2006 LCD Models

FLM-2632, FLM-2632M, FLM-2634B, FLM-3232, FLM-3232M, FLM-323B, FLM-3234B, FLM-3732, FLM-3732M, FLM-373B, FLM-3734B, FLX-374

SERVICE MANUAL

Bezel covers vary by model

20070411

Important Service and Safety Information

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 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 extensive 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.

Important Service and Safety Information

Service work should be performed only by qualified service technicians familiar with all safety checks and these service guidelines:

ELECTRIC SHOCK HAZARD

Always disconnect AC power before servicing!
Never modify any circuit!
Never insert any objects into the holes in the TV case!

ELECTROSTATIC DISCHARGE (ESD)

Components inside an LCD or plasma TV are sensitive to static electricity. Before servicing the TV, follow these guidelines:

- Avoid static-causing surfaces such as carpeted floors, plastic, and packing foam.
- Remove replacement components from their antistatic bags only when you are ready to use them. Do not lay components on the outside of antistatic bags because only the inside of the bags provide electrostatic protection.
- Always hold components by their edges. Avoid touching the edge connectors. Never slide components over any surface.
- Wear a grounding wrist strap (available at most electronics stores) and attach it to a bare metal part of your workbench or other grounded connection.
- Touch a bare metal surface on your workbench or other grounded object before touching any components.

PRECAUTIONS FOR USING LEAD-FREE SOLDER

Components within this television use lead-free solder (Sn-Ag-Cu). Look at the markings on board and components within the television to determine the correct solder type and match to the table below:

5 LEAD-FREE (Pb-Free) CATEGORIES

The following categories are meant to describe the Pb-free 2nd level interconnect terminal finish, component material, and/or the solder paste/solder used in board assembly:

e1 - SnAgCu (shall not be included in category e2)
e2 - Sn alloys with no Bi or Zn excluding SnAgCu
e3 - Sn
e4 - Precious metal (e.g., Ag, Au, NiPd, NiPdAu) (no Sn)
e5 - SnZn, SnZnx (no Bi)
e6 - contains Bi
e7 - low temperature solder (≤ 150 °C) containing Indium (no Bi)
e0, e8, e9 symbols are unassigned at this time.

When repairing components soldered with lead-free solder, ONLY use lead-free solder that matches the symbol on the component. Using conventional lead solder may lead to damage or a short, which could result in fire, electric shock, or other hazards.

Because the melting point of lead-free solder is higher than conventional lead solder, observe the following guidelines when soldering with lead-free solder:

(1) Always use a dedicated soldering bit for different types of solder. If a different type of solder comes in contact with a lead-free solder bit, subsequent solder joints will no longer be lead free. Always clean the soldering bit after every use.

(2) Keep the soldering bit in contact with the just long enough to confirm a good solder joint. Leaving the bit in contact with parts for an extended period may damage the components.

(3) Because lead-free solder contains a higher concentration of tin, the tip of the soldering bit may be easily corroded or damaged. Do not leave the bit powered on for extended periods. When the tip of the soldering bit is blackened during use, clean the bit with steel wool or fine sandpaper.

NOTICE ABOUT REPLACEMENT PARTS

Many electrical and mechanical parts within LCD or plasma televisions are chosen for their specific safety characteristics within the overall system. Replacing individual parts with components rated for higher voltage or wattage can be dangerous!

Replacement parts must always be identical to those originally used in the television. Unauthorized substitute parts may result in fire, electric shock, or other hazards.

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Model Specifications are located in User Manual. Go to polaroid.com to obtain User Manual.

1. Operation

Front/Right Side View and Controls

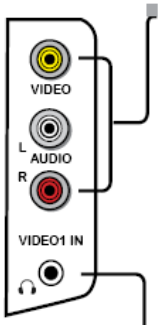
VOLUME▲▼
Adjusts the volume up and down.
Selects the main-menu item and change values for items when in the OSD mode.

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.

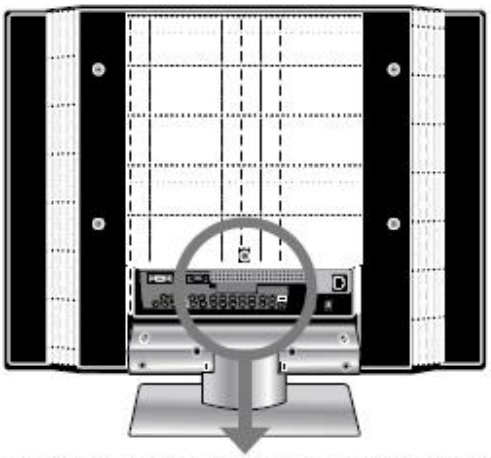
⏻
Turns the LCD TV on and into standby mode.



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

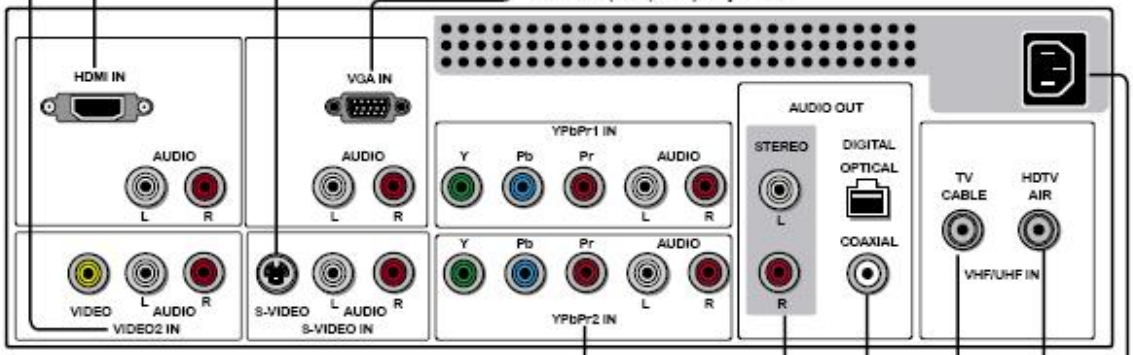


VIDEO2 IN
Connects to the composite VIDEO and AUDIO(L/R) output jacks on external video equipment.

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.

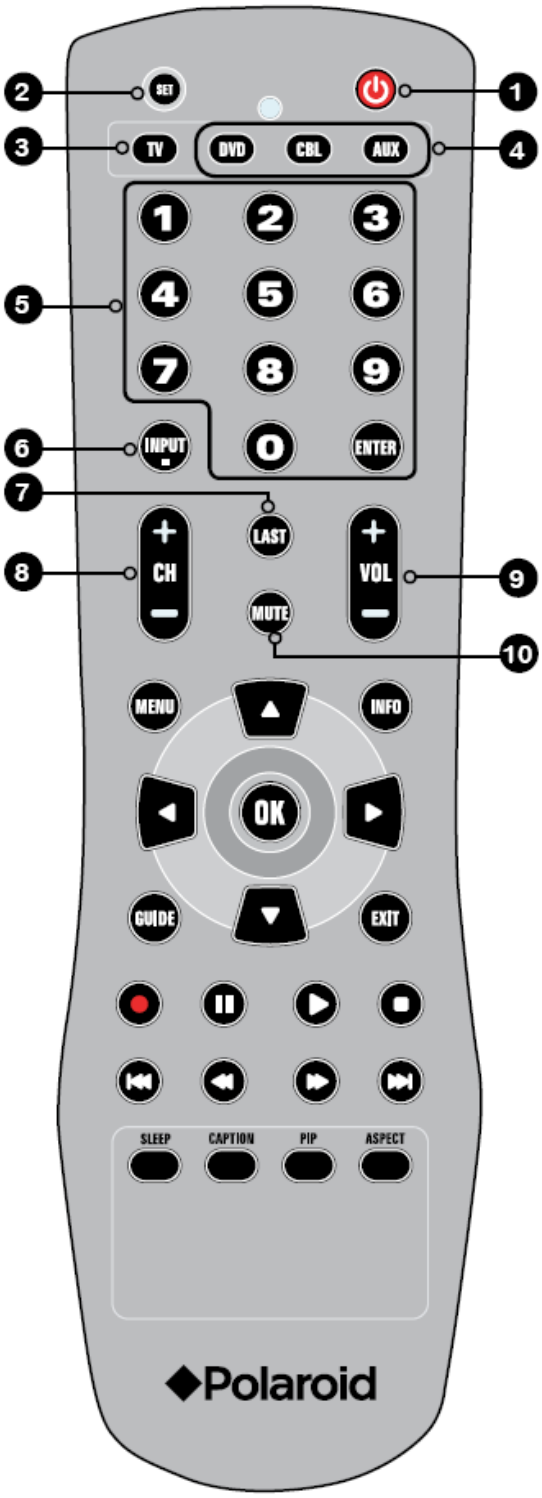
AUDIO OUT-DIGITAL-OPTICAL/COAXIAL
Connects to the OPTICAL AUDIO jack on the digital/standard 5.1 audio system.

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

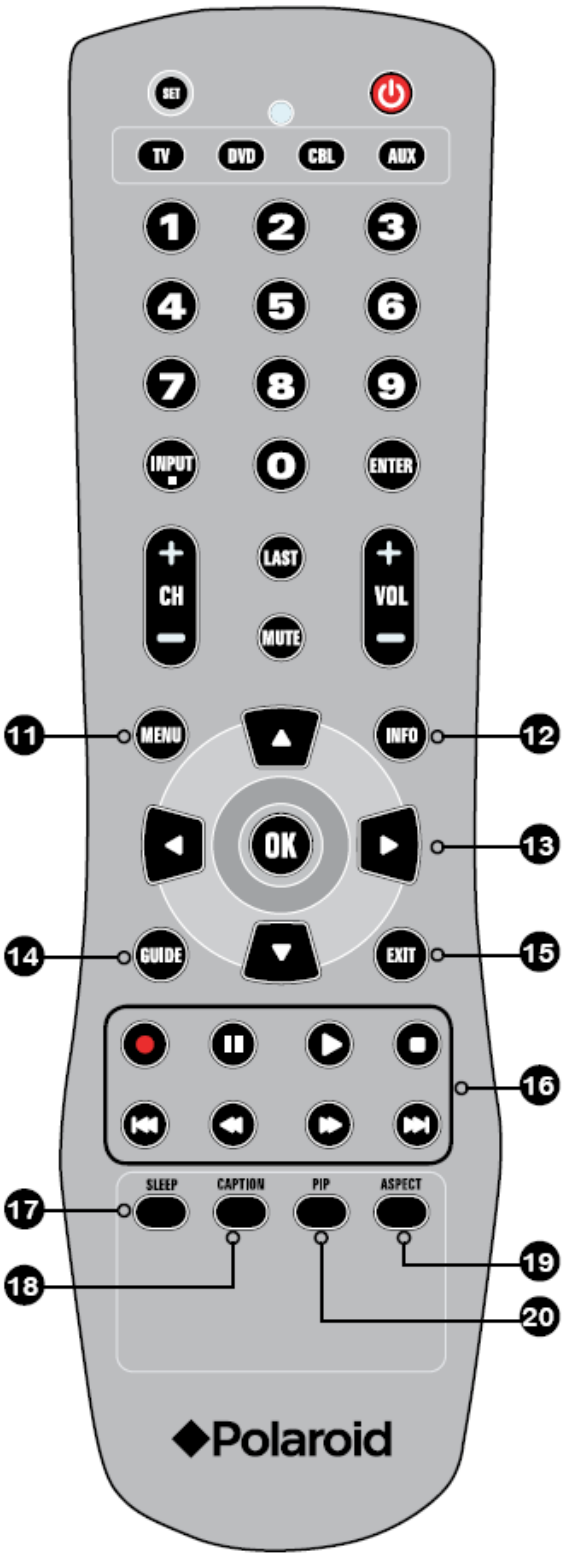
VHF/UHF IN-HDTV-AIR
Connects RF input from VHF/UHF antenna or cable to receive high/standard definition television.

AC IN
Connects to the AC power cord.

Original Remote Control



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.

New Remote Control

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	CBL	Controls Cable Converter or Satellite Receiver.
	DVD	Controls DVD player or Video player.
	AUX	Controls Audio Amplifier.
5	SLEEP	Cycles through the LCD TV sleep time: OFF/30/60/90/120 mins.
6	⏮ ⏭ ◀◀ ▶ ▶▶ ● ⏸ ■	Other device function keys
7	VOL+-	Increases and decreases volume.
8	CH+-	Change channel up and down.
9	MUTE	Pressing once mutes audio. Pressing again restores audio.
10	ASPECT	Cycles through Wide mode settings: NORMAL/FULL/WIDE/ZOOM.
11	LAST	Returns to previously selected channel.
12	GUIDE	In HDTV mode, pressing GUIDE displays the Program Guide on the screen.
13	PIP	Turns PIP/POP on and off.

14	MENU	Displays the OSD menu on the screen.
15	▲▼►◄,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.
16	CAPTION	Cycles through the Closed Caption: OFF/CC1/CC2/CC3/CC4/TT1/TT2/TT3/TT4.
17	INFO	Pressing once displays a variety of information such as the current channel and the input source.
18	EXIT	Exits the OSD menu.
19	0-9/ENTER	Pressing a number selects a channel. Following selection, pressing ENTER activates the channel, or channel activates automatically in 3 seconds.
20	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.

Factory Mode Procedure

1. Power on TV.
2. Press volume up and channel up buttons on the TV simultaneously and release.
3. Power off TV with remote or power button to exit.

The operation of each OSD control is described in the 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 brightness.
	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 effect 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 a channel is set to SKIP, when scanning 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**/ Spanish/French	Set 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 automatically go into standby state when the preset time is up.
		Off	Set auto sleep function off.

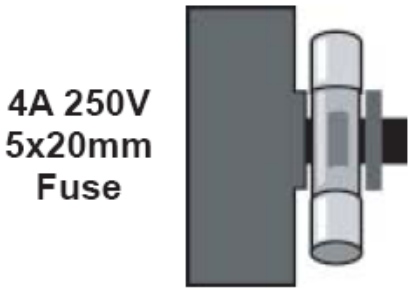
	Closed Caption	C1,C2,C3,C4,T1,T2, TT4,and **Off**	Set the closed caption mode.
	V-chip	Input Password	Input the 4-digit password. **"0000"**
		Block MPAA Rating	Set the input source that you want to lock.
		Block TV Rating	Input the old password first, and then input the new password.
		Block MPAA Unrated	Block all unrated movies.
		Block TV None Rating	Block all 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 to English, French, or Spanish.
	Time Zone		Set the Time Zone value to 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 channels that had not searched last time. Range mode: To search receivable channels in the setting range.
	Channel Skip		If a channel is set to SKIP, when scanning up/down channels the selected channel will be skipped.
	Analog Closed Caption		Set the analog closed caption value to OFF,CC1,CC2,CC3,CC4,TEXT1,TEXT2, TEXT3 and TEXT4.
	Digital Closed Caption		Set the digital closed caption value to 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.

2. Troubleshooting / Flow Charts

Note: Reseat all cables, check fuse by AC plug, perform a clear or reset in factory mode and retest before ordering parts.

Can't power on your TV?

This TV is equipped with a safety fuse. In the event of an electrical storm or power outage the safety fuse is designed to protect your TV. If your TV has no power, check the fuse by prying the cover off, following the illustration below. If the fuse is blown, visit your local hardware store and ask for a 4A 250V - 5x20mm Time Lag Fuse (Slow Blow) to replace the fuse.

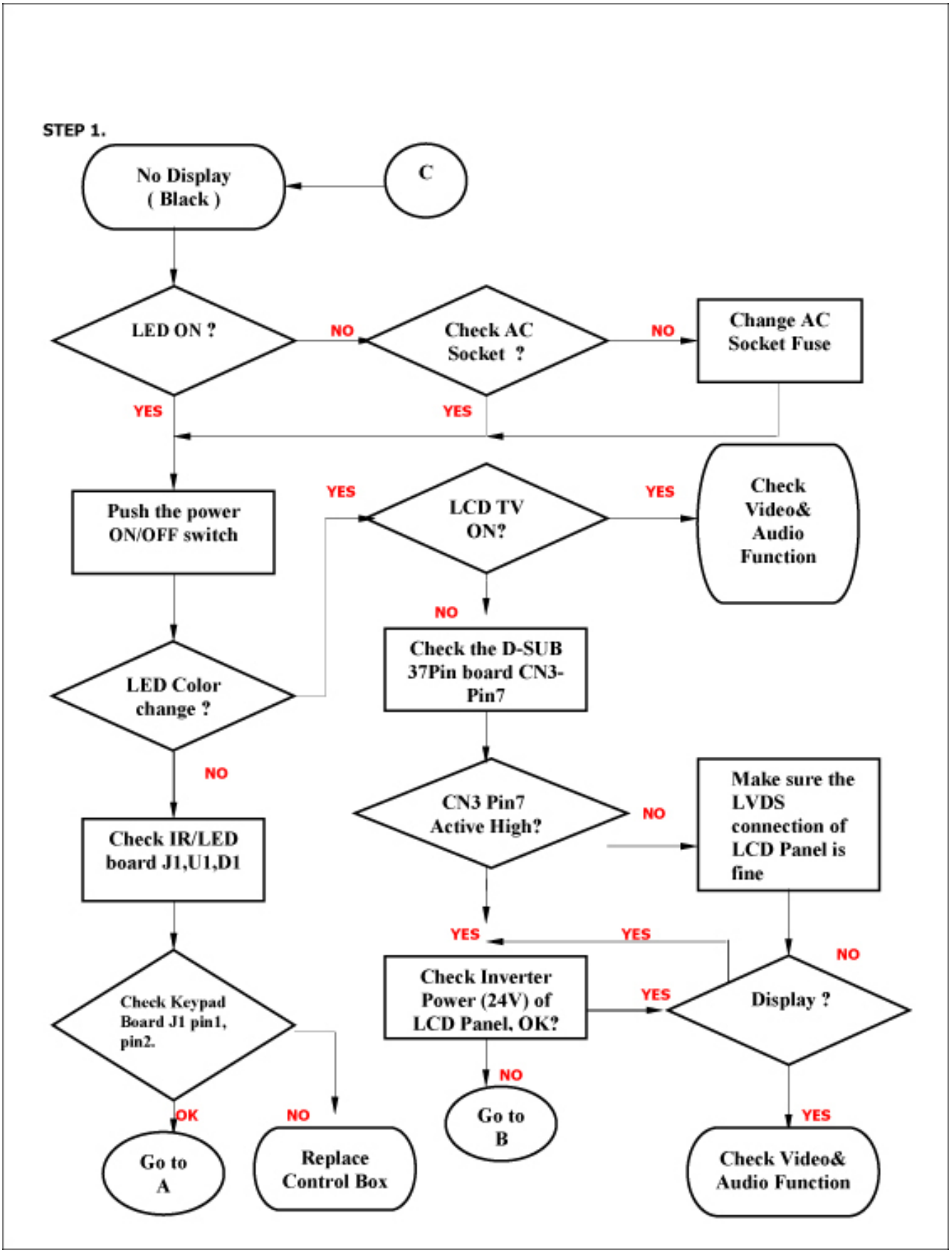


Having trouble with setting your Parental Controls (V-Chip)?

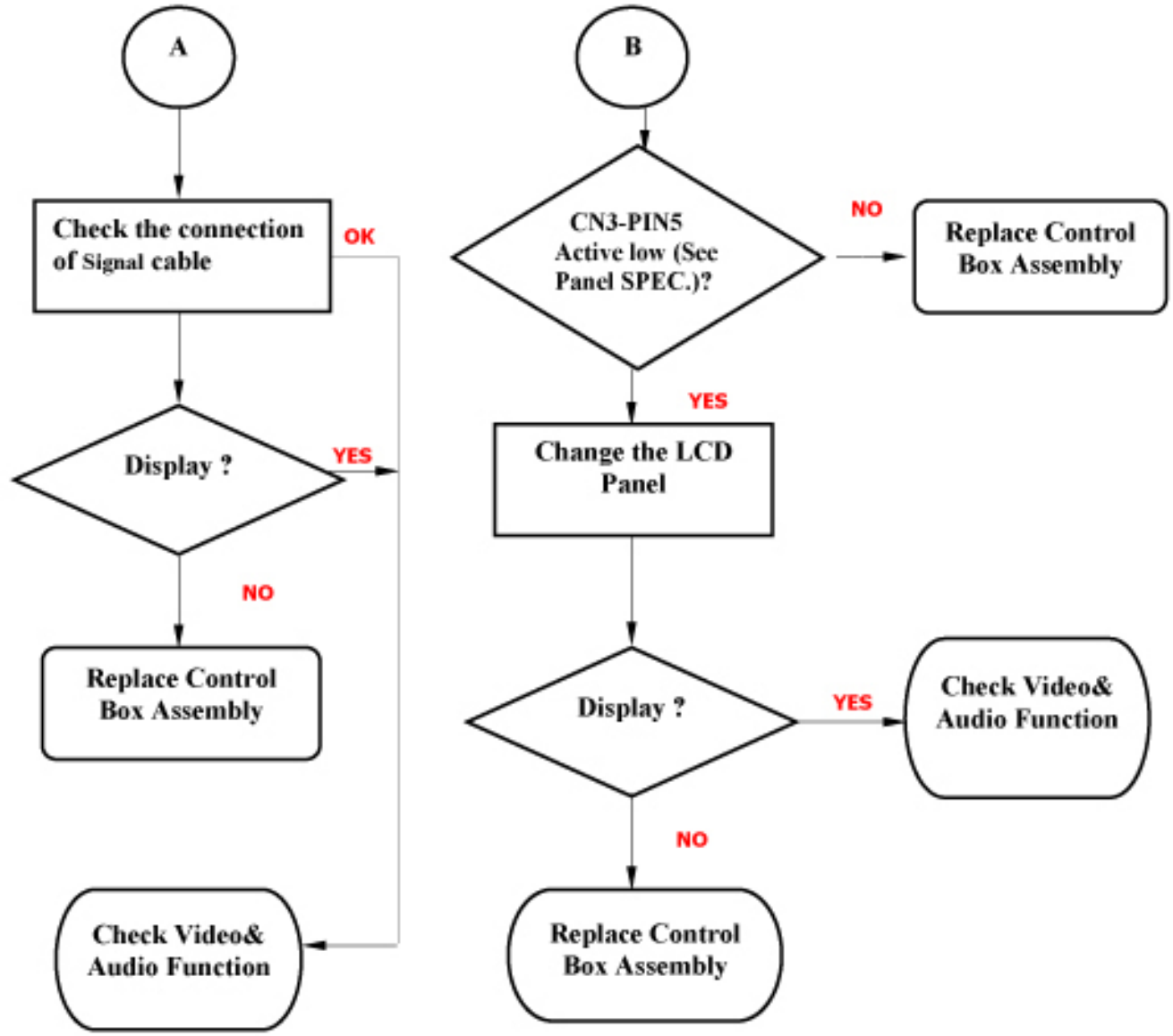
The factory preset password is 0000. This password must be used first before setting your own personal password. It is recommended that you keep your personal password in a safe place and away from children. In the event you loose your personal password the master password is 8202. The master password overrides all passwords. The master password can't be changed and should be kept in a safe place away from children.

Having trouble with setting Picture-in-Picture settings?

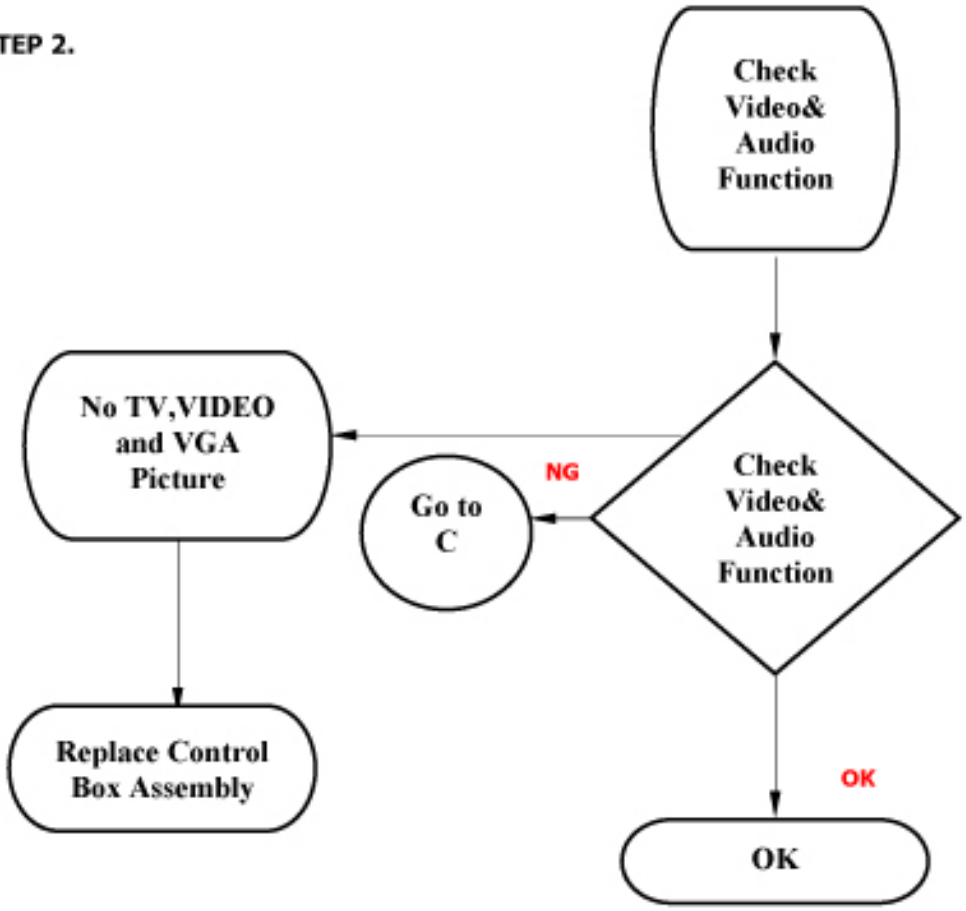
The Picture-in-Picture will not work using Component 1 and Component 2 as the input sources.


STEP 1.
No Display (Black)
C
LED ON ?
NO
Check AC Socket ?
NO
Change AC Socket Fuse
YES
YES
Push the power ON/OFF switch
YES
LCD TV ON?
YES
Check Video& Audio Function
NO
LED Color change ?
Check the D-SUB 37Pin board CN3-Pin7
NO
CN3 Pin7 Active High?
NO
Make sure the LVDS connection of LCD Panel is fine
Check IR/LED board J1,U1,D1
YES
YES
NO
Check Keypad Board J1 pin1, pin2.
Check Inverter Power (24V) of LCD Panel, OK?
YES
Display ?
NO
OK
NO
YES
Go to A
Replace Control Box
Go to B
Check Video& Audio Function

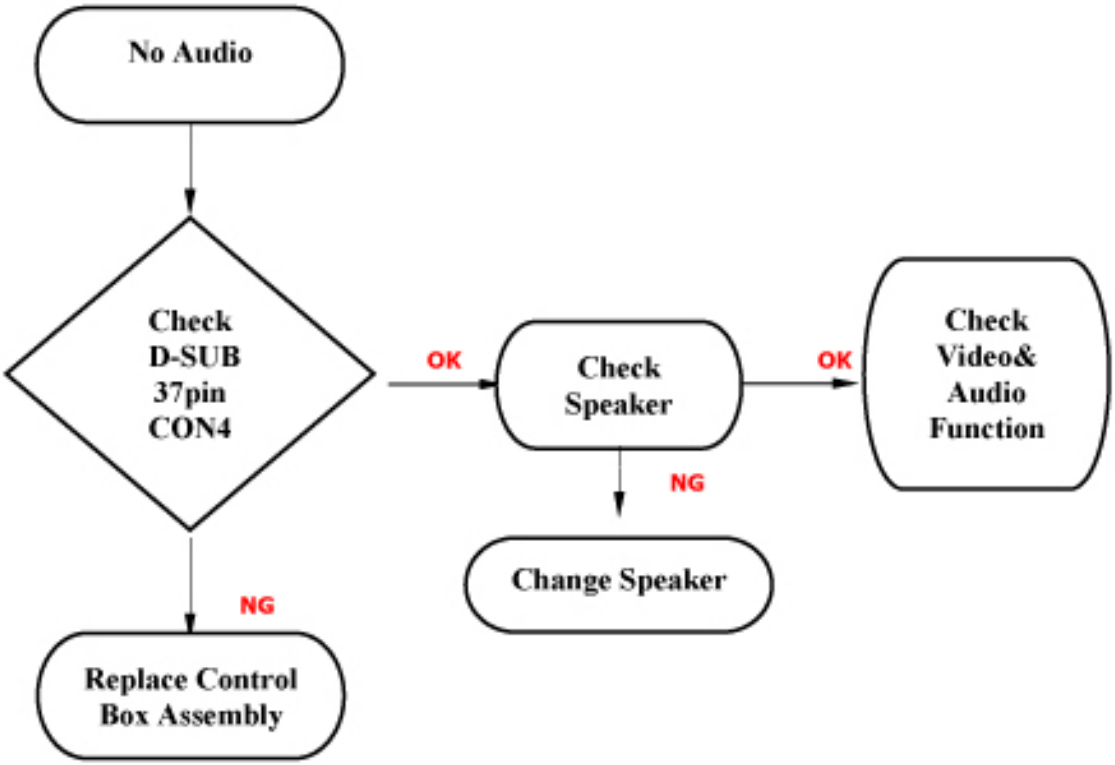
STEP 1 Continued.



STEP 2.


Check Video& Audio Function
Check Video& Audio Function
NG
Go to C
No TV,VIDEO and VGA Picture
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

3. Polaroid 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 Polaroid Display Cell Defect Specifications below define the allowed limits for display cell defects and are used as the criteria in determining whether an LCD panel is replaced.

7 or more defective pixels across the entire LCD screen Polaroid will repair (replace LCD panel) or replace the TV.

4. Before Returning This Product to the User

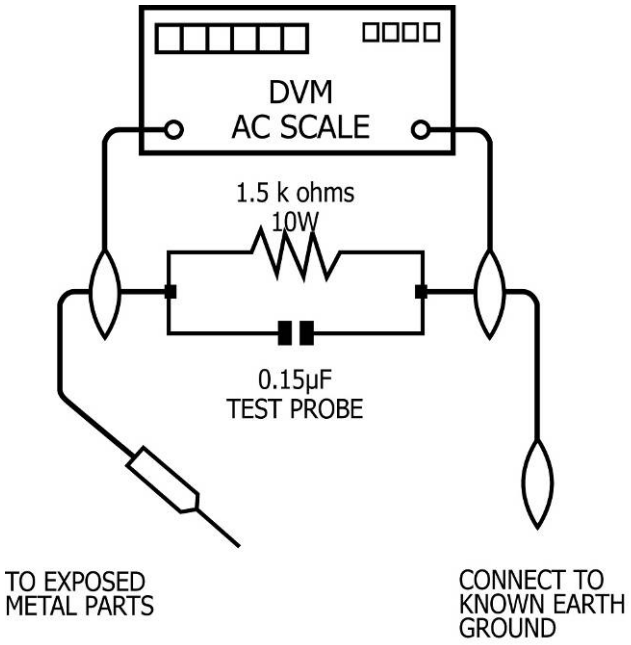
Before returning this product to the user, always perform the following safety checks:

(1) Inspect all wiring to be sure no wires are pinched between the chassis or any metal parts.

(2) Inspect all protective devices for proper installation, including non-metallic controls, insulation materials, cabinet backs, compartment covers, and shields.

(3) Verify that no shock hazard exists on any part of the chassis, especially any metal components including cable connection points, chassis hardware, or antennas (if equipped). Use the following procedure:

- **a.** Plug the AC cord directly into a 120 V AC outlet.
- **b.** Create a test circuit consisting of a 1.5k ohm, 10 watt resistor paralleled by a 0.15 µF capacitor.
- **c.** Using an AC voltmeter (sensitivity of 5000 ohm per volt or higher), measure the voltage drop across the test circuit between all exposed metallic parts and a known earth ground. Measurement points include antenna, metal cabinet parts, screw heads, and metal knobs or controls. Measurement points can vary slightly even between revisions of the same model, so always conduct a thorough review of the chassis to locate metal points that a user may touch.
- **d.** Any voltage reading of 0.375 Vrms AC (0.25 mArms) or higher indicates a potential shock hazard. **THIS CONDITION MUST BE CORRECTED BEFORE RETURNING THE PRODUCT TO THE USER!**
- **e.** Repeat the above checks with the AC polarity reversed. A non-polarized adapter is required to reverse the polarity; DO NOT LEAVE THIS ADAPTER WITH THE USER! Under normal operation the product must use the proper polarity.



5. Disassembly Procedure

Note: Before disassembly of any part the TV, make sure the power is OFF, and the power cord is removed from the wall outlet. Allow time for power within all system boards to discharge before you begin disassembly. Never insert any objects into the vent holes in the TV case.

Note: Before returning this product to the end user, you must follow the steps outlined in the section, Before Returning This Product to the User, on page 19. This procedure ensures that the chassis will not cause electric shock.

When servicing an LCD or plasma TV, always observe the following safety guidelines:

- Wear a grounding (ESD) wrist strap, and use a grounded or dissipative work mat.
- Use a stable and strong work surface that is large enough to hold components you might remove.
- When removing components that are attached with a cable, unplug the cable before removing the screws to avoid damaging the cable.
- Use a magnetized screwdriver for removing screws.
- To help keep track of screws, place each component's screws next to the component on your work surface.

ELECTROSTATIC DISCHARGE (ESD)
Components inside an LCD or plasma TV are sensitive to static electricity. Before servicing the TV, follow these guidelines:

- Avoid static-causing surfaces such as carpeted floors, plastic, and packing foam.
- Remove replacement components from their antistatic bags only when you are ready to use them. Do not lay components on the outside of antistatic bags because only the inside of the bags provide electrostatic protection.
- Always hold components by their edges. Avoid touching the edge connectors. Never slide components over any surface.
- Wear a grounding wrist strap (available at most electronics stores) and attach it to a bare metal part of your workbench or other grounded connection.
- Touch a bare metal surface on your workbench or other grounded object before touching any components.

Rear Cover Removal

Lay TV flat on workbench. Be careful to protect the front bezel and LCD screen from being scratched. Use protective cloth between work bench and TV front.

WARNING

Note: Before disassembly of any part the TV, make sure the power is OFF, and the power cord is removed from the wall outlet. Allow time for power within all system boards to discharge before you begin disassembly. Never insert any objects into the vent holes in the TV case.

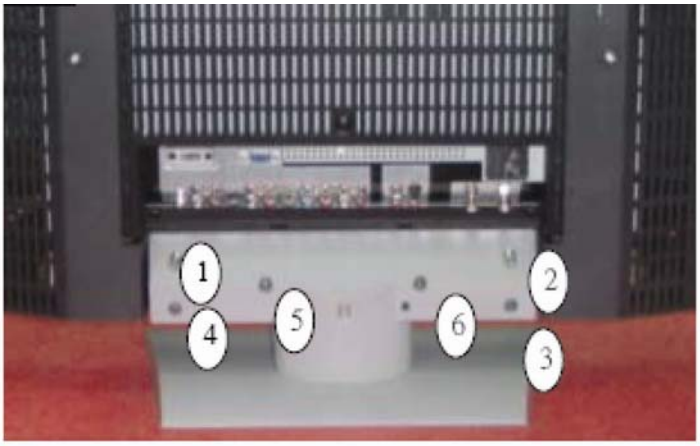
Stand Removal

(1) Lay TV flat on workbench. Be careful to protect the front bezel and LCD screen from being scratched. Use protective cloth between work bench and TV front.

(2) Remove screws in the sequence indicated below (1 thru 6).

(3) Remove stand.

***NOTE: Pictured is a 26" model. 32" and 37" models will have different stand screw quantities and locations.**

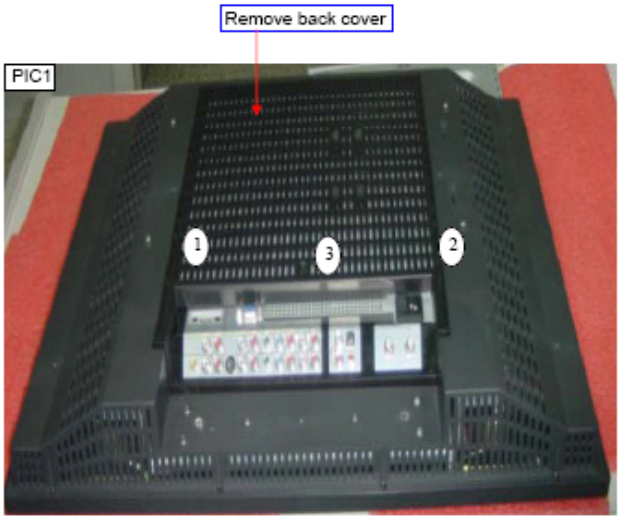


Rear Cover Removal

(4) Remove control box cover screws (PIC1 item 1, 2)

(5) Remove control box cover screws (PIC1 item 3)

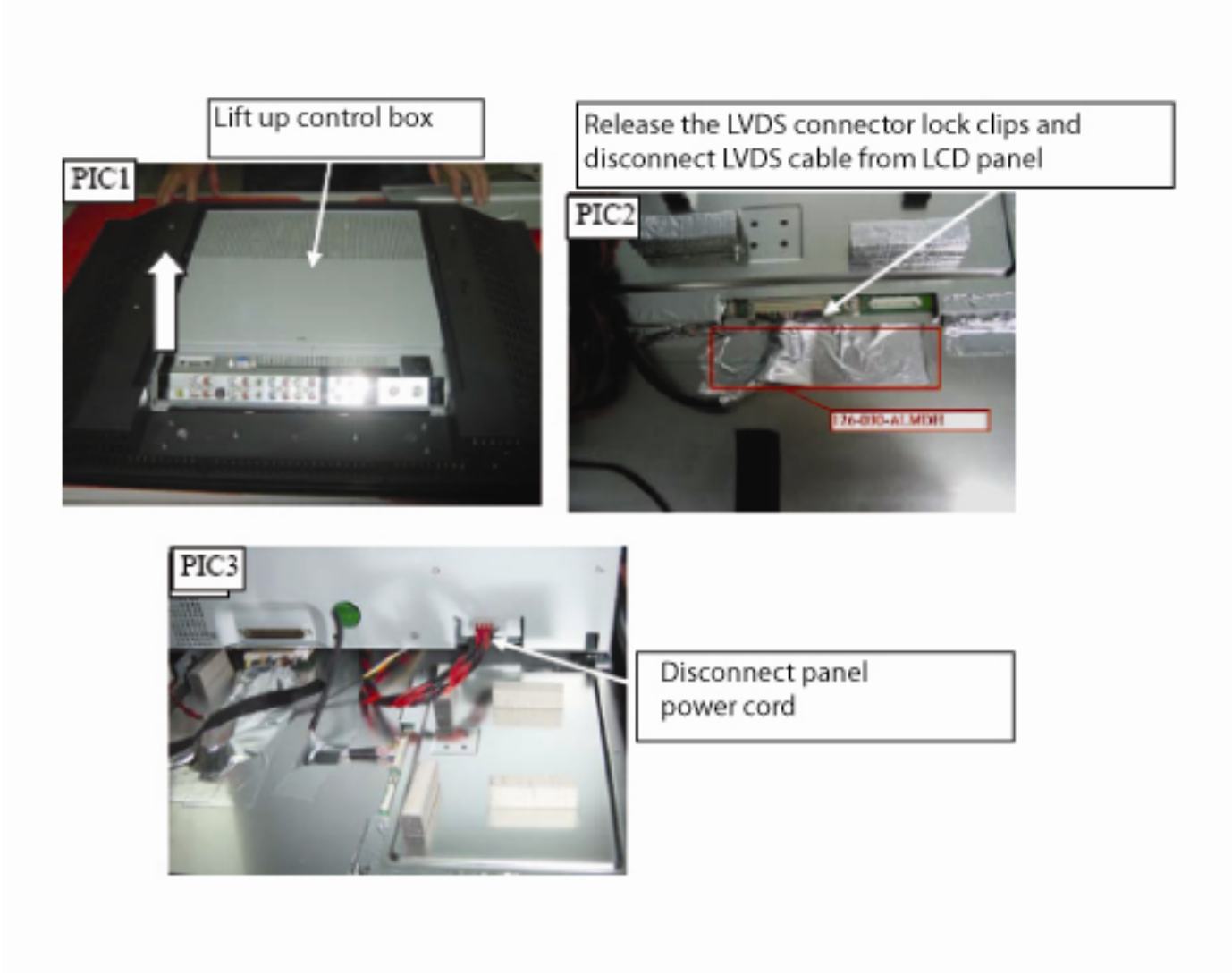
(6) Remove control box cover- slide toward bottom of TV and lift off.



(7) Lift up the control box from the A/V connector side (PIC1). There are cables underneath that are connected so be careful. Release control box from back hinges and tilt to the left (PIC3).

(8) Tear off the Aluminum foil covering the LVDS connector. Disconnect LVDS cable connector from LCD panel (PIC2).

(9) Disconnect the LCD Panel power cord from bottom side of control box (PIC3).



CAUTION

Note: Before returning this product to the end user, you must follow the steps outlined in the section, Before Returning This Product to the User, on page 19. This procedure ensures that the chassis will not cause electric shock.

Rear Cabinet Cover LCD Panel and Front Bezel

WARNING

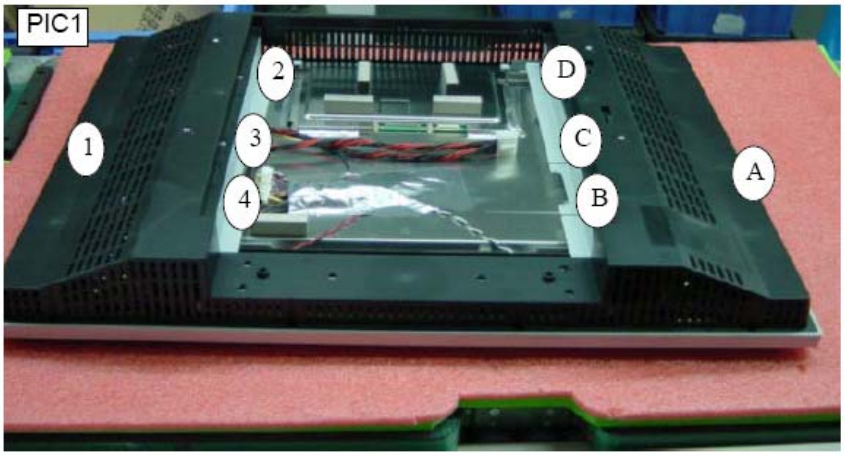
Note: Before disassembly of any part the TV, make sure the power is OFF, and the power cord is removed from the wall outlet. Allow time for power within all system boards to discharge before you begin disassembly. Never insert any objects into the vent holes in the TV case.

WARNING

Note: OEM LCD panels were used in production. The following LCD panel disassembly/removal instructions may not apply to all models. Ensure LCD panel is completely detached from the bezel before removing so the bezel is not damaged.

(1) Remove screws (PIC1) in the sequence of 1, A.

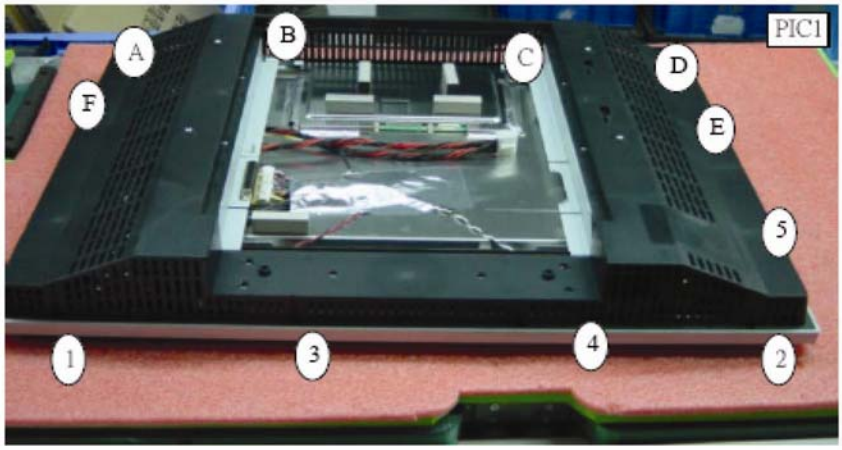
(2) Remove screws (PIC1) in sequence of 2, 3, 4, B, C, D



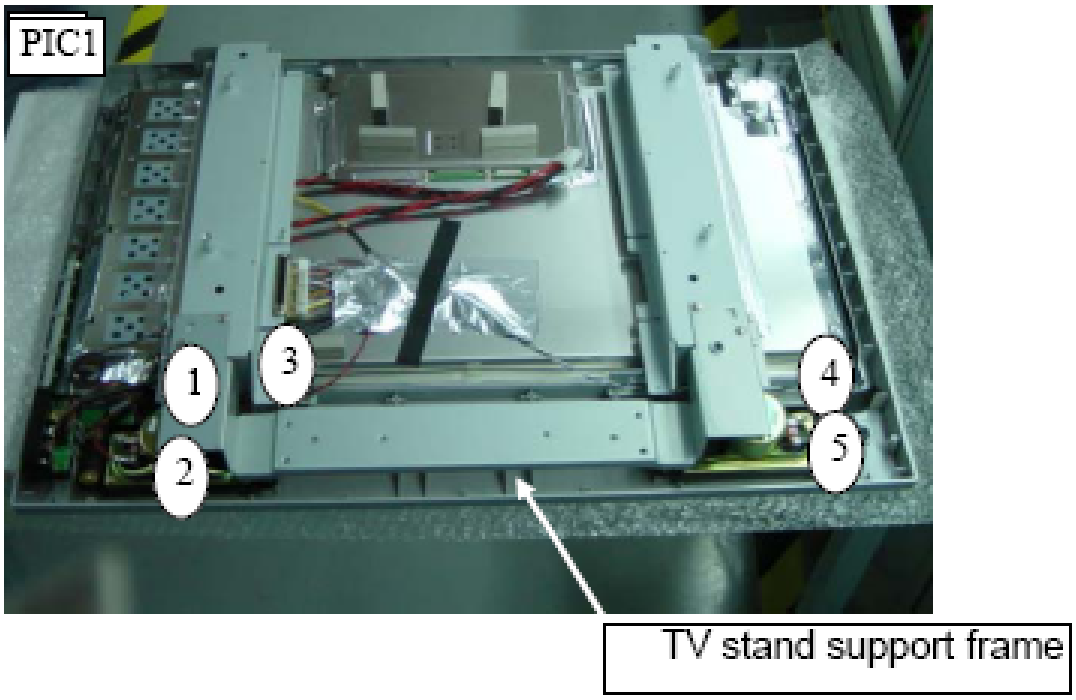
(3) Remove screws which fasten rear cabinet to front frame (PIC1) in the following sequence: A→B→C→D→E→F then 1→2→3→4→5

(4) Remove rear cabinet cover. Only the rear cabinet cover will come off.

***NOTE: Pictured is a 26" model. 32" and 37" models will have some different rear cabinet cover screw quantities and locations.**

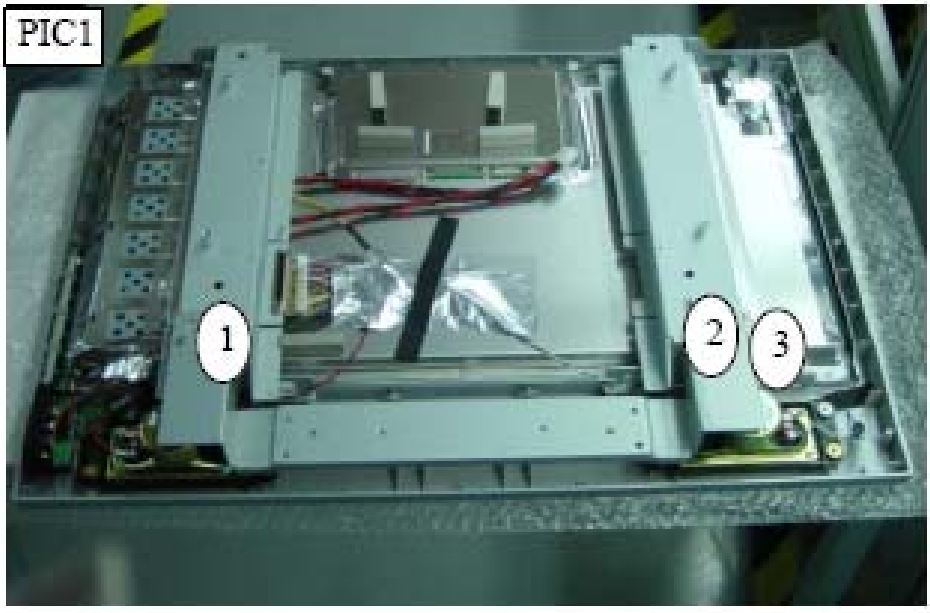


(5) Remove screws from TV stand support frame (PIC1)



(6) Remove screws from TV stand support frame (PIC1).

(7) Remove TV stand support frame.

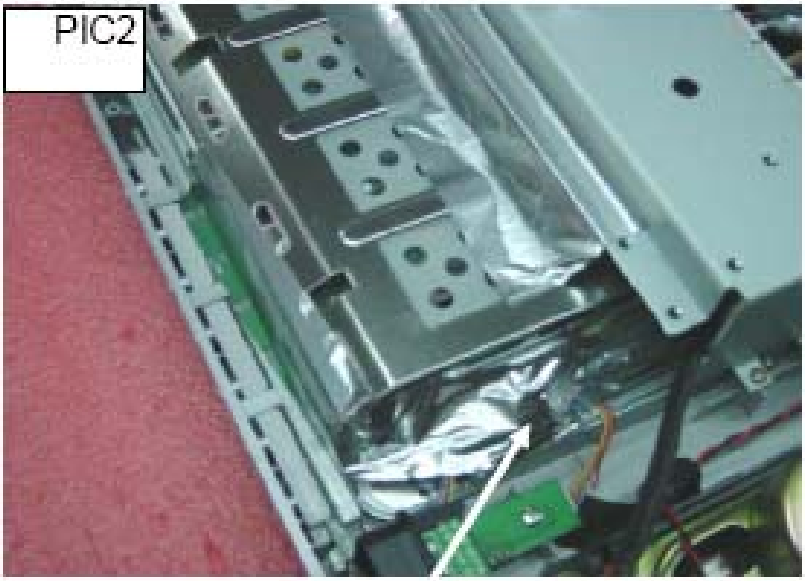


(8) Remove the EMI Aluminum Foil Sheilding Tape from the LCD Panel (PIC1, 2)

(9) EMI Aluminum Foil Sheilding Tape must be replaced during assembly.

PIC 1

PIC2

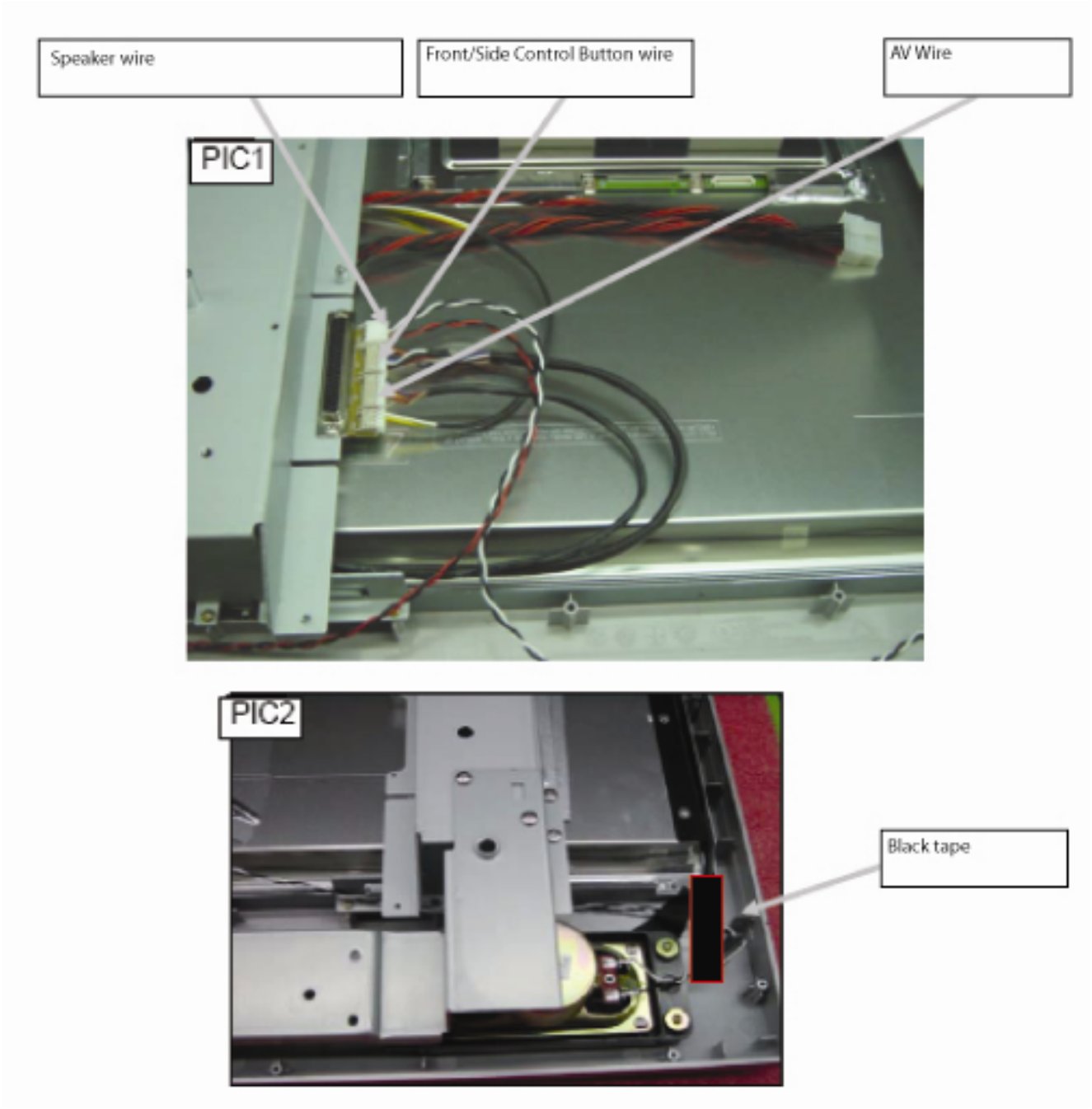


Remove the EMI Aluminum Foil Shielding Tape which secures the Keyboard wiring to the panel.

(10) Remove from the D-sub board Speaker wire, Front/Side Control Button wire, and A/V wire connectors (PIC1)

(11) Remove the black tape from the Speaker wire and Ceramic ring (PIC2)

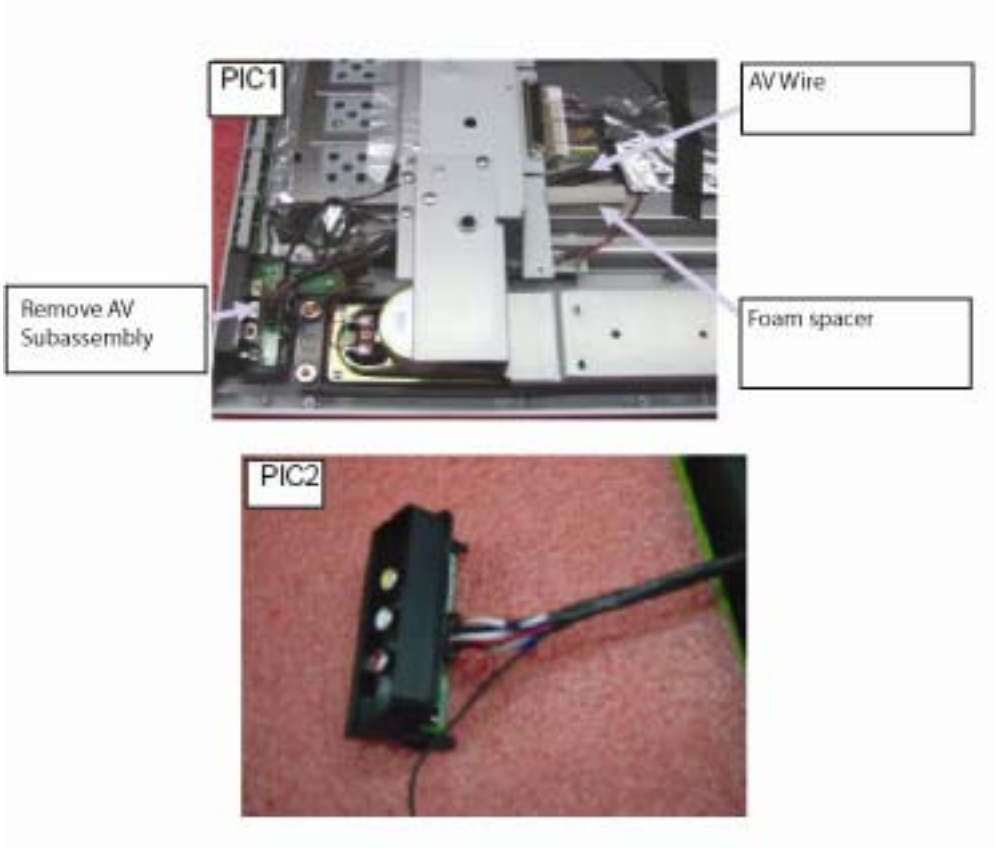
(12) Replace black tape during assembly.



(13) Remove the foam spacer from LCD Panel and remove the A/V wire under the frame (PIC1).

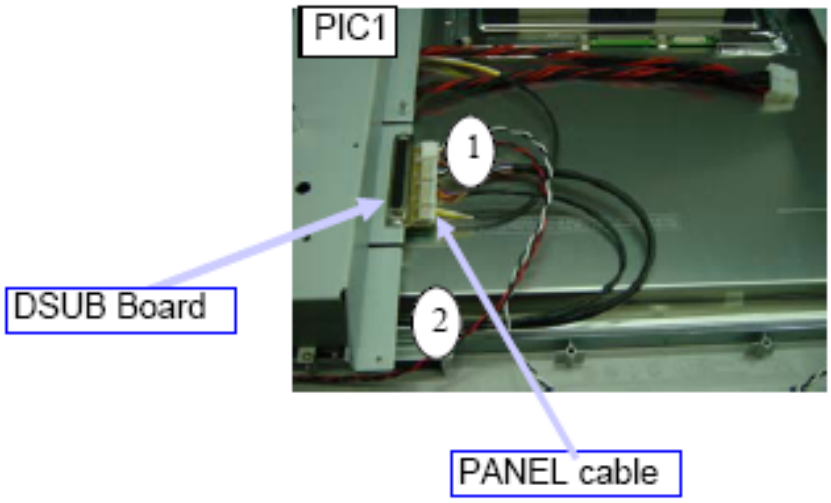
(14) Save foam spacer and place in position during assembly.

(15) Remove the A/V subassembly from the bezel (PIC2).



(16) Remove screws (PIC1) in the sequence: 1-2

(17) Disconnect the LCD Panel cable from the D-SUB board (PIC1)

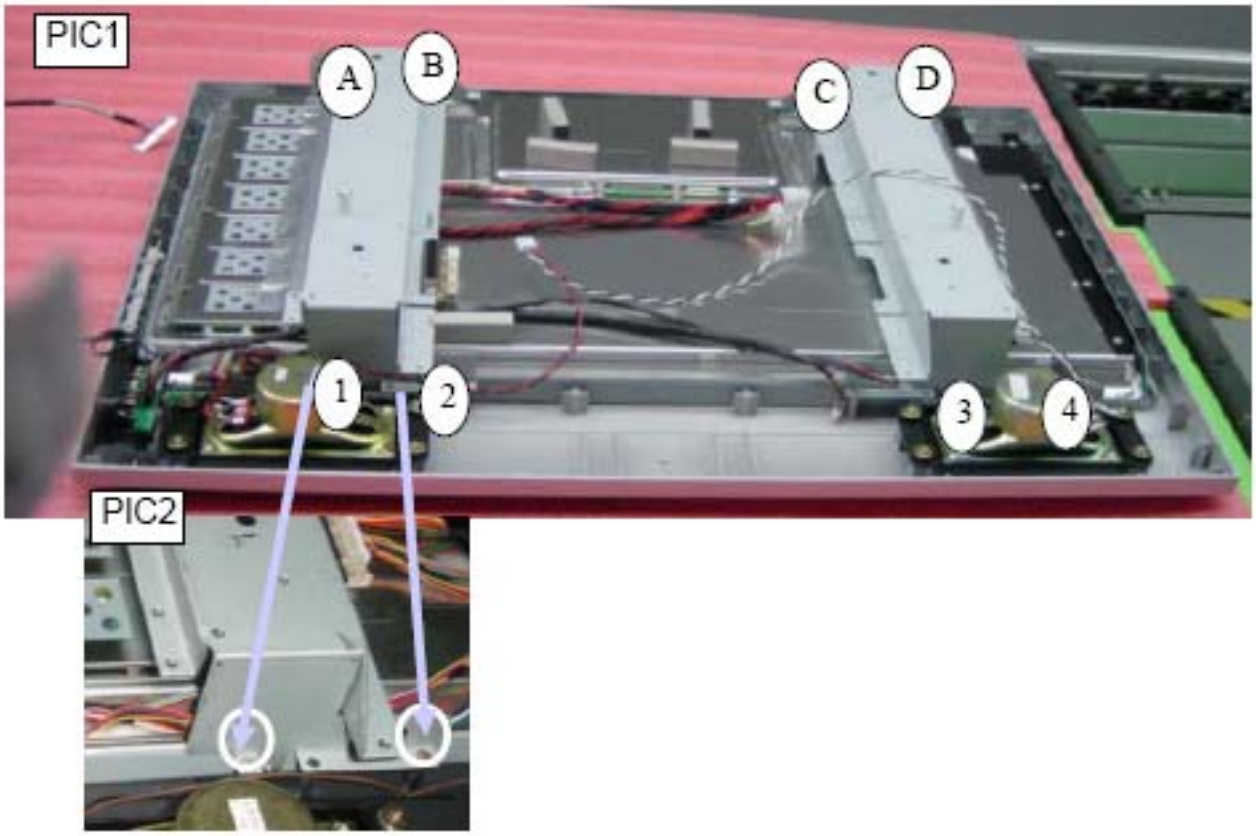


(18) Remove screws that secure the LCD panel to the bezel (PIC1, PIC2)

(19) **<u>TWO MEN REQUIRED!!</u>** Lift LCD Panel from the bezel

(20) Replace LCD panel.

(21) The front bezel can now be replaced if needed.



CAUTION

Note: Before returning this product to the end user, you must follow the steps outlined in the section, Before Returning This Product to the User, on page 19. This procedure ensures that the chassis will not cause electric shock.

A/V Board Removal and Replacement

WARNING

Note: Before disassembly of any part the TV, make sure the power is OFF, and the power cord is removed from the wall outlet. Allow time for power within all system boards to discharge before you begin disassembly. Never insert any objects into the vent holes in the TV case.

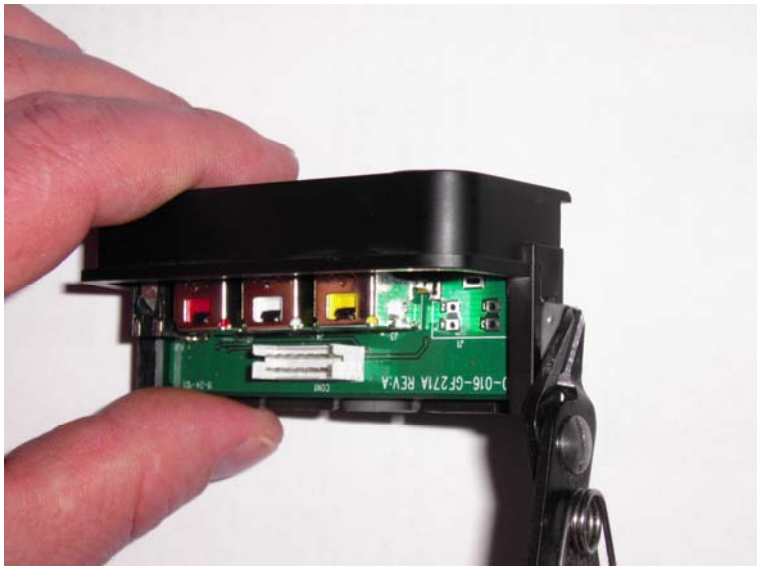
(1) Disassemble control box cover and rear cabinet cover and remove A/V assembly.

(2) Using a small pair of wire cutters grip the side-locking tab and pivot back towards the A/V cable connector (PIC1). Locking tabl 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

CAUTION

Note: Before returning this product to the end user, you must follow the steps outlined in the section, Before Returning This Product to the User, on page 19. This procedure ensures that the chassis will not cause electric shock.

IR Board Removal and Replacement

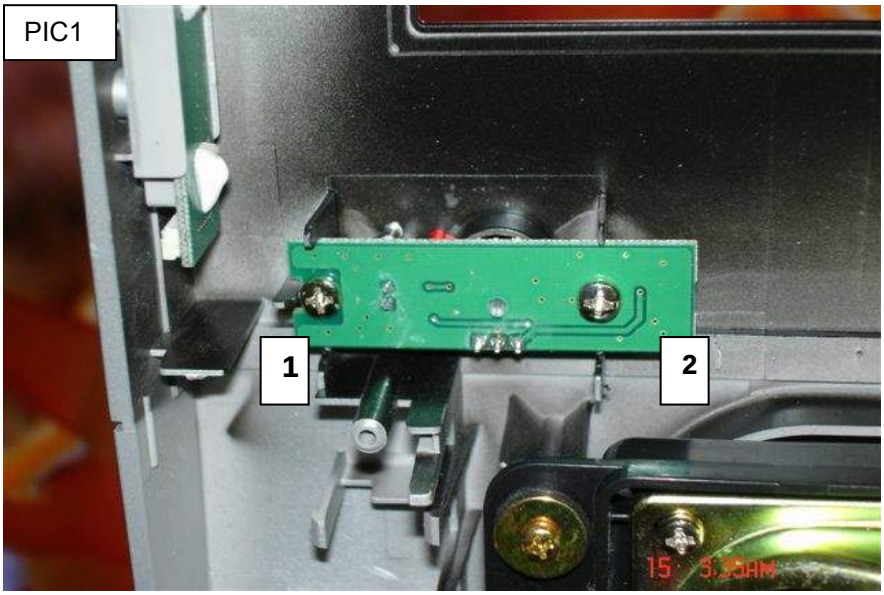
WARNING

Note: Before disassembly of any part the TV, make sure the power is OFF, and the power cord is removed from the wall outlet. Allow time for power within all system boards to discharge before you begin disassembly. Never insert any objects into the vent holes in the TV case.

(1) Disassemble rear control box cover and rear cabinet cover.

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

PIC1



CAUTION

Note: Before returning this product to the end user, you must follow the steps outlined in the section, Before Returning This Product to the User, on page 19. This procedure ensures that the chassis will not cause electric shock.

Front/Side Control Buttons Removal and Replacement

WARNING

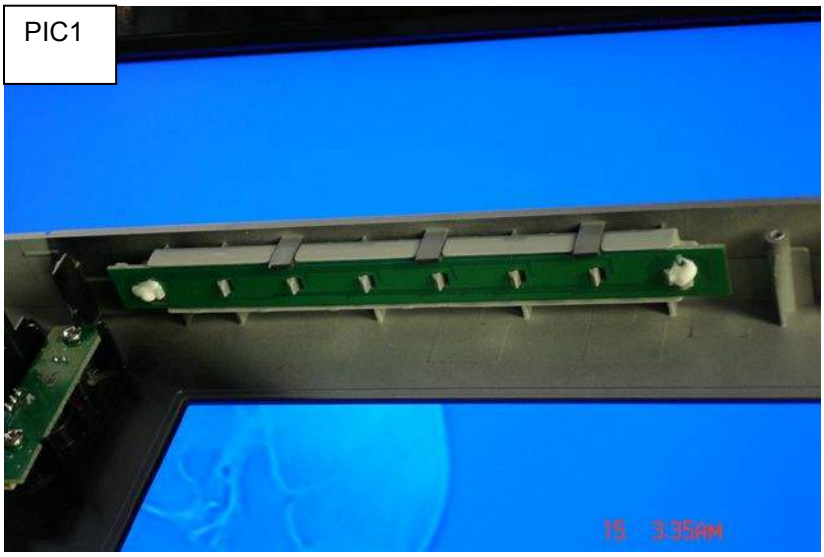
Note: Before disassembly of any part the TV, make sure the power is OFF, and the power cord is removed from the wall outlet. Allow time for power within all system boards to discharge before you begin disassembly. Never insert any objects into the vent holes in the TV case.

(1) Disassemble control box cover and rear cabinet cover.

(2) The control button board is attached with glue. Use alcohol to soften the glue and remove the control button board (PIC1).

(3) Replace control button board and use glue to fasten to front bezel.

PIC1



CAUTION

Note: Before returning this product to the end user, you must follow the steps outlined in the section, Before Returning This Product to the User, on page 19. This procedure ensures that the chassis will not cause electric shock.

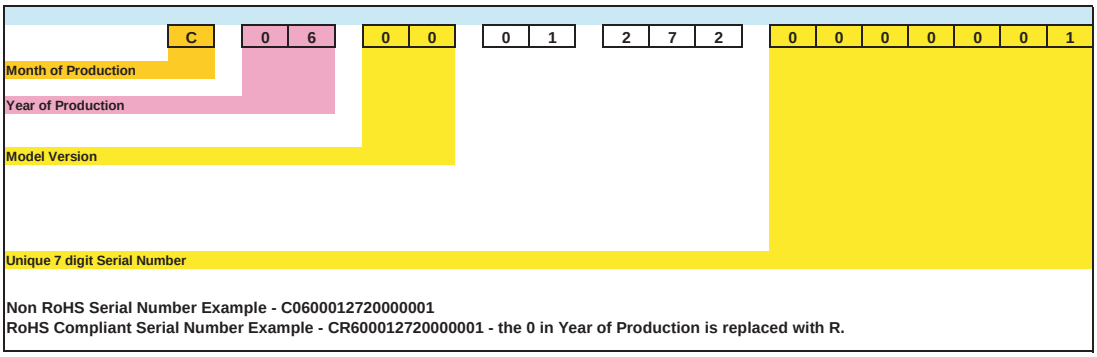
6. Spare Parts Lists – FLM-Series 26, 32, 37

Attention Service Centers

Some models consist of parts with multiple versions. Replacement parts in the spare part lists with an asterisk (*) are multiple version parts. The TV serial number Model Version is used to identify the replacement part(s) needed for repair. Below is the Polaroid serial number format breakdown with a sample serial number. Reference the serial number format details below to identify the correct replacement part(s) before placing replacement part orders.

In the event the TV Model Version is not present in the part lists please review service bulletins for this model. Service bulletins can be obtained through your Polaroid service contact.

SAMPLE SERIAL NUMBER FORMAT - DETAILS



Non RoHS Serial Number Example - C0600012720000001
RoHS Compliant Serial Number Example - CR600012720000001 - the 0 in Year of Production is replaced with R.

Production Month Designators:

A = January	D = April	G = July	K = October
B = February	E = May	H = August	M = November
C = March	F = June	J = September	P = December

Note: Reseat all cables, check fuse by AC plug, perform a clear or reset in factory mode and retest before ordering parts.

Polaroid FLM-323B Part List

Model Version	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-C45-GF1XA-PH	Remote Control
00, 01, 02, 03, 04, 06	*909-KS0-GF321XA	Control Box Assembly (CMO L01)
A6	*909-KE0-GF321XAH	Control Box Assembly (AUO V0)
C1, C2, C3, C6	*909-KQ0-GF321XA3H	Control Box Assembly (QDI)
	899-K00-GF271XAH	Front/Side Control Button Bd.
	154-501-GF370-AH	Front/Side Control Button Cover Silver
	899-E00-GF271XAH	IR Board
	899-A00-GF271XAH	Front/Side A/V Input Bd.
00, 01, 02, 03, 04, 06	*705-532-050C-4AH	32" LCD Panel (CMO L01)
A6	*705-532-050A-V5H	32" LCD Panel (AUO V0)
C1, C2, C3, C6	*705-532-001QTH	32" LCD Panel (QDI) (F1)
C1, C2, C3, C6	*705-132-HA32H	32" LCD Panel (QDI) (F2)
00, 01, 02, 03, 04, 06	*151-103-FPH8BH	Front Bezel Black/Silver (CMO L01)
A6, C1, C2, C3, C6	*151-113-FPH8BEH	Front Bezel Black/Silver (QDI) (AUO)
	151-002-FPH7GH	Rear Cabinet Black
	154-004-GF32WH	Rear Cabinet Control Box Cover Black
	151-700-GF321XAH	Stand Assembly Silver
	824-015-GF321L-KH	Speaker (right or Left)
00, 01, 02, 03, 04, 06	*631-030-GF321XAH	LVDS Cable (CMO)
A6, C1, C2, C3, C6	*631-030-GF321-A5H	LVDS Cable (AUO QDI)
	631-012-GF321H	Power Inverter Cable (AUO CMO QDI)

*Note - Model Version column - see “Attention Service Centers” info before ordering part.

Polaroid FLM-373B Part List

Model Version	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-C45-GF1XA-PH	Remote Control
00, 01, 02, 03, A1, 23	*909-KS0-GF371XAH	Control Box Assembly (AUO V1 V2)
12, 13, A2	*909-TE1-GF378XCH	Control Box Assembly (AUO V0)
	899-K00-GF271XAH	Front/Side Control Button Bd.
	154-501-GF370-AH	Front/Side Control Button Cover Silver
	899-E00-GF271XAH	IR Board
	899-A00-GF271XAH	Front/Side A/V Input Bd.
23	*705-137-G01AH	37" LCD Panel (AUO V2)
A1	*705-537-401AX1H	37" LCD Panel (AUO V1)
12, 13, A2	*705-537-401A0H	37" LCD Panel (AUO V0)
23	*151-113-FC58BH	Front Bezel Black/Silver (AUO V2)
12, 13, A1, A2	*151-103-FC58BH	Front Bezel Black/Silver (AUO V0 V1)
	151-002-FC57GH	Rear Cabinet Black
	154-004-GF32WH	Rear Cabinet Control Box Cover Black
	151-700-GF371XAH	Stand Assembly Silver
	824-015-GF321L-KH	Speaker (right or Left)
12, 13, A2	*631-030-JK378H	LVDS Cable (AUO V0)
00, 01, 02, 03, A1, 23	*631-030-GF371XAH	LVDS Cable (AUO V1 V2)

*Note - Model Version column - see “Attention Service Centers” info before ordering part.

Polaroid FLM-2632 Part List

Model Version	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
03	*909-KC0-GF271XA-3H	Control Box Assembly (CMO L03)
00, 01, 04	*909-KS0-GF271XAH	Control Box Assembly (CMO L01)
	899-K00-GF271XAH	Front/Side Control Button Bd.
	154-501-GF370-AH	Front/Side Control Button Cover Silver
	899-E00-GF271XAH	IR Board
	899-A00-GF271XAH	Front/Side A/V Input Bd.
03	*705-526-002CH	26" LCD Panel (CMO L03)
00, 01, 04	*705-526-051C-1H	26" LCD Panel (CMO L01)
03	*151-113-FL98BH	Front Bezel Black/Silver (CMO L03)
00, 01, 04	*151-103-FL98BH	Front Bezel Black/Silver (CMO L01/L03)
	151-002-FL97GH	Rear Cabinet Black
	154-004-GF32WH	Rear Cabinet Control Box Cover Black
	151-700-GF271XAH	Stand Assembly Silver
	824-015-GF271H	Speaker (right or Left)
03	*631-030-GF321XA-04H	LVDS cable (CMO L03)
00, 01, 04	*631-030-GF321XAH	LVDS Cable (CMO L01 , L03)
	631-N28-GF321XAH	Power Inverter Cable (CMO L01, L03)

Polaroid FLM-2632M Part List

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
909-KS0-GF271XAH	Control Box Assembly (CMO L01)
899-K00-GF271XAH	Front/Side Control Button Bd.
154-501-GF370-AH	Front/Side Control Button Cover Silver
899-E00-GF271XAH	IR Board
899-A00-GF271XAH	Front/Side A/V Input Bd.
705-526-051C-1H	26" LCD Panel (CMO L01)
151-103-FL98BH	Front Bezel Black/Silver (CMO L01/L03)
151-002-FL97GH	Rear Cabinet Black
154-004-GF32WH	Rear Cabinet Control Box Cover Black
151-700-GF271XAH	Stand Assembly Silver
824-015-GF271H	Speaker (right or Left)
631-030-GF321XA-04H	LVDS cable (CMO L03)
631-030-GF321XAH	LVDS Cable (CMO L01 , L03)
631-N28-GF321XAH	Power Inverter Cable (CMO L01, L03)

*Note - Model Version column - see "Attention Service Centers" info before ordering part.

Polaroid FLM-2634B Part List

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
909-KS0-GF271XAH	Control Box Assembly (CMO L01)
899-K00-GF271XAH	Front/Side Control Button Bd.
154-500-GF321H	Front/Side Control Button Cover Black
899-E00-GF271XAH	IR Board
899-A00-GF271XAH	Front/Side A/V Input Bd.
705-526-051C-1H	26" LCD Panel (CMO L01)
151-103-FL97WH	Front Bezel Black/Black (CMO L01)
151-002-FL97GH	Rear Cabinet Black
154-004-GF32WH	Rear Cabinet Control Box Cover Black
151-701-GF271XAH	Stand Assembly Black
824-015-GF271H	Speaker (right or Left)
631-030-GF321XAH	LVDS Cable (CMO L01 , L03)
631-N28-GF321XAH	Power Inverter Cable (CMO L01, L03)

Polaroid FLM-3232 Part List

Model Version	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-C45-GF1XA-PH	Remote Control
00, 01, 02, 06	*909-KS0-GF321XA	Control Box Assembly (CMO L01)
A3	*909-KE0-GF321XAH	Control Box Assembly (AUO V5)
C3	*909-KQ0-GF321XA3H	Control Box Assembly (QDI)
	899-K00-GF271XAH	Front/Side Control Button Bd.
	154-501-GF370-AH	Front/Side Control Button Cover Silver
	899-E00-GF271XAH	IR Board
	899-A00-GF271XAH	Front/Side A/V Input Bd.
A3	*705-532-050A-V5H	32" LCD Panel (AUO V5)
00, 01, 02, 06	*705-532-050C-4AH	32" LCD Panel (CMO L01)
C3	*705-532-001QTH	32" LCD Panel (QDI) (F1)
C3	*705-132-HA32H	32" LCD Panel (QDI) (F2)
00, 01, 02, 06	*151-103-FPH8BH	Front Bezel Black/Silver (CMO L01)
A3	*151-000-FPH8BEH	Front Bezel Black/Silver (AUO V5)
C3	*151-110-FPH8BEH	Front Bezel Black/Silver (QDI)
	151-002-FPH7GH	Rear Cabinet Black
	154-004-GF32WH	Rear Cabinet Control Box Cover Black
	151-700-GF321XAH	Stand Assembly Silver
	824-015-GF321L-KH	Speaker (right or Left)
00, 01, 02, 06	*631-030-GF321XAH	LVDS Cable (CMO L01)
A3, C3	*631-030-GF321-A5H	LVDS Cable (AUO QDI)
	631-012-GF321H	Power Inverter Cable (AUO CMO QDI)

*Note - Model Version column - see “Attention Service Centers” info before ordering part.

Polaroid FLM-3232M Part List

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-C45-GF1XA-PH	Remote Control
909-KS0-GF321XA	Control Box Assembly (CMO L01)
899-K00-GF271XAH	Front/Side Control Button Bd.
154-501-GF370-AH	Front/Side Control Button Cover Silver
899-E00-GF271XAH	IR Board
899-A00-GF271XAH	Front/Side A/V Input Bd.
705-532-050C-4AH	32" LCD Panel (CMO L01)
151-103-FPH8BH	Front Bezel Black/Silver (CMO L01)
151-002-FPH7GH	Rear Cabinet Black
154-004-GF32WH	Rear Cabinet Control Box Cover Black
151-700-GF321XAH	Stand Assembly Silver
824-015-GF321L-KH	Speaker (right or Left)
631-030-GF321XAH	LVDS Cable (CMO L01)
631-012-GF321H	Power Inverter Cable (AUO CMO QDI)

Polaroid FLM-3234B Part List

Model Version	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-C45-GF1XA-PH	Remote Control
00, 01, 03	*909-KS0-GF321XA	Control Box Assembly (CMO L01/L04)
C3	*909-KQ0-GF321XA3H	Control Box Assembly (QDI)
	899-K00-GF271XAH	Front/Side Control Button Bd.
	154-500-GF321H	Front/Side Control Button Cover Black
	899-E00-GF271XAH	IR Board
	899-A00-GF271XAH	Front/Side A/V Input Bd.
00, 01, 03	*705-532-050C-4AH	32" LCD Panel (CMO L01/L04)
C3	*705-532-001QTH	32" LCD Panel (QDI) (F1)
C3	*705-132-HA32H	32" LCD Panel (QDI) (F2)
00, 01, 03	*151-114-FPH7WJH	Front Bezel Black/Black (CMO L01/L04)
C3	*151-113-FPH7WEH	Front Bezel Black/Black (QDI)
	151-002-FPH7GH	Rear Cabinet Black
	154-004-GF32WH	Rear Cabinet Control Box Cover Black
	151-701-GF321-XAH	Stand Assembly Black
	824-015-GF321L-KH	Speaker (right or Left)
00, 01	*631-030-GF321XAH	LVDS Cable (CMO L01)
C3	*631-030-GF321-A5H	LVDS Cable (AUO QDI)
	631-012-GF321H	Power Inverter Cable (AUO CMO QDI)
03	*631-030-GF321XA-04A	LVDS CBL (CMO-L04)

*Note - Model Version column - see "Attention Service Centers" info before ordering part.

Polaroid FLM-3732/3732M Part List

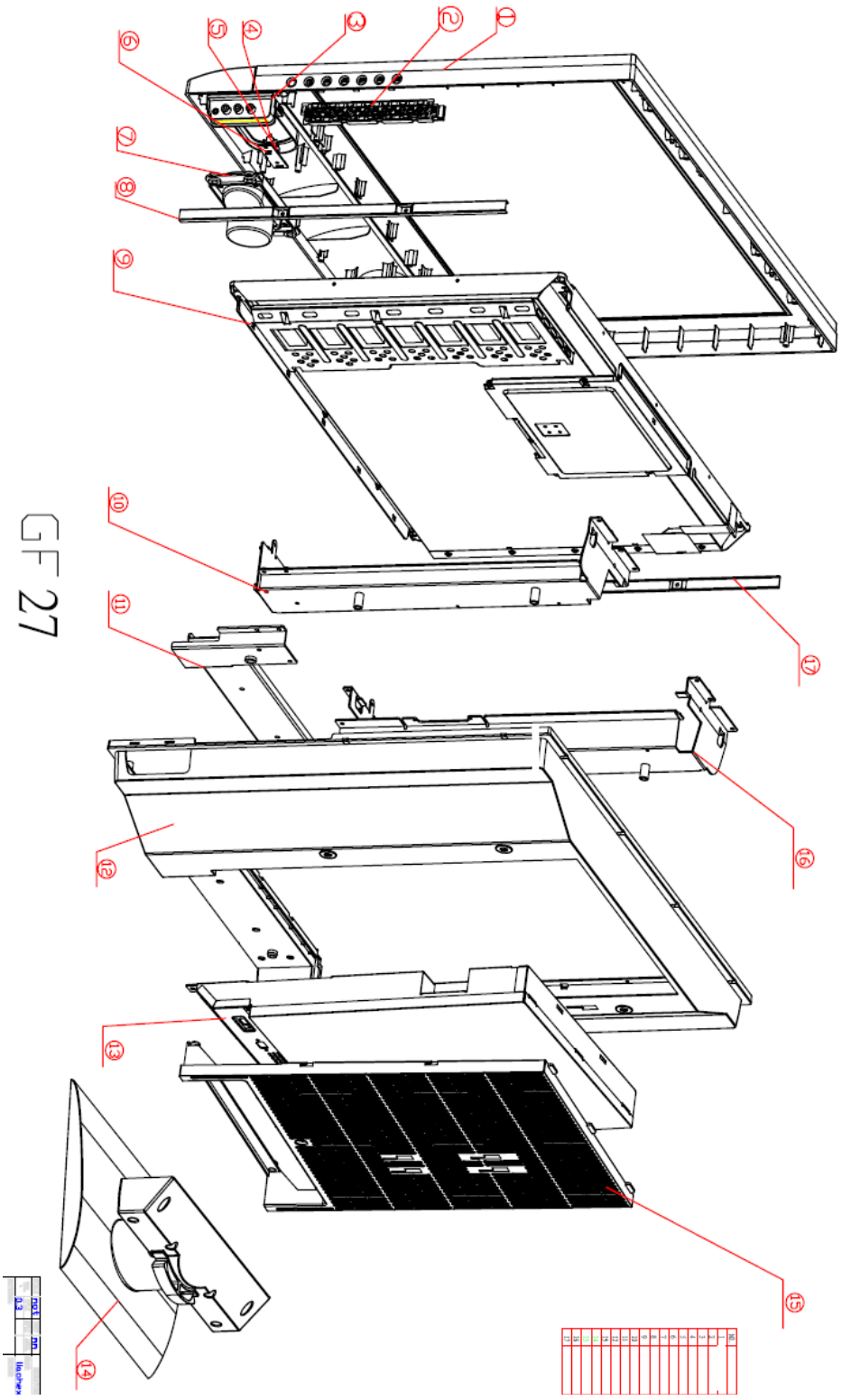
Model Version	Part Number	Description
	600-181-3200-LIH	AC Power Cord
	621-181-60002H	Audio Cable
	621-181-2000H	Composite Video Cable
	621-181-3020P-1H	Component Cable
	845-C45-GF1XA-PH	Remote Control
00, 01, 02, 03	*909-KS0-GF371XA	Control Box Assembly (AUO V1)
12	*909-TE1-GF378XCH	Control Box Assembly (AUO V0)
	899-K00-GF271XAH	Front/Side Control Button Bd.
	154-501-GF370-AH	Front/Side Control Button Cover Silver
	899-E00-GF271XAH	IR Board
	899-A00-GF271XAH	Front/Side A/V Input Bd.
12	*705-537-401A0H	37" LCD Panel (AUO V0)
00, 01, 02, 03	*705-537-401AX1H	37" LCD Panel (AUO V1)
	151-103-FC58BH	Front Bezel Black/Silver (AUO V0, V1)
	151-002-FC57GH	Rear Cabinet Black
	154-004-GF32WH	Rear Cabinet Control Box Cover Black
	151-700-GF371XAH	Stand Assembly Silver
	824-015-GF321L-KH	Speaker (right or Left)
00, 01, 02, 03	*631-030-GF371XAH	LVDS Cable (AUO V1, V2)
12	*631-030-JK378H	LVDS Cable (AUO V0)

Polaroid FLM-3734B, FLX-374 Part List

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-C45-GF1XA-PH	Remote Control
909-KS0-GF371XA	Control Box Assembly (AUO V1)
899-K00-GF271XAH	Front/Side Control Button Bd.
154-500-GF321H	Front/Side Control Button Cover Black
899-E00-GF271XAH	IR Board
899-A00-GF271XAH	Front/Side A/V Input Bd.
705-537-401AX1H	37" LCD Panel (AUO V1)
151-103-FC57WH	Front Bezel Black/Black (AUO V1)(F1)
151-113-FC57WH	Front Bezel Black/Black (AUO V1)(F2)
151-002-FC57GH	Rear Cabinet Black
154-004-GF32WH	Rear Cabinet Control Box Cover Black
151-701-GF371XAH	Stand Assembly Black
824-015-GF321L-KH	Speaker (right or Left)
631-030-GF371XAH	LVDS Cable (AUO V1 V2)

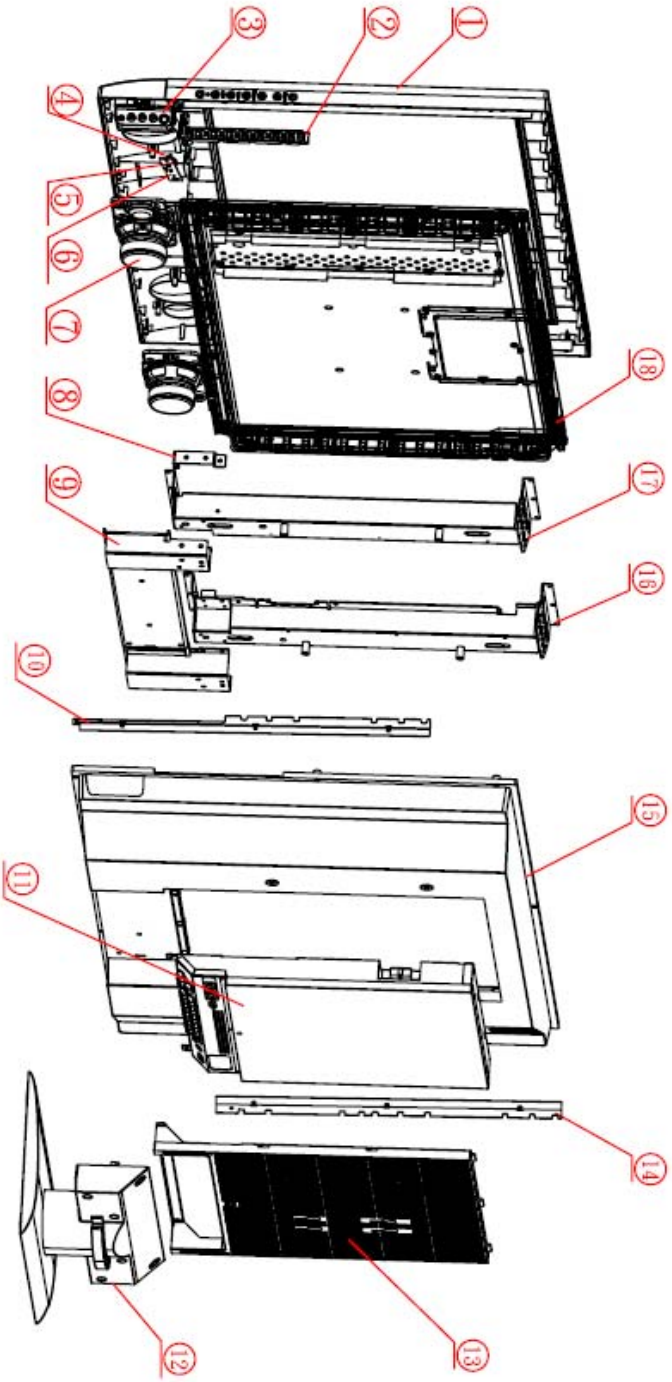
Exploded View Diagram

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

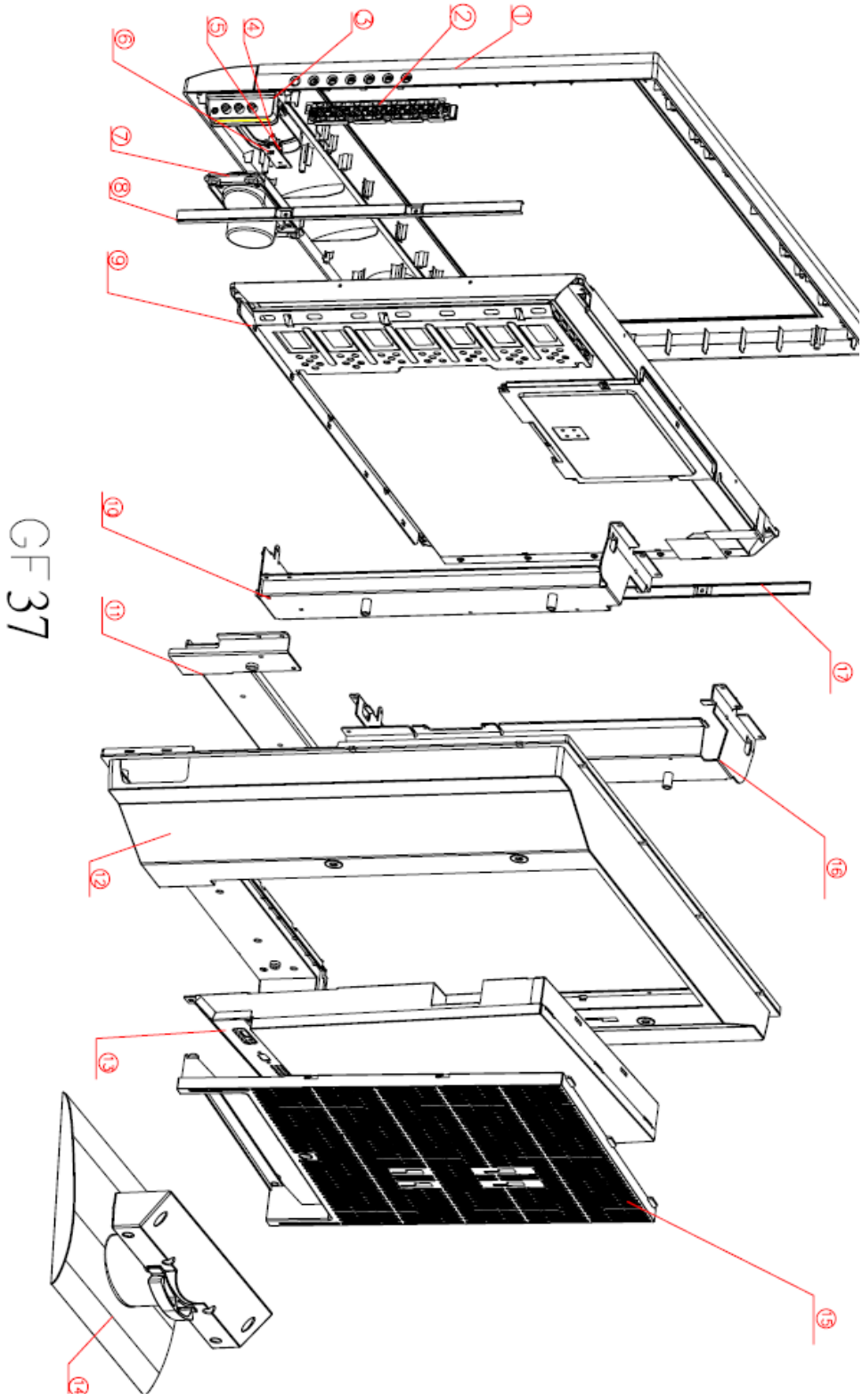


Model Number: FLM-3232, FLM-323B, FLM-3232M, FLM-3234B

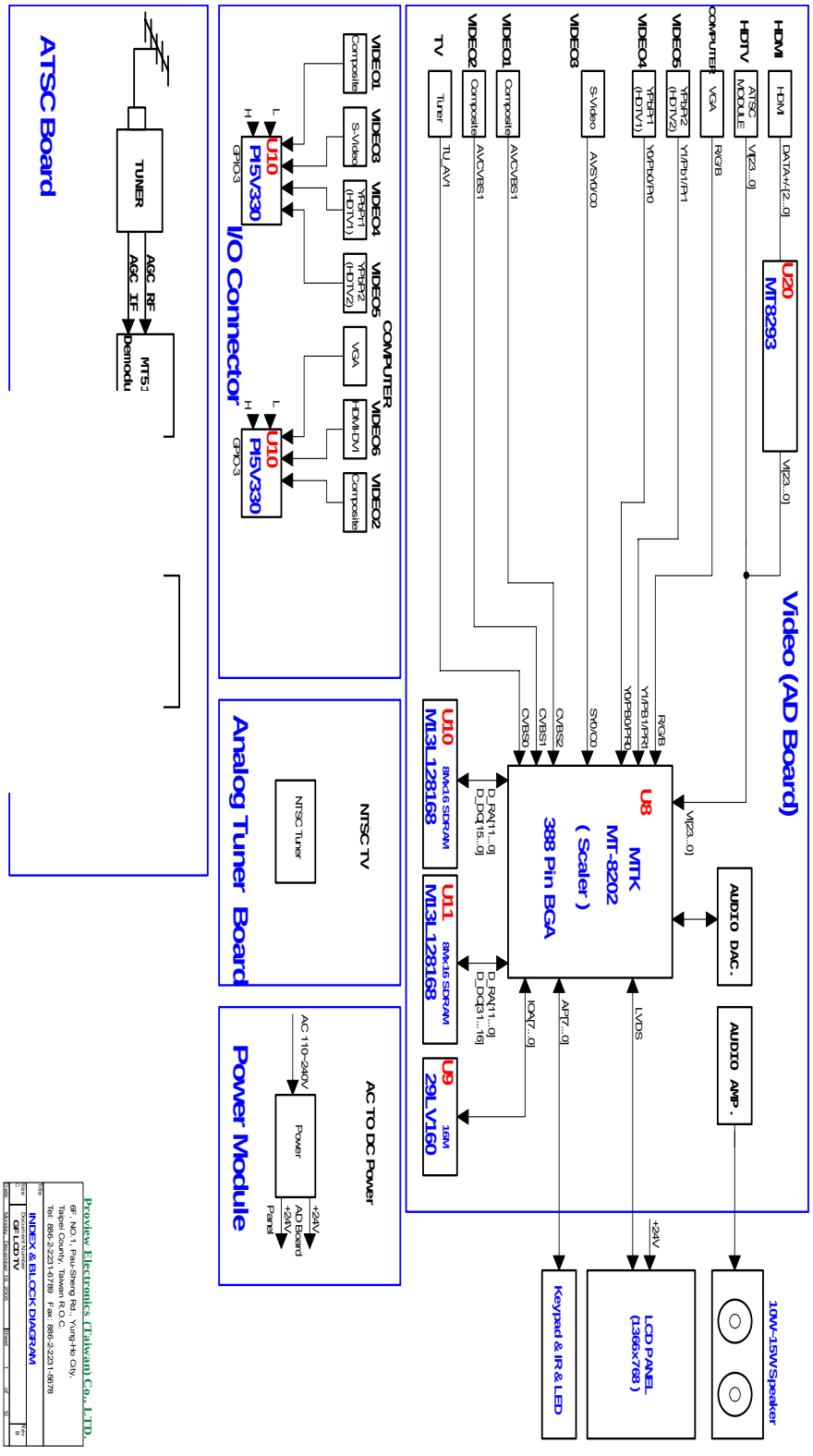
GF32



Model Number: FLM-3732, FLM-373B, FLM-3732M, FLM-3734B, FLX-374

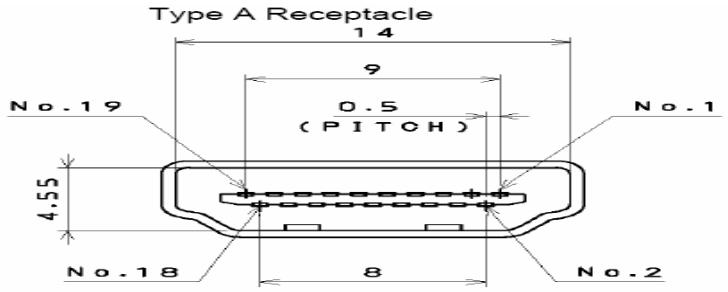


7. Block Diagram – FLM-Series 26, 32, 37



8. Schematics

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



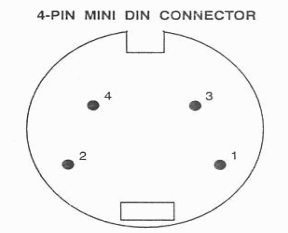
1. TMDS Data 2+	**9.** TMDS Data 0-	**17.** CEC/GND
2. TMDS Data 2 shield	**10.** Clock +	**18.** +5V Power
3. TMDS Data 2-	**11.** Clock shield	**19.** Hot Plug Detect
4. TMDS Data 1+	**12.** Clock -	
5. TMDS Data 1 shield	**13.** CEC	
6. TMDS Data 1-	**14.** NC	
7. TMDS Data 0+	**15.** DDC CLK	
8.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

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

RCA jacks are all female type.

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

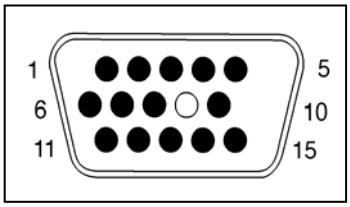
HDMI Timing

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

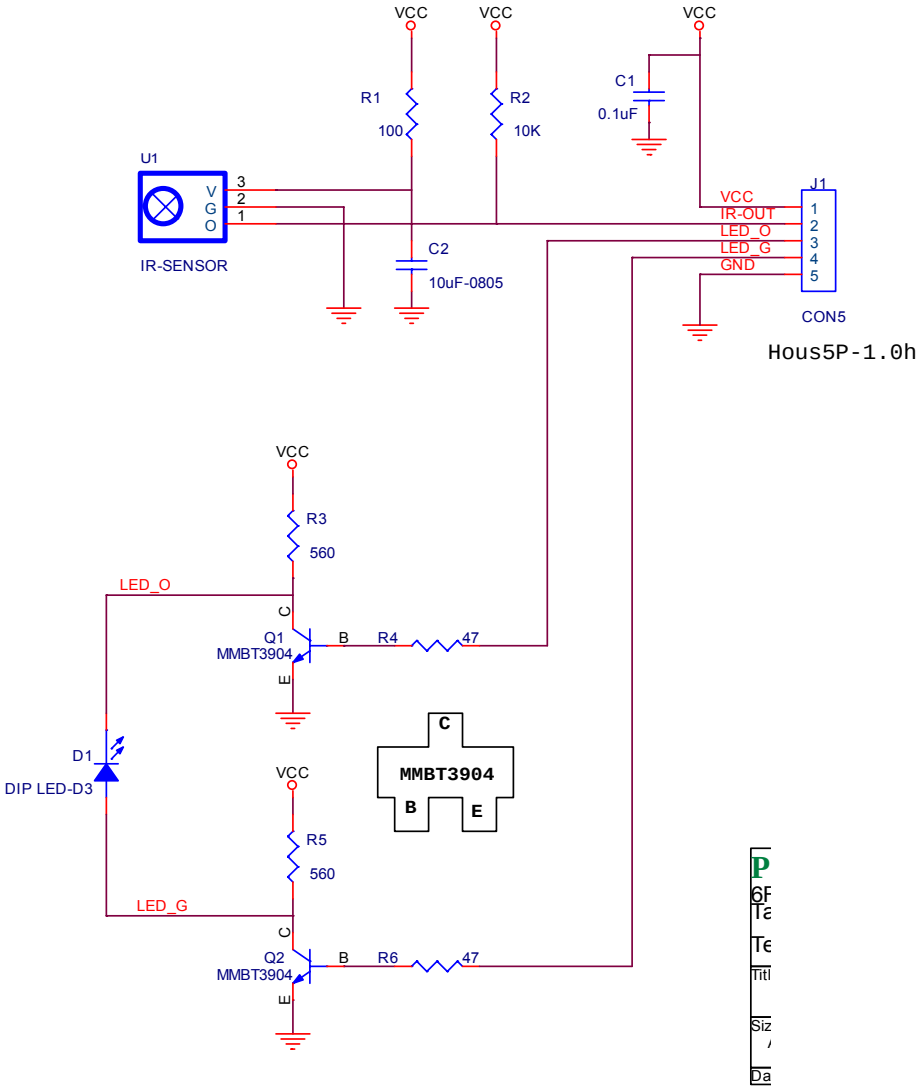
Power Source	**AC100 – 240 V, 60/50 Hz**
Sound Output	10W X2, 8 Ohm.

Signal Connector Pin Assignment

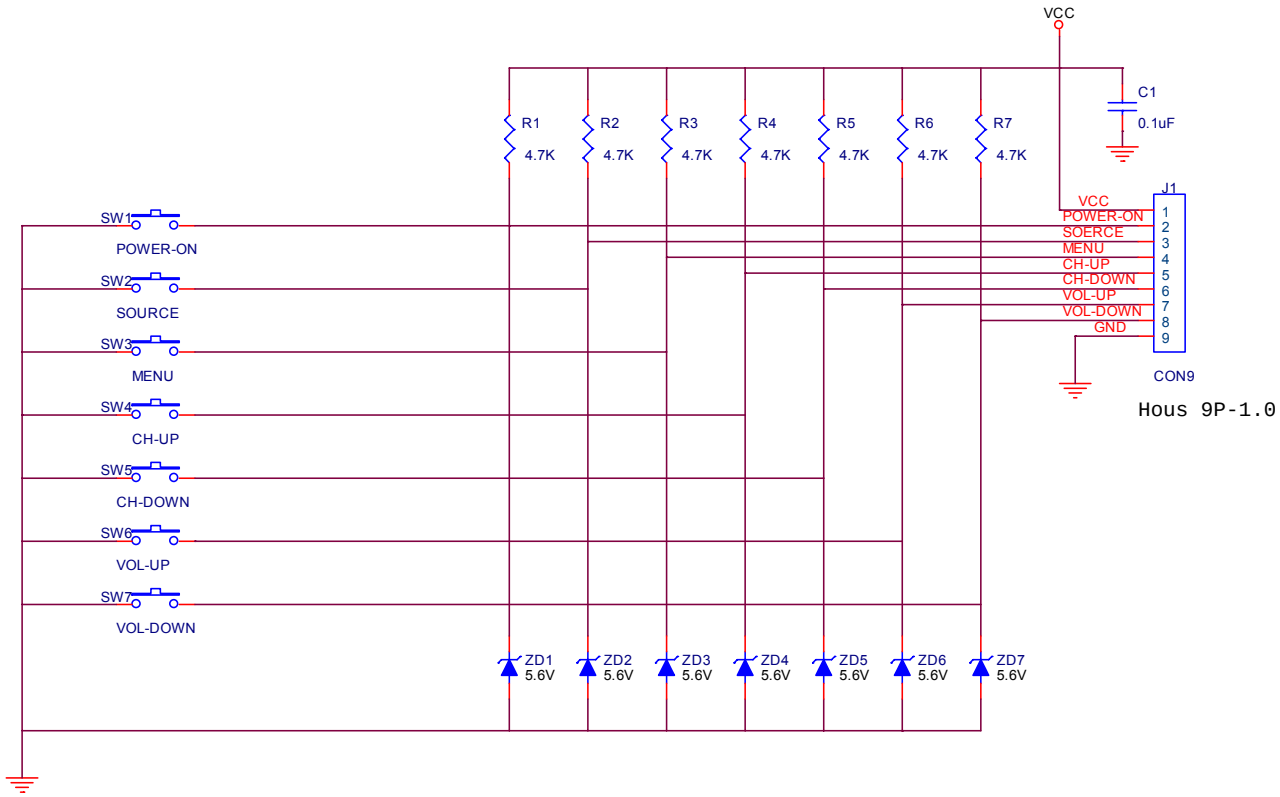


Pin	Assignment	Pin	Assignment	Pin	Assignment
1.	**Red**	**6.**	**Red Ground**	**11.**	**Ground**
2.	**Green**	**7.**	**Green Gro und**	**12.**	**SDA**
3.	**Blue**	**8.**	**Blue Ground**	**13.**	**Horizontal Sync.**
4.	**Ground**	**9.**	**Not Connected**	14.	Vertical Sync.
5.	**Self Test**	**10.**	**Sync.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

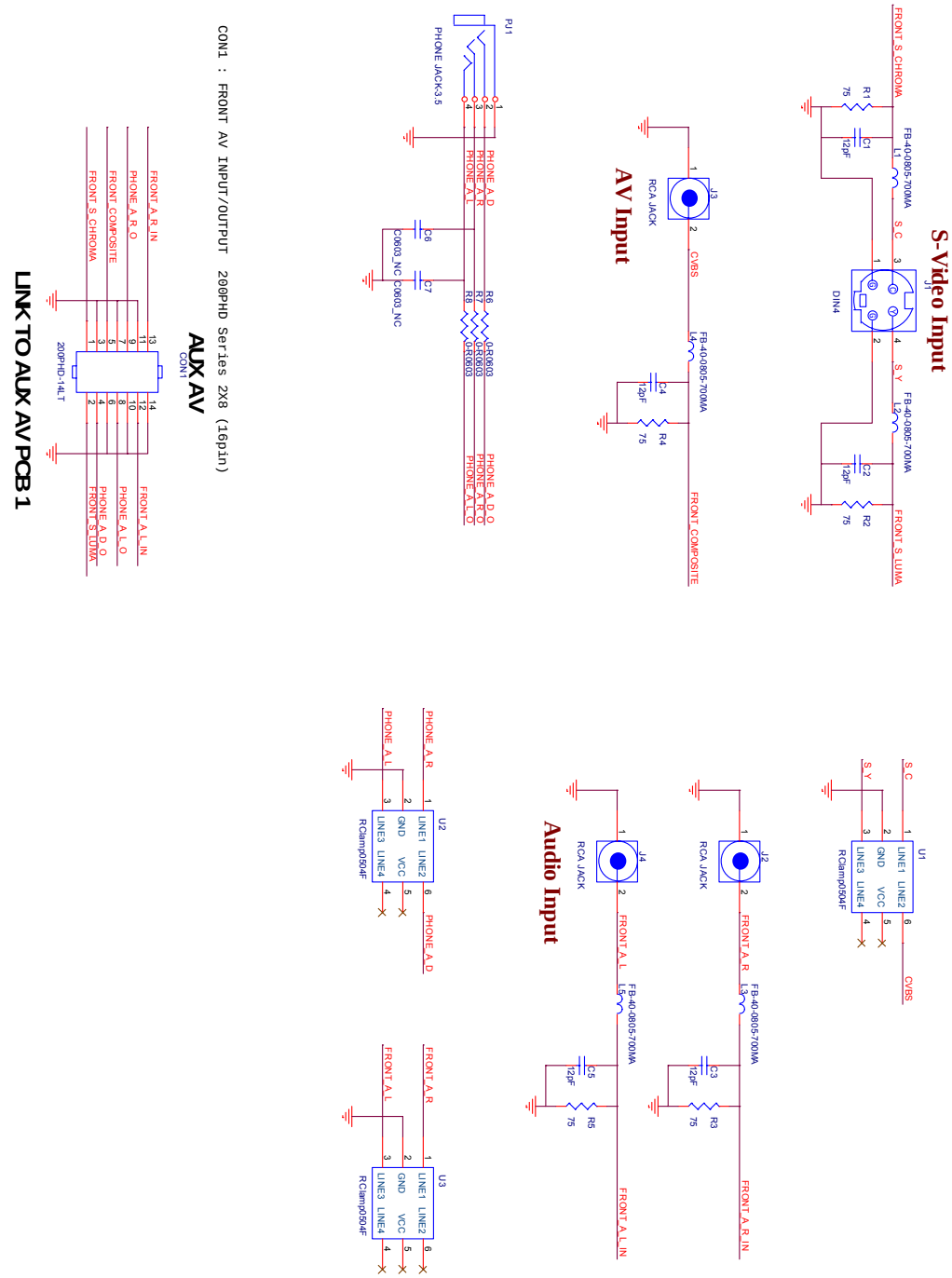
IR Board


VCC
VCC
VCC
R1
100
R2
10K
C1
0.1uF
U1
V
G
O
3
2
1
IR-SENSOR
C2
10uF-0805
VCC
IR-OUT
LED_O
LED_G
GND
J1
1
2
3
4
5
CON5
Hous5P-1.0h
VCC
R3
560
LED_O
C
Q1
MMBT3904
B
R4
47
E
C
MMBT3904
B
E
D1
DIP LED-D3
VCC
R5
560
LED_G
C
Q2
MMBT3904
B
R6
47
E

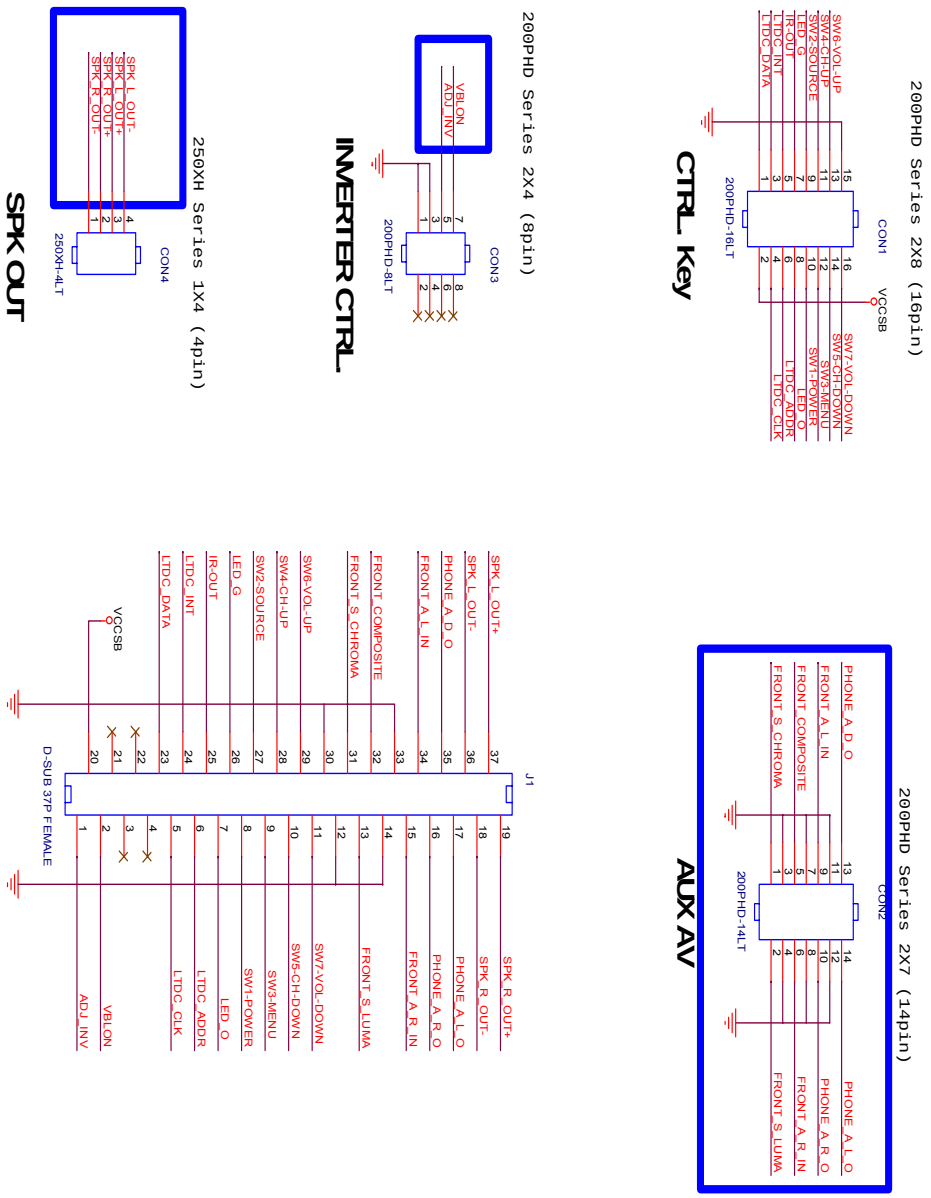
Front / Side Control Buttons



AV AUX Board

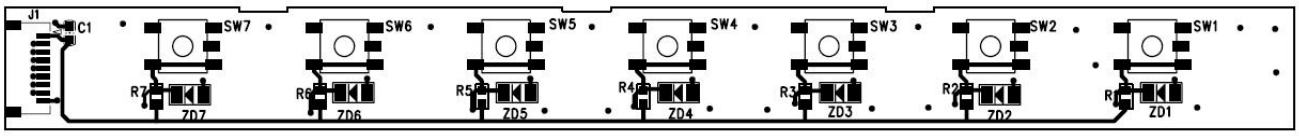

S-Video Input
AV Input
Audio Input
AUX AV
CON1 : FRONT AV INPUT/OUTPUT 200PHD Series 2X8 (16pin)
LINK TO AUX AV PCB 1

D-SUB 37 PIN Board

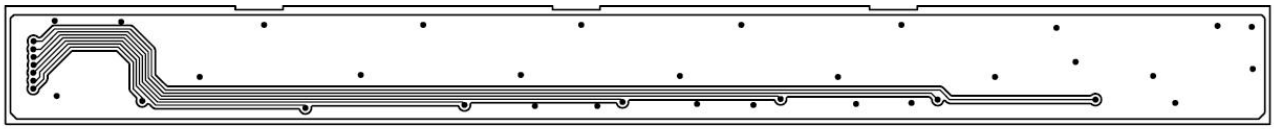


9. PCB Layout Diagrams

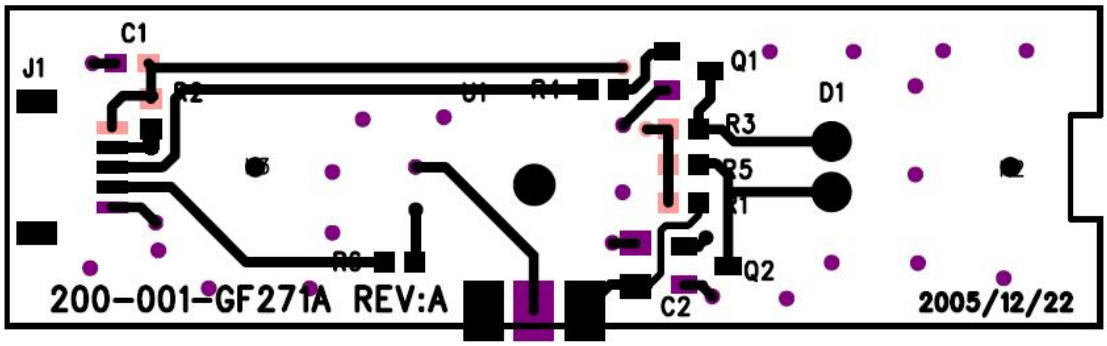
Front/Side Control Button Board (Component Side Top)



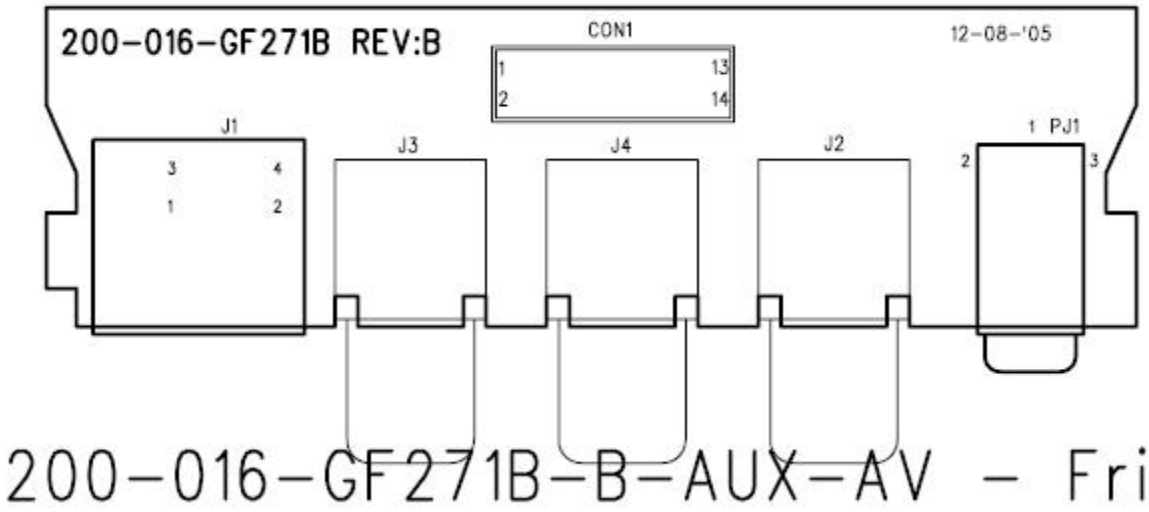
Front/Side Control Button Board (Component Side Bottom)

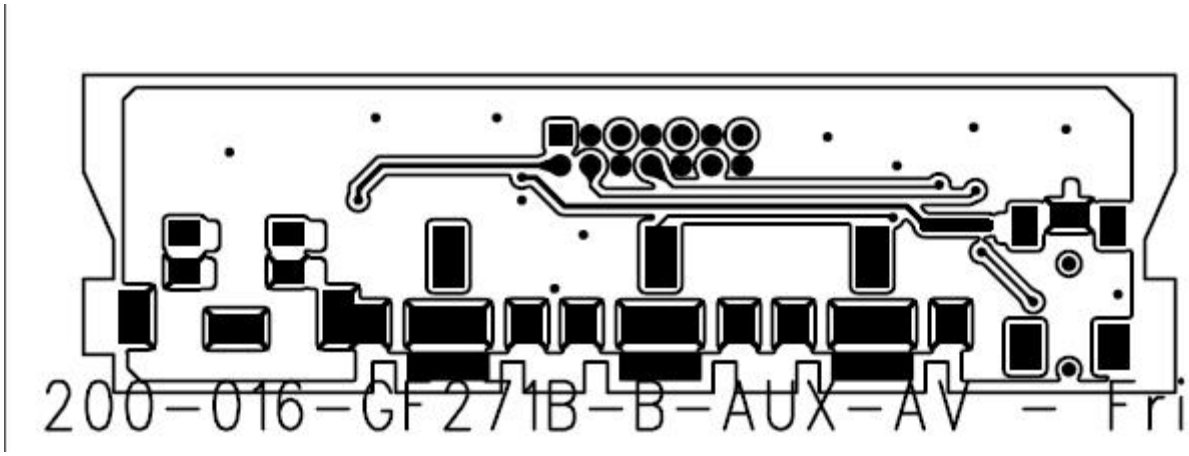


IR/LED Board (Component Side Top)

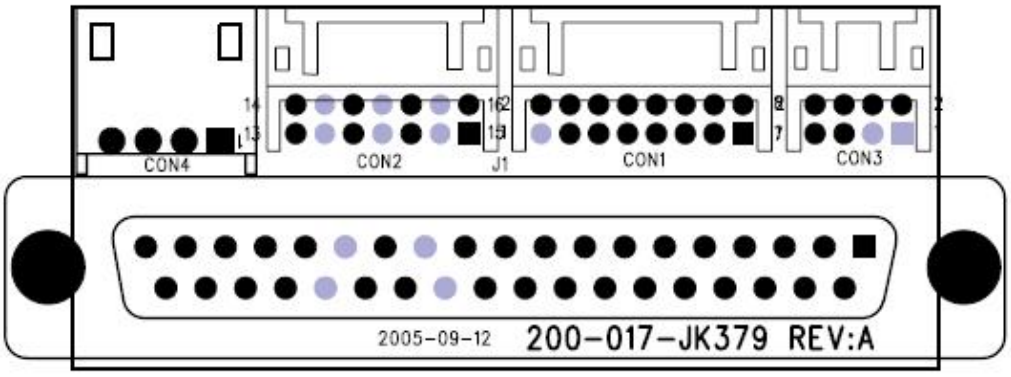
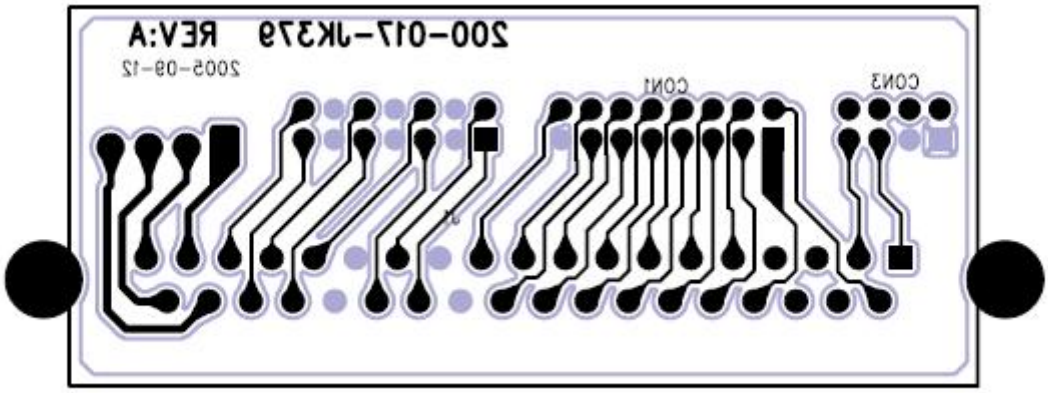


AUX AV Board (Component Side Top)





D-SUB 37 Pin Board (Component Side Top)



D-SUB 37 Pin Board (Component Side Bottom)