



**LG**

website:<http://biz.LGservice.com>  
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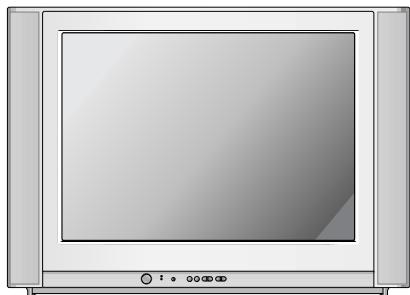
# COLOR TV **SERVICE MANUAL**

CHASSIS : MC-049B

**MODEL:RT-21CC25M/RX  
RT-21CC25V/VM/VX**

**CAUTION**

BEFORE SERVICING THE CHASSIS,  
READ THE SAFETY PRECAUTIONS IN THIS MANUAL.



## **CONTENTS**

|                                       |           |
|---------------------------------------|-----------|
| <b>Contents .....</b>                 | <b>2</b>  |
| <b>Safety Precautions.....</b>        | <b>3</b>  |
| <b>Control Descriptions.....</b>      | <b>4</b>  |
| <b>Specifications .....</b>           | <b>7</b>  |
| <b>Adjustment Instructions .....</b>  | <b>8</b>  |
| <b>Trouble Shooting.....</b>          | <b>12</b> |
| <b>Printed circuit board.....</b>     | <b>16</b> |
| <b>Block Diagram .....</b>            | <b>19</b> |
| <b>Exploded View .....</b>            | <b>20</b> |
| <b>Exploded View Parts List .....</b> | <b>21</b> |
| <b>Replacement Parts List .....</b>   | <b>22</b> |
| <b>SVC. Sheet.....</b>                |           |

# SAFETY PRECAUTIONS

## IMPORTANT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These parts are identified by  $\Delta$  in the Schematic Diagram and Replacement Parts List.

It is essential that these special safety parts should be replaced with the same components as recommended in this manual to prevent X-RADIATION, Shock, Fire, or other Hazards.

Do not modify the original design without permission of manufacturer.

### General Guidance

An **isolation Transformer should always be used** during the servicing of a receiver whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks.

It will also protect the receiver and its components from being damaged by accidental shorts of the circuitry that may be inadvertently introduced during the service operation.

If any fuse (or Fusible Resistor) in this TV receiver is blown, replace it with the specified.

When replacing a high wattage resistor (Oxide Metal Film Resistor, over 1W), keep the resistor 10mm away from PCB.

Keep wires away from high voltage or high temperature parts.

Due to high vacuum and large surface area of picture tube, extreme care should be used in **handling the Picture Tube**. Do not lift the Picture tube by its Neck.

### X-RAY Radiation

#### Warning:

The source of X-RAY RADIATION in this TV receiver is the High Voltage Section and the Picture Tube.  
For continued X-RAY RADIATION protection, the replacement tube must be the same type tube as specified in the Replacement Parts List.

To determine the presence of high voltage, use an accurate high impedance HV meter.

Adjust brightness, color, contrast controls to minimum.

Measure the high voltage.

The meter reading should indicate

23.5 ; 1.5KV: 14-19 inch, 26 ; 1.5KV: 19-21 inch,  
29.0 ; 1.5KV: 25-29 inch, 30.0 ; 1.5KV: 32 inch

If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.

### Before returning the receiver to the customer,

always perform an **AC leakage current check** on the exposed metallic parts of the cabinet, such as antennas, terminals, etc., to be sure the set is safe to operate without damage of electrical shock.

#### Leakage Current Cold Check(Antenna Cold Check)

With the instrument AC plug removed from AC source, connect an electrical jumper across the two AC plug prongs. Place the AC switch in the on position, connect one lead of ohm-meter to the AC plug prongs tied together and touch other ohm-meter lead in turn to each exposed metallic parts such as antenna terminals, phone jacks, etc.

If the exposed metallic part has a return path to the chassis, the measured resistance should be between  $1M\Omega$  and  $5.2M\Omega$ .

When the exposed metal has no return path to the chassis the reading must be infinite.

An other abnormality exists that must be corrected before the receiver is returned to the customer.

#### Leakage Current Hot Check (See below Figure)

Plug the AC cord directly into the AC outlet.

#### Do not use a line Isolation Transformer during this check.

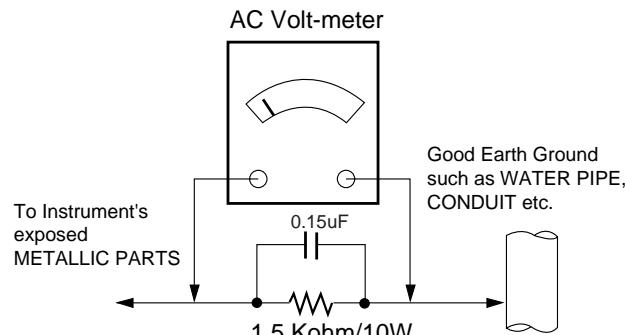
Connect 1.5K/10watt resistor in parallel with a 0.15uF capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.

Measure the AC voltage across the resistor using AC voltmeter with 1000 ohms/volt or more sensitivity.

Reverse plug the AC cord into the AC outlet and repeat AC voltage measurements for each exposed metallic part. Any voltage measured must not exceed 0.75 volt RMS which is corresponds to 0.5mA.

In case any measurement is out of the limits specified, there is possibility of shock hazard and the set must be checked and repaired before it is returned to the customer.

#### Leakage Current Hot Check circuit

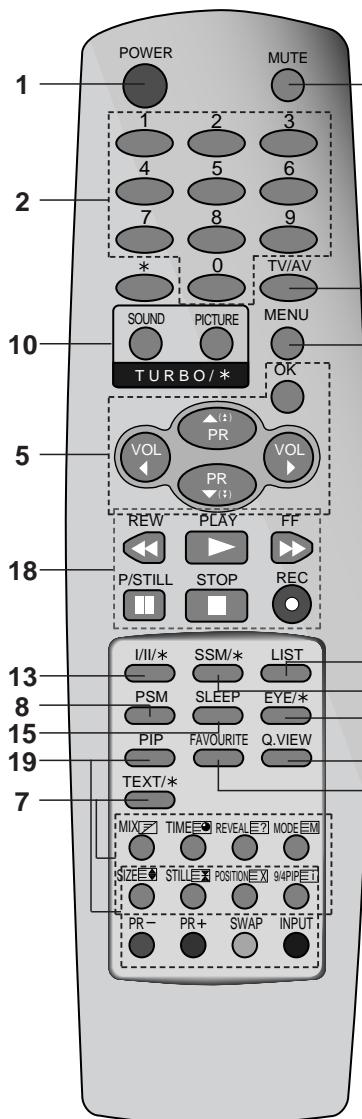


# DESCRIPTION OF CONTROLS

All the functions can be controlled with the remote control handset. Some functions can also be adjusted with the buttons on the front panel of the set.

## Remote control handset

Before you use the remote control handset, please install the batteries. See the next page.



- 11. 1. POWER**  
switches the set on from standby or off to standby.
- 2. NUMBER BUTTONS**  
switches the set on from standby or directly select a number.
- 3. MENU (or INDEX)**  
selects a menu.  
selects an index page in the teletext mode (only TELETEXT models). (option)
- 4. EYE/\* (option)**  
switches the eye function on or off.
- 5. ▲ / ▼ (Programme Up/Down)**  
selects a programme or a menu item.  
switches the set on from standby.  
scans programmes automatically.  
**◀ / ▶ (Volume Up/Down)**  
adjusts the volume.  
adjusts menu settings.
- 6. OK**  
accepts your selection or displays the current mode.
- 7. 6. Q.VIEW**  
returns to the previously viewed programme.
- 7. TELETEXT BUTTONS (option)**  
These buttons are used for teletext.  
For further details, see the 'Teletext' section.
- 8. PSM (Picture Status Memory)**  
recalls your preferred picture setting.
- 9. FAVOURITE**  
selects a favorite programme.
- 10. TURBO PICTURE / SOUND BUTTON (option)**  
selects Turbo picture and sound.
- 11. MUTE**  
switches the sound on or off.
- 12. TV/AV**  
selects TV or AV mode.  
switches the set on from standby.

**13. I/II/\* (option)**  
selects the language during dual language broadcast. (option)  
selects the sound output.

**14. LIST**  
displays the programme table.

**15. SLEEP**  
sets the sleep timer.

**16. SSM/\* (option) (Sound Status Memory)**  
recalls your preferred sound setting.

**17. SURROUND (<>/\*) (option)**  
selects surround sound.

**18. VCR BUTTONS**  
control a LG video cassette recorder.

**19. PIP BUTTONS (option)**  
**PIP**

switches the sub picture on or off.

**PR +/-**

selects a programme for the sub picture.

**SWAP**

alternates between main and sub picture.

**INPUT**

selects the input mode for the sub picture.

**SIZE**

adjusts the sub picture size.

**STILL**

freezes motion of the sub picture.

**POSITION**

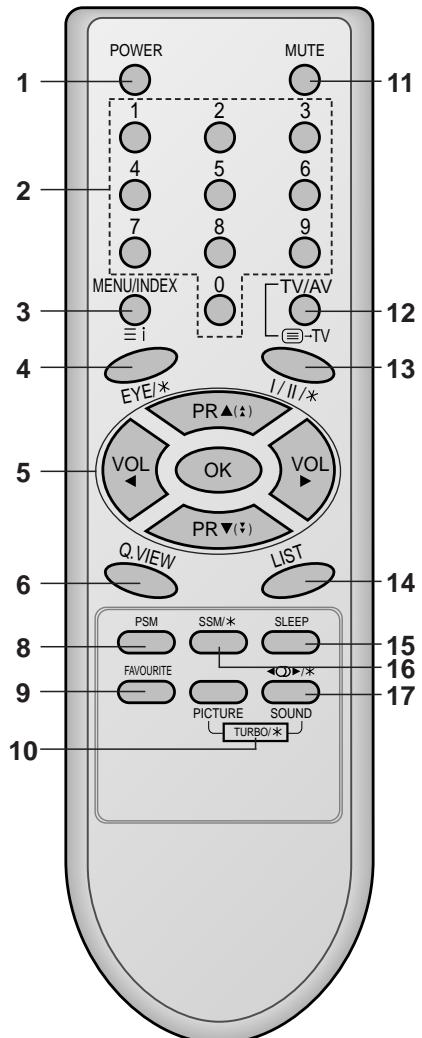
relocates the sub picture in clockwise direction.

**9/4 PIP**

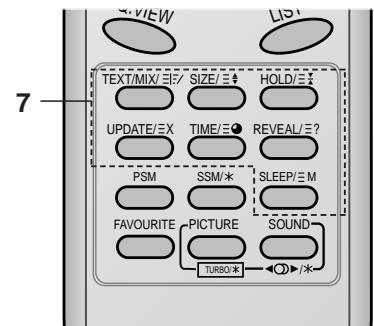
switches on or off the 9 or 4 sub pictures.

\* : No function

**COLOURED BUTTONS** : These buttons are used for teletext (only TELETEXT models) or programme edit.



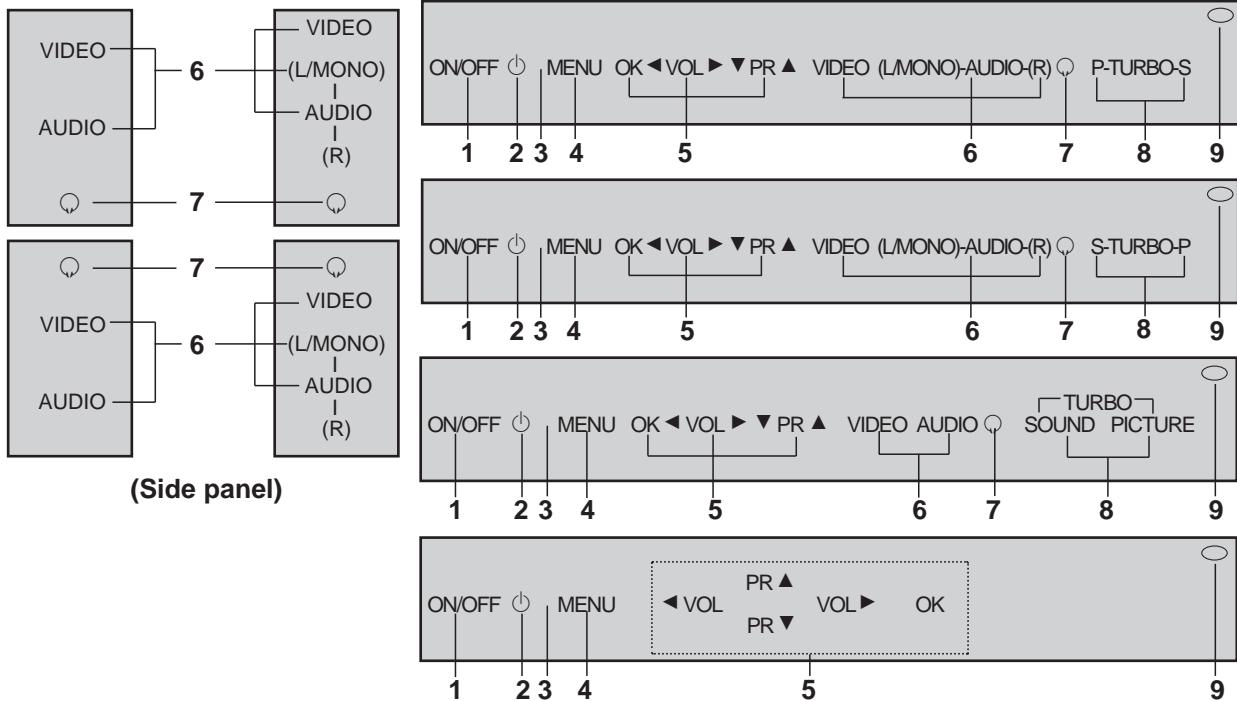
(Without TELETEXT / PIP)



(With TELETEXT / Without PIP)

## Front panel

Shown is a simplified representation of front or side panel.  
Here shown may be somewhat different from your set.



- 1. MAIN POWER (ON/OFF)**  
switches the set on or off.
- 2. POWER/STANDBY INDICATOR**  
illuminates brightly when the set is in standby mode.  
dims when the set is switched on.  
blinks when signal is input from the remote control.
- 3. REMOTE CONTROL SENSOR**
- 4. MENU**  
selects a menu.
- 5. OK**  
accepts your selection or displays the current mode.  
**◀/▶ (Volume Up/Down)**  
adjusts the volume.  
**▲ / ▼ (Programme Up/Down)**  
selects a programme or a menu item.  
switches the set on from standby.
- 6. AUDIO(or AUDIO-L/R)/VIDEO IN SOCKETS (AV2) (option)**  
Connect the audio/video out sockets of external equipment to these sockets.
- 7. HEADPHONE SOCKET (option)**  
Connect the headphone plug to this socket.
- 8. TURBO SOUND/PICTURE (option)**  
switches Turbo sound or Turbo picture on or off.
- 9. EYE (option)**  
adjusts picture according to the surrounding conditions.

# SPECIFICATIONS

**Note :** Specification and others are subject to change without notice for improvement.

## ■ Scope

This specification can be applied to all the television related to MC-049B Chassis.

## ■ Test and Inspection Method

- 1) Capacity : Follow LG electronics TV testing Standard.
- 2) Another Required Standard
  - EMI : Following CE Standard (EN55020, EN55013)
  - Safety : Following CB Standard (EN55013)

## ■ Requirement for Test

Testing for standard of each par must be followed in below condition

- 1) Temperature :  $20 \pm 5^{\circ}\text{C}$   
(But, CST must be tested  $40 \pm 5^{\circ}\text{C}$ . Humidity : 50%)
- 2) Relative Humidity :  $65 \pm 10\%$
- 3) Power : Standard input Voltage (110~240V, 50/60Hz)
- 4) Measurement must be performed after heat-run more than 20min.
- 5) Adjusting Standard for this chassis is followed a special standard.

## ■ General Specification

| No | Item                  | Specification  | Remark                 |
|----|-----------------------|--|------------------------|
| 1  | Receiving System      | 1) PAL/SECAM BG<br>2) PAL/SECAM DK<br>3) PAL I/I<br>4) NTSC M<br>5) SECAM-L/L'<br>6) NTSC 4.43(AV) | For EU/ For Non EU     |
| 2  | Receiving Channel     | 1) VHF : E2 ~ E12<br>UHF : E21 ~ E69<br>CATV : S1 ~ S20<br>HYPER : S21 ~ S41<br>2) L/L' : B,C,D    | For EU/ For Non EU     |
|    |                       | 3) VHF : 02 ~ 13<br>UHF : 14~ 69<br>CATV : 02 ~ 71   | NTSC-M (Multi - model) |
| 3  | Input Voltage         | AC 110-240V, 50/60Hz<br>AC 240V 50Hz   | Non EU<br>EU           |
| 4  | Market                | EU,CIS, China, Asia, Africa  |                        |
| 5  | Screen Size           | 14" ~ 21"  | FLAT / CONVENTIONAL    |
| 6  | Tuning System         | FVS 100Program   |                        |
| 7  | Operating Environment | 1) Temp. : 0 ~ 45 deg<br>2) Humidity: 85% under  | 200 PR. (OPTION)       |
| 8  | Storage Environment   | 1) Temp. : -20 ~ 60 deg<br>2) Humidity: 85% under  |                        |

# ADJUSTMENT INSTRUCTIONS

## 1. Application Object

These instructions are applied to all of the color TV, MC-049B.

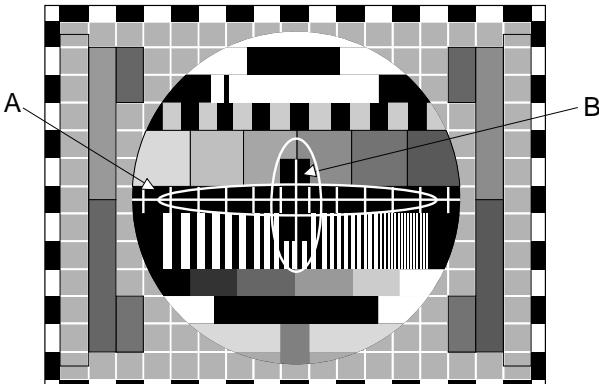
## 2. Notes

- (1) Because this is not a hot chassis, it is not necessary to use an isolation transformer. However, the use of isolation transformer will help protect test instrument.
- (2) Adjustment must be done in the correct order. But the adjustment can be changed by consideration of mass production.
- (3) The adjustment must be performed in the circumstance of  $25 \pm 5^\circ\text{C}$  of temperature and  $65 \pm 10\%$  of relative humidity if there is no specific designation.
- (4) The input AC voltage of the receiver must keep rating voltage in adjusting.
- (5) The receiver must be operated for about 15 minutes prior to the adjustment.

## 3. Focus adjustment

### 3.1. Preliminary steps

Tune the TV set to receive a digital pattern.  
(SVC mode: Automatically mode change the STANDARD MODE)



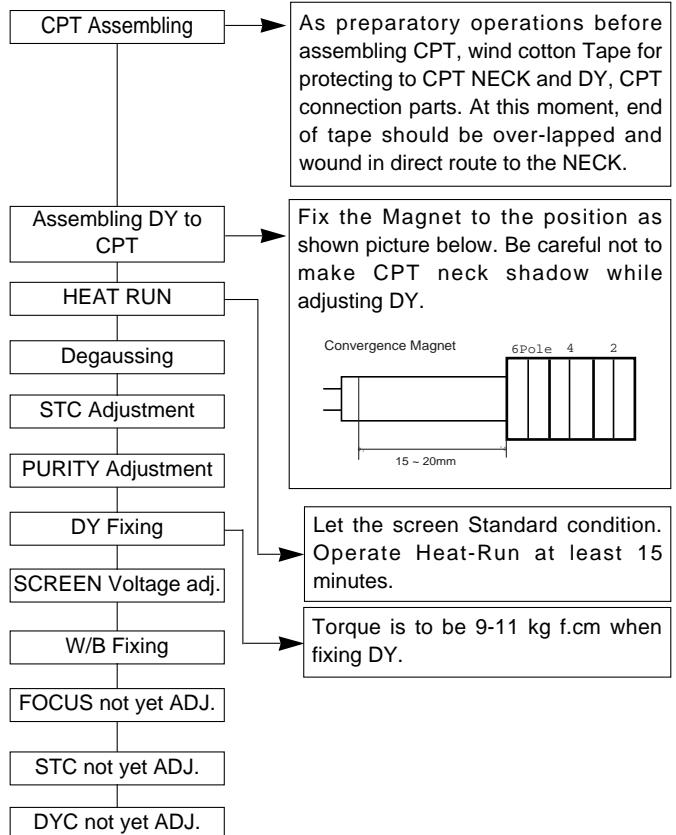
<Fig 1. PAL Digital Pattern(EU05CH)>

### 3.2. Adjustment Method

#### 1) Single Focus CPT

Adjust the upper Focus volume of FBT for the best focus of horizontal line A, vertical line B.

## 4. Purity & Convergence adjustment



### 4.1. Color purity adjustment

- (1) It makes CPT enough to demagnetization.
- (2) Receive the signal of red raster.
- (3) Loosen fixed screw of DY and closely to CPT funnel part.
- (4) Check the center of screen that PURITY MAGNET of CPT by crossing adjustment. At this time, 4 & 6 pole magnet is located to magnet of nothing.
- (5) Move the DY to make equal red on whole screen and it does not to make the DY by fixed screw after check a simple color of Red/Green/Blue and white raster whether or not it is a pollution of color.  
(At this time, take care raster of screen and DY must fixing in the condition which maintains a horizontality.)
- (6) Check the receiver by move direction. When adjustment is not working, adjust with the assisted MAGNET.

### 4.2. Convergence adjustment

These adjustments can be the best condition of focus after finished purity adjustment.

- (1) Receive the signal of CROSS HATCH that BACK RASTER is black.
- (2) Adjust brightness and luminosity till dot appear 9 ~ 12.
- (3) Open angle of the two tab of 4 pole MAGNET by isogonic angle and accord with vertical line of red and blue color in the middle of screen.

- (4) Maintain as angle of (3) and rotate the tab to accord with vertical line of Red and Blue color in the middle of screen.
- (5) Open angle of the two tab of 6 pole magnet by isogonic angle and accord with vertical line of Red/Blue and Green.
- (6) Maintain as angle of (5) and rotate the tab to accord with horizontal line. In case of twisted horizontal line, repeat adjustment of (3) ~ (5) remembering the movement of Red/Green/Blue color.
- (7) Move the DY to best condition of convergence and attach the CPT to a rubber-chock for fixed DY.

## 5. Screen voltage adjustment

- (1) Receive the PAL or SECAM(NTSC) signal into RF mode regardless of channel.
- (2) If you press the "ADJ"button in LINE SVC mode(IN-START button),the LINE SVC mode changes to screen adjustment mode.
- (3) Adjust the screen volume of FBT jack,When width line is seen turn the FBT screen volume at the position of disappearance it.
- (4) Press the TV/AV button to exit SVC mode.

## 6. White balance adjustment

**NOTE :** When adjusting white balance automatically,connect the adjustment JIG in SVC mode.(When pressing ,MUTE button on remote control, it changes to CPU OFF MODE and screen displays "AUTO".)

- (1) Receive 100% white pattern.
- (2) Adjust LOW Light status(4.5FL) of CUT R,CUT B at CG:60.
- (3) Adjust HIGH Light status(35FL) of WDR R,WDR B at WDR G:450.
- (4) Repeat above step (2) and (3) for the best condition each status of High Light and Low Light.

<Table 1> White Balance Color analyzer

| Menu              | EU     | N-EU    |
|-------------------|--------|---------|
| X                 | 288    | 266     |
| Y                 | 295    | 273     |
| Color Temperature | 9000°K | 13000°K |

<Table 2> White Balance Initial Data

| Menu       | Menu  | Range   | DATA |
|------------|-------|---------|------|
| LOW LIGHT  | CUT R | 0 ~ 511 | 60   |
|            | CUT G | 0 ~ 511 | 60   |
|            | CUT B | 0 ~ 511 | 60   |
| HIGH LIGHT | WDR R | 0 ~ 511 | 450  |
|            | WDR G | 0 ~ 511 | 450  |
|            | WDR B | 0 ~ 511 | 450  |

### \* Auto adjustment

<Table 3> White Balance Initial Data

#### 1. IC

|        | Name     | Maker     | Algorithm |   |   |
|--------|----------|-----------|-----------|---|---|
| VCD IC | VCT49xyi | Micronas  | 0         | A | 0 |
| EP_ROM | 24C16    | ST, ATMEL |           |   |   |

### 2. White balance IIC Parameter

| Program     | TWBeng_v049 | Program      | TWBeng_v049 | Speed       | Delay |
|-------------|-------------|--------------|-------------|-------------|-------|
| Vcd Slave   | BCF0        | Eeprom_Slave | AE          | 1           | 30    |
|             | R_Amp       | R_Cut        | B_Amp       | B_Cut       |       |
| Program     | TWBeng_v049 | TWBeng_v049  | TWBeng_v049 | TWBeng_v049 |       |
| Sub Add     | 1C8         | 1C3          | 1CA         | 1C5         |       |
| Start Bit   | 12          | 12           | 12          | 12          |       |
| Stop Bit    | 4           | 4            | 4           | 4           |       |
| Offset      | 0           | 0            | 0           | 0           |       |
| Polarity    | 1           | 1            | 1           | 1           |       |
| EP_Rom_S    | 9091        | 8A8B         | 9495        | 8E8F        |       |
| Speed/ Plus | 1           | 1            | 1           | 1           |       |

### <CAUTION> W/B Program "Twbeng\_v049"

- W/B adjustment after Cutoff
  - : Instart -> adj. -> mute(cutoff)-> tv/av(wb)
  - Release key is EXIT key
- W/B adjustment
  - : Instart -> mute(cpuoff)
  - Release key is TV/AV key

## 7.Deflection setting Data Adjustment

### 7.1 Adjustment preparation

- (1) Tune the TV set to receive an Digital pattern(EU05CH).
- (2) Deflection setting data adjustment is operate by SVC communicator.
- (3) Enter the deflection adjustment mode by selection SERVICE1 on SERVICE MENU after pressing LINE SVC MODE(IN-START KEY).
- (4) Use the CH ▲ ,▼ key to select adjustment item.
- (5) Use the VOL ◀,▶ key to increase/decrease data.

### <Note>

- (1) When adjusting a deflection, adjust N50Hz of PAL signal first and adjust a deflection at Normal 60Hz(NTSC).
- (2) Adjust a deflection as shown below.  
PAL 4:3 -> NTSC 4:3
- (3) After finishing deflection adjustment, press the ENTER key to exit in adjustment mode.

\* Before adjusting the PIP P(PIP Position), store the deflection data in the EEPROM by using the "ENTER" key.

### 7.2 Adjustment

- (1) VL(Vertical Linearity) adjustment:  
Adjust the top & bottom size of inner circle to be equal.
- (2) VA (Vertical Amplitude) adjustment:  
Adjust so that the circle of a digital circle pattern should be located interval of 6~7mm from the effective screen of the CPT.
- (3) SC (S correction) adjustment:  
Adjust so that all distance between each lattice width of top/center/bottom are to be the same.

\* Setting the CPT Default(Initial data) value like that, because it is decide by CPT DY value

(4) VS (Vertical Shift) adjustment:

Adjust so that the geometric vertical center line is in accord with vertical center line of CPT.

(5) HS(Horizontal Shift) adjustment:

Adjust so that the geometric horizontal center line is in accord with horizontal center line of CPT.

<Table 4> Initial deflection setting data

| Menu | Variable range | N50Hz(PAL)<br>FLAT 21" | N60Hz(NTSC)<br>FLAT 21" |
|------|----------------|------------------------|-------------------------|
| VS   | -512~511       | 150                    | 140                     |
| VA   | -512~511       | -12                    | -12                     |
| VL   | -512~511       | 140                    | 140                     |
| SC   | -512~511       | 6                      | 6                       |
| HS   | 32~2047        | 100                    | 123                     |

## 8.OPTION Adjustment

### 8-1. Preparation for Adjustment

- 1) This option adjustment decides function in accordance with model. Press IN-START button on SVC communicator, then adjust the option at OPTION1 mode.
- 2) Mark the option adjustment data like [111,111,111,111] in BOM.

### 8-2. Adjustment Method

OPTION data input

- 1) Function : YES, No function : NO
- 2) Select each OPTION function by the CH Up/Down button and then set up each OPTION(yes or no) by the VOL Up/Down button.

### 8-3. OPTION 1

| Option | Code | Function  |
|--------|------|-----------|
| INCH   | 0    | 21A       |
|        | 1    | 21B       |
|        | 2    | 21C       |
|        | 3    | 29F/25F   |
|        | 4    | 28WF/32WF |
|        | 5    | 28N       |
|        | 6    | 34F       |
|        | 7    | 29N/25N   |
| SYS    | 0    | BG/I/DK   |
|        | 1    | BG/I/DK/L |
|        | 2    | BG/I/DK/M |
|        | 3    | BG/L      |
| SOUND  | 0    | RF STEREO |
|        | 1    | AV STEREO |
|        | 2    | MONO      |
|        | 3    | MONO DUAL |
| CH+AU  | 0    | Using     |
|        | 1    | Not using |

### 8-4. OPTION2 Function

| Option | Code | Function              |
|--------|------|-----------------------|
| AV2    | 0    | Without A/V2          |
|        | 1    | With AV2              |
| DVD    | 0    | Without DVD           |
|        | 1    | With DVD              |
| SCART1 | 0    | Without SCART1        |
|        | 1    | With SCART1           |
| GAME   | 0    | Without GAME function |
|        | 1    | With GAME function    |
| EYE    | 0    | Without EYE           |
|        | 1    | With EYE              |
| TX     | 0    | LARGE                 |
|        | 1    | SMALL                 |
| KEY    | 0    | 6,8 KEY               |
|        | 1    | 4 KEY                 |
| DEGAU  | 0    | Without DEGAU         |
|        | 1    | Whit DEGAU            |

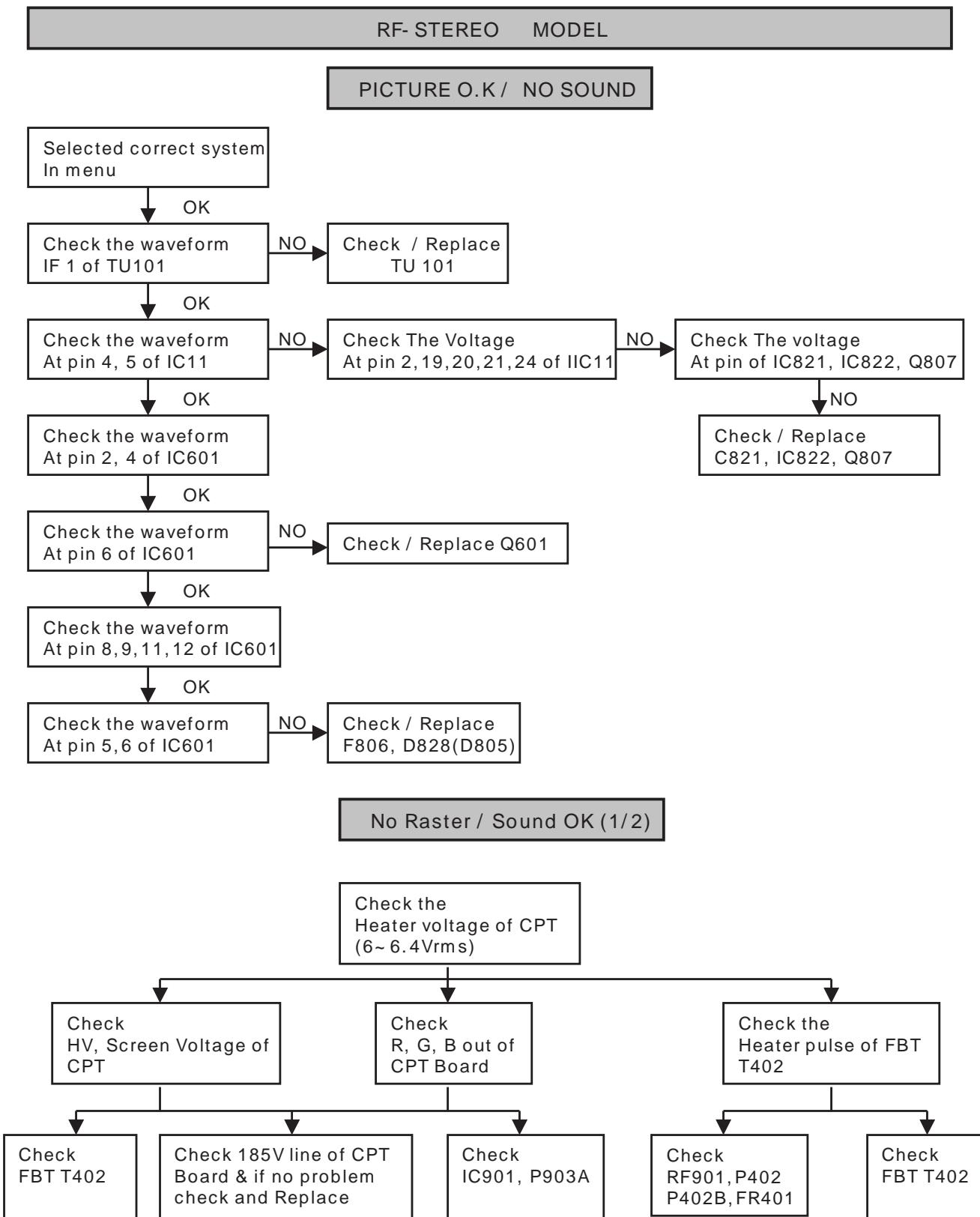
### 8-5. OPTION3 Function

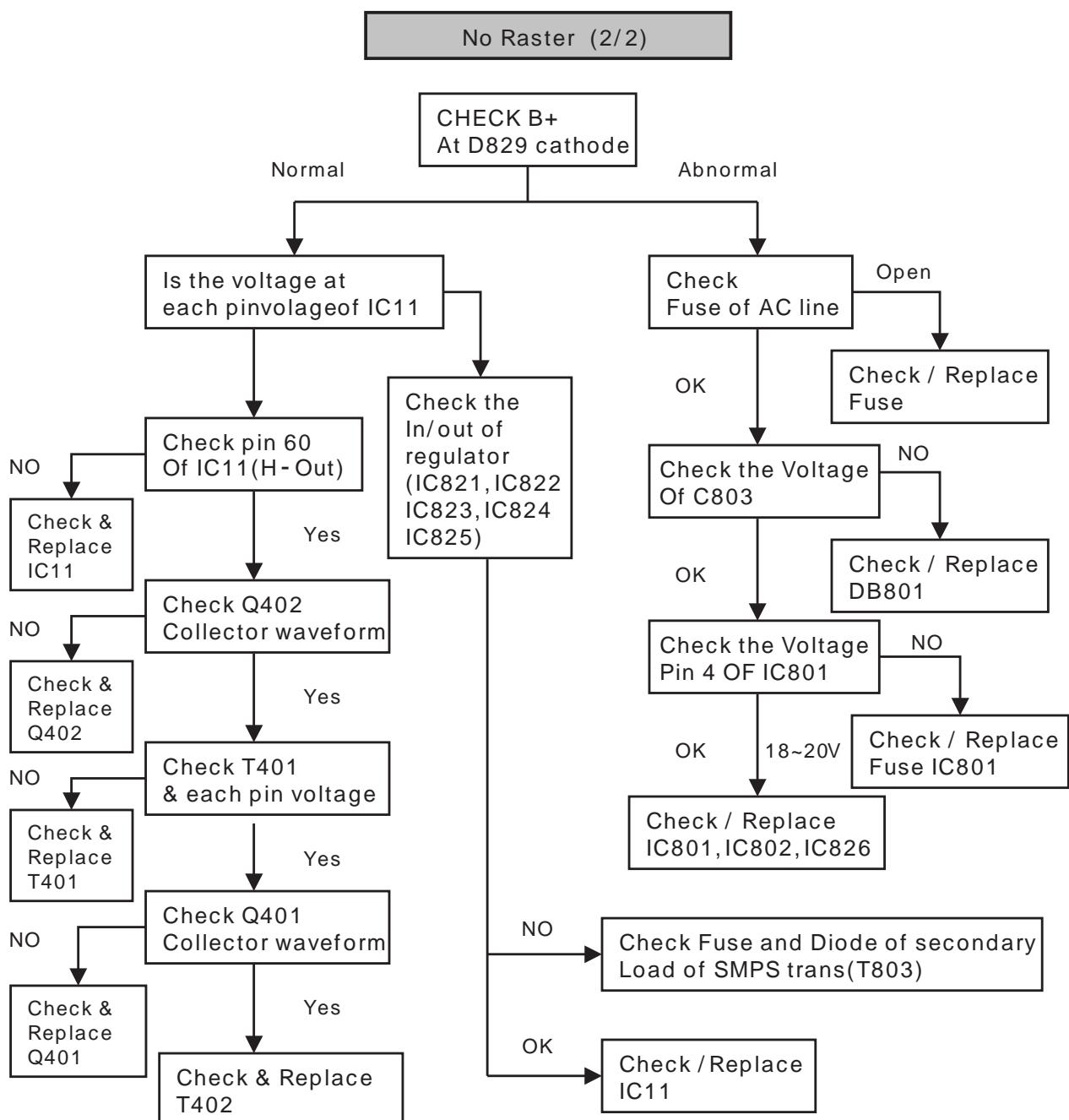
| Option | Code | Function                     |
|--------|------|------------------------------|
| TEXT   | 0    | Without TEXT (200PR)         |
|        | 1    | With TEXT (100PR)            |
| TOP    | 0    | FLOP                         |
|        | 1    | TOP                          |
| ACMS   | 0    | Without ACMS                 |
|        | 1    | With ACMS                    |
| I 2 SV | 0    | Without I 2 SV               |
|        | 1    | With I 2 SV                  |
| VOL    | 0    | VOL 0                        |
|        | 1    | VOL 1                        |
| TSEAR  | 0    | Without TURBO SEARCH         |
|        | 1    | With TURBO SEARCH            |
| T P-S  | 0    | Without TURBO PICTURE/ SOUND |
|        | 1    | With TURBO PICTURE/ SOUND    |
| HDEV   | 0    | Without HDEV                 |
|        | 1    | With HDEV                    |

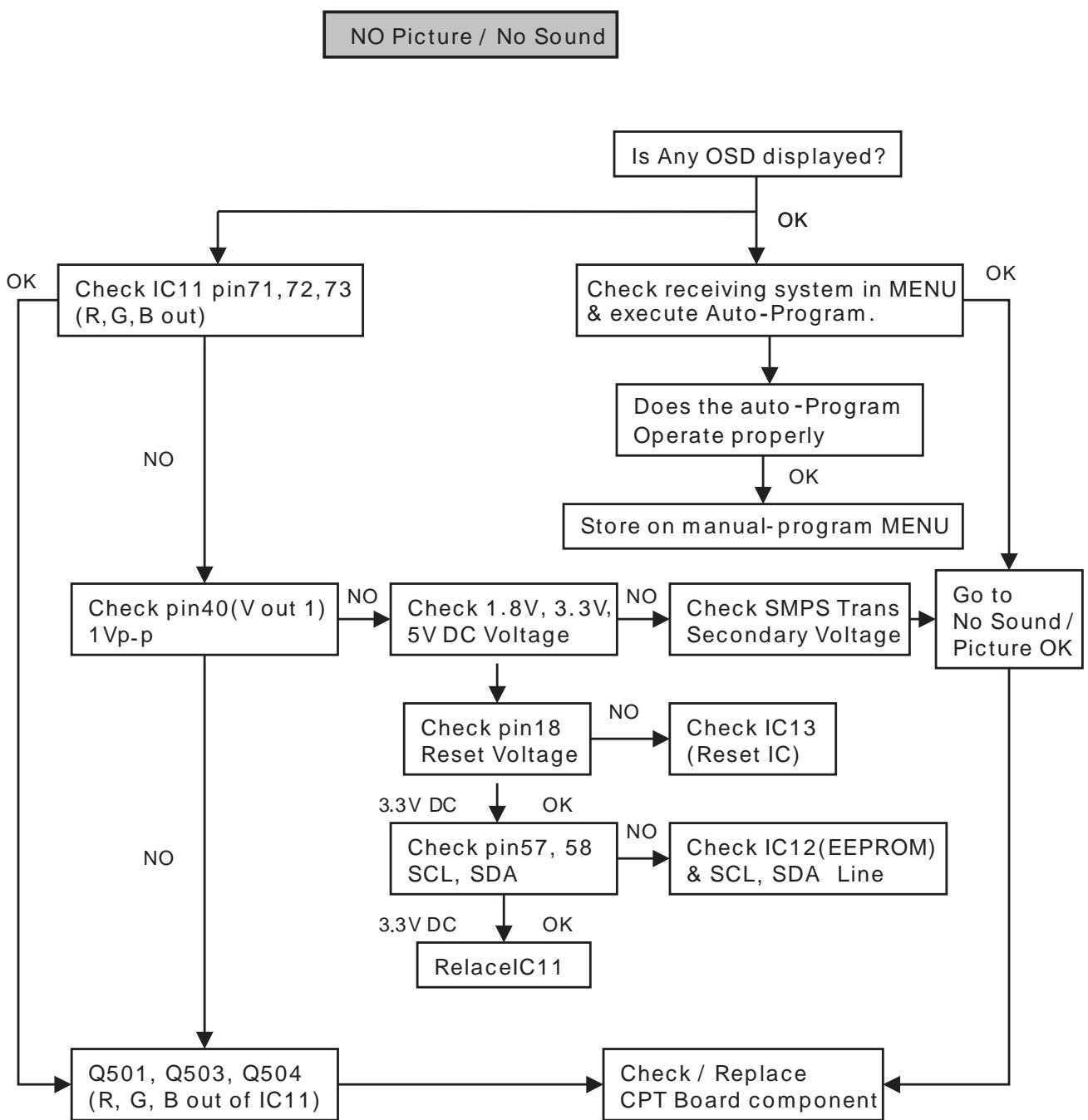
## 8-6. OPTION4 Function

| Option | Code      | Function        |
|--------|-----------|-----------------|
| OSD L  | 0         | ENG ONLY        |
|        | 1         | EU-5EA          |
|        | 2         | EU ETC          |
|        | 3         | GREECE          |
|        | 4         | EU-ALL          |
|        | 5         | FARSI           |
|        | 6         | ARAB URDU       |
|        | 7         | E+HINDI         |
|        | 8         | E+I+M+V         |
|        | 9         | E+THAI          |
|        | 10        | E+CHINA         |
| TXT L  | 0         | WEST EU         |
|        | 1         | EAST EU1        |
|        | 2         | TURKEY EU       |
|        | 3         | EAST EU2        |
|        | 4         | CYRILLIC1       |
|        | 5         | CYRILLIC2       |
|        | 6         | CYRILLIC3       |
|        | 7         | TURK GRE1       |
|        | 8         | TURK GRE2       |
|        | 9         | TURK GRE3       |
|        | 10        | ARAB FRA        |
|        | 11        | ARAB ENG        |
|        | 12        | ARAB HEB1       |
|        | 13        | ARAB HEB2       |
|        | 14        | FARS ENG        |
|        | 15        | FARS FA         |
|        | 16        | FARS ALL        |
|        | 17        | AUTO            |
| HOTEL  | 0         | WITHOUT HDEV    |
|        | 1         | WITH HDEV       |
| MAX V  | 0~<br>100 | SETTING VOL MAX |

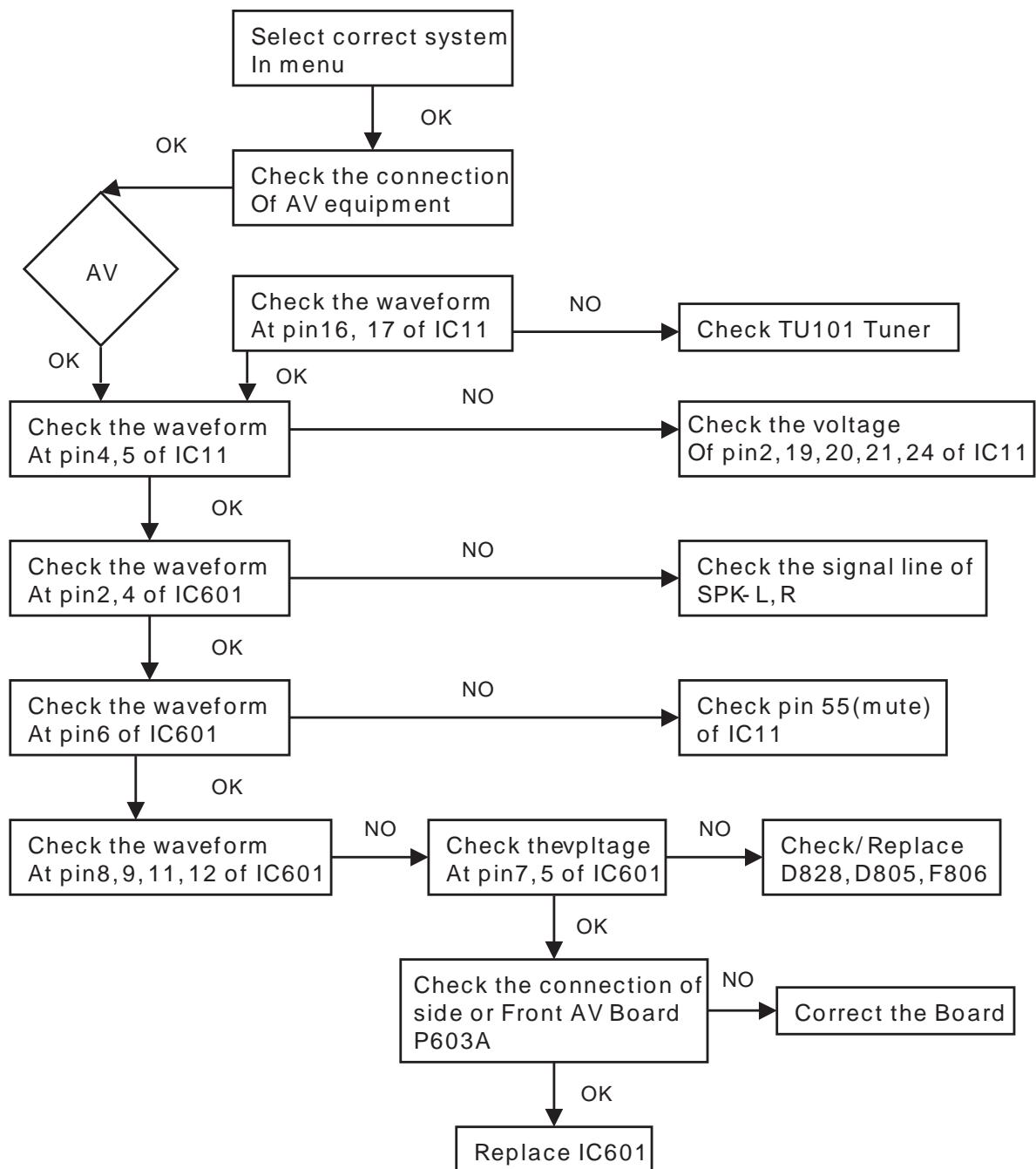
# TROUBLE SHOOTING





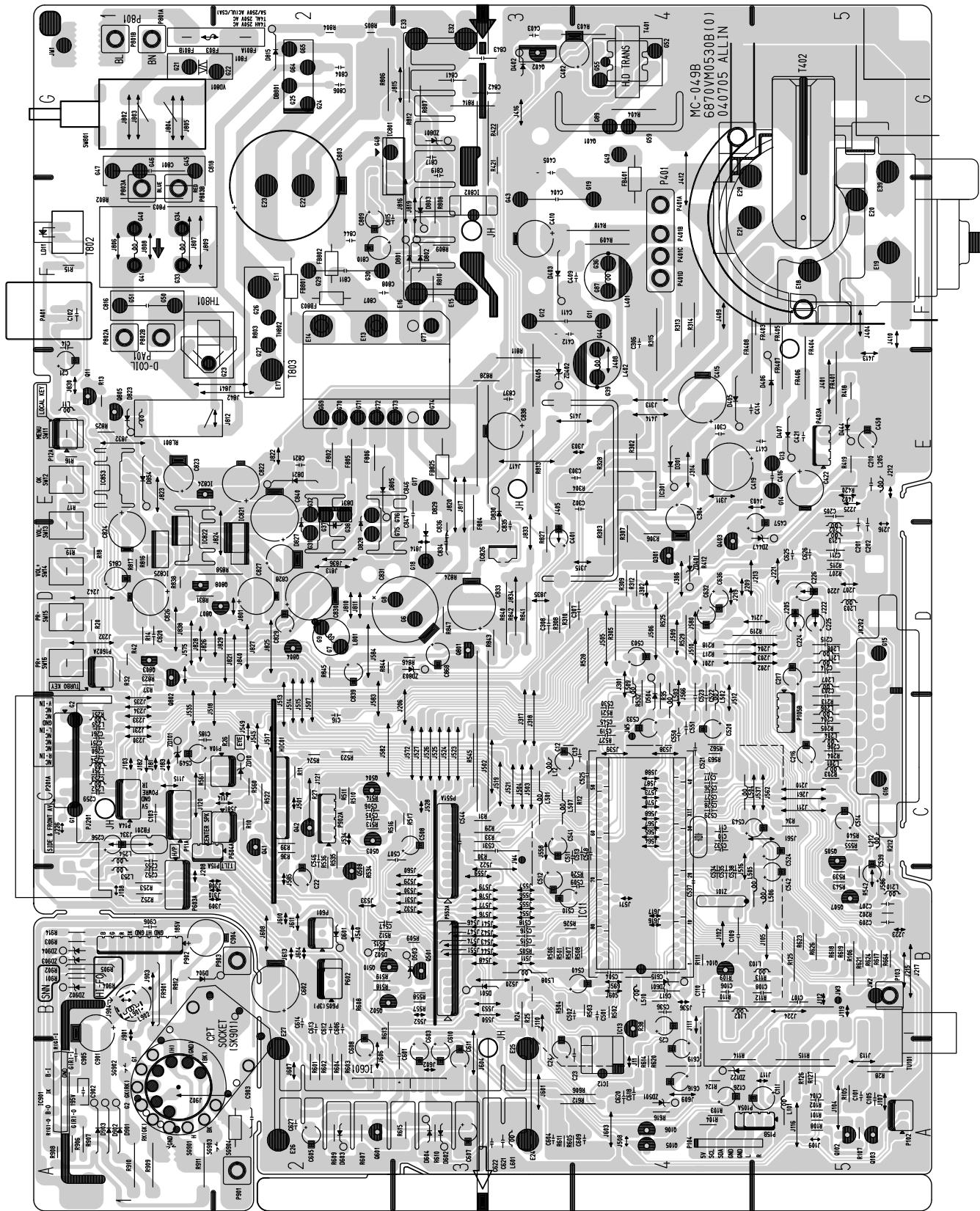


**AV STERRO / MONO MODEL**



# PRINTED CIRCUIT BOARD

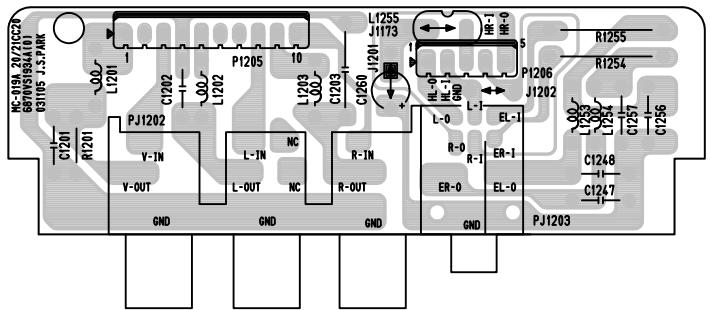
MAIN



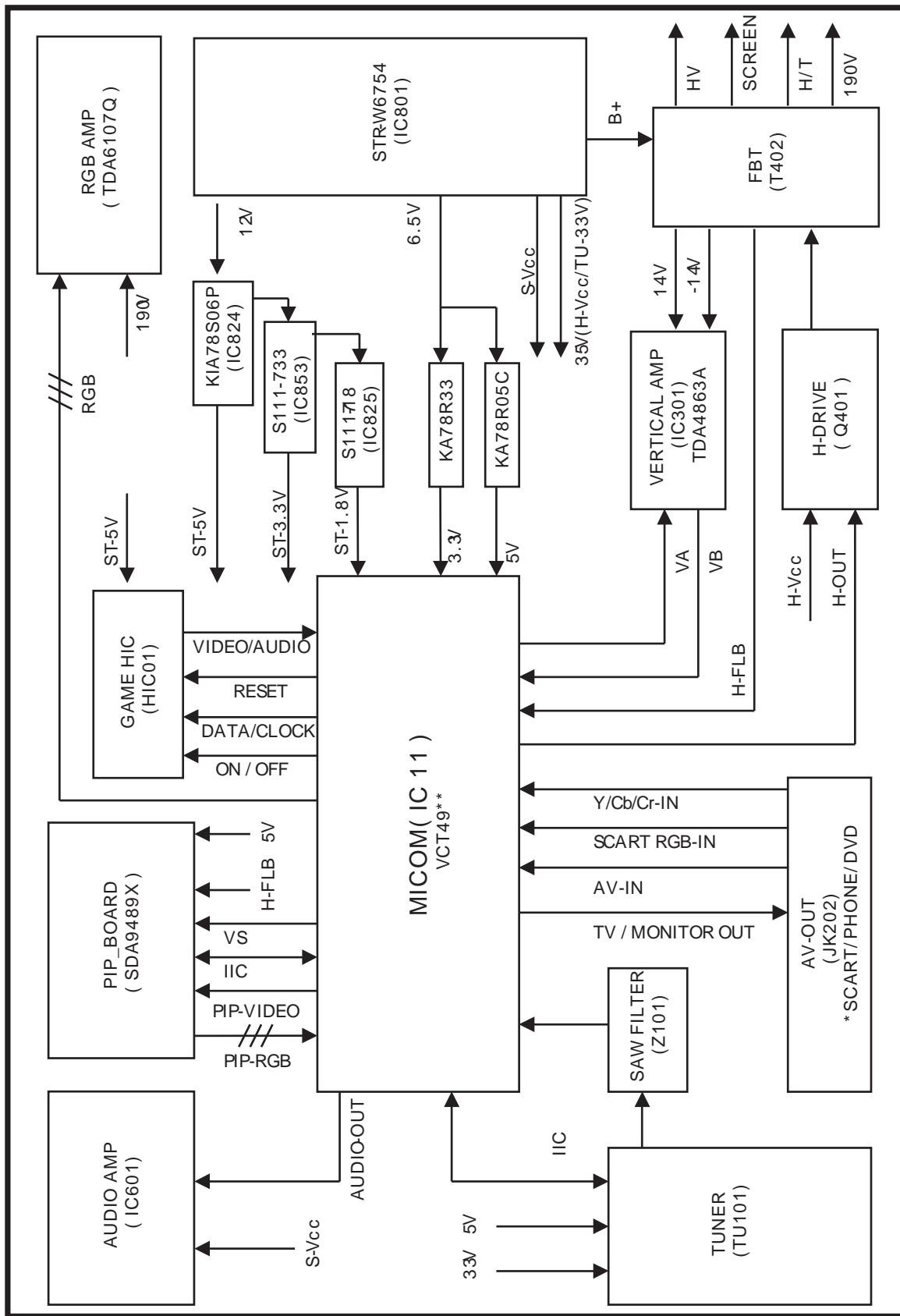
## COMPONENT LOCATION GUIDE

|             |             |             |              |              |             |               |             |             |              |
|-------------|-------------|-------------|--------------|--------------|-------------|---------------|-------------|-------------|--------------|
| C10.....C4  | C450.....E5 | C621.....A3 | D815.....G2  | G48.....G3   | J217.....B5 | P105A.....A5  | R31.....C3  | R506.....B3 | R810.....F3  |
| C11.....C4  | C457.....D5 | C622.....A3 | D821.....E2  | G49.....G4   | J219.....D4 | P105B.....C5  | R32.....D1  | R507.....B4 | R811.....E3  |
| C12.....C3  | C501.....B4 | C625.....D5 | D823.....E1  | G50.....F1   | J220.....D5 | P10A.....C2   | R33.....C3  | R508.....B4 | R812.....G3  |
| C13.....C4  | C502.....B4 | C626.....D5 | D827.....D2  | G51.....F1   | J221.....D5 | P11A.....C1   | R34.....C5  | R509.....B3 | R813.....E3  |
| C14.....F1  | C503.....D4 | C627.....A2 | D828.....D2  | G52.....G4   | J222.....D5 | P12A.....E1   | R35.....C4  | R510.....C2 | R814.....G3  |
| C16.....C2  | C504.....B4 | C632.....D4 | D829.....D3  | G55.....G4   | J223.....B5 | P14A.....C1   | R36.....C2  | R511.....C2 | R816.....D1  |
| C21.....E1  | C505.....C3 | C636.....D4 | D830.....E3  | G59.....G4   | J224.....B5 | P15A.....C2   | R37.....D1  | R512.....B3 | R817.....D1  |
| C22.....B2  | C506.....C3 | C801.....G1 | D854.....E1  | G64.....G2   | J225.....E5 | P15B.....A5   | R38.....B4  | R513.....C3 | R823.....D1  |
| C23.....A4  | C507.....C3 | C803.....F2 | D901.....A1  | G65.....G2   | J226.....C1 | P1602A.....D1 | R39.....C2  | R514.....C3 | R824.....D3  |
| C24.....A3  | C508.....C3 | C804.....G2 | D902.....A1  | G69.....E2   | J230.....C1 | P201A.....C1  | R42.....D1  | R515.....B3 | R825.....E1  |
| C25.....B4  | C509.....B4 | C806.....G2 | D903.....A1  | G70.....E2   | J231.....C1 | P401A.....F4  | R101.....A5 | R516.....C3 | R827.....D3  |
| C101.....A5 | C510.....B3 | C807.....F3 | D904.....B2  | G71.....E2   | J232.....D1 | P401B.....F4  | R102.....A5 | R517.....C3 | R828.....E3  |
| C102.....F1 | C511.....C4 | C808.....F3 | DB801.....G2 | G72.....E2   | J233.....C1 | P401C.....F4  | R103.....A4 | R518.....B3 | R831.....D2  |
| C103.....C1 | C512.....B3 | C809.....F2 | F802.....E2  | G73.....E3   | J234.....C1 | P401D.....F4  | R104.....A4 | R519.....B3 | R838.....D1  |
| C104.....A5 | C513.....C4 | C810.....F2 | F803.....G2  | G74.....E3   | J235.....C1 | P403A.....E5  | R105.....A5 | R520.....B4 | R840.....D3  |
| C105.....A5 | C514.....C5 | C811.....F2 | F804.....D3  | G75.....D2   | J242.....D1 | P551A.....C3  | R106.....B5 | R521.....C4 | R841.....D3  |
| C106.....B4 | C515.....B3 | C815.....F3 | F805.....E2  | G76.....E2   | J261.....C5 | P603A.....C1  | R107.....A5 | R522.....C2 | R842.....D3  |
| C107.....B5 | C516.....B3 | C816.....F1 | F806.....E2  | G77.....F3   | J301.....C4 | P604A.....C2  | R108.....A5 | R523.....C2 | R843.....D3  |
| C108.....B5 | C517.....C4 | C817.....G3 | F801A.....G2 | G87.....F4   | J302.....D4 | P801A.....G1  | R109.....B4 | R524.....C2 | R844.....D3  |
| C109.....B4 | C518.....B3 | C818.....G1 | F801B.....G1 | G89.....G4   | J303.....E4 | P801B.....G1  | R110.....B4 | R525.....D4 | R845.....D2  |
| C110.....B4 | C519.....C4 | C819.....G3 | FB201.....C1 | HIC01.....C2 | J306.....D4 | P802A.....F1  | R111.....B4 | R526.....B4 | R846.....D3  |
| C111.....A5 | C520.....C4 | C820.....D1 | FB401.....G4 | IC11.....B4  | J308.....B2 | P802B.....F1  | R112.....B5 | R527.....C4 | R847.....D3  |
| C126.....A4 | C521.....C4 | C821.....E2 | FB801.....F2 | IC12.....A4  | J309.....B2 | P803A.....F1  | R113.....B5 | R528.....D4 | R858.....D1  |
| C185.....C1 | C522.....C4 | C822.....E2 | FB802.....F2 | IC13.....B4  | J310.....B2 | P803B.....F1  | R114.....A5 | R529.....D4 | R901.....B1  |
| C201.....D5 | C523.....C4 | C823.....E1 | FB803.....F2 | IC301.....E4 | J311.....E4 | P902A.....C2  | R115.....A5 | R532.....C4 | R902.....B1  |
| C202.....D5 | C524.....C5 | C824.....D1 | FB825.....E3 | IC601.....A3 | L11.....E1  | PA01.....F1   | R124.....A4 | R534.....B2 | R903.....B1  |
| C203.....C5 | C525.....C4 | C826.....D1 | FR401.....E5 | IC801.....G2 | L12.....C3  | PJ201.....C1  | R125.....B5 | R535.....B2 | R904.....B1  |
| C204.....C5 | C526.....C4 | C827.....D2 | FR403.....F5 | IC802.....F3 | L101.....A5 | Q11.....E1    | R126.....A5 | R536.....B2 | R905.....B1  |
| C205.....E5 | C527.....C4 | C828.....D2 | FR404.....E5 | IC821.....D2 | L102.....B5 | Q41.....C2    | R127.....A5 | R539.....B5 | R906.....A1  |
| C206.....C5 | C528.....C4 | C829.....D2 | FR405.....F5 | IC822.....E1 | L103.....B5 | Q42.....C2    | R202.....B5 | R540.....C5 | R907.....A1  |
| C207.....B5 | C529.....C4 | C830.....D2 | FR406.....F5 | IC824.....E1 | L201.....C5 | Q102.....A5   | R203.....C5 | R542.....C5 | R908.....A1  |
| C209.....B5 | C530.....C4 | C831.....D3 | FR407.....F5 | IC825.....D1 | L202.....D5 | Q103.....A5   | R204.....C5 | R543.....B5 | R909.....A1  |
| C210.....E5 | C531.....C3 | C833.....D3 | FR408.....F5 | IC826.....D3 | L203.....D5 | Q104.....B4   | R205.....C5 | R545.....C3 | R910.....A1  |
| C211.....D5 | C532.....C4 | C834.....D3 | FR901.....B1 | IC853.....E1 | L204.....C5 | Q105.....A4   | R207.....D5 | R555.....C5 | R911.....A2  |
| C214.....D5 | C533.....C4 | C835.....E3 | G1.....C1    | IC901.....A1 | L205.....E5 | Q106.....A4   | R212.....C5 | R557.....B3 | R912.....B1  |
| C215.....D5 | C534.....B4 | C836.....E3 | G2.....C1    | J11.....A4   | L206.....C5 | Q301.....D4   | R213.....C5 | R558.....B3 | R914.....B1  |
| C216.....C5 | C535.....B4 | C837.....E3 | G6.....D3    | J102.....B4  | L207.....D5 | Q401.....G4   | R215.....D5 | R560.....C2 | RL801.....E1 |
| C217.....D5 | C536.....B4 | C838.....E3 | G7.....D2    | J103.....C1  | L208.....D5 | Q402.....G3   | R217.....D5 | R561.....C2 | SG901.....A1 |
| C224.....D5 | C537.....B4 | C839.....D2 | G8.....D3    | J104.....A5  | L210.....B5 | Q403.....D4   | R218.....D5 | R562.....C4 | SG902.....A1 |
| C225.....D5 | C538.....B4 | C840.....E2 | G9.....D2    | J105.....B5  | L211.....D5 | Q501.....B3   | R219.....D5 | R563.....C4 | SG903.....A2 |
| C226.....D5 | C539.....C5 | C841.....G3 | G11.....F4   | J107.....A5  | L212.....C5 | Q502.....B2   | R251.....C1 | R601.....A2 | SG904.....A2 |
| C251.....C1 | C540.....B4 | C842.....G3 | G12.....F3   | J108.....B1  | L213.....D5 | Q503.....C2   | R252.....B1 | R602.....A2 | SK901.....A1 |
| C252.....B1 | C541.....C3 | C843.....G3 | G13.....E5   | J109.....A5  | L251.....C1 | Q504.....C2   | R253.....B1 | R603.....A2 | SW11.....E1  |
| C253.....C1 | C542.....B5 | C844.....F2 | G14.....E5   | J110.....B3  | L252.....C1 | Q505.....C5   | R302.....E4 | R604.....A2 | SW12.....E1  |
| C254.....C1 | C543.....C5 | C845.....D1 | G15.....D5   | J111.....B4  | L253.....B1 | Q507.....B5   | R303.....D4 | R605.....A4 | SW13.....D1  |
| C255.....C1 | C544.....C3 | C846.....E3 | G16.....C5   | J112.....B5  | L254.....C1 | Q508.....B2   | R304.....E4 | R606.....A4 | SW14.....D1  |
| C256.....C1 | C545.....C4 | C847.....D3 | G17.....E3   | J113.....A5  | L255.....C1 | Q510.....B2   | R305.....D4 | R607.....A2 | SW15.....D1  |
| C259.....C1 | C546.....B2 | C868.....D3 | G18.....D3   | J114.....C2  | L401.....F4 | Q601.....A2   | R306.....D4 | R608.....B2 | SW16.....D1  |
| C260.....C1 | C547.....B2 | C901.....B1 | G19.....F4   | J115.....C1  | L402.....E4 | Q801.....D3   | R307.....D4 | R609.....A2 | SW801...G1   |
| C261.....C1 | C548.....C4 | C902.....A1 | G21.....G1   | J116.....A5  | L501.....C3 | Q802.....D1   | R308.....D3 | R610.....A3 | T401.....G4  |
| C301.....E4 | C549.....C1 | C903.....A2 | G22.....G2   | J117.....A5  | L502.....C4 | Q803.....D1   | R309.....D4 | R611.....A3 | T402.....F5  |
| C302.....E4 | C550.....C4 | C904.....B2 | G23.....E2   | J119.....B5  | L503.....C4 | Q804.....D2   | R310.....D4 | R612.....A4 | T802.....F1  |
| C303.....E4 | C551.....C4 | C905.....A1 | G24.....G2   | J120.....C1  | L504.....C4 | Q805.....E1   | R312.....D4 | R613.....B3 | T803.....F3  |
| C304.....D4 | C601.....A3 | C906.....B1 | G25.....G2   | J121.....C2  | L505.....B5 | Q807.....D2   | R313.....F4 | R614.....A4 | TH801....F1  |
| C306.....E4 | C602.....B2 | D301.....E4 | G26.....F2   | J181.....C1  | L506.....B5 | Q808.....D2   | R314.....F4 | R615.....A3 | TH802....F2  |
| C307.....D4 | C603.....A3 | D402.....G3 | G27.....F2   | J182.....C1  | L507.....C3 | R10.....C2    | R315.....F4 | R616.....A4 | TU101....B5  |
| C308.....D3 | C604.....A3 | D403.....F3 | G29.....F2   | J183.....C1  | L508.....B3 | R11.....C2    | R328.....E4 | R617.....B5 | VD801....G1  |
| C401.....D3 | C605.....A2 | D405.....E4 | G30.....F3   | J201.....D5  | L509.....C4 | R12.....C4    | R403.....G4 | R618.....B5 | X11.....C4   |
| C402.....G4 | C606.....B2 | D406.....E5 | G31.....D2   | J202.....D5  | L510.....B4 | R13.....E1    | R404.....G4 | R619.....B5 | Z101.....B4  |
| C403.....G3 | C607.....A3 | D407.....E5 | G32.....E2   | J203.....D5  | L601.....A3 | R14.....D1    | R405.....F3 | R620.....A4 | ZD10.....C2  |
| C404.....F3 | C608.....B2 | D444.....E5 | G33.....F1   | J204.....D5  | L801.....D2 | R15.....F1    | R409.....F4 | R621.....B5 | ZD101....C1  |
| C405.....G3 | C609.....A4 | D501.....B3 | G34.....F1   | J205.....D5  | L901.....B1 | R16.....E1    | R410.....F4 | R623.....B5 | ZD122....A4  |
| C409.....F4 | C610.....A3 | D502.....B2 | G36.....F4   | J206.....C3  | L902.....B1 | R17.....E1    | R412.....D4 | R624.....B5 | ZD401....D4  |
| C410.....F3 | C611.....A3 | D503.....B3 | G37.....E2   | J207.....D5  | LD11.....F1 | R18.....D1    | R418.....E5 | R626.....B5 | ZD402....E3  |
| C411.....F3 | C612.....B2 | D504.....D4 | G38.....E2   | J208.....C1  | P102.....A5 | R19.....D1    | R419.....E5 | R664.....B5 | ZD447....D5  |
| C412.....F4 | C613.....B2 | D601.....B2 | G39.....E4   | J209.....D4  | P103.....B5 | R20.....D1    | R420.....E5 | R802.....F1 | ZD501....A4  |
| C414.....E5 | C614.....B2 | D602.....A3 | G40.....F1   | J210.....C5  | P104.....A4 | R24.....B3    | R421.....F3 | R803.....E2 | ZD601....B4  |
| C415.....E4 | C615.....B4 | D603.....A2 | G41.....F1   | J211.....C5  | P601.....B2 | R25.....B3    | R422.....G3 | R804.....G2 | ZD801....G3  |
| C416.....E5 | C616.....A4 | D604.....A3 | G43.....F3   | J212.....E5  | P602.....B2 | R26.....C2    | R501.....B3 | R805.....G2 | ZD803....D3  |
| C417.....E5 | C617.....B4 | D801.....F3 | G44.....F4   | J213.....D5  | P605.....B2 | R27.....C2    | R502.....B4 | R806.....G3 | ZD902....B1  |
| C419.....E4 | C618.....A4 | D802.....F3 | G45.....G1   | J214.....D5  | P901.....A2 | R28.....A5    | R503.....B4 | R807.....G3 | ZD903....B1  |
| C421.....E5 | C619.....A4 | D803.....F3 | G46.....G1   | J215.....B5  | P902.....B1 | R29.....C3    | R504.....B3 | R808.....F3 | ZD904....B1  |
| C422.....E5 | C620.....A4 | D805.....E3 | G47.....G1   | J216.....D5  | P903.....B2 | R30.....C3    | R505.....B3 | R809.....F3 |              |

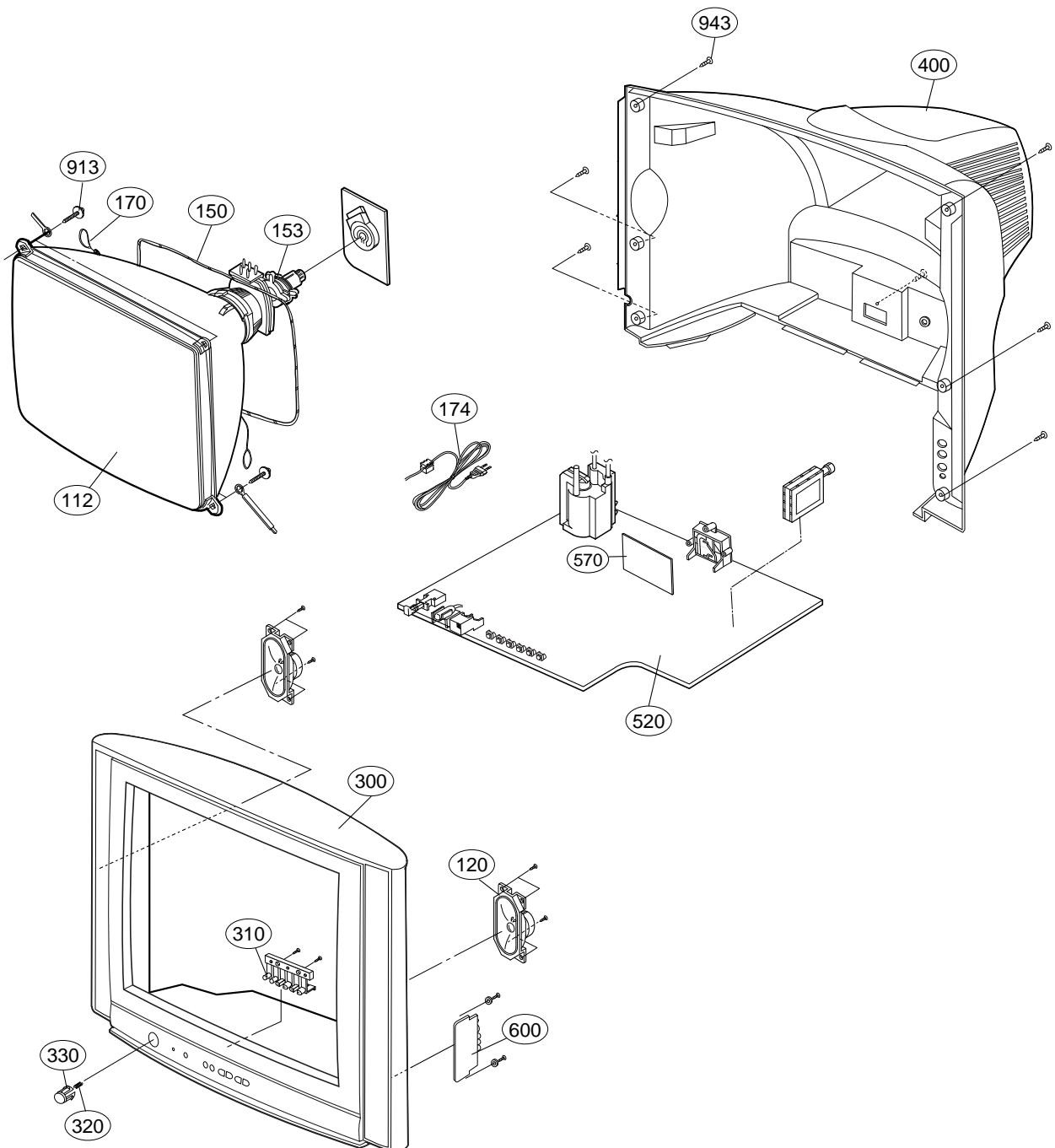
## SIDE A/V



## BLOCK DIAGRAM



## EXPLODED VIEW



# EXPLODED VIEW PARTS LIST

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

| LOCA. No.    | PART No.    | DESCRIPTIONS  |
|--------------|-------------|---|
| $\Delta$ 112 | 2426GDA80AH | CPT SET, A51QAE320X 00P7KR (LGEVN)                              |
|              | 2426GDA80CS | CPT, A51QAE320X 00A7ND 16KHZ                                    |
|              | 2426VSD0018 | CPT SET, 2055-00670H A51QAE320X000MBB BARE(0.0-0.5) (LGEMC)     |
|              | 2426VSD0019 | CPT SET, 21 A51QAE320X000TIB BARE(Q,R,T,U)                      |
| 120          | 6400VF5001B | SPEAKER,MID-RANGE LG FOSTER 16 OHM 5/7W 83DB 1                  |
|              | 120-C77G    | SPEAKER,FULLRANGE C122P02K1459 8 OHM 10/15W 130 57*117          |
| $\Delta$ 150 | 150-D02T    | COIL,DEGAUSSING,AL 21" 56T 12 OHM                               |
|              | 150-D02X    | COIL,DEGAUSSING CU 21" 60TURN 12 OHM D02N (NYLON)               |
|              | 150-D02N    | COIL,DEGAUSSING,CU 21" 60T 12 OHM                               |
| $\Delta$ 153 | 153-110F    | DY(DEFLECTION YOKE), DCAN1-21FSAA                               |
|              | 6150Z-1023A | DY(DEFLECTION YOKE), 21" FST VERSION UP (KIM KYOO HAK)          |
|              | 6150Z-1024A | DY(DEFLECTION YOKE), DC21PLFS2                                  |
| $\Delta$ 170 | 170-A01D    | LEAD SET, CPT EARTH(19")  |
| $\Delta$ 174 | 6410VEH001B | POWER CORD, 174-009E CHAUS VDE/SEMKO 2410MM 2P LGESY LOCAL      |
|              | 6410VEH001C | POWER CORD, 174-315G CHAUS VDE/SEMKO 2010MM 2P                  |
|              | 6410VEH004A | POWER CORD, HIT101 HARNESSINDO VDE/SEMKO 2030MM                 |
|              | 174-009E    | POWER CORD, POWER(W/HOLD,HOUSING,L=200,4.0                      |
| 300          | 3091V00568M | CABINET ASSEMBLY, RT-21CC25V MONO MC049B IN-DIRECT ORDER(C/SKD) |
|              | 3091V00568K | CABINET ASSEMBLY, RT-21CC25M.ATLLKX MONO MC049B IN_SET          |
|              | 3091V00578E | CABINET ASSEMBLY, RT-21CC25VX MONO E_PHONE MC049B 117A SY->SET  |
| 310          | 5020V00840B | BUTTON, CONTROL RT-21CC25VX ABS, HF-380 6KEY 117A               |
|              | 5020V00876C | BUTTON, CONTROL RT-21CC25M ABS, HF-380 6KEY                     |
| 320          | 320-062E    | SPRING, KNOB  |
|              | 320-062H    | SPRING,COIL   |
| 330          | 5020V00841B | BUTTON, POWER RT-21CC25VX ABS, HF-380 NON 117A                  |
|              | 5020V00875C | BUTTON, POWER RT-21CC25M ABS, HF-380 1KEY                       |
| 400          | 3809V00396S | BACK COVER ASSEMBLY, RT-21CC25V 1PHONE IN-DIRECT ORDER(C/SKD)   |
|              | 3809V00396T | BACK COVER ASSEMBLY, RT-21CC25M 1PHONE 8G068 IN-SET             |
|              | 3809V00403E | BACK COVER ASSEMBLY, RT-20/21CC25VX 1PHONE 8G068 SY->SET        |
|              | 3809V00396U | BACK COVER ASSEMBLY, RT-21CC25VX 1PHONE 8G068 IN-SET            |
| 520          | 6871VMM862Q | PWB(PCB) ASSEMBLY,MAIN MC049B RT-21CC25RX.LHDLNC8.IN-TAHITI.PH. |
|              | 6871VMM896K | PWB(PCB) ASSEMBLY,MAIN MC049B RT-21CC25VX.LFOLSP8               |
|              | 6871VMMT55K | PWB(PCB) ASSEMBLY,MAIN 049B RT21CC25VX.LTDLNC8,IN-CASA.PH       |
|              | 6871VMMT55N | PWB(PCB) ASSEMBLY,MAIN 049B RT21CC25M.LTDLNA8,IN-ABANS.PH       |
|              | 6871VMMT79A | PWB(PCB) ASSEMBLY,MAIN 049B RT21CC25V.LTLLVV8,LGEVN.PH          |
|              | 6871VMMZQ1S | PWB(PCB) ASSEMBLY,MAIN MC049B RT-21CC25VM.LFLLSF8 SY-LGEAL .M   |
|              | 6871VMMZQ1U | PWB(PCB) ASSEMBLY,MAIN MC049B RT-21CC25VM.LFLLSW8 SY-NIGERIA .M |
| 570          | 6871VSML14A | PWB(PCB) ASSEMBLY,SUB PIP MC049B SY-EXPORT                      |
| 600          | 6871VSMAARK | PWB(PCB) ASSEMBLY,SUB A/V MC049B 20/21CC25M,SIDE-AV,LGEIN       |
|              | 6871VSMABDA | PWB(PCB) ASSEMBLY,SUB A/V MC049B 21CC25V,LGEVN,SIDE-AV          |
|              | 6871VSML11D | PWB(PCB) ASSEMBLY,SUB A/V MC049B 21FC95/21CC25, SY-EXPORT       |
|              | 6871VSMAARJ | PWB(PCB) ASSEMBLY,SUB A/V MC049B 20/21CC25V/R,SIDE-AV,LGEIN     |
| 913          | 332-057B    | SCREW,DRAWING ASSY,HEXAGON HEAD                                 |
| 943          | 1PTF0403116 | SCREW TAP TITE(P),TRUSS HEAD + D4.0 L16.0 MSWR3/FZB             |

## REPLACEMENT PARTS LIST

For Capacitor & Resistors, the characters at 2nd and 3rd digit in the P/No. means as follows;

|                          |                       |
|--------------------------|-----------------------|
| CC, CX, CK, CN : Ceramic | RD : Carbon Film      |
| CQ : Polyester           | RS : Metal Oxide Film |
| CE : Electrolytic        | RN : Metal Film       |
|                          | RF : Fusible          |

| LOCA. NO          | PART NO     | DESCRIPTION                                | LOCA. NO         | PART NO     | DESCRIPTION                               |
|-------------------|-------------|--|------------------|-------------|---|
| <b>IC</b>         |             |  |                  |             |   |
| IC11              | 0IMCRMN031B | VCT4934F MICRONAS 88PIN DIP ST             | D502             | 0DS141489AB | 1N4148 TP GRANDE - 20V                    |
| IC12              | 0IMMRSG036C | M24C16-WBN6 PDIP ST 16M                    | D503             | 0DD414809ED | 1N4148 TP GRANDE                          |
| IC13              | 0IFA752700A | KA75270Z 3 TP RE-SET IC MC-007             | D503             | 0DS141489AB | 1N4148 TP GRANDE - 20V                    |
| IC301             | 0IPMGPH002A | TDA4863A 7P SOT524-1 ST                    | D504             | 0DD414809ED | 1N4148 TP GRANDE                          |
| IC601             | 0IPMGSA021C | LA42152 13P ST 15W 2CH AUDIO AMP           | D504             | 0DS141489AB | 1N4148 TP GRANDE - 20V                    |
| IC801             | 0IPMGSK016B | STR-W6754 SANKEN 7PIN T0220F ST            | D601             | 0DD414809ED | 1N4148 TP GRANDE                          |
| IC802             | 0ILI817000G | LTV817M-VB 4P,DIP BK PHOTO COUPLER         | D602             | 0DD414809ED | 1N4148 TP GRANDE                          |
| IC821             | 0IMCRKE019A | KIA78R33API KEC 4P TO220 ST 3.3V 1A        | D603             | 0DD414809ED | 1N4148 TP GRANDE                          |
| IC822             | 0IMCRKE018A | KIA78R05API KEC 4P TO220 ST 5V 1A          | D604             | 0DD414809ED | 1N4148 TP GRANDE                          |
| IC824             | 0IMCRKE020A | KIA78S06P KEC 3P TO-92 TP 6V 0.15A         | D801             | 0DD100009AM | EU1ZV(1) TP SANKEN                        |
| IC825             | 0IMCRAU003A | S1117-18PIC 3P TO220F ST 1.8V 1A           | D801             | 0DR100009FA | EU1DGR TP DO41 200V 1.0A 30A 50NSEC 10UA  |
| IC826             | 0ISK110000A | SE110N(LF12) 3P 110V ERROR AMP             | D802             | 0DD100009AM | EU1ZV(1) TP SANKEN                        |
| IC853             | 0IMCRAU004A | S1117-33PIC 3P TO220F ST 3.3V 1A           | D802             | 0DR100009FA | EU1DGR TP DO41 200V 1.0A 30A 50NSEC 10UA  |
| IC901             | 0IPH610700B | TDA6107JF/N3 9P ST RGB AMP                 | D803             | 0DD100009AM | EU1ZV(1) TP SANKEN                        |
| <b>TRANSISTOR</b> |             |  |                  |             |   |
| Q104              | 0TR319709AB | KTC3197,TP(KTC388A),KEC                    | D803             | 0DR100009FA | EU1DGR TP DO41 200V 1.0A 30A 50NSEC 10UA  |
| Q11               | 0TR126609AA | KTA1266-Y(KTA1015) KEC TP TO92 50V 150MA   | D815             | 0DD060009AC | TVR06J TP - 600V 250NSEC -                |
| Q301              | 0TR198009BA | 2SA1980Y TP AUK                            | D815             | 0DR060009AA | TVR06J TP DO41 600V 0.6A                  |
| Q401              | 0TRSA10004A | TT2170LS-YB11 ST TO-220FM 1500V 5A         | D821             | 0DRTW00164A | RGP10J TP52 DO41 .V 1A 30A .SEC 5UA       |
| Q402              | 0TR233109AA | KSC2331-Y TP SAMSUNG TO-92L -              | D827             | 0DRTW00141A | SFAF504G ST ITO220 200V 5A .A .SEC 10UA   |
| Q403              | 0TR534309AA | 2SC5343Y TP AUK                            | D828             | 0DRTW00141A | SFAF504G ST ITO220 200V 5A .A .SEC 10UA   |
| Q501              | 0TR198009BA | 2SA1980Y TP AUK                            | D828             | 0DRTW00141A | SFAF504G ST ITO220 200V 5A .A .SEC 10UA   |
| Q502              | 0TR198009BA | 2SA1980Y TP AUK                            | D829             | 0DD300009AC | RU3AMV(1) TP SANKEN                       |
| Q503              | 0TR198009BA | 2SA1980Y TP AUK                            | D830             | 0DRTW00164A | RGP10J TP52 DO41 .V 1A 30A .SEC 5UA       |
| Q504              | 0TR198009BA | 2SA1980Y TP AUK                            | D854             | 0DD060009AC | TVR06J TP - 600V 250NSEC -                |
| Q505              | 0TR534309AA | 2SC5343Y TP AUK                            | D854             | 0DR060009AA | TVR06J TP DO41 600V 0.6A                  |
| Q507              | 0TR198009BA | 2SA1980Y TP AUK                            | D901             | 0DR210009AC | BAV21 TP DO35 200V 0.2A 1A 50SEC 100A     |
| Q508              | 0TR534309AA | 2SC5343Y TP AUK                            | D902             | 0DR210009AC | BAV21 TP DO35 200V 0.2A 1A 50SEC 100A     |
| Q510              | 0TR534309AA | 2SC5343Y TP AUK                            | D903             | 0DR210009AC | BAV21 TP DO35 200V 0.2A 1A 50SEC 100A     |
| Q601              | 0TR198009BA | 2SA1980Y TP AUK                            | D904             | 0DR140049AC | 1N4004A T-81 TP DO41 500V 1.0A 30A - 10UA |
| Q801              | 0TR421009CB | BF421L(AMMO)TO-92 TP PHILIPS               | DB801            | 0DRTW00131A | D2SB60 ST GBL 600V 1.5A .A .SEC 10UA      |
| Q802              | 0TR534309AA | 2SC5343Y TP AUK                            | ZD101            | 0DZ510009BF | GDZ5.1B TP GRANDE DO34 0.5W 5.1V 0.02A    |
| Q803              | 0TR102009AB | KRC102M(KRC1202) KEC TP                    | ZD122            | 0DZ330009DG | GDZJ33B TP GRANDE DO34 0.5W 33.0V         |
| Q804              | 0TR102009AB | KRC102M(KRC1202) KEC TP                    | ZD401            | 0DZ510009BF | GDZ5.1B TP GRANDE DO34 0.5W 5.1V 0.02A    |
| Q807              | 0TR127409AB | KTA1274-Y TO-92L TP KEC                    | ZD402            | 0DZ240009CG | MTZJ24B TP ROHM-K DO34 - 24V 5UA          |
| Q808              | 0TR102009AB | KRC102M(KRC1202) KEC TP                    | ZD447            | 0DZ910009BD | GDZJ9.1B TP GRANDE DO34 0.5W 9.1V         |
| <b>DIODE</b>      |             |  |                  |             |   |
| D301              | 0DD400509AA | 1N4005 TP KEC                              | ZD501            | 0DZ110009AD | MTZJ11B TP ROHM-K DO34 - 11V 5UA          |
| D403              | 0DRTW00164B | RGP15J TP52 DO15 .V 1.5A 50A 250NSEC 100UA | ZD501            | 0DZ110009CF | GDZJ11B TP GRANDE DO34 0.5W 11.0V         |
| D405              | 0DRTW00164B | RGP15J TP52 DO15 .V 1.5A 50A 250NSEC 100UA | ZD601            | 0DZ820009AH | MTZJ8.2B TP ROHM-K DO34 - 8.2V 5UA        |
| D406              | 0DRTW00164B | RGP15J TP52 DO15 .V 1.5A 50A 250NSEC 100UA | ZD601            | 0DZ820009BF | GDZJ8.2B TP GRANDE DO34 0.5W 8.2V         |
| D407              | 0DRTW00164A | RGP10J TP52 DO41 .V 1A 30A .SEC 5UA        | ZD801            | 0DZ620009AH | MTZJ6.2A TP ROHM-K DO34 0.5W 6.2V 150UA   |
| D444              | 0DD414809ED | 1N4148 TP GRANDE                           | ZD803            | 0DZ510009BF | GDZ5.1B TP GRANDE DO34 0.5W 5.1V 0.02A    |
| D501              | 0DD414809ED | 1N4148 TP GRANDE                           | <b>CAPACITOR</b> |             |   |
| D501              | 0DS141489AB | 1N4148 TP GRANDE - 20V                     | C10              | 0CX2200K409 | 22P 50V J SL TA52                         |
| D502              | 0DD414809ED | 1N4148 TP GRANDE                           | C101             | 0CQ2721N409 | 0.0027UF D 100V 5% PE TP5                 |
|                   |             |  | C103             | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52          |
|                   |             |  | C104             | 0CN1030F679 | 10000P 16V M Y TA52                       |
|                   |             |  | C106             | 0CN1030F679 | 10000P 16V M Y TA52                       |

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| LOCA. NO | PART NO     | DESCRIPTION                      | LOCA. NO | PART NO     | DESCRIPTION                      |
|----------|-------------|----------------------------------|----------|-------------|----------------------------------|
| C107     | 0CN1030F679 | 1000P 16V M Y TA52               | C502     | 0CQ6831N509 | 0.068UF D 100V 10% PE TP5        |
| C108     | 0CN1030F679 | 1000P 16V M Y TA52               | C503     | 0CE475DK618 | 4.7UF STD 50V 20% FL TP5         |
| C109     | 0CN1030F679 | 1000P 16V M Y TA52               | C504     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C11      | 0CX2200K409 | 22P 50V J SL TA52                | C505     | 0CN2710K519 | 270P 50V K B TA52                |
| C110     | 0CN1030F679 | 1000P 16V M Y TA52               | C506     | 0CN2710K519 | 270P 50V K B TA52                |
| C111     | 0CE227DD618 | 220UF STD 10V M FL TP5           | C507     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C12      | 0CE107DD618 | 100UF STD 10V M FL TP5           | C508     | 0CE107DD618 | 100UF STD 10V M FL TP5           |
| C126     | 0CE475DK618 | 4.7UF STD 50V 20% FL TP5         | C509     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C1260    | 0CE226DF618 | 22UF STD 16V M FL TP5            | C510     | 0CE475DK618 | 4.7UF STD 50V 20% FL TP5         |
| C13      | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 | C511     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C14      | 0CN1020K519 | 1000P 50V K B TA52               | C512     | 0CE107DD618 | 100UF STD 10V M FL TP5           |
| C185     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 | C513     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C201     | 0CN1010K519 | 100P 50V K B TA52                | C514     | 0CE107DD618 | 100UF STD 10V M FL TP5           |
| C202     | 0CN1010K519 | 100P 50V K B TA52                | C515     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C203     | 0CN4710K519 | 470P 50V K B TA52                | C516     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C204     | 0CN4710K519 | 470P 50V K B TA52                | C517     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C205     | 0CN4710K519 | 470P 50V K B TA52                | C518     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C206     | 0CN4710K519 | 470P 50V K B TA52                | C519     | 0CN1010K519 | 100P 50V K B TA52                |
| C21      | 0CE107DD618 | 100UF STD 10V M FL TP5           | C520     | 0CE107DD618 | 100UF STD 10V M FL TP5           |
| C211     | 0CN4710K519 | 470P 50V K B TA52                | C521     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C214     | 0CN4710K519 | 470P 50V K B TA52                | C523     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C215     | 0CN4710K519 | 470P 50V K B TA52                | C524     | 0CE107DD618 | 100UF STD 10V M FL TP5           |
| C216     | 0CE226DF618 | 22UF STD 16V M FL TP5            | C525     | 0CN3310K519 | 330P 50V K B TA52                |
| C217     | 0CE226DF618 | 22UF STD 16V M FL TP5            | C526     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C23      | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 | C527     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C24      | 0CE226DD618 | 22UF STD 10V 20% FL TP5          | C528     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C25      | 0CE105DK618 | 1UF STD 50V M FL TP5             | C529     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C253     | 0CN4710K519 | 470P 50V K B TA52                | C530     | 0CN1010K519 | 100P 50V K B TA52                |
| C254     | 0CN1010K519 | 100P 50V K B TA52                | C531     | 0CX3300K409 | 33P 50V J SL TA52                |
| C259     | 0CN1010K519 | 100P 50V K B TA52                | C532     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C260     | 0CN4710K519 | 470P 50V K B TA52                | C533     | 0CE107DD618 | 100UF STD 10V M FL TP5           |
| C303     | 0CQ1041N409 | 0.1000UF 100V J PE TP            | C534     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C304     | 0CE107DJ618 | 100UF STD 35V M FL TP5           | C535     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C306     | 0CQ3331N509 | 0.033UF D 100V 10% PE TP5        | C536     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C402     | 0CE475DK618 | 4.7UF STD 50V 20% FL TP5         | C537     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C403     | 0CQ1521N509 | 0.0015UF D 100V 10% PE TP5       | C538     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C404     | 181-015E    | MPP 1600V 0.0068UF H             | C540     | 0CE107DD618 | 100UF STD 10V M FL TP5           |
| C404     | 181-015F    | MPP 1600V 0.0073UF H             | C541     | 0CE107DD618 | 100UF STD 10V M FL TP5           |
| C405     | 181-091Y    | R 680PF 2KV 10%, -10% R/TP TP7.5 | C542     | 0CE107DD618 | 100UF STD 10V M FL TP5           |
| C409     | 0CK8210W515 | 820P 500V K B TS                 | C543     | 0CE107DD618 | 100UF STD 10V M FL TP5           |
| C410     | 0CE475DP618 | 4.7UF STD 160V 20% FL TP5        | C545     | 0CX2200K409 | 22P 50V J SL TA52                |
| C411     | 181-013P    | MPP 400V 0.33UF J                | C546     | 0CN1510K519 | 150P 50V K B TA52                |
| C414     | 0CK2710W515 | 270P 500V K B TS                 | C547     | 0CN2710K519 | 270P 50V K B TA52                |
| C415     | 0CE108DH618 | 1000UF STD 25V M FL TP5          | C548     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C416     | 181-009R    | PP 200V 0.022UF K                | C550     | 0CN1040K949 | 0.1UF D 50V 80%,-20% F(Y5V) TA52 |
| C417     | 0CK2710W515 | 270P 500V K B TS                 | C602     | 0CE108DH618 | 1000UF STD 25V M FL TP5          |
| C419     | 0CE108DH618 | 1000UF STD 25V M FL TP5          | C603     | 0CE475DK618 | 4.7UF STD 50V 20% FL TP5         |
| C421     | 0CK2710W515 | 270P 500V K B TS                 | C604     | 0CQ8221N519 | 0.0082UF D 100V 10% PE NI TP5    |
| C422     | 0CE475DR618 | 4.7UF STD 250V 20% FL TP5        | C605     | 0CE476DF618 | 47UF STD 16V M FL TP5            |
| C450     | 0CE226DK618 | 22UF STD 50V M FL TP5            | C606     | 181-007C    | MPE ECQ-V1H104JL3(TR), 50V 0.1UF |
| C457     | 0CE476DK618 | 47UF STD 50V M FL TP5            | C607     | 0CE106DF618 | 10UF STD 16V M FL TP5            |
| C501     | 0CQ6831N509 | 0.068UF D 100V 10% PE TP5        | C608     | 0CE106DF618 | 10UF STD 16V M FL TP5            |

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|----------|-------------|-----------------------------------|
| C609     | 0CQ8221N519 | 0.0082UF D 100V 10% PE NI TP5     |
| C610     | 0CE475DK618 | 4.7UF STD 50V 20% FL TP 5         |
| C611     | 0CE476DH618 | 47UF STD 25V 20% FL TP 5          |
| C612     | 181-007C    | MPE ECQ-V1H104JL3(TR), 50V 0.1UF  |
| C613     | 181-007C    | MPE ECQ-V1H104JL3(TR), 50V 0.1UF  |
| C614     | 181-007C    | MPE ECQ-V1H104JL3(TR), 50V 0.1UF  |
| C615     | OCN1040K949 | 0.1UF D 50V 80%, -20% F(Y5V) TA52 |
| C616     | 0CE476DD618 | 47UF STD 10V 20% FL TP 5          |
| C617     | OCN1040K949 | 0.1UF D 50V 80%, -20% F(Y5V) TA52 |
| C618     | OCN1010K519 | 100P 50V K B TA52                 |
| C619     | 0CE335DK618 | 3.3UF STD 50V 20% FL TP 5         |
| C620     | 0CN1010K519 | 100P 50V K B TA52                 |
| C625     | 0CQ5631N409 | 0.056UF D 100V 5% PE TP5          |
| C626     | 0CQ5631N409 | 0.056UF D 100V 5% PE TP5          |
| C627     | 0CK1030K945 | 0.01UF 50V Z F TR                 |
| C632     | 0CQ5631N409 | 0.056UF D 100V 5% PE TP5          |
| C636     | 0CQ5631N409 | 0.056UF D 100V 5% PE TP5          |
| C803     | 0CEZVBK002B | 22000000F 0 500V M VNSN BULK      |
| C803     | 181-001V    | CE 450V 220UF M LUG(85)           |
| C804     | 0CK10201515 | 1000P 1KV K B TS                  |
| C806     | 0CK10201515 | 1000P 1KV K B TS                  |
| C807     | 181-091X    | R 560PF 2KV 10%, -10% R/TP TP7.5  |
| C809     | 0CE105DK618 | 1UF STD 50V M FL TP5              |
| C810     | 0CE336DK618 | 33UF STD 50V M FL TP5             |
| C811     | 181-011B    | 0.001UF D 1.6KV J M/PP NI FM20    |
| C815     | 0CK8210K515 | 820P 50V K B TS                   |
| C816     | 0CQZVBK002A | A.C 275V 0.1UF M (S=15)           |
| C817     | 0CK1040K945 | 0.1UF 50V Z F TR                  |
| C818     | 0CQZVBK002C | A.C 275V 0.22UF K (S=22.5)        |
| C819     | 0CK1520K515 | 1500P 50V K B TS                  |
| C820     | OCN1040K949 | 0.1UF D 50V 80%, -20% F(Y5V) TA52 |
| C821     | 0CK4710W515 | 470PF 500V K B TR                 |
| C822     | 0CE477DH618 | 470UF STD 25V M FL TP5            |
| C823     | 0CE477DD618 | 470UF STD 10V M FL TP5            |
| C824     | 0CE108DD618 | 1000UF STD 10V M FL TP5           |
| C826     | 0CE108DD618 | 1000UF STD 10V M FL TP5           |
| C827     | 0CE108DD618 | 1000UF STD 10V M FL TP5           |
| C828     | 0CE477DD618 | 470UF STD 10V M FL TP5            |
| C829     | 0CE335CK636 | 3.3UF SHL,SD 50V 20% FM5 BP(D) TP |
| C830     | 0CE108DH618 | 1000UF STD 25V M FL TP5           |
| C831     | 0CE227DP61A | 220UF STD 160V 20% FL TP 7.5      |
| C833     | 0CE107CP618 | 100U SHL 160V M FL TP5            |
| C835     | 0CK4710W515 | 470PF 500V K B TR                 |
| C836     | 0CK12202510 | 1200P 2KV K B S                   |
| C837     | 0CQ4731N509 | 0.047UF D 100V 10% PE TP5         |
| C838     | 0CE227DK618 | 220UF STD 50V M FL TP5            |
| C839     | 0CE106DH618 | 10UF STD 25V M FL TP5             |
| C840     | 0CE228BF618 | 2200UF KME 16V M FL TP5           |
| C843     | 181-120K    | 2200PF 4KV M E FMTW LEAD 4.5      |
| C845     | 0CE107DD618 | 100UF STD 10V M FL TP5            |
| C868     | 0CE227DD618 | 220UF STD 10V M FL TP5            |
| C901     | 0CE475DR618 | 4.7UF STD 250V 20% FL TP 5        |

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|----------------------------|-------------|---------------------------------|
| C902                       | 0CQ1044R539 | 0.1UF TE 250V 10% M/PE NI TP5   |
| C903                       | 181-033S    | 2KV B 122K TP7.5                |
| C904                       | 0CE475DR618 | 4.7UF STD 250V 20% FL TP 5      |
| <b>COIL &amp; INDUCTOR</b> |             |                                 |
| L101                       | OLA0102K139 | INDUCTOR, 10UH K 4*10.5 TP      |
| L103                       | OLA0101K119 | INDUCTOR, 1.0UH K 2.3*3.4 TP    |
| L11                        | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L12                        | OLA0101K119 | INDUCTOR, 1.0UH K 2.3*3.4 TP    |
| L201                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L202                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L204                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L206                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L207                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L208                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L211                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L213                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L251                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L252                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L401                       | 150-L02C    | COIL,LINEARITY 170UH PHY TURN   |
| L501                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L502                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L503                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L504                       | OLA0101K119 | INDUCTOR, 1.0UH K 2.3*3.4 TP    |
| L505                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L506                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L507                       | OLA0101K119 | INDUCTOR, 1.0UH K 2.3*3.4 TP    |
| L508                       | OLA0101K119 | INDUCTOR, 1.0UH K 2.3*3.4 TP    |
| L509                       | OLA0102K119 | INDUCTOR, 10UH K 2.3*3.4 TP     |
| L801                       | 150-C02F    | COIL,CHOKE 82UH PHY TURN        |
| T401                       | 151-C02F    | TRANSFORMER,H-DRIVE,EI-19,BULK  |
| T803                       | 6170VMCA43J | TRANSFORMER, EER3940 400UH      |
| <b>CONNECTOR</b>           |             |                                 |
| P1205                      | 387-A10H    | 10P 2.5MM 450MM H-B UL1007AWG26 |
| P1206                      | 387-A05H    | 5P 2.5MM 450MM H-B UL1007AWG26  |
| P902                       | 387-603E    | 9P 2.5MM 430MM B-B UL1007AWG26  |
| <b>RESISTOR</b>            |             |                                 |
| F802                       | 0RP0050H709 | 0.05 OHM 1/2 W 10% TA52         |
| F804                       | 0RP0050H709 | 0.05 OHM 1/2 W 10% TA52         |
| F805                       | 0RP0020J809 | 0.02 OHM 1 W 20% TA52           |
| F806                       | 0RP0020J809 | 0.02 OHM 1 W 20% TA52           |
| FR401                      | 0RF0680K607 | 0.68 OHM 2 W 5.00% TA62         |
| FR403                      | 0RP0050H709 | 0.05 OHM 1/2 W 10% TA52         |
| FR404                      | 0RP0050H709 | 0.05 OHM 1/2 W 10% TA52         |
| FR405                      | 0RP0050H709 | 0.05 OHM 1/2 W 10% TA52         |
| J201                       | 0RD1000F609 | 100 OHM 1/6 W 5% TA52           |
| J211                       | 0RD1000F609 | 100 OHM 1/6 W 5% TA52           |
| J402                       | 0RD0752F609 | 75 OHM 1/6 W 5.00% TA52         |
| R102                       | 0RD6801F609 | 6.8K OHM 1/6 W 5.00% TA52       |
| R109                       | 0RD0562F609 | 56 OHM 1/6 W 5.00% TA52         |

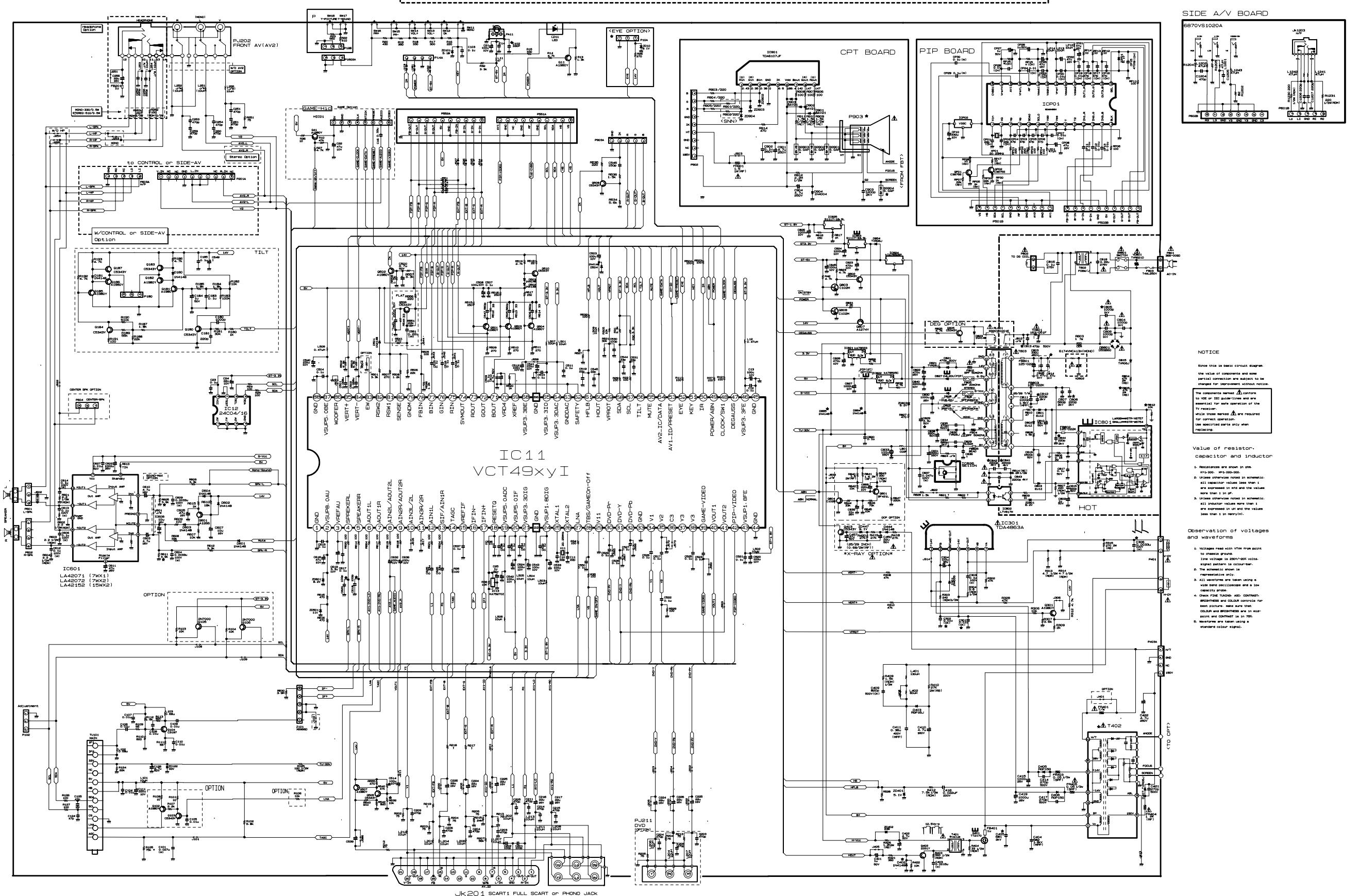
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| For Capacitor & Resistors,<br>the characters at 2nd and 3rd<br>digit in the P/No. means as<br>follows; | CC, CX, CK, CN : Ceramic<br>CQ : Polyester<br>CE : Electrolytic | RD : Carbon Film<br>RS : Metal Oxide Film<br>RN : Metal Film<br>RF : Fusible |
|--|---|--|

| LOCA. NO | PART NO     | DESCRIPTION                   | LOCA. NO | PART NO     | DESCRIPTION                    |
|----------|-------------|-------------------------------|----------|-------------|--------------------------------|
| R110     | ORD8200F609 | 820 OHM 1/6 W 5.00% TA52      | R37      | 0RD1000F609 | 100 OHM 1/6 W 5% TA52          |
| R111     | ORD0682F609 | 68 OHM 1/6 W 5.00% TA52       | R38      | 0RD1002F609 | 10K OHM 1/6 W 5% TA52          |
| R112     | ORD1501F609 | 1.5K OHM 1/6 W 5% TA52        | R403     | 0RD5600A609 | 560 OHM 1/2 W(7.0) 0.05 TA52   |
| R113     | ORD3000F609 | 300 OHM 1/6 W 5.00% TA52      | R404     | 0RD0332A609 | 33 OHM 1/2 W(7.0) 5.00% TA52   |
| R12      | ORD1000F609 | 100 OHM 1/6 W 5% TA52         | R405     | 0RS8200K607 | 820 OHM 2 W 5.00% TA62         |
| R124     | ORD2202F609 | 22K OHM 1/6 W 5% TA52         | R409     | 0RD1501A609 | 1.5K OHM 1/2 W(7.0) 5.00% TA52 |
| R125     | ORD2700A609 | 270 OHM 1/2 W(7.0) 5.00% TA52 | R410     | 0RS2702K607 | 27K OHM 2 W 5.00% TA62         |
| R1254    | ORD2200H609 | 220 OHM 1/2 W 5.00% TA52      | R412     | 0RD7501A609 | 7.5K OHM 1/2 W(7.0) 5.00% TA52 |
| R1255    | ORD2200H609 | 220 OHM 1/2 W 5.00% TA52      | R418     | 0RD2702F609 | 27K OHM 1/6 W 5.00% TA52       |
| R126     | ORD1000F609 | 100 OHM 1/6 W 5% TA52         | R419     | 0RD2702F609 | 27K OHM 1/6 W 5.00% TA52       |
| R127     | ORD1000F609 | 100 OHM 1/6 W 5% TA52         | R42      | 0RD4701F609 | 4.7K OHM 1/6 W 5% TA52         |
| R13      | 0RD1301F609 | 1.3K OHM 1/6 W 5.00% TA52     | R420     | 0RD2702F609 | 27K OHM 1/6 W 5.00% TA52       |
| R14      | 0RD4701F609 | 4.7K OHM 1/6 W 5% TA52        | R421     | 0RD3600F609 | 360 OHM 1/6 W 5.00% TA52       |
| R15      | 0RD3300F609 | 330 OHM 1/6 W 5.00% TA52      | R422     | 0RD1002F609 | 10K OHM 1/6 W 5% TA52          |
| R16      | 0RD2200F609 | 220 OHM 1/6 W 5.00% TA52      | R501     | 0RD3301F609 | 3.3K OHM 1/6 W 5.00% TA52      |
| R17      | 0RD3000F609 | 300 OHM 1/6 W 5.00% TA52      | R502     | 0RN6801F409 | 6.8K OHM 1/6 W 1.00% TA52      |
| R18      | 0RD3300F609 | 330 OHM 1/6 W 5.00% TA52      | R503     | 0RN6801F409 | 6.8K OHM 1/6 W 1.00% TA52      |
| R19      | 0RD3900F609 | 390 OHM 1/6 W 5% TA52         | R505     | 0RD1000F609 | 100 OHM 1/6 W 5% TA52          |
| R20      | 0RD4300F609 | 430 OHM 1/6 W 5.00% TA52      | R506     | 0RD2202F609 | 22K OHM 1/6 W 5% TA52          |
| R203     | 0RD0752F609 | 75 OHM 1/6 W 5.00% TA52       | R507     | 0RD3300F609 | 330 OHM 1/6 W 5.00% TA52       |
| R204     | 0RD0752F609 | 75 OHM 1/6 W 5.00% TA52       | R508     | 0RD1201F609 | 1.2K OHM 1/6 W 5% TA52         |
| R205     | 0RD0752F609 | 75 OHM 1/6 W 5.00% TA52       | R509     | 0RD3600F609 | 360 OHM 1/6 W 5.00% TA52       |
| R207     | 0RD5602F609 | 56K OHM 1/6 W 5% TA52         | R510     | 0RD3600F609 | 360 OHM 1/6 W 5.00% TA52       |
| R212     | 0RD0752F609 | 75 OHM 1/6 W 5.00% TA52       | R511     | 0RD3600F609 | 360 OHM 1/6 W 5.00% TA52       |
| R213     | 0RD0752F609 | 75 OHM 1/6 W 5.00% TA52       | R512     | 0RD0332F609 | 33 OHM 1/6 W 5.00% TA52        |
| R215     | 0RD2402F609 | 24K OHM 1/6 W 5.00% TA52      | R513     | 0RD0332F609 | 33 OHM 1/6 W 5.00% TA52        |
| R217     | 0RD1000F609 | 100 OHM 1/6 W 5% TA52         | R514     | 0RD0332F609 | 33 OHM 1/6 W 5.00% TA52        |
| R218     | 0RD1000F609 | 100 OHM 1/6 W 5% TA52         | R515     | 0RD1600F609 | 160 OHM 1/6 W 5.00% TA52       |
| R24      | 0RD1000F609 | 100 OHM 1/6 W 5% TA52         | R516     | 0RD1600F609 | 160 OHM 1/6 W 5.00% TA52       |
| R25      | 0RD1000F609 | 100 OHM 1/6 W 5% TA52         | R517     | 0RD1600F609 | 160 OHM 1/6 W 5.00% TA52       |
| R28      | 0RD1000F609 | 100 OHM 1/6 W 5% TA52         | R518     | 0RD0222F609 | 22 OHM 1/6 W 5.00% TA52        |
| R29      | 0RD1000F609 | 100 OHM 1/6 W 5% TA52         | R519     | 0RD2701F609 | 2.7K OHM 1/6 W 5% TA52         |
| R30      | 0RD3301F609 | 3.3K OHM 1/6 W 5.00% TA52     | R520     | 0RD1001F609 | 1K OHM 1/6 W 5% TA52           |
| R302     | 0RN3302F409 | 33K OHM 1/6 W 1.00% TA52      | R521     | 0RD3002F609 | 30K OHM 1/6 W 5.00% TA52       |
| R303     | 0RD2400A609 | 240 OHM 1/2 W(7.0) 5.00% TA52 | R522     | 0RD0152F609 | 15 OHM 1/6 W 5.00% TA52        |
| R304     | 0RD0561A609 | 5.6 OHM 1/2 W(7.0) 5.00% TA52 | R523     | 0RD1000F609 | 100 OHM 1/6 W 5% TA52          |
| R305     | 0RD1002F609 | 10K OHM 1/6 W 5% TA52         | R524     | 0RD1000F609 | 100 OHM 1/6 W 5% TA52          |
| R306     | 0RD1002F609 | 10K OHM 1/6 W 5% TA52         | R526     | 0RD1201F609 | 1.2K OHM 1/6 W 5% TA52         |
| R307     | 0RD3601F609 | 3.6K OHM 1/6 W 5.00% TA52     | R527     | 0RD2702F609 | 27K OHM 1/6 W 5.00% TA52       |
| R308     | 0RN4702F409 | 47K OHM 1/6 W 1.00% TA52      | R530     | 0RD3304F609 | 3.3M OHM 1/6 W 5.00% TA52      |
| R309     | 0RD2001F609 | 2K OHM 1/6 W 5% TA52          | R532     | 0RD1000F609 | 100 OHM 1/6 W 5% TA52          |
| R31      | 0RD3301F609 | 3.3K OHM 1/6 W 5.00% TA52     | R534     | 0RD1201F609 | 1.2K OHM 1/6 W 5% TA52         |
| R310     | 0RN4702F409 | 47K OHM 1/6 W 1.00% TA52      | R535     | 0RD2200F609 | 220 OHM 1/6 W 5.00% TA52       |
| R312     | 0RD4701F609 | 4.7K OHM 1/6 W 5% TA52        | R536     | 0RD1801F609 | 1.8K OHM 1/6 W 5.00% TA52      |
| R313     | 0RN0471H609 | 4.7 OHM 1/2 W 5.00% TA52      | R539     | 0RD1002F609 | 10K OHM 1/6 W 5% TA52          |
| R314     | 0RN0471H609 | 4.7 OHM 1/2 W 5.00% TA52      | R540     | 0RD4702F609 | 47K OHM 1/6 W 5% TA52          |
| R315     | 0RS2700K607 | 270 OHM 2 W 5.00% TA62        | R542     | 0RD8200F609 | 820 OHM 1/6 W 5.00% TA52       |
| R32      | 0RD3301F609 | 3.3K OHM 1/6 W 5.00% TA52     | R543     | 0RD9100F609 | 910 OHM 1/6 W 5.00% TA52       |
| R328     | 0RN3302F409 | 33K OHM 1/6 W 1.00% TA52      | R545     | 0RD1002F609 | 10K OHM 1/6 W 5% TA52          |
| R33      | 0RD1000F609 | 100 OHM 1/6 W 5% TA52         | R555     | 0RD6800F609 | 680 OHM 1/6 W 5% TA52          |
| R34      | 0RD1000F609 | 100 OHM 1/6 W 5% TA52         | R557     | 0RD3301F609 | 3.3K OHM 1/6 W 5.00% TA52      |
| R35      | 0RD1000F609 | 100 OHM 1/6 W 5% TA52         | R558     | 0RD3001F609 | 3K OHM 1/6 W 5.00% TA52        |

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| the characters at 2nd and 3rd digit in the P/No. means as follows; | CO : Polyester<br>CE : Electrolytic | RS : Metal Oxide Film<br>RN : Metal Film<br>RF : Fusible |

| LOCA. NO | PART NO     | DESCRIPTION                   | LOCA. NO                    | PART NO     | DESCRIPTION                                |
|----------|-------------|-------------------------------|-----------------------------|-------------|--|
| R562     | ORD0752F609 | 75 OHM 1/6 W 5.00% TA52       | R903                        | 0RD2200F609 | 220 OHM 1/6 W 5.00% TA52                   |
| R563     | ORD0752F609 | 75 OHM 1/6 W 5.00% TA52       | R904                        | 0RD2200F609 | 220 OHM 1/6 W 5.00% TA52                   |
| R601     | ORD0221A609 | 2.2 OHM 1/2 W(7.0) 5.00% TA52 | R905                        | 0RD2200F609 | 220 OHM 1/6 W 5.00% TA52                   |
| R602     | ORD0221A609 | 2.2 OHM 1/2 W(7.0) 5.00% TA52 | R906                        | 0RD1000F609 | 100 OHM 1/6 W 5% TA52                      |
| R603     | ORD0221A609 | 2.2 OHM 1/2 W(7.0) 5.00% TA52 | R907                        | 0RD1000F609 | 100 OHM 1/6 W 5% TA52                      |
| R604     | ORD0221A609 | 2.2 OHM 1/2 W(7.0) 5.00% TA52 | R908                        | 0RD1000F609 | 100 OHM 1/6 W 5% TA52                      |
| R605     | ORD1001F609 | 1K OHM 1/6 W 5% TA52          | R909                        | 0RCZVTA002D | 1/2 W 1.5K,10%,PLIKOR(HIGH SURGE)          |
| R605     | ORD1101F609 | 1.1K OHM 1/6 W 5.00% TA52     | R910                        | 0RCZVTA002D | 1/2 W 1.5K,10%,PLIKOR(HIGH SURGE)          |
| R606     | ORD3901F609 | 3.9K OHM 1/6 W 5% TA52        | R911                        | 0RCZVTA002D | 1/2 W 1.5K,10%,PLIKOR(HIGH SURGE)          |
| R606     | ORD4701F609 | 4.7K OHM 1/6 W 5% TA52        | R912                        | 0RD2204A609 | 2.2M OHM 1/2 W(7.0) 5.00% TA52             |
| R607     | ORD1002F609 | 10K OHM 1/6 W 5% TA52         | R914                        | 0RD0102F609 | 10 OHM 1/6 W 5% TA52                       |
| R608     | ORD1001F609 | 1K OHM 1/6 W 5% TA52          | <b>SWITCH</b>               |             |  |
| R609     | ORD1000F609 | 100 OHM 1/6 W 5% TA52         | SW11                        | 140-315A    | TACT SKHV17910B LG C&D12V                  |
| R610     | ORD1802F509 | 18K OHM 1/6 W 2.00% TA52      | SW12                        | 140-315A    | TACT SKHV17910B LG C&D12V                  |
| R611     | ORD1001F609 | 1K OHM 1/6 W 5% TA52          | SW13                        | 140-315A    | TACT SKHV17910B LG C&D12V                  |
| R612     | ORD3901F609 | 3.9K OHM 1/6 W 5% TA52        | SW14                        | 140-315A    | TACT SKHV17910B LG C&D12V                  |
| R613     | ORD0221F609 | 2.2 OHM 1/6 W 5.00% TA52      | SW15                        | 140-315A    | TACT SKHV17910B LG C&D12V                  |
| R614     | ORD1000F609 | 100 OHM 1/6 W 5% TA52         | SW16                        | 140-315A    | TACT SKHV17910B LG C&D12V                  |
| R615     | ORD1001F609 | 1K OHM 1/6 W 5% TA52          | SW801                       | 6600VM2002A | SDKEA3 ALPS IEC 250V 8A HORIZONTAL 480G    |
| R616     | ORD2700F609 | 270 OHM 1/6 W 5% TA52         | <b>FILTER &amp; CRYSTAL</b> |             |  |
| R617     | ORD6801F609 | 6.8K OHM 1/6 W 5.00% TA52     | FB801                       | 125-022K    | FERRITEAXIAL 62MM 1UH NY 3.5X6.0MM         |
| R618     | ORD6801F609 | 6.8K OHM 1/6 W 5.00% TA52     | FB802                       | 125-022K    | FERRITEAXIAL 62MM 1UH NY 3.5X6.0MM         |
| R619     | ORD6801F609 | 6.8K OHM 1/6 W 5.00% TA52     | FB803                       | 125-022K    | FERRITEAXIAL 62MM 1UH NY 3.5X6.0MM         |
| R620     | ORD1000F609 | 100 OHM 1/6 W 5% TA52         | FB825                       | 125-022K    | FERRITEAXIAL 62MM 1UH NY 3.5X6.0MM         |
| R621     | ORD6801F609 | 6.8K OHM 1/6 W 5.00% TA52     | T802                        | 150-F06W    | SQE2930 36MH 0.5PHY 105TURN .              |
| R624     | ORD6801F609 | 6.8K OHM 1/6 W 5.00% TA52     | X11                         | 6202VDB007B | RESONATOR, HC49U 20.250MHZ 30PPM           |
| R664     | ORD6801F609 | 6.8K OHM 1/6 W 5.00% TA52     | Z101                        | 6200QL3001Z | B39361-X6966-D100 EPCOS ST                 |
| R802     | 0RKZVTA001K | 0.47M OHM 1/2 W 5% TA52       | <b>JACK</b>                 |             |  |
| R803     | 180-822N    | RWR 7W 1.0 OHM J PD           | JK202                       | 6612M00005A | UPJ-R1-027 UGCCOM CH1                      |
| R804     | 0RS4702K619 | 47K OHM 2 W 5% TR             | JK202                       | 6612VJH004B | PJ6056B 4P MONO (21P SCART PIN TO PIN)     |
| R805     | 0RS4702K619 | 47K OHM 2 W 5% TR             | JK202                       | 6612VJH011A | PJP109A A/V IN/OUT 6P FOR 21PIN W/DECO.    |
| R806     | 180-A01N    | 0.18 OHM 2 W 5% TA62 PRW      | PJ1202                      | 6613V00004F | PJP107F A/V 3P DOUBLE S/W                  |
| R807     | ORD2200A609 | 220 OHM 1/2 W(7.0) 5.00% TA52 | PJ1202                      | 6613V00004L | PJP107L A/V 2P DOUBLE S/W MONO YL/WH       |
| R808     | ORD1501F609 | 1.5K OHM 1/6 W 5% TA52        | PJ1203                      | 380-068D    | UEJ-CV-003 E/P WITH S/W STEREO(068B) D3.5  |
| R809     | ORD1001F609 | 1K OHM 1/6 W 5% TA52          | <b>ACCESSORIES</b>          |             |  |
| R810     | ORD0472F609 | 47 OHM 1/6 W 5% TA52          | A1                          | 3828VA0475A | MANUAL,OWNERS NEU LG EN 090A/D TX          |
| R814     | 0RK8204H609 | 8.2M OHM 1/2 W 5.00% TA52     | A1                          | 3828VA0475F | MANUAL,OWNERS NEU LG AR/EN 124E TX         |
| R816     | ORD1001F609 | 1K OHM 1/6 W 5% TA52          | A2                          | 6710V00124D | REMOTE CONTROLLER,MC049B W/O TXT           |
| R817     | ORD0152F609 | 15 OHM 1/6 W 5.00% TA52       | A2                          | 6710V00124E | REMOTE CONTROLLER,MC049B TXT               |
| R823     | ORD4701F609 | 4.7K OHM 1/6 W 5% TA52        | <b>MISCELLANEOUS</b>        |             |  |
| R827     | ORD1001F609 | 1K OHM 1/6 W 5% TA52          | F801                        | 0FS4001B53C | FUSE,4000MA 250 V 5.2X20                   |
| R828     | ORD1501F609 | 1.5K OHM 1/6 W 5% TA52        | PA01                        | 6712SCA226B | REMOTE CONTROLLER RECEIVER,KSM-913LG1T     |
| R831     | ORD2201F609 | 2.2K OHM 1/6 W 5.00% TA52     | SK901                       | 6620VBC003A | SOCKET (CIRC),CPT PCS030A 8PIN 14/360      |
| R838     | ORD4701F609 | 4.7K OHM 1/6 W 5% TA52        | T402                        | 6174V-6006N | FBT, BSC25-N1649 20/21 YY FBT              |
| R840     | 0RF0141K607 | 1.4 OHM 2 W 5.00% TA62        | TH801                       | 163-054F    | THERMISTOR,J502P84D140M290Q +30%/-20% 290V |
| R842     | ORD1002F609 | 10K OHM 1/6 W 5% TA52         | TU101                       | 6700VS0002F | TUNERTAEW-G002D ALL IN W/S 09Z VE          |
| R843     | ORD3900A609 | 390 OHM 1/2 W(7.0) 5.00% TA52 | VD801                       | 164-003G    | VARISTOR,TVR621D14A 620V 10%               |
| R844     | ORD1001F609 | 1K OHM 1/6 W 5% TA52          |                             |             |  |
| R845     | ORD1002F609 | 10K OHM 1/6 W 5% TA52         |                             |             |  |
| R846     | ORD7502F609 | 75K OHM 1/6 W 5.00% TA52      |                             |             |  |
| R847     | ORD2403F609 | 240K OHM 1/6 W 5.00% TA52     |                             |             |  |
| R858     | ORD4701F609 | 4.7K OHM 1/6 W 5% TA52        |                             |             |  |

# MC-049B CIRCUIT DIAGRAM 040531



**SVC. SHEET : 3854VA0162A-S**



**LG Electronics Inc.**

P/NO : 3828VD0196B

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