HDMI®, VGA and DP to HDMI Converter
Switch - 4K
HDVGADP2HD

*actual product may vary from photos

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Manual Revision: 07/11/2017
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Switch diagram
Front view

1. Selected port LEDs
2. Input selection buttons
3. IR sensor
4. Function button
5. Status LED
6. Power button
Rear view

1. DC12V power adapter port
2. Control port (RJ11 serial jack)
3. (In) Control port (IR extender)
4. HDMI output port
5. Mode switch
6. 3.5 mm audio input port (for VGA)
7. VGA input port
8. DisplayPort input port
9. HDMI input port #1
10. HDMI input port #2
Introduction

Packaging contents

- 1 x converter switch
- 1 x IR remote control
- 1 x screw kit
- 1 x mounting bracket kit
- 1 x footpad set
- 1 x RJ11-to-RS232 converter
- 1 x RJ11 cable
- 1 x universal power adapter (NA/EU/UK/AU)
- 1 x quick start guide

System requirements

- 1 x HDMI video display with cabling
- 1 x DisplayPort video source with cabling
- 1 x VGA video source with cabling
- 2 x HDMI video sources with cabling
Installation

Note: Ensure your display and video sources are powered off before you begin installation.

1. Connect each of your video sources to the input ports on the video converter switch using the required cabling (not included).

2. Connect an HDMI cable (not included) to your display and to the converter switch’s HDMI output port.

3. Power on your HDMI display.

4. Power on each of your video sources.

5. Connect the power adapter to the switch’s power adapter port and to an AC outlet.

6. (Optional for serial control) Connect the RJ11 cable to the switch’s Control port (RJ11 serial jack) and to the RJ11-to-RS232 serial converter. Then, connect a 9-pin serial cable (not included) to the RJ11-to-RS232 switch and to your computer’s 9-pin serial port.
Operation

Mode selection and switch operation
This switch features multiple operating modes. Review the description and operating steps for each mode in this section, then use the Mode switch to the switch to your desired operating mode.

Switch mode operation (1. Switch)
Switch mode enables you to switch between video sources by pressing the Input selection button that corresponds with your desired video source. The active selected port LEDs will light up indicating which port is selected.

Automatic mode operation (2. Auto)
Automatic mode enables the video converter switch to automatically select the most recently activated or connected video source. Connect a new device or turn on an already connected device to automatically switch video sources. The active selected port LEDs will light up indicating which port is selected.

Priority-A mode operation (3. Pri-A)
Priority-A mode prioritizes the HDMI #1, DisplayPort, VGA, and HDMI #2 input ports respectively. When you turn on a video source that is connected to a higher prioritized input port, that video source will automatically be selected. Turning off the device will automatically switch back to the lower prioritized video source.

Priority B mode operation (4. Pri-B)
Priority B mode prioritizes the HDMI #2, VGA, DisplayPort, and HDMI #1 input ports respectively. When you turn on a video source that is connected to a higher prioritized input port, that video source will automatically be selected. Turning off the device will automatically switch back to the lower prioritized video source.
Manual operation with remote control

1. Press buttons 1 through 4 on the right side of the IR remote control to switch between the HDMI #1, HDMI#2, DisplayPort, and VGA ports respectively.

2. The active selected port LEDs will light up on the extender switch, indicating which port is selected, and your desired video source will appear on the HDMI and HDMI display.

VGA screen shifting

Screen shifting can move alignment of the VGA video input image to the right or left of the monitor, depending upon your requirements.

1. Press and hold both of the Function buttons (Function+VGA) simultaneously for 2 seconds until the VGA input LED turns blue and flashes orange.

2. Press the left Function button (VGA) or right Function button to move the screen position.

Notes:
- The VGA port is the only video input that’s affected.
- The switch will exit VGA screen shifting mode after being inactive for 20 seconds.
- The maximum number of adjustments is 50 steps right or left from the default starting point.
- The switch will automatically retain your most recent setting.
Manual operation with serial control

1. Configure the settings on your serial port according to the values shown below.

   - **Baud Rate:** 38400 bps
   - **Data Bits:** 8
   - **Parity:** None
   - **Stop Bits:** 1
   - **Flow control:** None

2. Open your terminal software and configure it to communicate through the COM port that the switch is connected to. Pressing ? Enter (or any non-valid command followed by Enter) in the terminal will list the below command readout.

   - AVI=n - AV Input Port (n: 1~max)
   - OLE - Output Local Enable (AV)
   - OLD - Output Local Disable (AV)
   - VS - View Settings
   - PI - Product Information
   - FACTORY - Reset as factory default setting
   - REBOOT - Reboot device
   - VL - VGA Horizontal Position Shift Left
   - VR - VGA Horizontal Position Shift Right
   - TI=n - Set Terminal Interface n: 0 - Human 167 - Machine
   - LCK=n - Lock / Unlock device n: 0 - Unlock 167 - Lock

**Note:** There are several commands that will be listed in your terminal readout and are supported by the switch. However these commands will not impact the switches’s operation and are not included in our readout above. These commands are supported as a result of the same firmware being used on different devices. Supported commands that do not have an impact on the operation of the switch are: CE, ORE, ORD, EQ, IVG, OVG, VDT, VMC, RCID.
You can enter each of these commands into your terminal and press Enter to control the switch. A general description of each primary command is listed in the table below.

<table>
<thead>
<tr>
<th>Primary command codes</th>
<th>Action</th>
<th>Value(s) required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVI</td>
<td>Switches the selected inputs</td>
<td>Yes</td>
</tr>
<tr>
<td>OLE</td>
<td>Enables the HDMI output</td>
<td>No</td>
</tr>
<tr>
<td>OLD</td>
<td>Disables the HDMI output</td>
<td>No</td>
</tr>
<tr>
<td>VS</td>
<td>Displays various current settings for video inputs and outputs</td>
<td>No</td>
</tr>
<tr>
<td>PI</td>
<td>Displays transmitter product information</td>
<td>No</td>
</tr>
<tr>
<td>FACTORY</td>
<td>Restores all default settings (such as VGA shifting or selected port)</td>
<td>No</td>
</tr>
<tr>
<td>REBOOT</td>
<td>Reboots the transmitter</td>
<td>No</td>
</tr>
<tr>
<td>VL</td>
<td>Shifts VGA input 1 adjustment left</td>
<td>No</td>
</tr>
<tr>
<td>VR</td>
<td>Shifts VGA input 1 adjustment right</td>
<td>No</td>
</tr>
<tr>
<td>TI</td>
<td>Sets terminal mode for manual user commands or software commands</td>
<td>Yes</td>
</tr>
<tr>
<td>LCK</td>
<td>Locks and unlocks serial control</td>
<td>Yes</td>
</tr>
</tbody>
</table>
If the command requires a value, the command will be listed in your terminal readout with \( =n \) next to it and a brief explanation of how the value should be utilized.

If multiple values are required, the command is listed in your terminal readout with \( =n,a1,a2 \)

If the command you’re entering requires a single value, the command needs to be modified to \textbf{Command}=Value1.

**For an example of a command that requires a value.**

The AVI command works to switch between which video source is outputted. The values of 1, 2, 3 and 4 represent the HDMI #1, HDMI#2, DisplayPort, and VGA ports respectively.

As a command example, to switch your video output to DisplayPort:

1. Type AVI=3 into your terminal, and press Enter on your keyboard.
2. Your DisplayPort source will now output your display.

**Reminder:** There are several commands that will be listed in the terminal readout and are supported by the transmitter. However, these commands will not impact the transmitter’s operation. These commands are supported as a result of the same firmware being used on different devices. Supported commands that do not have an impact on the operation of the transmitter are: CE, ORE, ORD, EQ, IVG, OVG, VDT, VMC, RCID. These commands have been removed from the terminal readout on page 7, in this manual.
LED indicators

This switch has LED indicators that light up with different colors to notify you of the device status. The table below lists the activity for each of these LEDs as well as the corresponding status.

<table>
<thead>
<tr>
<th>LED</th>
<th>Activity</th>
<th>Status</th>
</tr>
</thead>
</table>
| **Selected port LEDs**  
(HDMI 1, HDMI 2, DP, VGA) | Illuminates blue and flashes three times. | An active video source without HDCP is connected to the switch and that source is selected. |
| | Illuminates blue flashes once | An active source without HDCP is connected to the switch but that source is not selected. |
| | Illuminates purple and flashes three times. | An active source with HDCP is connected to the switch and that source is selected. |
| | Illuminates purple and flashes once. | An active source with HDCP is connected to the switch but that source is not selected. |
| | Illuminates blue and flashes red once. | The source is selected but an active video source is not connected. |
| | Illuminates blue and flashes orange. | An alternate position has been defined in VGA Screen Shifting. |
| **Status LED** | Illuminates blue | An active video source is connected and selected. |
| | Flashes blue every three seconds (slow) | Switch was just tuned on and is not yet ready to operate. |
| | Flashes blue every 2 seconds (fast) | The switch is ready to operate, but no monitor is connected |
| | Illuminates blue and flashes purple once, then red twice | Monitor is connected but does not support HDCP video signal |
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