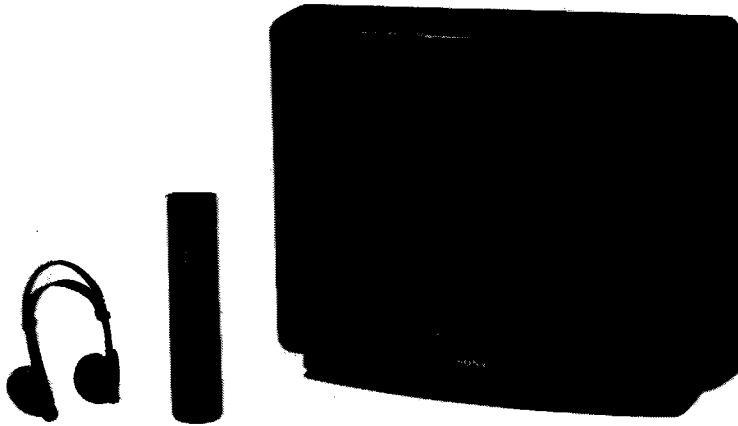


# KV-32XBR26 / 32XBR36

RM-Y112A

TDR-IF310/RM-Y113A

## SERVICE MANUAL



### US Model

KV-32XBR26

Chassis No. SCC-F16L-A

KV-32XBR36

Chassis No. SCC-F16J-A

### Canadian Model

KV-32XBR26

Chassis No. SCC-F17L-A

KV-32XBR36

Chassis No. SCC-F17J-A

## FN CHASSIS

### MODELS OF THE SAME SERIES

KV-32XBR26/32XBR36	
KV-27XBR35/32XBR35	
KV-27XBR26/27XBR36	

### SPECIFICATIONS

Television system American TV standards  
Channel coverage VHF: 2-13  
UHF: 14-69  
CABLE TV: 1-125

Picture tube Microblack™ Trinitron® tube  
32-inch picture measured diagonally  
34-inch picture tube measured diagonally

Antenna 75-ohms 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 kilo-ohms

#### 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 kilo-ohms

#### AUDIO OUTPUT (VARIABLE)

(phono jacks)

More than 900 mVrms (100%  
modulation) at the maximum volume  
setting (variable)

Impedance: 5 kilo-ohms

#### AUDIO LINE OUT

(phono jacks)

900 mVrms (100% modulation)

Impedance: 5 kilo-ohms

- Continued on next page -

TRINITRON® COLOR TV  
**SONY®**



Speaker output	13W×2 (8 ohms)
Speaker size	Tweeter 25 mm (1 in.)×2 units Woofer 100 mm (4 in.)×2 units
Audio frequency response	Tweeter 8 kHz-20 kHz Woofer 50 Hz-8 kHz
Power requirements	120 V AC, 60 Hz
Power consumption	225W
Dimensions (w/h/d)	Approx. 870×663×575.2 mm (W/H/D) (34 <sup>3</sup> / <sub>8</sub> ×26 <sup>1</sup> / <sub>8</sub> ×22 <sup>3</sup> / <sub>4</sub> inches)
Weight	(KV-32XBR26) Approx. 76.8kg (169 lb 5 oz) (KV-32XBR36) Approx. 77.3kg (170 lb 7 oz)
Supplied accessories	(KV-32XBR26) Remote Commander RM-Y112A (1) with 2 size AA (R6) EVEREADY batteries (KV-32XBR36) Remote Commander RM-Y113A (1) with 2 size AA (R6) EVEREADY batteries Cordless 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

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  $\Delta$  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 A LA SECURITE!!**

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

**TABLE OF CONTENTS**

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>1. GENERAL</b>			<b>6. DIAGRAMS</b>		
	Locating Controls and Connectors .....	5	6-1.	Block Diagram (1) .....	63
	Using the On-Screen Menus .....	7	6-2.	Block Diagram (2) .....	65
	Setting CABLE ON or OFF .....	9	6-3.	Block Diagram (3) .....	67
	Presetting TV Channels .....	10	6-4.	Block Diagram (4) .....	71
	Watching TV Programs .....	13	6-5.	Frame Schematic Diagram .....	75
	Using Convenient Features .....	14	6-6.	Circuit Boards Location .....	78
	Using Closed Caption .....	15	6-7.	Schematic Diagrams and Printed Wiring Boards .....	78
	Selecting a Picture and Sound Mode .....	16		• UT Board .....	79
	Watching Two Pictures at Once (PIP) .....	17		• U Board .....	80
	Adjusting the TV .....	19		• A Board .....	89
	Customizing the Screen Display .....	23		• D Board .....	93
	Using Timer-Activated Functions .....	25		• E1 Board .....	94
	Setting FAVORITE CHANNEL .....	29		• E2 Board .....	103
	Using the Pre-Programmed Remote Commander .....	30		• G Board .....	105
	Troubleshooting .....	33		• M Board .....	108
				• V Board .....	109
<b>2. DISASSEMBLY</b>				• MAIN Board (KV-32XBR36 only) .....	111
2-1.	Rear Cover Removal .....	34		• LED Board (KV-32XBR36 only) .....	111
2-2.	Chassis Assy and H Bracket Removal .....	34		• HS1 Board .....	112
2-3.	Antenna Terminal Board Removal .....	35		• HS2 Board .....	112
2-4.	UT Bracket Removal .....	35		• P1 Board .....	119
2-5.	G Bracket Removal .....	36		• P3 Board (KV-32XBR36 only) .....	121
2-6.	D Board Removal .....	36		• S Board .....	123
2-7.	U Bracket Removal .....	37		• X2 Board .....	123
2-8.	Speaker Removal .....	37		• Y2 Board .....	124
2-9.	Connector Cable .....	38		• C Board .....	126
2-10.	Service Position .....	39	6-7.	Semiconductors .....	131
2-11.	Picture Tube Removal .....	40	<b>7. EXPLODED VIEWS</b>		
2-12.	Repair of Chip Component Circuit Board .....	41	7-1.	Chassis .....	133
<b>3. SET-UP ADJUSTMENTS</b>			7-2.	Picture Tube .....	134
3-1.	Beam Landing .....	46	<b>8. ELECTRICAL PARTS LIST</b> .....		135
3-2.	Convergence .....	47	<b>ACCESSORY (TDR-IF310)</b>		
3-3.	Focus Adjustment .....	50	1.	GENERAL .....	162
3-4.	G2 (Screen) and White Balance Adjustments .....	51	2.	DISASSEMBLY .....	163
<b>4. SAFETY RELATED ADJUSTMENTS</b> .....		52	3.	ADJUSTMENTS .....	165
<b>5. CIRCUIT ADJUSTMENTS</b>			4-1.	Printed Wiring Board .....	167
5-1.	Electrical Adjustment by Remote Commander .....	55	4-2.	Schematic Diagrams	
5-2.	A Board Adjustments .....	57		• PD Board .....	169
5-3.	P1 Board Adjustments .....	61		• RE Board .....	169
5-4.	VC Board Adjustments .....	61		• LE Board .....	169
			5.	EXPLODED VIEW .....	171
			6.	ELECTRICAL PARTS LIST .....	172

## 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.

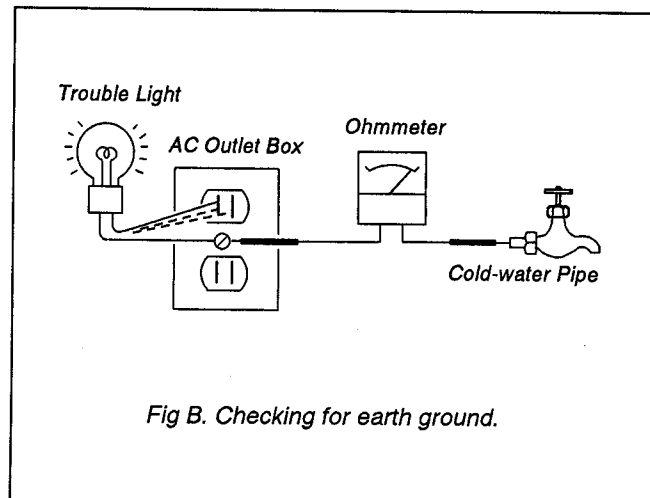
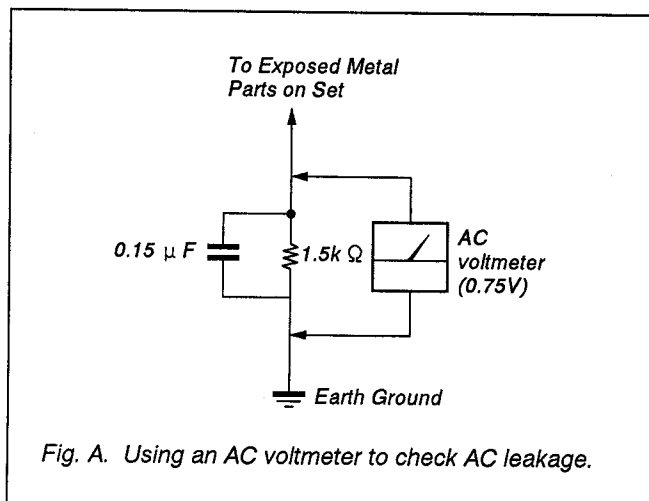
### LEAKAGE TEST

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 0.5mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these 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 0.75V, 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

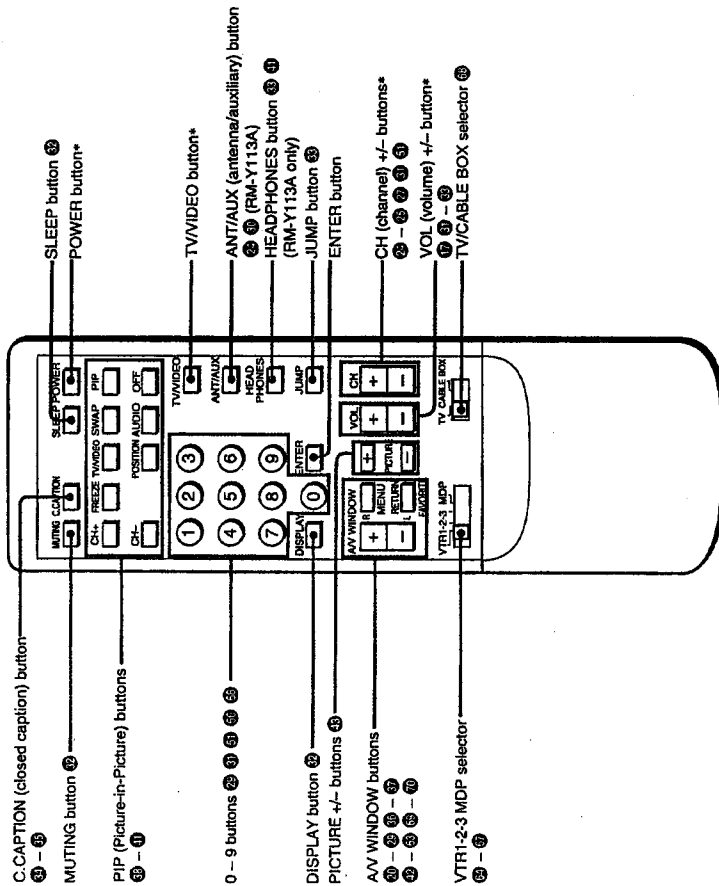
A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading 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)





## Locating Controls and Connectors

Remote Commander (with the video control cover closed)

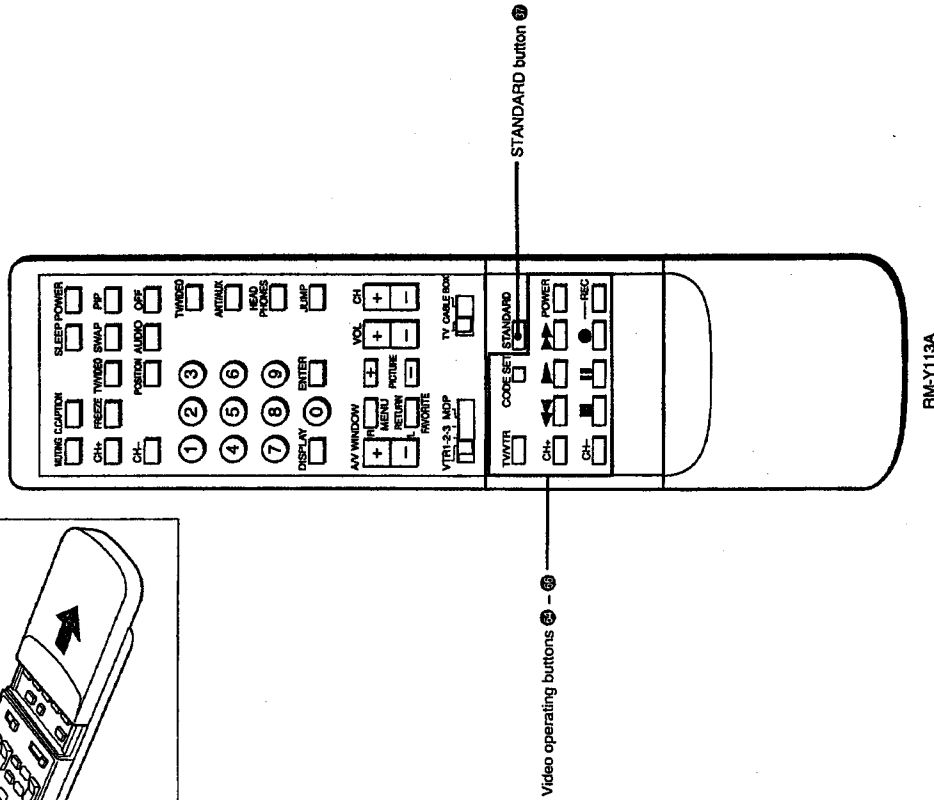
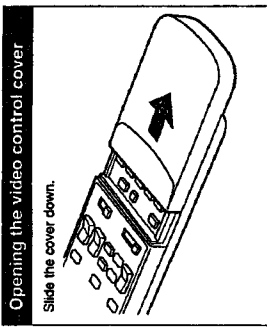


RM-Y113A  
RM-Y113A: KV-27XBR36  
RM-Y112A: KV-27XBR26

\* Buttons with the same function are also located on the TV (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. 68). Set the selector to TV to control the TV with the Remote Commander.

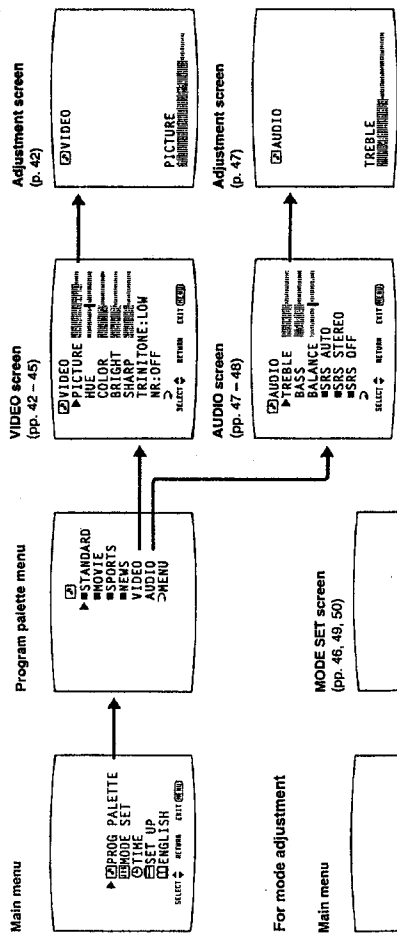
Remote Commander (with the video control cover open)



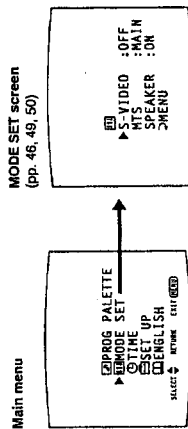
# Using the On-Screen Menus

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.

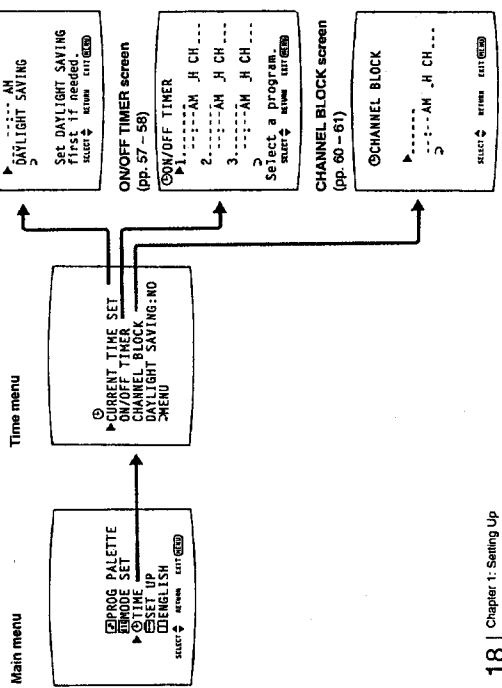
## For picture and sound quality adjustment



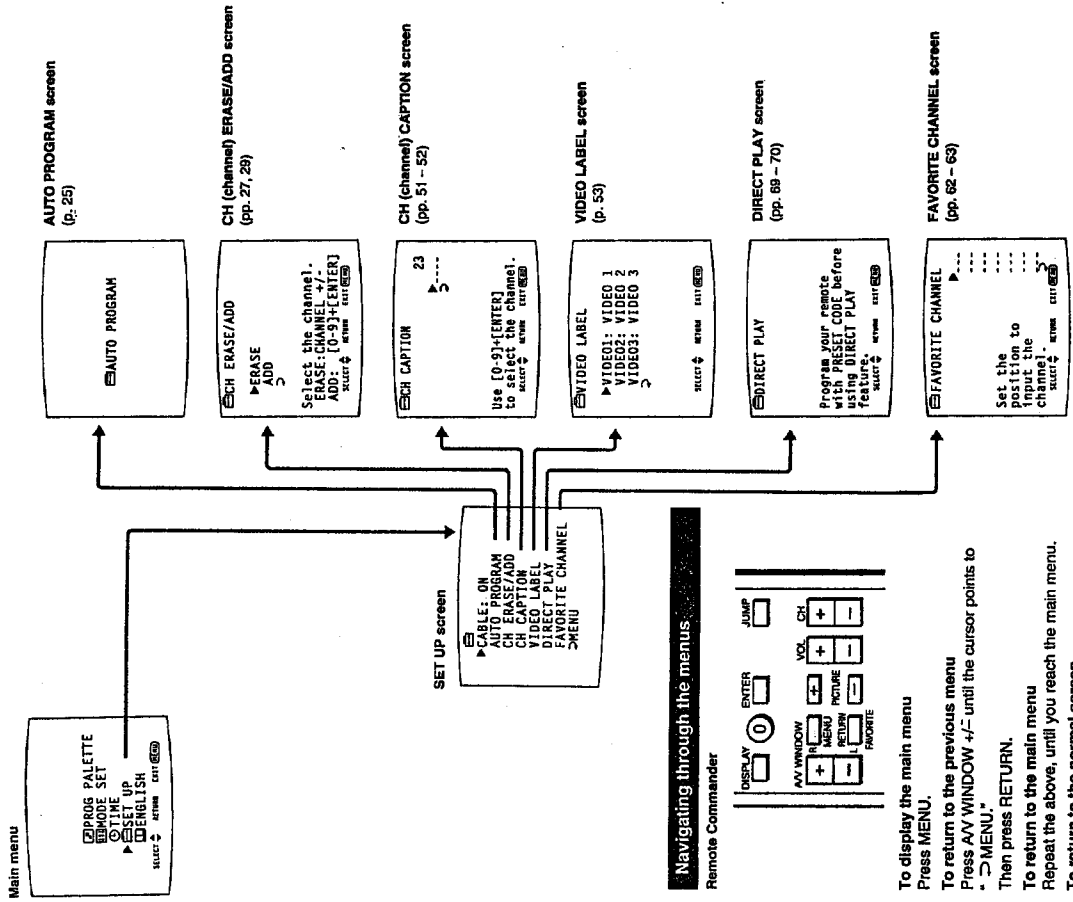
## For mode adjustment



## For time-related settings

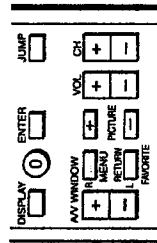


## For presetting and other functions



## Navigating through the menus

Remote Commander



To display the main menu  
Press MENU.

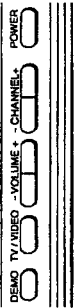
To return to the previous menu  
Press **AV WINDOW** +/- until the cursor points to  
• MENU.  
Then press RETURN.

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.

# Using the On-Screen Menus



Front of TV

## 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. The **TIMER/STAND BY** indicator flashes until the picture appears.



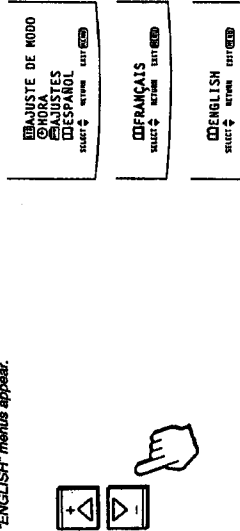
- 2 Press **MENU**. The main menu appears.



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

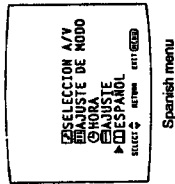


- 4 Press **AV WINDOW +/-** to select the language. Each time you press **AV WINDOW +/-**, the "ESPAÑOL," "FRANÇAIS," and "ENGLISH" menus appear.



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

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



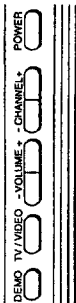
Spanish menu

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

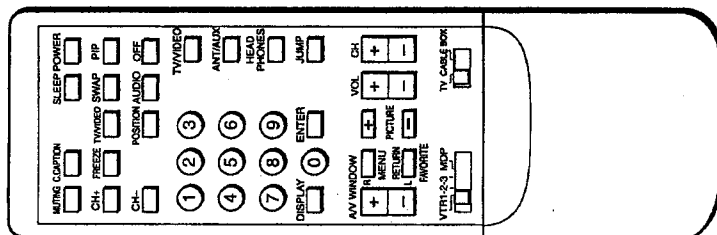
- Notes concerning menus
- During PIP (Picture-in-Picture) mode, the on-screen menus may overlap the window picture.
  - Screen displays (VOLUME, MUTING, CHANNEL, etc.) may overlap the on-screen menus.
  - The menus disappear automatically, if you do not press a button within 90 seconds.



# Setting CABLE ON or OFF



Front of TV



RM-Y113A

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 TV mode.

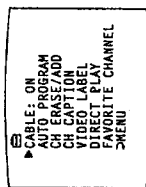
**1** Press **MENU**.  
The main menu appears.



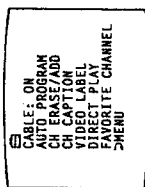
**2** Press **AV WINDOW +/-** until the cursor points to "SET UP."



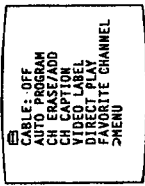
**3** Press **RETURN**.  
The set up menu appears, and the cursor points to "CABLE."



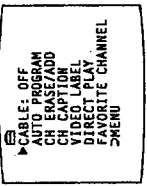
**4** Press **RETURN** again.  
The mode display turns red.



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

Number on this TV	Corresponding CATV channel
1	A-3
5	A-7
6	A-5
14	A
15	B
16	C
17	D
18	E
19	F
20	G
21	H
22	I
23	J
24	K
25	L
26	M
27	N
28	O
29	P
30	Q
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
98	A-2
99	A-1
100	W+59
101	W+60
102	W+61
•	•
•	•
•	•
123	W+82
124	W+83
125	W+84

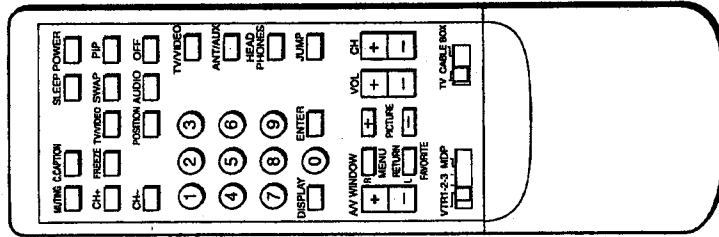
Check with your local cable TV company for more complete information on the available channels.  
\* The designation of the cable TV channels conforms to the EIA/NTCA recommendation.

# Presetting TV Channels

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



Front of TV



RM-Y113A

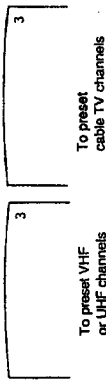
## Presetting all receivable channels automatically

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

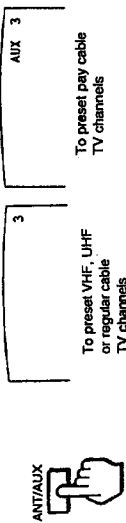
### Notes

- If the TV is in video mode, the "AUTO PROGRAM" display is shaded and cannot be selected. Press TV/VIDEO on the TV or on the Remote Commander to change to TV mode.
- Perform auto programming during the day rather than late at night, when some channels may not be broadcasting.

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

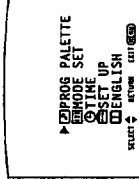


Press ANT/AUX to select the type of channel you want to preset, VHF/UHF/regular cable TV or pay cable TV (KY-27XBR36/32XBR76 only).

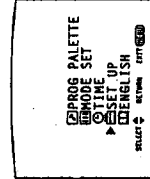


**2** Press MENU.

The main menu appears.



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



Receivable channels for this TV  
VHF: 2 - 13  
UHF: 14 - 69  
Cable: 1 - 125

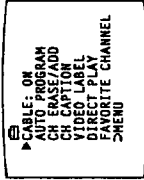
To select TV channels without presetting  
Press the 0 - 9 buttons and ENTER.

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

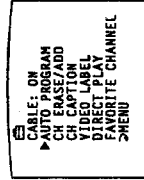
To return to the main menu  
Repeat the above, until you reach the main menu.

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

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



**5** Press AV WINDOW +/- until the cursor points to "AUTO PROGRAM."

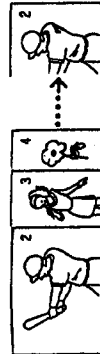
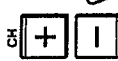


**6** Press RETURN.



"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.

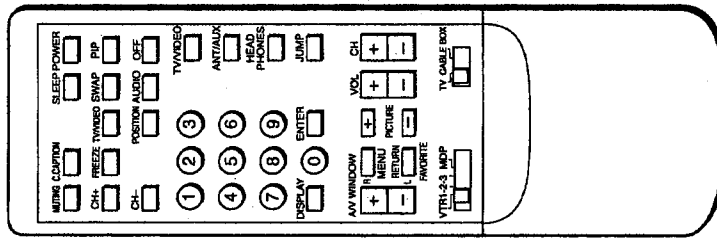
**7** Press CH +/- to check or view the preset channels.



# Presetting TV Channels



Front of TV

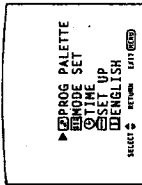


RIM-Y113A

## Erasing TV channels

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

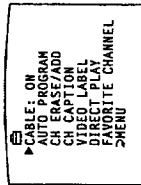
**1** Press MENU  
The main menu appears.



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



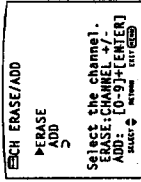
**3** Press RETURN  
The set up menu appears.



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

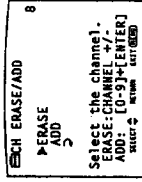
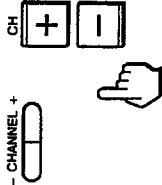


**5** Press RETURN.  
The CH ERASE/ADD screen appears, and the cursor points to "ERASE."



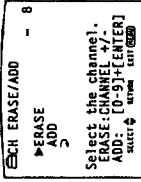
Select the channel.  
ERASE: CHANNEL +/-  
ADD: [0-9]+[ENTER]  
select \$ return

**6** Press CHANNEL +/- on the TV or CH +/- on the Remote Commander to select the channel you want to erase.  
The channel display appears.



Select the channel.  
ERASE: CHANNEL +/-  
ADD: [0-9]+[ENTER]  
select \$ return

**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.



Select the channel.  
ERASE: CHANNEL +/-  
ADD: [0-9]+[ENTER]  
select \$ return

To erase another channel  
Repeat steps 6 - 7.

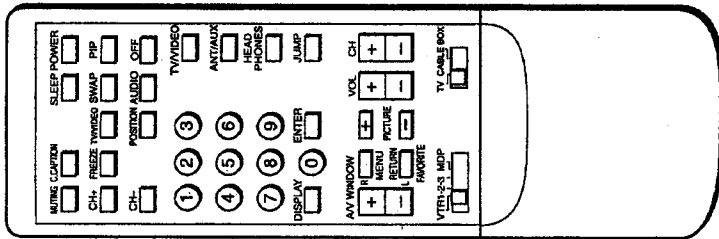
To return to the previous menu  
Press AV WINDOW +/- until the cursor points to "> MENU."  
Then press RETURN.

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



RM-Y113A

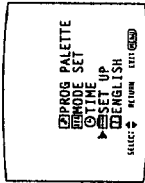
**Adding TV channels**

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

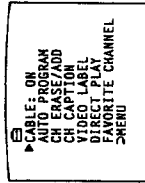
**1** Press MENU.  
The main menu appears.



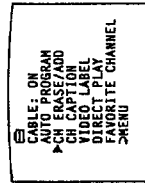
**2** Press AV WINDOW +/- until the cursor points to "SET UP."



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



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



To add another channel  
Repeat steps 7 – 8.

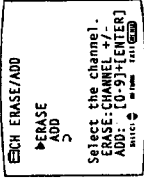
To return to the previous menu  
Press AV WINDOW +/- until the cursor points to "MENU."  
Then press RETURN.

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

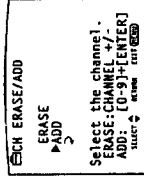
To return to the normal screen  
Press MENU on the Remote Commander.

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

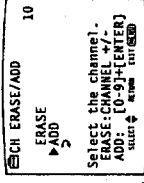
**5** Press RETURN.  
The CH ERASE/ADD screen appears.



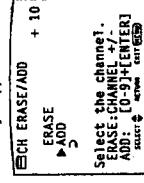
**6** Press AV WINDOW +/- until the cursor points to "ADD."



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



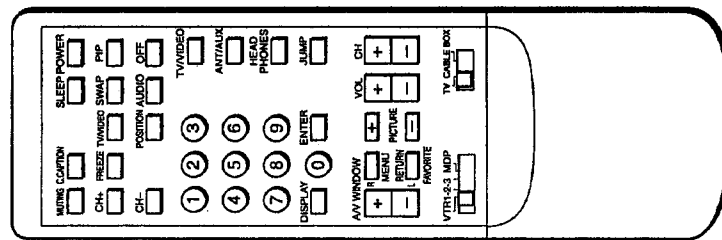
**8** Press RETURN  
A "+" sign appears in front of the channel number display, indicating that the channel is added; then the CH ERASE/ADD screen automatically reappears.



## Chapter 2: Using Basic Features Watching TV Programs



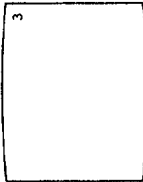
Front of TV



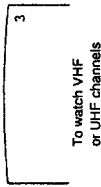
RM-Y113A

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

- 1 Press POWER on the TV or on the Remote Commander to turn on the TV. The **TIMER/STAND BY** indicator flashes until the picture appears.

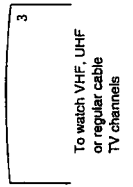


- 2 Set the cable connection on or off (pp. 22 - 23) to select the type of channel you want to watch, VHF/UHF or cable TV.



To watch VHF or UHF channels

Press ANT/AUX to select the type of channel you want to watch. VHF/UHF/regular cable TV or pay cable TV (KV-27XBR36/32XBR36/32XBR76 only).



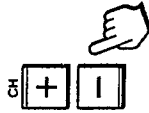
To watch VHF, UHF or regular cable TV channels



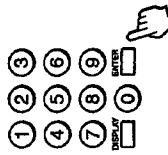
To watch pay cable TV channels

- 3 Select a channel in one of the following two ways:

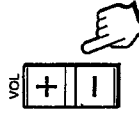
To scan the preset channels in numerical sequence, press CH +/-.



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



- 4 Press VOL +/- to adjust the volume.



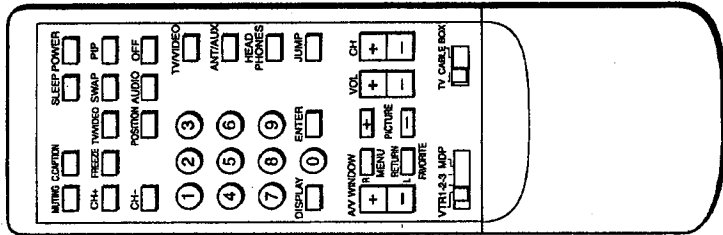
Press + to increase the volume.  
Press - to decrease the volume.

If VIDEO 1, VIDEO 2 or VIDEO 3 appears on the screen Press TV/VIDEO on the TV or on the Remote Commander until a TV channel number appears.

To select channels more easily Set FAVORITE CHANNEL (pp. 62 - 63).

To turn off the TV Press POWER on the TV or on the Remote Commander.

# Using Convenient Features



RM-Y113A

## 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

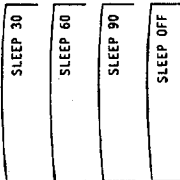
Press **DISPLAY**.  
 All the existing displays appear: channel number, channel caption (if set), MTS mode ("SAP" only), window picture input mode, and the current time ("AM" or "PM" disappears after about three seconds).

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 off.

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

## 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 cordless 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  $\Omega$  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 a window picture (PIP function)  
 See "Selecting the headphones audio source" (p. 41).

- Notes
- When using the headphones, you cannot adjust sound quality or select sound modes (pp. 47 – 49) 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.
  - To prevent hearing damage due to sudden or prolonged excessive volume, do not raise the headphones volume too high, while listening.

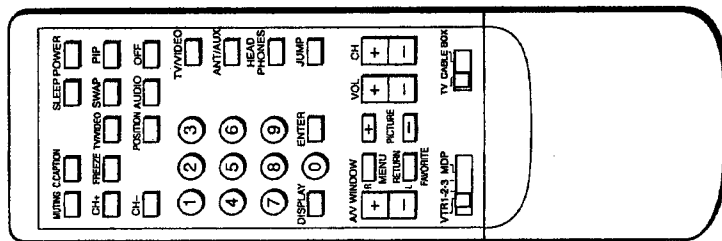
## Previewing the features — DEMO

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

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

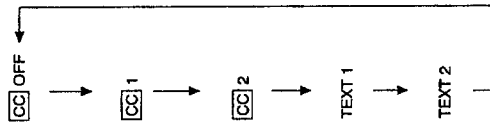
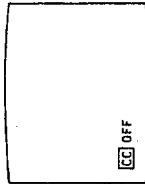
To stop **DEMO**  
 Press any button.

# Using Closed Caption



RIM-Y113A

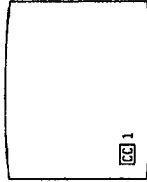
**1** Press C.CAPTION.  
The closed caption mode appears. CC1, CC2, TEXT1, TEXT2 or CC OFF appears in sequence each time you press C.CAPTION.



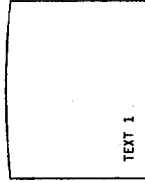
**2** Press C.CAPTION repeatedly.



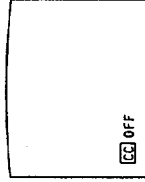
Select CC1 or CC2 to view Captions.  
A Caption is a printed version of the dialogue or sound effects of a program. (The mode should be set to CC1 for most programs.)



Select TEXT1 or TEXT2 to view Text.  
Text is information that is presented using the half to full television screen. It is usually not related to the program.



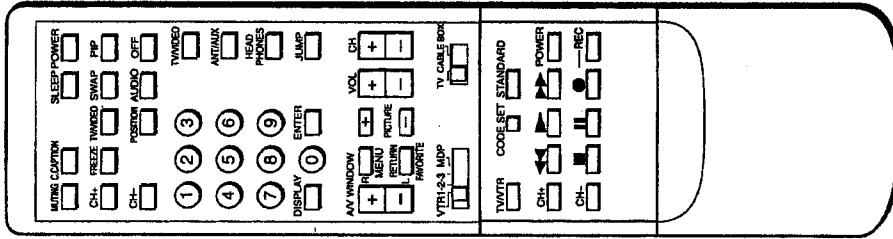
Select CC OFF if you don't want to view Closed Caption nor Text.



# 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 AV 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.



### When you select STANDARD mode

You receive standard picture and sound quality. Any video or audio adjustments you made ("Adjusting the TV," pp. 42 - 50) 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. 42 - 50.

### 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. 42 - 50.

### 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. 42 - 50.

To return to the previous menu  
Press AV 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.

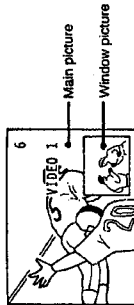
To return to the normal screen  
Press MENU on the Remote Commander.



## Chapter 3: Using Advanced Features Watching Two Pictures at Once (PIP)

You can watch both the main picture and a window picture simultaneously, using the Picture-in-Picture (PIP) function. Models KV-27XBR36 are equipped with two-tuner PIP, allowing you to watch two TV channels at once.

Models KV-27XBR26 are equipped with one-tuner PIP. To watch two TV channels, you must first connect a VCR to the TV, to watch a second TV channel through the VCR tuner. (See "Connecting Other Equipment," pp. 13 - 14.)

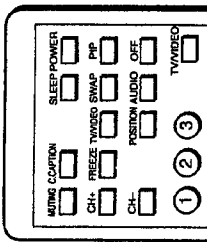


### Picture-in-Picture special features

- 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 cordless headphones (HEADPHONES). (KV-27XBR36)

### Displaying a window picture

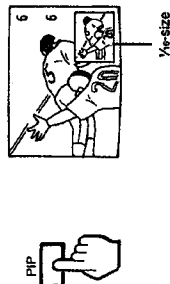
Remote Commander



Press PIP to display a window picture input source mode or TV channel for the main picture



Input source mode or TV channel for the 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  $\beta$  display appears for a few seconds, indicating that the window picture sound is being received.

To restore the main picture sound

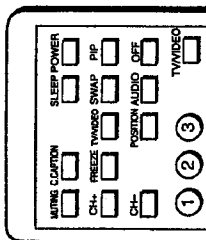
Press AUDIO again.

### 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. 60 - 61.)

### Changing the window picture input mode

Remote Commander

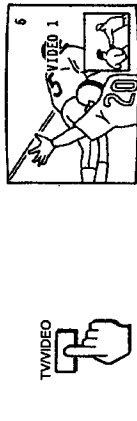


1 Press PIP to display a window picture.



2 Press TVVIDEO in the Picture-in-Picture control area to select the input mode.

Each time you press TVVIDEO, "TV," "VIDEO 1," "VIDEO 2" and "VIDEO 3" appear in sequence.

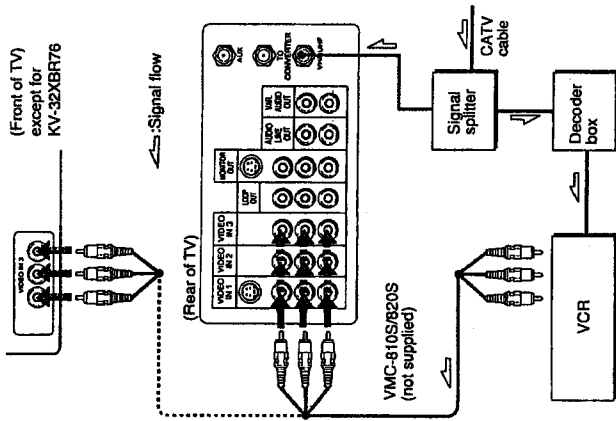


To change TV channels in the window picture

Press CH +/- in the PIP control area.

### Displaying CATV input as a window picture

To use Picture-in-Picture with pay cable TV input, make the connections to your cable converter box as 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 TV channels with the decoder box.

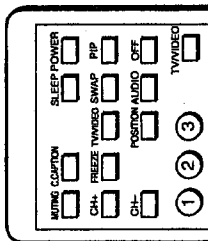
To control your cable converter box with the supplied Remote Commander  
See p. 68.

## Watching Two Pictures at Once (PIP)

### 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.

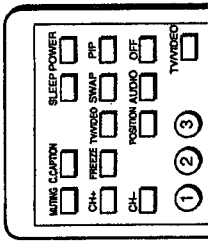
Each time you press POSITION, the window picture moves as illustrated.



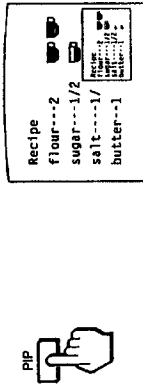
### Displaying a still picture

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

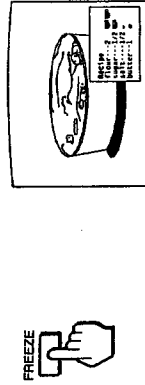


1 Press PIP to display a window picture.



2 Press FREEZE.

The window picture image remains still on the screen.

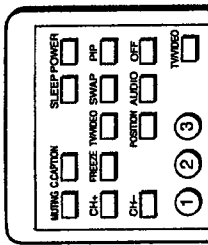


To restore the normal picture Press FREEZE again.

### 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.

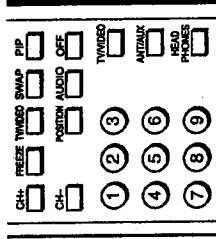
Each time you press SWAP, the images from the main and window pictures switch places.



### Selecting the headphones audio source (KV-27XBR36/32XBR36 only)

Follow these instructions to select the audio source that you want to receive through the supplied cordless 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. 38).

Remote Commander (RM-Y113A)



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 cordless 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.

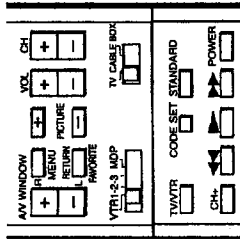
# Adjusting the TV

You can adjust the picture and sound for each input mode (TV, VIDEO 1, VIDEO 2, VIDEO 3) by pressing TV/VIDEO on the TV 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. 36 - 37).

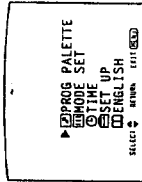
## Adjusting the picture

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

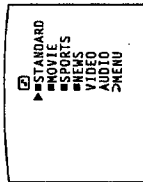
Remote Commander (with video control cover open)



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

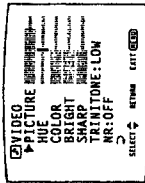


**2** Press RETURN.  
The program palette menu appears.



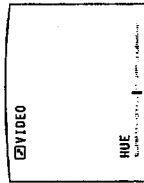
**3** Press AV WINDOW +/- until the cursor points to "VIDEO".

**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 AV WINDOW +/- to make the adjustment.

Picture quality	Press AV WINDOW -	Press AV WINDOW +
PICTURE	For decreased picture contrast with soft color	For increased picture with vivid 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

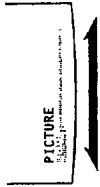
**8** Press RETURN.  
The adjustment is complete, and the VIDEO screen automatically reappears.



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.  
All the items, including TRINITONE (p. 44) and NR (p. 45) return to their original factory settings.

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



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

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

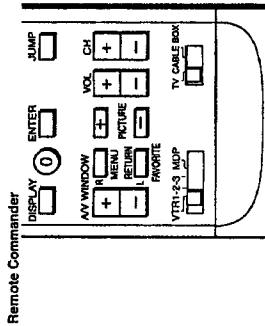
To return to the main menu  
Repeat the above, until you reach the main menu.

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

## Adjusting the TV

### 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.



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

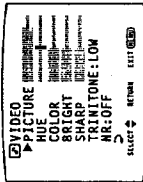


**2** Press RETURN.  
The program palette menu appears.



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

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



**5** Press AV 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  
"MENU."  
Then press RETURN.

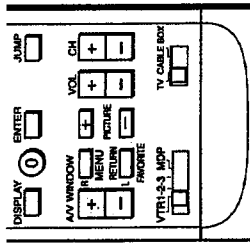
To return to the main menu  
Repeat the above, until you reach the main menu.

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

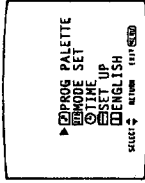
### Setting NR (picture noise reduction) ON or OFF

Follow these instructions to reduce picture noise.

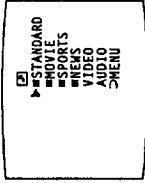
Remote Commander



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



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



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

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



**5** Press AV WINDOW +/- until the cursor points to "NR."  
The mode display turns red.



**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 AV 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.

## Adjusting the TV

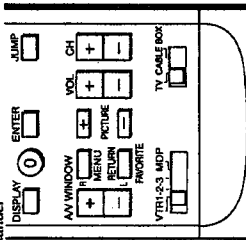
### Setting S-VIDEO ON or OFF

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.

#### Remote Commander



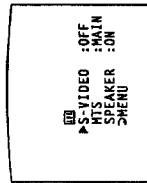
**1** Press MENU.  
The main menu appears.



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

**3** Press RETURN.

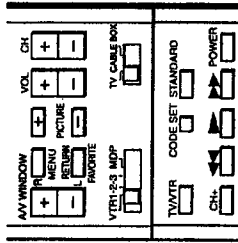
The mode set menu appears, with the cursor pointing to "S-VIDEO."



### Adjusting the sound

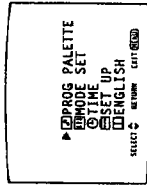
Follow these instructions to adjust the TREBLE, BASS and BALANCE.

Remote Commander (with video control cover open)



**1** Press MENU.

The main menu appears, and the cursor points to "PROGRAM PALETTE."



**2** Press RETURN.

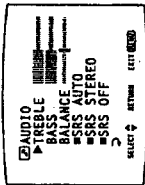
The program palette menu appears.



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

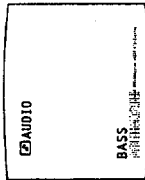
**4** Press RETURN.

The AUDIO 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 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. 48) return to their original factory settings.

To return to the previous menu

Press AV 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.

## Adjusting the TV

### 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.

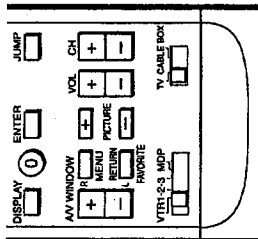
Monaural sound programs will have a 'simulated stereo' effect.

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

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

Select SRS OFF mode to return to normal sound mode.

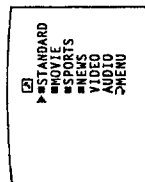
#### Remote Commander



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

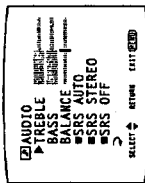


- 2 Press RETURN.  
The program palette menu appears.



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

- 4 Press RETURN.  
The AUDIO screen appears.



- 5 Press AV 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 - 6.

To return to the previous menu  
Press AV 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 indicator on the TV lights up whenever a stereo broadcast is received.

Select SAP mode to listen to Second Audio Programs.

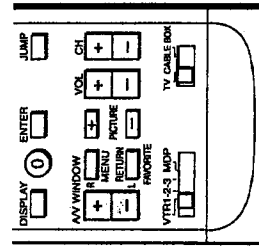
Select MONO mode to eliminate excessive noise during stereo broadcasts, caused by a weak incoming signal.

#### Note

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

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

#### Remote Commander

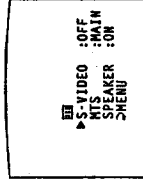


- 1 Press MENU.  
The main menu appears.



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

- 3 Press RETURN.  
The mode set menu appears.



To return to the previous menu  
Press AV 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.

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

- 5 Press RETURN.  
The mode display turns red.

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

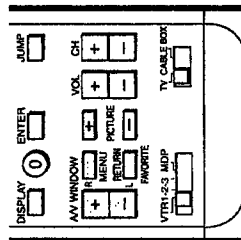
- 7 Press RETURN.  
The mode is selected.

## Adjusting the TV

### Setting SPEAKER ON or OFF

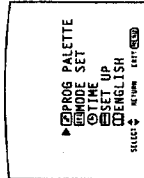
Follow these instructions to turn the TV speakers off when you connect an audio system (p.17), and on when you want to listen to the sound from the TV speakers.

Remote Commander



**1** Press MENU.

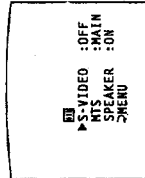
The main menu appears.



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

**3** Press RETURN.

The mode set menu appears.



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

**5** Press RETURN.

The mode display turns red.

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

**7** Press RETURN.

The setting is complete.

**To return to the previous menu**

Press AV 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.

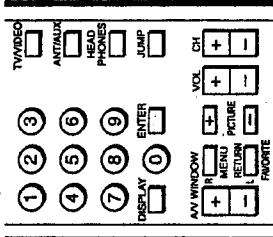
## Customizing the Screen Display

### 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).

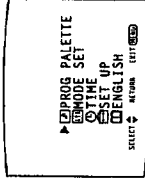
Example: Caption channel 15 as "NBC."

Remote Commander (RM-Y113A)



**1** Press MENU.

The main menu appears.



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

**3** Press RETURN.

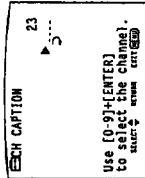
The set up menu appears.



**4** Press AV WINDOW +/- until the cursor points to "CH CAPTION."

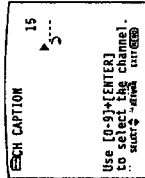
**5** Press RETURN.

The CH CAPTION screen appears.



Use [0-9]+[ENTER] to select the channel.

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



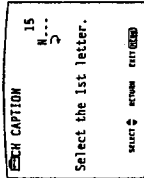
Use [0-9]+[ENTER] to select the channel.

**7** Press RETURN.

The first caption space turns red.

**8** Press AV WINDOW +/- to select "N."

Each time you press AV WINDOW +/-, "0" - "9" - "A" - "Z" - " " - " " - " " - " " - " " (blank space) appear in sequence.



Select the 1st letter.

**9** Press RETURN.

The second caption space turns red.

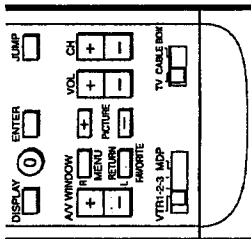
(Continued)

# Customizing the Screen Display

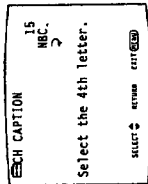
## Setting channel captions - CH CAPTION

(Continued from prev. page)

Remote Commander

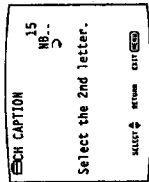


**14** Press AV WINDOW +/- to select a blank space.



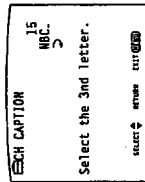
**15** Press RETURN. The setting is complete. When you select or display the channel number, the channel caption also appears.

**10** Press AV WINDOW +/- to select "B."



**11** Press RETURN. The third caption space turns red.

**12** Press AV WINDOW +/- to select "C."



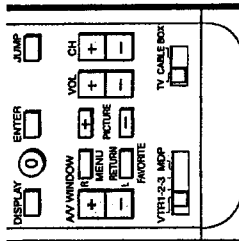
**13** Press RETURN. The fourth caption space turns red.

## 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

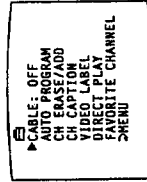


**1** Press MENU. The main menu appears.



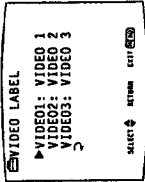
**2** Press AV WINDOW +/- until the cursor points to "SET UP."

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



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

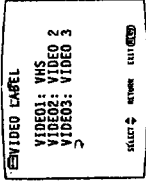
**5** Press RETURN. The VIDEO LABEL screen appears.



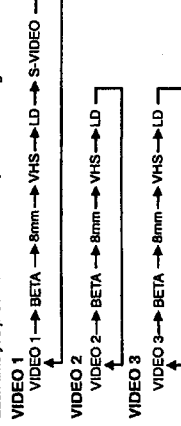
**6** Press AV WINDOW +/- until the cursor points to the input mode you want to label. (In this case, the cursor is already pointing to "VIDEO 1.")

**7** Press RETURN. The label display turns red.

**8** Press AV WINDOW +/- to select "VHS."



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



**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 AV 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.



# Using Timer-Activated Functions

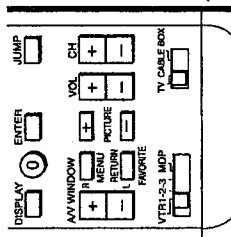
## Setting DAYLIGHT SAVING

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."
- All 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."
- All the time-related settings automatically move one hour ahead.

Remote Commander



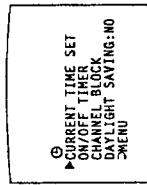
Follow these instructions to set DAYLIGHT SAVING to "YES" or "NO."

- 1 Press MENU.  
The main menu appears.



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

- 3 Press RETURN.  
The time menu appears.



- 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 AV 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.

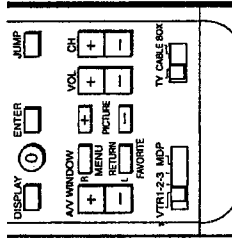
To return to the normal screen  
Press MENU on the Remote Commander.

## Setting the clock — CURRENT TIME SET

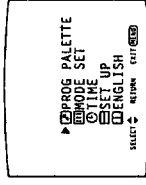
Follow these instructions to set the current time. The correct current time must be set in order to use the other time-related functions (DAYLIGHT SAVING, ON/OFF TIMER, CHANNEL BLOCK).

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

Remote Commander

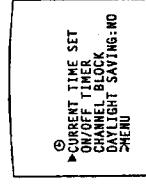


- 1 Press MENU.  
The main menu appears.

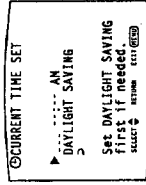


- 2 Press AV WINDOW +/- until the cursor points to "TIME."

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



- 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 AV 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.

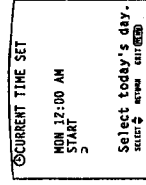
- d Press AV WINDOW +/- to select "YES" or "NO."

- 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).

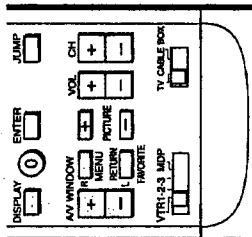
- 6 Press AV WINDOW +/- to select "MON."  
Each time you press AV WINDOW +/-, the day changes consecutively.



(Continued)

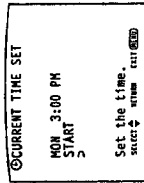
**Setting the clock — CURRENT TIME SET**

(Cont'd from prev page)  
Remote Commander



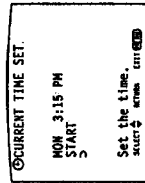
**7** Press RETURN.  
The hour and am/pm displays turn red.

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



**9** Press RETURN.  
The minute display turns red.

**10** Press AV WINDOW +/- to select "15" (minutes).  
Each time you press AV 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 AV 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.

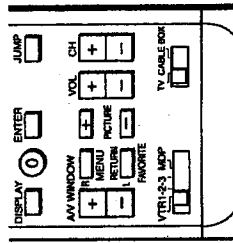
To return to the normal screen  
Press MENU on the Remote Commander.

**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

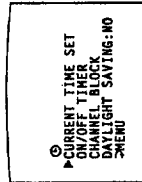


**1** Press MENU.  
The main menu appears.



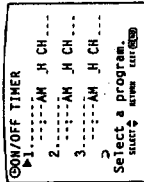
**2** Press AV WINDOW +/- until the cursor points to "TIME."

**3** Press RETURN.  
The time menu appears.



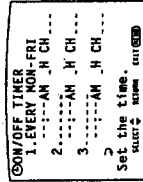
**4** Press AV WINDOW +/- until the cursor points to "ON/OFF TIMER."

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

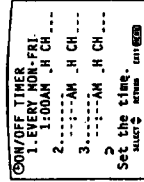


**6** To set program 1, press RETURN.  
(To set program 2 or 3, press AV WINDOW +/- until the cursor points to that program; then press RETURN.)  
The day input space turns red.

**7** Press AV WINDOW +/- to select "EVERY MON-FRI"; then press RETURN.  
Each time you press AV WINDOW +/-, the days of the week change as shown in Fig. 1 (p. 58).



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

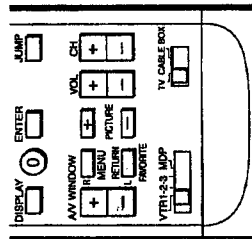


(Continued)

## Using Timer-Activated Functions

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

Remote Commander



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

```
ON/OFF TIMER
1. EVERY MON-FRI
   1:30AM .H CH...
2. ....-AM .H CH...
3. ....-AM .H CH...
Set the duration.
SELECT ENTER EXIT
```

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

```
ON/OFF TIMER
1. EVERY MON-FRI
   1:30AM .H CH...
2. ....-AM .H CH...
3. ....-AM .H CH...
Set the channel.
SELECT ENTER EXIT
```

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

```
ON/OFF TIMER
1. EVERY MON-FRI
   1:30AM .H CH 8
2. ....-AM .H CH...
3. ....-AM .H CH...
Select a program.
SELECT ENTER EXIT
```

The display "TV WILL TURN 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.

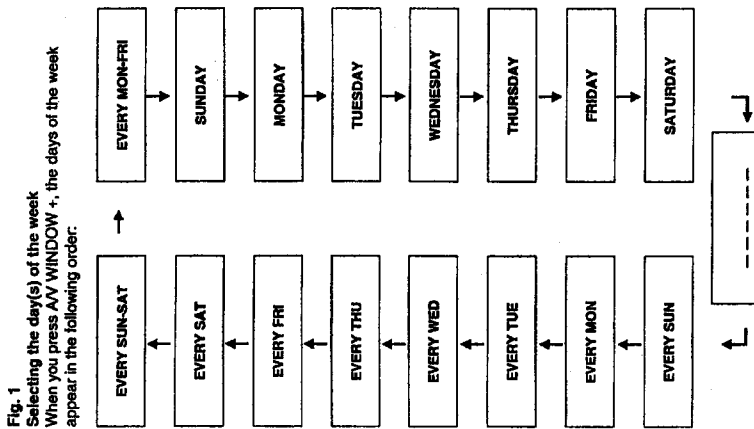
- To enter a new ON/OFF TIMER setting  
Display the ON/OFF TIMER screen and repeat steps 6 - 11.

To return to the previous menu  
Press AV 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 timer.



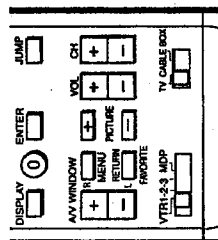
## Using Timer-Activated Functions

### Setting CHANNEL BLOCK

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.

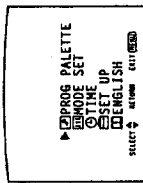
#### Remote Commander



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

### 1 Press MENU.

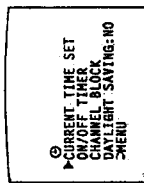
The main menu appears.



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

### 3 Press RETURN.

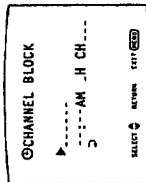
The time menu appears.



### 4 Press AV 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 AV 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. 59).



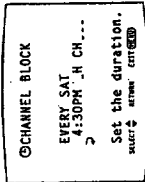
### 8 Press AV WINDOW +/- to select "4:00PM"; then press RETURN.

Each time you press AV WINDOW +/-, the hour changes in sequence.



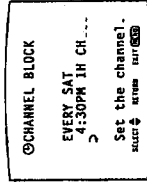
### 9 Press AV WINDOW +/- to select "30" (minutes); then press RETURN.

Each time you press AV WINDOW +/-, the minutes change in sequence.



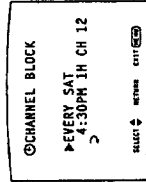
### 10 Press AV WINDOW +/- to select "1" (hour duration); then press RETURN.

Each time you press AV WINDOW +/-, the duration changes from "1" - "5" in sequence.

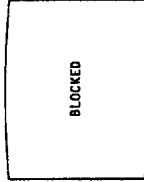


### 11 Press AV WINDOW +/- to select "12" (channel); then press RETURN.

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 AV 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.

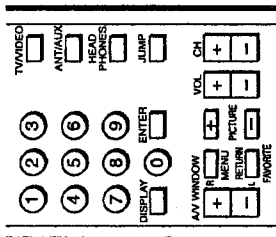
To return to the normal screen Press MENU on the Remote Commander.

**Note**  
If the ON/OFF TIMER is set for an overlapping time (pp. 57 - 59), 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.

# Setting FAVORITE CHANNEL

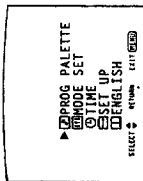
By setting FAVORITE CHANNEL, you can select the channels you use most frequently (up to seven channels) simply by pressing RETURN on the Remote Commander.

Remote Commander (RM-Y113A)



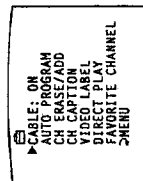
Follow these instructions to set the channels.

- 1 Press MENU.  
The main menu appears.



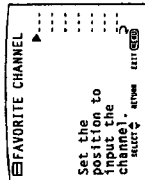
- 2 Press AV WINDOW +/- until the cursor points to "SET UP."

- 3 Press RETURN.  
The set up menu appears.



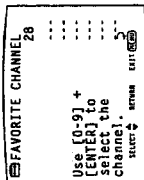
- 4 Press AV WINDOW +/- until the cursor points to "FAVORITE CHANNEL."

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



- 6 Press AV 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 AV WINDOW +/- until the cursor points to the channel number you want to erase; press RETURN, 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 AV WINDOW +/- until the cursor points to "MENU." Then press RETURN.

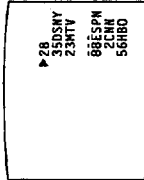
To return to the main menu  
Repeat the above, until you reach the main menu.

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

## Selecting a favorite channel

After setting the channels, follow these instructions to select the channel you want to watch.

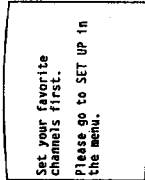
- 1 Press RETURN.  
The FAVORITE CHANNEL display appears.



Note  
If you have set channel captions (pp. 51 - 52), the captions appear with the channel numbers.

- 2 Press AV 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 steps 1 - 8 to set your favorite channels, and then make the selection.

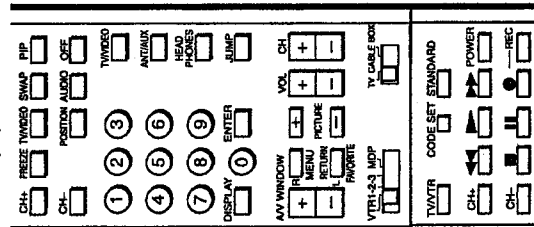
# Using the Pre-Programmed Remote Commander

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-Y113A)  
(with video control cover open)



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

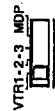


Fig. 2: Video equipment settings

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

**2** 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 II.
To resume normal playback, press again.	Press II.
To search the picture forward and backward	Keep pressing ►► or ◄◄ during playback. To resume normal playback, release the button.
To change input mode	Press TV/ATR.

Fig. 4: Operating a Video Disc Player (MDP)

To turn on or off	Press POWER.
To play	Press ▶.
To stop	Press ■.
To resume normal playback, press again.	Press II.
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. 66 - 67), you must also set the Sony code to operate Sony equipment.

### Caution

When you replace the batteries, do it within approximately 30 minutes. Otherwise the settings you made under the Pre-Programmed function (pp. 66 - 68) may be erased.

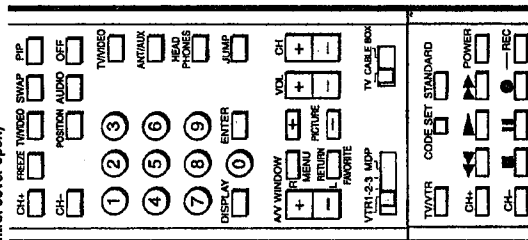
## Using the Pre-Programmed Remote Commander

### 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 pre-programmed Remote Commander.

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

Remote Commander (RM-Y113A)  
(with video control cover open)



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

**Note**  
To use another manufacturer's equipment besides a Sony VCR, set the selector to a position not being used for your Sony video equipment.

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, 08
SAMSUNG	24, 32
SANYO	11, 15
SCOTT	21
SHARP	13, 14
SHINTOM	34
SYLVANIA	05, 06, 09
SYMPHONIC	29
TEKNIKA	28, 29
TOSHIBA	20, 21
TOTE VISION	25
ZENITH	17

Fig. 7: Sony Equipment and Code Numbers

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

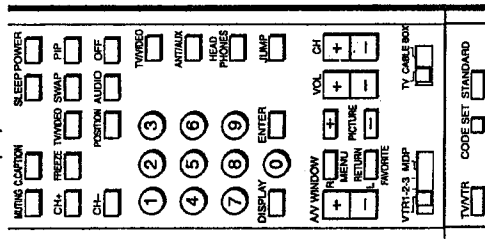
**Note**  
In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied Remote Commander. This is because your equipment may use a code that is not provided with this Remote Commander. In this case, please use the equipment's own remote control unit.

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

**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-Y113A) (with video control cover open)

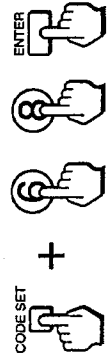


**1** Set the TV/CABLE BOX selector to CABLE BOX.

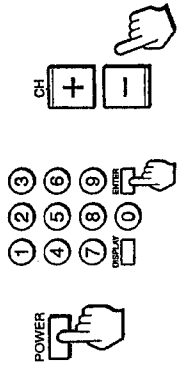


- Notes**
- If more than one code number is listed, try entering them one by one, until you come to the correct code for your equipment.
  - If you enter a new code number, the code number you previously entered at that setting is erased.
  - In some rare cases, your equipment may use a code that is 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 8 (Zenith's code number — see Fig. 8) 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.

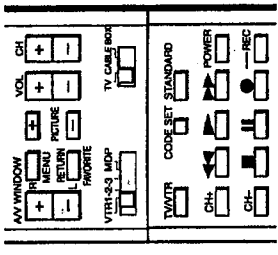
Fig. 8: Cable box manufacturer code numbers

MANUFACTURER	CODE
JERRFOLD	80, 61, 62, 63, 64, 65
PIONEER	68, 70
SCIENTIFIC ATLANTA	66, 67
TOCOM	71, 72
ZENITH	68

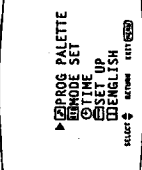
**Selecting a VCR mode directly — DIRECT PLAY**  
 Follow these instructions to switch from TV to VCR mode by simply pressing the (playback) button on the supplied Remote Commander.

**Example:** Connect your VCR to the VIDEO IN 1 jacks, and set the VTR1-2-3 MDP selector to VTR2. When you press (playback), 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)

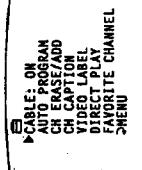


**1** Press MENU. The main menu appears.



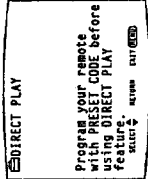
**2** Press AV WINDOW +/- until the cursor points to "SET UP."

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



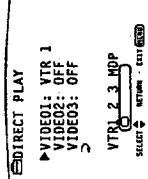
**4** Press AV WINDOW +/- until the cursor points to "DIRECT PLAY."

**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. 66 - 67).

**6** Press RETURN again. The DIRECT PLAY screen appears.



**7** Press AV 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.

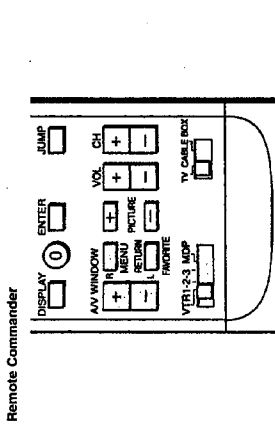
(Continued)



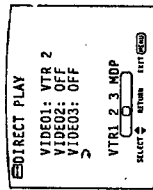
# Appendix Troubleshooting

## Using the Pre-Programmed Remote Commander

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



**9** Press AV 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 AV 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 AV 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.

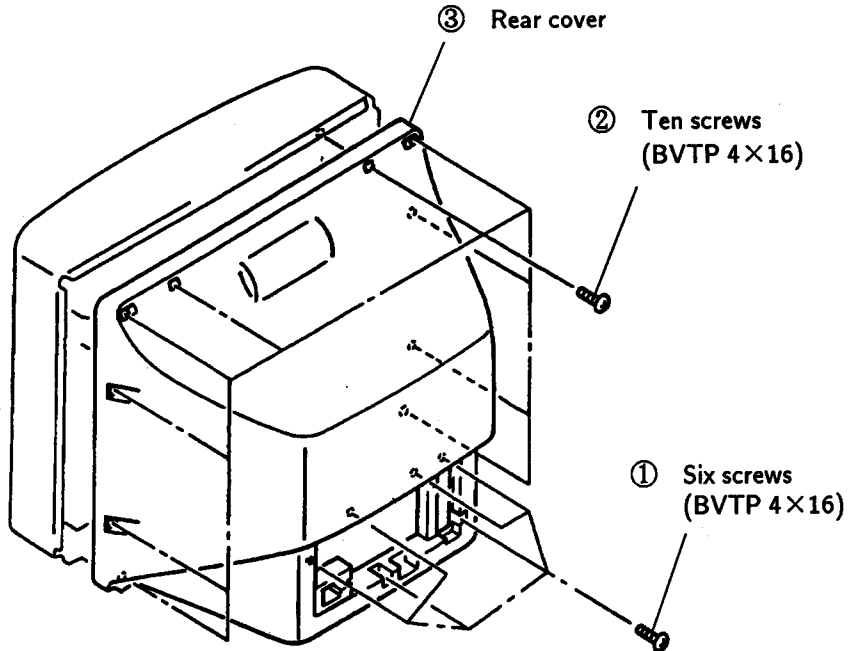
To return to the normal screen  
Press MENU on the Remote Commander.

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.

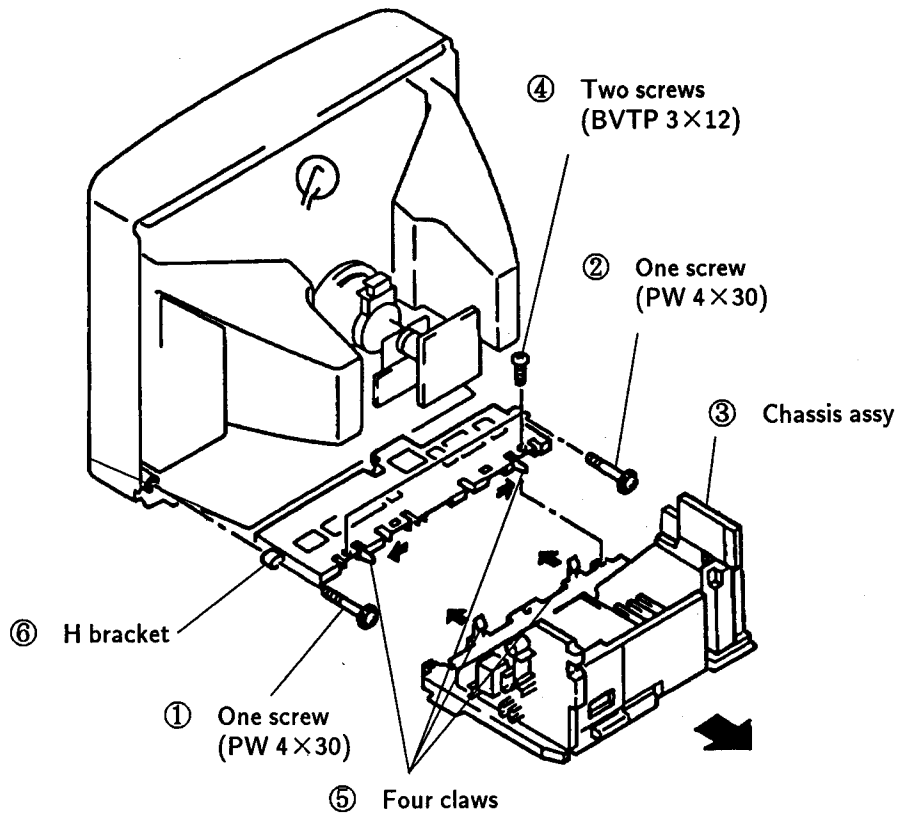
Symptom	Possible causes and remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"> <li>Make sure POWER is switched on.</li> <li>Check the power cord connection.</li> <li>Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly.</li> <li>Make sure that the TV/CABLE BOX selector is set to TV.</li> </ul>
Poor or no picture (screen not lit), good sound	<ul style="list-style-type: none"> <li>Adjust the picture using the VIDEO screen (pp. 42 - 45).</li> <li>Check the antenna/cable connections.</li> </ul>
Good picture, no sound	<ul style="list-style-type: none"> <li>Press VOLUME + on the TV or VOL. + on the Remote Commander.</li> <li>Press MUTE on the Remote Commander.</li> <li>Check the MTS setting (p. 49).</li> <li>Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly.</li> <li>Make sure SPEAKER is set to ON (p. 50).</li> </ul>
No color for color programs	<ul style="list-style-type: none"> <li>Check the HUE and COLOR settings (pp. 42 - 43).</li> </ul>
Snow and noise only	<ul style="list-style-type: none"> <li>Check that it is an active or correct channel.</li> <li>Check the cable setting.</li> <li>Check the ANTI/AUX button setting (KV-27XBFR36/32XBR76 only).</li> <li>Check antenna/cable connections.</li> </ul>
 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.	

## SECTION 2 DISASSEMBLY

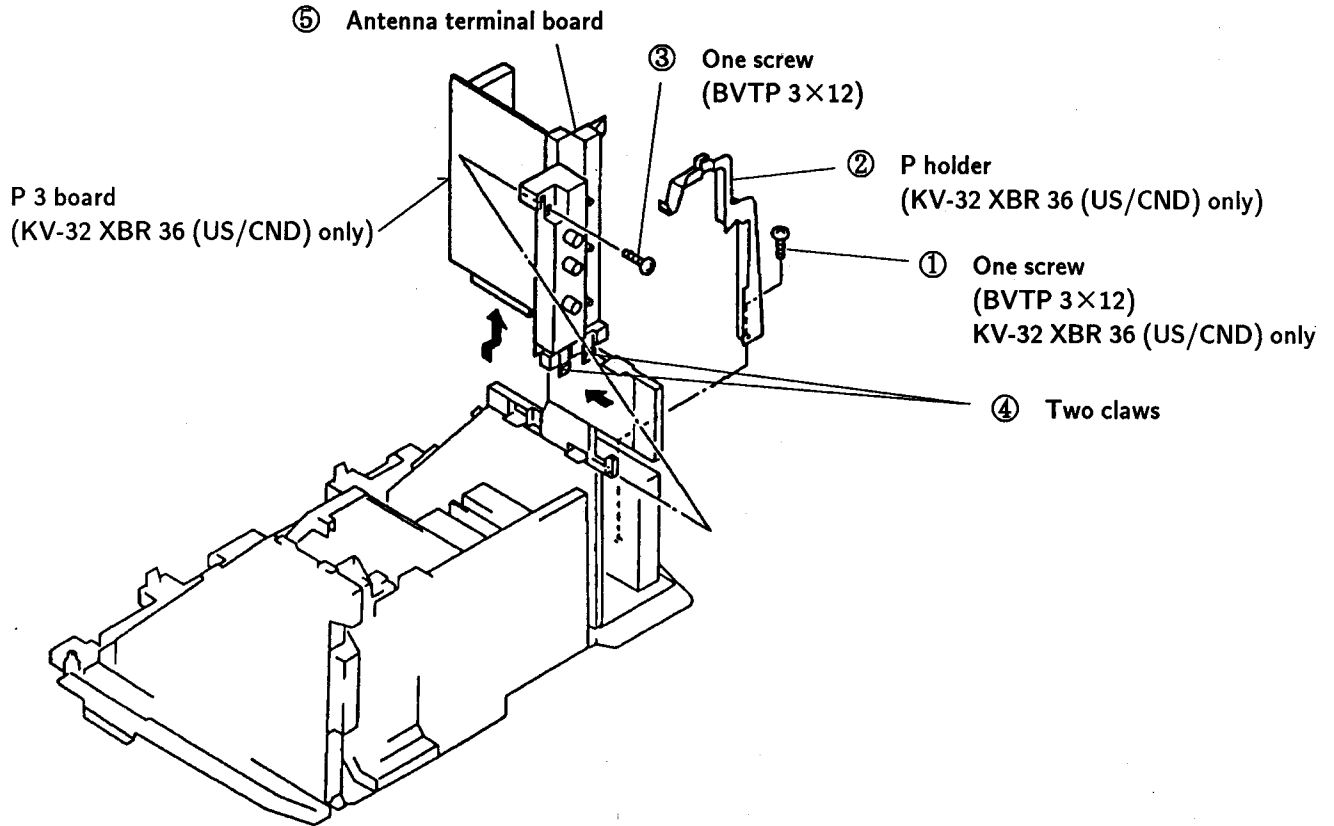
### 2-1. REAR COVER REMOVAL



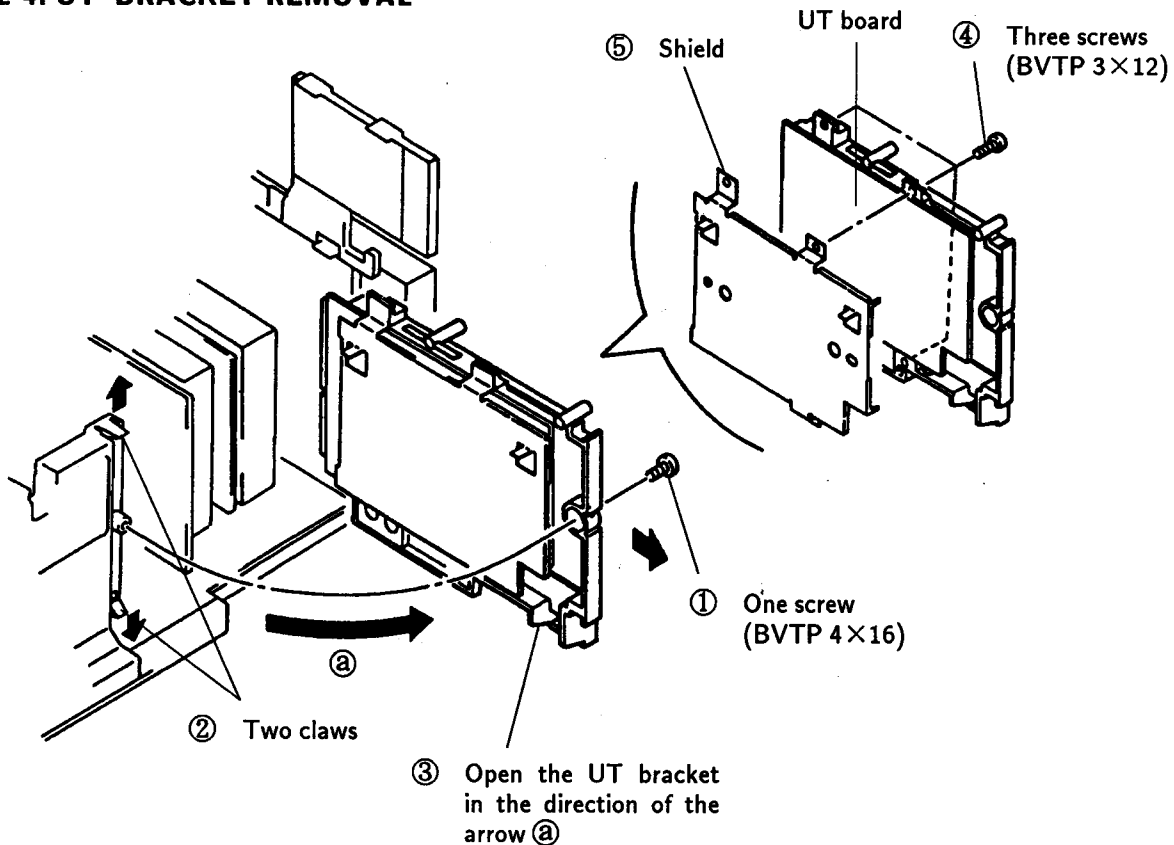
### 2-2. CHASSIS ASSY AND H BRACKET REMOVAL



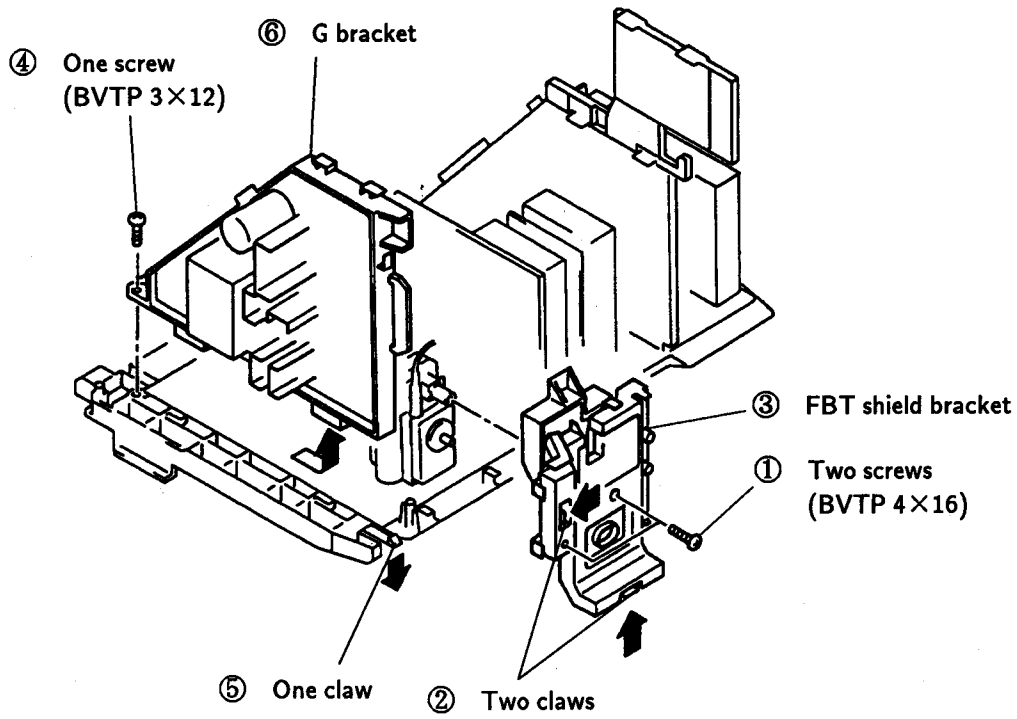
### 2-3. ANTENNA TERMINAL BOARD REMOVAL



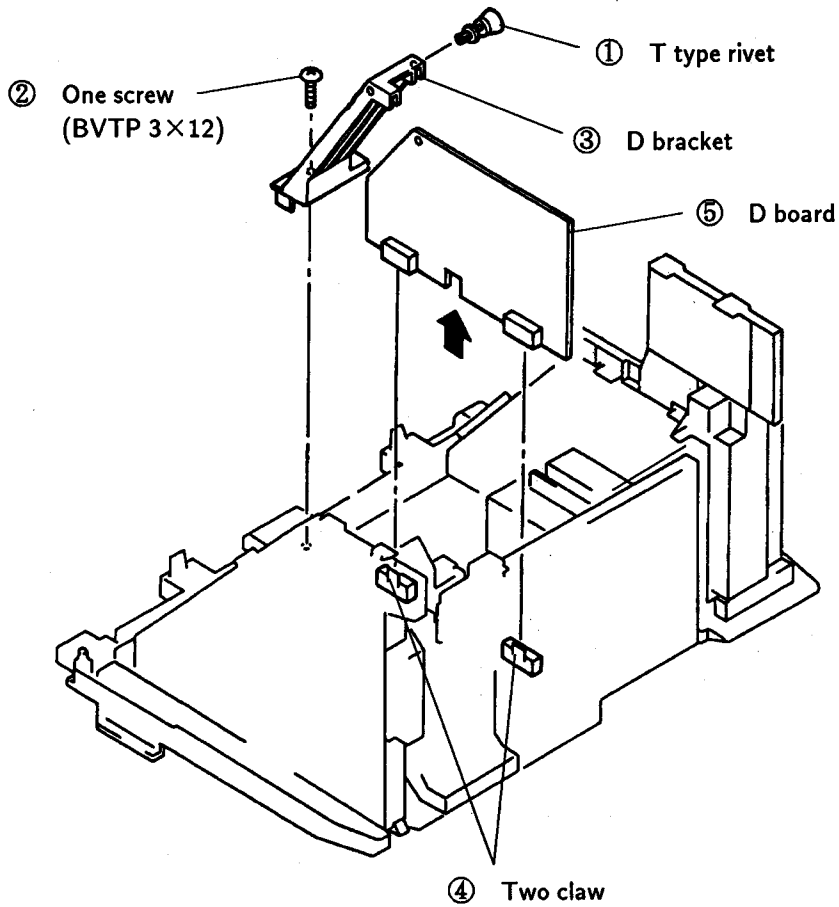
### 2-4. UT BRACKET REMOVAL



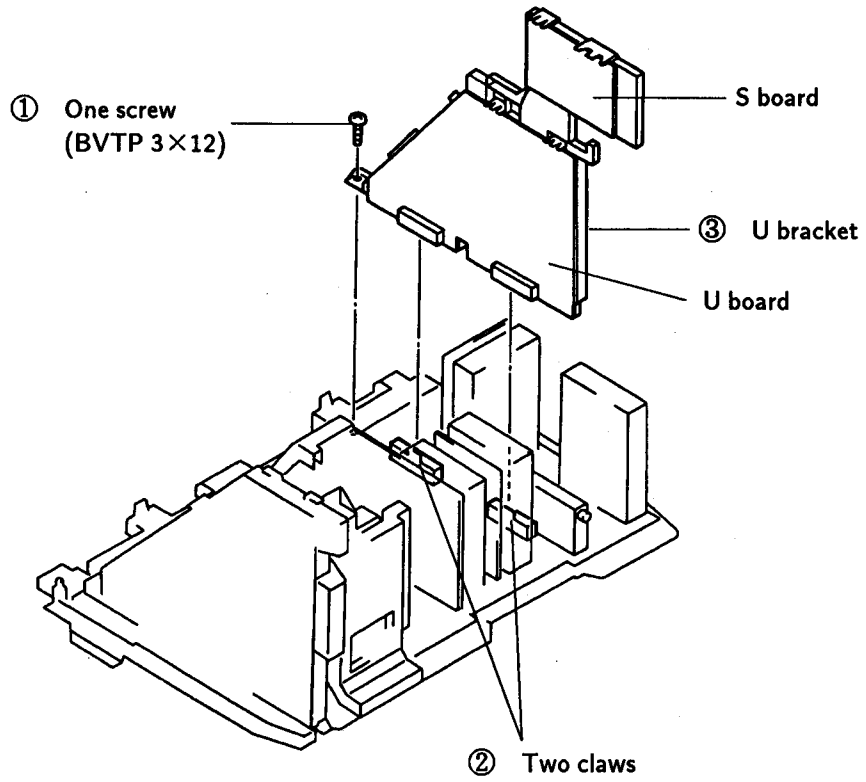
### 2-5. G BRACKET REMOVAL



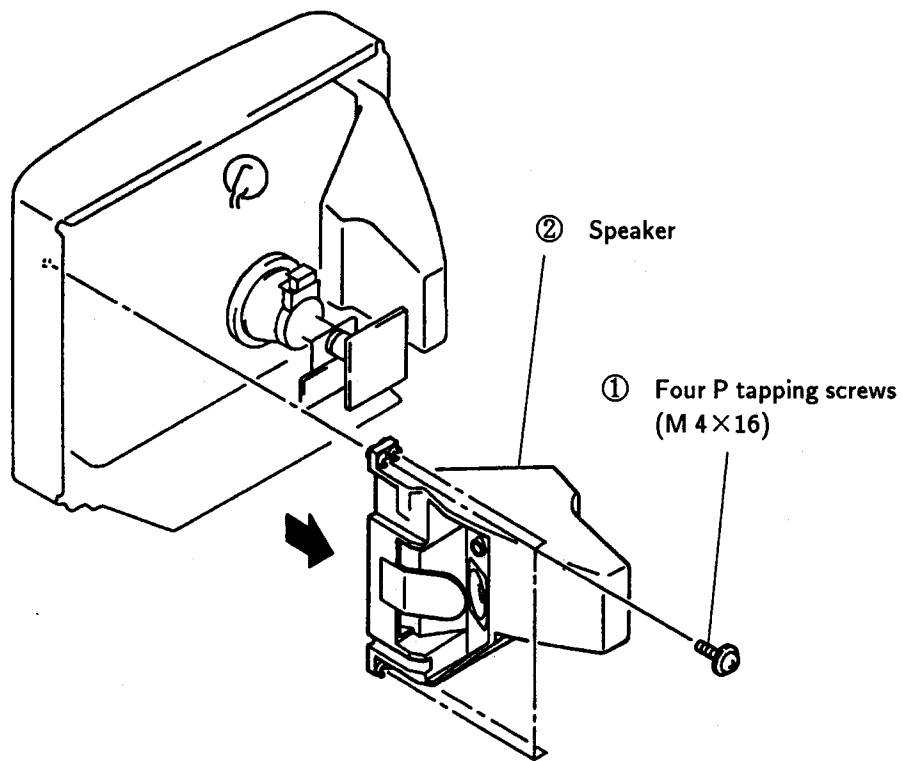
### 2-6. D BOARD REMOVAL



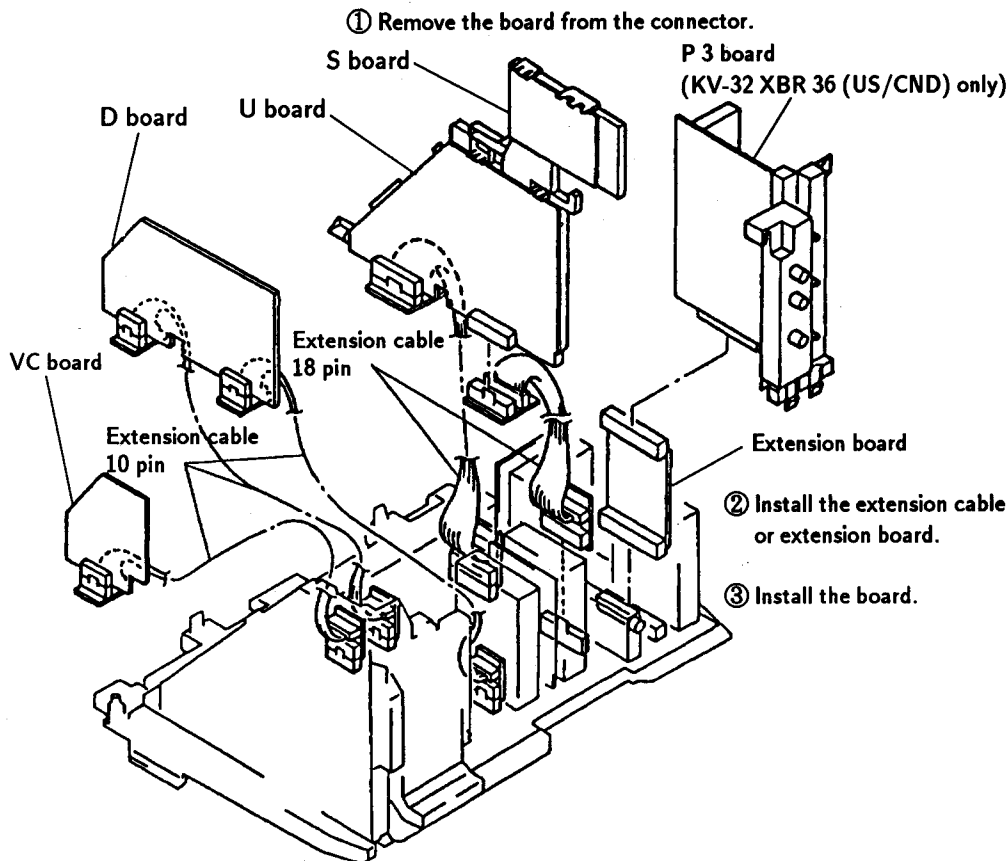
### 2-7. U BRACKET REMOVAL



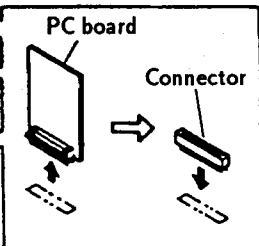
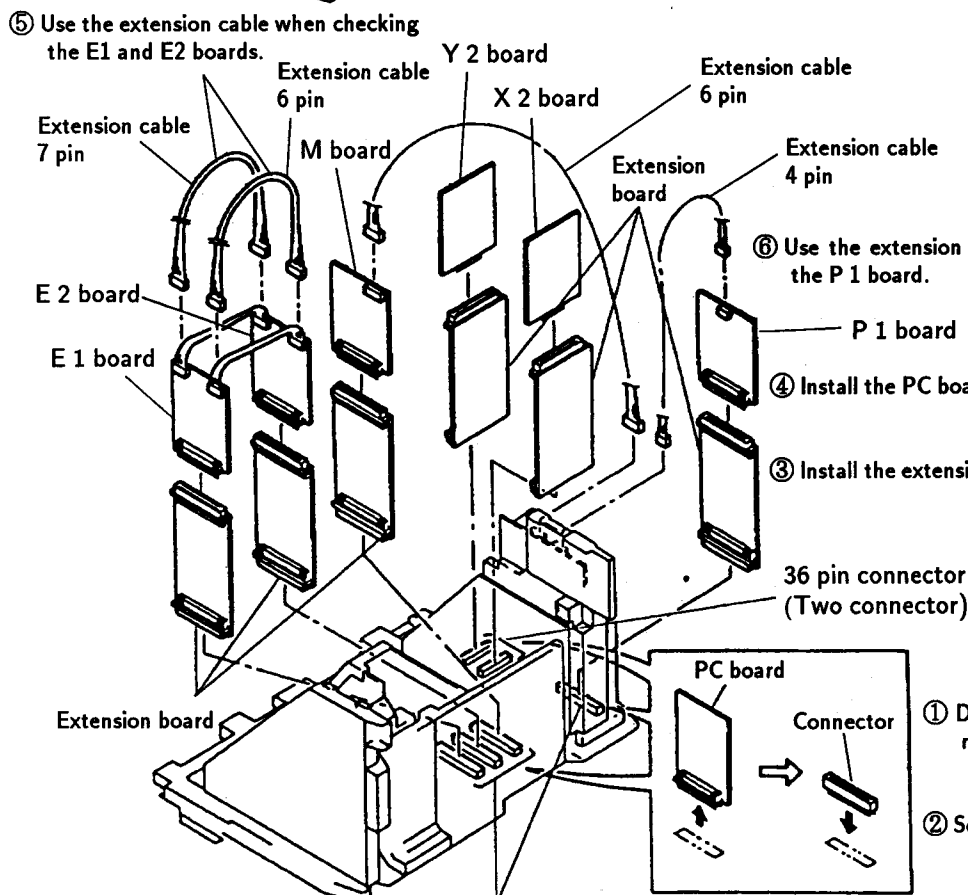
### 2-8. SPEAKER REMOVAL



**2-9. CONNECTOR CABLE**



Exterior	
Extension cable	
4 pin	1-941-891-33
6 pin	1-941-891-31
7 pin	1-941-891-32
18 pin	3-702-558-01
10 pin	3-702-557-01
36 pin connector	3-702-561-01
50 pin connector	3-702-560-01
36P/50P Extension board	3-702-559-01

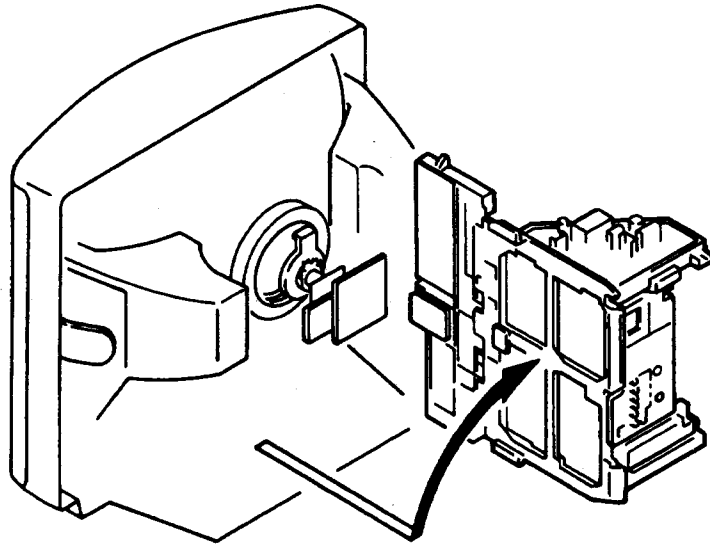


① De-solder the PC board and remove it.

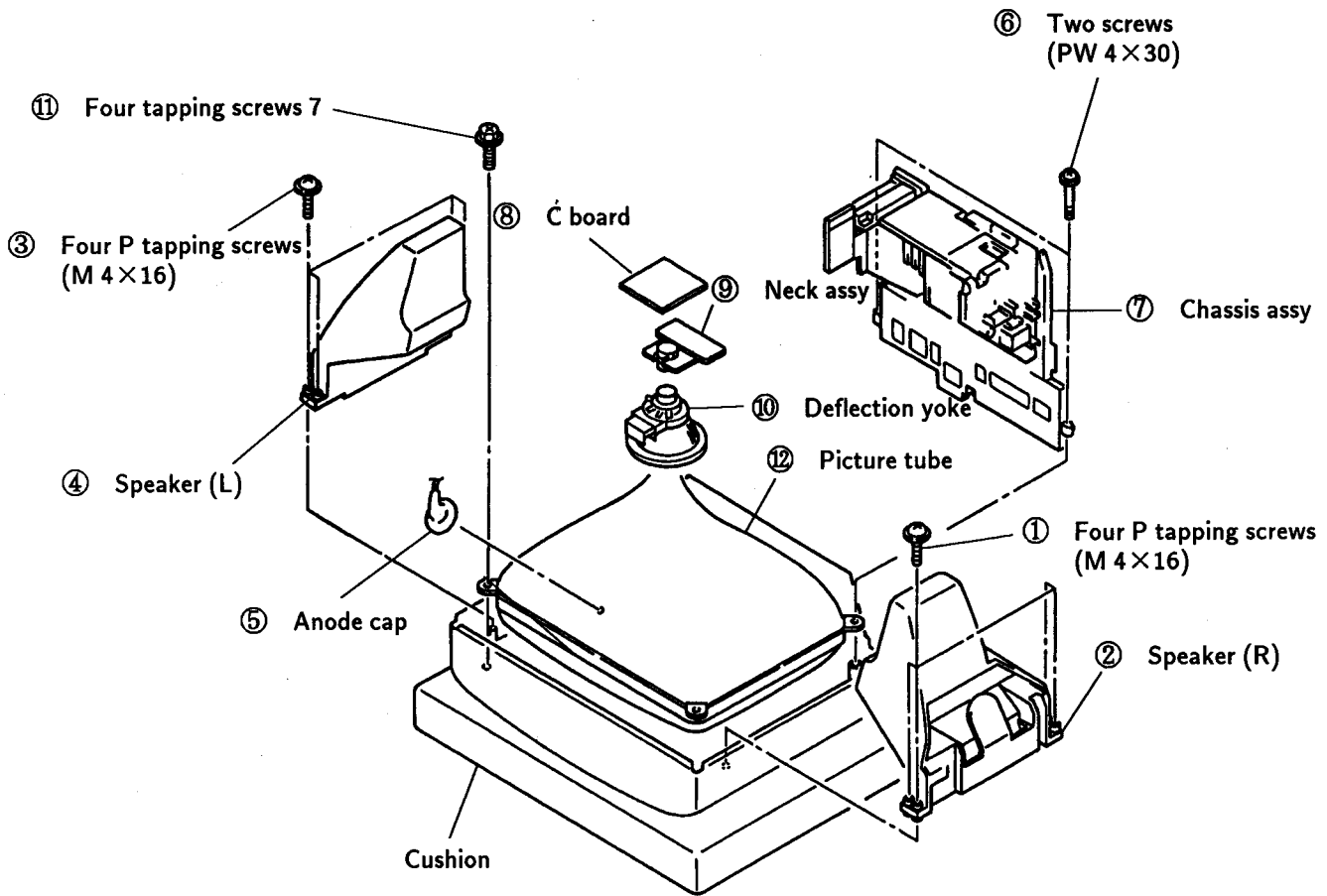
② Solder the connector.

50 pin connector (Four connector)

**2-10. SERVICE POSITION**



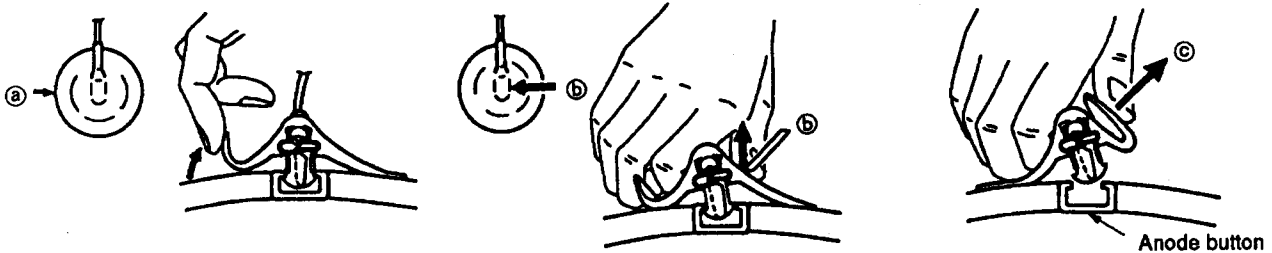
## 2-11. PICTURE TUBE REMOVAL



### • 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.

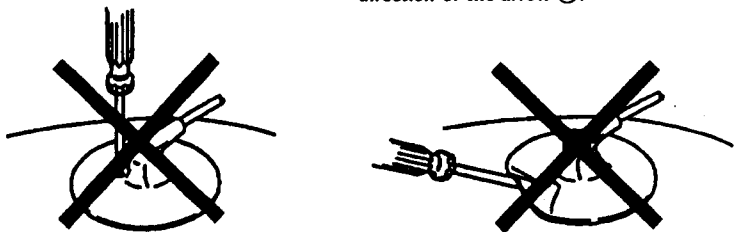
### • REMOVING PROCEDURES



- ① Turn up one side of the rubber cap in the direction indicated by the arrow ②.
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ③.
- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ④.

### • 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 hardy 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 hardy!  
The shatter-hook terminal will stick out or hurt the rubber.





## 2-12. REPAIR OF CHIP COMPONENT CIRCUIT BOARD

### 2-12-1. 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.

### 2-12-2. 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 ( $\phi 0.3$  or  $\phi 0.6$ ).  
 (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.)

### 2-12-3. REMOVAL AND MOUNTING OF COMPONENTS

#### Chip resistor and chip capacitor

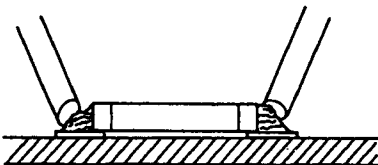
#### REMOVAL

- Using two soldering irons

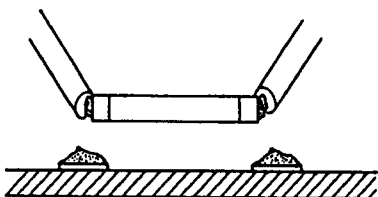
#### 1) Mounted state



#### 2) Melt the solder.

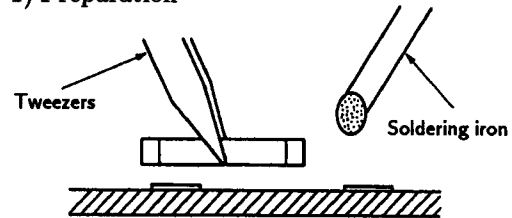


#### 3) Remove the component.



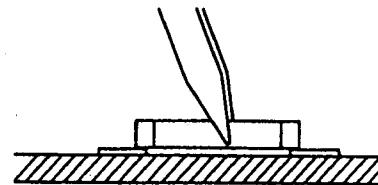
#### SOLDERING

#### 1) Preparation

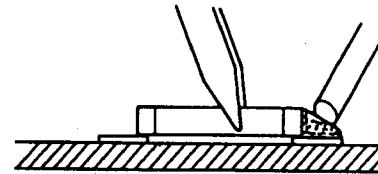


#### 2) Location

Be careful not to misposition.

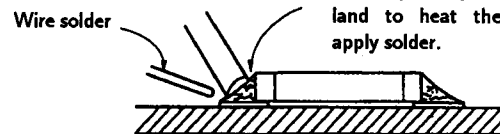


#### 3) Tack soldering and flux application

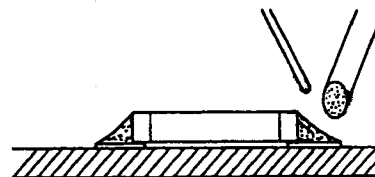


#### 4) Soldering

Apply the soldering iron to the chip component and land to heat them and apply solder.



#### 5) Soldering (Fix the fillet.)



#### 6) Visual inspection

Check for the following defects :

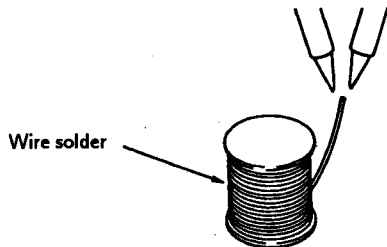
- No-soldered part
- Bridge (to other components or lands)
- Mispositioning
- Other defects

**2-12-4. MINI-TRANSISTOR**

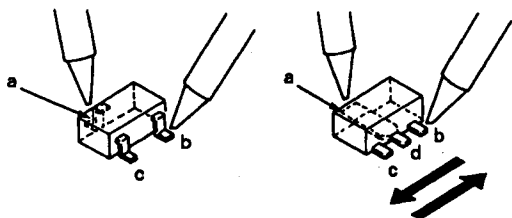
**REMOVAL**

• 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.

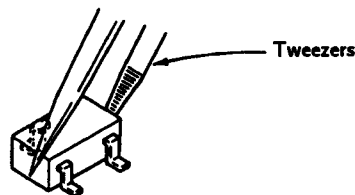


**MOUNTING**

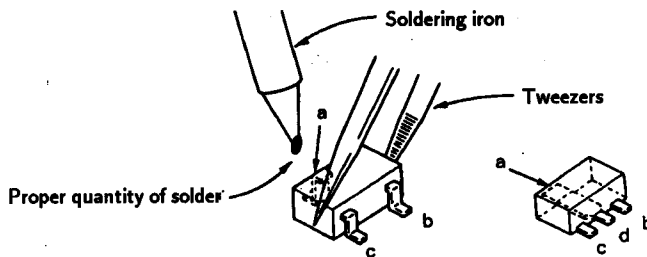
1) Apply a little flux to the land with a brush.



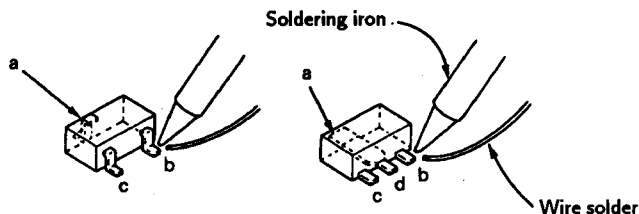
2) Place the component in position using tweezers.



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

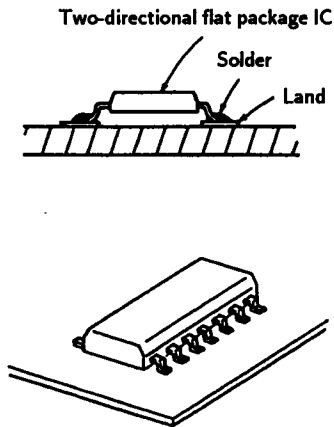


4) Bring the tip of the soldering iron and the wire solder close to the point to be soldered. Solder the points "b" → "c" (or "b" → "d" → "c") in order.

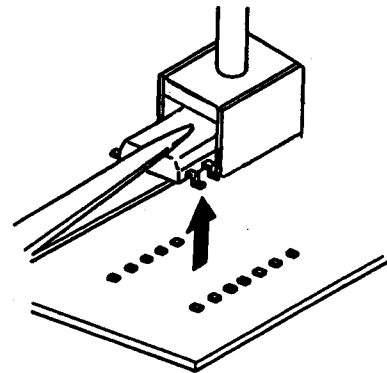


2-12-5. TWO-DIRECTIONAL FLAT PACKAGE IC

**MOUNT CONDITION**

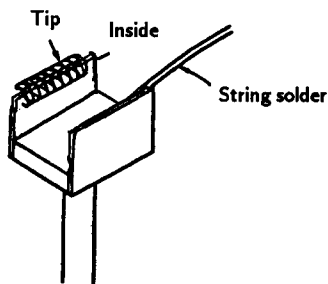


- 3) When the solder melts, lift the IC with a pair of tweezers and remove.



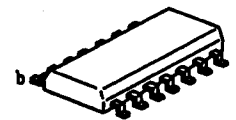
**REMOVAL**

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

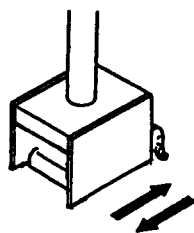


**INSTALLATION**

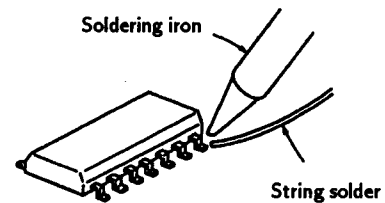
- 1) Place the two-directional flat package IC at the appointed position, solder pins a and b on the diagonal, and fasten it.



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

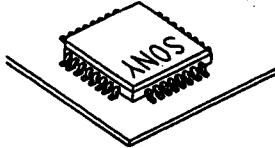
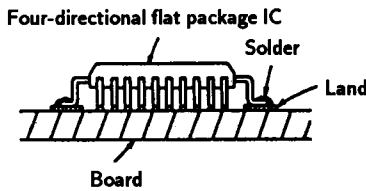


- 2) Solder the remaining pins with the soldering iron.



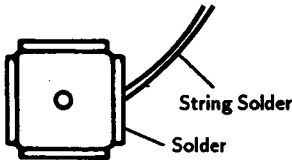
**2-12-6. FOUR-DIRECTIONAL FLAT PACKAGE IC**

**MOUNT CONDITION**

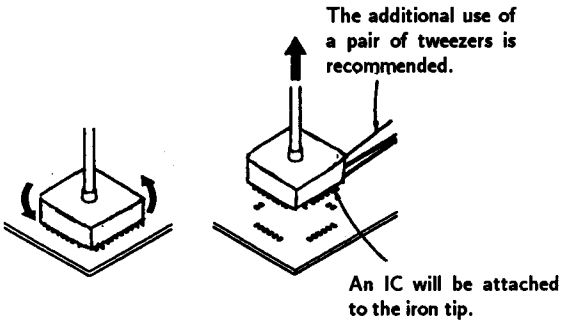


**REMOVAL**

- 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**

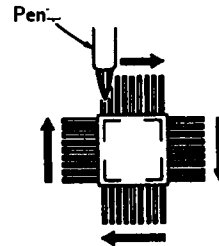
- 1) Place the four-directional flat package IC at the appointed position.



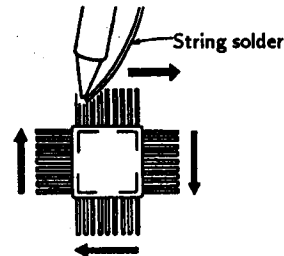
- 2) Apply a slight amount of solder on the iron tip, and solder the three sections in the order of a → b → c, and fix.



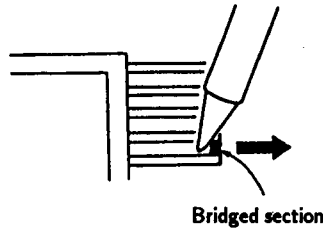
- 3) Apply a slight amount of flux with a pen on all four directions.



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

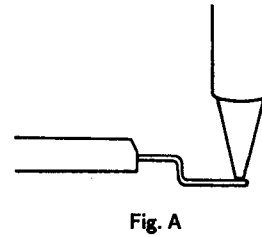


Note: 1) After soldering, if there are bridged sections, correct by sliding the soldering iron in the direction of the arrow.

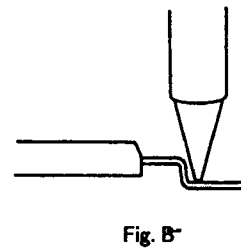


If the bridges cannot be corrected using the above method, apply some flux with a pen and try again.

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



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



Exterior	Description	Part No.	Measure (mm)			
			A	B	C	D
	jig for removing 4-sided flat package IC	3-702-554-01	12.5	9.5	12.5	9.5
		" 11	15.5	12.5	15.5	12.5
		" 21	16.3	13.3	16.3	13.3
		" 31	17.0	14.0	17.0	14.0
		" 41	23.0	20.0	17.0	14.0
		" 51	20.0	17.0	20.0	17.0
	jig for removing 2-sided flat package IC	3-702-555-01	6.0	5.0	/	
		" 11	6.0	10.0		
		" 21	7.0	12.5		
		" 31	9.0	15.2		
		" 41	9.0	18.0		
	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

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

**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  
 Bightness } normal
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.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it.  
 (See Figure 3-4.)

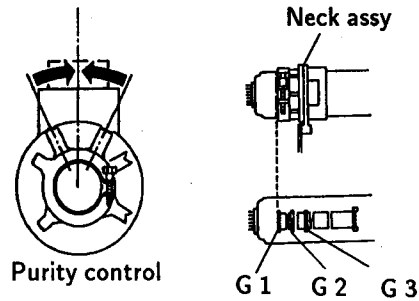


Fig.3-2

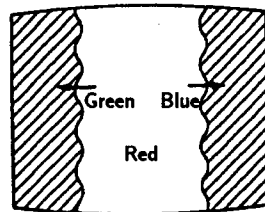


Fig.3-3

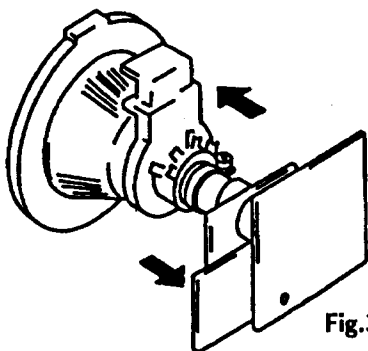


Fig.3-1

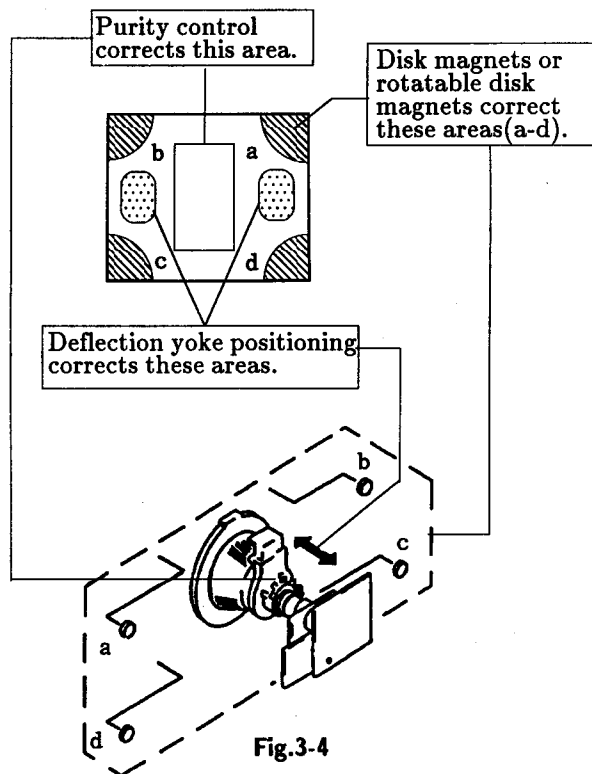


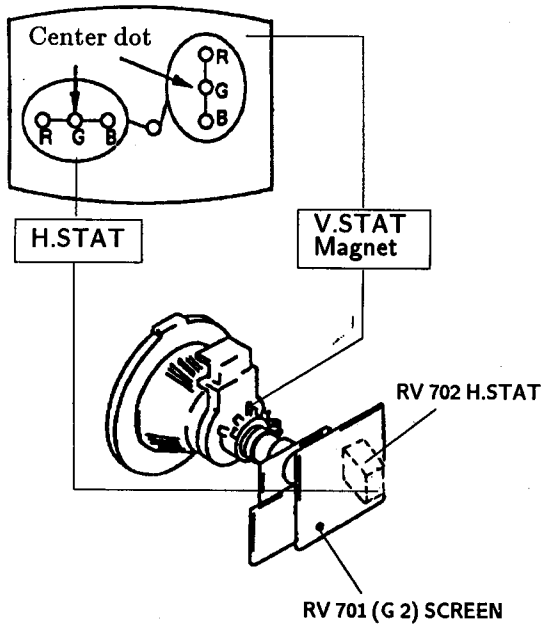
Fig.3-4

### 3-2. CONVERGENCE

**Preparation :**

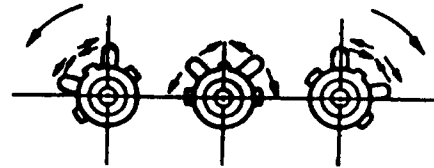
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

**(1) Horizontal and Vertical Static Convergence**

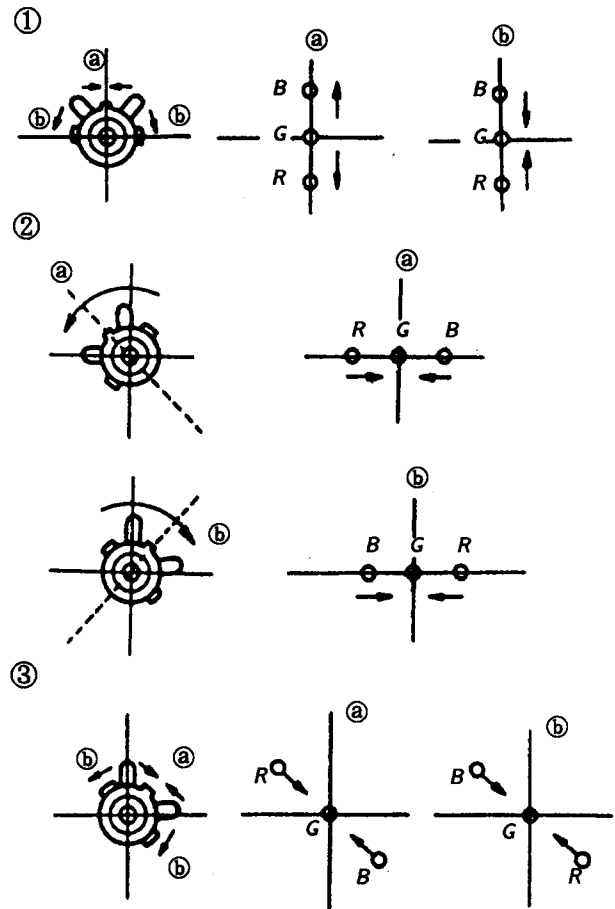


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT 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)

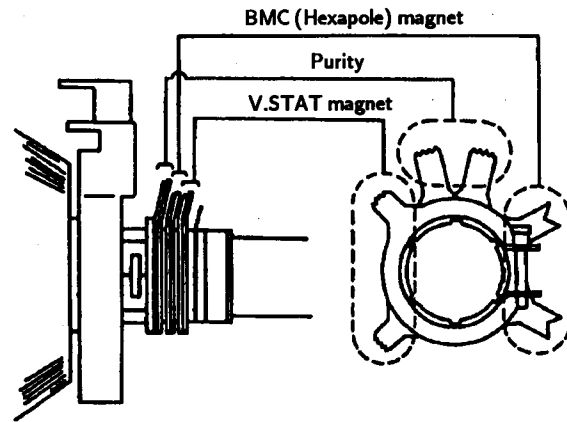
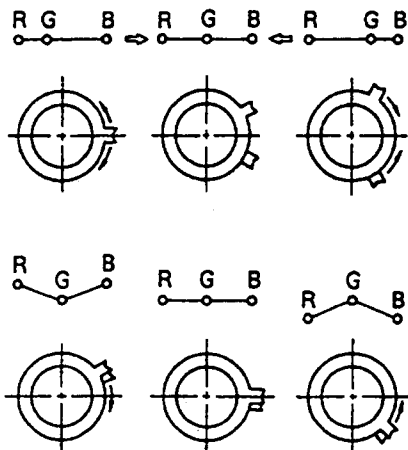
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



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

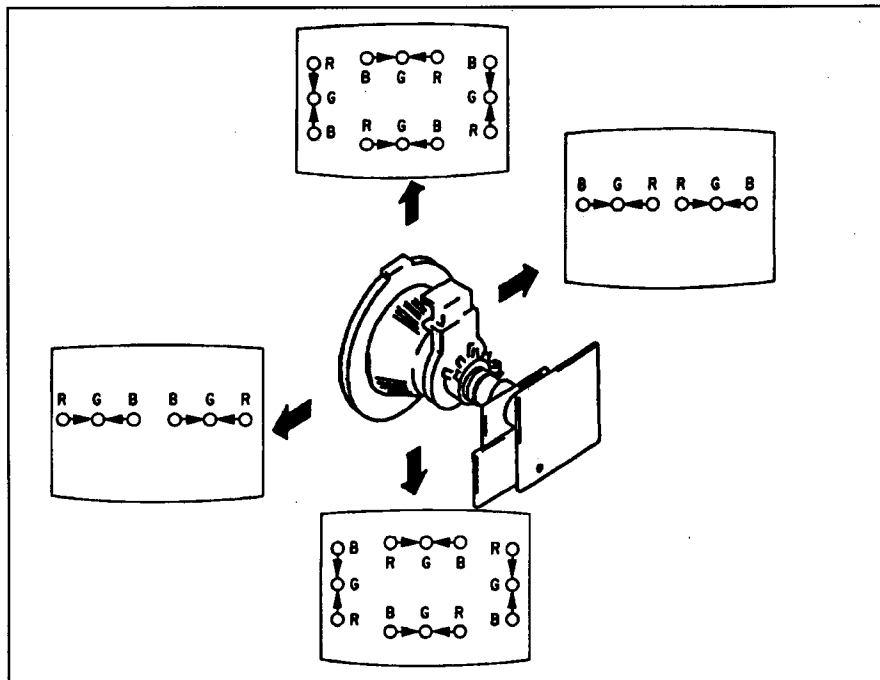
Preparations :

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
1. Slightly loosen the deflection yoke screws.
  2. Remove the deflection yoke spacer.

● Y separation axis correction magnet adjustment

1. Receive the cross-hatch signal, and adjust [PIX] to "MIN" and [BRT] to "standard".
2. Adjust the deflection yoke to the upright condition when it hits the CRT.
3. Adjust so that the Y separation axis correction magnet on the neck assembly is symmetrical at the top and bottom (open state).
4. Return the deflection yoke to its original position.

3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the deflection yoke spacer.





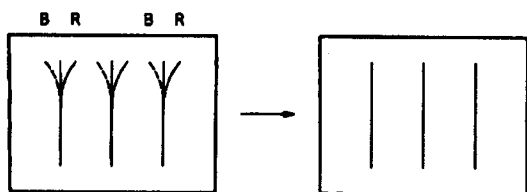
### (3) Dynamic Convergence Circuit Adjustment

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

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

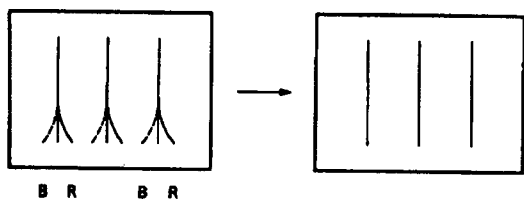
#### U. YBOW

Select UYBO with **1** and **4**



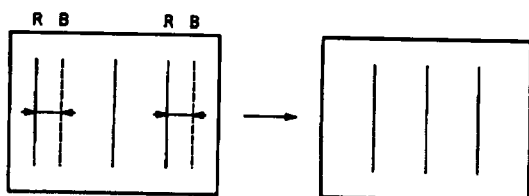
#### L. YBOW

Select LYBO with **1** and **4**



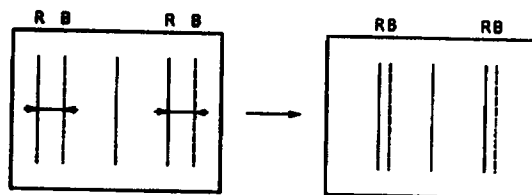
#### H. AMP

Select HAMP with **1** and **4**



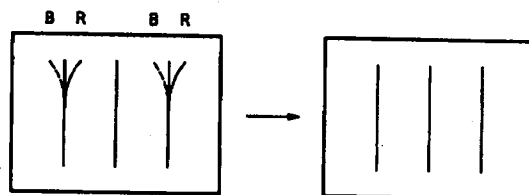
#### H. TILT

Select HTILT with **1** and **4**



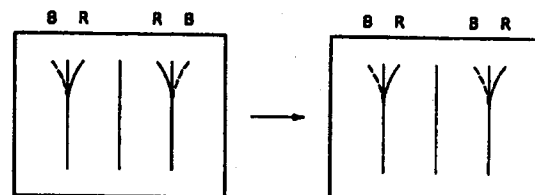
#### U. CBOW

Select UCBO with **1** and **4**



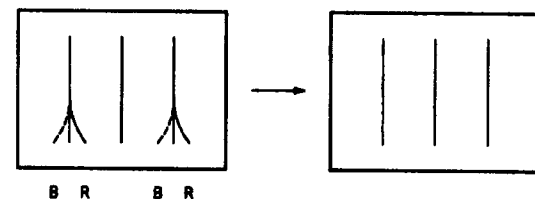
#### U. TILT

Select UTIL with **1** and **4**



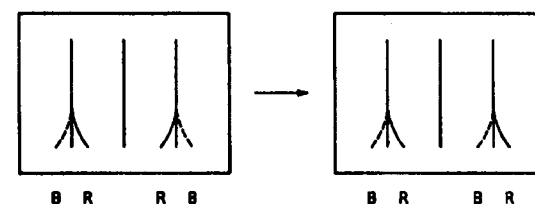
#### L. CBOW

Select LCBO with **1** and **4**

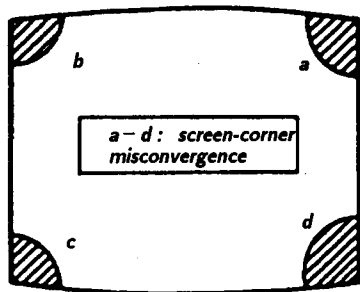


#### L. TILT

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

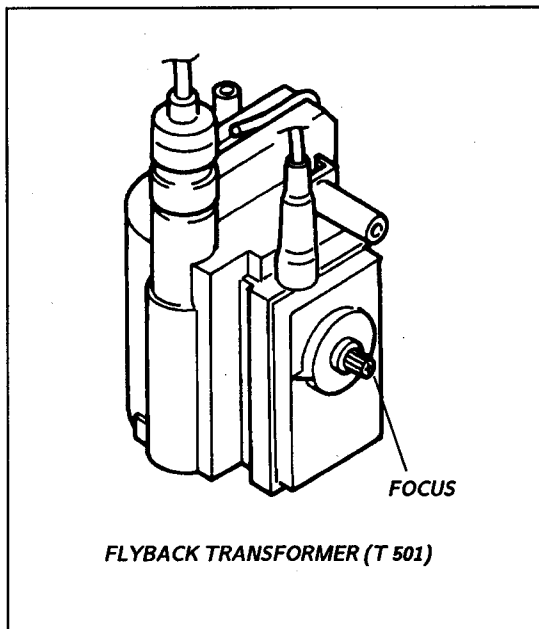
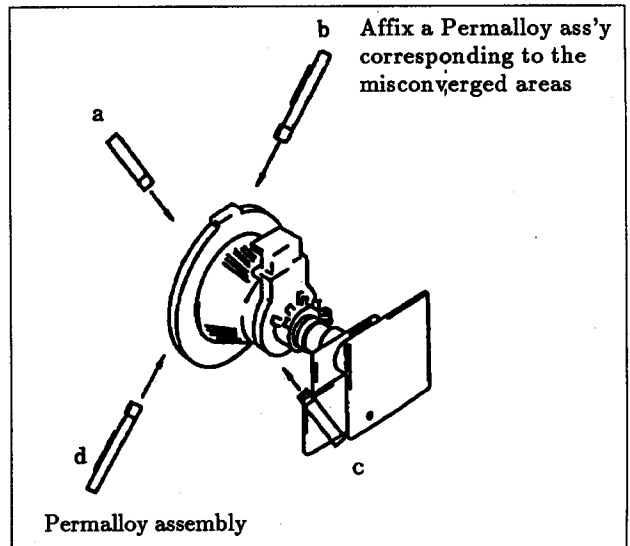


(4) Screen-corner Convergence



**3-3. FOCUS ADJUSTMENT**

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



### 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  $30.0 \pm 5$  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

※ ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER (See page 55, 56)

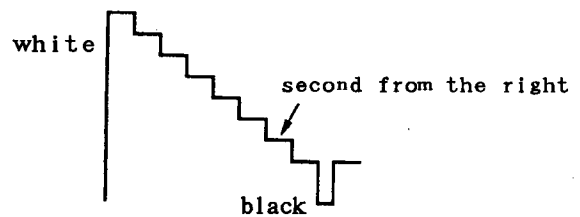
- 1) Set to service mode.
- 2) Press **STANDARD** to normal and if necessary "TRINITONE" set to "LOW" by **+** or **-**.
- 3) Input an entire white signal.
- 4) Set the PICTURE to minimum.
- 5) Select S BRT with **1** and **4**, and then set the level to minimum with **3** and **6**.
- 6) Select G CUT 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**.

#### - WHITE BALANCE ADJUSTMENT OF THE WINDOW PICTURE -

- 1) Press P/P to display a window picture.
- 2) Input an entire-white signal.
- 3) Adjust RV 3003 (SUB BRT) on P 1 board to control the window as similar to the white pattern as possible.

#### 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  $10k\Omega$ ) 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  $1640 \pm 20\mu A$  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  $152.0V$  DC whereby the raster disappears during operation of hold-down circuit.

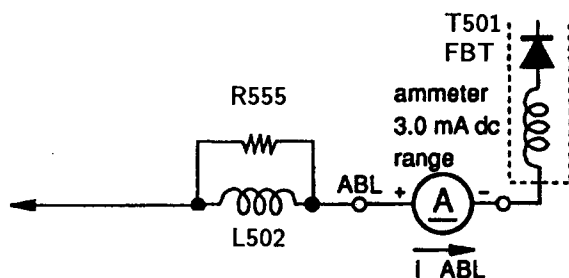
**NOTE:** When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

- 3) Turn the POWER switch ON, and input a dot signals and adjust ABL current to  $140 \pm 20\mu A$  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  $154.5V$  DC 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 pin ② of A-0 connector is more than  $100.0V$  DC 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-0 connector via 1SS119 from the DC stabilized power source.

Confirm that the minimum voltage is lower than  $120.5V$  DC 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

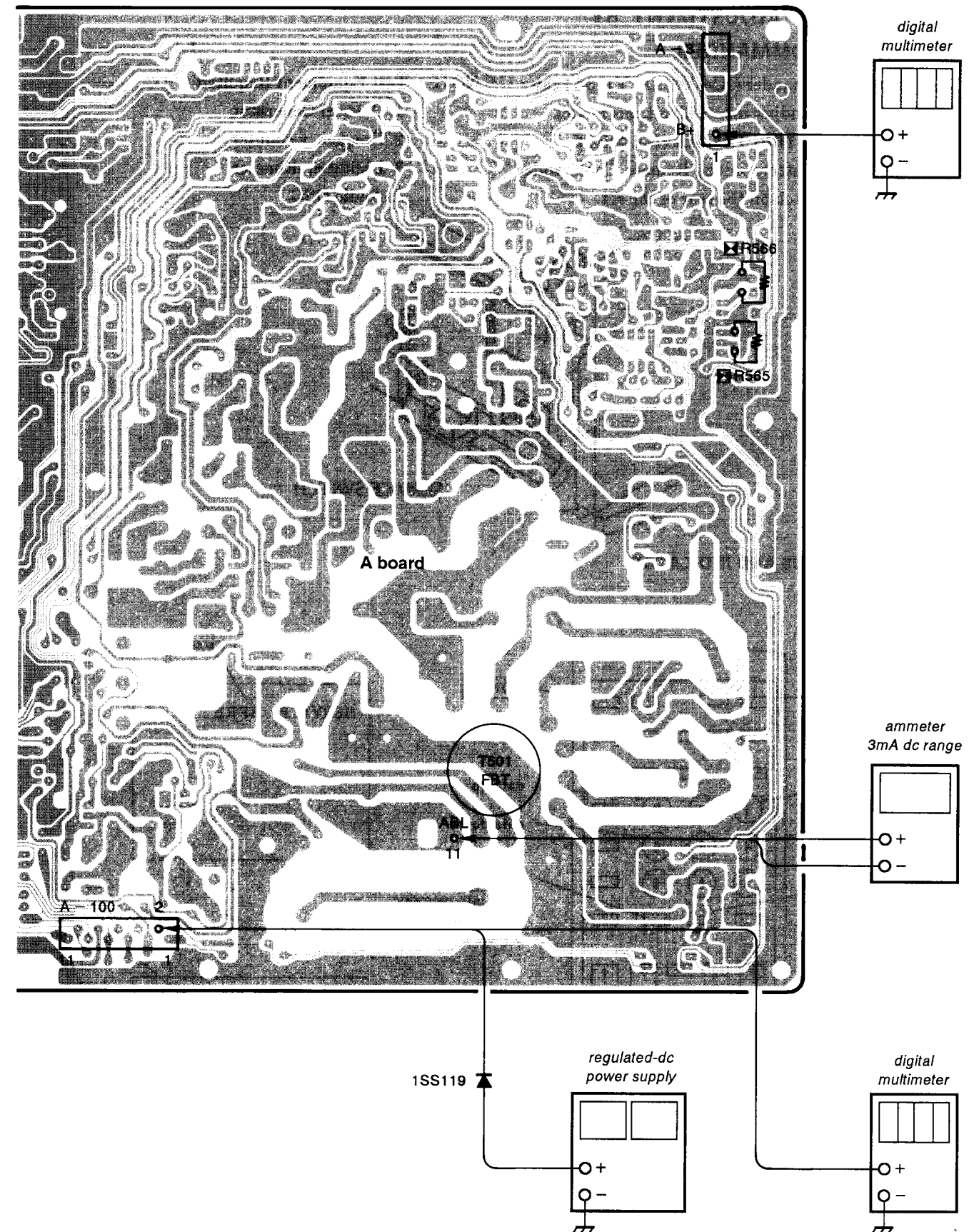
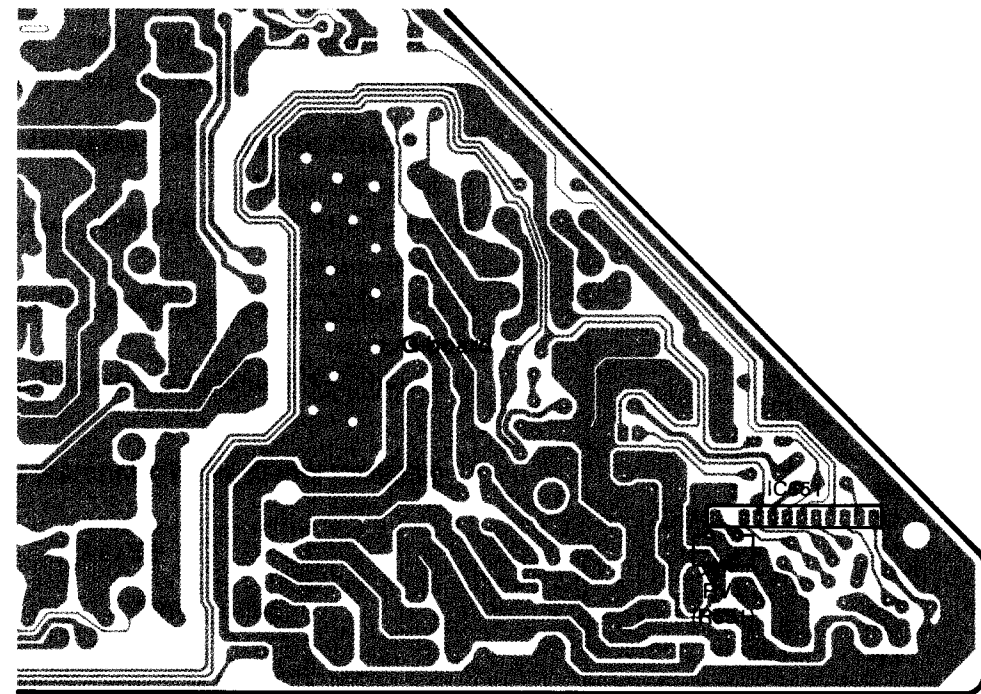
When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R566 CARBON 1/4W (a component marked with ☒).

**G BOARD**

**B+ VOLTAGE CONFIRMATION**

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

- 1) Supply  $130 \pm 2\%$  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.



## SECTION 5 CIRCUIT ADJUSTMENTS

### 5-1. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

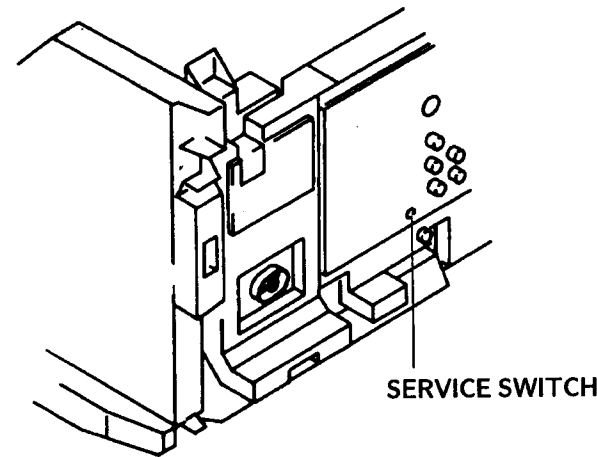
Use of Remote Commander (RM-Y112A, Y113A) can be performed circuit adjustments about this model.

#### 1. METHOD OF SETTING THE SERVICE MODE

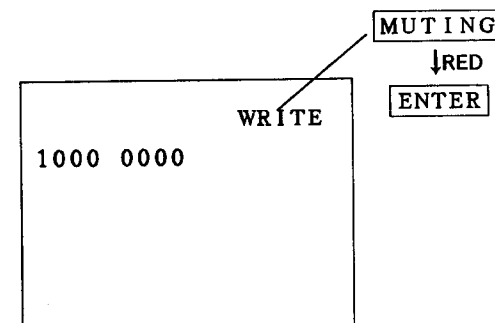
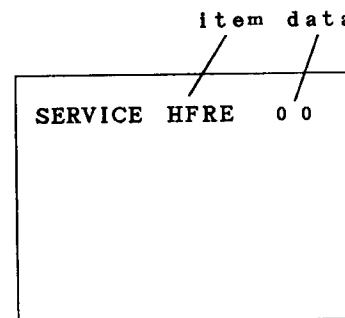
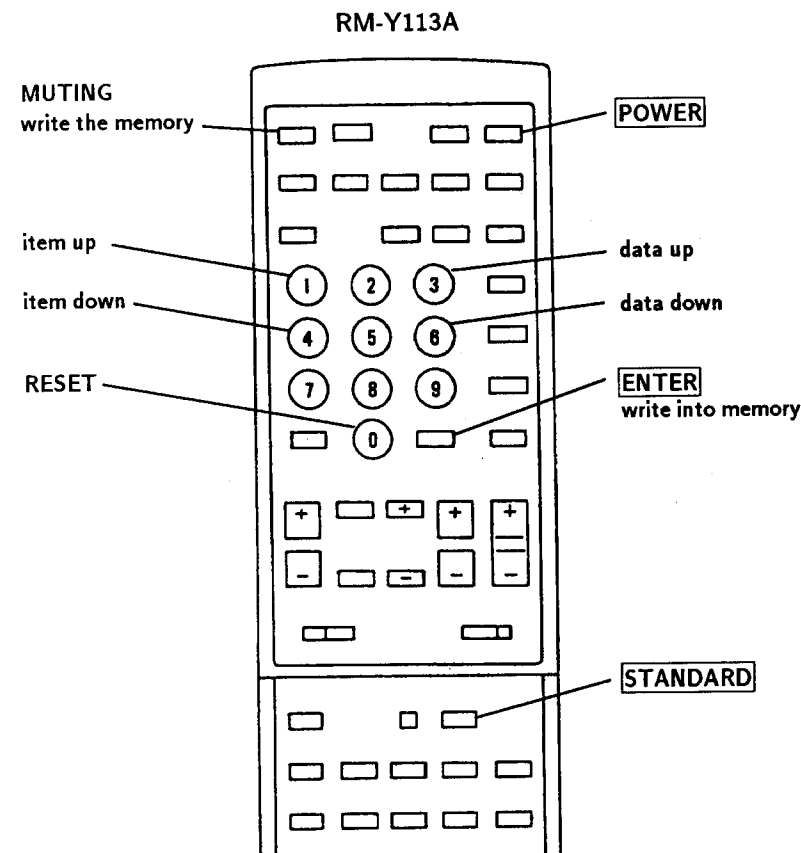
- 1) Press **POWER** button on the Remote Commander while pressing switch on the rear of the set.

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 NG
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	I1
DEEM	7	AP	I2
STEV	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		

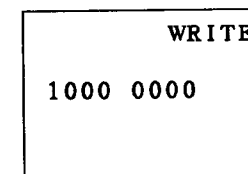
#### 4. METHOD OF CANCELLATION FROM SERVICE MODE

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

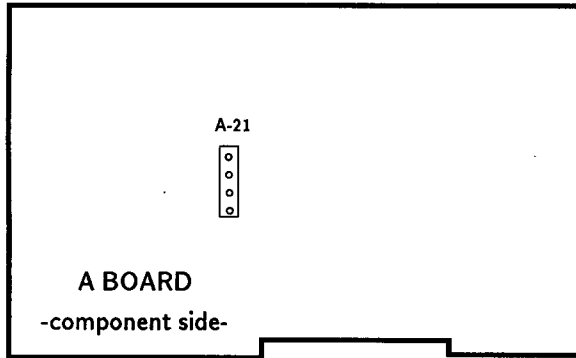
- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN), select an item of adjustments.
- 3) Press **MUTING** button indicate WRITE (RED) on screen.
- 4) Press **ENTER** button to write for memory.

#### 6. 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.

## 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  $15735 \pm 60$  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  $55 \pm 0.5$  Hz.
- 6) Write the memory by pressing **[MUTING]** → then **[ENTER]**.

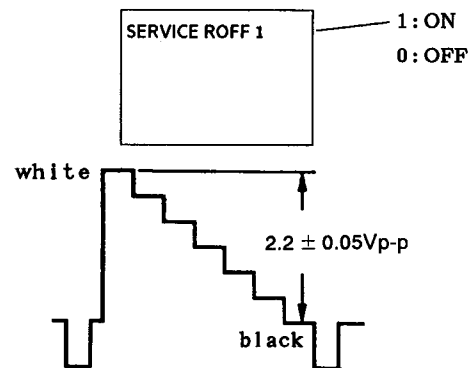
### SUB CONTRAST ADJUSTMENT (SPIX)

- 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]**.

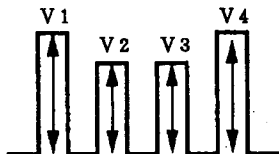


- 4) Connect an oscilloscope to TP49B of C board and ground.
- 5) Adjust **[3]** and **[6]** to the  $2.2 \pm 0.05V_{p-p}$  level by selecting SPIX with **[1]** and **[4]**.
- 6) Write the memory by pressing **[MUTING]** → then **[ENTER]**.
- 7) Return the following back to normal after adjustment.

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**.

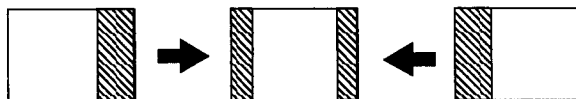
H SIZE (HSIZ)



## H.CENTER ADJUSTMENT (H POS)

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

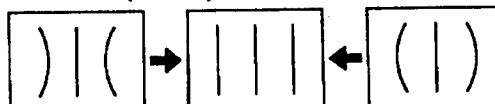
- 1) Input a color bar signal.
- 2) Set the Service mode.
- 3) Select HSIZ with **1** and **4**.
- 4) Press **6** so that the Horizontal size set to min.
- 5) Adjust A-21 conector position so that both-size blanking width of the Raster should be same on the Scrnne.
- 6) Unplug Set then plug in Set.
- 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**.



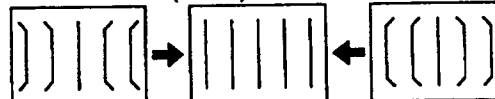
## PIN AMP (PAMP), CORNER PIN (CPIN) PIN PHASE (PPHA), H TRAPIZOID (HTRA) V LINEARITY (VLIN), V ANGLE (VANG), VS CORRECTION (VSCO), Y BOW (YBOW), V SHIFT (VPOS), AND V COMP (VCOM) ADJUSTMENTS

- 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 **MUTING** → **ENTER**.

PIN AMP (PAMP)



CORNER PIN (CPIN)



PIN PHASE (PPHA)



H TRAPIZOIDO (HTRA)





V-SHIFT (VPOS)



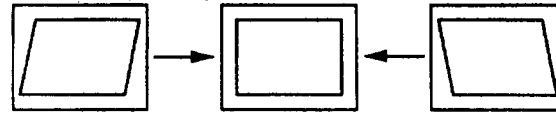
V COMP (VCOM)



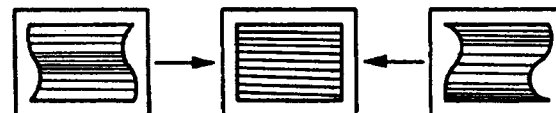
V LINEARITY (VLIN)



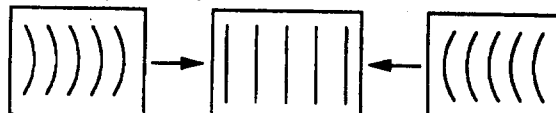
V ANGLE (VANG)



VS CORRECTION (VSCO)

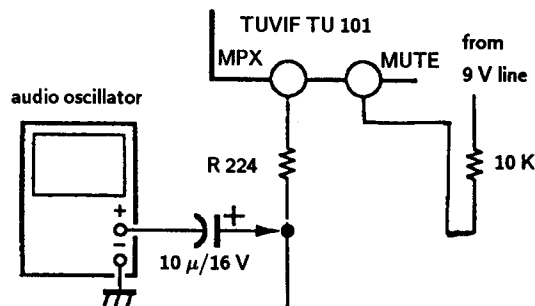


Y BOW (Y BOW)



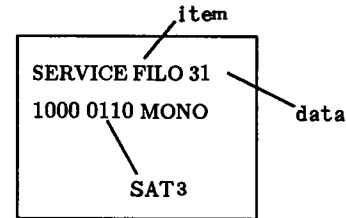
**FILTER ADJUSTMENT (MPX, FILO)**

- 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.



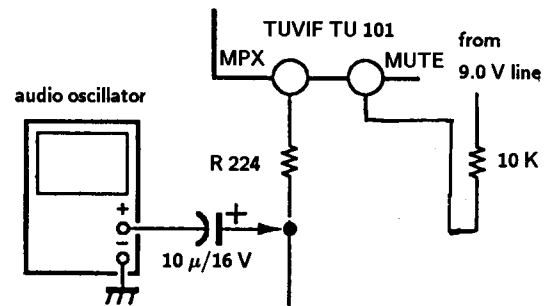
V 4 fh : SINE-WAVE 62.936 KHz ± 0.1 KHz  
LEVEL 3.0 Vp-p

- 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 **MUTING** → then **ENTER**.



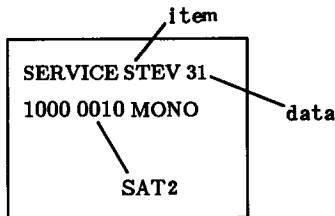
**ST VCO ADJUSTMENT (MPX, STEV)**

- 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.



Vfh : 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<sub>0</sub> 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  $V_2 = V_1 \pm 0.03 \text{ VDC}$ .
- 7) Write the memory by **[MUTING]** → **[ENTER]**.

**SEPARATION ADJUSTMENT (SEP)**

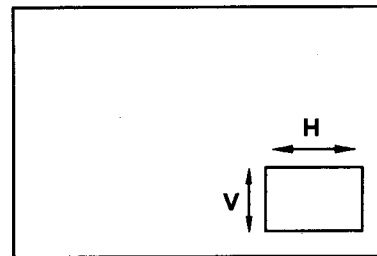
- 1) Set to Service Mode.
- 2) Press **[MTS]** to MAIN and receive a monoral broadcast signal.

In the next step, receive a stereo broadcast signal.

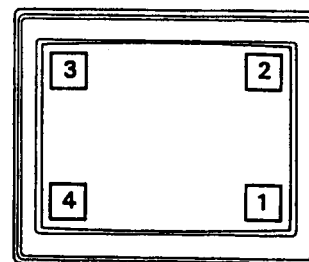
- 3) Select SEP and VD with **[1]** and **[4]**, adjust **[3]** and **[6]** so that a clear stereo sound is effected.

**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]**.



Note : Before doing any Service Adjustments on the models above you must make sure that the PIP Screen is in the number 1 position, even if there are no adjustments being made to PIP.

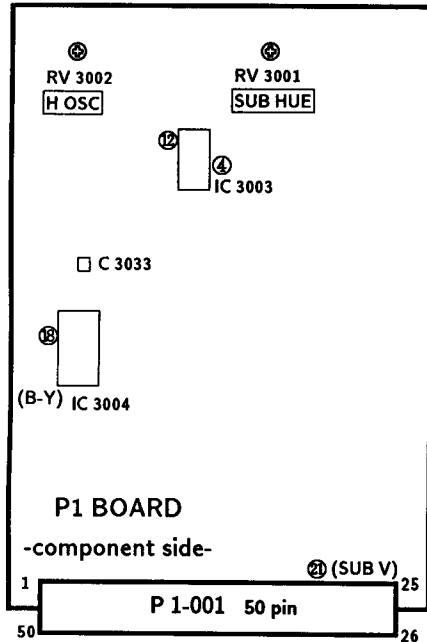


PIP Positions

After making adjustments into the PIP 1 position, write the information into the ROM.

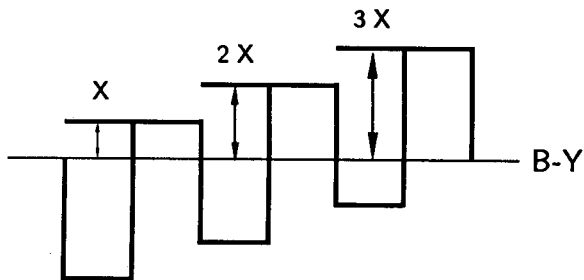
Next, unplug the unit and recheck the other three positions. Adjustments made to the number 1 position will affect the other three positions.

### 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 ( $0 \Omega$ ) 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)

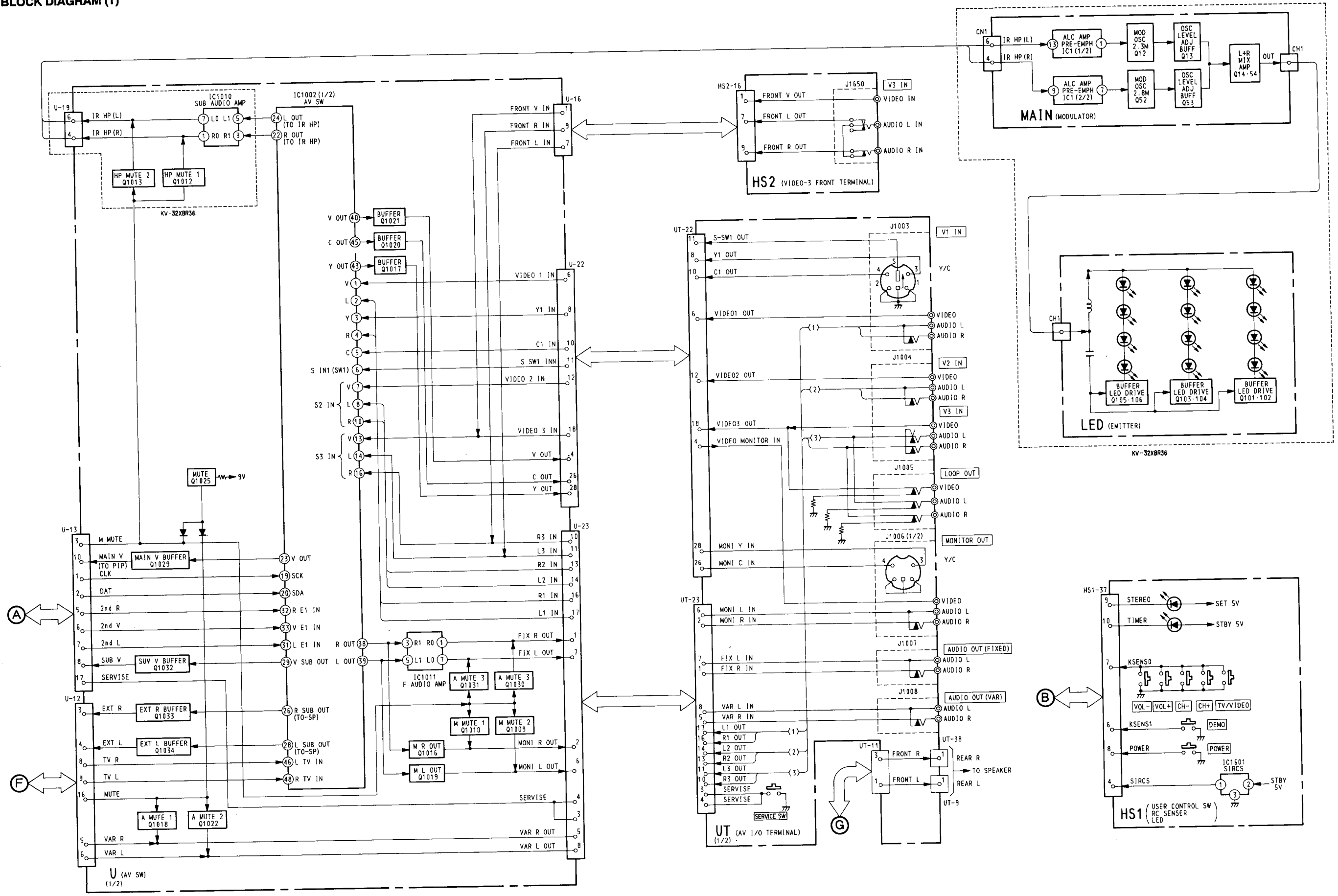
- 1) Connect a frequency counter to Pin ④ (H OUT) of IC 3003.
- 2) Connect Pin ⑫ of IC 3003 to ground.
- 3) Adjust RV3002 for a frequency of 15.734 kHz  $\pm$  50 Hz at Pin ④ of IC 3003.  
(or until the frequency comes to a standstill.)

**MEMO**

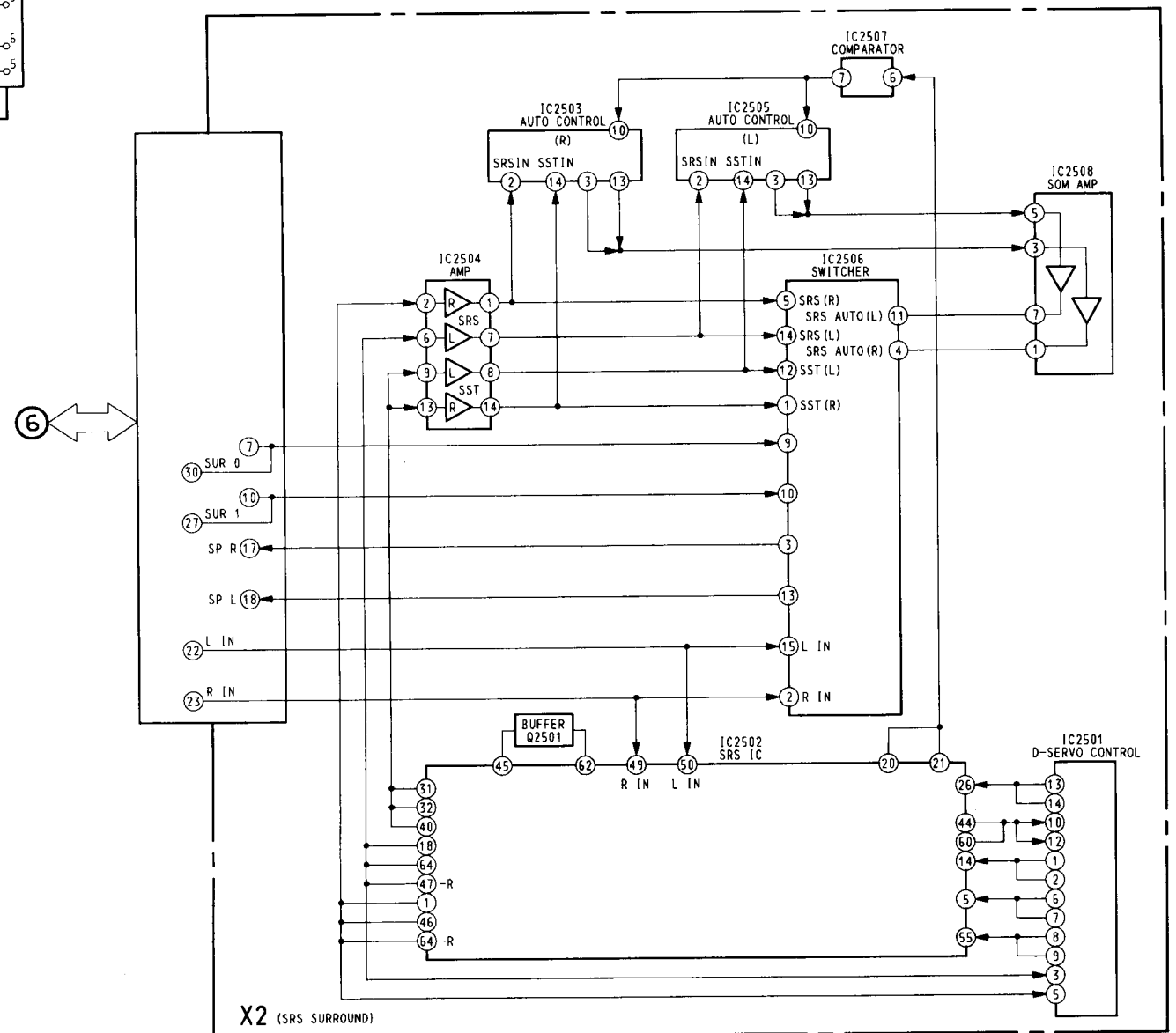
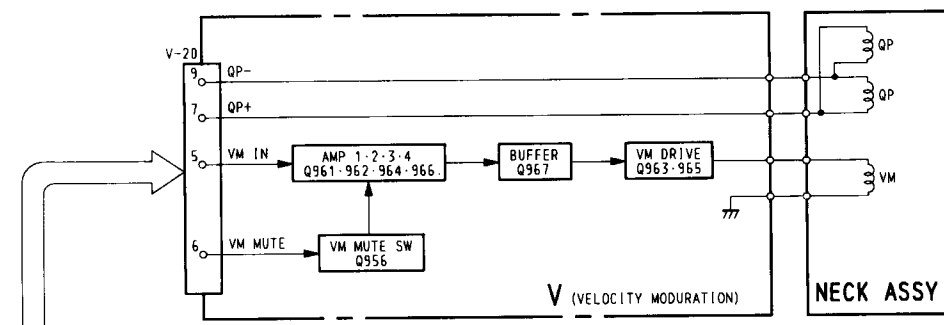
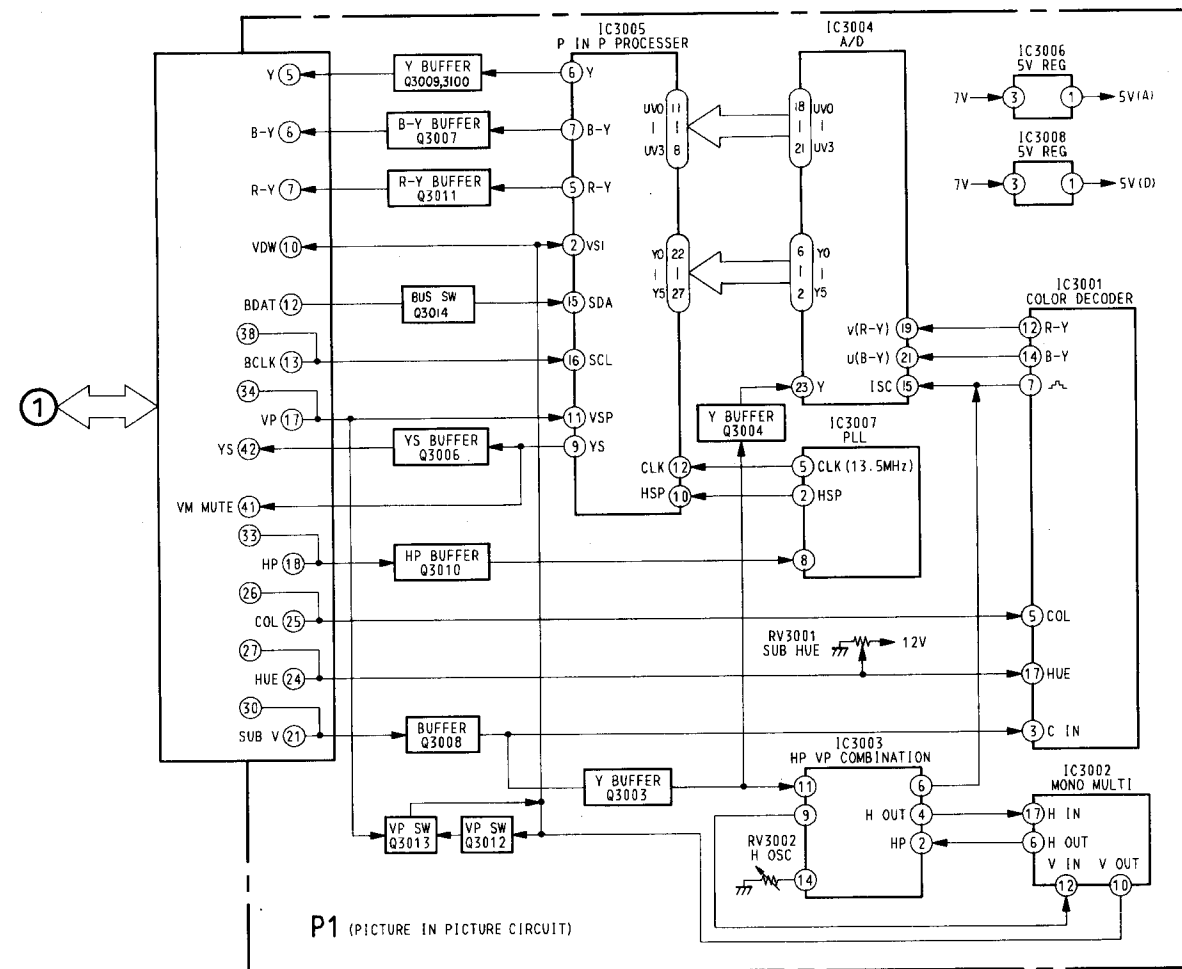
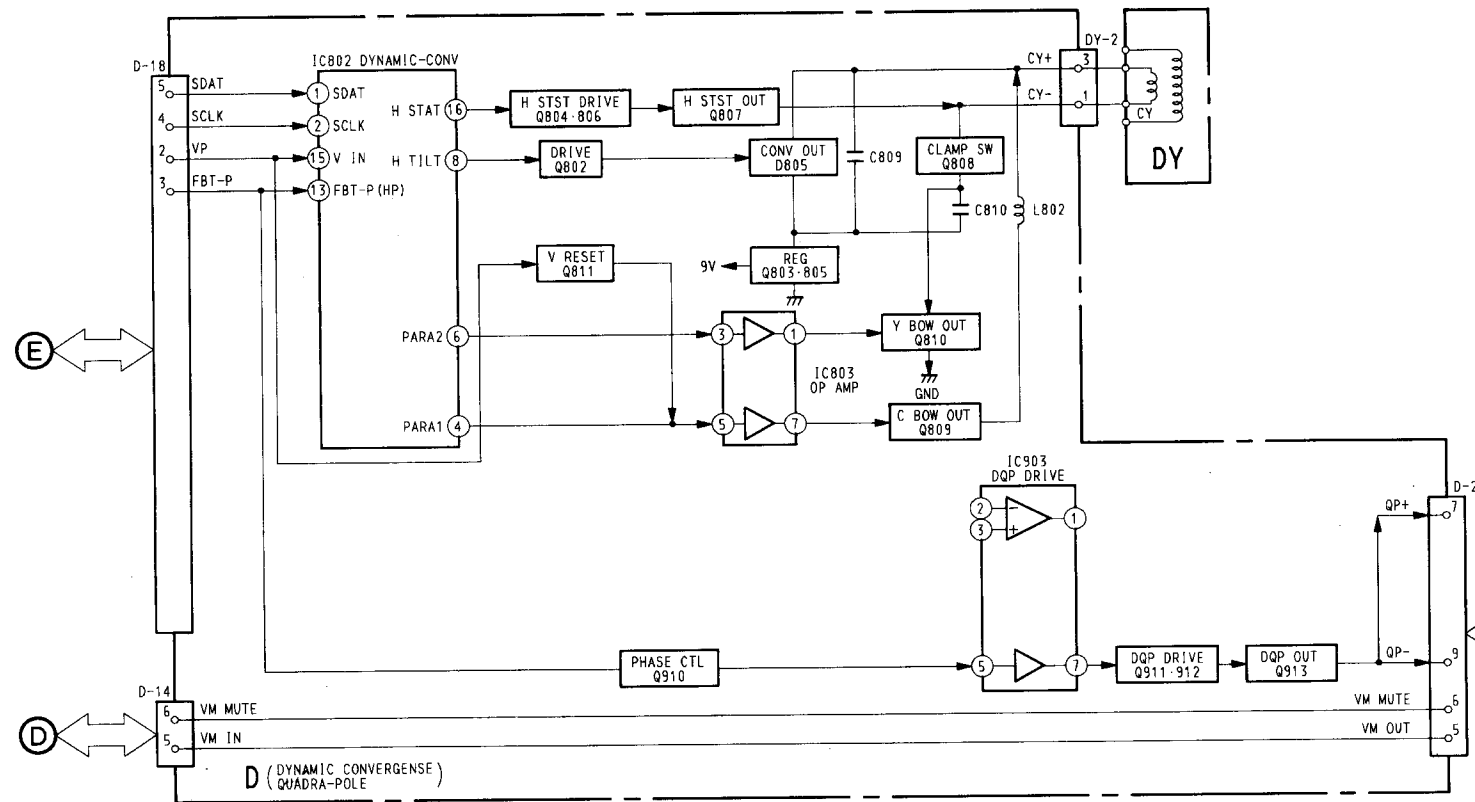
A series of horizontal dotted lines for writing a memo.

SECTION 6  
DIAGRAMS

6-1. BLOCK DIAGRAM (1)



6-2.BLOCK DIAGRAM (2)



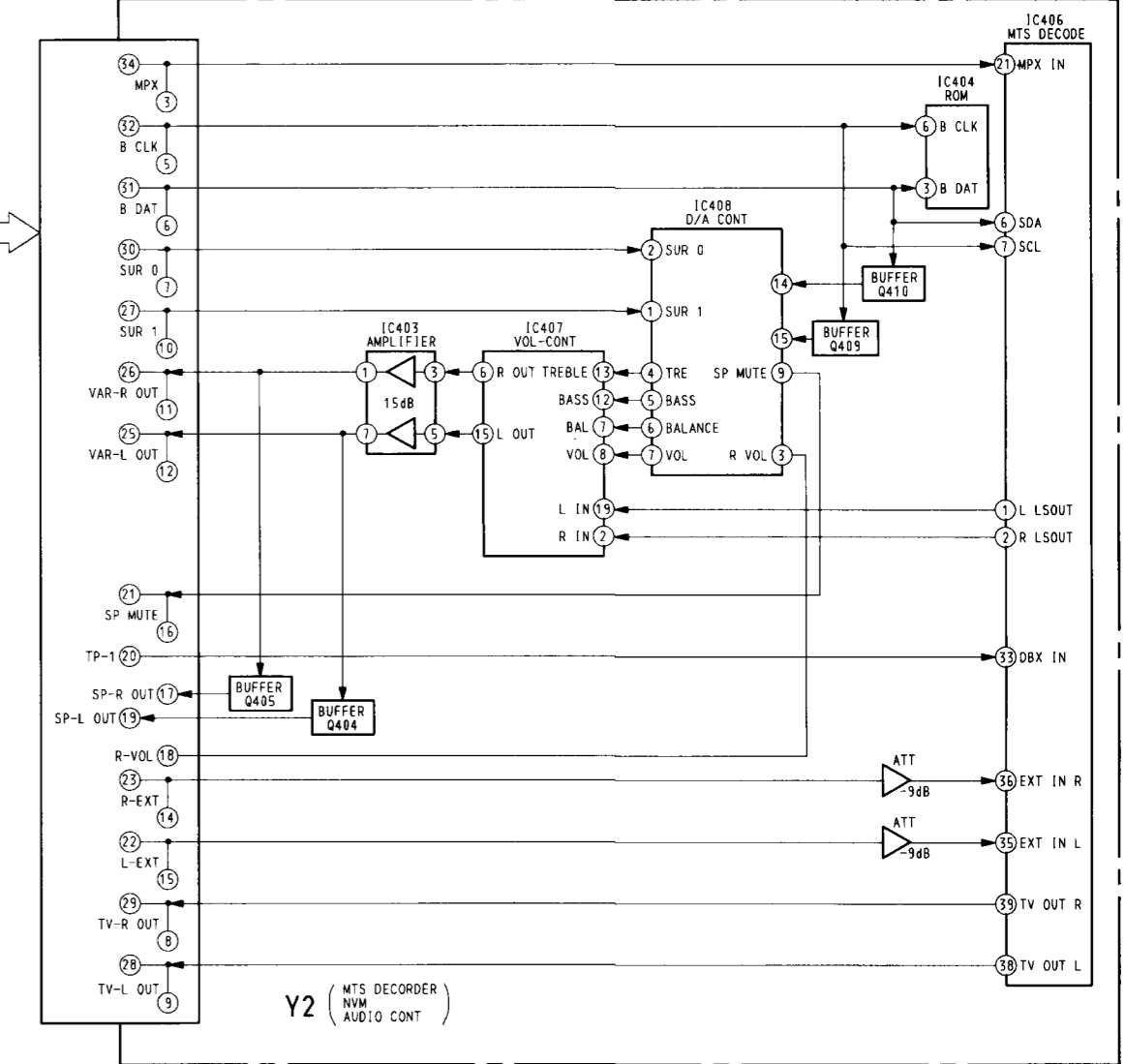
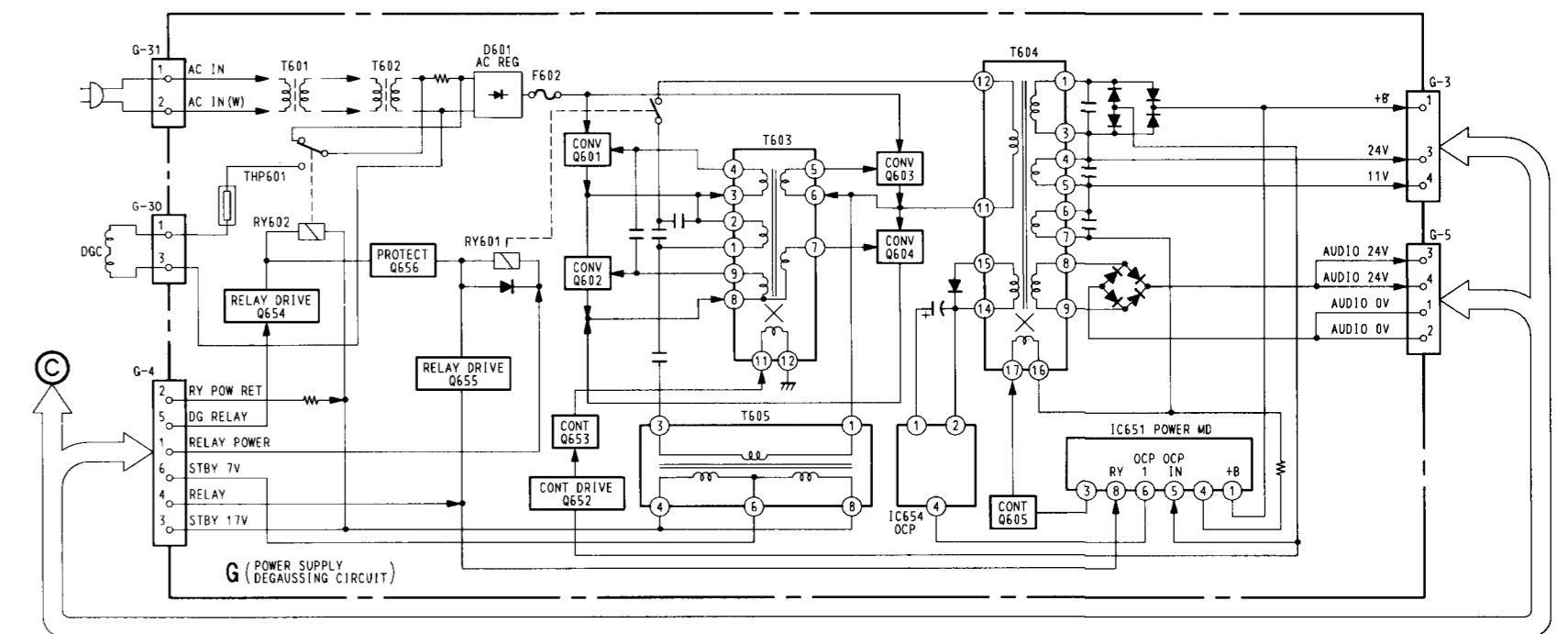
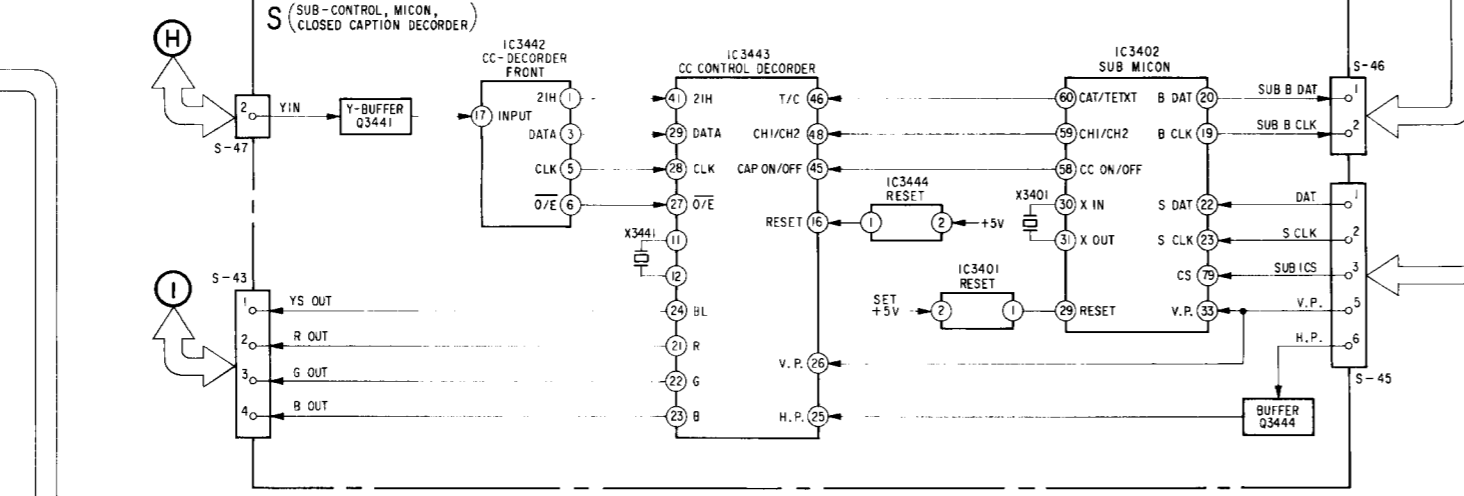
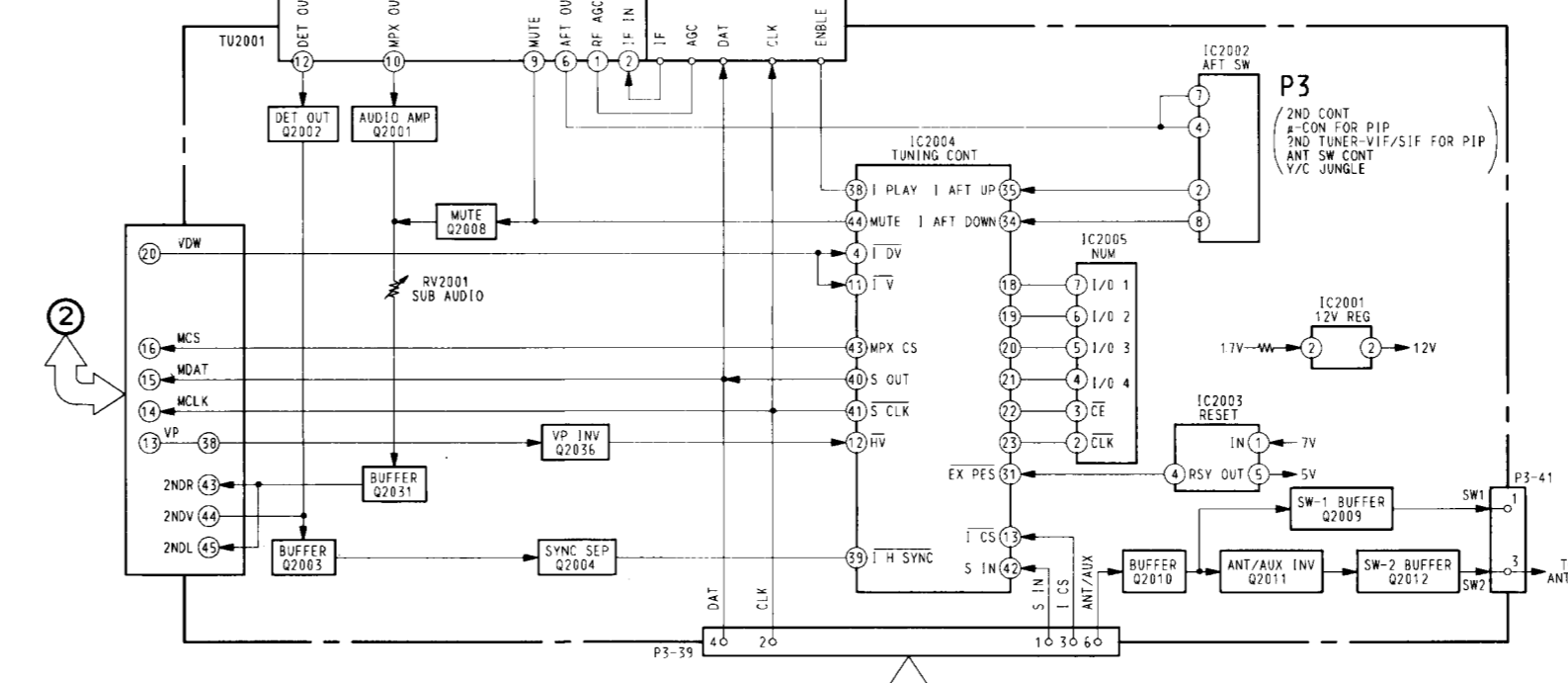
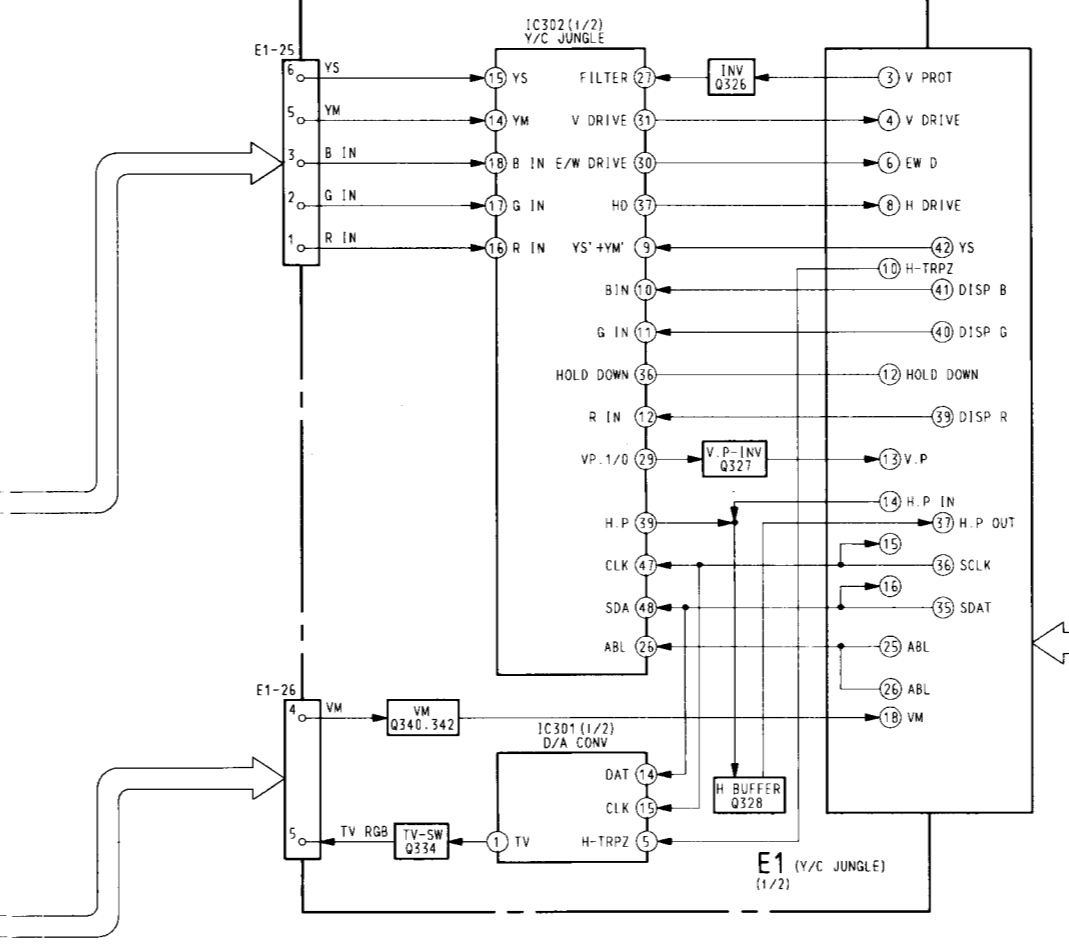
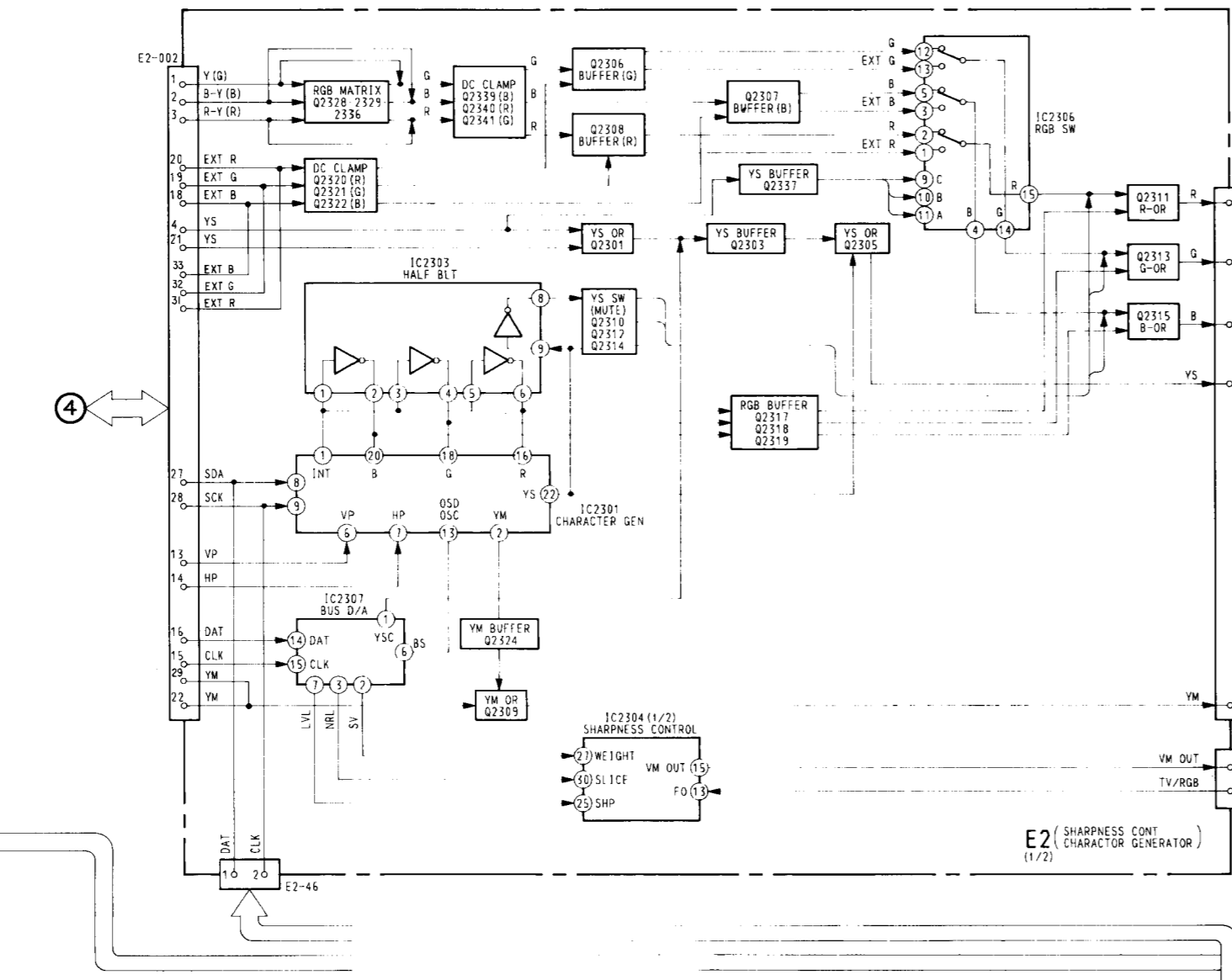
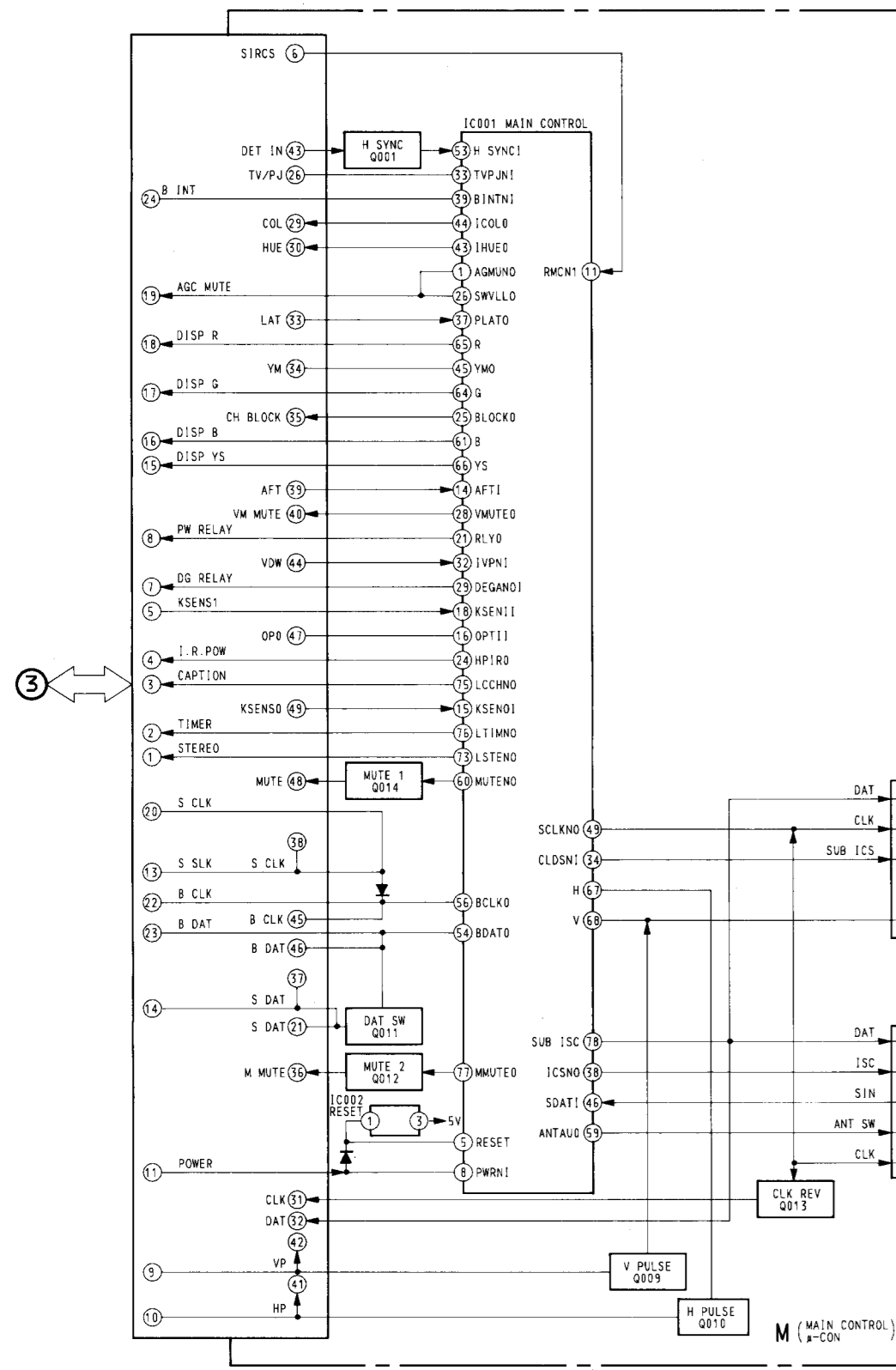
6-3. BLOCK DIAGRAM (3)

**KV-32XBR26/32XBR36**  
RM-Y112A TDR-IF310/RM-Y113A

**KV-32XBR26/32XBR36**  
RM-Y112A TDR-IF310/RM-Y113A

**KV-32XBR26/32XBR36**  
RM-Y112A TDR-IF310/RM-Y113A

**KV-32XBR26/32XBR36**  
RM-Y112A TDR-IF310/RM-Y113A

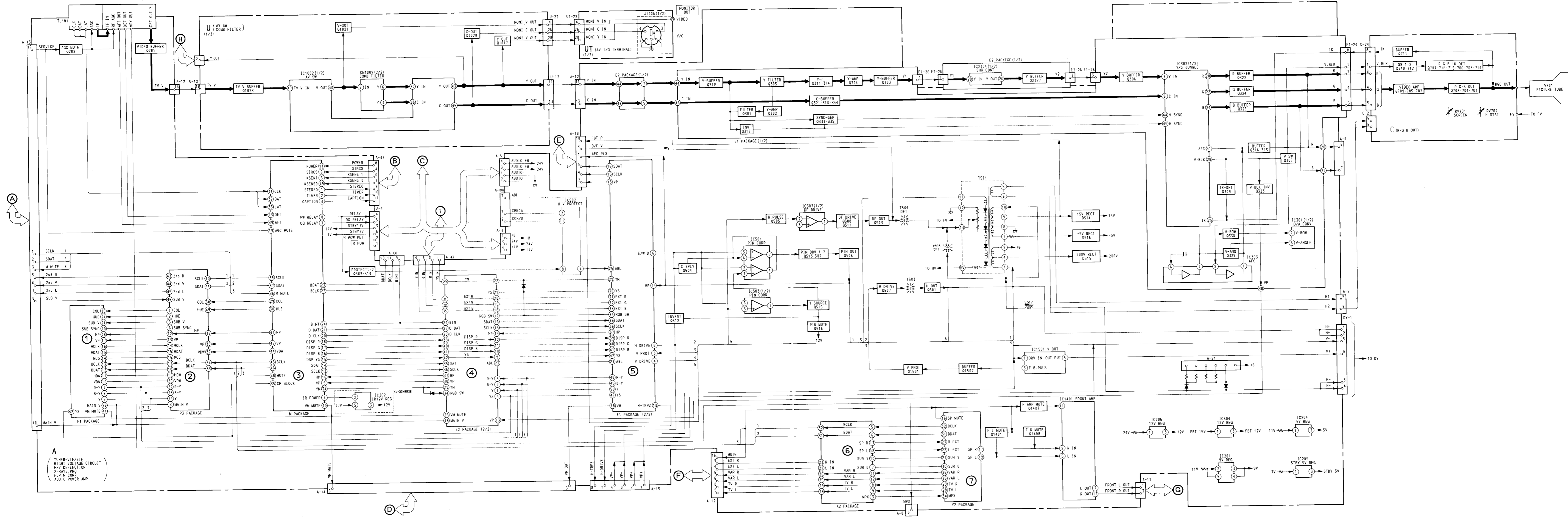


6-4. BLOCK DIAGRAM (4)

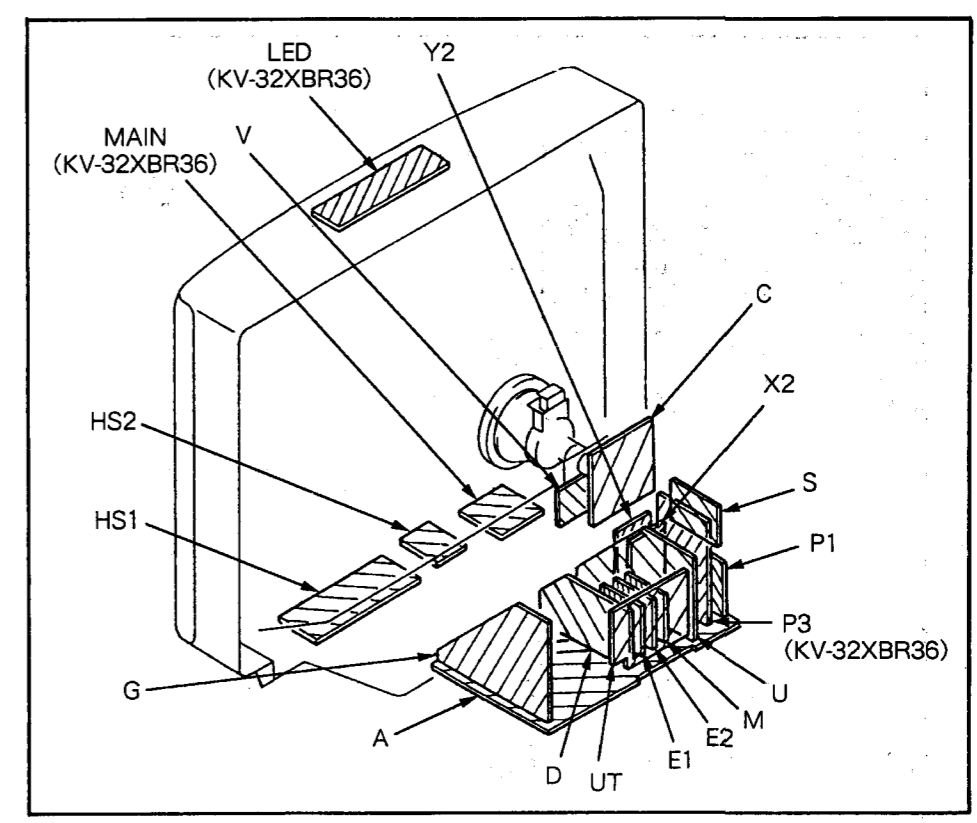
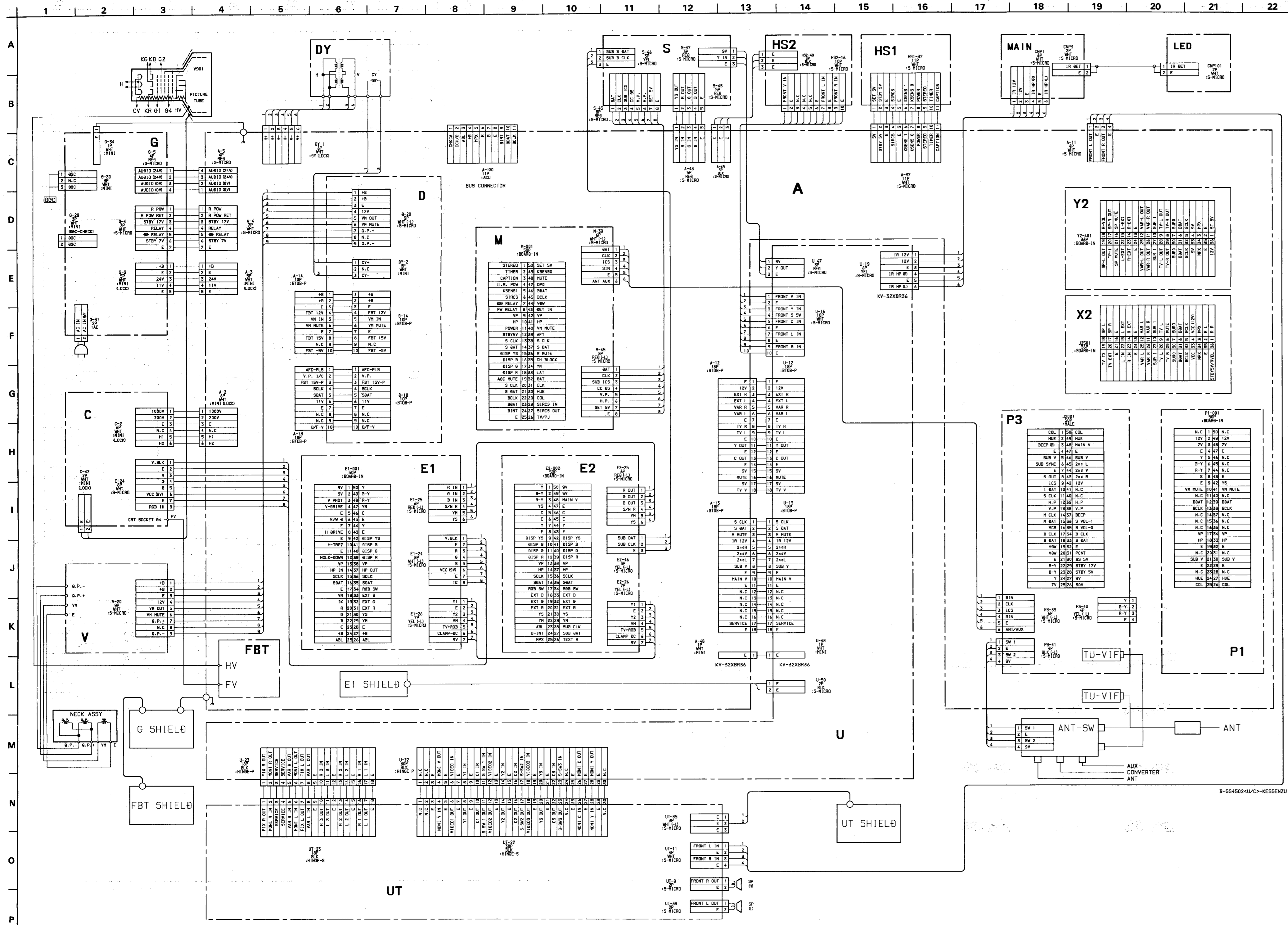
KV-32XBR26/32XBR36  
RM-Y112A TDR-IF310/RM-Y113A

KV-32XBR26/32XBR36  
RM-Y112A TDR-IF310/RM-Y113A

KV-32XBR26/32XBR36  
RM-Y112A TDR-IF310/RM-Y113A





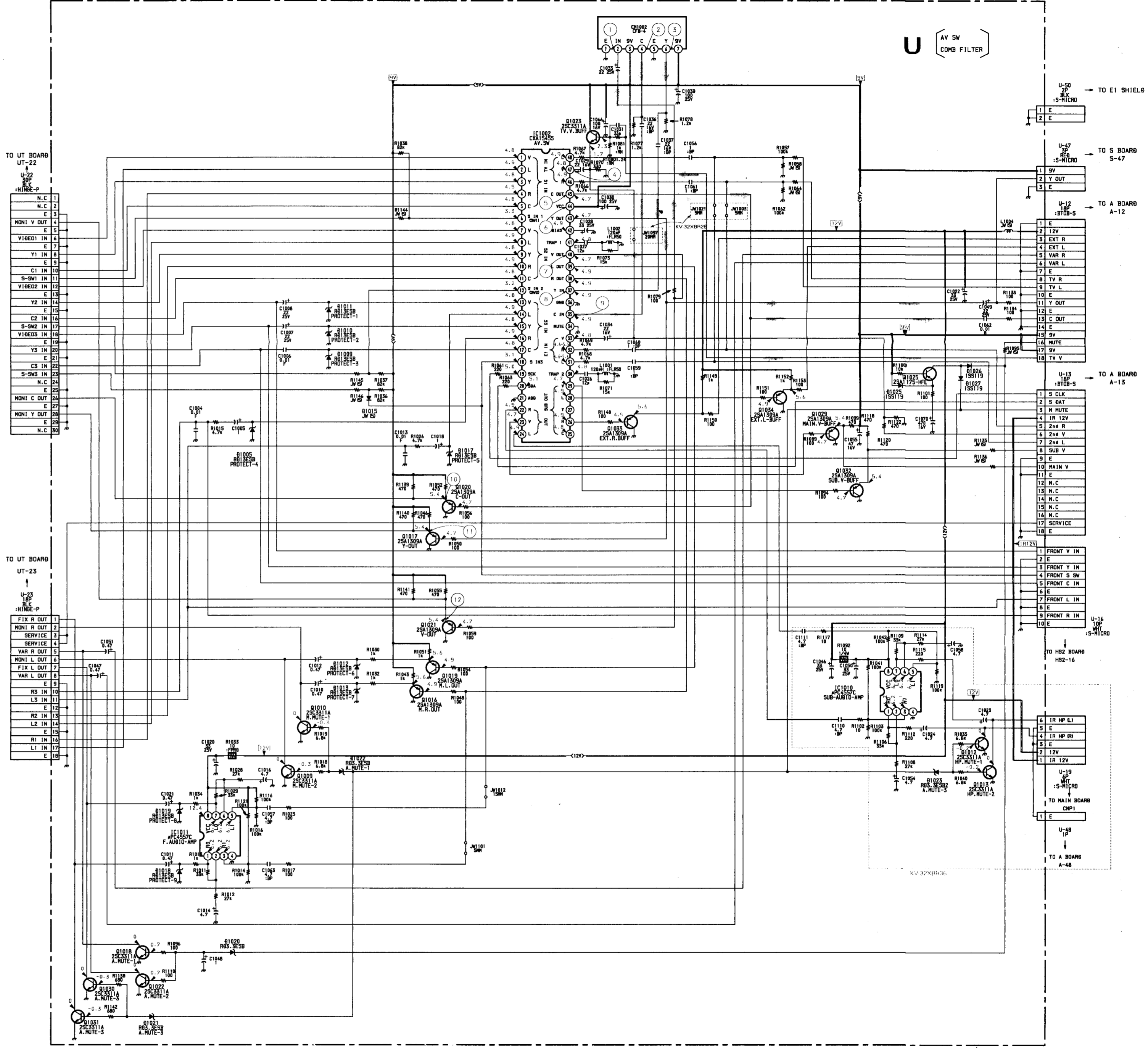
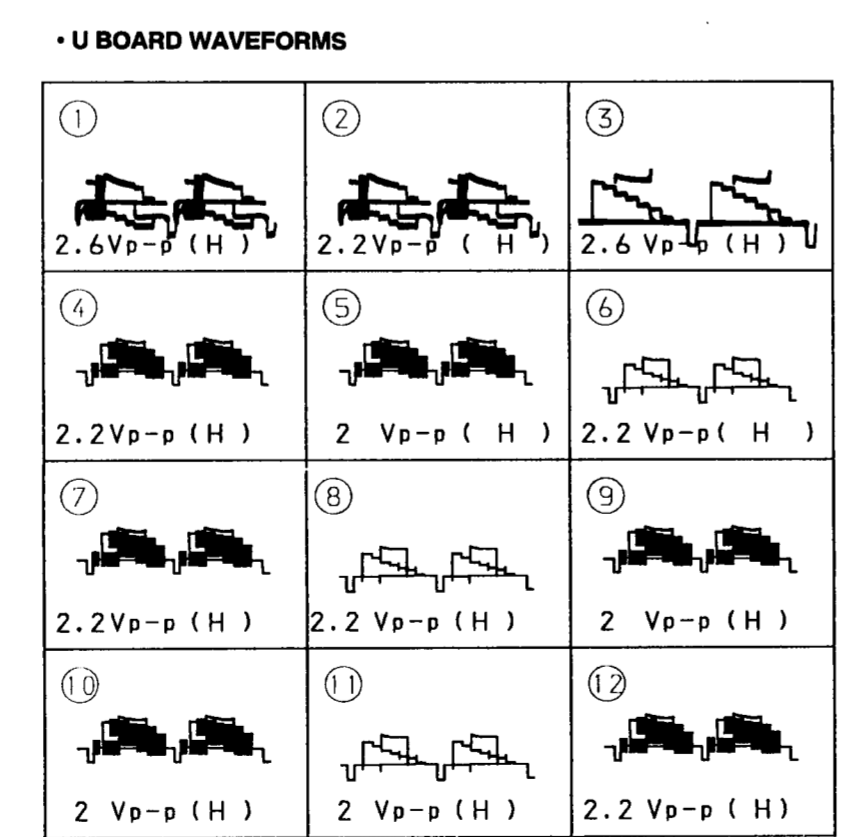
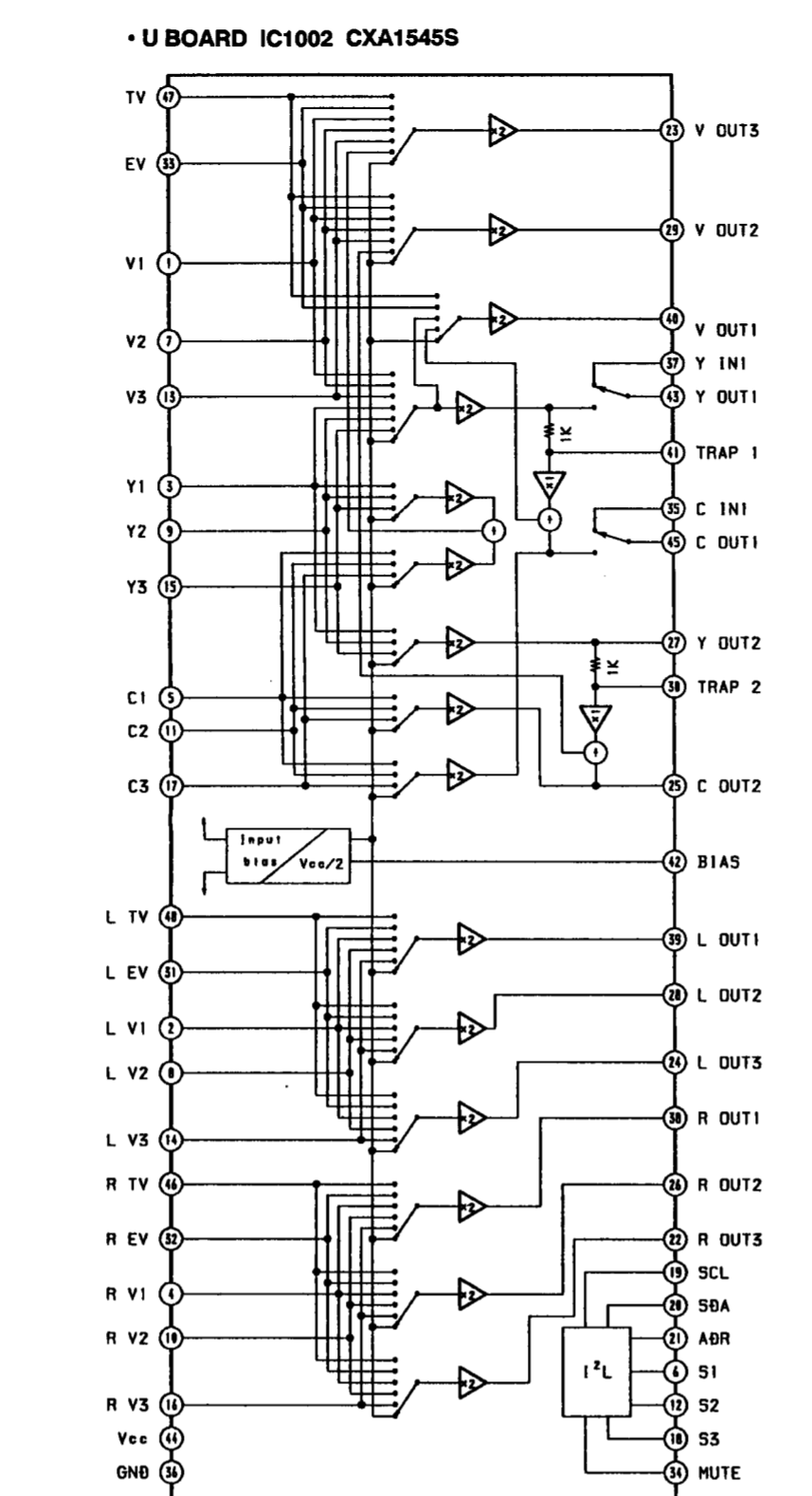
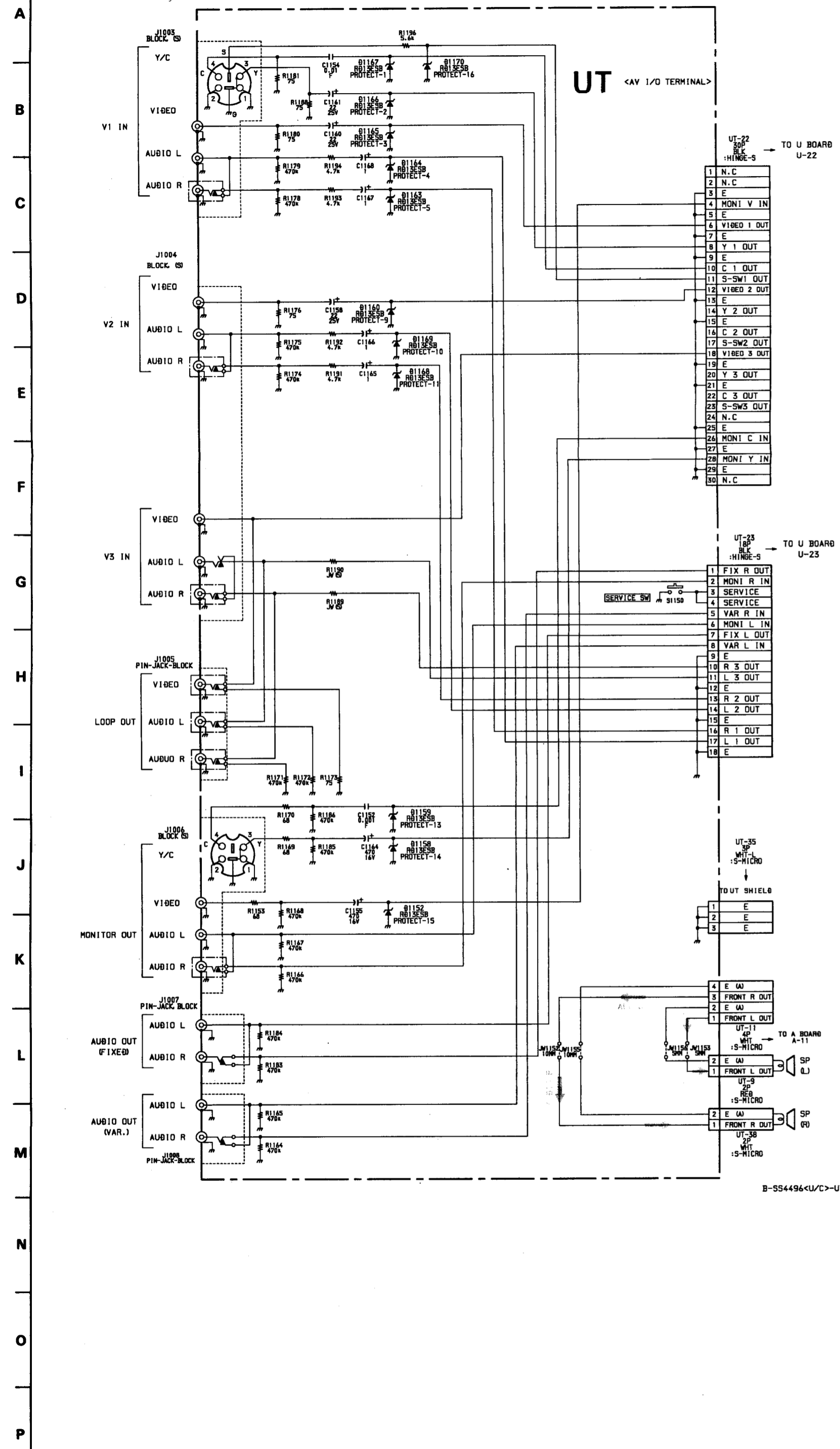


- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.
  - pF:  $\mu\text{F}$  50WV or less are not indicated except for electrolytic and tantalum.
  - All electrolytics are in 50V unless otherwise specified.
  - All resistors are in ohms.
  - $K\Omega = 1000\Omega$ ,  $M\Omega = 1000K\Omega$
  - Indication of resistance, which does not have one for rating electrical power, is as follows.
- Pitch: 5 mm  
Rating electrical power 1/4W
- Chips resistors are 1/10W.
  - : nonflammable resistor.
  - △: internal component.
  - : panel designation, and adjustment for repair.
  - All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
  - ⊥: earth-ground.
  - ⊕: earth-chassis.
  - ⊕: earth-chassis.
  - The components identified by  $\boxtimes$  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
  - Should replacement be required, replace only with the value originally used.
  - When replacing components identified by  $\boxtimes$  mark the necessary adjustments indicated. If results do not meet the specified value, change the component identified by  $\boxtimes$  and repeat the adjustment until the specified value is achieved.
  - (Refer to R565 and R566 on page 52-54 in the Service Manual.)
  - When replacing the part in below table be sure to perform the related adjustment.
- 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       |
| COIL      | : LF-8L MICRO INDUCTOR        |
| CAPACITOR | : TA TANTALUM                 |
|           | : PS STYROL                   |
|           | : PP POLYPROPYLENE            |
|           | : PT MYLAR                    |
|           | : MPS METALIZED POLYESTER     |
|           | : MPP METALIZED POLYPROPYLENE |
|           | : ALB BIPOLAR                 |
|           | : ALT HIGH TEMPERATURE        |
|           | : ALR HIGH RIPPLE             |

Note: The components identified by shading and  $\boxtimes$  are critical for safety. Replace only with part number specified.

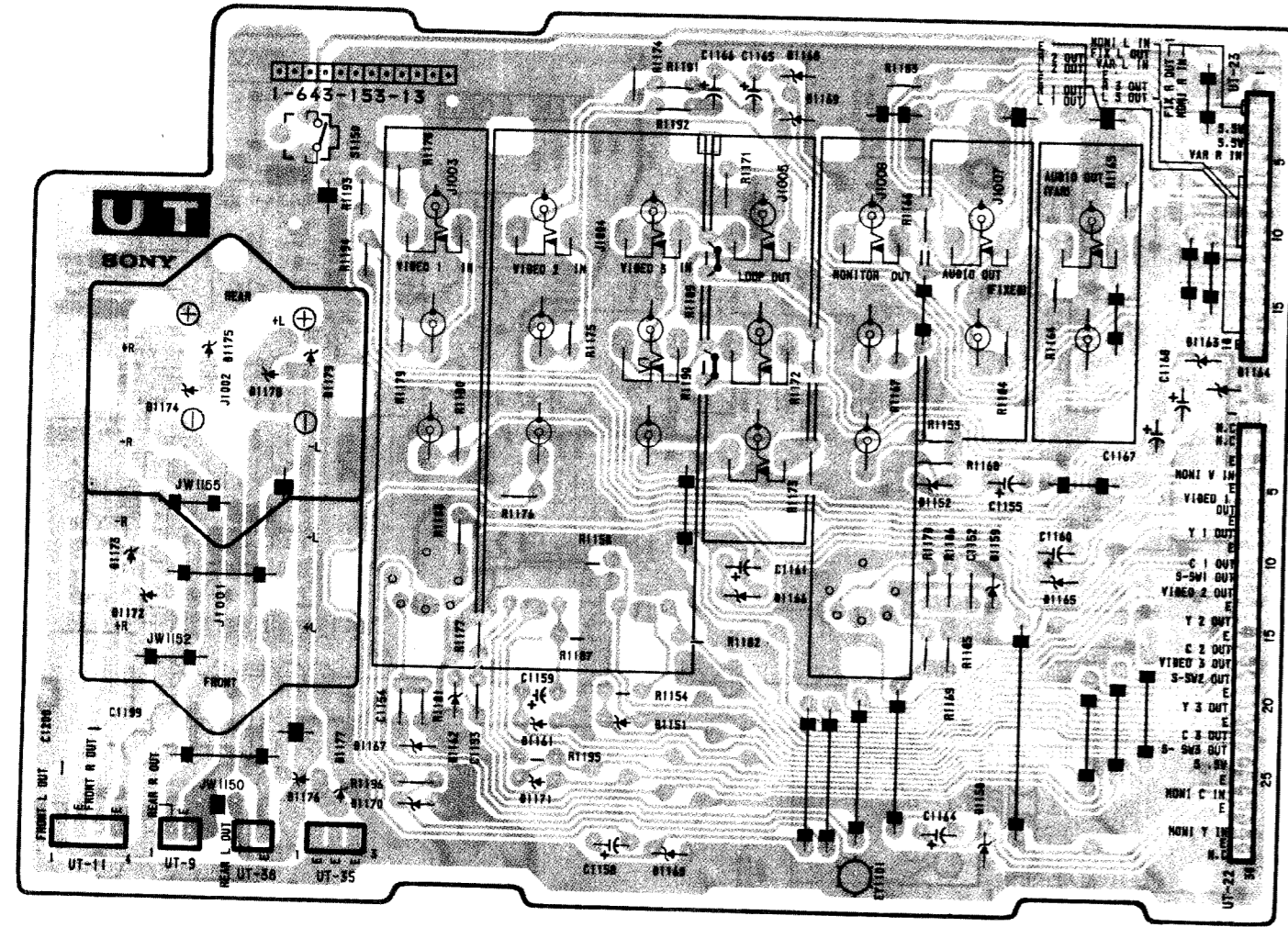
Note: Les composants identifiés par une trame et  $\boxtimes$  sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

Part replaced ( $\boxtimes$ )	Adjustment ( $\boxtimes$ )
IC502, Q509, Q510, R565, R567, R568, R569 ..... A BOARD	R565 (HOLD-DOWN)
IC502, Q509, Q510, D502, CS31, R554, R566, R567, R568, R569, R1506, T501 ..... A BOARD	R566 (HOLD-DOWN)
IC651, R651 ..... G BOARD	

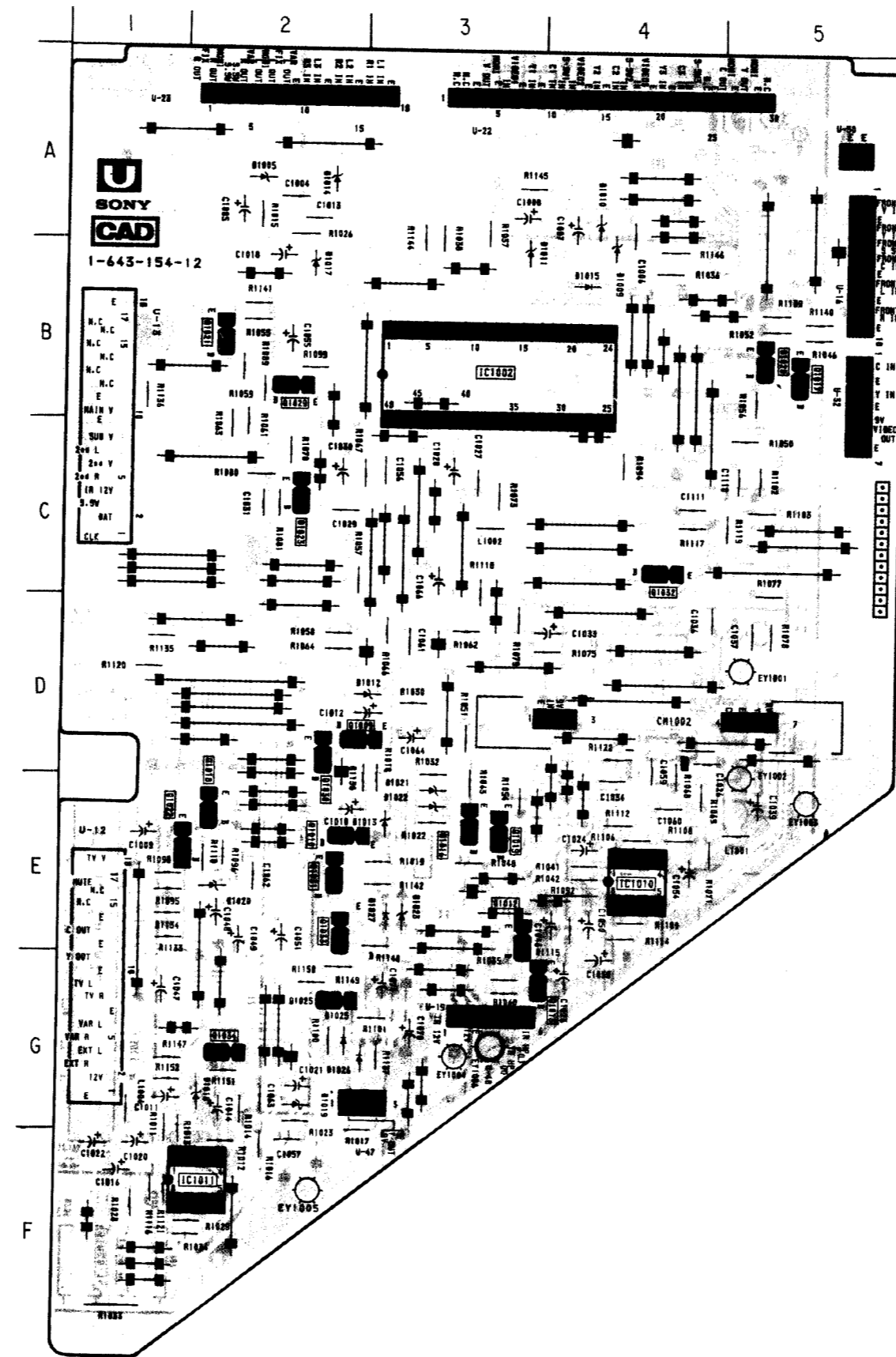


**UT** [AV I/O TERMINAL] **U** [AV SW, COMB FILTER]

- UT BOARD -



- U BOARD -

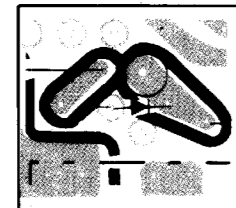


IC	
IC1002	B-3
IC1010	E-4
IC1011	F-2
TRANSISTOR	
Q1009	D-2
Q1010	E-2
Q1012	G-3
Q1013	G-4
Q1016	E-3
Q1017	B-5
Q1018	E-2
Q1019	E-3
Q1020	B-5
Q1021	B-2
Q1022	E-1
Q1023	C-2
Q1025	G-2
Q1029	B-2
Q1030	D-2
Q1031	E-2
Q1032	C-4
Q1033	E-2
Q1034	G-2
DIODE	
D1005	A-2
D1009	B-4
D1010	A-4
D1011	B-3
D1012	D-3
D1013	E-3
D1014	A-2
D1015	B-4
D1017	B-2
D1018	G-2
D1019	G-2
D1020	E-2
D1021	E-3
D1022	E-3
D1023	E-3
D1025	G-2
D1026	G-2
D1027	E-3

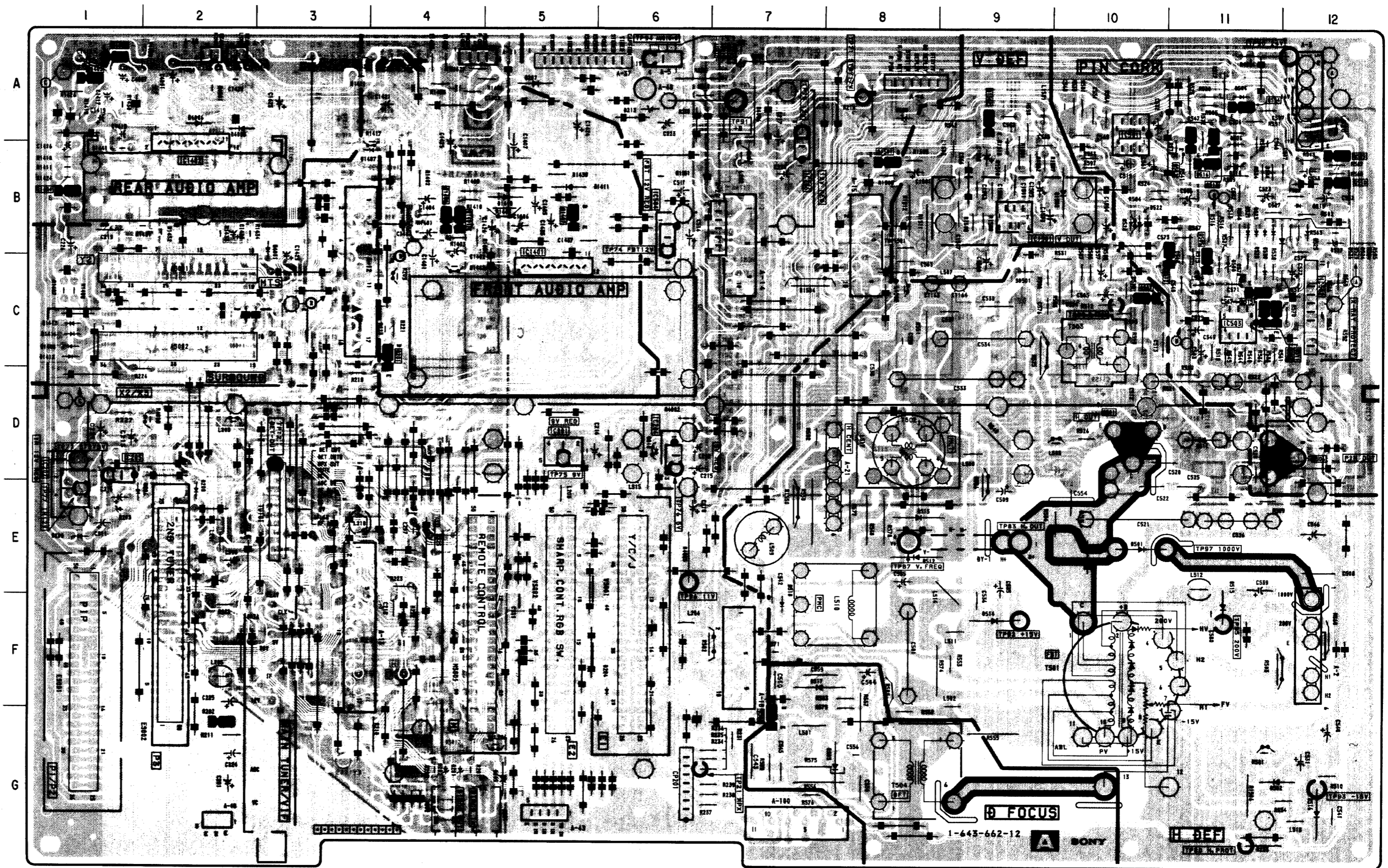
**A** TUNER - VIF/SIF, HIGH VOLTAGE CIRCUIT,  
H/V DEFLECTION, X - RAYS. PROT. H. PIN  
CORR, AUDIO POWER AMP.

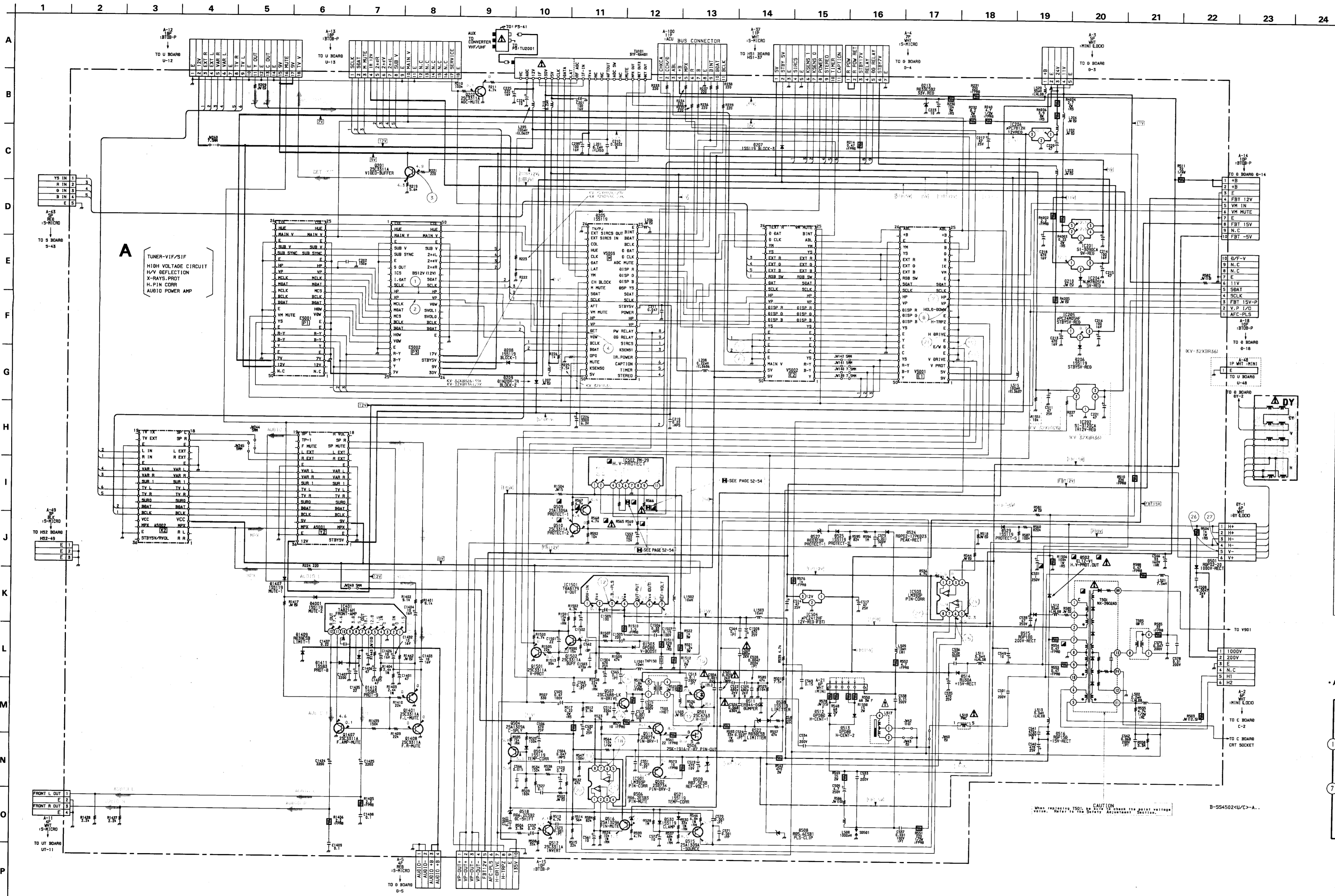
- A BOARD -

IC		D207	A-5
IC201	D-5	D208	E-2
IC202	D-1	D209	E-1
IC204	D-6	D213	A-6
IC205	D-1	D501	E-10
IC206	B-7	D502	G-11
IC501	A-10	D503	G-8
IC502	C-12	D504	A-11
IC503	C-11	D506	A-11
IC504	B-6	D508	C-11
IC1401	C-5	D509	A-8
IC1501	B-9	D510	F-7
TRANSISTOR		D511	D-11
Q201	C-4	D512	E-8
Q202	G-2	D513	E-8
Q501	D-10	D514	F-9
Q502	A-11	D515	F-11
Q503	G-7	D516	G-12
Q504	A-11	D517	F-7
Q505	B-11	D518	B-11
Q506	D-12	D521	B-11
Q507	C-10	D522	B-10
Q508	C-11	D524	B-11
Q509	B-12	D525	B-12
Q510	B-12	D527	B-12
Q511	C-11	D529	B-11
Q512	B-10	D530	B-11
Q513	A-11	D1407	B-3
Q515	C-11	D1408	C-1
Q516	B-11	D1409	A-4
Q1401	B-4	D1410	B-5
Q1407	B-5	D1411	B-5
Q1408	B-4	D1412	C-1
Q1501	B-8	D1413	C-1
Q1502	A-9	D1414	C-1
DIODE		D1503	B-10
D205	G-5	D4001	B-3
D206	E-1		

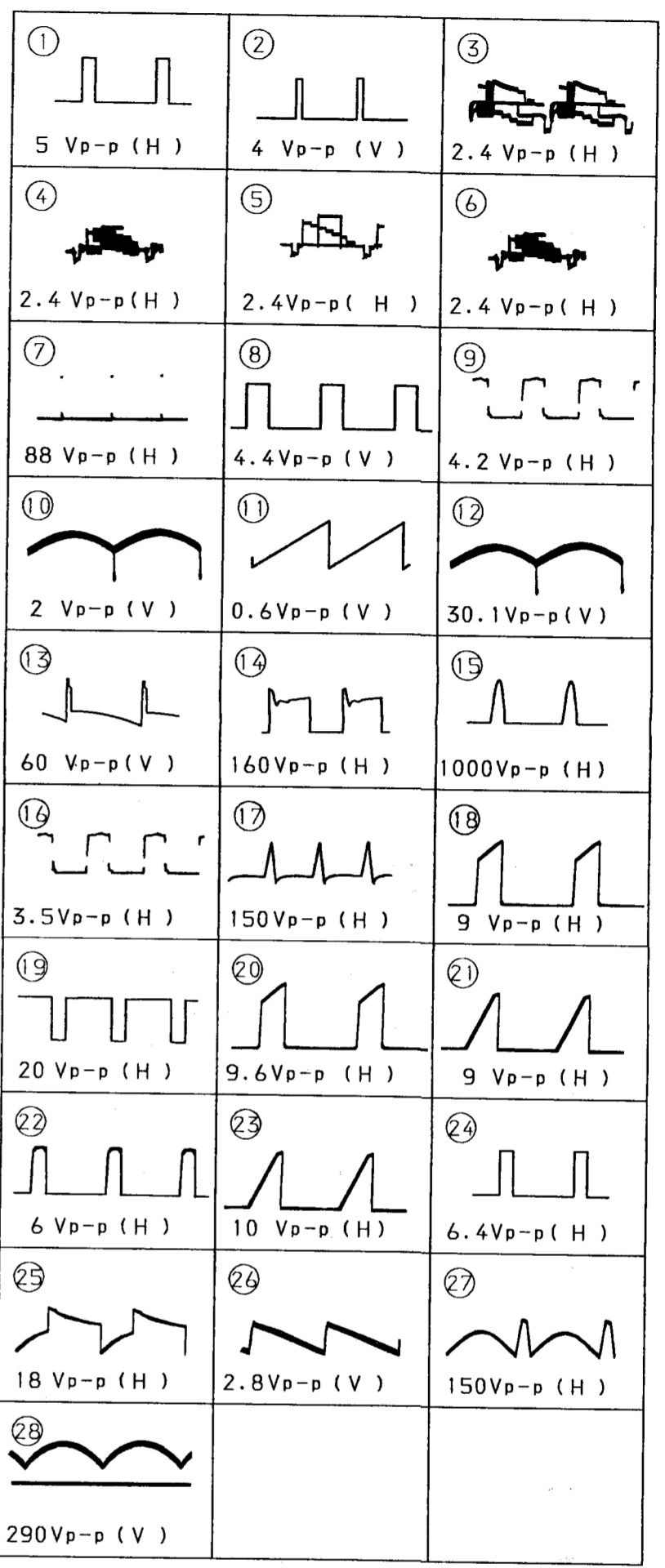


**NOTE:**  
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

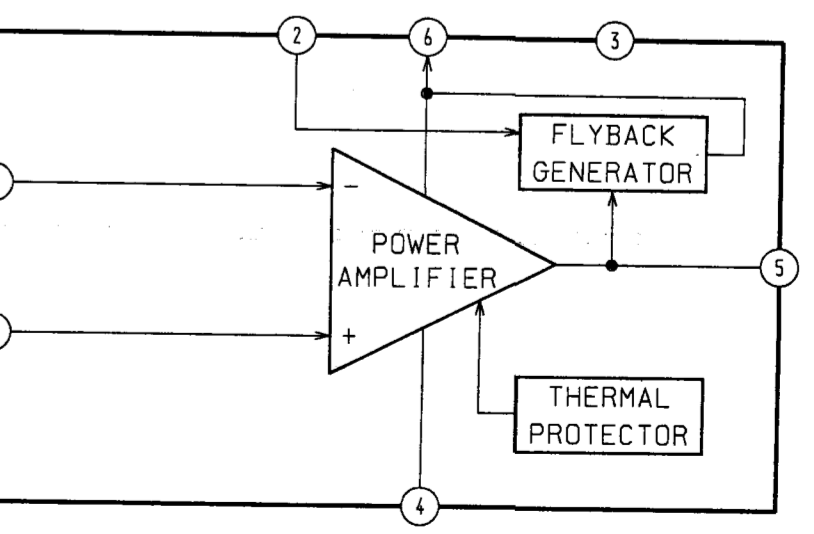




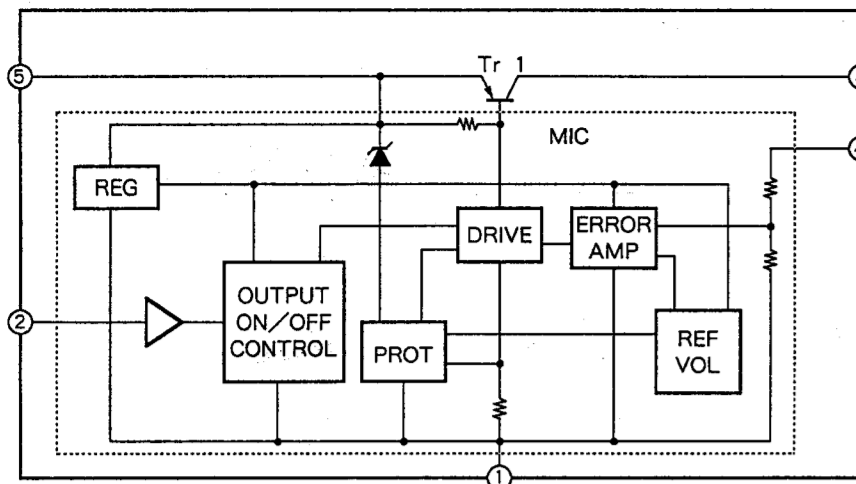
• A BOARD WAVEFORMS



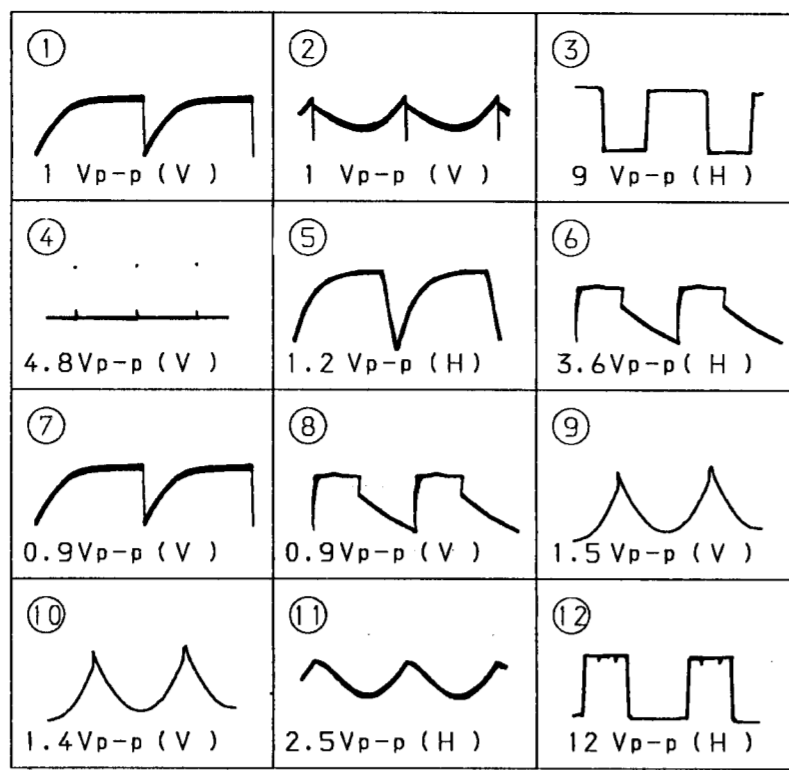
• A BOARD IC1501 TDA8179



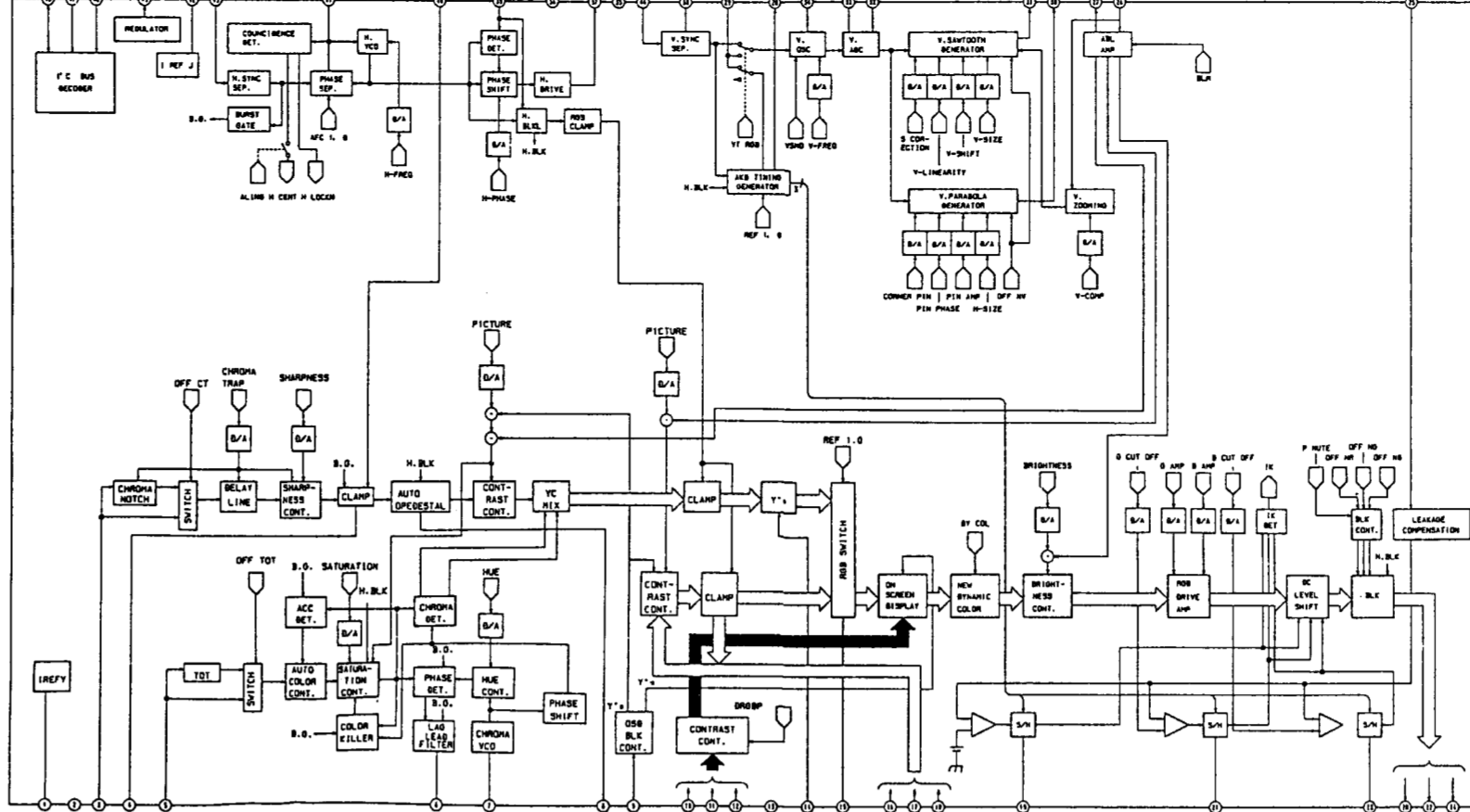
D BOARD IC801 SI-3090CA



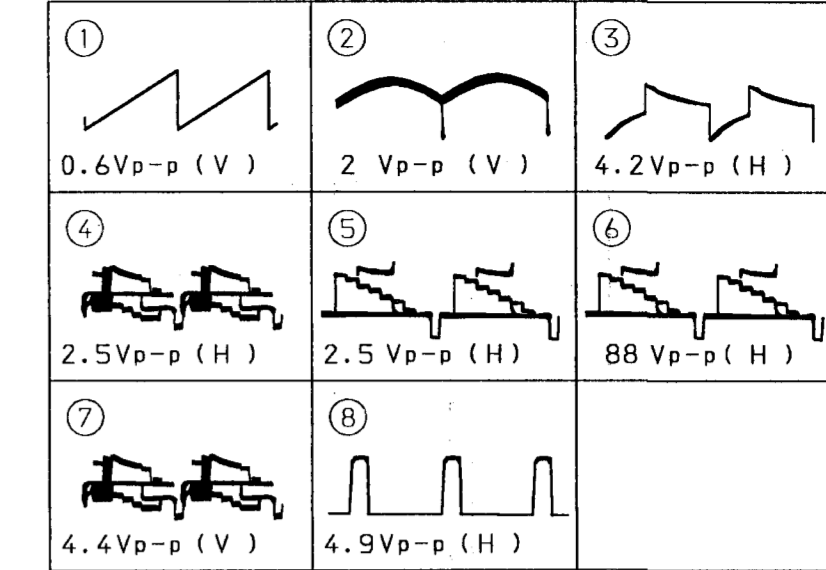
D BOARD WAVEFORMS



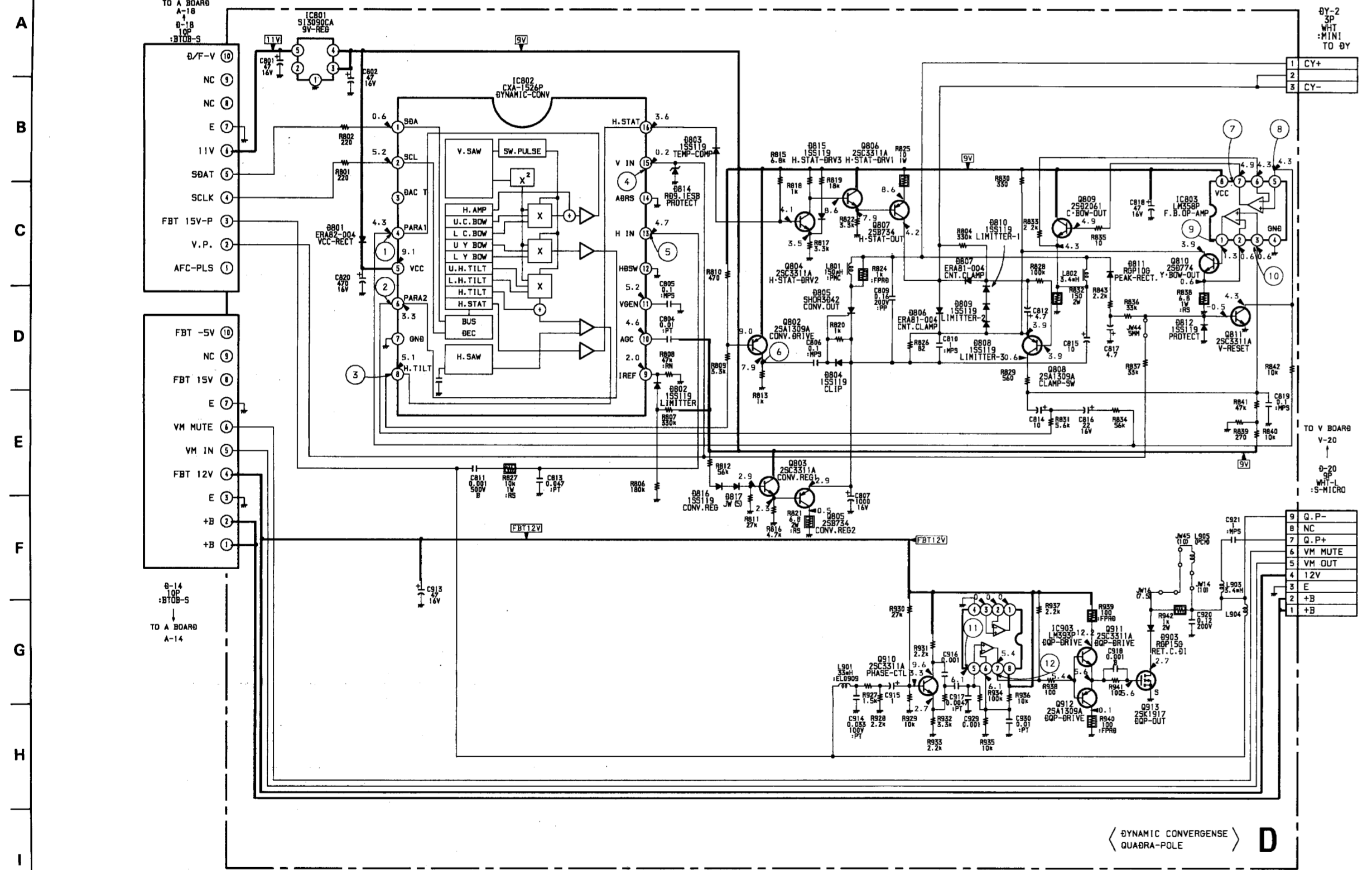
E1 BOARD IC302 CXA1465AS



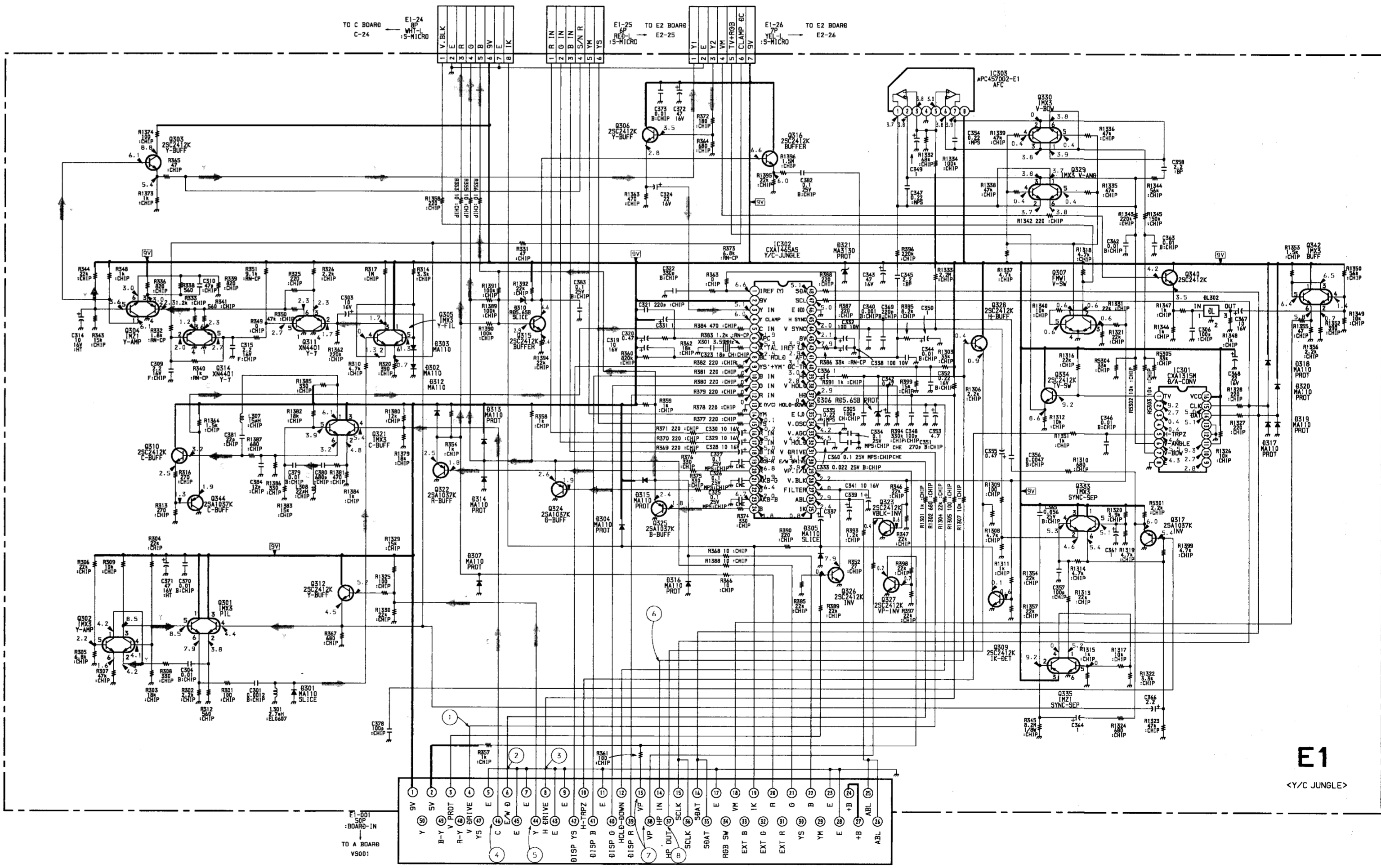
E1 BOARD WAVEFORMS



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30



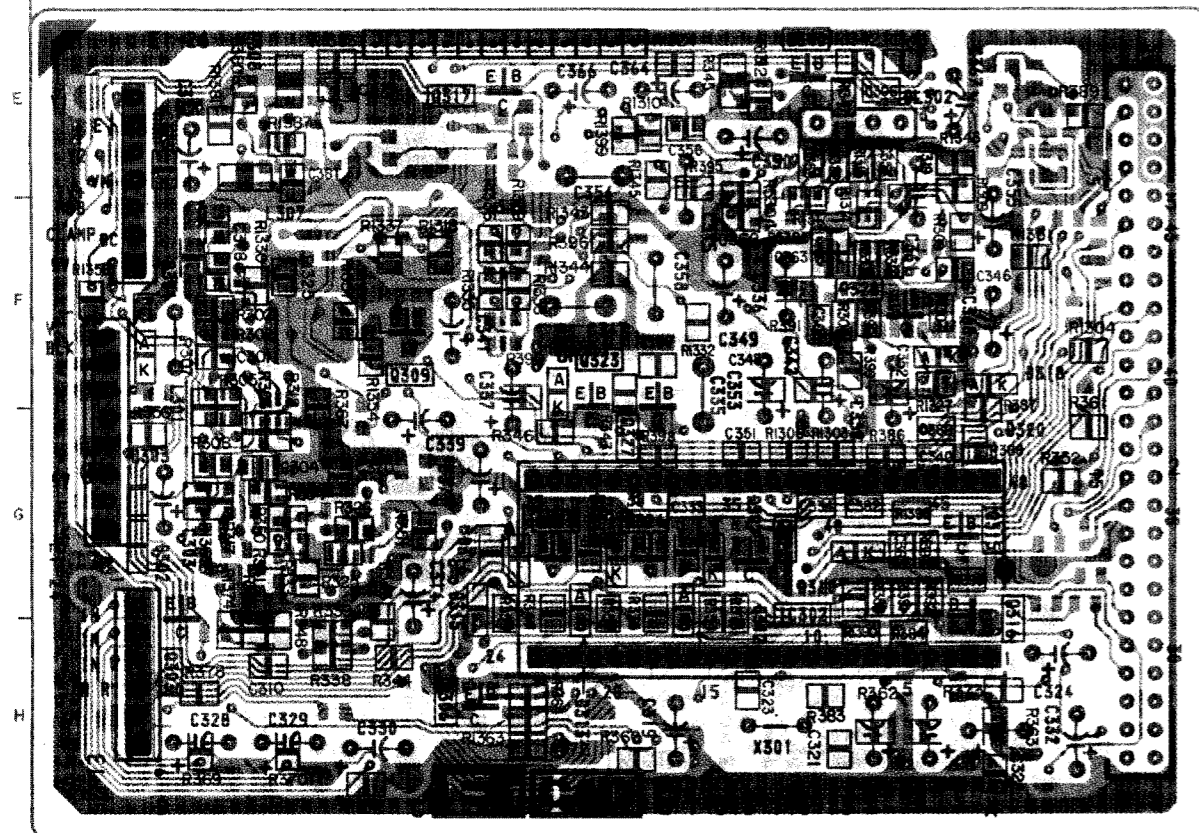
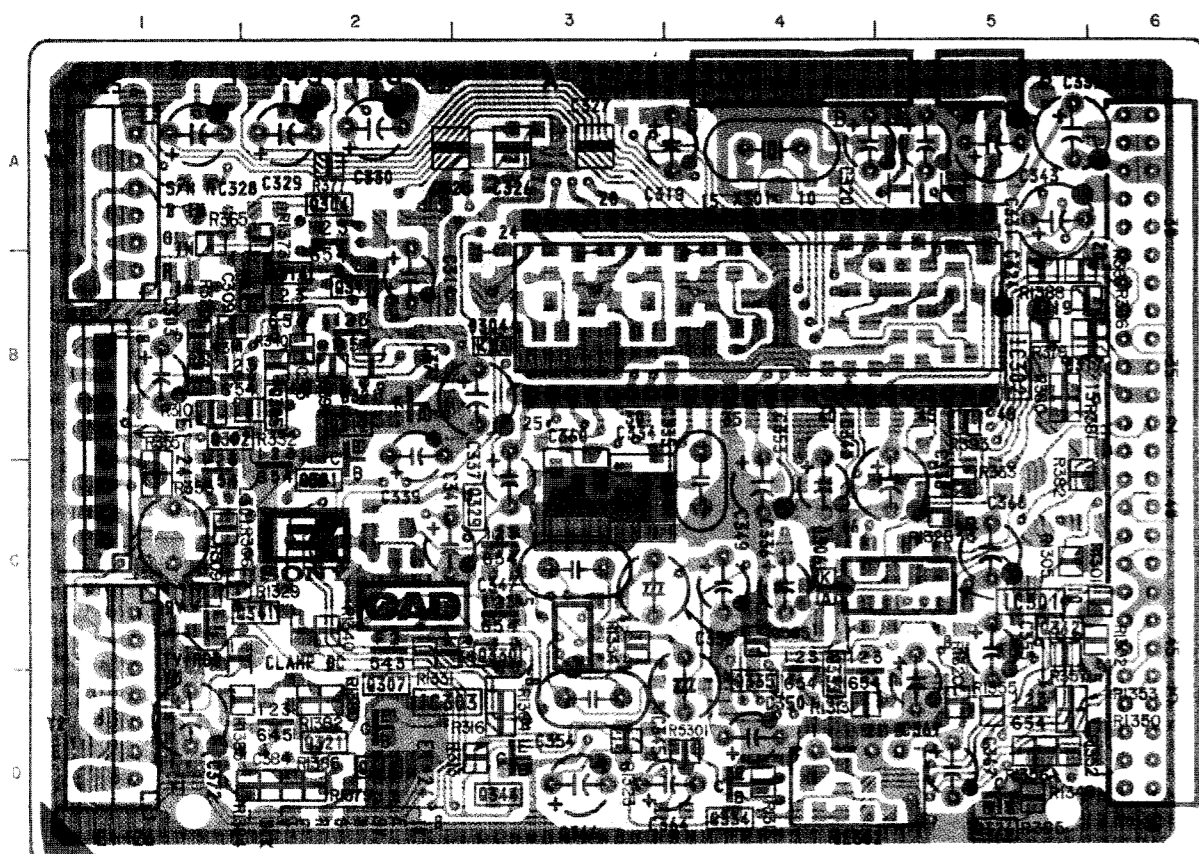
B-S54502/C/C-8..



E1  
<Y/C JUNGLE>

**E1** [Y/C JUNGLE] **D** [DYNAMIC CONVERGENSE]  
QUADRA - POLE

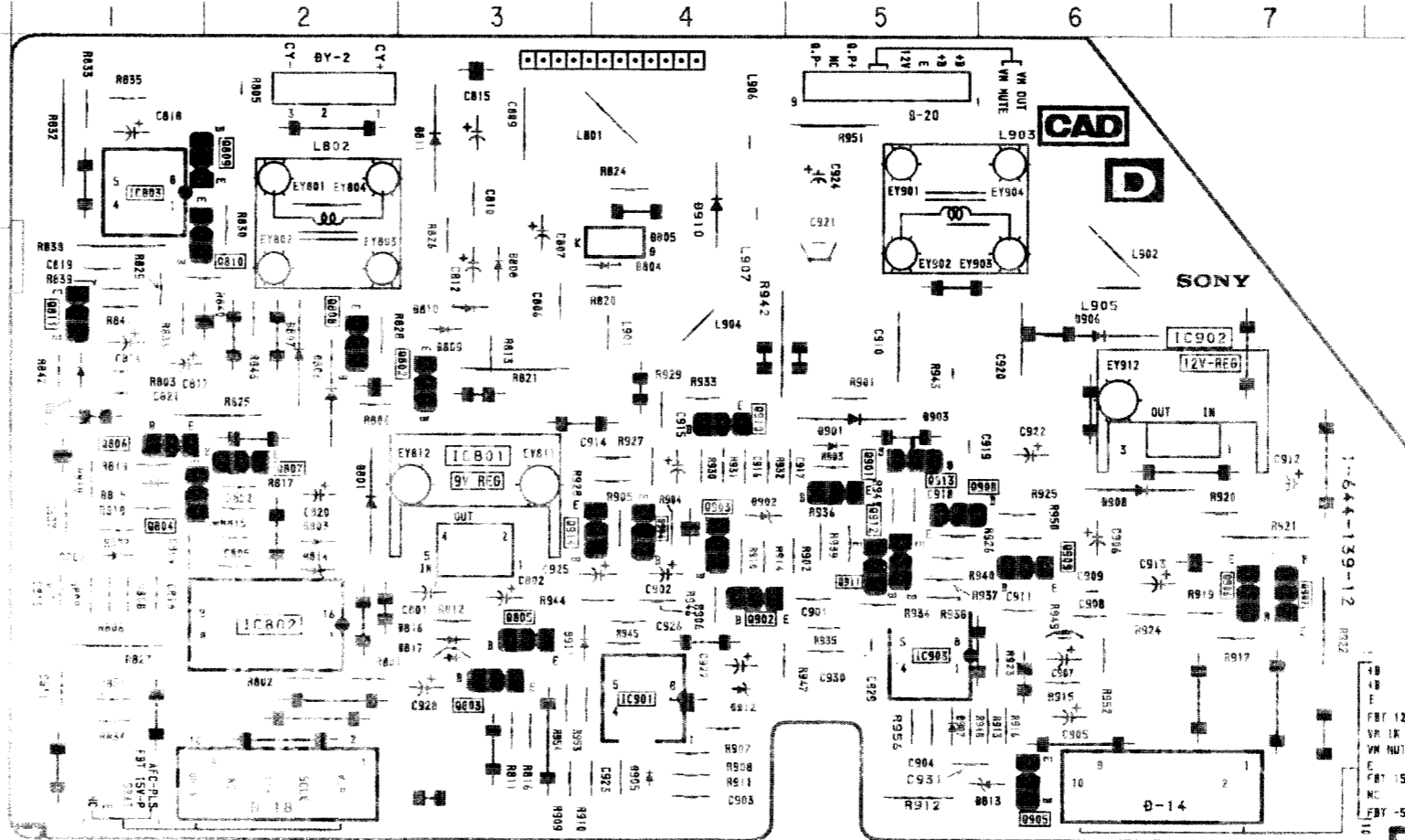
- E1 BOARD -



IC		DIODE	
IC301	C-5	D301	F-1
IC302	B-4, G-4	D302	G-1
IC303	C-3	D303	G-1
<b>TRANSISTOR</b>		D304	B-3
Q301	C-2	D305	F-3
Q302	C-1	D306	C-4
Q303	G-1	D307	G-4
Q304	A-2	D310	G-4
Q305	B-1	D312	G-4
Q306	H-3	D313	G-3
Q307	C-2	D314	G-3
Q309	F-2	D315	G-2
Q310	D-2	D316	G-3
Q311	B-2	D317	B-5
Q312	B-2	D318	F-5
Q314	B-2	D319	B-5
Q315	G-5	D320	G-5
Q316	G-5	D321	B-2
Q317	E-3		
Q321	D-2		
Q322	G-4		
Q323	F-3		
Q324	G-3		
Q325	G-3		
Q326	D-5		
Q327	G-3		
Q328	F-5		
Q329	C-3		
Q330	C-3		
Q333	D-4		
Q334	D-4		
Q335	D-4		
Q340	E-4		
Q342	D-5		
Q344	D-3		

Note:  
 • : Pattern from the rear side.  
 • : Pattern of the rear side.

- D BOARD -

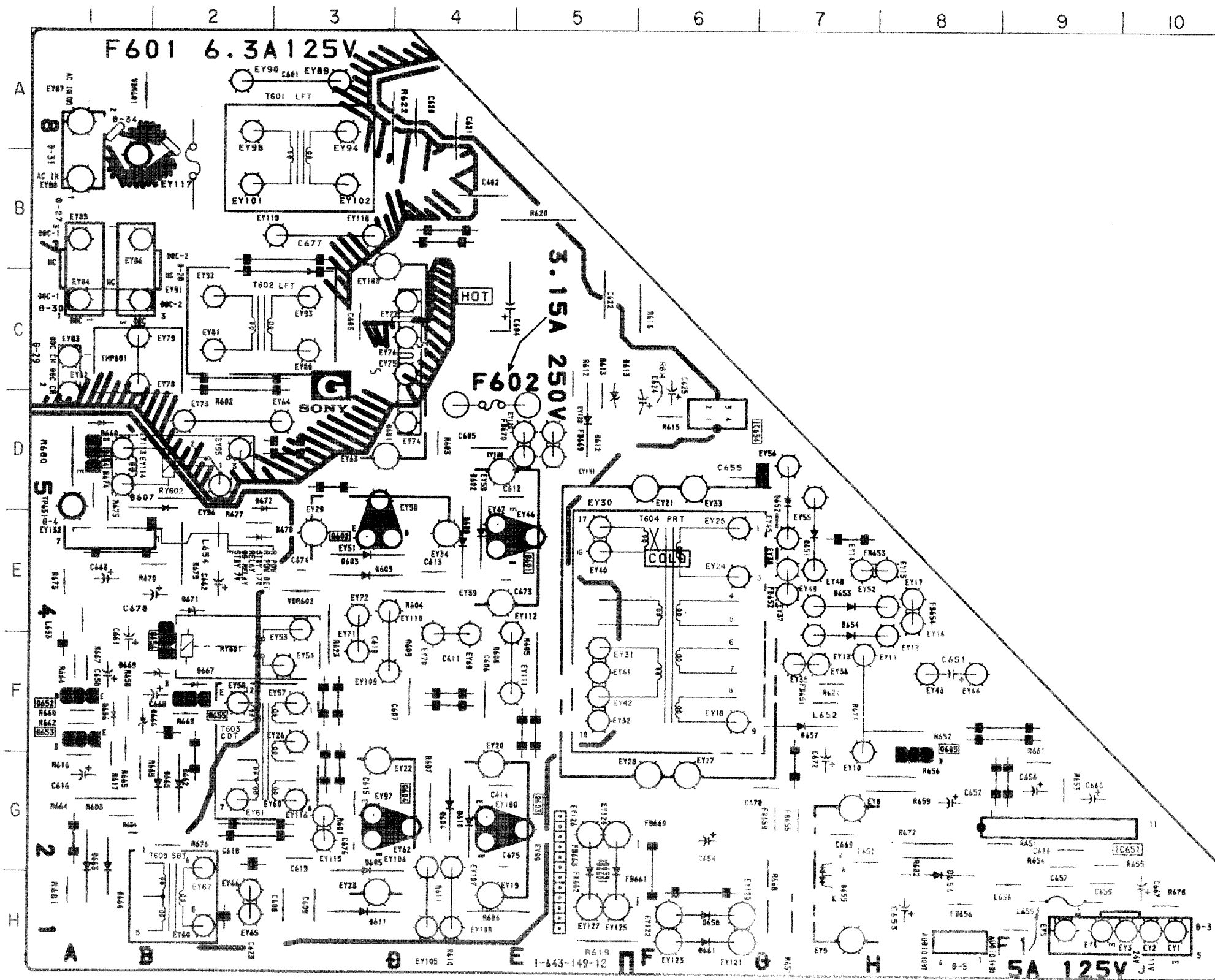


IC		DIODE	
IC802	D-2	D801	C-2
IC803	A-1	D802	C-1
IC903	D-5	D803	C-2
<b>TRANSISTOR</b>		D804	B-4
Q802	B-3	D805	B-4
Q803	D-4	D806	B-2
Q804	C-1	D807	B-2
Q805	D-3	D808	B-3
Q806	C-1	D809	B-3
Q807	C-2	D810	B-3
Q808	B-2	D811	A-3
Q809	A-1	D812	B-1
Q810	B-2	D813	D-6
Q811	B-1	D814	C-2
Q910	B-4	D815	C-1
Q911	C-5	D816	D-3
Q912	C-5	D903	B-5
Q913	C-5		

**G** [POWER SUPPLY, DEGAUSSING CIRCUIT] **E2** [SHARPNESS CONT. CHARACTER GENERATOR]

- G BOARD -

IC	D613 D-5	D651 E-7
IIC651 G-9	D652 D-7	D653 E-7
IC654 D-6	D654 F-7	D655 H-7
TRANSISTOR	D656 H-8	D657 F-7
Q601 E-5	D658 H-6	D660 G-5
Q602 E-3	D659 G-5	D661 H-6
Q603 G-5	D660 G-5	D663 G-1
Q604 G-4	D661 H-6	D665 G-2
Q605 F-8	D662 G-1	D666 F-1
Q652 F-1	D663 G-1	D667 F-2
Q653 F-1	D664 D-1	D668 D-1
Q654 D-1	D665 G-2	D669 F-2
Q655 F-2	D666 F-1	D670 E-2
Q656 F-2	D667 F-2	D671 E-2
DIODE	D668 D-1	D672 D-2
D601 C-4	D669 F-2	
D602 E-4	D670 E-2	
D603 E-3	D671 E-2	
D604 G-4	D672 D-2	
D605 G-3		
D606 F-1		
D607 D-2		
D608 E-4		
D609 E-3		
D610 G-4		
D611 H-3		
D612 D-5		

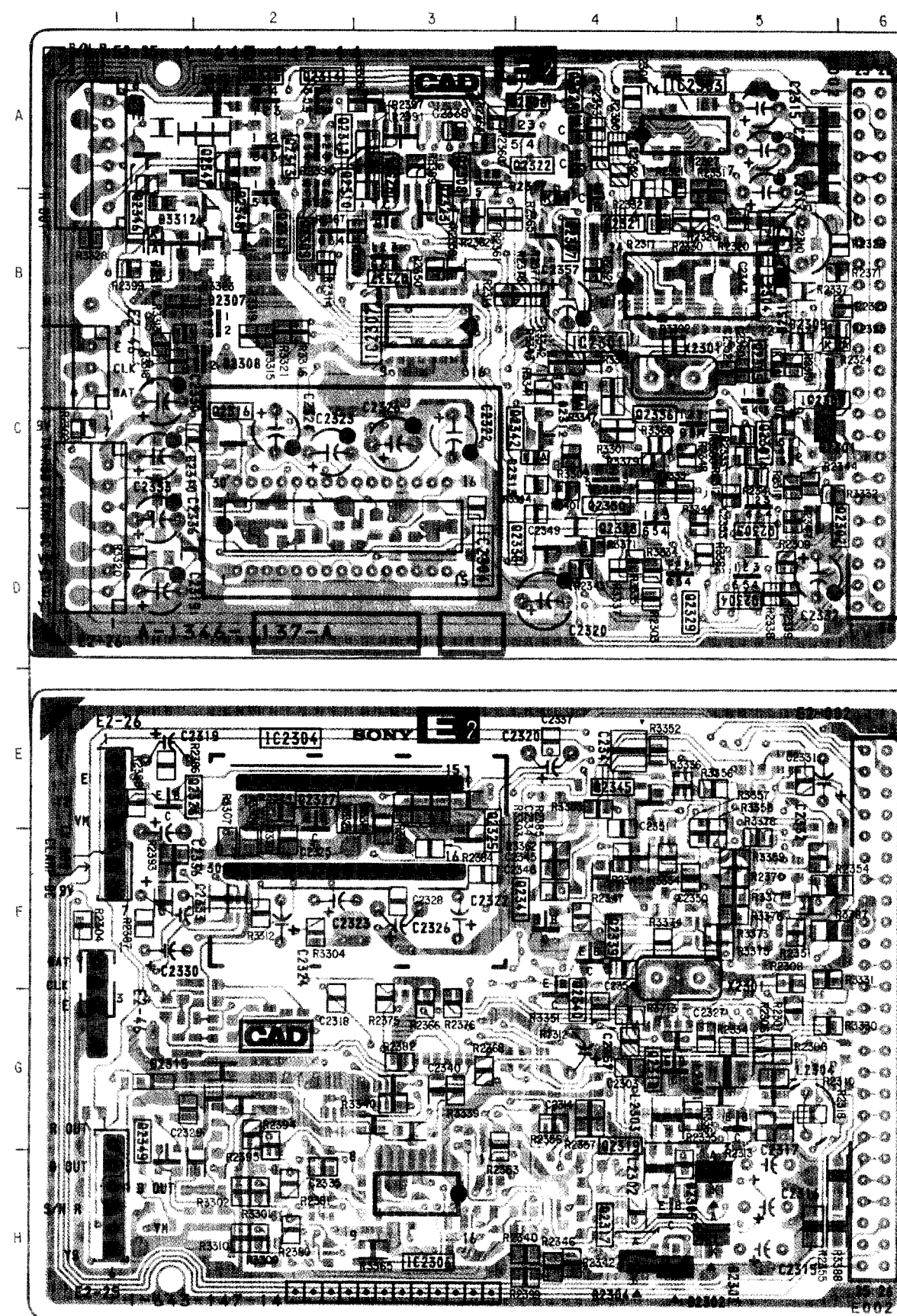


Note :

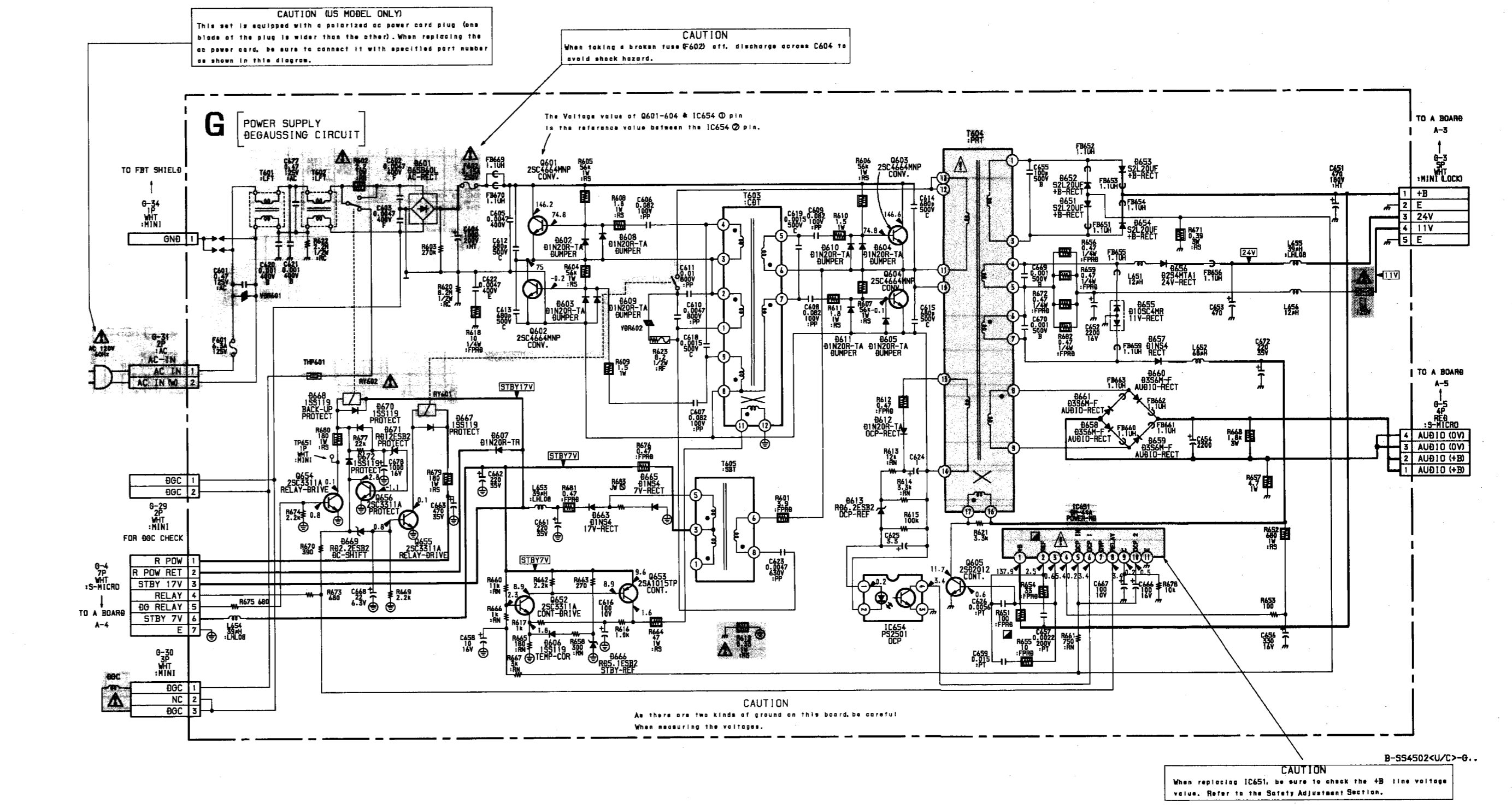
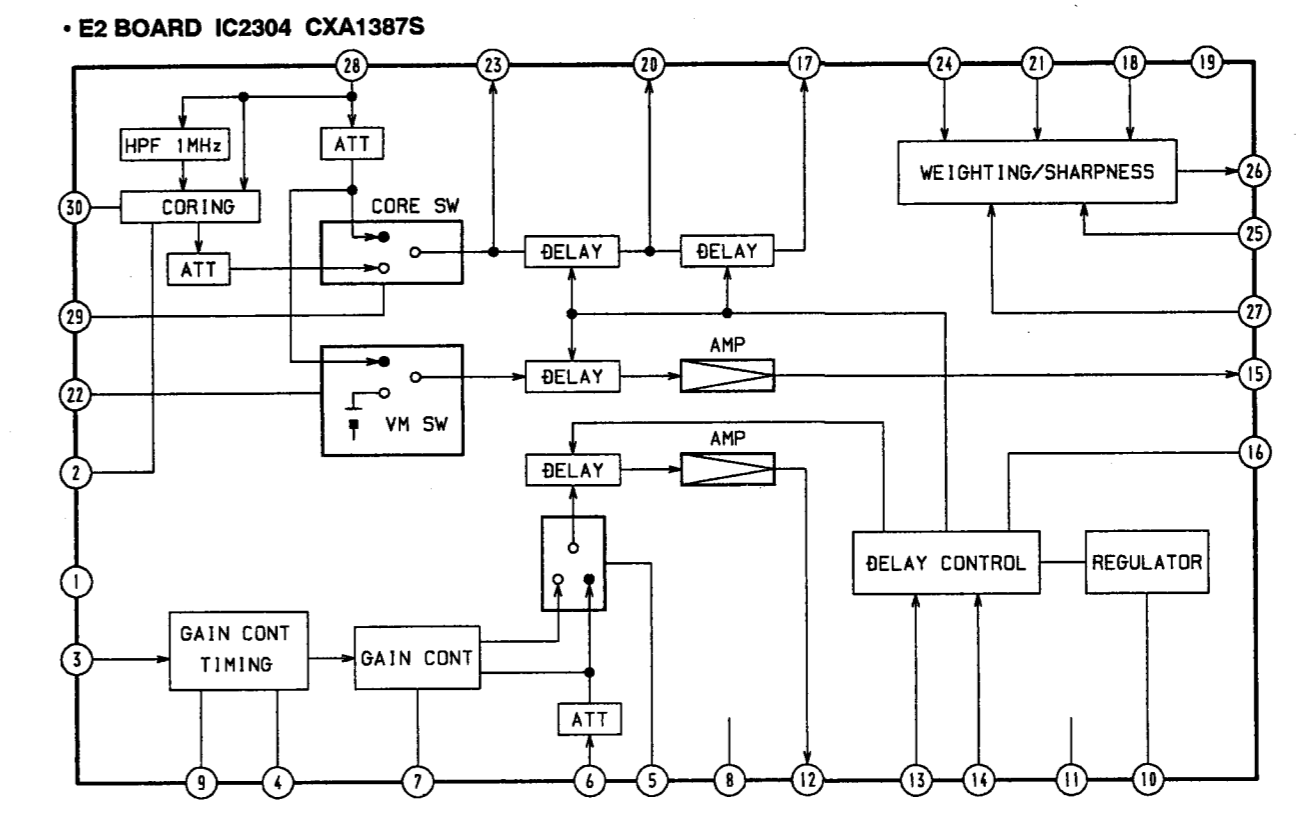
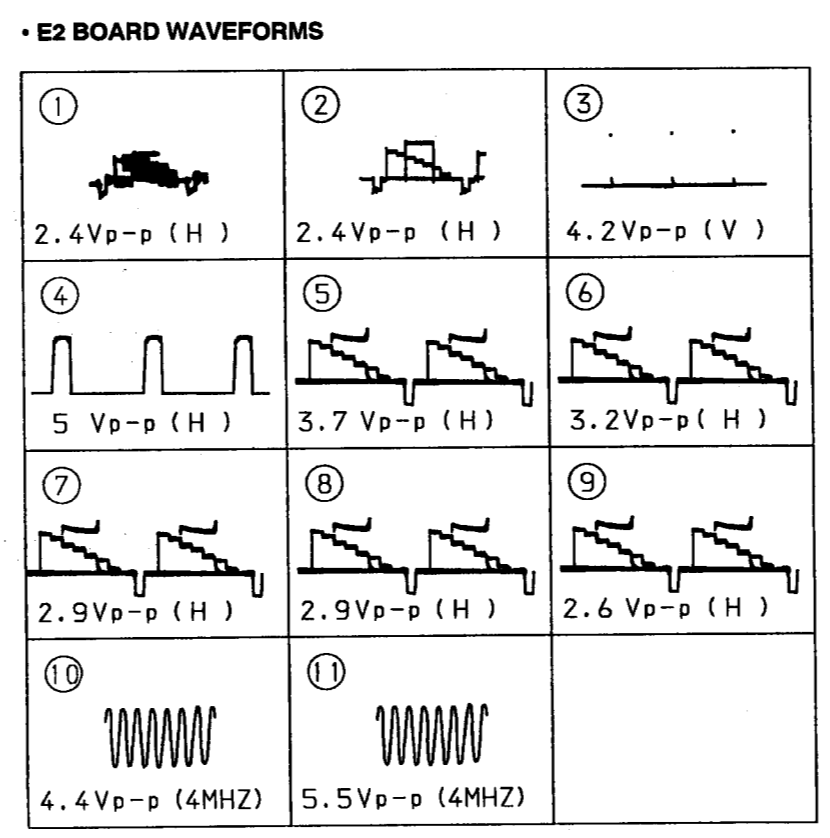
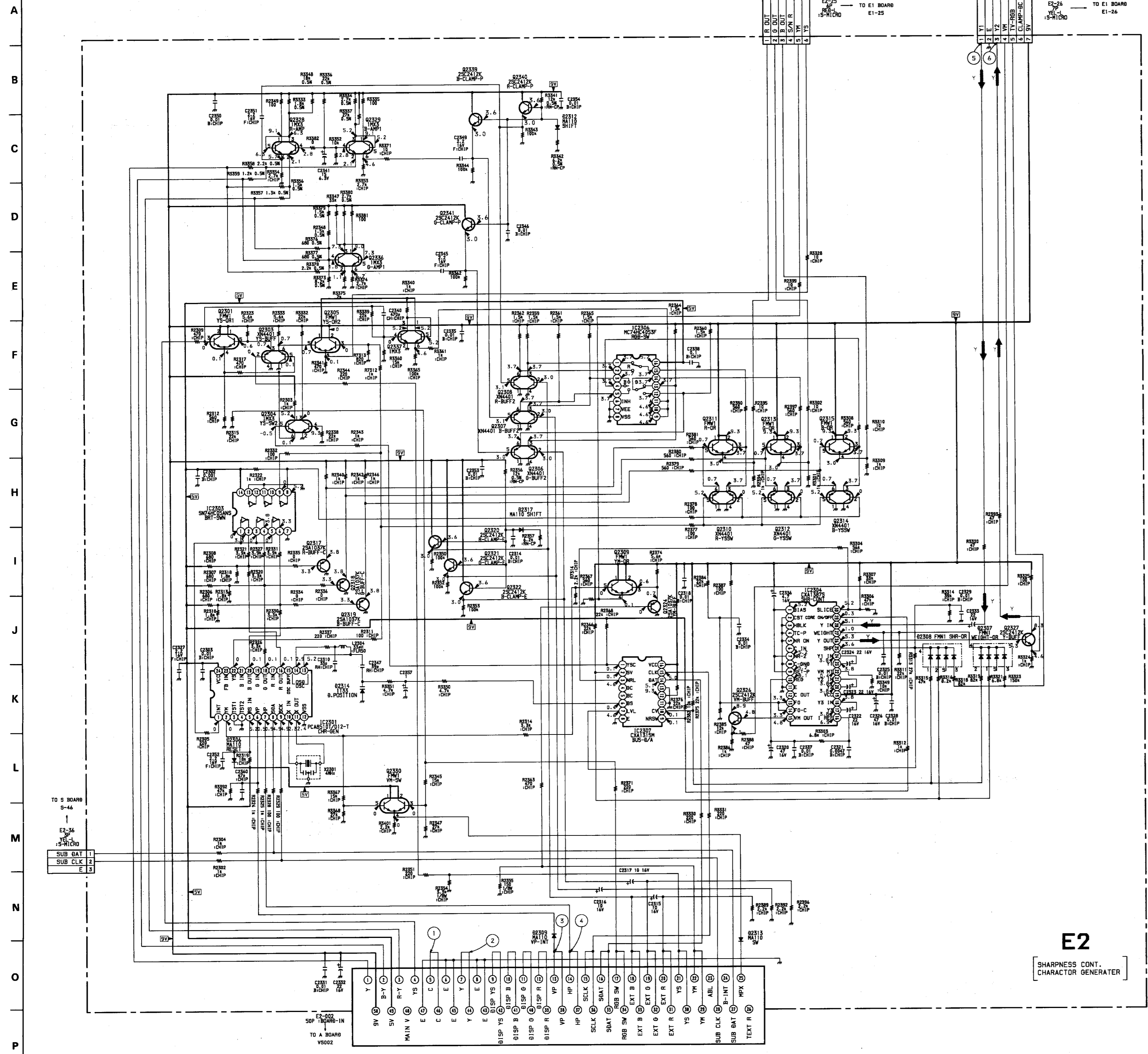
Pattern of the rear side.

- E2 BOARD -

IC	IC2031 B-4	IC2303 A-5
IC2304 D-3, E-2	IC2306 H-3	IC2307 B-3
TRANSISTOR	Q2301 C-5	Q2303 C-5
Q2304 D-5	Q2305 C-5	Q2306 A-3
Q2307 B-4	Q2308 A-3	Q2309 B-2
Q2310 A-2	Q2311 A-2	Q2312 A-2
Q2313 A-2	Q2314 A-2	Q2315 A-2
Q2317 H-4	Q2318 G-4	Q2319 G-5
Q2320 A-4	Q2321 A-4	Q2322 A-4
Q2324 B-3	Q2326 E-1	Q2327 E-2
Q2328 D-4	Q2329 D-4	Q2330 C-4
Q2336 C-5	Q2337 B-3	Q2339 F-4
Q2340 F-4	Q2341 F-4	
DIODE	D2306 C-5	D2307 B-2
D2308 B-2	D2309 B-2	D2312 C-4
D2313 C-4	D2314 B-5	D2317 A-4

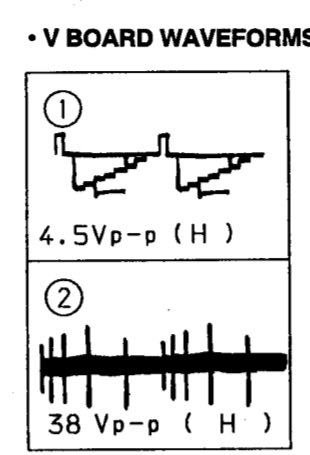
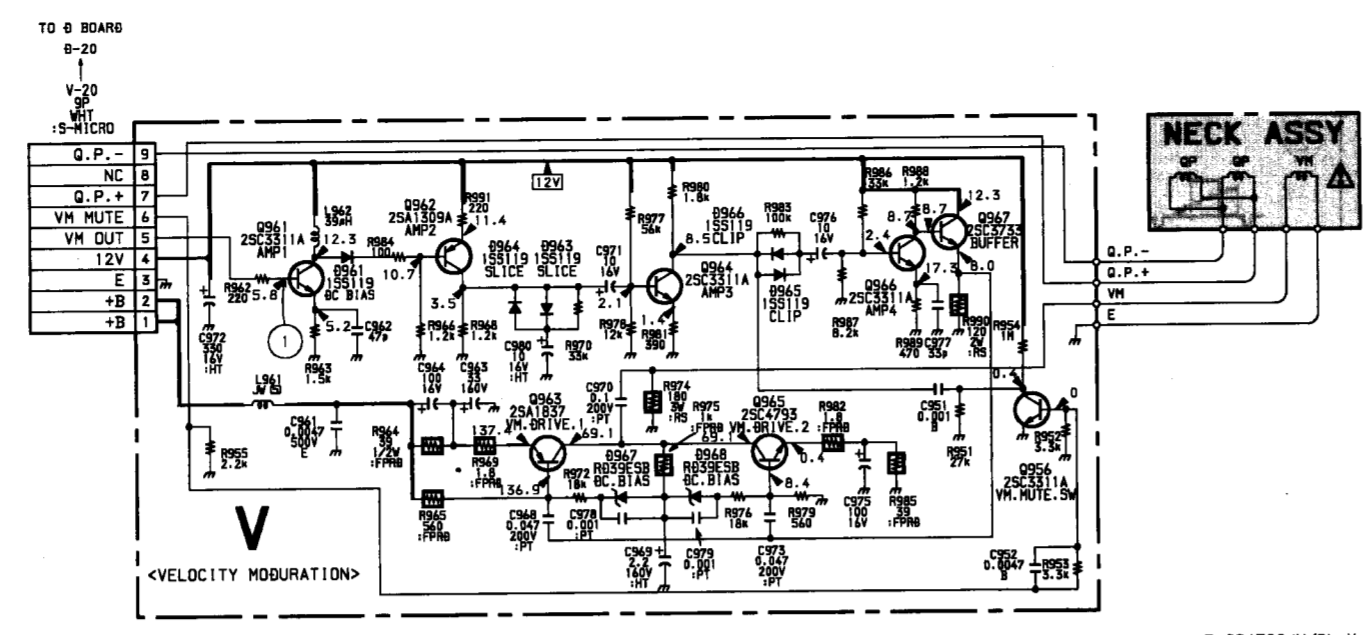




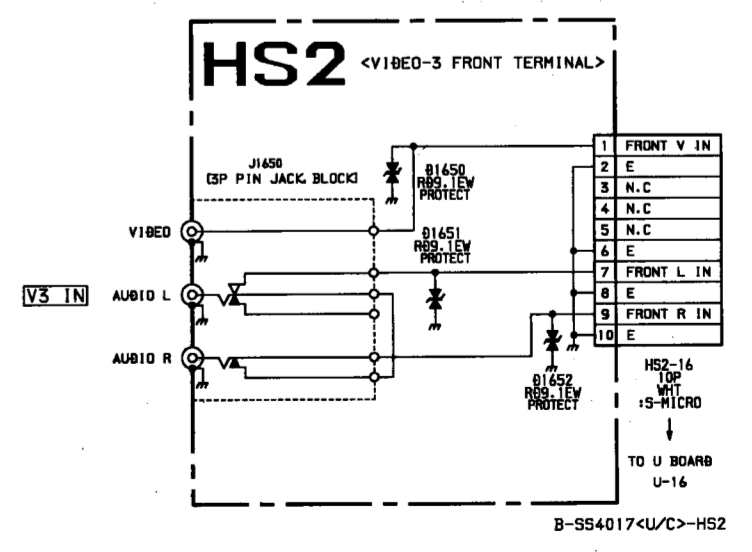
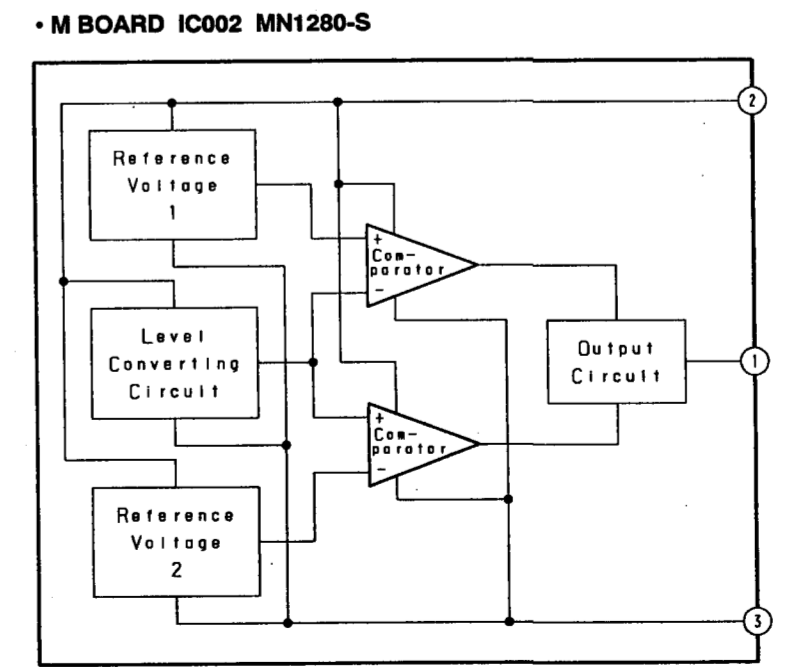
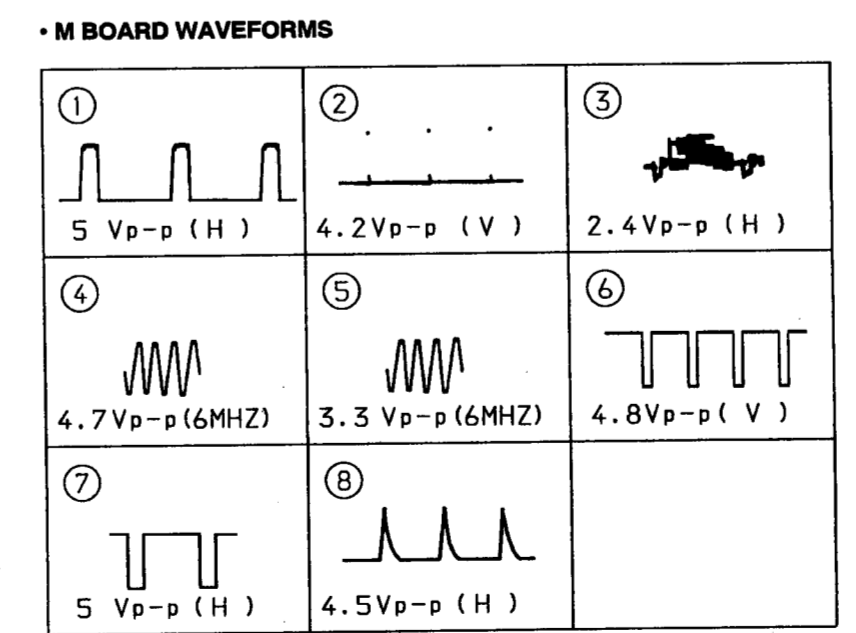
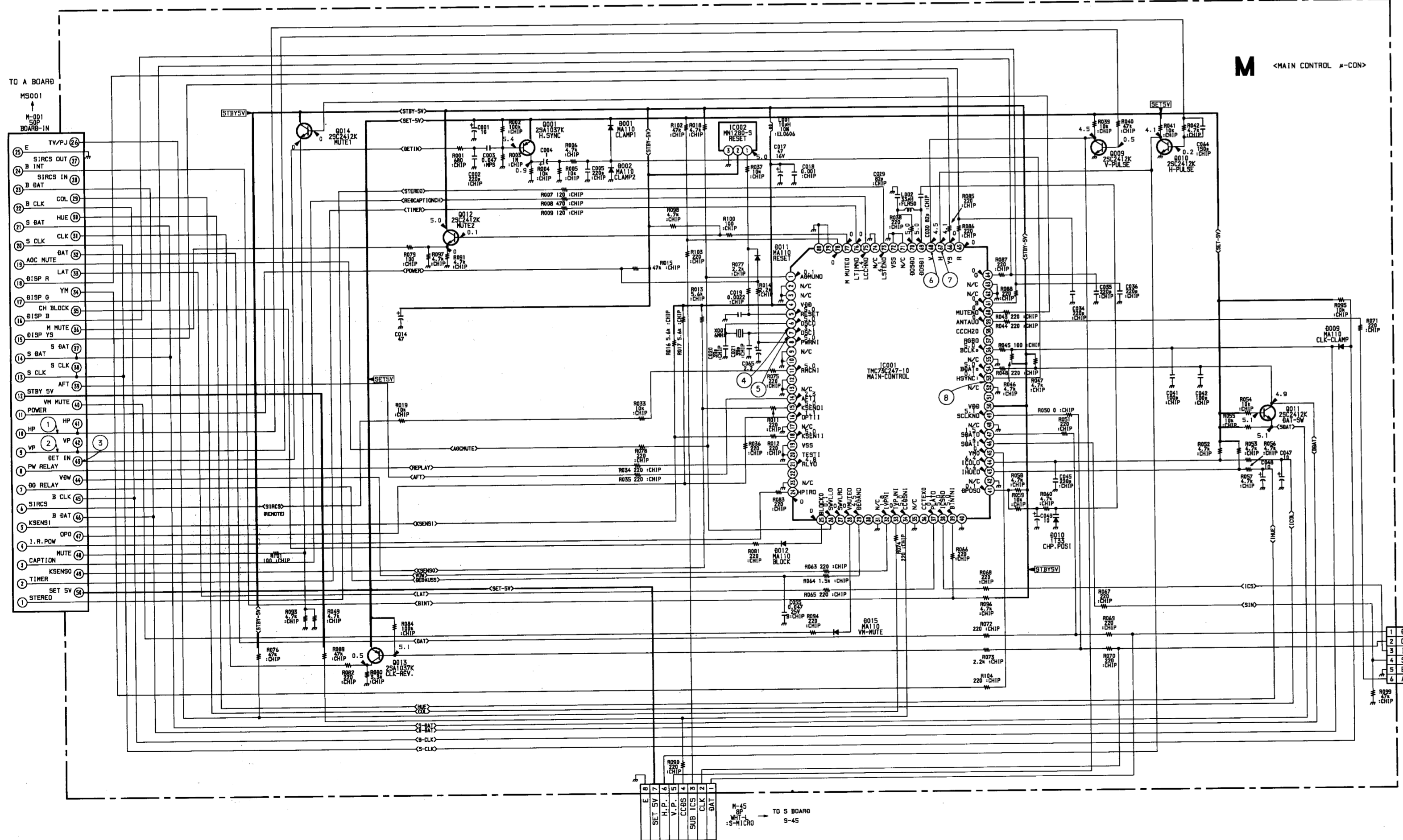
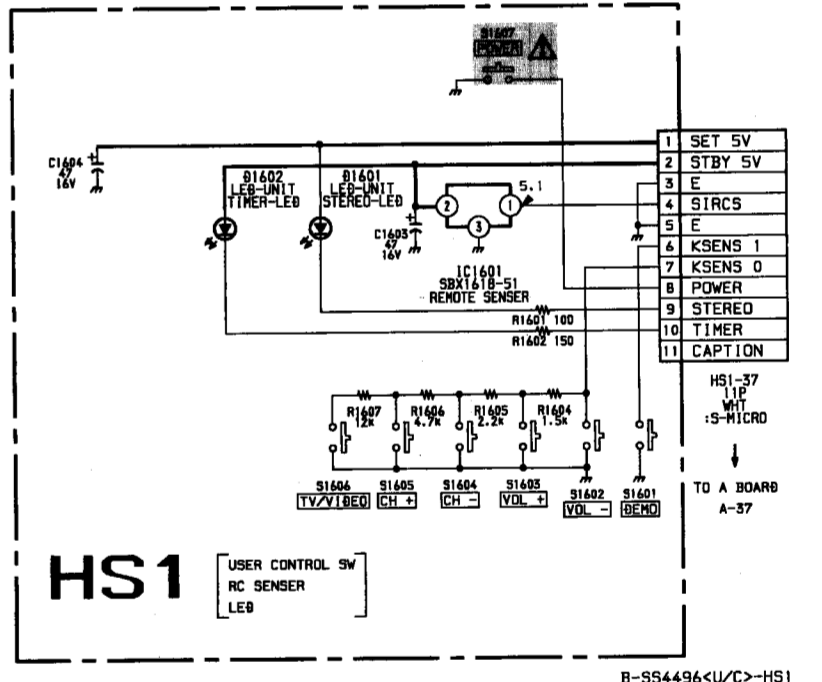
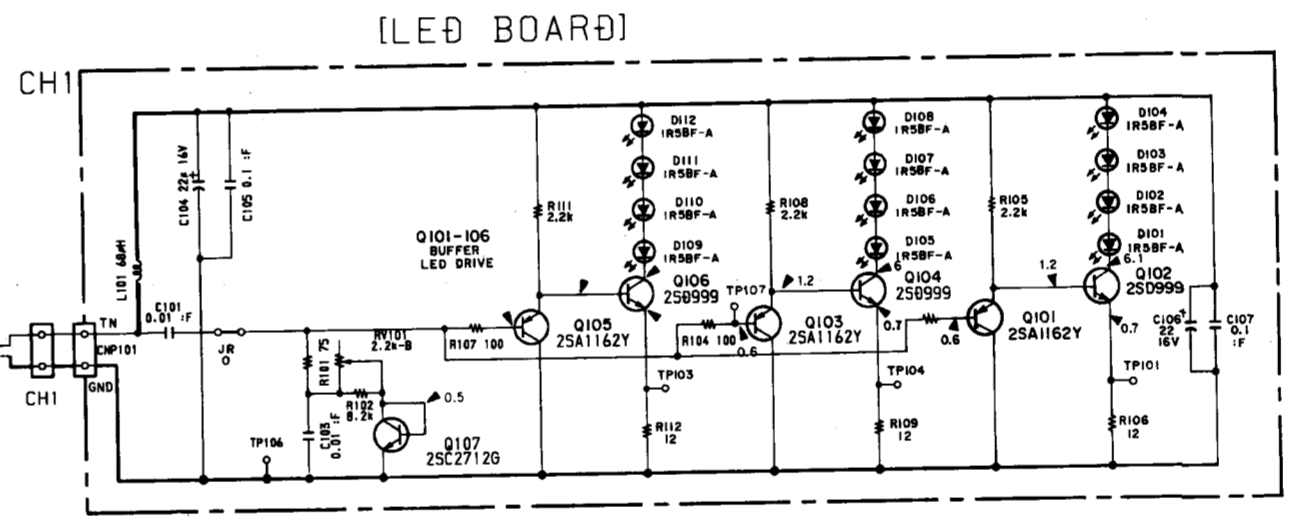
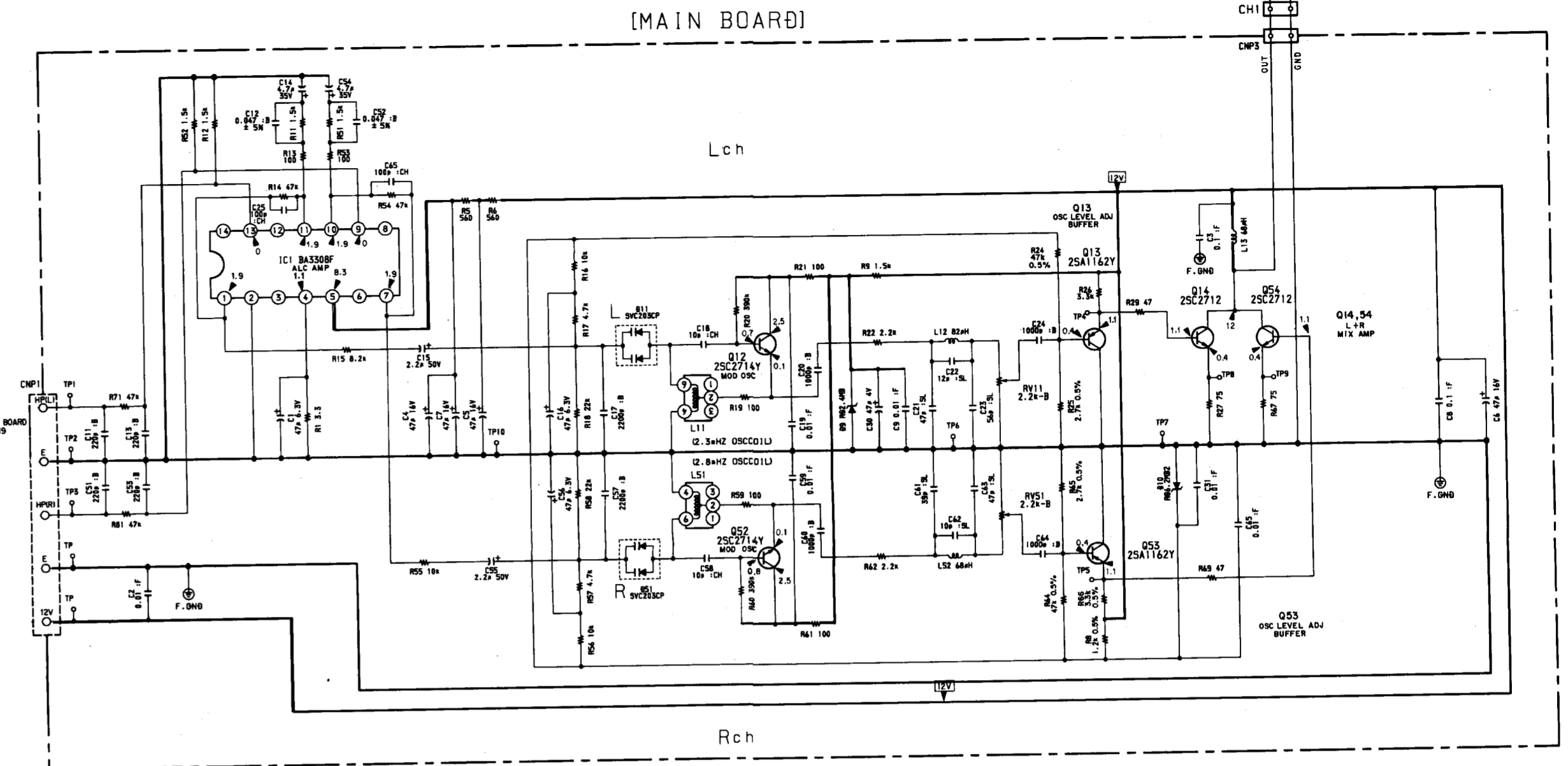




A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

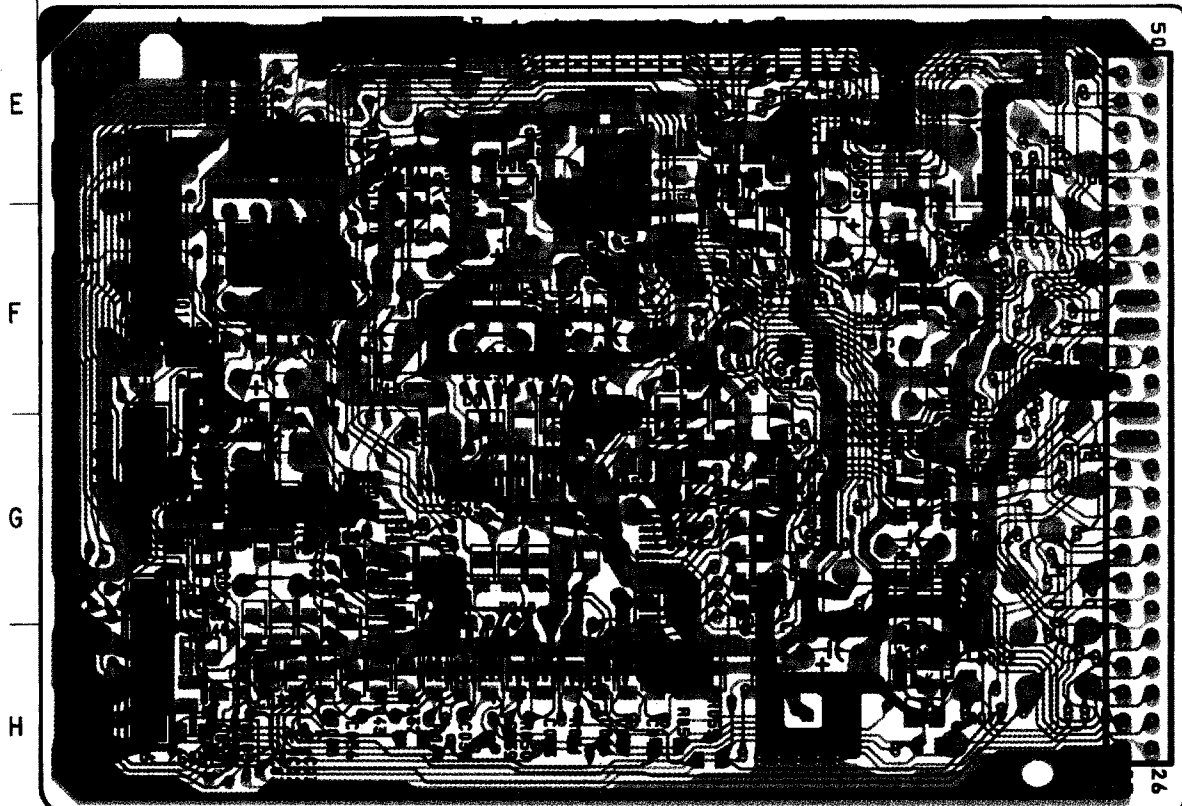
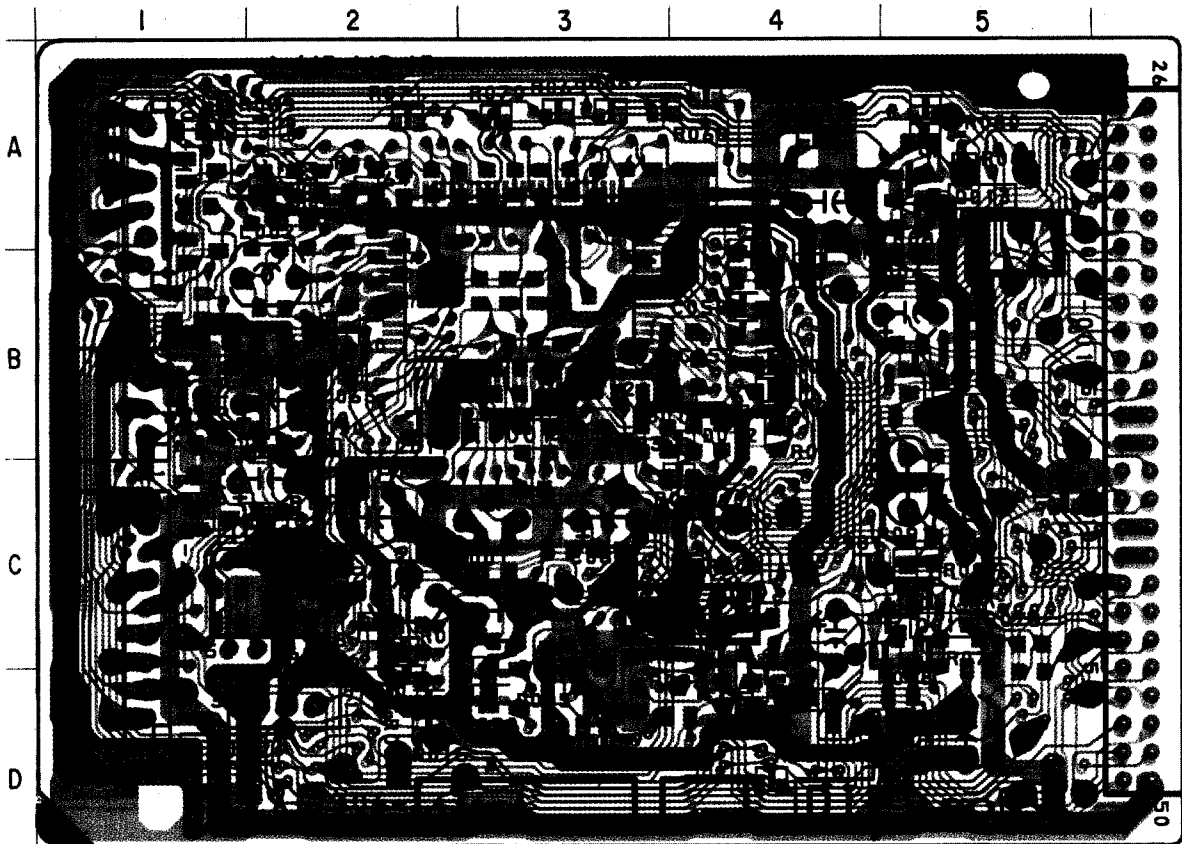


B-9545024U/C-V...



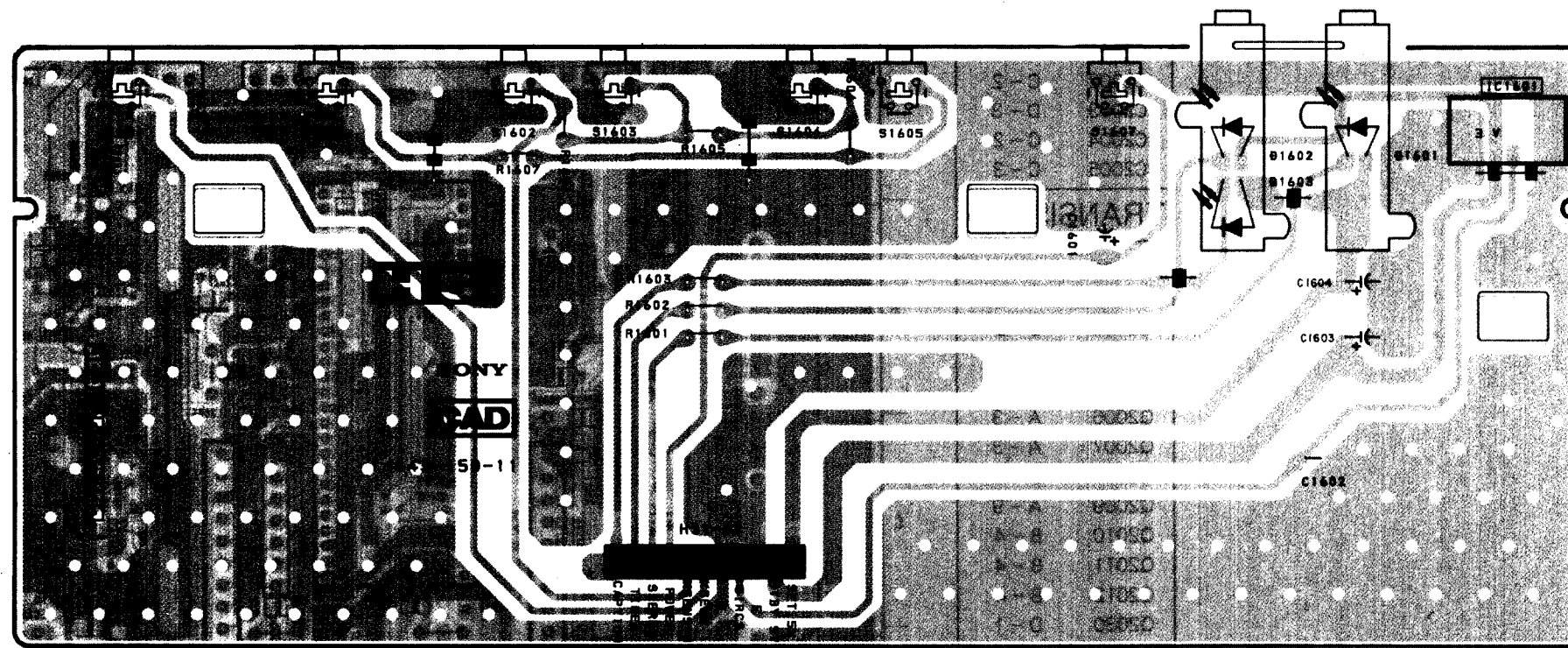
**M** [MAIN CONTROL μ-CON] **HS1** [USER CONTROL SW, RC SENSE, LED] **HS2** [VIDEO - 3 FRONT TERMINAL] **V** [VELOCITY MODURATION] **LED** [EMITTER] **MAIN** [MODULATOR]

- M BOARD -

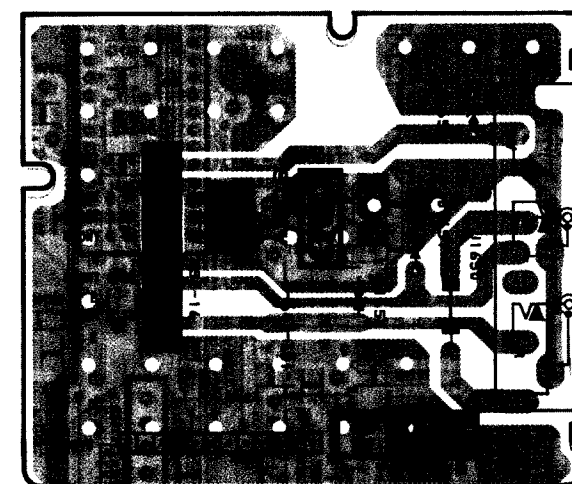


IC	
IC001	C-1
IC002	D-2, E-2
TRANSISTOR	
Q001	G-5
Q009	G-1
Q010	H-1
Q011	F-1
Q012	C-5
Q013	A-5
Q014	C-4
DIODE	
D001	H-5
D002	H-5
D009	F-1
D010	A-4
D011	D-2
D012	B-4
D014	A-1
D015	B-4

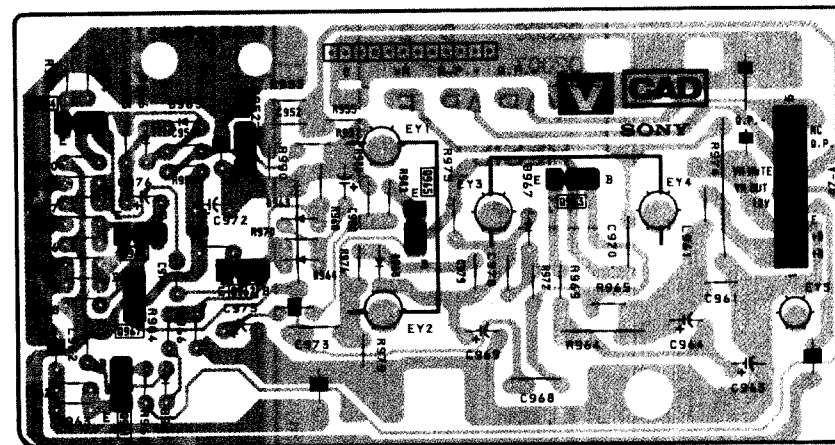
- HS1 BOARD -



- HS2 BOARD -



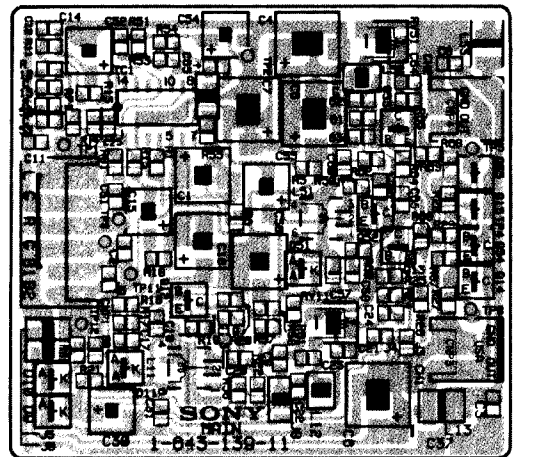
- V BOARD -



- LED BOARD - (KV-32XBR36 ONLY)



- MAIN BOARD - (KV-32XBR36 ONLY)

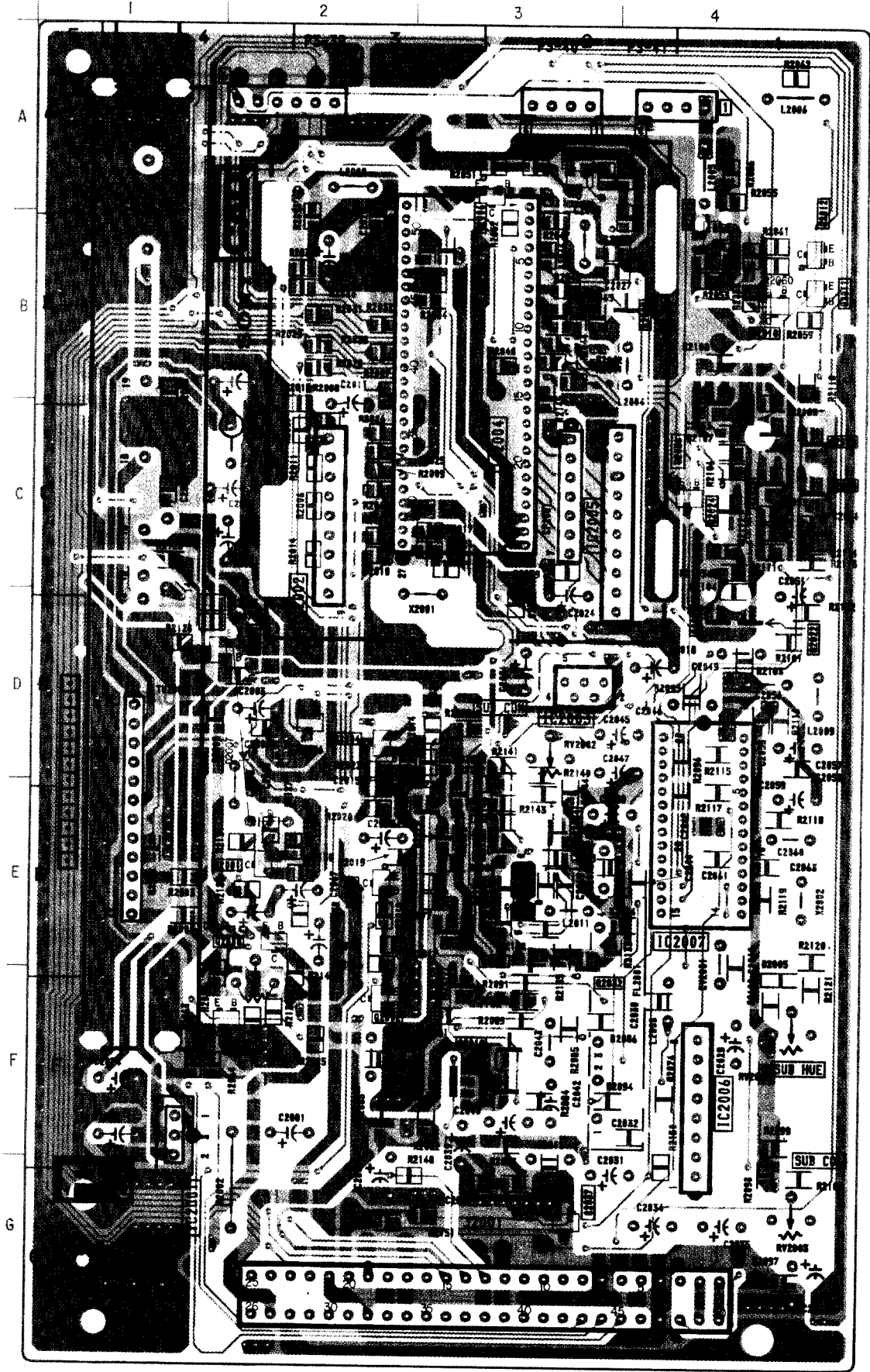


Note:  
 • : Pattern from the side which enables seeing.  
 • : Pattern of the rear side.

**P3** [2ND CONT,  $\mu$ -CON FOR PIP,  
2ND TUNER - VIF/SIF FOR PIP,  
Y/C JUNGLE FOR PIP, ANT SW CONT] **P1** [PICTURE IN PICTURE]

- P3 BOARD - (KV-32XBR36 ONLY)

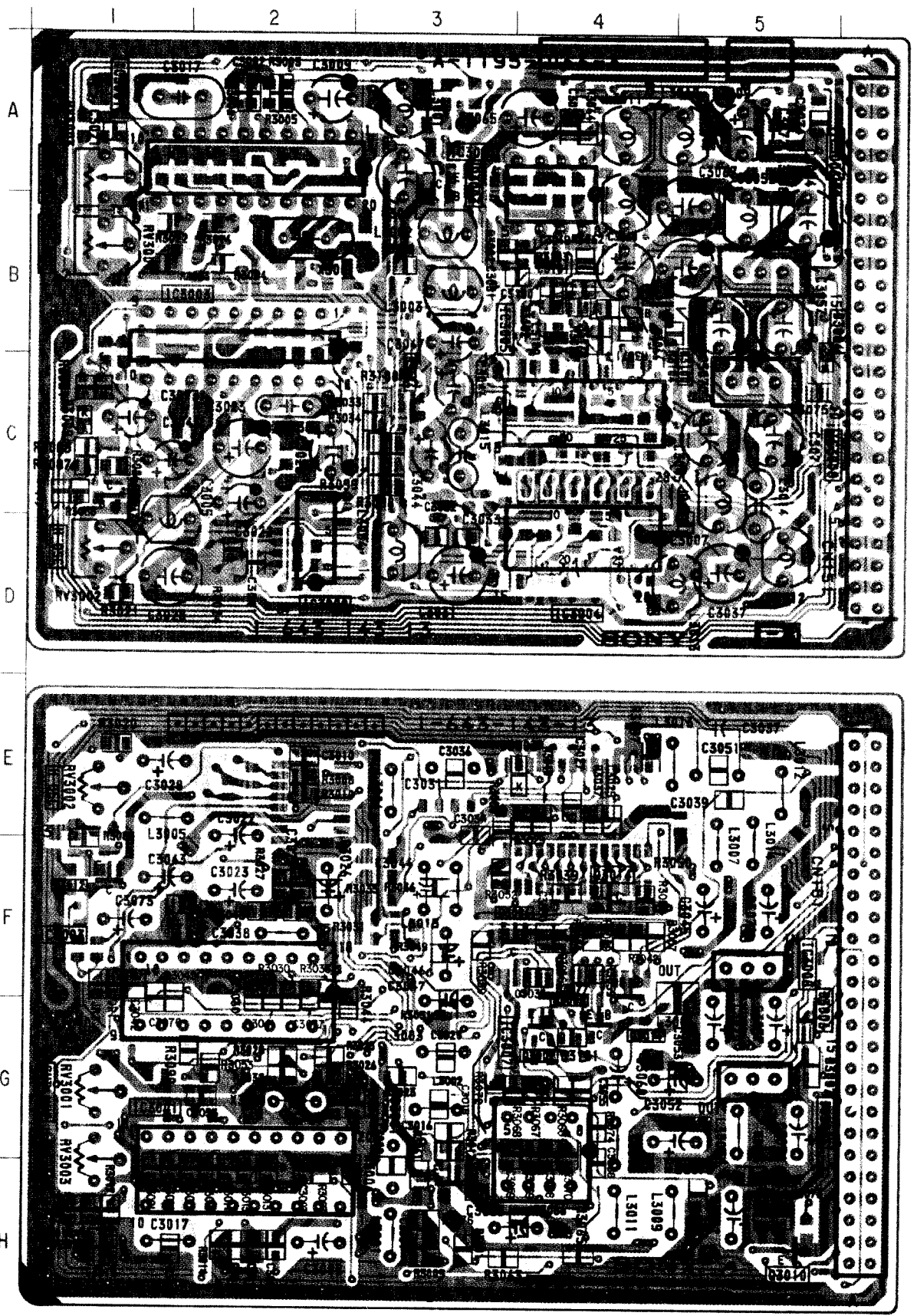
IC	
IC2001	F-1
IC2002	C-2
IC2003	D-3
IC2004	C-2
IC2005	C-3
TRANSISTOR	
Q2001	E-1
Q2002	F-2
Q2003	E-3
Q2004	D-3
Q2005	B-3
Q2006	A-3
Q2007	A-3
Q2008	E-1
Q2009	A-9
Q2010	B-4
Q2011	B-4
Q2012	B-4
Q2030	D-1
Q2031	F-1
Q2036	C-4
Q2037	G-3
DIODE	
D2006	D-2
D2007	D-1
VARIABLE RESISTOR	
RV2001	F-1



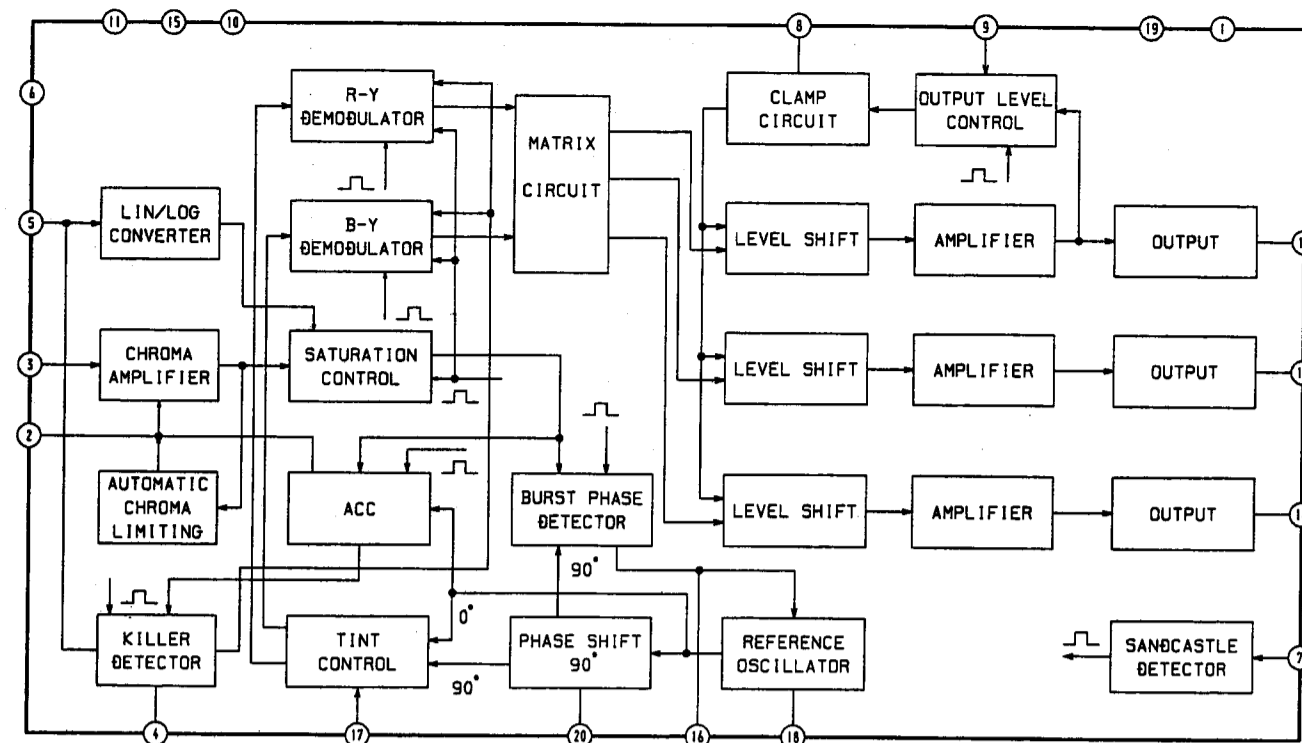
Note:  
 • : Pattern from the side which enables seeing.  
 • : Pattern of the rear side.

IC	
IC3001	A-2, G-2
IC3002	D-2
IC3003	B-2, F-2
IC3004	D-4
IC3005	C-4
IC3006	B-5, G-5
IC3007	A-4, G-4
IC3008	C-5, F-5
TRANSISTOR	
Q3003	A-3
Q3004	C-3
Q3006	F-4
Q3007	G-4
Q3008	H-3
Q3009	G-4
Q3010	H-5
Q3011	F-4
Q3012	F-1
Q3013	C-1
Q3014	F-4
Q3100	B-4
DIODE	
D3003	E-4
D3004	B-5
D3009	C-1
VARIABLE RESISTOR	
RV3001	B-1, G-1
RV3002	D-1, E-1
RV3003	A-1, G-1

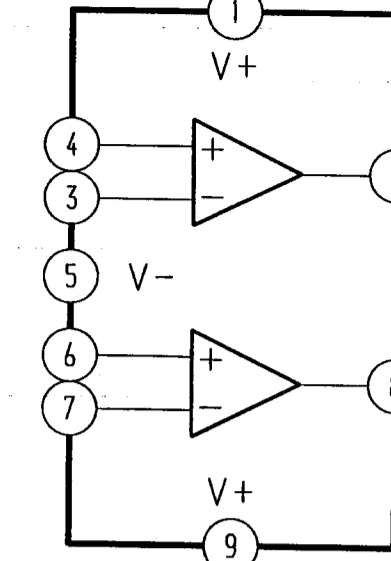
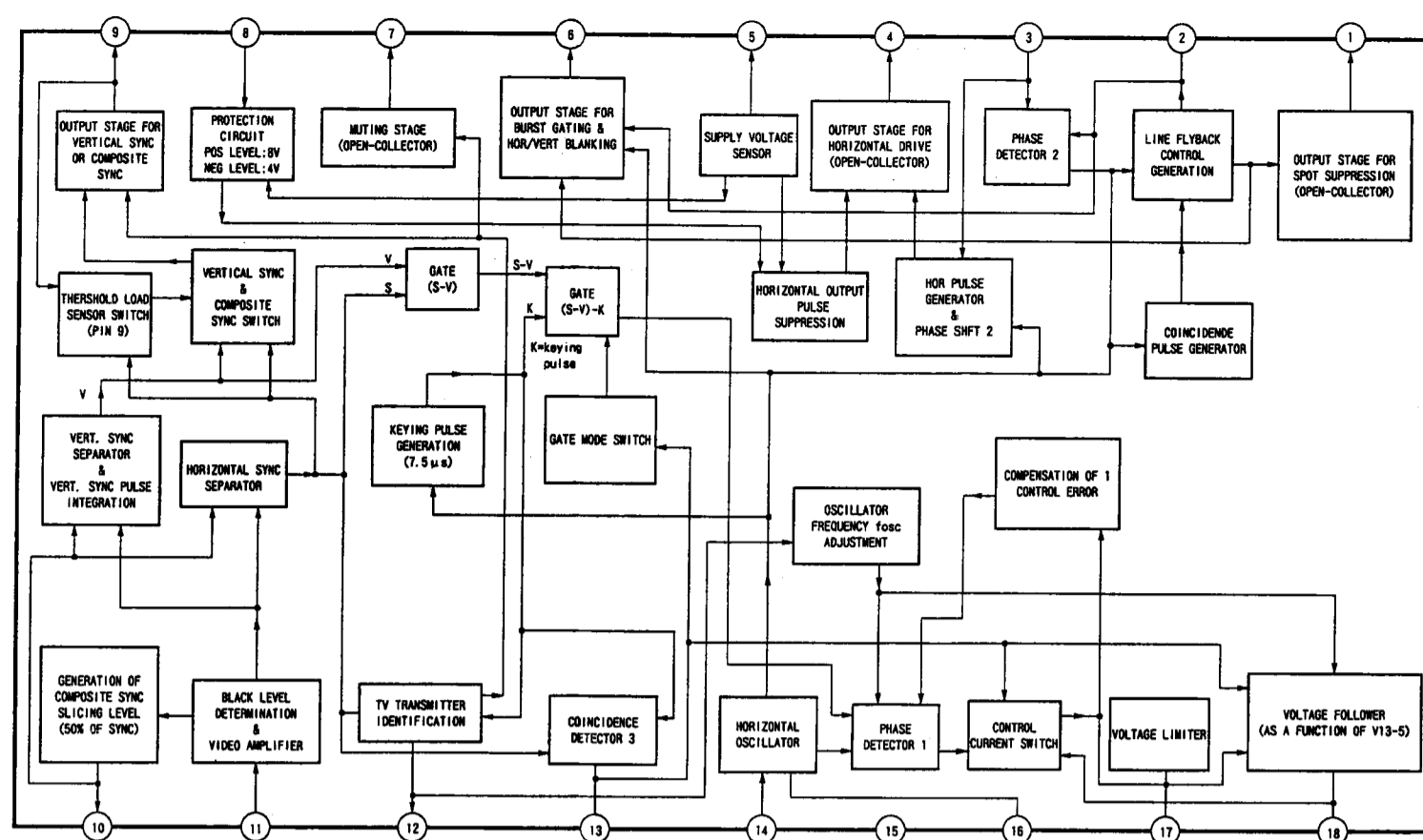
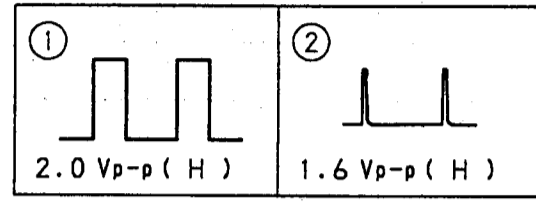
- P1 BOARD -



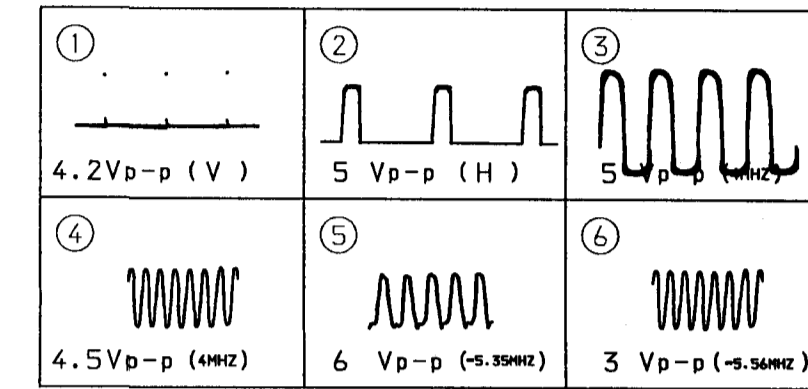
Note:  
 • : Pattern from the side which enables seeing.  
 • : Pattern of the rear side.



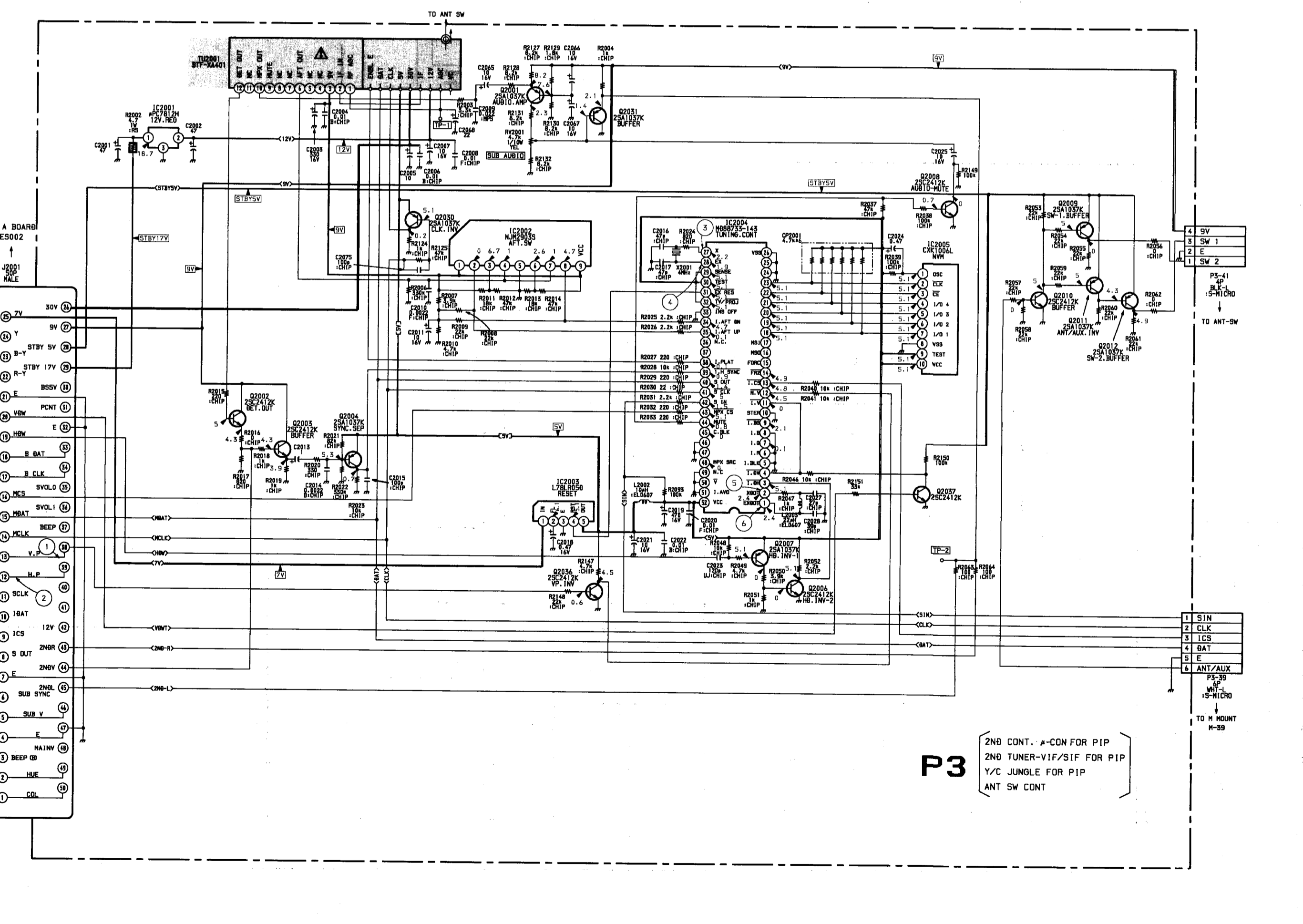
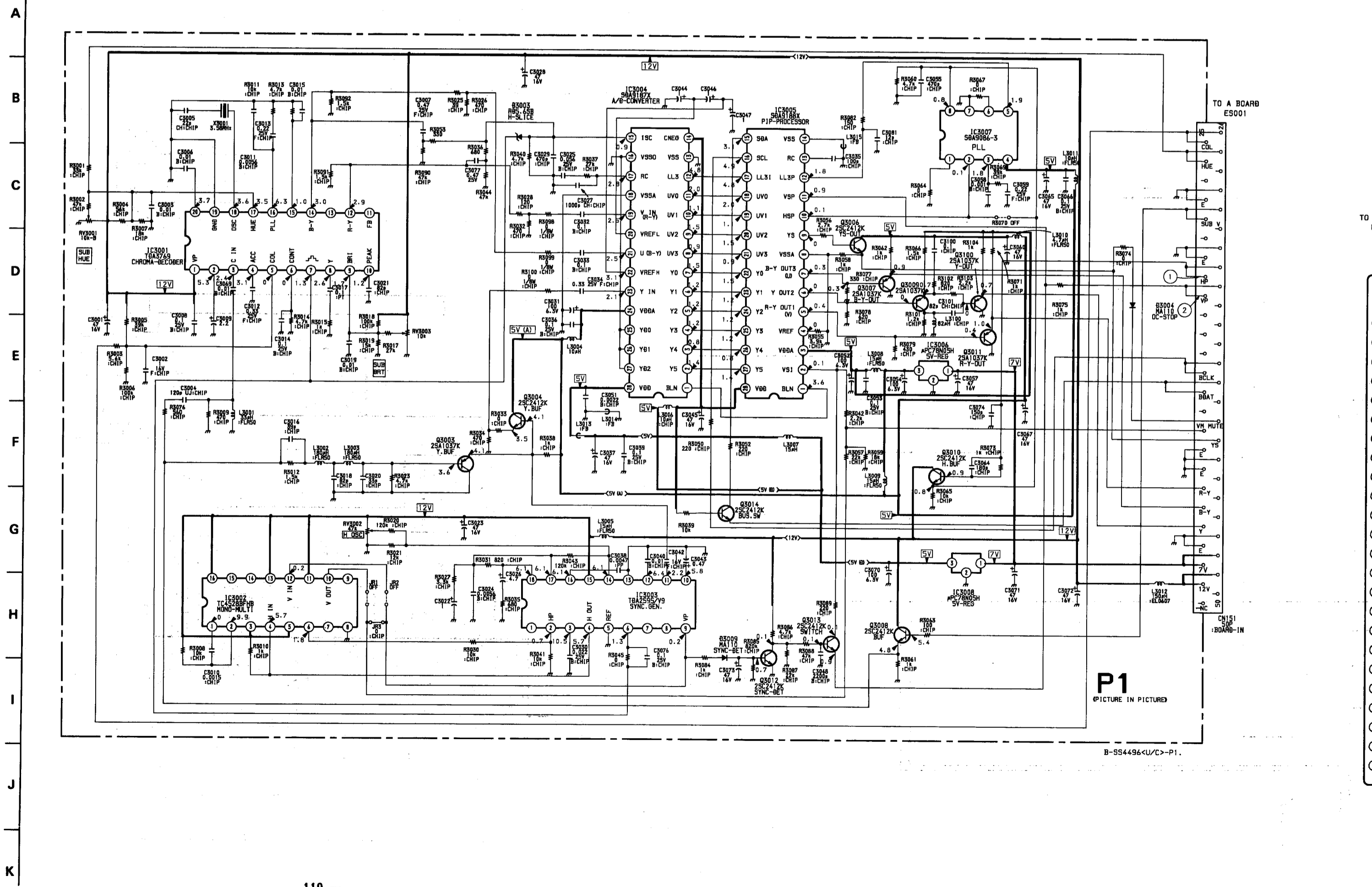
• P1 BOARD WAVEFORMS

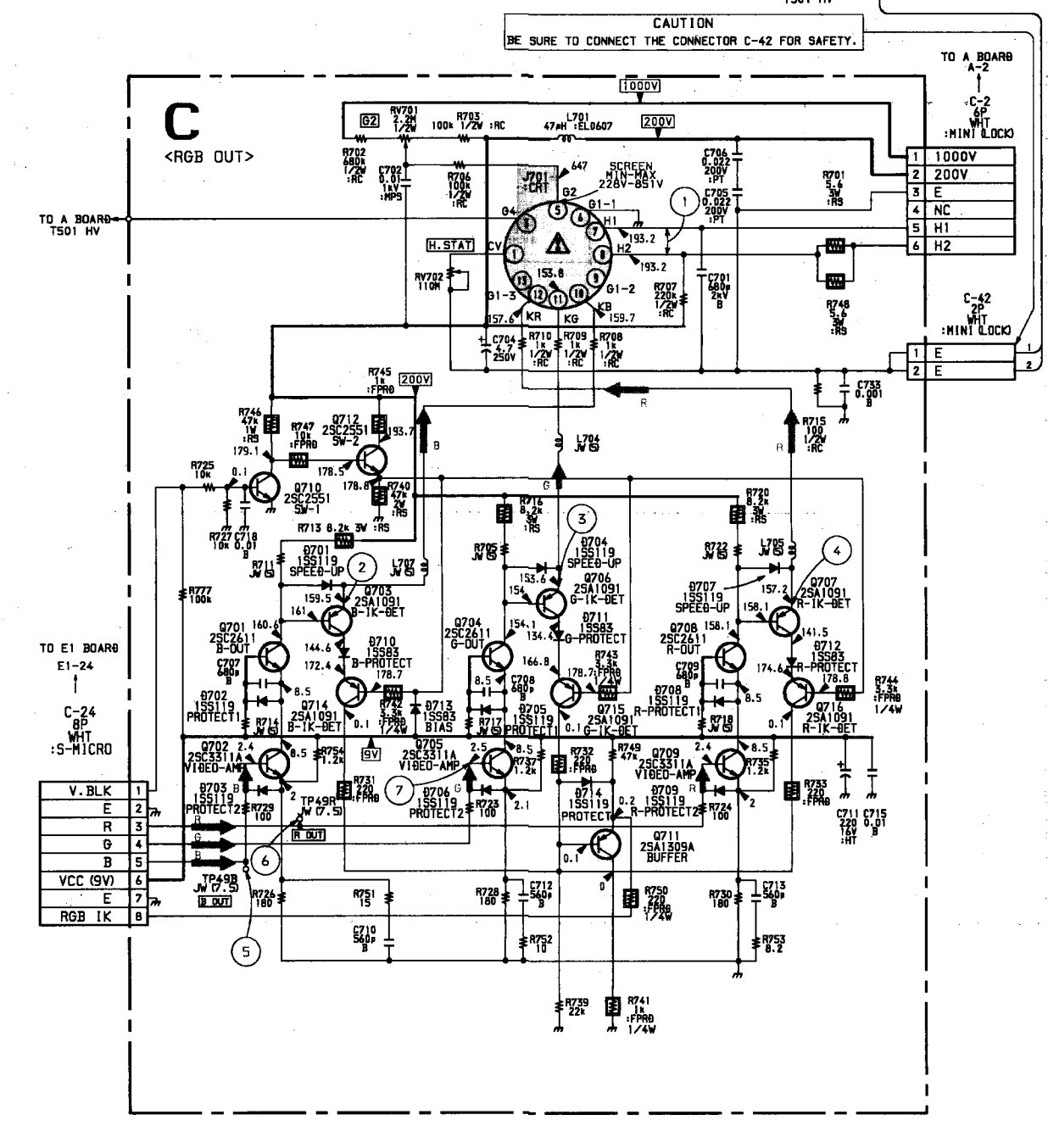
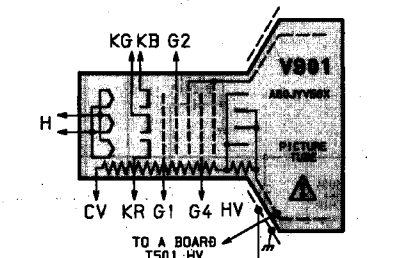
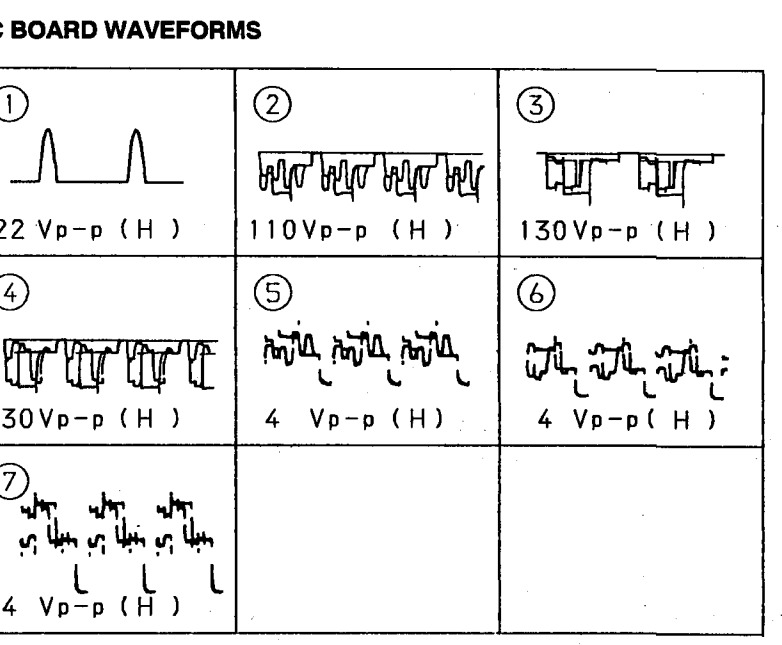
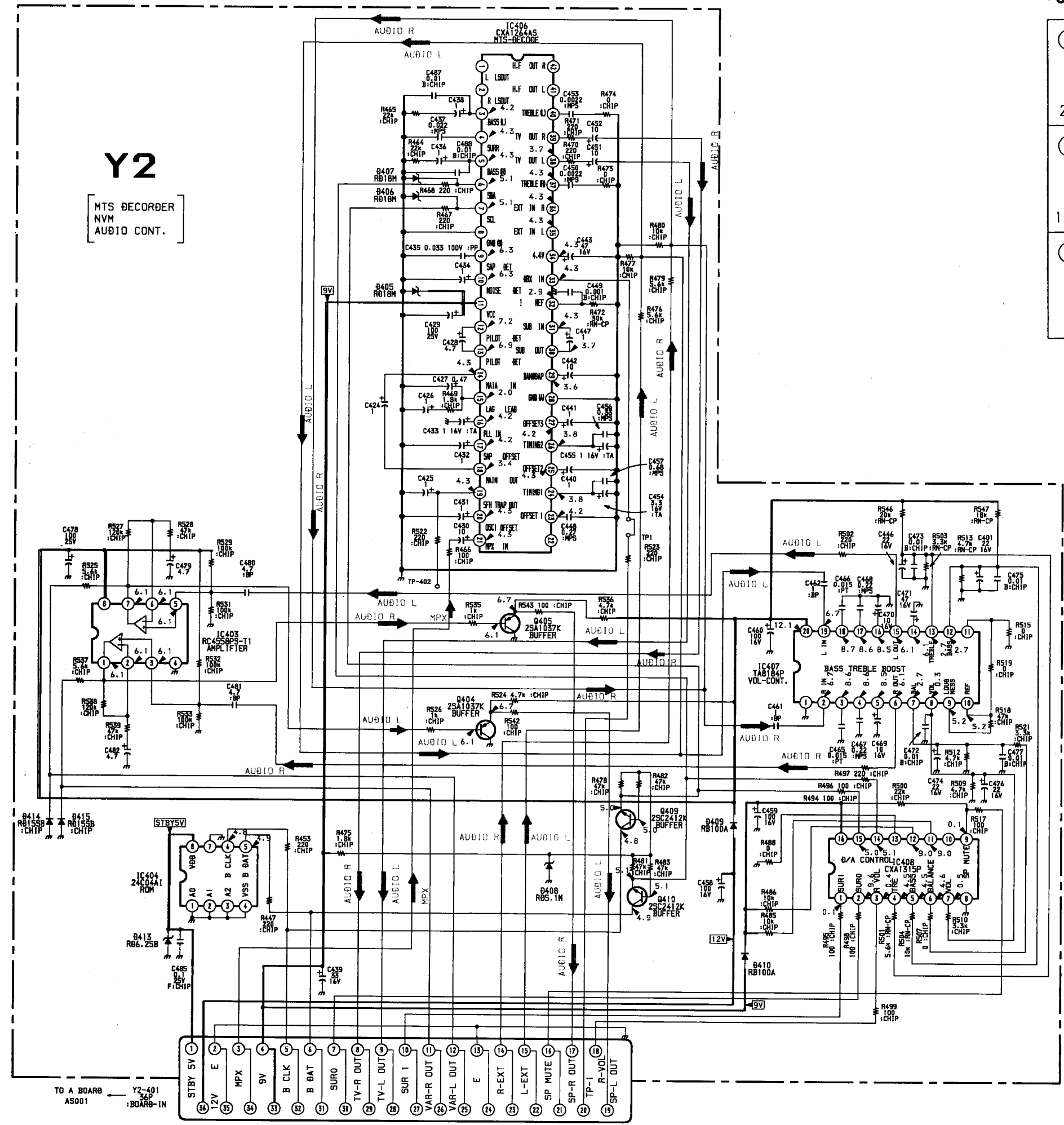
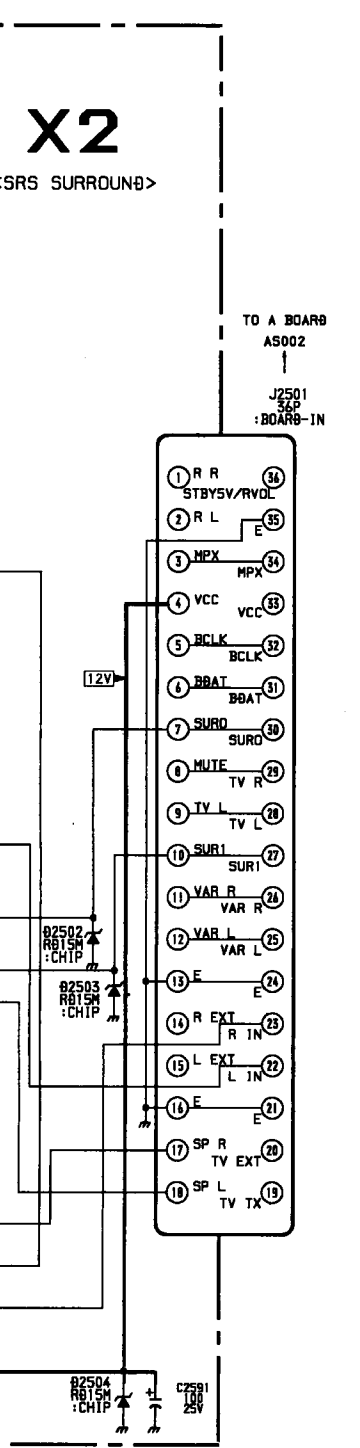
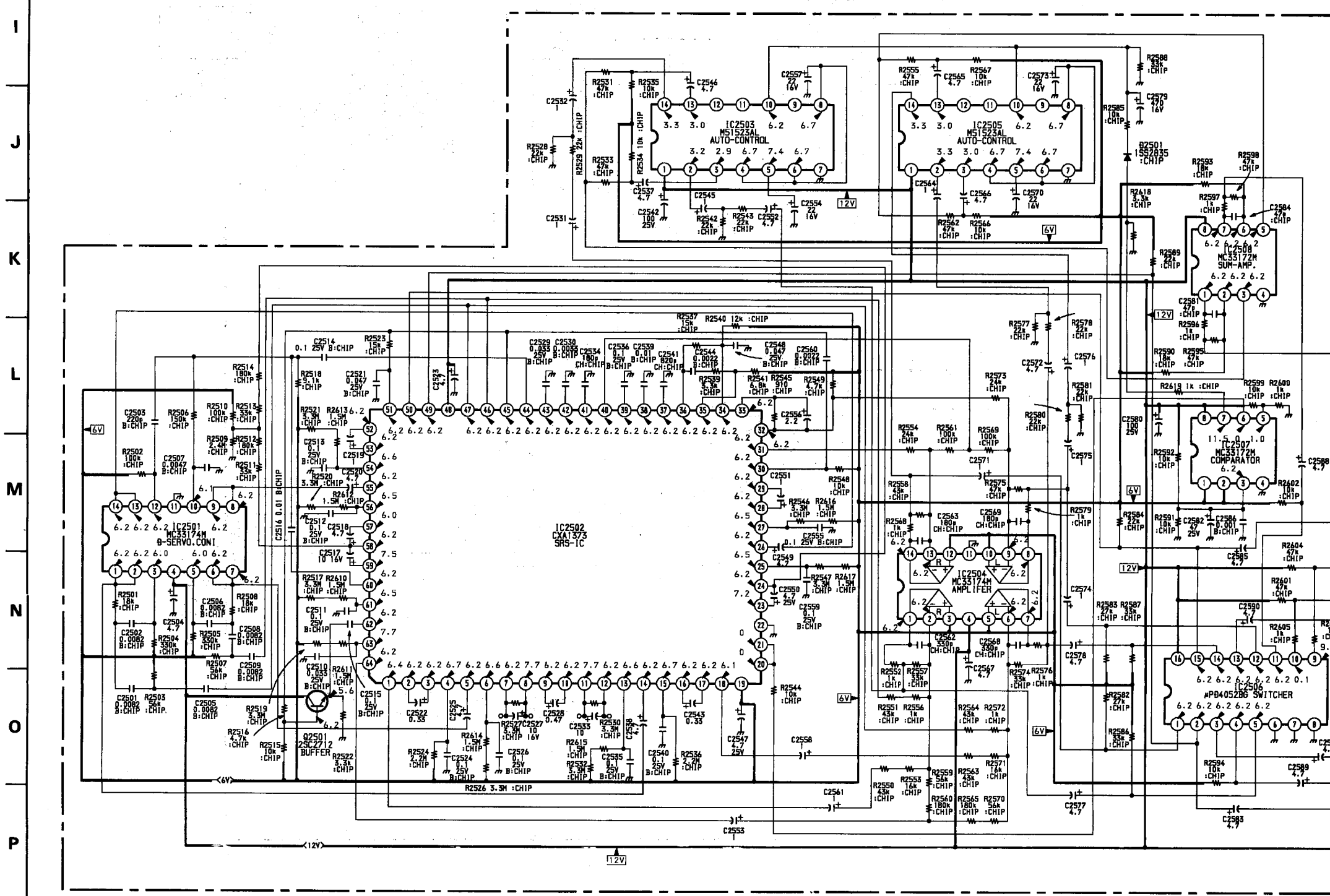
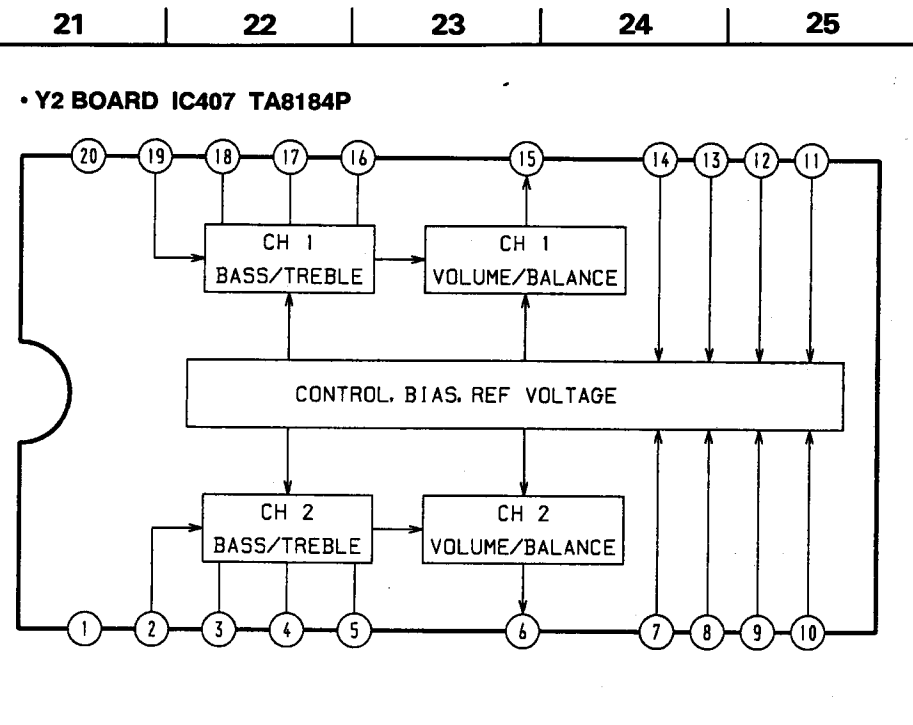
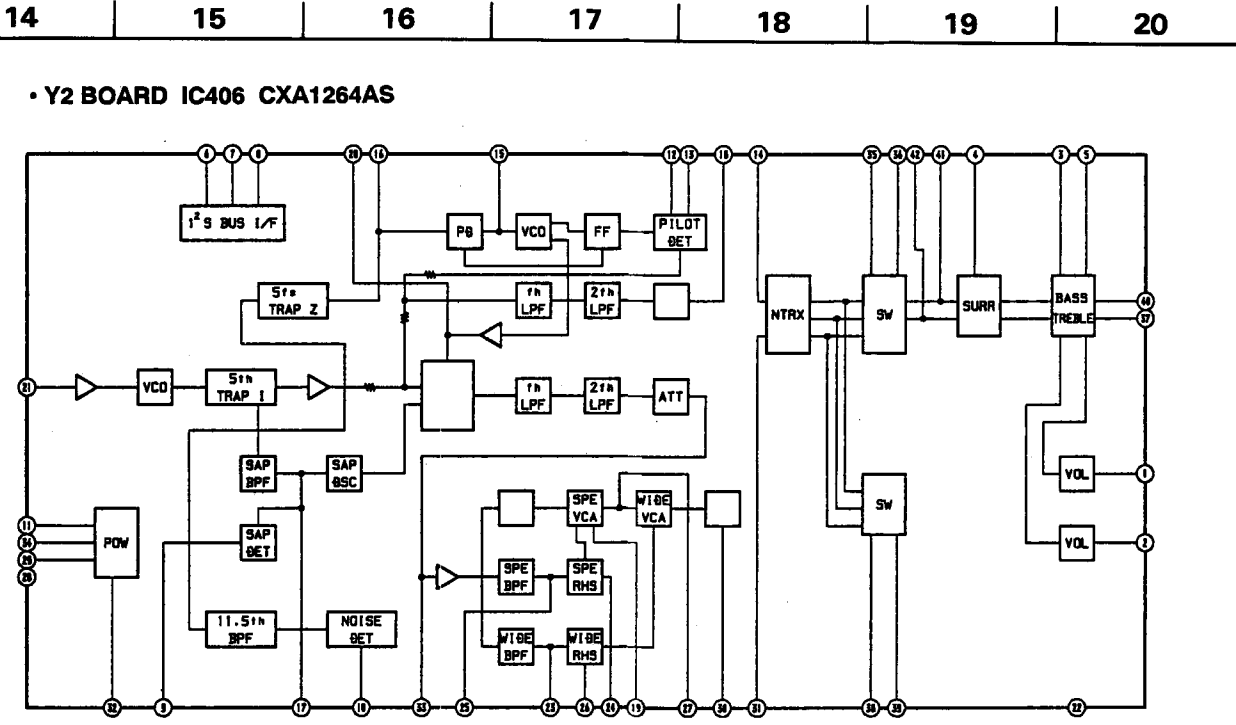
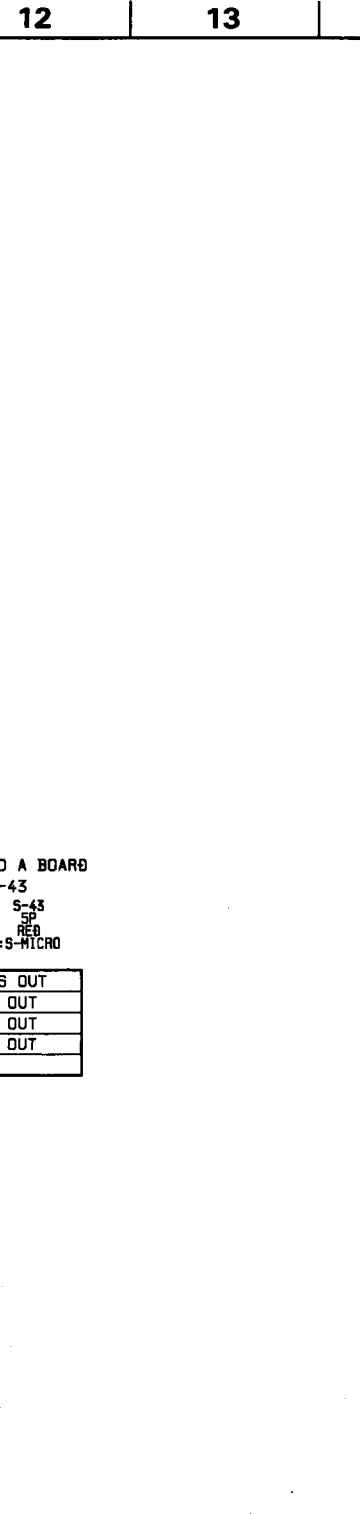
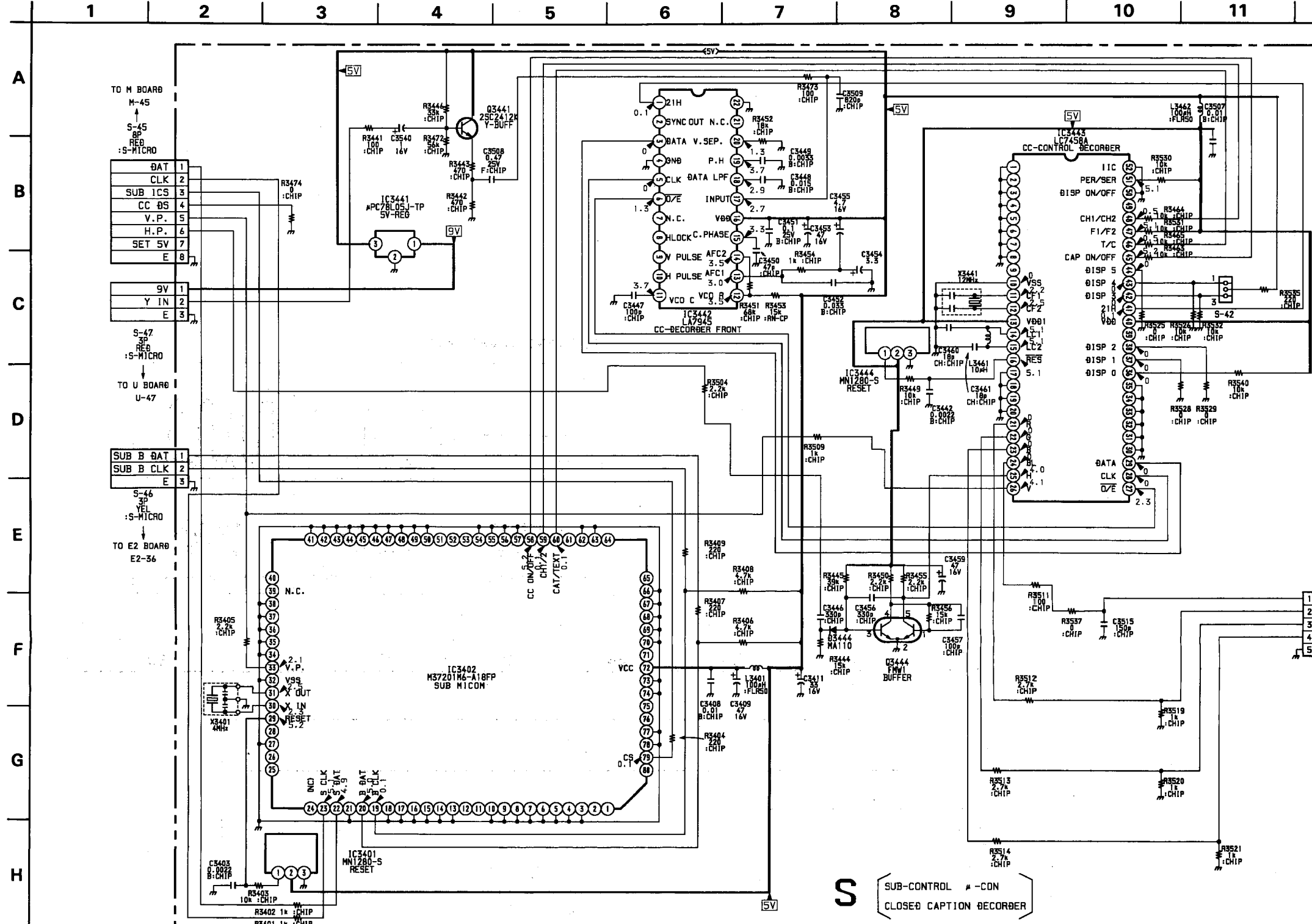


• P3 BOARD WAVEFORMS





1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30



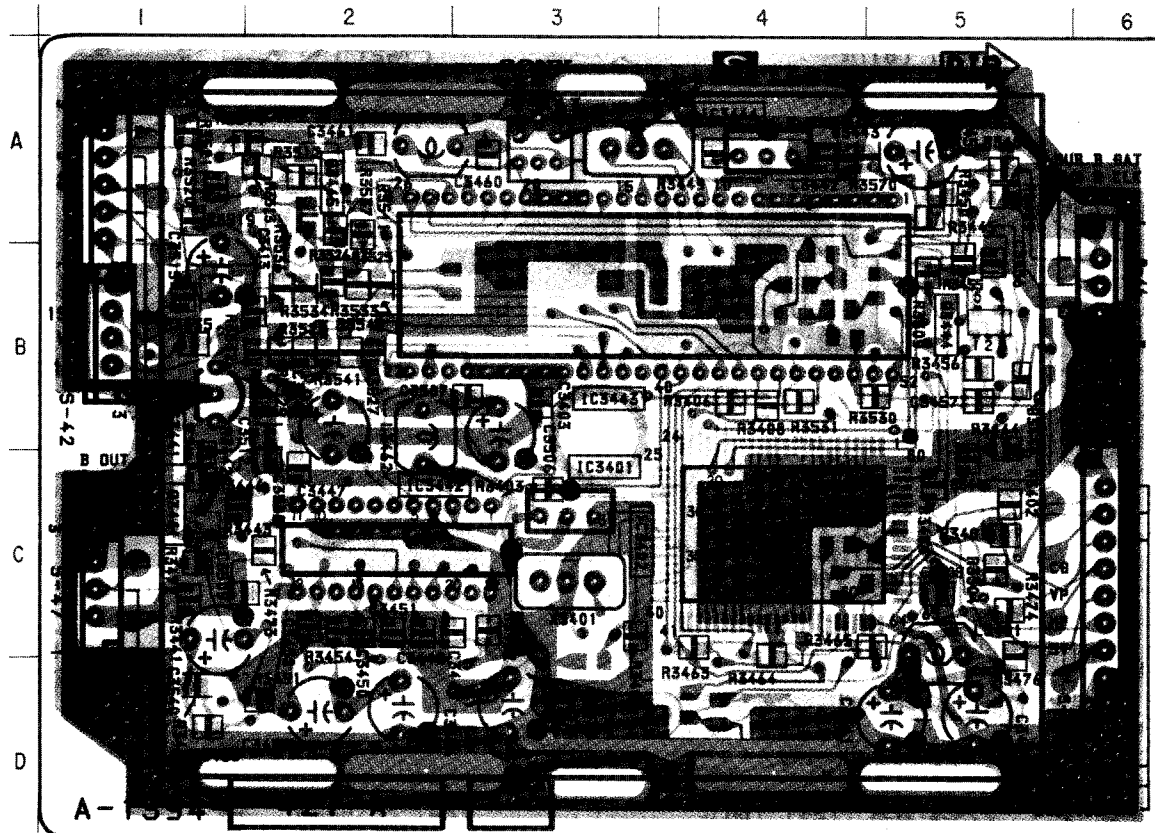


**S** [SUB - CONTROL,  $\mu$  - CON, CLOSED CAPTION DECORDER] **X2** [SRS SURROUND] **Y2** [MTS DECORDER, NVM, AUDIO CONT.] **C** [R G B OUT]

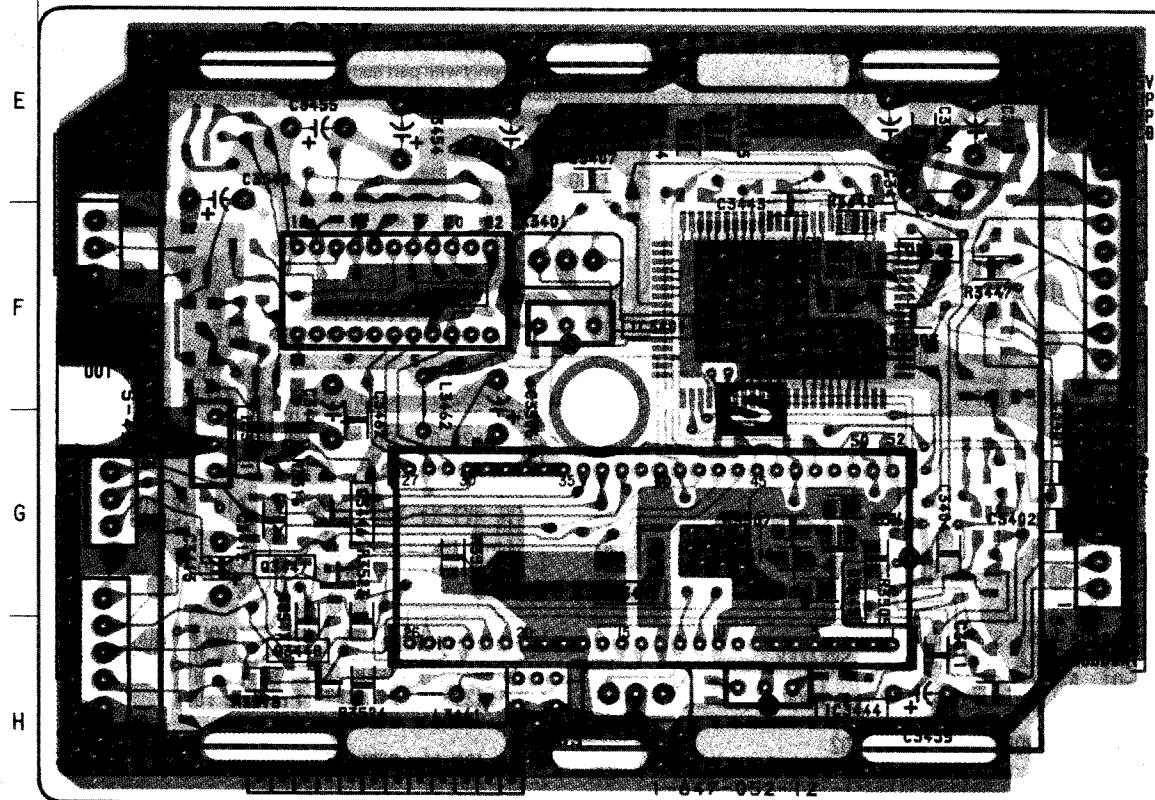
Note :

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

- S BOARD -





IC	
IC3401	C - 3, F - 3
IC3402	C - 4
IC3441	B - 1, G - 1
IC3442	C - 2, F - 2
IC3443	B - 3, G - 3
IC3444	A - 4, H - 4
TRANSISTOR	
C3441	C - 1
C3444	B - 5
DIODE	
D3444	B - 5

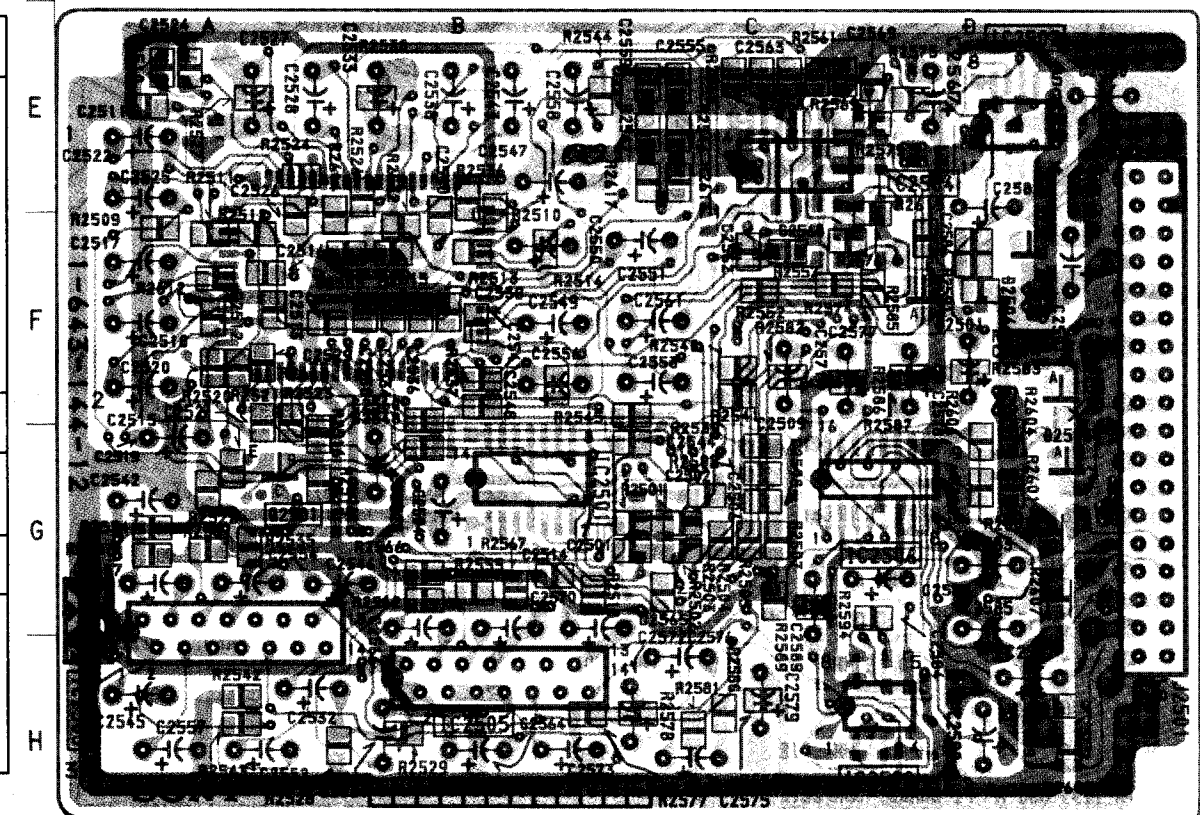
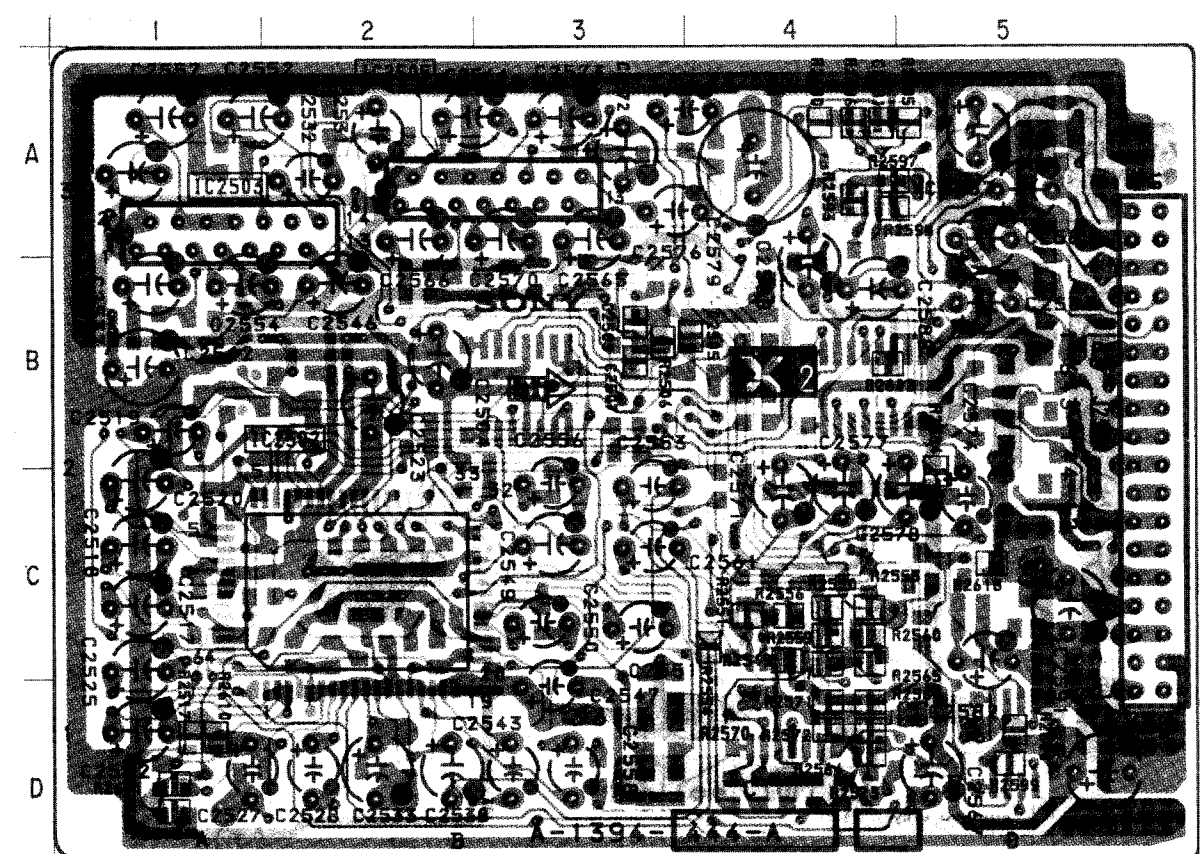


IC		
IC2501		G - 3
IC2502	C - 2	
IC2503	A - 1	H - 1
IC2504		E - 4
IC2505	A - 2	H - 2
IC2506		G - 4
IC2507		E - 5
IC2508		H - 4
TRANSISTOR		
Q2501	G - 2	
DIODE		
D2501		F - 5
D2502		F - 5
D2503		G - 5
D2504		F - 5

Note :

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

- X2 BOARD -

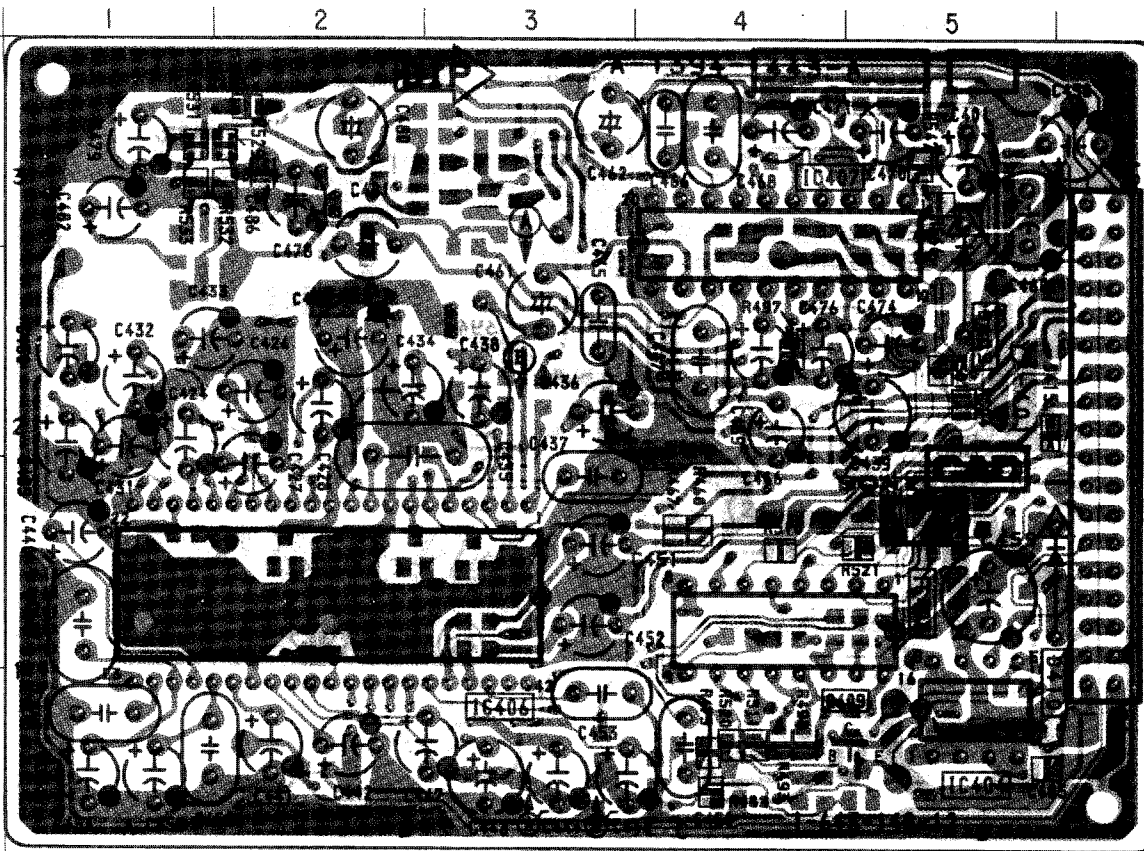




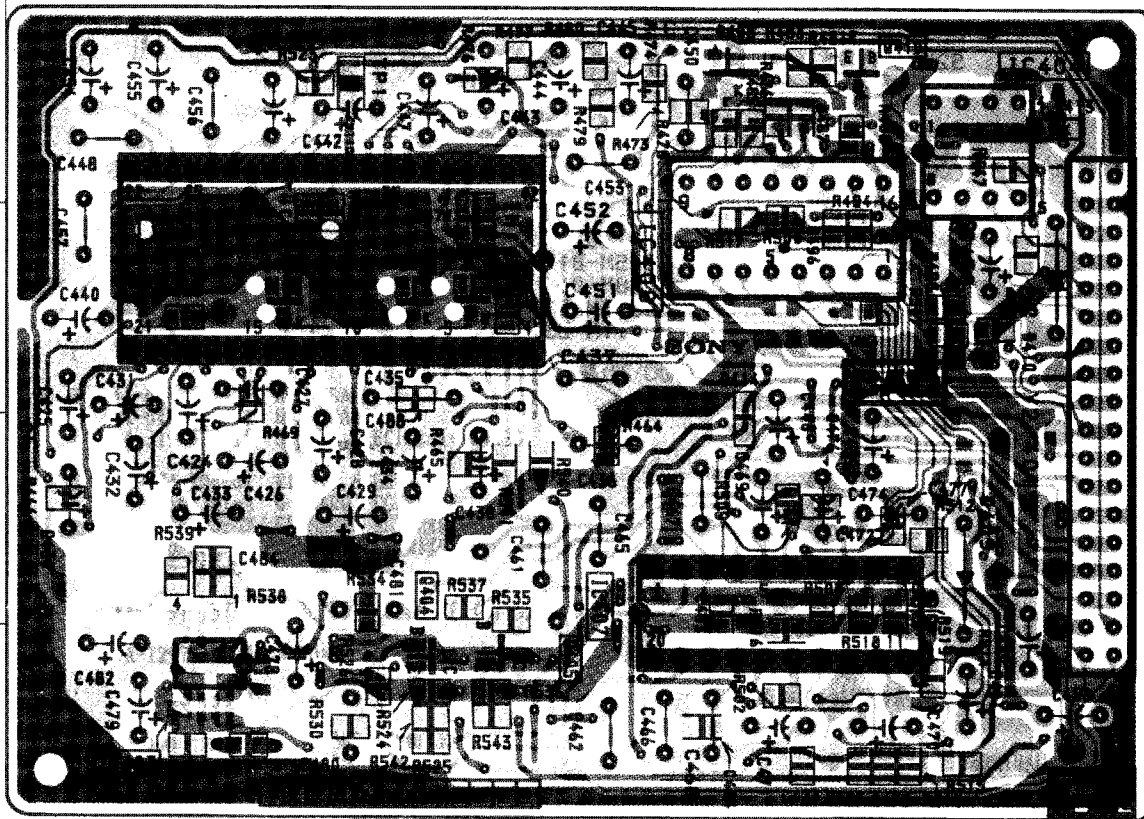
Note :

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

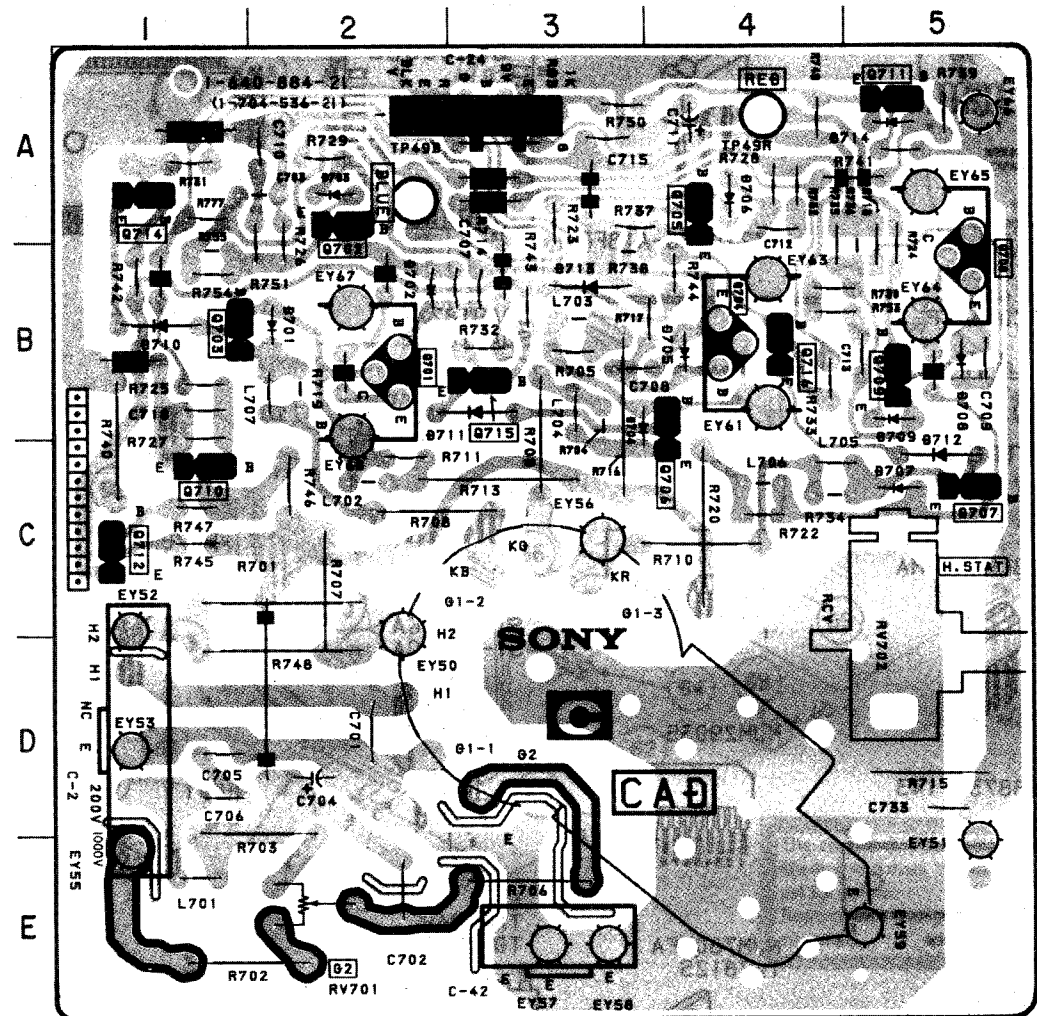
- Y2 BOARD -



IC	
IC403	H-1
IC404	D-5, E-5
IC406	C-2, F-2
IC407	A-4, G-4
IC408	C-4, F-4
TRANSISTOR	
Q404	H-3
Q405	H-3
Q409	D-5
Q410	E-5
DIODE	
D405	F-2
D406	F-2
D407	F-3
D408	E-4
D409	A-5
D410	C-5, F-5
D413	E-6
D141	F-4
D415	B-5



- C BOARD -



Note :

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

TRANSISTOR

Q701	B-2
Q702	A-2
Q703	B-1
Q704	B-4
Q705	A-4
Q706	B-4
Q707	C-5
Q708	B-5
Q709	B-5
Q710	C-1
Q711	A-5
Q712	C-1
Q714	A-1
Q715	B-3
Q716	B-4

DIODE

D701	B-2
D702	B-2
D703	A-2
D704	B-3
D705	B-4
D706	A-4
D707	C-5
D708	B-5
D709	C-5
D710	B-1
D711	B-3
D712	C-5
D713	B-3
D714	A-5

VARIABLE RESISTOR

RV701	E-2
RV702	D-5

## SECTION 8 ELECTRICAL PARTS LIST

P3

NOTE:

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

Les composants identifiés par une trame et une marque  $\Delta$  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.

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

- CAPACITORS                      COILS
- MF :  $\mu$ F, PF :  $\mu$ F              • MMH : mH, UH :  $\mu$ H
- The components identified by  $\boxtimes$  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- RESISTORS
- All resistors are in ohms
  - F : nonflammable

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
*A-1195-068-A P3 BOARD, COMPLETE (KV-32XBR36(US/CND)) *****				IC2003	8-759-805-37	IC L78LR05D-MA	
				IC2004	8-759-066-51	IC MB88733-143	
				IC2005	8-759-803-25	IC CXK1006L	
<CAPACITOR>				<JACK>			
C2001	1-124-910-11	ELECT 47MF	20% 50V	J2001	*1-573-962-11	CONNECTOR (MALE) 50P	
C2002	1-124-910-11	ELECT 47MF	20% 50V	<COIL>			
C2003	1-124-119-00	ELECT 330MF	20% 16V	L2002	1-410-663-31	INDUCTOR 10UH	
C2004	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	L2003	1-410-667-31	INDUCTOR 22UH	
C2005	1-124-261-00	ELECT 10MF	20% 50V	<CONNECTOR>			
C2006	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	P3-39	*1-564-521-11	PLUG, CONNECTOR 6P	
C2007	1-126-157-11	ELECT 10MF	20% 16V	P3-41	*1-564-519-11	PLUG, CONNECTOR 4P	
C2008	1-163-031-11	CERAMIC 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	CERAMIC CHIP 0.0022MF	50V	Q2002	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2011	1-126-157-11	ELECT 10MF	20% 16V	Q2003	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2013	1-126-301-11	ELECT 1MF	20% 50V	Q2004	8-729-216-22	TRANSISTOR 2SA1162-G	
C2014	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	Q2005	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2015	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	Q2006	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2016	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	Q2007	8-729-216-22	TRANSISTOR 2SA1162-G	
C2017	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	Q2008	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
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	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2020	1-163-031-11	CERAMIC CHIP 0.01MF	50V	Q2011	8-729-216-22	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	CERAMIC CHIP 0.01MF	10% 50V	Q2030	8-729-216-22	TRANSISTOR 2SA1162-G	
C2023	1-163-119-00	CERAMIC CHIP 120PF	5% 50V	Q2031	8-729-216-22	TRANSISTOR 2SA1162-G	
C2024	1-124-465-00	ELECT 0.47MF	20% 50V	Q2036	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2025	1-126-157-11	ELECT 10MF	20% 16V	Q2037	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2027	1-163-103-00	CERAMIC CHIP 27PF	5% 50V	<RESISTOR>			
C2028	1-163-107-00	CERAMIC CHIP 39PF	5% 50V	R2002	1-216-357-00	METAL OXIDE 4.7 5% 1W F	
C2064	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	R2003	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
C2065	1-126-320-11	ELECT 10MF	20% 16V	R2004	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
C2066	1-126-157-11	ELECT 10MF	20% 16V	R2006	1-216-689-11	METAL GLAZE 39K 5% 1/10W	
C2067	1-126-157-11	ELECT 10MF	20% 16V	R2007	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
C2068	1-124-916-11	ELECT 22MF	20% 50V	R2008	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
C2075	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	R2009	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
<COMPOSITION CIRCUIT BLOCK>				R2010	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
CP2001	1-236-472-11	NETWORK, RES, THICK FILM		R2011	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
<DIODE>				R2012	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
D2006	8-719-105-45	DIODE RD3.3M-B1		R2013	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
D2007	8-719-911-19	DIODE 1SS119		R2014	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
<IC>							
IC2001	8-759-231-58	IC TA7812S					
IC2002	8-759-700-48	IC NJM2903S					

# KV-32XBR26/32XBR36

RM-Y112A TDR-IF310/RM-Y113A

**P3** **A**

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

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

REF. NO.	PART NO.	DESCRIPTION	REMARK
R2015	1-216-033-00	METAL GLAZE 220 5%	1/10W
R2016	1-216-295-00	METAL GLAZE 0 5%	1/10W
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
R2020	1-216-037-00	METAL GLAZE 330 5%	1/10W
R2021	1-216-095-00	METAL GLAZE 82K 5%	1/10W
R2022	1-216-109-00	METAL GLAZE 330K 5%	1/10W
R2023	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2024	1-216-047-00	METAL GLAZE 820 5%	1/10W
R2025	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2026	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2027	1-216-033-00	METAL GLAZE 220 5%	1/10W
R2028	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2029	1-216-033-00	METAL GLAZE 220 5%	1/10W
R2030	1-216-009-00	METAL GLAZE 22 5%	1/10W
R2031	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2032	1-216-033-00	METAL GLAZE 220 5%	1/10W
R2033	1-216-033-00	METAL GLAZE 220 5%	1/10W
R2037	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R2038	1-216-025-00	METAL GLAZE 100 5%	1/10W
R2039	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R2040	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2041	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2046	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2047	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2048	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2049	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R2050	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
R2051	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2052	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2053	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2054	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2055	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2056	1-216-295-00	METAL GLAZE 0 5%	1/10W
R2057	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2058	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2059	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2060	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2061	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2062	1-216-295-00	METAL GLAZE 0 5%	1/10W
R2063	1-216-025-00	METAL GLAZE 100 5%	1/10W
R2064	1-216-025-00	METAL GLAZE 100 5%	1/10W
R2093	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R2124	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2125	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R2127	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R2128	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R2129	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
R2130	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R2131	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R2132	1-216-676-11	METAL CHIP 11K 0.50%	1/10W
R2147	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R2148	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2149	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R2150	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R2151	1-216-085-00	METAL GLAZE 33K 5%	1/10W

<VARIABLE RESISTOR>

RV2001 1-238-015-11 RES, ADJ, CARBON 4.7K


REF. NO.	PART NO.	DESCRIPTION	REMARK
<TUNER>			
TU2001A1-693-102-22 TUNER (BTF-XA401)			
<CRYSTAL>			
X2001	1-567-192-11	OSCILLATOR, CERAMIC 4MHZ	
*****			
*A-1297-137-A	A BOARD, COMPLETE (KV-32XBR26(US/CND))		
*****			
*A-1297-138-A	A BOARD, COMPLETE (KV-32XBR36(US/CND))		
*****			
4-382-854-11	SCREW (M3X10), P, SW (+)		
<CONNECTOR>			
A-2	*1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P	
A-3	*1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P	
A-4	*1-564-510-11	PLUG, CONNECTOR 7P	
A-5	*1-564-507-11	PLUG, CONNECTOR 4P	
A-11	*1-564-507-11	PLUG, CONNECTOR 4P	
A-12	1-573-297-21	CONNECTOR, BOARD TO BOARD 18P	
A-13	1-573-297-21	CONNECTOR, BOARD TO BOARD 18P	
A-14	1-573-296-21	CONNECTOR, BOARD TO BOARD 10P	
A-15	1-573-296-21	CONNECTOR, BOARD TO BOARD 10P	
A-18	1-573-296-21	CONNECTOR, BOARD TO BOARD 10P	
A-21	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P	
A-37	*1-564-514-11	PLUG, CONNECTOR 11P	
A-43	*1-564-508-11	PLUG, CONNECTOR 5P	
A-48	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
A-49	*1-564-506-11	PLUG, CONNECTOR 3P	
A100	1-573-979-21	CONNECTOR, BOARD TO BOARD 11P	
DY-1	*1-580-798-11	CONNECTOR PIN (DY) 6P	
ES002	*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 470MF 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	1-123-875-11	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	


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


Les composants identifiés par une trame et une marque  $\Delta$  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
C509	1-123-946-00	ELECT	4.7MF 20%	250V	C1501	1-124-916-11	ELECT 22MF 20% 50V
C510	1-102-110-00	CERAMIC	220PF 10%	50V	C1502	1-126-301-11	ELECT 1MF 20% 50V
C511	1-124-477-11	ELECT	47MF 20%	25V	C1503	1-102-114-00	CERAMIC 470PF 10% 50V
C512	1-162-318-11	CERAMIC	0.001MF 10%	500V	C1504	1-124-480-11	ELECT 470MF 20% 25V
C513	1-106-391-12	MYLAR	0.1MF 10%	200V	C1505	1-124-911-11	ELECT 220MF 20% 50V
C514	1-124-477-11	ELECT	47MF 20%	25V	C1506	1-136-171-00	FILM 0.33MF 5% 50V
C515	1-162-117-00	CERAMIC	100PF 10%	500V	C1507	1-106-224-00	MYLAR 0.15MF 10% 100V
C517	1-124-477-11	ELECT	47MF 20%	25V	C1508	1-124-480-11	ELECT 470MF 20% 25V
C519	1-124-472-11	ELECT	470MF 20%	10V	C1509	1-124-122-11	ELECT 100MF 20% 50V
C520 $\Delta$	1-162-116-91	CERAMIC	680PF 10%	2KV			
C521 $\Delta$	1-137-606-21	FILM	0.023MF 3%	2KV		<DIODE>	
C522	1-162-116-00	CERAMIC	680PF 10%	2KV	D205	8-719-911-19	DIODE 1SS119
C523	1-124-465-00	ELECT	0.47MF 20%	50V	D206	8-719-911-19	DIODE 1SS119
C524	1-130-487-00	MYLAR	0.022MF 5%	50V	D207	8-719-911-19	DIODE 1SS119
C525	1-162-116-00	CERAMIC	680PF 10%	2KV	D208	8-719-911-19	DIODE 1SS119
C526 $\Delta$	1-136-895-51	FILM	0.068MF 5%	630V	D209	8-719-510-48	DIODE D1N20R
C527	1-130-495-00	MYLAR	0.1MF 5%	50V	D213	8-719-110-78	DIODE RD33ES-B2
C528	1-106-359-00	MYLAR	0.0047MF 10%	200V	D501	8-719-018-82	DIODE RGP02-20EL-6394
C531	1-124-634-11	ELECT	1MF 20%	250V	D502 $\Delta$	8-719-302-44	DIODE EL1Z-V1
C532	1-124-477-11	ELECT	47MF 20%	25V	D504	8-719-911-19	DIODE 1SS119
C533	1-137-119-11	FILM	2MF 5%	200V	D506	8-719-109-90	DIODE RD5.6ES-B3
C534	1-137-116-11	FILM	1MF 5%	200V	D508	8-719-109-88	DIODE RD5.6ES-B1
C535	1-124-480-11	ELECT	470MF 20%	25V	D509	8-719-110-03	DIODE RD7.5ES-B2
C536	1-102-228-00	CERAMIC	470PF 10%	500V	D511	8-719-300-33	DIODE RU-3AM
C537	1-106-343-00	MYLAR	0.001MF 10%	100V	D512	8-719-908-03	DIODE GP08D
C538	1-106-395-00	MYLAR	0.15MF 10%	200V	D513	8-719-908-03	DIODE GP08D
C539	1-123-950-00	ELECT	47MF 20%	250V	D514	8-719-312-72	DIODE RU30A
C540	1-124-480-11	ELECT	470MF 20%	25V	D515	8-719-936-84	DIODE RGP10GPKG3
C541	1-102-228-00	CERAMIC	470PF 10%	500V	D516	8-719-979-85	DIODE EGP20G
C542	1-106-387-00	MYLAR	0.068MF 10%	200V	D518	8-719-109-93	DIODE RD6.2ES-B2
C546	1-123-024-21	ELECT	33MF	160V	D521	8-719-911-19	DIODE 1SS119
C549	1-124-261-00	ELECT	10MF 20%	50V	D522	8-719-110-72	DIODE RD30ES-B2
C551	1-130-471-00	MYLAR	0.001MF 5%	50V	D524	8-719-976-64	DIODE RGP02-17
C552	1-126-176-11	ELECT	220MF 20%	10V	D525	8-719-911-19	DIODE 1SS119
C554 $\Delta$	1-161-731-51	CERAMIC	0.001MF 10%	2KV	D527	8-719-110-78	DIODE RD33ES-B2
C557	1-124-465-00	ELECT	0.47MF 20%	50V	D528	8-719-911-19	DIODE 1SS119
C561	1-124-261-00	ELECT	10MF 20%	50V	D529	8-719-911-19	DIODE 1SS119
C562	1-124-499-11	ELECT	1MF 20%	50V	D530	8-719-911-19	DIODE 1SS119
C563	1-130-491-00	MYLAR	0.047MF 5%	50V	D1407	8-719-911-19	DIODE 1SS119
C564	1-130-495-00	MYLAR	0.1MF 5%	50V	D1409	8-719-110-90	DIODE RD39ES-B4
C565	1-130-495-00	MYLAR	0.1MF 5%	50V	D1410	8-719-901-83	DIODE 1SS83
C566	1-130-485-00	MYLAR	0.015MF 5%	50V	D1411	8-719-901-83	DIODE 1SS83
C569	1-136-167-00	FILM	0.15MF 5%	50V	D1503	8-719-908-03	DIODE GP08D
C570	1-130-471-00	MYLAR	0.001MF 5%	50V	D4001	8-719-911-19	DIODE 1SS119
C571	1-130-471-00	FILM	0.001MF 2%	50V		<IC>	
C572	1-124-907-11	ELECT	10MF 20%	50V	IC201	8-749-920-58	IC SI-3090CA
C573	1-130-471-00	MYLAR	0.001MF 5%	50V	IC202	8-749-921-99	IC SI-3120CA (KV-32XBR36(US/CND))
C575	1-102-038-00	CERAMIC	0.001MF	500V	IC204	8-759-701-75	IC NJM7805FA
C578	1-106-367-00	MYLAR	0.01MF 10%	200V	IC205	8-759-144-84	IC UPC24M05HF
C579	1-106-383-00	MYLAR	0.047MF	200V	IC206	8-759-231-58	IC TA7812S
C1401	1-124-910-11	ELECT	47MF 20%	50V	IC501	8-759-987-16	IC LM393P
C1402	1-126-157-11	ELECT	10MF 20%	16V	IC502	1-809-726-11	MODULE, PROTECTOR PM-29
C1403	1-126-157-11	ELECT	10MF 20%	16V	IC503	8-759-987-16	IC LM393P
C1404	1-126-157-11	ELECT	10MF 20%	16V	IC504	8-759-231-58	IC TA7812S
C1405	1-124-910-11	ELECT	47MF 20%	50V	IC1401	8-759-246-70	IC TA8216H
C1406	1-124-910-11	ELECT	47MF 20%	50V	IC1501	8-759-506-46	IC TDA8179S
C1407	1-124-607-11	ELECT	2200MF 20%	50V		<COIL>	
C1408	1-136-165-00	FILM	0.1MF 5%	50V	L201	1-408-408-00	INDUCTOR 8.2UH
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	1-124-916-11	ELECT	22MF 20%	50V			
C1437	1-130-499-00	MYLAR	0.22MF 5%	50V			

• 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.

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

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



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
L205	1-408-421-00	INDUCTOR 100UH		R234	1-249-409-11	CARBON 220 5% 1/4W	
L208	1-410-785-31	INDUCTOR 0.22UH		R235	1-249-409-11	CARBON 220 5% 1/4W	
L210	1-408-408-00	INDUCTOR 8.2UH		R236	1-249-409-11	CARBON 220 5% 1/4W	
L502	1-412-552-31	INDUCTOR 2.2MMH		R237	1-249-409-11	CARBON 220 5% 1/4W	
L508	1-421-541-00	COIL, CHOKE 1000UH		R238	1-249-409-11	CARBON 220 5% 1/4W	
L509	1-459-104-00	COIL, WITH CORE 10MMH		R239	1-249-409-11	CARBON 220 5% 1/4W	
L510	 1-460-197-11	COIL, FERRITE (PMC)		R240	1-249-482-11	CARBON 4.7 5% 1/2W	F
L511	1-412-519-11	INDUCTOR 3.3UH		R501	1-215-442-00	METAL 7.5K 1% 1/4W	
L512	1-412-531-31	INDUCTOR 33UH		R504	1-215-869-11	METAL OXIDE 1K 5% 1W	F
L513	1-412-519-11	INDUCTOR 3.3UH		R505	1-215-449-00	METAL 15K 1% 1/4W	
L515	1-410-645-31	INDUCTOR 100UH		R506	1-249-423-11	CARBON 3.3K 5% 1/4W	
L517	 1-459-973-21	COIL, HORIZONTAL LINEARITY		R507	1-249-411-11	CARBON 330 5% 1/4W	
L520	1-412-531-31	INDUCTOR 33UH		R508	1-249-435-11	CARBON 33K 5% 1/4W	
L521	1-459-148-00	COIL		R509	1-249-441-11	CARBON 100K 5% 1/4W	
L1501	1-412-525-21	INDUCTOR 10UH		R510	1-249-409-11	CARBON 220 5% 1/4W	F
L1502	1-412-525-21	INDUCTOR 10UH		R511	1-249-397-11	CARBON 22 5% 1/4W	F
L1503	1-412-525-21	INDUCTOR 10UH		R512	1-249-423-11	CARBON 3.3K 5% 1/4W	
				R513	1-249-425-11	CARBON 4.7K 5% 1/4W	
<TRANSISTOR>				R514	1-249-438-11	CARBON 56K 5% 1/4W	
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE		R515	1-249-433-11	CARBON 22K 5% 1/4W	
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE		R517	1-216-361-00	METAL OXIDE 0.22 5% 2W	F
Q501	8-729-011-07	TRANSISTOR 2SC4763(LBSONY)		R519	1-247-755-11	CARBON 1.8K 5% 1/2W	F
Q502	8-729-140-97	TRANSISTOR 2SB734-34		R520	1-249-441-11	CARBON 100K 5% 1/4W	
Q504	8-729-119-76	TRANSISTOR 2SA1175-HFE		R521	1-216-481-11	METAL OXIDE 1.2K 5% 3W	F
Q506	8-729-011-00	TRANSISTOR 2SK1916-53-F87		R522	1-215-917-11	METAL OXIDE 1K 5% 3W	F
Q507	8-729-119-80	TRANSISTOR 2SC2688-LK		R523	1-249-425-11	CARBON 4.7K 5% 1/4W	
Q509	8-729-119-76	TRANSISTOR 2SA1175-HFE		R524	1-215-445-00	METAL 10K 1% 1/4W	
Q510	8-729-119-78	TRANSISTOR 2SC2785-HFE		R526	1-249-401-11	CARBON 47 5% 1/4W	
Q512	8-729-119-78	TRANSISTOR 2SC2785-HFE		R528	1-247-903-00	CARBON 1M 5% 1/4W	
Q513	8-729-140-96	TRANSISTOR 2SD774-34		R529	1-249-429-11	CARBON 10K 5% 1/4W	
Q515	8-729-119-76	TRANSISTOR 2SA1175-HFE		R530	1-215-457-00	METAL 33K 1% 1/4W	
Q516	8-729-119-76	TRANSISTOR 2SA1175-HFE		R532	1-249-437-11	CARBON 47K 5% 1/4W	
Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE		R533	1-247-887-00	CARBON 220K 5% 1/4W	
Q1407	8-729-119-78	TRANSISTOR 2SC2785-HFE		R534	1-247-883-00	CARBON 150K 5% 1/4W	
Q1408	8-729-119-78	TRANSISTOR 2SC2785-HFE		R535	1-249-397-11	CARBON 22 5% 1/4W	F
Q1501	8-729-119-78	TRANSISTOR 2SC2785-HFE		R537	1-215-465-00	METAL 68K 1% 1/4W	
Q1502	8-729-119-78	TRANSISTOR 2SC2785-HFE		R538	1-249-439-11	CARBON 68K 5% 1/4W	
				R539	1-215-437-00	METAL 4.7K 1% 1/4W	
<RESISTOR>				R541	1-249-397-11	CARBON 22 5% 1/4W	F
R210	1-249-441-11	CARBON 100K 5% 1/4W		R542	1-215-890-11	METAL OXIDE 470 5% 2W	F
R211	1-249-425-11	CARBON 4.7K 5% 1/4W		R546	1-215-441-00	METAL 6.8K 1% 1/4W	
R214	1-249-377-11	CARBON 0.47 5% 1/4W	F	R547	1-249-441-11	CARBON 100K 5% 1/4W	
R219	1-249-426-11	CARBON 5.6K 5% 1/4W		R548	1-215-885-00	METAL OXIDE 68 5% 2W	F
R221	1-249-409-11	CARBON 220 5% 1/4W		R549	1-215-881-11	METAL OXIDE 15 5% 2W	F
R222	1-249-434-11	CARBON 27K 5% 1/4W		R550	1-215-910-00	METAL OXIDE 68 5% 3W	F
R222	1-249-436-11	CARBON 39K 5% 1/4W	(KV-32XBR36(US/CND))	R551	1-247-743-11	CARBON 220 5% 1/2W	F
R223	1-249-433-11	CARBON 22K 5% 1/4W	(KV-32XBR26(US/CND))	R552	1-249-389-11	CARBON 4.7 5% 1/4W	F
R223	1-249-434-11	CARBON 27K 5% 1/4W	(KV-32XBR36(US/CND))	R553	1-249-377-11	CARBON 0.47 5% 1/4W	F
R224	1-249-409-11	CARBON 220 5% 1/4W		R554	1-249-377-11	CARBON 0.47 5% 1/4W	F
R225	1-249-419-11	CARBON 1.5K 5% 1/4W	(KV-32XBR36(US/CND))	R555	1-202-826-00	SOLID 4.7K 20% 1/2W	
R226	1-249-417-11	CARBON 1K 5% 1/4W		R558	1-259-882-11	CARBON 3.3M 5% 1/4W	
R227	1-249-417-11	CARBON 1K 5% 1/4W	(KV-32XBR36(US/CND))	R560	1-247-901-11	CARBON 820K 5% 1/4W	
R230	1-215-923-00	METAL OXIDE 10K 5% 3W	F	R564	1-215-470-00	METAL 110K 1% 1/4W	
R231	1-249-409-11	CARBON 220 5% 1/4W	F	R565	 CARBON		
R232	1-216-380-11	METAL OXIDE 8.2 5% 2W	F	R566	 CARBON		
R233	1-249-409-11	CARBON 220 5% 1/4W		R567	1-249-425-11	CARBON 4.7K 5% 1/4W	
				R568	1-249-425-11	CARBON 4.7K 5% 1/4W	
				R569	1-249-417-11	CARBON 1K 5% 1/4W	
				R572	1-249-393-11	CARBON 10 5% 1/4W	F
				R573	1-249-393-11	CARBON 10 5% 1/4W	F
				R576	1-249-417-11	CARBON 1K 5% 1/4W	F
				R584	1-215-467-00	METAL 82K 1% 1/4W	
				R587	1-249-441-11	CARBON 100K 5% 1/4W	

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

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

**A E1**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R589	1-249-437-11	CARBON	47K 5% 1/4W	C303	1-126-157-11	ELECT 10MF	20% 16V
R590	1-249-431-11	CARBON	15K 5% 1/4W	C304	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R592	1-249-429-11	CARBON	10K 5% 1/4W	C305	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
R593	1-215-878-00	METAL OXIDE	33K 5% 1W	C306	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R594	1-247-903-00	CARBON	1M 5% 1/4W	C309	1-164-505-11	CERAMIC CHIP 2.2MF	16V
R595	1-249-440-11	CARBON	82K 5% 1/4W	C310	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
R597	1-249-437-11	CARBON	47K 5% 1/4W	C314	1-124-915-11	ELECT 10MF	20% 16V
R598	1-249-377-11	CARBON	0.47 5% 1/4W	C315	1-164-505-11	CERAMIC CHIP 2.2MF	16V
R599	1-249-425-11	CARBON	4.7K 5% 1/4W	C319	1-126-157-11	ELECT 10MF	20% 16V
R1401	1-215-444-00	METAL	9.1K 1% 1/4W	C320	1-124-465-00	ELECT 0.47MF	20% 50V
R1402	1-215-444-00	METAL	9.1K 1% 1/4W	C321	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
R1403	1-215-430-00	METAL	2.4K 1% 1/4W	C322	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
R1404	1-215-430-00	METAL	2.4K 1% 1/4W	C323	1-163-099-00	CERAMIC CHIP 18PF	5% 50V
R1405	1-249-385-11	CARBON	2.2 5% 1/4W	C324	1-124-234-00	ELECT 22MF	20% 16V
R1406	1-249-385-11	CARBON	2.2 5% 1/4W	C325	1-104-563-11	FILM CHIP 0.1MF	5% 16V
R1409	1-249-433-11	CARBON	22K 5% 1/4W	C326	1-104-563-11	FILM CHIP 0.1MF	5% 16V
R1410	1-249-433-11	CARBON	22K 5% 1/4W	C327	1-104-563-11	FILM CHIP 0.1MF	5% 16V
R1427	1-249-421-11	CARBON	2.2K 5% 1/4W	C328	1-126-157-11	ELECT 10MF	20% 16V
R1428	1-249-421-11	CARBON	2.2K 5% 1/4W	C329	1-126-157-11	ELECT 10MF	20% 16V
R1439	1-247-883-00	CARBON	150K 5% 1/4W	C330	1-126-157-11	ELECT 10MF	20% 16V
R1501	1-215-449-00	METAL	15K 1% 1/4W	C331	1-126-301-11	ELECT 1MF	20% 50V
R1502	1-215-436-00	METAL	4.3K 1% 1/4W	C332	1-124-584-00	ELECT 100MF	20% 10V
R1503	1-249-425-11	CARBON	4.7K 5% 1/4W	C333	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V
R1505	1-249-433-11	CARBON	22K 5% 1/4W	C334	1-137-491-11	FILM CHIP 0.1MF	5% 25V
R1506	1-218-642-11	METAL OXIDE	100K 5% 1W	C335	1-136-169-00	FILM 0.22MF	5% 50V
R1507	1-249-436-11	CARBON	39K 5% 1/4W	C336	1-126-301-11	ELECT 1MF	20% 50V
R1508	1-215-453-00	METAL	22K 1% 1/4W	C337	1-126-301-11	ELECT 1MF	20% 50V
R1509	1-215-461-00	METAL	47K 1% 1/4W	C338	1-124-584-00	ELECT 100MF	20% 10V
R1510	1-249-383-11	CARBON	1.5 5% 1/4W	C339	1-124-791-11	ELECT 1MF	20% 50V
R1511	1-215-888-00	METAL OXIDE	220 5% 2W	C340	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
R1512	1-216-371-00	METAL OXIDE	1.5 5% 2W	C341	1-126-157-11	ELECT 10MF	20% 16V
R1513	1-249-436-11	CARBON	39K 5% 1/4W	C342	1-124-465-00	ELECT 0.47MF	20% 50V
R1550	1-215-881-11	METAL OXIDE	15 5% 2W	C343	1-124-589-11	ELECT 47MF	20% 16V
R4002	1-249-385-11	CARBON	2.2 5% 1/4W	C344	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R4003	1-216-361-00	METAL OXIDE	0.22 5% 2W	C345	1-124-767-00	ELECT 2.2MF	20% 50V
R4004	1-216-374-00	METAL OXIDE	2.7 5% 2W	C346	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R4006	1-216-396-11	METAL OXIDE	3.9 5% 3W	C347	1-136-169-00	FILM 0.22MF	5% 50V
<SPARK GAP>				C348	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
SG501	1-519-422-11	GAP, SPARK		C349	1-126-301-11	ELECT 1MF	20% 50V
<TRANSFORMER>				C350	1-126-301-11	ELECT 1MF	20% 50V
<del>T501</del>	<del>1-439-513-11</del>	<del>TRANSFORMER ASSY FLYBACK (NX-2602A3)</del>		C351	1-163-002-11	CERAMIC CHIP 270PF	10% 50V
T503	1-437-217-11	TRANSFORMER, HORIZONTAL DRIVE		C352	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
T505	1-413-059-00	TRANSFORMER, FERRITE (DFT)		C353	1-126-163-11	ELECT 4.7MF	20% 50V
<THERMISTOR>				C354	1-136-169-00	FILM 0.22MF	5% 50V
THP150	1-807-970-11	THERMISTOR		C355	1-124-465-00	ELECT 0.47MF	20% 50V
<TUNER>				C356	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
<del>TU101A</del>	<del>1-693-102-22</del>	<del>TUNER (BTF-KA401)</del>		C357	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
*****				C358	1-124-767-00	ELECT 2.2MF	20% 50V
*A-1346-132-A	E1 BOARD, COMPLETE			C360	1-137-491-11	FILM CHIP 0.1MF	5% 25V
*****				C361	1-126-301-11	ELECT 1MF	20% 50V
<CAPACITOR>				C362	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C301	1-163-010-11	CERAMIC CHIP 0.0012MF	10% 50V	C363	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C364	1-126-301-11	ELECT 1MF	20% 50V
				C365	1-164-343-11	CERAMIC CHIP 0.056MF	10% 25V
				C366	1-124-257-00	ELECT 2.2MF	20% 50V
				C367	1-126-157-11	ELECT 10MF	20% 16V
				C368	1-124-234-00	ELECT 22MF	20% 16V
				C369	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
				C370	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C371	1-124-126-00	ELECT 47MF	20% 16V
				C372	1-124-589-11	ELECT 47MF	20% 16V
				C373	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C378	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C379	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V

E1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C380	1-163-137-00	CERAMIC CHIP 680PF	5%	50V	Q316	8-729-422-27	TRANSISTOR 2SD601A-Q
C381	1-163-101-00	CERAMIC CHIP 22PF	5%	50V	Q317	8-729-216-22	TRANSISTOR 2SA1162-G
C382	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	Q321	8-729-925-79	TRANSISTOR IMX3
C383	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	Q322	8-729-216-22	TRANSISTOR 2SA1162-G
C384	1-163-095-00	CERAMIC CHIP 12PF	5%	50V	Q323	8-729-422-27	TRANSISTOR 2SD601A-Q
		<DIODE>			Q324	8-729-216-22	TRANSISTOR 2SA1162-G
					Q325	8-729-216-22	TRANSISTOR 2SA1162-G
D301	8-719-404-46	DIODE MA110		Q326	8-729-422-27	TRANSISTOR 2SD601A-Q	
D302	8-719-404-46	DIODE MA110		Q327	8-729-422-27	TRANSISTOR 2SD601A-Q	
D303	8-719-404-46	DIODE MA110		Q328	8-729-422-27	TRANSISTOR 2SD601A-Q	
D304	8-719-404-46	DIODE MA110		Q329	8-729-925-79	TRANSISTOR IMX3	
D305	8-719-404-46	DIODE MA110		Q330	8-729-925-79	TRANSISTOR IMX3	
D306	8-719-158-15	DIODE RD5.6SB		Q333	8-729-925-79	TRANSISTOR IMX3	
D307	8-719-404-46	DIODE MA110		Q334	8-729-422-27	TRANSISTOR 2SD601A-Q	
D310	8-719-158-15	DIODE RD5.6SB		Q335	8-729-907-46	TRANSISTOR IMZ1	
D312	8-719-404-46	DIODE MA110		Q340	8-729-422-27	TRANSISTOR 2SD601A-Q	
D313	8-719-404-46	DIODE MA110		Q342	8-729-925-79	TRANSISTOR IMX3	
D314	8-719-404-46	DIODE MA110		Q344	8-729-216-22	TRANSISTOR 2SA1162-G	
D315	8-719-404-46	DIODE MA110				<RESISTOR>	
D316	8-719-404-46	DIODE MA110		R301	1-216-025-00	METAL GLAZE 100 5%	
D317	8-719-404-46	DIODE MA110		R302	1-216-057-00	METAL GLAZE 2.2K 5%	
D318	8-719-404-46	DIODE MA110		R303	1-216-079-00	METAL GLAZE 18K 5%	
D319	8-719-404-46	DIODE MA110		R304	1-216-081-00	METAL GLAZE 22K 5%	
D320	8-719-404-46	DIODE MA110		R305	1-216-069-00	METAL GLAZE 6.8K 5%	
D321	8-719-400-94	DIODE MA3130		R306	1-216-081-00	METAL GLAZE 22K 5%	
		<DELAY LINE>		R307	1-216-089-00	METAL GLAZE 47K 5%	
DL302	1-415-817-11	DELAY LINE		R308	1-216-037-00	METAL GLAZE 330 5%	
		<CONNECTOR>		R309	1-216-073-00	METAL GLAZE 10K 5%	
E1-24	1-564-523-11	PLUG, CONNECTOR 8P		R310	1-216-065-00	METAL GLAZE 4.7K 5%	
E1-25	*1-564-521-11	PLUG, CONNECTOR 6P		R312	1-216-043-00	METAL GLAZE 560 5%	
E1-26	*1-564-522-11	PLUG, CONNECTOR 7P		R313	1-216-035-00	METAL GLAZE 270 5%	
E1-001	1-573-965-21	PIN, CONNECTOR (PC BOARD) 50P		R314	1-216-061-00	METAL GLAZE 3.3K 5%	
		<IC>		R316	1-216-035-00	METAL GLAZE 270 5%	
IC301	8-752-058-68	IC CXA1315M		R317	1-216-121-00	METAL GLAZE 1M 5%	
IC302	8-752-059-67	IC CXA1465AS		R320	1-216-039-00	METAL GLAZE 390 5%	
IC303	8-759-106-02	IC UPC4570G2		R325	1-216-033-00	METAL GLAZE 220 5%	
		<COIL>		R326	1-216-057-00	METAL GLAZE 2.2K 5%	
L301	1-410-064-11	INDUCTOR 2.7MMH		R331	1-216-017-00	METAL GLAZE 47 5%	
L307	1-410-944-31	INDUCTOR CHIP 15UH		R332	1-216-657-11	METAL CHIP 1.8K 0.50%	
L308	1-410-946-31	INDUCTOR CHIP 22UH		R333	1-216-051-00	METAL GLAZE 1.2K 5%	
		<TRANSISTOR>		R336	1-216-047-00	METAL GLAZE 820 5%	
Q301	8-729-925-79	TRANSISTOR IMX3		R338	1-216-043-00	METAL GLAZE 560 5%	
Q302	8-729-925-79	TRANSISTOR IMX3		R339	1-216-047-00	METAL GLAZE 820 5%	
Q303	8-729-422-27	TRANSISTOR 2SD601A-Q		R340	1-216-651-11	METAL CHIP 1K 0.50%	
Q304	8-729-907-46	TRANSISTOR IMZ1		R341	1-216-043-00	METAL GLAZE 560 5%	
Q305	8-729-925-79	TRANSISTOR IMX3		R343	1-216-077-00	METAL GLAZE 15K 5%	
Q306	8-729-422-27	TRANSISTOR 2SD601A-Q		R344	1-216-081-00	METAL GLAZE 22K 5%	
Q307	8-729-903-10	TRANSISTOR FMW1		R345	1-216-292-11	METAL GLAZE 8.2M 5%	
Q309	8-729-422-27	TRANSISTOR 2SD601A-Q		R346	1-216-081-00	METAL GLAZE 22K 5%	
Q310	8-729-422-27	TRANSISTOR 2SD601A-Q		R347	1-216-081-00	METAL GLAZE 22K 5%	
Q311	8-729-403-27	TRANSISTOR XN4401		R348	1-216-049-00	METAL GLAZE 1K 5%	
Q312	8-729-422-27	TRANSISTOR 2SD601A-Q		R349	1-216-295-00	METAL GLAZE 0 5%	
Q314	8-729-403-27	TRANSISTOR XN4401		R350	1-216-089-00	METAL GLAZE 47K 5%	
Q315	8-729-422-27	TRANSISTOR 2SD601A-Q		R351	1-216-674-11	METAL CHIP 9.1K 0.50%	
				R352	1-216-011-00	METAL GLAZE 27 5%	
				R353	1-216-001-00	METAL GLAZE 10 5%	
				R354	1-216-049-00	METAL GLAZE 1K 5%	
				R355	1-216-001-00	METAL GLAZE 10 5%	
				R356	1-216-001-00	METAL GLAZE 10 5%	
				R357	1-216-049-00	METAL GLAZE 1K 5%	
				R358	1-216-049-00	METAL GLAZE 1K 5%	

E1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R359	1-216-049-00	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
R365	1-216-017-00	METAL GLAZE	47 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	1-216-045-00	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	1-216-089-00	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	1-216-037-00	METAL GLAZE	330 5% 1/10W	R1342	1-216-033-00	METAL GLAZE	220 5% 1/10W
R376	1-216-037-00	METAL GLAZE	330 5% 1/10W	R1343	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R377	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1344	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R378	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1345	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R379	1-216-033-00	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	R1350	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R384	1-216-041-00	METAL GLAZE	470 5% 1/10W	R1351	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R385	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1352	1-216-039-00	METAL GLAZE	390 5% 1/10W
R386	1-216-687-11	METAL CHIP	33K 0.50% 1/10W	R1353	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R387	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1354	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R388	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1355	1-216-017-00	METAL GLAZE	47 5% 1/10W
R389	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1356	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R390	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1357	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R391	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1358	1-216-033-00	METAL GLAZE	220 5% 1/10W
R393	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R1362	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R394	1-216-109-00	METAL GLAZE	330K 5% 1/10W	R1363	1-216-041-00	METAL GLAZE	470 5% 1/10W
R395	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R1364	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R396	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R1373	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R397	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1374	1-216-025-00	METAL GLAZE	100 5% 1/10W
R398	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1379	1-216-079-00	METAL GLAZE	18K 5% 1/10W
R399	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R1380	1-216-075-00	METAL GLAZE	12K 5% 1/10W
R1301	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1381	1-216-041-00	METAL GLAZE	470 5% 1/10W
R1302	1-216-045-00	METAL GLAZE	680 5% 1/10W	R1382	1-216-079-00	METAL GLAZE	18K 5% 1/10W
R1303	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R1383	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R1304	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1384	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1305	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1385	1-216-037-00	METAL GLAZE	330 5% 1/10W
R1306	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R1386	1-216-037-00	METAL GLAZE	330 5% 1/10W
R1307	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1387	1-216-045-00	METAL GLAZE	680 5% 1/10W
R1308	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1388	1-216-001-00	METAL GLAZE	10 5% 1/10W
R1309	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1389	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1310	1-216-045-00	METAL GLAZE	680 5% 1/10W	R1390	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1311	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1391	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1312	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1392	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1313	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1394	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1314	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1395	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1315	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1396	1-216-125-00	METAL GLAZE	1.5M 5% 1/10W
R1316	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1399	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1317	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R5301	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1318	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R5302	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1319	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R5303	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1320	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R5304	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1321	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R5305	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1322	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W				
R1323	1-216-089-00	METAL GLAZE	47K 5% 1/10W				
R1324	1-216-045-00	METAL GLAZE	680 5% 1/10W				



E1 E2

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
		<CRYSTAL>		E2-46	*1-564-518-11	PLUG, CONNECTOR 3P	
X301	1-567-505-11	OSCILLATOR, CRYSTAL 3.95MHZ		E2-002	1-573-965-21	PIN, CONNECTOR (PC BOARD) 50P	
		*****				<IC>	
	*A-1346-137-A	E2 BOARD, COMPLETE		IC2301	8-759-066-52	IC PCA8510T/012-T	
		*****		IC2303	8-759-925-75	IC SN74HC05ANS	
		<CAPACITOR>		IC2304	8-752-037-15	IC CXA1387S	
C2302	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	IC2306	8-759-011-65	IC MC74HC4053F	
C2303	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	IC2307	8-752-058-68	IC CXA1315M	
C2310	1-163-105-00	CERAMIC CHIP 33PF	5% 50V			<COIL>	
C2314	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	L2304	1-408-414-00	INDUCTOR 27UH	
C2315	1-126-157-11	ELECT 10MF	20% 16V			<TRANSISTOR>	
C2316	1-126-157-11	ELECT 10MF	20% 16V	Q2301	8-729-903-10	TRANSISTOR FMW1	
C2317	1-126-157-11	ELECT 10MF	20% 16V	Q2303	8-729-403-27	TRANSISTOR XN4401	
C2318	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2304	8-729-925-79	TRANSISTOR IMX3	
C2320	1-124-589-11	ELECT 47MF	20% 16V	Q2305	8-729-903-10	TRANSISTOR FMW1	
C2321	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	Q2306	8-729-403-27	TRANSISTOR XN4401	
C2322	1-124-234-00	ELECT 22MF	20% 16V	Q2307	8-729-403-27	TRANSISTOR XN4401	
C2323	1-124-234-00	ELECT 22MF	20% 16V	Q2308	8-729-403-27	TRANSISTOR XN4401	
C2324	1-124-234-00	ELECT 22MF	20% 16V	Q2309	8-729-903-10	TRANSISTOR FMW1	
C2325	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2310	8-729-403-27	TRANSISTOR XN4401	
C2326	1-124-589-11	ELECT 47MF	20% 16V	Q2311	8-729-903-10	TRANSISTOR FMW1	
C2327	1-164-505-11	CERAMIC CHIP 2.2MF	10% 50V	Q2312	8-729-403-27	TRANSISTOR XN4401	
C2328	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2313	8-729-903-10	TRANSISTOR FMW1	
C2329	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2314	8-729-403-27	TRANSISTOR XN4401	
C2331	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2315	8-729-903-10	TRANSISTOR FMW1	
C2332	1-124-234-00	ELECT 22MF	20% 16V	Q2317	8-729-216-22	TRANSISTOR 2SA1162-G	
C2333	1-124-234-00	ELECT 22MF	20% 16V	Q2318	8-729-216-22	TRANSISTOR 2SA1162-G	
C2334	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2319	8-729-216-22	TRANSISTOR 2SA1162-G	
C2335	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2320	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2336	1-126-163-11	ELECT 4.7MF	20% 16V	Q2321	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2337	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2322	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2338	1-163-038-00	CERAMIC CHIP 0.1MF	5% 25V	Q2324	8-729-216-22	TRANSISTOR 2SA1162-G	
C2340	1-216-133-00	METAL GLAZE 3.3M	5% 1/10W	Q2326	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2341	1-135-217-21	TANTAL. CHIP 15MF	20% 6.3V	Q2327	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2345	1-164-505-11	CERAMIC CHIP 2.2MF	10% 50V	Q2328	8-729-925-79	TRANSISTOR IMX3	
C2346	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2329	8-729-925-79	TRANSISTOR IMX3	
C2347	1-163-367-11	CERAMIC CHIP 39PF	5% 50V	Q2330	8-729-903-10	TRANSISTOR FMW1	
C2349	1-164-505-11	CERAMIC CHIP 2.2MF	10% 50V	Q2336	8-729-925-79	TRANSISTOR IMX3	
C2350	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2337	8-729-925-79	TRANSISTOR IMX3	
C2351	1-164-505-11	CERAMIC CHIP 2.2MF	10% 50V	Q2339	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2352	1-164-505-11	CERAMIC CHIP 2.2MF	10% 50V	Q2340	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2353	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2341	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2354	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V			<RESISTOR>	
C2357	1-126-301-11	ELECT 1MF	20% 50V	R2302	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
C2360	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	R2303	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
		<DIODE>		R2304	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
D2306	8-719-404-46	DIODE MA110		R2305	1-216-033-00	METAL GLAZE 220 5% 1/10W	
D2307	8-719-946-98	DIODE FMN1		R2306	1-216-045-00	METAL GLAZE 680 5% 1/10W	
D2308	8-719-946-98	DIODE FMN1		R2307	1-216-045-00	METAL GLAZE 680 5% 1/10W	
D2309	8-719-404-46	DIODE MA110		R2308	1-216-045-00	METAL GLAZE 680 5% 1/10W	
D2312	8-719-404-46	DIODE MA110		R2309	1-216-041-00	METAL GLAZE 470 5% 1/10W	
D2313	8-719-404-46	DIODE MA110		R2310	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
D2314	8-713-300-57	DIODE 1T33		R2311	1-216-025-00	METAL GLAZE 100 5% 1/10W	
D2317	8-719-404-46	DIODE MA110		R2312	1-216-043-00	METAL GLAZE 560 5% 1/10W	
		<CONNECTOR>		R2313	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
E2-25	*1-564-521-11	PLUG, CONNECTOR 6P		R2314	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
E2-26	*1-564-522-11	PLUG, CONNECTOR 7P					

E2

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R2315	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R2387	1-216-025-00	METAL GLAZE	100 5% 1/10W
R2317	1-216-041-00	METAL GLAZE	470 5% 1/10W	R2388	1-216-017-00	METAL GLAZE	47 5% 1/10W
R2318	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	R2389	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W
R2319	1-216-079-00	METAL GLAZE	18K 5% 1/10W	R2390	1-216-043-00	METAL GLAZE	560 5% 1/10W
R2320	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R2392	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W
R2321	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R2393	1-216-017-00	METAL GLAZE	47 5% 1/10W
R2322	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R2394	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2323	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R2395	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2324	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R2396	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W
R2325	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R2397	1-216-043-00	METAL GLAZE	560 5% 1/10W
R2326	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R2399	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2327	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R3301	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2328	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3302	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2329	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3303	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R2330	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R3304	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R2331	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R3306	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R2332	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3307	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R2333	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R3308	1-216-043-00	METAL GLAZE	560 5% 1/10W
R2334	1-216-295-00	METAL GLAZE	0 5% 1/10W	R3309	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2335	1-216-295-00	METAL GLAZE	0 5% 1/10W	R3310	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2336	1-216-295-00	METAL GLAZE	0 5% 1/10W	R3311	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2337	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3312	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2338	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3313	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R2340	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3314	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R2341	1-216-041-00	METAL GLAZE	470 5% 1/10W	R3315	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R2342	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3316	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R2343	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3318	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R2344	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3319	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R2345	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R3320	1-216-017-00	METAL GLAZE	47 5% 1/10W
R2346	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3321	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R2347	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R3323	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R2348	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W	R3324	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2349	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3325	1-216-025-00	METAL GLAZE	100 5% 1/10W
R2350	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R3328	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2351	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3330	1-216-033-00	METAL GLAZE	220 5% 1/10W
R2352	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R3331	1-216-033-00	METAL GLAZE	220 5% 1/10W
R2353	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R3332	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2354	1-216-210-00	METAL GLAZE	3.3K 5% 1/8W	R3333	1-216-657-11	METAL CHIP	1.8K 0.50% 1/10W
R2355	1-216-178-00	METAL GLAZE	150 5% 1/8W	R3334	1-216-661-11	METAL CHIP	2.7K 0.50% 1/10W
R2356	1-216-677-11	METAL CHIP	12K 0.50% 1/10W	R3335	1-216-025-00	METAL GLAZE	100 5% 1/10W
R2357	1-216-670-11	METAL CHIP	6.2K 0.50% 1/10W	R3336	1-216-683-11	METAL CHIP	22K 0.50% 1/10W
R2359	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3337	1-216-685-11	METAL CHIP	27K 0.50% 1/10W
R2360	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3339	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2361	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3340	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2362	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3341	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R2363	1-216-041-00	METAL GLAZE	470 5% 1/10W	R3342	1-216-670-11	METAL CHIP	6.2K 0.50% 1/10W
R2364	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3343	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2365	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3344	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2366	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3347	1-216-687-11	METAL CHIP	33K 0.50% 1/10W
R2367	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3348	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R2368	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3349	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2371	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3350	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2374	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R3351	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2375	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3352	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2376	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3353	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R2377	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3354	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R2378	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3356	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W
R2379	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3357	1-216-654-11	METAL CHIP	1.3K 0.50% 1/10W
R2380	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3358	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W
R2381	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3359	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R2382	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R3360	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R2384	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3361	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2385	1-216-075-00	METAL GLAZE	12K 5% 1/10W	R3362	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2386	1-216-049-00	METAL GLAZE	1K 5% 1/10W				

E2 M

REF. NO.	PART NO.	DESCRIPTION			REMARK
R3364	1-216-295-00	METAL GLAZE	0	5%	1/10W
R3365	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3367	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R3368	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R3369	1-216-001-00	METAL GLAZE	10	5%	1/10W
R3370	1-216-001-00	METAL GLAZE	10	5%	1/10W
R3371	1-216-001-00	METAL GLAZE	10	5%	1/10W
R3373	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R3374	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R3375	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R3375	1-216-658-11	METAL CHIP	2K	0.50%	1/10W
R3376	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R3377	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R3378	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R3379	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R3380	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W
R3381	1-216-025-00	METAL GLAZE	100	5%	1/10W
R3382	1-216-295-00	METAL GLAZE	0	5%	1/10W
R3392	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R3401	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R7312	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R7313	1-216-047-00	METAL GLAZE	820	5%	1/10W
R7314	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W

<CRYSTAL>

X2301 1-577-071-11 VIBRATOR, CERAMIC 4MHZ

\*\*\*\*\*

\*A-1306-436-A M BOARD, COMPLETE  
 \*\*\*\*\*

<CAPACITOR>

C001	1-124-261-00	ELECT	10MF	20%	50V
C002	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C003	1-136-161-00	FILM	0.047MF	5%	50V
C004	1-126-301-11	ELECT	1MF	20%	50V
C005	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C014	1-124-910-11	ELECT	47MF	20%	50V
C017	1-124-589-11	ELECT	47MF	20%	16V
C018	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C019	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C020	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C021	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C029	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C030	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C034	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C035	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C036	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C041	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C042	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C045	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C047	1-124-261-00	ELECT	10MF	20%	50V
C048	1-124-261-00	ELECT	10MF	20%	50V
C049	1-124-261-00	ELECT	10MF	20%	50V
C055	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C064	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C065	1-124-257-00	ELECT	2.2MF	20%	50V

<DIODE>

D001 8-719-404-46 DIODE MA110  
 D002 8-719-404-46 DIODE MA110

REF. NO.	PART NO.	DESCRIPTION			REMARK
D009	8-719-404-46	DIODE	MA110		
D010	8-713-300-57	DIODE	1T33		
D011	8-719-404-46	DIODE	MA110		
D012	8-719-404-46	DIODE	MA110		
D014	8-719-404-46	DIODE	MA110		
D015	8-719-404-46	DIODE	MA110		
<IC>					
IC001	8-759-169-06	IC	TMC73C247-10		
IC002	8-759-403-44	IC	MN1280-S		
<COIL>					
L001	1-408-409-00	INDUCTOR		10UH	
L002	1-410-476-11	INDUCTOR		33UH	
<CONNECTOR>					
M-39	*1-564-521-11	PLUG, CONNECTOR	6P		
M-45	*1-564-523-11	PLUG, CONNECTOR	8P		
M-001	1-573-965-21	PIN, CONNECTOR (PC BOARD)	50P		
<TRANSISTOR>					
Q001	8-729-216-22	TRANSISTOR	2SA1162-G		
Q009	8-729-422-27	TRANSISTOR	2SD601A-Q		
Q010	8-729-422-27	TRANSISTOR	2SD601A-Q		
Q011	8-729-422-27	TRANSISTOR	2SD601A-Q		
Q012	8-729-422-27	TRANSISTOR	2SD601A-Q		
Q013	8-729-216-22	TRANSISTOR	2SA1162-G		
Q014	8-729-422-27	TRANSISTOR	2SD601A-Q		
<RESISTOR>					
R001	1-216-045-00	METAL GLAZE	680	5%	1/10W
R002	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R003	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R004	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R005	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R006	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R007	1-216-027-00	METAL GLAZE	120	5%	1/10W
R008	1-216-041-00	METAL GLAZE	470	5%	1/10W
R009	1-216-027-00	METAL GLAZE	120	5%	1/10W
R011	1-216-033-00	METAL GLAZE	220	5%	1/10W
R012	1-216-033-00	METAL GLAZE	220	5%	1/10W
R013	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R014	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R015	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R016	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R017	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R018	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R019	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R033	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R034	1-216-033-00	METAL GLAZE	220	5%	1/10W
R035	1-216-033-00	METAL GLAZE	220	5%	1/10W
R036	1-216-033-00	METAL GLAZE	220	5%	1/10W
R037	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R038	1-216-033-00	METAL GLAZE	220	5%	1/10W
R039	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R040	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R041	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R042	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R043	1-216-033-00	METAL GLAZE	220	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION			REMARK
R044	1-216-033-00	METAL GLAZE	220	5%	1/10W
R045	1-216-025-00	METAL GLAZE	100	5%	1/10W
R046	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R047	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R048	1-216-033-00	METAL GLAZE	220	5%	1/10W
R049	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R050	1-216-295-00	METAL GLAZE	0	5%	1/10W
R051	1-216-033-00	METAL GLAZE	220	5%	1/10W
R052	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R053	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R054	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R055	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R056	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R057	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R058	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R059	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R060	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R063	1-216-033-00	METAL GLAZE	220	5%	1/10W
R064	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R065	1-216-033-00	METAL GLAZE	220	5%	1/10W
R066	1-216-033-00	METAL GLAZE	220	5%	1/10W
R067	1-216-033-00	METAL GLAZE	220	5%	1/10W
R068	1-216-033-00	METAL GLAZE	220	5%	1/10W
R069	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R070	1-216-033-00	METAL GLAZE	220	5%	1/10W
R071	1-216-033-00	METAL GLAZE	220	5%	1/10W
R072	1-216-033-00	METAL GLAZE	220	5%	1/10W
R073	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R074	1-216-033-00	METAL GLAZE	220	5%	1/10W
R075	1-216-033-00	METAL GLAZE	220	5%	1/10W
R076	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R077	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R078	1-216-033-00	METAL GLAZE	220	5%	1/10W
R079	1-216-025-00	METAL GLAZE	100	5%	1/10W
R080	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R081	1-216-033-00	METAL GLAZE	220	5%	1/10W
R082	1-216-033-00	METAL GLAZE	220	5%	1/10W
R083	1-216-033-00	METAL GLAZE	220	5%	1/10W
R084	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R085	1-216-033-00	METAL GLAZE	220	5%	1/10W
R086	1-216-033-00	METAL GLAZE	220	5%	1/10W
R087	1-216-033-00	METAL GLAZE	220	5%	1/10W
R088	1-216-033-00	METAL GLAZE	220	5%	1/10W
R089	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R090	1-216-033-00	METAL GLAZE	220	5%	1/10W
R091	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R092	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R093	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R094	1-216-033-00	METAL GLAZE	220	5%	1/10W
R095	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R096	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R097	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R098	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R099	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R100	1-216-025-00	METAL GLAZE	100	5%	1/10W
R101	1-216-025-00	METAL GLAZE	100	5%	1/10W
R102	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R103	1-216-033-00	METAL GLAZE	220	5%	1/10W
R104	1-216-033-00	METAL GLAZE	220	5%	1/10W

<CRYSTAL>

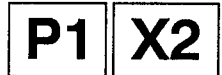
X001 1-579-743-11 VIBRATOR, CRYSTAL 6MHZ

\*\*\*\*\*

REF. NO.	PART NO.	DESCRIPTION			REMARK
*A-1195-066-A P1 BOARD, COMPLETE *****					
<CAPACITOR>					
C3001	1-124-589-11	ELECT	47MF	20%	16V
C3002	1-164-346-11	CERAMIC CHIP	1MF		16V
C3003	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3004	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C3005	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C3006	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3007	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C3008	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3009	1-124-925-11	ELECT	2.2MF	20%	50V
C3010	1-163-145-00	CERAMIC CHIP	0.0015MF	5%	50V
C3011	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V
C3012	1-164-336-11	CERAMIC CHIP	0.33MF		25V
C3013	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C3014	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3015	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3016	1-163-107-00	CERAMIC CHIP	39PF	5%	50V
C3017	1-130-495-00	MYLAR	0.1MF	5%	50V
C3018	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C3019	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3020	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C3021	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C3022	1-126-301-11	ELECT	1MF	20%	50V
C3023	1-124-589-11	ELECT	47MF	20%	16V
C3024	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V
C3025	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V
C3026	1-126-163-11	ELECT	4.7MF	20%	50V
C3027	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C3028	1-124-589-11	ELECT	47MF	20%	16V
C3029	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3030	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C3031	1-126-177-11	ELECT	100MF	20%	6.3V
C3032	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3033	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3034	1-164-336-11	CERAMIC CHIP	0.33MF		25V
C3035	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C3036	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3037	1-124-589-11	ELECT	47MF	20%	16V
C3038	1-136-287-11	FILM	0.0047MF	5%	50V
C3039	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3040	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3042	1-164-346-11	CERAMIC CHIP	1MF		16V
C3043	1-124-465-00	ELECT	0.47MF	20%	50V
C3044	1-126-301-11	ELECT	1MF	20%	50V
C3045	1-124-589-11	ELECT	47MF	20%	16V
C3046	1-126-301-11	ELECT	1MF	20%	50V
C3047	1-126-301-11	ELECT	1MF	20%	50V
C3048	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C3051	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C3052	1-126-177-11	ELECT	100MF	20%	6.3V
C3053	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3054	1-126-177-11	ELECT	100MF	20%	6.3V
C3055	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3057	1-124-589-11	ELECT	47MF	20%	16V
C3058	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C3059	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C3060	1-124-589-11	ELECT	47MF	20%	16V
C3064	1-163-123-00	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	Q3011	8-729-216-22	TRANSISTOR 2SA1162-G
C3066	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	Q3012	8-729-422-27	TRANSISTOR 2SD601A-Q
C3067	1-124-589-11	ELECT 47MF	20%	16V	Q3013	8-729-422-27	TRANSISTOR 2SD601A-Q
C3069	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	Q3014	8-729-422-27	TRANSISTOR 2SD601A-Q
C3070	1-126-177-11	ELECT 100MF	20%	6.3V	Q3100	8-729-216-22	TRANSISTOR 2SA1162-G
C3071	1-124-589-11	ELECT 47MF	20%	16V	<RESISTOR>		
C3072	1-124-589-11	ELECT 47MF	20%	16V	JR3	1-216-295-00	METAL GLAZE 0 5% 1/10W
C3073	1-124-589-11	ELECT 47MF	20%	16V	R3001	1-216-085-00	METAL GLAZE 33K 5% 1/10W
C3074	1-163-121-00	CERAMIC CHIP 150PF	5%	50V	R3002	1-216-089-00	METAL GLAZE 47K 5% 1/10W
C3076	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	R3003	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W
C3077	1-164-005-11	CERAMIC CHIP 0.47MF		25V	R3004	1-216-091-00	METAL GLAZE 56K 5% 1/10W
C3081	1-163-095-00	CERAMIC CHIP 12PF	5%	50V	R3005	1-216-689-11	METAL GLAZE 39K 5% 1/10W
C3100	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	R3006	1-216-097-00	METAL GLAZE 100K 5% 1/10W
C3101	1-163-115-00	CERAMIC CHIP 82PF	5%	50V	R3007	1-216-079-00	METAL GLAZE 18K 5% 1/10W
<CONNECTOR>					R3008	1-216-073-00	METAL GLAZE 10K 5% 1/10W
CN151	*1-573-965-11	PIN, CONNECTOR (PC BOARD)	50P		R3009	1-216-041-00	METAL GLAZE 470 5% 1/10W
<DIODE>					R3010	1-216-049-00	METAL GLAZE 1K 5% 1/10W
D3003	8-719-158-15	DIODE RD5.6SB			R3011	1-216-073-00	METAL GLAZE 10K 5% 1/10W
D3004	8-719-404-46	DIODE MA110			R3012	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
D3009	8-719-404-46	DIODE MA110			R3013	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
<IC>					R3014	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
IC3001	8-759-046-25	IC TDA3769			R3015	1-216-049-00	METAL GLAZE 1K 5% 1/10W
IC3002	8-759-009-46	IC MC14528BF			R3017	1-216-083-00	METAL GLAZE 27K 5% 1/10W
IC3003	8-759-513-48	IC TDA2595/V9			R3018	1-216-097-00	METAL GLAZE 100K 5% 1/10W
IC3004	8-759-088-90	IC SDA9187X			R3019	1-216-077-00	METAL GLAZE 15K 5% 1/10W
IC3005	8-759-088-91	IC SDA9188X			R3020	1-216-099-00	METAL GLAZE 120K 5% 1/10W
IC3006	8-759-112-06	IC UPC78N05H			R3021	1-216-075-00	METAL GLAZE 12K 5% 1/10W
IC3007	8-759-046-27	IC SDA9086-3			R3023	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
IC3008	8-759-112-06	IC UPC78N05H			R3025	1-216-015-00	METAL GLAZE 39 5% 1/10W
<COIL>					R3026	1-216-041-00	METAL GLAZE 470 5% 1/10W
L3001	1-410-476-11	INDUCTOR 33UH			R3027	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W
L3002	1-408-424-00	INDUCTOR 180UH			R3028	1-216-027-00	METAL GLAZE 120 5% 1/10W
L3003	1-408-424-00	INDUCTOR 180UH			R3030	1-216-073-00	METAL GLAZE 10K 5% 1/10W
L3004	1-410-470-11	INDUCTOR 10UH			R3031	1-216-047-00	METAL GLAZE 820 5% 1/10W
L3005	1-410-472-41	INDUCTOR 15UH			R3032	1-216-041-00	METAL GLAZE 470 5% 1/10W
L3006	1-412-788-41	INDUCTOR 10UH			R3033	1-216-295-00	METAL GLAZE 0 5% 1/10W
L3007	1-410-472-41	INDUCTOR 15UH			R3034	1-216-041-00	METAL GLAZE 470 5% 1/10W
L3008	1-410-472-41	INDUCTOR 15UH			R3035	1-216-045-00	METAL GLAZE 680 5% 1/10W
L3009	1-410-472-41	INDUCTOR 15UH			R3036	1-216-045-00	METAL GLAZE 680 5% 1/10W
L3010	1-410-466-41	INDUCTOR 4.7UH			R3037	1-216-083-00	METAL GLAZE 27K 5% 1/10W
L3011	1-410-470-11	INDUCTOR 10UH			R3038	1-216-049-00	METAL GLAZE 1K 5% 1/10W
L3012	1-410-676-31	INDUCTOR 150UH			R3039	1-216-073-00	METAL GLAZE 10K 5% 1/10W
L3013	1-412-911-11	INDUCTOR, FERRITE BEAD			R3040	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
L3014	1-412-911-11	INDUCTOR, FERRITE BEAD			R3041	1-216-073-00	METAL GLAZE 10K 5% 1/10W
L3015	1-412-911-11	INDUCTOR, FERRITE BEAD			R3042	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
L3100	1-410-392-11	INDUCTOR 82UH			R3043	1-216-099-00	METAL GLAZE 120K 5% 1/10W
<TRANSISTOR>					R3044	1-216-089-00	METAL GLAZE 47K 5% 1/10W
Q3003	8-729-216-22	TRANSISTOR 2SA1162-G			R3045	1-216-295-00	METAL GLAZE 0 5% 1/10W
Q3004	8-729-422-27	TRANSISTOR 2SD601A-Q			R3050	1-216-033-00	METAL GLAZE 220 5% 1/10W
Q3006	8-729-422-27	TRANSISTOR 2SD601A-Q			R3052	1-216-033-00	METAL GLAZE 220 5% 1/10W
Q3007	8-729-216-22	TRANSISTOR 2SA1162-G			R3053	1-216-037-00	METAL GLAZE 330 5% 1/10W
Q3008	8-729-422-27	TRANSISTOR 2SD601A-Q			R3055	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W
Q3009	8-729-216-22	TRANSISTOR 2SA1162-G			R3056	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
Q3010	8-729-422-27	TRANSISTOR 2SD601A-Q			R3057	1-216-081-00	METAL GLAZE 22K 5% 1/10W
					R3058	1-216-049-00	METAL GLAZE 1K 5% 1/10W
					R3059	1-216-079-00	METAL GLAZE 18K 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



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R3065	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C2519	1-126-301-11	ELECT	1MF 20% 50V
R3066	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	C2520	1-126-163-11	ELECT	4.7MF 20% 50V
R3067	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R3069	1-216-689-11	METAL GLAZE	39K 5% 1/10W	C2521	1-163-809-11	CERAMIC CHIP	0.047MF 10% 25V
R3071	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C2522	1-124-252-00	ELECT	0.33MF 20% 50V
				C2523	1-126-163-11	ELECT	4.7MF 20% 50V
R3073	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C2524	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
R3074	1-216-295-00	METAL GLAZE	0 5% 1/10W	C2525	1-126-163-11	ELECT	4.7MF 20% 50V
R3075	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R3076	1-216-043-00	METAL GLAZE	560 5% 1/10W	C2526	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
R3077	1-216-037-00	METAL GLAZE	330 5% 1/10W	C2527	1-126-157-11	ELECT	10MF 20% 16V
				C2528	1-124-465-00	ELECT	0.47MF 20% 50V
R3078	1-216-044-00	METAL GLAZE	620 5% 1/10W	C2529	1-163-989-11	CERAMIC CHIP	0.033MF 10% 25V
R3079	1-216-040-00	METAL GLAZE	430 5% 1/10W	C2530	1-164-182-11	CERAMIC CHIP	0.0033MF 10% 50V
R3082	1-216-029-00	METAL GLAZE	150 5% 1/10W				
R3084	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C2531	1-126-301-11	ELECT	1MF 20% 50V
R3085	1-216-119-00	METAL GLAZE	820K 5% 1/10W	C2532	1-126-301-11	ELECT	1MF 20% 50V
				C2533	1-124-261-00	ELECT	10MF 20% 50V
R3086	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C2534	1-163-257-11	CERAMIC CHIP	180PF 5% 50V
R3087	1-216-081-00	METAL GLAZE	22K 5% 1/10W	C2535	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
R3088	1-216-089-00	METAL GLAZE	47K 5% 1/10W				
R3089	1-216-033-00	METAL GLAZE	220 5% 1/10W	C2536	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
R3090	1-216-089-00	METAL GLAZE	47K 5% 1/10W	C2537	1-126-163-11	ELECT	4.7MF 20% 50V
				C2538	1-126-163-11	ELECT	4.7MF 20% 50V
R3091	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	C2539	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
R3092	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	C2540	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
R3098	1-216-296-00	METAL GLAZE	0 5% 1/8W				
R3099	1-216-296-00	METAL GLAZE	0 5% 1/8W	C2541	1-163-139-00	CERAMIC CHIP	820PF 5% 50V
R3100	1-216-296-00	METAL GLAZE	0 5% 1/8W	C2542	1-124-478-11	ELECT	100MF 20% 25V
				C2543	1-124-252-00	ELECT	0.33MF 20% 50V
R3101	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	C2544	1-164-161-11	CERAMIC CHIP	0.0022MF 10% 50V
R3102	1-216-047-00	METAL GLAZE	820 5% 1/10W	C2545	1-126-301-11	ELECT	1MF 20% 50V
R3103	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
R3104	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C2546	1-126-163-11	ELECT	4.7MF 20% 50V
				C2547	1-126-163-11	ELECT	4.7MF 20% 25V
				C2548	1-163-809-11	CERAMIC CHIP	0.047MF 10% 25V
				C2549	1-126-163-11	ELECT	4.7MF 20% 50V
				C2550	1-126-163-11	ELECT	4.7MF 20% 25V
				C2551	1-126-301-11	ELECT	1MF 20% 50V
				C2552	1-126-163-11	ELECT	4.7MF 20% 50V
				C2553	1-126-301-11	ELECT	1MF 20% 50V
				C2554	1-124-234-00	ELECT	22MF 20% 16V
				C2555	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
				C2556	1-124-257-00	ELECT	2.2MF 20% 50V
				C2557	1-124-234-00	ELECT	22MF 20% 16V
				C2558	1-126-301-11	ELECT	1MF 20% 50V
				C2559	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
				C2560	1-164-161-11	CERAMIC CHIP	0.0022MF 10% 50V
				C2561	1-126-301-11	ELECT	1MF 20% 50V
				C2562	1-163-263-11	CERAMIC CHIP	330PF 5% 50V
				C2563	1-163-257-11	CERAMIC CHIP	180PF 5% 50V
				C2564	1-126-301-11	ELECT	1MF 20% 50V
				C2565	1-126-163-11	ELECT	4.7MF 20% 50V
				C2566	1-126-163-11	ELECT	4.7MF 20% 50V
				C2567	1-126-163-11	ELECT	4.7MF 20% 50V
				C2568	1-163-263-11	CERAMIC CHIP	330PF 5% 50V
				C2569	1-163-257-11	CERAMIC CHIP	180PF 5% 50V
				C2570	1-124-234-00	ELECT	22MF 20% 16V
				C2571	1-126-301-11	ELECT	1MF 20% 50V
				C2572	1-126-163-11	ELECT	4.7MF 20% 50V
				C2573	1-124-234-00	ELECT	22MF 20% 16V
				C2574	1-126-301-11	ELECT	1MF 20% 50V
				C2575	1-126-301-11	ELECT	1MF 20% 50V
				C2576	1-126-301-11	ELECT	1MF 20% 50V
				C2577	1-126-163-11	ELECT	4.7MF 20% 50V
				C2578	1-126-163-11	ELECT	4.7MF 20% 50V
				C2579	1-126-103-11	ELECT	470MF 20% 16V
				C2580	1-124-478-11	ELECT	100MF 20% 25V
				C2581	1-163-109-00	CERAMIC CHIP	47PF 5% 50V

<VARIABLE RESISTOR>

RV3001 1-241-630-11 RES, ADJ, CARBON 10K  
 RV3002 1-238-019-11 RES, ADJ, CARBON 47K  
 RV3003 1-241-630-11 RES, ADJ, CARBON 10K

<CRYSTAL>

X3001 1-567-505-11~ OSCILLATOR, CRYSTAL 3.58MHZ

\*\*\*\*\*

\*A-1394-444-A X2 BOARD, COMPLETE  
 \*\*\*\*\*

<CAPACITOR>

C2501 1-163-020-00 CERAMIC CHIP 0.0082MF 10% 50V  
 C2502 1-163-020-00 CERAMIC CHIP 0.0082MF 10% 50V  
 C2503 1-163-001-11 CERAMIC CHIP 220PF 10% 50V  
 C2504 1-126-163-11 ELECT 4.7MF 20% 50V  
 C2505 1-163-020-00 CERAMIC CHIP 0.0082MF 10% 50V  
 C2506 1-163-020-00 CERAMIC CHIP 0.0082MF 10% 50V  
 C2507 1-163-017-00 CERAMIC CHIP 0.0047MF 10% 50V  
 C2508 1-163-020-00 CERAMIC CHIP 0.0082MF 10% 50V  
 C2509 1-163-020-00 CERAMIC CHIP 0.0082MF 10% 50V  
 C2510 1-163-989-11 CERAMIC CHIP 0.033MF 10% 25V  
 C2511 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
 C2512 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
 C2513 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
 C2514 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
 C2515 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V  
 C2516 1-164-232-11 CERAMIC CHIP 0.01MF 10% 50V  
 C2517 1-126-157-11 ELECT 10MF 20% 16V  
 C2518 1-126-163-11 ELECT 4.7MF 20% 50V

## KV-32XBR26/32XBR36

RM-Y112A TDR-IF310/RM-Y113A

X2

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C2582	1-124-477-11	ELECT 47MF	20% 25V	R2527	1-216-133-00	METAL GLAZE 3.3M	5% 1/10W
C2583	1-126-163-11	ELECT 4.7MF	20% 50V	R2528	1-216-081-00	METAL GLAZE 22K	5% 1/10W
C2584	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	R2529	1-216-081-00	METAL GLAZE 22K	5% 1/10W
C2585	1-126-163-11	ELECT 4.7MF	20% 50V	R2530	1-216-133-00	METAL GLAZE 3.3M	5% 1/10W
C2586	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	R2531	1-216-089-00	METAL GLAZE 47K	5% 1/10W
C2587	1-126-163-11	ELECT 4.7MF	20% 50V	R2532	1-216-133-00	METAL GLAZE 3.3M	5% 1/10W
C2588	1-126-163-11	ELECT 4.7MF	20% 50V	R2533	1-216-089-00	METAL GLAZE 47K	5% 1/10W
C2589	1-126-163-11	ELECT 4.7MF	20% 50V	R2534	1-216-073-00	METAL GLAZE 10K	5% 1/10W
C2590	1-126-163-11	ELECT 4.7MF	20% 50V	R2535	1-216-073-00	METAL GLAZE 10K	5% 1/10W
C2591	1-124-478-11	ELECT 100MF	20% 25V	R2536	1-216-129-00	METAL GLAZE 2.2M	5% 1/10W
<DIODE>				R2537	1-216-077-00	METAL GLAZE 15K	5% 1/10W
D2501	8-719-104-24	DIODE 1S2835-T1		R2539	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
D2502	8-719-106-88	DIODE RD15M-B1		R2540	1-216-075-00	METAL GLAZE 12K	5% 1/10W
D2503	8-719-106-88	DIODE RD15M-B1		R2541	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
D2504	8-719-106-88	DIODE RD15M-B1		R2542	1-216-081-00	METAL GLAZE 22K	5% 1/10W
<IC>				R2543	1-216-081-00	METAL GLAZE 22K	5% 1/10W
IC2501	8-759-031-31	IC MC33174M		R2544	1-216-073-00	METAL GLAZE 10K	5% 1/10W
IC2502	8-752-050-75	IC CXA1373Q		R2545	1-216-048-00	METAL GLAZE 910	5% 1/10W
IC2503	8-759-604-70	IC M51523AL		R2546	1-216-133-00	METAL GLAZE 3.3M	5% 1/10W
IC2504	8-759-031-31	IC MC33174M		R2547	1-216-133-00	METAL GLAZE 3.3M	5% 1/10W
IC2505	8-759-604-70	IC M51523AL		R2548	1-216-073-00	METAL GLAZE 10K	5% 1/10W
IC2506	8-759-106-22	IC UPD4052BG		R2549	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
IC2507	8-759-038-68	IC MC33172ML		R2550	1-216-088-00	METAL GLAZE 43K	5% 1/10W
IC2508	8-759-038-68	IC MC33172ML		R2551	1-216-088-00	METAL GLAZE 43K	5% 1/10W
<JACK>				R2552	1-216-049-00	METAL GLAZE 1K	5% 1/10W
J2501	*1-573-966-11	PIN, CONNECTOR (PC BOARD) 36P		R2553	1-216-078-00	METAL GLAZE 16K	5% 1/10W
<TRANSISTOR>				R2554	1-216-082-00	METAL GLAZE 24K	5% 1/10W
Q2501	8-729-230-49	TRANSISTOR 2SC2712-YG		R2555	1-216-089-00	METAL GLAZE 47K	5% 1/10W
<RESISTOR>				R2556	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R2501	1-216-079-00	METAL GLAZE 18K	5% 1/10W	R2557	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R2502	1-216-097-00	METAL GLAZE 100K	5% 1/10W	R2558	1-216-088-00	METAL GLAZE 43K	5% 1/10W
R2503	1-216-091-00	METAL GLAZE 56K	5% 1/10W	R2559	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R2504	1-216-109-00	METAL GLAZE 330K	5% 1/10W	R2560	1-216-103-00	METAL GLAZE 180K	5% 1/10W
R2505	1-216-109-00	METAL GLAZE 330K	5% 1/10W	R2561	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R2506	1-216-101-00	METAL GLAZE 150K	5% 1/10W	R2562	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R2507	1-216-091-00	METAL GLAZE 56K	5% 1/10W	R2563	1-216-088-00	METAL GLAZE 43K	5% 1/10W
R2508	1-216-079-00	METAL GLAZE 18K	5% 1/10W	R2564	1-216-088-00	METAL GLAZE 43K	5% 1/10W
R2509	1-216-130-11	METAL GLAZE 2.4M	5% 1/10W	R2565	1-216-103-00	METAL GLAZE 180K	5% 1/10W
R2510	1-216-097-00	METAL GLAZE 100K	5% 1/10W	R2566	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R2511	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R2567	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R2512	1-216-103-00	METAL GLAZE 180K	5% 1/10W	R2568	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R2513	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R2569	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R2514	1-216-103-00	METAL GLAZE 180K	5% 1/10W	R2570	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R2515	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R2571	1-216-078-00	METAL GLAZE 16K	5% 1/10W
R2516	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R2572	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R2517	1-216-133-00	METAL GLAZE 3.3M	5% 1/10W	R2573	1-216-082-00	METAL GLAZE 24K	5% 1/10W
R2518	1-216-072-00	METAL GLAZE 9.1K	5% 1/10W	R2574	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R2519	1-216-133-00	METAL GLAZE 3.3M	5% 1/10W	R2575	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R2520	1-216-133-00	METAL GLAZE 3.3M	5% 1/10W	R2576	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R2521	1-216-133-00	METAL GLAZE 3.3M	5% 1/10W	R2577	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R2522	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R2578	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R2523	1-216-077-00	METAL GLAZE 15K	5% 1/10W	R2579	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R2524	1-216-129-00	METAL GLAZE 2.2M	5% 1/10W	R2580	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R2526	1-216-133-00	METAL GLAZE 3.3M	5% 1/10W	R2581	1-216-081-00	METAL GLAZE 22K	5% 1/10W
				R2582	1-216-083-00	METAL GLAZE 27K	5% 1/10W
				R2583	1-216-083-00	METAL GLAZE 27K	5% 1/10W
				R2584	1-216-081-00	METAL GLAZE 22K	5% 1/10W
				R2585	1-216-073-00	METAL GLAZE 10K	5% 1/10W
				R2586	1-216-085-00	METAL GLAZE 33K	5% 1/10W
				R2587	1-216-085-00	METAL GLAZE 33K	5% 1/10W
				R2588	1-216-085-00	METAL GLAZE 33K	5% 1/10W
				R2589	1-216-081-00	METAL GLAZE 22K	5% 1/10W
				R2590	1-216-079-00	METAL GLAZE 18K	5% 1/10W
				R2591	1-216-073-00	METAL GLAZE 10K	5% 1/10W

X2 Y2

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R2592	1-216-073-00	METAL GLAZE 10K 5%	1/10W	C458	1-126-101-11	ELECT 100MF	20% 16V
R2593	1-216-079-00	METAL GLAZE 18K 5%	1/10W	C459	1-126-101-11	ELECT 100MF	20% 16V
R2594	1-216-073-00	METAL GLAZE 10K 5%	1/10W	C460	1-126-101-11	ELECT 100MF	20% 16V
R2595	1-216-089-00	METAL GLAZE 47K 5%	1/10W	C461	1-124-499-11	ELECT 1MF	20% 50V
R2596	1-216-049-00	METAL GLAZE 1K 5%	1/10W	C462	1-124-499-11	ELECT 1MF	20% 50V
R2597	1-216-049-00	METAL GLAZE 1K 5%	1/10W	C465	1-130-485-00	MYLAR 0.015MF	5% 50V
R2598	1-216-089-00	METAL GLAZE 47K 5%	1/10W	C466	1-130-485-00	MYLAR 0.015MF	5% 50V
R2599	1-216-073-00	METAL GLAZE 10K 5%	1/10W	C467	1-136-169-00	FILM 0.22MF	5% 50V
R2600	1-216-049-00	METAL GLAZE 1K 5%	1/10W	C468	1-136-169-00	FILM 0.22MF	5% 50V
R2601	1-216-089-00	METAL GLAZE 47K 5%	1/10W	C469	1-126-157-11	ELECT 10MF	20% 16V
R2602	1-216-073-00	METAL GLAZE 10K 5%	1/10W	C470	1-126-157-11	ELECT 10MF	20% 16V
R2604	1-216-089-00	METAL GLAZE 47K 5%	1/10W	C471	1-124-589-11	ELECT 47MF	20% 16V
R2605	1-216-049-00	METAL GLAZE 1K 5%	1/10W	C472	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R2606	1-216-049-00	METAL GLAZE 1K 5%	1/10W	C473	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R2610	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W	C474	1-124-234-00	ELECT 22MF	20% 16V
R2611	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W	C475	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R2612	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W	C476	1-124-234-00	ELECT 22MF	20% 16V
R2613	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W	C477	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R2614	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W	C478	1-124-478-11	ELECT 100MF	20% 25V
R2615	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W	C479	1-126-163-11	ELECT 4.7MF	20% 50V
R2616	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W	C480	1-124-768-11	ELECT 4.7MF	20% 50V
R2617	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W	C481	1-124-768-11	ELECT 4.7MF	20% 50V
R2618	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	C482	1-126-163-11	ELECT 4.7MF	20% 50V
R2619	1-216-049-00	METAL GLAZE 1K 5%	1/10W	C483	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
*****							
*A-1394-443-A		Y2 BOARD, COMPLETE		*****			
<CAPACITOR>							
C401	1-124-234-00	ELECT 22MF	20%	16V			
C424	1-126-301-11	ELECT 1MF	20%	50V			
C425	1-126-301-11	ELECT 1MF	20%	50V			
C426	1-126-301-11	ELECT 1MF	20%	50V			
C427	1-124-465-00	ELECT 0.47MF	20%	50V			
C428	1-126-163-11	ELECT 4.7MF	20%	50V			
C429	1-124-478-11	ELECT 100MF	20%	25V			
C430	1-124-261-00	ELECT 10MF	20%	50V			
C431	1-126-301-11	ELECT 1MF	20%	50V			
C432	1-126-301-11	ELECT 1MF	20%	50V			
C433	1-131-347-00	TANTALUM 1MF	20%	16V			
C434	1-126-301-11	ELECT 1MF	20%	50V			
C435	1-130-309-00	FILM 0.033MF	5%	100V			
C436	1-126-301-11	ELECT 1MF	20%	50V			
C437	1-130-487-00	MYLAR 0.022MF	5%	50V			
C438	1-126-301-11	ELECT 1MF	20%	50V			
C439	1-124-034-51	ELECT 33MF	20%	16V			
C440	1-126-301-11	ELECT 1MF	20%	50V			
C441	1-126-301-11	ELECT 1MF	20%	50V			
C442	1-124-261-00	ELECT 10MF	20%	50V			
C443	1-124-589-11	ELECT 47MF	20%	16V			
C446	1-124-234-00	ELECT 22MF	20%	16V			
C447	1-126-301-11	ELECT 1MF	20%	50V			
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			
<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 RB100A					
D410	8-719-981-50	DIODE RB100A					
D413	8-719-158-19	DIODE RD6.2SB					
D414	8-719-158-55	DIODE RD15SB					
D415	8-719-158-55	DIODE RD15SB					
<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	8-729-422-27	TRANSISTOR 2SD601A-Q					
Q410	8-729-422-27	TRANSISTOR 2SD601A-Q					
<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			
R467	1-216-033-00	METAL GLAZE 220	5%	1/10W			



# KV-32XBR26/32XBR36

RM-Y112A TDR-IF310/RM-Y113A

**Y2 G**

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

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

REF. NO.	PART NO.	DESCRIPTION	REMARK
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	1-216-669-11	METAL CHIP	5.6K 0.50% 1/10W
R477	1-216-675-11	METAL CHIP	10K 0.50% 1/10W
R478	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R479	1-216-669-11	METAL CHIP	5.6K 0.50% 1/10W
R480	1-216-675-11	METAL CHIP	10K 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	1-216-691-11	METAL CHIP	47K 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
R538	1-218-754-11	METAL CHIP	120K 0.50% 1/10W
R539	1-216-691-11	METAL CHIP	47K 0.50% 1/10W
R542	1-216-025-00	METAL GLAZE	100 5% 1/10W
R543	1-216-025-00	METAL GLAZE	100 5% 1/10W
R546	1-216-682-11	METAL CHIP	20K 0.50% 1/10W
R547	1-216-681-11	METAL CHIP	18K 0.50% 1/10W

<CONNECTOR>

Y2-401 1-573-966-11 PIN, CONNECTOR (PC BOARD) 36P

REF. NO.	PART NO.	DESCRIPTION	REMARK
*****			
*A-1316-161-A G BOARD, COMPLETE			
*****			
4-382-854-11 SCREW (M3X10), P, SW (+)			
<CAPACITOR>			
C601	$\Delta$ 1-136-311-51	FILM	0.47MF 20% 125V
C602	$\Delta$ 1-162-599-81	CERAMIC	0.0047MF 20% 400V
C603	$\Delta$ 1-162-599-81	CERAMIC	0.0047MF 20% 400V
C604	$\Delta$ 1-104-346-11	ELECT	1000MF 200V
C605	1-162-599-12	CERAMIC	0.0047MF 20% 400V
C606	1-130-851-00	FILM	0.082MF 5% 100V
C607	1-130-851-00	FILM	0.082MF 5% 100V
C608	1-130-851-00	FILM	0.082MF 5% 100V
C609	1-130-851-00	FILM	0.082MF 5% 100V
C610	1-137-588-11	FILM	0.0047MF 5% 800V
C611	1-137-592-11	FILM	0.01MF 5% 800V
C612	1-164-625-11	CERAMIC	680PF 10% 500V
C613	1-164-625-11	CERAMIC	680PF 10% 500V
C614	1-164-625-11	CERAMIC	680PF 10% 500V
C615	1-164-625-11	CERAMIC	680PF 10% 500V
C616	1-124-443-00	ELECT	100MF 20% 10V
C618	1-164-735-11	CAP, CERAMIC	1500PF
C619	1-164-735-11	CAP, CERAMIC	1500PF
C620	$\Delta$ 1-161-741-51	CERAMIC	0.001MF 10% 400V
C621	$\Delta$ 1-161-741-51	CERAMIC	0.001MF 10% 400V
C622	1-162-599-12	CERAMIC	0.0047MF 20% 400V
C623	1-137-493-11	FILM	0.0047MF 5% 630V
C624	1-126-301-11	ELECT	1MF 20% 50V
C625	1-126-162-11	ELECT	3.3MF 20% 50V
C626	1-130-480-00	MYLAR	0.0056MF 5% 50V
C651	1-104-702-11	ELECT	470MF 20% 180V
C652	1-124-556-11	ELECT	2200MF 20% 16V
C653	1-124-913-11	ELECT	470MF 20% 50V
C654	1-124-607-11	ELECT	2200MF 20% 50V
C655	1-162-117-00	CERAMIC	100PF 10% 500V
C656	1-124-119-00	ELECT	330MF 20% 16V
C657	1-106-351-00	MYLAR	0.0022MF 20% 200V
C658	1-126-157-11	ELECT	10MF 20% 16V
C659	1-130-485-00	MYLAR	0.015MF 5% 50V
C661	1-124-484-11	ELECT	220MF 20% 35V
C662	1-124-484-11	ELECT	220MF 20% 35V
C663	1-126-104-11	ELECT	470MF 20% 35V
C666	1-126-101-11	ELECT	100MF 20% 16V
C667	1-124-443-00	ELECT	100MF 20% 10V
C668	1-124-638-11	ELECT	22MF 20% 6.3V
C669	1-162-318-11	CERAMIC	0.001MF 10% 500V
C670	1-162-318-11	CERAMIC	0.001MF 10% 500V
C672	1-124-484-11	ELECT	220MF 20% 35V
C677	$\Delta$ 1-136-311-51	FILM	0.47MF 20% 125V
C678	1-124-360-00	ELECT	1000MF 20% 16V
<DIODE>			
D601	$\Delta$ 8-719-022-99	DIODE D6SB60L	
D602	8-719-510-48	DIODE D1N20R	
D603	8-719-510-48	DIODE D1N20R	
D604	8-719-510-48	DIODE D1N20R	
D605	8-719-510-48	DIODE D1N20R	

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

Les composants identifies par une trame et une marque  $\Delta$  sont critiques pour la securite.  
Ne les remplacer que par une piece portant le numero specifie.



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D606	8-719-911-19	DIODE 1SS119				<IC>	
D607	8-719-510-48	DIODE D1N20R					
D608	8-719-510-48	DIODE D1N20R					
D609	8-719-510-48	DIODE D1N20R					
D610	8-719-510-48	DIODE D1N20R					
D611	8-719-510-48	DIODE D1N20R				<COIL>	
D612	8-719-510-48	DIODE D1N20R					
D613	8-719-109-93	DIODE RD6.2ES-B2		L651	1-412-526-11	INDUCTOR 12UH	
D651	8-719-027-43	DIODE S2L2OUF		L652	1-410-673-31	INDUCTOR 68UH	
D652	8-719-027-43	DIODE S2L2OUF		L653	1-412-532-11	INDUCTOR 39UH	
D653	8-719-027-43	DIODE S2L2OUF		L654	1-412-532-11	INDUCTOR 39UH	
D654	8-719-027-43	DIODE S2L2OUF		L655	1-412-532-11	INDUCTOR 39UH	
D655	8-719-510-13	DIODE D10SC4MR		L656	1-412-526-11	INDUCTOR 12UH	
D656	8-719-022-97	DIODE D2S4MF				<TRANSISTOR>	
D657	8-719-510-02	DIODE D1NS4		Q601	8-729-927-22	TRANSISTOR 2SC4664MNP-F	
D658	8-719-027-22	DIODE D3S6M-F		Q602	8-729-927-22	TRANSISTOR 2SC4664MNP-F	
D659	8-719-027-22	DIODE D3S6M-F		Q603	8-729-927-22	TRANSISTOR 2SC4664MNP-F	
D660	8-719-027-22	DIODE D3S6M-F		Q604	8-729-927-22	TRANSISTOR 2SC4664MNP-F	
D661	8-719-027-22	DIODE D3S6M-F		Q605	8-729-209-15	TRANSISTOR 2SD2012	
D663	8-719-510-02	DIODE D1NS4		Q652	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D665	8-719-510-02	DIODE D1NS4		Q653	8-729-201-53	TRANSISTOR 2SA1015-GR	
D666	8-719-109-85	DIODE RD5.1ES-B2		Q654	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D667	8-719-911-19	DIODE 1SS119		Q655	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D668	8-719-911-19	DIODE 1SS119		Q656	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D669	8-719-109-54	DIODE RD2.2ES-B2				<RESISTOR>	
D670	8-719-911-19	DIODE 1SS119		R601	1-249-388-11	CARBON 3.9 5% 1/4W F	
D671	8-719-110-31	DIODE RD12ES-B2		R602 $\Delta$	1-205-707-12	WIREWOUND 2.2 5% 10W	
D672	8-719-911-19	DIODE 1SS119		R603	1-247-889-00	CARBON 270K 5% 1/4W	
		<FUSE>		R604	1-216-443-11	METAL OXIDE 56K 5% 1W F	
F1 $\Delta$	1-532-783-21	FUSE, MICRO (SECONDARY) 5A/125V		R605	1-216-443-11	METAL OXIDE 56K 5% 1W F	
F601 $\Delta$	1-576-222-11	FUSE 6.3A/125V		R606	1-216-443-11	METAL OXIDE 56K 5% 1W F	
	1-533-190-11	CLIP, FUSE; F601		R607	1-216-443-11	METAL OXIDE 56K 5% 1W F	
F602 $\Delta$	1-576-107-22	FUSE 3.15A/250V		R608	1-216-352-11	METAL OXIDE 1.8 5% 1W F	
	1-533-223-11	CLIP, FUSE; F602		R609	1-216-351-00	METAL OXIDE 1.5 5% 1W F	
		<FERRITE BEAD>		R610	1-216-351-00	METAL OXIDE 1.5 5% 1W F	
FB651	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		R611	1-216-352-11	METAL OXIDE 1.8 5% 1W F	
FB652	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		R612	1-249-377-11	CARBON 0.47 5% 1/4W F	
FB653	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		R613	1-215-447-00	METAL 12K 1% 1/4W	
FB654	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		R614	1-215-433-00	METAL 3.3K 1% 1/4W	
FB655	1-412-911-11	INDUCTOR, FERRITE BEAD 1.1UH		R615	1-249-441-11	CARBON 100K 5% 1/4W	
FB656	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		R616	1-249-417-11	CARBON 1K 5% 1/4W	
FB659	1-412-911-11	INDUCTOR, FERRITE BEAD 1.1UH		R617	1-249-417-11	CARBON 1K 5% 1/4W	
FB660	1-412-911-11	INDUCTOR, FERRITE BEAD 1.1UH		R618	1-247-688-11	CARBON 10 5% 1/4W F	
FB661	1-412-911-11	INDUCTOR, FERRITE BEAD 1.1UH		R619 $\Delta$	1-216-343-91	METAL OXIDE 0.33 5% 1W F	
FB662	1-412-911-11	INDUCTOR, FERRITE BEAD 1.1UH		R620	1-202-730-00	SOLID 8.2M 20% 1/2W	
FB663	1-412-911-11	INDUCTOR, FERRITE BEAD 1.1UH		R621	1-249-423-11	CARBON 3.3K 5% 1/4W	
FB669	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		R622 $\Delta$	1-202-888-91	SOLID 2.2M 20% 1/2W	
FB670	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		R623	1-212-956-00	FUSIBLE 8.2 5% 1/2W F	
		<CONNECTOR>		R651	1-249-405-11	CARBON 100 5% 1/4W F	
G-3	*1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P		R652	1-215-868-00	METAL OXIDE 680 5% 1W F	
G-4	*1-564-510-11	PLUG, CONNECTOR 7P		R653	1-249-405-11	CARBON 100 5% 1/4W	
G-5	*1-564-507-11	PLUG, CONNECTOR 4P		R654	1-249-399-11	CARBON 33 5% 1/4W F	
G-29	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		R655	1-249-393-11	CARBON 10 5% 1/4W F	
G-30	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		R656	1-249-443-11	CARBON 0.47 5% 1/4W F	
G-31 $\Delta$	*1-580-843-11	PIN, CONNECTOR (POWER)		R657	1-216-357-00	METAL OXIDE 4.7 5% 1W F	
TP651	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		R658	1-215-408-00	METAL 300 1% 1/4W	
				R659	1-249-443-11	CARBON 0.47 5% 1/4W F	
				R660	1-215-446-00	METAL 11K 1% 1/4W	
				R661	1-215-418-00	METAL 750 1% 1/4W	
				R662	1-249-421-11	CARBON 2.2K 5% 1/4W	

# KV-32XBR26/32XBR36

RM-Y112A TDR-IF310/RM-Y113A



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

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

REF. NO.	PART NO.	DESCRIPTION	REMARK
R663	1-249-410-11	CARBON 270 5% 1/4W	
R664	1-215-861-00	METAL OXIDE 47 5% 1W	F
R665	1-215-403-00	METAL 180 1% 1/4W	
R666	1-215-421-00	METAL 1K 1% 1/4W	
R667	1-215-432-00	METAL 3K 1% 1/4W	
R668	1-216-482-11	METAL OXIDE 1.8K 5% 3W	F
R669	1-249-421-11	CARBON 2.2K 5% 1/4W	
R670	1-249-412-11	CARBON 390 5% 1/4W	
R671	1-216-384-11	METAL OXIDE 0.39 5% 3W	F
R672	1-249-443-11	CARBON 0.47 5% 1/4W	F
R673	1-249-415-11	CARBON 680 5% 1/4W	
R674	1-249-421-11	CARBON 2.2K 5% 1/4W	
R675	1-249-415-11	CARBON 680 5% 1/4W	
R676	1-249-377-11	CARBON 0.47 5% 1/4W	F
R677	1-249-433-11	CARBON 22K 5% 1/4W	
R678	1-249-429-11	CARBON 10K 5% 1/4W	
R679	1-216-428-00	METAL OXIDE 180 5% 1W	F
R680	1-216-428-00	METAL OXIDE 180 5% 1W	F
R681	1-249-377-11	CARBON 0.47 5% 1/4W	F
R682	1-249-443-11	CARBON 0.47 5% 1/4W	F
<RELAY>			
RY601A	1-515-601-11	RELAY	
RY602A	1-515-669-21	RELAY	
<TRANSFORMER>			
T601	1-424-585-11	TRANSFORMER, LINE FILTER	
T602	1-424-585-11	TRANSFORMER, LINE FILTER	
T603	1-450-300-31	TRANSFORMER, CONVERTER DRIVE	
T604	1-450-958-12	TRANSFORMER, CONVERTER (PRT)	
T605	1-424-663-11	TRANSFORMER, FERRITE (SBT)	
<THERMISTOR>			
THP601A	1-800-686-43	THERMISTOR (POSITIVE)	
<VARISTOR>			
VDR601A	1-809-786-11	VARISTOR	
VDR602A	1-809-264-81	VARISTOR	
*****			
*A-1331-272-A	C BOARD, COMPLETE		
*****			
<CONNECTOR>			
C-2	*1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P	
C-24	*1-564-511-51	PLUG, CONNECTOR 8P	
C-42	*1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P	
<CAPACITOR>			
C701	1-162-116-00	CERAMIC 680PF 10% 2KV	
C702	1-137-490-11	FILM 0.01MF 10% 1KV	
C704	1-123-946-00	ELECT 4.7MF 20% 250V	
C705	1-106-375-12	MYLAR 0.022MF 200V	
C706	1-106-375-12	MYLAR 0.022MF 200V	
C707	1-164-083-11	CERAMIC 680PF 10% 50V	
C708	1-164-083-11	CERAMIC 680PF 10% 50V	
C709	1-164-083-11	CERAMIC 680PF 10% 50V	
C710	1-164-082-11	CERAMIC 560PF 10% 50V	
C711	1-124-120-11	ELECT 220MF 20% 16V	

REF. NO.	PART NO.	DESCRIPTION	REMARK
C712	1-164-082-11	CERAMIC 560PF 10% 50V	
C713	1-164-082-11	CERAMIC 560PF 10% 50V	
C715	1-102-129-00	CERAMIC 0.01MF 10% 50V	
C718	1-102-129-00	CERAMIC 0.01MF 10% 50V	
C733	1-102-074-00	CERAMIC 0.001MF 10% 50V	
<DIODE>			
D701	8-719-911-19	DIODE 1SS119	
D702	8-719-911-19	DIODE 1SS119	
D703	8-719-911-19	DIODE 1SS119	
D704	8-719-911-19	DIODE 1SS119	
D705	8-719-911-19	DIODE 1SS119	
D706	8-719-911-19	DIODE 1SS119	
D707	8-719-911-19	DIODE 1SS119	
D708	8-719-911-19	DIODE 1SS119	
D709	8-719-911-19	DIODE 1SS119	
D710	8-719-901-83	DIODE 1SS83	
D711	8-719-901-83	DIODE 1SS83	
D712	8-719-901-83	DIODE 1SS83	
D713	8-719-901-83	DIODE 1SS83	
D714	8-719-911-19	DIODE 1SS119	
<JACK>			
J701	1-540-071-13	SOCKET, PICTURE TUBE	
<COIL>			
L701	1-410-671-31	INDUCTOR 47UH	
<TRANSISTOR>			
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	
Q706	8-729-200-17	TRANSISTOR 2SA1091-0	
Q707	8-729-200-17	TRANSISTOR 2SA1091-0	
Q708	8-729-326-11	TRANSISTOR 2SC2611	
Q709	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q710	8-729-255-12	TRANSISTOR 2SC2551-0	
Q711	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q712	8-729-255-12	TRANSISTOR 2SC2551-0	
Q714	8-729-200-17	TRANSISTOR 2SA1091-0	
Q715	8-729-200-17	TRANSISTOR 2SA1091-0	
Q716	8-729-200-17	TRANSISTOR 2SA1091-0	
<RESISTOR>			
R701	1-216-398-11	METAL OXIDE 5.6 5% 3W	F
R702	1-202-883-11	SOLID 680K 20% 1/2W	
R703	1-202-838-00	SOLID 100K 20% 1/2W	
R706	1-202-838-00	SOLID 100K 20% 1/2W	
R707	1-202-842-11	SOLID 220K 20% 1/2W	
R708	1-202-818-00	SOLID 1K 20% 1/2W	
R709	1-202-818-00	SOLID 1K 20% 1/2W	
R710	1-202-818-00	SOLID 1K 20% 1/2W	
R713	1-216-486-00	METAL OXIDE 8.2K 5% 3W	F
R715	1-202-549-00	SOLID 100 10% 1/2W	
R716	1-216-486-00	METAL OXIDE 8.2K 5% 3W	F
R720	1-216-486-00	METAL OXIDE 8.2K 5% 3W	F
R723	1-249-405-11	CARBON 100 5% 1/4W	



REF. NO.	PART NO.	DESCRIPTION				REMARK	REF. NO.	PART NO.	DESCRIPTION				REMARK
R724	1-249-405-11	CARBON	100	5%	1/4W		C916	1-130-471-00	MYLAR	0.001MF	5%	50V	
R725	1-249-429-11	CARBON	10K	5%	1/4W		C917	1-130-479-00	MYLAR	0.0047MF	5%	50V	
R726	1-249-408-11	CARBON	180	5%	1/4W		C918	1-102-074-00	CERAMIC	0.001MF	10%	50V	
R727	1-249-429-11	CARBON	10K	5%	1/4W		C920	1-136-946-11	FILM	0.12MF	5%	200V	
R728	1-249-408-11	CARBON	180	5%	1/4W		C921	1-136-177-00	FILM	1MF	5%	50V	
R729	1-249-405-11	CARBON	100	5%	1/4W		C929	1-130-471-00	MYLAR	0.001MF	5%	50V	
R730	1-249-408-11	CARBON	180	5%	1/4W		C930	1-130-483-00	MYLAR	0.01MF	5%	50V	
R731	1-249-409-11	CARBON	220	5%	1/4W	F							
R732	1-249-409-11	CARBON	220	5%	1/4W	F							
R733	1-249-409-11	CARBON	220	5%	1/4W	F							
									<DIODE>				
R735	1-249-418-11	CARBON	1.2K	5%	1/4W		D801	8-719-913-44	DIODE ERA82-004				
R737	1-249-418-11	CARBON	1.2K	5%	1/4W		D802	8-719-911-19	DIODE 1SS119				
R739	1-249-433-11	CARBON	22K	5%	1/4W		D803	8-719-911-19	DIODE 1SS119				
R740	1-215-902-11	METAL OXIDE	47K	5%	2W	F	D804	8-719-911-19	DIODE 1SS119				
R741	1-249-417-11	CARBON	1K	5%	1/4W	F	D805	8-719-801-35	THYRISTOR SHOR3D42				
R742	1-249-423-11	CARBON	3.3K	5%	1/4W	F	D806	8-719-980-78	DIODE ERA83-006				
R743	1-249-423-11	CARBON	3.3K	5%	1/4W	F	D807	8-719-980-78	DIODE ERA83-006				
R744	1-249-423-11	CARBON	3.3K	5%	1/4W	F	D808	8-719-911-19	DIODE 1SS119				
R745	1-249-417-11	CARBON	1K	5%	1/4W	F	D809	8-719-911-19	DIODE 1SS119				
R746	1-215-902-11	METAL OXIDE	47K	5%	1W	F	D810	8-719-911-19	DIODE 1SS119				
R747	1-249-429-11	CARBON	10K	5%	1/4W	F	D811	8-719-936-84	DIODE RGP10GPKG3				
R748	1-216-398-11	METAL OXIDE	5.6	5%	3W	F	D812	8-719-911-19	DIODE 1SS119				
R749	1-249-437-11	CARBON	47K	5%	1/4W		D814	8-719-121-24	DIODE RD9.1ES-B2				
R750	1-249-409-11	CARBON	220	5%	1/4W	F	D815	8-719-911-19	DIODE 1SS119				
R751	1-249-395-11	CARBON	15	5%	1/4W		D816	8-719-911-19	DIODE 1SS119				
R752	1-249-393-11	CARBON	10	5%	1/4W		D903	8-719-979-85	DIODE EGP20G				
R753	1-249-392-11	CARBON	8.2	5%	1/4W								
R754	1-249-418-11	CARBON	1.2K	5%	1/4W								
R777	1-249-441-11	CARBON	100K	5%	1/4W								
									<CONNECTOR>				
							D-14	1-573-299-11	CONNECTOR, BOARD TO BOARD	10P			
							D-18	1-573-299-11	CONNECTOR, BOARD TO BOARD	10P			
							D-20	1-564-524-11	PLUG, CONNECTOR	9P			
							DY-2	*1-508-765-00	PIN, CONNECTOR (5MM PITCH)	3P			
									<IC>				
							IC801	8-749-920-58	IC SI-3090CA				
							IC802	8-752-052-88	IC CXA1526P				
							IC803	8-759-135-80	IC UPC358C				
							IC903	8-759-987-16	IC LM393P				
									<COIL>				
							L801	1-459-592-11	COIL (WITH CORE) (PMC)				
							L802	1-459-941-12	COIL, CHOKE	3.4MMH			
							L901	1-410-093-11	INDUCTOR	33MMH			
							L903	1-459-941-12	COIL, CHOKE	3.4MMH			
							L904	1-459-148-00	COIL				
							L905	1-459-592-11	COIL (WITH CORE) (PMC)				
									<TRANSISTOR>				
							Q802	8-729-119-76	TRANSISTOR	2SA1175-HFE			
							Q803	8-729-119-78	TRANSISTOR	2SC2785-HFE			
							Q804	8-729-119-78	TRANSISTOR	2SC2785-HFE			
							Q805	8-729-140-97	TRANSISTOR	2SB734-34			
							Q806	8-729-119-78	TRANSISTOR	2SC2785-HFE			
							Q807	8-729-140-97	TRANSISTOR	2SB734-34			
							Q808	8-729-119-76	TRANSISTOR	2SA1175-HFE			
							Q809	8-729-209-15	TRANSISTOR	2SD2012			
							Q810	8-729-140-96	TRANSISTOR	2SD774-34			
							Q811	8-729-119-78	TRANSISTOR	2SC2785-HFE			
							Q910	8-729-119-78	TRANSISTOR	2SC2785-HFE			
							Q911	8-729-119-78	TRANSISTOR	2SC2785-HFE			

<VARIABLE RESISTOR>

RV701 1-230-641-11 RES, ADJ, METAL GLAZE 2.2M  
RV702 1-241-656-11 RES, ADJ, METAL FILM 110M

\*\*\*\*\*

\*A-1341-665-A D BOARD, COMPLETE  
\*\*\*\*\*  
4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

C801 1-124-589-11 ELECT 47MF 20% 16V  
C802 1-124-589-11 ELECT 47MF 20% 16V  
C804 1-130-483-00 MYLAR 0.01MF 5% 50V  
C805 1-136-165-00 FILM 0.1MF 5% 50V  
C806 1-136-165-00 FILM 0.1MF 5% 50V  
C807 1-124-360-00 ELECT 1000MF 20% 16V  
C809 1-136-104-00 FILM 0.16NF 5% 200V  
C810 1-136-177-00 FILM 1MF 5% 50V  
C811 1-162-318-11 CERAMIC 0.001MF 10% 500V  
C812 1-126-163-11 ELECT 4.7MF 20% 50V  
C813 1-130-491-00 MYLAR 0.047MF 5% 50V  
C814 1-124-261-00 ELECT 10MF 20% 50V  
C815 1-124-261-00 ELECT 10MF 20% 50V  
C816 1-124-234-00 ELECT 22MF 20% 16V  
C817 1-126-163-11 ELECT 4.7MF 20% 50V  
C818 1-124-589-11 ELECT 47MF 20% 16V  
C819 1-136-165-00 FILM 0.1MF 5% 50V  
C820 1-126-103-11 ELECT 470MF 20% 16V  
C913 1-124-589-11 ELECT 47MF 20% 16V  
C914 1-106-379-12 MYLAR 0.033MF 10% 100V  
C915 1-126-301-11 ELECT 1MF 20% 50V

# KV-32XBR26/32XBR36

RM-Y112A TDR-IF310/RM-Y113A



REF. NO.	PART NO.	DESCRIPTION	REMARK
Q912	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q913	8-729-011-02	TRANSISTOR 2SK1917	
<RESISTOR>			
R801	1-249-409-11	CARBON	220 5% 1/4W
R802	1-249-409-11	CARBON	220 5% 1/4W
R804	1-247-891-00	CARBON	330K 5% 1/4W
R806	1-247-885-00	CARBON	180K 5% 1/4W
R807	1-247-891-00	CARBON	330K 5% 1/4W
R808	1-215-461-00	METAL	47K 1% 1/4W
R809	1-249-423-11	CARBON	3.3K 5% 1/4W
R810	1-249-413-11	CARBON	470 5% 1/4W
R811	1-249-434-11	CARBON	27K 5% 1/4W
R812	1-249-438-11	CARBON	56K 5% 1/4W
R813	1-249-417-11	CARBON	1K 5% 1/4W
R815	1-249-427-11	CARBON	6.8K 5% 1/4W
R816	1-249-425-11	CARBON	4.7K 5% 1/4W
R817	1-249-423-11	CARBON	3.3K 5% 1/4W
R818	1-249-417-11	CARBON	1K 5% 1/4W
R819	1-249-432-11	CARBON	18K 5% 1/4W
R820	1-249-417-11	CARBON	1K 5% 1/4W
R821	1-216-379-11	METAL OXIDE	6.8 5% 2W F
R822	1-249-423-11	CARBON	3.3K 5% 1/4W F
R824	1-249-417-11	CARBON	1K 5% 1/4W F
R825	1-215-857-11	METAL OXIDE	10 5% 1W F
R826	1-249-404-00	CARBON	82 5% 1/4W F
R827	1-215-875-11	METAL OXIDE	10K 5% 1W F
R828	1-249-441-11	CARBON	100K 5% 1/4W
R829	1-249-414-11	CARBON	560 5% 1/4W
R830	1-249-411-11	CARBON	330 5% 1/4W
R831	1-249-426-11	CARBON	5.6K 5% 1/4W
R832	1-215-887-00	METAL OXIDE	150 5% 2W F
R833	1-249-421-11	CARBON	2.2K 5% 1/4W
R834	1-249-438-11	CARBON	56K 5% 1/4W
R835	1-249-393-11	CARBON	10 5% 1/4W
R836	1-249-435-11	CARBON	33K 5% 1/4W
R837	1-249-435-11	CARBON	33K 5% 1/4W
R838	1-216-359-00	METAL OXIDE	6.8 5% 1W F
R839	1-249-410-11	CARBON	270 5% 1/4W
R840	1-249-429-11	CARBON	10K 5% 1/4W
R841	1-249-437-11	CARBON	47K 5% 1/4W
R842	1-249-429-11	CARBON	10K 5% 1/4W
R843	1-249-421-11	CARBON	2.2K 5% 1/4W
R927	1-249-419-11	CARBON	1.5K 5% 1/4W
R928	1-249-421-11	CARBON	2.2K 5% 1/4W
R929	1-249-429-11	CARBON	10K 5% 1/4W
R930	1-249-434-11	CARBON	27K 5% 1/4W
R931	1-249-421-11	CARBON	2.2K 5% 1/4W
R932	1-249-423-11	CARBON	3.3K 5% 1/4W
R933	1-249-421-11	CARBON	2.2K 5% 1/4W
R934	1-249-441-11	CARBON	100K 5% 1/4W
R935	1-249-429-11	CARBON	10K 5% 1/4W
R936	1-249-429-11	CARBON	10K 5% 1/4W
R937	1-249-421-11	CARBON	2.2K 5% 1/4W
R938	1-249-405-11	CARBON	100 5% 1/4W
R939	1-249-405-11	CARBON	100 5% 1/4W F
R940	1-249-405-11	CARBON	100 5% 1/4W F
R941	1-249-405-11	CARBON	100 5% 1/4W F
R942	1-215-892-11	METAL OXIDE	1K 5% 2W F

REF. NO.	PART NO.	DESCRIPTION	REMARK
<CAPACITOR>			
C951	1-102-074-00	CERAMIC	0.001MF 10% 50V
C952	1-102-125-00	CERAMIC	0.0047MF 10% 50V
C961	1-161-830-00	CERAMIC	0.0047MF 500V
C962	1-101-880-00	CERAMIC	47PF 5% 50V
C963	1-123-935-00	ELECT	33MF 20% 160V
C964	1-126-101-11	ELECT	100MF 20% 16V
C968	1-106-383-00	MYLAR	0.047MF 200V
C969	1-124-799-11	ELECT	2.2MF 20% 160V
C970	1-106-391-12	MYLAR	0.1MF 10% 200V
C971	1-126-157-11	ELECT	10MF 20% 16V
C972	1-126-541-11	ELECT	330MF 20% 16V
C973	1-106-383-00	MYLAR	0.047MF 200V
C975	1-126-101-11	ELECT	100MF 20% 16V
C976	1-126-157-11	ELECT	10MF 20% 16V
C977	1-102-963-00	CERAMIC	33PF 5% 50V
C978	1-130-471-00	MYLAR	0.001MF 5% 50V
C979	1-130-471-00	MYLAR	0.001MF 5% 50V
C980	1-124-915-11	ELECT	10MF 20% 16V
<DIODE>			
D961	8-719-911-19	DIODE 1SS119	
D963	8-719-911-19	DIODE 1SS119	
D964	8-719-911-19	DIODE 1SS119	
D965	8-719-911-19	DIODE 1SS119	
D966	8-719-911-19	DIODE 1SS119	
D967	8-719-110-88	DIODE RD39ES-B2	
D968	8-719-110-88	DIODE RD39ES-B2	
<COIL>			
L962	1-408-416-00	INDUCTOR	39UH
<TRANSISTOR>			
Q956	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q961	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q962	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q963	8-729-208-39	TRANSISTOR 2SA1306A-Y	
Q964	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q965	8-729-017-06	TRANSISTOR 2SC4793	
Q966	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q967	8-729-142-86	TRANSISTOR 2SC3733	
<RESISTOR>			
R951	1-249-434-11	CARBON	27K 5% 1/4W
R952	1-249-423-11	CARBON	3.3K 5% 1/4W
R953	1-249-423-11	CARBON	3.3K 5% 1/4W
R954	1-247-903-00	CARBON	1M 5% 1/4W
R955	1-249-421-11	CARBON	2.2K 5% 1/4W
R962	1-249-409-11	CARBON	220 5% 1/4W
R963	1-249-419-11	CARBON	1.5K 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
R966	1-249-418-11	CARBON	1.2K 5% 1/4W
R968	1-249-418-11	CARBON	1.2K 5% 1/4W
R969	1-249-384-11	CARBON	1.8 5% 1/4W F
R970	1-249-435-11	CARBON	33K 5% 1/4W

\*\*\*\*\*

\*A-1342-223-A V BOARD, COMPLETE  
\*\*\*\*\*

4-382-854-11 SCREW (M3X10), P, SW (+)

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

Les composants identifiés par une trame et une marque  $\Delta$  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
R972	1-249-432-11	CARBON	18K 5% 1/4W	S1607A	1-571-532-23	SWITCH, TACTIL (POWER)	
R974	1-216-476-11	METAL OXIDE	180 5% 3W F	*****			
R975	1-249-417-11	CARBON	1K 5% 1/4W F	*1-643-151-11	HS2 BOARD	*****	
R976	1-249-432-11	CARBON	18K 5% 1/4W	<DIODE>			
R977	1-249-438-11	CARBON	56K 5% 1/4W	D1650	8-719-108-12	DIODE RD9.1EW	
R978	1-249-430-11	CARBON	12K 5% 1/4W	D1651	8-719-108-12	DIODE RD9.1EW	
R979	1-249-414-11	CARBON	560 5% 1/4W	D1652	8-719-108-12	DIODE RD9.1EW	
R980	1-249-420-11	CARBON	1.8K 5% 1/4W	<CONNECTOR>			
R981	1-249-412-11	CARBON	390 5% 1/4W	HS2-16*1-564-513-11	PLUG, CONNECTOR 10P		
R982	1-249-384-11	CARBON	1.8 5% 1/4W F	HS2-49*1-564-506-11	PLUG, CONNECTOR 3P		
R983	1-249-441-11	CARBON	100K 5% 1/4W	<JACK>			
R984	1-249-405-11	CARBON	100 5% 1/4W	J1650	1-569-804-11	JACK BLOCK, PIN (L TYPE) 3P (V3 IN)	
R985	1-249-400-11	CARBON	39 5% 1/4W F	*****			
R986	1-249-435-11	CARBON	33K 5% 1/4W	*A-1373-411-A	U BOARD, COMPLETE (KV-32XBR26(US/CND))	*****	
R987	1-249-428-11	CARBON	8.2K 5% 1/4W	*A-1373-412-A	U BOARD, COMPLETE (KV-32XBR36(US/CND))	*****	
R988	1-249-418-11	CARBON	1.2K 5% 1/4W	<CAPACITOR>			
R989	1-249-413-11	CARBON	470 5% 1/4W	C1004	1-102-125-00	CERAMIC	0.0047MF 10% 50V
R990	1-216-451-11	METAL OXIDE	120 5% 2W F	C1005	1-126-301-11	ELECT	1MF 20% 50V
R991	1-249-409-11	CARBON	220 5% 1/4W	C1006	1-164-096-11	CERAMIC	0.01MF 20% 50V
<CONNECTOR>				C1007	1-124-598-11	ELECT	22MF 20% 25V
V-20	*1-564-512-11	PLUG, CONNECTOR 9P		C1008	1-124-598-11	ELECT	22MF 20% 25V
*****				C1010	1-124-465-00	ELECT	0.47MF 20% 50V
*1-643-150-11	HS1 BOARD	*****		C1011	1-124-465-00	ELECT	0.47MF 20% 50V
<CAPACITOR>				C1012	1-124-465-00	ELECT	0.47MF 20% 50V
C1603	1-124-589-11	ELECT	47MF 20% 16V	C1013	1-102-125-00	CERAMIC	0.0047MF 10% 50V
C1604	1-124-589-11	ELECT	47MF 20% 16V	C1014	1-126-163-11	ELECT	4.7MF 20% 50V
<DIODE>				C1016	1-126-163-11	ELECT	4.7MF 20% 50V
D1601	1-809-718-11	LED UNIT		C1018	1-126-301-11	ELECT	1MF 20% 50V
D1602	1-809-718-11	LED UNIT		C1020	1-124-242-00	ELECT	33MF 20% 25V
<CONNECTOR>				C1021	1-124-465-00	ELECT	0.47MF 20% 50V
HS1-37*1-564-514-11	PLUG, CONNECTOR 11P			C1022	1-124-242-00	ELECT	33MF 20% 25V
<IC>				C1023	1-126-163-11	ELECT	4.7MF 20% 50V
IC1601	8-746-185-11	IC SBX1618-51		C1024	1-126-163-11	ELECT	4.7MF 20% 50V
<RESISTOR>				C1026	1-164-048-11	CERAMIC	12PF 5% 50V
R1601	1-249-405-11	CARBON	100 5% 1/4W	C1027	1-164-048-11	CERAMIC	12PF 5% 50V
R1602	1-249-407-11	CARBON	150 5% 1/4W	C1028	1-124-242-00	ELECT	33MF 20% 25V
R1604	1-249-419-11	CARBON	1.5K 5% 1/4W	C1029	1-124-282-00	ELECT	22MF 20% 16V
R1605	1-249-421-11	CARBON	2.2K 5% 1/4W	C1030	1-124-478-11	ELECT	100MF 20% 25V
R1606	1-249-425-11	CARBON	4.7K 5% 1/4W	C1031	1-102-963-00	CERAMIC	33PF 5% 50V
R1607	1-249-430-11	CARBON	12K 5% 1/4W	C1033	1-124-598-11	ELECT	22MF 20% 25V
<SWITCH>				C1034	1-124-282-00	ELECT	22MF 20% 16V
S1601	1-571-532-21	SWITCH, TACTIL		C1036	1-124-282-00	ELECT	22MF 20% 16V
S1602	1-571-532-21	SWITCH, TACTIL		C1037	1-124-282-00	ELECT	22MF 20% 16V
S1603	1-571-532-21	SWITCH, TACTIL		C1039	1-124-478-11	ELECT	100MF 20% 25V
S1604	1-571-532-21	SWITCH, TACTIL		C1046	1-124-242-00	ELECT	33MF 20% 25V
S1605	1-571-532-21	SWITCH, TACTIL		C1047	1-124-465-00	ELECT	0.47MF 20% 50V
S1606	1-571-532-21	SWITCH, TACTIL		C1048	1-126-301-11	ELECT	1MF 20% 50V
				C1049	1-124-598-11	ELECT	22MF 20% 25V

U

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C1050	1-124-242-00	ELECT	33MF 20% 25V (KV-32XBR36(US/CND))	Q1016	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1051	1-124-465-00	ELECT	0.47MF 20% 50V	Q1017	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1054	1-126-163-11	ELECT	4.7MF 20% 50V (KV-32XBR36(US/CND))	Q1018	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C1055	1-124-589-11	ELECT	47MF 20% 16V	Q1019	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1056	1-124-499-11	ELECT	1MF 20% 50V	Q1020	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1057	1-124-768-11	ELECT	4.7MF 20% 50V	Q1021	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1058	1-126-163-11	ELECT	4.7MF 20% 50V (KV-32XBR36(US/CND))	Q1022	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C1059	1-124-499-11	ELECT	1MF 20% 50V	Q1023	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C1060	1-124-499-11	ELECT	1MF 20% 50V	Q1025	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1061	1-124-499-11	ELECT	1MF 20% 50V	Q1029	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1062	1-102-129-00	CERAMIC	0.01MF 10% 50V	Q1030	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C1063	1-124-768-11	ELECT	4.7MF 20% 50V	Q1031	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C1066	1-126-101-11	ELECT	100MF 20% 16V	Q1032	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1070	1-126-103-11	ELECT	470MF 20% 16V	Q1033	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1110	1-124-768-11	ELECT	4.7MF 20% 50V (KV-32XBR36(US/CND))	Q1034	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1111	1-124-768-11	ELECT	4.7MF 20% 50V (KV-32XBR36(US/CND))	<RESISTOR>			
<FILTER BLOCK>				R1011	1-249-435-11	CARBON 33K 5% 1/4W	
CM1002	1-466-162-31	BLOCK, COM FILTER (CFB-4)		R1012	1-249-434-11	CARBON 27K 5% 1/4W	
<DIODE>				R1013	1-249-417-11	CARBON 1K 5% 1/4W	
D1005	8-719-110-36	DIODE RD13ES-B2		R1014	1-249-441-11	CARBON 100K 5% 1/4W	
D1009	8-719-110-36	DIODE RD13ES-B2		R1015	1-215-437-00	METAL 4.7K 1% 1/4W	
D1010	8-719-110-36	DIODE RD13ES-B2		R1016	1-249-441-11	CARBON 100K 5% 1/4W	
D1011	8-719-110-36	DIODE RD13ES-B2		R1017	1-249-405-11	CARBON 100 5% 1/4W	
D1012	8-719-110-36	DIODE RD13ES-B2		R1018	1-249-427-11	CARBON 6.8K 5% 1/4W	
D1013	8-719-110-36	DIODE RD13ES-B2		R1019	1-249-427-11	CARBON 6.8K 5% 1/4W	
D1014	8-719-110-36	DIODE RD13ES-B2		R1023	1-249-405-11	CARBON 100 5% 1/4W	
D1017	8-719-110-36	DIODE RD13ES-B2		R1026	1-215-437-00	METAL 4.7K 1% 1/4W	
D1018	8-719-110-36	DIODE RD13ES-B2		R1028	1-249-434-11	CARBON 27K 5% 1/4W	
D1019	8-719-110-36	DIODE RD13ES-B2		R1029	1-249-435-11	CARBON 33K 5% 1/4W	
D1020	8-719-109-66	DIODE RD3.3ES-B2		R1030	1-249-417-11	CARBON 1K 5% 1/4W	
D1021	8-719-109-66	DIODE RD3.3ES-B2		R1032	1-249-417-11	CARBON 1K 5% 1/4W	
D1022	8-719-109-66	DIODE RD3.3ES-B2		R1033	1-249-393-11	CARBON 10 5% 1/4W F	
D1023	8-719-109-66	DIODE RD3.3ES-B2 (KV-32XBR36(US/CND))		R1034	1-249-417-11	CARBON 1K 5% 1/4W	
D1025	8-719-911-19	DIODE 1SS119		R1035	1-249-427-11	CARBON 6.8K 5% 1/4W (KV-32XBR36(US/CND))	
D1026	8-719-911-19	DIODE 1SS119		R1036	1-249-440-11	CARBON 82K 5% 1/4W	
D1027	8-719-911-19	DIODE 1SS119		R1037	1-249-440-11	CARBON 82K 5% 1/4W	
<IC>				R1038	1-249-440-11	CARBON 82K 5% 1/4W	
IC1002	8-752-056-50	IC CXA1545S		R1040	1-249-427-11	CARBON 6.8K 5% 1/4W (KV-32XBR36(US/CND))	
IC1010	8-759-145-57	IC UPC4557C (KV-32XBR36(US/CND))		R1041	1-249-441-11	CARBON 100K 5% 1/4W (KV-32XBR36(US/CND))	
IC1011	8-759-145-57	IC UPC4557C		R1042	1-249-441-11	CARBON 100K 5% 1/4W (KV-32XBR36(US/CND))	
<COIL>				R1043	1-249-417-11	CARBON 1K 5% 1/4W	
L1001	1-408-422-00	INDUCTOR 120UH		R1046	1-249-413-11	CARBON 470 5% 1/4W	
L1002	1-408-422-00	INDUCTOR 120UH		R1048	1-249-405-11	CARBON 100 5% 1/4W	
<TRANSISTOR>				R1050	1-249-405-11	CARBON 100 5% 1/4W	
Q1009	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1051	1-249-417-11	CARBON 1K 5% 1/4W	
Q1010	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1052	1-249-413-11	CARBON 470 5% 1/4W	
Q1012	8-729-119-78	TRANSISTOR 2SC2785-HFE (KV-32XBR36(US/CND))		R1054	1-249-405-11	CARBON 100 5% 1/4W	
Q1013	8-729-119-78	TRANSISTOR 2SC2785-HFE (KV-32XBR36(US/CND))		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	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1069	1-215-437-00	METAL	4.7K 1% 1/4W	U-16	*1-564-513-11	PLUG, CONNECTOR 10P	
R1070	1-249-411-11	CARBON	330 5% 1/4W	U-19	*1-564-509-11	PLUG, CONNECTOR 6P	
R1071	1-249-431-11	CARBON	15K 5% 1/4W	U-22	1-566-942-11	CONNECTOR, HINGE(RECEPTACLE) 30P	
R1073	1-249-431-11	CARBON	15K 5% 1/4W	U-23	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
R1077	1-249-418-11	CARBON	1.2K 5% 1/4W	U-47	*1-564-506-11	PLUG, CONNECTOR 3P	
R1078	1-249-418-11	CARBON	1.2K 5% 1/4W	U-48	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
R1079	1-249-405-11	CARBON	100 5% 1/4W	U-50	*1-564-505-11	PLUG, CONNECTOR 2P	
R1080	1-215-423-00	METAL	1.2K 1% 1/4W	*****			
R1081	1-215-421-00	METAL	1K 1% 1/4W	*A-1373-414-A	UT BOARD, COMPLETE	*****	
R1089	1-249-405-11	CARBON	100 5% 1/4W				
R1092	1-247-688-11	CARBON	10 5% 1/4W F (KV-32XBR36(US/CND))				
R1094	1-249-405-11	CARBON	100 5% 1/4W	<CAPACITOR>			
R1096	1-249-405-11	CARBON	100 5% 1/4W	C1152	1-102-074-00	CERAMIC	0.001MF 10% 50V
R1099	1-249-413-11	CARBON	470 5% 1/4W	C1154	1-164-096-11	CERAMIC	0.01MF 50V
R1100	1-249-429-11	CARBON	10K 5% 1/4W	C1155	1-126-103-11	ELECT	470MF 20% 16V
R1101	1-249-405-11	CARBON	100 5% 1/4W	C1158	1-124-598-11	ELECT	22MF 20% 25V
R1102	1-249-393-11	CARBON	10 5% 1/4W (KV-32XBR36(US/CND))	C1160	1-124-598-11	ELECT	22MF 20% 25V
R1103	1-249-441-11	CARBON	100K 5% 1/4W (KV-32XBR36(US/CND))	C1161	1-124-598-11	ELECT	22MF 20% 25V
R1106	1-249-435-11	CARBON	33K 5% 1/4W (KV-32XBR36(US/CND))	C1164	1-126-103-11	ELECT	470MF 20% 16V
R1108	1-249-434-11	CARBON	27K 5% 1/4W (KV-32XBR36(US/CND))	C1165	1-126-301-11	ELECT	1MF 20% 50V
R1109	1-249-435-11	CARBON	33K 5% 1/4W (KV-32XBR36(US/CND))	C1166	1-126-301-11	ELECT	1MF 20% 50V
R1110	1-249-405-11	CARBON	100 5% 1/4W	C1167	1-126-301-11	ELECT	1MF 20% 50V
R1112	1-249-409-11	CARBON	220 5% 1/4W (KV-32XBR36(US/CND))	<DIODE>			
R1114	1-249-434-11	CARBON	27K 5% 1/4W (KV-32XBR36(US/CND))	D1152	8-719-110-36	DIODE RD13ES-B2	
R1115	1-249-409-11	CARBON	220 5% 1/4W (KV-32XBR36(US/CND))	D1158	8-719-110-36	DIODE RD13ES-B2	
R1116	1-249-441-11	CARBON	100K 5% 1/4W	D1159	8-719-110-36	DIODE RD13ES-B2	
R1117	1-249-393-11	CARBON	10 5% 1/4W (KV-32XBR36(US/CND))	D1160	8-719-110-36	DIODE RD13ES-B2	
R1118	1-249-413-11	CARBON	470 5% 1/4W	D1163	8-719-110-36	DIODE RD13ES-B2	
R1119	1-249-441-11	CARBON	100K 5% 1/4W (KV-32XBR36(US/CND))	D1164	8-719-110-36	DIODE RD13ES-B2	
R1120	1-249-413-11	CARBON	470 5% 1/4W (KV-32XBR36(US/CND))	D1165	8-719-110-36	DIODE RD13ES-B2	
R1121	1-249-441-11	CARBON	100K 5% 1/4W	D1166	8-719-110-36	DIODE RD13ES-B2	
R1122	1-249-413-11	CARBON	470 5% 1/4W (KV-32XBR36(US/CND))	D1167	8-719-110-36	DIODE RD13ES-B2	
R1133	1-249-405-11	CARBON	100 5% 1/4W	D1168	8-719-110-36	DIODE RD13ES-B2	
R1134	1-249-405-11	CARBON	100 5% 1/4W	D1169	8-719-110-36	DIODE RD13ES-B2	
R1137	1-249-411-11	CARBON	330 5% 1/4W	D1170	8-719-110-36	DIODE RD13ES-B2	
R1138	1-249-415-11	CARBON	680 5% 1/4W	<JACK>			
R1139	1-249-413-11	CARBON	470 5% 1/4W	J1003	1-573-970-11	BLOCK, (S) TERMINAL (V1 IN)	
R1140	1-249-413-11	CARBON	470 5% 1/4W	J1004	1-695-049-11	BLOCK, (S) TERMINAL (V2/V3 IN)	
R1141	1-249-413-11	CARBON	470 5% 1/4W	J1005	1-695-054-11	JACK BLOCK, PIN (LOOP OUT)	
R1142	1-249-415-11	CARBON	680 5% 1/4W	J1006	1-573-970-11	BLOCK, (S) TERMINAL (MONITOR OUT)	
R1147	1-249-405-11	CARBON	100 5% 1/4W	J1007	1-573-969-11	JACK BLOCK, PIN (AUDIO OUT(FIXED))	
R1148	1-249-405-11	CARBON	100 5% 1/4W	J1008	1-573-969-11	JACK BLOCK, PIN (AUDIO OUT(VAR))	
R1149	1-249-417-11	CARBON	1K 5% 1/4W	<RESISTOR>			
R1150	1-249-405-11	CARBON	100 5% 1/4W	R1153	1-249-403-11	CARBON	68 5% 1/4W
R1151	1-249-405-11	CARBON	100 5% 1/4W	R1155	1-249-417-11	CARBON	1K 5% 1/4W
R1152	1-249-417-11	CARBON	1K 5% 1/4W	R1164	1-247-895-00	CARBON	470K 5% 1/4W
<CONNECTOR>				R1165	1-247-895-00	CARBON	470K 5% 1/4W
U-12	1-573-300-11	CONNECTOR, BOARD TO BOARD	18P	R1166	1-247-895-00	CARBON	470K 5% 1/4W
U-13	1-573-300-11	CONNECTOR, BOARD TO BOARD	18P	R1167	1-247-895-00	CARBON	470K 5% 1/4W
				R1168	1-247-895-00	CARBON	470K 5% 1/4W
				R1169	1-249-403-11	CARBON	68 5% 1/4W
				R1170	1-249-403-11	CARBON	68 5% 1/4W
				R1171	1-247-895-00	CARBON	470K 5% 1/4W
				R1172	1-247-895-00	CARBON	470K 5% 1/4W



**UT S**

REF. NO.	PART NO.	DESCRIPTION				
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	
R1194	1-215-437-00	METAL	4.7K	1%	1/4W	
R1196	1-249-426-11	CARBON	5.6K	5%	1/4W	

<SWITCH>

S1150 1-572-198-11 SWITCH, KEYBOARD

<CONNECTOR>

UT-9	*1-564-517-11	PLUG, CONNECTOR 2P
UT-11	*1-564-519-11	PLUG, CONNECTOR 4P
UT-22	*1-566-941-11	CONNECTOR, HINGE (TAB) 30P
UT-23	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P
UT-35	*1-564-518-11	PLUG, CONNECTOR 3P
UT-38	*1-564-517-11	PLUG, CONNECTOR 2P

\*\*\*\*\*

\*A-1394-421-A S BOARD, COMPLETE  
 \*\*\*\*\*

<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
C3442	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C3446	1-163-129-00	CERAMIC CHIP 330PF	5%	50V
C3447	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C3448	1-163-023-00	CERAMIC CHIP 0.015MF	10%	50V
C3449	1-164-182-11	CERAMIC CHIP 0.0033MF	10%	50V
C3450	1-163-109-00	CERAMIC CHIP 47PF	5%	50V
C3451	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C3452	1-163-989-11	CERAMIC CHIP 0.033MF	10%	25V
C3453	1-124-477-11	ELECT 47MF	20%	16V
C3454	1-126-162-11	ELECT 3.3MF	20%	50V
C3455	1-126-163-11	ELECT 4.7MF	20%	16V
C3456	1-163-129-00	CERAMIC CHIP 330PF	5%	50V
C3457	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C3459	1-124-477-11	ELECT 47MF	20%	16V
C3460	1-163-099-00	CERAMIC CHIP 18PF	5%	50V
C3461	1-163-099-00	CERAMIC CHIP 18PF	5%	50V
C3507	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C3508	1-164-005-11	CERAMIC CHIP 0.47MF	25V	
C3509	1-163-139-00	CERAMIC CHIP 820PF	5%	50V
C3515	1-163-121-00	CERAMIC CHIP 150PF	5%	50V
C3540	1-126-157-11	ELECT 10MF	20%	16V

REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
			<DIODE>	
	D3444	8-719-404-46	DIODE MA110	
			<IC>	
	IC3401	8-759-403-44	IC MN1280-S	
	IC3402	8-759-070-42	IC M37201M6-A18FP	
	IC3441	8-759-081-30	IC MC78L05ACPRP	
	IC3442	8-759-084-12	IC LA7945	
	IC3443	8-759-158-03	IC LC7458A-02	
	IC3444	8-759-403-44	IC MN1280-S	
			<COIL>	
	L3401	1-408-421-00	INDUCTOR 100UH	
	L3461	1-408-409-00	INDUCTOR 10UH	
	L3462	1-408-421-00	INDUCTOR 100UH	
			<TRANSISTOR>	
	Q3441	8-729-422-27	TRANSISTOR 2SD601A-Q	
	Q3444	8-729-903-10	TRANSISTOR FMW1	
			<RESISTOR>	
	R3401	1-216-049-00	METAL GLAZE 1K 5%	1/10W
	R3402	1-216-049-00	METAL GLAZE 1K 5%	1/10W
	R3403	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	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
	R3407	1-216-033-00	METAL GLAZE 220 5%	1/10W
	R3408	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
	R3409	1-216-033-00	METAL GLAZE 220 5%	1/10W
	R3441	1-216-025-00	METAL GLAZE 100 5%	1/10W
	R3442	1-216-041-00	METAL GLAZE 470 5%	1/10W
	R3443	1-216-041-00	METAL GLAZE 470 5%	1/10W
	R3444	1-216-077-00	METAL GLAZE 15K 5%	1/10W
	R3445	1-216-689-11	METAL GLAZE 39K 5%	1/10W
	R3446	1-216-085-00	METAL GLAZE 33K 5%	1/10W
	R3449	1-216-073-00	METAL GLAZE 10K 5%	1/10W
	R3450	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
	R3451	1-216-093-00	METAL GLAZE 68K 5%	1/10W
	R3452	1-216-079-00	METAL GLAZE 18K 5%	1/10W
	R3453	1-216-679-11	METAL CHIP 15K 0.50%	1/10W
	R3454	1-216-049-00	METAL GLAZE 1K 5%	1/10W
	R3455	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
	R3456	1-216-077-00	METAL GLAZE 15K 5%	1/10W
	R3463	1-216-073-00	METAL GLAZE 10K 5%	1/10W
	R3464	1-216-073-00	METAL GLAZE 10K 5%	1/10W
	R3465	1-216-073-00	METAL GLAZE 10K 5%	1/10W
	R3472	1-216-091-00	METAL GLAZE 56K 5%	1/10W
	R3473	1-216-025-00	METAL GLAZE 100 5%	1/10W
	R3474	1-216-295-00	METAL GLAZE 0 5%	1/10W
	R3504	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
	R3509	1-216-049-00	METAL GLAZE 1K 5%	1/10W
	R3511	1-216-025-00	METAL GLAZE 100 5%	1/10W
	R3512	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
	R3513	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
	R3514	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
	R3519	1-216-049-00	METAL GLAZE 1K 5%	1/10W
	R3520	1-216-049-00	METAL GLAZE 1K 5%	1/10W

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

Les composants identifiés par une trame et une marque  $\Delta$  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
R3521	1-216-049-00	METAL GLAZE 1K 5% 1/10W					
R3525	1-216-295-00	METAL GLAZE 0 5% 1/10W					
R3526	1-216-073-00	METAL GLAZE 10K 5% 1/10W					
R3528	1-216-295-00	METAL GLAZE 0 5% 1/10W					
R3529	1-216-295-00	METAL GLAZE 0 5% 1/10W					
R3530	1-216-073-00	METAL GLAZE 10K 5% 1/10W					
R3531	1-216-073-00	METAL GLAZE 10K 5% 1/10W					
R3532	1-216-073-00	METAL GLAZE 10K 5% 1/10W					
R3535	1-216-033-00	METAL GLAZE 220 5% 1/10W					
R3537	1-216-295-00	METAL GLAZE 0 5% 1/10W					
R3540	1-216-073-00	METAL GLAZE 10K 5% 1/10W					

REMOTE COMMANDER

1-693-113-21	REMOTE COMMANDER (RM-Y113A) (KV-32XBR36(US/CND))
1-693-114-21	REMOTE COMMANDER (RM-Y112A) (KV-32XBR26(US/CND))
9-902-719-01	COVER (FOR RM-Y112A, Y113A)
9-998-214-01	COVER BATTERY (FOR RM-Y112A, Y113A)

<CONNECTOR>

S-42	*1-568-378-21	PIN, CONNECTOR 3P
S-42	*1-565-514-11	SOCKET, CONNECTOR 2P
S-43	*1-564-508-11	PLUG, CONNECTOR 5P
S-45	*1-564-511-71	PLUG, CONNECTOR 8P
S-46	*1-564-506-11	PLUG, CONNECTOR 3P
S-47	*1-564-506-11	PLUG, CONNECTOR 3P

<CRYSTAL>

X3401	1-577-358-21	VIBRATOR, CERAMIC 4MHZ
X3441	1-577-364-11	VIBRATOR, CERAMIC 12MHZ

\*\*\*\*\*

MISCELLANEOUS  
\*\*\*\*\*

$\Delta$ 1-402-952-11	COIL, DEMAGNETIZATION
$\Delta$ 1-417-178-11	SELECTOR, ANTENNA (AS-2) (KV-32XBR36(US/CND))
$\Delta$ 1-451-315-11	DEFLECTION YOKE (Y34FXA)
1-452-032-00	MAGNET, DISK; 10MM $\phi$
1-452-094-00	MAGNET, ROTATABLE DISK; 15MM $\phi$
$\Delta$ 1-452-579-11	NECK ASSY, PICTURE TUBE (NA322)
1-544-544-21	SPEAKER (10CM)
1-544-580-11	SPEAKER (2.5CM)
*1-555-400-00	CABLE, PIN
*1-557-056-31	CABLE, P-P (KV-32XBR36(US/CND))
1-561-306-00	JACK, PIN (F) (KV-32XBR26(US/CND))
$\Delta$ 1-696-002-12	CORD, POWER(WITH NOISE FILTER)
A-4546-027-A	TRANSMITTER TMR-D1002 (KV-32XBR36(US/CND))
A-4546-028-A	LUMINOUS UNIT IFP-D1002 (KV-32XBR36(US/CND))
V901 $\Delta$ 8-733-723-05	PICTURE TUBE (A80JYV50X)

\*\*\*\*\*

ACCESSORIES AND PACKING MATERIALS  
\*\*\*\*\*

3-757-071-21	MANUAL, INSTRUCTION (ENGLISH)
3-757-071-31	MANUAL, INSTRUCTION (FRENCH) (KV-32XBR26(CND)/32XBR36(CND))
3-757-071-41	MANUAL, INSTRUCTION (SPANISH) (KV-32XBR26(US)/32XBR36(US))
*4-035-985-01	CUSHION (UPPER) (ASSY)
*4-035-986-01	CUSHION (LOWER) (ASSY)
*4-035-991-01	INDIVIDUAL CARTON
*4-384-027-01	BAG, PROTECTION
A-4503-953-A	HEADPHONE TDR-IF310 (KV-32XBR36(US/CND))

**MEMO**

A series of horizontal dotted lines for writing a memo.

# ACCESSORY

## TDR-IF310

---

### SPECIFICATIONS

#### General

Modulation system	Frequency modulation
Carrier frequency	Right 2.8 MHz Left 2.3 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 (6.0 oz.) incl. batteries

Design and specifications subject to change  
without notice.

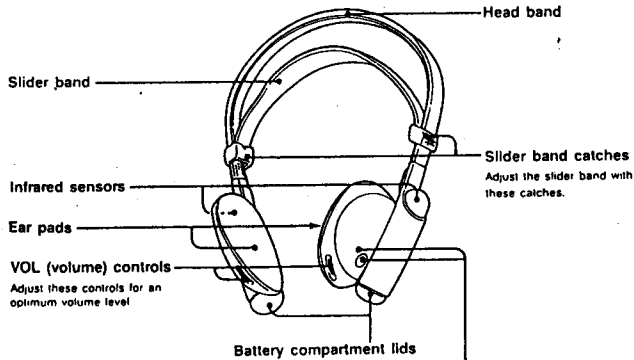
## CORDLESS STEREO HEADPHONES

**SECTION 1**  
**GENERAL**

This section is extracted from instruction manual.

**Parts Identification**

**Headphones**



**POWER switch and indicator**  
 Press the POWER switch. The indicator lights up. To turn off the power, press it again. When approximately 3 hours have elapsed without the unit being used, the POWER switch will be turned off automatically to avoid unnecessary battery wear.

**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

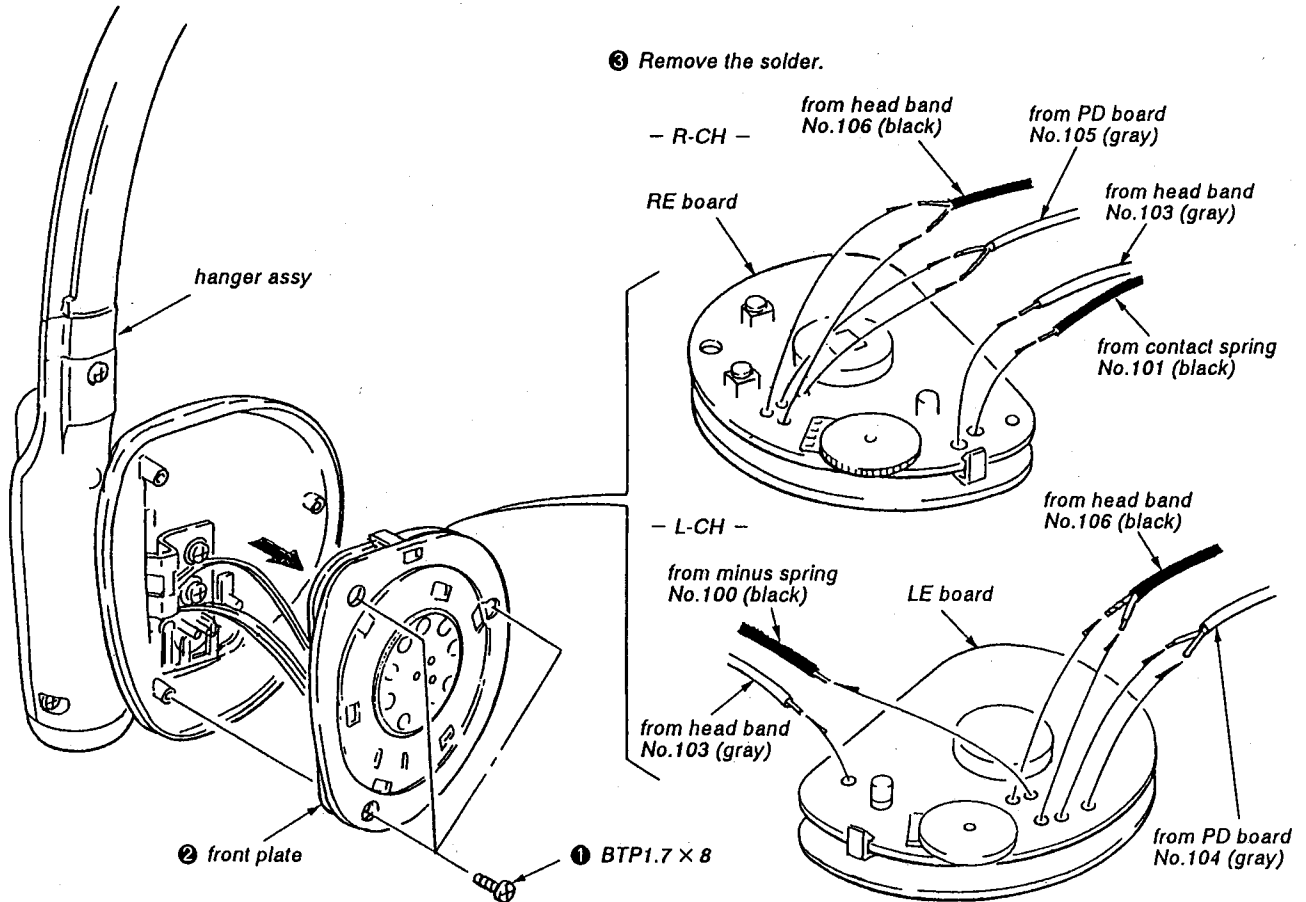
**Battery Installation**

- 1 Open both battery compartments' lids.
- 2 Insert the batteries with the correct polarity.
- 3 Close the battery compartments' lids.

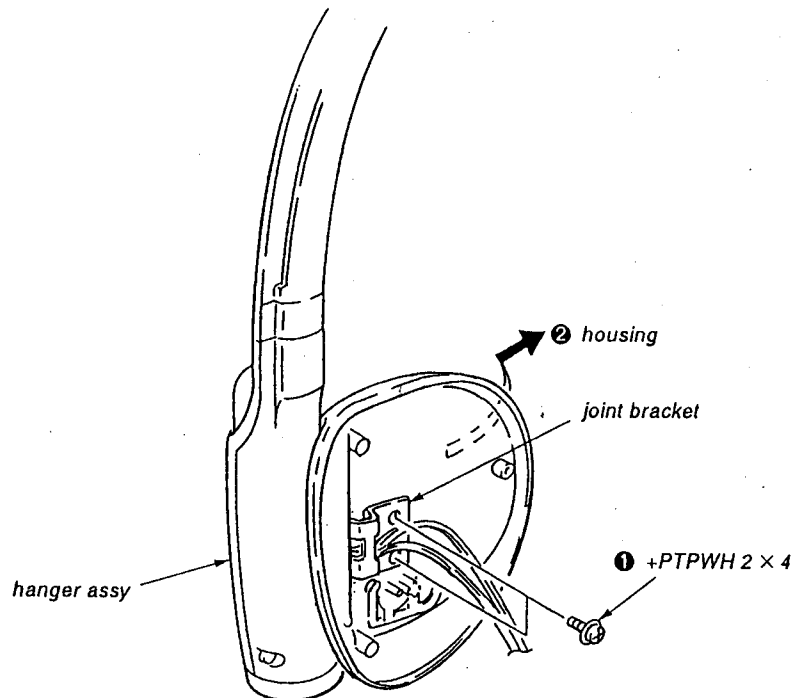
## SECTION 2 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

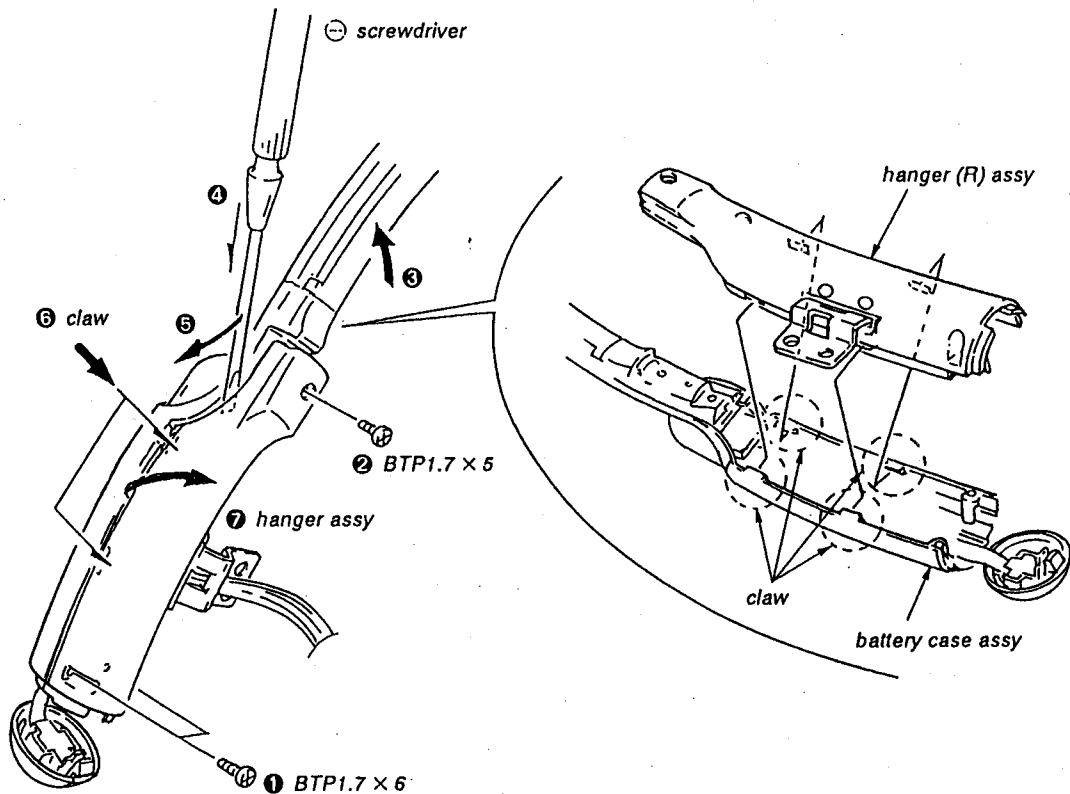
### FRONT PLATE



### HOUSING

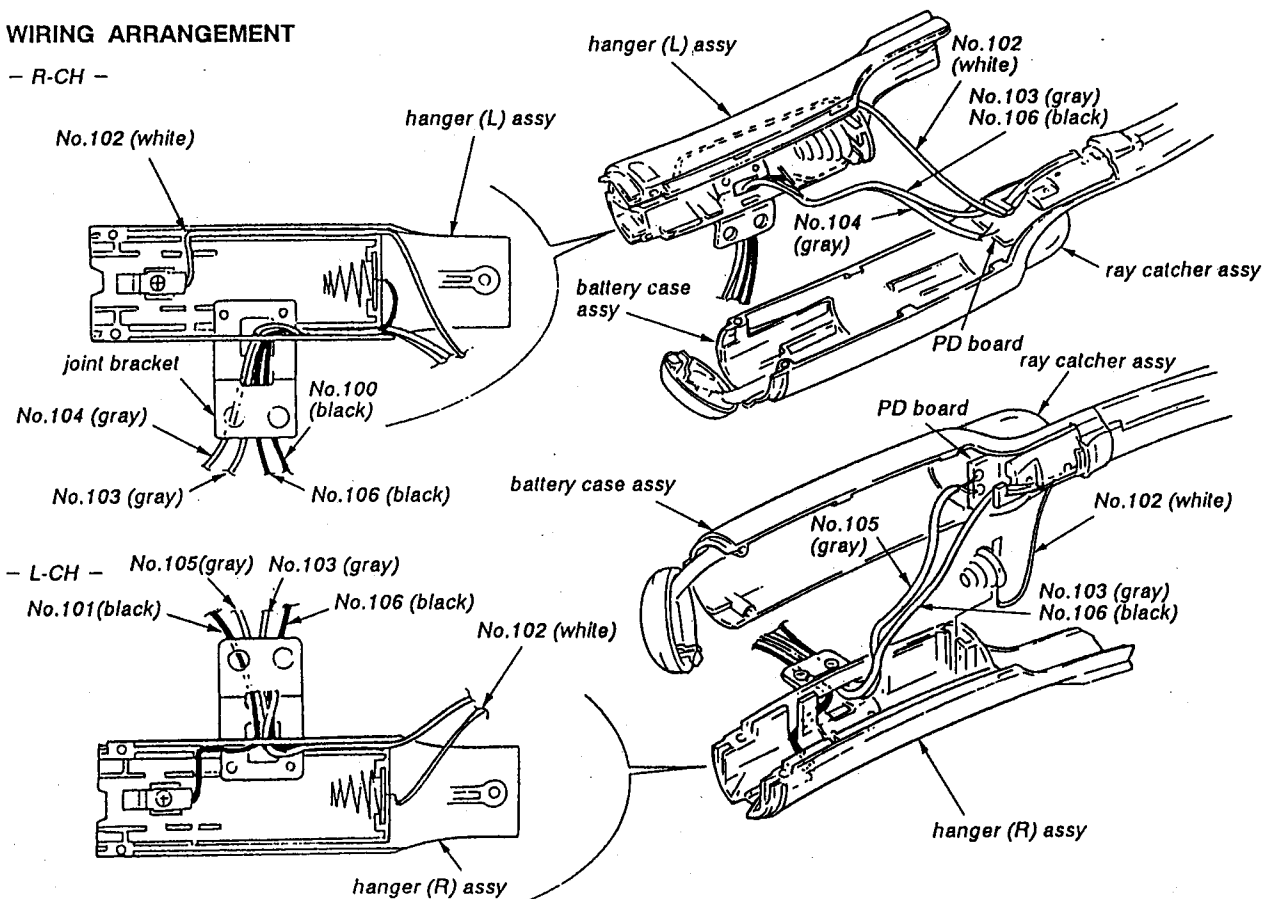


**HANGER**



**WIRING ARRANGEMENT**

- R-CH -



- L-CH -

### SECTION 3 ADJUSTMENTS

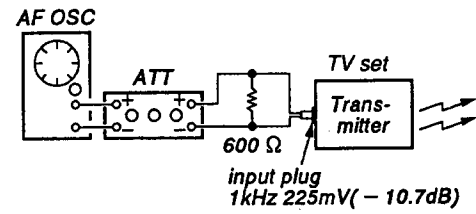
**Note:**

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

0 dB = 0.775 V

**[Receiving Frequency Adjustment]**

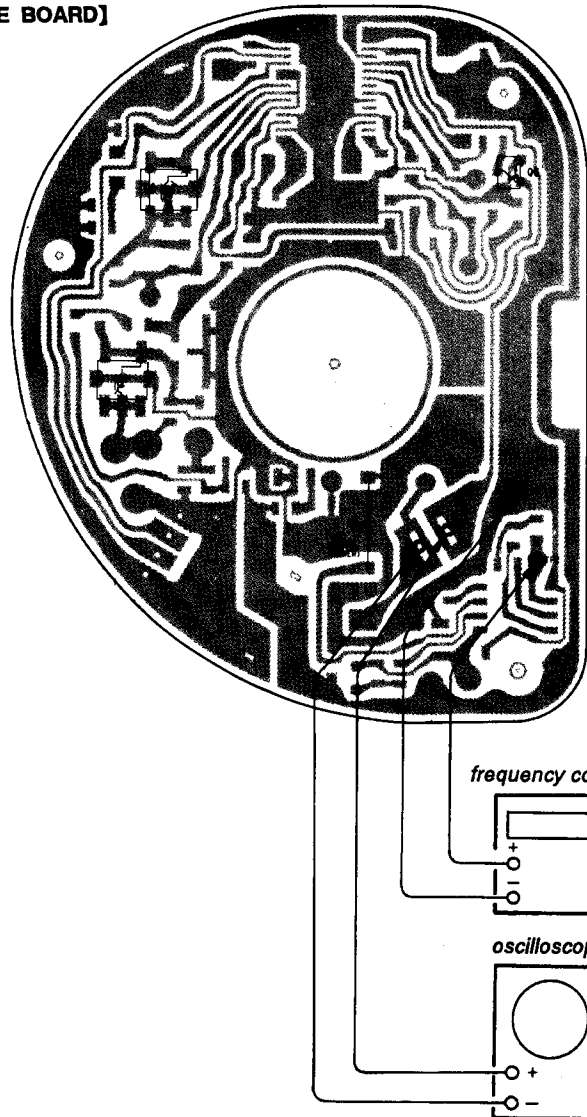
**Preparation:**



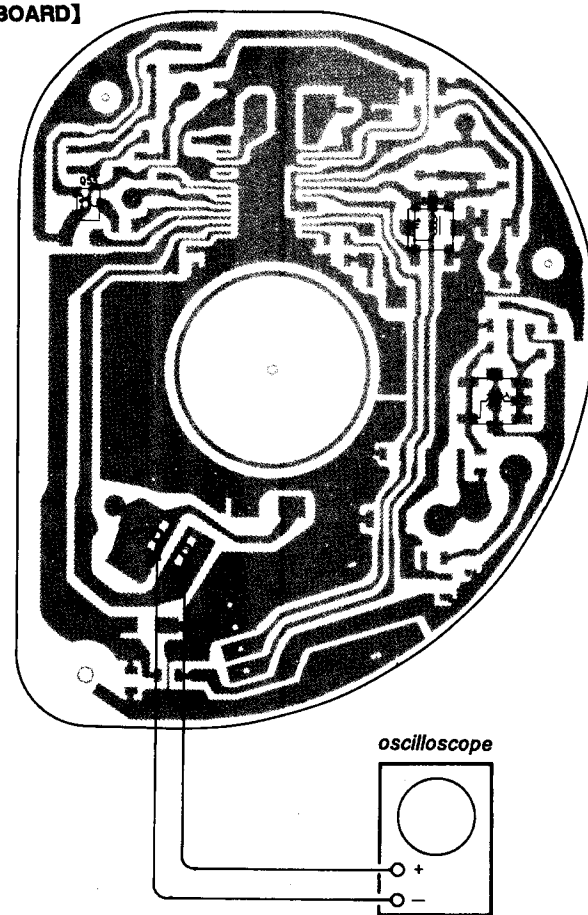
1. Feed a signal to TV set and connect a power supply.
2. Volume control: Optional position.
3. Short-circuit: Q3 (Q53) Base - Emitter (Ground)

**[Connection and Adjustment Location]**

**[RE BOARD]**



**[LE BOARD]**



**Procedure:**

1. Connect an oscilloscope to SP1 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)

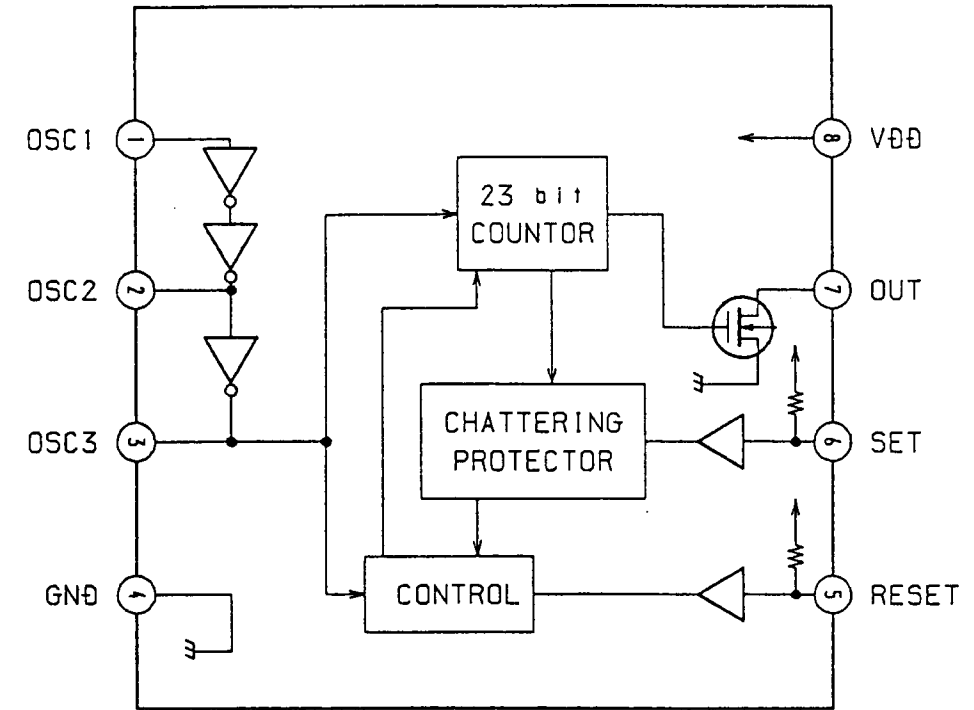
**[Timer Clock Frequency Check]**

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.

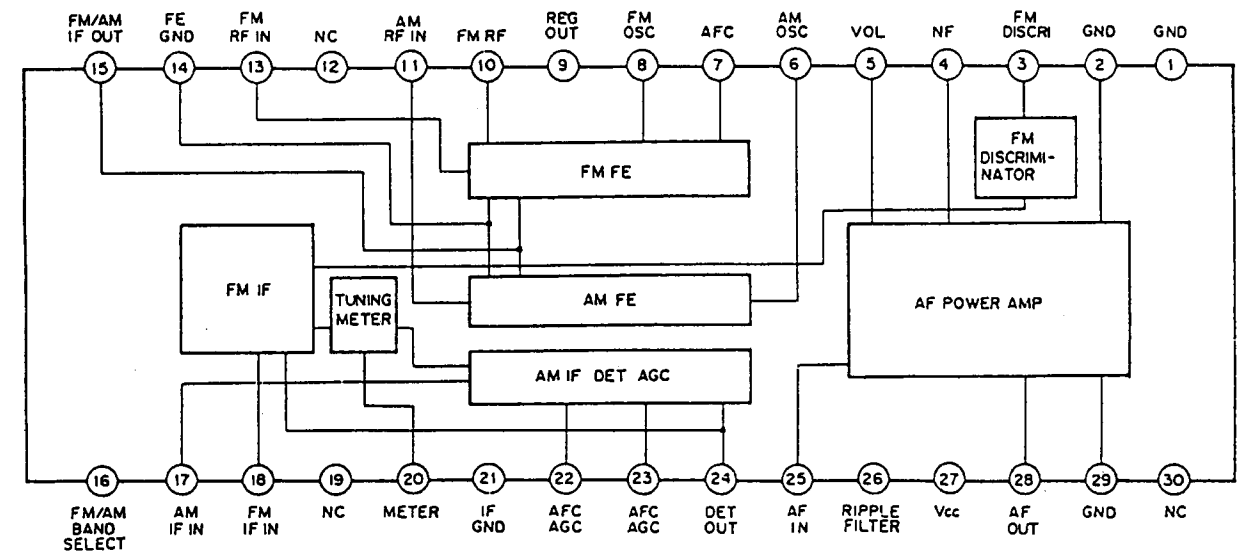
### SECTION 4 DIAGRAMS

• IC Block Diagrams

IC2 BU2305F



IC21, 51 CXA1280N





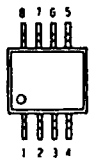
4-1. PRINTED WIRING BOARDS

• Semiconductor Location

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

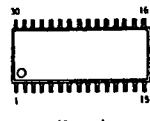
• Semiconductor Lead Layout

BU2305F



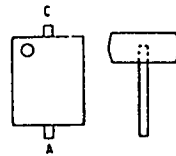
(TOP VIEW)

CXA1280N

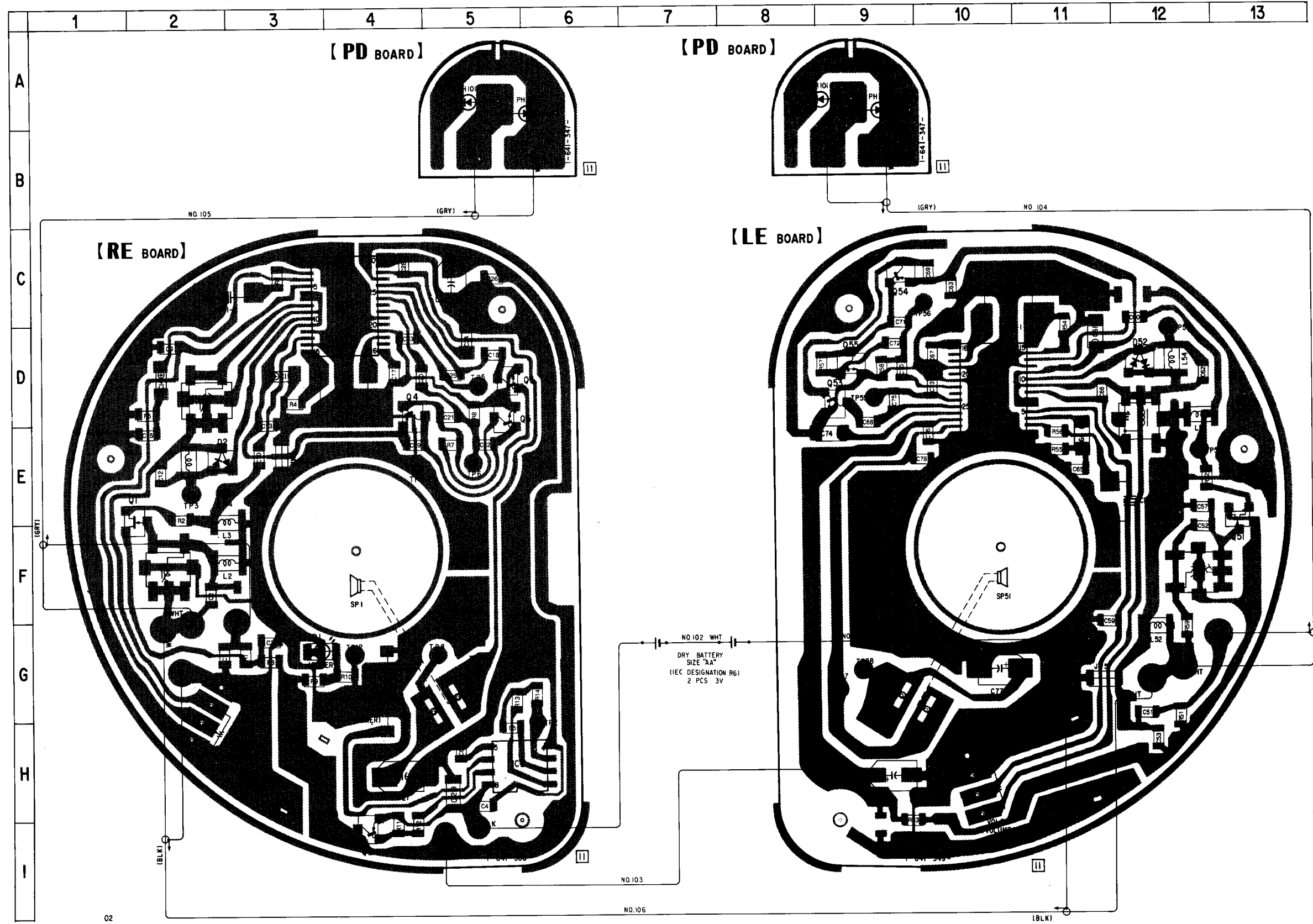
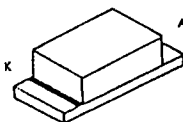


(TOP VIEW)

PP601-1



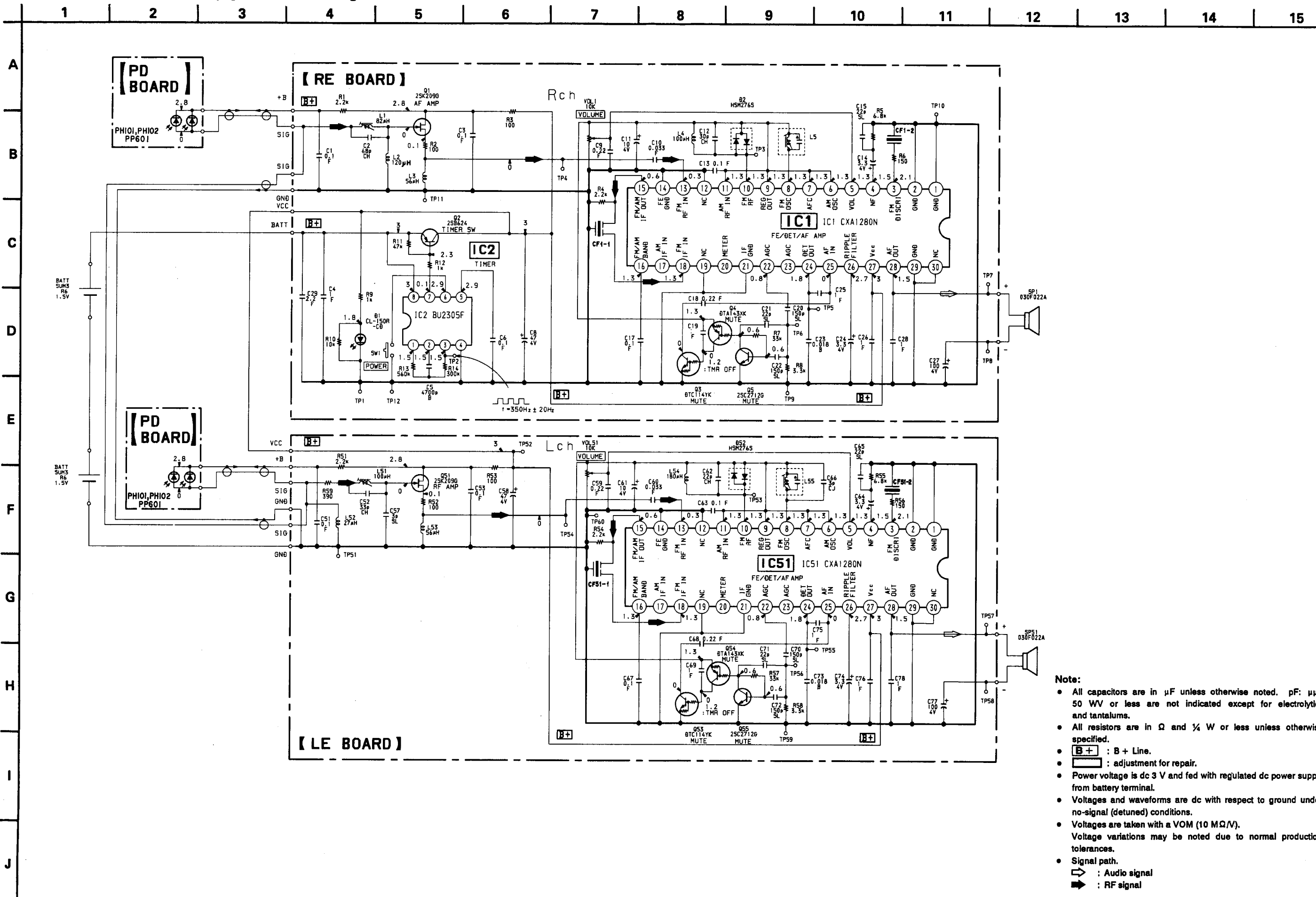
CL-150R-CD



Note:

- : 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.



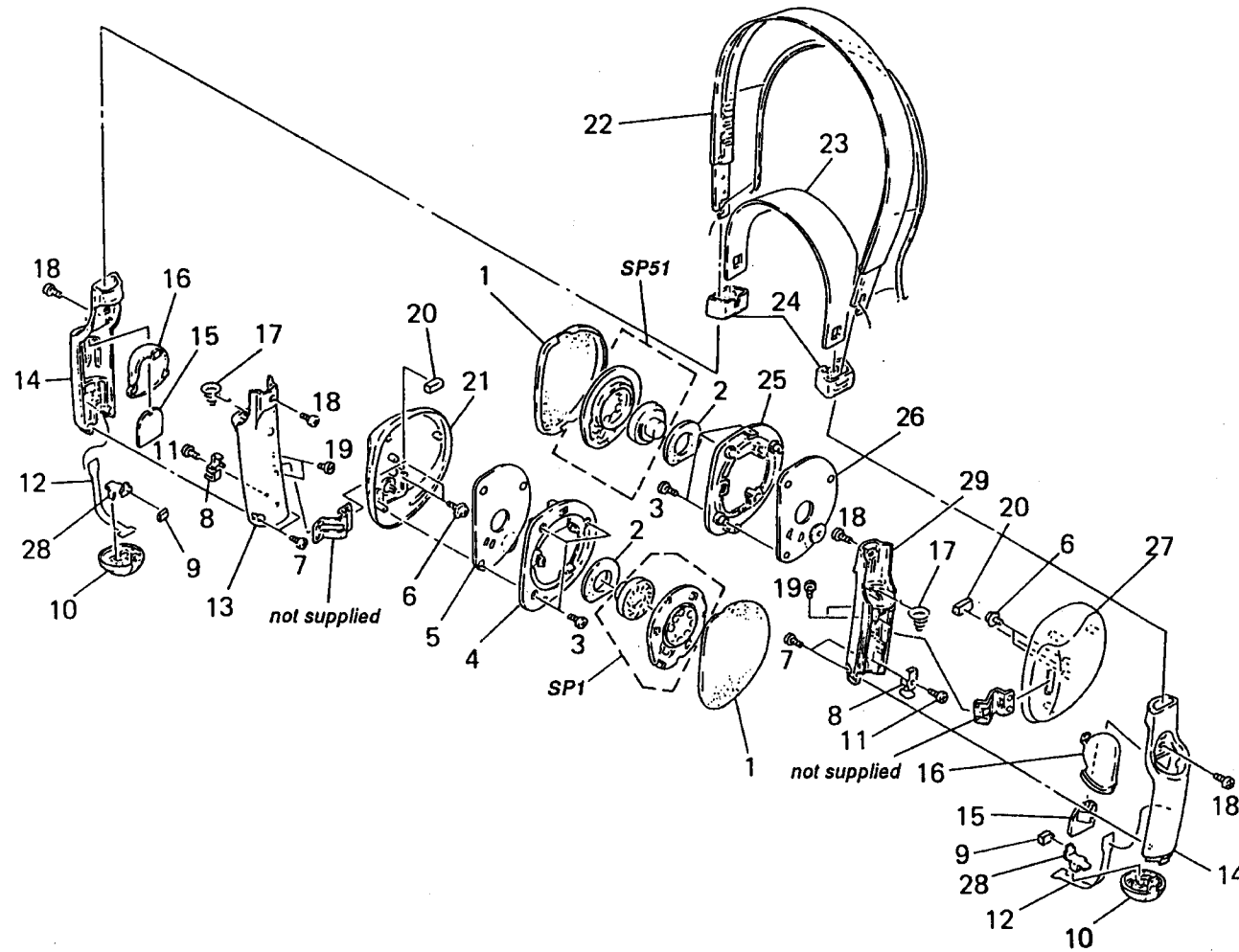
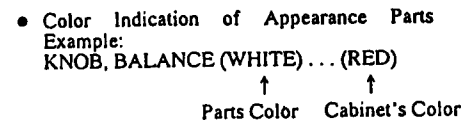
- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.
  - All resistors are in  $\Omega$  and  $\frac{1}{4}$  W or less unless otherwise specified.
  - **B+** : B + Line.
  - **□** : 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 $\Omega$ /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)

- 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	
* 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)	

**PD LE RE**

**NOTE:**

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms.  
METAL: Metal-film resistor  
METAL OXIDE: Metal Oxide-film resistor  
F: nonflammable

REF. NO.	PART NO.	DESCRIPTION	REMARK
	*1-641-347-11	PD BOARD *****	
		<DIODE>	
PH101	8-719-975-20	PHOTO DIODE PP601-1	
PH102	8-719-975-20	PHOTO DIODE PP601-1	
		*****	
	*A-4542-061-A	LE BOARD, COMPLETE *****	
	1-578-717-71	FILTER, CRYSTAL	
		<CAPACITOR>	
C51	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C52	1-163-239-11	CERAMIC CHIP 33PF	5% 50V
C53	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C57	1-163-086-00	CERAMIC CHIP 3PF	0.25PF 50V
C58	1-126-607-11	ELECT CHIP 47MF	20% 4V
C59	1-164-222-11	CERAMIC CHIP 0.22MF	25V
C60	1-163-034-00	CERAMIC CHIP 0.033MF	50V
C61	1-135-201-11	TANTAL. CHIP 10MF	20% 4V
C62	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C63	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C64	1-135-180-21	TANTAL. CHIP 3.3MF	20% 4V
C65	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C66	1-163-220-11	CERAMIC CHIP 3PF	0.25PF 50V
C67	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C68	1-164-222-11	CERAMIC CHIP 0.22MF	25V
C69	1-164-346-11	CERAMIC CHIP 1MF	16V
C70	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C71	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C72	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C73	1-163-024-00	CERAMIC CHIP 0.018MF	10% 50V
C74	1-135-180-21	TANTAL. CHIP 3.3MF	20% 4V
C75	1-164-346-11	CERAMIC CHIP 1MF	16V
C76	1-164-346-11	CERAMIC CHIP 1MF	16V
C77	1-126-209-11	ELECT CHIP 100MF	20% 4V
C78	1-164-346-11	CERAMIC CHIP 1MF	16V
		<DIODE>	
D52	8-719-946-33	DIODE HSM276S	
		<IC>	
IC51	8-759-605-59	IC CXAI280N	
		<COIL>	

**SECTION 6  
ELECTRICAL PARTS LIST**

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

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u:  $\mu$ , for example:  
uA...:  $\mu$ A... uPA...:  $\mu$ PA...  
uPB...:  $\mu$ PB... uPC...:  $\mu$ PC...  
uPD...:  $\mu$ PD...
- CAPACITORS  
uF:  $\mu$ F
- COILS  
uH:  $\mu$ H

REF. NO.	PART NO.	DESCRIPTION	REMARK
L51	1-424-333-11	COIL	
L52	1-410-386-11	INDUCTOR CHIP 27UH	
L53	1-410-390-11	INDUCTOR CHIP 56UH	
L54	1-410-657-21	INDUCTOR CHIP 180UH	
L55	1-406-436-11	COIL (OSC)	
		<TRANSISTOR>	
Q51	8-729-220-93	TRANSISTOR 2SK209-G	
Q53	8-729-900-52	TRANSISTOR DTC114YK	
Q54	8-729-906-45	TRANSISTOR DTA143XK	
Q55	8-729-230-49	TRANSISTOR 2SC2712-YG	
		<RESISTOR>	
JW51	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R51	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R52	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R53	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R54	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R55	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R56	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R57	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R58	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R59	1-216-039-00	METAL GLAZE 390 5% 1/10W	
		<VARIABLE RESISTOR>	
VOL51	1-238-906-11	RES, VAR, CARBON 10K	
		*****	
	*A-4542-062-A	RE BOARD, COMPLETE *****	
	1-578-717-71	FILTER, CRYSTAL	
		<CAPACITOR>	
C1	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C2	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C3	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C4	1-164-346-11	CERAMIC CHIP 1MF	16V
C5	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C6	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C8	1-126-607-11	ELECT CHIP 47MF	20% 4V
C9	1-164-222-11	CERAMIC CHIP 0.22MF	25V
C10	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V
C11	1-135-201-11	TANTAL. CHIP 10MF	20% 4V
C12	1-163-104-00	CERAMIC CHIP 30PF	5% 50V
C13	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C14	1-135-180-21	TANTAL. CHIP 3.3MF	20% 4V
C15	1-163-101-00	CERAMIC CHIP 22PF	5% 50V

RE

REF. NO.	PART NO.	DESCRIPTION			REMARK
C17	1-163-038-00	CERAMIC CHIP 0.1MF			25V
C18	1-164-222-11	CERAMIC CHIP 0.22MF			25V
C19	1-164-346-11	CERAMIC CHIP 1MF			16V
C20	1-163-121-00	CERAMIC CHIP 150PF	5%		50V
C21	1-163-101-00	CERAMIC CHIP 22PF	5%		50V
C22	1-163-121-00	CERAMIC CHIP 150PF	5%		50V
C23	1-163-024-00	CERAMIC CHIP 0.018MF	10%		50V
C24	1-135-180-21	TANTAL. CHIP 3.3MF	20%		4V
C25	1-164-346-11	CERAMIC CHIP 1MF			16V
C26	1-164-346-11	CERAMIC CHIP 1MF			16V
C27	1-126-209-11	ELECT CHIP 100MF	20%		4V
C28	1-164-346-11	CERAMIC CHIP 1MF			16V
C29	1-164-337-11	CERAMIC CHIP 2.2MF			16V

## &lt;DIODE&gt;

D1	8-719-989-22	DIODE CL-150R-CD
D2	8-719-946-33	DIODE HSM276S

## &lt;IC&gt;

IC1	8-759-605-59	IC CXA1280N
IC2	8-759-044-56	IC BU2305F

## &lt;COIL&gt;

L1	1-424-334-11	COIL
L2	1-410-655-31	INDUCTOR CHIP 120UH
L3	1-410-390-11	INDUCTOR CHIP 56UH
L4	1-410-393-11	INDUCTOR CHIP 100UH
L5	1-406-436-11	COIL (OSC)

## &lt;TRANSISTOR&gt;

Q1	8-729-220-93	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

## &lt;RESISTOR&gt;

JW1	1-216-296-00	METAL GLAZE	0	5%	1/8W
R1	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R2	1-216-025-00	METAL GLAZE	100	5%	1/10W
R3	1-216-025-00	METAL GLAZE	100	5%	1/10W
R4	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R5	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R6	1-216-029-00	METAL GLAZE	150	5%	1/10W
R7	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R8	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R9	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R10	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R11	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R12	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R13	1-216-115-00	METAL GLAZE	560K	5%	1/10W
R14	1-216-108-00	METAL GLAZE	300K	5%	1/10W

## &lt;SWITCH&gt;

SW1	1-572-473-11	SWITCH, TACTIL
-----	--------------	----------------

## &lt;VARIABLE RESISTOR&gt;

VOL1	1-238-906-11	RES, VAR, CARBON 10K
------	--------------	----------------------

