

# XTP T UWP 302

Two Input XTP Transmitter – Wallplate



**Extron Electronics**  
INTERFACING, SWITCHING AND CONTROL

68-2541-01 Rev. A  
01 14

# Safety Instructions

## Safety Instructions • English

**WARNING:** This symbol, ⚠, when used on the product, is intended to alert the user of the presence of uninsulated dangerous voltage within the product's enclosure that may present a risk of electric shock.

**ATTENTION:** This symbol, ⚠, when used on the product, is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.

For information on safety guidelines, regulatory compliances, EMI/EMF compatibility, accessibility, and related topics, see the Extron Safety and Regulatory Compliance Guide, part number 68-290-01, on the Extron website, [www.extron.com](http://www.extron.com).

## Instructions de sécurité • Français

**AVERTISSEMENT :** Ce pictogramme, ⚠, lorsqu'il est utilisé sur le produit, signale à l'utilisateur la présence à l'intérieur du boîtier du produit d'une tension électrique dangereuse susceptible de provoquer un choc électrique.

**ATTENTION :** Ce pictogramme, ⚠, lorsqu'il est utilisé sur le produit, signale à l'utilisateur des instructions d'utilisation ou de maintenance importantes qui se trouvent dans la documentation fournie avec le matériel.

Pour en savoir plus sur les règles de sécurité, la conformité à la réglementation, la compatibilité EMI/EMF, l'accessibilité, et autres sujets connexes, lisez les informations de sécurité et de conformité Extron, réf. 68-290-01, sur le site Extron, [www.extron.com](http://www.extron.com).

## Sicherheitsanweisungen • Deutsch

**WARNUNG:** Dieses Symbol ⚠ auf dem Produkt soll den Benutzer darauf aufmerksam machen, dass im Inneren des Gehäuses dieses Produktes gefährliche Spannungen herrschen, die nicht isoliert sind und die einen elektrischen Schlag verursachen können.

**VORSICHT:** Dieses Symbol ⚠ auf dem Produkt soll dem Benutzer in der im Lieferumfang enthaltenen Dokumentation besonders wichtige Hinweise zur Bedienung und Wartung (Instandhaltung) geben.

Weitere Informationen über die Sicherheitsrichtlinien, Produkthandhabung, EMI/EMF-Kompatibilität, Zugänglichkeit und verwandte Themen finden Sie in den Extron-Richtlinien für Sicherheit und Handhabung (Artikelnummer 68-290-01) auf der Extron-Website, [www.extron.com](http://www.extron.com).

## Instrucciones de seguridad • Español

**ADVERTENCIA:** Este símbolo, ⚠, cuando se utiliza en el producto, avisa al usuario de la presencia de voltaje peligroso sin aislar dentro del producto, lo que puede representar un riesgo de descarga eléctrica.

**ATENCIÓN:** Este símbolo, ⚠, cuando se utiliza en el producto, avisa al usuario de la presencia de importantes instrucciones de uso y mantenimiento recogidas en la documentación proporcionada con el equipo.

Para obtener información sobre directrices de seguridad, cumplimiento de normativas, compatibilidad electromagnética, accesibilidad y temas relacionados, consulte la Guía de cumplimiento de normativas y seguridad de Extron, referencia 68-290-01, en el sitio Web de Extron, [www.extron.com](http://www.extron.com).

## Инструкция по технике безопасности • Русский

**ПРЕДУПРЕЖДЕНИЕ:** Данный символ, ⚠, если указан на продукте, предупреждает пользователя о наличии неизолированного опасного напряжения внутри корпуса продукта, которое может привести к поражению электрическим током.

**ВНИМАНИЕ:** Данный символ, ⚠, если указан на продукте, предупреждает пользователя о наличии важных инструкций по эксплуатации и обслуживанию в руководстве, прилагаемом к данному оборудованию.

Для получения информации о правилах техники безопасности, соблюдении нормативных требований, электромагнитной совместимости (ЭМП/ЭДС), возможности доступа и других вопросах см. руководство по безопасности и соблюдению нормативных требований Extron на сайте Extron: [www.extron.com](http://www.extron.com), номер по каталогу - 68-290-01.

## Chinese Simplified (简体中文)

**警告:** ⚠ 产品上的这个标志意在警告用户该产品机壳内有暴露的危险电压, 有触电危险。

**注意:** ⚠ 产品上的这个标志意在提示用户设备随附的用户手册中有重要的操作和维护(维修)说明。

关于我们产品的安全指南、遵循的规范、EMI/EMF 的兼容性、无障碍使用的特性等相关内容, 敬请访问 Extron 网站 [www.extron.com](http://www.extron.com), 参见 Extron 安全规范指南, 产品编号 68-290-01。

## Chinese Traditional (繁體中文)

**警告:** ⚠ 若產品上使用此符號, 是為了提醒使用者, 產品機殼內存在著可能會導致觸電之風險的未絕緣危險電壓。

**注意:** ⚠ 若產品上使用此符號, 是為了提醒使用者, 設備隨附的用戶手冊中有重要的操作和維護(維修)說明。

有關安全性指導方針、法規遵守、EMI/EMF 相容性、存取範圍和相關主題的詳細資訊, 請瀏覽 Extron 網站: [www.extron.com](http://www.extron.com), 然後參閱《Extron 安全性與法規遵守手冊》, 準則編號 68-290-01。

## Japanese

**警告:** この記号 ⚠ が製品上に表示されている場合は、筐体内に絶縁されていない高電圧が流れ、感電の危険があることを示しています。

**注意:** この記号 ⚠ が製品上に表示されている場合は、本機の取扱説明書に記載されている重要な操作と保守(整備)の指示についてユーザーの注意を喚起するものです。

安全上のご注意、法規遵守、EMI/EMF適合性、その他の関連項目については、エクストロンのウェブサイト [www.extron.com](http://www.extron.com) より『Extron Safety and Regulatory Compliance Guide』(P/N 68-290-01)をご覧ください。

## Korean

**경고:** 이 기호 ⚠ 가 제품에 사용될 경우, 제품의 인클로저 내에 있는 접지되지 않은 위험한 전류로 인해 사용자가 감전될 위험이 있음을 경고합니다.

**주의:** 이 기호 ⚠ 가 제품에 사용될 경우, 장비와 함께 제공된 책자에 나와 있는 주요 운영 및 유지보수(정비) 지침을 경고합니다.

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

## FCC Class A Notice

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 unshielded twisted pair (UTP) or shielded twisted pair (STP) cables; but, to ensure FCC Class A and CE compliance, STP cables and STP Connectors are 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.

### Copyright

© 2014 Extron Electronics. All rights reserved.

### Trademarks

All trademarks mentioned in this guide are the properties of their respective owners.

**The following registered trademarks<sup>®</sup>, registered service marks<sup>SM</sup>, and trademarks<sup>TM</sup> are the property of RGB Systems, Inc. or Extron Electronics:**

Registered Trademarks <sup>®</sup>
AVTrac, Cable Cubby, CrossPoint, eBUS, EDID Manager, EDID Minder, Extron, Flat Field, GlobalViewer, Hideaway, Inline, IP Intercom, IP Link, Key Minder, LockIt, MediaLink, PlenumVault, PoleVault, PowerCage, PURE3, Quantum, SoundField, SpeedMount, SpeedSwitch, System INTEGRATOR, TeamWork, TouchLink, V-Lock, VersaTools, VN-Matrix, VoiceLift, WallVault, WindoWall, XTP and XTP Systems
<b>Registered Service Mark<sup>SM</sup></b> : S3 Service Support Solutions
Trademarks <sup>TM</sup>
AAP, AFL (Accu-Rate Frame Lock), ADSP (Advanced Digital Sync Processing), Auto-Image, CDRS (Class D Ripple Suppression), DDSP (Digital Display Sync Processing), DMI (Dynamic Motion Interpolation), Driver Configurator, DSP Configurator, DSVP (Digital Sync Validation Processing), FastBite, FOXBOX, IP Intercom HelpDesk, MAAP, MicroDigital, ProDSP, QS-FPC (QuickSwitch Front Panel Controller), Scope-Trigger, SIS, Simple Instruction Set, Skew-Free, SpeedNav, Triple-Action Switching, XTRA, ZipCaddy, ZipClip

## Conventions Used in this Guide

### Notifications

The following notifications are used in this guide:

**WARNING:** A warning indicates a situation that has the potential to result in death or severe injury.

**CAUTION:** A caution indicates a situation that **may** result in minor injury.

**ATTENTION:** Attention indicates a situation that may damage or destroy the product or associated equipment.

**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  
[01] R0004 00300 00400 00800 00600 [02] 35 [17] [03]
```

```
Esc|X1 *X17* X20* X23* X21CE ←
```

**NOTE:** For commands and examples of computer or device responses mentioned in this guide, the character “0” 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 008.132.180.48: 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](http://www.extron.com).

# Contents

---

<b>Introduction .....</b>	<b>1</b>
About this Guide.....	1
About the XTP T UWP 302 .....	1
Key Features .....	2

---

<b>Installation and Operation.....</b>	<b>3</b>
Installation Overview .....	3
Installing the Mud Ring or Junction Box.....	4
Cutting an Opening in the Mounting Surface...	4
Installing the Mud Ring .....	4
Installing a UL-certified Junction Box .....	6
Rear and Side Panel Connectors.....	6
Mounting the XTP T UWP 302.....	8
Front Panel Connections .....	9
Making Connections.....	10
HDMI Connection .....	10
TP Cable Termination and Recommendations .....	11
RS-232 and IR Over XTP Communication ....	12
Power Connection.....	13
Operation .....	15
Indicators.....	15
EDID.....	15
Reset Modes .....	16

---

<b>SIS Configuration and Control.....</b>	<b>17</b>
Host Device Connection.....	17
SIS Programming Guide .....	17
Host-to-Device and Device-to-Host Communication .....	17
Device-Initiated Message.....	17
Error Responses.....	18
Using the Command and Response Tables for SIS Commands .....	18
Symbol Definitions.....	18
Command and Response Tables for SIS Commands .....	19
Input Commands.....	19
Audio Configuration Commands.....	19
Picture Adjustment Commands .....	20
Preset Commands.....	20
EDID Commands.....	21
Advanced Configuration Commands .....	21

---

<b>XTP System Configuration Software.....</b>	<b>22</b>
Installing the XTP System Configuration Software.....	22
Using the XTP System Configuration Software.....	23
Connections .....	23
Top Menu .....	24
Device Settings.....	27

---

<b>Reference Information .....</b>	<b>35</b>
Updating Firmware with Firmware Loader .....	35
Downloading Extron Firmware Loader .....	35
Installing Firmware Loader .....	36
Downloading Firmware .....	37
Installing Firmware with Firmware Loader.....	38
Mounting Template.....	39



# Introduction

This section contains general information about this guide and the Extron XTP T UWP 302 wallplate transmitter. Topics in this section include:

- [About this Guide](#)
- [About the XTP T UWP 302](#)
- [Key Features](#)

## About this Guide

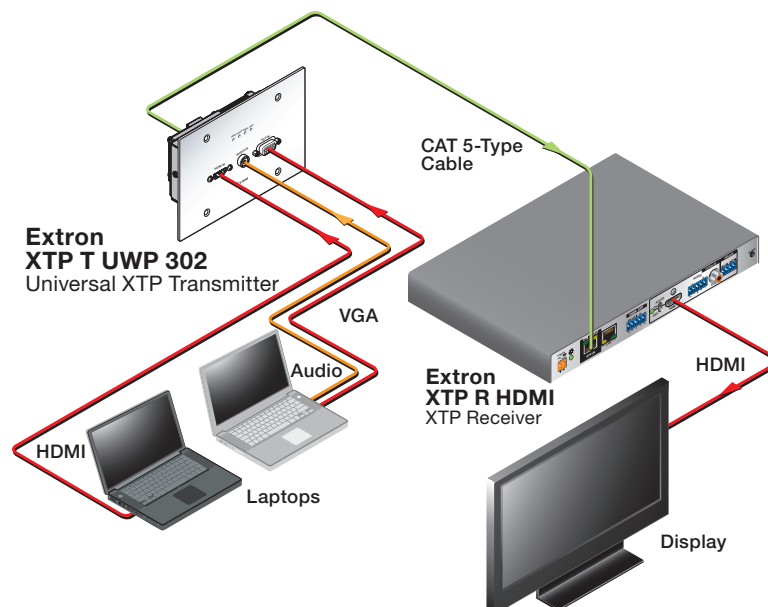
This guide contains installation, operation, and control procedures, and reference information for the XTP T UWP 302 wallplate transmitter. In this guide, the terms “XTP T UWP 302” and “transmitter” are used interchangeably to refer to the XTP T UWP 302 transmitter.

## About the XTP T UWP 302

The Extron XTP T UWP 302 is a two-input transmitter that sends HDMI or RGBHV video, audio, and bidirectional RS-232 and IR up to 330 feet (100 meters) over a single CAT 5e, 6, or 7 cable (CATx). This three-gang wallplate transmitter supports computer-video to 1920x1200, including HDTV 1080p/60 Deep Color and 2K. The XTP T UWP 302 works with XTP Systems for signal distribution and long-distance transmission between remote endpoints.

The XTP T UWP 302 can be powered locally or remotely through an Extron Power Injector or XTP matrix switcher (see [Power Connection](#) on page 13).

To configure and control the XTP T UWP 302, connect a host device, such as a computer, and enter Simple Instruction Set (SIS) commands (see [SIS Configuration and Control](#) on page 17) or use the XTP System Configuration Software (see [XTP System Configuration Software](#) on page 22).



**Figure 1.** Typical Point-to-Point Application Diagram

## Key Features

**Wall mountable** — Mounts in a standard three-gang junction box or the provided mud ring.

**Inputs** — Include one HDMI input and one VGA input.

**Computer-video to 1920x1200 support, including HDTV 1080p/60 Deep Color and 2K signals** — Supports digital signal transmission up to 330 feet over a single twisted pair cable, maintaining superior image quality at the highest resolutions.

**CAT 5e, 6, and 7 compatible** — Optimized for use with common unshielded and shielded twisted pair cable types. XTP systems fully support a maximum transmission distance of 330 feet (100 meters) for all compatible resolutions when used with CAT 5e, CAT 6, or CAT 7 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** — Include data rates up to 6.75 Gbps, Deep Color up to 12-bit, 3D, HD lossless audio formats, and CEC pass-through.

**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.

Supported HDMI specification features include data rates up to 6.75 Gbps, Deep Color up to 12-bit, 3D, HD lossless audio formats, and CEC pass-through

**Remote power capability** — To simplify integration, the XTP T UWP 302 can be powered by an XTP CrossPoint matrix switcher or XTP Power Injectors.

**Multiple embedded audio formats** — Compatible with a broad range of multi-channel audio signals, providing reliable operation with HDMI sources.

**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.

**Audio input gain and attenuation** — Allows the level of gain or attenuation to be set, eliminating noticeable volume differences when switching between sources.

**EDID and HDCP transmission** — DDC channels are actively buffered, allowing continuous communication between source and display.



# Installation and Operation

This section contains information for mounting, connecting, and wiring the XTP T UWP 302. Topics in this section include:

- [Installation Overview](#)
- [Installing the Mud Ring or Junction Box](#)
- [Rear and Side Panel Connectors](#)
- [Mounting the XTP T UWP 302](#)
- [Front Panel Connectors](#)
- [Making Connections](#)
- [Operation](#)

## Installation Overview

The XTP T UWP 302 can be installed into the provided mud ring or an electrical UL Listed junction box.

1. Prepare the mounting surface.

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

**ATTENTION:** Failure to check the items listed below may result in property damage.

- a. Ensure there are no utility cables or pipes at the intended location that might be damaged or cause injury when installing the device.
- b. Check that the installation meets the building, electrical, and safety codes.
- c. Ensure there is sufficient space behind the device.
- d. Choose a location that will allow cable runs without interference.

### NOTES:

- Cables may need to be installed in the wall or conduits before installation.
- The mud ring does not require attachment to wall studs.
- For junction boxes, refer to the manufacturer for more installation requirements.

2. Cut a hole in the mounting surface (see [Cutting an Opening in the Mounting Surface](#) on page 4).
3. Install the mud ring or junction box in the mounting surface (see [Installing the Mud Ring](#) on page 4 or [Installing the UL-Certified Junction Box](#) on page 6).
4. Route and connect cables to the rear and side panel connectors (see [Rear and Side Panel Connectors](#) on page 6).
5. Mount the XTP T UWP 302 to the mud ring or junction box (see [Mounting the XTP T UWP 302](#) on page 8).
6. Connect inputs to the front panel connectors (see [Front Panel Connections](#) on page 9).

# Installing the Mud Ring or Junction Box

## Cutting an Opening in the Mounting Surface

1. Using an appropriate template or the mounting enclosure as a guide, mark the area of the wall with a soft pencil that will be cut (for the provided mud ring, see **Mounting Template** on page 39).

**NOTE:** Check with the manufacturer of the junction box for specific installation requirements.

2. Use a jigsaw or small hand saw to carefully cut away the material within the guidelines drawn in step 1.
3. Check the size of the opening by laying the mud ring or junction box against it. The mounting device should fit snugly in the opening.
4. If needed, use a saw, file, or sandpaper to enlarge the hole.

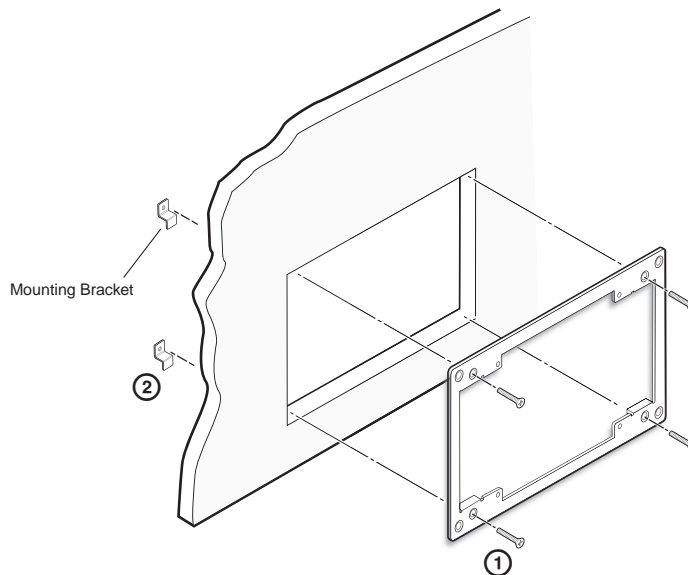
**CAUTION: Risk of personal injury.** Smooth the edges of the opening to avoid personal injury during installation.

**ATTENTION:** Smooth the edges of the opening to avoid damage to the mounting device or the cables.

## Installing the Mud Ring

The provided mud ring can be installed in two different ways depending on the width and type of mounting surface. Install the mud ring with backing clips for thin or less sturdy surfaces like wallboard, particle board, or soft wood. Install the mud ring directing into the wall with screws for sturdy or dense surfaces like sheet metal, plywood, or hard wood.

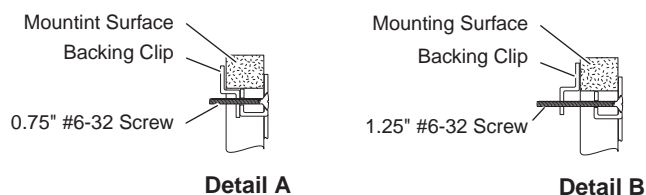
### Fastening the mud ring with backing clips



**Figure 2. Installing the Mud Ring with Backing Clips**

1. Place 1.25 inches (3.18 cm) long or 0.75 inch (1.90 cm) #6-32 thread machine screws through the middle holes in each corner of the mounting bracket. Use the shortest possible screw needed.
2. Loosely fasten the mounting backing clip on the end of each screw.

3. Insert the mounting bracket into the opening in the wall.
4. Rotate each backing clip so that the tab is behind the installation surface to hold the bracket snugly in place when the screw is tightened.



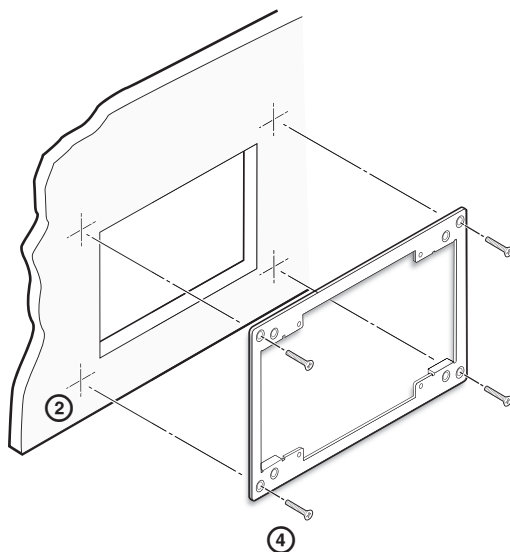
**Figure 3. Backing Clip Installation**

**NOTE:** The backing clip can be installed in detail A or detail B (see figure 3).

5. Use a cross-head (Phillips) screwdriver to fasten the screws and backing clips in place.

### Fastening the mud ring with screws

1. Insert the mounting bracket into the opening in the wall and hold it firmly in place.
2. Mark the locations of the outermost corner bracket holes on the installation surface.



**Figure 4. Installing the Mud Ring Directly into the Mounting Surface**

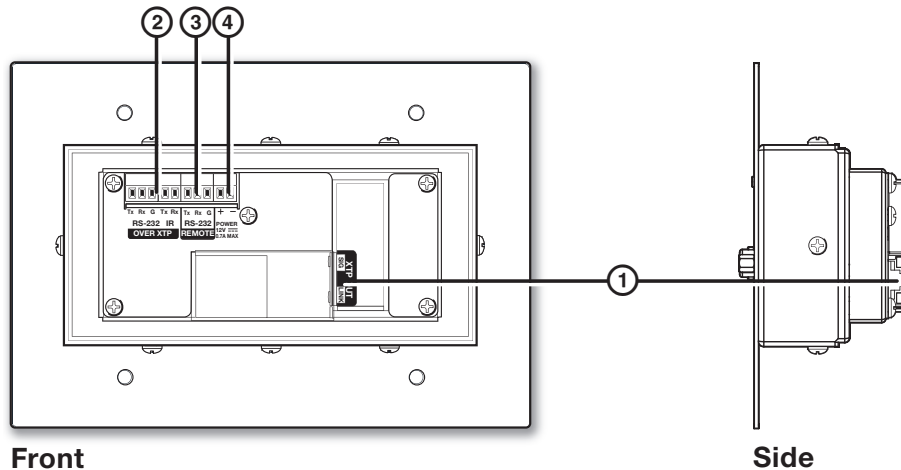
3. If desired, remove the mounting bracket and drill 0.25 inch deep pilot holes (half the width of the shaft of the screw) at the marked locations.
4. Use four 0.5 inch (1.3 cm) long, #6 flat headed wood screws to fasten the mounting bracket directly onto wood surfaces; or use self-tapping sheet metal screws to fasten the bracket to metal (see figure 4).
5. Hand tighten the screws.

## Installing a UL-certified Junction Box

1. Insert the junction box into the hole in the wall.
2. Secure it to the stud using two screws or nails, as appropriate. The front edge of the junction box must be flush with the front surface of the wall.
3. 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.

## Rear and Side Panel Connectors



**Figure 5. Rear Panel Connectors**

① **XTP Connector** — Connect a twisted pair cable to the RJ-45 connector labeled XTP Out on the XTP T UWP 302 and the XTP input port on another XTP device to pass all signals (see **TP Cable Termination and Recommendations** on page 11). 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 an XTP signal or test pattern to a compatible receiver or matrix switcher.

**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.
- 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 14).

- ② **RS-232 Over XTP port** — To pass bidirectional serial or other control signals between XTP-compatible devices, connect a control device to the 5-pole captive screw connector. The port includes only the 3 poles labeled “RS-232.”

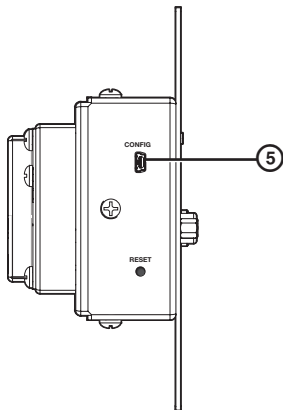
**IR Over XTP port** — To transmit and receive IR signals (up to 40 kHz), connect a control device to the 5-pole captive screw connector. This port includes only the 2 poles labeled “IR” and shares the ground pole with the RS-232 port.

**NOTE:** RS-232 and IR data can be transmitted simultaneously (see [RS-232 and IR Over XTP Communication](#) on page 12 for wiring details).

- ③ **Remote RS-232 connector** — Connect a host device to the 3.5 mm, 3-pole captive screw connector for serial control of the transmitter.

- ④ **Power connector** — Connect an external power supply to the 2-pole captive screw connector. The Power LED lights to indicate the device is receiving power.

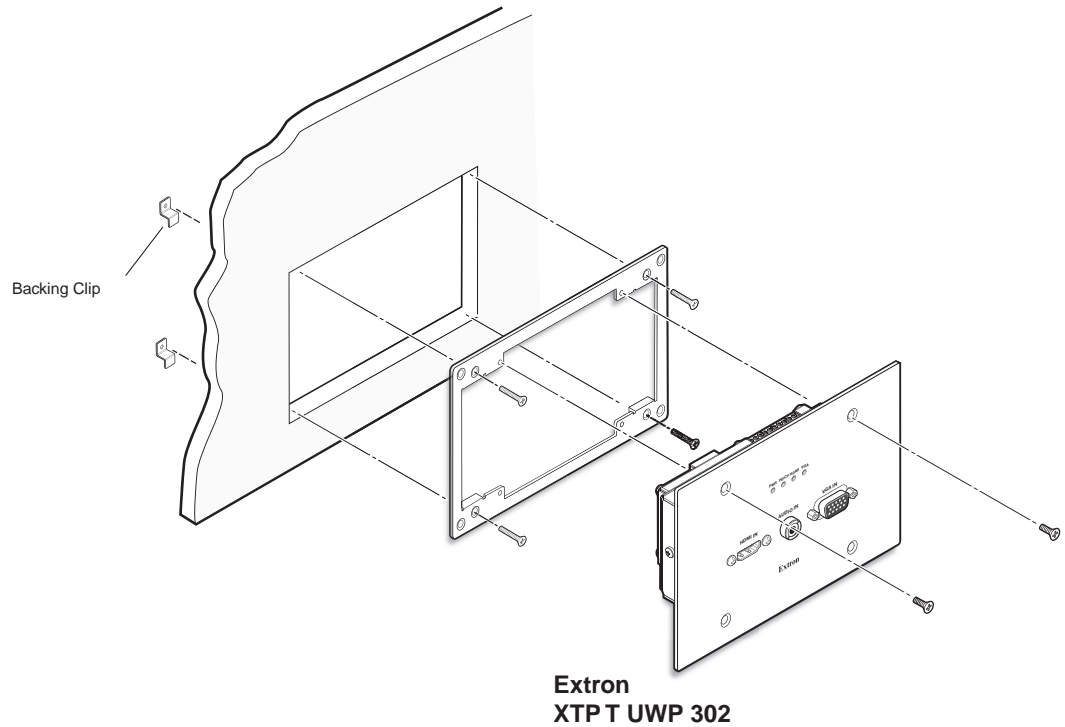
**NOTE:** The XTP T UWP 302 can also be powered remotely (see [Power Connection](#) on page 13).



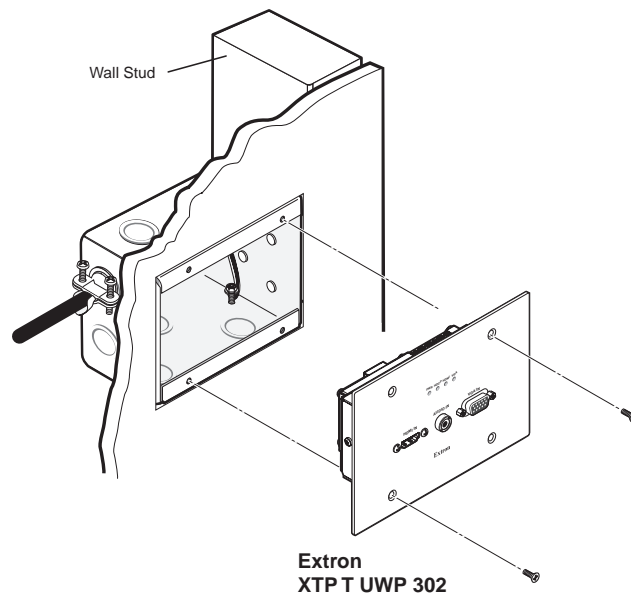
**Figure 6. Side Panel Connector**

- ⑤ **Config port** — Connect a host device to the front panel mini USB Config port.

## Mounting the XTP T UWP 302



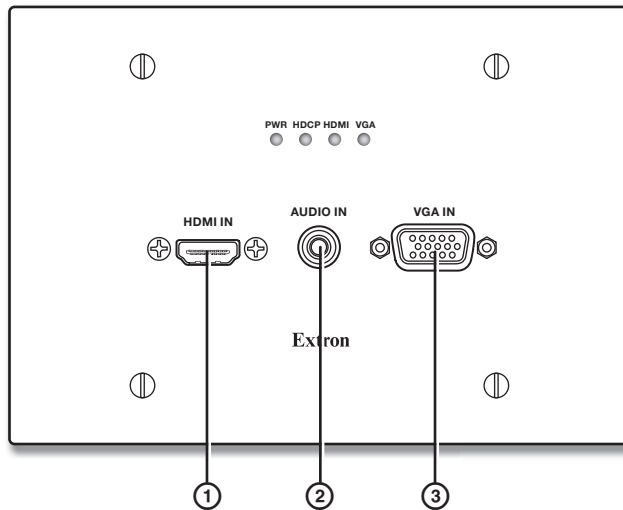
**Figure 7.** Installing the XTP T UWP 302 in the Provided Mud Ring



**Figure 8.** Installing the XTP T UWP 302 in a Junction Box

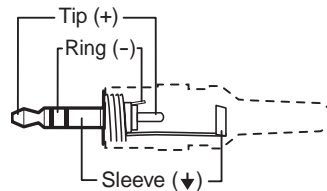
1. Align the mounting screws on the XTP T UWP 302 with the available holes on the mud ring or junction box.
2. Using the provided screws, attach the XTP T UWP 302 to the mud ring or junction box.

## Front Panel Connections



**Figure 9. Front Panel Connectors**

- ① **HDMI connectors** — Connect a digital video source device to the HDMI connector. It can accept HDMI, DVI, or dual mode DisplayPort video sources.
- ② **Audio connector** — Connect an analog audio source to the 3.5 mm tip-ring-sleeve (TRS) jack.



**Figure 10. Wiring for TRS Audio**

By default, audio input is selected automatically (see [Audio input selection](#) SIS commands on page 19 to manually select audio inputs). When the HDMI input is selected with automatic audio input selections, 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.

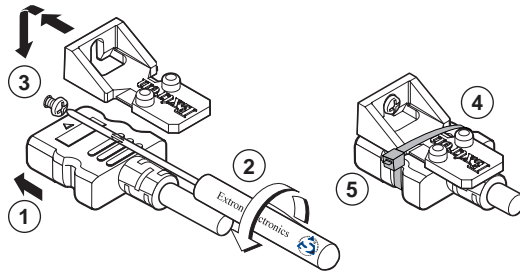
Selected Video Input	HDMI Embedded Audio Present	Analog Audio Present	Audio Sent Over XTP
VGA	N/A	Yes	Analog audio
VGA	N/A	No	No audio
HDMI	Yes	No	HDMI embedded audio
HDMI	Yes	Yes	HDMI embedded audio
HDMI	No	Yes	Analog audio
HDMI	No	No	No audio

- ③ **Analog video connector** — Connect a video source to the female 15-pin HD connector. It accepts RGBHV video signals.

## Making Connections

### HDMI Connection

Use an Extron LockIt Lacing Bracket to secure an HDMI cable to each connector as follows:



**Figure 11. Installing the LockIt Lacing Bracket**

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.

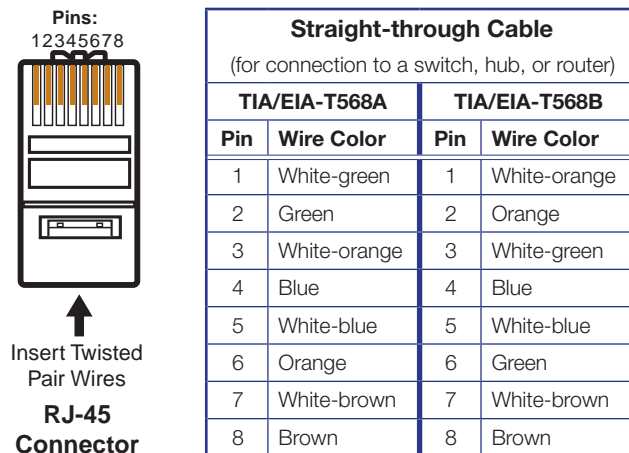
**ATTENTION:** Do not overtighten the HDMI connector mounting screw. The shield it fastens to is very thin and can easily be stripped.

4. Loosely place the included tie wrap around the HDMI connector and the LockIt lacing bracket as shown (see figure 11).
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.



## TP Cable Termination and Recommendations

Use the following pin configurations for twisted pair cables.



**Figure 12. TP Cable Termination**

### Supported cables

The XTP T UWP 302 is compatible with CAT 5e, 6, 6a, and 7 shielded twisted pair (F/UTP, SF/UTP, and S/FTP) and unshielded twisted pair (U/UTP) cable.

#### ATTENTION:

- Do not use Extron UTP23SF-4 Enhanced Skew-Free AV UTP cable or STP201 cable to link the XTP products.
- To ensure FCC Class A and CE compliance, STP cables and STP connectors are required.

### Cable recommendations

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

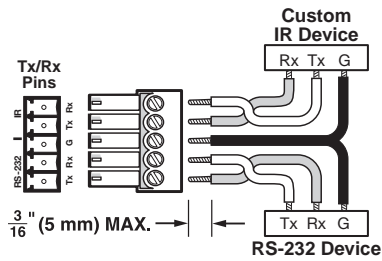
- Use the following Extron XTP DTP 24 SF/UTP cables and connectors for the best performance:
  - **XTP DTP 24/1000** Non-Plenum 1000' (305 m) spool 22-236-03
  - **XTP DTP 24P/1000** Plenum 1000' (305 m) spool 22-235-03
  - **XTP DTP 24 Plug** Package of 10 101-005-02
- If not using XTP DTP 24 cable, 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 12).
- 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 CAT 6 or 6a shielded couplers and punch down connectors.

#### NOTE: When using CAT 5e or CAT 6 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 (see figure 13 for an example of how to wire the connector).



**Figure 13. Wiring the RS-232 and IR Over XTP Connector**

**ATTENTION:** The length of exposed wires is critical.

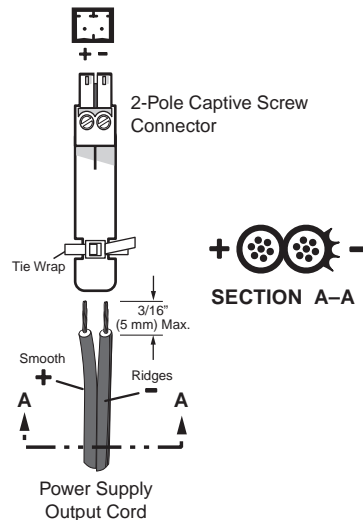
- The ideal length is 3/16 inch (5 mm).
- Longer bare wires can short together
- Shorter wires are not as secure in the connectors and could be pulled out.

## Power Connection

Apply power to the transmitter locally with the provided power supply or remotely with a power injector or 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.

### Local power



**Figure 14. Power Wiring**

The XTP T UWP 302 can be connected to a local power supply.

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

#### **ATTENTION:**

- This product is intended to be supplied by a Listed Power Unit marked “Class 2” or “LPS,” rated 12 VDC, 1.0 A minimum. 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 end product.
- 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 75 and the Canadian Electrical Code part 1, section 16. The power supply shall not be permanently fixed to a building structure or similar structure.
- 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.
- The length of the exposed (stripped) copper wires is important. The ideal length is 3/16 inch (5 mm).

**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.

Use the supplied tie wrap to strap the power cord to the extended tail of the connector.

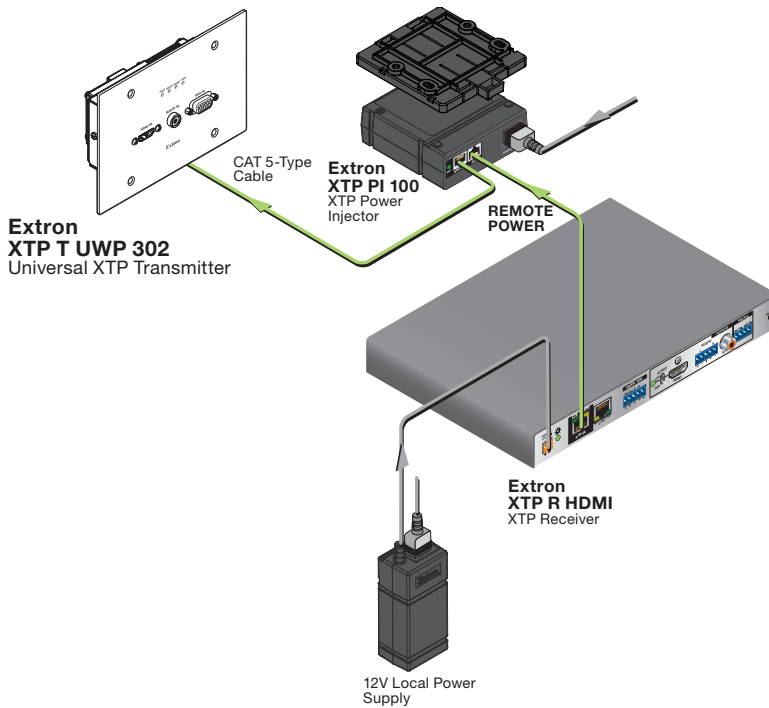
## Remote power

The XTP T UWP 302 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.

## Power injector

To power the XTP T UWP 302 remotely with an XTP Power Injector, power one device locally (see **Local power** on page 13) and connect an XTP Power Injector to the XTP cable run along the XTP ports (see the *XTP Power Injector User Guide* for more installation information).



**Figure 15.** Typical Point-to-point Application with Remote Power

**NOTE:** The power injector provides remote power up to 330 feet with a CATx cable with 24 AWG wire.

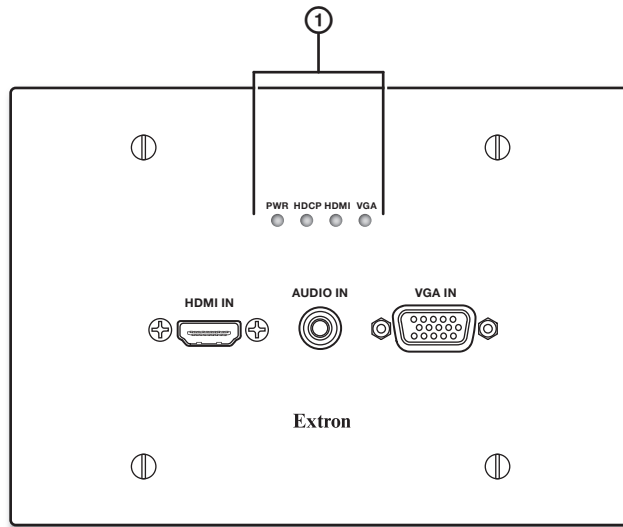
## Direct power from an XTP matrix switcher

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

## Operation

After all transmitters, all receivers, 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. If problems persist, call the Extron S3 Sales & Technical Support Hotline. See the contact numbers on the last page of this guide for the nearest Extron office.

## Indicators



**Figure 16.** XTP T UWP 302 Indicators

### ① Indicators

- Power LED indicator** — Lights when power is applied to the unit.
- HDCP LED indicator** — Lights when the input signal is encrypted.
- HDMI LED indicator** — Lights when the active input video signal is HDMI.
- VGA LED indicator** — Lights when the active input video signal is VGA.

## EDID

To manage EDID on the XTP T UWP 302, use the XTP System Configuration Software (see [XTP System Configuration Software](#) on page 22). The XTP T UWP 302 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 transmitter is assigned by the matrix switcher using the XTP System Configuration Software.

## Reset Modes

Use the recessed Reset button on the rear panel of the transmitter to return the device to default settings or to restore factory-shipped firmware. To access the Reset button, the XTP T UWP 302 may need to be removed from the mud ring or junction box.

Reset Mode Summary			
	Mode Activation	Result	Purpose/Notes
Factory Reset (Mode 1)	Press the recessed Reset button while applying power to the device.	The device reverts to the factory default firmware.	Use mode 1 to roll back to factory firmware for a single power cycle if an incompatibility issue arises.
	<b>NOTE:</b> 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.	<b>NOTE:</b> If you do not want to update the firmware or perform a mode 1 reset by mistake, cycle power to the device to return the firmware version running prior to the reset.	

# SIS Configuration and Control

The XTP T UWP 302 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 22). This section contains basic SIS communication details and SIS commands and responses when connected directly to the XTP T UWP 302. Topics in this section include:

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

## Host Device Connection

Use a computer running the HyperTerminal or Extron DataViewer utility, or a control system to enable serial control of the transmitter. To connect directly to an XTP T UWP 302, connect the computer to the XTP T UWP 302 through the side panel USB Config port or the rear panel RS-232 connector. The protocol for the serial port is as follows: 9600 baud, no parity, 8 data bits, 1 stop bit, no flow control.

## SIS Programming Guide

### 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 UWP 302 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 messages are displayed after a power cycle via RS-232. The specific message displayed depends on the XTP T UWP 302 model.

© Copyright 2013, Extron Electronics XTP T UWP 302 Vx.xx, 60-1358-12↵

© Copyright 2013, Extron Electronics XTP T UWP 302 Vx.xx, 60-1358-13↵

Vx.xx is the firmware version number.

## Error Responses

When the XTP T UWP 302 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 begin on page 20. Figure 17 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	/	2F						
0	30	1	31	2	32	3	33	4	34	5	35	6	36	7	37						
8	38	9	39	:	3A	;	3B	<	3C	=	3D	>	3E	?	3F						
@	40	A	41	B	42	C	43	D	44	E	45	F	46	G	47						
H	48	I	49	J	4A	K	4B	L	4C	M	4D	N	4E	O	4F						
P	50	Q	51	R	52	S	53	T	54	U	55	V	56	W	57						
X	58	Y	59	Z	5A	[	5B	\	5C	]	5D	^	5E	_	5F						
`	60	a	61	b	62	c	63	d	64	e	65	f	66	g	67						
h	68	i	69	j	6A	k	6B	l	6C	m	6D	n	6E	o	6F						
p	70	q	71	r	72	s	73	t	74	u	75	v	76	w	77						
x	78	y	79	z	7A	{	7B		7C	}	7D	~	7E	DEL	7F						

Figure 17. ASCII to Hexadecimal Conversion

## Symbol Definitions

↵ = Carriage return and line feed  
 | or ↵ = Carriage return with no line feed  
 ● = Space  
 Esc or W = Escape key



## Command and Response Tables for SIS Commands

Command	ASCII Command (Host to Device)	Response (Device to Host)	Additional Description
<b>Input Commands</b>			
<b>Input selection</b>			
Select input	[X1]!	In[X1]↵	Select input [X1].
View the selected input	!	In[X1]↵	View the selected input.
<b>Auto switch mode</b>			
Disable auto switch mode	[Esc]ØAUSW←	AuswØ↵	Switch inputs manually (default).
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.
<b>Audio Configuration Commands</b>			
<b>Audio gain and attenuation</b>			
<b>NOTE:</b> 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.
<b>Audio input selection</b>			
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.
<b>Black video signal resolution</b>			
Set black signal resolution	[Esc]A[X8]AFMT←	AfmtA[X8]↵	Set the black signal resolution to [X8].
View black signal resolution	[Esc]AAFMT←	AfmtA[X8]↵	View the black signal resolution.
<b>NOTE:</b>			
[X1] = Input selection		1 = VGA (default) 2 = HDMI	
[X2] = Audio input format		Ø = auto (default) 1 = digital embedded 2 = analog	
[X3] = Auto switch mode		Ø = disable (default) 1 = priority to the HDMI input (default) 2 = priority to the VGA input	
[X5] = Audio gain adjustment		Ø - 24 = decibels above 0	
[X6] = Audio attenuation adjustment		-18 - Ø = decibels below 0	
[X7] = Audio level adjustment		-18 - +24 (Ø dB = default)	
[X8] = Black 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
<b>Black signal for audio only</b>			
<b>NOTE:</b> The switcher 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 signal	<b>Esc</b> B1AFMT ←	AfmtB <b>X9</b> ←	Enable a black signal for audio only.
Disable black signal	<b>Esc</b> B0AFMT ←	AfmtB <b>X9</b> ←	Disable the black signal.
View black signal setting	<b>Esc</b> BAFMT ←	AfmtB <b>X9</b> ←	View the black signal setting.
<b>Picture Adjustment Commands</b>			
<b>Pixel phase</b>			
Set a pixel phase value	<b>Esc</b> <b>X13</b> PHAS ←	Phas <b>X13</b> ←	Adjust the pixel phase to <b>X13</b> .
Increment value	<b>Esc</b> +PHAS ←	Phas <b>X13</b> ←	Increase the pixel phase value.
Decrement value	<b>Esc</b> -PHAS ←	Phas <b>X13</b> ←	Decrease the pixel phase value.
View pixel phase value	<b>Esc</b> PHAS ←	Phas <b>X13</b> ←	Show the pixel phase value.
<b>Horizontal shift</b>			
Set horizontal shift value	<b>Esc</b> <b>X14</b> HCTR ←	Hctr <b>X14</b> ←	Set the horizontal location of the first active pixel in the active window.
Increment value	<b>Esc</b> +HCTR ←	Hctr <b>X14</b> ←	Increase the shift value.
Decrement value	<b>Esc</b> -HCTR ←	Hctr <b>X14</b> ←	Decrease the shift value.
View horizontal shift value	<b>Esc</b> HCTR ←	Hctr <b>X14</b> ←	Show the horizontal location of the first active pixel in the active window.
<b>Vertical shift</b>			
Set vertical shift value	<b>Esc</b> <b>X14</b> VCTR ←	Vctr <b>X14</b> ←	Set the vertical location of the first active pixel in the active window.
Increment value	<b>Esc</b> +VCTR ←	Vctr <b>X14</b> ←	Increase the shift value.
Decrement value	<b>Esc</b> -VCTR ←	Vctr <b>X14</b> ←	Decrease the shift value.
View vertical shift value	<b>Esc</b> VCTR ←	Vctr <b>X14</b> ←	Show vertical location of the first active pixel in the active window.
<b>Preset Commands</b>			
<b>Input presets</b>			
Save an input preset	<b>X15</b> ,	Spr <b>X15</b> ←	Save the current configuration to preset <b>X15</b> .
Recall an input preset	<b>X15</b> .	Rpr <b>X15</b> ←	Recall the preset <b>X15</b> configuration.
<b>NOTE:</b>			
<b>X9</b> = Enable or disable		∅ = disable	
		1 = enable (default)	
<b>X13</b> = Pixel phase		∅ - 255 (128 = default)	
<b>X14</b> = Horizontal or vertical shift		∅ - 65535 (32768 = default)	
<b>X15</b> = Preset number		1 - 8	

Command	ASCII Command (Host to Device)	Response (Device to Host)	Additional Description
<b>EDID Commands</b>			
<b>NOTE:</b> For EDID management, use the XTP System Configuration Software (see <a href="#">EDID Minder</a> on page 33).			
<b>Advanced Configuration Commands</b>			
<b>HDCP authorized device (HDMI input only)</b>			
HDCP authorized device On	<b>[Esc]</b> E1HDCP←	HdcpE1←	HDCP authorized device on (default).
HDCP authorized device Off	<b>[Esc]</b> EØHDCP←	HdcpEØ←	HDCP authorized device off.
Query HDCP authorized device status	<b>[Esc]</b> EHDCP←	HdcpE[X4]←	View the HDCP authorized device status.
<b>Test pattern</b>			
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.
<b>Factory defaults</b>			
System reset	<b>[Esc]</b> ZXXX←	Zpx←	Resets unit to factory default.
<b>Status</b>			
View input signal presence	ØLS	Frq[X11][X11]←	View the input signal presence of each input.
Query HDCP input	<b>[Esc]</b> IHDCP←	HdcpIØ[X12]←	View the HDCP status of the HDMI input.
Query firmware version	Q	x.xx←	View the firmware version.
Query full firmware version	*Q	x.xx.xxxx←	View the full firmware version.
Query part number	N	6Ø-1358-12← or 6Ø-1358-13←	View the device part number.
<b>NOTE:</b>			
[X1] = Input selection		1 = VGA (default) 2 = HDMI	
[X4] = HDCP Authorization		Ø = HDCP authorization off 1 = HDCP authorization on (default)	
[X10] = Color bar test pattern		Ø = disable (default) 1 = 720p @ 50 Hz 3 = 720p @ 60 Hz 5 = 1080p @ 60 Hz	
[X11] = HDCP status		Ø = no source connected 1 = HDCP compliant source 2 = non-HDCP compliant source	
[X12] = Video signal status		Ø = video or TMDS not detected 1 = video or TMDS detected	

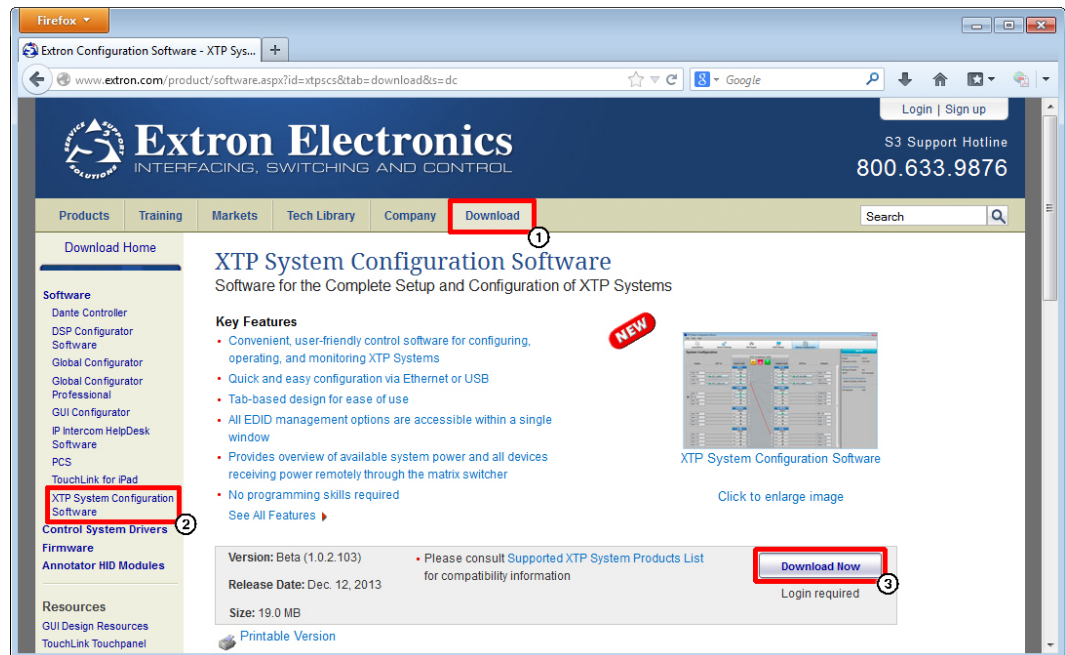
# XTP System Configuration Software

This section contains installation and configuration procedures for the XTP System Configuration Software for configuring and controlling the XTP T UWP 302. Topics in this section include:

- [Installing the XTP System Configuration Software](#)
- [Using the XTP System Configuration Software](#)

## Installing the XTP System Configuration Software

The program is available for download on the Extron website, [www.extron.com](http://www.extron.com).



**Figure 18. Extron Website Download Page**

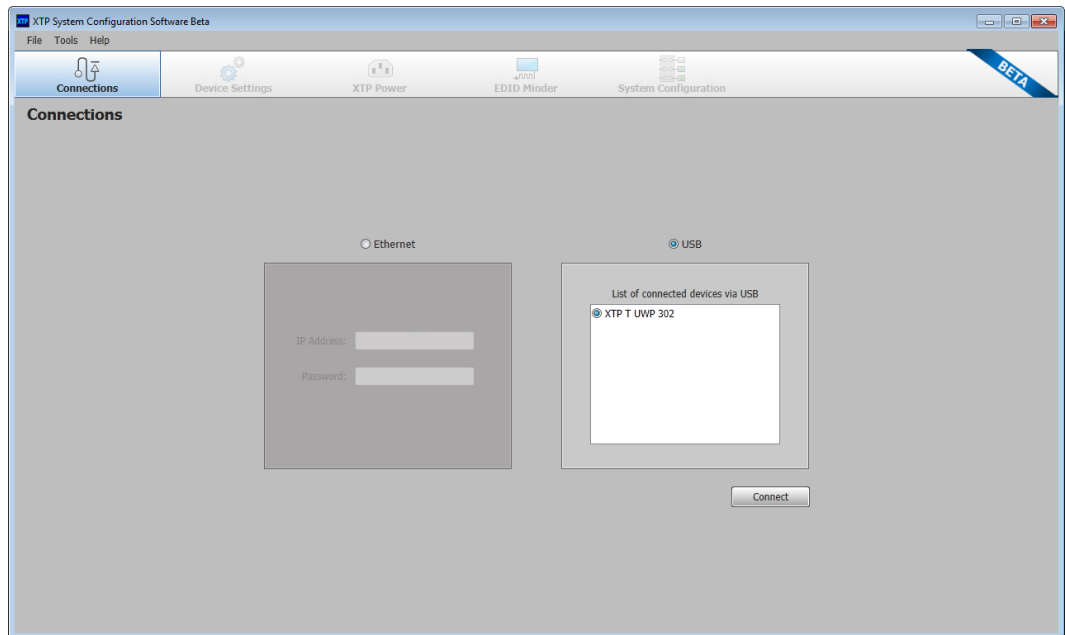
1. On the Extron website, click the **Download** tab.
2. From the left sidebar, click the **XTP System Configuration Software** link.
3. Click the **Download Now** button.
4. Submit any required information to start the download. Note where the file is saved.
5. Open the executable (.exe) file from the save location.
6. Follow the instructions that appear on the screen. By default, the installation creates a directory in the Program Files folder, and places four icons into a group folder named "Extron Electronics\XTP System Configuration."

## Using the XTP System Configuration Software

The XTP T UWP 302 can be controlled directly from the side panel config port or remotely from an XTP matrix switcher.

### Connections

When opening the XTP System Configuration Software, the Connections screen opens first. This screen is used to establish communication with an XTP device USB (see [Config port](#) on page 7).



**Figure 19. Connections Screen**

1. From the Connections screen, select the **USB** radio button.
2. Select the connected device to be controlled from the displayed list.
3. Click the **Connect** button.

## Top Menu

The top menu bar contains three menus for configuring software settings.

### File menu

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

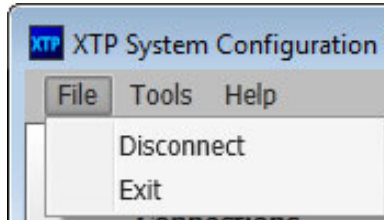


Figure 20. File Menu

### Disconnect

This option disconnects the XTP System Configuration Software from the connected device. 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 receiver from the software and closes the application. From the **File** menu, select **Exit**. The application closes.

### Tools menu

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

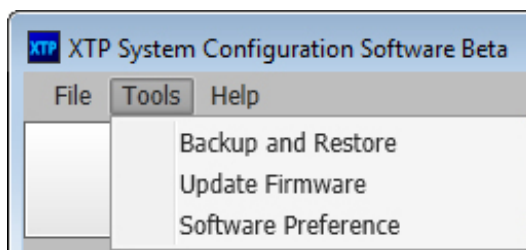


Figure 21. Tools Menu

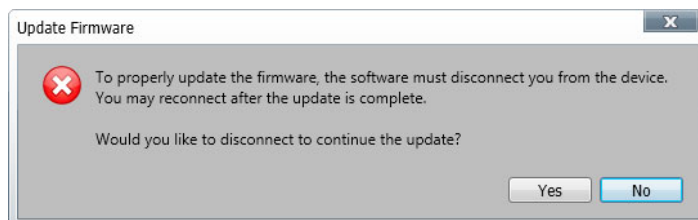
**NOTE:** The **Backup and Restore** and **Software Preference** options are not available when directly connected to the XTP T UWP 302.

## Update Firmware

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

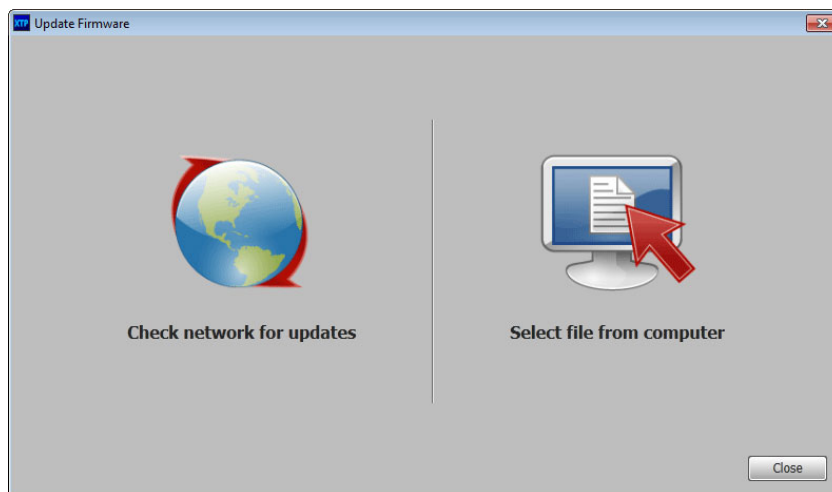
**NOTE:** If necessary, download new firmware from the Extron website (see [Downloading Firmware](#) on page 37).

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



**Figure 22. 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 23. Update Firmware Dialog Box**

3. Click the **Check network for updates** icon to search the LAN or WAN for firmware files or click the **Select file from computer** icon to select a firmware file from the connected host device.
4. Select the desired firmware file and click the **Close** button after the firmware finishes updating.

## Help menu

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

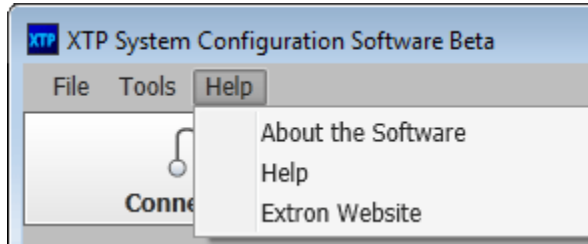


Figure 24. Help Menu

## About the Software

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

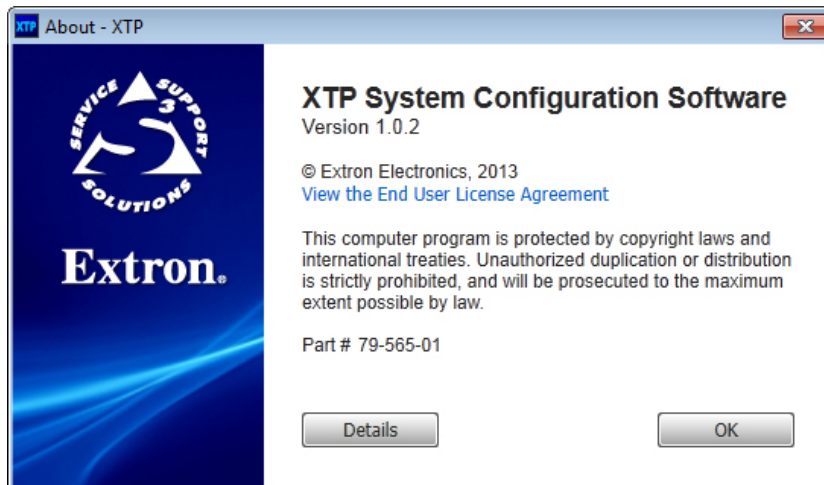


Figure 25. About Dialog Box (Example)

1. From the **Help** menu, select **About the Software**. The About - XTP 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**.

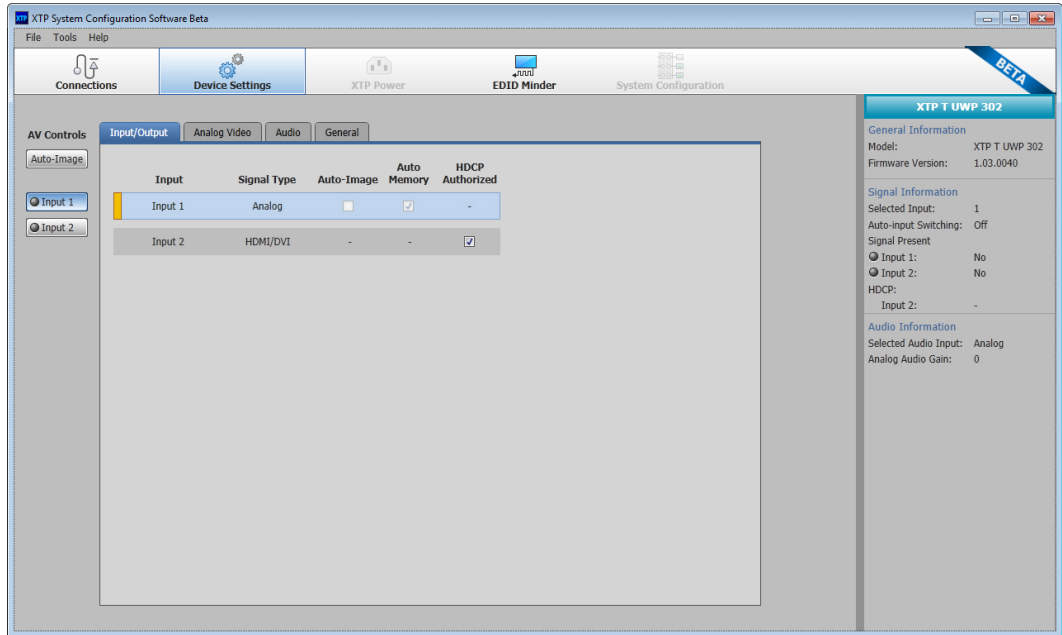
## Extron Website

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 host device. Click the **Device Settings** icon on the Global Navigation bar to open the Device Settings screen.



**Figure 26. Transmitter Device Settings Screen**

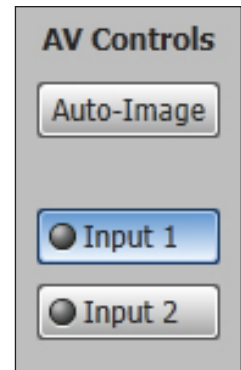
### AV Controls panel

The AV Controls panel, located on the left, is used to selection an input and apply one-time Auto-Image to input 1.

**Auto-Image** — Click the Auto-Image button to start a one-time Auto-Image on the currently selected input.

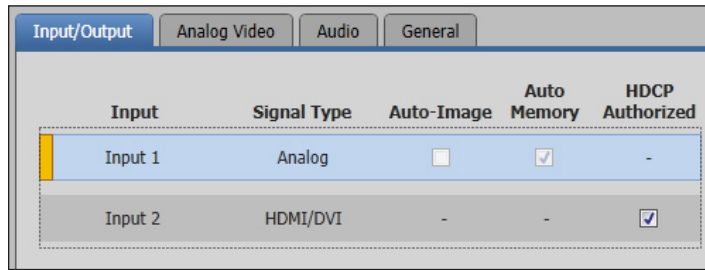
**Input selection** — Click an Input button to select an input. As a new input is selected, the summary within the device information panel changes to reflect the currently selected input.

**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 to open the Input/Output screen. It contains input information and options to apply automatic settings to individual inputs.



Input	Signal Type	Auto-Image	Auto Memory	HDCP Authorized
Input 1	Analog	<input type="checkbox"/>	<input checked="" type="checkbox"/>	-
Input 2	HDMI/DVI	-	-	<input checked="" type="checkbox"/>

**Figure 27. Input/Output Tab**

**Input name** — Displays the input name.

**Signal type** — Displays the signal type of each input. Input 1 is analog. Input 2 is HDMI/DVI.

**Auto-Image** — Select the **Auto-Image** check box of input 1 to apply an automatic Auto-Image. When selected, Auto-Image is applied whenever there is a change in the input sync. Auto-Image attempts to size and center the input signal based on the aspect ratio setting.

**Auto Memory** — Select the **Auto Memory** check box of input 1 to enable the Auto Memory. Auto Memory recalls input and image settings for signals that have previously been applied. When it is disabled, the XTP T UWP 302 treats every newly applied input as a new source.

**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 will be blocked from encrypting its output. This may result in some content not being passed by the source device.

## Analog Video tab

Click the **Analog Video** tab to open the Analog Video screen. It contains signal sampling, image shifting, and saving and recalling input preset options.

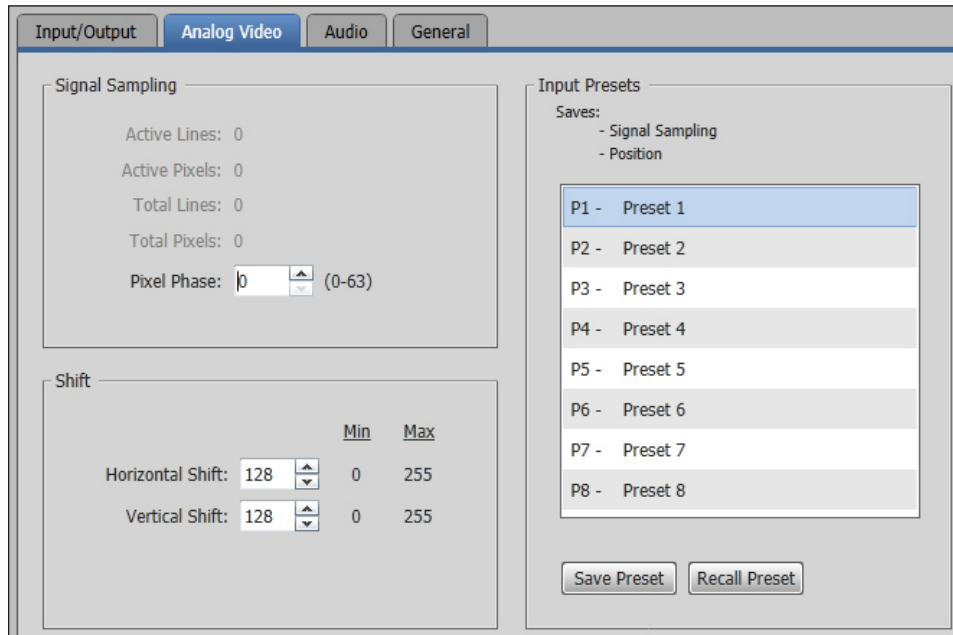


Figure 28. Analog Video Tab

### Signal Sampling panel

Signal sampling optimizes the input signal to the transmitter for the currently selected input. To adjust signal sampling 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.

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.

### Input Presets panel

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

**Save presets** — To save a preset, select one from the list of presets and click the **Save Preset** button.

**Recall presets** — 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 to open the Audio screen. It contains settings for input format and analog audio gain.

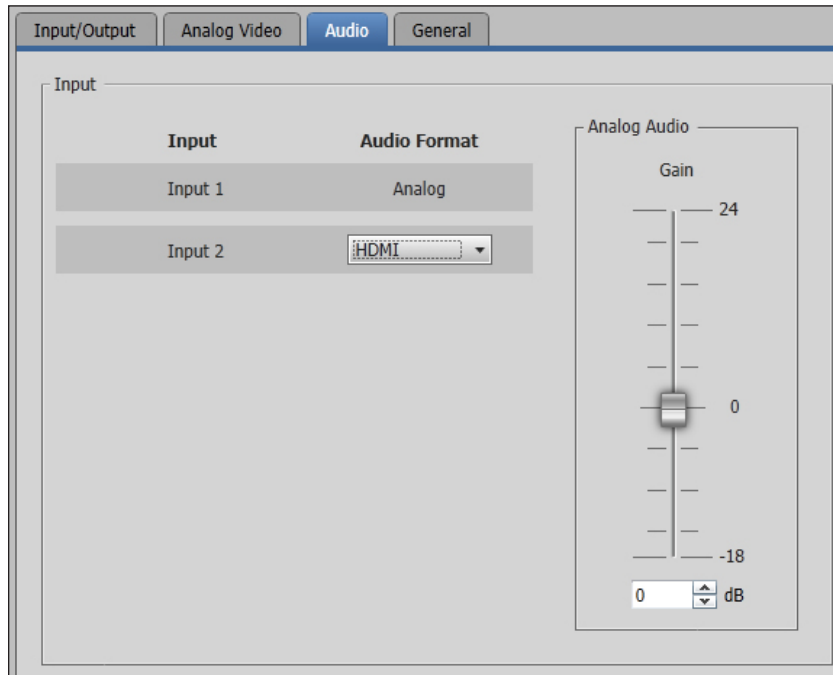


Figure 29. Audio Tab

### Input format section

**Input format** — From the **Audio Format** drop-down list, select the format for input 2. It can be Auto, HDMI, or Analog.

**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.

## General tab

Click the **General** tab to open the general screen. It contains settings for executive mode, auto switch mode, and factory reset.

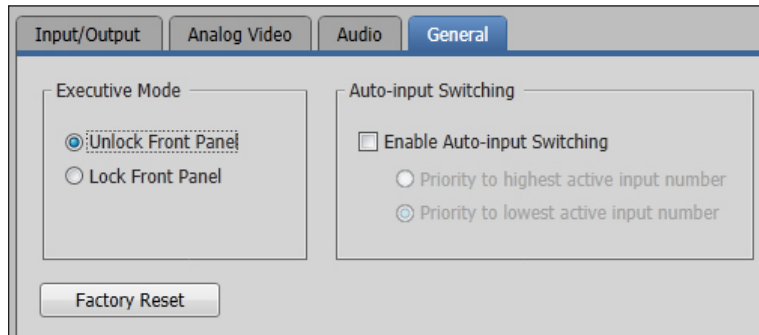


Figure 30. General Tab

### **Executive mode section**

**Unlock the front panel** — Click the **Unlock Front Panel** radio button (default) to disable executive mode.

**Lock the front panel** — Click the **Lock Front Panel** radio button to enable executive mode.

### **Auto-input Switching section**

**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.

Click the **Priority to lowest active input number** radio button to automatically switch to the lowest numbered active input.

### **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 **System reset command** on page 21).

## Device Information panel

The Device Information panel displays device information and settings.

### General Information section

**Model** — Displays the device model.

**Firmware version** — Displays the full firmware version.

### Signal Information section

**Selected input** — Displays the input number of the currently selected input.

**Auto-input switching** — Displays the On or Off status of auto switch mode.

**Signal present** — Displays the signal presence of both inputs.

**HDCP** — Displays the HDCP status of inputs 2.

### Audio Information section

**Selected audio input** — Displays the format of the currently selected audio input.

**Analog audio gain** — Displays the analog audio gain in dB.

XTP T UWP 302	
<b>General Information</b>	
Model:	XTP T UWP 302
Firmware Version:	1.03.0040
<b>Signal Information</b>	
Selected Input:	1
Auto-input Switching:	Off
Signal Present	
<input checked="" type="radio"/> Input 1:	No
<input checked="" type="radio"/> Input 2:	No
HDCP:	
Input 2:	-
<b>Audio Information</b>	
Selected Audio Input:	Analog
Analog Audio Gain:	0

## EDID Minder

Use the EDID Minder screen to assign unique EDID to the input or match current output resolutions to the input. Click the **EDID Minder** icon 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.

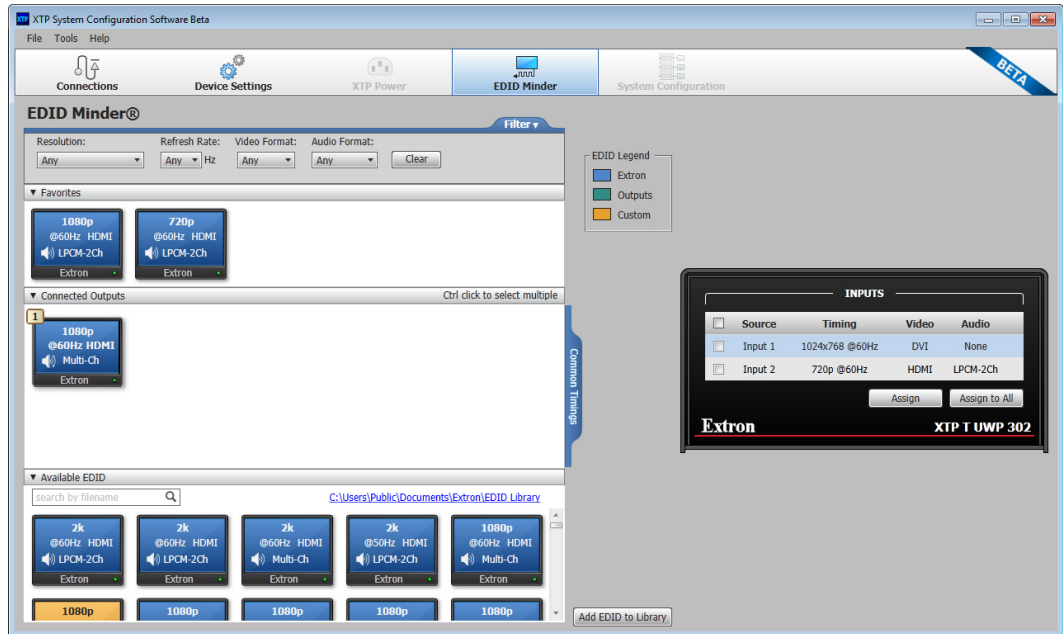


Figure 31. EDID Minder Screen

## Assign EDID

### To assign EDID to selected inputs:

1. Select an available EDID setting (represented by a blue, green, or yellow output display icon) from the Available EDID pane.
2. In the list of inputs on the right side of the screen, select the check box of the connected input.
3. Click the **Assign** button below the input area.

**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 setting (represented by a blue, green, or yellow output display icon) from the Available EDID pane.
2. Below the list of inputs on the right side of the screen, click the **Assign to All** button.

### Import EDID

1. On the EDID Minder screen, click the **Add EDID to Library** button.
2. Select the desired EDID file and click **Open**. The EDID appears in the Available EDID pane.
3. Assign the EDID from the Available EDID pane to import the EDID setting to the device.

### Save output EDID

1. On the EDID Minder screen, right-click on the desired EDID setting in the **Connected Outputs** pane.
2. Select the **Save EDID to PC** 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 desired pane.

### Set favorite EDID

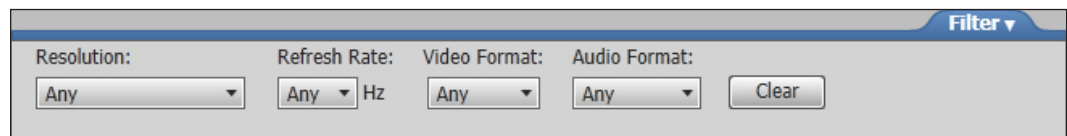
Commonly used EDID settings can be added to the Favorites pane for quick access.

1. Click and drag the desired EDID to the Favorites pane. The EDID setting is copied to the Favorites pane. Alternatively, right-click the desired EDID and select **Copy**. Then **Paste** the EDID setting into the Favorites pane.

### EDID filters

The filters can be used to easily and quickly locate specific EDID. Selectable filters include:

- Resolution
- Refresh rate
- Audio format
- Video format



**Figure 32. EDID Minder Filters**

#### To use a filter or combination of filters:

1. Select an EDID setting from one of the drop-down lists of the associated filter. The available EDID options that match the filter selection are displayed in the Available EDID pane.
2. Repeat step 1 to apply more filters.

#### To clear the currently applied filters:

1. Click the **Clear** button next to the filters. 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 pane. The **Common Timings** tab appears, listing the EDID settings common among the selected outputs.
2. Select the desired common EDID setting. The EDID will be shown in the Available EDID pane.



# Reference Information

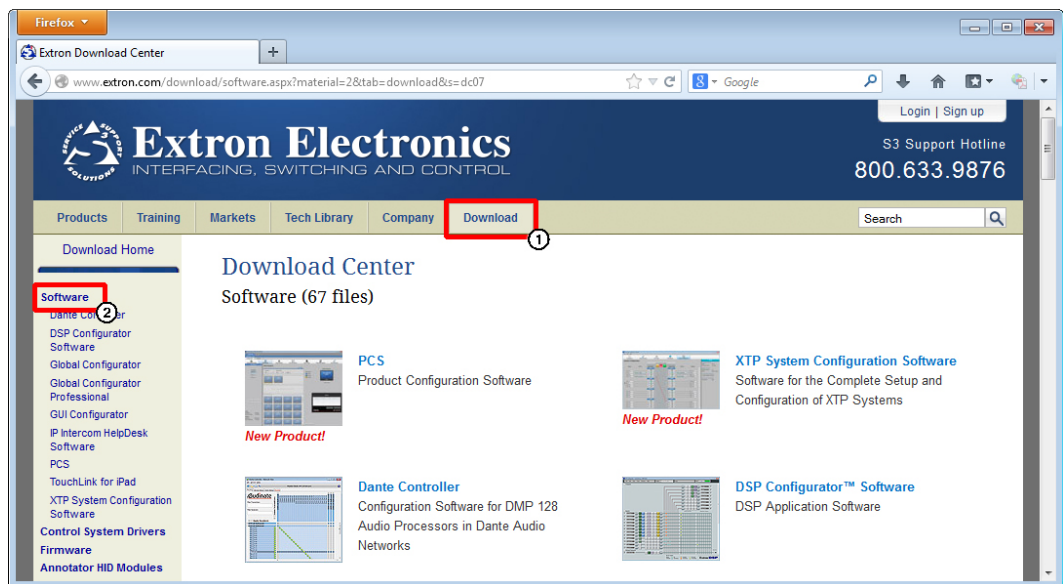
This section contains mounting information and instructions for updating firmware. Topics in this section include:

- [Updating Firmware with Firmware Loader](#)
- [Mounting Template](#)

## Updating Firmware with Firmware Loader

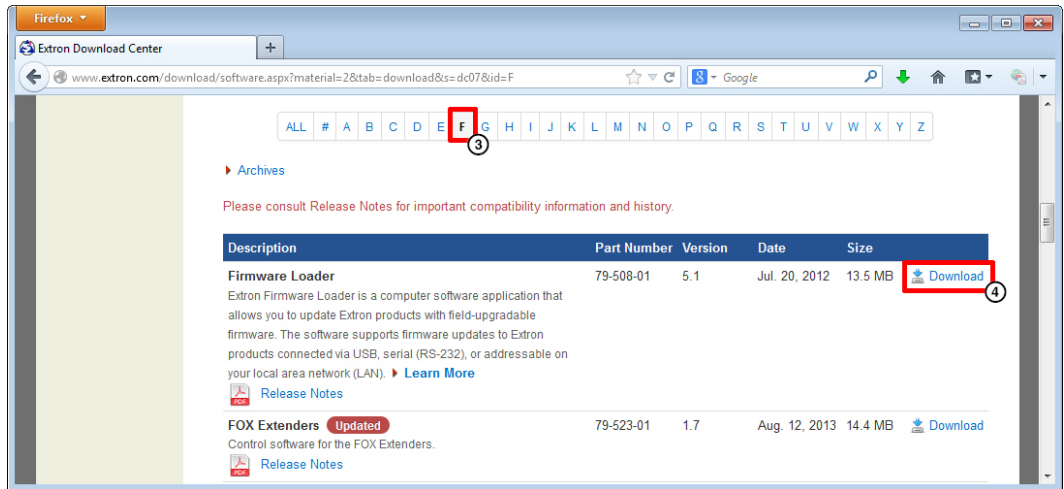
To upload and update firmware for the XTP T UWP 302, download the new firmware to a connected computer and upload the firmware with the Firmware Loader utility.

### Downloading Extron Firmware Loader



**Figure 33. Locating Software on the Extron Website**

1. On the Extron [website](#), click the **Download** tab.
2. On the left sidebar, click the **Software** link.



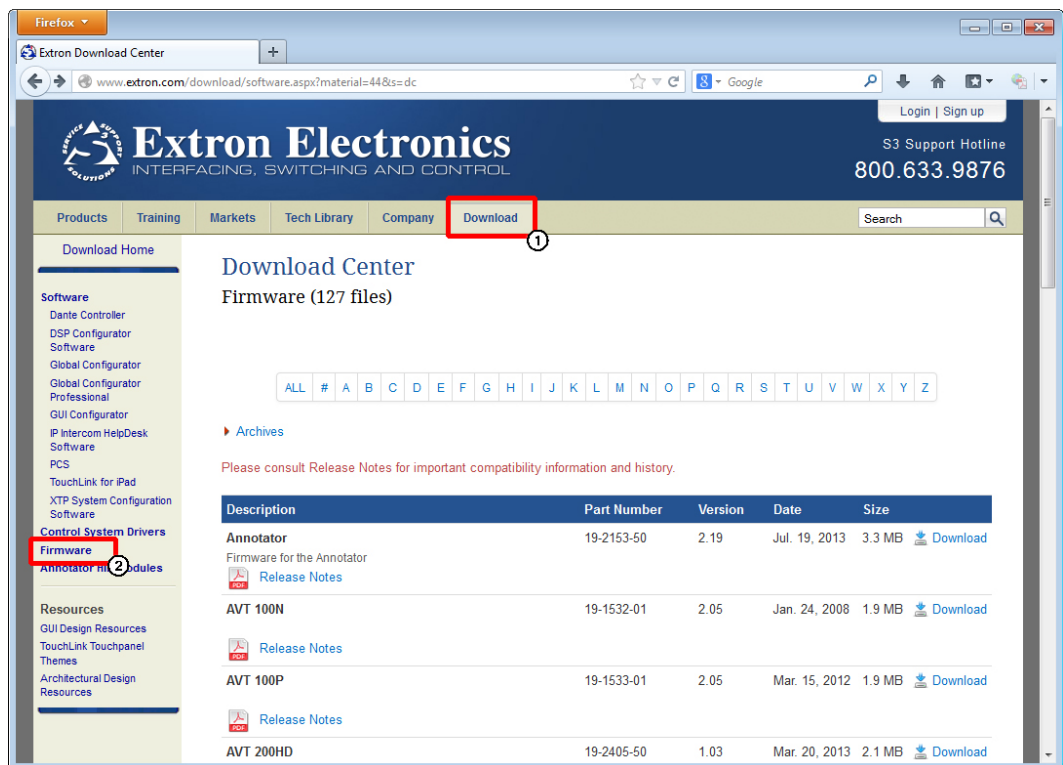
**Figure 34. Navigating to Firmware Loader**

3. Navigate to Firmware Loader.
4. Click the **Download** link on the right that corresponds with the program.
5. Submit any required information to start the download. Note where the file is saved.

## Installing Firmware Loader

1. Once Firmware Loader has been downloaded, run the .exe file from the save location. The installation wizard window opens.
2. Follow the instructions on the Installation Wizard screens to install Firmware Loader on the computer.

## Downloading Firmware



**Figure 35. Downloading Firmware from the Extron Website**

1. On the Extron [website](#), click the **Download** tab.
2. On the left sidebar, click the **Firmware** link.
3. Navigate to the XTP T UWP 302.
4. Ensure the available firmware version is a later version than the current one on the device.

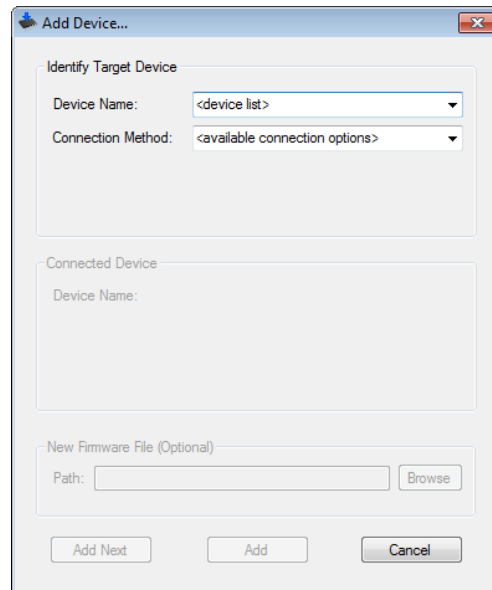
**NOTE:** The firmware release notes are a PDF file that provides details about the changes between different firmware versions. The file can be downloaded from the same page as the firmware.

5. Click the **Download** link to the right of the desired device.
6. Submit any required information to start the download. Note where the file is saved.

## Installing Firmware with Firmware Loader

Use the Firmware Loader utility to upload firmware to the transmitter when connected directly to the device.

1. Connect the host device to the side panel USB port.
2. Open Firmware Loader and establish a connection between the computer and the device. The Add Device... dialog box opens.



**Figure 36. Add Device... Dialog Box**

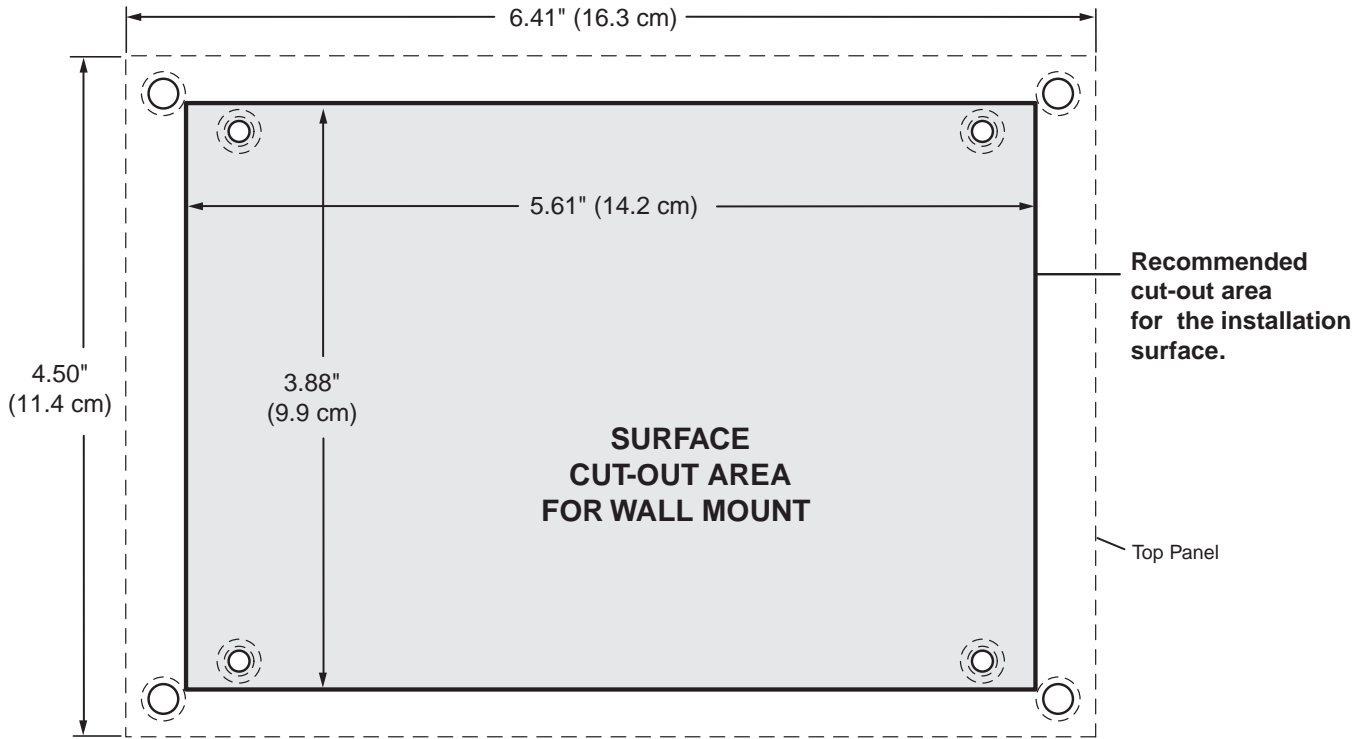
3. Select XTP T UWP 302 from the **Device Name** drop-down list.
4. Select the method of connection from the **Connection Method** drop-down list.
5. Depending on the connection method, additional options appear. Make the appropriate selections for the current connection method.
6. Click the **Connect** button.
7. Click the **Browse** button in the New File Firmware (Optional) section.
8. On the Open dialog box, navigate to the new firmware file, which has an .S19 extension, and click the **Open** button.

**ATTENTION:** Valid firmware files must have the file extension .S19. A file with any other extension is not a firmware upgrade for this device and could cause the device to stop functioning.

9. Click the **Add** button. The Add Device... dialog box closes and the device and firmware are listed in the Firmware Loader main window.
10. Click the **Begin** button to start the upload process.
11. Close Firmware Loader when the **Remaining Time** field shows 00.00.00, the **Progress** column is 100%, and the **Status** field is completed.

## Mounting Template

Figure 37 is an example of a mounting template for preparing mounting surfaces. It is not to full size.



TEMPLATE IS **NOT** FULL SIZE.

**Figure 37.** Mounting Template for 3-gang Mud Rings

# 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  
F12, 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.

<p><b>Extron Headquarters</b> +1.800.633.9876 (Inside USA/Canada Only) Extron USA - West +1.714.491.1500 +1.714.491.1517 FAX</p>	<p><b>Extron Europe</b> +800.3987.6673 (Inside Europe Only) +31.33.453.4040 +31.33.453.4050 FAX</p>	<p><b>Extron Asia</b> +65.6383.4400 +65.6383.4664 FAX</p>	<p><b>Extron Japan</b> +81.3.3511.7655 +81.3.3511.7656 FAX</p>	<p><b>Extron China</b> +86.21.3760.1568 +86.21.3760.1566 FAX</p>	<p><b>Extron Middle East</b> +971.4.299.1800 +971.4.299.1880 FAX</p>	<p><b>Extron Korea</b> +82.2.3444.1571 +82.2.3444.1575 FAX</p>	<p><b>Extron India</b> 1800.3070.3777 Inside India Only +91.80.3055.3777 +91.80.3055.3737 FAX</p>
--	---	---	--	--	--	--	---

## Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>