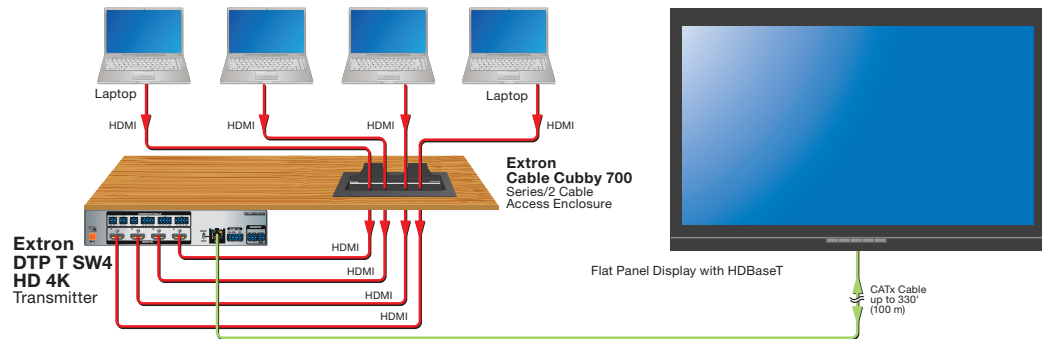


DTP T SW4 HD 4K • Setup Guide

IMPORTANT:
Refer to www.extron.com for the complete user manual and installation instructions before connecting the product to the power source.

The Extron DTP T SW4 HD 4K is a four input HDMI switcher with a DTP output that switches and extends digital embedded audio, bidirectional RS-232 and IR control remote power, and HDMI video signals up to 330 feet (100 meters). It is an HDCP-compliant switcher, that supports video resolutions up to 4K @ 30 Hz (or 4K @ 60 Hz at 4:2:0), using shielded twisted pair cabling as a transmission medium. The switcher features four HDMI inputs, with a DTP/HDBT output, so it can be integrated into many applications that use a DTP equipped receiver, or HDBT capable products. The switcher also features Contact/Tally ports which are used in tandem with Extron "Show Me" cables, when used in Extron TeamWork systems. For easy integration, remote power for the end unit is available via the DTP output.

This guide provides instructions for an experienced installer to set up and operate this switcher. For full installation, configuration, and operation details, see the *DTP T SW4 HD 4K User Guide*, available at www.extron.com.



Rear Panel Features and Connections

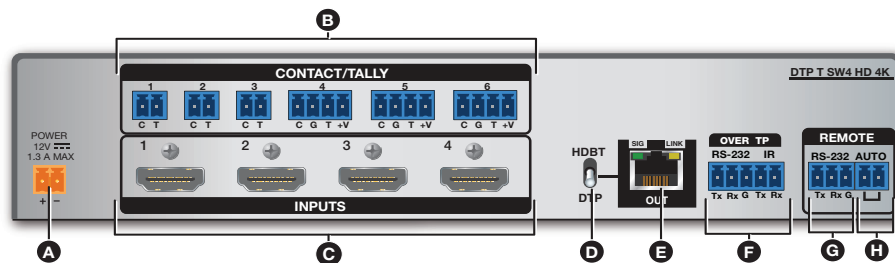


Figure 1. DTP T SW4 HD 4K Rear Panel

- A** Power inlet
- B** Contact closure input and Tally output ports
- C** HDMI inputs
- D** TP function switch
- E** DTP Output RJ-45 port
- F** Over TP RS-232 and IR port
- G** Remote RS-232 port
- H** Remote Auto port

Installation Steps

1. Turn off and disconnect all of the equipment 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 DTP T SW4 HD 4K HDMI Inputs (see figure 1, **C**). The default (Extron) EDID is present at each input and Hot Plug Detect (HPD) is actively controlled on each input.

NOTE: The default (Extron) EDID is 720p @ 60 Hz (see the *DTP T SW4 HD 4K User Guide* for EDID table).

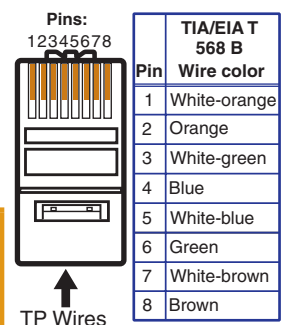
NOTE: LockIt® cable lacing brackets are provided to secure the HDMI cables to the rear panel connectors to reduce stress on the HDMI connectors and prevent signal loss due to loose cable connections (see the [LockIt Lacing Brackets](#) on page 4).

4. Connect an RJ-45 output device to the DTP output (**E**) for either DTP or HDBT mode (see image on right to wire the RJ-45 connector).
 - If the receiving device is in the Extron DTP series, set the DTP/HDBT switch (**D**) DOWN to DTP.
 - If the receiving device is HDBaseT enabled, set the DTP/HDBT switch UP to HDBT.

When the output is configured for DTP mode, remote power is available. When the output is configured for HDBT mode, remote power is disabled and the switcher and receiver each require its own 12 VDC power supply.

ATTENTION:

- Position this switch **BEFORE** connecting the appropriate device to the TP connector. Failure to comply can damage the endpoint.
- Positionnez le sélecteur **AVANT** de connecter l'appareil approprié au connecteur TP. Ne pas respecter cette procédure pourrait endommager le point de connexion.
- Do not connect these devices to a computer data or telecommunications network.
- Ne connectez pas cet appareil à un réseau de télécommunications ou de données informatiques.



DTP T SW4 HD 4K • Setup Guide (Continued)

5. **Connect Over TP RS-232 and IR control.** Connect a serial RS-232 signal, a modulated IR signal, or both into this 3.5 mm, 5-pole captive screw connector (see [figure 1, F](#), on the previous page) for bidirectional RS-232 and IR communication (see the image on the right to wire the RS-232 and IR connector).

6. **Connect control devices.** Connect your computer to one of the following DTP T SW4 HD 4K communication ports to configure and control the switcher via SIS commands or Product Configuration Software (PCS):

- **RS-232 port** — Connect the unterminated transmit, receive, and ground wires of the RS-232 cable to the three pins on the provided 3-pole captive screw plug, as shown in the image on the right. Connect the plug to the rear panel Remote RS-232 connector (see [figure 1, G](#)), and the other end of the cable to your computer serial port. Protocol for the RS-232 port:
 - 9600 baud
 - 8 data bits
 - 1 stop bit
 - no parity
- **Config port** — Connect a USB mini-B cable to the front panel USB connector (see [figure 2, B](#), on the next page) for USB control.

7. **Enable auto-input switching** (optional). Use a jumper wire to connect the two pins of the 2-pole captive screw plug (see the diagram to the right). Attach the plug to the Remote Auto switch port (see [figure 1, H](#)).

8. **Connect Contact/Tally input sources** (optional). Connect a push-button contact closure device to a Contact port (see [figure 1, B](#), on the previous page) to enable input switching via contact closure.

- Wire and plug one of the provided 2-pole connectors into a Contact In/Tally Out port representing the desired input number on the DTP T SW4 HD 4K (1, 2, or 3).
 - C = Contact closure input
 - T = Tally output
- Press the button on the contact closure device to switch the connected input to the output.

TIP: The Contact and Tally connectors can be used with Extron “Show Me” cables. For each cable, connect the red wire to the Contact Closure input pin (C) and the black wire to the Tally Out pin (T) (see the diagram right).

9. **Connect an indicator device to the Tally Out port** (optional). To identify the currently selected input when the front panel buttons are not visible, connect a device such as an LED to the Contact In/Tally Out port (see [figure 1, B](#) on the previous page). When the input you are using is selected, the corresponding Tally Out pin shorts to ground, activating the connected indicator.

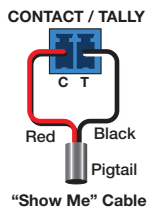
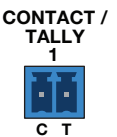
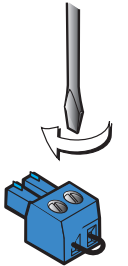
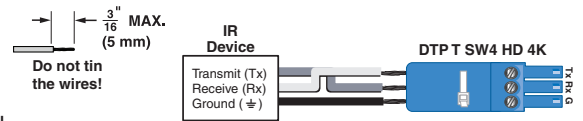
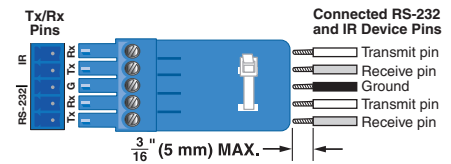
- Wire and plug one of the provided 4-pole connectors into the Contact In/Tally Out port.
 - C = Contact closure input
 - G = Contact Ground
 - T = Tally output
 - +V = +V connector (power wire)
- Insert the LED+ wire of the button switch of the indicator device into the +V pin.

Contact/Tally ports operate in four modes depending on the needs and configuration of the user. These modes can be selected and configured via SIS Commands or PCS. The modes are as follows:

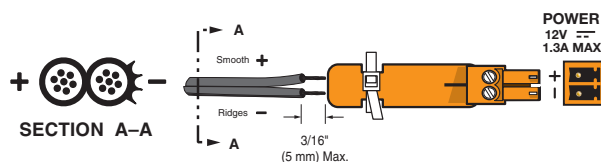
- **Mode 0** — (default) Inputs 1 through 4 are grouped and mutually exclusive; 5 and 6 are independent.
- **Mode 1** — (advanced) Inputs 1 through 6 are independent and must be configured via SIS commands or PCS.
- **Mode 2** — Inputs 1 through 4 are grouped and mutually exclusive; 5 and 6 are grouped and mutually exclusive.
- **Mode 3** — Inputs 1 through 4 are mutually exclusive; 5 and 6 are in single switch mode.

NOTE:

- The Contact/Tally ports can be configured to select an input using inputs 1 through 4, with ports 5 and 6 available for control and monitoring peripheral devices using a Pro Series control processor and GC Plus or GC Pro.
- When Contact/Tally inputs are grouped together, only one input can be selected at a time.
- For more information, see the *DTP T SW4 HD 4K User Guide*, available at www.extron.com.



10. **Connect power** (optional, see [figure 1](#), **A** on page 1). Connect an IEC power cord between the included 12 VDC power supply and a 100-240 VAC, 50-60 Hz source. Connect the power supply to either transmitter or receiver. Use the included tie-wrap to strap the cord to the captive screw connector (see the diagram on the right for wiring).



CAUTION: The wires must be kept separate while the power supply is plugged in. Remove power before wiring.

ATTENTION : Les deux cordons d'alimentation doivent être maintenus séparés lorsque la source d'alimentation est branchée. Coupez l'alimentation avant d'effectuer un raccordement.

ATTENTION:

- **Do not** connect power to the switcher until you have read the **ATTENTION notices** on page 4.
- Ne branchez pas l'alimentation au avant d'avoir lu les mises en garde « **ATTENTION** » aux page 4.

11. Power on the output display.

12. Power on the source devices.

Front Panel Features

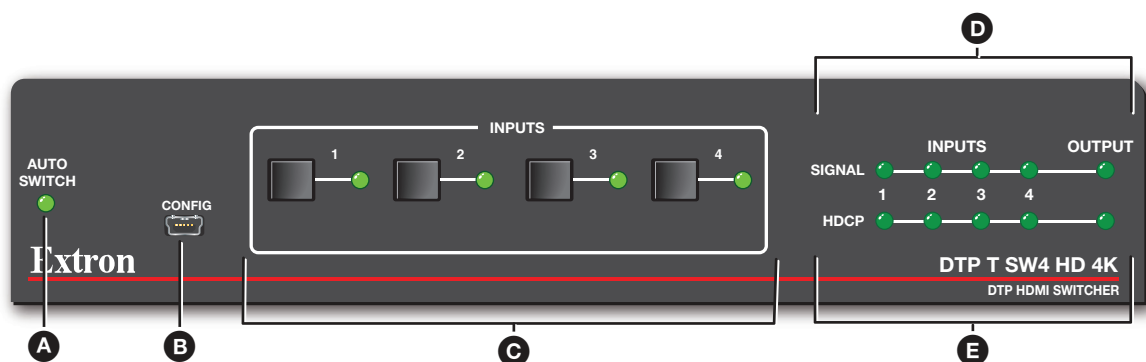


Figure 2. DTP T SW4 HD 4K Front Panel

- A** Auto Switch LED
- B** USB Config port
- C** Input selection buttons
- D** Input and Output LEDs
- E** HDCP LEDs

- A Auto switch LED** — Lights green when auto-input switching is in effect (see [step 7](#) on page 2 for more information).
- B 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.
- C Inputs 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 *DTP T SW4 HD 4K User Guide* for more information).
- D Inputs and Output Signal LEDs**
 - **Inputs** — Light when a source is connected to the corresponding input connector and TMDS clock activity is detected.
 - **Output** — Lights when a video output is actively sent on the DTP/HDBT output.
- E HDCP LEDs**
 - **Inputs** — Light for each input if the connected sources are HDCP-encrypted and have been authenticated by the switcher.

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** — Lights when the HDCP has been authenticated between the output of the switcher and the sink device connected.

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

DTP T SW4 HD 4K • Setup Guide (Continued)

LockIt Lacing Brackets

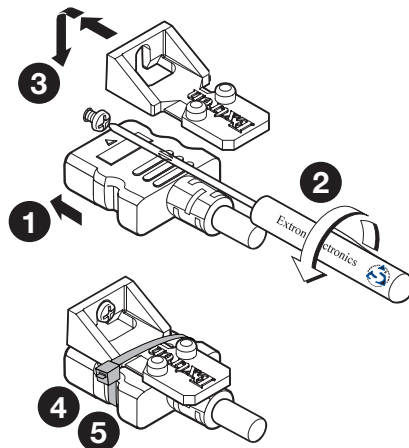
Use the included LockIt lacing brackets to securely fasten the HDMI cables to each device as follows.

- 1 Plug the HDMI cable into the rear panel connection.
- 2 Loosen the HDMI connection mounting screw from the panel enough to allow the LockIt lacing bracket to be placed over it. The screw does not have to be removed.
- 3 Place the LockIt lacing bracket on the screw and against the HDMI connector, then tighten the screw to secure the bracket.

ATTENTION:

- Do not overtighten the HDMI connection mounting screw. The shield it fastens to is very thin and can easily be stripped.
- Ne serrez pas trop la vis de montage du connecteur HDMI. Le blindage auquel elle est attachée est très fin et peut facilement être dénudé.

- 4 Loosely place the included tie wrap around the HDMI connector and the LockIt lacing bracket as shown.
- 5 While holding the connector securely against the lacing bracket, use pliers or similar tools to tighten the tie wrap, then remove any excess length.



Power Supply Attentions

ATTENTION:

- Always use a power supply supplied and or specified by Extron. Use of an unauthorized power supply voids all regulatory compliance certification and may cause damage to the supply and the end product.
- Utilisez toujours une source d'alimentation fournie ou recommandée par Extron. L'utilisation d'une source d'alimentation non autorisée annule toute conformité réglementaire et peut endommager la source d'alimentation ainsi que le produit final.
- If not provided with a power supply, this product is intended to be supplied by a power source marked "Class 2" or "LPS" and rated at 12 VDC and a minimum of 1.5 A.
- Si le produit n'est pas fourni avec une source d'alimentation, il doit être alimenté par une source d'alimentation certifié UL de classe 2 ou LPS, avec une tension nominale 12 Vcc, 1.5 A minimum.
- The installation must always be in accordance with the applicable provisions of National Electrical Code ANSI/NFPA 70, article 725 and the Canadian Electrical Code part 1, section 16. The power supply shall not be permanently fixed to building structure or similar structure.
- Cette installation doit toujours être en accord avec les mesures qui s'applique au National Electrical Code ANSI/NFPA 70, article 725, et au Canadian Electrical Code, partie 1, section 16. La source d'alimentation ne devra pas être fixée de façon permanente à une structure de bâtiment ou à une structure similaire.
- Power supply voltage polarity is critical. Incorrect voltage polarity can damage the power supply and the unit. The ridges on the side of the cord identify the power cord negative lead. To verify the polarity before connection, plug in the power supply with no load and check the output with a voltmeter.
- La polarité de la source d'alimentation est primordiale. Une polarité incorrecte pourrait endommager la source d'alimentation et l'unité. Les stries sur le côté du cordon permettent de repérer le pôle négatif du cordon d'alimentation. Pour vérifier la polarité avant la connexion, brancher l'alimentation hors charge et mesurer sa sortie avec un voltmètre.
- The length of the exposed (stripped) copper wires is important. The ideal length is 3/16 inch (5 mm). Longer bare wires can short together. Shorter wires are not as secure in the connectors and could be pulled out.
- La longueur des câbles exposés est primordiale lorsque l'on entreprend de les dénuder. La longueur idéale est de 5 mm (3/16 inches). S'ils sont trop longs, les câbles exposés pourraient se toucher et provoquer un court circuit. S'ils sont trop courts, ils peuvent être tirés facilement, même s'ils sont correctement serrés par les borniers à vis.
- Unless otherwise stated, the AC/DC adapters are not suitable for use in air handling spaces or in wall cavities.
- Sauf mention contraire, les adaptateurs CA/CC ne conviennent pas à une utilisation dans les espaces d'aération ou dans les cavités murales.
- Remote power is intended for indoors use only. No part of a network that uses remote power can be routed outdoors.
- L'alimentation à distance est exclusivement réservée à un usage en intérieur. Un réseau utilisant une alimentation à distance ne peut pas être routé en extérieur.

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