



Maintenance and Service Guide

Z25xs G3 model

SUMMARY

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

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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".

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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 compliant, the replacement parts can be non-ROHS compliant. If the original parts are RoHS compliant, the replacement parts **MUST** be RoHS compliant.

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:

Display features

- 63.5 cm (25 in) diagonal viewable screen area with 2560 × 1440 resolution QHD, plus full-screen support for lower resolutions; includes custom scaling for maximum image size while preserving original aspect ratio
- Liquid crystal display (LCD) with active matrix and in-plane switching (IPS)
- Wide color gamut to provide coverage of the P3 color space
- Nonglare panel with an LED backlight
- Wide viewing angle to allow viewing from a sitting or standing position, or moving from side to side
- Tilt, swivel, and height adjustment capabilities
- Pivot capability to rotate the monitor head from landscape to portrait orientation
- Dual Picture in Picture (PIP) and Picture beside Picture (PbP) functionality to enable the DisplayPort™ and High-Definition Multimedia Interface™ (HDMI) inputs to be viewed in each half of the screen
- On-screen display (OSD) adjustments in several languages for easy setup and screen optimization
- Workflow-based color space presets for standard and wide gamut applications
- Energy saver feature to meet requirements for reduced power consumption
- Security cable slot on the rear of the monitor for an optional security cable
- Cable management feature for placement of cables and cords

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

Table 1-2 Front components and their descriptions

Component	Description
(1) Brightness adjustment buttons	Left Button: Brightness Quick Full (default) Sets the brightness to the maximum available on the display. Right Button: Brightness Quick Restore (default) Restores the previous brightness setting. NOTE: The functions of these buttons can be changed using the customization features in the OSD. See Using the OSD menu on page 18 .
(2) Power button	Turns the monitor on or

Rear and side components

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

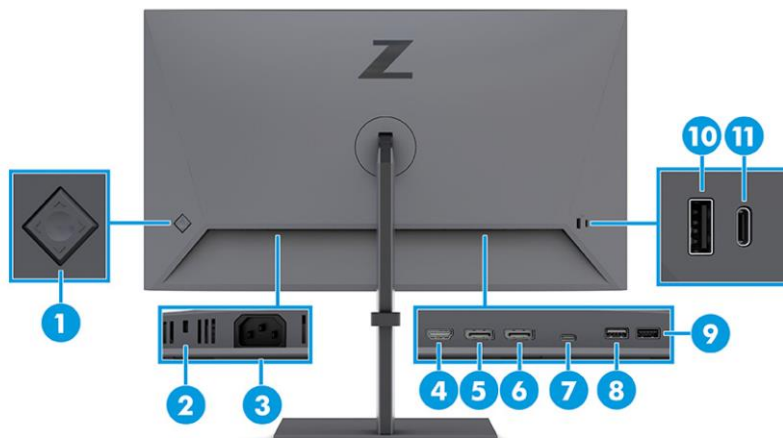
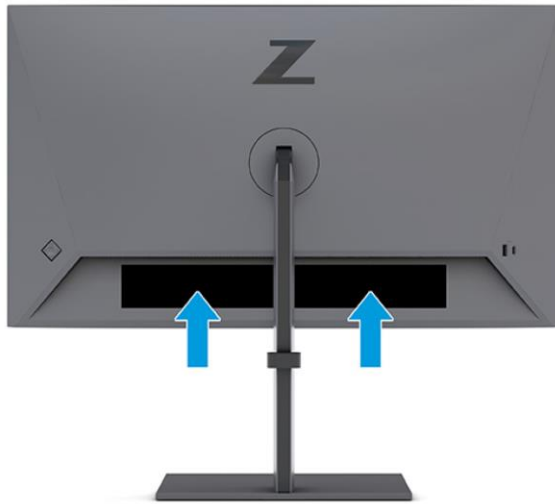


Table 1-3 Rear components and their descriptions

Component	Description
(1) OSD control	Pressing the center activates the OSD buttons so that the button labels appear on the right side of the screen. Up button: Next Active Input Down button: Display Information Left button: Brightness Right button: Color
(2) Security cable slot	Connects an optional security cable.
(3) Power connector	Connects a power cord.
(4) HDMI port	Connects the HDMI cable to a source device such as a computer.
(5) DisplayPort connector	Connects the DisplayPort cable to a source device such as a computer.
(6) DisplayPort Out connector	Connects a DisplayPort cable from the monitor to a secondary monitor. NOTE: This connector is covered by a rubber plug. Remove the plug to connect a downstream display.
(7) USB Type-C port (upstream)	Connects a USB Type-C cable to a source device such as a computer. This USB Type-C port can function as a DisplayPort audio/video input or as a USB upstream connection, or it can be used to deliver up to 100 W of power to a device. Power outputs are 5 V, 9 V, 12 V, 15 V, and 20 V with a total maximum output of 100 W. This port also enables the downstream USB ports to perform their functions.
(8) USB port (downstream)	Connects a USB cable to a peripheral device such as a keyboard, mouse, or USB harddrive.
(9) USB port (charging)	Connects a USB cable to a peripheral device, such as a keyboard, mouse, or USB harddrive and supports battery charging.
(10) USB port (downstream)	Connects a USB cable to a peripheral device, such as a keyboard, mouse, or USB harddrive.
(11) USB Type-C port (downstream)	Connects a USB Type-C cable to a peripheral device, such as a keyboard, mouse, or USB hard drive.

Locating the serial number and product number

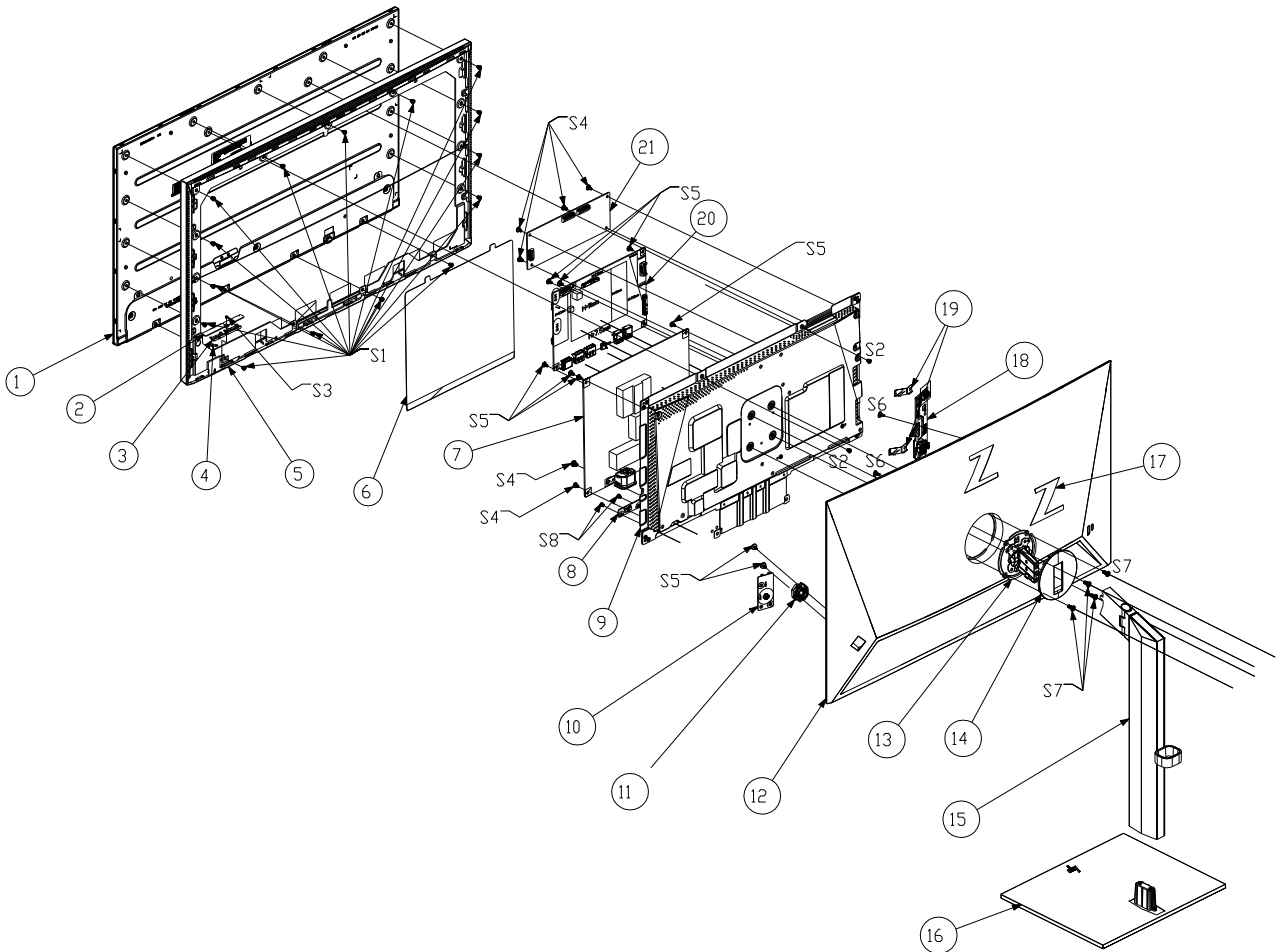
The serial number and product number are located on a label on the rear of the monitor panel. You may need these numbers when contacting HP about the monitor model.



Service label 45X15mm, R=2mm
QR code just include Serial Number/CNC0450001

3 Illustrated parts catalog

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



Item	Description	Qty
1	PANEL	1
2	KEY BOARD	1
3	KEY_POWER	1
4	LENS	1
5	MIDDLE FRAME	1
6	INSULATING SHEET	1
7	ADAPTER BOARD	1
8	CONNECTOR BOARD	1
9	MAIN FRAME	1
10	CONNECTOR BOARD(Sensor)	1
11	KEY_Navi	1
12	REAR COVER	1
13	HINGE	1
14	HINGE Cover	1
15	STAND	1
16	BASE	1
17	LOGO HP NA	1

18	CONNECTOR BOARD(SIDE USB)	1
19	Spring Finger	1
20	MAIN BOARD	1
21	CONVERTER BOARD	1
S1	SCREW M3 4 (PANEL /MIDDLE FRAME)	15
S2	SCREW D3 8 (PANEL /MAINFRAME)	2
S3	SCREW Q2 2 (KEY BOARD /MIDDLE FRAME)	1
S4	SCREW M4 6 (POWER BOARD /MAIN FRAME)	1
S5	SCREW D3 6 (KEY NAVI /REAR COVER)	12
S6	SCREW M3 6 (USB BOARD / REAR COVER)	4
S7	SCREW M4 8 (HINGE/ MAIN FRAME)	4
S8	SCREW M3 4 (SENSOR BOARD/ MAIN FRAME)	2

How to order parts

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

Power board

Description	HP spare part number	Manufacturer part number
PSU Z25xs G3	N12317-001	ADPCJ20180AH1+ LNPCJE262GQH1

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

- Farnell: [Farnell UK - Electronic Components Distributor](#)
- RS Component: [Capacitors | RS Components \(rs-online.com\)](#)

Connectors by manufacturer

Component description	Location identifier	Component distributor	Distributer part number
HDMI 1	CN5101	RS	SD-47151-001 (Molex)
DisplayPort 1	CN551	Farnell	DP1RD20JQ1 (JAE)
DisplayPort 2	CN501	Farnell	SD-47151-001(Molex)
USB Type-C	CN5302	Farnell	DP1RD20JQ1 (JAE)
USB 3.0 A 1	CN1103	RS	10117835-002LF (Amphenol ICC)
USB 3.0 A 2	CN1105	RS	10117835-002LF (Amphenol ICC)
USB 3.0 A	CN154	RS	10117836-002LF (Amphenol ICC)
USB Type-C	CN152	RS	632722110112 (WE)

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>.

Internal and External Power Supplies are available for purchase from the following EU distributor: EET_ <https://www.eetgroup.com/en-eu/>

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

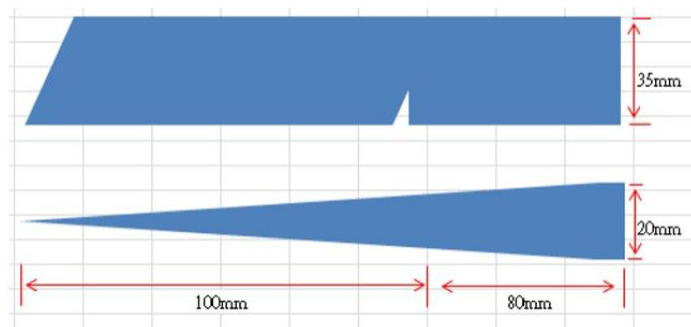
4 Removal and replacement procedures

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:



Rear Cover

Before removing the Rear Cover, follow these steps:

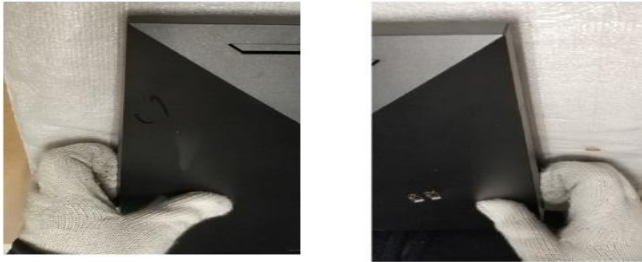
- ▲ Prepare the monitor for disassembly. See Preparation for disassembly on page 10.

Remove the Rear Cover:

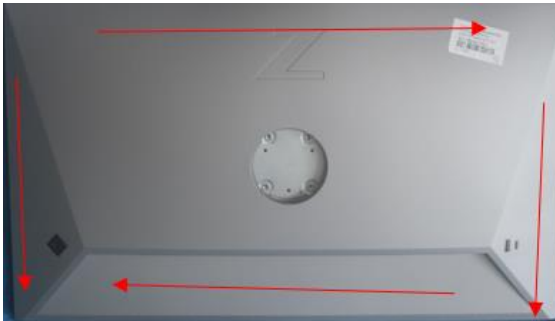
- 1) Remove the stand lid and remove four screw from the rear case.



- 2) Use your fingers to split the left and right sides apart between the middle frame and rear case.



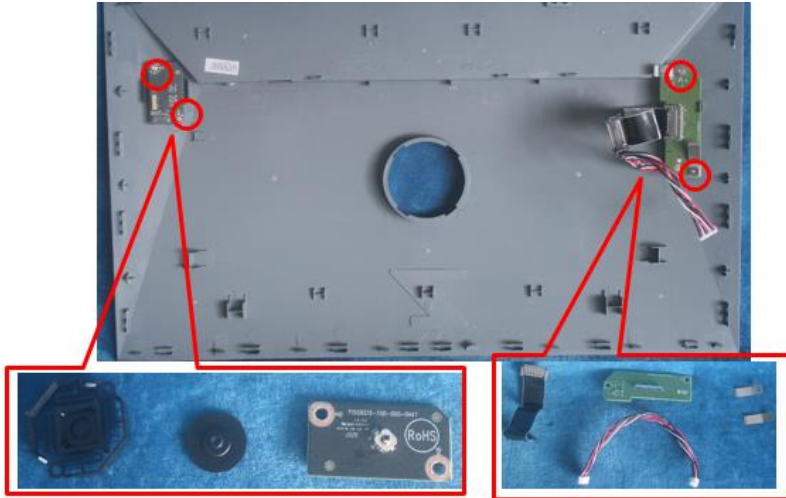
- 3) Insert the scraper bar tool into the gap between the middle frame and rear case, and then rotate. The hook opens. Repeat the steps.



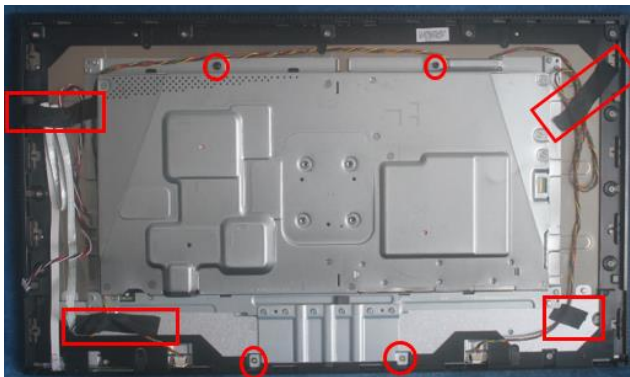
- 4) Disassemble Rear Cover.



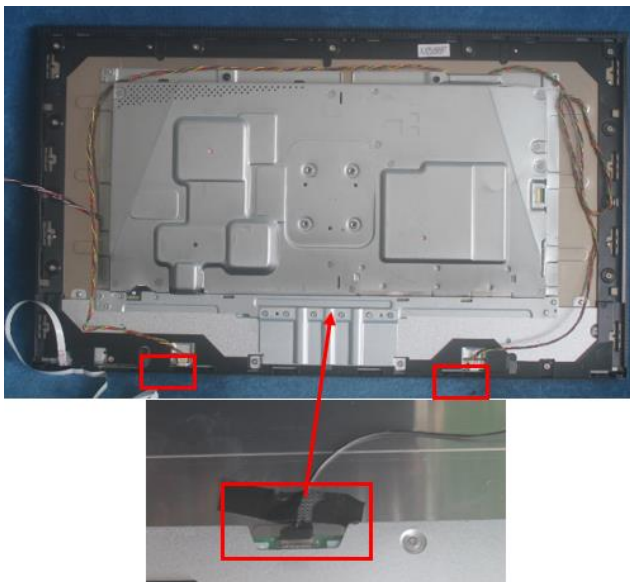
5) Remove 4 screws to remove the Connect boards.

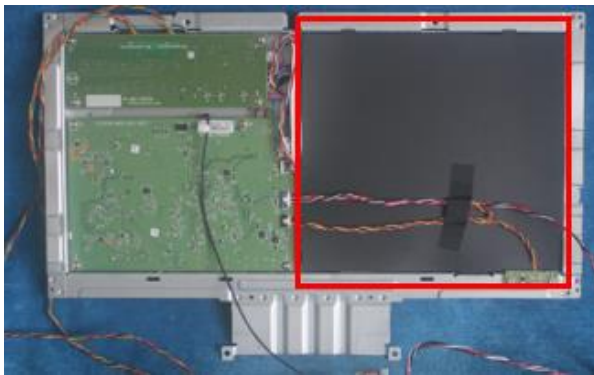


6) Tear off the tapes and unscrew 4 screws to remove the mainframe.

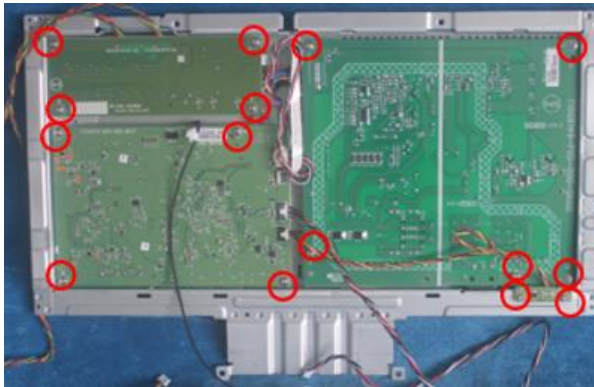


7) Disconnect the Light bar cables.





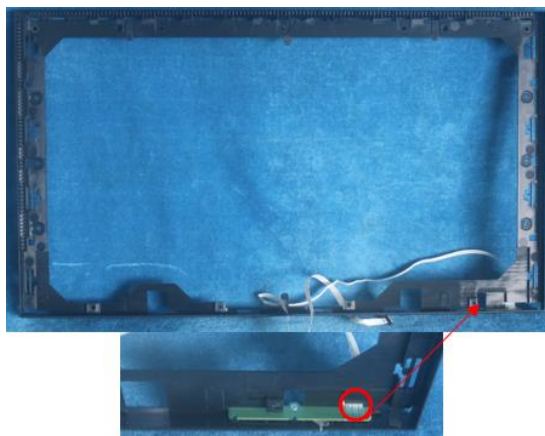
8) Remove 15 screws to remove the Main Board, Connector Board and Power Board.



9) Remove 11 screws to disassemble the middle frame and Panel.



10) Remove the key board from the middle frame.



11) Disassemble all the boards from housing.

12) Disconnect all the wires from the board.

Power board

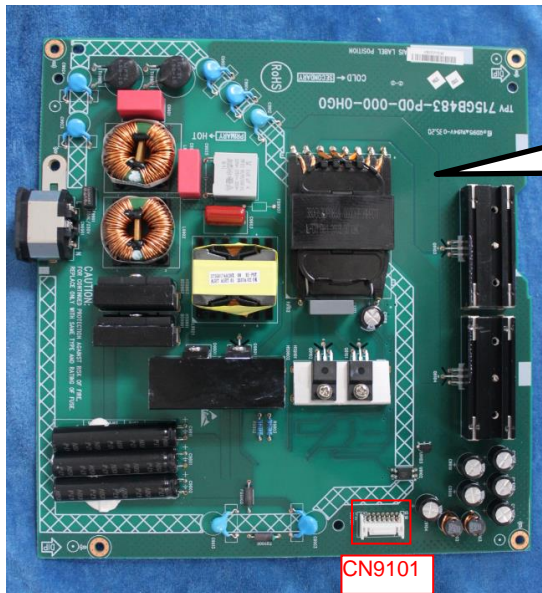
The power board part number is ADPCJ20180AH1

Before removing the power board, follow these steps:

- ▲ Prepare the monitor for disassembly. See Preparation for disassembly on page 10.

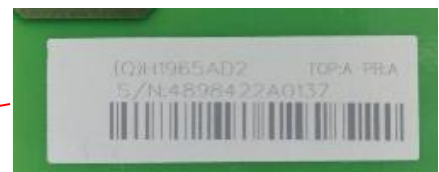
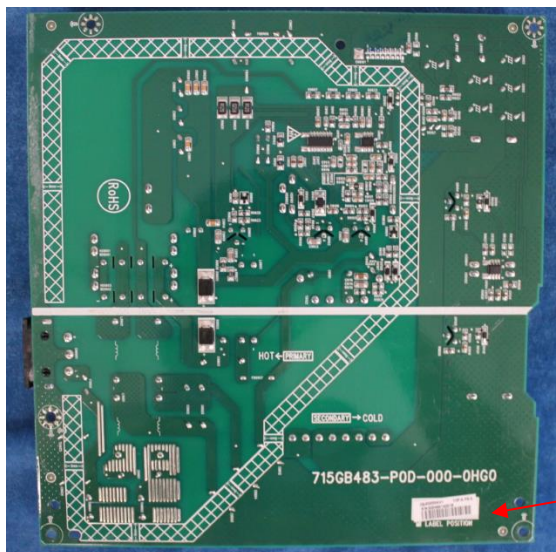
Remove the power board:

- 1) The HP Z25xs G3 power board connector position is as follows:



Warning: After unplugging the power supply, the capacitance is still charged, do not touch and discharge the capacitor.

- 2) Locate the part number location on the board.



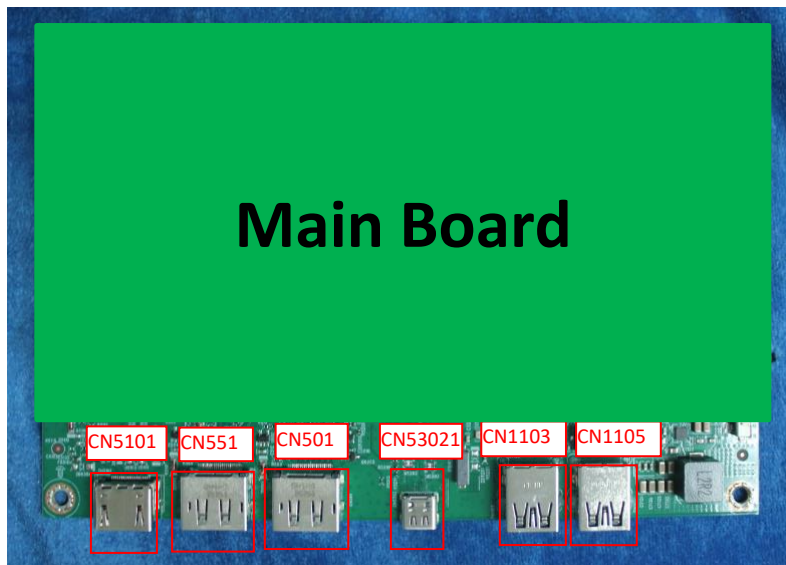
Connector repair

This procedure includes HDMI, DisplayPort (1&2), USB Type-C and USB 3.0 A (1 & 2) connectors.

The connectors are on the main board (board part number CBPRNA6H0Q6).

The connectors identifiers are as follows:

Connector	Location
HDMI	CN5101
DisplayPort 1	CN551
DisplayPort 2	CN501
TYPE-C	CN5302
USB 3.0 A 1	CN1103
USB 3.0 A 2	CN1105



This procedure includes USB Type-C and USB 3.0 A connectors.

The connectors are on the Connector board (board part number CTPCNQB3).

The connectors identifiers are as follows:

Connector	Location
USB 3.0	CN154
USB Type-C	CN152



Before repairing connectors, follow these steps:

- ▲ Prepare the monitor for disassembly. See [Preparation for disassembly](#) on page 10.

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)

- 1) 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.
- 2) The professional repairer is covered by insurance covering liabilities resulting from its activity, regardless of whether this is required by the Member State.

For Main Board

HDMI connector CN5101

Repair the HDMI connector:

- 1) Use a soldering iron and a de-soldering 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 circuit board.
- 4) Place the new component on the circuit board. Be sure that it matches the circuit board footprint.
- 5) Solder the new component.

DP 1 connector CN551

Repair the DP connector:

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



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

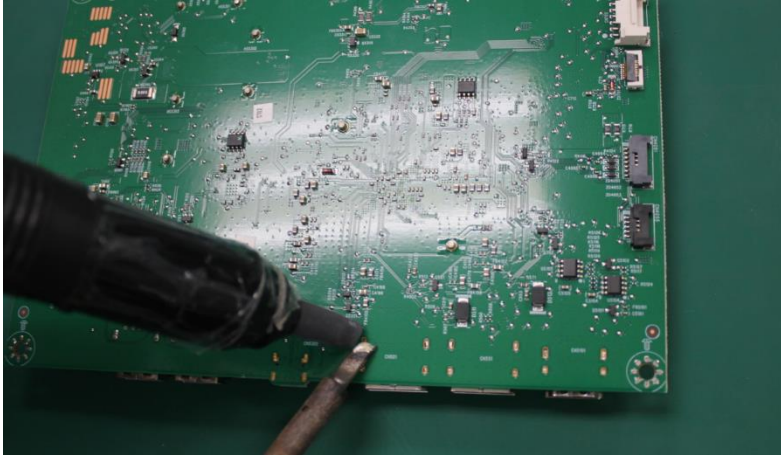


- 3) Lift the CN551 connector from the circuit board.
- 4) Place the new component on the circuit board. Be sure that it matches the circuit board footprint.
- 5) Solder the new component.

DP 2 connector CN501

Repair the DP2 connector:

- 1) Use a soldering iron and a de-soldering 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 circuit board.
- 4) Place the new component on the circuit board. Be sure that it matches the circuit board footprint.
- 5) Solder the new component.

TYPE-C connector CN5302

Repair the Type-C 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 M1 out of the through holes.



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

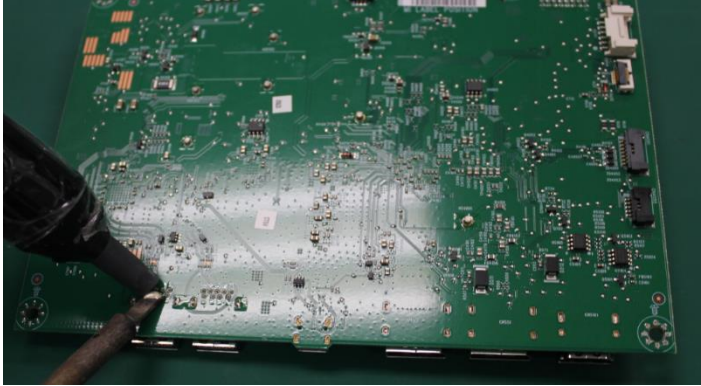


- 3) Lift the CN5302 connector from the circuit board.
- 4) Place the new component on the circuit board. Be sure that it matches the circuit board footprint.
- 5) Solder the new component.

USB 3.0 A 1 connector CN1103

Repair the USB 3.0 A 1 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 USB 3.0 A 1 out of the through holes.



2) Lift the CN1103 connector from the circuit board.

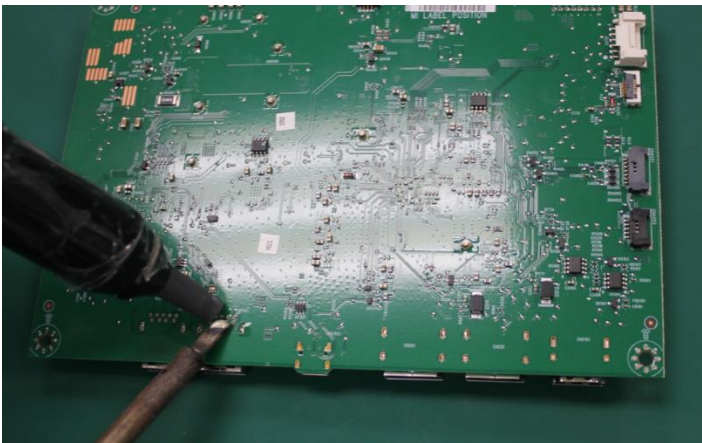
3) Place the new component on the circuit board. Be sure that it matches the circuit board footprint.

4) Solder the new component.

USB 3.0 A 2 connector CN1105

Repair the USB 3.0 A 2 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 USB 3.0 A 2 out of the through holes.



2) Lift the CN1105 connector from the circuit board.

3) Place the new component on the circuit board. Be sure that it matches the circuit board footprint.

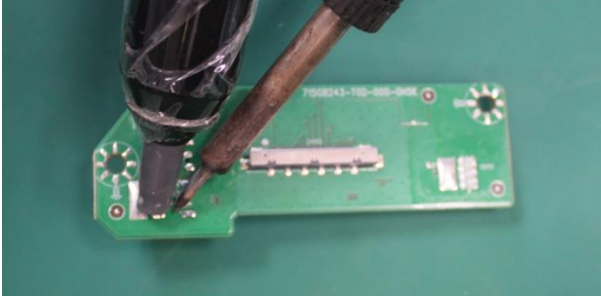
4) Solder the new component.

For Connector Board

USB 3.0 connector CN154

Repair the Connector board 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 M1 out of the through holes.



2) Lift the CN154 connector from the circuit board.

3) Place the new component on the circuit board. Be sure that it matches the circuit board footprint.

4) Solder the new component.

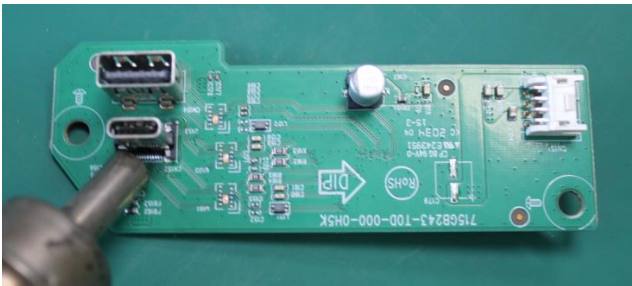
USB TYPE-C connector CN152

Repair the USB TYPE-C 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 M1 out of the through holes.



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



3) Lift the CN152 connector from the circuit board.

4) Place the new component on the circuit board. Be sure that it matches the circuit board 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
USB-C test	Confirm whether image displays and sound plays correctly on the monitor	Computer or USB-C player
USB test	Confirm whether image displays and sound plays correctly on the monitor	Computer or USB-C player

Support and troubleshooting

The following table lists possible issues, the possible cause of each issue, and the recommended solutions.

Table 3-1 Common issues and solutions

Issues	Possible cause	Solution
Screen is blank or video is blinking.	Power cord is disconnected.	Connect the power cord.
	Monitor is off.	Press the monitor 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. For more information, see Connecting the cables on page 9 .
	System is in Auto-Sleep Mode.	Press any key on the keyboard or move the mouse to inactivate the screen blanking utility.
Image appears blurred, indistinct, or too dark.	Video card is incompatible.	Open the OSD menu and select the Input menu. Set Auto-Switch Input to Off and manually select the input. or Replace the video card or connect the video cable to one of the computer's on-board video sources.
		Open the OSD menu, and select Brightness to adjust the brightness scale as needed.

"Check Video Cable" is	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 connecting the video cable.
"Input Signal Out of Range" is displayed on screen.	Video resolution and/or refresh rate are set higher than the monitor supports.	Change the settings to a supported setting (see Preset display resolutions 63.5 cm (25 in) model on page 30 or Preset display resolutions 68.6 cm (27 in) model on page 31).
The monitor does not enter into a low-power sleep state.	The monitor's power saving control is disabled.	Open the OSD menu and select Power , select Auto-Sleep Mode , and then set auto-sleep to On .
"OSD Lockout" is displayed.	The monitor's OSD Lockout function is enabled.	Press and hold the left button on the front of the monitor for 10 seconds to disable the OSD Lockout function.
"Power Button Lockout" is displayed.	The monitor's Power Button Lockout feature is enabled.	Press and hold the Power button for 10 seconds to unlock the power button function.
Image on monitor displays in low contrast and low saturation. There are no solid blacks. Only dark grays appear.	The Video Level setting in the OSD menu is not set appropriately for your monitor configuration.	In the OSD menu, select Image , and then select Video Level . Change the setting to Limited Range (64-940) .
Image on monitor displays blacks and whites in low detail and high contrast. Colors appear oversaturated, and incorrect colors are apparent.	The Video Level setting in the OSD menu is not set appropriately for your monitor configuration.	In the OSD menu, select Image , and then select Video Level . Change the setting to Full Range (0-1023) .
No image appears on the monitor.	Your graphics card is not compatible with DisplayPort 1.4 mode.	If your monitor is connected to the computer using the DisplayPort connector, change the DisplayPort Mode from the default DisplayPort 1.4 mode to an older version such as DisplayPort 1.2 or DisplayPort 1.1.
Monitor wakes slowly from sleep mode or does not wake at all.	The DP Hot-Plug Detection setting in the OSD menu is not set appropriately for your monitor configuration.	In the OSD menu, select Input , and then select DP Hot-Plug Detection . Change the setting from Low power (default) to Always Active .

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