

Omega™ 4K/UHD 5x2 Matrix Switcher for HDMI, USB-C, DisplayPort, and HDBaseT with USB and Wireless Link

AT-OME-MS52W
 AT-OME-MS52W-EU



The Atlona **AT-OME-MS52W** is a 5x2 matrix switcher with HDMI, USB-C, DisplayPort, and wireless AV inputs, plus HDMI and HDBaseT outputs. It features wireless presentation capability and native screen mirroring for iOS®, Android™, Mac®, Chromebook™, and Windows®. Part of the Omega™ Series of integration products for modern AV communications and collaboration, the OME-MS52W is HDCP 2.2 compliant and features HDBaseT extension for video up to 4K/60 4:2:0, plus embedded audio, control, Ethernet, and USB* over distances up to 330 feet (100 meters). All inputs and the local HDMI output support 4K HDR and 4K/60 4:4:4 at HDMI data rates up to 18 Gbps. Additionally, 4K downscaling to 1080p @ 60, 30, or 24 Hz is available for the HDMI output when connected to an HD sink. The integrated USB extension addresses the challenge of connecting between USB devices at remote locations, and is ideal for software video conferencing and touch or interactive displays. The OME-MS52W includes USB 2.0 and USB-C interfaces for three host PCs, plus two peripheral devices such as a camera, microphone, speakerphone, or keyboard and mouse.

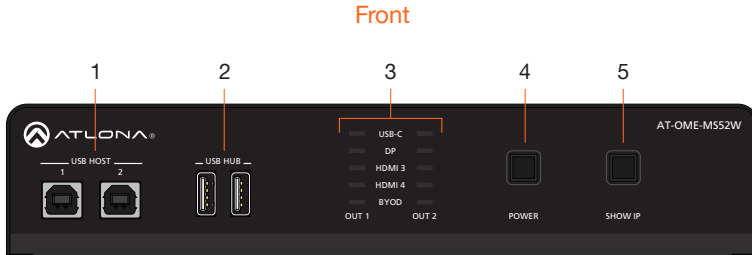
Package Contents

- 1 x AT-OME-MS52W or AT-OME-MS52W-EU
- 1 x Captive screw connector, 5-pin
- 1 x Captive screw connector, 4-pin
- 2 x Captive screw connector, 3-pin
- 2 x WiFi antenna modules
- 1 x USB-C cable, 2 meters
- 1 x 24 V DC power supply
- 2 x Mounting plates
- 4 x Mounting screws
- 1 x Installation Guide

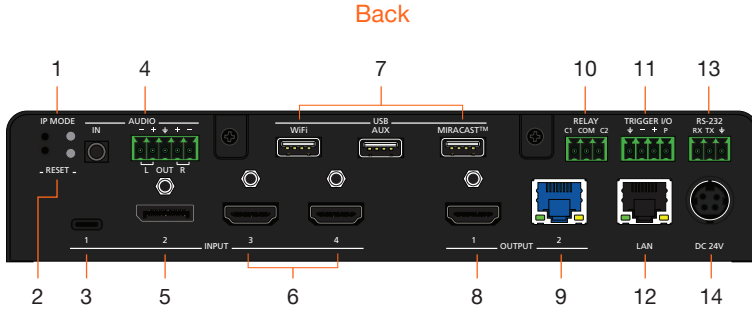


IMPORTANT: Visit <http://www.atlona.com/product/AT-OME-MS52W> for the latest firmware updates and User Manual.

Panel Descriptions



- 1 USB HOST**
Connect a USB cable from each of these ports to host computers.
- 2 USB HUB**
Connect up to two USB devices (e.g. mouse, keyboard, etc.) to these ports. These ports provide 2.5 W per USB device interface.
- 3 OUT 1 / OUT 2 LED Indicators**
Each set of LED indicators displays the output being used: **OUT 1 = HDMI OUT**, **OUT 2 = HDBaseT OUT**.
- 4 POWER**
Press this button to power-on or power off the AT-OME-MS52W and/or the connected displays. Refer to the User Manual for more information.
- 5 SHOW IP**
Press this button to display the IP address of the AT-OME-MS52W on the connected display.



1 IP MODE

Press and release this button to set the IP mode of the AT-OME-MS52W. Refer to [IP Configuration \(page 11\)](#) for more information.

2 RESET

Press and release this button to reset the unit to factory-default settings. Refer to [Resetting to Factory-Default Settings \(page 11\)](#).

3 INPUT (USB-C)

Connect a USB-C cable from this port to a USB-C source.

4 AUDIO

Connect a 3.5 mm mini-stereo cable from an analog audio source to the **IN** port, to provide optional embedded analog audio on the output. Connect a balanced stereo audio output device to the **OUT** port using the included captive screw block. Refer to [Audio \(page 4\)](#) for wiring information.

5 INPUT (DisplayPort)

Connect a DisplayPort device to this port.

6 INPUT (HDMI)

Connect an HDMI cable from each of these ports to a UHD/HD source.

7 USB

Connect the included WiFi antenna to these ports. The **MIRACAST** port is reserved for the Miracast casting protocol. The **AUX** port is reserved for system use.

8 OUTPUT (HDMI)

Connect an HDMI cable from this port to an HD/UHD display.

9 OUTPUT (HDBaseT)

Connect to a locally powered HDBaseT receiver such as the AT-OME-EX-RX.

10 RELAY

Connect one of the included 3-pin captive screw connectors to this port to control screens, drapes, lights, or other devices.

11 TRIGGER I/O

Connect voltage-controlled device to this port. A 4-pin captive screw connector is required.

12 LAN

Connect an Ethernet cable from this port to the network.

13 RS-232

Use the included captive screw connector to connect an RS-232 controller or automation system.

14 DC 24V

Connect the included power supply to this power receptacle.

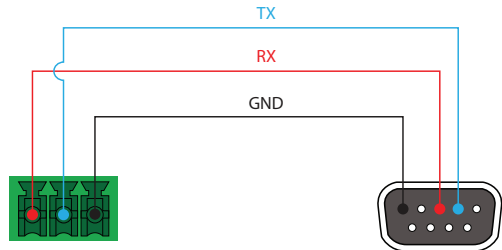
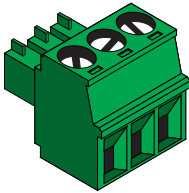
RS-232

The AT-OME-MS52W provides an RS-232 port which can be used to control a display connected to the HDMI output. Atlona recommends controlling the AT-OME-MS52W using IP and reserving the RS-232 port for local display control.

1. Use wire strippers to remove a portion of the cable jacket.
2. Remove at least 3/16" (5 mm) of insulation from each of the wires.
3. Insert the wires into correct terminal using the included 5-pin captive screw connector.
4. Attach the 5-pin connector block to the **RS-232** port on the AT-OME-MS52W.



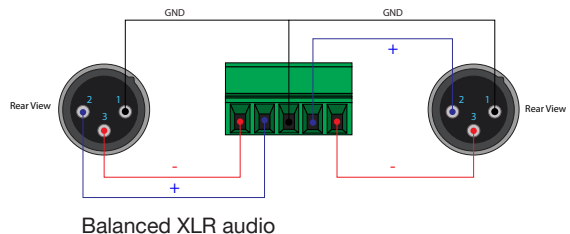
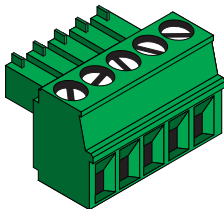
NOTE: Typical DB9 connectors use pin 2 for TX, pin 3 for RX, and pin 5 for ground. On some devices functions of pins 2 and 3 are reversed.



Audio

The AT-OME-MS52W provides the ability to output two-channel balanced analog audio on the **AUDIO OUT** port, using the included 5-pin captive screw connector.

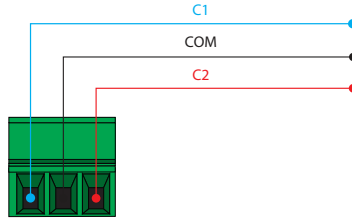
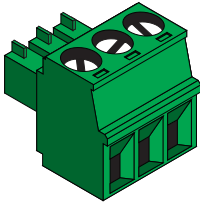
Use wire strippers to remove enough insulation to allow each wire to be securely fastened to each terminal of the captive screw connector block and connect the wires as shown. Unbalanced audio is not supported.



Relay

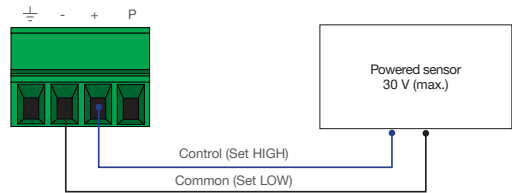
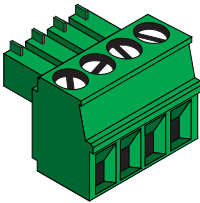
The AT-OME-MS52W provides a **RELAY** port, allowing the control of screens, curtains, and other devices. Use a 48 V DC relay with no more than 1 A current draw.

When the AT-OME-MS52W is powered-on or rebooted, **C1** and **C2** are set to the Normally Open (NO) state.

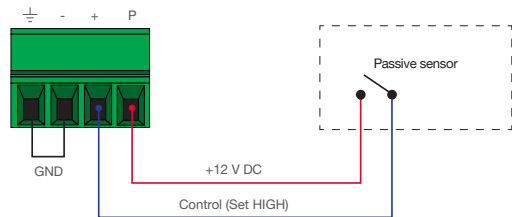


Trigger

The **TRIGGER I/O** port allows voltage-controlled devices, such as an occupancy sensor, to be connected to the AT-OME-MS52W. Use the included 4-pin captive screw connector to connect the device. Voltage range is 3 to 30 V DC.



Powered sensor

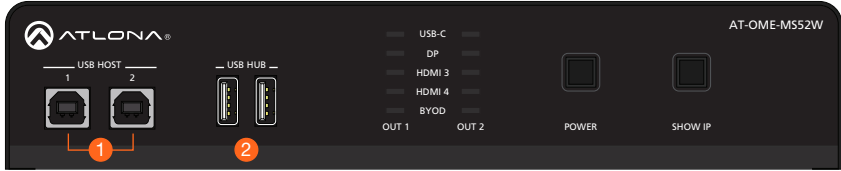


Passive sensor



Installation

1. Connect up to two USB host computers to the **USB HOST** ports on the front panel.
2. Connect up to USB devices, such as a speakerphone, to the **USB HUB** ports on the front panel.

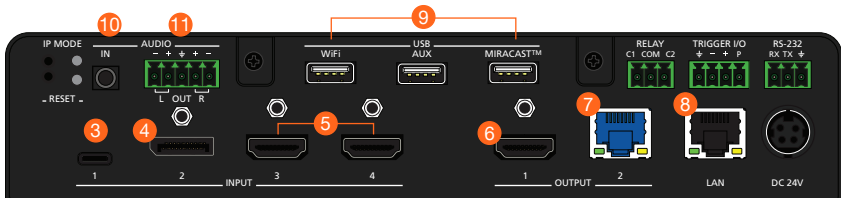


3. Connect a USB-C cable from a source to the **USB-C (1)** port.
4. Connect a DisplayPort cable from a source to the **DP IN (2)** port.
5. Connect up to two UHD/HD sources, using HDMI cables, to the **HDMI IN (3)** and **HDMI IN (4)** ports.
6. Connect an HDMI cable from the **HDMI OUT** port to a UHD/HD display.
7. Connect a category cable (CAT-5e or better), up to 330 feet (100 meters), from the **HDBaseT OUT** port to a compatible receiver, such as the AT-OME-EX-RX.
8. Connect an Ethernet cable from the **LAN** port to the Local Area Network (LAN). Atlona recommends this step and provides access to the built-in web server, which can be used to control and manage the AT-OME-MS52W.

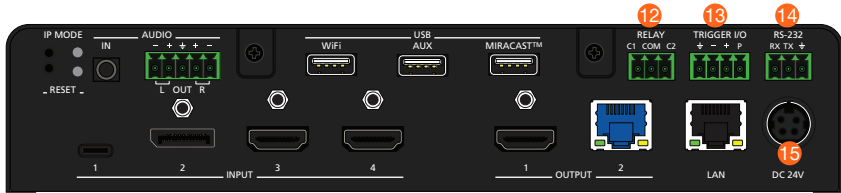


IMPORTANT: Only use Atlona WiFi USB modules. Other WiFi modules may not be supported by this product.

9. Connect the included USB wireless antennas to the **WiFi** and **MIRACAST™** ports. The **WiFi** port supports Google Cast™ and Apple AirPlay®. The **MIRACAST™** only supports Miracast.
10. OPTIONAL: Connect a 3.5 mm analog audio cable from an analog source to the **AUDIO IN** port. This audio source can be used to embed analog audio on any of the input sources.
11. OPTIONAL: Connect the included green 5-pin captive screw connector to the **AUDIO OUT** connector. Refer to [Audio \(page 4\)](#) for wiring information.



12. OPTIONAL: Connect the relay leads from the control motors of the projection screen, blinds, or curtains, to the relay outputs to the **RELAY** port, using the included 3-pin captive screw connector. Use a 48 V DC relay with no more than 1 A current draw. Refer to [Relay \(page 5\)](#) for wiring information.
13. OPTIONAL: Connect a trigger device, such as an occupancy sensor switch, to the **TRIGGER I/O** port. A 4-pin captive screw connector is required. Voltages from 3 to 30 V are supported. Refer to [Trigger \(page 5\)](#) for wiring information.
14. OPTIONAL: Use the included captive screw connector to connect a serial cable from the **RS-232** port on the AT-OME-MS52W, to the RS-232 port on the display. Refer to [RS-232 \(page 4\)](#) for wiring information.
15. Connect the included power supply to the **DC 24V** connector and connect the power cord to an available electrical outlet.



Mounting Instructions

The AT-OME-MS52W can be mounted in different ways, based on the number of units that are being installed. The AT-OME-MS52W can be mounted in a rack or on/under any flat surface.

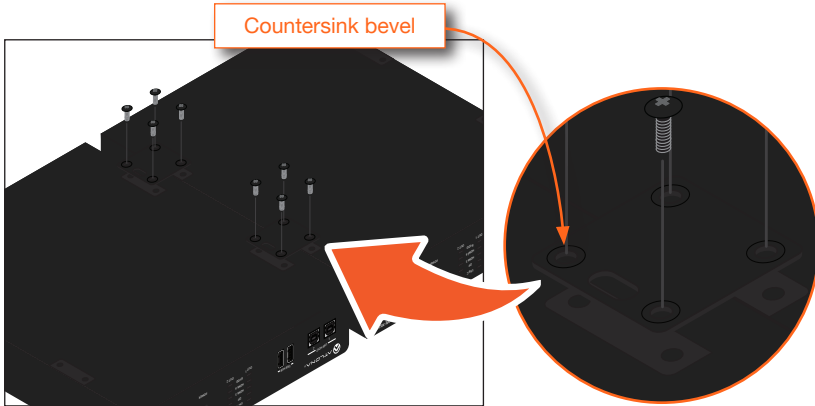
Single-unit rack installation

1. Attach the included small rack ear (sold separately) to one side of the AT-OME-MS52W, using the included screws.
2. Attach the included longer rack ear (sold separately) to the opposite side of the AT-OME-MS52W using the included screws.



Dual-unit rack installation

1. Turn both units upside-down on a flat surface, next to each other, as shown.
2. Position the included mounting plates over the holes on the bottom of the enclosure. When attaching mounting plates, the countersink bevels on the mounting plate should face upward.



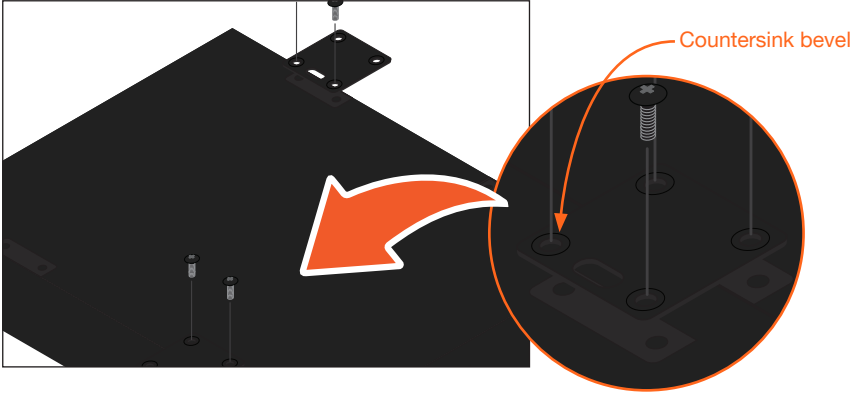
3. Turn the attached units over and install the rack ears (sold separately) to one side of each enclosure using the included screws.



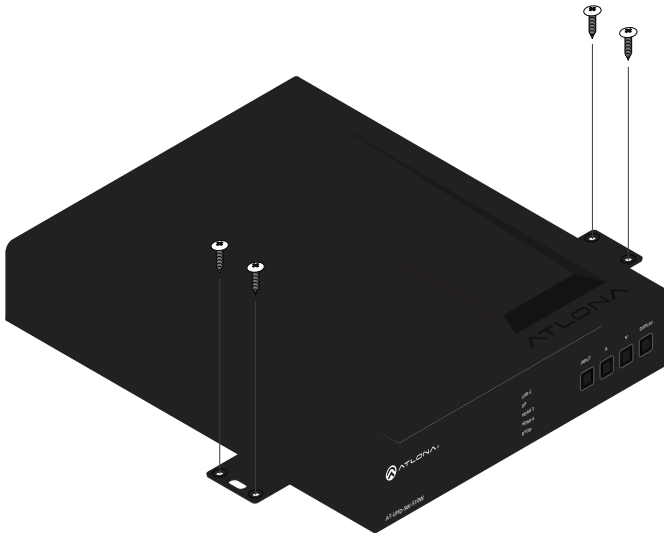


Flat surface

1. Turn the unit upside down on a flat surface.
2. Position the included mounting plates over the pre-drilled holes on the bottom of the enclosure. When attaching mounting plates, the countersink bevels on the mounting plates should face upward.



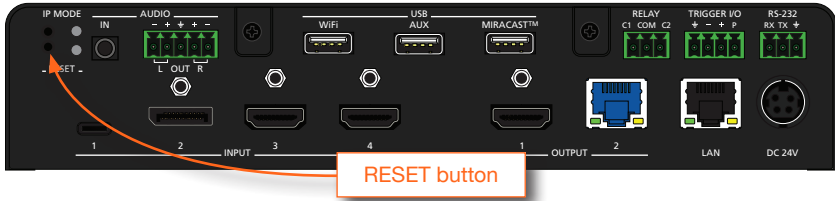
3. Mount the unit using the circular holes, on each mounting plate. If using a drywall surface, a #6 drywall screw is recommended. Mounting screws are not included.



NOTE: The unit can also be mounted under a flat surface, such as a table, by turning the unit upside down.

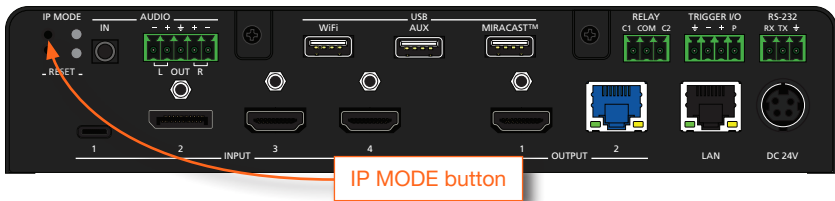
Resetting to Factory-Default Settings

1. Press and hold the **RESET** button for five seconds.
2. Release the **RESET** button once the **RESET** LED indicator begins to flash. The LED indicator will flash three times to indicate that the unit has been reset to factory-default settings.



IP Configuration

By default, the AT-OME-MS52W is set to DHCP mode, allowing a DHCP server (if present) to assign the unit an IP address. If a DHCP server is not found within 15 seconds, then the unit will be placed in Auto IP mode and use a self-assigned IP address within the range of 169.254.xxx.xxx. If either DHCP or Auto IP mode are not desired, then the unit can be placed into static IP mode.



Switching to Static IP mode

1. Press and hold the **IP MODE** button for five seconds.
2. Release the **IP MODE** button once the **IP MODE** LED indicator begins to flash.
3. The **IP MODE** LED indicator will flash green *two* times, indicating that the unit is now in static IP mode. As part of static IP mode, the AT-OME-MS52W will be assigned the IP address of 192.168.1.254.

Switching to DHCP mode

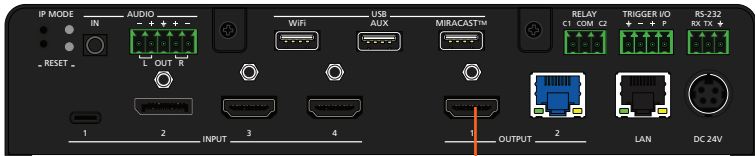
1. Press and hold the **IP MODE** button for five seconds.
2. Release the **IP MODE** button once the **IP MODE** LED indicator begins to flash.
3. The **IP MODE** LED indicator will flash green *four* times, indicating that the unit is now in DHCP mode. This is the factory-default setting.

Displaying the Current IP Address

1. Make sure the unit is powered.
2. Connect a display to the **HDMI OUT** port of the AT-OME-MS52W.



NOTE: If the **HDBaseT OUT** port is used as the output, then a compatible receiver, such as an AT-OME-EX-RX, will need to be connected to the AT-OME-MS52W, then connect the display to the HDMI output on the AT-OME-EX-RX. The fastest method is to connect a display to the **HDMI OUT** port of the AT-OME-MS52W.

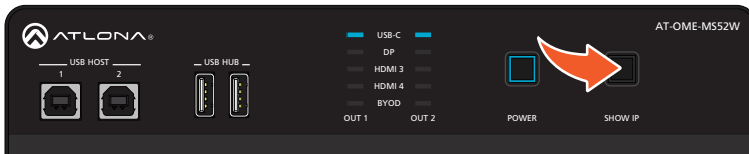


to display

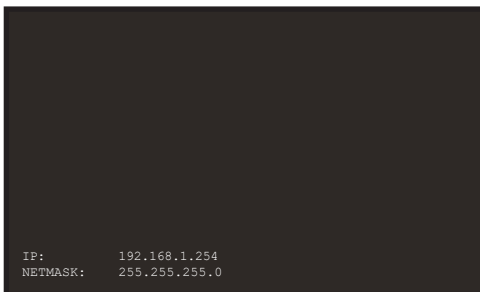
3. Press the **SHOW IP** button on the front panel.



NOTE: The input selection on the front panel can be set to any input. In this case, only an output is required to display the IP address.



4. The IP address and the subnet mask of the AT-OME-MS52W will be displayed in the lower-left corner of the display, as shown below.



Accessing the Web Server

The AT-OME-MS52W includes a built-in web server, which allows easy management and control of all features. Follow the instructions below to access the web server.

1. Make sure that an Ethernet cable is connected between the LAN port on the AT-OME-MS52W and the network.
2. Launch a web browser and enter the IP address of the unit. If the default static IP address is being used, enter 192.168.1.254.
3. The AT-OME-MS52W Login page will be displayed.
4. Enter the following information on the Login page.

Login: admin
Password: Atlona

5. Click the **Login** button.
6. Refer to User Manual for detailed operation of the web server.

Troubleshooting

Problem	Solution
The source image is not displayed.	<ul style="list-style-type: none"> • Check all cable connections between the AT-OME-MS52W and the source(s) and display. • Check the input indicators on the front panel to make sure that the correct input is selected for the output. OUT 1 = HDMI OUT, OUT 2 = HDBaseT OUT. • Try switching to another input to verify all source connections.
Auto-switching is not working.	<ul style="list-style-type: none"> • Check all cable connections between the AT-OME-MS52W and source devices. If the cable between the source and the AT-OME-MS52W is damaged or is not secure, then this will prevent auto-switching from working correctly. • Verify that audio switching is set to ON, under the Configuration menu in the web server.
The USB-C port is not charging my USB device.	<ul style="list-style-type: none"> • Check that the USB cable is not damaged and provides a secure connection between the AT-OME-MS52W and the USB device. • Check the voltage rating of the connected device to make sure it is compatible. Maximum power and voltage ratings for the USB-C port are as follows: 60 W @ 20 V, 36 W @ 12 V, and 15 W @ 5 V.
The AT-OME-MS52W is not controlling the display.	<p>RS-232</p> <ul style="list-style-type: none"> • Verify the wiring of the RS-232 captive screw connector. • Make sure that the proper command syntax is being used; use an RS-232 terminal emulator to verify the command. • Verify that the device ID, control method for the display, and control settings for the AT-OME-MS52W are correct. <p>IP</p> <ul style="list-style-type: none"> • Make sure that the AT-OME-MS52W is on the same network as the display. • Ping the display to verify that it is reachable. • Verify that proper command syntax is being used. <p>CEC</p> <ul style="list-style-type: none"> • Check CEC settings on the display. • Verify that proper command syntax is being used.



Notes



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