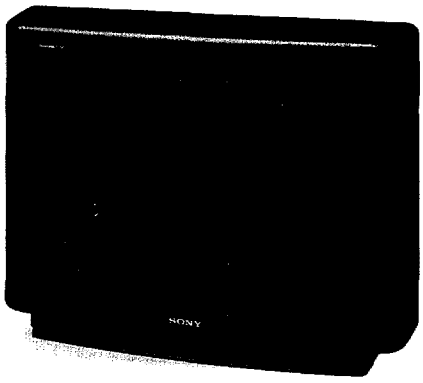
KV-27XBR25/32XBR25
RM-Y112

SERVICE MANUAL



(Photo : KV-27XBR25)

RM-Y112

US Model
KV-27XBR25
Chassis No. SCC-F16E-A
KV-32XBR25
Chassis No. SCC-F16B-A

Canadian Model
KV-27XBR25
Chassis No. SCC-F17D-A
KV-32XBR25
Chassis No. SCC-F17G-A

FN CHASSIS

MODELS OF THE SAME SERIES	
KV-27XBR25/32XBR25	
KV-27XBR35/32XBR35	

SPECIFICATIONS

Television system: American TV standards
Channel coverage: VHF: 2-13
UHF: 14-69
CABLE TV: 1-125
Picture tube: Microblack™ Trinitron® tube
27-inch picture measured diagonally
29-inch picture tube measured diagonally (KV-27XBR25)
32-inch picture measured diagonally
34-inch picture tube measured diagonally (KV-32XBR25)
Antenna: 75 ohm external antenna terminal for VHF/UHF
Input jacks: VIDEO IN 1, 2 and 3
S VIDEO IN (4-pin mini DIN)
Y : 1 Vp-p, 75-ohms unbalanced, sync negative
C : 0.286 Vp-p (Burst signal) 75-ohms
Video (phono jacks) : 1 Vp-p, 75-ohms unbalanced, sync negative
Audio (phono jacks) :
500 mVrms (100% modulation)
Impedance : 47 kilohms

Output jacks: MONITOR OUT
S VIDEO MONITOR OUT
(4-pin mini DIN)
Y : 1 Vp-p, 75-ohms unbalanced, sync negative
Video (phono jacks) : 1 Vp-p, 75-ohms unbalanced, sync negative
Audio (phono jacks) : 500 mVrms (100% modulation)
Impedance : 10 kilohms
AUDIO OUTPUT (VARIABLE)
(phono jacks)
More than 900 mVrms (100% modulation) at the maximum volume setting (variable)
Impedance : 5 kilohms
AUDIO LINE OUT
(phono jacks)
900 mVrms (100% modulation)
Impedance : 5 kilohms

- Continued on next page -

MICROFILM

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	(KV-27XBR25) 250W (KV-32XBR25) 225W
Dimensions (w/h/d)	(KV-27XBR25) Approx. 756×578×519 mm ($29_{7/8}$×$22_{7/8}$×$20_{1/2}$ inches) (KV-32XBR25) Approx. 870×663×575.2 mm ($34_{3/8}$×$26_{1/8}$×$22_{3/4}$ inches)
Weight	(KV-27XBR25) Approx. 55.2kg (121 lb 12 oz) (KV-32XBR25) Approx. 76.8kg (169 lb 5 oz)
Supplied accessories	Remote Commander RM-Y112 (1) with 2 size AA (R6) EVEREADY batteries
Optional accessories	U/V mixer EAC-66 Connecting cable RK-74A VMC-810S/820S YC-15V/30V TV stand SU-27XBR3 (KV-27XBR25) TV stand SU-32XBR3 (KV-32XBR25)

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 ⚠ 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, COURTCIRCUITER 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 CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATÍFS ÁLA SÉCURITÉ!!

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

TABLE OF CONTENTS

SAFETY CHECK-OUT

(US Model only)

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

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).
   Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 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 0.75 V, so analog meters must have an accurate low-voltage scale The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V 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)

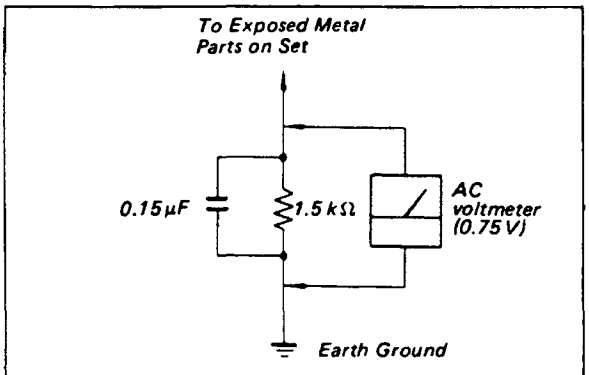


Fig. A. Using an AC voltmeter to check AC leakage.

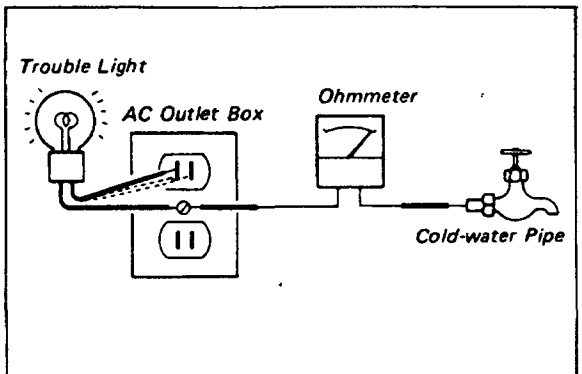


Fig. B. Checking for earth ground.

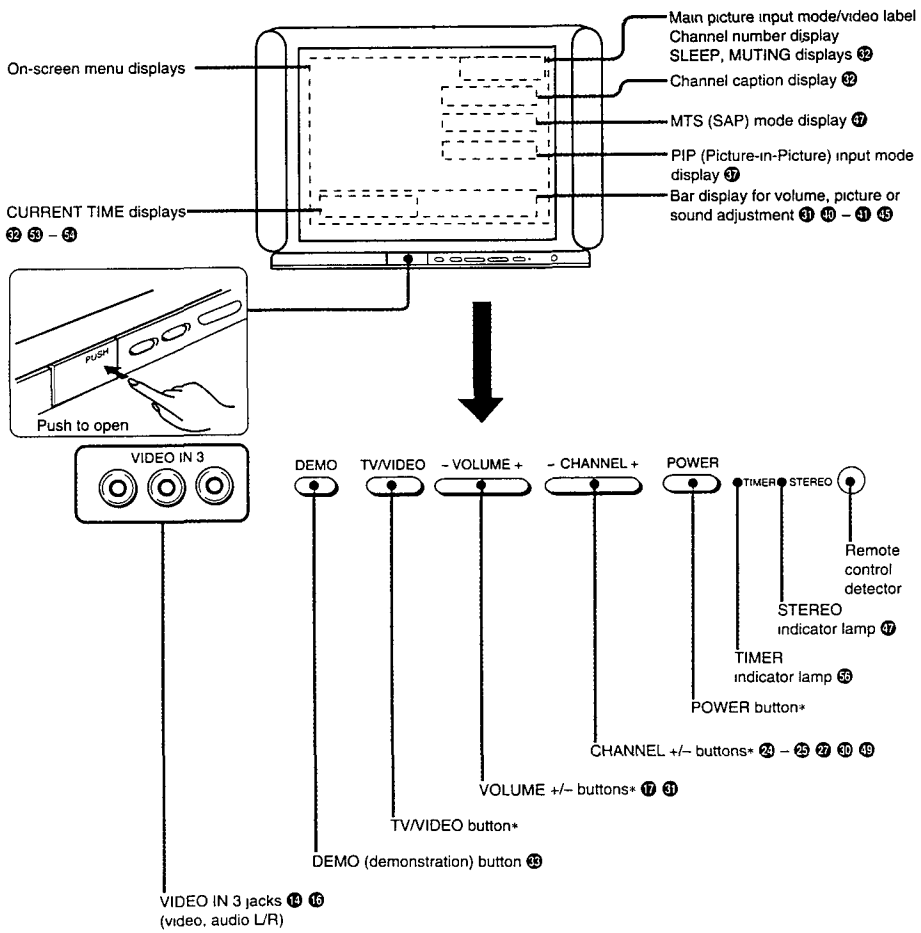
SECTION 1
GENERAL

This section is extracted from instruction manual.

1-1. LOCATING CONTROLS AND CONNECTORS

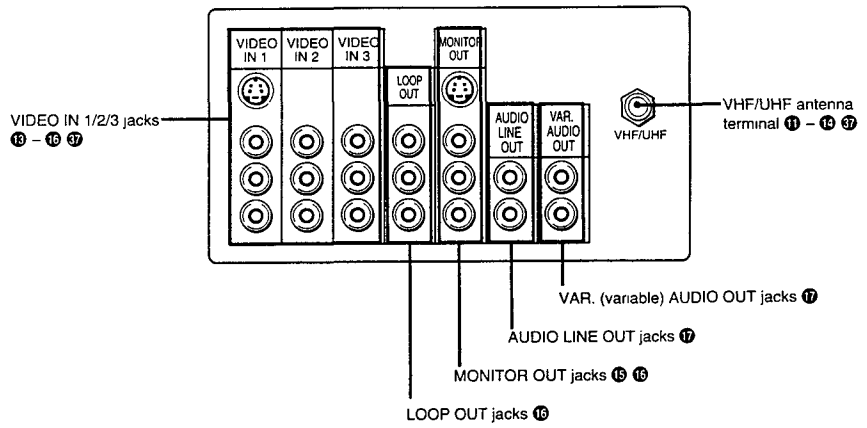
For details, see the pages indicated by the numbered black circles.

Front



* Buttons with the same function are also located on the Remote Commander (p. 8).

Rear



CRT

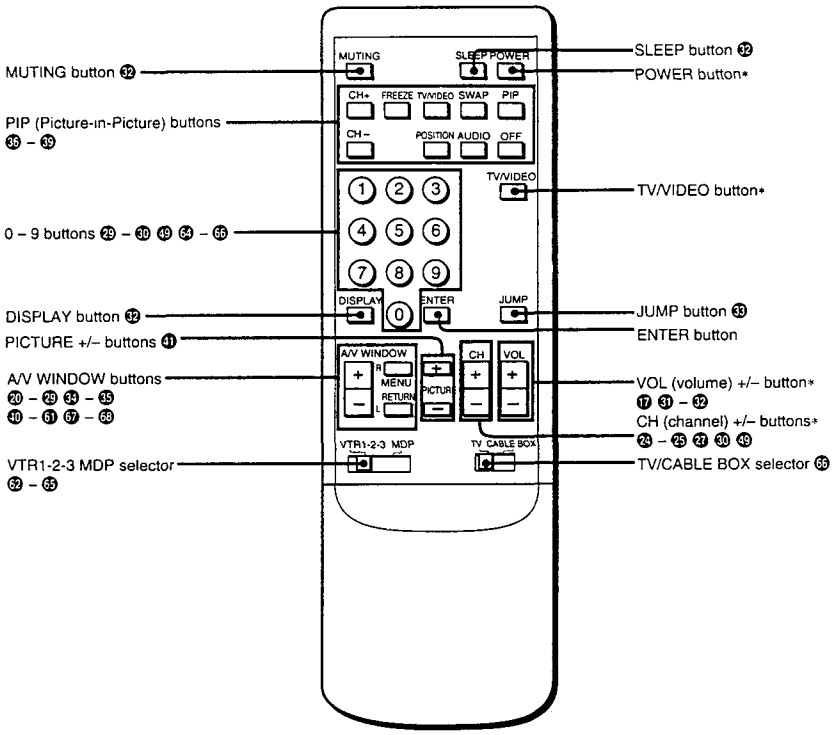
To prevent static electricity, this television uses a CRT with an uneven screen surface.

Pay attention to the following precautions.

Do not hit with a hard object or rub it.

Wipe off fingermarks, etc. with any glass cleaner sold.

Remote Commander (with the video control cover closed)



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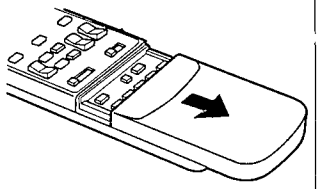
* Buttons with the same function are also located on the TV (p. 6).

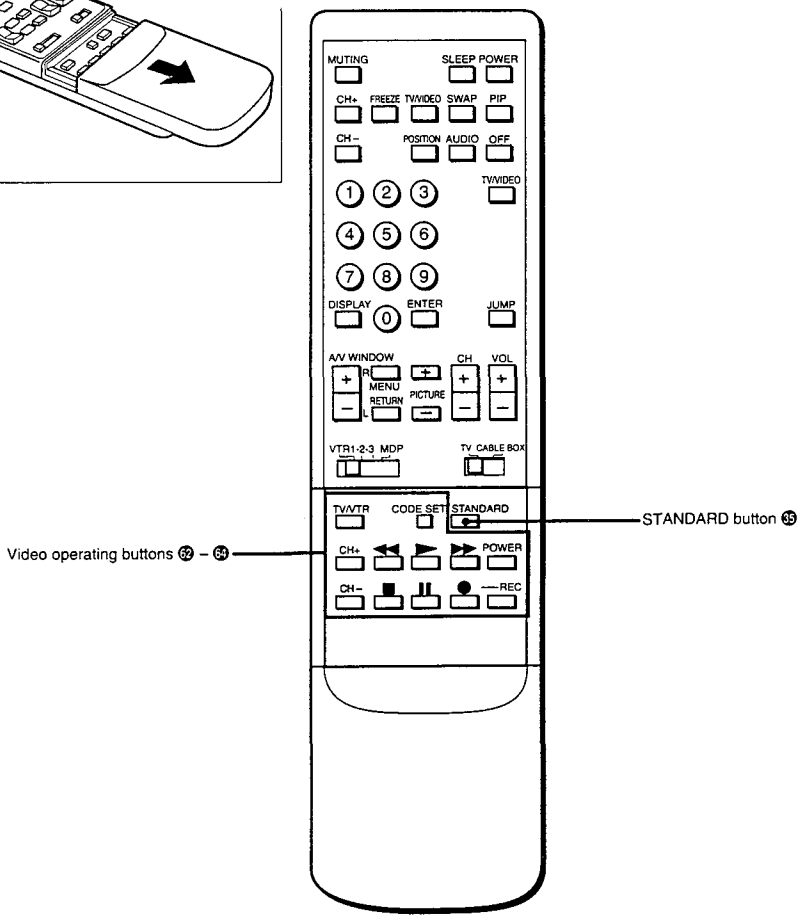
Note
If the TV/CABLE BOX selector is set to CABLE BOX, the Remote Commander is able to control a connected cable box, not the TV (p. 66). Set the selector to TV to control the TV with the Remote Commander.

Remote Commander (with the video control cover open)

Opening the video control cover

Slide the cover down.





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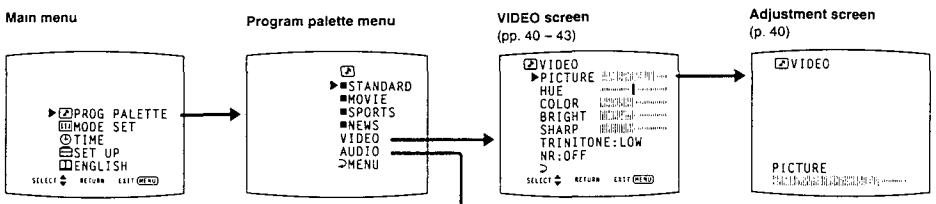
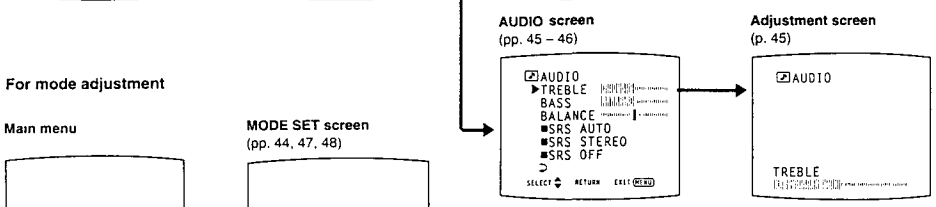
1-2. USING THE ON-SCREEN MENUS

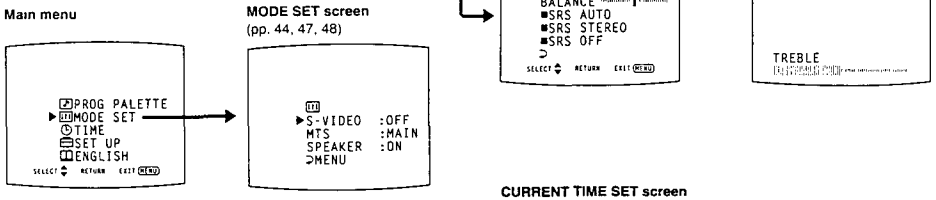
The following flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings. See the indicated pages for instructions on using each feature.

For picture and sound quality adjustment

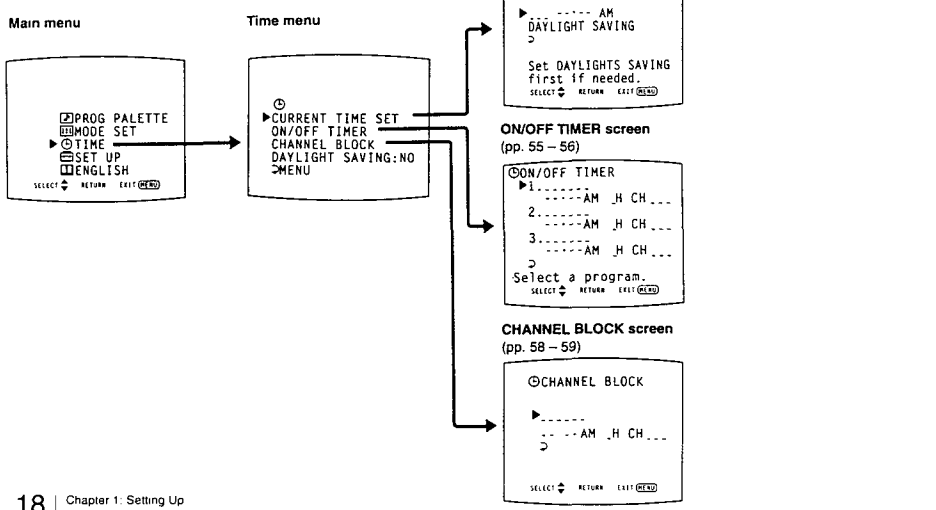




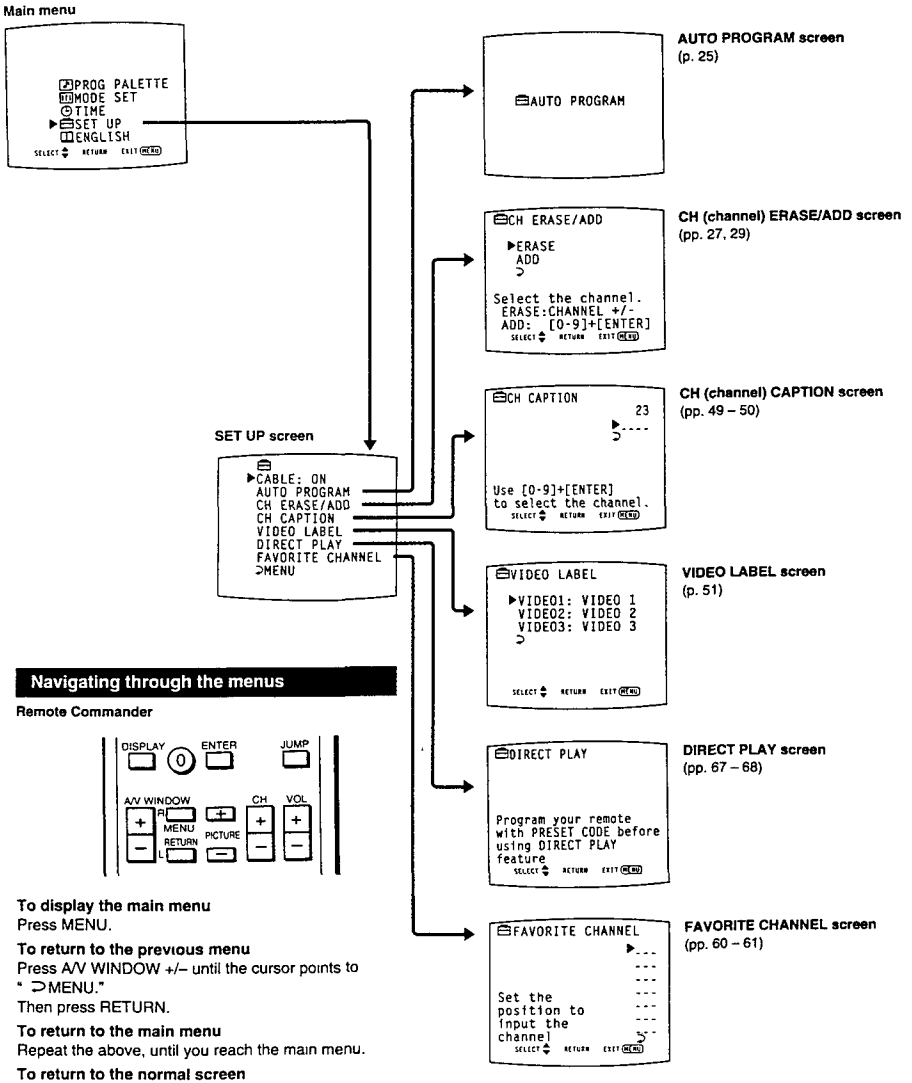
For mode adjustment



For time-related settings



For presetting and other functions



Navigating through the menus

Remote Commander

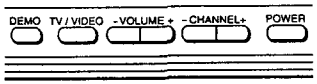
To display the main menu
Press MENU.

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

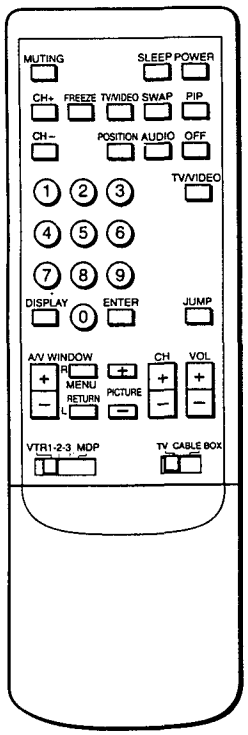
To return to the main menu
Repeat the above, until you reach the main menu.

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

Note
The menus disappear automatically, if you do not press a button within 90 seconds.



Front of TV



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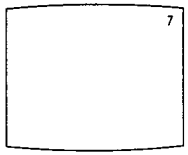
Changing the menu language

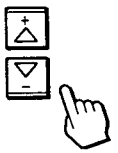
The menu language is factory-set to ENGLISH. Follow these instructions to change the menu language to Spanish or French, or back to English.

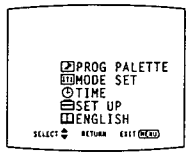
1 Press POWER on the TV or on the Remote Commander to turn on the TV.



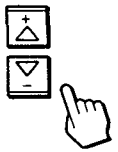
2 Press MENU.
The main menu appears.

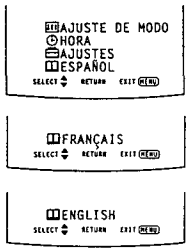
3 Press A/V WINDOW +/– until the cursor points to "ENGLISH."
Then press RETURN.
The language display turns red.





4 Press A/V WINDOW +/– to select the language.
Each time you press A/V 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.

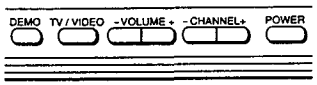
Spanish menu

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

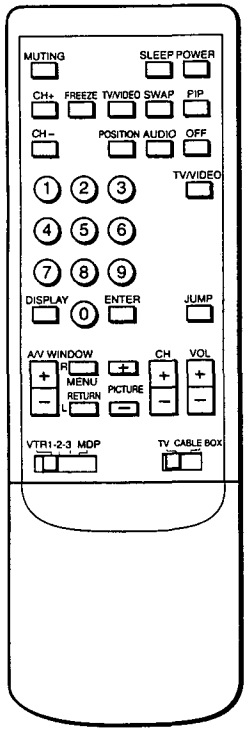
Notes concerning menus

- 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.

1-3. SETTING CABLE ON OR OFF



Front of TV



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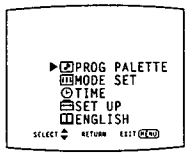
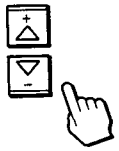
If you have cable connected to the TV, follow the steps below to set the cable connection on or off. Set CABLE OFF to preset or watch VHF or UHF channels, and set CABLE ON to preset or watch cable TV channels.

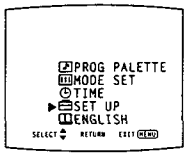
Note
If the TV is in video mode, the "CABLE" display is shaded and cannot be selected. Press TV/VIDEO on the TV or on the Remote Commander to change to TV mode.

1 Press MENU.
The main menu appears.

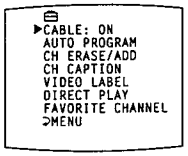


2 Press A/V WINDOW +/– until the cursor points to "SET UP."

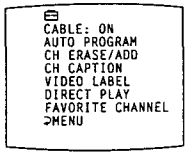




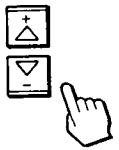
3 Press RETURN.
The set up menu appears, and the cursor points to "CABLE."

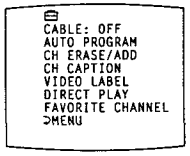


4 Press RETURN again.
The mode display turns red.

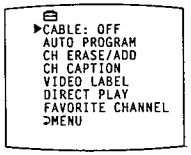


5 Press A/V WINDOW +/– to select "ON" or "OFF."





6 Press RETURN.
The setting is complete.



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

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

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

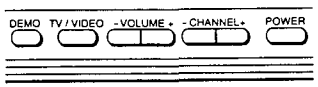
Cable TV channel chart*
Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to the chart below.

Number on this TV	Corresponding CATV channel
1	A-8
5	A-7
6	A-6
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

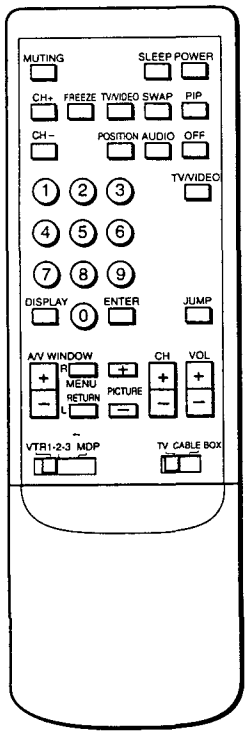
Check with your local cable TV company for more complete information on the available channels.
* The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

1-4. 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



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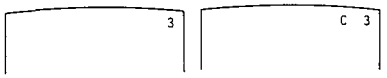
Presetting all receivable channels automatically

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.

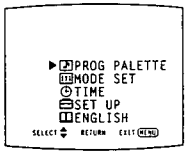
1 Set the cable connection on or off (pp. 22 – 23) to select the type of channel you want to preset, VHF/UHF or cable TV.



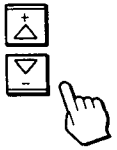
To preset VHF or UHF channels

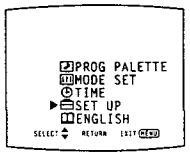
To preset cable TV channels

2 Press MENU.
The main menu appears.

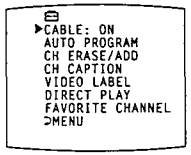


3 Press A/V WINDOW +/– until the cursor points to "SET UP."

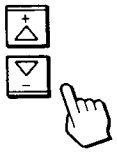


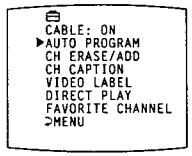


4 Press RETURN.
The set up menu appears.



5 Press A/V WINDOW +/– until the cursor points to "AUTO PROGRAM."

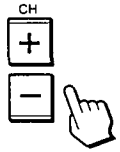




6 Press RETURN.

"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.



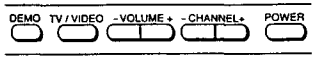
Receivable channels for this TV
VHF: 2 – 13
UHF: 14 – 62
Cable: 1 – 125

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

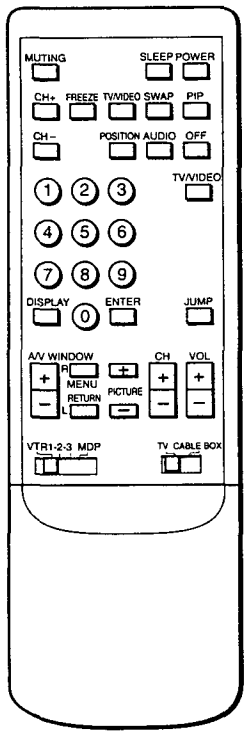
To return to the previous menu
Press A/V WINDOW +/– until the cursor points to "⊃ MENU."
Then press RETURN.

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

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



Front of TV



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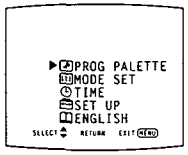
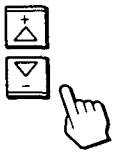
Erasing TV channels

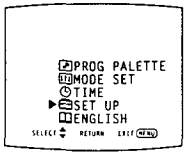
Follow these instructions to erase unnecessary TV channels, so that when you press CH +/–, the channel(s) are skipped.

1 Press MENU
The main menu appears.

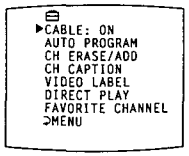


2 Press A/V WINDOW +/– until the cursor points to "SET UP "

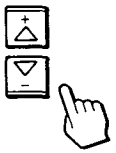


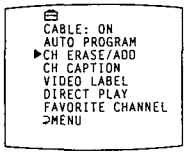


3 Press RETURN
The set up menu appears.

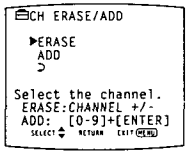


4 Press A/V WINDOW +/– until the cursor points to "CH ERASE/ADD."

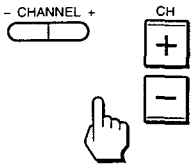


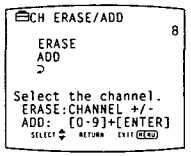


5 Press RETURN.
The CH ERASE/ADD screen appears, and the cursor points to "ERASE."

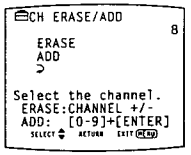


6 Press CHANNEL +/– on the TV or CH +/– on the Remote Commander to select the channel you want to erase.
The channel display appears.





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



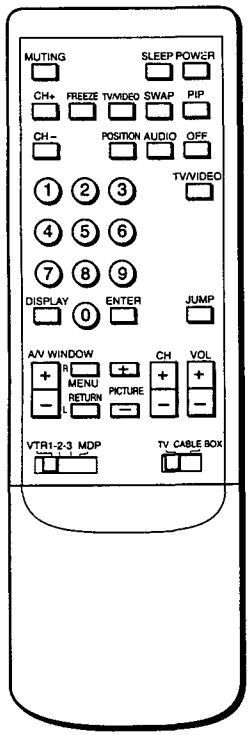
To erase another channel
Repeat steps 6 – 7.

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

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

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

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



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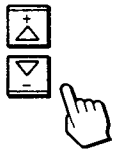
Adding TV channels

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.


```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
SELECT  RETURN  EXIT MENU
```

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

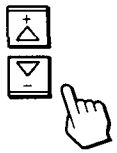


```
 PROG PALETTE
 MODE SET
 TIME
▶SET UP
 ENGLISH
SELECT  RETURN  EXIT MENU
```

3 Press RETURN.
The set up menu appears.


```
▶CABLE: ON
 AUTO PROGRAM
 CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 FAVORITE CHANNEL
 >MENU
```

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

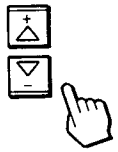


```
 CABLE: ON
 AUTO PROGRAM
▶CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 FAVORITE CHANNEL
 >MENU
```

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

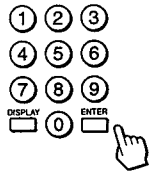

```
CH ERASE/ADD
▶ERASE
 ADD
 ⊃
Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
SELECT  RETURN  EXIT MENU
```

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



```
CH ERASE/ADD
 ERASE
▶ADD
 ⊃
Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
SELECT  RETURN  EXIT MENU
```

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




```
CH ERASE/ADD
                10
 ERASE
 ADD
 ⊃
Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
SELECT  RETURN  EXIT MENU
```

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.


```
CH ERASE/ADD
              + 10
 ERASE
 ADD
 ⊃
Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
SELECT  RETURN  EXIT MENU
```

To add another channel
Repeat steps 7 – 8.

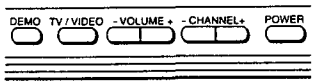
To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

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

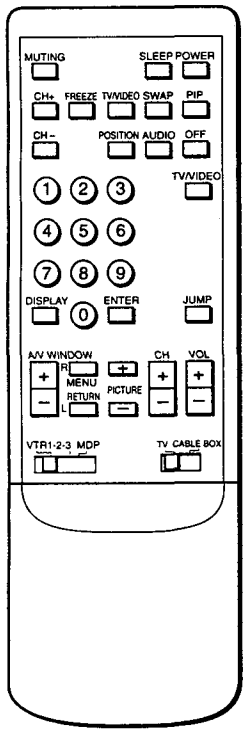
To return to the normal screen
Press MENU on the Remote Commander.

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

1-5. WATCHING TV PROGRAMS



Front of TV



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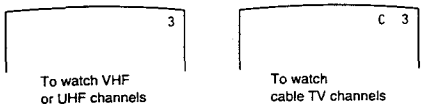
Make sure that the TV/CABLE BOX selector on the Remote Commander is set to TV, in order to control the TV with the Remote Commander.

1 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.

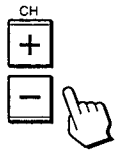


To watch VHF or UHF channels

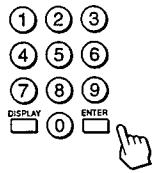
To watch cable TV channels

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

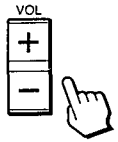
To scan the preset channels in numerical sequence, press CH +/–



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



3 Press VOL +/– to adjust the volume.



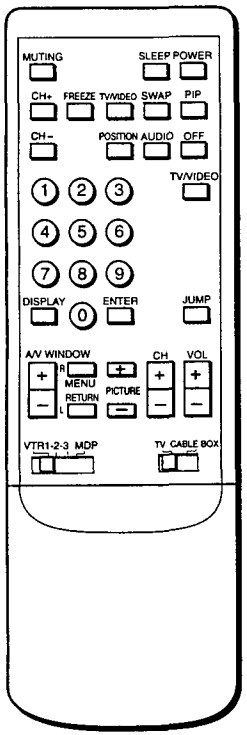
Press + to increase the volume.
Press – to decrease the volume.

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

To select channels more easily
Set FAVORITE CHANNEL (pp. 60 – 61).

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

1-6. USING CONVENIENT FEATURES



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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

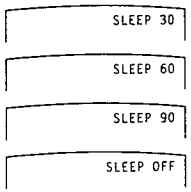
Press DISPLAY.
All the existing displays appear: channel number, channel caption (if set), MTS mode ("SAP" only), window picture input mode, and the current time ("AM" or "PM" disappears after about three seconds).

To turn off the displays
Press DISPLAY again.

Setting the sleep timer — SLEEP

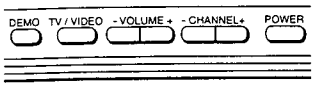
The sleep timer turns off the TV automatically after the amount of time you select.

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

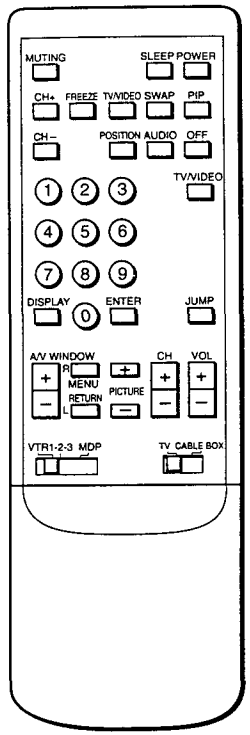


A red "SLEEP" display appears about one minute before the TV goes off.

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



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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.

Previewing the features — DEMO

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

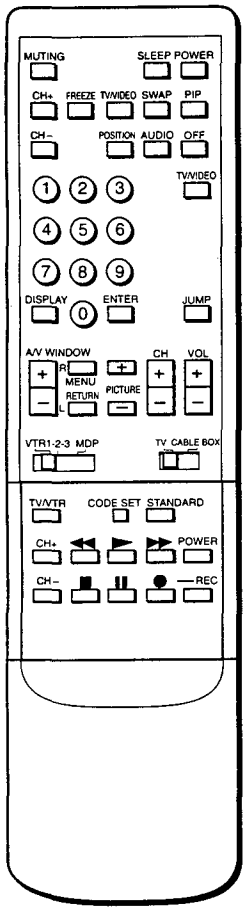
To restart DEMO from the beginning
Press DEMO again.

To stop DEMO
Press any button.

1-7. SELECTING A PICTURE AND SOUND MODE

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

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



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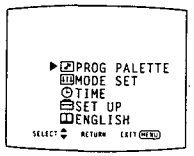
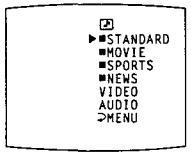
(with video control cover open)

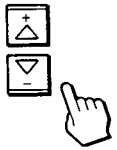
1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."

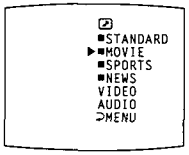


2 Press RETURN.
The program palette menu appears.

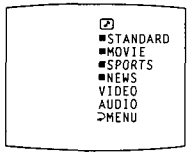


3 Press A/V WINDOW +/– until the cursor points to "MOVIE."





4 Press RETURN.
The "MOVIE" display turns green, indicating that MOVIE mode is selected.



To select a different mode
Repeat steps 3 – 4.

Selecting standard mode (without using the menus)

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

Press STANDARD.

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

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

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

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

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

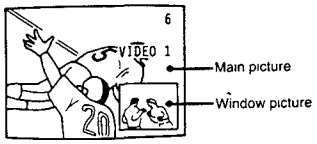
To return to the main menu
Repeat the above, until you reach the main menu.

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

1-8. 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-27XBR25/32XBR25 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.



Picture-in-Picture special features

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

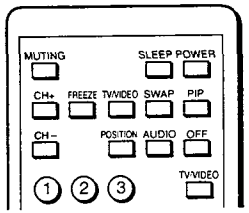
- Swap the main and window pictures (SWAP).
- Change the position of the window picture (POSITION).
- Display a still picture (FREEZE).
- Choose the sound from the main or window picture (AUDIO).

Notes

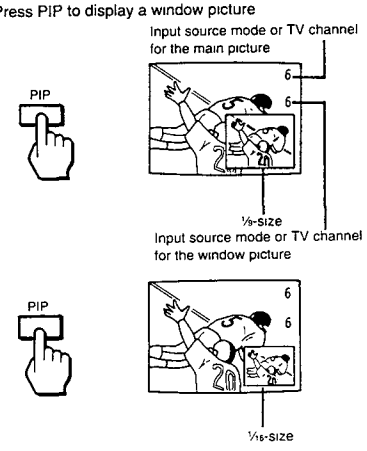
- The window picture sound is also output from the VAR. AUDIO OUT jacks. The AUDIO LINE OUT and MONITOR OUT jacks output the main picture sound only.
- The video label and channel caption will not appear with the window picture even if you have set them.
- If you select a blocked channel in the window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

Displaying a window picture

Remote Commander



Press PIP to display a window picture



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

To turn PIP function off

Press OFF

The window picture disappears.

To receive the window picture sound

Press AUDIO.

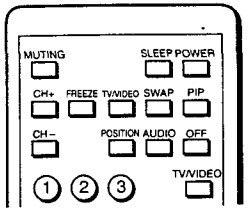
The ♪ display appears for a few seconds, indicating that the window picture sound is being received.

To restore the main picture sound

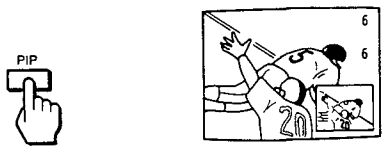
Press AUDIO again.

Changing the window picture input mode

Remote Commander

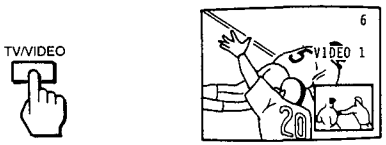


1 Press PIP to display a window picture.



2 Press TV/VIDEO in the Picture-in-Picture control area to select the input mode.

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

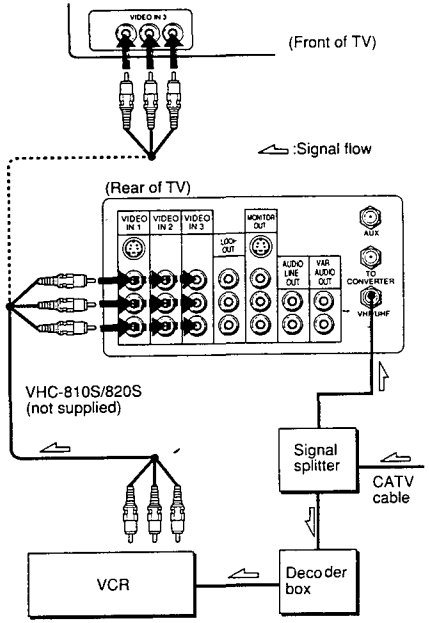


To change TV channels in the window picture

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.

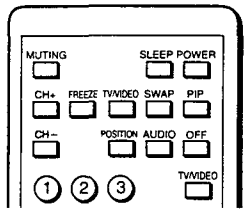
To control your cable converter box with the supplied Remote Commander

See p. 66.

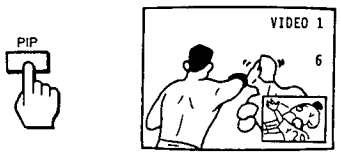
Changing the position of the window picture

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

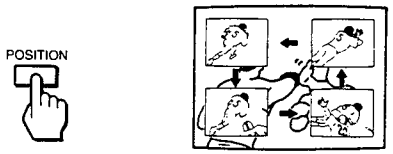
Remote Commander



1 Press PIP to display a window picture.



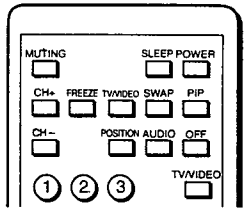
2 Press POSITION.
Each time you press POSITION, the window picture moves as illustrated.



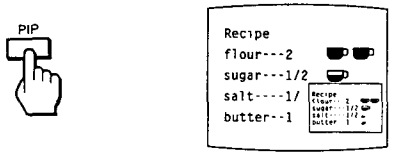
Displaying a still picture

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.

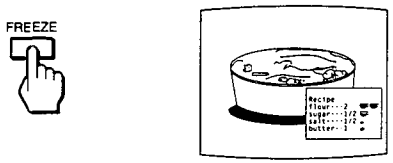
Remote Commander



1 Press PIP to display a window picture.



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

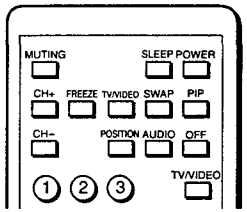


To restore the normal picture
Press FREEZE again.

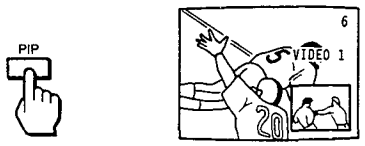
Swapping the main and window pictures

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

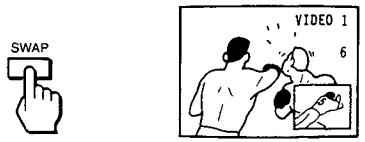
Remote Commander



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.



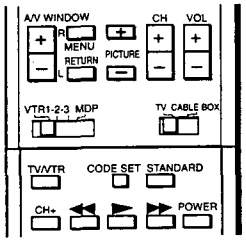
1-9. ADJUSTING THE TV

You can adjust the picture and sound for each input mode (TV, VIDEO 1, VIDEO 2, VIDEO 3) by pressing TV/VIDEO on the 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. 34 – 35).

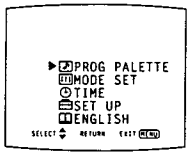
Adjusting the picture

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

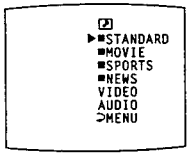
Remote Commander (with video control cover open)



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

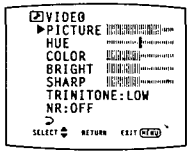


2 Press RETURN.
The program palette menu appears.



3 Press A/V WINDOW +/– until the cursor points to "VIDEO."

4 Press RETURN.
The VIDEO screen appears.



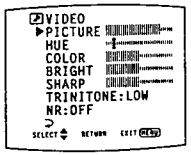
5 Press A/V WINDOW +/– until the cursor points to the item you want to adjust.

6 Press RETURN.
The adjustment screen appears.

7 Press A/V WINDOW +/– to make the adjustment.

Picture quality	Press A/V WINDOW –	Press A/V 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. 42) and NR (p. 43) return to their original factory settings.

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

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

2 Press RETURN twice.
The adjustment is set, and the VIDEO screen automatically reappears.

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

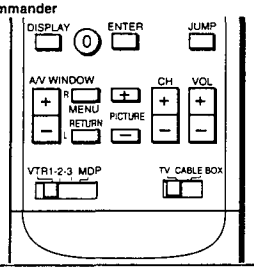
To return to the main menu
Repeat the above, until you reach the main menu.

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

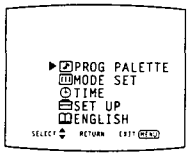
Setting the TRINITONE mode

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

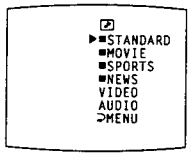
Remote Commander



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

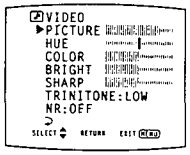


2 Press RETURN.
The program palette menu appears.



3 Press A/V WINDOW +/– until the cursor points to "VIDEO."

4 Press RETURN.
The VIDEO screen appears.



5 Press A/V WINDOW +/– until the cursor points to "TRINITONE."

6 Press RETURN.
The mode display turns red.

7 Press A/V 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 A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

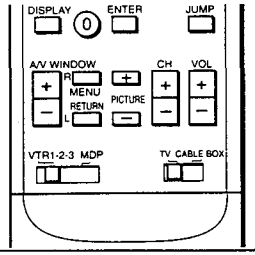
To return to the main menu
Repeat the above, until you reach the main menu.

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

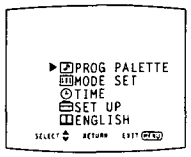
Setting NR (picture noise reduction) ON or OFF

Follow these instructions to reduce picture noise.

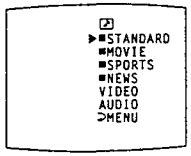
Remote Commander



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

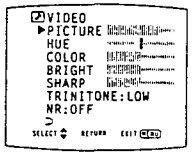


2 Press RETURN.
The program palette menu appears.

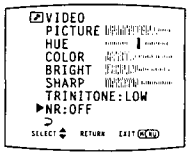


3 Press A/V WINDOW +/– until the cursor points to "VIDEO."

4 Press RETURN.
The VIDEO screen appears.



5 Press A/V WINDOW +/– until the cursor points to "NR."



6 Press RETURN.
The mode display turns red.

7 Press A/V 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 A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

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

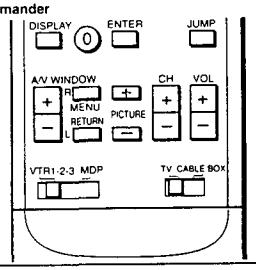
To return to the normal screen
Press MENU on the Remote Commander.

Setting S-VIDEO ON or OFF

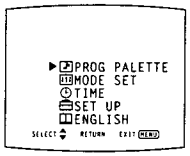
Follow these instructions to set S-VIDEO on or off, depending on the kind of video equipment you have connected to the TV. For instructions on connecting video equipment, see pp. 13 – 16.

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

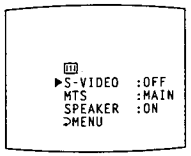


1 Press MENU.
The main menu appears.



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

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



4 Press RETURN.
The mode display turns red.

5 Press A/V WINDOW +/– to select "ON" or "OFF."

6 Press RETURN.
The setting is complete.

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

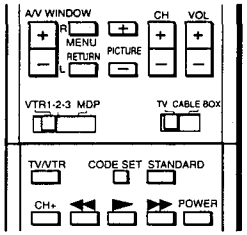
To return to the main menu
Repeat the above, until you reach the main menu.

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

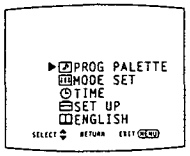
Adjusting the sound

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

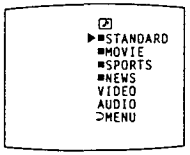
Remote Commander (with video control cover open)



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



2 Press RETURN.
The program palette menu appears.

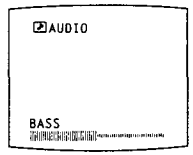


3 Press A/V WINDOW +/– until the cursor points to "AUDIO."

4 Press RETURN.
The AUDIO screen appears.

5 Press A/V WINDOW +/– until the cursor points to the item you want to adjust.

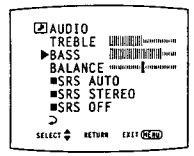
6 Press RETURN.
The adjustment screen appears.



7 Press A/V WINDOW +/– to make the adjustment.

Sound quality	Press A/V WINDOW –	Press A/V WINDOW +
TREBLE	To decrease the treble response	To increase the treble response
BASS	To decrease the bass response	To increase the bass response
BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

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



To adjust other items
Repeat steps 5 – 9.

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

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

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

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

Selecting an SRS (Sound Retrieval System) mode

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

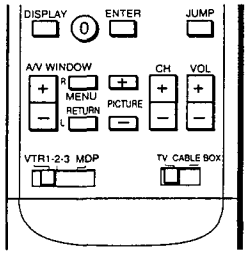
In SRS AUTO mode, SRS functions in both monaural and stereo modes.

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

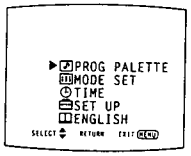
In SRS STEREO mode, SRS functions only when a stereo program is received.
The STEREO lamp on the TV lights up whenever a stereo broadcast is received.

Select SRS OFF mode to return to normal sound mode.

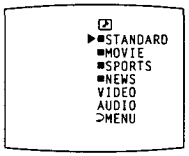
Remote Commander



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

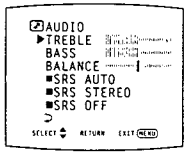


2 Press RETURN.
The program palette menu appears.



3 Press A/V WINDOW +/– until the cursor points to "AUDIO."

4 Press RETURN.
The AUDIO screen appears.



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

6 Press RETURN.
The mode is selected.

To change the SRS mode
Repeat steps 5 – 6.

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

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

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

Selecting an MTS (Multichannel TV Sound) mode

Follow these instructions to select an MTS mode.

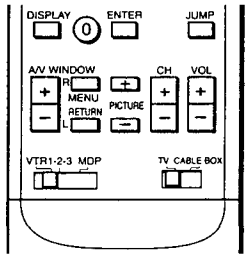
Select MAIN mode to listen to stereo sound.
The STEREO lamp on the TV lights up whenever a stereo broadcast is received.

Select SAP mode to listen to Second Audio Programs.

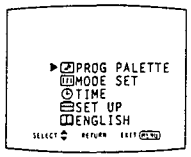
Select MONO mode to eliminate excessive noise during stereo broadcasts, caused by a weak incoming signal.

Note
If the 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

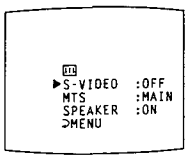


1 Press MENU.
The main menu appears.



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

3 Press RETURN.
The mode set menu appears.



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

5 Press RETURN.
The mode display turns red.

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

7 Press RETURN.
The mode is selected.

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

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

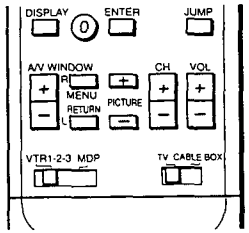
To return to the normal screen
Press MENU on the Remote Commander.

1-10. CUSTOMIZING THE SCREEN DISPLAY

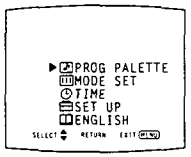
Setting SPEAKER ON or OFF

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

Remote Commander

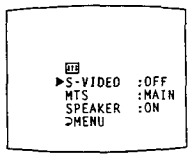


1 Press MENU.
The main menu appears.



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

3 Press RETURN.
The mode set menu appears.



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

5 Press RETURN.
The mode display turns red.

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

7 Press RETURN.
The setting is complete.

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

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

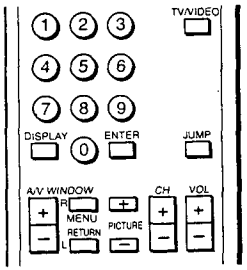
To return to the normal screen
Press MENU on the Remote Commander.

Setting channel captions — CH CAPTION

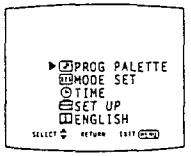
Follow these instructions to caption each channel number display with a name, for instance, the television station call letters. (You can set up to four letters or numbers)

Example: Caption channel 15 as "NBC."

Remote Commander (RM-Y112)

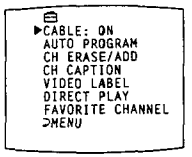


1 Press MENU.
The main menu appears.



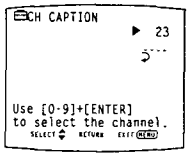
2 Press A/V WINDOW +/– until the cursor points to "SET UP."

3 Press RETURN.
The set up menu appears.

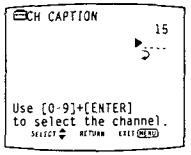


4 Press A/V WINDOW +/– until the cursor points to "CH CAPTION."

5 Press RETURN.
The CH CAPTION screen appears.

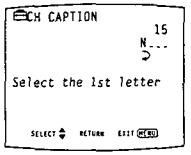


6 Press CH +/–, or press 1, 5 and ENTER to set channel "15."



7 Press RETURN.
The first caption space turns red.

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

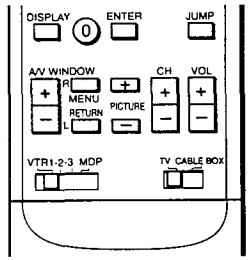


9 Press RETURN.
The second caption space turns red.

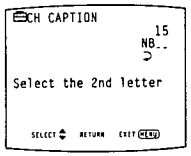
(Continued)

Setting channel captions – CH CAPTION
(Cont'd. from prev. page)

Remote Commander

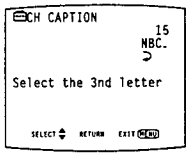


10 Press A/V WINDOW +/– to select "B."



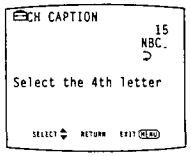
11 Press RETURN.
The third caption space turns red.

12 Press A/V WINDOW +/– to select "C."



13 Press RETURN.
The fourth caption space turns red.

14 Press A/V WINDOW +/– to select a blank space.



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

To caption more channels
Repeat steps 6 – 15.

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

To return to the previous menu
Press A/V WINDOW +/– until the cursor 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.

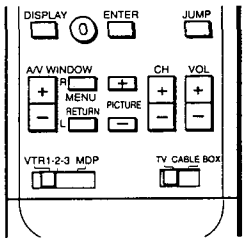
Note
You can set up to 32 channel captions. If the memory is full, "The memory is full, sorry" appears on the screen. Erase any unnecessary captions, and begin again.

Setting VIDEO LABEL

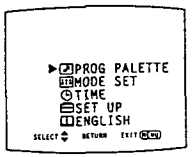
Follow these instructions to label each input mode in order to identify the equipment connected to each input terminal.

Example: Label VIDEO IN 1 as "VHS."

Remote Commander

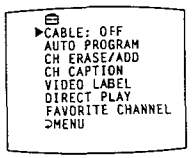


1 Press MENU.
The main menu appears.



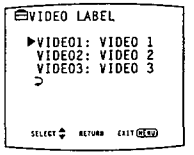
2 Press A/V WINDOW +/– until the cursor points to "SET UP."

3 Press RETURN.
The set up menu appears.



4 Press A/V WINDOW +/– until the cursor points to "VIDEO LABEL."

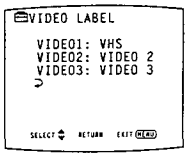
5 Press RETURN.
The VIDEO LABEL screen appears.



6 Press A/V 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 A/V WINDOW +/– to select "VHS."



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

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

VIDEO 2
VIDEO 2 → BETA → 8mm → VHS → LD

VIDEO 3
VIDEO 3 → BETA → 8mm → VHS → LD

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

To label other input modes
Repeat steps 6 – 9.

To change a label
Same as above.

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

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

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

1-11. USING TIMER-ACTIVATED FUNCTIONS

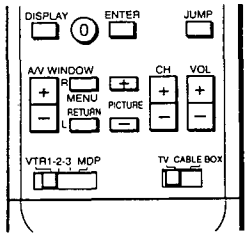
Setting DAYLIGHT SAVING

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:

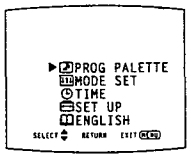
- **After the first Sunday in April (spring daylight savings)**
  Set to "YES" before setting the current time.
  Then, on the last Sunday in October (fall daylight savings), set to "NO."
  All the time-related settings automatically move one hour back.
- **After the last Sunday in October (fall daylight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



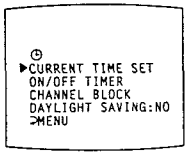
Follow these instructions to set DAYLIGHT SAVING to "YES" or "NO."

1 Press MENU.
The main menu appears.



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

3 Press RETURN.
The time menu appears.



4 Press A/V WINDOW +/– until the cursor points to "DAYLIGHT SAVING."

5 Press RETURN.
The mode display turns red.

6 Press A/V WINDOW +/– to select "YES" or "NO."

7 Press RETURN.
The setting is complete.

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

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

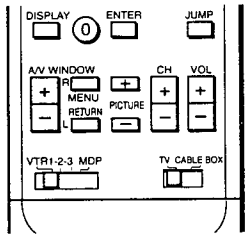
To return to the normal screen
Press MENU on the Remote Commander.

Setting the clock — CURRENT TIME SET

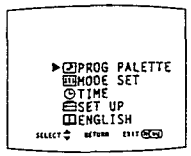
Follow these instructions to set the current time. The correct current time must be set in order to use the other time-related functions (DAYLIGHT SAVING, ON/OFF TIMER, CHANNEL BLOCK).

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

Remote Commander

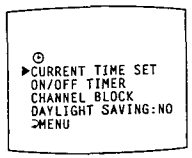


1 Press MENU.
The main menu appears.

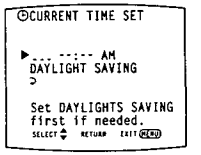


2 Press A/V WINDOW +/– until the cursor points to "TIME."

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 A/V 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.

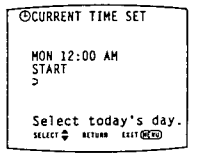
d Press A/V WINDOW +/– to select "YES" or "NO."

e Press RETURN.
The setting is complete.

To set the time, press A/V 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).

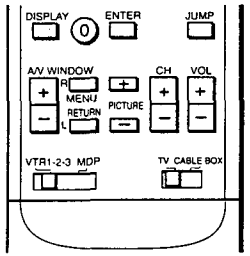
6 Press A/V WINDOW +/– to select "MON."
Each time you press A/V WINDOW +/–, the day changes consecutively.



(Continued)

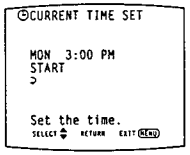
Setting the clock — CURRENT TIME SET
(Cont'd. from prev. page)

Remote Commander



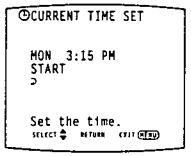
7 Press RETURN.
The hour and am/pm displays turn red.

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



9 Press RETURN.
The minute display turns red.

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



11 Press RETURN.
The cursor points to "START."

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

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

To display the current time
Press DISPLAY.

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

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

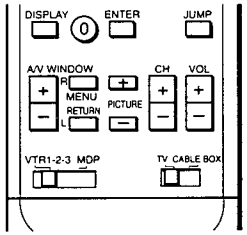
To return to the normal screen
Press MENU on the Remote Commander.

Setting the ON/OFF TIMER

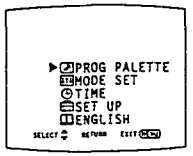
Follow these instructions to make the program of your choice appear on the screen at a specified time.

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

Remote Commander

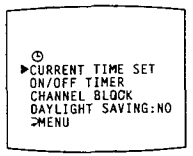


1 Press MENU.
The main menu appears.



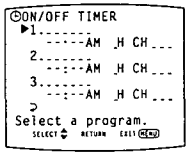
2 Press A/V WINDOW +/– until the cursor points to "TIME."

3 Press RETURN.
The time menu appears.



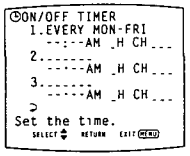
4 Press A/V WINDOW +/– until the cursor points to "ON/OFF TIMER."

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

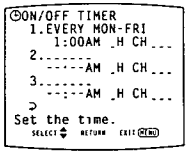


6 To set program 1, press RETURN.
(To set program 2 or 3, press A/V WINDOW +/– until the cursor points to that program; then press RETURN.)
The day input space turns red.

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



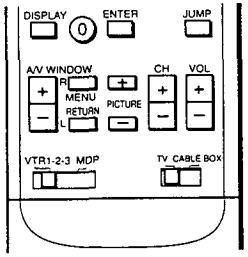
8 Press A/V WINDOW +/– to select "1:00AM"; then press RETURN.
Each time you press A/V WINDOW +/–, the hour changes in sequence.



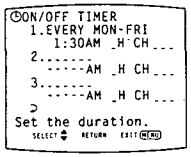
(Continued)

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

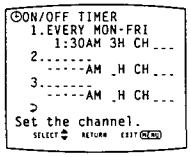
Remote Commander



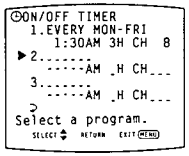
9 Press A/V WINDOW +/– to select "30" (minutes); then press RETURN.
Each time you press A/V WINDOW +/–, the minutes change in sequence.



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



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



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

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

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

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

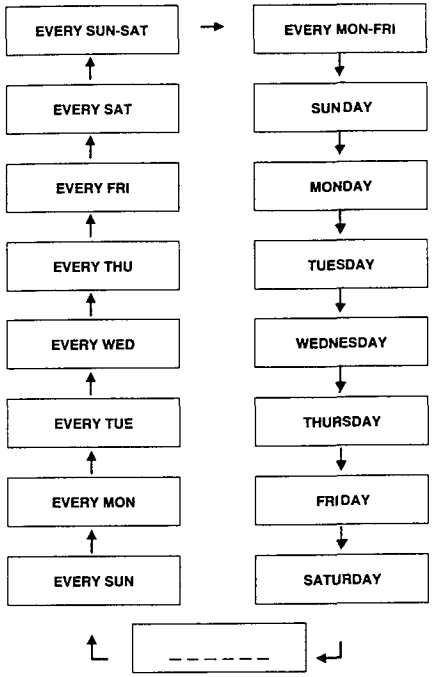
To return to the previous menu
Press A/V WINDOW +/– until the cursor points to "⊃ MENU."
Then press RETURN.

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

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

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

Fig. 1
Selecting the day(s) of the week
When you press A/V WINDOW +, the days of the week appear in the following order:

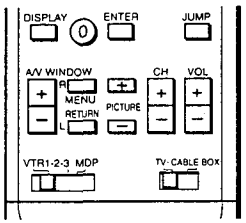


Setting CHANNEL BLOCK

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.

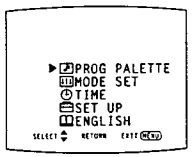
Remote Commander



Note

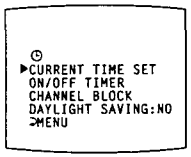
If you have not set the current time, the "CHANNEL BLOCK" display is shaded and cannot be selected.

1 Press MENU.
The main menu appears.



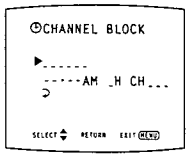
2 Press A/V WINDOW +/– until the cursor points to "TIME."

3 Press RETURN.
The time menu appears.



4 Press A/V WINDOW +/– until the cursor points to "CHANNEL BLOCK."

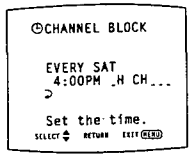
5 Press RETURN.
The CHANNEL BLOCK screen appears, and the cursor points to the day input space.



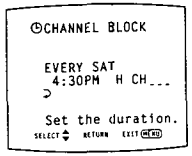
6 Press RETURN.
The day input space turns red.

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

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

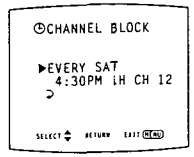


9 Press A/V WINDOW +/– to select ":30" (minutes); then press RETURN.
Each time you press A/V WINDOW +/–, the minutes change in sequence.

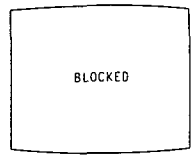


10 Press A/V WINDOW +/– to select "1" (hour duration); then press RETURN.
Each time you press A/V WINDOW +/–, the duration changes from "1" – "6" in sequence.

11 Press A/V WINDOW +/– to select "12" (channel); then press RETURN.
The setting is complete.
Each time you press A/V 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 A/V WINDOW +/– until the cursor points to "⊃ MENU."
Then press RETURN.

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

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

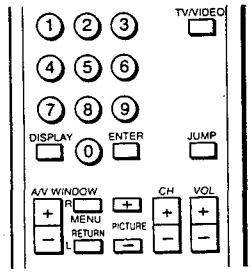
Note

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

1-12. SETTING FAVORITE CHANNEL

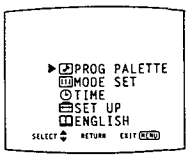
By setting FAVORITE CHANNEL, you can select the channels you use most frequently (up to seven channels) simply by pressing RETURN on the Remote Commander.

Remote Commander (RM-Y112)



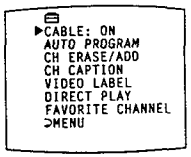
Follow these instructions to set the channels.

1 Press MENU.
The main menu appears.



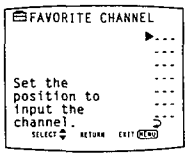
2 Press A/V WINDOW +/– until the cursor points to "SET UP."

3 Press RETURN.
The set up menu appears.



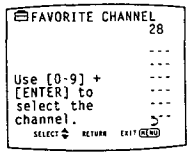
4 Press A/V WINDOW +/– until the cursor points to "FAVORITE CHANNEL."

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



6 Press A/V 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 A/V WINDOW +/– until the cursor points to the channel number you want to erase; then press 0 and ENTER.

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

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

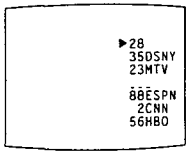
To return to the main menu
Repeat the above, until you reach the main menu.

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

Selecting a favorite channel

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

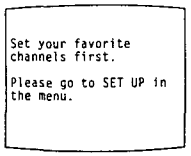
1 Press RETURN.
The FAVORITE CHANNEL display appears.



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

2 Press A/V 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.

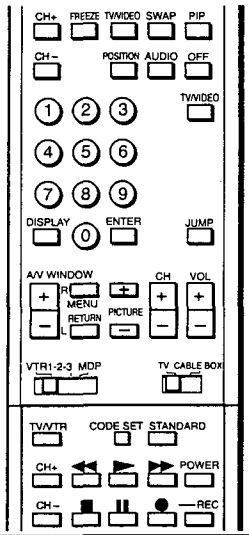
1-13. USING THE PRE-PROGRAMMED REMOTE COMMANDER

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

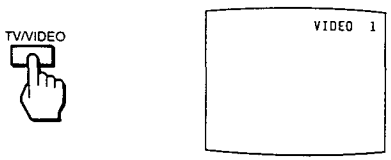
Operating Sony video equipment

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

Remote Commander (RM-Y112) (with video control cover open)



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



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

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

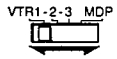


Fig. 2: Video equipment settings

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

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

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

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

Notes

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

Caution

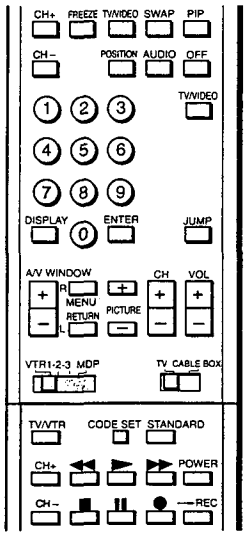
When you replace the batteries, do it within approximately 30 minutes. Otherwise Sony equipment settings and the settings you made under the Pre-Programmed function (pp. 64 – 66) may be erased.

Operating non-Sony or Sony video equipment

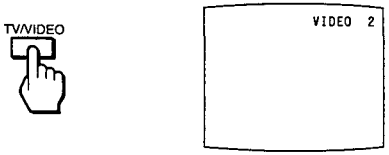
Follow these instructions to set the manufacturer's code, which will enable you to operate non-Sony and Sony video equipment with the pre-programmed Remote Commander.

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

Remote Commander (RM-Y112)
(with video control cover open)

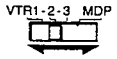


1 Press TV/VIDEO to select VIDEO 2.



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

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

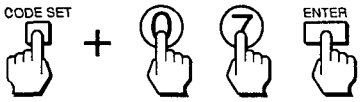


Note
You can use the VTR1-2-3 settings, but not MDP *
By using these settings, you can use the Remote Commander to operate up to three pieces of equipment.

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

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

3 While pressing CODE SET, press 0, 7 and ENTER to set RCA's code number. (For manufacturer code numbers, see Figs. 5, 6 and 7 on p. 65.)



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

Fig. 5: VCR manufacturer code numbers

MANUFACTURER	CODE
SONY	01, 02, 03
CANON	05
EMERSON	22, 30, 33
FISHER	10, 11, 12, 15
FUNAI	29
GENERAL ELECTRIC	05, 08
GOLDSTAR	25
HITACHI	07, 08, 36
JVC	16, 35
MAGNAVOX	05, 06, 09
MITSUBISHI	18, 19, 26, 27
MULTITECH	29
NEC	16, 23, 31
PANASONIC	05, 06
PHILCO	05, 06
PHILIPS	05, 06, 09
QUASAR	05, 06
RCA	07, 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. 6: MDP manufacturer code numbers

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

Fig. 7: Sony Equipment and Code Numbers

SONY EQUIPMENT	CODE
Beta, ED Beta VCR	01
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.

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

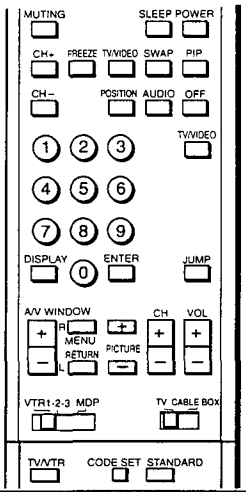
	BRAND	CODE
1		
2		
3		

Operating a cable converter box

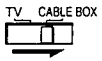
Follow these instructions to set the manufacturer's code, which will enable you to operate a connected cable converter box with the pre-programmed Remote Commander.

Example: Operate a connected Zenith cable converter box.

Remote Commander (RM-Y112)
(with video control cover open)



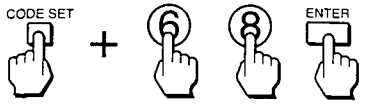
1 Set the TV/CABLE BOX selector to CABLE BOX.



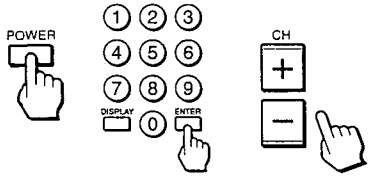
Notes

- 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. 5) and ENTER.



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



To return to the normal screen
Set the TV/CABLE BOX selector to TV; then use the TV control buttons to control the TV.

For more details on operating the cable box
Refer to the operating instructions that come with the cable box.

Fig. 8: Cable box manufacturer code numbers

MANUFACTURER	CODE
JERROLD	60, 61, 62, 63, 64, 65
PIONEER	69, 70
SCIENTIFIC ATLANTA	66, 67
TOCOM	71, 72
ZENITH	68

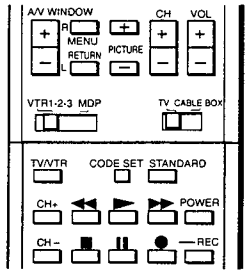
Selecting a VCR mode directly — DIRECT PLAY

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

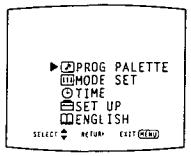
Example: Connect your VCR to the VIDEO IN 1 jacks, and set the VTR1-2-3 MDP selector to VTR2. When you press 5, the input mode changes to the VCR connected to the VIDEO IN 1 jacks.

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

Remote Commander (with video control cover open)

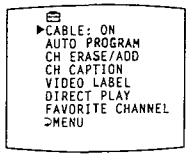


1 Press MENU.
The main menu appears.



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

3 Press RETURN.
The set up menu appears.

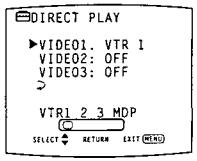


4 Press A/V WINDOW +/– until the cursor points to "DIRECT PLAY."

5 Press RETURN.
A message screen appears.

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

6 Press RETURN again.
The DIRECT PLAY screen appears.



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

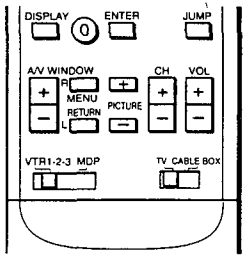
8 Press RETURN.
The mode display turns red.

(Continued)

Selecting a VCR mode directly – DIRECT PLAY

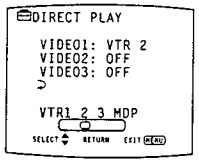
(Cont'd. from prev. page)

Remote Commander



9 Press A/V 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 A/V 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 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.

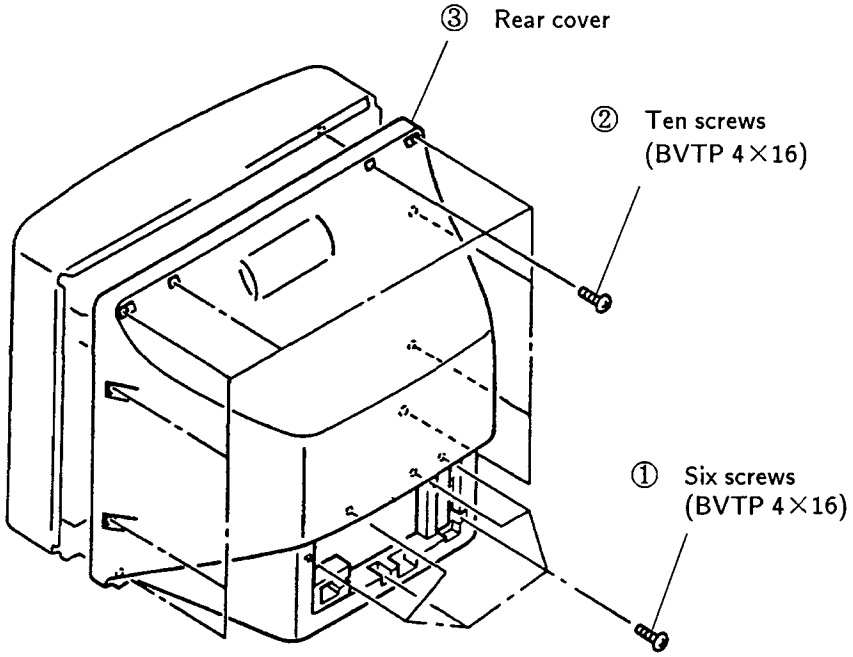
1-14. TROUBLESHOOTING

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

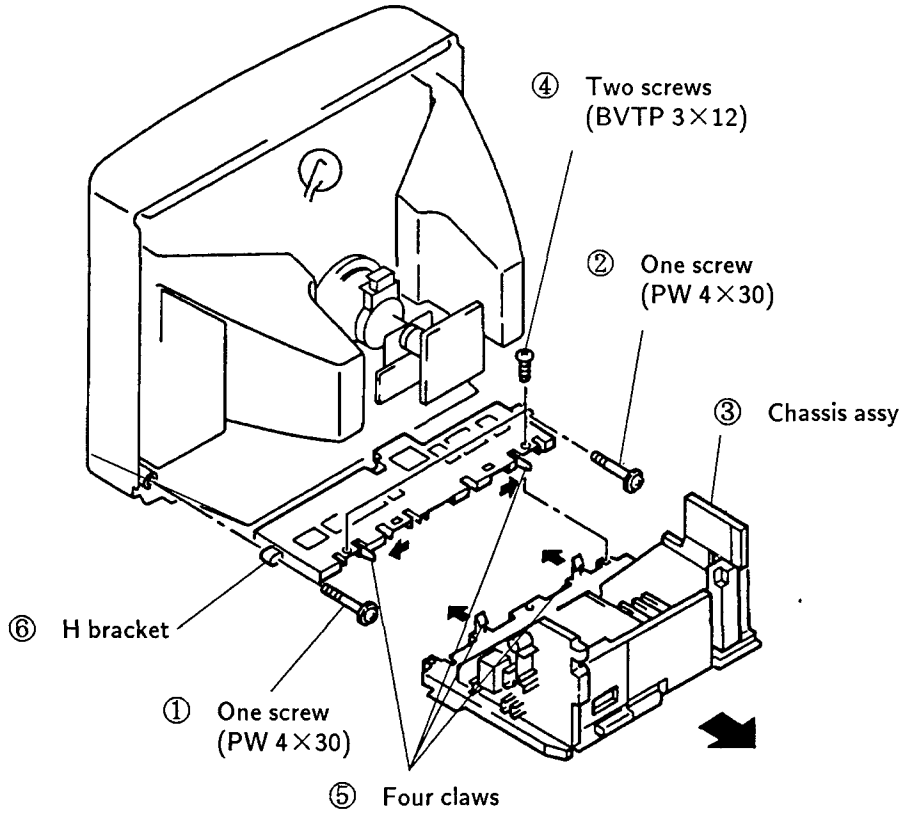
Symptom	Possible causes and remedies
No picture (screen not lit), no sound	• Make sure POWER is switched on. • Check the power cord connection. • Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly. • Make sure that the TV/CABLE BOX selector is set to TV.
Poor or no picture (screen not lit), good sound	• Adjust the picture using the VIDEO screen (pp. 40 – 43). • Check the antenna/cable connections.
Good picture, no sound	• Press VOLUME + on the TV or VOL + on the Remote Commander. • Press MUTING on the Remote Commander. • Check the MTS setting (p. 47). • Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly. • Make sure SPEAKER is set to ON (p. 48).
No color for color programs	• Check the HUE and COLOR settings (pp. 40 – 41).
Snow and noise only	• Check that it is an active or correct channel. • Check the cable setting. • Check antenna/cable connections.
 Dotted lines or stripes	This is often caused by local interference (for example, cars, neon signs and hairdryers). Adjust the telescopic aerial for minimum interference.
 Double images or ghosts	Reflections from nearby mountains or buildings often cause this problem. Connecting a highly directional outdoor antenna or a CATV cable may improve the picture.
Try another channel. It could be station trouble.	

SECTION 2
DISASSEMBLY

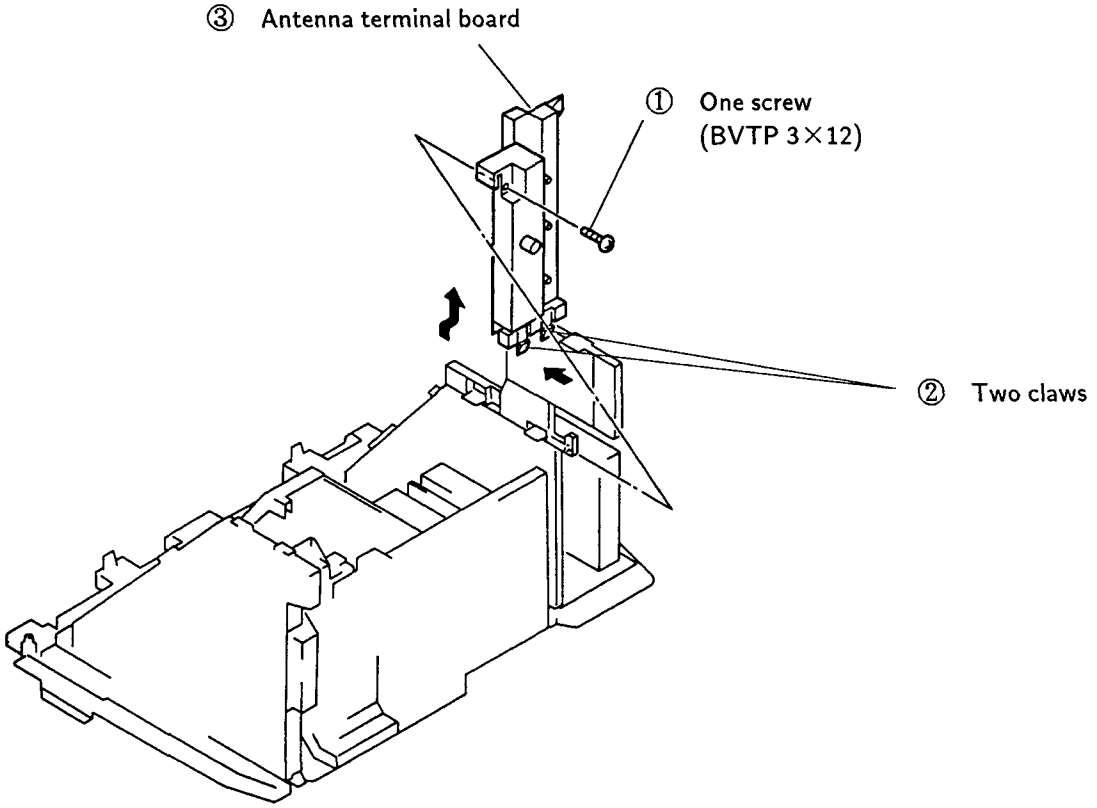
2-1. REAR COVER REMOVAL



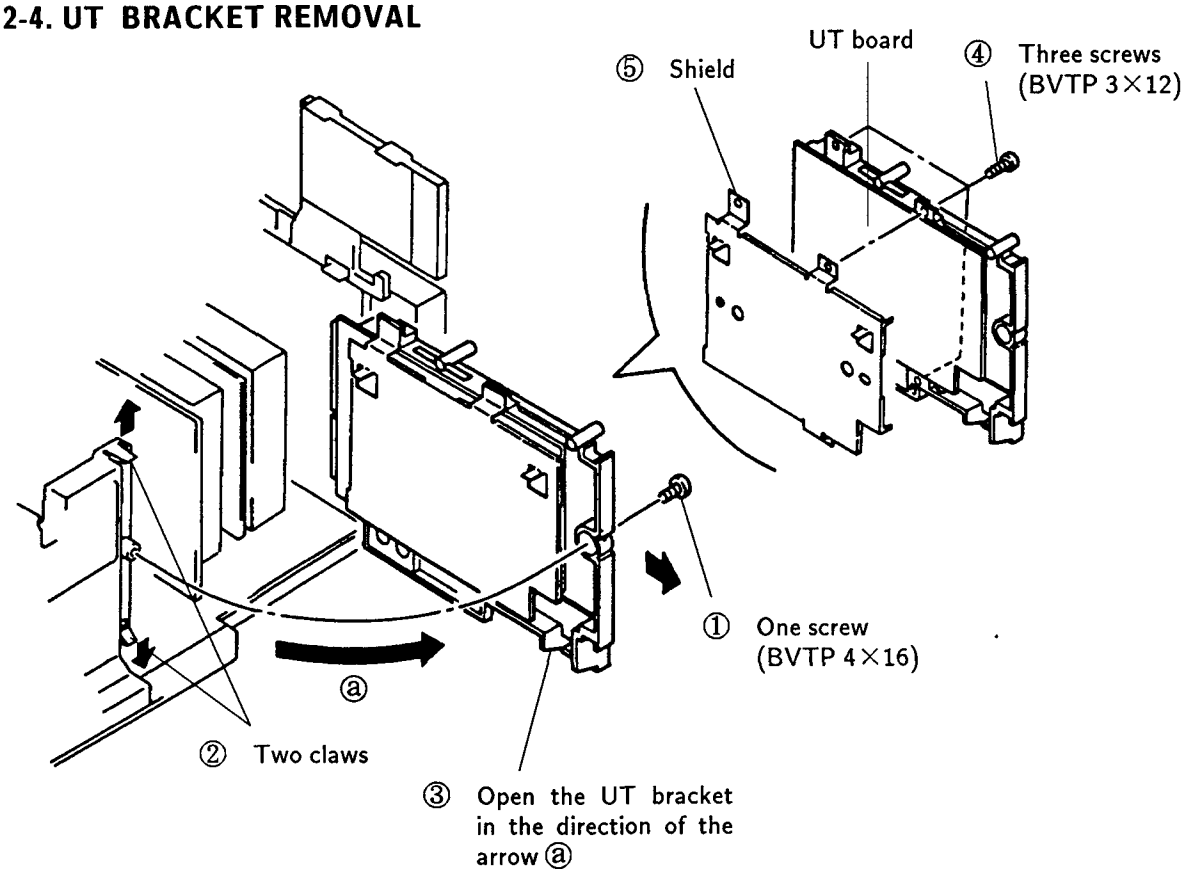
2-2. CHASSIS ASSY AND H BRACKET REMOVAL



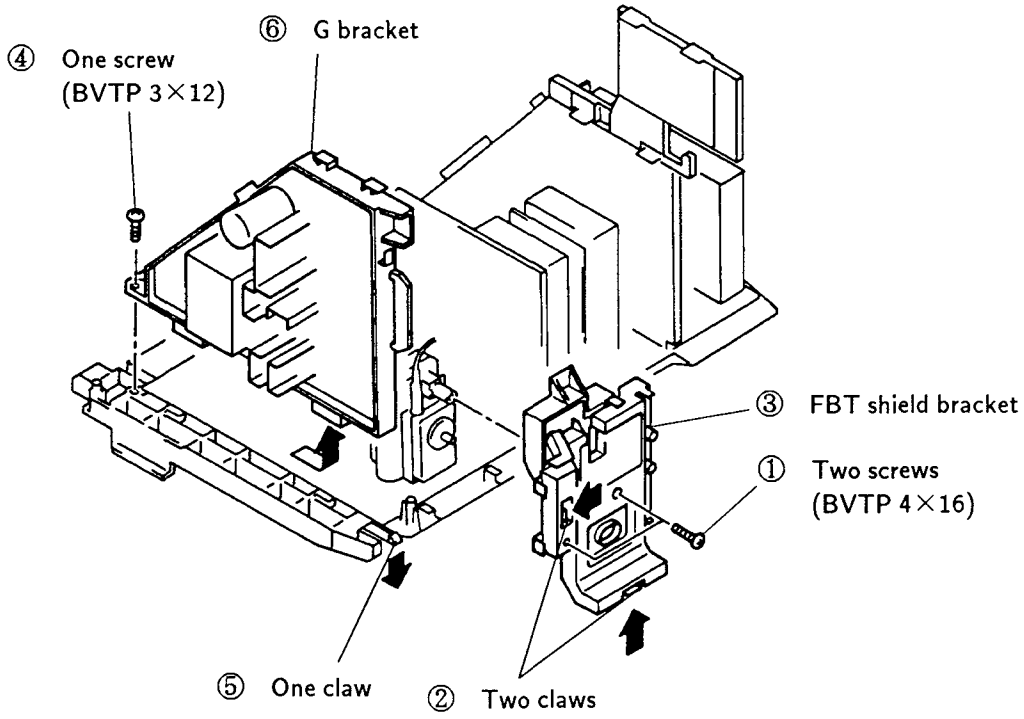
2-3. ANTENNA TERMINAL BOARD REMOVAL



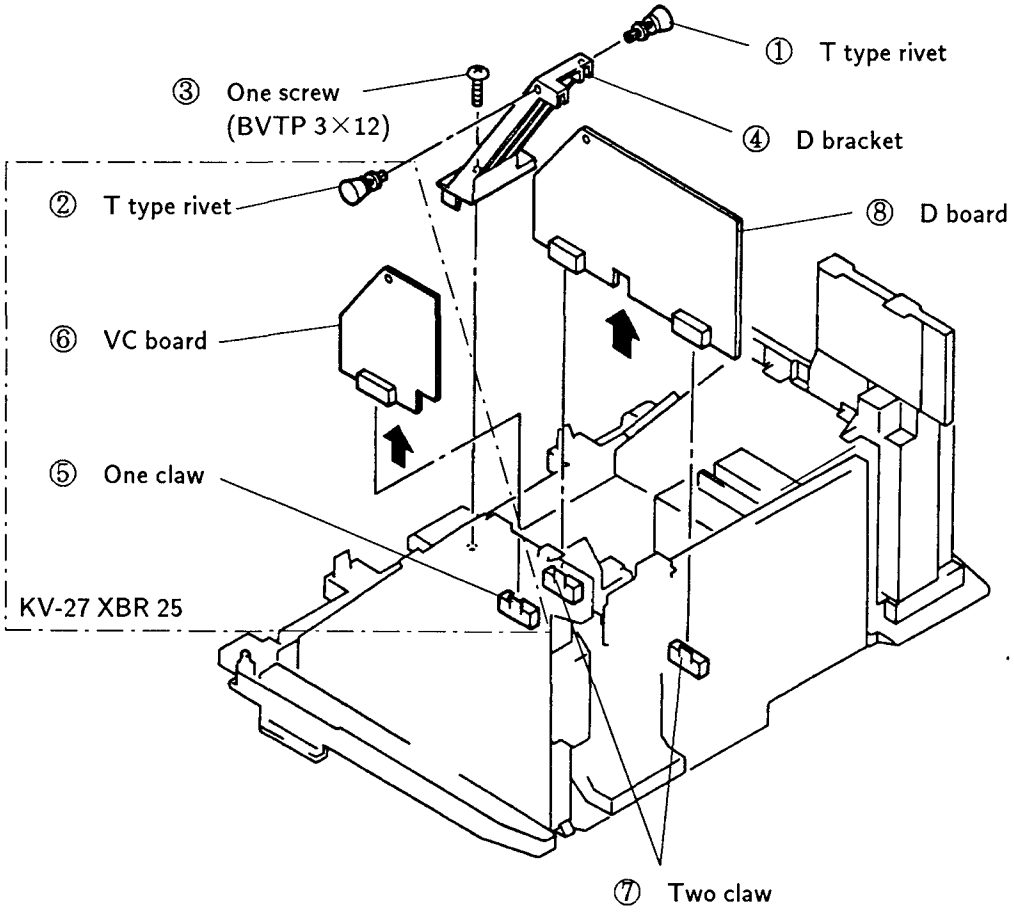
2-4. UT BRACKET REMOVAL



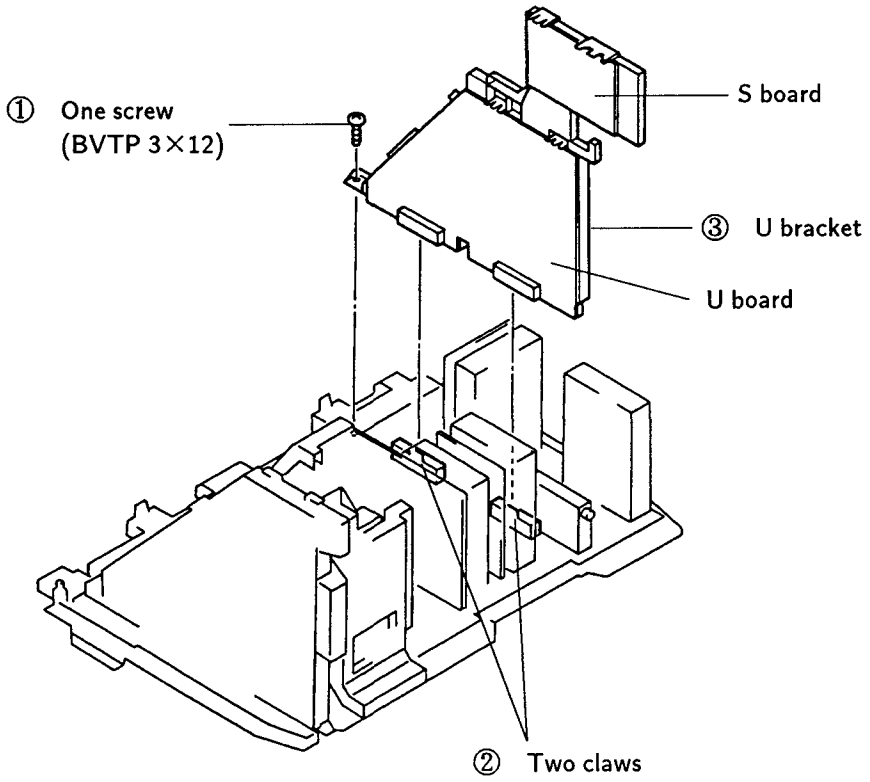
2-5. G BRACKET REMOVAL



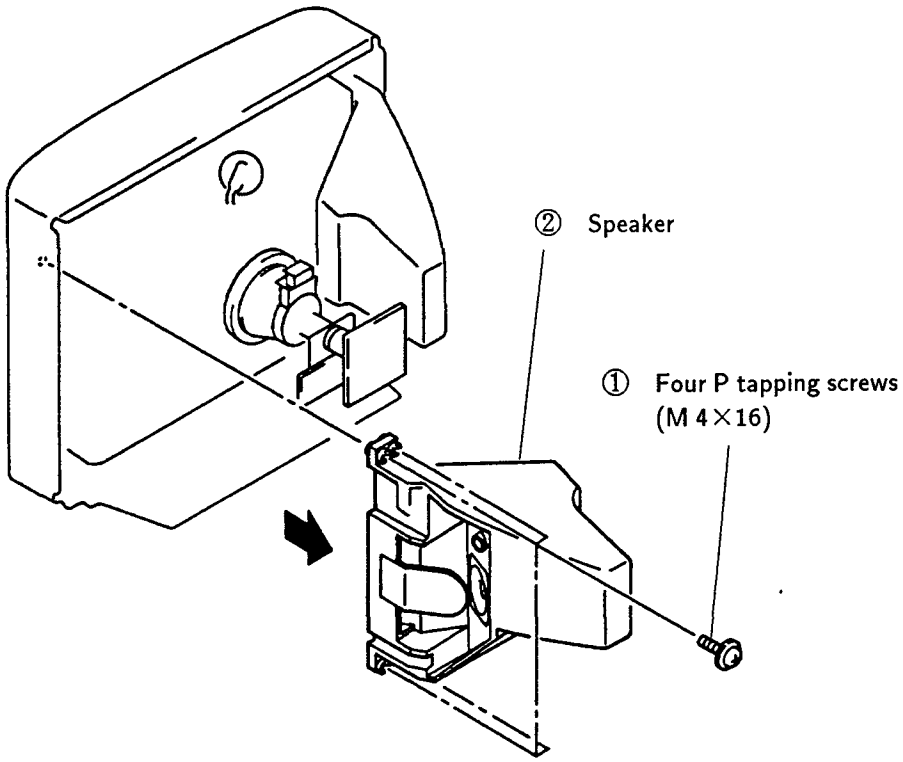
2-6. D BOARD REMOVAL



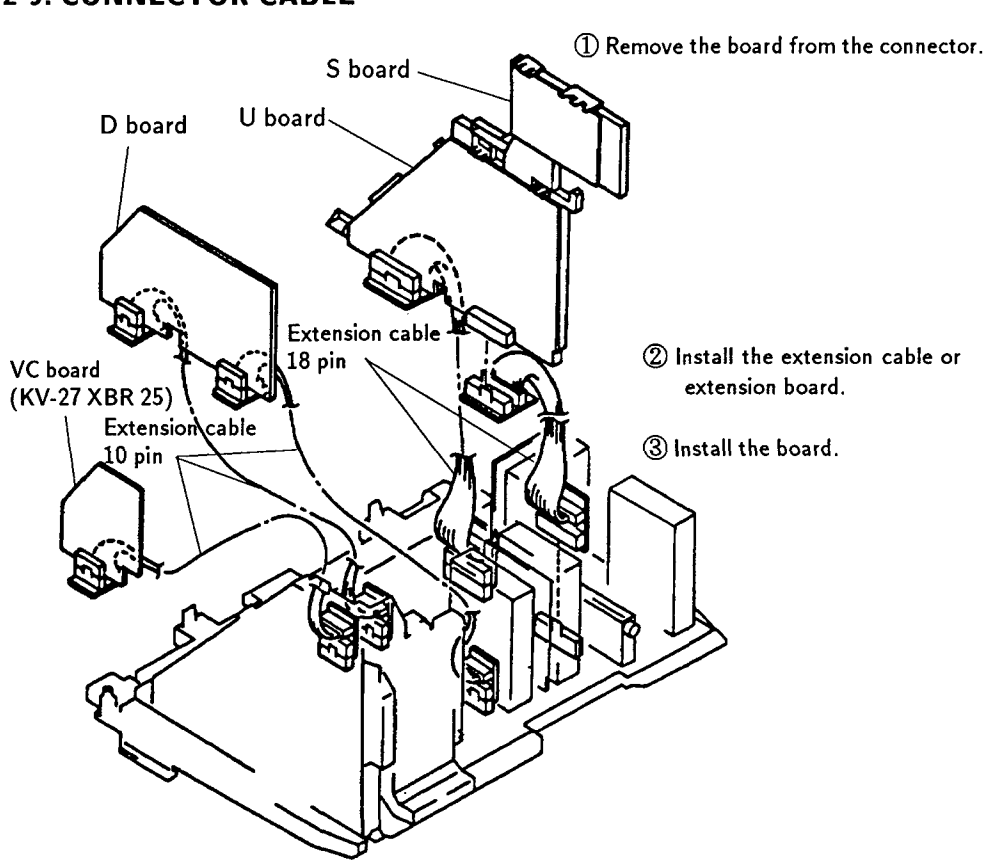
2-7. U BRACKET REMOVAL

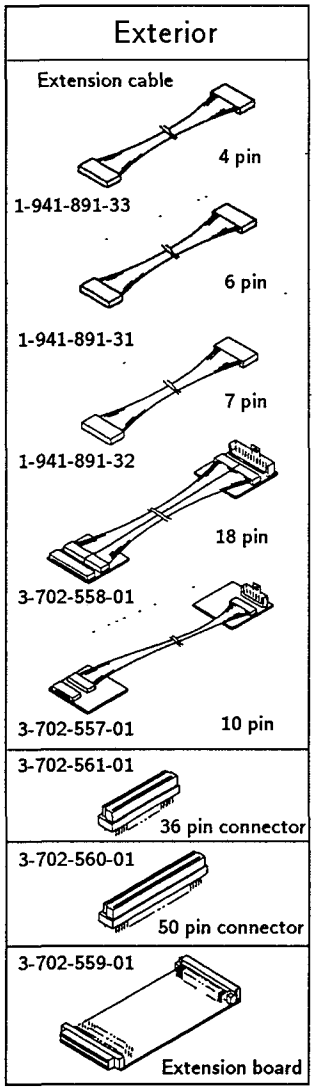


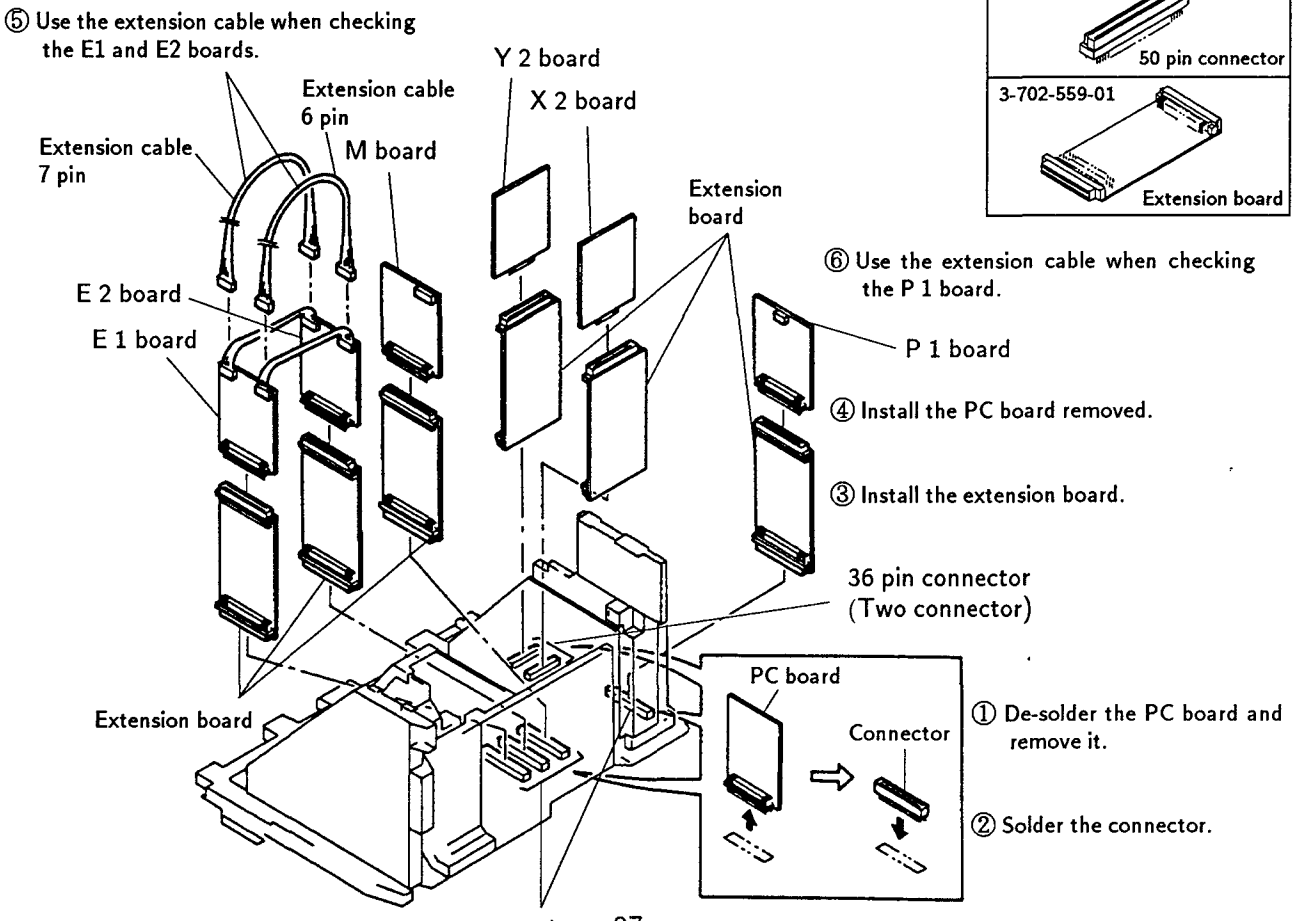
2-8. SPEAKER REMOVAL



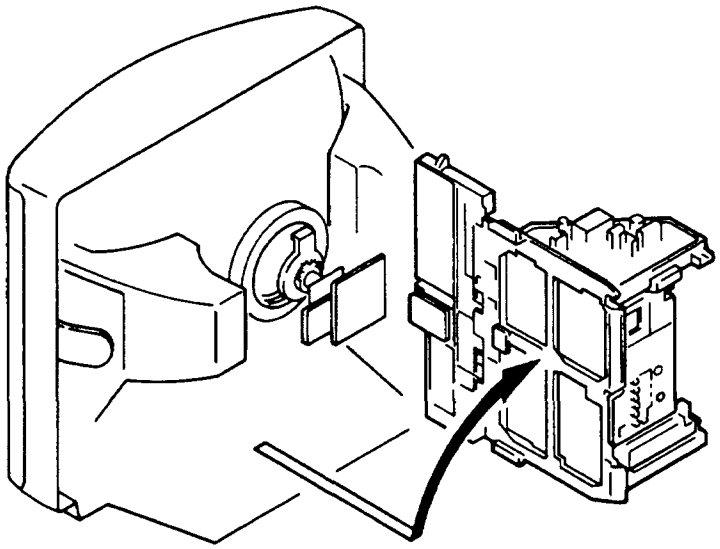
2-9. CONNECTOR CABLE



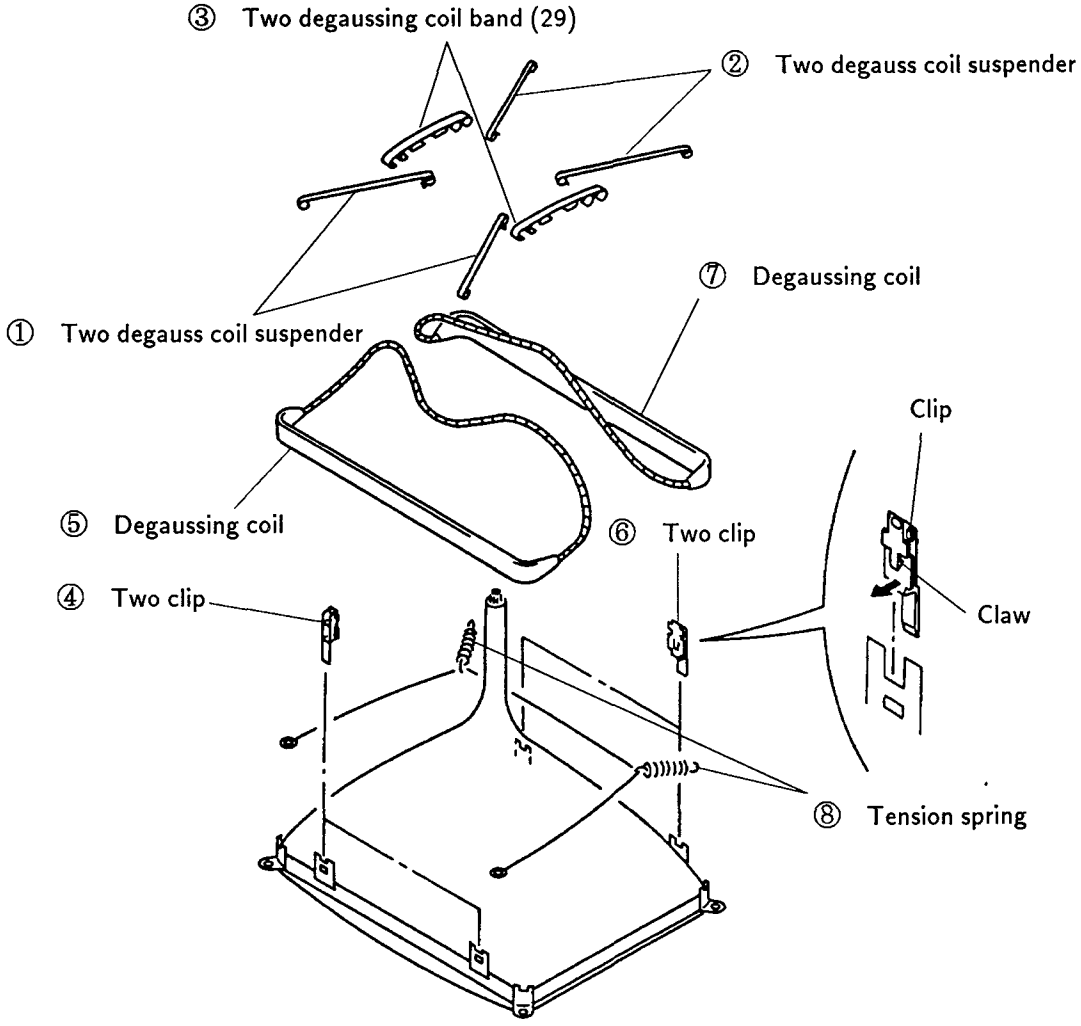




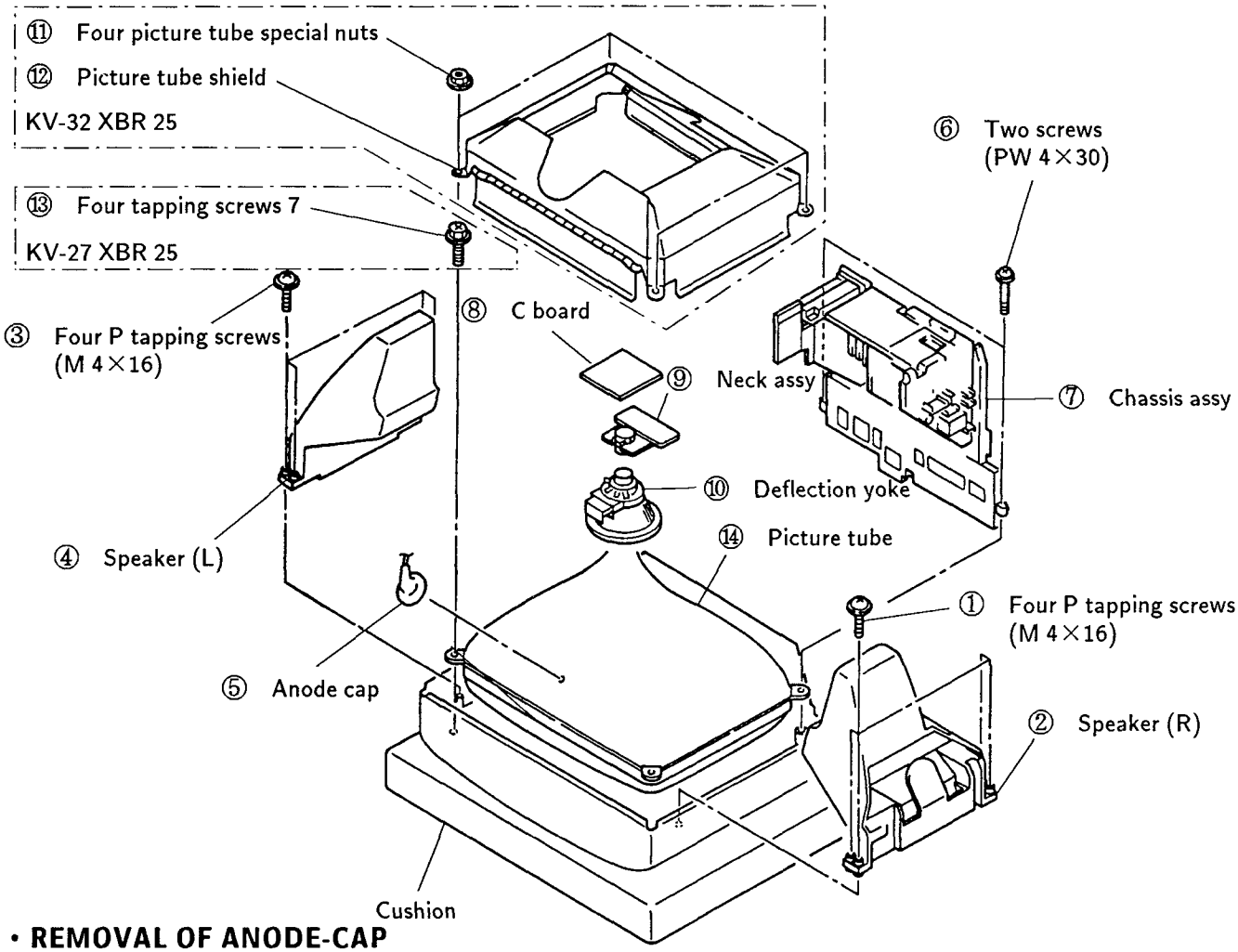
2-10. SERVICE POSITION



2-11. DEGAUSSING COIL REMOVAL (KV-27 XBR 25)



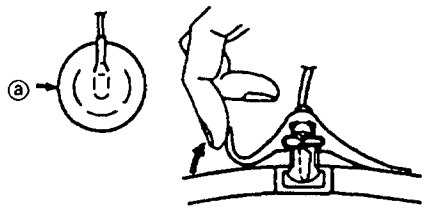
2-12. PICTURE TUBE REMOVAL



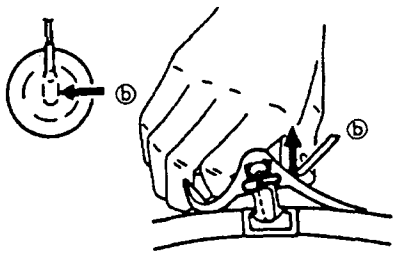
• REMOVAL OF ANODE-CAP

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

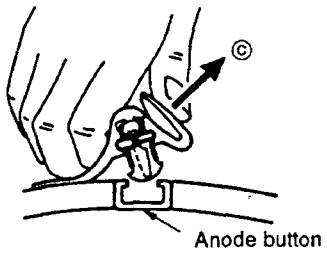
• REMOVING PROCEDURES



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



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



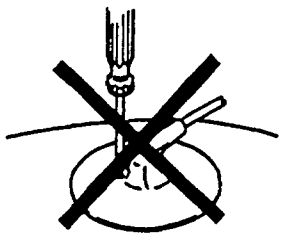
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

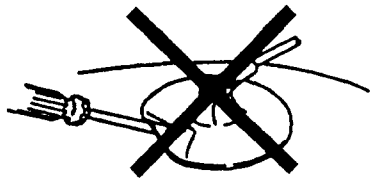
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





2-13. REPAIR OF CHIP COMPONENT CIRCUIT BOARD

2-13-1. POINTS OF COMPONENT REMOVAL

Handing of blower type soldering iron

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

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

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

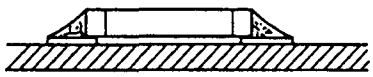
2-13-3. REMOVAL AND MOUNTING OF COMPONENTS

Chip resistor and chip capacitor

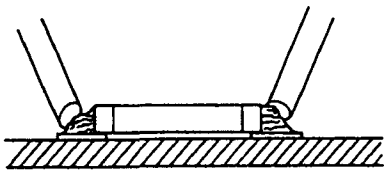
REMOVAL

• Using two soldering irons

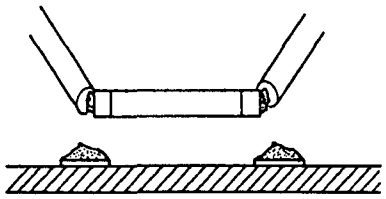
1) Mounted state



2)Melt the solder.

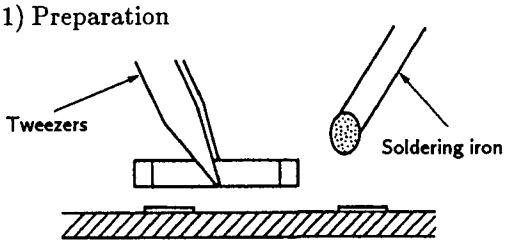


3)Remove the component.

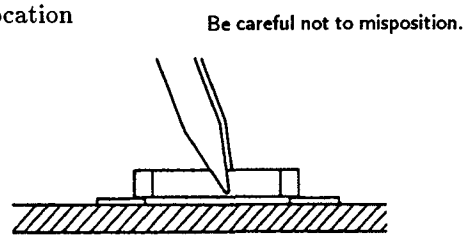


SOLDERING

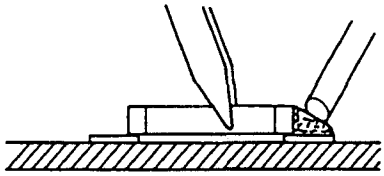
1) Preparation



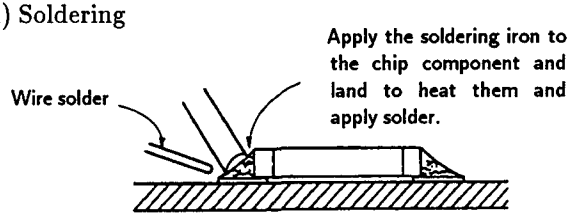
2) Location



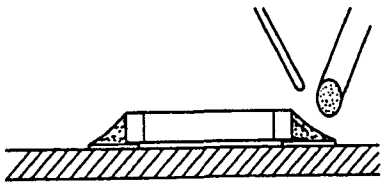
3) Tack soldering and flux application



4) Soldering



5) Soldering (Fix the fillet.)



6) Visual inspection

Check for the following defects :

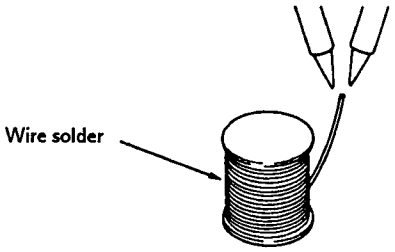
- No-soldered part
- Bridge (to other components or lands)
- Mispositioning
- Other defects

2-13-4. MINI-TRANSISTOR

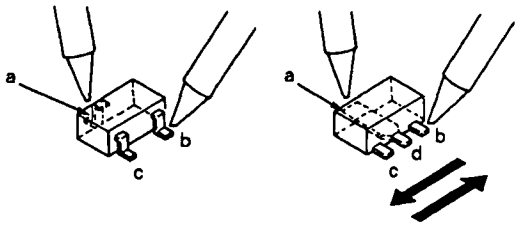
REMOVAL

- Using two soldering irons

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



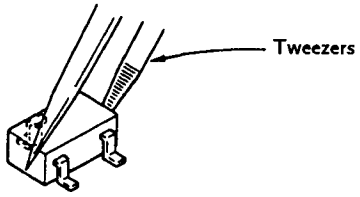
2) Apply the tip of one soldering iron to the point "a" and the other to the points "b" → "c" (or "b" → "d" → "c") and move the component in the directions indicated by arrows in the figure to remove it.



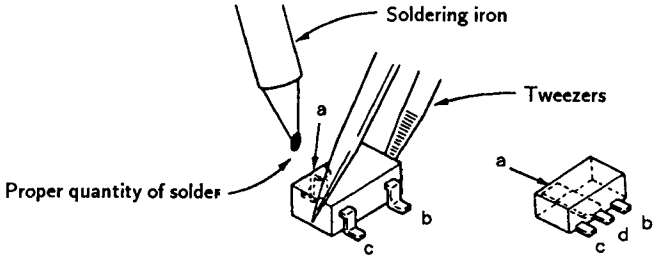
MOUNTING

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

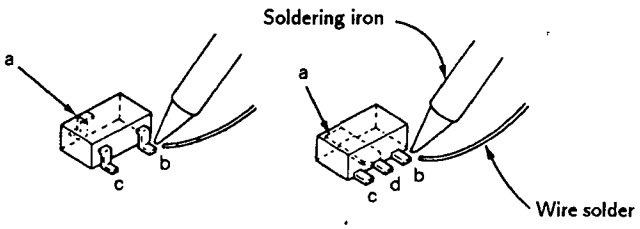
2) Place the component in position using tweezers.



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

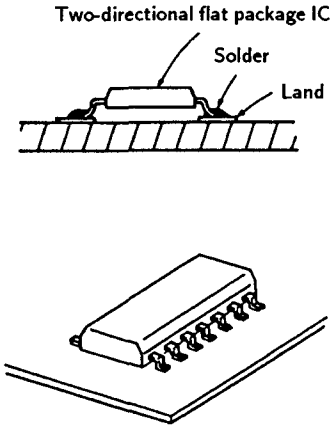


4) Bring the tip of the soldering iron and the wire solder close to the point to be soldered. Solder the points "b" → "c" (or "b" → "d" → "c") in order.



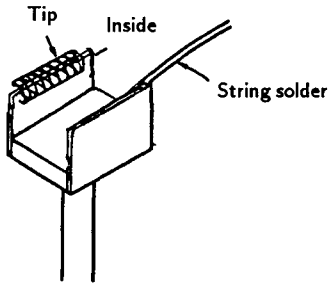
2-13-5. TWO-DIRECTIONAL FLAT PACKAGE IC

MOUNT CONDITION

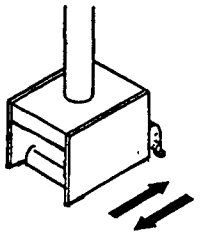


REMOVAL

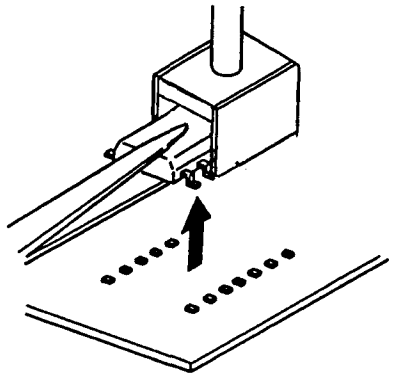
1) Apply some solder on the inside and the tip of the iron tip jig.



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

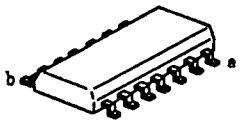


3) When the solder melts, lift the IC with a pair of tweezers and remove.

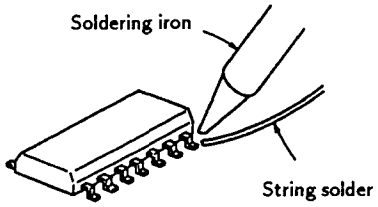


INSTALLATION

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

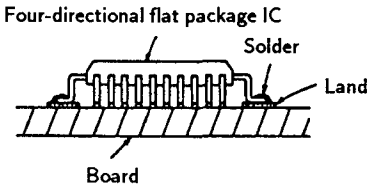


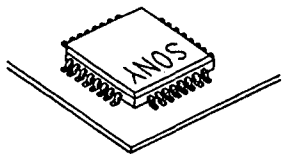
2) Solder the remaining pins with the soldering iron.



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

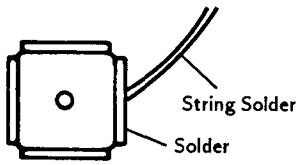
MOUNT CONDITION



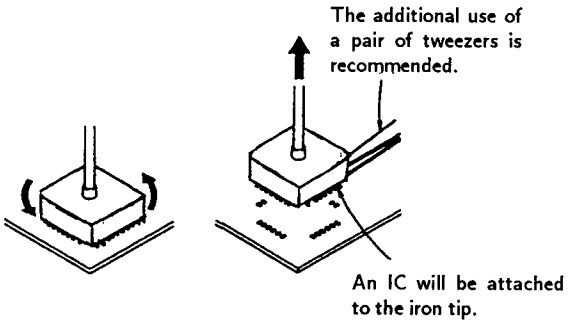


REMOVAL

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



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

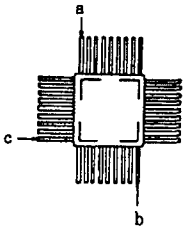


Note : For flat ICs of above 52 P, the IC may not be completely attracted when the iron tip jig is lifted up. In these cases, use a pair of tweezers to remove.

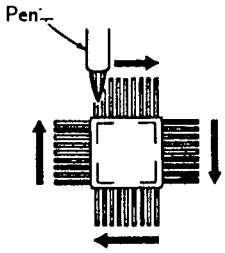
INSTALLATION

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

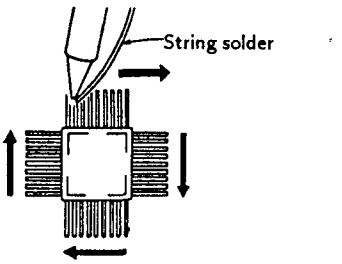
2) Apply a slight amount of solder on the iron tip, and solder the three sections in the order of a → b → c, and fix.



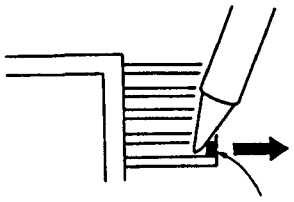
3) Apply a slight amount of flux with a pen on all four directions.



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



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



Bridged section

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

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

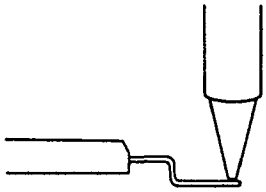


Fig. A

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

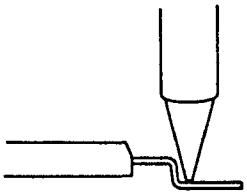
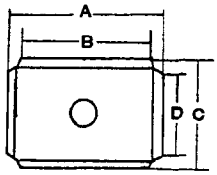
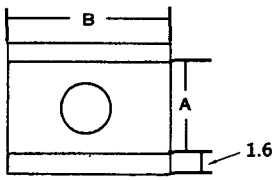
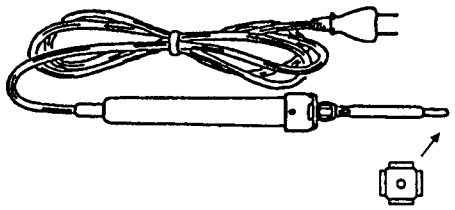
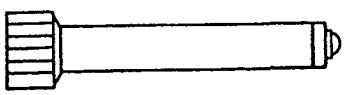


Fig. B

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

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
   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.)

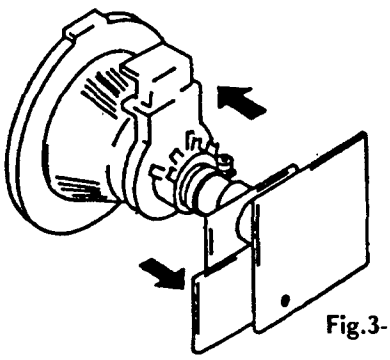


Fig.3-1

Perform the adjustments in order as follows :

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

Note : Test Equipment Required.

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

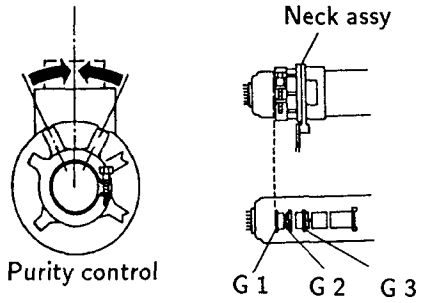


Fig.3-2

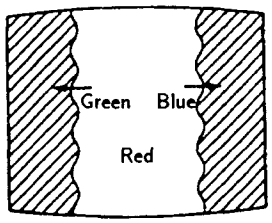


Fig.3-3

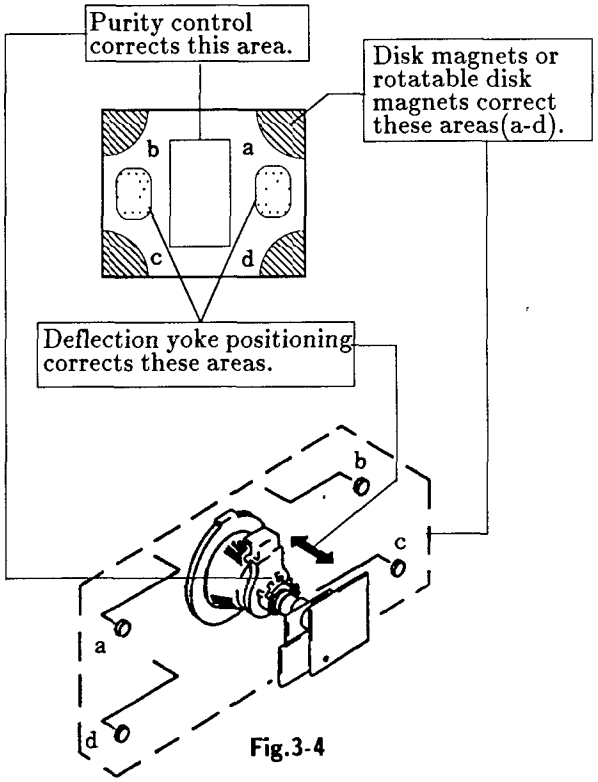


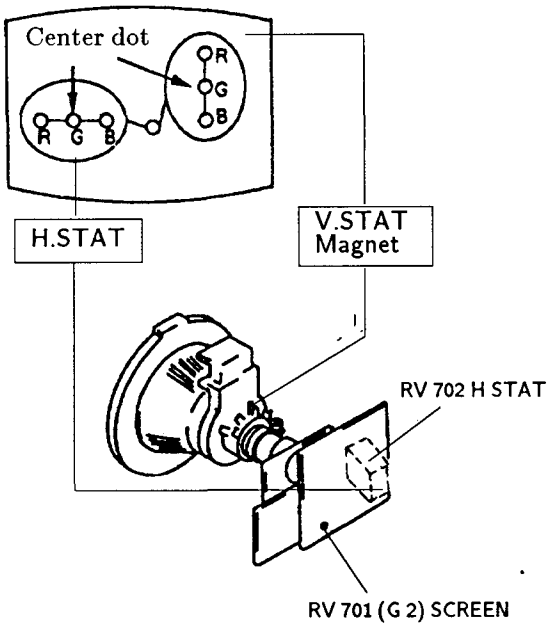
Fig.3-4

3-2. CONVERGENCE

Preparation :

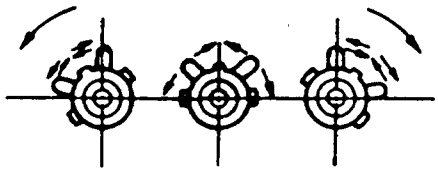
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

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

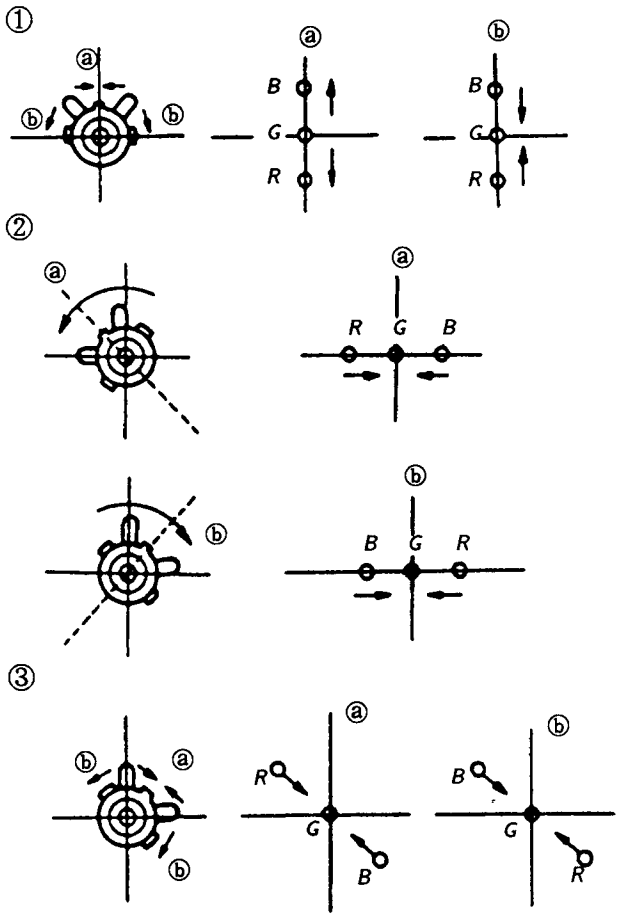


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT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

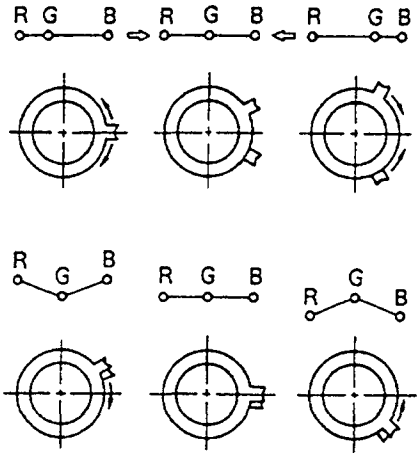
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



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



- Operation of BMC (Hexapole) Magnet



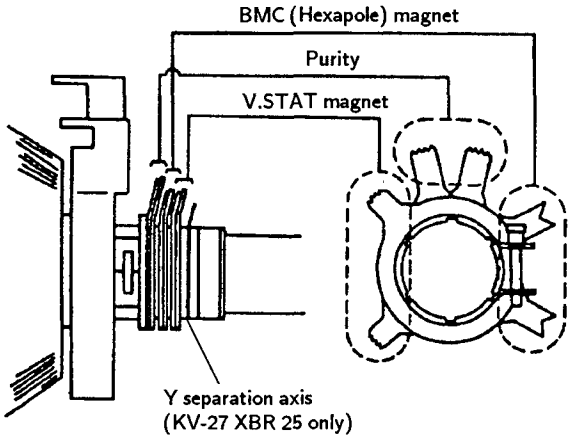
- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

(2) **Dynamic Convergence Adjustment**

Preparations :

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

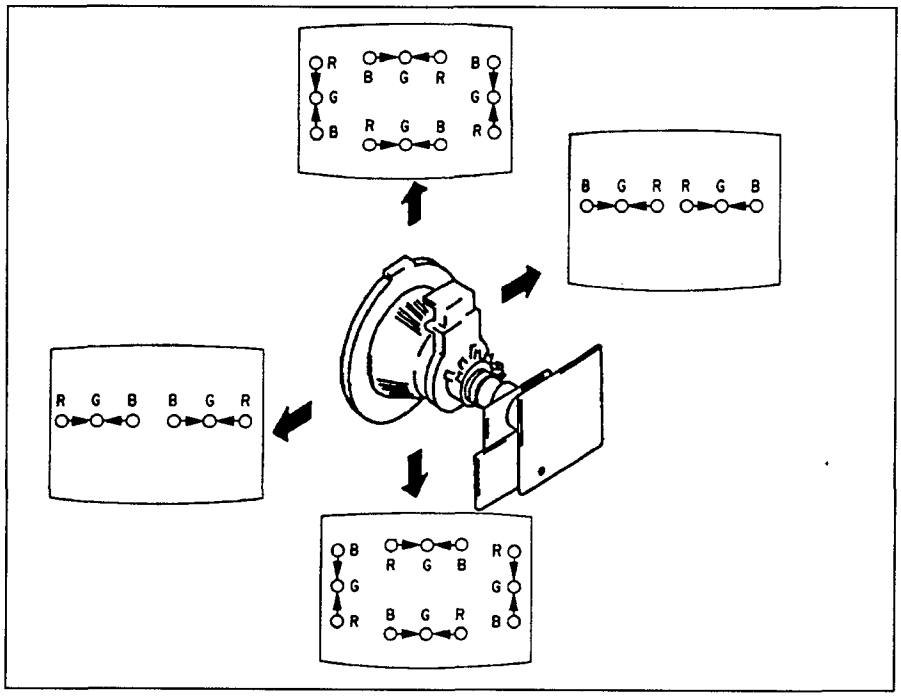
1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.



• 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 defelection yoke spacer.



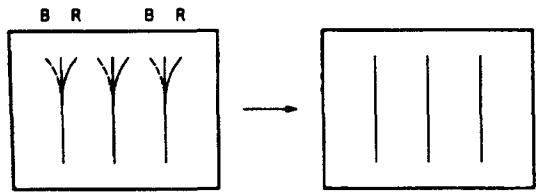
(3) Dynamic Convergence Circuit Adjustment

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

ITEM	REFERENCE DATA	NAME REGISTER	
UYBO	39	VP	U. 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

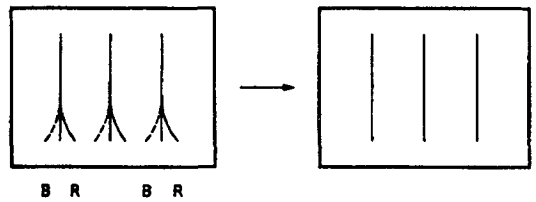
U. YBOW

Select UYBO with [1] and [4]



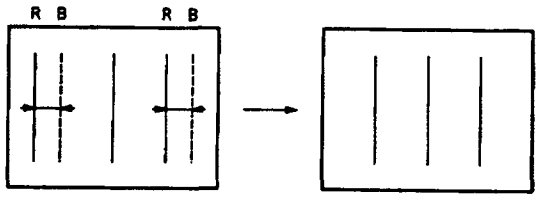
L. YBOW

Select LYBO with [1] and [4]



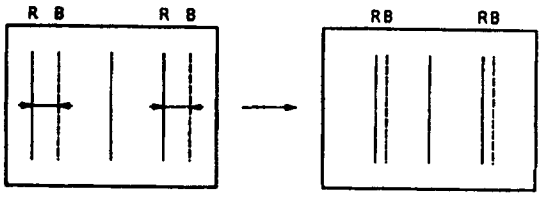
H. AMP

Select HAMP with [1] and [4]



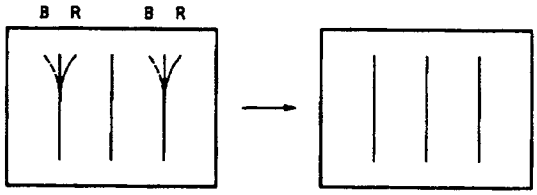
H. TILT

Select HTILT with [1] and [4]



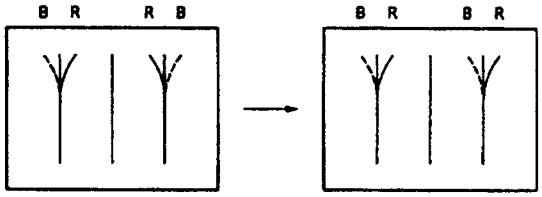
U. CBOW

Select UCBO with [1] and [4]



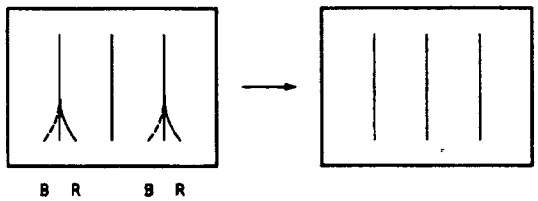
U. TILT

Select UTIL with [1] and [4]



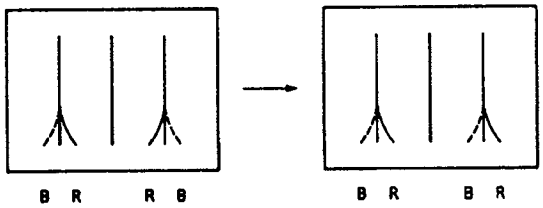
L. CBOW

Select LCBO with [1] and [4]

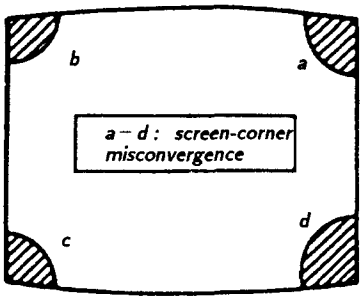


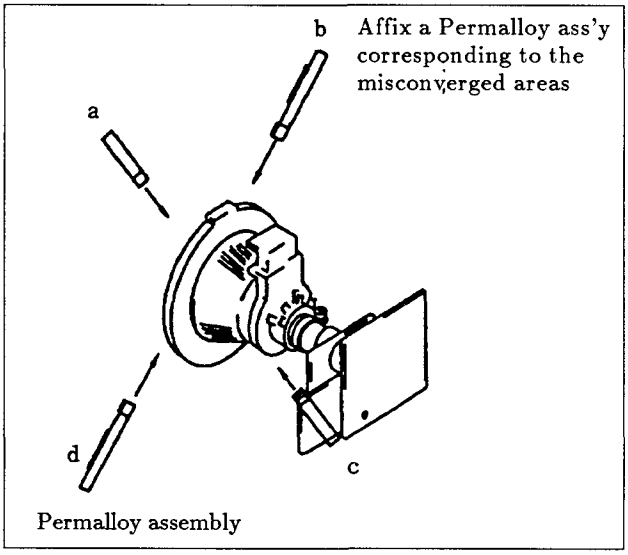
L. TILT

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



(4) Screen-corner Convergence

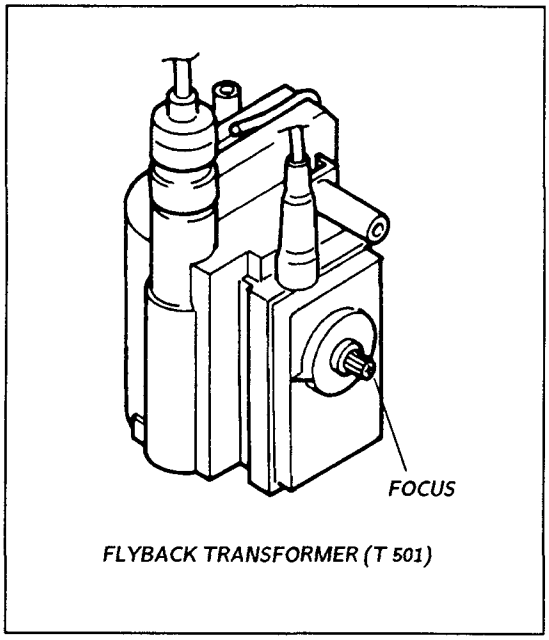




Permalloy assembly

3-3. FOCUS ADJUSTMENT

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



FLYBACK TRANSFORMER (T 501)

a. **AN ITEM OF ADJUSTMENT**

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

b. **METHOD OF CANCELLATION FROM SERVICE MODE**

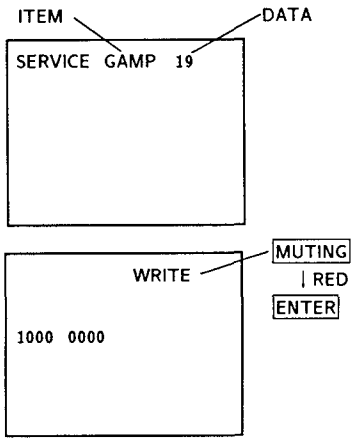
Set the standby condition (Press POWER button on the commander) in the next place, press POWER button again, hereupon it becomes TV mode.

c. **METHOD OF WRITE FOR MEMORY**

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

d. **MEMORY WRITE CONFIRMATION METHOD**

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



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

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

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

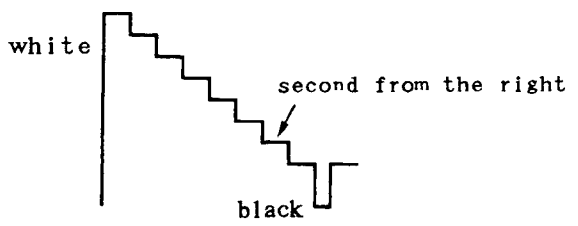
(Using the Remote Commander)

2. WHITE BALANCE ADJUSTMENTS

1) Set to service mode.
2) Press STANDARD to normal and if necessaries "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.

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

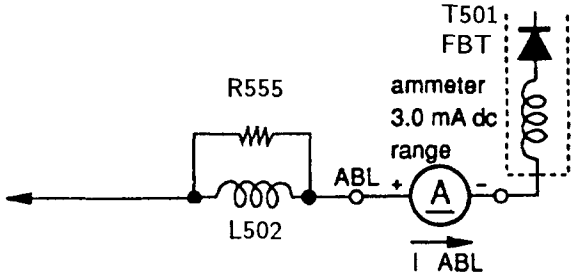
A BOARD

⊠ 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 10kΩ) between pin ① of IC651 and B+ line.
   2) Supply 120±2.0V AC to with variable auto-transformer.
2. Hold-down operation confirmation
   1) Turn the POWER switch ON, and input an entirely white signals and adjust ABL current to 1910±50μA (27 in.) 1640±20μA (32 in.) with PICTURE and BRIGHT etc controls.
   2) Increase B+ line voltage gradually by adjusting the resistor of RV1. Confirm that the minimum voltage is less than 147.0V DC (27 in.) 152.0V DC (32 in.) whereby the raster disappears during operation of hold-down circuit.
      NOTE: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.
   3) Turn the POWER switch ON, and input a dot signals and adjust ABL current to 110±30μA (27 in.) 140±20μA (32 in.) with PICTURE and BRIGHT etc controls.
   4) Increase B+ line voltage gradually by adjusting the resistor of RV1. Confirm that the minimum voltage is lower than 148.5V DC (27 in.) 154.5V DC (32 in.) whereby the raster disappears during operation of hold-down circuit.
      NOTE: When the Hold-down circuit starts operating, switch OFF the POWER of the set immediately.
3. Hold-down readjustment
   When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R565 (a component marked with ⊠).



A BOARD

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

The following adjustments should always be performed when replacing the following components (marked with ◪ on the schematic diagram).
IC502,IC651,Q509,Q510,D502,C531,R554,R566,R567, R568,R569,R651,R1506,T501

②

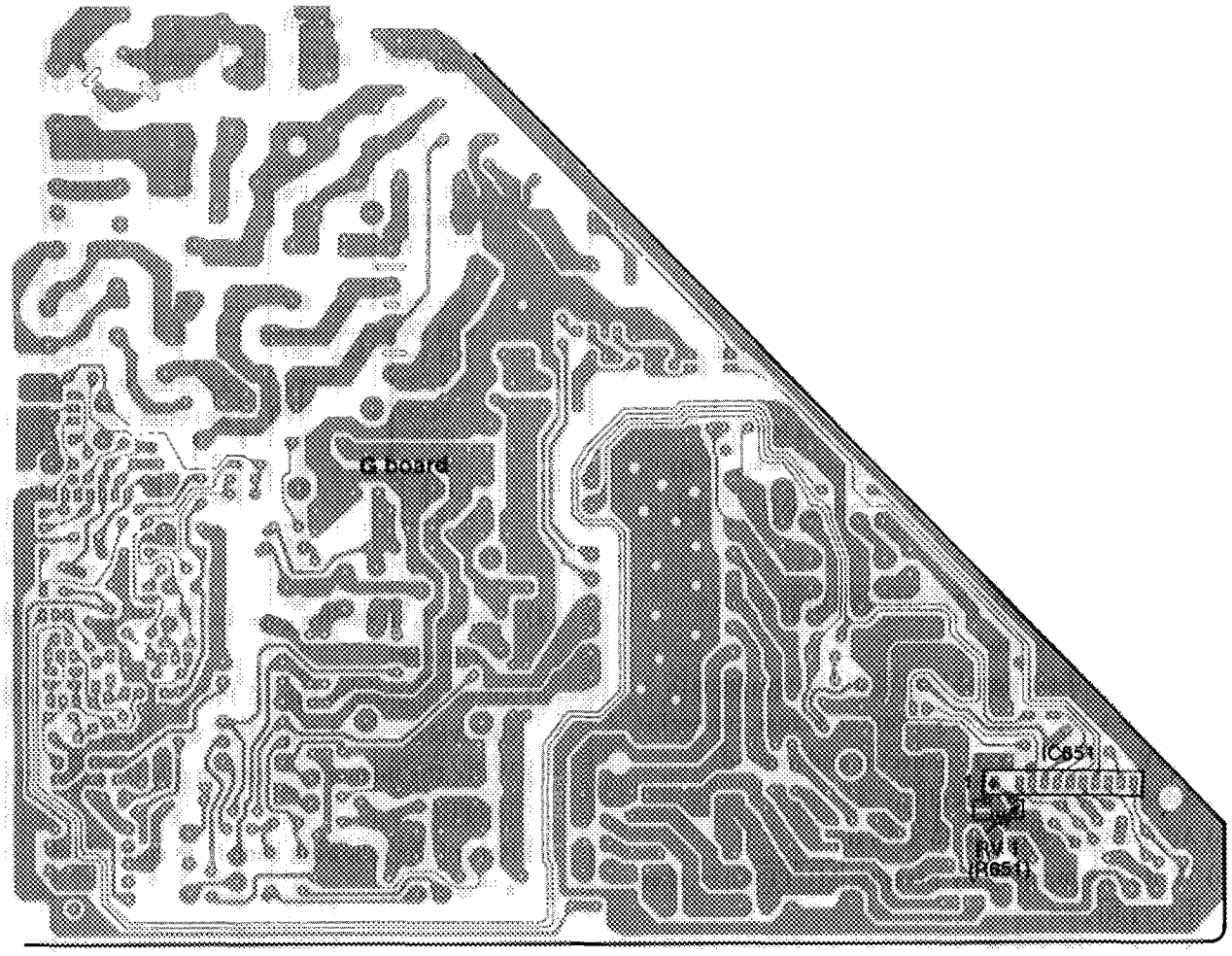
1. Preparation before confirmation
   1) Turn the POWER switch ON, and input an entirely white signals and set the PICTURE and BRIGHT controls to maximum.
   2) Confirm that voltage of the check terminal of pin② of A-0 connector is more than 127.0V DC (27 in.) 100.0V DC (32 in.) when the set is operating normally with 120.0±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±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 149.0V DC (27 in.) 120.5V DC (32 in.) whereby the raster disappears during operation of hold-down circuit.
      NOTE : When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.
3. Hold-down readjustment
   When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R566 CARBON 1/4W (a component marked with ⊠).

G BOARD

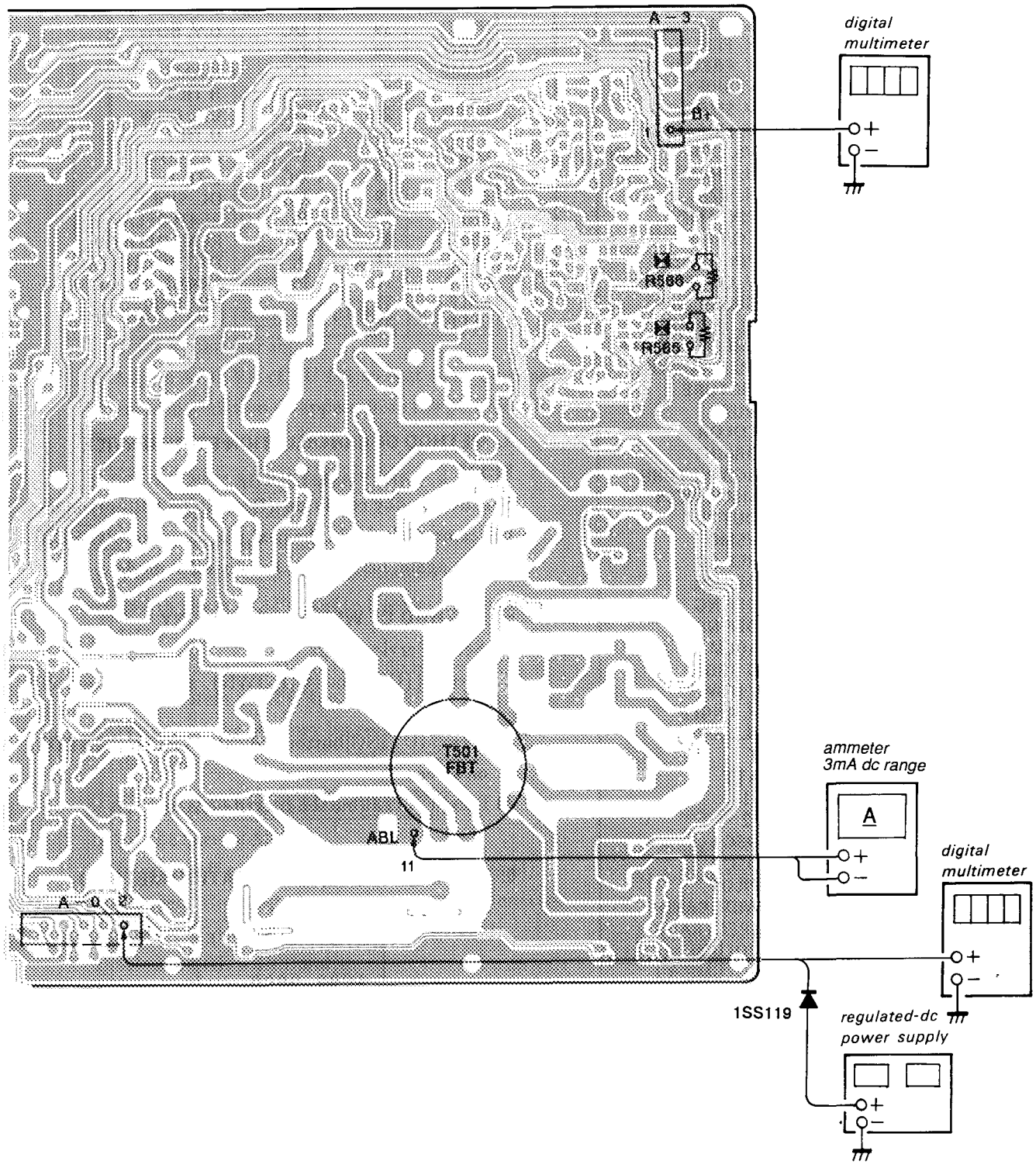
B+ VOLTAGE CONFIRMATION

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

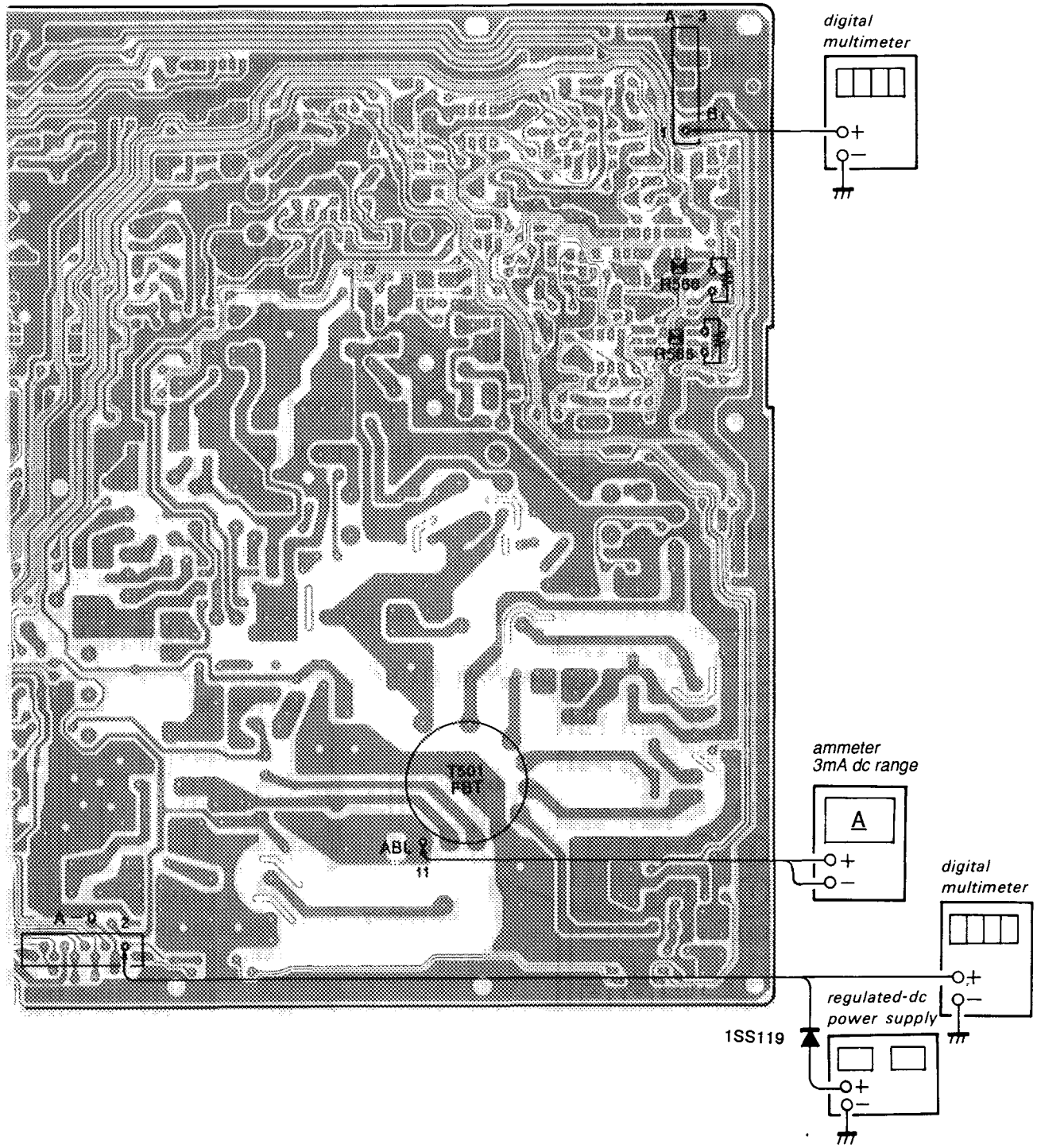
1) Supply 130±2%V AC to with variable autotransformer.
2) Input an entirely monoscope signal.
3) Set the PICTURE control and the BRIGHT controls in to initial reset.
4) Confirm the voltage of A BOARD ① pin A-3 connecter is less than 136.5V DC.
5) If step 4) is not satisfied, replace IC651 and R651 repeat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



(KV-27XBR25)


digital
multimeter
A
3
1
R1
R586
R585
T501
FBT
ABL
11
ammeter
3mA dc range
A
digital
multimeter
1SS119
regulated-dc
power supply

(KV-32XBR25)


digital
multimeter
ammeter
3mA dc range
digital
multimeter
regulated-dc
power supply
1SS119

SECTION 5
CIRCUIT ADJUSTMENTS

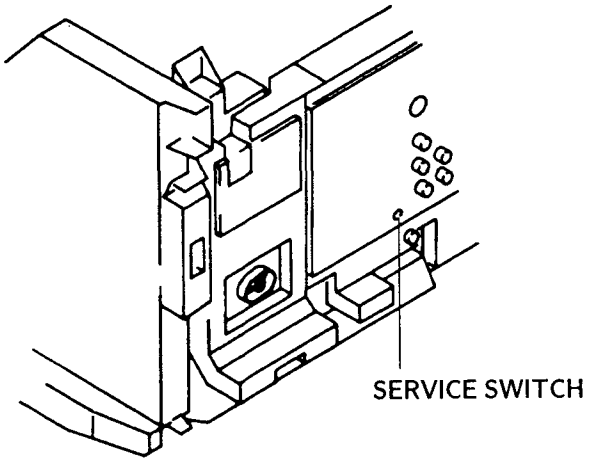
5-1. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

Use of Remote Commander (RM-Y112) can be performed circuit adjustments about this model.

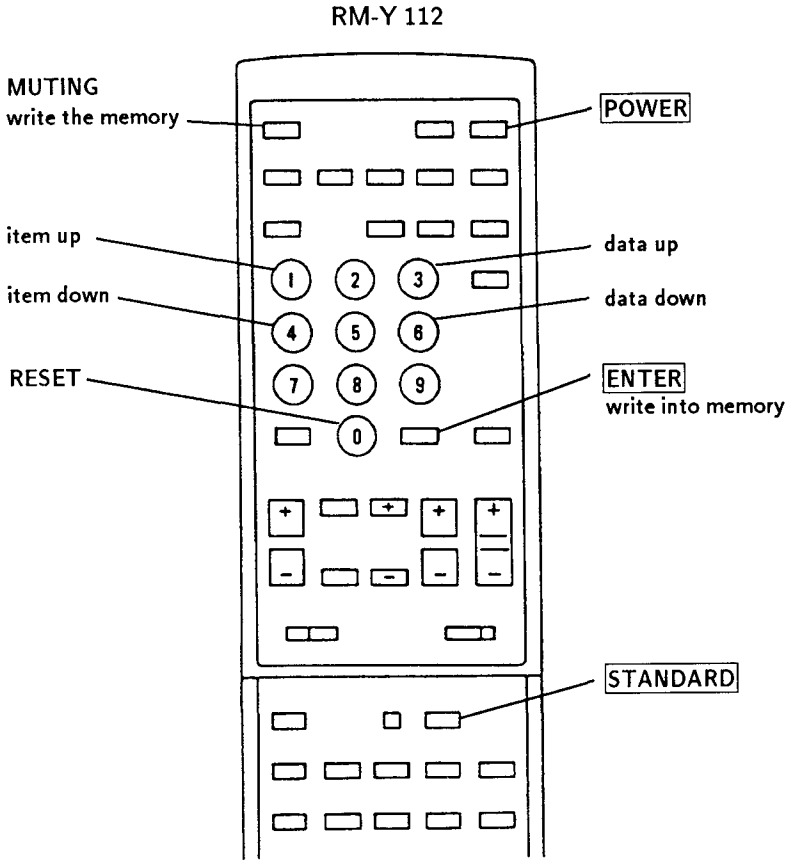
NOTE : Test Equipment Required.
1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio OSC

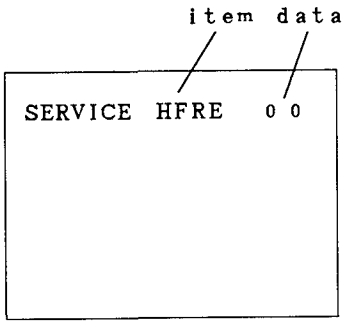
1. METHOD OF SETTING THE SERVICE MODE

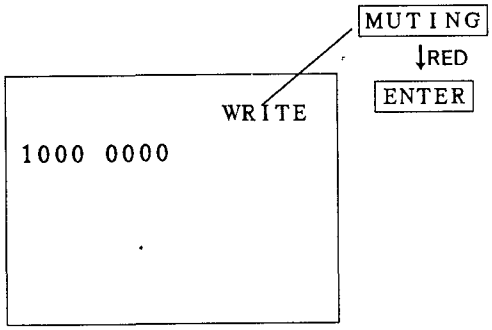
1) Press [POWER] button on the Remote Commander while pressing switch on the rear of the set.



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	I 1
DEEM	7	AP	I 2
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		

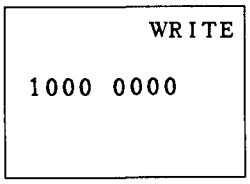
4. METHOD OF CANCELLATION FROM SERVICE MODE

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

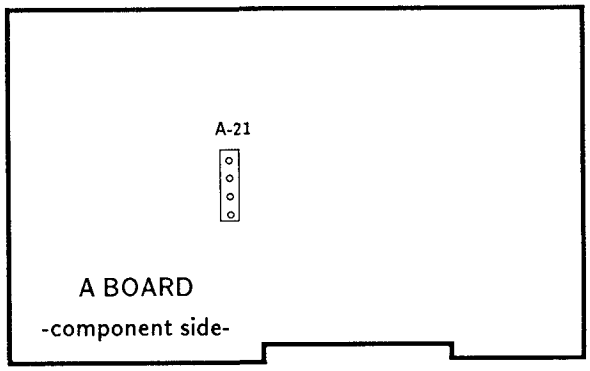
1) Set to Service Mode.
2) Press 1 (UP) and 4 (DOWN), select an item of adjustments.
3) Press MUTING button indicate WRITE (RED) on screen.
4) Press ENTER button to write for memory.

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± 60 Hz level.
7) Call the item of AFC again, adjust the level" 01 ".
8) Write into the memory by pressing MUTING → then ENTER.

V.FREQUENCY ADJUSTMENT (VFRE)

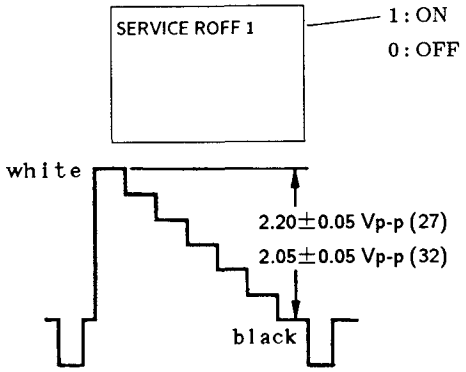
1) Set the Service Mode.
2) Input an off-air signal (VIDEO IN → no signal).
3) Connect the frequency counter across connector VDY−⊕ of DY-1 connector and ground.
4) Select VFRE with 1 and 4.
5) Adjust 3 and 6 to the 55 ±0.5 Hz.
6) Write the memory by pressing MUTING → then ENTER.

SUB CONTRAST ADJUSTMENT (SPIX)

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

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

Press MENU and select VIDEO MENU → - (L) (It becomes minimum).
Select 3 (ON) and 6 (OFF) with 1 and 4.

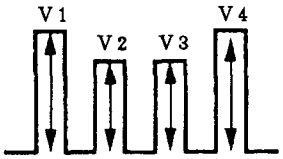


4) Connect an oscilloscope to TP 49 B of C board and ground.
5) Adjust 3 and 6 to the 2.20 (27) 2.05 (32)± 0.05 Vp -p level by select-ing SPIX with 1 and 4.
6) Write the memory by pressing MUTING → then ENTER.
7) Return the following back to normal after adjustment.

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.

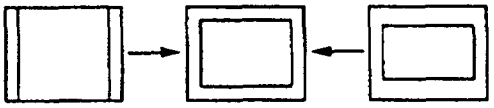


6) Write into the memory by pressing MUTING →then ENTER .

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 .

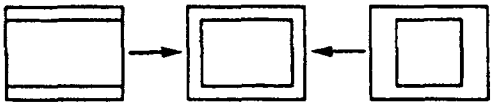
V SIZE (VSIZ)



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 .

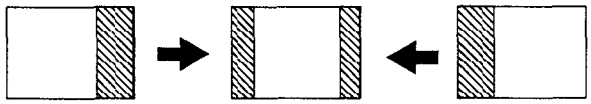
H SIZE (HSIZ)



H.CENTER ADJUSTMENT (H POS)

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

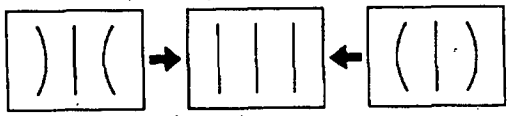
1) Input a color bar signal.
2) Set the Service mode.
3) Select HSIZ with 1 and 4 .
4) Press 6 so that the Horizontal size set to min.
5) Adjust A-21 conector position so that both-size branking width of the Raster should be same on the Scrnne.
6) Unplug Set then plug in Set.
7) Set to Service mode.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



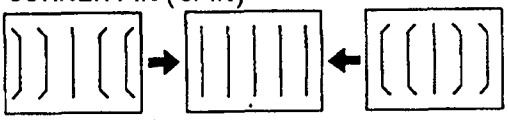
PIN AMP (PAMP) , CORNER PIN (CPIN) PIN PHASE (PPHA), H TRAPIZOID (HTRA) V LINEARITY (VLIN), V ANGLE (VANG), VS CORRECTION (VSCO), Y BOW (YBOW), V SHIFT (VPOS), AND V COMP (VCOM) ADJUSTMENTS

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)

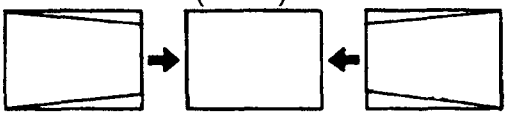


CORNER PIN (CPIN)

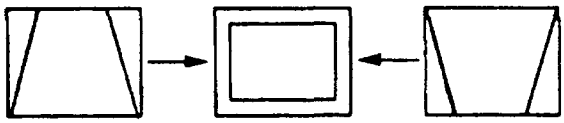


PIN PHASE (PPHA)

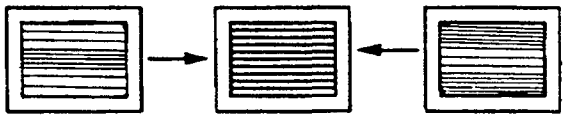
H TRAPIZOIDO (HTRA)



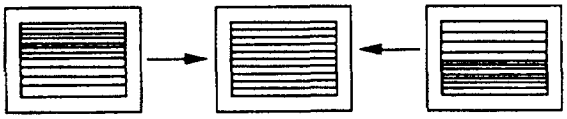
V-SHIFT (VPOS)



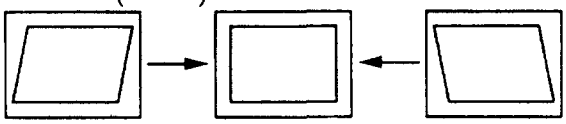
V COMP (VCOM)



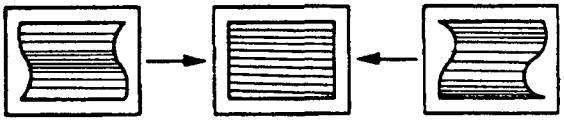
V LINEARITY (VLIN)



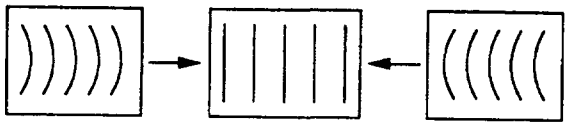
V ANGLE (VANG)



VS CORRECTION (VSCO)

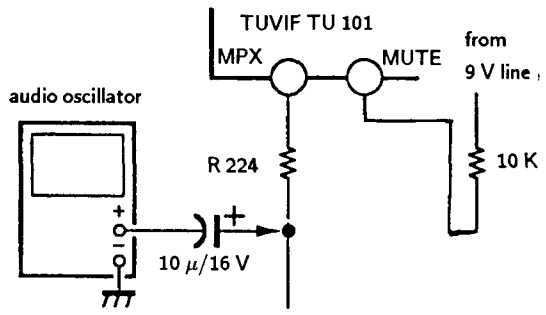


Y BOW (Y BOW)



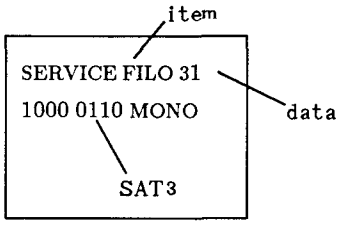
FILTER ADJUSTMENT (MPX, FILO)

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$\pm$0.1 kHz.
   And then, through the 10kΩ resistor, feed 9.0V into the mute of TUVIF TU 101.



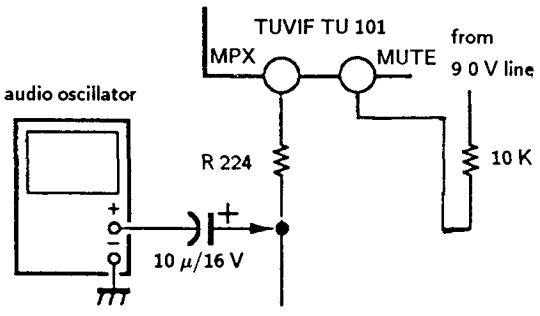
V 4 fh : SINE-WAVE 62.936 KHz$\pm$0.1 KHz
LEVEL 3.0 Vp-p

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 .



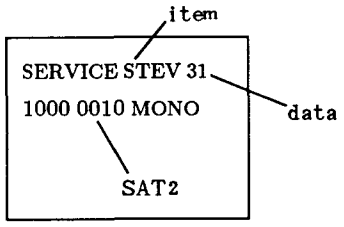
ST VCO ADJUSTMENT (MPX, STEV)

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 appply 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$\pm$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_0 ADJUSTMENT (SAPV)

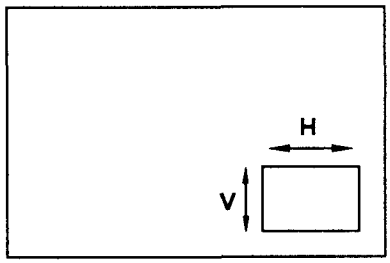
1) Set to Service Mode.
2) Input a stereo broadcast signal with SAP.
3) Select TEST with [1] and [4], set the data to "0". And then, press [MTS] to MAIN.
4) Connect a digital multimeter to TP-1(DBX). This voltage reading will equal V 1.
5) Press MTS to SAP and this voltage will equal V 2.
6) Select SAPV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

SEPARATION ADJUSTMENT (SEP)

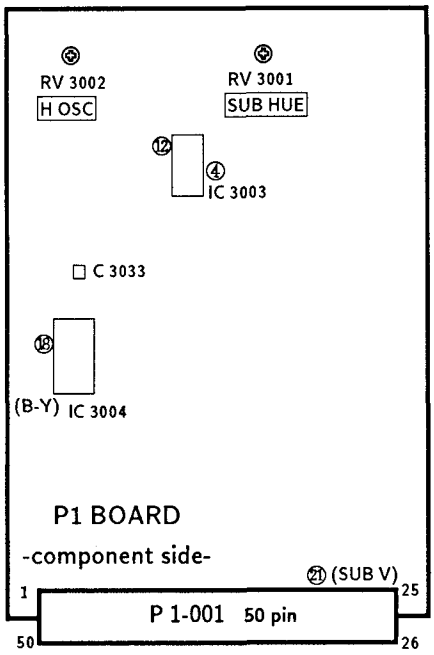
1) Set to Service Mode.
2) Press [MTS] to MAIN and receive a monoral broad -cast signal.
   In the next step, receive a stereo broadcast signal.
3) Select SEP and VD with [1] and [4], adjust [3] and [6] so that a clear stereo sound is effected.

READ DELAY H/V (PHPO, PVPO)

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

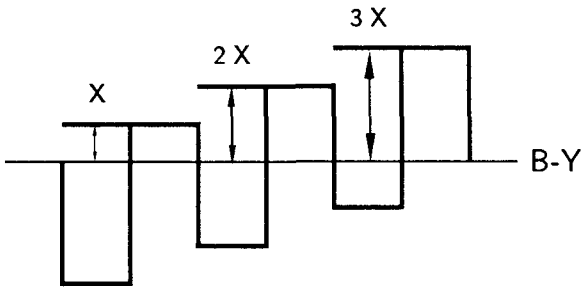


5-3. P1 BOARD ADJUSTMENTS



SUB HUE ADJUSTMENT (RV 3001)

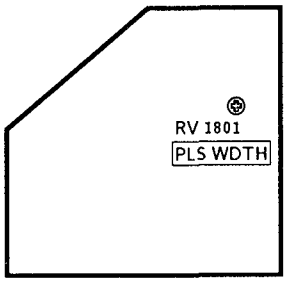
1) Set HUE and COLOR to the standard condition.
2) Make adjustment so that B-Y signal as shown to the right is obtained at the crossing point of R 3009 (0 Ω) and C 3033.
3) Supply the color bar signal of 75 IRE (white) at 2 Vpp to Pin 21 (SUB V) of P 1-001 and make adjustment by turning RV 3001.



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

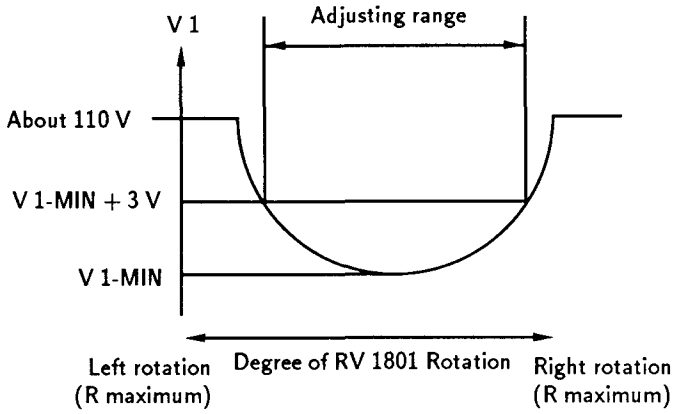
1) Connect a frequency counter to Pin ④ (H OUT) of IC 3003.
2) Connect Pin ⑫ of IC 3003 to ground.
3) Adjust RV3002 for a frequency of 15.734 kHz ± 50 Hz at Pin ④ of IC 3003.
(or until the frequency comes to a standstill.)

5-4. VC BOARD ADJUSTMENT (KV-27 XBR 25 only)



DRIVE PULSE PHASE ADJUSTMENT(RV 1801)

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

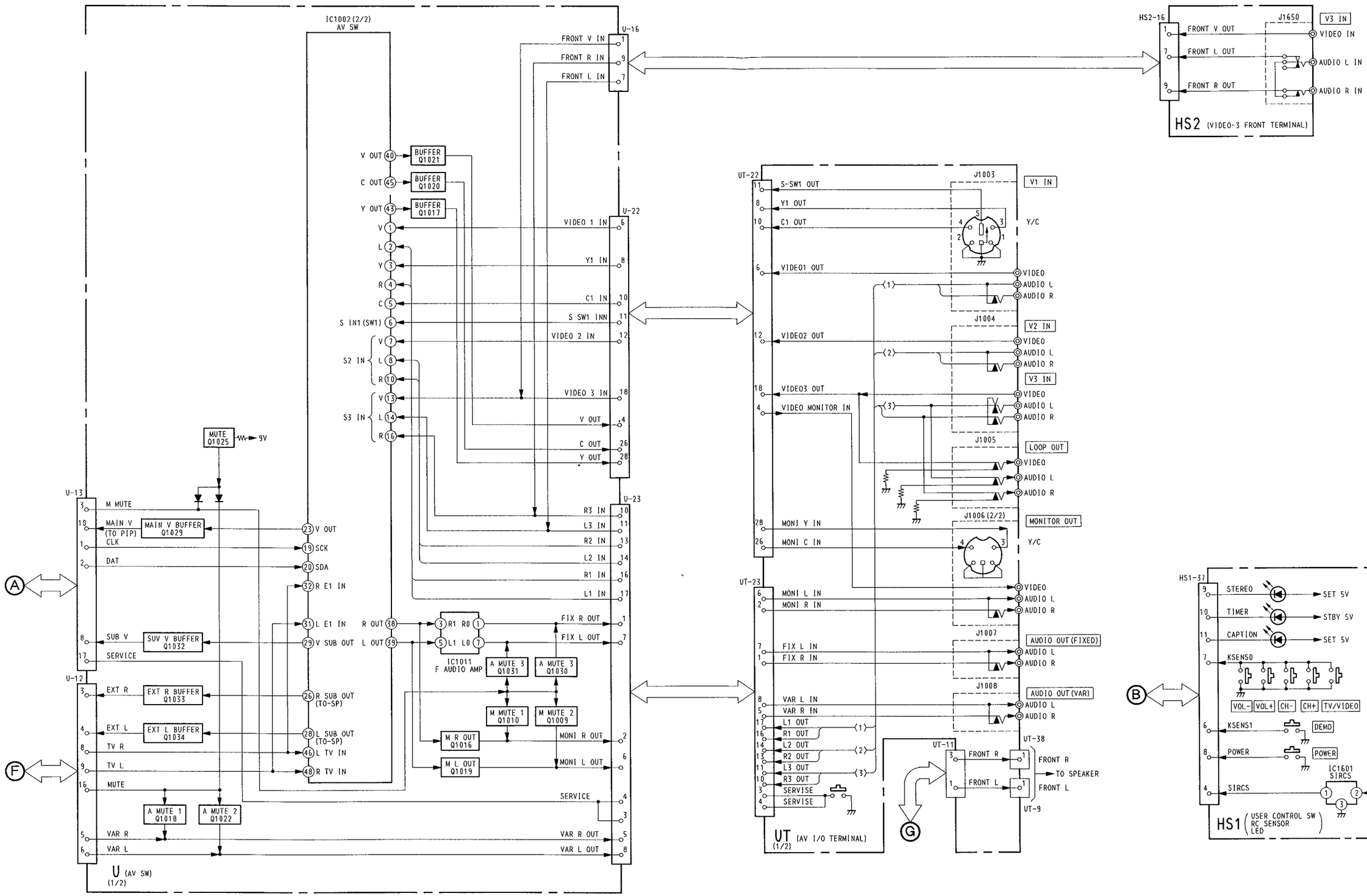


MEMO

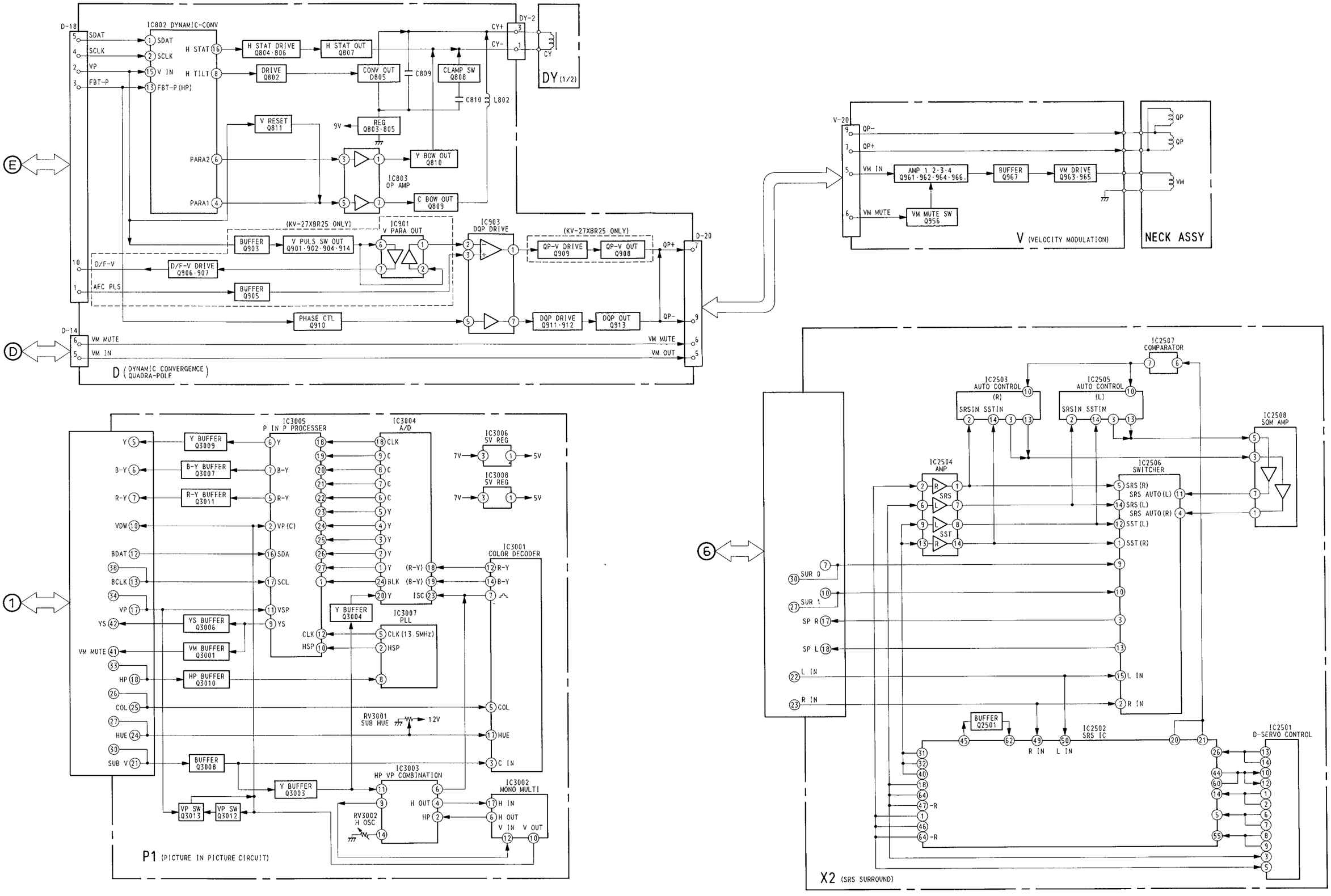
KV-27XBR25/32XBR25 RM-Y112

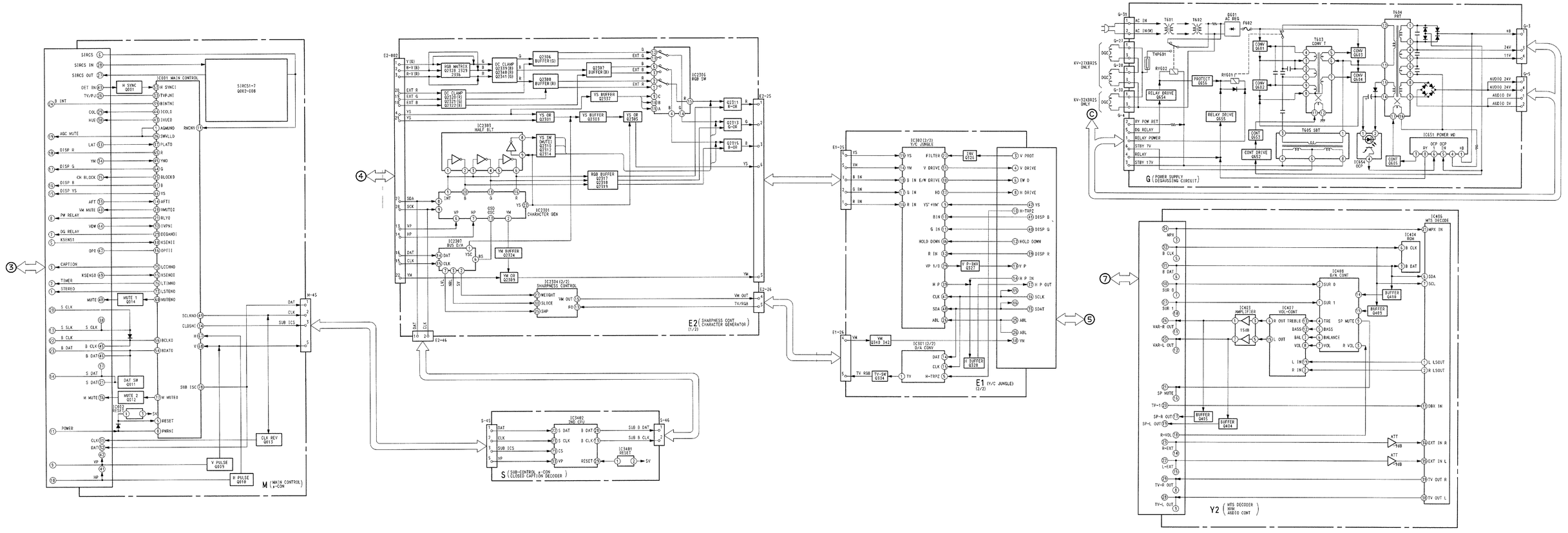
SECTION 6 DIAGRAMS

6-1. BLOCK DIAGRAMS (1)

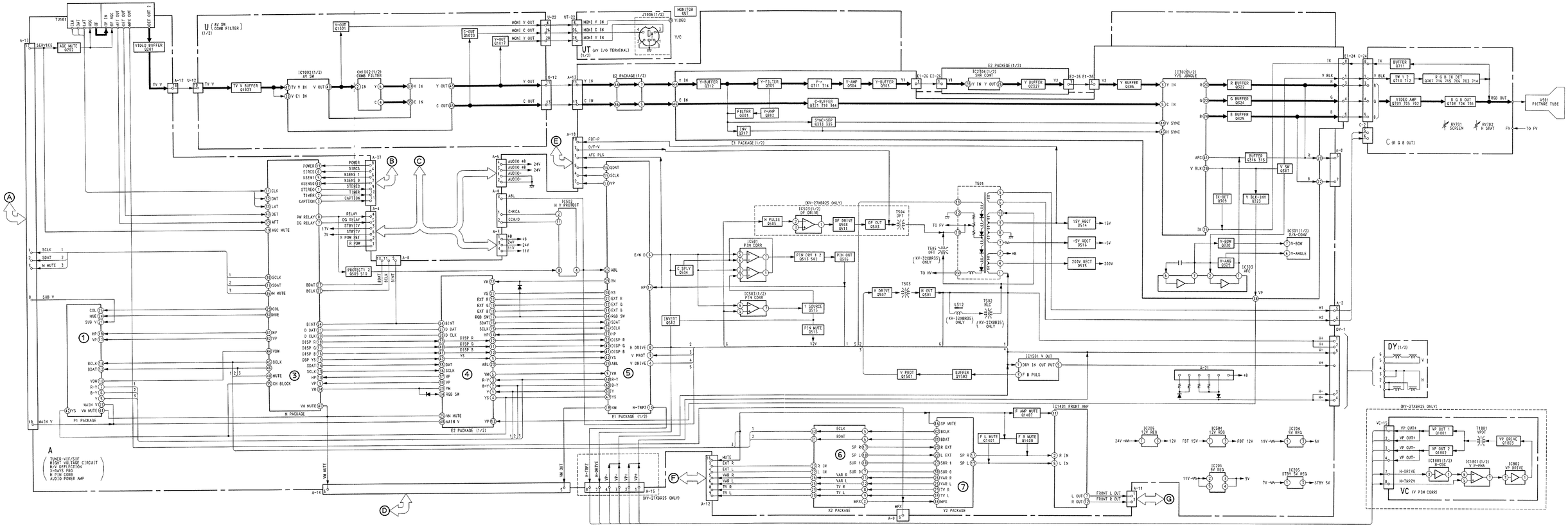


6-2. BLOCK DIAGRAMS (2)

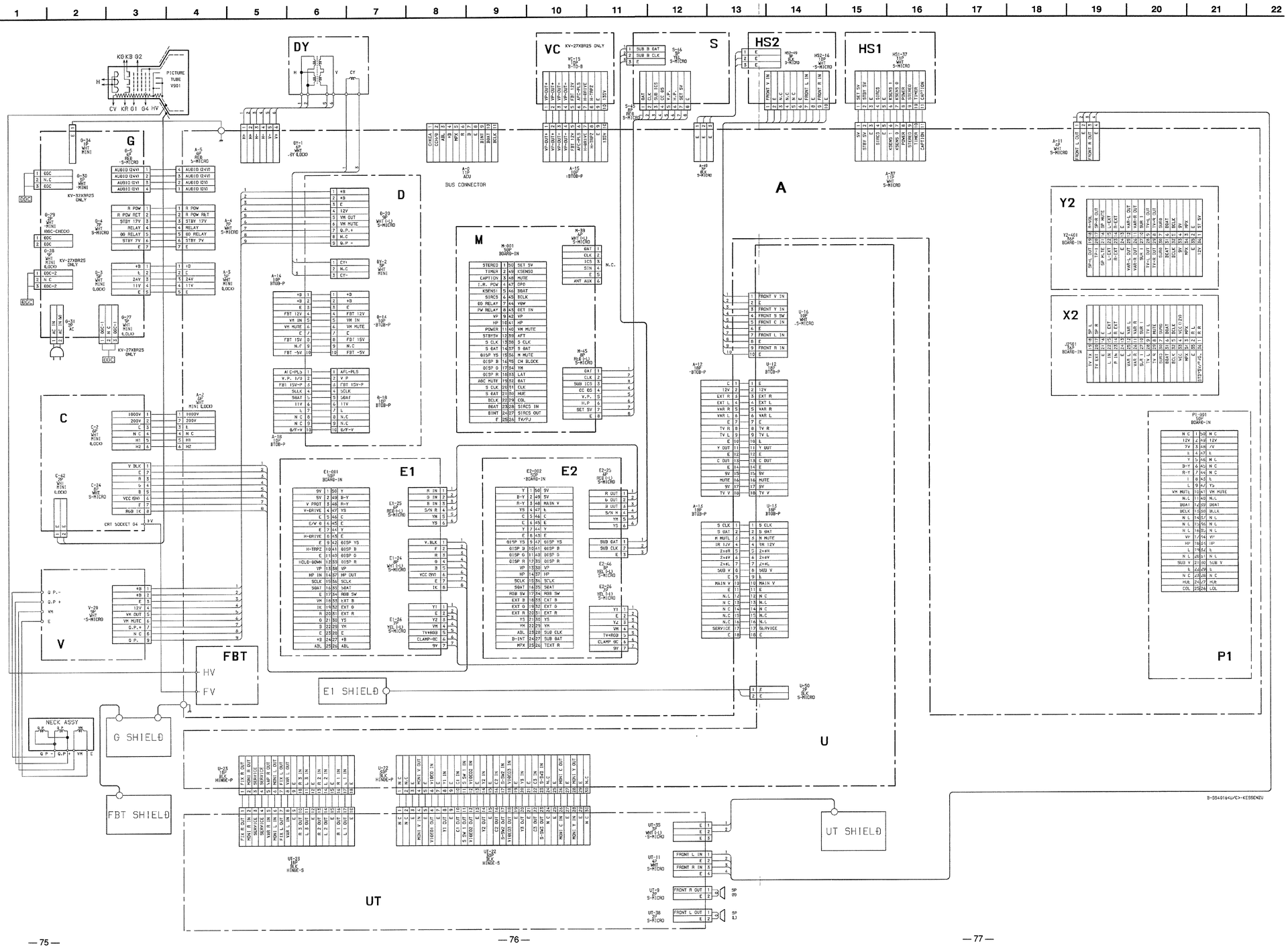



M (MAIN CONTROL L-CON)
IC001 MAIN CONTROL
S (SUB-CONTROL L-CON CLOSED CAPTION DECODER)
E2 (SHARPNESS CONT CHARACTER GENERATOR (1/2))
E1 (Y/C JUNGLE (2/2))
G (POWER SUPPLY DEGAUSSING CIRCUIT)
Y2 (WTS DECODER NVM AUDIO CONT)

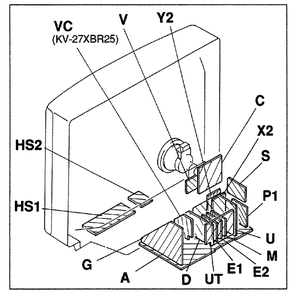
6-4. BLOCK DIAGRAMS (4)



6-5. FRAME SCHEMATIC DIAGRAM



6-6. CIRCUIT BOARDS LOCATION



6-7. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS - Conductor Side -

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytic and tantalums.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms. KΩ = 1000Ω, MΩ = 1000KΩ
- 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 unless otherwise noted.
- : nonflammable resistor.
- : internal component.
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-ground.
- : earch-chassis.
- The components identified by ⋈ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪ mark the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⋈ and repeat the adjustment until the specified value is achieved. (Refer to R565 and R566 on page 51-54 in the Service Manual.)
- When replacing the part in below table be sure to perform the related adjustment.

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

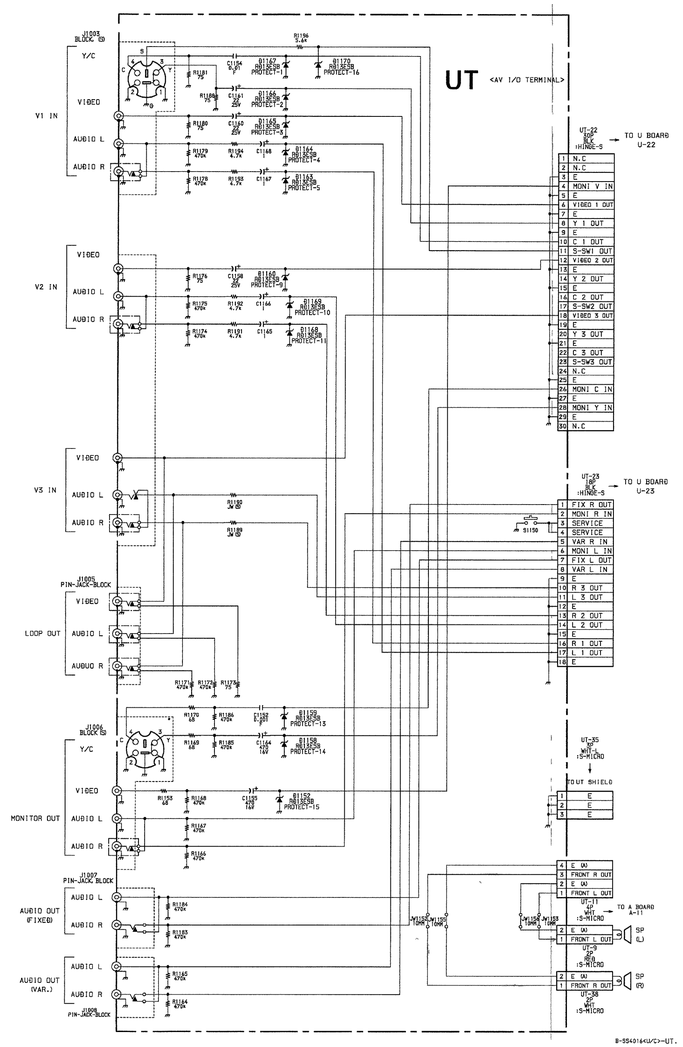
- Readings are taken with a color-bar signal input.
- Readings are taken with a 10 MΩ digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerance.
- All voltages are in V.
- : B+ bus.
- : B- bus.
- : signal path.

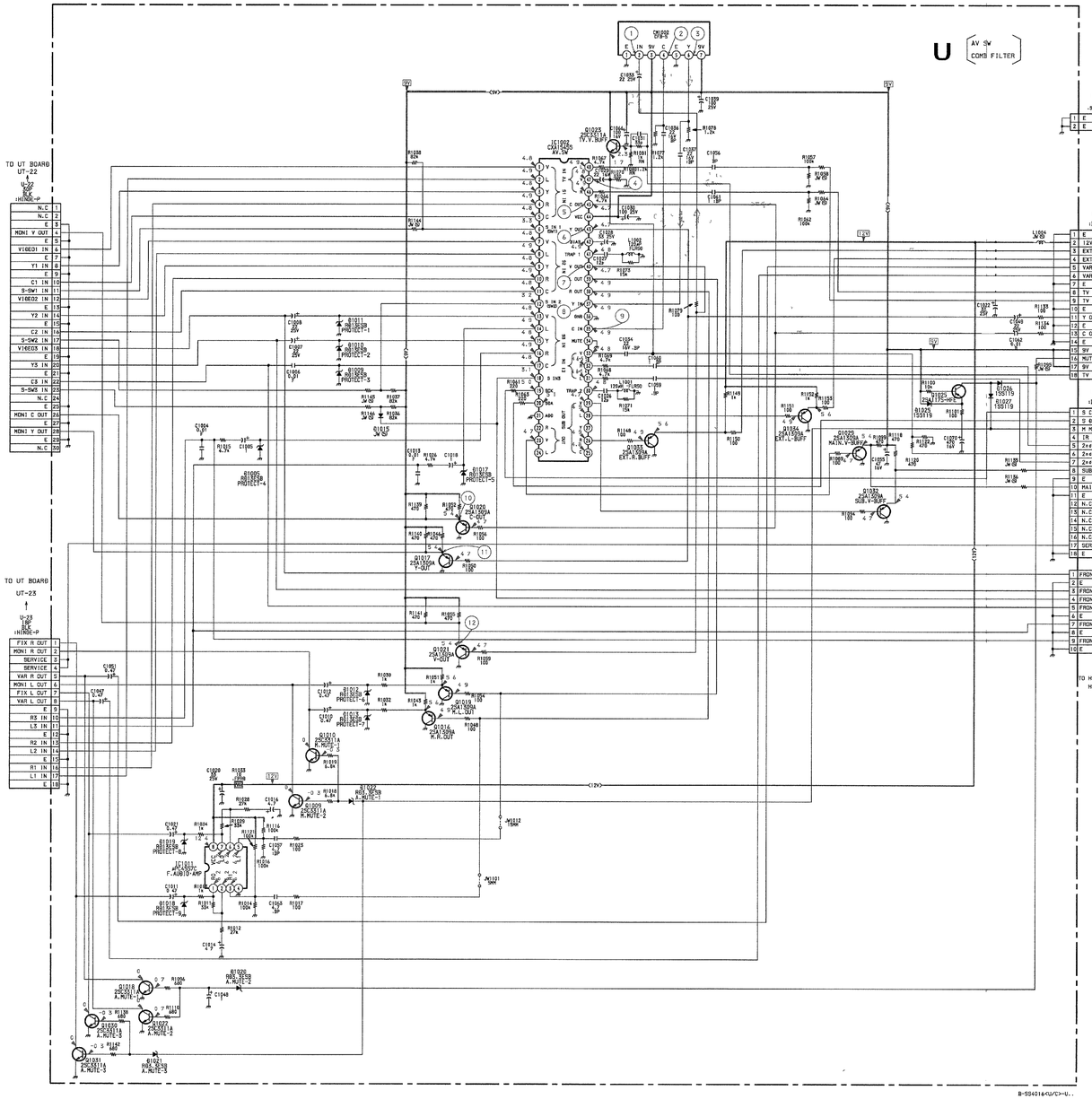
Reference information

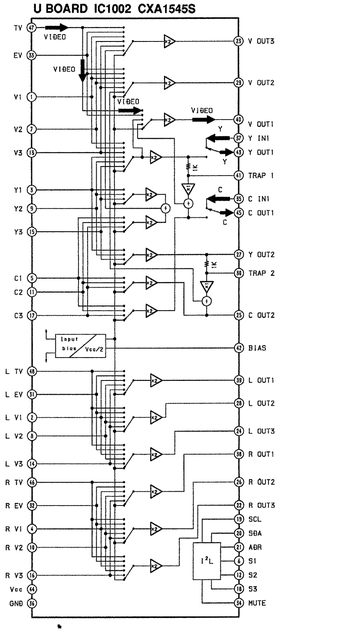
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR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

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

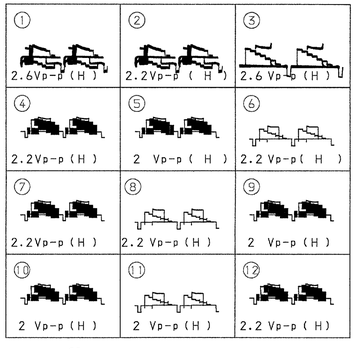
Note:
Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.


UT
<AV I/O TERMINAL>
TO U BOARD U-22
TO U BOARD U-23
TO A BOARD A-11
TO OUT SHIELD
V1 IN
V2 IN
V3 IN
LOOP OUT
MONITOR OUT
AUDIO OUT (FIXED)
AUDIO OUT (VAR.)
B-5340164U/C1-UT.


U
AV SW
COMB FILTER
TO UT BOARD UT-22
TO UT BOARD UT-23
TO A BOARD A-12
TO A BOARD A-13
TO E! SHIELD
TO HS2 BOARD HS2-16
B-5340164U/C1-U..


U BOARD IC1002 CXA1545S
V OUT3
V OUT2
V OUT1
Y IN1
Y OUT1
TRAP 1
C IN1
C OUT1
Y OUT2
TRAP 2
C OUT2
BIAS
L OUT1
L OUT2
L OUT3
R OUT1
R OUT2
R OUT3
SCL
SDA
ADR
S1
S2
S3
MUTE

— U Board —


1
2.6Vp-p (H)
2
2.2Vp-p (H)
3
2.6 Vp-p (H)
4
2.2Vp-p (H)
5
2 Vp-p (H)
6
2.2 Vp-p (H)
7
2.2Vp-p (H)
8
2.2 Vp-p (H)
9
2 Vp-p (H)
10
2 Vp-p (H)
11
2 Vp-p (H)
12
2.2 Vp-p (H)

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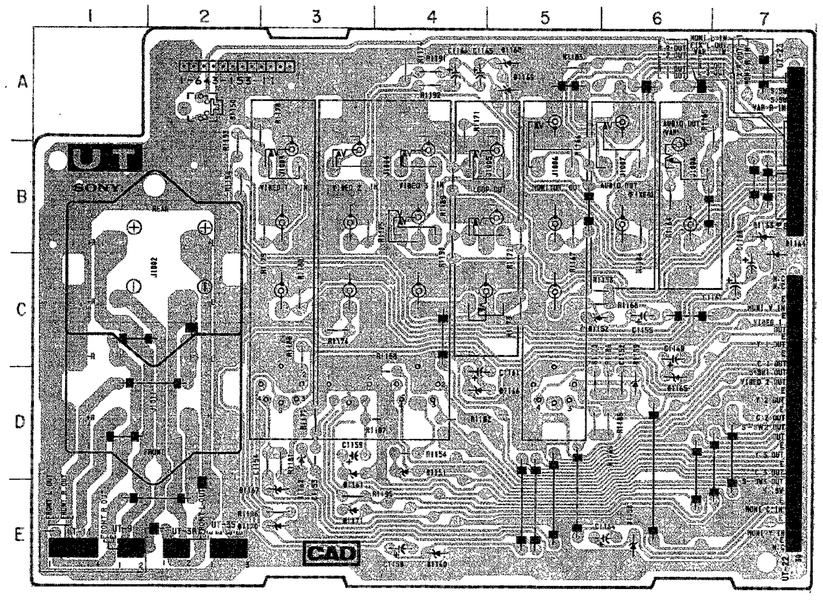
UT [AV I/O TERMINAL]

— UT Board —

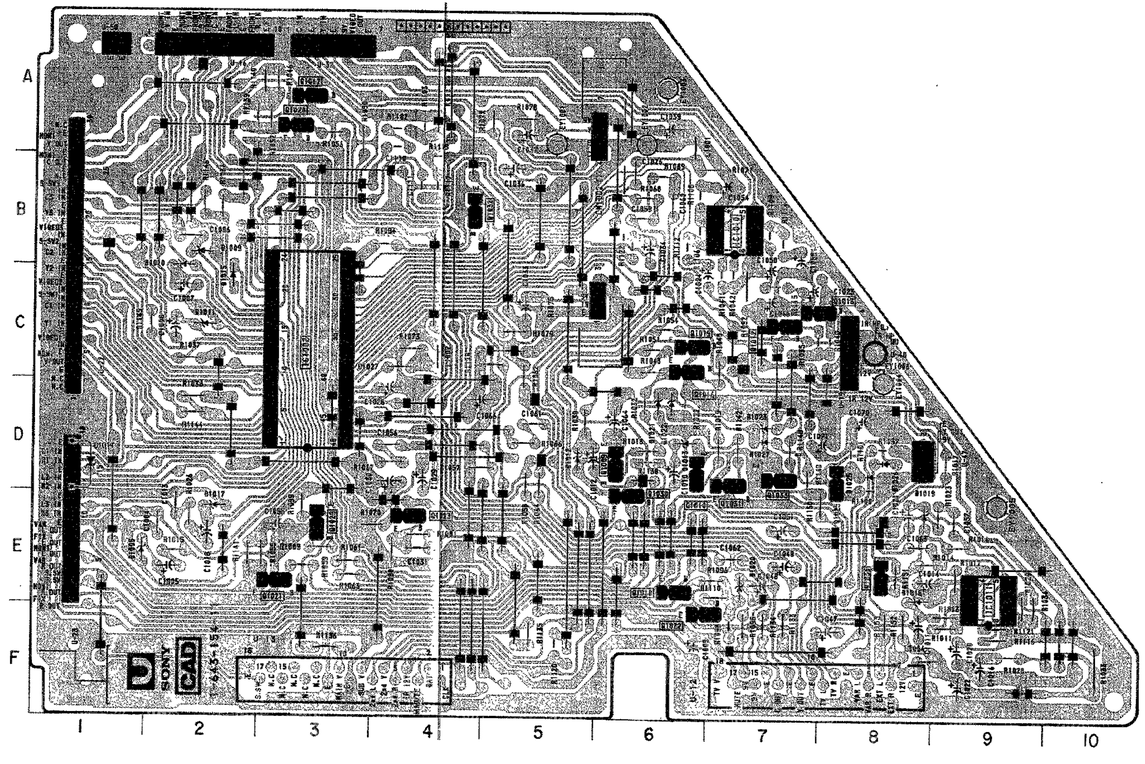


— UT Board —

DIODE	
D1152	C-5
1158	E-6
*1159	D-6
1160	E-4
1163	B-7
1164	B-7
1165	D-6
1166	D-4
1167	E-3
1168	A-5
1169	A-5
1170	E-3

U [AV SW, COMB FILTER]

— U Board —



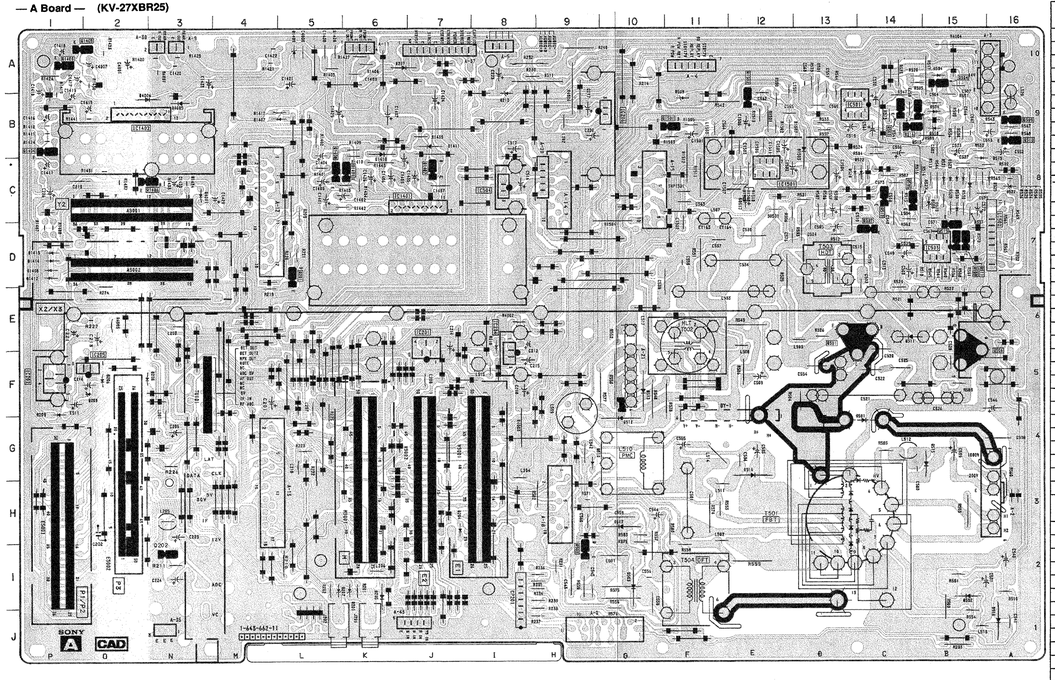
KV-27XBR25/32XBR25
RM-Y112

— U Board —

IC	
IC1002	C-4
1011	I-2
TRANSISTOR	
Q1009	F-3
1010	F-3
1016	F-4
1017	C-6
1018	F-2
1019	F-4
1020	C-6
1021	C-2
1022	G-1
1023	Đ-2
1025	Đ-8
1029	C-2
1030	F-2
1031	G-3
1032	Đ-5
1033	G-3
1034	H-2
ĐIOĐE	
Đ1005	A-2
1009	B-5
1010	B-4
1011	B-4
1012	E-3
1013	F-3
1014	Đ-1
1017	B-2
1018	H-2
1019	H-2
1020	G-2
1021	F-3
1022	F-3
1023	G-3
1025	Đ-8
1026	Đ-8
1027	Đ-7

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

— A Board — (KV-27XBR25)



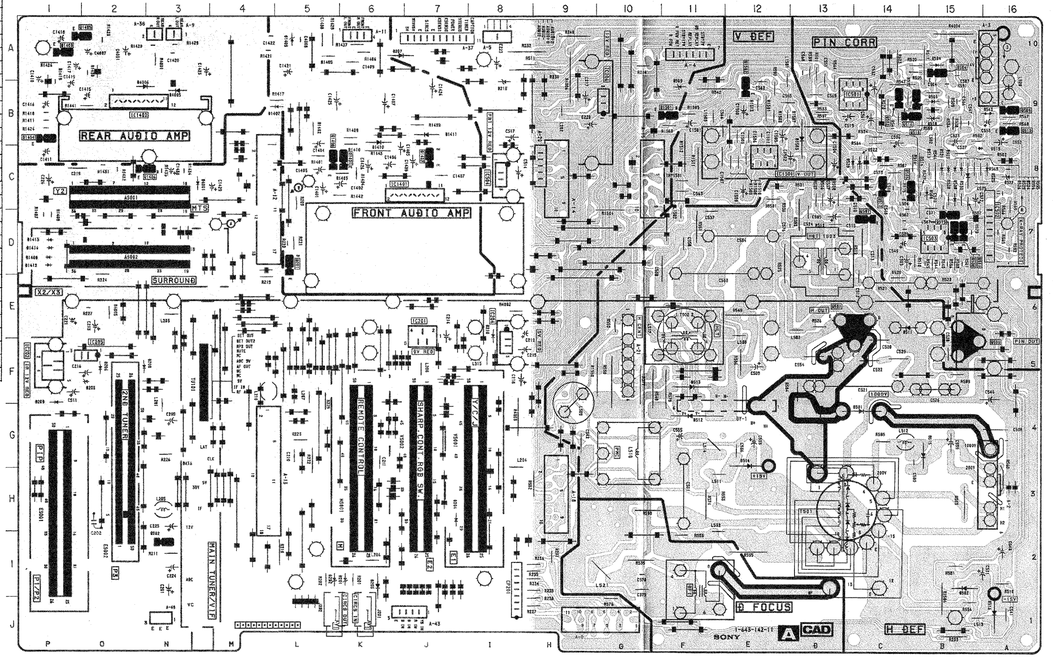
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

— A Board —

IC		510	G-9
		511	E-14
IC201	E-7	512	G-10
202	F-1	513	F-10
204	F-8	514	G-12
205	F-2	515	G-15
206	B-10	516	J-16
501	B-13	517	H-10
502	Ð-16	518	B-15
503	Ð-15	521	C-15
504	C-8	522	C-14
1401	C-7	524	C-15
1501	C-12	525	C-16
TRANSISTOR		527	C-16
		529	C-15
Q201	Ð-5	530	C-15
202	I-3	1407	B-5
501	E-13	1408	Ð-1
502	B-14	1409	A-5
503	I-9	1410	B-6
504	A-15	1408	Ð-1
505	C-14	1409	A-5
506	E-15	1410	B-6
507	Ð-14	1411	B-7
508	Ð-15	1412	Ð-1
509	B-16	1413	Ð-1
510	B-16	1414	Ð-1
511	Ð-15	1503	B-13
512	C-14	4001	C-3
513	B-14		
515	Ð-15		
516	B-14		
1401	C-6		
1407	C-7		
1408	C-5		
1501	B-11		
1502	B-12		
ÐIOÐE			
Ð201	I-6		
202	I-5		
204	H-7		
205	I-6		
206	F-2		
207	A-6		
208	F-2		
209	F-1		
213	A-8		
501	G-14		
502	I-5		
503	I-10		
504	A-15		
506	B-15		
508	C-15		
Ð509	B-11		

KV-27XBR25/32XBR25 RM-Y112 KV-27XBR25/32XBR25 RM-Y112

— A Board — (KV-32XBR25)



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

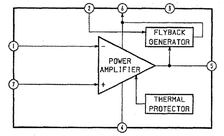
— A Board —

IC		516	J-16
		518	B-15
IC201	E-7	521	C-15
202	F-1	522	C-14
204	F-8	524	C-15
205	F-2	525	C-16
206	B-10	527	C-16
501	B-13	528	C-13
502	Ð-16	529	C-15
503	Ð-15	530	C-15
504	C-8	1407	B-5
1401	C-7	1409	A-5
1501	C-12	1410	B-6
TRANSISTOR		1411	B-7
		1503	B-13
Q201	Ð-5	4001	C-3
202	I-3	1411	B-7
501	E-13	1503	B-13
502	B-14	4001	C-3
504	A-15		
506	F-15		
507	Ð-14		
509	B-16		
510	B-16		
512	C-14		
513	B-14		
515	Ð-15		
516	B-14		
1401	C-6		
1407	C-7		
1408	C-5		
1501	B-11		
1502	B-12		
ÐIOÐE			
Ð201	I-6		
202	I-5		
204	H-7		
205	I-6		
206	F-2		
207	A-6		
208	F-2		
209	F-1		
213	B-8		
501	G-14		
502	I-15		
504	A-15		
506	B-15		
508	C-15		
509	B-11		
511	E-14		
512	G-11		
Ð513	F-11		
514	G-12		
515	G-15		

A BOARD * MARK NOTE
#:NOT MOUNTED

	KV-27XBR25	KV-32XBR25
A15	10P	#
C502	0.001 :PP	0.0022 :PP
503	10 50V	JW (S)
507	0.0015 :PT	#
509	10 200V	4.7 250V
518	0.047 :MPS	#
⚠ 520	0.001 2KV B	680P 2KV
⚠ 521	0.022 200V :MPP	0.023 2KV
⚠ 526	0.056 400V :PP	0.068 630V
527	0.15 :MPS	0.1 #
529	0.047 :MPS	#
530	0.33 200V :MPS	#
533	1.2 200V :MPP	2 200V :MPP
534	0.68 200V :MPP	1 200V :MPP
536	0.1 200V :PT	0.15 200V :PT
543	0.0047 630V :PP	#
544	0.47 160V	#
545	220P 500V	#
547	0.001	#
548	470P :PT	#
550	0.001 630V :PP	#
553	10 50V	#
555	110 250V	#
559	0.022 630V :PP	#
560	0.22 :MPS	#
566	#	0.015
569	0.15 :PT	0.15 :MPS
576	0.0033 200V :PT	#
578	#	0.01 200V :PT
579	#	0.047 200V :PT
1507	0.12 100V :PT	0.15 160V :PT
1511	SP CH	#
Q503	ERA38-06	#
510	1SS119	#
517	ERB24-060	#
528	JW (S)	1SS119
1408	1SS119	#
1412	1SS119	#
1413	1SS119	#
1414	1SS119	#
IC502	PM-30	PM-29
IC504	RC7812FA	PM-29
JW59	17.5MM	UPC2412HF
40	#	5MM
42	#	17.5MM
63	7.5MM	#
64	10MM	#
68	#	5MM
Q503	2SC3840K	#
505	2SA1309A	#
508	2SC5311A	JW (S) B-E
511	2SA1309A	#
THP1501	1-807-925-11	1-807-976-11
1501	2.5mH H.C.CIL	#
504	10nH :LHL08	#
507	68nH	#
514	1.44H	#
⚠ 517	#	HLC 1-459-978-21
521	#	7.5mH 1-459-148-13
1501	33nH :LHL08	10nH :LHL08
1502	JW (S)	10nH :LHL08
1503	33nH :LHL08	10nH :LHL08
R501	15K	7.5K 1/4W :RN
502	15K	JW (S)
511	27 1/4W :FPRD	22 1/4W :FPRD
516	1.5K	#
518	47K	JW (S)
527	1K	#
531	18K	#
534	150K	150K
535	#	22 1/4W :FPRD
536	10K	#
538	150K	68K
540	47K	#
542	220 2W :RS	470 2W :RS
543	330	JW (S)
544	100K	JW (S)
545	JW (S)	#
548	330 2W F :RS	68 2W F :RS
550	47 3W F :RS	68 3W F :RS
556	2.7K 2W F :RS	#
559	12K 1W F :RS	#
561	270	#
562	7.5K 1/4W :RN	#
564	180K 1/4W :RN	110K 1/4W :RN
570	56	#
574	22 2W F :RS	#
575	2.7K 2W F :RS	#
577	150 2W F :RS	#
578	33 2W F :RS	JW (S)
579	100K	#
580	100K	#
583	100K	#
584	56K 1/4W :RN	82K 1/4W :RN
588	680	JW (S)
591	220K	#
596	18K	#
598	#	0.47 1/4W :FPRD
1502	3.3K 1/4W :RN	4.3K 1/4W :RN
1504	JW (S)	#
1509	27K 1/4W :RN	47K 1/4W :RN
1512	1 2W F :RS	1.5 2W F :RS
1550	JW (S)	15 2W :RS
⚠ T501	NX-3000A2	NX-2602A3
⚠ S92	HLT	#
503	HBT 1-437-195-13	HBT 1-437-217-11
504	BFT	#
505	#	BFT 1-418-059-11

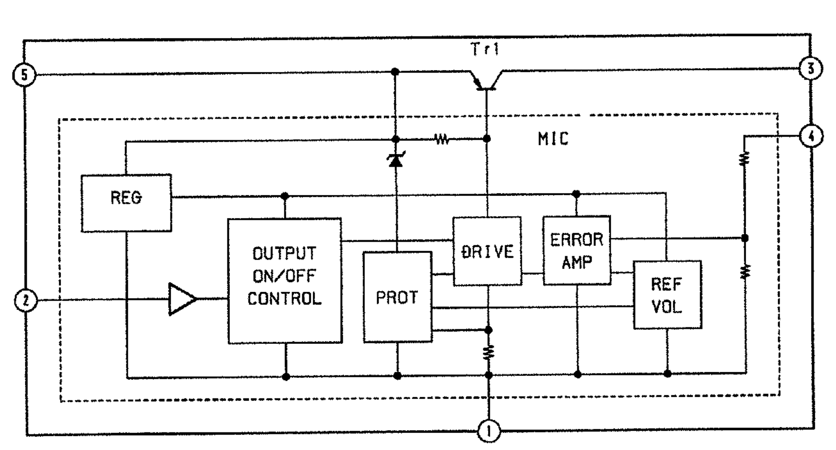
A BOARD IC1501 TDA8179



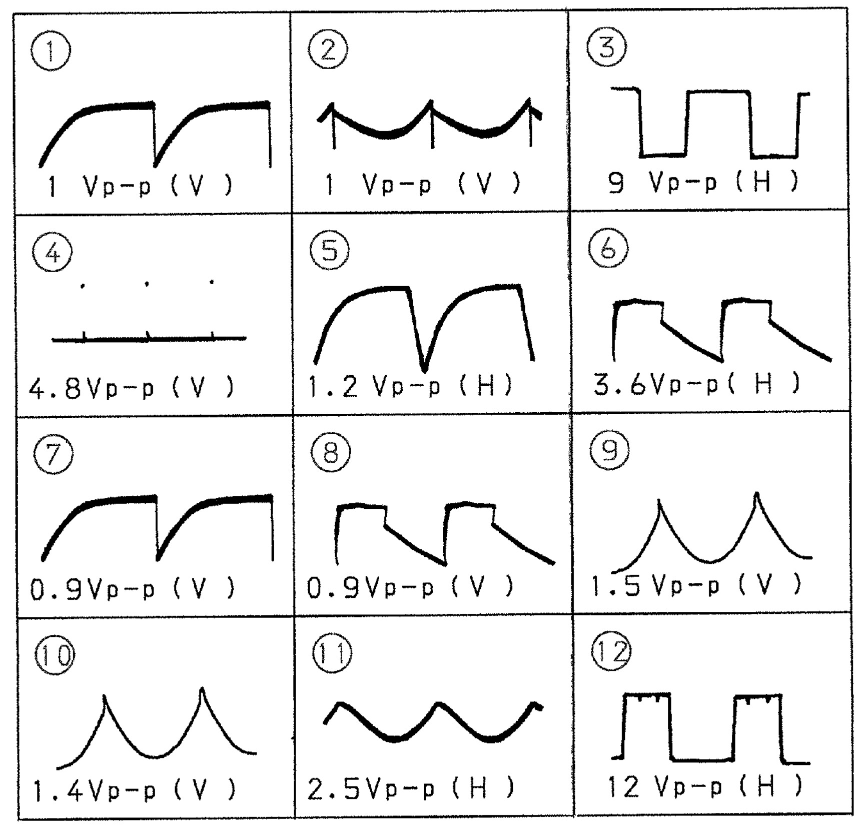
— A Board —

① 5.0Vp-p (H)	② 4.2Vp-p (V)	③ 2.4Vp-p (H)
④ 2.4Vp-p (H)	⑤ 2.4 Vp-p (H)	⑥ 2.4 Vp-p (H)
⑦ 88.0Vp-p (H)	⑧ 4.4Vp-p (V)	⑨ 4.2 Vp-p (H)
⑩ 2.0Vp-p (V)	⑪ 0.6Vp-p (V)	⑫ 30.1Vp-p (V)
⑬ 60.0Vp-p (V)	⑭ 160Vp-p (H)	⑮ 1000Vp-p (H)
⑯ 3.5Vp-p (H)	⑰ 150Vp-p (H)	⑱ 9.0 Vp-p (H)
⑲ 20.0Vp-p (H)	⑳ 9.6Vp-p (H)	㉑ 9.0Vp-p (V)
㉒ 6.0Vp-p (H)	㉓ 10.0Vp-p (H)	㉔ 6.4Vp-p (H)
㉕ 18.0Vp-p (H)	㉖ 2.8Vp-p (V)	㉗ 150 Vp-p (H)
㉘ 290Vp-p (V)		

D BOARD IC801 SI-3090CA



— D Board —

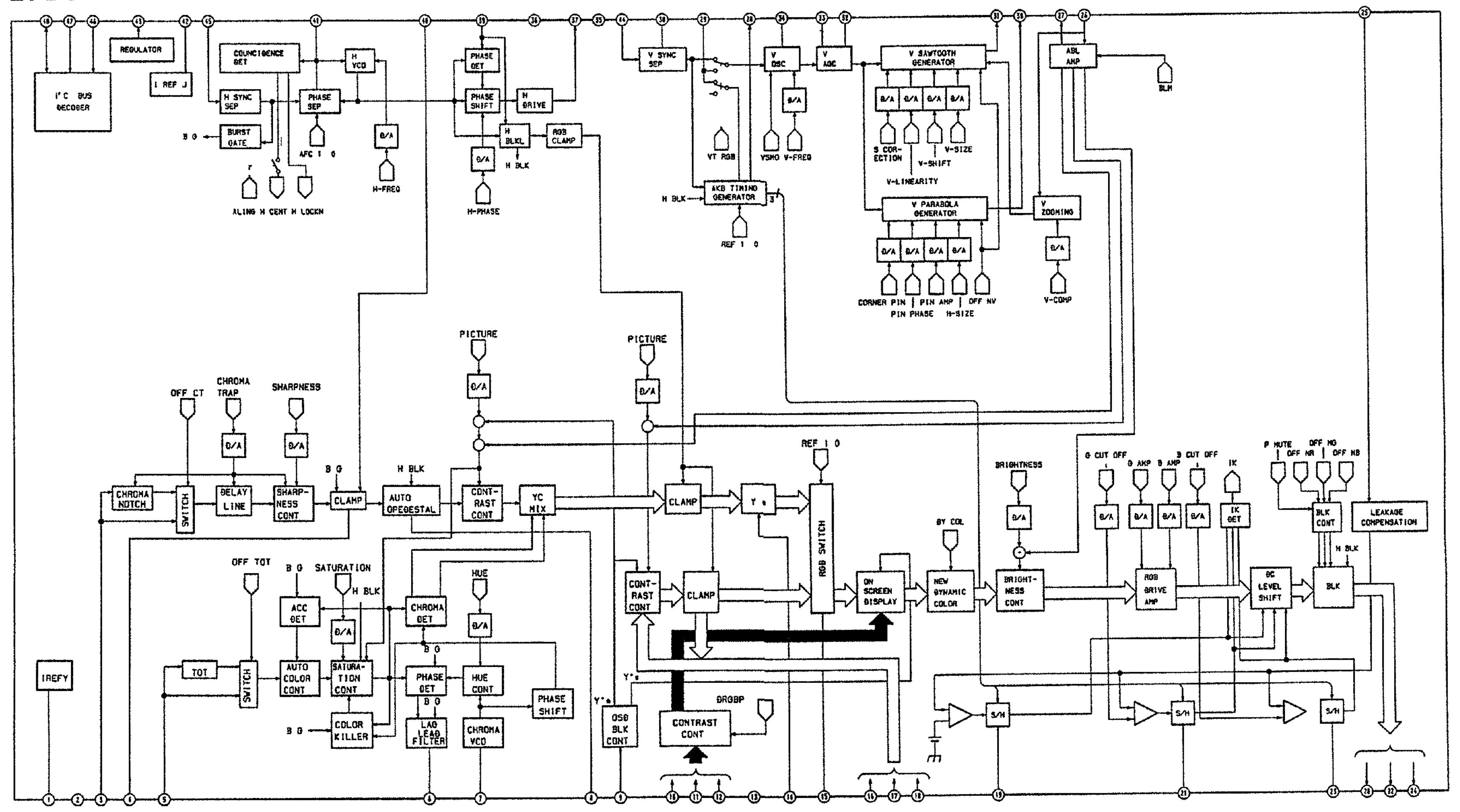


D BOARD * MARK NOTE #:NOT MOUNTED

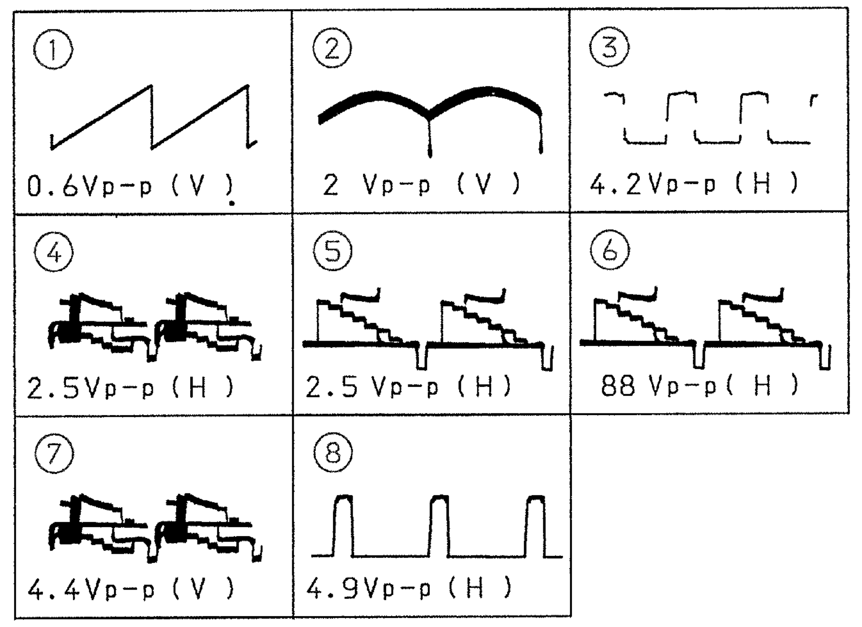
	KV-27XBR25	KV-32XBR25
C901	0.47 .MPS	#
902	10 50V	#
903	0.022 MPS	#
904	0.001 MPS	#
905	10 50V	#
906	10 160V	#
907	0.47 50V	#
908	330P	#
910	0.24 200V PP	JW (10)
911	1 MPS	JW (5)
916	0.0047 PT	0.001 PT
920	0.022 PP	0.12 PP
922	1000 25V	#
923	0.001 PT	#
925	10 50V	#
926	0.068 MPS	#
928	10 50V	#
929	#	0.001 .PT
D813	RD5 6ESB	#
901	1SS119	#
902	RD6 8ESB	#
906	ERA81-004	#
907	1SS119	#
908	ERA81-004	#
911	1SS119	#
IC901	μPC358C	#
JW5	15MM	#
6	15MM	#
8	10MM	#
16	7.5MM	7.5MM
17	10MM	#
45	#	10MM
L902	7.5MH	#
904	#	7.5MH
905	#	PMC 150μH
Q901	2SA1309A	#
902	2SC3311A	#
903	2SC3311A	#
904	2SA1309A	#
905	2SA1309A	#
906	2SC2688	#
907	2SC2688	#
908	2SB860	#
909	2SD774	#
914	2SA1309A	#

	KV-27XBR25	KV-32XBR25
R805	330	#
817	3.9K	3.3K
825	47 1W F.RS	10 1W F RS
832	#	150 2W F RS
901	4 7K	#
902	56K	#
903	10K	#
904	10K	#
905	10K	#
906	4 7K	#
907	10K	#
908	33K	#
909	22K	#
910	39K	#
911	470K	#
912	10K	#
913	4.7K	#
914	47	#
915	6.8K	#
916	2.2K	#
917	68K	#
918	470	#
919	18K	#
920	1.2K 1/4W ·FPRD	#
921	15K 1W ·RS	#
922	68 1W RS	#
923	10K	JW (5)
924	3 3K	#
925	680	#
926	220	#
932	22K	3 3K
942	JW (15)	1K 2W F RS
944	22K	#
945	470K	#
946	4.7K	#
947	680 1/4W FPRD	#
948	68K	JW (5)
950	4 7K	#
952	100	#
953	270K	#
954	270K	#

E1 BOARD IC302 CXA1465AS

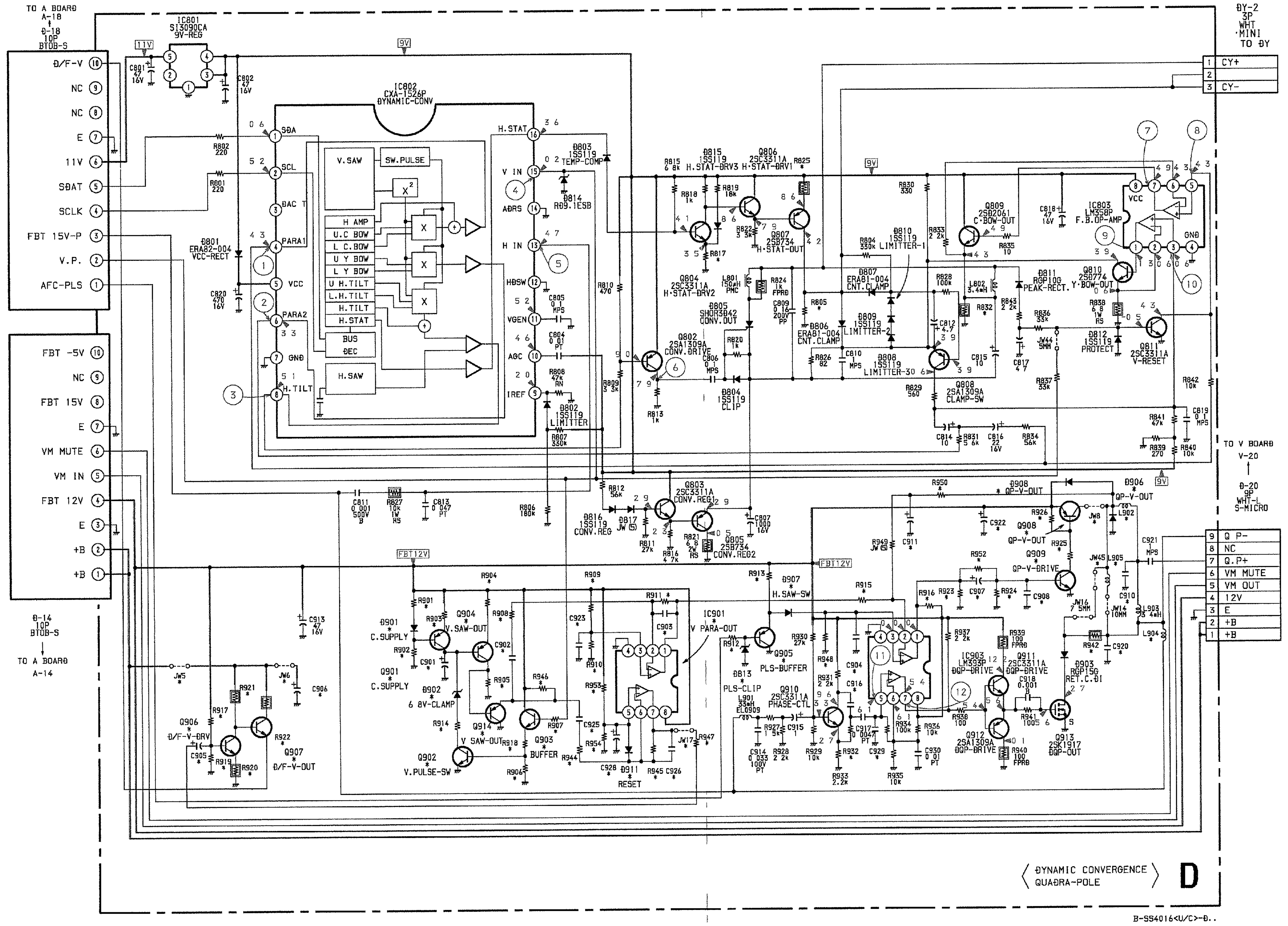


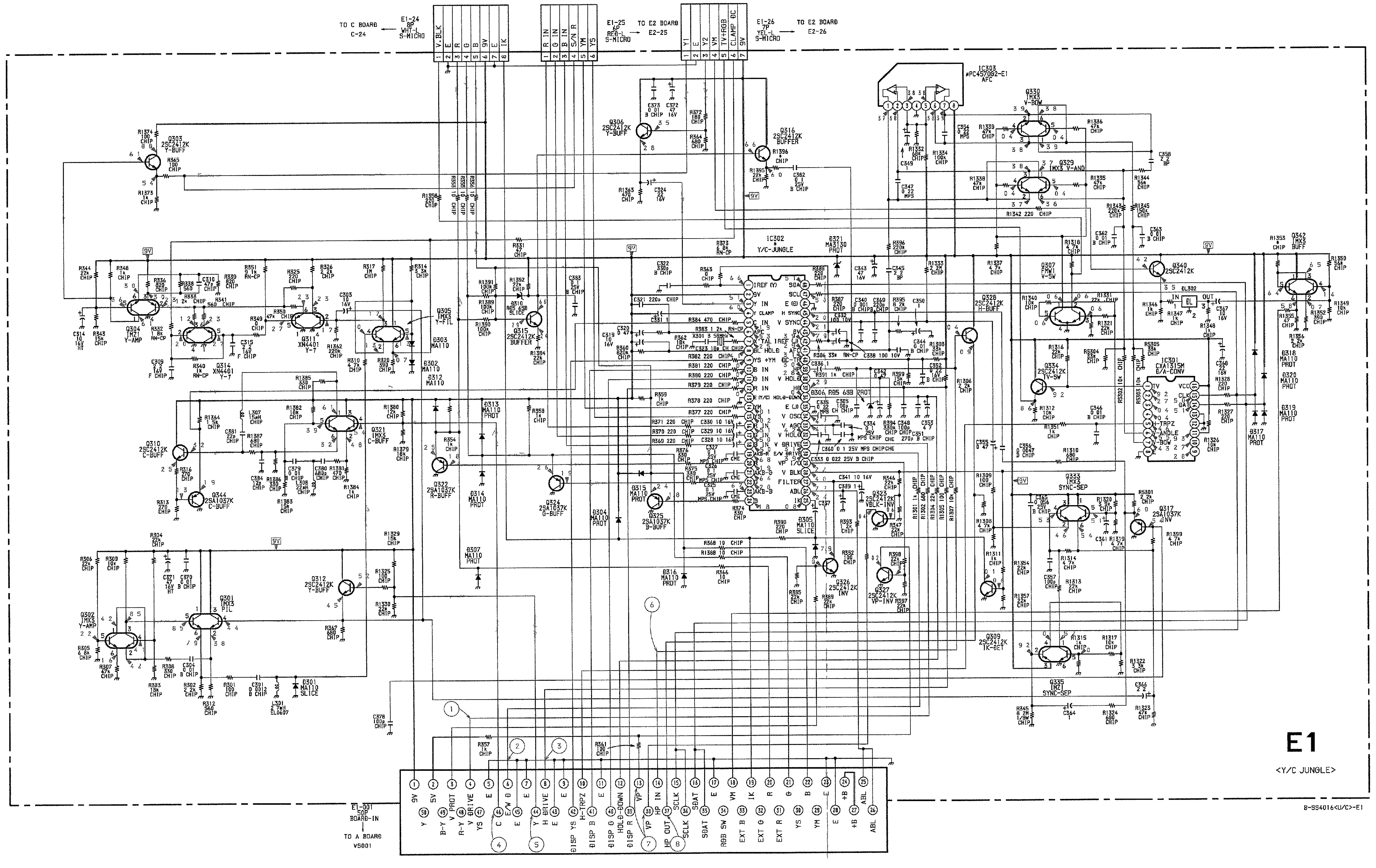
— E1 Board —



E1 BOARD* MARK NOTE
#:NOT MOUNTED

	KV-27XBR25	KV-32XBR25
C306	82P 50V	100P 50V
R1353	910 1/10W :CHIP	1.5K 1/10W :CHIP
1396	1M 1/10W :CHIP	1.5M 1/10W :CHIP

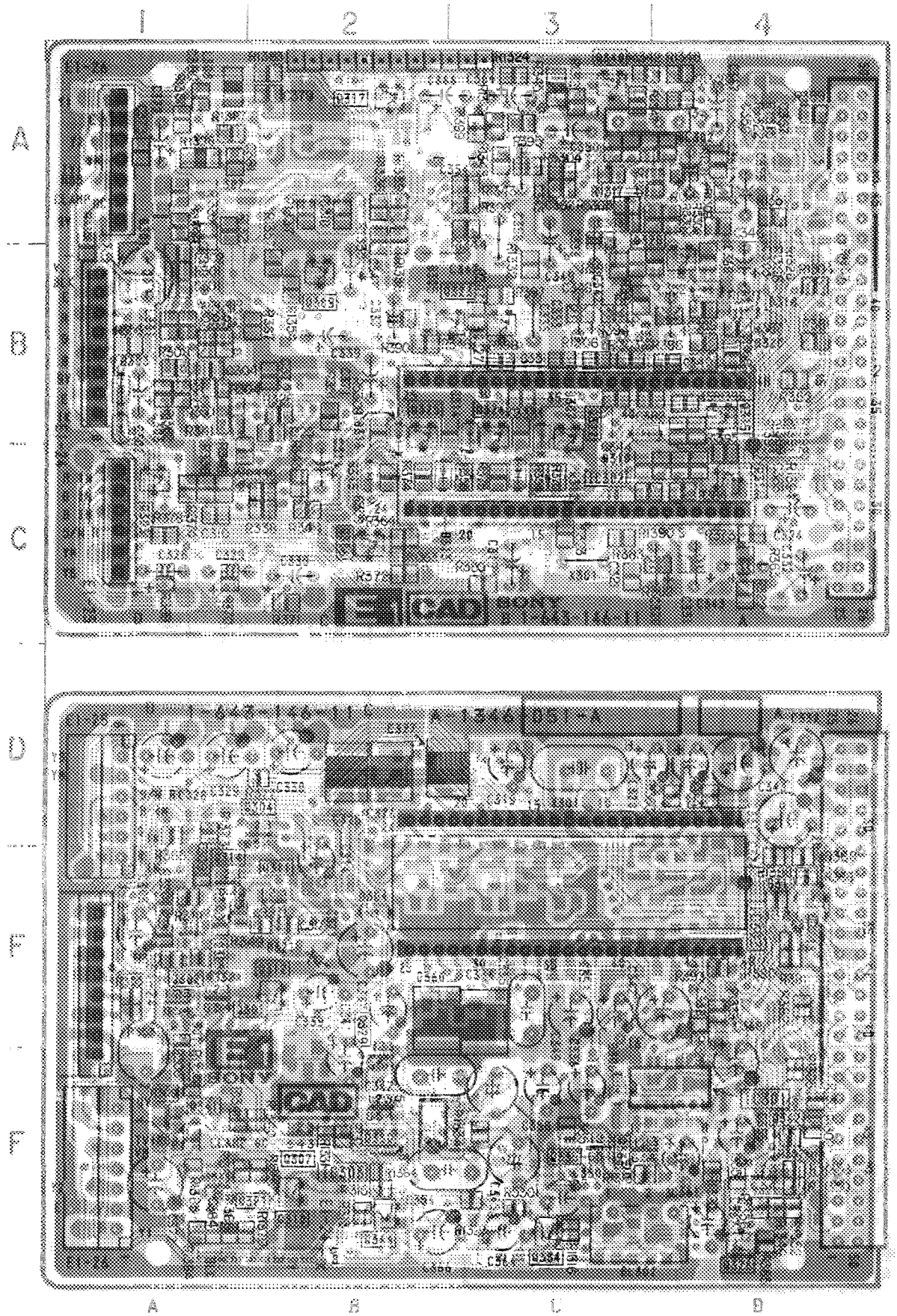




E1 [Y/C JUNGLE]

— E1 Board —

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



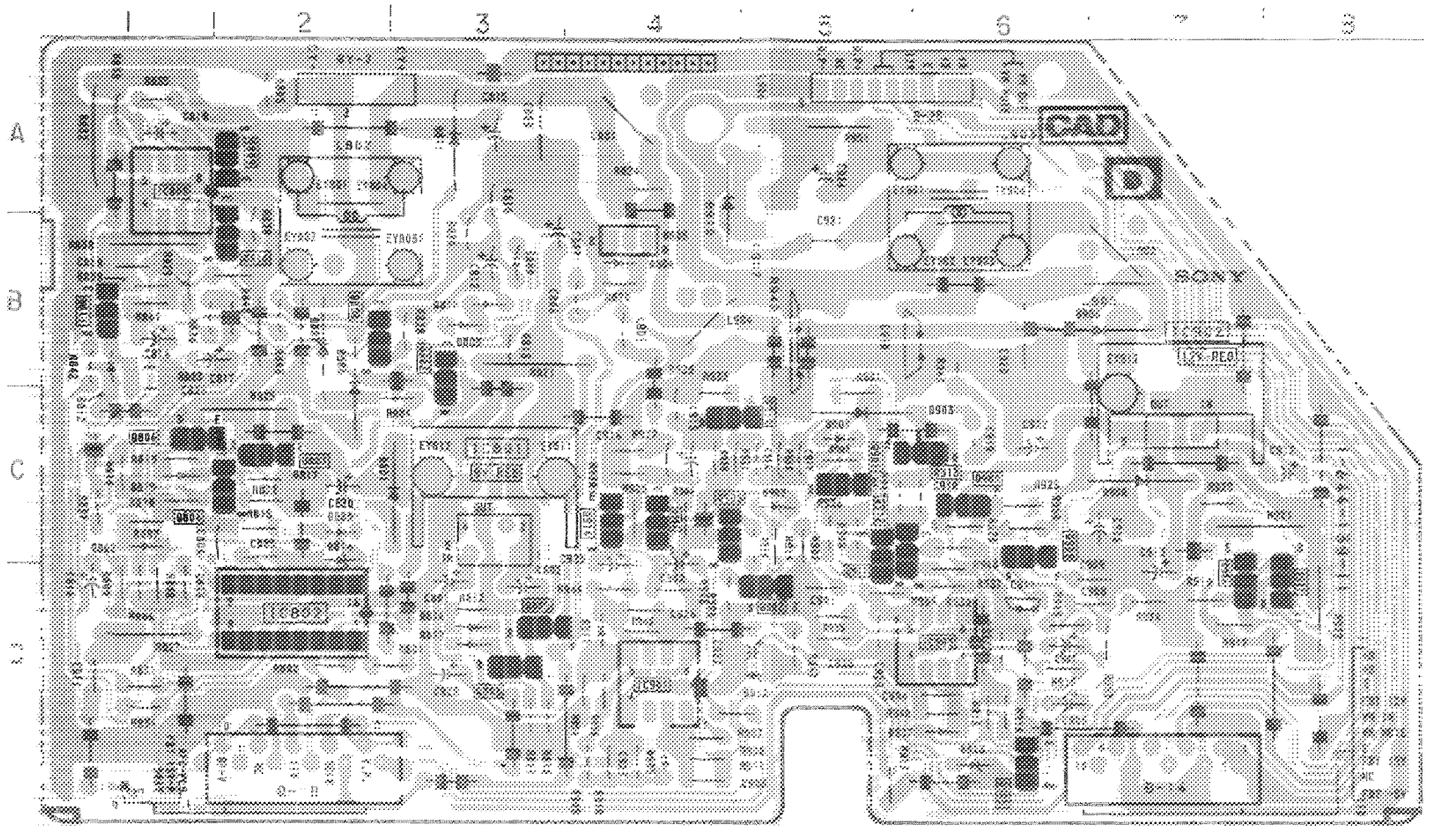
KV-27XBR25/32XBR25
RM-Y112

D [DYNAMIC CONVERGENSE, QUADRA-POLE]

— E1 Board —

IC	
IC301	F-4
302	B-3
303	F-2
TRANSISTOR	
Q301	E-2
302	E-1
303	C-1
304	Đ-2
305	E-1
306	C-2
307	F-2
309	B-2
310	F-2
311	E-2
312	E-2
314	E-1
315	B-4
316	C-4
317	A-2
321	F-1
322	B-3
323	B-3
324	B-3
325	B-2
326	F-4
327	B-3
328	B-4
329	F-2
330	F-2
333	F-4
334	F-3
335	F-3
340	A-3
342	F-4
344	F-2
ĐIOĐE	
Đ301	B-1
302	B-1
303	B-1
304	E-2
305	B-2
306	F-3
307	B-3
310	B-3
312	C-3
313	C-2
314	B-3
315	C-2
316	B-2
317	E-4
318	B-4
Đ319	E-4
320	B-4
321	E-2

— D Board —

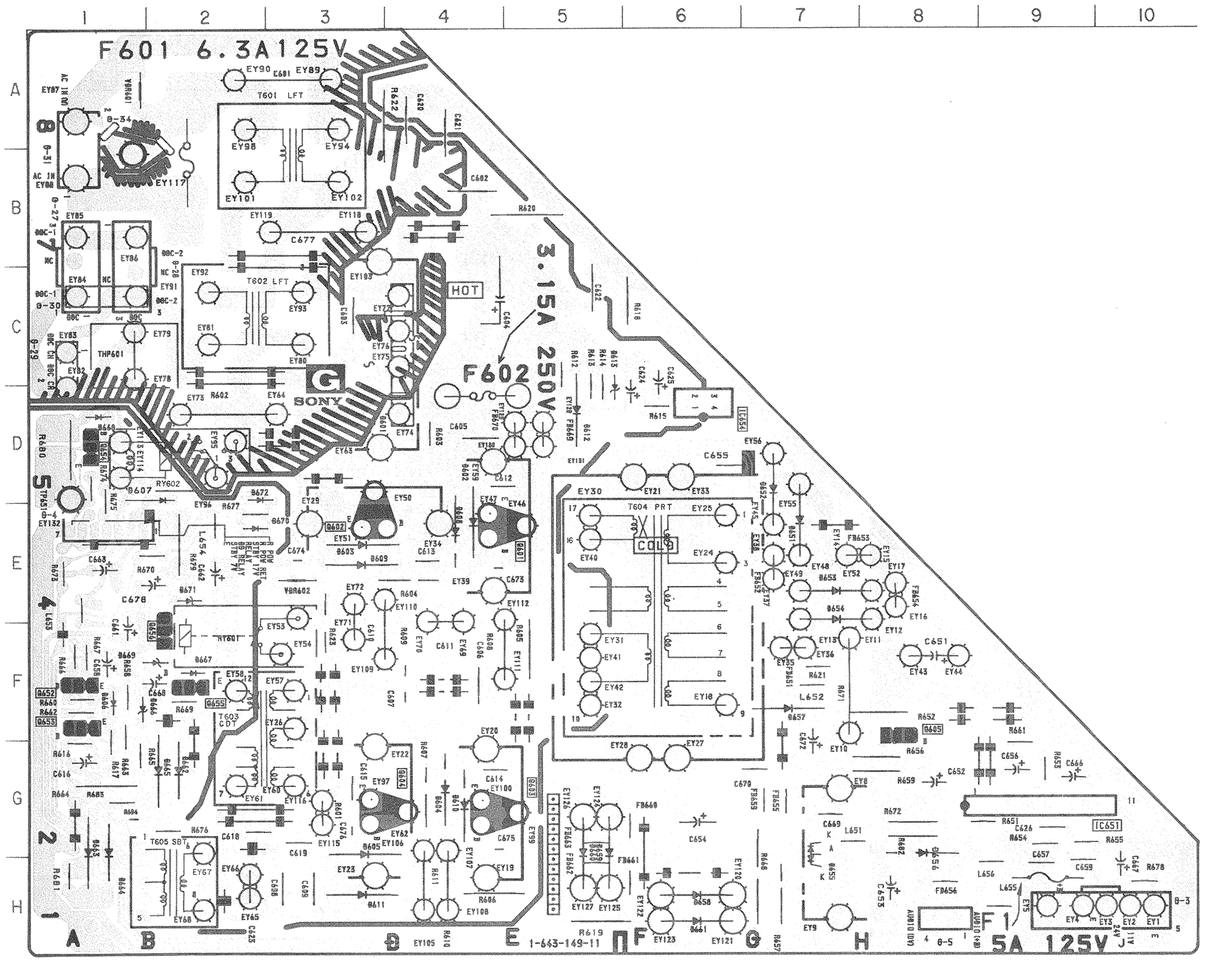


— D Board —

IC	
IC801	C-3
802	Đ-2
803	A-1
901	Đ-4
903	Đ-6
TRANSISTOR	
Q802	B-3
803	Đ-3
804	C-2
805	Đ-3
806	C-1
807	C-2
808	B-2
809	A-2
810	B-2
811	B-1
901	C-5
902	Đ-5
903	C-4
904	C-4
905	Đ-6
906	Đ-7
907	Đ-8
908	C-6
909	C-6
910	C-4
911	C-5
912	C-5
913	C-6
914	C-4
ĐIOĐE	
Đ801	C-3
802	C-1
803	C-2
804	B-4
805	B-4
806	B-2
807	B-2
808	B-3
809	B-3
810	B-3
811	A-3
812	B-1
813	Đ-6
814	C-2
815	C-1
816	Đ-3
901	C-5
902	C-5
903	C-5
Đ906	B-7
907	Đ-6
908	C-7
911	Đ-4
911	Đ-4

G [POWER SUPPLY, DEGAUSSING CIRCUIT]

— G Board —



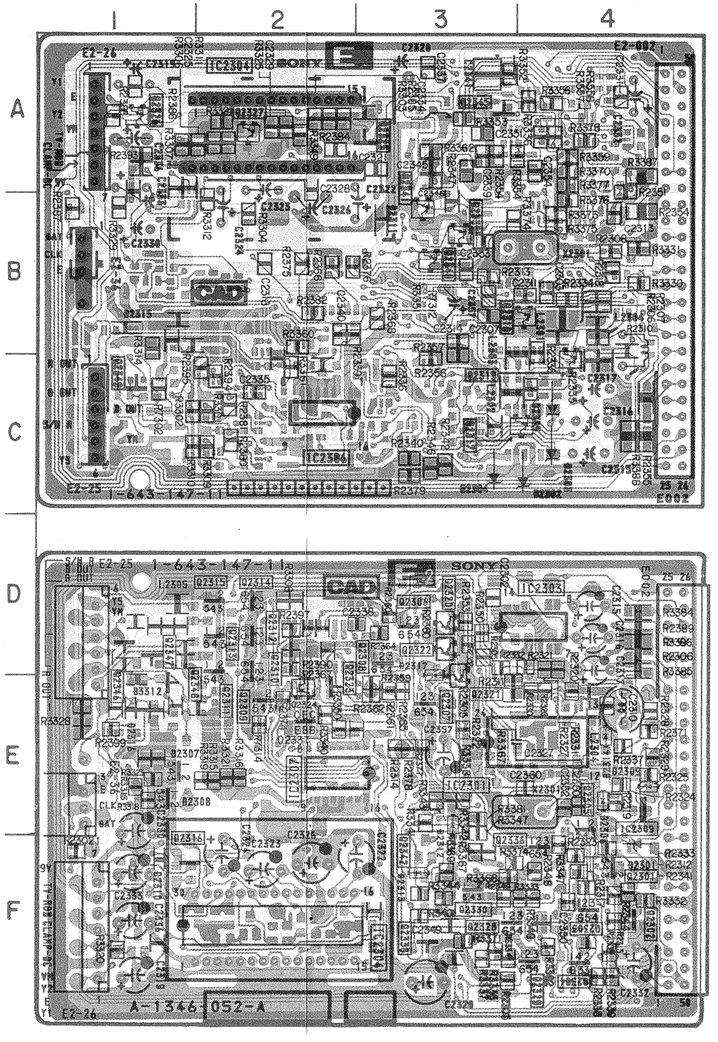
— G Board —

IC	
IC651	G-9
654	Ð-6
TRANSISTOR	
Q601	E-4
602	E-3
603	G-4
604	G-3
605	F-8
652	F-1
653	F-1
654	Ð-1
655	F-2
656	F-2
ÐIOÐE	
Ð601	C-4
602	E-4
603	E-3
604	G-4
605	G-3
606	F-1
607	Ð-2
608	E-4
609	E-3
610	G-4
611	H-3
612	Ð-5
613	Ð-5
651	E-7
652	Ð-7
653	E-7
654	E-7
655	G-7
656	G-8
657	F-7
658	H-6
659	G-5
660	G-5
661	H-6
663	G-1
665	G-2
666	F-1
667	F-2
668	Ð-1
669	F-2
670	E-2
671	E-2
672	Ð-2
TEST POINT	
TP651	Ð-1

KV-27XBR25/32XBR25
RM-Y112

E2 [SHARPNESS CONT., CHARACTOR GENERATOR]

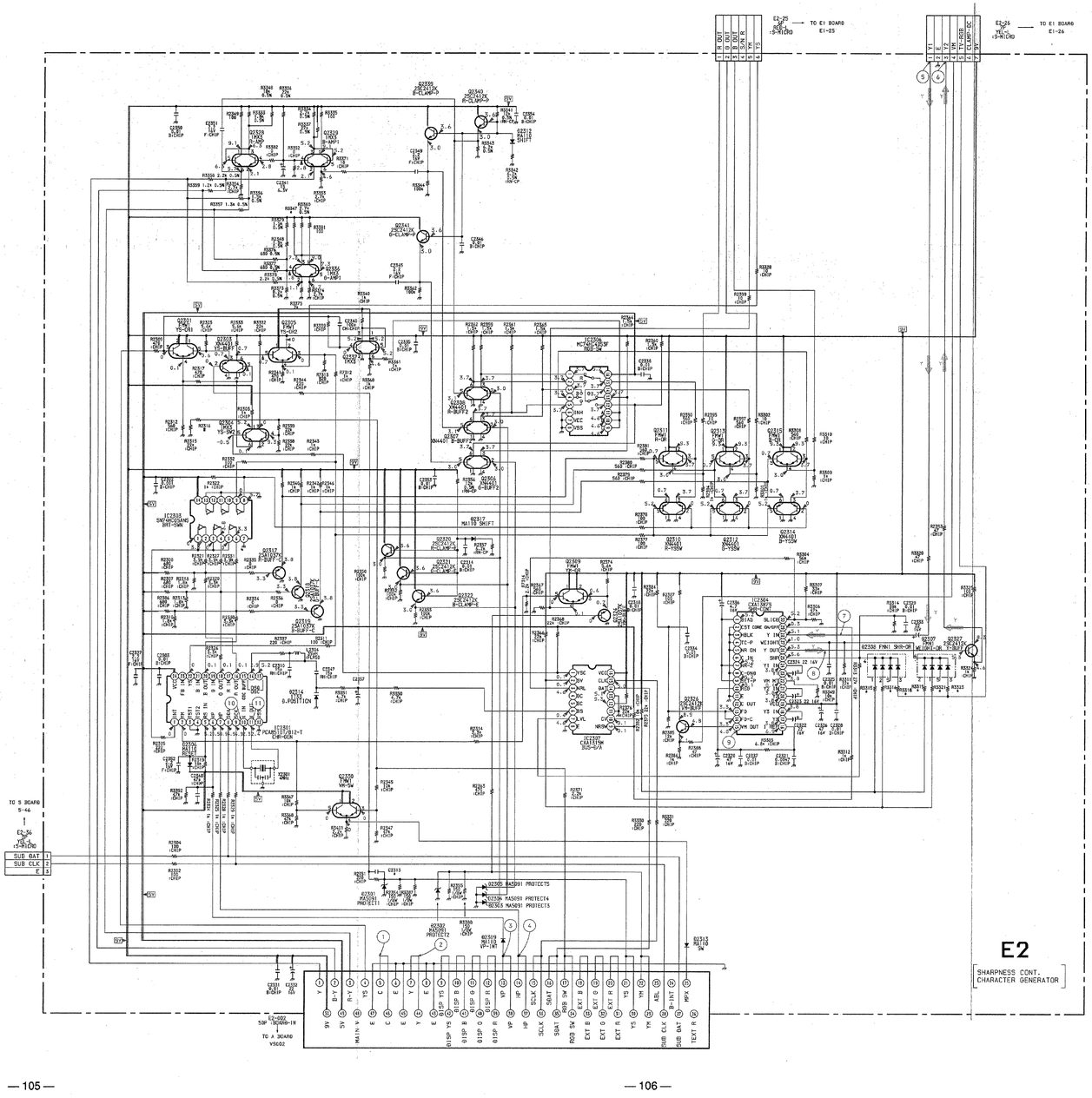
— E2 Board —



— E2 Board —

IC		Ð1411	B-7
		1412	Ð-1
IC2301	E-4	1413	Ð-1
2303	Ð-4	1414	Ð-1
2304	A-2	1503	B-13
2306	C-2	4001	C-3
2307	E-2		
TRANSISTOR			
Q2301	F-4		
2303	F-4		
2304	F-4		
2305	E-4		
2306	Ð-3		
2307	E-3		
2308	Ð-3		
2309	E-2		
2310	Ð-2		
2311	Ð-2		
2312	Ð-2		
2313	Ð-2		
2314	Ð-2		
2315	Ð-2		
2317	C-4		
2318	B-4		
2319	C-4		
2320	Ð-3		
2321	Ð-3		
2322	Ð-3		
2324	E-2		
2326	A-1		
2327	A-2		
2328	F-3		
2329	F-4		
2330	F-3		
2336	F-4		
2337	E-2		
2339	B-3		
2340	B-3		
2341	B-3		
ÐIOÐE			
Ð2301	F-4		
2302	C-4		
2303	C-4		
2304	C-3		
2305	C-4		
2306	F-4		
2307	E-1		
2308	E-1		
2309	E-4		
2312	E-3		
2313	F-3		
2314	E-4		
2317	Ð-3		

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



E2BOARD *:MARK NOTE
#:NOT MOUNTED

	KV-27XBR25	KV-32XBR25
C2313	470P	#
R3315	15K 1/10W :CHIP	47K 1/10W :CHIP
3316	15K 1/10W :CHIP	8.2K 1/10W :CHIP
3318	56K 1/10W :CHIP	82K 1/10W :CHIP
3319	22K 1/10W :CHIP	82K 1/10W :CHIP
3321	18K 1/10W :CHIP	6.8K 1/10W :CHIP
3323	56K 1/10W :CHIP	150K 1/10W :CHIP
3347	27K 1/10W :RN-CP	33K 1/10W :RN-CP

— E2 Board —

E2 BOARD IC2304 CXA1387S

G BOARD
* MARK NOTE #:NOT MOUNTED

	KV-27XBR25	KV-32XBR25
⚠G-27	3P WHT :MINI (LOCK)	#
⚠G-28	3P WHT :MINI (LOCK)	#
⚠G-30	#	2P WHT :MINI
Q601	2SC4664NPR-F	2SC4664MNP-F
602	2SC4664NPR-F	2SC4664MNP-F
603	2SC4664NPR-F	2SC4664MNP-F
604	2SC4664NPR-F	2SC4664MNP-F
R609	1.8 1W	1.5 1W
610	1.8 1W	1.5 1W
⚠THP601	1-809-539-11	1-800-686-43

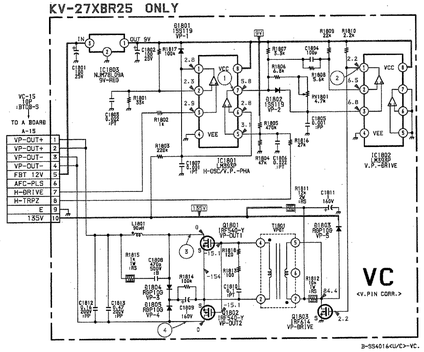
CAUTION (US MODEL ONLY)
This set is equipped with a polarized ac power cord plug (one blade of the plug is wider than the other). When replacing the ac power cord, be sure to connect it with specified part number as shown in this diagram.

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

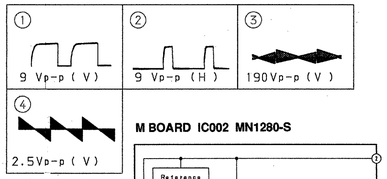
CAUTION
As there are two kinds of ground on this board, be careful when measuring the voltages.

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

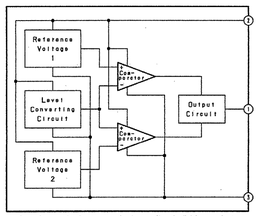
KV-27XBR25 ONLY



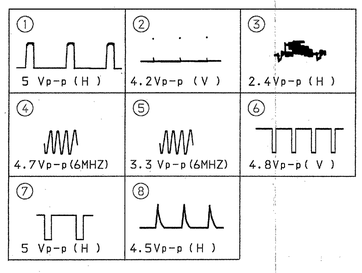
— VC Board —

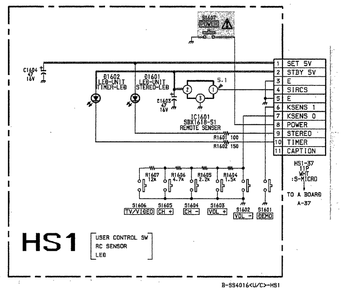


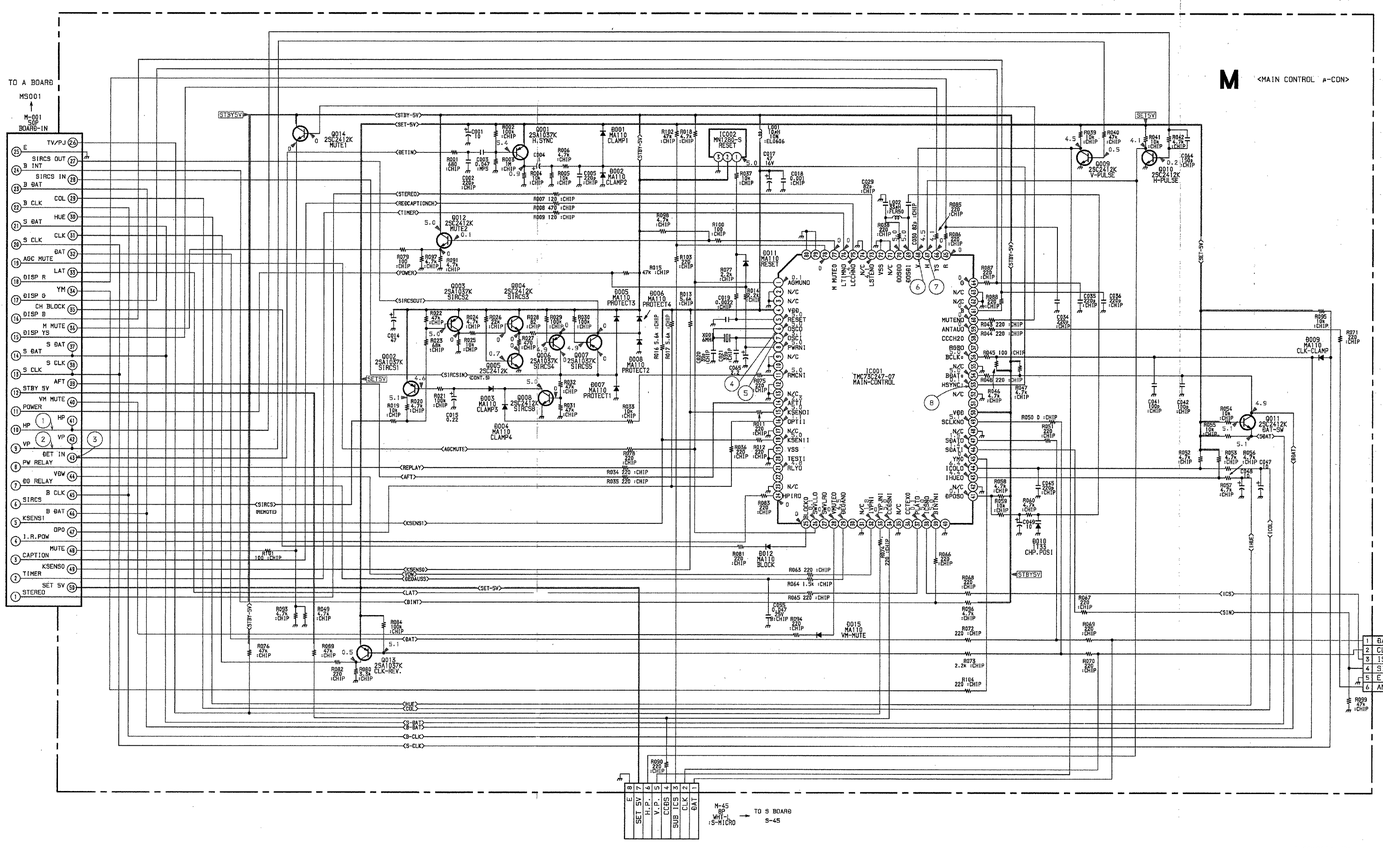
M BOARD IC002 MN1280-S

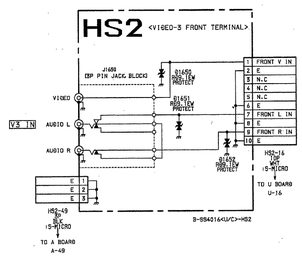


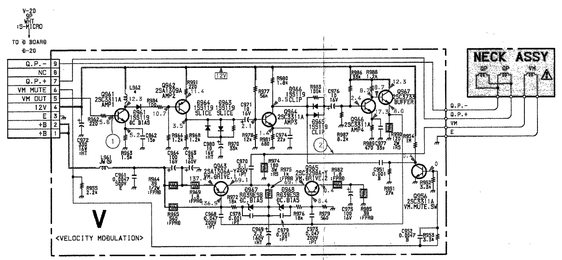
— M Board —



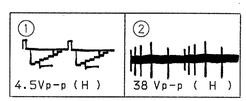








— V Board —



V BOARD *:MARK NOTE
#:NOT MOUNTED

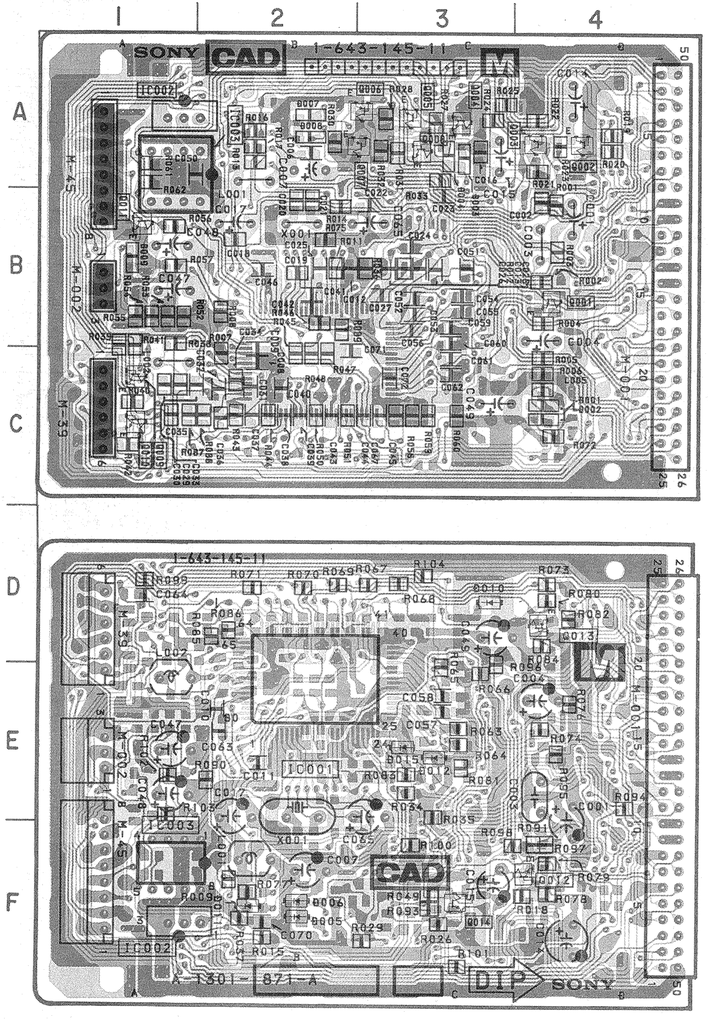
	KV-27XBR25	KV-32XBR25
L962	39UH	47UH

KV-27XBR25/32XBR25
RM-Y112
KV-27XBR25/32XBR25
RM-Y112

M [MAIN CONTROL u-CON]

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

— M Board —



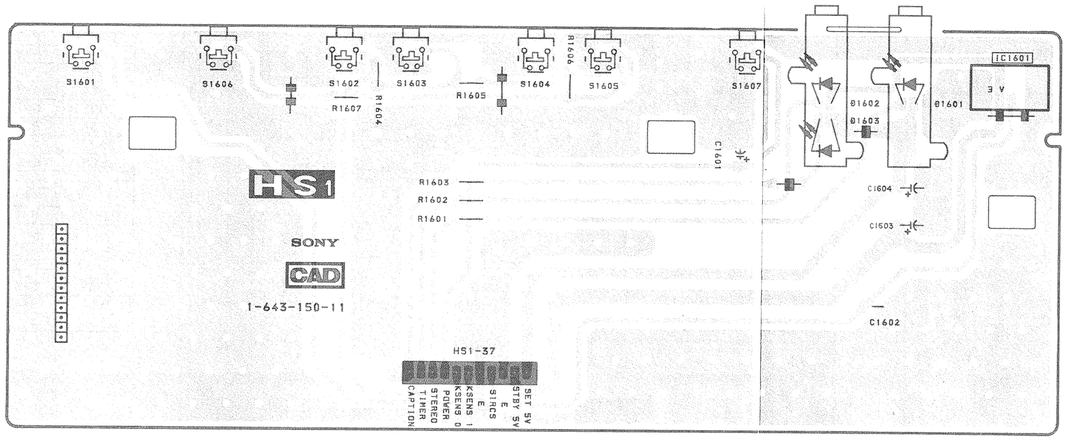
— 113 —

— M Board —

IC	
IC001	E-2
002	A-1
TRANSISTOR	
Q001	B-4
002	A-4
003	A-4
004	A-3
005	A-3
006	A-3
007	A-3
008	A-3
009	C-1
010	C-1
011	B-1
012	F-4
013	Ð-4
014	F-3
ÐIOÐE	
Ð001	C-4
002	C-4
003	A-3
004	A-3
005	F-2
006	F-2
007	A-2
008	A-2
009	B-1
010	Ð-3
011	F-2
012	E-3
015	E-3

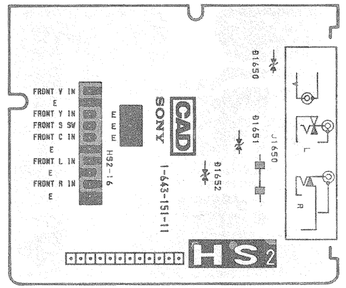
HS1 [USER CONTROL SW, RC SENSOR, LED]

— HS1 Board —



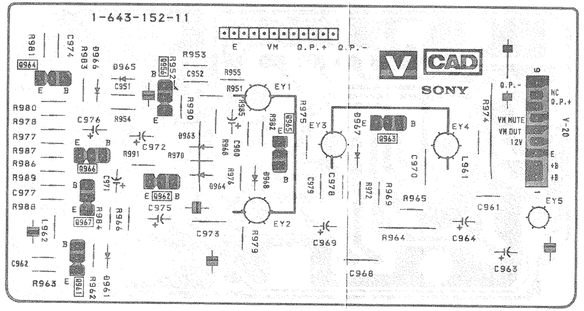
HS2 [VIDEO-3 FRONT TERMINAL]

— HS2 Board —



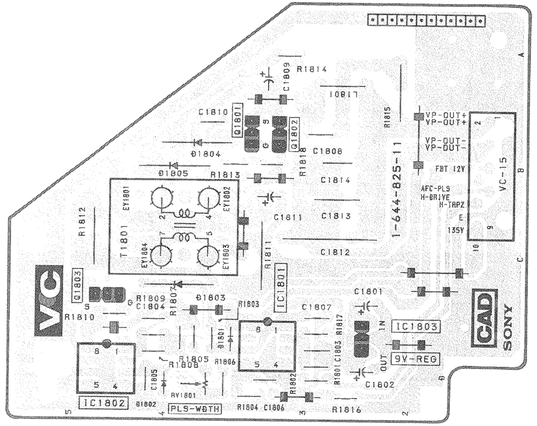
V [VELOCITY MODULATION]

— V Board —



VC [V.PIN CORR.] [KV-27XBR25 ONLY]

— VC Board — (KV-27XBR25)

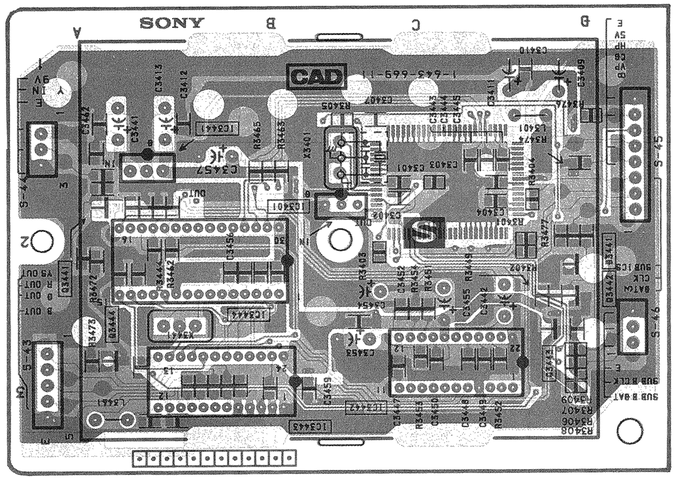


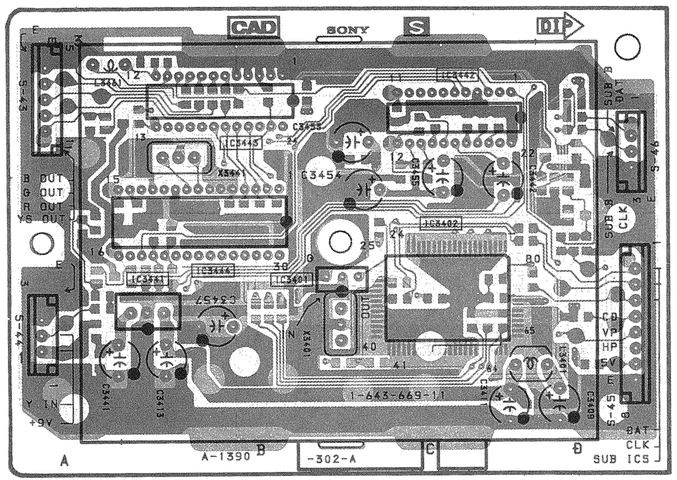
— 114 —

— 115 —

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

— S Board —



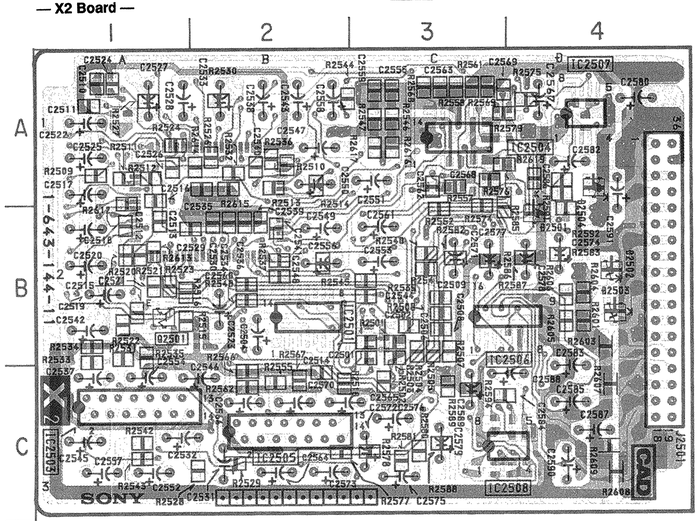


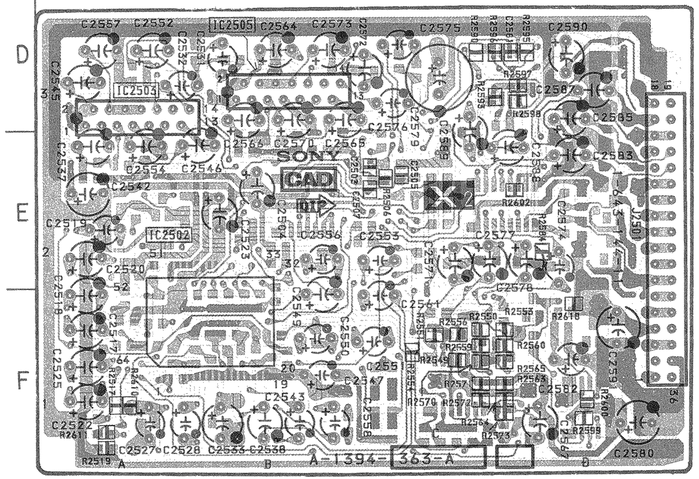
• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

X2 [SRS SURROUND]

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

— X2 Board —





— X2 Board —

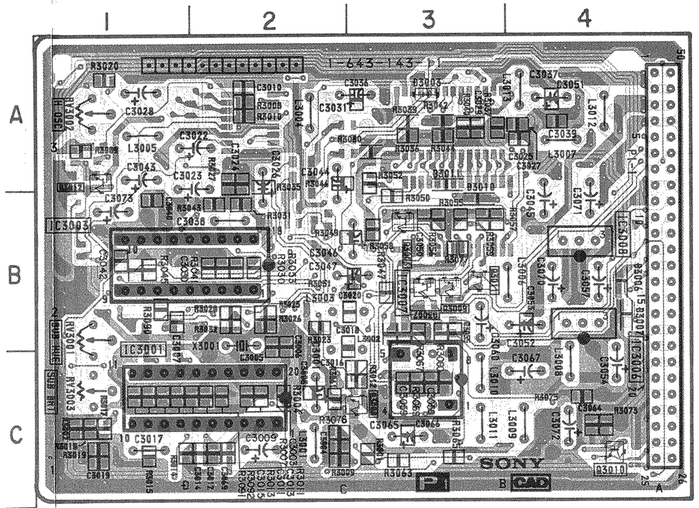
IC	
IC2501	B-2
2502	F-2
2503	C-1
2504	A-3
2505	C-2
2506	B-4
2507	A-4
2508	C-4
TRANSISTOR	
Q2501	B-1
DIODE	
D2501	B-4
2502	B-4
2503	B-4
2504	A-4

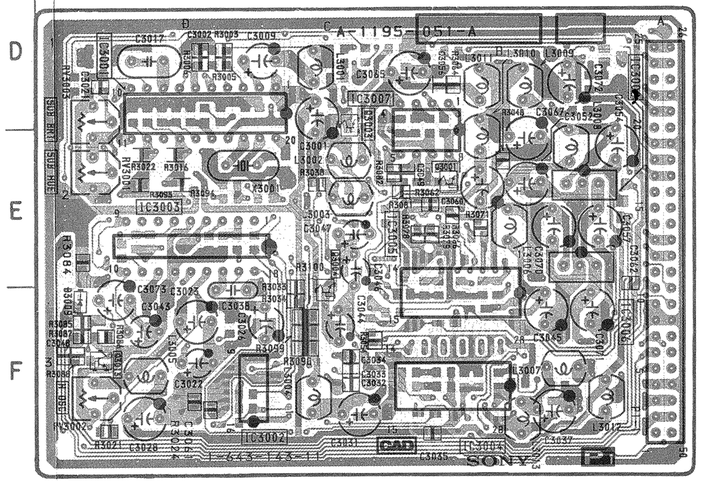
KV-27XBR25/32XBR25
RM-Y112

P1 [PICTURE IN PICTURE CIRCUIT]

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

— P1 Board —





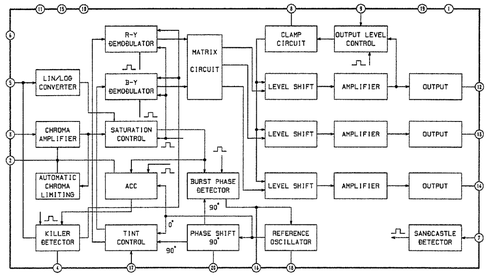
— P1 Board —

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

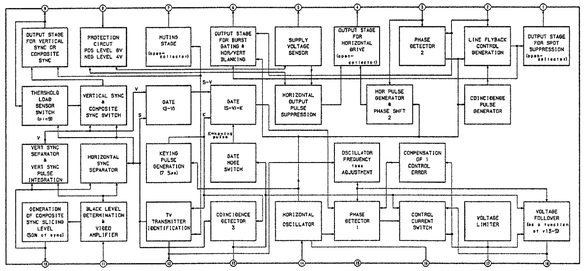
— P1 Board —

① 4.8Vp-p (H)	② 3.5Vp-p (V)	③ 4.5Vp-p (H)
④ 5 Vp-p (H)	⑤ 4 Vp-p (V)	⑥ 12 Vp-p (H)

P1 BOARD IC3001 TDA3769

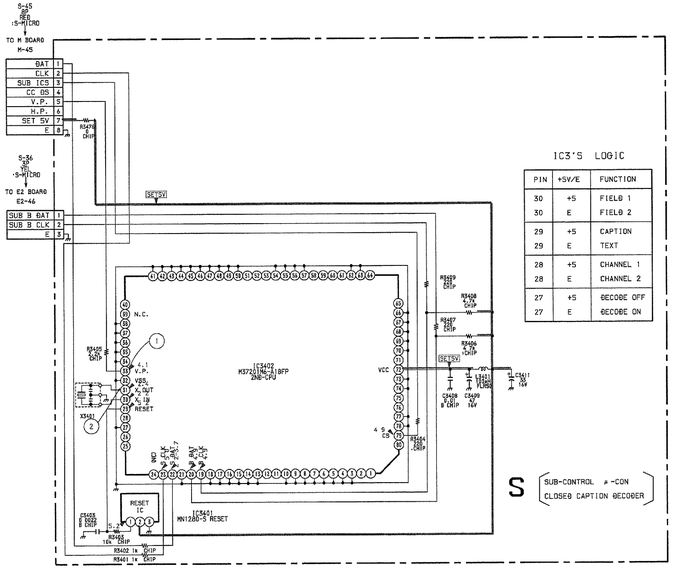


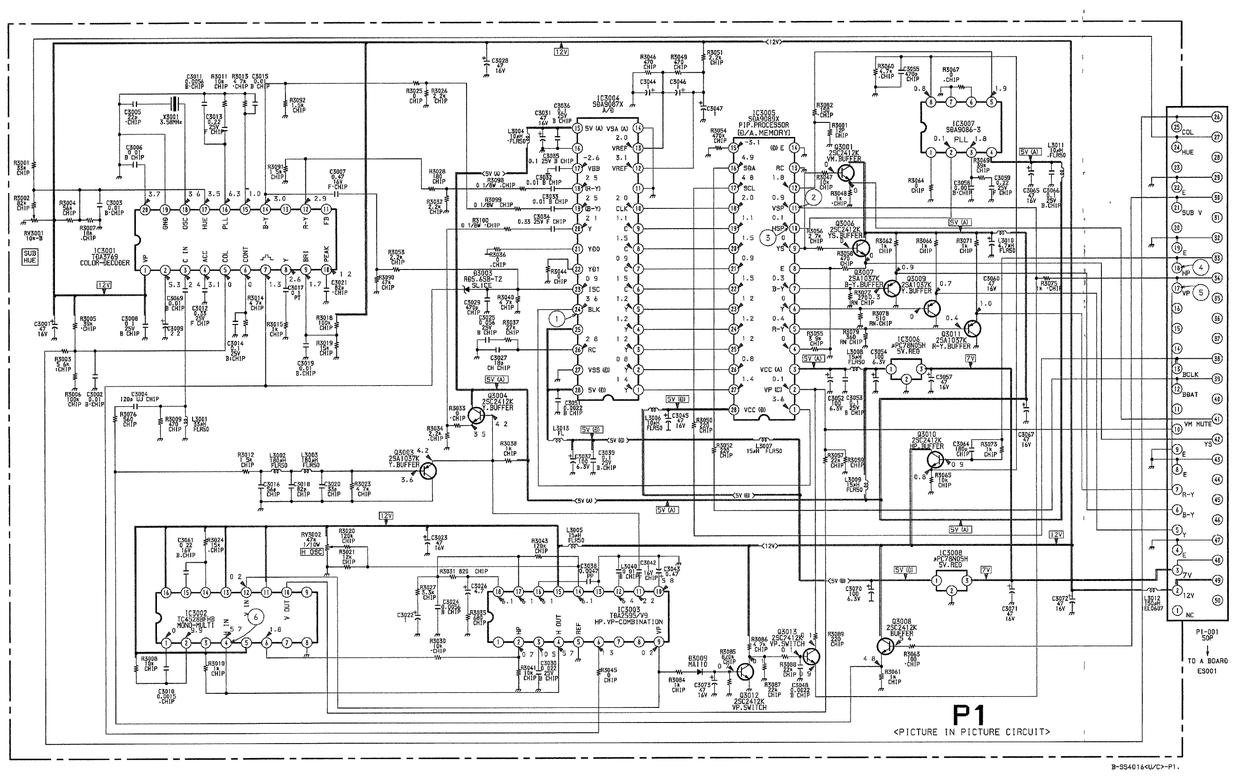
P1 BOARD IC3003 TDA2595/V9

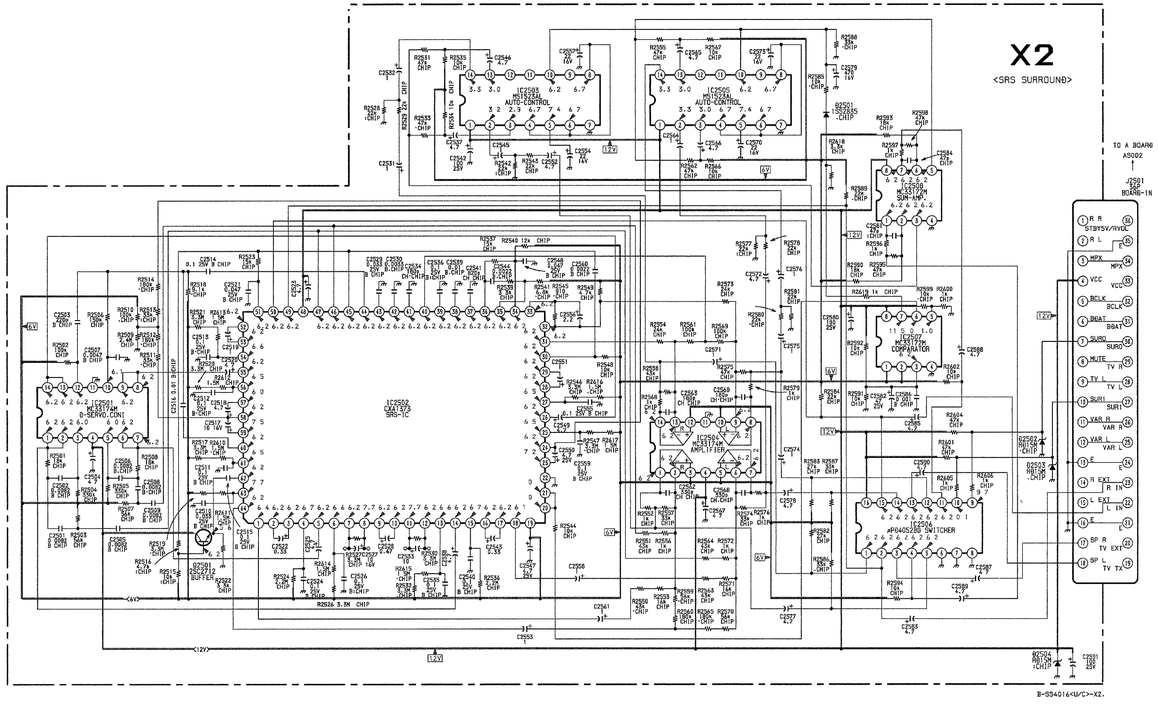


— S Board —

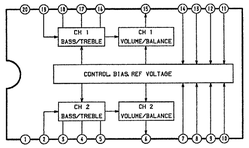
① 4.8Vp-p (V)	② 5.5Vp-p (≒3.92MHz)

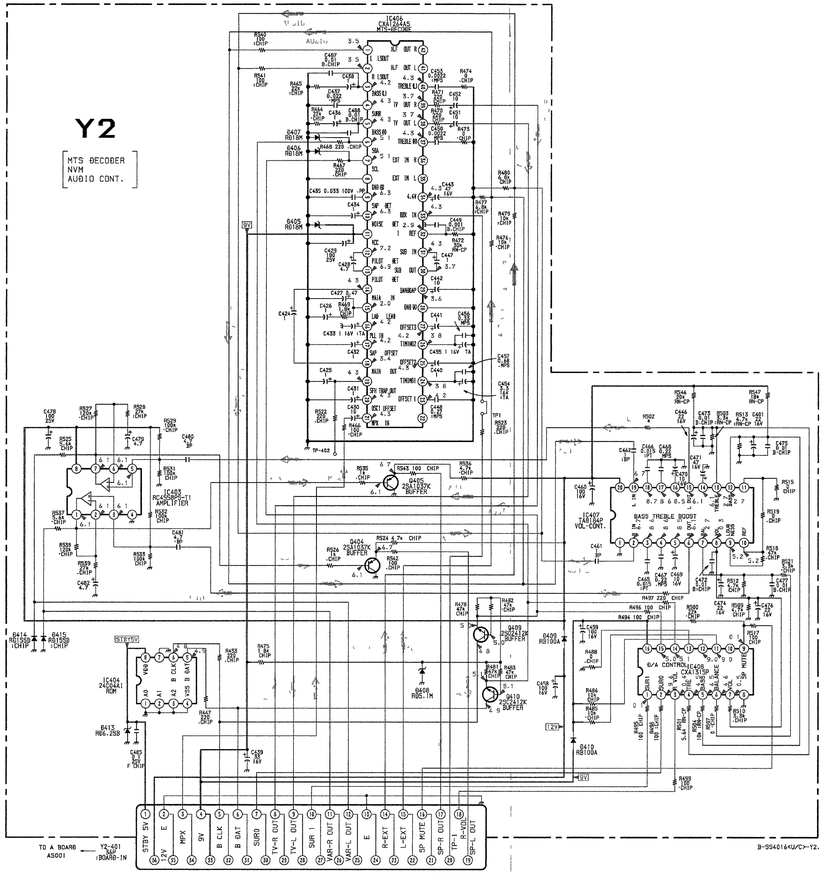


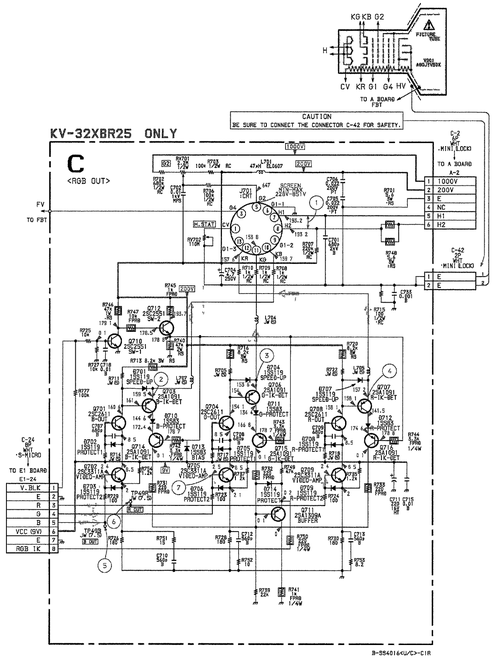


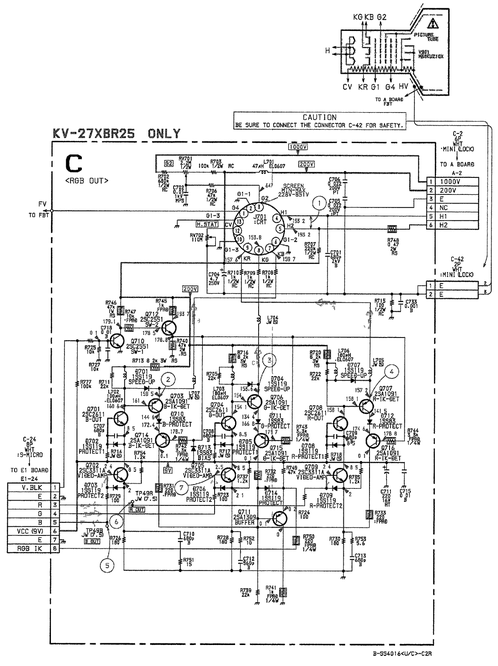


Y2 BOARD IC407 TA8184P









— C Board —

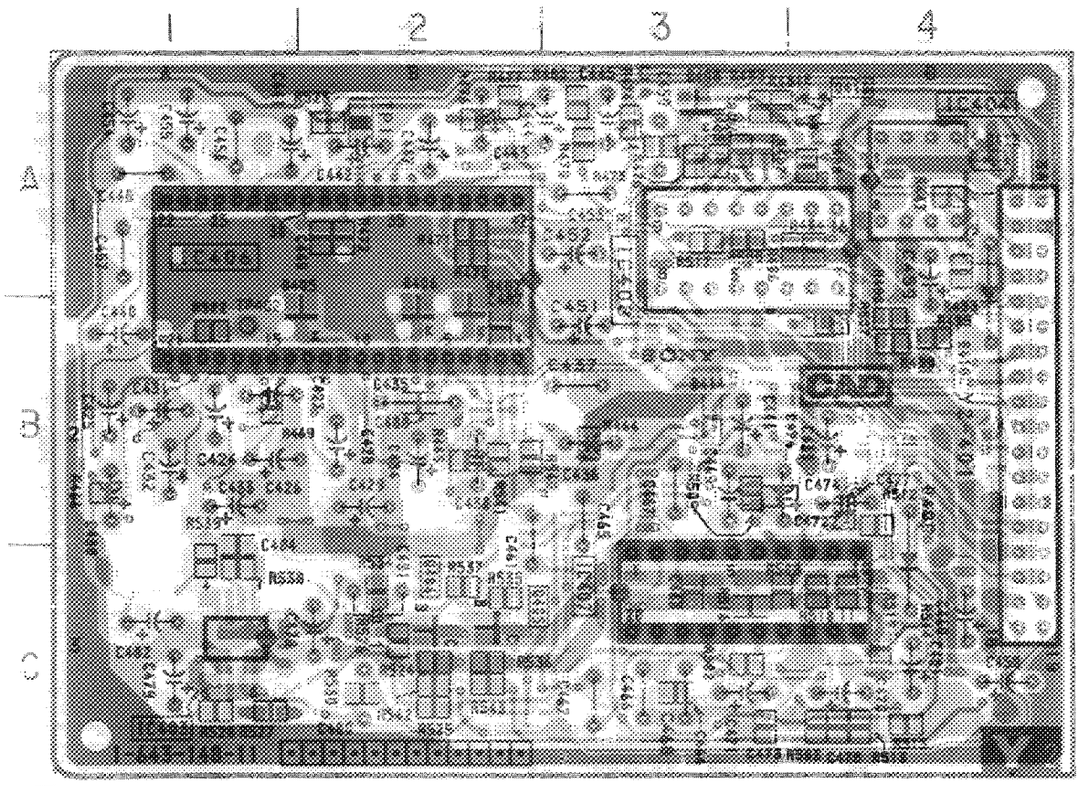
① 22 Vp-p (H)	② 110Vp-p (H)	③ 130Vp-p (H)
④ 130Vp-p (H)	⑤ 4 Vp-p (H)	⑥ 4 Vp-p (H)
⑦ 4 Vp-p (H)		

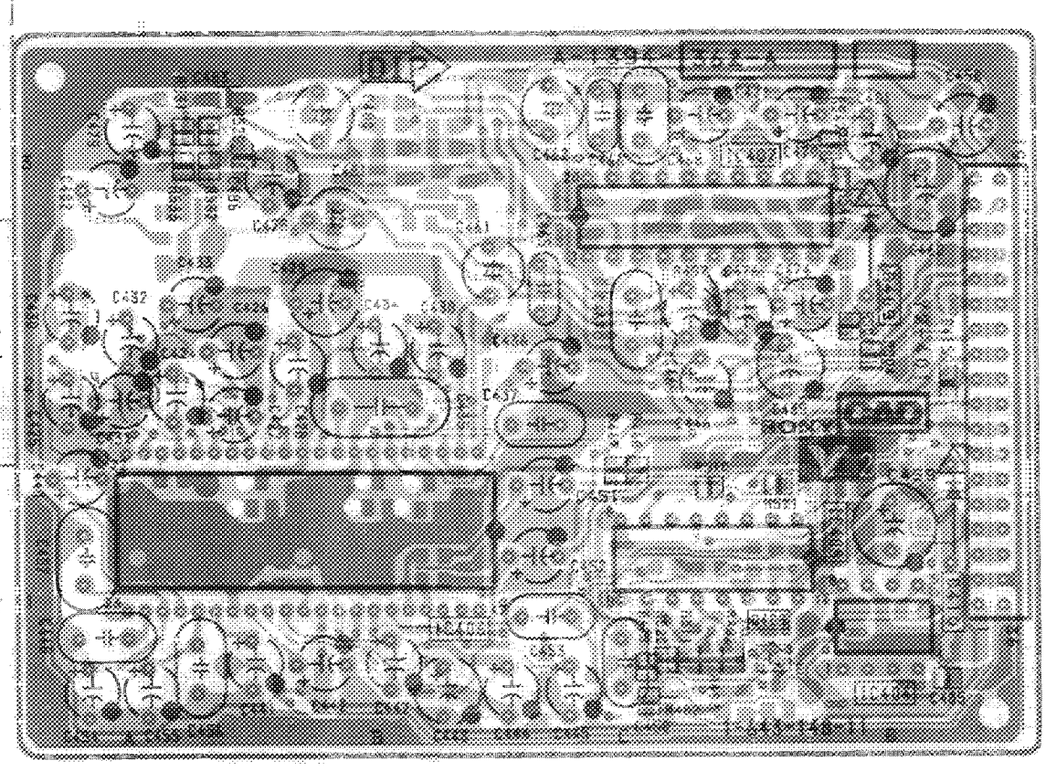
KV-27XBR25/32XBR25 RM-Y112

Y2 [MTS DECORDER, NVM, AUDIO CONT.]

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

— Y2 Board —



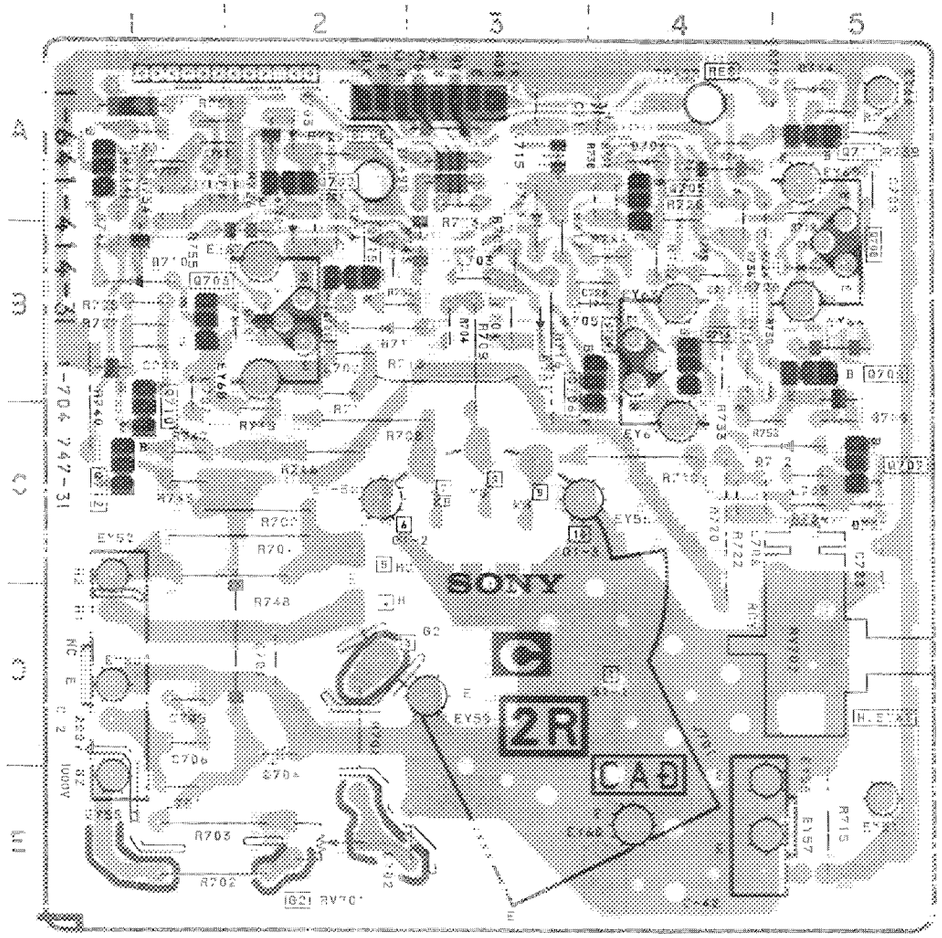


— Y2 Board —

IC	
IC403	C-1
404	A-4
406	A-2
407	C-3
408	A-3
TRANSISTOR	
Q404	C-2
405	C-2
409	F-4
410	A-4
ĐIOĐE	
Đ405	B-2
406	B-2
407	B-2
408	A-3
409	C-4
410	A-4
413	A-4
414	B-3
415	E-4
TEST POINT	
TP1	A-2

C [R.G.B. OUT]

— C Board — (KV-27XBR25)

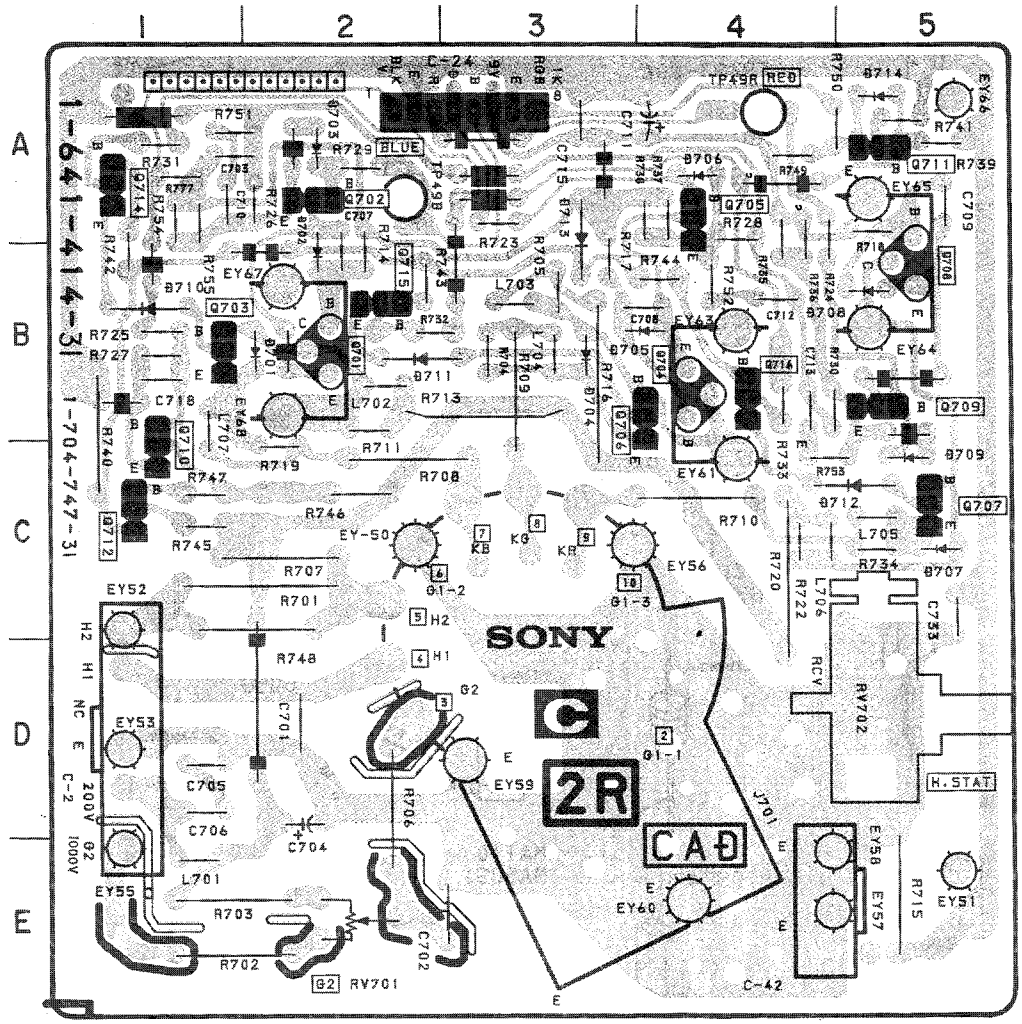


— C Board —

TRANSISTOR		ĐIOĐE		VALIABLE RESISTOR	
Q701	B-2	Đ701	B-2	RV701	E-2
702	A-2	702	B-2	702	Đ-5
703	B-1	703	A-2	TEST POINT	
704	B-4	704	B-3		
705	A-4	705	B-4	TP49B	A-2
706	B-4	706	A-4	49R	A-4
707	C-5	707	C-5		
708	B-5	708	B-5		
709	B-5	709	C-5		
710	B-1	710	B-1		
711	A-5	711	B-2		
712	C-1	712	C-5		
714	A-1	713	A-3		
715	B-2	714	A-5		
716	B-4				

C [R.G.B. OUT]

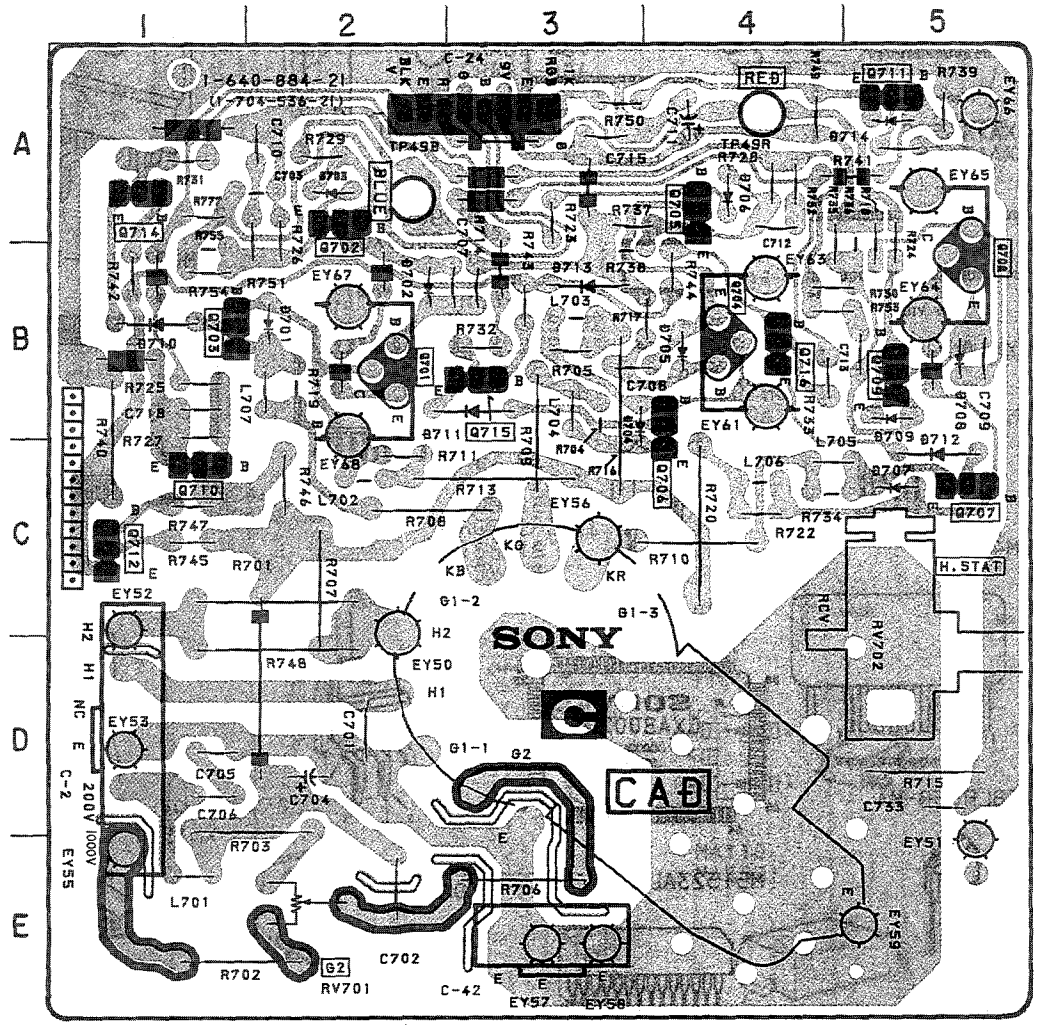
— C Board — (KV-27XBR25)



— C Board —

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

— C Board — (KV-32XBR25)



TRANSISTOR	
Q701	B-2
702	A-2
703	B-1
704	B-4
705	A-4
706	B-4
707	C-5
708	B-5
709	B-5
710	C-1
711	A-5
712	C-1
714	A-1
715	B-3
716	B-4

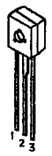
DIODE	
D701	B-2
702	B-2
703	A-2
704	B-3
705	B-4
706	A-4
707	C-5
708	B-5
709	B-5
710	B-1
711	B-3
712	C-5
713	B-3
714	A-5

VALIABLE RESISTOR	
RV701	E-2
702	C-5
TEST POINT	
TP49B	A-2
49R	A-4

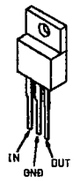
KV-27XBR25/32XBR25
RM-Y112

6-8. SEMICONDUCTORS

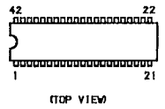
AN78N05A
μPC78N05H



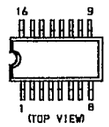
AN7812
M5F7805L
NJM7805FA
RC7805FA
RC7812FA
TA78012AP
TA7805S
μPC7812H



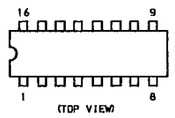
CXA1264AS



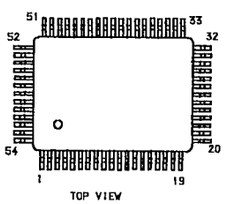
CXA1315M
MC14528BF
MC74HC4053F
TC4528BFHB
μPD4052BG



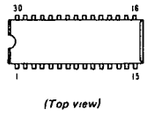
CXA1315P
CXA1526P
RC78M05FA



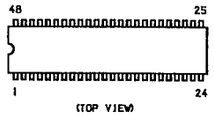
CXA1373Q



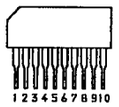
CXA1387S



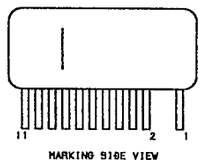
CXA1465AS
CXA1545S



CXK1006L



ĐM44



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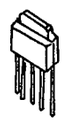
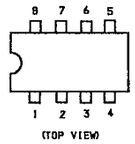


LM358P
LM393P
SĐA9086-3
ST24C02CP
μPC358C
μPC4557C
24C04A1



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RC4558PS
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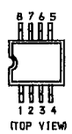

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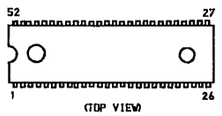
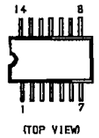
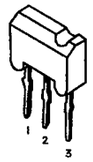


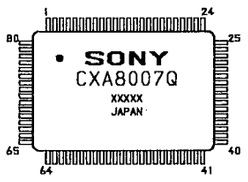
MC3374M
SN74HC05ANS



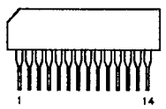
MN1280-S



M37201M6-A18EP



M51523AL



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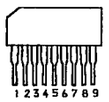

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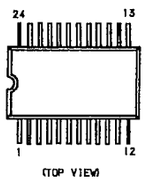
RC78L09A

PCA8510T-012



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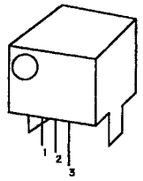
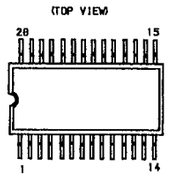


SĐA9087XGEG
SĐA9089XGEG



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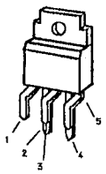

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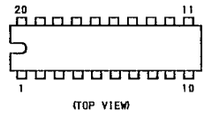
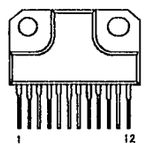
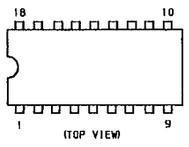


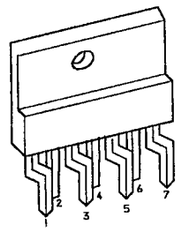
TA8216H



TĐA2595/V9



TĐA8179S



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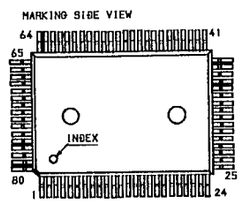
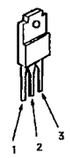
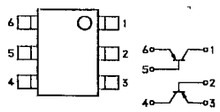


μPC24M05HF



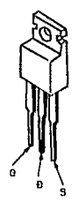
FMW1
XN1501

IMNT1US
XN4401

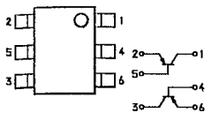


IMZ1
IMX3

IRF540Y
IRF610
IRF614
2SK1916



XN5501



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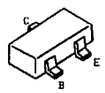
2SA733K
2SA933S
2SC25510

2SA1037K
2SA1162
2SB709A
2SC1623
2SC2412K
2SC2712
2SĐ601A



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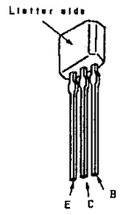

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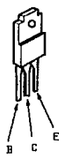

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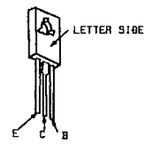

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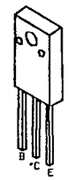

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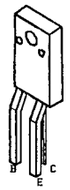

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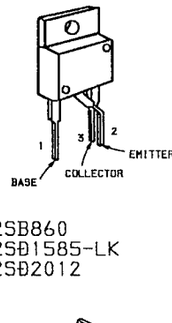

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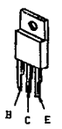

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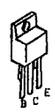

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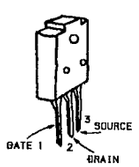

ĐINS4
ĐIN20R
Đ2S4M
EGP20G
ERA38-06
ERA82-004
ERA83-006
RB-100A
RĐ12ES-B2
RĐ13ES-B2
RĐ22ES-B2
RĐ30ES-B2
RĐ3.0ESL1
RĐ33ES-B2
RĐ36ES-B
RĐ39ES-B
RĐ39ES-B2
RĐ4.3ES-B2
RĐ4.7ES-B3
RĐ5.1ES-B3
RĐ5.6ES-B1
RĐ6.2ES-B2
RĐ6.8ES-B1
RĐ7.5ES-B2
RĐ9.1ES-B
RĐ9.1ES-L
RGP02-20EL
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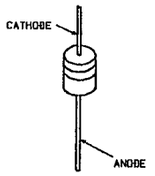
1SV113
WG713A



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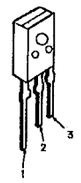

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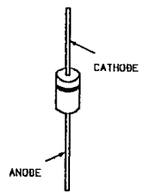
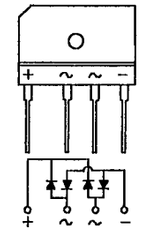
S2L20UF



Đ6SB60L



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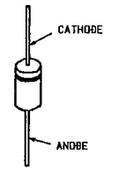
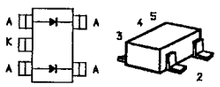
ERB44-06
GP08Đ
RGP02-17
RGP10G
RGP10GPKG23
RGP15G
RU30A
1SS83



FMN1



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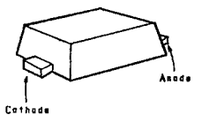
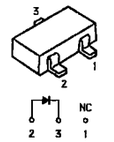
MA5091



MA3130



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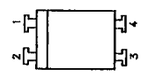
PS2501



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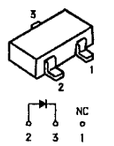
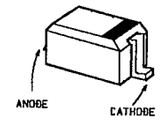
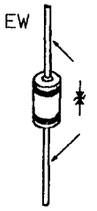
RĐ18M-B1
RĐ5.1M-B3



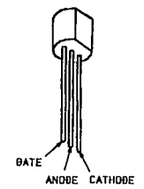
RĐ5.6SB-T2
RĐ6.2B-T2
1SS352



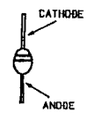
RĐ9.1EW



SHOR3Đ42



U05G



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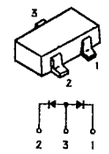
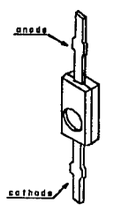


1T33



SECTION 7
EXPLODED VIEWS

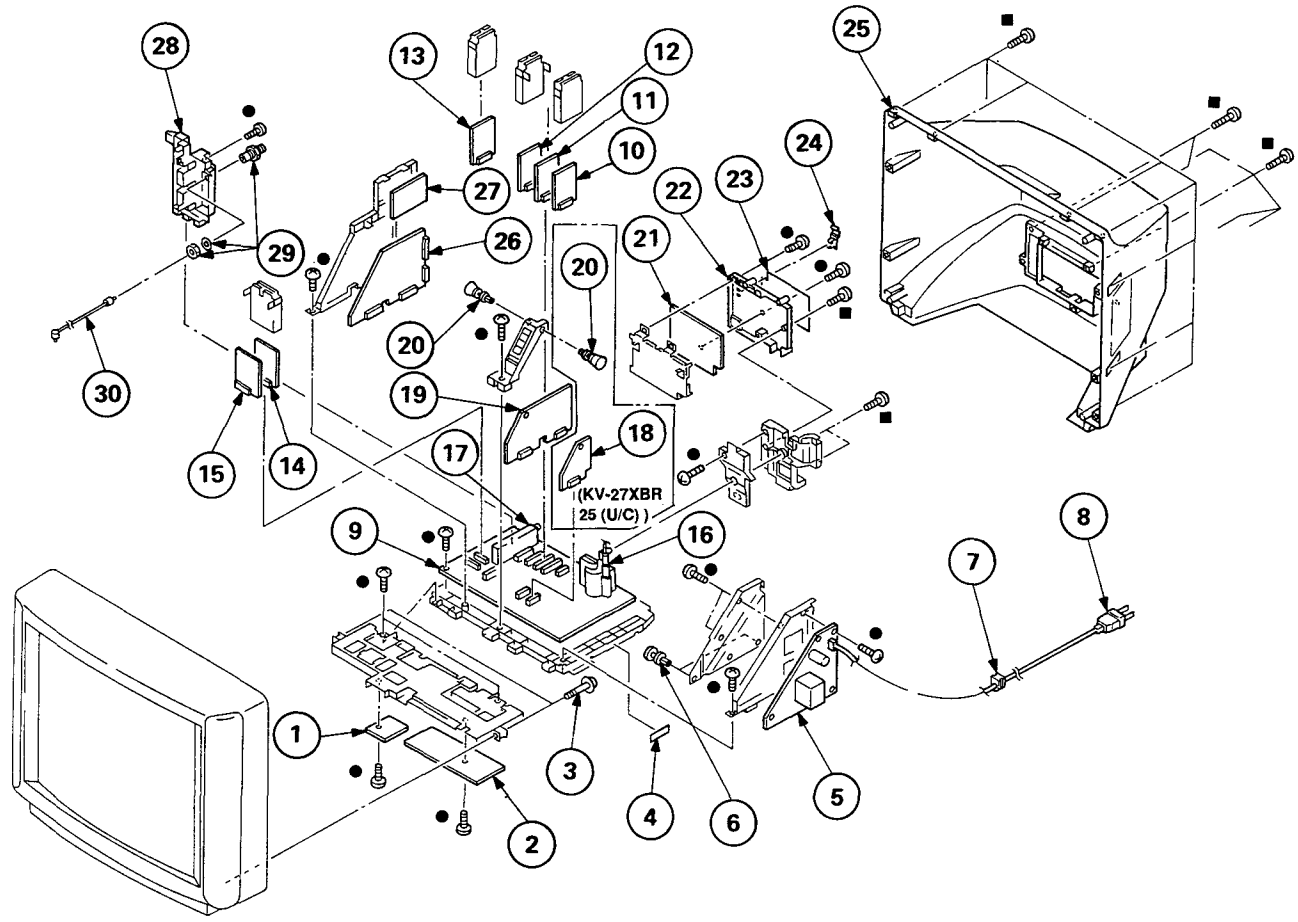
NOTE
- Items with no part number and no description are not stocked because they are seldom required for routine service
- The construction parts of an assembled part are indicated with a collation number in the remark column
- Items marked "*" are not stocked since they are seldom required for routine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

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

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

7-1. CHASSIS

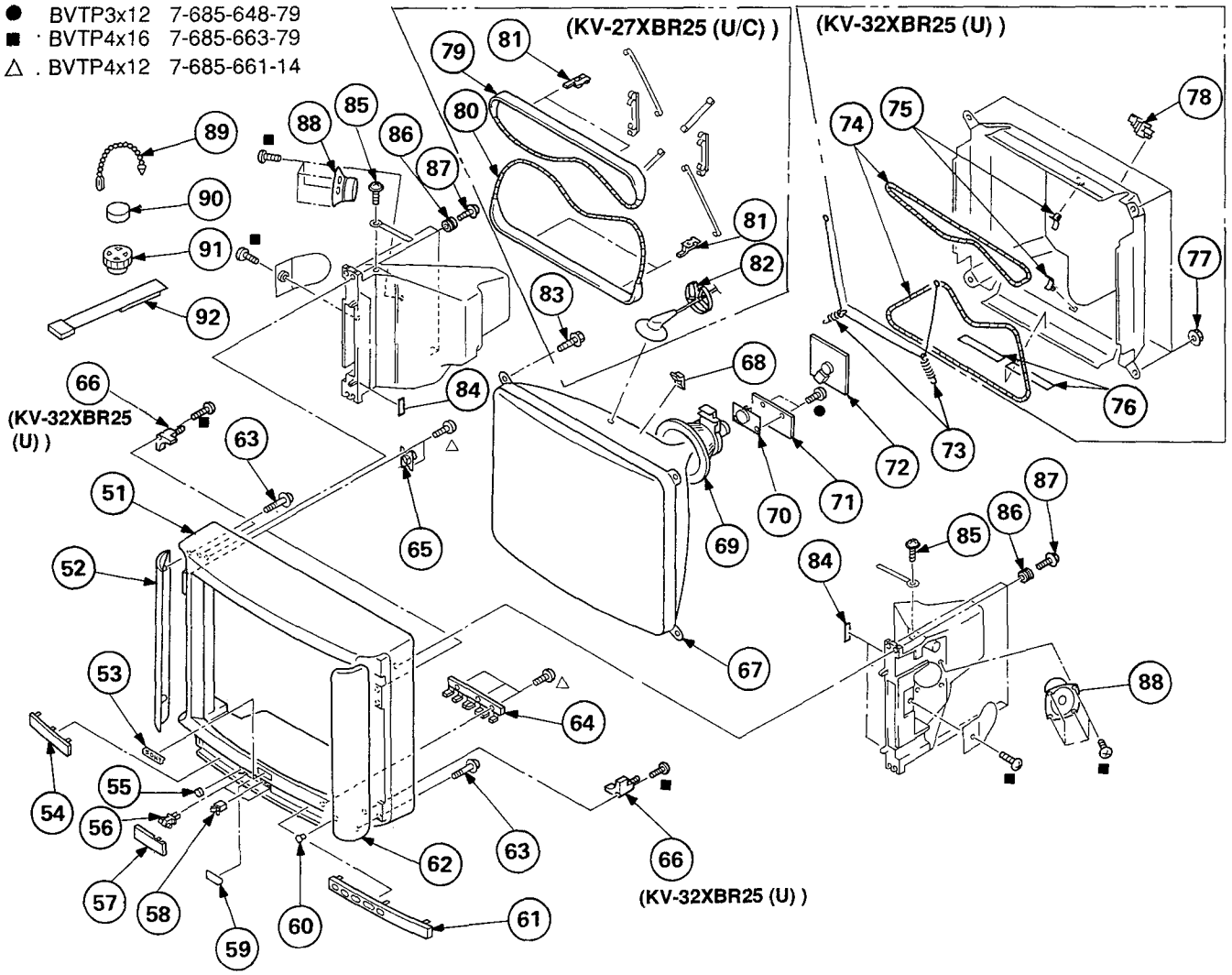
● : BVTP3x12 7-685-648-79
■ : BVTP4x16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*1-643-151-11	HS2 BOARD	
2	*1-643-150-11	HS1 BOARD	
3	4-319-520-11	SCREW, SPECIAL (+PW4X30)	
4	*3-703-044-26	LABEL, CAUTION	
5	*A-1316-125-A	G BOARD, COMPLETE (KV-32XBR25(U))	
	*A-1316-128-A	G BOARD, COMPLETE (KV-27XBR25(U/C))	
6	4-374-303-01	RIVET, NYLON	
7	⚠ 1-334-223-03	GROMMET, AC CORD	
8	⚠ 1-696-082-11	CORD, POWER (WITH NOISE FILTER)	
9	*A-1296-941-A	A BOARD, COMPLETE (KV-32XBR25(U))	10~15
	*A-1296-950-A	A BOARD, COMPLETE (KV-27XBR25(U/C))	10~15
10	*A-1346-051-A	E1 BOARD, COMPLETE (KV-32XBR25(U))	
	*A-1346-057-A	E1 BOARD, COMPLETE (KV-27XBR25(U/C))	
11	*A-1346-052-A	E2 BOARD, COMPLETE (KV-32XBR25(U))	
	*A-1346-058-A	E2 BOARD, COMPLETE (KV-27XBR25(U/C))	
12	*A-1306-415-A	M BOARD, COMPLETE	
13	*A-1195-051-A	P1 BOARD, COMPLETE	
14	*A-1394-363-A	X2 BOARD, COMPLETE	
15	*A-1394-362-A	Y2 BOARD, COMPLETE	
16	⚠ 1-439-513-11	TRANSFORMER ASSY, FLYBACK (AX-2602A3) (KV-32XBR25(U))	
	⚠ 1-439-524-11	TRANSFORMER ASSY, FLYBACK (AX-3D00A2) (KV-27XBR25(U/C))	
17	⚠ 1-693-102-21	TUNER (RTF-XA401)	
18	*A-1347-068-A	VC BOARD, COMPLETE (KV-27XBR25(U/C))	
19	*A-1341-535-A	D BOARD, COMPLETE (KV-32XBR25(U))	
	*A-1341-545-A	D BOARD, COMPLETE (KV-27XBR25(U/C))	
20	*4-397-418-01	RIVET, T TYPE	
21	*A-1373-322-A	UT BOARD; COMPLETE	
22	4-035-204-01	BRACKET, UT	
23	4-035-982-01	LABEL, UT	
24	4-329-127-00	CLAMP, CORD	
25	X-4030-333-1	COVER ASSY, REAR (KV-32XBR25(U))	
	X-4030-451-1	COVER ASSY, REAR (KV-27XBR25(U/C))	
26	*A-1373-318-A	U BOARD, COMPLETE	
27	*1-643-669-11	S BOARD	
28	4-035-203-11	TERMINAL BOARD, ANTENNA	
29	1-561-306-00	JACK, PIN (F)	
30	*1-555-400-00	CABLE, PIN	

7-2. PICTURE TUBE

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



REF.NO	PART NO.	DESCRIPTION	REMARK
51	4-035-757-11	CABINET (WITH BEZEL) (KV-32XBR25(U))	
	4-036-463-11	CABINET (WITH BEZEL) (KV-27XBR25(U/C))	
52	X-4030-330-1	GRILLE ASSY (LEFT), SPEAKER (KV-32XBR25(U))	
	X-4030-449-1	GRILLE ASSY (LEFT), SPEAKER (KV-27XBR25(U/C))	
53	3-704-179-01	EMBLEM (NO.9), SONY	
54	4-035-752-01	PANEL (LEFT), ORNAMENTAL (KV-32XBR25(U))	
	4-036-455-11	PANEL (LEFT),ORNAMENTAL(KV-27XBR25(U/C))	
55	4-314-871-00	CUSHION	
56	3-703-035-11	SHAFT, LID	
57	4-035-687-01	DOOR (KV-32XBR25(U))	
	4-036-446-01	DOOR (KV-27XBR25(U/C))	
58	4-392-036-01	CATCHER, PUSH	
59	4-035-750-01	LABEL, JACK	
60	*4-389-517-01	GUIDE (R), LIGHT	
61	4-035-753-01	PANEL (RIGHT), ORNAMENTAL(KV-32XBR25(U))	
	4-036-456-01	PANEL (RIGHT), ORNAMENTAL (KV-27XBR25(U/C))	
62	X-4030-331-1	GRILLE ASSY (RIGHT), SPEAKER (KV-32XBR25(U))	
	X-4030-450-1	GRILLE ASSY (RIGHT), SPEAKER (KV-27XBR25(U/C))	
63	4-319-520-11	SCREW, SPECIAL (+PW4X30)	
64	4-035-688-01	BUTTON, MULTI	
65	1-544-580-11	SPEAKER (2.5CM)	
66	4-031-429-01	BRACKET, PICTURE TUBE (KV-32XBR25(U))	
67	A-8-733-723-05	PICTURE TUBE (A80JYY50X) (KV-32XBR25(U))	
	A-8-733-835-05	PICTURE TUBE(M68KU210X)(KV-27XBR25(U/C))	
68	3-704-495-01	SPACER, DY	
69	A-1-451-315-11	DEFLECTION YOKE (Y34EXA) (KV-32XBR25(U))	
	A-1-451-394-11	DEFLECTION YOKE (Y29EXA) (KV-27XBR25(U/C))	
70	A-1-452-579-11	NECK ASSY, PICTURE TUBE (NA322) (KV-32XBR25(U))	
	A-1-452-616-12	NECK ASSY, PICTURE TUBE (NA323) (KV-27XBR25(U/C))	
71	*A-1342-176-A	V BOARD, COMPLETE (KV-32XBR25(U))	
	*A-1342-182-A	V BOARD, COMPLETE (KV-27XBR25(U/C))	
72	*A-1331-203-A	C BOARD, COMPLETE (KV-32XBR25(U))	
	*A-1331-209-A	C BOARD, COMPLETE (KV-27XBR25(U/C))	
73	4-036-329-01	SPRING (B), TENSION (KV-27XBR25(U/C))	
74	A-1-426-356-11	COIL, DEMAGNETIZATION (KV-32XBR25(U))	
75	*4-371-629-01	STOPPER, WIRE (KV-32XBR25(U))	
76	4-385-725-01	SHEET, BLOTTING (KV-32XBR25(U))	
77	4-387-204-01	NUT,SPECIAL, PICTURE TUBE(KV-32XBR25(U))	
78	4-033-681-01	HOLDER, LEAD (KV-32XBR25(U))	
79	A-1-426-573-11	COIL, DEGAUSSING (KV-27XBR25(U/C))	
80	A-1-426-574-11	COIL, DEGAUSSING (KV-27XBR25(U/C))	
81	4-033-545-01	CLIP (KV-27XBR25(U/C))	
82	*3-704-372-01	HOLDER, HV CABLE (KV-27XBR25(U/C))	
83	4-390-505-01	SCREW (7), TAPPING (KV-27XBR25(U/C))	
84	3-551-305-21	CUSHION, PANEL	
85	4-948-214-01	SCREW (2) (M4X8), TAPPING	
86	4-374-745-11	CUSHION (A)	
87	4-384-096-01	SCREW (4X16), TAPPING, +P	
88	1-544-544-11	SPEAKER (10CM)	
89	4-308-870-00	CLIP, LEAD WIRE	
90	1-452-032-00	MAGNET, DISK; 10MM ϕ	
91	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
92	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	

A

SECTION 8
ELECTRICAL PARTS LIST

NOTE:

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

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

- Items marked "*" are not stocked since they are seldom required for routine service Some delay should be anticipated when ordering these items
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted

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

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

CAPACITORS
- MF: μF, PF: μμF

COILS
- MMH: mH, UH: μH

- 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.

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1296-941-A	A BOARD, COMPLETE (KV-32XBR25(U)) **********	
	*4-341-751-01	EYELET (EY101~EY162,EY165~EY172)	
	*4-341-752-01	EYELET (EY2~EY55	
	4-382-854-11	SCREW (M3X10), P, SW (+)	
		<CONNECTOR>	
A2	*1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P	
A3	*1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P	
A4	*1-564-510-11	PLUG, CONNECTOR 7P	
A5	*1-564-507-11	PLUG, CONNECTOR 4P	
A11	*1-564-507-11	PLUG, CONNECTOR 4P	
A12	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P	
A13	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P	
A14	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P	
A18	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P	
A21	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P	
A37	*1-564-514-11	PLUG, CONNECTOR 11P	
A49	*1-564-506-11	PLUG, CONNECTOR 3P	
A100	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P	
DY1	*1-580-798-11	CONNECTOR PIN (DY) 6P	
		<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	
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	
C509	1-123-946-00	ELECT 4.7MF 20% 250V	
C510	1-102-110-00	CERAMIC 220PF 10% 50V	
C511	1-124-477-11	ELECT 47MF 20% 25V	
C512	1-162-318-11	CERAMIC 0.001MF 10% 500V	
C513	1-106-391-12	MYLAR 0.1MF 10% 200V	
C514	1-124-477-11	ELECT 47MF 20% 25V	
C515	1-162-117-00	CERAMIC 100PF 10% 500V	
C517	1-124-477-11	ELECT 47MF 20% 25V	
C519	1-124-472-11	ELECT 470MF 20% 10V	
C520 ⚠	1-162-116-91	CERAMIC 680PF 10% 2KV	
C521 ⚠	1-137-606-21	FILM 0.023MF 3% 2KV	
C522	1-162-116-00	CERAMIC 680PF 10% 2KV	
C523	1-124-465-00	ELECT 0.47MF 20% 50V	
C524	1-130-487-00	MYLAR 0.022MF 5% 50V	
C525	1-162-116-00	CERAMIC 680PF 10% 2KV	
C526 ⚠	1-136-895-51	FILM 0.068MF 5% 630V	
C527	1-130-495-00	MYLAR 0.1MF 5% 50V	
C528	1-106-359-00	MYLAR 0.0047MF 10% 200V	
C531	1-124-634-11	ELECT 1MF 20% 250V	
C532	1-124-477-11	ELECT 47MF 20% 25V	
C533	1-137-119-11	FILM 2MF 5% 200V	
C534	1-137-116-11	FILM 1MF 5% 200V	
C535	1-124-480-11	ELECT 470MF 20% 25V	
C536	1-102-228-00	CERAMIC 470PF 10% 500V	
C537	1-106-343-00	MYLAR 0.001MF 10% 100V	
C538	1-106-395-00	MYLAR 0.15MF 10% 200V	
C539	1-123-950-00	ELECT 47MF 20% 250V	
C540	1-124-480-11	ELECT 470MF 20% 25V	
C541	1-102-228-00	CERAMIC 470PF 10% 500V	
C542	1-106-387-00	MYLAR 0.068MF 10% 200V	
C546	1-123-024-21	ELECT 33MF 160V	
C549	1-124-261-00	ELECT 10MF 20% 50V	
C551	1-130-471-00	MYLAR 0.001MF 5% 50V	
C552	1-126-176-11	ELECT 220MF 20% 10V	
C554 ⚠	1-161-731-51	CERAMIC 0.001MF 10% 2KV	
C557	1-124-465-00	ELECT 0.47MF 20% 50V	
C561	1-124-261-00	ELECT 10MF 20% 50V	
C562	1-124-499-11	ELECT 1MF 20% 50V	
C563	1-130-491-00	MYLAR 0.047MF 5% 50V	
C564	1-130-495-00	MYLAR 0.1MF 5% 50V	
C565	1-130-495-00	MYLAR 0.1MF 5% 50V	
C566	1-130-485-00	MYLAR 0.015MF 5% 50V	
C569	1-136-167-00	FILM 0.15MF 5% 50V	
C570	1-130-471-00	MYLAR 0.001MF 5% 50V	
C571	1-130-651-00	FILM 0.001MF 2% 100V	
C572	1-124-907-11	ELECT 10MF 20% 50V	
C573	1-130-471-00	MYLAR 0.001MF 5% 50V	
C575	1-102-038-00	CERAMIC 0.001MF 500V	
C578	1-106-367-00	MYLAR 0.01MF 10% 200V	
C579	1-106-383-00	MYLAR 0.047MF 200V	
C1401	1-124-910-11	ELECT 47MF 20% 50V	
C1402	1-126-157-11	ELECT 10MF 20% 16V	
C1403	1-126-157-11	ELECT 10MF 20% 16V	
C1404	1-126-157-11	ELECT 10MF 20% 16V	

The components identified by shading and mark ⚠ are critical for safety
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Ne les remplacer que par une piece portant le numero specifie

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REF.NO.	PART NO	DESCRIPTION				REMARK
C1405	1-124-910-11	ELECT	47MF	20%	50V	
C1406	1-124-910-11	ELECT	47MF	20%	50V	
C1407	1-124-607-11	ELECT	2200MF	20%	50V	
C1408	1-136-165-00	FILM	0.1MF	5%	50V	
C1409	1-136-165-00	FILM	0.1MF	5%	50V	
C1424	1-124-607-11	ELECT	2200MF	20%	50V	
C1425	1-124-607-11	ELECT	2200MF	20%	50V	
C1426	1-126-157-11	ELECT	10MF	20%	16V	
C1435	1-126-233-11	ELECT	22MF	20%	50V	
C1437	1-130-499-00	MYLAR	0.22MF	5%	50V	
C1501	1-126-233-11	ELECT	22MF	20%	50V	
C1502	1-126-301-11	ELECT	1MF	20%	50V	
C1503	1-102-114-00	CERAMIC	470PF	10%	50V	
C1504	1-124-480-11	ELECT	470MF	20%	25V	
C1505	1-124-911-11	ELECT	220MF	20%	50V	
C1506	1-136-171-00	FILM	0.33MF	5%	50V	
C1507	1-106-224-00	MYLAR	0.15MF	10%	100V	
C1508	1-124-480-11	ELECT	470MF	20%	25V	
C1509	1-124-122-11	ELECT	100MF	20%	50V	

<DIODE>

D204	8-719-911-19	DIODE 1SS119
D205	8-719-911-19	DIODE 1SS119
D206	8-719-911-19	DIODE 1SS119
D207	8-719-911-19	DIODE 1SS119
D208	8-719-911-19	DIODE 1SS119
D209	8-719-510-48	DIODE D1N20R
D213	8-719-110-78	DIODE RD33ES-B2
D501	8-719-018-82	DIODE RGP02-20EL-6394
D502 ⚠	8-719-302-43	DIODE EL1Z
D504	8-719-911-19	DIODE 1SS119
D506	8-719-109-90	DIODE RD5.6ES-B3
D508	8-719-109-88	DIODE RD5.6ES-B1
D509	8-719-110-03	DIODE RD7.5ES-B2
D511	8-719-300-33	DIODE RU-3AM
D512	8-719-911-55	DIODE U05G
D513	8-719-911-55	DIODE U05G
D514	8-719-312-72	DIODE RU30A
D515	8-719-300-33	DIODE RU-3AM
D516	8-719-979-85	DIODE EGP20G
D518	8-719-109-93	DIODE RD6.2ES-B2
D521	8-719-911-19	DIODE 1SS119
D522	8-719-110-72	DIODE RD30ES-B2
D524	8-719-976-64	DIODE RGP02-17
D525	8-719-911-19	DIODE 1SS119
D527	8-719-110-78	DIODE RD33ES-B2
D528	8-719-911-19	DIODE 1SS119
D529	8-719-911-19	DIODE 1SS119
D530	8-719-911-19	DIODE 1SS119
D1407	8-719-911-19	DIODE 1SS119
D1409	8-719-110-90	DIODE RD39ES-B4
D1410	8-719-901-83	DIODE 1SS83
D1411	8-719-901-83	DIODE 1SS83
D1503	8-719-911-55	DIODE U05G
D4001	8-719-911-19	DIODE 1SS119

<IC>

IC201	8-749-920-58	IC SI-3090CA
IC204	8-759-231-53	IC TA7805S
IC205	8-759-144-84	IC UPC24M05HF
IC206	8-759-982-13	IC RC7812FA
IC501	8-759-987-16	IC LM393P
IC502	1-809-726-11	MODULE, PROTECTOR PM-29
IC503	8-759-987-16	IC LM393P
IC504	8-759-146-55	IC UPC2412HF
IC1401	8-759-246-70	IC TA8216H
IC1501	8-759-506-46	IC TDA8179S

<COIL>

L201	1-408-408-00	INDUCTOR	8.2UH
L205	1-408-421-00	INDUCTOR	100UH
L208	1-410-785-31	INDUCTOR	0.22UH
L210	1-408-408-00	INDUCTOR	8.2UH
L502	1-412-552-31	INDUCTOR	2.2MMH
L508	1-421-541-00	COIL, CHOKE 1000UH	
L509	1-459-104-00	COIL, WITH CORE	
L510 ⚠	1-460-197-11	COIL, FERRITE (PMC)	
L511	1-412-519-11	INDUCTOR	3.3UH
L512	1-412-531-31	INDUCTOR	33UH
L513	1-412-519-11	INDUCTOR	3.3UH
L515	1-410-645-31	INDUCTOR	100UH
L517 ⚠	1-459-973-21	COIL, HORIZONTAL LINEARITY	
L520	1-412-531-31	INDUCTOR	33UH
L521	1-459-148-00	COIL	
L1501	1-412-525-31	INDUCTOR	10UH
L1502	1-412-525-31	INDUCTOR	10UH
L1503	1-412-525-31	INDUCTOR	10UH

<TRANSISTOR>

Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q501	8-729-011-07	TRANSISTOR 2SC4763(LBSONY)
Q502	8-729-140-97	TRANSISTOR 2SB734-34
Q504	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q506	8-729-011-00	TRANSISTOR 2SK1916-02F87
Q507	8-729-119-80	TRANSISTOR 2SC2688-LK
Q509	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q510	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q512	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q513	8-729-140-96	TRANSISTOR 2SD774-34
Q515	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q516	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1407	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1408	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1501	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1502	8-729-119-78	TRANSISTOR 2SC2785-HFE

<RESISTOR>

R210	1-249-441-11	CARBON	100K	5%	1/4W	
R211	1-249-425-11	CARBON	4.7K	5%	1/4W	
R214	1-249-377-11	CARBON	0.47	5%	1/4W	F
R219	1-249-426-11	CARBON	5.6K	5%	1/4W	
R221	1-249-409-11	CARBON	220	5%	1/4W	
R222	1-249-436-11	CARBON	39K	5%	1/4W	
R223	1-249-434-11	CARBON	27K	5%	1/4W	
R224	1-249-409-11	CARBON	220	5%	1/4W	
R226	1-249-417-11	CARBON	1K	5%	1/4W	
R230	1-215-923-00	METAL OXIDE	10K	5%	3W	F
R231	1-249-409-11	CARBON	220	5%	1/4W	F
R232	1-216-380-11	METAL OXIDE	8.2	5%	2W	F
R233	1-249-409-11	CARBON	220	5%	1/4W	
R234	1-249-409-11	CARBON	220	5%	1/4W	
R235	1-249-409-11	CARBON	220	5%	1/4W	

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

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Ne les remplacer que par une piece portant le numero specifie

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

REF.NO.	PART NO	DESCRIPTION				REMARK
R236	1-249-409-11	CARBON	220	5%	1/4W	
R237	1-249-409-11	CARBON	220	5%	1/4W	
R238	1-249-409-11	CARBON	220	5%	1/4W	
R239	1-249-409-11	CARBON	220	5%	1/4W	
R240	1-249-482-11	CARBON	4.7	5%	1/2W	F
R501	1-215-442-00	METAL	7.5K	1%	1/4W	
R504	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R505	1-215-449-00	METAL	15K	1%	1/4W	
R506	1-249-423-11	CARBON	3.3K	5%	1/4W	
R507	1-249-411-11	CARBON	330	5%	1/4W	
R508	1-249-435-11	CARBON	33K	5%	1/4W	
R509	1-249-441-11	CARBON	100K	5%	1/4W	
R510	1-249-409-11	CARBON	220	5%	1/4W	F
R511	1-249-397-11	CARBON	22	5%	1/4W	F
R512	1-249-423-11	CARBON	3.3K	5%	1/4W	
R513	1-249-425-11	CARBON	4.7K	5%	1/4W	
R514	1-249-438-11	CARBON	56K	5%	1/4W	
R515	1-249-433-11	CARBON	22K	5%	1/4W	
R517	1-216-361-00	METAL OXIDE	0.22	5%	2W	F
R519	1-247-755-11	CARBON	1.8K	5%	1/2W	F
R520	1-249-441-11	CARBON	100K	5%	1/4W	
R521	1-216-481-11	METAL OXIDE	1.2K	5%	3W	F
R522	1-215-917-11	METAL OXIDE	1K	5%	3W	F
R523	1-249-425-11	CARBON	4.7K	5%	1/4W	
R524	1-215-445-00	METAL	10K	1%	1/4W	
R526	1-249-401-11	CARBON	47	5%	1/4W	
R528	1-247-903-00	CARBON	1M	5%	1/4W	
R529	1-249-429-11	CARBON	10K	5%	1/4W	
R530	1-215-457-00	METAL	33K	1%	1/4W	
R532	1-249-437-11	CARBON	47K	5%	1/4W	
R533	1-247-887-00	CARBON	220K	5%	1/4W	
R534	1-247-883-00	CARBON	150K	5%	1/4W	
R535	1-249-397-11	CARBON	22	5%	1/4W	F
R537	1-215-465-00	METAL	68K	1%	1/4W	
R538	1-249-439-11	CARBON	68K	5%	1/4W	
R539	1-215-437-00	METAL	4.7K	1%	1/4W	
R541	1-249-397-11	CARBON	22	5%	1/4W	F
R542	1-215-890-11	METAL OXIDE	470	5%	2W	F
R546	1-215-441-00	METAL	6.8K	1%	1/4W	
R547	1-249-441-11	CARBON	100K	5%	1/4W	
R548	1-215-885-00	METAL OXIDE	68	5%	2W	F
R549	1-215-881-11	METAL OXIDE	15	5%	2W	F
R550	1-215-910-00	METAL OXIDE	68	5%	3W	F
R551	1-247-743-11	CARBON	220	5%	1/2W	F
R552	1-249-389-11	CARBON	4.7	5%	1/4W	F
R553	1-249-377-11	CARBON	0 47	5%	1/4W	F
R554	1-249-377-11	CARBON	0 47	5%	1/4W	F
R558	1-259-882-11	CARBON	3 3M	5%	1/4W	
R560	1-247-901-11	CARBON	820K	5%	1/4W	
R564	1-215-470-00	METAL	110K	1%	1/4W	
⊠R565 ⚠		CARBON			1/4W	
⊠R566 ⚠		CARBON			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	
R589	1-249-437-11	CARBON	47K	5%	1/4W	
R590	1-249-431-11	CARBON	15K	5%	1/4W	
R592	1-249-429-11	CARBON	10K	5%	1/4W	
R593	1-215-878-00	METAL OXIDE	33K	5%	1W	F
R594	1-247-903-00	CARBON	1M	5%	1/4W	
R595	1-249-440-11	CARBON	82K	5%	1/4W	
R597	1-249-437-11	CARBON	47K	5%	1/4W	
R598	1-249-377-11	CARBON	0 47	5%	1/4W	F
R599	1-249-425-11	CARBON	4 7K	5%	1/4W	
R1401	1-215-444-00	METAL	9.1K	1%	1/4W	
R1402	1-215-444-00	METAL	9.1K	1%	1/4W	
R1403	1-215-430-00	METAL	2.4K	1%	1/4W	
R1404	1-215-430-00	METAL	2.4K	1%	1/4W	
R1405	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1406	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1409	1-249-433-11	CARBON	22K	5%	1/4W	
R1410	1-249-433-11	CARBON	22K	5%	1/4W	
R1427	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1428	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1439	1-247-883-00	CARBON	150K	5%	1/4W	
R1501	1-215-449-00	METAL	15K	1%	1/4W	
R1502	1-215-436-00	METAL	4.3K	1%	1/4W	
R1503	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1505	1-249-433-11	CARBON	22K	5%	1/4W	
R1506	1-218-642-91	METAL OXIDE	100K	5%	1W	F
R1507	1-249-436-11	CARBON	39K	5%	1/4W	
R1508	1-215-453-00	METAL	22K	1%	1/4W	
R1509	1-215-461-00	METAL	47K	1%	1/4W	
R1510	1-249-383-11	CARBON	1.5	5%	1/4W	F
R1511	1-215-888-00	METAL OXIDE	220	5%	2W	F
R1512	1-216-371-00	METAL OXIDE	1.5	5%	2W	F
R1513	1-249-436-11	CARBON	39K	5%	1/4W	
R1550	1-215-881-11	METAL OXIDE	15	5%	2W	F
R4002	1-249-385-11	CARBON	2.2	5%	1/4W	F
R4003	1-216-361-00	METAL OXIDE	0.22	5%	2W	F
R4004	1-216-374-00	METAL OXIDE	2 7	5%	2W	F
R4006	1-216-396-11	METAL OXIDE	3.9	5%	3W	F

<SPARK GAP>

SG501	1-519-422-11	GAP, SPARK	

<TRANSFORMER>

T501 ⚠	1-439-513-11	TRANSFORMER ASSY, FLYBACK (NX-2602A3)	
T503	1 437 217 11	TRANSFORMER, HORIZONTAL DRIVE	
T505	1-413-059-00	TRANSFORMER, FERRITE (DFT)	

<THERMISTOR>

THP150	1-807-970-11	THERMISTOR	

<TUNER>

TU101 ⚠	1-693-102-21	TUNER (BTF-XA401)	

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*A-1296-950-A	A BOARD, COMPLETE (KV-27XBR25(U/C))	
	**********	
*4-341-751-01	EYELET (EY101~EY172)	
*4-341-752-01	EYELET (EY2~EY55)	
4-382-854-11	SCREW (M3X10), P, SW (+)	

<CONNECTOR>

A2	*1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P	

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REF NO.	PART NO.	DESCRIPTION	REMARK
A3	*1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P	
A4	*1-564-510-11	PLUG, CONNECTOR 7P	
A5	*1-564-507-11	PLUG, CONNECTOR 4P	
A11	*1-564-507-11	PLUG, CONNECTOR 4P	
A12	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P	
A13	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P	
A14	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P	
A15	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P	
A18	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P	
A21	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P	
A37	*1-564-514-11	PLUG, CONNECTOR 11P	
A49	*1-564-506-11	PLUG, CONNECTOR 3P	
A100	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P	
DY1	*1-580-798-11	CONNECTOR PIN (DY) 6P	

<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
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	1-130-471-00	FILM	0.001MF	5%	50V
C503	1-124-261-00	ELECT	10MF	20%	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
C507	1-130-473-00	MYLAR	0 0015MF	5%	50V
C508	1-162-114-00	CERAMIC	0 0047MF		2KV
C509	1-124-808-51	ELECT	10MF	20%	200V
C510	1-102-110-00	CERAMIC	220PF	10%	50V
C511	1-124-477-11	ELECT	47MF	20%	25V
C512	1-162-318-11	CERAMIC	0 001MF	10%	500V
C513	1-106-391-12	MYLAR	0.1MF	10%	200V
C514	1-124-477-11	ELECT	47MF	20%	25V
C515	1-162-117-00	CERAMIC	100PF	10%	500V
C517	1-124-477-11	ELECT	47MF	20%	25V
C518	1-136-161-00	FILM	0.047MF	5%	50V
C519	1-124-472-11	ELECT	470MF	20%	10V
C520 ⚠	1-161-731-51	CERAMIC	0.001MF	10%	3KV
C521 ⚠	1-137-604-21	FILM	0.022MF	3%	280V
C522	1-162-116-00	CERAMIC	680PF	10%	2KV
C523	1-124-465-00	ELECT	0.47MF	20%	50V
C524	1-130-487-00	MYLAR	0 022MF	5%	50V
C525	1-162-116-00	CERAMIC	680PF	10%	2KV
C526 ⚠	1-137-515-91	FILM	0.056MF	3%	400V
C527	1-136-167-00	FILM	0 15MF	5%	50V
C528	1-106-359-00	MYLAR	0 0047MF	10%	200V
C529	1-136-161-00	FILM	0 047MF	5%	50V
C530	1-136-105-00	FILM	0 33MF	5%	200V
C531	1-124-634-11	ELECT	1MF	20%	250V
C532	1-124-477-11	ELECT	47MF	20%	25V
C533	1-137-516-11	FILM	1.2MF	5%	200V
C534	1-137-114-11	FILM	0 68MF	5%	200V
C535	1-124-480-11	ELECT	470MF	20%	25V
C536	1-102-228-00	CERAMIC	470PF	10%	500V
C537	1-106-343-00	MYLAR	0 001MF	10%	100V
C538	1-106-391-12	MYLAR	0.1MF	10%	200V
C539	1-123-950-00	ELECT	47MF	20%	250V
C540	1-124-480-11	ELECT	470MF	20%	25V
C541	1-102-228-00	CERAMIC	470PF	10%	500V
C542	1-106-387-00	MYLAR	0 068MF	10%	200V
C543	1-129-898-00	FILM	0 0022MF	5%	630V
C544	1-124-797-11	ELECT	0 47MF	20%	160V
C545	1-102-244-00	CERAMIC	220PF	10%	500V
C546	1-123-024-21	ELECT	33MF		160V
C547	1-130-471-00	MYLAR	0.001MF	5%	50V
C548	1-130-467-00	MYLAR	470PF	5%	50V
C549	1-124-261-00	ELECT	10MF	20%	50V
C550	1-129-702-00	FILM	0 001MF	10%	630V
C551	1-130-471-00	MYLAR	0.001MF	5%	50V
C552	1-126-176-11	ELECT	220MF	20%	10V
C553	1-124-261-00	ELECT	10MF	20%	50V
C554 ⚠	1-161-731-51	CERAMIC	0.001MF	10%	3KV
C555	1-123-947-00	ELECT	10MF	20%	250V
C557	1-124-465-00	ELECT	0 47MF	20%	50V
C559	1-129-718-00	FILM	0 022MF	5%	630V
C560	1-136-169-00	FILM	0.22MF	5%	50V
C561	1-124-261-00	ELECT	10MF	20%	50V
C562	1-124-499-11	ELECT	1MF	20%	50V
C563	1-130-491-00	MYLAR	0 047MF	5%	50V
C564	1-130-495-00	MYLAR	0.1MF	5%	50V
C565	1-130-495-00	MYLAR	0.1MF	5%	50V
C569	1-130-497-00	MYLAR	0.15MF	5%	50V
C570	1-130-471-00	MYLAR	0 001MF	5%	50V
C571	1-130-651-00	FILM	0.001MF	2%	100V
C572	1-124-907-11	ELECT	10MF	20%	50V
C573	1-130-471-00	MYLAR	0.001MF	5%	50V
C575	1-102-038-00	CERAMIC	0.001MF		500V
C576	1-106-355-12	MYLAR	0.0033MF		200V
C1401	1-124-910-11	ELECT	47MF	20%	50V
C1402	1-126-157-11	ELECT	10MF	20%	16V
C1403	1-126-157-11	ELECT	10MF	20%	16V
C1404	1-126-157-11	ELECT	10MF	20%	16V
C1405	1-124-910-11	ELECT	47MF	20%	50V
C1406	1-124-910-11	ELECT	47MF	20%	50V
C1407	1-124-607-11	ELECT	2200MF	20%	50V
C1408	1-136-165-00	FILM	0.1MF	5%	50V
C1409	1-136-165-00	FILM	0 1MF	5%	50V
C1424	1-124-607-11	ELECT	2200MF	20%	50V
C1425	1-124-607-11	ELECT	2200MF	20%	50V
C1426	1-126-157-11	ELECT	10MF	20%	16V
C1435	1-126-233-11	ELECT	22MF	20%	50V
C1437	1-130-499-00	MYLAR	0 22MF	5%	50V
C1501	1-126-233-11	ELECT	22MF	20%	50V
C1502	1-126-301-11	ELECT	1MF	20%	50V
C1503	1-102-114-00	CERAMIC	470PF	10%	50V
C1504	1-124-480-11	ELECT	470MF	20%	25V
C1505	1-124-911-11	ELECT	220MF	20%	50V
C1506	1-136-171-00	FILM	0 33MF	5%	50V
C1507	1-106-222-00	MYLAR	0.12MF	10%	100V
C1508	1-124-480-11	ELECT	470MF	20%	25V
C1509	1-124-122-11	ELECT	100MF	20%	50V
C1511	1-164-014-11	CERAMIC	5PF	0 25PF	50V

A

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Ne les remplacer que par une piece portant le numero specifie

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

REF.NO	PART NO.	DESCRIPTION	REMARK
		<DIODE>	
D204	8-719-911-19	DIODE 1SS119	
D205	8-719-911-19	DIODE 1SS119	
D206	8-719-911-19	DIODE 1SS119	
D207	8-719-911-19	DIODE 1SS119	
D208	8-719-911-19	DIODE 1SS119	
D209	8-719-510-48	DIODE D1N20R	
D213	8-719-110-78	DIODE RD33ES-B2	
D501	8-719-018-82	DIODE RGP02-20EL-6394	
D502 ⚠	8-719-302-43	DIODE EL1Z	
D503	8-719-978-87	DIODE ERA38-06	
D504	8-719-911-19	DIODE 1SS119	
D506	8-719-109-90	DIODE RD5.6ES-B3	
D508	8-719-109-88	DIODE RD5.6ES-B1	
D509	8-719-110-03	DIODE RD7.5ES-B2	
D510	8-719-911-19	DIODE 1SS119	
D511	8-719-300-33	DIODE RU-3AM	
D512	8-719-911-55	DIODE U05G	
D513	8-719-911-55	DIODE U05G	
D514	8-719-312-72	DIODE RU30A	
D515	8-719-300-33	DIODE RU-3AM	
D516	8-719-979-85	DIODE EGP20G	
D517	8-719-943-06	DIODE ERB24-06D	
D518	8-719-109-93	DIODE RD6.2ES-B2	
D521	8-719-911-19	DIODE 1SS119	
D522	8-719-110-72	DIODE RD30ES-B2	
D524	8-719-976-64	DIODE RGP02-17	
D525	8-719-911-19	DIODE 1SS119	
D527	8-719-110-78	DIODE RD33ES-B2	
D529	8-719-911-19	DIODE 1SS119	
D530	8-719-911-19	DIODE 1SS119	
D1407	8-719-911-19	DIODE 1SS119	
D1408	8-719-911-19	DIODE 1SS119	
D1409	8-719-110-90	DIODE RD39ES-B4	
D1410	8-719-901-83	DIODE 1SS83	
D1411	8-719-901-83	DIODE 1SS83	
D1412	8-719-911-19	DIODE 1SS119	
D1413	8-719-911-19	DIODE 1SS119	
D1414	8-719-911-19	DIODE 1SS119	
D1503	8-719-911-55	DIODE U05G	
D4001	8-719-911-19	DIODE 1SS119	
		<IC>	
IC201	8-749-920-58	IC SI-3090CA	
IC204	8-759-231-53	IC TA7805S	
IC205	8-759-144-84	IC UPC24M05HF	
IC206	8-759-982-13	IC RC7812FA	
IC501	8-759-987-16	IC LM393P	
IC502	1-809-845-11	MODULE, PROTECTOR PM-30	
IC503	8-759-987-16	IC LM393P	
IC504	8-759-982-13	IC RC7812FA	
IC1401	8-759-246-70	IC TA8216H	
IC1501	8-759-506-46	IC TDA8179S	
		<COIL>	
L201	1-408-408-00	INDUCTOR 8.2UH	
L205	1-408-421-00	INDUCTOR 100UH	
L208	1-410-785-31	INDUCTOR 0.22UH	
L210	1-408-408-00	INDUCTOR 8.2UH	
L501	1-459-104-00	COIL, WITH CORE	
L502	1-412-552-31	INDUCTOR 2.2MMH	
L504	1-410-455-11	INDUCTOR 10MMH	
L507	1-459-483-00	COIL (WITH CORE)	
L508	1-421-541-00	COIL, CHOKE 1000UH	
L509	1-459-104-00	COIL, WITH CORE	
L510 ⚠	1-469-197-11	COIL, FERRITE (PHC)	
L511	1-412-519-11	INDUCTOR 3.3UH	
L512	1-412-531-31	INDUCTOR 33UH	
L513	1-412-519-11	INDUCTOR 3.3UH	
L514	1-459-123-00	COIL,DUST CORE(PAC)	
L515	1-410-645-31	INDUCTOR 100UH	
L520	1-412-531-31	INDUCTOR 33UH	
L1501	1-412-531-31	INDUCTOR 33UH	
L1503	1-412-531-31	INDUCTOR 33UH	
		<TRANSISTOR>	
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q501	8-729-011-07	TRANSISTOR 2SC4763(LBSONY)	
Q502	8-729-140-97	TRANSISTOR 2SB734-34	
Q503	8-729-011-06	TRANSISTOR 2SC3840K	
Q504	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q505	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q506	8-729-011-00	TRANSISTOR 2SK1916-02F87	
Q507	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q508	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q509	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q510	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q511	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q512	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q513	8-729-140-96	TRANSISTOR 2SD774-34	
Q515	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q516	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1407	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1408	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1501	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1502	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		<RESISTOR>	
R210	1-249-441-11	CARBON 100K 5% 1/4W	
R211	1-249-425-11	CARBON 4.7K 5% 1/4W	
R214	1-249-377-11	CARBON 0.47 5% 1/4W	F
R219	1-249-426-11	CARBON 5.6K 5% 1/4W	
R221	1-249-409-11	CARBON 220 5% 1/4W	
R222	1-249-436-11	CARBON 39K 5% 1/4W	
R223	1-249-434-11	CARBON 27K 5% 1/4W	
R224	1-249-409-11	CARBON 220 5% 1/4W	
R226	1-249-417-11	CARBON 1K 5% 1/4W	
R230	1-215-923-00	METAL OXIDE 10K 5% 3W	F
R231	1-249-409-11	CARBON 220 5% 1/4W	F
R232	1-216-380-11	METAL OXIDE 8.2 5% 2W	F
R233	1-249-409-11	CARBON 220 5% 1/4W	
R234	1-249-409-11	CARBON 220 5% 1/4W	
R235	1-249-409-11	CARBON 220 5% 1/4W	
R236	1-249-409-11	CARBON 220 5% 1/4W	
R237	1-249-409-11	CARBON 220 5% 1/4W	
R238	1-249-409-11	CARBON 220 5% 1/4W	
R239	1-249-409-11	CARBON 220 5% 1/4W	
R240	1-249-482-11	CARBON 4.7 5% 1/2W	F
R501	1-249-431-11	CARBON 15K 5% 1/4W	
R502	1-249-431-11	CARBON 15K 5% 1/4W	
R504	1-215-869-11	METAL OXIDE 1K 5% 1W	F

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

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

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

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REF.NO.	PART NO	DESCRIPTION				REMARK
R505	1-215-449-00	METAL	15K	1%	1/4W	
R506	1-249-423-11	CARBON	3.3K	5%	1/4W	
R507	1-249-411-11	CARBON	330	5%	1/4W	
R508	1-249-435-11	CARBON	33K	5%	1/4W	
R509	1-249-441-11	CARBON	100K	5%	1/4W	
R510	1-249-409-11	CARBON	220	5%	1/4W	F
R511	1-249-398-11	CARBON	27	5%	1/4W	F
R512	1-249-423-11	CARBON	3.3K	5%	1/4W	
R513	1-249-425-11	CARBON	4.7K	5%	1/4W	
R514	1-249-438-11	CARBON	56K	5%	1/4W	
R515	1-249-433-11	CARBON	22K	5%	1/4W	
R516	1-249-419-11	CARBON	1.5K	5%	1/4W	
R517	1-216-361-00	METAL OXIDE	0.22	5%	2W	F
R518	1-249-437-11	CARBON	47K	5%	1/4W	
R519	1-247-755-11	CARBON	1 8K	5%	1/2W	F
R520	1-249-441-11	CARBON	100K	5%	1/4W	
R521	1-216-481-11	METAL OXIDE	1.2K	5%	3W	F
R522	1-215-917-11	METAL OXIDE	1K	5%	3W	F
R523	1-249-425-11	CARBON	4.7K	5%	1/4W	
R524	1-215-445-00	METAL	10K	1%	1/4W	
R526	1-249-401-11	CARBON	47	5%	1/4W	
R527	1-249-417-11	CARBON	1K	5%	1/4W	
R528	1-247-903-00	CARBON	1M	5%	1/4W	
R529	1-249-429-11	CARBON	10K	5%	1/4W	
R530	1-215-457-00	METAL	33K	1%	1/4W	
R531	1-249-432-11	CARBON	18K	5%	1/4W	
R532	1-249-437-11	CARBON	47K	5%	1/4W	
R533	1-247-887-00	CARBON	220K	5%	1/4W	
R534	1-215-472-00	METAL	130K	1%	1/4W	
R536	1-249-429-11	CARBON	10K	5%	1/4W	
R537	1-215-465-00	METAL	68K	1%	1/4W	
R538	1-247-883-00	CARBON	150K	5%	1/4W	
R539	1-249-425-11	CARBON	4.7K	5%	1/4W	
R540	1-249-437-11	CARBON	47K	5%	1/4W	
R541	1-249-397-11	CARBON	22	5%	1/4W	F
R542	1-215-888-00	METAL OXIDE	220	5%	2W	F
R543	1-249-411-11	CARBON	330	5%	1/4W	
R544	1-249-441-11	CARBON	100K	5%	1/4W	
R546	1-215-441-00	METAL	6.8K	1%	1/4W	
R547	1-249-441-11	CARBON	100K	5%	1/4W	
R548	1-215-889-00	METAL OXIDE	330	5%	2W	F
R549	1-215-881-11	METAL OXIDE	15	5%	2W	F
R550	1-215-909-11	METAL OXIDE	47	5%	3W	F
R551	1-247-743-11	CARBON	220	5%	1/2W	F
R552	1-249-389-11	CARBON	4 7	5%	1/4W	F
R553	1-249-377-11	CARBON	0 47	5%	1/4W	F
R554	1-249-377-11	CARBON	0.47	5%	1/4W	F
R556	1-216-459-00	METAL OXIDE	2.7K	5%	2W	F
R558	1-259-882-11	CARBON	3.3M	5%	1/4W	
R559	1-216-439-00	METAL OXIDE	12K	5%	1W	F
R560	1-247-901-11	CARBON	820K	5%	1/4W	
R561	1-249-410-11	CARBON	270	5%	1/4W	
R562	1-215-450-00	METAL	16K	1%	1/4W	
R564	1-215-475-00	METAL	180K	1%	1/4W	
⊠R565 ⚠		CARBON			1/4W	
⊠R566 ⚠		CARBON			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	
R570	1-249-402-11	CARBON	56	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
R574	1-215-882-00	METAL OXIDE	22	5%	2W	F
R575	1-216-459-00	METAL OXIDE	2.7K	5%	2W	F
R576	1-249-417-11	CARBON	1K	5%	1/4W	F
R577	1-215-887-00	METAL OXIDE	150	5%	2W	F
R578	1-216-449-11	METAL OXIDE	56	5%	2W	F
R579	1-249-441-11	CARBON	100K	5%	1/4W	
R580	1-249-441-11	CARBON	100K	5%	1/4W	
R583	1-249-441-11	CARBON	100K	5%	1/4W	
R584	1-215-463-00	METAL	56K	1%	1/4W	
R587	1-249-441-11	CARBON	100K	5%	1/4W	
R588	1-249-415-11	CARBON	680	5%	1/4W	
R589	1-249-437-11	CARBON	47K	5%	1/4W	
R590	1-249-431-11	CARBON	15K	5%	1/4W	
R591	1-247-887-00	CARBON	220K	5%	1/4W	
R592	1-249-429-11	CARBON	10K	5%	1/4W	
R593	1-215-878-00	METAL OXIDE	33K	5%	1W	F
R594	1-247-903-00	CARBON	1M	5%	1/4W	
R595	1-249-440-11	CARBON	82K	5%	1/4W	
R596	1-249-432-11	CARBON	18K	5%	1/4W	
R597	1-249-437-11	CARBON	47K	5%	1/4W	
R599	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1401	1-215-444-00	METAL	9.1K	1%	1/4W	
R1402	1-215-444-00	METAL	9.1K	1%	1/4W	
R1403	1-215-430-00	METAL	2.4K	1%	1/4W	
R1404	1-215-430-00	METAL	2.4K	1%	1/4W	
R1405	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1406	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1409	1-249-433-11	CARBON	22K	5%	1/4W	
R1410	1-249-433-11	CARBON	22K	5%	1/4W	
R1427	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1428	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1439	1-247-883-00	CARBON	150K	5%	1/4W	
R1501	1-215-449-00	METAL	15K	1%	1/4W	
R1502	1-215-433-00	METAL	3 3K	1%	1/4W	
R1503	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1505	1 249-433-11	CARBON	22K	5%	1/4W	
R1506	1-218-642-91	METAL OXIDE	100K	5%	1W	F
R1507	1-249-436-11	CARBON	39K	5%	1/4W	
R1508	1-215-453-00	METAL	22K	1%	1/4W	
R1509	1-215-455-00	METAL	27K	1%	1/4W	
R1510	1-249-383-11	CARBON	1.5	5%	1/4W	F
R1511	1-215-888-00	METAL OXIDE	220	5%	2W	F
R1512	1-216-369-00	METAL OXIDE	1	5%	2W	F
R1513	1-249-436-11	CARBON	39K	5%	1/4W	
R4002	1-249-385-11	CARBON	2.2	5%	1/4W	F
R4003	1-216-361-00	METAL OXIDE	0 22	5%	2W	F
R4004	1-216-374-00	METAL OXIDE	2.7	5%	2W	F
R4006	1-216-396-11	METAL OXIDE	3.9	5%	3W	F

<SPARK GAP>

SG501	1-519-422-11	GAP, SPARK

<TRANSFORMER>

T501 ⚠	1 439 524 11	TRANSFORMER ASSY, FLYBACK (NX-3000A2)
T502 ⚠	1-460-193-11	TRANSFORMER, (BLT)
T503	1 437 195 11	TRANSFORMER, HORIZONTAL DRIVE
T504	1-424-584-11	TRANSFORMER, DYNAMIC FOCUS

<THERMISTOR>

THP150	1-807-925-11	THERMISTOR

<TUNER>

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

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

A P1

REF.NO.	PART NO.	DESCRIPTION			REMARK
TU1016	1-693-102-21	TUNER (RTF-XA401)			
**********					
	*A-1195-051-A	P1 BOARD, COMPLETE			
		**********			
		<CAPACITOR>			
C3001	1-124-589-11	ELECT	47MF	20%	16V
C3002	1-164-232-11	CERAMIC CHIP	0 01MF	10%	50V
C3003	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3004	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C3005	1-163-101-00	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		16V
C3008	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3009	1-124-257-00	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	1-163-111-00	CERAMIC CHIP	56PF	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	1-163-099-00	CERAMIC CHIP	18PF	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	1-124-589-11	ELECT	47MF	20%	16V
C3032	1-164-232-11	CERAMIC CHIP	0 01MF	10%	50V
C3033	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3034	1-164-336-11	CERAMIC CHIP	0 33MF		25V
C3035	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3036	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3037	1-126-177-11	ELECT	100MF	20%	6 3V
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
C3061	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C3064	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C3065	1-124-589-11	ELECT	47MF	20%	16V
C3066	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3067	1-124-589-11	ELECT	47MF	20%	16V
C3069	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3070	1-126-177-11	ELECT	100MF	20%	6 3V
C3071	1-124-589-11	ELECT	47MF	20%	16V
C3072	1-124-589-11	ELECT	47MF	20%	16V
C3073	1-124-589-11	ELECT	47MF	20%	16V
		<DIODE>			
D3003	8-719-158-15	DIODE RD5.6S-B			
D3009	8-719-404-46	DIODE MA110			
		<IC>			
IC3001	8-759-046-25	IC TDA3769			
IC3002	8-759-009-46	IC MC14528BF			
IC3003	8-759-513-48	IC TDA2595/V9			
IC3004	8-759-055-51	IC SDA9087XGEG			
IC3005	8-759-055-52	IC SDA9089XGEG			
IC3006	8-759-112-06	IC UPC78N05H			
IC3007	8-759-046-27	IC SDA9086-3			
IC3008	8-759-112-06	IC UPC78N05H			
		<COIL>			
L3001	1-410-476-11	INDUCTOR	33UH		
L3002	1-408-424-00	INDUCTOR	180UH		
L3003	1-408-424-00	INDUCTOR	180UH		
L3004	1-410-470-11	INDUCTOR	10UH		
L3005	1-410-472-41	INDUCTOR	15UH		
L3006	1-410-470-11	INDUCTOR	10UH		
L3007	1-410-472-41	INDUCTOR	15UH		
L3008	1-410-472-41	INDUCTOR	15UH		
L3009	1-410-472-41	INDUCTOR	15UH		
L3010	1-410-466-41	INDUCTOR	4.7UH		
L3011	1-410-470-11	INDUCTOR	10UH		
L3012	1-410-676-31	INDUCTOR	150UH		
L3013	1-412-911-11	INDUCTOR, FERRITE BEAD			
		<CONNECTOR>			
P1-001*	1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P			
		<TRANSISTOR>			
Q3001	8-729-920-74	TRANSISTOR 2SC2412K-QR			
Q3003	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3004	8-729-920-74	TRANSISTOR 2SC2412K-QR			
Q3006	8-729-920-74	TRANSISTOR 2SC2412K-QR			
Q3007	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3008	8-729-920-74	TRANSISTOR 2SC2412K-QR			
Q3009	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3010	8-729-920-74	TRANSISTOR 2SC2412K-QR			
Q3011	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3012	8-729-920-74	TRANSISTOR 2SC2412K-QR			
Q3013	8-729-920-74	TRANSISTOR 2SC2412K-QR			

P1 M

REF.NO.	PART NO	DESCRIPTION				REMARK
		<RESISTOR>				
R3001	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R3002	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R3003	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R3004	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R3005	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R3006	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3007	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R3008	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3009	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3010	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3011	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3012	1-216-053-00	METAL GLAZE	1 5K	5%	1/10W	
R3013	1-216-065-00	METAL GLAZE	4 7K	5%	1/10W	
R3014	1-216-065-00	METAL GLAZE	4 7K	5%	1/10W	
R3015	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3018	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3019	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3020	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R3021	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R3023	1-216-065-00	METAL GLAZE	4 7K	5%	1/10W	
R3024	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3025	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3026	1-216-057-00	METAL GLAZE	2 2K	5%	1/10W	
R3027	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R3028	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R3030	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3031	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R3032	1-216-057-00	METAL GLAZE	2 2K	5%	1/10W	
R3033	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3034	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3035	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R3036	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3037	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R3038	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3040	1-216-065-00	METAL GLAZE	4 7K	5%	1/10W	
R3041	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3043	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R3044	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3045	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3046	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3047	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3048	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3049	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3050	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3051	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3052	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3053	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3054	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R3055	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R3056	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3057	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3058	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3059	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3060	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3061	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3062	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3063	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3064	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3065	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3066	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3067	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3069	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R3071	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3073	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3075	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3076	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R3077	1-216-637-11	METAL CHIP	270	0 50%	1/10W	
R3078	1-216-644-11	METAL CHIP	510	0 50%	1/10W	
R3079	1-216-640-11	METAL CHIP	360	0 50%	1/10W	
R3081	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
R3082	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R3084	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3085	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R3086	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3087	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3088	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3089	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3090	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3091	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3092	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3098	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R3099	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R3100	1-216-296-00	METAL GLAZE	0	5%	1/8W	
		<VARIABLE RESISTOR>				
RV3001	1-241-630-11	RES, ADJ, CARBON 10K				
RV3002	1-241-632-11	RES, ADJ, CARBON 47K				
		<CRYSTAL>				
X3001	1-567-505-11	OSCILLATOR, CRYSTAL				

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*A-1306-415-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
C015	1-124-464-11	ELECT	0.22MF	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

M

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<DIODE>				
D001	8-719-404-46	DIODE MA110				
D002	8-719-404-46	DIODE MA110				
D003	8-719-404-46	DIODE MA110				
D004	8-719-404-46	DIODE MA110				
D005	8-719-404-46	DIODE MA110				
D006	8-719-404-46	DIODE MA110				
D007	8-719-404-46	DIODE MA110				
D008	8-719-404-46	DIODE MA110				
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				
D015	8-719-404-46	DIODE MA110				
		<IC>				
IC001	8-759-066-50	IC TMC73C247-07				
IC002	8-759-403-44	IC MN1280-S				
		<COIL>				
L001	1-408-409-00	INDUCTOR	10UH			
L002	1-410-476-11	INDUCTOR	33UH			
		<CONNECTOR>				
M001	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P				
M39	*1-564-521-11	PLUG, CONNECTOR 6P				
M45	*1-564-523-11	PLUG, CONNECTOR 8P				
		<TRANSISTOR>				
Q001	8-729-216-22	TRANSISTOR 2SA1162-G				
Q002	8-729-216-22	TRANSISTOR 2SA1162-G				
Q003	8-729-216-22	TRANSISTOR 2SA1162-G				
Q004	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q005	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q006	8-729-216-22	TRANSISTOR 2SA1162-G				
Q007	8-729-216-22	TRANSISTOR 2SA1162-G				
Q008	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q009	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q010	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q011	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q012	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q013	8-729-216-22	TRANSISTOR 2SA1162-G				
Q014	8-729-920-74	TRANSISTOR 2SC2412K-QR				
		<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	
R020	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R021	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R022	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R023	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R024	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R025	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R026	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R027	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R028	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R029	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R030	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R031	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R032	1-216-089-00	METAL GLAZE	47K	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	1-216-073-00	METAL GLAZE	10K	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	
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	1-216-033-00	METAL GLAZE	220	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	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
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	
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				
**********						
	*A-1346-051-A	E1 BOARD, COMPLETE (KV-32XBR25(U))				
		**********				
	*A-1346-057-A	E1 BOARD, COMPLETE (KV-27XBR25(U/C))				
		**********				
		<CAPACITOR>				
C301	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V	
C303	1-126-157-11	ELECT	10MF	20%	16V	
C304	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C305	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C306	1-102-973-00	CERAMIC	100PF	5%	50V	
					(KV-32XBR25(U))	
	1-102-971-00	CERAMIC	82PF	5%	50V	
					(KV-27XBR25(U/C))	
C309	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C310	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C314	1-124-915-11	ELECT	10MF	20%	16V	
C315	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C319	1-126-157-11	ELECT	10MF	20%	16V	
C320	1-124-465-00	ELECT	0.47MF	20%	50V	
C321	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C322	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C323	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C324	1-124-234-00	ELECT	22MF	20%	16V	
C325	1-137-502-11	FILM CHIP	0.1MF	5%	25V	
C326	1-137-502-11	FILM CHIP	0.1MF	5%	25V	
C327	1-137-502-11	FILM CHIP	0.1MF	5%	25V	
C328	1-126-157-11	ELECT	10MF	20%	16V	
C329	1-126-157-11	ELECT	10MF	20%	16V	
C330	1-126-157-11	ELECT	10MF	20%	16V	
C331	1-126-301-11	ELECT	1MF	20%	50V	
C332	1-124-584-00	ELECT	100MF	20%	10V	

REF.NO.	PART NO.	DESCRIPTION				REMARK
C333	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V	
C334	1-137-491-11	FILM CHIP	0.1MF	5%	25V	
C335	1-136-169-00	FILM	0.22MF	5%	50V	
C336	1-126-301-11	ELECT	1MF	20%	50V	
C337	1-126-301-11	ELECT	1MF	20%	50V	
C338	1-124-584-00	ELECT	100MF	20%	10V	
C339	1-124-791-11	ELECT	1MF	20%	50V	
C340	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C341	1-126-157-11	ELECT	10MF	20%	16V	
C342	1-124-465-00	ELECT	0.47MF	20%	50V	
C343	1-124-589-11	ELECT	47MF	20%	16V	
C344	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C345	1-124-767-00	ELECT	2.2MF	20%	50V	
C346	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C347	1-136-169-00	FILM	0.22MF	5%	50V	
C348	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C349	1-126-301-11	ELECT	1MF	20%	50V	
C350	1-126-301-11	ELECT	1MF	20%	50V	
C351	1-163-002-11	CERAMIC CHIP	270PF	10%	50V	
C352	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V	
C353	1-126-163-11	ELECT	4.7MF	20%	50V	
C354	1-136-169-00	FILM	0.22MF	5%	50V	
C355	1-124-465-00	ELECT	0.47MF	20%	50V	
C356	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C357	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C358	1-124-767-00	ELECT	2.2MF	20%	50V	
C360	1-137-491-11	FILM CHIP	0.1MF	5%	25V	
C361	1-126-301-11	ELECT	1MF	20%	50V	
C362	1-164-232-11	CERAMIC CHIP	0.01MF	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	
C380	1-163-137-00	CERAMIC CHIP	680PF	5%	50V	
C381	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C382	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C383	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C384	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
		<DIODE>				
D301	8-719-404-46	DIODE MA110				
D302	8-719-404-46	DIODE MA110				
D303	8-719-404-46	DIODE MA110				
D304	8-719-404-46	DIODE MA110				
D305	8-719-404-46	DIODE MA110				
D306	8-719-158-15	DIODE RD5.6S-B				
D307	8-719-404-46	DIODE MA110				
D310	8-719-158-15	DIODE RD5.6S-B				
D312	8-719-404-46	DIODE MA110				
D313	8-719-404-46	DIODE MA110				
D314	8-719-404-46	DIODE MA110				
D315	8-719-404-46	DIODE MA110				
D316	8-719-404-46	DIODE MA110				
D317	8-719-404-46	DIODE MA110				

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REF.NO	PART NO	DESCRIPTION	REMARK
D318	8-719-404-46	DIODE MA110	
D319	8-719-404-46	DIODE MA110	
D320	8-719-404-46	DIODE MA110	
D321	8-719-400-94	DIODE MA3130	
		<DELAY LINE>	
DL302	1-415-817-11	DELAY LINE	
		<CONNECTOR>	
E1-001	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P	
E1-24	*1-564-523-11	PLUG, CONNECTOR 8P	
E1-25	*1-564-521-11	PLUG, CONNECTOR 6P	
E1-26	*1-564-522-11	PLUG, CONNECTOR 7P	
		<IC>	
IC301	8-752-058-68	IC CXA1315M	
IC302	8-752-059-67	IC CXA1465AS	
IC303	8-759-106-02	IC UPC4570G2	
		<COIL>	
L301	1-410-064-11	INDUCTOR 2.7MMH	
L307	1-410-944-31	INDUCTOR CHIP 15UH	
L308	1-410-946-31	INDUCTOR CHIP 22UH	
		<TRANSISTOR>	
Q301	8-729-925-79	TRANSISTOR IMX3	
Q302	8-729-925-79	TRANSISTOR IMX3	
Q303	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q304	8-729-907-46	TRANSISTOR IMZ1	
Q305	8-729-925-79	TRANSISTOR IMX3	
Q306	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q307	8-729-903-10	TRANSISTOR FMW1	
Q309	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q310	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q311	8-729-920-39	TRANSISTOR IMT1US	
Q312	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q314	8-729-920-39	TRANSISTOR IMT1US	
Q315	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q316	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q317	8-729-216-22	TRANSISTOR 2SA1162-G	
Q321	8-729-925-79	TRANSISTOR IMX3	
Q322	8-729-216-22	TRANSISTOR 2SA1162-G	
Q323	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q324	8-729-216-22	TRANSISTOR 2SA1162-G	
Q325	8-729-216-22	TRANSISTOR 2SA1162-G	
Q326	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q327	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q328	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q329	8-729-925-79	TRANSISTOR IMX3	
Q330	8-729-925-79	TRANSISTOR IMX3	
Q333	8-729-925-79	TRANSISTOR IMX3	
Q334	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q335	8-729-907-46	TRANSISTOR IMZ1	
Q340	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q342	8-729-925-79	TRANSISTOR IMX3	
Q344	8-729-216-22	TRANSISTOR 2SA1162-G	
		<RESISTOR>	

REF.NO	PART NO.	DESCRIPTION				REMARK
R301	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R302	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R303	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R304	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R305	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R306	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R307	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R308	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R309	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R310	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R312	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R313	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R314	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R316	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R317	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R320	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R325	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R326	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R331	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R332	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R333	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R336	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R338	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R339	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R340	1-216-651-11	METAL CHIP	1K	0 50%	1/10W	
R341	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R343	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R344	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R345	1-216-292-11	METAL GLAZE	8.2M	5%	1/8W	
R346	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R347	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R348	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R349	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R350	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R351	1-216-674-11	METAL CHIP	9.1K	0.50%	1/10W	
R352	1-216-011-00	METAL GLAZE	27	5%	1/10W	
R353	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R354	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R355	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R356	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R357	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R358	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R359	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R360	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R361	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R362	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R363	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R364	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R365	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R366	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R367	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R368	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R369	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R370	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R371	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R372	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R373	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R374	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R375	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R376	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R377	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R378	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R379	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R380	1-216-033-00	METAL GLAZE	220	5%	1/10W	

E1 E2

REF.NO	PART NO.	DESCRIPTION				REMARK
R381	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R382	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R383	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R384	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R385	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R386	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R387	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R388	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R389	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R390	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R391	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R393	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R394	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R395	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R396	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R397	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R398	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R399	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1301	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1302	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1303	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1304	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1305	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1306	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1307	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1308	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1309	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1310	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1311	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1312	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1313	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1314	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1315	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1316	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1317	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1318	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1319	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1320	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1321	1-216-081-00	METAL GLAZE	22K	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	
R1325	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1326	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1327	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1328	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1329	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1330	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1331	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1332	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1333	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R1334	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1335	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1336	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1337	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1338	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1339	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1340	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1342	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1343	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1344	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1345	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1346	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1347	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1348	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1349	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1350	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1351	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1352	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1353	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	(KV-32XBR25(U))
	1-216-048-00	METAL GLAZE	910	5%	1/10W	(KV-27XBR25(U/C))
R1354	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1355	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R1356	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1357	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1358	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1362	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1363	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1364	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1373	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1374	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1379	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1380	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1381	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1382	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1383	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1384	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1385	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1386	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1387	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1388	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1389	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1390	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1391	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1392	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1394	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1395	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1396	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	(KV-32XBR25(U))
	1-216-121-00	METAL GLAZE	1M	5%	1/10W	(KV-27XBR25(U/C))
R1399	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R5301	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R5302	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R5303	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R5304	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R5305	1-216-085-00	METAL GLAZE	33K	5%	1/10W	

<CRYSTAL>

X301	1-567-505-11	OSCILLATOR, CRYSTAL	

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*A-1346-052-A	E2 BOARD, COMPLETE (KV-32XBR25(U))		
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*A-1346-058-A	E2 BOARD, COMPLETE (KV-27XBR25(U/C))		
	**********		

<CAPACITOR>

C2302	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	
C2303	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2310	1-163-105-00	CERAMIC CHIP 33PF	5%	50V	
C2313	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	(KV-27XBR25(U/C))

E2

REF NO.	PART NO.	DESCRIPTION			REMARK
C2314	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2318	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2320	1-124-589-11	ELECT 47MF	20%	16V	
C2321	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V	
C2322	1-124-234-00	ELECT 22MF	20%	16V	
C2323	1-124-234-00	ELECT 22MF	20%	16V	
C2324	1-124-234-00	ELECT 22MF	20%	16V	
C2325	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2326	1-124-589-11	ELECT 47MF	20%	16V	
C2327	1-164-505-11	CERAMIC CHIP 2.2MF		16V	
C2328	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2329	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2331	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2332	1-124-234-00	ELECT 22MF	20%	16V	
C2333	1-124-234-00	ELECT 22MF	20%	16V	
C2334	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2335	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2336	1-126-163-11	ELECT 4.7MF	20%	16V	
C2337	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2338	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2340	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	
C2341	1-135-217-21	TANTAL. CHIP 15MF	20%	6.3V	
C2345	1-164-505-11	CERAMIC CHIP 2.2MF		16V	
C2346	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2347	1-163-367-11	CERAMIC CHIP 39PF	5%	50V	
C2349	1-164-505-11	CERAMIC CHIP 2.2MF		16V	
C2350	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2351	1-164-505-11	CERAMIC CHIP 2.2MF		16V	
C2352	1-164-505-11	CERAMIC CHIP 2.2MF		16V	
C2353	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2354	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C2357	1-126-301-11	ELECT 1MF	20%	50V	
C2360	1-163-109-00	CERAMIC CHIP 47PF	5%	50V	

<DIODE>

D2301	8-719-018-27	DIODE MA5091
D2302	8-719-018-27	DIODE MA5091
D2303	8-719-018-27	DIODE MA5091
D2304	8-719-018-27	DIODE MA5091
D2305	8-719-018-27	DIODE MA5091
D2306	8-719-404-46	DIODE MA110
D2307	8-719-946-98	DIODE FMN1
D2308	8-719-946-98	DIODE FMN1
D2309	8-719-404-46	DIODE MA110
D2312	8-719-404-46	DIODE MA110
D2313	8-719-404-46	DIODE MA110
D2314	8-713-300-57	DIODE 1T33
D2317	8-719-404-46	DIODE MA110

<CONNECTOR>

E2-002	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P
E2-25	*1-564-521-11	PLUG, CONNECTOR 6P
E2-26	*1-564-522-11	PLUG, CONNECTOR 7P
E2-46	*1-564-518-11	PLUG, CONNECTOR 3P

<IC>

IC2301	8-759-066-52	IC PCA8510T/012-T
IC2303	8-759-925-75	IC SN74HC05ANS
IC2304	8-752-037-15	IC CXA1387S
IC2306	8-759-011-65	IC MC74HC4053F
IC2307	8-752-058-68	IC CXA1315M

REF NO.	PART NO.	DESCRIPTION	REMARK

<COIL>

L2304	1-408-414-00	INDUCTOR 27UH	

<TRANSISTOR>

Q2301	8-729-903-10	TRANSISTOR FMW1	
Q2303	8-729-920-39	TRANSISTOR IMT1US	
Q2304	8-729-925-79	TRANSISTOR IMX3	
Q2305	8-729-903-10	TRANSISTOR FMW1	
Q2306	8-729-920-39	TRANSISTOR IMT1US	
Q2307	8-729-920-39	TRANSISTOR IMT1US	
Q2308	8-729-920-39	TRANSISTOR IMT1US	
Q2309	8-729-903-10	TRANSISTOR FMW1	
Q2310	8-729-920-39	TRANSISTOR IMT1US	
Q2311	8-729-903-10	TRANSISTOR FMW1	
Q2312	8-729-920-39	TRANSISTOR IMT1US	
Q2313	8-729-903-10	TRANSISTOR FMW1	
Q2314	8-729-920-39	TRANSISTOR IMT1US	
Q2315	8-729-903-10	TRANSISTOR FMW1	
Q2317	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2318	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2319	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2320	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2321	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2322	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2324	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2326	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2327	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2328	8-729-925-79	TRANSISTOR IMX3	
Q2329	8-729-925-79	TRANSISTOR IMX3	
Q2330	8-729-903-10	TRANSISTOR FMW1	
Q2336	8-729-925-79	TRANSISTOR IMX3	
Q2337	8-729-925-79	TRANSISTOR IMX3	
Q2339	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2340	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2341	8-729-920-74	TRANSISTOR 2SC2412K-QR	

<RESISTOR>

R2302	1-216-025-00	METAL GLAZE	100	5%	1/10W
R2303	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2304	1-216-025-00	METAL GLAZE	100	5%	1/10W
R2305	1-216-033-00	METAL GLAZE	220	5%	1/10W
R2306	1-216-045-00	METAL GLAZE	680	5%	1/10W
R2307	1-216-045-00	METAL GLAZE	680	5%	1/10W
R2308	1-216-045-00	METAL GLAZE	680	5%	1/10W
R2309	1-216-041-00	METAL GLAZE	470	5%	1/10W
R2310	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R2311	1-216-025-00	METAL GLAZE	100	5%	1/10W
R2312	1-216-043-00	METAL GLAZE	560	5%	1/10W
R2313	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R2314	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R2315	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2317	1-216-041-00	METAL GLAZE	470	5%	1/10W
R2318	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R2319	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R2320	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R2321	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R2322	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2323	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R2324	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2325	1-216-049-00	METAL GLAZE	1K	5%	1/10W

E2

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2326	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2327	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R2328	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2329	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2330	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2331	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R2332	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2333	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2334	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2335	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2336	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2337	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2338	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2339	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2340	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2341	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2342	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2343	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2344	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2345	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2346	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2347	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2348	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R2349	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2350	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2351	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2352	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2353	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2354	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R2355	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R2356	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R2357	1-216-670-11	METAL CHIP	6.2K	0.50%	1/10W	
R2359	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2360	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2361	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2362	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2363	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2364	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2365	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2366	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2367	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2368	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2371	1-216-057-00	METAL GLAZE	2 2K	5%	1/10W	
R2374	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2375	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2376	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2377	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2378	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2379	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2380	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2381	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2382	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2384	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2385	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R2386	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2387	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2388	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R2390	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2393	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R2394	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2395	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R2397	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2399	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3301	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3302	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3303	1-216-069-00	METAL GLAZE	6 8K	5%	1/10W	
R3304	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R3306	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3307	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R3308	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R3309	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3310	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3311	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3312	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3313	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R3314	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R3315	1-216-089-00	METAL GLAZE	47K	5%	1/10W	(KV-32XBR25(U))
	1-216-077-00	METAL GLAZE	15K	5%	1/10W	(KV-27XBR25(U/C))
R3316	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	(KV-32XBR25(U))
	1-216-077-00	METAL GLAZE	15K	5%	1/10W	(KV-27XBR25(U/C))
R3318	1-216-095-00	METAL GLAZE	82K	5%	1/10W	(KV-32XBR25(U))
	1-216-091-00	METAL GLAZE	56K	5%	1/10W	(KV-27XBR25(U/C))
R3319	1-216-095-00	METAL GLAZE	82K	5%	1/10W	(KV-32XBR25(U))
	1-216-081-00	METAL GLAZE	22K	5%	1/10W	(KV-27XBR25(U/C))
R3320	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R3321	1-216-069-00	METAL GLAZE	6 8K	5%	1/10W	(KV-32XBR25(U))
	1-216-079-00	METAL GLAZE	18K	5%	1/10W	(KV-27XBR25(U/C))
R3323	1-216-101-00	METAL GLAZE	150K	5%	1/10W	(KV-32XBR25(U))
	1-216-091-00	METAL GLAZE	56K	5%	1/10W	(KV-27XBR25(U/C))
R3324	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3325	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3328	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3330	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3331	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3332	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3333	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R3334	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R3335	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3336	1-216-683-11	METAL CHIP	22K	0 50%	1/10W	
R3337	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R3339	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3340	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3341	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R3342	1-216-670-11	METAL CHIP	6.2K	0.50%	1/10W	
R3343	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3344	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3347	1-216-687-11	METAL CHIP	33K	0 50%	1/10W	(KV-32XBR25(U))
	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	(KV-27XBR25(U/C))
R3348	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R3349	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3350	1-216-065-00	METAL GLAZE	4 7K	5%	1/10W	
R3351	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3352	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

E2 Y2

REF NO.	PART NO.	DESCRIPTION				REMARK
R3353	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3354	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3356	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R3357	1-216-654-11	METAL CHIP	1.3K	0 50%	1/10W	
R3358	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R3359	1-216-653-11	METAL CHIP	1 2K	0.50%	1/10W	
R3360	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3361	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3362	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3367	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3368	1-216-089-00	METAL GLAZE	47K	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	
R3387	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R3388	1-216-178-00	METAL GLAZE	150	5%	1/8W	
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	

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*A-1394-362-A	Y2 BOARD, COMPLETE		
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<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
C458	1-126-101-11	ELECT	100MF	20%	16V
C459	1-126-101-11	ELECT	100MF	20%	16V
C460	1-126-101-11	ELECT	100MF	20%	16V
C461	1-124-499-11	ELECT	1MF	20%	50V
C462	1-124-499-11	ELECT	1MF	20%	50V
C465	1-130-485-00	MYLAR	0.015MF	5%	50V
C466	1-130-485-00	MYLAR	0.015MF	5%	50V
C467	1-136-169-00	FILM	0.22MF	5%	50V
C468	1-136-169-00	FILM	0.22MF	5%	50V
C469	1-126-157-11	ELECT	10MF	20%	16V
C470	1-126-157-11	ELECT	10MF	20%	16V
C471	1-124-589-11	ELECT	47MF	20%	16V
C472	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C473	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C474	1-124-234-00	ELECT	22MF	20%	16V
C475	1-164-232-11	CERAMIC.CHIP	0.01MF	10%	50V
C476	1-124-234-00	ELECT	22MF	20%	16V
C477	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C478	1-124-478-11	ELECT	100MF	20%	25V
C479	1-126-163-11	ELECT	4.7MF	20%	50V
C480	1-124-768-11	ELECT	4.7MF	20%	50V
C481	1-124-768-11	ELECT	4.7MF	20%	50V
C482	1-126-163-11	ELECT	4.7MF	20%	50V
C483	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C484	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C485	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C487	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C488	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V

<DIODE>

D405	8-719-107-13	DIODE RD18M-B1
D406	8-719-107-13	DIODE RD18M-B1
D407	8-719-107-13	DIODE RD18M-B1
D408	8-719-105-83	DIODE RD5.1M-B3
D409	8-719-981-50	DIODE RB100A
D410	8-719-981-50	DIODE RB100A
D413	8-719-158-19	DIODE RD6.2S-B
D414	8-719-158-55	DIODE RD15S-B
D415	8-719-158-55	DIODE RD15S-B

<IC>

IC403	8-759-996-43	IC RC4558PS
IC404	8-759-067-24	IC 24C04AI/P
IC406	8-752-037-24	IC CXA1264AS
IC407	8-759-245-75	IC TA8184P
IC408	8-752-057-18	IC CXA1315P

Y2 | X2

REF.NO	PART NO	DESCRIPTION				REMARK
		<TRANSISTOR>				
Q404	8-729-216-22	TRANSISTOR 2SA1162-G				
Q405	8-729-216-22	TRANSISTOR 2SA1162-G				
Q409	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q410	8-729-920-74	TRANSISTOR 2SC2412K-QR				
		<RESISTOR>				
R447	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R453	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R464	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R465	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R466	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R467	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R468	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R469	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R470	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R471	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R472	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	
R473	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R474	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R475	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R476	1-216-669-11	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				
		**********				
	*A-1394-363-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	
C2519	1-126-301-11	ELECT	1MF	20%	50V	
C2520	1-126-163-11	ELECT	4 7MF	20%	50V	
C2521	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V	
C2522	1-124-252-00	ELECT	0.33MF	20%	50V	
C2523	1-126-163-11	ELECT	4.7MF	20%	50V	
C2524	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2525	1-126-163-11	ELECT	4 7MF	20%	50V	
C2526	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2527	1-126-157-11	ELECT	10MF	20%	16V	
C2528	1-124-465-00	ELECT	0.47MF	20%	50V	
C2529	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V	
C2530	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V	
C2531	1-126-301-11	ELECT	1MF	20%	50V	
C2532	1-126-301-11	ELECT	1MF	20%	50V	
C2533	1-124-261-00	ELECT	10MF	20%	50V	
C2534	1-163-257-11	CERAMIC CHIP	180PF	5%	50V	
C2535	1-164-004-11	CERAMIC CHIP	0 1MF	10%	25V	
C2536	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2537	1-126-163-11	ELECT	4 7MF	20%	50V	
C2538	1-126-163-11	ELECT	4.7MF	20%	50V	
C2539	1-164-232-11	CERAMIC CHIP	0 01MF	10%	50V	
C2540	1-164-004-11	CERAMIC CHIP	0 1MF	10%	25V	
C2541	1-163-139-00	CERAMIC CHIP	820PF	5%	50V	
C2542	1-124-478-11	ELECT	100MF	20%	25V	
C2543	1-124-252-00	ELECT	0 33MF	20%	50V	

X2

REF.NO.	PART NO.	DESCRIPTION				REMARK
C2544	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C2545	1-126-301-11	ELECT	1MF	20%	50V	
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	
C2582	1-124-477-11	ELECT	47MF	20%	25V	
C2583	1-126-163-11	ELECT	4.7MF	20%	50V	
C2584	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C2585	1-126-163-11	ELECT	4.7MF	20%	50V	
C2586	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2587	1-126-163-11	ELECT	4.7MF	20%	50V	
C2588	1-126-163-11	ELECT	4.7MF	20%	50V	
C2589	1-126-163-11	ELECT	4.7MF	20%	50V	
C2590	1-126-163-11	ELECT	4.7MF	20%	50V	
C2591	1-124-478-11	ELECT	100MF	20%	25V	

<DIODE>

D2501	8-719-104-34	DIODE 1S2836
D2502	8-719-106-88	DIODE RD15M-B1
D2503	8-719-106-88	DIODE RD15M-B1
D2504	8-719-106-88	DIODE RD15M-B1

<IC>

IC2501	8-759-031-31	IC MC33174M
IC2502	8-752-050-75	IC CXA1373Q
IC2503	8-759-604-70	IC M51523AL
IC2504	8-759-031-31	IC MC33174M
IC2505	8-759-604-70	IC M51523AL
IC2506	8-759-106-22	IC UPD4052BG
IC2507	8-759-038-68	IC MC33172ML
IC2508	8-759-038-68	IC MC33172ML

<JACK>

J2501	*1-573-966-11	PIN, CONNECTOR (PC BOARD) 36P

<TRANSISTOR>

Q2501	8-729-230-49	TRANSISTOR 2SC2712-YG

<RESISTOR>

R2501	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R2502	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R2503	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R2504	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R2505	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R2506	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R2507	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R2508	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R2509	1-216-130-11	METAL GLAZE	2.4M	5%	1/10W
R2510	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R2511	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R2512	1-216-103-00	METAL GLAZE	180K	5%	1/10W
R2513	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R2514	1-216-103-00	METAL GLAZE	180K	5%	1/10W
R2515	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R2516	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R2517	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W
R2518	1-216-072-00	METAL GLAZE	9.1K	5%	1/10W
R2519	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W
R2520	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W
R2521	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W
R2522	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R2523	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R2524	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W
R2526	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W
R2527	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W
R2528	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2529	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2530	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W
R2531	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R2532	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W
R2533	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R2534	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R2535	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R2536	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W
R2537	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R2539	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R2540	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R2541	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R2542	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2543	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2544	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R2545	1-216-048-00	METAL GLAZE	910	5%	1/10W
R2546	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W
R2547	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W
R2548	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R2549	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R2550	1-216-088-00	METAL GLAZE	43K	5%	1/10W
R2551	1-216-088-00	METAL GLAZE	43K	5%	1/10W
R2552	1-216-049-00	METAL GLAZE	1K	5%	1/10W

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

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

X2 G

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2553	1-216-078-00	METAL GLAZE	16K	5%	1/10W	
R2554	1-216-082-00	METAL GLAZE	24K	5%	1/10W	
R2555	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2556	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2557	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R2558	1-216-088-00	METAL GLAZE	43K	5%	1/10W	
R2559	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R2560	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R2561	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2562	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2563	1-216-088-00	METAL GLAZE	43K	5%	1/10W	
R2564	1-216-088-00	METAL GLAZE	43K	5%	1/10W	
R2565	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R2566	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2567	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2568	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2569	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2570	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R2571	1-216-078-00	METAL GLAZE	16K	5%	1/10W	
R2572	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2573	1-216-082-00	METAL GLAZE	24K	5%	1/10W	
R2574	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R2575	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2576	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2577	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2578	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2579	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2580	1-216-081-00	METAL GLAZE	22K	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	
R2592	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2593	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R2594	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2595	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2596	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2597	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2598	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2599	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2600	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2601	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2602	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2604	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2605	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2606	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2610	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R2611	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R2612	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R2613	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R2614	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R2615	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R2616	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R2617	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R2618	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2619	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

REF NO	PART NO	DESCRIPTION			REMARK
	*A-1316-125-A	G BOARD, COMPLETE (KV-32XBR25(U)			
		**********			
	*A-1316-128-A	G BOARD, COMPLETE (KV-27XBR25(U/C))			
		**********			
	*4-341-751-01	EYELET (EY1~EY5,EY10~EY18,EY24~EY26, EY30~EY32,EY35~EY38,EY40~EY58,EY60~EY62, EY64~EY86,EY89~EY102,EY105~EY116,EY118, EY119,EY128~EY131)			
	*4-341-752-01	EYELET (EY8,EY9,EY19~EY23,EY27~EY29, EY33,EY34,EY39,EY59,EY63,EY87,EY88, EY103,EY117,EY120~EY127,EY132)			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C601 ⚠	1-136-311-51	FILM	0.47MF	20%	125V
C602 ⚠	1-162-599-81	CERAMIC	0.0047MF	20%	400V
C603 ⚠	1-162-599-81	CERAMIC	0.0047MF	20%	400V
C604 ⚠	1-104-346-11	ELECT	1000MF		200V
C605	1-162-599-12	CERAMIC	0.0047MF	20%	400V
C606	1-137-580-11	FILM	0.082MF	5%	100V
C607	1-137-580-11	FILM	0.082MF	5%	100V
C608	1-137-580-11	FILM	0.082MF	5%	100V
C609	1-137-580-11	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 ⚠	1-161-741-51	CERAMIC	0.001MF	10%	400V
C621 ⚠	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	1-124-960-11	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		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 ⚠	1-136-311-51	FILM	0.47MF	20%	125V
C678	1-124-360-00	ELECT	1000MF	20%	16V
		<DIODE>			

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Ne les remplacer que par une piece portant le numero specifie

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

G

REF NO	PART NO	DESCRIPTION	REMARK
D601 ⚠	8-719-022-99	DIODE B6SB60L	
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	
D606	8-719-911-19	DIODE 1SS119	
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	
D612	8-719-510-48	DIODE D1N20R	
D613	8-719-109-93	DIODE RD6.2ES-B2	
D651	8-719-027-43	DIODE S2L20UF	
D652	8-719-027-43	DIODE S2L20UF	
D653	8-719-027-43	DIODE S2L20UF	
D654	8-719-027-43	DIODE S2L20UF	
D655	8-719-510-13	DIODE D10SC4MR	
D656	8-719-022-97	DIODE D2S4MF	
D657	8-719-510-02	DIODE D1NS4	
D658	8-719-027-22	DIODE D3S6M-F	
D659	8-719-027-22	DIODE D3S6M-F	
D660	8-719-027-22	DIODE D3S6M-F	
D661	8-719-027-22	DIODE D3S6M-F	
D663	8-719-510-02	DIODE D1NS4	
D665	8-719-510-02	DIODE D1NS4	
D666	8-719-109-85	DIODE RD5.1ES-B2	
D667	8-719-911-19	DIODE 1SS119	
D668	8-719-911-19	DIODE 1SS119	
D669	8-719-109-54	DIODE RD2.2ES-B2	
D670	8-719-911-19	DIODE 1SS119	
D671	8-719-110-31	DIODE RD12ES-B2	
D672	8-719-911-19	DIODE 1SS119	

<FUSE>

F1 ⚠	1-532-783-21	FUSE, MICRO (SECONDARY) 5A/125V	
F601 ⚠	1-576-222-11	FUSE 6.3A/125V	
	1-533-190-11	CLIP, FUSE; F601	
F602 ⚠	1-576-107-22	FUSE 3.15A/250V	
	1-533-223-11	CLIP, FUSE; F602	

<FERRITE BEAD>

FB651	1-410-397-21	FERRITE BEAD INDUCTOR	
FB652	1-410-397-21	FERRITE BEAD INDUCTOR	
FB653	1-410-397-21	FERRITE BEAD INDUCTOR	
FB654	1-410-397-21	FERRITE BEAD INDUCTOR	
FB655	1-412-911-11	INDUCTOR, FERRITE BEAD	
FB656	1-410-397-21	FERRITE BEAD INDUCTOR	
FB659	1-412-911-11	INDUCTOR, FERRITE BEAD	
FB660	1-412-911-11	INDUCTOR, FERRITE BEAD	
FB661	1-412-911-11	INDUCTOR, FERRITE BEAD	
FB662	1-412-911-11	INDUCTOR, FERRITE BEAD	
FB663	1-412-911-11	INDUCTOR, FERRITE BEAD	
FB669	1-410-397-21	FERRITE BEAD INDUCTOR	
FB670	1-410-397-21	FERRITE BEAD INDUCTOR	

<CONNECTOR>

G3	*1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P	
G4	*1-564-510-11	PLUG, CONNECTOR 7P	
G5	*1-564-507-11	PLUG, CONNECTOR 4P	
G27	*1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P	(KV-27XBR25(U/C))
G28	*1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P	(KV-27XBR25(U/C))
G29	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
G30	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	(KV-32XBR25(U))
G31	*1-580-843-11	PIN, CONNECTOR (POWER)	
TP651	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	

<IC>

IC651 ⚠	1-809-521-11	MODULE, POWER DM-44	
IC654	8-719-156-73	PHOTO COUPLER PS2501-1-A	

<COIL>

L651	1-412-526-11	INDUCTOR	12UH
L652	1-410-673-31	INDUCTOR	68UH
L653	1-412-532-11	INDUCTOR	39UH
L654	1-412-532-11	INDUCTOR	39UH
L655	1-412-532-11	INDUCTOR	39UH
L656	1-412-526-11	INDUCTOR	12UH

<TRANSISTOR>

Q601	8-729-927-22	TRANSISTOR 2SC4664MNP-F	(KV-32XBR25(U))
	8-729-927-23	TRANSISTOR 2SC4664NPR-F	(KV-27XBR25(U/C))
Q602	8-729-927-22	TRANSISTOR 2SC4664MNP-F	(KV-32XBR25(U))
	8-729-927-23	TRANSISTOR 2SC4664NPR-F	(KV-27XBR25(U/C))
Q603	8-729-927-22	TRANSISTOR 2SC4664MNP-F	(KV-32XBR25(U))
	8-729-927-23	TRANSISTOR 2SC4664NPR-F	(KV-27XBR25(U/C))
Q604	8-729-927-22	TRANSISTOR 2SC4664MNP-F	(KV-32XBR25(U))
	8-729-927-23	TRANSISTOR 2SC4664NPR-F	(KV-27XBR25(U/C))
Q605	8-729-209-15	TRANSISTOR 2SD2012	
Q652	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q653	8-729-201-53	TRANSISTOR 2SA1015-GR	
Q654	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q655	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q656	8-729-119-78	TRANSISTOR 2SC2785-HFE	

<RESISTOR>

R601	1-249-388-11	CARBON	3.9	5%	1/4W	F
R602 ⚠	1-205-707-12	WIREWOUND	2.2	5%	10W	
R603	1-247-889-00	CARBON	270K	5%	1/4W	
R604	1-216-443-11	METAL OXIDE	56K	5%	1W	F
R605	1-216-443-11	METAL OXIDE	56K	5%	1W	F
R606	1-216-443-11	METAL OXIDE	56K	5%	1W	F
R607	1-216-443-11	METAL OXIDE	56K	5%	1W	F
R608	1-216-352-11	METAL OXIDE	1.8	5%	1W	F
R609	1-216-351-00	METAL OXIDE	1.5	5%	1W	F (KV-32XBR25(U))
	1-216-352-11	METAL OXIDE	1.8	5%	1W	F (KV-27XBR25(U/C))
R610	1-216-351-00	METAL OXIDE	1.5	5%	1W	F (KV-32XBR25(U))
	1-216-352-11	METAL OXIDE	1.8	5%	1W	F (KV-27XBR25(U/C))
R611	1-216-352-11	METAL OXIDE	1.8	5%	1W	F
R612	1-249-377-11	CARBON	0.47	5%	1/4W	F
R613	1-215-447-00	METAL	12K	1%	1/4W	
R614	1-215-433-00	METAL	3.3K	1%	1/4W	
R615	1-249-441-11	CARBON	100K	5%	1/4W	

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

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

G C

REF.NO.	PART NO.	DESCRIPTION				REMARK
R616	1-249-417-11	CARBON	1K	5%	1/4W	
R617	1-249-417-11	CARBON	1K	5%	1/4W	
R618	1-247-688-11	CARBON	10	5%	1/4W	F
R619	1-216-343-91	METAL OXIDE	0.33	5%	1W	F
R620	1-202-730-00	SOLID	8.2M	20%	1/2W	
R621	1-249-423-11	CARBON	3.3K	5%	1/4W	
R622 ⚠	1-202-888-91	SOLID	2.2M	20%	1/2W	
R623	1-212-956-00	FUSIBLE	8.2	5%	1/2W	F
R651	1-249-405-11	CARBON	100	5%	1/4W	F
R652	1-215-868-00	METAL OXIDE	680	5%	1W	F
R653	1-249-405-11	CARBON	100	5%	1/4W	
R654	1-249-399-11	CARBON	33	5%	1/4W	F
R655	1-249-393-11	CARBON	10	5%	1/4W	F
R656	1-249-443-11	CARBON	0.47	5%	1/4W	F
R657	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
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	
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>

RY601	1-515-516-00	RELAY	
RY602 ⚠	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 ⚠	1-450-958-11	TRANSFORMER, CONVERTER (PRT)	
T605	1-424-663-11	TRANSFORMER, FERRIITE (SBT)	

<THERMISTOR>

THP601 ⚠	1-800-686-43	THERMISTOR (POSITIVE) (KV-32XBR25(U))	
	⚠ 1-809-539-11	THERMISTOR, POSITIVE (KV-27XBR25(U/C))	

<VARISTOR>

VDR601 ⚠	1-809-786-11	VARISTOR	
VDR602	1-809-264-81	VARISTOR	

****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1331-203-A	C BOARD, COMPLETE (KV-32XBR25(U))	
		**********	
	*A-1331-209-A	C BOARD, COMPLETE (KV-27XBR25(U/C))	
		**********	
	*4-341-751-01	EYELET (EY51~EY53,EY55,EY57,EY58, EY59(KV-32XBR25(U)),EY66)	
	*4-341-752-01	EYELET (EY50,EY56,EY59(KV-27XBR25(U/C)), EY60(KV-27XBR25(U/C)),EY61,EY63~EY65, EY67,EY68)	

<CONNECTOR>

C2	*1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P	
C24	*1-564-511-51	PLUG, CONNECTOR 8P	
C42	*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 (KV-32XBR25(U))
	1-164-083-11	CERAMIC	680PF	10%	50V (KV-27XBR25(U/C))
C711	1-124-120-11	ELECT	220MF	20%	16V
C712	1-164-082-11	CERAMIC	560PF	10%	50V
C713	1-164-082-11	CERAMIC	560PF	10%	50V (KV-32XBR25(U))
	1-164-083-11	CERAMIC	680PF	10%	50V (KV-27XBR25(U/C))
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	1-540-071-11	SOCKET, PICTURE TUBE (KV-32XBR25(U))
	1-540-223-11	SOCKET, PICTURE TUBE (KV-27XBR25(U/C))

<COIL>

C D

REF.NO.	PART NO.	DESCRIPTION				REMARK
L701	1-410-671-31	INDUCTOR	47UH			
L702	1-410-645-31	INDUCTOR	100UH			(KV-27XBR25(U/C))
L703	1-410-677-31	INDUCTOR	180UH			(KV-27XBR25(U/C))
L706	1-410-677-31	INDUCTOR	180UH			(KV-27XBR25(U/C))
		<TRANSISTOR>				
Q701	8-729-326-11	TRANSISTOR 2SC2611				
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q703	8-729-200-17	TRANSISTOR 2SA1091-O				
Q704	8-729-326-11	TRANSISTOR 2SC2611				
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q706	8-729-200-17	TRANSISTOR 2SA1091-O				
Q707	8-729-200-17	TRANSISTOR 2SA1091-O				
Q708	8-729-326-11	TRANSISTOR 2SC2611				
Q709	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q710	8-729-255-12	TRANSISTOR 2SC2551-O				
Q711	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q712	8-729-255-12	TRANSISTOR 2SC2551-O				
Q714	8-729-200-17	TRANSISTOR 2SA1091-O				
Q715	8-729-200-17	TRANSISTOR 2SA1091-O				
Q716	8-729-200-17	TRANSISTOR 2SA1091-O				
		<RESISTOR>				
R701	1-216-398-11	METAL OXIDE	5.6	5%	3W F	(KV-32XBR25(U))
R702	1-202-883-11	SOLID	680K	20%	1/2W	
R703	1-202-838-00	SOLID	100K	20%	1/2W	
R705	1-249-433-11	CARBON	22K	5%	1/4W	(KV-27XBR25(U/C))
R706	1-202-838-00	SOLID	100K	20%	1/2W	(KV-32XBR25(U))
	1-202-815-11	SOLID	47K	20%	1/2W	(KV-27XBR25(U/C))
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	
R711	1-249-433-11	CARBON	22K	5%	1/4W	(KV-27XBR25(U/C))
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	
R722	1-249-433-11	CARBON	22K	5%	1/4W	(KV-27XBR25(U/C))
R723	1-249-405-11	CARBON	100	5%	1/4W	
R724	1-249-405-11	CARBON	100	5%	1/4W	
R725	1-249-429-11	CARBON	10K	5%	1/4W	
R726	1-249-408-11	CARBON	180	5%	1/4W	
R727	1-249-429-11	CARBON	10K	5%	1/4W	
R728	1-249-408-11	CARBON	180	5%	1/4W	
R729	1-249-405-11	CARBON	100	5%	1/4W	
R730	1-249-408-11	CARBON	180	5%	1/4W	
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	
R735	1-249-418-11	CARBON	1.2K	5%	1/4W	
R737	1-249-418-11	CARBON	1.2K	5%	1/4W	
R739	1-249-433-11	CARBON	22K	5%	1/4W	
R740	1-215-902-11	METAL OXIDE	47K	5%	2W F	
R741	1-249-417-11	CARBON	1K	5%	1/4W F	
R742	1-249-423-11	CARBON	3.3K	5%	1/4W F	
R743	1-249-423-11	CARBON	3.3K	5%	1/4W F	
R744	1-249-423-11	CARBON	3.3K	5%	1/4W F	
R745	1-249-417-11	CARBON	1K	5%	1/4W F	
R746	1-215-902-11	METAL OXIDE	47K	5%	1W F	
R747	1-249-429-11	CARBON	10K	5%	1/4W F	
R748	1-216-398-11	METAL OXIDE	5.6	5%	3W F	(KV-32XBR25(U))
	1-216-365-00	METAL OXIDE	0.47	5%	2W F	(KV-27XBR25(U/C))
R749	1-249-437-11	CARBON	47K	5%	1/4W	
R750	1-249-409-11	CARBON	220	5%	1/4W F	
R751	1-249-395-11	CARBON	15	5%	1/4W	
R752	1-249-393-11	CARBON	10	5%	1/4W	
R753	1-249-392-11	CARBON	8.2	5%	1/4W	(KV-32XBR25(U))
	1-249-390-11	CARBON	5.6	5%	1/4W	(KV-27XBR25(U/C))
R754	1-249-418-11	CARBON	1.2K	5%	1/4W	
R777	1-249-441-11	CARBON	100K	5%	1/4W	
		<VARIABLE RESISTOR>				
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV702	1-241-656-11	RES, ADJ, METAL FILM 110M				(KV-32XBR25(U))
	1-241-714-11	RES, ADJ, METAL FILM 110M				(KV-27XBR25(U/C))

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	*A-1341-535-A	D BOARD, COMPLETE (KV-32XBR25(U))			
		**********			
	*4-341-751-01	EYELET (EY801~EY804,EY901~EY904)			
	*4-341-752-01	EYELET (EY811,EY812)			
	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	0.16MF	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
C916	1-130-471-00	MYLAR	0.001MF	5%	50V
C917	1-130-479-00	MYLAR	0.0047MF	5%	50V
C918	1-102-074-00	CERAMIC	0.001MF	10%	50V
C920	1-136-946-11	FILM	0.12MF	5%	200V
C921	1-136-177-00	FILM	1MF	5%	50V
C929	1-130-471-00	MYLAR	0.001MF	5%	50V
C930	1-130-483-00	MYLAR	0.01MF	5%	50V

D

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>	
D14	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P	
D18	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P	
D20	*1-564-524-11	PLUG, CONNECTOR 9P	
DY2	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
		<DIODE>	
D801	8-719-913-44	DIODE ERA82-004	
D802	8-719-911-19	DIODE 1SS119	
D803	8-719-911-19	DIODE 1SS119	
D804	8-719-911-19	DIODE 1SS119	
D805	8-719-801-35	THYRISTOR SHOR3D42	
D806	8-719-980-78	DIODE ERA83-006	
D807	8-719-980-78	DIODE ERA83-006	
D808	8-719-911-19	DIODE 1SS119	
D809	8-719-911-19	DIODE 1SS119	
D810	8-719-911-19	DIODE 1SS119	
D811	8-719-300-33	DIODE RU-3AM	
D812	8-719-911-19	DIODE 1SS119	
D814	8-719-110-13	DIODE RD9.1ES-B2	
D815	8-719-911-19	DIODE 1SS119	
D816	8-719-911-19	DIODE 1SS119	
D903	8-719-979-85	DIODE EGP20G	
		<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	
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	
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	
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	
R942	1-215-892-11	METAL OXIDE 1K 5% 2W	F
		**********	
	*A-1341-545-A	D BOARD, COMPLETE (KV-27XBR25(U/C))	
		**********	
	*4-341-751-01	EYELET (EY801~EY804,EY901~EY904)	
	*4-341-752-01	EYELET (EY811,EY812)	
	4-382-854-11	SCREW (M3X10), P, SW (+)	
		<CAPACITOR>	

D

REF NO.	PART NO.	DESCRIPTION				REMARK
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	0.16MF	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	
C901	1-136-173-00	FILM	0.47MF	5%	50V	
C902	1-124-261-00	ELECT	10MF	20%	50V	
C903	1-136-169-00	FILM	0.22MF	5%	50V	
C904	1-130-471-00	MYLAR	0.001MF	5%	50V	
C905	1-124-261-00	ELECT	10MF	20%	50V	
C906	1-124-046-00	ELECT	10MF	20%	160V	
C907	1-124-465-00	ELECT	0.47MF	20%	50V	
C908	1-102-112-00	CERAMIC	330PF	10%	50V	
C910	1-136-103-91	FILM	0.1MF	5%	200V	
C911	1-136-165-00	FILM	0.1MF	5%	50V	
C913	1-124-589-11	ELECT	47MF	20%	16V	
C914	1-106-367-00	MYLAR	0.01MF	10%	100V	
C915	1-126-301-11	ELECT	1MF	20%	50V	
C917	1-130-471-00	MYLAR	0.001MF	5%	50V	
C918	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C920	1-136-601-11	FILM	0.01MF	5%	630V	
C922	1-124-557-11	ELECT	1000MF	20%	25V	
C923	1-130-471-00	MYLAR	0.001MF	5%	50V	
C925	1-124-261-00	ELECT	10MF	20%	50V	
C926	1-136-165-00	FILM	0.1MF	5%	50V	
C927	1-136-171-00	FILM	0.33MF	5%	50V	
C928	1-124-261-00	ELECT	10MF	20%	50V	
C930	1-130-483-00	MYLAR	0.01MF	5%	50V	
C931	1-130-475-00	MYLAR	0.0022MF	10%	50V	

<CONNECTOR>

D14	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P	
D18	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P	
D20	*1-564-524-11	PLUG, CONNECTOR 9P	
DY2	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	

<DIODE>

D801	8-719-913-44	DIODE ERA82-004	
D802	8-719-911-19	DIODE 1SS119	
D803	8-719-911-19	DIODE 1SS119	
D804	8-719-911-19	DIODE 1SS119	
D805	8-719-801-35	THYRISTOR SHOR3D42	
D806	8-719-980-78	DIODE ERA83-006	
D807	8-719-980-78	DIODE ERA83-006	
D808	8-719-911-19	DIODE 1SS119	
D809	8-719-911-19	DIODE 1SS119	
D810	8-719-911-19	DIODE 1SS119	
D811	8-719-300-33	DIODE RU-3AM	
D812	8-719-911-19	DIODE 1SS119	
D813	8-719-109-88	DIODE RD5.6ES-B1	
D814	8-719-110-13	DIODE RD9.1ES-B2	
D815	8-719-911-19	DIODE 1SS119	
D816	8-719-911-19	DIODE 1SS119	
D901	8-719-911-19	DIODE 1SS119	
D902	8-719-109-96	DIODE RD6.8ES-B1	
D903	8-719-979-85	DIODE EGP20G	
D906	8-719-980-78	DIODE ERA83-006	
D907	8-719-911-19	DIODE 1SS119	
D908	8-719-980-78	DIODE ERA83-006	
D911	8-719-911-19	DIODE 1SS119	

<IC>

IC801	8-749-920-58	IC SI-3090CA
IC802	8-752-052-88	IC CXA1526P
IC803	8-759-135-80	IC UPC358C
IC901	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
L902	1-459-075-00	COIL,DYNAMIC CONVERSION CHOKE

<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
Q901	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q902	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q903	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q904	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q905	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q906	8-729-119-80	TRANSISTOR 2SC2688-LK
Q907	8-729-119-80	TRANSISTOR 2SC2688-LK
Q908	8-729-300-80	TRANSISTOR 2SB860
Q909	8-729-140-96	TRANSISTOR 2SD774-34
Q910	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q911	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q912	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q913	8-729-011-02	TRANSISTOR 2SK1917
Q914	8-729-119-76	TRANSISTOR 2SA1175-HFE

<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	

D V

REF.NO	PART NO	DESCRIPTION				REMARK
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	1-249-422-11	CARBON	2.7K	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	
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	
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	
R901	1-249-425-11	CARBON	4.7K	5%	1/4W	
R902	1-249-438-11	CARBON	56K	5%	1/4W	
R903	1-249-429-11	CARBON	10K	5%	1/4W	
R904	1-249-429-11	CARBON	10K	5%	1/4W	
R905	1-249-429-11	CARBON	10K	5%	1/4W	
R906	1-249-425-11	CARBON	4.7K	5%	1/4W	
R907	1-249-429-11	CARBON	10K	5%	1/4W	
R908	1-249-437-11	CARBON	47K	5%	1/4W	
R909	1-249-433-11	CARBON	22K	5%	1/4W	
R910	1-249-431-11	CARBON	15K	5%	1/4W	
R911	1-247-895-00	CARBON	470K	5%	1/4W	
R912	1-249-429-11	CARBON	10K	5%	1/4W	
R913	1-249-425-11	CARBON	4.7K	5%	1/4W	
R914	1-249-401-11	CARBON	47	5%	1/4W	
R915	1-249-425-11	CARBON	4.7K	5%	1/4W	
R916	1-249-421-11	CARBON	2.2K	5%	1/4W	
R917	1-249-439-11	CARBON	68K	5%	1/4W	
R918	1-249-413-11	CARBON	470	5%	1/4W	
R919	1-249-437-11	CARBON	47K	5%	1/4W	
R920	1-249-418-11	CARBON	1 2K	5%	1/4W	F
R921	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R922	1-215-870-11	METAL OXIDE	1 5K	5%	1W	F
R923	1-249-429-11	CARBON	10K	5%	1/4W	
R924	1-249-423-11	CARBON	3.3K	5%	1/4W	
R925	1-249-415-11	CARBON	680	5%	1/4W	
R926	1-249-409-11	CARBON	220	5%	1/4W	
R927	1-249-429-11	CARBON	10K	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	
R933	1-249-421-11	CARBON	2.2K	5%	1/4W	
R934	1-249-439-11	CARBON	68K	5%	1/4W	
R935	1-249-429-11	CARBON	10K	5%	1/4W	

REF NO.	PART NO	DESCRIPTION				REMARK
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	
R944	1-249-432-11	CARBON	18K	5%	1/4W	
R945	1-247-895-00	CARBON	470K	5%	1/4W	
R946	1-249-425-11	CARBON	4 7K	5%	1/4W	
R947	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R948	1-249-435-11	CARBON	33K	5%	1/4W	
R950	1-249-425-11	CARBON	4.7K	5%	1/4W	
R952	1-249-405-11	CARBON	100	5%	1/4W	
R953	1-247-889-00	CARBON	270K	5%	1/4W	
R954	1-247-889-00	CARBON	270K	5%	1/4W	
R956	1-249-433-11	CARBON	22K	5%	1/4W	

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*A-1342-176-A V BOARD, COMPLETE (KV-32XBR25(U))
****
*A-1342-182-A V BOARD, COMPLETE (KV-27XBR25(U/C))
****

*4-341-751-01 EYELET (EY5)
*4-341-752-01 EYELET (EY1~EY4)
4-382-854-11 SCREW (M3X10), P, SW (+)

<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	1-102-951-00	CERAMIC	15PF	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
C974	1-102-959-00	CERAMIC	22PF	5%	50V
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	1-410-478-11	INDUCTOR	47UH (KV-32XBR25(U))
	1-408-416-00	INDUCTOR	39UH (KV-27XBR25(U/C))

V VC

REF NO.	PART NO	DESCRIPTION				REMARK
		<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	8-729-208-72	TRANSISTOR 2SC3298B-Y				
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	
R972	1-249-432-11	CARBON	18K	5%	1/4W	
R974	1-216-476-11	METAL OXIDE	180	5%	3W	F
R975	1-249-417-11	CARBON	1K	5%	1/4W	F
R976	1-249-432-11	CARBON	18K	5%	1/4W	
R977	1-249-438-11	CARBON	56K	5%	1/4W	
R978	1-249-430-11	CARBON	12K	5%	1/4W	
R979	1-249-414-11	CARBON	560	5%	1/4W	
R980	1-249-420-11	CARBON	1.8K	5%	1/4W	
R981	1-249-415-11	CARBON	680	5%	1/4W	
R982	1-249-384-11	CARBON	1.8	5%	1/4W	F
R983	1-249-441-11	CARBON	100K	5%	1/4W	
R984	1-249-405-11	CARBON	100	5%	1/4W	
R985	1-249-400-11	CARBON	39	5%	1/4W	F
R986	1-249-435-11	CARBON	33K	5%	1/4W	
R987	1-249-428-11	CARBON	8 2K	5%	1/4W	
R988	1-249-418-11	CARBON	1.2K	5%	1/4W	
R989	1-249-413-11	CARBON	470	5%	1/4W	
R990	1-216-451-11	METAL OXIDE	120	5%	2W	F
R991	1-249-409-11	CARBON	220	5%	1/4W	
		<CONNECTOR>				
V20	*1-564-512-11	PLUG, CONNECTOR 9P				
		**********				
	*A-1347-068-A	VC BOARD, COMPLETE (KV-27XBR25(U/C))				
		**********				
	*4-341-751-01	EYELET (EY1801~EY1804)				
		<CAPACITOR>				
C1801	1-124-478-11	ELECT	100MF	20%	25V	
C1802	1-124-478-11	ELECT	100MF	20%	25V	
C1803	1-130-487-00	MYLAR	0.022MF	5%	50V	
C1804	1-102-973-00	CERAMIC	100PF	5%	50V	
C1805	1-130-471-00	FILM	0.001MF	5%	50V	
C1806	1-130-487-00	MYLAR	0 022MF	5%	50V	
C1807	1-130-471-00	MYLAR	0.001MF	5%	50V	
C1808	1-102-228-00	CERAMIC	470PF	10%	500V	
C1809	1-124-798-11	ELECT	1MF	20%	160V	
C1810	1-130-495-00	MYLAR	0 1MF	5%	50V	
C1811	1-124-798-11	ELECT	1MF	20%	160V	
C1812	1-136-104-00	FILM	0.16MF	5%	200V	
C1813	1-129-765-00	FILM	0.047MF	10%	200V	
		<DIODE>				
D1801	8-719-911-19	DIODE 1SS119				
D1802	8-719-911-19	DIODE 1SS119				
D1803	8-719-300-33	DIODE RU-3AM				
D1804	8-719-300-33	DIODE RU-3AM				
D1805	8-719-300-33	DIODE RU-3AM				
		<IC>				
IC1801	8-759-987-16	IC IM393P				
IC1802	8-759-987-16	IC LM393P				
IC1803	8-759-708-09	IC NJM78L09A				
		<COIL>				
L1801	1-460-200-11	COIL (WITH CORE)				
		<TRANSISTOR>				
Q1801	8-729-012-26	TRANSISTOR IRF540Y				
Q1802	8-729-012-26	TRANSISTOR IRF540Y				
Q1803	8-729-931-45	TRANSISTOR IRF614				
		<RESISTOR>				
R1801	1-249-435-11	CARBON	33K	5%	1/4W	
R1802	1-249-417-11	CARBON	1K	5%	1/4W	
R1803	1-247-887-00	CARBON	220K	5%	1/4W	
R1804	1-249-437-11	CARBON	47K	5%	1/4W	
R1805	1-247-895-00	CARBON	470K	5%	1/4W	
R1806	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1807	1-249-423-11	CARBON	3 3K	5%	1/4W	
R1808	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1809	1-249-433-11	CARBON	22K	5%	1/4W	
R1810	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1811	1-216-463-00	METAL OXIDE	12K	5%	2W	F
R1812	1-215-875-11	METAL OXIDE	10K	5%	1W	F
R1813	1-249-405-11	CARBON	100	5%	1/4W	
R1814	1-249-441-11	CARBON	100K	5%	1/4W	
R1815	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R1816	1-249-434-11	CARBON	27K	5%	1/4W	
R1817	1-249-441-11	CARBON	100K	5%	1/4W	
R1818	1-249-406-11	CARBON	120	5%	1/4W	
		<VARIABLE RESISTOR>				
RV1801	1-228-993-00	RES, ADJ, METAL GLAZE 4.7K				
		<TRANSFORMER>				
T1801	1-437-212-11	TRANSFORMER, FERRITE (VPDT)				
		<CONNECTOR>				
VC15	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P				

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

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

HS1 HS2 U

REF.NO.	PART NO.	DESCRIPTION			REMARK
**********					
	*1-643-150-11	HS1 BOARD			
		*********			
		<CAPACITOR>			
C1603	1-124-589-11	ELECT	47MF	20%	16V
C1604	1-124-589-11	ELECT	47MF	20%	16V
		<DIODE>			
D1601	1-809-718-11	LED UNIT			
D1602	1-809-718-11	LED UNIT			
		<CONNECTOR>			
HS1-37	*1-564-514-11	PLUG, CONNECTOR 11P			
		<IC>			
IC1601	8-741-100-62	IC SBX1618-51			
		<RESISTOR>			
R1601	1-249-405-11	CARBON	100	5%	1/4W
R1602	1-249-407-11	CARBON	150	5%	1/4W
R1604	1-249-419-11	CARBON	1.5K	5%	1/4W
R1605	1-249-421-11	CARBON	2.2K	5%	1/4W
R1606	1-249-425-11	CARBON	4.7K	5%	1/4W
R1607	1-249-430-11	CARBON	12K	5%	1/4W
		<SWITCH>			
S1601	1-571-532-21	SWITCH, TACTIL			
S1602	1-571-532-21	SWITCH, TACTIL			
S1603	1-571-532-21	SWITCH, TACTIL			
S1604	1-571-532-21	SWITCH, TACTIL			
S1605	1-571-532-21	SWITCH, TACTIL			
S1606	1-571-532-21	SWITCH, TACTIL			
S1607	1-571-532-23	SWITCH, TACTIL (POWER)			
**********					
	*1-643-151-11	HS2 BOARD			
		*********			
		<DIODE>			
D1650	8-719-108-12	DIODE RD9.1E-W			
D1651	8-719-108-12	DIODE RD9 1E-W			
D1652	8-719-108-12	DIODE RD9 1E-W			
		<CONNECTOR>			
HS2-16	*1-564-513-11	PLUG, CONNECTOR 10P			
HS2-49	*1-564-506-11	PLUG, CONNECTOR 3P			
		<JACK>			
J1650	1-569-804-11	JACK BLOCK, PIN (L TYPE) 3P			
**********					

REF NO.	PART NO	DESCRIPTION			REMARK
	*A-1373-318-A	U BOARD, COMPLETE			
		**********			
	*4-341-751-01	EYELET (EY1001~EY1005)			
	*4-341-752-01	EYELET (EY1006)			
		<CAPACITOR>			
C1004	1-102-125-00	CERAMIC	0 0047MF	10%	50V
C1005	1-126-301-11	ELECT	1MF	20%	50V
C1006	1-164-096-11	CERAMIC	0.01MF		50V
C1007	1-124-598-11	ELECT	22MF	20%	25V
C1008	1-124-598-11	ELECT	22MF	20%	25V
C1010	1-124-465-00	ELECT	0.47MF	20%	50V
C1011	1-124-465-00	ELECT	0.47MF	20%	50V
C1012	1-124-465-00	ELECT	0 47MF	20%	50V
C1013	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C1014	1-126-163-11	ELECT	4 7MF	20%	50V
C1016	1-126-163-11	ELECT	4.7MF	20%	50V
C1018	1-126-301-11	ELECT	1MF	20%	50V
C1020	1-124-242-00	ELECT	33MF	20%	25V
C1021	1-124-465-00	ELECT	0.47MF	20%	50V
C1022	1-124-242-00	ELECT	33MF	20%	25V
C1026	1-164-048-11	CERAMIC	12PF	5%	50V
C1027	1-164-048-11	CERAMIC	12PF	5%	50V
C1028	1-124-242-00	ELECT	33MF	20%	25V
C1029	1-124-282-00	ELECT	22MF	20%	16V
C1030	1-124-478-11	ELECT	100MF	20%	25V
C1031	1-102-963-00	CERAMIC	33PF	5%	50V
C1033	1-124-598-11	ELECT	22MF	20%	25V
C1034	1-124-282-00	ELECT	22MF	20%	16V
C1036	1-124-282-00	ELECT	22MF	20%	16V
C1037	1-124-282-00	ELECT	22MF	20%	16V
C1039	1-124-478-11	ELECT	100MF	20%	25V
C1047	1-124-465-00	ELECT	0.47MF	20%	50V
C1048	1-126-301-11	ELECT	1MF	20%	50V
C1049	1-124-598-11	ELECT	22MF	20%	25V
C1051	1-124-465-00	ELECT	0 47MF	20%	50V
C1055	1-124-589-11	ELECT	47MF	20%	16V
C1056	1-124-499-11	ELECT	1MF	20%	50V
C1057	1-124-768-11	ELECT	4.7MF	20%	50V
C1059	1-124-499-11	ELECT	1MF	20%	50V
C1060	1-124-499-11	ELECT	1MF	20%	50V
C1061	1-124-499-11	ELECT	1MF	20%	50V
C1062	1-102-129-00	CERAMIC	0 01MF	10%	50V
C1063	1-124-768-11	ELECT	4.7MF	20%	50V
C1066	1-126-101-11	ELECT	100MF	20%	16V
C1070	1-126-103-11	ELECT	470MF	20%	16V
		<FILTER BLOCK>			
CM1002	1-466-623-11	FILTER BLOCK, COMB (CFB-5)			
		<DIODE>			
D1005	8-719-110-36	DIODE RD13ES-B2			
D1008	8-719-109-66	DIODE RD3.3ES-B2			
D1009	8-719-110-36	DIODE RD13ES-B2			
D1010	8-719-110-36	DIODE RD13ES-B2			
D1011	8-719-110-36	DIODE RD13ES-B2			
D1012	8-719-110-36	DIODE RD13ES-B2			
D1013	8-719-110-36	DIODE RD13ES-B2			
D1014	8-719-110-36	DIODE RD13ES-B2			
D1017	8-719-110-36	DIODE RD13ES-B2			
D1018	8-719-110-36	DIODE RD13ES-B2			

U

REF.NO.	PART NO.	DESCRIPTION				REMARK
D1019	8-719-110-36	DIODE RD13ES-B2				
D1020	8-719-109-66	DIODE RD3.3ES-B2				
D1021	8-719-109-66	DIODE RD3.3ES-B2				
D1022	8-719-109-66	DIODE RD3.3ES-B2				
D1025	8-719-911-19	DIODE 1SS119				
D1026	8-719-911-19	DIODE 1SS119				
D1027	8-719-911-19	DIODE 1SS119				
		<IC>				
IC1002	8-752-056-50	IC CXA1545S				
IC1011	8-759-145-57	IC UPC4557C				
		<COIL>				
L1001	1-408-422-00	INDUCTOR	120UH			
L1002	1-408-422-00	INDUCTOR	120UH			
		<TRANSISTOR>				
Q1009	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1010	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1011	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1014	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1015	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1016	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1017	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1018	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1019	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1020	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1021	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1022	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1023	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1025	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1029	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1030	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1031	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1032	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1033	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1034	8-729-119-76	TRANSISTOR 2SA1175-HFE				
		<RESISTOR>				
R1011	1-249-435-11	CARBON	33K	5%	1/4W	
R1012	1-249-434-11	CARBON	27K	5%	1/4W	
R1013	1-249-417-11	CARBON	1K	5%	1/4W	
R1014	1-249-441-11	CARBON	100K	5%	1/4W	
R1015	1-215-437-00	METAL	4.7K	1%	1/4W	
R1016	1-249-441-11	CARBON	100K	5%	1/4W	
R1017	1-249-405-11	CARBON	100	5%	1/4W	
R1018	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1019	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1020	1-249-405-11	CARBON	100	5%	1/4W	
R1021	1-249-405-11	CARBON	100	5%	1/4W	
R1023	1-249-405-11	CARBON	100	5%	1/4W	
R1024	1-249-437-11	CARBON	47K	5%	1/4W	
R1025	1-249-417-11	CARBON	1K	5%	1/4W	
R1026	1-215-437-00	METAL	4.7K	1%	1/4W	
R1028	1-249-434-11	CARBON	27K	5%	1/4W	
R1029	1-249-435-11	CARBON	33K	5%	1/4W	
R1030	1-249-417-11	CARBON	1K	5%	1/4W	
R1032	1-249-417-11	CARBON	1K	5%	1/4W	
R1033	1-249-393-11	CARBON	10	5%	1/4W	F
R1034	1-249-417-11	CARBON	1K	5%	1/4W	
R1036	1-249-440-11	CARBON	82K	5%	1/4W	
R1037	1-249-440-11	CARBON	82K	5%	1/4W	
R1038	1-249-440-11	CARBON	82K	5%	1/4W	
R1043	1-249-417-11	CARBON	1K	5%	1/4W	
R1046	1-249-413-11	CARBON	470	5%	1/4W	
R1048	1-249-405-11	CARBON	100	5%	1/4W	
R1050	1-249-405-11	CARBON	100	5%	1/4W	
R1051	1-249-417-11	CARBON	1K	5%	1/4W	
R1052	1-249-413-11	CARBON	470	5%	1/4W	
R1054	1-249-405-11	CARBON	100	5%	1/4W	
R1055	1-249-413-11	CARBON	470	5%	1/4W	
R1056	1-249-405-11	CARBON	100	5%	1/4W	
R1057	1-249-441-11	CARBON	100K	5%	1/4W	
R1059	1-249-405-11	CARBON	100	5%	1/4W	
R1061	1-249-409-11	CARBON	220	5%	1/4W	
R1062	1-249-441-11	CARBON	100K	5%	1/4W	
R1063	1-249-409-11	CARBON	220	5%	1/4W	
R1066	1-215-437-00	METAL	4.7K	1%	1/4W	
R1067	1-215-437-00	METAL	4.7K	1%	1/4W	
R1068	1-215-437-00	METAL	4.7K	1%	1/4W	
R1069	1-215-437-00	METAL	4.7K	1%	1/4W	
R1070	1-249-411-11	CARBON	330	5%	1/4W	
R1071	1-249-431-11	CARBON	15K	5%	1/4W	
R1073	1-249-431-11	CARBON	15K	5%	1/4W	
R1077	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1078	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1079	1-249-405-11	CARBON	100	5%	1/4W	
R1080	1-215-423-00	METAL	1.2K	1%	1/4W	
R1081	1-215-421-00	METAL	1K	1%	1/4W	
R1089	1-249-405-11	CARBON	100	5%	1/4W	
R1094	1-249-405-11	CARBON	100	5%	1/4W	
R1096	1-249-405-11	CARBON	100	5%	1/4W	
R1099	1-249-413-11	CARBON	470	5%	1/4W	
R1100	1-249-429-11	CARBON	10K	5%	1/4W	
R1101	1-249-405-11	CARBON	100	5%	1/4W	
R1110	1-249-405-11	CARBON	100	5%	1/4W	
R1116	1-249-441-11	CARBON	100K	5%	1/4W	
R1118	1-249-413-11	CARBON	470	5%	1/4W	
R1121	1-249-441-11	CARBON	100K	5%	1/4W	
R1133	1-249-405-11	CARBON	100	5%	1/4W	
R1134	1-249-405-11	CARBON	100	5%	1/4W	
R1138	1-249-415-11	CARBON	680	5%	1/4W	
R1139	1-249-413-11	CARBON	470	5%	1/4W	
R1140	1-249-413-11	CARBON	470	5%	1/4W	
R1141	1-249-413-11	CARBON	470	5%	1/4W	
R1142	1-249-415-11	CARBON	680	5%	1/4W	
R1147	1-249-405-11	CARBON	100	5%	1/4W	
R1148	1-249-405-11	CARBON	100	5%	1/4W	
R1149	1-249-417-11	CARBON	1K	5%	1/4W	
R1150	1-249-405-11	CARBON	100	5%	1/4W	
R1151	1-249-405-11	CARBON	100	5%	1/4W	
R1152	1-249-417-11	CARBON	1K	5%	1/4W	
		<CONNECTOR>				
U12	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P				
U13	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P				
U16	*1-564-513-11	PLUG, CONNECTOR 10P				
U22	1-566-942-11	CONNECTOR,HINGE(RECEPTACLE)30P				
U23	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)				
U50	*1-564-505-11	PLUG, CONNECTOR 2P				

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UT S

REF NO.	PART NO.	DESCRIPTION			REMARK
	*A-1373-322-A	UT BOARD, COMPLETE **********			
		<CAPACITOR>			
C1152	1-102-074-00	CERAMIC	0 001MF	10%	50V
C1154	1-164-096-11	CERAMIC	0.01MF		50V
C1155	1-126-103-11	ELECT	470MF	20%	16V
C1158	1-124-598-11	ELECT	22MF	20%	25V
C1160	1-124-598-11	ELECT	22MF	20%	25V
C1161	1-124-598-11	ELECT	22MF	20%	25V
C1164	1-126-103-11	ELECT	470MF	20%	16V
C1165	1-126-301-11	ELECT	1MF	20%	50V
C1166	1-126-301-11	ELECT	1MF	20%	50V
C1167	1-126-301-11	ELECT	1MF	20%	50V
C1168	1-126-301-11	ELECT	1MF	20%	50V
		<DIODE>			
D1152	8-719-110-36	DIODE RD13ES-B2			
D1158	8-719-110-36	DIODE RD13ES-B2			
D1159	8-719-110-36	DIODE RD13ES-B2			
D1160	8-719-110-36	DIODE RD13ES-B2			
D1163	8-719-110-36	DIODE RD13ES-B2			
D1164	8-719-110-36	DIODE RD13ES-B2			
D1165	8-719-110-36	DIODE RD13ES-B2			
D1166	8-719-110-36	DIODE RD13ES-B2			
D1167	8-719-110-36	DIODE RD13ES-B2			
D1168	8-719-110-36	DIODE RD13ES-B2			
D1169	8-719-110-36	DIODE RD13ES-B2			
D1170	8-719-110-36	DIODE RD13ES-B2			
		<JACK>			
J1003	1-573-970-11	BLOCK, (S) TERMINAL			
J1004	1-695-049-11	BLOCK, (S) TERMINAL			
J1005	1-695-054-11	JACK BLOCK, PIN			
J1006	1-573-970-11	BLOCK, (S) TERMINAL			
J1007	1-573-969-11	JACK BLOCK, PIN			
J1008	1-573-969-11	JACK BLOCK, PIN			
		<RESISTOR>			
R1153	1-249-403-11	CARBON	68	5%	1/4W
R1164	1-247-895-00	CARBON	470K	5%	1/4W
R1165	1-247-895-00	CARBON	470K	5%	1/4W
R1166	1-247-895-00	CARBON	470K	5%	1/4W
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
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>			
UT9	*1-564-517-11	PLUG, CONNECTOR 2P			
UT11	*1-564-519-11	PLUG, CONNECTOR 4P			
UT22	*1-566-941-11	CONNECTOR, HINGE (TAB) 30P			
UT23	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P			
UT35	*1-564-518-11	PLUG, CONNECTOR 3P			
UT38	*1-564-517-11	PLUG, CONNECTOR 2P			
**********					
	*1-643-669-11	S BOARD *******			
		<CAPACITOR>			
C3403	1-164-161-11	CERAMIC CHIP	0 0022MF	10%	50V
C3408	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3409	1-124-477-11	ELECT	47MF	20%	16V
C3411	1-124-034-51	ELECT	33MF	20%	16V
		<IC>			
IC3401	8-759-403-44	IC MN1280-S			
IC3402	8-759-070-42	IC M37201M6-A18FP			
		<COIL>			
L3401	1-408-421 00	INDUCTOR	100UH		
		<RESISTOR>			
R3401	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3402	1-216-049-00	METAL GLAZE	1K	5%	1/10W
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
R3476	1-216-295-00	METAL GLAZE	0	5%	1/10W
		<CONNECTOR>			
S45	*1-564-511-71	PLUG, CONNECTOR 8P			
S46	*1-564-506-11	PLUG, CONNECTOR 3P			
		<CRYSTAL>			
X3401	1-577-082-11	VIBRATOR, CERAMIC			

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

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

REF.NO	PART NO.	DESCRIPTION	REMARK
		**********	
		MISCELLANEOUS	
		**********	
⚠	1-426-356-11	COIL, DEMAGNETIZATION (KV-32XBR25(U))	
⚠	1-426-573-11	COIL, DEGAUSSING (KV-27XBR25(U/C))	
⚠	1-426-574-11	COIL, DEGAUSSING (KV-27XBR25(U/C))	
⚠	1-451-315-11	DEFLECTION YOKE (Y34FXA) (KV-32XBR25(U))	
⚠	1-451-394-11	DEFLECTION YOKE (Y29EXA) (KV-27XBR25(U/C))	
	1-452-033-00	MAGNET, DISK; 10MM φ	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ	
⚠	1-452-579-11	NECK ASSY, PICTURE TUBE (NA322) (KV-32XBR25(U))	
⚠	1-452-616-12	NECK ASSY, PICTURE TUBE (NA323) (KV-27XBR25(U/C))	
	1-544-544-11	SPEAKER (10CM)	
	1-544-580-11	SPEAKER (2 5CM)	
*	1-555-400-00	CABLE, PIN	
	1-561-306-00	JACK, PIN (F)	
⚠	1-696-002-11	CORD, POWER (WITH NOISE FILTER)	
V901 ⚠	8-733-723-05	PICTURE TUBE (A80JYV50X) (KV-32XBR25(U))	
⚠	8-733-835-05	PICTURE TUBE(M68KUZ10X)(KV-27XBR25(U/C))	
		**********	
		ACCESSORIES AND PACKING MATERIALS	
		**********	
	1-559-913-11	CABLE, ANTENNA CONNECTION	
	3-755-193-21	MANUAL, INSTRUCTION (ENGLISH)	
	3-755-193-31	MANUAL, INSTRUCTION (FRENCH) (KV-27XBR25(C))	
	3-755-193-41	MANUAL, INSTRUCTION (SPANISH) (KV-27XBR25(U),KV-32XBR25(U))	
*	4-035-985-01	CUSHION (UPPER) (ASSY) (KV-32XBR25(U))	
*	4-035-986-01	CUSHION (LOWER) (ASSY) (KV-32XBR25(U))	
*	4-035-991-01	INDIVIDUAL CARTON (KV-32XBR25(U))	
*	4-036-851-01	INDIVIDUAL CARTON (KV-27XBR25(U/C))	
*	4-036-852-01	CUSHION (UPPER) (ASSY) (KV-27XBR25(U/C))	
*	4-036-853-01	CUSHION (LOWER) (ASSY) (KV-27XBR25(U/C))	
*	4-384-027-01	BAG, PROTECTION	
		REMOTE COMMANDER	
	1-693-114-11	REMOTE COMMANDER (RM-Y112)	
	9-902-719-01	COVER (FOR RM-Y112)	
	9-998-214-01	COVER, BATTERY (FOR RM-Y112)	