



**LG**

kkk 'tj gYfj ]W'cf[ 'Xck b`cUX'gW Ya Uh]WX]U] fUa g

# **COLOR TV**

# **SERVICE MANUAL**

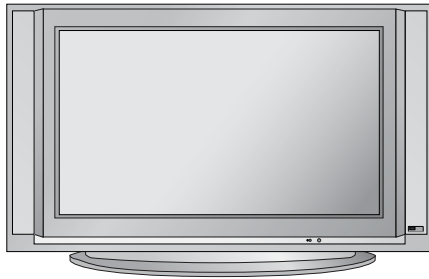
**CHASSIS : MC-05HA**

**MODEL : 29FS2AMB/ANX**

**29FS2AMB/ANX-ZE**

**CAUTION**

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



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# 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  $\pm$  1.5KV: 14-19 inch, 26  $\pm$  1.5KV: 19-21 inch,

29.0  $\pm$  1.5KV: 25-29 inch, 30.0  $\pm$  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.

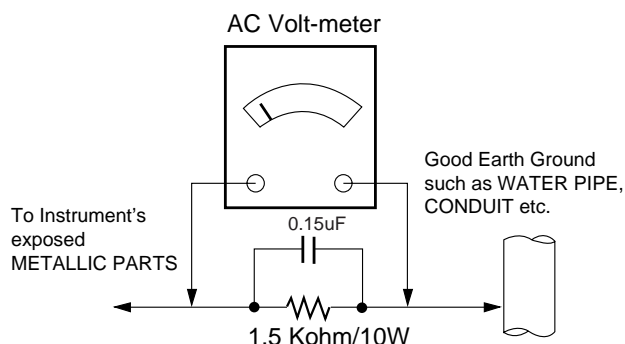
Connect 1.5K/10watt resistor in parallel with a 0.15 $\mu$ F capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.

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

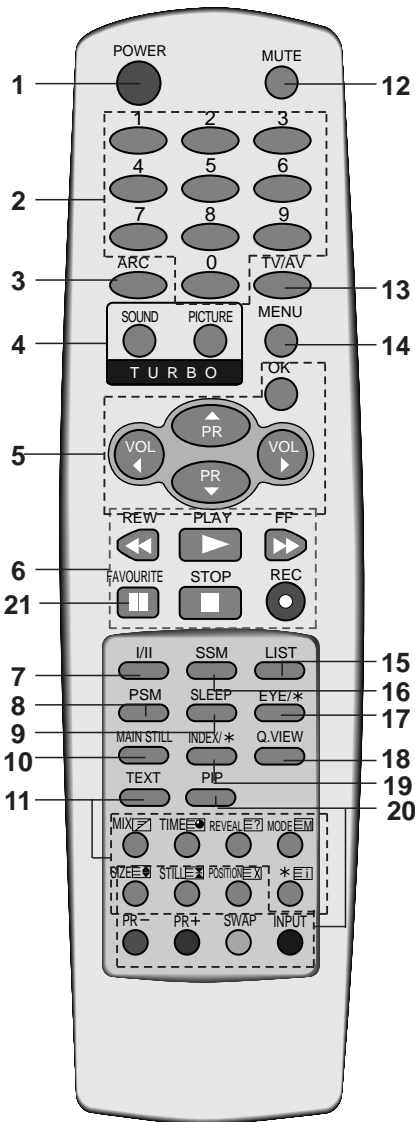


# CONTROL DESCRIPTIONS

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.



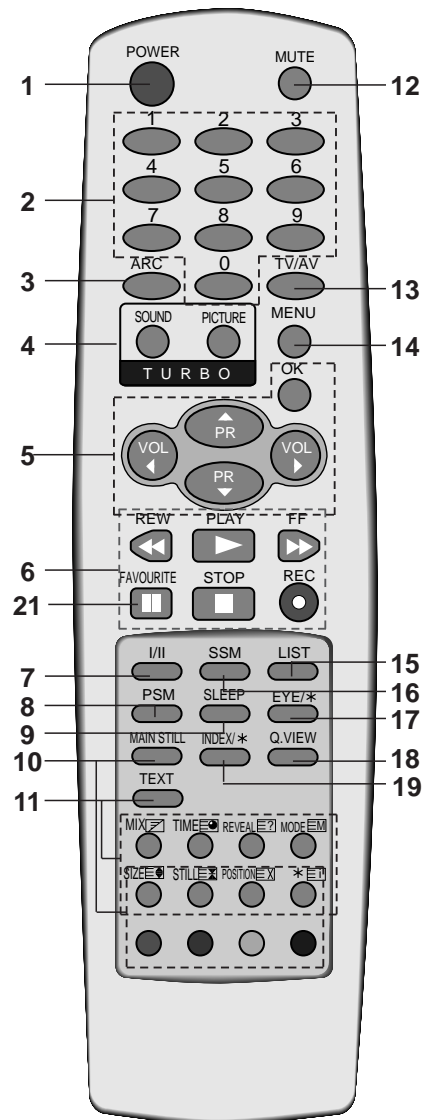
( With TELETEXT/PIP)

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. **ARC (Aspect Ratio Control)**  
changes the picture format.
4. **TURBO PICTURE BUTTON / SOUND BUTTON (option)**  
selects Turbo picture.
5. **▲ / ▼ (Programme Up/Down)**  
selects a programme or a menu item.  
**◀ / ▶ (Volume Up/Down)**  
adjusts the volume.
6. **VCR BUTTONS**  
control a LG video cassette recorder.
7. **I/II**  
selects the language during dual language broadcast.  
**OK**  
accepts your selection or displays the current mode.
8. **PSM (Picture Status Memory)**  
recalls your preferred picture setting.
9. **SLEEP**  
sets the sleep timer.
10. **MAIN STILL**  
freezes motion of the picture.
11. **TELETEXT BUTTONS (option)**  
These buttons are used for teletext.  
For further details, see the 'Teletext' section.
12. **MUTE**  
switches the sound on or off.
13. **TV/AV**  
selects TV or AV mode.  
switches the set on from standby.

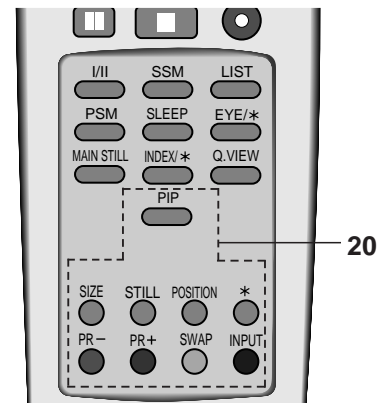
- 14. **MENU**  
selects a menu.
- 15. **LIST**  
displays the programme table.
- 16. **SSM (Sound Status Memory)**  
recalls your preferred sound setting.
- 17. **EYE/\* (option)**  
switches the eye function on or off.
- 18. **Q.VIEW**  
returns to the previously viewed programme.
- 19. **INDEX/\* (option)**  
switches DISPLAY on or off.
- 20. **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.
- 21. **FAVOURITE**  
selects a favorite programme.

**\* : No function**

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

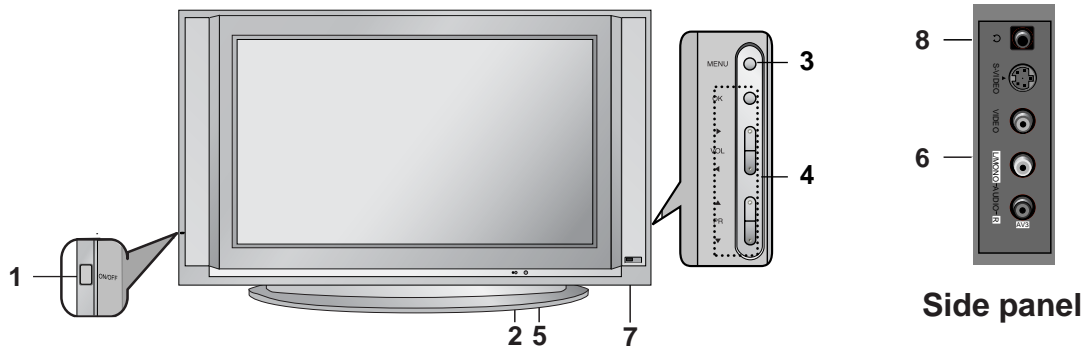


(With TELETEXT / Without PIP)



(Without TELETEXT / With PIP)

## Front panel



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.
3. **MENU**  
selects a menu.
4. **OK**  
accepts your selection or displays the current mode.  
◀ / ▶ **(Volume Down/Up)**  
adjusts the volume.  
adjusts menu settings.  
▲ / ▼ **(Programme Up/Down)**  
selects a programme or a menu item.  
switches the set on from standby.
5. **REMOTE CONTROL SENSOR**
6. **AUDIO/VIDEO IN SOCKETS (AV3)**  
Connect the audio/video out sockets of external equipment to these sockets.  
**S-VIDEO/AUDIO IN SOCKETS (S-AV)**  
Connect the video out socket of an S-VIDEO VCR to the **S-VIDEO** socket.  
Connect the audio out sockets of the S-VIDEO VCR to the audio sockets as in **AV3**.
7. **EYE (option)**  
adjusts picture according to the surrounding conditions.
8. **HEADPHONE SOCKET (option)**  
Connect the headphone plug to this socket.

# 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-05HA Chassis.

## ■ Test and Inspection Method

- 1) performance : Follow the Standard of LG TV test
- 2) Standards of Etc. requirement
  - Safety: IEC60065
  - EMC: EN55020,EN55013

## ■ Test Condition

- 1) Temperature : 20 ± 0.5(CST : 40 ± 0.5)
- 2) Relative Humidity : 65 ± 10%
- 3) Power voltage : 110-240V~, 50/60Hz
- 4) Follow each drawing or spec for spec and performance of parts,based upon P/N of B.O.M
- 5) Warm up TV set for more than 20min. before the measurement.

## ■ General Specifications

No.	Item	Specification	Remark
1	Receiving system	PAL,SECAM BG	
		PAL/SECAM DK	
		PAL I	
2	AV receiving system	SECAM-L/L'	EU
		NTSC M	Non EU
		NTSC M/PB	
		PAL BG, DK, I	
3	Component receiving system	SECAM BG, DK	
		480i/ 480P	
		576i/ 576P	
		1080i 50Hz/60Hz	
4	Available Channel	720P 50Hz/60Hz	
		1) VHF : E2 ~ E12 UHF : E21 ~ E69 CATV : S1 ~ S20 HYPER : S21 ~ S41	
		2) L/L'	EU
		3) NTSC-M VHF : 2 ~ 13CH UHF : 14 ~ 69CH CATV : 01 ~ 125CH	Non EU  200 PR. (W/O TXT)
5	Input Voltage	110-240V~, 50/60Hz(Wide Range) 220V~ or 230V~, 50/60Hz(Narrow)	EU : Narrow Non EU : Narrow, Wide
6	Market	EU, Non EU	
7	Screen Size	4:3 Flat 29", Wide Flat 32"	
8	Tuning System	FVS 100/200 Program	Option
9	Operating Environment	1) Temp : 0 ~ 45 deg 2) Humidity: below 85%	
10	Storage Environment	1) Temp : -20 ~ 60 deg 2) Humidity: below 85%	

# ADJUSTMENT INSTRUCTIONS

## 1. Application Object

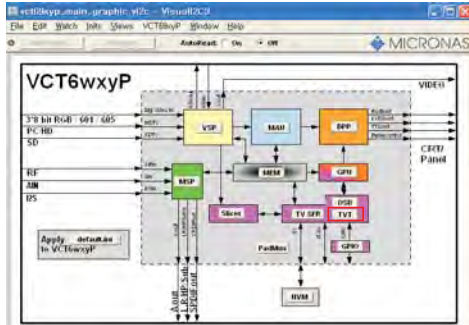
These instructions are applied to all of the color TV, MC-05HA chassis.

## 2. Notes

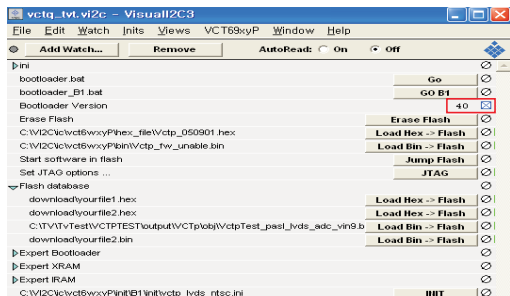
- (1) Because this is not a hot chassis, it is not necessary to use an isolation transformer. However, the use of isolation transformer will help protect test instrument.
- (2) Adjustment must be done in the correct order. But the adjustment can be changed by consideration of mass production.
- (3) The 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. Software download

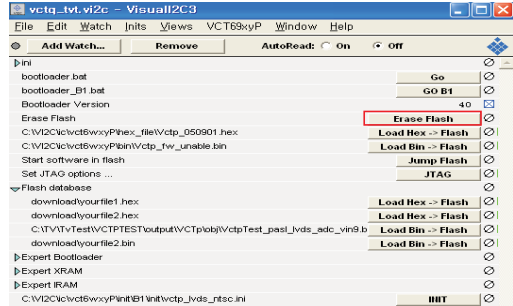
- 1) Connect JIG to P004 of Digital Board.
- 2) Connect SCL line of JIG Switch to Ground.
- 3) Turn on JIG and supply 6V to Digital Board. Terminate the SCL of clause 2) by using Switch.
- 4) After termination of SCL line, wait for 3 second.
- 5) Execute 'vct69xyp\_main\_graphic.vi2c' program.
- 6) Click the TVT button.



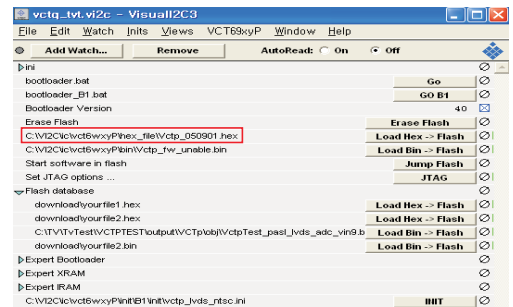
- 7) Double click right check box of 'Boot loader Version' line, and then check to change to 40 from 0.



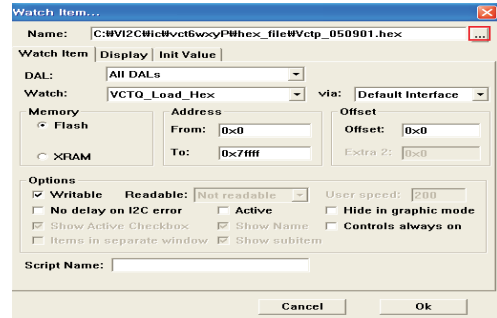
- 8) After checking '40', Click the Erase Flash button.



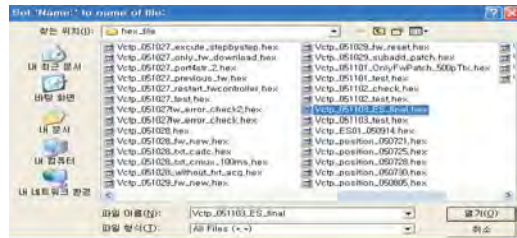
- 9) Double click 'Edit Window'.



- 10) Click the file select button of Name to select file.

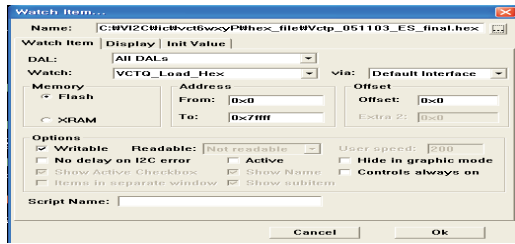


- 11) Select necessary file.

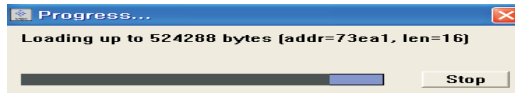




12) Download the file with 'OK' button.



13) Check download process(about 30~40 sec.).



## 4. DVCO Adjustment

- 1) This adjustment applies to the frame assembly unit adjustment.
- 2) This adjustment is to adjust the crystal oscillator frequency of VCTP IC and is done after receiving the PAL B/G digital pattern signal.
- 3) If you press the ADJ button to enter the SCREEN mode, DVCO adjustment is automatically done.  
(T/X may not operate properly during DVCO adjustment.)

## 5. Temporary screen voltage adjustment

- 1) This adjustment applies to the frame assembly unit adjustment.
- 2) Enter Screen Mode with ADJ button. Turn the screen volume to disappear horizontal line.

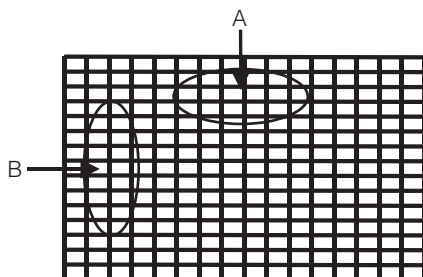
## 6. Focus Adjustment

### 6-1. Preliminary steps

Receive the PAL-B/G 07ch(Cross hatch pattern, <Fig 6>) and Set the picture mode to "STANDARD".

### 6-2. Adjustment

- 1) Adjust the lower Focus volume of FBT for the best focus of vertical line B.
- 2) Adjust the upper Focus volume of FBT for the best focus of area A.
- 3) Repeat above step 1) and 2) for the best overall focus.

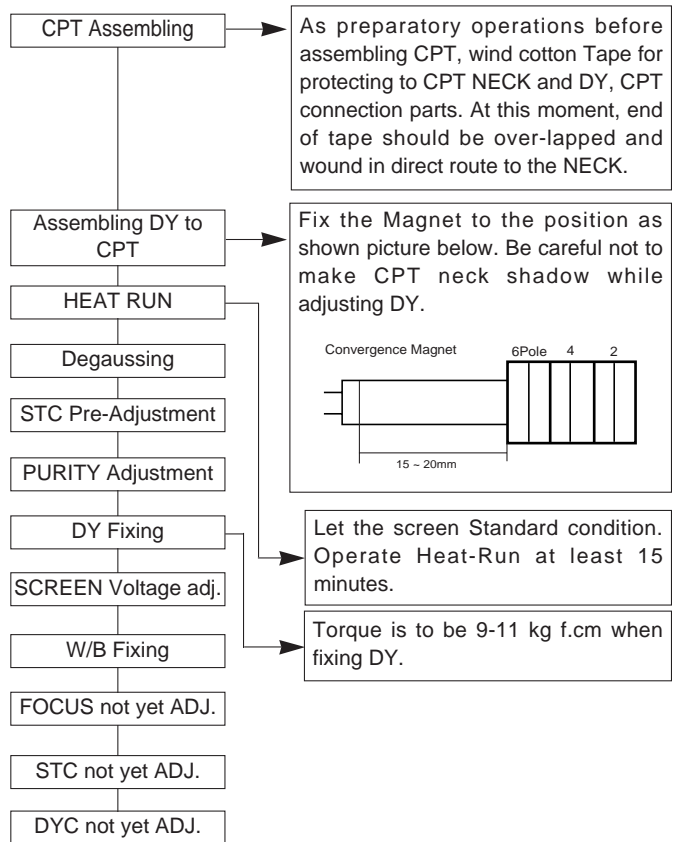


<Fig. 1>

## 7. Purity & Convergence adjustment

Adjustment should be operated when using the CPT(without ITC from CPT manufacturing place)

This adjustment must be done in the order of the following flowchart.



### 7-1. Purity adjustment

- (1) It makes CPT or CABINET 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 TV set by move direction.

### 7-2. Convergence adjustment

These adjustments can 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 fixing DY.

f. Check the adjusted color coordinates with white balance meter.

Color Temperature	X coordinate	Y coordinate	
13500K	266± 8	273 ± 8	Non EU
9000K	288 ± 8	295 ± 8	EU

## 8. Screen voltage Adjustment

### 8-1. Preliminary steps

- 1) Turn the power supply of the TV set on.
- 2) The set must be operated for about 15 minutes prior to the adjustment.

### 8-2. Adjustment

- 1) Adjust in the condition of no RF signal or after receiving the PAL-B/G 05ch(Digital pattern)
- 2) Press ADJ key on the Remote controller and select "2.SCREEN" to make horizontal line.

Turn the Screen Volume not to see one horizontal line and turn oppositely until it starts to display.

	MENU	29"	Remark
RGB	RD(0~1FF)	0180	For High Light adjustment
	GD(0~1FF)	0190	
W-B	BD(0~1FF)	01A0	For Low Light adjustment
	RC(0~1FF)	00D0	
	GC(0~1FF)	00FF	
	BC(0~1FF)	00E0	

## 9. White balance Adjustment

This adjustment should be performed after screen voltage adjustment.

For manual adjustment, refer to the following procedure

### 9-1. Test equipment

- 1) Automatic White Balance Meter(Low/High Light Pattern)
  - Automatic adjustment
- 2) White Balance Meter(CRT Color Analyzer, CA-100) : 1 set
- 3) Remote control for adjustment

### 9-2. Preliminary steps

- 1) Tune the TV set to receive an 100% white pattern.
- 2) This adjustment should be performed after screen voltage adjustment.

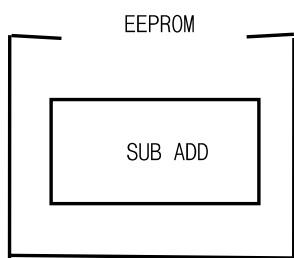
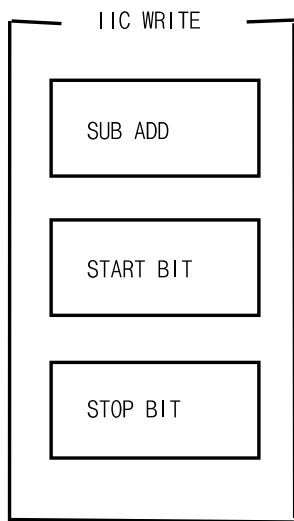
### 9-3. Adjustment

- 1) White Balance should be adjusted with White balance meter and the remote controller.
- 2) Press the ADJ button to enter the adjustment mode, search for RGB W-B mode with CH▲, ▼, and select with VOL button.
- 3) Select the adjustment item with CH ▲, ▼ button.
- 4) Adjust the data with Press VOL ◀, ▶ button.
- 5) Adjustment procedure
  - a. Adjust the "CONTRAST" and "BRIGHT" so the bright level to be 35 Ft\_L.
  - b. Adjust "Y" value of High Light with RD(R-Drive) and adjust "X" value with BD(B-Drive) and make color coordinates of High Light which is specified in "clause f".
  - c. Adjust the "CONTRAST" and "BRIGHT" so the bright level to be 4.5 Ft\_L.
  - d. Adjust "Y" value of Low Light with RC(R-Cutoff) and adjust "X" value with BC(B-Cutoff) and make color coordinates of Low Light which is specified in "clause f".
  - e. Repeat a~d until the High/ Low color coordinates satisfies the table of "clause f"

IIC DATA SETTING

Model IIC

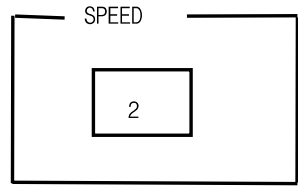
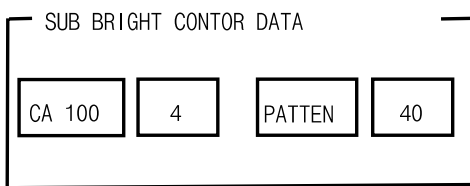
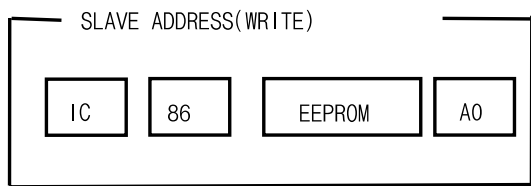
OFFSET DATA



(B AMP)	(B CUT)	(G AMP)	(G CUT)	SUB BRIGHT
1	2	0	3	
8	C	7	B	
7	7	7	7	
2	2	2	2	
0	0	0	0	
39	3D	38	3C	

DATA SAVE

ADDR	DATA



## 10. Deflection Data Adjustment

- Manual adjustment can be done by the following procedure.

### 10-1. Preliminary steps

- 1) Set the Deflection data with the remote controller.
- 2) Enter the Adjustment mode by pressing the ADJ button.
- 3) Select the "DEFLECT" to adjust Deflection Data.
- 4) Press the CH ▲, ▼ button to select adjustment items.
- 5) Press the VOL F, G button to adjust the data.
- 6) The TV set receives PAL-B/G Digital pattern(EU05ch).

NOTE : Initial adjustment is done based on PAL 100Hz.

If production line doesn't the production line of LG TV, receive available deflection adjustment pattern.

- 7) MC05HA Chassis is based 3Mode adjustment
- 8) sequency : Pal 100Hz -> 1080i/50Hz -> NTSC

- \* MC05HA chassis is based output of 1080i/50Hz.
- \* For adjusting 1080i/50Hz output after adjusting 100Hz, press the Mode button of remote controller after entering to DEFLECTION of SVC Mode.

### 10-2. Adjustment

#### VL (Vertical Linearity)

Adjust the top & bottom size of inner circle to be equal.

#### VA (Vertical Amplitude)

Adjust upper and lower part of circle from the effective screen of the CPT. to be distance of 6~7mm.

#### SC (Vertical S Correction)

Adjust the lattice width of the Top/Center/Bottom to be the same.

As being decided by DY value of the using CPT, set as default of the using CPT.

#### VS (Vertical Shift)

Adjust so that the horizontal center line of a digital circle pattern is in accord with geometric horizontal center of the CPT.

#### HS (Horizontal Shift)

Adjust so that the vertical center line of a digital circle pattern is in accord with geometric vertical center of the CPT.

#### EW (East-West Horizontal Width)

Adjust outer line of the left/ right outer lattice to be united with effective boundary surface of CPT.

#### BOW

In line adjustment, not to change default value is basic.

#### ANG

In angle adjustment, adjust until inclination of center vertical line should be vertical precisely.

#### EP (East-West Parabola)

Adjust so that middle portion of the outermost left and right vertical line looks like parallel with vertical lines of the CPT.

#### CRNU(Upper Corner Correction)

Adjust so that corner vertical line of upper-left and upper-right to be straight line after finishing EP adjustment.

#### CRNL(Lower Corner Correction)

Adjust so that corner vertical line of lower-left and lower-right to be straight line after finishing EP adjustment.

#### CRNU6

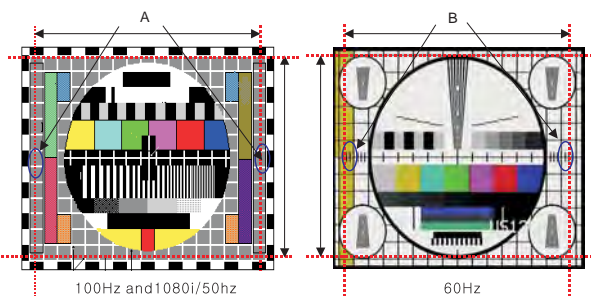
After finished CRNU adjustment, adjust vertical line of left-top, right-top of screen to the best straight line.

#### CRNL6

After finished CRNL adjustment, adjust vertical line of left-top, right-top of screen to the best straight line.

\* After adjusting as above, finish the Pin Cushion adjustment by re-adjustment of EW, EP, ANGLE, BOW, CRNU, CRNL, CRNU6, CRNL6.

\* After adjusting, move to "Store This Mode". And then change to "Store All Mode" with VOL ◀, ▶ and save by using press "OK" key.



<fig. 2>

## 11. Deflection setting initial data

ITEM	Range	RF PAL		RF NTSC
		100Hz	1080i/50	1080i/50
VL	0 ~ FFFF	FFFC	FFF3	FFDD
VA	0 ~ FFFF	004E	0014	002A
SC	0 ~ FFFF	009E	009E	007C
VS	0 ~ FFFF	FFF8	FF10	0003
HS	0 ~ FFFF	005D	005E	005C
EW	0 ~ FFFF	0044	0041	006C
ET	0 ~ FFFF	FFFB	FFDE	FFC0
EP	0 ~ FFFF	FFD0	FEE2	FE94
CRNU	0 ~ FFFF	0004	0004	FFF6
CRNL	0 ~ FFFF	000B	0025	002A
BOW	0 ~ FFFF	000B	0007	0007
ANGLE	0 ~ FFFF	000A	0009	0009
CRNU6	0 ~ FFFF	0056	003A	0056
CRNL6	0 ~ FFFF	003F	0030	0042

\* Check adjustment condition at 1080i/50Hz, NTSC60Hz after finishing adjustment in PAL100Hz, adjust deflection adjustment at each Mode again.

\* Sequence

:PAL 100Hz(RF) -> NTSC 60Hz(RF) -> 1080i/50Hz(COMPONENT)

## 12. How to inspect condition of a transmission and reception in wireless sound model(option)

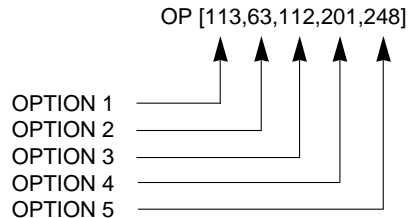
- Wireless sound model's efficiency inspections is executed to a finished in a final inspection phase.
- Wireless sound is a function which receives voice-signal by an exclusive remote control and Earphone, transmits a FM through transmitter of inner part in MICOM BOARD to TV sound(MONITOR OUTPUT)

- 1) Execute in channel generating voice-signal
- 2) Select a transmitted frequency in MENU OSD.
- 3) A received frequency in an exclusive remote control or received FM Radio is tuned by 87.7MHz which is same as frequency in OSD.
- 4) Check out whether a signal generating to MAIN SPEAKER generates in earphone or receiver or not.
- 5) There is no alternation and setting of adjusted DATA in the process of inspecting FM TX.

## 13. OPTION setting

### 13-2. Preliminary steps

- 1) This option adjustment decides function in accordance with model. Press the SVC TX adjustment button(CH up/down button) at SVC mode, then adjust the option at OPTION1, 2, 3, 4, 5 mode.
- 2) Mark the option adjustment data like [111,111,111,111,111] in BOM.



\* Mark of BOM

LEVEL	PART NO.	SPECIFICATION	DESCRIPTION
1.	3141VMNxxxA	MAIN CHASSIS ASSY	OPT[091,016,143,100,000]

In this model, the OPTION1 data is 091, OPTION2 data is 016, the OPTION3 data is 143, the OPTION 4 data is 100, OPTION 5 data is 000.

### 13-2. Adjustment Method

- 1) Input OPTION value with number button on remote control at each OPTION adjustment mode.
- 2) At each OPTION Mode, Select adjustment item by the CH ▲, ▼ button and then set up each OPTION by the ◀, ▶ button.

<Table 1> OPTION 1

Option	Code	Function	Remark
1	TEXT (2bit, Caption, 200PR)	3: WITH CAPTION(CANADA) 2: WITH CAPTION 1: W/TXT & 200 PROGRAM 0: W/O TXT & 200 PROGRAM	3: CANADA 2: OTHER NTSC AREA 1: Other country 0: china only
2	VCTP	0: BASIC 1: ECO	0: VCTP Basic Version 1: VCTP ECO Version * Fixed by MICOM VERSION
3	TOP	1: TOP + FLOF TEXT 0: FLOF TEXT	1: Dutch/ Swiss/ Austria/ Sweden/ Norway/Finland/ Poland/ Italy/ Spain/ Benelux3 0: Others
4	ACMS	1: WITH CHANNEL NAME DISPLAY 0: WITHOUT CHANNEL NAME DISPLAY	1:ALL COUNTRIES EXCEPT AUSTRALIA 0: AUSTRALIA ONLY
5	CH+AU	1: CHINA+AUSTRALIA CHANNEL TABLE 0: OTHER COUNTRIES CHANNEL TABLE	1: CHINA + AUSTRALIA 0: OTHERS
6	BOOST	1: WITH BOOSTER 0: WITHOUT BOOSTER	1: ALL 0:
7	PIP	1: WITH PIP 0: WITHOUT PIP	1: WITH PIP MODEL 0: WITHOUT PIP MODEL

<Table 2> OPTION 2

Option	Code	Function	Remark
1	SYS	0: BG//DK/L 1: BG//DK/M 2: 3-SYSTEM 3: RESERVED	0: RZ MODEL 1: RT MODEL 2: NO USE 3: NO USE
2	FMTRM	1: WIDE BAND XWAVE 0: NO XWAVE	1: WITH XWAVE MODEL 0: WITHOUT XWAVE MODEL
3	A2 ST	1: NICAM CHECK & FM STEREO/DUAL - operate 0: NICAM CHECK & FM STEREO/DUAL - not operate	1: OTHERS 0: TUNISIA
4	HDEV	1: HIGH DEVIATION MODULATION 0: RF NORMAL SOUND MODULATION	1: China/ Saudi/ India/ Indonesia/ Lebanon/ Pakistan/ Iran 0: OTHERS
5	VOL	1: RUSHED SOUND CURVE(ASIA, MIDDLE EAST) 0: STANDARD SOUND CURVE(EU, RUSSIA)	1: RT 0: RZ
6	WOOF	1: WITH WOOFER SPEAKER 0: WITHOUT WOOFER SPEAKER	TOOL OPTION
7	HPHON	1: WITH HEAD PHONE 0: WITHOUT HEAD PHONE	1: NO USE(READY) 0: ALL

<Table 3> OPTION 3

Option	Code	Function	Remark
1	SCART	3: READY 2: 2 SCART(SC ID enable + SC_RGB(soft mix)+sav2)	3: no use 2: 2 scart
2		1: 1 SCART(SC ID enable + SC_RGB(soft mix)) 0: WITHOUT SCART JACK(ALL PHONE JACK)	1: 1 scart + 1 phone 0: ALL PHONE JACK
3	WIDE	1: 16:9 TV 0: 4:3 TV	1: Wide Model 0: 4:3 model
4	NCOMP (number of component)	1: COMPONENT 1/2 0: COMPONENT 1	1: no use 0: ALL
5	3DCOM	1: WITH 3D-COMB FILTER 0: WITHOUT 3D-COM FILTER(WITH 4H-FILTER)	1: Basic VCTP(PIP model) 0: Eco VCTP(W/O PIP)
6	BLUBK	1: WITH BLUE BACK 0: WITHOUT BLUE BACK	1: ALL 0: no use
7	XD	1: WITH XD 0: WITHOUT XD	1: With XD ON/OFF Function 0:
8	TILT-NOTE	1: can't control TILT by REMOCON 0: can control TILT by REMOCON	1: RZ model 0: RT model

<Table 4> OPTION 4

No.	OPTION	Specification	REMARK
1	LANG	0: ENG ONLY 1: EU 5EA 2: EU ETC 3: GREECE 4: PARSI 5: ARAB URDU 6: E+HINDI 7: E+M+V 8: E+THAI 9: E+CHINA	English Only English/ German/ French/ Italian/ Spanish Polish/ Hungarian/ Czech/ Russian/ English/ Dutch/ Swedish/ Norwegian/ Danish/ Finnish/ Portuguese/ Rumanian English/ Greek English/ PARSI(Iran) English/ French/ Arabic(Egypt, Saudi)/ URDU(Pakistan) English+HINDI English+Indonesian+Malaysian/ Vietnamese English+THAI English+Chinese
2	TXT LAN	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: PARS ENG 15: PARS FRA 16: PARS ALL	English/ French/ Swedish/ Czech/ German/ Spanish/ Italian Polish/ French/ Swedish/ Czech/ German/ Slovene/ Italian/ Rumanian English/ French/ Swedish/ Turkish/ German/ Spanish/ Italian English/ Hungarian/ Serbian/ Czech/ German/ Spain/ italy/ Rumanian Polish/ Russian/ Estonian/ Lettish Polish/ Russian/ Swedish/ Czech/ Estonian/ Lettish English/ Russian/ Estonian/ Czech/ Ukrainian/ Lettish English/ French/ Swedish/ Turkish/ Portuguese/ German/ Spanish/ Italian/ Greek English/ Turkish/ German/ Greek English/ French/ Swedish/ Turkish / German/ Spanish/ Italian/ Greek French/ English/ Turkish/ Arabic English/ French/ Turkish/ Arabic Hebrew/ Arabic English/ French/ Arabic/ Hebrew English/ French/ Turkish/ Parsi French/ Turkish/ Parsi English/ French/ Parsi * Finland => suomi
3		100	

<Table 5> OPTION5

Option	Code	Function	Remark
1	C/PTV	1: W/ CVG(PTV) 0: W/O CVG(CTV)	1: no use 0: ALL * Fixed by MICOM version
2	AUTOCVG	1: WITH AUTO CONVERGENCE 0: WITH 9 POINT CONVERGENCE	1: no use 0: ALL
3	32 INCH	1: 32 INCH 0: OTHERS	1: no use 0: ALL
4	HOTEL	1: WITH HOTEL FUNCTION 0: WITHOUT HOTEL FUNCTION	1: Limit MAX VOL Level, CH EDIT 0:
5	EYE	1: WITH DIGITAL EYE 0: WITHOUT DIGITAL EYE	1: no use(READY) 0: ALL
6	TBIDX	1: WITH TURBO THEATER INDEX 0: WITHOUT TURBO THEATER INDEX	1: FB90/FC40 index option 0: Other Tool all
7	DGIDX	1: WITH DIGITAL INDEX 0: WITHOUT DIGITAL INDEX	1: WITH INDEX MODEL 0: W/O INDEX MODEL
8	MOVE SPK	1: WITH MOVE SPEAKER 0: WITHOUT MOVE SPEAKER	1: 29FB90 0: Other tool

## 14. SERVICE MODE DATA

<Table 6> Basic data of DDP3316C

ITEM	PAL 100Hz	NTSC	1080i/50Hz
EHTTH	00FA	00FA	00FA
EHT-S	001F	001F	001F
EHTV1	FFF2	FFF2	FFF2
EHTV2	FFE2	FFF2	FFE2
EHTH1	FFD1	FFD1	FFD1
EHTH2	FFE0	FFE0	FFE0
EHT-F	0003	0003	0003
EHTP-1	FFE8	FFE8	FFE8
EHTP-2	0003	0003	0003

<Table 8> W/B DATA

MENU	ITEM	DATA
RGB W-B	R-DRIVE	0150
	G-DRIVE	0090
	B-DRIVE	0090
	R-CUTOFF	00FF
	G-CUTOFF	00FF
	B-CUTOFF	00FF
	TNRCT C/A	0005
	AGC-LEV	00B0

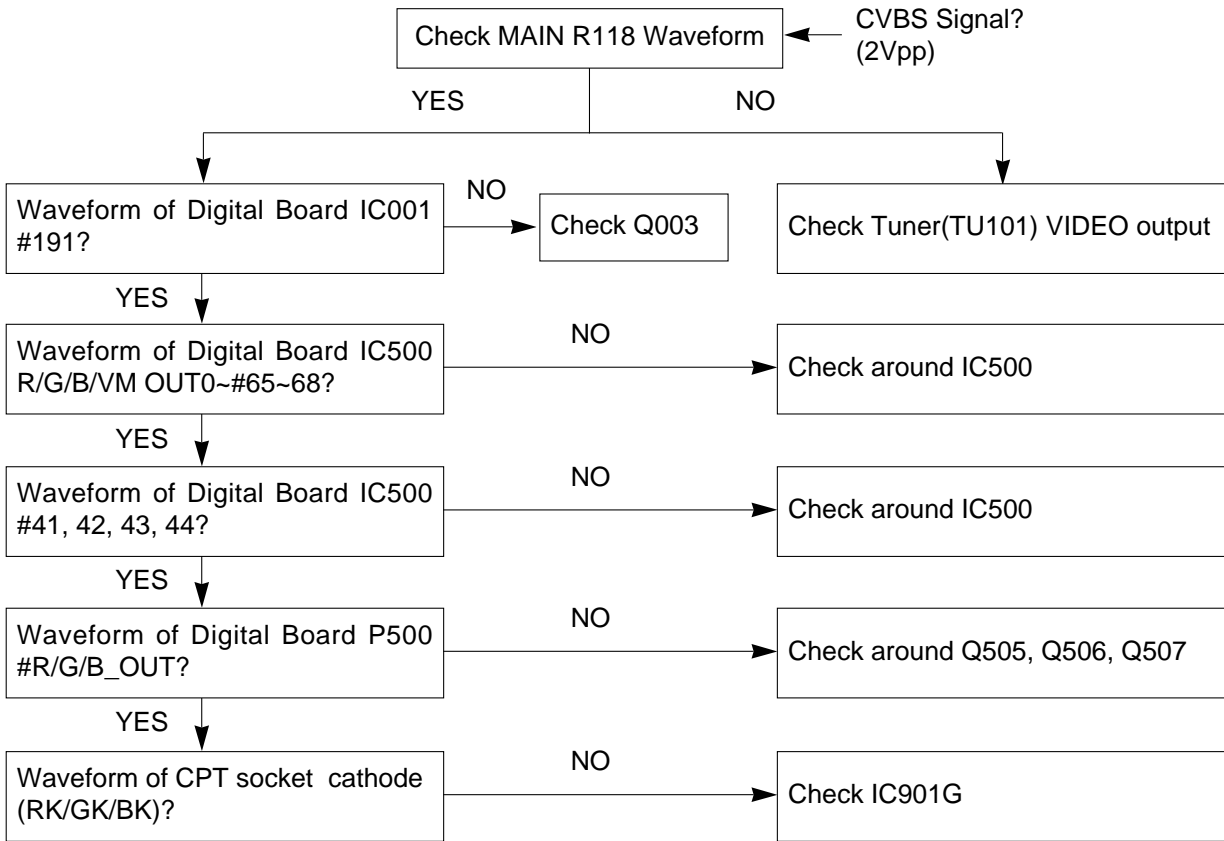
<Table 7> Basic data of DDP3316C - 2

ITEM	PAL 100Hz	NTSC	1080i/50Hz
IBRM	0190	0190	0190
WDRM	00C8	00C8	00C8
GGAIN	0000	0000	0000
WGAIN	0000	0000	0000
MWDR	01F0	01F0	01F0
BCLTH	0250	0250	0250
BCLTC	0190	0190	0190
BCLGA	00A0	00A0	00A0
BCTC	0096	0096	0096
TML	0000	0000	0000



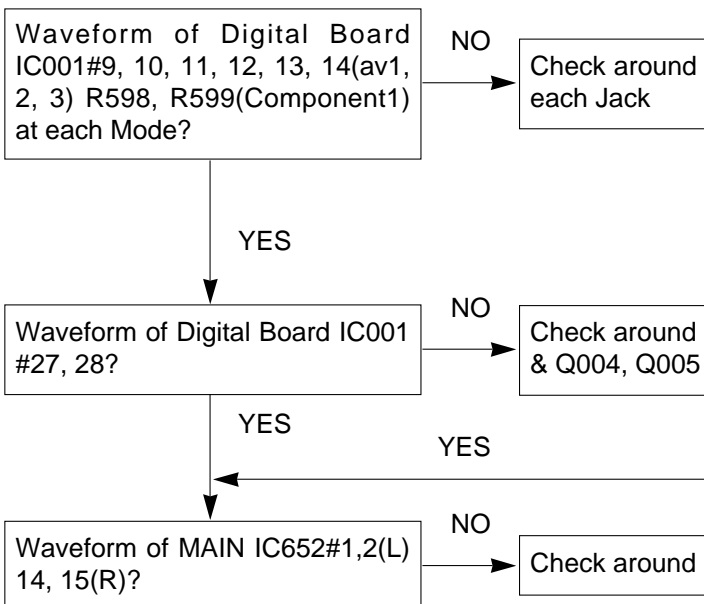
# TROUBLE SHOOTING

## 1. No Picture (sound ok)

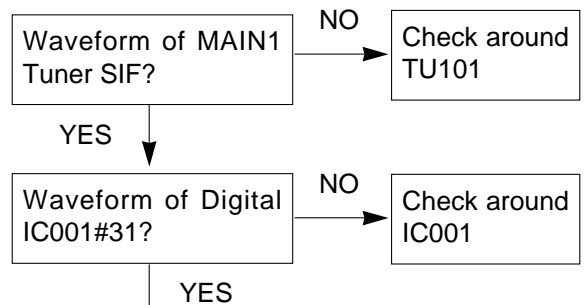


## 2. No Sound (picture ok)

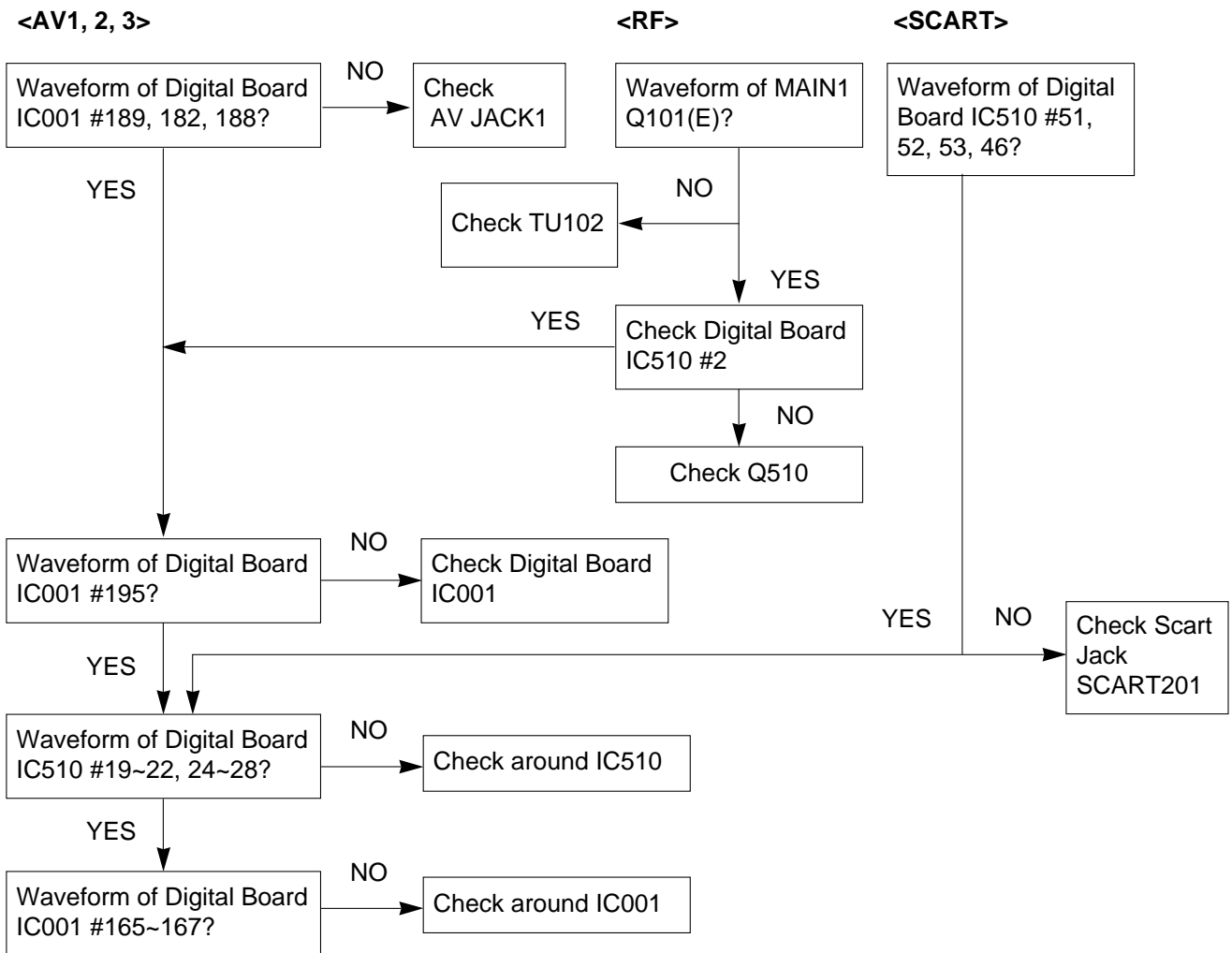
<AV1, 2, 3, Component 1 INPUT>



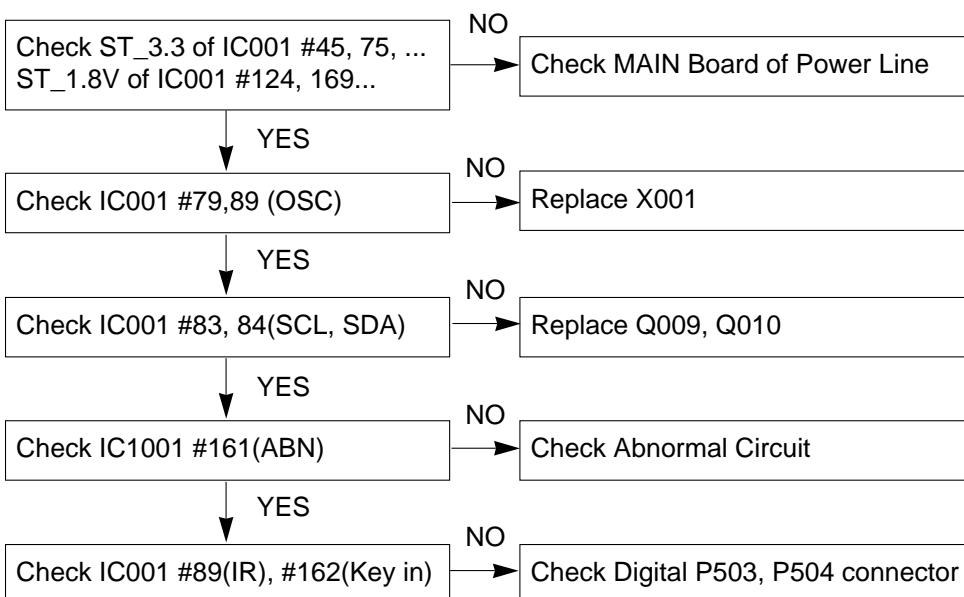
<RF>



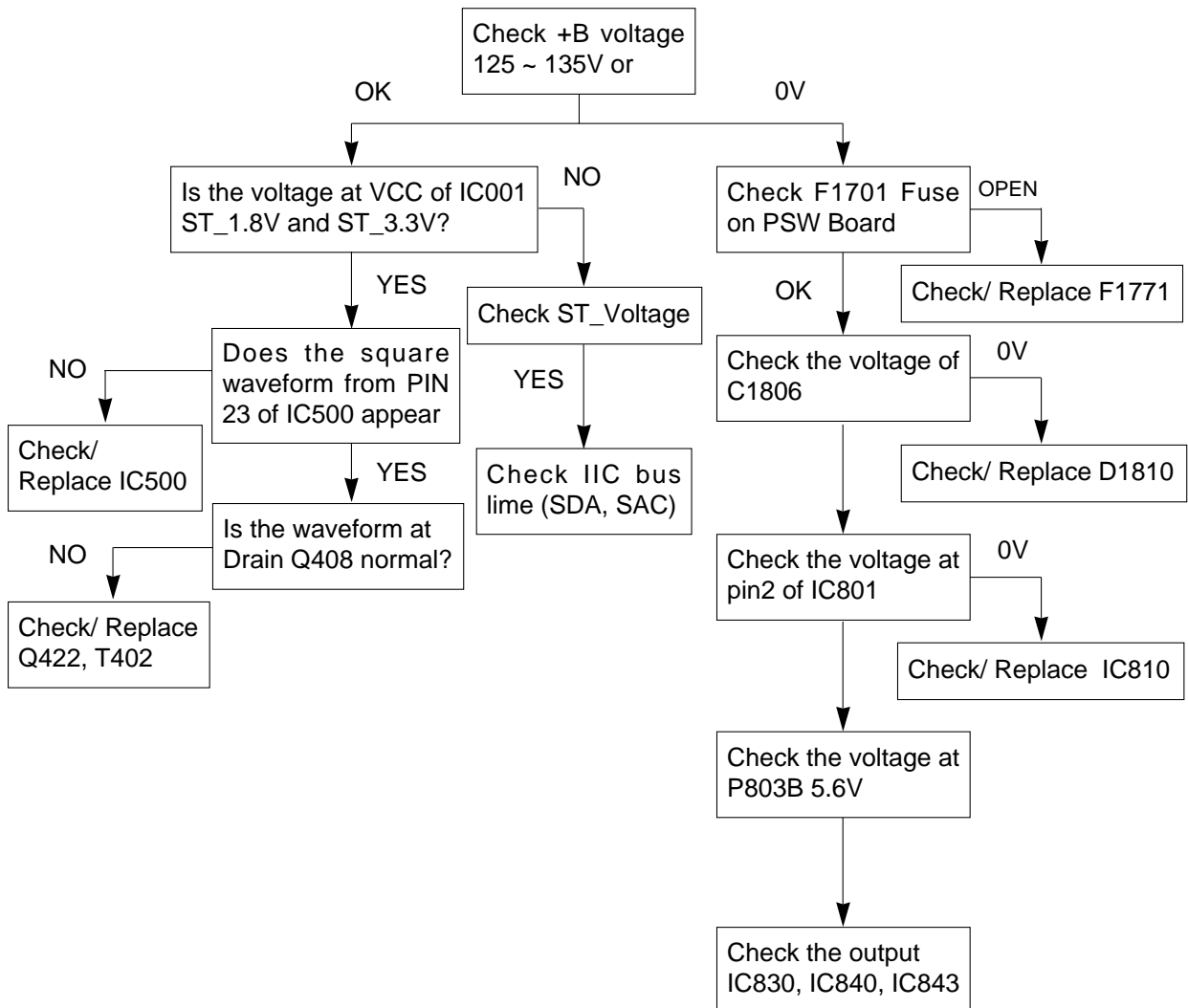
### 3. No PIP



### 4. No power

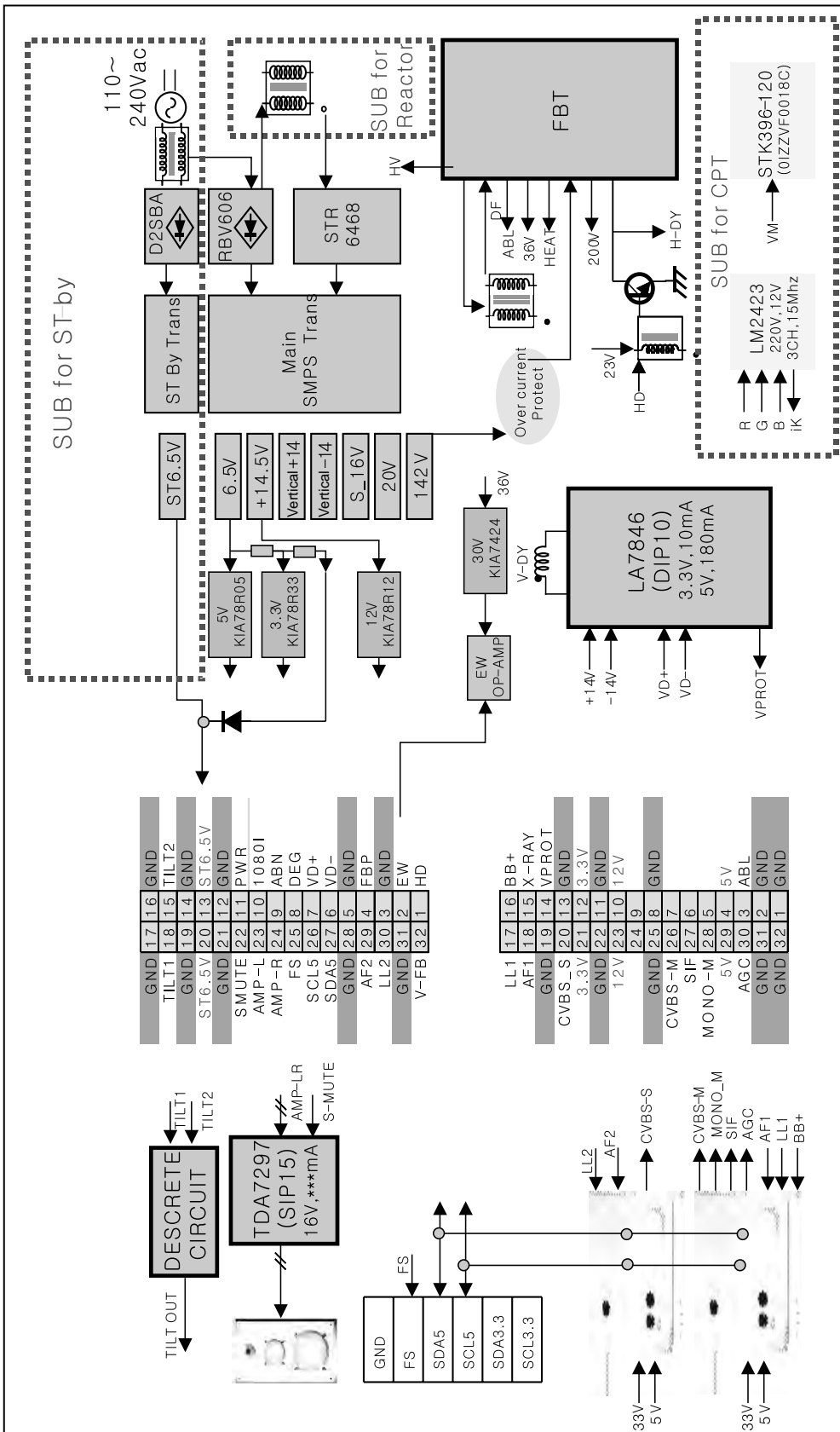


## 5. No raster

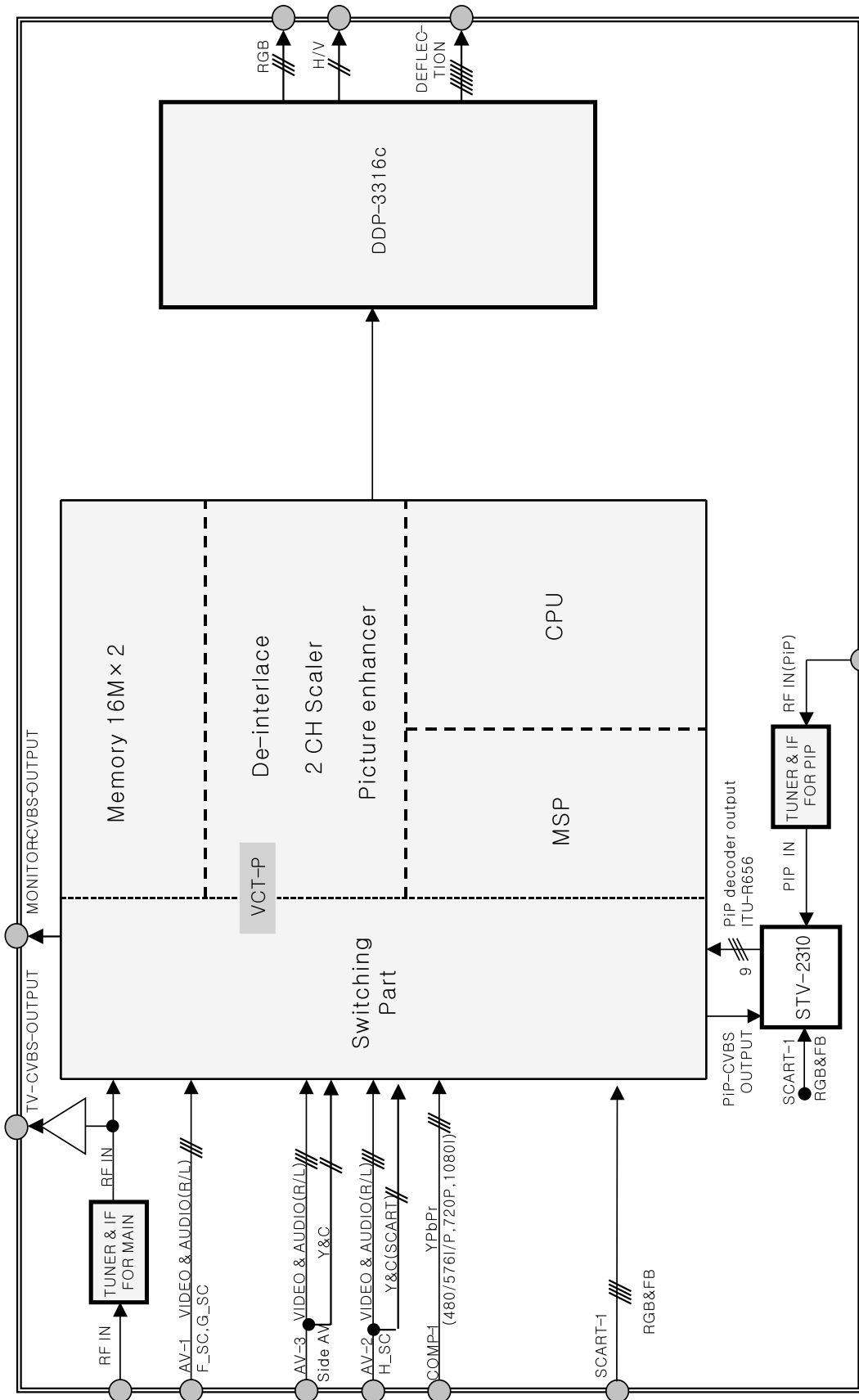


# BLOCK DIAGRAM

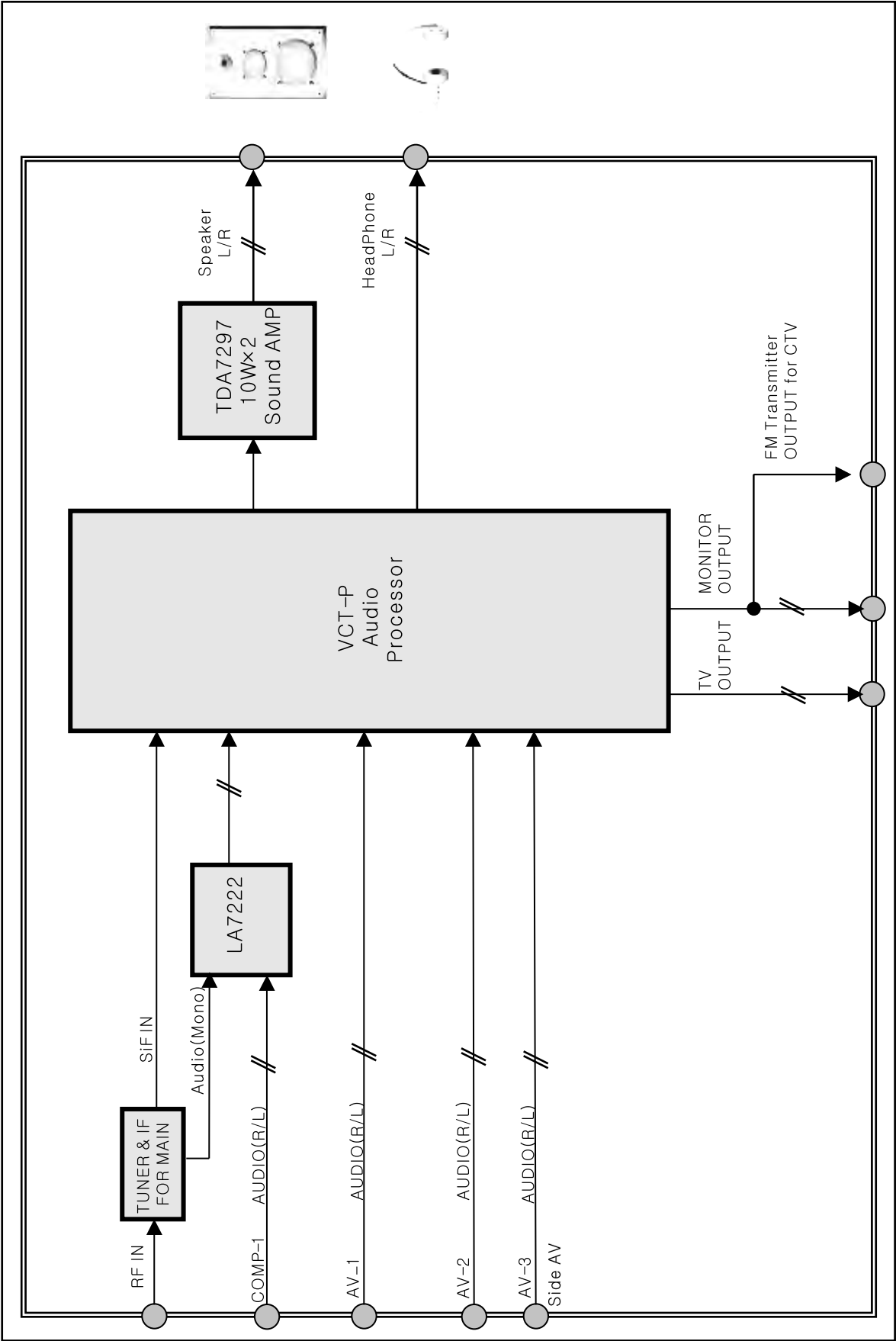
## 1. MAIN



## 2. VCT-P(Video)

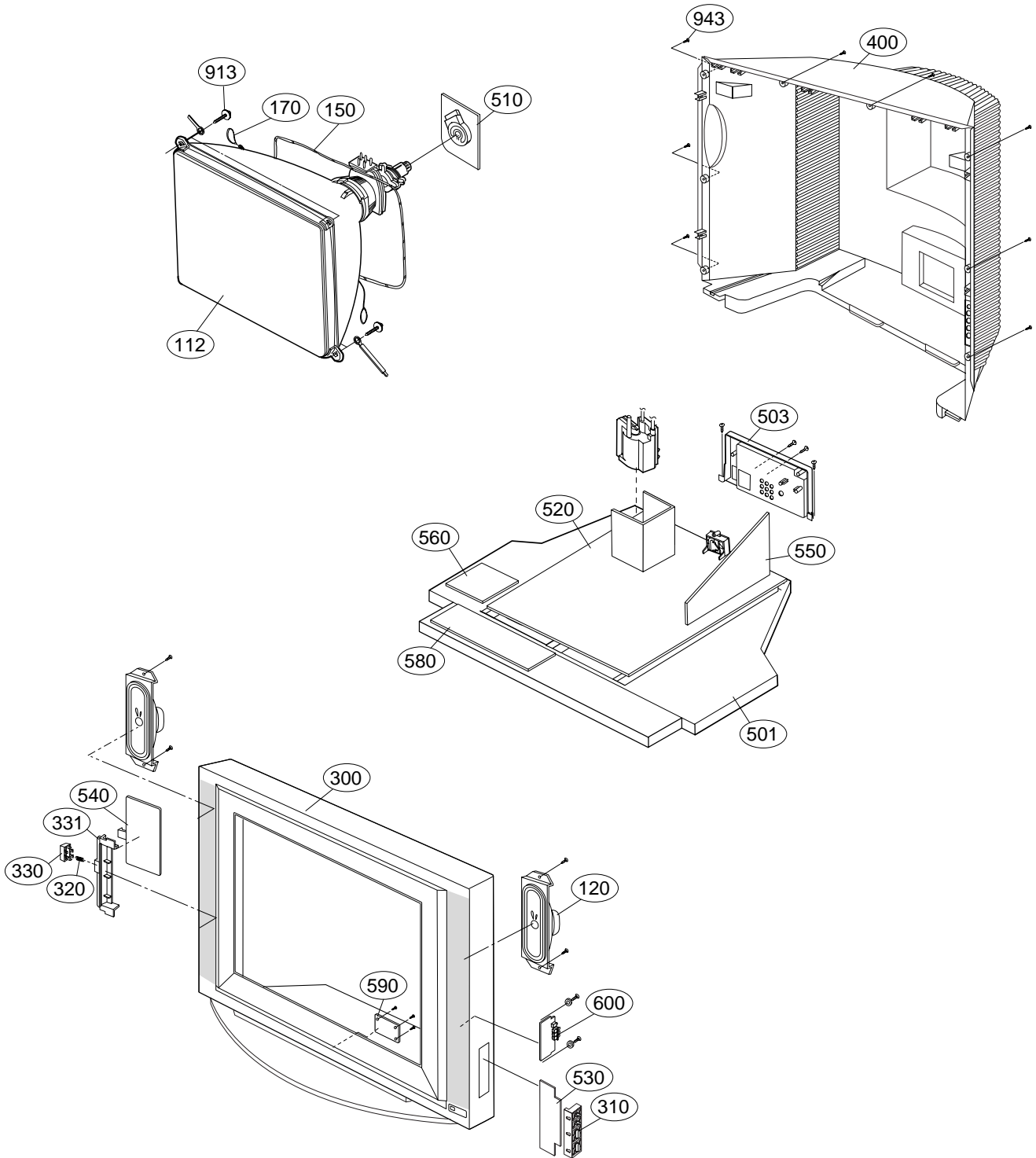


### 3. VCT-P(Audio)



# MEMO

# 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	6335929004A	CPT,ITC A68ERS370X V1 N 29INCH SUPER-SLIM 0.40G 4/3 0HZ
	6335929004B	CPT,ITC A68ERS370X V1 L 29INCH SUPER-SLIM 0.50G 4/3
120	6400VA0025E	Speaker,Fullrange C163A01K1451 FERRITE 15W 8OHM 86DB 110HZ 193X57X44.4mM LUG
$\Delta$ 150	6140VC2006R	Coil,Degaussing 18OHM 102OHM AL 75T 315T 0.7mM 0.22mM SQUARE/CIRCLE 29INCH
$\Delta$ 170	170-844K	Drawing,Assembly CPT EARTH UL1015 AWG22-TBC 0.12X4X16MM 29INCH ALL NORMAL
$\Delta$ 300	30919E0032X	Cover Assembly, 29FS2ANB-ZE LG-ALFATRON 30909E0025 SY LOCAL 117A
	30919K0017B	Cover Assembly, 29FS2ANX MC05HA 29" SY-RA RA TOOL MC05HA 100HZ
	30919K0017C	Cover Assembly, 29FS2AMB-ZE MC05HA 29" SY-RA RA TOOL MC05HA 100HZ X-WAVE"
	30919K0019D	Cover Assembly, 29FS2ANX MC05HA 29" 29FS2 C/A ASSY LGEMA
	30919K0019F	Cover Assembly, 29FS2ANX MC05HA 29" 117A LGEMA LOCAL
	ACQ30285805	Cover Assembly, 29FS2 05HA 29" LGESY-KIEV C/SKD 2-TONE
310	5020900039B	Button, CONTROL 29FS2 ABS, HF-380 6KEY LGESY LOCAL 117A
	5020900088B	Button, MOLD ABS CONTROL 29FS2 ABS, HF-380 6KEY LGERA
	5020900094A	Button, MOLD ABS 380 CONTROL 29FS2 ABS, HF-380 6KEY LGEMA
320	320-062E	Spring, CUTTING STSC304 KNOB
330	5020900038B	Button, POWER 29FS2 ABS, HF-380 1KEY LGESY LOCAL 117A
	5020900087B	Button, MOLD ABS POWER 29FS2 ABS, HF-380 1KEY LGERA B/POWER
	5020900093A	Button, MOLD ABS 380 POWER 29FS2 ABS, HF-380 1KEY LGEMA
331	4810900051B	Bracket, 29FS2 MC036A ABS, HF-380 LGESY LOCAL 117A
	4810900096A	Bracket, BOTTOM 29FS2 MC035E HIPS LGERA BRACKET POWER
	4810900099A	Bracket, MOLD HIPS BOTTOM 29FS2 MC05HB HIPS 51SF LGEMA
$\Delta$ 400	3809900145E	Cover Assembly, 29FS2RNX-TE 2PHONE LGESY LOCAL SET 4PIN SIDE A/V
	3809900145N	Cover Assembly, 29FS2ANX MC05HB 29" SY-KIEV C/SKD O5HB"
	3809900193B	Cover Assembly, 29FS2ANX MC05HA 29" SY-RA RA TOOL MC05HA 100HZ
	3809900199E	Cover Assembly, 29FS2RNX MC05HA 29" 29FS2 B/C ASSY LGEMA TOOL"
501	4810900101A	Bracket, MOLD HIPS 40AF MAIN 29FS2 MC05HB HIPS 405AF LGEMA
	4810900052C	Bracket, MAIN 29FS2 MC035E HIPS 407AF LGESY LOCAL 100HZ
503	4811900067E	Bracket Assembly, REAR AV 29FS2ANX-ZE MC05HA 2SCART LGEMA LOCAL
	4811900068C	Bracket Assembly, REAR AV 29FS2ANB-ZE MC05HA LGESY
510	68719SMN03A	PCB Assembly, SUB M.I MC05HA 29FS2ANB-TE . CPT BOARD LGESY CKD
	EBR30922401	PCB Assembly, SUB M.I MC05HA 29FS2ANX-ZE.NUPLLEP CPT BOARD SY-MA CKD
520	68719MMX66F	PCB Assembly, MAIN1 M.I MC05HA 29FS4RNX-ZE. KDRLLLEY LGESY
	EBR30793601	PCB Assembly, MAIN1 M.I MC05HA 29FS4RNX-ZE .QRULLCU SY-RA SKD
	EBR30793602	PCB Assembly, MAIN1 M.I MC05HA 29FS2ANX-ZE .NUPLLEP SY-MA CKD
	EBR30793603	PCB Assembly, MAIN1 M.I MC05HA 29FS2AMB-ZE .QRULLCU SY-RA SKD
530	68719SMN06A	PCB Assembly, SUB M.I MC05HA 29FS2ANB-TE . CONTROL LGESY CKD
	EBR30796401	PCB Assembly, SUB M.I MC05HA 29FS2/4 . (LOCAL KEY)
	EBR30796402	PCB Assembly, SUB M.I MC05HA 29FS2/4 . (LOCAL KEY)
540	68719PM264A	PCB Assembly, POWER M.I MC05HA 29FS2ANB-TE . (174-322G) LGESY CKD
	EBR30794701	PCB Assembly, POWER M.I MC05HA 29FS2/4 . (POWER S/W)
	EBR30794702	PCB Assembly, POWER M.I MC05HA 29FS2/4 . (POWER S/W)
550	68719SMN02F	PCB Assembly, SUB M.I MC05HA 29FS4RNX-ZE. KDRLLLEY DIGITAL LGESY
	EBR30794301	PCB Assembly SUB M.I MC05HA 29FS4RNX-ZE .QRULLCU DIGITAL
	EBR30794302	PCB Assembly SUB M.I MC05HA 29FS2ANX-ZE .NUPLLEP DIGITAL
560	EBR30817601	PCB Assembly SUB M.I MC05HA 29FS2/4 . (HARMONICS)
	EBR30817602	PCB Assembly SUB M.I MC05HA 29FS2/4 . (HARMONICS)
580	68719SMN04A	PCB Assembly SUB M.I MC05HA 29FS2ANB-TE KMALLEY ST-BY LGESY CKD
	EBR30923001	PCB Assembly SUB M.I MC05HA 29FS2ANX-ZE .NUPLLEP ST-BY,SY-MA CKD
590	68719SMN07A	PCB Assembly SUB M.I MC05HA 29FS2ANB-TE . (LED+ PRE-AMP)LGESY CKD
	EBR30797202	PCB Assembly SUB M.I MC05HA 29FS2 . (LED+ PRE-AMP)
	EBR30797203	PCB Assembly SUB M.I MC05HA 29FS2 . (LED+ PRE-AMP)
600	68719SMN05A	PCB Assembly SUB M.I MC05HA (29 INCH) . SIDE A/V LGESY CKD
	EBR30795501	PCB Assembly SUB M.I MC05HA 29FS2/4 . (SIDE AV)
	EBR30795502	PCB Assembly SUB M.I MC05HA 29FS2/4 . (SIDE AV)
913	FAB30021506	Screw Assembly FAB30021506 TAPTITE P TYPE D7.0 L45.0 RUBBER(D20, T3.2)
$\Delta$ 943	FAB30006309	Screw,Taptite 1SZ29PB012A TH + P 4MM 16MM MSWR10 FZB

# REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION	LOCA. NO	PART NO	DESCRIPTION
<b>IC</b>					
IC001	OIPRP00610C	VCT6743G-FA-B2-000 1.8TO8.0V - 20.2	Q430	OTR127409AB	KTA1274-Y PNP -5V -80V -80V -0.4A -
IC002	OIFA752700A	KA75270Z 2.55TO2.85V - 200MW TO92 R	Q431	OTRKE10013A	KTD1047 NPN 6V 160V 140V 12A 100UA
IC003	OIAL241610B	AT24C16A-10PI-2.7 16KBIT 2KX8BIT 2.	Q500	OTR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA
IC007	OIFA754207A	KA75420ZTA(KA7542ZTA) 0.3TO15V 4.2V	Q501	OTR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA
IC1801	OIPMGSK019A	STR-A6151 230V_85TO264V DIP ST 8P	Q502	OTR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.
IC1802	OILI817000G	LTV-817M-VB 6V 35V 35V 50MA 100NA 6	Q503	OTR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.
IC201	OIMCRMZ001A	MP1583DN-Z,LF 4.75TO23V 21V 0W SOIC	Q504	OTR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA
IC202	OIPMGA0010A	AZ1117H-3.3 4.75TO10V 3.3V - SOT223	Q505	OTR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.
IC401	OIKE358000A	KIA358P 3TO36V_+1.5TO+18V 7mV 500	Q506	OTR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.
IC500	OIPRP00611A	DDP3316C,LF 4.75VTO5.25V,3.15VTO3.4	Q507	OTR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.
IC511	OIMCRSG011A	LD1086V18 3.4TO18V 1.8V 25W PO R/TP	Q508	OTR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.
IC512	OISA722200C	LA7222-(E),LF 8TO13V 350MW SIP ST 1	Q509	OTR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA
IC650	OIFA754207A	KA75420ZTA(KA7542ZTA) 0.3TO15V 4.2V	Q651	OTR534309AA	2SC5343Y NPN 5V 60V 50V 150MA 100NA
IC802	OILI817000G	LTV-817M-VB 6V 35V 35V 50MA 100NA 6	Q820	OTR322709AA	KTC3227 NPN 5V 80V 80V 400MA 100NA
IC880	OISK125120A	SE125N(LF12) 124.4TO126V ERROR AMPL	Q821	OTR322709AA	KTC3227 NPN 5V 80V 80V 400MA 100NA
<b>TRANSISTOR</b>					
Q001	OTR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.	Q871	OTR319809AA	KTC3198(KTC1815) NPN 5V 60V 50V 150
Q001	OTR319809AA	KTC3198(KTC1815) NPN 5V 60V 50V 150	Q880	OTR421009CA	BF421 PNP -5V -0.3KV -0.3KV -0.05A
Q002	OTR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA	Q881	OTR319809AA	KTC3198(KTC1815) NPN 5V 60V 50V 150
Q003	OTR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA	Q901	OTR126609AA	KTA1266-Y(KTA1015) PNP -5V -50V -50
Q004	OTR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.	Q902	OTR319809AA	KTC3198(KTC1815) NPN 5V 60V 50V 150
Q005	OTR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.	Q905	OTR319809AA	KTC3198(KTC1815) NPN 5V 60V 50V 150
Q008	OTR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.	Q906	OTR233009CA	KSC2330Y NPN 7V 300V 300V 100MA 100
Q009	OTFRH80001A	RK7002T116 N-CHANNEL MOSFET 60V +-2	<b>DIODE</b>		
Q010	OTFRH80001A	RK7002T116 N-CHANNEL MOSFET 60V +-2	D160	ODD414809ED	1N4148 1V 100V 150MA 500MA 4NSEC 50
Q011	OTR102009AJ	KRC102S NPN 30V 0V 50V 100MA 500NA	D1801	ODD260000BB	D2SBA60(STK) 600V 1.05V 10UA 60A SI
Q012	OTR102009AJ	KRC102S NPN 30V 0V 50V 100MA 500NA	D1802	ODD414809ED	1N4148 1V 100V 150MA 500MA 4NSEC 50
Q101	OTR126609AA	KTA1266-Y(KTA1015) PNP -5V -50V -50	D1803	ODD414809ED	1N4148 1V 100V 150MA 500MA 4NSEC 50
Q102	OTR534309AA	2SC5343Y NPN 5V 60V 50V 150MA 100NA	D1804	ODR010009AA	EG01C 1KV 3.3V 50UA 10A 100NSEC E0
Q103	OTR534309AA	2SC5343Y NPN 5V 60V 50V 150MA 100NA	D1805	ODD100009AM	EU1ZV(1) 200V 2.5V 10UA 15A 400NSEC
Q104	OTR126609AA	KTA1266-Y(KTA1015) PNP -5V -50V -50	D1806	ODR100009DA	RG10J 600V 1.3V 5UA 30A 250NSEC DO
Q105	OTR319809AA	KTC3198(KTC1815) NPN 5V 60V 50V 150	D201	ODRON00268A	MBRS190T3G 750MV 90V 2A - SMB R/TP
Q106	OTR126609AA	KTA1266-Y(KTA1015) PNP -5V -50V -50	D202	ODS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 150M
Q107	OTR534309AA	2SC5343Y NPN 5V 60V 50V 150MA 100NA	D203	ODS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 150M
Q111	OTR319809AA	KTC3198(KTC1815) NPN 5V 60V 50V 150	D204	ODD060009AC	TVR06J 600V 1400MV 10UA 25A 300NSEC
Q161	OTR534309AA	2SC5343Y NPN 5V 60V 50V 150MA 100NA	D301	ODRDC00014D	RG15J 600V 1.3V 5UA 50A 250NSEC DO
Q162	OTR126609AA	KTA1266-Y(KTA1015) PNP -5V -50V -50	D401	ODRDC00014F	RU3AM 600V 1100MV 10UA 50A 90NSEC D
Q163	OTR126609AA	KTA1266-Y(KTA1015) PNP -5V -50V -50	D402	ODD100009AE	RU1A 600V 2500MV 10UA 15A 400NSEC R
Q164	OTR534309AA	2SC5343Y NPN 5V 60V 50V 150MA 100NA	D420	ODD400509AA	1N4005 600V 1.1V 5UA 30A - DO41 TP
Q171	OTR534309AA	2SC5343Y NPN 5V 60V 50V 150MA 100NA	D421	ODD400509AA	1N4005 600V 1.1V 5UA 30A - DO41 TP
Q172	OTR126609AA	KTA1266-Y(KTA1015) PNP -5V -50V -50	D422	ODD140009AA	EK14 550MV 40V 1.5A - DO41 TP 2P 1
Q173	OTR126609AA	KTA1266-Y(KTA1015) PNP -5V -50V -50	D423	ODR500000CA	FMQ-G5GS 2.7V 1.7KV 10A 50A 500NSEC
Q174	OTR534309AA	2SC5343Y NPN 5V 60V 50V 150MA 100NA	D500	ODS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 150M
Q1801	OTR319809AA	KTC3198(KTC1815) NPN 5V 60V 50V 150	D502	ODS181009AA	KDS181 1.2V 85V 300MA 2A 4NSEC 150M
Q202	OTR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.	D503	ODS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 150M
Q205	OTR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.	D601	ODD414809ED	1N4148 1V 100V 150MA 500MA 4NSEC 50
Q420	OTR319809AA	KTC3198(KTC1815) NPN 5V 60V 50V 150	D802	ODD100009AM	EU1ZV(1) 200V 2.5V 10UA 15A 400NSEC
Q421	OTR126609AA	KTA1266-Y(KTA1015) PNP -5V -50V -50	D803	ODD100009AM	EU1ZV(1) 200V 2.5V 10UA 15A 400NSEC
Q422	OTF200000AA	IRFIBC20G N-CHANNEL MOSFET 600V +-2	D804	ODD414809ED	1N4148 1V 100V 150MA 500MA 4NSEC 50
			D822	ODD060009AC	TVR06J 600V 1400MV 10UA 25A 300NSEC
			D830	ODRTW00141A	SFAF504G 200V 975MV 10UA 125A 35NSE
			D840	ODRTW00141A	SFAF504G 200V 975MV 10UA 125A 35NSE

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LOCA. NO	PART NO	DESCRIPTION
D850	0DRDC00014D	RGP15J 600V 1.3V 5UA 50A 250NSEC DO
D851	0DRDC00014D	RGP15J 600V 1.3V 5UA 50A 250NSEC DO
D860	0DRTW00141A	SFAF504G 200V 975MV 10UA 125A 35NSE
D870	0DD060009AC	TVR06J 600V 1400MV 10UA 25A 300NSEC
D901	0DR400409AB	UF4004 400V 1V 10UA 30A 50NSEC DO20
D902	0DR400409AB	UF4004 400V 1V 10UA 30A 50NSEC DO20
D903	0DR400409AB	UF4004 400V 1V 10UA 30A 50NSEC DO20
D904	0DRDC00014E	1N4004A 400V 1100MV 5UA 30A - DO41
D905	0DR400409AB	UF4004 400V 1V 10UA 30A 50NSEC DO20
D906	0DR400409AB	UF4004 400V 1V 10UA 30A 50NSEC DO20
D907	0DR400409AB	UF4004 400V 1V 10UA 30A 50NSEC DO20
D908	0DS113379BA	1SS133 1200MV 90V 400MA 600MA 4NSEC
D909	0DD414809ED	1N4148 1V 100V 150MA 500MA 4NSEC 50
D920	0DD060009AC	TVR06J 600V 1400MV 10UA 25A 300NSEC
ZD001	0DZRM00178A	UDZS5.1B 5.1V 4.98TO5.2V 80OHM 200M
ZD002	0DZRM00178A	UDZS5.1B 5.1V 4.98TO5.2V 80OHM 200M
ZD101	0DZ330009BA	HZT33 33V 31TO35V 25OHM 200MW DO35
ZD102	0DZ330009BA	HZT33 33V 31TO35V 25OHM 200MW DO35
ZD1201	0DZ620009BB	MTZJ6.2B 6.2V 5.96TO6.27V 30OHM 500
ZD1202	0DZ620009BB	MTZJ6.2B 6.2V 5.96TO6.27V 30OHM 500
ZD1801	0DZ330009CC	MTZJ3.3B 3.3V 3.32TO3.5V 120OHM 500
ZD1802	0DZ560009CF	MTZJ5.6B 5.6V 5.45TO5.73V 40OHM 500
ZD202	0DZ820009BF	GDZJ8.2B 8.2V 7.78TO8.19V 20OHM 500
ZD401	0DZ120009BG	GDZJ12B 12V 11.44TO12.03V 30OHM 500
ZD420	0DZ510009AK	GDZJ5.1B 5.1V 4.94TO5.2V 80OHM 500M
ZD440	0DZ270009EB	MTZJ27B 27V 24.97TO26.26V 45OHM 500
ZD500	0DZ910009BD	GDZJ9.1B 9.1V 8.57TO9.01V 25OHM 500
ZD650	0DZ910009AJ	MTZJ9.1B 9.1V 8.57TO9.01V 20OHM 500
ZD914	0DZ910009BD	GDZJ9.1B 9.1V 8.57TO9.01V 25OHM 500

**CAPACITOR**

C002	0CE476DD618	EGR476M010T1G1C11G 47uF 20% 10V 105
C003	0CE107DD618	SMS5.0TP10VB100M 100uF 20% 10V 157M
C005	0CE107DD618	SMS5.0TP10VB100M 100uF 20% 10V 157M
C011	0CE106DF618	SMS5.0TP16VB10M 10uF 20% 16V 72MA
C033	0CE105DK618	EGR105M050T1G1C11G 1uF 20% 50V 10MA
C039	0CE335DK618	SMS5.0TP50VB3.3M 3.3uF 20% 50V 42MA
C041	0CE107DF618	EGR107M016T1G1C11G 100uF 20% 16V 16
C054	0CE107DD618	SMS5.0TP10VB100M 100uF 20% 10V 157M
C056	0CE227SF6DC	MVG6.3TP16VC220M 220uF 20% 16V 130M
C059	0CE476DD618	EGR476M010T1G1C11G 47uF 20% 10V 105
C062	0CE476DD618	EGR476M010T1G1C11G 47uF 20% 10V 105
C071	0CE107DD618	SMS5.0TP10VB100M 100uF 20% 10V 157M
C072	0CE107DD618	SMS5.0TP10VB100M 100uF 20% 10V 157M
C074	0CE476DD618	EGR476M010T1G1C11G 47uF 20% 10V 105
C077	0CE476DD618	EGR476M010T1G1C11G 47uF 20% 10V 105
C097	0CE105DK618	EGR105M050T1G1C11G 1uF 20% 50V 10MA
C101	0CE106DF618	SMS5.0TP16VB10M 10uF 20% 16V 72MA
C102	0CE106DK618	SMS5.0TP50VB10M 10uF 20% 50V 72MA -
C103	0CN1030F679	RH EP050 Y103M-B-B 10nF 20% 16V X5R
C104	0CE227DD618	EGR227M010T1G1E11G 220uF 20% 10V 25
C107	0CE106DF618	SMS5.0TP16VB10M 10uF 20% 16V 72MA

LOCA. NO	PART NO	DESCRIPTION
C108	0CN1030F679	RH EP050 Y103M-B-B 10nF 20% 16V X5R
C109	0CE475DK618	EGR475M050T1G1C11G 4.7uF 20% 50V 50
C110	0CX4700K409	RH UP050SL470J-B-B 47pF 5% 50V S2L
C111	0CE227DD618	EGR227M010T1G1E11G 220uF 20% 10V 25
C114	0CN1030F679	RH EP050 Y103M-B-B 10nF 20% 16V X5R
C115	0CN1030F679	RH EP050 Y103M-B-B 10nF 20% 16V X5R
C116	0CX4700K409	RH UP050SL470J-B-B 47pF 5% 50V S2L
C117	0CE227DD618	EGR227M010T1G1E11G 220uF 20% 10V 25
C120	0CN1030F679	RH EP050 Y103M-B-B 10nF 20% 16V X5R
C1204	0CN1040K949	CH UP050 F104Z-B-B Z 100nF -20TO+80
C1208	0CN2210K519	RH UP050 B221K-B-B 220pF 10% 50V Y5
C121	0CE474DK618	EGR474M050T1G1C11G 470nF 20% 50V 5M
C1210	0CE106DK618	SMS5.0TP50VB10M 10uF 20% 50V 72MA -
C1211	0CN2210K519	RH UP050 B221K-B-B 220pF 10% 50V Y5
C1212	0CE475DK618	EGR475M050T1G1C11G 4.7uF 20% 50V 50
C1213	0CE475DK618	EGR475M050T1G1C11G 4.7uF 20% 50V 50
C122	0CE227DD618	EGR227M010T1G1E11G 220uF 20% 10V 25
C123	0CN1030F679	RH EP050 Y103M-B-B 10nF 20% 16V X5R
C124	0CE106DF618	SMS5.0TP16VB10M 10uF 20% 16V 72MA
C129	0CE106DK618	SMS5.0TP50VB10M 10uF 20% 50V 72MA -
C161	0CN1010K519	RH UP050 B101K-B-B 100pF 10% 50V Y5
C162	0CN2210K519	RH UP050 B221K-B-B 220pF 10% 50V Y5
C163	0CE476DF618	SMS5.0TP16VB47M 47uF 20% 16V40TO+85
C164	0CN1040K949	CH UP050 F104Z-B-B Z 100nF -20TO+80
C165	0CE105DK618	EGR105M050T1G1C11G 1uF 20% 50V 10MA
C166	0CN1030F679	RH EP050 Y103M-B-B 10nF 20% 16V X5R
C171	0CN1010K519	RH UP050 B101K-B-B 100pF 10% 50V Y5
C172	0CN2210K519	RH UP050 B221K-B-B 220pF 10% 50V Y5
C174	0CN1040K949	CH UP050 F104Z-B-B Z 100nF -20TO+80
C175	0CE105DK618	EGR105M050T1G1C11G 1uF 20% 50V 10MA
C176	0CN1030F679	RH EP050 Y103M-B-B 10nF 20% 16V X5R
C1801	0CQZVBK002C	PCX2 335 91592 0.22uF 10% 275V MPP
C1802	0CQZVBK002C	PCX2 335 91592 0.22uF 10% 275V MPP
C1803	0CQZVBK002A	PCX2 335 M9729 0.1uF 20% 275V MPP -
C1804	0CK47101515	DCH471K26Y5PN6FJ5A 470pF 10% 1000V
C1805	0CK47101515	DCH471K26Y5PN6FJ5A 470pF 10% 1000V
C1806	0CE3366W650	SG2H336M1631MSS 33uF 20% 500V25TO+8
C1807	0CK10201515	DCH102K34Y5PN6FJ5A 1nF 10% 1000V Y5
C1808	0CK10201515	DCH102K34Y5PN6FJ5A 1nF 10% 1000V Y5
C1809	0CK22202510	DCH222K53Y5PP7DJ0A 2.2nF 10% 2000V
C1810	0CE476DK618	SMS5.0TP50VB47M 47uF 20% 50V 181MA
C1811	0CK47101515	DCH471K26Y5PN6FJ5A 470pF 10% 1000V
C1812	0CN8210K519	RH UP050 B821K-B-B 820pF 10% 50V Y5
C1813	181-120K	SDE222M16FS1 2.2nF 20% 4000V Y5U -2
C1815	0CE477BJ618	ESM477M035T1G5H20G 470uF 20% 35V 61
C1817	0CN1020K519	RH UP050 B102K-B-B 1nF 10% 50V Y5P
C1818	0CE476DK618	SMS5.0TP50VB47M 47uF 20% 50V 181MA
C200	0CE475DK618	EGR475M050T1G1C11G 4.7uF 20% 50V 50
C201	0CE475DK618	EGR475M050T1G1C11G 4.7uF 20% 50V 50
C213	0CE227DF618	EGR227M016T6G1G11G 220uF 20% 16V 26
C231	0CE475DK618	EGR475M050T1G1C11G 4.7uF 20% 50V 50
C232	0CE475DK618	EGR475M050T1G1C11G 4.7uF 20% 50V 50

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	CQ : Polyester	RS : Metal Oxide Film
	CE : Electrolytic	RN : Metal Film
		RF : Fusible

LOCA. NO	PART NO	DESCRIPTION
C233	0CE475DK618	EGR475M050T1G1C11G 4.7uF 20% 50V 50
C234	0CE475DK618	EGR475M050T1G1C11G 4.7uF 20% 50V 50
C235	0CE227DD618	EGR227M010T1G1E11G 220uF 20% 10V 25
C236	0CE107DF618	EGR107M016T1G1C11G 100uF 20% 16V 16
C244	0CE107DF618	EGR107M016T1G1C11G 100uF 20% 16V 16
C248	0CE337DD618	SMS5.0TP10VB330M 330uF 20% 10V 386M
C251	0CE227DD618	EGR227M010T1G1E11G 220uF 20% 10V 25
C252	0CE227DD618	EGR227M010T1G1E11G 220uF 20% 10V 25
C253	0CE476DD618	EGR476M010T1G1C11G 47uF 20% 10V 105
C254	0CE107DD618	SMS5.0TP10VB100M 100uF 20% 10V 157M
C257	0CE227DF618	EGR227M016T6G1G11G 220uF 20% 16V 26
C259	0CE226DF618	EGR226M016T1G1C11G 22uF 20% 16V 75M
C262	0CE226DF618	EGR226M016T1G1C11G 22uF 20% 16V 75M
C267	0CE226DF618	EGR226M016T1G1C11G 22uF 20% 16V 75M
C268	0CE226DF618	EGR226M016T1G1C11G 22uF 20% 16V 75M
C301	0CE108BH618	ESM108M025T1G5K20G 1000uF 20% 25V 7
C302	0CN1020K519	RH UP050 B102K-B-B 1nF 10% 50V Y5P
C303	0CN1020K519	RH UP050 B102K-B-B 1nF 10% 50V Y5P
C304	0CQ3341N401	HPE 2A 334J BK 330nF 5% 100V PE -40
C305	0CQ1541N501	HPE 2A 154K BK 150nF 10% 100V PE -4
C306	0CE227BK618	ESM227M050T1G5H17G 220uF 20% 50V 40
C307	0CE108BH618	ESM108M025T1G5K20G 1000uF 20% 25V 7
C308	0CN1020K519	RH UP050 B102K-B-B 1nF 10% 50V Y5P
C310	0CN1020K519	RH UP050 B102K-B-B 1nF 10% 50V Y5P
C401	0CE226DR630	EGR226M250K6G1H20G 22uF 20% 250V 23
C402	0CE107DK618	EGR107M050T6G1G11G 100uF 20% 50V 27
C403	181-009V	PPN473K2DH 47nF 10% 200V PP -40TO+8
C404	181-014Z	MPPS332J3VD 3.3nF 5% 1.6KV MPP -40T
C405	0CQ1521N509	PEI152K2AT 1.5nF 10% 100V PE -40TO+
C406	0CQ1521N509	PEI152K2AT 1.5nF 10% 100V PE -40TO+
C420	0CE107BK618	ESM107M050T6G5G11G 100uF 20% 50V 22
C421	0CK3320W515	DCM332K39Y5PL6FJ5A 3.3nF 10% 500V Y
C422	181-011C	MPPS152J3VD 1.5nF 5% 1.6KV MPP -40T
C423	181-091X	LRYM27561KXA 560pF 10% 2000V Y5R -2
C424	0CF95213CFH	9.5n 5% 1600V MPP -25TO+105C - 21.5
C425	181-061N	PL393J630VDC 39nF 10% 630V PP -25TO
C426	0CE685BK652	KM5.0MC50VBBP-S6.8M 6.8uF 20% 50V 4
C427	0CE685BK652	KM5.0MC50VBBP-S6.8M 6.8uF 20% 50V 4
C429	0CF1541U4FG	150nF 5% 400V25TO+105C NON-IND 18X7
C430	181-013Y	MPP824J2GD 820nF 5% 400V MPP -40TO+
C431	181-013P	MPP334J2GD 330nF 5% 400V MPP -40TO+
C432	181-033V	DCH222K39Y5PN73K0A 2.2nF 10% 1000V
C433	181-091W	LRYM27471KX1A 470pF 10% 2000V Y5R -
C434	181-091W	LRYM27471KX1A 470pF 10% 2000V Y5R -
C435	0CQ5621N419	TX2A562J06000AN 5.6nF 5% 100V PE -4
C436	0CE106BF618	ESM106M016T1G5C11G 10uF 20% 16V 45M
C437	0CQ1041N509	PEI104K2AT 100nF 10% 100V PE -40TO+
C438	0CF5631U4E1	56nF 5% 400V25TO+105C NON-IND 6.5X4
C440	0CE106BK618	ESM106M050T1G5C11G 10uF 20% 50V 55M
C442	0CE107DJ618	SMS5.0TP35VB100M 100uF 20% 35V 291M
C443	0CK1030K945	DCT103Z26Y5VF6FJ5A 10nF -20TO+80% 5
C444	0CE226DF618	EGR226M016T1G1C11G 22uF 20% 16V 75M

LOCA. NO	PART NO	DESCRIPTION
C445	0CN6810K519	RH UP050 B681K-B-B 680pF 10% 50V Y5
C448	0CN1020K519	RH UP050 B102K-B-B 1nF 10% 50V Y5P
C449	0CN1020K519	RH UP050 B102K-B-B 1nF 10% 50V Y5P
C503	0CE107DF618	EGR107M016T1G1C11G 100uF 20% 16V 16
C507	0CE476DD618	EGR476M010T1G1C11G 47uF 20% 10V 105
C513	0CE227DD618	EGR227M010T1G1E11G 220uF 20% 10V 25
C517	0CE475DK618	EGR475M050T1G1C11G 4.7uF 20% 50V 50
C520	0CE227DD618	EGR227M010T1G1E11G 220uF 20% 10V 25
C523	0CH2334F566	0805B334K160CT 330nF 10% 16V X7R -5
C527	0CE107DD618	SMS5.0TP10VB100M 100uF 20% 10V 157M
C529	0CH2334F566	0805B334K160CT 330nF 10% 16V X7R -5
C532	0CE107DF618	EGR107M016T1G1C11G 100uF 20% 16V 16
C539	0CH2334F566	0805B334K160CT 330nF 10% 16V X7R -5
C594	0CE476DH618	SMS5.0TP25VB47M 47uF 20% 25V 131MA
C595	0CH2334F566	0805B334K160CT 330nF 10% 16V X7R -5
C650	0CE108DH618	SMS5.0TP25VB1000M 1000uF 20% 25V 1.
C651	0CN2230H949	RH TP050 F223Z-B-B 22nF -20TO+80% 2
C652	0CF2241L438	PCMT 365 76224 220nF 5% 63V MPE -40
C653	0CN3320F569	RH EP050 X332K-B-B 3.3nF 10% 16V X7
C653	0CN6820F569	CH EP050 X682K-B-B Z 6.8nF 10% 16V
C654	0CN3320F569	RH EP050 X332K-B-B 3.3nF 10% 16V X7
C655	0CN3320F569	RH EP050 X332K-B-B 3.3nF 10% 16V X7
C655	0CN6820F569	CH EP050 X682K-B-B Z 6.8nF 10% 16V
C656	0CF2241L438	PCMT 365 76224 220nF 5% 63V MPE -40
C657	0CE336DD618	EGR336M010T1G1C11G 33uF 20% 10V 85M
C800	181-120N	SDE102M09FS1 1nF 20% 4000V Y5U -25T
C806	0CK10201515	DCH102K34Y5PN6FJ5A 1nF 10% 1000V Y5
C807	0CK10201515	DCH102K34Y5PN6FJ5A 1nF 10% 1000V Y5
C809	181-001U	LTW477M450S1A5T50G 470uF 20% 450V 2
C810	181-091C	DEHR33A471KN2A 470pF 10% 1000V Y5R
C811	181-014Y	MPPS152J3VD 1.5nF 5% 1.6KV MPP -40T
C813	0CE227BJ618	ESM227M035T1G5H1CG 220uF 20% 35V 35
C815	0CK4710K515	DCT471K16Y5PF6FJ5A 470pF 10% 50V Y5
C816	0CK1020K515	DCT102K20Y5PF6FJ5A 1nF 10% 50V Y5P
C820	0CE228DD618	EGR228M010T1G1H20G 2200uF 20% 10V 1
C821	0CE227DD618	EGR227M010T1G1E11G 220uF 20% 10V 25
C830	0CK4710W515	DCM471K20Y5PL6FJ5A 470pF 10% 500V Y
C831	0CE108BH618	ESM108M025T1G5K20G 1000uF 20% 25V 7
C833	0CE108DH618	SMS5.0TP25VB1000M 1000uF 20% 25V 1.
C834	181-120N	SDE102M09FS1 1nF 20% 4000V Y5U -25T
C835	0CE108BF618	ESM108M016T1G5H20G 1000uF 20% 16V 6
C837	0CE108BF618	ESM108M016T1G5H20G 1000uF 20% 16V 6
C838	0CE108DD618	SMS5.0TP10VB1000M 1000uF 20% 10V 85
C839	0CE228BF618	ESM228M016T1G5K25G 2200uF 20% 16V 9
C840	181-091C	DEHR33A471KN2A 470pF 10% 1000V Y5R
C841	0CE228BF618	ESM228M016T1G5K25G 2200uF 20% 16V 9
C842	0CK1030K945	DCT103Z26Y5VF6FJ5A 10nF -20TO+80% 5
C843	0CK1030K945	DCT103Z26Y5VF6FJ5A 10nF -20TO+80% 5
C844	0CK1030K945	DCT103Z26Y5VF6FJ5A 10nF -20TO+80% 5
C845	0CE227DD618	EGR227M010T1G1E11G 220uF 20% 10V 25
C850	0CK4710W515	DCM471K20Y5PL6FJ5A 470pF 10% 500V Y
C851	0CE108BH618	ESM108M025T1G5K20G 1000uF 20% 25V 7

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LOCA. NO	PART NO	DESCRIPTION
C851	0CE4763F618	ESF476M016T1A5E05G 47uF 20% 16V 60M
C852	0CK4710W515	DCM471K20Y5PL6FJ5A 470pF 10% 500V Y
C852	0CN1030F679	RH EP050 Y103M-B-B 10nF 20% 16V X5R
C853	0CE108BH618	ESM108M025T1G5K20G 1000uF 20% 25V 7
C860	181-091C	DEHR33A471KN2A 470pF 10% 1000V Y5R
C861	0CE228DK650	EGR228M050K6G1M36G 2200uF 20% 50V 1
C862	0CE105CK636	ERN105M050T1G5C11G 1uF 20% 50V 10MA
C870	181-091C	DEHR33A471KN2A 470pF 10% 1000V Y5R
C871	0CE227BK618	ESM227M050T1G5H17G 220uF 20% 50V 40
C872	0CK4710W515	DCM471K20Y5PL6FJ5A 470pF 10% 500V Y
C873	0CN1040K949	CH UP050 F104Z-B-B Z 100nF -20TO+80
C874	0CQ1041N509	PEI104K2AT 100nF 10% 100V PE -40TO+
C880	181-091C	DEHR33A471KN2A 470pF 10% 1000V Y5R
C881	181-001B	LHW477M200S1A5R40G 470uF 20% 200V 1
C883	0CE107DD618	SMS5.0TP10VB100M 100uF 20% 10V 157M
C884	0CE227CR650	SHL5.0MC250VB220M 220u 20% 250V 115
C885	0CE106DH618	SMS5.0TP25VB10M 10uF 20% 25V 72MA -
C886	0CN1020K519	RH UP050 B102K-B-B 1nF 10% 50V Y5P
C901	0CE106BR618	ESM106M250T1G5H17G 10uF 20% 250V 12
C903	0CK47202510	DCH472K75Y5PP7DK0A 4.7nF 10% 2000V
C904	0CE475DR618	EGR475M250T1G1G11G 4.7uF 20% 250V 7
C905	0CN1040K949	CH UP050 F104Z-B-B Z 100nF -20TO+80
C906	0CE107DF618	EGR107M016T1G1C11G 100uF 20% 16V 16
C907	0CN1510K519	RH UP050 B151K-B-B 150pF 10% 50V Y5
C908	181-033R	DCH102K39Y5PP7VK7A 1nF 10% 2000V Y5
C910	0CE476DF618	SMS5.0TP16VB47M 47uF 20% 16V40TO+85
C911	0CN1040K949	CH UP050 F104Z-B-B Z 100nF -20TO+80
C920	0CN1030F679	RH EP050 Y103M-B-B 10nF 20% 16V X5R
C921	0CE107DF618	EGR107M016T1G1C11G 100uF 20% 16V 16
C922	0CN1510K519	RH UP050 B151K-B-B 150pF 10% 50V Y5
C923	0CE107DF618	EGR107M016T1G1C11G 100uF 20% 16V 16
C924	0CE107BF618	ESM107M016T1G5E11G 100uF 20% 16V 15
C925	0CK1030W510	DCM103K63Y5PL6DK0A 10nF 10% 500V Y5
C926	0CE106DP618	EGR106M160T1G1H15G 10uF 20% 160V 12
C927	0CK10101515	DCH101K26Y5PN6FJ5A 100pF 10% 1000V
C928	0CE107BF618	ESM107M016T1G5E11G 100uF 20% 16V 15
C929	0CQ1044R539	PCMT 365 90065 100nF 10% 250V MPE -
C930	0CE106BP618	ESM106M160T1G5H15G 10uF 20% 160V 10
C932	0CN1040K949	CH UP050 F104Z-B-B Z 100nF -20TO+80
C933	0CK1040K945	DCS104Z30Y5VF6FJ5A 100nF -20TO+80%
C935	0CQ1044R539	PCMT 365 90065 100nF 10% 250V MPE -
<b>COIL &amp; INDUCTOR</b>		
L101	0LA0102K139	Inductor,Wire Wound,Axial LAL04TB100K 10UH
L102	0LA0102K139	Inductor,Wire Wound,Axial LAL04TB100K 10UH
L1201	0LA0472K119	Inductor,Wire Wound,Axial LAL02TB470K 47UH
L1202	0LA0472K119	Inductor,Wire Wound,Axial LAL02TB470K 47UH
L212	0LA0102K139	Inductor,Wire Wound,Axial LAL04TB100K 10UH
L213	150-C02F	Coil,Choke 82uH 12X17MM
L301	150-C02F	Coil,Choke 82uH 12X17MM
L302	150-C02F	Coil,Choke 82uH 12X17MM
L401	0LA1001K139	Inductor,Wire Wound,Axial LAL04TB102K 1MH

LOCA. NO	PART NO	DESCRIPTION
L402	150-717K	Coil,Choke RN-29FA11 1.1uH 50V
L421	150-C04E	Coil,Choke CN-29M3F 285uH 50V
L422	61409B0003A	Coil,Choke JS-D011 44uH - 10A
L423	61409B0004A	Coil,Choke JS-D012 85uH - 8A
L424	6140VY0024G	Coil,Linearity 14X5X15 61.5TS
L850	0LA0102K119	Inductor,Wire Wound,Axial LAL02TB100K 10UH
L850	150-C02F	Coil,Choke 82uH 12X17MM
L860	150-C02F	Coil,Choke 82uH 12X17MM
L881	150-C02F	Coil,Choke 82uH 12X17MM
L882	150-C02F	Coil,Choke 82uH 12X17MM
L901	0LA0102K139	Inductor,Wire Wound,Axial LAL04TB100K 10UH
L902	0LA0102K139	Inductor,Wire Wound,Axial LAL04TB100K 10UH
L910	0LA0221K139	Inductor,Wire Wound,Axial LAL04TB2R2K 2.2UH
L911	0LA0221K139	Inductor,Wire Wound,Axial LAL04TB2R2K 2.2UH
L912	0LA0221K139	Inductor,Wire Wound,Axial LAL04TB2R2K 2.2UH
T1802	6170VMCA52B	Transformer,Switching EE2229 1200uH - 1.2OHM
T1803	6170VZ0008A	Transformer,Switching 6170VZ0008A TS4841
T401	6174917003A	Transformer,FBT D17 BSC30-N2570 D17 125V
T402	151-515A	Transformer,Switching 151-515A EI2519 4.5mH
T403	6170VMCA26G	Transformer,Switching 6170VMCA26G EER2834
T802	6170VMCB16P	Transformer,Switching EE5555 300uH
<b>CONNECTOR</b>		
P004	366-921B	GIL-G-03P-S3T2-E 3P 2.54MM 1R
P105	366-932E	GIL-G-06P-S3T2-E 6P 2.50MM 1R
P1101	387-A04F	GIL-G-04 GIL-J-04 350mM 2.50MM
P160	366-932B	GIL-G-03P-S3T2-E 3P 2.50MM 1R
P1806	6631900117A	YFH800 YFH800 70mM 10.00MM 2P UL161
P1807	387-907A	MXH8610 BH10009 100mM 8.00MM 1P UL1
P200	6630V90177C	25421WR-32A01 32P 2.54MM 2R ANGLE D
P202	6630V90177C	25421WR-32A01 32P 2.54MM 2R ANGLE D
P206	366-922L	GIL-G-12P-S3L2-E 12P 2.50MM 1R ANGL
P301	6602V39002D	YW396-02V 2P 3.96MM 1R STRAIGHT DIP
P401	6602V39002B	YW396-04V 4P 3.96MM 1R STRAIGHT DIP
P403B	387-A07G	7P CONNECTOR ASSY GIL-G-07 GIL-J-07
P500	366-922L	GIL-G-12P-S3L2-E 12P 2.50MM 1R ANGL
P501	387-B04A	GIL-G-04 GIL-J-04 100mM 2.50MM 4P U
P503	366-922C	GIL-G-04P-S3L2-E 4P 2.50MM 1R ANGLE
P504	366-922D	GIL-G-05P-S3L2-E 5P 2.50MM 1R ANGLE
P601B	366-932L	GIL-G-12P-S3T2-E 12P 2.50MM 1R
P650	366-932C	GIL-G-04P-S3T2-E 4P 2.50MM 1R
P651	366-932B	GIL-G-03P-S3T2-E 3P 2.50MM 1R
P802	6602V39002C	YW396-03V 3P 3.96MM 1R STRAIGHT DIP
P802B	6602V39002C	YW396-03V 3P 3.96MM 1R STRAIGHT DIP
P803B	387-A06A	GIL-G-06 GIL-J-06 100mM 2.50MM 6P U
P806A	366-932E	GIL-G-06P-S3T2-E 6P 2.50MM 1R
P901B	366-932L	GIL-G-12P-S3T2-E 12P 2.50MM 1R
P905	366-921F	GIL-G-07P-S3T2-E 7P 2.50MM 1R
P920	366-921B	GIL-G-03P-S3T2-E 3P 2.54MM 1R
PT01	387-A05J	GIL-G-05 GIL-J-05 500mM 2.50MM 5P U



For Capacitor & Resistors, the characters at 2nd and 3rd digit in the P/No. means as follows;	CC, CX, CK, CN : Ceramic CQ : Polyester CE : Electrolytic	RD : Carbon Film RS : Metal Oxide Film RN : Metal Film RF : Fusible
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LOCA. NO	PART NO	DESCRIPTION
R438	0RD2701A609	RDM92T1J2K70 2.7KOHM 5% 1/2W 6.5X2.
R439	0RD2701A609	RDM92T1J2K70 2.7KOHM 5% 1/2W 6.5X2.
R440	0RD3901A609	RDM92T1J3K90 3.9KOHM 5% 1/2W 6.5X2.
R441	0RS6800K607	RSD02T3J680R 680OHM 5% 2W 12.0X4.0M
R443	0RD3901F609	RD-96T1J3K90 3.9KOHM 5% 1/6W 3.2X1.
R444	0RD1001F609	RD-96T1J1K00 1KOHM 5% 1/6W 3.2X1.8M
R445	0RD2701F609	RD-96T1J2K70 2.7KOHM 5% 1/6W 3.2X1.
R445	0RN2701F409	RN-96T1F2K70 2.7KOHM 1% 1/6W 3.2X1.
R446	0RN1003F409	RN-96T1F100K 100KOHM 1% 1/6W 3.2X1.
R447	0RD1001F609	RD-96T1J1K00 1KOHM 5% 1/6W 3.2X1.8M
R456	0RD5600F609	RD-96T1J560R 560OHM 5% 1/6W 3.2X1.8
R457	0RN3901F409	RN-96T1F3K90 3.9KOHM 1% 1/6W 3.2X1.
R458	0RD1501F609	RD-96T1J1K50 1.5KOHM 5% 1/6W 3.2X1.
R460	0RD1002F609	RD-96T1J10K0 10KOHM 5% 1/6W 3.2X1.8
R461	0RF0101H609	FN-92T1J1R00 1OHM 5% 1/2W 9.0X3.0MM
R547	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP
R582	0RD1800A609	RDM92T1J180R 180OHM 5% 1/2W 6.5X2.3
R593	0RH4701D622	MCR10EZHJ472 4.7KOHM 5% 1/8W 2012 R
R594	0RH4702D622	MCR10EZHJ473 4.7KOHM 5% 1/8W 2012 R/
R595	0RH4701D622	MCR10EZHJ472 4.7KOHM 5% 1/8W 2012 R
R596	0RH1001D622	MCR10EZHJ102 1KOHM 5% 1/8W 2012 R/T
R597	0RH1001D622	MCR10EZHJ102 1KOHM 5% 1/8W 2012 R/T
R651	0RD1002F609	RD-96T1J10K0 10KOHM 5% 1/6W 3.2X1.8
R652	0RD3001F609	RD-96T1J3K00 3KOHM 5% 1/6W 3.2X1.8M
R653	0RD4702F609	RD-96T1J47K0 47KOHM 5% 1/6W 3.2X1.8
R654	0RD4702F609	RD-96T1J47K0 47KOHM 5% 1/6W 3.2X1.8
R657	0RD1002F609	RD-96T1J10K0 10KOHM 5% 1/6W 3.2X1.8
R658	0RD3001F609	RD-96T1J3K00 3KOHM 5% 1/6W 3.2X1.8M
R659	0RD1001F609	RD-96T1J1K00 1KOHM 5% 1/6W 3.2X1.8M
R670	0RD1002F609	RD-96T1J10K0 10KOHM 5% 1/6W 3.2X1.8
R672	0RD1001F609	RD-96T1J1K00 1KOHM 5% 1/6W 3.2X1.8M
R673	0RD2701F609	RD-96T1J2K70 2.7KOHM 5% 1/6W 3.2X1.
R800	180-C02J	ERC12GK106V 10MOHM 10% 1/2W 9.5X3.5
R804	0RS5602K607	RSD02T3J56K0 56KOHM 5% 2W 12.0X4.0M
R805	0RS5602K607	RSD02T3J56K0 56KOHM 5% 2W 12.0X4.0M
R806	0RD0331A609	RDM92T1J3R30 3.3OHM 5% 1/2W 6.5X2.3
R807	0RD2201F609	RD-96T1J2K20 2.2KOHM 5% 1/6W 3.2X1.
R808	0RD4701F609	RD-96T1J4K70 4.7KOHM 5% 1/6W 3.2X1.
R809	180-A01Q	PRW02T3KR082 0.082OHM 10% 2W 12.0X4
R810	0RD1001F609	RD-96T1J1K00 1KOHM 5% 1/6W 3.2X1.8M
R821	0RD4701F609	RD-96T1J4K70 4.7KOHM 5% 1/6W 3.2X1.
R822	0RD1002F609	RD-96T1J10K0 10KOHM 5% 1/6W 3.2X1.8
R823	0RD4701F609	RD-96T1J4K70 4.7KOHM 5% 1/6W 3.2X1.
R830	0RP0020J809	SPF01T1MR020 0.02OHM 20% 1W 6.5X2.3
R840	0RP0010J809	SPF01T1MR010 0.01OHM 20% 1W 6.5X2.3
R842	0RS0331K607	RSD02T3J3R30 3.3OHM 5% 2W 12.0X4.0M
R843	0RS0331K607	RSD02T3J3R30 3.3OHM 5% 2W 12.0X4.0M
R850	0RD4702F609	RD-96T1J47K0 47KOHM 5% 1/6W 3.2X1.8
R850	0RP0020J809	SPF01T1MR020 0.02OHM 20% 1W 6.5X2.3
R851	0RD5101F609	RD-96T1J5K10 5.1KOHM 5% 1/6W 3.2X1.
R851	0RP0020J809	SPF01T1MR020 0.02OHM 20% 1W 6.5X2.3
R852	0RD4701F609	RD-96T1J4K70 4.7KOHM 5% 1/6W 3.2X1.

LOCA. NO	PART NO	DESCRIPTION
R853	0RD1301F609	RD-96T1J1K30 1.3KOHM 5% 1/6W 3.2X1.
R860	0RP0020J809	SPF01T1MR020 0.02OHM 20% 1W 6.5X2.3
R871	0RD7500F609	RD-96T1J750R 750OHM 5% 1/6W 3.2X1.8
R872	0RD2001F609	RD-96T1J2K00 2KOHM 5% 1/6W 3.2X1.8M
R873	0RD4701F609	RD-96T1J4K70 4.7KOHM 5% 1/6W 3.2X1.
R875	0RN3001F409	RN-96T1F3K00 3KOHM 1% 1/6W 3.2X1.8M
R877	0RF0161K607	FNS02T3J1R60 1.6OHM 5% 2W 12.0X4.0M
R878	0RF0161K607	FNS02T3J1R60 1.6OHM 5% 2W 12.0X4.0M
R879	0RD3600F609	RD-96T1J360R 360OHM 5% 1/6W 3.2X1.8
R881	0RD2403F609	RD-96T1J240K 240KOHM 5% 1/6W 3.2X1.
R882	0RD1003A609	RDM92T1J100K 100KOHM 5% 1/2W 6.5X2.
R883	0RD9102F609	RD-96T1J91K0 91KOHM 5% 1/6W 3.2X1.8
R884	0RD3601F609	RD-96T1J3K60 3.6KOHM 5% 1/6W 3.2X1.
R885	0RS1002J607	RS-01T3J10K0 10KOHM 5% 1W 12.0X4.0M
R901	0RD1000F609	RD-96T1J100R 100OHM 5% 1/6W 3.2X1.8
R902	0RD1000F609	RD-96T1J100R 100OHM 5% 1/6W 3.2X1.8
R903	0RD1000F609	RD-96T1J100R 100OHM 5% 1/6W 3.2X1.8
R904	0RD8201F609	RD-96T1J8K20 8.2KOHM 5% 1/6W 3.2X1.
R905	0RD2200F609	RD-96T1J220R 220OHM 5% 1/6W 3.2X1.8
R906	0RD1001F609	RD-96T1J1K00 1KOHM 5% 1/6W 3.2X1.8M
R907	0RD1001F609	RD-96T1J1K00 1KOHM 5% 1/6W 3.2X1.8M
R908	0RD1001F609	RD-96T1J1K00 1KOHM 5% 1/6W 3.2X1.8M
R909	0RD3600H609	RD-92T1J360R 360OHM 5% 1/2W 9.0X3.0
R910	180-C02Q	ERC12GJ331V 330OHM 5% 1/2W 9.5X3.5M
R912	0RD2204H609	RD-92T1J2M20 2.2MOHM 5% 1/2W 9.0X3.
R913	0RD2701F609	RD-96T1J2K70 2.7KOHM 5% 1/6W 3.2X1.
R914	0RD5101F609	RD-96T1J5K10 5.1KOHM 5% 1/6W 3.2X1.
R915	0RD1203F609	RD-96T1J120K 120KOHM 5% 1/6W 3.2X1.
R921	0RD1000F609	RD-96T1J100R 100OHM 5% 1/6W 3.2X1.8
R922	0RD1000F609	RD-96T1J100R 100OHM 5% 1/6W 3.2X1.8
R924	0RS2200J607	RS-01T3J220R 220OHM 5% 1W 12.0X4.0M
R925	0RS2200J607	RS-01T3J220R 220OHM 5% 1W 12.0X4.0M
R926	0RF0470H609	FN-92T1JR470 0.47OHM 5% 1/2W 9.0X3.
R927	0RD1801F609	RD-96T1J1K80 1.8KOHM 5% 1/6W 3.2X1.
R928	0RD4702F609	RD-96T1J47K0 47KOHM 5% 1/6W 3.2X1.8
R929	0RD2001F609	RD-96T1J2K00 2KOHM 5% 1/6W 3.2X1.8M
R931	180-C02Q	ERC12GJ331V 330OHM 5% 1/2W 9.5X3.5M
R932	0RD1002F609	RD-96T1J10K0 10KOHM 5% 1/6W 3.2X1.8
R934	0RD1802F609	RD-96T1J18K0 18KOHM 5% 1/6W 3.2X1.8
R935	0RD6201F609	RD-96T1J6K20 6.2KOHM 5% 1/6W 3.2X1.
R937	0RD1002H609	RD-92T1J10K0 10KOHM 5% 1/2W 9.0X3.0
R938	0RD1003H609	RD-92T1J100K 100KOHM 5% 1/2W 9.0X3.
R940	0RD3600H609	RD-92T1J360R 360OHM 5% 1/2W 9.0X3.0
R941	0RD3600H609	RD-92T1J360R 360OHM 5% 1/2W 9.0X3.0
R942	180-C02Q	ERC12GJ331V 330OHM 5% 1/2W 9.5X3.5M
RT01	0RD9101F609	RD-96T1J9K10 9.1KOHM 5% 1/6W 3.2X1.
RT02	0RD3901F609	RD-96T1J3K90 3.9KOHM 5% 1/6W 3.2X1.
RT03	0RD9101F609	RD-96T1J9K10 9.1KOHM 5% 1/6W 3.2X1.
RT04	0RD3901F609	RD-96T1J3K90 3.9KOHM 5% 1/6W 3.2X1.
<b>SWITCH</b>		
SW06	140-315A	THVH472GBC 1C1P 12VDC 0.05A VERTICA

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

CC, CX, CK, CN : Ceramic  
CQ : Polyester  
CE : Electrolytic

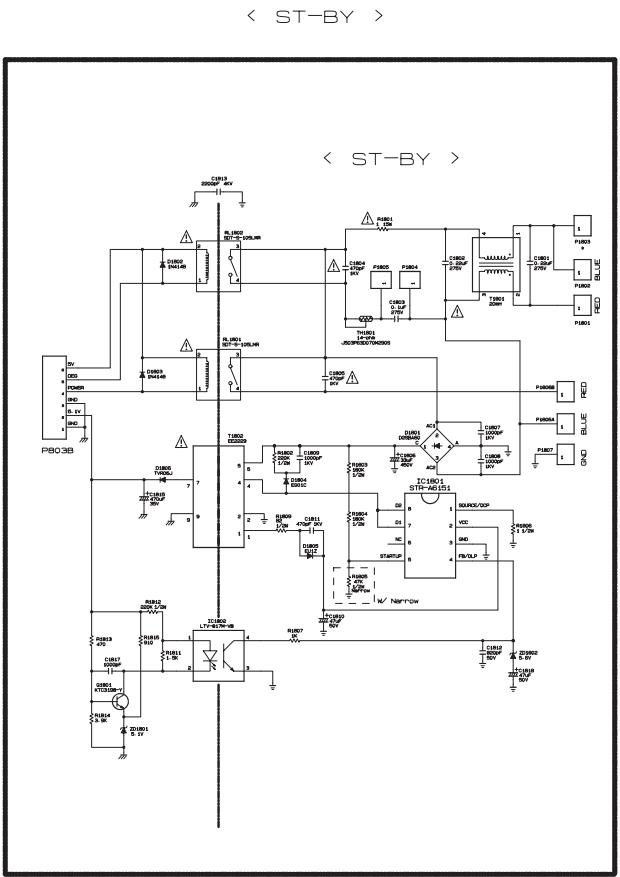
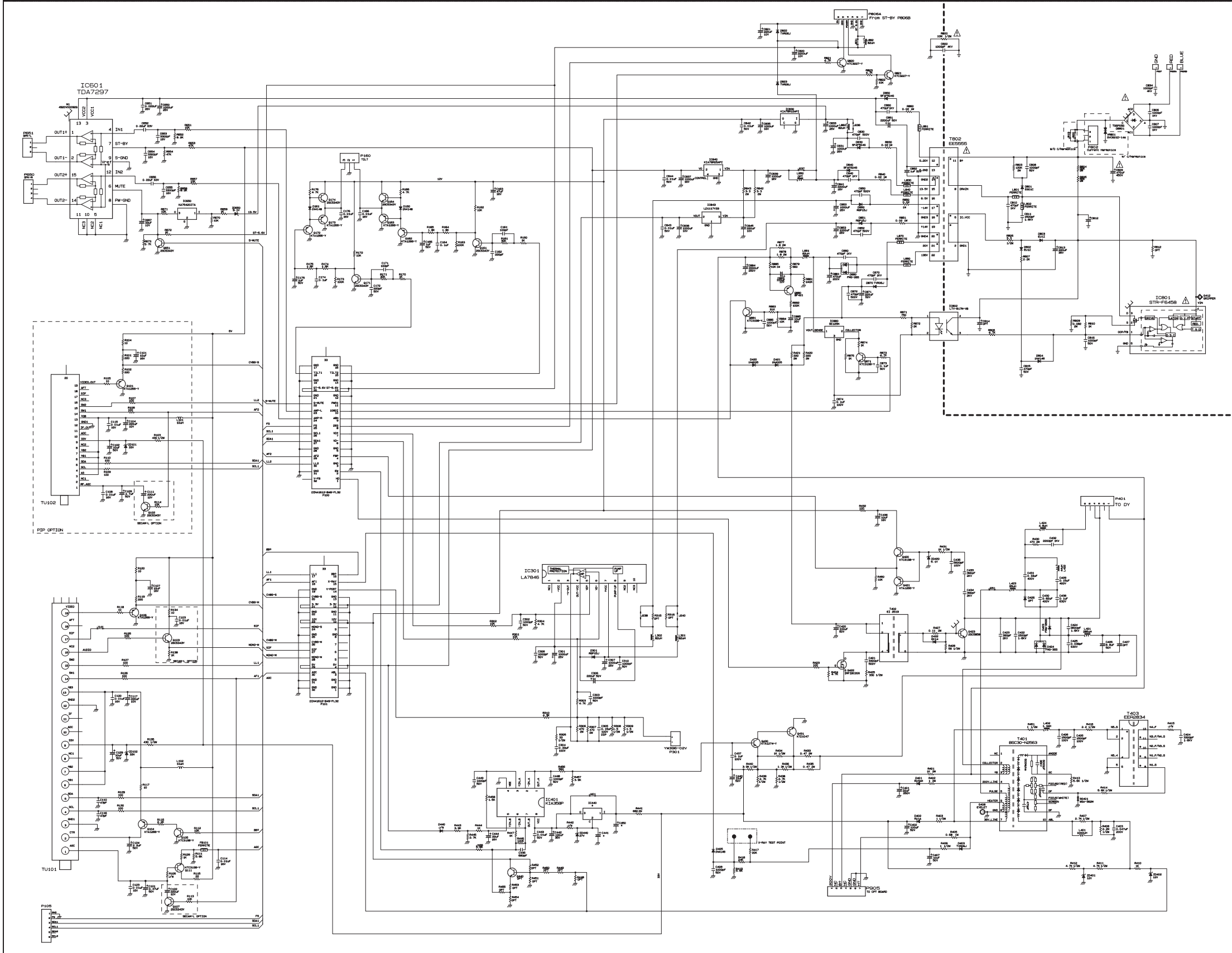
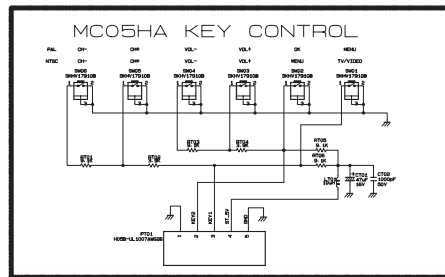
RD : Carbon Film  
RS : Metal Oxide Film  
RN : Metal Film  
RF : Fusible

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

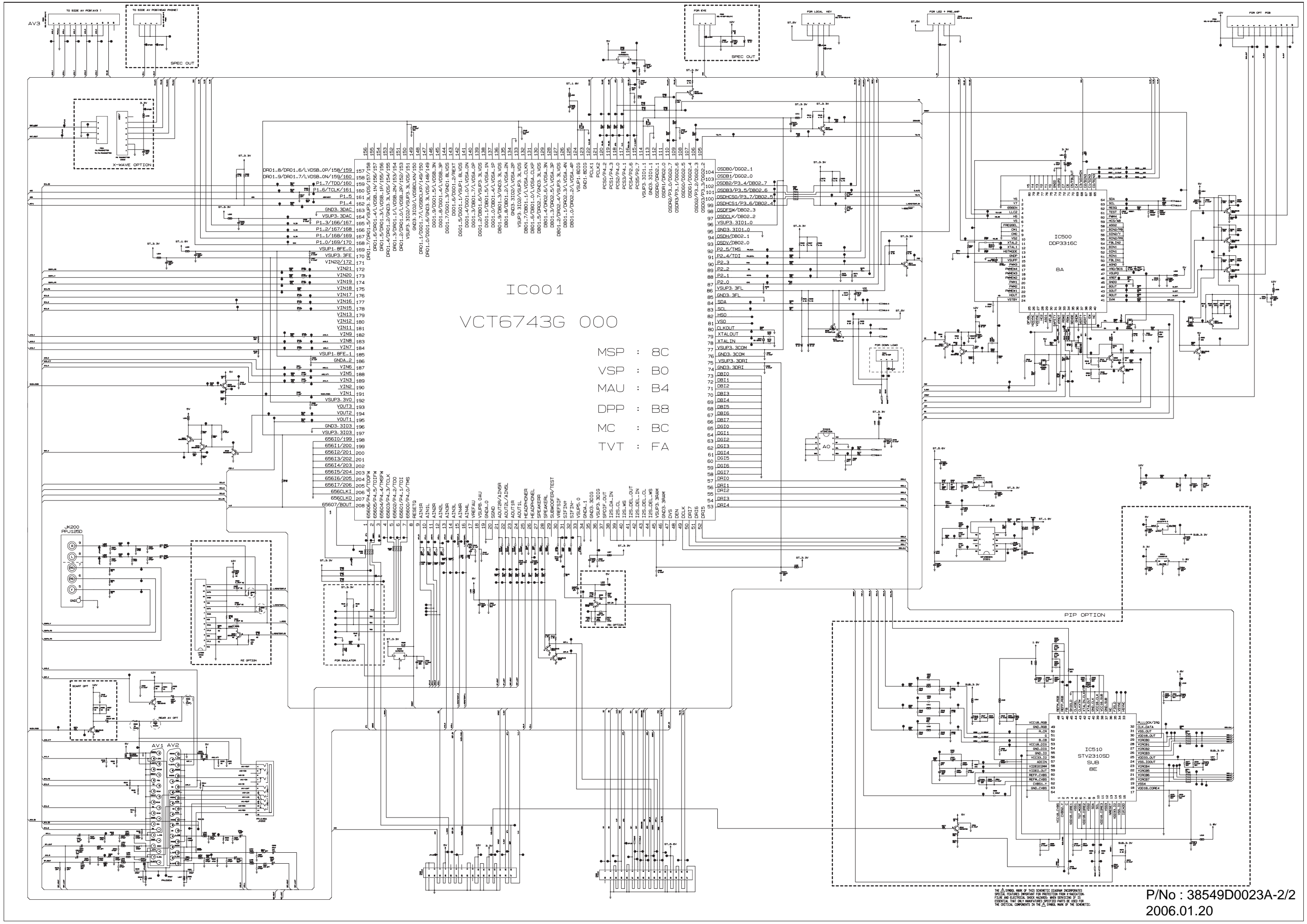
LOCA. NO	PART NO	DESCRIPTION
SW1	140-315A	THVH472GBC 1C1P 12VDC 0.05A VERTICA
SW1701	6600VM2002A	SDKEA3012A AC 250VAC 8A 1PCS 2C1P
SW2	140-315A	THVH472GBC 1C1P 12VDC 0.05A VERTICA
SW3	140-315A	THVH472GBC 1C1P 12VDC 0.05A VERTICA
SW4	140-315A	THVH472GBC 1C1P 12VDC 0.05A VERTICA
SW5	140-315A	THVH472GBC 1C1P 12VDC 0.05A VERTICA
<b>FILTER &amp; CRYSTAL</b>		
FB101	125-022K	125-022K 20OHM 3.5X6MM AXIAL TP
FB403	125-022K	125-022K 20OHM 3.5X6MM AXIAL TP
L002	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L003	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L004	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L005	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L006	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L007	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L008	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L009	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L010	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L011	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L012	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L013	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L501	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L502	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L503	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L504	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L505	6210VC0006A	FBMH3216 HM501NT 500OHM 3.2X1.6X1.6
L801	125-022K	125-022K 20OHM 3.5X6MM AXIAL TP
L802	125-022K	125-022K 20OHM 3.5X6MM AXIAL TP
L830	125-022K	125-022K 20OHM 3.5X6MM AXIAL TP
L840	125-022K	125-022K 20OHM 3.5X6MM AXIAL TP
L861	125-022K	125-022K 20OHM 3.5X6MM AXIAL TP
L870	125-022K	125-022K 20OHM 3.5X6MM AXIAL TP
L880	125-022K	125-022K 20OHM 3.5X6MM AXIAL TP
L904	125-022K	125-022K 20OHM 3.5X6MM AXIAL TP
T1701	150-F06T	150-F06T 20MH 38X26X43MM SQE3535 RA
T1801	150-F06T	150-F06T 20MH 38X26X43MM SQE3535 RA
X001	6202VDB007B	HC-49/U 20.25MHZ 30PPM 20.25MHZ 30P
X500	6202VDB007A	HC-49/U 5MHZ 30PPM 5MHZ 30PPM 16pF
X510	156-A02X	HC-49/U 27MHZ 25PPM 27MHZ 25PPM 20p
<b>JACK</b>		
JA1	6613V00010D	PMJ016D 22P RCA/DIN JACK 14/15.5MM
JK200	6612VJH022D	PPJ125D 14.0MM 5RX2C ANGLE TR 5PORT
JK202	6612VMH002A	PMJ020A 42P 21P/2C 3.81MM ANGLE DIP
<b>MISCELLANEOUS</b>		
F1701	0FS5001B51D	Fuse, Time Delay 0218 005. GLASS 250V 5A
IC513	68719ST881A	PCB Assembly, Sub SUB T.T MC-049A KSR-MX016
LD1	ODD000000BA	LED, DIP SA5711-B DL-1LO(S) ROUND 5mm
$\Delta$ P1702	174-322G	Power Cord Assembly, KJP-140/BUSH/HOU
PA1	6712R1538GH	Receiver Module, TSOP2438 4.5TO5.5V 1.5MA

LOCA. NO	PART NO	DESCRIPTION
SG401	6918VAX006A	Spark Gap, Axial WSA-362M AXIAL 3.6KV 3.6KV
SG904	6918VAX002B	Spark Gap, Axial SSA-102N-A1 AXIAL 1KV 1KV
SK901	6620VBD001A	Socket, CRT PCS701A 9P STRAIGHT 15.24MM
TH1801	6322TB070AA	Thermistor, PTC J503P63D070M290S 7OHM
TU101	6700SP0001A	Tuner/Modulator, TAUL-S210D PAL-B/G SECAM- L/L
TU102	6700SP0001B	Tuner/Modulator, TAFL-S211P PAL-B/G SECAM- L/L
VD1701	164-003K	Varistor, SVC621D-14A 620V 10% 600pF
VD801	164-003K	Varistor, SVC621D-14A 620V 10% 600pF
<b>ACCESSORIES</b>		
A1	38289U0578H	Manual, USER MC05HA LG RUS/BZ03 RU/EN 136 T
	38289U0578L	Manual, USER MC05HA LG UKR/BZ03 RU/EN 136 T
	38289U0581L	Manual, USER MC05HA LG MK HU/EN 136 TX
	38289U0581M	Manual, USER MC05HA LG PL/SPEC PL 136 TX
	38289U0581Q	Manual, USER MC05HA LG CZ CZ/SK 136 TX
	38289U0581V	Manual, USER MC05HA LG BALTIC ES/LV/LT 136
A2	67110V00145H	Remote Controller, MC05HA W/TXT, W/PIP
	67110V00145J	Remote Controller, MC05HA W/TXT, W/O PIP





THE  $\Delta$  SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION, FILTRATION AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING IT IS ESSENTIAL THAT ONLY MANUFACTURER SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE  $\Delta$  SYMBOL MARK OF THE SCHEMATIC.



IC001  
VCT6743G 000

MSP : BC  
VSP : B0  
MAU : B4  
DPP : B8  
MC : BC  
TVT : FA

THE ABOVE DRAWING IS FOR INFORMATION PURPOSES ONLY. IT IS NOT A MANUFACTURING DRAWING. SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM A MANUFACTURER'S POINT OF VIEW ARE NOT SHOWN. THE MANUFACTURER'S POINT OF VIEW IS ESSENTIAL. THAT ONLY MANUFACTURED PARTS BE USED FOR THE ORIGINAL COMPONENTS IN THE ORIGINAL DRAWING OF THE SCHEMATIC.