User Guide

TouchLink®

TLI Pro 101

TouchLink Pro Interface Control Systems

Extron Electronics
INTERFACING, SWITCHING AND CONTROL

68-1817-01 Rev. A
08 14

Safety Instructions

Safety Instructions • English

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

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

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

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**.

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.

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Instrucciones de seguridad • Español

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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**.

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.

Chinese Simplified (简体中文)

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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。

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Chinese Traditional (繁體中文)

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

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

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Japanese

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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。

Korean

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

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

안전 가이드라인, 규제 준수, EMI/EMF 호환성, 접근성, 그리고 관련 항목에 대한 자세한 내용은 Extron 웹 사이트(**www.extron.com**)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: For more information on safety guidelines, regulatory compliances, EMI/EMF compatibility, accessibility, and related topics, see the ***Extron Safety and Regulatory Compliance Guide*** on the Extron website.

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Conventions Used in this Guide

In this user guide, the following are used:

Notifications

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:

```
^AR Merge Scene,,Op1 scene 1,1 ^B 51 ^W^C
[Ø1] R ØØØ4 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**.

Contents

Introduction

This guide describes the function, installation, and operation of the TLI Pro 101. Unless otherwise stated, the terms “interface” and “TouchLink Pro interface” refer to the TLI Pro 101.

This section provides an overview of the TLI Pro 101:

About the TLI Pro 101

The Extron TLI Pro 101 is a TouchLink® Interface that works with any Extron IP Link® Pro control processor to allow a third party touchscreen display to be used as a point of control within an Extron Pro Series control system. The scaled output supports displays with resolutions up to 2K.

Events such as button presses on the touchpanel trigger signals to the TLI Pro 101. These signals are converted to a form that can be understood by an IP Link Pro Control Processor. When the control processor sends return signals, the TLI Pro 101 outputs a video signal to the touchpanel showing the status of feedback events. When the third-party touchpanel and TLI Pro 101 have been set up correctly, they have control system capabilities similar to other Extron TLP Pro products.

Features

Compatible with third party touchscreen displays — integrates third-party touchscreen displays up to 2K or touchpanels with ultra-low radiation emission into Extron systems.

Fast processing and ample memory — allows for quicker configuration uploads and more storage for GUI pages.

Compatible with all IP Link Pro control processors — providing control for a wide range of systems.

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

Supports HDCP-compliant HDMI — for full-motion video preview and monitoring.

Advanced Extron video signal processing — with a high performance scaling engine.

One USB 2.0 port — for third-party touchscreens or HID support. Increases device functionality.

Automatic clock synchronization — for accurate time and date display.

Adjustable sleep timer — puts interface into sleep mode.

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

Supports TouchLink for iPad and TouchLink for Web

Energy-efficient external universal power supply included — provides worldwide compatibility, low power consumption, and reduced operating costs.

Application Diagram

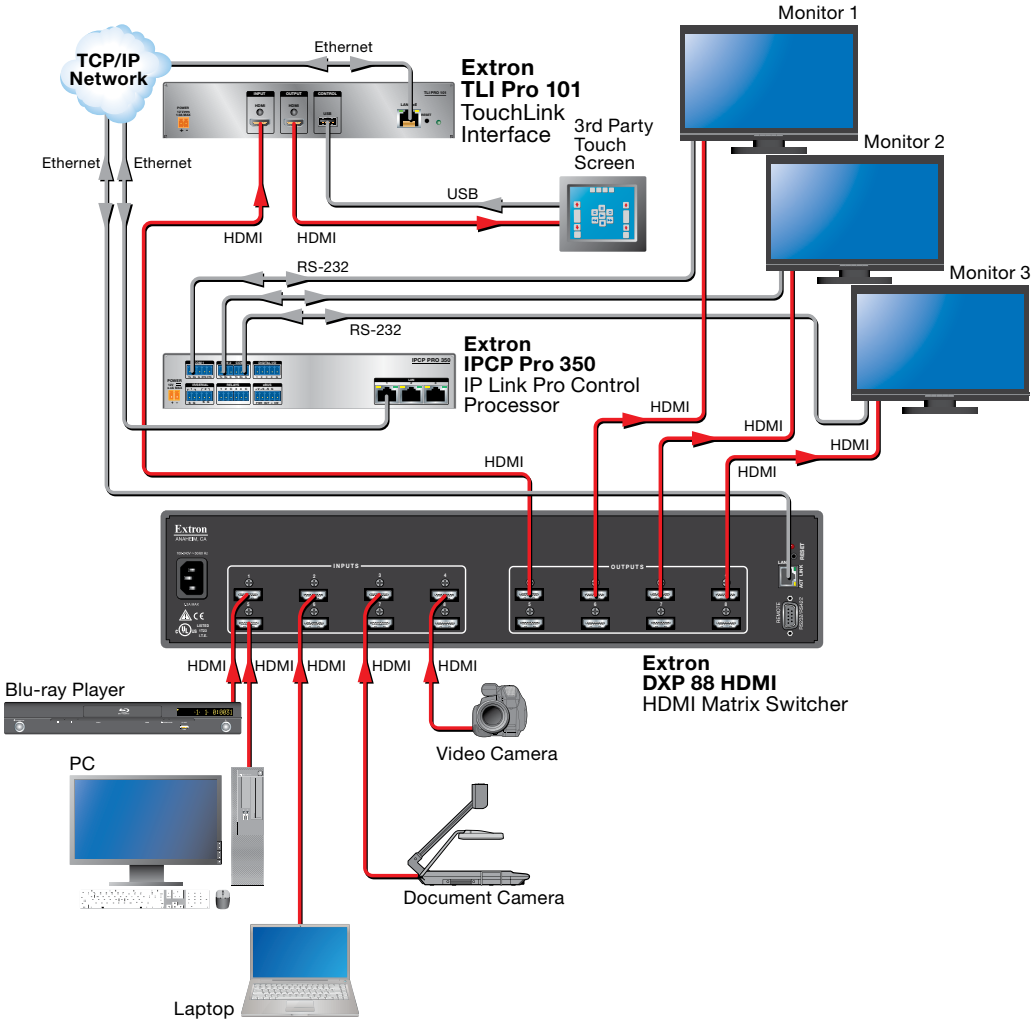


Figure 1. **TLI Pro 101 Application Diagram**

Installation Overview

1. Before starting, download and install the latest versions of the following software:
   - ☐ Global Configurator Professional and Global Configurator Plus — for setting up and configuring the control processor, interface, and third-party touchpanel.
   - ☐ GUI Designer — for designing layouts for Extron TouchLink Pro interfaces and third-party touch interfaces.

   See **Configuration Software** on page 23.
2. Obtain the following network information from your network administrator:
   - ☐ DHCP setting (On or Off). If the DHCP setting is Off, you also need:
     - ☐ TLI Pro 101 IP address
     - ☐ Subnet mask
     - ☐ Gateway IP address
   - ☐ 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 TLI Pro 101 MAC address.
3. Mount the units. Stand the TLI Pro 101 on a convenient surface, mount it in a standard rack, or use an under-table mounting kit (see **Mounting** on page 26). To mount the third-party touchpanel follow the instructions provided by the manufacturer.
4. Connect cables to the TLI Pro 101 (see **TLI Pro 101 Rear Panel Features and Connections** on page 5).
   - ☐ Connect the HDMI output from the TLI Pro 101 (**figure 2**, **C** on page 5) to the third-party touchpanel.
   - ☐ Connect the USB port from the TLI Pro 101 (**figure 2**, **D**) to the third-party touchpanel.

   NOTE: The USB connection passes information to the TLI Pro 101 about where on the screen the touchpanel was pressed. To use a normal monitor instead of a touchscreen, connect a mouse to the TLI Pro 101 USB connection. Use the mouse to click on screen icons.
5. Connect the power cords and power on all devices (see **Power** on page 6 or **Network and Power over Ethernet (PoE) Connector** on page 10).

   ATTENTION:
   - Do not power on the interfaces or control processors until you have read the Attention notice on **page 7** (12 VDC power supply) or on **page 11** (power injector).
   - Ne branchez pas les interfaces ou les contrôleurs avant d'avoir lu les mises en garde **page 7** (source d'alimentation 12 VCC) ou **page 11** (injecteur PoE).

6. Set up the interface for Network Communication:
   - ☐ Connect the PC that you will use for setup, the control processor, and the TLI Pro 101 to the same Ethernet subnetwork.
   - ☐ Use the **Setup Menu** (see page 13) or the Toolbelt feature of Global Configurator Professional and Global Configurator Plus to set the DHCP status and, if necessary, the IP address, subnet mask, gateway, and related settings for the interface.
7. Configure the Interface — the *Global Configurator Professional and Global Configurator Plus Help File* and the *GUI Designer Help File* provide step-by-step instructions and detailed information.

   The *Global Configurator Professional and Global Configurator Plus Help File* includes an introduction to the software and sections on how to start a project and configuration.

Panel Features, Connections, and Setup

This section describes:

- TLI Pro 101 Rear Panel Features and Connections
- TLI Pro 101 Front Panel Features

TLI Pro 101 Rear Panel Features and Connections

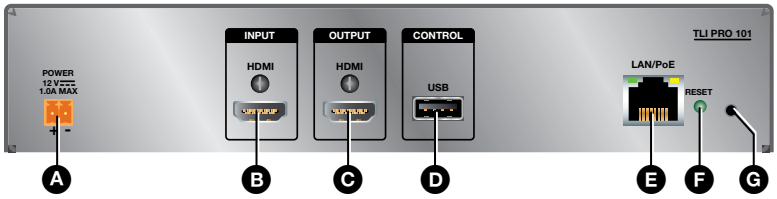


Figure 2. TLI Pro 101 Rear Panel

- **A** Power
- **B** HDMI input
- **C** HDMI output
- **D** USB control port
- **E** LAN and Power over Ethernet (PoE) port
- **F** Reset mode LED
- **G** Reset button (recessed)

Ⓐ **Power** — Connect the 2-pole, 3.5 mm captive screw connector from the provided 12 VDC power supply to the power supply socket on the rear panel (see **figure 2** Ⓐ on page 5). Figure 3 shows how to wire the connector. Ensure the connections have the correct polarity.

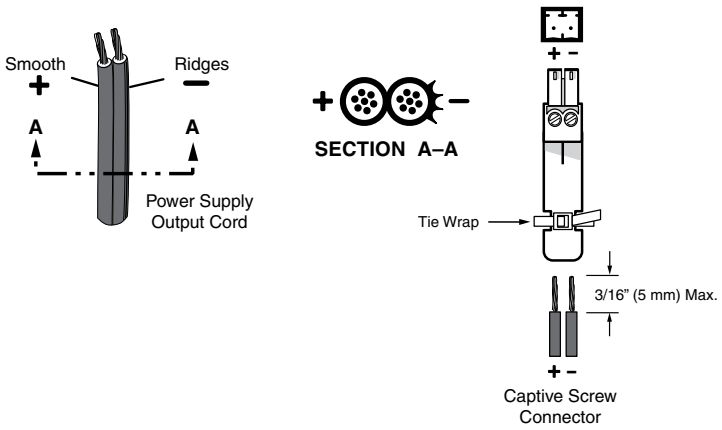


Figure 3. Wiring the Power Connector

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.

CAUTION: **Risk of Explosion** if the 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.

ATTENTION:

- Do not power on the TLI Pro 101 until you have read the Attention notice on **page 7** (12 VDC power supply) or on **page 11** (power injector).
- Ne branchez pas le TLI Pro 101 avant d'avoir lu les mises en garde **page 7** (source d'alimentation 12 VCC) ou **page 11** (injecteur PoE).

NOTES:

- The TLI Pro 101 ships with a 12 VDC, 1.0 A power supply and is also Power over Ethernet (PoE 802.3af, class 3) compliant. The power injector must be purchased separately.
- If a 12 VDC and a PoE power supply are both connected to the TLI Pro 101, the power injector takes precedence. If a PoE power loss is detected, the interface switches seamlessly to the 12 VDC supply without needing a system reboot.

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.

- This product is 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.
- Ce produit est 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.

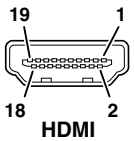
- The installation must always be in accordance with the applicable provisions of National Electrical Code ANSI/NFPA 70, article 725 and the Canadian Electrical Code part 1, section 16.
- Cette installation doit toujours être en accord avec les mesures qui s'applique au National Electrical Code ANSI/NFPA 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.

- The length of the exposed wires in the stripping process is critical. The ideal length is 3/16 inches (5 mm). If they are longer, the exposed wires may touch, causing a short circuit between them. If they are 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 **HDMI Input** — Plug the cable from the input source device into this female HDMI type A connector (see **figure 2** **B** on page 5). Secure the HDMI connector to the TLI Pro 101 with the provided LockIt HDMI lacing bracket (see the *LockIt HDMI Lacing Bracket Installation Guide* at **www.extron.com**).



Type A Receptacle

The wiring of the connector follows the HDMI single link format. The diagram to the right and the table below show the HDMI pin configuration.

Pin	Signal	Pin	Signal	Pin	Signal
1	TMDS data 2+	7	TMDS data 0+	13	CE control
2	TMDS data 2 shield	8	TMDS data 0 shield	14	Reserved (NC)
3	TMDS data 2-	9	TMDS data 0-	15	SCL
4	TMDS data 1+	10	TMDS clock+	16	SDA
5	TMDS data 1 shield	11	TMDS clock shield	17	DDC/CEC ground
6	TMDS data 1-	12	TMDS clock-	18	+5 V power
				19	Hot plug detect

C **HDMI Output** — Connect this female HDMI type A connector (see **figure 2** **C** on page 5) to a third-party touch screen. Secure the HDMI connector to the TLI Pro 101 with the provided LockIt HDMI lacing bracket (see the *LockIt HDMI Lacing Bracket Installation Guide* at **www.extron.com**).

The wiring of the connector follows the HDMI single link format. The diagram and table above show the HDMI pin configuration.

A full list of supported screen resolutions for video output is shown on the following page.

Screen Resolutions

Resolution	23.98 Hz	24 Hz	25 Hz	29.97 Hz	30 Hz	50 Hz	59.94 Hz	60 Hz
800x600								X
1024x768								X
1280x768								X
1280x800								X
1280x1024								X
1360x768								X
1366x768								X
1440x900								X
1400x1050								X
1600x900								X
1680x1050								X
1600x1200								X
1920x1200								X
720p			X	X	X	X	X	X
1080p	X	X	X	X	X	X	X	X
2048x1080	X	X	X	X	X	X	X	X
Custom 1	For new resolutions (field support only)							

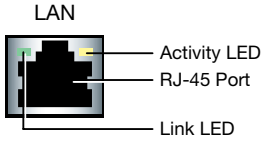
Ⓓ **USB Connector** — Supports High-speed USB 2.0 control. Plug a USB cable from the third-party touchpanel into this female type B connector (see **figure 2** Ⓓ on page 5).

The USB connection passes information to the TLI Pro 101 about where on the screen the touchpanel was pressed. To use a normal monitor instead of a touchscreen, connect a mouse to the TLI Pro 101 USB connection. Use the mouse to click screen icons.

Ⓔ **Network and Power over Ethernet Connector** — Connect the interface 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 (see **figure 2** Ⓔ on page 5).

An Extron IPL Pro Control Processor must also be connected to the same network domain as the interface. 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 interface is connected correctly to a network. The amber LED blinks to indicate that data is being passed to or from the interface.



Although a 12 VDC, 1.0 A power supply is provided, the TLI Pro 101 is compliant with the requirements of PoE 8.203af, class 3, which means the unit can be powered by Power over Ethernet. To use Power over Ethernet, connect this port to a PoE power injector (not provided).

ATTENTION:

- The TLI Pro 101 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 7** or **page 11**.
- Le TLI Pro 101 peut utiliser une source d'alimentation externe 12 Vcc, et est 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 7** ou **page 11**.

Use a straight-through Ethernet cable to connect the power injector to 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 power from the power supply to the TLI Pro 101. 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.

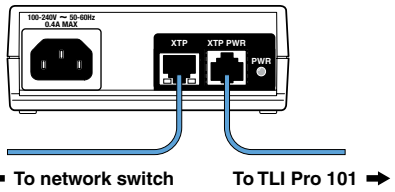


Figure 4. Connecting the Power Injector

CAUTION: **Risk of Explosion** if the 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.

ATTENTION:

- The TLI Pro 101 is intended for connection to a Power over Ethernet circuit for intra-building use only and is considered to be part of a Network Environment 0 per IEC TR62101.
- Le TLI Pro 101 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 12 VDC, minimum 1.0 A. or 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 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.

Ⓕ **Reset mode LED** — Provides feedback about the reset status when the reset button is pressed (see **figure 2** Ⓕ on page 5 and **Reset Modes** on page 27).

Ⓖ **Reset button (recessed)** — Allows the unit to be reset in any of three different modes (see **figure 2** Ⓖ on page 5 and **Reset Modes** on page 27).

TLI Pro 101 Front Panel Features

Figure 5. **TLI Pro 101 Plus Front Panel**

Ⓐ **Power LED** — Lights when the unit is powered on.

Ⓑ **Menu button (recessed)** — Opens the **setup menu** (see the following page) and **calibration screen** (see page 22) for the interface:

- Press the button briefly (less than 2 seconds) to open the setup menu screens.
- Press and hold the button (at least 3 seconds) to open the calibration screen. Follow the on-screen instructions to calibrate the touchpanel.
- Press the button briefly (less than 2 seconds) for a second time to close the current screen without saving any changes.

Ⓒ **100 Mb network LED** — Lights when the unit is connected to a 100 Mb network.

Ⓓ **Network link LED** — Lights when the unit is connected to a network.

Ⓔ **Network activity LED** — Flashes when there is activity on the network connection.

On-screen Menus

On-screen menus allow initial configuration of the TLI Pro 101.

- **Setup Menu**
- **Calibration Screen**

Setup Menu

To access the setup menus, press the recessed front-panel menu button (see **figure 5**, Ⓑ).

The menu opens at the Status screen. There are six different screens (**Status**, **Network**, **Output**, **Audio**, **Input**, and **Advanced**) that can be selected by pressing the appropriate button in the navigation panel at the top of the screen.

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.

Status Screen

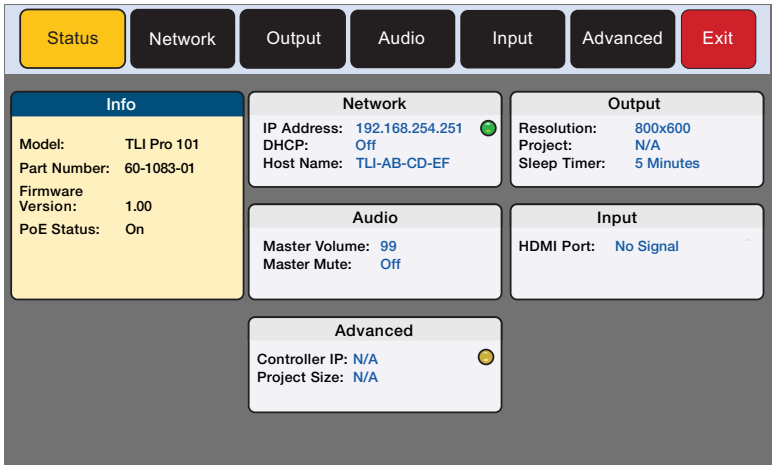


Figure 6. Status Screen

This is a read-only screen. The Info panel provides basic information about the TLI Pro 101. Each of the other five 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

Verify with your network administrator whether the IP address for the TLI 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.

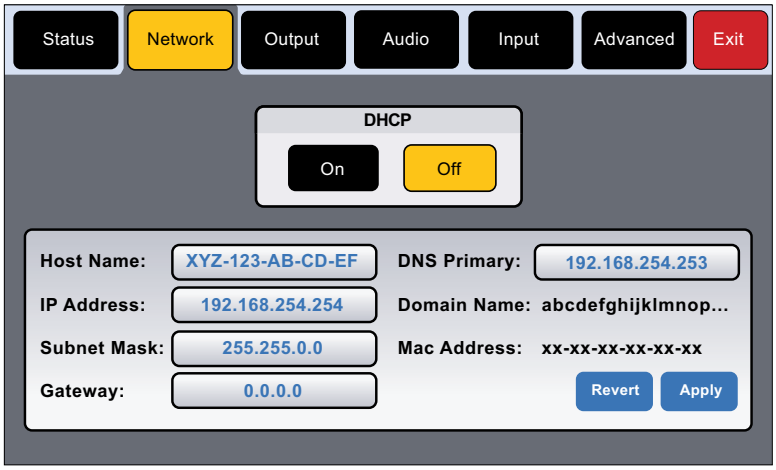


Figure 7. Network Screen

1. If IP addresses are assigned by DHCP, press **On**. The selected button is highlighted in yellow. If DHCP is selected, you are able to set only 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:

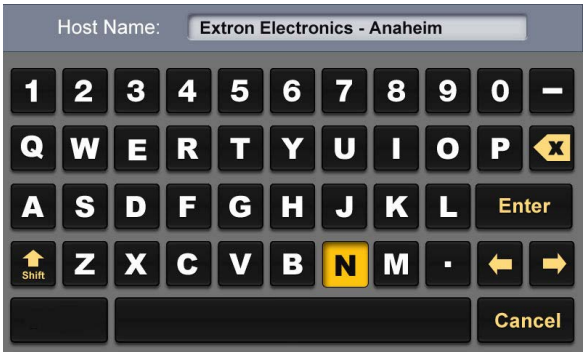


Figure 8. Alphanumeric Keypad

- 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.

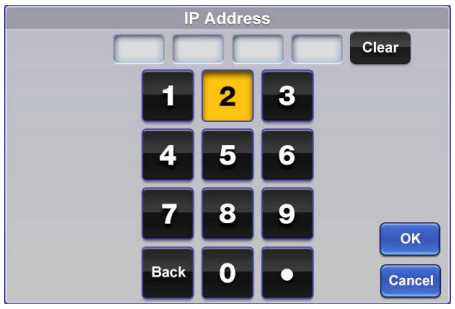


Figure 9. Numeric Pad for Setting IP Addresses

   b. Press **Clear** to remove the old address.

   c. Press any octet button to highlight and start editing it.

   d. Enter the 3-digit value for that octet (leading zeroes in an 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.

   Press **Back** to delete the last digit. If no value has been entered for the selected octet, clicking **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**-**f** 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.

Output

Sets the Display **Resolution**, **Sleep Timer**, and **Display Timer** and enables a **Test Pattern** to be shown.

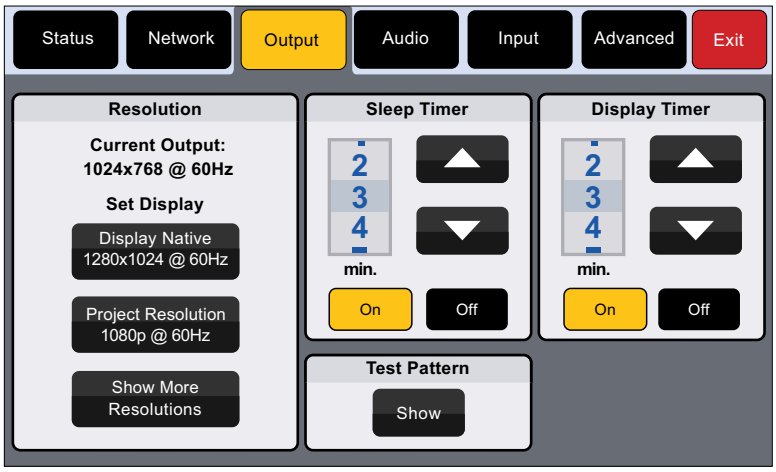


Figure 10. Output Screen

Resolution

The Resolution panel shows the current resolution of the TLI Pro 101 output signal and offers three main options for setting the resolution of the TouchPanel display.

- Click **`Display Native`** to set the resolution of the TLI Pro 101 output to the native resolution of the display device.
- Click **`Project Resolution`** to use an imported GUI Designer project to set the resolution of the TLI Pro 101 output.
- Click **`Show More Resolutions`** for more options:

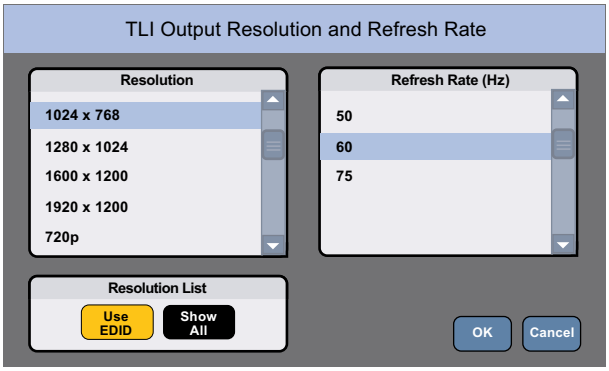


Figure 11. TLI Pro 101 Output Resolution and Refresh Rate

When the panel opens, by default, **`Use EDID`** is selected. The resolutions for which EDID files are available are listed on the left. When a resolution is selected, the list of refresh rates available for that resolution can be seen on the right.

Click **`Show All`** to dislplay all the resolutions and refresh rates supported by the interface (for a complete list, see **Screen Resolutions** on page 9).

Sleep timer

The **Sleep Timer** determines how long the panel is inactive before it enters sleep mode, when the screen goes dark to save power.

To deactivate the sleep timer, click **Off**. The controls for the Sleep Timer are grayed out. To set the sleep timer, ensure the function is activated by clicking **On**.

Set the time (in minutes) by pressing the up and down arrows until the required time appears in the gray box. Alternatively, place your finger in the list box and slide it up to increase the time or down to decrease the time. The timer range is from 1-120 minutes.

Display timer

The **Display Timer** determines how long the panel is inactive before the output sync is disconnected.

To deactivate the display timer, click **Off**. The controls for the Display Timer are grayed out. To set the display timer, ensure the function is activated by clicking **On**.

Set the time (in minutes) by pressing the up and down arrows until the required time appears in the gray box. Alternatively, place your finger in the list box and slide it up to increase the time or down to decrease the time. The timer range is from 1-120 minutes.

NOTES:

- When the sleep timer is used to deactivate the screen, the screen goes dark, which provides partial energy savings. The screen reactivates quickly when it is touched.
- When the display timer is used to deactivate the screen, the screen switches off, which provides better energy savings but the screen takes longer to reactivate when it is touched.

Test patterns

The TLI Pro 101 provides eight test patterns, which can be used to calibrate the third-party touchpanel display. Click the **Show** button to open the test pattern menu.

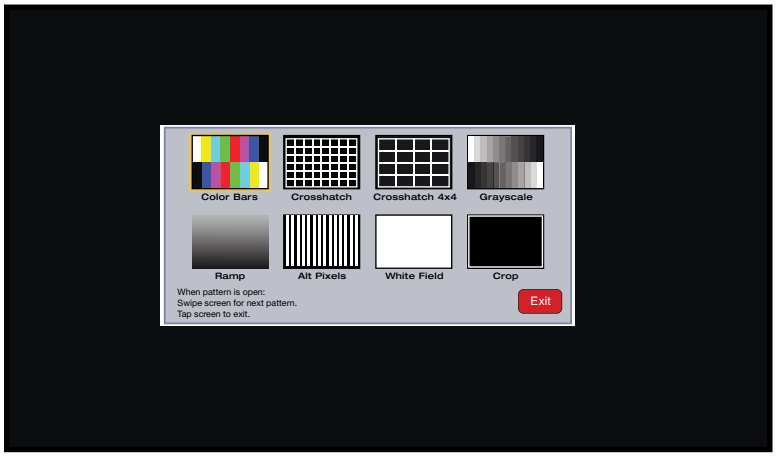


Figure 12. Test Pattern Menu

1. Select the test pattern you need by pressing the icon.
2. Swipe the screen from left to right to show the previous test pattern or swipe the screen from right to left to show the next test pattern.
3. Touch any part of the screen to show the menu box.
4. Click **Exit** to close the Test Patterns dialog and return to the Output window.

Audio

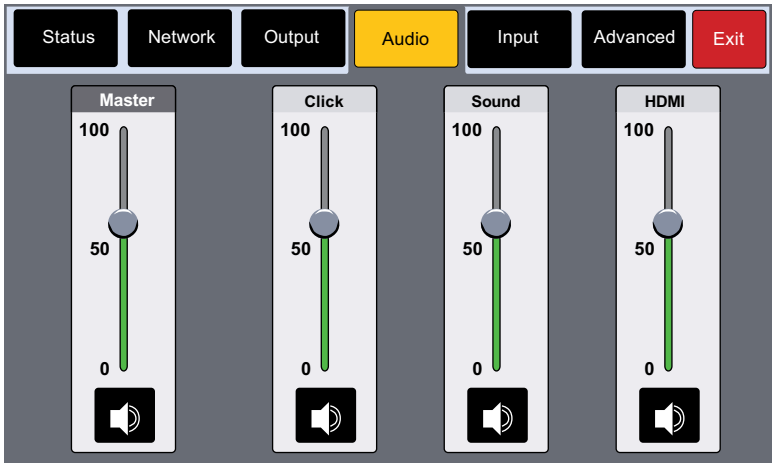


Figure 13. Audio Screen

Use the slider control to adjust the Master, Click, Sound, and HDMI In settings. The slider adjusts the volume setting from 0 to 100% in 1% increments. By default all sliders are set to 80%.

Underneath each slider control is the mute button, which toggles the volume between audio mute and the value set by the corresponding slider. When the Master volume is muted, all other settings (Click, Sound, and HDMI) are also muted.

- **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), and the the Sound volume is set to 75%, the overall volume is 60% of maximum (75% of 80%).
- **Click** sets the level for audible feedback that accompanies events such as a screen button being pressed.
- **Sound** sets the audio level from any audio file playback.
- **HDMI** sets the HDMI audio input level.

Input

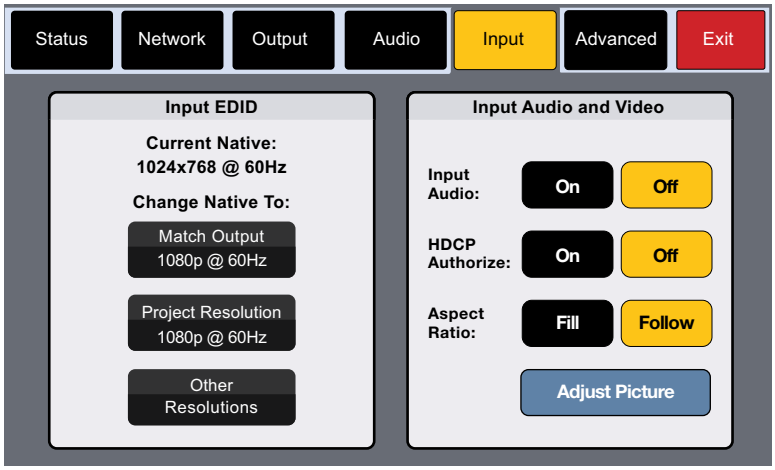


Figure 14. Input Screen

Input EDID

The EDID file is stored by the interface and passed to the video source to ensure that the signal generated by the source is compatible with the display. It determines the resolution and refresh rate of the signal produced by the video source.

Press one of the three **Input EDID** buttons to determine which EDID will be stored by the interface and passed to the video source:

Match Output (default setting) — The EDID matches the native resolution and refresh rate of the display connected to the HDMI output.

Project Resolution — The EDID is the one set in the GUI Designer project and can be altered only by changing the GUI Designer project file.

Show More Resolutions — Opens a dialog (see figure 15 on the following page) that allows you to select the resolution and refresh rate for the EDID that will be used.

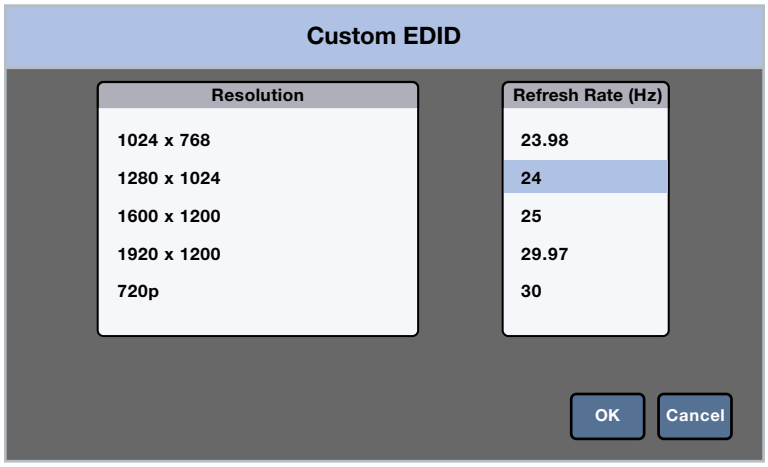
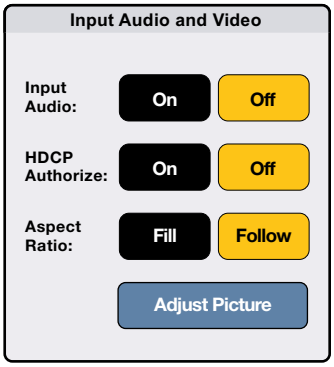


Figure 15. Custom EDID Dialog

1. Select the resolution and refresh rate from the lists.
2. Click **OK** to save this EDID or click **Cancel** to close the dialog without changing the EDID.

Input Audio and Video

The two pairs of buttons on the right of the screen allow three settings to be toggled On and Off.

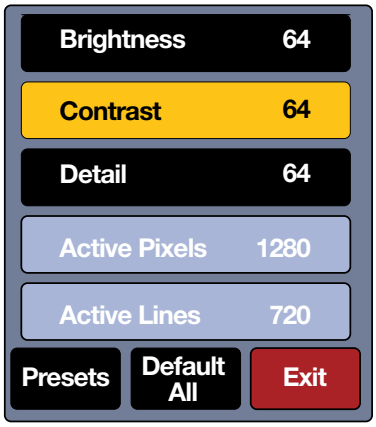


`Input Audio` — Enables 2CH PCM support on input EDID. Input Audio is On by default.

`HDCP Authorize` — When this setting is enabled, HDCP-encrypted input signals pass to the output display. HDCP Authorize is On by default.

`Aspect Ratio` — Press **`Fill`** to stretch the image so that it fills the entire screen. Press **`Follow`** for the image to maintain the aspect ratio of the input signal.

`Adjust Picture` — Press **`Adjust Picture`** to open a dialog to adjust the input video picture. Press **`Brightness`**, **`Contrast`**, or **`Detail`** to adjust those values. `Active Pixels` and `Active Lines` are read-only and cannot be edited.



`Brightness` — Ø to 127 (default 64)

`Contrast` — Ø to 127 (default 64)

`Detail` — Ø to 127 (default 64)

`Active Pixels` (status only)

`Active Lines` (status only)

`Presets` — Allows the current values to be saved as a preset and opens the Presets dialog (see figure 16 on the following page).

`Default all` — Returns the picture values to their default settings.

`Exit` — Closes the dialog.

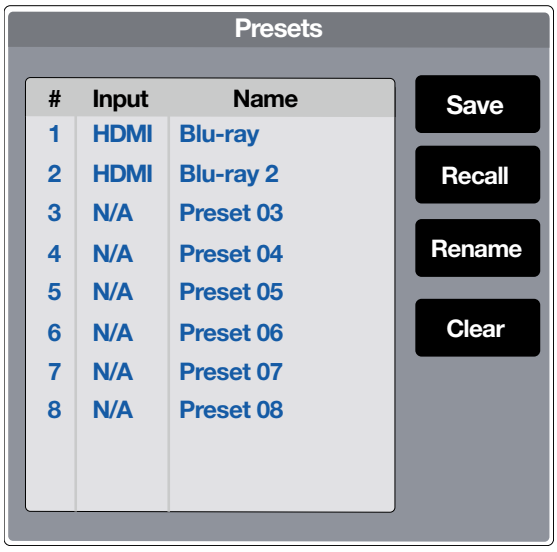


Figure 16. Presets Dialog

`Save` — Highlight one of the presets and press **`Save`** to save the current Brightness, Contrast, and Detail settings to that preset.

`Recall` — Highlight one of the presets and press **`Recall`** to replace the current settings for Brightness, Contrast and Detail with those saved by that preset.

`Rename` — Highlight one of the presets and press **`Rename`** to assign a new name to the preset.

`Clear` — Highlight one of the presets and press **`Clear`** to clear the values stored by that preset.

Advanced

The Advanced window provides additional information about the interface and the GUI Designer project that is uploaded to it.

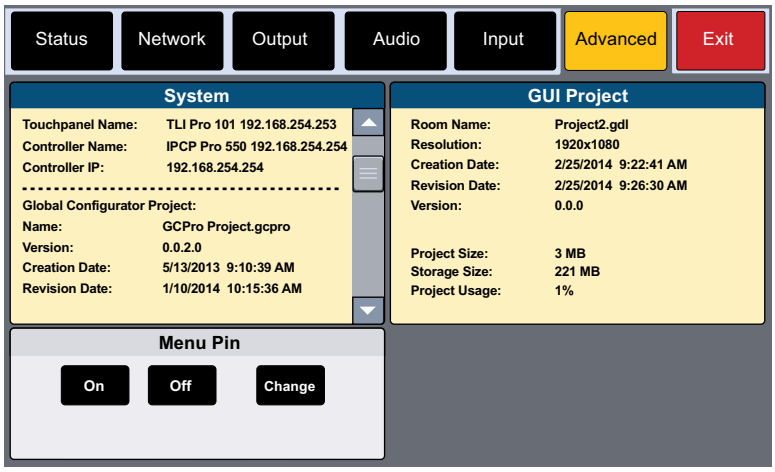


Figure 17. Advanced Screen

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.

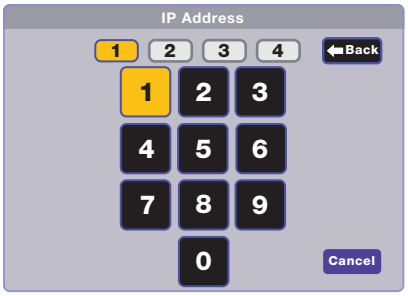


Figure 18. Numeric Keypad for Setting PIN

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.

Calibration Screen

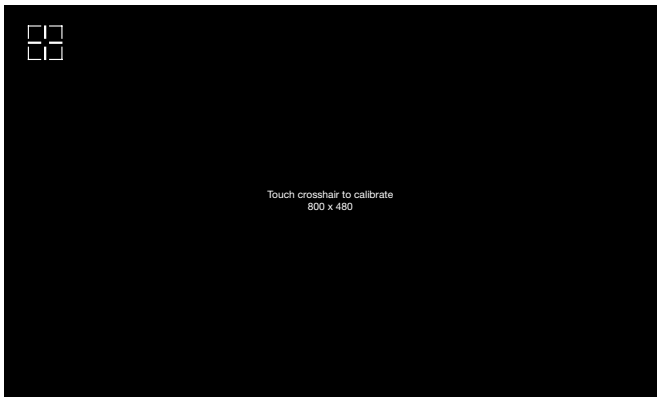


Figure 19. Touch Calibration Screen

1. Press and hold down the recessed front-panel menu button (see **figure 5**, B, on page 12) for at least 3 seconds.
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.

Configuration Software

This section of the user guide provides information about:

- **Configuration Software**
- **TLI Pro 101 Web Page**
- **Updating the Firmware**

Configuration Software

Designing a graphical user interface (GUI) for the TouchLink panel 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.

The GUI Designer software is a Windows-based application that is used to create the TLI Pro 101 interface.

After the user interface has been designed on a PC, the project is saved, built, and imported to Global Configurator Plus and Global Configurator Professional, 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 controller and TLI Pro 101.

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

Installing GUI Designer and Global Configurator

NOTE: Use GUI Designer and Global Configurator Professional and Global Configurator Plus to configure the TLI Pro 101.

Both GUI Designer and Global Configurator can be downloaded from the Extron website. Select the **Download** tab and click the **Software** option in the sidebar at the left.

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 Global Configurator 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. To obtain one, contact the Extron Sales Department.

Using the Software

GUI Designer

Use the GUI Designer software to design the screen layout for the third-party touchpanel connected to the TLI Pro 101. 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 TLI Pro 101. See the *Global Configurator Plus and Global Configurator Professional Help File* for step-by-step instructions and more detailed information. The *Global Configurator Plus and Global Configurator Professional Help File* also includes an introduction to the software and sections on how to start and configure a project.

TLI Pro 101 Web Page

To access the TLI Pro 101 default web page, enter the IP address of the unit into the web browser of a PC connected to the same subnet.

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 13) or the Toolbelt feature of Global Configurator to configure the network settings of the TLI Pro 101.

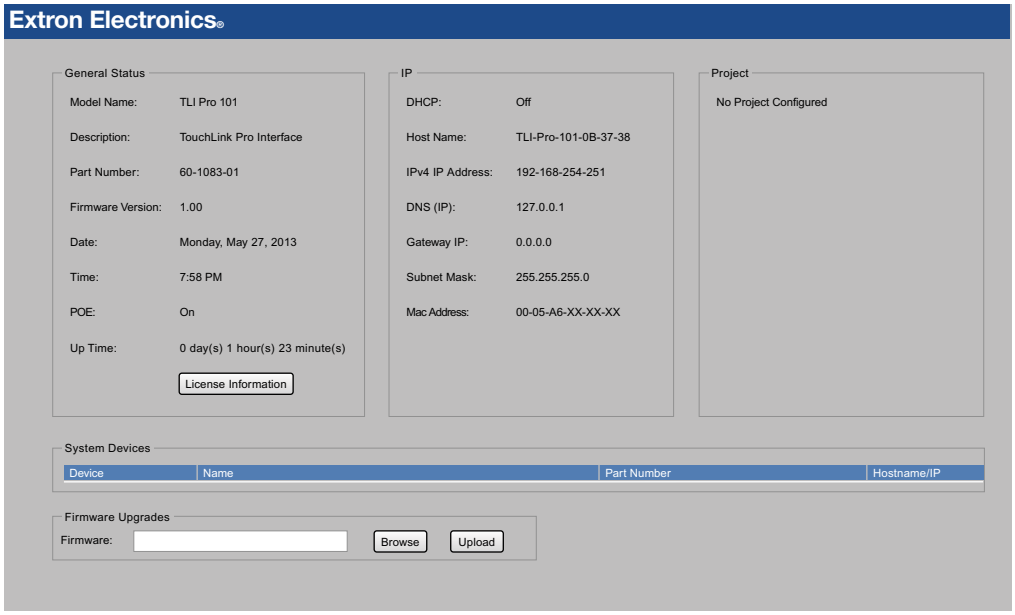


Figure 20. TLI Pro 101 Web Page

Updating the Firmware

Firmware for the TLI Pro 101 can be upgraded using the Toolbelt feature of Global Configurator or the TLI Pro 101 web page. Before starting, consult your IT team and ensure that the interface has a unique IP address.

Downloading Firmware Using Extron Firmware Loader

1. Power on a computer that is connected to the same network as the interface.
2. On the Extron website, click **Download** in the menu bar along the top of the page (see figure 21, ❶).

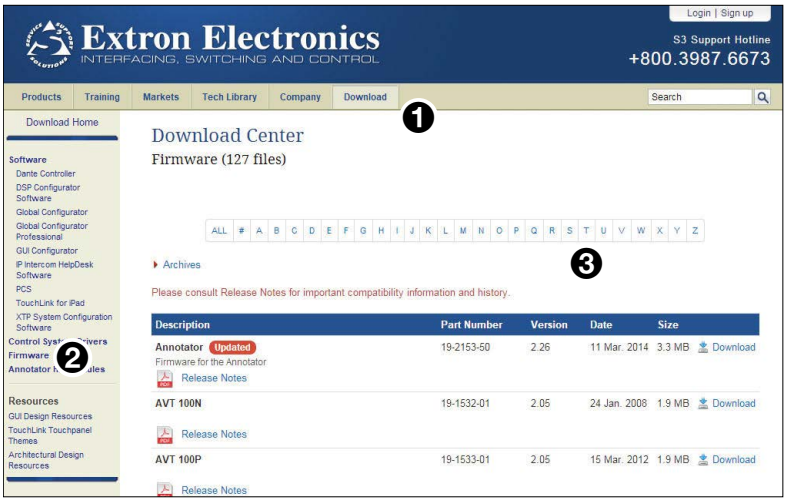


Figure 21. Firmware Download Center

3. Click **Firmware** in the menu bar in the left side bar (❷).
4. Click the letter **T** from the list of letters (❸).
5. Scroll down the page until you find TLI Pro 101 firmware.
6. Click **Release Notes** for more information about the program (optional).
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 TLI Pro 101 web page (see the previous page).

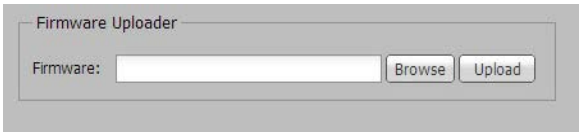


Figure 22. Touchpanel Web Page: Firmware Uploader

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 Global Configurator

For complete information about using Global Configurator to update the TLI Pro 101 firmware, see the Global Configurator Plus and Global Configurator Professional help file.

Mounting

This section outlines the various options for mounting the TLI Pro 101.

- **Tabletop Placement**
- **Rack Mounting**
- **Under-desk Mounting**

Tabletop Placement

Attach the four provided rubber feet to the bottom of the unit and place it in any convenient location.

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 (Tma: +122 °F, +45 °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 TLI Pro 101

The TLI Pro 101 can be mounted on any Extron standard rack system (not provided). See **www.extron.com** for a list of appropriate kits and follow the instructions included with the kit.

Under-desk Mounting

Mount the unit under a desk or podium, using an Extron under-desk mounting kit (not provided). See **www.extron.com** for a list of appropriate kits and follow the instructions included with the kit.

Reference Material

This section describes:

- **Reset Modes**
- **Licensed Third-Party Software Used in the Interface**

Reset Modes

The TLI Pro 101 has 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 is found on the rear panel (see **figure 2**, G on page 5).

Use Factory Firmware

Activation

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

1. On the TLI Pro 101, hold down the recessed Reset button while applying power to the unit. Hold the button down until the Power LED blinks twice. The interface enters factory firmware mode, and the LED flashes quickly.
2. Upload new firmware to the unit as desired (see **Updating the Firmware** on page 25).

> **NOTE:** After a User Factory Firmware reset is performed, update the IPL firmware to the latest version. Do not operate the interface firmware version that results from the reset. This mode temporarily resets the unit to factory default until power is recycled. If you want to use the factory default firmware, you must upload that version again (see **Updating the Firmware** on page 25).

Result

The unit continues to run factory-installed firmware until you update the firmware or power is cycled to the unit, which then reboots with the last loaded version of the firmware. The TLI Pro 101 reverts to the factory default 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.

Purpose and Notes

Use this mode to temporarily boot up the unit with factory installed firmware for a single power cycle in the event that a firmware update has failed or if incompatibility issues arise with user-loaded firmware.

NOTE: User-defined web pages may not work correctly if you are using an earlier firmware version.

Reset All IP Settings

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).
- Turns DHCP off.

Purpose and Notes

Reset All IP Settings mode enables you to reset IP settings and port maps to factory defaults.

Reset to Factory Defaults

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.
- Clears driver-port associations (serial and Ethernet) and port configurations.
- Removes button and touchpanel configurations.
- Resets all IP options.
- Removes schedules, settings and macros.
- Removes or clears all user-loaded files and configurations from the control processor.

Purpose and Notes

Reset to Factory Defaults mode is useful if you want to start over with configuration and uploading.

Licensed Third-Party Software Used in the Interface

TLI Pro 101 interfaces 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 **internal Web page** (see on page 24).

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 interface.

NOTE: Licensed third-party software packages used by the TLI Pro 101 are subject to change without notice.

Licensed Third-party Software Used in the IN1606 and IN1608 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	libdnet	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	mtd	GPL v2
ncurses	MIT	netsnmp	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
F12, 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	**Europe:**	31.33.453.4040
Asia:	65.6383.4400	**Japan:**	81.3.3511.7655

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

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

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

Extron Headquarters	Extron Europe	Extron Asia	Extron Japan	Extron China	Extron Middle East	Extron Korea	Extron India
+1.800.633.9876 (Inside USA/Canada Only) Extron USA - West +1.714.491.1500 +1.714.491.1517 FAX Extron USA - East +1.919.850.1000 +1.919.850.1001 FAX	+800.3987.6673 (Inside Europe Only) +31.33.453.4040 +31.33.453.4050 FAX	+65.6383.4400 +65.6383.4664 FAX	+81.3.3511.7655 +81.3.3511.7656 FAX	+86.21.3760.1568 +86.21.3760.1566 FAX	+971.4.299.1800 +971.4.299.1880 FAX	+82.2.3444.1571 +82.2.3444.1575 FAX	1800.3070.3777 (Inside India Only) +91.80.3055.3777 +91.80.3055.3737 FAX