Acer Monitor V277

LIFECYCLE EXTENSION GUIDE

Contents

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Safety Notice

Any person attempting to service this chassis must familiarize with the chassis and be aware
of the necessary safety precautions to be used when serving electronic equipment containing
high voltage

acer

Important Safety Notice

Product Announcement:

This product is certificated to meet RoHS Directive and Lead-Free produced definition. Using approved critical components only is recommended when the situation to replace defective parts. Vender assumes no liability express or implied, arising out of any unauthorized modification of design or replacing non-RoHS parts. Service providers assume all liability.

Qualified Repairability:

Proper service and repair is important to the safe, reliable operation of all series products. The service providers recommended by vender should being aware of notices listed in this service manual in order to minimize the risk of personal injury when perform service procedures. Furthermore, the possible existed improper repairing method may damage equipment or products. It is recommended that service engineers should have repairing knowledge, experience, as well as appropriate product training per new model before performing the service procedures.

NOTICE:

! To avoid electrical shocks, the products should be connect to an authorized power cord, and turn off the master power switch each time before removing the AC power cord.

! To prevent the product away from water or explosed in extremely high humility environment.

! To ensure the continued reliability of this product, use only original manufacturer's specified parts.

! To ensure following safety repairing behavior, put the replaced part on the components side of PWBA, not solder side.
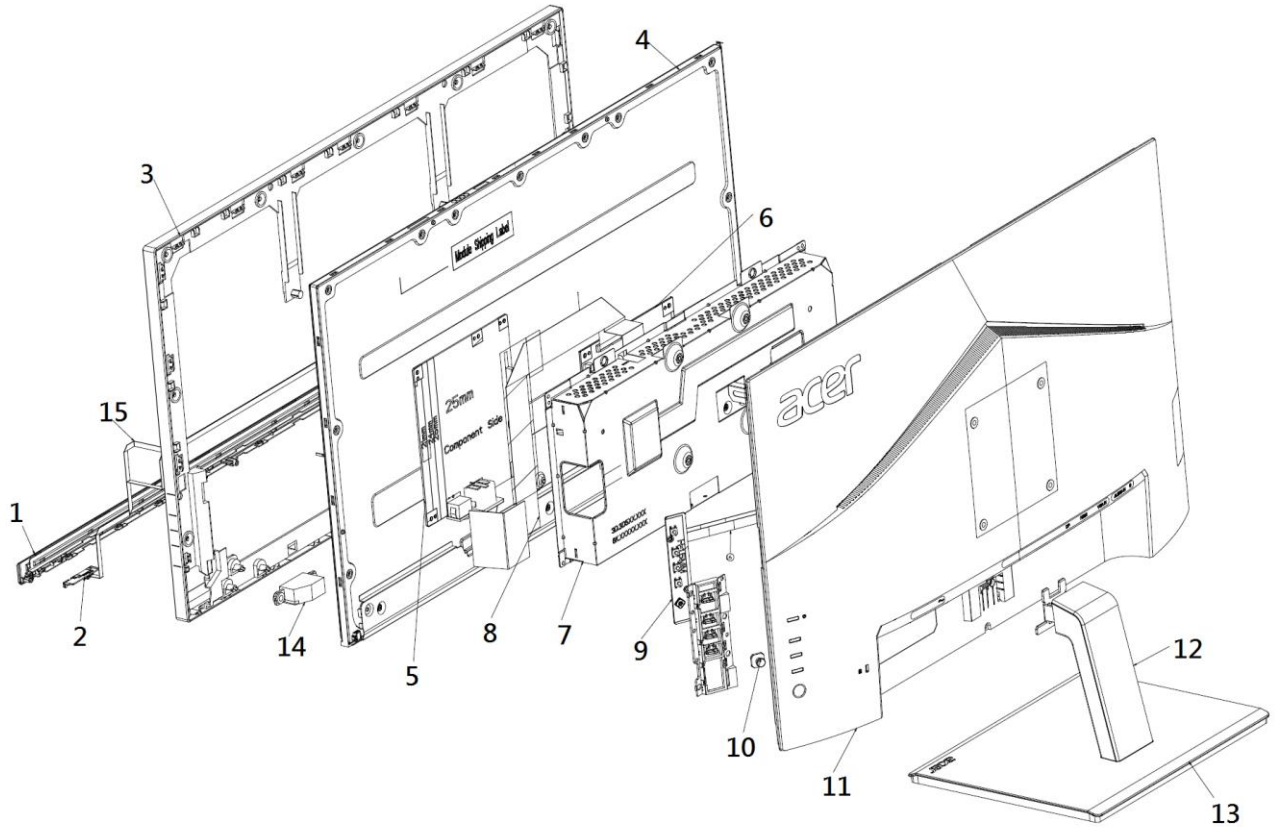
! To ensure using a proper screwdriver, follow the torque and force listed in assembly and disassembly procedures to screw and unscrew screws.

! Using Lead-Free solder to well mounted the parts.

! The fusion point of Lead-Free solder requested in the degree of 220°C.

1. Exploded Diagram

1.1 Product Exploded Diagram

Item	ODM DESCRIPTION
1	ASSY TRIM
2	PCBA LED BD
3	MID FRAME
4	LCDM
5	PCBA SPS BD
6	PCBA IF BD
7	ASSY SHD
8	FFC LVDS
9	PCBA CTRL BD
10	BTN
11	ASSY RC
12	ASSY CLMN
13	ASSY BASE
14	SPK
15	FFC LED

2. Wiring connectivity diagram

There are two types of wiring diagrams for model V277. The wiring connectivity position will be different according to the ACTUAL PCBA connector position. Please base on different SKU refer to below diagram.

NOTE: INF BD= Interface Board, PWR BD=Power Board, CTRL BD= Control Board

1. SKU with USB.
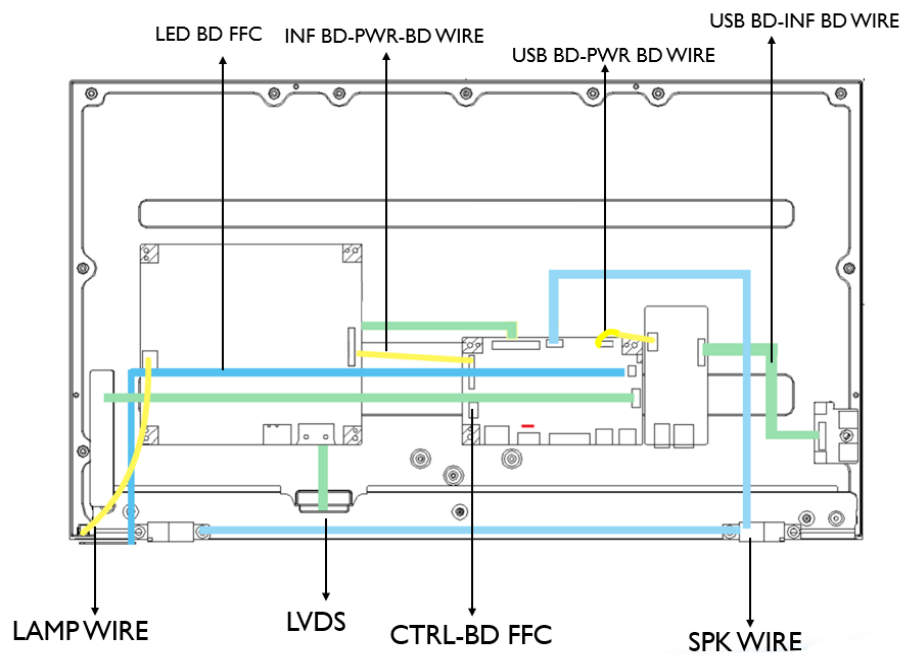
2. SKU without USB.
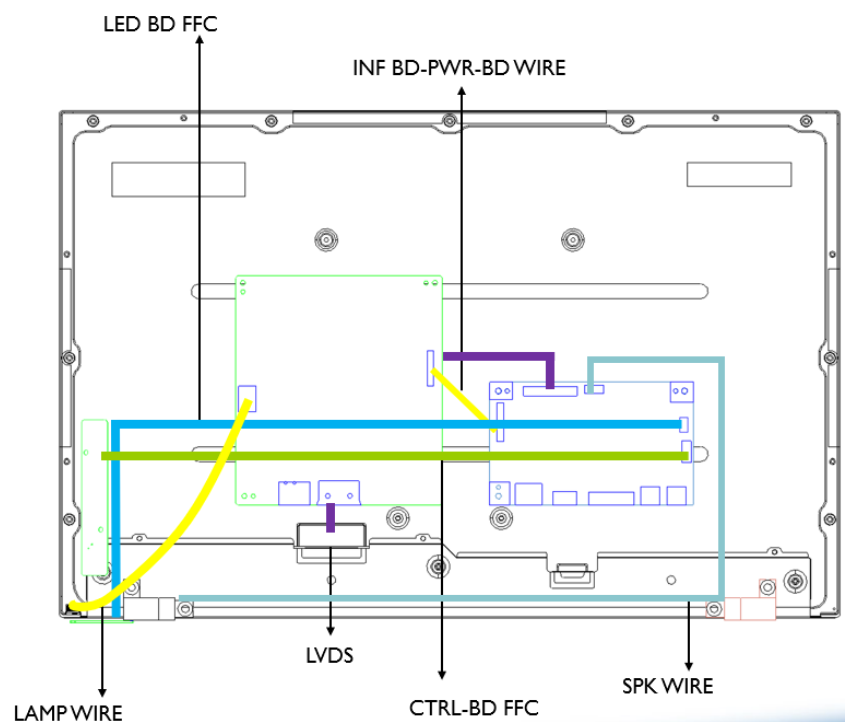
3. Mechanical Instruction

Tools Required
List the type and size of the tools that would typically can be used to disassemble the product to a point
where components and materials requiring selective treatment can be removed.
Tool Description:
- working table
- Screw-driver: Philips-head screwdriver, Hex-head screwdriver
- Knife
- glove
- cleaning cloth
- ESD protection

4. Disassembly and Assembly SOP

V277

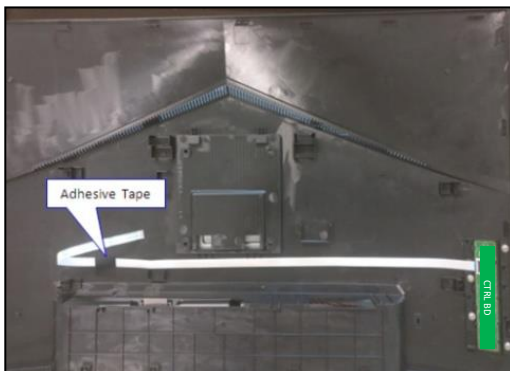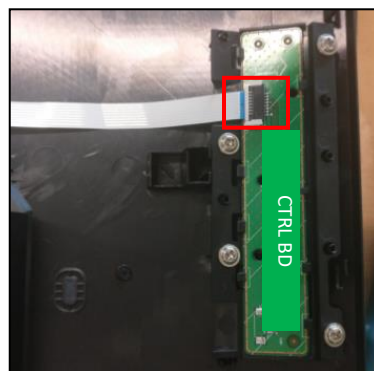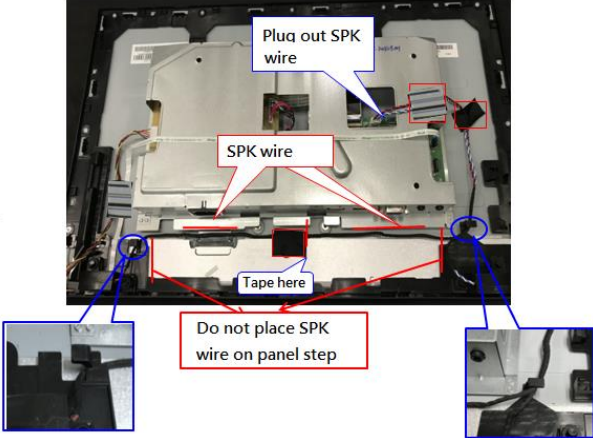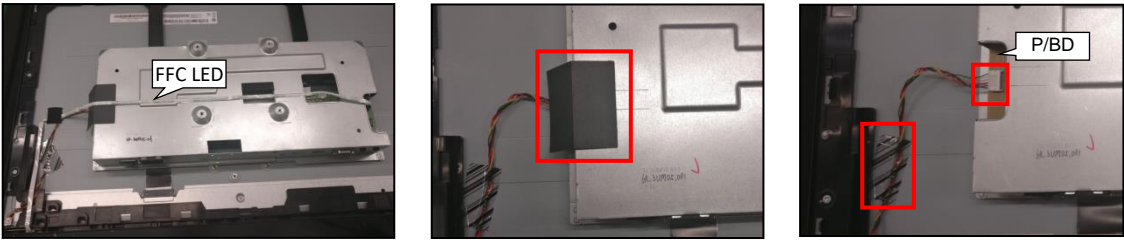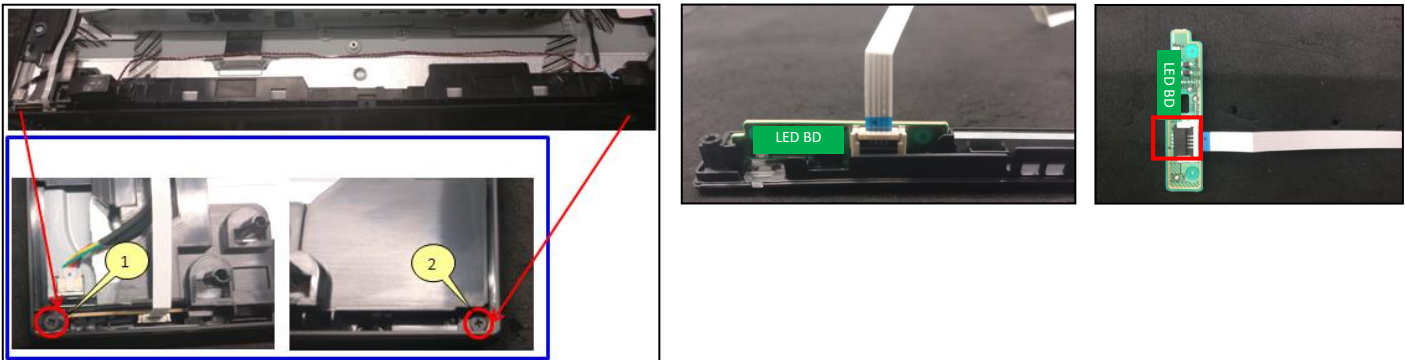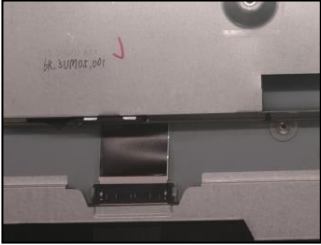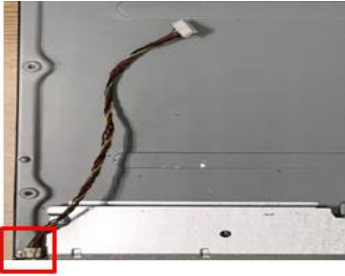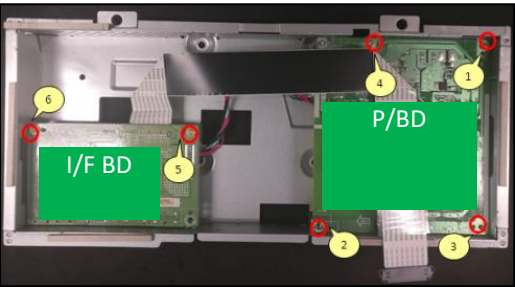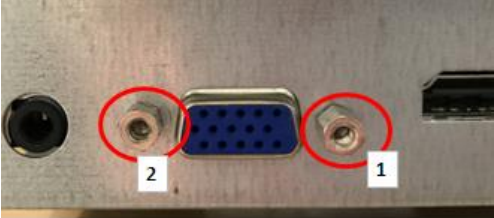| 4.1 Disassembly Procedures	

Preparation before disassemble
1. Clean the room for disassemble
2. Identify the area for monitor
3. Check the position that the monitors be placed and the quantity of the monitor ;prepare the area for material flow; according to the actual condition plan the disassemble layout
4. Prepare the implement, equipment, materials as bellow:
  1) working table
  2) Screw-driver
  3) knife
  4) glove
  5) cleaning cloth
  6) ESD protection
 	
⚠️ After unplugging the power cord, the power board still have power energe. Please pay attention when disassembling/assembling.	

S1 Disassemble the RC(Rear Case), stand and base	Before Disassembling & Assembling, monitor need to be put on the sponge and the Insulation glove must be wore during the process Disassemble base and column from the RC. Unlock RC screw. Disassemble RC from monitor and Disassemble FFC CTRL from the PCBA.
S2 Disassemble FFC Ctrl from the PCBA.	Tear off the adhesive tape from the RC. Tear off the FFC CTRL on the RC as picture 1. Disassemble the CTRL BD from the RC. Disassemble the FFC CTRL from the CTRL BD as picture 2.
PICTURE 1 PICTURE 2	
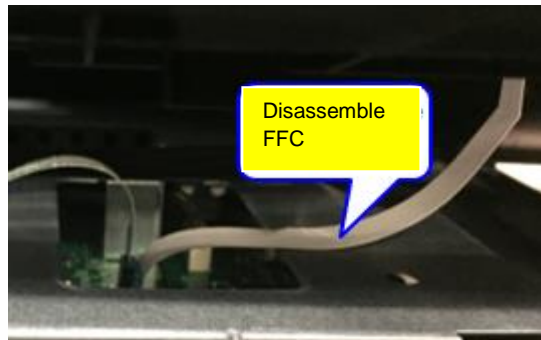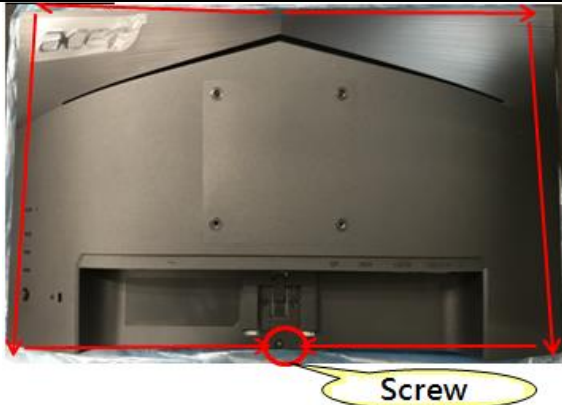
S3 Disassemble the speaker from the MF(Middle Frame)	Tear off tapes on the speaker wire. Extract the connect of the speaker from the PCBA. Disassemble the speaker from the MF.

S4 Disassemble the lamp wire	Extract the FFC LED from the I/F BD. Tear off the FFC LED from the SHD as picture 1. Tear off the Mylar on the left hole of the SHD as picture 2. Tear off the BOPP tape on the lamp wire. Extract the big connector of the lamp wire form the P/BD as picture 3.

PICTURE 1	PICTURE 2	PICTURE 3

S5 Disassemble the Trim	Unlock two screws from the ASSY TRIM as picture 1. Disassemble the ASSY TRIM from the MF. Disassemble the PCBA LED BD from the ASSY TRIM as picture 2. Disassemble FFC LED from the PCBA LED BD as picture 3

PICTURE 1	PICTURE 2	PICTURE 3

S6 Disassemble the MF from panel.	Extract FFC wire from the panel as picture 1. Unlock 9 screws from the MF as picture 2. Disassemble the MF from the panel. Extract the lamp wire from the panel as the picture 3.

PICTURE 1	PICTURE 2	PICTURE 3

S7 Disassemble I/F BD and P/BD from SHD.	Unlock 6 screws from the PCBA as the picture 1. Disassemble the I/F BD from the SHD and extract the P/BD wire. Extract the FFC LVDS from the I/F BD. Disassemble the P/BD from the SHD and extract the P/BD wire from the P/BD. Lock 2 screws as the picture 2.

PICTURE 1	PICTURE 2

NOTE: Circuit boards >10 cm² has been highlighted with the yellow rectangle as above image shows. Please detach the Circuit boards and follow local regulations for disposal.

4.2 Assembly Procedures

Preparation before assemble:
1. Clean the room for work
2. Identify the area for material
3. Prepare the implement, equipment, materials as bellow：
   1) working table
   2) Screw-driver
   3) Knife
   4) glove
   5) cleaning cloth
   6) ESD protection

⚠️   After unplugging the power cord, the power board still have power energe. Please pay attention when disassembling/assembling.

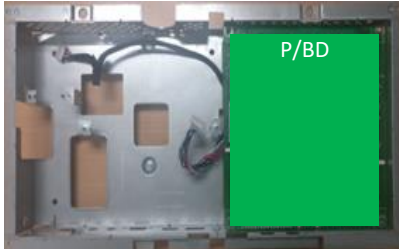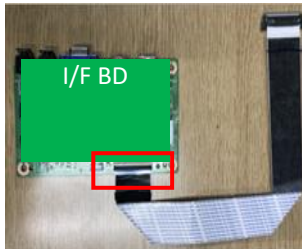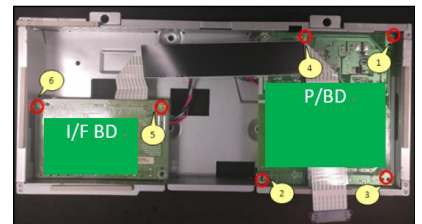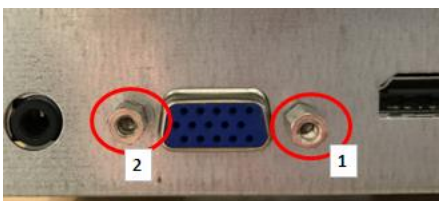| **S1** Assemble I/F BD and P/BD to SHD.	Before Disassembling & Assembling, monitor need to be put on the sponge and the Insulation glove must be wore during the process. Put the SHD on the worktable. Insert P/BD wire to the Power BD as the picture 1. Locate the Power BD into the SHD as the picture 2. Insert FFC LVDS to the I/F BD as picture 3. Insert the wire on the P/BD to the I/F BD, locate the I/F BD into the SHD and lock 5 screws as the picture 4. Lock 2 screws as the picture 5.
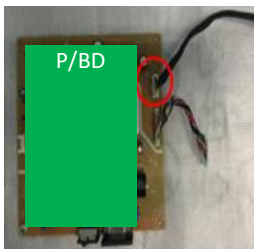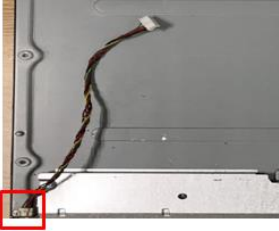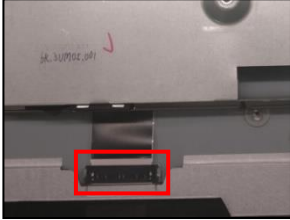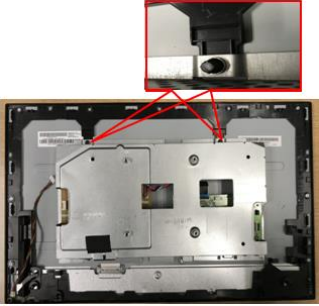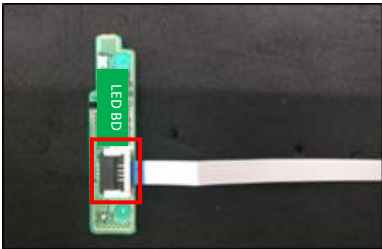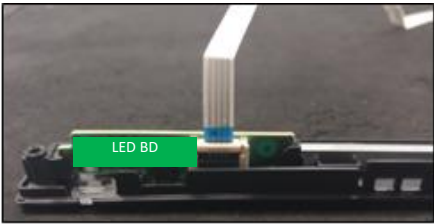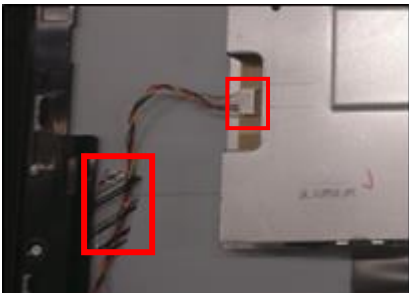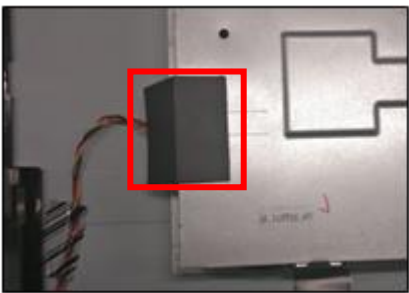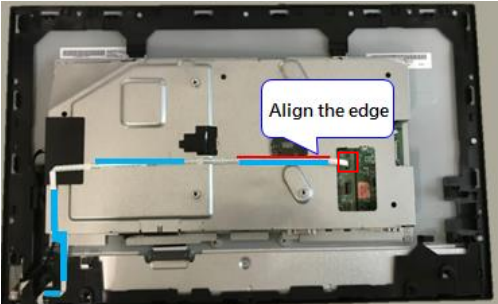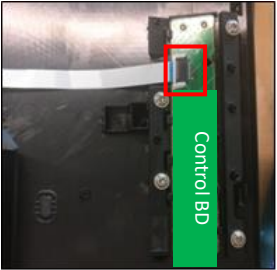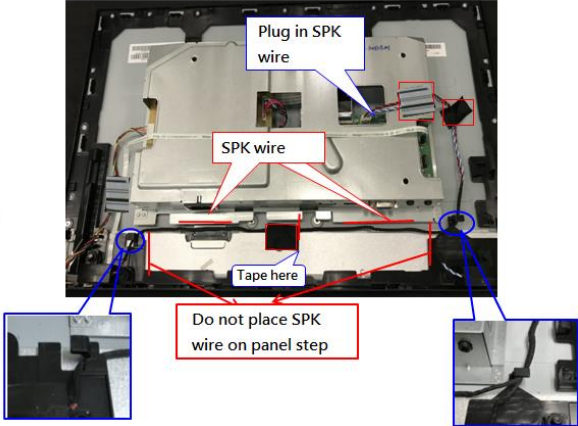
PICTURE 1   PICTURE 2   PICTURE 3   PICTURE 4

PICTURE 5

S2 Assemble the MF and panel	Take the Panel on the sponge cushion. Insert the little connector of the lamp wire to panel as the picture 1, thread the lamp wire out of the hole of the MF. Assemble the MF onto the panel. Lock 9 screws to the MF as the picture as the picture 2. Insert the FFC wire to the Panel as the picture 3. Assemble the SHD on the MF as the picture 4.

PICTURE 1	PICTURE 2	PICTURE 3	PICTURE 4

S3 Assemble the ASSY TRIM	Assemble FFC LED to the PCBA LED BD as the picture 1. Assemble the PCBA LED BD into the ASSY TRIM. Assemble the ASSY TRIM on the MF and lock two MD screws to the ASSY TRIM as the picture 3

PICTURE 1	PICTURE 2	PICTURE 3

S4 Assemble the lamp wire	Insert the big connector of the lamp wire to the P/BD .Stick 1 piece BOPP tape to fasten the lamp wire as the picture 1. Affix a Mylar on the left hole of the SHD as the picture 2. Tear off the four gums on the FFC LED and stick the FFC LED on regular mark wire on the SHD as the picture 3. Insert the FFC LED into the I/F BD

PICTURE 1	PICTURE 2	PICTURE 3

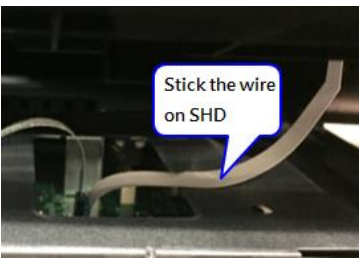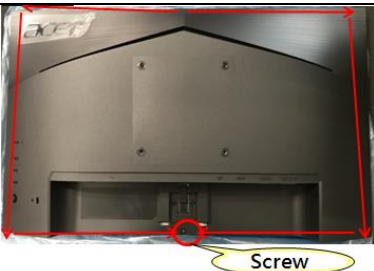| **S5** Assemble the Ctrl PCBA on RC.	Assemble FFC Ctrl to the Ctrl PCBA as picture 1. Assemble Control BD to the RC. Tear off the gums on the FFC Ctrl and stick the FFC Ctrl on the RC. Stick 1 piece adhesive tape on the point of inflexion of the FFC Ctrl as picture 2.

PICTURE 1 PICTURE 2

S6 Assemble the speaker on the MF	Insert the speaker connect to the I/F BD as the picture. Arrange the wire of the speaker (Attention: Keep the speaker wire straight, and the middle of the speaker wire is not allowed to be placed on the step of the panel.) Tear four BOPP tapes and stick them on the back of the panel to fasten the speaker wire as the picture.

S7 Assemble the RC, stand and base	Insert the FFC Crtl into the BD. Stick the FFC Ctrl on the SHD. Assemble the RC to the MF. Lock RC screw. Assemble the column and base on the RC.

NOTE: Circuit boards >10 cm² has been highlighted with the yellow rectangle as above image shows. Please detach the Circuit boards and follow local regulations for disposal.

5. Troubleshooting

TROUBLESHOOTING

Before sending your LCD monitor for servicing, please check the trouble-shooting list below to see if you can self-diagnose the problem.

(VGA Mode)

Problems	Current Status	Remedy
No Picture	LED ON	● Using OSD, adjust brightness and contrast to maximum or reset to their default settings.
	LED OFF	● Check the power switch.
		● Check if AC power cord is properly connected to the monitor.
	LED displays amber color	● Check if video signal cable is properly connected at the back of monitor.
		● Check if the power of computer system is ON.
Abnormal Picture	Unstable Picture	● Check if the specification of graphics adapter and monitor is in compliance which may be causing the input signal frequency mismatch.
	Display is missing, center shift, or too small or too large in display size	● Using OSD, adjust RESOLUTION, CLOCK, CLOCK-PHASE, H-POSITION and V-POSITION with non-standard signals.
		● Using OSD, in case of missing full-screen image, please select other resolution or other vertical refresh timing. ● Using OSD, in case of missing full-screen image, please select other resolution or other vertical refresh timing. ● Wait for a few seconds after adjusting the size of the image before changing or disconnecting the signal cable or powering OFF the monitor.
Abnormal Sound (Only Audio-Input model) (Optional)	No sound, or sound level is too low	● Check the audio cable with the host PC is connected.
		● Check if the volume setup of the host PC is in minimum position and try to raise the volume level.

(HDMI/DP Mode)

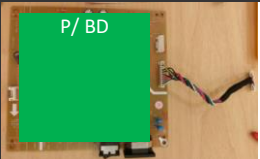| Problems	Current Status	Remedy
No Picture	LED ON	• Using OSD, adjust brightness and contrast to maximum or reset to their default settings.
	LED OFF	• Check the power switch.
		• Check if AC power cord is properly connected to the monitor.
	LED displays amber color	• Check if video signal cable is properly connected at the back of monitor.
		• Check if the power of computer system is ON.
Abnormal Sound (Only Audio-Input model) (Optional)	No sound, or sound level is too low	• Check the audio cable with the host PC is connected.
		• Check if the volume setup of the host PC is in minimum position and try to raise the volume level.

6. FRU List

This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of   ACER V277. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

Please note that WHEN ORDERING FRU PARTS, you should check the most up-to-date information available on your regional web or channel. For whatever reasons a part number change is made, it will not be noted on the printed Service Guide. For AUTHORIZED SERVICE PROVIDERS, your office may have a DIFFERENT part number code from those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional office to order FRU parts for repair and service of customer machines

NOTE: To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional office on how to return it.

Category	ACER DESCRIPTION	Description	PART NO.
LCD			
	LED LCD Panel AUO 27" FHD None Glare M270HAN01.1 00 1000:1 14ms 250nits	LCDM 27W M270HAN01.1 00 Z	KL.27005.043
BOARD			
	MAIN BOARD 1A1H1DP+S	PCBA IF BD MI ADH+SPK B277	55.TBTM3.007
	POWER BOARD SPK WITH WIRE	PCBA SPS BD MI ADH+SPK V277	55.TC0M3.002
	FUNCTION KEY BOARD WITH BUTTON	PCBA CTRL BD MI B277	55.TBTM3.003
	LED BOARD	PCBA LED BD SMD B277	55.TBTM3.006