LCD Television with NTSC/ATSC Tuner

FLM-2632, FLM-2632M, FLM-2634B, FLM-3232, FLM-3232M, FLM-323B, FLM-3234B, FLM-3732, FLM-373B, FLM-3734B, FLM-3732M

Polaroid

SERVICE MANUAL

20060418

IMPORTANT SERVICE SAFETY PRECAUTION

■ **Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and the servicing guidelines which follow:**

WARNING

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.

BEFORE RETURNING THE PRODUCT (Fire & Shock Hazard)

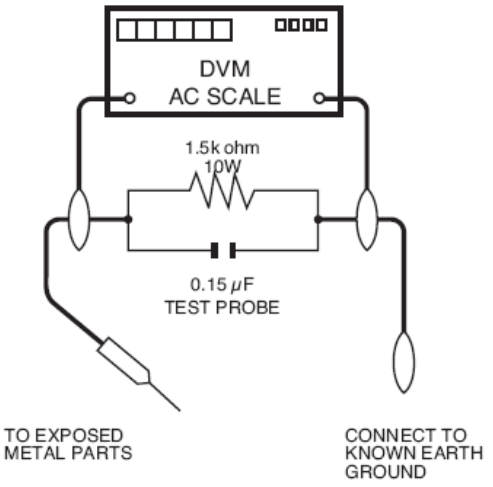
Before returning the Product to the user, perform the following safety checks:

1. Inspect all lead dress to make certain that leads are not pinched, and check that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulation materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.

- Plug the AC cord directly into a 120 volt AC outlet.
- Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15µF capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to an earth ground.
- Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity or measure the AC voltage drop across the resistor.
- Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.

  All checks must be repeated with the AC cord plug connection reversed. (If necessary, a nonpolarized adaptor plug must be used only for the purpose of completing these checks.)

  Any reading of 0.75 Vrms (this corresponds to 0.5 mA rms AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the monitor to the owner.



SAFETY NOTICE

Many electrical and mechanical parts in LCD color television have special safety-related characteristics. These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.

For continued protection, replacement parts must be identical to those used in the original circuit.
The use of a substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

Precautions for using lead-free solder

1 Employing lead-free solder

"PWBs" of this model employs lead-free solder. The LF symbol indicates lead-free solder, and is attached on the PWBs and service manuals. The alphabetical character following LF shows the type of lead-free solder.
Example:

Indicates lead-free solder of tin, silver and copper.

Indicates lead-free solder of tin, silver and copper.

2 Using lead-free wire solder

When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.
As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder by 40°C, we recommend you to use a dedicated soldering bit, if you are not familiar with how to obtain lead-free wire solder or soldering bit, contact our service station or service branch in your area.

3 Soldering

As the melting point of lead-free solder (Sn-Ag-Cu) is about 220°C which is higher than the conventional lead solder by 40°C, and as it has poor solder wettability, you may be apt to keep the soldering bit in contact with the PWB for extended period of time. However, Since the land may be peeled off or the maximum heat-resistance temperature of parts may be exceeded, remove the bit from the PWB as soon as you confirm the steady soldering condition.
Lead-free solder contains more tin, and the end of the soldering bit may be easily corroded. Make sure to turn on and off the power of the bit as required.
If a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.
When the tip of the soldering bit is blackened during use, file it with steel wool or fine sandpaper.

Be careful when replacing parts with polarity indication on the PWB silk.

WARNING

CAUTION

Prior to using this service manual, please ensure that you have carefully followed all the procedures outlined in the user's manual for this product.

(1) Read all of these instructions.
(2) Save these instructions.
(3) Follow all warnings and instructions marked on the product.
(4) Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners, use a damp cloth for cleaning.
(5) Do not use this product near water.
(6) Do not place this product on an unstable cart, stand or table. The product may fall, causing serious damage to the product.
(7) Slots and openings in the cabinet and the back or bottom are provided for ventilation, to ensure reliable operation of the product and to protect it from overheating, those openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation unless proper ventilation is provided.
(8) This product should be operated from the type of power source indicated on the marketing label. If you are not sure of the type of power available, consult your dealer or local power company
(9) This product is equipped with a 3-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature, if you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not ignore the purpose of the grounding-type plug.
(10) Do not allow anything to rest on the power cord. Do not locate this product where people will walk on the cord.
(11) If an extension cord is used with this product, make sure that the total of the ampere ratings on the product plugged into the extension cord to the waplugged into outlet does not exceed 15 ampere.
(12) Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
(13) Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to service personnel.
(14) Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- **a.** When the power cord or plug is damaged or frayed.
- **b.** If liquid has been spilled into the product.
- **c.** If the product has been exposed to rain or water.
- **d.** If the product does not operate normally, when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extension work by a qualified technician to restore the product to normal operation.
- **e.** If the product has been dropped or the cabinet has been damaged.
- **f.** If the product exhibits a distinct change in performance, indicating a need for service.

TABLE OF CONTENTS

1. Specifications

FLM-2632/FLM-2632M/FLM-2634B panel specifications:

Item	Specifications
Panel Name	CMO
Display pixels	1366 (H) x 768 (V) pixels (1 pixel = 1 RGB cells)
Display Area	596.259mm (H) x 335.232mm (V)
Pixel Pitch	0.1455mm (H) x 0.4365mm (V)
Display Colors	16.7M
Pixel Arrangement	R+G+B vertical stripe
Display Mode	Transmissive and normal black modes
Brightness[1]	550cd/m^2 typical with 14 pieces of CCFL
Contrast Ratio[2]	1000:1 typical at CR $\geqq$ 10
Brightness Uniformity	75% min.
Viewing Angle[3]	±85°degree(H), ±85°degree (V) Typical

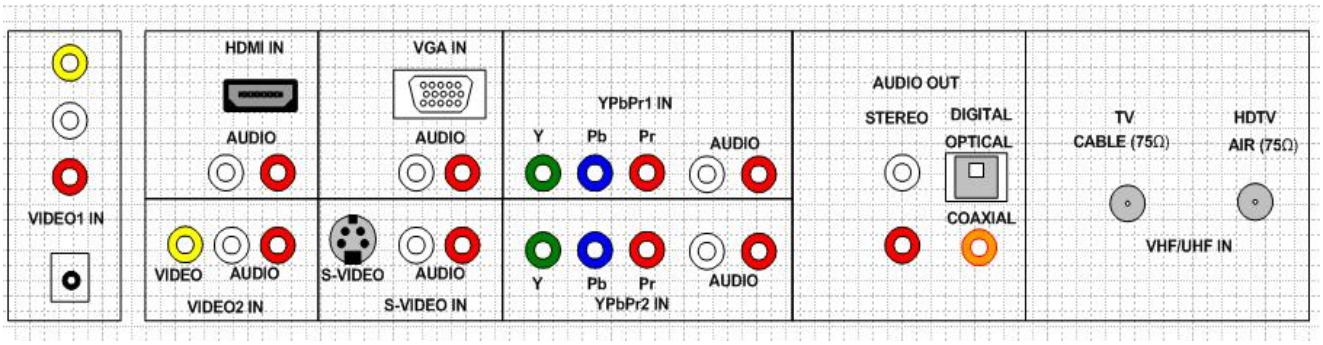
FLM-3232/FLM-323B/FLM-3232M/FLM-3234B panel specifications:

Item	Specifications
Panel Name	CMO
Display pixels	1366 (H) x 768 (V) pixels (1 pixel = 1 RGB cells)
Display Area	708.954mm (H) x 398.592mm (V)
Pixel Pitch	0.1730mm (H) x 0.5190mm (V)
Display Colors	16.7M
Pixel Arrangement	R+G+B vertical stripe
Brightness	550cd/m^2 typical
Contrast Ratio	800:1 typical at CR $\geqq$ 10
Viewing Angle	±88°degree(H), ±88°degree (V) Typical
Color Chromaticity (CIE)	White: X = 0.285 , Y = 0.293
Frame Rate	50/60Hz
Response Time	10ms typical
Surface Treatment	Hardness:3H, Haze:40% Anti-reflective coating＜2% reflecting

FLM-3732/FLM-373B/FLM-3732M/FLM-3734B panel specifications:

Item	Specifications
Panel Name	AUO
Display pixels	1366 (H) x 768 (V) pixels (1 pixel = 1 RGB cells)
Display Area	819.36mm (H) x 460.89mm (V)
Pixel Pitch	0.6mm
Display Colors	16.7M
Pixel Arrangement	R+G+B vertical stripe
Brightness	500cd/m^2 typical
Contrast Ratio	1000:1 typical at CR $\geqq$ 10
Viewing Angle	±88°degree(H), ±88°degree (V) Typical
Color Chromaticity (CIE)	White: X = 0.280 ± 3% , Y = 0.290 ± 3%
Response Time	8ms (Gray to Gray)
Surface Treatment	Hard-Coating (3H), Anti-Glare, Reflectance < 2%

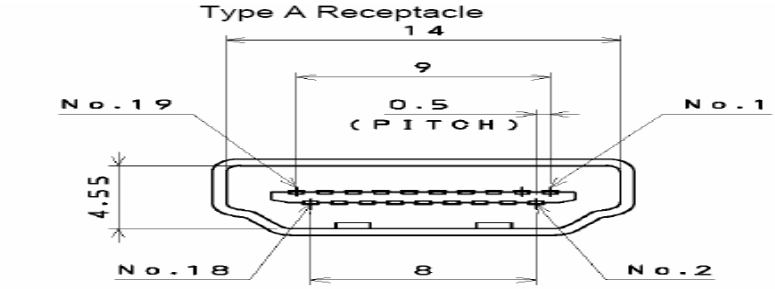
INPUT Source:



Inputs & Outputs	Signals	Video Format	Connector types	
				OSD
TV	Analog TV	NTSC	F Type	TV (CABLE/AIR)
DTV	Digital TV	8VSB	F Type	HDTV (CABLE/AIR)
VIDEO1	Video + L/R Audio + Earphone Out	CVBS	RCA	VIDEO1 (SIDE)
VIDEO2	Video + L/R Audio	CVBS	RCA	VIDEO2 (REAR)
S-VIDEO	S-VIDEO+ L/R Audio	Y/C	Mini Din 4 Pin	VIDEO3 (S-VIDEO)
YPbPr1	Component (Y, Pb/Cb, Pr/Cr) + L/R Audio	480i, 480p, 720p, 1080i	RCA	VIDEO4 (YPbPr1)
YPbPr2	Component (Y, Pb/Cb, Pr/Cr) + L/R Audio	480i, 480p, 720p, 1080i	RCA	VIDEO5 (YPbPr2)
HDMI	HDMI	Digital RGB +Digital Audio	HDMI 19 Pin	VIDEO6 (HDMI)
VGA	VGA+ L/R Earphone	Analog RGB	D-SUB 15 Pin	COMPUTER (VGA)
AUDIO OUT	L/R Audio		RCA	STEREO
	Digital Optical/COAXIAL		TOSLINK/RCA	DIGITAL
AC IN	AC Power IN	AC 100~240V	YC14	AC IN

Note:

A. HMDI connector is a type A receptacle for video/audio mode.



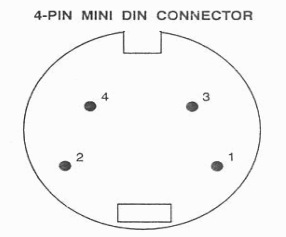
1. TMDS Data 2+	**9.** TMDS Data 0-	**17.** CEC/GND
2. TMDS Data 2 shield	**10.** Clock +	**18.** +5V Power
3. TMDS Data 2-	**11.** Clock shield	**19.** Hot Plug Detect
4. TMDS Data 1+	**12.** Clock -	
5. TMDS Data 1 shield	**13.** CEC	
6. TMDS Data 1-	**14.** NC	
7. TMDS Data 0+	**15.** DDC CLK	
8. TMDS Data 0 shield	**16.** DDC DATA	

B. D-Sub Connector IN. (This function also can provides to HDTV.)

D-Sub type Connector pin assignment		
1. Red Video	6. Red Ground	11. GND
2. Green Video	7. Green Ground	12. SDA For DDC1/2B
3. Blue Video	8. Blue Ground	13. H-sync.
4. GND	9. +5V from PC	14. V-sync.
5. Vdd from PC for DDC	10. Sync. GND	15. SCL For DDC1/2B

C. RCA jacks are all female type.

D. Mini DIN CNC 4 Pins (SCN570S3NS00000) for S-video, the pin assignment is described as below:



1: Ground
2: Ground
3: Y
4: C

HDMI	
Format	DVI 1.0
Level/Impedance	0.5~3.0Vp-p/100 Ohm (Differential),50 Ohm (Single ending)
TMDS Mode	Single Link
Frequency	Fh = 31~80 kHz Fv = 56~76 Hz
Maximum Pixel Clock	135 MHz
DDC 1/2B	Compliant with Revision 1.0
Connector	HDMI x 1
Analog HD15 PC Signal (RGB)	
Format	R, G, B Analog
Level/Impedance	0.7Vp-p / 75Ω
DDC 1/2B	Compliant with Revision 1.0
Sync	H/V separate 3V TTL level / 1kΩ
Frequency	Fh = 31~80 kHz Fv = 56~76 Hz
Maximum Pixel Clock	135 Mhz
Connector	Mini D-Sub 15 pin (female) x 1
Video (Composite) CVBS Signal	
Format	NTSC, 4.43NTSC, PAL_M, PAL(B,G,H,D,N), SECAM
Level / Impedance	1.0Vp-p / 75Ω
S-Video (Y/C) Signal	
Format	Y, C
Level / Impedance	Y: 1.0Vp-p / 75Ω C: ± 286 mV/ 75Ω
Analog HD15 Video Signal (YPbPr/YCbCr)	
Format	Y, Pb, Pr or Y, Cb, Cr
Level / Impedance	Y: 1.0Vp-p / 75Ω Pb/Cb, Pr/Cr: 0.7 ± 0.035Vp-p / 75Ω

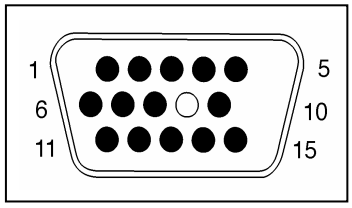
HDMI Timing

STANDARD	RESOLUTION	V FREQ Hz	H FREQ kHz	CLK MHz
ATSC, 480i	720x480	60	15.7	27
ATSC, 480p	720x480	60	31.5	27
ATSC, 1080i	1920x1080	60	33.7	74.2
ATSC, 720p	1280x720	60	45.0	74.2
ATSC, 576i	720x576	50	15.6	27

RGB PC Timing				
STANDARD	**RESOLUTION**	**V FREQ Hz**	**H FREQ kHz**	**CLK MHz**
VGA	640x480	60	31.47	25.16
VGA	640x480	75	37.5	31.5
SVGA	800x600	60	37.88	40
SVGA	800x600	75	46.9	49.5
XGA	1024x768	60	48.36	65.0
XGA	1024x768	75	60.02	78.75
SXGA	1280x1024	60	64	108
SXGA	1280x1024	75	80	135
MAC	640x480	67	35	30.24
Non-VESA	720x400	70	31.5	28
Video & S-Video AV Timing				
STANDARD	**RESOLUTION**	**V FREQ Hz**	**H FREQ kHz**	**CLK MHz**
NTSC	525	60	15.734	12.65
PAL(B,G,H,D,I)	625	50	15.625	14.50
SECAM	625	50	15.625	14.50
4.43NTSC	525	60	15.734	12.65
PAL-M	525	60	15.734	12.65
PAL-N	625	50	15.625	14.50
HDTV/Component AV Timing				
SDTV 525i	720x525	60	15.735	27
SDTV 625i	720x625	50	15.625	27
SDTV 480p	720x480	60	31.5	27
HDTV 720p	1280x720	60	50.0	74.2
HDTV 1080i	1920x1080	60	33.7	74.2

Power Source	AC100 – 240 V, 60/50 Hz
Sound Output	10W X2, 8 Ohm.

Signal Connector Pin Assignment

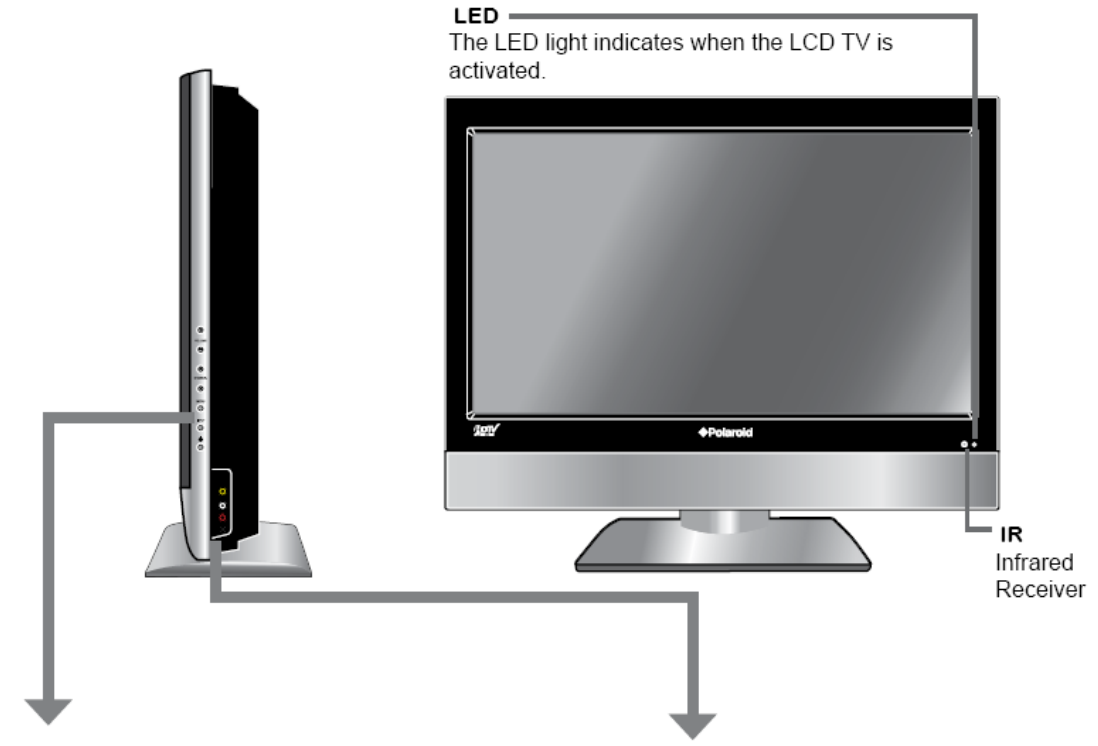


Pin	Assignment	Pin	Assignment	Pin	Assignmen
1.	Red	6.	Red Ground	11.	Ground
2.	Green	7.	Green Gro und	12.	SDA
3.	Blue	8.	Blue Ground	13.	Horizontal Sy
4.	Ground	9.	Not Connected	14.	Vertical Sync.
5.	Self Test	10.	Sync. Ground	15.	SCL

2. Front Panel Function Control Description

Operation, Adjust and Programming

Front/Right Side View and Controls



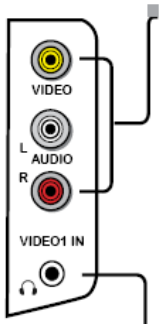
VOLUME▲▼
Adjusts the volume up and down.
Selects the main-menu item and change values for items when in the OSD mode.

CHANNEL▲▼
Scans up and down through channels.
Selects sub-menu item when in the OSD mode.

MENU
Press once to display the OSD (on screen display), press again to turn the OSD off.

INPUT
Chooses from different input signal sources.

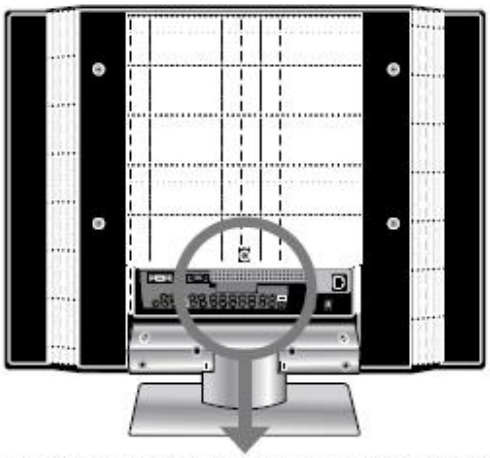
⏻
Turns the LCD TV on and into standby mode.



VIDEO1 IN
Connects to the composite Video and Audio output jacks on external video equipment.

EARPHONE
Connects to the external headhone for private listening.

Rear View and Jacks

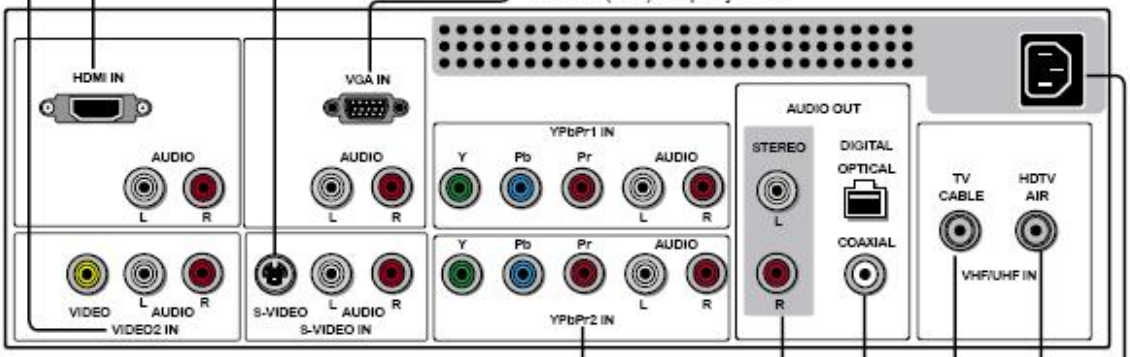


VIDEO2 IN
Connects to the composite VIDEO and AUDIO(L/R) output jacks on external video equipment.

HDMI IN
Connects the all digital AV equipment with HDMI connector.HDMI supports enhanced, high-definition video and two-channel digital audio. The AUDIO(L/R) of HDMI IN is for DVI connection.

S-VIDEO IN
Connects to the S-VIDEO and AUDIO(L/R) output jacks on external video equipment.

VGA IN
Connects the PC, or other AV equipment with VGA and AUDIO(L/R) output jacks.



YPbPr1 IN/YPbPr2 IN
Connects to the DVD player, Digital Set-Top-Box, or other AV equipment with component(YPbPr) video and audio output jacks.

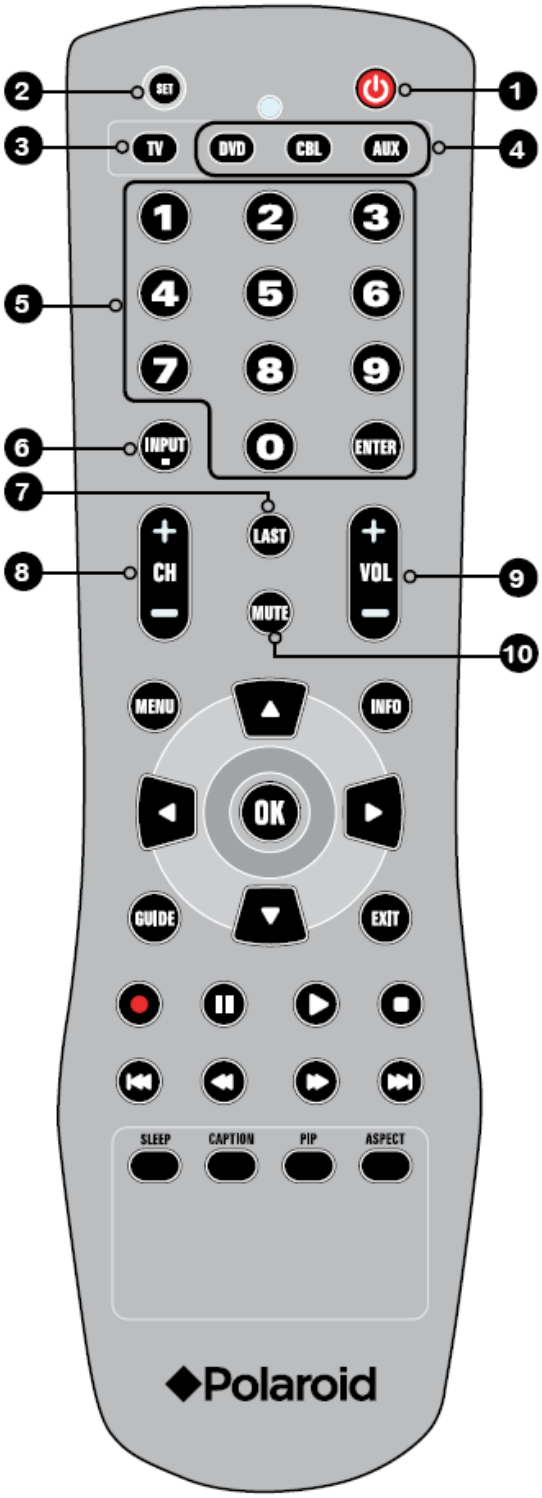
AUDIO OUT-STEREO
Connects to the AUDIO(L/R) input jacks on AV equipment.

AUDIO OUT-DIGITAL-OPTICAL/COAXIAL
Connects to the OPTICAL AUDIO jack on the digital/standard 5.1 audio system.

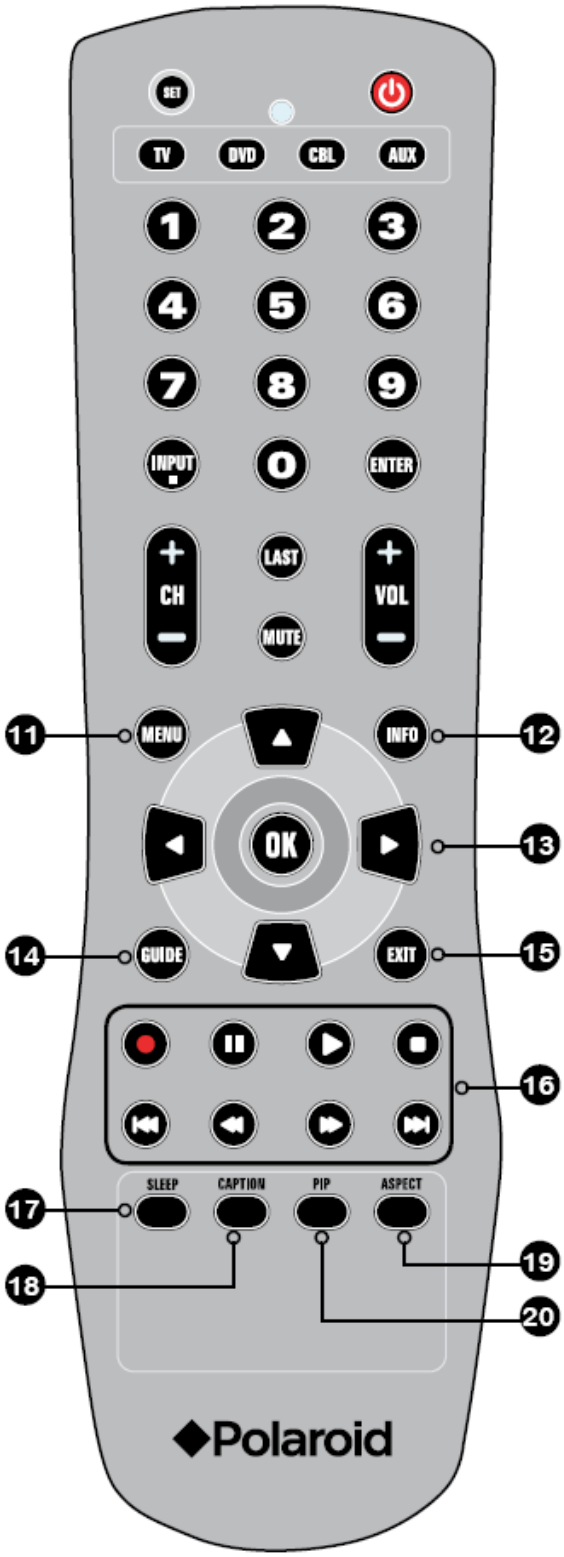
VHF/UHF IN-TV-CABLE
Connects RF input from VHF/UHF antenna or cable.

VHF/UHF IN-HDTV-AIR
Connects RF input from VHF/UHF antenna or cable to receive high/standard definition television.

AC IN
Connects to the AC power cord.



1	⏻	Turns the LCD TV on and off.
2	SET	Remote control universal code setup. For more information on setting up your remote control, please see the "Programming Your Remote Control" section.
3	TV	Controls this LCD TV.
4	DVD	Controls DVD player or Video player.
	CBL	Controls Cable Converter or Satellite Receiver.
	AUX	Controls Audio Amplifier
5	0-9/ENTER	Pressing a number selects a channel. Following selection, pressing ENTER activates the channel, or channel activates automatically in 3 seconds.
6	INPUT	Pressing INPUT to display a source list, use ▲▼buttons to select the video equipment connected to the video inputs of your LCD TV: TV/HDTV/VIDEO1/ VIDEO2/VIDEO3/VIDEO4/VIDEO5/ VIDEO6/COMPUTER.
	▪	In HDTV mode, use with 0-9 and ENTER buttons to select a digital channels.
7	LAST	Returns to previously selected channel.
8	CH+-	Change channel up and down.
9	VOL+-	Increases and decreases volume.
10	MUTE	Pressing once mutes audio. Pressing again restores audio.



11	**MENU**	Displays the OSD menu on the screen.
12	**INFO**	Pressing once displays a variety of information such as the current channel and the input source.
13	**▲▼►◄,OK**	Cycles through OSD options and selects individual menu items. OK confirms option settings.
	OK	In HDTV mode, pressing OK to display a digital channel list.
14	**GUIDE**	In HDTV mode, pressing GUIDE displays the Program Guide on the screen.
15	**EXIT**	Exits the OSD menu.
16	● II ► ■ ⏮ ◄◄ ►► ⏭	Other device function keys
17	**SLEEP**	Cycles through the LCD TV sleep time: OFF/30/60/90/120 mins.
18	**CAPTION**	Cycles through the Closed Caption: OFF/CC1/CC2/CC3/CC4/TT1/TT2/TT3/ TT4.
19	**ASPECT**	Cycles through Wide mode settings: NORMAL/FULL/WIDE/ZOOM.
20	**PIP**	Turns PIP/POP on and off.

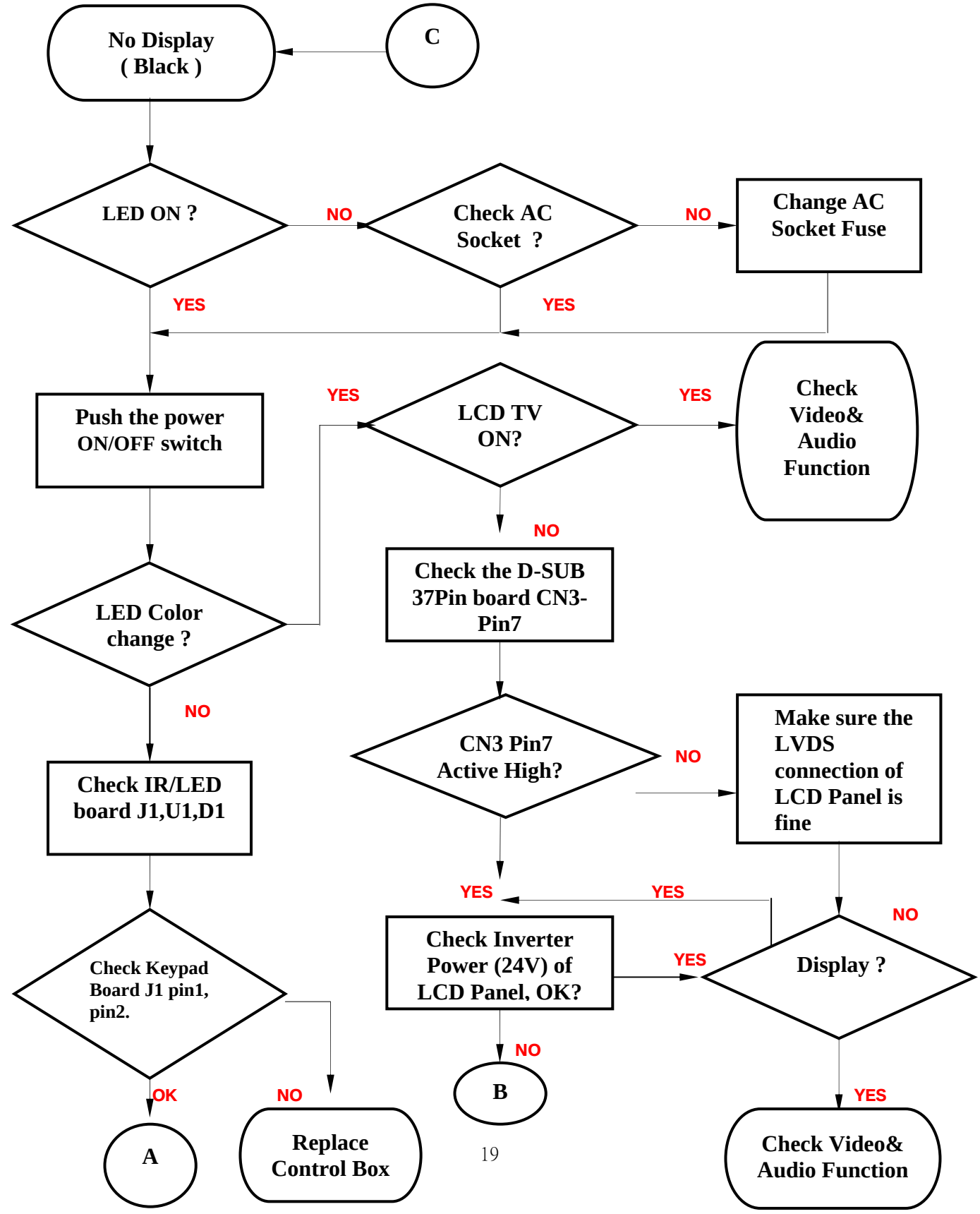
The operation of each OSD controls is described as following table:

Menu	Options	Sub-Options	Function and Description
VIDEO	**Picture Mode**	Vivid →Hi-Bright →Cinema →Sport→User.	Press repeatedly for different picture modes: Vivid →Hi-Bright →Cinema→Sport →User.
	Contrast	0…100 **(75)**	Fine tune the contrast.
	Brightness	0…100 **(50)**	Fine tune the Bright
	Saturation	0…100 **(50)**	Fine tune the contrast.
	Hue	-30…+30 **(0)**	Fine tune the contrast.
	Sharpness	0…7 **(4)**	Fine tune the contrast.
	Color Temperature	Cool	Set the color temperature type.
		Nature	
		Warm	
		User	Red/Green/Blue: -19…+19
AUDIO	**Bass**	0…100 **(50)**	Fine tune the bass value.
	Treble	0…100 **(50)**	Fine tune the treble value.
	Balance	-20…+20 **(0)**	Fine tune the balance value.
	Effect	Live	Select the preset effec mode to match your music type and achieve stunning effects.
		Dance	
		Techno	
		Classic	
		Soft	
		Rock	
		POP	
		Off	Close this function.
	MTS	Mono	Set the sound type, which is only available when input source is TV.
		Stereo	
		Sap	
TV	**Auto Search**	Auto search channels.	Auto-search channels and put the programs into memory.
	Tuner Mode	**Cable-STD** / Cable-HRC / Cable-IRC	Select the tuner mode.
		Air	
	Channel Skip	Set the channel that you want to skip.	If set a channel to SKIP, when scan up/down channels the selected channel will be skipped.
	Channel Name	Edit the channel name.	It will be invalid if the current input source is not TV.
SETUP	**Language**	**English**/简体中文/繁體中文 /Spanish/French	Set on-the-screen language.
	Timer	Time	Input current time
		Start Time	Input the TV start playing time.
		Stop Time	Input the TV stop playing time.
		Channel	Input the channel No. for desired TV program.
		Activate	On/Off/Once

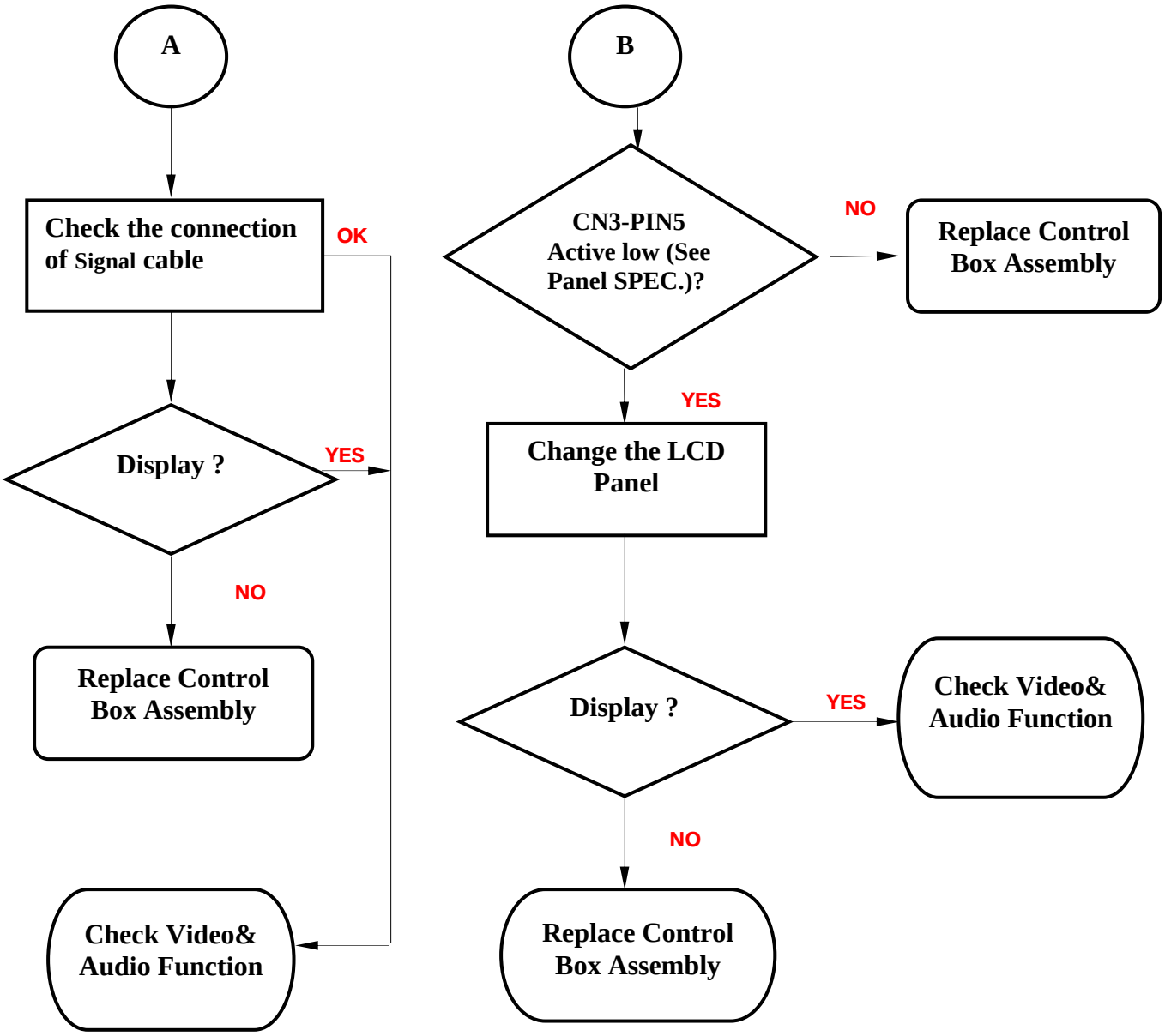
		Display	On/Off Set the timer alarm on/off.
	Auto Sleep	30,60,90,120 Min	Preset the auto sleep time. The TV will auto go into standby state when the preset time is up.
		Off	Set auto sleep function off.
	Closed Caption	C1,C2,C3,C4,T1,T2, TT4,and **Off**	Set the closed caption mode.
	V-chip	Input Password	Input the 4-digit password. **"0000"**
		Block MPAA Rating	Set the input source that you want to lock.
		Block TV Rating	Input the old password first, and then input the password that you want to change.
		Block MPAA Unrated	Block all the unrated movies.
		Block TV None Rating	Block all the unrated TV programs.
	Reset	Reset to default value.	Reset the items in the setup menu except the protected-items.
HDTV	**Audio Language**		To set the audio language form English, French and Spanish.
	Time Zone		To set the Time Zone value form Eastern Time, Indiana, Central Time, Mountain Time, Arizona, Pacific Time, Alaska and Hawaii.
	Auto Scan		Auto-search channels and put the programs into memory.
	Manual Scan		Add-on mode: To search the channels that had not searched by last time. Range mode: To search the receivable channels in the setting range.
	Channel Skip		If set a channel to SKIP, when scan up/down channels the selected channel will be skipped.
	Analog Closed Caption		To set the analog closed caption value form OFF,CC1,CC2,CC3,CC4,TEXT1,TEXT2,TEXT3 and TEXT4.
	Digital Closed Caption		To set the digital closed caption value form OFF, Service1, Service2, Service3, Service4, Service5 and Service6.
	Digital Caption Style		To set the values of caption style.
	Block Channel		To setup the block channel.

3. Troubleshooting Flow Chart

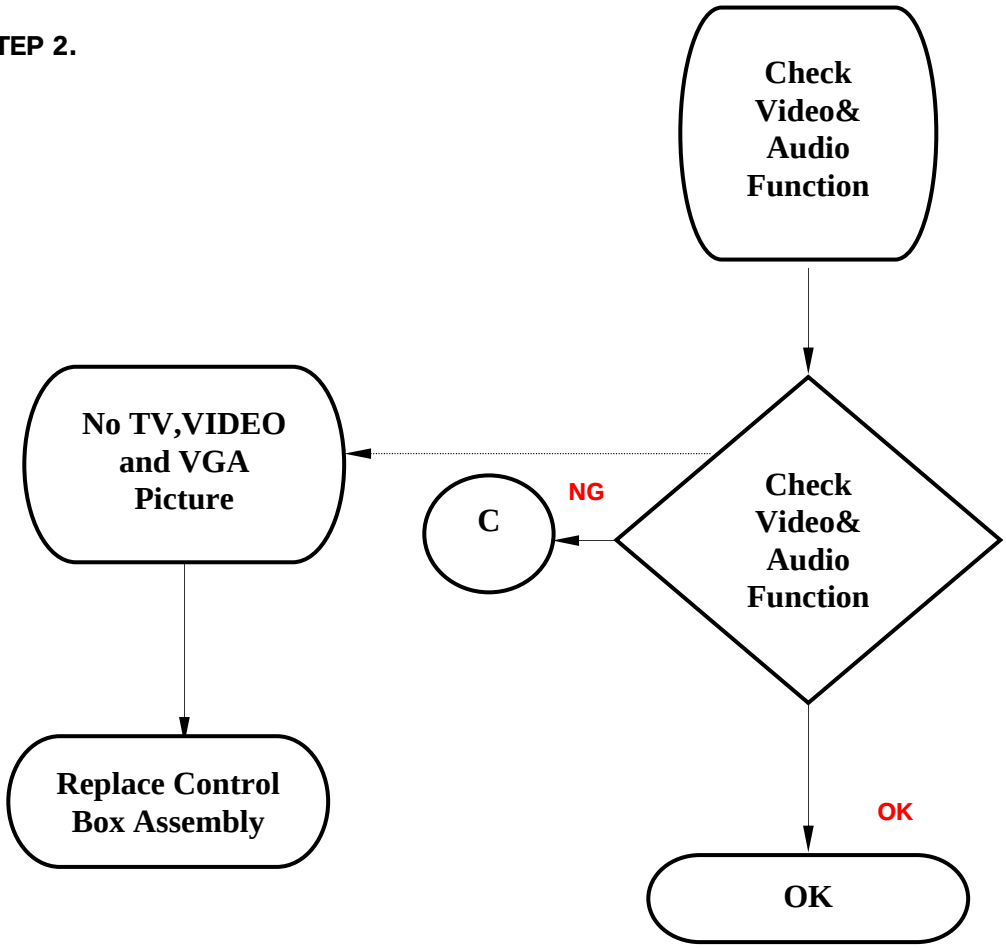
STEP 1.



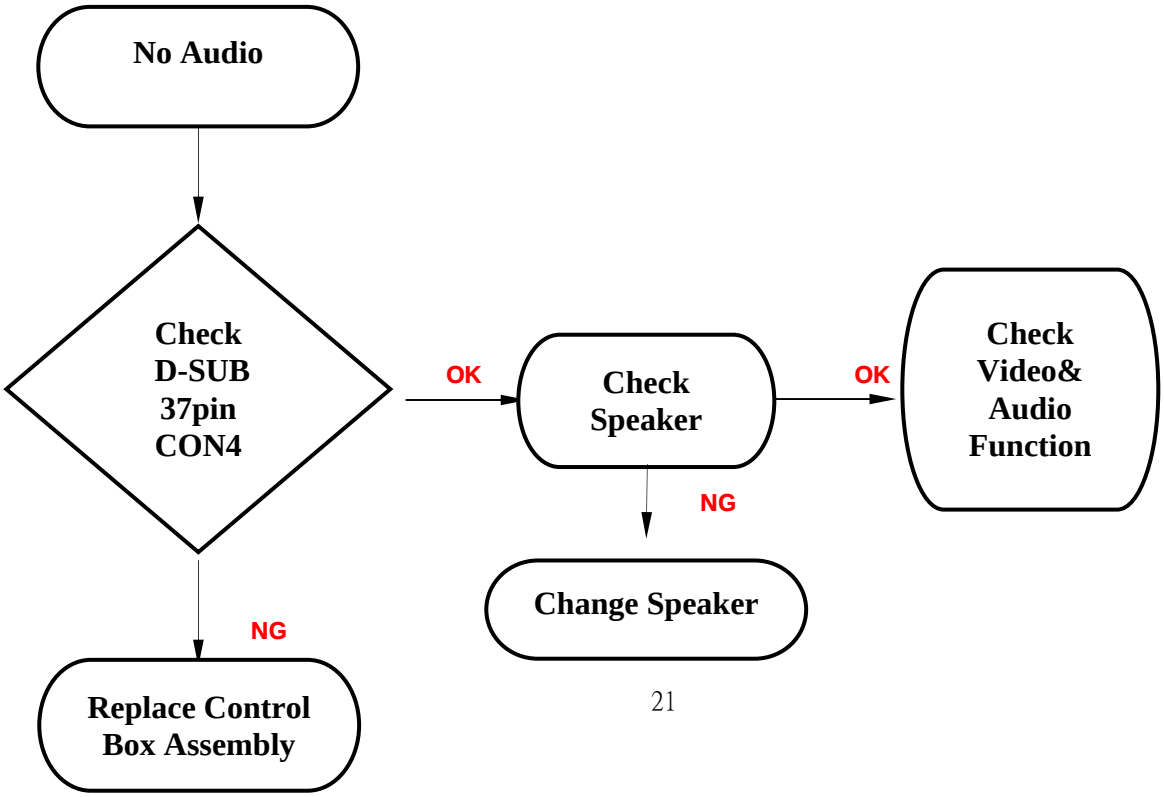
STEP 1 Continued.



STEP 2.


Check Video& Audio Function
No TV,VIDEO and VGA Picture
C
NG
Check Video& Audio Function
Replace Control Box Assembly
OK
OK

STEP 3.


No Audio
Check D-SUB 37pin CON4
OK
Check Speaker
OK
Check Video& Audio Function
NG
Change Speaker
NG
Replace Control Box Assembly

4. Display Cell Defect Specification

In some cases, a panel may have defective cells that cannot be controlled.

These defective cells can be categorized into two types;
(1) Non-lighting or dark cell defect: defect in which the cell is always off
(2) Non-extinguishing or bright cell defect: defect in which the cell is always on

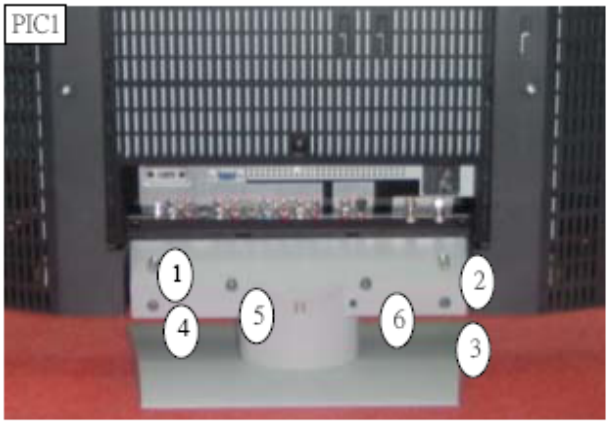
The display cell defect specifications define the allowed limits for display cell defects and are used as the criteria in determining whether a panel is replaced.

Item	Specification
Bright cell	2 and less
Dark cell	7 and less
All bright and dark cells combined	7 and less
Neighboring bright cells	1 pair and less
Neighboring dark cells	2 pair and less
Neighboring bright cells of 3 or more in a group	None permitted
Distance between bright cells	≥15mm
Distance between dark cells	≥0mm

5. Disassembly Procedure

Procedures:

1. Lay flat on workbench
2. Remove screws in the sequence indicated (PIC1)

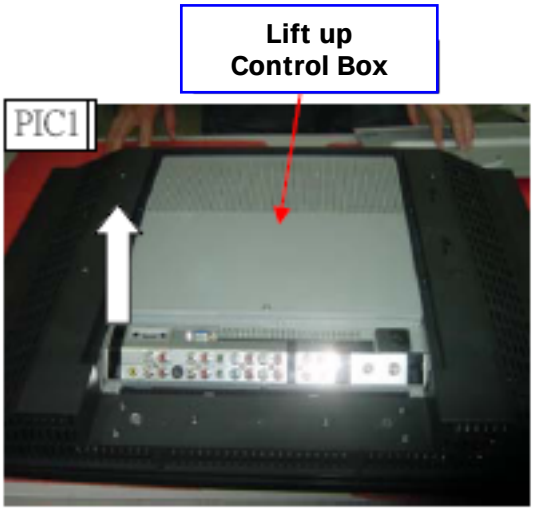


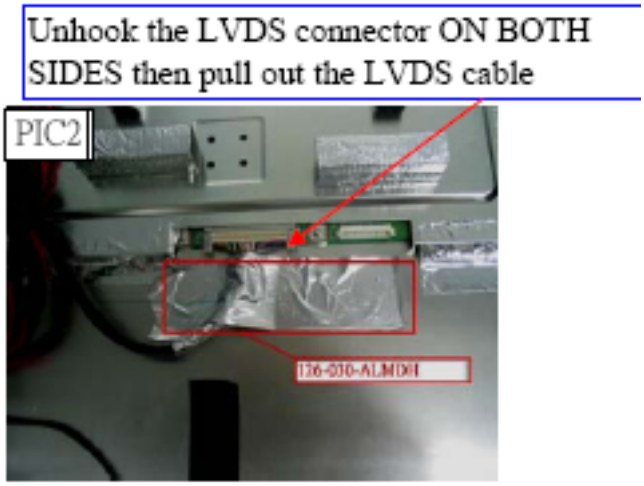
Procedures:

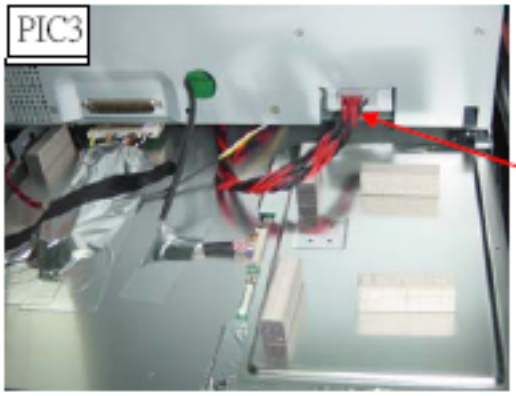
1. Remove back cover screws (PIC1 item 1, 2)
2. Remove back cover scews (PIC1 item 3)
3. Remove back cover- Slide toward bottom of TV and lift
4. Proceed to next step

Procedures:

1. Lift up the control box from the A/V connector side (PIC1). There are cables underneath that are connected. Be careful.
2. Tear off the Aluminum foil covering the LVDS connector. Remove the LVDS wiring from Panel module (PIC2).
3. Disconnect the PANEL power cord from bottom side of control box (PIC3).
4. Proceed to next step

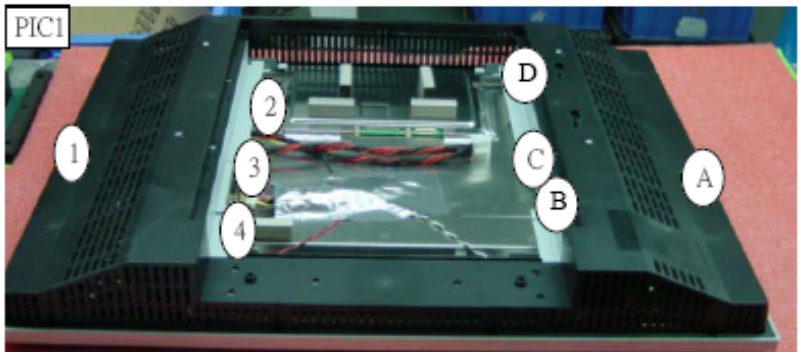






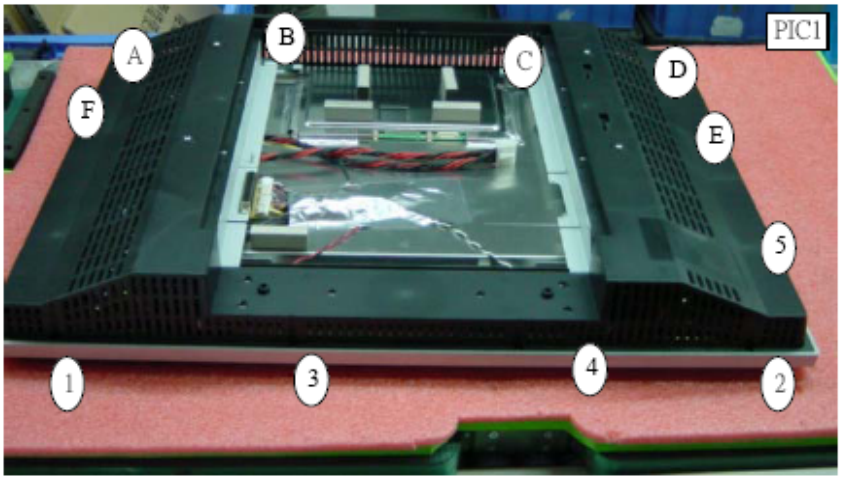
Procedures:

1. Remove screws (PIC1) in the sequence of 1, A.
2. Remove screws (PIC1) in sequence of 2, 3, 4, B, C, D
3. Proceed to next step



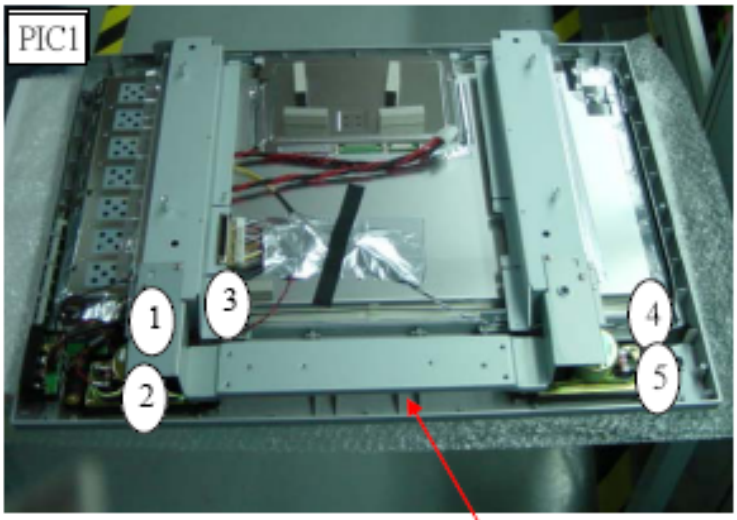
Procedures:

1. Remove screws which fasten rear cabinet to front frame (PIC1) in the following sequence:
   A→B→C→D→E→F then 1→2→3→4→5
2. Remove rear cabinet cover. Only the rear cabinet cover will come off.
3. Proceed to next step



Procedures:

1. Remove screws from TV stand support frame (PIC1)
2. Proceed to next step

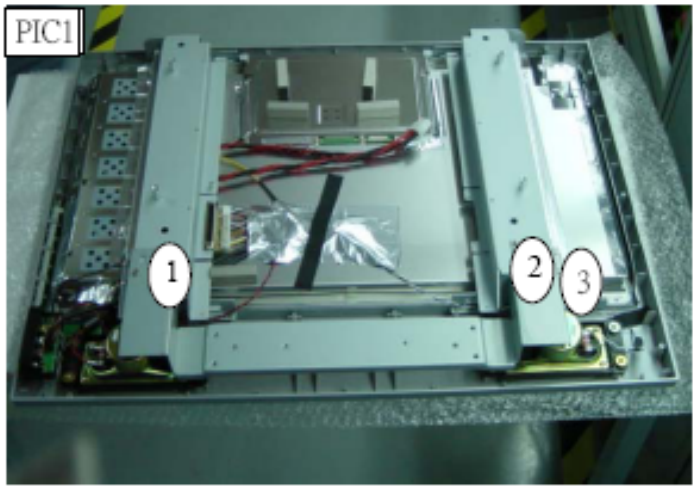


TV stand support frame

Procedures:

1. Remove screws from TV stand support frame (PIC1)
2. Remove the TV stand support frame
3. Proceed to next step

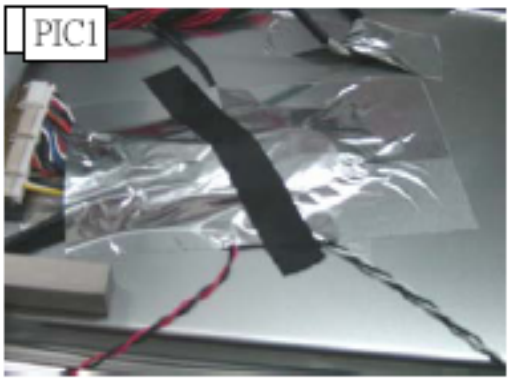
PIC1



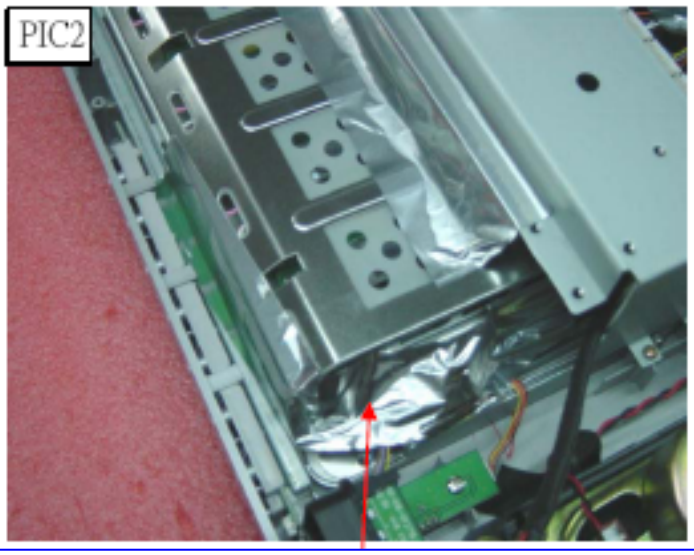
Procedures:

1. Remove the EMI Aluminum Foil Sheilding Tape from the Panel (PIC1, 2)
2. **EMI Aluminum Foil Sheilding Tape must be replaced during assembly.**
3. Proceed to next step

PIC1



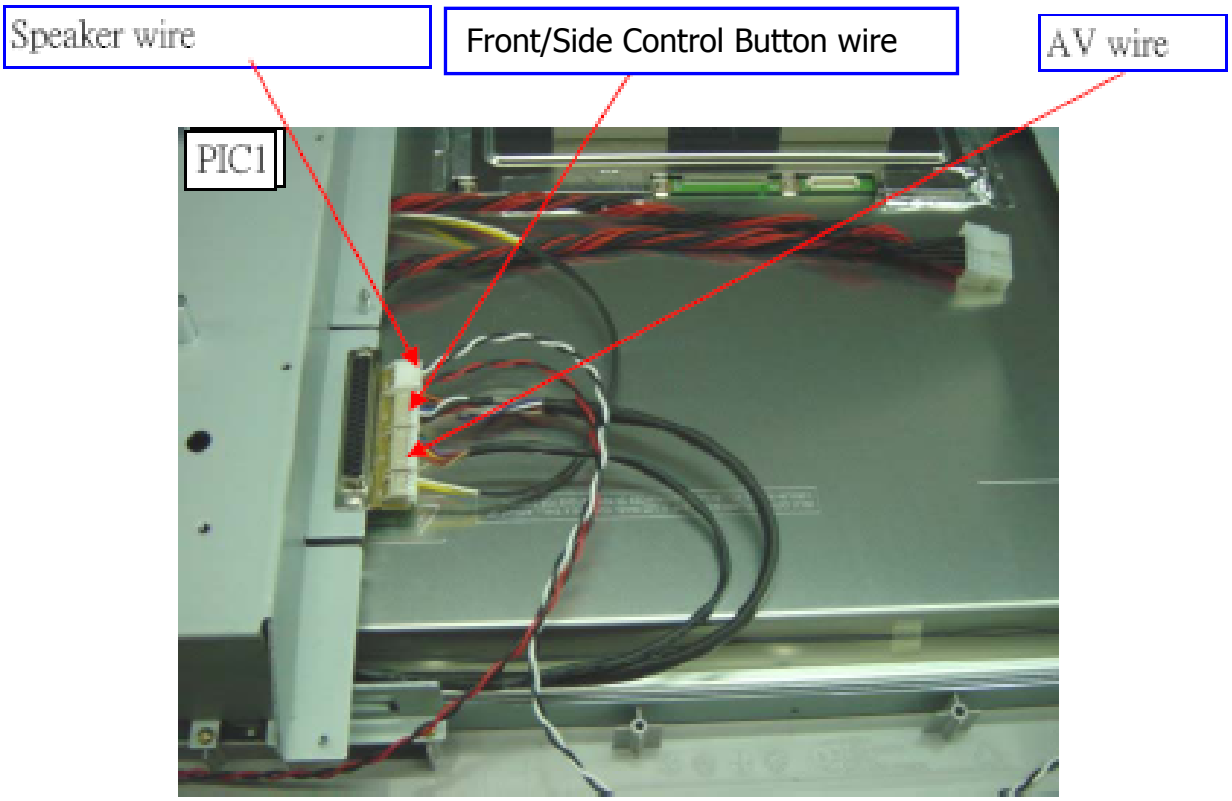
PIC2

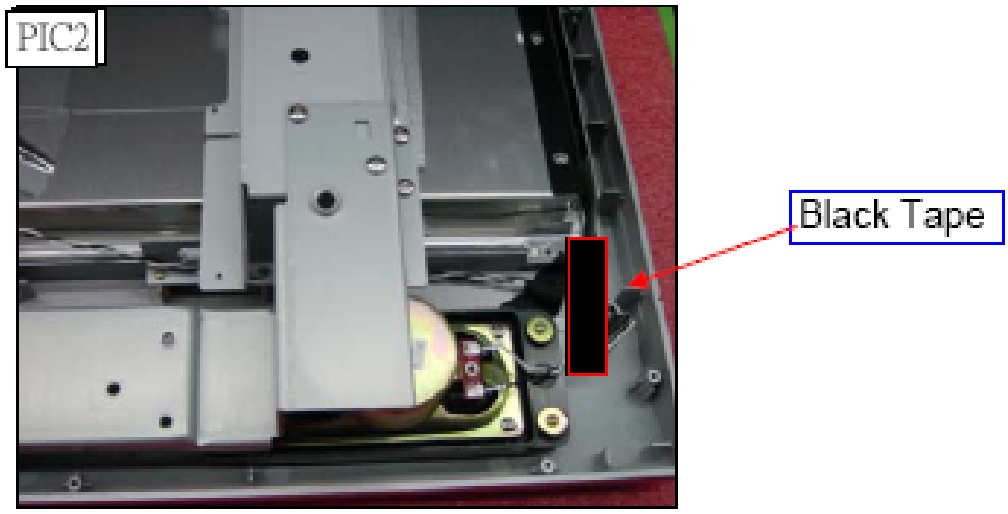


Remove the EMI Aluminum Foil Sheilding Tape which secures the KEYBOARD wiring to the panel.

Procedures:

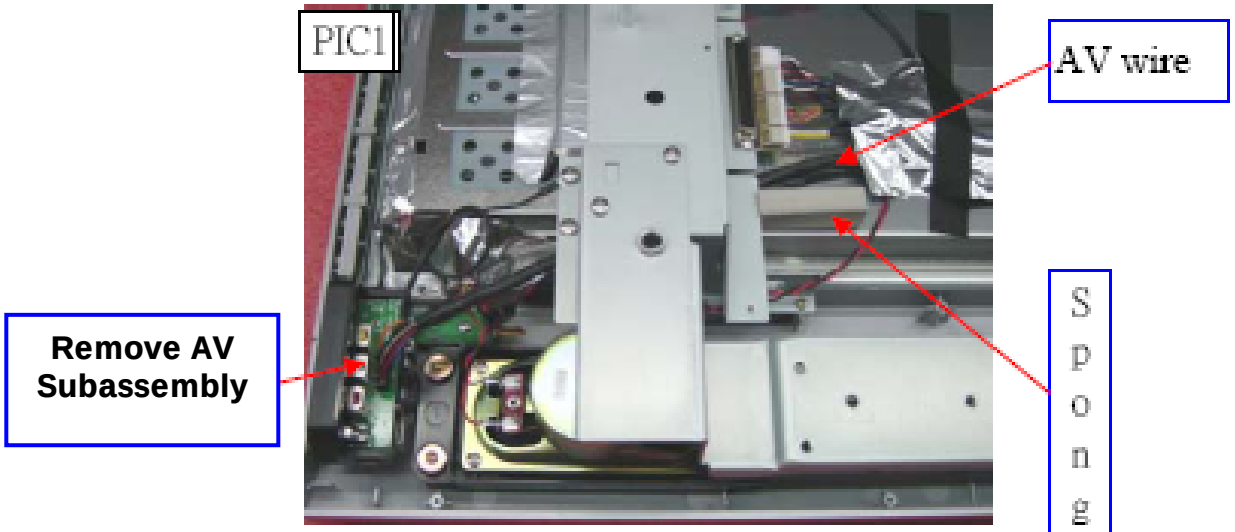
1. Remove from the D-sub board Speaker wire, Front/Side Control Button wire, and A/V wire connectors (PIC1)
2. Remove the black tape from the Speaker wire and Ceramic ring (PIC2)
3. Replace black tape during assembly.
4. Proceed to next step

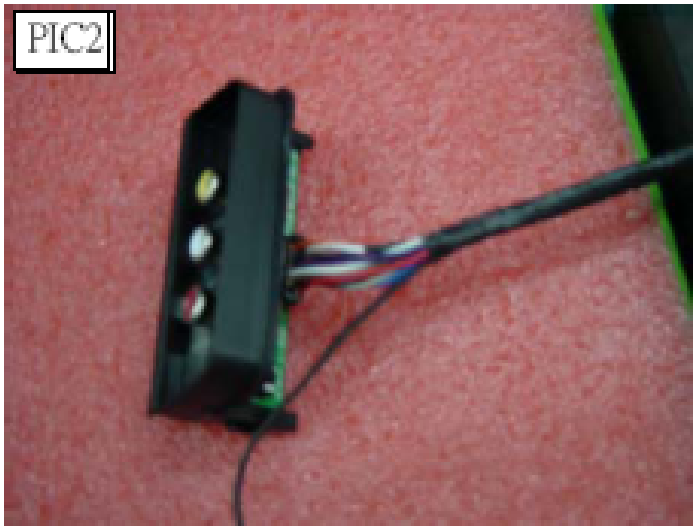




Procedures:

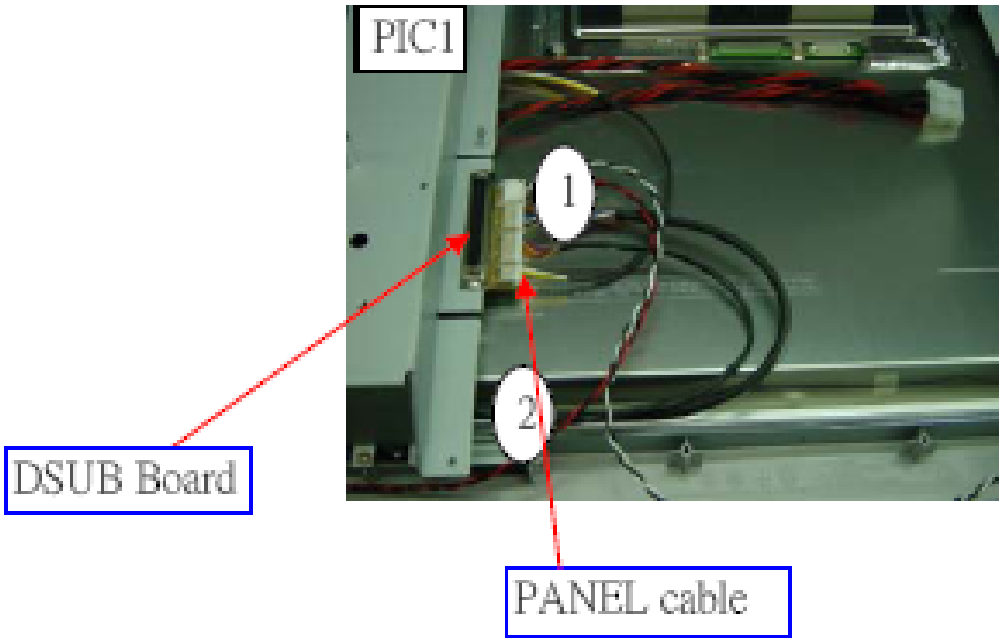
1. Take off the sponge from PANEL and remove the A/V wire under the frame (PIC1)
2. Save sponge and place in position during assembly.
3. Remove the A/V subassembly from the bezel (PIC2)
4. Proceed to next step





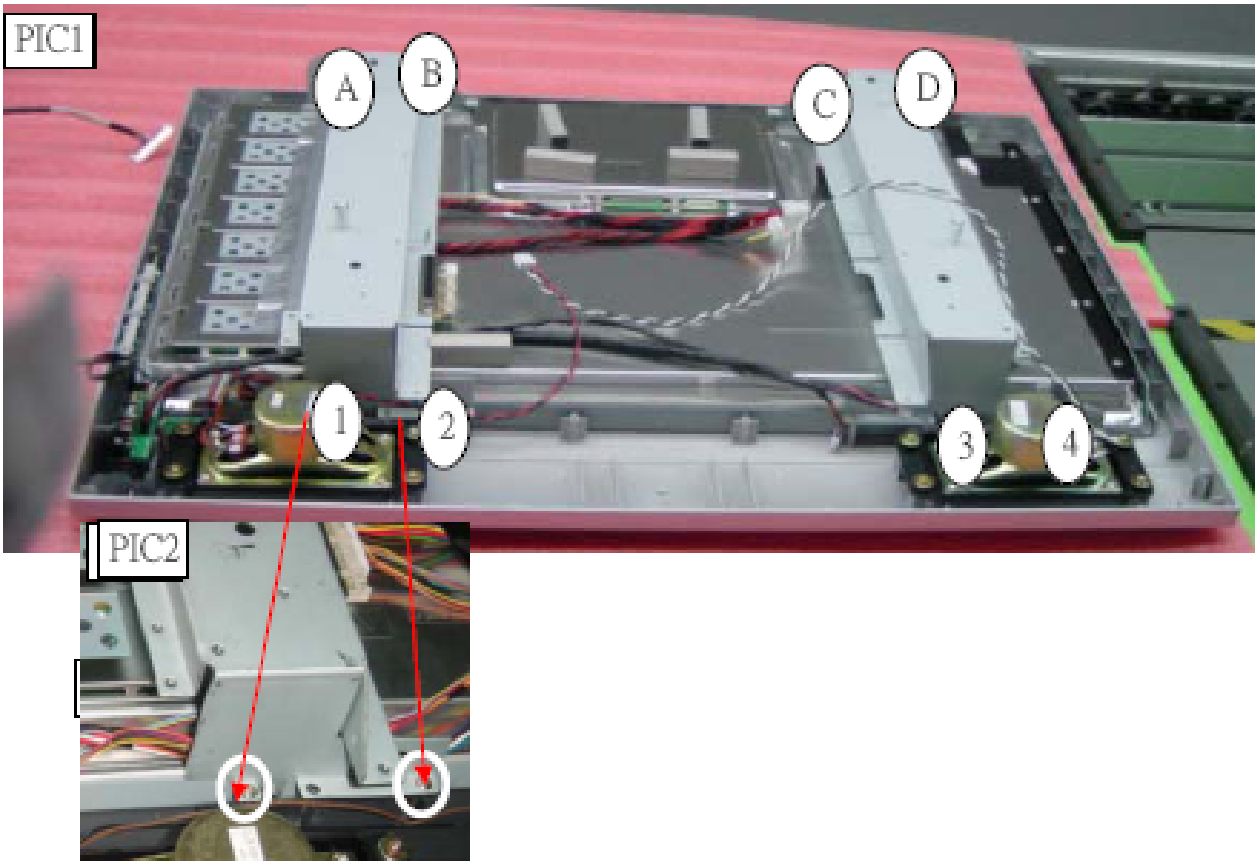
Procedures:

1. Remove screws (PIC1) in the sequence: 1-2
2. Disconnect the PANEL cable from the D-SUB board (PIC1)
3. Proceed to next step



Procedures:

1. Remove screws that secure the panel to the bezel (PIC1, PIC2)
2. **<u>TWO MEN REQUIRED!!</u>** Lift Panel from the bezel
3. Replace panel.
4. The front bezel can now be replaced if needed.

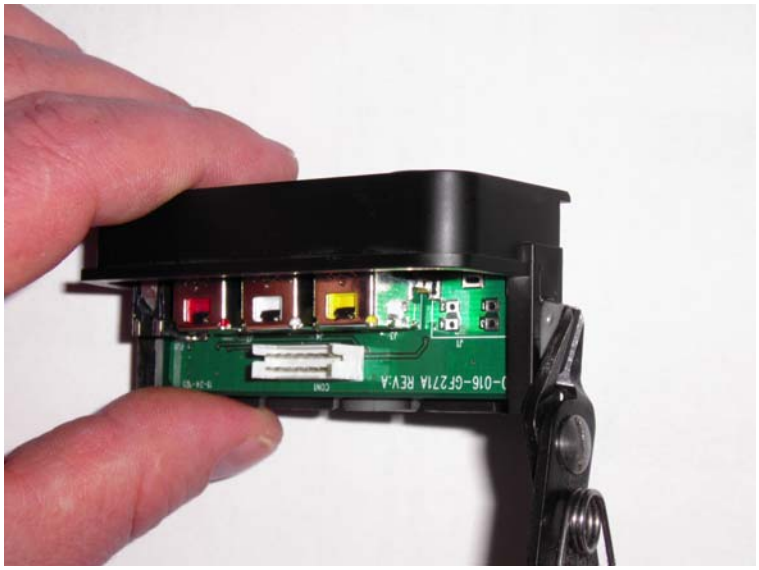


6. A/V Board and Front/Side Control Button Disassembly

A/V Board Removal and Replacement

1. Disassemble rear cabinet and remove A/V assembly.
2. Using a small pair of wire cutters grip the side locking tab and pivot back towards the A/V cable connector (PIC1). Locking tab should only pivot about 45 degrees. Do the same for the opposite side of the A/V assembly.
3. Slide out A/V board and replace (PIC2).
4. Push locking tabs in to secure replaced A/V board.

PIC1

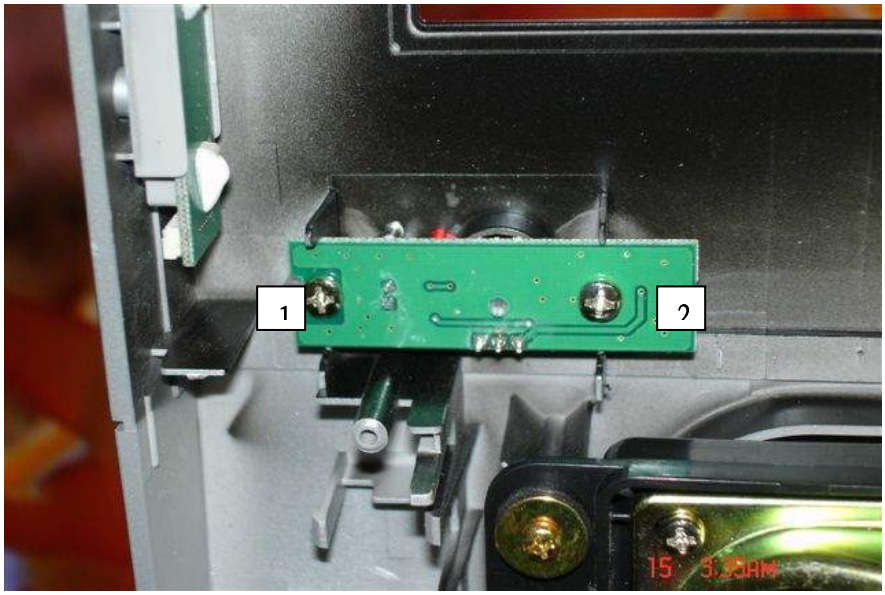


PIC2

IR Board Removal and Replacement

1. Disassemble rear cabinet.
2. Remove screws 1 and 2 and replace IR board (PIC1).

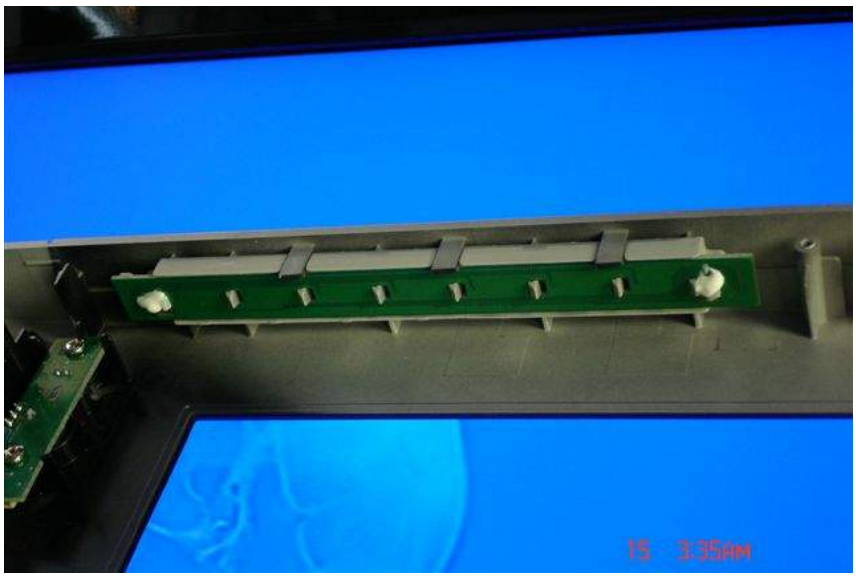
PIC1



Front/Side Control Buttons Removal and Replacement

1. The control button board is attached with glue. Use alcohol to soften the glue and remove the control button board (PIC1).
2. Replace control button board and use glue to fasten to front bezel.

PIC1



7. Spare Part Lists by Model Number

Polaroid FLM-2632, FLM-2632M Part List

Exploded View Location	Part Number	Description
	600-181-3200-LIH	AC Power Cord
	621-181-60002H	Audio Cable
	621-181-2000H	Composite Video Cable
	621-181-3020P-1H	Component Cable
	845-B45-GF1XA-PH	Remote Control
Page 37/Number 13	909-KS0-GF271XA	Control Box Assembly
Page 37/Number 2	899-K00-GF271XAH	Front/Side Control Buttons
Page 37/Number 6	899-E00-GF271XAH	IR Board
Page 37/Number 3	899-A00-GF271XAHA	Front/Side A/V Input Assembly.
Page 37/Number 9	705-526-051C-1H	26" LCD Panel
Page 37/Number 1	151-103-FL98BH	Front Bezel Black
Page 37/Number 12	151-002-FL97GH	Rear Cabinet Black
Page 37/Number 15	154-004-GF32WH	Rear Cabinet Control Box Cover Black
Page 37/Number 14	151-700-GF271XAH	Stand Assembly
Page 37/Number 7	824-015-GF271H	Speaker (right or Left)
	631-030-GF321XAH	LVDS Cable

Polaroid FLM-3232/323B/3232M Part List

Exploded View Location	Part Number	Description
	600-181-3200-LIH	AC Power Cord
	621-181-60002H	Audio Cable
	621-181-2000H	Composite Video Cable
	621-181-3020P-1H	Component Cable
	845-B45-GF1XA-PH	Remote Control
Page 38/Number 11	909-KS0-GF321XA	Control Box Assembly
Page 38/Number 2	899-K00-GF271XAH	Front/Side Control Buttons
Page 38/Number 5	899-E00-GF271XAH	IR Board
Page 38/Number 3	899-A00-GF271XAHA	Front/Side A/V Input Assembly.
Page 38/Number 18	705-532-050C-4AH	32" LCD Panel
Page 38/Number 1	151-103-FPH8BH	Front Bezel Black
Page 38/Number 15	151-002-FPH7GH	Rear Cabinet Black
Page 38/Number 13	154-004-GF32WH	Rear Cabinet Control Box Cover Black
Page 38/Number 12	151-700-GF321XAH	Stand Assembly
Page 38/Number 7	824-015-GF321L-H	Speaker (right or Left)
	631-030-GF321XAH	LVDS Cable

Polaroid FLM-3732/373B/3732M Part List

Exploded View Location	Part Number	Description
	600-181-3200-LIH	AC Power Cord
	621-181-60002H	Audio Cable
	621-181-2000H	Composite Video Cable
	621-181-3020P-1H	Component Cable
	845-B45-GF1XA-PH	Remote Control
Page 39/Number 13	909-KS0-GF371XA	Control Box Assembly
Page 39/Number 2	899-K00-GF271XAH	Front/Side Control Buttons
Page 39/Number 6	899-E00-GF271XAH	IR Board
Page 39/Number 3	899-A00-GF271XAHA	Front/Side A/V Input Assembly.
Page 39/Number 9	705-537-401AX1H	37" LCD Panel
Page 39/Number 1	151-103-FC58BH	Front Bezel Black
Page 39/Number 12	151-002-FC57GH	Rear Cabinet Black
Page 39/Number 15	154-004-GF32WH	Rear Cabinet Control Box Cover Black
Page 39/Number 14	151-700-GF371XAH	Stand Assembly
Page 39/Number 7	824-015-GF321L-H	Speaker (right or Left)
	631-030-GF321XAH	LVDS Cable

7. Spare Part Lists by Model Number (Continued)

Polaroid FLM-2634B Part List

Exploded View Location	Part Number	Description
	600-181-3200-LIH	AC Power Cord
	621-181-60002H	Audio Cable
	621-181-2000H	Composite Video Cable
	621-181-3020P-1H	Component Cable
	845-B45-GF1XA-PH	Remote Control
Page 37/Number 13	909-KS0-GF271XA	Control Box Assembly
Page 37/Number 2	899-K00-GF271XAH	Front/Side Control Buttons
Page 37/Number 6	899-E00-GF271XAH	IR Board
Page 37/Number 3	899-A00-GF271XAHA	Front/Side A/V Input Assembly.
Page 37/Number 9	705-526-051C-1H	26" LCD Panel
Page 37/Number 1	151-103-FL97WH	Front Bezel Black
Page 37/Number 12	151-002-FL97GH	Rear Cabinet Black
Page 37/Number 15	154-004-GF32WH	Rear Cabinet Control Box Cover Black
Page 37/Number 14	151-700-GF271XAH	Stand Assembly
Page 37/Number 7	824-015-GF271H	Speaker (right or Left)
	631-030-GF321XAH	LVDS Cable

Polaroid FLM-3234B Part List

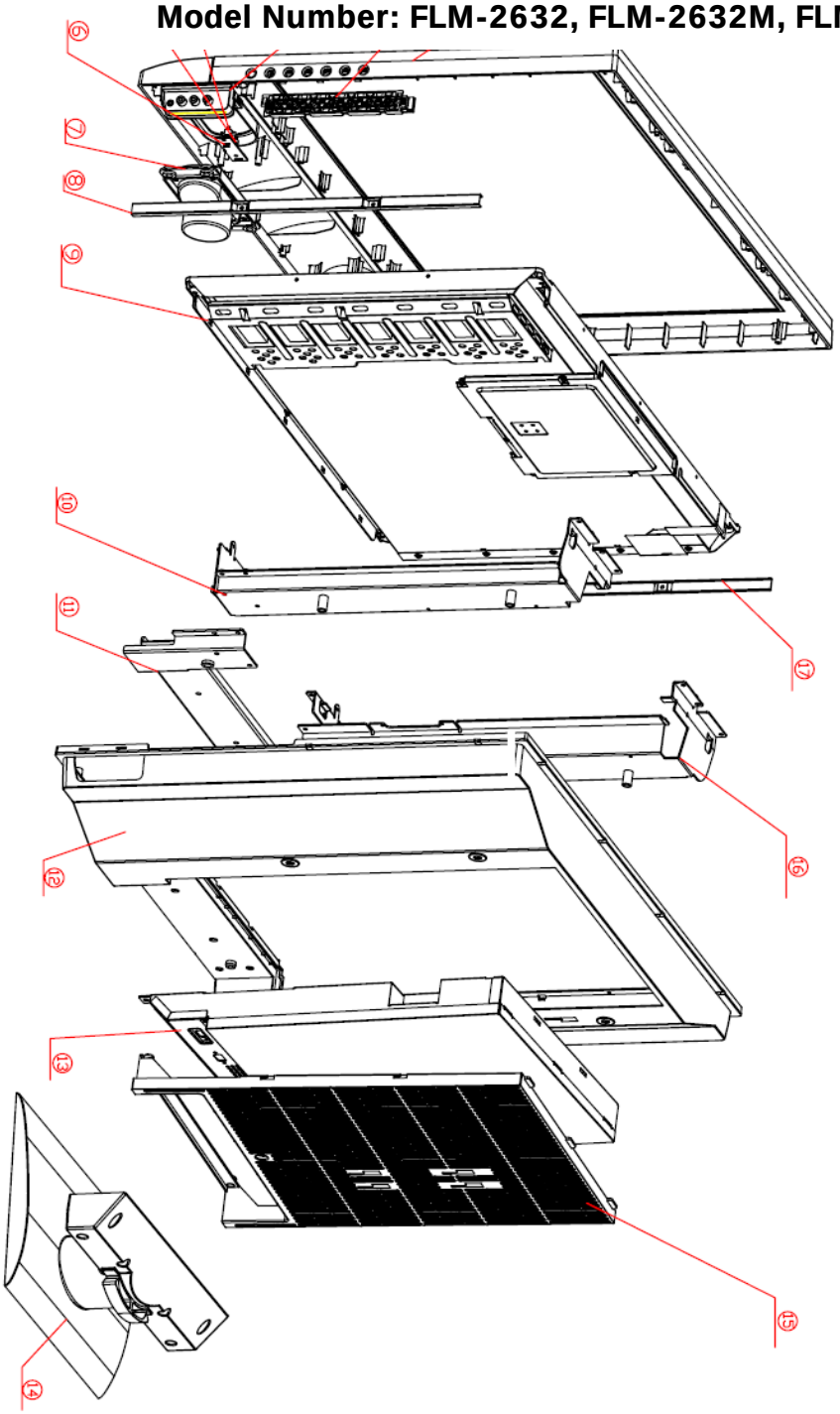
Exploded View Location	Part Number	Description
	600-181-3200-LIH	AC Power Cord
	621-181-60002H	Audio Cable
	621-181-2000H	Composite Video Cable
	621-181-3020P-1H	Component Cable
	845-B45-GF1XA-PH	Remote Control
Page 38/Number 11	909-KS0-GF321XA	Control Box Assembly
Page 38/Number 2	899-K00-GF271XAH	Front/Side Control Buttons
Page 38/Number 5	899-E00-GF271XAH	IR Board
Page 38/Number 3	899-A00-GF271XAHA	Front/Side A/V Input Assembly.
Page 38/Number 18	705-532-050C-4AH	32" LCD Panel
Page 38/Number 1	151-103-FPH7WH	Front Bezel Black
Page 38/Number 15	151-002-FPH7GH	Rear Cabinet Black
Page 38/Number 13	154-004-GF32WH	Rear Cabinet Control Box Cover Black
Page 38/Number 12	151-700-GF321XAH	Stand Assembly
Page 38/Number 7	824-015-GF321L-H	Speaker (right or Left)
	631-030-GF321XAH	LVDS Cable

Polaroid FLM-3734B Part List

Exploded View Location	Part Number	Description
	600-181-3200-LIH	AC Power Cord
	621-181-60002H	Audio Cable
	621-181-2000H	Composite Video Cable
	621-181-3020P-1H	Component Cable
	845-B45-GF1XA-PH	Remote Control
Page 39/Number 13	909-KS0-GF371XA	Control Box Assembly
Page 39/Number 2	899-K00-GF271XAH	Front/Side Control Buttons
Page 39/Number 6	899-E00-GF271XAH	IR Board
Page 39/Number 3	899-A00-GF271XAHA	Front/Side A/V Input Assembly.
Page 39/Number 9	705-537-401AX1H	37" LCD Panel
Page 39/Number 1	151-103-FC57WH	Front Bezel Black
Page 39/Number 12	151-002-FC57GH	Rear Cabinet Black
Page 39/Number 15	154-004-GF32WH	Rear Cabinet Control Box Cover Black
Page 39/Number 14	151-700-GF371XAH	Stand Assembly
Page 39/Number 7	824-015-GF321L-H	Speaker (right or Left)
	631-030-GF321XAH	LVDS Cable

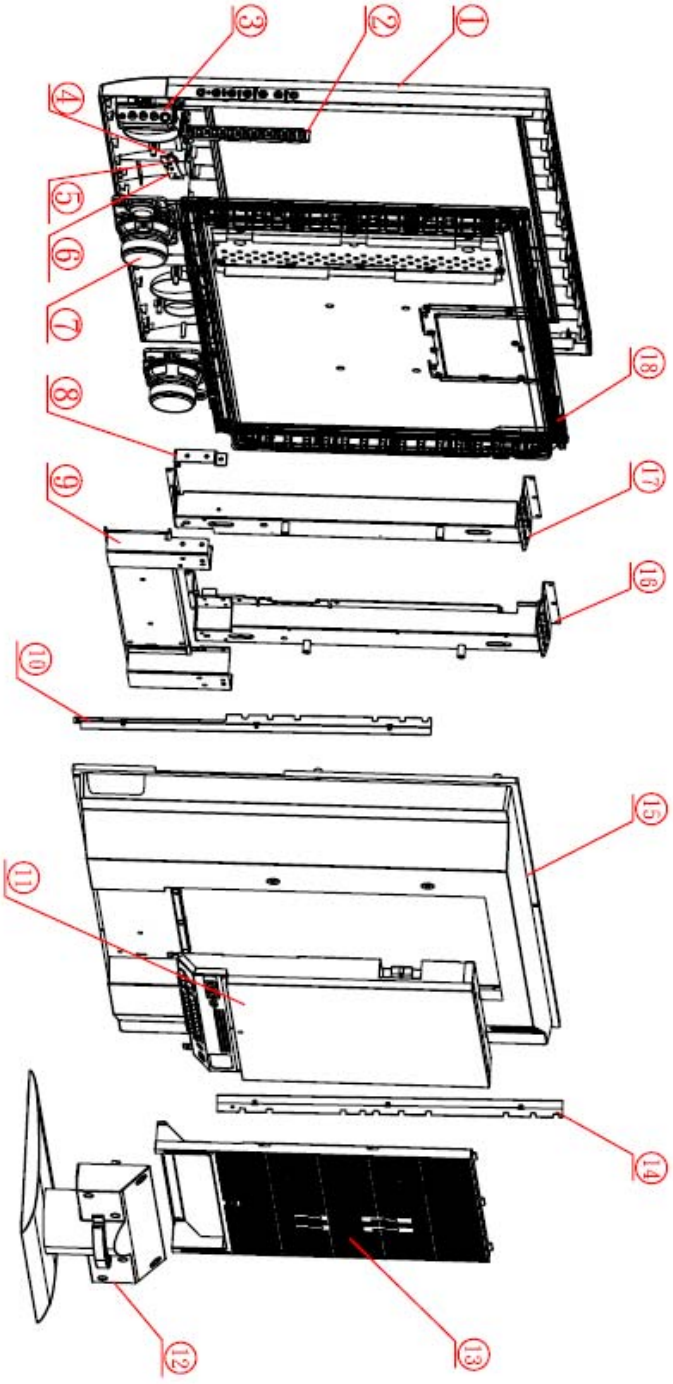
8. Exploded Diagram and Spare Parts List

Model Number: FLM-2632, FLM-2632M, FLM-2634B



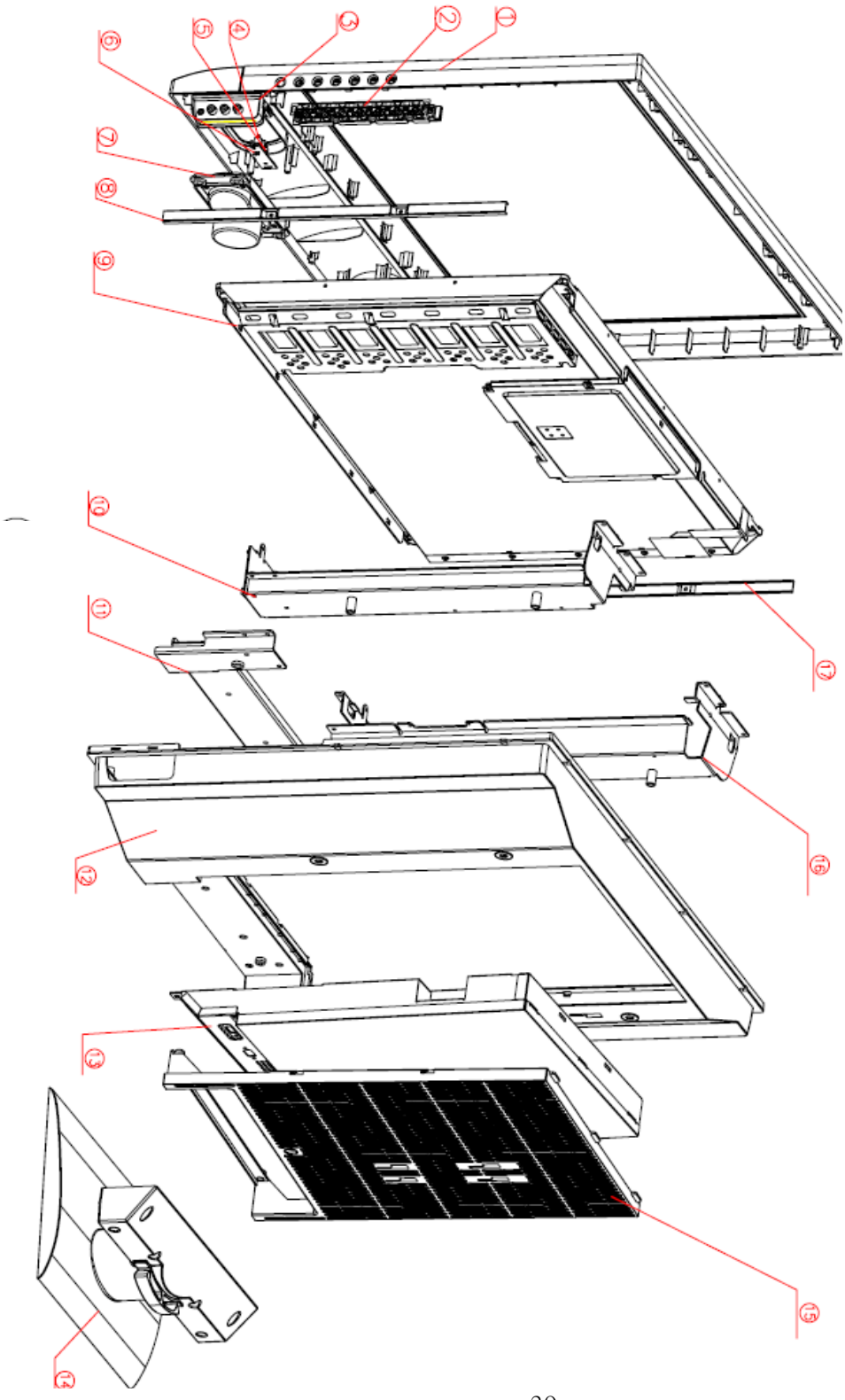
8. Exploded Diagram and Spare Parts List

Model Number: FLM-3232, FLM-323B, FLM-3232M, FLM-3234B

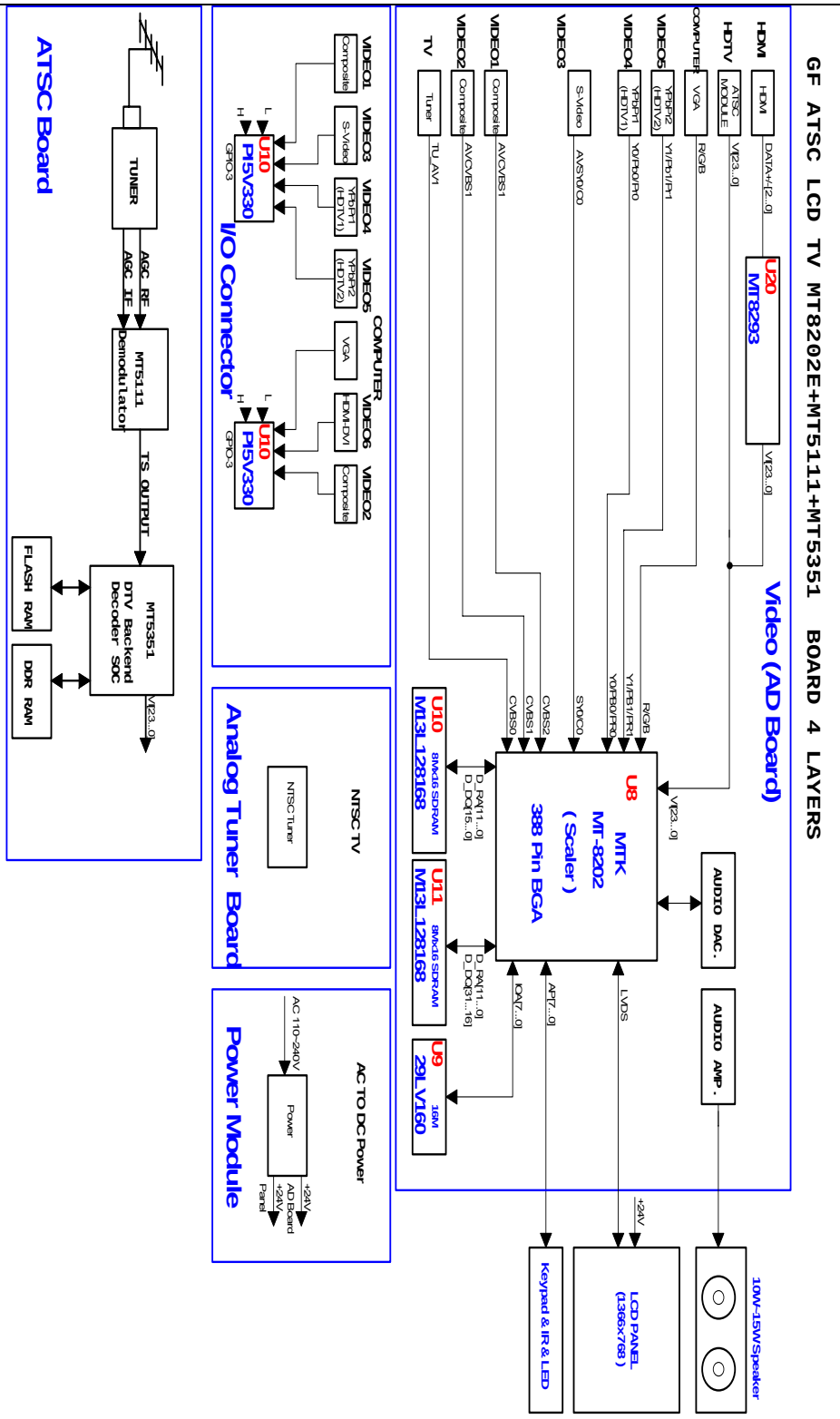


8. Exploded Diagram and Spare Parts List

Model Number: FLM-3732, FLM-373B, FLM-3732M, FLM-3734B

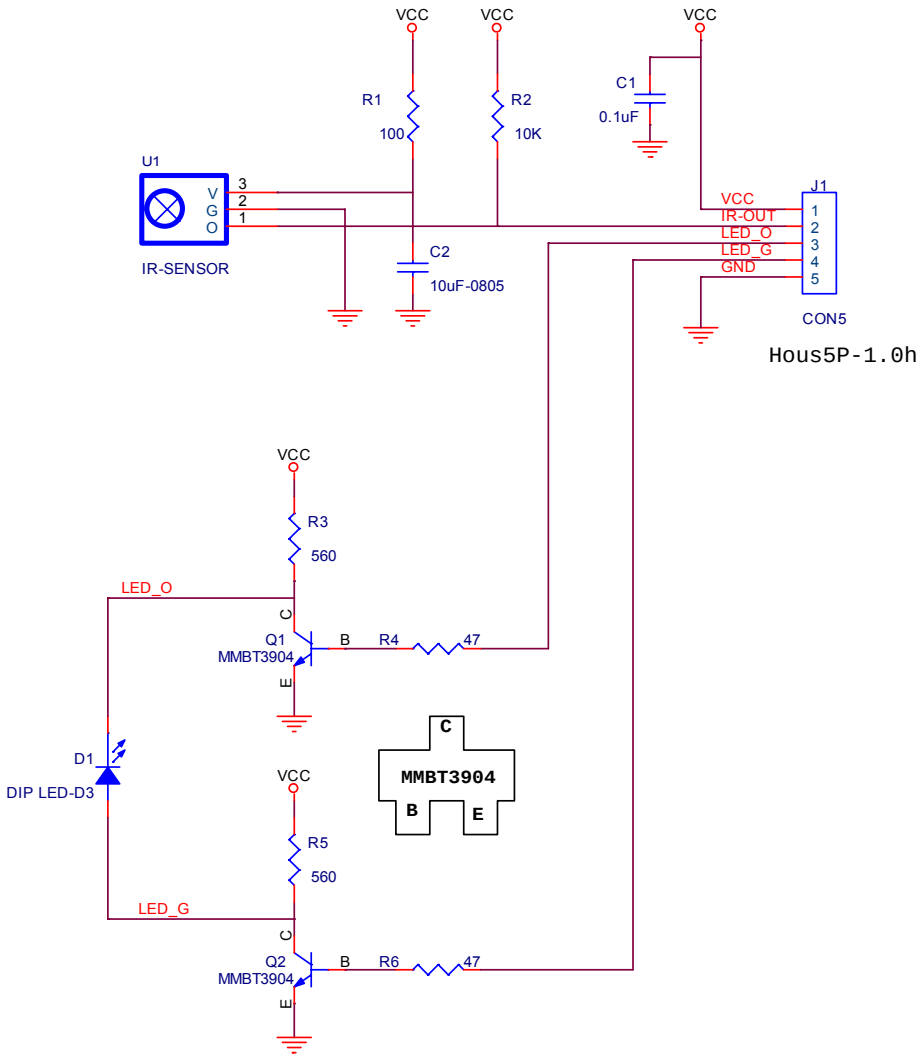


9. Block Diagram

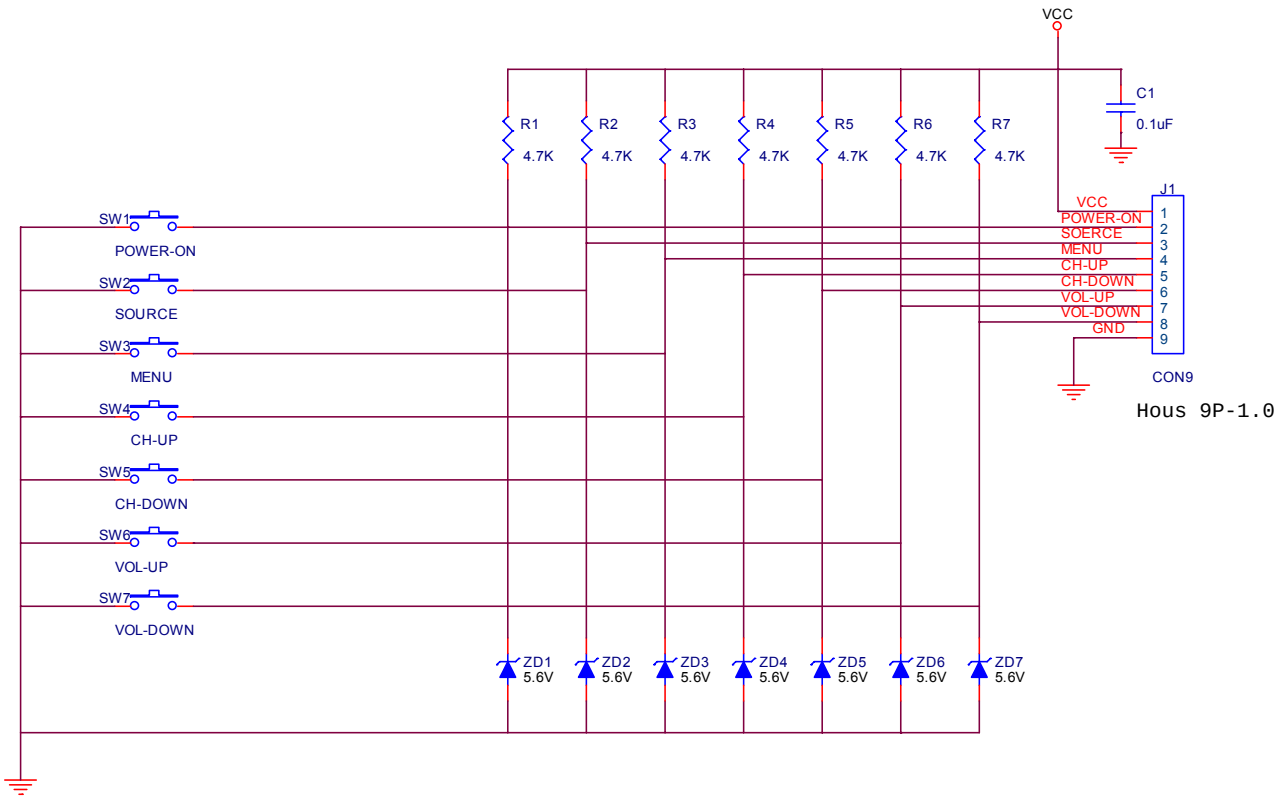


10. Schematic Diagram

IR/LED Board

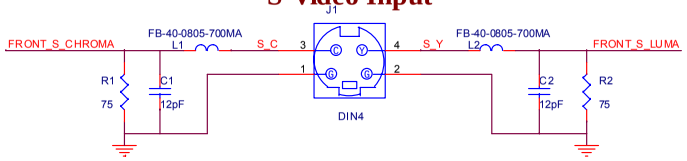


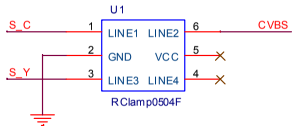
Keypad Board

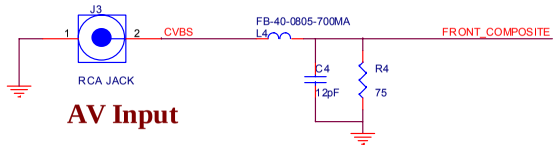


AV AUX Board

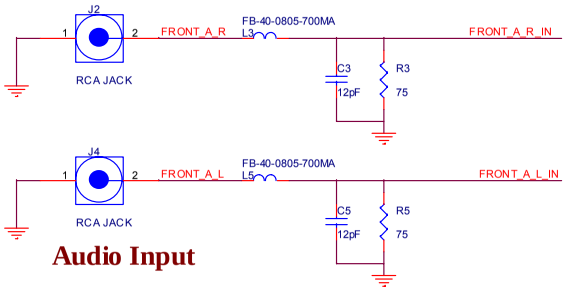
S-Video Input



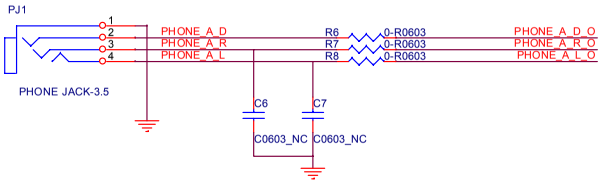


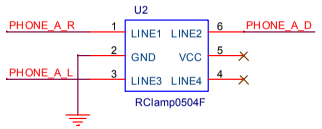


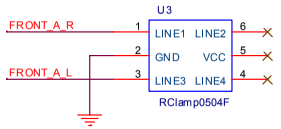
AV Input



Audio Input

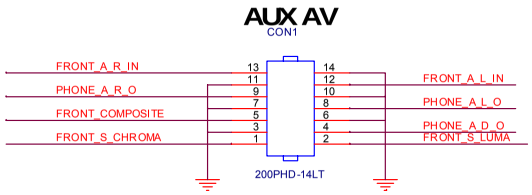






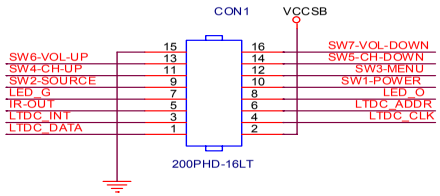
CON1 : FRONT AV INPUT/OUTPUT 200PHD Series 2X8 (16pin)

AUX AV



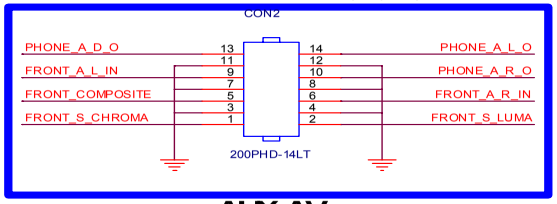
LINK TO AUX AV PCB 1

200PHD Series 2X8 (16pin)



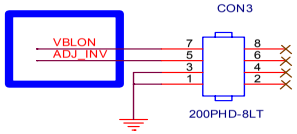
CTRL Key

200PHD Series 2X7 (14pin)



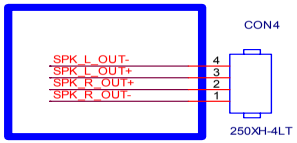
AUX AV

200PHD Series 2X4 (8pin)

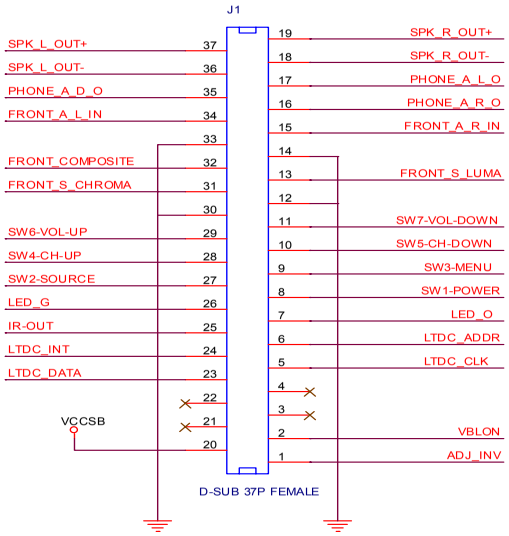


INVERTER CTRL

250XH Series 1X4 (4pin)

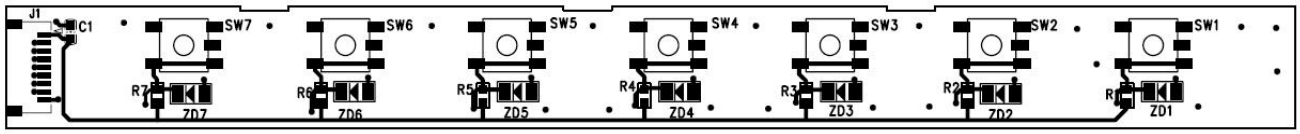


SPK OUT

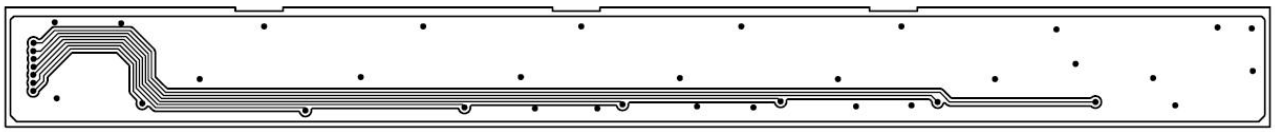


11. PCB Layout Diagram

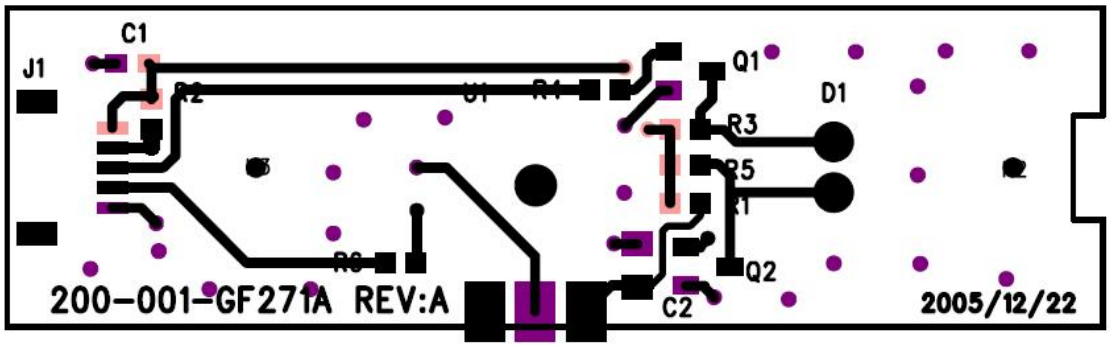
Keypad Board (Component Side Top)



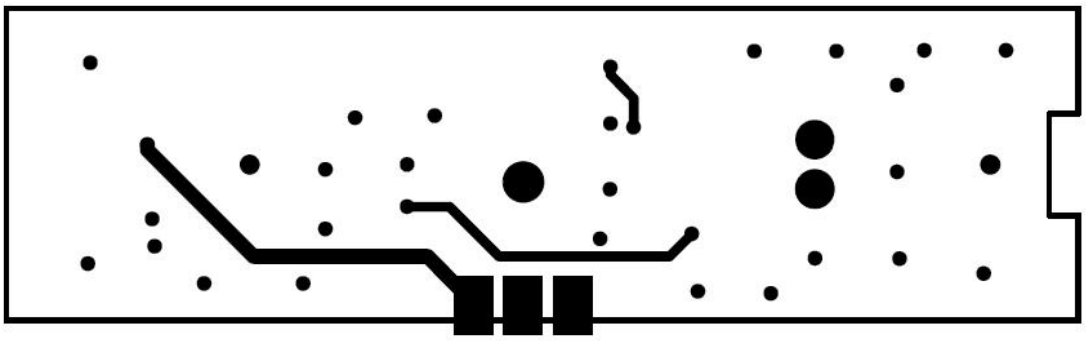
Keypad Board (Component Side Bottom)



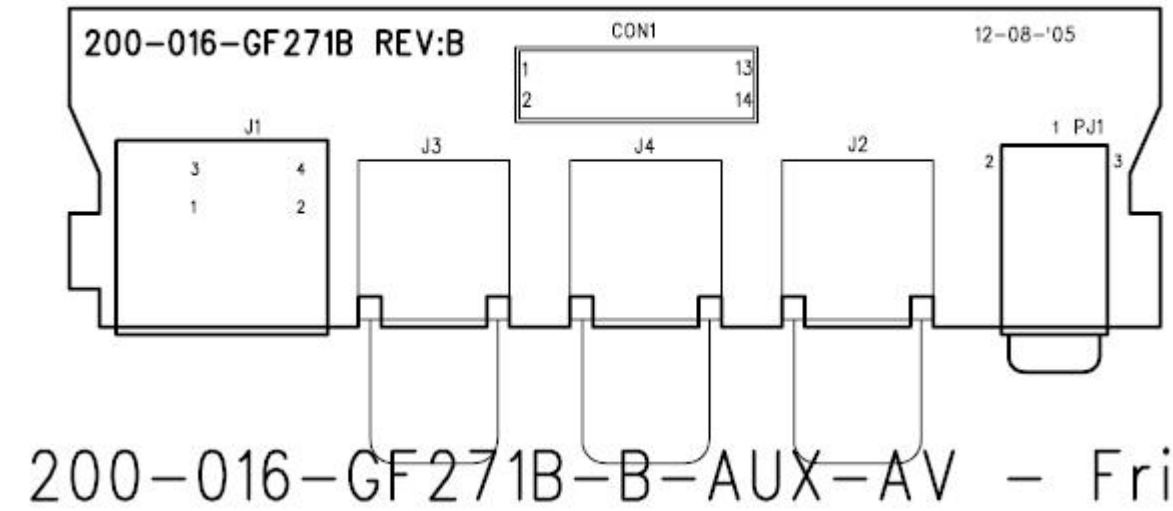
IR/LED Board (Component Side Top)

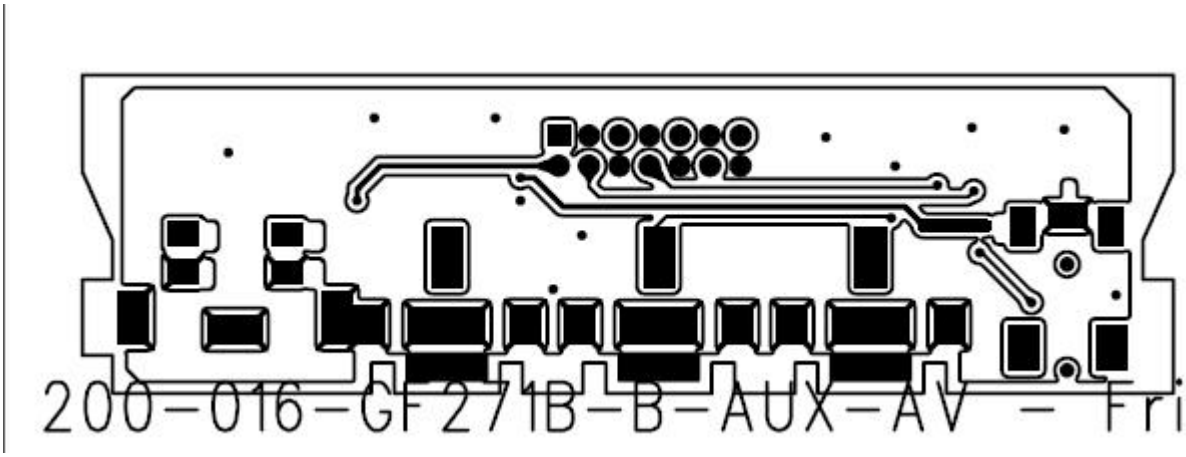


IR/LED Board (Component Side Bottom)

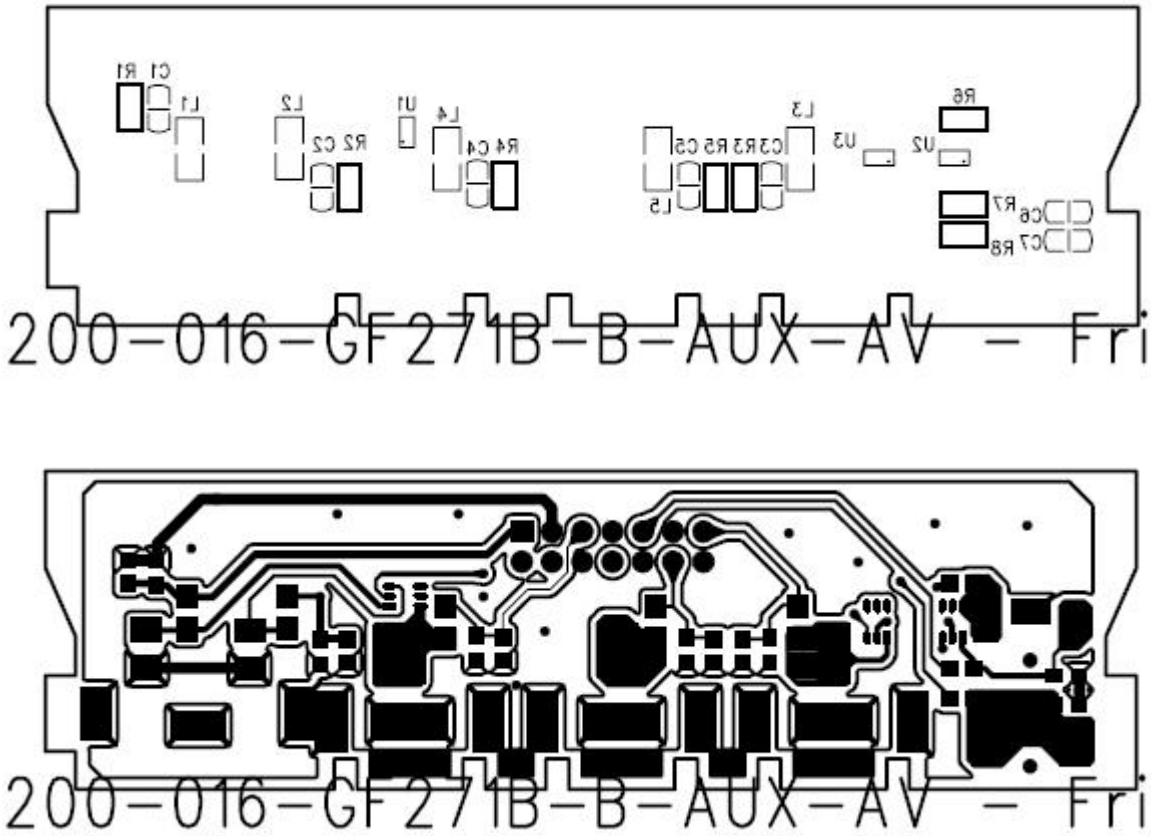


AUX AV Board (Component Side Top)

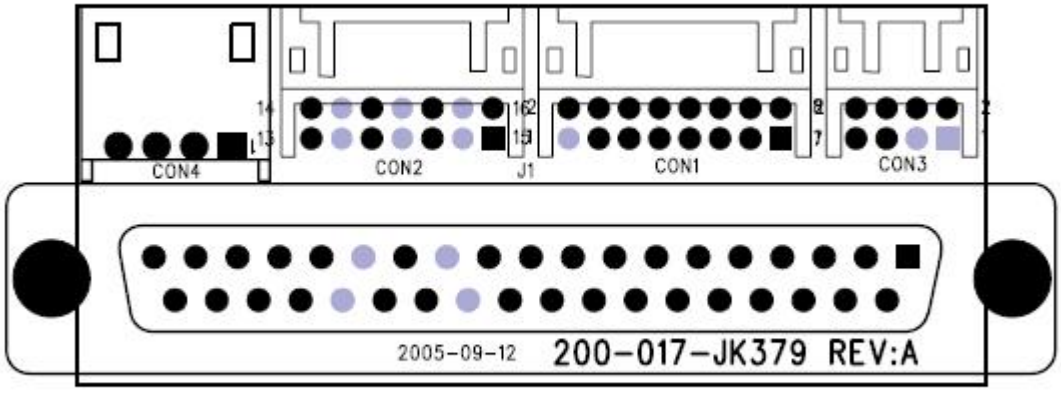




AUX AV Board (Component Side Bottom)



D-SUB 37 Pin Board (Component Side Top)



D-SUB 37 Pin Board (Component Side Bottom)