

XTP T FB 202

Two-input Universal Floor Box
Twisted Pair Transmitter



Extron Electronics
INTERFACING, SWITCHING AND CONTROL

Safety Instructions

Safety Instructions • English

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안전 지침 • 한국어

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안전 가이드라인, 규제 준수, EMI/EMF 호환성, 접근성, 그리고 관련 항목에 대한 자세한 내용은 Extron 웹 사이트(www.extron.com)의 Extron 안전 및 규제 준수 안내서, 68-290-01 조항을 참조하십시오.

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This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. The Class A limits provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause interference. This interference must be corrected at the expense of the user.

ATTENTION:

- The Twisted Pair Extension technology works with shielded twisted pair (STP) cables **only**. To ensure FCC Class A and CE compliance, STP cables and STP connectors are also required.
- For more 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.

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Conventions Used in this Guide

Notifications

The following notifications are used in this guide:

WARNING: Potential risk of severe injury or death.

AVERTISSEMENT : Risque potentiel de blessure grave ou de mort.

ATTENTION:

- Risk of property damage.
- Risque de dommages matériels.

NOTE: A note draws attention to important information.

TIP: A tip provides a suggestion to make working with the application easier.

Software Commands

Commands are written in the fonts shown here:

```
^ARMerge Scene , ,Op1 scene 1,1 ^B 51 ^W^C  
[Ø1] RØØØ4 ØØ3ØØØØ4ØØØØ8ØØØØ6ØØ [Ø2] 35 [ 17] [Ø3]
```

```
[Esc]X1 *X17* X20* X23* X21CE ←
```

NOTE: For commands and examples of computer or device responses mentioned in this guide, the character “Ø” is used for the number zero and “o” represents the capital letter “o.”

Computer responses and directory paths that do not have variables are written in the font shown here:

```
Reply from 2Ø8.132.18Ø.48: bytes=32 times=2ms TTL=32  
C:\Program Files\Extron
```

Variables are written in slanted form as shown here:

```
ping xxx.xxx.xxx.xxx -t  
SOH R Data STX Command ETB ETX
```

Selectable items, such as menu names, menu options, buttons, tabs, and field names are written in the font shown here:

```
From the File menu, select New.  
Click the OK button.
```

Specifications Availability

Product specifications are available on the Extron website, www.extron.com.

Extron Glossary of Terms

A glossary of terms is available at <http://www.extron.com/technology/glossary.aspx>.

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Introduction

This section contains general information about this guide and the Extron XTP T FB 202 Universal Floor Box Twisted Pair Transmitter, and selected device features. Topics in this section include:

- [Guide Overview](#)
- [XTP T FB 202 Floor Box Transmitter Description](#)
- [Key Features](#)

Guide Overview

This guide contains installation and control procedures, as well as reference information for the XTP T FB 202 Universal Floor Box Twisted Pair Transmitter. In this guide, the terms “XTP T FB 202” and “transmitter” are used interchangeably to refer to the XTP T FB 202 Universal Floor Box Twisted Pair Transmitter.

XTP T FB 202 Floor Box Transmitter Description

The Extron XTP T FB 202 is a two-input XTP transmitter that sends HDMI or digitized analog video, audio, bidirectional RS-232 and IR, and Ethernet up to 330 feet (100 m) over a single shielded twisted pair (STP) cable. It is HDCP compliant and supports 1080p @ 60 Hz Deep Color and 1920x1200 signals. The XTP T FB 202 works with XTP Systems for signal distribution and long-distance transmission between remote endpoints. It is made specifically to fit into floor boxes from OBO Bettermann, MK by Honeywell, Electraplan, and PUK.

The XTP T FB 202 can be powered locally or remotely through an Extron Power Injector or XTP matrix switcher (see [Power Connection](#) on page 17).

The XTP T FB 202 can be configured and controlled with Extron Simple Instruction Set (SIS) commands (see [SIS Configuration and Control](#) on page 21) or the XTP System Configuration Software (see [XTP System Configuration Software](#) on page 26).

The following diagram shows a typical application of the XTP T FB 202.

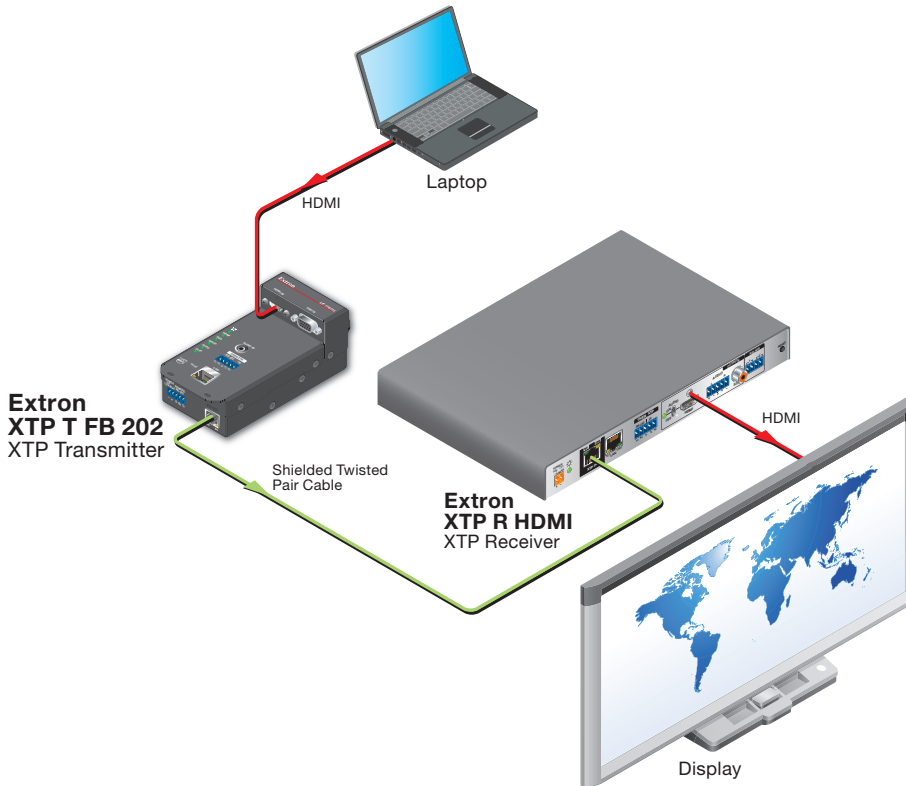


Figure 1. Typical XTP T FB 202 Application

System Compatibility

The XTP T FB 202 is compatible with XTP systems, but the maximum video resolution may be limited with different XTP devices. See the table below for maximum video resolutions and refresh rates for various XTP systems.

		Output		
		Non-4K	4K Fiber	4K PLUS
Input	Analog	1920x1200 @ 60 Hz	1920x1200 @ 60 Hz	1920x1200 @ 60 Hz
	Non-4K Digital	2048x1080 @ 60 Hz	2048x1080 @ 60 Hz	2048x1080 @ 60 Hz
	4K Fiber	2048x1080 @ 60 Hz	4096x2160 @ 24 Hz	4096x2160 @ 24 Hz
	4K PLUS	2048x1080 @ 60 Hz	4096x2160 @ 24 Hz	4096x2160 @ 60 Hz

Key Features

- **European floor box mountable** — Provides a flexible, floor box mounting solution that is compatible with offerings from OBO Bettermann - GB2 and GB3 slots, MK by Honeywell, Electraplan, and PUK.
- **Reliable cable infrastructure** — Provides high reliability and maximum performance on an economical and easily installed cable infrastructure.
- **Inputs** — Include one HDMI input and one VGA input.
- **Support for computer-video to 1920x1200, including HDTV 1080p/60 Deep Color and 2K signals** — Maintains superior image quality at the highest resolutions.

- **Shielded twisted pair cable compatibility** — Optimized for use with common shielded twisted pair (STP) cable types. XTP systems fully support a maximum transmission distance of 330 feet (100 meters) for all compatible resolutions when used with shielded twisted pair cable. Shielded twisted pair cabling with solid center conductor sizes of 24 AWG or better is recommended for optimal performance.
- **Digital conversion of analog video and audio input signals** — Digitizes analog signals, ensuring that a reliable, high quality digital video signal is sent to the output destination.
- **Auto-input switching** — Automatically switches to the highest or lowest priority input with an active video signal for simplified operation.
- **Bidirectional RS-232 and IR insertion** — Allows a remote display to be controlled without the need for additional cabling through bidirectional RS-232 control and IR signals inserted into the XTP output.
- **HDMI specification features** — Support data rates up to 6.75 Gbps, Deep Color up to 12-bit, 3D, and HD lossless audio formats.
- **HDCP-compliance** — Ensures display of content-protected media and interoperability with other HDCP-compliant devices.
- **EDID Minder** — Automatically manages EDID communication between connected devices to ensure that all sources properly power up and reliably display content.
- **Key Minder** — Authenticates and maintains continuous HDCP encryption between input and output devices to ensure quick and reliable switching in professional AV environments, while enabling simultaneous distribution of a single source signal to one or more displays.
- **Ethernet extension** — Centralized 10/100 Ethernet communication can be implemented via an Ethernet pass-through port to reduce the amount of independent network drops required within a system.
- **Remote power capability** — Allows the XTP T FB 202 to be powered by an XTP CrossPoint Matrix Switcher or XTP Power Injectors to simplify integration.
- **Multiple embedded audio formats** — Provides reliable operation with HDMI sources, compatible with a broad range of multi-channel audio signals.
- **Selectable analog stereo audio input embedding** — Supports unbalanced audio for extended transmission. This feature enables direct connection of separate stereo audio signals from a laptop, Blu-ray Disc™ player, or other device.
- **RS-232 control** — Features an RS-232 serial port for control and configuration.
- **EDID and HDCP transmission** — Allows continuous communication between source and display by actively buffering DDC channels.
- **XTP compatibility** — Provides a completely integrated solution for multiple digital and analog formats through XTP integrated system products. XTP is a flexible, reliable signal switching and distribution system.

Installation

This section contains information for installing, connecting, and wiring the XTP T FB 202. Topics in this section include:

- [Installation Overview](#)
- [Adapter Plates](#)
- [Side Panel Connectors](#)
- [Top Panel Features](#)
- [Mounting](#)
- [Connection and Wiring Details](#)

Installation Overview

Install the XTP T FB 202 into an Ackermann GB3 (OBO Bettermann), MK Electric CableLink Plus Modular, MK Electric CableLink Plus Single Pan, Electraplan, or PUK floor box.

CAUTION: Risk of personal injury. Failure to check the items listed below may result in personal injury.

ATTENTION : Risque de blessure. La non-vérification des éléments listés ci-dessous peut provoquer des blessures.

ATTENTION:

- Failure to check the items listed below may result in property damage.
- La non-vérification des éléments listés ci-dessous peut provoquer des dommages matériels.

1. Check that the installation of the floor box meets government, building, electrical, and safety codes.
2. Install the floor box according to the instructions of the manufacturer.
3. Prepare and pull the cables through the floor box.

TIP: Secure cables with clamps or ties to provide strain relief.

4. Trim back and insulate shields with heat shrink.

ATTENTION:


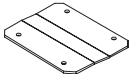

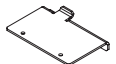


- To prevent short circuits, the outer foil shield can be cut back to the point where the cable exits the cable clamp. Both braided and foil shields should be connected to an equipment ground at the other end of the cable.
- Afin d'éviter les court circuits, le blindage en aluminium extérieur peut être réduit jusqu'à ce que le câble sorte de la cosse de câble. Le blindage tressé et le blindage en aluminium devraient être connectés à la masse d'un équipement à l'autre bout du câble.

5. Install the appropriate adapters to the desired position in the floor box (see [Adapter Plates](#) on page 5).
6. Connect cables to the side panel connectors located below the adapter plates (see [Connectors Below the Adapter Plates](#) on page 7).

7. Mount the XTP T FB 202 to the floor box (see **Mounting** on page 11).
8. Connect appropriate devices to the remaining side (see **Connectors Above the Adapter Plates** on page 9) and top (see **Top Panel Features** on page 9) panel connectors.
9. Configure the XTP T FB 202 with SIS commands (see **SIS Configuration and Control** on page 21) or the XTP System Configuration Software (see **XTP System Configuration Software** on page 26).

Adapter Plates

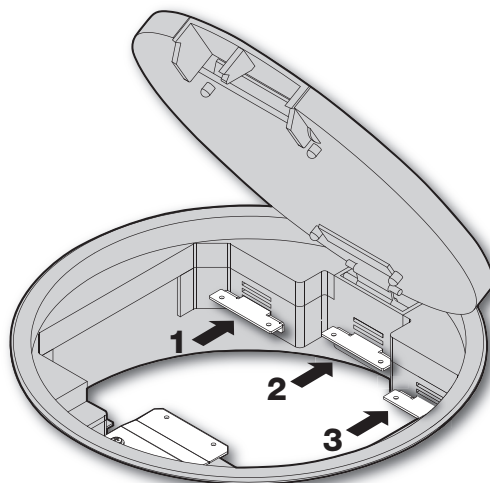
Each floor box model requires a specific pair of provided adapter plates (see the table below for the appropriate adapter plates to use with certain floor boxes).

Floor Box	Adapter Plate	Example
Ackermann GB3 (OBO Bettermann)	995241	
	995242	
MK Electric CableLink Plus Single Pan	995243	
MK Electric CableLink Plus Modular	995244	
Electraplan	995300	
PUK	995300	

NOTE: The 995242 adapter plate is only used for position 2 of the Ackermann GB3 (OBO Bettermann) floor box.

1. Determine the position in the floor box to install the XTP T FB 202. Each compatible floor box contains three positions to install devices (see figure 2).

NOTE: For the MK Electric CableLink Plus Single Pan floor box, do not use position 2.



OBO Bettermann
GESR7 Floorbox Assembly

Figure 2. Three Positions in a Floor Box (Ackermann GB3 [OBO Bettermann] Shown)

2. Insert the top flange of the adapter plate into a mounting slot that is no higher than the third slot from the top.

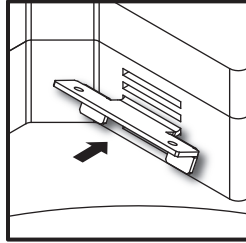


Figure 3. Installing an Adapter Plate (995241 Shown) into a Mounting Slot

NOTES:

- Install adapter plates in mounting slots of the same position in the floor box.
- The MK Electric CableLink Plus Single Pan floor box does not have mounting slots. Use a mounting screw to secure the large mounting hole of the 995243 adapter plate to the mounting hole of the floor box position (see figure 4).

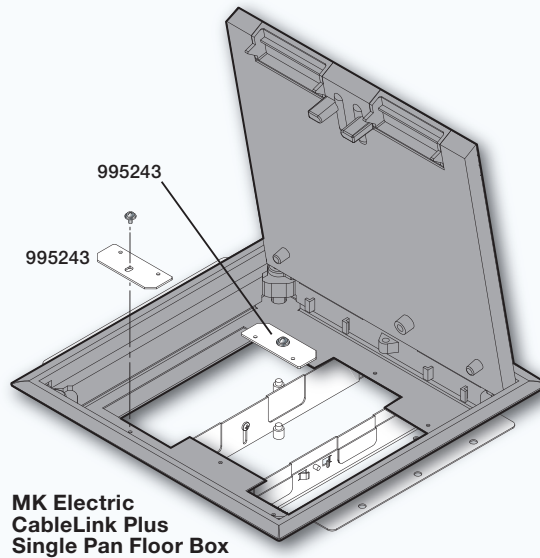


Figure 4. Installing 995243 Adapter Plates

3. Rotate the adapter plate down so the bottom flange rests against the wall of the floor box.

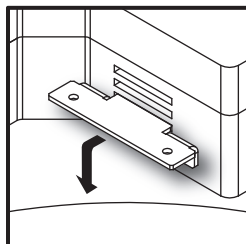


Figure 5. Fixing the Adapter Plate (995241 Shown) in Place

- If the desired position is position 2 of the Ackermann GB3 (OBO Bettermann) floor box, use the provided screws to secure the 995242 adapter plate to a 995241 adapter plate.

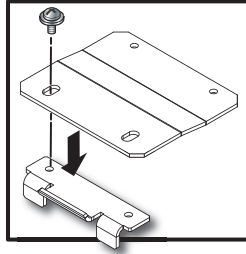
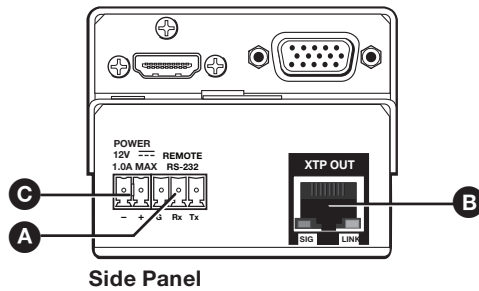


Figure 6. Installing the 995242 Adapter Plate to a 995241 Adapter Plate

Side Panel Connectors

Connectors Below the Adapter Plates



- A** Remote RS-232 connector (see page 7)
- B** XTP output connector (see page 8)
- C** Power connector (see page 8)

Figure 7. Side Panel Connectors Under the Adapter Plates

- A** Remote RS-232 connector — Connect a host device to the 3.5 mm, 3-pole captive screw connector for serial control of the transmitter. Wire the connector as shown in figure 8.

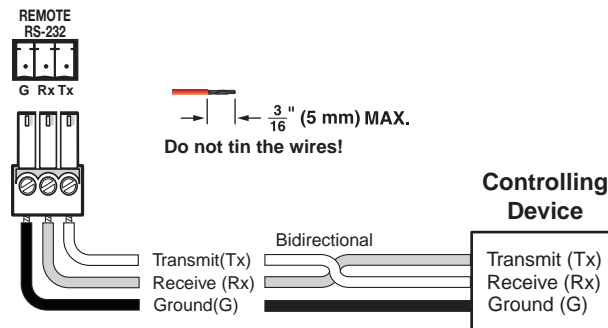
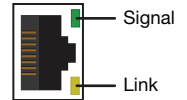


Figure 8. RS-232 Wiring

B XTP output connector — Connect a twisted pair cable to the RJ-45 connector labeled “XTP OUT” (see [figure 7, B](#) on the previous page) and the XTP input port on another XTP device to pass all signals (see [TP Cable Termination and Recommendations](#) on page 14). This cable carries the following signals:

- Digital video
- Digital audio
- Bidirectional RS-232 and IR commands
- Remote power
- Ethernet communication
- System communication

Signal LED indicator — Lights green when the transmitter outputs a video signal or a test pattern.



Link LED indicator — Lights yellow when XTP devices are connected and communication is established.

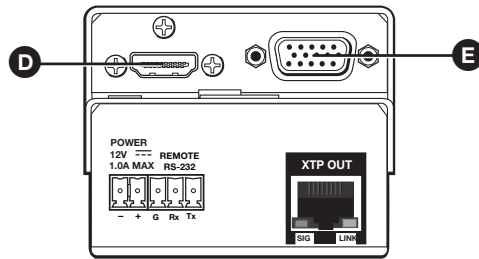
ATTENTION:

- Do not connect this connector to a computer data or telecommunications network.
- Ne connectez pas ce connecteur à un réseau de données informatiques ou à un réseau de télécommunications.
- XTP remote power is intended for indoor use only. No part of the network that uses XTP remote power should be routed outdoors (see [Remote power](#) on page 19).
- XTP à distance est destiné à une utilisation en intérieur seulement. Aucune partie du réseau qui utilise l'alimentation XTP à distance ne peut être routée en extérieur (voir [Remote power](#) à la page 19).

C Power connector — Connect an external power supply to the 3.5 mm, 2-pole captive screw connector (see [figure 7, C](#) on the previous page). The Power LED lights to indicate the device is receiving power. For wiring considerations, see [Power Connection](#) on page 17.

NOTE: The XTP T FB 202 can also be powered remotely (see [Remote power](#) on page 19).

Connectors Above the Adapter Plates



Side Panel

Figure 9. Side Panel Connectors Above the Adapter Plates

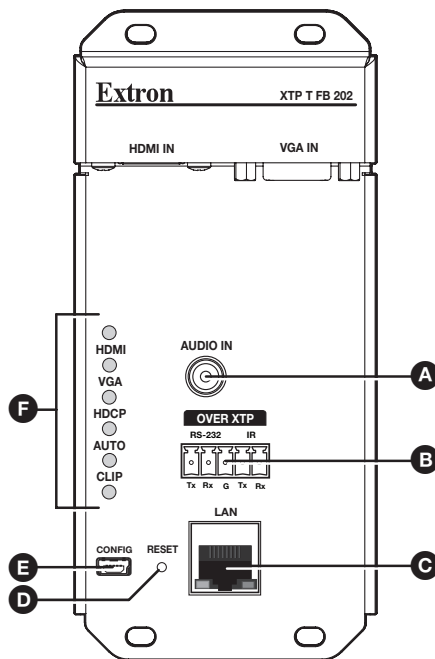
- D HDMI input connector** — Connect a digital video source device to the female HDMI connector. It can accept HDMI, DVI (with an appropriate adapter), or dual mode DisplayPort video sources.

NOTES:

- The maximum HDMI cable length is 15 feet (4.6 meters).
- Use an Extron LockIt Cable Lacing Bracket to secure the HDMI connector to the device (see [HDMI Connection](#) on page 13).

- E Analog video input connector** — Connect a video source to the female 15 pin HD connector. It accepts RGBHV video.

Top Panel Features



Top Panel

- A Audio input connector** (see page 10)
- B RS-232 and IR Over XTP connector** (see page 10)
- C LAN connector** (see page 10)
- D Reset button** (see page 10)
- E Configuration port** (see page 10)
- F LED indicators** (see page 10)

Figure 10. Top Panel Features

- A Audio input connector** — Connect an analog audio source to the 3.5 mm tip-ring-sleeve (TRS) jack (see [figure 10, A](#) on the previous page). Both video inputs can share this audio input.

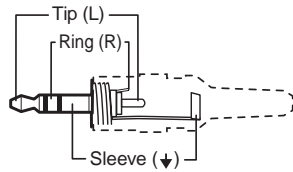
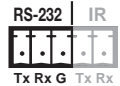


Figure 11. Wiring for the TRS Connector

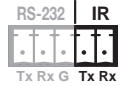
By default, audio input is selected automatically (see [Audio input selection](#) SIS commands on page 23 to manually select audio inputs). When the HDMI input is selected with automatic audio input selection, the transmitter prioritizes embedded digital audio. The following table shows the audio format that is sent over the XTP connection when a specific audio format is not specified.

Selected Video Input	HDMI Embedded Audio Present	Analog Audio Present	Audio Sent Over XTP
VGA	N/A	Yes	Analog audio
VGA	N/A	No	No audio
HDMI	Yes	No	HDMI embedded audio
HDMI	Yes	Yes	HDMI embedded audio
HDMI	No	Yes	Analog audio
HDMI	No	No	No audio

- B RS-232 Over XTP port** — To pass bidirectional serial signals between XTP-compatible devices, connect a control device to the 5-pole captive screw connector (see [figure 10, B](#) on the previous page). The port includes only the 3 poles labeled “RS-232.”



IR Over XTP port — To transmit and receive IR signals (up to 56 kHz), connect a control device to the 5-pole captive screw connector (see [figure 10, B](#) on the previous page). This port includes the 2 poles labeled “IR” and shares the ground pole with the RS-232 port.



NOTE: RS-232 and IR data can be transmitted simultaneously (see [RS-232 and IR Over XTP Communication](#) on page 16 for wiring details).

- C LAN connector** — Connect a control device or device to be controlled to this LAN connector (see [figure 10, C](#) on the previous page) for 10/100 Ethernet communication through this pass-through port. LEDs on this connector indicate link and activity status.
- D Reset button** — Press and hold this button (see [figure 10, D](#) on the previous page) to reset the device (see [Reset Modes](#) on page 20).
- E Configuration port** — Connect a host device to the front panel USB mini-B configuration port (see [figure 10, E](#) on the previous page).
- F LED indicators** (see [figure 10, F](#) on the previous page)
 - Power LED indicator** — Lights when power is applied.
 - HDMI LED indicator** — Lights when an HDMI input signal is detected.
 - VGA LED indicator** — Lights when a VGA input signal is detected.
 - HDCP LED indicator** — Lights when the HDMI input signal is encrypted.
 - Auto LED indicator** — Lights when the device is in auto switch mode.
 - Clip LED indicator** — Lights when the analog audio input signal remains above -3 dBFS. It remains lit for 200 ms after the signal falls below -3 dBFS.

Mounting

Before mounting the floor box, consider the mounting location and prepare the surface as necessary.

1. If not already completed, install the appropriate adapter plates in the desired position and mounting slots (see [Adapter Plates](#) on page 5).
2. Align the screw holes on the XTP T FB 202 with the screw holes on the adapter plates.
3. Using the provided self-threading screws and washers, secure the XTP T FB 202 to the adapter plates (see figures 12 through 15).

Ackermann GB3 (OBO Bettermann) floor box

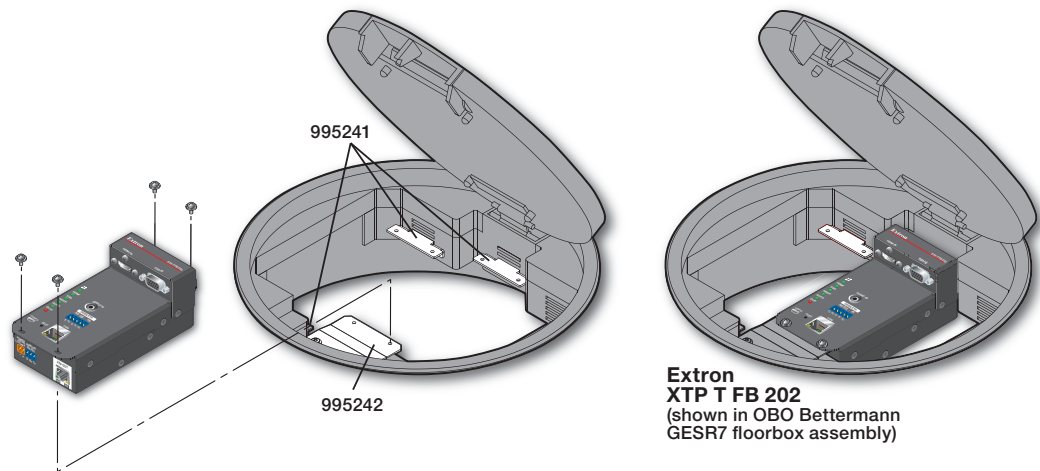


Figure 12. Mounting the XTP T FB 202 into an Ackermann GB3 (OBO Bettermann) Floor Box

NOTE: Position 2 requires the installation of the 995242 adapter plate over one of the 995241 adapter plate.

MK Electric CableLink Plus Single Pan floor box

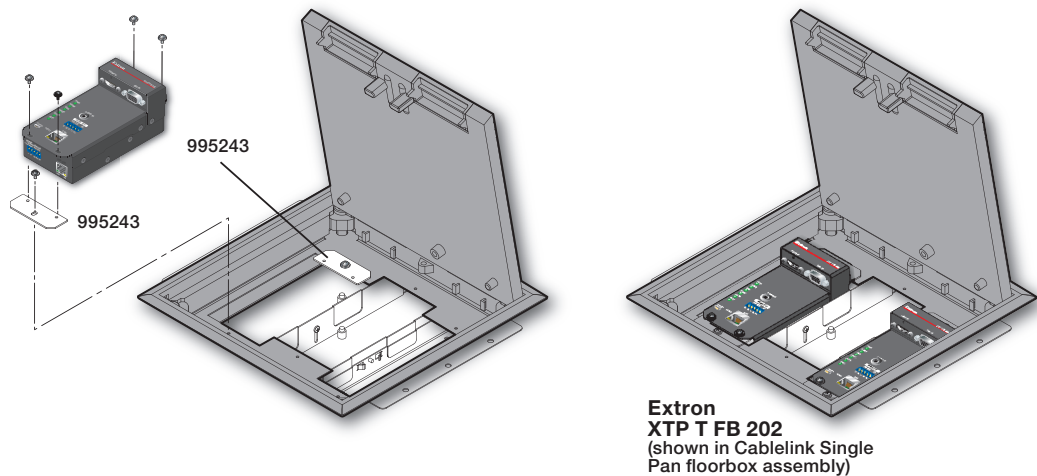


Figure 13. Mounting the XTP T FB 202 into an MK Electric CableLink Plus Single Pan Floor Box

NOTE: Do not install the XTP T FB 202 in position 2 (see [figure 2](#) on page 5).

MK Electric CableLink Plus Modular floor box

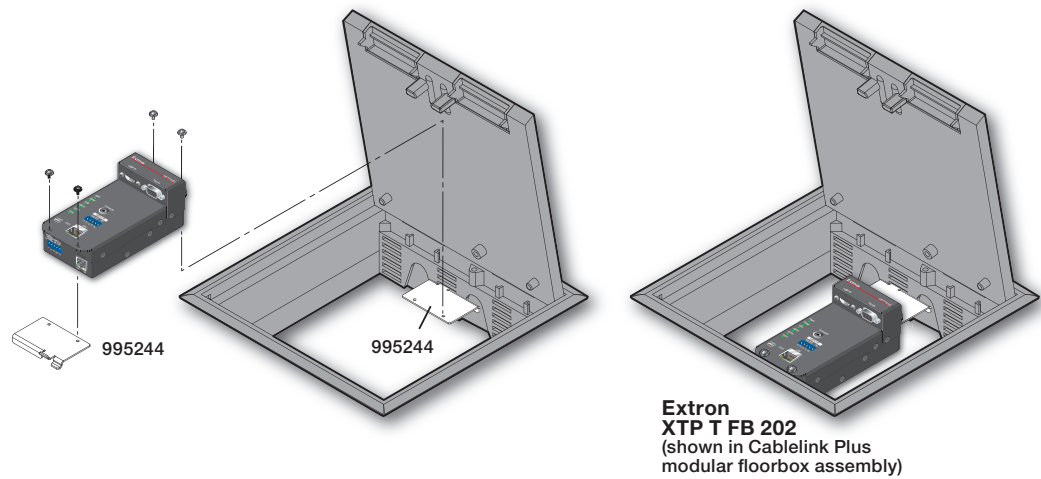


Figure 14. Mounting the XTP T FB 202 into an MK Electric CableLink Plus Modular Floor Box

Electraplan or PUK floor box

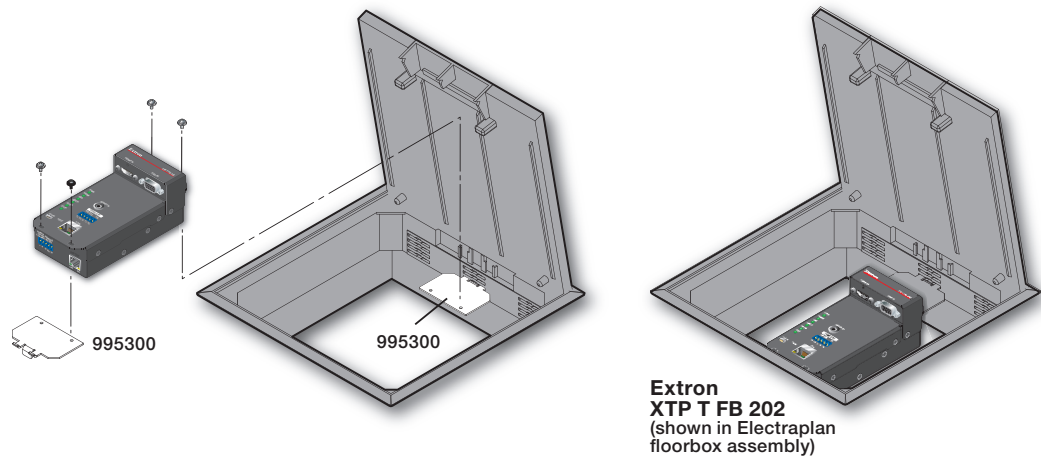


Figure 15. Mounting the XTP T FB 202 into an Electraplan or PUK Floor Box

Connection and Wiring Details

HDMI Connection

To secure the HDMI cable to the HDMI input connector, use an Extron LockIt Cable Lacing Bracket and a tie wrap. The LockIt Cable Lacing Bracket can be applied to the top or the side mounting screws. The following directions describe how to attach a LockIt Cable Lacing Bracket to the top mounting screw.

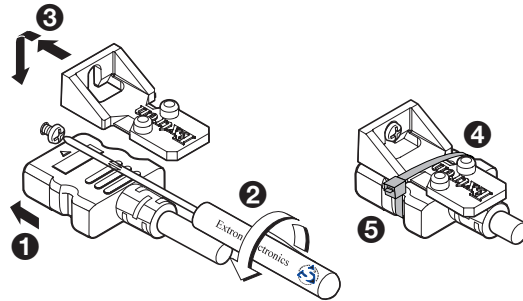


Figure 16. Installing the LockIt Cable Lacing Bracket

1. Plug the HDMI cable into the panel connection (see figure 16, **1**).
2. Loosen the HDMI connection mounting screw from the panel (**2**) enough to allow the LockIt to be placed over it. The screw does not have to be removed.
3. Place the LockIt on the screw and against the HDMI connector (**3**), and then tighten the screw to secure the bracket.
4. Loosely place the included tie wrap around the HDMI connector and the LockIt (**4**).
5. While holding the connector securely against the cable lacing bracket, use pliers or similar tools to tighten the tie wrap, then remove any excess length (**5**).

ATTENTION:

- Connect and pull the tie wraps until they are secure. Do not overtighten.
- Connectez et tirez les serre-câbles jusqu'à ce qu'ils soient sécurisés. Ne pas trop serrer.

TP Cable Termination and Recommendations

Use the following pin configurations for twisted pair cables.

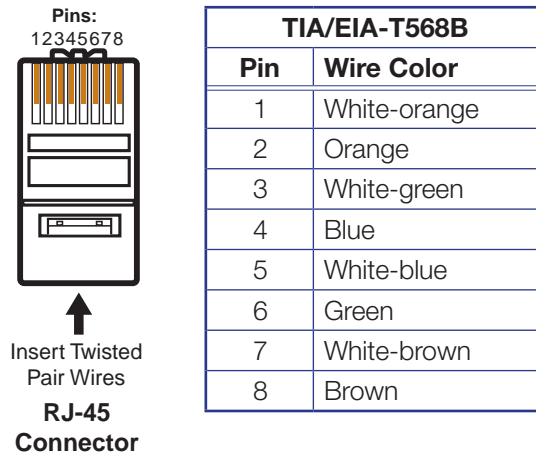


Figure 17. TP Cable Termination

Supported cables

The XTP T FB 202 is compatible with shielded twisted pair (F/UTP, SF/UTP, and S/FTP) and unshielded twisted pair (U/UTP) cables.

ATTENTION:

- Do not use Extron UTP23SF-4 Enhanced Skew-Free AV UTP cable or STP201 cable to link the XTP products.
- N'utilisez pas le câble AV Skew-Free UTP version améliorée UTP23SF d'Extron ou le câble STP201 pour relier les produits XTP.
- To ensure FCC Class A and CE compliance, STP cables and STP connectors are required.
- Afin de s'assurer de la compatibilité entre FCC Classe A et CE, les câbles STP et les connecteurs STP sont nécessaires.

Cable recommendations

Extron recommends using the following practices for XTP communication to achieve full transmission distances up to 330 feet (100 meters) and reduce transmission errors.

- Use the following Extron XTP DTP 24 SF/UTP cables and connectors for the best performance:
 - **XTP DTP 24/1000** Non-Plenum 1000' (305 m) spool 22-236-03
 - **XTP DTP 24P/1000** Plenum 1000' (305 m) spool 22-235-03
 - **XTP DTP 24 Plug** Package of 10 101-005-02
- If not using XTP DTP 24 cable, at a minimum, Extron recommends 24 AWG, solid conductor, STP cable with a minimum bandwidth of 400 MHz.
- Terminate cables with shielded connectors to the TIA/EIA-T568B standard (see [figure 17](#) on the previous page).
- Limit the use of more than two pass-through points, which may include patch points, punch down connectors, couplers, and power injectors. If these pass-through points are required, use shielded couplers and punch down connectors.

NOTE: When using STP cable in bundles or conduits, consider the following:

- Do not exceed 40% fill capacity in conduits.
- Do not comb the cable for the first 20 m, where cables are straightened, aligned, and secured in tight bundles.
- Loosely place cables and limit the use of tie wraps or hook and loop fasteners.
- Separate twisted pair cables from AC power cables.

RS-232 and IR Over XTP Communication

The RS-232 and IR Over XTP connector is for pass-through transmission of serial signals, such as projector control signals, and infrared data. To pass bidirectional serial command signals between XTP-compatible devices, connect a control device to the three poles (Tx, Rx, and G) under “RS-232” of the 5-pole captive screw connector. To transmit and receive IR signals, connect a control device to the three poles (G, Tx, and Rx) under “IR.” The ground (G) pole is shared.

NOTE: RS-232 and IR data can be transmitted or received simultaneously (see figure 18 below for wiring considerations).

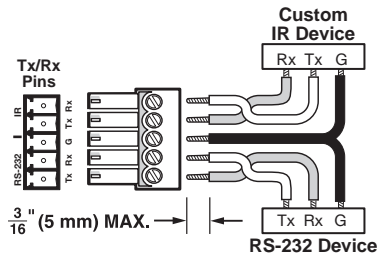


Figure 18. Wiring the RS-232 and IR Over XTP Connector

ATTENTION:

- The length of exposed wires in the stripping process is critical. The ideal length is 3/16 inch (5 mm).
- La longueur des câbles exposés est primordiale lorsque l'on entreprend de les dénuder. La longueur idéale est de 5 mm (3/16 inches).
- Any longer and the exposed wires may touch, causing a short circuit between them.
- S'ils sont un peu plus longs, les câbles exposés pourraient se toucher et provoquer un court circuit.
- Any shorter and the wires can be easily pulled out even if tightly fastened by the captive screws.
- S'ils sont un peu plus courts, ils pourraient sortir, même s'ils sont attachés par les vis captives.

Power Connection

Apply power to the transmitter locally with the provided power supply (if necessary, see figure 19 for wiring considerations) or remotely (through the XTP connector) with a power injector or an XTP matrix switcher.

Local power

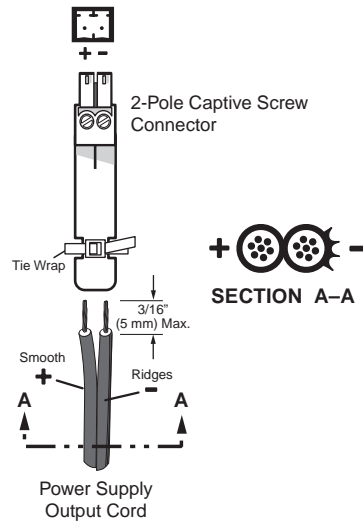


Figure 19. Power Wiring

The XTP T FB 202 can be connected to a local power supply. See the notifications on the next page for local power considerations.

WARNING: Electric shock hazard. The two power cord wires must be kept separate while the power supply is plugged in. Remove power before wiring.

AVERTISSEMENT : Risque de choc électrique grave. Les deux cordons d'alimentation doivent être tenus à l'écart l'un de l'autre quand l'alimentation est branchée. Couper l'alimentation avant de faire l'installation électrique.

ATTENTION:

- This product is intended for use with a UL Listed power source marked "Class 2" or "LPS" rated 12 VDC, 1.0 A minimum, 48 VDC (PoE), minimum 0.35 A, or an Extron UL Listed XTP remote power source. Always use a power supply supplied by or specified by Extron. Use of an unauthorized power supply voids all regulatory compliance certification and may cause damage to the supply and the unit.
- Ce produit est destiné à une utilisation avec une source d'alimentation certifiée UL de classe 2 ou LPS et calibrée à 12 Vcc, 1,0 A minimum, 48 Vcc (PoE), 0,35 A minimum, ou une source d'alimentation délocalisée XTP Extron certifiée UL. Utilisez toujours une source d'alimentation fournie par Extron. L'utilisation d'une source d'alimentation non autorisée annule toute conformité réglementaire et peut endommager la source d'alimentation ainsi que l'unité.
- Unless otherwise stated, the AC/DC adapters are not suitable for use in air handling spaces or in wall cavities. 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 a building structure or similar structure.
- Sauf mention contraire, les adaptateurs AC/DC ne sont pas appropriés pour une utilisation dans les espaces d'aération ou dans les cavités murales. 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.
- 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.
- The length of the exposed (stripped) copper wires is important. The ideal length is 3/16 inch (5 mm).
- La longueur des câbles exposés est primordiale lorsque l'on entreprend de les dénuder. La longueur idéale est de 5 mm (3/16 inch).

TIP: Do not tin the stripped power supply leads. Tinned wires are not as secure in the captive screw connectors and could be pulled out.

Remote power

The XTP T FB 202 can be powered remotely through an XTP Power Injector or through an XTP matrix switcher.

ATTENTION:

- XTP remote power is intended for indoor use only. No part of the network that uses XTP remote power should be routed outdoors.
- XTP à distance est destiné à une utilisation en intérieur seulement. Aucune partie du réseau qui utilise l'alimentation XTP à distance ne peut être routée en extérieur.

Power injector

To power the XTP T FB 202 remotely with an XTP Power Injector, power one device locally (see [Local power](#) on page 17) and connect an XTP Power Injector to the XTP cable run along the XTP ports (see the *XTP Power Injector User Guide* at www.extron.com for more installation information).

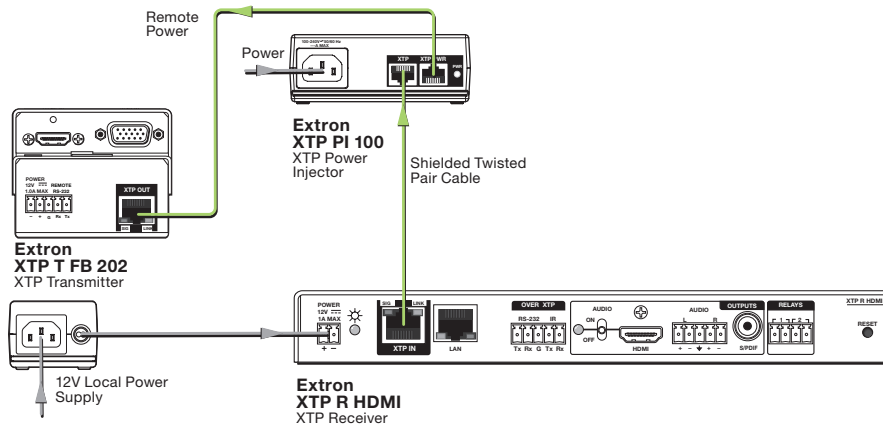


Figure 20. Typical Point-to-point Application with Remote Power

NOTE: The power injector provides remote power up to 330 feet with a shielded twisted pair cable with 24 AWG wire.

XTP matrix switcher

XTP matrix switchers have a fixed amount of power available to provide remote power to connected XTP devices (see the XTP matrix switcher user guide at www.extron.com for more details). To manage available power from the XTP matrix switcher, use the XTP System Configuration Software.

Operation

The XTP T FB 202 can be controlled only by SIS commands (see [SIS Configuration and Control](#) on page 21) or the XTP System Configuration Software (see [XTP System Configuration Software](#) on page 26). This section contains basic information about operation details. Topics in this section include:

- [Switch Modes](#)
- [EDID](#)
- [Reset Mode](#)

Switch Modes

The XTP T FB 202 has two switch modes: normal and auto switch. In normal mode, inputs must be selected manually. In auto switch mode (default), the XTP T FB 202 prioritizes a specified input depending on availability. These modes must be enabled or disabled through SIS commands (see [Auto switch mode](#) commands on page 23) or the XTP System Configuration Software (see [Auto-input Switching panel](#) on page 36).

EDID

To manage EDID on the XTP T FB 202, use the XTP System Configuration Software (see [EDID Minder](#) on page 38). The XTP T FB 202 can record and save EDID in a user memory location, select a pre-defined EDID, or use EDID from a display connected to a receiver. EDID stored in the user memory location can come from the display connected to a receiver or a custom EDID imported through the XTP System Configuration Software.

NOTE: In matrix applications, EDID on the switcher is assigned by the matrix switcher using the XTP System Configuration Software.

Reset Mode

Use the recessed **Reset** button on the top panel of the transmitter (see [figure 10, D](#) on page 9) to restore factory-shipped firmware.

Reset Mode Summary				
Mode		Mode Activation	Result	Purpose and Notes
Factory Reset	1	Hold down the recessed Reset button while applying power to the device. NOTE: After a mode 1 reset, update the device with the latest firmware version. DO NOT operate the firmware version that results from this mode reset.	The device reverts to the factory default firmware. NOTE: If you do not want to update the firmware or perform a mode 1 reset by mistake, cycle power to the device to return to the firmware version running prior to the reset.	Use mode 1 to return to factory firmware for a single power cycle if an incompatibility issue arises.

SIS Configuration and Control

The XTP T FB 202 can be configured and controlled using Extron Simple Instruction Set (SIS) commands or the XTP System Configuration Software (see [XTP System Configuration Software](#) on page 26). This section contains basic SIS communication details and SIS commands and responses when connected directly to the XTP T FB 202. Topics in this section include:

- [Host Device Connection](#)
- [SIS Overview](#)
- [Command and Response Tables for SIS Commands](#)

Host Device Connection

Use a computer running the Extron DataViewer utility, or a control system to enable serial control of the switcher. To connect directly to an XTP T FB 202, connect the computer to the XTP T FB 202 through the top panel USB configuration port (see [figure 10](#), **E** on page 9) or the side panel RS-232 connector (see [figure 7](#), **A** on page 7). The protocol for the serial port is as follows: 9600 baud, no parity, 8 data bits, 1 stop bit, no flow control.

SIS Overview

Host-to-Device and Device-to-Host Communication

SIS commands consist of one or more characters per field. No special characters are required to begin or end a command sequence. When the XTP T FB 202 determines that a command is valid, it executes the command and sends a response to the host device. All responses from the switcher to the host end with a carriage return and a line feed (CR/LF = **↵**), which signals the end of the response character string. A string is one or more characters.

Device-Initiated Message

When the transmitter is connected through the serial port only and a local event occurs, the device responds by sending a message to the host.

The following copyright message is displayed after a power cycle via RS-232.

```
© Copyright YYYY, Extron Electronics, XTP T FB 202 Vx.xx, 60-1383-12↵  
YYYY is the year. Vx.xx is the firmware version number.
```

Error Responses

When the XTP T FB 202 receives an SIS command and determines that it is valid, it performs the command and sends the corresponding response to the host device. If the command is determined invalid or contains invalid parameters, the switcher returns an error response to the host. The error response codes are:

E01 = Invalid input number
 E06 = Invalid switch attempt in this mode
 E10 = Invalid command
 E11 = Invalid preset number
 E12 = Invalid port number
 E13 = Invalid parameter
 E14 = Not valid for this configuration
 E17 = Invalid command for signal type

Using the Command and Response Tables for SIS Commands

The **command and response tables** beginning on the next page list the commands that the transmitter recognizes as valid, the responses that are returned to the host, a description of the command function or the results of executing the command. Commands can be entered back-to-back in a string with no spaces. Figure 21 shows the hexadecimal equivalent of ASCII characters used in the command and response tables.

NOTE: Upper- and lowercase text can be used interchangeably unless otherwise stated.

ASCII to Hex Conversion Table		Esc 1B	CR 0D	LF 0A											
Space →	20	!	21	"	22	#	23	\$	24	%	25	&	26	'	27
	(	28	)	29	*	2A	+	2B	,	2C	-	2D	.	2E	/
	0	30	1	31	2	32	3	33	4	34	5	35	6	36	7
	8	38	9	39	:	3A	;	3B	<	3C	=	3D	>	3E	?
	@	40	A	41	B	42	C	43	D	44	E	45	F	46	G
	H	48	I	49	J	4A	K	4B	L	4C	M	4D	N	4E	O
	P	50	Q	51	R	52	S	53	T	54	U	55	V	56	W
	X	58	Y	59	Z	5A	[	5B	\	5C	]	5D	^	5E	_
	`	60	a	61	b	62	c	63	d	64	e	65	f	66	g
	h	68	i	69	j	6A	k	6B	l	6C	m	6D	n	6E	o
	p	70	q	71	r	72	s	73	t	74	u	75	v	76	w
	x	78	y	79	z	7A	{	7B	|	7C	}	7D	~	7E	DEL 7F

Figure 21. ASCII to Hexadecimal Conversion

Symbol Definitions

- ↵ = Carriage return and line feed
- ← = Carriage return with no line feed
- | = Pipe (can be used interchangeably with the ← character).
- = Space
- Esc = Escape key
- W = Can be used interchangeably with the Esc character.

Command and Response Tables for SIS Commands

Command	ASCII Command (Host to Device)	Response (Device to Host)	Additional Description
Input Commands			
Input selection			
Select input	[X1]!	In[X1]↵	Select input [X1].
View the selected input	!	In[X1]↵	View the selected input.
Auto switch mode			
Disable auto switch mode	[Esc]ØAUSW↵	AuswØ↵	Switch inputs manually.
Set priority to the highest numbered active input	[Esc]1AUSW↵	Ausw1↵	Automatically switch to the highest numbered active input.
Set priority to the lowest numbered active input	[Esc]2AUSW↵	Ausw2↵	Automatically switch to the lowest numbered active input.
View setting	[Esc]AUSW↵	Ausw[X3]↵	View the auto switch mode.
Audio Configuration Commands			
Audio gain and attenuation			
NOTE: Gain and attenuation commands are case-sensitive.			
Set gain	[X5]G	Aud[X7]↵	Set gain to [X5].
Set attenuation	[X6]g	Aud[X7]↵	Set attenuation to [X6].
Increment audio level	+G or +g	Aud[X7]↵	Increase the audio level.
Decrement audio level	-G or -g	Aud[X7]↵	Decrease the audio level.
View audio level	G or g	Aud[X7]↵	View the audio level.
Audio input selection			
Set audio input format	[Esc]I[X2]AFMT↵	AfmtI[X2]↵	Set the audio input format to [X2].
View audio input format	[Esc]IAFMT↵	AfmtI[X2]↵	View the audio input format.
Black video signal resolution			
Set black video signal resolution	[Esc]A[X8]AFMT↵	AfmtA[X8]↵	Set the black video signal resolution to [X8].
View black video signal resolution	[Esc]AAFMT↵	AfmtA[X8]↵	View the black video signal resolution.
NOTES:			
[X1] = Input selection		1 = VGA 2 = HDMI (default)	
[X2] = Audio input format		Ø = auto, prioritize digital audio (default) 1 = digital embedded 2 = analog	
[X3] = Auto switch mode		Ø = disable 1 = priority to the HDMI input (default) 2 = priority to the VGA input	
[X5] = Audio gain		Ø to 24 in 1 dB increments (Ø = default)	
[X6] = Audio attenuation		-18 to Ø in 1 dB increments (Ø = default)	
[X7] = Audio level		-18 to 24 in 1 dB increments (Ø = default)	
[X8] = Black video signal resolution		2 = 720p @ 50 Hz 4 = 720p @ 60 Hz (default) 6 = 1080p @ 60 Hz	

Command	ASCII Command (Host to Device)	Response (Device to Host)	Additional Description
Black video signal for audio only			
NOTE: The transmitter uses a black signal to simulate a 720p or 1080p, 50 Hz or 60 Hz signal so audio can be passed without video.			
Enable black video signal	Esc B1AFMT ←	AfmtB X4 ↵	Enable a black video signal for audio only.
Disable black video signal	Esc B0AFMT ←	AfmtB X4 ↵	Disable the black video signal.
View black video signal setting	Esc BAFMT ←	AfmtB X4 ↵	View the black video signal setting.
Picture Adjustment Commands (Analog Only)			
Pixel phase			
Set a pixel phase value	Esc X12 PHAS ←	Phas X12 ↵	Adjust the pixel phase to X12 .
Increment value	Esc +PHAS ←	Phas X12 ↵	Increase the pixel phase.
Decrement value	Esc - PHAS ←	Phas X12 ↵	Decrease the pixel phase
View pixel phase value	Esc PHAS ←	Phas X12 ↵	Show the pixel phase value
Horizontal shift			
Set horizontal shift value	Esc X13 HCTR ←	Hctr X13 ↵	Set horizontal location of first active pixel in active window.
Increment value	Esc +HCTR ←	Hctr X13 ↵	Increase the shift value (move the image to the right).
Decrement value	Esc - HCTR ←	Hctr X13 ↵	Decrease the shift value (move the image to the left).
View horizontal shift value	Esc HCTR ←	Hctr X13 ↵	Show the horizontal location of the first active pixel in the active window.
Vertical shift			
Set vertical shift value	Esc X13 VCTR ←	Vctr X13 ↵	Set vertical location of first active pixel in active window.
Increment value	Esc +VCTR ←	Vctr X13 ↵	Increase the shift value (move the image down).
Decrement value	Esc - VCTR ←	Vctr X13 ↵	Decrease the shift value (move the image up).
View vertical shift value	Esc VCTR ←	Vctr X13 ↵	Show vertical location of the first active pixel in active window.
Image reset			
Execute an image reset	1A	Aadj 1 ↵	Set picture adjustment settings to the default values.

NOTES:

X4 = Enable or disable

Ø = off or disable

1 = on or enable (default)

X12 = Pixel phase

Ø-255 (128 = default)

X13 = Horizontal or vertical shift

Ø-65535 (32768 = default)

Command	ASCII Command (Host to Device)	Response (Device to Host)	Additional Description
Presets Commands			
Input presets			
Save an input preset	[X14] ,	Spr[X14]↵	Save a configuration to preset [X14].
Recall an input preset	[X14] .	Rpr[X14]↵	Recall a configuration from preset [X14].
EDID Commands			
NOTE: For EDID management, use the XTP System Configuration Software (see EDID Minder on page 38).			
Advanced Configuration Commands			
HDCP authorized device (HDMI input only)			
HDCP authorized device On	[Esc]E1HDCP↵	HdcpE1↵	HDCP authorized device on (default).
HDCP authorized device Off	[Esc]E0HDCP↵	HdcpE0↵	HDCP authorized device off.
View HDCP authorized device status	[Esc]EHDCP↵	HdcpE[X20]↵	View the HDCP authorized device status.
Test pattern			
Set a test pattern	[X10]J	Tst[X10]↵	Set a test pattern or disable one.
View the current test pattern	J	Tst[X10]↵	View the current test pattern.
Reset mode			
System reset	[Esc]ZXXX↵	Zpx↵	Reset unit to factory default.
Status			
View input signal presence	0LS	Frq[X15] ¹ [X15] ² ↵	View the input signal presence of each input. 1 = VGA input 2 = HDMI input
View HDCP input	[Esc]IHDCP↵	HdcpI0[X21]↵	View the HDCP input status of the HDMI input.
View firmware version	Q	x.xx↵	View the firmware version.
View full firmware version	*Q	x.xx.xxxx↵	View the full firmware version.
View part number	N	60-1383-12	View the device part number.

NOTES:

[X10] = Color bar test pattern	0 = disable (default) 1 = 720p @ 50 Hz 3 = 720p @ 60 Hz 5 = 1080p @ 60 Hz
[X14] = Preset number	1 - 8
[X15] = Signal presence	0 = Video or TMDS not detected 1 = Video or TMDS detected
[X20] = HDCP authorization	0 = HDCP authorization off 1 = HDCP authorization on (default)
[X21] = HDCP status	0 = No source 1 = HDCP compliant source 2 = non-HDCP compliant source

XTP System Configuration Software

This section contains installation and configuration procedures for the XTP System Configuration Software for configuring and controlling the XTP T FB 202. It can also be controlled with SIS commands (see [SIS Configuration and Control](#) on page 21). Topics in this section include:

- [Software Installation](#)
- [Software Operation](#)

Software Installation

The XTP System Configuration Software is available for download on the Extron website, www.extron.com. To download the software from the Extron website, locate it on the Download Center page or go to the XTP System Configuration Software product page.

Software Download Center Page

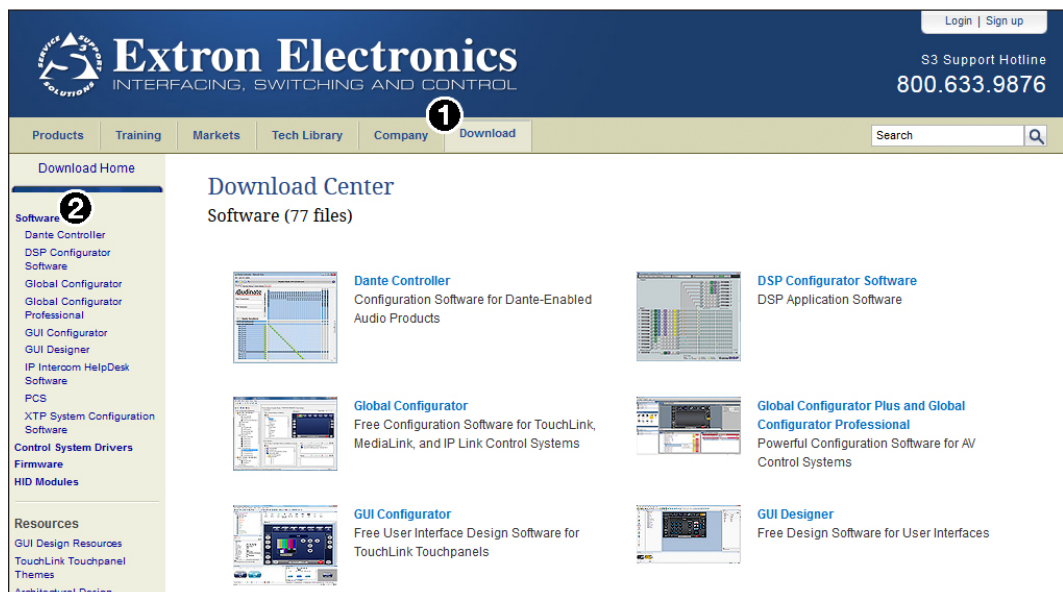


Figure 22. Extron Website Download Page

1. On the Extron website, select the **Download** tab (see figure 22, 1).
2. From the left sidebar, click the **Software** link (2).

TIP: If the XTP System Configuration Software is featured in the left sidebar, click the **XTP System Configuration Software** link to go directly to the product page (see [Software Product Page](#) on the next page).

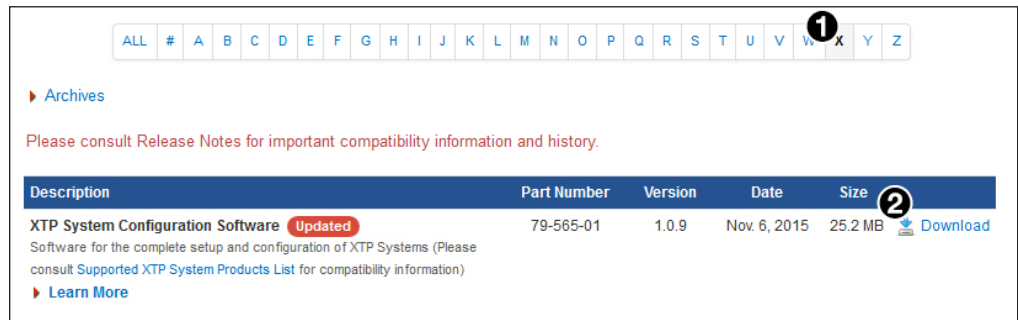


Figure 23. XTP System Configuration Software Download Link

3. Click the **X** link (see figure 23, ①).
4. Locate the XTP System Configuration Software and click the **Download** link (see figure 23, ②) to the right of the product name.
5. Submit any required information to start the download. Note where the file is saved.
6. Open the executable (.exe) file from the save location.
7. Follow the instructions that appear on the screen. By default, the installation creates a directory in the Program Files or Program Files (x86) folder.

Software Product Page

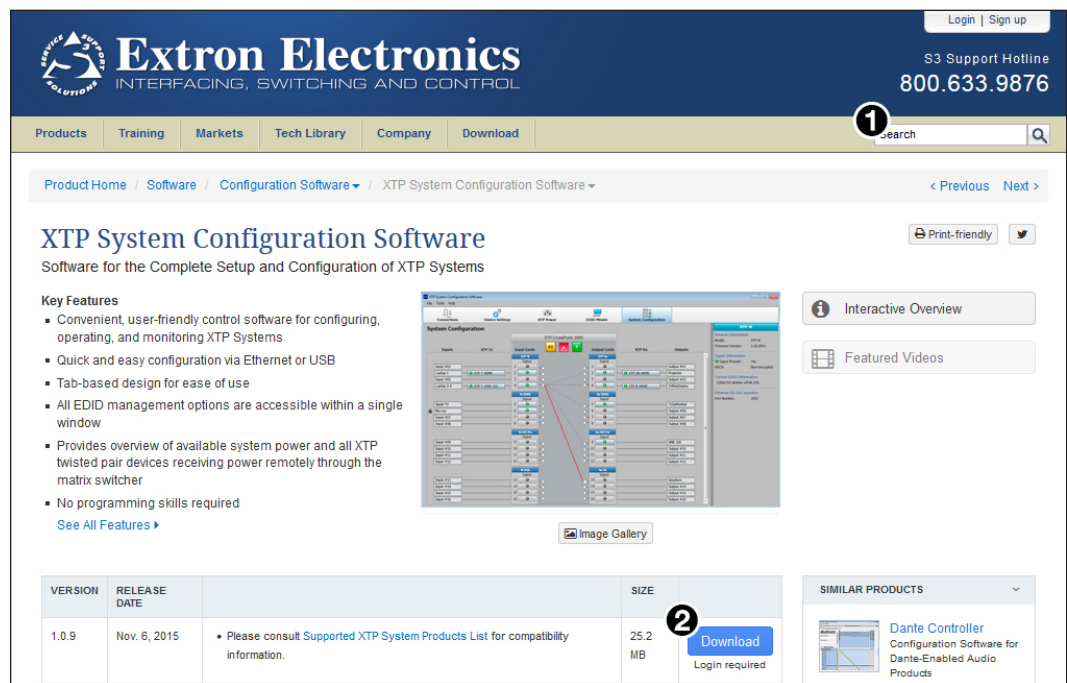


Figure 24. XTP System Configuration Software Product Page

1. In the **Search** field (see figure 24, ①) type “XTP System Configuration Software.”
2. Press <Enter> on the keyboard or select **XTP System Configuration Software** from the drop-down menu.
3. Click the **Download** button (see figure 24, ②).
4. Submit any required information to start the download. Note where the file is saved.
5. Open the executable (.exe) file from the save location.
6. Follow the instructions that appear on the screen. By default, the installation creates a directory in the Program Files or Program Files (x86) folder.

Software Operation

The XTP T FB 202 can be controlled directly from the top panel configuration port (see [figure 10](#), **E** on page 9) or remotely from an XTP matrix switcher.

Connections

The XTP System Configuration Software opens to the **Connections** screen. This screen is used to establish communication with an XTP device through USB connection. Ensure the transmitter is connected and powered on before attempting to connect to it.

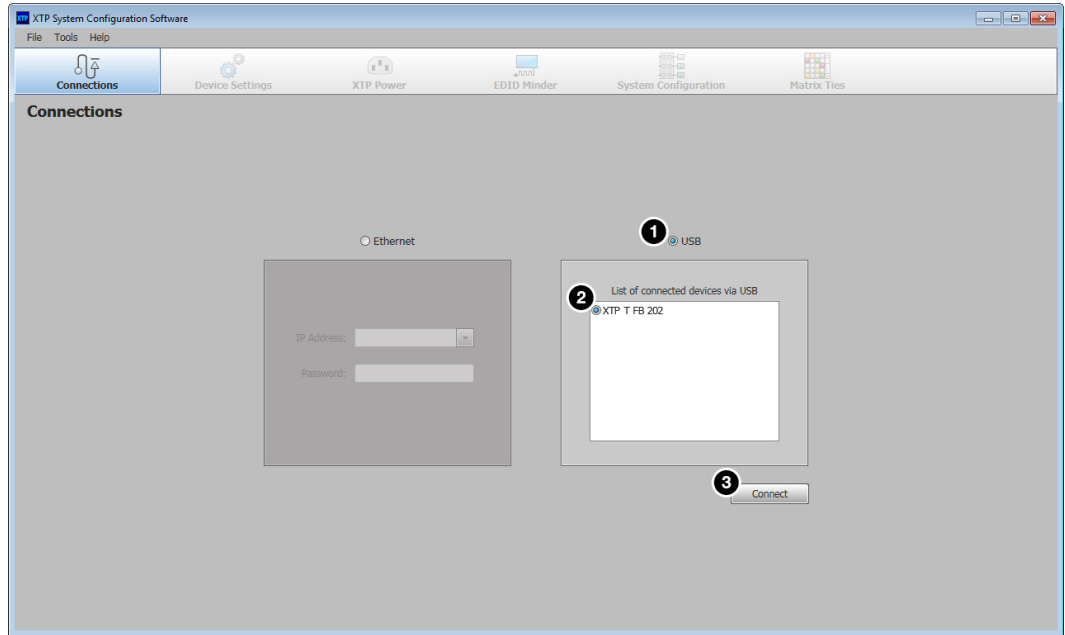


Figure 25. Connections Screen

To connect to a device:

1. Open the XTP System Configuration Software.
2. From the **Connections** screen in the XTP Configuration Software, select the connection method radio button (see figure 25, **1**).
3. From the displayed list, select the connected device to be controlled (**2**).
4. Click the **Connect** button (**3**). The **Device Settings** screen opens (see [Device settings](#) on page 32).

Menu Bar

The top menu contains three menus for configuring software settings.

File menu

The **File** menu contains options for disconnecting from the transmitter and exiting the program. To access the menu, click the **File** menu.

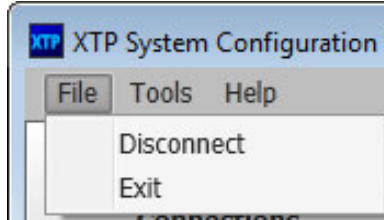


Figure 26. File Menu

Disconnect

This option disconnects the connected device from the XTP System Configuration Software. From the **File** menu, select **Disconnect**. The Connections screen opens.

NOTE: If the device is already disconnected, the **Disconnect** option is disabled until a device is connected.

Exit

This option disconnects the transmitter from the software and closes the application. From the **File** menu, select **Exit** to close the application.

Tools menu

The **Tools** menu contains an option for updating firmware. To access this menu, click the **Tools** menu.

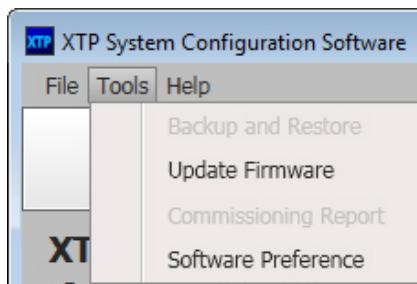


Figure 27. Tools Menu

NOTE: The **Backup and Restore** and **Commissioning Report** options are not available when directly connected to the XTP T FB 202. See an XTP matrix switcher user guide (www.extron.com) for more information on these features.

Update Firmware

This option uploads firmware from the host device to the connected device.

1. From the **Tools** menu, select **Update Firmware**. A dialog box opens to ask permission to disconnect from the device.

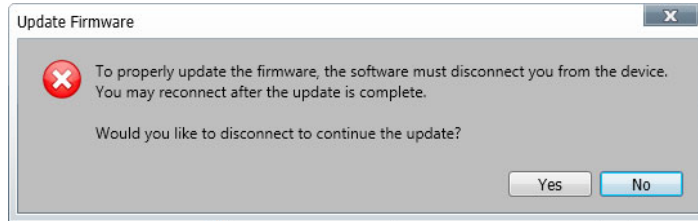


Figure 28. Confirm Disconnect Dialog Box

2. Click the **Yes** button to disconnect from the device and continue with the firmware update process. The Update Firmware dialog box opens.

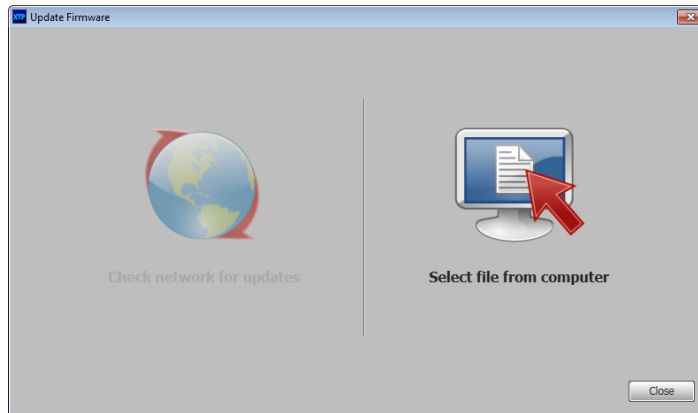


Figure 29. Update Firmware Dialog Box

3. Click the **Select file from computer** icon to select a firmware file from the connected host device. The Browse dialog box opens.
4. Select the desired firmware file and click the **Open** button.
5. Click the **Close** button after the firmware finishes updating.

Software Preference

This option resets all disabled confirmation dialogs to the default settings.

1. From the **Tools** menu, select **Software Preference**. The Software Preference dialog box opens.

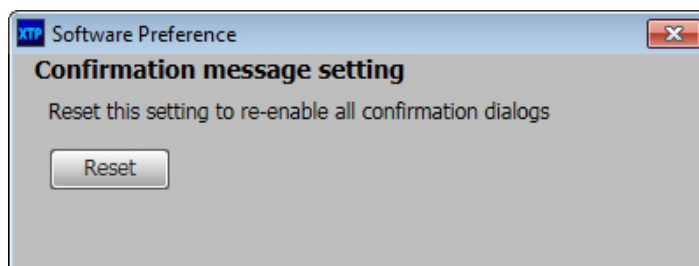


Figure 30. Software Preference Dialog Box

2. Click the **Reset** button. The dialog box closes.

Help menu

The **Help** menu contains a way to access XTP System Configuration Software information, a link to the help file, and a link to the Extron website.

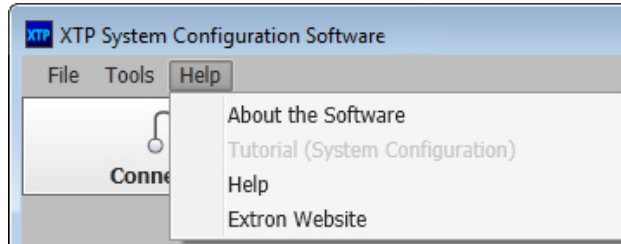


Figure 31. Help Menu

NOTE: The **Tutorial (System Configuration)** option is not available when directly connected to the XTP T FB 202.

About the Software

This option provides basic information about the XTP System Configuration Software, including version number and copyright information.

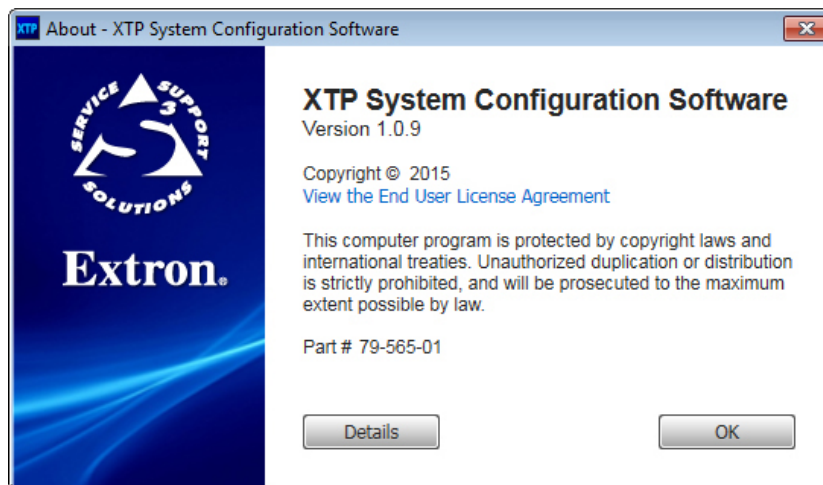


Figure 32. About - XTP Dialog Box (Example)

1. From the **Help** menu, select **About the Software**. The About dialog box opens.
2. Click the **Details** button for more information.
3. Click the **OK** button to close the dialog box.

Help

This option opens the *XTP System Configuration Software* help file in a Web browser.

From the **Help** menu, select **Help**.

Extron Website

This option opens the Extron website in a Web browser.

From the **Help** menu, select **Extron Website**.

Device Settings

The **Device Settings** screen allows a user to view and edit various device settings for the device directly connected to the PC running the XTP software. Click the **Device Settings** icon (see figure 33, ①) on the **Global Navigation bar** to open the **Device Settings** screen.

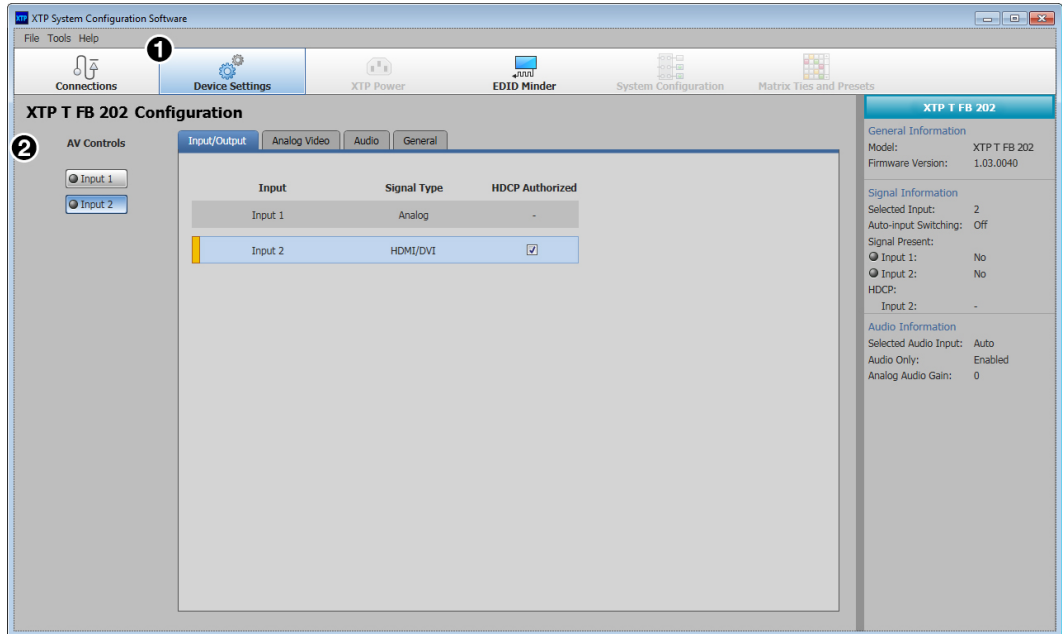


Figure 33. Transmitter Device Settings Screen

AV Controls panel

The **AV Controls** panel, located on the left, is used to selection an input.

- ② **Input Selection** — Click an **Input** button to select an input. As a new input is selected, the summary within the **Device Information** panel changes to reflect the currently selected input.

NOTE: The signal indicators on the AV input buttons display green when a signal is present on the corresponding input or gray when there is no signal present.

Input/Output tab

Click the **Input/Output** tab (see figure 34, ❶) to open the Input/Output screen. It contains input information and options to apply automatic settings to individual inputs.

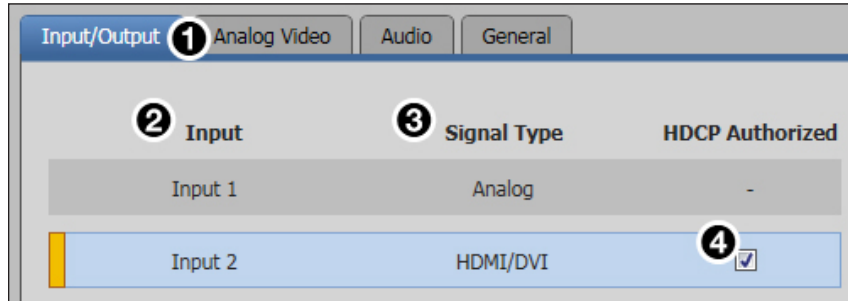


Figure 34. Input/Output Tab

- ❷ **Input Name** — Displays the input name.
- ❸ **Signal Type** — Displays the signal type of each input. Input 1 is Analog. Input 2 is HDMI/DVI.
- ❹ **HDCP Authorization** — Select either **HDCP Authorized** check box to have input 2 report as an HDCP authorized device. If the box is not checked, the source is blocked from encrypting its output. This may result in some content not being passed by the source device.

NOTE: HDCP authorization is for the HDMI input only.

Analog Video tab

Click the **Analog Video** tab (see figure 35, ❶) to open the Analog Video screen. It contains signal sampling, image shifting, and saving and recalling input preset options.

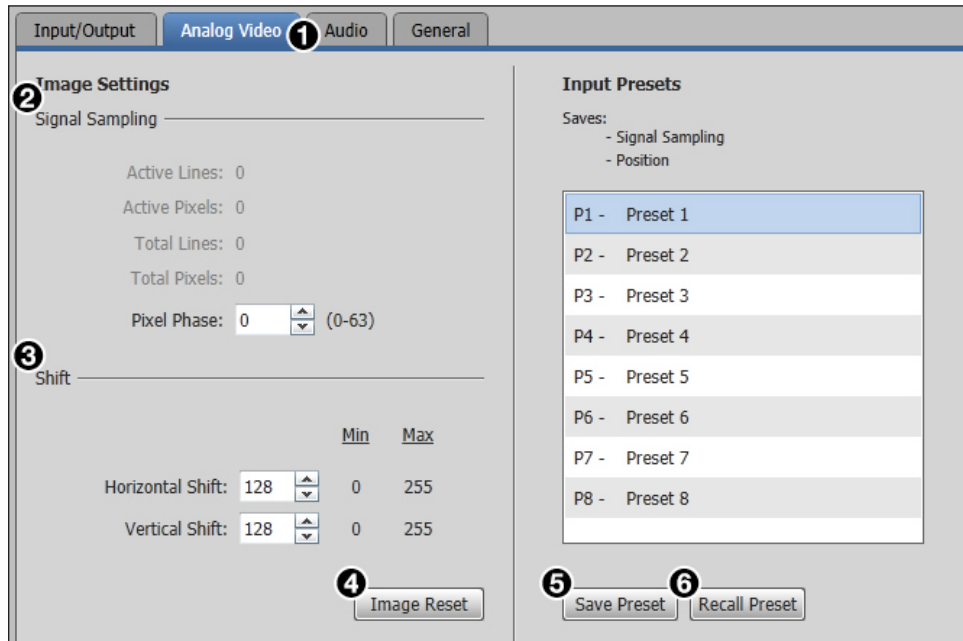


Figure 35. Analog Video Tab

Signal Sampling panel

Signal sampling optimizes the input signal to the transmitter for input 1.

- ❷ **Signal Sampling** — To adjust pixel phase settings, enter a value within acceptable range displayed in parentheses to the right of the corresponding field or click the **Up** and **Down** arrows.

Shift panel

Shifting moves the position of an image.

- ❸ **Horizontal and Vertical Shift** — To adjust the horizontal and vertical shift settings, enter a value within the Min and Max values displayed to the right of the corresponding field or click the **Up** or **Down** arrows.
- ❹ **Image Reset** — Click the **Image Reset** button to set pixel phase, horizontal shift, and vertical to the default values.

Input Presets panel

Input presets save signal sampling and shift settings to be recalled later.

- ❺ **Save Preset** — To save a preset, select one from the list of presets and click the **Save Preset** button.
- ❻ **Recall Preset** — To recall a saved preset, select the desired preset from the list of presets and click the **Recall Preset** button.

Audio tab

Click the **Audio** tab (see figure 36, ①) to open the Audio screen. It contains settings for input format and analog audio gain.

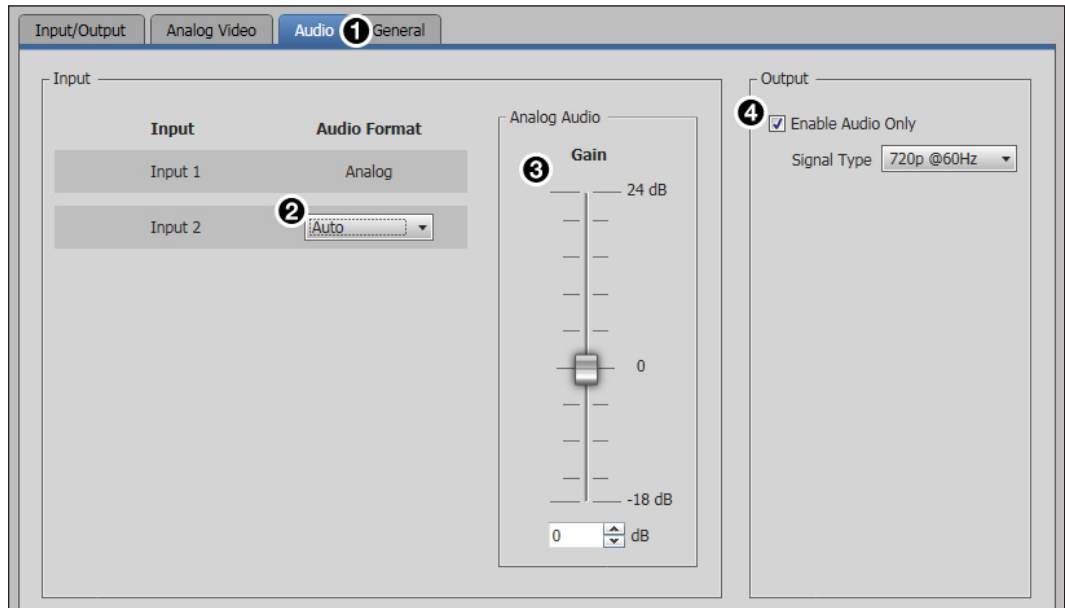


Figure 36. Audio Tab

Audio input format panel

- ② **Audio Input Format** — From the **Audio Format** drop-down list, select the format for input 2. It can be Auto, HDMI, or Analog.
- ③ **Analog Audio Gain** — Click and drag the handle of the **Gain** slider, enter a value in the field, or click the **Up** or **Down** arrow to adjust the analog input gain.

Audio output panel

- ④ **Audio only** — Select the **Enable Audio Only** check box to enable a black signal for audio-only transmission to the HDMI output connector on a connected receiver. By default, the check box is selected.

If selected, also select the black signal resolution from the **Signal Type** drop-down list. The default resolution is 720p @ 60 Hz.

General tab

Click the **General** tab (see figure 37, ①) to open the General screen. It contains settings for auto switch mode and factory reset.

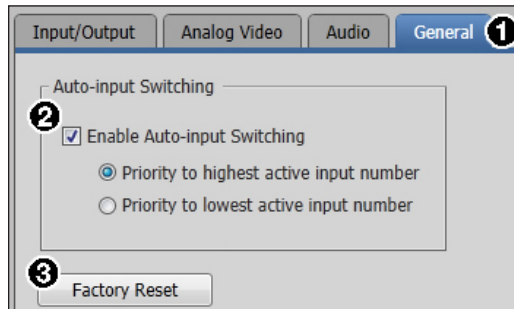


Figure 37. General Tab

Auto-input Switching panel

- ② **Auto-input Switching** — Click the **Enable Auto-Input Switching** check box to enable auto switch mode. Two settings are available for this mode.
- Click the **Priority to highest active input number** radio button to automatically switch to the highest numbered active input (HDMI).
 - Click the **Priority to lowest active input number** radio button to automatically switch to the lowest numbered active input (VGA).

Factory reset

- ③ **Factory Reset** — Click the **Factory Reset** button to reset the transmitter to factory settings except for firmware.

NOTE: This is the same as the `[Esc]ZXXX SIS` command (see the [Reset mode](#) command on page 25).

Device Information panel

The Device Information panel displays device information and settings.

General Information section

- ❶ **Model** — Displays the device model.
- ❷ **Firmware Version** — Displays the full firmware version.

Signal Information section

- ❸ **Selected Input** — Displays the input number of the currently selected input.
- ❹ **Auto-input Switching** — Displays the On or Off status of auto switch mode.
- ❺ **Signal Present** — Displays the signal presence of both inputs.
- ❻ **HDCP** — Displays the HDCP status of input 2.

Audio Information section

- ❼ **Selected Audio Input** — Displays the format of the currently selected audio input.
- ❽ **Audio Only** — Displays whether the black video signal for audio-only transmission is enabled.
- ❾ **Analog Audio Gain** — Displays the analog audio gain in dB.

XTP T FB 202		
General Information		
Model:	XTP T FB 202	❶
Firmware Version:	1.03.0040	❷
Signal Information		
Selected Input:	2	❸
Auto-input Switching:	Off	❹
Signal Present:		
● Input 1:	No	❺
● Input 2:	No	
HDCP:		
Input 2:	-	❻
Audio Information		
Selected Audio Input:	Auto	❼
Audio Only:	Enabled	❽
Analog Audio Gain:	0	❾

EDID Minder

Use the EDID Minder screen to assign unique EDID to the input or match current output EDID to the input. Click the **EDID Minder** icon (see figure 38, ①) on the Global Navigation bar. The EDID Minder screen opens.

The EDID Minder screen displays a table of EDID options and connected output devices, which are each represented by output display icons.

- Factory default EDID options are displayed in blue.
- Connected output resolutions and devices are displayed in green.
- Custom loaded or saved EDID options are displayed in yellow.

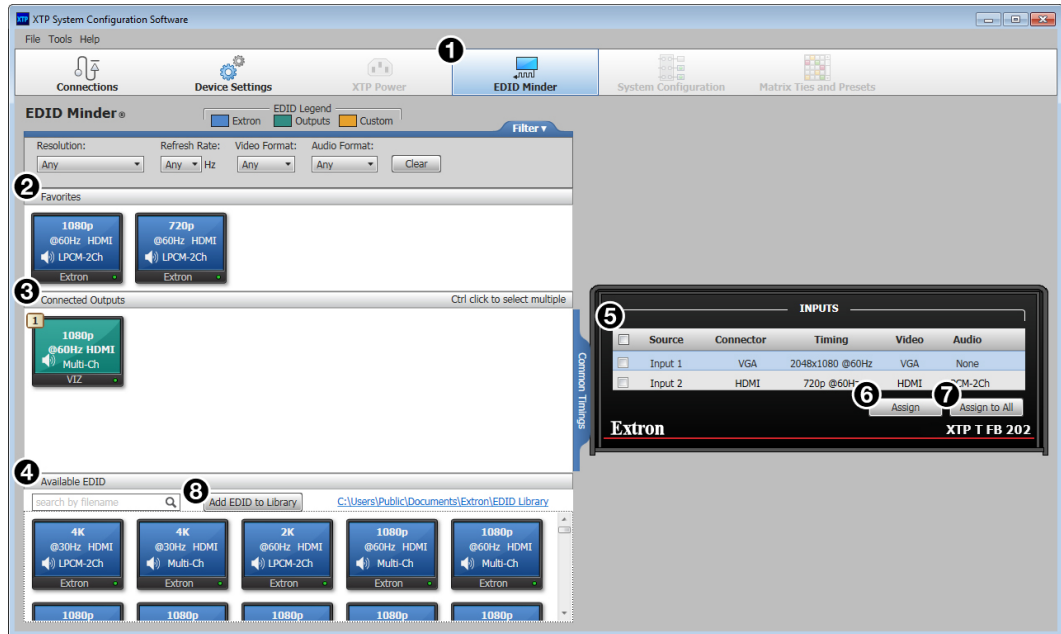


Figure 38. EDID Minder Screen

Assign EDID

To assign EDID to selected inputs:

1. Select an available EDID icon from the Favorites, Connected Outputs, or Available EDID panel (②-④).
2. Select the check box of the connected input (⑤).
3. Click the **Assign** button below the input area (⑥).

TIP: Alternatively, EDID can be assigned by dragging and dropping the desired EDID onto the input.

To assign EDID to all inputs:

1. Select an available EDID icon from the Favorites, Connected Outputs, or Available EDID panel (②-④).
2. Click the **Assign to All** button (⑦).

Add an EDID File to the EDID Library

1. In the Available EDID panel, click the **Add EDID to Library** button (see [figure 38](#), ⑧ on the previous page). The Browse window opens.
2. Navigate to and select the desired EDID file and click **Open**. The EDID file appears in the Available EDID panel (see [figure 38](#), ④ on the previous page).
3. Assign the EDID file from the Available EDID panel to import the EDID to the device.

Save output EDID

1. Right-click on the desired EDID icon in the **Connected Outputs** panel (see [figure 38](#), ③ on the previous page).
2. Select the **Save EDID to Library** option. The EDID setting is saved to the connected PC. Alternatively, right-click on the desired EDID, select **Copy**, and then **Paste** the EDID into the Favorites or Available EDID panel.

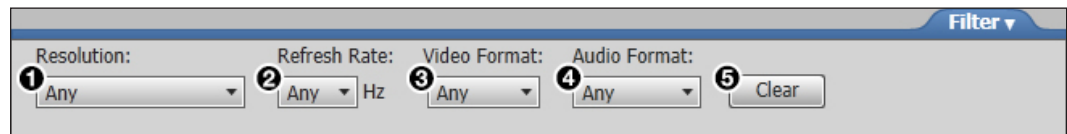
Set favorite EDID

To add commonly used EDID settings to the Favorites panel for quick access, perform one of the following methods:

- Click and drag the desired EDID icon from the **Connected Outputs** or the **Available EDID** panel to the **Favorites** panel. The EDID setting is copied to the Favorites panel (see [figure 38](#), ② on the previous page).
- Right-click the desired EDID and select **Copy**. Then, **Paste** the EDID setting into the Favorites panel.

EDID filters

The filters (see [figure 39](#)) can be used to easily locate a specific EDID setting.



- | | |
|-----------------------|-----------------------|
| ① Resolution filter | ④ Audio Format filter |
| ② Refresh Rate filter | ⑤ Clear button |
| ③ Video Format filter | |

Figure 39. EDID Minder Filters

To use a filter or combination of filters, perform the following:

1. Select an EDID setting from one of the drop-down lists of the associated filter (see [figure 39](#), ①-④). The available EDID options that match the filter selection are displayed in their respective panels.
2. Repeat step 1 to apply more filters.

NOTE: To clear the currently applied filters, click the **Clear** button next to the filters (see [figure 39](#), ⑤). All filters are reset.

Common timings

This function automatically displays available EDID settings that are common among multiple selected outputs.

1. Hold <Ctrl> and click the desired outputs in the **Connected Outputs** panel. The **Common Timings** tab (located to the right of the **Connected Outputs** panel) appears, listing the EDID settings common among the selected outputs.
2. Select the desired common EDID. The EDID is shown in the Available EDID panel.

Extron Warranty

Extron Electronics warrants this product against defects in materials and workmanship for a period of three years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron Electronics will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

USA, Canada, South America, and Central America:

Extron Electronics
1230 South Lewis Street
Anaheim, CA 92805
U.S.A.

Japan:

Extron Electronics, Japan
Kyodo Building, 16 Ichibancho
Chiyoda-ku, Tokyo 102-0082
Japan

Europe and Africa:

Extron Europe
Hanzeboulevard 10
3825 PH Amersfoort
The Netherlands

China:

Extron China
686 Ronghua Road
Songjiang District
Shanghai 201611
China

Asia:

Extron Asia Pte Ltd
135 Joo Seng Road, #04-01
PM Industrial Bldg.
Singapore 368363
Singapore

Middle East:

Extron Middle East
Dubai Airport Free Zone
F13, PO Box 293666
United Arab Emirates, Dubai

This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions, or if modifications were made to the product that were not authorized by Extron.

NOTE: If a product is defective, please call Extron and ask for an Application Engineer to receive an RA (Return Authorization) number. This will begin the repair process.

USA: 714.491.1500 or 800.633.9876

Europe: 31.33.453.4040

Asia: 65.6383.4400

Japan: 81.3.3511.7655

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.

Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.

Extron Headquarters +1.800.633.9876 (Inside USA/Canada Only) Extron USA - West +1.714.491.1500 +1.714.491.1517 FAX	Extron Europe +800.3987.6673 (Inside Europe Only) Extron USA - East +1.919.850.1000 +1.919.850.1001 FAX	Extron Asia +65.6383.4400 +65.6383.4664 FAX	Extron Japan +81.3.3511.7655 +81.3.3511.7656 FAX	Extron China +86.21.3760.1568 +86.21.3760.1566 FAX	Extron Middle East +971.4.299.1800 +971.4.299.1880 FAX	Extron Korea +82.2.3444.1571 +82.2.3444.1575 FAX	Extron India 1800.3070.3777 Inside India Only +91.80.3055.3777 +91.80.3055.3737 FAX
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