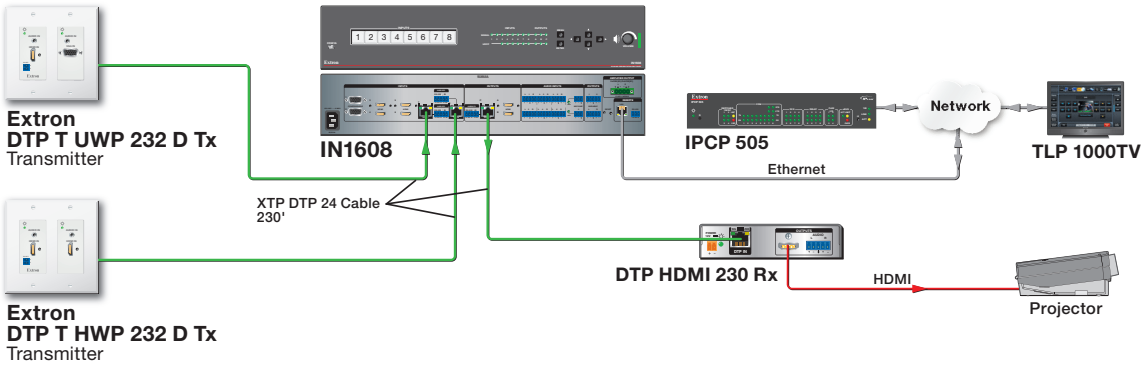
Extron Electronics
INTERFACING, SWITCHING AND CONTROL

IMPORTANT: Go to www.extron.com for the complete user guide, installation instructions, and specifications before connecting the product to the power source.

DTP T HWP D and DTP T UWP D • Setup Guide

This setup guide provides instructions for an experienced installer to set up and operate the Extron DTP T HWP D and DTP T UWP D family of Twisted Pair (TP) wallplate extenders.



Installation

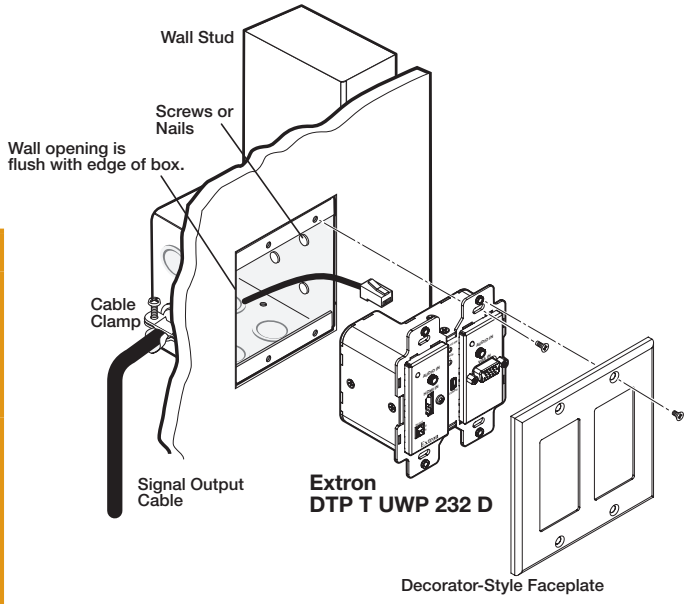
Step 1 — Disconnect Power

Disconnect all equipment power sources.

Step 2 — Prepare the Mounting Surface

ATTENTION:

- Installation and service must be performed by authorized personnel.
- L'installation et l'entretien doivent être effectués par le personnel autorisé uniquement.
- The unit must be installed in accordance with the National Electrical Code and with local electrical and safety codes.
- L'unité doit être installée conformément au National Electric Code et aux normes électriques et de sécurité locales.



NOTE: Use a wall box with a depth of at least 3.0 inches (7.6 cm). Alternatively, the included mud ring (MR 200) can be used. For more information, see the full product user guide at **www.extron.com**.

a. Place the wall box against the installation surface and mark the opening guidelines.

TIP: Use a level to mark the opening.

b. Cut out the material from the marked area.

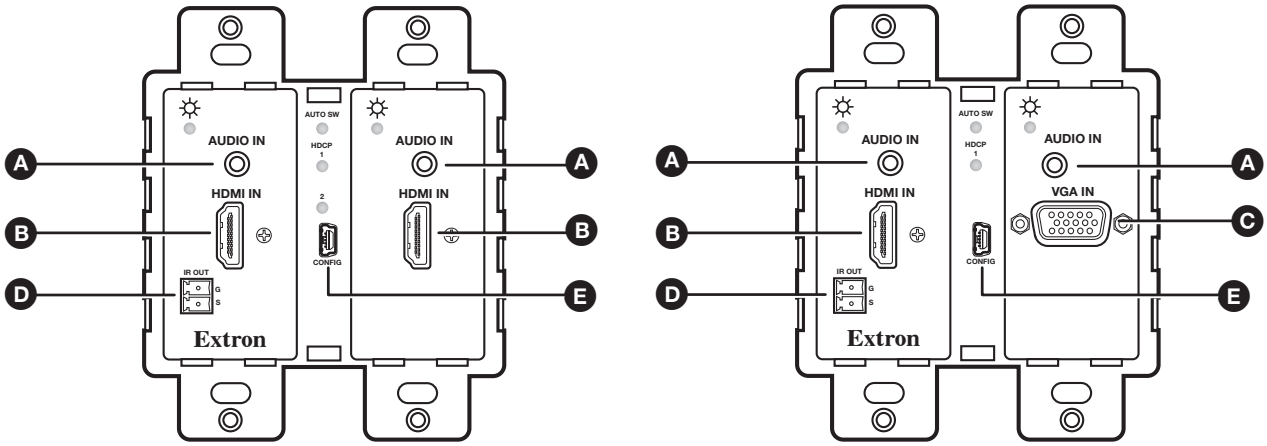
c. Secure the wall box to the wall stud with 10-penny nails or #8 or #10 screws, leaving the front edge flush with the surface.

d. Run all required cables (see steps 3, 4, and 5) and secure them with cable clamps.

TIP: In order to fit the unit in the junction box, do not install boots on TP cables and RJ-45 connectors.

Step 3 — Connect Inputs to the Transmitter

Front Panel



DTP T HWP D
Front Panel

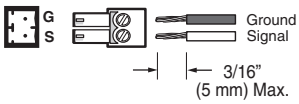
DTP T UWP D
Front Panel

Ⓐ **Audio input connector** — Connect an unbalanced stereo audio source to this 3.5 mm mini stereo jack.

Ⓑ **HDMI input connector** — Connect an HDMI cable between this port and the output port of the digital video source.

Ⓒ **VGA input connector** — Connect a VGA cable between this port and the output port of the video source.

Ⓓ **IR output connector** — Connect an IR device to this 2-pole, 3.5 mm captive screw pass-through connector for IR control. Wire the cable as shown in the illustration to the right.



Ⓔ **Mini USB port** — Connect a male Mini USB-B cable to this port for SIS configuration and firmware updates.

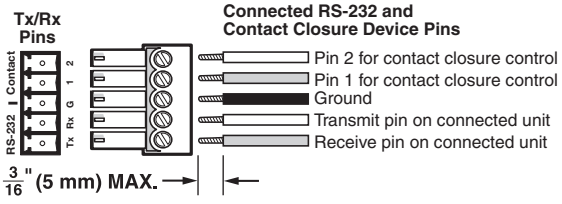
Rear Panel

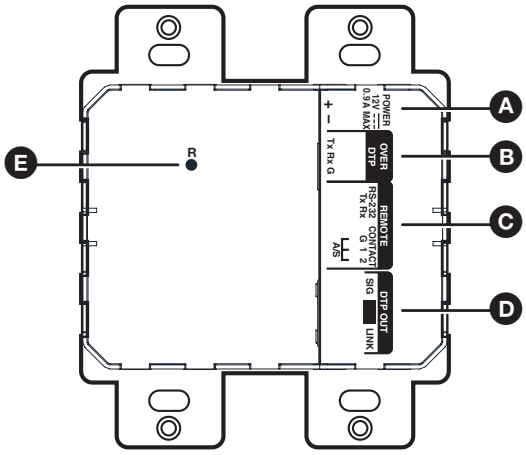
Ⓐ **DC power input connector —** Wire and plug the included external 12 VDC power supply into either this 2-pole connector or the power input connector on the receiver (see the *DTP T HWP/UWP 232/332 D User Guide* at **www.extron.com** for wiring information).

Ⓑ **Over DTP connector** — Connect an RS-232 device to this 3-pole, 3.5 mm captive screw connector for pass-through RS-232 control.

Ⓒ **Remote connector** — Connect an RS-232 device, contact closure device, or both to this 5-pole, 3.5 mm captive screw connector to control switching on the unit. Wire the connector as shown in the diagram below.

- **RS-232** — To control the unit through this port, connect an RS-232 device and configure it as follows: 9600 baud rate, 8 data bits, 1 stop bit, no parity.
- **Contact** — Momentarily short pins 1 or 2 to ground (G) to select the corresponding input. Connect pins 1 and 2 to ground (G) to set the unit to auto switch mode. The device selects the highest active input (auto switch).





DTP T HWP D and DTP T UWP D
Rear Panel

Ⓐ DC power input connector

Ⓑ Over DTP connector

Ⓒ Remote connector

Ⓓ **DTP OUT connector** (page 3)

Ⓔ **Reset button** (page 3)

D **DTP OUT connector** — Connect one end of a twisted pair cable to this RJ-45 connector and the opposite end to a compatible receiver.

ATTENTION:

- Do not connect these outputs to a telecommunications or computer data network.
- Ne connectez pas ces appareils à des données informatiques ou à un réseau de télécommunications.

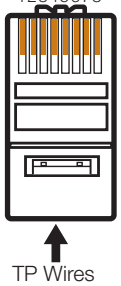
NOTES:

- The DTP T HWP 232 D and DTP T UWP 232 D models can transmit video, control, and audio (if applicable) signals up to 230 feet (70 meters).
- The DTP T HWP 332 D and DTP T UWP 332 D models can transmit video, control, and audio (if applicable) signals up to 330 feet (100 meters).

E **Reset button** — Use an Extron Tweeker or small screwdriver to press and hold the recessed button for 6 seconds while the switcher is running to perform a factory reset.

Step 4 — Run Cables Between Units

Connect the rear panel transmitter output to a rear panel receiver input using twisted pair cable. Wire the cable as shown in the diagram to the right.



Pin	TIA/EIA T568-B Wire color
1	White-orange
2	Orange
3	White-green
4	Blue
5	White-blue
6	Green
7	White-brown
8	Brown

For optimal performance, Extron highly recommends the following:

- RJ-45 termination with shielded twisted pair cable must comply with TIA/EIA-T568B wiring standard for all connections.
  For more information on TP cable wiring and termination, see the full product user guides at **www.extron.com**.
- Use shielded twisted pair cable, 24 AWG solid conductor or better, with a minimum cable bandwidth of 400 MHz.

ATTENTION:

- Do not use Extron UTP23SF-4 Enhanced Skew-Free AV UTP cable or STP201 cable to link the device with DTP transmitters or receivers.
- N'utilisez pas le câble AV Skew-Free UTP version améliorée UTP23SF d'Extron ou le câble STP201 pour relier le appareil avec les émetteurs ou les récepteurs DTP.

- Use shielded RJ-45 plugs to terminate the cable.
- Limit the use of RJ-45 patches. Overall transmission distance capabilities vary depending on the number of patches used. If possible, limit the number of patches to two total.
- If RJ-45 patches must be used in the system, shielded patches are recommended.

Step 5 — Connect the Outputs from a Compatible Receiver

a. Connect a DVI or HDMI cable (depending on your receiver type) between the receiver output port and the input port of the display.

b. Connect a stereo audio device to the 3.5 mm mini stereo jack to receive the passed-through unbalanced audio.

c. Plug an RS-232 or modulated IR device into the RS-232/IR pass-through port.

Step 6 — Power the Units

The units can be powered one of two ways:

- Locally with the included power supply. A compatible receiver can then be powered remotely through the DTP line.
- Remotely via the DTP line by a locally powered DTP 230 or 330 compatible device.

NOTE: See the *DTP T HWP D and DTP T UWP D User Guide* at **www.extron.com** for wiring information.

Step 7 — Final Installation

a. Make all connections, power the units, and test the system for satisfactory operation.

b. At the power outlet, unplug the power supply.

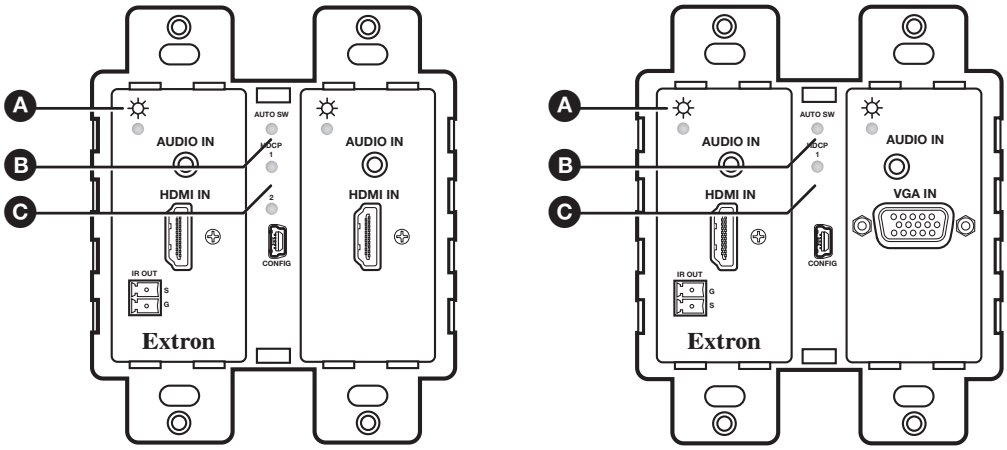
c. Mount the transmitter into the wall box, and attach the supplied decorator-style faceplate to the unit.

d. At the power outlet, reconnect the power supply. This powers up both units.

Operation

NOTE: Input switching can be performed only via auto switching, RS-232, or contact closure through the rear panel connectors.

After all devices are powered up, the system is fully operational.



DTP T HWP D
Front Panel

DTP T UWP D
Front Panel

Transmitter LEDs

Ⓐ **Power LEDs** — These two-color front panel LEDs on the transmitters light to indicate signal and power status as follows:

Amber — The unit is receiving power but there is no signal on the HDMI or VGA inputs.

Green — The unit is receiving power and a signal is present on the HDMI or VGA inputs.

Ⓑ **Auto Switch LED** — Lights green when auto switch is active (see Rear Panel Ⓒ on page 2).

Ⓒ **HDCP LEDs** — Lights green when HDMI input has been authenticated on the source device.

Audio Configuration

The DTP T HWP D and DTP T UWP D series can embed analog audio inputs onto the digital video output.

NOTE: If no VGA or HDMI signal is present, analog audio will be transported over the DTP connection to the analog audio output of the receiver.

When an input is selected, audio transport over HDMI can be configured to operate in one of three modes. Each input can be configured individually for any of the three modes.

- **Transport embedded digital audio (default)** — The embedded digital audio content on the digital video input is transported. Analog audio is still separate from the digital embedded audio on the HDMI signal and transported simultaneously over the DTP output, not embedded onto the digital output.
- **Embed analog audio input** — The analog audio input is always embedded to the digital output, replacing whatever content is already present on the embedded digital audio. Analog audio is also transported over the DTP output as a simultaneous output.
- **Auto select between analog audio and digital audio** — When both analog audio and digital embedded audio on HDMI are present, embedded digital audio on the HDMI signal takes priority. Analog audio is transported simultaneously with the digital embedded audio content that is already present on the DTP output.