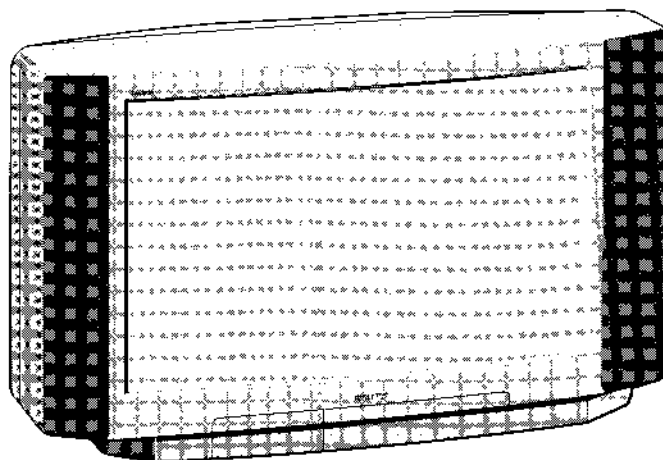


# SERVICE MANUAL

# BE-4 CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
<i>KV-16WT1</i>	<i>RM-836</i>	<i>AEP</i>	<i>SCC-H46C-A</i>	<i>KV-16WT1R</i>	<i>RM-836</i>	<i>OIRT</i>	<i>SCC-H92B-A</i>
<i>KV-16WT1A</i>	<i>RM-836</i>	<i>Italian</i>	<i>SCC-H64C-A</i>	<i>KV-16WT1U</i>	<i>RM-836</i>	<i>UK</i>	<i>SCC-H93A-A</i>
<i>KV-16WT1K</i>	<i>RM-836</i>	<i>OIRT</i>	<i>SCC-H92A-A</i>				



TRINITRON® COLOR TV  
**SONY®**

ITEM	MODEL	Television System	Channel Coverage	Colour System
AEP		B/G/H	VHF: E2-E12, S1-S20 UHF: E21-E69, S21-S41	PAL, SECAM NTSC3.58/4.43 (video input only)
Italian		B/G/H	VHF: E2-E12, S1-S20, A-H2 UHF: E21-E69	PAL NTSC3.58/4.43 (video input only)
OIRT		B/G, D/K	B/G VHF: E2-E12 UHF: E21-E69 Hyper: S1-S41 D/K VHF: R1-R12 UHF: R21-R69	PAL, SECAM NTSC3.58/4.43 (video input only)
UK		I	UHF: E21-E69	PAL NTSC3.58/4.43 (video input only)

MODEL	AEP	Italian	OIRT	UK
Power Consumption	37W	37W	37W	52W

**SPECIFICATIONS**

Picture Tube      **Hi-Black Trinitron**  
 Approx. 40 cm (16 inches)  
 (Approx. 36 cm picture measured  
 diagonally)  
 86° -deflection

**Input/Output Terminals**

**[INPUTS]**

- 21-pin connector (CENELEC standard)
- audio / video input
- RGB input
- Front connectors
- ⊖ Video (phono jack)
- ⊕ Video (phono jack)

**[OUTPUTS]**

- Ω Headphone jack : minijack (mono)
- Sound output      4W (RMS)  
5W (music power)
- Dimensions      475x335x398 mm approx.
- Weight      Approx. 11.5kg
- Supplied accessories      RM-836 Remote Commander (1)  
IEC designated batteries (2)  
Aerial (1)  
Aerial connector with built-in 300-75  
ohm matching transformer (1)
- Other features      TELETEXT


**[RM-836]**

- Remote control system      infrared control
- Power requirements      3V dc (2 batteries) R6 (size AA)
- Dimensions      Approx. 210x45x24 mm (w/h/d)
- Weight      Approx. 90g (Not including batteries)

**Design and specifications are subject to change without notice.**

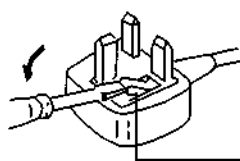
Item	Model name			
	KV-16WT1	KV-16WT1A	KV-16WT1K KV-16WT1R	KV-16WT1U
Pal Comb	OFF	OFF	OFF	OFF
PIP	OFF	OFF	OFF	OFF
RGB Priority	ON	ON	ON	ON
Woofer Box	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON
Scart 2	OFF	OFF	OFF	OFF
Front in (3)	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON
Norm B/G/H	ON	ON	ON	OFF
Norm I	OFF	OFF	OFF	ON
Norm D/K	OFF	OFF	ON	OFF
Norm AUS	OFF	OFF	OFF	OFF
Norm L	OFF	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF
Language Preset	German	Italian	OIRT	English

### WARNING ( KV-16WT1U only )

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the  mark.

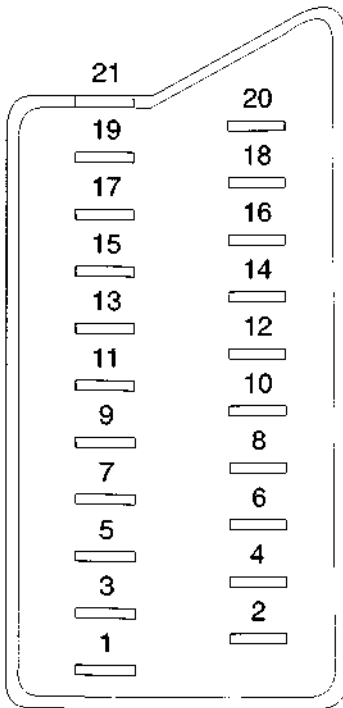
**IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME, IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.**

When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.  
Open the fuse compartment with the screwdriver blade and replace the fuse.

21 pin connector ( 0-1 )



Pin No		Signal	Signal level
1	○	Audio output B (right)	Standard level: 0.5Vrms Output Impedance: less than 1kohm*
2	○	Audio input B (right)	Standard level: 0.5Vrms Input Impedance: More than 10kohms*
3	○	Audio output A (left)	Standard level: 0.5Vrms Output Impedance: less than 1kohm*
4	○	Ground (audio)	
5	○	Ground (blue)	
6	○	Audio input A (left)	Standard level: 0.5Vrms Input Impedance: More than 10kohms*
7	○	Blue input	0.7V±3dB, 75ohms, positive
8	○	Function select (AV control)	High state (9.5—12V): Part mode Low state (0—2V): TV mode Input impedance: More than 10kohms Input capacitance: Less than 2nF
9	○	Ground (green)	
10	○	Open	
11	○	Green	Green signal: 0.7V±3dB, 75ohms, positive
12	○	Open	
13	○	Ground (red)	
14	●	Ground (blanking)	
15	○	Red input	0.7V±3dB, 75ohms, positive
	—	(S signal) chroma input	0.3V±3dB, 75ohms, positive
16	○	Blanking input (Ys signal)	High state (1—3V) Low state (0—0.4V) Input impedance: 75ohms
17	○	Ground (video output)	
18	○	Ground (video input)	
19	○	Video output	1V±3dB, 75ohms, positive Sync: 0.3V(-3, +10dB)
20	○	Video input	1V±3dB, 75ohms, positive Sync: 0.3V(-3, +10dB)
	—	Video Input/Y (S signal)	1V±3dB, 75ohms, positive Sync: 0.3V(-3, +10dB)
21	○	Common ground (plug, shield)	

○ Connected    ● Not Connected (open)    \* at 20Hz - 20kHz

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**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 FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.


**ATTENTION**

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

**ATTENTION !!**

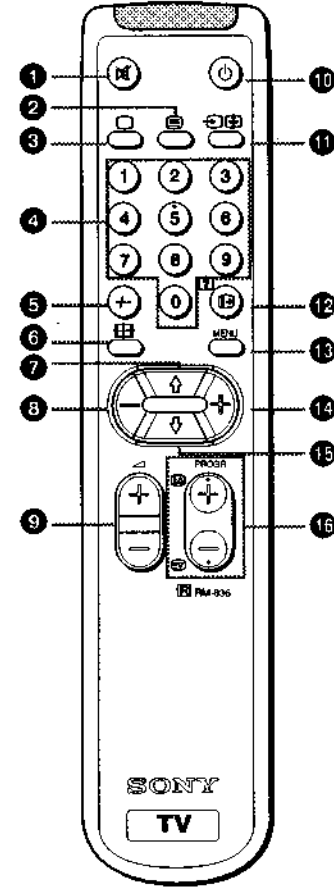
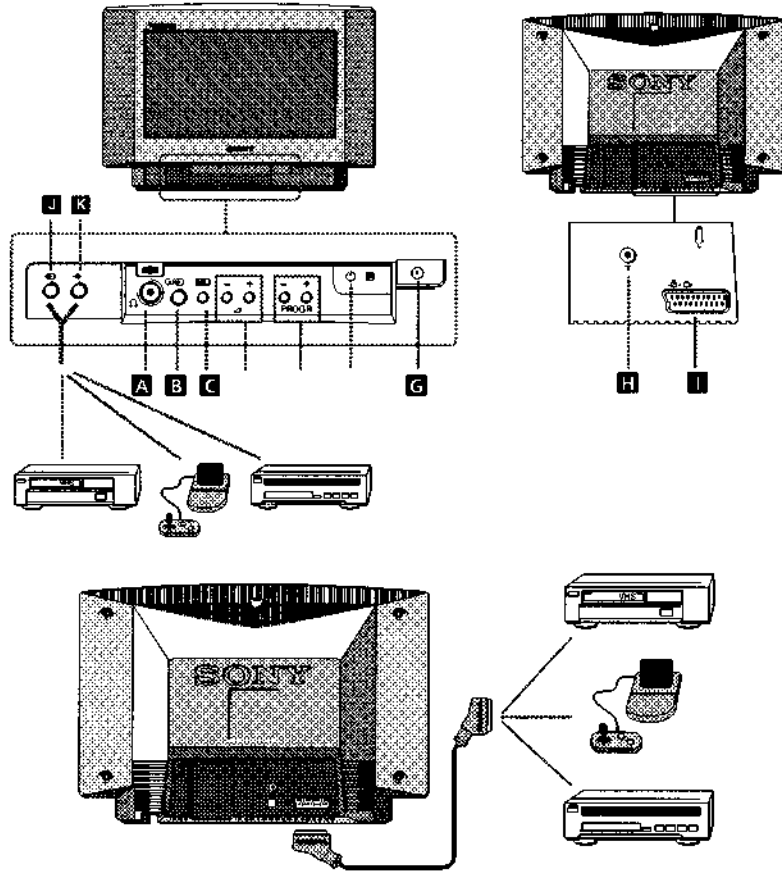
AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

**ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!**

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

# SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.



## Getting Started

Please open the flap at the front and at the back of the Instruction Manual for illustrations of the TV set and the Remote Commander. Letters in boxes refer to the buttons on the TV set, numbers in circles to the buttons on the Remote Commander.

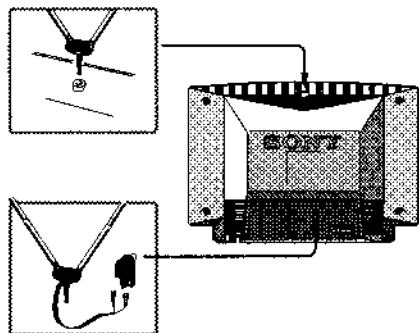
### Step 1

## Connecting the Aerial

(If you connect a VCR, skip to step 3).

Connect an external aerial to the socket **T**.

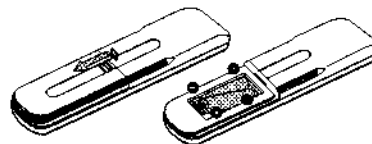
Where an external aerial is not available connect the indoor aerial supplied:



- 1 Insert the supplied aerial into the opening on top of the set.
- 2 Loosen the screws of the aerial clips, insert the aerial clips and tighten the screws.
- 3 Connect the aerial to the socket **T** on the rear of the set.
- 4 Adjust the aerial for optimum reception.

### Step 2

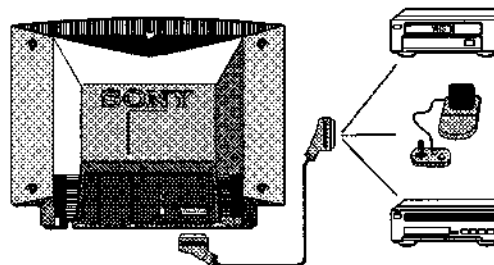
## Inserting the Batteries into the Remote Commander



Always remember to dispose of used batteries in an environmental friendly way.

### Step 3

## Connecting a VCR

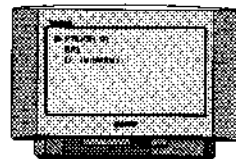


We recommend that you tune in the VCR signal to programme number "0". For details see "Presetting Channels Manually" on page 31.

## Step 4

### Presetting Channels Automatically

TV searches for all available channels. If manual tuning is preferred see Menu option - Presetting Channels Manually.



**1** Plug into mains.  
Depress power switch **ⓐ** on TV set.

**2** Press and hold **Ⓜ** **ⓐ** on TV set for 2 seconds.  
Auto tuning starts and screen shows.

When Auto tuning stops, the programme position 1 is displayed.

## TV Operation

### TV Operation

This section explains functions used whilst watching TV. Most operations are carried out using the Remote Commander (numbers in circles). All basic functions are also available on the TV set (letters in boxes).

To	Press
Switch on	ⓐ <b>ⓐ</b> on TV
Switch off temporarily	ⓐ <b>ⓐ</b> TV is now in standby mode, ⓐ indicator <b>ⓐ</b> on TV lights.
Switch on again	ⓐ <b>ⓐ</b> , <b>PROGR +/-</b> <b>ⓐ</b> <b>ⓐ</b> <b>ⓐ</b> or any number button <b>ⓐ</b>
Switch off completely	ⓐ <b>ⓐ</b> on TV <i>To save energy we recommend switching off completely when TV is not in use.</i>
Select programmes	<b>PROGR +/-</b> <b>ⓐ</b> <b>ⓐ</b> <b>ⓐ</b> or number buttons <b>ⓐ</b> <i>For double digit numbers press -/-- <b>ⓐ</b> then the number e.g. For 23, press -/-- <b>ⓐ</b> then 2 and 3.</i>
Display the programme number	<b>ⓐ</b> <b>ⓐ</b> <i>Press again to make programme number disappear.</i>
Adjust the volume	<b>ⓐ</b> +/- <b>ⓐ</b> <b>ⓐ</b>
Mute the sound	<b>ⓐ</b> <b>ⓐ</b> <i>Press again to restore sound.</i>
View video input	<b>ⓐ</b> <b>ⓐ</b> <b>ⓐ</b> <i>Press again to return to TV programme.</i>
Change the Screen format	Press repeatedly <b>ⓐ</b> <b>ⓐ</b> , <b>ⓐ</b> to change the screen format as follows: Zoom 1 (imitation of 16:9 for 4:3 broadcasts) → Zoom 2 (imitation of 16:9 for movies broadcast in cinemascope format) → Zoom 2 ↑ (whilst in Zoom 2 mode, press the green button to scroll the screen up to show the subtitles. Press the blue button to return to Zoom 2). Zoom 3 (for 16:9 broadcast) → 4:3 (normal 4:3 format).



## Teletext Operation

### Viewing Teletext

Teletext is an information service broadcast by TV stations.

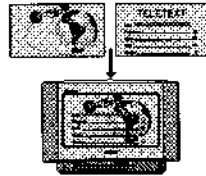
- 1 Select the channel which carries the teletext service you wish to receive.
- 2 Press **Ⓜ** **2** to switch on teletext.
- 3 Input three digits for the page number using the programme number buttons **1-9** or **PROGR +/-** **Ⓜ**.
- 4 Press **Ⓜ** **4** to switch off teletext.

Teletext errors may occur if the broadcasting signals are weak.

### Using Other Teletext Functions

#### Superimposing teletext on the TV

Press **Ⓜ** **2** once in teletext mode or twice in TV mode to superimpose teletext on the TV screen.  
Press **Ⓜ** **2** again to cancel superimposing.



#### Freezing a teletext subpage

Press **Ⓜ** **1** (HOLD) to freeze the subpage. Freezing the page prevents the information that is displayed from being updated.  
Press **Ⓜ** **1** to cancel HOLD and allow update to continue.

#### Revealing concealed information (eg: answers to a quiz).

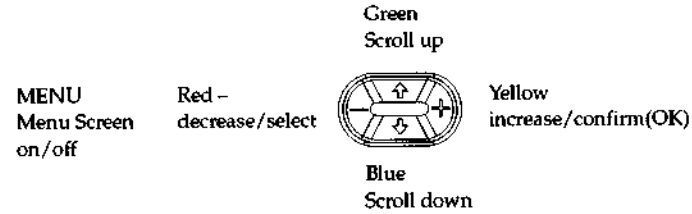
Press **Ⓜ** **3** to reveal information.  
Press again to conceal the information.

#### Using colour buttons to access pages

When the colour coded menu appears at the bottom of a page, press the colour button (red, green, blue or yellow) **Ⓜ** **7** **4** **Ⓜ** to access the corresponding page.

## MENU Operation

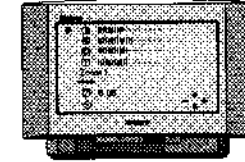
Use buttons on Remote Commander to control Menu screen.



### Adjusting the Picture

- 1 Press MENU **Ⓜ**.
- 2 Press green **7** or blue **4** button to select the item you wish to change.

Symbol	Item	-	Effect	+
Ⓜ	Picture	Less		More
Ⓜ	Colour	Less		More
Ⓜ	Brightness	Darker		Brighter
Ⓜ	Sharpness	Softer		Sharper








- 3 Press red **8** or yellow **1** button to change levels.
- 4 Press MENU **Ⓜ** to return to normal TV screen.

To reset to factory preset picture levels, press green **7** or blue **4** button to select **→→→** and press yellow (OK) **1** button.

---

## Changing of the Screen Format









You have the possibility to change the aspect ratio for the TV display for wide screen effects.

- 1 Press MENU .
- 2 Press repeatedly the blue  button to select Zoom 1.
- 3 Press the red  or yellow  button repeatedly to select one of the following effects:
  - Zoom 1: imitation of 16:9 for 4:3 broadcasts.
  - Zoom 2: imitation of 16:9 for movies broadcast in cinemascopic format.
  - Zoom 2†: when using Zoom 2 mode, part of the top and bottom of the picture are cut off. Using Zoom 2† you can move the picture upwards in order to see the cut-off part of the screen (e.g. to read subtitles).
  - Zoom 3: for 16:9 broadcast.
    - 4:3 for normal 4:3 format.
- 4 Press MENU  to return to normal TV screen.

**Note:** With a RGB source the format 4:3 is not available.

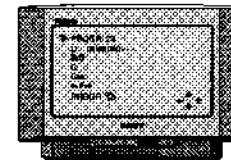
## Using the Sleep Timer

The TV may be set to switch to the standby mode automatically after a length of time chosen by you. You may set the time in 30 minutes steps up to 4 hours.



















- 1 Press MENU .
- 2 Press green  or blue  button to select .
- 3 Press red  or yellow  button to set time delay.  
0.00 (OFF) 0.30 1.00 1.30 .... 4.00
- 4 Press MENU  to return to normal TV screen.  
When watching TV, press  to display time remaining.

---

## Presetting Channels Manually



Up to 60 programme positions are available for presetting channels.

- 1 Press MENU .
- 2 Press green  or blue  button to select  and press yellow (OK)  button.
- 3 Select programme number using PROGR +/-  E or the number buttons .
- 4 Press green  or blue  button to select tuning bar and press red  or yellow  button to start channel search. When a channel is found the tuning bar stops moving and you see the picture.
- 5 If you want to store, press green  or blue  button to select  and press yellow (OK)  button. If you don't want, press red  or yellow  button to continue search.
- 6 Repeat steps 3 to 5 for all other channels.
- 7 Press MENU  to return to normal TV screen.

---

## Skipping Programme Positions

You can skip unused programme positions when selecting channels with the **PROGR +/-** buttons. You can still select them, however, using the number buttons.

- 1 Press **MENU**.
  - 2 Press green or blue button to select and press yellow button.
  - 3 Select programme number you want to skip using **PROGR +/-** button or number buttons.
  - 4 Press green or blue button to select **Co** and press yellow (OK) button.
  - 5 Press green or blue button to select **◇** and press yellow (OK) button to store.
  - 6 Repeat steps 3 to 5 for other unused programme positions.
  - 7 Press **MENU** to return to normal TV screen.
- 

---

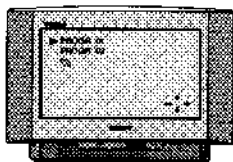
## Fine-Tuning Channels

You can fine tune a stored channel.

- 1 Select the channel you wish to fine tune.
  - 2 Press **MENU**.
  - 3 Press green or blue button to select and press yellow (OK) button.
  - 4 Press green or blue button to select **←F→** and use red or yellow button to adjust tuning.
  - 5 Press green or blue button to select **◇** and press yellow (OK) button to store.
  - 6 Press **MENU** to return to normal TV screen.
-

## Exchanging Programme Positions

After tuning you may wish to rearrange the programme positions.



- 1 Press MENU **Ⓜ**.
- 2 Press green **7** or blue **15** button to select **↔** and press yellow (OK) **14** button.
- 3 Press green **7** or blue **15** button to select **PROGR** **13** and press yellow (OK) **14** button.
- 4 Press red **1** or yellow **12** button to select the first programme position.
- 5 Press the blue **9** button.
- 6 Press the red **1** or yellow **12** button to select the second programme position.
- 7 Press blue **15** button to select **↕** and press yellow (OK) **14** button to exchange.
- 8 Repeat steps 4 to 7 for other programme positions.
- 9 Press MENU **Ⓜ** to return to normal TV screen.

## Optional Connections

### Using 21-pin Connector

Your TV has one 21-pin connector **1** on the rear of the set. You can connect optional audio or video equipment to this connector, such as a VCR, video games or a video disc player.

- 1 Press **↔** **1** **13** to view the video input signal.
- 2 Press **↔** **1** **13** or **□** **9** to return to normal TV operation.

### Using the Connectors on the front

Your TV has two connectors (phono jacks) (**↔** video **1**, **↔** audio **13**) on the front of the set. You can connect e.g. a video game to these connectors.

- 1 Press the yellow **13** button **↔** on the TV once to view the input signal in the Zoom 3 mode, twice for 4:3 mode and once again to return to normal TV operation.

**Note:** Make sure not to switch on the equipments connected to the 21-pin connector and the front connectors at the same time.

### Connecting Headphones

Plug in the headphones to the **Ω** **14** socket on the front of the TV set. The sound from the speaker is now muted.

## Additional Information

# Troubleshooting

Here are some simple solutions to the problems which affect the picture and sound.

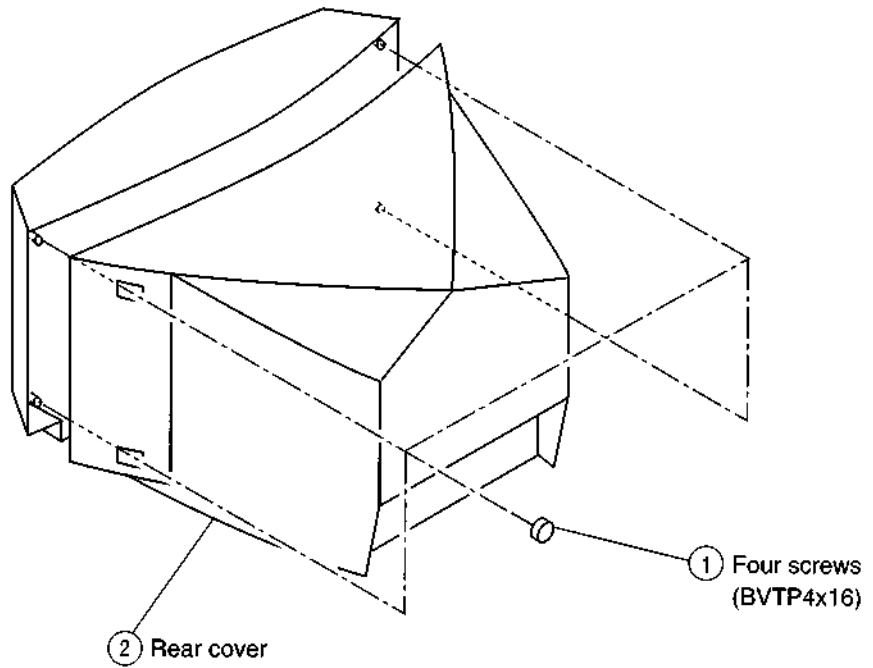
Problem	Solution
No picture, screen is dark, no sound	<ul style="list-style-type: none"><li>• Plug the TV in.</li><li>• Press <b>⏻</b> <b>G</b> on the TV.</li><li>• If <b>⏻</b> indicator <b>F</b> is on press <b>⏻</b> <b>G</b> or the programme number <b>⏻</b> on the remote commander.</li><li>• Check the aerial connection.</li><li>• Check that the video source is on.</li><li>• Turn the TV off for 3 or 4 seconds and then turn it on again using <b>⏻</b> <b>G</b>.</li></ul>
Poor or no picture (screen is dark, sound is good)	<ul style="list-style-type: none"><li>• Press MENU <b>⏻</b> and adjust brightness picture and colour balance level.</li></ul>
Good picture, no sound	<ul style="list-style-type: none"><li>• Adjust the volume <b>⏻</b> +/- <b>⏻</b> <b>D</b>.</li><li>• Disconnect any headphones.</li><li>• If <b>⏻</b> is displayed on the screen, press <b>⏻</b> <b>1</b>.</li></ul>
No colour on colour programmes	<ul style="list-style-type: none"><li>• Press MENU <b>⏻</b> and adjust colour balance.</li><li>• Press MENU <b>⏻</b> and reset to factory settings.</li></ul>
Distorted picture when changing programmes or selecting teletext	<ul style="list-style-type: none"><li>• Turn off the equipment connected to the 21-pin connector <b>⏻</b>.</li></ul>
Remote commander does not function	<ul style="list-style-type: none"><li>• Replace the batteries.</li></ul>

• If you continue to have these problems, have your TV serviced by qualified personnel.

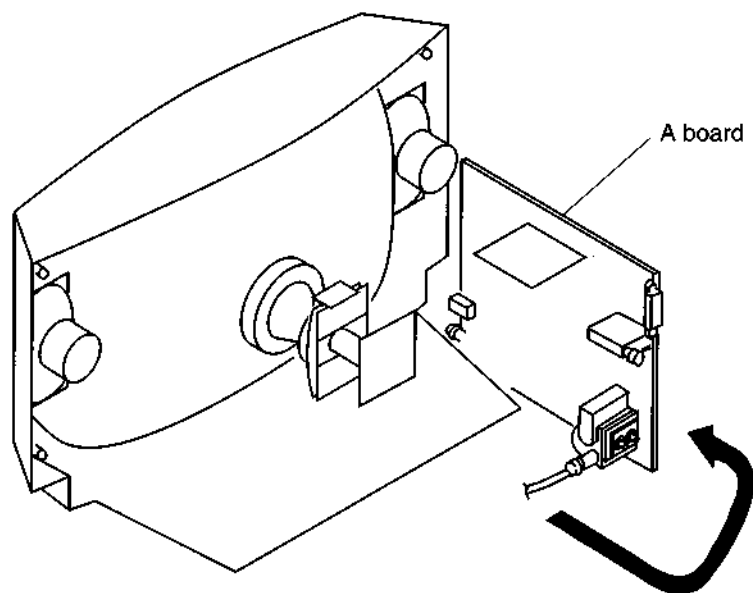
• NEVER open the casing yourself.

## SECTION 2 DISASSEMBLY

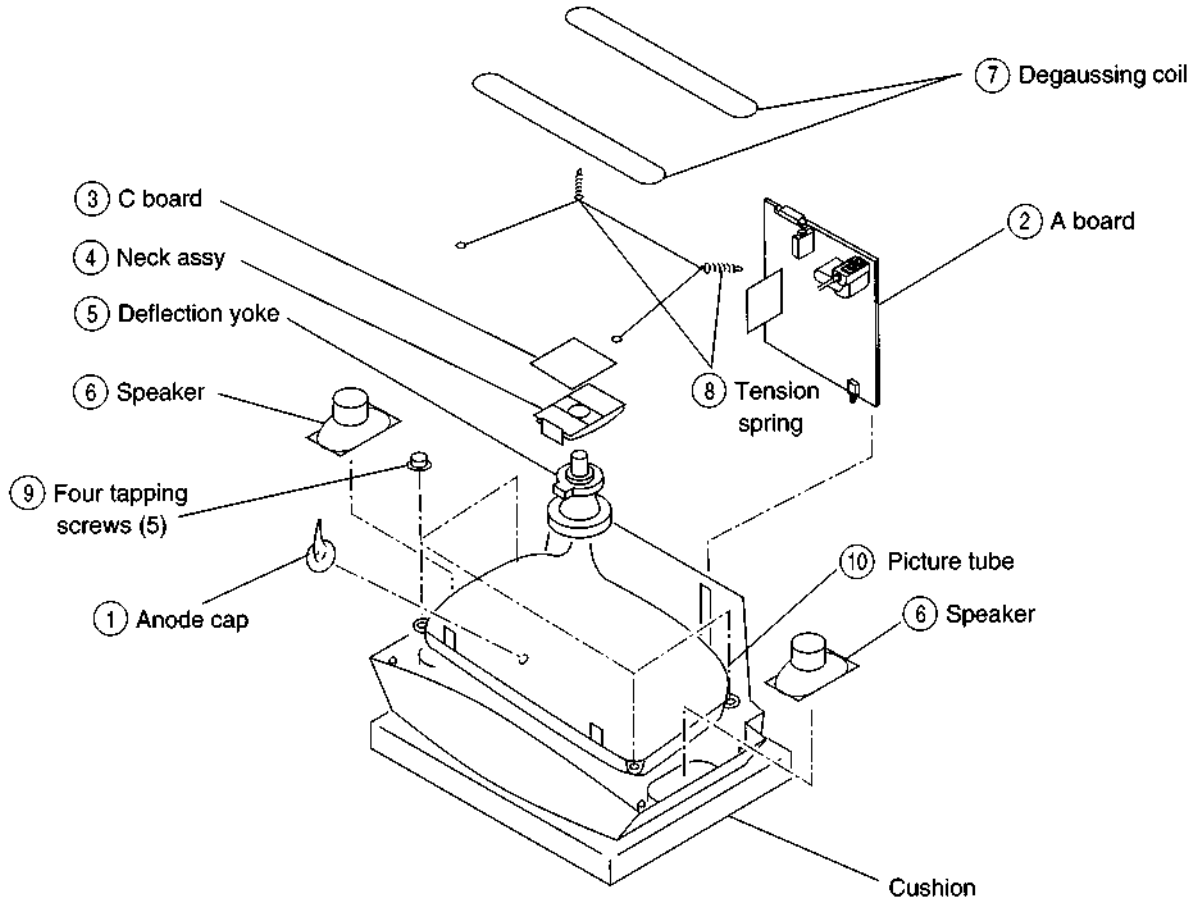
### 2-1. REAR COVER REMOVAL



### 2-2. SERVICE POSITION



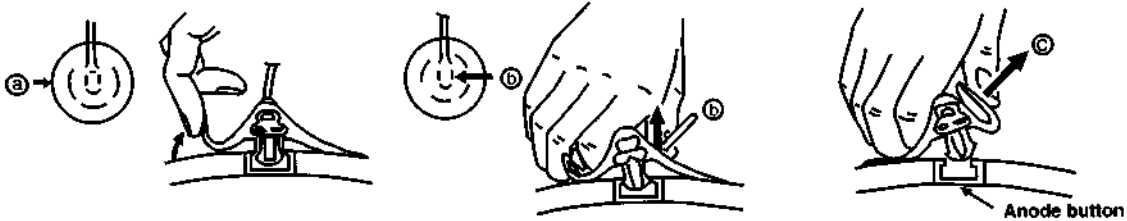
## 2-3. PICTURE TUBE REMOVAL



### • 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.

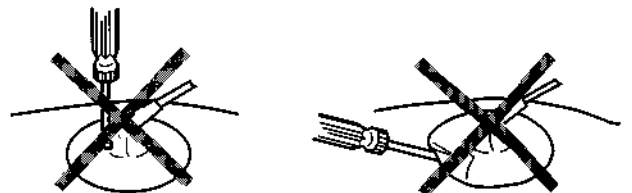
#### \* REMOVING PROCEDURES.



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

#### • HOW TO HANDLE AN ANODE-CAP

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



## SECTION 3 SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
  - These adjustments should be performed with the rated power supply voltage, unless otherwise noted.
- The Contrast and Brightness controls should be set as follows unless otherwise noted:

- CONTRAST control ..... Normal
- ☼ BRIGHTNESS control ..... Normal

Perform the adjustments in the following order:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G2), Drive, Sub Colour and Sub Brightness.
5. White Balance Auto Adjustment

**Note:** Test Equipment Required.

1. Colour bar/Pattern Generator
2. Degausser

### Preparation:

- In order to reduce the influence of external magnetic forces on the picture tube, face the TV set in an easterly or westerly direction.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

### 3-1. BEAM LANDING

1. Input an all white raster signal from the pattern generator. Set the picture to maximum and adjust BRIGHTNESS for clear picture.
2. Set the Neck Assy to the position Fig. 3-1.
3. Adjust Focus and Convergence.
4. Loosen the deflection yoke screw and move the Purity Adjustment handle to the centre. (Fig. 3-2.)
5. Switch the pattern generator to Green.
6. Move the deflection yoke backward, and adjust with purity control so that Green is at the center and Blue and Red are evenly spaced at the side. (Fig. 3-3.)
7. Move the deflection yoke forward, and adjust so the entire screen becomes Green.
8. Switch the pattern generator to Red and Blue, and confirm the condition.
9. When position of the deflection yoke has been determined, tighten it with the deflection yoke mounting screw.
10. When the landing at the corners are not correct, adjust by using disk magnets. (Fig. 3-4.)

Fig. 3-2

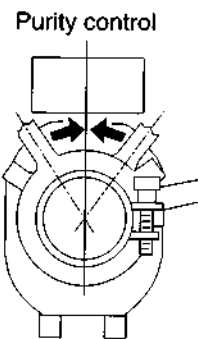


Fig. 3-3

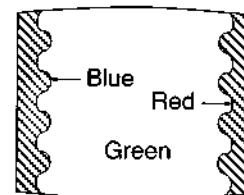


Fig. 3-4

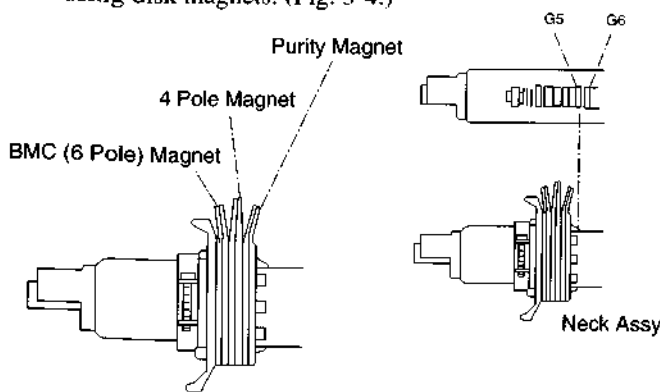
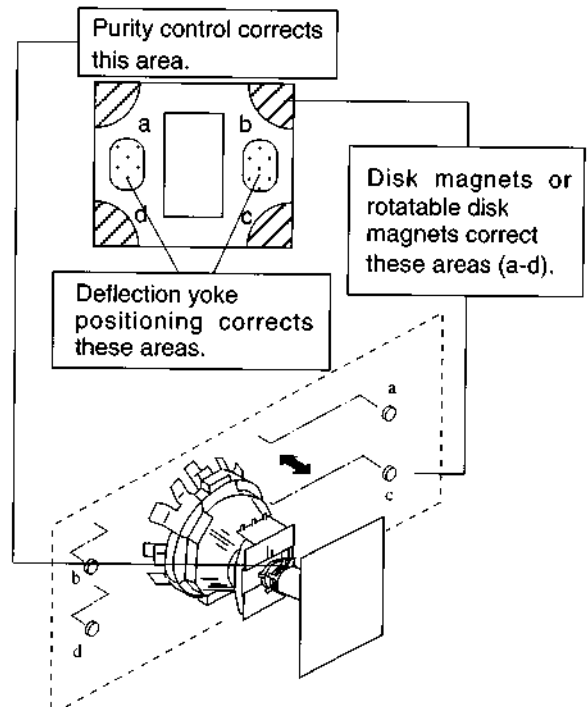


Fig. 3-1



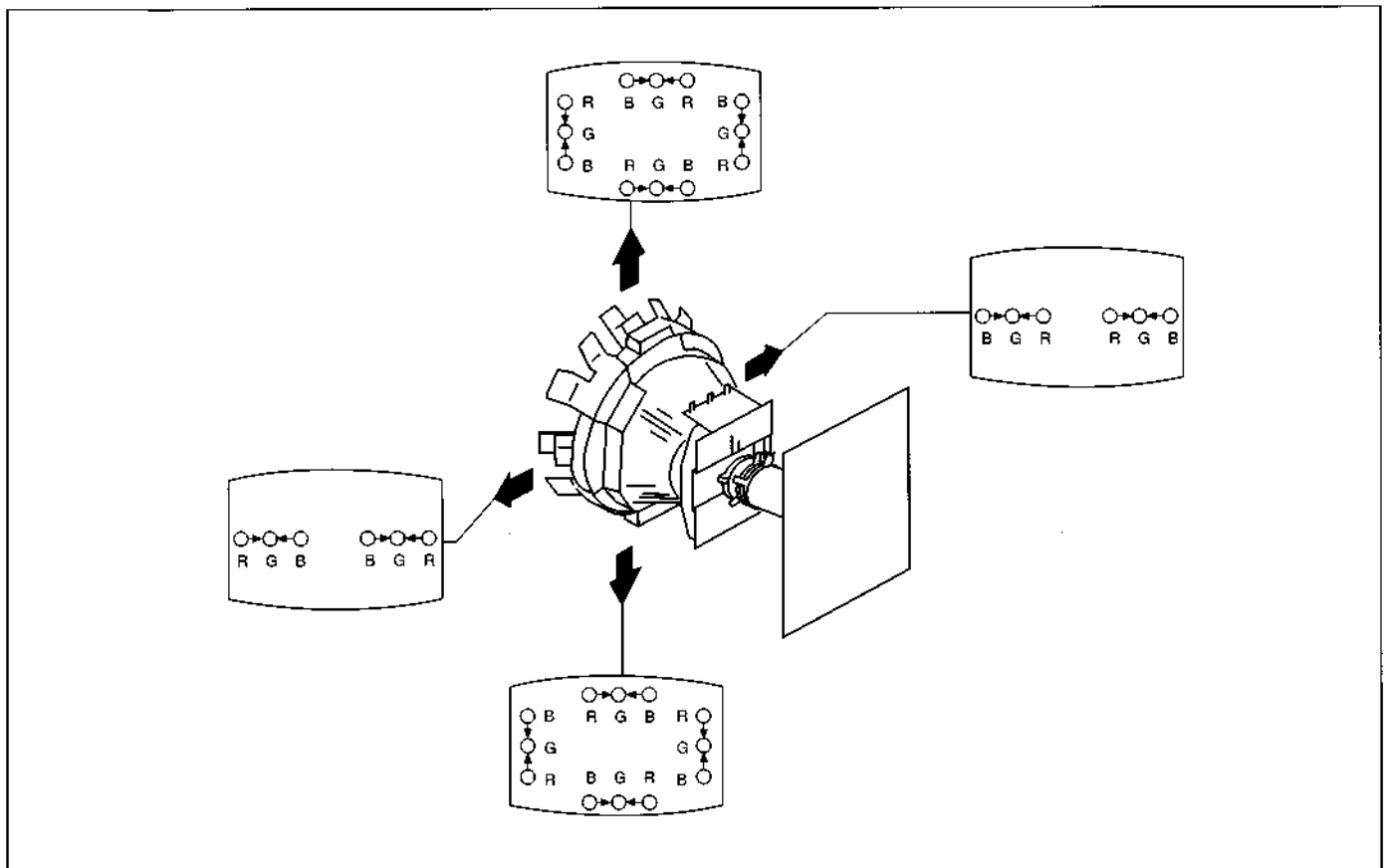
## 3-2. CONVERGENCE

### (1) Static Convergence

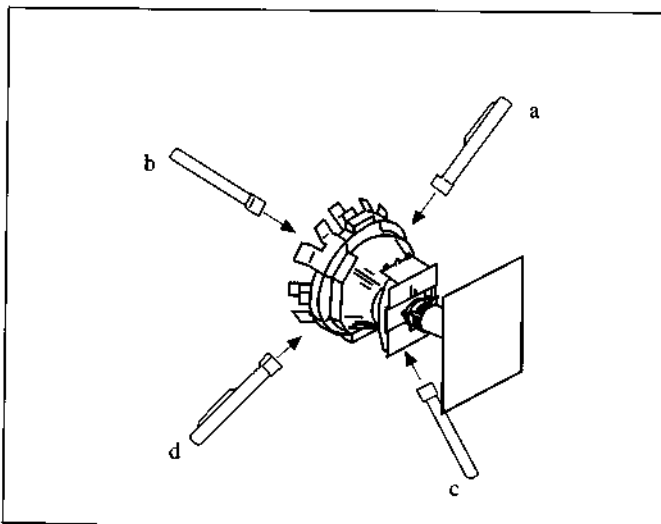
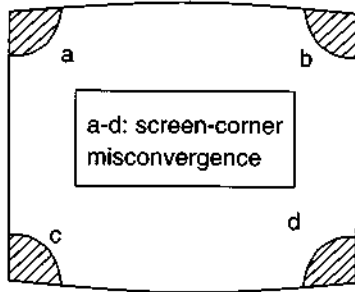
1. Input a dot pattern from the pattern generator and adjust the picture to normal.
2. Loosen the magnet stopper.
3. Adjust the red and blue dots using the pole magnet.
4. Converge the red and blue dots to the green dots using the 6 pole magnet.
5. Fasten the magnet stopper.

### (2) Corner Convergence Adjustment

1. If the sides of the screen are misconverged then adjust by tilting the deflection yoke up, down or in the left or right direction.
2. Once the correct position has been determined secure the deflection yoke using the wedges.

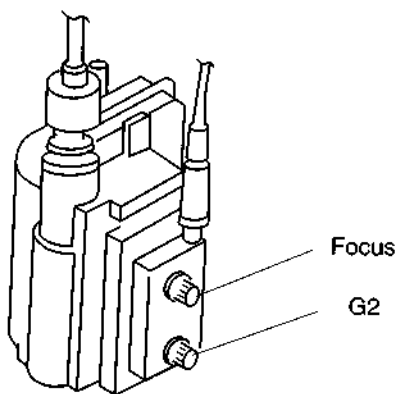


**(3) Screen-corner Convergence.**

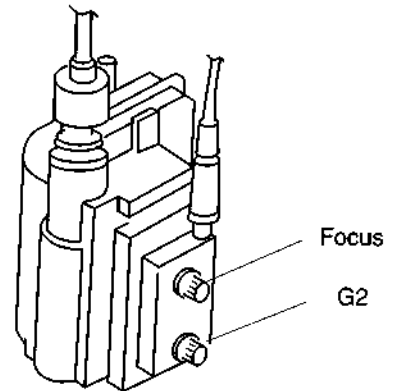


**3-3. FOCUS**

Adjust the FOCUS control RV704 so that the whole screen is in best focus.



**3-4. SCREEN (G2), DRIVE, SUB COLOUR and SUB BRIGHTNESS.**

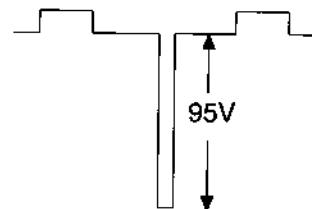


**Screen (G2) setting**

1. Input a 0 IRE (Black Level) signal from the pattern generator.
2. Enter into the Service Mode "Test" "Test" and 38.
3. Adjust G2 VR until the Down arrow is displayed.
4. Adjust G2 VR until the Down arrow just disappears.
5. Press the TV Button on the Remote Commander to store the data.

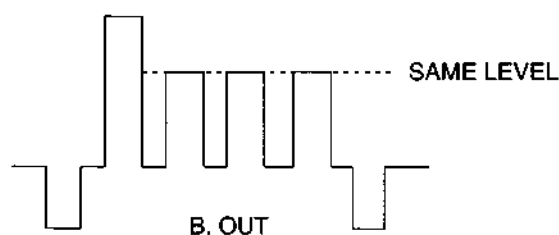
**Drive Level**

1. Input a Video signal containing a small area of 100% white on a black background.
2. Connect an oscilloscope to Pin (7) of J901 (R OUT) on the C Board.
3. Set the Picture to maximum using "Test" "Test" and 01.
4. Enter into the Service mode (Adjust Menu).
5. Using the Blue and Green buttons select "RED HWB".
6. Using the Red and Yellow buttons on the Remote Commander adjust until the oscilloscope waveform has an amplitude of 95V.



### Sub Colour Adjustment

1. Input a PAL colour bar pattern from the pattern generator.
2. Connect an oscilloscope to Pin ③ of J901 (B OUT) on the C Board.
3. Enter into the Service Mode "Test""Test" and 22.
4. Using the Red and Yellow buttons on the Remote Commander adjust until the oscilloscope waveform becomes as follows :



**Note :** If the TV is able to receive PAL and SECAM transmissions, repeat the above procedure using a Secam colour bar signal.

### Sub Brightness Adjustment

1. Input a Philips pattern from the pattern generator.
2. Enter into the Service Mode "Test""Test" and 23.
3. Using the Red and Yellow buttons on the Remote Commander adjust until the 0 IRE of the grey scale and the cut off are only slightly visible on the screen.

## 3-5. WHITE BALANCE AUTO ADJUSTMENT

1. Enter into the Service Mode using the remote commander.
2. Adjust the brightness and contrast levels to normal.
3. Using the service mode menu set the R OUT, G OUT and B OUT data to "OFF".
4. Apply  $165V \pm 0.3V$  volts DC from an external power supply to the R, G, and B cathodes.
5. Adjust the G2 VR until the flyback line just disappears.
6. Remove the DC power supply and from the menu set the R OUT, G OUT and B OUT data to "ON".

## SECTION 4 CIRCUIT ADJUSTMENTS

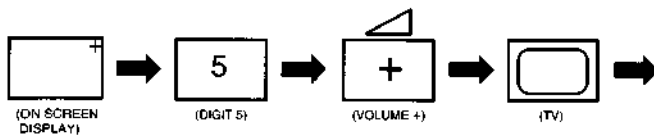
### 4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied Remote Control Commander RM-836.

Range of adjustments available from the on screen menu system.

#### HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power of the set and enter into stand-by mode.
2. Press the following sequence of buttons on the Remote Control Commander.



"TT--" will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press the MENU button on the Remote Commander to obtain the menu on the screen.

<b>Adjust.</b>			
	▶	16:9 ON	
		System	
		Text	
		AGC      33    00-63	
		PLL      32    00-63	
		V1 .00-01	SONY    BE4

Software version

Adjustment	Set	Range
16:9 Off	Select	ON/OFF
System	Select	BG-L, BG-DK UK, Eire, BG
Text	Select	EAST/WEST
AGC	Adj.	00 - 63
PLL	Adj.	00 - 63
B&W Delay	Adj.	00 - 63
Ver Size	Adj.	00 - 63
Ver, Breath	00	00 - 63
Par, Ampl	00	00 - 63
Par, Tilt	32	00 - 63
V, Linear	Adj.	00 - 63
Corn, corr	00	00 - 63
V, Cen or EW	Adj.	00 - 63
V, Position	42	00 - 63
H, Centre	Adj.	00 - 63
Blue HWB	Adj.	00 - 63
Green HWB	Adj.	00 - 63
Red HWB	Adj.	00 - 63

4. Press the Blue (Next) or Green (previous) buttons to select the adjustment item from the table.
5. Press the Yellow (+) or Red (-) buttons to change the data as required.
6. Turn off the power to quit the service mode when adjustments are completed.

## 4-2. TEST MODE 2:

TT -- Mode is available by pressing the Test button twice, O.S.D 'TT --' appears. The functions described below are available by pressing two digits. To release the 'TT --' mode, press 0 twice, press 'TEST', press 'TV' or switch the TV into Stand-by mode.

00	Switch 'TT--' Mode off.
01	Set picture level to maximum.
02	Set picture level to minimum.
03	Set volume to 35%.
04	Set volume to 50%.
05	Set volume to 65%.
06	Set volume to 80%.
07	Ageing condition (picture max., brightness max.).
08	Shipping condition (Analog values are RESET to factory setting, Prog 1 is selected, TT--mode switched off, Vol = 35%).
09	Dummy.
10	No function.
11	Dummy
12	Text Picture Level Offset (Enable/Disable)
13	Select Odd / Even field for Non-interlaced teletext.
14	Select Interlaced / Non-interlaced teletext display.
15	Read factory setting from ROM to NVM - Reads Volume, Brightness, Picture, Hue, Sharpness and Colour values from ROM to the actual used values (Last Power Memory).
16	No function
17	Enable / Disable Sharpness Operation.
18	Enable / Disable Teletext Operation.
19	Enable / Disable NTSC Operation.
20	No function.
21	Sub Picture.
22	Sub Colour (Pal / Secam Different Stores)
23	Sub Brightness.
24	Destination System BG/L.

25	Destination Systems BG/L.
26	Destination Systems I.
27	Destination System I/I'.
28	Destination BG only.
29	Dummy.
30	No function.
31-32	Dummy.
33	Auto AGC Adjust.
34	Auto PLL Adjust.
35-37	Dummy.
38	Enter G2 adjustment mode.
39	Dummy.
40	No function.
41	Re-initialise NVM.
42	Dummy.
43	Re-initialise Geometry settings.
44-47	Dummy
48	Set NVM testbyte to 44h in NVM.
49	Erase NVM testbyte
50	No function.

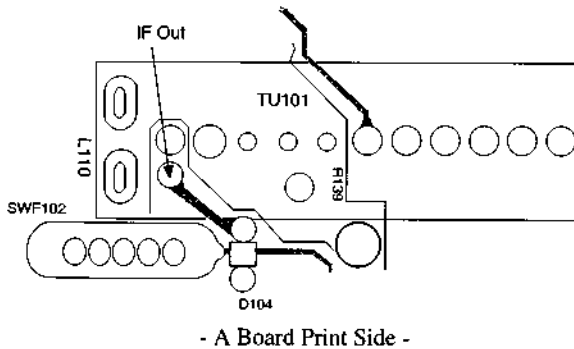
**Note :** For Test Modes 41 - 50, it is necessary to ensure that the TV is set to Prog 59.

**IF ADJUSTMENT (AUTOMATIC)**

1. Input a 38.9 MHz 100dBμ CW signal at the IF Out injection point.
2. Enter into service mode and press 34.
3. Connect a digital voltmeter to IC101 pin (23).
4. Check AFT 2.5V ±0.3V dc.
5. Press '00' on the Remote Commander.

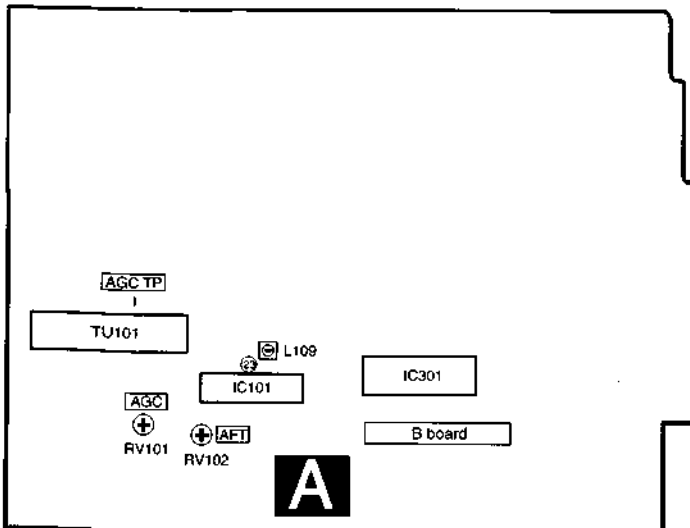
**SYSTEM L ADJUSTMENT ( French Models)**

1. Input a 33.9MHz 100dBμ CW signal at the IF Out injection point.
2. From the On Screen Menu set System to L band 1.
3. Connect a digital voltmeter to IC101 pin (23).
4. Adjust RV102 AFT for 2.5V ±0.3V dc.



**AGC ADJUSTMENT**

1. Receive an off-air signal.
2. Enter into the Service adjust menu and select AGC.
3. Adjust the data using the Red and Yellow buttons on the Remote Commander so that there is no snow or cross - modulation visible on the screen.
4. Change the receiving off-air channel, and confirm the above status.



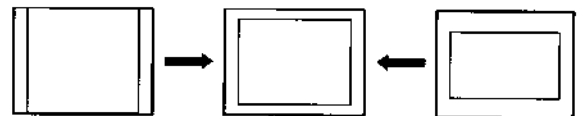
**DEFLECTION SYSTEM ADJUSTMENT**

1. Enter into the service mode.
2. Using the Blue or Green buttons select the Adjust item.
3. Press the Yellow button to enter the adjustment submenu.
4. Select and adjust each item in order to obtain the optimum image.

See Note on page 23

Adjustment	Set	Range
VERT, AMPL	Adj.	00 - 63
VER, BREATH	00	00 - 63
PAR, AMPL	00	00 - 63
PAR, TILT	32	00 - 63
V, LINEAR	Adj.	00 - 63
CORN, CORR	Adj.	00 - 63
V, CENTRE	Adj.	00 - 63
V, POSITION	42	00 - 63
H, CENTRE	Adj.	00 - 63

VERT, AMPL



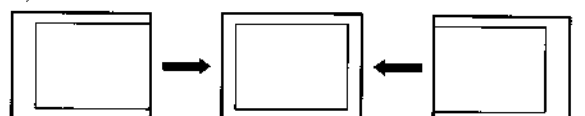
V, LINEAR



V, CENTRE

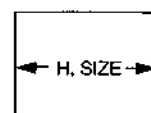


H, CENTRE



H, SIZE

RV802



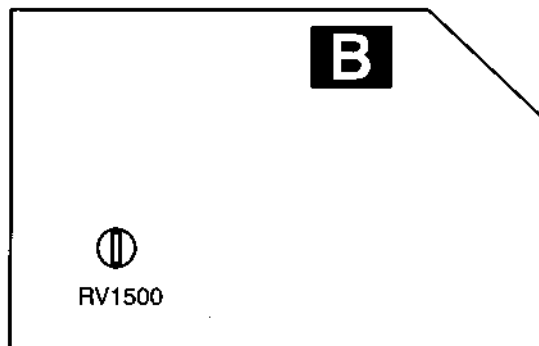
Fit the link as required to obtain the correct horizontal picture size. Remove the link if the H, SIZE is to large.

### VERTICAL OVERSCAN BLANKING ADJUSTMENT

1. Receive an Off-Air signal.
2. Enter into menu and select zoom3. (zoom mode)
3. Enter into the service mode.
4. Using the Blue or Green buttons select Vert. Amp (V-size). Take note of the actual value and reduce it as indicated below.



5. Adjust RV1500 on B-board to obtain the same video blanking area at the top and bottom of the screen.
6. Readjust the Vert.Amp (V-size) increasing it to the original setting.



- B Board Component Side -

**Note :** Deflection System Adjustments should not be carried out whilst using an NTSC (60Hz) signal, or if the signal is unlocked.

### 4-3. BE-4 SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-4 chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failure to respond to I<sup>2</sup>C.

In the event of one of these situations arising the software will first try to release the Bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each relevant device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED by a Series of flashes which must be counted (See Table 1). Non fatal errors are reported with this method.

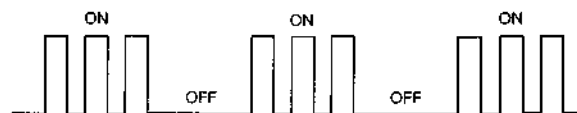
If a fatal error is found, the set will simply stay in whichever state it was when the error occurred, but if a non fatal error occurs the set will try to continue to operate.

**Table 1**

No of Flashes	Meaning
2	IC301 not acknowledging I <sup>2</sup> C transmission, NVM OK.
3	IC301 FAULT (Not OK) - flags
4	IC301 - No H Flyback
5	IC301 - Stack Overflow.
6	Overvoltage / Overcurrent Protection (Pin 52) high.
7	IC002 not acknowledging I <sup>2</sup> C transmission, IC301 OK.
8	IC002 and IC301 - No I <sup>2</sup> C acknowledgment.
9	General I <sup>2</sup> C Error (SDA or SCL being held low) (IC301, IC001, IC002, CN001)

Flash Timing Example : e.g. error number 3

Stby LED

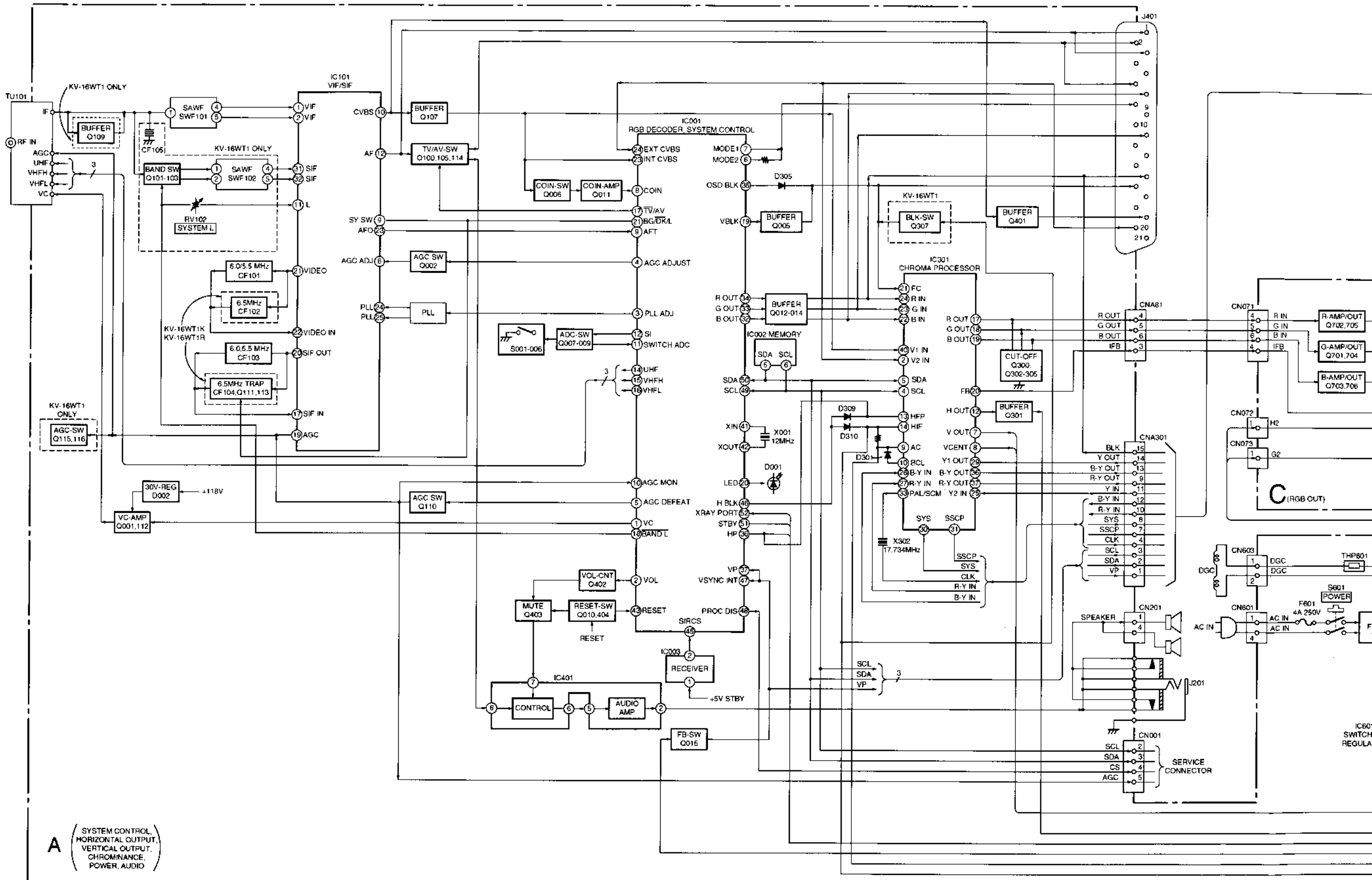




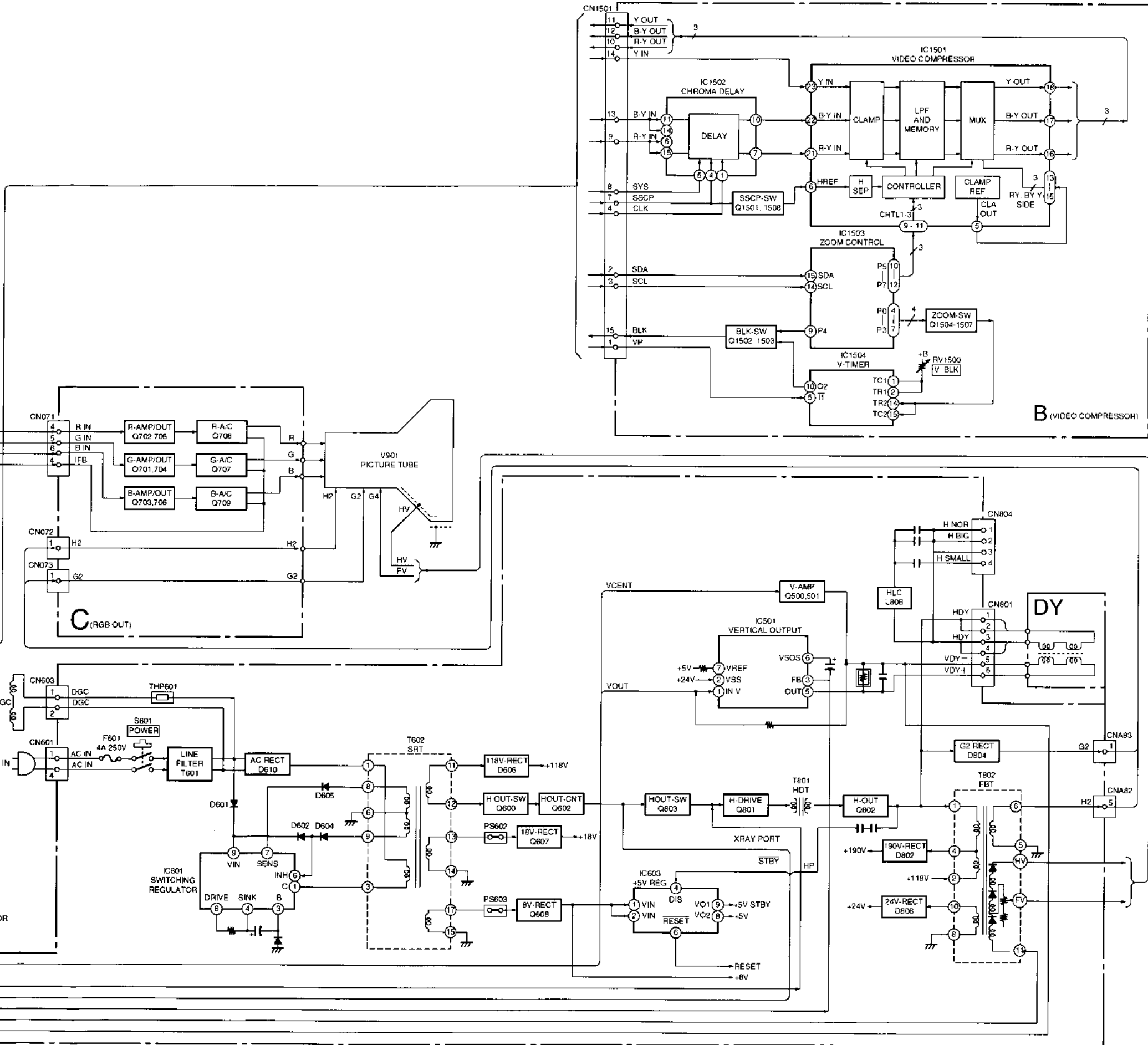


SECTION 5  
DIAGRAMS

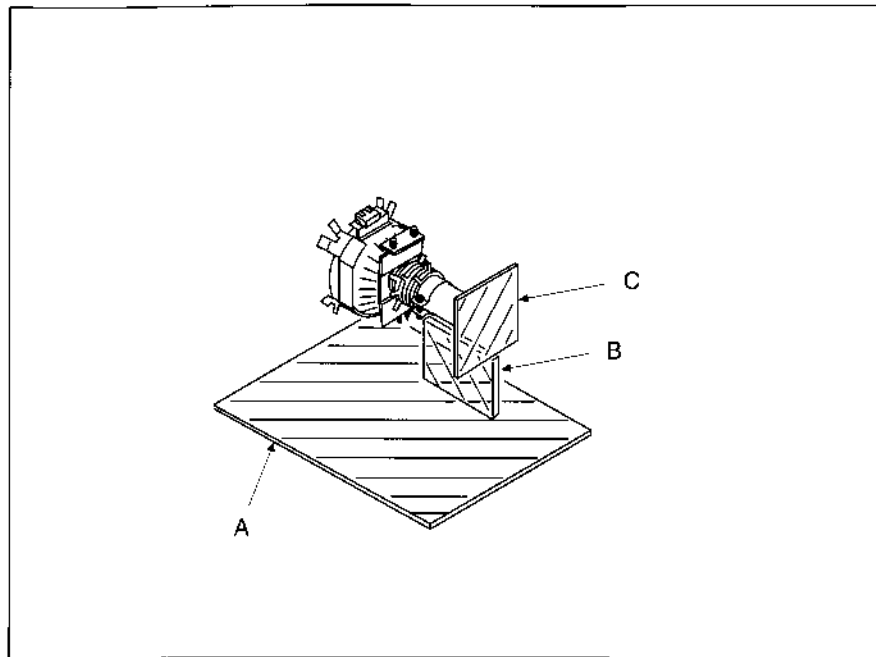
5-1. BLOCK DIAGRAM



**A** (SYSTEM CONTROL,  
HORIZONTAL OUTPUT,  
VERTICAL OUTPUT,  
CHROMINANCE,  
POWER, AUDIO)



## 5-2. CIRCUIT BOARDS LOCATION



## 5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

## Note :

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms.
- $\text{k}\Omega = 1000\Omega$ ,  $\text{M}\Omega = 1000\text{K}\Omega$
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm  
Rating electrical power  $\frac{1}{4}$  W

- nonflammable resistor.
- internal component.
- panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- earth - ground.
- earth - chassis.
- no mounted.

## Reference information

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

- Readings are taken with a colour-bar signal input.
- Readings are taken with 10M $\Omega$  digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- : B+ bus.
- : signal path. (RF)

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

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

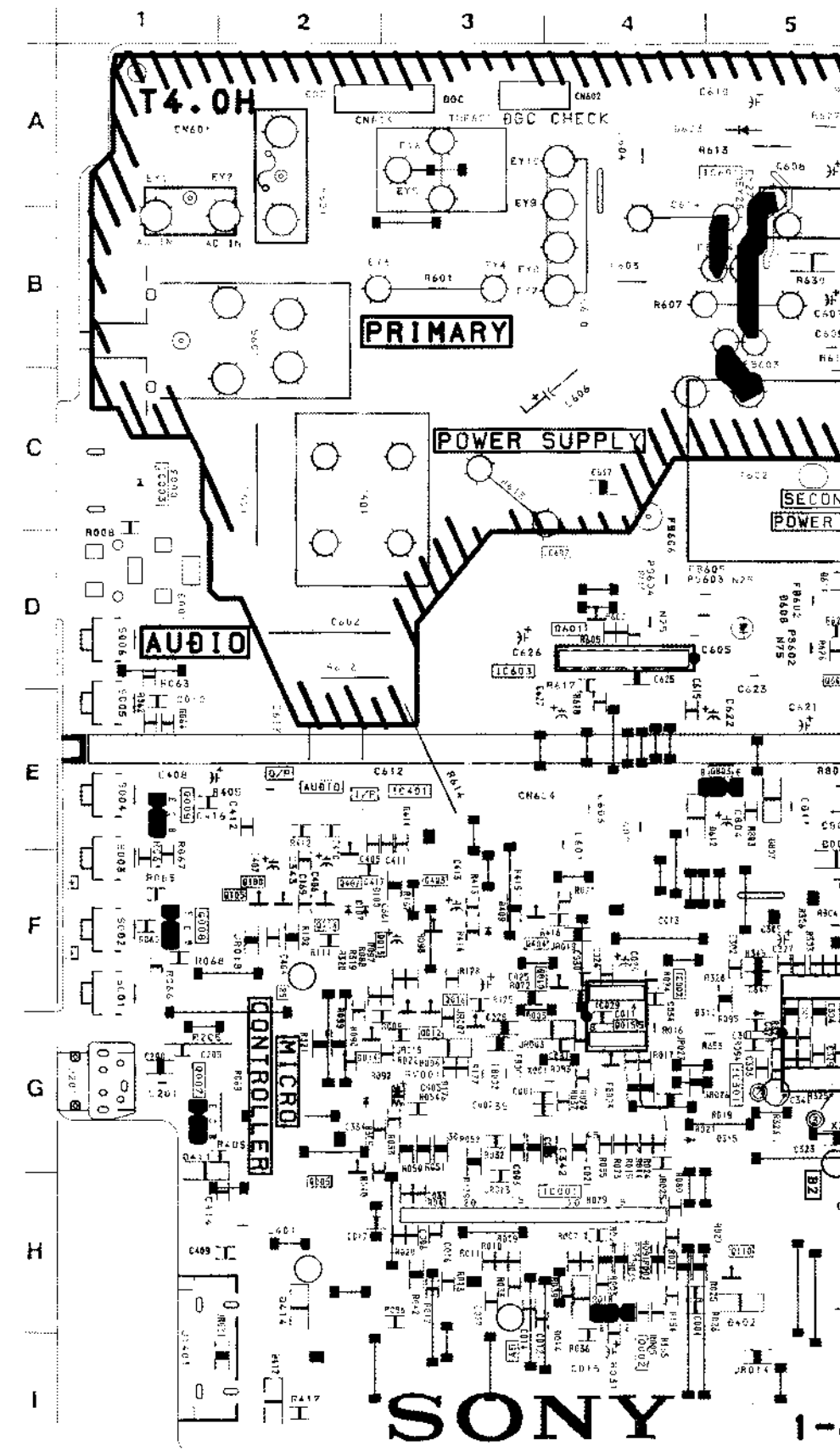
## — A BOARD —

IC	Q114 F-2	D305 G-2
IC001 H-4	Q115 F-10	D307 G-11
IC002 G-4	Q116 F-9	D308 F-8
IC003 C-1	Q300 F-7	D310 G-5
IC101 G-10	Q301 F-6	D311 G-8
IC301 G-5	Q302 F-7	D312 G-7
IC302 H-7	Q303 G-7	D313 G-8
IC401 E-3	Q304 F-7	D401 H-12
IC501 D-9	Q305 G-7	D402 H-5
IC601 A-5	Q306 G-8	D403 H-12
IC603 D-3	Q307 F-8	D404 H-12
	Q401 H-10	D405 H-12
TRANSISTOR	Q402 F-2	D406 H-11
Q001 H-8	Q403 F-3	D407 G-12
Q002 I-4	Q404 F-4	D408 I-12
Q005 H-2	Q500 D-11	D409 F-3
Q006 H-9	Q501 D-11	D410 I-11
Q007 G-1	Q600 D-6	D501 C-8
Q008 F-1	Q602 D-6	D600 D-6
Q009 E-1	Q801 E-6	D601 A-6
Q010 F-4	Q802 C-9	D602 B-6
Q011 H-8	Q803 E-5	D603 A-5
Q012 G-3		D604 B-6
Q013 F-3	DIODE	D605 B-6
Q014 G-2	D001 D-1	D606 D-6
Q015 G-4	D002 F-8	D607 E-6
Q016 F-3	D004 F-5	D608 D-5
Q100 F-2	D005 G-4	D610 B-4
Q101 G-11	D006 G-3	D611 D-6
Q102 G-11	D014 I-4	D802 A-8
Q103 G-11	D100 F-3	D804 B-8
Q105 F-2	D102 G-11	D806 A-11
Q107 H-9	D104 G-11	D807 E-5
Q109 G-10	D105 F-8	VARIABLE RESISTOR
Q110 H-5	D106 F-8	RV102 H-10
Q111 G-8	D107 F-2	
Q112 G-12	D109 F-9	
Q113 G-9	D301 F-6	
	D302 F-7	

- Mark : KV-16WT1 ONLY
- Mark : KV-16WT1K/16WT1R ONLY

**A** SYSTEM CONTROL, HORIZONTAL OUTPUT, VERTICAL OUTPUT, CHROMINANCE, POWER, AUDIO

## — A BOARD —

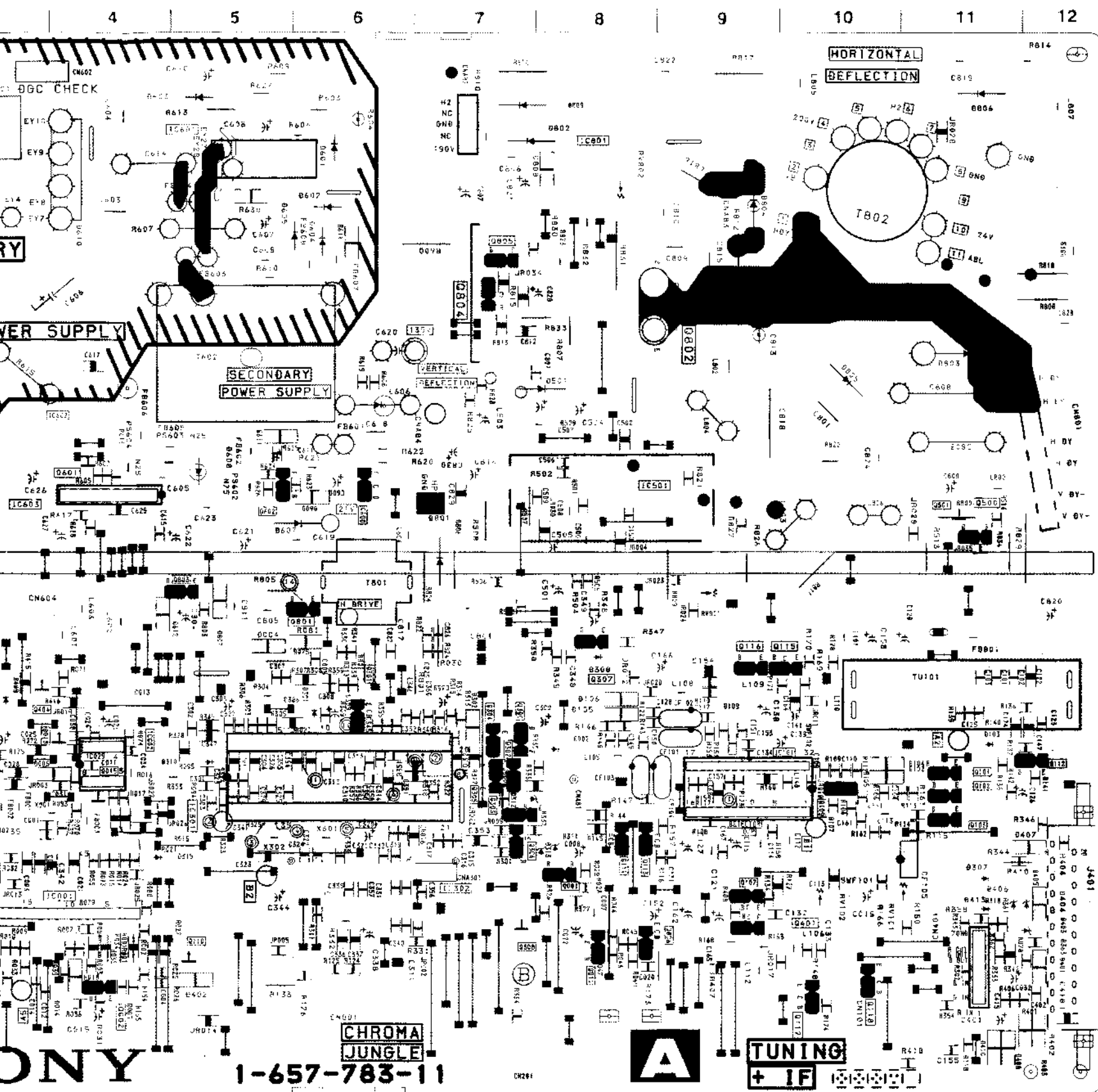


KV-16WT1

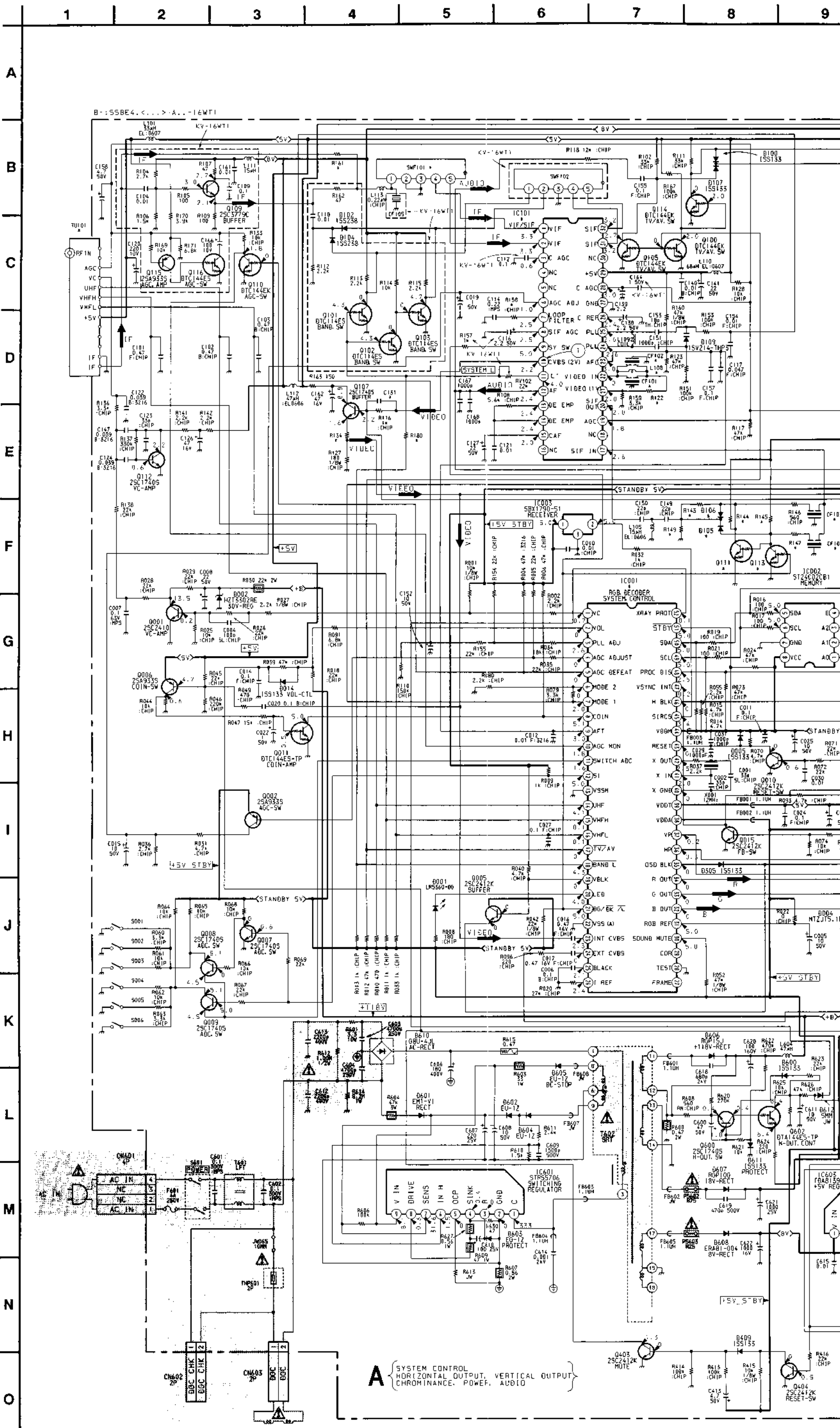
KV-16WT1

**NOTE:**

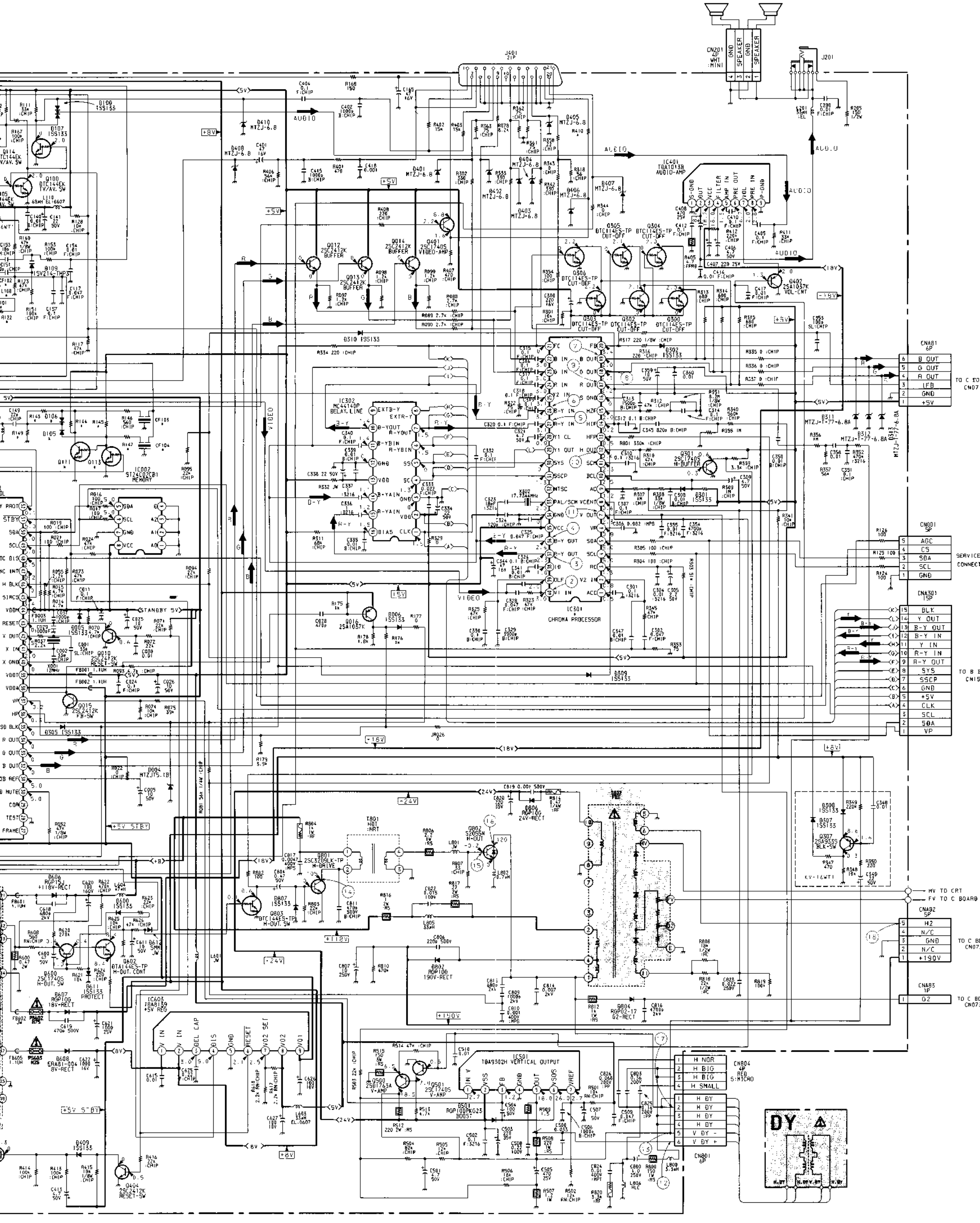
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

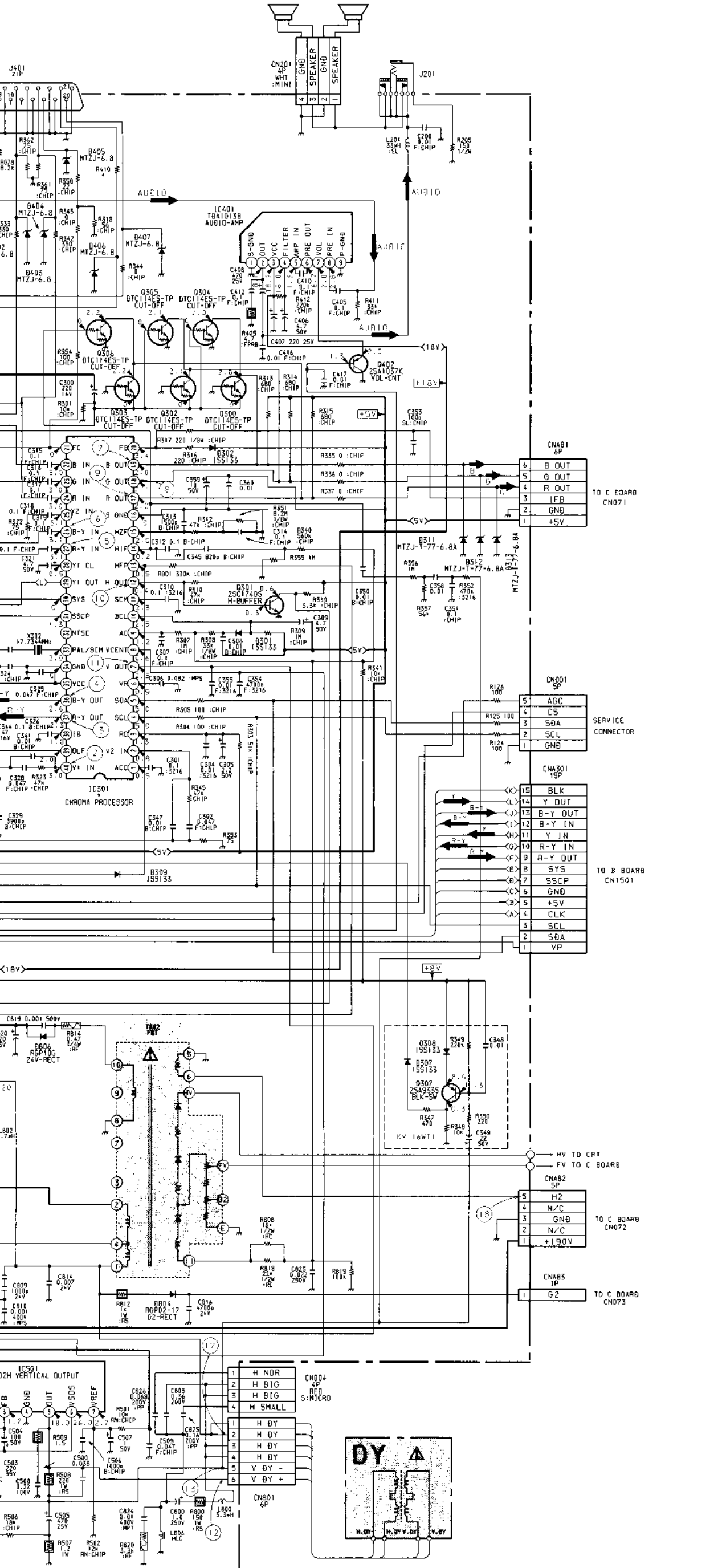
**A BOARD \* MARK**

Model	16WT1	16WT1A	16WT1K	16WT1R	16WT1U
Ref. No.					
C131	-	-	0.001	0.001	-
CF101	5.5 / 6.5 MHz	5.5 / 5.74 MHz	5.5 / 5.74 MHz	5.5 / 5.74 MHz	6.0 / 6.5 MHz
CF102	-	-	6.5 MHz	6.5 MHz	-
CF103	5.5 MHz	5.5 MHz	5.5 MHz	5.5 MHz	6.0 MHz
CF104	-	-	6.5 MHz	6.5 MHz	-
D105	-	-	1SS133	1SS133	-
D106	-	-	1SS133	1SS133	-
IC101	TDA9812	TDA9806	TDA9806	TDA9806	TDA9806
IC301	MC44002P	MC44007P	MC44002P	MC44002P	MC44007P
L108	8.2 UH	8.2 UH	4.7 UH	4.7 UH	8.2 UH
Q111	-	-	DTC144ES	DTC144ES	-
Q113	-	-	DTC144ES	DTC144ES	-
R122	150	150	100	100	150
R134	180	180	180	180	150
R143	0	0	-	-	0
R144	-	-	2.2 K	2.2 K	-
R145	-	-	2.2 K	2.2 K	-
R147	-	-	560	560	-
R149	-	-	2.2 K	2.2 K	-
R158	180	390	390	390	390
R161	-	0	0	0	0
R180	1K	-	-	-	-
R410	75	75	75	75	68
SWF101	OFWK3953	OPWG1963	OFWK2950	OFWK2950	OFWJ1952M
TU101	BT-AC401	BT-AC401	BT-AC401	BT-AC401	BT-AU601

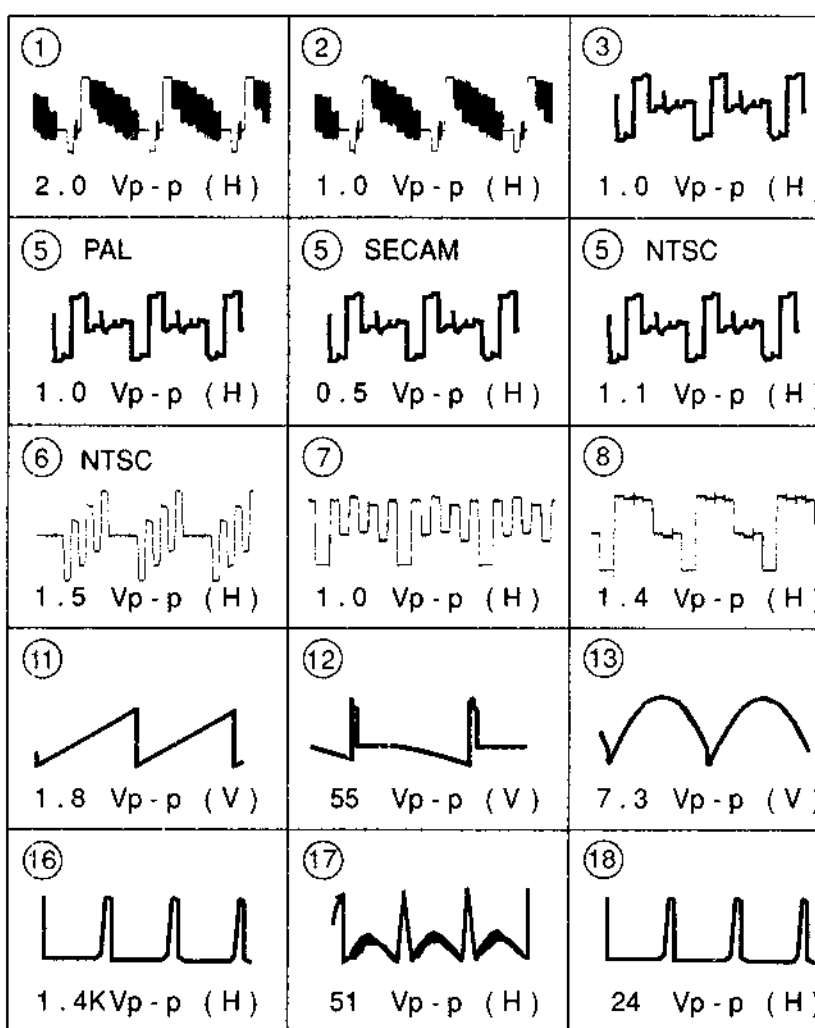


A SYSTEM CONTROL  
HORIZONTAL OUTPUT, VERTICAL OUTPUT  
CHROMINANCE, POWER, AUDIO

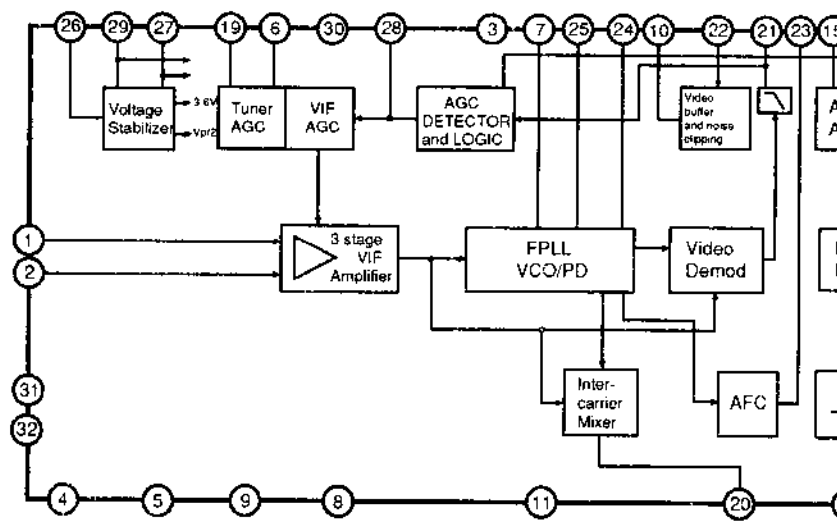




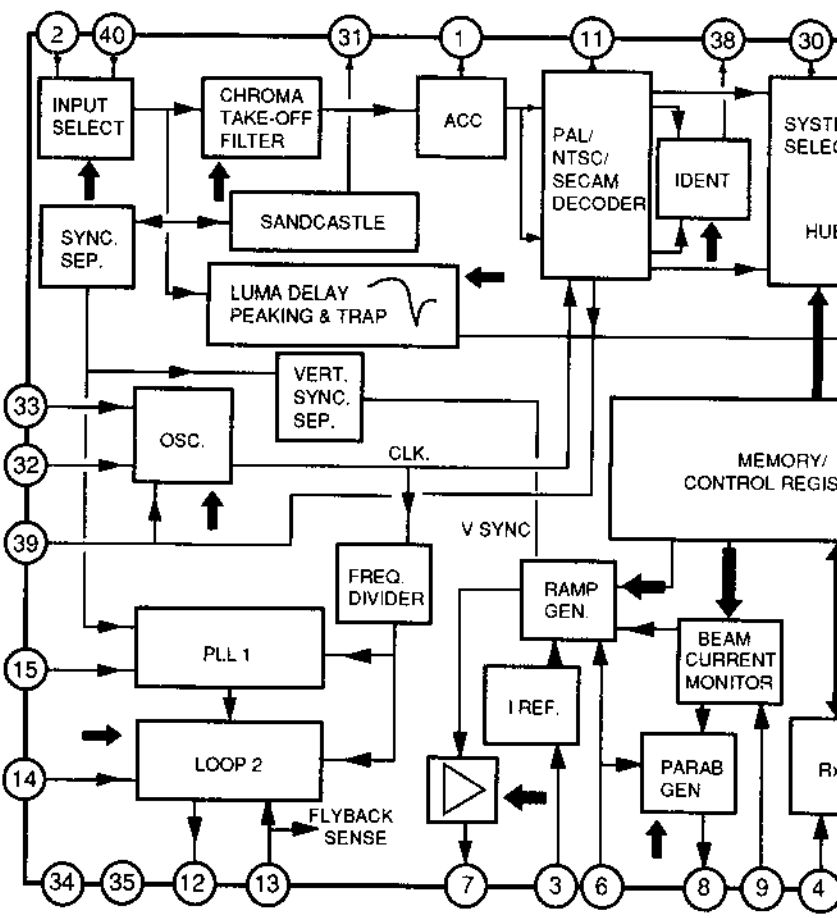
WAVEFORMS A BOARD



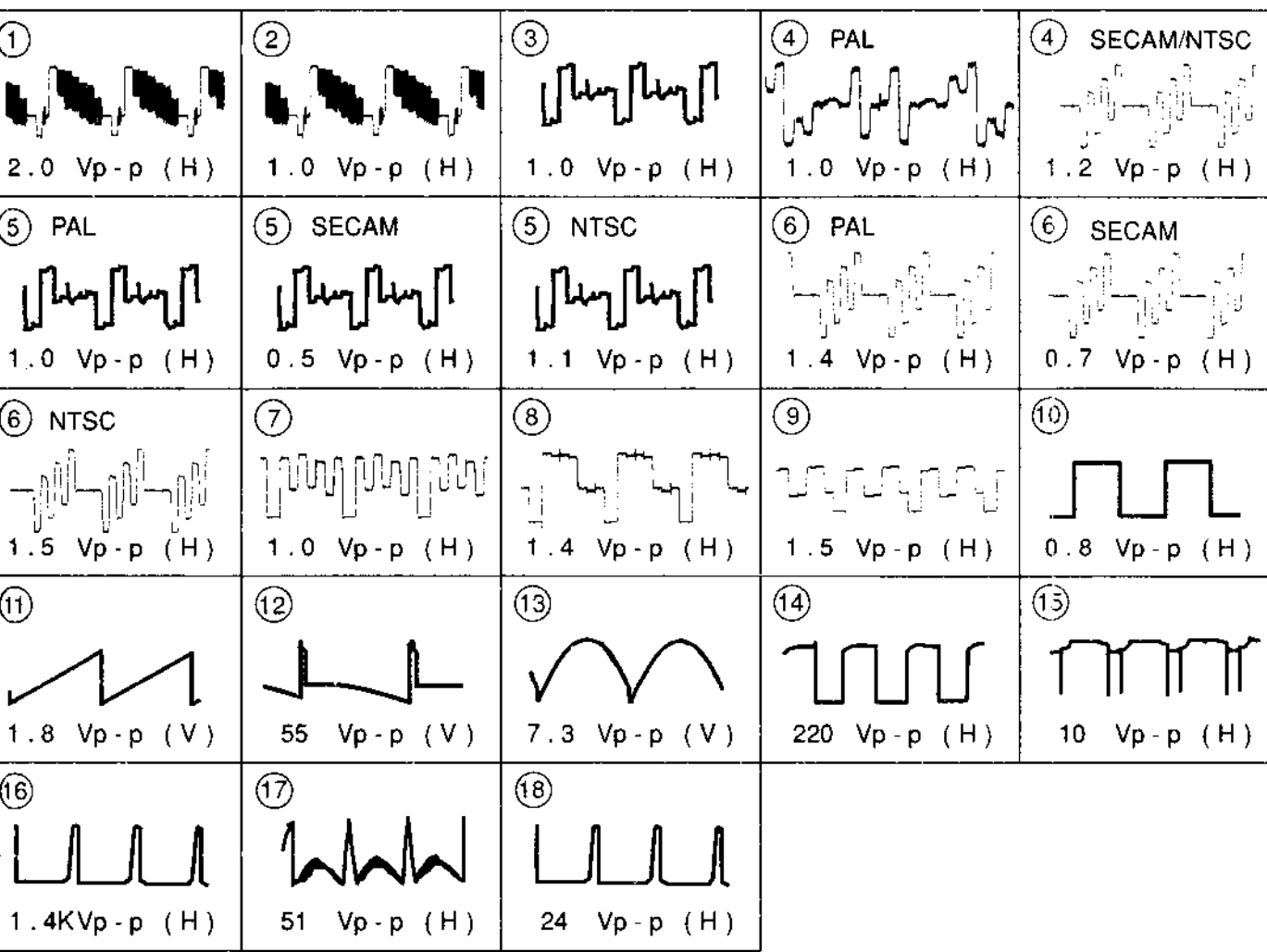
A BOARD IC101 TDA9806/TDA9812



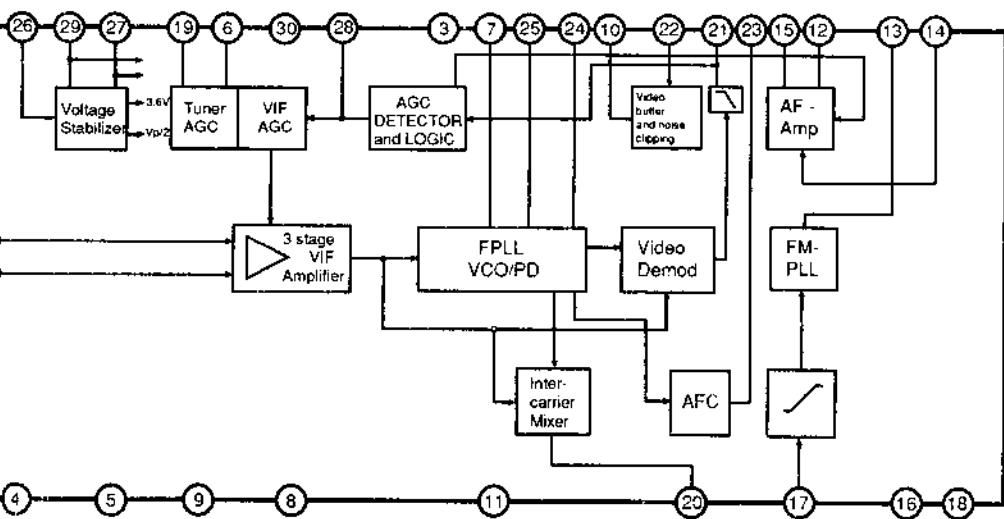
A BOARD IC301 MC44002P/MC44007P



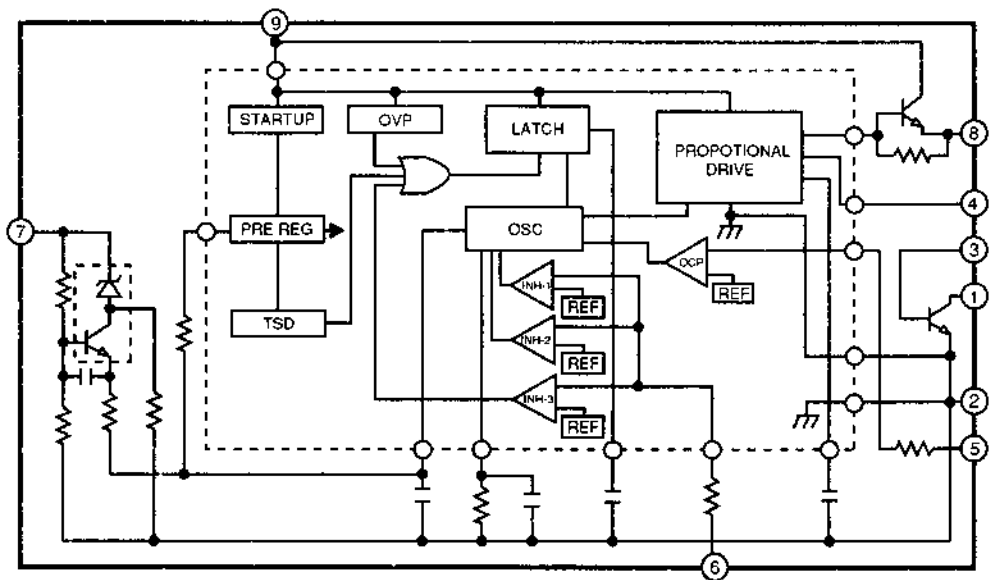
WAVEFORMS A BOARD



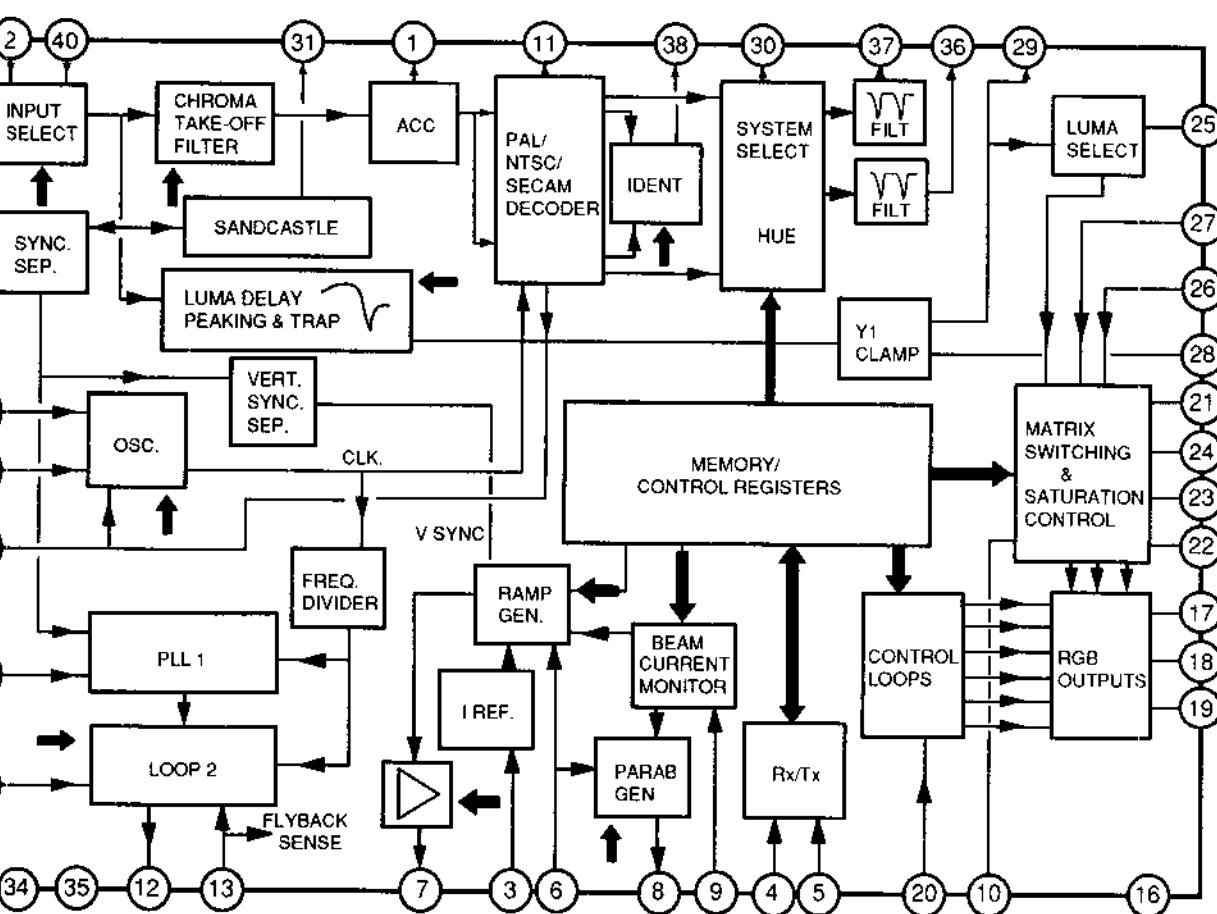
BOARD IC101 TDA9806/TDA9812



A BOARD IC601 STRS5706

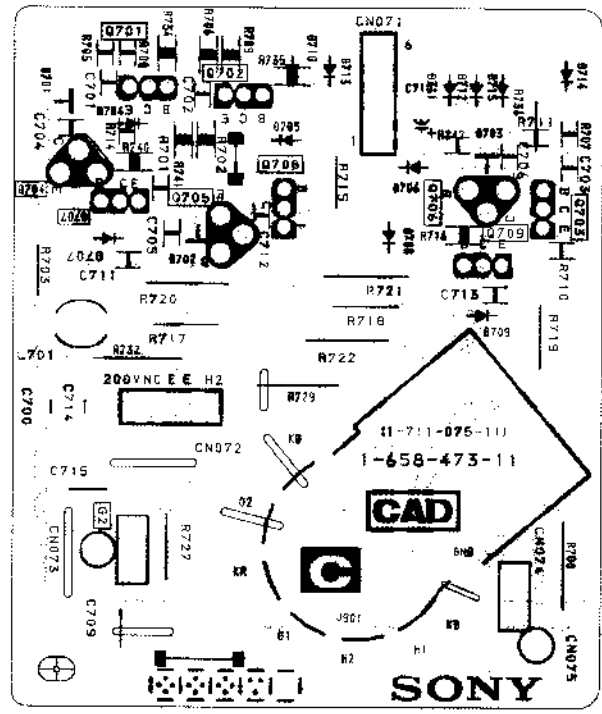


BOARD IC301 MC44002P/MC44007P

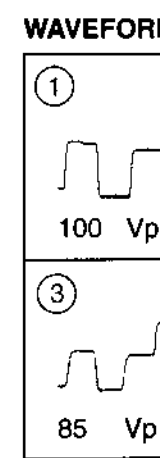
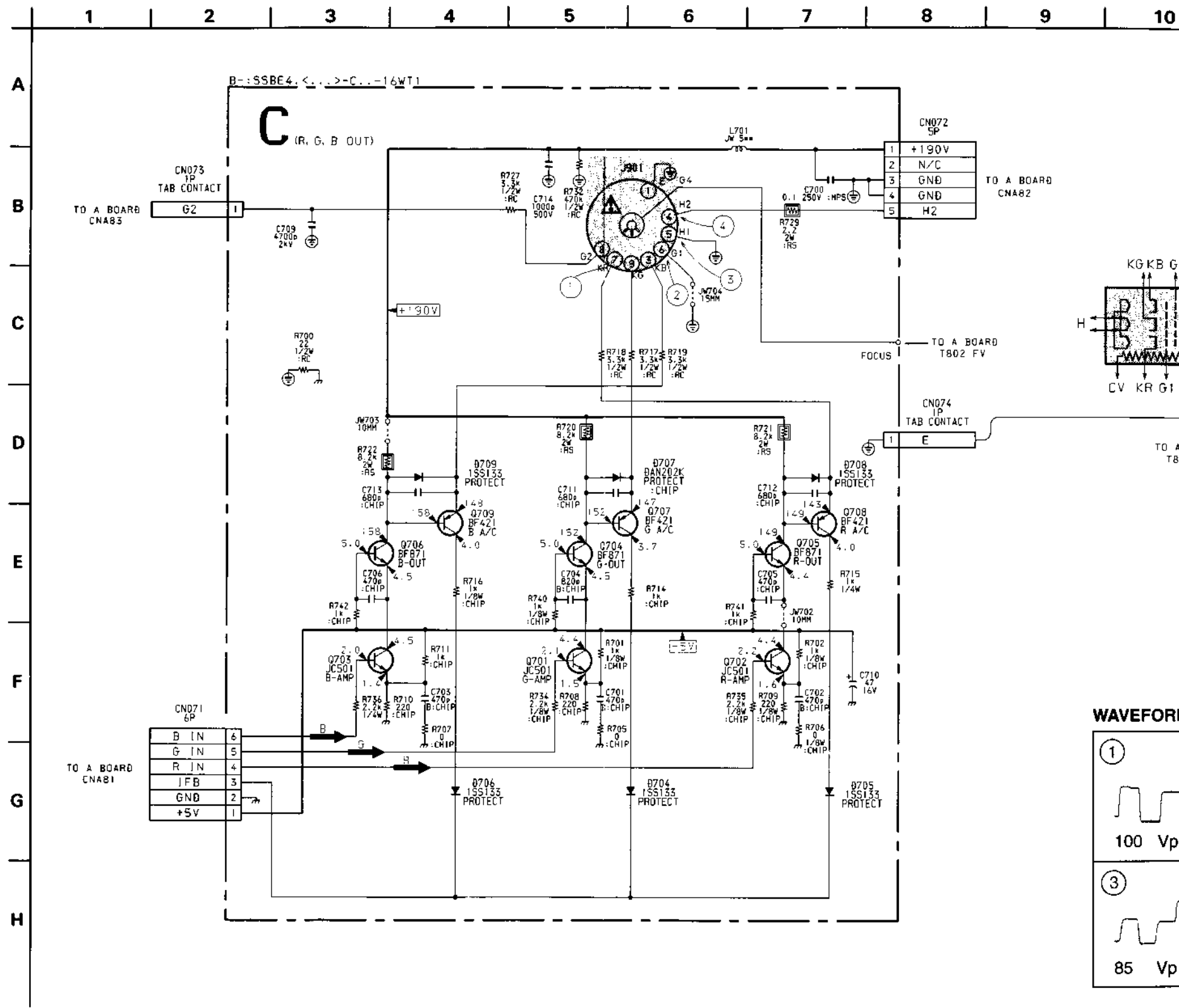
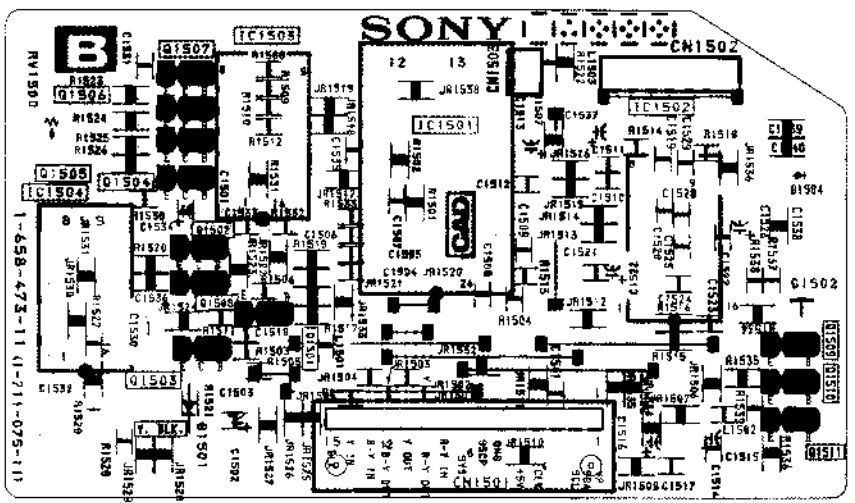


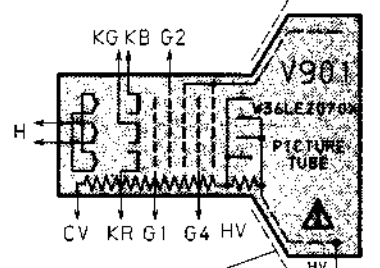
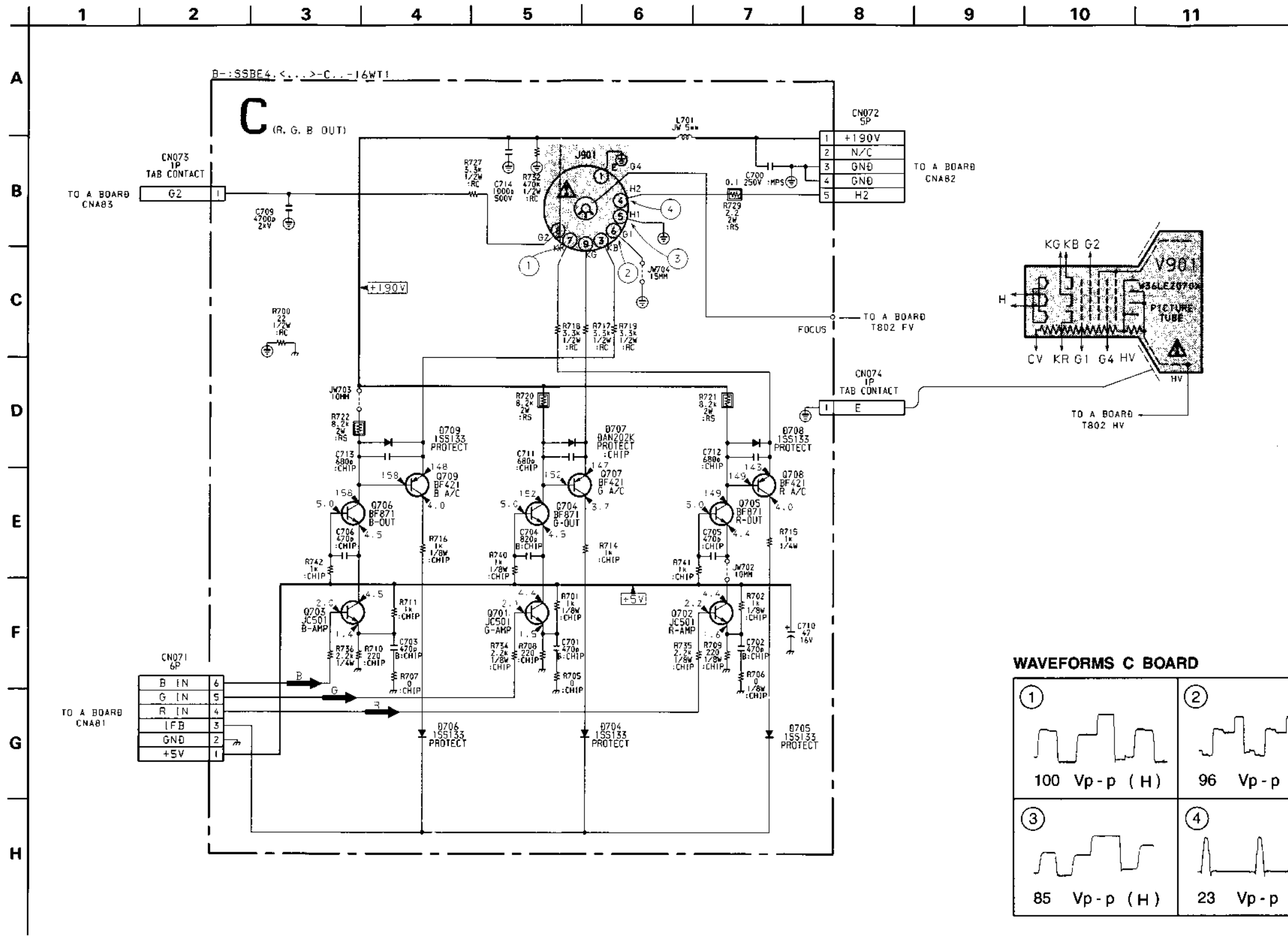
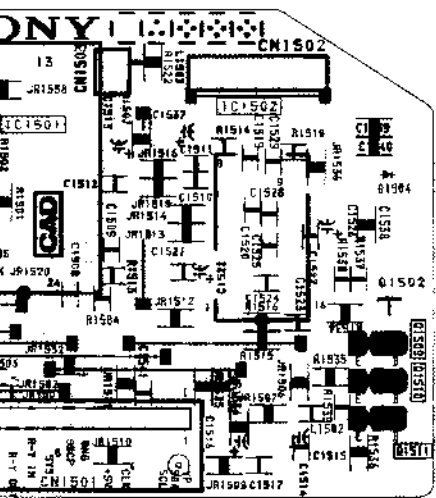
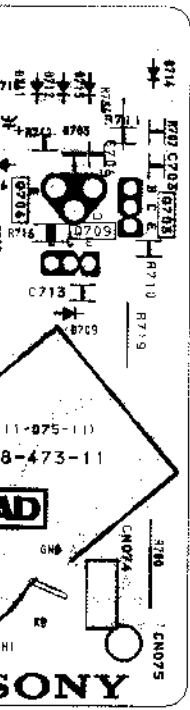


— C BOARD —



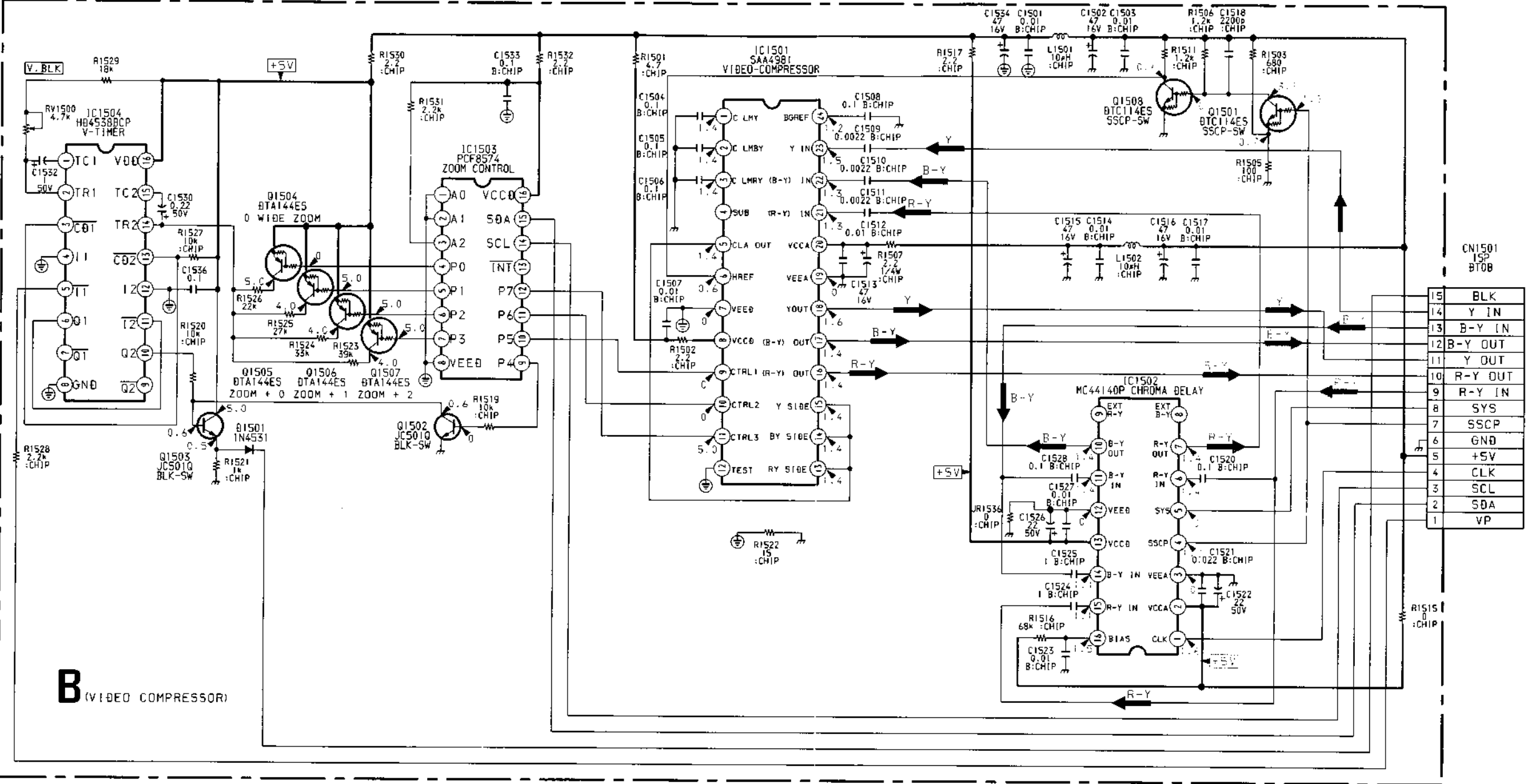
— B BOARD —



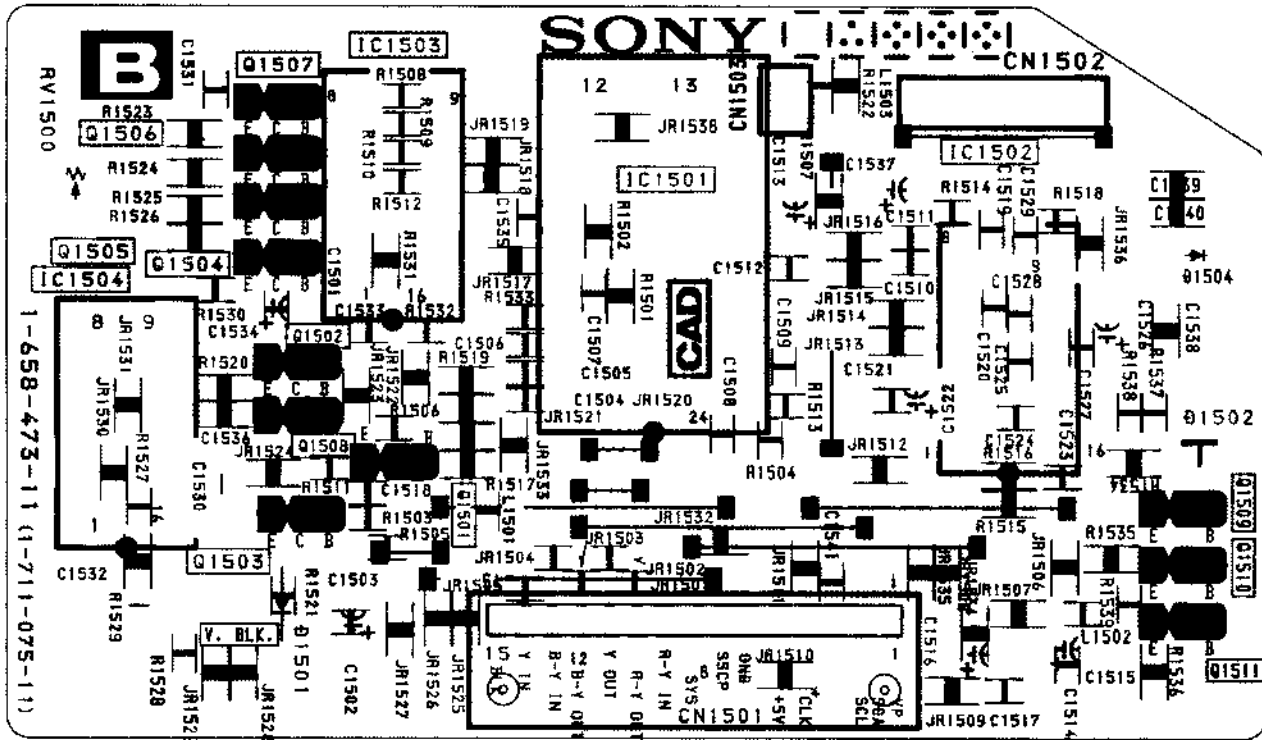


A  
B  
C  
D  
E  
F  
G  
H

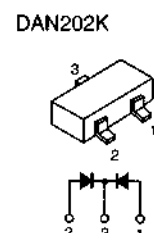
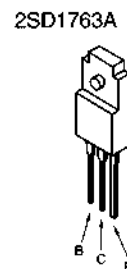
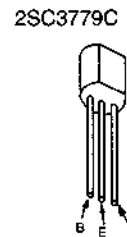
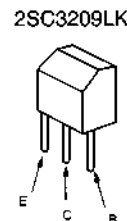
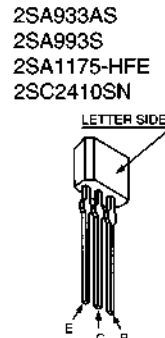
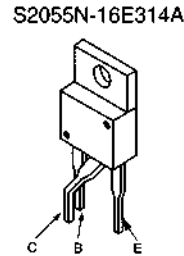
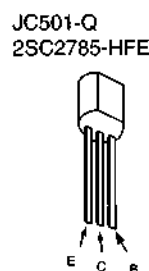
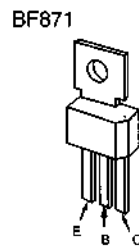
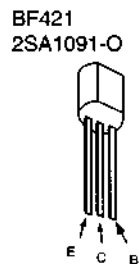
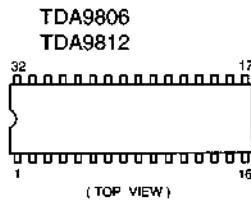
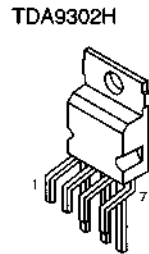
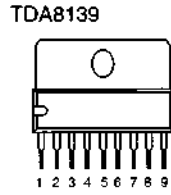
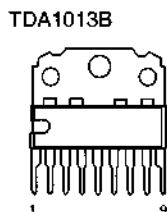
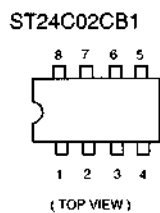
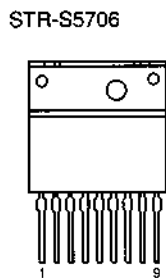
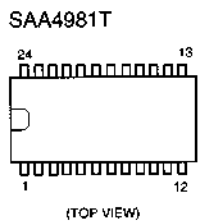
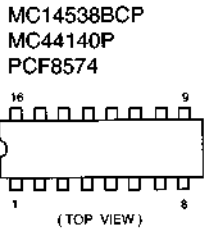
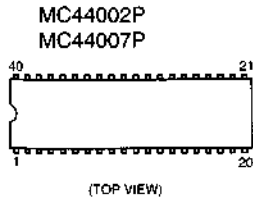
B-:SSBE4.<...>-B...-16WT1



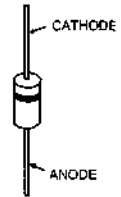
— B BOARD —



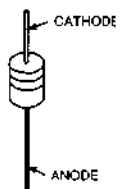
5-4. SEMICONDUCTORS



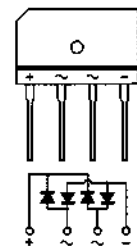
- EG-1Z-V1
- EGP20G
- EL1Z
- EM1-V1
- EU-1Z
- RGP02-17EL-6433
- RGP02-17PKG23
- RGP10GPKG23
- RGP15J-6040
- 1N4531
- 1SS168
- 1SS238



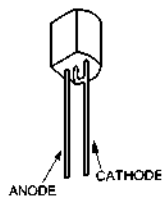
- ERA81-004
- ERA83-006
- MTZJ-5.1B
- MTZJ-6.8A
- RD5.1ESB2
- RD6.8ESB2
- 1SS133



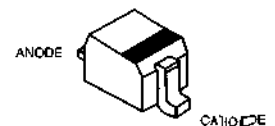
GBU4JL-6088



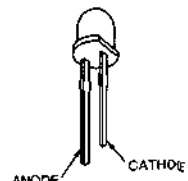
HZT33-02RE  
UPC574J



1SV214



LR5360-DG



SECTION 6  
EXPLODED VIEWS

NOTE :

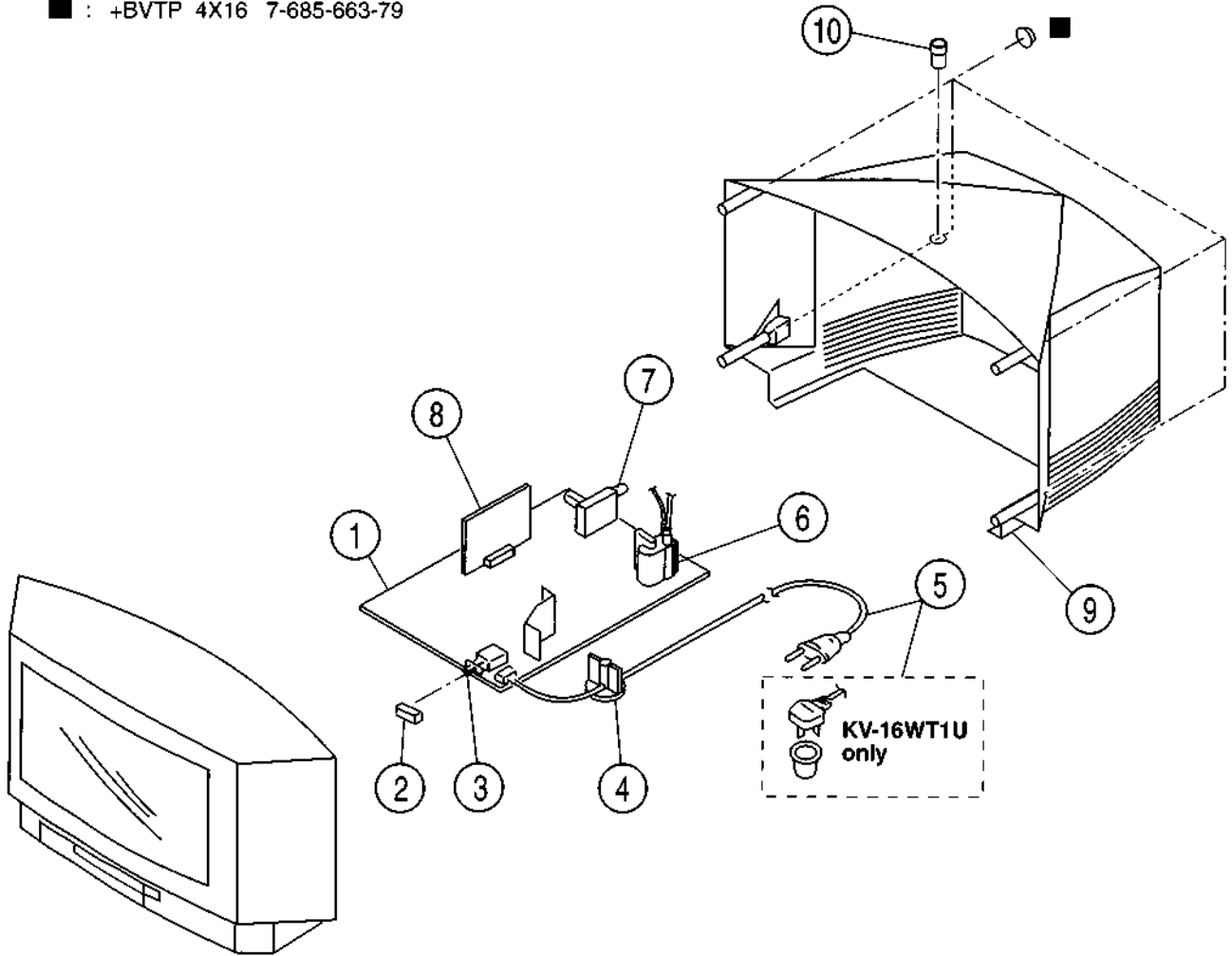
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " \* " are not stocked since they are seldom required for routine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

The components identified by shading and marked " \* " are critical for safety. Replace only with the part number specified.

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

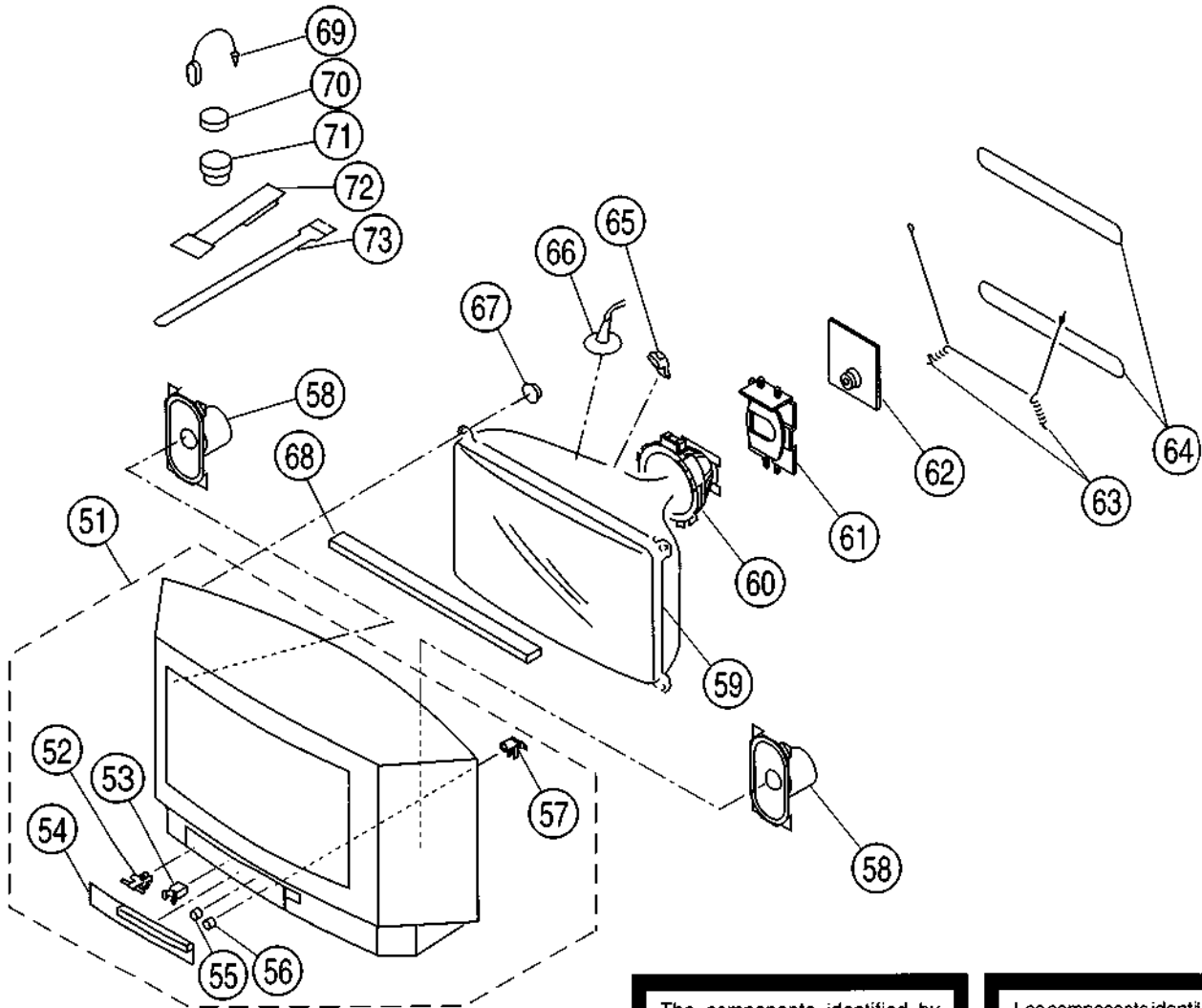
6-1. CHASSIS

■ : +BVTP 4X16 7-685-663-79



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
1	*A-1632-316-A	A BOARD, COMPLETE (KV-16WT1)		6	A-1-453-193-11	TRANSFORMER ASSY. FLYBACK (KV-1749/U2A)	
	*A-1632-312-A	A BOARD, COMPLETE (KV-16WT1A)		7	8-598-331-00	TUNER (BT-AC401)	
	*A-1632-317-A	A BOARD, COMPLETE (KV-16WT1K)			8-598-333-00	TUNER (BT-AU601)	(KV-16WT1/16WT1A/16WT1K/16WT1R)
	*A-1632-318-A	A BOARD, COMPLETE (KV-16WT1R)		8	*A-1620-060-A	B BOARD, COMPLETE	(KV-16WT1U)
	*A-1632-319-A	A BOARD, COMPLETE (KV-16WT1U)		9	4-203-094-01	COVER, REAR	
2	4-203-092-01	BUTTON, POWER		10	4-203-090-01	TERMINAL, ANTENNA	
3	A-1-573-131-21	SWITCH, PUSH (AC POWER)					
4	*4-202-531-01	AC CORD LOCK (SC)					
5	1-990-290-11	CORD, POWER (WITH CONNECTOR) 2.5M/250V	(KV-16WT1/16WT1A/16WT1K/16WT1R)				
5	1-990-162-11	CORD, POWER (WITH PLUG) 1.5M/150V	(KV-16WT1U)				

6-2. PICTURE TUBE



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

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

REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
51	X-4200-228-1	BEZNET ASSY (KV-16WT1/16WT1K/16WT1R/16WT1U)	52 - 57	<del>51</del>	<del>1-452-787-11</del>	<del>NECK ASSY, PICTURE TUBE (KV-16WT1)</del>	
	X-4200-228-5	BEZNET ASSY (KV-16WT1A)	52 - 57	62	*A-1638-067-A	C BOARD, COMPLETE	
52	3-703-035-12	SHAFT, LID		63	4-369-318-21	SPRING, TENSION	
53	4-392-036-01	CATCHER, PUSH		<del>64</del>	<del>1-411-510-11</del>	<del>COIL, DEGRASSING</del>	
54	4-203-091-01	DOOR (KV-16WT1/16WT1K/16WT1R)		65	3-704-495-01	SPACER, DY	
	4-203-091-11	DOOR (KV-16WT1A/16WT1U)		<del>66</del>	<del>1-540-007-11</del>	<del>CAP ASSY, HIGH-VOLTAGE</del>	
55	4-203-088-01	BUTTON, GAME		67	4-036-190-01	SCREW (5), TAPPING	
56	4-203-093-01	BUTTON, MULTI		68	4-203-128-01	SHEET, BLOTTING	
57	4-203-089-01	GUIDE, LIGHT		69	4-308-870-00	CLIP, LEAD WIRE	
58	1-505-200-11	SPEAKER (5X11CM)		70	1-452-032-00	MAGNET, DISK; 10MM Ø	
<del>59</del>	<del>1-505-200-11</del>	<del>SPEAKER (5X11CM)</del>		71	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
<del>60</del>	<del>1-505-200-11</del>	<del>SPEAKER (5X11CM)</del>		72	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	
				73	3-701-007-00	BAND, BINDING	

## SECTION 7 ELECTRICAL PARTS LIST

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

**CAPACITORS**                      **COILS**  
 MF : mF, PF : mmF              MMH : mH, µH : mH

B

- 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

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

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

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
*A-1620-060-A B BOARD, COMPLETE *****				< RESISTOR >			
< CAPACITOR >				JR1501	1-216-295-00	METAL GLAZE	0 5% 1/10W
C1501	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	JR1502	1-216-295-00	METAL GLAZE	0 5% 1/10W
C1502	1-104-664-11	ELECT 47MF	20% 16V	JR1503	1-216-295-00	METAL GLAZE	0 5% 1/10W
C1503	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	JR1504	1-216-295-00	METAL GLAZE	0 5% 1/10W
C1504	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	JR1505	1-216-295-00	METAL GLAZE	0 5% 1/10W
C1505	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	JR1506	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1506	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	JR1507	1-216-295-00	METAL GLAZE	0 5% 1/10W
C1507	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	JR1508	1-216-295-00	METAL GLAZE	0 5% 1/10W
C1508	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	JR1509	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1509	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	JR1510	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1510	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	JR1511	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1511	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	JR1512	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1512	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	JR1513	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1513	1-104-664-11	ELECT 47MF	20% 16V	JR1514	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1514	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	JR1515	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1515	1-104-664-11	ELECT 47MF	20% 16V	JR1516	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1516	1-104-664-11	ELECT 47MF	20% 16V	JR1517	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1517	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	JR1518	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1518	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	JR1519	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1520	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	JR1520	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1521	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V	JR1521	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1522	1-124-916-11	ELECT 22MF	20% 50V	JR1522	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1523	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	JR1523	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1524	1-164-346-11	CERAMIC CHIP 1MF	16V	JR1524	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1525	1-164-346-11	CERAMIC CHIP 1MF	16V	JR1525	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1526	1-124-916-11	ELECT 22MF	20% 50V	JR1526	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1527	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	JR1527	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1528	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	JR1528	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1530	1-124-464-11	ELECT 0.22MF	20% 50V	JR1529	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1532	1-124-903-11	ELECT 1MF	20% 50V	JR1530	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1533	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	JR1531	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1534	1-104-664-11	ELECT 47MF	20% 16V	JR1532	1-216-296-91	METAL GLAZE	0 5% 1/8W
C1536	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	JR1533	1-216-296-91	METAL GLAZE	0 5% 1/8W
< DIODE >				JR1534	1-216-296-91	METAL GLAZE	0 5% 1/8W
D1501	8-719-052-85	DIODE 1N4531-AMMO		JR1535	1-216-296-91	METAL GLAZE	0 5% 1/8W
< IC >				JR1536	1-216-296-91	METAL GLAZE	0 5% 1/8W
IC1501	8-759-342-13	IC SAA4981T-T		R1501	1-216-308-00	METAL GLAZE	4.7 5% 1/10W
IC1502	8-759-333-46	IC MC44140P		R1502	1-216-298-00	METAL GLAZE	2.2 5% 1/10W
IC1503	8-759-979-62	IC PCF8574		R1503	1-216-194-00	METAL GLAZE	680 5% 1/8W
IC1504	8-759-045-38	IC MC14538BCP		R1505	1-216-025-91	METAL GLAZE	100 5% 1/10W
				R1506	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W
				R1507	1-220-230-11	METAL GLAZE	2.2 10% 1/4W
				R1511	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W



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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1515	1-216-296-91	METAL GLAZE 0 5%	1/8W	C020	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
R1516	1-216-242-91	METAL GLAZE 68K 5%	1/8W	C022	1-124-903-11	ELECT 1MF	20% 50V
R1517	1-216-298-00	METAL GLAZE 2.2 5%	1/10W	C024	1-163-038-11	CERAMIC CHIP 0.1MF	25V
R1519	1-216-222-00	METAL GLAZE 10K 5%	1/8W	C025	1-126-964-11	ELECT 10MF	20% 50V
R1520	1-216-222-00	METAL GLAZE 10K 5%	1/8W	C026	1-126-964-11	ELECT 10MF	20% 50V
R1521	1-216-049-91	METAL GLAZE 1K 5%	1/10W	C027	1-163-038-11	CERAMIC CHIP 100000PF	25V
R1522	1-216-005-00	METAL GLAZE 15 5%	1/10W	C028	1-163-197-00	CERAMIC CHIP 470PF	10% 50V
R1523	1-216-236-11	METAL GLAZE 39K 5%	1/8W	C029	1-163-009-11	CERAMIC CHIP 1000PF	10% 50V
R1524	1-216-234-00	METAL GLAZE 33K 5%	1/8W	C030	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R1525	1-216-232-00	METAL GLAZE 27K 5%	1/8W	C031	1-163-009-11	CERAMIC CHIP 1000PF	10% 50V
R1526	1-216-230-00	METAL GLAZE 22K 5%	1/8W	C101	1-164-005-11	CERAMIC CHIP 0.47MF	16V
R1527	1-216-073-00	METAL GLAZE 10K 5%	1/10W	C102	1-164-005-11	CERAMIC CHIP 0.47MF	16V
R1528	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	C103	1-164-005-11	CERAMIC CHIP 0.47MF	16V
R1529	1-216-228-00	METAL GLAZE 18K 5%	1/8W	C104	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V (KV-16WT1)
R1530	1-216-298-00	METAL GLAZE 2.2 5%	1/10W	C109	1-163-038-11	CERAMIC CHIP 0.1MF	25V (KV-16WT1)
R1531	1-216-206-00	METAL GLAZE 2.2K 5%	1/8W	C110	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V (KV-16WT1)
R1532	1-216-298-00	METAL GLAZE 2.2 5%	1/10W	C112	1-137-399-11	FILM 0.1MF	5% 50V (KV-16WT1)
< COIL >				C114	1-136-169-00	FILM 0.22MF	5% 50V
L1501	1-412-006-31	INDUCTOR CHIP 10UH		C116	1-124-925-11	ELECT 2.2MF	20% 50V (KV-16WT1)
L1502	1-412-006-31	INDUCTOR CHIP 10UH		C117	1-163-035-00	CERAMIC CHIP 0.047MF	50V
< TRANSISTOR >				C120	1-126-923-11	ELECT 220MF	20% 10V
Q1501	8-729-900-80	TRANSISTOR DTC114ES		C121	1-136-153-00	FILM 0.01MF	5% 50V
Q1502	8-729-119-78	TRANSISTOR 2SC2785-HFE		C122	1-164-665-11	CERAMIC CHIP 0.039MF	10% 50V
Q1503	8-729-119-78	TRANSISTOR 2SC2785-HFE		C123	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
Q1504	8-729-900-65	TRANSISTOR DTA144ES		C124	1-164-665-11	CERAMIC CHIP 0.039MF	10% 50V
Q1505	8-729-900-65	TRANSISTOR DTA144ES		C126	1-126-967-11	ELECT 47MF	20% 16V
Q1506	8-729-900-65	TRANSISTOR DTA144ES		C127	1-128-551-11	ELECT 22MF	20% 50V
Q1507	8-729-900-65	TRANSISTOR DTA144ES		C131	1-163-141-00	CERAMIC CHIP 0.001MF	10% 50V (KV-16WT1K/16WT1R)
Q1508	8-729-900-80	TRANSISTOR DTC114ES		C138	1-124-925-11	ELECT 2.2MF	20% 50V
*****				C139	1-124-925-11	ELECT 2.2MF	20% 50V
*A-1632-316-A	A BOARD, COMPLETE (KV-16WT1) *****			C140	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
*A-1632-312-A	A BOARD, COMPLETE (KV-16WT1A) *****			C141	1-128-551-11	ELECT 22MF	20% 50V
*A-1632-317-A	A BOARD, COMPLETE (KV-16WT1K) *****			C147	1-164-665-11	CERAMIC CHIP 0.039MF	10% 50V
*A-1632-318-A	A BOARD, COMPLETE (KV-16WT1R) *****			C149	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
*A-1632-319-A	A BOARD, COMPLETE (KV-16WT1U) *****			C150	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
4-382-854-11	SCREW (M3X10), P, SW (+)			C151	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
< CAPACITOR >				C152	1-126-964-11	ELECT 10MF	20% 50V
C001	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C153	1-163-099-00	CERAMIC CHIP 18PF	5% 50V
C002	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C154	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C004	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C155	1-163-038-11	CERAMIC CHIP 0.1MF	25V
C005	1-126-964-11	ELECT 10MF	20% 50V	C157	1-163-038-11	CERAMIC CHIP 0.1MF	25V
C006	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C158	1-124-927-11	ELECT 4.7MF	20% 50V
C007	1-130-777-00	FILM 0.1MF	5% 63V	C161	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V (KV-16WT1)
C008	1-128-551-11	ELECT 22MF	20% 50V	C162	1-126-967-11	ELECT 47MF	20% 16V
C010	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C164	1-162-638-11	CERAMIC CHIP 1MF	16V (KV-16WT1)
C011	1-163-038-11	CERAMIC CHIP 0.1MF	25V	C165	1-126-967-11	ELECT 47MF	20% 16V
C012	1-163-031-11	CERAMIC CHIP 10000PF	50V	C166	1-126-933-11	ELECT 100MF	20% 10V (KV-16WT1)
C014	1-163-038-11	CERAMIC CHIP 0.1MF	25V	C167	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C015	1-126-964-11	ELECT 10MF	20% 50V	C168	1-163-205-00	CERAMIC CHIP 0.001MF	10% 50V
C016	1-164-005-11	CERAMIC CHIP 0.47MF	16V	C200	1-163-059-00	CERAMIC CHIP 0.01MF	50V
C017	1-164-005-11	CERAMIC CHIP 0.47MF	16V	C300	1-126-934-11	ELECT 220MF	20% 16V
C019	1-124-903-11	ELECT 1MF	20% 50V	C301	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V

A

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C302	1-163-035-00	CERAMIC CHIP 0.047MF	50V	C415	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C304	1-163-059-91	CERAMIC CHIP 0.01MF	10% 50V	C416	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C305	1-124-925-11	ELECT 2.2MF	20% 50V	C417	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C306	1-130-494-11	FILM 0.082MF	5% 50V	C418	1-163-205-00	CERAMIC CHIP 0.001MF	10% 50V
C307	1-163-038-11	CERAMIC CHIP 0.1MF	25V	C500	1-130-489-00	FILM 0.033MF	5% 50V
C308	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C501	1-124-927-11	ELECT 4.7MF	20% 50V
C309	1-124-927-11	ELECT 4.7MF	20% 50V	C502	1-163-077-91	CERAMIC CHIP 0.1MF	50V
C310	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V	C503	1-107-894-11	ELECT 220MF	20% 35V
C312	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C504	1-124-122-11	ELECT 100MF	20% 50V
C313	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V	C505	1-126-941-11	ELECT 470MF	20% 25V
C314	1-163-077-91	CERAMIC CHIP 0.1MF	50V	C506	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C315	1-163-038-11	CERAMIC CHIP 0.1MF	25V	C507	1-124-903-11	ELECT 1MF	20% 50V
C316	1-163-038-11	CERAMIC CHIP 0.1MF	25V	C508	1-106-228-00	MYLAR 0.22MF	10% 100V
C317	1-163-038-11	CERAMIC CHIP 0.1MF	25V	C509	1-163-035-00	CERAMIC CHIP 0.047MF	50V
C318	1-163-038-11	CERAMIC CHIP 0.1MF	25V	C510	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C319	1-163-038-11	CERAMIC CHIP 0.1MF	25V	C600	1-126-967-11	ELECT 47MF	20% 50V
C320	1-163-038-11	CERAMIC CHIP 0.1MF	25V				
C321	1-124-927-11	ELECT 4.7MF	20% 50V				
C323	1-163-163-00	CERAMIC CHIP 18PF	5% 50V				
C324	1-163-119-00	CERAMIC CHIP 120PF	5% 50V				
C325	1-163-035-00	CERAMIC CHIP 0.047MF	50V	C606	1-113-473-11	CAP, ELECT 180MF	
C326	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C607	1-104-666-11	ELECT 220MF	20% 25V
C328	1-163-035-00	CERAMIC CHIP 0.047MF	50V	C608	1-126-964-11	ELECT 10MF	20% 50V
C329	1-163-016-00	CERAMIC CHIP 0.0039MF	10% 50V	C609	1-109-921-11	CERAMIC 0.0015MF	10% 500V
C330	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C610	1-104-665-11	ELECT 100MF	20% 25V
C332	1-163-038-11	CERAMIC CHIP 0.1MF	25V	C611	1-126-964-11	ELECT 10MF	20% 50V
C333	1-163-033-91	CERAMIC CHIP 0.022MF	50V				
C334	1-128-551-11	ELECT 22MF	20% 50V				
C335	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C614	1-136-538-11	FILM 0.001MF	3% 2KV
C336	1-162-638-11	CERAMIC CHIP 1MF	16V	C615	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C337	1-162-638-11	CERAMIC CHIP 1MF	16V	C618	1-162-116-00	CERAMIC 680PF	10% 2KV
C338	1-128-551-11	ELECT 22MF	20% 50V	C619	1-102-228-00	CERAMIC 470PF	10% 500V
C339	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C620	1-124-347-00	ELECT 100MF	20% 160V
C340	1-163-038-11	CERAMIC CHIP 0.1MF	25V	C621	1-126-942-61	ELECT 1000MF	20% 25V
C341	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C622	1-126-952-11	ELECT 1000MF	20% 16V
C344	1-126-967-11	ELECT 47MF	20% 16V	C625	1-164-222-11	CERAMIC CHIP 0.22MF	25V
C345	1-163-139-00	CERAMIC CHIP 820PF	10% 50V	C626	1-126-933-11	ELECT 100MF	20% 10V
C347	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C627	1-126-933-11	ELECT 100MF	20% 10V
C348	1-163-031-11	CERAMIC CHIP 0.01MF	50V (KV-16WT1)	C800	1-126-772-11	ELECT 1MF	20% 250V
C349	1-128-551-11	ELECT 22MF	20% 50V (KV-16WT1)	C803	1-136-106-00	FILM 0.36MF	5% 200V
C350	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C804	1-124-902-00	ELECT 0.47MF	20% 50V
C351	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C806	1-102-244-00	CERAMIC 220PF	10% 500V
C353	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C807	1-107-652-11	ELECT 10MF	20% 250V
C354	1-163-055-00	CERAMIC CHIP 0.0047MF	10% 50V	C809	1-161-754-00	CERAMIC 0.001MF	10% 2KV
C355	1-163-059-00	CERAMIC CHIP 0.01MF	50V	C810	1-129-702-00	FILM 0.001MF	10% 400V
C358	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C811	1-102-228-00	CERAMIC 470PF	10% 500V
C359	1-126-964-11	ELECT 10MF	20% 50V	C814	1-111-269-11	FILM 0.007MF	3% 2KV
C360	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C815	1-162-116-00	CERAMIC 680PF	10% 2KV
C401	1-126-967-11	ELECT 47MF	20% 16V	C816	1-162-114-00	CERAMIC 0.0047MF	2KV
C402	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C817	1-136-559-11	MYLAR 0.0047MF	10% 400V
C404	1-163-038-11	CERAMIC CHIP 0.1MF	25V	C819	1-162-318-11	CERAMIC 0.001MF	10% 500V
C405	1-163-038-11	CERAMIC CHIP 0.1MF	25V	C820	1-126-949-11	ELECT 220MF	20% 35V
C406	1-124-927-11	ELECT 4.7MF	20% 50V	C822	1-104-696-11	FILM 0.015MF	10% 100V
C407	1-104-666-11	ELECT 220MF	20% 25V	C823	1-106-375-12	MYLAR 0.022MF	10% 250V
C408	1-126-941-11	ELECT 470MF	20% 25V	C824	1-106-367-00	MYLAR 0.01MF	10% 400V
C410	1-163-038-11	CERAMIC CHIP 0.1MF	25V	C825	1-136-104-00	FILM 0.16MF	5% 200V
C412	1-163-038-11	CERAMIC CHIP 0.1MF	25V	C826	1-129-767-51	FILM 0.068MF	10% 200V
C413	1-124-927-11	ELECT 4.7MF	20% 50V				

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< FILTER >							
CF101	1-404-801-11	TRAP, CERAMIC (KV-16WT1A/16WT1K/16WT1R)		D408	8-719-109-97	DIODE RD6.8ESB2	
	1-409-429-11	TRAP, CERAMIC (KV-16WT1U)		D409	8-719-991-33	DIODE 1SS133T-77	
	1-409-430-11	TRAP, CERAMIC (KV-16WT1)		D410	8-719-109-97	DIODE RD6.8ESB2	
CF102	1-409-327-00	TRAP, CERAMIC (6.5 MHz) (KV-16WT1K/16WT1R)		D501	8-719-302-43	DIODE EL1Z	
CF103	1-567-100-00	FILTER, CERAMIC (KV-16WT1U)		D600	8-719-991-33	DIODE 1SS133T-77	
	1-760-106-11	FILTER, CERAMIC (KV-16WT1/16WT1A/16WT1K/16WT1R)		D601	8-719-046-77	DIODE EM1-V1	
CF104	1-567-101-11	FILTER, CERAMIC (KV-16WT1K/16WT1R)		D602	8-719-312-61	DIODE EU-1Z	
CF105	1-760-154-11	TRAP, CERAMIC (KV-16WT1)		D603	8-719-046-78	DIODE EG-1Z-V1	
SNF101	1-579-120-11	FILTER, SURFACE WAVE (KV-16WT1A)		D604	8-719-312-61	DIODE EU-1Z	
	1-579-273-11	FILTER, SURFACE WAVE (KV-16WT1)		D605	8-719-312-61	DIODE EU-1Z	
	1-579-414-11	FILTER, SURFACE WAVE (KV-16WT1K/16WT1R)		D606	8-719-979-85	DIODE EGP20G	
	1-760-711-11	FILTER, SURFACE WAVE (KV-16WT1U)		D607	8-719-302-43	DIODE EL1Z	
SNF102	1-760-722-11	FILTER, SURFACE WAVE (KV-16WT1)		D608	8-719-980-78	DIODE ERA83-006	
< CONNECTOR >							
CN001	*1-568-880-51	PIN, CONNECTOR 5P		D610	8-719-025-88	DIODE GBU4JL-6088	
CN201	*1-568-879-11	PIN, CONNECTOR 4P		D611	8-719-991-33	DIODE 1SS133T-77	
[REDACTED]							
CN801	*1-580-798-11	CONNECTOR PIN (DY) 6P		D802	8-719-302-43	DIODE EL1Z	
CN804	*1-568-879-11	PIN, CONNECTOR 4P		D804	8-719-028-72	DIODE RGP02-17EL-6433	
CNA81	*1-568-881-51	PIN, CONNECTOR 6P		D806	8-719-302-43	DIODE EL1Z	
CNA82	*1-568-880-51	PIN, CONNECTOR 5P		D807	8-719-991-33	DIODE 1SS133T-77	
< DIODE >							
D001	8-719-052-94	DIODE LR5360-DG		< FUSE >			
D002	8-759-157-40	DIODE MPC574J		[REDACTED]			
D004	8-719-109-85	DIODE RD5.1ESB2		1-533-230-11	HOLDER, FUSE ; F601		
D005	8-719-991-33	DIODE 1SS133T-77T-77		< FERRITE BEAD >			
D006	8-719-991-33	DIODE 1SS133T-77T-77		FB001	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D014	8-719-991-33	DIODE 1SS133T-77T-77		FB002	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D100	8-719-991-33	DIODE 1SS133T-77T-77		FB003	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D102	8-719-903-27	DIODE 1SS168 (KV-16WT1)		FB601	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D104	8-719-903-27	DIODE 1SS168 (KV-16WT1)		FB603	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D105	8-719-991-33	DIODE 1SS133T-77 (KV-16WT1K/16WT1R)		FB604	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D106	8-719-991-33	DIODE 1SS133T-77 (KV-16WT1K/16WT1R)		FB605	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
D107	8-719-991-33	DIODE 1SS133T-77		< IC >			
D109	8-719-820-71	DIODE 1SV214		IC001	8-759-861-72	IC SAA5296ZP/011	
D301	8-719-991-33	DIODE 1SS133T-77		IC002	8-759-280-74	IC ST24C02CB1	
D302	8-719-991-33	DIODE 1SS133T-77		IC003	8-741-790-11	IC SBX1790-11	
D305	8-719-991-33	DIODE 1SS133T-77		IC101	8-759-333-17	IC TDA9812 (KV-16WT1)	
D307	8-719-991-33	DIODE 1SS133T-77 (KV-16WT1)			8-759-333-19	IC TDA9806 (KV-16WT1A/16WT1K/16WT1R/16WT1U)	
D308	8-719-991-33	DIODE 1SS133T-77 (KV-16WT1)		IC301	8-759-333-44	IC MC44007P (KV-16WT1A/16WT1U)	
D309	8-719-991-33	DIODE 1SS133T-77			8-759-333-45	IC MC44002P (KV-16WT1/16WT1K/16WT1R)	
D310	8-719-991-33	DIODE 1SS133T-77		IC401	8-759-041-82	IC TDA1013B	
D311	8-719-109-97	DIODE RD6.8ESB2		IC501	8-759-324-56	IC TDA9302H	
D312	8-719-109-97	DIODE RD6.8ESB2		IC601	8-749-011-02	IC STR-S5706	
D313	8-719-109-97	DIODE RD6.8ESB2		IC603	8-759-337-99	IC TDA8139	
D401	8-719-109-97	DIODE RD6.8ESB2		< JACK/SOCKET >			
D402	8-719-109-97	DIODE RD6.8ESB2		J201	1-568-267-21	JACK	
D403	8-719-109-97	DIODE RD6.8ESB2		J401	1-695-551-11	SOCKET 21P	
D404	8-719-109-97	DIODE RD6.8ESB2		< COIL >			
D405	8-719-109-97	DIODE RD6.8ESB2		L101	1-410-669-31	INDUCTOR 330H	
D406	8-719-109-97	DIODE RD6.8ESB2		L105	1-408-411-00	INDUCTOR 150H	
D407	8-719-109-97	DIODE RD6.8ESB2		L108	1-408-405-00	INDUCTOR 4.7UH (KV-16WT1K/16WT1R)	
					1-408-408-00	INDUCTOR 8.2UH (KV-16WT1/16WT1A/16WT1U)	
				L109	1-403-686-11	COIL	
				L110	1-410-673-31	INDUCTOR 680H	
				L111	1-410-665-31	INDUCTOR 15UH (KV-16WT1)	

A

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
L112	1-408-417-00	INDUCTOR 47UH		Q802	8-729-031-72	TRANSISTOR S2055N-16E314A	
L113	1-410-985-11	INDUCTOR CHIP 0.22UH		Q803	8-729-900-89	TRANSISTOR DTC144ES	
L201	1-408-609-41	INDUCTOR 33UH		< RESISTOR >			
L603	1-410-669-31	INDUCTOR 33UH		JR003	1-216-296-91	METAL GLAZE 0 5% 1/8W	
L604	1-408-417-00	INDUCTOR 47UH		JR004	1-216-296-91	METAL GLAZE 0 5% 1/8W	
L800	1-412-553-11	INDUCTOR 3.3MMH		JR005	1-216-295-00	METAL GLAZE 0 5% 1/10W	
L802	1-407-365-00	COIL, CHOKE		JR007	1-216-295-00	METAL GLAZE 0 5% 1/10W	
L805	1-412-531-91	INDUCTOR 33UH		JR008	1-216-295-00	METAL GLAZE 0 5% 1/10W	
L806	1-459-756-91	COIL, HORIZONTAL LINEARITY		JR009	1-216-295-00	METAL GLAZE 0 5% 1/10W	
< IC LINK >				JR012	1-216-295-00	METAL GLAZE 0 5% 1/10W	
[REDACTED]				JR014	1-216-296-91	METAL GLAZE 0 5% 1/8W	
< TRANSISTOR >				JR015	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q001	8-729-922-66	TRANSISTOR 2SC2410SN		JR017	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q002	8-729-026-41	TRANSISTOR 2SA933AS-QRT		JR018	1-216-296-91	METAL GLAZE 0 5% 1/8W	
Q005	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR019	1-216-296-91	METAL GLAZE 0 5% 1/8W	
Q006	8-729-026-41	TRANSISTOR 2SA933AS-QRT		JR020	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q007	8-729-119-78	TRANSISTOR 2SC2785-HFE		JR021	1-216-296-91	METAL GLAZE 0 5% 1/8W	
Q008	8-729-119-78	TRANSISTOR 2SC2785-HFE		JR025	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q009	8-729-119-78	TRANSISTOR 2SC2785-HFE		JR026	1-216-296-91	METAL GLAZE 0 5% 1/8W	
Q010	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR027	1-216-296-91	METAL GLAZE 0 5% 1/8W	
Q011	8-729-900-89	TRANSISTOR DTC144ES		R001	1-216-222-00	METAL GLAZE 10K 5% 1/8W	
Q012	8-729-920-74	TRANSISTOR 2SC2412K-QR		R002	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
Q013	8-729-920-74	TRANSISTOR 2SC2412K-QR		R004	1-216-238-91	METAL GLAZE 47K 5% 1/8W	
Q014	8-729-920-74	TRANSISTOR 2SC2412K-QR		R005	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
Q015	8-729-920-74	TRANSISTOR 2SC2412K-QR		R006	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
Q016	8-729-216-22	TRANSISTOR 2SA1162-G		R008	1-216-031-00	METAL GLAZE 180 5% 1/10W	
Q100	8-729-901-01	TRANSISTOR DTC144EK		R009	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
Q101	8-729-900-80	TRANSISTOR DTC114ES (KV-16WT1)		R010	1-216-041-00	METAL GLAZE 470 5% 1/10W	
Q102	8-729-900-80	TRANSISTOR DTC114ES (KV-16WT1)		R011	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
Q103	8-729-900-80	TRANSISTOR DTC114ES (KV-16WT1)		R012	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
Q105	8-729-901-01	TRANSISTOR DTC144EK		R013	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
Q107	8-729-119-78	TRANSISTOR 2SC2785-HFE		R014	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q109	8-729-022-54	TRANSISTOR 2SC3779C,D-AA (KV-16WT1)		R015	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q110	8-729-901-01	TRANSISTOR DTC144EK		R016	1-216-025-00	METAL GLAZE 100 5% 1/10W	
Q111	8-729-900-89	TRANSISTOR DTC144ES (KV-16WT1K/16WT1R)		R017	1-216-025-00	METAL GLAZE 100 5% 1/10W	
Q112	8-729-119-78	TRANSISTOR 2SC2785-HFE		R018	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
Q113	8-729-900-89	TRANSISTOR DTC144ES (KV-16WT1K/16WT1R)		R019	1-216-174-00	METAL GLAZE 100 5% 1/8W	
Q114	8-729-901-01	TRANSISTOR DTC144EK		R020	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
Q115	8-729-026-41	TRANSISTOR 2SA933AS-QRT (KV-16WT1)		R021	1-216-174-00	METAL GLAZE 100 5% 1/8W	
Q116	8-729-900-89	TRANSISTOR DTC144ES (KV-16WT1)		R022	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q300	8-729-900-80	TRANSISTOR DTC114ES		R024	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE		R025	1-216-222-00	METAL GLAZE 10K 5% 1/8W	
Q302	8-729-900-80	TRANSISTOR DTC114ES		R026	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
Q303	8-729-900-80	TRANSISTOR DTC114ES		R027	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W	
Q304	8-729-900-80	TRANSISTOR DTC114ES		R028	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
Q305	8-729-900-80	TRANSISTOR DTC114ES		R029	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
Q306	8-729-900-80	TRANSISTOR DTC114ES		R030	1-215-900-11	METAL OXIDE 22K 5% 2W F	
Q307	8-729-119-76	TRANSISTOR 2SA1175-HFE (KV-16WT1)		R031	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE		R032	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
Q402	8-729-216-22	TRANSISTOR 2SA1162-G		R033	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
Q403	8-729-920-74	TRANSISTOR 2SC2412K-QR		R034	1-249-432-11	CARBON 18K 5% 1/4W	
Q404	8-729-920-74	TRANSISTOR 2SC2412K-QR		R035	1-247-863-91	CARBON 22K 5% 1/4W	
Q500	8-729-017-06	TRANSISTOR 2SC4793		R036	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
Q501	8-729-119-78	TRANSISTOR 2SC2785-HFE		R037	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
Q600	8-729-119-78	TRANSISTOR 2SC2785-HFE		R039	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
Q602	8-729-900-65	TRANSISTOR DTA144ES		R040	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q801	8-729-140-96	TRANSISTOR 2SD774-34		R042	1-216-230-00	METAL GLAZE 22K 5% 1/8W	
				R044	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
				R045	1-216-081-00	METAL GLAZE 22K 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R046	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R118	1-216-075-00	METAL GLAZE	12K 5% 1/10W
R047	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R122	1-216-025-00	METAL GLAZE	100 5% 1/10W (KV-16WT1K/16WT1R)
R049	1-216-041-00	METAL GLAZE	470 5% 1/10W		1-216-029-00	METAL GLAZE	150 5% 1/10W (KV-16WT1/16WT1A/16WT1U)
R052	1-216-238-91	METAL GLAZE	47K 5% 1/8W	R123	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R055	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R124	1-216-025-00	METAL GLAZE	100 5% 1/10W
R060	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R125	1-216-025-00	METAL GLAZE	100 5% 1/10W
R061	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R126	1-216-025-00	METAL GLAZE	100 5% 1/10W
R062	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R127	1-216-180-00	METAL GLAZE	180 5% 1/8W
R063	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R128	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R064	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R133	1-249-429-11	CARBON	10K 5% 1/4W
R065	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R134	1-216-029-00	METAL GLAZE	150 5% 1/10W (KV-16WT1U)
R066	1-216-073-00	METAL GLAZE	10K 5% 1/10W		1-216-031-00	METAL GLAZE	180 5% 1/10W (KV-16WT1/16WT1A/16WT1K/16WT1R)
R067	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R136	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R068	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R137	1-216-109-00	METAL GLAZE	330K 5% 1/10W
R069	1-247-863-91	CARBON	22K 5% 1/4W	R138	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R070	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R141	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R071	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R142	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R072	1-216-230-00	METAL GLAZE	22K 5% 1/8W	R143	1-216-295-00	METAL GLAZE	0 5% 1/10W (KV-16WT1/16WT1A/16WT1U)
R073	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R144	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W (KV-16WT1K/16WT1R)
R074	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R145	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W (KV-16WT1K/16WT1R)
R075	1-249-436-11	CARBON	39K 5% 1/4W	R146	1-216-043-91	METAL GLAZE	560 5% 1/10W
R078	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R147	1-216-043-91	METAL GLAZE	560 5% 1/10W (KV-16WT1K/16WT1R)
R079	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R149	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W (KV-16WT1K/16WT1R)
R080	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R151	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R081	1-249-438-11	CARBON	56K 5% 1/4W	R153	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R088	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R154	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R089	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R155	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R090	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R157	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-16WT1)
R091	1-249-427-11	CARBON	6.8K 5% 1/4W	R158	1-216-031-00	METAL GLAZE	180 5% 1/10W (KV-16WT1)
R093	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W		1-216-039-00	METAL GLAZE	390 5% 1/10W (KV-16WT1A/16WT1K/16WT1R/16WT1U)
R094	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R159	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R095	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R160	1-216-238-91	METAL GLAZE	47K 5% 1/8W
R096	1-216-033-00	METAL GLAZE	220 5% 1/10W	R161	1-216-295-00	METAL GLAZE	0 5% 1/10W (KV-16WT1A/16WT1K/16WT1R/16WT1U)
R097	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R162	1-216-017-91	METAL GLAZE	47 5% 1/10W (KV-16WT1)
R098	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R163	1-249-407-11	CARBON	150 5% 1/4W
R099	1-216-200-11	METAL GLAZE	1.2K 5% 1/8W	R167	1-216-246-91	METAL GLAZE	100K 5% 1/8W
R102	1-216-234-00	METAL GLAZE	33K 5% 1/8W	R168	1-249-407-11	CARBON	150 5% 1/4W
R104	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W (KV-16WT1)	R169	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-16WT1)
R105	1-216-025-00	METAL GLAZE	100 5% 1/10W (KV-16WT1)	R170	1-216-063-91	METAL GLAZE	3.9K 5% 1/10W (KV-16WT1)
R106	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W (KV-16WT1)	R171	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W (KV-16WT1)
R107	1-216-017-91	METAL GLAZE	47 5% 1/10W (KV-16WT1)	R175	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R108	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R176	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R109	1-216-025-00	METAL GLAZE	100 5% 1/10W (KV-16WT1)	R177	1-216-295-00	METAL GLAZE	0 5% 1/10W
R110	1-216-101-00	METAL GLAZE	150K 5% 1/10W				
R111	1-216-085-00	METAL GLAZE	33K 5% 1/10W				
R112	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W (KV-16WT1)				
R113	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W (KV-16WT1)				
R114	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-16WT1)				
R115	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W (KV-16WT1)				
R116	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R117	1-216-089-91	METAL GLAZE	47K 5% 1/10W				

A

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R178	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	R406	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R179	1-216-212-00	METAL GLAZE	3.9K 5% 1/8W	R407	1-216-041-00	METAL GLAZE	470 5% 1/10W
R180	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-16WT1)	R408	1-216-033-00	METAL GLAZE	220 5% 1/10W
R205	1-247-741-11	CARBON	150 5% 1/2W	R410	1-247-698-11	CARBON	68 5% 1/4W (KV-16WT1D)
R301	1-216-073-00	METAL GLAZE	10K 5% 1/10W		1-247-804-11	CARBON	75 5% 1/4W (KV-16WT1/16WT1A/16WT1K/16WT1R)
R302	1-216-037-00	METAL GLAZE	330 5% 1/10W	R411	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R303	1-216-090-00	METAL GLAZE	51K 5% 1/10W	R412	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R304	1-216-025-00	METAL GLAZE	100 5% 1/10W	R413	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R305	1-216-025-00	METAL GLAZE	100 5% 1/10W	R414	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R307	1-216-121-91	METAL GLAZE	1M 5% 1/10W	R415	1-216-222-00	METAL GLAZE	10K 5% 1/8W
R308	1-216-234-00	METAL GLAZE	33K 5% 1/8W	R416	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R309	1-216-121-91	METAL GLAZE	1M 5% 1/10W	R501	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R310	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R502	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R311	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R503	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R312	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R504	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R313	1-216-045-00	METAL GLAZE	680 5% 1/10W	R505	1-216-075-00	METAL GLAZE	12K 5% 1/10W
R314	1-216-045-00	METAL GLAZE	680 5% 1/10W	R506	1-216-079-00	METAL GLAZE	16K 5% 1/10W
R315	1-216-045-00	METAL GLAZE	680 5% 1/10W	R507	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R316	1-216-033-00	METAL GLAZE	220 5% 1/10W	R508	1-215-865-11	METAL OXIDE	220 5% 1W F
R317	1-216-182-00	METAL GLAZE	220 5% 1/8W	R509	1-249-383-11	CARBON	1.5 5% 1/4W F
R318	1-216-019-00	METAL GLAZE	56 5% 1/10W	R512	1-215-888-00	METAL OXIDE	220 5% 2W F
R322	1-216-022-00	METAL GLAZE	75 5% 1/10W	R513	1-249-425-11	CARBON	4.7K 5% 1/4W
R323	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R514	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R325	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R515	1-215-912-11	METAL OXIDE	150 5% 3W F
R329	1-216-295-00	METAL GLAZE	0 5% 1/10W	R600	1-216-365-00	METAL OXIDE	0.47 5% 2W F
R333	1-216-037-00	METAL GLAZE	330 5% 1/10W	R603	1-215-860-11	METAL OXIDE	33 5% 1W F
R334	1-216-033-00	METAL GLAZE	220 5% 1/10W	R604	1-215-927-00	METAL OXIDE	47K 5% 3W F
R335	1-216-295-00	METAL GLAZE	0 5% 1/10W	R606	1-249-441-11	CARBON	100K 5% 1/4W
R336	1-216-296-91	METAL GLAZE	0 5% 1/8W	R607	1-216-366-00	METAL OXIDE	0.56 5% 2W F
R337	1-216-295-00	METAL GLAZE	0 5% 1/10W	R608	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R339	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R609	1-215-861-00	METAL OXIDE	47 5% 1W F
R340	1-216-115-00	METAL GLAZE	560K 5% 1/10W	R610	1-249-419-11	CARBON	1.5K 5% 1/4W
R341	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R611	1-215-430-00	METAL	2.4K 1% 1/4W
R342	1-216-186-00	METAL GLAZE	330 5% 1/8W	R615	1-217-371-00	FUSIBLE	0.47 10% 1/4W F
R343	1-216-295-00	METAL GLAZE	0 5% 1/10W	R617	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W
R344	1-216-295-00	METAL GLAZE	0 5% 1/10W	R618	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W
R345	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R620	1-215-479-91	METAL	270K 1% 1/4W
R347	1-216-041-00	METAL GLAZE	470 5% 1/10W (KV-16WT1)	R621	1-249-429-21	CARBON	10K 5% 1/4W
R348	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-16WT1)	R622	1-247-895-91	METAL GLAZE	470K 5% 1/4W
R349	1-216-105-00	METAL GLAZE	220K 5% 1/10W (KV-16WT1)	R623	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R350	1-216-033-00	METAL GLAZE	220 5% 1/10W (KV-16WT1)	R624	1-216-033-00	METAL GLAZE	220 5% 1/10W
R351	1-216-292-11	METAL GLAZE	8.2M 5% 1/8W	R625	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R352	1-216-262-00	METAL GLAZE	470K 5% 1/8W	R626	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R353	1-247-804-11	CARBON	75 5% 1/4W	R627	1-216-346-00	METAL OXIDE	0.56 5% 1W F
R354	1-216-025-00	METAL GLAZE	100 5% 1/10W	R630	1-249-401-11	CARBON	47 5% 1/4W
R355	1-216-121-91	METAL GLAZE	1M 5% 1/10W	R800	1-215-864-00	METAL OXIDE	150 5% 1W F
R356	1-216-121-91	METAL GLAZE	1M 5% 1/10W	R801	1-247-891-00	CARBON	330K 5% 1/4W
R357	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R802	1-247-807-31	CARBON	100 5% 1/4W
R358	1-216-009-00	METAL GLAZE	22 5% 1/10W	R803	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R361	1-216-022-00	METAL GLAZE	75 5% 1/10W	R804	1-217-778-11	FUSIBLE	1K 5% 1W F
R362	1-216-022-00	METAL GLAZE	75 5% 1/10W	R806	1-216-353-00	METAL OXIDE	2.2 5% 1W F
R363	1-216-022-00	METAL GLAZE	75 5% 1/10W	R807	1-216-013-00	METAL GLAZE	33 5% 1/10W
R401	1-216-041-00	METAL GLAZE	470 5% 1/10W	R808	1-202-833-11	SOLID	18K 10% 1/2W
R402	1-249-431-11	CARBON	15K 5% 1/4W	R810	1-247-895-91	CARBON	470K 5% 1/4W
R403	1-249-431-11	CARBON	15K 5% 1/4W	R812	1-215-869-11	METAL OXIDE	1K 5% 1W F
R405	1-249-387-11	CARBON	3.3 5% 1/4W F				

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

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



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R814	1-217-811-11	FUSIBLE	0.47 5% 1/4W	CN073	1-695-915-11	TAB (CONTACT)	
R816	1-216-369-00	METAL OXIDE	1 5% 2W F	CN074	1-695-915-11	TAB (CONTACT)	
R817	1-216-447-00	METAL OXIDE	27 5% 2W F	< DIODE >			
R818	1-202-813-00	SOLID	22K 10% 1/2W	D704	8-719-991-33	DIODE 1SS133T-77	
R819	1-249-441-11	CARBON	100K 5% 1/4W	D705	8-719-991-33	DIODE 1SS133T-77	
R820	1-217-820-11	FUSIBLE	3.3K 5% 1/4W	D706	8-719-991-33	DIODE 1SS133T-77	
< VARIABLE RESISTOR >				D707	8-719-914-43	DIODE DAN202K	
RV102	1-241-765-11	RES, ADJ, METAL GLAZE 22K (KV-16WT1)		D708	8-719-991-33	DIODE 1SS133T-77	
< SWITCH >				D709	8-719-991-33	DIODE 1SS133T-77	
S001	1-571-532-21	SWITCH, TACTIL		< CRT SOCKET >			
S002	1-571-532-21	SWITCH, TACTIL		[REDACTED]			
S003	1-571-532-21	SWITCH, TACTIL		< TRANSISTOR >			
S004	1-571-532-21	SWITCH, TACTIL		Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
S005	1-571-532-21	SWITCH, TACTIL		Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
S006	1-571-532-21	SWITCH, TACTIL		Q703	8-729-119-78	TRANSISTOR 2SC2785-HFE	
< TRANSFORMER >				Q704	8-729-906-70	TRANSISTOR BF871-127	
[REDACTED]				Q705	8-729-906-70	TRANSISTOR BF871-127	
T801	1-437-090-00	HDT		Q706	8-729-906-70	TRANSISTOR BF871-127	
< THERMISTOR >				Q707	8-729-200-17	TRANSISTOR 2SA1091-0	
[REDACTED]				Q708	8-729-200-17	TRANSISTOR 2SA1091-0	
< TUNER >				Q709	8-729-200-17	TRANSISTOR 2SA1091-0	
TU101	8-598-331-00	TUNER (BT-AC401)		< RESISTOR >			
		(KV-16WT1/16WT1A/16WT1K/16WT1R)		R700	1-202-533-11	SOLID	22 5% 1/2W
	8-598-333-00	TUNER (BT-AU601) (KV-16WT1U)		R701	1-216-198-91	METAL GLAZE	1K 5% 1/8W
< CRYSTAL >				R702	1-216-198-91	METAL GLAZE	1K 5% 1/8W
X001	1-578-774-11	VIBRATOR, CRYSTAL		R705	1-216-295-00	METAL GLAZE	0 5% 1/10W
X302	1-760-710-21	VIBRATOR, CRYSTAL		R706	1-216-296-91	METAL GLAZE	0 5% 1/8W
*****				R707	1-216-295-00	METAL GLAZE	0 5% 1/10W
*A-1638-067-A C BOARD, COMPLETE				R708	1-216-033-00	METAL GLAZE	220 5% 1/10W
*****				R709	1-216-182-00	METAL GLAZE	220 5% 1/8W
< CAPACITOR >				R710	1-216-033-00	METAL GLAZE	220 5% 1/10W
C700	1-136-189-00	FILM	0.1MF 10% 250V	R711	1-216-049-91	METAL GLAZE	1K 5% 1/10W
C701	1-163-197-00	CERAMIC CHIP	470PF 10% 50V	R714	1-216-049-91	METAL GLAZE	1K 5% 1/10W
C702	1-163-197-00	CERAMIC CHIP	470PF 10% 50V	R715	1-249-417-11	CARBON	1K 5% 1/4W
C703	1-163-197-00	CERAMIC CHIP	470PF 10% 50V	R716	1-216-198-91	METAL GLAZE	1K 5% 1/8W
C704	1-163-197-00	CERAMIC CHIP	470PF 10% 50V	R717	1-202-824-00	SOLID	3.3K 10% 1/2W
C705	1-163-197-00	CERAMIC CHIP	470PF 10% 50V	R718	1-202-824-00	SOLID	3.3K 10% 1/2W
C706	1-163-197-00	CERAMIC CHIP	470PF 10% 50V	R719	1-202-824-00	SOLID	3.3K 10% 1/2W
C709	1-162-114-00	CERAMIC	0.0047MF 2KV	R720	1-216-462-00	METAL OXIDE	8.2K 5% W F
C710	1-104-664-11	ELECT	47MF 20% 16V	R721	1-216-462-00	METAL OXIDE	8.2K 5% W F
C711	1-163-201-00	CERAMIC CHIP	680PF 10% 50V	R722	1-216-462-00	METAL OXIDE	8.2K 5% W F
C712	1-163-201-00	CERAMIC CHIP	680PF 10% 50V	R727	1-202-824-00	SOLID	3.3K 10% 1/2W
C713	1-163-201-00	CERAMIC CHIP	680PF 10% 50V	R729	1-216-373-11	METAL OXIDE	2.2 5% W F
C714	1-162-318-11	CERAMIC	0.001MF 10% 500V	R732	1-202-846-00	SOLID	470K 10% 1/2W
< CONNECTOR >				R734	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W
CN071	*1-568-881-51	PIN, CONNECTOR 6P		R735	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W
CN072	*1-568-880-51	PIN, CONNECTOR 5P		R736	1-249-421-11	CARBON	2.2K 5% 1/4W
*****				R740	1-216-198-91	METAL GLAZE	1K 5% 1/8W
*****				R741	1-216-049-91	METAL GLAZE	1K 5% 1/10W
*****				R742	1-216-049-91	METAL GLAZE	1K 5% 1/10W

The components identified by shading and marked \* are critical for safety. Replace only with the part number specified.

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

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
MISCELLANEOUS *****							
	1-452-032-00	MAGNET, DISK; 10MM Ø					
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø					
	1-505-200-11	SPEAKER (5X11CM)					
	8-598-331-00	TUNER (BT-AC401) (KV-16WT1/16WT1A/16WT1K/16WT1R)					
	8-598-333-00	TUNER (BT-AD601) (KV-16WT1U)					
*****							
ACCESSORIES AND PACKING MATERIALS *****							
	*4-039-905-02	BAG, PROTECTION					
	4-203-063-11	MANUAL, INSTRUCTION (KV-16WT1) (GERMAN/ENGLISH/DUTCH/ITALIAN/FRENCH)					
	4-203-087-11	MANUAL, INSTRUCTION (KV-16WT1) (SPANISH/DANISH/SWEDISH/FINNISH/GREEK/ PORTUGUESE)					
	4-203-063-41	MANUAL, INSTRUCTION (KV-16WT1A) (ITALIAN)					
	4-203-063-91	MANUAL, INSTRUCTION (KV-16WT1K) (ENGLISH/CZECH/POLISH/HUNGARIAN)					
	4-203-087-91	MANUAL, INSTRUCTION (KV-16WT1R) (FRENCH/GERMAN/ITALIAN)					
	4-203-061-61	MANUAL, INSTRUCTION (KV-16WT1U) (ENGLISH)					
	*4-203-101-01	INDIVIDUAL CARTON					
	*4-203-102-01	CUSHION (TOP) (ASSY)					
	*4-203-103-01	CUSHION (LOWER) (ASSY)					
REMOTE COMMANDER *****							
	1-473-194-11	COMMANDER, STANDARD TYPE (RM-836)					
*****							



# SERVICE MANUAL

# BE-4 CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
<b>KV-16WT1</b>	RM-836	Italian	SCC-H64G-A	<b>KV-16WT1R</b>	RM-836	OIRT	SCC-H52H-A
<b>KV-16WT1A</b>	RM-836	Italian	SCC-H64F-A	<b>KV-16WTU</b>	RM-836	OIRT	SCC-H52F-A
<b>KV-16WT1K</b>	RM-836	French	SCC-H65F-A				

## SUPPLEMENT - 1

SUBJECT : ADDITION OF U BOARD

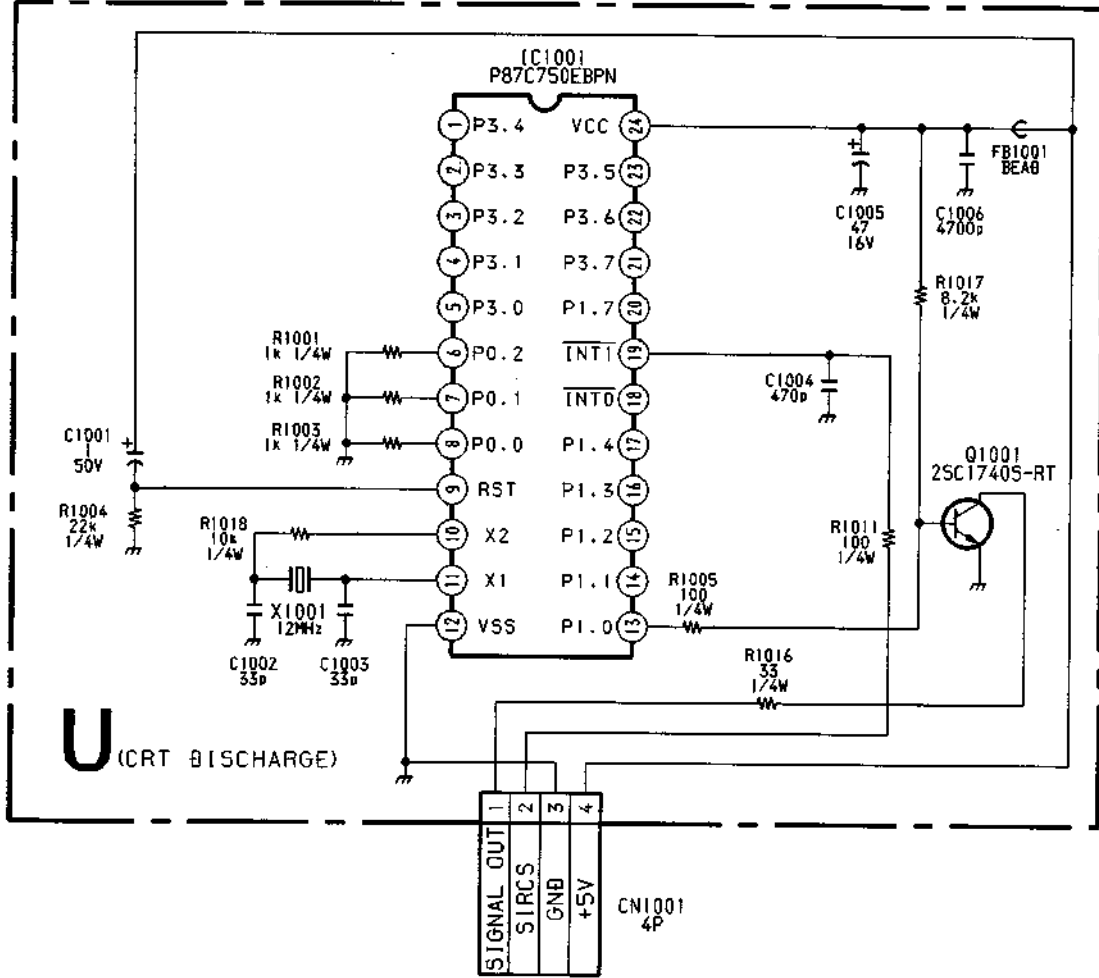
File this supplement with the service manual



TRINITRON® COLOR TV  
**SONY®**

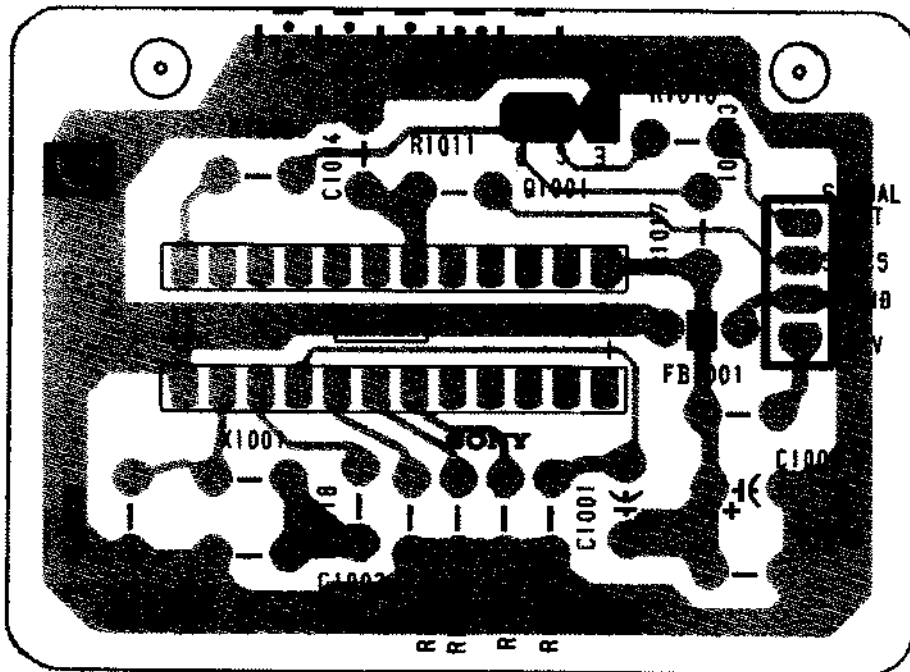
**U** [ CRT DISCHARGE ]

B-#SSBE4A<...>-U...-SUP



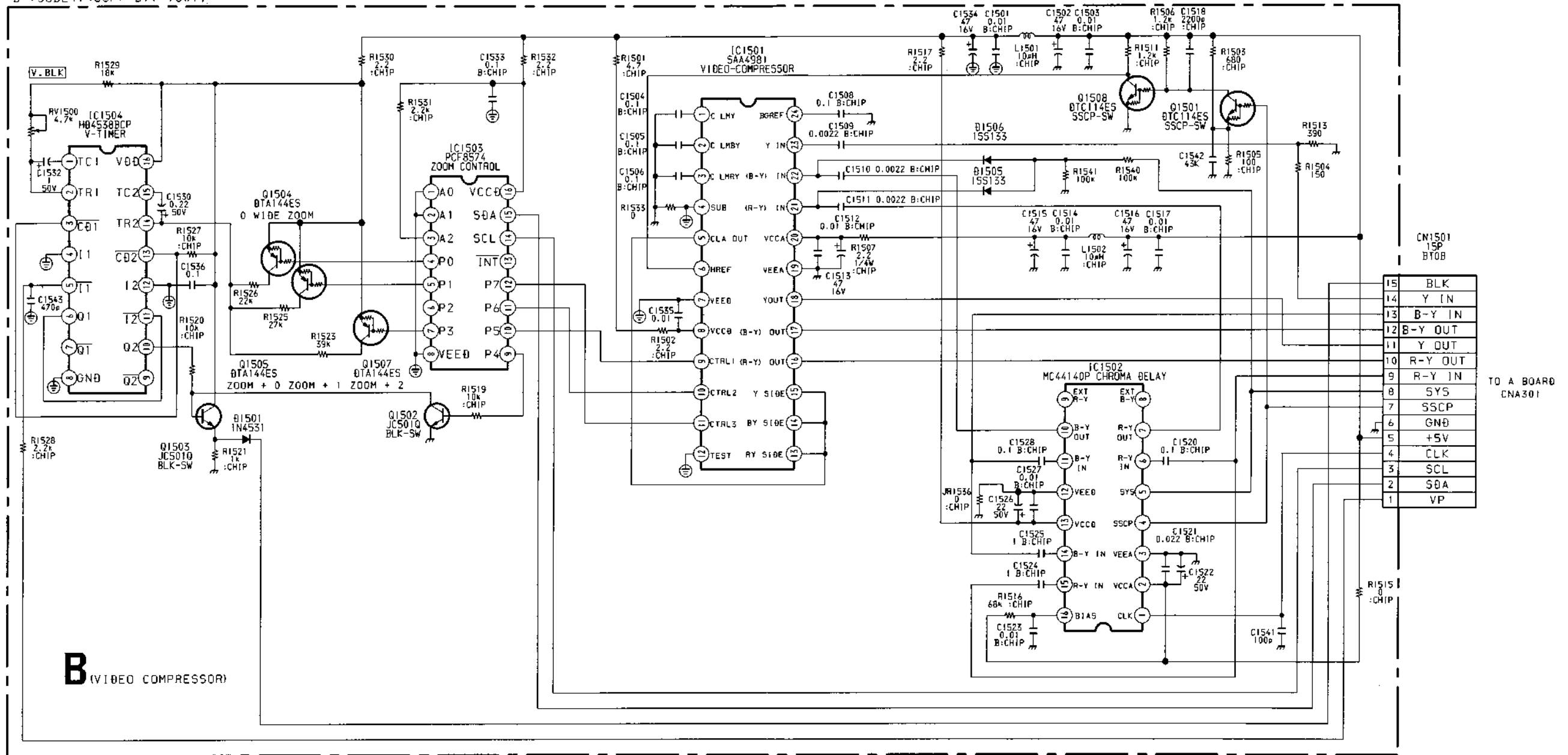
**U** (CRT DISCHARGE)

**U Board**



**B** [ VIDEO COMPRESSOR ]

B->SSBE4.<SUP>-B.-16WT1

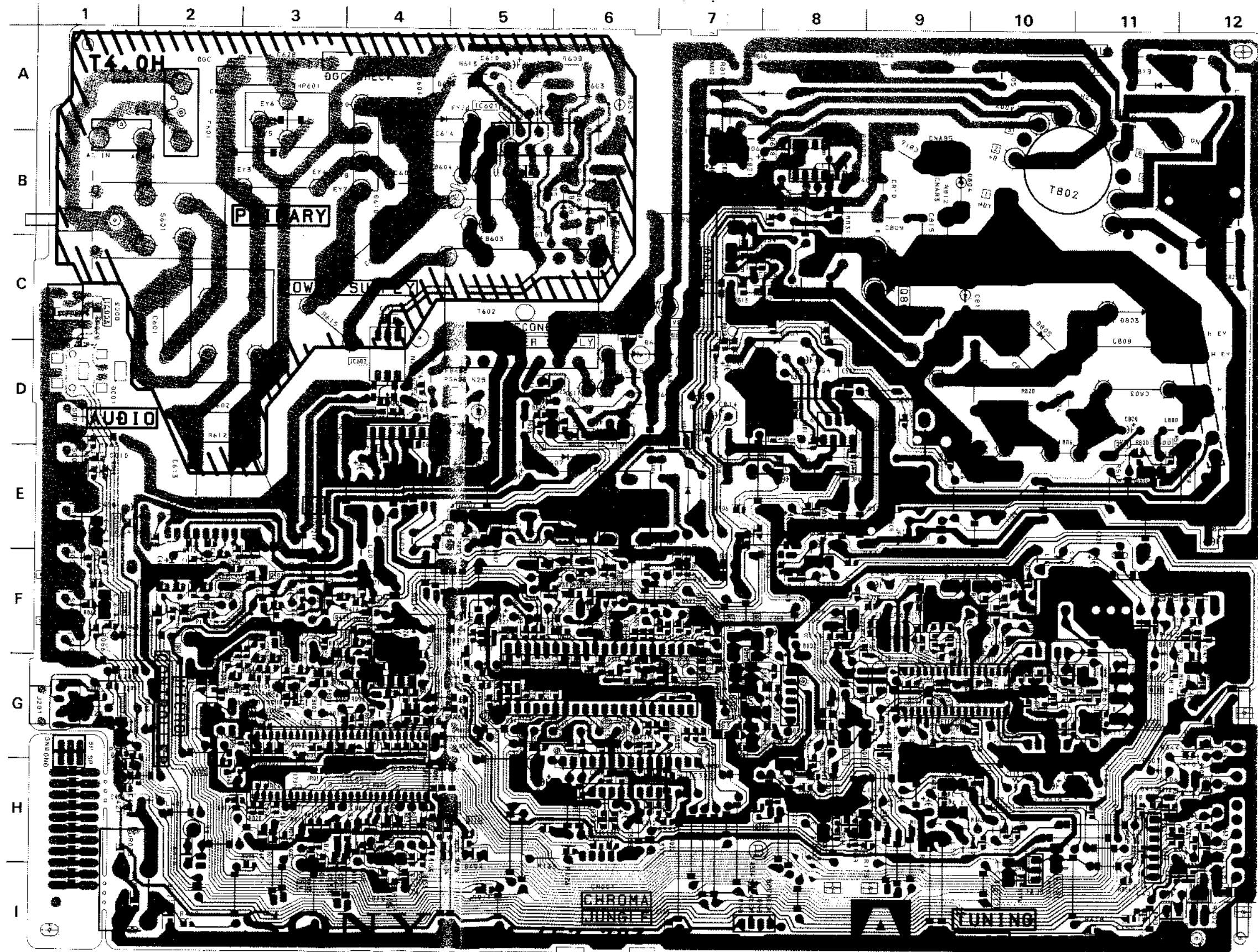


**A** SYSTEM CONTROL, HORIZONTAL OUTPUT,  
VERTICAL OUTPUT, CHROMINANCE,  
POWER, AUDIO

## A Board

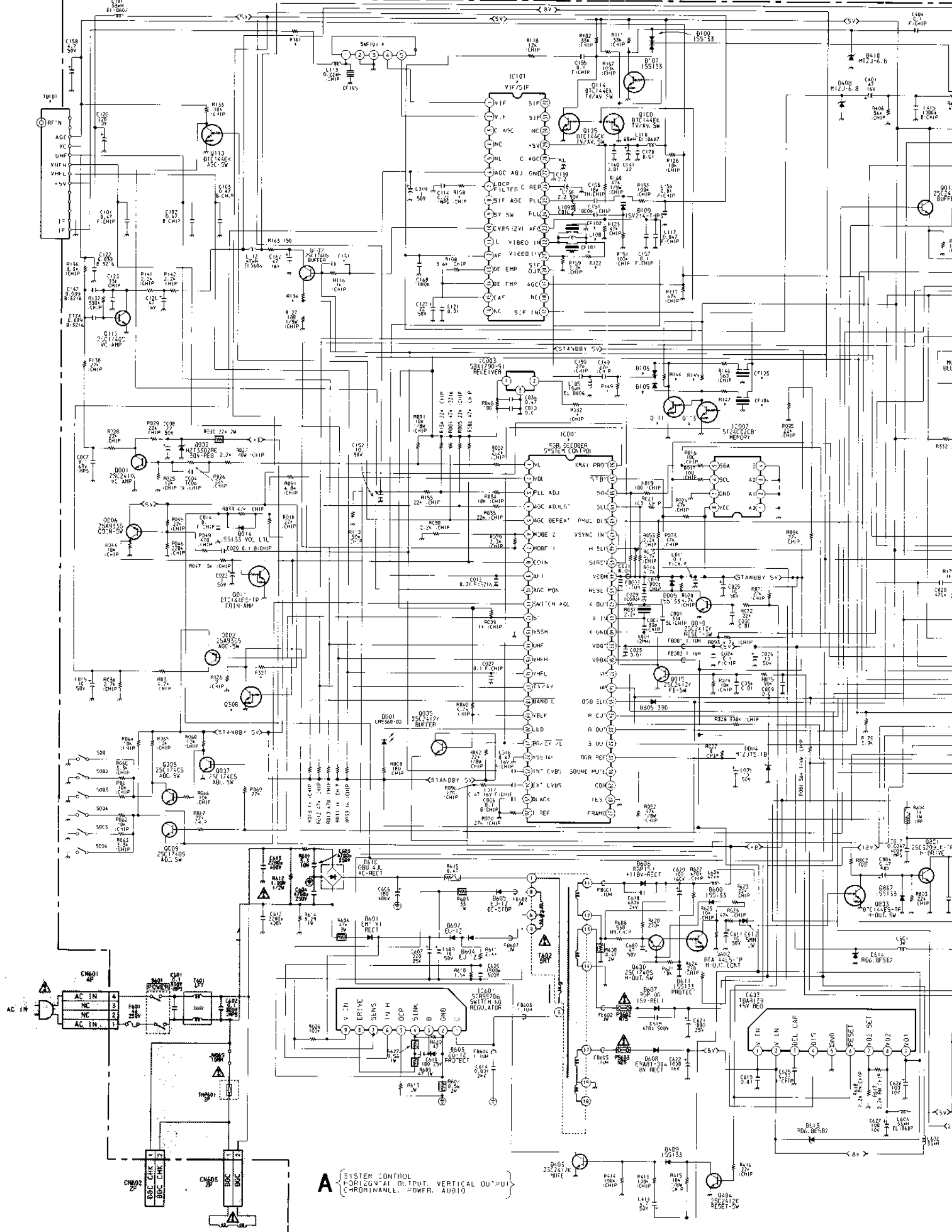
## A BOARD

IC		Q116 F-9		D311 G-8	
IC001	H-4	Q300	F-7	D312	G-7
IC002	G-4	Q301	F-6	D313	G-8
IC003	C-1	Q302	F-7	D401	H-12
IC101	G-10	Q303	G-7	D402	H-5
IC301	G-5	Q304	F-7	D403	H-12
IC302	H-7	Q305	G-7	D404	H-12
IC401	E-3	Q306	G-8	D405	H-12
IC501	D-9	Q307	F-8	D406	H-11
IC601	A-5	Q401	H-10	D407	G-12
IC603	D-3	Q402	F-2	D408	I-12
IC801	B-8	Q403	F-3	D409	F-3
		Q404	F-4	D410	I-11
		Q500	D-11	D501	C-8
		Q501	D-11	D600	D-6
		Q600	D-6	D601	A-6
		Q602	D-6	D602	B-6
		Q801	E-6	D603	A-5
		Q802	C-9	D604	B-6
		Q803	E-5	D605	B-6
				D606	D-6
				D607	E-6
				D608	D-5
				D610	B-4
				D611	D-6
				D802	A-8
				D803	C-11
				D804	B-9
				D806	A-11
				D807	E-5
TRANSISTOR		DIODE		VARIABLE RESISTOR	
Q001	H-8	D001	D-1	RV102	H-10
Q002	I-4	D002	F-8	RV802	B-8
Q005	H-2	D004	F-5		
Q006	H-9	D005	G-4		
Q007	G-1	D006	G-3		
Q008	F-1	D014	I-4		
Q009	E-1	D100	F-3		
Q010	F-4	D102	G-11		
Q011	H-8	D104	G-11		
Q012	G-3	D105	F-8		
Q013	F-3	D106	F-8		
Q014	G-2	D107	F-2		
Q015	G-4	D109	F-9		
Q016	F-3	D301	F-6		
Q100	F-2	D302	F-7		
Q101	G-11	D305	G-2		
Q102	G-11	D307	G-11		
Q103	G-11	D308	F-8		
Q105	F-2	D310	G-5		
Q107	H-9				
Q109	G-10				
Q110	H-5				
Q111	G-8				
Q112	G-12				
Q113	G-9				
Q114	F-2				
Q115	F-10				

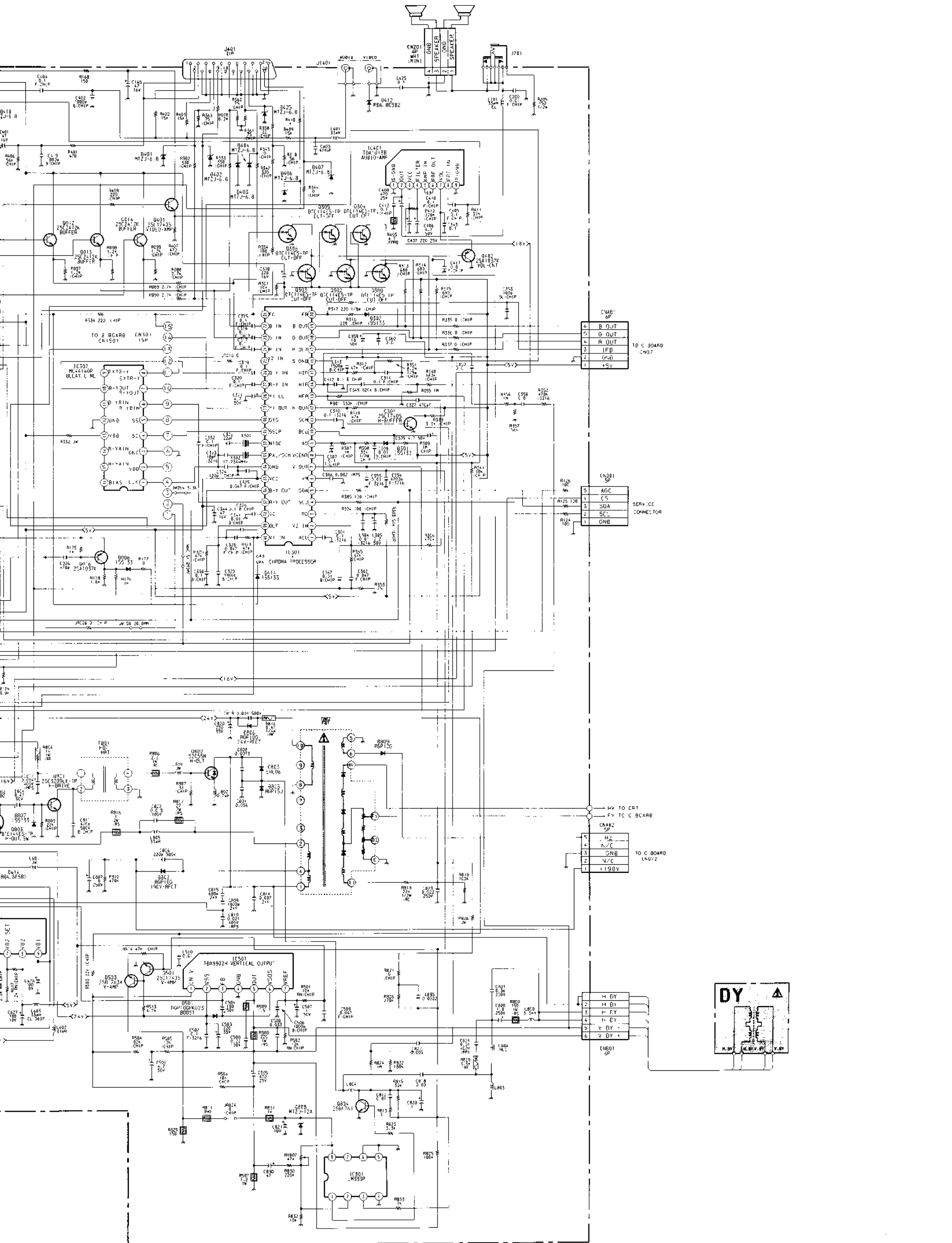


A  
B  
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O

B-155BF4 <SUP> A...-14WT1



A SYSTEM CONTROL  
 HORIZONTAL OUTPUT, VERTICAL OUTPUT  
 CHROMINANCE, POWER, AUDIO



## SECTION 6 EXPLODED VIEWS

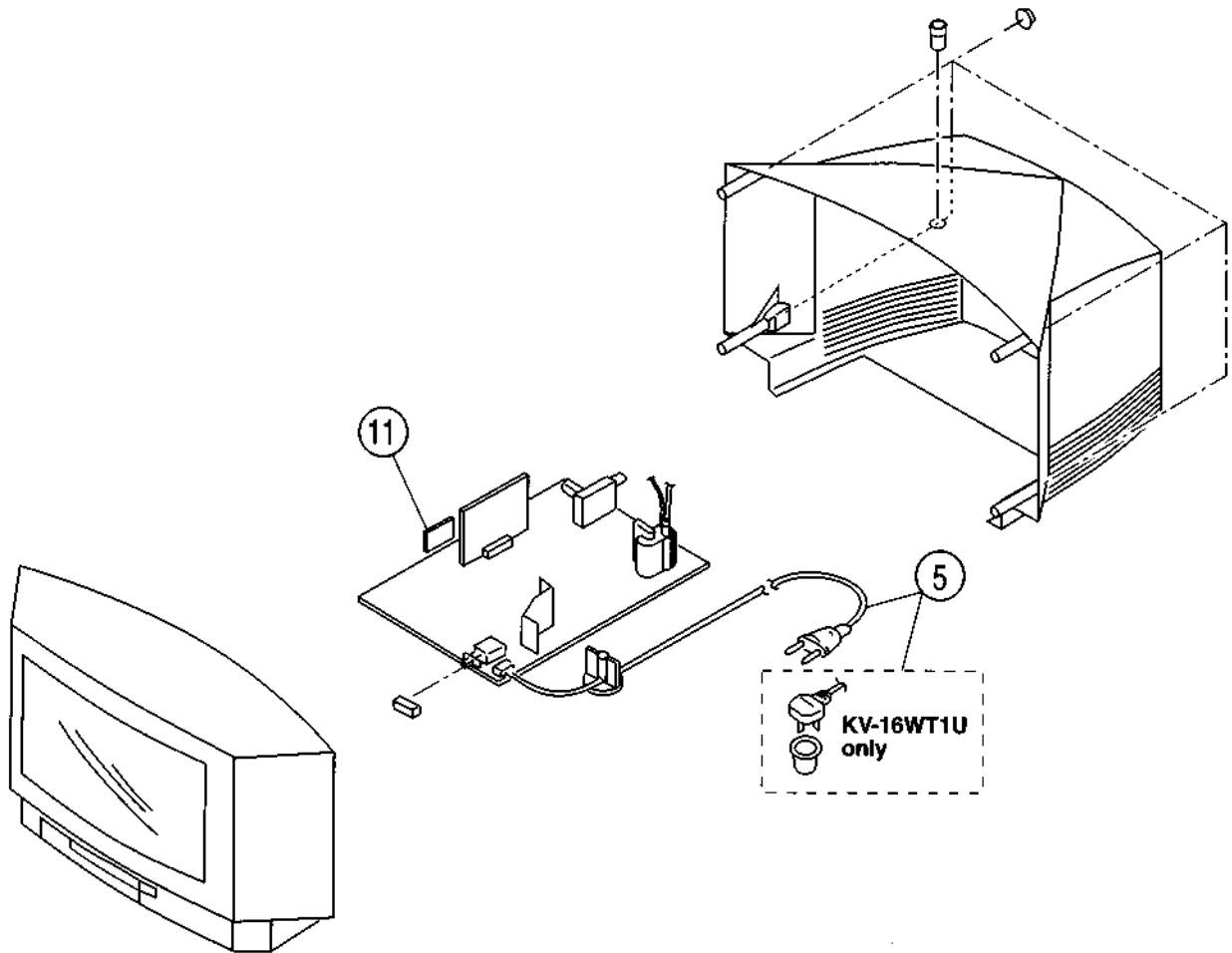
**NOTE :**

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

The components identified by shading and marked †, are critical for safety. Replace only with the part number specified.

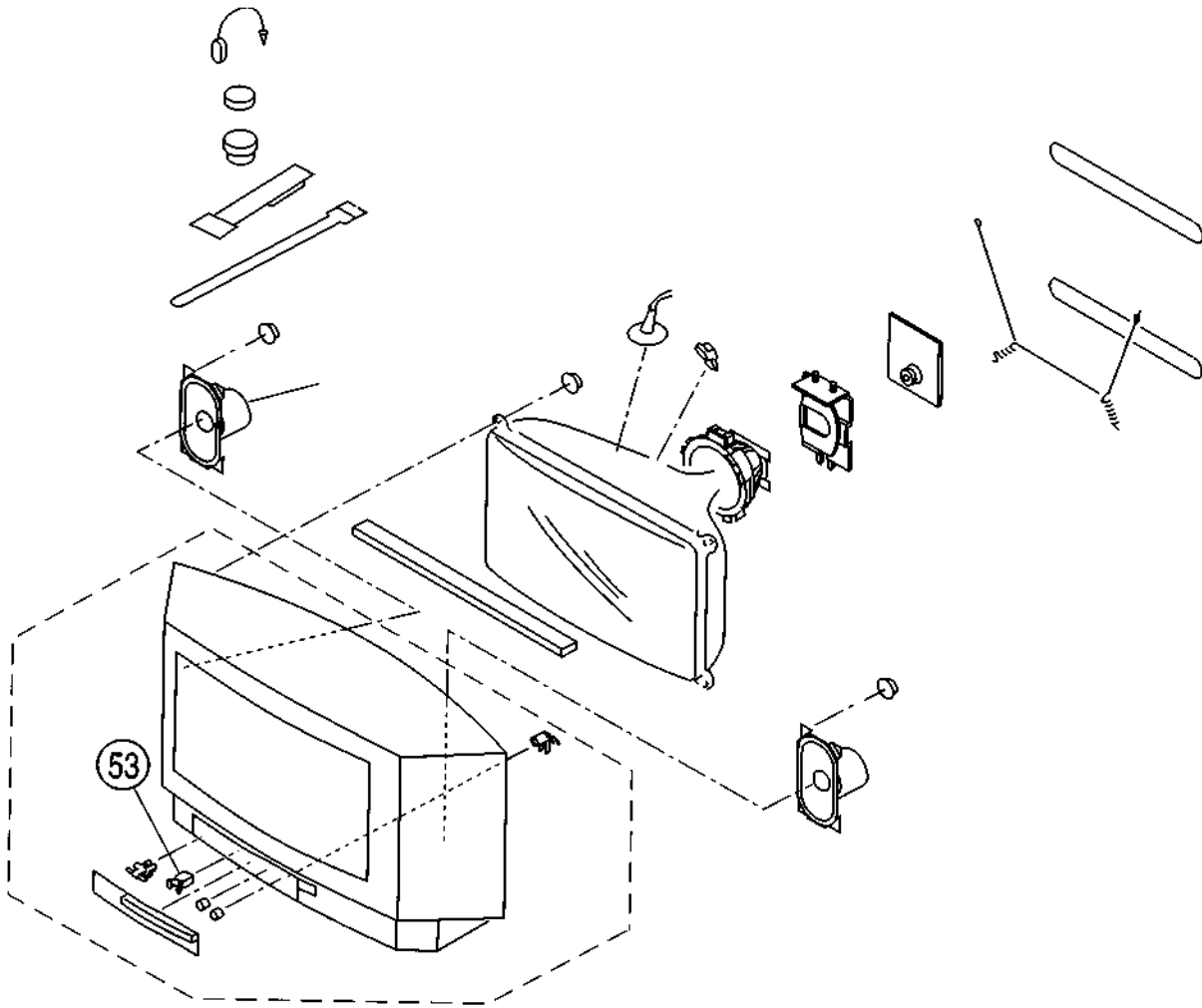
Les composants identifiés par une trame et une marque † sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

**6-1. CHASSIS**



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
11	*A-1648-006-A	U BOARD, COMPLETE					

## 6-2. PICTURE TUBE



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
53	4-047-464-01	CATCHER, PUSH					



## SECTION 7

### ELECTRICAL PARTS LIST

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

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

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

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

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

#### RESISTORS

- All resistors are in ohms
- F : nonflammable

**CAPACITORS**                      **COILS**  
 MF : mF, PF : mmF              MMH : mH, pH : mH

B

A

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1620-060-A	B BOARD, COMPLETE *****				< TRANSISTOR >	
		< CAPACITOR >		Q1502	8-729-900-95	TRANSISTOR 2SC1740S-RT	
				Q1503	8-729-900-95	TRANSISTOR 2SC1740S-RT	
				Q1506		DELETED	
				*****			
				*A-1632-316-A		A BOARD, COMPLETE (KV-16WT1) *****	
				*A-1632-312-A		A BOARD, COMPLETE (KV-16WT1A) *****	
				*A-1632-317-A		A BOARD, COMPLETE (KV-16WT1K) *****	
				*A-1632-318-A		A BOARD, COMPLETE (KV-16WT1R) *****	
				*A-1632-319-A		A BOARD, COMPLETE (KV-16WT1U) *****	
				4-382-854-11		SCREW (M3X10), P, SW (+)	
		< CONNECTOR >				< CAPACITOR >	
CN1501	1-766-953-11	CONNECTOR BOARD TO BOARD	15P	C009	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
		< DIODE >		C012	1-163-031-11	CERAMIC CHIP 0.01MF	50V
D1505	8-719-991-33	DIODE 1SS133T-77		C021	1-163-059-00	CERAMIC CHIP 0.01MF 10%	50V
D1506	8-719-991-33	DIODE 1SS133T-77		C023	1-163-059-00	CERAMIC CHIP 0.01MF 10%	50V
		< RESISTOR >		C025	1-126-952-11	ELECT 1000MF 20%	16V
R1501	1-216-296-91	METAL GLAZE 0	5% 1/8W	C028	1-164-005-11	CERAMIC CHIP 0.0047MF 10%	50V
R1502	1-410-200-31	INDUCTOR CHIP 4.7UH		C034	1-136-153-00	FILM 0.01MF 5%	50V
R1503	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	C036	1-164-005-11	CERAMIC CHIP 0.47MF	25V
R1504	1-216-029-00	METAL GLAZE 150	5% 1/10W	C104		DELETED	
R1505	1-216-047-91	METAL GLAZE 820	5% 1/10W	C109		DELETED	
R1506	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	C110		DELETED	
R1507	1-216-001-00	METAL GLAZE 10	5% 1/10W	C112		DELETED	
R1511	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	C116		DELETED	
R1513	1-216-039-00	METAL GLAZE 390	5% 1/10W	C120	1-126-925-11	ELECT 470MF 20%	10V
R1517	1-410-200-31	INDUCTOR CHIP 4.7UH		C131	1-163-141-00	CERAMIC CHIP 0.001MF 5%	50V (KV-16WT1K/16WT1R)
R1522		DELETED		C153	1-163-097-00	CERAMIC CHIP 15PF 5%	50V
R1523	1-216-234-00	METAL GLAZE 33K	5% 1/8W	C161		DELETED	
R1524		DELETED		C164		DELETED	
R1529	1-216-234-00	METAL GLAZE 33K	5% 1/8W	C166		DELETED	
R1533	1-216-295-91	CONDUCTOR, CHIP		C167		DELETED	
R1540	1-247-879-91	CARBON 100K	5% 1/4W	C170	1-101-004-00	CERAMIC CHIP 0.01MF 10%	50V
R1541	1-247-879-91	CARBON 100K	5% 1/4W	C303	1-163-005-11	CERAMIC CHIP 470PF 10%	50V
		< VARIABLE RESISTOR >		C314	1-163-077-00	CERAMIC CHIP 0.1MF 10%	25V
RV1500	1-241-630-11	RES, ADJ, CARBON 10K		C318		DELETED	
				C322	1-163-101-00	CERAMIC CHIP 22PF 5%	50V

A

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C327	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	D412	8-719-109-97	DIODE RD6.8ESB2	
C332	1-216-295-91	CONDUCTOR, CHIP		D414	8-719-991-13	DIODE 1SS133T-77	
C333	DELETED			D613	8-719-109-89	DIODE RD5.6ESB2	
C334	DELETED			D614	8-719-109-89	DIODE RD5.6ESB2	
C335	DELETED			D803	8-719-945-80	DIODE ERC06-15STP11	
C336	DELETED			D804	DELETED		
C337	DELETED			D805	8-719-979-85	DIODE RGP15J-6040G23	
C338	DELETED			D806	8-719-300-33	DIODE RU2AM	
C339	DELETED			D808	8-719-921-83	DIODE MTZJ-T-77-12A	
C340	DELETED			D809	8-719-302-43	DIODE RGP10GPKG23	
C343	1-163-038-00	CERAMIC CHIP 0.1MF	25V			< FERRITE BEAD >	
C348	DELETED			FB801	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
C349	DELETED					< IC >	
C351	DELETED			IC801	8-759-103-93	IC LM393P	
C358	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V			< JACK/SOCKET >	
C404	1-164-346-11	CERAMIC CHIP 1MF	16V	J1401	1-563-500-11	JACK BLOCK, PIN (L TYPE) 2P	
C405	1-164-222-11	CERAMIC CHIP 0.22MF	25V			< COIL >	
C409	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	L111	DELETED		
C416	DELETED			L401	1-408-609-41	INDUCTOR 33UH	
C418	DELETED			L602	1-408-609-41	INDUCTOR 33UH	
C425	1-165-319-11	CERAMIC CHIP 0.1MF	50V	L803	1-459-856-11	COIL, FERRITE	
C510	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	L804	1-459-105-21	COIL (WITH CORE)	
C622	1-111-041-11	ELECT 0.001MF 20%	16V			< TRANSISTOR >	
C801	1-130-895-00	FILM 0.056MF 10%	200V	Q101	DELETED		
C803	1-136-597-11	FILM 0.89MF 5%	200V	Q102	DELETED		
C808	1-136-073-00	FILM 0.0073MF 3%	2KV	Q103	DELETED		
C812	1-163-059-91	CERAMIC CHIP 0.01MF	10% 50V	Q109	DELETED		
C814	1-106-367-00	NYLAR 0.01MF 10%	400V	Q115	DELETED		
C816	DELETED			Q116	DELETED		
C818	1-136-597-11	FILM 0.89MF 5%	200V	Q307	DELETED		
C821	1-126-968-11	ELECT 100MF 20%	50V	Q308	8-729-901-01	TRANSISTOR DTC144EK (KV-16WT1U)	
C825	DELETED			Q501	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C826	DELETED			Q600	8-729-119-78	TRANSISTOR 2SC1740S-RT	
C827	1-164-182-11	CERAMIC CHIP 0.003MF 10%	50V	Q802	8-729-033-85	TRANSISTOR S2000N-16E305A	
C828	1-124-903-11	ELECT 1MF 20%	50V	Q804	8-729-202-03	TRANSISTOR 2SD1761-E	
C830	1-126-967-11	ELECT 47MF 20%	50V			< RESISTOR >	
C835	1-164-161-11	CERAMIC CHIP 0.0022MF 10%	50V	JR013	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		< FILTER >		JR016	1-163-077-00	CERAMIC CHIP 0.1MF 10% 2 5V	
CF105	1-760-154-11	TRAP, CERAMIC (KV-16WT1U)		JR020	DELETED		
SWF102	DELETED			JR022	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		< CONNECTOR >		JR024	1-216-295-00	METAL GLAZE 0 5% 1/10W	
CN301	* 1-766-956-11	CONNECTOR BOARD TO BOARD	15P	JR028	1-216-296-91	METAL GLAZE 0 5% 1/8W	
CN804	DELETED			JR030	1-216-296-91	METAL GLAZE 0 5% 1/8W	
		< DIODE >		JR031	1-216-296-91	METAL GLAZE 0 5% 1/8W	
D102	DELETED			JR034	1-216-296-91	METAL GLAZE 0 5% 1/8W	
D104	DELETED			R001	1-216-198-91	METAL GLAZE 1K 5% 1/8W	
D305	1-249-412-11	CARBON 390 5%	1/4W	R002	1-216-033-00	METAL GLAZE 220 5% 1/10W	
D307	DELETED			R012	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
D308	DELETED					1-216-073-00	METAL GLAZE 10K 5% 1/10W (KV-16WT1A)
D309	DELETED						(KV-16WT1/16WTK/16T1R/16WT1U)
D310	DELETED			R034	1-249-429-11	CARBON 10K 5% 1/4W	
D311	DELETED			R048	1-216-025-91	METAL GLAZE 100 5% 1/10W	
D312	DELETED			R074	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
D313	DELETED						

**A C U**

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R094	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R833	1-249-417-11	CARBON 1K 5% 1/4W	
R104	DELETED			R840	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R105	DELETED			< VARIABLE RESISTOR >			
R106	DELETED			RV102	DELETED		
R107	DELETED			RV802	1-238-019-11	RES, ADJ, CARBON 47K	
R109	DELETED			< TRANSFORMER >			
R112	DELETED			< CRYSTAL >			
R113	DELETED			X301	1-760-907-21	VIBRATOR, CRYSTAL	
R114	DELETED			*****			
R115	DELETED			*A-1638-067-A C BOARD, COMPLETE			
R143	DELETED			*****			
R157	DELETED			< CAPACITOR >			
R162	DELETED			C701	1-163-137-00	CERAMIC CHIP 680PF 10% 50V	
R169	DELETED			C702	1-163-139-00	CERAMIC CHIP 820PF 10% 50V	
R170	DELETED			C703	1-163-139-00	CERAMIC CHIP 820PF 10% 50V	
R171	DELETED			C711	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	
R180	DELETED			C712	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	
R306	1-216-113-00	METAL GLAZE	470K 5% 1/10W	C713	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	
R311	DELETED			< DIODE >			
R312	1-216-093-91	METAL GLAZE	68K 5% 1/10W	D707	8-719-991-33	DIODE 1SS133T-77	
R322	DELETED			< CRT SOCKET >			
R326	1-216-295-00	METAL GLAZE	0 5% 1/10W	*****			
R327	1-216-097-00	METAL GLAZE	100K 5% 1/10W (KV-16WT1U)	< RESISTOR >			
R328	1-216-258-00	METAL GLAZE	330K 5% 1/8W	R700	1-202-525-00	SOLID 10 5% 1/2W	
R329	DELETED			R701	1-216-194-91	METAL GLAZE 680 5% 1/8W	
R345	1-216-238-91	METAL GLAZE	47K 5% 1/8W	R702	1-216-194-91	METAL GLAZE 680 5% 1/8W	
R347	DELETED			R705	1-216-017-91	METAL GLAZE 47 5% 1/10W	
R348	DELETED			R706	1-216-166-91	METAL GLAZE 47 5% 1/8W	
R349	DELETED			R707	1-216-017-91	METAL GLAZE 47 5% 1/10W	
R350	DELETED			R711	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R357	1-216-101-00	METAL GLAZE	150K 5% 1/10W	R729	1-216-347-11	METAL OXIDE 0.68 5% 1W	
R362	1-216-023-00	METAL GLAZE	82 5% 1/10W	R740	1-216-194-00	METAL GLAZE 680 5% 1/8W	
R363	1-216-023-00	METAL GLAZE	82 5% 1/10W	R741	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R409	1-216-077-00	METAL GLAZE	15K 5% 1/10W	*****			
R417	1-216-295-00	METAL GLAZE	0 5% 1/10W	*A-1648-006-A U BOARD, COMPLETE			
R502	1-216-806-11	METAL CHIP	10K 0.50% 1/10W	*****			
R509	1-249-380-11	CARBON	0.82 5% 1/4W F	< CAPACITOR >			
R512	DELETED			C1001	1-124-903-11	ELECT 1MF 20% 50V	
R515	DELETED			C1002	1-102-963-00	CERAMIC 33PF 5% 50V	
R615	1-217-418-61	FUSIBLE	0.47 10% 1/2W F	C1003	1-102-963-00	CERAMIC 33PF 5% 50V	
R800	1-211-787-11	FUSIBLE	100 5% 1/4W	C1004	1-102-114-00	CERAMIC 470PF 10% 50V	
R806	1-216-372-00	METAL OXIDE	1.8 5% 2W F	C1005	1-126-967-11	ELECT 47MF 20% 16V	
R808	DELETED			C1006	1-102-125-00	CERAMIC 0.0047MF 10% 50V	
R811	1-216-478-11	METAL OXIDE	390 5% 3W	< CONNECTOR >			
R812	DELETED			CN1001	1-568-879-11	PIN, CONNECTOR 4P	
R813	1-216-296-91	METAL GLAZE	0 5% 1/8W	*****			
R814	1-249-377-11	CARBON	0.47 5% 1/4W	*****			
R815	1-216-234-00	METAL GLAZE	33K 5% 1/8W	< CAPACITOR >			
R818	1-202-830-00	SOLID	10K 10% 1/2W	*****			
R821	1-216-295-91	METAL GLAZE	0 5% 1/10W	< CAPACITOR >			
R822	1-216-103-91	METAL GLAZE	180K 5% 1/10W	*****			
R823	1-249-423-11	CARBON	3.3K 5% 1/4W	< CAPACITOR >			
R824	1-216-121-91	METAL GLAZE	1M 5% 1/10W	*****			
R825	1-216-097-91	METAL GLAZE	100K 5% 1/10W	< CAPACITOR >			
R828	1-216-107-00	METAL GLAZE	270K 5% 1/10W	*****			
R829	1-215-912-11	METAL OXIDE	150 5% 3W	< CAPACITOR >			
R830	1-216-105-91	METAL GLAZE	220K 5% 1/10W	*****			
R831	1-215-917-11	METAL OXIDE	1K 5% 3W	< CAPACITOR >			
R832	1-249-429-11	CARBON	10K 5% 1/4W	*****			



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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< FERRITE BEAD >							
FB1001	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH					
< IC >							
IC1001	8-759-391-40	IC P87C750EBFN					
< TRANSISTOR >							
Q1001	8-729-119-78	TRANSISTOR 2SC1740S-RT					
< RESISTOR >							
R1001	1-249-417-11	CARBON	1K 5% 1/4W				
R1002	1-249-417-11	CARBON	1K 5% 1/4W				
R1003	1-249-417-11	CARBON	1K 5% 1/4W				
R1004	1-247-863-91	CARBON	22K 5% 1/4W				
R1005	1-247-807-31	CARBON	100 5% 1/4W				
R1011	1-247-807-31	CARBON	100 5% 1/4W				
R1016	1-249-399-11	CARBON	33 5% 1/4W				
R1017	1-249-482-11	CARBON	8.2K 5% 1/4W				
R1018	1-249-429-11	CARBON	10K 5% 1/4W				
< CRYSTAL >							
X1001	1-578-774-11	VIBRATOR, CRYSTAL					
*****							
MISCELLANEOUS							
*****							
*****							
ACCESSORIES AND PACKING MATERIALS							
*****							
1-417-151-11 MATCHING TRANSFORMER, ANTENNA							
1-501-730-11 ANTENNA, TELESCOPIC							
*****							