Extron

SW2/4 HD 4K PLUS • Setup Guide

The Extron SW HD 4K PLUS are two and four input HDMI switchers that support 4K video signals at 60 Hz. They switch 4K/60 signals between multiple HDMI source devices to a single display. The switchers support computer and video resolutions up to 4K/60 and 1080p/60, data rates up to 18 Gbps, HDR, 12-bit Deep Color, 3D, Lip Sync, and HD lossless audio formats. Both models feature EDID Minder®, which maintains continuous EDID communication with connected devices and ensures that the HDMI sources power up properly and maintain correct video output. The switchers also provide automatic input cable equalization up to 25 feet (7.6 meters) when used with Extron HDMI Pro Series cable.

The SW HD 4K PLUS Series offers control via front panel buttons, USB, Extron Product Control Software (PCS), Ethernet, RS-232, contact closure, and auto-input switching for integration with any control system. Front panel LED indicators provide immediate visual confirmation of HDCP authentication and signal presence for each input and output.

This guide provides instructions for an experienced installer to set up and operate these switchers. For full installation, configuration, and operation details, see the *SW HD 4K PLUS Series User Guide*, available at **www.extron.com**.
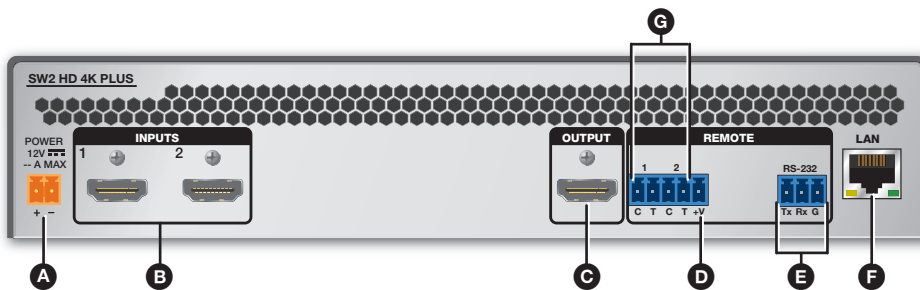
Rear Panel Features and Connections
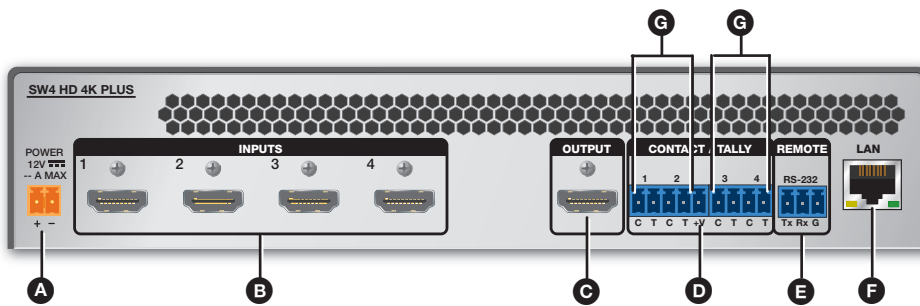

Figure 1. SW2 HD 4K PLUS Rear Panel

Figure 2. SW4 HD 4K PLUS Rear Panel

A	2-pole captive screw power connector	**E**	RS-232 connector
B	HDMI input connectors	**F**	LAN Connector
C	HDMI output connector	**G**	Contact closure input and tally output connectors
D	Tally +V connectors		

Installation Steps

1. **Turn off all of the equipment** and disconnect it from the power source.
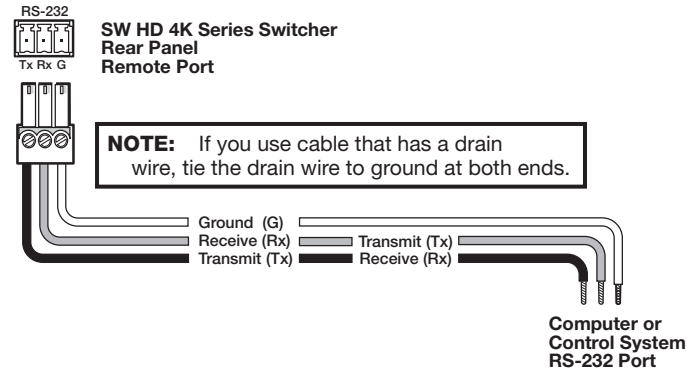2. **Mount the switcher** on a rack shelf or furniture (optional).

3. **Connect HDMI input sources** to one or more of the SW HD 4K PLUS input connectors (see figures 1 and 2, Ⓑ, on the previous page).

> **NOTE:** LockIt® cable lacing brackets, one for each HDMI input and output connector, are provided with the SW HD 4K PLUS. These brackets can be used to secure the HDMI cables to the rear panel connectors to reduce stress on the HDMI connectors and prevent signal loss due to loose cable connections. For information on attaching the LockIt brackets, see the LockIt HDMI Lacing Bracket instructions in the *SW HD 4K PLUS Series User Guide* card, available at **www.extron.com**.

4. **Connect an HDMI output device** to the output connector (Ⓒ). By default, the EDID of this device is stored at the HDMI output.

5. **Connect control devices.** Connect your computer to one of the following SW HD 4K PLUS communication ports to configure and control the switcher via SIS commands:

   - **RS-232 port** — Connect the unterminated transmit, receive, and ground wires of the RS-232 cable to the provided 3-pole captive screw plug, as shown in the illustration at right. Connect the plug between the rear panel Remote shared connector (Ⓔ), and the serial port of your computer. Protocol for the RS-232 port is 9600 baud, 8 data bits, 1 stop bit, no parity.

   - **Config port** — Connect a USB mini-B cable between the front panel USB connector (see figures 4 and 5, Ⓑ, on page 4) and a USB port on your computer for control via USB.

   - **LAN port** — Use an RJ-45 cable to connect this jack (see figures 1 and 2, Ⓕ) to a LAN for Ethernet control of the switcher.

6. **(Optional) Connect contact closure and indicator devices**. The Contact/Tally section of the rear panel contains one (SW2) or two (SW4) female captive screw connectors, each with two pairs of pins labeled C and T (see ❶ in the illustration below right).

   Each pin pair is labeled with the number of the HDMI input associated with it. Wire devices to these connectors as follows:
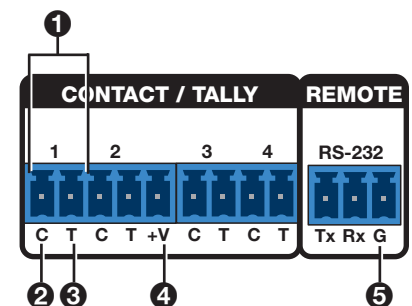
   a. **SW2 models** — Wire and connect the provided 5-pole plug to the 5-pole Contact/Tally captive screw connector on the rear panel.

   SW4 models — Wire and connect the provided **5-pole** plug to the Contact In/Tally Out connector on the **left** (containing pin pairs 1 and 2), and wire and connect the provided **4-pole** plug to the connector on the **right** (pin pairs 3 and 4).

   b. Connect contact input and tally output devices to the pin pair for each input you are using, as follows:

      - To enable input switching via contact closure, connect a push-button contact closure input device to pin **C** (❷) and to the G (ground) pin (❺) of the 3-pole RS-232 connector.

      - To identify the currently selected input when the front panel buttons are not visible, connect an indicator device, such as an LED, to tally output pin **T** (❸) of the same pin pair.

        When the input you are using is selected, the corresponding tally out pin shorts to ground, which activates the connected indicator.

   c. Insert the power wires for the contact indicator devices into the +V connector (❹).

   d. Press the button on the contact closure device to switch the connected input to the output.

SW HD 4K Series Switcher Rear Panel Remote Port

> **NOTE:** If you use cable that has a drain wire, tie the drain wire to ground at both ends.

Using a Show Me™ cable:

The Contact and Tally connectors can also be used with Extron Show Me cables. For each cable The diagram at right shows how to wire a Show Me cable to a contact input.

For each Show Me cable:

- Connect the **red** pigtail to the **C** pin corresponding to the input being used.
- Connect the **black** pigtail to the **T** pin of the same input.

7. If not using the provided pre-wired power supply, wire a 2-pole captive screw connector (provided) to your power supply as shown below in figure 3.
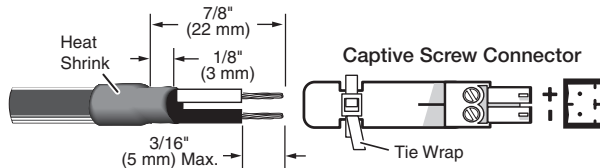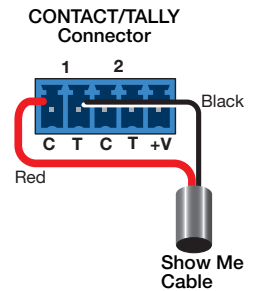
Figure 3. Wiring the Power Connector

ATTENTION:
• The power supply must not be permanently fixed to the building structure or similar structures.
• La source d'alimentation ne devra pas être fixée de façon permanente à une structure de bâtiment ou à une structure similaire.
• These power supplies are not suitable for use in air handling spaces or in wall cavities.
• Ces sources d'alimentation ne sont pas appropriées pour une utilisation dans les espaces d'aération ou dans les cavités murales.
• **Do not** connect power to the switcher until you have read the CAUTION and ATTENTION notices on pages 5 and 6 of the *SW HD 4K PLUS Series User Guide*.
• Ne branchez pas l'alimentation au *SW HD 4K PLUS Series User Guide* avant d'avoir lu les mises en garde « CAUTION » et «ATTENTION » aux pages 5 et 6.

8. Power on the output display.
9. Connect power to the switcher.
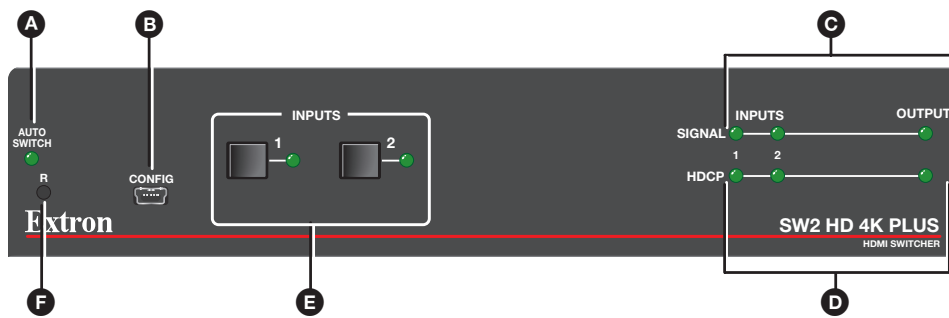10. Power on the source devices.

Front Panel Features
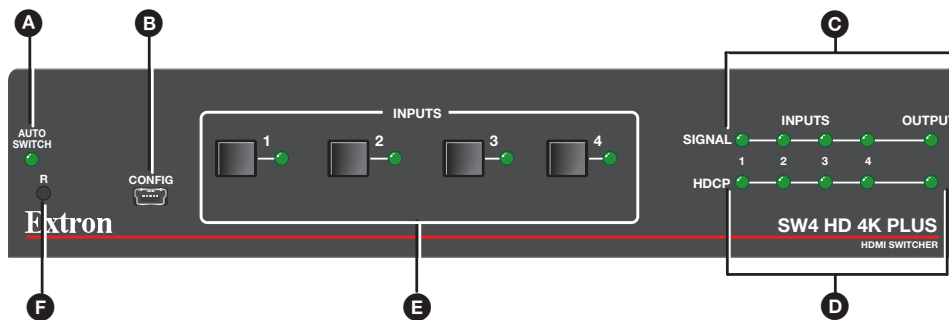

Figure 4. SW2 HD 4K PLUS Front Panel

Figure 5. SW4 HD 4K PLUS Front Panel

Ⓐ **AUTO SWITCH LED** — Lights when auto-input switching is in effect. When auto-input switching is enable, the switcher automatically switches to the highest-number input with an active video signal.

Ⓑ **USB CONFIG port** — Connect a USB cable (USB A to mini-B) between your computer and this female USB mini-B port to configure and control the switcher via SIS commands or PCS, and to update the firmware.

Ⓒ **SIGNAL LEDs** — The LEDs labeled INPUTS each light when the corresponding input is connected to a device that has power. The LED labeled OUTPUT lights when the output is connected to a device that has power.

Ⓓ **HDCP LEDs**

- **Input LEDs** — Light if the connected sources are HDCP encrypted and have been authenticated by the switcher inputs.

> **NOTE:** If the source device connected to the selected input is HDCP encrypted (requires HDCP authentication), the corresponding signal LED may not light unless HDCP has been authenticated.

- **Output LED** — Lights when the currently selected input requires HDCP and the connected output device has been successfully authenticated.

> **NOTE:** HDCP is re-authenticated on the output whenever a new input is selected.

Ⓔ **Input selection buttons** — Press one of these buttons to select an input to switch to the output. The LED at the right of each button lights when the corresponding input is selected. If auto-input switching is in effect, these buttons are disabled, but the LEDs continue to light to indicate the selected input. The input buttons are also used to initiate a system reset and to enable and disable front panel lockout (see the *SW HD 4K PLUS Series User Guide* for more information).

Ⓕ **Reset button** — This button initiates two levels of reset of the switcher. For the different reset levels, press and hold the button while the switcher is running or while you power up the switcher. (For more information about reset levels, see the *SW HD 4K PLUS User Guide* at **www.extron.com**.)

Figure legend:
- Ⓐ AUTO SWITCH LED
- Ⓑ USB CONFIG port
- Ⓒ SIGNAL LEDs
- Ⓓ HDCP LEDs
- Ⓔ Input selection buttons
- Ⓕ Reset button