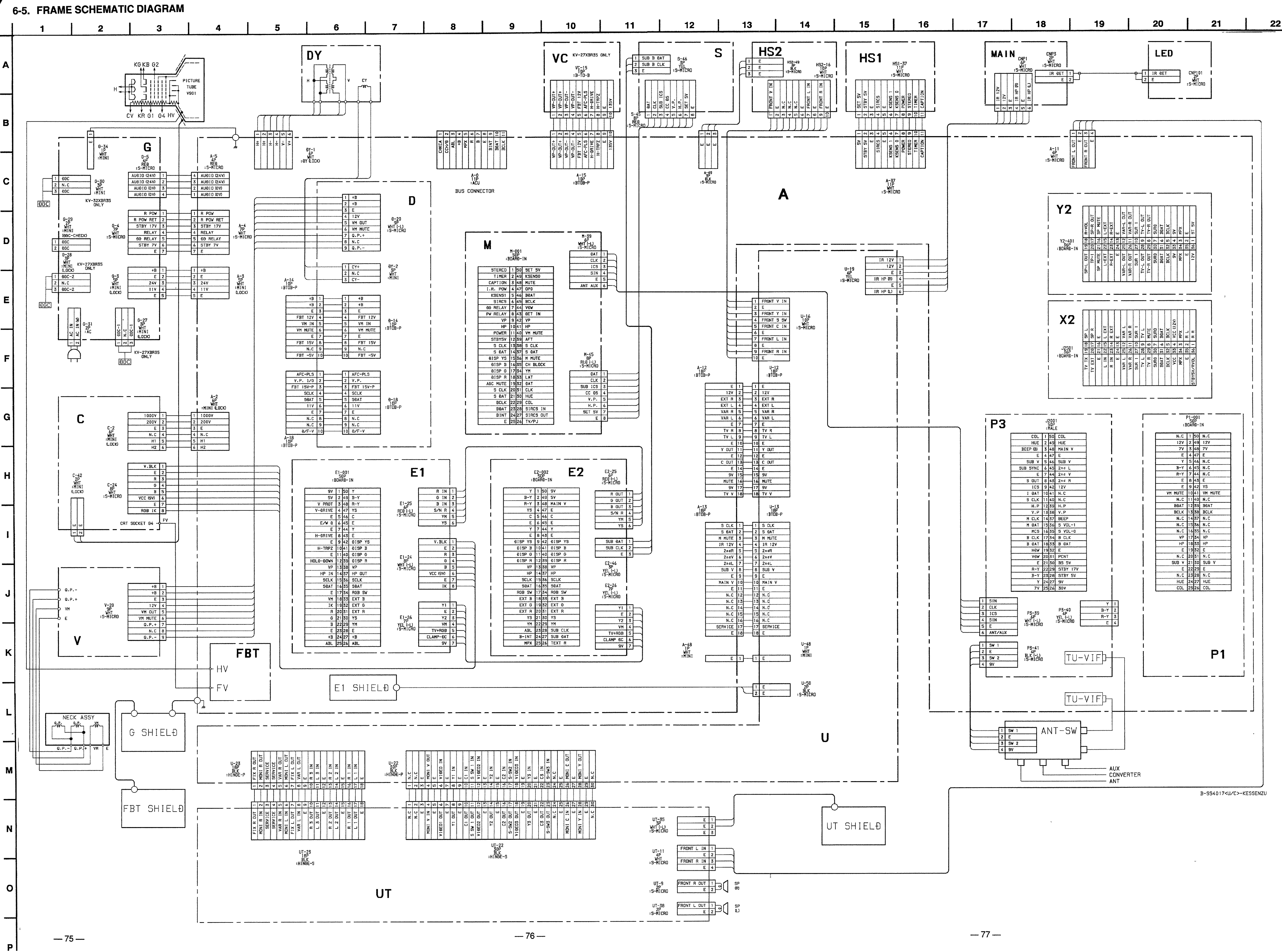
KV-27XBR35/32XBR35
RM-Y113/TDR-IF310

KV-27XBR35/32XBR35
RM-Y113/TDR-IF310

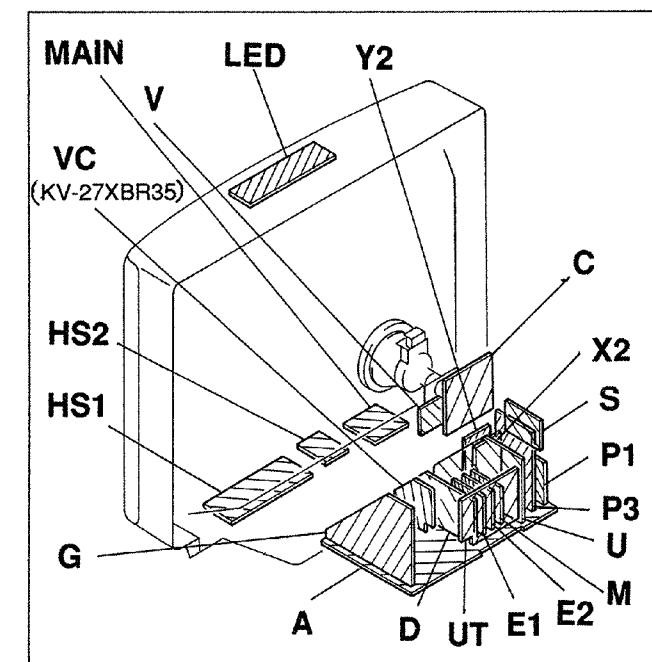


KV-27XBR35/32XBR35 RM-Y113/TDR-IF310 KV-27XBR35/32XBR35 RM-Y113/TDR-IF310





6-6. CIRCUIT BOARDS LOCATION



6-7. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

- Conductor Side -

Part replaced (■)	Adjustment (☒)
PM501, IC502, Q509, Q510, R565, R567, R568, R569	R565 (HOLD-DOWN)
IC653, IC502, IC651, Q509, Q510, D502, C531, R554, R566, R567, R568, R569, R651, R1506, T501	R566 (HOLD-DOWN)

• Readings are taken with a color-bar signal input.
• Readings are taken with a 10 MΩ digital multimeter.
• Voltage are dc with respect to ground unless otherwise noted.
• Voltage variations may be noted due to normal production tolerance.
• All voltages are in V.
• — : B+ bus.
• — : B- bus.
• — : signal path.

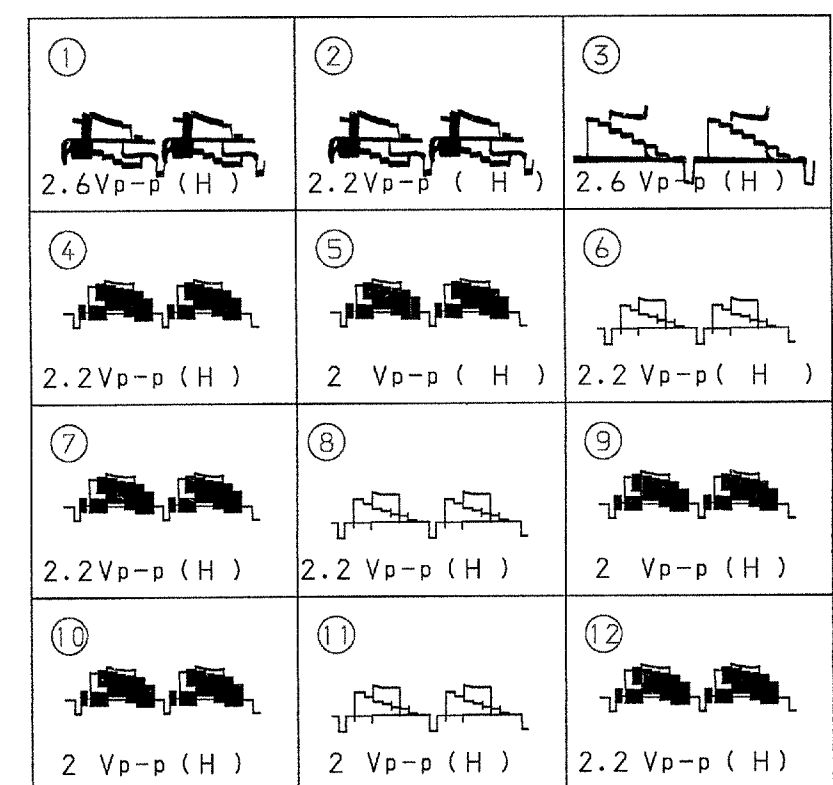
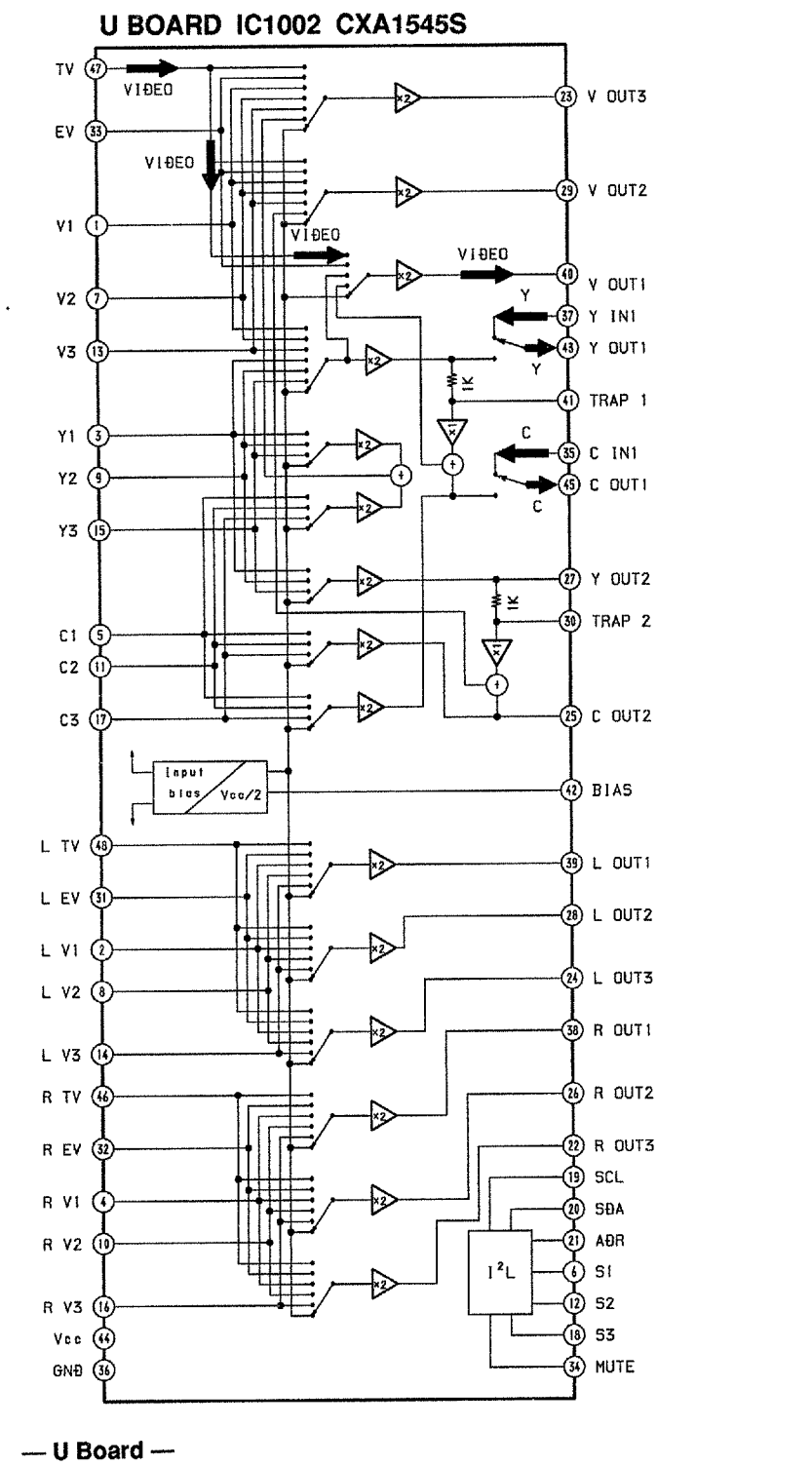
Reference information

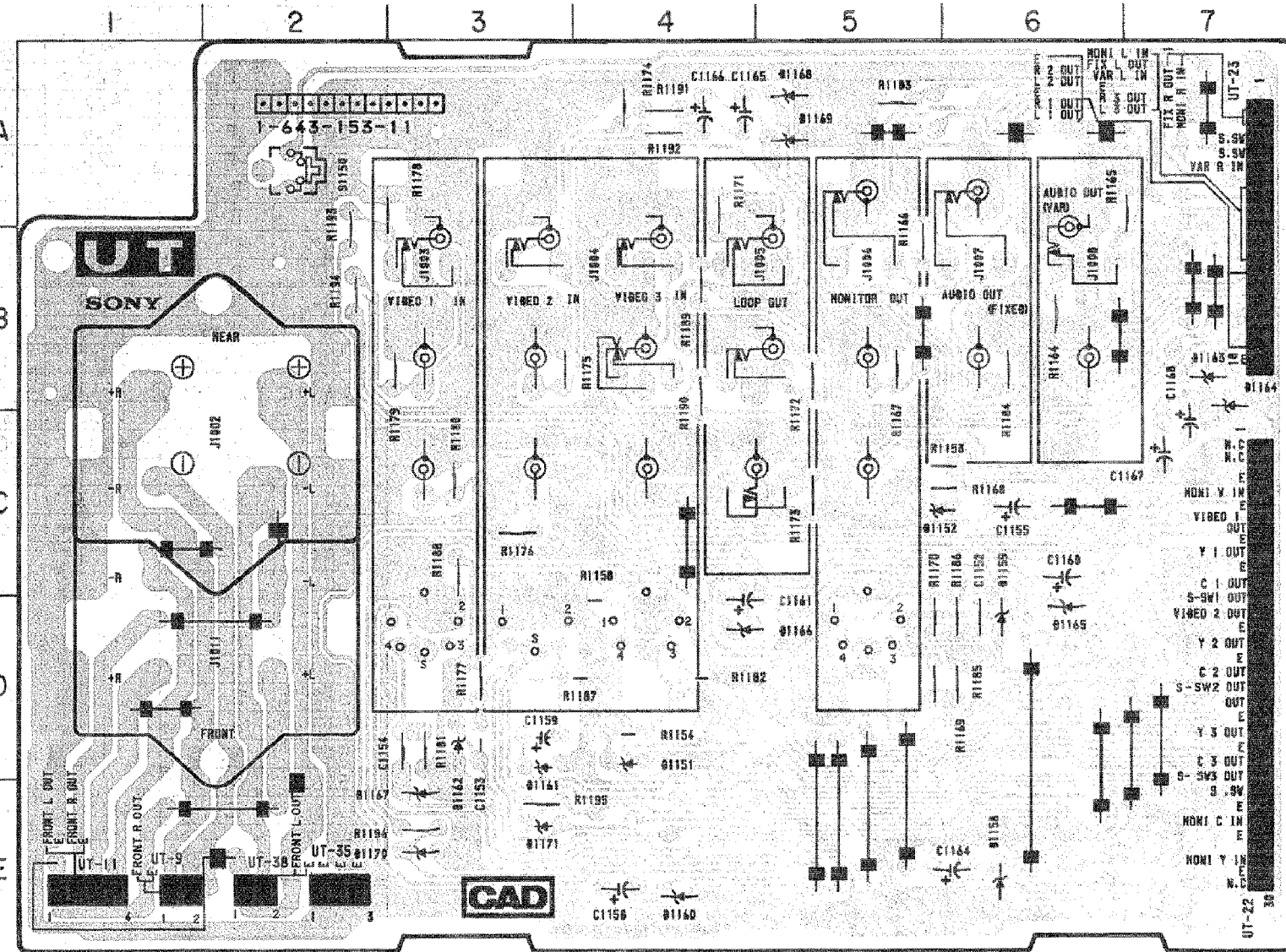
RESISTOR	: RN METAL FILM
	: RC SOLID
	: FPRD NONFLAMMABLE CARBON
	: FUSE NONFLAMMABLE FUSIBLE
	: RW NONFLAMMABLE WIREWOUND
	: RS NONFLAMMABLE METAL OXIDE
	: RB NONFLAMMABLE CEMENT
	: ※ ADJUSTMENT RESISTOR
	: LF-8L MICRO INDUCTOR
COIL	: TA TANTALUM
CAPACITOR	: PS STYROL
	: PP POLYPROPYLENE
	: PT MYLAR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

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

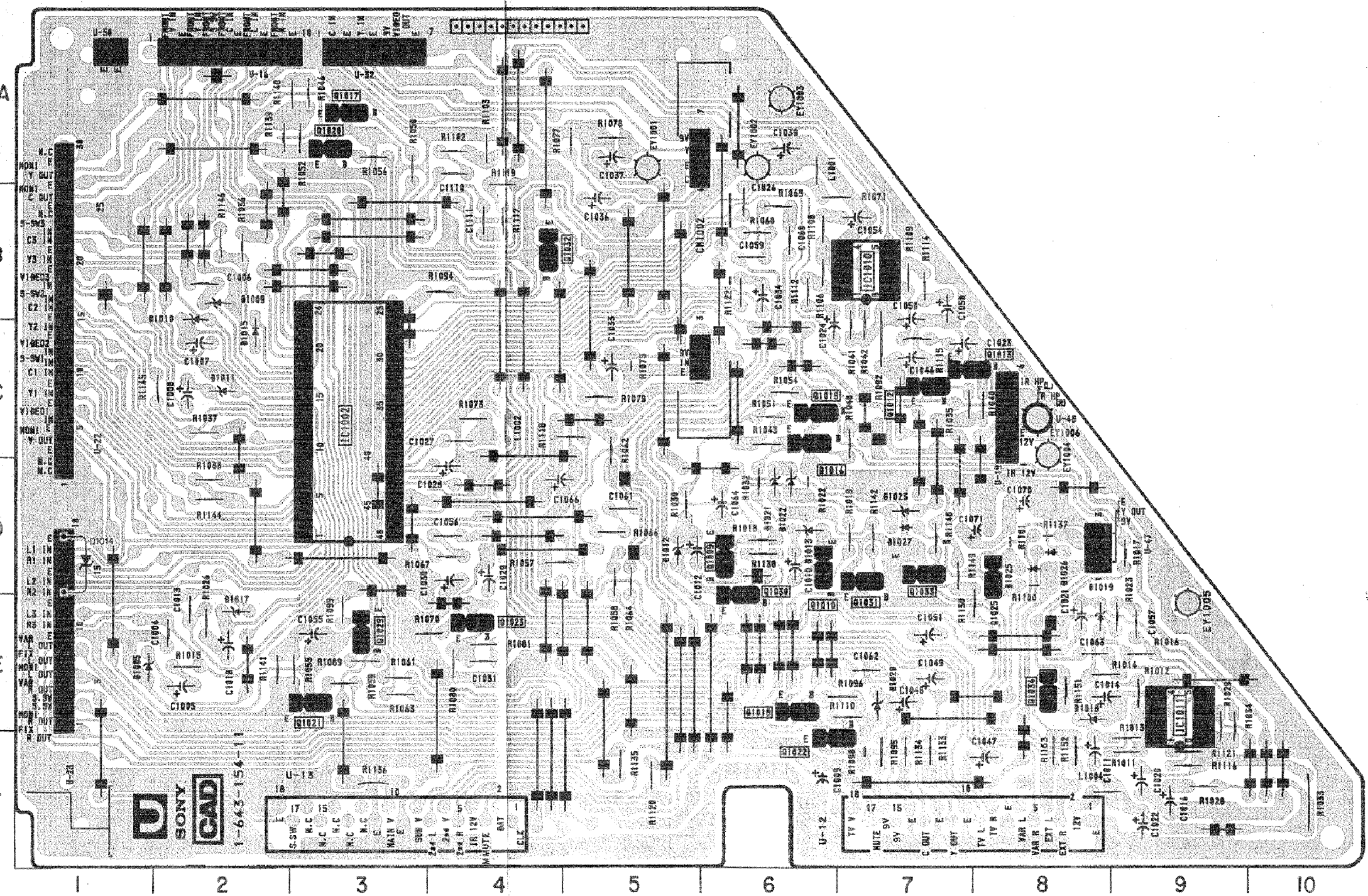
Note:
Les composants identifiés par un trame et une marque **Δ** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

• 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 **■** mark 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 R565 and R566 on page 51-54 in the Service Manual.)
• When replacing the part in below table be sure to perform the related adjustment.





DIODE	
Ø1152	C-5
1158	E-6
1159	Ø-6
1160	E-4
1163	B-7
1164	B-7
1165	Ø-6
1166	Ø-4
1167	E-3
1168	A-5
1169	A-5
1170	E-3



— U Board —

I C	
IC1002	c - 4
1010	G- S
1011	I- 2
TRANSI STOR	
Q1009	F- 3
1010	F- 3
1012	G- 4
1013	H- 4
1016	F- 4
1017	C- 6
1018	F- 2
1019	F- 4
1020	C- 6
1021	c- 2
1022	G- 1
1023	Ø-2
1025	Q- 8
1029	c- 2
1030	F- 2
1031	G- 3
1032	D- 5
1033	G- 3
1034	H- Z
DIODE	
Ø1005	A-2
1006	F-8
1007	F- 7
1009	B- S
1010	B- 4
1011	B- 4
1012	E- 3
1013	F- 3
1014	Ø-1
1017	B-2
1018	H-2
1019	H-2
1020	G-2
1021	F-3
1022	F-3
1023	G-3
1025	Ø-8
1026	Ø-8
1027	Ø-7

A

TUNER-VIF/SIF
HIGH VOLTAGE CIRCUIT
H/V DEFLECTION
X-RAYS.PROT
H.PIN CORR
AUDIO POWER AMP

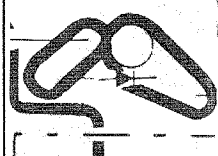
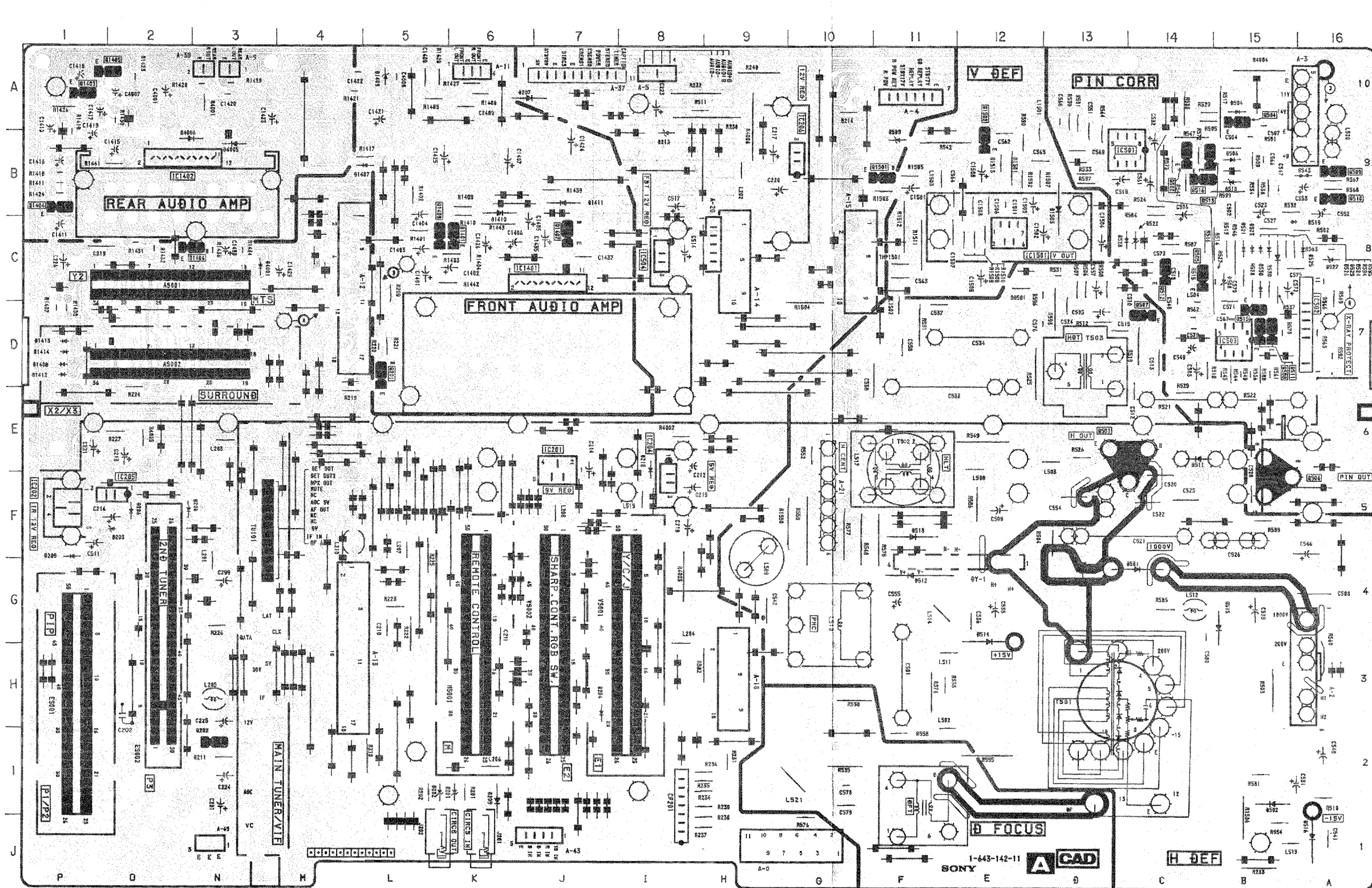
— A Board — (KV-27XBR35)

KV-27XBR35/32XBR35
RM-Y113/TDR-IF310KV-27XBR35/32XBR35
RM-Y113/TDR-IF310

— A Board —

IC		510	G-9
IC201	E-7	511	E-14
202	F-1	512	G-10
204	F-8	514	G-12
205	F-2	515	G-15
206	B-10	516	J-16
501	B-13	517	H-10
502	B-16	518	B-15
503	B-15	521	C-15
504	C-8	522	C-14
1401	C-7	524	C-15
1501	C-12	525	C-16
TRANSISTOR		527	C-16
Q201	B-5	529	C-15
202	I-3	530	C-15
501	E-13	1407	B-5
502	B-14	1408	B-1
503	I-9	1409	A-5
504	A-15	1410	B-6
505	C-14	1408	B-1
506	E-15	1409	A-5
507	B-14	1410	B-6
508	B-15	1411	B-7
509	B-16	1412	B-1
510	B-16	1413	B-1
511	B-15	1414	B-1
512	C-14	1503	B-13
513	B-14	4001	C-3
515	B-15		
516	B-14		
1401	C-6		
1407	C-7		
1408	C-5		
1501	B-11		
1502	B-12		
DIODE			
Ø201	I-6		
202	I-5		
204	H-7		
205	I-6		
206	F-2		
207	A-6		
208	F-2		
209	F-1		
213	A-8		
501	G-14		
502	I-5		
503	I-10		
504	A-15		
506	B-15		
508	C-15		
Ø509	B-11		

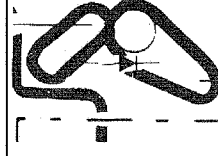
— A Board — (KV-32XBR35)



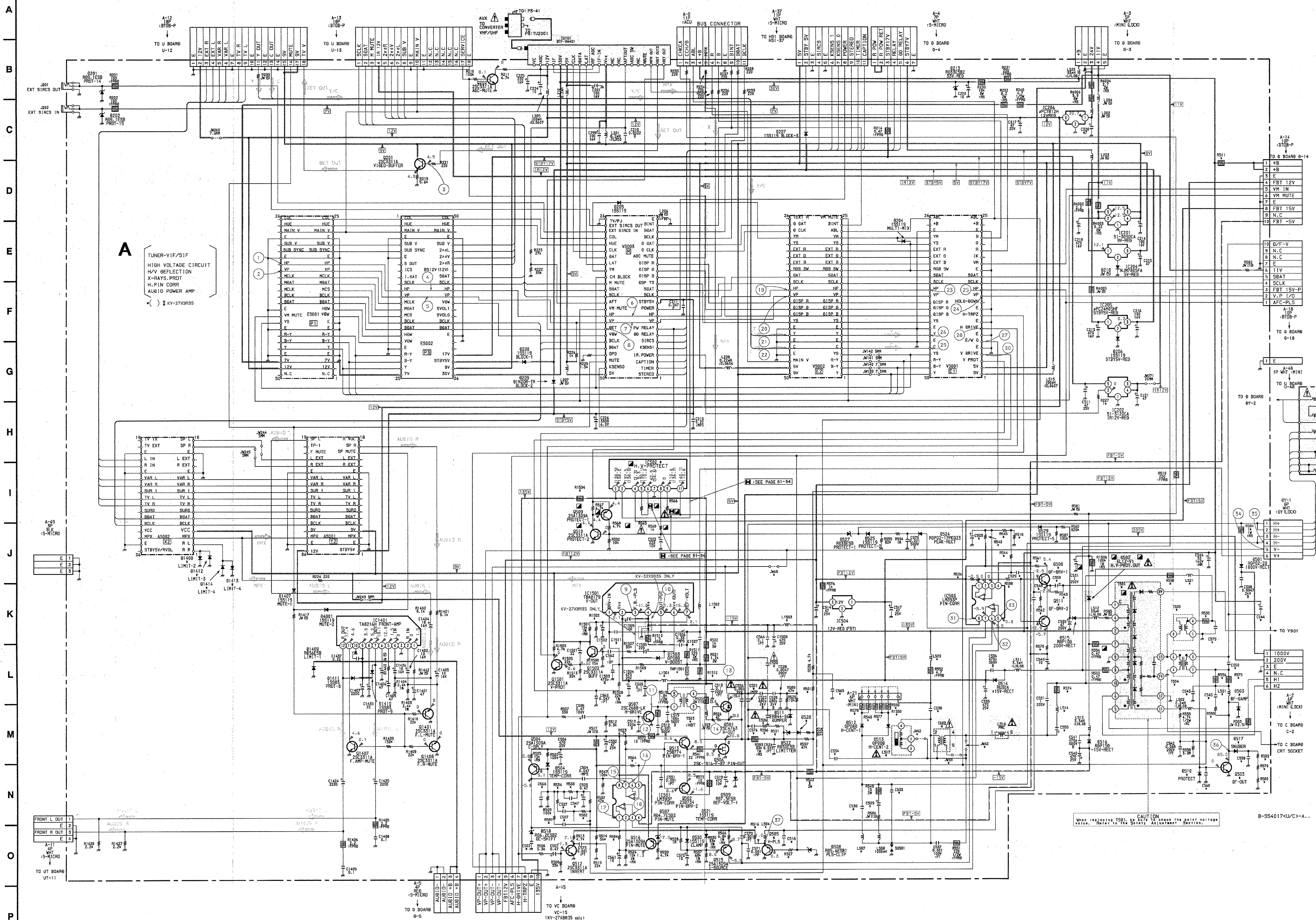
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

— A Board —

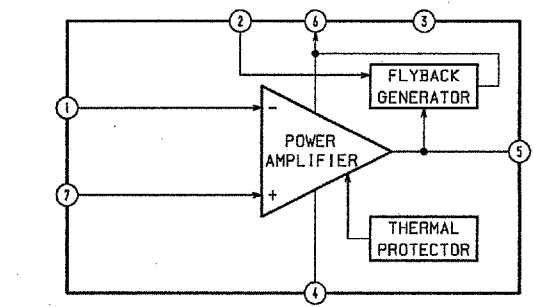
IC		516	J-16
IC201	E-7	518	B-15
202	F-1	521	C-15
204	F-8	522	C-14
205	F-2	524	C-15
206	B-10	525	C-16
501	B-13	527	C-16
502	B-16	528	C-13
503	B-15	529	C-15
504	C-8	530	C-15
1401	C-7	1407	B-5
1501	C-12	1409	A-5
TRANSISTOR		1410	B-6
Q201	B-5	1411	B-7
202	I-3	1503	B-13
501	E-13	4001	C-3
502	B-14		
504	A-15		
506	F-15		
507	B-14		
509	B-16		
510	B-16		
512	C-14		
513	B-14		
515	B-15		
516	B-14		
1401	C-6		
1407	C-7		
1408	C-5		
1501	B-11		
1502	B-12		
DIODE			
Ø201	I-6		
202	I-5		
204	H-7		
205	I-6		
206	F-2		
207	A-6		
208	F-2		
209	F-1		
213	B-8		
501	G-14		
502	I-15		
504	A-15		
506	B-15		
508	C-15		
509	B-11		
511	E-14		
512	G-11		
Ø513	F-11		
514	G-12		
515	G-15		



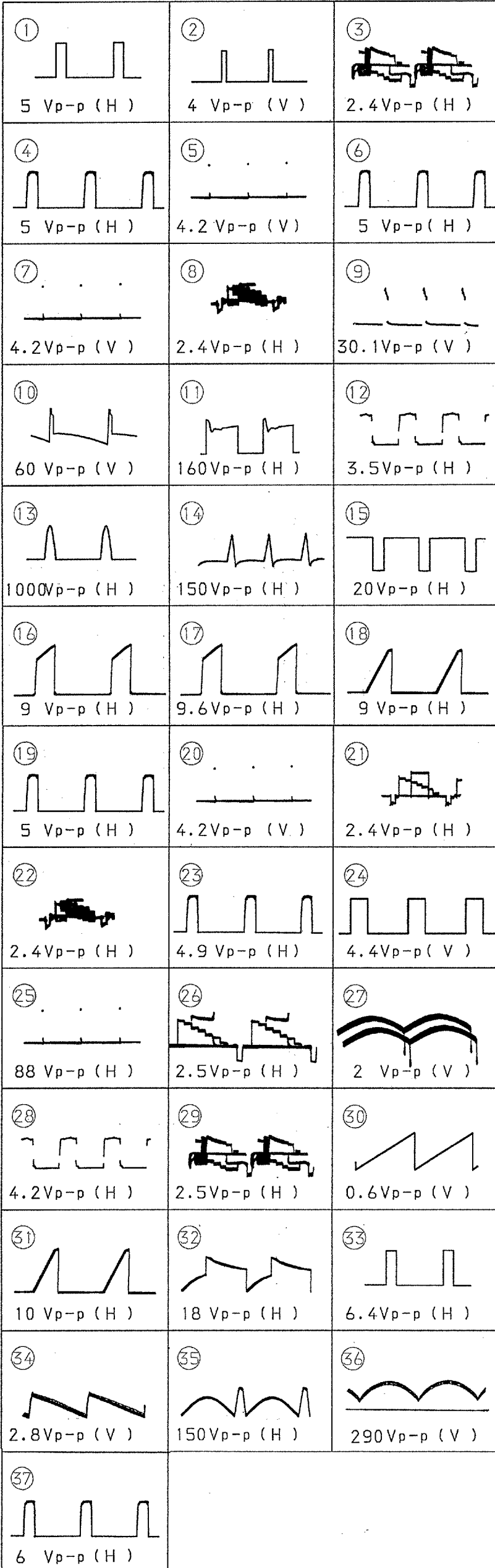
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.



A BOARD IC1501 TDA8179



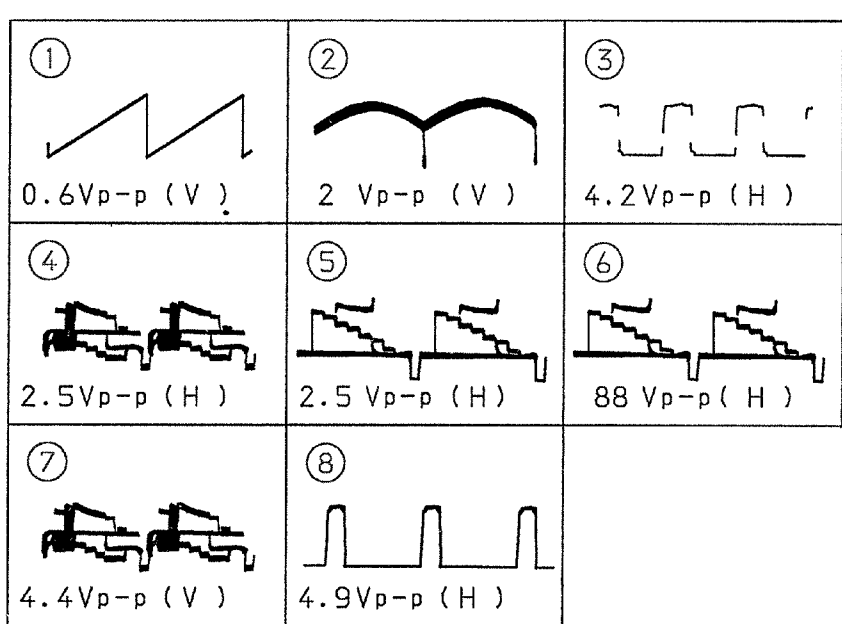
A Board



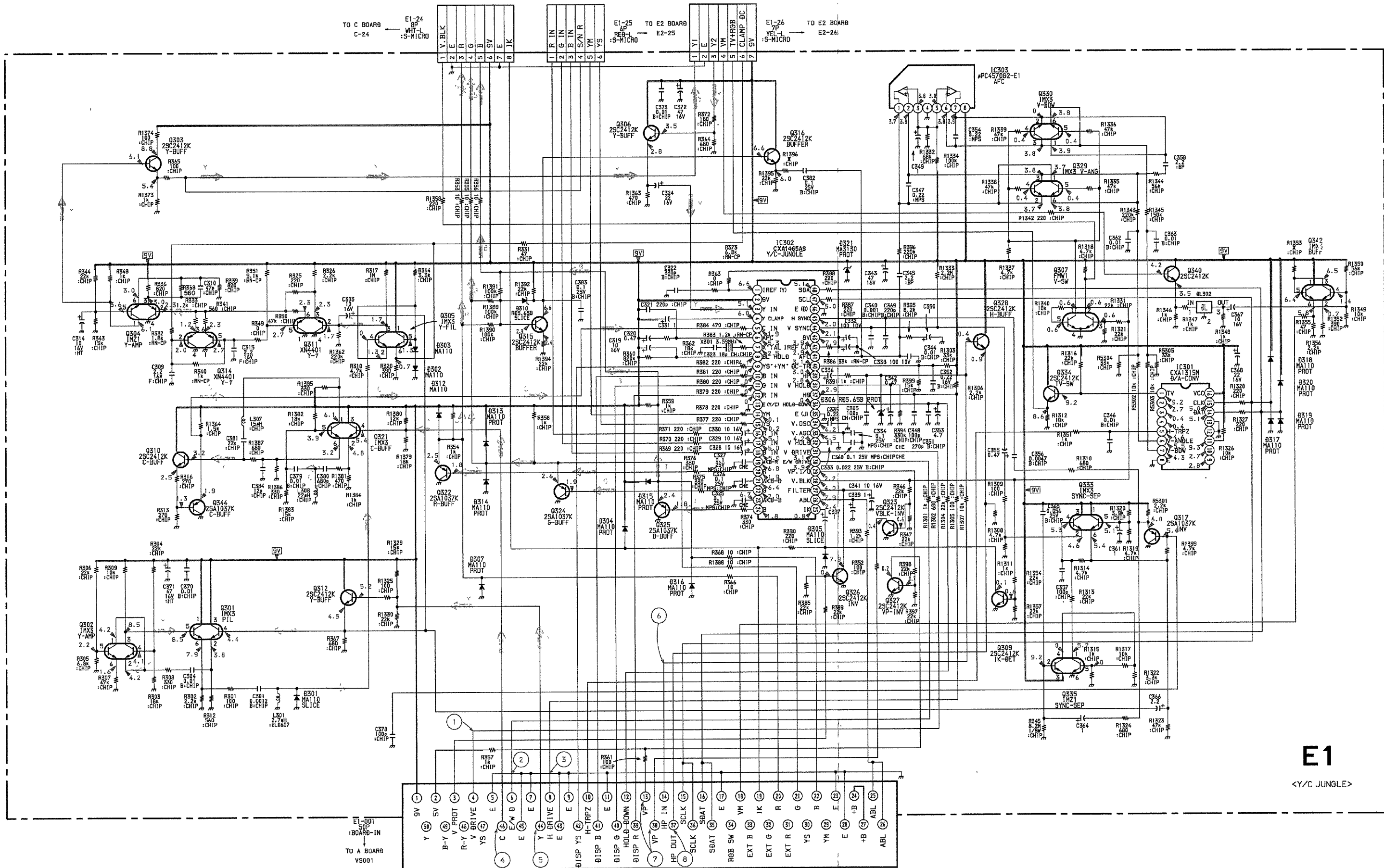
A BOARD * MARK NOTE
#: NOT MOUNTED

KV-27XBR35		KV-32XBR35		
A-18	10P	#	#	
C502	0.001	1PP	0.0022	1PP
S03	19	50V	JW GS	
S07	0.0015	1PT	#	
S09	10	200V	4.7	250V
S18	0.047	1HPS	#	
A-220	0.001	2KV B	680P	2KV B
A-221	0.022	200V 1HPP	0.033	2KV 1HPP
A-228	0.055	400V 1PP	0.068	450V 1PP
S29	0.047	1HPS	#	
S30	0.55	1HPS	#	
S33	1.2	200V 1HPS	2	200V 1HPP
S34	0.68	200V 1HPS	1	200V 1HPP
S38	0.1	200V 1PT	0.15	200V 1PT
S43	0.0047	450V 1PP	#	
S44	0.47	160V	#	
S45	220P	500V	#	
S48	470P	500V	#	
S50	0.001	630V 1PP	#	
S55	10	50V	#	
S59	10	250V	#	
S60	0.022	630V 1PP	#	
S60	0.22	1HPS	#	
S69	0.15	1PT	0.15	1HPS
S76	0.0335	200V 1PT	#	
S79	#	0.01	200V 1PT	
S79	#	0.047	200V 1PT	
S87	0.12	100V 1PT	0.15	100V 1PT
S11	SP	1CM	#	
S503	ERA38-06	#		
S10	155119	#		
S17	ER024-DAB	#		
S28	JW GS	#	155119	
L08	155119	#		
L12	155119	#		
L13	155119	#		
L14	155119	#		
C502	PH-30	PH-29		
JV39	17.5MM	#		
40	#	3MM		
42	#	17.5MM		
63	7.5MM	#		
64	10MM	#		
68	#	3MM		
S503	25C3840K	#		
S55	25A1809A	#		
S58	25C3511A	#	JW GS B-E	
S11	25A1809A	#		
THP101	1-807-925-11	1-807-970-11		
S501	7.5MM KLE-C	#		
S54	104H LKLS-05	#		
S57	68H	#		
S14	1.4H	#		
A-517	#	HLC		
S21	#	7.5MM 1-459-148-13		
S501	55AH LKLS-08	#		
S502	JW GS	104H LKLS-08		
S503	55AH LKLS-08	104H LKLS-08		
S501	15K	7.5K 1/4W 1RN		
S52	15K	JW GS		
S11	27 1/4W 1FPR0	22 1/4W 1FPR0		
S16	1.5K	#		
S18	47K	JW GS		
S27	1K	#		
S31	18K	#		
S34	150K	150K		
S35	#	22 1/4W 1FPR0		
S36	10K	#		
S38	150K	68K		
S40	47K	#		
S42	220 2W 1RS	470 2W 1RS		
S43	550	JW GS		
S44	100K	JW GS		
S45	JW GS	#		
S48	55K 2W F 1RS	68 2W F 1RS		
S50	47 3W F 1RS	68 3W F 1RS		
S56	2.7K 2W F 1RS	#		
S59	12K 1W F 1RS	#		
S61	270	#		
S62	7.5K 1/2W 1RN	#		
S64	180K 1/2W 1RN	110K 1/4W 1RN		
S70	56	#		
S74	22 2W F 1RS	#		
S75	22 2W 2W F 1RS	#		
S77	150 2W F 1RS	#		
S78	55 2W F 1RS	JW (1S)		
S79	100K	#		
S80	100K	#		
S83	100K	#		
S84	56K 1/4W 1RN	82K 1/4W 1RN		
S88	680	JW GS		
S91	220K	#		
S96	18K	#		
S98	#	0.47 1/4W 1FPR0		
S102	3.3K 1/4W 1RN	4.7K 1/4W 1RN		
S104	JW (1S)	#		
S109	27K 1/4W 1RN	47K 1/4W 1RN		
S112	1 2W F 1RS	1.5 2W F 1RS		
S150	JW (1S)	15 2W 1RS		
A-1501	NK-0000A2	NK-0000A3		
A-502	HL	#		
S93	HBT 1-437-195-13	HBT 1-437-217-11		
S94	BFT	#		
S95	#	BFT 1-415-059-11		

— E1 Board —



	KV-27XBR35			KV-32XBR35		
C306	82P	50V		100P	50V	
R1353	910	1/10W	:CHIP	1.5K	1/10W	:CHIP
R1396	1M	1/10W	:CHIP	1.5M	1/10W	:CHIP



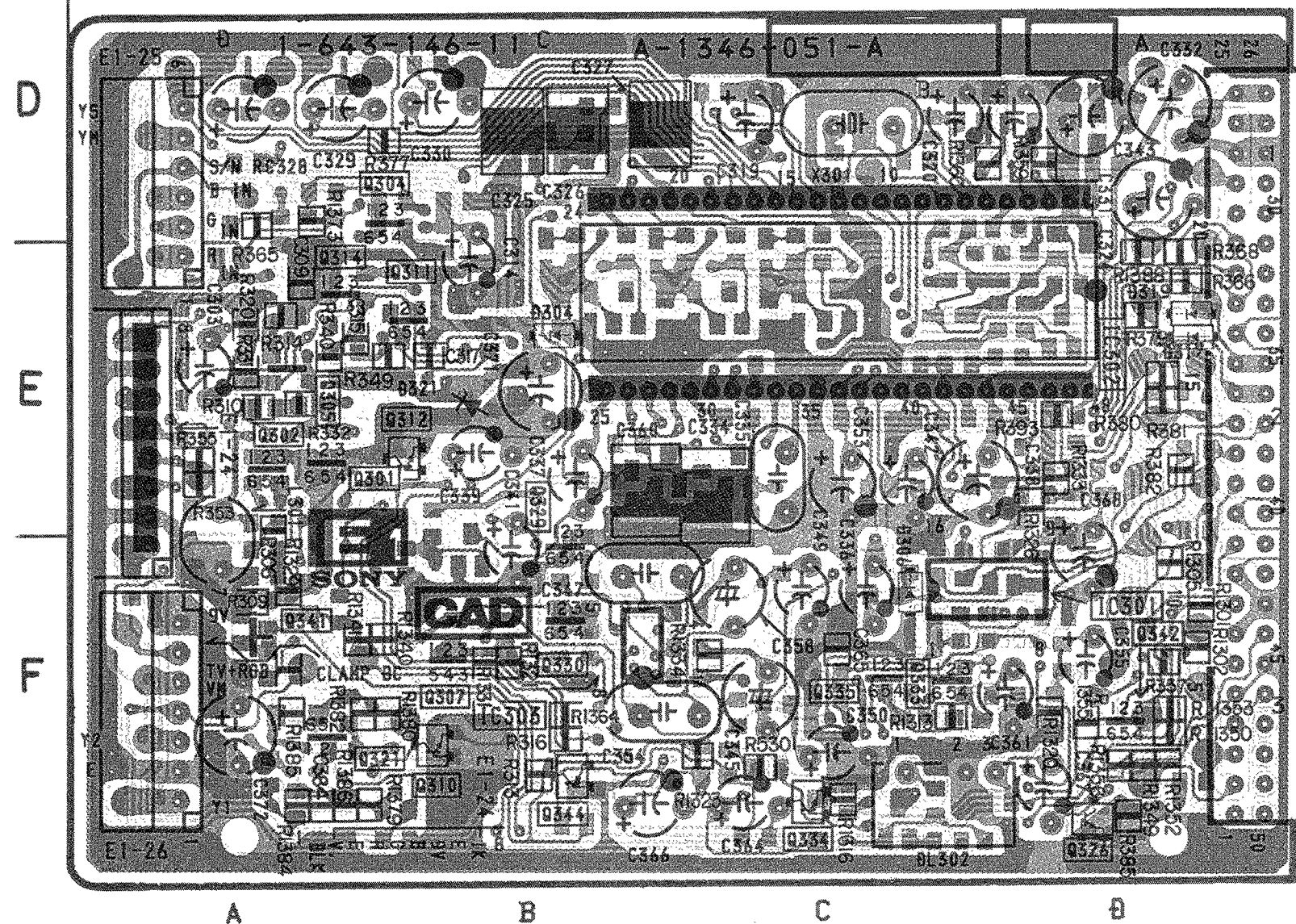
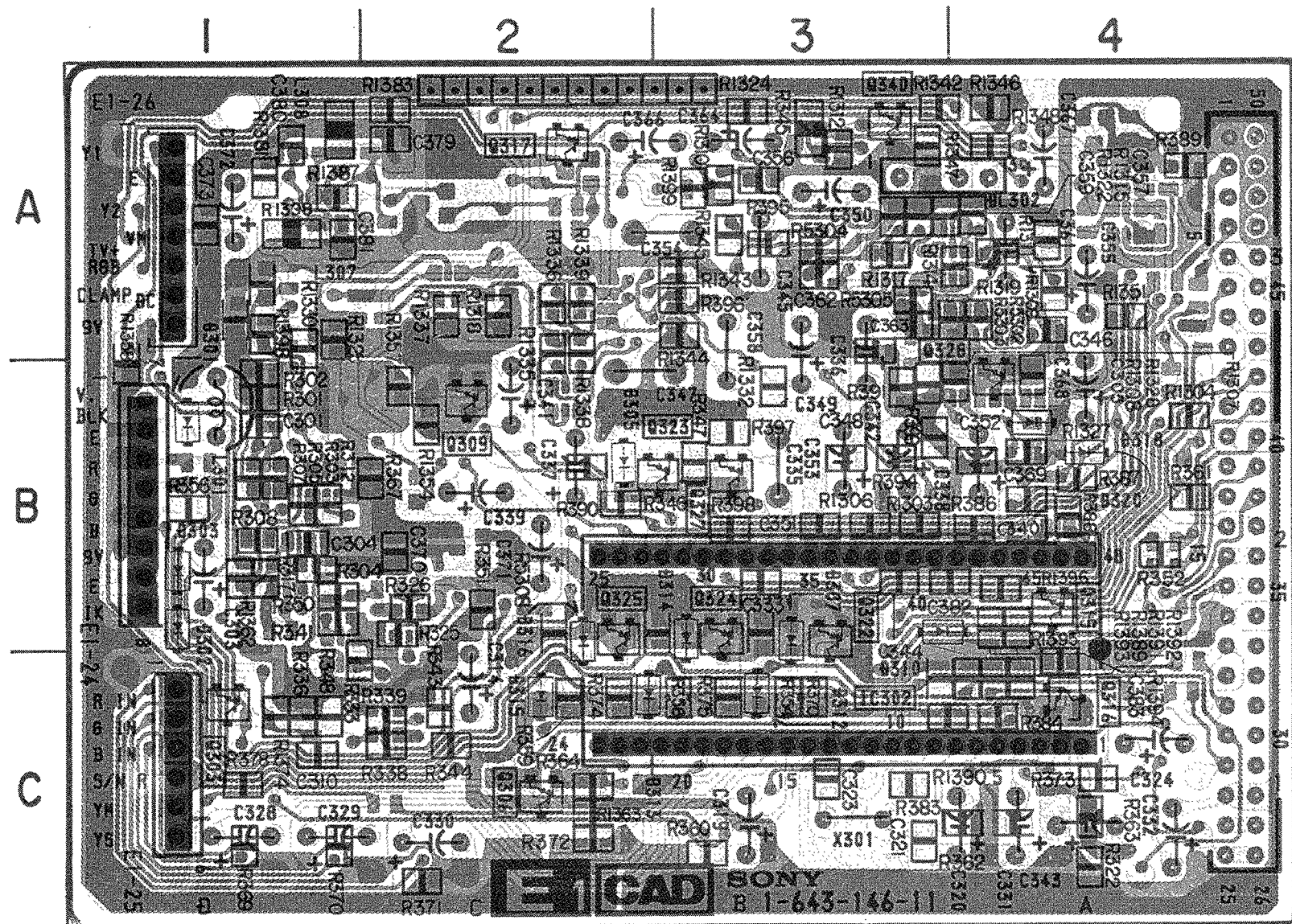
<Y/C JUNGLE>

B-SS4017<U/C>-E1

E1 [Y/C JUNGLE]

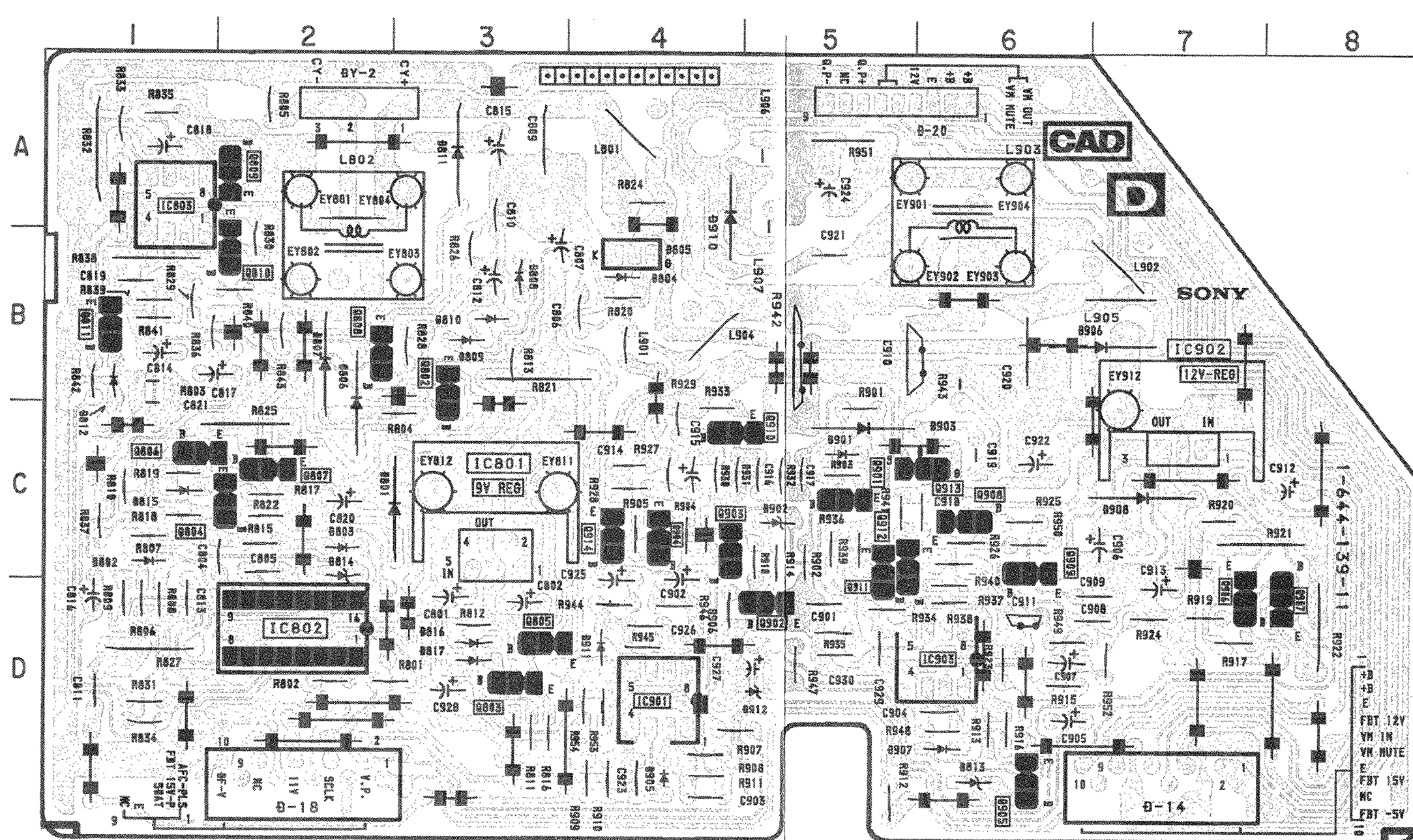
— E1 Board —

- Pattern from the side which enables seeing.
- Pattern of the rear side.

**D**

[DYNAMIC CONVERGENCE, QUADRA-POLE]

— D Board —



— D Board —

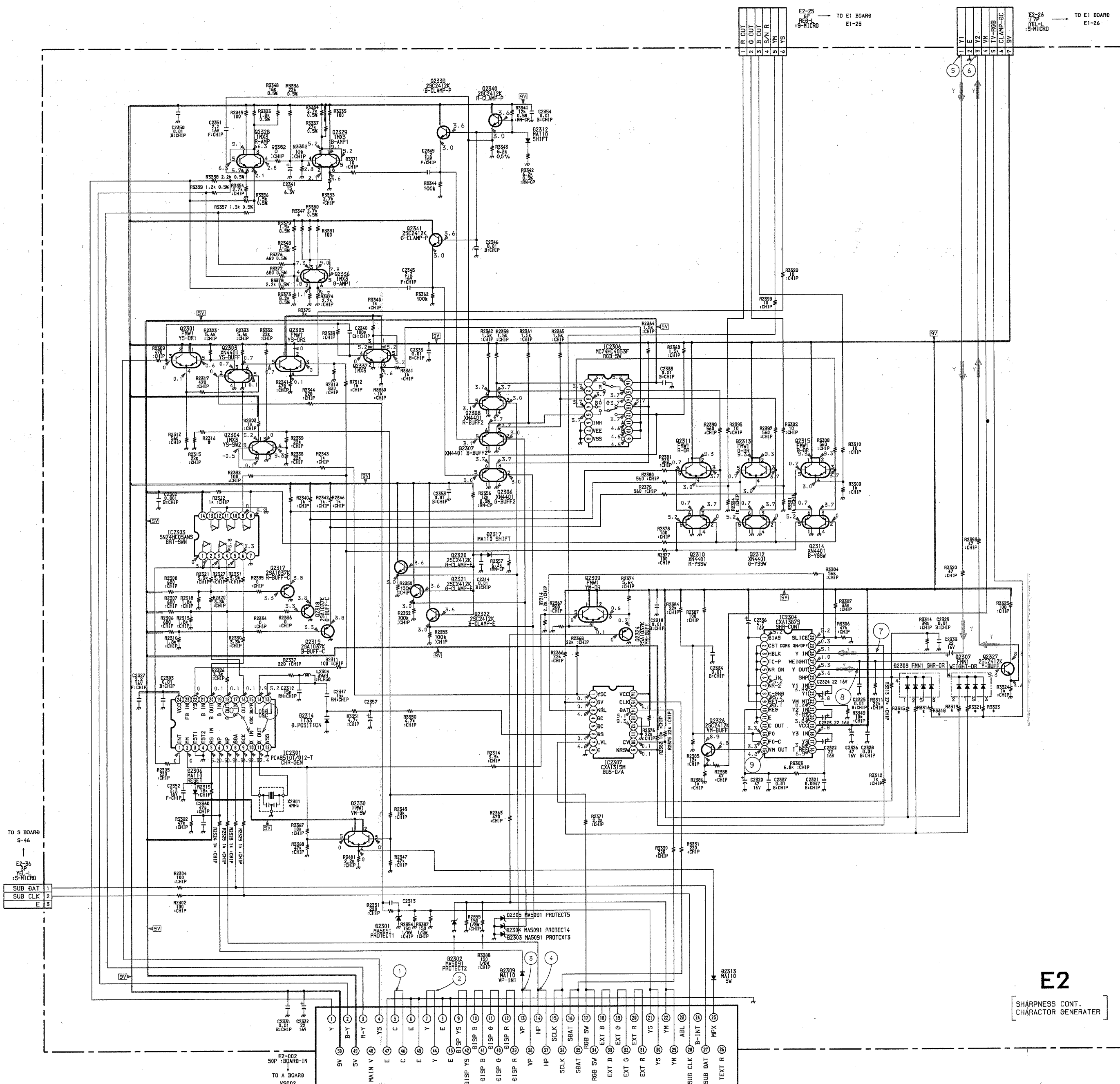
IC		907	D-6
IC801	C-3	908	C-7
802	D-2	911	D-4
803	A-1		
901	D-4		
903	D-6		

TRANSISTOR

Q802	B-3
803	D-3
804	C-2
805	D-3
806	C-1
807	C-2
808	B-2
809	A-2
810	B-2
811	B-1
901	C-5
902	D-5
903	C-4
904	C-4
905	D-6
906	D-7
907	D-8
908	C-6
909	C-6
910	C-4
911	C-5
912	C-5
913	C-6
914	C-4

DIODE

D801	C-3
802	C-1
803	C-2
804	B-4
805	B-4
806	B-2
807	B-2
808	B-3
809	B-3
810	B-3
811	A-3
812	B-1
813	D-6
814	C-2
815	C-1
816	D-3
901	C-5
902	C-5
903	C-5
D906	B-7

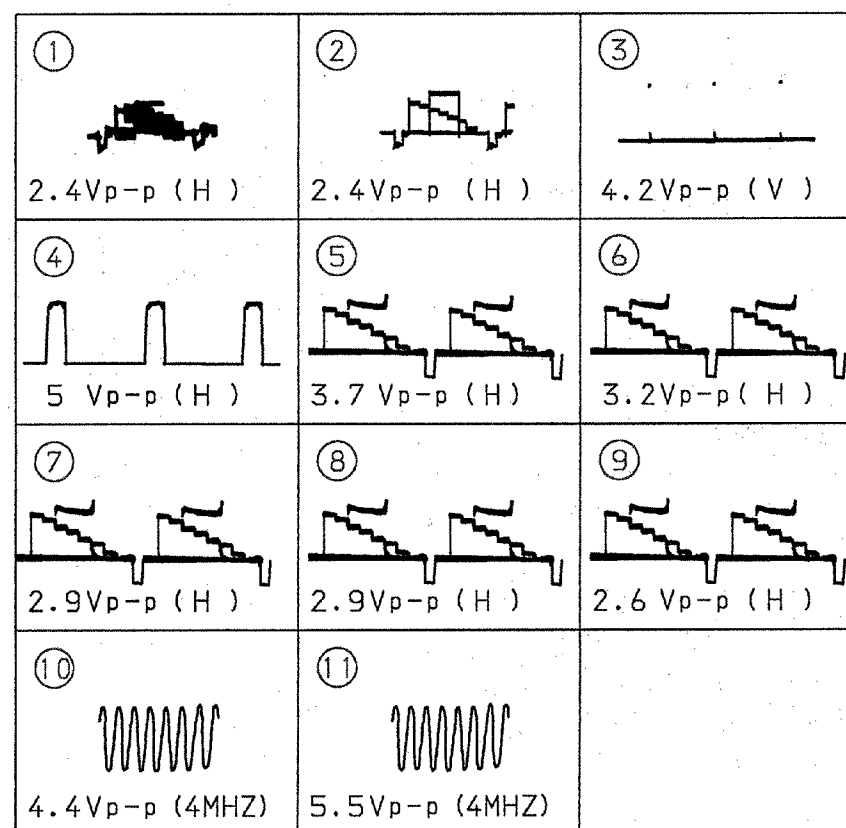


F2

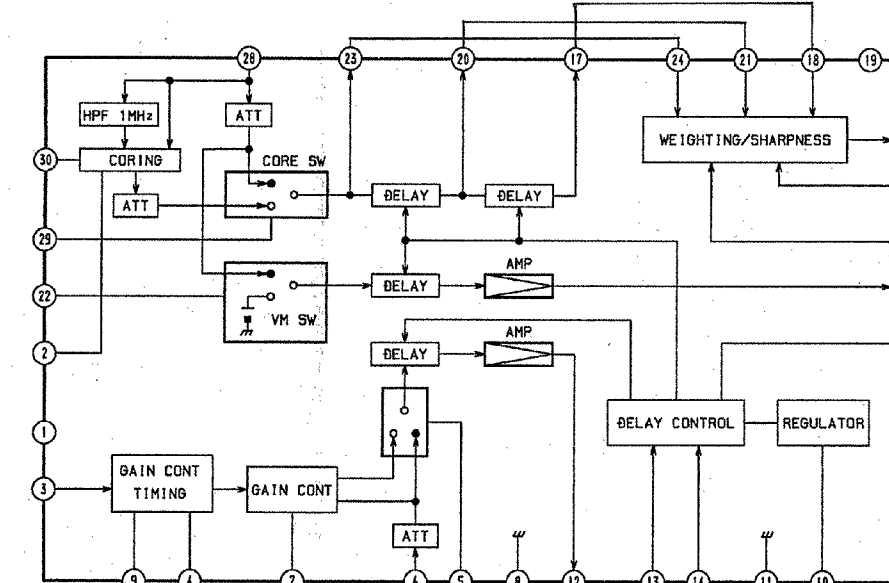
SHARPNESS CONT.
CHARACTOR GENERATER

B-SS4017<U/C>-E2.

— E2 Board —



E2 BOARD IC2304 CXA1387S



G BOARD

* MARK NOTE #:NOT MOUNTED

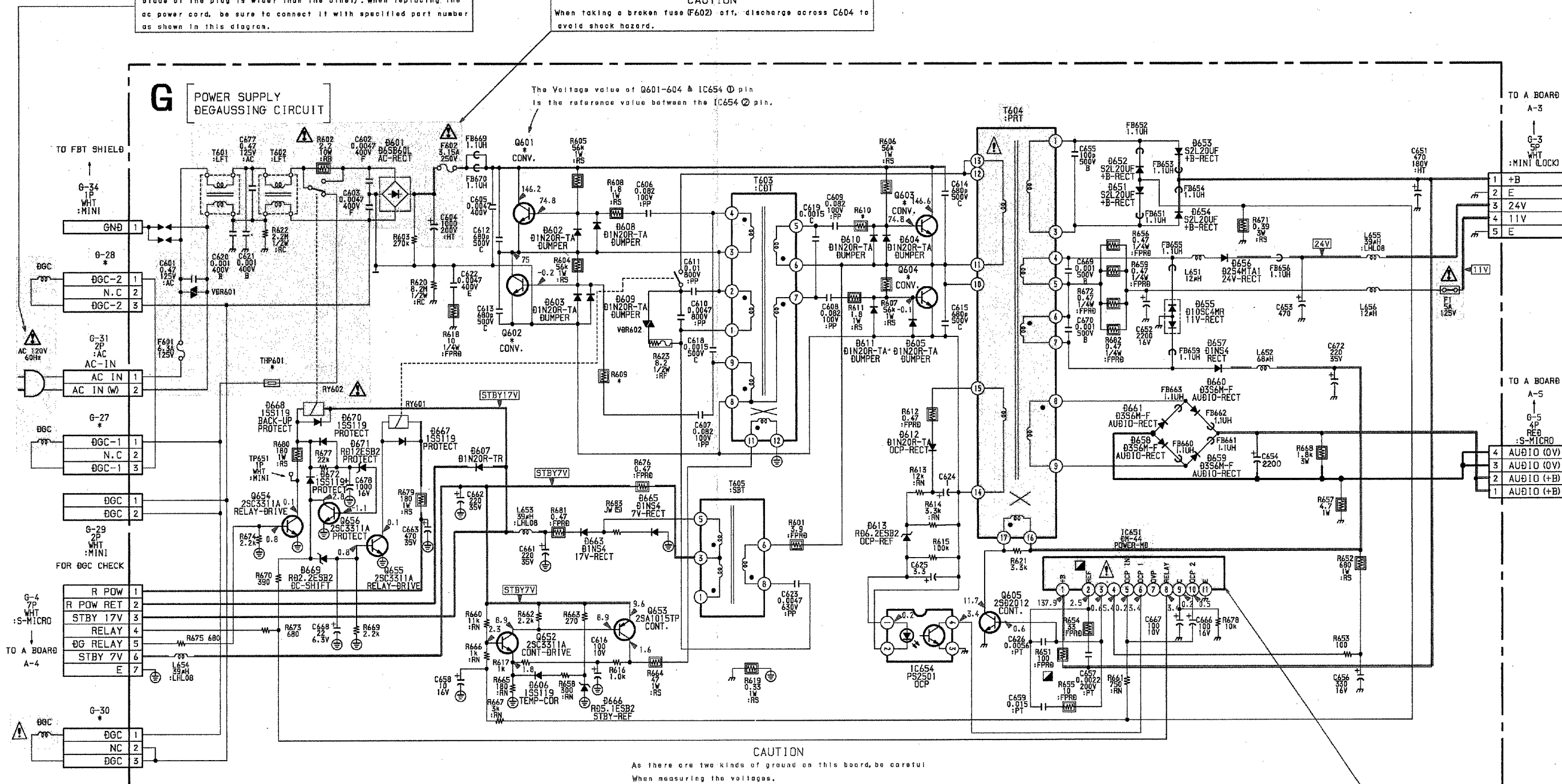
	KV-27XBR35	KV-32XBR35
G-27	3P WHT :M:NI :LOCK	#
G-28	3P WHT :M:NI :LOCK	#
G-30	#	2P WHT :M:NI
Q601	2SC4664:MP-R	2SC4664:MP-R
602	2SC4664:MP-R	2SC4664:MP-R
603	2SC4664:MP-R	2SC4664:MP-R
604	2SC4664:MP-R	2SC4664:MP-R
R609	1.8 1W	1.5 1W
610	1.8 1W	1.5 1W
THP601	1-809-539-11	1-800-886-43

CAUTION (US MODEL ONLY)

This set is equipped with a polarized ac power cord plug (one blade of the plug is wider than the other). When replacing the ac power cord, be sure to connect it with specified part number as shown in this diagram.

CAUTION

When taking a broken fuse (F602) off, discharge across C604 to avoid shock hazard.



CAUTION

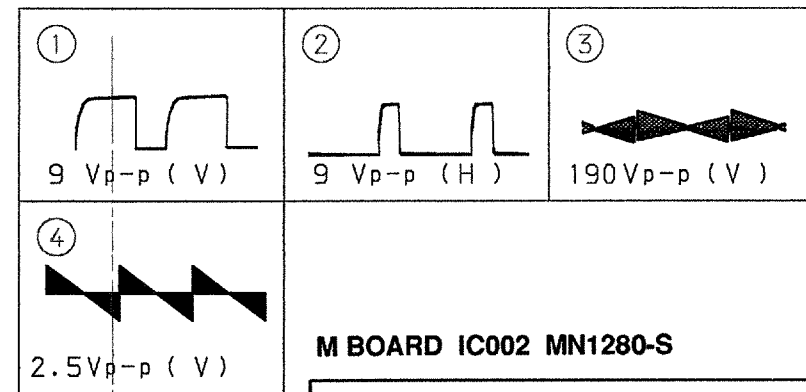
As there are two kinds of ground on this board, be careful when measuring the voltages.

CAUTION

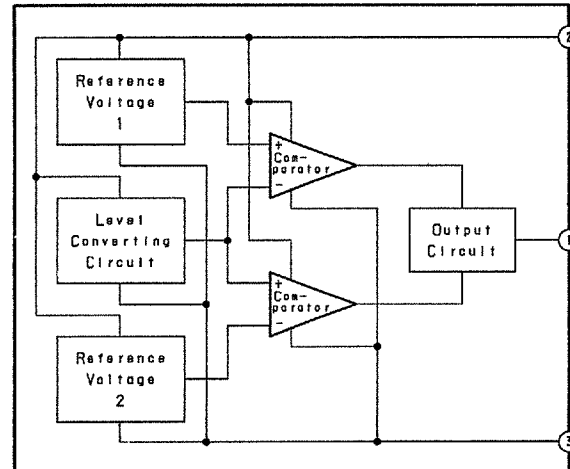
When replacing IC651 & R651, be sure to check the +B line voltage value. Refer to the Safety Adjustment Section. SEE PAGE 51-54

(KV-27XBR35 ONLY)

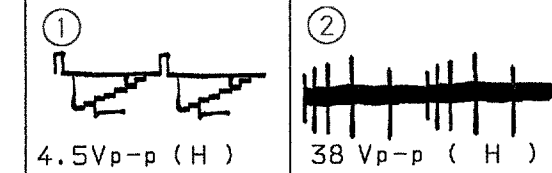
— VC Board —



M BOARD IC002 MN1280-S



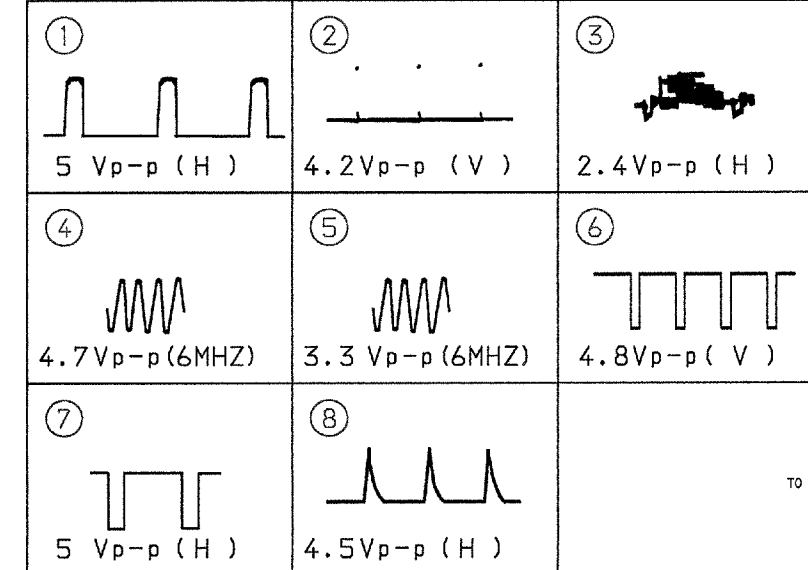
— V Board —



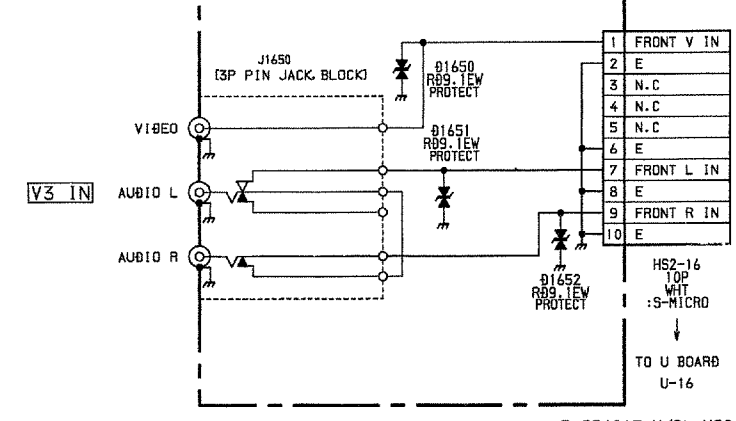
V BOARD * MARK NOTE

	KV-27XBR35	KV-32XBR35
L962	39uH	47uH

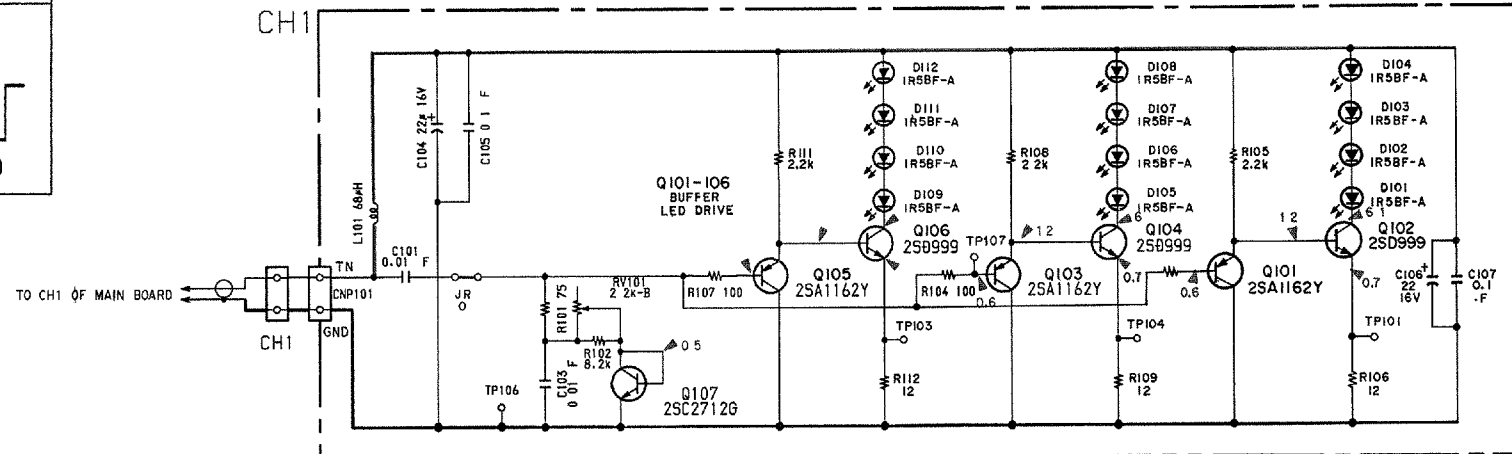
— M Board —



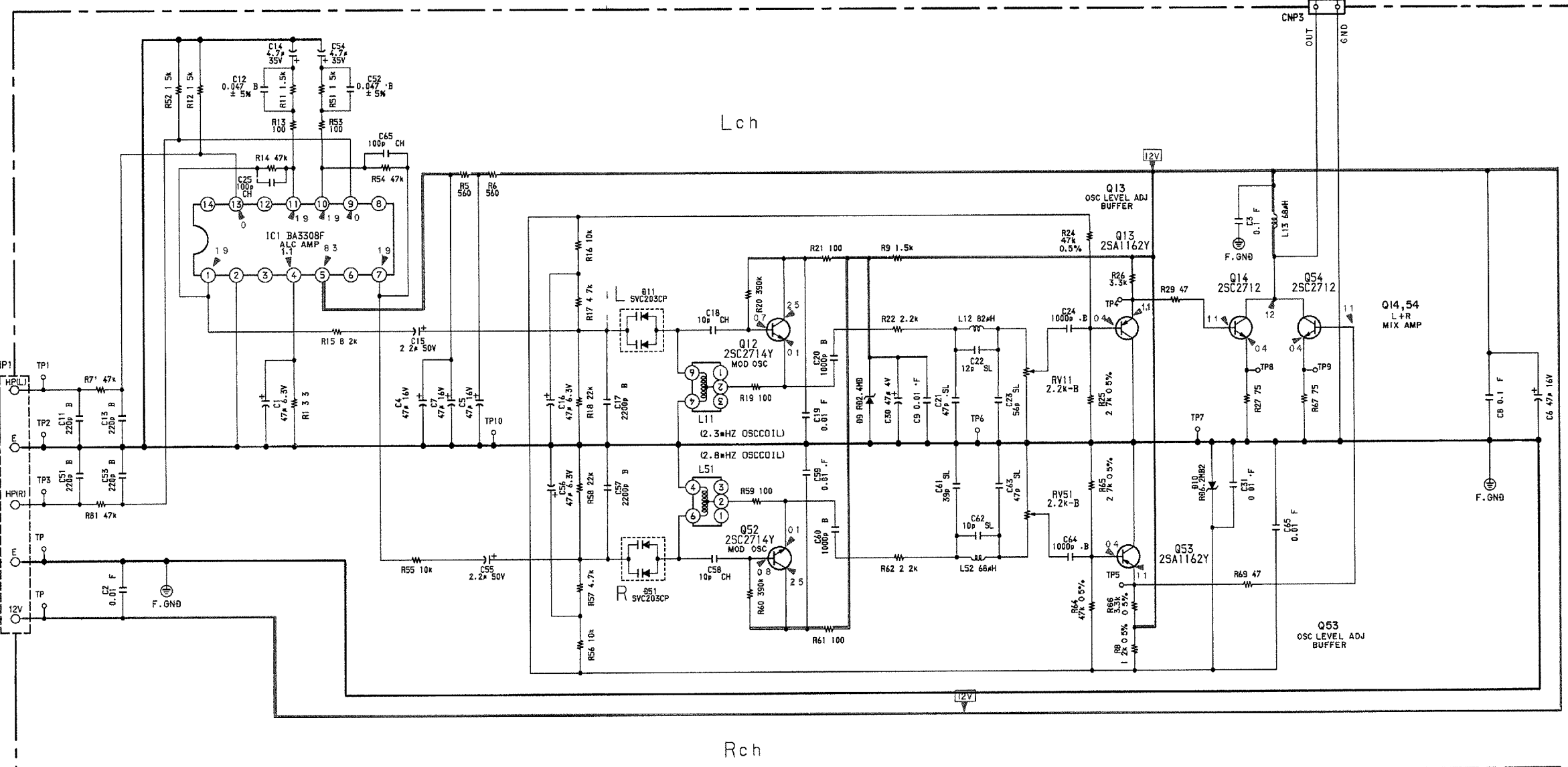
HS2 <VIDEO-3 FRONT TERMINAL>



[LED BOARD]





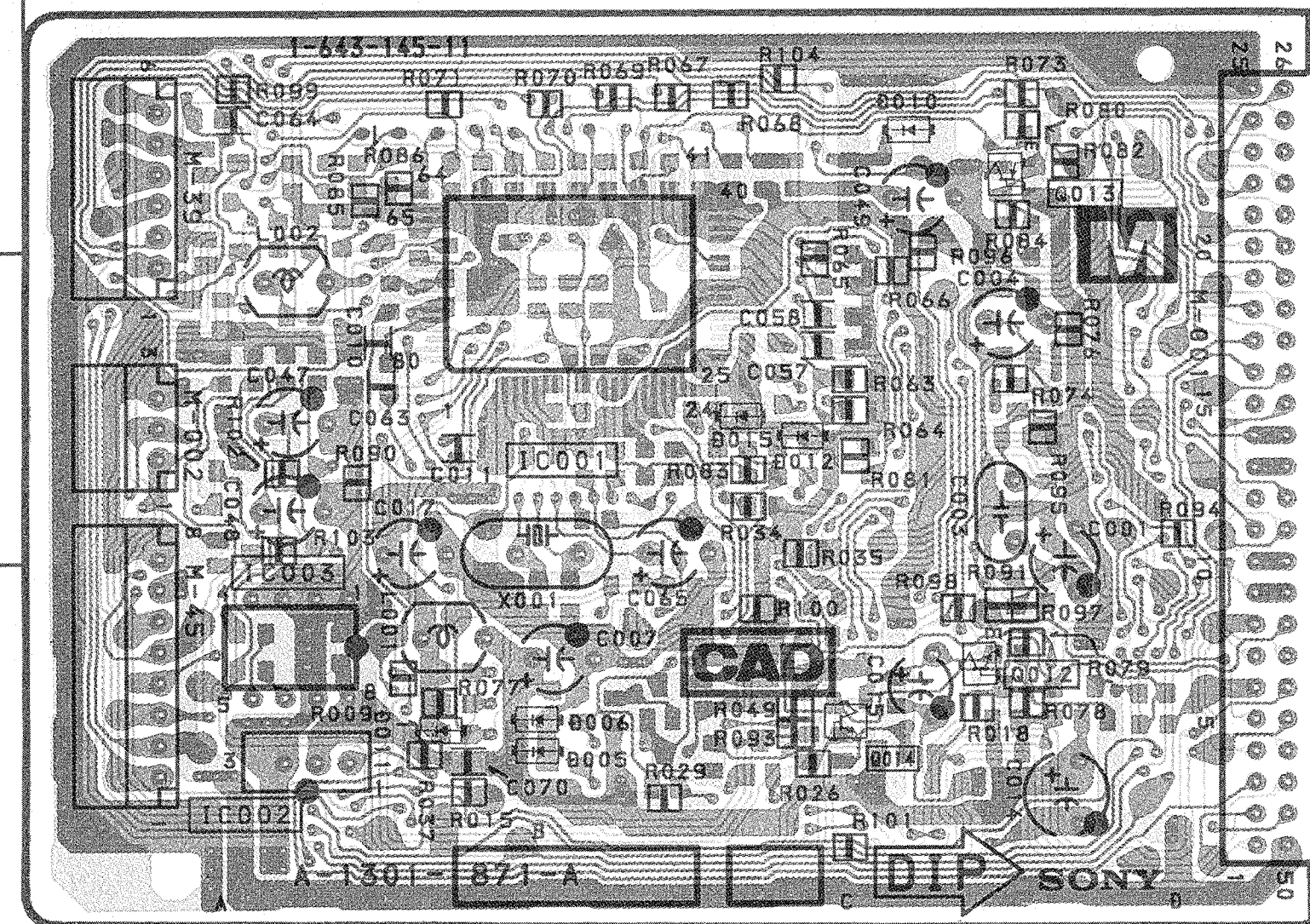
[MAIN BOARD]



[MAIN CONTROL u-CON]

— M Board —

-  : Pattern from the side which enables seeing
-  : Pattern of the rear side.



— 113 —

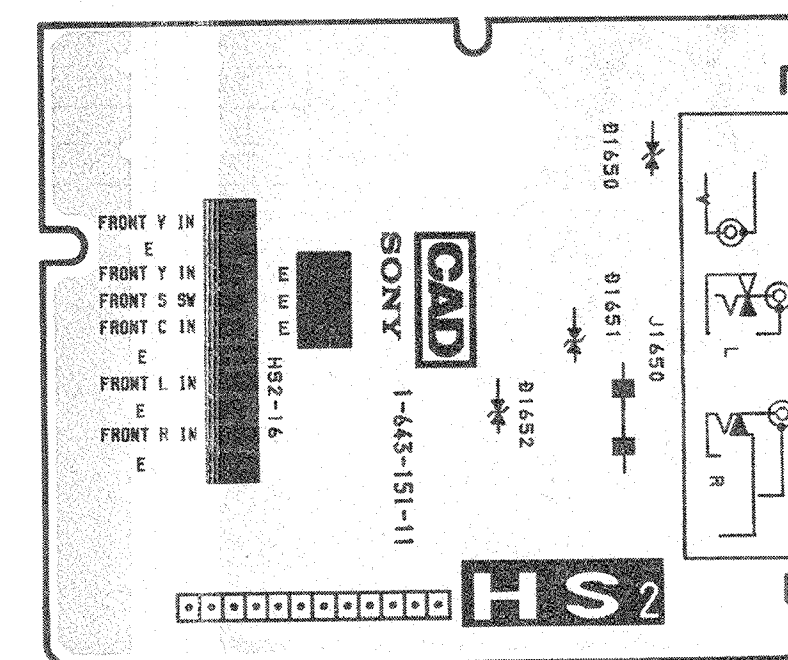
— M Board —

[USER CONTROL SW, RC SENSER, LED]

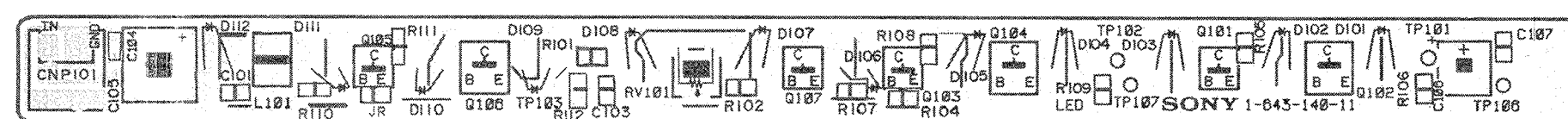
— HS1 Board —

IC	
IC001	E-2
002	A-1
TRANSISTOR	
Q001	B-4
002	A-4
003	A-4
004	A-3
005	A-3
006	A-3
007	A-3
008	A-3
009	C-1
010	C-1
011	B-1
012	F-4
013	D-4
014	F-3
DIODE	
D001	C-4
002	C-4
003	A-3
004	A-3
005	F-2
006	F-2
007	A-2
008	A-2
009	B-1
010	D-3
011	F-2
012	E-3
015	E-3

— HS2 Board —



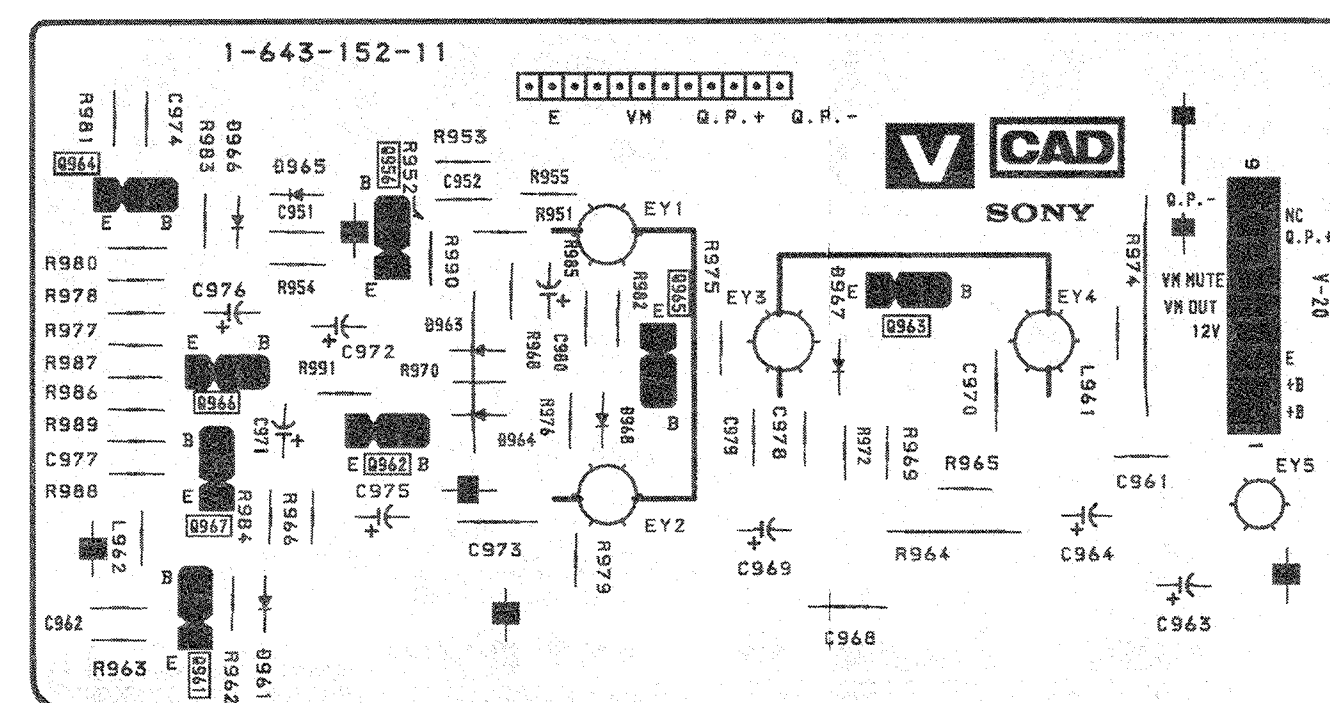
— LED Board —



— 114 —

[VIDEO-3 FRONT TERMINAL]

— V Board —

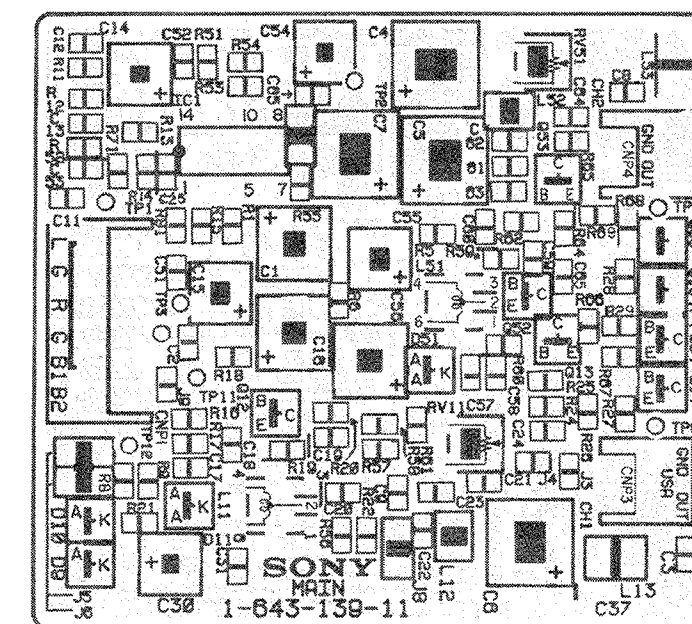


— MAIN Board —

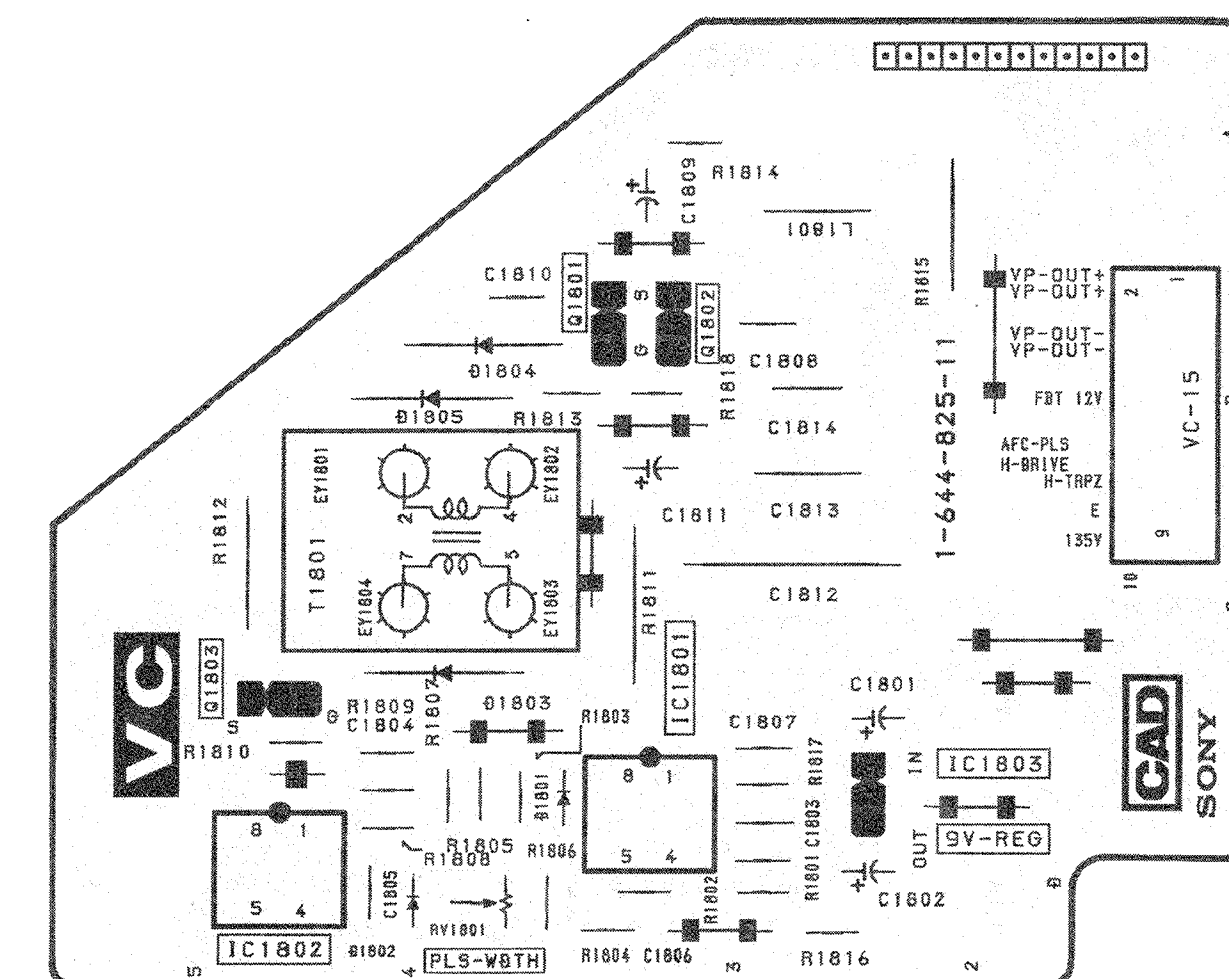
[EMITTER]

[MODULATOR]

[V.PIN CORR.][KV-27XBR35 ONLY]



— VC Board — (KV-27XBR35 ONLY)

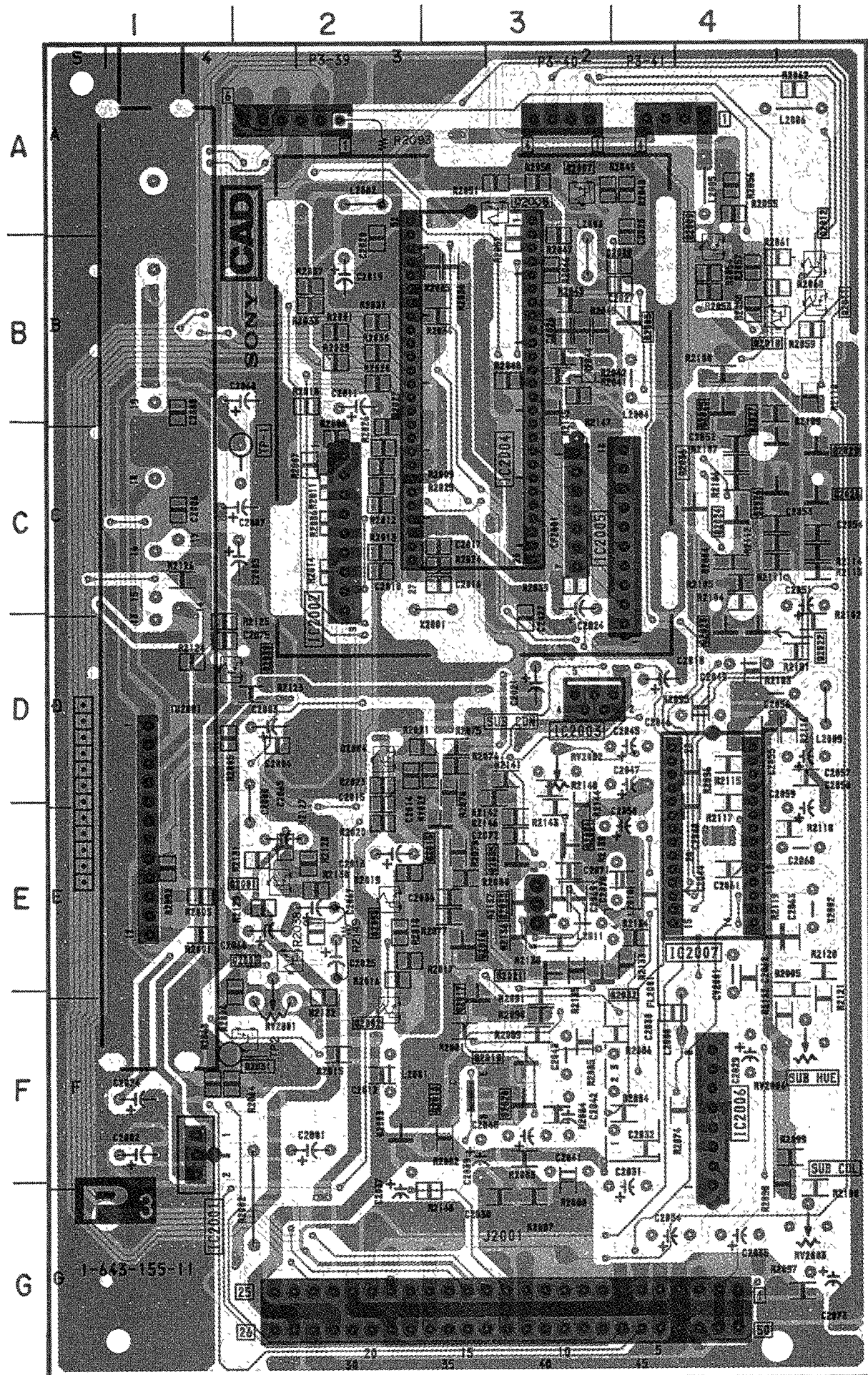


— 115 —

P3

2ND CONT. u-CON FOR PIP
2ND TUNER-VIF/SIF FOR PIP
Y/C JUNGLE FOR PIP
ANT SW CONT

— P3 Board —



— P3 Board —

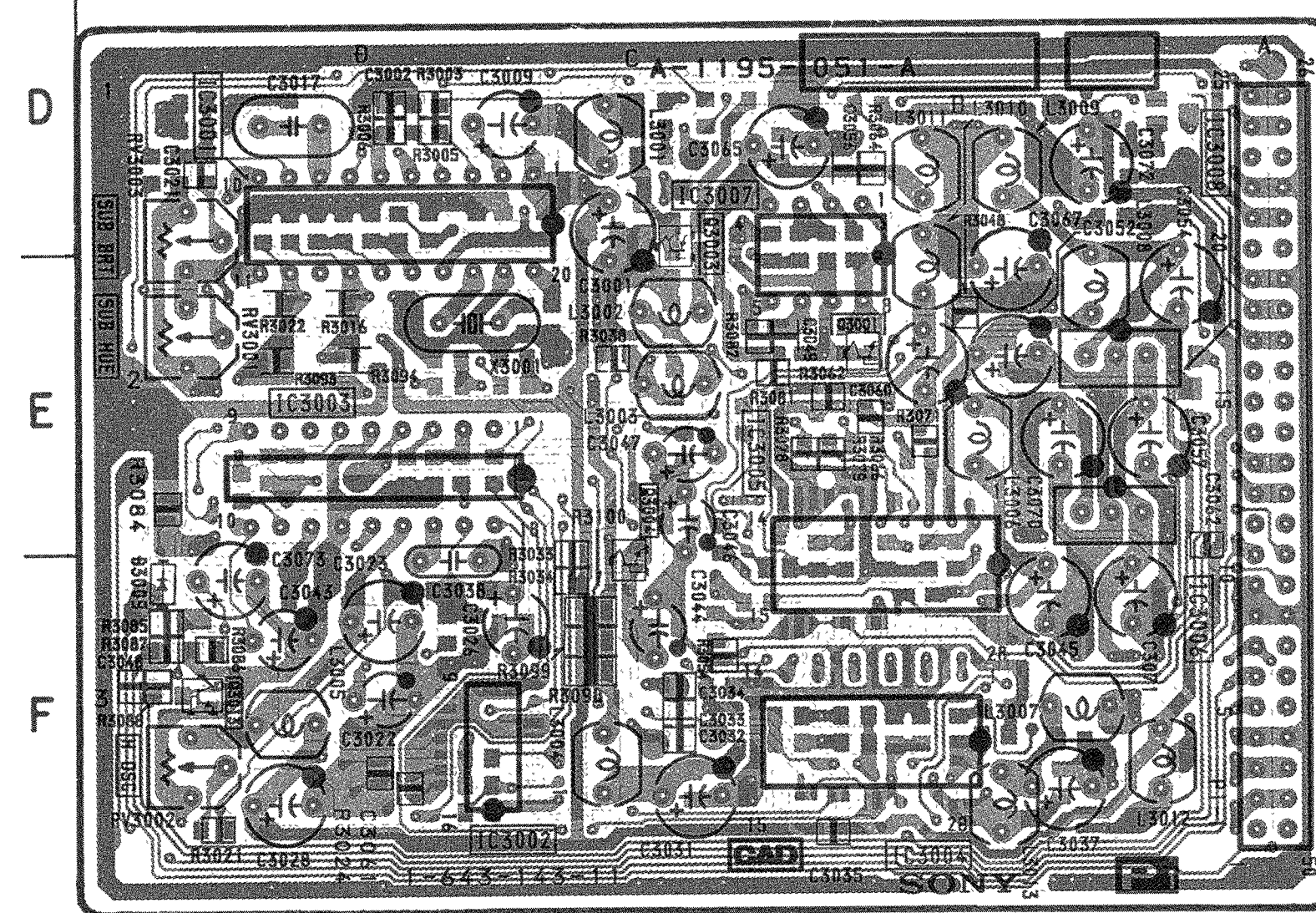
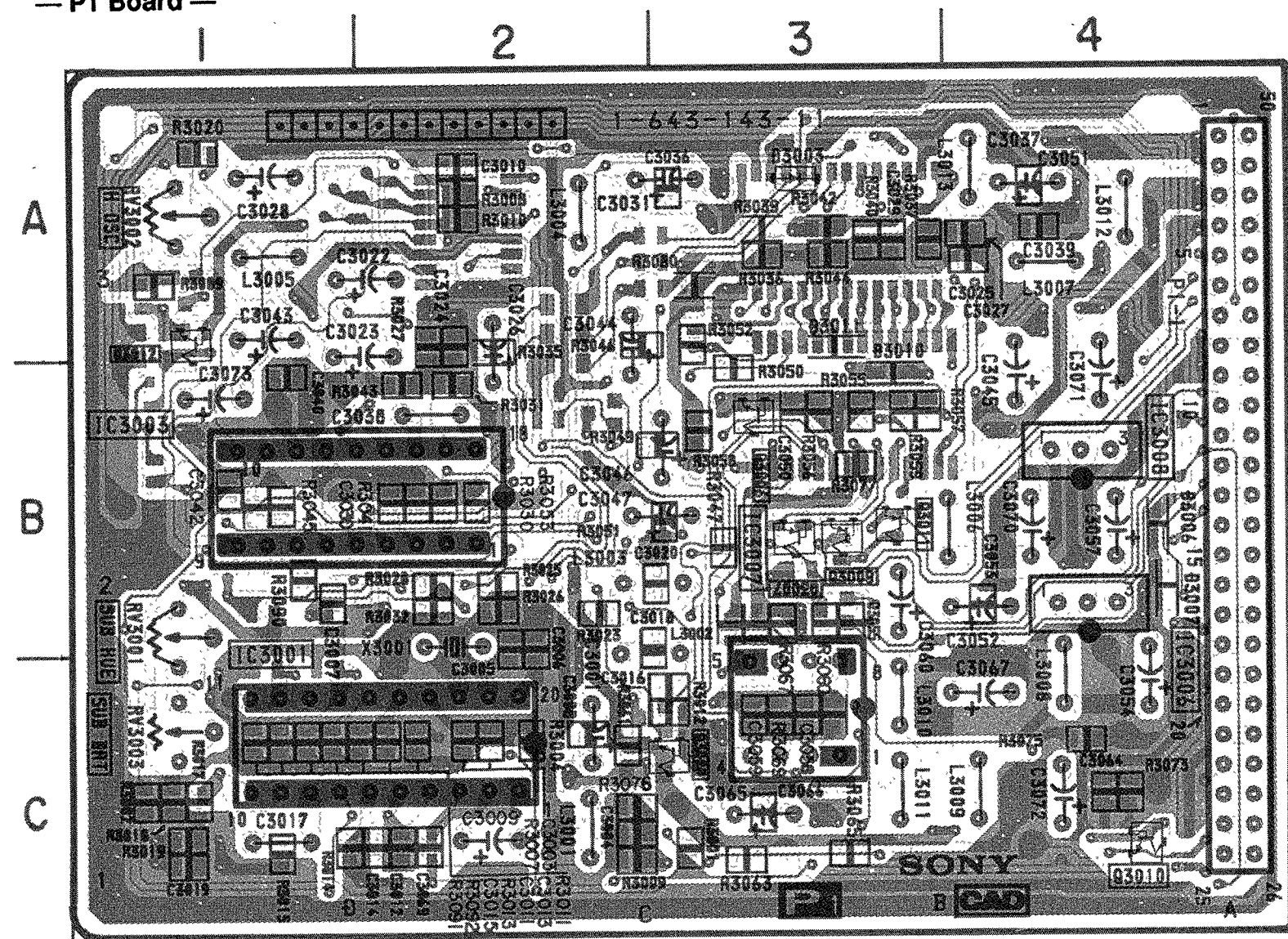
IC	
IC2001	F-1
2002	C-2
2003	D-3
2004	B-3
2005	C-3
TRANSISTOR	
Q2001	E-2
2002	F-2
2003	E-2
2004	D-2
2005	B-4
2006	A-3
2007	A-3
2008	E-2
2009	B-4
2010	B-4
2011	B-5
2012	A-5
2030	D-1
2031	F-2
2036	C-4
VALIABLE RESISTOR	
RV2001	F-2
TESTPOINT	
TP1	C-2
TP2	F-1
TP1	C-2
TP2	F-1

P1

[PICTURE IN PICTURE CIRCUIT]

— P1 Board —

- Pattern from the side which enables seeing.
- Pattern of the rear side.

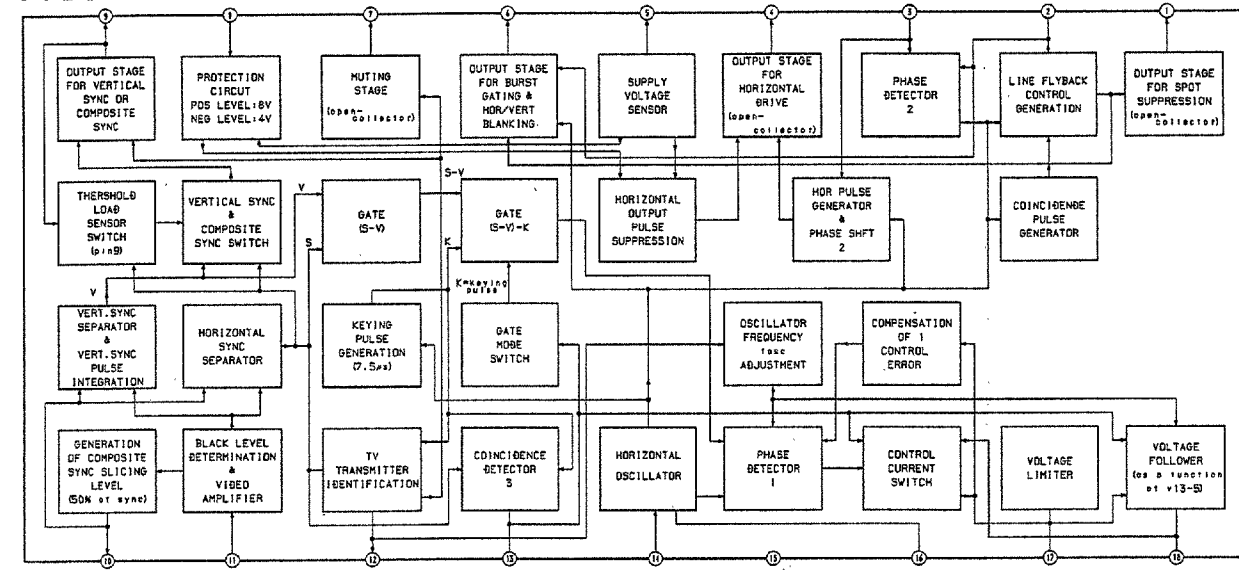


— P1 Board —

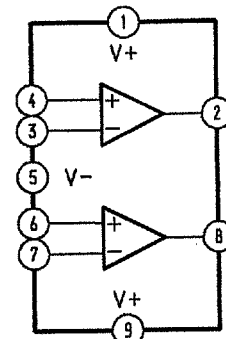
IC	
IC3001	C-2
3002	F-2
3003	B-1
3004	F-3
3005	F-3
3006	B-4
3007	E-3
3008	B-4
TRANSISTOR	
Q3001	E-3
3003	D-2
3004	E-2
3006	B-3
3007	B-3
3008	C-3
3009	B-3
3010	C-4
3011	B-3
3012	A-1
3013	F-1
DIODE	
D3003	A-3
3009	F-1
VALIABLE RESISTOR	
RV3001	B-1
3002	A-1

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

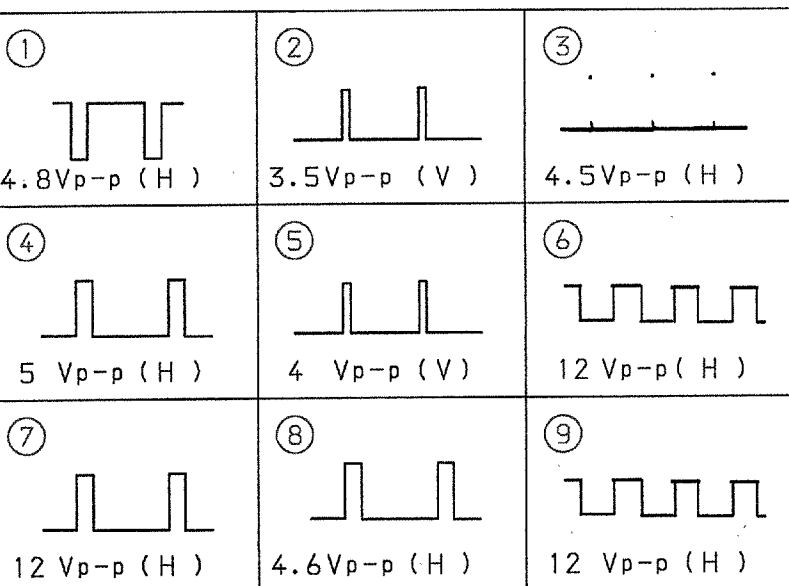
P1 BOARD IC3003 TDA2595/V9



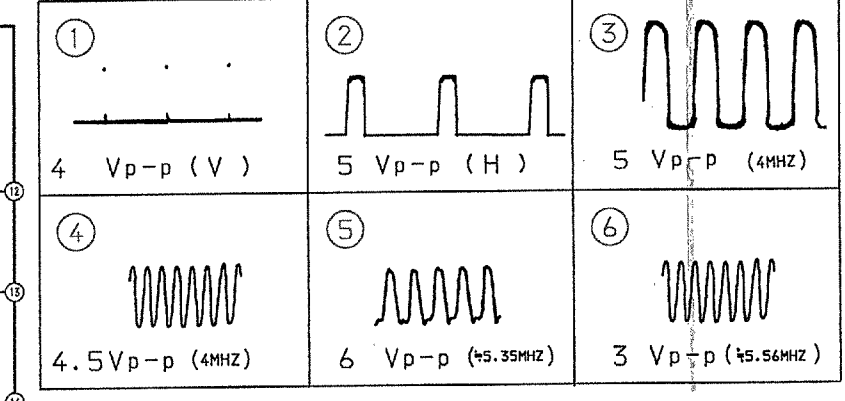
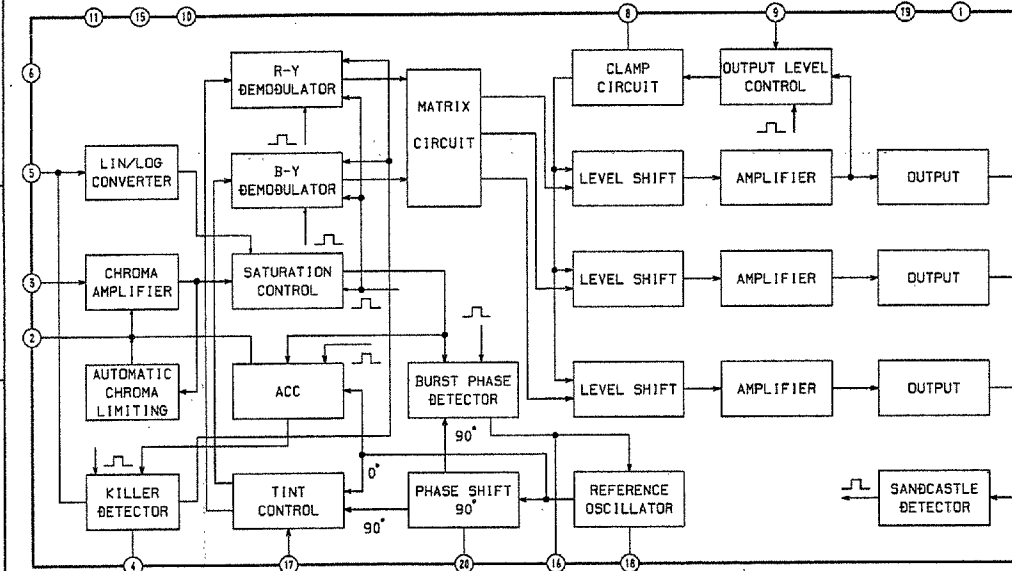
P3 BOARD IC2002 NJM2903S



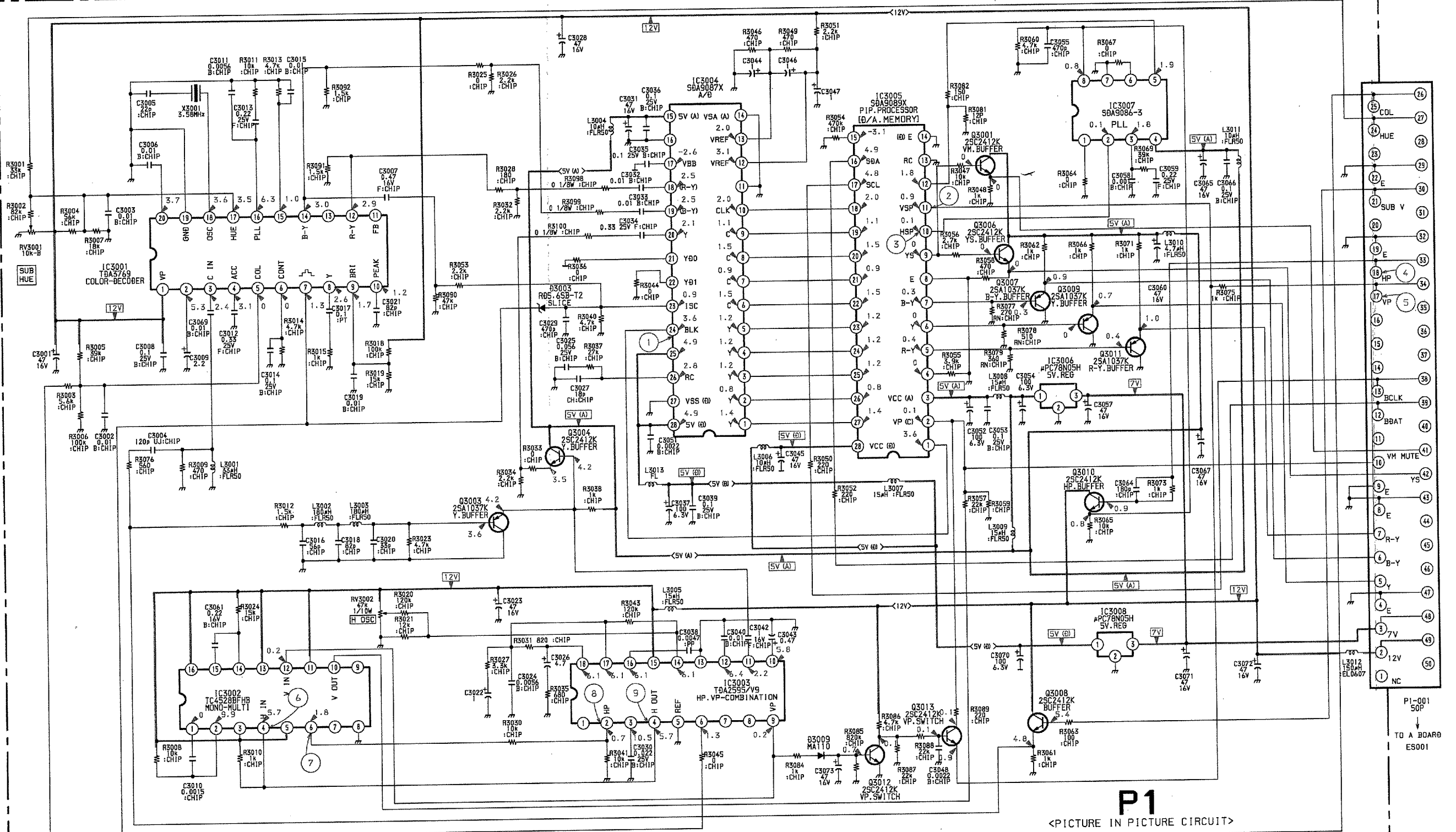
P1 Board



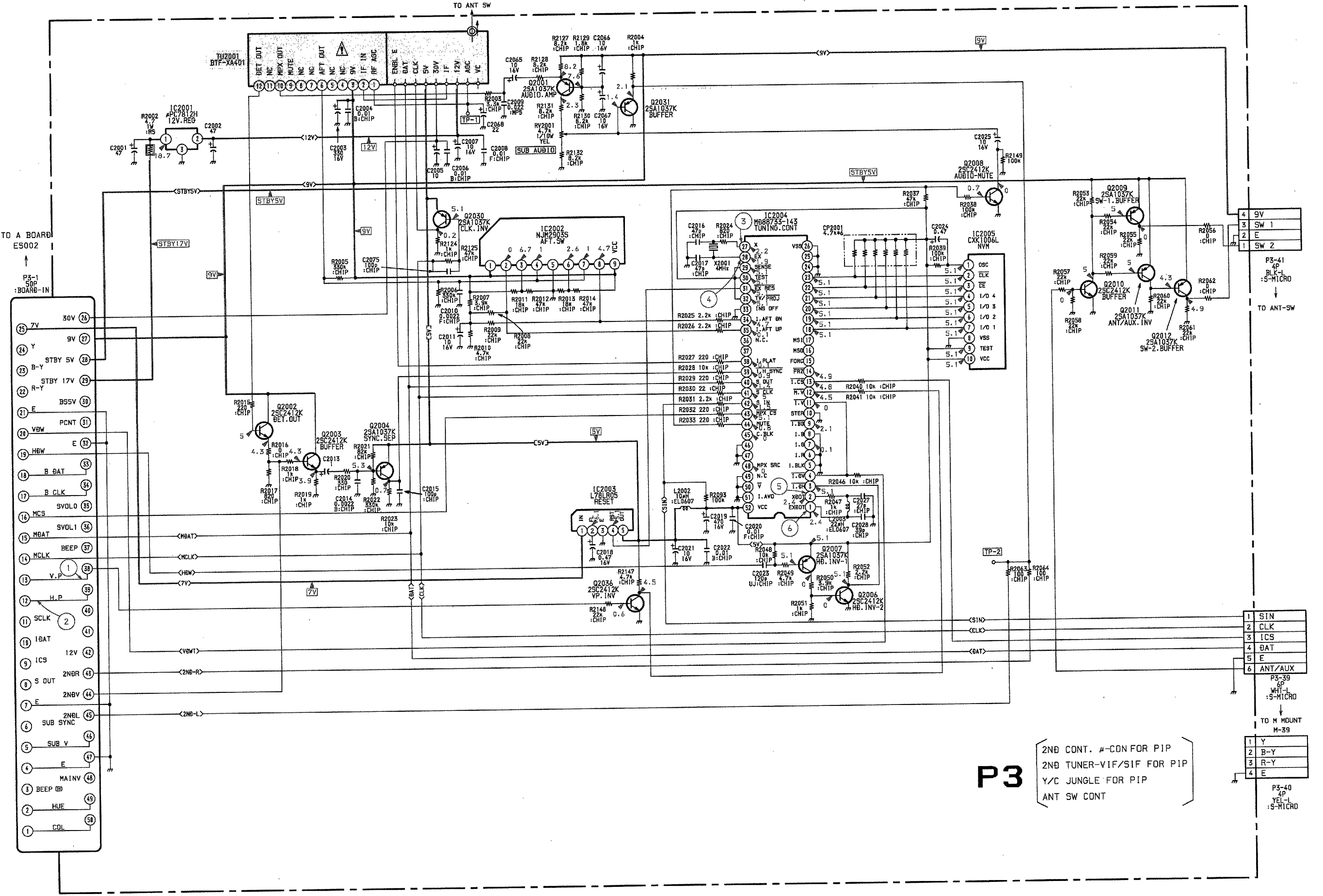
P1 BOARD IC3001 TDA3769



P3 Board

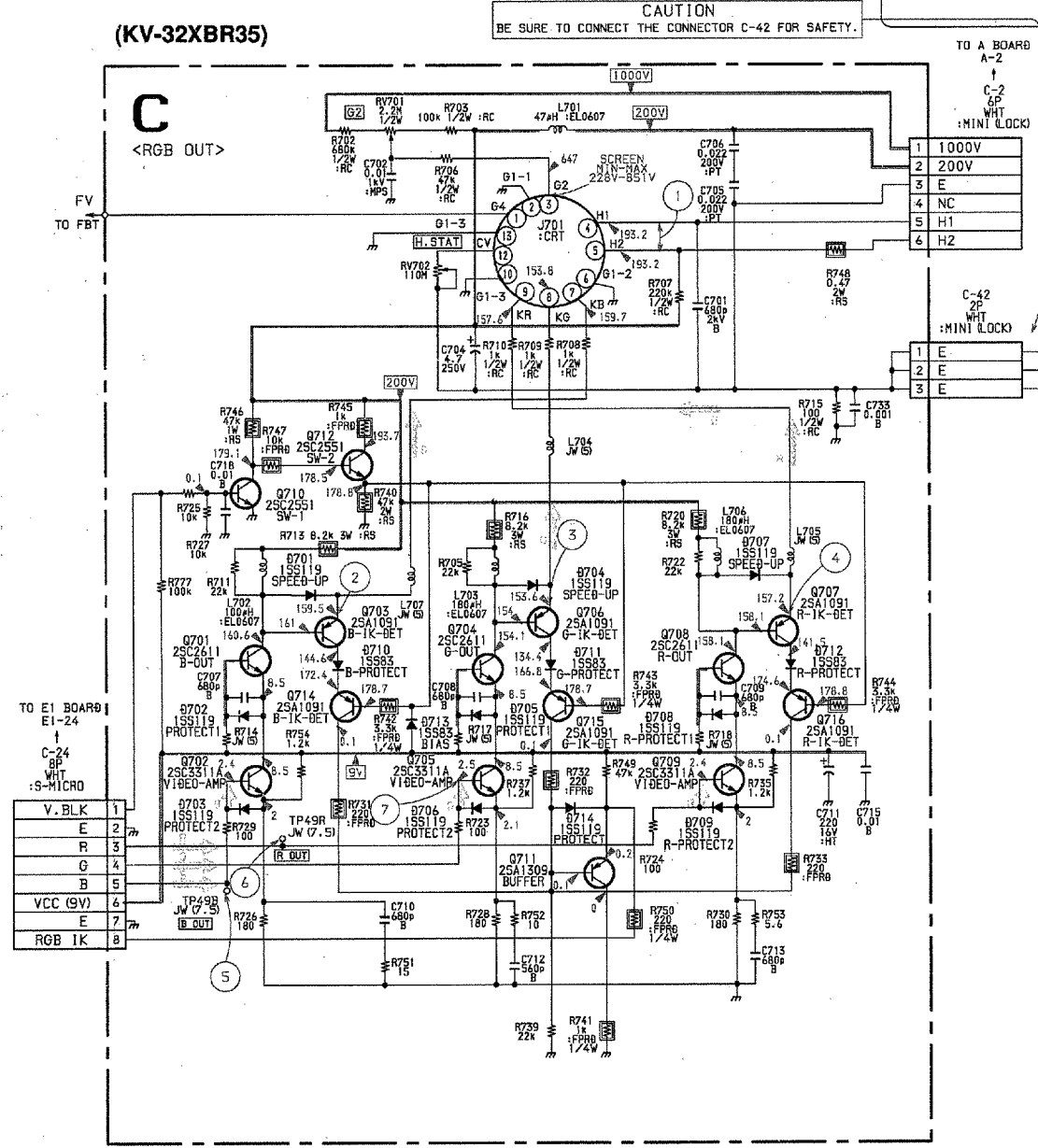
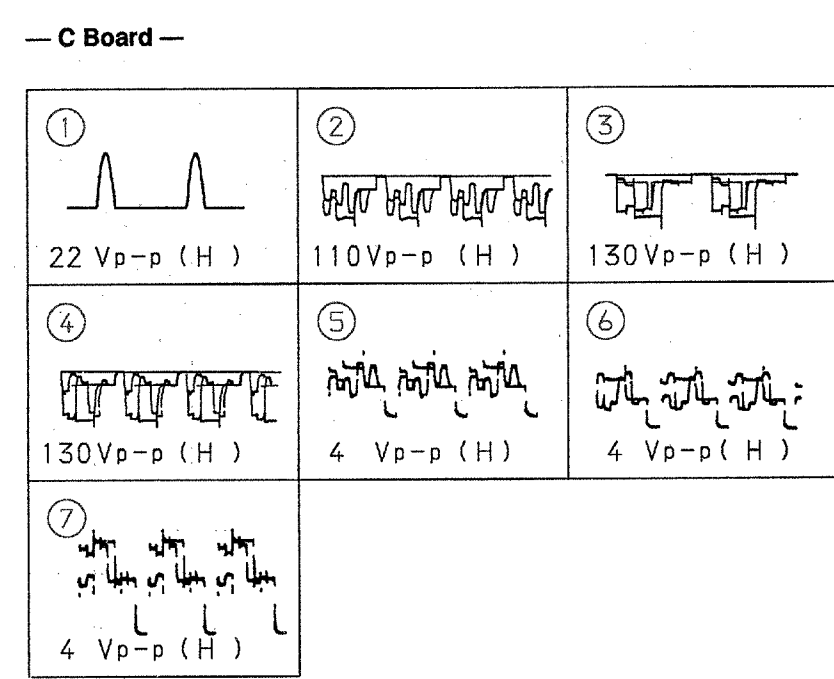
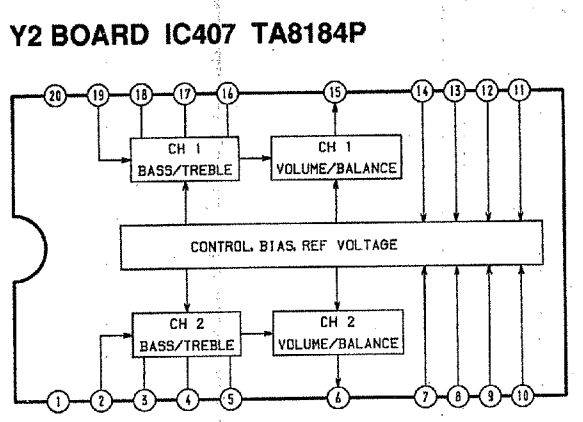
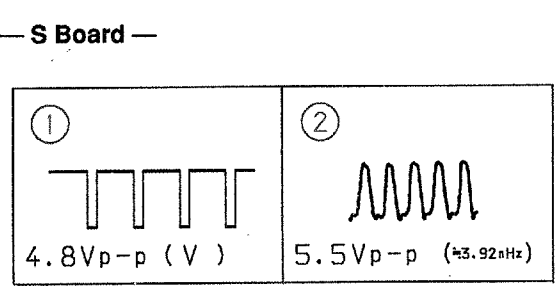
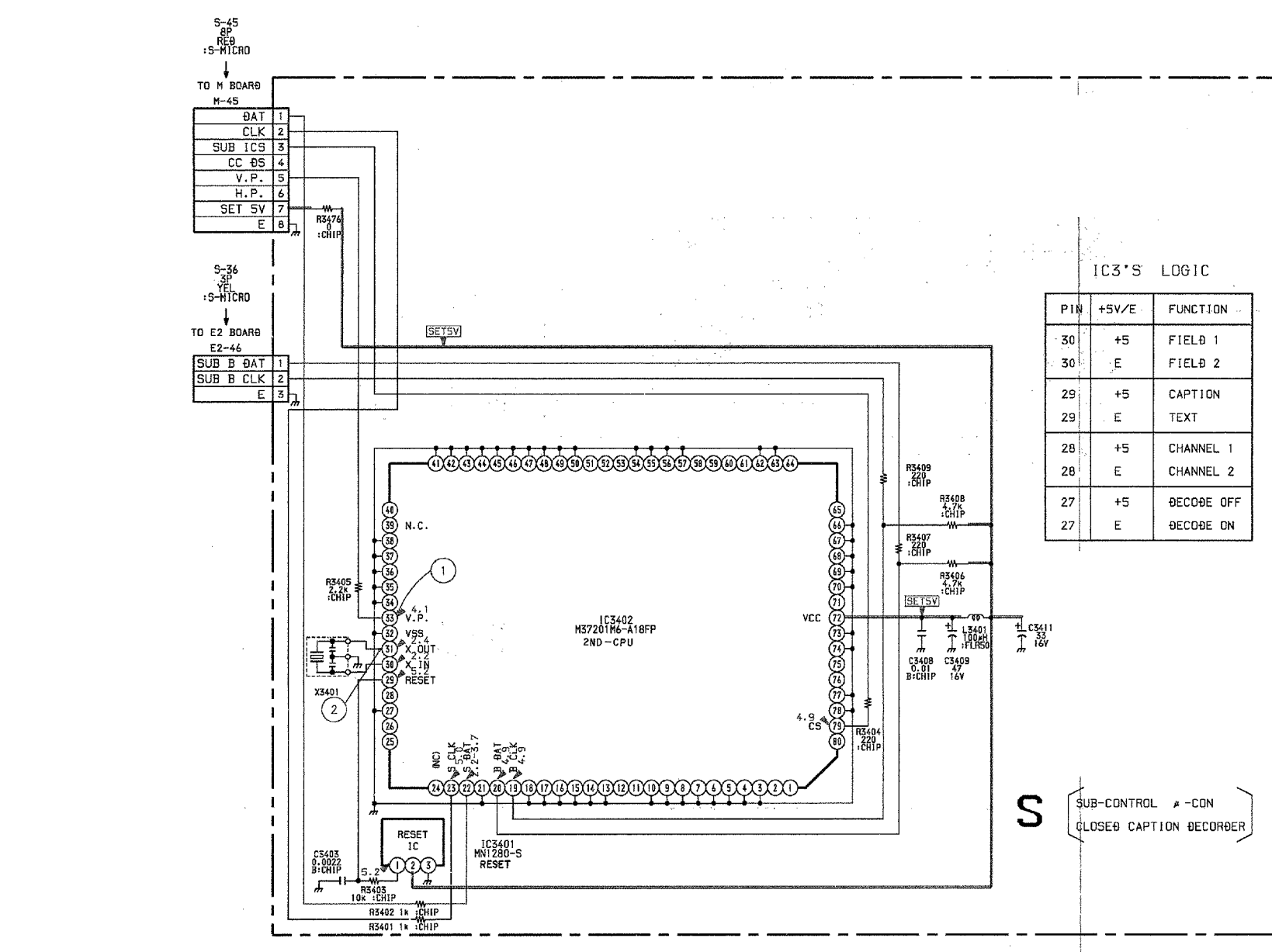
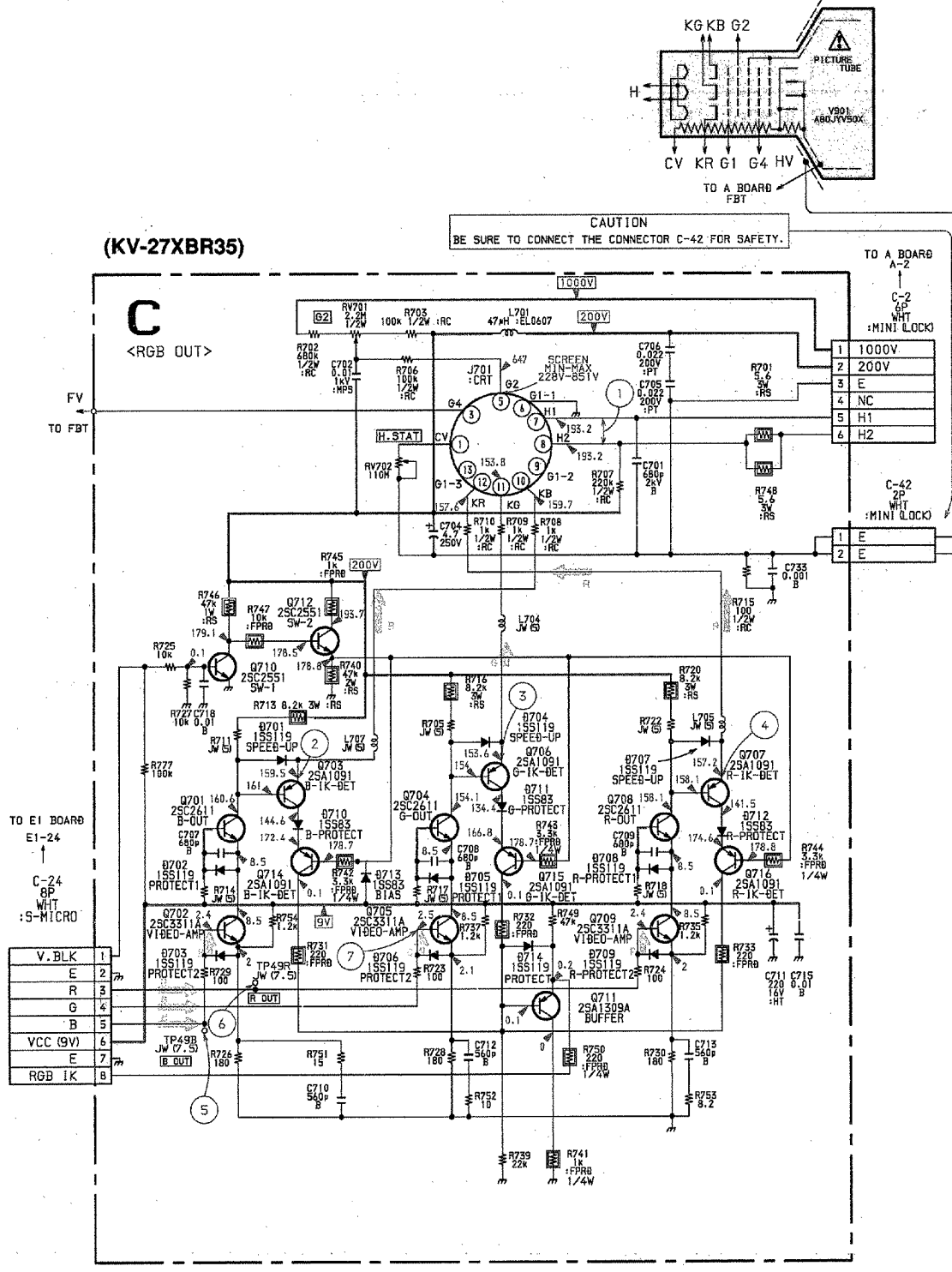
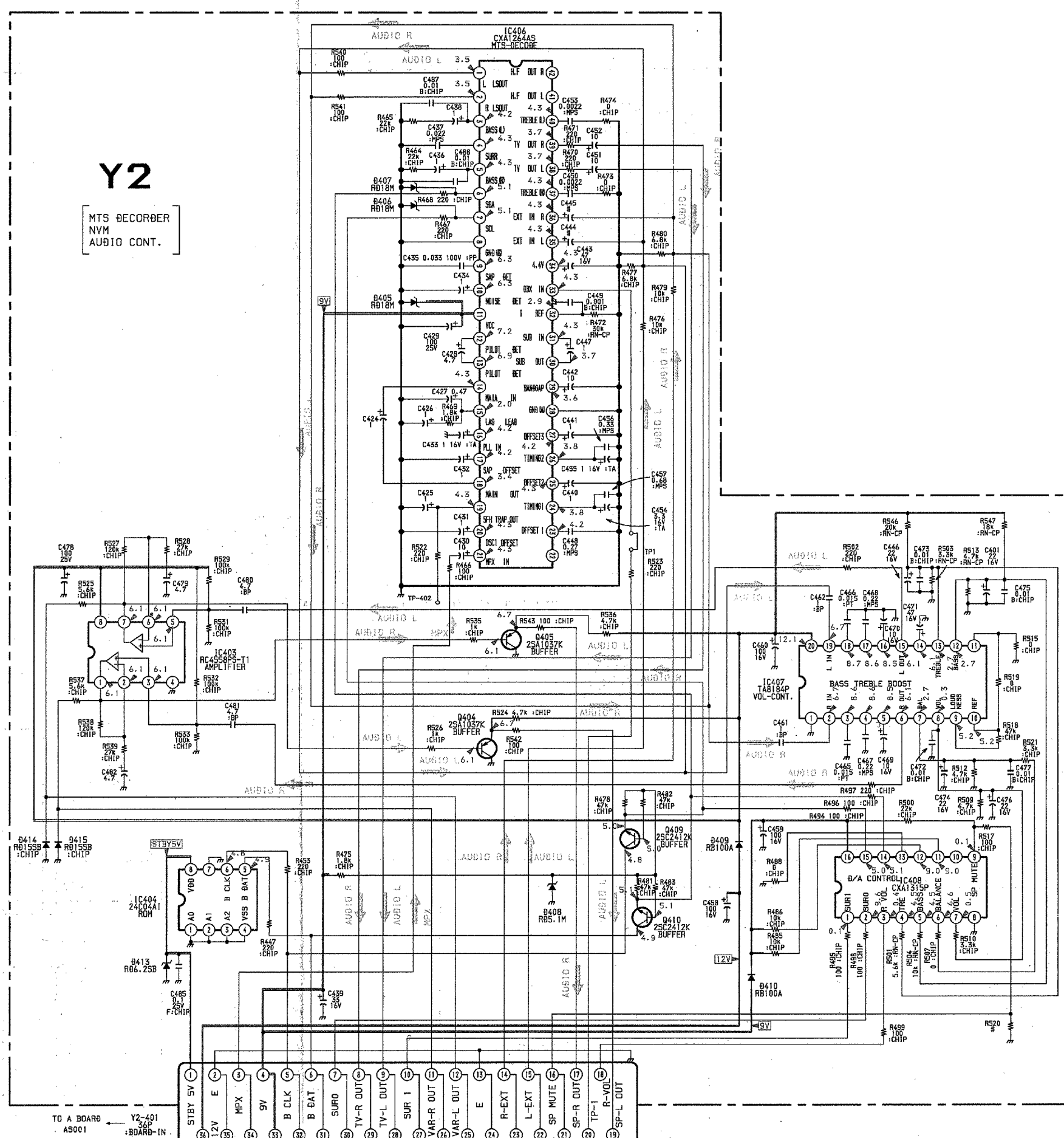
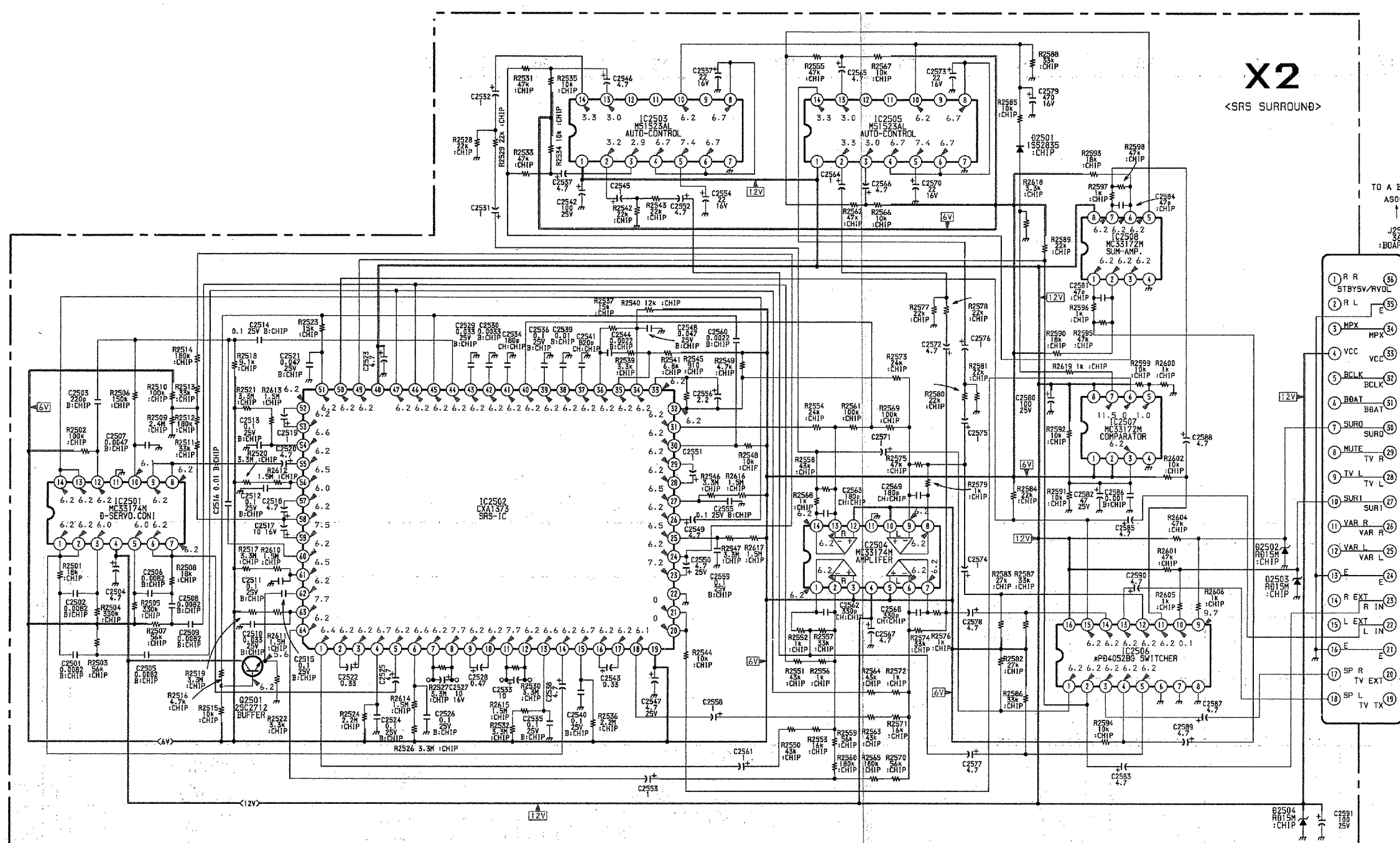


P1
PICTURE IN PICTURE CIRCUIT



P3
2ND CONT. #-CON FOR PIP
2ND TUNER-VIF/SIF FOR PIP
Y/C JUNGLE FOR PIP
ANT SW CONT

B-554017<U/C>-P3.



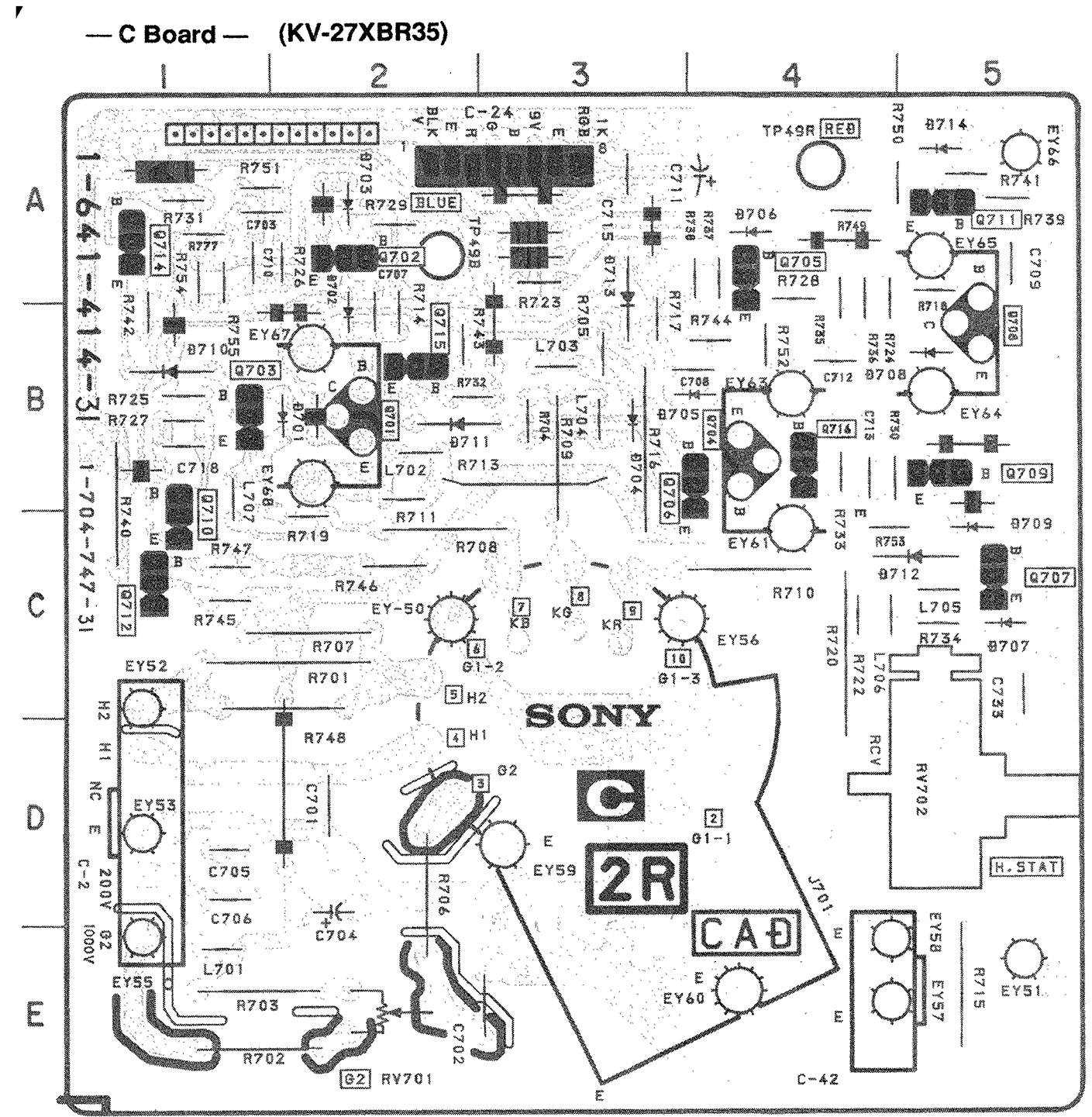
C [R.G.B. OUT]

S [SUB-CONTROL u-CON, CLOSED CAPTION DECODER]

C [R.G.B. OUT]

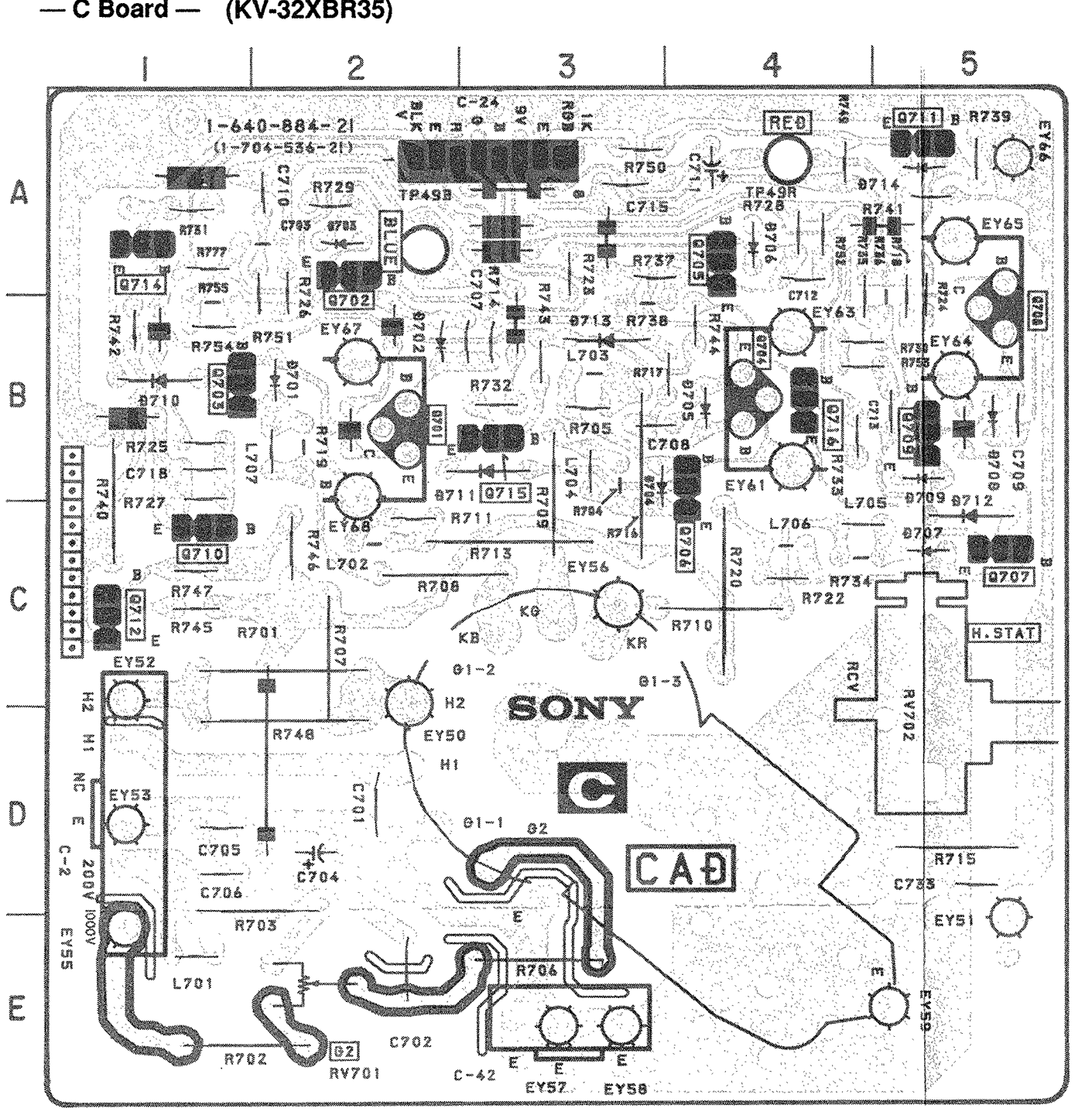
Y2 [MTS DECODER, N/M, AUDIO CONT.]

X2 [SRS SURROUND]



— C Board —

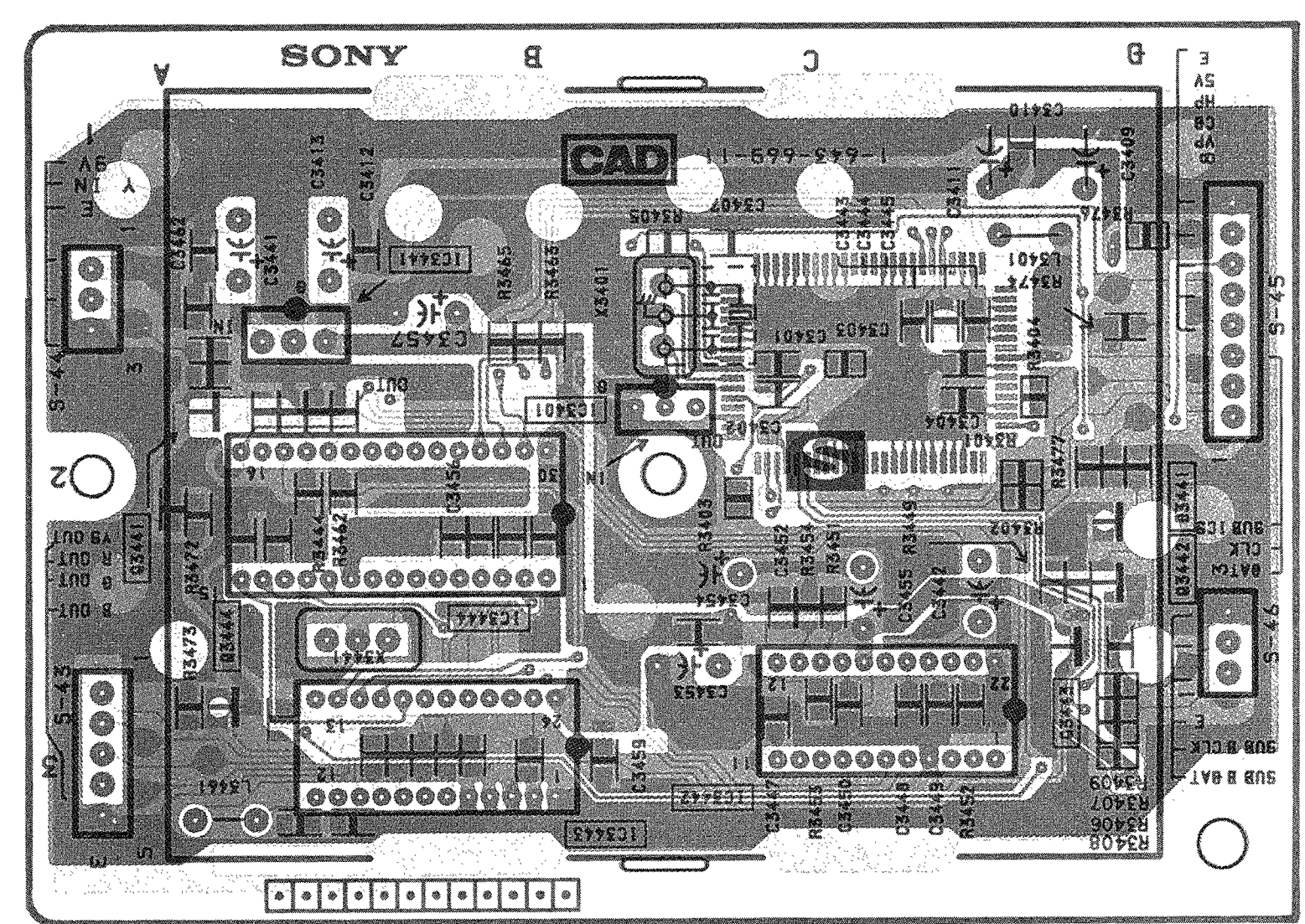
TRANSISTOR		VALTABLE RESISTOR	
Q701	B-2	RV701	E-2
702	A-2	702	D-5
703	B-1	TEST POINT	
704	B-4		
705	A-4	TP49B	A-2
706	B-4	49R	A-4
707	C-5		
708	B-5		
709	B-5		
710	B-1		
711	A-5		
712	C-1		
714	A-1		
715	B-2		
716	B-4		
DIODE			
D701	B-2		
702	B-2		
703	A-2		
704	B-3		
705	B-4		
706	A-4		
707	C-5		
708	B-5		
709	C-5		
710	B-1		
711	B-2		
712	C-5		
713	A-3		
714	A-5		



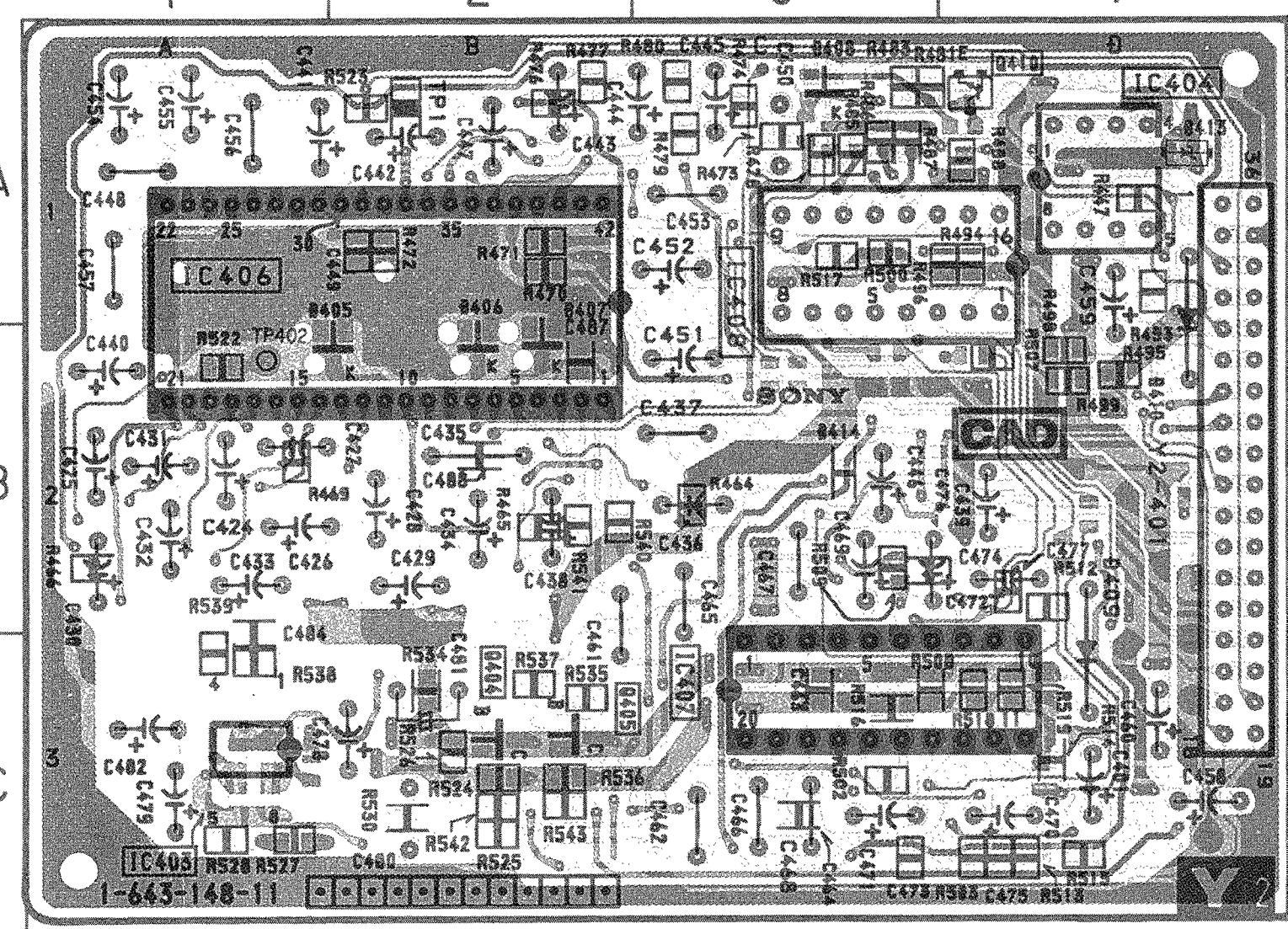
— C Board —

TRANSISTOR		VALTABLE RESISTOR	
Q701	B-2	RV701	E-2
702	A-2	702	C-5
703	B-1	TEST POINT	
704	B-4		
705	A-4	TP49B	A-2
706	B-4	49R	A-4
707	C-5		
708	B-5		
709	B-5		
710	C-1		
711	A-5		
712	C-1		
714	A-1		
715	B-3		
716	B-4		
DIODE			
D701	B-2		
702	B-2		
703	A-2		
704	B-3		
705	B-4		
706	A-4		
707	C-5		
708	B-5		
709	B-5		
710	B-1		
711	B-3		
712	C-5		
713	B-3		
714	A-5		

— S Board —



— Y2 Board —

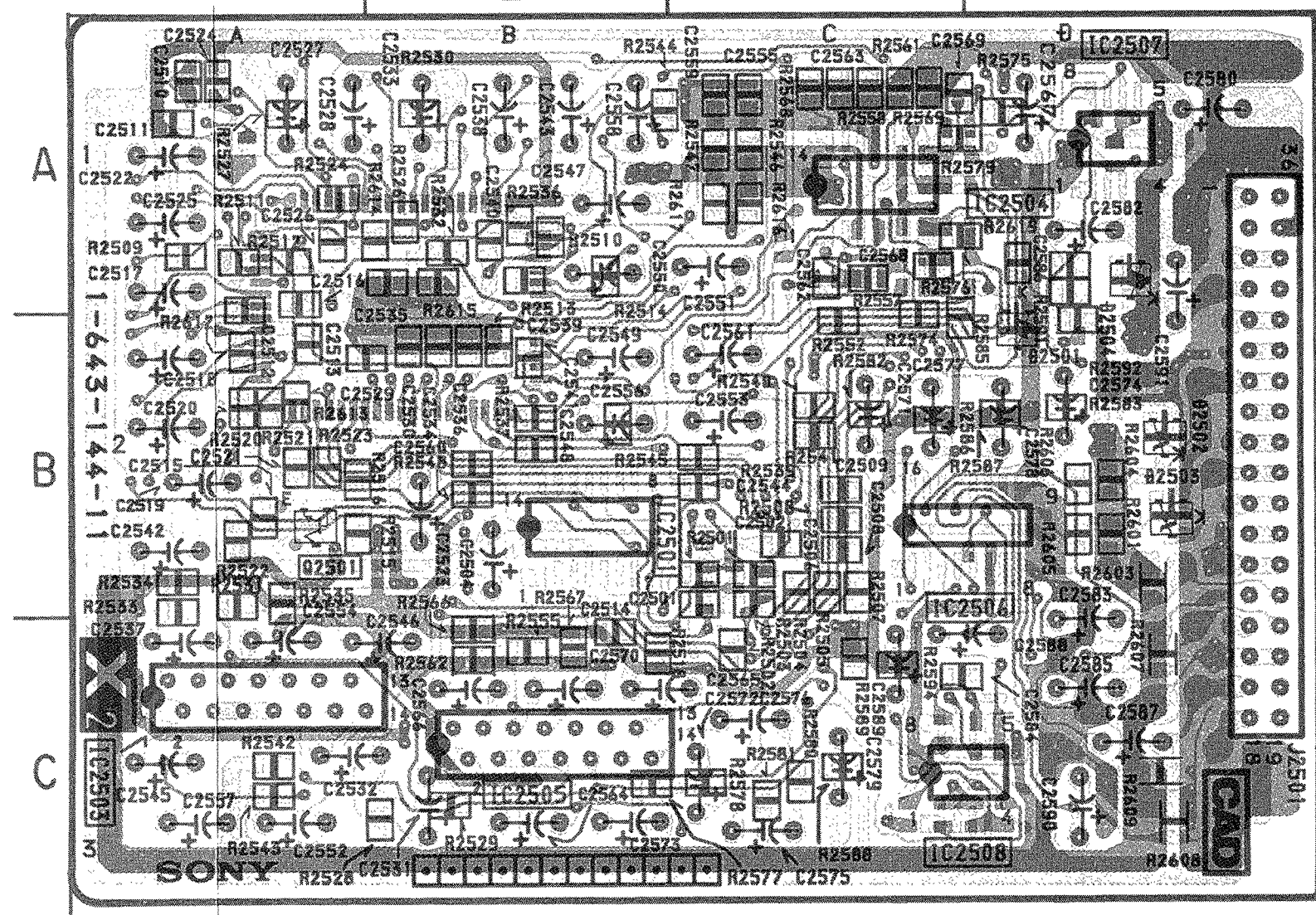


— Y2 Board —

— Y2 Board —

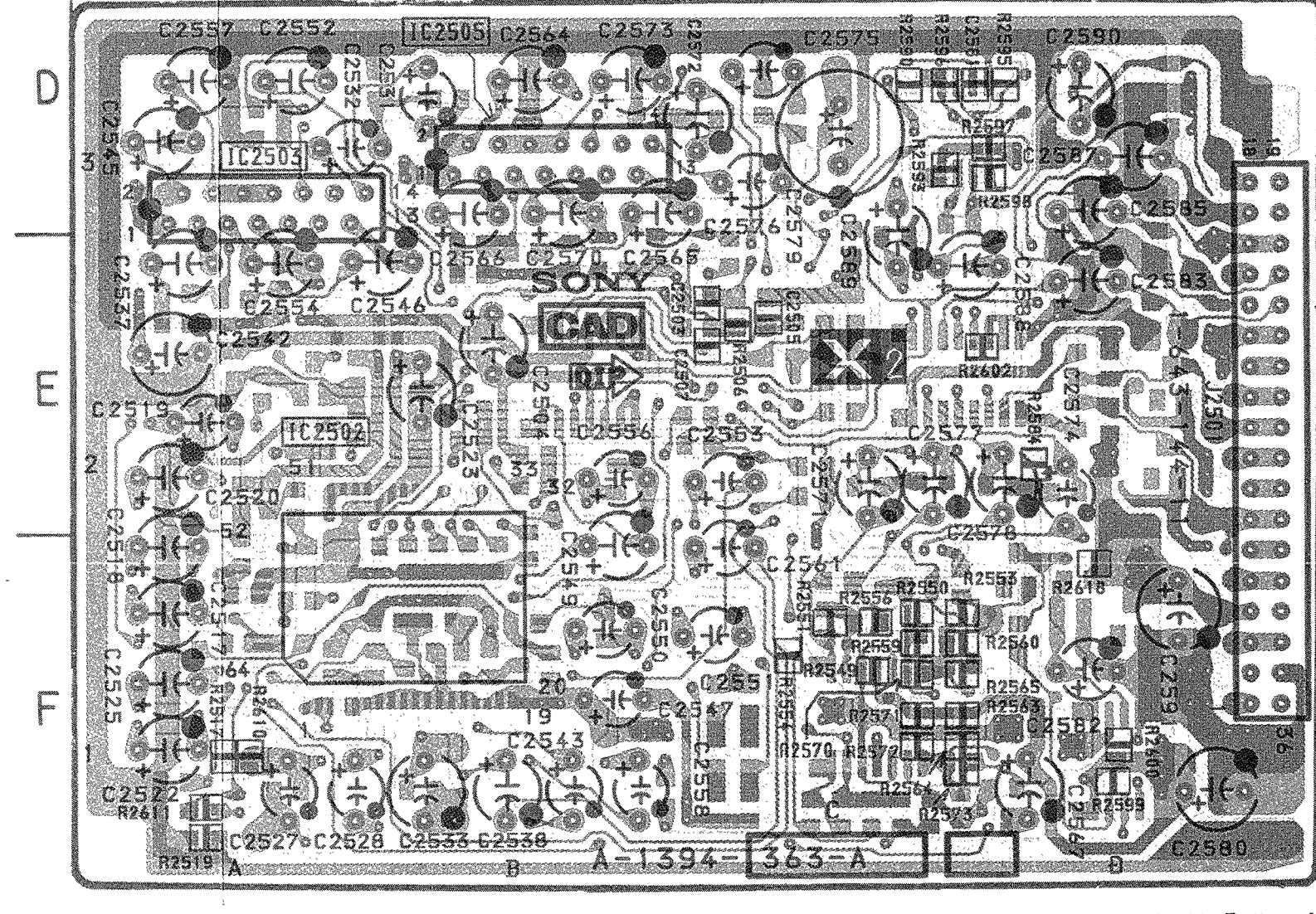
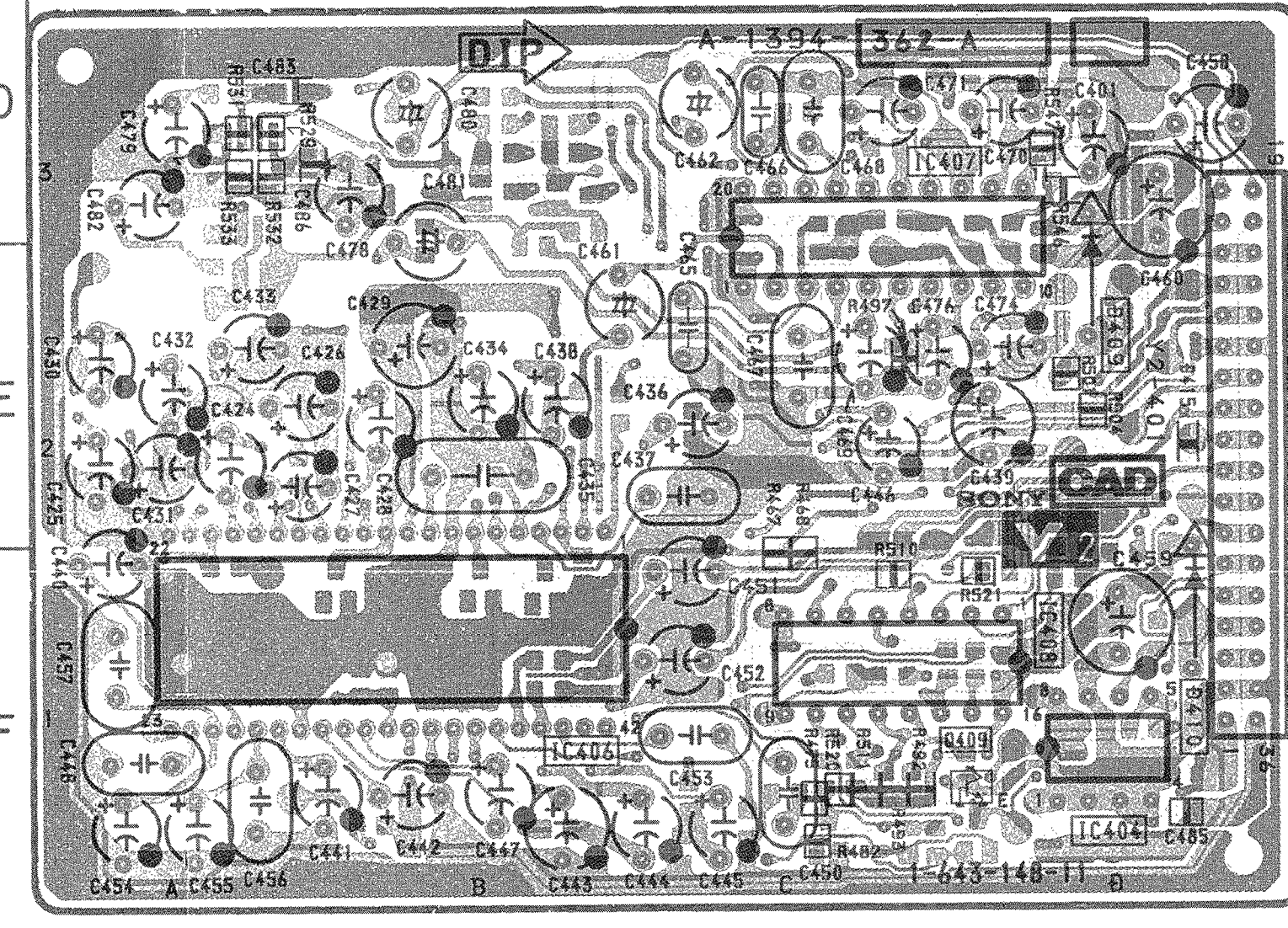
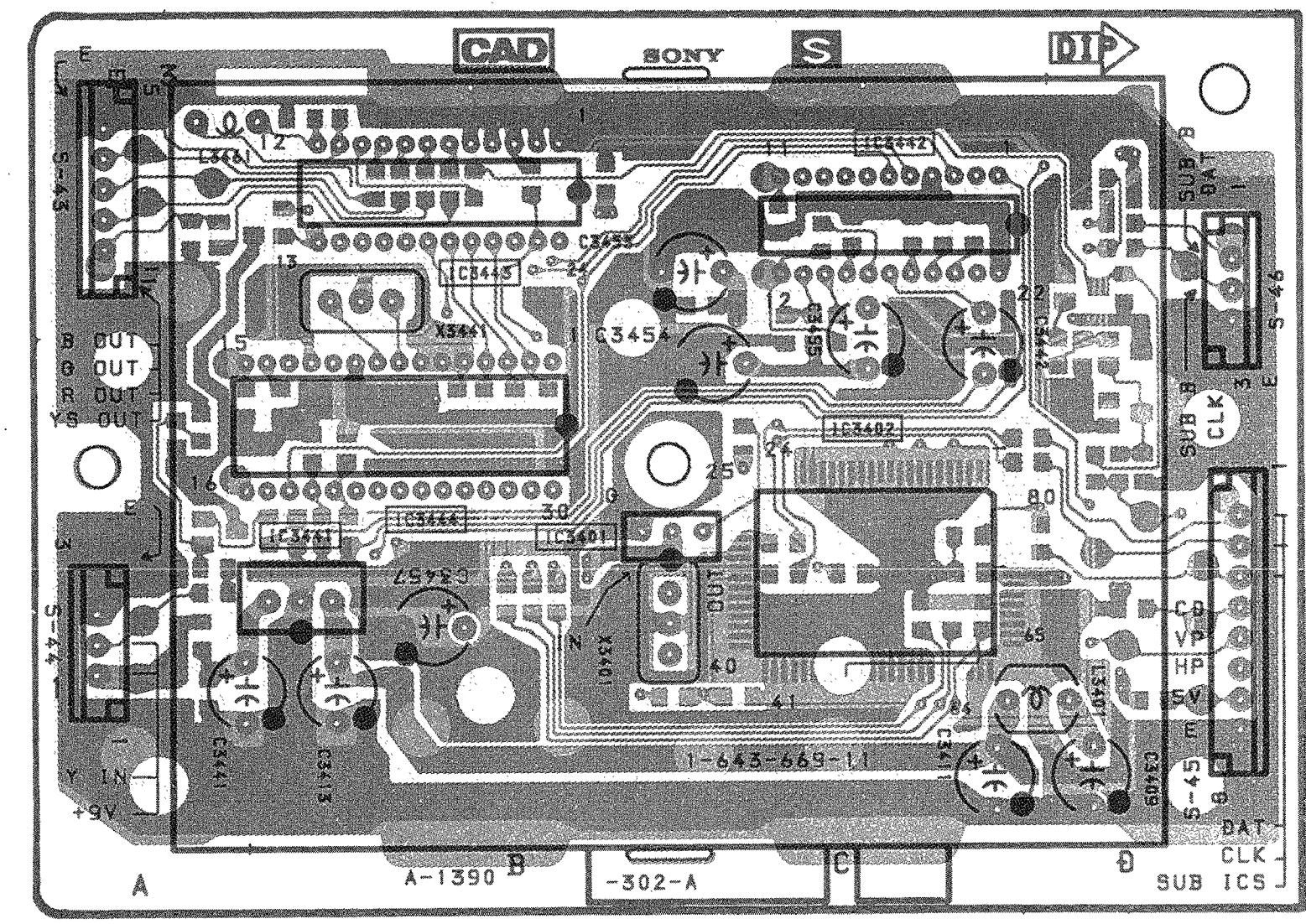
IC	
IC403	C-1
404	A-4
406	A-2
407	C-3
408	A-3
TRANSISTOR	
Q404	C-2
405	C-2
409	F-4
410	A-4
DIODE	
D405	B-2
406	B-2
407	B-2
408	A-3
409	C-4
410	A-4
413	A-4
414	B-3
415	E-4
TEST POINT	
TP1	A-2

— X2 Board —



— X2 Board —

IC	
IC2501	B-2
2502	F-2
2503	C-1
2504	A-3
2505	C-2
2506	B-4
2507	A-4
2508	C-4
TRANSISTOR	
Q2501	B-1
DIODE	
D2501	B-4
2502	B-4
2503	B-4
2504	A-4



• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

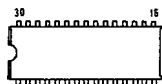
• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

6-8. SEMICONDUCTORS

AN78N05A
μPC78N05H



CXA1387S



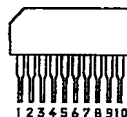
(TOP VIEW)

CXA1465AS
CXA1545S

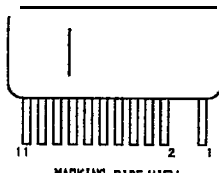


(TOP VIEW)

CXK1006L



DM44

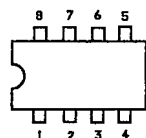


MARKING SIDE VIEW

L78LR05D-MA

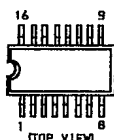


LM358P
LM393P
SBA9086-3
ST24C02CP
μPC358C
μPC4557C
24C04A1



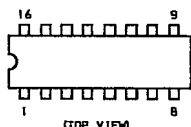
(TOP VIEW)

CXA1315M
MC14528BF
MC74HC4053F
TC4528BFHB
μPD4052BG



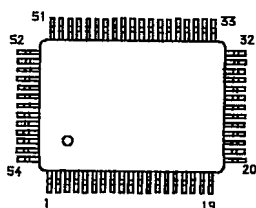
(TOP VIEW)

CXA1315P
CXA1526P
RC78M05FA



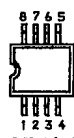
(TOP VIEW)

CXA1373Q



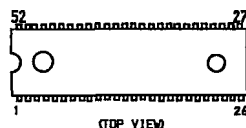
TOP VIEW

LM360M
RC4558PS
MC33172ML



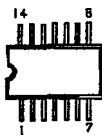
(TOP VIEW)

MB88733-143



(TOP VIEW)

MC3374M
SN74HC05ANS

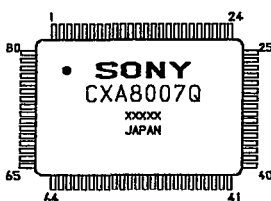


(TOP VIEW)

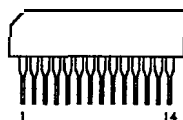
MN1280-S



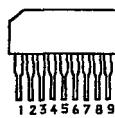
M37201M6-A18EP



M51523AL



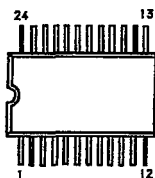
NJM2903S



NJM78L09A
RC78L09A

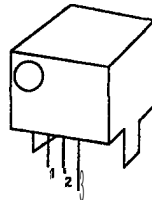


PCA8510T-012

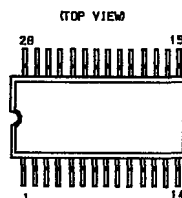


(TOP VIEW)

SBX1616-51

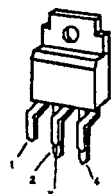


SBA9087XGEG
SBA9089XGEG

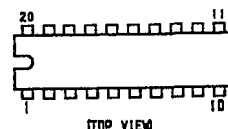


(TOP VIEW)

SI-3090CA
SI-3120CA

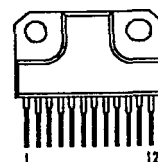


TA8184P
TDA3769

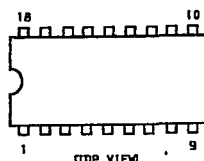


(TOP VIEW)

TA8216H

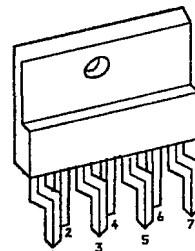


TDA2595/V9

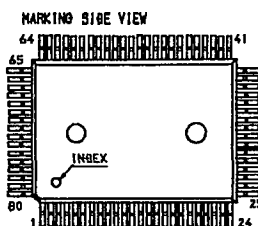


(TOP VIEW)

TDA8179S



TMC73C247-I



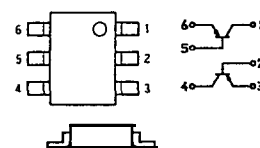
μPC24M05HF



FMW1
XN1501



IMNT1US
XN4401



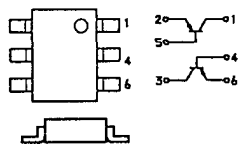
IMZ1
IMX3



IRF540Y
IRF610
IRF614
2SK1916



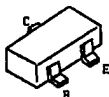
XN5501



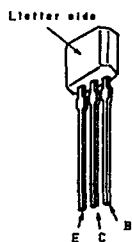
25A1015
25A10910
25A1091-0
25A733K
25A933S
25C25510
25C2551-0



25A1037K
25A1162
25B709A
25C1623
25C2412K
25C2712
25B601A



25A1175
25A1309A
25A933S
25C2785
25C3311A



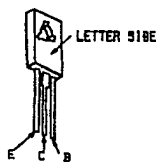
25A1306A-Y
25C3298-B-Y
25B2061



25B734
25C3733
25B774



25C2611
25C2688
25C3840K



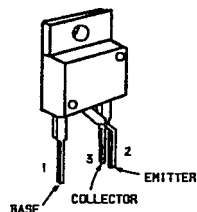
25C3298A



25C4664MNP
25C4664NPR



25C4763



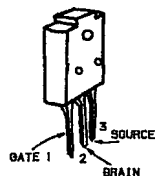
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25B2012



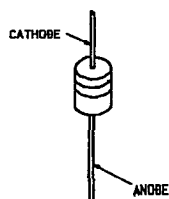
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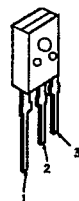
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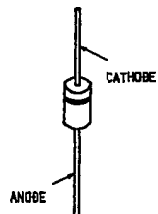
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01N20R
02S4M
EGP20G
ERA38-06
ERA82-004
ERA83-006
RB-1 00A
R012ES-B2
R013ES-B2
R022ES-B2
R030ES-B2
R03.0ESL1
R033ES-B2
R036ES-B
R039ES-B
R039ES-B2
R04.3ES-B2
R04.7ES-B3
R05.1ES-B3
R05.6ES-B1
R06.2ES-B2
R06.8ES-B1
R07.5ES-B2
R09.1ES-B
R09.1ES-L
RGP02-20EL
1SS119
1SV113
WG713A



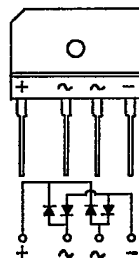
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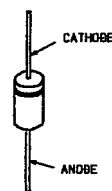
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ERB24-06B
RU3AM
S2LA20
S2L20UF



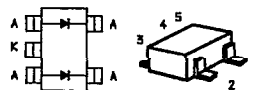
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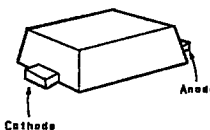
ERA81 -004
ERB44-06
GP08B
RGP02-17
RGP10G
RGP15G
RU30A
1SS83



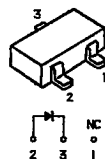
FMN1



MA110
MA5091



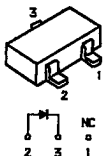
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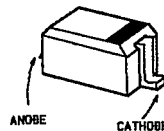
PC817
PS2501



R015M-B1
R018M-B1
Rf15.1 M-B3



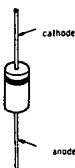
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R06.2B-T2
1SS352



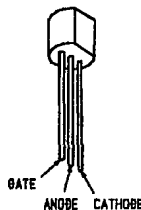
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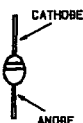
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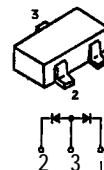
SHOR3B42



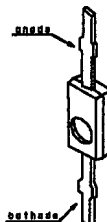
U05G



1S2835
1S2836



1T33





SECTION 7 EXPLODED VIEWS

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column

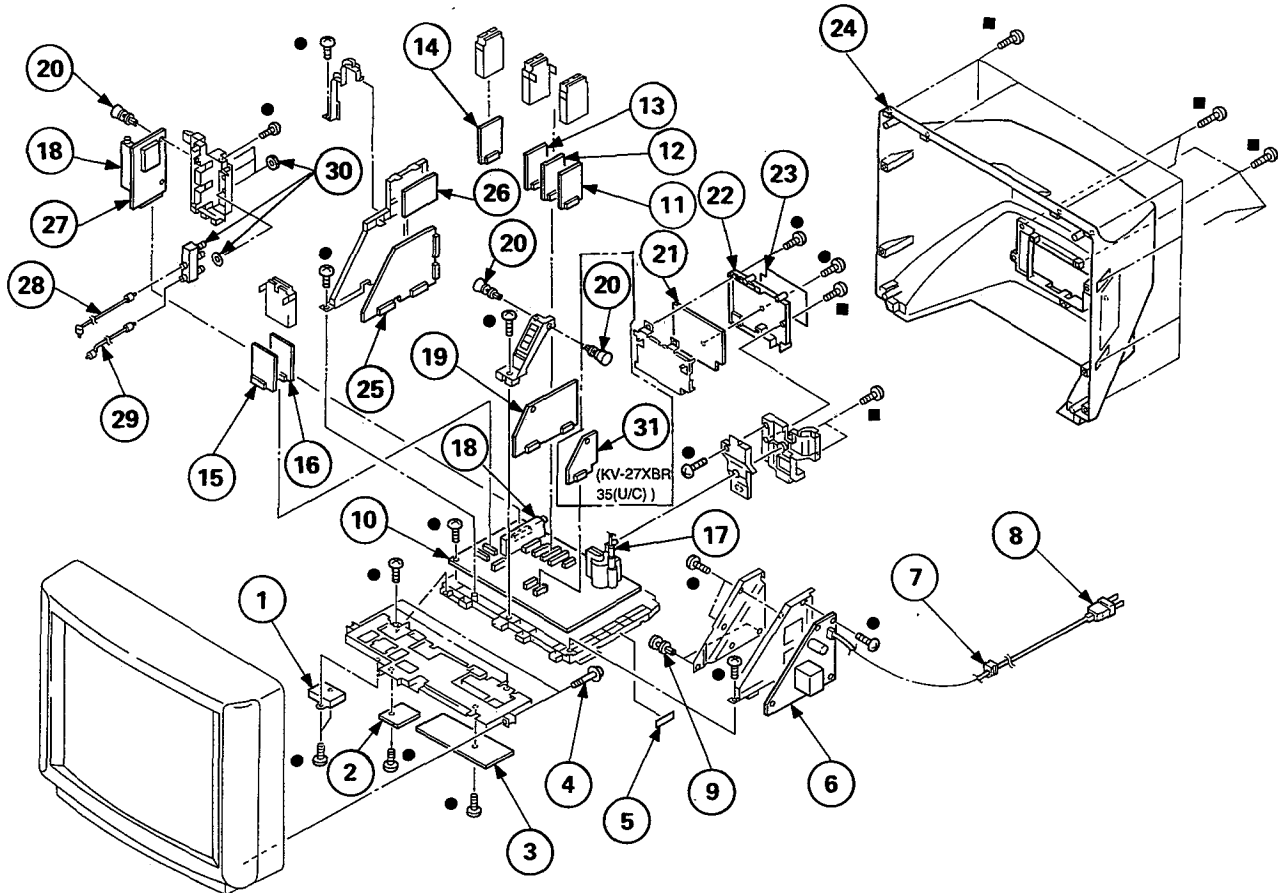
- Items marked "*" are not stocked since they are seldom required for routine service. Some delays should be anticipated when ordering these items.







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

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

7-1. CHASSIS

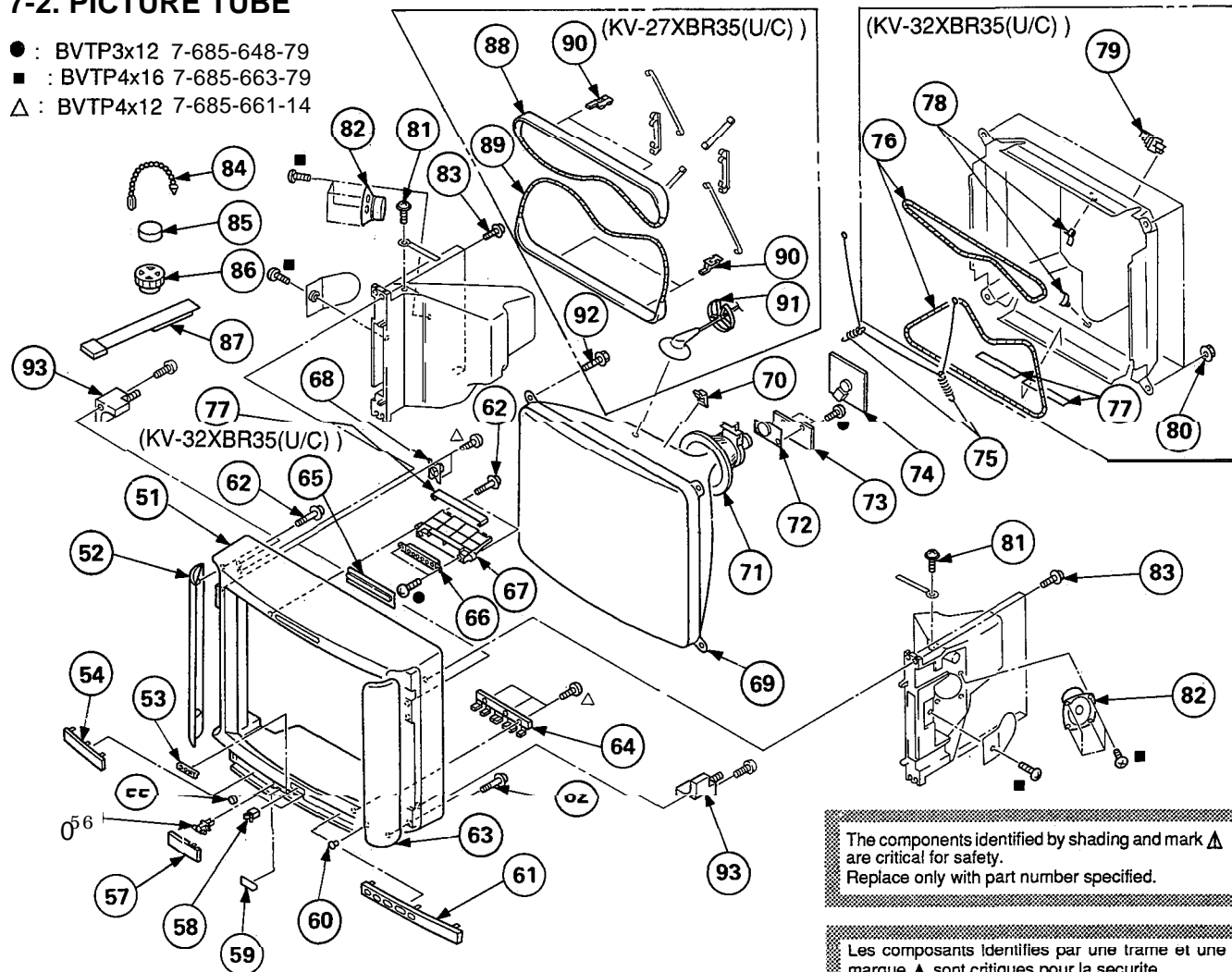
- : BVTP3x127-685-648-79
- : BVTP4x16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	A-4546-027-A	TRANSMITTER TMR-D1002	32	16	*A-1394-363-A	X2 BOARD, COMPLETE	
2	*1-643-151-11	HS2 BOARD		17	 1-439-513-11	TRANSFORMER ASSY, FLYBACK (NX-2602A3) (KV-32XBR35(U/C))	
3	*1-643-150-11	HS1 BOARD			 1-439-524-11	TRANSFORMER ASSY, FLYBACK (NX-3000A2) (KV-27XBR35(U/C))	
4	4-319-520-11	SCREW, SPECIAL (+PW4X30)		18	 1-693-102-21	TUNER (BTF-XA401)	
5	*3-703-044-26	LABEL, CAUTION		19	*A-1341-535-A	D BOARD, COMPLETE (KV-32XBR35(U/C))	
6	*A-1316-125-A	G BOARD, COMPLETE (KV-32XBR35(U/C))			*A-1341-545-A	D BOARD, COMPLETE (KV-27XBR35(U/C))	
7	 4-334-223-03	GROUP, VC CORD		20	*4-397-418-01	RIVET, T TYPE	
8	 1-696-002-11	CORD, POWER (WITH NOISE FILTER)		21	*A-1373-322-A	UT BOARD, COMPLETE	
9	4-374-303-01	RIVET, NYLON		22	4-035-204-01	BRACKET, UT	
10	*A-1296-942-A	A BOARD, COMPLETE	11~16 (KV-32XBR35(U/C))	23	4-035-982-01	LABEL, UT	
	*A-1296-949-A	A BOARD, COMPLETE	11~16 (KV-27XBR35(U/C))	24	X-4030-333-1	COVER ASSY, REAR (KV-32XBR35(U/C))	
					X-4030-451-1	COVER ASSY, REAR (KV-27XBR35(U/C))	
11	*A-1346-051-A	E1 BOARD, COMPLETE (KV-32XBR35(U/C))		25	*A-1373-323-A	U BOARD, COMPLETE	
	*A-1346-057-A	E1 BOARD, COMPLETE (KV-27XBR35(U/C))		26	*1-643-669-11	S BOARD	
12	*A-1346-052-A	E2 BOARD, COMPLETE (KV-32XBR35(U/C))		27	*A-1195-052-A	P3 BOARD, COMPLETE	
	*A-1346-058-A	E2 BOARD, COMPLETE (KV-27XBR35(U/C))		28	*1-555-400-00	CABLE, PIN	
13	*A-1306-415-A	M BOARD, COMPLETE		29	*1-557-056-31	CABLE, P-P	
14	*A-1195-051-A	P1 BOARD, COMPLETE		30	 1-417-178-11	SELECTOR, ANTENNA (AS-2)	
15	*A-1394-362-A	Y2 BOARD, COMPLETE		31	*A-1347-068-A	VC BOARD, COMPLETE (KV-27XBR35(U/C))	
				32	*A-4542-096-A	MAIN BOARD, COMPLETE	

7-2. PICTURE TUBE

- : BVTP3x12 7-685-648-79
■ : BVTP4x16 7-685-663-79
△ : BVTP4x12 7-685-661-14



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

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

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	4-035-757-01	CABINET (WITH BEZEL) (KV-32XBR35(U/C))		70	3-704-495-01	SPACER, DY	
	4-036-463-01	CABINET (WITH BEZEL) (KV-27XBR35(U/C))		71	△ 1-451-315-11	DEFLECTION YOKE (Y34FXA) (KV-32XBR35(U/C))	
52	X-4030-330-1	GRILLE ASSY (LEFT), SPEAKER (KV-32XBR35(U/C))			△ 1-451-394-11	DEFLECTION YOKE (Y29EXA) (KV-27XBR35(U/C))	
	x-4030-449-1	GRILLE ASSY (LEFT), SPEAKER (KV-27XBR35(U/C))		72	△ 1-452-579-11	NECK ASSY, PICTURE TUBE (NA322)	
53					△ 1-452-616-11	NECK ASSY, PICTURE TUBE (NA323)	
54	3-704-179-01	EMBLEM (NO.9), SONY					
55	4-036-455-01	PANEL (LEFT), ORNAMENTAL (KV-32XBR35(U/C))		73	*A-1342-176-A	V BOARD, COMPLETE (KV-32XBR35(U/C))	
56	3-703-035-11	4-314-871-00			*A-1342-182-A	V BOARD, COMPLETE (KV-27XBR35(U/C))	
57	4-035-687-01	DOOR (KV-32XBR35(U/C))		74	*A-1331-203-A	C BOARD, COMPLETE (KV-32XBR35(U/C))	
	4-036-446-01	DOOR (KV-27XBR35(U/C))			*A-1331-209-A	C BOARD, COMPLETE (KV-27XBR35(U/C))	
58		CATCHER, - PUSH		75	4-036-329-01	SPRING (B), TENSION	
59	4-392-036-01	4-035-750-01		76	△ 1-426-356-11	COIL, DEMAGNETIZATION (KV-32XBR35(U/C))	
60	*4-389-517-01	GUIDE (H), LIGHT		77	4-385-725-01	SHEET, BLOTTING (KV-32XBR35(U/C))	
61	4-035-753-01	PANEL (RIGHT), ORNAMENTAL (KV-32XBR35(U/C))		78	*4-371-629-01	STOPPER, WIRE (KV-32XBR35(U/C))	
62	4-036-456-01	PANEL (RIGHT), ORNAMENTAL (KV-27XBR35(U/C))		79	4-033-681-01	HOLDER, LEAD (KV-32XBR35(U/C))	
63	4-319-520-11	SCREW, SPECIAL (+PW4X30)		80	4-387-204-01	NUT, SPECIAL, PICTURE TUBE (KV-32XBR35(U/C))	
	x-4030-331-1	GRILLE ASSY (RIGHT), SPEAKER (KV-32XBR35(U/C))		81	4-948-214-01	SCREW (2) (M4X8), TAPPING	
	X-4030-450-1	GRILLE ASSY (RIGHT), SPEAKER (KV-27XBR35(U/C))		82	1-544-544-11	SPEAKER (10CM)	
64	4-035-688-01	BUTTON, MULTI		83	4-384-096-01	SCREW (4X16), TAPPING, +P	
65	4-035-844-01	FILTER, TRANSMITTER (KV-32XBR35(U/C))		84	4-308-870-00	CLIP, LEAD WIRE	
	4-036-447-01	FILE, TRANSMITTER (KV-27XBR35(U/C))		85	1-452-032-00	MAGNET, DISK: 10MM	
66	A-4546-028-A	LUMINOUS UNIT 1FP-D1002	94	86	1-452-094-00	MAGNET, ROTATABLE DISK: 15MM	
67	4-035-845-01	HOLDER, TRANSMITTER		87	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	
68	1-544-580-11	SPEAKER (2.5CM)		88	△ 1-426-573-11	COIL, DEGAUSSING (KV-27XBR35(U/C))	
69	△ 8-733-723-05	PICTURE TUBE (A80JYV50X) (KV-32XBR35(U/C))		89	△ 1-426-574-11	COIL, DEGAUSSING (KV-27XBR35(U/C))	
	△ 8-733-835-05	PICTURE TUBE (M68KUZ10X) (KV-27XBR35(U/C))		90	4-033-545-01	CLIP (KV-27XBR35(U/C))	
				91	*3-704-372-01	HOLDER, HV CABLE (KV-27XBR35(U/C))	
				92	4-390-505-01	SCREW (7), TAPPING (KV-27XBR35(U/C))	
				93	4-031-429-01	BRACKET, PICTURE TUBE (KV-32XBR35(U/C))	
				94	*1-643-140-11	LED BOARD	

P3SECTION 8
ELECTRICAL PARTS LIST

NOTE

The components identified by shading and mah Δ are critical for safety

Replace only with part number specified

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

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

CAPACITORS

MF μ F, PF μ F

COILS

MMH mH, UH μ H

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

REF. NO.	PART NO.	DESCRIPTION	REMARK	EF. NO.	PART NO.	DESCRIPTION	REMARK
*A-1195-052-A P3 BOARD, COMPLETE *****				52001	*1-573-962-11	CONNECTOR (MALE) 50P	
<CAPACITOR>				<COIL>			
C2001	1-124-910-11	ELECT 47MF	20% 50V	L2002	1-410-663-31	INDUCTOR 10UH	
C2002	1-124-910-11	ELECT 47MF	20% 50V	L2003	1-410-667-31	INDUCTOR 22UH	
C2003	1-124-119-00	ELECT 330MF	20% 16V	12009	1-410-663-31	INDUCTOR 10UH	
C2004	1-164-232-11	CERAM C CHIP 0.01MF	10% 50V	<CONNECTOR>			
C2005	1-114-261-00	ELECT 10MF	20% 50V	P3-39	*1-564-521-11	PLUG, CONNECTOR 6P	
C2006	1-164-232-11	CERAM C CHIP 0.01MF	10% 50V	P3-40	*1-564-519-11	PLUG, CONNECTOR 4P	
C2007	1-126-157-11	ELECT 10MF	20% 16V	P3-41	*1-564-519-11	PLUG, CONNECTOR 4P	
C2008	1-163-031-11	CERAM C CHIP 0.01MF	50V	<TRANSISTOR>			
C2009	1-163-157-00	FILM 0.022MF	5% 50V	Q2001	8-729-216-22	TRANSISTOR 2SA1162-G	
C2010	1-164-161-11	CERAM C CHIP 0.0022MF	50V	Q2002	g-729-920-74	TRANSISTOR 2SC2412K-QR	
C2011	1-126-157-11	ELECT 10MF	20% 16V	Q2003	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C2013	1-126-301-11	ELECT 1MF	20% 50V	Q2004	g-729-216-22	TRANSISTOR 2SA1162-G	
C2014	1-164-161-11	CERAM C CHIP 0.0022MF	10% 50V	Q2005	a-729-920-74	TRANSISTOR 2SC2412K-QR	
C2015	1-163-117-00	CERAM C CHIP 100PF	5% 50V	Q2006	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C2016	1-163-109-00	CERAM C CHIP 47PF	5% 50V	Q2007	8-729-216-22	TRANSISTOR 2SA1162-G	
C2017	1-163-109-00	CERAM C CHIP 47PF	5% 50V	Q2008	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C2018	1-124-465-00	ELECT 0.47MF	20% 50V	Q2009	8-729-216-22	TRANSISTOR 2SA1162-G	
C2019	1-126-103-11	ELECT 470MF	20% 16V	Q2010	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C2020	1-163-031-11	CERAM C CHIP 0.01MF	50V	Q2011	g-729-216-22	TRANSISTOR 2SA1162-G	
C2021	1-126-157-11	ELECT 10MF	20% 16V	Q2012	8-729-216-22	TRANSISTOR 2SA1162-G	
C2022	1-164-232-11	CERAM C CHIP 0.01MF	10% 50V	Q2030	8-729-216-22	TRANSISTOR 2SA1162-G	
C2023	1-163-119-00	CERAM C CHIP 120PF	5% 50V	82031	8-729-216-22	TRANSISTOR 2SA1162-G	
C2024	1-124-465-00	ELECT 0.47MF	20% 50V	Q2036	g-729-920-74	TRANSISTOR 2SC2412K-QR	
C2025	1-126-157-11	ELECT 10MF	20% 16V	<RESISTOR>			
C2027	1-163-103-00	CERAM C CHIP 27PF	5% 50V	R2002	1-216-357-00	METAL OXIDE 4.7 5% 1W F	
C2028	1-163-107-00	CERAM C CHIP 39PF	5% 50V	R2003	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
C2065	1-126-157-11	ELECT 10MF	20% 16V	R2004	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
C2066	1-126-157-11	ELECT 10MF	20% 16V	R2005	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
C2067	1-126-157-11	ELECT 10MF	20% 16V	R2006	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
C2068	1-126-233-11	ELECT 22MF	20% 50V	R2007	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
C2075	1-163-117-00	CERAM C CHIP 100PF	5% 50V	R2008	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
<NETWORK>				R2009	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
CP200	1-236-472-11	NETWORK, RES, THICK FILM		R2010	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
<IC>				R2011	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
IC2001	8-759-982-13	IC RC7812FA		R2012	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
IC2002	8-759-700-48	IC NJM2903S		R2013	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
IC2003	8-759-805-37	IC L78LR05D-MA		R2014	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
IC2004	8-759-066-51	IC MB88733-143		R2015	1-216-033-00	METAL GLAZE 220 5% 1/10W	
IC2005	8-759-803-25	IC CXK1006L		R2016	1-216-295-00	METAL GLAZE 0 5% 1/10W	
<JACK>				R2017	1-216-047-00	METAL GLAZE 820 5% 1/10W	
				R2018	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
				R2019	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

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

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Ne les remplacer que par une pièce portant le numéro spécifié.

P3 **A**

REF. NO.	PART NO.	DESCRIPTION	REMARK
R2020	I-216-037-00	METAL GLAZE 330 5%	1/10W
R2021	I-216-095-00	METAL GLAZE 82K 5%	1/10W
R2022	I-216-109-00	METAL GLAZE 330K 5%	1/10W
R2023	I-216-073-00	METAL GLAZE 10K 5%	1/10W
R2024	I-216-047-00	METAL GLAZE 820 5%	1/10W
R2025	I-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2026	I-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2027	I-216-033-00	METAL GLAZE 220 5%	1/10W
R2028	I-216-073-00	METAL GLAZE 10K 5%	1/10W
H2029	I-216-033-00	METAL GLAZE 220 5%	1/10W
R2030	I-216-009-00	METAL GLAZE 22 5%	1/10W
R2031	I-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2032	I-216-033-00	METAL GLAZE 220 5%	1/10W
R2033	I-216-033-00	METAL GLAZE 220 5%	1/10W
R2037	I-216-089-00	METAL GLAZE 47K 5%	1/10W
R2038	I-216-097-00	METAL GLAZE 100K 5%	1/10W
R2039	I-216-097-00	METAL GLAZE 100K 5%	1/10W
R2040	I-216-073-00	METAL GLAZE 10K 5%	1/10W
R2041	I-216-073-00	METAL GLAZE 10K 5%	1/10W
R2046	I-216-073-00	METAL GLAZE 10K 5%	1/10W
R2047	I-216-049-00	METAL GLAZE 1K 5%	1/10W
R2048	I-216-073-00	METAL GLAZE 10K 5%	1/10W
R2049	I-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R2050	I-216-063-00	METAL GLAZE 3.9K 5%	1/10W
R2051	I-216-049-00	METAL GLAZE 1K 5%	1/10W
R2052	I-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2053	I-216-081-00	METAL GLAZE 22K 5%	1/10W
R2054	I-216-081-00	METAL GLAZE 22K 5%	1/10W
R2055	I-216-081-00	METAL GLAZE 22K 5%	1/10W
R2056	I-216-295-00	METAL GLAZE 0 5%	1/10W
R2057	I-216-081-00	METAL GLAZE 22K 5%	1/10W
R2058	I-216-081-00	METAL GLAZE 22K 5%	1/10W
R2059	I-216-081-00	METAL GLAZE 22K 5%	1/10W
R2060	I-216-081-00	METAL GLAZE 22K 5%	1/10W
R2061	I-216-081-00	METAL GLAZE 22K 5%	1/10W
R2062	I-216-295-00	METAL GLAZE 0 5%	1/10W
R2063	I-216-025-00	METAL GLAZE 100 5%	1/10W
R2064	I-216-025-00	METAL GLAZE 100 5%	1/10W
R2093	I-249-441-11	CARBON 100K 5%	1/4W
R2124	I-216-049-00	METAL GLAZE 1K 5%	1/10W
R2125	I-216-089-00	METAL GLAZE 47K 5%	1/10W
R2127	I-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R2128	I-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R2129	I-216-055-00	METAL GLAZE 1.8K 5%	1/10W
R2130	I-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R2131	I-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R2132	I-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R2147	I-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R2148	I-216-081-00	METAL GLAZE 22K 5%	1/10W
R2149	I-249-441-11	CARBON 100K 5%	1/4W
<VARIABLE RESISTOR>			
RV2001	I-238-015-11	RES, ADJ, CARBON 4.7K	
<TUNER>			
TU2001	Δ I-693-102-21	TUNER (BTR-XA401)	
<CRYSTAL>			
X2001	I-567-192-11	OSCILLATOR, CERAMIC	

REF. NO.	PART NO.	DESCRIPTION	REMARK
*A-1296-942-A A BOARD, COMPLETE(KV-32XBR35(U/C)) *****			
*4-341-751-01 EYELET (EY101~EY172)			
*4-341-752-01 EYELET (EY1~EY55)			
4-382-854-11 SCREW (M3X10), P, SW (+)			
<CONNECTOR>			
A0	*1-573-979-1.1	CONNECTOR BOARD TO BOARD	11P
A2	*1-573-964-1.1	PIN, CONNECTOR (PC BOARD)	6P
A3	*1-573-986-1.1	PIN, CONNECTOR (PC BOARD)	5P
A4	*1-564-510-11	PLUG, CONNECTOR	7P
A5	*1-564-507-1	PLUG, CONNECTOR	4P
A11	*1-564-507-1.1	PLUG, CONNECTOR	4P
A12	1-573-297-1.1	CONNECTOR, BOARD TO BOARD	18P
A13	1-573-297-1.1	CONNECTOR, BOARD TO BOARD	18P
A14	1-573-296-1.1	CONNECTOR, BOARD TO BOARD	10P
A18	1-573-296-1.1	CONNECTOR, BOARD TO BOARD	10P
A21	*1-508-768-00	PIN, CONNECTOR (5MM PITCH)	GP
A37	*1-564-514-11	PLUG, CONNECTOR	11P
A48	*1-508-784-00	PIN, CONNECTOR (5MM PITCH)	1P
A49	*1-564-506-11	PLUG, CONNECTOR	3P
DY1	*1-580-798-11	CONNECTOR PIN (DY)	6P
IES002	*1-573-960-11	CONNECTOR (FEMALE)	50P
<CAPACITOR>			
C201	1-126-101-11	ELECT	100MF 20% 16V
C202	1-102-108-00	CERAMIC	150PF 10% 50V
C210	1-102-121-00	CERAMIC	0.0022MF 10% 50V
C211	1-101-006-00	CERAMIC	0.047MF 50V
C213	1-126-103-11	ELECT	410MF 20% 16V
C214	1-126-101-11	ELECT	100MF 20% 16V
C215	1-124-910-11	ELECT	47MF 20% 50V
C216	1-126-101-11	ELECT	100MF 20% 16V
C217	1-124-126-00	ELECT	47MF 20% 25V
C218	1-126-103-11	ELECT	470MF 20% 16V
C219	1-136-169-00	FILM	0.22MF 5% 50V
C220	1-124-910-11	ELECT	47MF 20% 50V
C221	1-124-910-11	ELECT	47MF 20% 50V
C223	1-124-261-00	ELECT	10MF 20% 50V
C224	1-124-261-00	ELECT	10MF 20% 50V
C225	1-124-120-11	ELECT	220MF 20% 16V
C226	1-124-621-11	ELECT	3300MF 20% 6.3V
C299	1-126-101-11	ELECT	100MF 20% 16V
C501	1-137-116-11	FILM	1MF 5% 200V
C502	1-130-728-00	FILM	0.0022MF 5% 50V
C504	1-136-161-00	FILM	0.047MF 5% 50V
C505	1-124-790-11	ELECT	0.47MF 20% 100V
C506	1-124-480-11	ELECT	470MF 20% 25V
C508	1-162-114-00	CERAMIC	0.0047MF 2KV
C509	1-123-946-00	ELECT	4.7MF 20% 250V
C510	1-102-110-00	CERAMIC	220PF 10% 50V
C511	1-124-477-11	ELECT	47MF 20% 25V
C512	1-162-318-11	CERAMIC	0.001MF 10% 500V
C513	1-106-391-12	MYLAR	0.1MF 10% 200V
C514	1-124-477-11	ELECT	47MF 20% 25V
C515	1-162-117-00	CERAMIC	100PF 10% 500V
C517	1-124-477-11	ELECT	47MF 20% 25V
C519	1-124-472-11	ELECT	470MF 20% 10V
C520	1-162-116-00	CERAMIC	680PF 10% 2KV
C521	Δ 1-137-606-21	FILM	0.023MF 3% 2KV



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The components identified by
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Replace only with part number
specified

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C522	1-162-116-00	CERAMIC	680PF 10% 2KV	<DIODE>			
C523	1-124-465-00	ELECT	0.47MF 20% 50V	D201	8-719-110-13	DIODE RD9.1ES-B2	
C524	1-130-487-00	MYLAR	0.022MF 5% 50V	D202	8-719-110-13	DIODE RD9.1ES-B2	
C525	1-162-116-00	CERAMIC	680PF 10% 2KV	D204	8-719-911-19	DIODE 1SS119	
C526	1-136-895-51	FILM	0.068MF 5% 630V	D205	8-719-911-19	DIODE 1SS119	
C527	1-130-495-00	MYLAR	0.1MF 5% 50V	D206	8-719-911-19	DIODE 1SS119	
C528	1-106-359-00	MYLAR	0.0047MF 10% 200V	I1207	8-719-911-19	DIODE 1SS119	
C531	1-124-634-11	ELECT	1MF 20% 250V	D208	8-719-911-19	DIODE 1SS119	
C532	1-124-477-11	ELECT	47MF 20% 25V	D209	8-719-510-48	DIODE DIN20R	
C533	1-137-119-11	FILM	2MF 5% 200V	D213	a-719-110-78	DIODE RD33ES-B2	
C534	1-137-116-11	FILM	1MF 5% 200V	D501	a-719-018-82	DIODE RGP02-20EL-6394	
C535	1-124-480-11	ELECT	470MF 20% 25V	D502	Δ 8-719-302-43	DIODE EL1Z	
C536	1-102-228-00	CERAMIC	470PF 10% 500V	D504	8-719-911-19	DIODE 1SS119	
C537	1-106-343-00	MYLAR	0.001MF 10% 100V	D506	8-719-109-90	DIODE RD5.6ES-B3	
C538	1-106-395-00	MYLAR	0.15MF 10% 200V	D508	8-719-109-88	DIODE RD5.6ES-B1	
C539	1-123-950-00	ELECT	47MF 20% 250V	D509	8-719-110-03	DIODE RD7.5ES-B2	
C540	1-124-480-11	ELECT	470MF 20% 25V	D511	8-719-300-33	DIODE RU-3AM	
C541	1-102-228-00	CERAMIC	470PF 10% 500V	I1512	8-719-911-55	DIODE U05G	
C542	1-106-387-00	MYLAR	0.068MF 10% 200V	I1513	8-719-911-55	DIODE U05G	
C546	1-123-024-21	ELECT	33MF 160V	D514	8-719-312-72	DIODE RU30A	
C549	1-124-261-00	ELECT	10MF 20% 50V	D515	8-719-300-33	DIODE RU-3AM	
C551	1-130-471-00	MYLAR	0.001MF 5% 50V	D516	8-719-979-85	DIODE BGP20G	
C552	1-126-176-11	ELECT	220MF 20% 10V	D518	8-719-109-93	DIODE RD6.2ES-B2	
C554	Δ 1-161-731-51	CERAMIC	0.001MF 10% 2KV	D521	8-719-911-19	DIODE 1SS119	
C557	1-124-465-00	ELECT	0.47MF 20% 50V	D522	a-719-110-72	DIODE RD30ES-B2	
C561	1-124-261-00	ELECT	10MF 20% 50V	I.524	8-719-976-64	DIODE RGP02-17	
C562	1-124-499-11	ELECT	1MF 20% 50V	D525	8-719-911-19	DIODE 1SS119	
C563	1-130-491-00	MYLAR	0.047MF 5% 50V	D527	8-719-110-78	DIODE RD33ES-B2	
C564	1-130-495-00	MYLAR	0.1MF 5% 50V	D528	8-719-911-19	DIODE 1SS119	
C565	1-130-495-00	MYLAR	0.1MF 5% 50V	D529	8-719-911-19	DIODE 1SS119	
C566	1-130-485-00	MYLAR	0.015MF 5% 50V	D530	8-719-911-19	DIODE 1SS119	
C569	1-136-167-00	FILM	0.15MF 5% 50V	D1407	8-719-911-19	DIODE 1SS119	
C570	1-130-471-00	MYLAR	0.001MF 5% 50V	D1409	8-719-110-90	DIODE RD39ES-B4	
C571	1-130-651-00	FILM	0.001MF 2% 100V	D1410	a-719-901-83	DIODE 1SS83	
C572	1-124-261-00	ELECT	10MF 20% 50V	D1411	8-719-901-83	DIODE 1SS83	
C573	1-130-471-00	MYLAR	0.001MF 5% 50V	D1503	8-719-911-55	DIODE U05G	
C575	1-102-038-00	CERAMIC	0.001MF 500V	D4001	a-719-911-19	DIODE 1SS119	
C578	1-106-367-00	MYLAR	0.01MF 10% 200V	<IC>			
C579	1-106-383-00	MYLAR	0.047MF 200V	IC201	8-749-920-58	IC SI-3090CA	
C1401	1-124-910-11	ELECT	47MF 20% 50V	IC202	8-749-921-99	IC SI-3120CA	
CI402	1-126-157-11	ELECT	10MF 20% 16V	IC204	8-759-231-53	IC TA7805S	
CI403	1-126-157-11	ELECT	10MF 20% 16V	IC205	8-759-144-84	IC UPC24M05HF	
CI404	1-126-157-11	ELECT	10MF 20% 16V	IC206	8-759-982-13	IC RC7812FA	
CI405	1-124-910-11	ELECT	47MF 20% 50V	IC501	8-759-987-16	IC LM393P	
CI406	1-124-910-11	ELECT	47MF 20% 50V	IC502	1-809-726-11	MODULE PROTECTOR PM-29	
CI407	1-124-607-11	ELECT	2200MF 20% 50V	IC503	8-759-987-16	IC LM393P	
CI408	1-136-165-00	FILM	0.1MF 5% 50V	IC504	8-759-146-55	IC UPC2412HF	
CI409	1-136-165-00	FILM	0.1MF 5% 50V	IC1401	8-759-246-70	IC TA8216H	
CI424	1-124-607-11	ELECT	2200MF 20% 50V	IC1501	8-759-506-46	IC TDA8179S	
CI425	1-124-607-11	ELECT	2200MF 20% 50V	<COIL>			
CI426	1-126-157-11	ELECT	10MF 20% 16V	L201	1-408-408-00	INDUCTOR 8.2UH	
CI435	1-126-233-11	ELECT	22MF 20% 50V	L205	1-410-645-31	INDUCTOR 100UH	
CI437	1-130-499-00	MYLAR	0.22MF 5% 50V	L208	1-410-785-31	INDUCTOR 0.22UH	
CI501	1-126-233-11	ELECT	22MF 20% 50V	L210	1-408-408-00	INDUCTOR 8.2UH	
CI502	1-126-301-11	ELECT	1MF 20% 50V	L502	1-412-552-31	INDUCTOR 2.2MH	
CI503	1-102-114-00	CERAMIC	470PF 10% 50V	L508	1-421-541-00	COIL, CHOKE 1000UH	
CI504	1-124-480-11	ELECT	470MF 20% 25V	L509	1-459-104-00	COIL, WITH CORE	
CI505	1-124-911-11	ELECT	220MF 20% 50V	L510	Δ 1-460-197-11	COIL, FERRITE (PMC)	
CI506	1-136-171-00	FILM	0.33MF 5% 50V	L511	1-412-519-11	INDUCTOR 3.3UH	
CI507	1-106-224-00	MYLAR	0.15MF 10% 100V				
CI508	1-124-480-11	ELECT	470MF 20% 25V				
CI509	1-124-122-11	ELECT	100MF 20% 50V				

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

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The components identified by **Δ** 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.

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
L512	I-412-531-31	INDUCTOR 33UH		R510	1-249-409-11	CARBON 220 5%	1/4W F
L513	1-412-519-11	INDUCTOR 3.3UH		R511	1-249-397-11	CARBON 22 5%	1/4W F
1515	1-410-645-31	INDUCTOR 100UH		R512	1-249-423-11	CARBON 3.3K 5%	1/4W
L517	Δ 1-459-973-21	COIL, HORIZONTAL LINEARITY		R513	1-249-425-11	CARBON 4.7K 5%	1/4W
L520	1-412-531-31	INDUCTOR 33UH		R514	1-249-438-11	CARBON 56K 5%	1/4W
L521	1-459-148-00	COIL		R515	1-249-433-11	CARBON 22K 5%	1/4W
L1501	1-412-525-31	INDUCTOR 10UH		R519	1-247-755-11	CARBON 1.8K 5%	1/2W F
L1502	1-412-525-31	INDUCTOR 10UH		R520	1-249-441-11	CARBON 100K 5%	1/4W
L1503	1-412-525-31	INDUCTOR 10UH		R521	1-216-481-11	METAL OXIDE 1.2K 5%	3W F
<TRANSISTOR>				R522	1-215-917-11	METAL OXIDE 1K 5%	3W F
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE		R523	1-249-425-11	CARBON 4.7K 5%	1/4W
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE		R524	1-215-445-00	METAL 10K 1%	1/4W
Q501	8-729-011-07	TRANSISTOR 2SC4763 (LBSOBY)		R526	1-249-401-11	CARBON 47 5%	1/4W
Q502	8-729-140-97	TRANSISTOR 2SB734-34		R528	1-247-903-00	CARBON 1M 5%	1/4W
9504	8-729-119-76	TRANSISTOR 2SA1175-HFE		R529	1-249-429-11	CARBON 10K 5%	1/4W
Q506	8-729-011-00	TRANSISTOR 2SK1916-F87		R530	1-215-457-00	METAL 33K 1%	1/4W
9507	8-729-119-80	TRANSISTOR 2SC2688-LK		R532	1-249-437-11	CARBON 47K 5%	1/4W
Q509	8-729-319-76	TRANSISTOR 2SA1175-HFE		R533	1-247-887-00	CARBON 220K 5%	1/4W
Q510	B-729-119-78	TRANSISTOR 2SC2785-HFE		R534	1-247-883-00	CARBON 150K 5%	1/4W
Q512	B-729-119-78	TRANSISTOR 2SC2785-HFE		R535	1-249-397-11	CARBON 22 5%	1/4W F
Q513	8-729-140-96	TRANSISTOR 2SD774-34		R537	1-215-465-00	METAL 68K 1%	1/4W
Q515	8-729-119-76	TRANSISTOR 2SA1175-HFE		R538	1-249-439-11	CARBON 68K 5%	1/4W
Q516	8-729-119-76	TRANSISTOR 2SA1175-HFE		R539	1-215-437-00	METAL 4.7K 1%	1/4W
Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE		R541	1-249-397-11	CARBON 22 5%	1/4W F
91407	8-729-119-78	TRANSISTOR 2SC2785-HFE		R542	1-215-890-11	METAL OXIDE 470 5%	2W F
Q1408	8-729-119-78	TRANSISTOR 2SC2785-HFE		R546	1-215-441-00	METAL 6.8K 1%	1/4W
Q1501	8-729-119-78	TRANSISTOR 2SC2785-HFE		R547	1-249-441-11	CARBON 100K 5%	1/4W
Q1502	8-729-119-78	TRANSISTOR 2SC2785-HFE		R548	1-215-885-00	METAL OXIDE 2W 5%	F
<RESISTOR>				R549	1-215-881-11	METAL OXIDE 08 5%	2W F
R201	1-249-405-11	CARBON 100 5%	1/4W F	R550	1-215-910-00	METAL OXIDE 68 5%	3W F
R202	1-249-405-11	CARBON 100 5%	1/4W F	R551	1-247-743-11	CARBON 220 5%	1/2W F
R210	1-249-441-11	CARBON 100K 5%	1/4W	R552	1-249-389-11	CARBON 4.7 5%	1/4W F
R211	1-249-425-11	CARBON 4.7K 5%	1/4W	R553	1-249-377-11	CARBON 0.47 5%	1/4W F
R214	1-249-377-11	CARBON 0.47 5%	1/4W F	R554	1-249-377-11	CARBON 0.47 5%	1/4W F
R219	1-249-426-11	CARBON 5.6K 5%	1/4W	R558	1-259-882-11	CARBON 3.3M 5%	1/4W
R221	1-249-409-11	CARBON 220 5%	1/4W	R560	1-247-901-11	CARBON 820K 5%	1/4W
R222	1-249-436-11	CARBON 39K 5%	1/4W	R564	1-215-470-00	METAL 110K 1%	1/4W
R223	1-249-434-11	CARBON 27K 5%	1/4W	Δ R565 Δ	CARBON		1/4W
R224	1-249-409-11	CARBON 220 5%	1/4W	Δ R566 Δ	CARBON		1/4W
R225	1-249-419-11	CARBON 1.5K 5%	1/4W	R567	1-249-425-11	CARBON 4.7K 5%	1/4W
R226	1-249-417-11	CARBON 1K 5%	1/4W	R568	1-249-425-11	CARBON 4.7K 5%	1/4W
R227	1-249-417-11	CARBON 1K 5%	1/4W	R569	1-249-417-11	CARBON 1K 5%	1/4W
R230	1-215-923-00	METAL OXIDE 10K 5%	3W F	R572	1-249-393-11	CARBON 10 5%	1/4W F
R231	1-249-40Y-II	CARBON 220 5%	1/4W F	R573	1-249-393-11	CARBON 10 5%	1/4W F
R232	1-216-380-11	METAL OXIDE 8.2 5%	2W F	R576	1-249-417-11	CARBON 1K 5%	1/4W F
R233	1-249-409-11	CARBON 220 5%	1/4W	R584	1-215-467-00	METAL 82K 1%	1/4W
R234	1-249-409-11	CARBON 220 5%	1/4W	R587	1-249-441-11	CARBON 100K 5%	1/4W
R235	1-249-409-11	CARBON 220 5%	1/4W	R589	1-249-437-11	CARBON 47K 5%	1/4W
R236	1-249-409-11	CARBON 220 5%	1/4W	R590	1-249-431-11	CARBON 15K 5%	1/4W
R237	1-249-409-11	CARBON 220 5%	1/4W	R592	1-249-429-11	CARBON 10K 5%	1/4W
R238	1-249-409-11	CARBON 220 5%	1/4W	R593	1-215-878-00	METAL OXIDE 33K 5%	1W F
R239	1-249-409-11	CARBON 220 5%	1/4W	R594	1-247-903-00	CARBON 1M 5%	1/4W
R240	1-249-482-11	CARBON 4.7 5%	1/2W F	R595	1-249-440-11	CARBON 82K 5%	1/4W
R501	1-215-442-00	METAL 7.5K 1%	1/4W	R597	1-249-437-11	CARBON 47K 5%	1/4W
R504	1-215-869-11	METAL OXIDE 1K 5%	1W F	R598	1-249-377-11	CARBON 0.47 5%	1/4W F
R505	1-215-449-00	METAL 15K 1%	1/4W	R599	1-249-425-11	CARBON 4.7K 5%	1/4W
R506	1-249-423-11	CARBON 3.3K 5%	1/4W	RI401	1-215-444-00	METAL 9.1K 1%	1/4W
R507	1-249-411-11	CARBON 330 5%	1/4W	RI402	1-215-444-00	METAL 9.1K 1%	1/4W
R508	1-249-435-11	CARBON 33K 5%	1/4W	RI403	1-215-430-00	METAL 2.4K 1%	1/4W
R509	1-249-441-11	CARBON 100K 5%	1/4W	RI404	1-215-430-00	METAL 2.4K 1%	1/4W
				RI405	1-249-385-11	CARBON 2.2 5%	1/4W F
				RI406	1-249-385-11	CARBON 2.2 5%	1/4W F
				RI409	1-249-433-11	CARBON 22K 5%	1/4W
				RI410	1-249-433-11	CARBON 22K 5%	1/4W

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

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

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1427	I-249-421-11	CARBON	2.2K 5% 1/4W	DY1	*1-580-798-11	CONNECTOR PIN (DY) 6P	
R1428	I-249-421-11	CARBON	2.2K 5% 1/4W	BS002	*1-573-960-11	CONNECTOR (FEMALE) 50P	
R1439	I-247-883-00	CARBON	150K 5% 1/4W				
R1501	I-215-449-00	METAL	15K 1% 1/4W				
R1502	I-215-436-00	METAL	4.3K 1% 1/4W				
						<CAPACITOR>	
R1503	I-249-425-11	CARBON	4.7K 5% 1/4W	C201	1-126-101-11	ELECT	100MF 20% 16V
R1505	I-249-433-11	CARBON	22K 5% 1/4W	C202	1-102-108-00	CERAMIC	150PF 10% 50V
R1506	I-218-642-91	METAL OXIDE	100K 5% 1W F	C210	1-102-121-00	CERAMIC	0.0022MF 10% 50V
R1507	I-249-436-11	CARBON	39K 5% 1/4W	C211	1-101-006-00	CERAMIC	0.047MF 50V
R1508	I-215-453-00	METAL	22K 1% 1/4W	C213	1-126-103-11	ELECT	470MF 20% 16V
R1509	I-215-461-00	METAL	47K 1% 1/4W	C214	1-126-101-11	ELECT	100MF 20% 16V
R1510	I-249-383-11	CARBON	1.5K 5% 1/4W F	C215	1-124-910-11	ELECT	47MF 20% 50V
R1511	I-215-888-00	METAL OXIDE	220 5% 2W F	C216	1-126-101-11	ELECT	100MF 20% 16V
R1512	I-216-371-00	METAL OXIDE	1.5 5% 2W F	C217	1-124-126-00	ELECT	47MF 20% 25V
R1513	I-249-436-11	CARBON	39K 5% 1/4W	C218	1-126-103-11	ELECT	470MF 20% 16V
R1550	I-215-881-11	METAL OXIDE	15 5% 2W F	C219	1-136-169-00	FILM	0.22MF 5% 50V
R4002	I-249-385-11	CARBON	2.2 5% 1/4W F	C220	I-124-910-11	ELECT	47MF 20% 50V
R4003	I-216-361-00	METAL OXIDE	0.22 5% 2W F	C221	1-124-910-11	ELECT	47MF 20% 50V
R4004	I-216-374-00	METAL OXIDE	2.7 5% 2W F	C223	1-124-261-00	ELECT	10MF 20% 50V
R4006	I-216-396-11	METAL OXIDE	3.9 5% 3W F	C224	1-124-261-00	ELECT	10MF 20% 50V
		<SPARK GAP>		C225	1-124-120-11	ELECT	220MF 20% 16V
SG501	I-519-422-11	GAP, SPARK		C226	I-124-621-11	ELECT	3300MF 20% 6.3V
				C299	1-126-101-11	ELECT	100MF 20% 16V
				C501	1-137-116-11	FILM	1MF 5% 200V
				C502	I-130-471-00	FILM	0.001MF 5% 50V
		<TRANSFORMER>		C503	1-124-261-00	ELECT	10MF 20% 50V
T501	A-1-439-513-11	TRANSFORMER ASSY. FLYBACK (NX-2602A3)		C504	1-136-161-00	FILM	0.047MF 5% 50V
T503	I-437-217-11	TRANSFORMER, HORIZONTAL DRIVE		C505	1-124-790-11	ELECT	0.47MF 20% 100V
T505	I-413-059-00	TRANSFORMER, FERRITE (DFT)		C506	1-124-480-11	ELECT	470MF 20% 25V
				C507	1-130-473-00	MYLAR	0.0015MF 5% 50V
				C508	1-162-114-00	CERAMIC	0.0047MF 2KV
		<THERMISTOR>		C509	I-124-808-51	ELECT	10MF 20% 200V
THP1501	I-807-970-11	THERMISTOR		C510	I-102-110-00	CERAMIC	220PF 10% 50V
				C511	1-124-477-11	ELECT	47MF 20% 25V
				C512	1-162-318-11	CERAMIC	0.001MF 10% 500V
				C513	1-106-391-12	MYLAR	0.1MF 10% 200V
		<TUNER>		C514	1-124-477-11	ELECT	47MF 20% 25V
TU101	A-1-693-102-21	TUNER (BTF-XA401)		C515	1-162-117-00	CERAMIC	100PF 10% 500V
				C517	1-124-477-11	ELECT	47MF 20% 25V
				C518	1-136-161-00	FILM	0.047MF 5% 50V
				C519	1-124-472-11	ELECT	470MF 20% 10V
		*A-1296-949-A A BOARD, COMPLETE (KV-27XBR35(U/C))		C520	A-1-161-754-00	CERAMIC	0.001MF 10% 2KV
				C521	A-1-137-604-21	FILM	0.022MF 2% 200V
		*4-341-751-01 EYELET (EY101~EY169, N171, EY172)		C522	1-162-116-00	CERAMIC	680PF 10% 2KV
		*4-341-752-01 EYELET (EY1~EY55)		C523	1-124-465-00	ELECT	0.47MF 20% 50V
		4-382-854-11 SCREW (M3X10), P, SW (+)		C524	1-130-487-00	MYLAR	0.022MF 5% 50V
				C525	1-162-116-00	CERAMIC	680PF 10% 2KV
		<CONNECTOR>		C526	A1-137-515-91	FILM	0.056MF 3% 400V
A0	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P		C527	1-136-167-00	FILM	0.15MF 5% 50V
A2	*1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P		C528	1-106-359-00	MYLAR	0.0047MF 10% 200V
A3	*1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P		C529	1-136-161-00	FILM	0.047MF 5% 50V
A4	*1-564-510-11	PLUG, CONNECTOR 7P		C530	1-136-105-00	FILM	0.33MF 5% 200V
A5	*1-564-507-11	PLUG, CONNECTOR 4P		C531	1-124-634-11	ELECT	1MF 20% 250V
A11	*1-564-507-11	PLUG, CONNECTOR 4P		C532	1-124-477-11	ELECT	47MF 20% 25V
A12	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P		C533	1-137-516-11	FILM	1.2MF 5% 200V
A13	I-573-297-11	CONNECTOR, BOARD TO BOARD 18P		C534	1-137-114-11	FILM	0.68MF 5% 200V
A14	I-573-296-11	CONNECTOR, BOARD TO BOARD 10P		C535	1-124-480-11	ELECT	470MF 20% 25V
A15	I-573-296-11	CONNECTOR, BOARD TO BOARD 10P		C536	1-102-228-00	CERAMIC	470PF 10% 500V
A18	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P		C537	1-106-343-00	MYLAR	0.001MF 10% 100V
A21	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P		C538	1-106-391-12	MYLAR	0.1MF 10% 200V
A37	*1-564-514-11	PLUG, CONNECTOR 11P		C539	1-123-950-00	ELECT	47MF 20% 250V
A48	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		C540	1-124-480-11	ELECT	470MF 20% 25V
A49	*1-564-506-11	PLUG, CONNECTOR 3P		C541	1-102-228-00	CERAMIC	470PF 10% 500V
				C542	1-106-387-00	MYLAR	0.068MF 10% 200V

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REF. NO.	PART NO.	DESCRIPTION	REMARK
C543	1-136-347-11	FILM 0.0047MF 5%	630V
C544	1-124-797-11	ELECT 0.47MF 20%	160V
C545	1-102-244-00	CERAMIC 220PF 10%	500V
C546	1-123-024-21	ELECT 33MF 5%	160V
C547	1-130-471-00	MYLAR 0.001MF 5%	50V
C548	1-130-467-00	MYLAR 470PF 5%	50V
C549	1-124-261-00	ELECT 10MF 20%	50V
C550	1-129-702-00	FILM 0.001MF 10%	630V
C551	1-130-471-00	MYLAR 0.001MF 5%	50V
C552	1-126-176-11	ELECT 220MF 20%	10V
C553	1-124-261-00	ELECT 10MF 20%	50V
C554	Δ 1-161-731-51	CERAMIC 0.001MF 10%	2KV
C555	1-123-947-00	ELECT 10MF 20%	250V
C557	1-124-465-00	ELECT 0.47MF 20%	50V
C559	1-129-718-00	FILM 0.022MF 5%	630V
C560	1-136-169-00	FILM 0.22MF 5%	50V
C561	1-124-261-00	ELECT 10MF 20%	50V
C562	1-124-499-11	ELECT 1MF 20%	50V
C563	1-130-491-00	MYLAR 0.047MF 5%	50V
C564	1-130-495-00	MYLAR 0.1MF 5%	50V
C565	1-130-495-00	MYLAR 0.1MF 5%	50V
C569	1-130-497-00	MYLAR 0.15MF 5%	50V
C570	1-130-471-00	MYLAR 0.001MF 5%	50V
C571	1-130-651-00	FILM 0.001MF 2%	100V
C572	1-124-261-00	ELECT 10MF 20%	50V
C573	1-130-471-00	MYLAR 0.001MF 5%	50V
C575	1-102-038-00	CERAMIC 0.001MF 500V	
C576	1-106-355-12	MYLAR 0.0033MF 200V	
C1401	1-124-910-11	ELECT 47MF 20%	50V
C1402	1-126-157-11	ELECT 10MF 20%	16V
C1403	1-126-157-11	ELECT 10MF 20%	16V
C1404	1-126-157-11	ELECT 10MF 20%	16V
C1405	1-124-910-11	ELECT 47MF 20%	50V
C1406	1-124-910-11	ELECT 47MF 20%	50V
C1407	1-124-607-11	ELECT 2200MF 20%	50V
C1408	1-136-165-00	FILM 0.1MF 5%	50V
C1409	1-136-165-00	FILM 0.1MF 5%	50V
C1424	1-124-607-11	ELECT 2200MF 20%	50V
C1425	1-124-607-11	ELECT 2200MF 20%	50V
C1426	1-126-157-11	ELECT 10MF 20%	16V
C1435	1-126-233-11	ELECT 22MF 20%	50V
C1437	1-130-499-00	MYLAR 0.22MF 5%	50V
C1501	1-126-233-11	ELECT 22MF 20%	50V
C1502	1-126-301-11	ELECT 1MF 20%	50V
C1503	1-102-114-00	CERAMIC 470PF 10%	50V
C1504	1-124-480-11	ELECT 470MF 20%	25V
C1505	1-124-911-11	ELECT 220MF 20%	50V
C1506	1-136-171-00	FILM 0.33MF 5%	50V
C1507	1-108-390-91	MYLAR 0.12MF 10%	100V
C1508	1-124-480-11	ELECT 470MF 20%	25V
C1509	1-124-122-11	ELECT 100MF 20%	50V
C1511	1-164-014-11	CERAMIC 5PF 0.25PF	50V

<DIODE>

D201	8-719-110-13	DIODE RD9.1ES-B2
D202	8-719-110-13	DIODE RD9.1ES-B2
D204	8-719-911-19	DIODE 1SS119
D205	8-719-911-19	DIODE 1SS119
D206	8-719-911-19	DIODE 1SS119
D207	8-719-911-19	DIODE 1SS119
D208	8-719-911-19	DIODE 1SS119
D209	8-719-510-48	DIODE DIN20R
D213	8-719-110-78	DIODE RD33ES-B2

REF. NO.	PART NO.	DESCRIPTION	REMARK
D501	8-719-018-82	DIODE RGP02-20EL-6394	
D502	A 8-719-302-43	DIODE EL1Z	
D503	t-719-970-87	DIODE ERA38-06	
D504	8-719-911-19	DIODE 1SS119	
D506	8-719-109-90	DIODE RD5.6ES-B3	
D508	g-719-109-88	DIODE RD5.6ES-B1	
D509	8-719-110-03	DIODE RD7.5ES-B2	
D510	8-719-911-19	DIODE 1SS119	
D511	a-719-300-33	DIODE RU-3AM	
D512	g-719-911-55	DIODE U05G	
D513	8-719-911-55	DIODE U05G	
D514	8-719-312-72	DIODE RU30A	
D515	K-719-300-33	DIODE RU-3AM	
D516	8-719-979-85	DIODE EGP20G	
D517	8-719-943-06	DIODE ERB24-06D	
D518	8-719-109-93	DIODE RD6.2ES-B2	
D521	g-719-911-19	DIODE 1SS119	
D522	8-719-110-72	DIODE RD30ES-B2	
D524	8-719-976-64	DIODE RGP02-17	
D525	8-719-911-19	DIODE 1SS119	
D527	a-719-110-78	DIODE RD33ES-B2	
D529	8-719-911-19	DIODE 1SS119	
D530	8-719-911-19	DIODE 1SS119	
D1407	8-719-911-19	DIODE 1SS119	
D1408	8-719-911-19	DIODE 1SS119	
D1409	8-719-110-90	DIODE RD39ES-B4	
D1410	8-719-901-83	DIODE 1SS83	
D1411	8-719-901-83	DIODE 1SS83	
D1412	8-719-911-19	DIODE 1SS119	
D1413	8-719-911-19	DIODE 1SS119	
D1414	8-719-911-19	DIODE 1SS119	
D1503	8-719-911-55	DIODE U05G	
D4001	8-719-911-19	DIODE 1SS119	

<IC>

IC201	8-749-920-58	IC S1-3090CA
IC202	8-749-921-99	IC S1-3120CA
IC204	8-759-231-53	IC TA7805S
IC205	8-759-144-84	IC UPC24M05HF
IC206	8-759-982-13	IC RC7812FA
IC501	8-759-987-16	IC LM393P
IC502	1-809-845-11	MODULE, PROTECTOR PM-30
IC503	8-759-987-16	IC LM393P
IC504	8-759-982-13	IC RC7812FA
IC1401	g-759-246-70	IC TA8216H
IC1501	g-759-506-46	IC TDA8179S

<COIL>

L201	1-408-408-00	INDUCTOR 8.2UH
L205	1-410-645-31	INDUCTOR 100UH
L208	1-410-785-31	INDUCTOR 0.22UH
L210	1-408-408-00	INDUCTOR 8.2UH
L501	1-459-148-00	COIL
L502	1-412-552-31	INDUCTOR 2.2MH
L504	1-410-455-11	INDUCTOR 10MH
L507	1-459-483-00	COIL (WITH CORE)
L508	1-421-541-00	COIL, CHOKE 1000UH
L509	1-459-104-00	COIL, WITH CORE
L510	Δ 1-460-197-11	COIL, FERRITE (PMC)
L511	t-412-519-11	INDUCTOR 3.3UH
L512	1-412-531-31	INDUCTOR 33UH

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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.

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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	REF. NO.	PART NO.	DESCRIPTION	REMARK
L513	I-412-519-11	INDUCTOR 3.3UH		R508	i-249-435-11	CARBON 33K 5%	1/4W
L514	I-459-123-00	COIL, DUST CORE (PAC)		R509	i-249-441-11	CARBON 100K 5%	1/4W
L515	I-410-645-31	INDUCTOR 100UH		R510	i-249-409-11	CARBON 220 5%	1/4W F
L520	I-412-531-31	INDUCTOR 33UH		R511	i-249-398-11	CARBON 27 5%	1/4W F
L1501	t-412-531-31	INDUCTOR 33UH		R512	i-249-423-11	CARBON 3.3K 5%	1/4W
L1503	I-412-531-31	INDUCTOR 33UH		R513	i-249-425-11	CARBON 4.7K 5%	1/4W
<TRANSISTOR>				R514	i-249-438-11	CARBON 56K 5%	1/4W
Q201	g-729-119-78	TRANSISTOR 2SC2785-HFE		R515	i-249-433-11	CARBON 22K 5%	1/4W
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE		R516	i-249-419-11	CARBON 1.5K 5%	1/4W
Q501	8-729-011-07	TRANSISTOR 2SC4763 (LBSONY)		R518	i-249-437-11	CARBON 47K 5%	1/4W
Q502	8-729-140-97	TRANSISTOR 2SB734-34		R519	i-247-755-11	CARBON 1.8K 5%	1/2W F
Q503	8-729-011-06	TRANSISTOR 2SC3840K		R520	i-249-441-11	CARBON 100K 5%	1/4W
Q504	8-729-119-76	TRANSISTOR 2SA1175-HFE		R521	i-216-481-11	METAL OXIDE 1.2K 5%	3W F
Q505	g-729-119-76	TRANSISTOR 2SA1175-HFE		R522	i-215-917-11	METAL OXIDE 1K 5%	3W F
Q506	8-729-011-00	TRANSISTOR 2SK1916-F87		R523	i-249-425-11	CARBON 4.7K 5%	1/4W
Q507	8-729-119-80	TRANSISTOR 2SC2688-LK		R524	i-215-445-00	METAL 10K 1%	1/4W
Q508	g-729-119-78	TRANSISTOR 2SC2785-HFE		R526	i-249-401-11	CARBON 47 5%	1/4W
Q509	g-729-119-76	TRANSISTOR 2SA1175-HFE		R527	i-249-417-11	CARBON 1K 5%	1/4W
Q510	g-729-119-78	TRANSISTOR 2SC2785-HFE		R528	i-247-903-00	CARBON 1M 5%	1/4W
Q511	8-729-119-76	TRANSISTOR 2SA1175-HFE		R529	i-249-429-11	CARBON 10K 5%	1/4W
Q512	g-729-119-78	TRANSISTOR 2SC2785-HFE		R530	i-215-457-00	METAL 33K 1%	1/4W
Q513	g-729-140-96	TRANSISTOR 2SD774-34		R531	i-249-432-11	CARBON 18K 5%	1/4W
Q515	8-729-119-76	TRANSISTOR 2SA1175-HFE		R532	i-249-437-11	CARBON 47K 5%	1/4W
Q516	8-729-119-76	TRANSISTOR 2SA1175-HFE		R533	i-247-887-00	CARBON 220K 5%	1/4W
Q1401	g-721-119-78	TRANSISTOR 2SC2785-HFE		R534	i-215-472-00	METAL 130K 1%	1/4W
Q1407	8-729-119-78	TRANSISTOR 2SC2785-HFE		R536	i-249-429-11	CARBON 10K 5%	1/4W
Q1408	B-729-119-78	TRANSISTOR 2SC2785-HFE		R537	i-215-465-00	METAL 68K 1%	1/4W
Pi 501	8-729-139-78	TRANSISTOR 2SC2785-HFE		R538	i-247-883-00	CARBON 150K 5%	1/4W
Q1502	g-729-119-78	TRANSISTOR 2SC2785-HFE		R539	i-249-425-11	CARBON 4.7K 5%	1/4W
<RESISTOR>				R540	i-249-437-11	CARBON 47K 5%	1/4W
R201	I-249-405-11	CARBON 100 5%	1/4W F	R541	i-249-397-11	CARBON 22 5%	1/4W F
R202	I-249-405-11	CARBON 100 5%	1/4W F	R542	i-215-888-00	METAL OXIDE 220 5%	2W F
R210	I-249-441-11	CARBON 100K 5%	1/4W	R543	i-249-411-11	CARBON 330 5%	1/4W
R211	I-249-425-11	CARBON 4.7K 5%	1/4W	R544	i-249-441-11	CARBON 100K 5%	1/4W
R214	i-249-377-11	CARBON 0.47 5%	1/4W F	R546	i-215-441-00	METAL 6.8K 1%	1/4W
R219	i-249-426-11	CARBON 5.6K 5%	1/4W	R547	i-249-441-11	CARBON 100K 5%	1/4W
R221	i-249-409-11	CARBON 220 5%	1/4W	R548	i-215-889-00	METAL OXIDE 330 5%	2W F
R222	i-249-436-11	CARBON 39K 5%	1/4W	R549	i-215-881-11	METAL OXIDE 15 5%	2W F
R223	i-249-434-11	CARBON 27K 5%	1/4W	R550	i-215-909-11	METAL OXIDE 47 5%	3W F
R224	i-249-409-11	CARBON 220 5%	1/4W	R551	i-247-743-11	CARBON 220 5%	1/2W F
R225	i-249-419-11	CARBON 1.5K 5%	1/4W	R552	i-249-389-11	CARBON 4.7 5%	1/4W F
R226	i-249-417-11	CARBON 1K 5%	1/4W	R553	i-249-377-11	CARBON 0.47 5%	1/4W F
R227	i-249-417-11	CARBON 1K 5%	1/4W	R554	i-249-377-11	CARBON 0.47 5%	1/4W F
R230	i-215-923-00	METAL OXIDE 10K 5%	3W F	R556	i-216-459-00	METAL OXIDE 2.7K 5%	2W F
R231	i-249-409-11	CARBON 220 5%	1/4W F	R558	i-259-882-11	CARBON 3.3M 5%	1/4W
11232	i-216-380-11	METAL OXIDE 8.2 5%	2W F	R559	i-216-439-00	METAL OXIDE 12K 5%	1W F
R233	i-249-403-11	CARBON 220 5%	1/4W	R560	i-247-901-11	CARBON 820K 5%	1/4W
R234	i-249-409-11	CARBON 220 5%	1/4W	R561	i-249-410-11	CARBON 270 5%	1/4W
R235	i-249-409-11	CARBON 220 5%	1/4W	R562	i-215-442-00	METAL 7.5K 1%	1/4W
R236	i-249-409-11	CARBON 220 5%	1/4W	R564	i-215-475-00	METAL 180K 1%	1/4W
R237	i-249-409-11	CARBON 220 5%	1/4W	R565	Δ	CARBON	1/4W
R238	i-249-409-11	CARBON 220 5%	1/4W	R566	Δ	CARBON	1/4W
R239	i-249-409-11	CARBON 220 5%	1/4W	R567	i-249-425-11	CARBON 4.7K 5%	1/4W
R240	i-249-482-11	CARBON 4.7 5%	1/2W F	R568	i-249-425-11	CARBON 4.7K 5%	1/4W
R501	i-249-431-11	CARBON 15K 5%	1/4W	R569	i-249-417-11	CARBON 1K 5%	1/4W
R502	i-249-431-11	CARBON 15K 5%	1/4W	R570	i-249-402-11	CARBON 56 5%	1/4W
R504	i-215-869-11	METAL OXIDE 1K 5%	1W F	R572	i-249-393-11	CARBON 10 5%	1/4W F
R505	i-215-449-00	METAL 1K 1%	1/4W	R573	i-249-393-11	CARBON 10 5%	1/4W F
R506	i-249-423-11	CARBON 3.3K 5%	1/4W	R574	i-215-882-00	METAL OXIDE 22 5%	2W F
R507	i-249-411-11	CARBON 330 5%	1/4W	R575	i-216-459-00	METAL OXIDE 2.7K 5%	2W F
				R576	i-249-417-11	CARBON 1K 5%	1/4W F
				R577	i-215-887-00	METAL OXIDE 150 5%	2W F
				R578	i-215-883-11	METAL OXIDE 33 5%	2W F

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

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

A **P1**

REF. NO.	PART NO.	DESCRIPTION	REMARK
R579	I-249-441-11	CARBON	100K 5% 1/4W
R580	I-249-441-11	CARBON	100K 5% 1/4W
R583	I-249-441-11	CARBON	100K 5% 1/4W
R584	I-215-463-00	METAL	56K 1% 1/4W
R587	I-249-441-11	CARBON	100K 5% 1/4W
R588	I-249-415-11	CARBON	680 5% 1/4W
R589	I-249-437-11	CARBON	47K 5% 1/4W
R590	I-249-431-11	CARBON	15K 5% 1/4W
R591	I-247-887-00	CARBON	220K 5% 1/4W
R592	I-249-429-11	CARBON	10K 5% 1/4W
R593	I-215-878-00	METAL OXIDE	33K 5% 1W F
R594	I-247-903-00	CARBON	5% 1/4W
R595	I-249-440-11	CARBON	82K 5% 1/4W
R596	I-249-432-11	CARBON	18K 5% 1/4W
R597	I-249-437-11	CARBON	47K 5% 1/4W
R599	I-249-425-11	CARBON	4.7K 5% 1/4W
R1401	f-215-444-00	METAL	9.1K 1% 1/4W
R1402	r-215-444-00	METAL	9.1K 1% 1/4W
R1403	I-215-430-00	METAL	2.4K 1% 1/4W
R1404	I-215-430-00	METAL	2.4K 1% 1/4W
R1405	I-249-385-11	CARBON	2.2 5% 1/4W F
R1406	I-249-385-11	CARBON	2.2 5% 1/4W F
R1409	I-249-433-11	CARBON	22K 5% 1/4W
R1410	I-249-433-11	CARBON	22K 5% 1/4W
R1427	I-249-421-11	CARBON	2.2K 5% 1/4W
R1428	I-249-421-11	CARBON	2.2K 5% 1/4W
R1439	I-247-883-00	CARBON	150K 5% 1/4W
R1501	I-215-449-00	METAL	15K 1% 1/4W
R1502	I-215-433-00	METAL	3.3K 1% 1/4W
R1503	I-249-425-11	CARBON	4.7K 5% 1/4W
R1505	I-249-433-11	CARBON	22K 5% 1/4W
R1506	I-218-642-91	METAL OXIDE	100K 5% 1W F
R1507	I-249-436-11	CARBON	39K 5% 1/4W
R1508	I-215-453-00	METAL	22K 1% 1/4W
R1509	I-215-455-00	METAL	27K 1% 1/4W
R1510	f-249-383-11	CARBON	1.5 5% 1/4W F
R1511	I-215-888-00	METAL OXIDE	220 5% 2W F
R1512	I-216-369-00	METAL OXIDE	1 5% 2W F
R1513	I-249-436-11	CARBON	39K 5% 1/4W
R4002	I-249-385-11	CARBON	2.2 5% 1/4W F
R4003	I-216-361-00	METAL OXIDE	0.22 5% 2W F
R4004	I-216-374-00	METAL OXIDE	2.7 5% 2W F
R4006	I-216-396-11	METAL OXIDE	3.9 5% 3W F

<SPARK GAP>

SC501 I-5 19-422-11 GAP, SPARK

<TRANSFORMER>

T501 **Δ** I-439-524-11 TRANSFORMER ASSY, FLYBACK (NX-3000A2)
 T502 **Δ** I-460-199-11 TRANSFORMER (HLT)
 T503 I-437-195-11 TRANSFORMER, HORIZONTAL DRIVE
 T504 I-424-584-11 TRANSFORMER, DYNAMIC FOCUS

<THERMISTOR>

THP1501 I-807-925-11 THERMISTOR

<TUNER>

TU101 **Δ** I-693-102-21 TUNER (BTF-XA401)

REF. NO.	PART NO.	DESCRIPTION	REMARK
*A-1195-051-A	P1	BOARD, COMPLETE	*****
<CAPACITOR>			
C3001	I-124-589-11	ELECT	47MF 20% 16V
C3002	I-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
C3003	I-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
C3004	I-163-119-00	CERAMIC CHIP	120PF 5% 50V
C3005	I-163-101-00	CERAMIC CHIP	22PF 5% 50V
C3006	I-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
C3007	I-164-005-11	CERAMIC CHIP	0.47MF 10% 16V
C3008	I-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C3009	I-124-257-00	ELECT	2.2MF 20% 50V
C3010	I-163-145-00	CERAMIC CHIP	0.0015MF 5% 50V
C3011	I-163-018-00	CERAMIC CHIP	0.0056MF 10% 50V
C3012	I-164-336-11	CERAMIC CHIP	0.33MF 25V
C3013	I-164-222-11	CERAMIC CHIP	0.22MF 25V
C3014	I-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C3015	I-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
C3016	I-163-111-00	CERAMIC CHIP	56PF 5% 50V
C3017	I-130-495-00	MYLAR	0.1MF 5% 50V
C3018	I-163-115-00	CERAMIC CHIP	82PF 5% 50V
C3019	I-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
C3020	I-163-105-00	CERAMIC CHIP	33PF 5% 50V
C3021	I-163-115-00	CERAMIC CHIP	82PF 5% 50V
C3022	I-126-301-11	ELECT	1MF 20% 50V
C3023	I-124-589-11	ELECT	47MF 20% 16V
C3024	I-163-018-00	CERAMIC CHIP	0.0056MF 10% 50V
C3025	I-164-343-11	CERAMIC CHIP	0.056MF 10% 25V
C3026	I-126-163-11	ELECT	4.7MF 20% 50V
C3027	I-163-099-00	CERAMIC CHIP	18PF 5% 50V
C3028	I-124-589-11	ELECT	47MF 20% 16V
C3029	I-163-133-00	CERAMIC CHIP	470PF 5% 50V
C3030	I-163-037-11	CERAMIC CHIP	0.022MF 10% 25V
C3031	I-124-589-11	ELECT	47MF 20% 16V
C3032	I-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
C3033	I-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
C3034	I-164-336-11	CERAMIC CHIP	0.33MF 25V
C3035	I-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C3036	I-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C3037	I-126-177-11	ELECT	100MF 20% 6.3V
C3038	I-136-287-11	FILM	0.0047MF 5% 50V
C3039	I-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C3040	I-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
C3042	I-164-346-11	CERAMIC CHIP	1MF 10% 16V
C3043	I-124-465-00	ELECT	0.47MF 20% 50V
C3044	I-126-301-11	ELECT	1MF 20% 50V
C3045	I-124-589-11	ELECT	47MF 20% 16V
C3046	I-126-301-11	ELECT	1MF 20% 50V
C3047	I-126-301-11	ELECT	1MF 20% 50V
C3048	I-164-161-11	CERAMIC CHIP	0.0022MF 10% 50V
C3051	I-164-161-11	CERAMIC CHIP	0.0022MF 10% 50V
C3052	I-126-177-11	ELECT	100MF 20% 6.3V
C3053	I-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C3054	I-126-177-11	ELECT	100MF 20% 6.3V
C3055	I-163-133-00	CERAMIC CHIP	470PF 5% 50V
C3057	I-124-589-11	ELECT	47MF 20% 16V
C3058	I-163-009-11	CERAMIC CHIP	0.001MF 10% 50V
C3059	I-164-222-11	CERAMIC CHIP	0.22MF 25V
C3060	I-124-589-11	ELECT	47MF 20% 16V
C3061	I-164-489-11	CERAMIC CHIP	0.22MF 10% 16V
C3064	I-163-123-00	CERAMIC CHIP	180PF 5% 50V

P1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C3065	1-124-589-11	ELECT	47MF	20%	16V	R3004	1-216-091-00 METAL GLAZE 56K 5% 1/10W
C3066	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	R3005	1-216-689-11 METAL GLAZE 39K 5% 1/10W
C3067	1-124-589-11	ELECT	47MF	20%	16V	R3006	1-216-097-00 METAL GLAZE 100K 5% 1/10W
C3069	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	R3007	1-216-079-00 METAL GLAZE 18K 5% 1/10W
C3070	1-126-177-11	ELECT	100MF	20%	6.3V	R3008	1-216-073-00 METAL GLAZE 10K 5% 1/10W
C3071	1-124-589-11	ELECT	47MF	20%	16V	R3009	1-216-041-00 METAL GLAZE 470 5% 1/10W
C3072	1-124-589-11	ELECT	47MF	20%	16V	R3010	1-216-049-00 METAL GLAZE 1K 5% 1/10W
C3073	1-124-589-11	ELECT	47MF	20%	16V	R3011	1-216-073-00 METAL GLAZE 10K 5% 1/10W
<DIODE>							
D3003	8-719-158-15	DIODE	RD5 6S-B				
D3009	8-719-404-46	DIODE	MA110				
<IC>							
I C3001	8-759-046-25	IC	TDA3769				
IC3002	g-759-009-46	IC	MC14528BF				
IC3003	8-759-513-48	IC	TDA2595/V9				
If3004	8-759-055-51	IC	SDA9087XGEG				
IC3005	8-759-055-52	IC	SDA9089XGEG				
IC3006	8-759-112-06	IC	UPC78N05H				
IC3007	B-759-046-27	IC	SDA9086-3				
IC3008	8-751-112-06	IC	UPC78N05H				
<COIL>							
L3001	-410-476-11	INDUCTOR	33UH				
L3002	-408-424-00	INDUCTOR	180UH				
L3003	-408-424-00	INDUCTOR	180UH				
L3004	-410-470-11	INDUCTOR	10UH				
L3005	-410-472-41	INDUCTOR	15UH				
L3006	1-410-470-11	INDUCTOR	10UH				
L3007	1-410-472-41	INDUCTOR	15UH				
L3008	1-410-472-41	INDUCTOR	15UH				
L3009	1-410-472-41	INDUCTOR	15UH				
L3010	1-410-466-41	INDUCTOR	4.7UH				
L3011	1-410-470-11	INDUCTOR	10UH				
L3012	1-410-676-31	INDUCTOR	150UH				
L3013	1-412-911-11	INDUCTOR	FFRRI TE BEAD				
<CONNECTOR>							
P1-001*1-573-965-11	PIN, CONNECTOR (PC BOARD)	50P					
<TRANSISTOR>							
Q3001	a-729-920-74	TRANSISTOR	2SC2412K-QR				
Q3003	8-729-216-22	TRANSISTOR	2SA1162-G				
Q3004	a-729-920-74	TRANSISTOR	2SC2412K-QR				
Q3006	8-729-920-74	TRANSISTOR	2SC2412K-QR				
93007	8-729-216-22	TRANSISTOR	2SA1162-G				
93008	8-729-920-74	TRANSISTOR	2SC2412K-QR				
Q3009	8-729-216-22	TRANSISTOR	2SA1162-G				
Q3010	8-729-920-74	TRANSISTOR	2SC2412K-QR				
Q3011	g-729-216-22	TRANSISTOR	2SA1162-G				
Q3012	8-729-920-74	TRANSISTOR	2SC2412K-QR				
93013	8-729-920-74	TRANSISTOR	2SC2412K-QR				
<RESISTOR>							
R3001	1-216-085-00	METAL GLAZE	33K 5% 1/10W				
R3002	1-216-095-00	METAL GLAZE	82K 5% 1/10W				
R3003	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W				
R3004	1-216-091-00	METAL GLAZE	56K 5% 1/10W				
R3005	1-216-689-11	METAL GLAZE	39K 5% 1/10W				
R3006	1-216-097-00	METAL GLAZE	100K 5% 1/10W				
R3007	1-216-079-00	METAL GLAZE	18K 5% 1/10W				
R3008	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R3009	1-216-041-00	METAL GLAZE	470 5% 1/10W				
R3010	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R3011	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R3012	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W				
R3013	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R3014	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R3015	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R3018	1-216-097-00	METAL GLAZE	100K 5% 1/10W				
R3019	1-216-077-00	METAL GLAZE	15K 5% 1/10W				
R3020	1-216-099-00	METAL GLAZE	120K 5% 1/10W				
R3021	1-216-075-00	METAL GLAZE	12K 5% 1/10W				
R3023	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R3024	1-216-077-00	METAL GLAZE	15K 5% 1/10W				
R3025	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R3026	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
R3027	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W				
R3028	1-216-031-00	METAL GLAZE	180 5% 1/10W				
R3030	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R3031	1-216-047-00	METAL GLAZE	820 5% 1/10W				
R3032	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
R3033	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R3034	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
R3035	1-216-045-00	METAL GLAZE	680 5% 1/10W				
R3036	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R3037	1-216-083-00	METAL GLAZE	27K 5% 1/10W				
R3038	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R3040	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R3041	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R3043	1-216-099-00	METAL GLAZE	120K 5% 1/10W				
R3044	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R3045	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R3046	1-216-041-00	METAL GLAZE	470 5% 1/10W				
R3047	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R3048	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R3049	1-216-041-00	METAL GLAZE	470 5% 1/10W				
R3050	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R3051	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
R3052	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R3053	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
R3054	1-216-113-00	METAL GLAZE	470K 5% 1/10W				
R3055	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W				
R3056	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W				
R3057	1-216-081-00	METAL GLAZE	22K 5% 1/10W				
R3058	1-216-041-00	METAL GLAZE	470 5% 1/10W				
R3059	1-216-077-00	METAL GLAZE	15K 5% 1/10W				
R3060	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R3061	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R3062	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R3063	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R3064	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R3065	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R3066	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R3067	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R3069	1-216-689-11	METAL GLAZE	39K 5% 1/10W				
R3071	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R3073	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R3075	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R3076	1-216-043-00	METAL GLAZE	560 5% 1/10W				

P1 M

REF. NO. PART NO.	DESCRIPTION	REMARK	EF. NO. PART NO.	DESCRIPTION	REMARK
R3077	1-216-637-11 METAL CHIP 270 0.50% 1/10W		D002	a-719-404-46 DIODE MA110	
R3078	1-216-644-11 METAL CHIP 510 0.50% 1/10W		D003	g-719-404-46 DIODE MA110	
R3079	1-210-640-11 METAL CHIP 360 0.50% 1/10W		D004	8-719-404-46 DIODE MA110	
R3081	1-163-095-00 CERAMIC CHIP 12PF 5% 50V		D005	g-719-404-46 DIODE MA110	
R3082	1-216-029-00 METAL GLAZE 150 5% 1/10W		D006	8-719-404-46 DIODE MA110	
R3084	1-216-049-00 METAL GLAZE 1K 5% 1/10W		D007	8-719-404-46 DIODE MA110	
113085	1-216-119-00 METAL GLAZE 820K 5% 1/10W		D008	8-719-404-46 DIODE MA110	
R3086	1-216-065-00 METAL GLAZE 4.7K 5% 1/10W		D009	8-719-404-46 DIODE MA110	
R3087	1-216-081-00 METAL GLAZE 22K 5% 1/10W		D010	8-713-300-57 DIODE 1733	
R3088	1-216-081-00 METAL GLAZE 22K 5% 1/10W		D011	g-719-404-46 DIODE MA110	
R3089	1-216-033-00 METAL GLAZE 220 5% 1/10W		D012	8-719-404-46 DIODE MA110	
R3090	1-216-089-00 METAL GLAZE 47K 5% 1/10W		D015	g-719-404-46 DIODE MA110	
R3091	1-216-053-00 METAL GLAZE 1.5K 5% 1/10W			<IC>	
R3092	1-216-053-00 METAL GLAZE 1.5K 5% 1/10W		IC001	8-759-066-50 IC TMC73C247-07	
R3098	1-216-296-00 METAL GLAZE 0 5% 1/8W		IC002	8-759-403-44 IC MN1280-S	
K3099	1-216-296-00 METAL GLAZE 0 5% 1/8W			<COIL>	
R3100	1-216-296-00 METAL GLAZE 0 5% 1/8W		L001	1-408-409-00 INDUCTOR 10UH	
	<VARIABLE RESISTOR>		L002	1-410-476-11 INDUCTOR 33UH	
RV3001	1-241-630-11 RES, ADJ, CARBON 10K			<CONNECTOR>	
RV3002	1-241-632-11 RES, ADJ, CARBON 47K		M001	*1-573-965-11 PIN, CONNECTOR (PC BOARD) 50P	
	<CRYSTAL>		M39	*1-564-521-11 PLUG, CONNECTOR 6P	
X3001	1-567-505-11 OSCILLATOR, CRYSTAL		M45	*1-564-523-11 PLUG, CONNECTOR 8P	
	*****			<TRANSISTOR>	
	*A-1306-415-A M BOARD, COMPLETE		Q001	8-729-216-22 TRANSISTOR 2SA1162-G	
	*****		Q002	8-729-216-22 TRANSISTOR 2SA1162-G	
	<CAPACITOR>		Q003	8-729-216-22 TRANSISTOR 2SA1162-G	
C001	1-124-261-00 ELECT 10MF 20% 50V		Q004	8-729-920-74 TRANSISTOR 2SC2412K-QR	
C002	1-163-125-00 CERAMIC CHIP 220PF 5% 50V		Q005	8-729-920-74 TRANSISTOR 2SC2412K-QR	
C003	1-136-161-00 FILM 0.047MF 5% 50V		Q006	8-729-216-22 TRANSISTOR 2SA1162-G	
C004	1-126-301-11 ELECT 1MF 20% 50V		8007	8-729-216-22 TRANSISTOR 2SA1162-G	
C005	1-163-125-00 CERAMIC CHIP 220PF 5% 50V		Q008	8-729-920-74 TRANSISTOR 2SC2412K-QR	
C014	1-124-910-11 ELECT 47MF 20% 50V		Q009	g-729-920-74 TRANSISTOR 2SC2412K-QR	
C015	1-124-464-11 ELECT 0.22MF 20% 50V		Q010	a-729-920-74 TRANSISTOR 2SC2412K-QR	
C017	1-124-589-11 ELECT 47MF 20% 16V		Q011	a-729-920-74 TRANSISTOR 2SC2412K-QR	
C018	1-163-141-00 CERAMIC CHIP 0.001MF 5% 50V		Q012	8-729-920-74 TRANSISTOR 2SC2412K-QR	
C019	1-164-695-11 CERAMIC CHIP 0.0022MF 5% 50V		Q013	8-729-216-22 TRANSISTOR 2SA1162-G	
C020	1-163-241-11 CERAMIC CHIP 39PF 5% 50V		Q014	8-729-920-74 TRANSISTOR 2SC2412K-QR	
C021	1-163-239-11 CERAMIC CHIP 33PF 5% 50V			<RESISTOR>	
C029	1-163-115-00 CERAMIC CHIP 82PF 5% 50V		R001	1-216-045-00 METAL GLAZE 680 5% 1/10W	
C030	1-163-115-00 CERAMIC CHIP 82PF 5% 50V		R002	1-216-097-00 METAL GLAZE 100K 5% 1/10W	
C034	1-163-125-00 CERAMIC CHIP 220PF 5% 50V		R003	1-216-121-00 METAL GLAZE 1M 5% 1/10W	
C035	1-163-125-00 CERAMIC CHIP 220PF 5% 50V		R004	1-216-073-00 METAL GLAZE 10K 5% 1/10W	
C036	1-163-125-00 CERAMIC CHIP 220PF 5% 50V		R005	1-216-073-00 METAL GLAZE 10K 5% 1/10W	
C041	1-163-117-00 CERAMIC CHIP 100PF 5% 50V		R006	1-216-065-00 METAL GLAZE 4.7K 5% 1/10W	
C042	1-163-117-00 CERAMIC CHIP 100PF 5% 50V		R007	1-216-027-00 METAL GLAZE 120 5% 1/10W	
C045	1-163-125-00 CERAMIC CHIP 220PF 5% 50V		R008	1-216-041-00 METAL GLAZE 470 5% 1/10W	
C047	1-124-261-00 ELECT 10MF 20% 50V		R009	1-216-027-00 METAL GLAZE 120 5% 1/10W	
C048	1-124-261-00 ELECT 10MF 20% 50V		R011	1-216-033-00 METAL GLAZE 220 5% 1/10W	
C041	1-124-261-00 ELECT 10MF 20% 50V		R012	1-216-033-00 METAL GLAZE 220 5% 1/10W	
C055	1-163-809-11 CERAMIC CHIP 0.047MF 10% 25V		R013	1-216-067-00 METAL GLAZE 5.6K 5% 1/10W	
C064	1-163-121-00 CERAMIC CHIP 150PF 5% 50V		R014	1-216-057-00 METAL GLAZE 2.2K 5% 1/10W	
C065	1-124-257-00 ELECT 2.2MF 20% 50V		R015	1-216-089-00 METAL GLAZE 47K 5% 1/10W	
	<DIODE>		R016	1-216-067-00 METAL GLAZE 5.6K 5% 1/10W	
D001	8-719-404-46 DIODE MA110		R017	1-216-067-00 METAL GLAZE 5.6K 5% 1/10W	

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C337	1-126-301-11	ELECT	1MF 20% 50V	D321	8-719-400-94	DIODE MA3130	
C338	1-124-584-00	ELECT	100MF 20% 10V			<DELAY LINE>	
C339	1-126-301-11	ELECT	1MF 20% 50V	DL302	1-415-817-11	DELAY LINE	
C340	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V			<CONNECTOR>	
C341	1-126-157-11	ELECT	10MF 20% 16V	EI-001	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P	
C342	1-124-465-00	ELECT	0.47MF 20% 50V	EI-24	*1-564-523-11	PLUG, CONNECTOR 8P	
C343	1-124-589-11	ELECT	47MF 20% 16V	EI-25	*1-564-521-11	PLUG, CONNECTOR 6P	
C344	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Et-26	*1-564-522-11	PLUG, CONNECTOR 7P	
C345	1-124-767-00	ELECT	2.2MF 20% 50V			<IC>	
C346	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	IC301	8-752-058-68	IC CXA1315M	
C347	1-136-169-00	FILM	0.22MF 5% 50V	IC302	8-752-059-67	IC CXA1465AS	
C348	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	IC303	B-759-106-02	IC UPC4570G2	
C349	1-126-301-11	ELECT	1MF 20% 50V			<COIL>	
C350	1-126-301-11	ELECT	1MF 20% 50V	L301	1-410-064-11	INDUCTOR 2.7MMH	
C351	1-163-002-11	CERAMIC CHIP	270PF 10% 50V	L307	1-410-944-31	INDUCTOR CHIP 15UH	
C352	1-164-489-11	CERAMIC CHIP	0.22MF 10% 16V	L308	1-410-946-31	INDUCTOR CHIP 22UH	
C353	1-126-163-11	ELECT	4.7MF 20% 50V			<TRANSISTOR>	
C354	1-136-169-00	FILM	0.22MF 5% 50V	Q301	8-729-925-79	TRANSISTOR 1MX3	
C355	1-124-465-00	ELECT	0.47MF 20% 50V	Q302	8-729-925-79	TRANSISTOR 1MX3	
C356	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V	Q303	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C357	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	Q304	8-729-907-46	TRANSISTOR 1MZ1	
C358	1-124-767-00	ELECT	2.2MF 20% 50V	Q305	8-729-925-79	TRANSISTOR 1MX3	
C359	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	Q306	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C360	1-137-491-11	FILM CHIP	0.1MF 5% 25V	Q307	8-729-903-10	TRANSISTOR FMW1	
C361	1-126-301-11	ELECT	1MF 20% 50V	Q309	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C362	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Q310	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C363	1-164-231-11	CERAMIC CHIP	0.01MF 10% 50V	Q311	8-729-920-39	TRANSISTOR 1MT1US	
C364	1-126-301-11	ELECT	1MF 20% 50V	Q312	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C365	1-164-343-11	CERAMIC CHIP	0.056MF 10% 25V	8314	a-729-920-39	TRANSISTOR 1MT1US	
C366	1-124-257-00	ELECT	2.2MF 20% 50V	Q315	g-729-920-74	TRANSISTOR 2SC2412K-QR	
C367	1-126-157-11	ELECT	10MF 20% 16V	Q316	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C368	1-124-234-00	ELECT	22MF 20% 16V	Q317	8-729-216-22	TRANSISTOR 2SA1162-G	
C369	1-163-001-11	CERAMIC CHIP	220PF 10% 50V	Q321	8-729-925-79	TRANSISTOR 1MX3	
C370	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Q322	8-729-216-22	TRANSISTOR 2SA1162-G	
C371	1-124-126-00	ELECT	47MF 20% 16V	Q323	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C372	1-124-589-11	ELECT	47MF 20% 16V	8324	8-729-216-22	TRANSISTOR 2SA1162-G	
C373	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Q325	8-729-216-22	TRANSISTOR 2SA1162-G	
C378	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	Q326	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C379	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Q327	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C380	1-163-137-00	CERAMIC CHIP	680PF 5% 50V	Q328	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C381	1-163-101-00	CERAMIC CHIP	22PF 5% 50V	Q329	8-729-925-79	TRANSISTOR 1MX3	
C382	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	Q330	8-729-925-79	TRANSISTOR 1MX3	
C383	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	Q333	8-729-925-79	TRANSISTOR 1MX3	
C384	1-163-095-00	CERAMIC CHIP	12PF 5% 50V	Q334	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		<DIODE>		Q335	8-729-907-46	TRANSISTOR 1MZ1	
D301	8-719-404-46	DIODE MA110		Q340	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D302	8-719-404-46	DIODE MA110		Q342	8-729-925-79	TRANSISTOR 1MX3	
D303	8-719-404-46	DIODE MA110		Q344	8-729-216-22	TRANSISTOR 2SA1162-G	
D304	8-719-404-46	DIODE MA110				<RESISTOR>	
D305	8-719-404-46	DIODE MA110		R301	1-236-025-00	METAL GLAZE 100 5% 1/10W	
D306	8-719-158-15	DIODE RD5.6S-B		R302	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
D307	8-719-404-46	DIODE MA110		R303	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
D310	R-719-158-15	DIODE RD5.6S-B					
D312	8-719-404-46	DIODE MA110					
D313	8-719-404-46	DIODE MA110					
D314	R-711-404-46	DIODE MA110					
D315	8-719-404-46	DIODE MA110					
D316	8-719-404-46	DIODE MA110					
D317	8-719-404-46	DIODE MA110					
D318	8-719-404-46	DIODE MA110					
D319	8-719-404-46	DIODE MA110					
D320	X-719-404-46	DIODE MA110					

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R304	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R384	1-216-041-00	METAL GLAZE 470 5%	1/10W
R305	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W	R385	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R306	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R386	1-216-687-11	METAL CHIP 33K 0.50%	1/10W
R307	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R387	1-216-033-00	METAL GLAZE 220 5%	1/10W
R308	1-216-037-00	METAL GLAZE 330 5%	1/10W	R388	1-216-033-00	METAL GLAZE 220 5%	1/10W
R309	-216-073-00	METAL GLAZE 10K 5%	1/10W	R389	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R310	-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R390	1-216-033-00	METAL GLAZE 220 5%	1/10W
R312	-216-043-00	METAL GLAZE 560 5%	1/10W	R391	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R313	-216-035-00	METAL GLAZE 270 5%	1/10W	R393	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R314	-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R394	1-216-109-00	METAL GLAZE 330K 5%	1/10W
R316	-216-035-00	METAL GLAZE 270 5%	1/10W	R395	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R317	-216-121-00	METAL GLAZE 1M 5%	1/10W	R396	1-216-105-00	METAL GLAZE 220K 5%	1/10W
R320	-216-039-00	METAL GLAZE 390 5%	1/10W	R397	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R325			1/10W	R398	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R326	-216-057-00	METAL GLAZE 2.2K 5%	1/10W	R399	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R331	-216-017-00	METAL GLAZE 47 5%	now	R1301	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R332	-216-657-11	METAL CHIP 1.8K 0.50%	1/10W	R1302	1-216-045-00	METAL GLAZE 680 5%	1/10W
R333	-216-051-00	METAL GLAZE 1.2K 5%	1/10W	R1303	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R336	-216-047-00	METAL GLAZE 820 5%	1/10W	R1304	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R338	-216-043-00	METAL GLAZE 560 5%	1/10W	R1305	1-216-025-00	METAL GLAZE 100 5%	1/10W
R339	-216-047-00	METAL GLAZE 820 5%	1/10W	R1306	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R340	-216-651-11	METAL CHIP 1K 0.50%	1/10W	R1307	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R341	-216-043-00	METAL GLAZE 560 5%	1/10W	R1308	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R343	-216-077-00	METAL GLAZE 15K 5%	1/10W	R1309	1-216-025-00	METAL GLAZE 100 5%	1/10W
R344	-216-081-00	METAL GLAZE 22K 5%	1/10W	R1310	1-216-045-00	METAL GLAZE 680 5%	1/10W
R345	1-216-292-11	METAL GLAZE 8.2M 5%	1/8W	R1311	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R346	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R1312	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R347	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R1313	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R348	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R1314	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R349	1-216-295-00	METAL GLAZE 0 5%	1/10W	R1315	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R350	-216-089-00	METAL GLAZE 47K 5%	1/10W	R1316	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R351	-216-674-11	METAL CHIP 9.1K 0.50%	1/10W	R1317	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R352	-216-011-00	METAL GLAZE 27 5%	1/10W	R1318	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R353	-216-001-00	METAL GLAZE 10 5%	1/10W	R1319	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R354	-216-049-00	METAL GLAZE 1K 5%	1/10W	R1320	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
R355	-216-001-00	METAL GLAZE 10 5%	1/10W	R1321	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R356	-216-001-00	METAL GLAZE 10 5%	1/10W	R1322	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R357	-216-049-00	METAL GLAZE 1K 5%	1/10W	R1323	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R358	-216-049-00	METAL GLAZE 1K 5%	1/10W	R1324	1-216-045-00	METAL GLAZE 680 5%	1/10W
R359	-216-049-00	METAL GLAZE 1K 5%	1/10W	R1325	1-216-025-00	METAL GLAZE 100 5%	1/10W
R360	1-216-119-00	METAL GLAZE 820K 5%	1/10W	R1326	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R361	1-216-025-00	METAL GLAZE 100 5%	1/10W	R1327	1-216-033-00	METAL GLAZE 220 5%	1/10W
R362	1-216-079-00	METAL GLAZE 18K 5%	1/10W	R1328	1-216-033-00	METAL GLAZE 220 5%	1/10W
R363	1-216-295-00	METAL GLAZE 0 5%	1/10W	R1329	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R364	1-216-045-00	METAL GLAZE 680 5%	1/10W	R1330	1-216-081-00	METAL GLAZE 22K 5%	1/10W
A365	1-216-025-00	METAL GLAZE 100 5%	1/10W	R1331	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R366	1-216-001-00	METAL GLAZE 10 5%	1/10W	R1332	1-216-093-00	METAL GLAZE 68K 5%	1/10W
R367	1-236-045-00	METAL GLAZE 680 5%	1/10W	R1333	1-216-129-00	METAL GLAZE 2.2M 5%	1/10W
R368	1-216-001-00	METAL GLAZE 10 5%	1/10W	R1334	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R369	1-216-033-00	METAL GLAZE 220 5%	1/10W	R1335	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R370	1-216-033-00	METAL GLAZE 220 5%	1/10W	R1336	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R371	1-216-033-00	METAL GLAZE 220 5%	1/10W	R1337	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R372	1-216-031-00	METAL GLAZE 180 5%	1/10W	R1338	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R373	1-216-671-11	METAL CHIP 6.8K 0.50%	1/10W	R1339	1-236-089-00	METAL GLAZE 47K 5%	1/10W
R374	1-216-037-00	METAL GLAZE 330 5%	1/10W	R1340	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R375	-216-037-00	METAL GLAZE 330 5%	1/10W	R1342	1-216-033-00	METAL GLAZE 220 5%	1/10W
R376	-216-037-00	METAL GLAZE 330 5%	1/10W	R1343	1-216-105-00	METAL GLAZE 220K 5%	1/10W
R377	-216-033-00	METAL GLAZE 220 5%	1/10W	R1344	1-216-091-00	METAL GLAZE 56K 5%	1/10W
R378	-216-033-00	METAL GLAZE 220 5%	1/10W	R1345	1-216-101-00	METAL GLAZE 150K 5%	1/10W
R379	-216-033-00	METAL GLAZE 220 5%	1/10W	R1346	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R380	1-216-033-00	METAL GLAZE 220 5%	1/10W	R1347	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R381	1-216-033-00	METAL GLAZE 220 5%	1/10W	R1348	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R382	1-216-033-00	METAL GLAZE 220 5%	1/10W	R1349	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R383	1-216-653-11	METAL CHIP 1.2K 0.50%	1/10W				

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REF. PART

DESCRIPTION

REMARK

REF. NO.

PART NO.

DESCRIPTION

REMARK

<COIL>

L2304 1-408-416-00 INDUCTOR 39UH

<TRANSISTOR>

Q2301 8-729-903-10 TRANSISTOR FMW1
Q2303 a-729-920-39 TRANSISTOR IMT1US
Q2304 8-729-925-79 TRANSISTOR IMX3
Q2305 8-729-903-10 TRANSISTOR FMW1
Q2306 8-729-920-39 TRANSISTOR IMT1US

Q2307 8-729-920-39 TRANSISTOR IMT1US
Q2308 g-729-920-39 TRANSISTOR IMT1US
Q2309 8-729-903-10 TRANSISTOR FMW1
Q2310 8-729-920-39 TRANSISTOR IMT1US
Q2311 R-729-903-10 TRANSISTOR FMW1

Q2312 8-729-920-39 TRANSISTOR IMT1US
Q2313 8-729-903-10 TRANSISTOR FMW1
Q2314 8-729-920-39 TRANSISTOR IMT1US
Q2315 8-729-903-10 TRANSISTOR FMW1
Q2317 8-729-216-22 TRANSISTOR 2SA1162-G

Q2318 8-729-216-22 TRANSISTOR 2SA1162-G
Q2319 8-729-216-22 TRANSISTOR 2SA1162-G
Q2320 8-729-920-74 TRANSISTOR 2SC2412K-QR
Q2321 8-729-920-74 TRANSISTOR 2SC2412K-QR
Q2322 8-729-920-74 TRANSISTOR 2SC2412K-QR

Q2324 8-729-216-22 TRANSISTOR 2SA1162-G
Q2326 8-729-920-74 TRANSISTOR 2SC2412K-QR
Q2327 8-729-920-74 TRANSISTOR 2SC2412K-QR
Q2328 8-729-925-79 TRANSISTOR IMX3
Q2329 8-729-925-79 TRANSISTOR IMX3

Q2330 8-729-903-10 TRANSISTOR FMW1
Q2336 8-729-925-79 TRANSISTOR IMX3
Q2337 8-729-925-79 TRANSISTOR IMX3
Q2339 8-729-920-74 TRANSISTOR 2SC2412K-QR
Q2340 e-729-920-74 TRANSISTOR 2SC2412K-QR

Q2341 8-729-920-74 TRANSISTOR 2SC2412K-QR

<RESISTOR>

R2302 1-216-025-00 METAL GLAZE 100 5% 1/10W
R2303 1-216-049-00 METAL GLAZE 1K 5% 1/10W
R2304 1-216-025-00 METAL GLAZE 100 5% 1/10W
R2305 1-216-033-00 METAL GLAZE 220 5% 1/10W
R2306 1-216-045-00 METAL GLAZE 680 5% 1/10W

R2307 1-216-045-00 METAL GLAZE 680 5% 1/10W
R2308 1-216-045-00 METAL GLAZE 680 5% 1/10W
R2309 1-216-041-00 METAL GLAZE 470 5% 1/10W
R2310 1-216-055-00 METAL GLAZE 1.8K 5% 1/10W
R2311 1-216-025-00 METAL GLAZE 100 5% 1/10W

R2312 1-216-043-00 METAL GLAZE 560 5% 1/10W
R2313 1-216-055-00 METAL GLAZE 1.8K 5% 1/10W
R2314 1-216-061-00 METAL GLAZE 3.3K 5% 1/10W
R2315 1-216-081-00 METAL GLAZE 22K 5% 1/10W
R2317 1-216-041-00 METAL GLAZE 470 5% 1/10W

R2318 1-216-055-00 METAL GLAZE 1.8K 5% 1/10W
R2319 1-216-079-00 METAL GLAZE 18K 5% 1/10W
R2320 1-216-061-00 METAL GLAZE 3.3K 5% 1/10W
R2321 1-216-063-00 METAL GLAZE 3.9K 5% 1/10W
R2322 1-216-049-00 METAL GLAZE 1K 5% 1/10W

R2323 1-216-067-00 METAL GLAZE 5.6K 5% 1/10W
R2324 1-216-049-00 METAL GLAZE 1K 5% 1/10W
R2325 1-216-049-00 METAL GLAZE 1K 5% 1/10W
R2326 1-216-061-00 METAL GLAZE 3.3K 5% 1/10W
R2327 1-216-063-00 METAL GLAZE 3.9K 5% 1/10W

R2328 1-216-049-00 METAL GLAZE 1K 5% 1/10W
R2329 1-216-049-00 METAL GLAZE 1K 5% 1/10W
R2330 1-216-061-00 METAL GLAZE 3.3K 5% 1/10W
R2331 1-216-063-00 METAL GLAZE 3.9K 5% 1/10W
R2332 1-216-025-00 METAL GLAZE 100 5% 1/10W

R2333 1-216-067-00 METAL GLAZE 5.6K 5% 1/10W
R2334 1-216-295-00 METAL GLAZE 0 5% 1/10W
R2335 1-216-295-00 METAL GLAZE 0 5% 1/10W
R2336 1-216-295-00 METAL GLAZE 0 5% 1/10W
R2337 1-216-033-00 METAL GLAZE 220 5% 1/10W

R2338 1-216-081-00 METAL GLAZE 22K 5% 1/10W
R2339 1-216-081-00 METAL GLAZE 22K 5% 1/10W
R2340 1-216-049-00 METAL GLAZE 1K 5% 1/10W
R2341 1-216-041-00 METAL GLAZE 470 5% 1/10W
R2342 1-216-049-00 METAL GLAZE 1K 5% 1/10W

R2343 1-216-049-00 METAL GLAZE 1K 5% 1/10W
R2344 1-216-033-00 METAL GLAZE 220 5% 1/10W
R2345 1-216-073-00 METAL GLAZE 10K 5% 1/10W
R2346 1-216-049-00 METAL GLAZE 1K 5% 1/10W
R2347 1-216-089-00 METAL GLAZE 47K 5% 1/10W

R2348 1-216-655-11 METAL CHIP 1.5K 0.50% 1/10W
R2349 1-216-025-00 METAL GLAZE 100 5% 1/10W
R2350 1-216-097-00 METAL GLAZE 100K 5% 1/10W
R2351 1-216-033-00 METAL GLAZE 220 5% 1/10W
R2352 1-216-097-00 METAL GLAZE 100K 5% 1/10W

R2353 1-216-097-00 METAL GLAZE 100K 5% 1/10W
R2354 1-216-178-00 METAL GLAZE 150 5% 1/8W
R2355 1-216-178-00 METAL GLAZE 150 5% 1/8W
R2356 1-216-677-11 METAL CHIP 12K 0.50% 1/10W
R2357 1-216-670-11 METAL CHIP 6.2K 0.50% 1/10W

R2359 1-216-053-00 METAL GLAZE 1.5K 5% 1/10W
R2360 1-216-053-00 METAL GLAZE 1.5K 5% 1/10W
R2361 1-216-053-00 METAL GLAZE 1.5K 5% 1/10W
R2362 1-216-053-00 METAL GLAZE 1.5K 5% 1/10W
R2363 1-216-041-00 METAL GLAZE 470 5% 1/10W

R2364 1-216-053-00 METAL GLAZE 1.5K 5% 1/10W
R2365 1-216-053-00 METAL GLAZE 1.5K 5% 1/10W
R2366 1-216-081-00 METAL GLAZE 22K 5% 1/10W
R2367 1-216-043-00 METAL GLAZE 560 5% 1/10W
R2368 1-216-081-00 METAL GLAZE 22K 5% 1/10W

R2371 1-216-057-00 METAL GLAZE 2.2K 5% 1/10W
R2374 1-216-067-00 METAL GLAZE 5.6K 5% 1/10W
R2375 1-216-081-00 METAL GLAZE 22K 5% 1/10W
R2376 1-216-081-00 METAL GLAZE 22K 5% 1/10W
R2377 1-216-025-00 METAL GLAZE 100 5% 1/10W

R2378 1-216-025-00 METAL GLAZE 100 5% 1/10W
R2379 1-216-043-00 METAL GLAZE 560 5% 1/10W
R2380 1-216-043-00 METAL GLAZE 560 5% 1/10W
R2381 1-216-043-00 METAL GLAZE 560 5% 1/10W
R2382 1-216-073-00 METAL GLAZE 10K 5% 1/10W

R2384 1-216-081-00 METAL GLAZE 22K 5% 1/10W
R2385 1-216-075-00 METAL GLAZE 12K 5% 1/10W
R2386 1-216-049-00 METAL GLAZE 1K 5% 1/10W
R2387 1-216-025-00 METAL GLAZE 100 5% 1/10W
R2388 1-216-017-00 METAL GLAZE 47 5% 1/10W

R2390 1-216-043-00 METAL GLAZE 560 5% 1/10W
R2393 1-216-017-00 METAL GLAZE 47 5% 1/10W
R2394 1-216-049-00 METAL GLAZE 1K 5% 1/10W
R2395 1-216-001-00 METAL GLAZE 10 5% 1/10W
R2397 1-216-043-00 METAL GLAZE 560 5% 1/10W

R2399 1-216-001-00 METAL GLAZE 10 5% 1/10W
R3301 1-216-049-00 METAL GLAZE 1K 5% 1/10W
R3302 1-216-001-00 METAL GLAZE 10 5% 1/10W
R3303 1-216-069-00 METAL GLAZE 6.8K 5% 1/10W

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C448	1-136-170-00	FILM	0.27MF 5% 50V				
C449	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V				
C450	1-130-475-00	MYLAR	0.0022MF 5% 50V				
C451	1-124-261-00	ELECT	10MF 20% 50V				
C452	1-124-261-00	ELECT	10MF 20% 50V				
C453	1-130-475-00	MYLAR	0.0022MF 5% 50V				
C454	1-131-368-00	TANTALUM	3.3MF 10% 16V				
C455	1-131-347-00	TANTALUM	1MF 20% 16V				
C456	1-136-171-00	FILM	0.33MF 5% 50V				
C457	1-136-175-00	FILM	0.68MF 5% 50V				
C458	1-126-101-11	ELECT	100MF 20% 16V				
C459	1-126-101-11	ELECT	100MF 20% 16V				
C460	1-126-101-11	ELECT	100MF 20% 16V				
C461	1-124-499-11	ELECT	1MF 20% 50V				
C462	1-124-499-11	ELECT	1MF 20% 50V				
C465	1-130-485-00	MYLAR	0.015MF 5% 50V				
C466	1-130-485-00	MYLAR	0.015MF 5% 50V				
C467	1-136-369-00	FILM	0.22MF 5% 50V				
C468	1-136-169-00	FILM	0.22MF 5% 50V				
C469	1-126-157-11	ELECT	10MF 20% 16V				
C470	1-126-157-11	ELECT	10MF 20% 16V				
C471	1-124-589-11	ELECT	47MF 20% 16V				
C472	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V				
C473	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V				
C474	J-124-234-00	ELECT	22MF 20% 16V				
C475	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V				
C476	1-124-234-00	ELECT	22MF 20% 16V				
C477	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V				
C478	1-124-478-11	ELECT	100MF 20% 25V				
C479	1-126-163-11	ELECT	4.7MF 20% 50V				
C480	1-124-768-11	ELECT	4.7MF 20% 50V				
C481	1-124-768-11	ELECT	4.7MF 20% 50V				
C482	1-126-163-11	ELECT	4.7MF 20% 50V				
C483	1-163-113-00	CERAMIC CHIP	68PF 5% 50V				
C484	1-163-113-00	CERAMIC CHIP	68PF 5% 50V				
C485	1-163-038-00	CERAMIC CHIP	0.1MF 25V				
C487	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V				
C488	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V				
<DIODE>							
D405	8-719-107-13	DIODE RD18M-B1					
D406	8-719-107-13	DIODE RD18M-B1					
D407	8-719-107-13	DIODE RD18M-B1					
D408	8-719-105-83	DIODE RD5.1M-B3					
D409	8-719-981-50	DIODE RB-100A					
D410	8-719-981-50	DIODE RB-100A					
D413	8-719-158-19	DIODE RD6.2S-B					
D414	8-719-158-55	DIODE RD15S-B					
D415	8-719-158-55	DIODE RD15S-B					
<IC>							
IC403	8-759-996-43	IC RC4558PS					
IC404	8-759-067-24	IC 24C04A1/P					
IC406	8-752-037-24	IC CXA1264AS					
IC407	8-759-245-75	IC TA8184P					
IC408	8-752-057-18	IC CXA1315P					
<TRANSISTOR>							
Q404	8-729-216-22	TRANSISTOR 2SA1162-G					
Q405	8-729-216-22	TRANSISTOR 2SA1162-G					
Q409	8-729-920-74	TRANSISTOR 2SC2412K-QR					
Q410	8-729-920-74	TRANSISTOR 2SC2412K-QR					
<RESISTOR>							
R447	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R453	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R464	1-216-081-00	METAL GLAZE	22K 5% 1/10W				
R465	1-216-081-00	METAL GLAZE	22K 5% 1/10W				
R466	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R468	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R469	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W				
R470	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R471	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R472	1-216-686-11	METAL CHIP	30K 0.50% 1/10W				
R473	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R474	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R475	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W				
R476	1-216-675-11	METAL CHIP	10K 0.50% 1/10W				
R477	1-216-672-11	METAL CHIP	7.5K 0.50% 1/10W				
R478	1-216-089-00	METAL GLAZE	47K 5% 1/10W				
R479	1-216-675-11	METAL CHIP	10K 0.50% 1/10W				
R480	1-216-672-11	METAL CHIP	7.5K 0.50% 1/10W				
R481	1-216-089-00	METAL GLAZE	47K 5% 1/10W				
R482	1-216-089-00	METAL GLAZE	47K 5% 1/10W				
R483	1-216-089-00	METAL GLAZE	47K 5% 1/10W				
R485	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R486	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R488	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R494	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R495	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R496	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R497	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R498	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R499	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R500	1-216-081-00	METAL GLAZE	22K 5% 1/10W				
R501	1-216-669-11	METAL CHIP	5.6K 0.50% 1/10W				
R502	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R503	1-216-663-11	METAL CHIP	3.3K 0.50% 1/10W				
R504	1-216-675-11	METAL CHIP	10K 0.50% 1/10W				
R507	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R509	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R510	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W				
R512	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R513	1-216-667-11	METAL CHIP	4.7K 0.50% 1/10W				
R515	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R517	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R518	1-216-089-00	METAL GLAZE	47K 5% 1/10W				
R519	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R521	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W				
R522	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R523	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R524	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R525	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W				
R526	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R527	1-218-754-11	METAL CHIP	120K 0.50% 1/10W				
R528	1-216-685-11	METAL CHIP	27K 0.50% 1/10W				
R529	1-216-097-00	METAL GLAZE	100K 5% 1/10W				
R531	1-216-097-00	METAL GLAZE	100K 5% 1/10W				
R532	1-216-097-00	METAL GLAZE	100K 5% 1/10W				
R533	1-216-097-00	METAL GLAZE	100K 5% 1/10W				
R535	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R536	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R537	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W				

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HEF NO	PART NO	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R538	-218-754-11	METAL CHIP	120K 0.50% 1/10W	C2547	1-126-163-11	ELECT	4.7MF 20% 25V
R539	-216-685-11	METAL CHIP	27K 0.50% 1/10W	C2548	1-163-809-11	CERAMIC CttIP	0.047MF 10% 25V
R542	-216-025-00	METAL GLAZE	100 5% 1/10W	C2549	1-126-163-11	ELECT	4.7MF 20% 50V
R543	-216-025-00	METAL GLAZE	100 5% 1/10W	C2550	1-126-163-11	ELECT	4.7MF 20% 25V
R546	-216-682-11	METAL CHIP	20K 0.50% 1/10W	C2551	1-126-301-11	ELECT	1MF 20% 50V
R547	1-216-681-11	METAL CHIP	18K 0.50% 1/10W	C2552	1-126-163-11	ELECT	4.7MF 20% 50V
<CONNECTOR>				C2553	1-126-301-11	ELECT	1MF 20% 50V
Y2-401*1-573-966-11 PIN, CONNECTOR (PC BOARD) 36P				C2554	1-124-234-00	ELECT	22MF 20% 16V
*****				C2555	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
*A-1394-363-A X2 BOARD, COMPLETE				C2556	1-124-257-00	ELECT	2.2MF 20% 50V
*****				C2557	1-124-234-00	ELECT	22MF 20% 16V
<CAPACITOR>				C2558	1-126-301-11	ELECT	1MF 20% 50V
C2501	-163-020-00	CERAMIC CHIP	0.0082MF 10% 50V	C2559	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C2502	-163-020-00	CERAMIC CHIP	0.0082MF 10% 50V	C2560	1-164-161-11	CERAMIC CHIP	0.0022MF 10% 50V
C2503	-163-001-11	CERAMIC CHIP	220PF 10% 50V	C2561	1-126-301-11	ELECT	1MF 20% 50V
C2504	-126-163-11	ELECT	4.7MF 20% 50V	C2562	1-163-263-11	CERAMIC CHIP	330PF 5% 50V
C2505	-163-020-00	CERAMIC CHIP	0.0082MF 10% 50V	C2563	1-163-257-11	CERAMIC CHIP	180PF 5% 50V
C2506	-163-020-00	CERAMIC CHIP	0.0082MF 10% 50V	C2564	1-126-301-11	ELECT	1MF 20% 50V
C2507	-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V	C2565	1-126-163-11	ELECT	4.7MF 20% 50V
C2508	-163-020-00	CERAMIC CHIP	0.0082MF 10% 50V	C2566	1-126-163-11	ELECT	4.7MF 20% 50V
C2509	-163-020-00	CERAMIC CHIP	0.0082MF 10% 50V	C2567	1-126-163-11	ELECT	4.7MF 20% 50V
C2510	-163-989-11	CERAMIC CHIP	0.033MF 10% 25V	C2568	1-163-263-11	CERAMIC CHIP	330PF 5% 50V
C2511	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C2569	1-163-257-11	CERAMIC CHIP	180PF 5% 50V
C2512	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C2570	1-124-234-00	ELECT	22MF 20% 16V
C2513	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C2571	1-126-301-11	ELECT	1MF 20% 50V
C2514	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C2572	1-126-163-11	ELECT	4.7MF 20% 50V
C2515	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C2573	1-124-234-00	ELECT	22MF 20% 16V
C2516	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	C2574	1-126-301-11	ELECT	1MF 20% 50V
C2517	1-126-157-11	ELECT	10MF 20% 16V	C2575	1-126-301-11	ELECT	1MF 20% 50V
C2518	1-126-163-11	ELECT	4.7MF 20% 50V	C2576	1-126-301-11	ELECT	1MF 20% 50V
C2519	1-126-301-11	ELECT	1MF 20% 50V	C2577	1-126-163-11	ELECT	4.7MF 20% 50V
C2520	1-126-163-11	ELECT	4.7MF 20% 50V	C2578	1-126-163-11	ELECT	4.7MF 20% 50V
C2521	1-163-809-11	CERAMIC CHIP	0.047MF 10% 25V	C2579	1-126-103-11	ELECT	470MF 20% 16V
C2522	1-124-252-00	ELECT	0.33MF 20% 50V	C2580	1-124-478-11	ELECT	100MF 20% 25V
C2523	1-126-163-11	ELECT	4.7MF 20% 50V	C2581	1-163-109-00	CERAMIC CHIP	47PF 5% 50V
C2524	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C2582	1-124-477-11	ELECT	47MF 20% 25V
C2525	1-126-163-11	ELECT	4.7MF 20% 50V	C2583	1-126-163-11	ELECT	4.7MF 20% 50V
C2526	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C2584	1-163-109-00	CERAMIC CttIP	47PF 5% 50V
C2527	1-126-157-11	ELECT	10MF 20% 16V	C2585	1-126-163-11	ELECT	4.7MF 20% 50V
C2528	1-124-465-00	ELECT	0.47MF 20% 50V	C2586	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V
C2529	1-163-989-11	CERAMIC CHIP	0.033MF 10% 25V	C2587	1-126-163-11	ELECT	4.7MF 20% 50V
C2530	1-164-182-11	CERAMIC CttIP	0.0033MF 10% 50V	C2588	1-126-163-11	ELECT	4.7MF 20% 50V
C2531	1-126-301-11	ELECT	1MF 20% 50V	C2589	1-126-163-11	ELECT	4.7MF 20% 50V
C2532	1-126-301-11	ELECT	1MF 20% 50V	C2590	1-126-163-11	ELECT	4.7MF 20% 50V
C2533	1-124-261-00	ELECT	10MF 20% 50V	C2591	1-124-478-11	ELECT	100MF 20% 25V
C2534	1-163-257-11	CERAMIC CttIP	180PF 5% 50V	<DIODE>			
C2535	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	D2501	8-719-104-34	DIODE	1S2835
C2536	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	D2502	8-719-106-88	DIODE	RD15M-B1
C2537	1-126-163-11	ELECT	4.7MF 20% 50V	D2503	8-719-106-88	DIODE	RD15M-B1
C2538	1-126-163-11	ELECT	4.7MF 20% 50V	D2504	8-719-106-88	DIODE	RD15M-B1
C2539	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	<IC>			
C2540	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	IC2501	g-759-031-31	IC	MC33174M
C2541	1-163-139-00	CERAMIC CHIP	820PF 5% 50V	IC2502	g-752-050-75	IC	CXA1373Q
C2542	1-124-478-11	ELECT	100MF 20% 25V	IC2503	8-759-604-70	IC	M51523AL
C2543	1-124-252-00	ELECT	0.33MF 20% 50V	IC2504	8-759-031-31	IC	MC33174M
C2544	1-164-161-11	CERAMIC CHIP	0.0022MF 10% 50V	IC2505	8-759-604-70	IC	M51523AL
C2545	1-126-301-11	ELECT	1MF 20% 50V	IC2506	g-759-106-22	IC	UPD4052BG
C2546	1-126-163-11	ELECT	4.7MF 20% 50V	IC2507	8-759-038-68	IC	MC33172ML
				IC2508	8-759-038-68	IC	MC33172ML

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<JACK>							
J2501	*1-573-966-11	PIN, CONNECTOR (PC BOARD)	36P	R2556	1-216-049-00	METAL GLAZE 1K 5%	1/10W
<TRANSISTOR>				R2557	1-216-085-00	METAL GLAZE 33K 5%	1/10W
112501	8 729-230-49	TRANSISTOR 2SC2712-YG		R2558	1-216-088-00	METAL GLAZE 43K 5%	1/10W
<RESISTOR>				R2559	1-216-091-00	METAL GLAZE 56K 5%	1/10W
R2501	-216-079-00	METAL GLAZE 18K 5%	1/10W	R2560	1-216-103-00	METAL GLAZE 180K 5%	1/10W
R2502	-216-097-00	METAL GLAZE 100K 5%	1/10W	R2561	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R2503	-216-091-00	METAL GLAZE 56K 5%	1/10W	R2562	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R2504	-216-109-00	METAL GLAZE 330K 5%	1/10W	R2563	1-216-088-00	METAL GLAZE 43K 5%	1/10W
R2505	-216-109-00	METAL GLAZE 330K 5%	1/10W	R2564	1-216-088-00	METAL GLAZE 43K 5%	1/10W
R2506	1-216-101-00	METAL GLAZE 150K 5%	1/10W	R2565	1-216-103-00	METAL GLAZE 180K 5%	1/10W
R2507	1-216-091-00	METAL GLAZE 56K 5%	1/10W	R2566	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2508	1-216-079-00	METAL GLAZE 18K 5%	1/10W	R2567	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2509	1-216-130-11	METAL GLAZE 2.4M 5%	1/10W	R2568	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2510	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R2569	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R2511	1-216-085-00	METAL GLAZE 33K 5%	1/10W	R2570	1-216-091-00	METAL GLAZE 56K 5%	1/10W
R2512	1-216-103-00	METAL GLAZE 180K 5%	1/10W	R2571	1-216-078-00	METAL GLAZE 16K 5%	1/10W
R2513	1-216-085-00	METAL GLAZE 33K 5%	1/10W	R2572	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2514	1-216-103-00	METAL GLAZE 180K 5%	1/10W	R2573	1-216-082-00	METAL GLAZE 24K 5%	1/10W
R2515	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R2574	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R2516	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R2575	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R2517	1-216-133-00	METAL GLAZE 3.3M 5%	1/10W	R2576	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2518	1-216-072-00	METAL GLAZE 9.1K 5%	1/10W	R2577	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2519	1-216-133-00	METAL GLAZE 3.3M 5%	1/10W	R2578	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2520	1-216-133-00	METAL GLAZE 3.3M 5%	1/10W	R2579	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2521	-216-133-00	METAL GLAZE 3.3M 5%	1/10W	R2580	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2522	-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R2581	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2523	-216-077-00	METAL GLAZE 15K 5%	1/10W	R2582	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R2524	-216-129-00	METAL GLAZE 2.2M 5%	1/10W	R2583	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R2526	-216-133-00	METAL GLAZE 3.3M 5%	1/10W	R2584	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2527	-216-133-00	METAL GLAZE 3.3M 5%	1/10W	R2585	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2528	-216-081-00	METAL GLAZE 22K 5%	1/10W	R2586	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R2529	-216-081-00	METAL GLAZE 22K 5%	1/10W	R2587	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R2530	-216-133-00	METAL GLAZE 3.3M 5%	1/10W	R2588	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R2531	-216-089-00	METAL GLAZE 47K 5%	1/10W	R2589	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2532	1-216-133-00	METAL GLAZE 3.3M 5%	1/10W	R2590	1-216-079-00	METAL GLAZE 18K 5%	1/10W
R2533	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R2591	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2534	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R2592	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2535	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R2593	1-216-079-00	METAL GLAZE 18K 5%	1/10W
R2536	1-236-129-00	METAL GLAZE 2.2M 5%	1/10W	R2594	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2537	-216-077-00	METAL GLAZE 15K 5%	1/10W	R2595	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R2539	-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R2596	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2540	-216-075-00	METAL GLAZE 12K 5%	1/10W	R2597	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2541	-216-069-00	METAL GLAZE 6.8K 5%	1/10W	R2598	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R2542	-216-081-00	METAL GLAZE 22K 5%	1/10W	R2599	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2543	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R2600	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2544	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R2601	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R2545	1-216-048-00	METAL GLAZE 910 5%	1/10W	R2602	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2546	1-216-133-00	METAL GLAZE 3.3M 5%	1/10W	R2604	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R2547	1-216-133-00	METAL GLAZE 3.3M 5%	1/10W	R2605	1-216-049-00	METAL GLAZE 1K 5%	1/10W
K2548	-216-073-00	METAL GLAZE 10K 5%	1/10W	R2606	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2549	-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R2610	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W
R2550	-216-088-00	METAL GLAZE 43K 5%	1/10W	R2611	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W
R2551	-216-088-00	METAL GLAZE 43K 5%	1/10W	R2612	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W
R2552	-216-049-00	METAL GLAZE 1K 5%	1/10W	R2613	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W
R2553	-216-078-00	METAL GLAZE 16K 5%	1/10W	R2614	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W
R2554	-216-082-00	METAL GLAZE 24K 5%	1/10W	R2615	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W
R2555	-216-089-00	METAL GLAZE 47K 5%	1/10W	R2616	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W
				R2617	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W
				R2618	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
				R2619	1-216-049-00	METAL GLAZE 1K 5%	1/10W

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

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

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
*A-1316-125-A	G BOARD, COMPLETE	(KV-32XBR35(U/C))		D601	8-719-022-99	DIODE D6SB601	
*****				D602	8-719-510-48	DIODE D1N20R	
*A-1316-128-A	G BOARD, COMPLETE	(KV-27XBR35(U/C))		D603	8-719-510-48	DIODE D1N20R	
*****				D604	8-719-510-48	DIODE D1N20R	
*4-341-751-01	EYELET (EY1~EY5, EY10, EY11~EY18, EY24~EY26, EY30~EY32, EY35~EY38, EY40~EY58, EY60~EY62, EY64~EY86, EY89~EY102, EY105~EY116, EY118, EY119, EY128~EY131)			D605	8-719-510-48	DIODE D1N20R	
*4-341-752-01	EYELET (EY8, EY9, EY19~EY23, EY27~EY29, EY33, EY34, EY39, EY59, EY63, EY87, EY88, EY103, EY117, EY120~EY127, EY132)			D606	8-719-911-19	DIODE 1SS119	
4-3x2-854-11	SCREW (M3X10), P, SW (+)			D607	8-719-510-48	DIODE D1N20R	
<CAPACITOR>				D608	8-719-510-48	DIODE D1N20R	
C601	1-136-311-51	FILM 0.47MF	20% 125V	D609	8-719-510-48	DIODE D1N20R	
C602	1-162-599-81	CERAMIC 0.0047MF	20% 400V	D610	8-719-510-48	DIODE D1N20R	
C603	1-162-599-81	CERAMIC 0.0047MF	20% 400V	D611	8-719-510-48	DIODE D1N20R	
C604	1-164-345-11	ELECT 1000MF	20% 200V	D612	8-719-510-48	DIODE D1N20R	
C605	1-162-599-12	CERAMIC 0.0047MF	20% 400V	D613	8-719-109-93	DIODE RD6.2ES-B2	
C606	1-137-580-11	FILM 0.082MF	5% 100V	D651	8-719-027-43	DIODE S2L20UF	
C607	1-137-580-11	FILM 0.082MF	5% 100V	D652	8-719-027-43	DIODE S2L20UF	
C608	1-137-580-11	FILM 0.082MF	5% 100V	D653	8-719-027-43	DIODE S2L20UF	
C609	1-137-580-11	FILM 0.082MF	5% 100V	L 654	8-719-027-43	DIODE S2L20UF	
C610	1-137-588-11	FILM 0.0047MF	5% 800V	D655	a-719-510-13	DIODE D10SC4MR	
C611	1-137-532-11	FILM 0.01MF	5% 800V	D656	g-719-022-97	DIODE D2S4MF	
C612	I-164-625-11	CERAMIC 680PF	10% 500V	D657	8-719-510-02	DIODE D1NS4	
C613	I-164-625-11	CERAMIC 680PF	10% 500V	L 658	8-719-027-22	DIODE D3S6M-F	
C614	I-164-625-11	CERAMIC 680PF	10% 500V	D659	a-719-027-22	DIODE D3S6M-F	
C615	3-164-625-11	CERAMIC 680PF	10% 500V	I			
C616	1-124-443-00	ELECT 100MF	20% 10V	D660	8-719-027-22	DIODE D3S6M-F	
C618	1-164-735-11	CAP, CERAMIC 1500PF		D663	X-719-510-02	DIODE D1NS4	
C619	I-164-735-11	CAP, CERAMIC 1500PF		L 665	8-719-510-02	DIODE D1NS4	
C620	1-164-741-51	CERAMIC 0.001MF	10% 400V	D666	8-719-109-85	DIODE RD5.1ES-B2	
C621	1-164-741-51	CERAMIC 0.001MF	10% 400V	D667	8-719-911-19	DIODE 1SS119	
C622	1-162-599-12	CERAMIC 0.0047MF	20% 400V	D668	8-719-911-19	DIODE 1SS119	
C623	1-137-493-11	FILM 0.0047MF	5% 630V	L 669	8-719-109-54	DIODE RD2.2ES-B2	
C624	1-126-301-11	ELECT 1MF	20% 50V	I3670	8-719-911-19	DIODE 1SS119	
C625	1-126-162-11	ELECT 3.3MF	20% 50V	I3671	8-719-110-31	DIODE RD12ES-B2	
C626	I-130-480-00	MYLAR 0.0056MF	5% 50V	D672	8-719-911-19	DIODE 1SS119	
C651	1-124-960-11	ELECT 470MF	20% 180V	<FUSE>			
C652	1-124-556-11	ELECT 2200MF	20% 16V	F1	1-532-783-21	FUSE, MICRO (SECONDARY) 5A/125V	
C653	1-124-913-11	ELECT 470MF	20% 50V	F601	1-576-222-11	FUSE 6.3A/125V	
C654	1-124-607-11	ELECT 2200MF	20% 50V		1-533-190-11	CLIP, FUSE; F601	
C655	1-162-117-00	CERAMIC 100PF	10% 500V	F602	1-576-107-22	FUSE 3.15A/250V	
C656	1-124-119-00	ELECT 330MF	20% 16V		1-533-223-11	CLIP, FUSE; F602	
C657	1-106-351-00	MYLAR 0.0022MF	20% 200V	<FERRITE BEAD>			
C658	1-126-157-11	ELECT 10MF	20% 16V	FB651	1-410-397-21	FERRITE BEAD INDUCTOR	
C659	1-130-485-00	MYLAR 0.015MF	5% 50V	FB652	1-410-397-21	FERRITE BEAD INDUCTOR	
C661	1-124-484-11	ELECT 220MF	20% 35V	FB653	1-410-397-21	FERRITE BEAD INDUCTOR	
C662	1-124-484-11	ELECT 220MF	20% 35V	FB654	1-410-397-21	FERRITE BEAD INDUCTOR	
C663	1-126-104-11	ELECT 470MF	20% 35V	FB655	1-412-911-11	INDUCTOR, FERRITE BEAD	
C666	1-126-101-11	ELECT 100MF	20% 16V	FB656	1-410-397-21	FERRITE BEAD INDUCTOR	
C667	1-124-443-00	ELECT 100MF	20% 10V	FB659	1-412-911-11	INDUCTOR, FERRITE BEAD	
C668	1-124-61X-11	ELECT 22MF	20% 6.3V	FB660	1-412-911-11	INDUCTOR, FERRITE BEAD	
C669	1-162-318-11	CERAMIC 0.001MF	10% 500V	FB661	1-412-911-11	INDUCTOR, FERRITE BEAD	
C670	1-162-318-11	CERAMIC 0.001MF	10% 500V	FB662	1-412-911-11	INDUCTOR, FERRITE BEAD	
C672	1-124-484-11	ELECT 220MF	20% 35V	FB663	1-412-911-11	INDUCTOR, FERRITE BEAD	
C677	1-136-311-51	FILM 0.47MF	20% 125V	FB669	1-410-397-21	FERRITE BEAD INDUCTOR	
C678	1-124-369-00	ELECT 1000MF	20% 16V	FB670	1-410-397-21	FERRITE BEAD INDUCTOR	
<DIODE>				<CONNECTOR>			
G3	x1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P		G3	x1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P	
G4	*1-564-510-11	PLUG, CONNECTOR 7P		G4	*1-564-510-11	PLUG, CONNECTOR 7P	
G5	*1-564-507-11	PLUG, CONNECTOR 4P		G5	*1-564-507-11	PLUG, CONNECTOR 4P	
G27	*1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P		G27	*1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P	

(KV-27XBR35(U/C))

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
G28	*f-573 963-11	PIN, CONNECTOR (PC BOARD) 3P		R618	1-247-688-11	CARBON	10 5% 1/4W F
		(KV-27XBR35(U/C))		R619	1-216-343-91	METAL OXIDE	0.33 5% 1W F
G29	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		R620	1-202-730-00	SOLID	8.2M 20% 1/2W
G30	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 2P		R621	1-249-423-11	CARBON	3.3K 5% 1/4W
		(KV-32XBR35(U/C))		R622	1-202-888-91	SOLID	2.2K 20% 1/2W
G31	*1-580-843-11	PIN, CONNECTOR (POWER)		R623	1-212-938-00	FUSIBLE	8.2 5% 1/2W F
TP651	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		R651	1-249-405-11	CARBON	100 5% 1/4W F
<IC>				R652	1-215-868-00	METAL OXIDE	680 5% 1W F
IC651	1-809-524-11	MODULE, POWER DM-44		R653	1-249-405-11	CARBON	100 5% 1/4W
IC654	8-719-156-73	PHOTO COUPLER PS2501-1LB		R654	1-249-399-11	CARBON	33 5% 1/4W F
<COIL>				R655	1-249-393-11	CARBON	10 5% 1/4W F
1.651	1-412-526-11	INDUCTOR	12UH	R656	1-249-443-11	CARBON	0.47 5% 1/4W F
1652	1-410-673-31	INDUCTOR	68UH	R657	1-216-357-00	METAL OXIDE	4.7 5% 1W F
1653	1-412-532-11	INDUCTOR	39UH	R658	1-215-408-00	METAL	300 1% 1/4W
L654	1-412-532-11	INDUCTOR	39UH	R659	1-249-443-11	CARBON	0.47 5% 1/4W F
LG55	1-412-532-11	INDUCTOR	39UH	R660	1-215-446-00	METAL	1K 1% 1/4W
1656	1-412-526-11	INDUCTOR	12UH	R661	1-215-418-00	METAL	750 1% 1/4W
<TRANSISTOR>				R662	1-249-421-11	CARBON	2.2K 5% 1/4W
Q601	8-729-927-22	TRANSISTOR 2SC4664MNP-F	KV-32XBR35(U/C)	R663	1-249-410-11	CARBON	270 5% 1/4W
	B-729-927-23	TRANSISTOR 2SC4664NPR-F	KV-27XBR35(U/C)	R664	1-215-861-00	METAL OXIDE	47 5% 1W F
Q602	8-729-927-22	TRANSISTOR 2SC4664MNP-F	KV-32XBR35(U/C)	R665	1-215-403-00	METAL	180 1% 1/4W
	8-729-927-23	TRANSISTOR 2SC4664NPR-F	KV-27XBR35(U/C)	R666	1-215-421-00	METAL	1K 1% 1/4W
Q603	8-729-927-22	TRANSISTOR 2SC4664MNP-F	KV-32XBR35(U/C)	R667	1-215-432-00	METAL	3K 1% 1/4W
	8-729-927-23	TRANSISTOR 2SC4664NPR-F	KV-27XBR35(U/C)	R668	1-216-482-11	METAL OXIDE	1.8K 5% 3W F
Q604	8-729-927-22	TRANSISTOR 2SC4664MNP-F	KV-32XBR35(U/C)	R669	1-249-421-11	CARBON	2.2K 5% 1/4W
	8-729-927-23	TRANSISTOR 2SC4664NPR-F	KV-27XBR35(U/C)	R670	1-249-412-11	CARBON	390 5% 1/4W
Q605	R-729-209-15	TRANSISTOR 2SD2012		R671	1-216-384-11	METAL OXIDE	0.39 5% 3W F
9652	8-729-119-78	TRANSISTOR 2SC2785-HFE		R672	1-249-443-11	CARBON	0.47 5% 1/4W F
Q653	8-729-201-53	TRANSISTOR 2SA1015-GR		R673	1-249-415-11	CARBON	680 5% 1/4W
Q654	8-729-119-78	TRANSISTOR 2SC2785-HFE		R674	1-249-421-11	CARBON	2.2K 5% 1/4W
Q655	8-729-119-78	TRANSISTOR 2SC2785-HFE		R675	1-249-415-11	CARBON	680 5% 1/4W
Q656	8-729-119-78	TRANSISTOR 2SC2785-HFE		R676	1-249-377-11	CARBON	0.47 5% 1/4W F
<RESISTOR>				R677	1-249-433-11	CARBON	22K 5% 1/4W
R601	1-249-388-11	CARBON	3.9 5% 1/4W F	R678	1-249-429-11	CARBON	10K 5% 1/4W
R602	1-202-707-12	WIREWOUND	2.2 5% 10W	R679	1-216-428-00	METAL OXIDE	180 5% 1W F
R603	1-247-889-00	CARBON	270 5% 1/4W	R680	1-216-428-00	METAL OXIDE	180 5% 1W F
R604	f-216-443-11	METAL OXIDE	56K 5% 1W F	R681	1-249-377-11	CARBON	0.47 5% 1/4W F
R605	1-216-443-11	METAL OXIDE	56K 5% 1W F	R682	1-249-443-11	CARBON	0.47 5% 1/4W F
R606	1-216-443-11	METAL OXIDE	56K 5% 1W F	<RELAY>			
R607	f-216-443-11	METAL OXIDE	56K 5% 1W F	RY601	1-515-516-00	RELAY	
11608	1-216-352-11	METAL OXIDE	1.8 5% 1W F	RY602	1-515-669-21	RELAY	
R609	1-216-351-00	METAL OXIDE	1.5 5% 1W F	<TRANSFORMER>			
			(KV-32XBR35(U/C))	T601	1-424-585-11	TRANSFORMER, LINE FILTER	
J-216-352-11	METAL OXIDE	1.8 5%	1W F	T602	1-424-585-11	TRANSFORMER, LINE FILTER	
			(KV-27XBR35(U/C))	T603	1-450-300-31	TRANSFORMER, CONVERTER DRIVE	
R610	f-216-351-00	METAL OXIDE	1.5 5%	T604	1-450-958-11	TRANSFORMER, CONVERTER (PRT)	
			(KV-32XBR35(U/C))	T605	1-424-663-11	TRANSFORMER, FERRITE (SBT)	
J-216-352-11	METAL OXIDE	1.8 5%	1W F	<THERMISTOR>			
			(KV-27XBR35(U/C))	THP601	1-800-686-43	THERMISTOR (POSITIVE) (KV-32XBR35(U/C))	
R611	1-216-352-11	METAL OXIDE	1.8 5%		1-809-539-11	THERMISTOR, POSITIVE (KV-27XBR35(U/C))	
R612	1-249-377-11	CARBON	0.47 5%	<VARISTOR>			
R613	1-215-447-00	METAL	12K 1%	VDR601	1-809-786-11	VARISTOR	
R614	1-215-433-00	METAL	3.3K 1%	VDR602	1-809-264-81	VARISTOR	
R615	f-249-441-11	CARBON	100K 5%	*****			
R616	1-249-417-11	CARBON	1K 5%				
R617	1-249-417-11	CARBON	1K 5%				

C

REF.NO.	PART NO	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
*A 1331-203-A	C BOARD, COMPLETE	(KV-32XBR35(U/C))		<COIL>			
*****				L701	1-410-671-31	INDUCTOR	47UH
*A-1331-209-A	C BOARD, COMPLETE	(KV-27XBR35(U/C))		L702	1-410-645-31	INDUCTOR	100UH (KV-27XBR35(U/C))
*****				L703	1-410-677-31	INDUCTOR	180UH (KV-27XBR35(U/C))
3-704-359-01	SCREW (M3X10), SW (+) P			L706	1-410-677-31	INDUCTOR	180UH (KV-27XBR35(U/C))
*4-341-751-01	EYELET (EY51~EY53, EY55, EY57, EY58, EY59(KV-32XBR35(U/C)), EY66)			<TRANSISTOR>			
*4-341-752-01	EYELET (EY50, EY56, EY59(KV-27XBR35(U/C)), EY60(KV-27XBR35(U/C)), EY61, EY63~EY65, EY67, EY68)			Q701	8-729-326-11	TRANSISTOR	2SC2611
				Q702	8-729-119-78	TRANSISTOR	2SC2785-HFE
				Q703	8-729-200-17	TRANSISTOR	2SA1091-0
				Q704	8-729-326-11	TRANSISTOR	2SC2611
				Q705	8-729-119-78	TRANSISTOR	2SC2785-HFE
<CONNECTOR>				Q706	B-729-200-17	TRANSISTOR	2SA1091-0
c2	*1-573-964-11	PIN, CONNECTOR (PC BOARD)	6P	Q707	8-729-200-17	TRANSISTOR	2SA1091-0
C24	*1-564-511-51	PLUG, CONNECTOR	8P	Q708	8-729-326-11	TRANSISTOR	2SC2611
C42	*1-691-134-11	PIN, CONNECTOR (PC BOARD)	2P	Q709	8-729-119-78	TRANSISTOR	2SC2785-HFE
<CAPACITOR>				Q710	8-729-255-12	TRANSISTOR	2SC2551-0
C701	1-162-116-00	CERAMIC	680PF 10% 2KV	Q711	8-729-119-76	TRANSISTOR	2SA1175-HFE
C702	1-137-490-11	FILM	0.01MF 10% 1KV	Q712	8-729-255-12	TRANSISTOR	2SC2551-0
C704	1-123-946-00	ELECT	4.7MF 20% 250V	9714	8-729-200-17	TRANSISTOR	2SA1091-0
C705	1-106-375-12	MYLAR	0.022MF 200V	Q715	8-729-200-17	TRANSISTOR	2SA1091-0
C706	1-106-375-12	MYLAR	0.022MF 200V	Q716			
C707	1-164-083-11	CERAMIC	680PF 10% 50V	<RESISTOR>			
C708	1-164-083-11	CERAMIC	680PF 10% 50V	R701	1-216-398-11	METAL OXIDE	5.6 5% 3W F
C709	1-164-083-11	CERAMIC	680PF 10% 50V	R702	1-202-883-11	SOLID	680K 20% 1/2W
C710	1-164-082-11	CERAMIC	560PF 10% 50V	R703	1-202-838-00	SOLID	100K 20% 1/2W
1-164-083-11	CERAMIC	680PF 10% 50V	(KV-32XBR35(U/C))	R705	1-249-433-11	CARBON	22K 5% 1/4W
1-164-083-11	CERAMIC	680PF 10% 50V	(KV-27XBR35(U/C))	R706	1-202-838-00	SOLID	100K 20% 1/2W
C711	1-124-120-11	ELECT	220MF 20% 16V	1-202-815-11	SOLID	47K 20% 1/2W	
C712	1-164-082-11	CERAMIC	560PF 10% 50V				(KV-27XBR35(U/C))
c713	1-164-082-11	CERAMIC	560PF 10% 50V	R707	1-202-842-11	SOLID	220K 20% 1/2W
1-164-083-11	CERAMIC	680PF 10% 50V	(KV-32XBR35(U/C))	R708	1-202-818-00	SOLID	1K 20% 1/2W
1-164-083-11	CERAMIC	680PF 10% 50V	(KV-27XBR35(U/C))	R709	1-202-818-00	SOLID	1K 20% 1/2W
c715	1-102-129-00	CERAMIC	0.01MF 10% 50V	R710	1-202-818-00	SOLID	1K 20% 1/2W
C718	1-102-129-00	CERAMIC	0.01MF 10% 50V	R711	1-249-433-11	CARBON	22K 5% 1/4W
(*733	1-102-074-00	CERAMIC	0.001MF 10% 50V				(KV-27XBR35(U/C))
<DIODE>				R713	1-216-486-00	METAL OXIDE	8.2K 5% 3W F
D701	8-719-911-19	DIODE	1SS119	R715	1-202-549-00	SOLID	100 10% 1/2W
D702	8-719-911-19	DIODE	1SS119	R716	1-216-486-00	METAL OXIDE	8.2K 5% 3W F
D703	8-719-911-19	DIODE	1SS119	R720	1-216-486-00	METAL OXIDE	8.2K 5% 3W F
D704	8-719-911-19	DIODE	1SS119	R722	1-249-433-11	CARBON	22K 5% 1/4W
D705	8-719-911-19	DIODE	1SS119				(KV-27XBR35(U/C))
D706	8-719-911-19	DIODE	1SS119	R723	1-249-405-11	CARBON	100 5% 1/4W
D707	8-719-911-19	DIODE	1SS119	R724	1-249-405-11	CARBON	100 5% 1/4W
D708	8-719-911-19	DIODE	1SS119	R725	1-249-429-11	CARBON	10K 5% 1/4W
D709	8-719-911-19	DIODE	1SS119	R726	1-249-408-11	CARBON	180 5% 1/4W
D710	8-719-901-83	DIODE	1SS83	R727	1-249-429-11	CARBON	10K 5% 1/4W
D711	8-719-901-83	DIODE	1SS83	R728	1-249-408-11	CARBON	180 5% 1/4W
D712	8-719-901-83	DIODE	1SS83	R729	1-249-405-11	CARBON	100 5% 1/4W
D713	8-719-901-83	DIODE	1SS83	R730	1-249-408-11	CARBON	180 5% 1/4W
D714	8-719-911-19	DIODE	1SS119	R731	1-249-409-11	CARBON	220 5% 1/4W F
<JACK>				R732	1-249-409-11	CARBON	220 5% 1/4W F
J701	1-540-071-11	SOCKET, PICTURE TUBE	(KV-32XBR35(U/C))	R733	1-249-409-11	CARBON	220 5% 1/4W F
	1-540-223-11	SOCKET, PICTURE TUBE	(KV-27XBR35(U/C))	R735	1-249-418-11	CARBON	1.2K 5% 1/4W
				R737	1-249-418-11	CARBON	1.2K 5% 1/4W
				R739	1-249-433-11	CARBON	22K 5% 1/4W
				R740	1-215-902-11	METAL OXIDE	47K 5% 2W F
				R741	1-249-417-11	CARBON	1K 5% 1/4W F

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HEF NO.	PART NO.	DESCRIPTION	REMARK	EF. NO.	PART NO.	DESCRIPTION	REMARK
<RESISTOR>				<CAPACITOR>			
R801	1-249-409-11	CARBON	220 5% 1/4W	C801	1-124-589-11	ELECT	47MF 20% 16V
R802	1-249-409-11	CARBON	220 5% 1/4W	C802	1-124-589-11	ELECT	47MF 20% 16V
R804	1-247-891-00	CARBON	330K 5% 1/4W	C804	1-130-483-00	MYLAR	0.01MF 5% 50V
R806	1-247-885-00	CARBON	180K 5% 1/4W	C805	1-136-165-00	FILM	0.1MF 5% 50V
R807	1-247-891-00	CARBON	330K 5% 1/4W	C806	1-136-165-00	FILM	0.1MF 5% 50V
R808	1-215-461-00	METAL	47K 1% 1/4W	C807	1-124-360-00	ELECT	1000MF 20% 16V
R809	1-249-423-11	CARBON	3.3K 5% 1/4W	C809	1-136-104-00	FILM	0.16MF 5% 200V
R810	1-249-413-11	CARBON	470 5% 1/4W	C810	1-136-177-00	FILM	1MF 5% 50V
R811	1-249-434-11	CARBON	27K 5% 1/4W	C811	1-162-318-11	CERAMIC	0.001MF 10% 500V
R812	1-249-438-11	CARBON	56K 5% 1/4W	C812	1-126-163-11	ELECT	4.7MF 20% 50V
R813	1-249-417-11	CARBON	1K 5% 1/4W	C813	1-130-491-00	MYLAR	0.047MF 5% 50V
R815	1-249-427-11	CARBON	6.8K 5% 1/4W	C814	1-124-261-00	ELECT	10MF 20% 50V
R816	1-249-425-11	CARBON	4.7K 5% 1/4W	C815	1-124-261-00	ELECT	10MF 20% 50V
R817	1-249-423-11	CARBON	3.3K 5% 1/4W	C816	1-124-234-00	ELECT	22MF 20% 16V
R818	1-244-417-11	CARBON	1K 5% 1/4W	C817	1-126-163-11	ELECT	4.7MF 20% 50V
R819	1-249-432-11	CARBON	18K 5% 1/4W	C818	1-124-589-11	ELECT	47MF 20% 16V
RR20	1-249-417-11	CARBON	1K 5% 1/4W	C819	1-136-165-00	FILM	0.1MF 5% 50V
R821	1-216-379-11	METAL OXIDE	6.8 5% 2W F	C820	1-126-103-11	ELECT	470MF 20% 16V
11822	1-249-423-11	CARBON	3.3K 5% 1/4W	C901	1-136-173-00	FILM	0.47MF 5% 50V
R824	1-249-417-11	CARBON	1K 5% 1/4W F	C902	1-124-261-00	ELECT	10MF 20% 50V
R825	1-215-857-11	METAL OXIDE	10 5% 1W F	C903	1-163-157-00	FILM	0.022MF 5% 50V
R826	1-249-404-00	CARBON	82 5% 1/4W	C904	1-130-471-00	MYLAR	0.001MF 5% 50V
R827	1-215-875-11	METAL OXIDE	10K 5% 1W F	C905	1-124-261-00	ELECT	10MF 20% 50V
R828	1-249-441-11	CARBON	100K 5% 1/4W	C906	1-124-046-00	ELECT	10MF 20% 160V
R829	1-249-414-11	CARBON	560 5% 1/4W	C907	1-124-465-00	ELECT	0.47MF 20% 50V
11830	1-249-411-11	CARBON	330 5% 1/4W	C908	1-102-112-00	CERAMIC	330PF 10% 50V
R831	1-249-426-11	CARBON	5.6K 5% 1/4W	C910	1-136-756-11	FILM	0.24MF 5% 200V
R832	1-215-887-00	METAL OXIDE	150 5% 2W F	C911	1-136-177-00	FILM	1MF 5% 50V
R833	1-249-421-11	CARBON	2.2K 5% 1/4W	C913	1-124-589-11	ELECT	47MF 20% 16V
R834	1-249-438-11	CARBON	5.6K 5% 1/4W	C914	1-106-379-12	MYLAR	0.033MF 10% 100V
R835	1-249-393-11	CARBON	33K 5% 1/4W	C915	1-126-301-11	ELECT	1MF 20% 50V
R836	1-249-435-11	CARBON	1/4W	C916	1-130-479-00	MYLAR	0.0047MF 5% 50V
R837	1-249-435-11	CARBON	1/4W	C917	1-130-479-00	MYLAR	0.0047MF 5% 50V
R838	1-216-359-00	METAL OXIDE	6.8 5% 1W F	C918	1-102-074-00	CERAMIC	0.001MF 10% 50V
R839	1-249-410-11	CARBON	270 5% 1/4W	C920	1-130-202-00	FILM	0.022MF 5% 400V
R840	1-249-429-11	CARBON	47K 5% 1/4W	C921	1-136-177-00	FILM	1MF 5% 50V
R841	1-249-437-11	CARBON	10K 5% 1/4W	C922	1-124-557-11	ELECT	1000MF 20% 25V
R842	1-249-429-11	CARBON	1/4W	C923	1-130-471-00	MYLAR	0.001MF 5% 50V
R843	1-249-421-11	CARBON	2.2K 5% 1/4W	C925	1-124-261-00	ELECT	10MF 20% 50V
RY27	1-249-419-11	CARBON	1.5K 5% 1/4W	C926	1-136-175-00	FILM	0.068MF 5% 50V
R928	1-249-421-11	CAHBUN	2.2K 5% 1/4W	C928	1-124-261-00	ELECT	10MF 20% 50V
R929	1-249-429-11	CAHBUN	10K 5% 1/4W	C930	1-130-483-00	MYLAR	0.01MF 5% 50V
R930	1-249-434-11	CARBON	27K 5% 1/4W	<CONNECTOR>			
R931	1-249-421-11	CARBON	2.2K 5% 1/4W	D14	x1-573-299-11	CONNECTOR, BOARD TO BOARD	10P
R932	1-249-423-11	CARBON	3.3K 5% 1/4W	D18	*1-573-299-11	CONNECTOR, BOARD TO BOARD	10P
R933	1-249-421-11	CAKBUN	2.2K 5% 1/4W	D20	x1-564-524-11	PLUG, CONNECTOR	9P
R934	1-249-441-11	CARBON	100K 5% 1/4W	DY2	*1-508-765-00	PIN, CONNECTOR (5MM PITCH)	3P
R935	1-249-429-11	CAHBUN	10K 5% 1/4W	<DIODE>			
R936	1-249-429-11	CARBON	10K 5% 1/4W	D801	8-719-913-44	DIODE ERA82-004	
R937	1-249-421-11	CARBON	2.2K 5% 1/4W	D802	8-719-911-19	DIODE ISS119	
R938	1-249-405-11	CARBON	100 5% 1/4W	D803	8-719-911-19	DIODE ISS119	
R939	1-249-405-11	CARBON	100 5% 1/4W F	D804	8-719-911-19	DIODE ISS119	
R940	1-249-405-11	CARBON	100 5% 1/4W F	D805	8-719-801-35	THYRISTOR SHOR3D42	
R941	1-249-405-11	CARBON	100 5% 1/4W	D806	8-719-980-78	DIODE ERA83-006	
R942	1-215-892-11	METAL OXIDE	1K 5% 2W F	D807	8-719-980-78	DIODE ERA83-006	
*****				D808	8-719-911-19	DIODE ISS119	
*A -1341-545-A D BOARD, COMPLETE (KV-27XBR35(U/C))				D809	8-719-911-19	DIODE ISS119	
*****				D810	8-719-911-19	DIODE ISS119	
*4-341-751-01 EYELET (EY801~EY804,EY901~EY904)							
*4-341-752-01 EYELET (EY811,EY812)							
4 -382-854-11 SCREW (M3X10), P, SW (+)							


D

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D811	E-719-300-33	DIODE RU-3AM		H808	I-215-461-00	METAL	47K 1% 1/4W
D812	8-719-911-19	DIODE 1SS119		R809	I-249-423-11	CARBON	3.3K 5% 1/4W
D813	8-719-109-88	DIODE RD5.6ES-B1		R810	I-249-413-11	CARBON	470 5% 1/4W
D814	8-719-110-13	DIODE RD9.1ES-B2		R811	I-249-434-11	CARBON	27K 5% 1/4W
D815	8-719-911-19	DIODE 1SS119		R812	I-243-438-11	CARBON	56K 5% 1/4W
D816	g-719-911-19	DIODE 1SS119		R813	I-249-417-11	CARBON	1K 5% 1/4W
D901	8-719-911-19	DIODE 1SS119		H815	I-249-427-11	CARBON	6.8K 5% 1/4W
D902	8-719-109-96	DIODE RD6.8ES-B1		R816	I-249-425-11	CARBON	4.7K 5% 1/4W
DY03	R-719-979-85	DIODE EGP20G		R817	I-249-424-11	CARBON	3.9K 5% 1/4W
D906	8-719-980-78	DIODE ERA83-006		R818	I-249-417-11	CARBON	1K 5% 1/4W
D907	8-719-911-19	DIODE 1SS119		R819	I-249-432-11	CARBON	18K 5% 1/4W
D908	8-719-980-78	DIODE ERA83-006		H820	I-249-417-11	CARBON	1K 5% 1/4W
D911	8-719-911-19	DIODE 1SS119		R821	I-216-379-11	METAL OXIDE	6.8 5% 2W F
				H822	I-249-423-11	CARBON	3.3K 5% 1/4W
IC801	8-749-920-58	IC SI-30YOCA		R824	I-249-417-11	CARBON	1K 5% 1/4W F
IC802	g-752-052-88	IC CXA1526P		R825	I-215-861-00	METAL OXIDE	47 5% 1W F
IC803	8-759-135-80	IC UPC358C		H826	I-249-404-00	CARBON	82 5% 1/4W
IC901	g-759-135-80	IC UPC358C		R827	I-215-875-11	METAL OXIDE	10K 5% F
ICY03	g-759-987-16	IC LM393P		H828	I-249-441-11	CARBON	100K 5% ::a
<COIL>				R829	I-249-414-11	CARBON	560 5% 1/4W
L801	1-459-592-11	COIL (WITH CORE) (PMC)		R830	I-249-411-11	CARBON	330 5% 1/4W
L802	1-459-941-12	COIL, CHOKE 3.4MMH		R831	I-249-426-11	CARBON	5.6K 5% 1/4W
L901	1-410-093-11	INDUCTOR 33MMH		H833	I-249-421-11	CARBON	2.2K 5% 1/4W
L902	1-459-148-00	COIL		R834	I-249-438-11	CARBON	56K 5% 1/4W
L903	1-459-941-12	COIL, CHOKE 3.4MMH		H835	I-249-393-11	CARBON	10 5% 1/4W
<TRANSISTOR>				H836	I-249-435-11	CARBON	33K 5% 1/4W
Q802	g-729-119-76	TRANSISTOR 2SA1175-HFE		H837	I-249-435-11	CARBON	33K 5% 1/4W
Q803	g-729-119-78	TRANSISTOR 2SC2785-HFE		R838	I-216-359-00	METAL OXIDE	6.8 5% 1W F
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE		H839	I-249-410-11	CARBON	270 5% 1/4W
Q805	8-729-140-97	TRANSISTOR 2SB734-34		R840	I-249-429-11	CARBON	10K 5% 1/4W
Q806	8-729-119-78	TRANSISTOR 2SC2785-HFE		R841	I-249-437-11	CARBON	47K 5% 1/4W
Q807	g-729-140-97	TRANSISTOR 2SB734-34		H842	I-249-429-11	CARBON	10K 5% 1/4W
Q808	8-729-119-76	TRANSISTOR 2SA1175-HFE		R843	I-249-421-11	CARBON	2.2K 5% 1/4W
Q809	g-729-209-15	TRANSISTOR 2SD2012		R901	I-249-425-11	CARBON	4.7K 5% 1/4W
Q810	E-729-140-96	TRANSISTOR 2SD774-34		R902	I-249-438-11	CARBON	56K 5% 1/4W
Q811	8-729-119-78	TRANSISTOR 2SC2785-HFE		R903	I-249-429-11	CARBON	10K 5% 1/4W
Q901	8-729-119-76	TRANSISTOR 2SA1175-HFE		H904	I-249-429-11	CARBON	10K 5% 1/4W
Q902	g-729-119-78	TRANSISTOR 2SC2785-HFE		R905	I-249-429-11	CARBON	10K 5% 1/4W
Q903	8-729-119-78	TRANSISTOR 2SC2785-HFE		R906	I-249-425-11	CARBON	4.7K 5% 1/4W
Q904	g-729-119-76	TRANSISTOR 2SA1175-HFE		R907	I-249-429-11	CARBON	10K 5% 1/4W
Q905	g-729-119-76	TRANSISTOR 2SA1175-HFE		R908	I-249-435-11	CARBON	33K 5% 1/4W
Q906	g-729-119-80	TRANSISTOR 2SC2688-LK		R909	I-249-433-11	CARBON	22K 5% 1/4W
Q907	8-729-119-80	TRANSISTOR 2SC2688-LK		R910	I-249-436-11	CARBON	39K 5% 1/4W
Q908	8-729-300-80	TRANSISTOR 2SB860		R911	I-247-895-00	CARBON	470K 5% 1/4W
Q909	g-729-140-96	TRANSISTOR 2SD774-34		R912	I-249-429-11	CARBON	10K 5% 1/4W
Q910	8-729-119-78	TRANSISTOR 2SC2785-HFE		R913	I-249-425-11	CARBON	4.7K 5% 1/4W
Q911	8-729-119-78	TRANSISTOR 2SC2785-HFE		R914	I-249-401-11	CARBON	47 5% 1/4W
Q912	g-724-119-76	TRANSISTOR 2SA1175-HFE		R915	I-249-427-11	CARBON	6.8K 5% 1/4W
Q913	8-729-011-02	TRANSISTOR 2SK1917		R916	I-249-421-11	CARBON	2.2K 5% 1/4W
Q914	g-729-119-76	TRANSISTOR 2SA1175-HFE		H917	I-249-439-11	CARBON	68K 5% 1/4W
<RESISTOR>				R918	I-249-413-11	CARBON	470 5% 1/4W
R801	I-249-409-11	CARBON	220 5% 1/4W	R919	I-249-432-11	CARBON	18K 5% 1/4W
R802	I-249-409-11	CARBON	220 5% 1/4W	R920	I-249-418-11	CARBON	1.2K 5% 1/4W F
H804	I-247-891-00	CARBON	330K 5% 1/4W	R921	I-215-876-00	METAL OXIDE	15K 5% 1W F
H805	I-249-411-11	CARBON	330 5% 1/4W	H922	I-215-862-11	METAL OXIDE	68 5% 1W F
R806	I-247-885-00	CARBON	180K 5% 1/4W	R923	I-249-429-11	CARBON	10K 5% 1/4W
R807	I-247-891-00	CARBON	330K 5% 1/4W	H924	I-249-423-11	CARBON	3.3K 5% 1/4W
				H925	I-249-415-11	CARBON	680 5% 1/4W
				H926	I-249-409-11	CARBON	220 5% 1/4W
				H927	I-249-419-11	CARBON	1.5K 5% 1/4W
				H928	I-249-421-11	CARBON	2.2K 5% 1/4W
				H929	I-249-429-11	CARBON	10K 5% 1/4W
				R930	I-249-434-11	CARBON	27K 5% 1/4W
				R931	I-249-421-11	CARBON	2.2K 5% 1/4W



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R932	1-249-433-11	CARBON	22K 5% 1/4W	L962	1-408-416-00	INDUCTOR	39UH (KV-27XBR35(U/C))
RY33	1-249-421-11	CARBON	2.2K 5% 1/4W			<TRANSISTOR>	
R934	1-249-441-11	CARBON	100K 5% 1/4W	Q956	8-729-119-78	TRANSISTOR	2SC2785-HFE
R935	1-249-429-11	CARBON	10K 5% 1/4W	Q961	8-729-119-78	TRANSISTOR	2SC2785-HFE
R936	1-249-429-11	CARBON	10K 5% 1/4W	Q962	8-729-119-76	TRANSISTOR	2SA1175-HFE
				Q963	8-729-208-39	TRANSISTOR	2SA1306A-Y
R937	-249-421-11	CARBON	2.2K 5% 1/4W	Q964	a-729-119-78	TRANSISTOR	2SC2785-HFE
R938	-249-405-11	CARBON	100 5% 1/4W				
R939	-249-405-11	CARBON	100 5% 1/4W	Q965	8-729-208-72	TRANSISTOR	2SC3298B-Y
R940	-249-405-11	CARBON	100 5% 1/4W	Q966	8-729-119-78	TRANSISTOR	2SC2785-HFE
R941	-249-405-11	CARBON	100 5% 1/4W	Q967	a-729-142-86	TRANSISTOR	2SC3733
						<RESISTOR>	
R944	-249-433-11	CARBON	22K 5% 1/4W	R951	1-249-434-11	CARBON	27K 5% 1/4W
R945	-247-895-00	CARBON	470K 5% 1/4W	R952	1-249-423-11	CARBON	3.3K 5% 1/4W
R946	-249-425-11	CARBON	4.7K 5% 1/4W	R953	1-249-423-11	CARBON	3.3K 5% 1/4W
R947	-249-415-11	CARBON	680 5% 1/4W	R954	1-247-903-00	CARBON	1M 5% 1/4W
R948	-249-439-11	CARBON	68K 5% 1/4W	R955	1-249-421-11	CARBON	2.2K 5% 1/4W
R950	1-249-425-11	CARBON	4.7K 5% 1/4W				
R952	1-249-405-11	CARBON	100 5% 1/4W	R962	1-249-409-11	CARBON	220 5% 1/4W
R953	1-247-889-00	CARBON	270K 5% 1/4W	R963	1-249-419-11	CARBON	1.5K 5% 1/4W
R954	1-247-889-00	CARBON	270K 5% 1/4W	R964	1-247-734-11	CARBON	39 5% 1/2W F
*****				R965	1-249-414-11	CARBON	560 5% 1/4W F
*A-1342-176-A V BOARD, COMPLETE (KV-32XBR35(U/C))				R966	1-249-418-11	CARBON	1.2K 5% 1/4W

*A-1342-182-A V BOARD, COMPLETE (KV-27XBR35(U/C))				R968	1-249-418-11	CARBON	1.2K 5% 1/4W
*****				R969	1-249-384-11	CARBON	1.8 5% 1/4W F
*4-341-751-01 EYELET (EY5)				R970	1-249-435-11	CARBON	33K 5% 1/4W
*4-341-752-01 EYELET (EY1~EY4)				R972	1-249-432-11	CARBON	18K 5% 1/4W
4-382-854-11 SCREW (M3X10), P, SW (+)				R974	1-216-476-11	METAL OXIDE	180 5% 3W F
<CAPACITOR>							
C951	-102-074-00	CERAMIC	0.001MF 10% 50V	R975	1-249-417-11	CARBON	1K 5% 1/4W F
C952	-102-125-00	CERAMIC	0.0047MF 10% 50V	R976	1-249-432-11	CARBON	18K 5% 1/4W
C961	-161-830-00	CERAMIC	0.0047MF 500V	R977	1-249-438-11	CARBON	56K 5% 1/4W
C962	-102-951-00	CERAMIC	15PF 5% 50V	R978	1-249-430-11	CARBON	12K 5% 1/4W
C963	-123-935-00	ELECT	33MF 20% 160V	R979	1-249-414-11	CARBON	560 5% 1/4W
C964	1-126-101-11	ELECT	100MF 20% 16V	R980	1-249-420-11	CARBON	1.8K 5% 1/4W
C968	1-106-383-00	MYLAR	0.047MF 200V	R981	1-249-415-11	CARBON	680 5% 1/4W
C969	1-124-799-11	ELECT	2.2MF 20% 160V	R982	1-249-384-11	CARBON	1.8 5% 1/4W F
C970	1-106-391-12	MYLAR	0.1MF 10% 200V	R983	1-249-441-11	CARBON	100K 5% 1/4W
C971	1-126-157-11	ELECT	10MF 20% 16V	R984	1-249-405-11	CARBON	100 5% 1/4W
C972	1-126-541-11	ELECT	330MF 20% 16V	R985	1-249-400-11	CARBON	39 5% 1/4W F
C973	1-106-383-00	MYLAR	0.047MF 200V	R986	1-249-435-11	CARBON	33K 5% 1/4W
C974	1-102-959-00	CERAMIC	22PF 5% 50V	R987	1-249-428-11	CARBON	8.2K 5% 1/4W
C975	1-126-101-11	ELECT	100MF 20% 16V	R988	1-249-418-11	CARBON	1.2K 5% 1/4W
C976	1-126-157-11	ELECT	10MF 20% 16V	R989	1-249-413-11	CARBON	470 5% 1/4W
C977	1-102-963-00	CERAMIC	33PF 5% 50V	R990	1-216-451-11	METAL OXIDE	120 5% 2W F
C978	1-130-471-00	MYLAR	0.001MF 5% 50V	R991	1-249-409-11	CARBON	220 5% 1/4W
C979	1-130-471-00	MYLAR	0.001MF 5% 50V			<CONNECTOR>	
C980	1-124-915-11	ELECT	10MF 20% 16V	V20	*1-564-512-11	PLUG, CONNECTOR	9P
<DIODE>				*****			
D961	8-719-911-19	DIODE	ISS119	*A-1347-068-A VC BOARD, COMPLETE (KV-27XBR35(U/C))			
D963	8-719-911-19	DIODE	ISS119	*****			
D964	8-719-911-19	DIODE	ISS119	*4-341-751-01 EYELET (EY1801~EY1804)			
D965	8-719-911-19	DIODE	ISS119			<CAPACITOR>	
D966	8-719-911-19	DIODE	ISS119				
D967	8-719-110-88	DIODE	RD39ES-B2	C1801	1-124-478-11	ELECT	100MF 20% 25V
D968	8-719-110-88	DIODE	RD39ES-B2	C1802	1-124-478-11	ELECT	100MF 20% 25V
<COIL>				C1803	1-130-487-00	MYLAR	0.022MF 5% 50V
L962	1-410-478-11	INDUCTOR	47UH (KV-32XBR35(U/C))	C1804	1-102-973-00	CERAMIC	100PF 5% 50V

The components identified by shading and mark  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
*A-1373-322-A UT BOARD, COMPLETE *****							
<CAPACITOR>							
152	1-102-074-00	CERAMIC	0.001MF	10%	50V		
154	1-164-096-11	CERAMIC	0.01MF		50V		
155	1-126-103-11	ELECT	470MF	20%	16V		
158	1-124-598-11	ELECT	22MF	20%	25V		
160	1-124-598-11	ELECT	22MF	20%	25V		
C1161	1-124-598-11	ELECT	22MF	20%	25V		
C1164	1-126-103-11	ELECT	470MF	20%	16V		
C1165	1-126-301-11	ELECT	1MF	20%	50V		
C1166	1-126-301-11	ELECT	1MF	20%	50V		
C1167	1-126-301-11	ELECT	1MF	20%	50V		
C1168	1-126-301-11	ELECT	1MF	20%	50V		
<DIODE>							
D1152	8-719-110-36	DIODE	RD13ES-B2				
D1158	R-719-110-36	DIODE	RD13ES-B2				
D1159	8-719-110-36	DIODE	RD13ES-B2				
D1160	X-719-110-36	DIODE	RD13ES-B2				
D1163	R-719-110-36	DIODE	RD13ES-B2				
D1164	8-719-110-36	DIODE	RD13ES-B2				
D1165	R-719-110-36	DIODE	RD13ES-B2				
D1166	8-719-110-36	DIODE	RD13ES-B2				
D1167	B-719-110-36	DIODE	RD13ES-B2				
D1168	8-719-110-36	DIODE	RD13ES-B2				
D1169	8-719-110-36	DIODE	RD13ES-B2				
D1170	8-719-110-36	DIODE	RD13ES-B2				
<JACK>							
J1003	-573-970-11	BLOCK, (S) TERMINAL					
J1004	-695-049-11	BLOCK, (S) TERMINAL					
J1005	1-695-054-11	JACK BLOCK, PIN					
J1006	1-573-970-11	BLOCK, (S) TERMINAL					
J1007	1-573-969-11	JACK BLOCK, PIN					
61008	1-573-969-11	JACK BLOCK, PIN					
<RESISTOR>							
R1153	-249-403-11	CARBON	68	5%	1/4W		
R1164	-247-895-00	CARBON	470K	5%	1/4W		
R1165	-247-895-00	CARBON	470K	5%	1/4W		
R1166	-247-895-00	CARBON	470K	5%	1/4W		
R1167	-247-895-00	CARBON	470K	5%	1/4W		
R1168	-247-895-00	CARBON	470K	5%	1/4W		
R1169	-247-895-00	CARBON	470K	5%	1/4W		
R1170	-249-403-11	CARBON	68	5%	1/4W		
R1171	-247-895-00	CARBON	470K	5%	1/4W		
R1172	-247-895-00	CARBON	470K	5%	1/4W		
R1173	1-247-804-11	CARBON	75	5%	1/4W		
R1174	1-247-895-00	CARBON	470K	5%	1/4W		
R1175	1-247-895-00	CARBON	470K	5%	1/4W		
R1176	1-247-804-11	CARBON	75	5%	1/4W		
R1178	1-247-895-00	CARBON	470K	5%	1/4W		
R1179	1-247-895-00	CARBON	470K	5%	1/4W		
R1180	1-247-804-11	CARBON	75	5%	1/4W		
R1181	1-247-804-11	CARBON	75	5%	1/4W		
R1183	1-247-895-00	CARBON	470K	5%	1/4W		
R1184	1-247-895-00	CARBON	470K	5%	1/4W		
R1185	1-247-895-00	CARBON	470K	5%	1/4W		
R1186	1-247-895-00	CARBON	470K	5%	1/4W		
R1188	1-247-804-11	CARBON	75	5%	1/4W		
R1191	1-215-437-00	METAL	4.7K	1%	1/4W		
R1192	1-215-437-00	METAL	4.7K	1%	1/4W		
R1193	1-215-437-00	METAL	4.7K	1%	1/4W		
H1194	1-215-437-00	METAL	4.7K	1%	1/4W		
H1196	1-249-426-11	CARBON	5.6K	5%	1/4W		
<SWITCH>							
S1150	1-572-198-11	SWITCH, KEYBOARD					
<CONNECTOR>							
UT9	*1-564-517-11	PLUG, CONNECTOR	2P				
UT11	*1-564-519-11	PLUG, CONNECTOR	4P				
UT22	*1-566-941-11	CONNECTOR, HINGE (TAB)	30P				
UT23	*1-566-641-11	CONNECTOR, HINGE (TAB)	18P				
UT35	*1-564-518-11	PLUG, CONNECTOR	3P				
UT38	*1-564-517-11	PLUG, CONNECTOR	2P				

*A-1373-323-A U BOARD, COMPLETE *****							
*4-341-751-01 EYELET (EY1001~EY1005) *4-341-752-01 EYELET (EY1006)							
<CAPACITOR>							
C1004	1-164-096-11	CERAMIC	0.01MF		50V		
C1005	1-126-301-11	ELECT	1MF	20%	50V		
C1006	1-164-096-11	CERAMIC	0.01MF		50V		
C1007	1-124-598-11	ELECT	22MF	20%	25V		
C1008	1-124-598-11	ELECT	22MF	20%	25V		
C1010	1-124-465-00	ELECT	0.47MF	20%	50V		
C1011	1-124-465-00	ELECT	0.47MF	20%	50V		
C1012	1-124-465-00	ELECT	0.47MF	20%	50V		
C1013	1-164-096-11	CERAMIC	0.01MF		50V		
C1014	1-126-163-11	ELECT	4.7MF	20%	50V		
C1016	1-126-163-11	ELECT	4.7MF	20%	50V		
C1018	1-126-301-11	ELECT	1MF	20%	50V		
C1020	1-124-242-00	ELECT	33MF	20%	25V		
C1021	1-124-465-00	ELECT	0.47MF	20%	50V		
C1022	1-124-242-00	ELECT	33MF	20%	25V		
C1023	1-126-163-11	ELECT	4.7MF	20%	50V		
C1024	1-126-163-11	ELECT	4.7MF	20%	50V		
C1026	1-164-04X-11	CERAMIC	12PF	5%	50V		
C1027	1-164-048-11	CERAMIC	12PF	5%	50V		
C1028	1-124-242-00	ELECT	33MF	20%	25V		
C1029	1-124-282-00	ELECT	22MF	20%	16V		
C1030	1-124-478-11	ELECT	100MF	20%	25V		
C1031	1-102-963-00	CERAMIC	33PF	5%	50V		
C1033	1-124-598-11	ELECT	22MF	20%	25V		
C1034	1-124-282-00	ELECT	22MF	20%	16V		
C1036	1-124-282-00	ELECT	22MF	20%	16V		
C1037	1-124-282-00	ELECT	22MF	20%	16V		
C1039	1-124-478-11	ELECT	100MF	20%	25V		
C1046	1-124-242-00	ELECT	33MF	20%	25V		
C1047	1-124-465-00	ELECT	0.47MF	20%	50V		
C1048	1-126-301-11	ELECT	1MF	20%	50V		
C1043	1-124-598-11	ELECT	22MF	20%	25V		

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C1050	1-124-242-C10	ELECT	33MF 20% 25V	Q1022	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C1051	1-124-465-C10	ELECT	0.47MF 20% 50V	Q1023	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C1054	1-126-163-1.1	ELECT	4.7MF 20% 50V	Q1025	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1055	1-124-589-1.1	ELECT	47MF 20% 16V	Q1029	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1056	1-124-499-1.1	ELECT	1MF 20% 50V	Q1030	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C1057	1-124-768-1.1	ELECT	4.7MF 20% 50V	Q1031	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C1058	1-126-163-1.1	ELECT	4.7MF 20% 50V	Q1032	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1059	1-124-499-1.1	ELECT	1MF 20% 50V	Q1033	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1060	1-124-499-1.1	ELECT	1MF 20% 50V	Q1034	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1061	1-124-499-1.1	ELECT	1MF 20% 50V				
C1062	1-102-129-00	CERAMIC	0.01MF 10% 50V				
C1063	1-124-768-1.1	ELECT	4.7MF 20% 50V				
C1066	1-126-101-1.1	ELECT	100MF 20% 16V				
C1070	1-126-103-1.1	ELECT	470MF 20% 16V				
C1110	1-124-768-1.1	ELECT	4.7MF 20% 50V				
C1111	1-124-768-1.1	ELECT	4.7MF 20% 50V				
		<FILTER BLOCK>					
CM1002	1-466-623-11	FILTER BLOCK, COMB (CFB-5)					
		<DIODE>					
D1005	8-719-110-36	DIODE RD13ES-B2					
D1009	8-719-110-36	DIODE RD13ES-B2					
D1010	8-719-110-36	DIODE RD13ES-B2					
D1011	8-719-110-36	DIODE RD13ES-B2					
D1012	8-719-110-36	DIODE RD13ES-B2					
D1013	8-719-110-36	DIODE RD13ES-B2					
D1014	8-719-110-36	DIODE RD13ES-B2					
D1017	8-719-110-36	DIODE RD13ES-B2					
D1018	8-719-110-36	DIODE RD13ES-B2					
D1019	8-719-110-36	DIODE RD13ES-B2					
D1020	8-719-109-66	DIODE RD3.3ES-B2					
D1021	8-719-109-66	DIODE RD3.3ES-B2					
D1022	8-719-109-66	DIODE RD3.3ES-B2					
D1023	8-719-109-66	DIODE RD3.3ES-B2					
D1025	8-719-911-19	DIODE 1SS119					
D1026	8-719-911-19	DIODE 1SS119					
D1027	8-719-911-19	DIODE 1SS119					
		<IC>					
IC1002	a-752-056-50	IC CXA1545S					
IC1010	8-759-145-57	IC UPC4557C					
IC1011	8-759-145-57	IC UPC4557C					
		<COIL>					
L1001	1-408-422-00	INDUCTOR 120UH					
L1002	1-408-422-00	INDUCTOR 120UH					
		<TRANSISTOR>					
Q1009	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1010	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1012	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1013	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1016	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q1017	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q1018	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1019	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q1020	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q1021	8-729-119-76	TRANSISTOR 2SA1175-HFE					
		<RESISTOR>					
R1011	1-249-435-11	CARBON 33K 5% 1/4W					
R1012	1-249-434-11	CARBON 27K 5% 1/4W					
R1013	1-249-417-11	CARBON 1K 5% 1/4W					
R1014	1-249-441-11	CARBON 100K 5% 1/4W					
R1015	1-215-437-00	METAL 4.7K 1% 1/4W					
R1016	1-249-441-11	CARBON 100K 5% 1/4W					
R1017	1-249-405-11	CARBON 100 5% 1/4W					
R1018	1-249-427-11	CARBON 6.8K 5% 1/4W					
R1019	1-249-427-11	CARBON 6.8K 5% 1/4W					
R1023	1-249-405-11	CARBON 100 5% 1/4W					
R1026	1-215-437-00	METAL 4.7K 1% 1/4W					
R1028	1-249-434-11	CARBON 27K 5% 1/4W					
R1029	1-249-435-11	CARBON 33K 5% 1/4W					
R1030	1-249-417-11	CARBON 1K 5% 1/4W					
R1032	1-249-417-11	CARBON 1K 5% 1/4W					
R1033	1-249-393-11	CARBON 10 5% 1/4W					
R1034	1-249-417-11	CARBON 1K 5% 1/4W					
R1035	1-249-427-11	CARBON 6.8K 5% 1/4W					
R1036	1-249-440-11	CARBON 82K 5% 1/4W					
R1037	1-249-440-11	CARBON 82K 5% 1/4W					
R1038	1-249-440-11	CARBON 82K 5% 1/4W					
R1040	1-249-427-11	CARBON 6.8K 5% 1/4W					
R1041	1-249-441-11	CARBON 100K 5% 1/4W					
R1042	1-249-441-11	CARBON 100K 5% 1/4W					
R1043	1-249-417-11	CARBON 1K 5% 1/4W					
R1046	1-249-413-11	CARBON 470 5% 1/4W					
R1048	1-249-405-11	CARBON 100 5% 1/4W					
R1050	1-249-405-11	CARBON 100 5% 1/4W					
R1051	1-249-417-11	CARBON 1K 5% 1/4W					
R1052	1-249-413-11	CARBON 470 5% 1/4W					
R1054	1-249-405-11	CARBON 100 5% 1/4W					
R1055	1-249-413-11	CARBON 470 5% 1/4W					
R1056	1-249-405-11	CARBON 100 5% 1/4W					
R1057	1-249-441-11	CARBON 100K 5% 1/4W					
R1059	1-249-405-11	CARBON 100 5% 1/4W					
R1061	1-249-409-11	CARBON 220 5% 1/4W					
R1062	1-249-441-11	CARBON 100K 5% 1/4W					
R1063	1-249-409-11	CARBON 220 5% 1/4W					
R1066	1-215-437-00	METAL 4.7K 1% 1/4W					
R1067	1-215-437-00	METAL 4.7K 1% 1/4W					
R1068	1-215-437-00	METAL 4.7K 1% 1/4W					
R1069	1-215-437-00	METAL 4.7K 1% 1/4W					
R1070	1-249-411-11	CARBON 330 5% 1/4W					
R1071	1-249-431-11	CARBON 15K 5% 1/4W					
R1073	1-249-431-11	CARBON 15K 5% 1/4W					
R1077	1-249-418-11	CARBON 1.2K 5% 1/4W					
R1078	1-249-418-11	CARBON 1.2K 5% 1/4W					
R1079	1-249-405-11	CARBON 100 5% 1/4W					
R1080	1-215-423-00	METAL 1.2K 1% 1/4W					
R1081	1-215-421-00	METAL 1K 1% 1/4W					
R1089	1-249-405-11	CARBON 100 5% 1/4W					
R1092	1-247-688-11	CARBON 10 5% 1/4W					

U S MAIN

REF. NO.	PART NO.	DESCRIPTION	REMARK	EF. NO.	PART NO.	DESCRIPTION	REMARK
R1094	1-249-405-11	CARBON	100 5% 1/4W				
R1096	1-249-405-11	CARBON	100 5% 1/4W				
R1099	1-249-413-11	CARBON	470 5% 1/4W				
R1100	1-249-429-11	CARBON	10K 5% 1/4W				
R1101	1-241-405-f 1	CARBON	100 5% 1/4W				
R1102	1-249-393-1	CARBON	10 5% 1/4W				
R1103	1-249-441-1	CARBON	100K 5% 1/4W				
R1106	1-249-435-1	CARBON	33K 5% 1/4W				
R1108	1-249-434-1	CARBON	27K 5% 1/4W				
R1109	1-249-435-1	CARBON	33K 5% 1/4W				
R1110	1-249-405-11	CARBON	100 5% 1/4W				
R1112	1-249-409-11	CARBON	220 5% 1/4W				
R1114	1-249-434-11	CARBON	27K 5% 1/4W				
R1115	1-249-409-11	CARBON	220 5% 1/4W				
R1116	1-249-441-11	CARBON	100K 5% 1/4W				
R1117	1-249-393-1	CARBON	10 5% 1/4W				
R1118	1-249-413-1	CARBON	470 5% 1/4W				
R1119	1-249-441-1	CARBON	100K 5% 1/4W				
R1120	1-249-413-1	CARBON	470 5% 1/4W				
R1121	1-249-441-1	CARBON	100K 5% 1/4W				
R1122	-249-413-11	CARBON	470 5% 1/4W				
R1133	-249-405-11	CARBON	100 5% 1/4W				
R1134	-249-405-11	CARBON	100 5% 1/4W				
R1138	-249-415-11	CARBON	680 5% 1/4W				
R1139	-249-413-11	CARBON	470 5% 1/4W				
R1140	-249-413-11	CARBON	470 5% 1/4W				
A1141	249-413-11	CARBON	470 5% 1/4W				
R1142	-249-415-11	CARBON	680 5% 1/4W				
R1148	249-405-11	CARBON	100 5% 1/4W				
R1149	-249-417-11	CARBON	1K 5% 1/4W				
R1150	1-249-405-11	CARBON	100 5% 1/4W				
R1151	1-249-405-11	CARBON	100 5% 1/4W				
R1152	1-249-417-11	CARBON	1K 5% 1/4W				
<CONNECTOR>							
U12	1-573-300-11	CONNECTOR, BOARD TO BOARD	18P				
U13	1-573-300-11	CONNECTOR, BOARD TO BOARD	18P				
U16	*1-564-513-11	PLUG, CONNECTOR	10P				
U19	*1-564-509-11	PLUG, CONNECTOR	6P				
U22	1-566-942-11	CONNECTOR, HINGE (RECEPTACLE)	30P				
U23	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)					
U48	*1-508-784-00	PIN, CONNECTOR (5MM FITCH)	1P				
U50	*1-564-505-11	PLUG, CONNECTOR	2P				

*1-643-669-11 S BOARD							

<CAPACITOR>							
C3403	1-164-161-11	CERAMIC CHIP	0.0022MF 10% 50V				
C3408	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V				
C3409	1-124-477-11	ELECT	47MF 20% 16V				
C3411	1-124-034-51	ELECT	33MF 20% 16V				
<IC>							
IC3401	8-759-403-44	IC	MN1280-S				
IC3402	8-759-070-42	IC	M37201M6-A18FP				
<COIL>							
L3401	1-408-421-00	INDUCTOR	100UH				
<RESISTOR>							
R3401	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R3402	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
H3403	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R3404	1-216-033-00	METAL GLAZE	220 5% 1/10W				
R3405	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
R3406	-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
R3407	-216-033-00	METAL GLAZE	220 5% 1/10W				
R3408	-216-033-00	METAL GLAZE	4.7K 5% 1/10W				
R3409			220 5% 1/10W				
R3476	-216-295-00	METAL GLAZE	0 5% 1/10W				
<CONNECTOR>							
S45	*1-564-511-71	PLUG, CONNECTOR	8P				
S46	*1-564-506-11	PLUG, CONNECTOR	3P				
<CRYSTAL>							
X3401	1-577-082-11	VIBRATOR, CERAMIC					

*A-4542-096-A MAIN BOARD, COMPLETE							

<CAPACITOR>							
C1	1-126-205-11	ELECT CHIP	47MF 20% 6.3V				
C2	1-163-031-11	CERAMIC CHIP	0.01MF 50V				
C3	1-163-038-00	CERAMIC CHIP	0.1MF 25V				
C4	1-126-204-11	ELECT CHIP	47MF 20% 16V				
c5	1-126-204-11	ELECT CHIP	47MF 20% 16V				
C6	1-126-204-11	ELECT CHIP	47MF 20% 16V				
C7	1-126-204-11	ELECT CHIP	47MF 20% 16V				
C8	1-163-038-00	CERAMIC CHIP	0.1MF 25V				
c9	1-163-031-11	CERAMIC CHIP	0.01MF 50V				
C11	1-163-001-11	CERAMIC CHIP	220PF 10% 50V				
C12	1-163-809-11	CERAMIC CHIP	0.047MF 5% 25V				
C13	1-163-001-11	CERAMIC CHIP	220PF 10% 50V				
C14	1-126-603-11	ELECT CHIP	4.7MF 20% 35V				
C15	1-126-601-11	ELECT CHIP	2.2MF 20% 50V				
C16	1-126-205-11	ELECT CHIP	47MF 20% 6.3V				
C17	1-164-161-11	CERAMIC CHIP	0.0022MF 10% 50V				
C18	1-163-227-11	CERAMIC CHIP	10PF 5% 50V				
C19	1-163-031-11	CERAMIC CHIP	0.01MF 50V				
C20	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V				
C21	1-163-109-11	CERAMIC CHIP	47PF 5% 50V				
C22	1-163-095-00	CERAMIC CHIP	12PF 5% 50V				
C23	1-163-111-00	CERAMIC CHIP	56PF 5% 50V				
C24	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V				
C25	1-163-251-11	CERAMIC CHIP	100PF 5% 50V				
C30	1-126-607-11	ELECT CHIP	47MF 20% 4V				
C31	1-163-031-11	CERAMIC CHIP	0.01MF 50V				
C51	1-163-001-11	CERAMIC CHIP	220PF 10% 50V				
C52	1-163-809-11	CERAMIC CHIP	0.047MF 5% 25V				
c53	1-163-001-11	CERAMIC CHIP	220PF 10% 50V				
c54	1-126-603-11	ELECT CHIP	4.7MF 20% 35V				
c55	1-126-601-11	ELECT CHIP	2.2MF 20% 50V				
C56	1-126-205-11	ELECT CHIP	47MF 20% 6.3V				
C57	1-164-161-11	CERAMIC CHIP	0.0022MF 10% 50V				
C58	1-163-227-11	CERAMIC CHIP	10PF 5% 50V				
c59	1-163-031-11	CERAMIC CHIP	0.01MF 50V				

MAIN LED

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C60	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	R21	1-216-025-00	METAL GLAZE 100 5%	1/10W
C61	1-163-107-00	CERAMIC CHIP 39PF	5% 50V	R22	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
C62	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	R24	1-216-691-11	METAL CHIP 47K 0.50%	1/10W
C63	1-163-109-00	CERAMIC CHIP 47YF	5% 50V	R25	1-216-661-11	METAL CHIP 2.7K 0.50%	1/10W
C64	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	R26	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
C65	1-163-031-11	CERAMIC CHIP 0.01MF	50V	R27	1-216-022-00	METAL GLAZE 75 5%	1/10W
<CONNECTOR>				R29	1-216-017-00	METAL GLAZE 47 5%	1/10W
CNP1	*1-564-521-11	PLUG, CONNECTOR 6P		R51	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
CNP3	*1-564-517-11	PLUG, CONNECTOR 2P		R52	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
<DIODE>				R53	1-216-025-00	METAL GLAZE 100 5%	1/10W
D9	8-719-105-28	DIODE RD2.4M-B		R54	1-216-089-00	METAL GLAZE 47K 5%	1/10W
D10	8-719-106-08	DIODE RD6.2M-B2		R55	1-216-073-00	METAL GLAZE 10K 5%	1/10W
D11	8-719-939-02	DIODE SVC203CP		R56	1-216-073-00	METAL GLAZE 10K 5%	1/10W
D51	8-719-939-02	DIODE SVC203CP		R57	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
<IC>				R58	1-216-081-00	METAL GLAZE 22K 5%	1/10W
IC1	8-759-998-71	IC BA3308F		R59	1-216-025-00	METAL GLAZE 100 5%	1/10W
<COIL>				R60	1-216-111-00	METAL GLAZE 390K 5%	1/10W
L11	1-406-333-11	COIL (OSC)		R61	1-216-025-00	METAL GLAZE 100 5%	1/10W
L12	1-410-392-11	INDUCTOR CHIP 82UH		R62	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
L13	1-412-400-31	INDUCTOR 68UH		R64	1-216-691-11	METAL CHIP 47K 0.50%	1/10W
L51	1-406-334-11	COIL (OSC)		R65	1-216-661-11	METAL CHIP 2.7K 0.50%	1/10W
L52	1-410-391-11	INDUCTOR CHIP 68UH		R66	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
<TRANSISTOR>				R67	1-216-022-00	METAL GLAZE 75 5%	1/10W
Q12	8-729-200-87	TRANSISTOR 2SC2714-Y		R69	1-216-017-00	METAL GLAZE 47 5%	1/10W
Q13	8-729-216-22	TRANSISTOR 2SA1162-G		R71	1-216-089-00	METAL GLAZE 47K 5%	1/10W
Q14	8-729-230-49	TRANSISTOR 2SC2712-YG		R81	1-216-089-00	METAL GLAZE 47K 5%	1/10W
Q52	8-729-200-87	TRANSISTOR 2SC2714-Y		<VARIABLE RESISTOR>			
Q53	8-729-216-22	TRANSISTOR 2SA1162-G		RV11	1-238-989-11	RES, ADJ, METAL GLAZE 2.2K	
Q54	8-729-230-49	TRANSISTOR 2SC2712-YG		RV51	1-238-989-11	RES, ADJ, METAL GLAZE 2.2K	
<RESISTOR>				*****			
JW2	1-216-296-00	METAL GLAZE 0 5%	1/8W	*1-643-140-11 LED BOARD			
JW3	1-216-295-00	METAL GLAZE 0 5%	1/10W	*****			
JW4	1-216-295-00	METAL GLAZE 0 5%	1/10W	<CAPACITOR>			
JW5	1-216-296-00	METAL GLAZE 0 5%	1/8W	C101	1-163-031-11	CERAMIC CHIP 0.01MF	50V
JW6	1-216-296-00	METAL GLAZE 0 5%	1/8W	C103	1-163-031-11	CERAMIC CHIP 0.01MF	50V
JW8	1-216-296-00	METAL GLAZE 0 5%	1/8W	C104	1-126-395-11	ELECT CHIP 22MF	20% 16V
R1	1-216-133-00	METAL GLAZE 3.3M 5%	1/10W	C105	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R5	1-216-043-00	METAL GLAZE 560 5%	1/10W	C106	1-126-395-11	ELECT CHIP 22MF	20% 16V
R6	1-216-043-00	METAL GLAZE 560 5%	1/10W	C107	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R8	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W	<CONNECTOR>			
R9	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	CNP101	*1-564-517-11	PLUG, CONNECTOR 2P	
R11	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	<DIODE>			
R12	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	D101	8-719-992-10	DIODE 1R5BF-A	
R13	1-216-025-00	METAL GLAZE 100 5%	1/10W	D102	8-719-992-10	DIODE 1R5BF-A	
R14	1-216-089-00	METAL GLAZE 47K 5%	1/10W	D103	8-719-992-10	DIODE 1R5BF-A	
R15	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W	D104	8-719-992-10	DIODE 1R5BF-A	
R16	1-216-073-00	METAL GLAZE 10K 5%	1/10W	D105	8-719-992-10	DIODE 1R5BF-A	
R17	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	D106	8-719-992-10	DIODE 1R5BF-A	
R18	1-216-081-00	METAL GLAZE 22K 5%	1/10W	D107	8-719-992-10	DIODE 1R5BF-A	
R19	1-216-025-00	METAL GLAZE 100 5%	1/10W	D108	8-719-992-10	DIODE 1R5BF-A	
R20	1-216-111-00	METAL GLAZE 390K 5%	1/10W	D109	8-719-992-10	DIODE 1R5BF-A	
				D110	8-719-992-10	DIODE 1R5BF-A	
				D111	8-719-992-10	DIODE 1R5BF-A	
				D112	8-719-992-10	DIODE 1R5BF-A	

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

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

LED

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
		<COIL>				ACCESSORIES AND PACKING MATERIALS	

L101	1-412-400-31	INDUCTOR 68UH		1-559-913-11	CABLE, ANTENNA CONNECTION		
		<TRANSISTOR>		3-755-193-21	MANUAL, INSTRUCTION (ENGLISH)		
Q101	M-723-216-22	TRANSISTOR 2SA1162-G		3-755-193-31	MANUAL, INSTRUCTION (FRENCH)		
Q102	8-729-106-68	TRANSISTOR 2SD1615A-GP			(KV-27XBR35(C), 32XBR35(C))		
Q103	R-729-216-22	TRANSISTOR 2SA1162-G		3-755-193-41	MANUAL, INSTRUCTION (SPANISH)		
Q104	8-729-106-68	TRANSISTOR 2SD1615A-GP			(KV-27XBR35(U), 32XBR35(U))		
Q105	8-729-216-22	TRANSISTOR 2SA1162-G		*4-035-985-01	CUSHION (UPPER) (ASSY) (KV-32XBR35(U/C))		
Q106	8-729-106-68	TRANSISTOR 2SD1615A-GP		*4-035-986-01	CUSHION (LOWER) (ASSY) (KV-32XBR35(U/C))		
Q107	8-729-230-49	TRANSISTOR 2SC2712-YG		*4-035-991-01	INDIVIDUAL CARTON (KV-32XBR35(U/C))		
		<RESISTOR>		*4-036-851-01	INDIVIDUAL CARTON (KV-27XBR35(U/C))		
JW101	t-216-295-00	METAL GLAZE 0 5% 1/10W		*4-036-852-01	CUSHION (UPPER) (ASSY) (KV-27XBR35(U/C))		
R101	1-216-022-00	METAL GLAZE 75 5% 1/10W		*4-036-853-01	CUSHION (LOWER) (ASSY) (KV-27XBR35(U/C))		
R102	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W		*4-384-027-01	BAG, PROTECTION		
R104	1-216-025-00	METAL GLAZE 100 5% 1/10W		A-4503-953-A	HEADPHONE TDR-IF310		
R105	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W			REMOTE COMMANDER		
R106	1-216-003-11	METAL GLAZE 12 5% 1/10W		1-693-113-11	REMOTE COMMANDER (RM-Y113)		
R107	1-216-025-00	METAL GLAZE 100 5% 1/10W		9-902-719-01	COVER (FOR RM-Y113)		
R108	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W		9-998-214-01	COVER, BATTERY (FOR RM-Y113)		
R109	1-216-003-11	METAL GLAZE 12 5% 1/10W					
R110	1-216-025-00	METAL GLAZE 100 5% 1/10W					
RI11	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W					
RI12	1-216-003-11	METAL GLAZE 12 5% 1/10W					
		<VARIABLE RESISTOR>					
RV101	1-238-989-11	RES, ADJ, METAL GLAZE 2.2K					

		MISCELLANEOUS					

A1-417-178-11	SELECTOR, ANTENNA (AS-2)						
A1-426-356-11	COIL, DEMAGNETIZATION (KV-32XBR35(U/C))						
A1-426-573-11	COIL, DEGAUSSING (KV-27XBR35(U/C))						
A1-426-574-11	COIL, DEGAUSSING (KV-27XBR35(U/C))						
A1-451-315-11	DEFLECTION YOKE (Y34FXA) (KV-32XBR35(U/C))						
A1-451-394-11	DEFLECTION YOKE (Y29GXA) (KV-27XBR35(U/C))						
1-452-032-00	MAGNET, DISK; 10MM ϕ						
1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ						
A1-452-579-11	NECK ASSY, PICTURE TUBE (NA322)						
	(KV-32XBR35(U/C))						
A1-452-616-11	NECK ASSY, PICTURE TUBE (NA323)						
	(KV-27XBR35(U/C))						
1-544-544-11	SPEAKER (10CM)						
1-544-580-11	SPEAKER (2.5CM)						
*1-555-400-00	CABLE, PIN						
*1-557-056-31	CABLE, P-P						
A1-606-002-11	CORD, POWER (WITH NOISE FILTER)						
A-4546-027-A	TRANSMITTER TNR-D1002						
A-4546-028-A	LUMINOUS UNIT IFP-D1002						
V901	A8-733-723-05	PICTURE TUBE (A80JYV50X) (KV-32XBR35(U/C))					
	A8-733-835-05	PICTURE TUBE (M68KUZ10X) (KV-27XBR35(U/C))					

MEMO

ACCESSORY

TDR-IF310

SPECIFICATIONS

General	
Modulation system	Frequency modulation
Carrier frequency	Right 28 MHz
	Left 23 MHz
Effective range	Up to approx 7 m (23 ft)
Frequency response	18 - 22,000 Hz
Distortion	Less than 1% at 1 kHz
Headphones MDR-IF310	
Power source	DC 3 V, 2 x R6 (size AA) battery
Weight	Approx 170 g (60 oz) incl batteries

Design and specifications subject to change
without notice

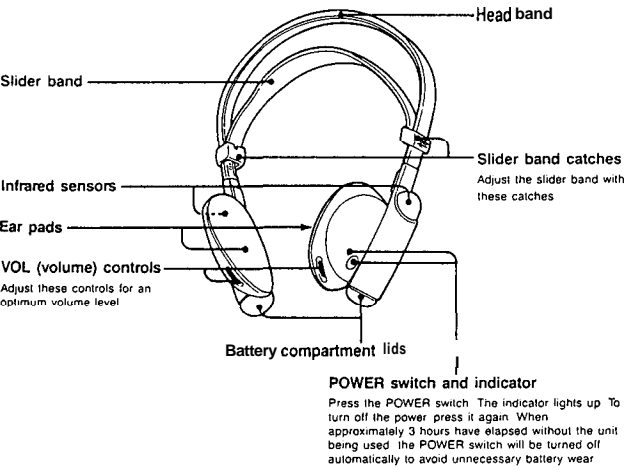
CORDLESS STEREO HEADPHONES

SECTION 1
GENERAL

This section is extracted from
instruction manual.

Parts Identification

Headphones



Power Source of the Headphones

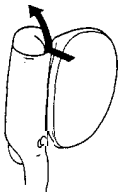
Use two R6 (size AA) batteries for the headphones. Be sure to use the same type of batteries for both right and left battery compartments.

When the batteries become weak
The POWER indicator dims and a hissing noise increases. In such a case, replace both batteries.
The approximate battery life for continuous operation is as follows:

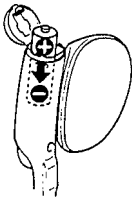
Sony alkaline battery AM3(N): 120 hours
Sony battery SUM 3(NS): 60 hours

Battery Installation

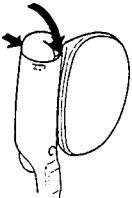
1 Open both battery compartments' lids



2 Insert the batteries with the correct polarity



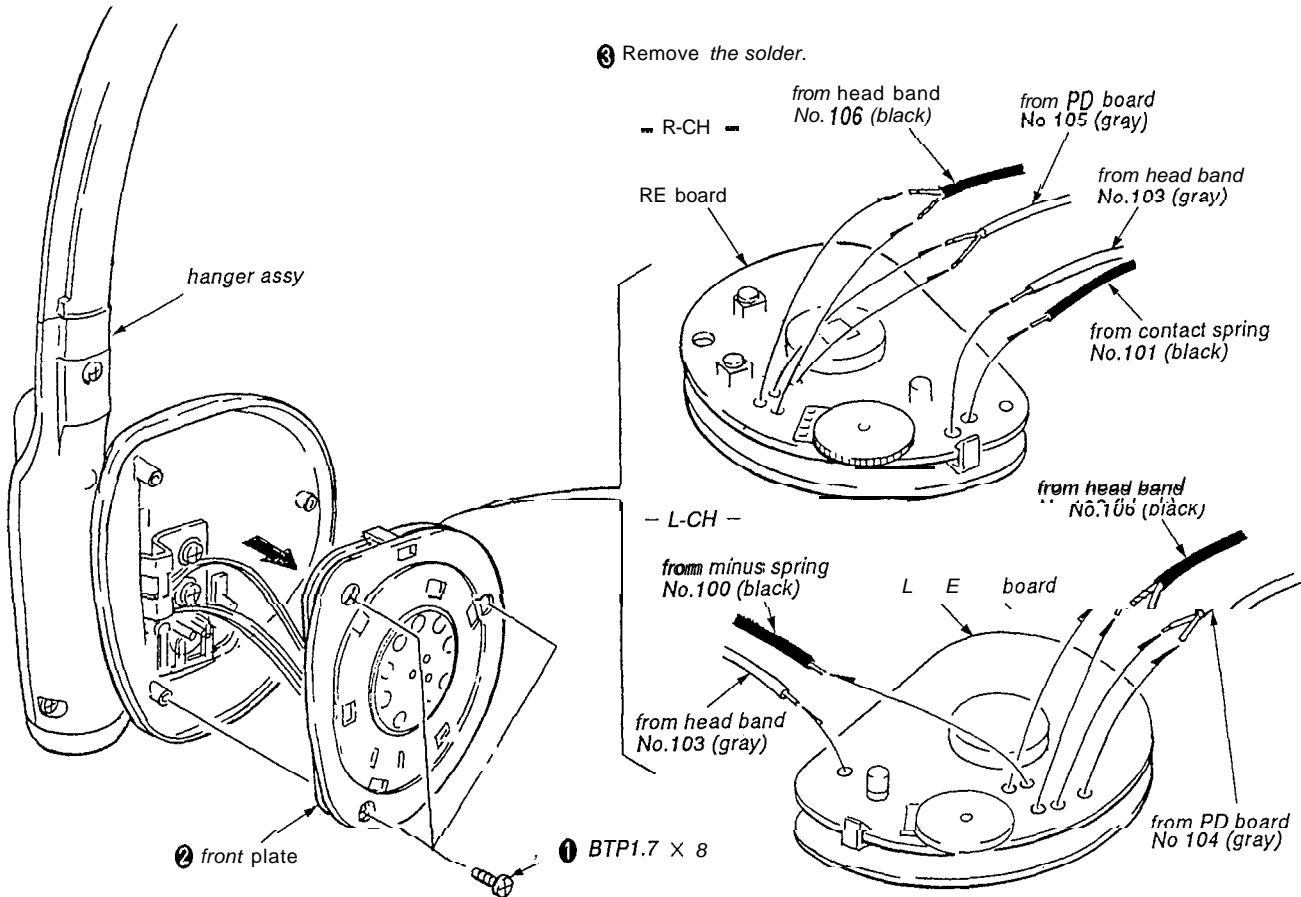
3 Close the battery compartments' lids



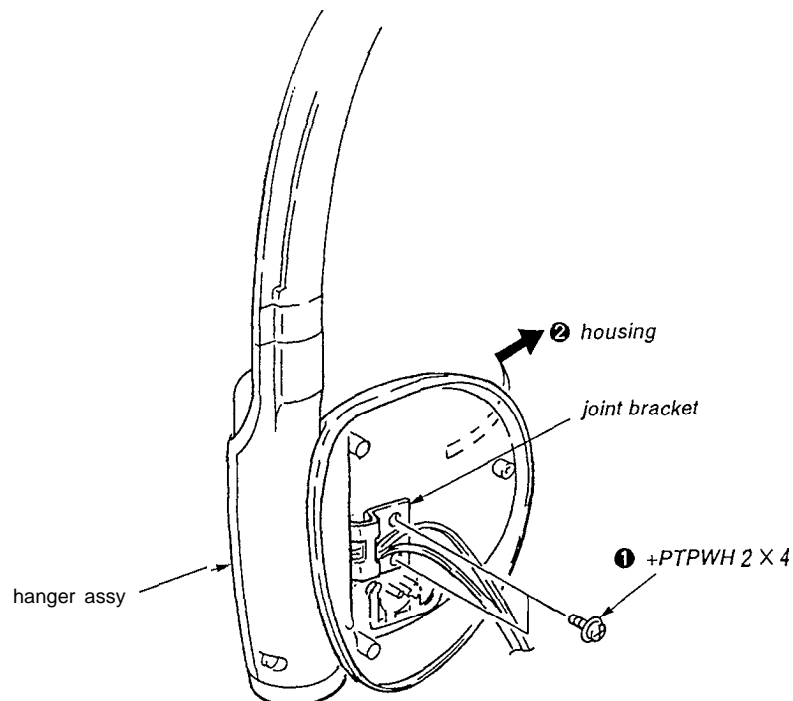
SECTION 2 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given

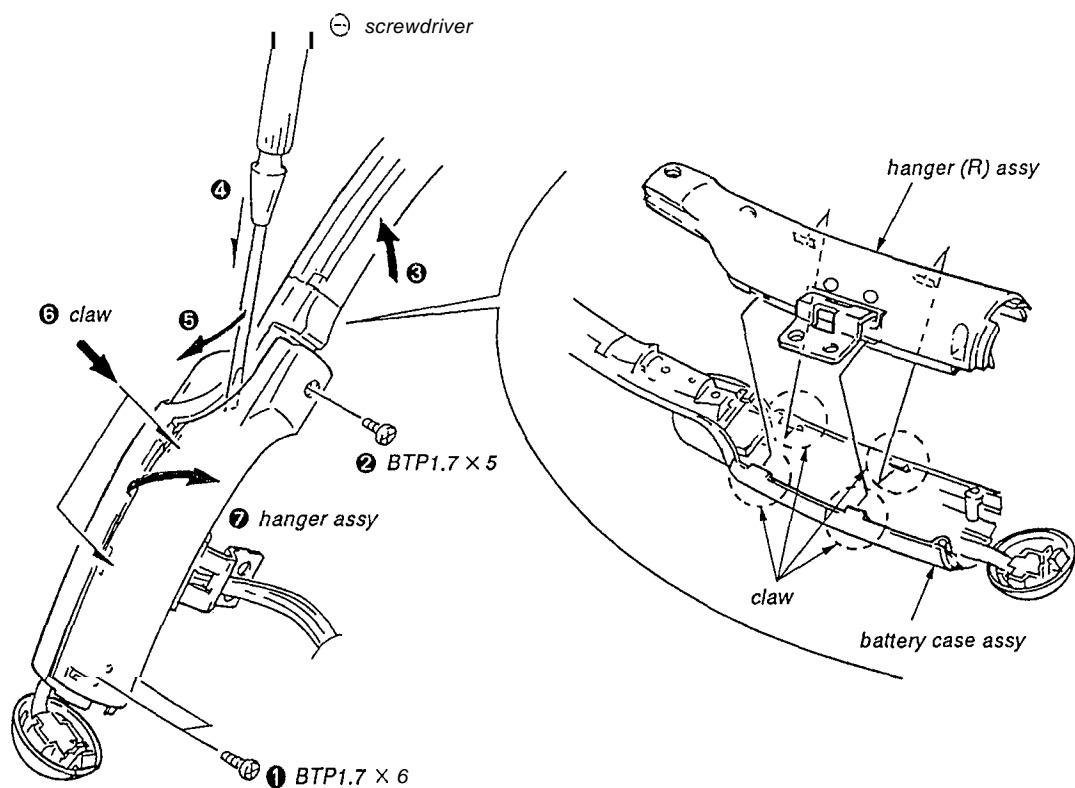
FRONT PLATE



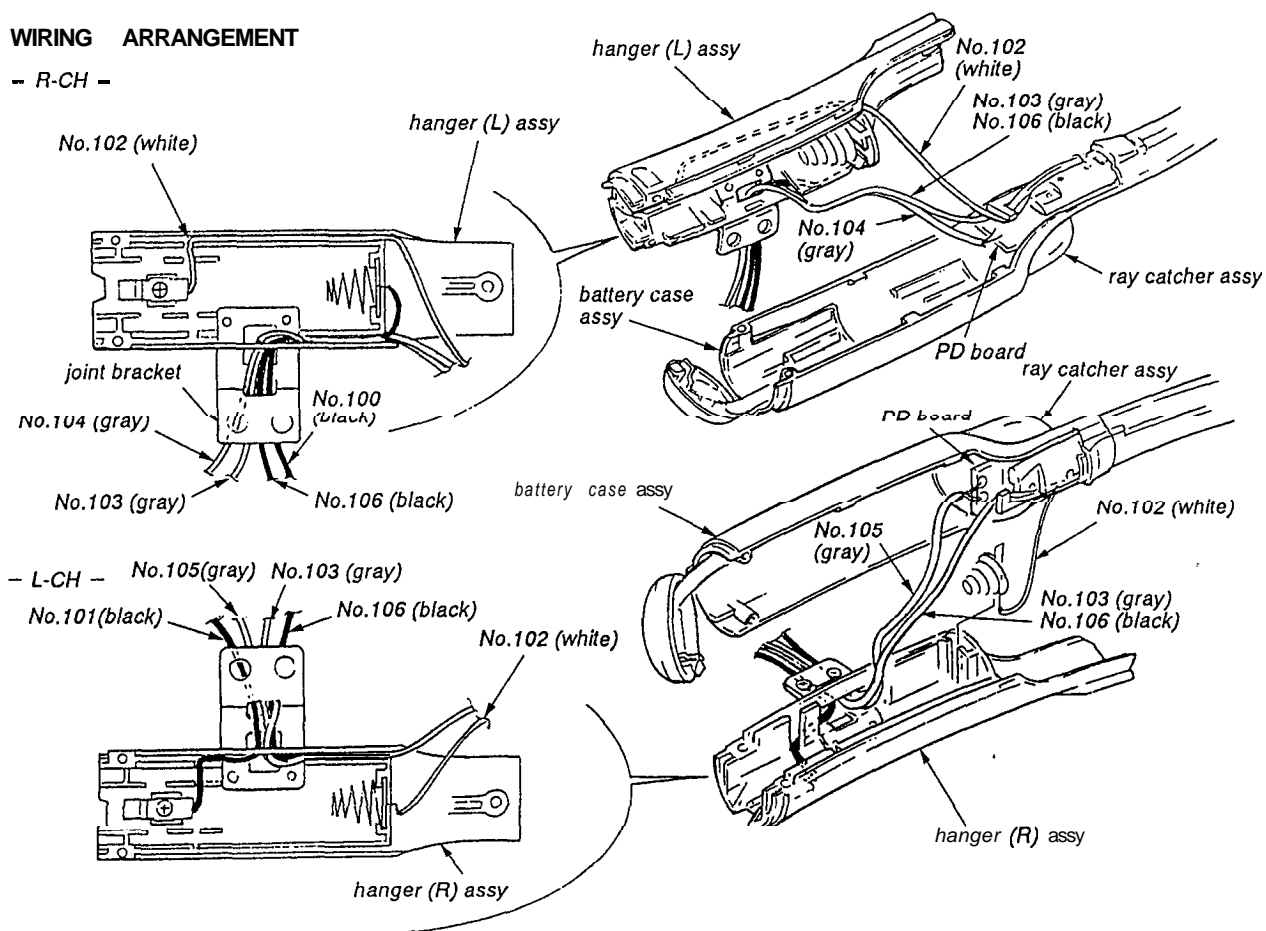
HOUSING



HANGER



WIRING ARRANGEMENT

$$-R-CH-$$


SECTION 3 ADJUSTMENTS

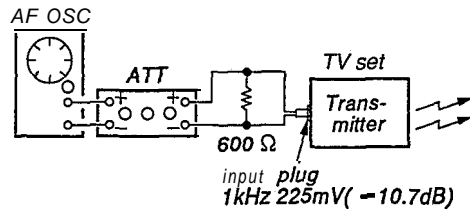
Note:

1. On adjusting, use the transmitter TV set.
2. L-ch adjustment should be completed before performing R-ch adjustment.

$$0 \text{ dB} = 0.775 \text{ V}$$

[Receiving Frequency Adjustment]

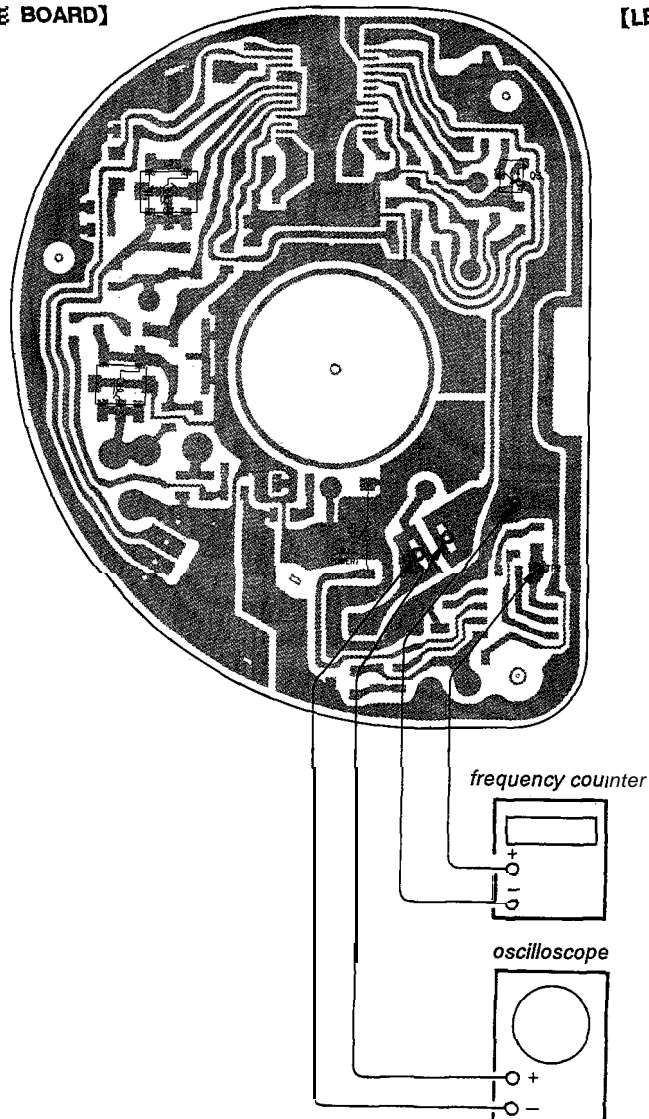
Preparation:



1. Feed a signal to TV set and connect a power supply.
2. Volume control: Optional position.
3. Short-circuit: Q3 (Q53) Base - Emitter (Ground)

[Connection and Adjustment Location]

[RE BOARD]



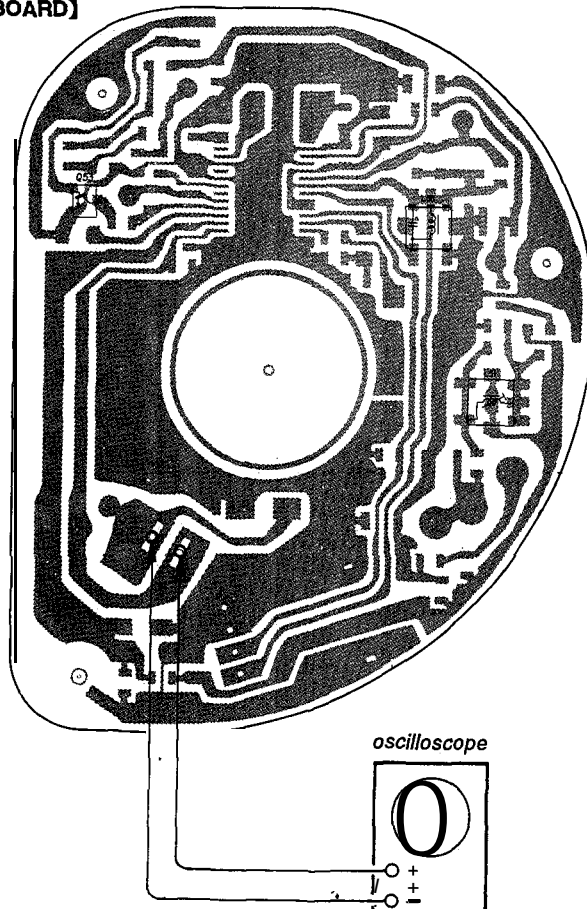
Procedure:

1. Connect a oscilloscope to SPI or SP51.
2. Turn on the power switch on the headphones.
3. Adjust to make minute input level with changing the direction of the emitting position of jig so that the noise appears on the waveform.
4. Adjust with L5 (L-ch) or L55 (R-ch) to maximize the reading on the oscilloscope.
5. Adjust with L1 (L-ch) or L51 (R-ch) to maximize the reading on the oscilloscope.
6. Release the short-circuit position.
Q3 (Q53) Base - Emitter (Ground)

[Timer Clock Frequency Check]

1. Connect a frequency counter to TP2 and TP (GND).
2. Check the reading on the frequency counter becomes to the checking value.
Checking value: 300 Hz - 390 Hz.

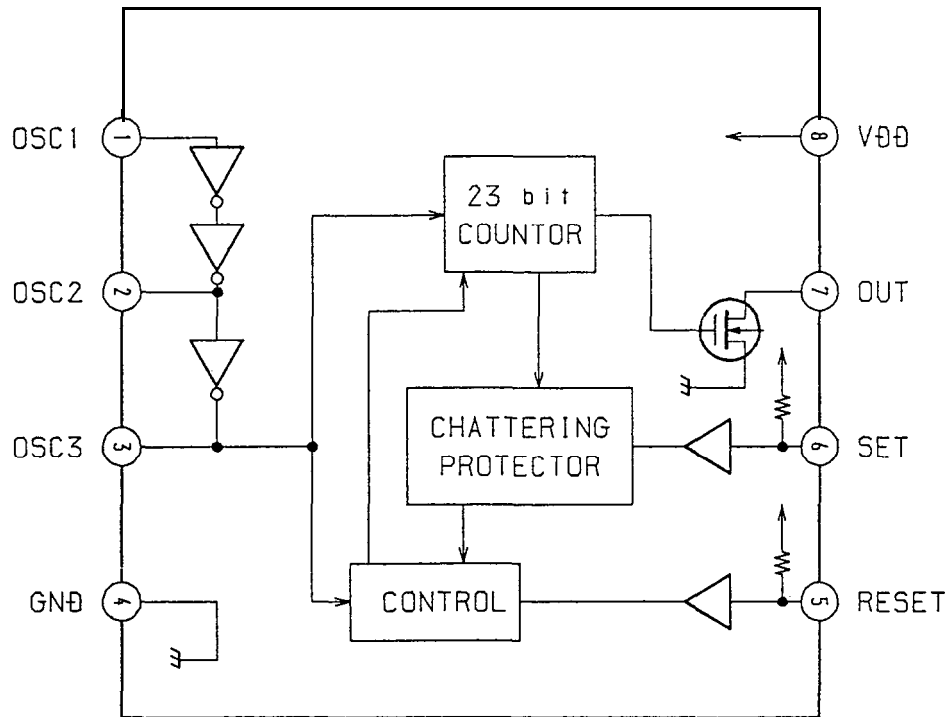
[LE BOARD]



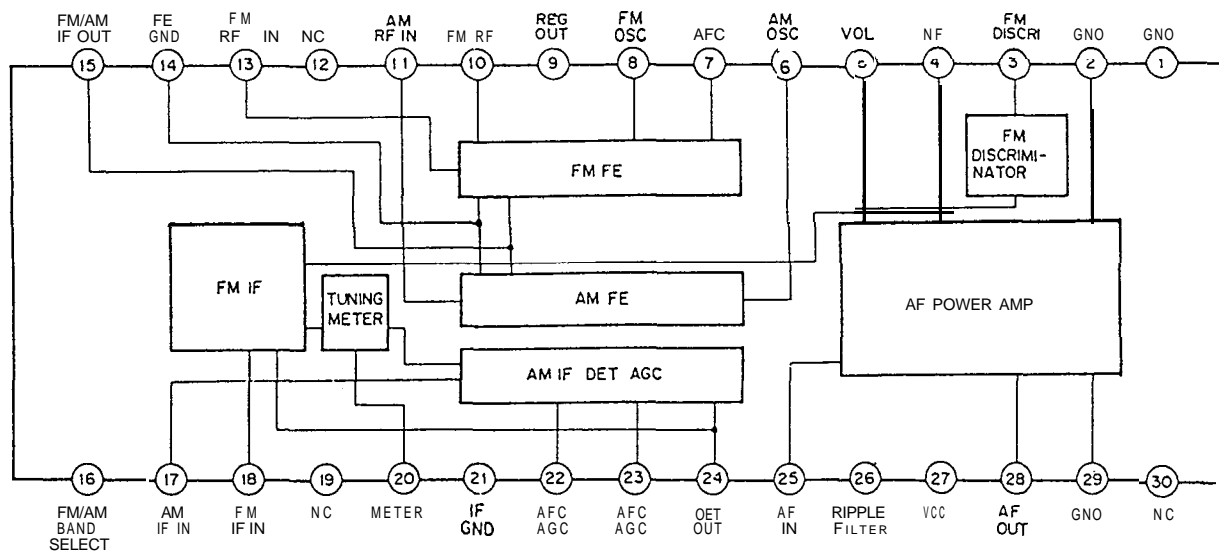
SECTION 4 DIAGRAMS

• IC Block Diagrams

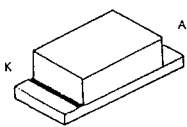
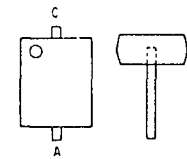
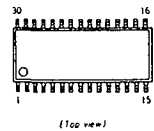
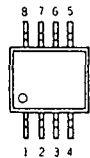
IC2 BU2305F



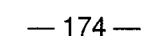
IC21, 51 CXA1 280N



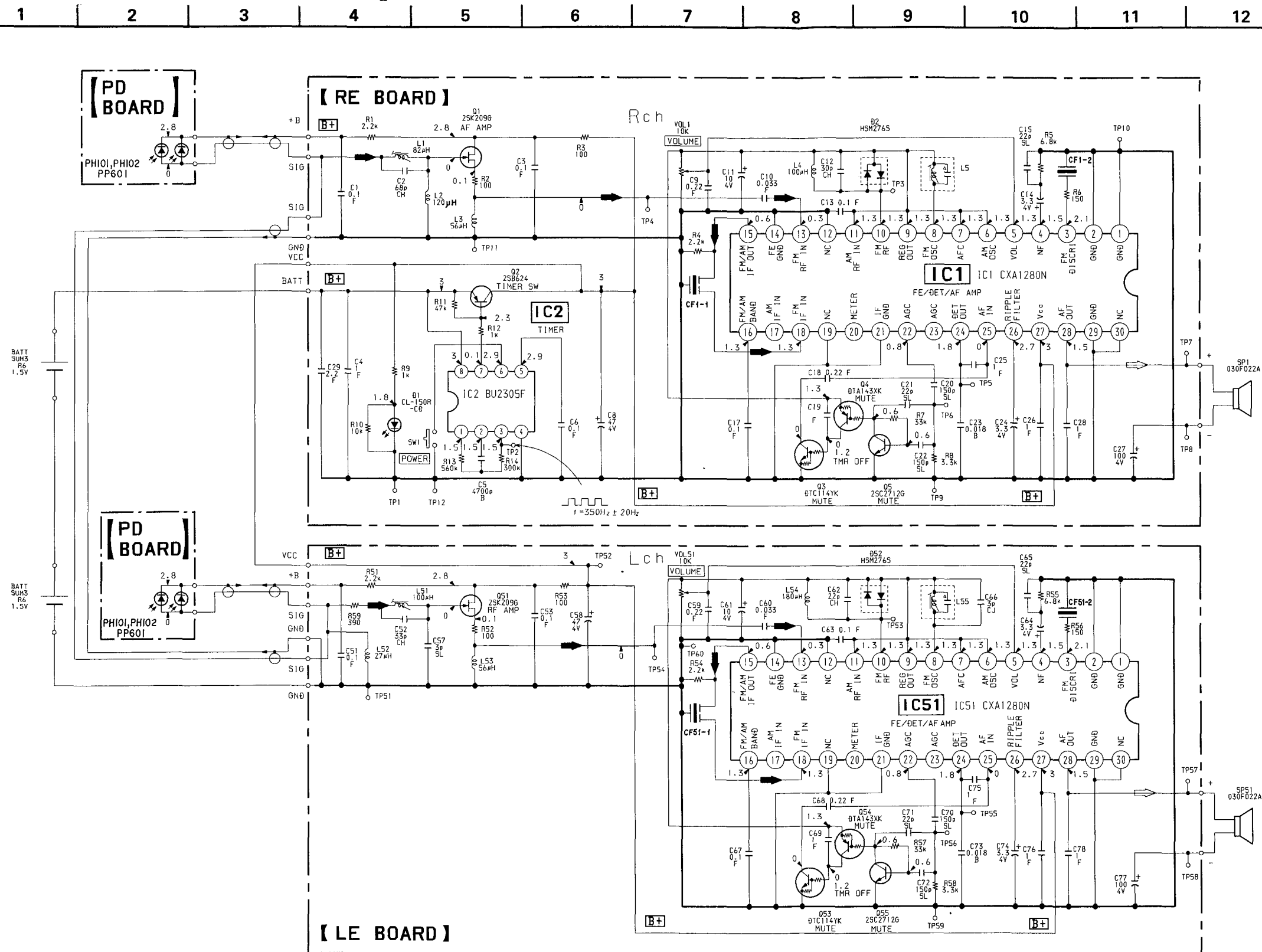
Ref. No.	Location
D1	G-3
D2	E-2
D52	D-12
IC1	C-4
IC2	H-5
IC51	D-10
PH101	A-5, A-8
PH102	A-6, A-9
Q2	H-4
Q3	D-5
Q4	D-4
Q5	D-5
Q51	E-13
Q53	D-9
Q54	C-9
Q55	D-9



- ○ — : parts extracted from the component side.
- ● : Through hole.
- ■ : Pattern on the side which is seen.



4-2. SCHEMATIC DIAGRAM • See page 172 for IC Block Diagrams.



Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
- **B+** : B+ Line.
- **adjustment for repair**.
- Power voltage is dc 3 V and fed with regulated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (10 M Ω/V). Voltage variations may be noted due to normal production tolerances.
- Signal path.
 - ◁ : Audio signal
 - ➡ : RF signal

SECTION 5

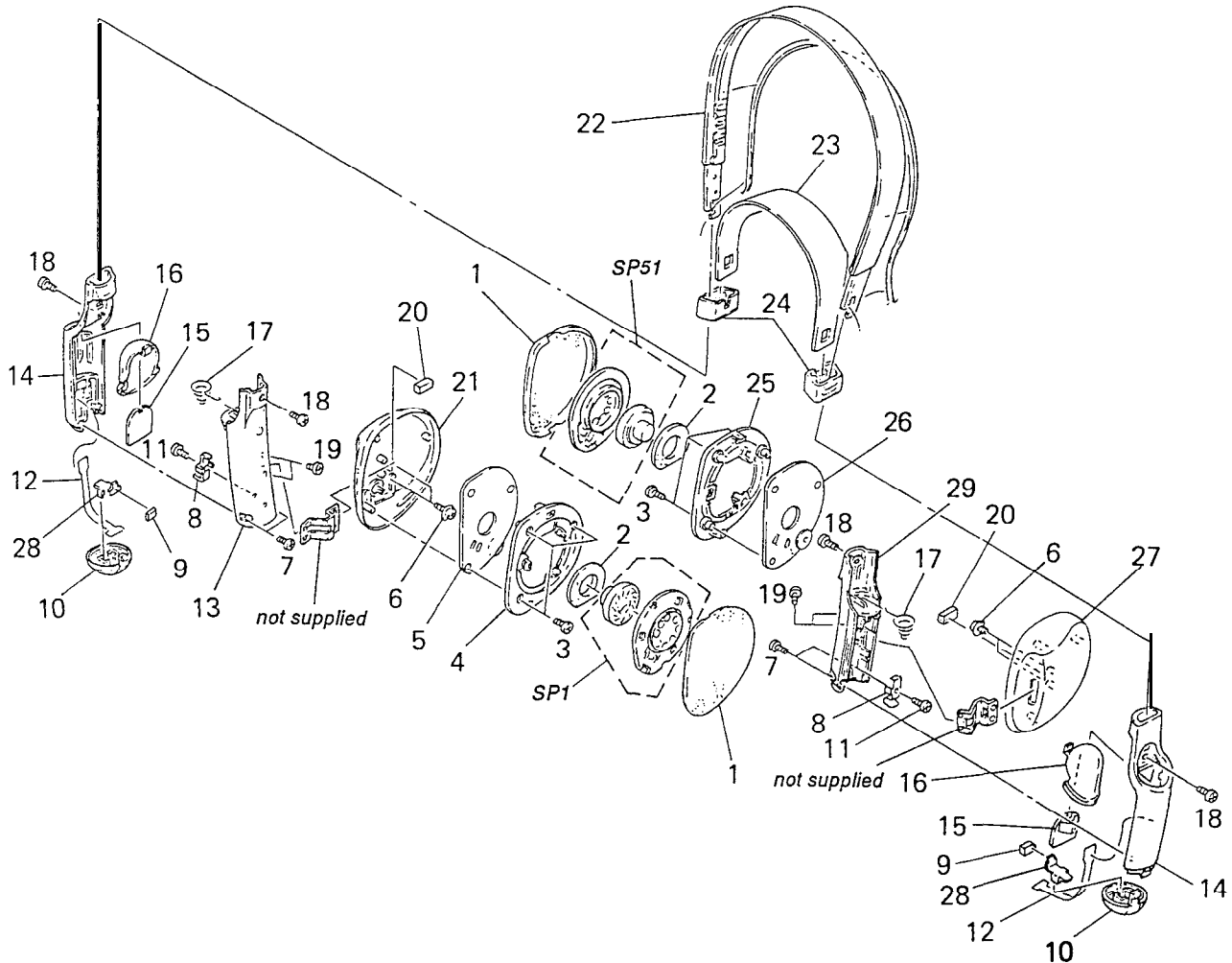
EXPLODED VIEW

NOTE:

- -XX and -X mean standardized parts, so they may have *some* difference from the original one
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) . (RED)

↑
Parts Color

↑
Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
1	4-947-791-01	PAD, EAR		16	4-947-790-01	COVER, RAY CATCHER	
* 2	4-948-895-01	DAMPER		17	4-947-794-01	SPRING, MINUS	
3	3-318-203-31	SCREW (B1.7X8), TAPPING		18	3-318-203-11	SCREW (B1.7X6), TAPPING	
x 4	4-947-813-01	PLATE (R), FRONT		19	7-627-852-28	SCREW +P 1.7X3	
* 5	A-4542-062-A	RE BOARD, COMPLETE		20	4-947-796-01	CUSHION	
6	3-313-392-01	SCREW (2X4), + PTPWH		21	X-4941-959-1	HOUSING (R) ASSY	
7	3-318-203-11	SCREW (B1.7X6), TAPPING		* 22	4-947-809-01	BAND, HEAD	
8	4-947-795-01	SPRING, CONTACT		* 23	4-947-798-01	BAND, SLIDER	
9	9-911-838-XX	CUSHION		24	4-947-801-01	KNOB, SLIDER	
10	4-947-800-01	LID, BATTERY CASE		* 25	4-947-812-01	PLATE (L), FRONT	
11	7-627-552-07	SCREW (M1.7X2.5), TAPPING		* 26	A-4542-061-A	LE BOARD, COMPLETE	
12	4-947-789-01	SHEET		27	4-947-804-01	HOUSING (L)	
13	4-947-810-01	HANGER (R)		28	4-947-793-01	TERMINAL, PLUS	
14	4-947-808-01	CASE, BATTERY		29	4-947-811-01	HANGER (L)	
* 15	1-641-347-11	PC BOARD, PD		SP1	1-505-117-11	DRIVER UNIT (03F022A)	
				SP51	1-505-117-11	DRIVER UNIT (03F022A)	

RE

REF NO.	PART NO	DESCRIPTION	REMARK
C17	I-163-038-00	CERAMIC CHIP 0.1MF	25V
C18	I-164-222-11	CERAMIC CHIP 0.22MF	25V
C19	I-164-346-11	CERAMIC CHIP 1MF	16V
C20	I-163-121-00	CERAMIC CHIP 150PF	5% 50V
C21	I-163-101-00	CERAMIC CHIP 22PF	5% 50V
C22	I-163-121-00	CERAMIC CHIP 150PF	5% 50V
C23	I-163-024-00	CERAMIC CHIP 0.018MF	10% 50V
C24	I-135-180-21	TANTAL. CHIP 3.3MF	20% 4V
C25	I-164-346-11	CERAMIC CHIP 1MF	16V
C26	I-164-346-11	CERAMIC CHIP 1MF	16V
C27	I-126-209-11	ELECT CHIP 100MF	20% 4V
C28	I-164-346-11	CERAMIC CHIP 1MF	16V
C29	I-164-337-11	CERAMIC CHIP 2.2MF	16V
<DIODE>			
D1	B-719-989-22	DIODE CL-150R-CD	
D2	B-711-946-33	DIODE HSM276S	
<IC>			
IC1	B-7511-605-59	IC CXA1280N	
IC2	B-759-044-56	IC BU2305F	
<COIL>			
L1	I-424-334-11	COIL	
L2	I-410-655-31	INDUCTOR CHIP 120UH	
L3	I-410-390-11	INDUCTOR CHIP 5GUH	
L4	I-410-393-11	INDUCTOR CHIP 100UH	
L5	I-406-436-11	COIL (OSC)	
<TRANSISTOR>			
Q1	H-729-220-93	TRANSISTOR 2SK209-G	
Q2	8-729-141-48	TRANSISTOR 2SB624-BV345	
Q3	8-729-900-52	TRANSISTOR DTC114YK	
Q4	8-729-906-45	TRANSISTOR DTA143XK	
Q5	8-729-230-49	TRANSISTOR 2SC2712-YG	
<RESISTOR>			
JW1	I-216-296-00	METAL GLAZE 0 5%	1/8W
R1	I-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2	I-216-025-00	METAL GLAZE 100 5%	1/10W
R3	I-216-025-00	METAL GLAZE 100 5%	1/10W
R4	I-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R5	I-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R6	I-216-029-00	METAL GLAZE 150 5%	1/10W
R7	I-216-085-00	METAL GLAZE 33K 5%	1/10W
R8	I-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R9	I-216-049-00	METAL GLAZE 1K 5%	1/10W
R10	I-216-073-00	METAL GLAZE 10K 5%	1/10W
R11	I-216-089-00	METAL GLAZE 47K 5%	1/10W
R12	I-216-049-00	METAL GLAZE 1K 5%	1/10W
R13	I-216-115-00	METAL GLAZE 560K 5%	1/10W
R14	I-216-108-00	METAL GLAZE 300K 5%	1/10W
<SWITCH>			
SW1	I-572-473-11	SWITCH, TACTIL	
<VARIABLE RESISTOR>			
VOL1	I-238-906-11	RES. VAR. CARBON 10K	

