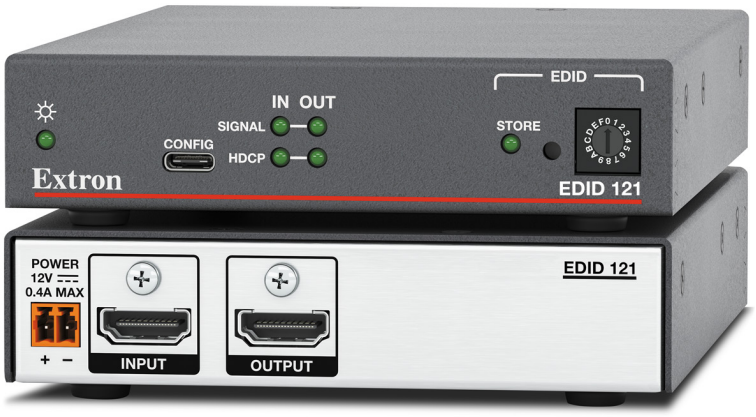
Extron

EDID 121

8K HDMI EDID Emulator



User Guide

EDID Management

68-3866-01, Rev. A
09 25

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**.

تعليمات السلامة • العربية

تحذير: هذا الرمز، ⚡، عند استخدامه على المنتج، مخصص لتنبيه المستخدم فيما يتعلق بوجود جهد كهربائي غير معزول على الغلاف الخارجي للمنتج وهو ما قد ينطوي على مخاطر حدوث صدمة كهربائية.

انتبه: هذا الرمز، ⚠، عند استخدامه على المنتج، مخصص لتنبيه المستخدم بتعليمات التشغيل والصيانة الهامة (الخدمة) في المواد التي يتم توفيرها مع المعدات.

للحصول على المزيد من المعلومات حول إرشادات السلامة، والتوافقات التنظيمية، والتوافق الكهرومغناطيسي/المجال الكهرومغناطيسي، وإمكانية الوصول، والموضوعات ذات الصلة، يُرجى مراجعة دليل السلامة والتوافق التنظيمي الخاص بإكسترون، الجزء رقم 68-290-01، على موقع إكسترون، **www.extron.com**.

Sicherheitsanweisungen • Deutsch

WARUNG: Dieses Symbol ⚡ auf demProdukt 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 estas estan incluidas en la documentación proporcionada con el equipo.

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Instructions de sécurité • Français

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

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.

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Инструкция по технике безопасности • Русский

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

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

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

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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。

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警告: 若產品上使用此符號，是為了提醒使用者，產品機殼內存在未隔離的危險電壓，可能會導致觸電之風險。

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

安全上のご注意 • 日本語

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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 기호가 제품에 사용될 경우, 제품의 인클로저 내에 있는 접지되지 않은 위험한 전류로 인해 사용자가 감전될 위험이 있음을 경고합니다.

주의: 이 기호가 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.

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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.

Conventions Used in this Guide

Notifications

The following notifications are used in this guide:

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
[01] R 0004 00300 00400 00800 00600 [02] 35 [17] [03]
```

Esc X1 *X17* X20* X23* X21 CE←

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" is the capital letter "o."

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

```
Reply from 208.132.180.48: bytes=32 times=2ms TTL=32
C:\Program Files\Extron
```

Variables are written in slanted form as shown here:

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

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

From the **File** menu, select **New**.

Click the **OK** button.

Specifications Availability

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

Extron Glossary of Terms

A glossary of terms is available at **https://www.extron.com/technology/glossary.aspx**.

Contents

Introduction

This guide describes the function, installation, and operation of the EDID 121.

This section provides the following information:

About the EDID 121

The Extron EDID 121 is an EDID emulator for 8K HDMI sources that require up to four EDID memory blocks to convey capabilities. It features EDID Minder Plus, an Extron-exclusive technology that accommodates up to 512-byte EDID and DisplayID data structures that convey advanced features to reliably display 8K, 5K for Microsoft® Teams® rooms, 4K, and 21:9 and wider aspect ratio content. The EDID 121 provides automatic and continuous EDID management and ensures content is at the optimal resolution and frame rate upon power up. Pre-stored EDID information is sent to a source based on the user-selected resolution and refresh rate. The emulator can also capture and store the EDID profile from a connected display. It supports signals up to 8K at data rates up to 40.1 Gbps with HDR.

Features

- **Supports video resolutions up to 8K/60**
- **Supports ultra-wide aspect ratios, including 21:9 and 5K**
- **Enhanced 512-byte EDID emulation** — Supports EDID files structured with up to four data blocks, enabling increased pixel counts, HDR parameters, and higher luminance levels. This capability allows compatibility with a wider selection of advanced 5K and ultra-wide display resolutions.
- **EDID Minder® Plus automatically manages EDID communication between connected devices** — EDID Minder Plus supports additional memory blocks for displays that convey advanced features via both EDID and DisplayID for proper management of the extended EDID information required to reliably display and distribute 5K and 21:9 aspect ratio content.
- **Selectable resolutions and refresh rates** — Pre-stored EDID is communicated to the source based on a user-selected resolution and refresh rate.
- **EDID capture mode** — When connected to a display, the EDID 121 offers the option to capture and store EDID from the display device, including 5K resolutions for environments such as Microsoft® Teams® rooms.
- **Supports video resolutions up to 8K/60** — Supports resolutions up to 7680 x 4320 @ 60 Hz.
- **Supports ultra-wide aspect ratios, including 21:9 and 5K**
- **Supported HDMI 2.1 specification features include data rates up to 40.1 Gbps, HDR, Deep Color up to 12-bit, 3D, HD lossless audio formats, and CEC pass-through**
- **Support for HDR – High Dynamic Range video** — Enables greater contrast range and wider color gamut by providing the necessary video bandwidth, color depth, and metadata interchange capability for HDR video.
- **Supports multiple embedded audio formats** — The EDID 121 is compatible with a broad range of multi-channel audio signals, providing reliable operation with HDMI sources.
- **HDCP 2.3 compliant** — Ensures display of content-protected media and interoperability with other HDCP-compliant devices.
- **User-selectable HDCP authorization** — Allows the unit to appear HDCP compliant or non-HDCP compliant to the connected source, which is beneficial if the source automatically encrypts all content when connected to an HDCP-compliant device. Protected material is not passed in non-HDCP mode.

- **HDCP Visual Confirmation provides a green signal when encrypted content is sent to a non-compliant display** — A full screen green signal is sent when HDCP-encrypted content is transmitted to a non-HDCP compliant display, providing immediate visual confirmation that protected content cannot be viewed on the display.
- **Automatic HDMI input cable equalization** — Actively conditions incoming HDMI signals to compensate for signal loss when using long cables, low quality cables, or source devices with poor signal output.
- **Automatic color bit depth management** — The EDID emulator automatically adjusts color bit depth based on the display EDID, preventing color compatibility conflicts between source and display. Optionally, the output video can be set to output 8-bit color depth.
- **HDMI to DVI Interface Format Correction** — Automatically reformats HDMI source signals for output to a connected DVI display.
- **HDCP authentication and signal presence confirmation** — Provides real time verification of HDCP status. This allows for simple, quick, and easy signal and HDCP verification through front panel LEDs and USB, providing valuable feedback to a system operator or helpdesk support staff.
- **Front panel USB configuration port**
- **1” (2.5 cm) high, quarter rack width metal enclosure allows flexible, discreet installation**
- **Includes LockIt® HDMI cable lacing brackets**
- **Easy setup and commissioning with Extron PCS** – Product Configuration Software — Conveniently configure multiple products using a single software application.
- **Provides +5 VDC, 250 mA power on the output for external peripheral devices**
- **External Extron Everlast® power supply included, replacement part #70-1175-01** — Provides worldwide power compatibility with high demonstrated reliability and low power consumption.
- **Extron Everlast Power Supply is covered by a 7-year parts and labor warranty**

Application Diagram

Figure 1 shows a typical application for the EDID 121.

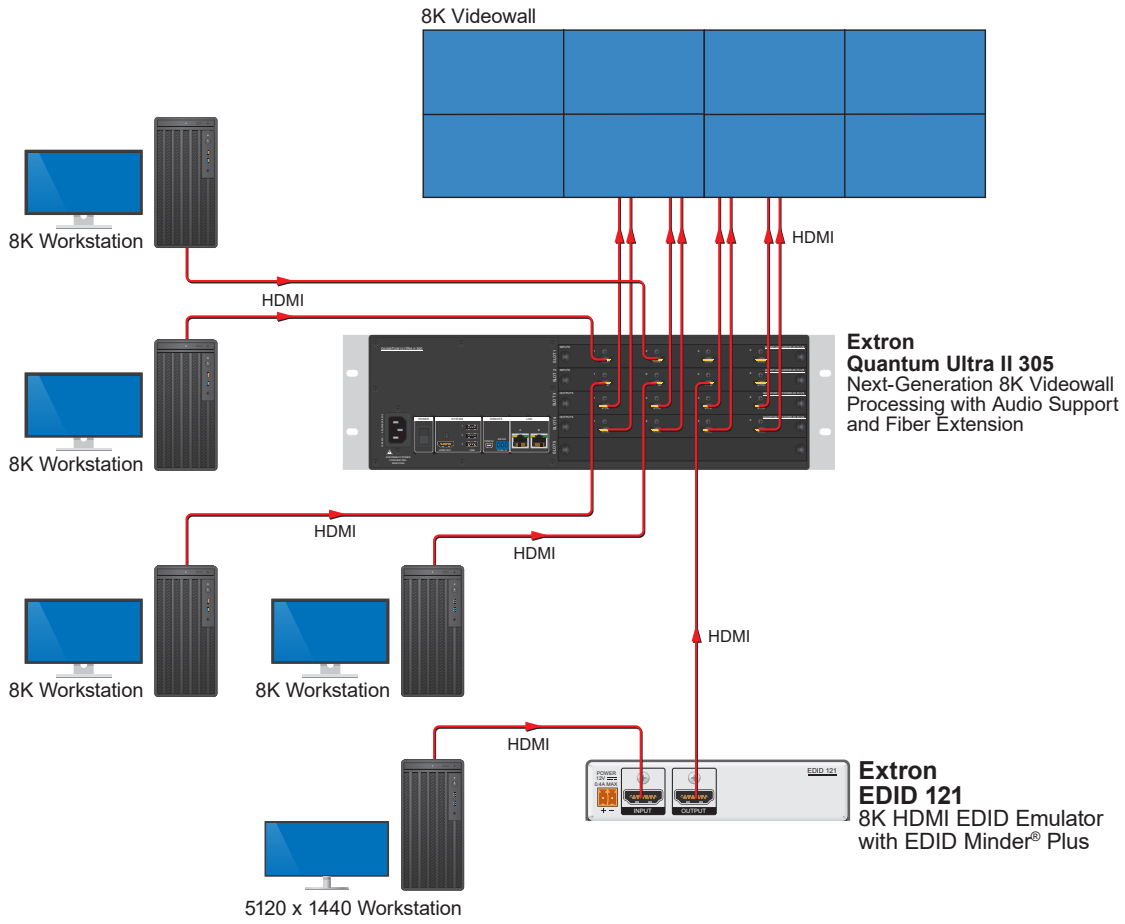


Figure 1. EDID 121 Application Diagram

Installation

This section covers the following:

Installation Overview

Follow these steps to install and set up the EDID 121:

1. Mount the unit in a suitable location (see **Mounting** on page 25).
2. Connect power to the unit by connecting the provided 12 VDC power supply to the power connector (see **Connecting Power** on page 5).

   ATTENTION:
   - Do not connect any external power supplies until you have read the **Attention notifications** starting on page 5.
   - Veuillez lire les encadrés « **Attention notifications** » à partir de la page 5 avant de brancher une source d'alimentation externe.

3. Connect the output device and power it on (see **Connecting an Output Display** on page 7).

   NOTES:
   - The device automatically reads and stores EDID from the selected display device.
   - By default, 1080p @ 60 Hz with 2-Channel audio native resolution EDID is assigned. For other EDID options, see **EDID Minder** on page 10.

4. Connect a control PC to the front panel USB port (see **figure 4** on page 8) to configure the EDID 121. The following methods are available for configuration and control:
   - Simple Instruction Set (SIS) commands (see **SIS Commands** on page 19)
   - Product Configuration Software (PCS) (see **Product Configuration Software** on page 13).
5. Connect and power on the HDMI input device (see **Connecting Input Source** on page 6).

   NOTE: Secure the input and output connectors to the EDID 121 with the provided LockIt HDMI lacing bracket (see **Securing the HDMI Connector** on page 7).

Rear Panel Connections

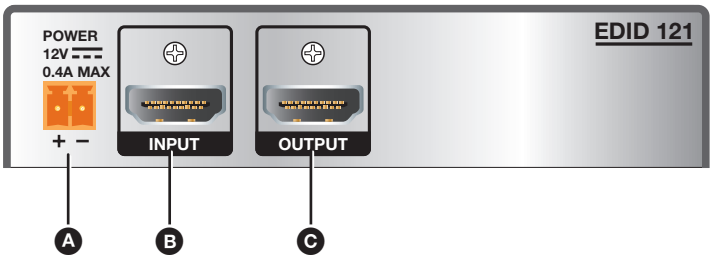


Figure 2. EDID 121 Rear Panel Ports

A **Power connector** **B** **HDMI input** **C** **HDMI output**

Connecting Power

A **Power connector** — Connect the provided 12 VDC, 0.5 A power supply to this two-pole, 3.5 mm captive screw connector.

CAUTION: The DC output cables must be kept separate from each other while the power supply is plugged in. Remove power before wiring.

ATTENTION : Les câbles de sortie CC doivent être séparés les uns des autres tant que la source d'alimentation est branchée. Coupez l'alimentation avant d'effectuer les raccordements.

ATTENTION:

- Do not connect any external power supplies until you have read the **Attention notifications**.
- Veuillez lire les encadrés « **Attention notifications** » à partir ci-dessous avant de brancher une source d'alimentation externe.

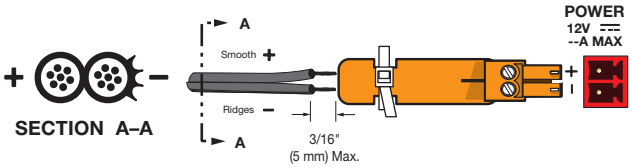


Figure 3. Power Connector Wiring

1. Cut the DC output cord to the length needed.
2. Strip the jacket to expose 3/16 inch (5 mm) of the conductor wire (see figure 3).
3. Ensure the connections have the correct polarity as shown in the figure above. The wire with ridges is the ground wire.
4. Slide the exposed ends of the wire into the captive screw connector and secure by tightening the screws.
5. Use the supplied tie wrap to strap the power cord to the extended tail of the connector.

ATTENTION:

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

ATTENTION:

- 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. They may also break after being bent several times.
- 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 tirés. Ils peuvent aussi se casser après avoir été pliés plusieurs fois.

- 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 certification de conformité réglementaire, et peut endommager la source d'alimentation et l'unité.

- If not provided with a power supply, this product is intended for use with a UL Listed power source marked "Class 2" or "LPS" rated 12 VDC, 1.5 A minimum.
- Si le produit n'est pas fourni avec une source d'alimentation, il doit être utilisé avec une source d'alimentation certifiée UL de classe 2 ou LPS avec une tension nominale de 12 Vcc, 1,5 A minimum.

- Unless otherwise stated, the AC/DC adapters are not suitable for use in air handling spaces or in wall cavities.
- Sauf mention contraire, les adaptateurs CA/CC ne conviennent pas à une utilisation dans les espaces d'aération ou dans les cavités murales.

- The installation must always be in accordance with the applicable provisions of National Electrical Code ANSI/NFPA 70, article 725 and the Canadian Electrical Code part 1, section 16. The power supply shall not be permanently fixed to building structure or similar structure.
- Cette installation doit toujours être conforme aux dispositions applicables du Code américain de l'électricité (National Electrical Code) ANSI/NFPA 70, article 725, et du Code canadien de l'électricité, partie 1, section 16. La source d'alimentation ne devra pas être fixée de façon permanente à une structure de bâtiment ou à une structure similaire.

- Power supply voltage polarity is critical. Incorrect voltage polarity can damage the power supply and the unit. The ridges on the side of the cord identify the power cord negative lead (see **figure 3** on page 5).
- La polarité de la source d'alimentation est primordiale. Une polarité incorrecte pourrait endommager la source d'alimentation et l'unité. Les stries sur le côté du cordon permettent de repérer le pôle négatif du cordon d'alimentation (voir **figure 3**).

- To verify the polarity before connection, plug in the power supply with no load and check the output with a voltmeter.
- Pour vérifier la polarité avant la connexion, brancher l'alimentation hors charge et mesurer sa sortie avec un voltmètre.

Connecting Input Source

Ⓑ **HDMI input** (see **figure 2** on page 5) — Connect an HDMI source to this female HDMI port. The input follows HDMI 2.1 specifications, supporting data rates up to 6.0 Gbps per color and is fully HDCP compliant.

NOTE: Secure the input and output HDMI connectors to the EDID 121 using the provided LockIt HDMI lacing bracket (see **Securing the HDMI Connector** on page 7).

The input can equalize up to 100 feet (30.48 meters) of HDMI Pro cable with a 4.95 Gbps per color signal or 15 feet (4.57 meters) with a 6.0 Gbps per color signal. EDID is stored on an EEPROM, and Hot-Plug Detect (HPD) is actively controlled by **EDID Minder** (see page 10).

Connecting an Output Display

C **HDMI output** (see **figure 2** on page 5) — Connect a display or other output device to this female HDMI port.

NOTE: Secure the input and output connectors to the EDID 121 with the provided LockIt HDMI lacing bracket (see **Securing the HDMI Connector**).

By default, the EDID is set to 1080p @ 60 Hz with 2-channel audio. However, EDID can be changed using the EDID selection rotary switch (see **Assign Extron Factory EDID** on page 10) or PCS (see the *EDID 121 Help File*). There are two slots that are automatically populated by EDID from connected sink devices.

The EDID 121 monitors the EDID of the connected display to ensure compatibility with the input signal, and makes the following adjustments for the output:

- **Interface format** — If the connected display is DVI and the input signal is HDMI, the signal is reformatted to DVI. If the output is HDMI and the input is DVI, no reformatting is needed because HDMI is backwards compatible with DVI.
- **Video color bit depth** — The signal can be forced to always truncate to 8-bit, disabling deep color, via SIS commands (see **Output Color Bit Depth** on page 23) or PCS (see the *EDID 121 Help File*).
- **Audio** — If the connected output device does not support the audio format of the input signal, audio is muted.

If the source requires HDCP encryption and the display is not HDCP compliant, that output channel outputs a green screen.

The output carries +5 VDC and up to 250 mA on pin 18, regulated by a current limiting circuit.

Securing the HDMI Connector

Follow these instructions to secure the input and output connectors to the EDID 121 with the LockIt HDMI lacing bracket provided:

❶ Plug the HDMI cable into the rear panel port.

❷ Loosen the HDMI connection mounting screw from the panel enough to allow the LockIt lacing bracket to be placed over it. The screw does not have to be removed.

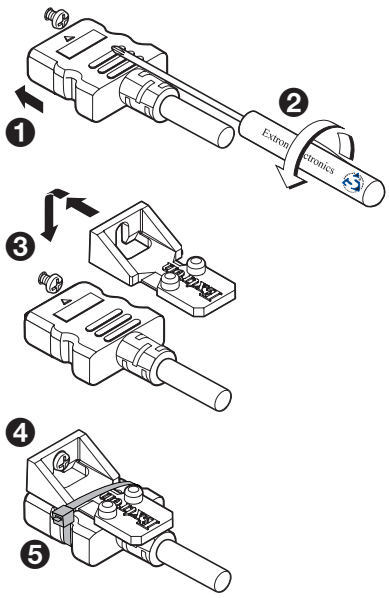
❸ Place the LockIt lacing bracket on the screw and against the HDMI connector, then tighten the screw to secure the bracket.

ATTENTION:

- Do not overtighten the HDMI connector mounting screw. The shield it fastens to is very thin and can easily be stripped.
- Ne serrez pas trop la vis de montage du connecteur HDMI. Le blindage auquel elle est attachée est très fin et peut facilement être dénudé.

❹ Loosely place the included tie wrap around the HDMI connector and the LockIt lacing bracket as shown.

❺ While holding the connector securely against the lacing bracket, tighten the tie wrap, then remove any excess length.



Front Panel Features

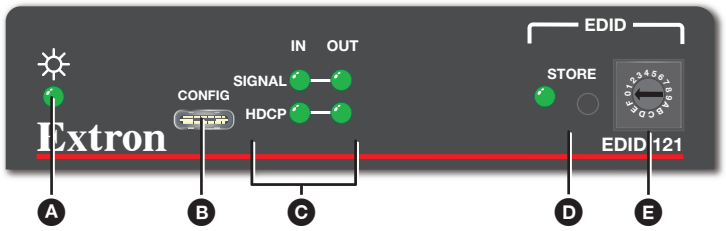


Figure 4. Front Panel Features

A **Power status LED** — Lights when power is applied to the unit.

B **USB Config port** — Connect a PC to this USB-C port to configure and monitor the EDID 121 using SIS commands or PCS.

C **Input and Outputs LEDs** —

Input LEDs —

- **Signal** — Lights when a TMDS signal is detected on the HDMI input. If the source requires HDCP encryption, this LED may light only when HDCP is authenticated.
- **HDCP** — Lights when the source requires HDCP encryption and it has been authenticated with the HDMI input.

Output LEDs —

- **Signal** — Lights when hot plug detect is detected from the corresponding sink device and a TMDS signal is detected at the input.
- **HDCP** — Lights when HDCP is authenticated between the HDMI output and the corresponding sink device. The LEDs do not light if the source does not require HDCP encryption or if the sink is not HDCP compliant.

D **EDID STORE button and LED** — Press this recessed button to start reading and storing the EDID from the connected display. The LED blinks during the reading and storing process, and it lights steady when storing is complete. The EDID files are stored to user slots selcted using the rotary switch (**E**). Up to four EDID files (switch positions C through F) can be stored.

Reset — Use the **STORE** button to reset the EDID 121 (see **Reset modes** on the next page).

E **EDID rotary switch** — Use the 16-position rotary switch to select from 12 factory EDID files and 4 user-stored EDID memory slots (see **Assigning Extron Factory EDID** on page 10). When a position is selected, the corresponding slot in the EDID table (see **page 11**) is assigned to the input, and an unsolicited SIS response is sent. The default position is 5.

Reset modes

The front panel **Store** button can be used to initiate a partial factory reset. Use a pointed stylus, ballpoint pen, or small screwdriver to press the recessed button.

See the Reset Mode table for a summary of the reset.

ATTENTION:

- Review the reset mode carefully. The reset mode deletes all user loaded content and revert the device to default configuration.
- Analysez minutieusement les différents modes de réinitialisation. Certains modes de réinitialisation suppriment l'intégralité du contenu chargé de l'utilisateur et remettent l'appareil au mode de configuration par défaut.

Reset Mode			
Mode	**Activation**	**Result**	**Purpose and Notes**
Partial Factory Reset	Hold in the **STORE** button until all the front panel LEDs blink once (about 3 seconds). Then, release and press the **STORE** button again momentarily for 1 second, within 1 second.	Resets the unit back to factory default: The LEDs blink two times if the program is starting. The LEDs blink three times if the program is stopping.	Use to reset the unit to factory settings. Equivalent to SIS command ZXXX (see **Reset** on page 24).

Operation

This section covers the following:

- **EDID Minder**
- **HDCP**
- **Output Configuration**

EDID Minder

EDID Minder ensures that a connected source has access to the EDID of a display even if the display is not connected. Depending on the EDID mode selected, the EDID of a connected display or custom EDID can be stored in one of four user slots, or the user can select from 12 Extron factory EDID files (see the **EDID Slots table** on page 11). By default, the EDID is set to 1080p @ 60 Hz with 2-channel audio.

NOTES:

- EDID can be managed in PCS (see the *EDID 121 Help File*).
- The unit supports EDID with resolutions up to 8K @ 60 Hz 4:2:0.

Assigning Extron Factory EDID

Rotary switch positions `0` through `B` are Extron factory EDID. Select a switch position corresponding to the desired resolution (see the image below).

Additionally, four user slots C through F are available to save the EDID of connected displays (see **Storing an EDID in a User Store Slot**) and to import EDID files from an external source with PCS (see the *EDID 121 Help File*). EDID saved to these slots are retained after a power cycle. Upon a factory reset, these EDID slots revert to the default (1080p @ 60 Hz, 2-Ch audio). EDID can only be stored via the rotary switch.

Storing EDID in a User Store Slot

To store EDID from a connected display or other sink device:

1. Turn the rotary switch (see image on the right) to the desired user slot location (C through F).
2. Connect the display device to the HDMI output port of the EDID 121 (see **figure 2**, **C** on page 5).
3. Connect a power source and apply power to the EDID 121 (see **figure 2**). The power LED lights steady when power is available.
4. Power on the display device.
5. Press **`STORE`** once and hold for 1 second to store the display EDID to the memory slot selected in **step 1**. The LED blinks three times to confirm. When the LED returns to solid, the EDID is stored.

NOTE: EDID stored in user slots `C` through `F` are saved until a new EDID is stored to that slot or the device is reset.

	Rotary Switch	Resolution	Refresh	Rate Type	Video Format	Audio Format
1	0	1280x800	60 Hz	IT	HDMI 1.3	2-Ch
2	1	1920x1200	60 HZ	IT	HDMI 1.3	2-Ch
3	2	720p	50 Hz	CE	HDMI 1.3	2-Ch
4	3	720p	60 Hz	CE	HDMI 1.3	2-Ch
5	4	1080p	50 Hz	CE	HDMI 1.3	2-Ch
6	5	1080p	60 Hz	CE	HDMI 1.3	2-Ch
7	6	1080p	60 Hz	CE	HDMI 1.3	Multi-Ch
8	7	4K/UHD	30 Hz	CE	HDMI 1.4	2-Ch
9	8	4K/UHD 4:4:4	60 Hz	CE	HDMI 2.0	2-Ch
10	9	4K/UHD 4:4:4	60 Hz	CE	HDMI 2.0	Multi-Ch
11	A	8K 4:2:0	60 Hz	CE	HDMI 2.1	2-Ch
12	B	8K 4:2:0	60 Hz	CE	HDMI 2.1	Multi-Ch
13	C	Store Slot 1 (Manually populated via PCS)				
14	D	Store Slot 2 (Manually populated via PCS)				
15	E	Store Slot 3 (Manually populated via PCS)				
16	F	Store Slot 4 (Manually populated via PCS)				

LED State	Rotary Switch	Store Button	Description
Off	0-B	Non-functional	EDID storing is not possible on the selected rotary position.
Green (blinking)	C-F	Button has been pressed and released	The STORE button has been pressed and the EDID is currently being stored to the selected user store slot.
Green (solid)	C-F	N/A	EDID storing is possible on the selected rotary position, or the storing process is complete (if following the blinking state).

NOTE: PCS can be used to import or export EDID from User Store Slots.

HDCP

Input

If the source requires HDCP encryption, the HDMI input negotiates and authenticates HDCP with the source device. The authentication process is repeated whenever the stored EDID is changed or updated, which is indicated by pulling HPD low.

HDCP support can be disabled using the SIS command (see **Input HDCP Authorized Device** on page 22) or PCS (see the *EDID 121 Help File*).

Output

The output is individually pre-authenticated and encrypted, in accordance with the configured HDCP output mode. If an output requires encryption but the connected sink device cannot be authenticated, that output displays a green screen.

HDCP output modes:

- **Follow input** — Output is always authenticated but only encrypted when required by input. HDMI authentication is continuous. DVI authentication occurs for a maximum of 10 seconds, then fails. This is the default mode.
- **Always encrypt output** — Output is always authenticated and encrypted. HDMI authentication is continuous. DVI authentication occurs for a maximum of 10 seconds, then fails.

Output Configuration

Output 5V Mode

The following modes are configurable for the output:

- **Always enabled** — The 5V pin is always active, regardless of input signal status. This is necessary to detect hot-plug assertion and thus read EDID from a connected sink.
- **Auto** — 5V output is only active when a source is connected to the input. If no source is connected, the 5V output will be disabled. This may be necessary for some sinks to enter sleep mode.

This can be changed using SIS commands (see **Output 5 V Mode** on page 23) or PCS (see the *EDID 121 Help File*).

TMDS Output Format

The TMDS output format has three components:

- **Video format** — Either DVI or HDMI
- **Color space** — RGB, YCbCr 4:2:2, YUV 4:4:4, or YUV 4:2:0
- **Quantization range** — Either full (0-255) or limited (16-235)

By default, the input format is configured for Auto, which automatically forces RGB 4:4:4 Full, with the video format dependent on the source signal and the sink capabilities.

This can be changed using SIS commands (see **Output TMDS Format** on page 22) or PCS (see the *EDID 121 Help File*).

NOTE: If the input signal is YUV 4:2:0, it is passed through unaltered, regardless of the TMDS output format setting.

Color Depth and Deep Color Support

There are two options for color depth and deep color support:

- **Automatic** — By monitoring the EDID of the sink, the EDID 121 determines the best color depth supported by the sink.
  - If the color bit depth of the video signal is supported by the sink, it passes unaltered.
  - If the color bit depth of the signal is not supported, it is truncated to the maximum supported by the sink.
- **Force 8-bit** — The EDID 121 always output 8 bit color bit depth.

This can be changed using SIS commands (see **Output Color Bit Depth** on page 23) or PCS (see the *EDID 121 Help File*).

Product Configuration Software

The EDID 121 uses Extron Product Configuration Software (PCS) for control and configuration. This section describes:

- **Downloading Software or Firmware**
- **Connecting to PCS**
- **Software Overview**

Downloading Software or Firmware

Visit the **Extron website** to download and install PCS.

NOTES:

- Follow these steps to download the latest versions of software and firmware for your product.
- An Extron Insider Account is required to download and use PCS. Contact an Extron support representative to obtain an Insider Account.

1. Access the **Extron website** and log in to your **Insider Account**.
2. Go to the **Download** link at the top of the page (figure 5, ❶) and click the appropriate link on the drop-down list.
   - **For software**, click the **Software** link (❷). The Download Center Software page opens (see figure 6). If the software is listed, click the **PCS Product Configuration Software** link (❸) and skip to step 6.
   - **For firmware**, click the **Firmware** link (❹). The Download Center Firmware page opens (see **figure 8** on the next page).

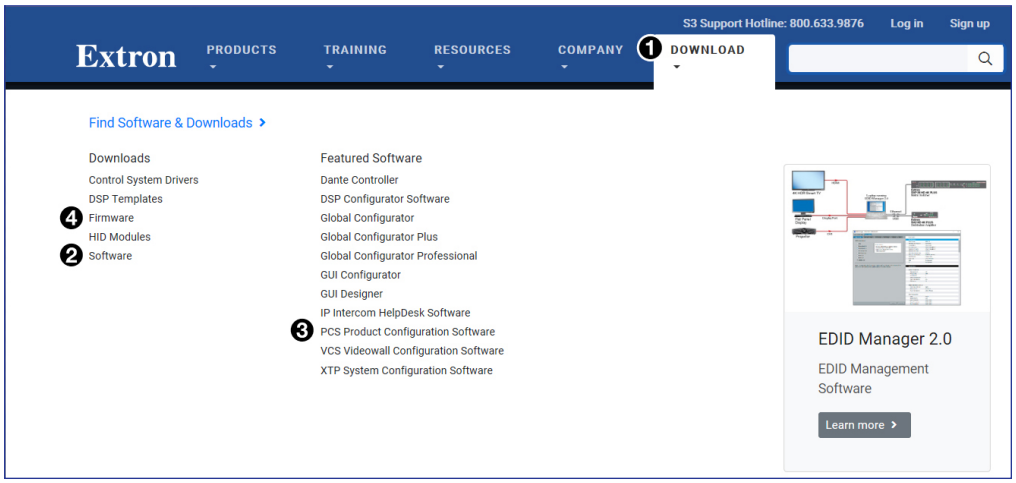


Figure 5. Software and Firmware Links on the Download Tab

3. Search for the name of the software or the name of the device for firmware.

   For software, type the name of the software into the **Search Software** field and select the desired software (see figure 6).

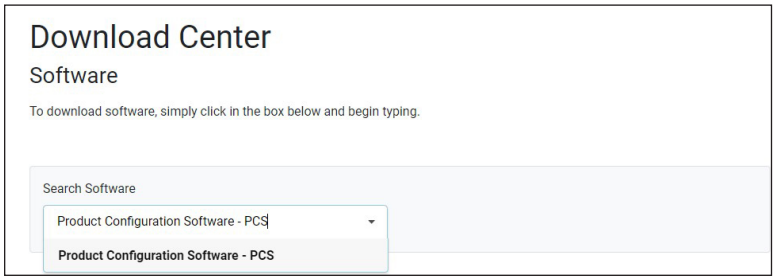


Figure 6. Alphabetic Navigation Bar

The selected software page opens below the search field (see figure 7).

Figure 7. PCS Software Download

For Firmware: Type the name of the device into the **Search Firmware** field and select the desired device. The searched firmware page opens below the search (see figure 8).

NOTE: The device is not in the list if there is no firmware update available.

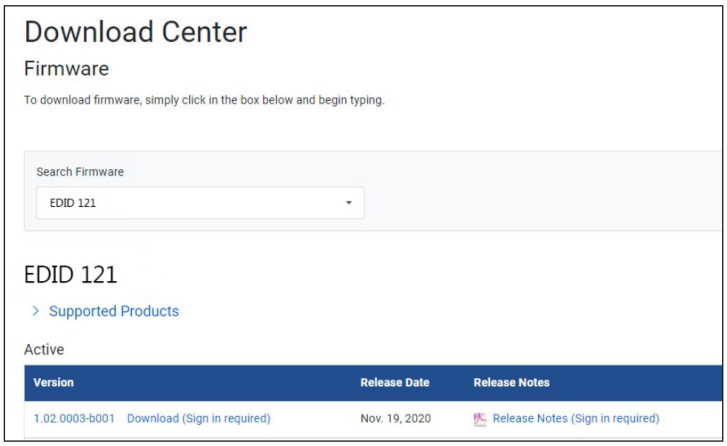


Figure 8. Firmware Page with Alphabetic Navigation Bar

4. Click **Download** (see figure 7) and follow the on-screen instructions. An executable (`.exe`) file is downloaded to the PC. Run this program to place the firmware on the PC for future use. Note where the firmware file is saved.
5. (**Optional**) Click **Release Notes** for more information about the firmware or software update.
6. (**Optional**) Click **Archives** to download previous versions of firmware or software.

   NOTE: The **Archives** link is only available if there are previous firmware versions.

7. Install the **software**.
   a. Navigate to the folder where the software file was downloaded.
   b. Double-click the executable file and follow the on-screen directions to install the software.

   For Firmware: To install via PCS, see `Update Firmware` in the **Device List** on page 18.

Connecting to PCS

The `Extron PCS` window opens with the `Device Discovery` panel open. Connect to the device using the `Device Discovery` panel or the `TCP/IP` panel (see **figure 9** on the next page).

NOTE: An Insider Account is required to download and use PCS. Contact an Extron support representative, to obtain an Insider Account.

Device Discovery Panel

The `Device Discovery` panel displays accessible Extron devices connected directly to the PC via the front panel USB-C port. Devices are identified and sorted by model, IP address, device name, or connection method.

1. Open the **Product Configuration Software** program from the desktop shortcut. The `Extron PCS` window opens to the `Device Discovery` panel (see **figure 9**).

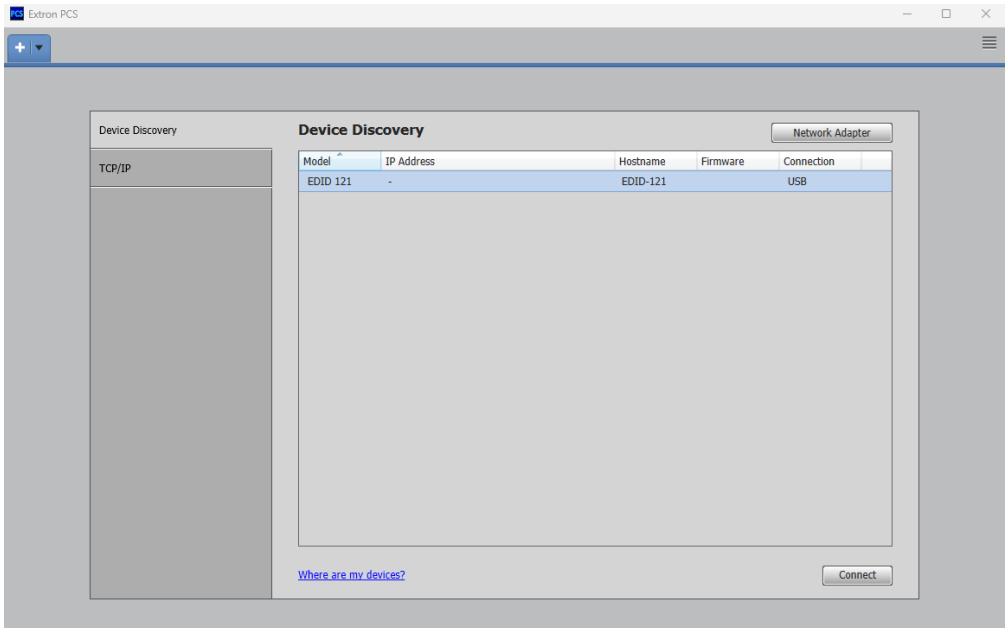


Figure 9. PCS Device Discovery Screen

2. Select the EDID 121 and click **Connect**.

Offline Device Preview

Opening a new device tab for an offline device displays the interface and configuration options for the device without connecting to it. However, settings cannot be changed.

To open a scaler device tab:

1. From the Configuration File drop-down list, select **New Configuration File** (see figure 10).

   The New Configuration File dialog box opens (see figure 11).

2. Select the desired device model from the Device Models list (see figure 11).

3. Click the **Configure** button. A new offline device configuration tab opens.

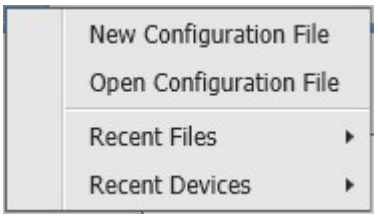


Figure 10. Configuration File Drop-Down List

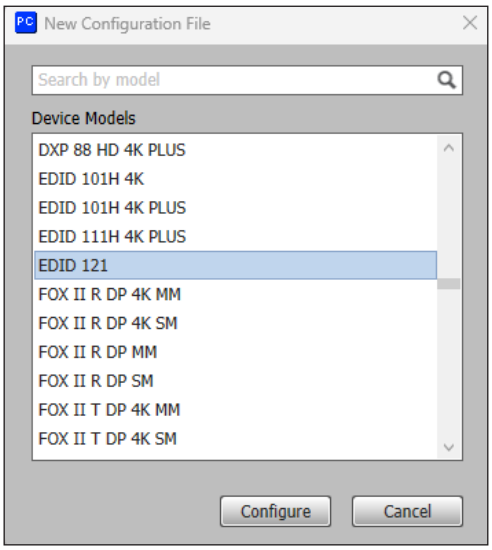


Figure 11. New Configuration File Dialog Box

Software Overview

NOTE: For details about specific software features, see the *EDID 121 Help File*.

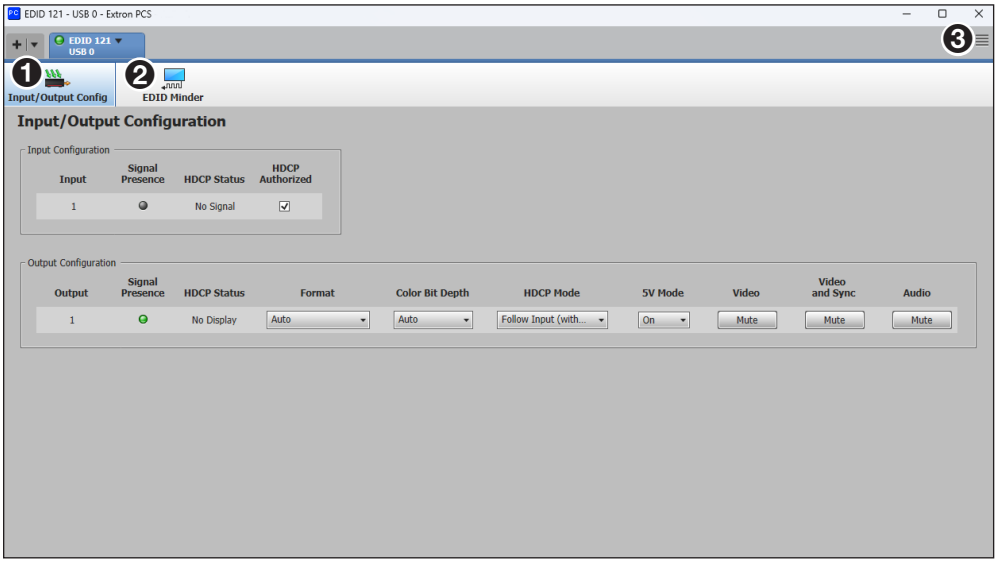


Figure 12. EDID 121 PCS Main Menu

The configuration page has a global navigation bar (see figure 12) to access the configuration pages:

❶ `Input/Output Configuration`

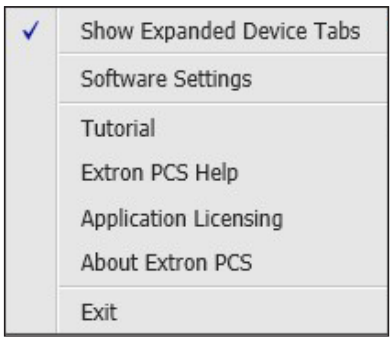
❷ `EDID Minder`

Select a tab to begin configuring the EDID 121.

The PCS software list on the right (❸) contains software configuration and information options (see **Software List** below).

Software List

The `Software` list contains options pertaining to PCS settings (see the image on the right).



Show Expanded Device Tabs

`Selecting Show Expanded Device Tabs` from the `Software` list displays the device IP address or connection method in the **`Device`** tab.

Software Settings

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

1. From the `Software` list, select **`Software Settings`**. The `Software Settings` dialog box opens.
2. Click the **`Re-enable Confirmation Dialogs`** button (see figure 13, ❶). The dialog box closes and the reset is complete.

   Alternatively, click the **`Close`** button (❷) to close the dialog box without re-enabling the confirmation dialogs.

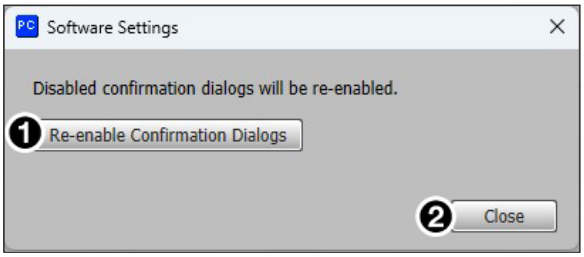


Figure 13. Software Settings Dialog Box

Tutorial

Display a general overview of where to find features in the PCS framework.

1. From the Software list, select **Tutorial**. The Tutorial dialog box opens.
2. Click the **I Get It!** button to close the dialog box.

Extron PCS Help

Open the PCS help file for general PCS operations.

From the Software list, select **Extron PCS Help**.

Application Licensing

Log into PCS with your Extron Insider account or check licensing details.

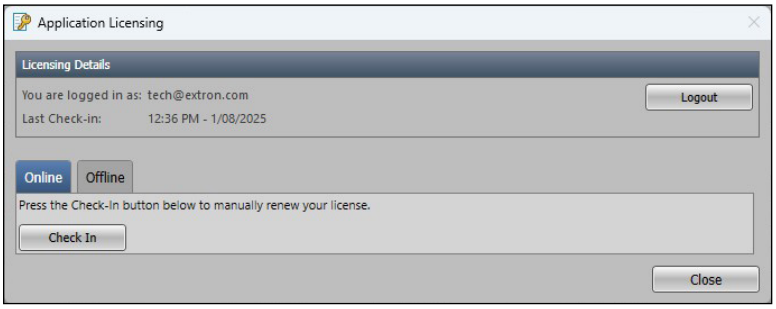


Figure 14. Application Licensing Dialog Box

About Extron PCS

Display information about the current PCS version.

1. From the Software list, select **About Extron PCS**. The About - Extron PCS dialog box opens.
2. Click the **Details** button (see figure 15, ❶) for more information.
3. To display details about third-party software packages and associated licensing, click **Licenses** (❷).
4. Click the **OK** button (❸) to close the dialog box.

Figure 15. About - Extron PCS Dialog Box

Exit

Disconnect connected devices and close the application.

1. From the Software list, select **Exit**. If device tabs are open, the Exit dialog box opens (see figure 16).
2. Click the **Close Session(s) and Exit** button (❶) to disconnect the software from connected devices, close all offline device tabs, and close the software.

   Alternatively, click the **Cancel** button (❷) to leave the software open.

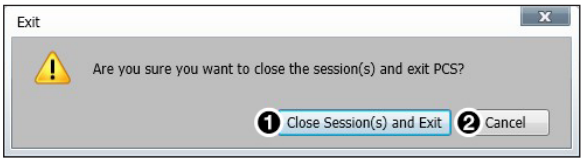


Figure 16. Exit Dialog Box

Device List

The Device list contains options pertaining to device connection, configuration, and information. For details about all these options, see the *EDID 121 PCS Help File*.

- **Disconnect** — Disconnect the device from the PCS program and close the **Device** tab.
- **Settings** — Open a submenu with the following option:
  - **Hardware Settings** — Display the Hardware Settings dialog box with device information and side tabs to change the device name of the connected device.
- **Reset Device...** — Open the Reset Device... dialog box, with selectable modes for resetting the connected device, as well as the Unit Information (also displayed in the Hardware Settings dialog box).
- **Update Firmware** — Open a submenu to upload firmware from the host device to the connected device.

  NOTE: If necessary, download new firmware from the Extron website (see **Downloading Software or Firmware** on page 13).

  - **Update Firmware to this Device...** — Upload firmware from the host device to the connected device only.
- **EDID 121 Help** — Open the *EDID 121 PCS Help File* in a separate window.
- **About This Module** — Open the **About This Module** dialog box, with the module part number and firmware version of the connected device.

SIS Commands

The EDID 121 can be configured using Simple Instruction Set (SIS) commands. This section provides information about using those commands. The following topics are discussed:

- **Front Panel Control USB Port**
- **Simple Instruction Set Control**
- **Command and Response Table for SIS Commands**

Front Panel Control USB Port

The EDID 121 accepts SIS commands from a host device via the front panel USB-C port.

NOTE: Connect the computer to the front panel USB-C Configuration port (see **figure 4**, Ⓑ on page 8) of the EDID 121.

Simple Instruction Set Control

Host-to-Unit Instructions

SIS commands consist of strings of one or more characters per command field. Unless otherwise stated, upper and lower case characters can be used interchangeably. Commands do not require any special characters to begin or end the command string.

Each response from the EDID 121 devices end with a carriage return and a line feed (CR/LF = ↵), which signals the end of the response character string.

Device-Initiated Power-Up Message

`© Copyright 2025, Extron, EDID 121, V.xx, 60-xxxx-01↵`

- `V.xx` is the firmware version number.
- `60-xxxx-01` is the part number.

Unsolicited Responses

• `Sig` X3 * X3 • X3 ↵	Broadcast when signal status changes on any input or output.
• `HdcpI` X12 ↵	Broadcast when HDCP status changes on the input.
• `HdcpO` X13 • X13 ↵	Broadcast when HDCP status changes on any output.

Error Messages

When the EDID 121 receives a valid SIS command, it executes the command and sends a response to the host device. If the EDID 121 is unable to execute the command because the command is invalid or it contains invalid parameters, the EDID 121 returns an error response to the host. The error response codes are:

- `E10` — Invalid command
- `E13` — Invalid parameter
- `E14` — Invalid for this configuration
- `E17` — Invalid command for signal type

Timeout

Pauses of 10 seconds or longer between command ASCII characters result in a timeout. The command operation is aborted with no other indication.

Using the Command and Response Table

The command and response table begins below. Symbols are used throughout the table to represent variables in the command and response fields. Command and response examples are shown throughout the table. The ASCII to HEX conversion table below is for use with the command and response table.

ASCII to HEX Conversion Table										Esc	1B	CR	ØD	LF	ØA
Space	2Ø	!	21	"	22	#	23	$	24	%	25	&	26	'	27
(	28	)	29	*	2A	+	2B	,	2C	-	2D	.	2E	/	2F
Ø	3Ø	1	31	2	32	3	33	4	34	5	35	6	36	7	37
8	38	9	39	:	3A	;	3B	<	3C	=	3D	>	3E	?	3F
@	4Ø	A	41	B	42	C	43	D	44	E	45	F	46	G	47
H	48	I	49	J	4A	K	4B	L	4C	M	4D	N	4E	O	4F
P	5Ø	Q	51	R	52	S	53	T	54	U	55	V	56	W	57
X	58	Y	59	Z	5A	[	5B	\	5C	]	5D	^	5E	_	5F
`	6Ø	a	61	b	62	c	63	d	64	e	65	f	66	g	67
h	68	i	69	j	6A	k	6B	l	6C	m	6D	n	6E	o	6F
p	7Ø	q	71	r	72	s	73	t	74	u	75	v	76	w	77
x	78	y	79	z	7A	{	7B	l	7C	}	7D	~	7E	DEL	7F

Figure 17. ASCII to Hex Conversion Table

NOTE: For commands and examples of computer or device responses used in this guide, the character "0" is the number zero and "O" is the capital letter "o."

Common symbol definitions

↵ — Carriage return with line feed

| or ← — Pipe character or carriage return (no line feed) can be used interchangeably.

• — Space character

W or Esc — W or Escape key can be used interchangeably.

The Xn values defined in this section are the variables used in the fields of the Command Response Table.

X2 — Video mute
- 0 = Video mute disabled (**default**)
- 1 = Video mute (TMDS)
- 2 = Video and sync mute

X3 — Status
- 0 = Disabled, off, or undetected
- 1 = Enabled, on, or detected

X4 — Output HDCP mode
- 1 = Follow the input with continuous DVI trials (**default**)
- 2 =Always encrypt HDMI outputs with continuous DVI trials

X5 — Output TMDS format
- 1 = Auto, pass through if HDMI sink; force DVI format if DVI sink (**default**)
- 2 = DVI RGB 4:4:4 Full
- 3 = HDMI RGB 4:4:4 Full
- 4 = HDMI RGB 4:4:4 Limited
- 5 = HDMI YUV 4:4:4 Limited
- 6 = HDMI YUV 4:2:2 Limited
- 7 = HDMI YUV 4:2:0 Limited

X6 — Slot number on EDID lookup table (1-18). See the **EDID table**.

X6	Rotary Switch	Resolution	Refresh	Rate Type	Video Format	Audio Format
1	0	1280x800	60 Hz	IT	HDMI 1.3	2-Ch
2	1	1920x1200	60 HZ	IT	HDMI 1.3	2-Ch
3	2	720p	50 Hz	CE	HDMI 1.3	2-Ch
4	3	720p	60 Hz	CE	HDMI 1.3	2-Ch
5	4	1080p	50 Hz	CE	HDMI 1.3	2-Ch
6	5	1080p	60 Hz	CE	HDMI 1.3	2-Ch
7	6	1080p	60 Hz	CE	HDMI 1.3	Multi-Ch
8	7	4K/UHD	30 Hz	CE	HDMI 1.4	2-Ch
9	8	4K/UHD 4:4:4	60 Hz	CE	HDMI 2.0	2-Ch
10	9	4K/UHD 4:4:4	60 Hz	CE	HDMI 2.0	Multi-Ch
11	A	8K 4:2:0	60 Hz	CE	HDMI 2.1	2-Ch
12	B	8K 4:2:0	60 Hz	CE	HDMI 2.1	Multi-Ch
13	C	Store Slot 1 (Manually Populated via PCS)				
14	D	Store Slot 2 (Manually Populated via PCS)				
15	E	Store Slot 3 (Manually Populated via PCS)				
16	F	Store Slot 4 (Manually Populated via PCS)				

X9 — Output color bit depth
- 0 = Auto based on EDID of sink (**default**)
- 1 = Force 8-bit

X10 — Verbose mode
- 0 = Clear or none
- 1 = Verbose mode (**default**)
- 2 = Tagged responses for queries
- 3 = Verbose mode and tagged responses for queries

X11 — Device name
Text string of up to 24 characters (**default** = EDID-121)
Alphanumeric characters and hyphens only.No distinction between upper and lower case
No spaces. First character must be a letter and the last character cannot be a hyphen

X12 — Input HDCP status
- 0 = No source detected
- 1 = Source detected without HDCP
- 2 = Source detected with HDCP

X13 — Output HDCP Status
- 0 = No active sink connected
- 1 = Sink detected, output not encrypted
- 2 = Sink detected, output encrypted

X14 — Output 5 V mode
- 1 = Auto (5 V is enabled only when a source with 5 V is present)
- 2 = 5 V is always enabled (**default**)

X17 — Audio output format
- 0 = Disabled
- 1 = Digital (pass through, **default**)

X20 — Part number
60-2076-01

Command and Response Table for SIS Commands

Command	ASCII Command (Host to unit)	Response (Unit to host)	Additional Description
Signal Status (corresponds to front panel LEDs)			
Input and output signal status	Esc OLS← Verbose mode 2/3:	X3*X3↵ Sig X3*X3↵	input*output
Input HDCP status	Esc IHDCP← Verbose mode 2/3:	X12↵ HdcpI X12↵	
Output HDCP status	Esc OHDCP← Verbose mode 2/3:	X13↵ HdcpO X13↵	
View output HDCP encryption status	Esc B1HDCP← Verbose mode 2/3:	X3↵ HdcpB X3↵	
KEY: X3 = Status		**0** = Not detected	**1** = Detected
X12 = Input HDCP status		**0** = No source detected	**1** = Source detected without HDCP **2** = Source detected with HDCP
X13 = Output HDCP Status		**0** = No active sink connected **1** = Sink detected, output not encrypted **2** = Sink detected, output encrypted	
Video Configuration			
Video Mute			
Video mute the output	X2 B	Vmt X2↵	
View Video mute status	B Verbose mode 2/3:	X2 • X2 • X2↵ Vmt X2 • X2↵	
KEY: X2 = Video mute status		**0** = Video mute disabled (**default**) **1** = Video mute (TMDS) **2** = Video and sync mute	
Input HDCP Authorized Device			
Set HDCP authorization	Esc E X3 HDCP←	HdcpE X3↵	X3 = 1, enabled (**default**)
View HDCP authorization status	Esc EHDCP← Verbose mode 2/3:	X3↵ HdcpE X3↵	
KEY: X2 = Status		**0** = Disabled **1** = Enabled (**default**)	
Output HDCP Mode			
Set output HDCP mode	Esc S X4 HDCP←	HdcpS X4↵	
View output HDCP mode status	Esc SHDCP← Verbose mode 2/3:	X4 • X4 • X4↵ HdcpS X4 • X4↵	
KEY: X4 = Output HDCP mode		**1** = Follow the input with continuous DVI trials (**default**) **2** = Always encrypt HDMI outputs with continuous DVI trials	
Video Configuration (continued)			
Output TMDS Format			
Set output TMDS format for all outputs	Esc X5 VTPO←	Vtpo X5↵	
View output TMDS format status	Esc VTPO← Verbose mode 2/3	X5 • X5 • X5↵ Vtpo X5 • X5 • X5↵	
KEY: X5 = Output TMDS format		**1** = Auto, pass through if HDMI sink; force DVI format if DVI sink (**default**) **2** = DVI RGB 4:4:4 **3** = HDMI RGB 4:4:4 Full **4** = HDMI RGB 4:4:4 Limited **5** = HDMI YUV 4:4:4 Limited **6** = HDMI YUV 4:2:2 Limited **7** = HDMI YUV 4:2:0 Limited	

Command	ASCII Command (Host to unit)	Response (Unit to host)	Additional Description
Output Color Bit Depth			
Set output color bit depth for all outputs	Esc V X9 BITD ←	BitdV X9 ↵	
View output color bit depth status	Esc VBITD ← Verbose mode 2/3	X9 • X9 • X9 ↵ BitdV X9 • X9 • ↵	
KEY: X9 = Video color bit depth	**0** = Auto - based on sink EDID (**default**)	**1** = Force 8-bit	
Output 5 V Mode			
Set output 5 V mode for all outputs	Esc M X14 HPLG ←	HplgM X14 ↵	
View output 5 V mode status	Esc MHPLG ← Verbose mode 2/3	X14 • X14 • X14 ↵ HplgM X14 • X14 ↵	Outputs 1-2
KEY: X14 = Output 5 V mode	**1** = Auto (5 V is enabled only when a source with 5 V is present)	**2** = 5 V is always enabled (**default**)	
HDCP Notification			
Set HDCP notification for all outputs	Esc N X3 HDCP ←	HdcpN X3 ↵	
View HDCP notification status	Esc N HDCP ← Verbose mode 2/3:	X3 • X3 • X3 ↵ HdcpN X3 • X3 ↵	
KEY: X3 = Status	**0** = Disabled	**1** = Enabled (default)	
Audio Configuration			
Audio Mute			
Mute all outputs	X3 Z	Amt X3 ↵	
View audio mute status	Z Verbose mode 2/3	X3 • X3 • X3 ↵ Amt X3 • X3 ↵	
KEY: X3 = Status	**0** = Unmuted (**default**)	**1** = Muted	
Verbose Mode			
Set verbose mode	Esc X10 CV ←	Vrb X10 ↵	
View verbose mode	Esc CV ←	X10 ↵	
KEY: X10 = Verbose mode	**0** = Clear or none **1** = Verbose mode (**default**) **2** = Tagged responses for queries **3** = Verbose mode and tagged responses for queries		
Unit Name			
Set the unit name	Esc X11 CN ←	Ipn • X11 ↵	Sets the unit name
Set unit name to factory default	Esc • CN ←	Ipn • EDID • 121 ↵	
View unit name	Esc CN ←	X11 ↵	
KEY: X11 = Unit name	A text string of up to 24 characters. (Alphanumeric characters and hyphens only. No spaces. No distinction between upper and lower case. First character must be a letter and the last character cannot be a hyphen.)		

Command	ASCII Command (Host to unit)	Response (Unit to host)	Additional Description
Information			
View unit part number	N Verbose mode 2/3	X20↵ Pno•X20↵	
Information	I	Sig X3 ↵*X3 ↵•X3 ↵•HdcpI X12 ↵•HdcpO X13 ↵ Input/output signal, and HDCP status	
Request model name	1I/i Verbose mode 2/3	EDID•121↵ Inf01*EDID•121↵	
Request model description	2I/i Verbose mode 2/3	EDID•HDMI•Emulator↵ Inf02*EDID•HDMI•Emulator↵	
View firmware version	Q	*n.nn*↵	
View firmware version with build	*Q Verbose mode 2/3	*n.nn.nnnn*↵ Bld*n.nn.nnnn*↵	
View detailed firmware versions	0Q		
View build with any special build text	20Q		

KEY:

X3 = Status	**0** = Not detected	**1** = Detected		
X12 = Input HDCP status	**0** = No source detected	**1** = Source detected without HDCP	**2** = Source detected with HDCP	
X13 = Output HDCP Status	**0** = No active sink connected	**1** = Sink detected, output not encrypted		
	2 = Sink detected, output encrypted			
X16 = Audio input status	**0** = None	**1** = 2-Ch LPCM	**2** =AC-3/DTS BitStream	**3** = Other
X20 = Part number	60-2076-06			

Reset			
Reset device to factory default	Esc ZXXX←	Zpx↵	

Mounting

Desktop Placement

Attach the four provided rubber feet to the bottom of the EDID 121 and place it in any convenient location.

Rack Mounting

Rack Mounting Procedure

The EDID 121 can be mounted on an optional Extron rack system. Recommended mount kits for the EDID 121 include: MBU 125 and RSB 123, which are listed at **www.extron.com**. To mount the unit on a rack shelf, follow the instructions provided with the optional shelf kit.

UL Guidelines for Rack Mounting

The following Underwriters Laboratories (UL) guidelines are relevant to the safe installation of the EDID 121 in a rack:

CAUTION:

- **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, +50°C) specified by Extron.
- **Reduced air flow** — Install the equipment in the rack so that the equipment gets adequate air flow for safe operation.
- **Mechanical loading** — Mount the equipment in the rack so that uneven mechanical loading does not create a hazardous condition.
- **Circuit overloading** — Connect the equipment to the supply circuit and consider the effect that circuit overloading might have on overcurrent protection and supply wiring. Consider 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).

Consignes UL pour le montage en rack

Les consignes UL (« Underwriters Laboratories ») suivantes concernent l'installation en rack d'un boîtier EDID 121 :

ATTENTION :

- **Température ambiante élevée** — En cas d'installation de l'équipement dans un rack fermé ou composé de plusieurs unités, la température du rack peut être supérieure à la température ambiante. Par conséquent, il est préférable d'installer l'équipement dans un environnement qui respecte la température ambiante maximale (Tma: +122°F, +50°C) spécifiée par Extron.
- **Réduction du flux d'air** — Si l'équipement est installé dans un rack, veillez à ce que le flux d'air nécessaire pour un fonctionnement sécurisé de l'équipement soit respecté.
- **Charge mécanique** — Installez l'équipement en rack de manière à éviter toute situation dangereuse causée par le déséquilibre de la charge mécanique.
- **Surcharge électrique** — Lorsque vous connectez l'équipement au circuit d'alimentation, observez la connexion de l'équipement et étudiez les effets possibles d'une surcharge du circuit sur les protections contre les surintensités et les conducteurs d'alimentation. Consultez à cet égard les indications de la plaque d'identification de l'équipement.
- **Mise à la terre** — Assurez-vous que l'équipement est correctement mis à la terre. Accordez une attention particulière aux connexions électriques autres que les connexions directes au circuit de dérivation (ex. : les multiprises).

Under-desk Mounting

Mount the device under a desk or podium, using an optional Extron under-desk mounting kit. Recommended mounting kit for the EDID 121 is the MBU 125, available at **www.extron.com**. Follow the instructions provided with the kit.

Best Practices for Cleaning Your Extron Products

There may be times when it becomes necessary to clean your Extron product. Plastic surfaces and cosmetic finishes can be damaged by long term exposure to chemicals. Therefore, Extron recommends the following guidelines when cleaning our products.

All Extron products can be safely cleaned with:

1. 70% concentration or higher Isopropyl Alcohol
2. Disinfectant cleaners that:
   - Are non-ammonium based (for example, contains no ammonium chloride)
   - Contain 2% or less sodium hypochlorite (for example, 2% bleach, 98% water)

It is important to follow these general guidelines when cleaning:

1. If possible, unplug the device.
2. Spray the cleaner on a lint-free cloth until the cloth is damp.
3. Do not spray the cleaner directly onto the product.
4. Gently clean the product surface using the cloth.

Your health and safety are our top priority. Keeping devices clean, especially those in high-traffic environments and high-use applications, is a crucial step in minimizing the spread of infections. Please contact us if you have any questions about the guidelines or if you have a question about cleaning the product.

Extron Warranty

Extron warrants its powered products against defects in materials and workmanship for a period of three years from the date of invoice. In the event of malfunction during the warranty period, Extron will repair or replace a product to whatever extent it shall deem necessary to restore the product to proper operating condition.

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 non-Extron authorized modification to the product. 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.

Powered Warranty Exception

Everlast™ Power Supplies — Extron warrants Everlast power supplies against any defects in materials and workmanship for a period of seven years from the date of invoice. In the event of a malfunction during the warranty period, Extron will repair or replace the power supply to its original operating condition. Extron engineers will examine the returned product and determine whether the Everlast Power Supply Warranty or Powered Product Warranty applies.

Speakers — Extron warrants Flat Field®, SoundField®, SpeedMount®, Column Array, and System INTEGRATOR® speakers against any defects in materials and workmanship for a period of five years from the date of invoice.

Touchscreens — Extron warrants touchscreen display and overlay components against any defects in materials and workmanship for a period of one year from the date of invoice.

Annotator 300 — Extron warrants the Annotator 300 against any defects in materials and workmanship for a period of five years from the date of invoice.

Non-Powered Warranty Exception

Cable Cubby, Hideaway Surface Access Enclosures and Retractors — Extron warrants Cable Cubby cable access enclosures, HSA Hideaway Surface Access enclosures, and Retractor cable retraction modules for a period of three years from the date of invoice.

Active Cables and Active Adapters — Extron warrants active cables and active adapter cables for a period of three years from the date of invoice.

Cable Termination Tools and Dies — Extron warrants cable termination tools for a period of three years from the date of invoice, excluding the die.

Return Information

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.

NOTE: To assure the highest level of service, a return authorization number must be obtained from Extron before products are returned for service. Products must be shipped to Extron, prepaid along with proof of purchase **only** after obtaining a Return Authorization (RA) number from the Extron Customer Support department.

Please contact Extron to receive an RA (Return Authorization) number:

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 and Middle East:	971.4.299.1800		