User Guide

TouchLink®

TLP Pro 300M

TouchLink Pro Touchpanel Control Systems

Extron

68-3146-01 Rev. A
04 20

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**.

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**.

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**.

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**.

Istruzioni di sicurezza • Italiano

AVVERTENZA: Il simbolo, ⚠, se usato sul prodotto, serve ad avvertire l'utente della presenza di tensione non isolata pericolosa all'interno del contenitore del prodotto che può costituire un rischio di scosse elettriche.

ATTENTZIONE: Il simbolo, ⚠, se usato sul prodotto, serve ad avvertire l'utente della presenza di importanti istruzioni di funzionamento e manutenzione nella documentazione fornita con l'apparecchio.

Per informazioni su parametri di sicurezza, conformità alle normative, compatibilità EMI/EMF, accessibilità e argomenti simili, fare riferimento alla Guida alla conformità normativa e di sicurezza di Extron, cod. articolo 68-290-01, sul sito web di Extron, **www.extron.com**.

Instrukcje bezpieczeństwa • Polska

OSTRZEŻENIE: Ten symbol, ⚠, gdy używany na produkt, ma na celu poinformować użytkownika o obecności izolowanego i niebezpiecznego napięcia wewnątrz obudowy produktu, który może stanowić zagrożenie porażenia prądem elektrycznym.

UWAGI: Ten symbol, ⚠, gdy używany na produkt, jest przeznaczony do ostrzegania użytkownika ważne operacyjne oraz instrukcje konserwacji (obsługi) w literaturze, wyposażone w sprzęt.

Informacji na temat wytycznych w sprawie bezpieczeństwa, regulacji wzajemnej zgodności, zgodność EMI/EMF, dostępności i Tematy pokrewne, zobacz Extron bezpieczeństwa i regulacyjnego zgodności przewodnik, część numer 68-290-01, na stronie internetowej Extron, **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**, 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

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**，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

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、法規厳守、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.

NOTES:

- 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.

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

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**".

Directory paths that do not have variables are written in the font shown here:

```
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**.

Contents

Introduction

This guide describes the function, installation, and operation of the TLP Pro 300M TouchLink Pro touchpanel. Unless otherwise stated, the terms “TLP Pro” and “touchpanel” refer to the TLP Pro 300M.

This section contains the following information:

About the TLP Pro 300M

The Extron TLP Pro 300M is a 3.5-inch, wall-mounted touchpanel with an 320x480 LCD touchscreen. The TLP Pro 300M works with any Extron IP Link Pro control processor and is ideal for any AV application requiring a compact touchpanel and a fully customizable interface.

The touchpanel mounts in a portrait orientation to a standard 1-gang electrical box (see **Mounting** on page 25).

Power over Ethernet (PoE) allows the touchpanel to receive power and communications over a single Ethernet cable.

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 or Global Scripter. 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

3.5-inch LCD touchscreen — with 320x480 resolution and 18-bit color depth.

Gorilla Glass® screen is tough, scratch, and smudge-resistant — Corning® Gorilla Glass is stronger and more scratch-resistant than standard glass, while maintaining touch sensitivity, color saturation, and brightness.

Compatible with all Extron IP Link Pro control processors and HC 400 Series systems.

Power over Ethernet (PoE 802.3af, class 2) compliance — allows the touchpanel to receive power and control over a single Ethernet cable, eliminating the need for a local power supply. The power injector is sold separately.

Built-in speaker — provides 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.

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.

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

Multiple mounting options — mounts in a one-gang junction box, on a wall, or in a lectern.

Application Diagram

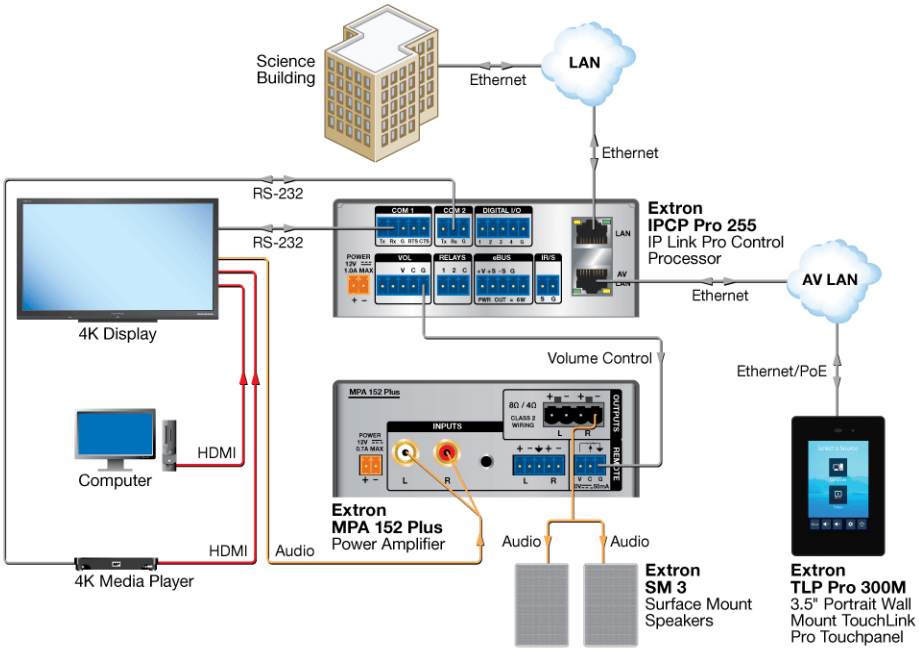

Figure 1. TLP Pro 300M Application Diagram

Requirements

Software

For a complete list of the requirements for running GUI Designer, Global Configurator Plus and Professional, Global Scripter, or Toolbelt, see the Extron Web page for the appropriate software.

NOTE: The TLP Pro 300M is not compatible with Global Configurator 3 or GUI Configurator.

Hardware

An Extron IP Link Pro control processor must be connected to the same network domain as the TLP Pro 300M. See **www.extron.com** for a list of suitable controllers.

NOTE: The TLP Pro 300M is not compatible with Extron IP Link (non-Pro) control processors.

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.
   - ☐ **Global Scripter** — Provides an integrated development environment for Extron control systems programming.

     See **Configuration Software** on page 19.
2. Obtain the following network information from your network administrator:
   - ☐ **Dynamic Host Configuration Protocol (DHCP) status** (on or off). If DHCP is off, you also require
     - ☐ **IP address**
     - ☐ **Subnet mask**
     - ☐ **Gateway**
   - ☐ **User names**— These are either `admin` or `user`.
   - ☐ **Passwords** — The factory configured passwords for all accounts on this device have been set to the device serial number. Passwords can be changed during configuration. Passwords are case sensitive.

     NOTE: If the device is reset to default settings, the password is the default password configuration. The default password is `extron` (for either `admin` or `user` accounts).

   - ☐ **MAC address** — make a note of the touchpanel MAC address.
   - ☐ **SSL security certificates and IEEE 802.1X authentication** — Extron touchpanels come with a factory-installed Secure Sockets Layer (SSL) security certificate. IEEE 802.1X authentication is also supported once enabled. See **Secure Sockets Layer (SSL) Certificates** on page 30 or **IEEE 802.1X Certificates** on page 31 for more information.

3. 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.

   ATTENTION:

   - Do not power on the touchpanels or control processors until you have read the **Attention** on page 8.
   - Ne branchez pas les écrans tactiles ou les contrôleurs avant d'avoir lu les **mises en garde** page 8.

   ☐ Use the **Setup Menu** (see page 9) or Toolbelt to set the DHCP status and, if necessary, the IP address and related settings for the touchpanel.

   NOTE: Set up the touchpanel before mounting. Once the panel is mounted in a wall, the **Menu** button cannot be accessed without removing the touchpanel.

4. Mount and connect cables to the units:

   ☐ 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 300M Rear Panel Features** on page 6).

   ☐ Connect the power cords and power on all devices (see **LAN/PoE Connector** on page 6).

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* includes an introduction to that software and sections on how to start a project and configuration.

   Global Scripter provides an Extron-exclusive Python library (ControlScript) and Global Scripter modules to get you started. See the *GlobalScripter Help File* for more information.

Panel Features

This section describes:

- **TLP Pro 300M Front Panel Features**
- **TLP Pro 300M Rear Panel Features**

TLP Pro 300M Front Panel Features

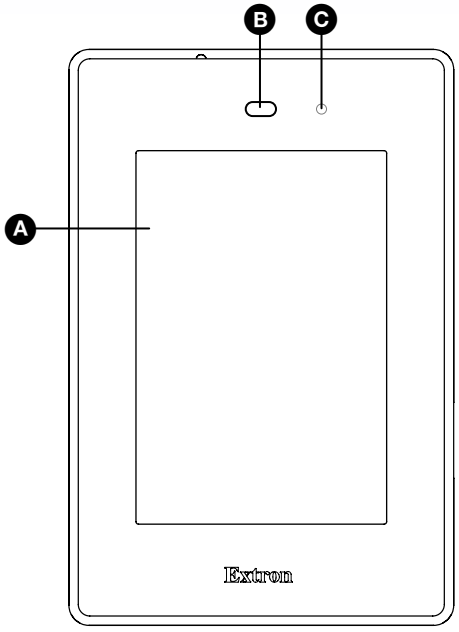

Figure 2. TLP Pro 300M Front Panel

A **LCD touchscreen** — The 3.5-inch, 320x480 resolution touchscreen is made with Corning® Gorilla Glass, which is stronger and more scratch-resistant than standard glass, while maintaining touch sensitivity, color saturation, and brightness.

B **Motion sensor** — Detects motion between three to five feet from the touchpanel, and at least 15° from the center axis.

C **Light sensor** — Monitors ambient light level and adjusts screen brightness, based on the settings configured using the **Setup Menu** (see page 9).

TLP Pro 300M Rear Panel Features

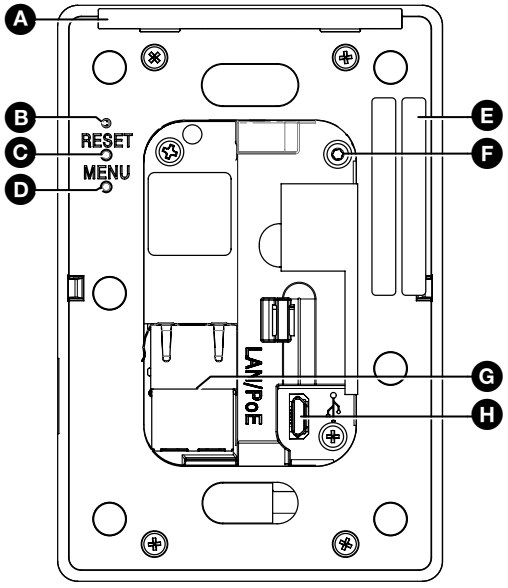

Figure 3. TLP Pro 300M Rear Panel Features

A **Status light** — The lights can blink or remain lit steadily and they can light red or green. The lights can be configured (using Global Configurator) or programmed (using Global Scripter) to provide feedback information about the system using these variables. Different combinations, for example a red LED lit steadily or a green LED that is blinking, can be associated with different events to provide indications about the system.

For information about configuring or programming this light, see the *Global Configurator Help File* or the *Global Scripter Help File*.

B **Reset LED** — Provides feedback about the reset status when the user presses the Reset button (for an overview, see **Reset Modes** on page 28).

C **Reset Button** — Pressing the **Reset** button allows the unit to be reset in any of three different modes and can also be used to toggle between enabling and disabling the DHCP client (see **Reset Modes**).

D **Menu Button** — Activates the setup menu (see **Setup Menu** on page 9).

E **Serial Number Label** — The serial number is on a label on the right edge of the rear panel, towards the top. The factory configured passwords for all accounts on this device have been set to this device serial number. Passwords are case sensitive.

> **NOTE:** If the device is reset to default settings, the passwords are reset to the default password, which is `extron` (for either `admin` or `user`).

F **Security Screw** — Used to attach provided tether kit. It requires a Torx screwdriver (size T8).

G **LAN/PoE Connector** — The interface is compliant with the requirements of PoE (PoE 802.3af, class 2) and must be powered by PoE power sourcing equipment (PSE). This can be a power injector (see **Connecting a Power Injector** on page 7) or PoE switch.

> **NOTE:** The PoE PSE must be purchased separately. Use an Ethernet cable to connect the touchpanel to a PoE power injector (not provided).

An Extron IP Link Pro control processor must also be connected to the same network as the TouchLink Pro touchpanel (see **www.extron.com** for a list of compatible models).

H **USB Port** — One micro-B receptacle supports high-speed USB 2.0.

Connecting a Power Injector

Figure 4 shows the Extron XTP PI 100. Your power injector may look different.

1. Connect a straight-through Ethernet cable from the power injector to a switch or router (figure 4, ❶). This cable carries network information from the switch or router to the power supply.

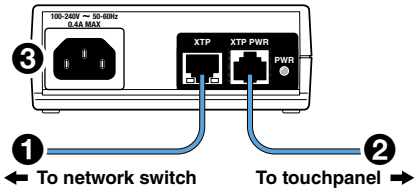

Figure 4. XTP PI 100 Power Injector

2. Connect a second straight-through cable (❷) from the power injector to the touchpanel. This cable carries the network information and 48 VDC from the power injector to the touchpanel.
3. Connect the IEC power cord to a convenient 100 VAC to 240 VAC, 50-60 Hz power source (❸).

ATTENTION:

- The TLP Pro 300M is 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.
- Le TLP Pro 300M est 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.

- This product is intended for use with a UL Listed power source marked "Class 2" or "LPS" and rated 48 VDC (PoE), minimum 0.35 A.
- Ce produit est destiné à une utilisation avec une source d'alimentation listée UL avec l'appellation « Classe 2 » ou « LPS » et normée 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 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.

Setup Menu

When the TLP Pro 300M is powered on, the currently loaded project is displayed. To access the setup menu, press the **Menu** button (see **figure 3**, D, on page 6). There are six available screens:

- **Status**
- **Network**
- **Display**
- **Audio**
- **Project Information**
- **Advanced**

To navigate between different screens, press the **Menu** icon in the top left corner.

The screen selection menu opens over the current screen, which is grayed out. The menu has five buttons, corresponding to the five available screens:

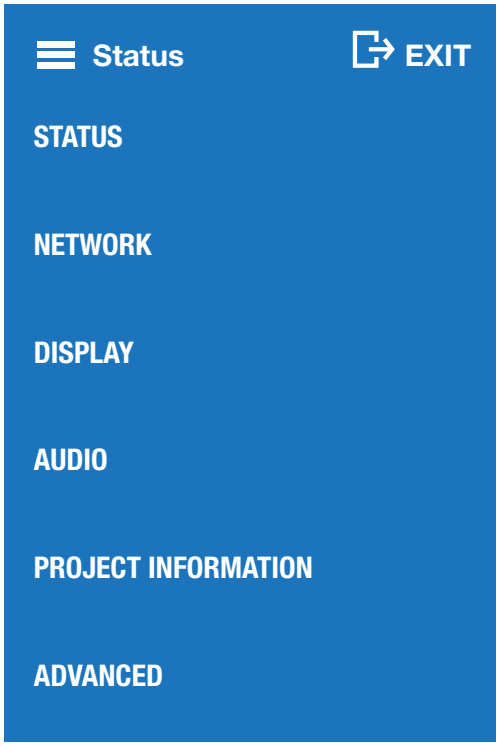

Figure 5. Screen Selection Menu

Press the name of the screen you wish to open.

Press the **Exit** button in the top right corner of the screen to close the menu screens.

Status

This screen opens by default. To access the `Status` screen from any other part of the Setup menu, press the **`Menu`** icon in the top left corner and then press the **`Status`** button.

Figure 6 shows the entire `Status` screen. Because of size of the touchscreen, you can only see part of the `Status` screen at any time. Scroll up or down within the screen to navigate.

The `Status` screen is a read-only screen that provides basic information about the touchpanel. Each section of the screen shows a summary of the information on the other screens. More information about each topic can be found on the **Network**, **Display**, **Audio**, **Project Information**, and **Advanced** screens. To navigate to the appropriate screen, click the arrow (**>**) next to the appropriate heading. Alternatively, you can use the **`Menu`** icon in the top left corner.

In the `Network` section, a green circle with a white check mark is shown next to the IP address, when there is a network connection. If there is no connection, the circle is red with a white cross.

In the `Advanced` section, the same icons are used to show if a control processor is connected or not.

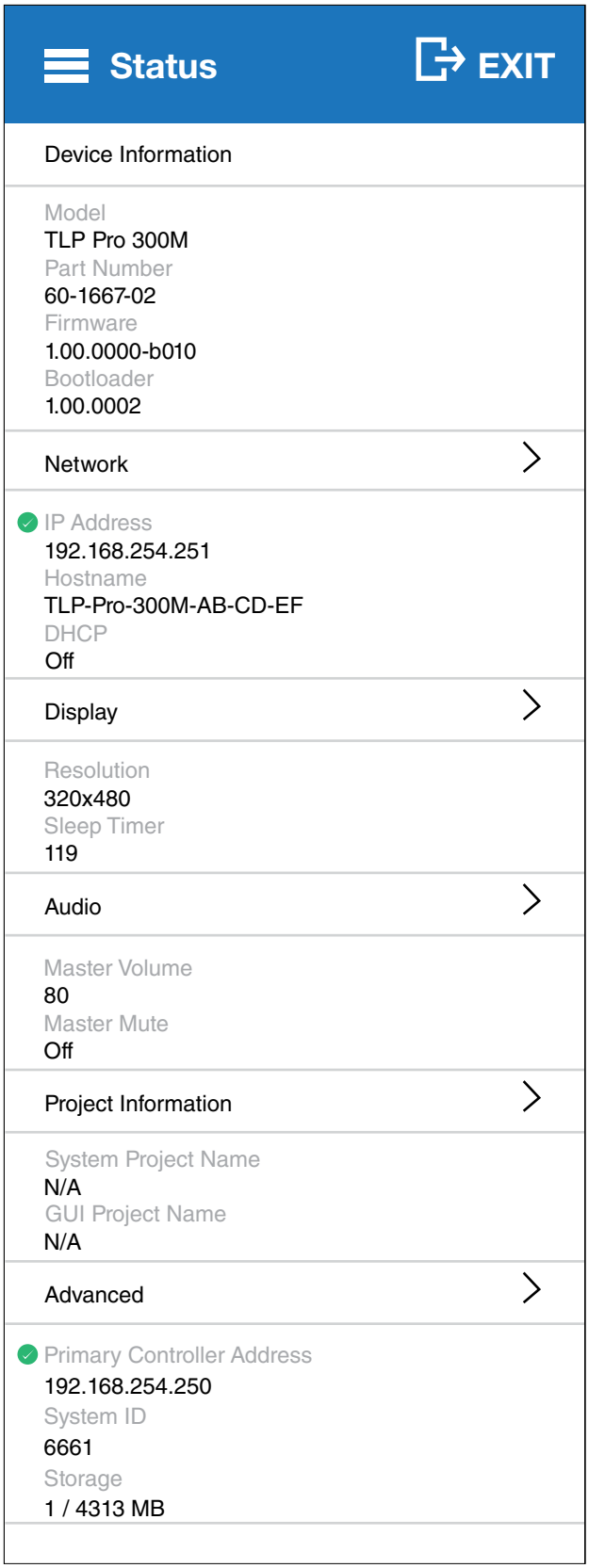

Figure 6. Status Screen

Network

The image below shows the entire **Network** screen. Because of size of the touchscreen, you can only see part of the screen at any time. Scroll up or down within the screen to navigate.

NOTE: The **Cancel** and **Save** buttons float so that they always appear at the bottom of the screen, even when only the top part of the screen is displayed. They are used to save changes to the network addresses or to cancel the changes without saving them.

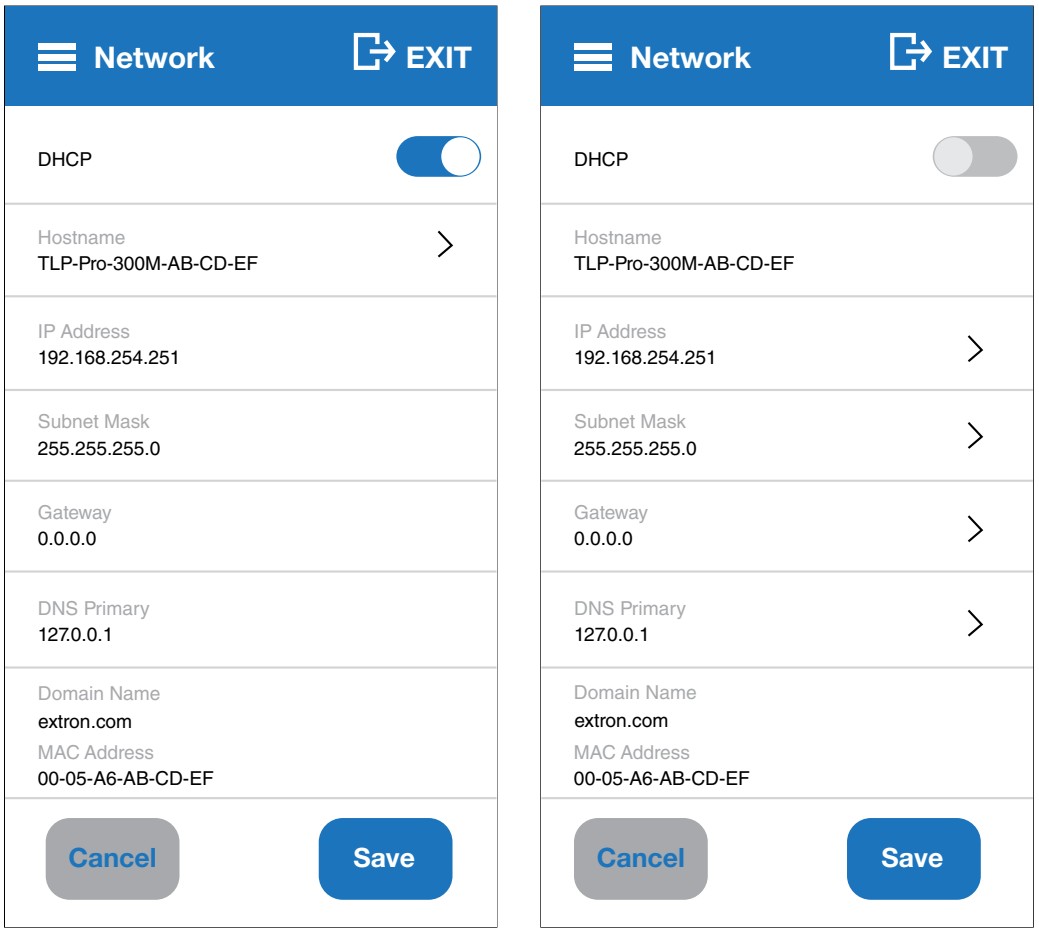

Figure 7. Network Screen: DHCP on (left) and DHCP off (right)

The **Domain Name** and **MAC Address** are read-only.

1. If the IP addresses are assigned by DHCP, move the DHCP slider to the right, as shown in figure 7 (left).
   - When DHCP is on, the **Host Name** can be edited by pressing the right arrow (**>**). There are no arrows next to the addresses and they cannot be edited because they are set by the DHCP server.
   - When DHCP is off, the arrow next to the **Host Name** disappears and it cannot be edited. Arrows next to the **IP Address**, **Subnet Mask**, **Gateway** and **DNS Primary** allow them to be edited.

   If IP addresses are assigned manually, move the DHCP slider to the left, as shown in figure 7 (right).

2. If DHCP is on, press the arrow next to the **Host Name** button to edit the host name. The Host Name dialog box opens:

Figure 8. Host Name Dialog Box

Use the keypad to enter a new name, which appears in the Host Name text box.

3. If DHCP is disabled, set the unit IP address, subnet mask, gateway address, and DNS server address.

   a. Press the arrow (>) next to the address that you are editing. The `Address` Dialog Box opens:

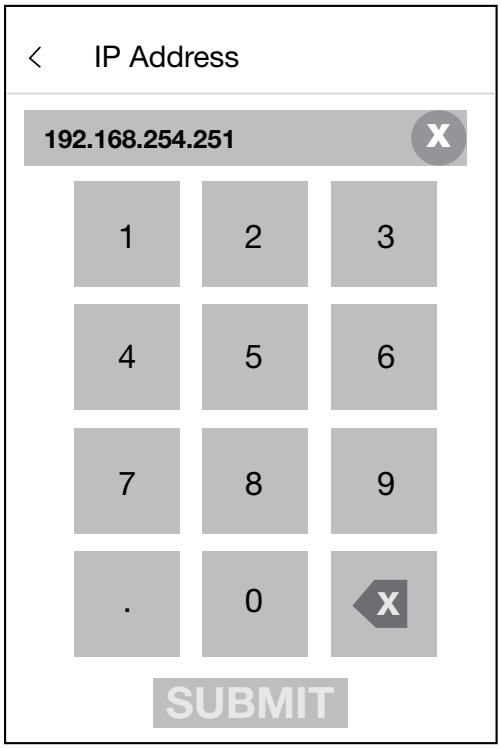

Figure 9. Address Dialog Box

   b. Enter the 3-digit value for an octet

NOTES:

- 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.
- After entering the value for an octet, you must enter a period (`.`) before entering the value for the next octet.

   c. Click **`Submit`** to save the changes, exit the dialog, and return to the `Network` screen. Click the left arrow (**`<`**) in the heading to exit the dialog and return to the `Network` screen without saving changes.

Display

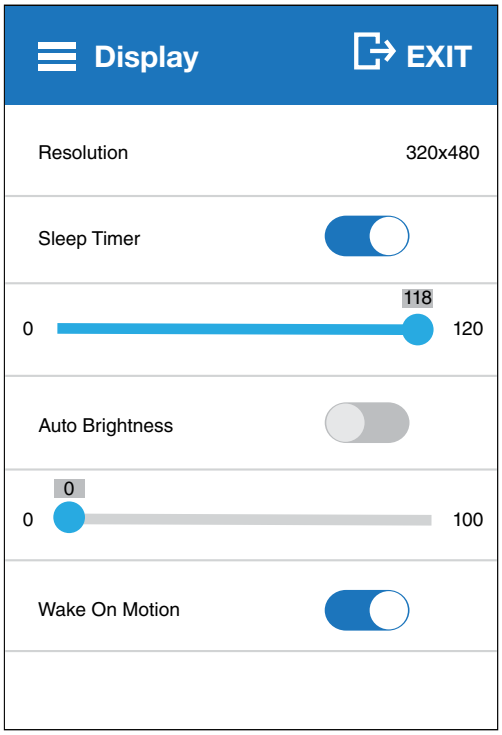

Figure 10. Display Screen

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

- `Resolution` (320x480) is read-only.
- `Sleep Timer` — determines how long the panel will be inactive before it enters sleep mode. In sleep mode, the screen goes dark to save power.

  Use the **`Sleep Timer`** switch to enable or disable the sleep timer. If the sleep timer is enabled, use the slider to set a 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 detector.
- Screen Brightness — Use the slider to adjust the brightness setting between **`0`** and **`100`** manually. If screen brightness is changed using this slider, auto brightness is automatically disabled.
- `Wake on Motion` — activates the panel from sleep mode when motion is detected near the unit. Toggle between **`On`** and **`Off`**. If `Wake on Motion` is off, touch the screen to activate the panel.

Audio

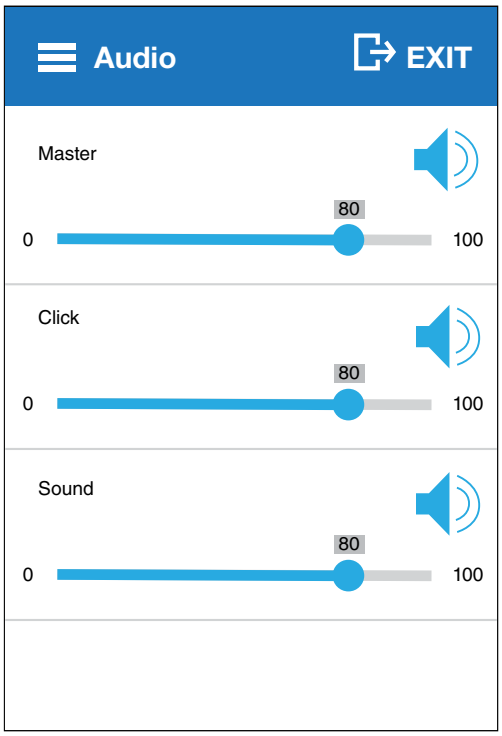

Figure 11. Audio Screen

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

- `Master` volume 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 `Sound` 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.
- `Sound` sets the volume of audio from any audio file playback.

To mute any of the volume settings, press the corresponding loudspeaker icon to toggle between mute off and mute on (see figure 12).

Figure 12. Mute On and Off Icons

Project Information

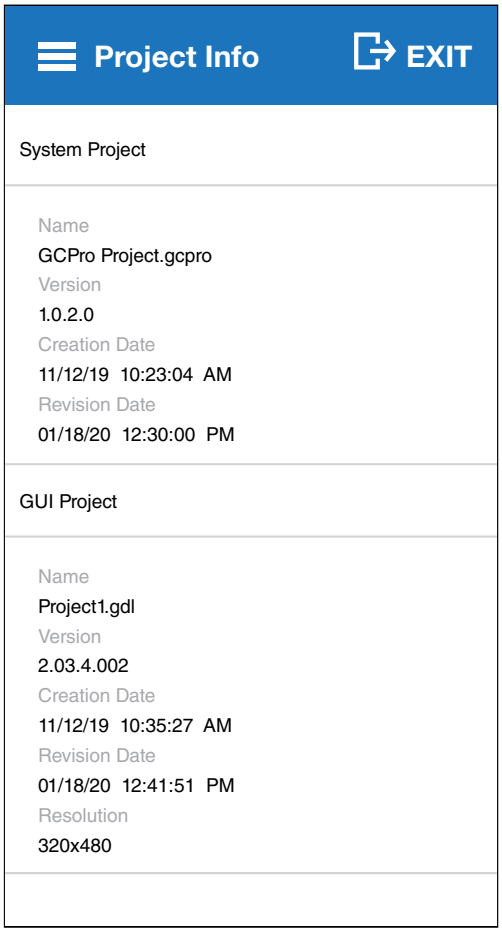

Figure 13. Project Information Screen

The Project Information screen is read-only. It provides information about the projects created in Global Configurator Plus and Professional (`System Project`) and GUI Designer (`GUI Project`).

Advanced

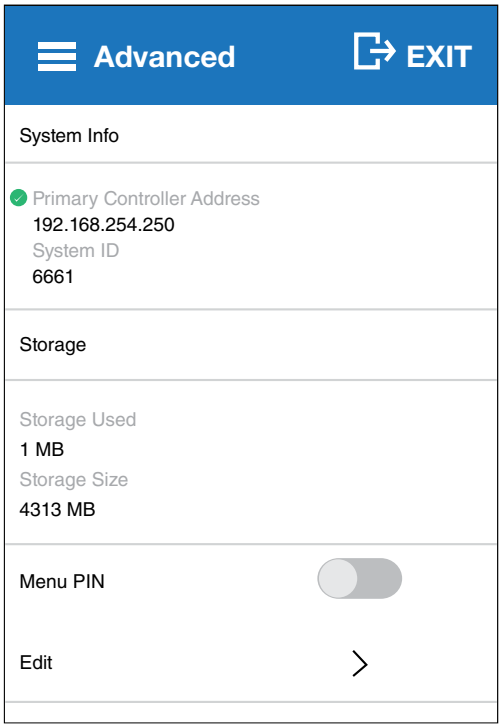

Figure 14. Advanced Screen

The first two sections, System Info and Project Usage, provide read-only informaton.

System Info

`Primary Controller Address` — provides the IP address or hostname of the control processor. If it is connected, a green circle with a white check mark is shown. If the control processor is not connected, a red circle with a white X is shown.

`System ID` — is a four digit number generated by Global Scripter or Global Configurator Plus and Professional and needed to link the touchpanel to a control processor. For more information, see the *Global Scripter Help File* or *Global Configurator Plus and Professional Help File*.

Storage

`Storage Used` — states the amount of storage used by the project.

`Storage Size` — states the total storage available on the touchpanel.

Menu PIN

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

By default, PIN use is disabled.

1. Set the PIN switch to **on** to enable PIN use. The **Enter New PIN** numeric keypad opens:

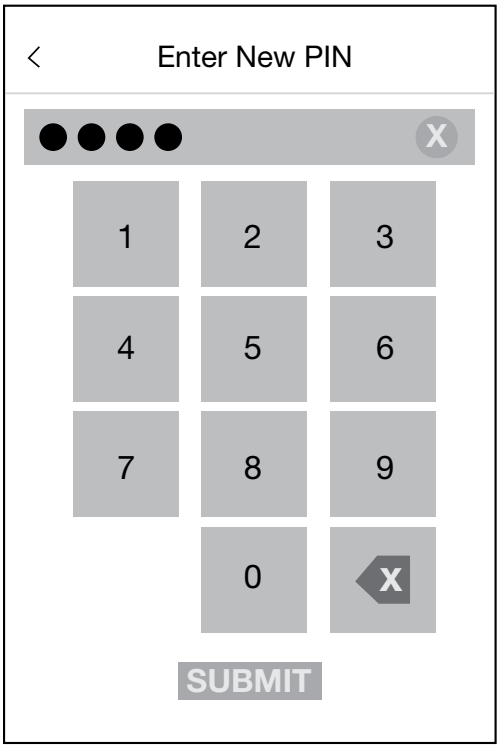

Figure 15. Numeric Keypad for Setting PIN

2. Enter the PIN. The PIN is a 4-digit number. Each digit can have any value from **0**-**9**. As the digits are entered, four dots appear below the title.
3. When four digits have been entered, the **Submit** button is enabled. Press **Submit** to save the PIN. The title bar changes to **Confirm New Pin**.
4. Enter the PIN a second time and press **Submit**. When the PIN entered on the second occasion matches the PIN entered on the first occasion, the PIN is set and the dialog closes.

To edit the PIN after it has been set, press **Edit** in the **Advanced** screen (see **figure 14** on the previous page) and enter the new PIN twice as described in steps 1-4 above.

To delete the PIN, set the **Menu PIN** to off (see the **Advanced** screen).

Configuration Software

This section of the user guide provides information about:

- **Downloading and Installing Software**
- **Using the Software**
- **TLP Pro 300M Web Page**
- **Updating Firmware**

Downloading and Installing Software

Toolbelt, GUI Designer, Global Configurator Plus and Professional, and Global Scripter can be downloaded from **www.extron.com**.

NOTES:

- You will need an Extron Insider account to run Global Scripter, Global Configurator Plus and Professional, or GUI Designer. To obtain one, contact the Extron Sales Department.
- The TLP Pro 300M is not compatible with earler Extron software (GUI Configurator or Globlal Configurator 3). Ensure you are downloading GUI Designer and Global Configurator Plus and Professional.

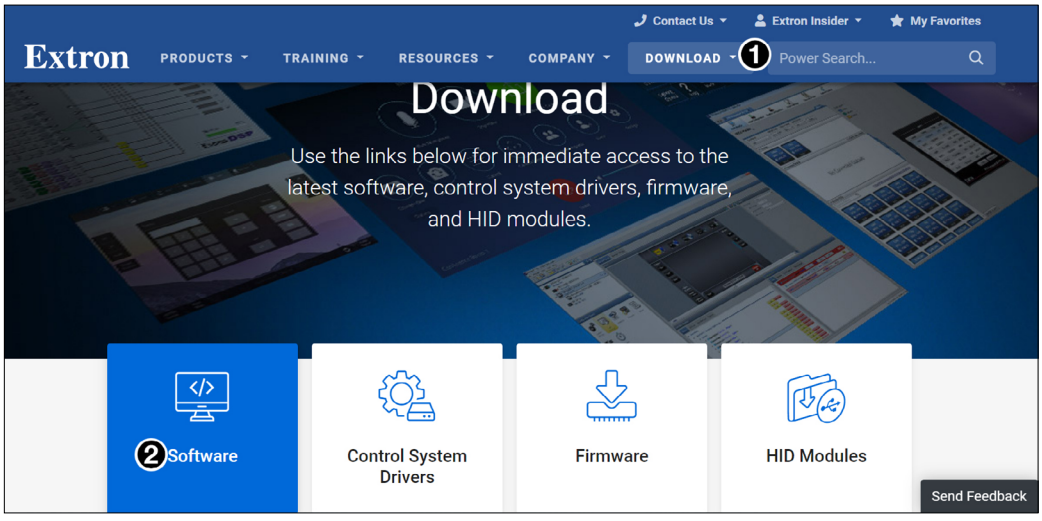

Figure 16. Software Downloads from the Extron Website

1. Open **www.extron.com** and select the **Download** tab (❶).
2. Click **Software** (❷) .

The `Download Center Software` page opens:

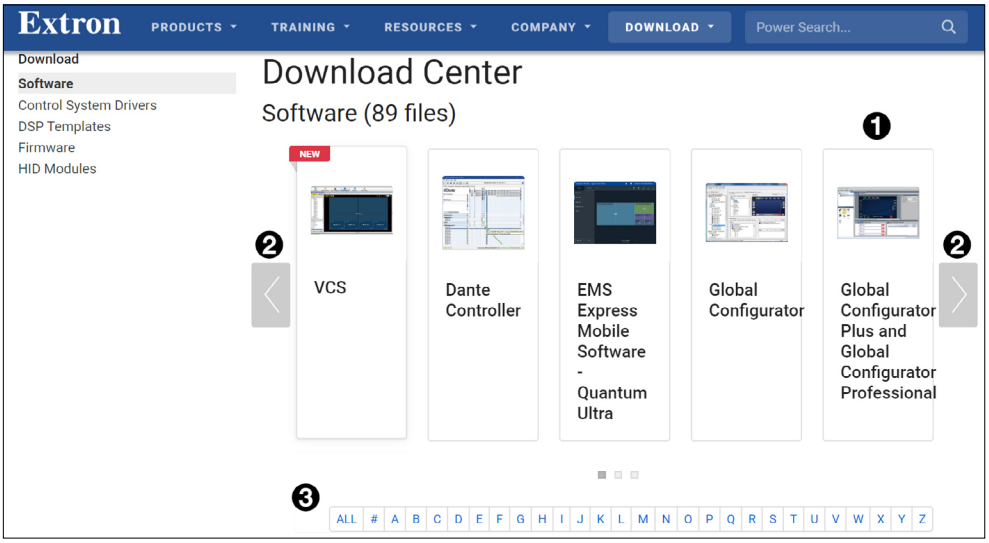

Figure 17. Selecting Software to Download

3. The software may be shown in the panels at the top of the page. Figure 17 (❶) shows Global Configurator Plus and Professional.

   You may need to use the left (<) or right (>) arrows (❷) to find the software. If the software is still not shown, click on the initial letter of the program in the alphabet menu (❸).

Downloading software from the product page

Clicking on the panels at the top of the page takes you to the software product page on the Extron website. Figure 18 shows the GCP product page.

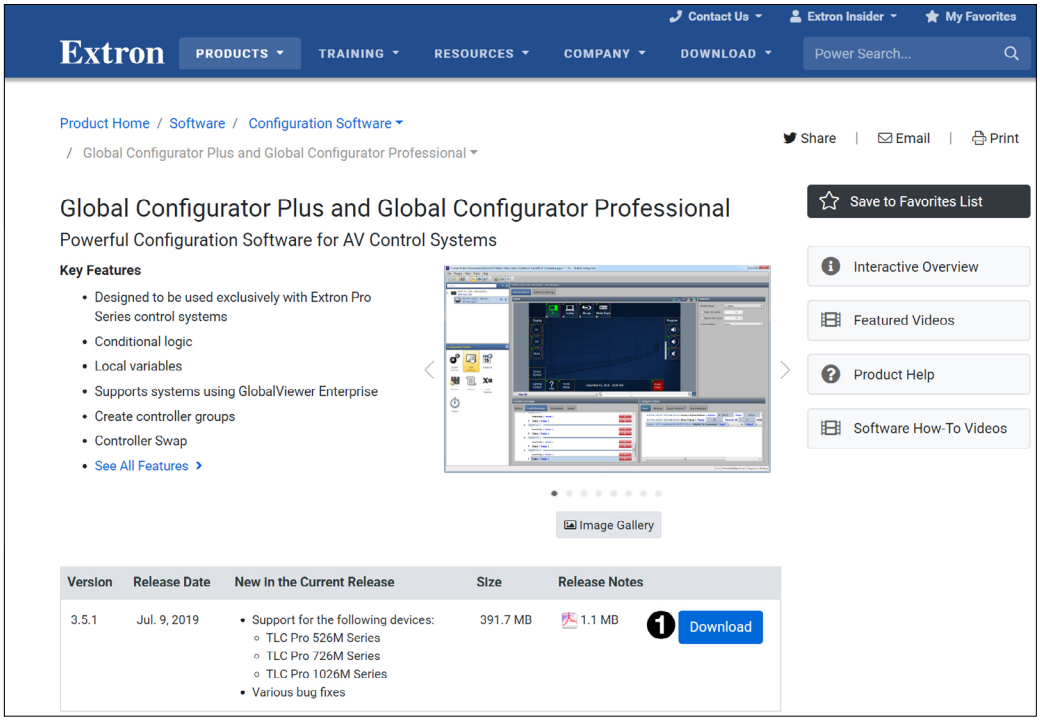

Figure 18. GCP Product Page

To download and install the product, click **`Download`** (❶) and follow the onscreen instructions.

The software is downloaded and installed on your PC. By default, the software is saved in a newly created folder: `C:\\Program Files (x86)\\Extron\<Software Name>`.

Downloading software from the alphabet menu

Clicking on the initial letter of the software product (see **figure 17**, ❸, on the previous page) generates a list of software products with that initial letter.

Scroll down to the product you wish to download. Figure 19 shows the panel for Toolbelt.

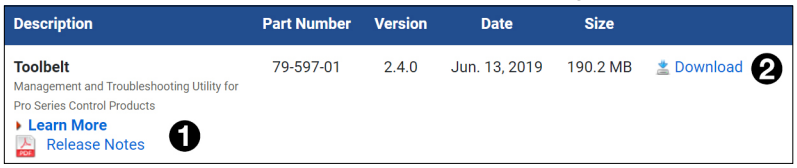

Figure 19. Downloading from the Alphabet Menu

Click Learn More (❶) to go to the software product page.

Click Release Notes (❶) to find out what has been updated in the software since the previous release.

To download and install the product, click **`Download`** (❷) and follow the onscreen instructions. By default, the software is saved in a newly created folder: `C:\\Program Files (x86)\\Extron\<Software Name>`.

Using the Software

Use the appropriate software 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 Toolbelt to provide device information, firmware updates, certificate management, and configuration of network settings, system utilities (reset, reboot), and user management (username and password) for TouchLink Pro devices.

GUI Designer

Design the layout of the screen text and graphics using GUI Designer, which is a Windows-based application. You can either customize one of several existing templates or create an entirely new interface.

After the user interface has been designed, the project is saved, built, and imported into Global Configurator Plus and Professional or Global Scripter.

Global Configurator Plus and Professional

Use Global Configurator Plus and Professional to assign functions to the screen text and graphics.

After assigning the control functions, the project is rebuilt and uploaded to the control processor and touchpanel.

Global Scripter

You can use Global Scripter as an alternative to GCP. Global Scripter provides an integrated development environment for Extron control systems programming, including an Extron-exclusive Python library (ControlScript) and Global Scripter modules to get you started. See the *GlobalScripter Help File* for more information.

TLP Pro 300M Web Page

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. The sign-in screen opens:

Figure 20. TLP Pro 300M Sign-in Screen

Enter the `Username` (`admin` or `user`) and `Password`.

NOTES:

- The factory configured passwords for all accounts on this device have been set to the device serial number. Passwords are case sensitive.
- If the device is reset to default settings, the password is the default password configuration. The default password is `extron`.

The default web page opens:

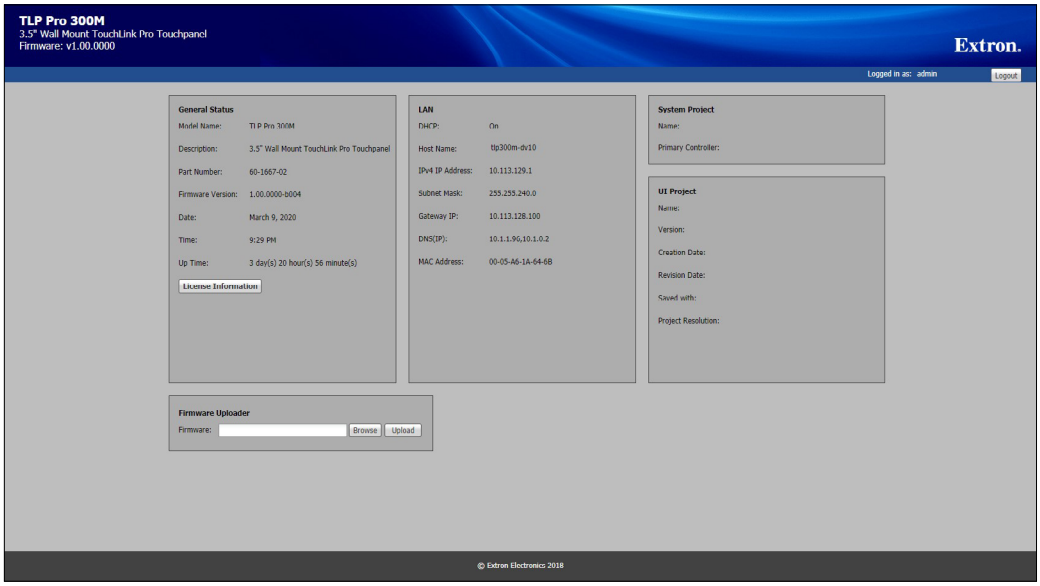

Figure 21. TLP Pro 300M Default Web Page

The single page provides general and network information about the unit. It is read-only and cannot be used to configure the touchpanel network settings. This should be done using the **Setup Menu** (see page 9) or Toolbelt (see the *Toolbelt Help File*).

You can use this page to upload firmware to the unit (see **Updating Firmware Using the Touchpanel Web Page** on the next page).

Click **License Information** to view details about third-party packages and associated licensing (and see the *Pro Series Control Product Network Ports and Licenses Guide*, which is available at **www.extron.com**).

Updating Firmware

To update firmware, first download and run the file from the Extron website. Then use Toolbelt or the TLP Pro 300M web page to upload the file to the touchpanel.

Downloading Firmware

The firmware must be downloaded to a PC on the same sub-network as the TLP Pro 300M.

1. On the Extron Website, click **Download** (❶).
2. Click **Firmware** (❷).

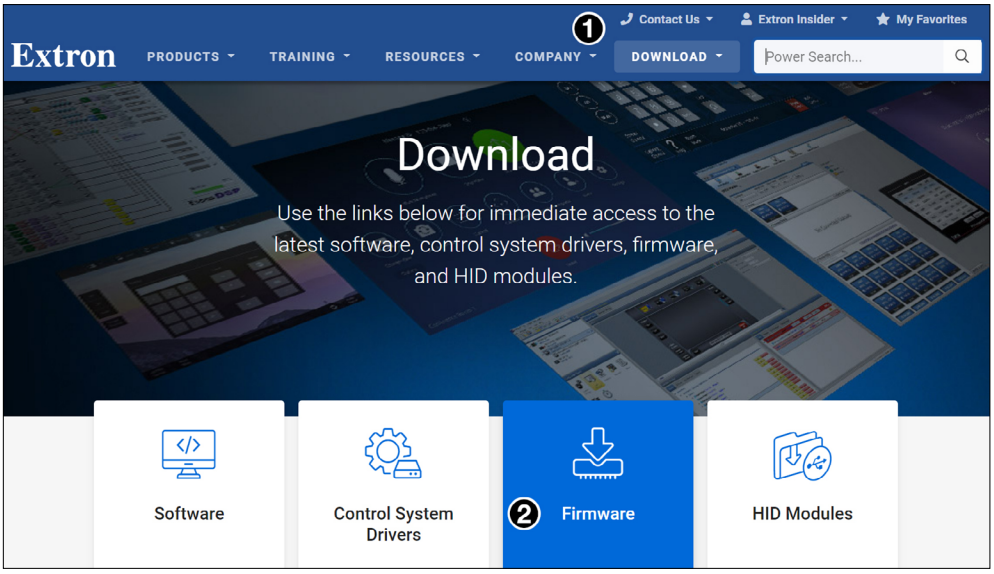

Figure 22. Firmware Download Center

The Download Firmware page opens:

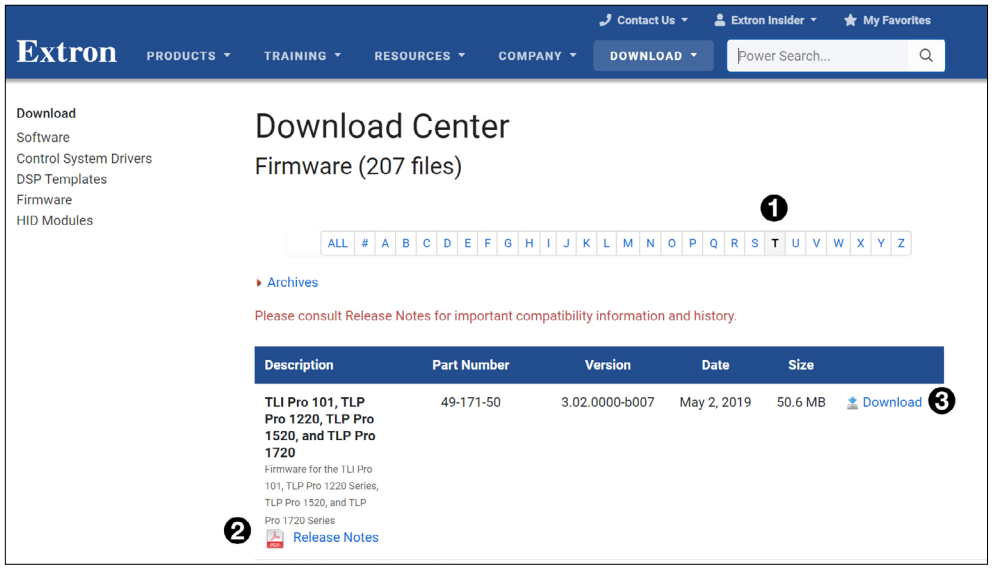

Figure 23. Selecting Firmware to Download.

3. Click the letter **T** from the list of letters (❶).
4. Scroll down the page until you find the firmware for the TLP Pro 300M.

   NOTE: Your product will appear in this list only if a new version of the firmware has been released since the product was first introduced.

5. (Optional) Click **Release Notes** (❷) for more information about the firmware.
6. Click **Download** (❸).
7. Follow the on-screen instructions to download the program. An executable file is downloaded to the PC.
8. Go to the Downloads folder and click on the file to install the firmware on the PC. By default, it is stored at `C:\\Program Files (x86)\Extron\Firmware\<product name>\<firmware version>`.
9. Use Toolbelt or the Touchpanel web page to upload this file to the touchpanel (see the *Toolbelt Help File* or the following section).

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 **TLP Pro 300M Web Page** on page 22).

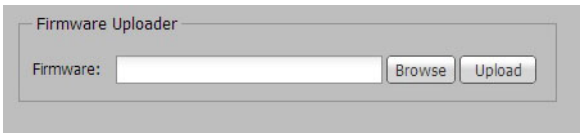

Figure 24. Touchpanel Web Page: Firmware Uploader

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.

Mounting

The following instructions are provided for experienced installers to mount the TLP Pro 300M touchpanel. The touchpanel can be wall-mounted, either using a standard 1-gang, UL-listed electrical box (must be purchased separately), or directly into drywall or furniture. Suitable mounting accessories can be found at **www.extron.com**.

ATTENTION:

- Do not install the TLP Pro 300M in a fire resistant rated wall or partition assembly.
- Ne pas installer le TLP Pro 300M dans un mur résistant au feu ou une cloison.
- All structural steps and electrical installation must be performed by qualified personnel in accordance with local and national building codes and electrical codes.
- Toute étape structurelle et installation électrique, doit être effectuée par un personnel qualifié, conformément aux codes du bâtiment, aux codes incendie et sécurité, et aux codes électriques, locaux et nationaux.

Mounting With a UL-listed Electrical Box

The UL-listed electrical junction box must be purchased separately.

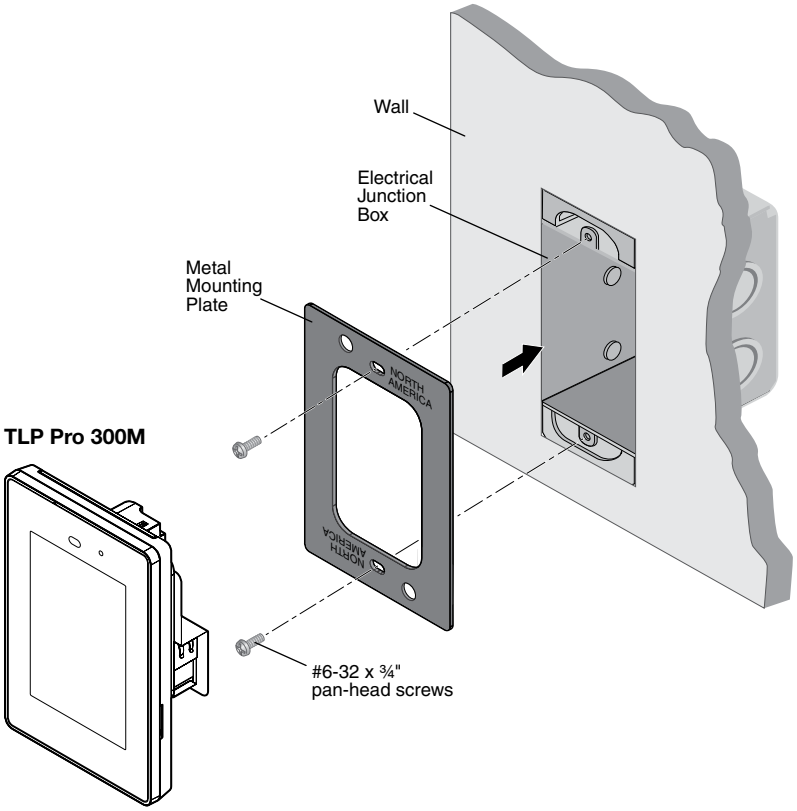

Figure 25. Mounting the TLP Pro 300M to a UL-listed Electrical Box

1. Cut a hole for the junction box at the required location.
2. If you are using the provided tether kit to deter theft, one loop of the tether kit should be secured to a wall stud with a screw (not provided)
3. Run cables to the installation site as required.
4. Pass the other end of the tether kit and the cables through a knock-out in the junction box.
5. Install the junction box by following the instructions provided by the manufacturer.
6. Secure the metal mounting plate to the junction box, using the #6-32 x ¾" pan-head screws. Both the mounting plate and the screws are provided.
7. Attach cables to the back of the TLP Pro 300M (see **TLP Pro 300M Rear Panel Features** on page 6).
8. If a tether kit is being used, loosen the security screw on the back panel (see **figure 3**, **F**, on page 6) just enough to insert the loop of the tether kit.
9. Tighten the screw to clamp the tether in place.
10. Attach the touchpanel to the metal mounting plate. The touchpanel is held in place by magnets.

Mounting to Drywall or Furniture

Figure 26 shows how to mount the TLP Pro 300M in drywall. Follow the same procedure to mount into furniture.

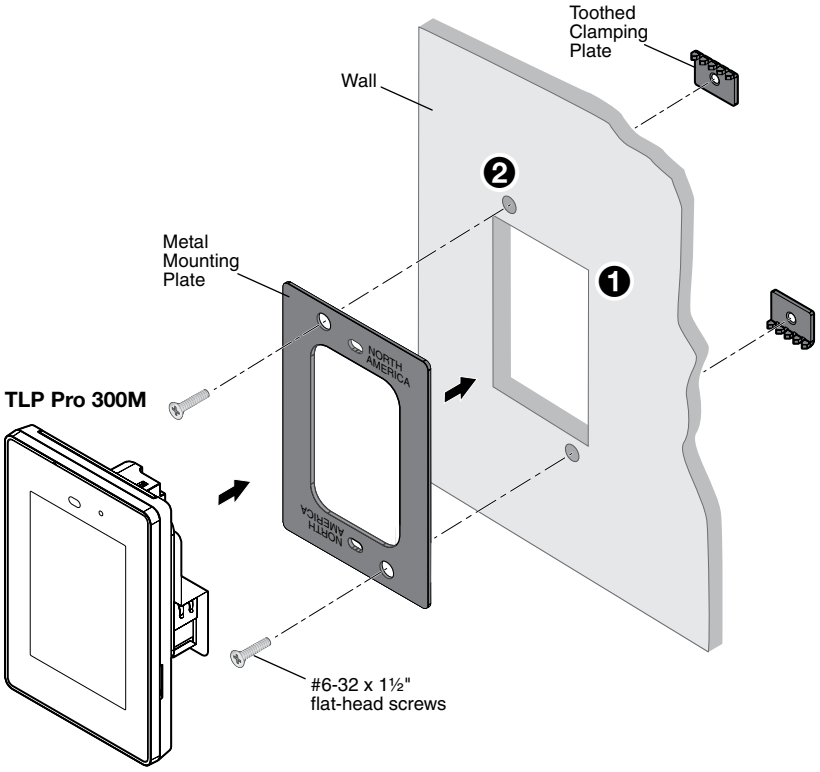

Figure 26. Mounting the TLP Pro 300M to Drywall or Furniture

1. Download the *TLP Pro 300M Cut-out Template* from **www.extron.com**. Ensure that it is printed at 100% size, with no scaling.
2. Remove the cut-out area from the template.
3. Attach the template to the wall in a suitable location, using a level to ensure the template is aligned correctly.
4. Use the template to mark and remove the cut-out area (❶) and drill two holes (❷) for the screws that secure the toothed clamping plates.
5. If you are using a tether kit to deter theft, one loop of the tether kit should be secured to a wall stud.
6. Run cables to the installation site as required.
7. Secure the metal mounting plate to the clamping plates, using the #6-32 x 1½" flat-head screws. The mounting plate, clamping plates, and screws are all provided.

   As the screws turn they tighten the grip of the clamping plates on the inside surface of the drywall.
8. Attach cables to the back of the TLP Pro 300M (see **TLP Pro 300M Rear Panel Features** on page 6).
9. If a tether kit is being used, loosen the security screw on the back panel ((see **figure 3**, Ⓕ, on page 6) just enough to insert the loop of the tether kit.
10. Tighten the screw to clamp the tether in place.
11. Attach the touchpanel to the metal mounting plate. The touchpanel is held in place by magnets.

Reference Material

This section contains information about:

- **Network Port Requirements**
- **Reset Modes**
- **Licensed Third-Party Software Used in the Touchpanels**

Network Port Requirements and Licensed Third-party Software Used by the Touchpanels

For information about network port requirements and licensed third-party software for all the touchpanels described in this guide, please refer to the *Pro Series Control Product Network Ports and Licenses Guide*, which is available at **www.extron.com**.

Reset Modes

The TLP Pro 300M touchpanel has three reset modes that are initiated by pressing the **Reset** button. An additional (fourth) mode toggles between enabling and disabling the DHCP client:

- **Use Factory Firmware** (see below)
- **Reset All IP Settings** (see the following page)
- **Reset to Factory Defaults** (see the following page)
- **Enable or Disable the DHCP Client** (see page 30)

The **Reset** button is found on the rear panel (see **figure 3**, C on page 6).

Use Factory Firmware

This mode is used to boot up the unit with factory-installed firmware for a single power cycle if a firmware update fails or incompatibility issues arise with user-loaded firmware.

Activation

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

1. Remove power from the touchpanel.
2. On the touchpanel, hold down the recessed **Reset** button (see **figure 3**, C, on page 6) while applying power to the unit. When power is restored, the Reset LED (B) lights. Hold the **Reset** button for a further two seconds before releasing it. The touchpanel enters factory firmware mode.
3. Upload new firmware to the unit as desired (see **Updating the Firmware** on page 22).

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).

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, 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 (see figure 3, C, on page 6) for about 6 seconds until the Reset LED (B) blinks twice (once at 3 seconds, again at 6 seconds).
2. Release and press the **Reset** button momentarily (for <1 second) within 1 second. Nothing happens if the momentary press does not occur within 1 second.

Result

- Sets the DHCP back to factory default (`Off`).
- Sets the Hostname back to factory default (`TLP-Pro-300M-AB-CD-EF`).
- Sets the IP address back to factory default (`192.168.254.251`).
- Sets the Subnet Mask address back to factory default (`255.255.255.0`).
- Sets the Gateway address back to the factory default (`0.0.0.0`).
- Sets the DNS Primary address back to the factory default (`127.0.0.1`).
- Sets the Domain name back to factory default (Blank).

Reset to Factory Defaults

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

NOTES:

- The factory configured passwords for all accounts on this device have been set to the device serial number. Passwords can be changed during configuration. Passwords are case sensitive.
- If the device is reset to default settings, the password is the default password configuration. The default password is `extron` (for either `admin` or `user` accounts).

Activation

To reset the unit to all factory default settings:

1. Hold down the **Reset** button for about 9 seconds until the Reset LED blinks three times (once at 3 seconds, again at 6 seconds, again at 9 seconds).
2. Release and press the **Reset** button 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.

Enable or Disable the DHCP Client

This mode toggles between DHCP enabled and DHCP disabled. This can also be carried out from the Network screen of the **Setup Menu** (see page 9).

Activation

To enable or disable the DHCP client for the LAN port:

1. Press the **Reset** button five times (consecutively).
2. Release the button. Do not press the button within 3 seconds, following the fifth press.

Result

If DHCP was enabled, it is now disabled. The Reset LED blinks three times.

If DHCP was disabled, it is now enabled. The Reset LED blinks six times.

NOTES:

- By default DHCP is off and the unit uses a static IP address.
- When you disable DHCP, the unit reverts to using the previously-set static IP address.

Secure Sockets Layer (SSL) Certificates

Extron TouchLink Pro products ship with factory-installed SSL certificates created by Extron. If you want or are required to use a different SSL certificate at your installation site, then you can use system utilities in the Toolbelt software to change the SSL certificate at any time. The *Toolbelt Help File* provides instructions on how to apply an SSL certificate.

NOTES:

- You must run Toolbelt as an administrator.
- Some certificates require a passphrase that is created when the certificate is created. If a passphrase is required, you must enter that passphrase before uploading and applying the certificate.

These devices support standard OpenSSL certificate encodings such as .pem (Privacy-enhanced Electronic Mail) and .der (Distinguished Encoding Rules) file types. PEM file types are ASCII encoded and are the required format for uploading to the Extron control product. DER file types are binary encoded and can typically have several file extension variations, such as .crt and .cer. There are many standard tools that can convert from DER to PEM file encodings if needed.

NOTE: A DER format file must be converted to PEM encoding before uploading it to the button panel, control processor, or collaboration receiver.

To properly create the certificate for uploading to Extron control devices, ensure that the certificate file meets the following requirements:

- contains X.509 certificate information
- contains public and private keys
- uses PEM encoding

NOTE: ITU-T standard X.509 covers aspects of public key encryption, digital cryptography, certificates, and validation.

Contact your IT administrator for more information on what tools and policies are required to obtain or create the SSL certificate and, if necessary, the corresponding passphrase.

IEEE 802.1X Certificates

IEEE 802.1X is a standard that enables port-based network access control via an authentication server. The protocol requires that all devices must be authenticated before gaining privileges to access the secure part of the network.

The Extron implementation of 802.1X supports PEAP - MSCHAPV2 and EAP - TLS methods of authentication. This section of the guide details the Certificate File Requirements and the Private Key File Requirements to be used in the system.

Extron provides resources for learning about 802.1X implementation:

- The *Extron 802.1X Technology Reference Guide*, available from **www.extron.com**, is the primary resource for background information, system planning, topology, and how to set up these systems.
- The Toolbelt Help file provides detailed step-by-step information on using the software to set up 802.1X for IP Link Pro control systems and on troubleshooting.
- The 802.1X Primer white paper, also available from www.extron.com, provides a general overview of the protocol and its use within a control system.

NOTES:
- You must run Toolbelt as an administrator.
- Machine certificates require a private key file, which can be encrypted.

Certificate File Requirements

PEM (Privacy-enhanced Electronic Mail) file types are ASCII encoded, and they are the required format for 802.1X authentication for the TouchLink Pro control systems. DER (Distinguished Encoding Rules) file types are binary encoded and can typically have several file extension variations, such as .crt and .cer.

NOTE: DER encoded files (files with .der, .crt, or .cer extensions that are encoded in DER binary format) must be converted to a PEM encoded file type (.pem) before being used for authentication.

DER encoded certificates must be converted to PEM encoding using a third-party tool. Contact your IT administrator for more information on required tools.

To create the 802.1X security certificate for uploading to Extron TouchLink Pro control systems, ensure that the certificate file meets the following requirements:

- It contains X.509 certificate information.
- It contains a private key (for machine certificates only).
- It is PEM encoded.
- It has a file extension that is .crt or .pem
- Its file name consists of the following types of valid characters:
  - Alphanumerical (A-Z, a-z, 0-9) characters
  - Some special characters (colon [:], underscore [_], and hyphen [-])

    NOTE: Spaces are not permitted anywhere in the name.

Private Key File Requirements

Private key files are required only when employing machine certificates. Follow these requirements for creating a private key:

- Its file name consists of the following types of valid characters:
  - Alphanumerical (A-Z, a-z, 0-9) characters
  - Some special characters (colon [:], underscore [_], and hyphen [-])
- It has a file extension that is .key or .pem.
- It can have optional encryption (via password or passphrase).

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.

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

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

Europe:
Extron Europe
Hanzeboulevard 10
3825 PH Amersfoort
The Netherlands

China:
Extron China
686 Ronghua Road
Songjiang District
Shanghai 201611
China

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

Africa:
Extron South Africa
South Tower
160 Jan Smuts Avenue
Rosebank 2196, South Africa

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 or 800.3987.6673	**Japan:**	81.3.3511.7655
Africa:	27.11.447.6162	**Middle East:**	971.4.299.1800

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.

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