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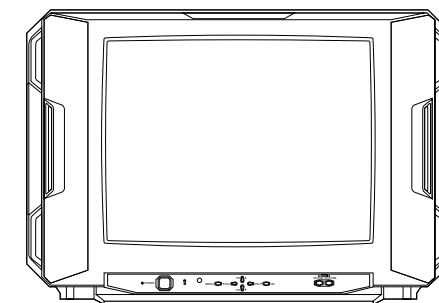
COLOR TV SERVICE MANUAL

CHASSIS : MC-84D

MODEL : CF-20/21S42EH
CF-20/21S12EH

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 $\pm$ 15KV: 14-19 inch, 26 $\pm$ 15KV: 19-21 inch,

29.0 $\pm$ 15KV: 25-29 inch, 30.0 $\pm$ 15KV: 32 inch

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

Before returning the receiver to the customer,

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

Leakage Current Cold Check(Antenna Cold Check)

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

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

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

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

Leakage Current Hot Check (See below Figure)

Plug the AC cord directly into the AC outlet.

Do not use a line Isolation Transformer during this check.

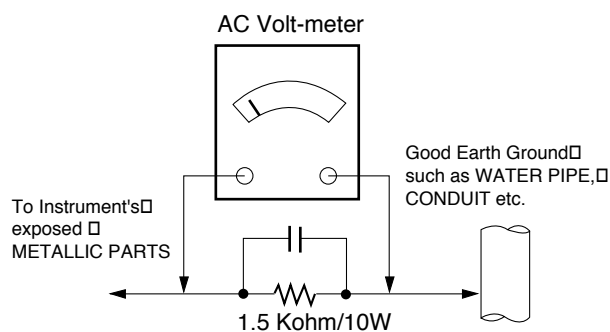
Connect 1.5K/10watt resistor in parallel with a 0.15uF capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.

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

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



SPECIFICATIONS

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

- i **Power requirement:**
AC 110-240V, 50/60Hz (Cold SMPS)
- i **Tuning system:**
FVS), 100 program memory
- i **Sound output:**
15W+15W
- i **Intermediate Frequency (IF):**
Vision IF ; 38.0MHz
Color IF ; 33.57MHz(PAL)
34.42MHz(NTSC)
Sound IF ; 32.5MHz (B/G)
32.0MHz(I, I/I)
31.5MHz(D/K, K1)
33.5MHz(M)
- i **Power consumption :**
20": 95W), 21": 100W
- i **Antenna input impedance :**
VHF/UHF 75ohm , Unbalanced type
- i **Voice coil impedance:**
8ohm
- i **OSD (On Screen Display) :**
Window 3D TYPE
- i **Receiving System**
- i **External in/output: Headphone, SCART or Phone Jack : Option**
Audio-In ; 0.4Vrms i 3dB, over 10Kohm
Audio-Out ; 0.4Vrms i 3dB, below 1Kohm
Video-In/Out ; 1Vp-p i 3dB, 75ohm
R.G.B In ; 0.7Vp-p i 3dB
- i **Function:**
Program Surfing
Favorite Program
Real Time
Message Edit
Tuning Lock
Eye
CATV/Hyper band
Power ball game with sound
Auto Program
Manual Program
Auto Sleep
Auto Demonstration
Quick view
ACMS α (Auto channel Memory System)
PSM(Picture Status memory)-For each program
CSM(Color Status memory)
- i **Child Lock:**
In the Lock on state the TV can only be operated by the Remote controller.
If any button on the front panel is pressed, "CHILD LOCK ON" is displayed on the screen but the button's function is not performed.
To cancel of this mode, select lock off with menu button on Remote control only.

No	Model No. System	CT-	CF-	CA-	CD-	CZ-
1	PAL-B	O	O	O	O	O
2	PAL-G	O	O	O	O	O
3	PAL-I, I/I	O	O	X	O	O
4	PAL-D	O	O	X	O	O
5	PAL-K	O	O	X	O	O
6	SECAM-B	O	O	X	X	X
7	SECAM-G	O	O	X	X	X
8	SECAM-D	O	O	X	X	X
9	SECAM-K	O	O	X	X	X
10	SECAM-K1	O	O	X	X	X
11	SECAM-I (6.0)	O	O	X	X	X
12	SECAM-L (AV)	O	O	X	X	X
13	NTSC-3.58/4.5	O	X	X	O	X
14	NTSC-3.58/5.5	O	O	O	O	O
15	NTSC-3.58/6.0	O	O	X	O	O
16	NTSC-3.58/6.5	O	O	X	O	O
17	NTSC-3.58/4.5(50)	O	X	X	O	X
18	NTSC-4.43/5.5	O	O	O	O	O
19	NTSC-4.43/6.0	O	O	X	O	O
20	NTSC-4.43/6.5	O	O	X	O	O
21	PAL 5.5/60Hz	O	O	O	O	O
22	PAL 6.0/60Hz	O	O	X	O	O
23	PAL 6.5/60Hz	O	O	X	O	O
24	SECAM 5.5/60Hz	O	O	X	X	X
25	SECAM 6.0/60Hz	O	O	X	X	X
26	SECAM 6.5/60Hz	O	O	X	X	X
TOTAL SYSTEM		26	24	5	16	14

Table 1: Receiving System (26 System)

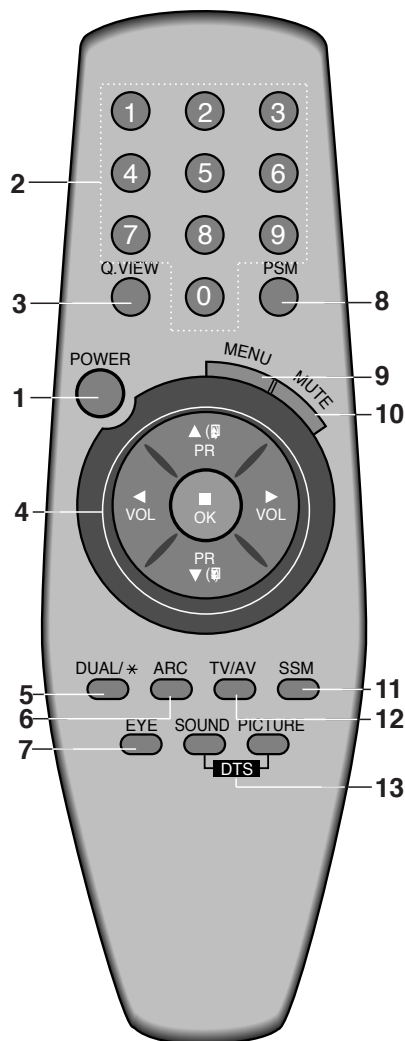
No	Receiving System	Function	Receiving Channel
1	PAL-B	Reception of broadcast and play-back for Video Tape Recorder	VHF Band PAL/SECAM-B : 2-12 PAL/SECAM-D : 1-12 SECAM-K1 : 2-9 NTSC-M (US) : 2-13 NTSC-M (JAPAN) : 1-12 UHF Band PAL/SECAM-G : 21-69 PAL-I : 21-69 SECAM-K : 21-69 PAL-K : 13-56 NTSC-M (US) : 14-78 NTSC-M (JAPAN) : 13-62
2	PAL-G		
3	PAL-I, I/I		
4	PAL-D		
5	PAL-K		
6	SECAM-B		
7	SECAM-G		
8	SECAM-D		
9	SECAM-K		
10	SECAM-K1		
11	NTSC-M		
12	NTSC 4.43/5.5MHZ	Play-back for special Video Tape Recorder	
13	NTSC 4.43/6.0MHZ		
14	NTSC 4.43/6.5MHZ		
15	SECAM-I (6.0MHZ)		
16	SECAM-L (Video In)		
17	NTSC 3.58/4.5MHZ/50HZ	Play-back for special Video Tape/Video disk player	
18	PAL 5.5MHZ/60HZ		
19	PAL 6.0MHZ/60HZ		
20	PAL 6.5MHZ/60HZ		
21	SECAM 5.5MHZ/60HZ		
22	SECAM 6.0MHZ/60HZ		
23	SECAM 6.5MHZ/60HZ		
24	NTSC 3.58/5.5MHZ	Play-back for special Video Tape Recorder	
25	NTSC 3.58/6.0MHZ		
26	NTSC 3.58/6.5MHZ		

DESCRIPTION OF CONTROLS

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

Remote control handset

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



1. **POWER**
switches the set on from standby or off to standby.
2. **NUMBER BUTTONS**
switch the set on from standby or directly select a number.
3. **Q.VIEW**
returns to the previously viewed programme.
4. **▲ (UP) / ▼ (DOWN) (Programme Up/Down)**
switches the set on from standby.
selects a programme or a menu item.
scans programmes automatically.
- ◀ / ▶ (Volume Down/Up)**
adjusts the volume.
adjusts menu settings.
- OK**
accepts your selection or displays the current mode.
5. **DUAL/* (option)**
selects the language during dual language broadcast.(option)
selects the sound output.
6. **ARC (Aspect Ratio Control)**
changes the picture format.
7. **EYE (option)**
switches the Eye function on or off.
8. **PSM (Picture Status Memory)**
recalls your preferred picture setting.
9. **MENU**
selects a menu.
10. **MUTE**
switches the sound on or off.

11. SSM (Sound Status Memory) (option)
recalls your preferred sound setting.

12. TV/AV
selects TV or AV mode.
clears the menu from the screen.

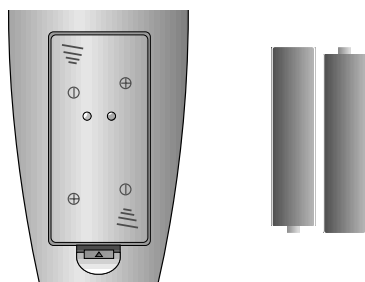
13. DTS (Digital Turbo System) SOUND (option)
selects Digital sound.

DTS PICTURE (option)
selects Digital picture.

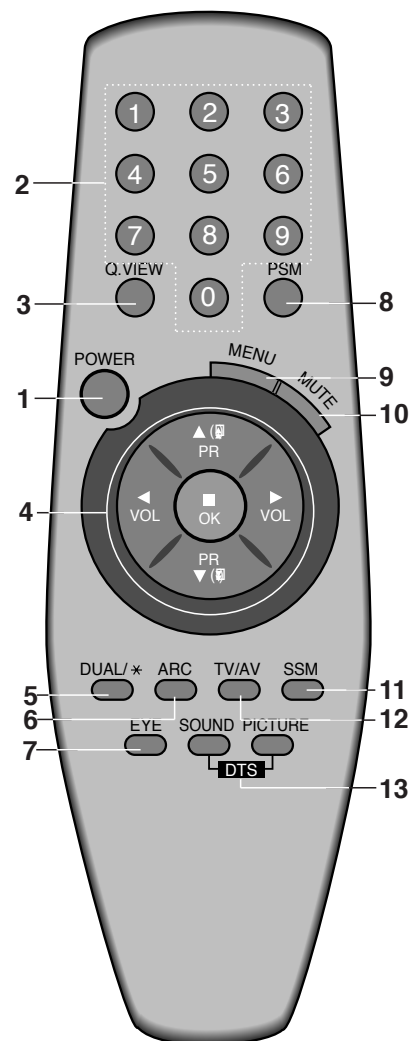
Note :
★ : No function.

Battery installation

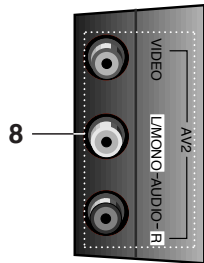
The remote control handset is powered by two AA type batteries. To load the batteries, turn the remote control handset over and open the battery compartment. Install two batteries as indicated by the polarity symbols (⊕ and ⊖) marked inside the compartment.



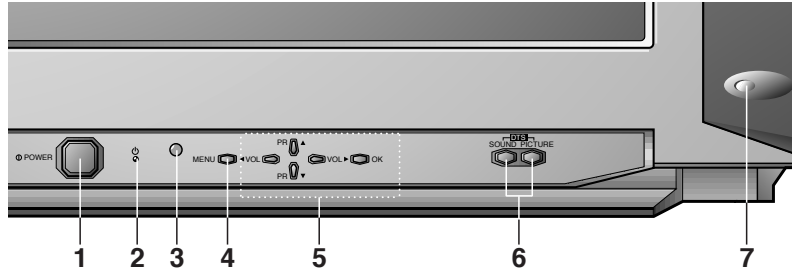
Note : To avoid damage from possible battery leakage, remove the batteries if you do not plan to use the remote control handset for an extended period of time.



Front panel



Side panel



1. **MAIN POWER (ⓘ POWER)**
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. **REMOTE CONTROL SENSOR**
4. **MENU**
selects a menu.
5. **▲ / ▼ (Programme Up/Down)**
switches the set on from standby.
selects a programme or a menu item.
◀ / ▶ (Volume Down/Up)
adjusts the volume.
adjusts menu settings.
OK
accepts your selection or displays the current mode.
6. **DTS (Digital Turbo System) SOUND (option)**
selects Digital sound.
DTS PICTURE (option)
selects Digital picture.
7. **EYE (option)**
adjusts picture according to the surrounding conditions.
8. **AUDIO/VIDEO IN SOCKETS (AV2) (option)**
Connect the audio/video out sockets of external equipment to these sockets.

DISASSEMBLY INSTRUCTIONS

Important note

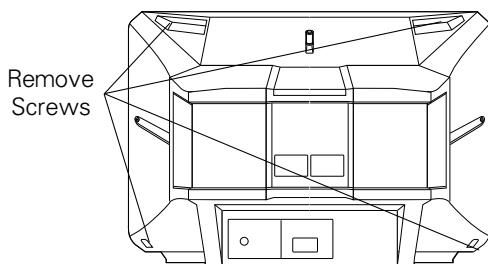
This set is disconnected from the power supply through the converter transformer. An isolating transformer is necessary for service operations on the primary side of the converter transformer.

Back Cabinet Removal

Remove screws residing on the back cabinet and carefully separate the back cabinet from the front cabinet..

CPT Removal

1. Pull out the CPT board from the CPT neck.
2. Place the front cabinet on soft material not to mar the front surface or damage control knobs.
3. Remove 4 screws securing the picture tube mounting brackets to the front cabinet.
4. Carefully separate CPT from the front cabinet.



Chassis Assy Removal

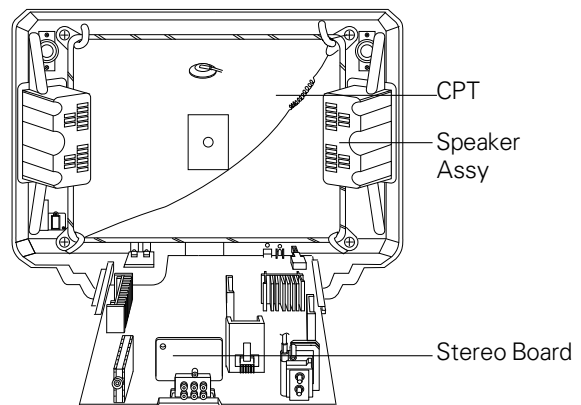
Grasp both side of Frame and pull it backward smoothly.

Speaker Assy Removal

1. Remove P601, P602 connector from Main Board.
2. Remove respective 2 screws for tweeter speaker(R, L) and 4 screws for squawker speaker(R, L) on the front cabinwet.
3. Refer ro Exploded View for disassembling woofer speaker in the back cover.

PICTURE TUBE HANDLING CAUTION

Due to high vacuum and large surface area of picture tube, great care must be exercised when handling picture tube. Always lift picture tube by grasping it firmly around faceplate. NEVER LIFT TUBE BY ITS NECK! The picture tube must not be scratched or subjected to excessive pressure as fracture of glass may result in an implosion of considerable violence which can cause personal injury or property damage.



ADJUSTMENT

● Safety Precautions

1. It is safe to adjust after using insulating transformer between the power supply line and chassis input to prevent the risk of electric shock and protect the instrument.
2. Never disconnect leads while the TV receiver is on.
3. Don't short any portion of circuits while power is on.
4. The adjustment must be done by the correct appliances. But this is changeable in view of productivity.
5. Unless otherwise noted, set the line voltage to 230Vac $\pm$ 10%, 50Hz.

● Test Equipment required

1. RF signal generator (with pattern generator)
2. DC Power Supply
3. Multimeter (volt meter)
4. Oscilloscope
5. Color analyzer

● RF AGC (Automatic Gain Control) Adjustment

Test Point : AGC TP (J29)
Adjust : Remote Control

The RF AGC was aligned at the time of manufacture for optimum performance over a wide range conditions. Readjustment of RF AGC should not be necessary unless unusual local conditions exist, such as ;

- 1) Channel interference in a CATV system.
- 2) Picture bending and/or color beats, which are unusually due to excessive RF signal input when the receiver is too close to a transmitting tower or when the receiver is connected to an antenna distribution system where the RF signal has been amplified. In this case, the input signal should be attenuated (with pad or filter) to a satisfactory level.
- 3) Picture noise caused by "broadcast noise" or weak signal. If the broadcast is "clean" and the RF signal is at least 1mV (60dBu), the picture will be noise free in any area.

Adjusting RF AGC to one end of rotation will usually cause a relatively poor signal to noise ratio;
Adjusting to the other end of rotation will usually cause a degradation of over load capabilities resulting in color beats or adjacent channel interference.

Adjustment

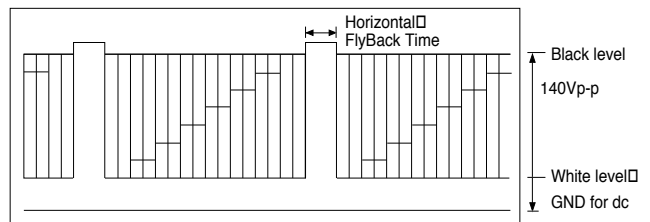
1. Connect RF signal (65dB $\pm$ 1dB) and turn on the TV.
2. Press OK buttons on TV set and Remote Controller at the same time to get into SVC mode.
3. Press Channel UP/DOWN button on the Remote Controller several times to find AGC ??.
4. Press Volume UP/DOWN button until the AGC Voltage is the same as the Table below.
5. Press OK(■) button to memorize the data.

TUNER	6700VPF009D	6700VPF003B
AGC Voltage	2.6 $\pm$ 0.5V	2.7 $\pm$ 0.5V

● Screen Voltage Adjustment

Test Point : RK (Red Cathode of CPT Board)
Adjust : Screen Control of FBT

- 1) Tune the TV set to receive a digital pattern.
- 2) Press PSM (RED) button on remote controller. (standard picture)
- 3) Connect the probe of oscilloscope to the RK (Red Cathode) of CPT Board.
- 4) Adjust Screen Volume of FBT so that the waveform is the same as below figure.



The waveform of RK(Red Cathode) of CPT Board

● Focus Adjustment

NOTE: This adjustment should be performed after warming up for 10 minutes.

Test Point : Observing Display
Adjust : Focus control of FBT

- 1) Tune the TV set to receive an inactive channel station.
- 2) Adjust the Focus control of FBT for best overall focus.

● Deflection Data Adjustment (Line SVC-1)

NOTE: To enter SVC mode, press "OK" buttons on both TV set and the Remote control at the same time.

1. Preparation for Deflection Adjustment

- 1) At SVC mode, press the Yellow colored button.
If the Remote Controller doesn't have the Yellow button, you should use a Service Remote Control (105-201G) and press SVC button.
And then, deflection data adjustment OSD (SVC1 mode) will be displayed.
- 2) Press Channel UP/DOWN button for desirous function Adjustment.
- 3) Press Volume UP/DOWN button to adjust the data.

2. Deflection Adjustment Procedure

1) Vertical Adjustment

Select VS and adjust until the mechanical center of CPT and that of screen coincides and select VA and adjust to coincide the inner circle of screen with outer frame of CPT.

2) Horizontal Adjustment

Select HS and adjust until the mechanical center of CPT and that of screen coincides.

3) Vertical S Correction Adjustment

Select SC and adjust until top-bottom side pincushion are equal.

- 4) Press OK(■) button to memorize the data.

3. Deflection Initial Setup Data

Status	Default	21" LG	20" LG
VL	34	34	34
VS	25	25	25
VA	43	43	43
HS	36	36	36
SC	10	10	10

● White Balance Adjustment.(LINE SVC-0)

NOTE : This adjustment should be performed after screen voltage adjustment.

- 1) Tune the TV set to receive an 100% white pattern.
- 2) Press OK(■) buttons on TV set and remote controller at the same time to get into SVC mode.
- 3) Press Channel UP/DOWN button for desirous function adjustment.
- 4) Adjust VOL+ or VOL- button for GG031.
- 5) Adjust VOL+ or VOL-button in each status of "Rg--"/"Bg--" for $X=281\pm 8$, $Y=288\pm 8$ with color analyzer.
- 6) Press OK(■) button to memorize the adjustment data.

Status	Adjustment	Initial Data	Remark
RG	R-Drive	32	
GG	G-Drive	31	
BG	B-Drive	27	

● Hold Down check

Short J139 and ZD747 and check if the TV set turns into stand-by.

● HOTEL TV Mode

NOTE: This mode is useful for HOTEL TV MODEL. Dealer or HOTEL manager can use this option.

1. AFTER SELECTING HOTEL MODE, CAN NOT CHANGE INITIAL SET UP CONDITION.

- CHANNEL PROGRAM(AUTO PROGRAM, MANUAL PROGRAM, EDIT FUNCTION) and OSD LANGUAGE set up condition is fixed so the HOTEL lodger cannot change and remove initial set up data condition at his pleasure.

This function prevents HOTEL lodger from needless changing channel memory data and OSD language condition.

It will be helpful for maintainning the best suitable condition of TV SET

2. Limit MAX. VOLUME LEVEL.

- The HOTEL lodger can only use limited range of volume level because loud TV sound can disturb other lodger's private business.
The HOTEL manager select maximum volume level proper for HOTEL.

3. Only Audio without Video source available through A/V input

- When the Audio signal is fed to A/V input jack, the Audio is available without Video.
In the previously existing Model, sound is muted if there's no Video signal.

► HOTEL mode operating guide

- 1) SET UP(CH.SEARCH AND EDIT) the Channel Program
- 2) SET UP Proper max volume level in SVC Mode.
- 3) SET UP HOTEL option in SVC Mode(OPTION-2).

●OPTION Adjustment (SVC MODE:OPTION-1, OPTION-2)

NOTE: When the EEPROM has been replaced, the Option data should be restored as the function of individual system and specification.

- 1) Press OK buttons on both TV set and Remote Controller at the same time to get into SVC mode.
- 2) Press the Yellow button several times to find OPTION-1 or OPTION-2.
- 3) Input the correspond OPTION data referring to Table below with the numeric buttons 0~9.

Table 1. OPTION 1 Function

Option	Code	Function	Remark
SYSTEM	00	BG+I+DK	W/O RF 3.58(CF-, CZ-)
	01	BG+I+DK+M	with RF3.58(CT-, CD-)
	10	ONLY	Single SYSTEM(CA-)
	11	ONLY+DUAL	South East Asian DUAL
SCART	0	PHONO JACK (AV1)	
	1	SCART JACK (AV1)	with RGB Input
EYE	0	W/O EYE	
	1	with EYE	
UBB	0	W/O UBB	UBB for S-MAX(MONO) MODEL
	1	with UBB	
AV2	0	W/O AV2 (Front)	TOOL Option
	1	with AV2 (Front)	

Table 2. Specifications for OPTION-1 data

OPTION Data	SYSTEM	SCART	EYE	UBB	AV2
0	00	0	0	0	0
1	00	0	0	0	1
2	00	0	0	1	0
3	00	0	0	1	1
4	00	0	1	0	0
5	00	0	1	0	1
6	00	0	1	1	0
7	00	0	1	1	1
8	00	1	0	0	0
9	00	1	0	0	1
10	00	1	0	1	0
11	00	1	0	1	1
12	00	1	1	0	0
13	00	1	1	0	1
14	00	1	1	1	0
15	00	1	1	1	1
16	01	0	0	0	0
17	01	0	0	0	1
18	01	0	0	1	0
19	01	0	0	1	1

OPTION Data	SYSTEM	SCART	EYE	UBB	AV2
20	01	0	1	0	0
21	01	0	1	0	1
22	01	0	1	1	0
23	01	0	1	1	1
24	01	1	0	0	0
25	01	1	0	0	1
26	01	1	0	1	0
27	01	1	0	1	1
28	01	1	1	0	0
29	01	1	1	0	1
30	01	1	1	1	0
31	01	1	1	1	1
32	10	0	0	0	0
33	10	0	0	0	1
34	10	0	0	1	0
35	10	0	0	1	1
36	10	0	1	0	0
37	10	0	1	0	1
38	10	0	1	1	0
39	10	0	1	1	1
40	10	1	0	0	0
41	10	1	0	0	1
42	10	1	0	1	0
43	10	1	0	1	1
44	10	1	1	0	0
45	10	1	1	0	1
46	10	1	1	1	0
47	10	1	1	1	1
48	11	0	0	0	0
49	11	0	0	0	1
50	11	0	0	1	0
51	11	0	0	1	1
52	11	0	1	0	0
53	11	0	1	0	1
54	11	0	1	1	0
55	11	0	1	1	1
56	11	1	0	0	0
57	11	1	0	0	1
58	11	1	0	1	0
59	11	1	0	1	1
60	11	1	1	0	0
61	11	1	1	0	1
62	11	1	1	1	0
63	11	1	1	1	1

Table 3. OPTION 2 Function

Option	Code	Function	Remark
FFI	0	Normal Condition	Fast Filter IF-PLL (for excessive RF signal)
	1	FFI Active	
CHINA	0	W/O Chinese NICAM	Chinese Model only
	1	Chinese NICAM	
LANG.	M	Multi Language (M=0)	Language varies by MICOM Part No.
	E	English Only (E=1)	
HOTEL	0	W/O HOTEL	for Buyer 's request
	1	For HOTEL	
GAME	0	Pack GAME	CRIKET GAME
	1	U-Com GAME	
BOOSTER	0	W/O BOOSTER	
	1	With BOOSTER	

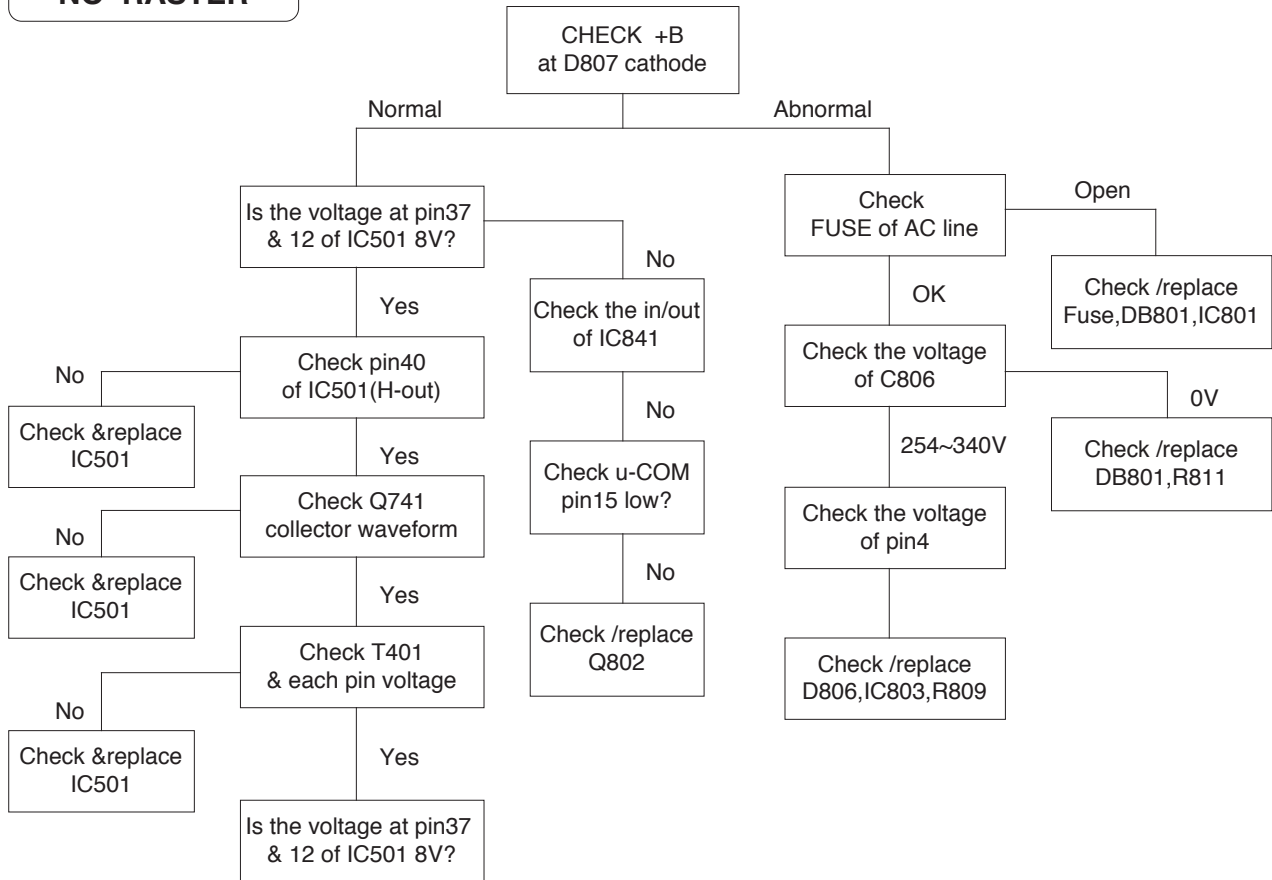
Table 4. Specifications for OPTION-2 data

OPTION Data	FFI	CHINA	LANG.	HOTEL	GAME	BOOSTER
0	0	0	M	0	0	0
1	0	0	M	0	1	0
2	0	0	M	1	0	0
3	0	0	M	1	1	0
4	0	0	E	0	0	0
5	0	0	E	0	1	0
6	0	0	E	1	0	0
7	0	0	E	1	1	0
8	0	1	M	0	0	0
9	0	1	M	0	1	0
10	0	1	M	1	0	0
11	0	1	M	1	1	0
12	0	1	E	0	0	0
13	0	1	E	0	1	0
14	0	1	E	1	0	0
15	0	1	E	1	1	0
16	1	0	M	0	0	0
17	1	0	M	0	1	0
18	1	0	M	1	0	0
19	1	0	M	1	1	0
20	1	0	E	0	0	0
21	1	0	E	0	1	0
22	1	0	E	1	0	0
23	1	0	E	1	1	0
24	1	1	M	0	0	0
25	1	1	M	0	1	0
26	1	1	M	1	0	0
27	1	1	M	1	1	0
28	1	1	E	0	0	0
29	1	1	E	0	1	0
30	1	1	E	1	0	0
31	1	1	E	1	1	0

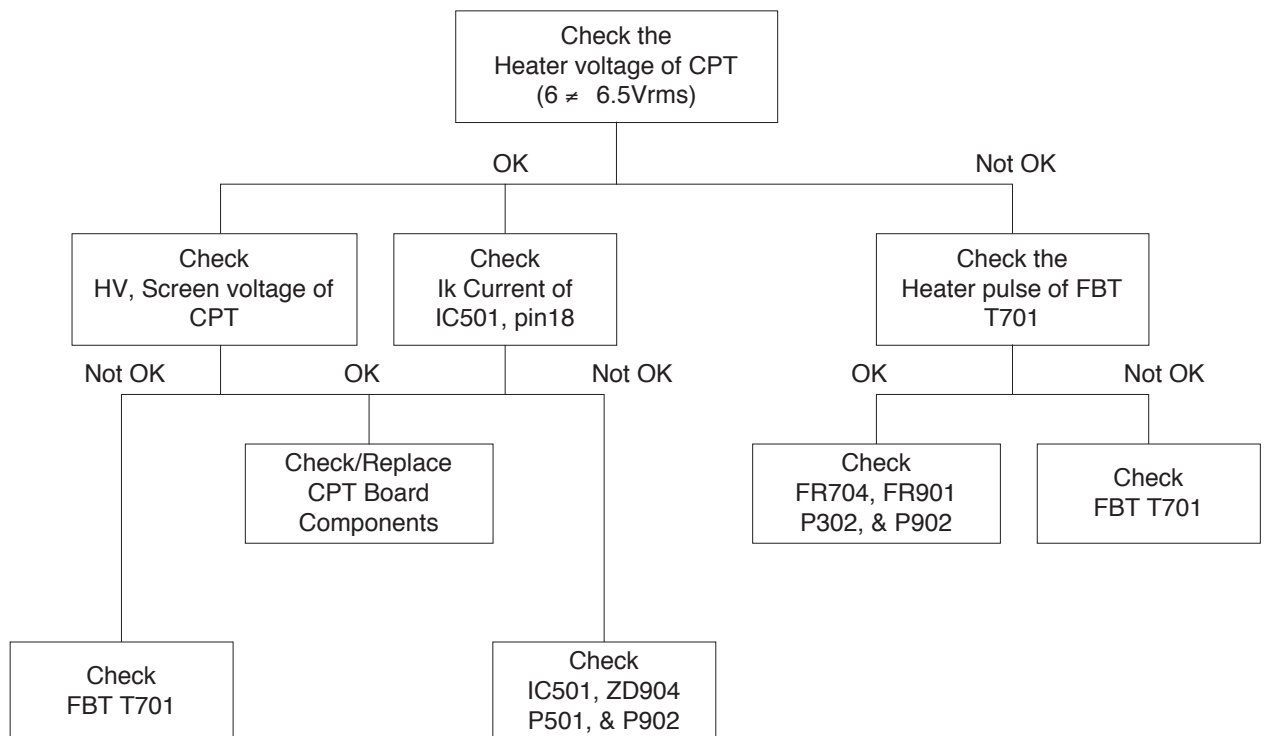
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33	0	0	M	0	1	1
34	0	0	M	1	0	1
35	0	0	M	1	1	1
36	0	0	E	0	0	1
37	0	0	E	0	1	1
38	0	0	E	1	0	1
39	0	0	E	1	1	1
40	0	1	M	0	0	1
41	0	1	M	0	1	1
42	0	1	M	1	0	1
43	0	1	M	1	1	1
44	0	1	E	0	0	1
45	0	1	E	0	1	1
46	0	1	E	1	0	1
47	0	1	E	1	1	1
48	1	0	M	0	0	1
49	1	0	M	0	1	1
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55	1	0	E	1	1	1
56	1	1	M	0	0	1
57	1	1	M	0	1	1
58	1	1	M	1	0	1
59	1	1	M	1	1	1
60	1	1	E	0	0	1
61	1	1	E	0	1	1
62	1	1	E	1	0	1
63	1	1	E	1	1	1

TROUBLESHOOTING

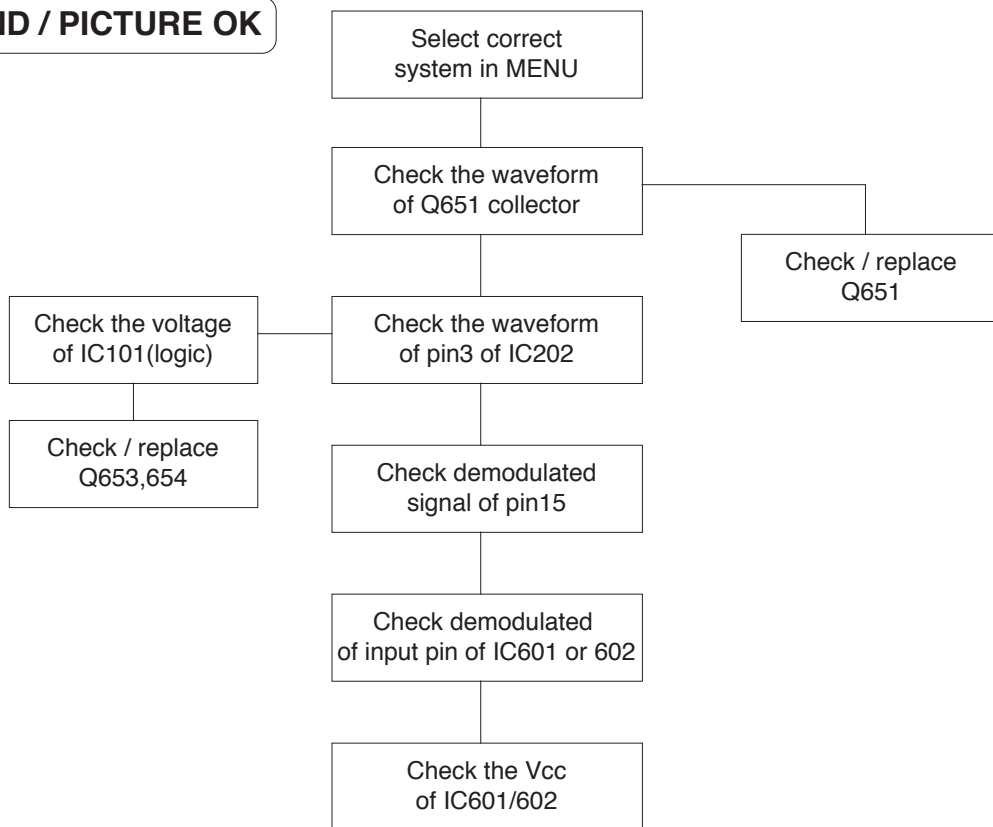
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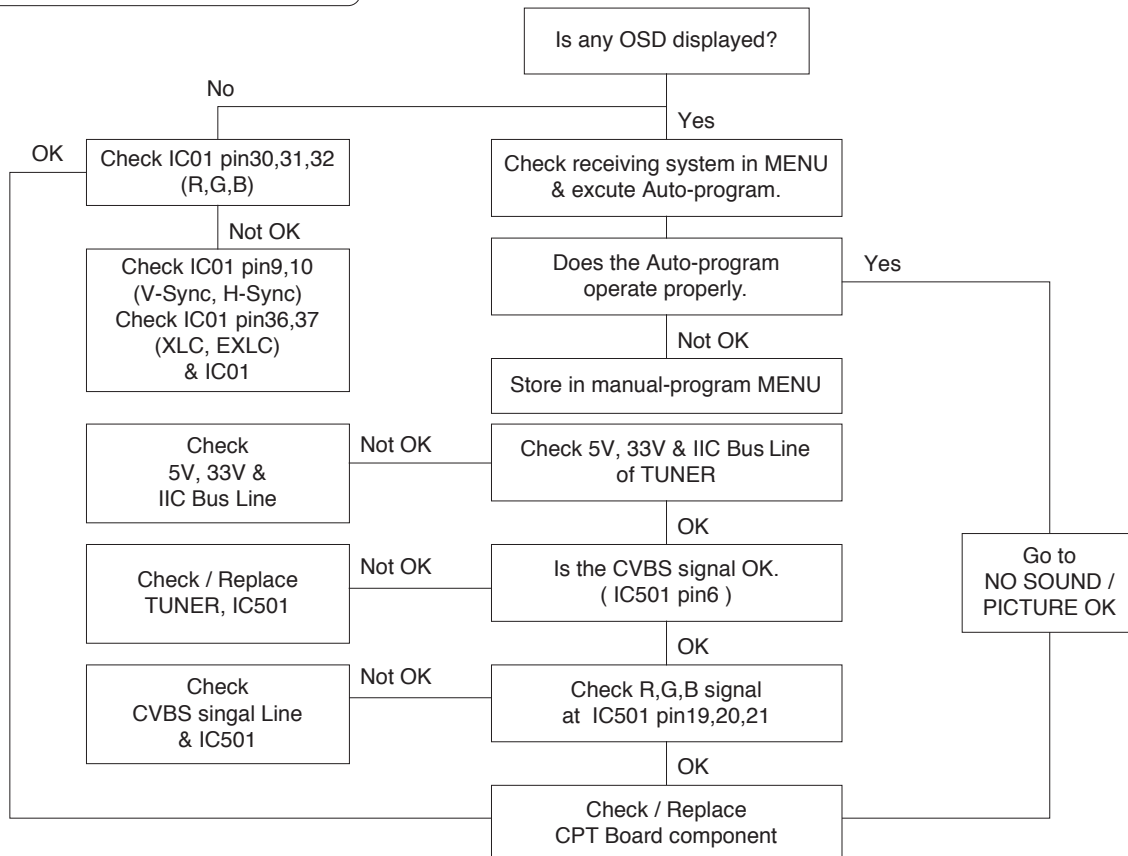
NO RASTER / SOUND OK



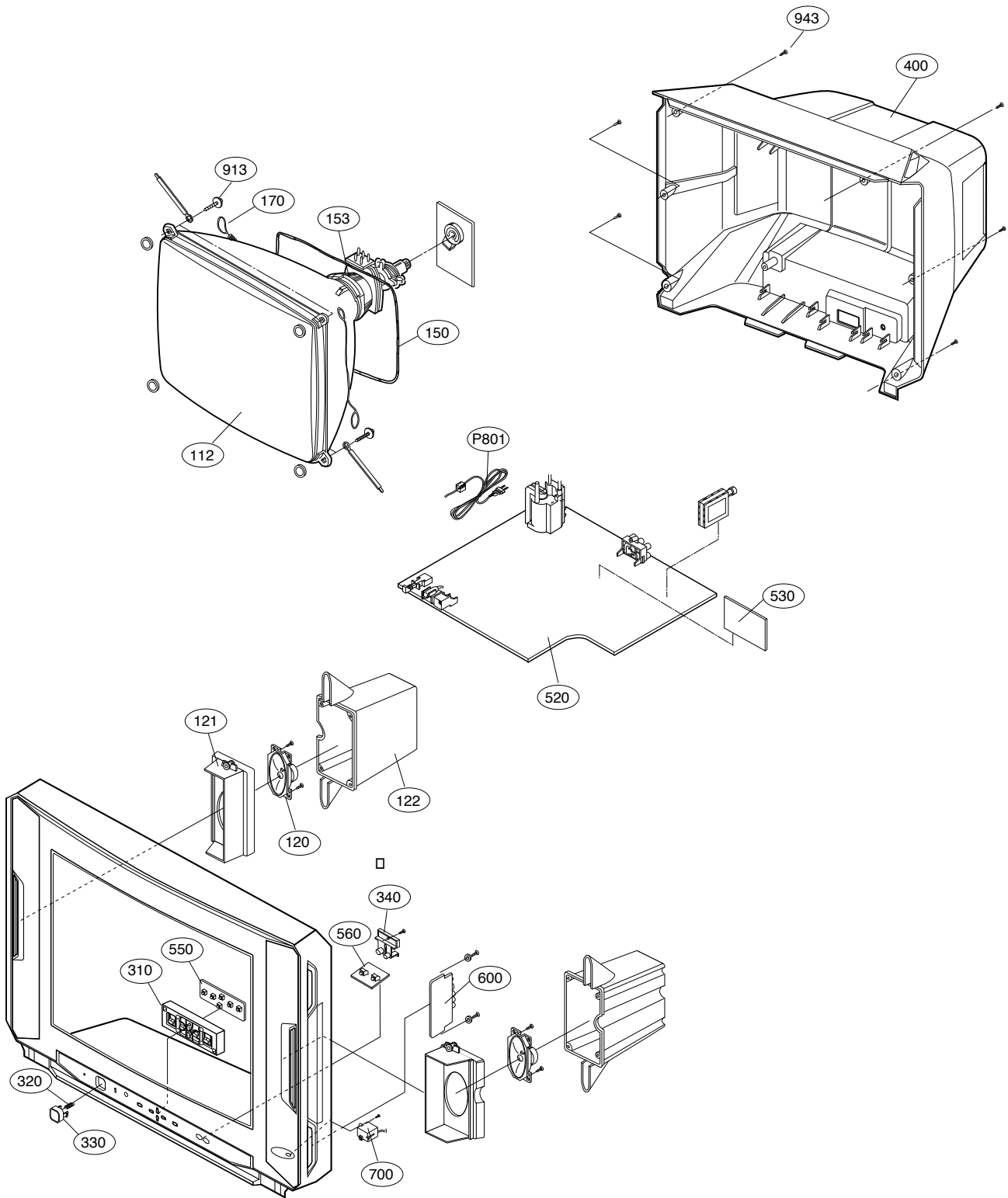
NO SOUND / PICTURE OK



NO PICTURE / NO SOUND



EXPLODED VIEW:20/21S42EH

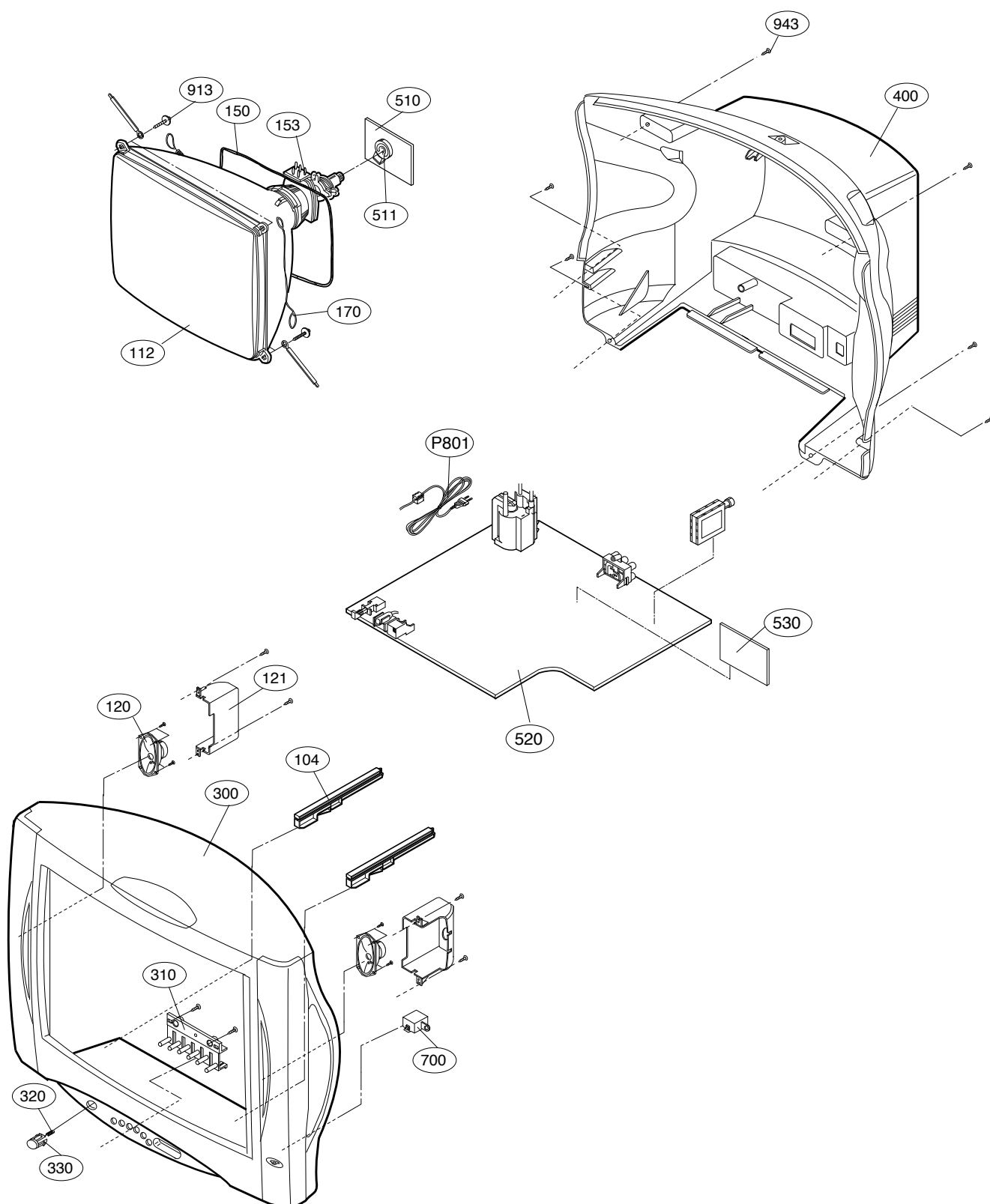


EXPLODED VIEW PARTS LIST

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

NO	PART NO		DESCRIPTIONS
	20"	21"	
Δ 112	2426GCA40CD	2426GDA60CB	CPT SET
120	120-D38C	120-D38C	SPEAKER,8 OHM 15/25W 87
121	4810V00190B	4810V00190B	BRACKET,SPK(LGEIL LOCAL)
122	3550V00085B	3550V00085B	COVER,SPK(LGEIL LOCAL)
Δ 150	150-D02Y	150-D02X	COIL,DEGAUSSING
Δ 170	170-A01D	170-A01D	LEAD SET,CPT EARTH
300	3091V00236B	3091V00227B	CABINET ASSY(LGEIL LOCAL)
	3091V00236F	3091V00227F	CABINET ASSY
310	5020V00362A	5020V00365A	BUTTON,CONTROL 6KEY
320	320-062E	320-062E	SPRING,KNOB
330	5020V00363A	5020V00367A	BUTTON,POWER
340	5020V00364A	5020V00366A	BUTTON,CONTROL 2KEY
400	3809V00174B	3809V00174B	BACK COVER ASSY (LGEIL LOCAL)
520	6871VMM678A	6871VMM678B	PWB ASSY,MAIN MC-84D
	6871VMM678F	6871VMM678E	PWB ASSY,MAIN MC-84D IL-LGEGF
530	6871VSM250H	6871VSM250H	PWB ASSY,AV-ST LGEIL ONLY
550	6871VSM535A	6871VSM535A	PWB ASSY,CONT S40 FRONT CKD
560	6871VSM414A	6871VSM414A	PWB ASSY,S/W TURBO,F/CKD
600	6871VSM534D	6871VSM534D	PWB ASSY,SIDA AV CKD IL
700	0IGL120104A	0IGL120104A	IC,CDS SENSOR MODULE(P1201-04)
913	332-057B	332-057J	SCREW ASSY,HEXAGON HEAD
943	1PTF0403116	1PTF0403116	SCREW,TAP TITE D4.0 L16.0 MSWR3/FZB
Δ P801	174-009E	174-009E	CORD,POWER(W/HOLD,HOUSING,L=200,4.0

EXPLODED VIEW:20/21S12EH



EXPLODED VIEW PARTS LIST

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

NO	PART NO		DESCRIPTIONS
	20"	21"	
Δ 104	343-B52A	343-B52A	SUPPORTER,PCB
112	2426GCA40CD	2426GCA60CB	CPT SET
120	120-D38F	120-D38F	SPEAKER,C131P01-044K14 8 OHM
121	4810V00071B	4810V00071B	BRACKET,COVER (SPK)
Δ 150	150-D02Y	150-D02X	COIL,DEGAUSSING
Δ 170	170-A01D	170-A01D	LEAD SET,CPT EARTH
300	3091V00119B	3091V00119B	CABINET ASSY
310	5020V00209A	5020V00208A	BUTTON,CONTROL 6KEY
320	320-062H	320-070G	SPRING,COIL
330	5020V00211A	5020V00210A	BUTTON,POWER
400	3809V00085A	3809V00085A	BACK COVER ASSY
520	6871VMM678C	6871VMM678D	PWB ASSY,MAIN
530	6871VSM250H	6871VSM250H	PWB ASSY,AV-ST LGEIL ONLY
700	0IGL120104A	0IGL120104A	IC,CDS SENSOR MODULE(P1201-04)
913	332-057B	332-057J	SCREW ASSY,HEXAGON HEAD
943	1PTF0403116	1PTF0403116	SCREW,TAP TITE D4.0 L16.0
Δ P801	174-009E	174-009E	CORD,POWER(W/HOLD,HOUSING,L=200,4.0

REPLACEMENT PARTS LIST

The components identified by mark Δ is critical for safety.
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CE : Electrolytic
RD : Carbon Film
RS : Metal Oxide Film
RN : Metal Film
RF : Fusible

LOCA. NO	PART NO	DESCRIPTION
IC		
IC01	0ICTMHY007A	IC,GMS81C4040-TC021 HYUNDAI 52SDI
"	0ICTMHY008A	IC,GMS81C4040-TC023
ICS01	0ISG742900A	IC,TDA7429 42P,SDIP BK DIGITAL CO
IC02	0IAL241600B	IC,AT24C16-10PC 8D EEPROM 16K
IC03	0IFA754207A	IC,KA75420ZTA(KA7542ZTA) 3P,TO-9
IC04	0ISA722200A	IC,LA7222(1280 AUDIO)
IC202	0ISG405200B	IC,HCF4052BE 16P,DIP BK DIFF-4CH
IC301	0IPH835150A	IC,TDA8351/N6 9P,SIP BK V/OUT(W/O
IC501	0IPH884212A	IC,TDA8842(S1)/N2 56P,SDIP BK MUL
IC601	0ISG729700A	IC,TDA7297 15P,SIP BK 2CH 15W DUA
IC602	0IFA754207A	IC,KA75420ZTA(KA7542ZTA) 3P,TO-92
Δ IC801	0ILI817000G	IC,LTV817M-VB 4P,DIP BK PHOTO COU
Δ IC802	0ITF435000A	IC,4N35(G)V 6D PHOTO COUPLER
Δ IC803	0ISK665413A	IC,STR-F6654(LF1352) 5P,SIP BK ST
Δ IC804	0ISK115000A	IC,SE115N(LF12) 3P 115V ERROR AMP
IC840	0ISS780500J	IC,KA78L05AZ TO-92 TP 5V REGULATO
IC841	0ISS780800H	IC,KA78R08 4P,TO-220F BK LOW DROP
IC901	0IPH610700A	IC,TDA6107Q SIP9 BK VIDEO OUT AMP
PG01	0IZZVF0017B	IC,DRAWING SEIN BK GAME MODULE
DIODE		
D01	0DD414809ED	DIODE,1N4148 TA
D101	0DD414809ED	DIODE,1N4148 TA
D401	0DD150009CA	DIODE,RECTIFIER RGP15J,TP(52MM)
D501	0DD414809ED	DIODE,1N4148 TA
D502	0DD414809ED	DIODE,1N4148 TA
D503	0DD414809ED	DIODE,1N4148 TA
D504	0DD414809ED	DIODE,1N4148 TA
D509	0DD414809ED	DIODE,1N4148 TA
D741	0DR149379AA	DIODE,RECTIFIER 1N4937G TP
D742	0DD150009CA	DIODE,RECTIFIER RGP15J,TP(52MM)
D743	0DR149379AA	DIODE,RECTIFIER 1N4937G TP
D802	0DD100009AM	DIODE,RECTIFIER EU1ZV(1) TP
D803	0DD414809ED	DIODE,1N4148 TA
D804	0DD120000BB	DIODE,RECTIFIER FML-G12S
D805	0DD200009AC	DIODE,RECTIFIER RG2 V(1)
D806	0DD100009AM	DIODE,RECTIFIER EU1ZV(1)
D807	0DD300009AC	DIODE,RECTIFIER RU3AMV(1)
D808	0DD200009AF	DIODE,RECTIFIER RU2M V(1)
D901	0DR140049AC	DIODE,RECTIFIER 1N4004A T-81
D902	0DR210009AC	DIODE,RECTIFIER BAV21 TP
D903	0DR210009AC	DIODE,RECTIFIER BAV21 TP
D904	0DR210009AC	DIODE,RECTIFIER BAV21 TP
DB801	0DD260000BD	DIODE,BRIDGE D2SBA60
LD01	0DD000000BA	DIODE,RECTIFIER LAMP
ZD01	0DZ510009AB	DIODE,ZENER MTZ5.1B,TP(52MM),ROHM
ZD02	0DZ510009AB	DIODE,ZENER MTZ5.1B,TP(52MM),ROHM

LOCA. NO	PART NO	DESCRIPTION
ZD90	0DZ910009AJ	DIODE,ZENER MTZJ9.1B TP ROHM-K DO34
ZD101	0DZ510009AB	DIODE,ZENER MTZ5.1B,TP(52MM),ROHM
ZD102	0DZ330009BA	DIODE,ZENER HZT33(TP) HITACHI
ZD501	0DZ180009AG	DIODE,ZENER MTZJ18B TP ROHM-K DO34
ZD502	0DZ510009AB	DIODE,ZENER MTZ5.1B,TP(52MM),ROHM
ZD503	0DZ510009AB	DIODE,ZENER MTZ5.1B,TP(52MM),ROHM
ZD602	0DZ910009AJ	DIODE,ZENER MTZJ9.1B TP ROHM-K DO34 0.5W 9
ZD651	0DZ120009AF	DIODE,ZENER MTZJ12B TP ROHM-K DO34 500MW 1
ZD741	0DZ820009AH	DIODE,ZENER MTZJ8.2B TP ROHM-K DO34 500MW
ZD742	0DZ820009AH	DIODE,ZENER MTZJ8.2B TP ROHM-K DO34 500MW
ZD901	0DZ750009AG	DIODE,ZENER MTZJ7.5B TP ROHM-K DO34 0.5W 7
ZD902	0DZ750009AG	DIODE,ZENER MTZJ7.5B TP ROHM-K DO34 0.5W 7
ZD903	0DZ750009AG	DIODE,ZENER MTZJ7.5B TP ROHM-K DO34 0.5W 7
ZD904	0DZ750009AG	DIODE,ZENER MTZJ7.5B TP ROHM-K DO34 0.5W 7
TRANSISTOR		
Q01	0TR945009AA	TR,KSC945C-Y TP SAMSUNG
Q02	0TR102009AB	TR,KRC102M,TP(KRC1202),KEC
Q102	0TR319709AB	TR,KTC3197,TP(KTC388A),KEC
Q501	0TR733009AA	TR,KSA733C-Y TP SAMSUNG TO-92
Q505	0TR733009AA	TR,KSA733C-Y TP SAMSUNG TO-92
Q506	0TR733009AA	TR,KSA733C-Y TP SAMSUNG TO-92
Q511	0TR733009AA	TR,KSA733C-Y TP SAMSUNG TO-92
Q512	0TR945009AA	TR,KSC945C-Y TP SAMSUNG
Q514	0TR102009AB	TR,KRC102M,TP(KRC1202),KEC
Q651	0TR945009AA	TR,KSC945C-Y TP SAMSUNG
Q653	0TR945009AA	TR,KSC945C-Y TP SAMSUNG
Q654	0TR945009AA	TR,KSC945C-Y TP SAMSUNG
Q741	0TR249900AA	TR,2SD2499 TO-3P(H)IS TOSHIBA
Q742	0TR322809AA	TR,KTC3228-0 TP(KTC2383),KEC
Q801	0TR102009AB	TR,KRC102M,TP(KRC1202),KEC
Q802	0TR102009AB	TR,KRC102M,TP(KRC1202),KEC
CAPACITOR		
C02	0CE475DK618	4.7UF STD 50V 20% FL TP 5
C03	0CN2220F569	2200P 16V K X TA52
C04	0CN1030F679	10000P 16V M Y TA52
C05	0CN1030F679	10000P 16V M Y TA52
C07	0CN1010K519	100P 50V K B TA52
C08	0CN1010K519	100P 50V K B TA52
C09	0CN1010K519	100P 50V K B TA52
C10	181-007E	MPE ECQ-V1H184JL3(TR)50V 0.1
C11	0CE106DF618	10UF STD 16V M FL TP5
C12	0CE335DK618	3.3UF STD 50V 20% FL TP 5
C13	0CN1020K519	1000P 50V K B TA52
C15	0CN1010K519	100P 50V K B TA52
C18	0CX1000K409	10P 50V J SL TA52
C19	0CN1030F679	10000P 16V M Y TA52
C20	0CE107DD618	100UF STD 10V M FL TP5

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 is
critical for safety.
Replace only with part number specified.

LOCA. NO	PART NO	DESCRIPTION
C21	0CX1000K409	10P 50V J SL TA52
C22	0CE106DF618	10UF STD 16V M FL TP5
C23	0CE106DF618	10UF STD 16V M FL TP5
C24	0CE106DF618	10UF STD 16V M FL TP5
C25	0CE106DF618	10UF STD 16V M FL TP5
C26	0CE106DF618	10UF STD 16V M FL TP5
C28	0CE107DF618	100UF STD 16V M FL TP5
C80	0CN1030F679	10000P 16V M Y TA52
C81	0CE476DF618	47UF STD 16V M FL TP5
C83	0CN1020K519	1000P 50V K B TA52
C90	0CC2700K415	27P 50V J NP0 TP
C91	0CC2700K415	27P 50V J NP0 TP
C102	0CE335DK618	3.3UF STD 50V 20% FL TP 5
C103	0CN1030F679	10000P 16V M Y TA52
C104	0CE226DH618	22UF STD 25V M FL TP5
C105	0CE475DK618	4.7UF STD 50V 20% FL TP 5
C106	0CN1030F679	10000P 16V M Y TA52
C107	0CN1030F679	10000P 16V M Y TA52
C108	0CN1030F679	10000P 16V M Y TA52
C109	0CN1010K519	100P 50V K B TA52
C110	0CE226DH618	22UF STD 25V M FL TP5
C111	0CN1020K519	1000P 50V K B TA52
C113	0CN1010K519	100P 50V K B TA52
C114	0CN1010K519	100P 50V K B TA52
C210	0CN1030F679	10000P 16V M Y TA52
C211	0CE225DK618	2.2UF STD 50V 20% FL TP 5
C231	0CE226DH618	22UF STD 25V M FL TP5
C232	0CE226DH618	22UF STD 25V M FL TP5
C233	0CE227DF618	220UF STD 16V M FL TP5
C301	0CN1010K519	100P 50V K B TA52
C302	0CN1020K519	1000P 50V K B TA52
C303	0CE226DK618	22UF STD 50V M FL TP5
C304	0CE227DH618	220UF STD 25V M FL TP5
C305	181-442Z	PE,ECQ-B1H104KF3(TR)
C306	181-442Z	PE,ECQ-B1H104KF3(TR)
C307	0CQ1531N509	0.015U 100V K POLY
C308	0CE334DK618	0.3300UF STD 50V M FL
C309	0CQ1031N509	0.01U 100V K POLY
C310	0CN1020K519	1000P 50V K B TA52
C311	0CN1020K519	1000P 50V K B TA52
C401	181-013C	MPP 200V 0.39UF J
"(21)"	181-013B	MPP 200V 0.36UF J
C402	0CE475DP618	4.7UF STD 160V 20% FL
C403	181-015P	MPP 1600V 0.0075UF H
"(21)"	181-015F	MPP 1600V 0.0073UF H
C404	0CK8210W515	820P 500V K B TS
C504	181-442Z	PE,ECQ-B1H104KF3(TR)
C506	181-442Z	PE,ECQ-B1H104KF3(TR)
C507	0CE105DK618	1UF STD 50V M FL TP5
C508	181-442Z	PE,ECQ-B1H104KF3(TR)
C509	0CN1040K949	0.1M 50V Z F TA52
C510	0CE107DF618	100UF STD 16V M FL TP5

LOCA. NO	PART NO	DESCRIPTION
C511	181-007H	MPE ECQ-V1H474JL3(TR)50V 0.4
C512	0CE225CK636	2.2UF SHL,SD 50V 20%
C513	181-007F	MPE ECQ-V1H224JL3(TR)50V 0.2
C514	181-442Z	PE,ECQ-B1H104KF3(TR)
C521	0CC2210K415	220P 50V J NPO TP
C522	0CC2710K415	270P 50V J NPO
C523	0CQ1021N509	0.001U 100V K
C524	181-442Z	PE,ECQ-B1H104KF3(TR)
C525	0CN1040K949	0.1M 50V Z F TA52
C526	0CE107DF618	100UF STD 16V M FL TP5
C527	0CE106DF618	10UF STD 16V M FL TP5
C528	0CN1010K519	100P 50V K B TA52
C531	0CE104DK618	0.1000UF STD 50V M FL TP5
C532	0CQ2721N409	0.0027M 100V J POLY
C533	0CE105DK618	1UF STD 50V M FL TP5
C534	0CQ4721N509	0.0047U 100V K POLY TP
C537	0CN1020K519	1000P 50V K B TA52
C538	0CQ1041N455	0.1000UF 100V J PP NI FM7.5
C539	181-007F	MPE ECQ-V1H224JL3(TR)50V 0.2
C540	0CSZVTA001F	TAP684K035BRS(AMMO)35V 0.68UFK
C541	0CQ2231N509	0.022U 100V K POLY
C542	0CQ3321N509	0.0033U 100V K POLY
C543	0CE106DF618	10UF STD 16V M FL TP5
C544	181-007H	MPE ECQ-V1H474JL3(TR)50V 0.4
C545	0CE335DK618	3.3UF STD 50V 20% FL TP
C548	0CE105DK618	1UF STD 50V M FL TP5
C550	0CN8200K519	82P 50V K B TA52
C551	0CN8200K519	82P 50V K B TA52
C552	0CN8200K519	82P 50V K B TA52
C553	0CE106DF618	10UF STD 16V M FL TP5
C601	0CQ4721N509	0.0047U 100V K POLY
C602	181-007T	MPE ECQ-V1H105JL3(TR)50V 1.0
C604	0CQ4721N509	0.0047U 100V K POLY
C607	0CE105DK618	1UF STD 50V M FL TP5
C609	0CE477DH618	470UF STD 25V M FL TP5
C611	181-007T	MPE ECQ-V1H105JL3(TR)50V 1.0
C613	0CQ1031N509	0.01U 100V K POLY
C616	0CN6820F569	6800P 16V K X TA52
C633	0CE474DK618	0.4700UF STD 50V M FL TP5
C651	0CE106DF618	10UF STD 16V M FL TP5
C652	0CX4700K409	47P 50V J SL TA52
C653	0CX4700K409	47P 50V J SL TA52
C659	0CN1040K949	0.1M 50V Z F TA52
C661	0CE476DF618	47UF STD 16V M FL TP5
C662	0CX6200K409	62P 50V J SL TA52
C741	0CQ1531N509	0.015U 100V K POLY
C743	0CK4710W515	470PF 500V K B TR
C744	0CE475DR618	4.7UF STD 250V 20% FL TP
C745	0CK4710W515	470PF 500V K B TR
C746	0CE337DH618	330UF STD 25V M FL TP5
C747	0CK4710W515	470PF 500V K B TR
C748	0CE107DN618	100UF STD 100V M FL TP5

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LOCA. NO	PART NO	DESCRIPTION
C749	181-009V	PP 200V 0.047UF K
C751	0CQ1031N509	0.01U 100V K POLY
C752	0CE107DH618	100UF STD 25V M FL TP5
C753	0CE474DK618	0.4700UF STD 50V M FL TP5
C801	0CE107BJ618	100UF KME 35V M FL TP5
C802	181-091U	2KV R 221K TP7.5
C803	181-091Q	1KV R 471K TP5
C804	181-442Z	PE,ECQ-B1H104KF3(TR)
C805	0CE227DF618	220UF STD 16V M FL TP5
Δ C806	0CEZVBK002B	220000000F 0 500V M VNSN
C807	0CK10201515	1000P 1KV K B TS
C808	181-091R	1KV R 102K TP5
Δ C809	0CQZVBK002C	A.C 275V 0.22UF K (S=22.5)
Δ C810	0CQZVBK002C	A.C 275V 0.22UF K (S=22.5)
Δ C811	181-120N	1000PF 4KV M E FMTW LEAD4.5
Δ C812	181-120N	1000PF 4KV M E FMTW LEAD4.5
C813	0CK4710W515	470PF 500V K B TR
C814	0CE108DH618	1000UF STD 25V M FL TP5
C815	181-091Q	1KV R 471K TP5
C816	0CE108BF618	1000UF KME 16V M FL TP5
C817	181-091Q	1KV R 471K TP5
C818	0CE107DH618	100UF STD 25V M FL TP5
C819	181-091R	1KV R 102K TP5
C820	0CE227DP650	220UF STD 160V M FM7.5 BULK
C821	0CE107CP618	100U SHL 160V M FL TP5
C822	0CE107DD618	100UF STD 10V M FL TP5
C823	0CK4710K515	470PF 50V K B TR
C829	181-011B	0.001UF D 1.6KV J M/PP NI
C830	0CE475DK618	4.7UF STD 50V 20% FL TP 5
C903	0CQ1044R539	0.1UF TE 250V K M/PE NI TP5
C905	0CE106DR618	10UF STD 250V M FL TP5
C906	0CE475DR618	4.7UF STD 250V 20% FL TP 5
C907	181-033S	2KV B 122K TP7.5
CS01	0CQ2231N509	0.022U 100V K POLY
CS02	0CQ2231N509	0.022U 100V K POLY
CS03	0CQ4721N509	0.0047U 100V K POLY
CS04	181-442Z	PE,ECQ-B1H104KF3(TR)
CS05	0CQ1221N419	0.0012U 100V J POLY NI TP
CS06	0CQ5621N509	0.0056U 100V K POLY
CS07	181-007J	MPE ECQ-V1H564JL3(TR)50V 0.5
CS08	0CE225CK636	2.2UF SHL,SD 50V 20% FM5
CS09	0CE225CK636	2.2UF SHL,SD 50V 20% FM5
CS10	0CE225CK636	2.2UF SHL,SD 50V 20% FM5
CS11	181-442Z	PE,ECQ-B1H104KF3(TR)
CS12	181-442Z	PE,ECQ-B1H104KF3(TR)
CS13	181-442Z	PE,ECQ-B1H104KF3(TR)
CS14	181-442Z	PE,ECQ-B1H104KF3(TR)
CS15	0CQ2231N509	0.022U 100V K POLY
CS16	0CQ1831N509	0.018U 100V K POLY TP5
CS17	0CQ2231N509	0.022U 100V K POLY
CS18	0CQ1831N509	0.018U 100V K POLY TP5
CS19	0CQ5621N509	0.0056U 100V K POLY

LOCA. NO	PART NO	DESCRIPTION
CS20	0CQ5621N509	0.0056U 100V K POLY
CS21	0CE474DK618	0.4700UF STD 50V M FL TP5
CS22	181-007H	MPE ECQ-V1H474JL3(TR)50V 0.4
CS23	0CE474DK618	0.4700UF STD 50V M FL TP5
CS25	181-007H	MPE ECQ-V1H474JL3(TR)50V 0.4
CS26	181-007H	MPE ECQ-V1H474JL3(TR)50V 0.4
CS27	0CE226DF618	22UF STD 16V M FL TP5
CS28	0CE106DF618	10UF STD 16V M FL TP5
CS29	0CN1040K949	0.1M 50V Z F TA52
J123	0CN1510K519	150P 50V K B TA52
CORE		
FB601	125-123A	CORE (CIRC),FERRITE BFD3565R2F
FB602	125-123A	CORE (CIRC),FERRITE BFD3565R2F
FB741	125-022K	CORE (CIRC),FERRITE 1UH TAPING
FB801	125-022K	CORE (CIRC),FERRITE 1UH TAPING
FB802	125-022K	CORE (CIRC),FERRITE 1UH TAPING
FB803	125-123A	CORE (CIRC),FERRITE BFD3565R2F
FB804	125-022K	CORE (CIRC),FERRITE 1UH TAPING
FB805	125-123A	CORE (CIRC),FERRITE BFD3565R2F
COIL & TRANSFORMER		
L02	0LA0102K119	INDUCTOR,10UH K
L03	0LA0102K119	INDUCTOR,10UH K
L04	0LA0102K119	INDUCTOR,10UH K
L05	0LA0102K119	INDUCTOR,10UH K
L06	0LA0102K119	INDUCTOR,10UH K
L101	0LA0560K119	INDUCTOR,0.56UH K
L301	0LA0102K139	INDUCTOR,10UH K
L302	0LA0102K139	INDUCTOR,10UH K
L401	150-L02C	COIL,H-LINEARITY 170UH
L503	0LA0681K119	INDUCTOR,6.8UH K
L506	0LA0102K119	INDUCTOR,10UH K
L507	0LA1000K119	INDUCTOR,100UH K
L508	0LA1000K119	INDUCTOR,100UH K
L510	0LA0102K119	INDUCTOR,10UH K
L521	0LA0561K119	INDUCTOR,5.6UH K
L522	0LA0561K119	INDUCTOR,5.6UH K
L523	0LA0561K119	INDUCTOR,5.6UH K
L652	0LA0122K119	INDUCTOR,12UH K
L653	0LA0561K119	INDUCTOR,5.6UH K
L802	150-C02F	COIL,CHOKE 82UH R1217
L901	150-C02A	COIL,CHOKE 10UH R0814
LS01	0LA0102K119	INDUCTOR,10UH K 2.3*3.4 TP
Δ T401	6170VC0003A	TRANSFORMER,H-DRIVER DRUM 10MM
Δ T701	6174Z-8005E	FBT,FTSPN13-T8005E
"(21)"	6174Z-8005A	FBT,FTSPN13-T8005A
Δ T802	151-A13P	TRANSFORMER,SMPS EC4215 265UH F6654
RESISTOR		
AR01	180-E01K	470 OHM 5% 1.778P 4.7K*8 1/8W
FR703	0RF0101K607	1 OHM 2 W 5.00% TA62

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LOCA. NO	PART NO	DESCRIPTION
Δ FR704	0RF0470H609	0.47 OHM 1/2 W 5.00% TA52
Δ FR742	0RF0470J607	0.47 OHM 1 W 5.00% TA62
Δ FR743	0RF0470J607	0.47 OHM 1 W 5.00% TA62
Δ FR802	0RF0470H609	0.47 OHM 1/2 W 5.00% TA52
FR901	0RF0101K607	1 OHM 2 W 5.00% TA62
"(21")	0RF0141K607	1.4 OHM 2 W 5.00% TA62
J7	0RD4700F609	470 OHM 1/6 W 5.00% TA52
J20	0RD4700F609	470 OHM 1/6 W 5.00% TA52
R01	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R02	0RD6200F609	620 OHM 1/6 W 5.00% TA52
R03	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R04	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R06	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R07	0RD6200F609	620 OHM 1/6 W 5.00% TA52
R08	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R09	0RD9100F609	910 OHM 1/6 W 5.00% TA52
R10	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R11	0RD1801F609	1.8K OHM 1/6 W 5.00% TA52
R12	0RD3001F609	3K OHM 1/6 W 5.00% TA52
R13	0RD3601F609	3.6K OHM 1/6 W 5.00% TA52
R14	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R15	0RD1102F609	11K OHM 1/6 W 5.00% TA52
R16	0RD3001F609	3K OHM 1/6 W 5.00% TA52
R17	0RD4702F609	47K OHM 1/6 W 5.00% TA52
R18	0RD1002F609	10K OHM 1/6 W 5.00% TA52
R19	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R20	0RD0102F609	10 OHM 1/6 W 5.00% TA52
R21	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R22	0RD1002F609	10K OHM 1/6 W 5.00% TA52
R24	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R25	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R26	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R27	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R28	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R29	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R30	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R30	0RD9100F609	910 OHM 1/6 W 5.00% TA52
R31	0RD6200F609	620 OHM 1/6 W 5.00% TA52
R33	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R34	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R35	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R36	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R38	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R39	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R40	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R43	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R44	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R52	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R53	0RD2001F609	2K OHM 1/6 W 5.00% TA52
R54	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R57	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R58	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52

LOCA. NO	PART NO	DESCRIPTION
R59	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R61	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R63	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R65	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R68	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R70	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R72	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R74	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R80	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R81	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R82	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R83	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R84	0RD4700F609	470 OHM 1/6 W 5.00% TA52
R85	0RD4700F609	470 OHM 1/6 W 5.00% TA52
R86	0RD4700F609	470 OHM 1/6 W 5.00% TA52
R90	0RD6200F609	620 OHM 1/6 W 5.00% TA52
R91	0RD1500F609	150 OHM 1/6 W 5.00% TA52
R92	0RD1500F609	150 OHM 1/6 W 5.00% TA52
R101	0RD1202F609	12K OHM 1/6 W 5.00% TA52
R102	0RD1002F609	10K OHM 1/6 W 5.00% TA52
R103	0RD1802F609	18K OHM 1/6 W 5.00% TA52
R104	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R105	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R106	0RS0272J607	27 OHM 1 W 5.00% TA62
R108	0RD0682F609	68 OHM 1/6 W 5.00% TA52
R109	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R110	0RD5101F609	5.1K OHM 1/6 W 5.00% TA52
R111	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R115	0RD0562F609	56 OHM 1/6 W 5.00% TA52
R118	0RD6800F609	680 OHM 1/6 W 5.00% TA52
R208	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R210	0RD2701F609	2.7K OHM 1/6 W 5.00% TA52
R229	0RD1501F609	1.5K OHM 1/6 W 5.00% TA52
R230	0RD1501F609	1.5K OHM 1/6 W 5.00% TA52
R235	0RD0562F609	56 OHM 1/6 W 5.00% TA52
R236	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R236	0RD2203F609	220K OHM 1/6 W 5.00% TA52
R237	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R238	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R238	0RD2203F609	220K OHM 1/6 W 5.00% TA52
R240	0RD0752F609	75 OHM 1/6 W 5.00% TA52
R241	0RD2203F609	220K OHM 1/6 W 5.00% TA52
R242	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R243	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R290	0RD5100H609	510 OHM 1/2 W 5.00% TA52
R291	0RD5100H609	510 OHM 1/2 W 5.00% TA52
R301	0RN2701F409	2.7K OHM 1/6 W 1.00% TA52
R302	0RD1303F609	130K OHM 1/6 W 5.00% TA52
"(21")	0RD1503F609	150K OHM 1/6 W 5.00% TA52
R304	0RN0121J607	1.2 OHM 1 W 5.00% TA62
"(21")	0RN0680J607	0.68 OHM 1 W 5.00% TA62
R305	0RD0202F609	20 OHM 1/6 W 5.00% TA52

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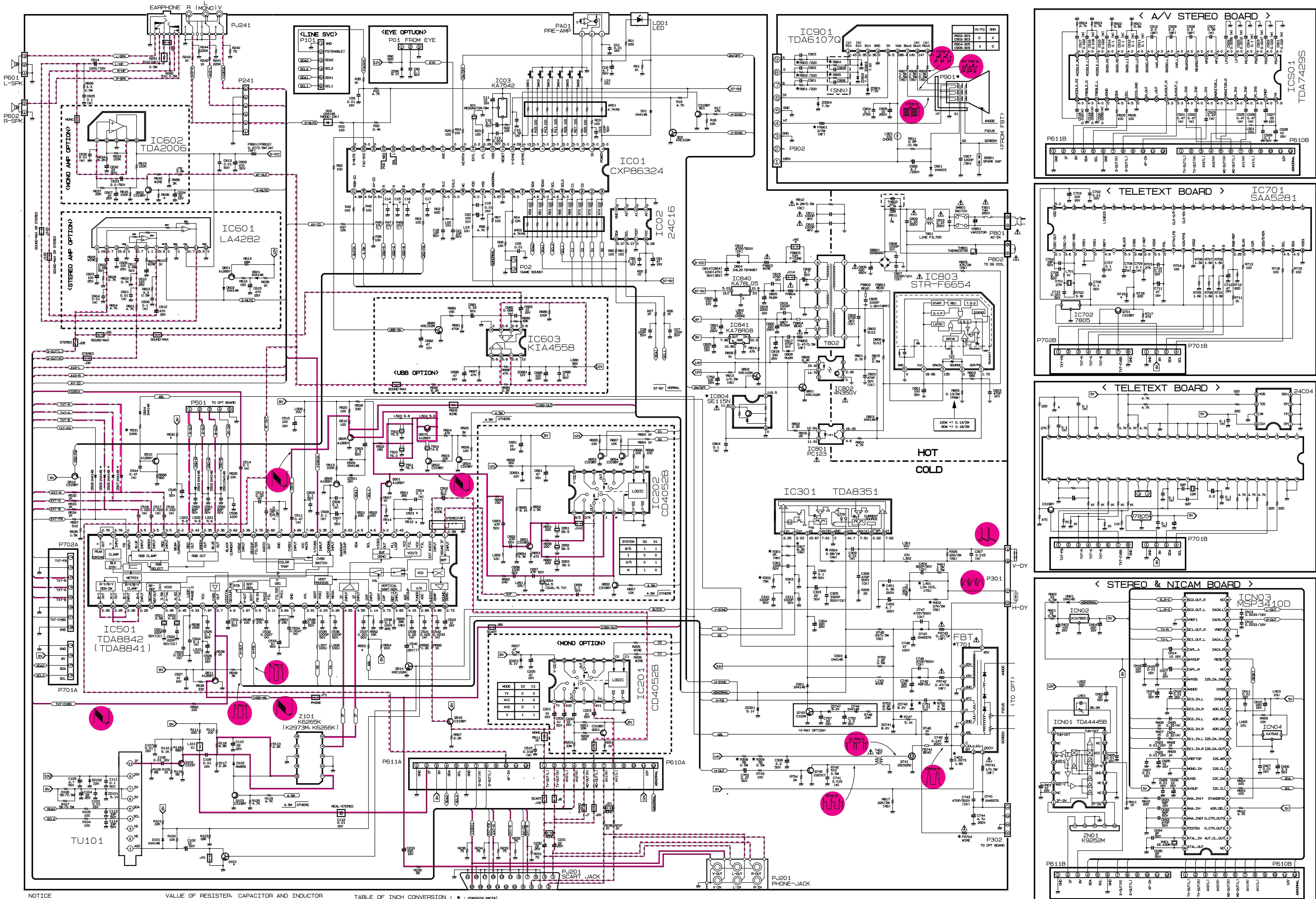
LOCA. NO	PART NO	DESCRIPTION
R306	0RS1800K607	180 OHM 2 W 5.00% TA62
“(21)”	0RS2200K607	220 OHM 2 W 5.00% TA62
R307	0RN6202F409	62K OHM 1/6 W 1.00% TA52
“(21)”	0RN3001F409	3K OHM 1/6 W 1.00% TA52
R308	0RD0752H609	75 OHM 1/2 W 5.00% TA52
R401	0RD1501H609	1.5K OHM 1/2 W 5.00% TA52
R402	0RS2702K607	27K OHM 2 W 5.00% TA62
R501	0RD2001F609	2K OHM 1/6 W 5.00% TA52
R502	0RD1500F609	150 OHM 1/6 W 5.00% TA52
R507	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R508	0RD3300F609	330 OHM 1/6 W 5.00% TA52
R510	0RD1200F609	120 OHM 1/6 W 5.00% TA52
R512	0RD1504F609	1.5M OHM 1/6 W 5.00% TA52
R513	0RD1003F609	100K OHM 1/6 W 5.00% TA52
R515	0RD0222F609	22 OHM 1/6 W 5.00% TA52
R516	0RD1202F609	12K OHM 1/6 W 5.00% TA52
R520	0RD1200F609	120 OHM 1/6 W 5.00% TA52
R521	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R522	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R525	0RD1002F609	10K OHM 1/6 W 5.00% TA52
R531	0RD9102F609	91K OHM 1/6 W 5.00% TA52
“(21)”	0RD1503F609	150K OHM 1/6 W 5.00% TA52
R535	0RD1501F609	1.5K OHM 1/6 W 5.00% TA52
R536	0RD1503F609	150K OHM 1/6 W 5.00% TA52
R538	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R539	0RD3300F609	330 OHM 1/6 W 5.00% TA52
R548	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R549	0RD3001F609	3K OHM 1/6 W 5.00% TA52
R550	0RD2702F609	27K OHM 1/6 W 5.00% TA52
R551	0RD1502F609	15K OHM 1/6 W 5.00% TA52
R552	0RD1502F609	15K OHM 1/6 W 5.00% TA52
R554	0RD9102F609	91K OHM 1/6 W 5.00% TA52
R555	0RN3902F409	39K OHM 1/6 W 1.00% TA52
R556	0RD1201F609	1.2K OHM 1/6 W 5.00% TA52
R601	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R603	0RD5601H609	5.6K OHM 1/2 W 5.00% TA52
R604	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R612	0RD2700F609	270 OHM 1/6 W 5.00% TA52
R635	0RD1102F609	11K OHM 1/6 W 5.00% TA52
R636	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R651	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R652	0RD1501F609	1.5K OHM 1/6 W 5.00% TA52
R653	0RD4700F609	470 OHM 1/6 W 5.00% TA52
R654	0RD3301F609	3.3K OHM 1/6 W 5.00% TA52
R655	0RD9101F609	9.1K OHM 1/6 W 5.00% TA52
R656	0RD2000F609	200 OHM 1/6 W 5.00% TA52
R658	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R659	0RD3000F609	300 OHM 1/6 W 5.00% TA52
R660	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R663	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R664	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R665	0RD1002F609	10K OHM 1/6 W 5.00% TA52

LOCA. NO	PART NO	DESCRIPTION
R666	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R667	0RD1002F609	10K OHM 1/6 W 5.00% TA52
R668	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R742	0RD5100H609	510 OHM 1/2 W 5.00% TA52
R743	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R745	0RF0222H609	22 OHM 1/2 W 5.00% TA52
R746	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R747	0RS8201H609	8.2K OHM 1/2 W 5.00% TA52
“(21)”	0RD1002H609	10K OHM 1/2 W 5.00% TA52
R750	0RD4701H609	4.7K OHM 1/2 W 5.00% TA52
R752	0RD1201H609	1.2K OHM 1/2 W 5.00% TA52
R753	0RD8201H609	8.2K OHM 1/2 W 5.00% TA52
R754	0RD2001F609	2K OHM 1/6 W 5.00% TA52
R801	0RD2701F609	2.7K OHM 1/6 W 5.00% TA52
R802	0RD2201F609	2.2K OHM 1/6 W 5.00% TA52
R803	0RD6800F609	680 OHM 1/6 W 5.00% TA52
R804	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R805	180-A01P	0.13 OHM 2 W 5% TA62 RWR
R806	0RD2401F609	2.4K OHM 1/6 W 5.00% TA52
R808	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R809	0RS4702K607	47K OHM 2 W 5.00% TA62
R811	180-822N	RWR 7W 1.0 OHM J PD
Δ R812	0RKZVTA001C	8.2M OHM 1/2 W 5% TA52 UL PILK
R813	0RS0101H609	1 OHM 1/2 W 5.00% TA52
R814	0RD4702F609	47K OHM 1/6 W 5.00% TA52
R815	0RD0102H609	10 OHM 1/2 W 5.00% TA52
R816	0RD2001F609	2K OHM 1/6 W 5.00% 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
R907	0RS1501H609	1.5K OHM 1/2 W 5.00% TA52
R908	0RS1501H609	1.5K OHM 1/2 W 5.00% TA52
R909	0RS1501H609	1.5K OHM 1/2 W 5.00% TA52
R911	0RD2204H609	2.2M OHM 1/2 W 5.00% TA52
R912	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R913	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R914	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R1101	0RD6200F609	620 OHM 1/6 W 5.00% TA52
R1102	0RD1801F609	1.8K OHM 1/6 W 5.00% TA52
R1103	0RD9100F609	910 OHM 1/6 W 5.00% TA52
R1104	0RD3601F609	3.6K OHM 1/6 W 5.00% TA52
R1105	0RD1002F609	10K OHM 1/6 W 5.00% TA52
RS01	0RD5601F609	5.6K OHM 1/6 W 5.00% TA52
RS02	0RD5601F609	5.6K OHM 1/6 W 5.00% TA52
RS03	0RD2701F609	2.7K OHM 1/6 W 5.00% TA52
RS04	0RD2701F609	2.7K OHM 1/6 W 5.00% TA52
RS05	0RD1000F609	100 OHM 1/6 W 5.00% TA52
RS06	0RD1000F609	100 OHM 1/6 W 5.00% TA52
SPARK GAP		
SG901	165-004A	SPARK GAP,AG20PT 152F-L3N/S-23
SG902	6918VAX002A	SPARK GAP,SSA-351N-A1 350V 30% 5MM

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LOCA. NO	PART NO	DESCRIPTION
SG903	6918VAX002A	SPARK GAP,SSA-351N-A1 350V 30% 5MM
SG904	6918VAX002A	SPARK GAP,SSA-351N-A1 350V 30% 5MM
SWITCH		
SW001	140-315A	SWITCH,TACT SKHV17910B LG C&D NON 12V
SW002	140-315A	SWITCH,TACT SKHV17910B LG C&D NON 12V
SW003	140-315A	SWITCH,TACT SKHV17910B LG C&D NON 12V
SW004	140-315A	SWITCH,TACT SKHV17910B LG C&D NON 12V
SW005	140-315A	SWITCH,TACT SKHV17910B LG C&D NON 12V
SW006	140-315A	SWITCH,TACT SKHV17910B LG C&D NON 12V
SW07	140-315A	SWITCH,TACT SKHV17910B LG C&D NON 12V
SW08	140-315A	SWITCH,TACT SKHV17910B LG C&D NON 12V
△ SW801	6600VM2002A	SWITCH,PUSH SDKEA3 IEC 250V 8A HORIZO
SW1101	140-313A	SWITCH,TACT 2LEAD 100G(TA) LG C&D NON
SW1102	140-313A	SWITCH,TACT 2LEAD 100G(TA) LG C&D NON
SW1103	140-313A	SWITCH,TACT 2LEAD 100G(TA) LG C&D NON
SW1104	140-313A	SWITCH,TACT 2LEAD 100G(TA) LG C&D NON
SW1105	140-313A	SWITCH,TACT 2LEAD 100G(TA) LG C&D NON
SW1106	140-313A	SWITCH,TACT 2LEAD 100G(TA) LG C&D NON
FILTER & CRYSTAL		
T501	166-C04C	FILTER,TRAP TPWA02B-TF21 MURATA 5.5MHZ .
T503	166-C02D	FILTER,TRAP TPS6.0MB-TF21 MURATA 6.0MHZ .
T801	150-F06J	FILTER,LINE SQE2930 18MH PHY TURN
X01	156-A01P	CRYSTAL,HC49U SUNNY RADIAL 8.000MHZ
X501	156-A01C	CRYSTAL,HC49U KJE RADIAL 3.579545MHZ
X502	156-A01V	CRYSTAL,HC49U KJE RADIAL 4.433619MHZ
Z101	166-A01Z	FILTER,OFWK2973M SIEMENS 36.5MHZ
Z651	166-B02C	FILTER,SFSH5.5MCB-TF21 MURATA 5.5MHZ
Z652	166-B02E	FILTER,SFSH6.5MCB-TF21 MURATA 6.5MHZ
Z653	166-B02D	FILTER,SFSH6.0MCB-TF21 MURATA 6.0MHZ
ACCESSORIES		
A1	3828VA0208B	MANUAL,OWNERS LGEIL LG EN 027K/029E
A1	3828VA0208D	MANUAL,OWNERS LGEIL LG AR/EN
A2	6710V00027J	REMOTE CONTROLLER EYE W/O TXT
A2	6710V00027K	REMOTE CONTROLLER LG W/O TXT DIGITAL
A2	6710V00018A	REMOTE CONTROLLER GAME
A3	5010V00004B	ANTENNA 2 POLE 3SECTION
MISCELLANEOUS		
TU101	6700VPF009K	TUNER,TAEI-G501D LG INNOTECH PAL DIN
△ F801	0FT4001B53C	FUSE,TIME LAG 4000MA 250V 5.2X20
P01	387-A03F	CONNECTOR ASSY,3P (L=350)
P03B	387-A03E	CONNECTOR ASSY,3P (L=300)
△ P901	6620VBC001A	SOCKET,CPT 29.1 PHI SINGLE(PCS629-03A)
PA01	106-047J	PRE-AMP,SBX2020-82(01) SONY 38.0KHZ
PJ201	6612VJH004A	JACK,RCA PJ6056A 6P STEREO
PJ202	6613V00004B	JACK ASSY,3P
△ TH801	163-012C	THERMISTOR,PTC J502P54E180M290
VD801	164-003K	VARIATOR,SVC621D-14A 620V 0% UL/C

Service Sheet of MC-84A



NOTICE

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

1. Resistor is shown in ohm. K=1,000 M=1,000,000
2. Unless otherwise noted in schematic, all capacitor values are expressed in μF .
3. Unless otherwise noted in schematic, all inductor values are expressed in μH .

OBSERVATION OF VOLTAGE AND WAVEFORMS

1. Voltages read with VTVM from point to ground line voltages 180 - 270 volts bar signal.
2. Voltages reading may vary $\pm 7\%$ - 20% .
3. The schematic shown is representative only.
4. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
5. Check FINE TUNING, AGC, BRIGHTNESS, CONTRAST and COLOR controls for best picture; make sure that BRIGHTNESS and COLOR controls are in mid position and CONTRAST controls is almost in maximum position.
6. Waveforms are taken using a standard color signal.

TABLE OF INCH CONVERSION (continued)

20' (1.8')				20' (1.8')				20' (1.8')				20' (1.8')				20' (1.8')				20' (1.8')			
16' (1.2')				16' (1.2')				16' (1.2')				16' (1.2')				16' (1.2')				16' (1.2')			
12' (0.9')				12' (0.9')				12' (0.9')				12' (0.9')				12' (0.9')				12' (0.9')			
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_____ Video (Composite)
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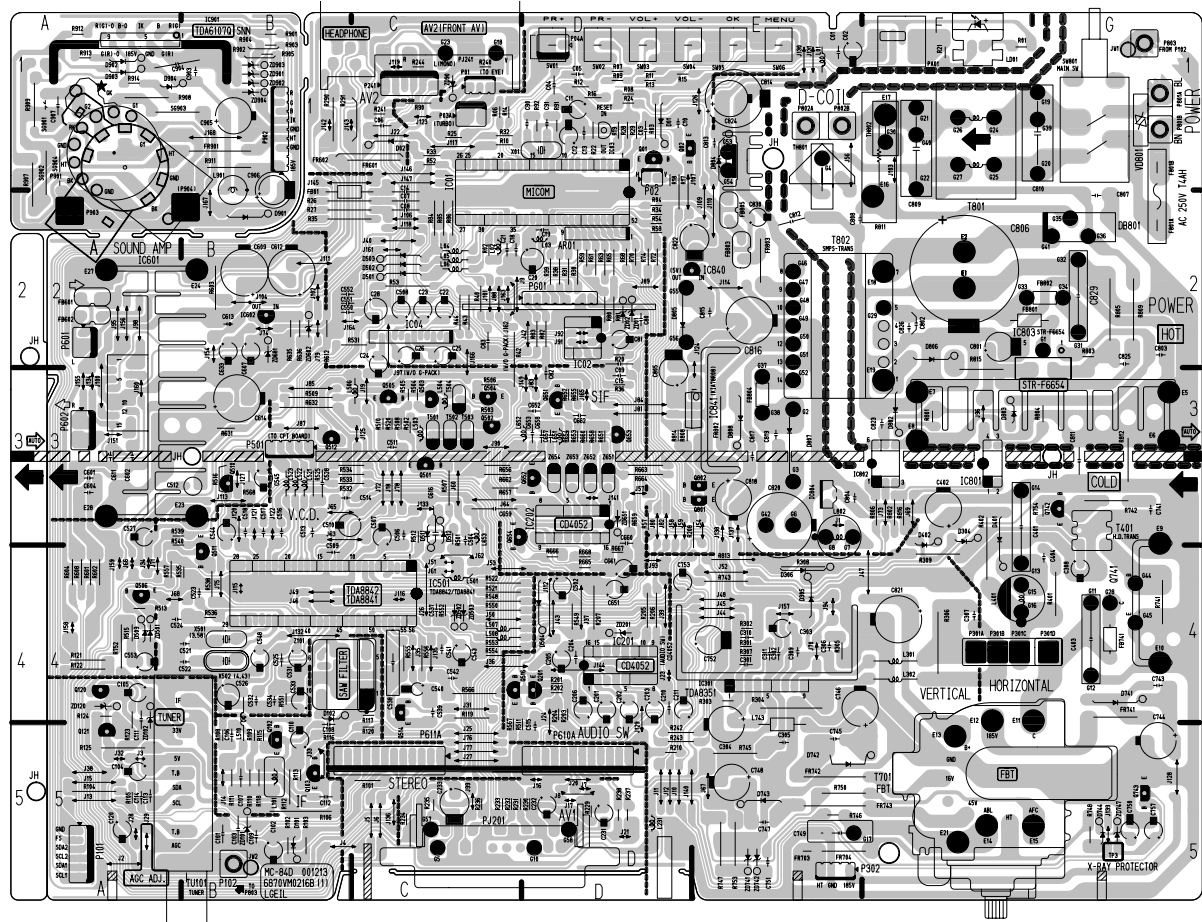


WAVEFORM

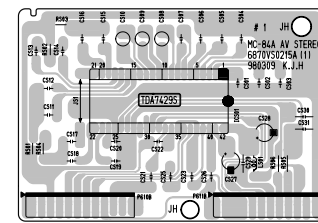
Service Sheet of MC-84A
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PRINTED CIRCUIT BOARD

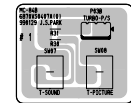
MAIN



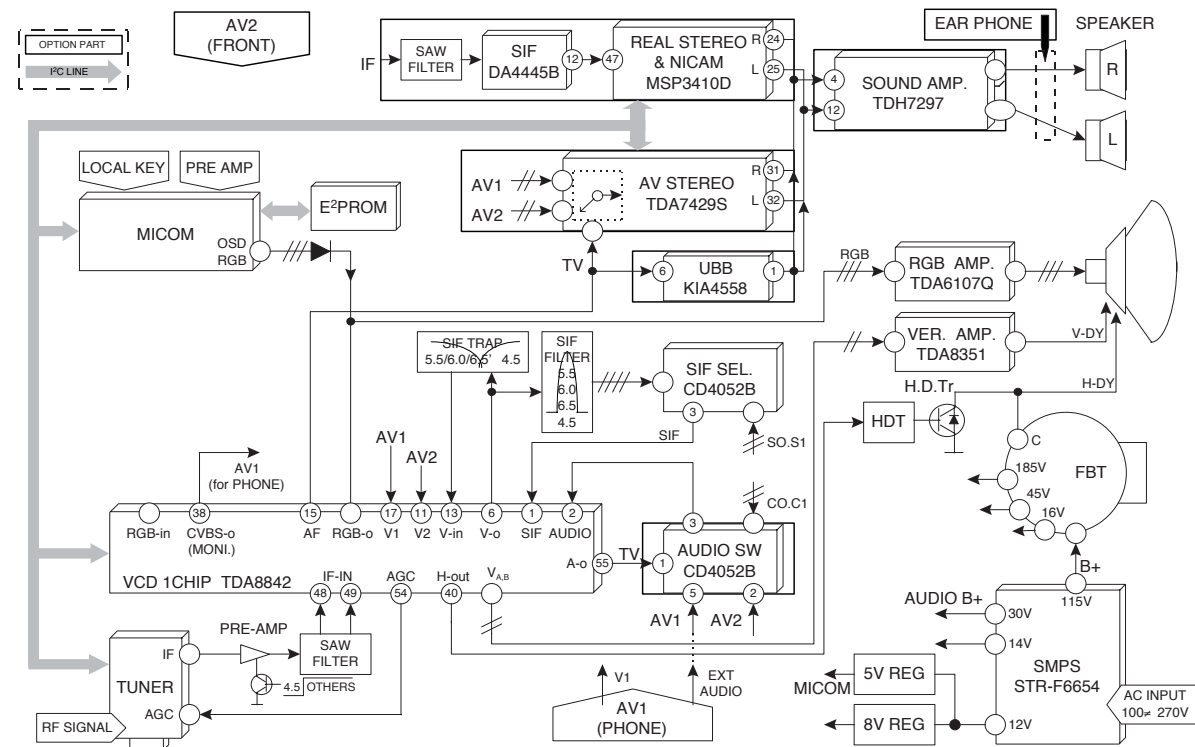
AV STEREO



Turbo Key



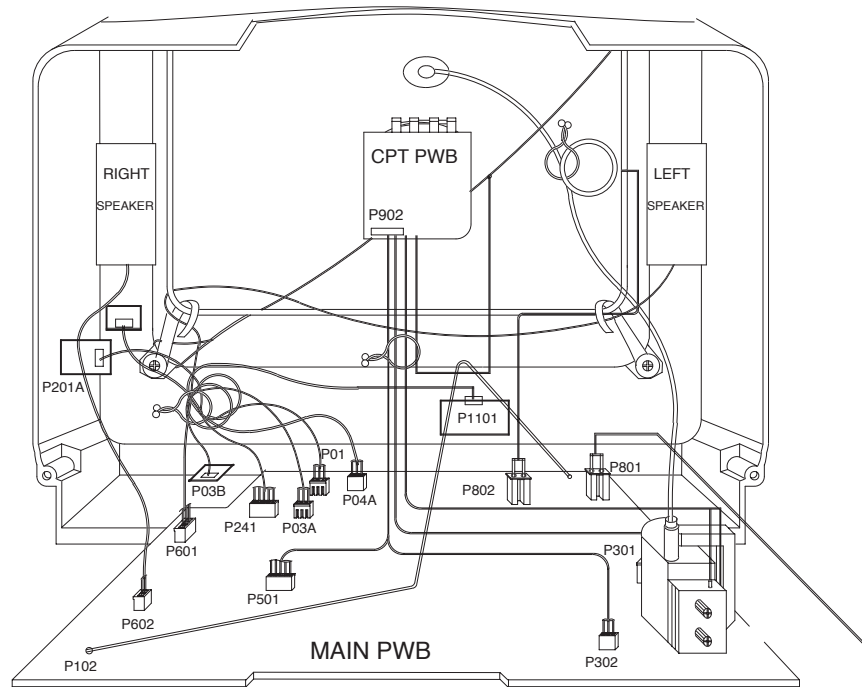
BLOCK DIAGRAM



COMPONENT LOCATION GUIDE(MAIN)

AP01.....D2	C401.....F4	C746.....E4	D808.....E3	L802.....E3	R111.....D1	R118.....B5	R536.....B4	R901.....B1
C01.....E1	C402.....F3	C747.....E5	D801.....B2	L801.....B2	R112.....D1	R119.....C4	R538.....B4	R902.....B1
C02.....E1	C403.....G4	C748.....E5	D902.....A1	L803.....F1	R113.....D1	R120.....C5	R539.....B3	R903.....B1
C03.....D1	C404.....G4	C749.....E5	D903.....A1	P01.....C1	R114.....C1	R121.....A4	R540.....A4	R904.....B1
C04.....D1	C502.....D4	C750.....G5	D904.....B1	P02.....D2	R15.....D1	R122.....A4	R548.....C4	R905.....B1
C05.....D1	C504.....C3	C751.....E5	DB801.....G2	P101.....A5	R16.....D1	R123.....A5	R549.....D4	R907.....A2
C06.....C1	C506.....C4	C752.....E4	FB10A.....G2	P102.....B5	R17.....D2	R124.....A4	R550.....C4	R908.....A1
C07.....D2	C507.....C3	C753.....D4	FB10B.....G1	P103.....C1	R18.....D1	R125.....A5	R551.....B4	R909.....A1
C08.....C2	C508.....C2	C757.....G5	FB01.....B2	P302.....E5	R19.....D1	R201.....D4	R552.....C4	R911.....B1
C09.....D3	C509.....B4	C801.....F2	FB601.....A2	P501.....B3	R20.....D2	R202.....D4	R553.....C4	R912.....A1
C10.....D1	C510.....B3	C802.....F2	FB602.....A2	P601.....A2	R21.....F1	R203.....D5	R554.....C4	R913.....A1
C11.....D1	C511.....C3	C803.....G2	FB741.....G4	P602.....A3	R22.....D1	R204.....D4	R555.....C4	R914.....A1
C12.....D1	C512.....B3	C804.....G2	FB801.....G2	P803.....G1	R24.....D1	R205.....D4	R556.....C4	SG901.....A1
C13.....D1	C513.....B4	C805.....D3	FB802.....F2	P901.....A1	R25.....C1	R206.....D4	R557.....A4	SG902.....A2
C14.....C2	C514.....C3	C806.....F2	FB803.....E2	P902.....B1	R26.....B2	R207.....D4	R566.....C4	SG903.....B1
C15.....D3	C515.....D5	C807.....G2	FB804.....E3	P903.....A2	R27.....B2	R208.....E4	R567.....C5	SG904.....A2
C16.....C2	C516.....B4	C808.....E2	FB805.....E2	P904.....B2	R28.....D1	R210.....D5	R568.....B3	SW01.....D1
C19.....D2	C517.....B4	C809.....F2	FB801.....B1	P30A.....C1	R29.....D1	R229.....D5	R601.....A4	SW02.....D1
C20.....D2	C518.....B4	C810.....G1	FR602.....B1	P40A.....D1	R30.....D2	R230.....D5	R602.....A4	SW03.....D1
C21.....C2	C521.....A4	C811.....G3	FR703.....E5	P301A.....F4	R31.....D2	R231.....C5	R603.....B2	SW04.....D1
C22.....C2	C522.....A4	C812.....E2	FR704.....E5	P301B.....F4	R32.....C1	R232.....C5	R604.....A4	SW05.....E1
C23.....C2	C523.....B4	C813.....E1	FR741.....G4	P301C.....F4	R33.....C1	R233.....C5	R606.....A4	SW06.....E1
C24.....C3	C524.....B4	C814.....E1	FR742.....E5	P301D.....F4	R34.....D2	R234.....C5	R612.....B2	SW801.....G1
C25.....C2	C525.....B4	C815.....E2	FR743.....E5	P610A.....D5	R35.....B2	R235.....C5	R631.....B3	T401.....G4
C26.....C2	C526.....B4	C816.....E2	FR802.....E3	P611A.....C5	R36.....D3	R236.....C5	R632.....B3	T501.....C3
C28.....C2	C527.....A3	C817.....E3	FR803.....E2	P801A.....G1	R38.....D2	R237.....D5	R635.....B2	T502.....C3
C30.....D2	C528.....B3	C818.....E3	FR801.....B1	P801B.....G1	R39.....D2	R238.....D5	R636.....B2	T503.....C3
C81.....D2	C531.....B4	C819.....E3	IC01.....D1	P802A.....C1	R40.....C2	R240.....C1	R651.....D3	T504.....C3
C82.....D3	C532.....B4	C820.....E3	IC02.....D2	P802B.....E1	R42.....C3	R241.....C1	R652.....D3	T701.....F5
C83.....C2	C533.....B4	C821.....F4	IC03.....D1	PA01.....F1	R43.....C2	R242.....D5	R653.....D3	T801.....F3
C90.....D1	C534.....B4	C822.....E2	IC04.....C2	PG01.....D2	R44.....C2	R243.....D5	R654.....D3	T802.....F3
C91.....D1	C537.....F3	C823.....F3	IC201.....D4	PJ201.....C5	R52.....C1	R244.....C1	R655.....D3	TH801.....E2
C101.....B5	C538.....C4	C824.....E1	IC202.....D3	PJ241.....C1	R53.....C2	R250.....B1	R656.....C3	TH802.....F1
C102.....B5	C539.....C5	C825.....G3	IC301.....E4	Q01.....D1	R54.....D2	R291.....B1	R657.....C3	TU101.....B5
C103.....B5	C540.....C4	C826.....F2	IC501.....C4	Q02.....D1	R57.....D2	R301.....E4	R658.....D3	VD801.....G1
C104.....A5	C541.....C4	C829.....G2	IC601.....A3	Q102.....B5	R58.....D2	R302.....E4	R659.....D3	X01.....D1
C105.....A4	C542.....C4	C830.....E2	IC602.....B2	Q103.....B5	R59.....D2	R303.....E4	R660.....D3	X501.....B4
C106.....B5	C543.....C4	C903.....B1	IC801.....F3	Q120.....A4	R61.....D2	R304.....E4	R662.....C3	X502.....B4
C107.....B5	C544.....B3	C904.....A1	IC802.....F3	Q121.....A5	R63.....D2	R305.....E4	R663.....D3	Z101.....C4
C108.....B5	C545.....B3	C905.....B1	IC803.....G2	Q201.....D4	R65.....D2	R306.....F4	R664.....D3	Z651.....D3
C109.....B5	C548.....B4	C906.....B2	IC804.....C3	Q501.....C3	R67.....D2	R307.....E4	R665.....D4	Z652.....D3
C110.....B5	C550.....B2	C907.....A1	IC840.....D2	Q502.....C3	R70.....D2	R308.....E4	R666.....D4	Z653.....D3
C111.....A5	C551.....B2	D01.....D1	IC841.....E3	Q503.....C3	R72.....D2	R309.....F4	R667.....D3	Z654.....D3
C112.....B5	C552.....B2	D02.....C1	IC901.....A1	Q504.....C3	R74.....D2	R401.....G4	R668.....D4	ZD01.....D2
C113.....A5	C553.....A4	D101.....B5	L01.....E1	Q505.....C3	R80.....D2	R402.....F4	R741.....G4	ZD02.....D2
C114.....A5	C601.....A3	D102.....B4	L02.....C2	Q506.....A4	R81.....D2	R501.....C4	R742.....G3	ZD90.....C1
C120.....A5	C602.....A3	D304.....F3	L03.....D2	Q510.....B3	R82.....D2	R502.....C3	R743.....G4	ZD101.....B5
C201.....D4	C604.....A3	D305.....E4	L04.....C2	Q511.....B4	R83.....D2	R503.....C3	R745.....E5	ZD102.....A4
C202.....D4	C607.....B3	D306.....E4	L05.....C2	Q512.....B3	R84.....C2	R504.....C3	R746.....E5	ZD120.....A4
C203.....D4	C609.....B2	D401.....F4	L06.....C2	Q514.....C5	R85.....C2	R505.....C3	R747.....E5	ZD201.....D4
C204.....D4	C611.....A3	D402.....F4	L101.....C4	Q516.....C4	R86.....C2	R506.....C3	R748.....E5	ZD501.....A4
C205.....D4	C612.....B2	D501.....C2	L231.....D5	Q551.....D3	R89.....C1	R507.....C3	R750.....G5	ZD502.....C4
C206.....D4	C613.....B2	D502.....C2	L301.....F4	Q552.....D3	R90.....C1	R508.....C3	R752.....A4	ZD903.....C4
C210.....D4	C614.....B3	D503.....C2	L302.....F4	Q603.....D3	R92.....D1	R509.....B3	R753.....E5	ZD902.....B9
C211.....D4	C616.....C4	D504.....D4	L401.....F4	Q654.....C3	R101.....B5	R510.....C3	R754.....G3	ZD651.....D3
C231.....D5	C633.....B3	D509.....A4	L501.....C4	Q741.....G4	R102.....B5	R511.....D5	R801.....F3	ZD681.....B2
C232.....D5	C651.....D4	D511.....C4	L503.....C3	Q742.....G3	R103.....B5	R612.....C4	R802.....F3	ZD741.....E5
C233.....C5	C652.....D3	D512.....C3	L504.....C3	Q743.....G5	R104.....A5	R613.....A4	R803.....G2	ZD742.....E5
C301.....E4	C653.....D3	D741.....G4	L506.....C3	Q801.....E3	R105.....A5	R515.....A4	R804.....G3	ZD747.....G5
C302.....E4	C657.....D3	D742.....F5	L507.....C4	Q802.....E3	R106.....B5	R516.....B3	R805.....G2	ZD901.....B1
C303.....E4	C658.....D3	D743.....G5	L508.....C4	R01.....F1	R108.....B5	R520.....C3	R806.....F3	ZD902.....B1
C304.....E5	C659.....C3	D744.....G5	L510.....B4	R02.....C2	R109.....B5	R521.....C4	R808.....F3	ZD903.....B1
C305.....E5	C660.....D4	D801.....E1	L521.....B3	R03.....D1	R110.....B5	R622.....C4	R809.....G2	ZD904.....B1
C306.....E4	C661.....D4	D802.....F3	L522.....B3	R04.....D2	R111.....B5	R525.....B3	R811.....F1	
C307.....F4	C662.....D3	D803.....F3	L523.....B3	R06.....C1	R112.....B5	R531.....B2	R812.....G3	
C308.....G4	C741.....G3	D804.....E1	L651.....D3	R07.....D1	R113.....B5	R532.....B3	R813.....E4	
C309.....E4	C743.....G4	D805.....D2	L652.....D3	R08.....D1	R115.....B5	R533.....B3	R814.....D3	
C310.....E4	C744.....G5	D806.....C4	L653.....C4	R09.....D1	R116.....B5	R534.....B3	R815.....F3	
C311.....E4	C745.....E5	D807.....E3	L743.....E5	R10.....C1	R117.....C4	R535.....B4	R816.....F3	

WIRING DIAGRAM



SVC. SHEET : 3854VA0079A-S