



TLP Pro 720 Series and TLP Pro 1020 Series TouchLink Pro Touchpanel Control Systems



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.


Instructions de sécurité • Français

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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.


Sicherheitsanweisungen • Deutsch


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
Instrucciones de seguridad • Español


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
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, номер по каталогу - 68-290-01.


安全说明 • 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, 参见 Extron 安全规范指南, 产品编号 68-290-01。


安全記事 • 繁體中文


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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, 然後參閱《Extron 安全性與法規遵守手冊》, 準則編號 68-290-01。


安全上のご注意 • 日本語


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安全上のご注意、法令遵守、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 より『Extron Safety and Regulatory Compliance Guide』(P/N 68-290-01) をご覧ください。

안전 지침 • 한국어

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)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.

NOTE:

- This unit was tested with shielded I/O cables on the peripheral devices. Shielded cables must be used to ensure compliance with FCC emissions limits.
- 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.

Battery Notice

This product contains a battery. **Do not open the unit to replace the battery.** If the battery needs replacing, return the entire unit to Extron (for the correct address, see the [Extron Warranty](#) section on the last page of this guide).

CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions.

ATTENTION : Risque d'explosion. Ne pas remplacer la pile par le mauvais type de pile. Débarrassez-vous des piles utilisées selon le mode d'emploi.

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Conventions Used in this Guide

Notifications

In this user guide, the following are used:

WARNING: Potential risk of severe injury or death.

AVERTISSEMENT : Risque potentiel de blessure grave ou de mort.

CAUTION: Risk of minor personal injury.

ATTENTION : Risque de blessure mineure.

ATTENTION:

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

NOTE: A note draws attention to important information.

Software Commands

Commands are written in the fonts shown here:

```
^ARMerge Scene , ,Op1 scene 1,1 ^B 51 ^W^C  
[Ø1] RØØØ4 ØØ3ØØ ØØ4ØØ ØØ8ØØ ØØ6ØØ [Ø2] 35 [17] [Ø3]  
[Esc] [X1]* [X17]* [X20]* [X23]* [X21] CE ←
```

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 www.extron.com/technology/glossary.aspx.

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Introduction

This guide describes the function, installation, and operation of the following Extron TLP Pro 720 Series and TLP Pro 1020 Series of Touchlink Pro Touchpanels:

- TLP Pro 720M
- TLP Pro 720T
- TLP Pro 1020M
- TLP Pro 1020T

Unless otherwise stated, the term TLP Pro refers to all four models. The terms TLP Pro 720 or TLP Pro 720 Series refer to the TLP Pro 720M and TLP Pro 720T models. The terms TLP Pro 1020 or TLP Pro 1020 Series refer to the TLP Pro 1020M and TLP Pro 1020T models. The touchpanels are ideal for any AV applications requiring medium or large touchpanels with flexible mounting options and fully customizable interfaces.

This section provides an overview of these products:

- [About the TLP Pro 720 and TLP Pro 1020 Series](#)
- [Features](#)
- [Application Diagram](#)

About the TLP Pro 720 and TLP Pro 1020 Series

The TLP Pro 720 Series touchpanels have 7-inch screens with a resolution of 800x480.

- **TLP Pro 720M** is a wall-mount touchpanel.
- **TLP Pro 720T** is a tabletop touchpanel.

The TLP Pro 1020 Series touchpanels have 10-inch screens with a resolution of 1024x600.

- **TLP Pro 1020M** is a wall-mount touchpanel.
- **TLP Pro 1020T** is a tabletop touchpanel.

A range of mounting options are available (see [Mounting](#) on page 25).

The screen layout is designed with the Extron GUI Designer software. The functions are assigned to the screen objects with the Extron Global Configurator Plus and Professional software.

The user can define the graphics and the functions associated with those graphics, providing versatility and adaptability to the configuration and control of an AV system.

A motion sensor, light sensor, and a speaker provide sleep mode, auto dimming, and audible feedback.

Features

LCD touchscreen with 18-bit color depth —

- 7-inch screen with 800x480 resolution (TLP Pro 720 Series)
- 10-inch screen with 1024x600 resolution (TLP Pro 1020 Series)

Faster processing and more memory — Allows for quicker configuration uploads and more storage for GUI pages.

Compatible with the full range of Extron IPL Pro and IPCP Pro control processors — allows easy integration into existing systems.

Power over Ethernet (PoE 802.3af, class 3) compliance — receives power and control over a single Ethernet cable, eliminating the need for a local power supply (power injector sold separately).

Built-in speakers — one speaker (TLP Pro 720 Series) or two (TLP Pro 1020 Series), with improved audio performance provide audible feedback from button presses.

Light sensor — adjusts screen brightness as the ambient room lighting changes.

Configurable red and green status lights — indicate the availability or call status of a room.

System connection status indicator — the communication LED provides visual feedback if the touchpanel is not communicating with a control processor.

Automatic clock synchronization — allows touchpanel to display the accurate time and date.

Energy-saving features —

- Adjustable sleep timer puts touchpanel into sleep mode
- Motion detector wakes touchpanel

Mounting options for tilt models (TLP Pro 720T or TLP Pro 1020T):

- Sit on a tabletop — weighted base allows up to 45° of tilt.
- Threaded holes in baseplate allow for secure mounting to a table.
- Kensington lock support allows the touchpanels to be locked to a table or other flat surface.
- Supports the optional SMA-1 Swivel Mount Adapter.
- VESA FDMI Type D 75 mm mounting pattern standard can be used for VESA mounting.

Mounting options for wall-mount models (TLP Pro 720M or TLP Pro 1020M):

- Mount on a wall, lectern, or any flat surface.
- Rack mount.

Fully customizable using Extron control system software — GUI Designer combined with Global Configurator Plus and Professional.

Supports TouchLink for iPad and TouchLink for Web.

Application Diagram

The application diagram below shows the TLP Pro 720M. The other touchpanels in this user guide can be used in similar configurations.

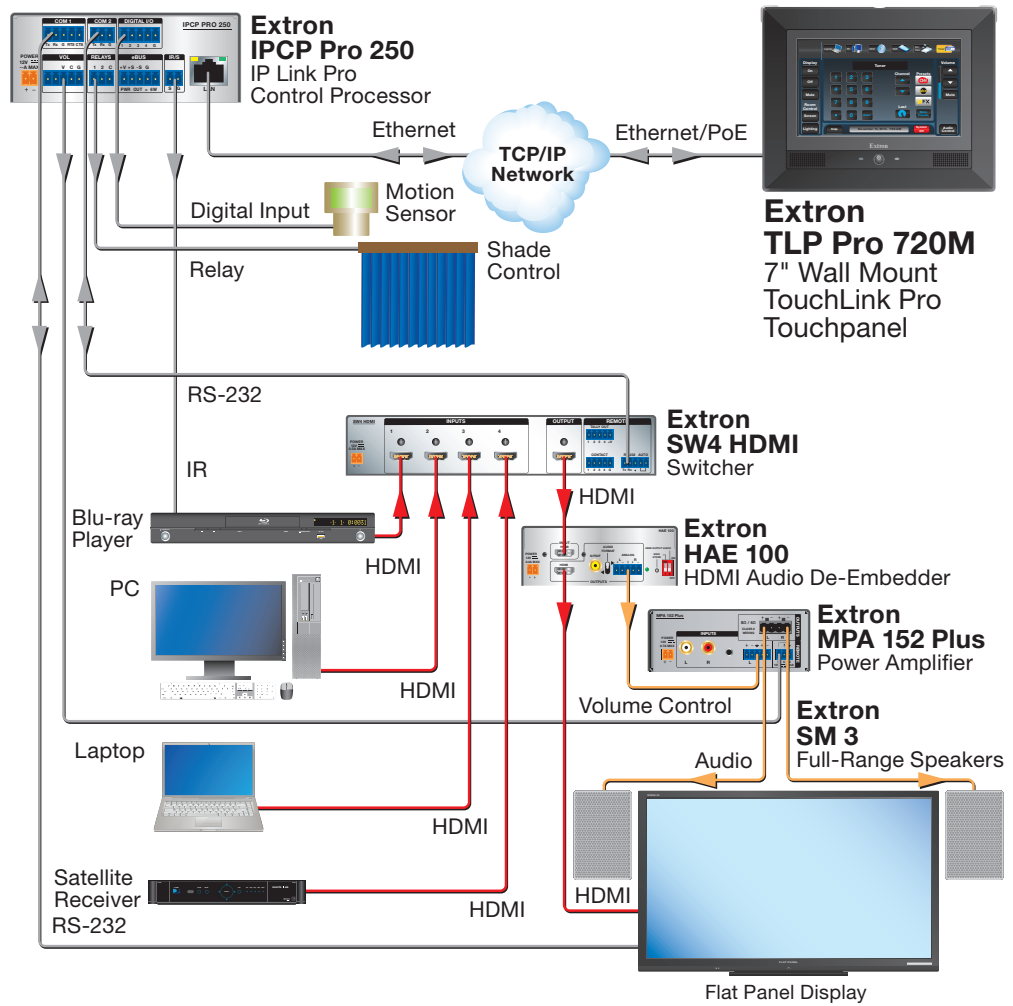


Figure 1. Application Diagram

Installation Overview

1. Before starting, download and install the latest versions of the following software:
 - GUI Designer** — for designing layouts for Extron TouchLink Pro touchpanels and third party touch interfaces.
 - Global Configurator Plus and Professional** — for setting up and configuring the control processor and touchpanel.
 - Toolbelt** — provides device discovery, device information, firmware updates, and configuration of network settings, system utilities, and user management for TouchLink Pro devices.

See [Configuration Software](#) on page 21.

2. Obtain the following network information from your network administrator:
 - DHCP status (On or Off). If DHCP is Off, you will also require
 - IP address
 - Subnet mask
 - Gateway
 - User name — by default these are either `admin` or `user`.
 - Passwords — by default these are either `extron` (for admin) or the field is left blank (for user).
 - MAC address — make a note of the touchpanel MAC address.
3. Mount and cable the units:

ATTENTION:

- Do not power on the touchpanels or control processors until you have read the Attention notice on [page 11](#) (12 VDC power supply) or on [page 13](#) (power injector).
- Ne branchez pas les écrans tactiles ou les contrôleurs avant d'avoir lu les mises en garde [page 11](#) (source d'alimentation 12 VCC) ou [page 13](#) (injecteur PoE).

- Mount the units. There are several mounting options for TouchLink Pro touchpanels (see [Mounting](#) on page 25).
 - Connect cables to the touchpanels. See [TLP Pro 720 Series and TLP Pro 1020 Series Rear Panel Features](#) (page 9).
 - Connect the power cords and power on all devices (see [Power Connector](#) on page 10 or [Network and Power Injector Connector](#) on page 12).
4. Set up the Touchpanels for Network Communication:
 - Connect the PC that you will use for setup, the control processor, and the touchpanel to the same Ethernet subnetwork.
 - Use the [Setup Menu](#) (see page 15) or Toolbelt to set the DHCP status and, if required, the IP address, subnet mask, gateway, and related settings for the touchpanel.

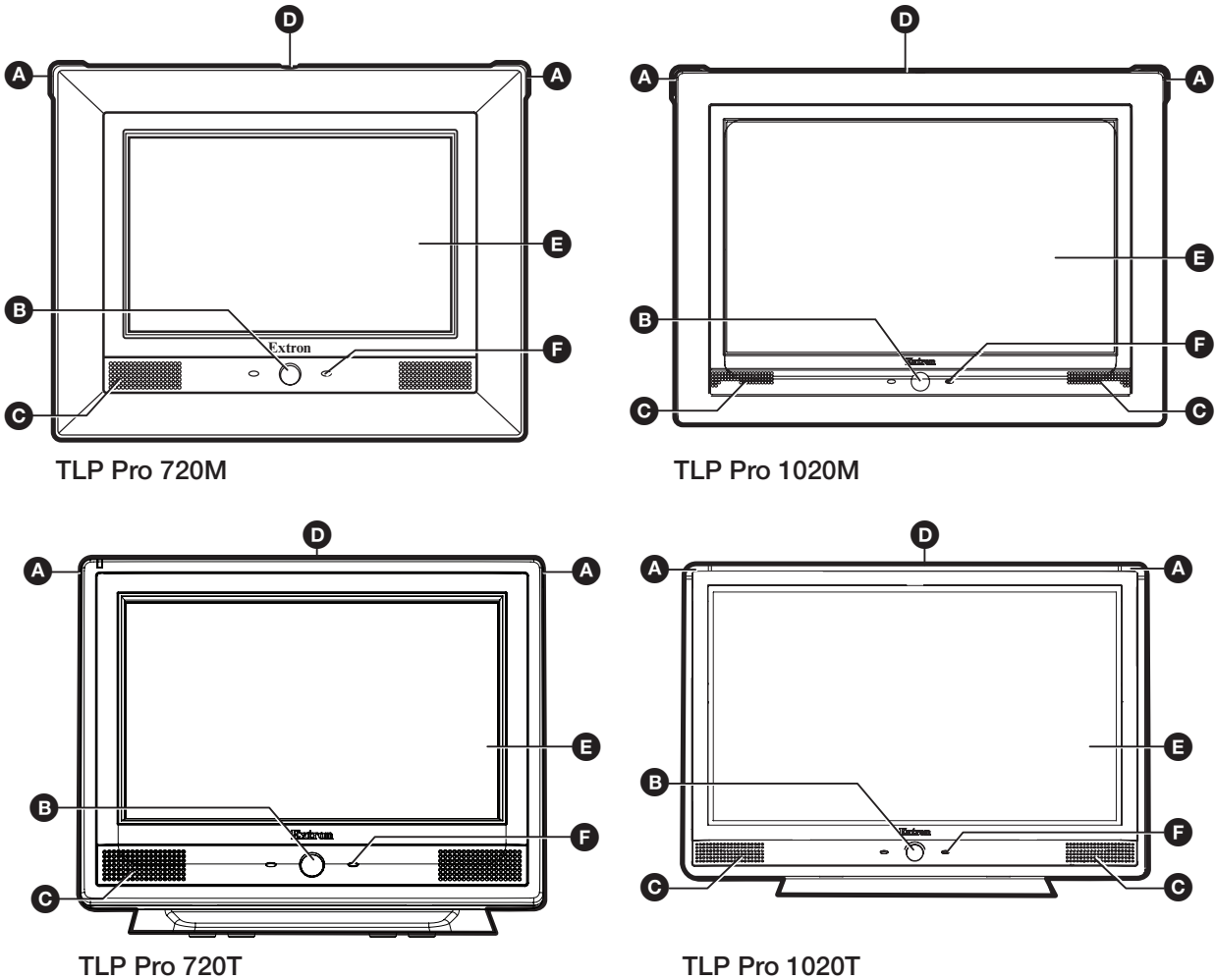
-
5. Configure the Touchpanels — the *GUI Designer Help File*, the *Global Configurator Help File*, and the *Toolbelt Help File*, provide step-by-step instructions and detailed information.
The *Global Configurator Help File* also includes an introduction to that software and sections on how to start a project and configuration.

Panel Features

This section describes:

- TLP Pro 720 Series and TLP Pro 1020 Series Front Panel Features
- TLP Pro 720M and TLP Pro 1020M Front Panel with Bezel Removed
- TLP Pro 720 Series and TLP Pro 1020 Series Rear Panel Features

TLP Pro 720 Series and TLP Pro 1020 Series Front Panel Features



A	Status Lights	D	Ambient Light Sensor
B	Motion Sensor	E	LCD Screen
C	Speaker	F	Communication LED

Figure 2. TLP PRO 720 Series and TLP PRO 1020 Series Front Panels

- A Status lights** (see [figure 2](#)) — one on each side can be programmed to provide system feedback.
 - Light red or green
 - Blink or light continuously
- B Motion sensor** (see [figure 2](#)) — detects motion between three to five feet from the touchpanel, and at least 15° from the center axis.
 - When no motion has been detected for a user-defined period of time, the touchpanel enters sleep mode.
 - When motion is detected by the sensor, the screen display is restored and active.
- C Speaker** (see [figure 2](#)) — is located below the screen and provides audible feedback for the user. The TLP Pro 720 Series touchpanels have a single speaker on the left side of the panel. The TLP Pro 1020 Series touchpanels have two speakers, one on each side of the panel.
- D Ambient light sensor** (see [figure 2](#)) — monitors ambient light level and adjusts screen brightness, based on the settings configured using the [setup menu](#) (see page 15).

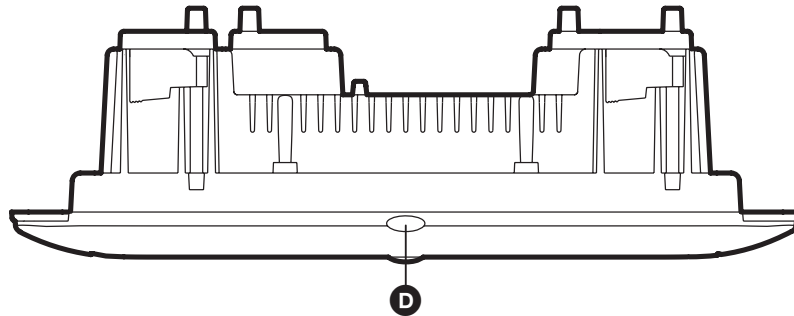


Figure 3. TLP PRO 720M Top View

- E LCD screen** (see [figure 2](#)) — has a 800x480 resolution with a touch overlay (TLP Pro 720 Series) or 1024x600 resolution with a touch overlay (TLP Pro 1020 Series).
- F Communication LED** (see [figure 2](#)) — shows the configuration and connection status of the touchpanel:
 - Unlit during normal operation (the touchpanel is configured and connected to an IP Link Pro control processor).
 - Blinks red if the touchpanel has been configured but is not connected to an IP Link Pro control processor.
 - Permanently lit if the touchpanel has not been configured and is not connected to an IP Link Pro control processor.

The indicator can be toggled between enabled and disabled, using the [setup menu](#) (see page 15).

TLP Pro 720M and TLP Pro 1020M Front Panel with Bezel Removed

Remove the front bezel by inserting the Extron removal tool into the slots on the bottom of the unit and separating the bezel from the touchpanel. The following additional features are concealed behind the bezel:

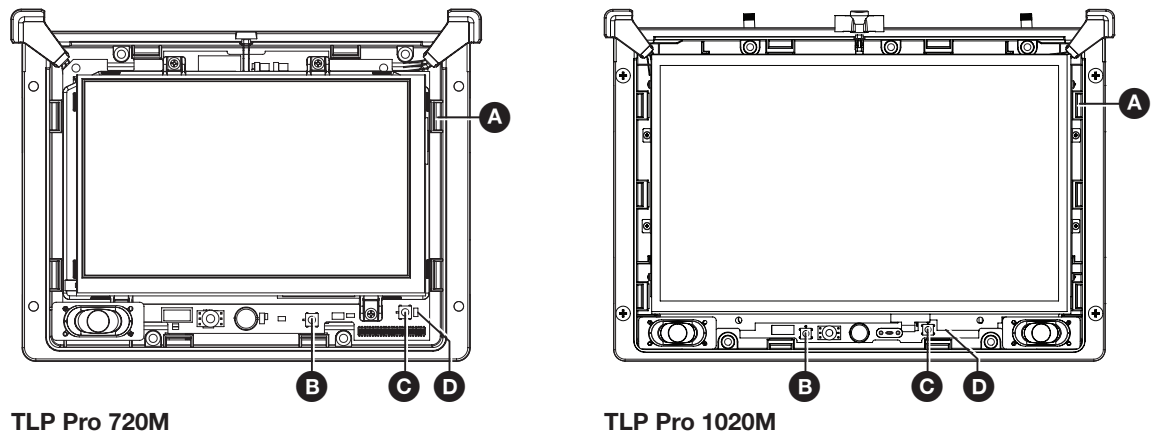


Figure 4. TLP Pro 720M and TLP Pro 1020M Front Panel with Bezel Removed

A Bezel attachment points

The TLP Pro 720M has eight attachment points: two on each side, two on the top edge and two on the bottom edge.

The TLP Pro 1020M has ten attachment points: three on each side, two on the top edge and two on the bottom edge.

B Menu button — activates the [setup menu](#) (see page 15) and [calibration screen](#) (see page 20).

C Reset button — initiates one of three reset modes for the unit (see [Reset Modes](#) on page 33).

D Reset LED — indicates power status and reset status of the device (see [Reset Modes](#) on page 33).

TLP Pro 720 Series and TLP Pro 1020 Series Rear Panel Features

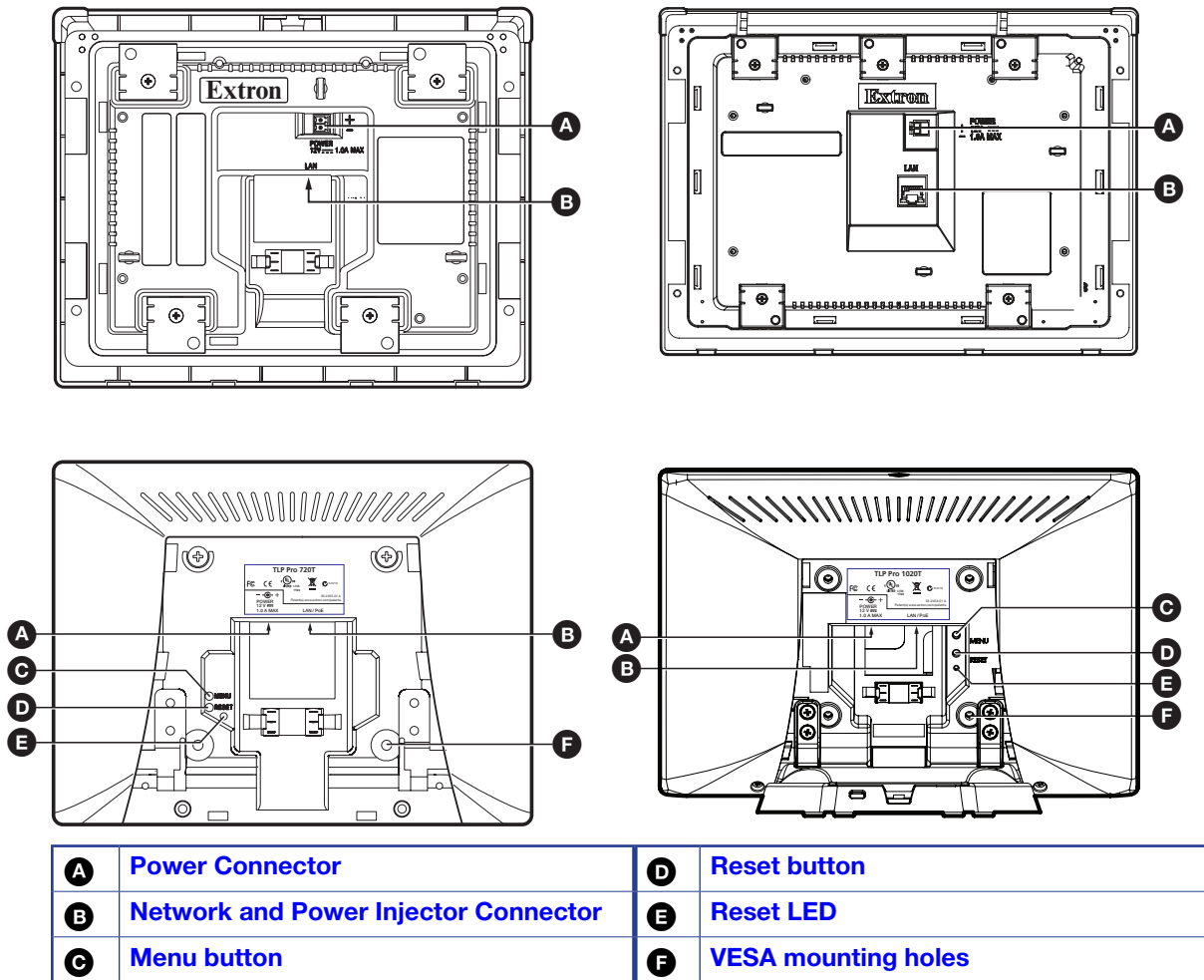


Figure 5. TLP Pro 720 Series and TLP Pro 1020 Series Rear Panels

- A Power connector** (see [figure 5](#), on the previous page) — power supplies must be purchased separately.

TLP Pro 720T and TLP Pro 1020T — Connect a 12 VDC, 1.0 A power supply with DC plug to the rear panel power receptacle. Extron recommends using the PS 1210 P power supply.

TLP Pro 720M and TLP Pro 1020M — Connect a 12 VDC, 1.0 A power supply with a captive screw connector to the rear panel receptacle. Ensure the connections have the correct polarity as shown below. Extron recommends using the PS 1210 C power supply.

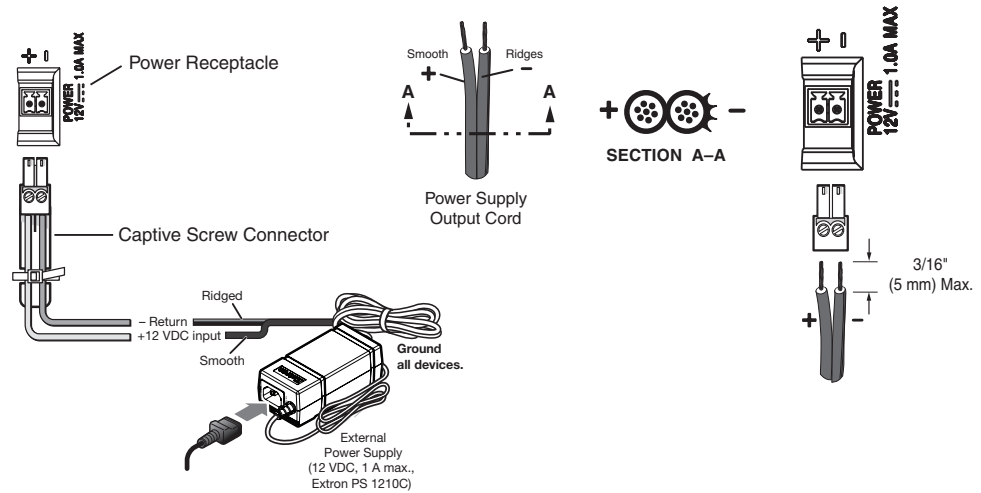


Figure 6. Power Supply Connection

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

AVERTISSEMENT : 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:

- Do not power on the touchpanels or control processors until you have read the Attention notice on [page 11](#) (12 VDC power supply) or on [page 13](#) (power injector).
- Ne branchez pas les écrans tactiles ou les contrôleurs avant d'avoir lu les mises en garde [page 11](#) (source d'alimentation 12 VCC) ou [page 13](#) (injecteur PoE).

NOTE: These touchpanels ship without a power supply. Either the 12 VDC power supply or the power injector must be purchased separately.

ATTENTION:

- Always use a power supply provided 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.
 - Utilisez toujours une source d'alimentation fournie ou recommandée par Extron. L'utilisation d'une source d'alimentation non autorisée annule toute conformité réglementaire et peut endommager la source d'alimentation ainsi que le produit final.
-
- These products are intended for use with a UL Listed power source marked "Class 2" or "LPS" and rated 12 VDC, minimum 1.0 A. or 48 VDC (PoE), minimum 0.35 A.
 - Ces produits sont destinés à une utilisation avec une source d'alimentation listée UL avec l'appellation « Classe 2 » ou « LPS » et normée 12 Vcc, 1,0 A minimum ou 48 Vcc (PoE), 0,35 A minimum.
-
- Extron power supplies are certified to UL/CSA 60950-1 and are classified as LPS (Limited Power Source). Use of a non-LPS or unlisted power supply will void all regulatory compliance certification.
 - Les sources d'alimentation Extron sont qualifiées UL/CSA 60950-1 et sont classées LPS (Limited Power Source). L'utilisation d'une source d'alimentation non-listée ou non-listée LPS annulera toute certification de conformité réglementaire.
-
- Unless otherwise stated, the AC/DC adapters are not suitable for use in air handling spaces or in wall cavities. The power supply is to be located within the same vicinity as the Extron AV processing equipment in an ordinary location, Pollution Degree 2, secured to the equipment rack within the dedicated closet, podium, or desk.
 - Sauf mention contraire, les adaptateurs AC/DC ne sont pas appropriés pour une utilisation dans les espaces d'aération ou dans les cavités murales. La source d'alimentation doit être située à proximité de l'équipement de traitement audiovisuel dans un endroit ordinaire, avec un degré 2 de pollution, fixé à un équipement de rack à l'intérieur d'un placard, d'une estrade, ou d'un bureau.
-
- 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.
 - Cette installation doit toujours être en accord avec les mesures qui s'appliquent au National Electrical Code ANSI/NFPA 70, article 725, et au Canadian Electrical Code, partie 1, section 16.
-
- The power supply shall not be permanently fixed to the building structure or similar structure.
 - La source d'alimentation ne devra pas être fixée de façon permanente à une structure de bâtiment ou à une structure similaire.
-
- The length of the exposed wires in the stripping process is critical. The ideal length is 3/16 inches (5 mm). If they are any longer, the exposed wires may touch, causing a short circuit between them. If they are any shorter, the wires can be easily pulled out even if tightly fastened by the captive screws.
 - La longueur des câbles exposés est primordiale lorsque l'on entreprend de les dénuder. La longueur idéale est de 5 mm (3/16 inches). S'ils sont un peu plus longs, les câbles exposés pourraient se toucher et provoquer un court-circuit. S'ils sont un peu plus courts, ils pourraient sortir, même s'ils sont attachés par les vis captives.
-
- Do not tin the wire leads before installing into the connector. Tinned wires are not as secure in the connector and could be pulled out.
 - Ne pas étamer les conducteurs avant de les insérer dans le connecteur. Les câbles étamés ne sont pas aussi bien fixés dans le connecteur et pourraient être retirés.

- B Network and Power Injector Connector** (see [figure 5](#))— is on the right side of the recessed area.

Connect the touchpanel to the LAN using a twisted pair cable, terminated with an RJ-45 connector. Use a straight-through Ethernet cable to connect the panel to a switch or router. Use a crossover cable to connect the panel directly to a computer.

An Extron IPL Pro Control Processor must also be connected to the same network domain as the TouchLink Pro touchpanel. See the www.extron.com for a list of suggested models.

The network port has two LEDs. The green LED lights steadily to indicate that the touchpanel is connected correctly to a network. The yellow LED flashes to indicate that data is being passed to or from the touchpanel.

The connector can also be used with a PoE power injector (not provided).

ATTENTION:

- The touchpanels can use a 12 VDC desktop power supply and is also Power over Ethernet (PoE 802.3af, class 3) compliant. Do not connect either power supply before reading the Attention notifications on [page 11](#) or [page 13](#).
- Les écrans tactiles peuvent utiliser une source d'alimentation externe 12 Vcc, et sont également compatible avec l'alimentation POE via Ethernet (PoE 802.3af, classe 3). Ne branchez pas de sources d'alimentation externes avant d'avoir lu les mises en garde dans la section « Power Supply » sur [page 11](#) ou [page 13](#).

To use a PoE power injector — connect a straight-through Ethernet cable to the power supply and a switch or router. This cable carries network information from the switch or router to the power supply input. A second straight-through cable carries the network information and 48 VDC from the power supply to the touchpanel. Connect the IEC power cord to a convenient 100 VAC to 240 VAC, 50-60 Hz power source.

The figure below shows the Extron XTP PI 100. Your power injector may look different.

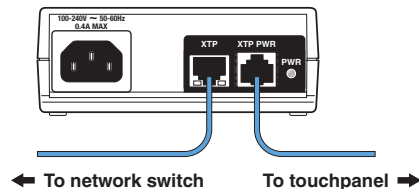


Figure 7. Connecting the Power Injector

ATTENTION:

- The touchpanels are intended for connection to a Power over Ethernet circuit for intra-building use only and are considered to be part of a Network Environment 0 per IEC TR62101.
 - Les écrans tactiles sont conçu pour une connexion à un circuit PoE pour une utilisation intérieure seulement et est considéré comme faisant partie d'un environnement réseau 0 par IEC TR62101.
- Always use a power supply provided 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.
 - Utilisez toujours une source d'alimentation fournie ou recommandée par Extron. L'utilisation d'une source d'alimentation non autorisée annule toute conformité réglementaire et peut endommager la source d'alimentation ainsi que le produit final.
- These products are intended for use with a UL Listed power source marked "Class 2" or "LPS" and rated 12 VDC, minimum 1.0 A. or 48 VDC (PoE), minimum 0.35 A.
 - Ces produits sont destiné à une utilisation avec une source d'alimentation listée UL avec l'appellation « Classe 2 » ou « LPS » et normée 12 Vcc, 1,0 A minimum ou 48 Vcc (PoE), 0,35 A minimum.
- Extron power supplies are certified to UL/CSA 60950-1 and are classified as LPS (Limited Power Source). Use of a non-LPS or unlisted power supply will void all regulatory compliance certification.
 - Les sources d'alimentation Extron sont qualifiées UL/CSA 60950-1 et sont classées LPS (Limited Power Source). L'utilisation d'une source d'alimentation non-listée ou non-listée LPS annulera toute certification de conformité réglementaire.
- Unless otherwise stated, the AC/DC adapters are not suitable for use in air handling spaces or in wall cavities. The power supply is to be located within the same vicinity as the Extron AV processing equipment in an ordinary location, Pollution Degree 2, secured to the equipment rack within the dedicated closet, podium, or desk.
 - Sauf mention contraire, les adaptateurs AC/DC ne sont pas appropriés pour une utilisation dans les espaces d'aération ou dans les cavités murales. La source d'alimentation doit être située à proximité de l'équipement de traitement audiovisuel dans un endroit ordinaire, avec un degré 2 de pollution, fixé à un équipement de rack à l'intérieur d'un placard, d'une estrade, ou d'un bureau.
- Power over Ethernet (PoE) is intended for indoor use only. It is to be connected only to networks or circuits that are not routed to the outside plant or building.
 - L'alimentation via Ethernet (PoE) est destinée à une utilisation en intérieur uniquement. Elle doit être connectée seulement à des réseaux ou des circuits qui ne sont pas routés au réseau ou au bâtiment extérieur.
- 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.
 - 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.
- The power supply shall not be permanently fixed to the building structure or similar structure.
 - La source d'alimentation ne devra pas être fixée de façon permanente à une structure de bâtiment ou à une structure similaire.

- Ⓒ **Menu button** (see [figure 5](#))— activates the [setup menu](#) (see the following page) and [Calibration screen](#) (see page 20).
- Ⓓ **Reset button** (see [figure 5](#))— initiates one of three reset modes for the unit (see [Reset Modes](#) on page 33).
- Ⓔ **Reset LED** (see [figure 5](#))— indicates power status and reset status of the device (see [Reset Modes](#) on page 33).
- Ⓕ **VESA mounting holes (4)** (see [figure 5](#))— for use with the Extron LPVM-1 (see [VESA Mounting](#) on page 30).

On-screen Menus

On-screen menus allow initial configuration of the TLP Pro 720 series and TLP Pro 1020 series:

- [Setup Menu](#)
- [Calibration Screen](#)

Setup Menu

To open the setup menu, press the **Menu** button. For the TLP Pro 720T and TLP Pro 1020T, the **Menu** button is located on the rear panel (see [figure 5, C](#) on page 9). For the TLP Pro 720M and TLP Pro 1020M, the **Menu** button is located on the front panel and the bezel must be removed first (see [figure 4, B](#) on page 8).

The menus open at the **Status** screen. There are five different screens ([Status](#), [Network](#), [Display](#), [Audio](#), and [Advanced](#)). These can be selected by pressing the appropriate button in the navigation panel at the top of the screen. The button for the selected screen is yellow; the buttons for the remaining screens are black.

There is also a red **Exit** button in the top right corner of the screen. Pressing this button applies and saves any changes and closes the menu screens.

In this section, the figures will show the screens for the TLP Pro 720M. The screens for the other touchpanels are similar.

Status Screen

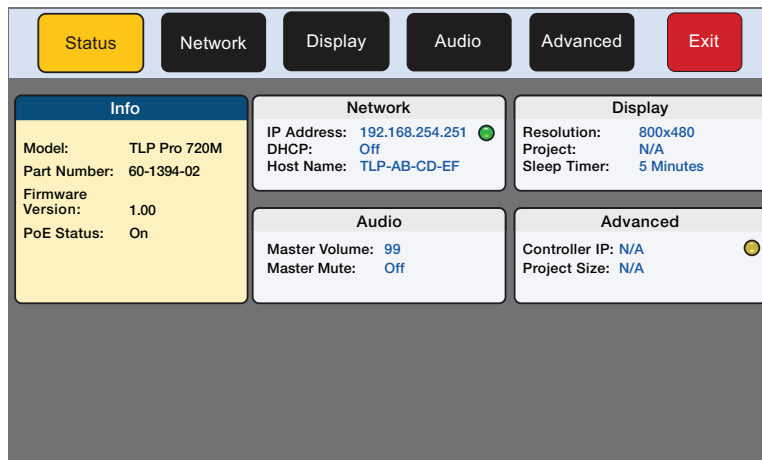


Figure 8. Status Screen

The **Status** screen is a read-only screen that provides basic information about the touchpanel. Each of the other four panels shows a summary of the information on the other screens. Pressing any of the panels opens the corresponding screen in exactly the same way as pressing the buttons in the top navigation panel.

The bubble in the **Network** panel lights green when there is a network connection or amber if there is no connection. The bubble in the **Advanced** panel lights green when a control processor is connected or amber if none is connected.

Network Screen

Verify with your network administrator whether the IP address for the touchpanel is assigned by Dynamic Host Configuration Protocol (DHCP) or set manually. If they are set manually, you need to obtain an IP address, a subnet mask, a gateway address, and a Domain Name Server (DNS) IP address from the network administrator.

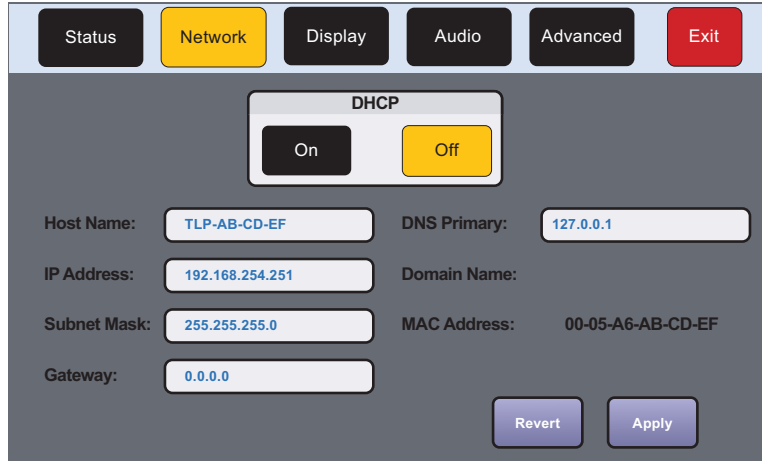


Figure 9. Network Screen

1. If IP addresses are assigned by DHCP, press **On**. The selected button is highlighted in yellow. If DHCP is selected, you will only be able to set the Host Name and the DNS IP address. All other values are set by the DHCP server.
If IP addresses are assigned manually, press **Off**. When DHCP is Off, all values can be edited.
2. Edit the **Host Name** by pressing that button. A keypad opens:

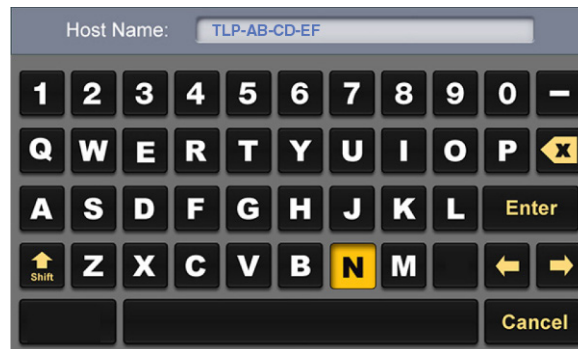



Figure 10. Alphanumeric Keypad

- Use the keypad to enter a new name, which appears in the **Host Name** text box.
- Use the backspace character () to delete existing characters.
- The right and left arrows move the cursor inside the **Host Name** text box.
- Click the **Shift** key to toggle between upper and lower case letters.
- Press **Enter** to save the new name.

3. If DHCP is disabled, set the unit IP address, subnet mask, gateway address, and DNS server address.
 - a. Press the button for the address to be edited. A screen opens, showing the address and a numerical keypad.

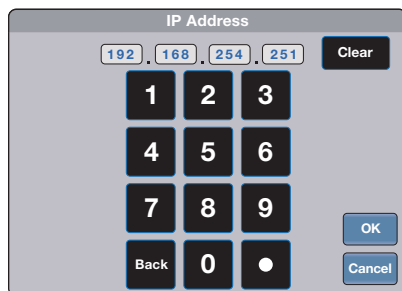


Figure 11. Numeric Pad for Setting IP Addresses

- b. Press **Clear** to remove the old address. If you start typing without pressing **Clear**, the first octet is over-written and the other octets remain the same.
 - c. Press any octet button to highlight and start editing it.
 - d. Enter the 3-digit value for that octet (leading zeroes in the octet are ignored).

NOTE: Octets can have any value between 0 and 255. If you attempt to enter an invalid number, for example 892, you are able to enter the 89 but the 2 cannot be entered.

Click **Back** to delete the last digit. If no value has been entered for the selected octet, pressing **Back** moves the cursor back to the previous octet and deletes the last digit of that octet.

- e. Press the next octet button and enter a value.
 - f. Repeat steps c-e until values have been entered for all four octets.
 - g. Press **OK** to save the changes and return to the **Network** screen or press **Cancel** to return to the **Network** screen without saving the changes.
4. If you have changed any of the values in the **Network** screen, the background color of the button changes to blue. Press **Apply** to apply the new values or press **Revert** to return to the previous values without saving the changes. The button returns to gray.



If you have not made any changes, the **Apply** and **Revert** buttons are grayed out.

Display Screen

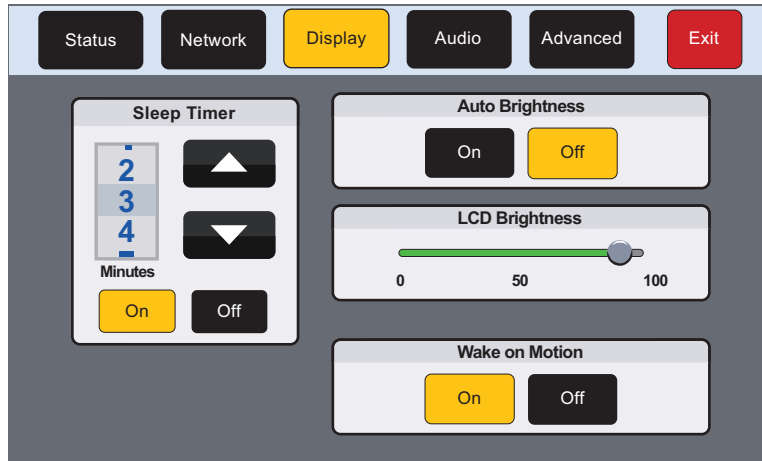


Figure 12. Display Screen

The Display screen allows you to set the **Sleep Timer**, **Auto Brightness**, **LCD Brightness**, and **Wake on Motion**.

- **Sleep Timer** — determines how long the panel will be inactive before it enters sleep mode, when the screen goes dark to save power. Toggle between **On** and **Off**. If the sleep timer is **On**, use the arrows to adjust the value between 1 and 120 minutes.
- **Auto Brightness** — provides a suitable amount of backlighting that is automatically calculated from the amount of ambient light detected by the light sensor (see [figure 2](#), **D** on page 6).
- **LCD Brightness** — allows you to adjust the screen brightness, using the slider control.
- **Wake on Motion** — activates the panel from Sleep mode when motion is detected near the unit. Toggle between **On** and **Off**.

Audio Screen

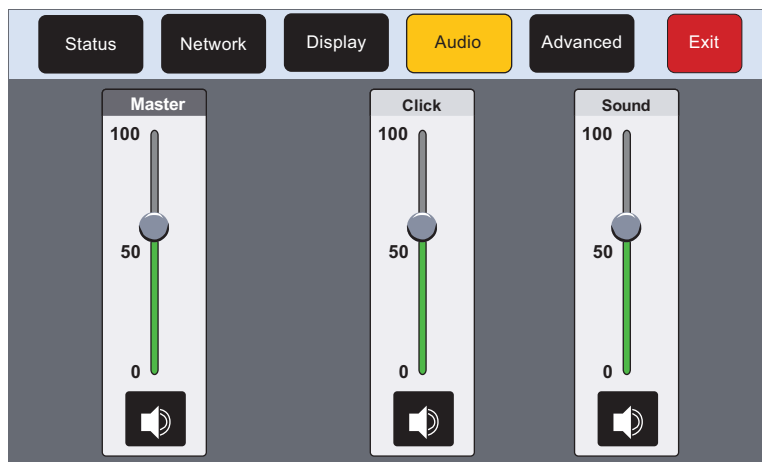


Figure 13. Audio Screen

On the Audio screen, use the slider controls to adjust the **Master**, **Click**, and **Sound** volume settings.

- **Master** — sets the maximum volume for all the other sound volume settings. For example, if the master volume is set to 80 (80 percent of maximum), even when the Sounds volume is set to 100, it is equivalent to only 80 percent of maximum.
- **Click** — sets the volume for audible feedback that accompanies events such as a screen button being pressed.
- **Sounds** — sets the volume of audio from any audio file playback.

Advanced Screen

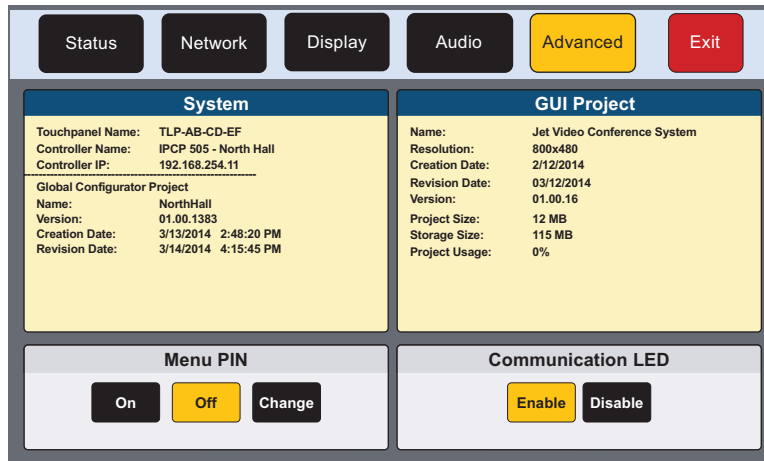


Figure 14. Advanced Screen

System and GUI Project Panels

These panels are read only, providing information about the system, the Global Configurator Project, and the GUI Designer Project.

Menu PIN

The PIN setup options allow you to enable, disable, or change the setup menu PIN. The PIN is a 4-digit number. Each digit can have any value from 0-9.

1. Select the first digit of the PIN. When selected, it is highlighted in yellow.

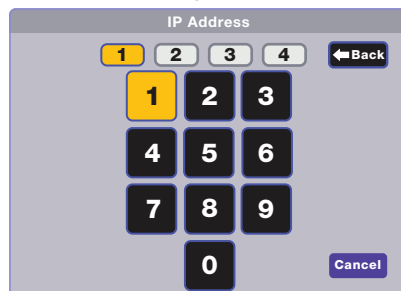


Figure 15. Numeric Keypad for Setting PIN

2. Press a number on the keypad. That number appears in the PIN.
3. Repeat steps 1 and 2 for the other 3 digits.
4. The title bar changes to **Confirm New Menu Pin**.
5. Enter the PIN a second time. When the PIN entered on the second occasion matches the PIN entered on the first occasion, the PIN is set and the dialog closes.

Communication LED

The LED can be enabled or disabled.

Calibration Screen

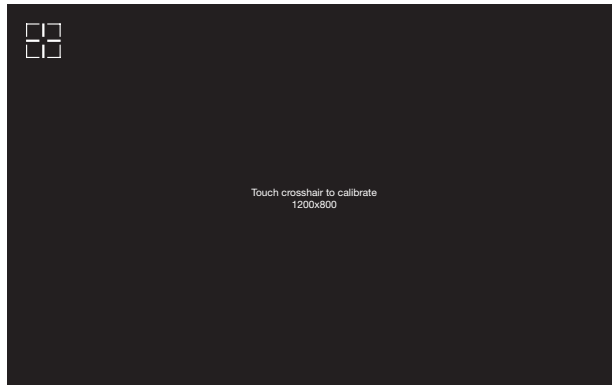


Figure 16. Calibration Screen

1. Press and hold down the **Menu** button for at least 3 seconds.
For the TLP Pro 720T and TLP Pro 1020T, the **Menu** button is located on the rear panel (see [figure 5](#), **C** on page 9).
For the TLP Pro 720M and TLP Pro 1020M, the **Menu** button is located on the front panel and the bezel must be removed first (see [figure 4](#), **B** on page 8).
2. Release the button. The calibration screen opens to show cross-hairs.
3. Follow the on-screen instructions until all five sets of cross hairs have been calibrated (one in each corner and a fifth in the center of the screen).
4. The touchpanel exits the calibration screen once the calibration process is completed.
5. Reattach the bezel.

Configuration Software

This section of the user guide provides information about:

- [Configuration Software](#)
- [TLP Pro 720 Series and TLP Pro 1020 Series Web Pages](#)
- [Updating the Firmware](#)

Configuration Software

Designing a graphical user interface (GUI) for the TouchLink Pro touchpanel takes two steps:

- 1.** Design the layout of the screen text and graphics using GUI Designer.
- 2.** Assign functions to the text and graphics using Global Configurator Plus and Professional.

The user interface of the touchpanel is designed with GUI Designer software, which is a Windows-based application. You can either customize an existing template or create an entirely new interface. GUI Designer offers several templates.

After the user interface has been designed on a PC, the project is saved, built, and imported into Global Configurator, where the appropriate control functions are assigned to the text and graphic items of the interface. After assigning the control functions, the project is rebuilt and uploaded to the control processor and touchpanel.

The GUI Designer and the Global Configurator Plus and Professional programs provide versatility and adaptability for configuration and control of an AV system as it grows and evolves.

Installing GUI Designer, Global Configurator, and Toolbelt

NOTE: Use GUI Designer, Global Configurator Plus and Professional, and Toolbelt to configure the TLP Pro touchpanel.

GUI Designer, Global Configurator, and Toolbelt can be downloaded from the Extron website.

1. Select the **Download** tab (1) and click the **Software** option (2) in the sidebar at the left.

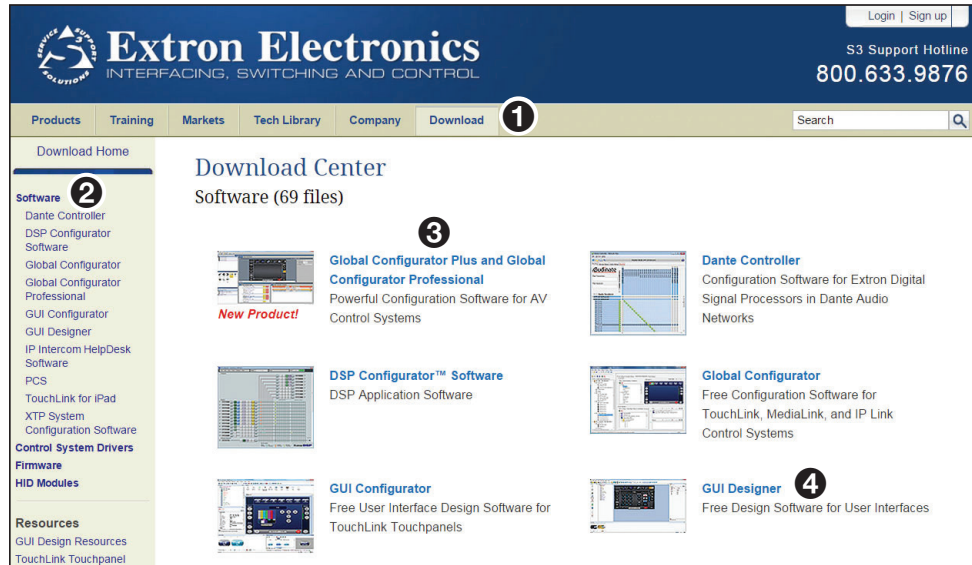


Figure 17. Downloading Software

You may see the product immediately, for example Global Configurator (3) and GUI Designer (4) are displayed at the top of the page.

2. If the product is not shown, scroll down to the alphabet menu.



Figure 18. Alphabet Software Menu

3. Click the initial letter of the software product
 4. Scroll through the search results until you find it.
- **GUI Designer** — Click the **Download** button next to the program and follow the on-screen instructions.
 - **Global Configurator** — Ensure you are downloading Global Configurator **Plus and Professional**. Click the **Download** button next to the program and follow the on-screen instructions.

NOTE: You need an Extron Insider account to run Global Configurator Plus and Professional. To obtain one, contact the Extron Sales Department.

- **Toolbelt** — Click the **Download** button next to the program and follow the on-screen instructions.

Using the Software

GUI Designer

Use the GUI Designer software to design the screen layout for the touchpanel. See the *GUI Designer Help* file for step-by-step instructions and more detailed information.

Global Configurator

Use the Global Configurator software to set up and configure the control processor and the touchpanel. See the *Global Configurator Help File* for step-by-step instructions and more detailed information. The *Global Configurator Help File* also includes an introduction to the software and sections on how to start and configure a project.

Toolbelt

Use the Toolbelt software for device discovery, device information, firmware updates, and configuration of network settings, system utilities, and user management for TouchLink Pro devices. See the *Toolbelt Help* file for more detailed information.

TLP Pro 720 Series and TLP Pro 1020 Series Web Pages

To access the touchpanel default web pages, enter the IP address of the unit into the web browser of a PC connected to the same subnet. There is a single, read-only page that provides general and network information about the unit (see figure 19, below). It also allows you to upgrade the unit firmware.

A dialog opens asking for your user name and password. By default, the user name is `admin` and the password is `extron` (both user name and password are all lower case).

The single page provides general and network information about the unit. It also allows you to upgrade the unit firmware.

Use the **Setup Menu** (see page 15) or Toolbelt to configure the touchpanel network settings. Figure 19 shows the TLP Pro 1020T web page. The web page for the other touchpanels is similar.

The screenshot shows the Extron Electronics web interface. At the top is a blue header with the Extron logo. Below the header, the page is divided into several sections:

- General Status:** A table with the following information:

Model Name:	TLP Pro 1020 T
Description:	TouchLink Pro Tabletop
Part Number:	60-1392-01
Firmware Version:	1.00
Date:	Monday, May 27, 2013
Time:	7:58 PM
POE:	On
Up Time:	0 day(s) 1 hour(s) 23 minute(s)

A "License Information" button is located below this section.
- IP:** A table with the following information:

DHCP:	Off
Host Name:	TLP-Pro-1020T-0B-37-38
IPv4 IP Address:	192-168-254-251
DNS (IP):	127.0.0.1
Gateway IP:	0.0.0.0
Subnet Mask:	255.255.255.0
Mac Address:	00-05-A6-XX-XX-XX
- Project:** A box containing the text "No Project Configured".
- System Devices:** A table with the following columns: Device, Name, Part Number, and Hostname/IP. The table is currently empty.
- Firmware Upgrades:** A section with a "Firmware:" label, a text input field, and "Browse" and "Upload" buttons.

Figure 19. TLP Pro 1020T Web Page

Updating the Firmware

Firmware for both the TLP Pro 720 and TLP Pro 1020 touchpanel series can be upgraded using Toolbelt or the touchpanel web page. Before starting, consult your IT team and ensure that the touchpanel has a unique IP address.

Downloading Firmware

1. Power on a computer that is connected to the same network as the touchpanel.
2. On the Extron website, click **Download** in the menu bar along the top of the page (see figure 20, ❶).

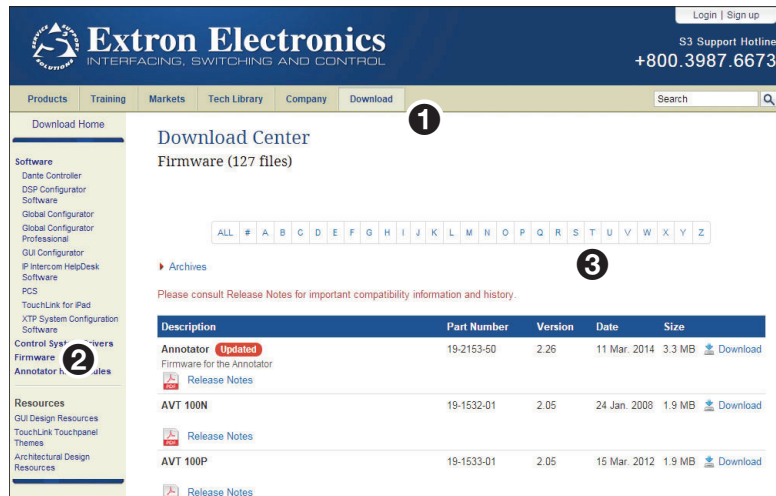


Figure 20. Firmware Download Center

3. Click **Firmware** in the menu bar in the left side bar (❷).
4. Click the letter **T** from the alphabet menu (❸).
5. Scroll down the page until you find the firmware for your model.
6. Click **Release Notes** for more information about the program.
7. Click **Download**.
8. Follow the onscreen instructions to download the program. Make a note of where the firmware is stored on the PC.

Updating Firmware Using the Touchpanel Web Page

1. If you have not already done so, download the firmware file to a computer on the same network as the touchpanel (see the previous section).
2. Open the touchpanel Web page (see the previous page).



Figure 21. Touchpanel Web Page: Firmware Uploader

3. Click **Browse** and navigate to the firmware location.
4. Click **Upload**. The firmware file is uploaded to the touchpanel. Follow the on-screen instructions.

Updating Firmware Using Toolbelt

For complete information about using Toolbelt feature, see the *Toolbelt Help File*.

Mounting

This section outlines the various options for:

- **Mounting the TLP Pro 720M and TLP Pro 1020M**
 - **Rack Mounting**
 - **Wall Mounting**
 - **Furniture Mounting**
- **Mounting the TLP Pro 720T and TLP Pro 1020T**
 - **Desktop Mounting**
 - **VESA Mounting**

Mounting the TLP Pro 720M and TLP Pro 1020M

Rack Mounting

Underwriters Laboratories Guidelines for Rack Mounting

The following Underwriters Laboratories (UL) guidelines are relevant to the safe installation of these products in a rack:

Elevated operating ambient temperature — If the unit is installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, install the equipment in an environment compatible with the maximum ambient temperature (T_{ma}: +122 °F, +50 °C) specified by Extron.

Reduced air flow — Install the equipment in the rack so that the equipment gets adequate air flow for safe operation.

Mechanical loading — Mount the equipment in the rack so that uneven mechanical loading does not create a hazardous condition.

Circuit overloading — Connect the equipment to the supply circuit and consider the effect that circuit overloading might have on overcurrent protection and supply wiring. Give appropriate consideration to the equipment nameplate ratings when addressing this concern.

Reliable earthing (grounding) — Maintain reliable grounding of rack-mounted equipment. Pay particular attention to supply connections other than direct connections to the branch circuit (such as the use of power strips).

Rack Mounting the TLP Pro 720M and TLP Pro 1020M

The TLP Pro 720M and TLP Pro 1020M can be mounted in any standard 19-inch equipment rack, using the optional rack mounting kit.

- **TLP Pro 720M:** RM 710M kit
- **TLP Pro 1020M:** RM 1000M kit

Follow the instructions provided with the kit.

Wall Mounting

Using a Wall Box

The TLP Pro 720M and TLP Pro 1020M can be mounted using the following optional wall boxes:

- **TLP Pro 720M:** BB 710 or EWB 710 kits
- **TLP Pro 1020M:** BB 1000 or EWB 1000 kits

Follow the instructions provided with the kit.

Without a Wall Box

The TLP Pro 720M and TLP Pro 1020M can also be mounted directly into drywall, without a kit.

ATTENTION:

- Do not install the TLP Pro 720M or the TLP Pro 1020M in a fire resistant rated wall or partition assembly.
- Ne pas installer le TLP Pro 720M ou le TLP Pro 1020M dans un mur résistant au feu ou une cloison.

Before starting, you will need to download the appropriate template from www.extron.com. Ensure that you download the correct template for your touchpanel. Ensure that your printer does not scale the template when it is printed. The template must be printed at 100%.

The following steps show how to wall-mount the TLP PRO 720M. Furniture-mounting is similar.

1. Determine the best location for the touchpanel and, using the template that you printed, mark the wall and cut a hole:
 - **TLP Pro 720M** — 7.5 inches (19.05 cm) wide x 5.81 inches (14.76 cm) high
 - **TLP Pro 1020M** — 10.06 inches (25.55 cm) wide x 6.98 inches (17.73 cm) high
2. Remove the bezel, using the Extron removal tool.
3. Ensure that all the locking arms are flush with the unit and check that the touchpanel can fit into the hole. If necessary, use a rasp or a coarse file to enlarge the hole.
4. Run the network and video cables inside the wall to the hole, leaving enough slack in the cables to connect them to the back of the touchpanel.
5. Plug the cables into the **rear panel connectors** (see pages 9 - 14).
 - Connect the LAN port to the network with a straight-through cable, providing both a network connection and power from a PoE power supply.
 - **Optional:** Extron recommends using the PoE power supply provided. However, the LAN port may be used as a network-only connection. Connect a 12 VDC, 1.0 A power supply (not provided) to the 2-pole captive screw power input. See the **Attention** on page 11 for very important information about power supplies.
6. Push excess cables into the wall cavity.

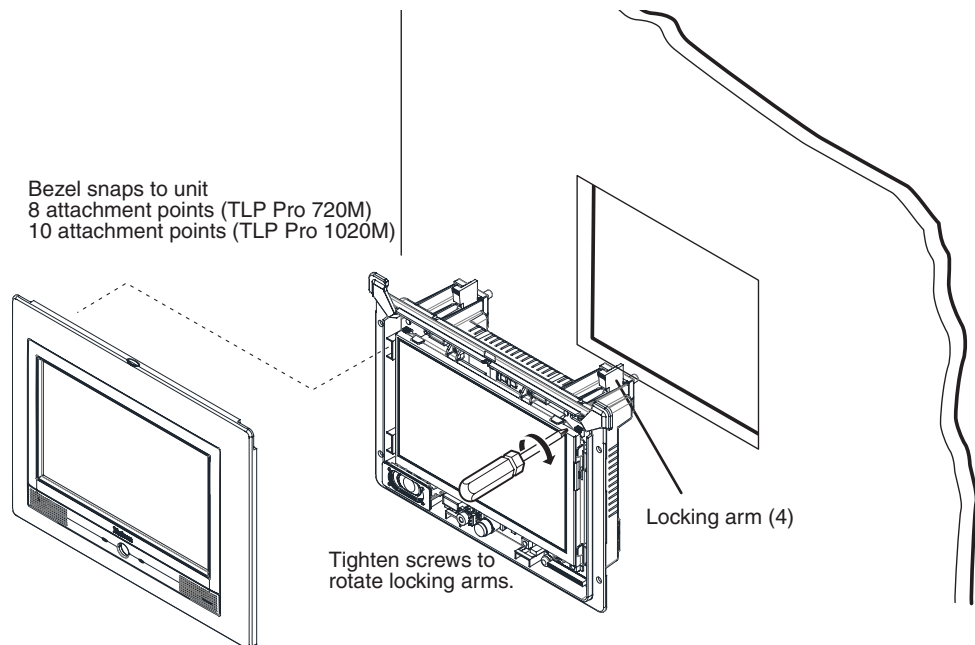


Figure 22. Secure the TLP Pro 720M to a Wall with Locking Arms

7. Ensure the locking arms are flush with top and bottom of the touchpanel and fit the touchpanel into the hole.
 - **TLP Pro 720M** — four locking arms, two at the top and two at the bottom.
 - **TLP Pro 1020M** — five locking arms, two at the top and three at the bottom.
8. Use a Phillips head screwdriver to tighten the locking arm screws. As the screws tighten, the locking arms rotate into position behind the wall and hold the unit in place. Do not overtighten the screws as this can damage the locking arms or the wall.
9. If required, configure the touchpanel using the [setup menu](#) (see page 15).
10. Replace the bezel by pressing the catches on the bezel into the corresponding holes on the front of the panel.

Furniture Mounting

The TLP Pro 720M and TLP Pro 1020M can be mounted into the surface of a lectern or other furniture as follows:

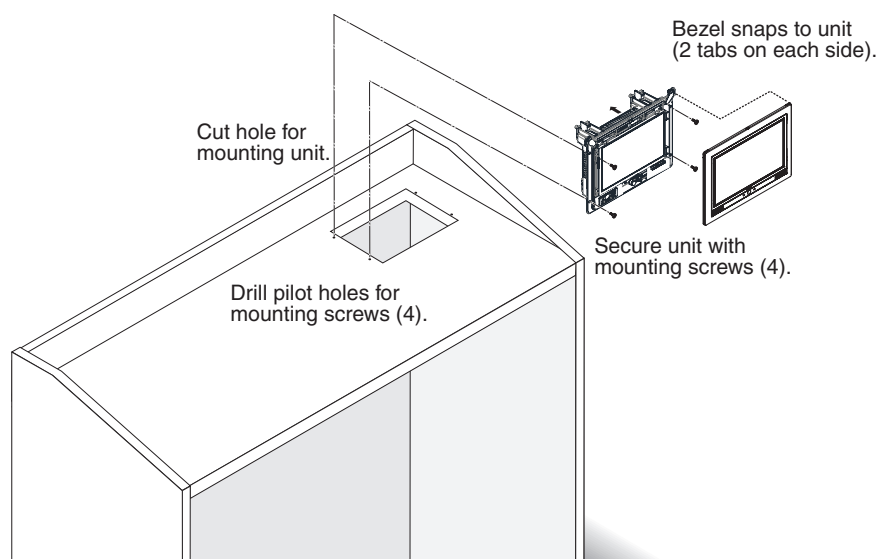


Figure 23. Mounting the TLP Pro 720M on a Lectern

1. Determine the best location for the touchpanel and, using the [template that you downloaded](#) (see the previous page), mark the lectern and cut a hole:
 - **TLP Pro 720M** — 7.5 inches (19.05 cm) wide x 5.81 inches (14.76 cm) high
 - **TLP Pro 1020M** — 10.06 inches (25.55 cm) wide x 6.98 inches (17.73 cm) high
2. Remove the bezel from the touchpanel.
3. Ensure all the locking arms are flush with the unit and check that the touchpanel can fit into the hole. If necessary, use a rasp or a coarse file to enlarge the hole.
4. With the touchpanel in position, mark four holes for the screws that will secure the unit to the lectern.
5. Remove the touchpanel and, if required, drill four pilot holes into the lectern.
6. Run the network cable to the lectern and through the mounting hole, leaving enough slack to connect it to the back of the touchpanel.
7. Plug the cables into the [rear panel connectors](#) (see pages 9 - 14).

Connect the LAN port to the network with a straight-through cable, providing both a network connection and power from a power injector.

Optional: Extron recommends using a power injector (not provided). However, the LAN port may be used as a network-only connection. Connect a 12 VDC, 1.0 A power supply (not provided) to the 2-pole captive screw power input. See the [Attention](#) on page 11 for very important information about power supplies.

8. Push excess cable into the lectern.
9. Ensure the locking arms are flush with top and bottom of the touchpanel and fit the touchpanel into the hole.
 - The TLP Pro 720M has four locking arms, two at the top and two at the bottom.
 - The TLP Pro 1020M has five locking arms, two at the top and three at the bottom.
10. Secure the touchpanel to the lectern with four #4 screws (not provided), using the pilot holes drilled in step 5.
11. Replace the bezel by pressing the catches on the bezel into the corresponding holes on the front of the panel.

Mounting the TLP Pro 720T and TLP Pro 1020T

Desktop Mounting

Placement without a Mounting Kit

Both the TLP Pro 720T and TLP Pro 1020T have stands that allow them to be placed on a desktop.

Both units can be secured to the desktop using screws. Figure 24 shows the base of the TLP Pro 720T, but the base of the TLP Pro 1020T is similar.

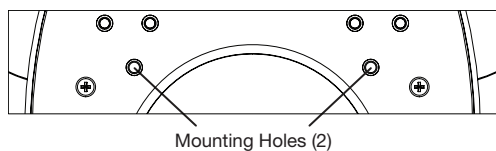


Figure 24. TLP Pro 720T Base (Bottom View), Showing Mounting Holes

1. Mark the location of two holes, 3.07 inches (78 mm) apart. This measurement is the same for both the TLP Pro 720T and the TLP Pro 1020T.
2. Drill two holes through the desktop from underneath.
3. Attach the touchpanel, using two #8 wood screws (not provided) through the desktop from underneath into the two holes in the base.

Placement with a Kensington Security Lock

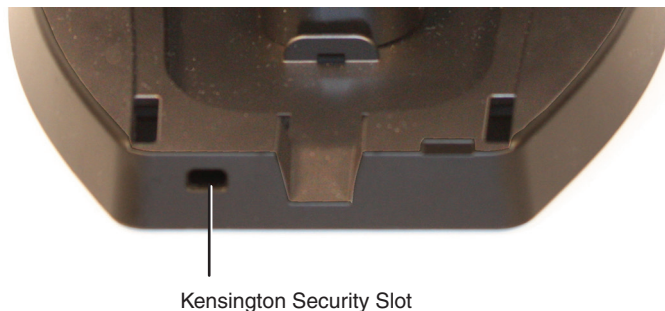


Figure 25. TLP Pro 720T Base, Showing Kensington Security Slot

For added security, attach a Kensington Security Lock (not provided) to the metal-reinforced slot on the rear edge of the base. Figure 25 shows the rear edge of the TLP Pro 720T base, but the TLP Pro 1020T base is very similar.

Follow the instructions that are provided by the manufacturer to install the lock.

SMA-1 swivel mount adapter

Both touchpanels can also be mounted with the optional Extron SMA-1 swivel mount adapter, which allows them to be mounted permanently and swivel up to 180° in either direction.

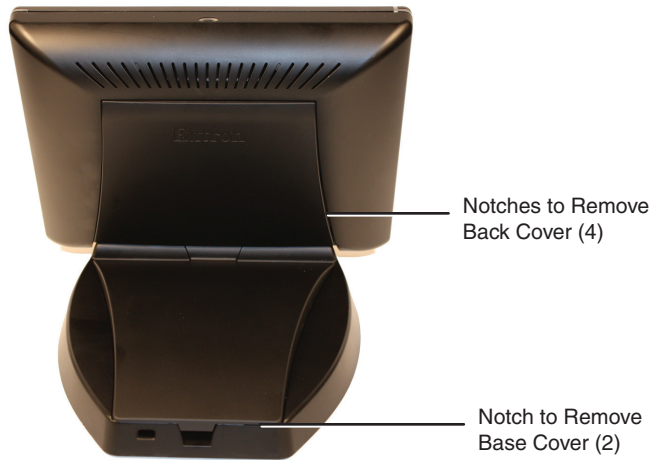


Figure 26. Remove the Back and Base Covers

1. Remove the back cover and base cover, using the provided Extron removal tool. There are two notches on each side of the back cover and two notches on the back edge of the base cover.

NOTE: You must remove the back cover before you can remove the base cover.

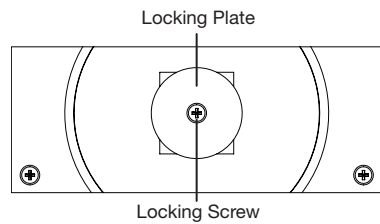


Figure 27. Locking Plate and Locking Screw

2. Remove the screw holding the locking plate at the bottom of the base. This releases the weight, which can be removed from the top of the base, leaving the mounting hole that will fit over the conduit of the SMA-1.
3. Attach the conduit, insulation disk, and swivel disk and configure the set screws to allow for the degree of swivel that is required (see the *SMA-1 Swivel Mount Adapter Kit User Guide*, available at www.extron.com).
4. Place the mounting hole in the base over the conduit of the SMA-1.
5. Secure the unit with the backing plate and locking nut as described in the *SMA-1 Swivel Mount Adapter Kit User Guide*.

VESA Mounting

Removing the base

1. Remove the back cover and base cover using the Extron removal tool, as described in **SMA-1 swivel mount adapter** (see the previous page).
2. If necessary, cut the zip tie holding the twisted pair cables to the touchpanel base.
3. If necessary, remove the cables from the cable runway in the base.

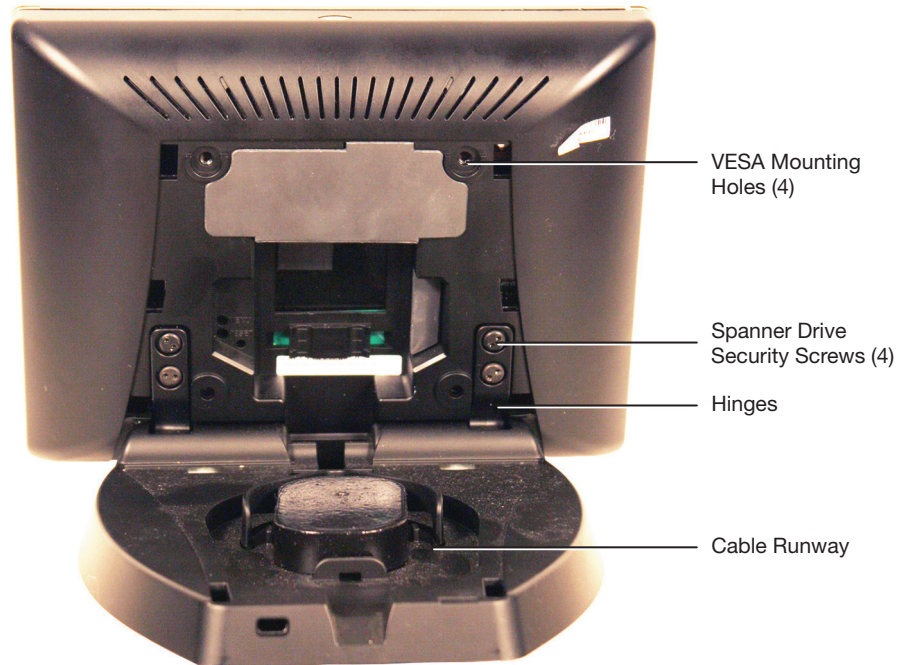


Figure 28. TLP Pro 720T Rear View

4. Remove the four spanner drive security screws holding the hinges to the touchpanel.

NOTE: The spanner drive screws holding the hinges require a #6 spanner bit or #6 spanner head screwdriver (not provided).

5. Lift the TLP away from the base.

VESA mounting

1. If necessary, connect the cables and use a zip tie to secure them to the back of the touchpanel.
2. Secure a VESA D 75 mm mount kit to the back of the touchpanel. Follow the instructions provided with the mounting kit.

Reference Material

This section describes:

- [Network Port Requirements](#)
- [Reset Modes](#)
- [Licensed Third-Party Software Used in the Touchpanels](#)

Network Port Requirements

Network administrators may find it useful to know which ports, protocols, and services are used by the IP Link Pro control processors, TouchLink Pro Touchpanels, Global Configurator Plus and Professional, Toolbelt, and Extron Control for iPad for iPad (for IP Link Pro control systems). The following tables provide that information as a reference for network planning and troubleshooting. The following definitions apply:

- **Inbound** — The Extron control hardware listens for inbound traffic on the specified port.
- **Outbound** — The Extron control hardware sends outbound traffic to the specified port.

IP Link Pro Control Processors

Ports and Protocols for Control Processors				
Inbound/ Outbound	Port	Protocol	Service	Description
Inbound	80	TCP	HTTP	Port redirects to HTTPS
Inbound/ Outbound	123	UDP	NTP	NTP service
Inbound	443	TCP	HTTPS	Default Web pages, GlobalViewer, TouchLink for Web
Inbound/ Outbound	4502	UDP	Discovery	Broadcast network discovery
Inbound	4503	TCP	SSH	Internal system messaging
Outbound	4504	UDP	Trace	Extron trace messages
Inbound	4522	TCP	SFTP	File transfer
Outbound	5555 (configurable)	UDP	GVE	GVE protocol
Outbound	Various	TCP/UDP	Drivers	Outbound connections for Ethernet device control

TouchLink Pro Touchpanels

Ports and Protocols for Control Processors				
Inbound/ Outbound	Port	Protocol	Service	Description
Inbound	80	TCP	HTTP	Port redirects to HTTPS
Outbound	123	UDP	NTP	NTP service
Inbound	443	TCP	HTTPS	Default Web pages, TouchLink for Web
Inbound/ Outbound	4502	UDP	Discovery	Broadcast network discovery
Inbound/ Outbound	4503	TCP	SSH	Internal system messaging
Inbound	4522	TCP	SFTP	File transfer

Global Configurator Plus and Professional Software

Ports and Protocols for Control Processors				
Inbound/ Outbound	Port	Protocol	Service	Description
Outbound	4503	TCP	SSH	Internal system messaging
Inbound	4504	UDP	Trace	Extron trace messages
Outbound	4522	TCP	SFTP	File transfer

Toolbelt Software

Ports and Protocols for Control Processors				
Inbound/ Outbound	Port	Protocol	Service	Description
Inbound/ Outbound	4502	UDP	Discovery	Broadcast network discovery
Outbound	4503	TCP	SSH	Internal system messaging
Inbound	4504	UDP	Trace	Extron trace messages
Outbound	4522	TCP	SFTP	File transfer

Extron Control for iPad (for IP Link Pro Control Systems)

Ports and Protocols for Control Processors				
Inbound/ Outbound	Port	Protocol	Service	Description
Inbound/ Outbound	4503	TCP	SSH	Internal system messaging
Inbound	433	TCP	HTTPS	File transfer
Outbound	4522	TCP	SFTP	File transfer

Reset Modes

The TLP Pro 720 Series and TLP Pro 1020 Series touchpanels have three reset modes that are initiated by pressing the Reset button:

- **Use Factory Firmware**
- **Reset All IP Settings**
- **Reset to Factory Defaults**

The Reset button on the TLP Pro 720M or TLP Pro 1020M, is found on the front panel after removing the bezel see [figure 4](#) on page 8). The Reset button for the TLP Pro 720T or TLP Pro 1020T is found on the rear panel (see [figure 5](#) on page 9).

Use Factory Firmware

This mode is used to boot up the unit with factory-installed firmware for a single power cycle in the event of a firmware update that failed or incompatibility issues arising with user-loaded firmware

Activation

To start the Use Factory Firmware reset mode and replace firmware:

1. On the touchpanel, hold down the recessed **Reset** button while applying power to the unit. When power is restored, the Reset LED lights. Hold the **Reset** button for a further two seconds before releasing it. The touchpanel enters factory firmware mode.
2. Upload new firmware to the unit as desired (see [Updating the Firmware](#) on page 24).

NOTE: Do not continue to operate the touchpanel using the factory firmware version. If you want to use the factory default firmware, you must upload that version again (see [Updating the Firmware](#) on page 24).

Result

The unit reverts to factory-installed firmware. Event scripting does not start if the unit is powered on in this mode. All user files and settings such as drivers, adjustments, and IP settings are maintained.

NOTE: To return the unit to the firmware version that was running prior to the reset, cycle power to the unit.

Reset All IP Settings

This mode resets all IP settings to factory defaults.

Activation

To reset all IP settings:

1. Hold down the **Reset** button for about 6 seconds until the Power LED blinks twice (once at 3 seconds and again at 6 seconds).
2. Release and press **Reset** momentarily (for <1 second) within 1 second. Nothing happens if the momentary press does not occur within 1 second.

Result

Reset All IP Settings mode:

- Sets the IP address back to factory default (192.168.254.251).
- Sets the subnet back to factory default (255.255.255.0).
- Sets the default gateway address to the factory default (0.0.0.0).
- Sets all other IP settings, addresses, and domain and host names back to factory default.
- Turns DHCP off.

Reset to Factory Defaults

This mode resets all IP settings and touchpanel settings to factory defaults and removes all configurations. It allows you to start over with configuration and uploading.

Activation

To reset the unit to all factory default settings:

1. Hold down the **Reset** button for about 9 seconds until the Power LED blinks three times (once at 3 seconds, again at 6 seconds, and again at 9 seconds).
2. Release and press **Reset** momentarily (for <1 second) within 1 second. Nothing happens if the momentary press does not occur within 1 second.

Result

Reset to Factory Defaults mode performs a complete reset to factory defaults (except the firmware).

- Does everything Reset All IP Settings mode does.
- Removes touchpanel user interface layout and configurations.
- Resets all touchpanel settings to factory default.

Licensed Third-Party Software Used in the Touchpanels

The touchpanels use various licensed third-party software packages during operation. To view details about third-party packages and associated licensing, click the **License Information** button on the Unit Information page of the [internal Web page](#) (see page 23).

To view a copy of a listed package license, in the **License Information** window, click the link in the **License** column for the relevant package. This opens in a separate window a copy of the package license.

The following table lists the licensed third-party software packages used by the touchpanels.

NOTE: Licensed third-party software packages used by the touchpanels are subject to change without notice.

Licensed Third-party Software Used in the TLP Pro Touchpanel Models			
Package	License	Package	License
aufs2-util	GPL v2	avahi	LGPL v2.1
bstrlib	BSD	busybox	GPL v2
bzip2	BSD	can-utils	GPL v2
cjson	MIT	devmem2	GPL v2
expat	MIT	gi	fcgi
gnupg-1.4.7	GPL v2	gpgme-1.3.0	LGPL v2.1
i2c-tools	GPL v2	ifplugd	GPL v2
json4lua	MIT	Libassuan-2.0.1	LGPL v2.1
Libcgicc-3.2.3	LGPL v2.1	libcurl	ICS
libdaemon	LGPL v2.1	libdnrt	BSD
libfcgi	fcgi	libffi	libaffi
libgpg	LGPL v2.1	libnl	LGPL v2.1
libpcap	BSD	libsocketcan	LGPL v2.1
libssh2	BSD	libusb	LGPL v2.1
lighttpd	BSD	linux-kernel	GPL v2
linux-pam	BSD	lua	MIT
luafilesystem	MIT	luasocket	MIT
minicom	GPL v2	mtdev	GPL v2
ncurses	MIT	netsh	BSD
ntp	MIT	openssh	BSD
openssl	OpenSSL	pcre	BSD
pexpect	MIT	popt	MIT
psmisc	GPL v2	python3	PSF
qt	LGPL v2.1	socat	GPL v2
spawn-fcgi	BSD	sqlite	Public-domain
tcpdump	BSD	tzdata	Public-domain
uboot	GPL v2	udev	GPL v2
xinetd	BSD	zlib	zlib

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 Electronics 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
Dubai, United Arab Emirates

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
Asia: 65.6383.4400

Europe: 31.33.453.4040
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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