Extron

FOX II T HD 4K • Setup Guide

This guide provides quick start instructions for an experienced installer to set up and operate the Extron FOX II T HD 4K fiber optic extenders.

⚡ **WARNING:** These units output continuous invisible light, which may be harmful to the eyes; use with caution. For additional safety, plug the attached dust caps into the optical transceivers when the fiber optic cable is unplugged.

> **CLASS 1 LASER PRODUCT**, see the *FOX II T HD 4K User Guide*, at **www.extron.com**.

AVERTISSEMENT : Le FOX II T HD 4K émet une lumière invisible en continu (conforme à la classe 1) qui peut être dangereux pour les yeux, à utiliser avec précaution. Branchez les protections contre la poussière dans l'ensemble émetteur/récepteur lorsque le câble fibre optique est débranché.

> **Produit laser de classe 1**, voir le *FOX II T HD 4K User Guide* sur **www.extron.com** (en anglais).

Installation

Step 1 — Mounting

Turn off or disconnect all equipment power sources and mount the transmitter as required. For mounting details and considerations, see the *FOX II T HD 4K User Guide* at **www.extron.com**.
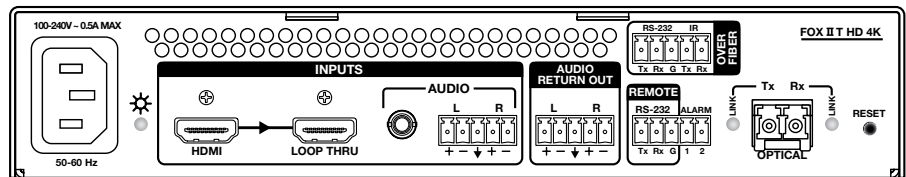
FOX II T HD 4K Transmitter Rear Panel

Step 2 — Input and Output Connections

a. Connect an HDMI video source to the HDMI input connector.

b. **If desired**, connect an HDMI video display to the Loop-Thru connector for a local display.
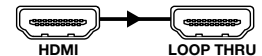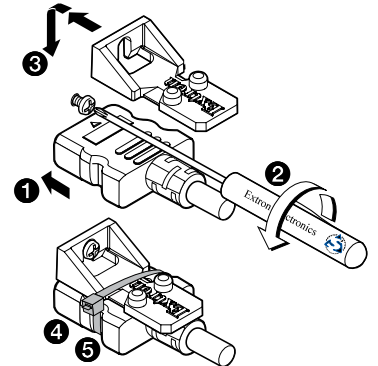

> **NOTE:** Use a LockIt™ Lacing Bracket to securely fasten an HDMI cable to each device as follows.
>
> 1. Plug the HDMI cable into the panel connection
> 2. Loosen the HDMI connection mounting screw from the panel enough to allow the LockIt lacing bracket to be placed over it. The screw does not have 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 connector 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.
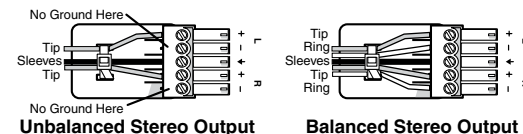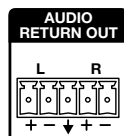>
>
>
> 4. Loosely place the included tie wrap around the HDMI connector and the LockIt lacing bracket as shown.
> 5. While holding the connector securely against the lacing bracket, use pliers or similar tools to tighten the tie wrap, then remove any excess length.

c. Connect an audio input device to either the Audio 3.5 mm mini jack or the Audio 5-pole captive screw connector. See the drawing at right to make connections on the captive screw connector.
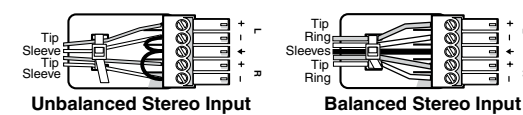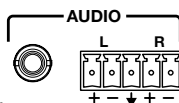
d. **For optional returned audio**, connect an audio output device to the Audio Return Out 5-pole captive screw connector. See the drawing to make connections on the captive screw connector.

Unbalanced Stereo Input **Balanced Stereo Input**

Unbalanced Stereo Output **Balanced Stereo Output**

$\frac{3}{16}$ " MAX. (5 mm) Do not tin the wires!

ATTENTION:

- For unbalanced audio, connect the sleeves to the ground contact. **DO NOT** connect the sleeves to the negative (-) contacts.
- Pour l'audio asymétrique, connectez les manchons au contact au sol. **NE PAS** connecter les manchons aux contacts négatifs (–).

**NOTE:** For returned audio, above, you must also do the following:

- Connect an audio input device to the Audio Return In 5-pole captive screw connector on the receiver.
- Install the optional Receiver-Tx-to-transmitter-Rx cable in **step 3b**.

e. If you want the FOX II units to pass serial or IR data or control signals, such as for serial control of a projector, connect the primary device to the transmitter and the controlled device to the receiver via the Over Fiber 5-pole captive screw connector.

> **NOTE:** For returned RS-232 and IR responses (from the receiver to the transmitter, you must install the receiver-Tx-to-transmitter-Rx cable in **step 3b**.

RS-232 Device
Gnd Rx Tx
$\frac{3}{16}$ " (5 mm) MAX.
OVER FIBER
IR Device
Gnd Tx Rx
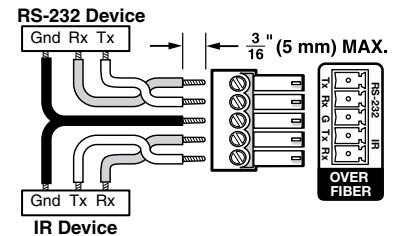
f. For remote monitoring of the status of the Rx optical link, connect a locally constructed or obtained device to the two rightmost poles of the Alarm and Remote RS-232 5-pole captive screw connector. The unit shorts both poles together when no light is detected.
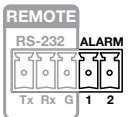
> **NOTE:** The transmitter Alarm port reports the status of the link from the receiver.

REMOTE
RS-232 ALARM
Tx Rx G 1 2

g. For remote control of a unit and for loading firmware, connect a host device, such as a computer or control system, to either of the following ports:

Configuration port — The front panel USB mini-B connector. CONFIG

> **NOTE:** Extron recommends performing firmware updates via the Configuration port **only**.

Remote RS-232 port — The rear panel Remote RS-232 port, the 3 leftmost poles of this 5-pole captive screw connector. The protocol for the Remote port is as follows:

- 9600 baud
- 1 stop bit
- no parity
- no flow control
- 8 data bits

REMOTE
RS-232 ALARM
Tx Rx G 1 2
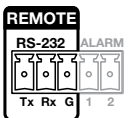
Step 3 — Throughput Connections

> **NOTE:** See the two fiber cable connection drawings below. You can connect the transmitter to a compatible receiver in one of two ways:
>
> - One way (transmitter to receiver) only, perform step 3a.
> - Two way (transmitter to receiver and return), perform steps 3a and 3b.

Tx Rx
OPTICAL
Transmitter ❶ ❷

a. Connect the fiber between the Tx port on the transmitter and the Rx port on the receiver (❶, at right).

b. If you want the receiver to return serial data (such as responses from a controlled device), IR data, or returned audio to the transmitter, connect a cable between the Tx port on the receiver and Rx port on the transmitter (❷).

Tx Link and Rx Link LEDs — When lit, the link is active (light is output [Tx] or received [Rx]).

> **NOTE:** The Link LEDs indicate transmission of light only, not whether there is data encoded in the optical link.

❷ ❶
Tx Rx
Receiver
OPTICAL
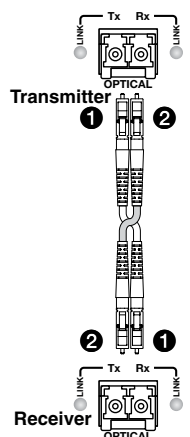
Operation

After all receivers, the transmitter, and their connected devices are powered up, the system is fully operational. If any problems are encountered, verify that the cables are routed and connected properly and that all display devices have identical resolutions and refresh rates. If problems persist, call the Extron S3 Sales & Technical Support Hotline at the number that is closest to you.

Indications

**Power (☼) LED** — Indicates that power is applied to the unit.

Video LEDs —

    Signal LED — Lights when the unit detects an input video signal.

    HDCP LED — Lights when the input signal is HDCP encrypted.

Audio LEDs —

    Input LED — Lights when an analog audio or PCM digital audio signal remains above -35 dBV. The LED goes unlit if the audio signal level drops below the threshold for 10 seconds or longer.

    Return Out LED — Lights when analog audio is present on the transmitter Return Audio Output connector.
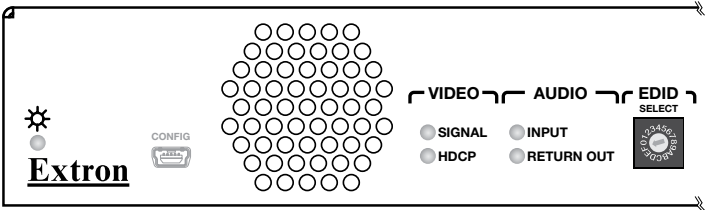
EDID

EDID Select rotary switch — Set this switch to one of the positions shown in the table below to select the source of the EDID or a specific resolution.

    Position 0 — An EDID that has previously been captured from a connected display or manually imported via an SIS command or the Product Configuration Software.

    Position 1 — The EDID is selected via the Remote or USB port, using an SIS command or the Extron Product Configuration Software.

    Position 2 — Use the EDID from the display connected to the receiver.

> **NOTE:** EDID from the display connected to the receiver requires connection of both fiber cables..

    Position 3 — Use the EDID from the display connected to the transmitter loop-through.

    Positions 4 through E — Specify a resolution. The table at right identifies the resolutions associated with the switch positions. All resolutions are at 60 Hz with the exception of 4096x2160 (E), which is 30 Hz.
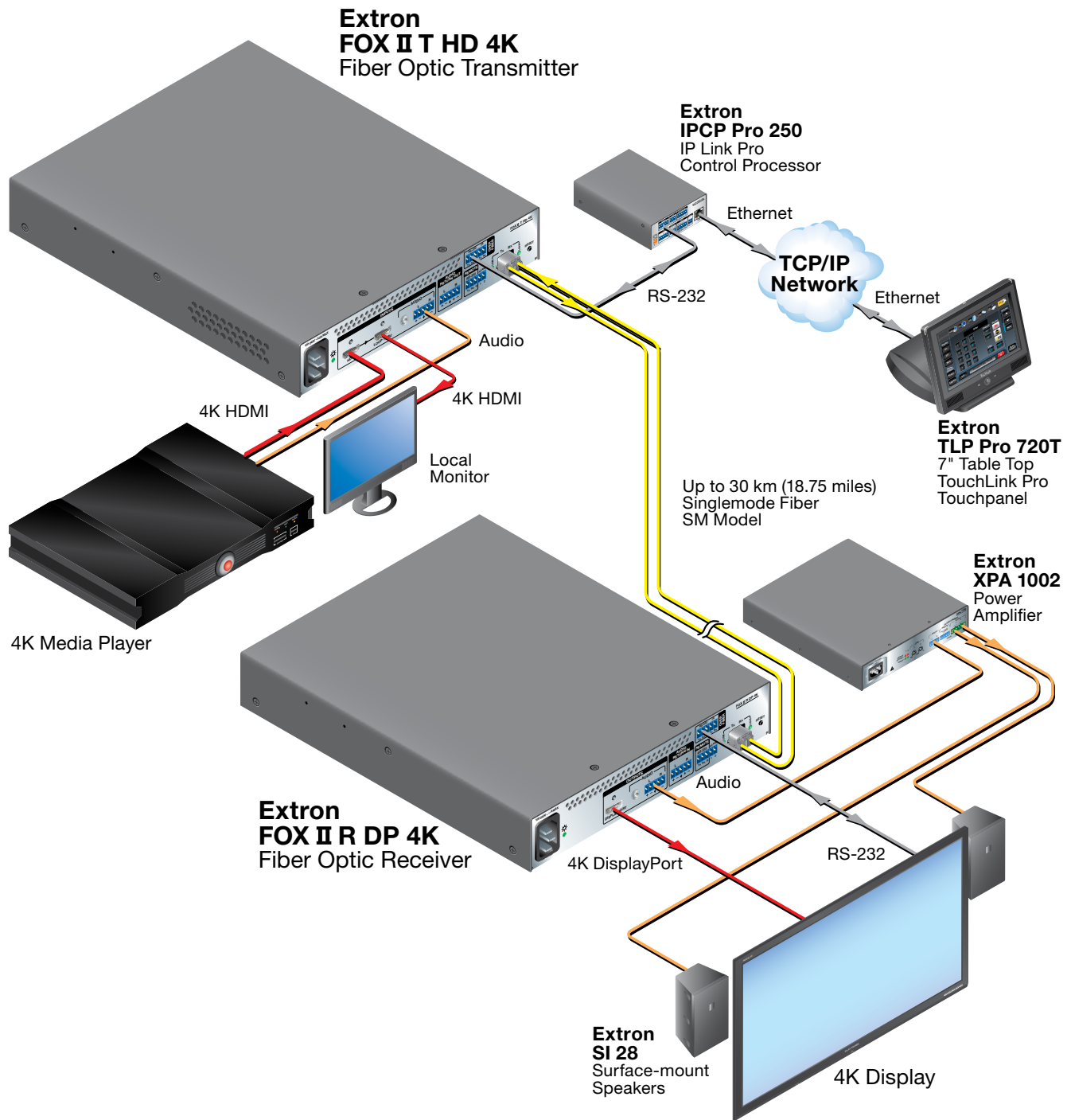
    Position F — No EDID assigned.

Pos.	Source or resolution	Pos.	Resolution	Pos.	Resolution
0	User recorded EDID	6	1366x768	C	2048x2160
1	Selected via RS-232	7	1440x900	D	2560x1600
2	Display on Rx output	8	1680x1050	E*	4096x2160
3	Display on Tx loop-through	9	1920x1080	F	N/A
4	1280x720	A	1920x1200		
5	1280x800	B	2048x1536		

* 30 Hz

Remote control

See the *FOX II T HD 4K User Guide*, available at **www.extron.com**, for details on operating and monitoring the transmitter using either SIS commands or the Extron Product Configuration Software.

Application Diagram

Extron
FOX II T HD 4K
Fiber Optic Transmitter

Extron
IPCP Pro 250
IP Link Pro
Control Processor

Ethernet

TCP/IP Network

Ethernet

RS-232

Audio

4K HDMI

4K HDMI

Local Monitor

Extron
TLP Pro 720T
7" Table Top
TouchLink Pro
Touchpanel

4K Media Player

Up to 30 km (18.75 miles)
Singlemode Fiber
SM Model

Extron
XPA 1002
Power
Amplifier

Extron
FOX II R DP 4K
Fiber Optic Receiver

Audio

4K DisplayPort

RS-232

Extron
SI 28
Surface-mount
Speakers

4K Display

For information on safety guidelines, regulatory compliances, EMI/EMF compatibility, accessibility, and related topics, see the **Extron Safety and Regulatory Compliance Guide** on the Extron website.