



Colour TV  
Service Manual

**CHASSIS: H-707V**

**MODEL:  
CT-29FD9CPT**

---

## CONTENTS

1. SAFETY INSTRUCTIONS.....	4
2. GENERAL ALIGNMENT INSTRUCTIONS .....	5
3. SPECIFICATIONS .....	9
4. INSTRUCTION MANUAL .....	11
5. TROUBLESHOOTING .....	21
6. BLOCK DIAGRAM .....	26
7. THE METHOD OF ADJUSTMENT FOR CHASSIS .....	27
8. IC DESCRIPTION .....	32
9. EXPLODED VIEW .....	37
10. SCHEMETIC DIAGRAM .....	39
11. PRINTED CIRCUIT BOARD .....	41
12. REPLACEMENT PARTS LIST.....	43

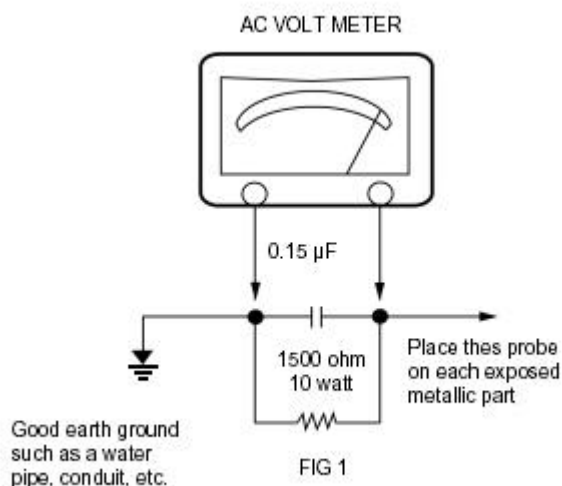
**WARNING**

In order to prevent electric shock, do not remove cover.  
No user-serviceable parts inside, Refer servicing to qualified service personal.

• **SAFETY PRECAUTION**

**WARNING:** Service should not be attempted by anyone unfamiliar with the necessary precaution on this receiver. The following are the necessary precaution to be observed before servicing.

1. Always discharge the picture tube anode to the CRT conductive coating before handing the picture tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled. Use shatterproof goggles and keep picture tube away from the body while handing.
2. When replacing chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; nonmetallic control knobs, insulating covers, shields, isolation resistor-capacitor network, etc.
3. Before returning the set to the customer, always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as antennas, terminals, screw heads, metal overlays, control shafts etc. to be sure the set is safe to operate without danger of electrical shock. Plug the AC line cord directly onto an 110/220V AC outlet. Use an AC voltmeter having 500 ohms per volt or more sensitivity in the following manner. Connect a 1500 ohm 10-watt resistor, paralleled by a 0.15  $\mu$ F, AC type capacitor, between a known good earth ground (water pipe, conduit etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500-ohm resistor and 0.15- $\mu$ F capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.3 volts RMS. This corresponds to 0.2 milliamp. AC Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



# 1. SAFETY INSTRUCTIONS

## 1-1 PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are Identified in this manual and its,

Supplements: Electrical components having such features are identified by shading on the schematic diagram and the part list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have same safety characteristics as specified in the parts list may create shock, fire or other hazards.

## 1-2 SERVICE NOTES

1. When replacing parts or circuit boards, clamp the lead wires to terminals before soldering.
2. When replacing a high wattage resistor (metal oxide film resistor in the circuit board) keep the resistor min 1 /2inch away from the circuit board.
3. Keep wires away from high voltage or high temperature components.

# 2. GENERAL ALIGNMENT INSTRUCTIONS

THIS RECEIVER IS TRANSISTORIZED SPECIAL CARE MUST BE TAKEN WHEN SERVICING, READ THE FOLLOWING NOTES BEFORE ATTEMPTING ALIGNMENT.

- Alignment requires an exacting procedure and should be undertaken only when necessary.
- The test equipment specified or its equivalent is required to perform the alignment properly.
- Use equipment which does not meet these requirements may result in improper alignment.
- Correct matching of the equipment is essential. Failure to use proper matching will result in responses, which cannot represent the true operation of the receiver.
- Use of excessive signal from a sweep generator can cause overloading of receiver circuit overloading should be avoided to obtain a true response curve. Insertion of markers from the marker generator should not cause distortion of the response.
- The AC Power line voltage should be kept by 120 volts.
- Do not attempt to connect or disconnect any wire while the receiver is in operation. Make sure the power cord is disconnected before replacing any parts in the receiver.

## TEST EQUIPMENTS

Digital voltmeter . . . . .	National Model VP-2600A or equivalent.
Oscilloscope . . . . .	Tektronix Model 2215A or equivalent.
Direct/Low-capacity probe . . . . .	Tektronix Model P6120 or equivalent. (Accessory of oscilloscope)
Color-Bar/Dot/Crosshatch generator . . . . .	Tektronix Model 146 or equivalent.
Pif sweep marker generator . . . . .	Nihon Tsushinki Model 4723 or equivalent.
Gray scale pattern generator . . . . .	PM5515 / 5518 or equivalent.

## 2-1 CONVERGENCE MAGNET ASSEMBLY POSITIONING

Convergence magnet assembly and rubber wedges need mechanical positioning following figure 2.

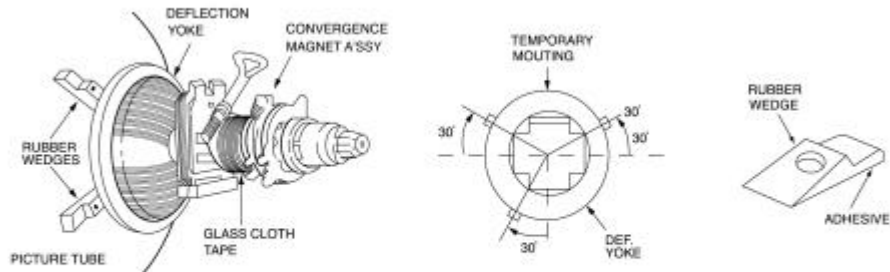


FIG. 2 Rubber Wedges Location

## 2-2 COLOR-PURITY-ADJUSTMENT

NOTE: Before attempting any purity adjustments, the receiver should be operated for at least 15 minutes.

1. Demagnetize the picture tube and cabinet by using a degaussing coil.
2. Turn the CONTRAST and BRIGHTNESS controls to maximum.
3. Adjust RED and BLUE BIA, 5 controls to provide only a green raster.
4. Loosen the clamp screw holding the yoke, and slide the yoke backward to provide vertical green belt (zone) in the picture screen.
5. Remove the Rubber Wedges.
6. Rotate and spread the tabs of the purity magnet (See figure 3) around the neck of the picture tube until the green belt is in the center of the screen. At the same time, center the raster vertically.
7. Move the yoke slowly forward until a uniform green screen is obtained. Tighten the clamp screw of the yoke temporarily.
8. Check the purity of the red and blue raster by adjusting the BIAS controls.
9. Obtain a white raster, referring to "CRT GRAY SCALE ADJUSTMENT".
10. Proceed with convergence adjustment.

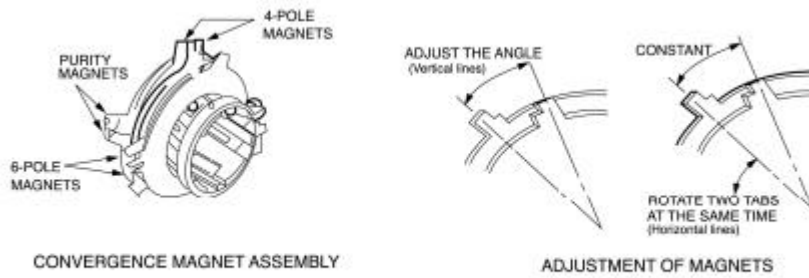


FIG. 3

## 2-3 CONVERGENCE ADJUSTMENTS

NOTE: Before attempting any convergence adjustment, the receiver should be operated for at least 15 minutes.

### 2-3-1 CENTER CONVERGENCE ADJUSTMENTS

1. Receive a crosshatch pattern with a color bar signal generator.
2. Adjust the BRIGHTNESS and CONTRAST controls for a well-defined pattern.
3. Adjust two tabs of the 4-pole Magnets to change the angle between them (See figure 3) and superimpose red and blue vertical lines in the center area of the picture screen.
4. Turn both tabs at the same time keep in their angles constant to superimpose red and blue horizontal lines at the center of the screen. (See figure 4).
5. Adjust two tabs of 6-Pole Magnets to superimpose red/blue line with green one. Adjusting the angle affects the vertical lines and rotating both magnets affects the horizontal lines.
6. Repeat adjustment 3, 4, 5 Keeping in mind red, green and blue movement, because 4-Pole Magnets and 6-Pole Magnets interact and make dot movement complex.

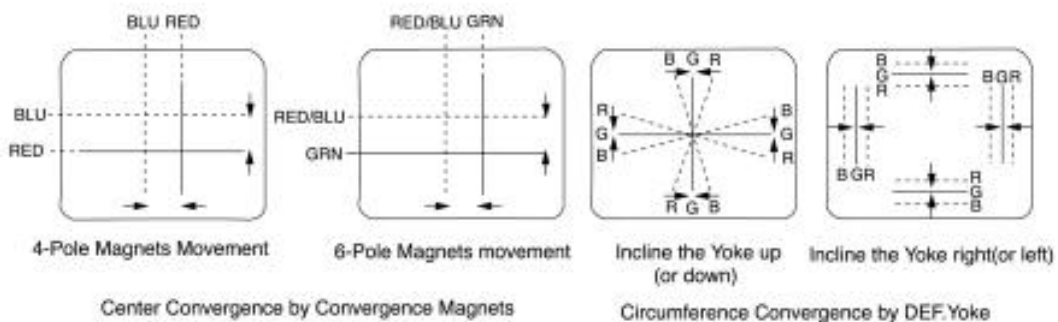


FIG. 4

---

## **2-3-2 CIRCUMFERENCE CONVERGENCE ADJUSTMENTS**

NOTE: This adjustment requires Rubber Wedge Kit.

1. Loosen the clamping screw of deflection yoke to allow the yoke to tilt.
2. Place a wedge as shown in figure (2) temporarily.  
(Do not remove cover paper on adhesive part of the wedge.)
3. Tilt the front of the deflection yoke up or down to obtain better convergence in circumference (See figure 4) Push the mounted wedges into the space between picture tube and the yoke to hold the yoke temporarily.
4. Place other wedge into bottom space and remove the cover paper to stick.
5. Tilt the front of the yoke right or left to obtain better convergence in circumference (See figure 4.)
6. Hold the yoke position and put another wedge in upper space, remove cover paper and stick the wedges, recheck overall convergence.
7. Detach the temporarily mounted wedge and put it in another upper space. Stick 2 on picture tube to fix the yoke.
8. After placing three wedges, recheck overall convergence. Tighten the screw firmly to hold the yoke tightly in place.
9. Stick 3 adhesive tapes on wedges as shown in figure 2.



### 3. SPECIFICATIONS

ITEM		SPECIFICATION	REMARK	
1 GENERAL	1) MODEL NO.	H-707V		
	2) CHASSIS NO.	VOLTAGE SYNTHESIZE (WITH REMOCON)		
	3) TUNING SYSTEM	1) METHOD		
		2) CHANNEL OF PROGRAM	100 CHS	
3) REMOTE CONTROLLER				
2 ELECT-RICAL	1) CCIR STANDARD	B/G, D/K, I, M (NTSC 3.58 & 4.43: PLAY BACK ONLY)		
	2) COLOR STANDARD	PAL, SECAM, NTSC (option)		
	3) ANT. INPUT	1) TERMINAL	75 OHM ONLY (UHF VHF 1 INPUT)	
		2) ANTENNA	DIPOLE 700 3STEP	
	4) TUNER	1) TYPE	ELECTRONIC & VARACTOR	
		2) PART NO	DT5-BF14D(DAEWOO), LG TUNER	
	5) RECEP10N CHANNEL	1) VHF	L:S6-E2 H:S36-S37	
		2) UHF	E69-S37	
	6) IF & SUBCAR RIER	1) PIF	38.9MHz	
		2) SIF	DEPAND ON CCIR STANDARD	
		3) SOUND SUBCARRIER	5.5, 6.0, 6.5MHz	
	7) SOUND TRANSMISSION (DECODING) SYSTEM	F.M		
	8) MAINS	1) VOLTAGE & FREQUENCY	AC 90-250V, 50/60Hz	
		2) CORD	CONTINENTAL PLUG	
		3) POWER CONSUMPTION	29' : 110[W]	
	9) COUNTRY			
	10) SAFETY STANDARD	NONE		
	11) AUX TERMIN-AL	1) INPUT	AV 1,2 INPUT (RCA JACK)	
		2) OUTPUT	MONITOR OUT (RCA JACK)	
12) DISPLAY	1) TYPE	CATHODE RAY TUBE		
	2) SIZE			
	3) PART NO.			
13) AUDIO	1) OUTPUT POWER	10+10 WATTS MAX		
	2) SPEAKER	8 OHM 10W(2EA)		

ITEM		SPECIFICATION	REMARK
3. USER CONTROL & ACCESSORIES	1. CONTROL	1) SET	- MENU
		2) REMOTE CONTROLLER	- CH UP - CH DOWN - VOL UP - VOL DOWN - TV/VIDEO SELECT
		POWER	0-9
		TV/AV/SAT(SAT:OPTION)	MUTE
		CH UP	SLEEP
		CH DOWN	FUZZY
		VOL UP	SOUND(STREO OPTION)
		VOL DOWN	DISPLAY
		MENU	QUICK VIEW
		TIMER	PICTURE
		OK	S-MENU
		STORE	SCREEN
		SCAN	SCREEN
	R,G,B,Y		
4. SPECIAL NOTES		- NO SIGNAL AUTO POWER OFF ( AFTER 15 MINUTES ) - WHITE BALANCE CONTROL SERVICE KEY (FOR FACTORY) - LANGUAGE (MULTI) - FUZZY PICTURE CONTROL (NOMAL1, NOMAL2, FAVOURITE) - ON SCREEN DISPLAY - 24 HOURS PROGRAMMABLE ON/OFF FUNCTION - AUTO AGC CONTROL	
5. OPTION		- TTX(OPTION) - SCART JACK, SVHS JACK	

## 4. INSTRUCTION MANUAL

### HOW TO GET THE BEST SATISFACTION FROM YOUR NEW COLOR TV SET

To get the best satisfaction with your new COLOR TV SET, please read carefully and follow the instruction in this guide.

We recommend that you read it before turning on your TV for the first time.

### **INSTALLATION**

#### ***ANTENNA***

Unless your TV is connected to a cable TV system or to a centralized antenna system, a good outdoor color TV antenna is recommended for the best performance. However, exceptionally, if you are in good signal area that is free from interference of an electric wave, then an indoor antenna may be sufficient.

#### ***LOCATION (Ventilation)***

Select an area where sunlight or bright indoor illumination will not fall directly on the TV screen. When you place your COLOR TV, don't forget to leave an interval of at least 10cm from the wall to prevent overheating.

#### ***POWER***

Insert the power cord plug into 110/220, (100-240 Volts Automatic Voltage Regulator) 50/60-Hertz outlet.

Or, Insert the DC CAR cord plug into 9-13V outlet (option)

Please, Do not use DC power cord plug and AC power cord plug, together.

#### ***4-1. VHF ANTENNA or CABLE HOOK UP***

At first, insert the lead of rod antenna into antenna adapter.

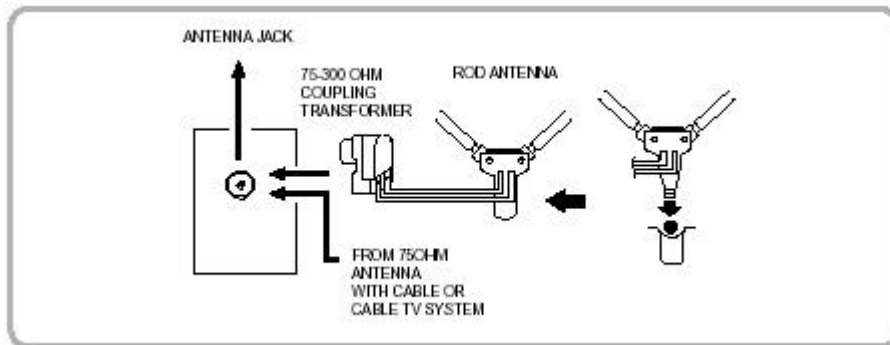
And connect antenna adapter to tuner jack. This antenna will provide an excellent picture in most areas.

For the best picture quality, adjust the length and position of antenna.

#### **NOTE 1**

If you don't get good picture quality with an indoor antenna, an outdoor antenna is recommended. In this case you should disconnect the indoor antenna before connecting an outdoor antenna to the TV.

- **MAKE REFERENCE TO THE BELOW THE PICTURE**



### TV SET OPERATION

Generally, REMOTE CONTROLLER has all the functions of the TV for normal use.

#### 4-2. TO TURN ON/OFF THE TV SET

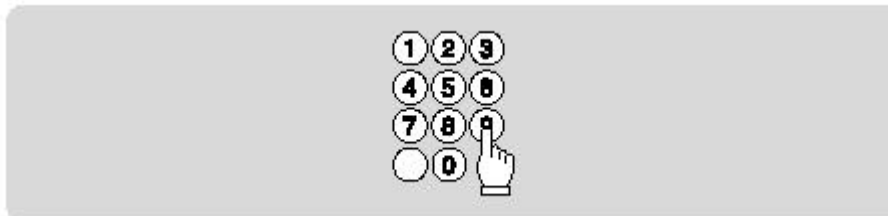
1. To turn on the TV, press MAIN POWER BUTTON on the front of TV, and then press any BUTTON on the PANEL or REMOTE CONTROLLER.
2. To turn off the TV, press POWER BUTTON on the PANEL or REMOTE CONTROLLER.



#### 4-3. TO SELECT CHANNEL

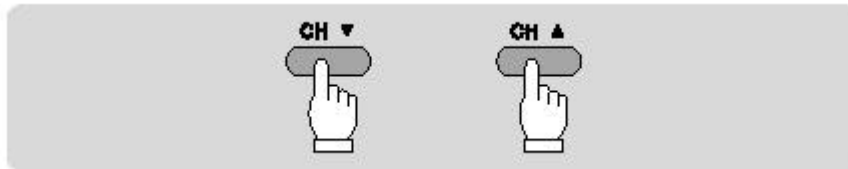
You can select the channels with CHANNEL NUMBER buttons or CHANNEL UP/DOWN button.

1. TO SELECT CHANNEL DIRECTLY  
Press the channel number you want with the number buttons. You can select 0~99 channels.



2. TO SCAN THROUGH CHANNELS

Press the CH UP/DOWN buttons on the PANEL or REMOTE CONTROLLER to find the channel you want to see.



**4-4. TO ADJUST VOLUME**

To increase or decrease the volume, press the VOLUME UP/DOWN buttons on the PANEL or REMOTE CONTROLLER.



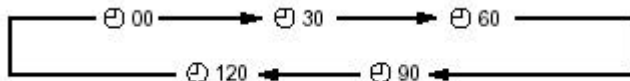
**4-5 OTHER FUNCTIONS**

1. QUICK VIEW FUNCTION

If you want to go back to the previously viewed channel, press the QUICK VIEW button.

2. SLEEP FUNCTION

Press the SLEEP button to set the timer from 30 to 120 minutes. Each time you press the SLEEP button, changes of time as follows:

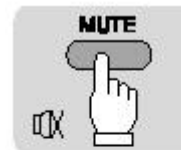


Your TV will be turned off automatically after the set time.  
The initial state of SLEEP mode is “00”, and the SLEEP FUNCTION does not operate in this state.

3. MUTE FUNCTION

MUTE button makes the sound off and displays an icon on the right top of the screen.

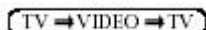
Press the MUTE button again or press the VOL UP/DOWN buttons to restore the sound.



4. TV/AV BUTTON FUNCTION

You can select TV and VIDEO mode.

To select VIDEO mode, press TV/AV button. The icon below will appear on the right top of screen.



\* STEREO MODEL (OPTION)

You can select TV, VIDEO 1 and VIDEO 2 mode.

To select VIDEO 1 mode, press TV/AV button once, and press twice for Video 2 mode. The icon below

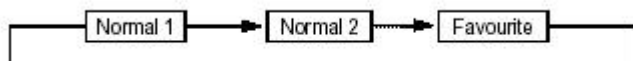
Will appear on the right top of the screen.



5. FUZZY FUNCTION

Users can select a combination of picture control. That includes a combination of contrast, brightness, sharpness, color and tint. These combinations are classified as three steps, Normal 1, Normal 2, Favourite.

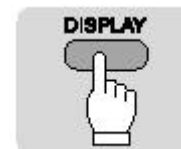
Each step will be selected by pressing FUZZY button on REMOTE CONTROLLER.



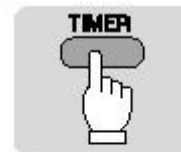
6. DISPLAY FUNCTION

Press the DISPLAY button to see the current time and channel on the screen. It lasts for four seconds. However, you can press again the DISPLAY button to make the display disappear instantly.

Time display of this mode indicates the state of clock memory of TIMER of MENU FUNCTION.

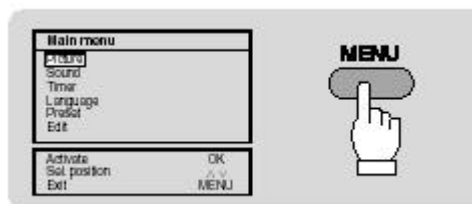


7. **Timer FUNCTION**  
You can see the current time.
8. **SOUND FUNCTION (STEREO MODEL ONLY)**  
You can select MONO, STEREO and DUAL 1, DUAL 2 by press the SOUND button.
9. **OK/DG BUTTON (DC POWER INPUT MODEL ONLY)**  
**DC POWER INPUT MODEL BELOW FUNCTION ITEM ADD.**  
When the blue parts appear, you can clear the blue parts by press the OK key, but you can press the OK button just one time during the one minute.

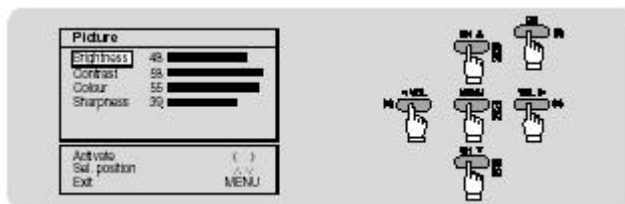


**4-6 MENU FUNCTION**

If you press the MENU button, six items will appear on the screen as following.  
Press again the MENU button. Then the display will return to the original screen.



1. **PICTURE**
  - 1) Press Menu
  - 2) Press CH UP/DOWN to select PICTURE item, and press O.K
  - 3) Then, four items will appear as following on the screen.



- 4) Press CH UP/DOWN to select the item you want to adjust.
- 5) And press VOL UP/DOWN to adjust the item's value.
- 6) To adjust other items, repeat step 4 and 5.
- 7) Press MENU to return to the MENU screen.

ITEM	Press VOL. DOWN (MIN 0)	Press VOL. UP (MAX.63)
Brightness	Darken the picture	Brighten the picture.
Contrast	Decrease picture contrast	Increase picture contrast.
Colour	Decrease shade of color	Increase shade of color.
Sharpness	Soften the picture.	Sharpen the picture.

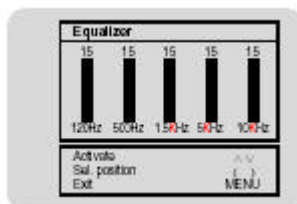
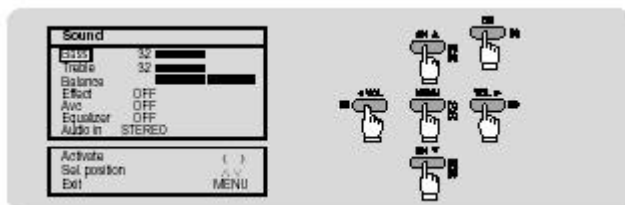
TINT item appears only when TV set receives the NTSC (play back only) signal.

2. SOUND (STEREO MODEL ONLY)

- 1) Press Menu
- 2) Press CH UP/DOWN to select SOUND item, and press O.K
- 3) Then, seven items appear as following on the screen.
- 4) Press CH UP/DOWN to select the item you want to adjust.
- 5) And press VOL UP/DOWN to adjust the item's value.
- 6) To adjust other items, repeat steps 4 and 5.
- 7) Press MENU to return to the MENU screen.

ITEM	Press VOL. DOWN	Press VOL. UP
Bass	Decrease the bass response.	Increase the bass response.
Treble	Decrease the treble response.	Increase the treble response.
Balance	Emphasize the left speaker's volume.	Emphasize the right speaker's volume.
Effect	Effect OFF	Effect ON
Avc	Auto Volume Control OFF	Auto Volume Control ON

- AVC: Press VOL. UP/DOWN, then OSD changes from OFF to ON.  
You can hear different sound of many broadcasting stations as regular valued sound through this function.



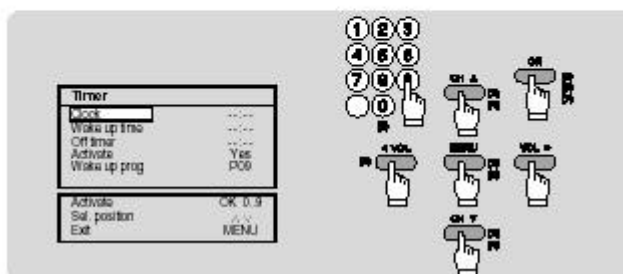
- Equalizer: Higher resolution is possible in a gain step of about 1/8 dB. With positive equalizer settings, internal clipping may occur even with overall volume less than 0 dB. This will lead to a clipped output signal. Therefore, it is not recommended to set equalizer bands to a value that, in conjunction with volume, would result in an overall positive gain.
- Audio in (Sound L, R divide mode): When you use the audio out, you selected STEREO or MONO mode  
STEREO mode: Audio out divided L, R  
MONO mode: Audio out L (You must hear sound L)



3. TIMER

- 1) Press Menu
- 2) Press CH UP/DOWN to select TIMER item, and press OK button.
- 3) Then, five items appear as following on the screen.
- 4) Press CH DOWN to select the item you want to change.
- 5) Press OK to change the item's time value.
- 6) Press the 0-9 buttons.
- 7) And press OK to set the time, you changed.
- 8) To change other items, repeat steps from 4 to 7.
- 9) Press MENU to return to the MENU screen.

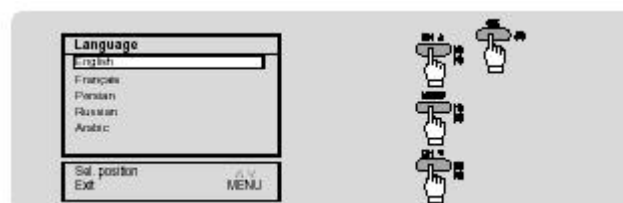
ITEM	Function
Clock	To display or set up the present time.
Wake up time	To turn your TV on at the set time.
Off timer	To turn your TV off at the set time.
Activate	Yes or No select by VOL UP/DOWN
Wake up prog	To turn your TV on at the set channel.



4. LANGUAGE

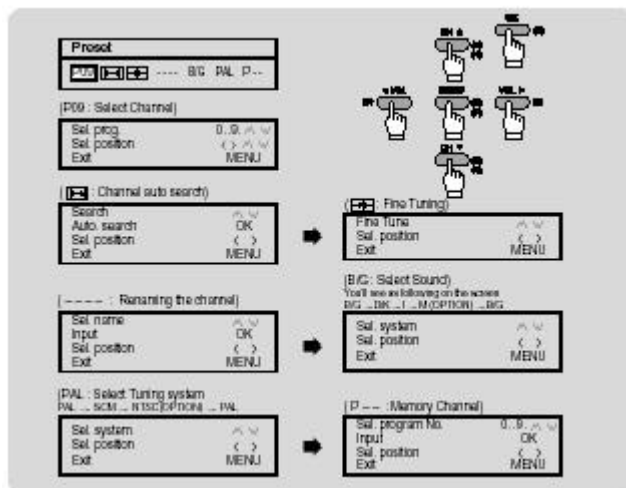
\* Select your language

- 1) Press Menu
- 2) Press CH UP/DOWN to select Language item, and press O.K
- 3) Then, five languages appear as following on the screen.
- 4) Press CH UP/DOWN to select the language you want to use.
- 5) To change to other languages, repeat step 4.
- 6) Press MENU to return to the MENU screen.



5. PRESET

- 1) Press Menu
- 2) Press CH UP/DOWN to select PRESET item, and press O.K
- 3) Then, items will appear as following on the screen.
- 4) Press VOL UP/DOWN to select the item you want to change.
- 5) Press CH UP/DOWN to change the item's value.
- 6) To change other items, repeat step 4 and 5.
- 7) Press MENU to return to the MENU screen.



6. Edit

\* Edit channel (Memory Channel or Skip Channel)

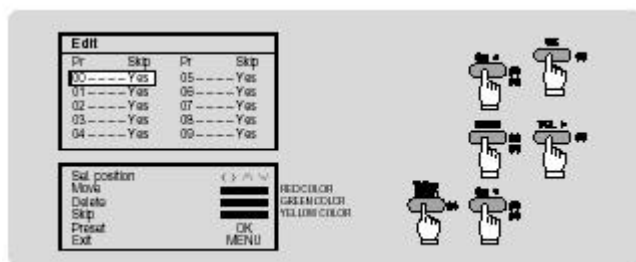
- 1) Press Menu
- 2) Press CH UP/DOWN to select Edit item, and press O.K
- 3) Then, channels appear as following on the screen.
- 4) Press CH UP/DOWN to select the channel you want to change.
- 5) And press Yellow button to skip (YES: skip channel, NO: Memory channel).
- 6) To skip other channels, repeat step 4 and 5.
- 7) Press MENU to return to the MENU screen.
  - o To change channel memory

1. Delete

To delete a channel from the memory, press the green button, and after a few seconds the selected channel will be deleted from the list, and sent to the end of the list. The blank is automatically filled with the rest of channels in order.

## 2. Move

- 1) To move a memory channel to the other channel, press RED button. Then you can see the color is changed from green to yellow on the screen.
- 2) Select the other channel on the screen that you want to change by using VOL.UP/DOWN and CH. UP/DOWN
- 3) Press RED button on the REMOTE CONTROLLER to move, and then you can see the changed channel on the screen.



### TELETEXT FUNCTION (OPTION)

#### 1) **TV/TTX**

This is toggle key, TV TELETEXT

When called in TV mode, this function activated TELETEXT

Initially page 100 of teletext will be displayed in the screen, unless at an earlier exit from TELETEXT (at the same program), another page was requested in the page memory.

When called in TELETEXT sub mode, this command is interpreted as a rest

#### 2) **PAGE UP/DOWN**

Page number is changed by "PAGE UP" or "PAGE DOWN" button or direct button (0-9).

#### 3) **INDEX**

Press this key to select index page directly in FLOT and TV program in TOP mode.

#### 4) **SIZE**

This is a toggle function between 3 different sizes.

Press "SIZE" button to expand the TOP half of the display.

Press again to expand the BOTTOM half of the display.

Press again to return the display to normal size.

#### 5) **SUB PAGE ACCESS**

First, select the TELETEXT alarm page or TELETEXT page containing sub pages.

Press the "SUB" key, and then four asterisks ("\*\*\*\*") will be displayed on the screen. Now enter the sub page number required using keys "0-9" on the transmitter.

Press this key again to return to initial status.

#### 6) **REVEAL**

Press "REVEAL" key to reveal hidden words e.q. quiz pages will hide answers.

Press the key again to make hidden words disappear.

**7) HOLD**

When TELETEXT information exceeds more than one page, the display changes automatically to the next page. In rolling sub pages, press “HOLD” button to hold the wanted display sub page. And press the next button to stop the hold.

**8) MIX**

Press “MIX” button to superimpose TELETEXT picture into TV display. Press this button again, and then the screen goes back to TELETEXT mode.

**9) CANCEL**

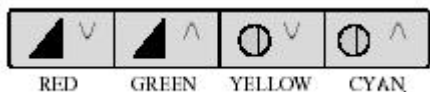
When searching for a TELETEXT page, the TV display can be viewed by pressing “CANCEL” key. Once the page has been found, the page number will be displayed.

**10) RED, GRE, YEL, CYN KEYS**

These four keys are coloured-cord to correspond to the differently coloured subjects in “TTX” mode.

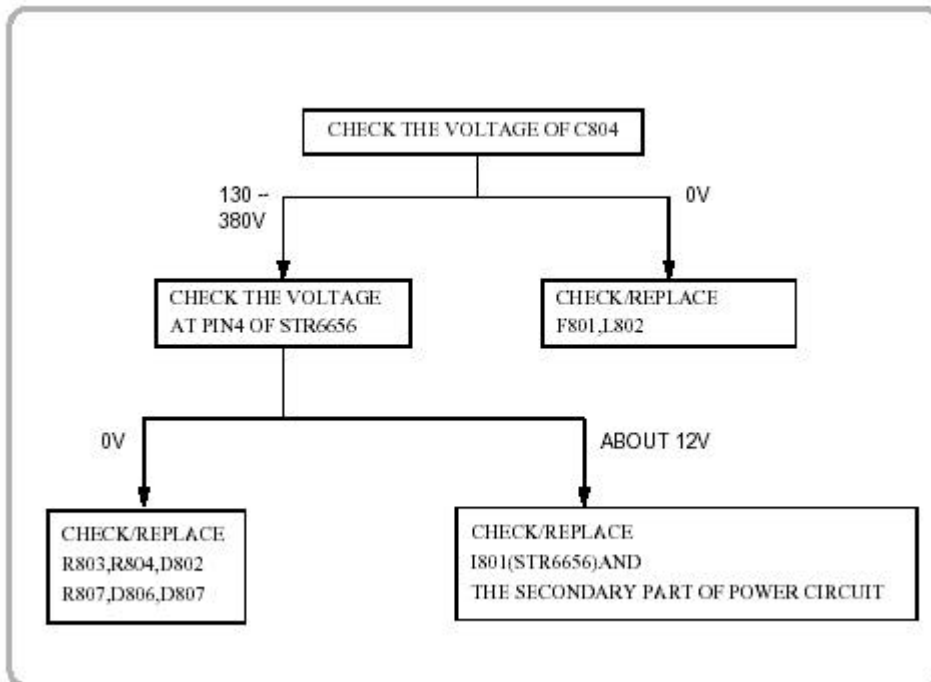
**\* Press the menu**

Adjust the volume and contrast in the MENU function

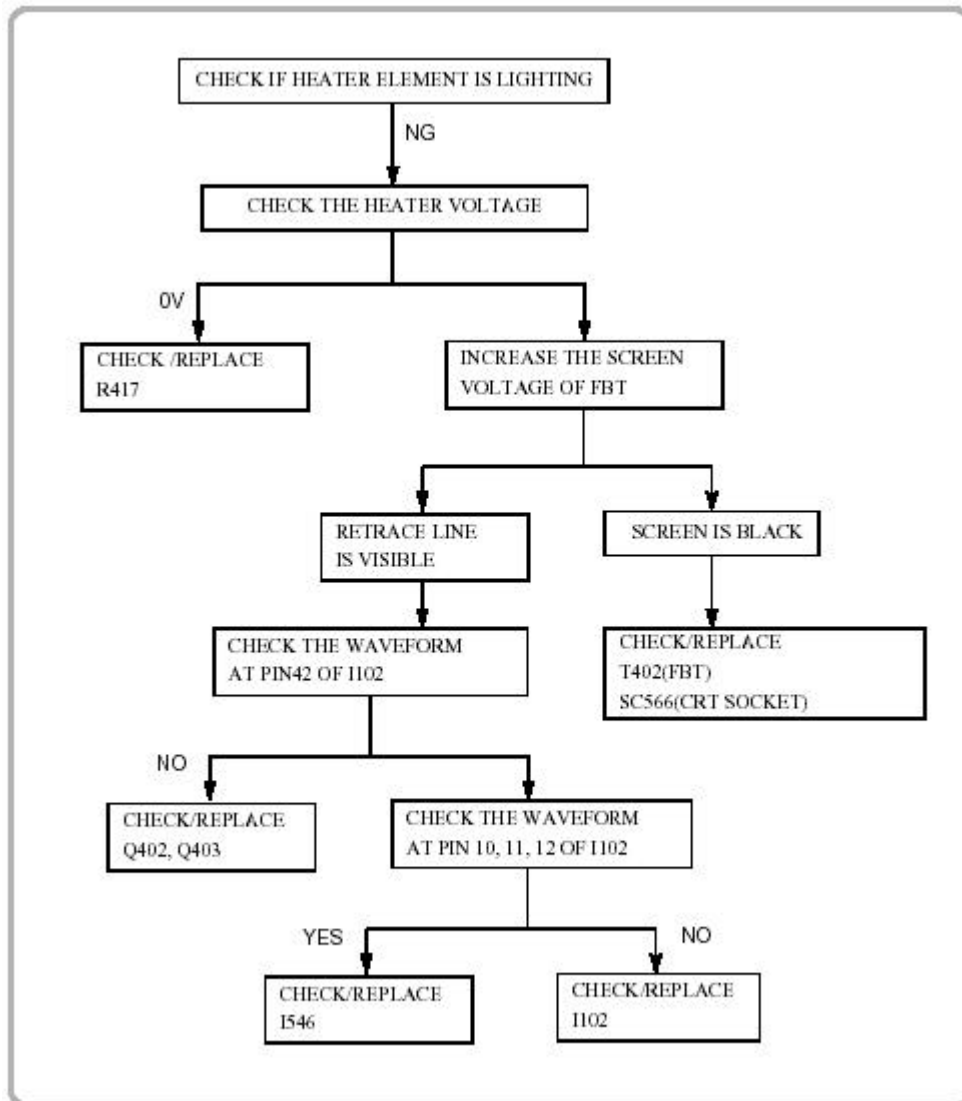


## 5. TROUBLESHOOTING

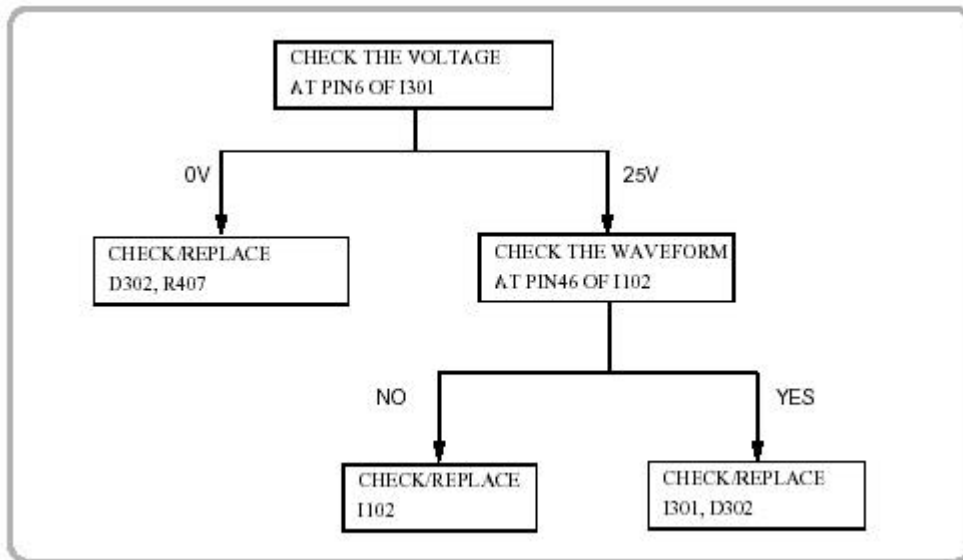
### 5-1. NO POWER (NOT WORKING SMPS)



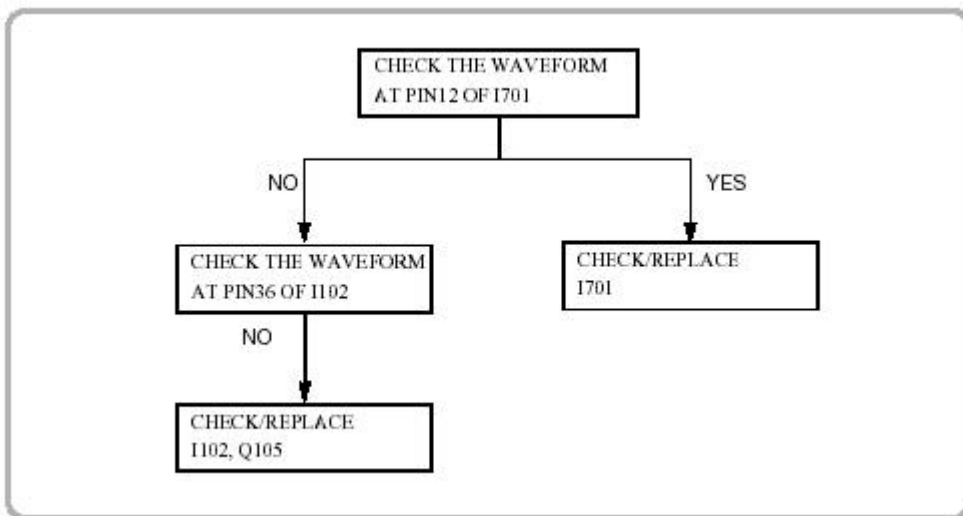
## 5-2. NO RASTER & PICTURE



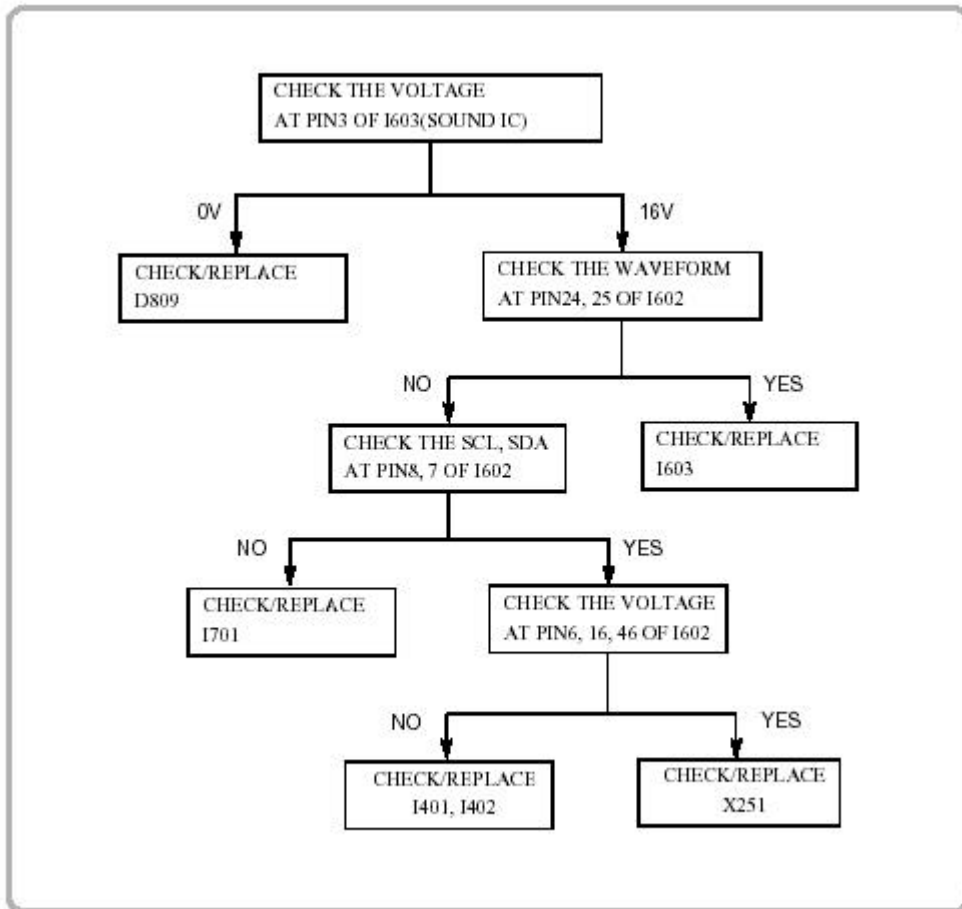
### 5-3. NO VERTICAL DEFLECTION



### 5-4. NO TELETEXT

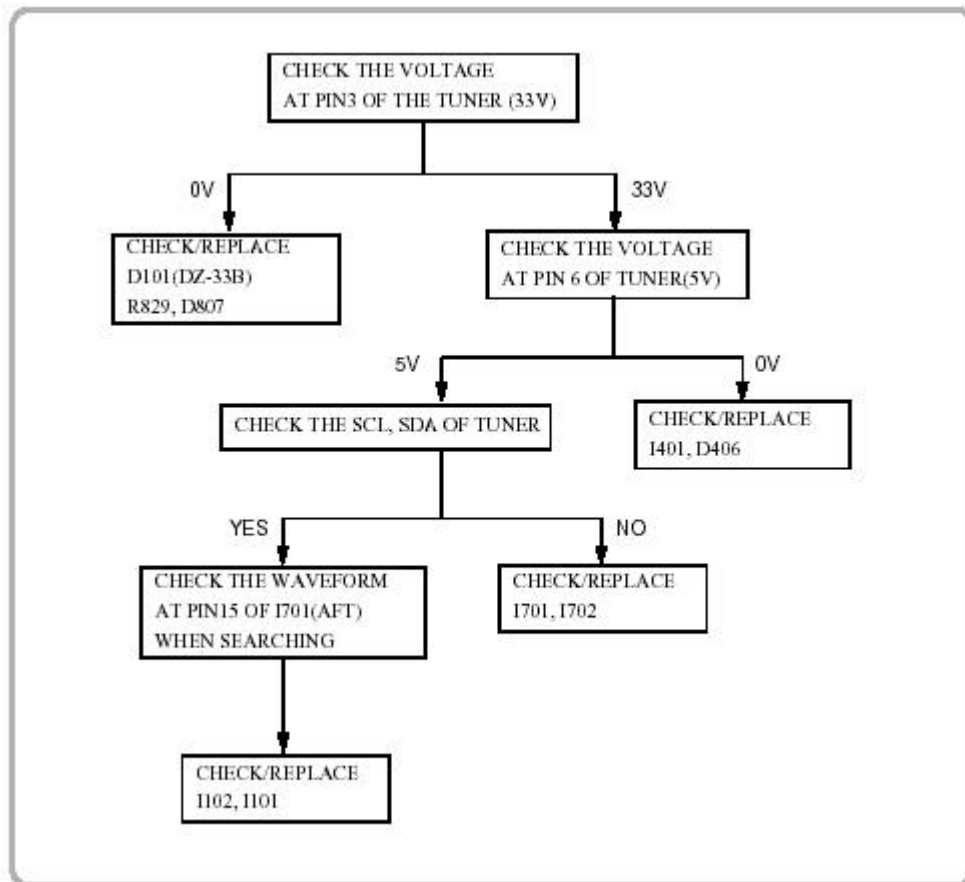


### 5-5. NO SOUND (STEREO)

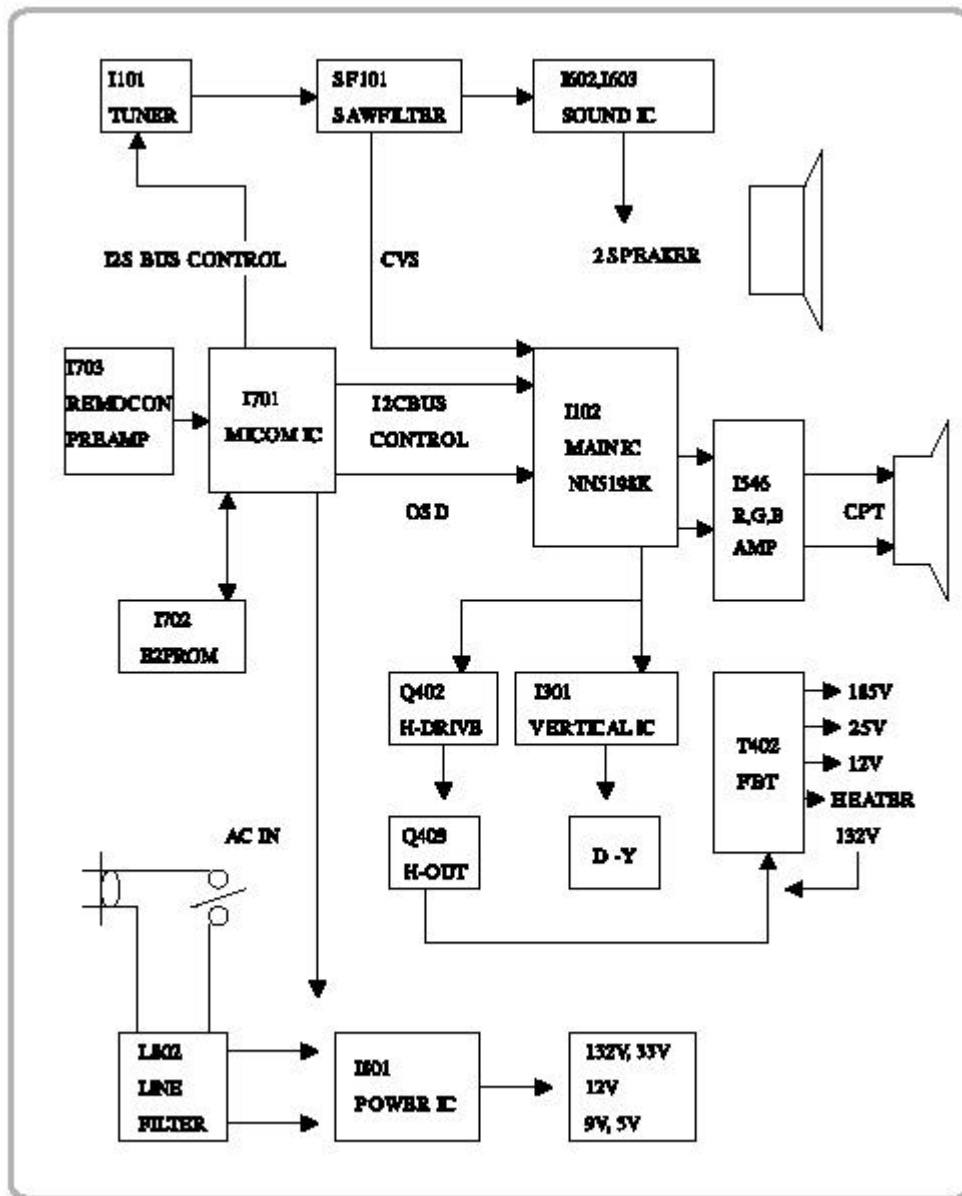




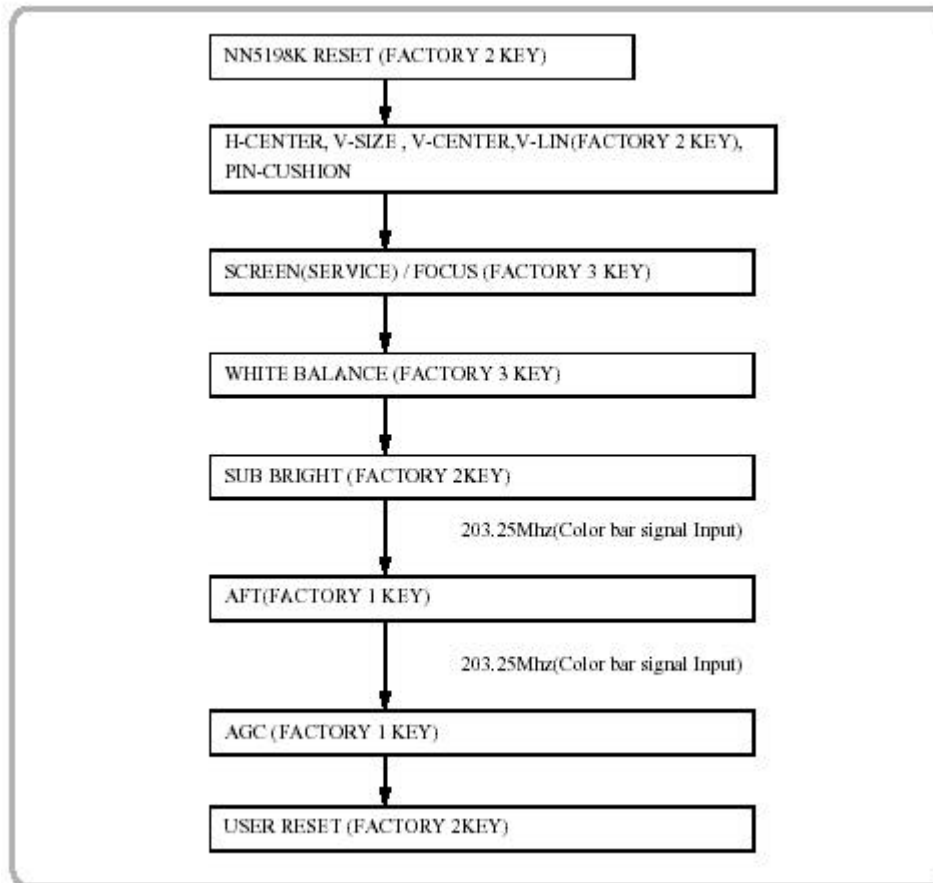
## 5-6. DON'T CATCH CHANNEL



## 6. BLOCK DIAGRAM



## 7. THE METHOD OF ADJUSTMENT FOR CHASSIS FLOW CHART TO ADJUST IN PRODUCT LINE



### \*. HEAT RUN (AUTO POWER ON MODE): FACTORY KEY

- It need in assembly line during heat run that protect to auto power off after no signal 15 minutes and auto power on for input power of sets on/off by line condition which sometimes line power connection of palette with main power line would be badly contacted by shaking during the sets through on assembly lines.
- Heat run function is operated by pressing the f4 key.
- To cancel this function press the power key (on/off.)
- It must be canceled before final output.

## 7-1. V-SIZE / V-CENTER / H-CENTER (F2 key)

### 1. V-SIZE ADJUSTMENT.

- Select the V-SIZE by pressing CH UP/DOWN key
- Adjust the V-SIZE by pressing VOL UP/DOWN key for approximately one-half inch over scan at top and bottom of picture screen.

### 2. V-CENTER ADJUSTMENT.

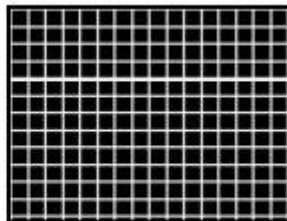
- Select the V-CENTER by pressing CH UP/DOWN key.
- Adjust V-CENTER so that the vertical center of the picture may be coincident with the mechanical center of CRT.

### 3. PIN-CUSHION AND THE HORIZONTAL WIDTH ADJUSTMENT

- Adjust the pin-cushion to the one of 'picture2' by changing resistor value of 'VR401'.  
: at the 'cross hatch' pattern.
- Adjust the horizontal width to the one of 'picture1' by changing resistor values of 'VR402'.  
: at the 'mono scope' pattern.



Picture 1



Picture 2

### 4. H-CENTER ADJUSTMENT.

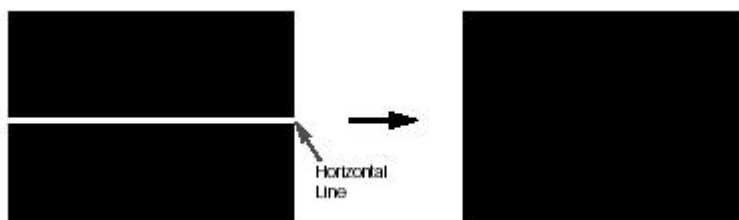
- Select the H-CENTER by pressing CH UP/DOWN key.
- Adjust the H-CENTER by pressing VOL UP/DOWN key to be agreed with screen center and mechanical center.

### 5. V-LIN ADJUSTMENT.

- Adjust V-LIN by pressing VOL UP/DOWN key.

### 7-2. SCREEN (SERVICE) ADJUSTMENT (F3 key)

- Receive the video no signal.
- Select the SERVICE mode by pressing CH UP/DOWN key.
- Make the horizontal line by pressing VOL UP/DOWN key.
- Adjust the SCREEN, till horizontal line is just disappeared.



### 7-3. WHITE BALANCE ADJUSTMENT (F3 key)

- Receive a black and white pattern or white balance adjusting pattern.
- Before attempting white balance adjustment, the receiver should be operating for at least 15minutes.
- Check the all of position to the reference value (nominal center)
- The reference color of the measurement equipment set to G.
- Adjust the CUTOFF G, CUTOFF R, and CUTOFF B at bias mode.
- Adjust the R DRV, B DRV at drive mode.

### 7-4. SUB BRIGHT ADJUSTMENT (F2 key)

- Change Mode to VIDEO NO SIGNAL
- Select the NORMAL1 mode in the fuzzy key.
- Select the SUB BRIGHT mode by pressing CH UP/DOWN key in FACTORY2 mode.
- Adjust the SUB BRIGHT value till disappeared to back screen by pressing VOL UP/DOWN.

### 7-5. AFT ADJUSTMENT (F1 key)

- Receive the RF color bar signal.
- Select the AFT mode, and then press the vol up/down key.
- Select the OK.

### 7-6. AGC ADJUSTMENT (F1 key)

- Receive the RF color bar signal.
- Strength of input signal control 63dBu.
- Select the AGC POINT mode, and then adjust an AGC POINT to 1.75
- Select the AGC AUTO mode, and then press the vol up/down key
- AGC is arranged automatically.
- Confirmation of the strong signal.

### 7-7. USER RESET (F2 key)

- It be cleared all user control to initial for all output sets will be same user control condition.
- It need after final inspection.
- \* (then power on auto tuning automatically)
- \* CHECK SUM (password: remocon key: display --> mute sleep --> fuzzy --> timer)  
To memory MASTER ROM (MULTI EEPROM MEMORY).
- Adjust the value check sum "NG" by vol up/down
- \* TO adjust "OPTION MENU"
- Press MENU button from factory key
- After adjusting an option what you want, press MENU to end "OPTION MENU"

EX)

OPTION		
<input checked="" type="checkbox"/> SOUND	MONO	<input checked="" type="checkbox"/> STEREO
VIDEO	VIDEO 1	<input checked="" type="checkbox"/> VIDEO 2
SVH	<input checked="" type="checkbox"/> ON	OFF
SAT	ON	<input checked="" type="checkbox"/> OFF
AV	<input checked="" type="checkbox"/> ON	OFF
NTSC	ON	<input checked="" type="checkbox"/> OFF
VOLUME	<input checked="" type="checkbox"/> LARGE	SMALL
* AV ON(MONITOR OUT)		

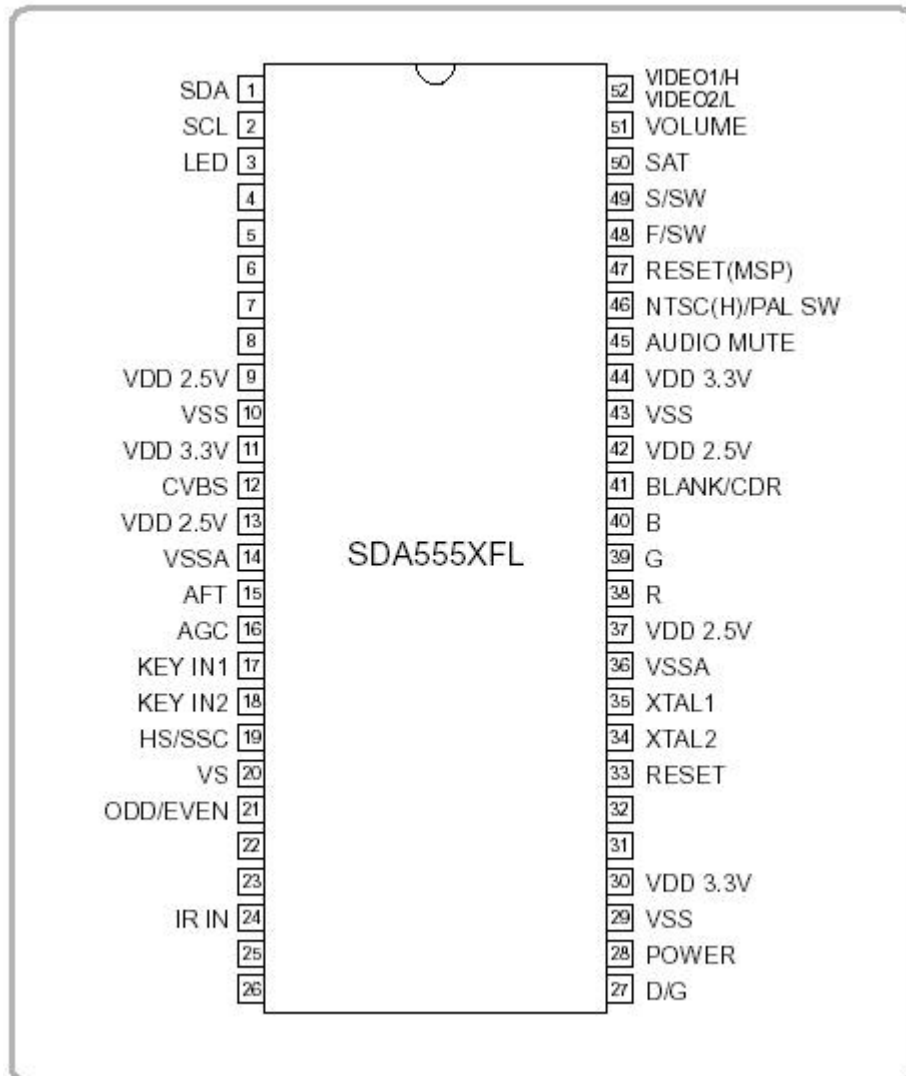
**LANGUAGE (TTX OPTION)**

Select the Character set mode, (LANGUAGE)

Character set	Character group	Recommended for the languages
Latin	West Europe	German/English/Skandinavian/Italian/French Icelandic/Spain/Portugeses/Turkish
Latin	East Europe	Polish/Czech/Romanian/Hungarin Solvenian/Croatian lettish/Lithuanian Estonian
Cyrillic	Cyrillic	Russian/Byellorussian/Ukranian
Greek	Greek	Greek
Arabic	Arabic	Arabic Hebrew English&French inarabic countries
Farsi	Farsi	Farsi

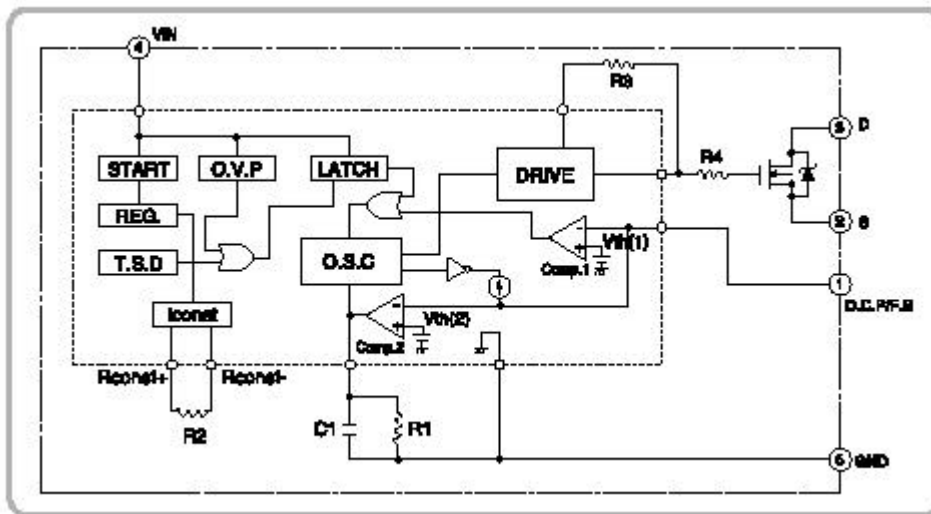
## 8. IC DESCRIPTION

### 8-1. SDA555XFL





## 8-2. POWER IC (1801): STR-G6656



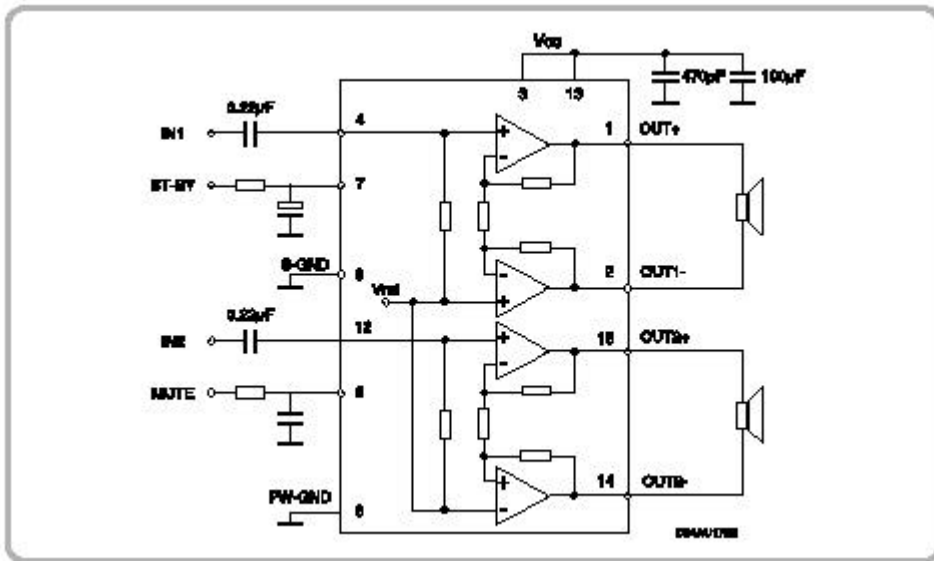
### • Function of Terminal

Terminal No.	Symbols	Description	Functions
1	O.C.P/F.B	Overcurrent/Feedback terminal	Input of overcurrent detection signal and constant voltage control signal.
2	S	Source terminal	MOS FET source
3	D	Drain terminal	MOS FET drain
4	VIN	Power supply terminal	Input of power supply for control circuit
5	GND	Ground terminal	Ground

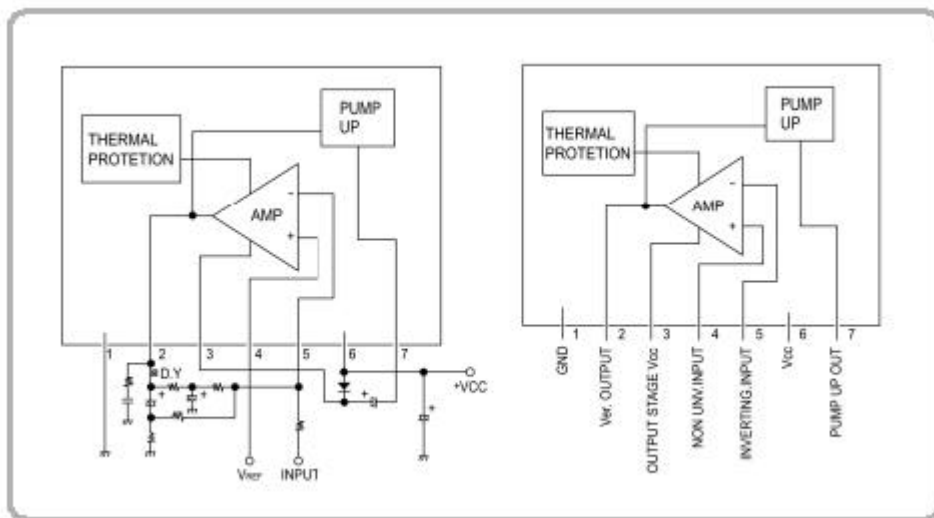
### • Other Functions

Symbols	Functions
O.V.P	Overvoltage protection circuit
T.S.D	Thermal shutdown circuit

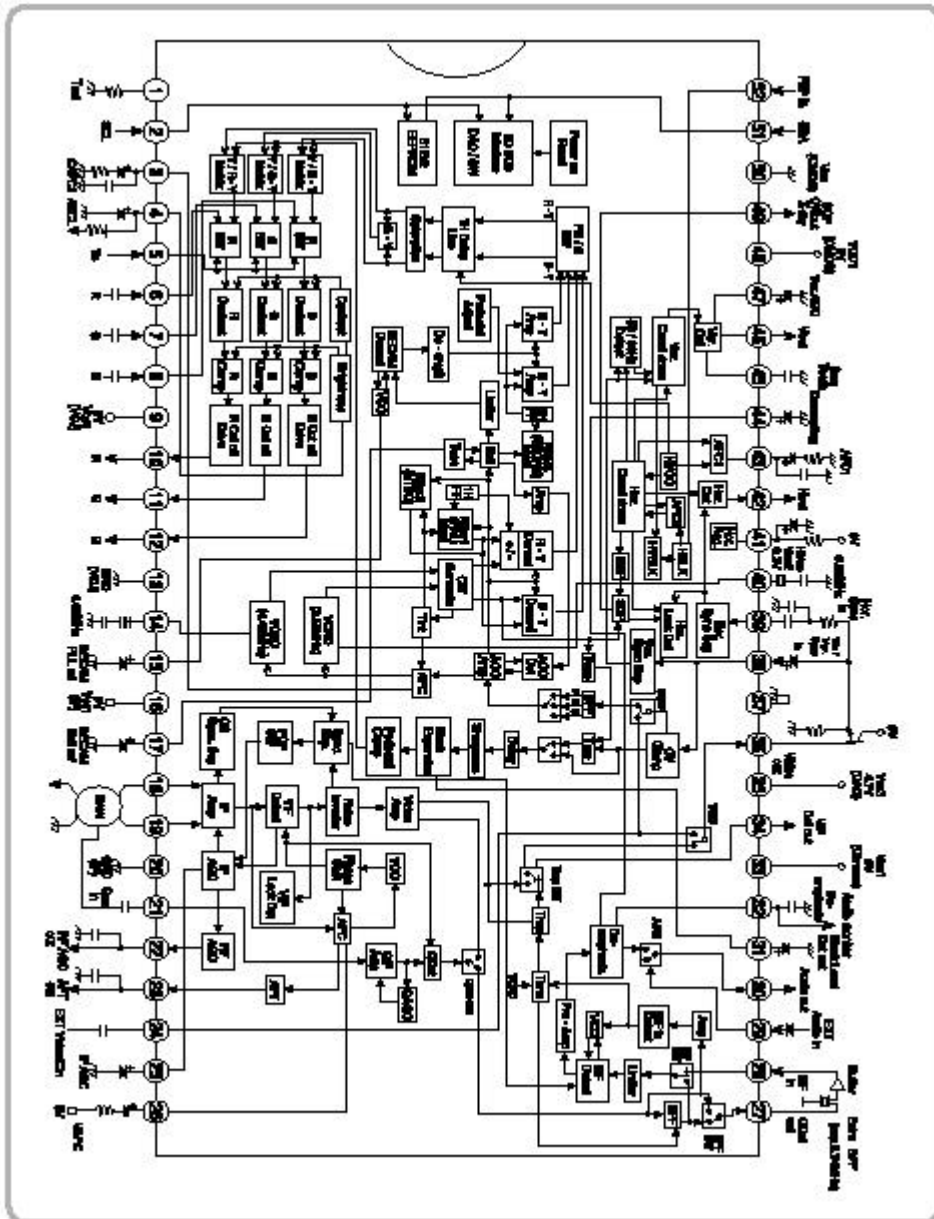
**8-3. SOUND AMP IC (I603): TDA7297**



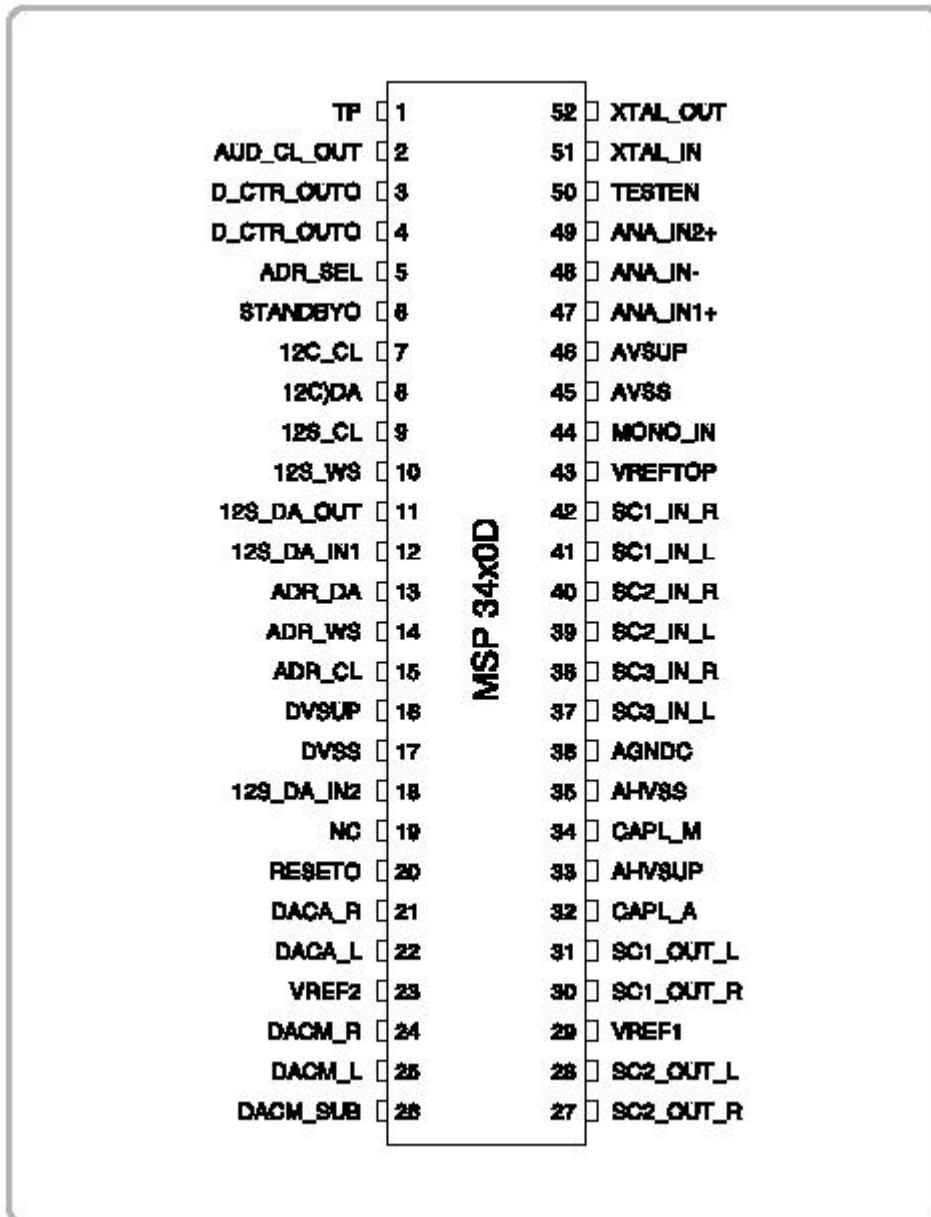
**8-4. VERTICAL IC (I301): LA7845K**



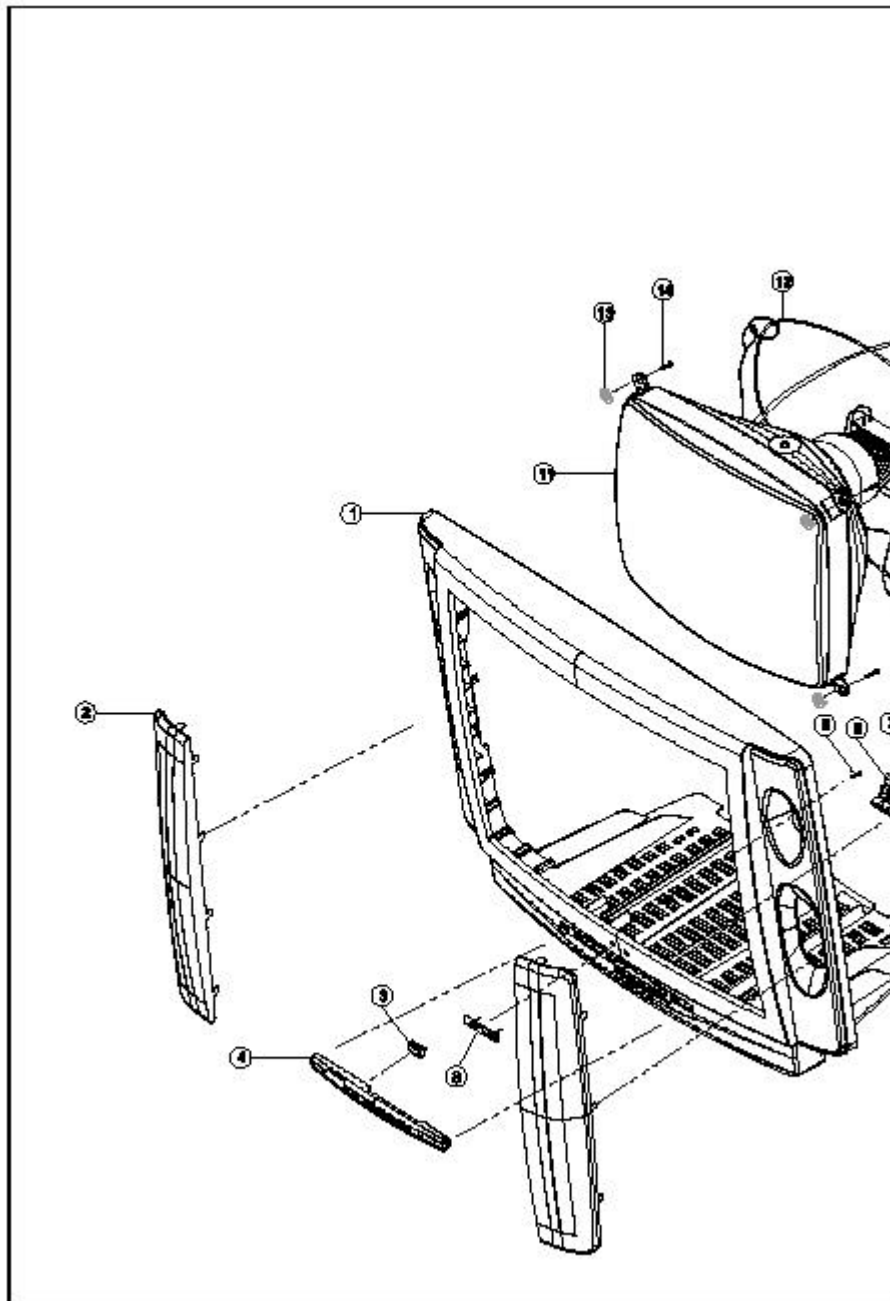
**8-5. MAIN IC (I102): NN5198K**

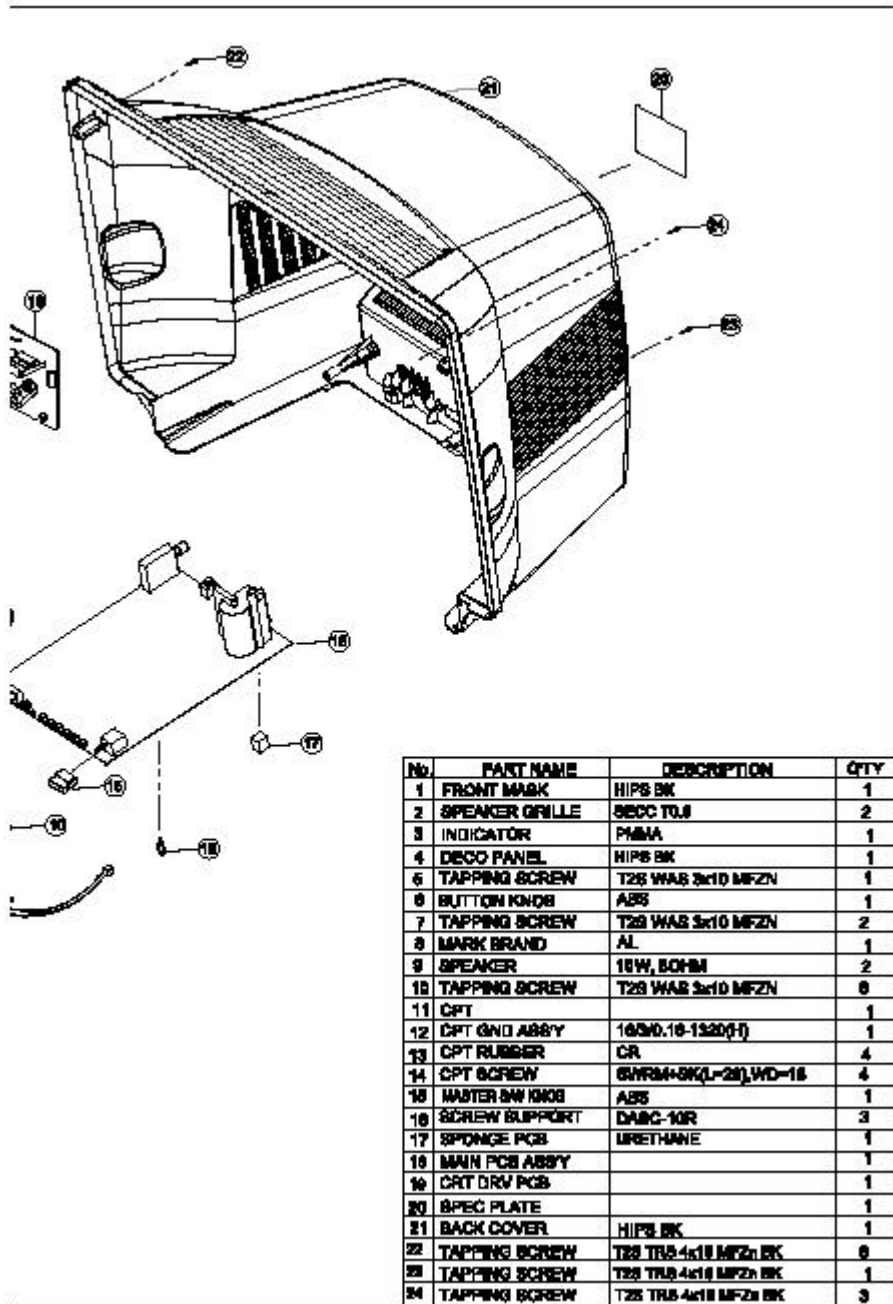


## 8-6. STZRZO IC (I602)

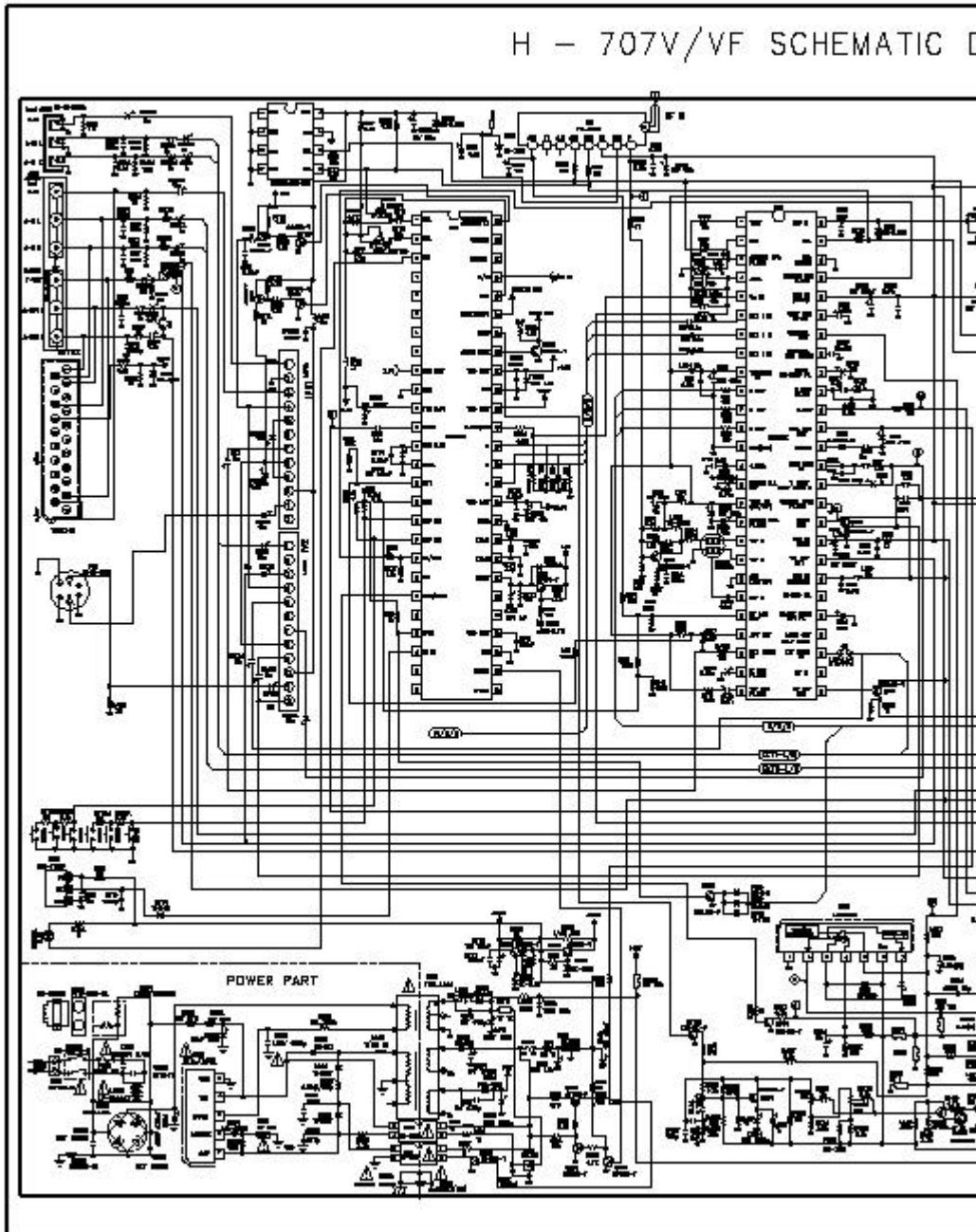


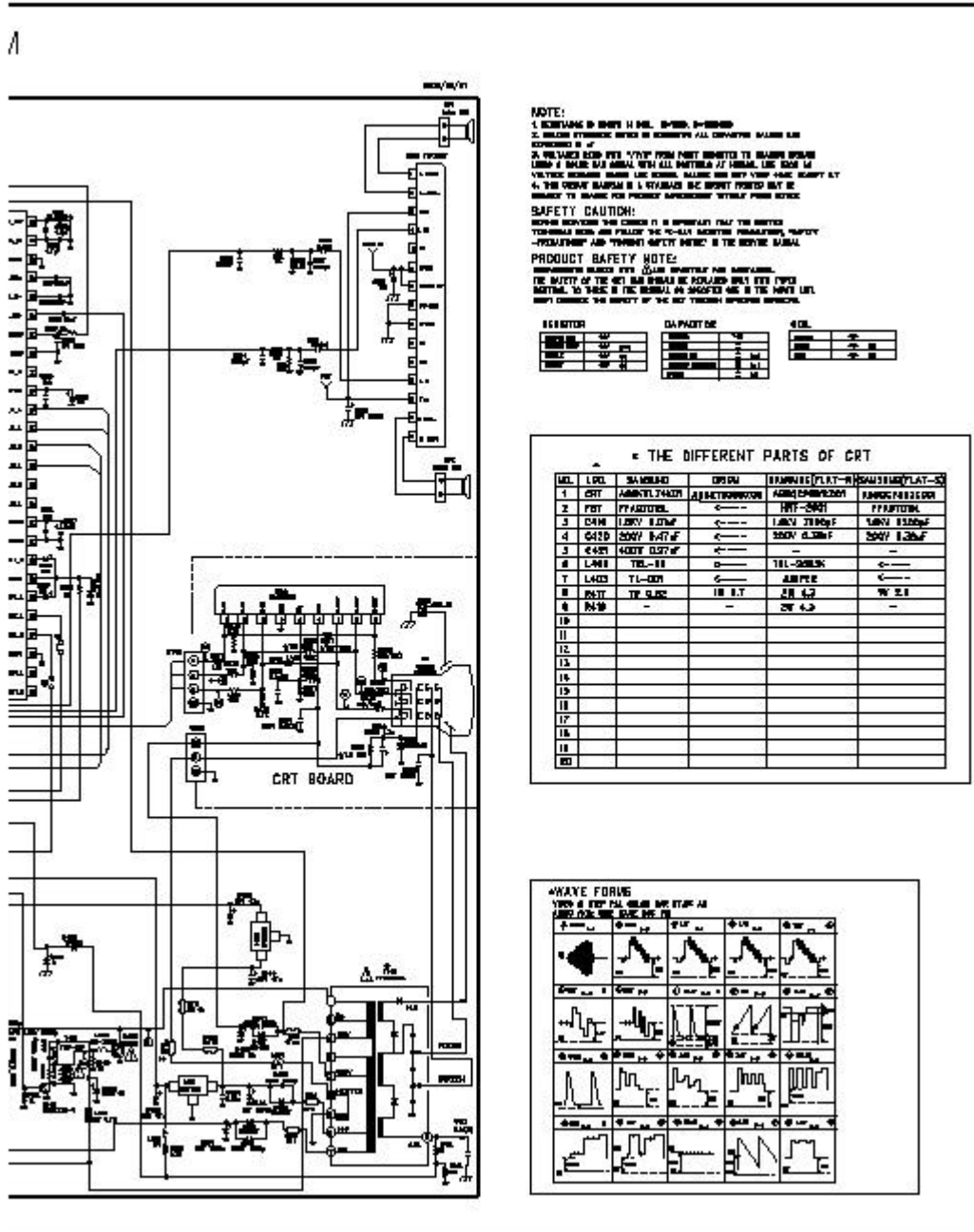
## 9. EXPLODED VIEW





## 10. SCHEMETIC DIAGRAM





**NOTE:**  
 1. SCHEMATIC IS BASED ON MODEL CT-29FD, CT-29FD9CPT  
 2. BEFORE REPAIRING CHECK OR REPAIRING ALL COMPONENTS SHOWN AND COMPONENTS NOT SHOWN  
 3. UNPLUGGED FROM THE MAIN POWER SOURCE TO AVOID SHOCK DURING REPAIR  
 4. THE POWER SUPPLY IS A STANDARD IEC INPUT POWERED BUT BE SENSITIVE TO SHOCK FOR PROTECTIVE EQUIPMENT VOLTAGE FROM SERVICE

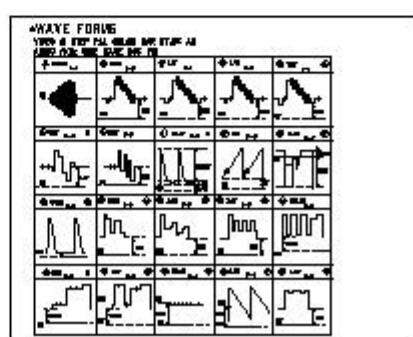
**SAFETY CAUTION:**  
 BEFORE REPAIRING THIS CHASSIS IT IS ESSENTIAL THAT THE SERVICE TECHNICIAN READ AND FOLLOW THE "C-14" SAFETY PRECAUTIONS, SAFETY PRECAUTIONS AND "WARNING SAFETY NOTICE" IN THE SERVICE MANUAL

**PRODUCT SAFETY NOTE:**  
 INFORMATION RELATED WITH THIS SAFETY NOTICE FOR INFORMATION.  
 THE SAFETY OF THE SET HAS BEEN RE-EVALUATED ONLY FOR THE POWER SUPPLY. TO MAKE IF THE SERIAL OR SHOCKED ONE IN THE POWER UNIT MUST CHECK THE SAFETY OF THE SET THROUGH SPECIFIC SERVICE.

RESISTOR	CAPACITOR	CODE
100K	1000	10
10K	100	1
1K	10	0
100	1	00
10	0.1	01
1	0.01	001
0.1	0.001	0001
0.01	0.0001	00001
0.001	0.00001	000001

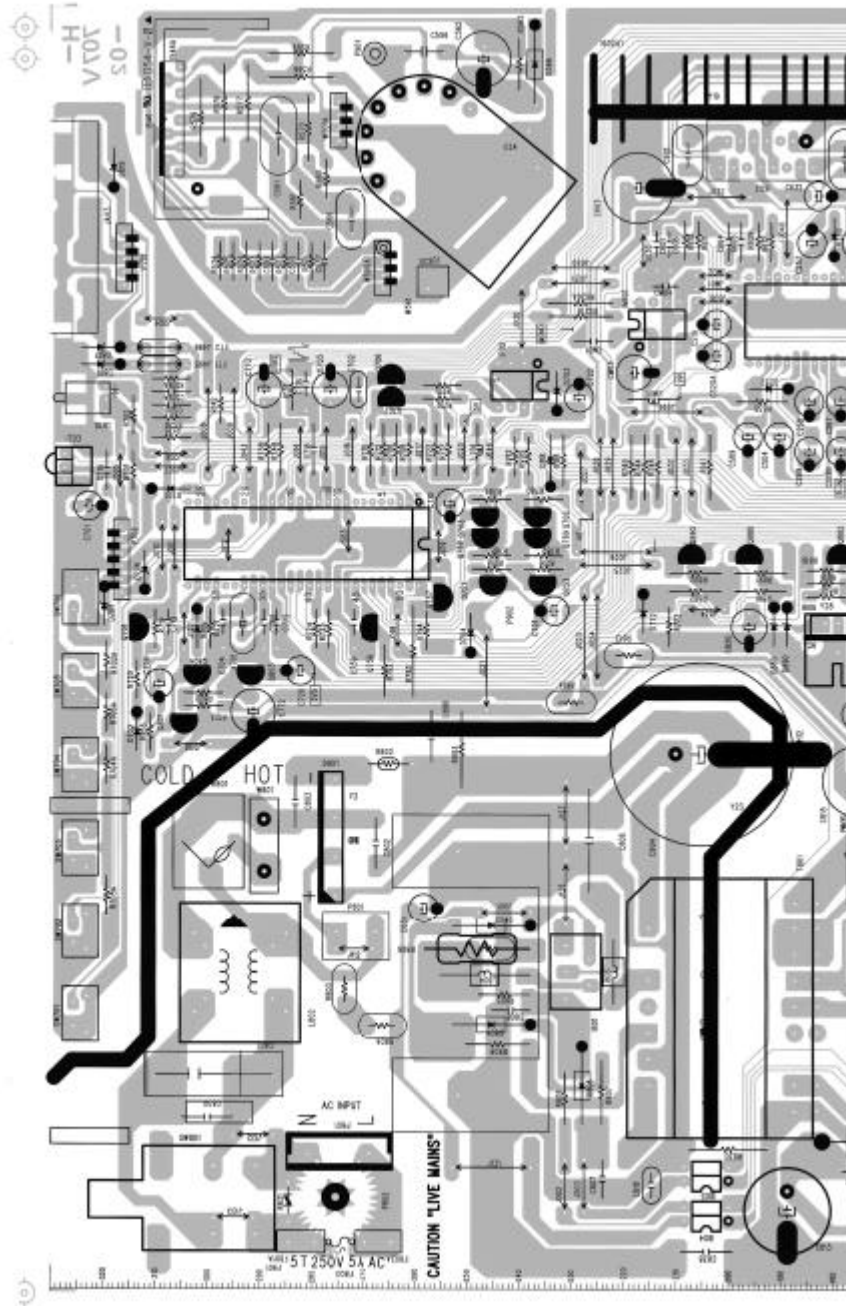
= THE DIFFERENT PARTS OF CRT

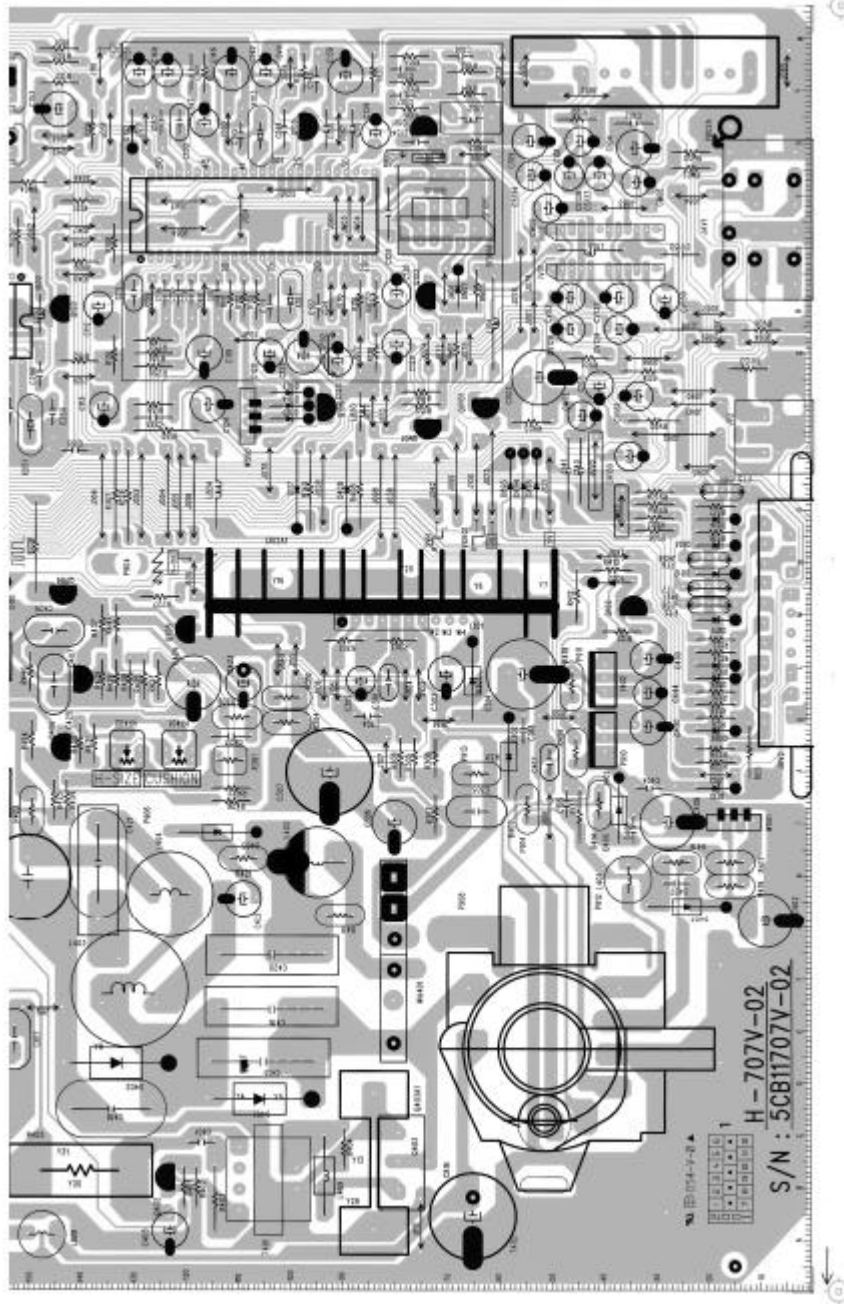
REL.	REF.	DESCRIPTION	TYPE	DESCRIPTION (FLAT-SCREEN)	DESCRIPTION (FLAT-SCREEN)
1	CRT	AMR-TEL-74420	A	ABSTRACTOR	ABSTRACTOR
2	FBT	FFA-00100L	←	FBT-2001	FFA-00100L
3	CR1	1.8KV 0.01UF	←	1.8KV 0.01UF	1.8KV 0.01UF
4	CR2	200V 0.47UF	←	200V 0.33UF	200V 0.22UF
5	CR3	400V 0.01UF	←	—	—
6	LA01	TL-11	←	TL-0001	←
7	LA02	TL-001	←	AMP-1	←
8	BL01	TV-001	←	TV-001	TV-001
9	BL02	—	—	TV-002	—
10	—	—	—	—	—
11	—	—	—	—	—
12	—	—	—	—	—
13	—	—	—	—	—
14	—	—	—	—	—
15	—	—	—	—	—
16	—	—	—	—	—
17	—	—	—	—	—
18	—	—	—	—	—
19	—	—	—	—	—
20	—	—	—	—	—





## 11. PRINTED CIRCUIT BOARD





## 12. REPLACEMENT PARTS LIST

No.	S / N	PART NAME	DESCRIPTION	QUANTITY	LOCATION LIST
1	7C11279E05	BACK COVER	"2979JHBKD,H6,SRT,S-VHS"	1 EA	M0200
2	5ND11STR03	BATTERY	RC3(AAAM) 1.5V	2 EA	100E
3	33315KE45T	BOND SILICON	KE45T	Kg	M0008
4	8C819CKE02	BOX CABINET	"DW1,800x755x630,2979"	0.5 EA	"M0400A,M0400B"
5	7C31179N01	BUTTON KNOB	"79,ABS,4700 SV"	1 EA	M0105
6	CXB3A471KT	C CERAMIC	B 1KV 470pF K	2 EA	"C810,C811"
7	CXB3C222KN	C CERAMIC	B 2KV 2200pF K	2 EA	"C802,C803"
8	CXB2H102KT	C CERAMIC	B 500V 1000pF K	4 EA	"C313,C401,C406,C407"
9	CXE3D102PN	C CERAMIC	E 2KV 1000pF P	1 EA	C556
10	CCS2H100KT	C CERAMIC	SL 500V 10pF K	2 EA	"C135,C304"
11	C1X1C152MT	C CERAMIC AXL	EP050 X 1500pF M	2 EA	"C606,C607"
12	C1B1H102KT	C CERAMIC AXL	UP050 B 1000pF K	5 EA	"C140,C141,C604,C605,C715"
13	C1B1H101KT	C CERAMIC AXL	UP050 B 100pF K	3 EA	"C253,C254,C427"
14	C1B1H151KT	C CERAMIC AXL	UP050 B 150pF K	2 EA	"C136,C143"
15	C1B1H471KT	C CERAMIC AXL	UP050 B 470pF K	1 EA	C808
16	C1B1H681KT	C CERAMIC AXL	UP050 B 680pF K	1 EA	C807
17	C2C1H100JT	C CERAMIC AXL	UP050 CH 10pF J	1 EA	C155
18	C2C1H110JT	C CERAMIC AXL	UP050 CH 11pF J	1 EA	C145
19	C2C1H479KT	C CERAMIC AXL	UP050 CH 4.7pF K	2 EA	"C258,C259"
20	C2C1H829KT	C CERAMIC AXL	UP050 CH 8.2pF K	1 EA	C119
21	CZF1H103ZT	C CERAMIC AXL	UP050 F 0.01uF Z(M)	19 EA	"C102,C106,C107,C108,C110," "C117,C133,C138,C148,C152," "C154,C256,C404,C719,C759," "C775,CS19A,CS20,CV152"
22	CZF1H104ZT	C CERAMIC AXL	UP050 F 0.1uF Z(M)	10 EA	"C114,C115,C116,C125,C127," "C144,C252,C264,C266,C716"
23	C2S1H330JT	C CERAMIC AXL	UP050 SL 33pF J	2 EA	"C704,C705"
24	C2S1H560JT	C CERAMIC AXL	UP050 SL 56pF J	3 EA	"C260,C261,C280"
25	CA2CGZZ2PN	C CERAMIC-AC	E AC400V 2200pF UL/CSA/TUV	1 EA	C838
26	CSS2C101MN	C ELECTRO	160V 100uF RSS	2 EA	"C813,C816"
27	CSS2C109MT	C ELECTRO	160V 1uF RSS	2 EA	"C403,C422"
28	CSS1C102MN	C ELECTRO	16V 1000uF RSS	3 EA	"C408,C424,C814"
29	CSS1C101MT	C ELECTRO	16V 100uF RSS	13 EA	"C104,C109,C118,C122,C139," "C153,C251,C255,C263,C703," "C722,C773,C820"
30	CSS1C221MT	C ELECTRO	16V 220uF RSS	2 EA	"C772,CV2"
31	CSS2E100MN	C ELECTRO	250V 10uF RSS	1 EA	C402
32	CSS2E479MN	C ELECTRO	250V 4.7uF RSS	1 EA	C562
33	CSS1E102MN	C ELECTRO	25V 1000uF RSS	1 EA	C815
34	CSS1E470MT	C ELECTRO	25V 47uF RSS	7 EA	"C146,C430,C444,C450,C710,"

No.	S/N	PART NAME	DESCRIPTION	QUANTITY	LOCATION LIST
35	CSS1V102MN	C ELECTRO	35V 1000µF RSS	3 EA	"C720,C819"
36	CFX2G471MW	C ELECTRO	400V 470µF FHX (35X40)	1 EA	"C307,C314,C803"
37	CSS1H220MT	C ELECTRO	50V 0.22µF RSS	2 EA	C804
38	CSS1H478MT	C ELECTRO	50V 0.47µF RSS	3 EA	"C129,C151"
39	CSS1H101MT	C ELECTRO	50V 100µF RSS	1 EA	"C120,C123,C130"
40	CSS1H100MT	C ELECTRO	50V 10µF RSS	17 EA	C303
					"C105,C149,C265,C268,C269,"
					"C302,C632,C701,CS133,CS134,"
					"CS138,CV128,CV129,CV137,CV150,"
					"CV151,CV3"
41	CSS1H109MT	C ELECTRO	50V 1µF RSS	9 EA	"C112,C124,C142,C423,C786,"
					"CS17A,CS18B,CS19,CS20A"
42	CSS1H229MT	C ELECTRO	50V 2.2µF RSS	2 EA	"C134,C386"
43	CSS1H220MT	C ELECTRO	50V 22µF RSS	2 EA	"C113,C839"
44	CSS1H339MT	C ELECTRO	50V 3.3µF RSS	2 EA	"C257,C267"
45	CSS1H479MT	C ELECTRO	50V 4.7µF RSS	5 EA	"C101,C147,CS4,CS9,CV130"
46	CHD1H689MN	C ELECTRO	50V 6.8µF RHD	1 EA	C431
47	CLC2N474KN	C LINE ACROSS	AC275V 0.47µF UL/VDE/S/MD	1 EA	C801
48	CXM2A103KT	C MYLAR	100V 0.01µF K	1 EA	C310
49	CXM2A104KT	C MYLAR	100V 0.1µF K	9 EA	"C150,C385,C417,C425,C426,"
					"C560,C681,C682,C817"
50	CXM2A182KT	C MYLAR	100V 1800pF K	1 EA	C111
51	CXM2E104KD	C MYLAR	250V 0.1µF K	1 EA	C561
52	CMP2D474JD	C MYLAR	MPP 200V 0.47µF J	1 EA	C420
53	CMP2J223JD	C MYLAR	MPP 630V 0.022µF J	1 EA	C418
54	CPP3C103JD	C MYLAR	PP 1.6KV 0.01µF J	1 EA	C416
55	CPP3C102JD	C MYLAR	PP 1.6KV 1000pF J	1 EA	C806
56	CPP3C822JD	C MYLAR	PP 1.6KV 8200pF J	1 EA	C415
57	8C81979E08	CARTON BOX-2979	"DW4,EVGO,HT-2979S"	1 EA	M0300
58	LA02100KBT	COIL PEAKING AXL	AL02TB 10µH K	8 EA	"L101,L103,L251,L252,L253,"
					"L701,L830,L834"
59	5CL21350T	COIL-BEAD	HC-3550	4 EA	"L409,L803,L804,L805"
60	5SL34R25KN	COIL-CHOKE	5511-101-F25K	1 EA	L102
61	5CL34940KT	COIL-CHOKE	6700-940K	1 EA	L808
62	5CL35TRL20	COIL-LINEARITY	TRL-20	1 EA	L402

No.	S / N	PART NAME	DESCRIPTION	QUANTITY	LOCATION LIST
63	5CL37CP001	COIL-PINCLUSHION	CP-001	1 EA	L404
64	4W45026500	CONNECTOR ASSY	2P 650 YMH251/110REC	1 EA	WA3A
65	4W45036500	CONNECTOR ASSY	3P 650 YMH251/110REC (NC)	1 EA	WA4A
66	4W41044001	CONNECTOR ASSY	4P 400 YBNH250*2	1 EA	W500A
67	4W41044000	CONNECTOR ASSY	4P 400 YBNH250*2 (NC)	1 EA	W501A
68	4CT41SS29A	CPT	A68KVL74X01 ITC 380	1 EA	1000
69	4CW8129H01	CRT GND ASSY	16/4/0.12-1320(H)	1 EA	1000A
70	7C71179N00	CRT RUBBER	"CR,T-7,I-9.5,O-20"	4 EA	M0101C
71	5CJ61SH09S	CRT SOCKET	ISHS09S	1 EA	SC901
72	5CV111843N	CRYSTAL	18.432MHz	1 EA	X251
73	5CV113579N	CRYSTAL	3.579545MHz	1 EA	X103
74	5CV114433N	CRYSTAL	4.433619MHz	1 EA	X101
75	5CV116—N	CRYSTAL	6.0MHz	1 EA	X701
76	6C11779N08	DECO PANEL	"79-09,4700,CKD"	1 EA	M0107
77	5CL810290F	DEGAUSSING COIL	CD-0290FD	1 EA	1000B
78	DB3SBA60LN	DIODE BRIDGE	G3SBA60L	1 EA	D801
79	DD1N4003-T	DIODE RECT	1N4003	1 EA	D301
80	DD1N4937-T	DIODE RECT-FAST	1N4937	8 EA	"D302,D405,D406,D407,D802," "D804,D806,D808"
81	DD1N5399GT	DIODE RECT-FAST	1N5399G	1 EA	D566
82	DDFMLG22SN	DIODE RECT-FAST	FML-G22S	1 EA	D809
83	DDRHF—N	DIODE RECT-FAST	RHF	1 EA	D401
84	DDRUMAM—N	DIODE RECT-FAST	RUMAM	2 EA	"D402,D807"
85	DD1N4148-T	DIODE SW	1N4148	7 EA	"D103,D104,D105,D428,D701," "D709,R253"
86	DZUZ-2.4BT	DIODE ZENER	UZ-2.4B	1 EA	D702
87	DZUZ-2.7BT	DIODE ZENER	UZ-2.7B	1 EA	D772
88	DZUZ-3.0BT	DIODE ZENER	UZ-3.0B	1 EA	D880
89	DZUZ-3.3BT	DIODE ZENER	UZ-3.3B	1 EA	D704
90	DZUZ-3.6BT	DIODE ZENER	UZ-3.6B	1 EA	D890
91	DZUZ-33B-T	DIODE ZENER	UZ-33B	1 EA	D101
92	DZUZ5.6BMT	DIODE ZENER	UZ-5.6BM	2 EA	"D102,D703"
93	DZUZ8.2BMT	DIODE ZENER	UZ-8.2BM	1 EA	D252
94	5CL4197016	FBT	FFA97016L	1 EA	T402

No.	S/N	PART NAME	DESCRIPTION	QUANTITY	LOCATION LIST
95	5CL312424A	FILTER-LINE	LF-2424A1	1 EA	L802
96	5CF813350K	FILTER-SAW	K3350K	1 EA	SF101A
97	33313FR800	FLUX CUT	FR-8000	4.2 mL	M0003
98	33313800KN	FLUX SOLDER	RF-800KN	0.01 Kg	M0004
99	33313800AD	FLUX SOLVENT	RF-800ADD	0.01 Kg	M0005
100	6C11179E01	FRONT MASK	*2979,4700,CKD*	1 EA	M0101
101	5NJ41FC21D	FUSE CLIP	FC-21D	2 EA	*F801A,F802A*
102	5NS365A005	FUSE SEMKO/VDE/UL	5T 250V 5A TIME-LAG	1 EA	F801
103	5CL32HD120	HDT	THD-120	1 EA	T401
104	7C611DJ002	HEAT SINK	DJ-002	1 EA	I806A
105	7C611212A3	HEAT SINK	MH9212-A3	2 EA	*I301A,I303A*
106	7M611212C1	HEAT SINK	MH9212-C1	2 EA	*Q403A,Q405A*
107	7C61129008	HEAT SINK	TSY-008	1 EA	I801A
108	7C611W5100	HEAT SINK	WJ-HTS100	1 EA	I546A
109	UKA7805-N	IC	KA7805	2 EA	*M02,I805*
110	UKA7809-N	IC	KA7809	1 EA	I401
111	ULA7151-N	IC	LA7151	2 EA	*IV01,IV02*
112	ULA7845N-N	IC	LA7845N	1 EA	I301
113	UM24C16BNH	IC	M24C16-BN6	1 EA	I702
114	UMSP3410DN	IC	MSP3410D-PO-C5	1 EA	I602
115	UNN5198K-N	IC	NN5198K	1 EA	I102
116	USE130N-N	IC	SE130N	1 EA	I803
117	USTRF6656N	IC	STR-F6656	1 EA	I801
118	UTDA6103QN	IC	TDA6103Q	1 EA	I546
119	UTDA7297-N	IC	TDA7297	1 EA	I603
120	UPC17K1-N	IC PHOTO	PC-17K1	2 EA	*I804,I805*
121	USDA55XX-N	IC u-COM	SDA555XFL	1 EA	I701
122	7C21779N00	INDICATOR	*79,PMMA MILKY WHITE*	1 EA	M0106
123	5CU21652V1	IR PREAMP	HM652V1	1 EA	I703
124	DL50231-N	LED	DLL-50231	1 EA	DL1
125	7C21179N00	LED HOLDER	*ABS BK,79*	1 EA	M0702
126	5CB11707V2	MAIN PCB	330x246x1.6T(H-707V-02)	1 EA	10
127	9C916EVB00	MARK BRAND	*AL(EVGO),C/G*	1 EA	M0109
128	7C31279N01	MASTER S/W KNOB	*79,ABS,4700 SV*	1 EA	M0104

No.	S/N	PART NAME	DESCRIPTION	QUANTITY	LOCATION LIST
129	5CR525D151	NTC THERMISTOR	DSC-5D-15(F/C)	1 EA	R802
130	5CR52D302J	NTC THERMISTOR	PA-5D-302J	1 EA	R381
131	8C81279E01	PAD DOWN	HT-2979	1 EA	M0301B
132	8C81279E00	PAD UP	HT-2979	1 EA	M0301A
133	8C813CKE00	PAPER PAD	"SW1,720x600,FM6"	0.25 EA	M0402
134	5CJ569501B	PHONE JACK	PH-JB-9501B	1 EA	JAV1
135	5CJ539803C	PHONE JACK	YS01-9803C	1 EA	JAV3
136	8N81162N00	POLY BAG M	"LDPE,T0.06x165x260"	1 EA	M0308
137	8N81198E00	POLY BAG S.29	"LDPE,T0.04x1500x1500"	1 EA	M0302
138	5CR5111801	POSISTOR	ECPC180M290	1 EA	R801
139	4CW11CEE03	POWER CORD ASSY	KKP-419C(HS)	1 EA	P801A
140	RMA5604MNT	R CARBON COMP	1/2W 5.6M M	1 EA	R830
141	RDA10R0JNT	R CARBON FILM	1/2W 10 J	1 EA	R808
142	RDA1003JNT	R CARBON FILM	1/2W 100K J	3 EA	"R577,R578,R579"
143	RDA1001JNT	R CARBON FILM	1/2W 1K J	3 EA	"R566,R569,R570"
144	RDA2201JNT	R CARBON FILM	1/2W 2.2K J	1 EA	R807
145	RDA4701JNT	R CARBON FILM	1/2W 4.7K J	1 EA	R403
146	RDB1005JNT	R CARBON FILM	1/4W 10M J	1 EA	R562
147	RDB1503JNT	R CARBON FILM	1/4W 150K J	1 EA	R133
148	RDB1800JNT	R CARBON FILM	1/4W 180 J	1 EA	R881
149	RDB3000JNT	R CARBON FILM	1/4W 300 J	1 EA	R892
150	RDD1201JNT	R CARBON FILM	1/6W 1.2K J	2 EA	"R105,R307"
151	RDD1301JNT	R CARBON FILM	1/6W 1.3K J	1 EA	RV133
152	RDD1501JNT	R CARBON FILM	1/6W 1.5K J	3 EA	"R127,R131,R137"
153	RDD1801JNT	R CARBON FILM	1/6W 1.8K J	4 EA	"R106,R571,R572,R573"
154	RDD1000JNT	R CARBON FILM	1/6W 100 J	15 EA	"R109,R111,R112,R113,R132," "R251,R252,R701,R710,R711," "R712,R715,R719,R703,RV132"
155	RDD1003JNT	R CARBON FILM	1/6W 100K J	7 EA	"D117,R141,R155,RS17,RS18," "RS19A,RS20"
156	RDD1002JNT	R CARBON FILM	1/6W 10K J	8 EA	"R108,R123,R435,R702A,R704A," "R720,R721,R818"
157	RDD1103JNT	R CARBON FILM	1/6W 110K J	1 EA	R118
158	RDD1102JNT	R CARBON FILM	1/6W 11K J	2 EA	"R609,R612"

No.	S/N	PART NAME	DESCRIPTION	QUANTITY	LOCATION LIST
159	RDD1202.INT	R CARBON FILM	1/6W 12K J	1 EA	R302
160	RDD13R0.INT	R CARBON FILM	1/6W 13 J	1 EA	R120
161	RDD1500.INT	R CARBON FILM	1/6W 150 J	2 EA	R101,R102
162	RDD1503.INT	R CARBON FILM	1/6W 150K J	1 EA	R116
163	RDD1502.INT	R CARBON FILM	1/6W 15K J	1 EA	R413
164	RDD1603.INT	R CARBON FILM	1/6W 160K J	1 EA	R140
165	RDD1800.INT	R CARBON FILM	1/6W 180 J	4 EA	R129,R750,R751,R752
166	RDD1802.INT	R CARBON FILM	1/6W 18K J	2 EA	R138,R367
167	RDD1001.INT	R CARBON FILM	1/6W 1K J	22 EA	R136,R139,R142,R152,R402, R412,R437,R702,R726,R729, R746,R813,R814,R817,RS17A, RS18A,RS2,RS20A,RS21A,RS6, RV12,RV5
168	RDD2201.INT	R CARBON FILM	1/6W 2.2K J	5 EA	R427,R432,R703A,R705A,R819
169	RDD2401.INT	R CARBON FILM	1/6W 2.4K J	1 EA	R135
170	RDD2701.INT	R CARBON FILM	1/6W 2.7K J	3 EA	R574,R575,R576
171	RDD2203.INT	R CARBON FILM	1/6W 220K J	1 EA	R660
172	RDD2403.INT	R CARBON FILM	1/6W 240K J	1 EA	R439
173	RDD2702.INT	R CARBON FILM	1/6W 2.7K J	1 EA	R306
174	RDD2001.INT	R CARBON FILM	1/6W 2K J	1 EA	R431
175	RDD3301.INT	R CARBON FILM	1/6W 3.3K J	2 EA	R425,R809
176	RDD3601.INT	R CARBON FILM	1/6W 3.6K J	2 EA	R426,R581
177	RDD3000.INT	R CARBON FILM	1/6W 300 J	1 EA	R119
178	RDD3002.INT	R CARBON FILM	1/6W 30K J	1 EA	R305
179	RDD3300.INT	R CARBON FILM	1/6W 330 J	1 EA	R401
180	RDD3302.INT	R CARBON FILM	1/6W 33K J	1 EA	R114
181	RDD36R0.INT	R CARBON FILM	1/6W 36 J	1 EA	R891
182	RDD3900.INT	R CARBON FILM	1/6W 390 J	1 EA	R839
183	RDD3902.INT	R CARBON FILM	1/6W 39K J	1 EA	R440
184	RDD4701.INT	R CARBON FILM	1/6W 4.7K J	26 EA	R104,R110,R125,R130,R408, R424,R429,R441,R708,R709, R716,R717,R718,R722,R725, R727,R728,R748,R753,R758, R780,R781,R788,R789,R792,



No.	S / N	PART NAME	DESCRIPTION	QUANTITY	LOCATION LIST
					R820
185	RDD47R0JNT	R CARBON FILM	1.6W 47 J	2 EA	"R103,R107"
186	RDD4700JNT	R CARBON FILM	1.6W 470 J	1 EA	R812
187	RDD4702JNT	R CARBON FILM	1.6W 47K J	1 EA	R772
188	RDD5601JNT	R CARBON FILM	1.6W 5.6K J	4 EA	"R434,R610,R611,R724"
189	RDD56R0JNT	R CARBON FILM	1.6W 56 J	1 EA	R835
190	RDD6800JNT	R CARBON FILM	1.6W 680 J	1 EA	R805
191	RDD6802JNT	R CARBON FILM	1.6W 68K J	1 EA	R308
192	RDD75R0JNT	R CARBON FILM	1.6W 75 J	4 EA	"R404,RV1,RV2,RV6"
193	RDD8201JNT	R CARBON FILM	1.6W 8.2K J	1 EA	R430
194	RDD82R0JNT	R CARBON FILM	1.6W 82 J	1 EA	R882
195	RDD8202JNT	R CARBON FILM	1.6W 82K J	2 EA	"R303,R438"
196	RW54701JA1	R CEMENT	5W 4.7K J LUG TYPE	1 EA	R405
197	RS1R820.BZ	R MOX FILM RDL	1W 0.82 J	1 EA	R417
198	RS11R00.BZ	R MOX FILM RDL	1W 1 J	3 EA	"L401,R309,R407"
199	RS11001JBZ	R MOX FILM RDL	1W 1K J	2 EA	"R411,R810"
200	RS12R20.BZ	R MOX FILM RDL	1W 2.2 J	1 EA	R416
201	RC21R00.BZ	R MOX FILM RDL	2W 1 J (MINI)	1 EA	R613
202	RC210R0.BZ	R MOX FILM RDL	2W 10 J (MINI)	3 EA	"R406,R418,R423"
203	RC212R0.BZ	R MOX FILM RDL	2W 12 J (MINI)	2 EA	"R811,R832"
204	RC21502JBZ	R MOX FILM RDL	2W 15K J (MINI)	1 EA	R421
205	RC21800JBZ	R MOX FILM RDL	2W 180 J (MINI)	1 EA	R311
206	RC22R00.BZ	R MOX FILM RDL	2W 2 J (MINI)	1 EA	R414
207	RC22702JBZ	R MOX FILM RDL	2W 27K J (MINI)	2 EA	"R803,R804"
208	RC23302JBZ	R MOX FILM RDL	2W 33K J (MINI)	1 EA	R829
209	RP3R150.BEN	R PRN	3W 0.15 J	1 EA	R806
210	7N23362N00	RING INSULATOR	DARI-4151	1 EA	M0010
211	5CJ64J9604	S-VHS	PH-SJ-9604	1 EA	JV2
212	5CJ62S21R1	SCART SOCKET	YRS21-R1	1 EA	JAV2
213	ST2HD628SE	SCREW CPT	"SWRM+SK-6 (L-28),WD-18"	4 EA	M0110
214	7C22979N00	SCREW SUPPORT	DASC-10N	3 EA	SS01
215	ST2PN310SE	SCREW TAPPING	T2S PAN 3x10 MFZN	3 EA	"1806B,Q403B,Q405B"
216	ST2TN416SM	SCREW TAPPING	T2S TRS 4x16 MFZN(B)	1 EA	M0200B
217	ST2TN418SM	SCREW TAPPING	T2S TRS 4x18 MFZN(B)	6 EA	M0200A

No.	S / N	PART NAME	DESCRIPTION	QUANTITY	LOCATION LIST
218	ST2PK310SE	SCREW TAPPING	T2S WAS 3x10 MFZN	11 EA	'I301B,I546B,I603B,M0111A'
219	ST2PK310SM	SCREW TAPPING	T2S WAS 3x10 MFZN(B)	3 EA	'M0200C,M0200D'
220	ST2PK312SE	SCREW TAPPING	T2S WAS 3x12 MFZN	4 EA	'B01B,M0105A,M0107A'
221	33317G600N	SILICON GREASE	G-600	Kg	M0002
222	5CL61S49A1	SMPS-TRANS	TSM-49A1	1 EA	T801
223	33311SNA64	SOLDER BAR	SNA 60/40	0.03 Kg	M0007
224	33312SNA45	SOLDER WIRE	45 SNA 1.2D	0.01 Kg	M0006
225	5CA1208101	SPEAKER	F2250C-2349-9 8-OHM 10W	2 EA	M0111
226	6C11579E00	SPEAKER GRILLE	'2979,SECC T0.6,4700 SV'	2 EA	M0102
227	9C921EVE00	SPEC PLATE	'HT-2979S(EVGO),EN'	1 EA	M0203
228	7C71499N00	SPONGE PCB	'URETHANE,T17.5x15x15'	1 EA	8000
229	33318SP018	STAPLE PIN	STEEL 18mm	20 EA	M0303
230	5CS1316001	SW-POWER	SS-160-PCB	1 EA	SW801
231	5NS11102VA	SW-TACT	LT 1102VA	6 EA	'SW701,SW702,SW703,SW704,SW705,' SW706
232	33320DA100	TIE CABLE	DA 100	10 EA	'M0,M0A'
233	T2N7000-T	TR FET	2N7000	2 EA	'Q706,Q707'
234	T2SD1890-N	TR NPN	2SD1890	1 EA	Q403
235	TKSC2330YT	TR NPN	KSC2330-Y	1 EA	Q402
236	TKSC388CYT	TR NPN	KSC388C-Y	1 EA	Q101
237	TKSC945CYT	TR NPN	KSC945C-Y	16 EA	'Q105,Q106,Q120,Q407,Q703,' 'Q704,Q705,Q752,Q756,Q788,' 'Q801,Q803,Q804,Q880,Q890,' QV101
238	TKSD2058-N	TR NPN	KSD2058	1 EA	Q405
239	TKSA709CYT	TR PNP	KSA709C-Y	3 EA	'Q702,Q753,Q789'
240	TKSA733CYT	TR PNP	KSA733C-Y	3 EA	'Q406,Q701,Q802'
241	5CU12N13DA	TRANSMITTER REMOCON	HR13-VE3AA	1 EA	1000
242	5CF11MD010	TUNER-F/S US	DT5-BF14D	1 EA	I101
243	DVSVR471DN	VARIATOR	SVR471D14AS00	1 EA	C830
244	5NR3HZ6203	VR-SEMI	H06 20K (NVZ6TLT)	2 EA	'VR401,VR402'
245	4CJ24LW302	WAFER	LWP1143-Q2	1 EA	P801
246	4CJ21YF604	WAFER	YFW-600-04	1 EA	WA401
247	4CJ21YF801	WAFER	YFW-800-01	3 EA	'W561,WA801A'

No.	S / N	PART NAME	DESCRIPTION	QUANTITY	LOCATION LIST
248	4CJ21YF802	WAFER	YFW-800-02	1 EA	W801
249	4CJ22YMW02	WAFER	YMW250-02	1 EA	SP01
250	4CJ22YMW03	WAFER	YMW250-03	1 EA	SP02
251	4NWJP075DT	WIRE COPPER	AWG22 10.6S TIN COATING	56 EA	"J004,J006,J007,J012,J018," "J019,J034,J035,J036,J044," "J045,J047,J048,J049,J051," "J059,J060,J061,J062,J068," "J069,J070,J071,J072,J073," "J081,J084,J085,J087,J089," "J093,J094,J097,J103,J104," "J105,J106,J107,J110,J111," "J112,J118,J119,J120,J122," "J123,J128,J129,J130,J134," "J503,J598,J635,J636,J649"
252	4NWJP100DT	WIRE COPPER	AWG22 10.6S TIN COATING	32 EA	"J001,J002,J003,J010,J011," "J014,J015,J016,J017,J020," "J041,J042,J043,J064,J076," "J062,J086,J090,J108,J113," "J114,J117,J124,J125,J138," "J458,J495,J496,J497,J580," "J646 L403"
253	4NWJP125DT	WIRE COPPER	AWG22 10.6S TIN COATING	13 EA	"J027,J028,J029,J031,J032," "J033,J037,J040,J121,J126," "J127,J562,J650"
254	4NWJP150DT	WIRE COPPER	AWG22 10.6S TIN COATING	10 EA	"J021,J025,J026,J058,J088," "J096,J099,J100,J131,J24"
255	4NWJP175DT	WIRE COPPER	AWG22 10.6S TIN COATING	15 EA	"J008,J009,J022,J023,J038," "J052,J053,J054,J055,J056," "J078,J079,J092,J098,J109"
256	W11C0C500Z	WIRE-LEAD	UL1015 AWG22-C BK 500	1 EA	P805

No.	S / N	PART NAME	DESCRIPTION	QUANTITY	LOCATION LIST
248	4CJ21YF802	WAFER	YFW-800-02	1 EA	W801
249	4CJ22YMW02	WAFER	YMW250-02	1 EA	SP01
250	4CJ22YMW03	WAFER	YMW250-03	1 EA	SP02
251	4NWJP075DT	WIRE COPPER	AWG22 1.0.6s TIN COATING	55 EA	"J004,J006,J007,J012,J018," "J019,J034,J035,J036,J044," "J045,J047,J048,J049,J051," "J059,J060,J061,J062,J068," "J069,J070,J071,J072,J073," "J081,J084,J085,J087,J089," "J093,J094,J097,J103,J104," "J105,J106,J107,J110,J111," "J112,J118,J119,J120,J122," "J123,J128,J129,J130,J134," "J503,J598,J635,J636,J649"
252	4NWJP100DT	WIRE COPPER	AWG22 1.0.6s TIN COATING	32 EA	"J001,J002,J003,J010,J011," "J014,J015,J016,J017,J020," "J041,J042,J043,J064,J076," "J082,J086,J090,J108,J113," "J114,J117,J124,J125,J138," "J458,J495,J496,J497,J580," "J646,L403"
253	4NWJP125DT	WIRE COPPER	AWG22 1.0.6s TIN COATING	13 EA	"J027,J028,J029,J031,J032," "J033,J037,J040,J121,J126," "J127,J562,J650"
254	4NWJP150DT	WIRE COPPER	AWG22 1.0.6s TIN COATING	10 EA	"J021,J025,J026,J058,J088," "J096,J099,J100,J131,J21"
255	4NWJP175DT	WIRE COPPER	AWG22 1.0.6s TIN COATING	15 EA	"J008,J009,J022,J023,J038," "J052,J053,J054,J055,J056," "J078,J079,J082,J098,J109"
256	W11C0C500Z	WIRE-LEAD	UL 1015 AWG22-C BK 500	1 EA	P805



No.	LOC.	H-707 FLAT				H-707 NORMAL				S/N	PARTS NAME	DESCRIPTION	Q'TY
		S/N	PARTS NAME	DESCRIPTION	Q'TY	UNIT	S/N	PARTS NAME	DESCRIPTION				
34	R703A					EA	RDD2201JNT	R CARBON FILM	1/6W 2.2K J				1
35	R703B	RDD2201JNT	R CARBON FILM	1/6W 2.2K J	1	EA							
36	R704A					EA	RDD1002JNT	R CARBON FILM	1/6W 10K J				1
37	R704B	RDD1002JNT	R CARBON FILM	1/6W 10K J	1	EA							
38	R705A					EA	RDD2201JNT	R CARBON FILM	1/6W 2.2K J				1
39	R705B	RDD2201JNT	R CARBON FILM	1/6W 2.2K J	1	EA							
40	SP01					EA	4CJ22YMW02	WAFER	YMW250-02				1
41	SP02					EA	4CJ22YMW03	WAFER	YMW250-03				1
42	SS01					EA	7C22979N00	SCREW SUPPORT	DASC-10N				3
43	SW701					EA	5NS11102VA	SW-TACT	LT 1102VA				1
44	SW702					EA	5NS11102VA	SW-TACT	LT 1102VA				1
45	SW703					EA	5NS11102VA	SW-TACT	LT 1102VA				1
46	SW704					EA	5NS11102VA	SW-TACT	LT 1102VA				1
47	SW705					EA	5NS11102VA	SW-TACT	LT 1102VA				1
48	SW706					EA	5NS11102VA	SW-TACT	LT 1102VA				1
49	SW801					EA	5CSI316001	SW-POWER	SS-160-PCB				1
50	SW801A	5CSI31603B	SW-POWER	SS-160-3-B	1	EA							
51	SW802A	5NS111102A	SW-TACT	LT 1102A	1	EA							
52	SW803A	5NS111102A	SW-TACT	LT 1102A	1	EA							
53	SW804A	5NS111102A	SW-TACT	LT 1102A	1	EA							
54	SW805A	5NS111102A	SW-TACT	LT 1102A	1	EA							
55	SW806A	5NS111102A	SW-TACT	LT 1102A	1	EA							
56	SW807A	5NS111102A	SW-TACT	LT 1102A	1	EA							
57	WA101	4CJ22YMW05	WAFER	YMW250-05	1	EA							
58	WA101A	4SJ22YAW05	WAFER	YMAW250-05	1	EA							
59	WA101A1	4W44056000	CONNECTOR ASSY	5P 600 YMH251-05/YMH251-C	1	EA							
60	WA3A					EA	4W45026500	CONNECTOR ASSY	2P 650 YMH251/110REC				1
61	WA4A					EA	4W45036500	CONNECTOR ASSY	3P 650 YMH251/110REC (NC)				1
62	WA701A	4SJ22YAW06	WAFER	YMAW250-06	1	EA							
63	WA701A1	4W44062000	CONNECTOR ASSY	6P 200 YMH251-06/YMH251-06	1	EA							
64	WM601	4CJ22YMW02	WAFER	YMW250-02	1	EA							
65	WM601A	4W45026500	CONNECTOR ASSY	2P 650 YMH251/110REC	1	EA							
66	WS601	4CJ22YMW03	WAFER	YMW250-03	1	EA							
67	WS601A	4W45036500	CONNECTOR ASSY	3P 650 YMH251/110REC (NC)	1	EA							