

FHD552-X LCD Panel

Service Manual

020-000757-01

NOTICES

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GENERAL

Every effort has been made to ensure accuracy, however in some cases changes in the products or availability could occur which may not be reflected in this document. Christie reserves the right to make changes to specifications at any time without notice. Performance specifications are typical, but may vary depending on conditions beyond Christie's control such as maintenance of the product in proper working conditions. Performance specifications are based on information available at the time of printing. Christie makes no warranty of any kind with regard to this material, including, but not limited to, implied warranties of fitness for a particular purpose. Christie will not be liable for errors contained herein or for incidental or consequential damages in connection with the performance or use of this material. Canadian manufacturing facility is ISO 9001 and 14001 certified.

WARRANTY

Products are warranted under Christie's standard limited warranty, the complete details of which are available by contacting your Christie dealer or Christie. In addition to the other limitations that may be specified in Christie's standard limited warranty and, to the extent relevant or applicable to your product, the warranty does not cover:

- a. Problems or damage occurring during shipment, in either direction.
- b. Projector lamps (See Christie's separate lamp program policy).
- c. Problems or damage caused by use of a projector lamp beyond the recommended lamp life, or use of a lamp other than a Christie lamp supplied by Christie or an authorized distributor of Christie lamps.
- d. Problems or damage caused by combination of a product with non-Christie equipment, such as distribution systems, cameras, DVD players, etc., or use of a product with any non-Christie interface device.
- e. Problems or damage caused by the use of any lamp, replacement part or component purchased or obtained from an unauthorized distributor of Christie lamps, replacement parts or components including, without limitation, any distributor offering Christie lamps, replacement parts or components through the internet (confirmation of authorized distributors may be obtained from Christie).
- f. Problems or damage caused by misuse, improper power source, accident, fire, flood, lightning, earthquake or other natural disaster.
- g. Problems or damage caused by improper installation/alignment, or by equipment modification, if by other than Christie service personnel or a Christie authorized repair service provider.
- h. Problems or damage caused by use of a product on a motion platform or other movable device where such product has not been designed, modified or approved by Christie for such use.
- i. Problems or damage caused by use of a projector in the presence of an oil-based fog machine or laser-based lighting that is unrelated to the projector.
- j. For LCD projectors, the warranty period specified in the warranty applies only where the LCD projector is in "normal use" which means the LCD projector is not used more than 8 hours a day, 5 days a week.
- k. Except where the product is designed for outdoor use, problems or damage caused by use of the product outdoors unless such product is protected from precipitation or other adverse weather or environmental conditions and the ambient temperature is within the recommended ambient temperature set forth in the specifications for such product.
- l. Image retention on LCD flat panels.
- m. Defects caused by normal wear and tear or otherwise due to normal aging of a product.

The warranty does not apply to any product where the serial number has been removed or obliterated. The warranty also does not apply to any product sold by a reseller to an end user outside of the country where the reseller is located unless (i) Christie has an office in the country where the end user is located or (ii) the required international warranty fee has been paid.

The warranty does not obligate Christie to provide any on site warranty service at the product site location.

PREVENTATIVE MAINTENANCE

Preventative maintenance is an important part of the continued and proper operation of your product. Please see the Maintenance section for specific maintenance items as they relate to your product. Failure to perform maintenance as required, and in accordance with the maintenance schedule specified by Christie, will void the warranty.

REGULATORY

The product has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the product is operated in a commercial environment. The product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of the product in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at the user's own expense.

CAN ICES-3 (A) / NMB-3 (A)

이 기기는 업무용 (A 급) 으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이점을 주의하시기 바라며, 가정 외의 지역에서 사용하는 것을 목적으로 합니다.

Environmental

The product is designed and manufactured with high-quality materials and components that can be recycled and reused. This symbol  means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from regular waste. Please dispose of the product appropriately and according to local regulations. In the European Union, there are separate collection systems for used electrical and electronic products. Please help us to conserve the environment we live in!

Addendum

Translated copies of this document are provided on the CD in the back of this document. The CD may also contain additional product documentation. Read all instructions before using or servicing this product.

本文档的翻译副本在本文档背面的 CD 上提供。该 CD 中还可能包含其他产品文档。使用或维修本产品之前请务必阅读所有说明。

文件背面的光碟提供了本文件的翻譯副本。這張光碟可能另外包含其他產品文件。請先閱讀所有指示再使用或送修本產品。

Le CD au dos de ce document contient des traductions de celui-ci dans différentes langues. Ce CD peut également contenir de la documentation supplémentaire sur le produit. Lisez toutes les instructions avant d'utiliser ou d'entretenir ce produit.

Übersetzte Versionen dieses Dokuments werden auf der CD auf dem Vorsatzblatt dieses Dokuments bereitgestellt. Die CD kann auch zusätzliche Produktdokumentation enthalten. Bitte lesen Sie diese Anweisungen vor der Verwendung dieses Produkts oder vor der Ausführung von Wartungsarbeiten am Produkt.

Le copie tradotte di questo documento sono fornite sul CD, sul retro di questo documento. Il CD potrebbe anche contenere altra documentazione sul prodotto. Si prega di leggere tutte le istruzioni prima di utilizzare questo prodotto o sottoporlo a manutenzione.

このドキュメントの翻訳版がこのドキュメントの裏面の CD で提供されています。CD には追加の製品マニュアルも収められています。この製品を使用したり、機能させたりする前に、すべての指示をお読みください。

이 문서의 번역된 사본이 이 문서 후면의 CD 에서 제공됩니다. 이 CD 에는 추가 제품 설명서가 포함되어 있을 수 있습니다. 이 제품을 사용하거나 수리하기 전에 모든 지침을 확인하십시오.

Copias traduzidas deste documento são fornecida no CD contido na parte de trás deste documento. O CD pode conter documentação adicional do produto. Leia todas as instruções antes de usar ou prestar serviço com este produto.

Перевод данного документа представлен на компакт-диске на оборотной стороне документа. Компакт-диск может также содержать дополнительную документацию по продукту. Перед использованием или обслуживанием продукта ознакомьтесь со всеми инструкциями.

Las copias traducidas de este documento se proporcionan en el CD que se encuentra en la parte trasera. En el CD también puede encontrar documentación adicional del producto. Lea todas las instrucciones antes de utilizar o realizar el mantenimiento de este producto.

Перекладені екземпляри цього документа містяться на компакт-диску, який додано до цього документа. На компакт-диску може також бути додаткова документація до виробу. Перш ніж користуватися виробом або його обслуговувати, прочитайте всі інструкції.

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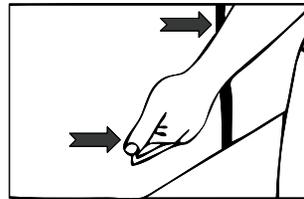
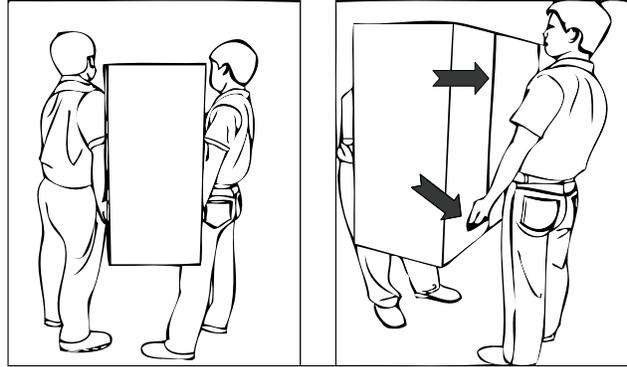
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Package Handling

⚠ DANGER

Failure to comply with the following could result in death or serious injury:

- Do not drop the panel (even a short distance), or apply pressure to the sides of the bezel. The small size of the bezel, which enables minimal image-to-image gaps, means there is reduced protection of the LCD glass and components. Dropping the panel or applying unnecessary force to the sides of the bezel will result in permanent damage.
- To avoid serious injury and/or serious damage to the LCD panel, moving the panel requires at least two people. Hold the white handles on the shipping package when moving/shipping.
- Extreme care must be taken when pushing the mounted display into its locked position. Always handle the display on the opposing corners of the frame to avoid direct contact with the LCD glass.

**NOTICE**

Due to the delicate nature of the provided packing materials and secure the package onto a pallet during shipment.

Unpacking

Each LCD panel is packed inside a box carton. To protect the panel during transportation, additional packing material has been placed within the carton.

1. Before unpacking, prepare a stable, level and clean surface near a wall outlet for your LCD panel.
2. Set the box in an upright position and pull out the white carton locks.

3. Lift up the top cover carton.
4. Remove the ESD bag before removing the display from the bottom tray carton.

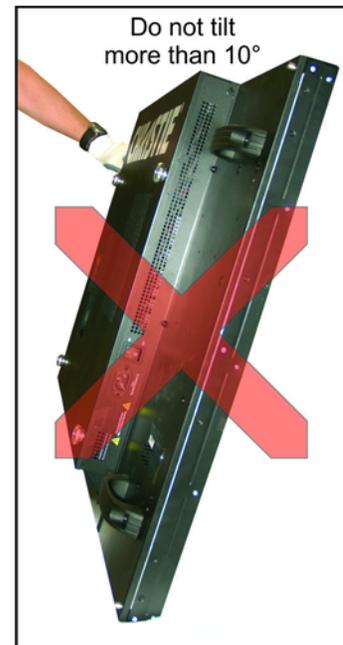
Handling and Care

WARNING

Make sure the power connector and any other cables are unplugged before moving the product. Failure to comply could result in minor or moderate injury.

To avoid damaging your LCD panel, follow these guidelines when handling or moving the panel:

- Always use the handles on the back of the LCD panel. Do not hold onto the frame when transporting.
- Two people are required when moving or raising the LCD panel. Use both hands, one positioned on the top handle and the other on the bottom handle.
- Hold and support the LCD panel at each side and keep at an even height above the ground.
- Do not twist or bend the panel.
- Use a cart to move several panels at one time.
- When the panel is sitting on a surface, do not tilt it more than 10° to avoid damaging the screen.



Cleaning

NOTICE

Unplug the power cord before cleaning the LCD panel. Do not use a liquid, spray cleaners, or any abrasive cleaners to clean the LCD panel. Failure to comply may result in equipment damage.

Use a cloth dampened with water or methyl alcohol to clean the screen surface. We recommend that you keep the protective plastic sheet shipped with the panel to replace it each time the panels are packed and shipped.

Replacement Parts

When ordering replacement parts, quote the part numbers of the items required. See [Index of Parts and Modules](#) on page 7. Some parts identified in the service parts list may not be available separately. In addition, some parts stocked as inventory are available only until the current supply lasts. All part numbers are subject to change.

When ordering replacement parts, provide the following information found on the product license label:

- Panel Model
- Panel Serial Number
- Manufacture Date

Module Replacement

Check module markings, parts lists, and the relevant disassembly and replacement procedures outlined in [Replacement Procedures](#) on page 8 to make sure you have the correct module and that the module is replaced correctly. Components must be replaced with exact equivalents. Failure to do so may result in unsafe operation.

Index of Parts and Modules

Part Number	Description	Procedure on page...
003-121064-01	AD Board	10
003-121065-01	Power Supply	9
003-121066-01	Fan 12V	11
003-004669-01	Remote Control	-

Replacement Procedures

Always turn off and disconnect or disengage all power sources to the panel before servicing or cleaning. Follow all service safety guidelines. When reinstalling a module, follow the removal instructions in reverse unless otherwise indicated. Make sure the panel is disconnected from AC power before you start repairing, removing, or installing any modules. This panel is internationally approved and is designed for safe and reliable operation. To assure complete safety at all times it is imperative the following precautions be taken during servicing and the original design remain intact.

NOTICE

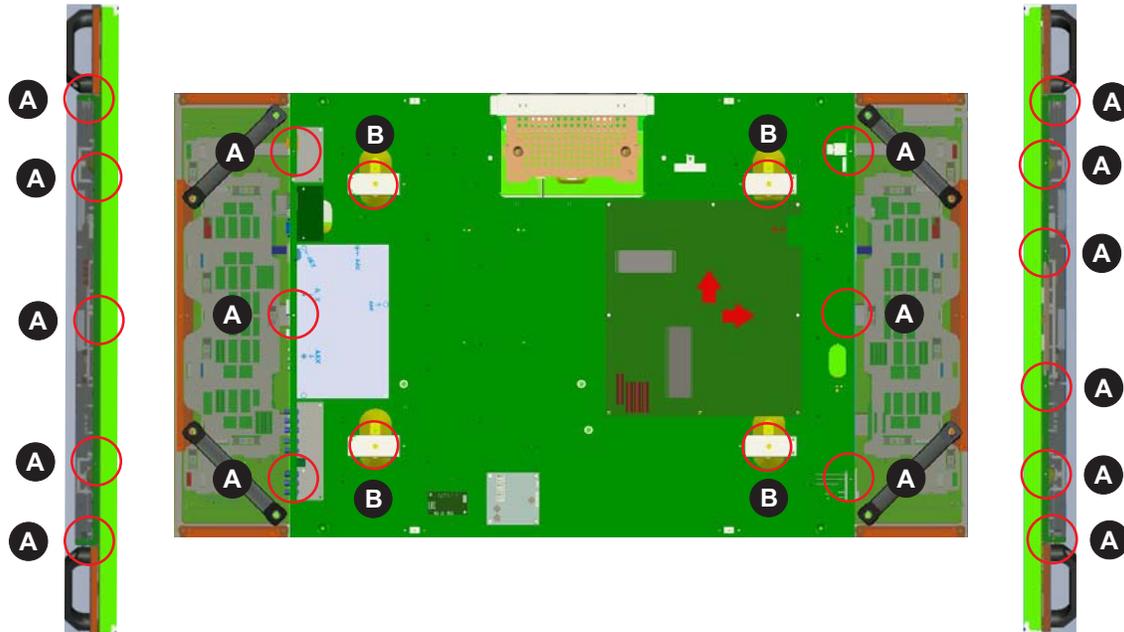
Always wear gloves and follow proper ESD precautions when handling, servicing, or cleaning internal projector components.

Tools Required

- Phillips™ screwdrivers: #2 and #3
- 3/16 Hex Driver
- 6 mm Ball Driver
- Side Cutters
- Magnetizer

Remove the rear cover

1. Remove the 17 #2 Phillips screws.
2. Remove the four #3 Phillips screws.
3. Disconnect the connections to the two fans on the rear cover.

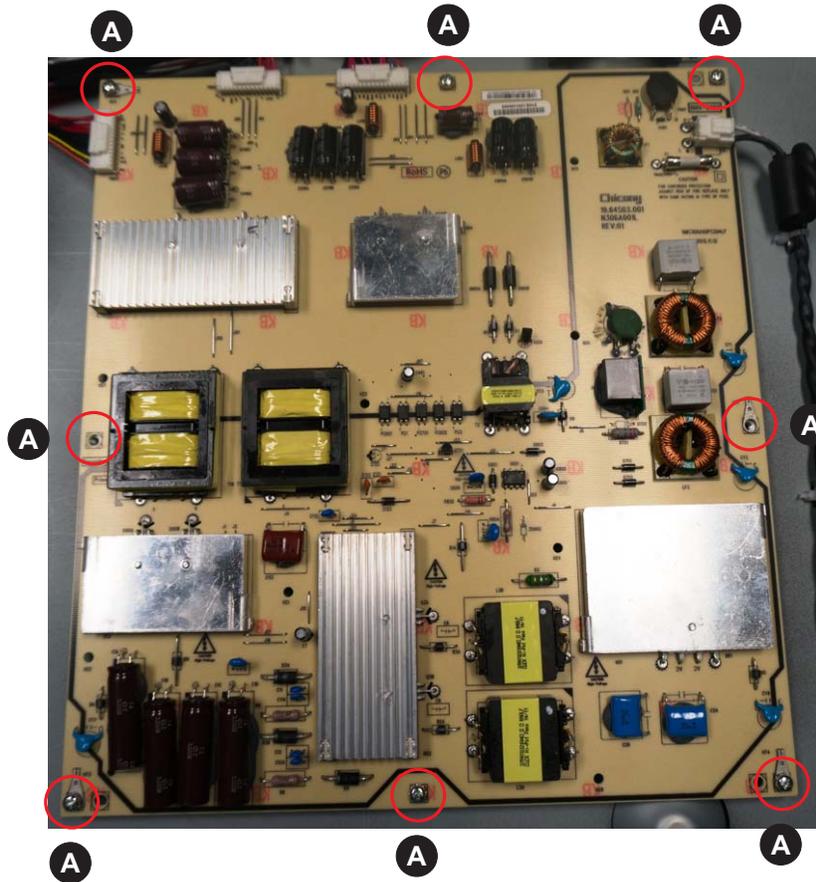


A	#2 Phillips screws
B	#3 Phillips screws

Remove the power supply unit

1. Remove the rear cover.
See [Remove the rear cover](#) on page 9.
2. Label the cable connections to the power supply unit.
3. Disconnect the four cable connections.

4. Remove the eight screws securing the power supply unit (PSU).

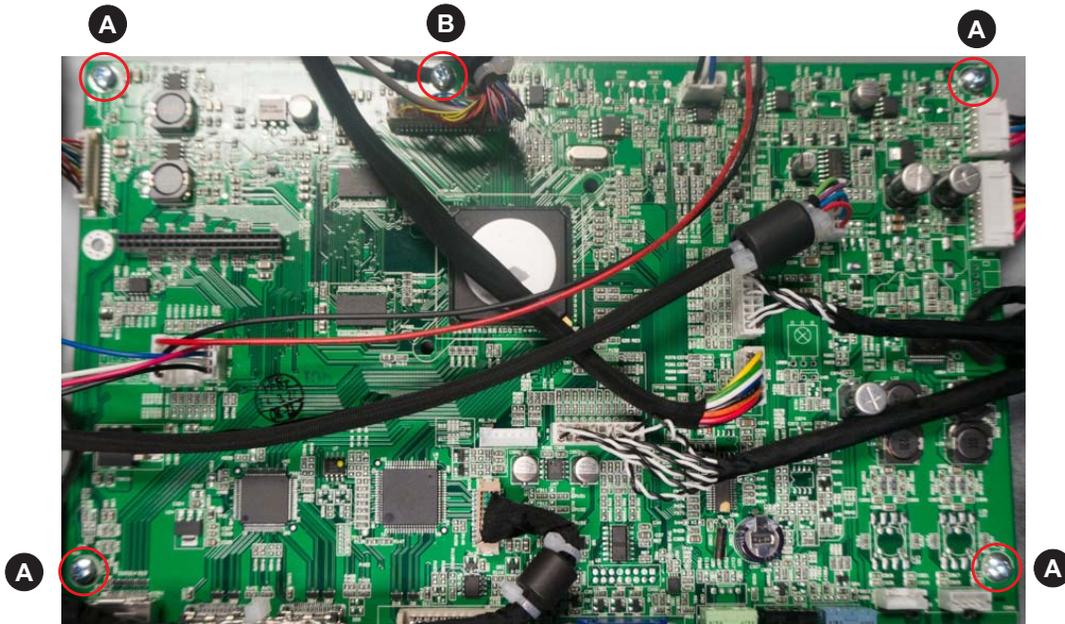


5. Replace the power supply unit.
6. Reconnect all cable connections.

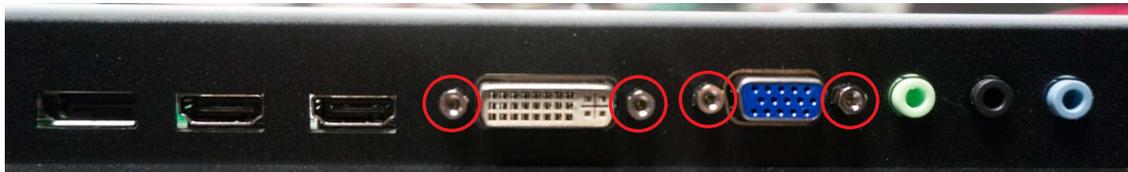
Replace the AD board

1. Remove the rear cover.
See [Remove the rear cover](#) on page 9.
2. Label the cable connections to the AD board.
3. Disconnect the 12 cable connections.

- Remove the four screws (A) securing the main AD board to the panel.



- Disconnect the ground wire (B).
- Remove the four hex standoff nuts (5mm) securing the DVI and VGA connectors to the input and output panel.



- Replace the defective main AD board by repeating these steps in reverse order.



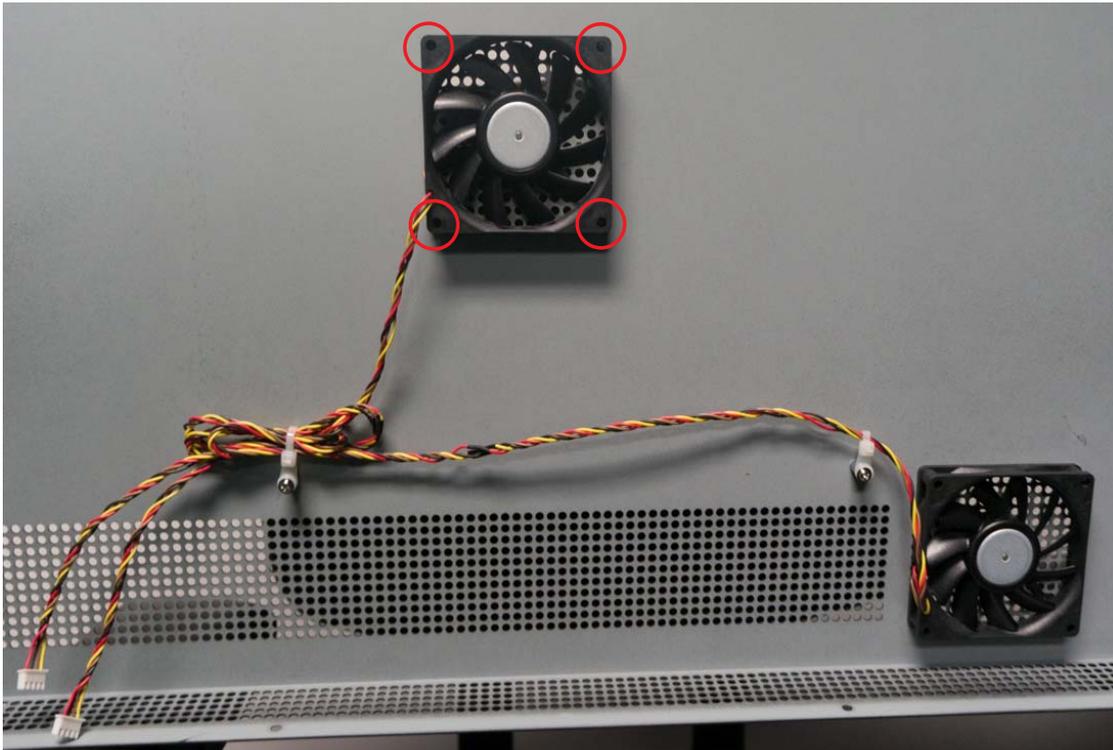
The ground screw (B) must be routed through the ground wire ring connector as shown below.

- Reconnect all cable connections.

Replace the Fans

- Remove the rear module assembly.
See [Remove the rear cover](#) on page 9.
- Label the fans and the fan connections before removing them from the chassis.

3. Remove the four #1 Phillips screws securing the fan to the rear module assembly.



4. Remove the #1 Phillips screws securing the standoff tie wraps.
The tie wraps may need to be pried off the cover.
5. Replace the fan and damaged tie wraps.

NOTICE

When replacing the fan, ensure the label of the fan is facing the grill of the cover.

Maintenance and Troubleshooting

Maintenance

The FHD552-X LCD panel does not require any routine maintenance. There are no user-serviceable or -replaceable parts. Unless you are a qualified, factory-trained technician, **do not attempt to repair or replace any system component yourself**. You will void the product warranty if you do so.

Troubleshooting

The table below provides some general guidelines for troubleshooting problems you may encounter with your display. If the suggested solutions fail to resolve the problem or if you encounter an issue not described here, please contact your dealer.

Symptom	Possible Cause(s)	Solution
The display does not turn on.	<ul style="list-style-type: none"> The display is not plugged in or the AC outlet is not active. The main power switch is off. The remote control batteries have run out. 	<ul style="list-style-type: none"> Ensure that the display is plugged in and that the AC outlet is active. Set the main power switch to the on position. Replace the batteries.
The display is on and menus appear, but there is no picture.	<ul style="list-style-type: none"> Incorrect source selection. Source component is not turned on. Source component is connected incorrectly or not at all. 	<ul style="list-style-type: none"> Select the correct source. Turn on the source component. Check connections from the source component to the display.
The remote control does not work.	<ul style="list-style-type: none"> The remote control batteries have run out. The buttons are locked. IR extender is not connected. 	<ul style="list-style-type: none"> Replace the batteries. Unlock the buttons by pressing ENTER, ENTER, EXIT, EXIT, ENTER and EXIT, in sequence. Verify that the IR extender cable is correctly connected.
Image geometry is incorrect.	<ul style="list-style-type: none"> Incorrect aspect ratio selection. 	<ul style="list-style-type: none"> Select a different aspect ratio.
The display is jittery or unstable.	<ul style="list-style-type: none"> Poor-quality or improperly connected source. The horizontal or vertical scan frequency of the input signal may be out of range for the display. 	<ul style="list-style-type: none"> Ensure that the source is properly connected and of adequate quality for detection. Correct at the source.

Symptom	Possible Cause(s)	Solution
Image is too bright and/or lacks definition in the bright areas of the image.	<ul style="list-style-type: none"> • Contrast is set too high. 	<ul style="list-style-type: none"> • Decrease the contrast setting.
Image appears “washed out” and/or dark areas appear too bright.	<ul style="list-style-type: none"> • Brightness is set too high. 	<ul style="list-style-type: none"> • Decrease the brightness setting.
Image is too dark.	<ul style="list-style-type: none"> • Brightness and/or Backlight are set too low. 	<ul style="list-style-type: none"> • Increase the brightness and/or backlight settings.
Images from an HDMI source do not display.	<ul style="list-style-type: none"> • The resolution and frequency of the video card in the computer are not compatible with the display. • HDMI cable from source to display is either defective or too long. 	<ul style="list-style-type: none"> • Select a compatible resolution and vertical frequency. • Try a known-good and/or shorter HDMI cable.
Computer images do not display correctly.	<ul style="list-style-type: none"> • The resolution and frequency of the video card in the computer are not compatible with the display. • Clock and Phase settings need adjustment. 	<ul style="list-style-type: none"> • Select a compatible resolution and vertical frequency. • Adjust Clock and Phase settings.

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