



# Maintenance and Service Guide

## X32 model

### **SUMMARY**

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

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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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# Table of Contents

1. Getting started .....	2
Important safety information .....	2
Important service information and precautions .....	2
RoHS (2002/95/EC) requirements.....	3
General descriptions .....	3
Firmware updates .....	3
Before returning the repaired product to the customer .....	3
2. Monitor features.....	5
Features .....	5
Front components.....	6
Rear components.....	7
Locating the serial number and product number .....	8
3. Illustrated parts catalog.....	10
How to order parts.....	11
4. Removal and replacement procedures .....	13
Preparation for disassembly.....	13
Rear cover .....	13
Power board .....	17
Connector repair.....	19
Audio connector M1 .....	20
HDMI connector J2 .....	20
DP connector J3.....	21
Function test.....	22
Table 4-1: Function test .....	22
Support and troubleshooting .....	23

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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.

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**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.

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

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## 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](http://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.

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## 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:

- 80.1 cm (31.5 in) diagonal viewable screen area with 2560 × 1440 resolution, plus full-screen support for lower resolutions; includes custom scaling for maximum image size while preserving original aspect ratio.
- preserving original aspect ratio
- Liquid crystal display (LCD) with active matrix and in-plane switching (IPS)**Swivel and height adjustment capabilities**
- Wide color gamut to provide coverage of s RGB color spaces
- Non-glare panel with an LED backlight
- Wide viewing angle to allow viewing from a sitting or standing position, or moving from side to side
- Tilt and height adjustment capabilities
- Pivot capability to rotate the monitor head from landscape to portrait orientation (select products only)
- Four on-screen display (OSD) buttons, three that you can reconfigure to quickly allow selection of the most commonly used operations
- On-screen display (OSD) adjustments in several languages for easy setup and screen optimization
- Color space presets for Gaming
- Energy saver feature to meet requirements for reduced power consumption
- Security cable slot on the rear of the monitor for an optional security cable

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**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**.

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## 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 Menu button	Press to open the OSD menu. When the OSD menu is open, the Menu light turns on.
2 OSD buttons	When the OSD menu is open, press the buttons to navigate through the menu. The function light icons indicate the default button functions.
3 Power button	Turns the monitor on or off.



## Rear components

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

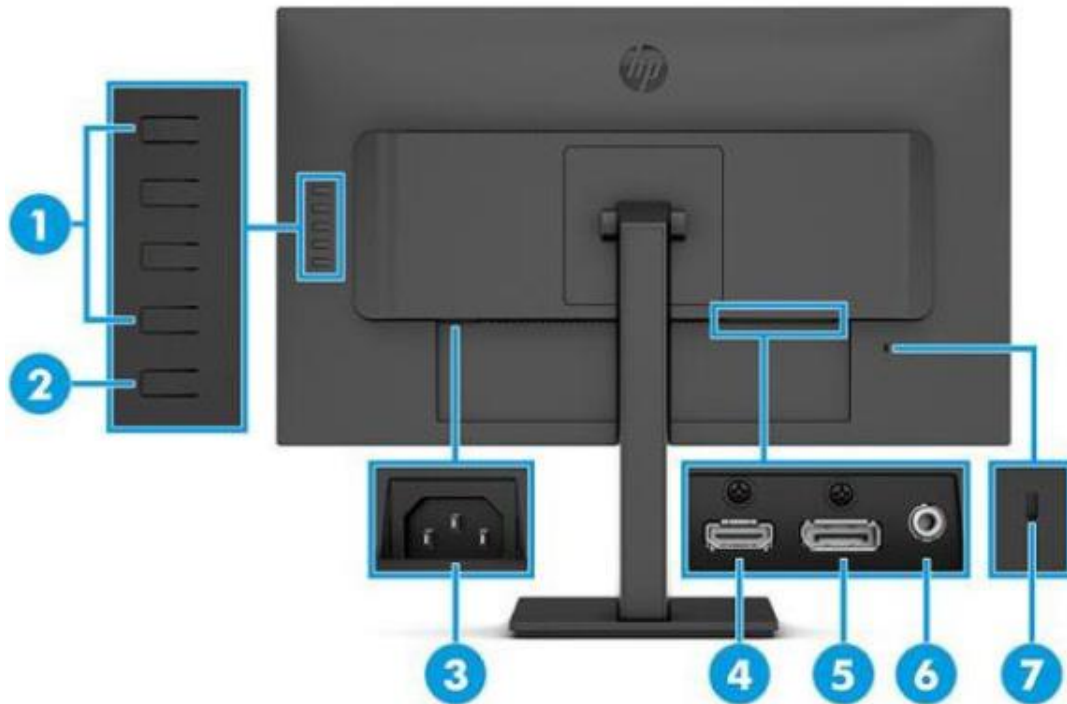


Table 1-2: Rear components and their descriptions

Component	Function	
1	OSD buttons	
2	Power button	Turns the monitor on or off
3	Power connector	Connects an AC adapter
4	HDMI port	Connects the HDMI cable to a source device such as a computer or game console.
5	Display Port connector	Connects the Display Port cable to a source device such as a computer or game console
6	Audio-out (headphone jack)	
7	Security cable slot	Connects an optional security cable.

# Locating the serial number and product number

Depending on the product, the serial number and product number are located on a label on the rear of the monitor or on a label under the front bezel of the monitor head. You might need these numbers contacting HP for support.



For worldwide models (except India):

Barcode label and spec label

**HP Model 型号/型號: X32**  
**HP X32 IPS 165Hz QHD HDR Gaming Monitor**  
Regulatory Model No. / 規定型號 / 規定型號 / 모델명: HSD-0097-A  
液晶顯示器/液晶顯示器 / 모니터 80, 1cm(31.5") Monitor  
Input Rating 電源電壓 / 輸入電壓 / 交流電壓 / 입력전압:  
100-240V (伏特) ~ 2A (2A) 安培 50/60Hz (赫茲)

Serial No. 序號/序號: XXXXXXXX  
Assembly Part No. M42007-001  
Spare No. XXXXXX Rev: XXXX  
Product No.: 2V7V2AA/2V7V3AA/2V7V4AA/2V7V4AS  
Manufactured/製造日期/製造日期/제조일: January 2021

警告: 使用過度恐傷害視力。  
CAN ICES-003(B)/NMB-003(B)  
This device complies with part 15 of the FCC Rules.  
Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference,  
and (2) this device must accept any interference received,  
including interference that may cause undesired operation.  
Consumo de energía en operación: 34W  
Laitte on tillettävä suojakotelollisilla varustettuun pistorasiaan.  
Apparatet må tilkoples jordet stikkontakt.  
Apparatet skall anslutas till jordat uttag.  
Apparatets stikprop skal tilsluttes en stikkontakt med jord,  
som giver forbindelse til stikkroppens jord.  
Made in China / Fabriqué en Chine / 中国制造/製造地: 中國  
製造商: HP Inc.  
F40G320E90-1A-HF

为防止触电之危险, 请勿任意打开外壳  
Warning: Shock Hazard, Do Not Open.  
Avertissement: Ne pas lever le couvercle  
du couvercle arrière strictement interdité.

XU100102-21043  
R-R-hpl-HSD-0097-A  
LAT Display Technology (Fujian) Ltd.  
AMD스펙: 1009-0003  
HP Inc.

显示器合格证  
EAC  
CE  
FCC  
UK CA  
HP Inc UK Ltd,  
Regulatory Enquiries,  
Earley Wood, 300  
Thomas Valley Park,  
Oxon, Reading,  
RG6 1PT

For India:



Regulatory Model No. / 規定型号 / 規定型號 / 모델명: HSD-0097-A  
 液晶显示器/液晶顯示器 / 모니터 80,1cm(31.5") Monitor  
 Input Rating 电源电压 / 輸入電壓 / 交流電壓 / 정격입력:  
 100-240V (伏特) ~ 2A (2A) 安培 50/60Hz (赫兹)

Serial No. 序号/序號: XXXXXXXX



Assembly Part No. M42007-001  
 Spare No. XXXXXXXX Rev: XXXX  
 Product No.: 2V7V2AA/2V7V3AA/2V7V4AA/2V7V4AS  
 Manufactured/製造日期/製造日期/제조일 : January 2021

警告: 使用過度恐傷害視力。  
 CAN ICES-003(B)/NMB-003(B)  
 This device complies with part 15 of the FCC Rules.  
 Operation is subject to the following two conditions:

(1) This device may not cause harmful interference,  
 and (2) this device must accept any interference received,  
 including interference that may cause undesired operation.

Consumo de energía en operación: XXXXWh  
 Laite on illettävä suojakokettimilla varustettuun pistorasiaan.  
 Apparatet må tilkoples jordet stikkontakt.  
 Apparaten skall anslutas till jordat uttag.  
 Apparatets stikprop skal tilsluttes en stikkontakt med jord,  
 som giver forbindelse til stikproppens jord.  
 Made in China / Fabriqué en Chine /  
 제조국: 중국 / 中國製造 / 製造地: 中國  
 F40G\*

为防止电击之危险, 请勿任意打开前盖  
 Warning: Shock Hazard, Do Not Open.  
 Avertissement: haute tension interne, ouverture  
 du couvercle arrière strictement interdite.



IS 13252(Part1)  
 IEC 60950-1



R-41070459  
 www.bis.gov.in



XXXXXXXX-XXXXXX  
 R-R-hp-HSD-0097-A  
 L&T Display Technology (Fujian) Ltd.  
 聯絡電話: 1588-0903

显示器合格证

SAFETY MARK XXXXXX-XX

CD

TV-WhiteList

eyesafe REPLAY LOW BLUE LIGHT EYE SAFE

WINDMILL LABEL WINDMILL

GS

RoHS

R3A304 RoHS

XXXXX

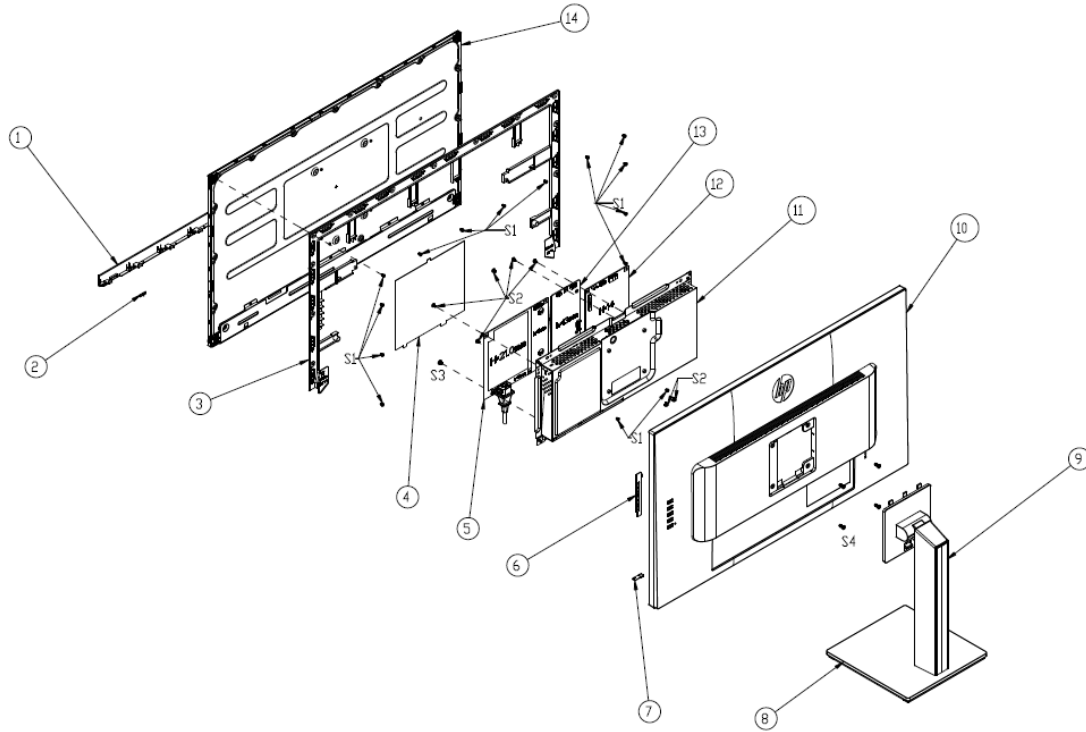
Minn HP 22 W

HP, HQ-TRE 71025 Boeblingen Germany

UK CA HP Inc UK Ltd, Regulatory Enquiries, Earley Way, 300 Thame Valley Park Drive, Reading, RG6 1PT

### 3. Illustrated parts catalog

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



item	part name	q'ty
1	DECO	1
2	LENS	1
3	MIDDLE FRAME	1
4	MYLAR	1
5	POWER BOARD	1
6	KEY BOARD	1
7	LED BOARD	1
8	BASE	1
9	STAND	1
10	REAR COVER	1
11	MAINFRAME	1
12	SCALER BOARD	1
13	CONVERTER BOARD	1
14	PANEL	1
S1	SCREW M3	15
S2	SCREW M3	7
S3	SCREW M4	1
S4	SCREW M4	4

## 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
X32	M84748-001	ADPCK1908FGB

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

- Farnell: [Farnell UK - Electronic Components Distributor](#)
- RS Component: [Capacitors | RS Components \(rs-online.com\)](#)
- DK : <https://www.digikey.com/>

### Capacitors by distributor

Component description	Location	Component distributor	Distributor part number
470uF 20% 25V 10*12 3000 hr 1600mA P5.0 lace	C9135,C9136,C9137,C9138,C9139, C9141	RS	25ZL470MEFC10X16

### Connectors by manufacturer

Component description	Location identifier	Component distributor	Distributor part number
HDMI	J2	RS	1-1747981-1
Display Port	J3	DK	670-2430-ND/JAE
Audio	M1	RS	913-1021

**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.

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

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**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.

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

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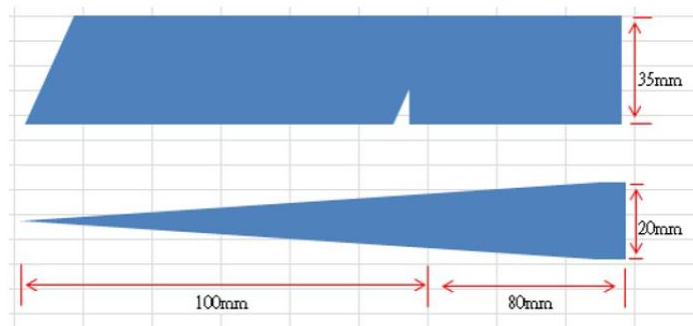
## 4. Removal and replacement procedures

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:


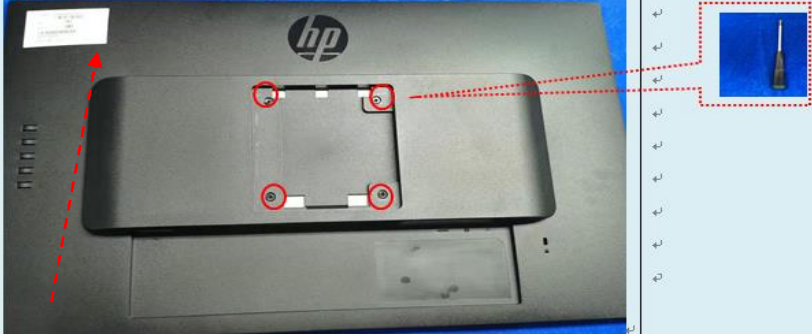



### Rear cover

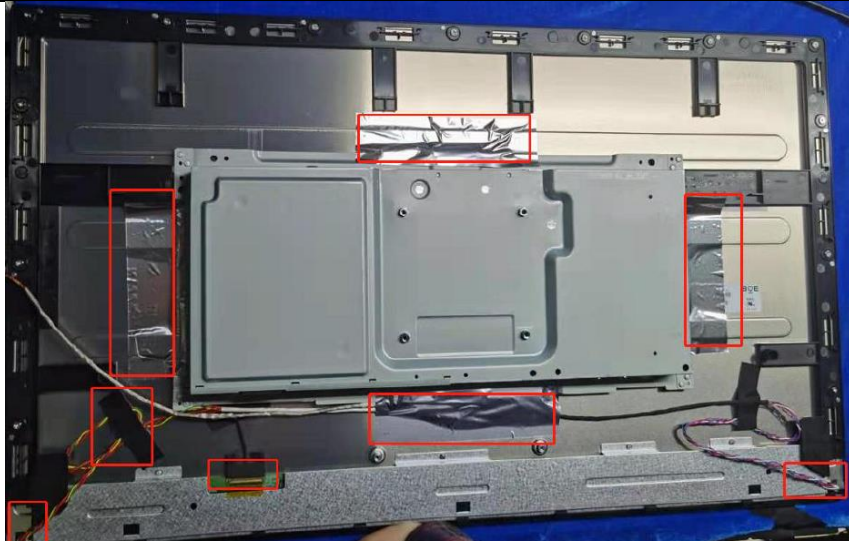
Before removing the rear cover, follow these steps:

- ▲ Prepare the monitor for disassembly. See Preparation for disassembly on page 13.

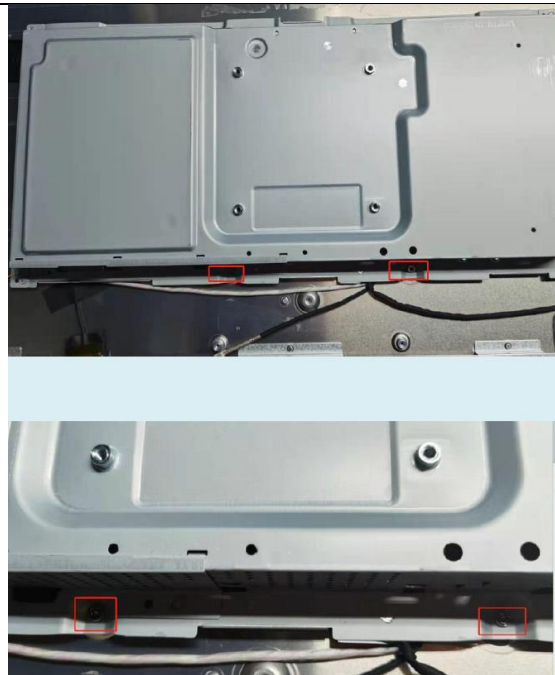
Remove the rear cover

Step	Figure	Description
<p>Remove the HINGE ASS'Y</p>		<p>Put the monitor face down on a matched cushion Remove the hinge assy by push the hook up</p>
<p>Remove the REAR_COVER</p>		<p>Remove the rear cover screws by the screwdriver.</p>
<p>Remove the rear cover</p>		<p>Remove the rear cover from the top side by hand</p> <p>disconnect the connectors and tapes and aluminum foil.</p>

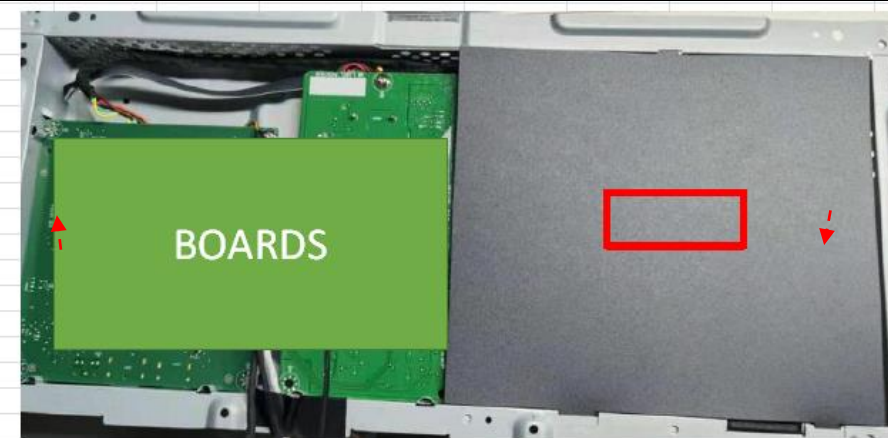
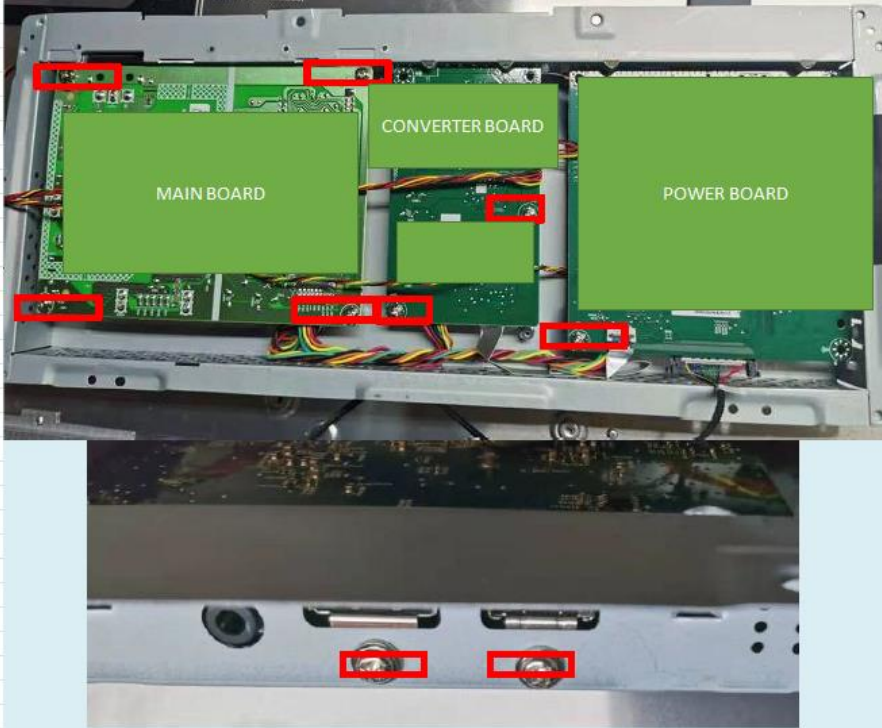
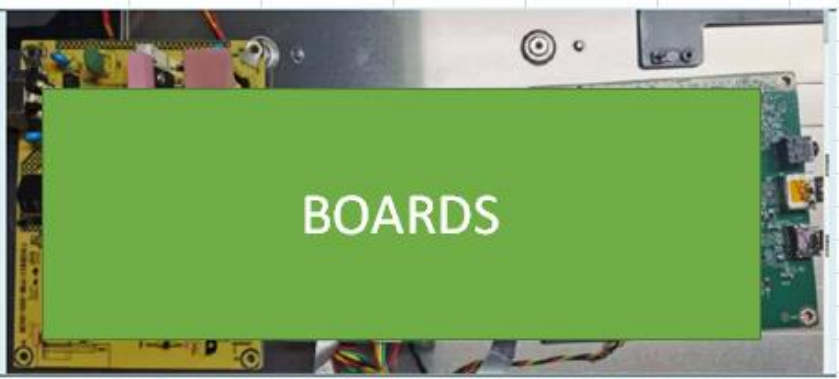




Remove the  
mainframe



Remove the  
mainframe  
screws ,

<p><b>Remove the mylar</b></p>		<p>Tear out all tapes</p>
<p><b>Remove the boards</b></p>		<p>Remove the screws by the screwdriver</p>
<p><b>Power board and mainboard and converter board</b></p>		

<b>Remove the middle frame</b>		Remove the screws by the screwdriver
<b>panel</b>		

## Power board

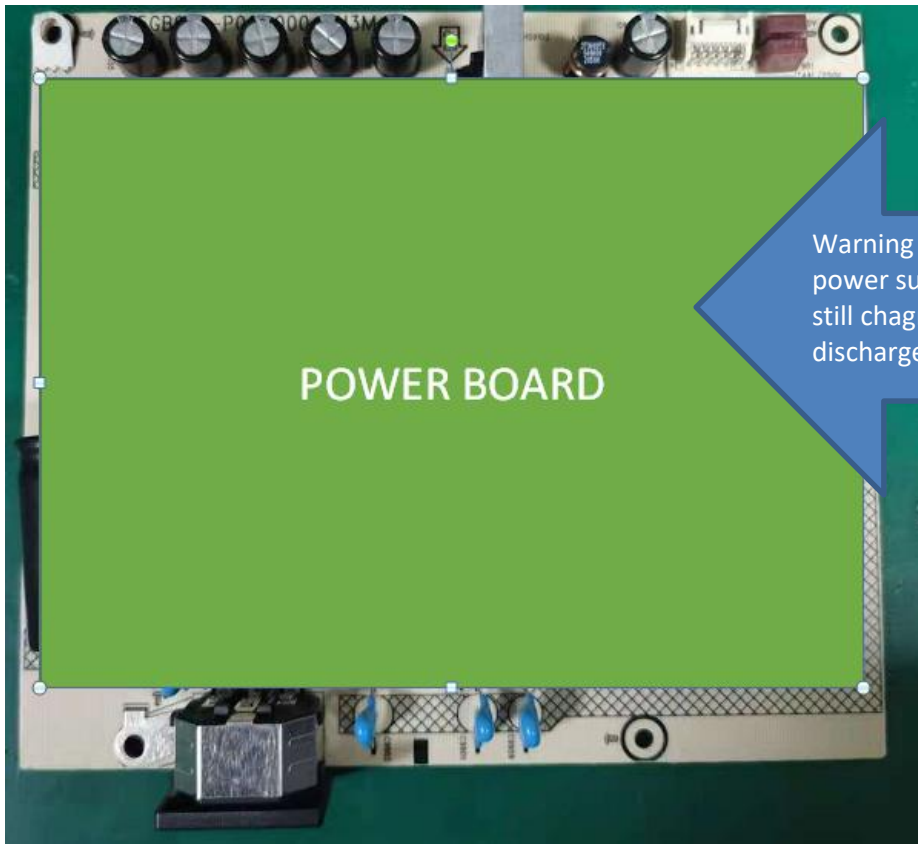
The power board part number is ADPCK1908FGB

Before removing the power board, follow these steps:

- ▲ Prepare the monitor for disassembly. See Preparation for disassembly on page 13.

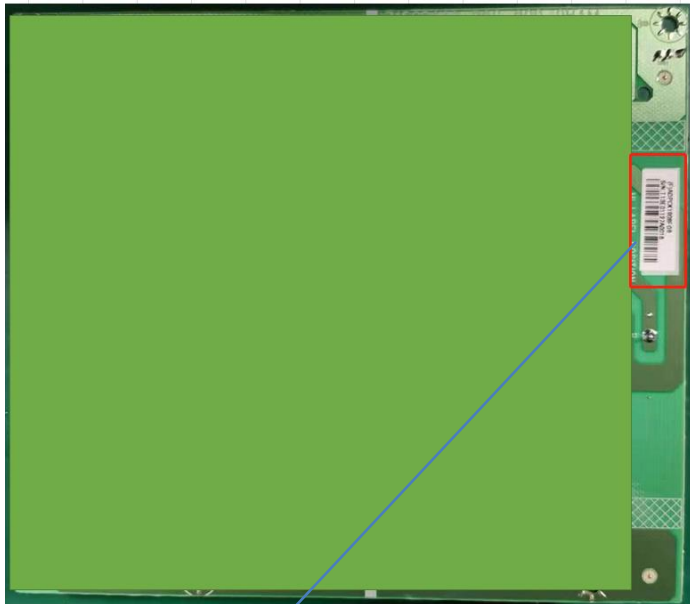
Remove the power board:

- 1) The HP X32 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.



(F)ADPCK1908FGB  
S/N:T13E01127A0016

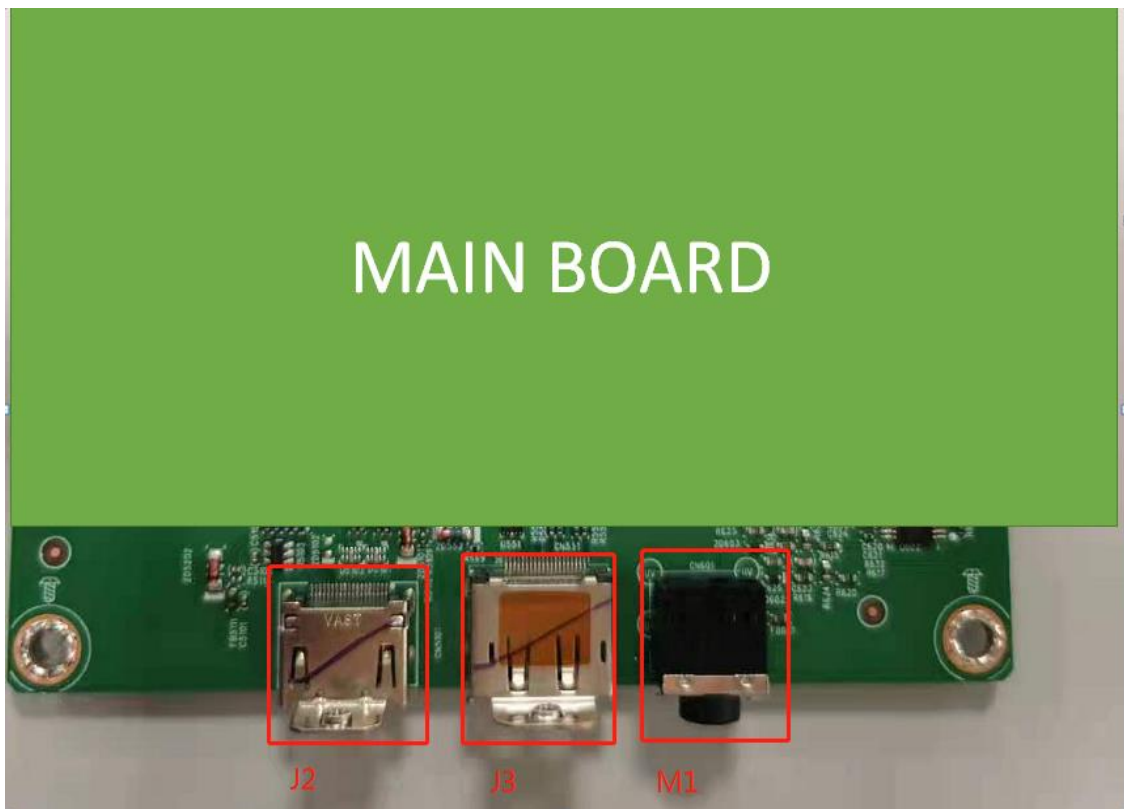
## Connector repair

This procedure includes HDMI, Display Port , USB and audio connectors.

The connectors are on the main board (board part number CBPRPA8H1F1).

The connectors identifiers are as follows:

Connector	Location
HDMI	J2
DisplayPort	J3
Audio	M1



Before repairing connectors, follow these steps:

- ▲ Prepare the monitor for disassembly. See [Preparation for disassembly](#) on page 13.

### 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.

## Audio connector M1

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 M1 out of the through holes.



- 2) Lift the M1 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 J2

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 J2 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 J3

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 J3 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

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
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

<b>Problem</b>	<b>Possible cause</b>	<b>Solution</b>
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.
	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.
Check Video Cable is displayed on 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 screen.	Video resolution and/or refresh rate are set higher than what 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.
On-Screen Menus are Locked is	The monitor's OSD lock function is enabled.	Press and hold the Menu button on the front bezel to

---

displayed.

10 seconds to disable the OSD lockout function.

---

Power Button is      The monitor's power button is locked.  
Locked is  
Displayed

Press and hold the power button for 10 seconds to disable the power button lock function.

---