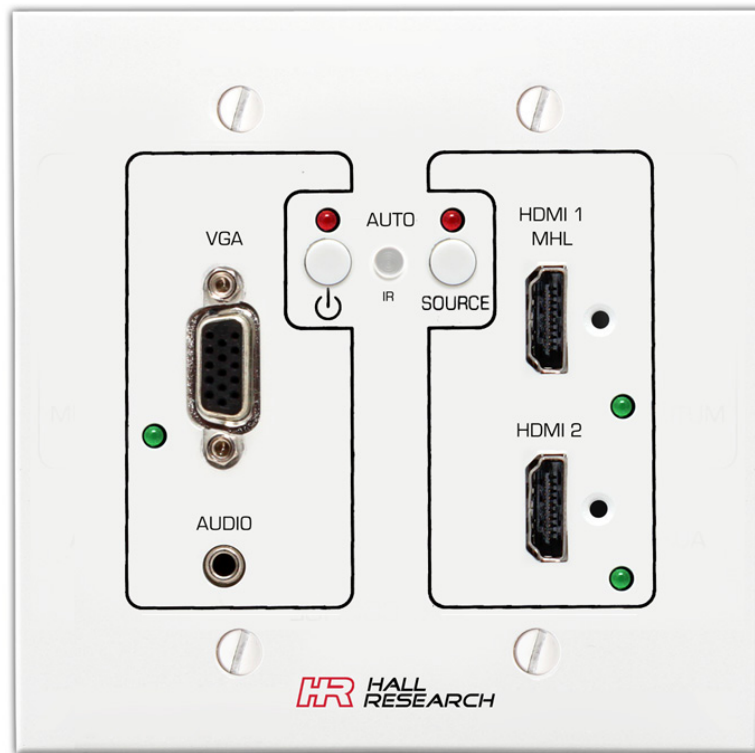


QUICK START GUIDE

VGA / HDMI / MHL AUTO-SWITCHING WALL PLATE

WITH HDBT™ ASEI OUTPUT



UHBX-SW3-WP

UMA1229 Rev 1.1

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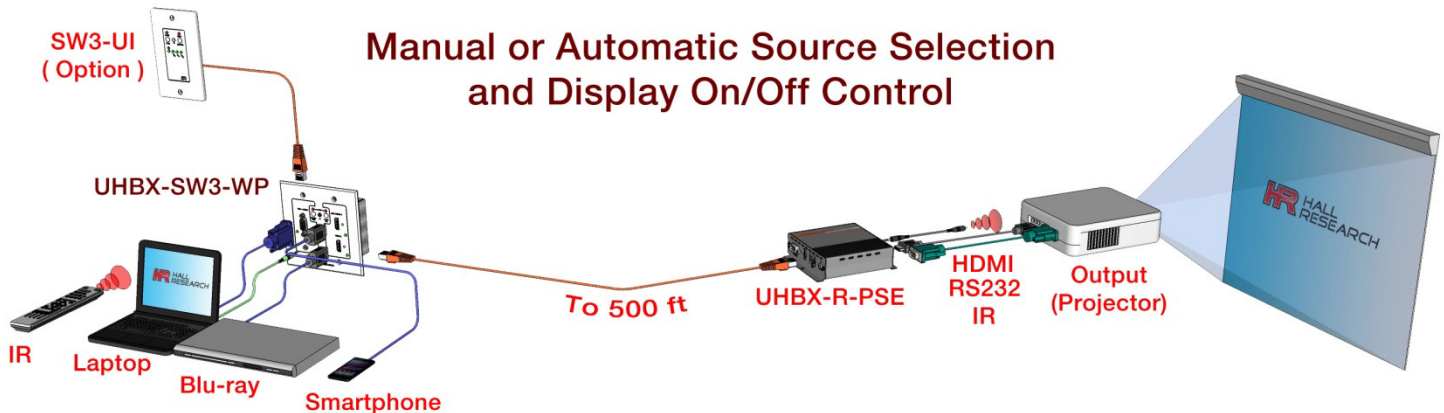
714.641.6607

Description

The Model UHBX-SW3-WP is a compact 2-gang wall plate that offers 3 video inputs:

- Input 1 – **HDMI or MHL** (Mobile High-Definition Link)
- Input 2 – **HDMI**
- Input 3 – **VGA or YPbPr** with separate audio

The wall plate can manually or automatically switch between the various video inputs, extend IR or issue user defined RS232 or IR commands to control the On/Off state of the display.

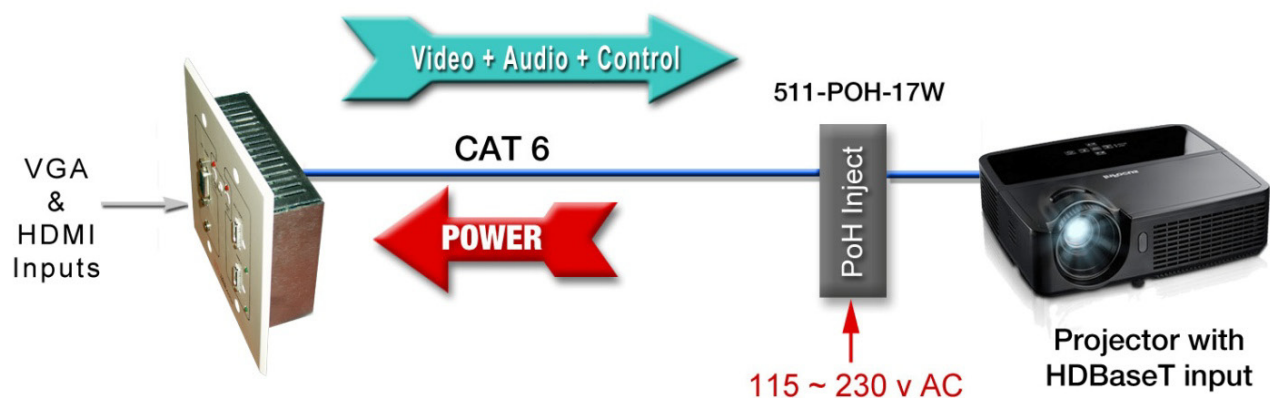


Using just a **single twisted pair** (Cat6) cable, the wall plate connects to a compatible receiver, such as the model [UHBX-R-PSE](#).

The single Cat6 cable carries all AV and control signals (IR, RS232 and CEC) from the wall plate to the receiver. The same Cat6 cable also delivers power to the wall plate using Power-over-HDBaseT (PoH) standard as defined by HDBaseT® Alliance. There is no power input connection on the wall plate, so a PoH compliant receiver that acts as PSE (Power Sourcing Equipment) is required. If connecting to a receiver that does not provide PoH, or directly connecting to a display with native HDBaseT® input, a PoH inserter would be required as described in the next section.

Connection to Displays with HDBaseT input

The Wall plate can be directly plugged in to displays or projectors with native HDBaseT® inputs. In this configuration the wall plate should still be able to send RS232 commands to the display through the HDBaseT®. Most video projectors with HDBaseT® input support RS232 control via the same link (check your display's specifications for details). Since virtually no display today provides PoH output to power up the wall plate, a power inserter would be required as shown below (Hall Research PoH inserter p/n [511-POH-17W](#)).



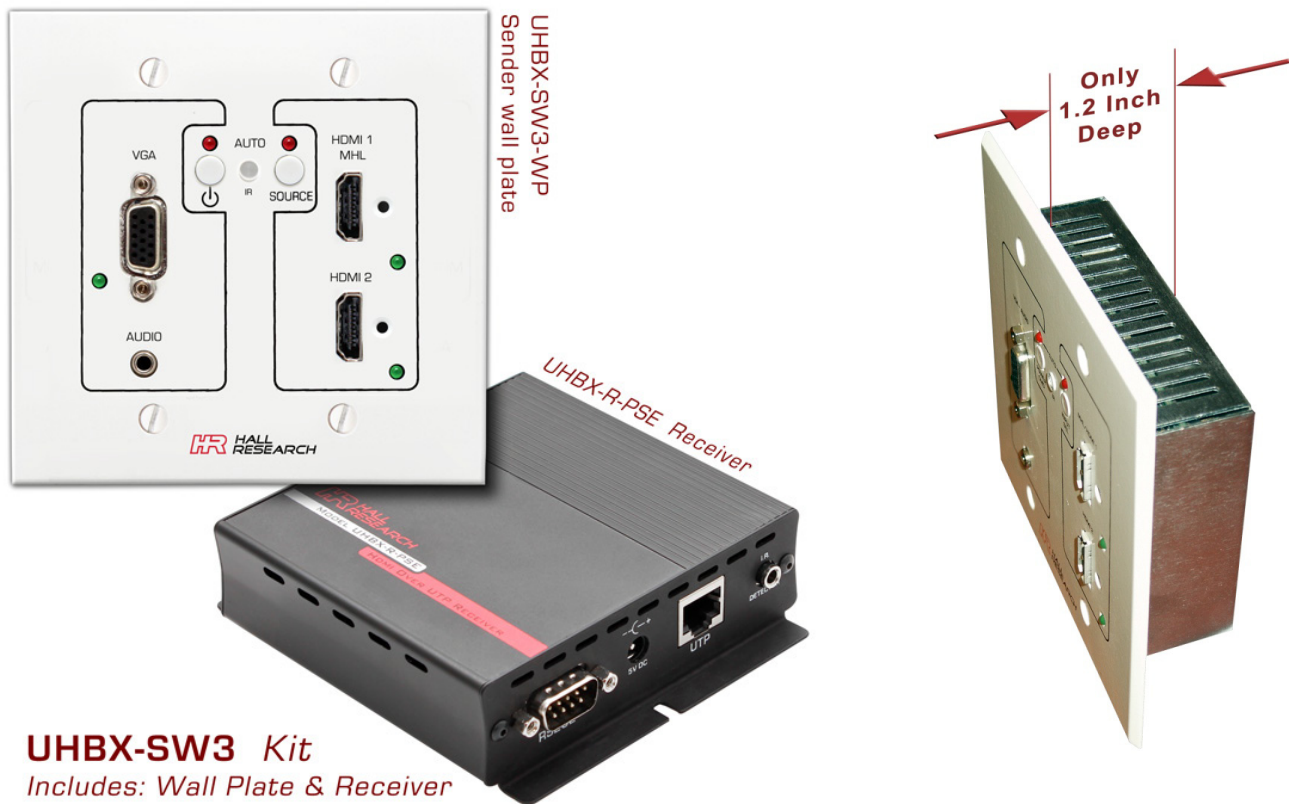
Connection to Receiver

When used with a receiver such as the [UHBX-R-PSE](#) with RS232 and IR output ports, the wall plate can be used to **control the display on/off function** (Power Command). Currently the wall plate can be configured to use one of two methods: RS232 or IR. Since the wall plate has an IR detector, for simple installations, you can just point the IR remote to the wall plate and use an IR emitter cable plugged to the receiver to control the display (see IR Extension on page 7).

To configure the wall plate and enter RS232 or IR commands for your display, the wall plate provides a mini-USB connector (on the bottom side) and is shipped with a USB cable that can be connected to any Windows® PC. A free Windows® GUI software is available on the product's webpage.

Since there are thousands of display manufacturers and models, it is the user's responsibility to determine, for their specific display, what suitable method is available that can be used to control Power On/Off functions.

For best results we suggest using a display or a projector with an RS232 port for control. Again, it is the user's responsibility to obtain such commands for their specific projector or display. The GUI software gives the user the ability to choose the method and enter the appropriate codes and baud rates easily.

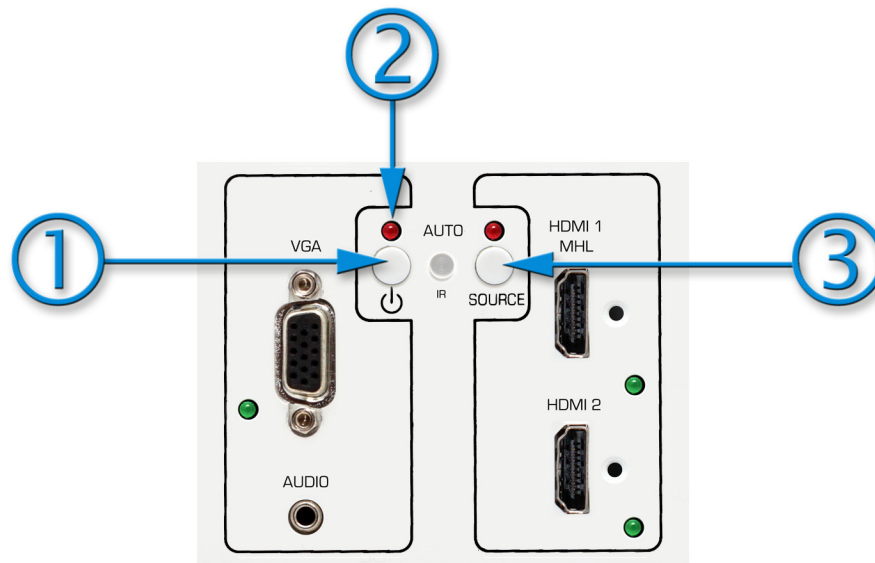



Supports MHL with charging feature

Powering the Wall Plate and Selecting a Source

As shipped from the factory the wall plate is in full manual mode. This means that you have to manually turn on the wall plate and also manually select the input source you want displayed.

If you have defined a display Power On command, then the wall plate will issue that command at the same time it turns on. So all you have to do is press the power button on the wall plate once.



1. Press the  power button
2. The red LED above the power button will turn on and also one of the 3 green LEDs next to the inputs will turn on to indicate which source is selected
3. To change input, press the SOURCE button. For each press the green LED next to each input connector will successively illuminate.

To turn off the wall plate, press the power button. Again, if you have defined a display Power Off command, the wall plate will issue the command as it turns off.

Auto Source Mode

The wall plate has the ability to detect the presence of video on its inputs and automatically switch to the input with active video.

You can enter the Auto Source mode either from the wall plate or by using the USB GUI. From the GUI you can also *lock* the Auto Source mode (so it will stay in that mode permanently). To enable Auto Source mode first make sure the wall plate is on. Press and hold the Source button for 3 seconds. The red LED above the Source button will turn on (and blink slowly). This indicates that the wall plate will automatically select inputs. In this mode, pressing the Source button will not change inputs.

If the wall plate is turned off and back on, it will recall this mode.

If the Auto Source mode is not locked by the GUI, you can exit this mode from the wall plate. Make sure the wall plate is on, then press and hold the Source button for 3 seconds. The red LED above the Source button will turn off.

Notice *The user can prioritize inputs, in case more than one is active.*

As shipped from factory, HDMI 1 has the highest priority, then HDMI 2, and last the VGA input. So if the only active input is VGA and you plug in a source to HDMI 2 or HDMI 1, the wall plate will select the HDMI input.

Priorities can be changed through the USB port using the free manager software GUI (Graphical User Interface).


If you do not want inputs to usurp each other, you can assign the same priority level to them in the GUI. That way, once an input is detected, the wall plate will stay on it until the video is disconnected.

Component Video cannot be auto-detected. So if you are connecting YPbPr Component to the VGA input, you must select it manually.

Auto “Power Command” Mode

The wall plate can send power on/off commands to the display automatically based on the presence of video.

When Power Command mode is set for automatic, then when the wall plate detects video on the selected input it will issue an ON command to the screen, and if there is no video being detected, an OFF command will be issued after a user specified delay (default delay = 5 minutes).

You can enter the Auto Power Command mode either from the wall plate or by using the USB GUI. From the GUI you can also *lock* the Auto Power Command mode (so it will stay in that mode permanently). To enable Auto Power Command mode first make sure the wall plate is on. Press and hold the power  button for 3 seconds. The red LED above the power button will start blinking slowly. This indicates that the wall plate will automatically send on and off commands to the display based on video detection on the selected input. In this mode, pressing the power button will not do anything.

If not locked from the GUI, you can exit Auto Power Command mode by pressing and holding the Power button for 3 seconds. The red LED above the Source button will stop blinking. Now you can manually turn the panel on and off (and at the same time issue commands to the display).

IR Extension

The wall plate features an IR detector that can be used to extend IR to the remote receiver. An IR blaster cable will be required to plug to the receiver (Hall Research model [CIR-EMT](#) or [CIR-EMT2](#)). In this way the user can point the IR remote to the wall plate and control the display. It is important that the IR light signal blasted from the IR emitter at the receiver is not incident on the wall plate's IR detector, since that will create a positive feedback runaway condition.

VGA Scaler

The UHBX-SW3-WP **scales the VGA input** to 720p or 1080p in order to eliminate compatibility issues with the myriad of VGA resolutions that may not be supported on most TV's HDMI input. Scaling the VGA to 1080p (default) which is a standard HDTV resolution assures that there will be a perfect display regardless of the VGA signal source timing. The scaler is designed to work out of the box with no adjustments. However for advanced users, the GUI provides many advanced features such as underscan (zoom out), aspect ratio, brightness, etc.

Since VGA is an analog signal the scaler detects the edges of the video and fits it to the display. Similar to VGA monitors, the wall plate has an "Auto Adjust" feature. In the unlikely event that the VGA image on the display is grossly misaligned, press both power and source buttons on the panel simultaneously. This will start the "Auto Adjust" procedure.

Component Video Input

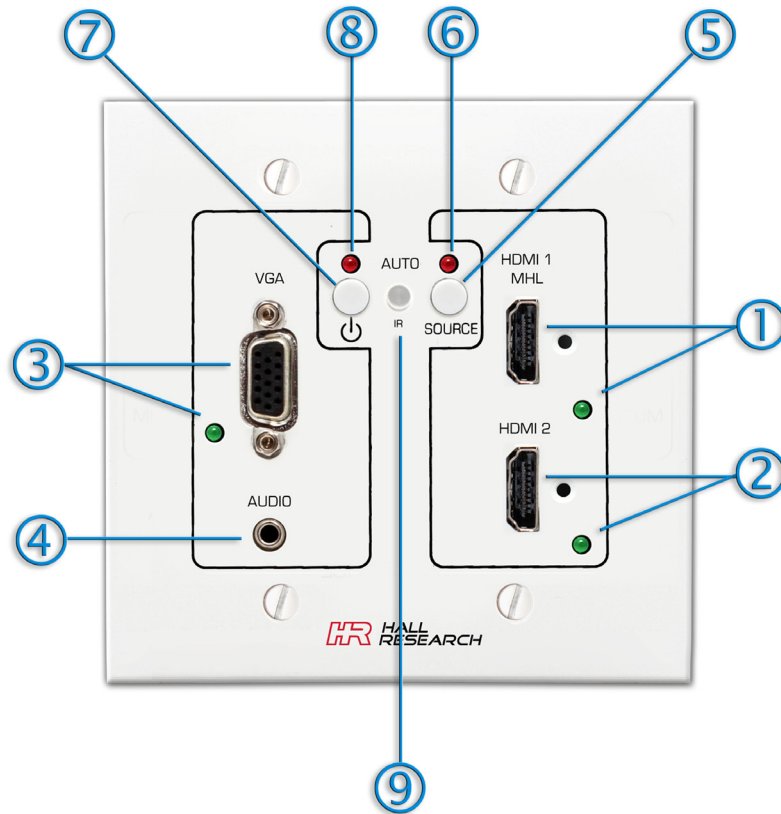
Using HD15 to 3 RCA cable, the VGA input can accommodate component video (YPbPr). But you have to configure the wall plate to expect YPbPr using the configuration GUI. In this mode, the Auto Source selection mode is not available.



Independent "Audio-Only" Extension

The user can configure the unit to pass-through the 3.5mm audio input (associated with the VGA) on its HDMI output signal without having to connect a live VGA signal. In this way audio from **MP3 audio players** can also be extended to the TV (screen will be dark). To enable pass-thru of 3.5mm audio without VGA signal, refer to the configuration Software documentation.

Connectors, Controls and Indicators



1 HDMI 1 input & selection indicator
Supports MHL signal

2 HDMI 2 input & selection indicator

3 VGA input & selection indicator
Can be configured for YPbPr

4 Stereo audio input for VGA.
Can be configured to pass audio
without VGA connected.

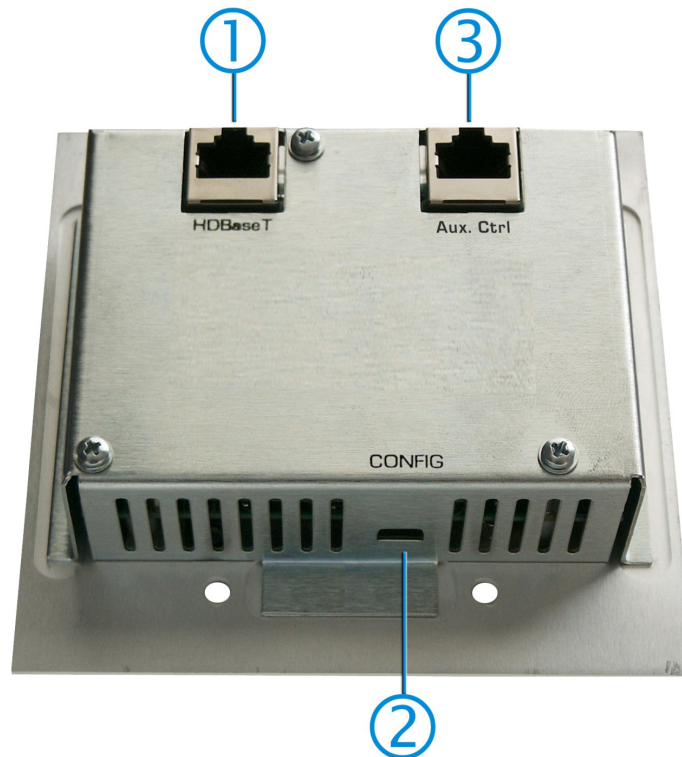
5 Manual Source Selection button
Hold for 3 seconds to enter or exit
Auto Source mode

6 Auto Input Selection Indicator
When lit (with a slow blink), the
wall plate scans for active input

7 Power button. Will turn panel on
and off and issue corresponding
commands to display. Hold for 3
seconds to enter or exit Auto
Power Command mode

8 Power Indicator
When lit solid the panel is on.
When blinking slowly it indicates
Auto "Power Command" mode

9 IR Extension Detector
Any incident IR signal is extended
to the receiver's IR output



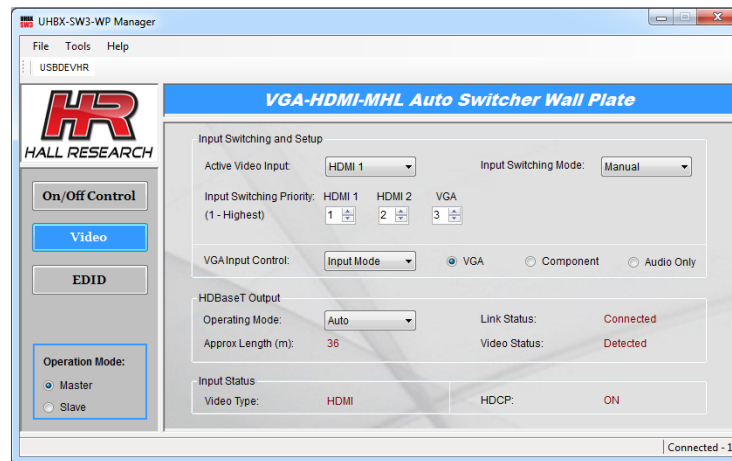
- 1 HDBaseT Output.
The wall plate requires PoH (power over HDBaseT), so the receiver has to be a PSE (power sourcing equipment) type, or a power inserter is needed.
- 2 Mini-USB port for connection to a PC. A free GUI is available that can be used to configure the wall plate. A USB to mini-USB cable is provided
- 3 For connection to SW3-UI and SW3-UI-VOL optional auxiliary control panel (sold separately)

Configuration Using the USB port

The wall plate is ready to use out of the box and in many cases no special configuration is needed.

If the user desires to control the On/Off function of the display or to tweak some of the parameters (such as prioritizing the input selection in Auto input mode), a onetime set up is needed.

Install the Windows® GUI software available for free download from the website, and connect the USB port to the PC. Please refer to the GUI User Guide available on the website for more information.



Optional Auxiliary Control Keypads

Two single gang Decora® style keypads are available: SW3-UI and SW3-UI-VOL. These keypads plug to the UHBX-SW3-WP using a Cat5 cable and can be located up to 200 ft away at a convenient location. The SW3-UI duplicates all the controls and indicators that are on the wall plate. It is perfect for monitoring and controlling the system from a convenient spot instead of using the buttons on the UHBX-SW3-WP wall plate. The SW3-UI-VOL adds 3 additional buttons that can be tied to volume commands of your display. These additional buttons do not change the volume embedded in the HDMI output, but they are meant to send Volume Up/Down, Mute, and Unmute commands to the projector or display.





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