

Maintenance and Service Guide E273m model

SUMMARY

This guide provides information about spare parts, removal and replacement of parts, diagnostic tests, problem troubleshooting, and more.

© Copyright 2021 HP Development Company, L.P.

AMD is a trademark of Advanced Micro Devices, Inc. Bluetooth is a trademark owned by its proprietor and used by HP Inc. under license. NVIDIA is a trademark and/or registered trademark of NVIDIA Corporation in the U.S. and other countries. USB Type-C and USB-C are registered trademarks of USB Implementers Forum. DisplayPort and the DisplayPort logo are trademarks owned by the Video Electronics Standards Association (VESA) in the United States and other countries.

The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

First Edition March 2021

Document Part Number: 920847-E273m-MSG-V1

Assembly part number: 920847-001

Product notice

Only trained service personnel familiar with this product should service it. Before performing any maintenance or service, be sure to read "Important Safety Information".

Table of Contents

1	Getting started	1
	Important safety information	1
	Important service information and precautions	1
	RoHS (2002/95/EC) requirements	2
	General descriptions	2
	Firmware updates	2
	Before returning the repaired product to the customer	2
2	Monitor features	3
	Features	3
	Front components	4
	Rear components	6
	Locating the serial number and product number	7
3	Illustrated parts catalog	9
	How to order parts	10
4	Removal and replacement procedures	11
	Preparation for disassembly	11
	RC	12
	Power board	17
	Connector repair	
	Audio connector CN601	
	HDMI connector CN501	
	DP connector CN5101	
	TYPE-C connector CN1504	
	D-SUB connector CN101	
	Function test	24
	Function test	24
	Support and troubleshooting	24

1 Getting started

Read this chapter to learn about safety information and where to find additional HP resources.

Important safety information

Carefully read the cautions and notes within this document to minimize the risk of personal injury to service personnel. The cautions and notes are not exhaustive. Proper service methods are important to the safe, reliable operation of equipment. Improper service methods can damage equipment.

The service procedures recommended and described in this service manual provide effective methods of performing service operations. Service engineers should have prior repair knowledge and experience as well as appropriate training for the product before performing service procedures.

- Be sure your working environment is dry and clean and meets all government safety requirements.
- Be sure that other persons are safe while you are servicing the product.
- Do not perform any action that can cause a hazard to the customer or make the product unsafe.
- Use proper safety devices to ensure your personal safety.
- Always use approved tools and test equipment for servicing.
- Never assume the product's power is disconnected from the main power supply. Check that it is disconnected before opening the product's cabinet.
- Modules containing electrical components are sensitive to electrostatic discharge (ESD). Follow ESD safety procedures while handling these parts.
- Some products contain more than one battery. Do not disassemble or expose a battery to high temperatures, such as throwing into fire, or the battery may explode.
- Refer to government requirements for battery recycling or disposal.

This information provides general service information for the monitor. Adherence to the procedures and precautions is essential for proper service.

IMPORTANT: Only trained service personnel who are familiar with this HP product should perform service or maintenance for it. Before performing any service or maintenance, personnel must read the important safety information.

IMPORTANT: You must disconnect the power cord from the power source before opening the monitor to prevent component damage.

Important service information and precautions

- Repair must be performed by professional service technicians in a repair center. End users should not perform these procedures.
- Please note during servicing that the primary side is the high voltage area.
- This monitor meets ROHS requirements. Be sure to use lead-free solder wire when soldering.
- If you must change a capacitor, be sure to match the polarity as printed on the PCB.
- If you must replace a capacitor, make sure the specification and part number match the BOM and location.

- If you must replace a capacitor, insert new parts carefully to avoid a short circuit caused by the near pin.
- Do not get the board wet. Water and moisture can cause a short circuit that causes malfunctions.
- To avoid damage, be sure to use lead-free solder.
- When soldering, work quickly to avoid overheating the circuit board.
- Keep the soldering iron tip clean and well tinned when replacing parts.
- After repair, perform a close inspection of the circuit board to confirm it is in good condition.
- After repair, perform a function test to confirm the power supply is working properly.

ERP Lot5 requirement

- 1. A professional repairer must have the technical competence to repair electronic displays and comply with the applicable regulations for repairers of electrical equipment in the Member States where the repairer operates. Reference to an official registration system as professional repairer, where such a system exists in the Member States, shall be accepted as proof of compliance.
- 2. A professional repairer must have insurance that covers liabilities resulting from repairs, regardless of whether required by the Member State.

RoHS (2002/95/EC) requirements

Applied to all countries that require RoHS.

The RoHS (Restriction of Hazardous Substance in Electrical and Electronic Equipment Directive) is a legal requirement by the EU (European Union) for the global electronics industry sold in the EU and other countries. Any electrical and electronics products launched in the market after June 2006 should meet this RoHS requirement. Products launched in the market before June 2006 are not required to be compliant with RoHS parts. If the original parts are not RoHS complaint, the replacement parts can be non-ROHS complaint. If the original parts are RoHS compliant, the replacement parts MUST be RoHS complaint.

If product service or maintenance requires replacing parts, confirm the RoHS requirement before replacement.

General descriptions

This manual contains general information. There are two levels of service:

Level 1: Cosmetic/appearance/alignment service

Level 2: Circuit board or standard parts replacement

Firmware updates

Firmware updates for the monitor are available at support.hp.com. If no firmware is posted, the monitor does not need a firmware update.

Before returning the repaired product to the customer

Perform an AC leakage current check on exposed metallic parts to be sure the product is safe to operate without the potential of electrical shock. Do not use a line isolation transformer during this check.

Measurements that are not within specified limits present a possible shock hazard. You must check and repair the product before returning it to the customer.

2 Monitor features

This chapter provides an overview of the monitor's features.

Features

Depending on the model, your monitor might include the following features:

- 68.5 cm (27-inch) diagonal viewable screen area with 1920 x 1080 resolution, plus full-screen support for lower resolutions; includes custom scaling for maximum image size while preserving original aspect ratio
- Nonglare panel with an LED backlight
- Skype for Business-certified popup camera and microphone for online collaboration (select models)
- Wide viewing angle to allow viewing from a sitting or standing position, or when moving from side to side
- Tilt capability
- Pivot capability to rotate the monitor panel from landscape to portrait mode
- Swivel and height adjustment capabilities
- Removable stand for flexible monitor panel mounting solutions
- DisplayPort and VGA video inputs (cables provided)
- One HDMI (High-Definition Multimedia Interface) video input (cable not provided)
- USB 3.0 hub with one upstream port (connects to the computer) and two downstream ports (connect to USB devices)
- USB BM to AM cable provided to connect the monitor's USB hub to the USB connector on the computer (23.8—inch model only)
- USB CM to AM cable provided to connect the monitor's USB hub to the USB connector on the computer (27–
 inch model only)
- Plug and Play capability, if supported by your operating system
- Security cable slot provision on rear of monitor for optional security cable
- On-screen display (OSD) adjustments in several languages for easy setup and screen optimization
- HP Display Assistant software for adjusting monitor settings and enabling the theft deterrence features
- Cyberlink YouCamsoftware
- HDCP (High-bandwidth Digital Content Protection) copy protection on all digital inputs
- Software and documentation optical disc (provided with the monitor in select regions) that includes monitor drivers and product documentation
- Energy saver feature to meet requirements for reduced power consumption

NOTE: For safety and regulatory information, refer to the Product Notices provided in your documentation kit. To access the latest user guides or manuals for your product, go to http://www.hp.com/support and follow the instructions to find your product. Then select **Manuals**.

Front components

To identify the components on the front of the monitor, use this illustration and table.

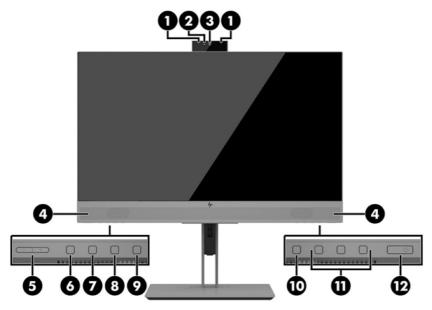


Table 1-1: Front components and their descriptions

Component		Function
1	Camera microphones	Allow you to participate in a video conference.
2	Camera light	On: The camera is in use.
3	Camera lens	Transmits your image in a video conference.
4	Speakers	Transmit sound from audio input.
5	+/- (Plus/Minus) button	Press to increase (+) or decrease (-) speaker volume.
6	Answer/Call button	Press to answer or make a call.
		Illuminates green when on the phone.
		Green light and red light blink when there is an incoming call.
7	Mute microphone button	Press to mute or activate the camera microphone.
		Illuminates amber when microphone is muted.
8	Mute speaker button	Press to mute or activate the speakers.
		Illuminates amber when speakers are muted.
9	Reject/Hang up button	Press to decline or end a call.
		Green light and red light blink when there is an incoming call.
10	Menu button	Press to open the OSD menu, select a menu item from the OSD, or close the
		OSD menu. An indicator is activated above the Menu button when the OSD
		menu is open.

11	Function buttons	Use these buttons to navigate through the OSD menu based on the indicators above the buttons that are activated when the OSD menu is open.
		NOTE: You can reconfigure the Function buttons in the OSD menu to
		quickly select the most commonly used operations. See Assigning the
		function buttons on page 20 for more information.
12	Power button	Press the button to turn the monitor on or off. When the monitor is on, the power light above the power button is on.

Rear components

To identify the components on the rear of the monitor, use this illustration and table.

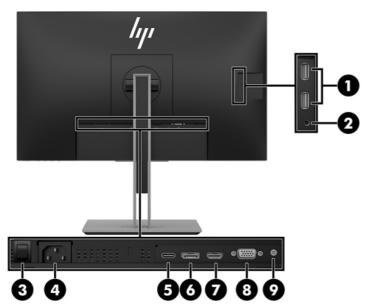
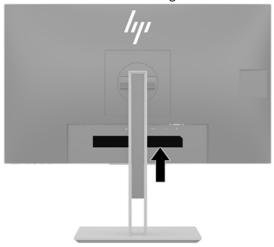


Table 1-2: Rear components and their descriptions

Component		Function		
1	USB ports (2)	Connect USB devices.		
2	Audio-out (headphone) jack	Connects optional powered stereo speakers, headphones,		
		earbuds, a headset, or a television audio cable.		
		WARNING! To reduce the risk of personal injury, reduce the		
		volume before using headphones, earbuds, or a headset. Foradditional safety information, see the Product Notices provided on the optical disc, if one is included with your product.		
		NOTE: When a device is connected to the headphone jack, the monitor speakers are disabled.		
3	Master power switch	Turns off all power to the monitor.		
		NOTE: Putting the switch in the Off position will yield the		
		lowest power state for the monitor when not in use.		
4	Power connector	Connects the power cord.		
5	USB Type–C port	Connects the USB CM—CM or CM-AM cable from the source device to the monitor.		
6	DisplayPort port	Connects the DisplayPort cable to the source device.		
7	HDMI port	Connects the HDMI cable to the source device.		
8	VGA port	Connects the VGA cable to the source device.		
9	Audio line in port	Connects the audio cable to the monitor		

Locating the serial number and product number

The serial number and product number are located on a label on the rear of the monitor panel. You may need these numbers when contacting HP about the monitor model.



For worldwide models (except India):

Barcode label



Assembly Part No. 920847-001 Rev.XXXXXX Input Rating(輸入电圧 电流輸入電壓 電流/ 점직입력: 100-240V~1.6A(1,6A) 50/60Hz Consumo de energia: 19.77 Wh Manufactured /制造日期/製造日期/제조일: January 2017 Made in China 제조국 : 중국/中国制造/中國製造



Spec label



For India:

Bar code label



Regulatory Model No./與定型导/與定型號/모델명: HSTND-9621-A Assembly Part No. 920847-001 Rev.XXXXXX Input Rating增和、电压 电流输入電壓 電流/ 점격일력: 100-240V ~ 1.6A(1.6A) 50/60Hz Consumo de energia: 19.77 Wh En modo de espera: 0.28 Wh Manufactured /制造日期/製造日期/제조일: January 2017 Made in China 제조국: 중국/中国制造/中國製造

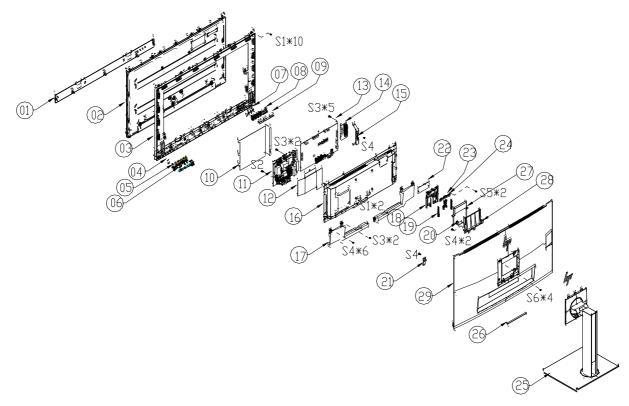


Spec label



3 Illustrated parts catalog

To identify the monitor major components, use this illustration and table.



Item	Description	Qty
1	BEZEL_TOP	1
2	LCD LM270WF7-SSD1 GZ LGD	1
3	MIDDLE_FRAME L27WC-Bhp1b-p1	1
4	LENS	1
5	KEY	1
6	KEY BOARD	1
7	LENS_IR	1
8	KEY_FRAME	1
9	KEY BOARD	1
10	INSULATING SHEET	1
11	ADAPTER BOARD	1
12	INSULATING SHEET	1
13	MAIN BOARD	1
14	USB BOARD	1
15	SHIELD_USB	1
16	MAINFRAME	1
17	SPEAKER 4	1
18	COVER_WEBCAM_FRONT	1
19	SPRING	2
20	KEY BOARD	1
21	SHIELD_IO	1
22	INSULATING SHEET	1
23	WEBCAM MODULE CNFEH5921005040LH	1

24	BKT_IO	1
25	stand-base ass'y L27W-Bhp1-p1 all	1
26	RUBBER PAD	1
27	COVER_WEBCAM_REAR	1
28	COVER_WEBCAM L27WC-Bhp1b-p1	1
29	REAR_COVER L27WC-Bhp1b-p1	1
S1	SCREW(MIDDLE_FRAME&MAINFRAME/PANEL)	12
S2	SCREW(POWER BOARD/MAINFRAME)	1
S3	SCREW(POWER BOARD&MAIN BOARD/MAINFRAME)	9
S4	SCREW(SPEAKER&COVER_WEBCAM&SHIELD_USB)	12
S5	SCREW(WEBCAM CABLE&GROUND CABLE)	2
S6	SCREW(REAR COVER/MAINFRAME)	4

How to order parts

The HP authorized repair center can purchase the power board from HP.

Capacitors and connectors are available for purchase from the following EU distributors:

- Farnell: Farnell UK Electronic Components Distributor
- RS Component: Capacitors | RS Components (rs-online.com)
- tme Component: Transfer Multisort Elektronik

Power board

Description	HP spare part number	Manufacturer part number
PSU E273m	M74278-001	ADPCH1965AD2

Connectors by manufacturer

Component description	Location identifier	Component distributor	Distributer part number
PHONE JACK	CN601	RS	913-1021(RS PRO)
D-SUB	CN101	tme	HDL15-SL-B (ADAM TECH)
HDMI	CN501	RS	SD-47151-001(Molex)
DisplayPort	CN5101	Farnell	DP1RD20JQ1(JAE)
USB Type-C	CN1504	RS	R-S13KG-03(CIE-Group)

NOTE: Rear cover and chassis need to be modified to hold connector. Connector may need modifications to meet functional, safety and regulatory requirements accordingly if it doesn't match exactly.

You can purchase cables from the HP part store at https://partsurfer.hp.com/Search.aspx.

NOTE: HP continually improves and changes product parts. For complete and current information about supported parts for your computer, go to http://partsurfer.com, select your country or region, and then follow the on-screen instructions.

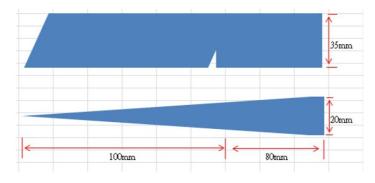
4 Removal and replacement procedures

Adherence to these procedures and precautions is essential for proper service.

Preparation for disassembly

Use this information to properly prepare to disassemble and reassemble the monitor.

- 1) Read the "Important safety information" and "Important service information and precautions" sections in the "Getting started" chapter of this guide.
- 2) Clean the room for disassembly.
- 3) Identify the disassembly area.
- 4) Check the position that the monitors are to be placed along with the number of monitors. Prepare the area for material flow according to the disassembly layout.
- 5) Be sure to have the following equipment and materials:
 - Press fixture
 - Working table
 - Screwdriver
 - Knife
 - Gloves
 - Cleaning cloth
 - ESD protection
 - Scraper bar in the following dimensions:

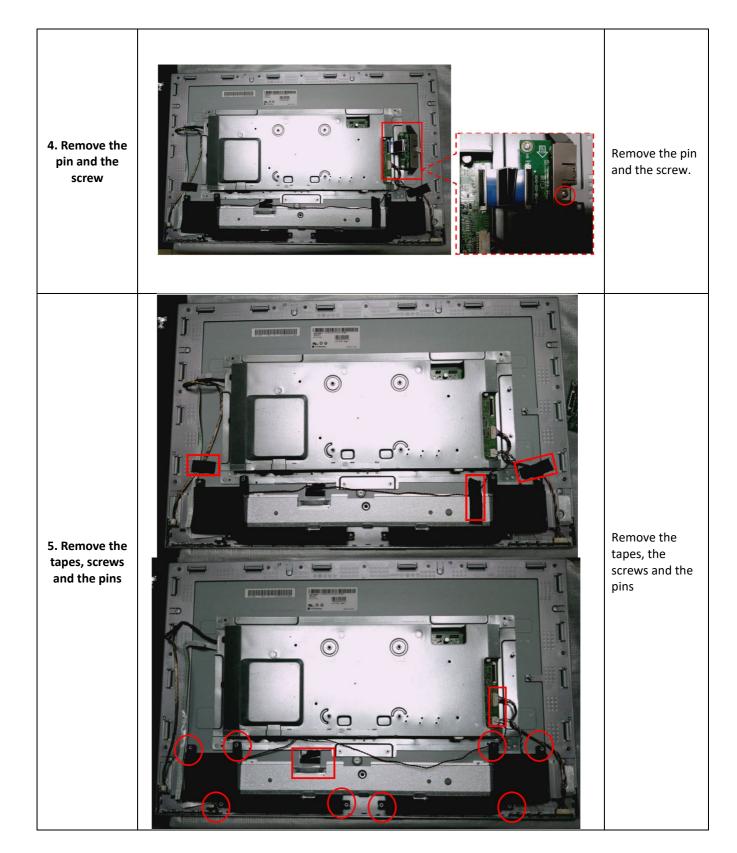


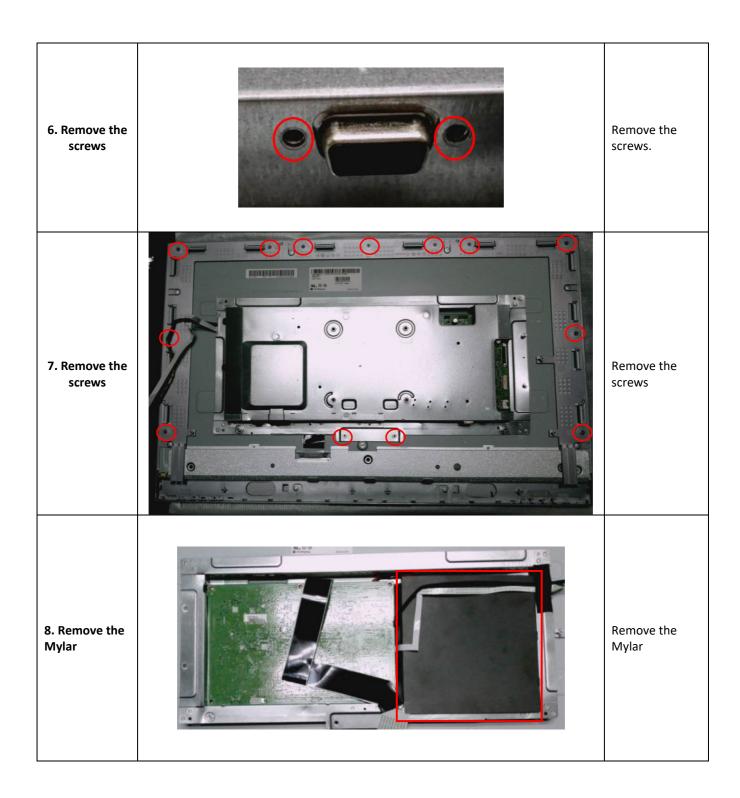
RC

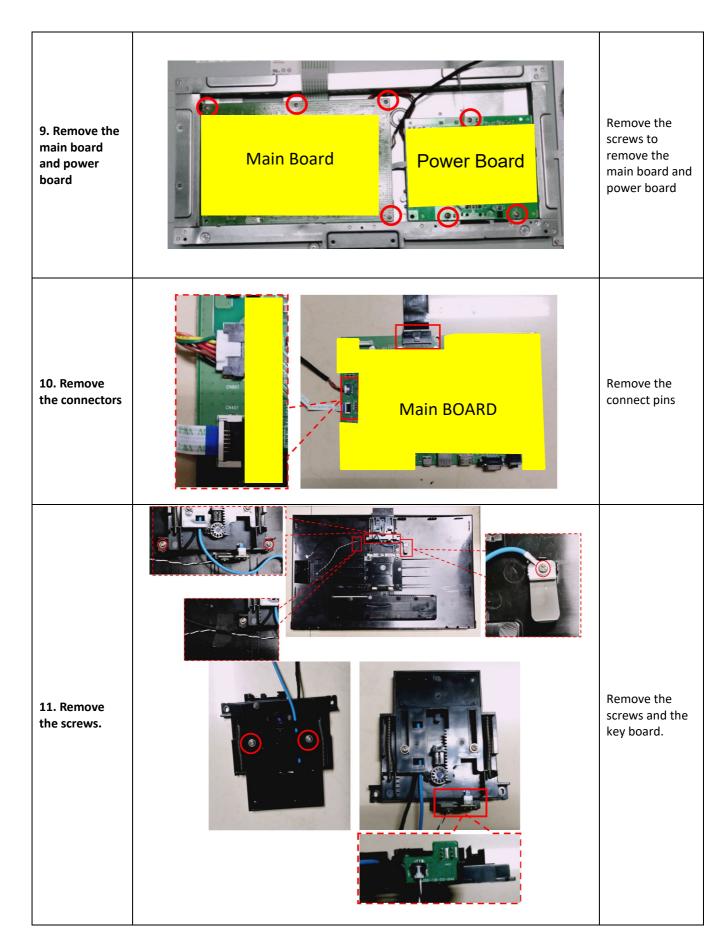
Before removing the RC, follow these steps:

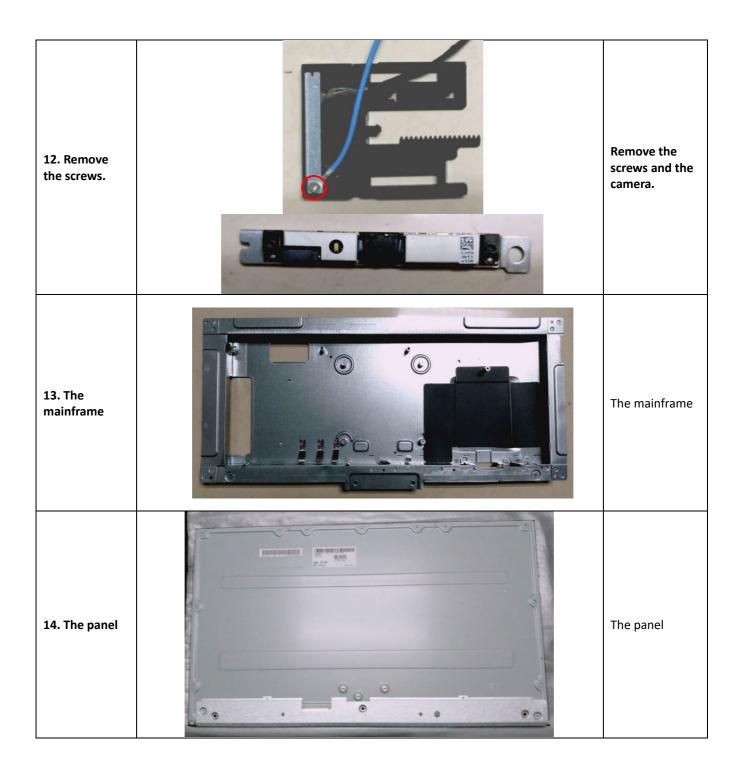
▲ Prepare the monitor for disassembly. See Preparation for disassembly on page 11.

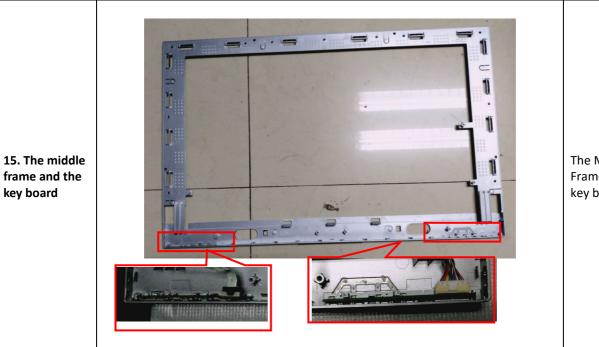
Step	Figure	Description
1. Preparation		Lay the monitor on a flat, soft and clean surface.
2. Remove the Stand-base Ass'y		Push the button the remove the stand-base ass'y
3. Remove the Rear cover		Remove the screws to remove the Rear cover.











The Middle Frame and the key boards.

Power board

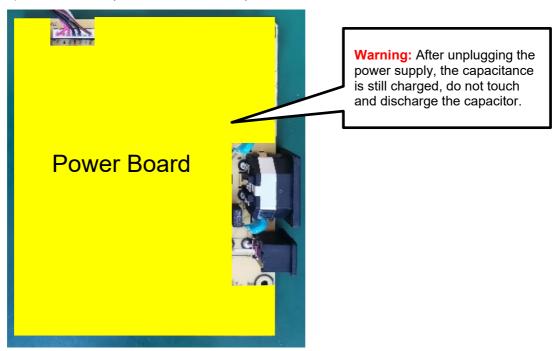
The power board part number is ADPCH1965AD2

Before removing the power board, follow these steps:

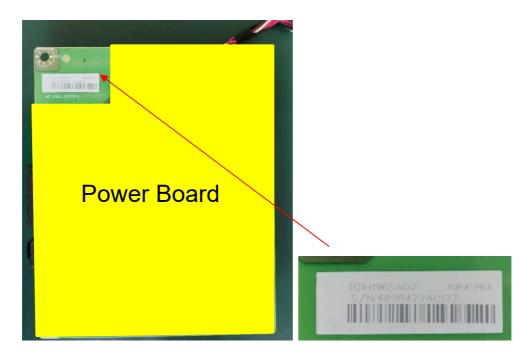
▲ Prepare the monitor for disassembly. See Preparation for disassembly on page 11.

Remove the power board:

1) The HP E273m power board connector position is as follows:



2) Locate the part number location on the board.



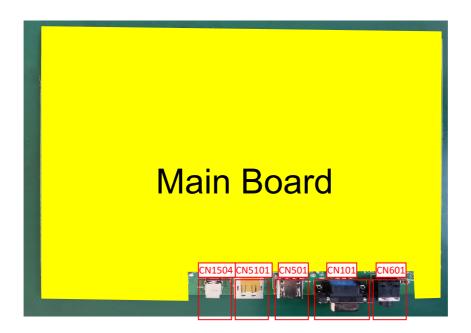
Connector repair

This procedure includes HDMI, DisplayPort, TYPE C, D-SUB and audio connectors.

The connectors are on the main board (board part number CBPCLDWHPQ1).

The connectors identifiers are as follows:

Connector	Location
нрмі	CN501
DisplayPort	CN5101
TYPE-C	CN1504
D-SUB	CN101
Audio	CN601



Before repairing connectors, follow these steps:

▲ Prepare the monitor for disassembly. See <u>Preparation for disassembly</u> on page 11.

IMPORTANT:

- Repair Condition: Connector repair is only for out of warranty.
- Repairing must operate by professional repairers (Note) in repair center, not applicable for end user.
- Electrostatic protection is required when component replacement is required.
- The monitor meets ROHS, please use Lead-free solder wire for soldering.
- If Connector need to replace, must check specification and part number whether match the BOM and location.
- If connector need to replace, please insert new parts carefully because the near pin may cause short circuit by inappropriate operate.
- DO NOT allow any liquid on the board. Water and moisture may cause short-circuit to the electronic components and lead to malfunctions.
- The fusion point of Lead-Free solder is requested. Repairing with conventional lead wire may cause damage.
- Work quickly to avoid overheating the circuit board as soon as you confirm the steady soldering condition.
- Keep the soldering iron tip clean and well tinned and when replacing parts.
- A close inspection of the circuit board revealed look in good condition.
- · After repaired, must connect source to each port to check Main board function is ordinary.

Note: (The requirement of professional repairers' regulation by ERP lot5)

- The professional repairer has the technical competence to repair electronic displays and complies with the applicable regulations for repairers of electrical equipment in the Member States where it operates. Reference to an official registration system as professional repairer, where such system exists in the Member States concerned, shall be accepted as proof of compliance with this point.
- The professional repairer is covered by insurance covering liabilities resulting from its activity, regardless of whether this is required by the Member State.

Audio connector CN601

Repair the audio connector:

1) Use a hot air gun to melt the solder on the pins. Pin solder with soldering iron and absorber. You can gently push down with the soldering iron once everything is molten to move the CN601 out of the through holes.



- 2) Lift the CN601 connector from the PCB.
- 3) Place the new component on the PCB. Be sure that it matches the PCB footprint.
- 4) Solder the new component.

HDMI connector CN501

Repair the HDMI connector:

1) Use a soldering iron and a desoldering pump to remove as much solder as possible from the pin.



2) Use a hot air gun to melt the solder on the pins.



- 3) Lift the CN501 connector from the PCB.
- 4) Place the new component on the PCB. Be sure that it matches the PCB footprint.
- 5) Solder the new component.

DP connector CN5101

Repair the DP connector:

1) Use a soldering iron and a desoldering pump to remove as much solder as possible from the pin.



2) Use a hot air gun to melt the solder on the pins.



- 3) Lift the CN5101 connector from the PCB.
- 4) Place the new component on the PCB. Be sure that it matches the PCB footprint.
- 5) Solder the new component.

TYPE-C connector CN1504

Repair the TYPE-C connector:

1) Use a soldering iron and a desoldering pump to remove as much solder as possible from the pin.



2) Use a hot air gun to melt the solder on the pins.



- 3) Lift the CN1504 connector from the PCB.
- 4) Place the new component on the PCB. Be sure that it matches the PCB footprint.

5) Solder the new component.

D-SUB connector CN101

Repair the D-SUB connector:

1) Use a soldering iron and a disordering pump to remove as much solder as possible from the pin.



2) Use a hot air gun to melt the solder on the pins.



- 3) Lift the CN101 connector from the PCB.
- 4) Place the new component on the PCB. Be sure that it matches the PCB footprint.
- 5) Solder the new component.

Function test

After repair, be sure to confirm that all functions are working.

Table 4-1: Function test

Test item	Operating description	Tool used
HDMI test	Confirm whether image displays and sound plays correctly on the monitor.	Computer or DVD player
DP test	Confirm whether image displays and sound plays correctly on the monitor.	Computer or DVD player
D-SUB test	Confirm whether image displays and sound plays correctly on the monitor	Computer or D-SUB player
Audio test	Change volume and balance to confirm whether volume is smooth and loud enough.	Speaker

Support and troubleshooting

The following table lists possible problems, the possible cause or each problem, and the recommended solutions.

Table 4-2: Solving common problems

Problem	Possible cause	Solution
Screen is blank or video is flashing.	Power cord is disconnected.	Connect the power cord.
	Monitor is off.	Power the power button.
		NOTE: If pressing the Power button has no effect, press and hold the power button for 10 seconds to disable the Power button lockout feature.
	Video cable is improperly connected.	Connect the video cable properly. See Connecting the cables on page 7 for more information.
	System is in Sleep mode.	Press any key on the keyboard or move the mouse to exit Sleep mode.
	Video card is incompatible.	Open the OSD menu and select the Input Control menu. Set Auto-Switch Input to Off and manually select the input.
Image appears blurred, indistinct, or too dark.	Brightness is too low.	Open the OSD menu and select Brightness to adjust the brightness scale as needed.
No speaker volume or low speaker volume.	Volume control is turned down.	Adjust the volume control on the bottom left of the front panel.
	Volume is muted.	Press up on the volume control to unmute the volume.
	Volume is turned down in the OSD.	Open the OSD, select Audio Control > Volume, and adjust the volume scale.

	Headphones are plugged in.	Unplug the headphones. The speakers are disabled when the headphones are plugged in.
Check Video Cable is displayed on the screen.	Monitor video cable is disconnected	Connect the appropriate video signal cable between the computer and monitor. Be sure that the computer power is off while you connect the video cable.
Input Signal Out of Range is displayed on the screen.	Video resolution and/or refresh rate are set higher than the monitor supports.	Change the settings to a supported setting.
The monitor is off but it did not seem to enter into sleep mode.	The monitor's power saving control is disabled.	Open the OSD menu and select Power Control > Auto-Sleep Mode and set auto-sleep to On.
OSD Lockout is displayed	The monitor's OSD Lockout function is enabled.	Press and hold the Menu button on the front bezel for 10 seconds to disable the OSD Lockout function.
Power Button is Locked is Displayed	The monitor's Power Button Lockout function is enabled.	Press and hold the power button for 10 seconds to disable the Power Button Lockout function