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COLOR TV

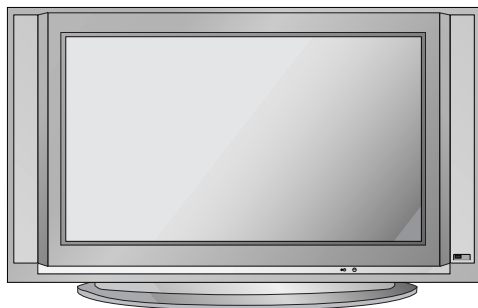
SERVICE MANUAL

CHASSIS : MC-049D

MODEL:29FS2RKE/RKQ/RL/RLE/RLX
29F2RKE/RKQ/RL/RLE/RLX-TR

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 Δ 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 Ω and 5.2M Ω .

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.

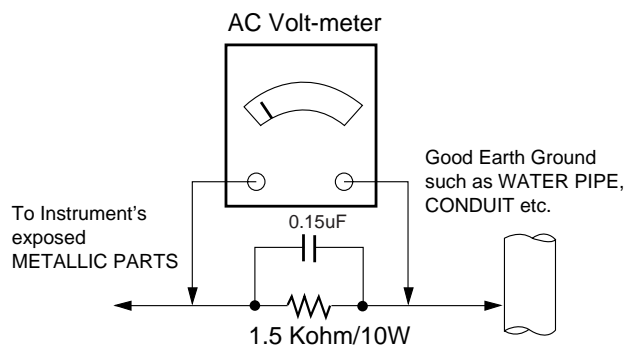
Connect 1.5K/10watt resistor in parallel with a 0.15uF capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.

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 corresponds to 0.5mA.

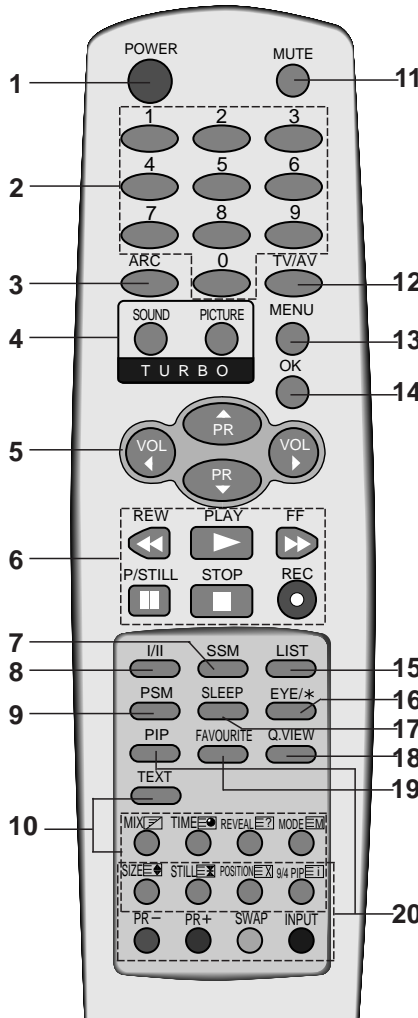
In case any measurement is out of the limits specified, there is possibility of shock hazard and the set must be checked and repaired before it is returned to the customer.

Leakage Current Hot Check circuit

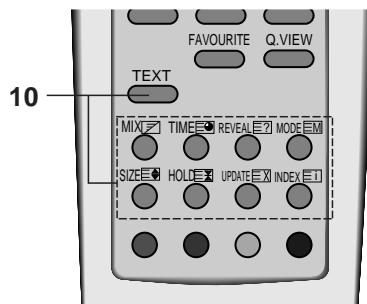


DESCRIPTION OF CONTROLS

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.



(With TELETEXT / PIP)



(With TELETEXT / Without PIP)

Remote control handset

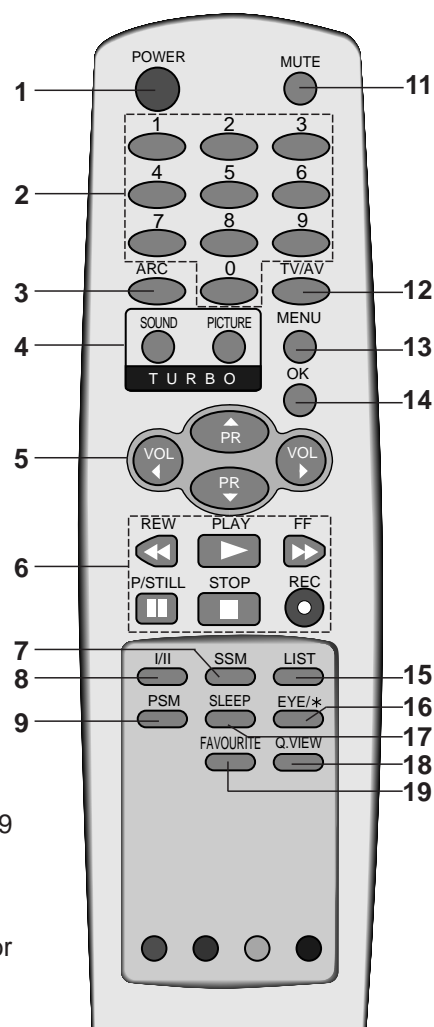
Before you use the remote control handset, please install the batteries. See the next page.

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 / SOUND BUTTON**
selects Turbo picture / sound.
5. **▲ / ▼ (Programme Up/Down)**
selects a programme or a menu item.
◀ / ▶ (Volume Up/Down)
adjusts the volume.
adjusts menu settings.
6. **VCR BUTTONS (option)**
control a LG video cassette recorder.
7. **SSM (Sound Status Memory)**
recalls your preferred sound setting.
8. **I/II (option)**
selects the language during dual language broadcast (option).
selects the sound output.
9. **PSM (Picture Status Memory)**
recalls your preferred picture setting.
10. **TELETEXT BUTTONS (option)**
These buttons are used for teletext.
For further details, see the 'Teletext' section.
11. **MUTE**
switches the sound on or off.
12. **TV/AV**
selects TV or AV mode.
switches the set on from standby.
13. **MENU**
selects a menu.
14. **OK**
accepts your selection or displays the current mode.

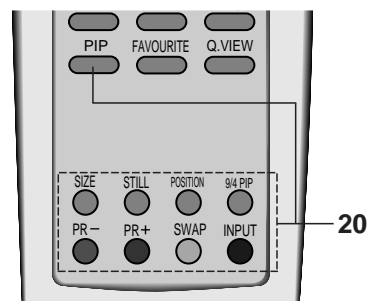
- 15. LIST**
displays the programme table.
- 16. EYE/* (option)**
switches the eye function on or off.
- 17. SLEEP**
sets the sleep timer.
- 18. Q.VIEW**
returns to the previously viewed programme.
- 19. FAVOURITE**
selects a favorite programme.
- 20. PIP BUTTONS (option)**
PIP
switches the sub picture 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 programme scan mode through 4 or 9 sub pictures.

COLOURED BUTTONS

These buttons are used for teletext (only TELETEXT models) or programme edit.

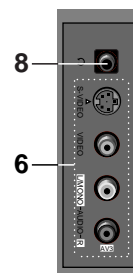
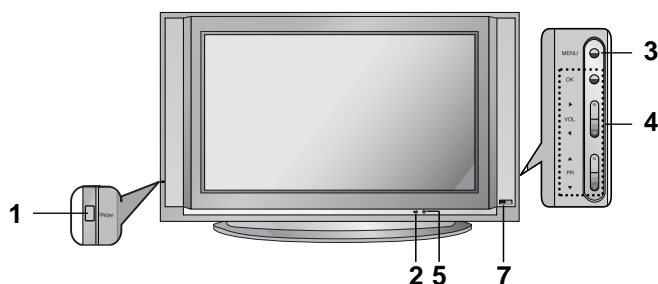


(Without TELETEXT / PIP)



(Without TELETEXT / With PIP)

Front panel



Side 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**
***Note :** Only use the supplied remote control handset. (When you use others, they'll be not able to function.)*
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**
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-049D 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 : $20 \pm 5^{\circ}\text{C}$ (CST : $40 \pm 5^{\circ}\text{C}$)
- 2) Relative Humidity : $65 \pm 10\%$
- 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 Specification

No	Item	Specification	Remark
1	Receiving System	PAL,SECAM BG PAL/SECAM DK PAL-I/I NTSC M NTSC 4.43(AV) SECAM-L/L' NTSC M/ PAL M/N	For EU/ For Non EU OPTION
2	Available Channel	VHF : E2 ~ E12 UHF : E21 ~ E69 CATV : S1 ~ S20 HYPER : S21 ~ S41	
3	Input Voltage	AC 110-240V, 50/60Hz AC 230V, 50/60Hz	Non EU EU
4	Market	EU,CIS, China, Asia, Africa	
5	Screen Size	Flat 29"	
6	Tuning System	FVS 100Program	200 PR. (W/O TXT)
7	Operating Environment	1) Temp : 0 ~ 45 deg 2) Humidity: 85% under	
8	Storage Environment	1) Temp : -20 ~ 60 deg 2) Humidity: 85% under	

ADJUSTMENT INSTRUCTIONS

1. Application Object

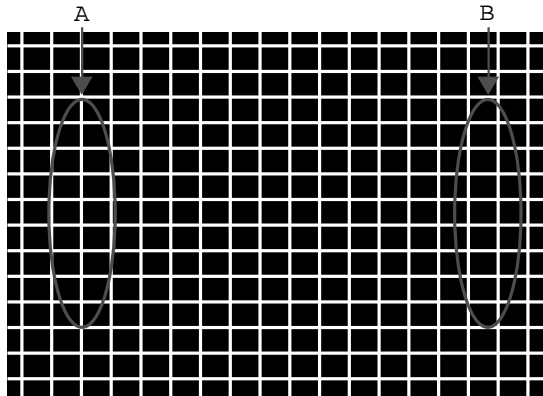
These instructions are applied to all of the color TV, MC-049A.

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.
- (6) Signal: Received, the standard color signal. ($65\text{dB}\pm 1\text{dB uV}$)
LG standard signal means the digital pattern PAL-EU(05CH)

3. Focus adjustment

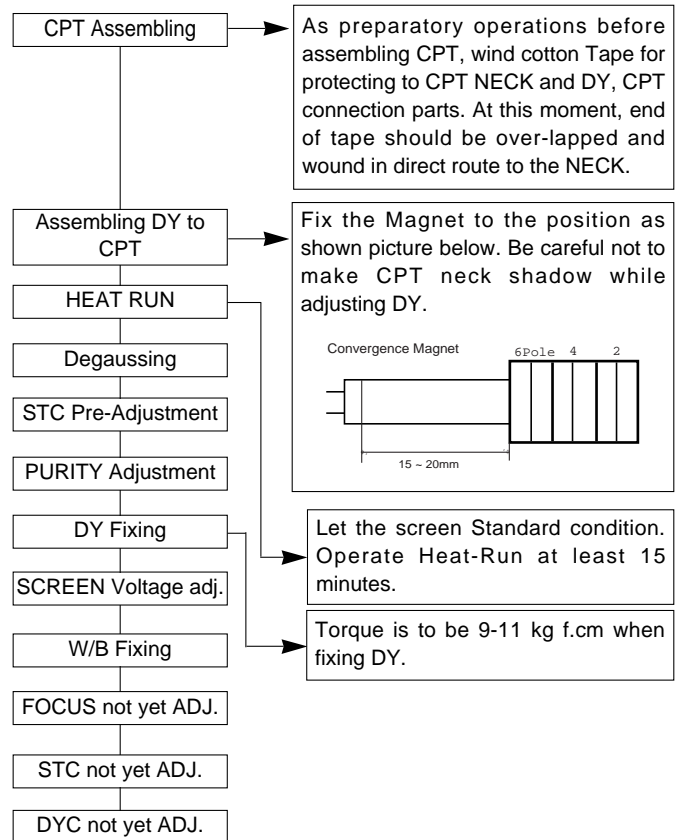
- (1) Receive the Cross-Hatch Pattern (Fig 1).
- (2) Set the picture condition on "DYNAMIC(CLEAR)" mode.
- (3) Adjust the Focus volume of FBT for the best focus of (A) & (B).



<Fig 1. PAL Digital Pattern(EU05CH)>

4. 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.



4.1. Color 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.

4.2. 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.

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) Turn the Screen Volume of FBT to change luminance of White signal center as shown below.
- (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 IN-START, MUTE button on remote control for adjustment orderly, it is changed to CPU OFF mode and screen is displayed to "CPU OFF".)

- (1) Receive 100% white pattern.
- (2) Adjust LOW Light status(4.5FL) of CR(R CUT), CB(B CUT) at CG(G CUT:75) : 60.
- (3) Adjust HIGH Light status(35FL) of WR(R DRIVE), WB(B DRIVE) at WG(G DRIVE:380) : 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	268
Y	295	273
Color Temperature	9000°K	13000°K

<Table 2> White Balance Initial Data

	Menu	Range	DATA
LOW LIGHT	CR	0 ~ 511	60
	CG	0 ~ 511	60
	CB	0 ~ 511	60
HIGH LIGHT	WR	0 ~ 511	450
	WG	0 ~ 511	450
	WB	0 ~ 511	450

<Table 3> White Balance Initial Data

1. IC

	Name	Maker	Algorithm			
VCD IC	VCT49xyi	Micronas	0	B	0	0
EP_ROM	24C16	ST, ATMEL				

2. White balance IIC Parameter

Program	TWBeng_v049(hex)	Program	TWBeng_v049(hex)	Speed	Delay
Vcd Slave	BCF0	Eprom_Slave	AC	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	C	C	C	C
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	0.5	3	0.5	3
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<Note>

- W/B Program "Twbeng_v049" Only

How to use to Remote control key.

1. After Cutoff adjustment then W/B adjustment
: Instart -> adj. -> mute(cutoff)-> tv/av(wb)
All clear key is EXIT key
2. W/B adjustment only
: Instart -> mute(cpuoff) ->
All clear key is TV/AV key

7. Deflection setting Data Adjustment

7.1 Adjustment preparation

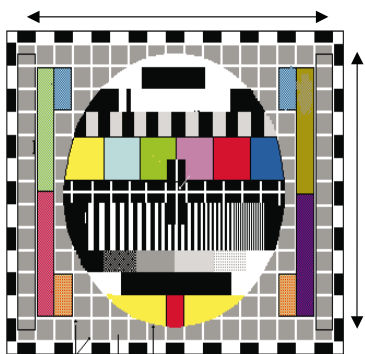
- (1) Tune the TV set to receive an Digital pattern(EU05CH).
- (2) Deflection setting data adjustment is operate by SVC communicator.
- (3) Enter the deflection mode by selection SERVICE2 key on SERVICE MENU after enter the adjustment mode by pressing LINE SVC MODE(IN-START KEY).
- (4) Use the CH ▲, ▼ key to select adjustment item.
- (5) Use the VOL ◀, ▶ key to increase/decrease data.

7.2 Adjustment

<Note>

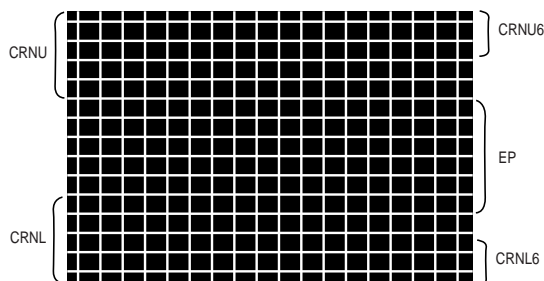
- When adjusting a deflection, adjust N50Hz of PAL signal first and adjust a deflection data at N60Hz(NTSC), Z60Hz, N50Hz, W50Hz, Z50Hz.
- After finishing deflection adjustment, press the ENTER button to enter or exit SVC mode.

- (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 (Vertical S correction) adjustment
Adjust so that all distance between each lattice width of top/center/bottom are to be the same.
- (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.



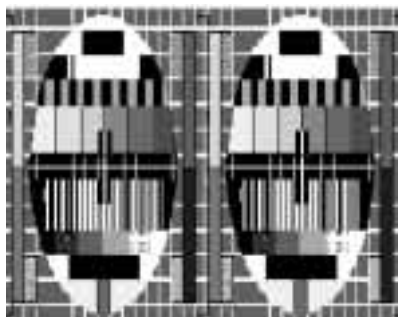
<Fig. 2>PAL Digital pattern (EU05CH)

- (6) EW(East-West Width) adjustment
Adjust until the outmost left and right lattice of received pattern is accord with 25% of other lattice width.
- (7) ET(Trapezoidal) adjustment
Adjust to make the length of top horizontal line same with it of the bottom horizontal line.
- (8) EP(Pin Cushion) adjustment
Adjust so that middle portion of the outmost left and right vertical line look like parallel with vertical lines of the CPT.
- (9) ANGLE adjustment
When you adjust the angle, adjust correctly raster of left/right screen.
- (10) BOW adjustment
A standard is not changing the default value.
- (11) UPCOR/LOCOR adjustment:
After finished cushion adjustment, adjust vertical line of left-top, right-top, left-bottom, right-bottom of screen to the best straight line.



<Fig. 3> Cross-Hatch Pattern(E-7CH)

- (12) PIP_H(PIP H Position) adjustment
Adjust until the distance between PIP and main picture becomes about 1~2mm by using VOL +/- key.



<Fig. 4> PIP H Position

8. Deflection setting initial data

<Table 4> Deflection setting initial data (SERVICE 2)

Item	Description	29"	Adjust or Fix
VL	Vert. Linearity	-50	Adjust
VA	Vert. Amplitude	80	Adjust
SC	S--Correction	170	Recommend
VS	Vert.Position	1	Adjust
HS	Hor. Position	140	Adjust
EW	Hor.Width	-10	Adjust
ET	Trapezoidal	-15	Adjust
EP	Pin Cushion	-130	Adjust
CRNU	Upper Corner	40	Adjust
CRNL	Lower Corner	40	Adjust
BOW	Bow	0	Recommend
ANGLE	Angle	0	Recommend
CRNU6	Upper Corner(6th)	0	Adjust
CRNU6	Lower Corner(6th)	0	Adjust
HBSO	Horizontal Blanking Stop	185	Fix
HBST	Horizontal Blanking Start	1250	Fix
EHTTH	EHT Compens. Threshold	150	Fix
EHTS	EHT Static Time constant	100	Fix
EHTV1	Static V Comp.(1st Gain)	70	Fix
EGTV2	Static V Comp.(2nd Gain)	-70	Fix
EGTH1	Dynamic H Comp.(1st Gain)	-3	Fix
EGTH2	Dynamic H Comp.(2nd Gain)	-10	Fix
EHT F	EHT Dynamic Time constant	1	Fix
EHTP1	1st Gain for Dynamic H Phase		Fix
EHTP2	2nd Gain for Dynamic H Phase		Fix
OSD P	OSD Position	0	Fix
PIP H	PIP H Position	0	Only PIP model
PIP V	PIP V Position		

* Fix : Don't change data

- After finishing deflection adjustment at PAL 50Hz, NTSC 60Hz is applied deflection compensation value. But recheck condition of adjustment at NTSC system and adjust deflection data if necessary.

9. Service adjustment data table

<Table 5> Picture setting service data1 (SERVICE 1)

ITEM	DESCRIPTION	29" LPD
SUB--BRI	Sub Bright	0
YC DELAY	YC Delay	-3
EXT CON	External Contrast	0
EXT BRI	External Bright	

<Table 6> Picture setting service data2 (SERVICE 3)

ITEM	DESCRIPTION	29" LPD
IBRM	Internal Brightness for Measurement	
WDRM	White Drive Current Measurement	
CGAIN	Gain for Cutoff Control Loop	
WGAIN	Gain for White Drive Control Loop	
MWDR		
BCLTH	BCL Threshold Current	420
BCLTC	BCL Time Constant	507
BCLGA	BCL Loop Gain	480
BCLC	BCL Minimum Contrast	200
SVM D	SVM Delay	4
SVM L	SVM Limit	
SVM G	SVM Gain	10
VBSO	Vertical Blanking Stop	20
VBST	Vertical Blanking Start	312
TML	Start Line for Tube Measurement	
PWL-L	Peak White Limit - Level	100

<Table 7> Picture setting service data3 (SERVICE 4)

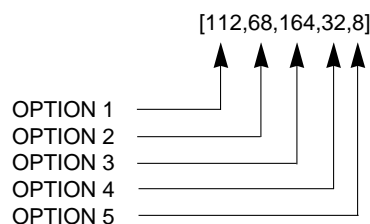
ITEM	DESCRIPTION	29" LPD
VID-PEAK	Freq. Resp Video peak Filter	1
TOP-SET	Tuner Take-Over-point	6
FP	FM PRE-SCALER	28
NP	NICAM PRE-SCALER	60
SP	SCART PRE-SCALER	24
S1VOL	SCART1 PRE-SCALER	117
S2VOL	SCART2 PRE-SCALER	117
AGC-L	AUTO GAIN CONT. LIMIT	670
M-STR	Bass Effect Strength	45
M-HMC	Bass Harmon Cont	25
M-HP	Bass HP Corner Freq	
M-LP	Bass LP Corner Freq	
M-LIM	Bass Ampl-Limit	252
THRSEL	H Slicing Level threshold	0
SLLTHD	Slicing Level Threshold Offset H	0
SLLTHDVP	Vertical Slicing Level Threshold Polarity	0
SLLTHDV	Slicing Level Threshold V	6
PLLTC	Time Constant HPLL	
SATNR	Noise Reduction of Satellite	
LUMAOFST	Luma Offset	

10. How to inspect condition of a transmission and reception in FM TRANSMISSION MODEL

- FM TRANSMITTER's efficiency inspections is executed to a finished in a final inspection phase.
 - FM TRANSMITTER 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(107.7MHz) 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.

11.OPTION Adjustment

- 1) This option adjustment decides function in accordance with model. Press the SVC TX adjustment button(IN-START button) at SVC mode, then adjust the option at OPTION1 mode.
- 2) Mark the option adjustment data like [112,68,164,32,8] in BOM.



* Mark of BOM

LEVEL	PART NO.	SPECIFICATION	DESCRIPTION
1.	3141VMN382A	MAIN CHASSIS ASSY	[112,68,164,32,8]

In this model, the OPTION1 data is 112, OPTION2 data is 68, the OPTION3 data is 164,the OPTION 4 data is 32, OPTION 5 data is 8.

11.1. OPTION1 Function

Option	Code	Function	Remark
INCH	0	21A	
	1	21B	
	2	21C	
	3	29F/ 25F	
	4	28WF/ 32FW	
	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	Without D/K CHINA or BB SYSTEM	China, Australia
	1	With D/K CHINA or BB SYSTEM	

11.3. OPTION3 Function

Option	Code	Function	Remark
TEXT	0	200RP(WITHOUT TEXT)	
	1	100PR(WITH TEXT)	
TOP	0	FLOP TXT	
	1	TOP TXT	
ACMS	0	WITHOUT ACMS FUNCTION	
	1	WITH ACMS FUNCTION	
I II SV	0	NO SAVE DUAL SOUND CONDITION	EU NON EU
	1	SAVE DUAL SOUND CONDITION	
VOL	0	NORMAL VOLUME CURVE	
	1	RUSHED VOLUME CURVE	
TSEAR	0	WITHOUT TURBO SEARCH	
	1	WITH TURBO SEARCH	
T P-S	0	WITHOUT TURBO PICTURE/SOUND	
	1	WITH TURBO PICTURE/SOUND	
HDECV	0	WITHOUT HIGH DEVIATION OPTION	
	1	WITH HIGH DEVIATION OPTION	

11.2. OPTION2 Function

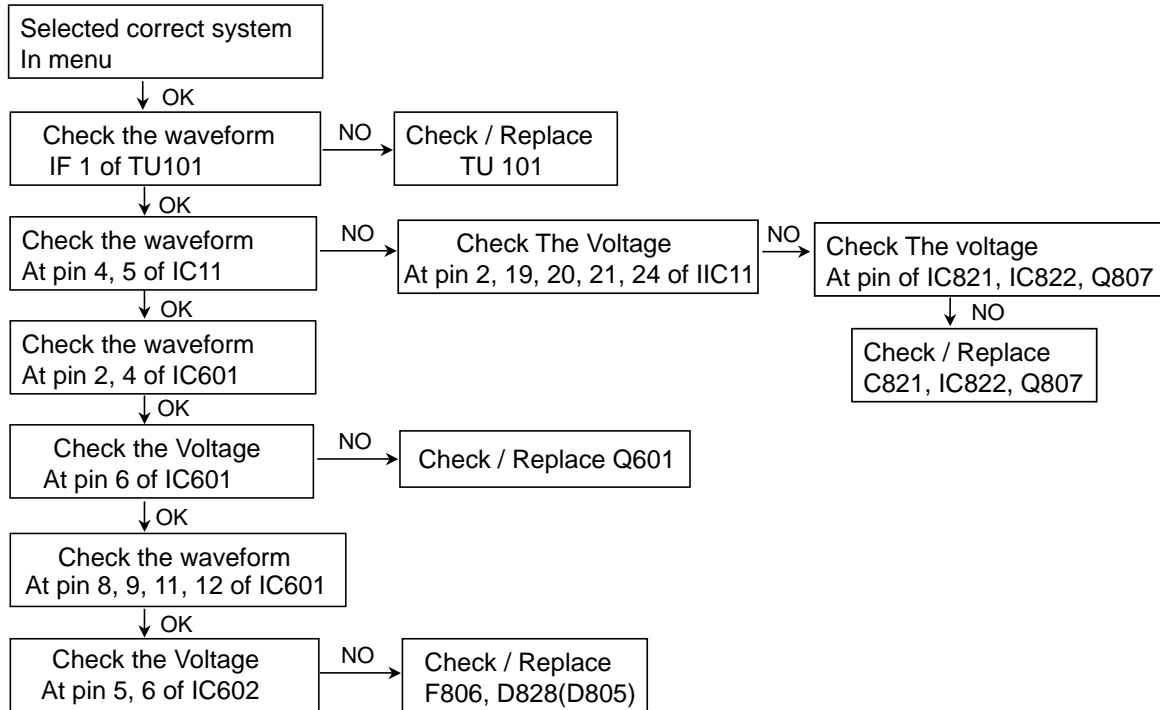
Option	Code	Function
FM LH	0	LOW BAND FM TX
	1	HIGH BAND FM TX
FM TX	0	WITHOUT FM TX
	1	WITH FM TX
1SCRT	0	PHONE JACK ONLY
	1	SCART + PHONE JACK
GAME	0	WITHOUT GAME
	1	WITH GAME (PACK)
EYE	0	WITHOUT EYE
	1	WITH EYE
TX	0	LARGE
	1	SMALL
KEY	0	6,8 KEY
	1	4 KEY
DEGAU	0	WITHOUT DEGAUSSING
	1	WITH DEGAUSSING

11.4. OPTION4 Function

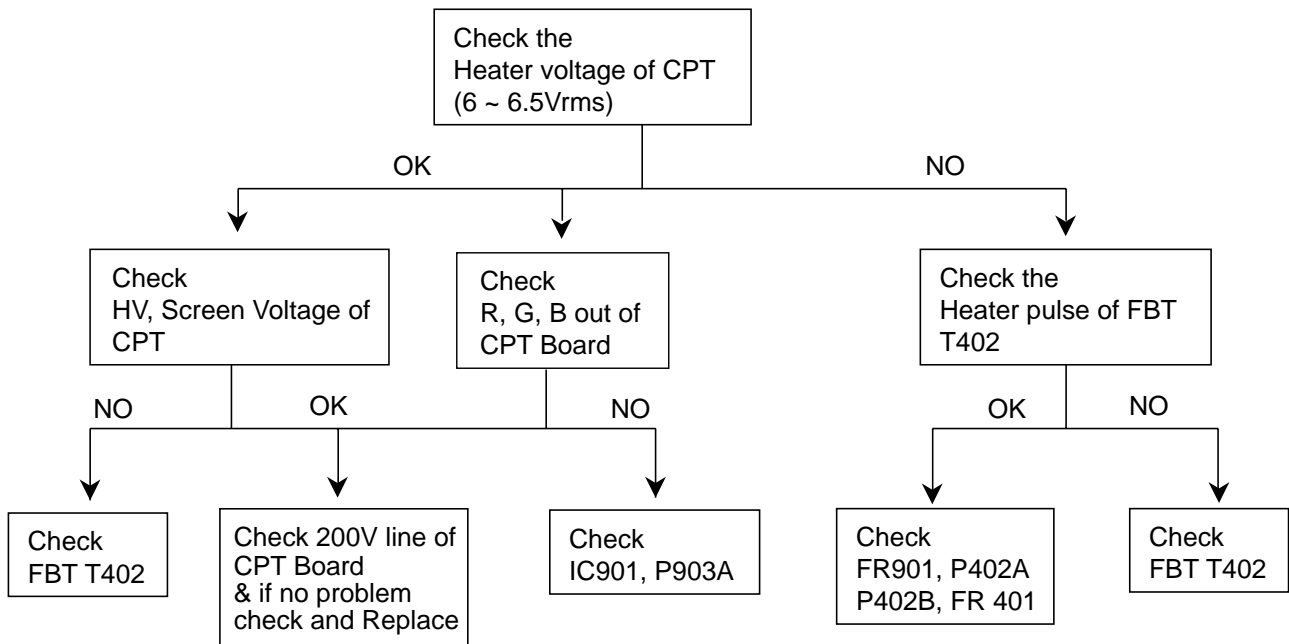
OPTION	CODE	FUNCTION	REMARK
OSD L	0	English Only	
	1	EU-5EA	
	2	EU-ETC	
	3	GREECE	
	4	EU-ALL	
	5	PARSI	
	6	ARAB URDU	
	7	E+HINDI	
	8	E+I+M+V	
	9	E+THAI	
	10	E+CHINA	
TXT L	0	English/ French/ Swedish/ Czech/ German/ Spanish/ Italian	WEST EU
	1	Polish/ French/ Swedish/ Czech/ German/ Slovenian/ Italian/ Romanian	EAST EU 1
	2	English/ French/ Swedish/ Turkish/ German/ Spanish/ Italian	TURKEY EU
	3	English/ Czech/ Hungarian/ Serbian/ German/ Polish/ Turkish/ Romanian	EAST EU2
	4	Polish/ Russian/ Estonian/ Lettish	CYRILLIC 1
	5	Polish/ Russian/ Swedish/ Czech/ Estonian/ Lettish	CYRILLIC 2
	6	English/ Russian/ Estonian/ Czech/ Ukraina/ Lettish	CYRILLIC 3
	7	English/ French/ Swedish/ Turkish/ German/ Spain/ Italian/ Greek	TURK GRE1
	8	English/ Turkish/ German/ Greek	TURK GRE2
	9	English/ French/ Swedish/ Turkish / German/ Spanish/ Italian/ Greek	TURK GRE3
	10	French/ English/ Turkish/ Arab	ARAB FRA
	11	English/ French/ Turkish/ Arab	ARAB ENG
	12	Hebrew/ Arab	ARAB HEB1
	13	English/ French/ Arab/ Hebrew	ARAB HEB2
	14	English/ French/ Turkish/ Parsi	PARSI ENG
	15	French/ Turkish/ Parsi	PARSI FRA
	16		PARSI ALL
	17		AUTO
HOTEL	0	WITHOUT HOTEL OPT ON	
	1	WITH HOTEL OPT ON	

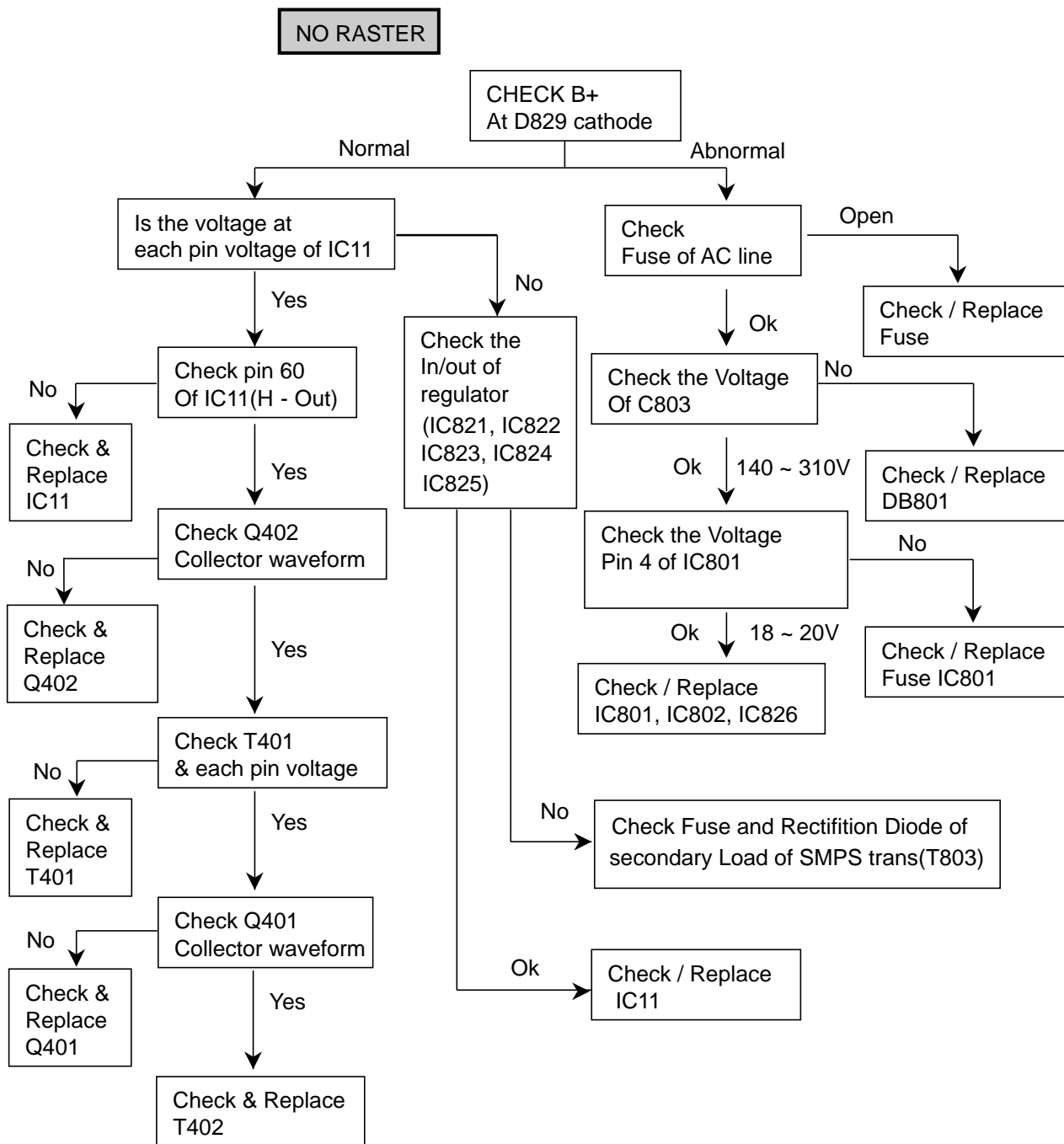
TROUBLE SHOOTING

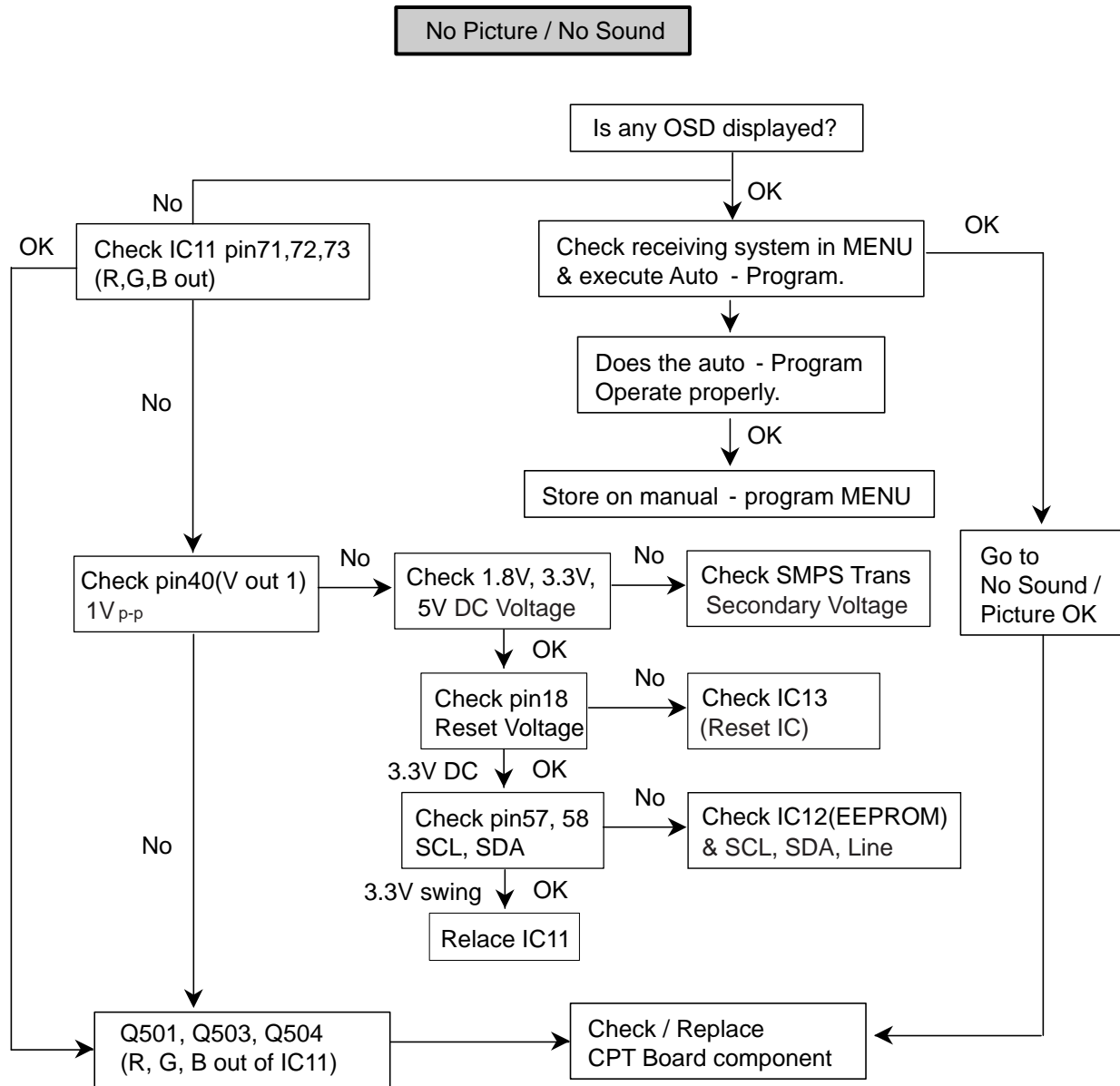
RF- STEREO



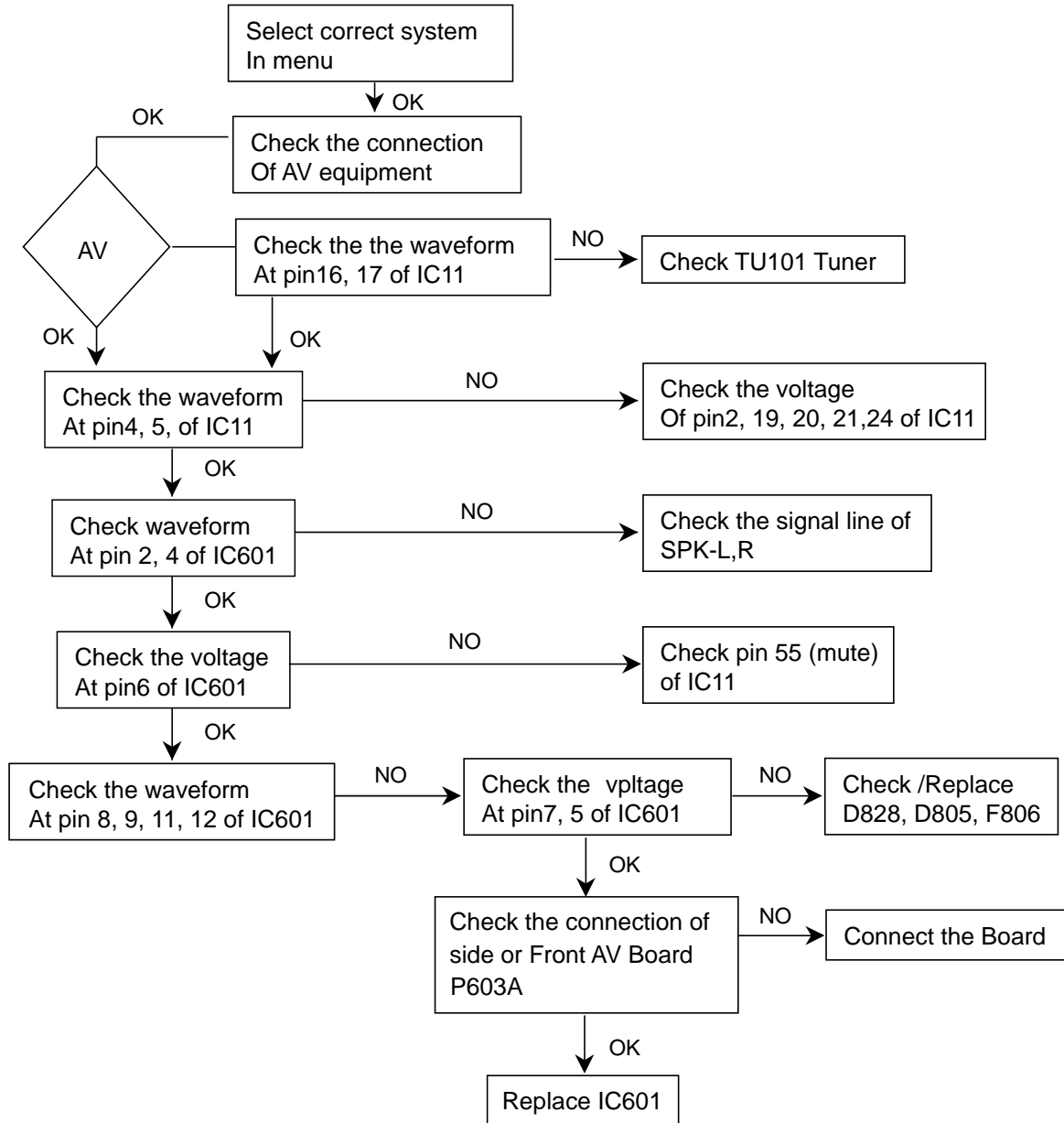
No Raster / Sound OK





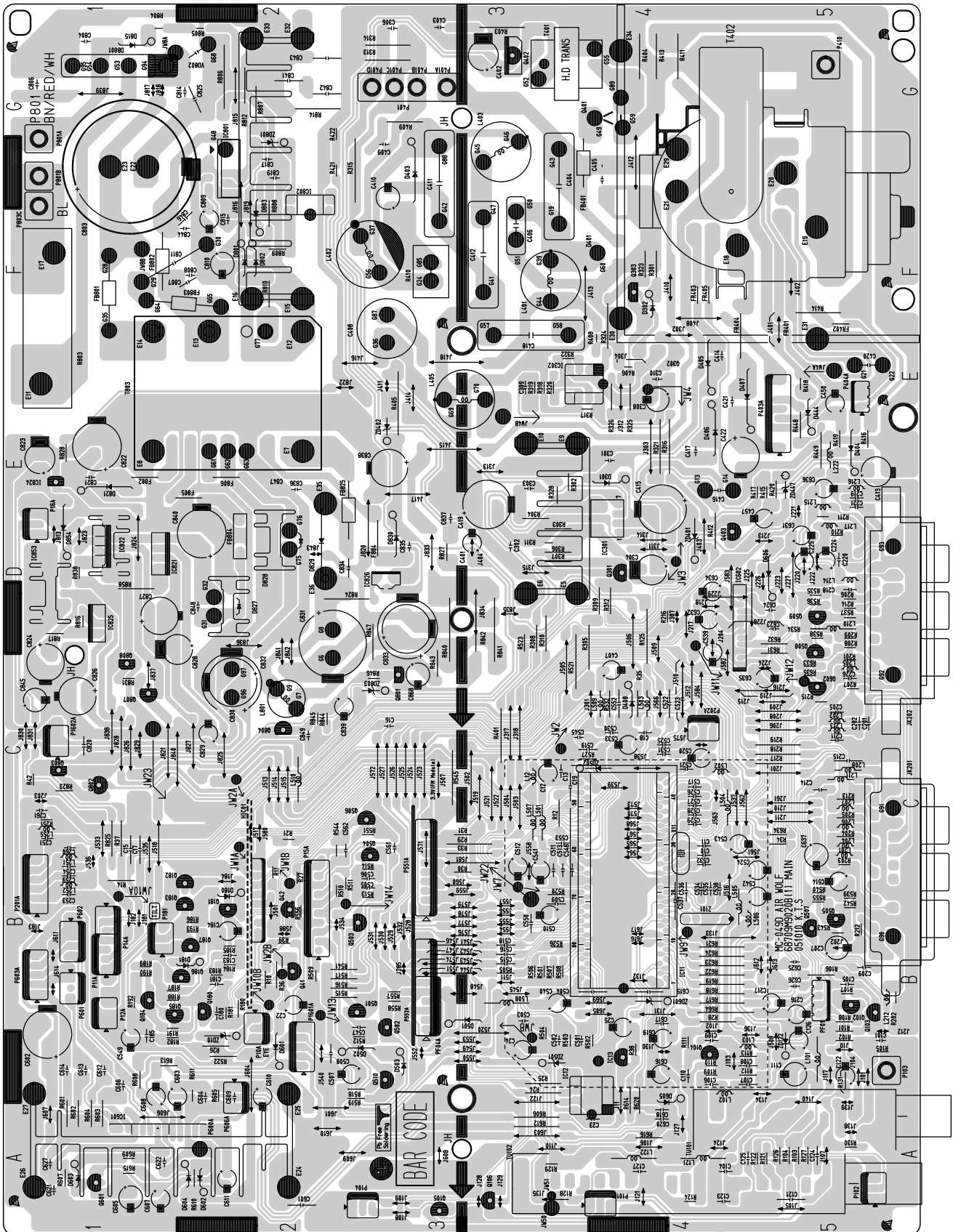


AV Stereo



PRINTED CIRCUIT BOARD

MAIN



The diagram illustrates the internal circuitry of the MC-049D DEGAUSS unit. Key components and their connections include:

- Power Supply:** A transformer (P168) with a 5V secondary winding connected to ground (G) and a 5V output (DE). A resistor (R1181) is connected to the 5V output.
- Transistors:** Q1181 is a PNP transistor connected to the 5V output. Q1188 and Q1189 are NPN transistors connected to the main AC output (P1181).
- Resistors and Capacitors:** Various resistors (G1197, G1198, G1193, G1194, G1187, G1188, G1189, G1190, G1183, G1184, G1185, G1182) and capacitors (C1185, C1184, C1182, C1183) are used for timing and signal processing.
- Temperature Sensor:** A temperature sensor (T1181) is connected to a circuit involving resistors and capacitors.
- Output Section:** The main AC output (P1181) has three terminals: P1181A (BLUE), P1181B (RED), and P1181C (RED).
- Legend:** The diagram includes a legend for 'Pb Free Soldering' and 'DEGAUSS'.

MC-022A 6870VS1182A(1) 020524 S.J.H.
CURRENT HARMONICS (150W)

JP601B
JW601B
E805 G801 G802 G803 E806
JW602B
JP602B
T801
E804 E803 E802 E801

29FS2R POWER S/W
MC-049D 68709S0115A(1)
051013 S.I.H

P1113 (RED) (BLUE)

P1113A P1113B

T1111

G1107 G1105 G1106 G1104 G1108 G1103 G1102 G1101 G1111

J1101 J1102 J1103 J1104

C1111 R1111

SW1111

Pb Free Soldering

T4AH/250V AC
T4AL/250V AC (KOREA)
5A/250V ACTUL/CSA

F1111

F1111A F1111B

G1110 G1109

P1112A P1112B

BL(BK) BN(WH)

P1112 (AC IN)

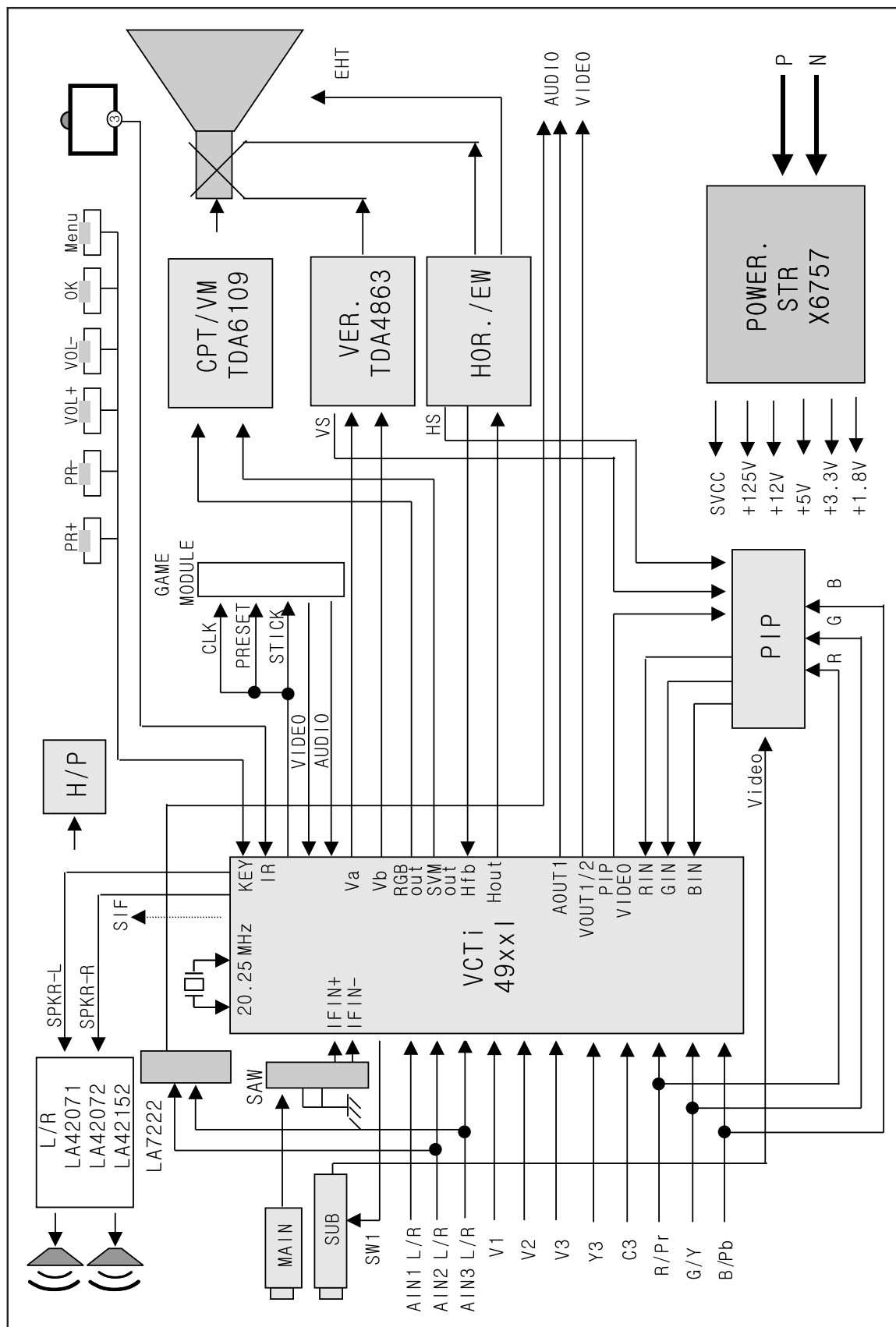
P1111

SCREW

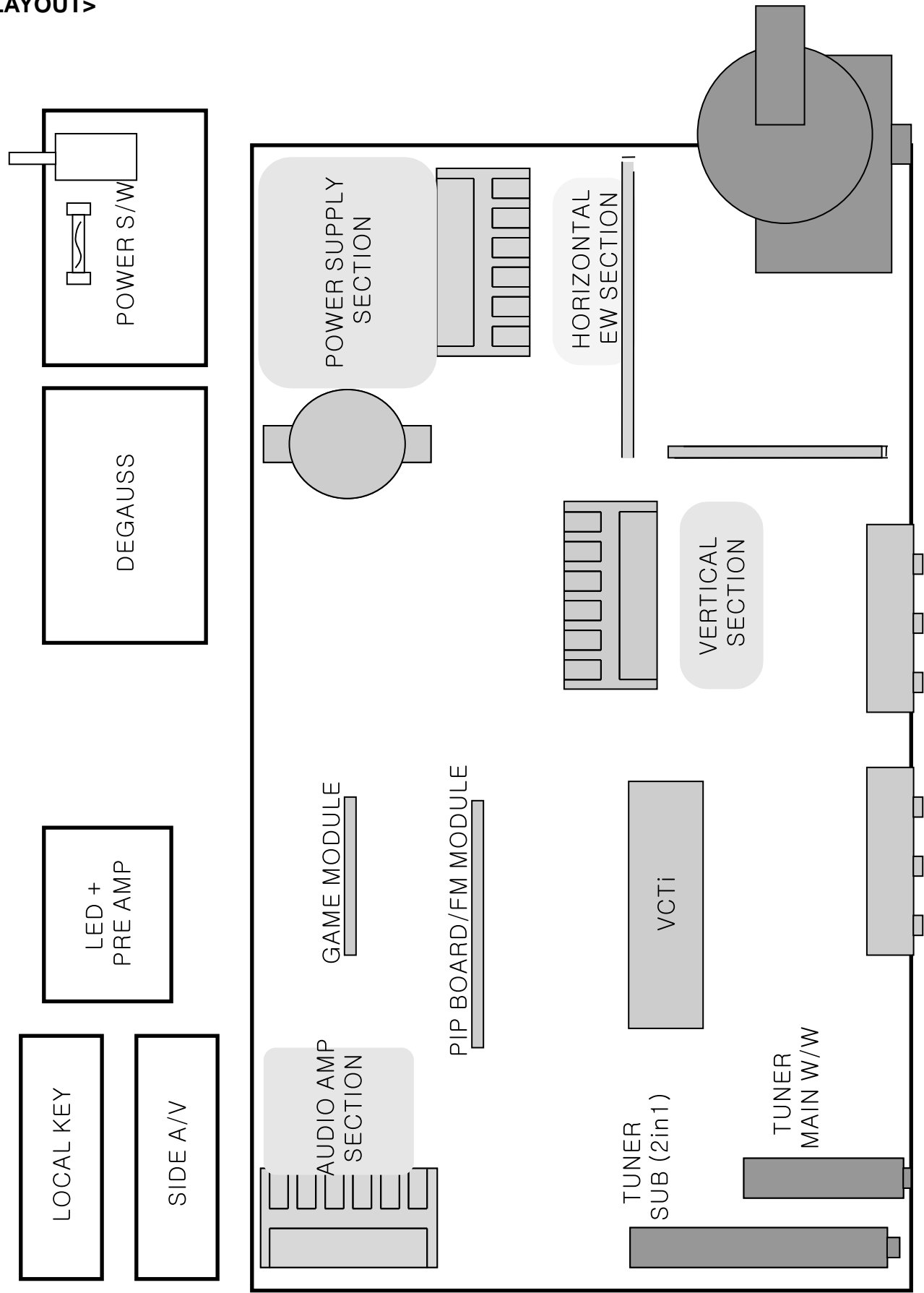
Diagram illustrating the wiring connections for a car stereo unit, showing various components and their connections:

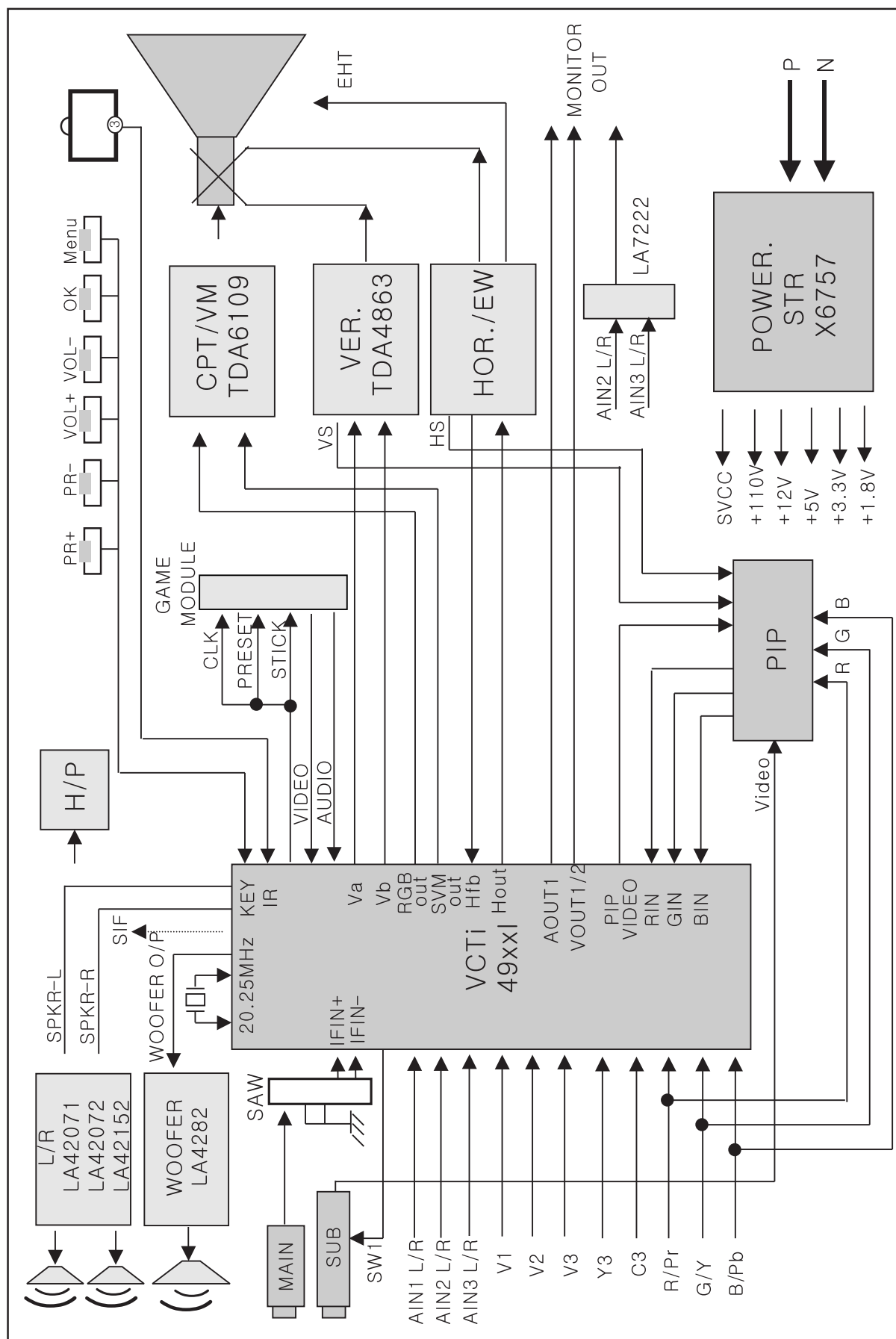
- Inputs/Outputs:** CH+, CH-, VOL+, VOL-, MENU, TV/VIDEO, AIR WOLF.
- Switches:** SW101, SW102, SW103, SW104, SW105, SW106.
- Components:** 25F2R LOCAL KEY, MC-0450 6870950116A101, 050823 S.L.H., 20A, 250823 S.L.H.
- Connections:** R1145, R1147, R1148, R1149, R1146, R1150.
- Other Labels:** P12B, GND, KEY, ST-5V, AS.

BLOCK DIAGRAM

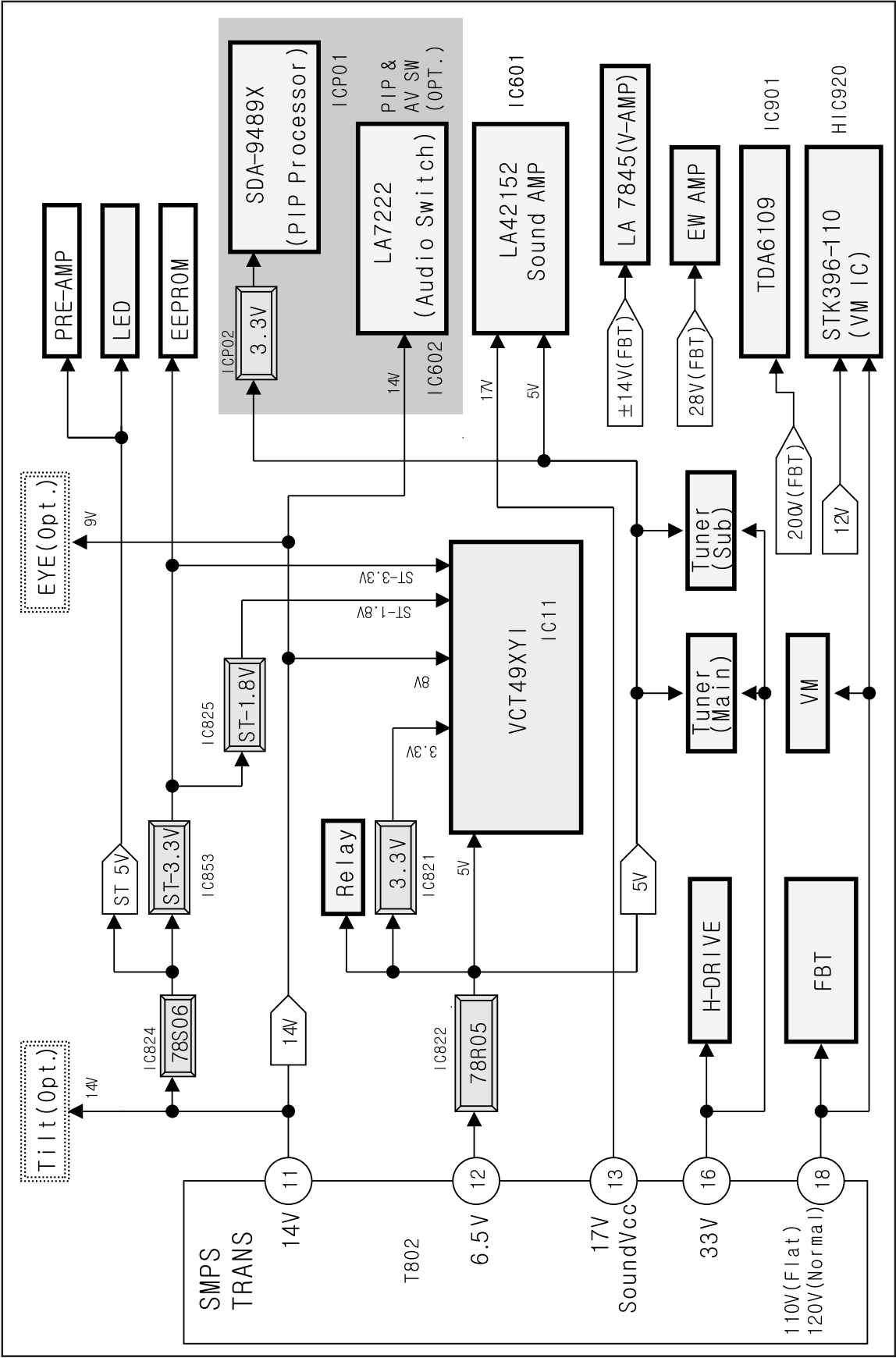


<LAYOUT>



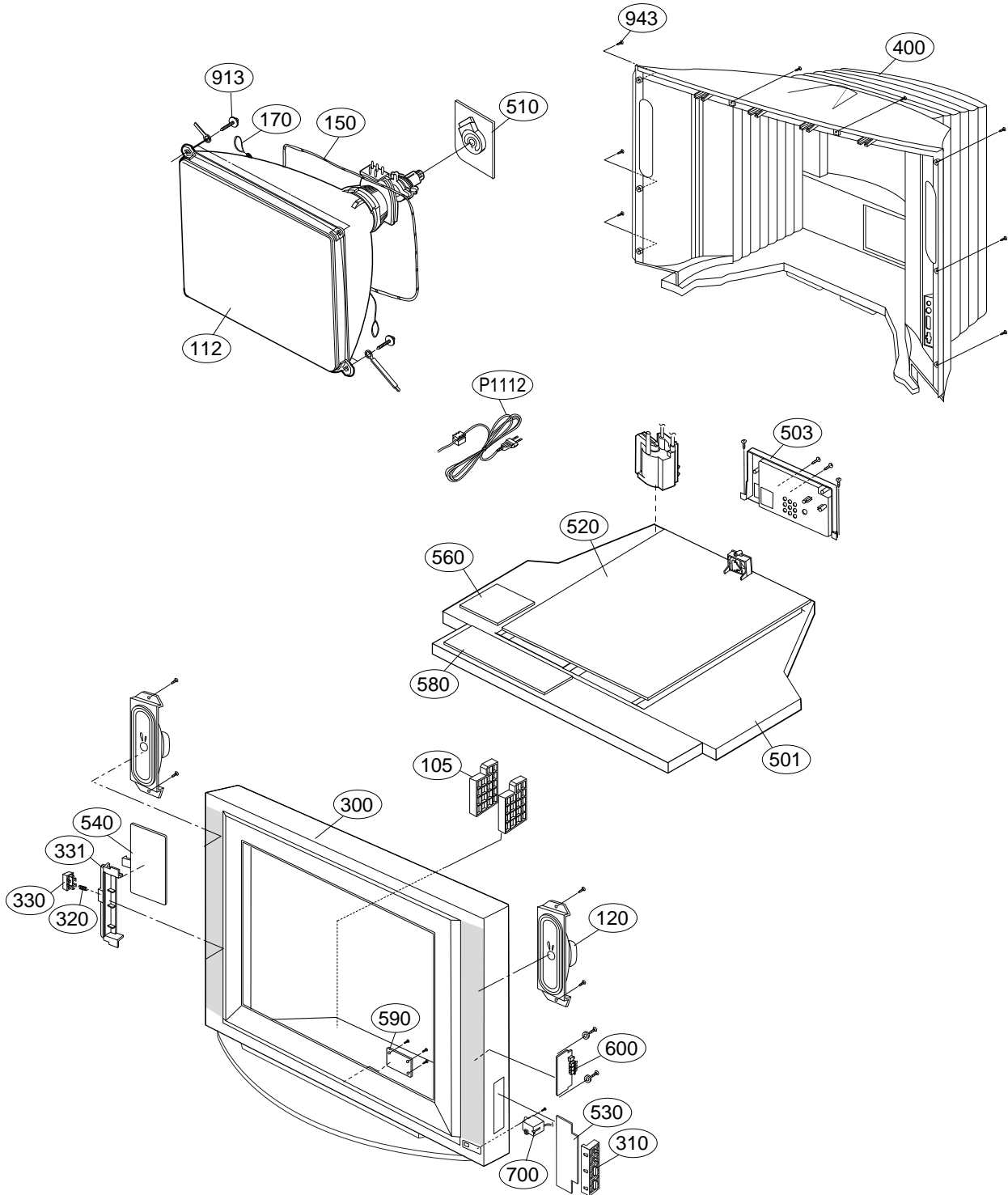


<POWER>



MEMO

EXPLODED VIEW



EXPLODED VIEW PARTS LIST

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

LOCA. No.	PART No.	DESCRIPTIONS
105	4810V00366A	BRACKET, SUPPORTER FLAT TV CPT HIPS 60HR SY & DND USE
	4980900291A	SUPPORTER, CRT HIPS 60HR LGETH TOOL
	4810V00366B	BRACKET, SUPPORTER CN-29Q22 HIPS 40AF
▲ 112	6335929005F	CPT ASSEMBLY, A68ERS870X 02 R(-0.10G) 0G 29INCH 1H SUPER SLIM
	6335929005D	CPT ASSEMBLY, A68ERS870X 02 P(+0.10G) 0G 29INCH 1H SUPER SLIM
	6335929005L	CPT ASSEMBLY, A68ERS870X 02 L(+0.50G) 0G 29INCH 1H SUPER SLIM
120	6400VA0025E	SPEAKER,FULLRANGE C163A01K1451 8OHM 15/20W 86DB OTHERS
▲ 150	6140VC2006T	COIL,DEGAUSSING ASSEMBLY AL 1UEW 0.65PIE 80TS 3250MM 23.0OHM
▲ 170	170-844K	EARTH, 29" 98T 4LUG LEAD SET SPRING(50MM)
300	30919K0012A	CABINET ASSEMBLY, 29FS2 NO BRAND 30909K0021A LGETH
	3091V00852S	CABINET ASSEMBLY, 29FS2RKQ-TR STEREO MC-049D SUPER SLIM
	3091V00852T	CABINET ASSEMBLY, 29FS2RLX-TR STEREO SUPER SLIM(SY-KIEV)
	3091V00852Z	CABINET ASSEMBLY, 29FS2RKE-TR BRAND MC049D WIRELESS SOUND
310	5020900068A	BUTTON, CONTROL 29FS2 ABS, HF-380 6KEY LGETH TOOL
	5020V01110A	BUTTON, CONTROL 32FS2D-NA ABS, HF-380 6KEY
320	320-062E	SPRING, KNOB
330	5020900069A	BUTTON, POWER 29FS2 ABS, HF-380 LGETH TOOL
	5020V01111A	BUTTON, POWER 32FS2D-NA ABS, HF-380 1KEY
331	4810900074A	BRACKET, CONTROL 29FS2 MC035E ABS, HF-380 LGETH TOOL
	4810V01272A	BRACKET, CONTROL 32FS2D AC05MA ABS, HF-380
400	3809900173A	BACK COVER ASSEMBLY, 29FS2 LGETH
	3809V00611A	BACK COVER ASSEMBLY, 29FS20R SUPER SLIM
	3809V00611B	BACK COVER ASSEMBLY, 29FS2RMB-TP SUPER SLIM C/SKD
501	4810900075A	BRACKET, MAIN 29FS2 MC035E HIPS 407AF LGETH TOOL
	4810V01276A	BRACKET, MAIN 29FS2RMB-TP MC035E HIPS 407AF 100HZ
	4810V01276B	BRACKET, AIN 29FS2R-NR MC049D HIPS 40AF 50HZ, SUPER SLIM
503	4811900058A	BRACKET ASSEMBLY, REAR AV 29FS2 MC049D LGETH
	4811V00359H	BRACKET ASSEMBLY, REAR AV 29FS2RL-LR MC049D SUPER SLIM 50HZ
510	68719SM241A	PWB(PCB) ASSEMBLY,SUB M.I MC049D SY-KIEV CPT BOARD SKD
	68719SMH67A	PWB(PCB) ASSEMBLY,SUB 29FS2RLQ-TR. AMELLAX CPT BOARD
	68719SMK55A	PWB(PCB) ASSEMBLY,SUB M.I MC049D 29FS2RKE-TR .KTILLEI CPT B/D[LGEIN_CKD]
	68719SML20A	PWB(PCB) ASSEMBLY,SUB M.I MC049D 29FS2R . CPT-BOARD LGEMT
520	68719MM121A	PWB(PCB) ASSEMBLY,MAIN 29FS2RLX-TR QDRLLBK SY-KIEV SKD
	68719MMV07A	PWB(PCB) ASSEMBLY,MAIN M.I MC049D 29FS2RKQ-TR.ATCLLA
	68719MMV46A	PWB(PCB) ASSEMBLY,MAIN M.I MC049D 29FS2RKE-TR .KTILLEI
	68719MMV73A	PWB(PCB) ASSEMBLY,MAIN MAIN1 M.I MC049D 29FSRL-TR .KTMLLCT
530	68719SM306A	PWB(PCB) ASSEMBLY,SUB M.I MC049D SY-KIEV CONT. SKD
	68719SMH58A	PWB(PCB) ASSEMBLY,SUB M.I MC049D 29FS2RLQ-TR. AMELLAX CONT
	68719SML21A	PWB(PCB) ASSEMBLY,SUB M.I MC049D 29FS2 . CONTROL LGEMT
540	68719SM305A	PWB(PCB) ASSEMBLY,SUB M.I MC049D SY-KIEV POWER S/W SKD
	68719SMH57A	PWB(PCB) ASSEMBLY,SUB 29FS2RLQ-TB. AMELLAX POWER S/W
	68719SML23A	PWB(PCB) ASSEMBLY,SUB M.I MC049D 29FS2R . POWER S/W
560	68719SM243A	PWB(PCB) ASSEMBLY,SUB M.I MC049D SY-KIEV HARMONICS SKD
	68719SM242A	PWB(PCB) ASSEMBLY,SUB M.I MC049D SY-KIEV DEGAUSSING SKD
	68719SMH68A	PWB(PCB) ASSEMBLY,SUB 29FS2RLQ-TR. AMELLAX DEGAUSSING
	68719SMK56A	"PWB(PCB) ASSEMBLY,SUB M.I MC049D 29FS2RKE-TR .KTILLEI DEGAUSSING[LGEIN_CKD]
580	68719SML24A	PWB(PCB) ASSEMBLY,SUB M.I MC049D 29FS2R . DEGAUSS
	68719SM308A	PWB(PCB) ASSEMBLY,SUB M.I MC049D SY-KIEV LED+PRE-AMP SKD
	68719SMH66A	PWB(PCB) ASSEMBLY,SUB 29FS2RLQ-TR. AMELLAX LED+PRE-AMP
	68719SMK60A	PWB(PCB) ASSEMBLY,SUB M.I MC049D 29FS2RKE-TR .KTILLEI LED+PRE[LGEIN_CKD]
600	68719SML25A	PWB(PCB) ASSEMBLY,SUB M.I MC049D 29FS2R . LED+PRE AMP
	68719SM307A	PWB(PCB) ASSEMBLY,SUB M.I MC049D SY-KIEV SIDE A/V SKD
	68719SMH65A	PWB(PCB) ASSEMBLY,SUB M.I MC049D 29FS2RLQ-TR. AMELLAX SIDE A/V
	68719SMK59A	PWB(PCB) ASSEMBLY,SUB M.I MC049D 29FS2RKE-TR .KTILLEI SIDE A/V[LGEIN_CKD]
700	68719SML22A	PWB(PCB) ASSEMBLY,SUB M.I MC049D 29FS2R . SIDE AV
	6500VR0003B	SENSOR,YGCA-T070A LG INNOTEK AMBIENT LIGHT DIGITAL EYE WITH ZENER
913	332-229M	SCREW,DRAWING PAN WASHER 7mm 45mm MSWR3 / FZY
943	1PTF0403116	SCREW TAP TITE(P),TRUSS HEAD + D4.0 L16.0 MSWR3/FZB
▲ P1112	174-009E	POWER CORD, POWER(W/HOLD,HOUSING,L=200,4.0
	6410VEH001J	POWER CORD, EL-207 VDE/SEMKO 2100MM HOUSING L1=200 BLACK

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
IC		
HIC920	0IZZVF0018A	STK396-110 DIP 11PIN HYBRID STICK SCAN
IC11	692792027AA	SOFT WARE, 9.00V 4CC5 CTV MC049D
IC11	6927V2072AQ	SOFT WARE, 5.12V 5913 CTV
IC12	0IAL241610B	AT24C16A-10PI-2.7 8PIN DIP ST EEPROM
IC13	0IFA752700A	KA75270Z 3 TP RE-SET IC MC-007
IC301	0IPMGPH002A	TDA4863A 7P SOT524-1 ST VERTICAL OUTPUT
IC302	0IKE455800E	KIA4558 8DIP DUAL OP AMP
IC601	0IPMGSA024C	LA42152LG-E SANYO SIP 12P ST 15W
IC602	0ISA722200A	LA7222 (1280 AUDIO)
IC801	0IPMGSK015B	STR-X6756 7PIN TO3PF-7L ST PWR IC
IC802	0ILI817000G	LTV817M-VB 4P,DIP BK PHOTO COUPLER
IC821	0IMCRKE019A	KIA78R33API KEC 4P TO220 ST 3.3V 1A
IC822	0IMCRKE018A	KIA78R05API KEC 4P TO220 ST 5V 1A
IC824	0IMCRKE020A	KIA78S06P KEC 3P TO-92 TP 6V 0.15A
IC825	0IMCRAU003A	S1117-18PIC 3P TO220F ST 1.8V 1A
IC826	0ISK125120A	SE125N(LF12) 125V ERROR AMP
IC853	0IMCRAU004A	S1117-33PIC 3P TO220F ST 3.3V 1A
IC901	0IMCRPH009A	TDA6109JF 9SIP ST RGB
TRANSISTOR		
Q104	0TR319709AB	KTC3197 TP KEC TO92 NPN
Q1106	0TR733009AA	KSA733C-Y TP SAMSUNG TO92 PNP
Q1181	0TR322709AA	KTC3227 TP KEY, (KTC1627A)
Q180	0TR534309AA	2SC5343Y TP AUK
Q181	0TR198009BA	2SA1980Y TP AUK
Q182	0TR198009BA	2SA1980Y TP AUK
Q183	0TR534309AA	2SC5343Y TP AUK
Q184	0TR534309AA	2SC5343Y TP AUK
Q185	0TR198009BA	2SA1980Y TP AUK
Q186	0TR198009BA	2SA1980Y TP AUK
Q187	0TR534309AA	2SC5343Y TP AUK
Q301	0TR198009BA	2SA1980Y TP AUK
Q302	0TRKE10013A	KTD1047 KEC STICK TO3P 160V 12A
Q303	0TR127409AB	KTA1274-Y TO-92L TP KEC
Q401	0TRSA10001C	2SD2689LS SANYO ST TO220F 1500V 10A
Q402	0TR437000BA	KTC4370A-Y TO-220IS BK KEC
Q501	0TR198009BA	2SA1980Y TP AUK
Q502	0TR198009BA	2SA1980Y TP AUK
Q503	0TR198009BA	2SA1980Y TP AUK
Q504	0TR198009BA	2SA1980Y TP AUK
Q505	0TR534309AA	2SC5343Y TP AUK
Q506	0TR534309AA	2SC5343Y TP AUK
Q507	0TR198009BA	2SA1980Y TP AUK
Q508	0TR198009BA	2SA1980Y TP AUK
Q509	0TR534309AA	2SC5343Y TP AUK
Q510	0TR534309AA	2SC5343Y TP AUK
Q601	0TR198009BA	2SA1980Y TP AUK
Q602	0TR534309AA	2SC5343Y TP AUK
Q801	0TR421009CA	BF421(TAPING) TO-92 TP PHILIPS
Q802	0TR534309AA	2SC5343Y TP AUK
Q803	0TR102009AB	KRC102M,TP(KRC1202),KEC

LOCA. NO	PART NO	DESCRIPTION
Q804	0TR319809AA	KTC3198(KTC1815) TP TO92 50V 150MA
Q807	0TR127409AB	KTA1274-Y TO-92L TP KEC
Q808	0TR102009AB	KRC102M,TP(KRC1202),KEC
Q901	0TR534309AA	2SC5343Y TP AUK
DIODE		
D1181	0DD414809ED	1N4148 TP GRANDE
D180	0DD414809ED	1N4148 TP GRANDE
D181	0DD414809ED	1N4148 TP GRANDE
D301	0DD400509AA	1N4005 TP KEC DO204AL 600V 1A 30A - 5UA
D301	0DR140059AC	1N4005GP TP DO41 600V 1.0A
D302	0DD414809ED	1N4148 TP GRANDE
D401	0DRSA00211A	FMV-205GUR ST TO220F 600V 5.0A 50A 0.6USEC
D403	0DRDC00014D	RGP15J TP52 DO15 600V 1.5A 50A 250N SEC
D403	0DRTW00164B	RGP15J TP52 DO15 .V 1.5A 50A 250NSEC 100UA
D404	0DD060009AC	TVR06J TP - 600V 250NSEC
D404	0DRDC00014A	TVR06J TP52 DO41 600V 0.6A 25A 150 NSSEC
D405	0DRDC00014D	RGP15J TP52 DO15 600V 1.5A 50A 250N SEC
D405	0DRTW00164B	RGP15J TP52 DO15 .V 1.5A 50A 250NSEC
D406	0DRDC00014D	RGP15J TP52 DO15 600V 1.5A 50A 250N SEC
D406	0DRTW00164B	RGP15J TP52 DO15 .V 1.5A 50A 250NSEC
D407	0DD060009AC	TVR06J TP - 600V 250NSEC
D407	0DRDC00014A	TVR06J TP52 DO41 600V 0.6A 25A 150 NSSEC
D408	0DD414809ED	1N4148 TP GRANDE
D501	0DD414809ED	1N4148 TP GRANDE
D502	0DD414809ED	1N4148 TP GRANDE
D503	0DD414809ED	1N4148 TP GRANDE
D601	0DD414809ED	1N4148 TP GRANDE
D602	0DD414809ED	1N4148 TP GRANDE
D603	0DD414809ED	1N4148 TP GRANDE
D604	0DD414809ED	1N4148 TP GRANDE
D606	0DD414809ED	1N4148 TP GRANDE
D801	0DD100009AM	EU1ZV(1) TP E/EO-TMD 200V 0.25A 15A 0.4US
D801	0DR100009FA	EU1DGR TP DO41 200V 1.0A 30A 50NSEC 10UA
D802	0DD100009AM	EU1ZV(1) TP E/EO-TMD 200V 0.25A 15A 0.4US
D802	0DR100009FA	EU1DGR TP DO41 200V 1.0A 30A 50NSEC 10UA
D803	0DD100009AM	EU1ZV(1) TP E/EO-TMD 200V 0.25A 15A 0.4US
D803	0DR100009FA	EU1DGR TP DO41 200V 1.0A 30A 50NSEC 10UA
D815	0DD060009AC	TVR06J TP - 600V 250NSEC
D815	0DRDC00014A	TVR06J TP52 DO41 600V 0.6A 25A 150 NSSEC
D821	0DD060009AC	TVR06J TP - 600V 250NSEC
D821	0DRDC00014A	TVR06J TP52 DO41 600V 0.6A 25A 150 NSSEC
D827	0DRTW00141A	SFAF504G ST ITO220 200V 5A .A .SEC 10UA
D828	0DRTW00141A	SFAF504G ST ITO220 200V 5A .A .SEC 10UA
D829	0DD410000AD	RU4AM(LF-L1) BK L-TMD6.5 600V 2A 70A 0.4US
D830	0DD060009AC	TVR06J TP - 600V 250NSEC
D830	0DRDC00014A	TVR06J TP52 DO41 600V 0.6A 25A 150 NSSEC
D854	0DD060009AC	TVR06J TP - 600V 250NSEC
D854	0DRDC00014A	TVR06J TP52 DO41 600V 0.6A 25A 150 NSSEC
D901	0DR210009AC	BAV21 TP DO35 200V 0.2A 1A 50SEC 100A
D902	0DR210009AC	BAV21 TP DO35 200V 0.2A 1A 50SEC 100A
D903	0DR210009AC	BAV21 TP DO35 200V 0.2A 1A 50SEC 100A
D904	0DR140049AC	1N4004A T-81 TP DO41 500V 1.0A 30A

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
D904	0DRDC00014E	1N4004A TP52 DO41 500V 1.0A 30AE SEC
D920	0DD060009AC	TVR06J TP - 600V 250NSEC
D920	0DRDC00014A	TVR06J TP52 DO41 600V 0.6A 25A 150 NSSEC
DB801	0DRTW00131C	TS6P05G ST TSOP-6 600V 6A .A .SEC .A
LD1101	0DD000000BA	SA5711-B(DL-1LO(S)) BK AMBER
ZD10	0DZ910009BD	GDZJ9.1B TP DO34 0.5W 9.1V
ZD1204	0DZ620009AH	MTZJ6.2A TP DO34 0.5W 6.2V 150UA
ZD1205	0DZ620009AH	MTZJ6.2A TP DO34 0.5W 6.2V 150UA
ZD122	0DZ330009DG	GDZJ33B TP DO34 0.5W 33.0V
ZD401	0DZ510009BF	GDZ5.1B TP DO34 0.5W 5.1V 0.02A
ZD402	0DZ110009AD	MTZJ11B TP DO34 500MW 11V 5MA
ZD402	0DZ110009CF	GDZJ11B TP DO34 0.5W 11.0V
ZD501	0DZ110009AD	MTZJ11B TP DO34 500MW 11V 5MA
ZD501	0DZ110009CF	GDZJ11B TP DO34 0.5W 11.0V
ZD601	0DZ820009AH	MTZJ8.2B TP DO34 - 8.2V 5UA
ZD601	0DZ820009BF	GDZJ8.2B TP DO34 0.5W 8.2V
ZD801	0DZ620009AH	MTZJ6.2A TP DO34 0.5W 6.2V 150UA
ZD803	0DZ510009BF	GDZ5.1B TP DO34 0.5W 5.1V 0.02A
ZD910	0DZ510009BF	GDZ5.1B TP DO34 0.5W 5.1V 0.02A
ZD911	0DZ510009BF	GDZ5.1B TP DO34 0.5W 5.1V 0.02A
ZD912	0DZ510009BF	GDZ5.1B TP DO34 0.5W 5.1V 0.02A
CAPACITOR		
C101	0CQ2721N409	0.0027UF D 100V 5% PE TP5
C104	0CN1030F679	10000PF D 16V 20% X5R TA52
C106	0CN1030F679	10000PF D 16V 20% X5R TA52
C107	0CN1030F679	10000PF D 16V 20% X5R TA52
C108	0CN1030F679	10000PF D 16V 20% X5R TA52
C109	0CN1030F679	10000PF D 16V 20% X5R TA52
C11	0CX2200K409	22PF D 50V 5% SL TA52
C110	0CN1030F679	10000PF D 16V 20% X5R TA52
C1103	0CE4763F618	47UF SRE,SE 16V 20% FL TP 5
C111	0CE227DD618	220UF STD 10V 20% FL TP 5
C1111	0CQZVBK002C	A.C 275V 0.22UF K (S=22.5)
C1185	0CK4710W515	470PF D 500V 10% B(Y5P) TR
C12	0CE107DD618	100UF STD 10V 20% FL TP 5
C1201	0CN4710K519	470PF D 50V 10% B(Y5P) TA52
C1202	0CN4710K519	470PF D 50V 10% B(Y5P) TA52
C1204	0CN3310K519	330PF D 50V 10% B(Y5P) TA52
C1205	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C1240	0CN2210K519	220PF D 50V 10% B(Y5P) TA52
C1241	0CN2210K519	220PF D 50V 10% B(Y5P) TA52
C126	0CE475DK618	4.7UF STD 50V 20% FL TP 5
C13	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C17	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C180	0CN1020K519	1000PF D 50V 10% B(Y5P) TA52
C181	0CN2210K519	220PF D 50V 10% B(Y5P) TA52
C183	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C184	0CE105DK618	1UF STD 50V 20% FL TP 5
C185	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C19	0CN3310K519	330PF D 50V 10% B(Y5P) TA52
C205	0CN4710K519	470PF D 50V 10% B(Y5P) TA52

LOCA. NO	PART NO	DESCRIPTION
C211	0CN4710K519	470PF D 50V 10% B(Y5P) TA52
C214	0CN4710K519	470PF D 50V 10% B(Y5P) TA52
C215	0CN4710K519	470PF D 50V 10% B(Y5P) TA52
C216	0CE226DF618	22UF STD 16V 20% FL TP 5
C217	0CE226DF618	22UF STD 16V 20% FL TP 5
C218	0CN1010K519	100PF D 50V 10% B(Y5P) TA52
C219	0CN1010K519	100PF D 50V 10% B(Y5P) TA52
C220	0CN4710K519	470PF D 50V 10% B(Y5P) TA52
C221	0CN4710K519	470PF D 50V 10% B(Y5P) TA52
C224	0CE226DF618	22UF STD 16V 20% FL TP 5
C225	0CE226DF618	22UF STD 16V 20% FL TP 5
C23	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C24	0CE226DD618	22UF STD 10V 20% FL TP 5
C25	0CE105DK618	1UF STD 50V 20% FL TP 5
C303	0CQ1041N409	0.1UF D 100V 5% PE TP5
C304	0CE107DJ618	100UF STD 35V 20% FL TP 5
C306	0CF1541L438	0.15UF D 63V 5% TP 5 M/PE NI
C308	0CE476DK618	47UF STD 50V 20% FL TP 5
C309	0CN4710K519	470PF D 50V 10% B(Y5P) TA52
C310	0CQ1031N509	0.01UF D 100V 10% PE TP5
C402	0CE475DK618	4.7UF STD 50V 20% FL TP 5
C403	0CQ1521N509	0.0015UF D 100V 10% PE TP5
C404	181-014Q	MPP 0.015UF 1.6KV 10%,-10% FM
C405	181-091Z	R 820PF 2KV 10%,-10% R/TP TP7.5
C406	181-010H	PP 400V 0.039UF K
C407	0CE475DK618	4.7UF STD 50V 20% FL TP 5
C408	0CE685BK652	6.8UF KME TYPE 50V 20% FM7.5 BP(S)
C409	0CK2220W515	2200PF D 500V 10% B(Y5P) TR
C410	0CE105CR636	1UF SHL,SD 250V 20% BP(D) TP FM5
C411	181-013V	M/PP 0.39UF 400V 5% FM .
C412	181-009K	PP 200V 0.2UF J
C413	0CE107DJ618	100UF STD 35V 20% FL TP 5
C414	0CK2710W515	270PF D 500V 10% B(Y5P) TR
C415	0CE108DH618	1000UF STD 25V 20% FL TP 5
C416	181-009R	PP 200V 0.022UF K
C417	0CK2710W515	270PF D 500V 10% B(Y5P) TR
C418	181-013J	MPP 200V 0.7UF J
C418	181-128E	CAPACITOR MPP 704J
C419	0CE108DH618	1000UF STD 25V 20% FL TP 5
C420	181-009W	PP 200V 0.056UF K
C421	0CK2710W515	270PF D 500V 10% B(Y5P) TR
C422	0CE475DR618	4.7UF STD 250V 20% FL TP 5
C501	0CQ3931N509	0.039UF D 100V 10% PE TP5
C502	0CQ3931N509	0.039UF D 100V 10% PE TP5
C503	0CQ3331N509	0.033UF D 100V 10% PE TP5
C504	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C505	0CN2710K519	270PF D 50V 10% B(Y5P) TA52
C506	0CN2710K519	270PF D 50V 10% B(Y5P) TA52
C507	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C508	0CE107DD618	100UF STD 10V 20% FL TP 5
C509	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C510	0CE475DK618	4.7UF STD 50V 20% FL TP 5

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

LOCA. NO	PART NO	DESCRIPTION
C511	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C512	0CE107DD618	100UF STD 10V 20% FL TP 5
C513	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C514	0CE107DD618	100UF STD 10V 20% FL TP 5
C515	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C516	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C517	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C518	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C519	0CN1010K519	100PF D 50V 10% B(Y5P) TA52
C520	0CE107DD618	100UF STD 10V 20% FL TP 5
C521	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C522	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C524	0CE107DD618	100UF STD 10V 20% FL TP 5
C525	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C526	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C527	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C528	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C529	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C530	0CN1010K519	100PF D 50V 10% B(Y5P) TA52
C531	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C532	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C533	0CE107DD618	100UF STD 10V 20% FL TP 5
C534	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C535	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C536	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C537	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C538	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C539	0CE107DD618	100UF STD 10V 20% FL TP 5
C540	0CE107DD618	100UF STD 10V 20% FL TP 5
C541	0CE107DD618	100UF STD 10V 20% FL TP 5
C542	0CE107DD618	100UF STD 10V 20% FL TP 5
C543	0CE107DD618	100UF STD 10V 20% FL TP 5
C545	0CK1010K515	100PF D 50V 10% B(Y5P) TR
C547	0CN2710K519	270PF D 50V 10% B(Y5P) TA52
C548	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C549	0CE107DH618	100UF STD 25V 20% FL TP 5
C550	0CN1810K519	180PF D 50V 10% B(Y5P) TA52
C561	0CF2241L438	0.22UF D 63V 5% TP 5 M/PE NI
C562	0CN2210K519	220PF D 50V 10% B(Y5P) TA52
C601	0CN1030F679	10000PF D 16V 20% X5R TA52
C602	0CE477DH618	470UF STD 25V 20% FL TP 5
C603	0CE475DK618	4.7UF STD 50V 20% FL TP 5
C604	0CQ2731N509	0.027UF D 100V 10% PE TP5
C605	0CE476DF618	47UF STD 16V 20% FL TP 5
C606	181-007C	MPE ECQ-V1H104JL3(TR), 50V 0.1UF
C607	0CE106DF618	10UF STD 16V 20% FL TP 5
C608	0CE106DF618	10UF STD 16V 20% FL TP 5
C609	0CQ2731N509	0.027UF D 100V 10% PE TP5
C610	0CE475BK618	4.7UF KME TYPE 50V 20% FL TP 5
C610	0CE475EK638	4.7UF KMG 50V 20% FM5 TP 5
C611	0CE476BH618	47UF KME TYPE 25V 20% FL TP 5
C612	181-007C	MPE ECQ-V1H104JL3(TR), 50V 0.1UF

LOCA. NO	PART NO	DESCRIPTION
C613	181-007C	MPE ECQ-V1H104JL3(TR), 50V 0.1UF
C614	181-007C	MPE ECQ-V1H104JL3(TR), 50V 0.1UF
C615	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C616	0CE476DD618	47UF STD 10V 20% FL TP 5
C617	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C618	0CN3320F569	3300PF D 16V 10% X7R TA52
C619	0CE106DK618	10UF STD 50V 20% FL TP 5
C620	0CN3320F569	3300PF D 16V 10% X7R TA52
C621	0CK2710K515	270PF D 50V 10% B(Y5P) TR
C622	0CK1030K945	0.01UF D 50V 80%,-20% F(Y5V) TR
C623	0CF3341L438	0.33UF D 63V 5% TP 5 M/PE NI
C624	0CF3341L438	0.33UF D 63V 5% TP 5 M/PE NI
C625	0CF3341L438	0.33UF D 63V 5% TP 5 M/PE NI
C626	0CF3341L438	0.33UF D 63V 5% TP 5 M/PE NI
C631	0CE475DK618	4.7UF STD 50V 20% FL TP 5
C631	0CF3341L438	0.33UF D 63V 5% TP 5 M/PE NI
C632	0CE475DK618	4.7UF STD 50V 20% FL TP 5
C632	0CF3341L438	0.33UF D 63V 5% TP 5 M/PE NI
C634	0CE475DK618	4.7UF STD 50V 20% FL TP 5
C635	0CE476DH618	47UF STD 25V 20% FL TP 5
C636	0CE475DK618	4.7UF STD 50V 20% FL TP 5
C636	0CF3341L438	0.33UF D 63V 5% TP 5 M/PE NI
C637	0CE337DF618	330UF STD 16V 20% FL TP 5
C803	181-001Y	330UF 0 450V M VNSN BULK
C804	0CK10202515	1000PF D 2KV 10% TR B(Y5P)
C806	0CK10202515	1000PF D 2KV 10% TR B(Y5P)
C809	0CE105BK618	1UF KME 50V M FL TP5
C810	0CE336BK618	33UF KME TYPE 50V 20% FL TP 5
C811	181-014Y	MPP 1.6KV 0.0015UF J
C815	0CK82101510	820PF D 1KV 10% B(Y5P) R
C817	0CK1040K945	0.1UF D 50V 80%,-20% F(Y5V) TR
C819	0CK1520K515	1500PF D 50V 10% B(Y5P) TR
C820	0CN1040K949	0.1UF D 50V 80%,-20% F(Y5V) TA52
C821	181-091C	DEHR33A471KN2A 470PF 1KV 10%
C822	0CE477DF618	470UF STD 16V 20% FL TP 5
C823	0CE107DD618	100UF STD 10V 20% FL TP 5
C824	0CE477DD618	470UF STD 10V 20% FL TP 5
C825	0CK47202510	4700PF D 2KV 10% B(Y5P) R
C826	0CE227DD618	220UF STD 10V 20% FL TP 5
C827	0CE477DD618	470UF STD 10V 20% FL TP 5
C828	0CE477DD618	470UF STD 10V 20% FL TP 5
C829	0CE335CK636	3.3UF SHL,SD 50V 20% FM5 BP(D) TP
C830	0CE3386H650	3300UF SMS,SG 25V 20% FM7.5 BULK
C831	0CE227DP61A	220UF STD 160V 20% FL TP 7.5
C833	0CE107CP618	100UF SHL,SD 160V 20% FL TP 5
C834	181-091Y	R 680PF 2KV 10%,-10% R/TP TP7.5
C835	0CK1020W515	1000PF D 500V 10% B(Y5P) TR
C837	0CQ4731N509	0.047UF D 100V 10% PE TP5
C838	0CE227BK618	220UF KME TYPE 50V 20% FL TP 5
C839	0CE106DH618	10UF STD 25V 20% FL TP 5
C840	0CE338CD618	3300UF SHL 10V M FL TP5
C842	181-120P	470 PF 4KV K JE R FL 10

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LOCA. NO	PART NO	DESCRIPTION
C843	181-120K	2200PF 4KV M E FMTW LEAD 4.5
C846	181-091X	R 560PF 2KV 10%,-10% R/TP TP7.5
C847	181-091Y	R 680PF 2KV 10%,-10% R/TP TP7.5
C848	0CK4710W515	470PF D 500V 10% B(Y5P) TR
C868	0CE107DD618	100UF STD 10V 20% FL TP 5
C901	0CE475BR618	4.7UF KME TYPE 250V 20% FL TP 5
C903	181-033S	2KV B 122K TP7.5
C904	0CE475DR618	4.7UF STD 250V 20% FL TP 5
C907	0CN1510K519	150PF D 50V 10% B(Y5P) TA52
C920	0CN1030F679	10000PF D 16V 20% X5R TA52
C921	0CE107DF618	100UF STD 16V 20% FL TP 5
C922	0CN1510K519	150PF D 50V 10% B(Y5P) TA52
C923	0CE107DJ618	100UF STD 35V 20% FL TP 5
C924	0CE107DF618	100UF STD 16V 20% FL TP 5
C925	0CK1030W510	0.01UF D 500V 10% B(Y5P) R
C926	0CE106DP618	10UF STD 160V 20% FL TP 5
C927	0CK1010W515	100PF D 500V 10% B(Y5P) TR
C928	0CE107DF618	100UF STD 16V 20% FL TP 5
C929	0CK1030W510	0.01UF D 500V 10% B(Y5P) R
C930	0CE106DP618	10UF STD 160V 20% FL TP 5
COIL & INDUCTOR		
J213	0LA1000K119	INDUCTOR,AXIAL LEAD 100UH 10% A 2.3 X 3.4
L101	0LA0102K139	INDUCTOR,AXIAL LEAD 10UH 10% A 4.0 X 10.5
L103	0LA0101K119	INDUCTOR,AXIAL LEAD 1UH 10% A 2.3 X 3.4
L1102	0LA0102K119	INDUCTOR,AXIAL LEAD 10UH 10% A 2.3 X 3.4
L12	0LA0101K119	INDUCTOR,AXIAL LEAD 1UH 10% A 2.3 X 3.4
L1201	0LA0102K119	INDUCTOR,AXIAL LEAD 10UH 10% A 2.3 X 3.4
L1202	0LA0102K119	INDUCTOR,AXIAL LEAD 10UH 10% A 2.3 X 3.4
L1205	0LA0331K119	INDUCTOR,AXIAL LEAD 3.3UH 10% A 2.3 X 3.4
L1243	0LA0472K119	INDUCTOR,AXIAL LEAD 47UH 10% A 2.3 X 3.4
L1244	0LA0472K119	INDUCTOR,AXIAL LEAD 47UH 10% A 2.3 X 3.4
L202	0LA0102K119	INDUCTOR,AXIAL LEAD 10UH 10% A 2.3 X 3.4
L208	0LA0102K119	INDUCTOR,AXIAL LEAD 10UH 10% A 2.3 X 3.4
L211	0LA0102K119	INDUCTOR,AXIAL LEAD 10UH 10% A 2.3 X 3.4
L213	0LA0102K119	INDUCTOR,AXIAL LEAD 10UH 10% A 2.3 X 3.4
L214	0LA0102K119	INDUCTOR,AXIAL LEAD 10UH 10% A 2.3 X 3.4
L215	0LA0102K119	INDUCTOR,AXIAL LEAD 10UH 10% A 2.3 X 3.4
L216	0LA0102K119	INDUCTOR,AXIAL LEAD 10UH 10% A 2.3 X 3.4
L217	0LA0102K119	INDUCTOR,AXIAL LEAD 10UH 10% A 2.3 X 3.4
L401	150-717K	COIL,CHOKE 1.1UH PHY TURN
L402	6140VY0024F	COIL,LINEARITY JS-E021 20.0UH 25%
L501	0LA0101K119	INDUCTOR,AXIAL LEAD 1UH 10% A 2.3 X 3.4
L502	0LA0101K119	INDUCTOR,AXIAL LEAD 1UH 10% A 2.3 X 3.4
L503	0LA0101K119	INDUCTOR,AXIAL LEAD 1UH 10% A 2.3 X 3.4
L504	0LA0101K119	INDUCTOR,AXIAL LEAD 1UH 10% A 2.3 X 3.4
L505	0LA0101K119	INDUCTOR,AXIAL LEAD 1UH 10% A 2.3 X 3.4
L506	0LA0101K119	INDUCTOR,AXIAL LEAD 1UH 10% A 2.3 X 3.4
L507	0LA0101K119	INDUCTOR,AXIAL LEAD 1UH 10% A 2.3 X 3.4
L508	0LA0101K119	INDUCTOR,AXIAL LEAD 1UH 10% A 2.3 X 3.4
L509	0LA0152K119	INDUCTOR,AXIAL LEAD 15UH 10% A 2.3 X 3.4
L801	150-C02E	COIL,CHOKE NAMYANG 50UH

LOCA. NO	PART NO	DESCRIPTION
T401	151-C02F	TRANSFORMER, H-DRIVE,EI-19,BULK
T801	6170VZ0007A	TRANSFORMER, TS4134 38500UH
T803	61709MC003A	TRANSFORMER,SMPS[COIL]EER5345 350UH
CONNECTOR		
JW22	387-917B	1P 150MM R-R UL1617AWG22 MXH8610
JW4A	387-917B	1P 150MM R-R UL1617AWG22 MXH8610
JW8A	387-907C	1P 200MM R-H UL1617AWG22 MXH8610
JW8B	387-907C	1P 200MM R-H UL1617AWG22 MXH8610
P1111	366-009D	2.36PAI 1P . K/M AUTO
P1112A	366-009D	2.36PAI 1P . K/M AUTO
P1112B	366-009D	2.36PAI 1P . K/M AUTO
P1113	387-552S	2P 10.0MM 400MM H-H UL1617AWG22
P11A	366-932C	IL-G-04P LGC 2.5MM S/T STICK
P11B	387-A04F	4P 2.5MM 350MM H-B UL1007AWG26
P12A	366-932B	IL-G-03P LGC 2.5MM S/T STICK
P12B	387-A03G	3P 2.5MM 400MM H-B UL1007AWG26
P15A	366-921J	GIL-G-10P LGC 10PIN 2.54MM STICK
P15B	387-A10G	10P 2.5MM 400MM H-B UL1007AWG26
P15B	387-B10G	10P 2.5MM 400MM B-H UL1185AWG26
P16A	366-932B	IL-G-03P LGC 2.5MM S/T STICK
P16B	387-A03A	3P 2.5MM 100MM H-B UL1007AWG26
P181	366-932B	IL-G-03P LGC 2.5MM S/T STICK
P201A	366-932E	GIL-G-06P LGC 6PIN 2.54MM STICK
P201B	387-A06J	6P 2.5MM 500MM H-B UL1007AWG26
P202A	366-932B	IL-G-03P LGC 2.5MM S/T STICK
P202B	387-A03K	3P 2.5MM 600MM H-B UL1007AWG26
P403A	366-921G	GIL-G-08P LGC 8PIN 2.54MM STICK
P403B	387-A08H	8P 2.5MM 450MM H-B UL1007AWG26
P601	366-932B	IL-G-03P LGC 2.5MM S/T STICK
P602	366-932C	IL-G-04P LGC 2.5MM S/T STICK
P603A	366-932D	GIL-G-05P LGC 5PIN 2.54MM STICK
P603B	387-A05J	5P 2.5MM 500MM H-B UL1007AWG26
P801A	366-009D	2.36PAI 1P . K/M AUTO
P801B	366-009D	2.36PAI 1P . K/M AUTO
P901	366-009D	2.36PAI 1P . K/M AUTO
P903	366-009D	2.36PAI 1P . K/M AUTO
P920	366-932B	IL-G-03P LGC 2.5MM S/T STICK
PF01A	387-B04C	4P 2.5MM 200MM H-B UL1185AWG26
RESISTOR		
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
FR402	0RP0050H709	0.05 OHM 1/2 W 10% TA52
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
FR901	0RF0301K607	3 OHM 2 W 5.00% TA62
J131	0RD1000F609	100 OHM 1/6 W 5% TA52
J201	0RD1000F609	100 OHM 1/6 W 5% TA52

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

LOCA. NO	PART NO	DESCRIPTION
J204	0RD1000F609	100 OHM 1/6 W 5% TA52
J206	0RD1000F609	100 OHM 1/6 W 5% TA52
J208	0RD1000F609	100 OHM 1/6 W 5% TA52
J211	0RD1000F609	100 OHM 1/6 W 5% TA52
J220	0RD1000F609	100 OHM 1/6 W 5% TA52
J222	0RD1000F609	100 OHM 1/6 W 5% TA52
J261	0RD1000F609	100 OHM 1/6 W 5% TA52
J403	0RD1000F609	100 OHM 1/6 W 5% TA52
J509	0RD1000F609	100 OHM 1/6 W 5% TA52
J510	0RD1000F609	100 OHM 1/6 W 5% TA52
J524	0RD1000F609	100 OHM 1/6 W 5% TA52
J525	0RD1000F609	100 OHM 1/6 W 5% TA52
J526	0RD1000F609	100 OHM 1/6 W 5% TA52
J527	0RD1000F609	100 OHM 1/6 W 5% TA52
J575	0RD0752F609	75 OHM 1/6 W 5.00% TA52
L222	0RD0102F609	10 OHM 1/6 W 5% TA52
L222	0RD1000F609	100 OHM 1/6 W 5% TA52
R102	0RD7501F609	7.5K OHM 1/6 W 5.00% TA52
R105	0RD7502F609	75K OHM 1/6 W 5.00% TA52
R109	0RD0562F609	56 OHM 1/6 W 5.00% TA52
R11	0RD1000F609	100 OHM 1/6 W 5% TA52
R110	0RD8200F609	820 OHM 1/6 W 5.00% TA52
R1101	0RD1301F609	1.3K OHM 1/6 W 5.00% TA52
R111	0RD0682F609	68 OHM 1/6 W 5.00% TA52
R1110	0RD1000F609	100 OHM 1/6 W 5% TA52
R1111	0RKZVTA001K	0.47M OHM 1/2 W 5% TA52
R112	0RD1501F609	1.5K OHM 1/6 W 5% TA52
R113	0RD3000F609	300 OHM 1/6 W 5.00% TA52
R1136	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R1143	0RD6200F609	620 OHM 1/6 W 5.00% TA52
R1146	0RD3900F609	390 OHM 1/6 W 5% TA52
R1147	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R1148	0RD3000F609	300 OHM 1/6 W 5.00% TA52
R1149	0RD3300F609	330 OHM 1/6 W 5.00% TA52
R1150	0RD4300F609	430 OHM 1/6 W 5.00% TA52
R1181	0RD4702F609	47K OHM 1/6 W 5% TA52
R12	0RD1000F609	100 OHM 1/6 W 5% TA52
R1205	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R1206	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R1230	0RD2200A609	220 OHM 1/2 W(7.0) 5.00% TA52
R1231	0RD2200A609	220 OHM 1/2 W(7.0) 5.00% TA52
R124	0RD2202F609	22K OHM 1/6 W 5% TA52
R125	0RD2700A609	270 OHM 1/2 W(7.0) 5.00% TA52
R126	0RD4700F609	470 OHM 1/6 W 0.05 TA52
R127	0RD4700F609	470 OHM 1/6 W 0.05 TA52
R14	0RD3301F609	3.3K OHM 1/6 W 5.00% TA52
R180	0RD1001F609	1K OHM 1/6 W 5% TA52
R181	0RD3002F609	30K OHM 1/6 W 5.00% TA52
R182	0RD1002F609	10K OHM 1/6 W 5% TA52
R183	0RD1003F609	100K OHM 1/6 W 5% TA52
R184	0RD1801F609	1.8K OHM 1/6 W 5.00% TA52
R185	0RD1801F609	1.8K OHM 1/6 W 5.00% TA52

LOCA. NO	PART NO	DESCRIPTION
R186	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R187	0RD1801F609	1.8K OHM 1/6 W 5.00% TA52
R188	0RD2202F609	22K OHM 1/6 W 5% TA52
R189	0RD5602F609	56K OHM 1/6 W 5% TA52
R190	0RD5103F609	510K OHM 1/6 W 5.00% TA52
R191	0RD1000F609	100 OHM 1/6 W 5% TA52
R192	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R193	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R201	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R202	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R203	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R204	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R205	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R206	0RD2402F609	24K OHM 1/6 W 5.00% TA52
R207	0RD5602F609	56K OHM 1/6 W 5% TA52
R208	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R209	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R21	0RD4700F609	470 OHM 1/6 W 0.05 TA52
R210	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R211	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R212	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R213	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R214	0RD5602F609	56K OHM 1/6 W 5% TA52
R215	0RD2402F609	24K OHM 1/6 W 5.00% TA52
R216	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R217	0RD1000F609	100 OHM 1/6 W 5% TA52
R218	0RD1000F609	100 OHM 1/6 W 5% TA52
R219	0RD1000F609	100 OHM 1/6 W 5% TA52
R24	0RD1000F609	100 OHM 1/6 W 5% TA52
R25	0RD1000F609	100 OHM 1/6 W 5% TA52
R26	0RD2700F609	270 OHM 1/6 W 5% TA52
R29	0RD1000F609	100 OHM 1/6 W 5% TA52
R30	0RD3301F609	3.3K OHM 1/6 W 5.00% TA52
R301	0RD1501A609	1.5K OHM 1/2 W(7.0) 5.00% TA52
R302	0RN4702F409	47K OHM 1/6 W 1.00% TA52
R303	0RD2400A609	240 OHM 1/2 W(7.0) 5.00% TA52
R304	0RD0561A609	5.6 OHM 1/2 W(7.0) 5.00% TA52
R305	0RD1002F609	10K OHM 1/6 W 5% TA52
R306	0RD1002F609	10K OHM 1/6 W 5% TA52
R307	0RD3601F609	3.6K OHM 1/6 W 5.00% TA52
R308	0RN4702F609	47K OHM 1/6 W 5.00% TA52
R309	0RD2001F609	2K OHM 1/6 W 5% TA52
R31	0RD3301F609	3.3K OHM 1/6 W 5.00% TA52
R310	0RD4702F609	47K OHM 1/6 W 5% TA52
R312	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R313	0RD0331H609	3.3 OHM 1/2 W 5.00% TA52
R314	0RN0331J607	3.3 OHM 1 W 5.00% TA62
R315	0RS2700K607	270 OHM 2 W 5.00% TA62
R316	0RD4700F609	470 OHM 1/6 W 0.05 TA52
R317	0RD2702F609	27K OHM 1/6 W 5.00% TA52
R318	0RN2001F409	2K OHM 1/6 W 1.00% TA52
R319	0RN8202F409	82K OHM 1/6 W 1.00% TA52

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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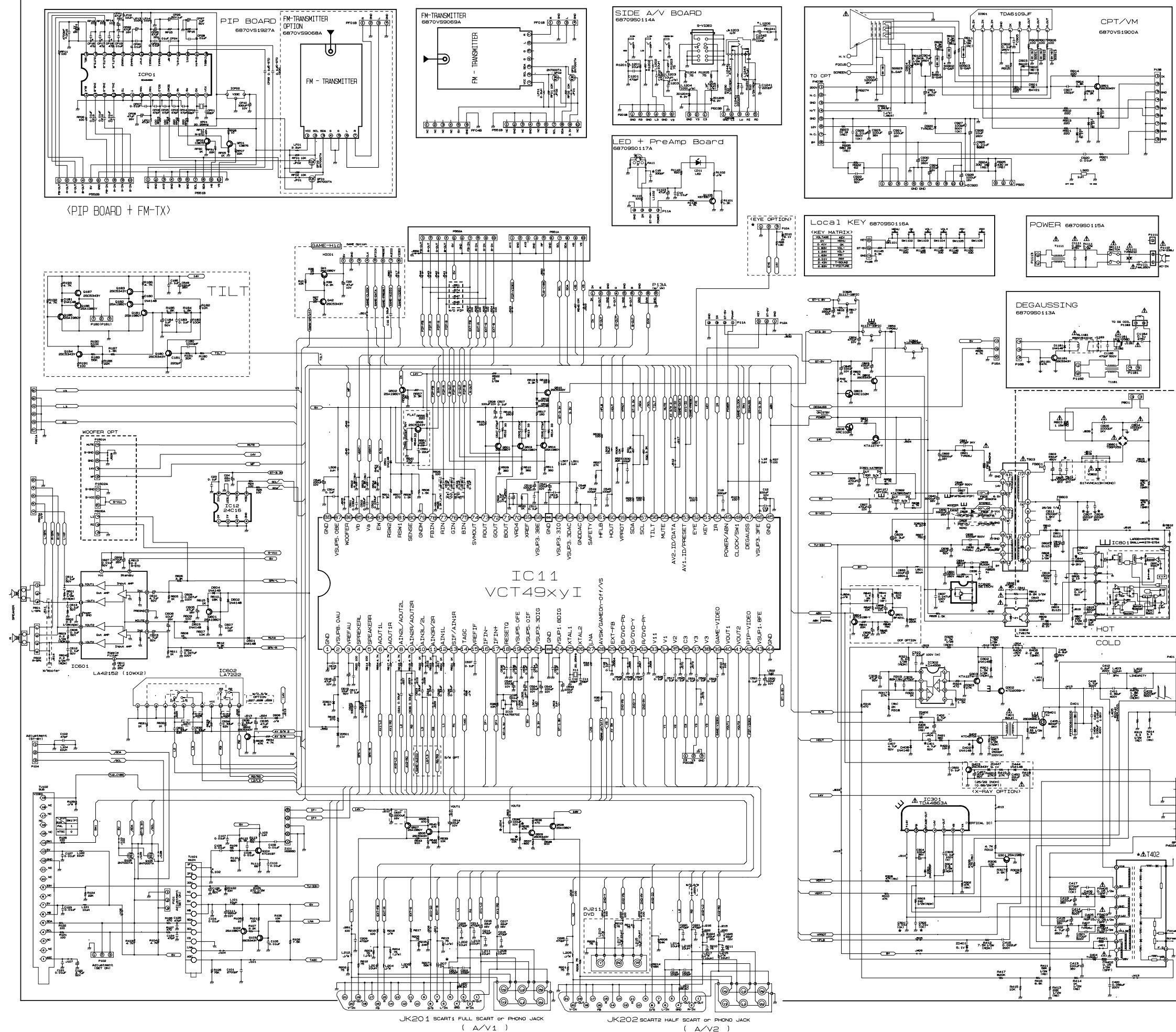
LOCA. NO	PART NO	DESCRIPTION
R320	0RD1001F609	1K OHM 1/6 W 5% TA52
R321	0RD0561A609	5.6 OHM 1/2 W(7.0) 5.00% TA52
R322	0RD1501F609	1.5K OHM 1/6 W 5% TA52
R323	0RD2702F609	27K OHM 1/6 W 5.00% TA52
R324	0RD4700F609	470 OHM 1/6 W 0.05 TA52
R325	0RD2701A609	2.7K OHM 1/2 W(7.0) 5.00% TA52
R326	0RD1501A609	1.5K OHM 1/2 W(7.0) 5.00% TA52
R328	0RN4702F409	47K OHM 1/6 W 1.00% TA52
R33	0RD1000F609	100 OHM 1/6 W 5% TA52
R35	0RD1000F609	100 OHM 1/6 W 5% TA52
R37	0RD1000F609	100 OHM 1/6 W 5% TA52
R38	0RD1002F609	10K OHM 1/6 W 5% TA52
R401	0RD2701F609	2.7K OHM 1/6 W 5% TA52
R403	0RD5600A609	560 OHM 1/2 W(7.0) 0.05 TA52
R404	0RD0332A609	33 OHM 1/2 W(7.0) 5.00% TA52
R405	0RX2200K607	220 OHM 2 W 5% TA62
R408	0RS0221K619	2.2 OHM 2 W 5% TR
R409	0RD1801A609	1.8K OHM 1/2 W(7.0) 5.00% TA52
R410	0RMZVBK002D	15K OHM 5W +/-5% RSR V-TYPE
R411	0RS5602H609	56K OHM 1/2 W 5.00% TA52
R412	0RD7501A609	7.5K OHM 1/2 W(7.0) 5.00% TA52
R413	0RS2202H609	22K OHM 1/2 W 5.00% TA52
R414	0RS1001H609	1K OHM 1/2 W 5.00% TA52
R415	0RD1002F609	10K OHM 1/6 W 5% TA52
R416	0RD6801F609	6.8K OHM 1/6 W 5.00% TA52
R417	0RD8203F609	820K OHM 1/6 W 5.00% TA52
R42	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R421	0RD3600F609	360 OHM 1/6 W 5.00% TA52
R422	0RD1002F609	10K OHM 1/6 W 5% TA52
R449	0RD0682F609	68 OHM 1/6 W 5.00% TA52
R501	0RD3301F609	3.3K OHM 1/6 W 5.00% TA52
R502	0RN6801F409	6.8K OHM 1/6 W 1.00% TA52
R503	0RN6801F409	6.8K OHM 1/6 W 1.00% TA52
R504	0RD6801F609	6.8K OHM 1/6 W 5.00% TA52
R505	0RD1000F609	100 OHM 1/6 W 5% TA52
R506	0RD1501F609	1.5K OHM 1/6 W 5% TA52
R507	0RD2700F609	270 OHM 1/6 W 5% TA52
R508	0RD1201F609	1.2K OHM 1/6 W 5% TA52
R509	0RD3600F609	360 OHM 1/6 W 5.00% TA52
R510	0RD3600F609	360 OHM 1/6 W 5.00% TA52
R511	0RD3600F609	360 OHM 1/6 W 5.00% TA52
R512	0RD0332F609	33 OHM 1/6 W 5.00% TA52
R513	0RD0332F609	33 OHM 1/6 W 5.00% TA52
R514	0RD0332F609	33 OHM 1/6 W 5.00% TA52
R515	0RD1600F609	160 OHM 1/6 W 5.00% TA52
R516	0RD1600F609	160 OHM 1/6 W 5.00% TA52
R517	0RD1600F609	160 OHM 1/6 W 5.00% TA52
R518	0RD0222F609	22 OHM 1/6 W 5.00% TA52
R519	0RD3301F609	3.3K OHM 1/6 W 5.00% TA52
R520	0RD1001F609	1K OHM 1/6 W 5% TA52
R521	0RD3002F609	30K OHM 1/6 W 5.00% TA52
R522	0RD0152A609	15 OHM 1/2 W(7.0) 5.00% TA52

LOCA. NO	PART NO	DESCRIPTION
R526	0RD1201F609	1.2K OHM 1/6 W 5% TA52
R527	0RD2702F609	27K OHM 1/6 W 5.00% TA52
R532	0RD1000F609	100 OHM 1/6 W 5% TA52
R534	0RD1002F609	10K OHM 1/6 W 5% TA52
R535	0RD4702F609	47K OHM 1/6 W 5% TA52
R536	0RD4700F609	470 OHM 1/6 W 0.05 TA52
R537	0RD8200F609	820 OHM 1/6 W 5.00% TA52
R538	0RD9100F609	910 OHM 1/6 W 5.00% TA52
R539	0RD1002F609	10K OHM 1/6 W 5% TA52
R540	0RD4702F609	47K OHM 1/6 W 5% TA52
R541	0RD2700F609	270 OHM 1/6 W 5% TA52
R542	0RD8200F609	820 OHM 1/6 W 5.00% TA52
R543	0RD9100F609	910 OHM 1/6 W 5.00% TA52
R544	0RD0332F609	33 OHM 1/6 W 5.00% TA52
R551	0RD2202F609	22K OHM 1/6 W 5% TA52
R555	0RD4700F609	470 OHM 1/6 W 0.05 TA52
R556	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R557	0RD3301F609	3.3K OHM 1/6 W 5.00% TA52
R558	0RD3001F609	3K OHM 1/6 W 5.00% TA52
R601	0RD0221A609	2.2 OHM 1/2 W(7.0) 5.00% TA52
R602	0RD0221A609	2.2 OHM 1/2 W(7.0) 5.00% TA52
R603	0RD0221A609	2.2 OHM 1/2 W(7.0) 5.00% TA52
R604	0RD0221A609	2.2 OHM 1/2 W(7.0) 5.00% TA52
R605	0RD1001F609	1K OHM 1/6 W 5% TA52
R606	0RD3301F609	3.3K OHM 1/6 W 5.00% TA52
R607	0RD1002F609	10K OHM 1/6 W 5% TA52
R608	0RD1001F609	1K OHM 1/6 W 5% TA52
R609	0RD1000F609	100 OHM 1/6 W 5% TA52
R610	0RD1802F509	18K OHM 1/6 W 2.00% TA52
R611	0RD1001F609	1K OHM 1/6 W 5% TA52
R612	0RD3301F609	3.3K OHM 1/6 W 5.00% TA52
R613	0RD0221F609	2.2 OHM 1/6 W 5.00% TA52
R614	0RD1000F609	100 OHM 1/6 W 5% TA52
R615	0RD1001F609	1K OHM 1/6 W 5% TA52
R616	0RD2700F609	270 OHM 1/6 W 5% TA52
R617	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R618	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R619	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R620	0RD1000F609	100 OHM 1/6 W 5% TA52
R621	0RD1001F609	1K OHM 1/6 W 5% TA52
R622	0RD1001F609	1K OHM 1/6 W 5% TA52
R623	0RD1001F609	1K OHM 1/6 W 5% TA52
R624	0RD1001F609	1K OHM 1/6 W 5% TA52
R631	0RD1001F609	1K OHM 1/6 W 5% TA52
R632	0RD1001F609	1K OHM 1/6 W 5% TA52
R633	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R634	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R635	0RD4702F609	47K OHM 1/6 W 5% TA52
R664	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R803	180-822M	RWR 15W 1.0 OHM J PD
R804	0RS4702K619	47K OHM 2 W 5% TR
R805	0RS4702K619	47K OHM 2 W 5% TR

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
R806	180-A01P	0.13 OHM 2 W 5% TA62 RWR
R807	0RD2200A609	220 OHM 1/2 W(7.0) 5.00% TA52
R808	0RD1501A609	1.5K OHM 1/2 W(7.0) 5.00% TA52
R809	0RD1001F609	1K OHM 1/6 W 5% TA52
R810	0RD0152F609	15 OHM 1/6 W 5.00% TA52
R814	0RK8204H609	8.2M OHM 1/2 W 5.00% TA52
R816	0RD1001F609	1K OHM 1/6 W 5% TA52
R817	0RD0152F609	15 OHM 1/6 W 5.00% TA52
R823	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R824	0RD1001F509	1K OHM 1/6 W 2.00% TA52
R825	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R827	0RD7500F609	750 OHM 1/6 W 5% TA52
R828	0RD1501F609	1.5K OHM 1/6 W 5% TA52
R831	0RD2201F609	2.2K OHM 1/6 W 5.00% TA52
R838	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R840	0RF0141K607	1.4 OHM 2 W 5.00% TA62
R841	0RF0141K607	1.4 OHM 2 W 5.00% TA62
R842	0RD1002F609	10K OHM 1/6 W 5% TA52
R843	0RD2700A609	270 OHM 1/2 W(7.0) 5.00% TA52
R844	0RD2002F609	20K OHM 1/6 W 5.00% TA52
R845	0RD1002F609	10K OHM 1/6 W 5% TA52
R846	0RD7502F609	75K OHM 1/6 W 5.00% TA52
R847	0RD2203F609	220K OHM 1/6 W 5.00% TA52
R858	0RD4701F609	4.7K OHM 1/6 W 5% TA52
R901	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R902	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R903	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R904	0RD1801F609	1.8K OHM 1/6 W 5.00% TA52
R906	0RD1000F609	100 OHM 1/6 W 5% TA52
R907	0RD1000F609	100 OHM 1/6 W 5% TA52
R908	0RD1000F609	100 OHM 1/6 W 5% TA52
R909	0RS3301H609	3.3K OHM 1/2 W 5.00% TA52
R910	0RS3301H609	3.3K OHM 1/2 W 5.00% TA52
R912	0RD2204A609	2.2M OHM 1/2 W(7.0) 5.00% TA52
R913	0RD1201F609	1.2K OHM 1/6 W 5% TA52
R914	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R915	0RD0102F609	10 OHM 1/6 W 5% TA52
R921	0RD1000F609	100 OHM 1/6 W 5% TA52
R922	0RD0622F609	62 OHM 1/6 W 5.00% TA52
R923	0RS0102J607	10 OHM 1 W 5.00% TA62
R924	0RS3300J607	330 OHM 1 W 5.00% TA62
R925	0RS4300J607	430 OHM 1 W 5.00% TA62
R926	0RS6800K607	680 OHM 2 W 5.00% TA62
R931	0RS3301H609	3.3K OHM 1/2 W 5.00% TA52
SWITCH		
SW1101	140-315A	SKHV17910B 12V 0.05A HORIZONTAL 160G
SW1102	140-315A	SKHV17910B 12V 0.05A HORIZONTAL 160G
SW1103	140-315A	SKHV17910B 12V 0.05A HORIZONTAL 160G
SW1104	140-315A	SKHV17910B 12V 0.05A HORIZONTAL 160G
SW1105	140-315A	SKHV17910B 12V 0.05A HORIZONTAL 160G
SW1106	140-315A	SKHV17910B 12V 0.05A HORIZONTAL 160G

LOCA. NO	PART NO	DESCRIPTION
SW1111	6600VM2002A	SDKEA3 ALPS IEC 250V 8A HORIZONTAL 480G
SPARK GAP,AXIAL		
SG904	6918VAX002H	WSP-122N 1200V -100V,+300V AXIAL TP
SG905	6918VAX002D	WSP-301M 300V 20% AXIAL TYPE 5MM
SG906	6918VAX002D	WSP-301M 300V 20% AXIAL TYPE 5MM
SG907	6918VAX002D	WSP-301M 300V 20% AXIAL TYPE 5MM
SG908	6918VAX002E	WSP-351M 350V 20% AXIAL TP 7.5MM
FILTER & CRYSTAL		
FB1241	125-123A	FERRITE BFD3565R2F(TAPING)
FB401	125-022K	FERRITE AXIAL 62MM 1UH NY 3.5X6.0MM
FB801	125-022K	FERRITE AXIAL 62MM 1UH NY 3.5X6.0MM
FB802	125-022K	FERRITE AXIAL 62MM 1UH NY 3.5X6.0MM
FB803	125-022K	FERRITE AXIAL 62MM 1UH NY 3.5X6.0MM
FB804	125-022K	FERRITE AXIAL 62MM 1UH NY 3.5X6.0MM
FB825	125-022K	FERRITE AXIAL 62MM 1UH NY 3.5X6.0MM
T1111	6200JB8012T	SQE2828 NAMYANG BK 17.2MH 60TURNS
X11	6212AA2994A	RESONATOR,CRYSTAL HC-49U 20.25MHZ
Z101	6200QL3001Z	B39361-X6966-D100 EPCOS ST
JACK		
JK1201	380-068D	UEJ-CV-003 E/P WITH S/W STEREO(068B)
JK1203	6613V00010B	PMJ016B A/V 3P + S-VHS (RD WH YL)
JK201	6612M00005A	UPJ-R1-027 UGCOM CH1
JK201	6612VJH011A	PPJ109A A/V IN/OUT 6P FOR 21PIN W/DECO.
JK202	6612VJH011T	PPJ109-18 A/V IN/OUT 6P STEREO
JK202	6612VJH011X	PPJ109-22 PARK ELEC. A/V IN/OUT 6P
ACCESSORIES		
A1	38289U0505A	MANUAL, USER 112P/Q/R/S TX
A1	38289U0505L	MANUAL, USER UKR/BZ03 112P/Q/R/S TX 340M
A2	6710V00112Q	REMOTE CONTROLLER, W/O PIP W/TXT
A3	450-018C	ADAPTER,RF UGCOM 1.5KV 5MA UMT-PA-002
MISCELLANEOUS		
F1111	0FS4001B51D	FUSE,SLOW BLOW 4000MA 250 V 5.2X20
PA1101	6712R1538GH	REMOTE CONTROLLER RECEIVER, TSOP2438
SK901	6620VBC003A	SOCKET (CIRC),CPT PCS030A 8PIN 14/360
T402	6174V-5003U	FBT, D17 BSC29-N2458 29.0KV 125V
TH1181	163-058D	THERMISTOR,PTC 03-07MX 7 OHM 20% 80/60
TU101	6700VS0002F	TUNER, TAEW-G002D W/W ALL IN W/S 09Z VE
VD1111	164-003G	VARISTOR, TVR621D14A THINKING 620V 10%
VD802	164-003G	VARISTOR, TVR621D14A THINKING 620V 10%



<NOTICE>

Since this is basic circuit diagram, the value of components and some partial connection are subject to be changed for improvement without notice.

The components marked Δ conform to VDE or IEC guidelines and are essential for safe operation of the TV receiver.

While those marked Δ are required for correct operation, use specified parts only when replacing.

The components marked \oplus are optional components.

Value of resistor, capacitor and inductor

1. Resistances are shown in Ω , $k\Omega$, $M\Omega$, and ∞ (open circuit).
2. Unless otherwise noted in schematic, all capacitor values less than 1 μF are expressed in pF and the values more than 1 μF .
3. Unless otherwise noted in schematic, all inductor values more than 1 μH are expressed in μH and the values less than 1 μH in nH (n).
4. Check FINE TUNING, AGC, CONTRAST, BRIGHTNESS and COLOR CONTROLS for best picture. Make sure that COLOR and BRIGHTNESS are in high-gain and CONTRAST is in 75%.
5. Waveform are taken using a standard color signal.

Observation of voltages and waveforms

1. Voltages read with VTM from point to chassis ground.
2. Line voltage is 230V/50Hz. Voltage signal system is PAL-SECAM.
3. The schematic shown is representative only.
4. All waveforms are taken using a wide band oscilloscope and a low impedance probe.
5. Check FINE TUNING, AGC, CONTRAST, BRIGHTNESS and COLOR CONTROLS for best picture. Make sure that COLOR and BRIGHTNESS are in high-gain and CONTRAST is in 75%.
6. Waveform are taken using a standard color signal.

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