

PoleVault® Wallplates

PVT Series

PoleVault Twisted Pair
Input Wallplates
(Decora® and AAP models)



*PVT CV D, PVT RGB D Plus, PVT RGB D
PVT CV AAP, and PVT RGB AAP*



Extron® Electronics
INTERFACING, SWITCHING AND CONTROL

Precautions

Safety Instructions • English

-  This symbol is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.
-  This symbol 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.

Caution

- Read Instructions** • Read and understand all safety and operating instructions before using the equipment.
- Retain Instructions** • The safety instructions should be kept for future reference.
- Follow Warnings** • Follow all warnings and instructions marked on the equipment or in the user information.
- Avoid Attachments** • Do not use tools or attachments that are not recommended by the equipment manufacturer because they may be hazardous.

Consignes de Sécurité • Français

-  Ce symbole sert à avertir l'utilisateur que la documentation fournie avec le matériel contient des instructions importantes concernant l'exploitation et la maintenance (réparation).
-  Ce symbole sert à avertir l'utilisateur de la présence dans le boîtier de l'appareil de tensions dangereuses non isolées posant des risques d'électrocution.

Attention

- Lire les instructions** • Prendre connaissance de toutes les consignes de sécurité et d'exploitation avant d'utiliser le matériel.
- Conservier les instructions** • Ranger les consignes de sécurité afin de pouvoir les consulter à l'avenir.
- Respecter les avertissements** • Observer tous les avertissements et consignes marqués sur le matériel ou présentés dans la documentation utilisateur.
- Eviter les pièces de fixation** • Ne pas utiliser de pièces de fixation ni d'outils non recommandés par le fabricant du matériel car cela risquerait de poser certains dangers.

Sicherheitsanleitungen • Deutsch

-  Dieses Symbol soll dem Benutzer in der im Lieferumfang enthaltenen Dokumentation besonders wichtige Hinweise zur Bedienung und Wartung (Instandhaltung) geben.
-  Dieses Symbol soll den Benutzer darauf aufmerksam machen, daß im Inneren des Gehäuses dieses Produktes gefährliche Spannungen, die nicht isoliert sind und die einen elektrischen Schock verursachen können, herrschen.

Achtung

- Lesen der Anleitungen** • Bevor Sie das Gerät zum ersten Mal verwenden, sollten Sie alle Sicherheits- und Bedienungsanleitungen genau durchlesen und verstehen.
- Aufbewahren der Anleitungen** • Die Hinweise zur elektrischen Sicherheit des Produktes sollten Sie aufbewahren, damit Sie im Bedarfsfall darauf zurückgreifen können.
- Befolgen der Warnhinweise** • Befolgen Sie alle Warnhinweise und Anleitungen auf dem Gerät oder in der Benutzerdokumentation.
- Keine Zusatzgeräte** • Verwenden Sie keine Werkzeuge oder Zusatzgeräte, die nicht ausdrücklich vom Hersteller empfohlen wurden, da diese eine Gefahrenquelle darstellen können.

Instrucciones de seguridad • Español

-  Este símbolo se utiliza para advertir al usuario sobre instrucciones importantes de operación y mantenimiento (o cambio de partes) que se desean destacar en el contenido de la documentación suministrada con los equipos.
-  Este símbolo se utiliza para advertir al usuario sobre la presencia de elementos con voltaje peligroso sin protección aislante, que puedan encontrarse dentro de la caja o alojamiento del producto, y que puedan representar riesgo de electrocución.

Precaucion

- Leer las instrucciones** • Leer y analizar todas las instrucciones de operación y seguridad, antes de usar el equipo.
- Conservar las instrucciones** • Conservar las instrucciones de seguridad para futura consulta.
- Obedecer las advertencias** • Todas las advertencias e instrucciones marcadas en el equipo o en la documentación del usuario, deben ser obedecidas.
- Evitar el uso de accesorios** • No usar herramientas o accesorios que no sean específicamente recomendados por el fabricante, ya que podrían implicar riesgos.

安全须知 • 中文

-  这个符号提示用户该设备用户手册中有重要的操作和维护说明。
-  这个符号警告用户该设备机壳内有暴露的危险电压，有触电危险。

注意

- 阅读说明书** • 用户使用该设备前必须阅读并理解所有安全和使用说明。
- 保存说明书** • 用户应保存安全说明书以备将来使用。
- 遵守警告** • 用户应遵守产品和用户指南上的所有安全和操作说明。
- 避免追加** • 不要使用该产品厂商没有推荐的工具或追加设备，以避免危险。

Warning

- Power sources** • This equipment should be operated only from the power source indicated on the product. This equipment is intended to be used with a main power system with a grounded (neutral) conductor. The third (grounding) pin is a safety feature, do not attempt to bypass or disable it.
- Power disconnection** • To remove power from the equipment safely, remove all power cords from the rear of the equipment, or the desktop power module (if detachable), or from the power source receptacle (wall plug).
- Power cord protection** • Power cords should be routed so that they are not likely to be stepped on or pinched by items placed upon or against them.
- Servicing** • Refer all servicing to qualified service personnel. There are no user-serviceable parts inside. To prevent the risk of shock, do not attempt to service this equipment yourself because opening or removing covers may expose you to dangerous voltage or other hazards.
- Slots and openings** • If the equipment has slots or holes in the enclosure, these are provided to prevent overheating of sensitive components inside. These openings must never be blocked by other objects.
- Lithium battery** • There is a danger of explosion if battery is incorrectly replaced. Replace it only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Avertissement

- Alimentations** • Ne faire fonctionner ce matériel qu'avec la source d'alimentation indiquée sur l'appareil. Ce matériel doit être utilisé avec une alimentation principale comportant un fil de terre (neutre). Le troisième contact (de mise à la terre) constitue un dispositif de sécurité : n'essayez pas de la contourner ni de la désactiver.
- Déconnexion de l'alimentation** • Pour mettre le matériel hors tension sans danger, déconnectez tous les cordons d'alimentation de l'arrière de l'appareil ou du module d'alimentation de bureau (s'il est amovible) ou encore de la prise secteur.
- Protection du cordon d'alimentation** • Acheminer les cordons d'alimentation de manière à ce que personne ne risque de marcher dessus et à ce qu'ils ne soient pas écrasés ou pincés par des objets.
- Réparation-maintenance** • Faire exécuter toutes les interventions de réparation-maintenance par un technicien qualifié. Aucun des éléments internes ne peut être réparé par l'utilisateur. Afin d'éviter tout danger d'électrocution, l'utilisateur ne doit pas essayer de procéder lui-même à ces opérations car l'ouverture ou le retrait des couvercles risquent de l'exposer à de hautes tensions et autres dangers.
- Fentes et orifices** • Si le boîtier de l'appareil comporte des fentes ou des orifices, ceux-ci servent à empêcher les composants internes sensibles de surchauffer. Ces ouvertures ne doivent jamais être bloquées par des objets.
- Lithium Batterie** • Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

Vorsicht

- Stromquellen** • Dieses Gerät sollte nur über die auf dem Produkt angegebene Stromquelle betrieben werden. Dieses Gerät wurde für eine Verwendung mit einer Hauptstromleitung mit einem geerdeten (neutralen) Leiter konzipiert. Der dritte Kontakt ist für einen Erdschluß, und stellt eine Sicherheitsfunktion dar. Diese sollte nicht umgangen oder außer Betrieb gesetzt werden.
- Stromunterbrechung** • Um das Gerät auf sichere Weise vom Netz zu trennen, sollten Sie alle Netzkabel aus der Rückseite des Gerätes, aus der externen Stromversorgung (falls dies möglich ist) oder aus der Wandsteckdose ziehen.
- Schutz des Netzkabels** • Netzkabel sollten stets so verlegt werden, daß sie nicht im Weg liegen und niemand darauf treten kann oder Objekte darauf- oder unmittelbar dagegengestellt werden können.
- Wartung** • Alle Wartungsmaßnahmen sollten nur von qualifiziertem Servicepersonal durchgeführt werden. Die internen Komponenten des Gerätes sind wartungsfrei. Zur Vermeidung eines elektrischen Schocks versuchen Sie in keinem Fall, dieses Gerät selbst öffnen, da beim Entfernen der Abdeckungen die Gefahr eines elektrischen Schlags und/oder andere Gefahren bestehen.
- Schlitze und Öffnungen** • Wenn das Gerät Schlitze oder Löcher im Gehäuse aufweist, dienen diese zur Vermeidung einer Überhitzung der empfindlichen Teile im Inneren. Diese Öffnungen dürfen niemals von anderen Objekten blockiert werden.
- Litium-Batterie** • Explosionsgefahr, falls die Batterie nicht richtig ersetzt wird. Ersetzen Sie verbrauchte Batterien nur durch den gleichen oder einen vergleichbaren Batterietyp, der auch vom Hersteller empfohlen wird. Entsorgen Sie verbrauchte Batterien bitte gemäß den Herstelleranweisungen.

Advertencia

- Alimentación eléctrica** • Este equipo debe conectarse únicamente a la fuente/tipo de alimentación eléctrica indicada en el mismo. La alimentación eléctrica de este equipo debe provenir de un sistema de distribución general con conductor neutro a tierra. La tercera pata (puesta a tierra) es una medida de seguridad, no puentearla ni eliminarla.
- Desconexión de alimentación eléctrica** • Para desconectar con seguridad la acometida de alimentación eléctrica al equipo, desenchufar todos los cables de alimentación en el panel trasero del equipo, o desenchufar el módulo de alimentación (si fuera independiente), o desenchufar el cable del receptáculo de la pared.
- Protección del cables de alimentación** • Los cables de alimentación eléctrica se deben instalar en lugares donde no sean pisados ni apretados por objetos que se puedan apoyar sobre ellos.
- Reparaciones/mantenimiento** • Solicitar siempre los servicios técnicos de personal calificado. En el interior no hay partes a las que el usuario deba acceder. Para evitar riesgo de electrocución, no intentar personalmente la reparación/mantenimiento de este equipo, ya que al abrir o extraer las tapas puede quedar expuesto a voltajes peligrosos u otros riesgos.
- Ranuras y aberturas** • Si el equipo posee ranuras o orificios en su caja/alojamiento, es para evitar el sobrecalentamiento de componentes internos sensibles. Estas aberturas nunca se deben obstruir con otros objetos.
- Batería de litio** • Existe riesgo de explosión si esta batería se coloca en la posición incorrecta. Cambiar esta batería únicamente con el mismo tipo (o su equivalente) recomendado por el fabricante. Desachar las baterías usadas siguiendo las instrucciones del fabricante.

警告

- 电源** • 该设备只能使用产品上标明的电源。设备必须使用有地线的供电系统供电。第三条纹（地线）是安全设施，不能不用或跳过。
- 拔掉电源** • 为安全地从设备拔掉电源，请拔掉所有设备后或桌面电源的电源线，或任何接到市电系统的电源线。
- 电源线保护** • 妥善布线，避免被踩踏，或重物挤压。
- 维护** • 所有维修必须由认证的维修人员进行。设备内部没有用户可以更换的零件。为避免出现触电危险不要自己试图打开设备盖子维修该设备。
- 通风孔** • 有些设备机壳上有通风槽或孔，它们是用来防止机内敏感元件过热。不要使用任何东西挡住通风孔。
- 锂电池** • 不正确的更换电池会有爆炸的危险。必须使用与厂家推荐的相同或相近型号的电池。按照生产厂的建议处理废弃电池。

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. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

The Class A limits are designed to 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 guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

NOTE: This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to ensure compliance with FCC emissions limits.

Conventions Used in this Guide

In this user guide, the following are used:

WARNING: A warning warns of things or actions that might cause injury, death, or other severe consequences.

CAUTION: A caution indicates a potential hazard to equipment or data.

NOTE: A note draws attention to important information.

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Introduction

The section discusses basic information as an introduction to the PVT Series of twisted pair AV input wallplates.

This section covers the following:

- [About the PVT Input Wallplates](#)

About the PVT Input Wallplates

The Extron PVT Series PoleVault® Twisted Pair Input Wallplates (Decora® and Architectural Adapter Plates [AAP] models) described in this guide are a series of five cost effective twisted pair transmitters. These transmitters work exclusively with PoleVault (PVS) switchers, which are twisted pair switchers with a built in power amplifier.

PVT input wallplates are part of a system for distribution of composite video and stereo audio, or high resolution video (RGB) and stereo audio, over:

- Extron Enhanced Skew-Free™ A/V UTP cable
- CAT 5e, or 6 shielded twisted pair (STP) cable
- unshielded twisted pair (UTP) cable
- foil shielded twisted pair (FTP) cable

All PVT wallplates are remotely powered via the twisted pair cable when connected to the PoleVault switcher.

NOTES: PVT series of input wallplates are compatible ONLY with PVS (PoleVault) switchers.
For PVS switcher installation and operation information, refer to the guide supplied with the device.

Transmission distance

The maximum distance is determined by the frequency and resolution of the signal that is input to the transmitter. However, all PVT models are capable of transmitting signals to the PVS switcher if it is located not more than 125 feet away. The optimum distance is between 50 and 75 feet.

The PVT Decora and AAP models can be mounted in UL standard wall boxes with Decora-style face plates or in AAP openings in wall or device face plates. The model types are as follows:

PVT CV D, PVT CV AAP — Transmit composite video and stereo audio.

PVT RGB D, PVT RGB D Plus, PVT RGB AAP — Transmit computer (RGB) video and stereo audio.

See the “About the PVT ...” sections in this chapter for details.

About the PVT CV D

The **PVT CV D** is a wall or furniture mountable wall plate that fits any single opening Decora style wall plate. It can transmit composite video and stereo audio to any PoleVault switcher. In addition, a 2-pole IR pass-through provides control connection for IR devices.

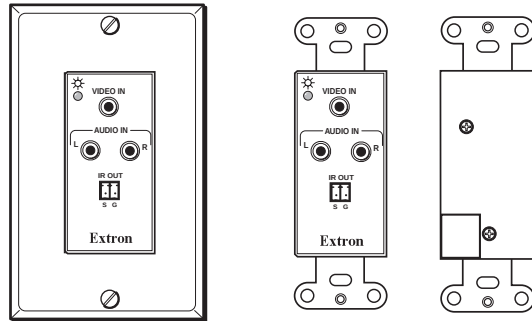


Figure 1. PVT CV D face and rear panels

About the PVT CV AAP

The **PVT CV AAP** fits a standard double space AAP opening and can transmit composite video and stereo audio to the PVS switcher.

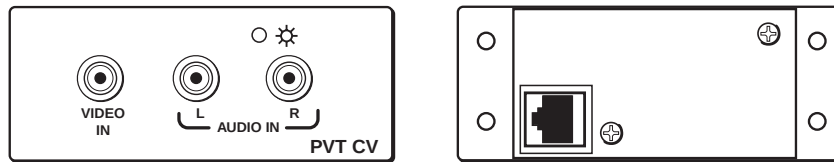


Figure 2. PVT CV AAP face and rear panels

About the PVT RGB D (EDID)

The **PVT RGB D (EDID)** is a wall or furniture mountable model that fits any single opening Decora style wall plate. It can transmit computer (RGB) video and stereo audio to the PVS switcher, and has an IR pass-through port to provide control connection for DVD/VCR players, tuners, switchers, or other IR controllable devices.

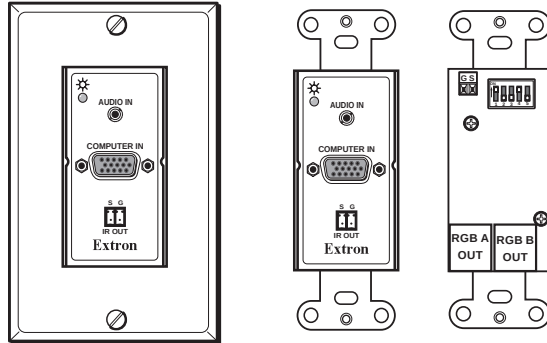


Figure 3. PVT RGB D (EDID) face and rear panels

NOTE: For all PVT RGB Decora and AAP models, two cable runs are required to carry the video and audio signals to the PVS switcher.

About the PVT RGB D Plus (EDID)

The **PVT RGB D Plus (EDID)** is a wall or furniture mountable model that fits any single opening Decora style wall plate. It can transmit computer (RGB) video and stereo audio to the switcher with a local monitor output and audio output. In addition, a 2-pole IR pass-through provides control connection for IR devices.

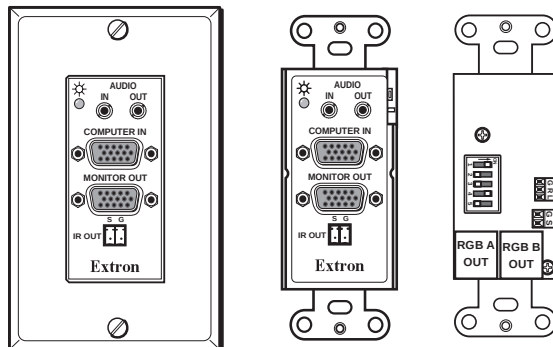


Figure 4. PVT RGB D Plus (EDID) face and rear panels

About the PVT RGB AAP (EDID)

The **PVT RGB AAP** fits a standard double height AAP opening in a wall plate or a device's front or secondary panel. It can transmit computer (RGB) video and stereo audio to the PVS switcher. In addition, a 2-pole IR pass-through provides control connection for IR devices.

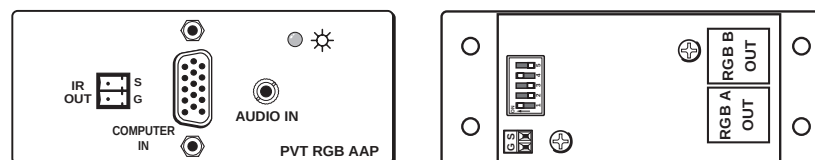


Figure 5. PVT RGB AAP face and rear panels

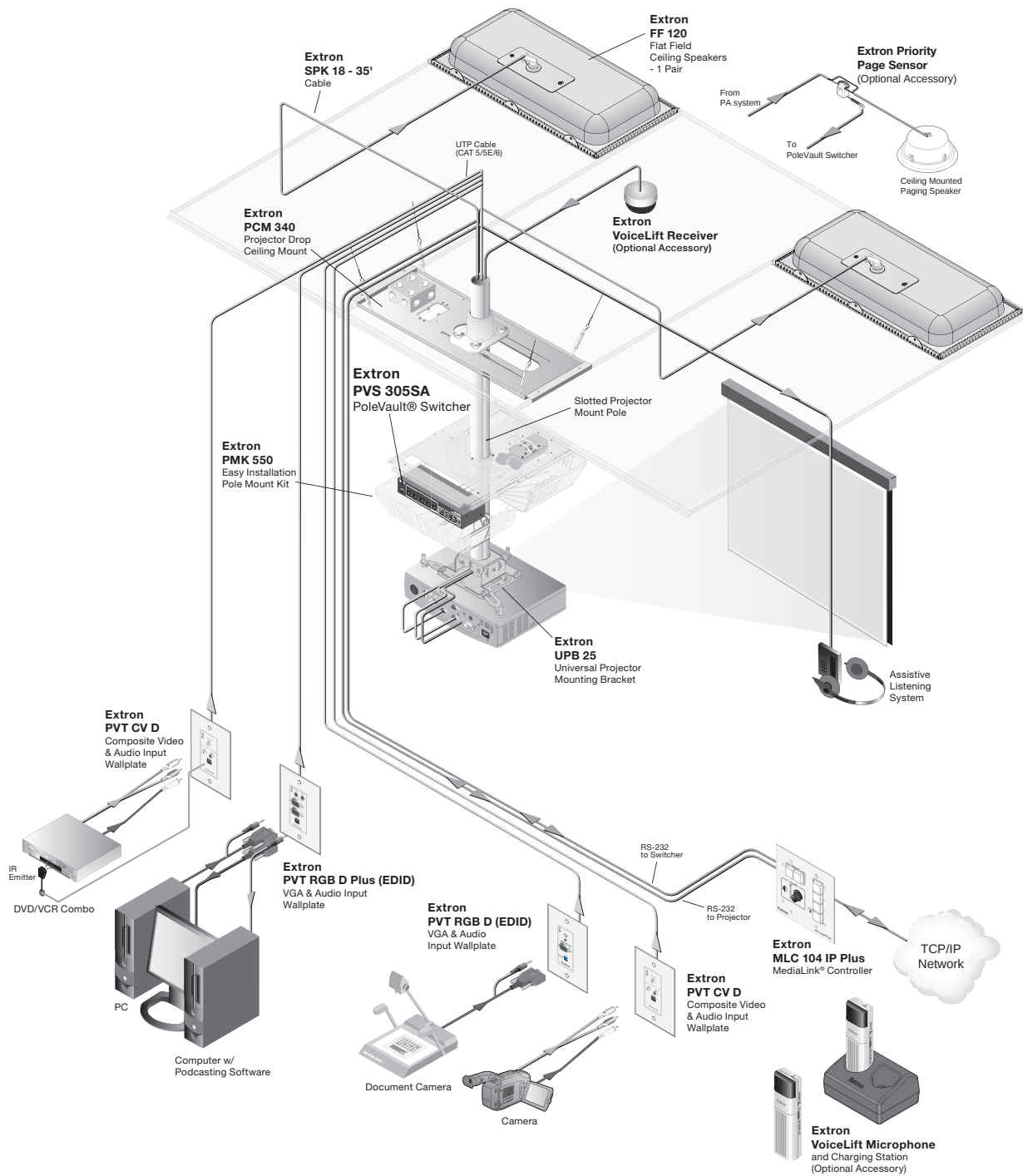


Figure 6. Typical PVT series system application using PVT Decora and AAP transmitters with the PVS 305SA and other Extron device.

Installation

The section discusses the method of installation, cabling, and using EDID Minder of the PVT series wallplates.

This section covers the following:

- **UL Safety Requirements**
- **Installing the Wallplates**
- **Connections and Settings**
- **EDID Minder**

UL Safety Requirements

The Underwriters Laboratories (UL) requirements listed below pertain to the safe installation and operation of these devices.

Important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments or accessories specified by the manufacturer.
12. Use only with the stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way. Examples of this could be if the power-supply cord or plug is damaged, or if liquid has been spilled onto, or objects have fallen into the apparatus. Also if the apparatus has been exposed to rain or moisture, or does not operate normally, or has been dropped.

Installing the PVT CV and PVT RGB Decora models

The PVT CV and PVT RGB Decora models can be installed into a wall using either the supplied mud ring or a UL approved one-gang electrical wall box, and finished with a Decora wall plate cover (supplied).

The installation must conform to national and local electrical codes and to the wall plate size requirements.

The following Underwriters Laboratories (UL) requirements pertain to the installation of the PVT input wallplates into a wall or furniture.

1. These units are not to be connected to a centralized DC power source or used beyond their rated voltage range.
2. These units must be installed in UL listed junction boxes.
3. These units must be installed with conduit in accordance with National Electrical and Building Codes

To Install into a Mud-ring

1. Using the mud ring as a guide, mark the edges and cut out the material within the marked area.
2. Insert the mud ring into the opening, rotate the arms, and secure with the supplied screws.
3. Run the CAT 5 cables from the PoleVault switcher location, going behind the wall and to the PVT location, then thread the cables through the mud ring.

NOTE: Two cables (A and B) are needed for RGB signals.
One cable is used with CV models.

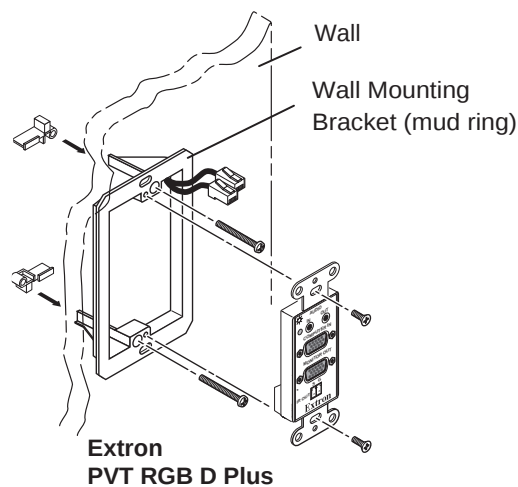


Figure 7. Installing the mud ring

4. Connect the switcher cables to the rear of the PVT wall plate. See "[Rear Panel Features](#)", page 11, for connector wiring details.
5. Connect input devices (see "[Front Panel Features](#)", page 9, for connector details), restore the power supply, and test the wall plate. Make any cabling adjustments before final installation, as the cables will be inaccessible afterwards.

To Install into a Wall Box

Choose a location that allows cable runs without interference. Allow enough depth for both the wall box and the cables. The box should be at least 2.5 inches (6.4 cm) deep to accommodate the connectors and cables. Install the cables into the wall, furniture, or conduits before installing the wall plate.

Follow the steps below

1. Feed cables for the output devices through the opening and through the wall box punch-out holes, securing them with cable clamps to provide strain relief.
2. Trim back and/or insulate exposed cable shields with heat shrink to reduce the chance of short circuits.

To prevent short circuits, the outer foil shield can be cut back to the point where the cable exits the cable clamp.

Both braided and foil shields should be connected to an equipment ground at the other end of the cable.

3. Connect the PoleVault switcher cables to the rear of the PVT wall plate. See “**Rear Panel Features**” on page 11 for connector wiring details.
4. Connect input devices (see “**Front Panel Features**” on page 9 for connector details), restore the power supply, and test the wall plate. Make any cabling adjustments before final installation, as the cables are inaccessible afterwards.

Installing the PVT CV and PVT RGB AAP models

The PVT CV AAP and PVT RGB AAP must be attached to a device faceplate or AAP wall plate and cabled before the device or wall plate is tested and installed in a wall or furniture.

1. Before attaching any cables, insert the AAP standoffs through the holes in the faceplate or AAP wall plate.
2. Using the supplied #4-40 nuts and captive washers, secure the AAP to the faceplate or wall plate.

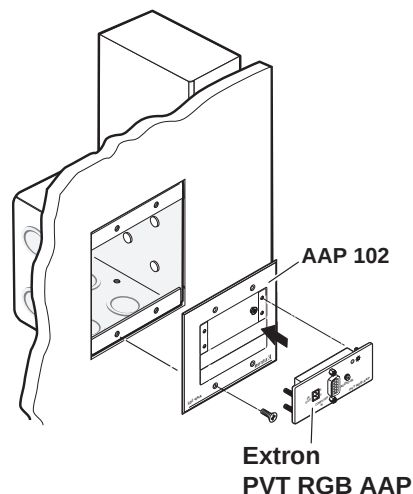


Figure 8. Mounting the PVT RGB AAP

3. Repeat steps 1 and 2 to mount any other AAPs. Cover any openings in the faceplate with blank plates (provided with the AAP faceplate).
4. Be sure to include the AAP connectors as part of the installation pretest before final installation of the faceplate.

5. For more detailed installation information, refer to the installation guide shipped with the device.

NOTE: The PVT input wall plate should be cabled and tested before it is finally installed into the wall or device face plate. The rear panel connections will be inaccessible after installation. See [Rear Panel - Features](#) on page 11.

6. After testing and making any adjustments, turn off the power supply to the PoleVault switcher, and carefully secure the faceplate on the wall box device.
7. Reconnect the cables and turn on the power supply to the switcher. This powers up the AAP plates.

Connections and Settings

The section discusses the method of cabling and using EDID Minder for the PVT series wallplates.

This section covers the following:

- **Front Panel Features**
- **Rear Panel (Cabling and Features)**
- **EDID Minder**
- **Final Installation**

CAUTION: Do not connect these devices to a computer data or telecommunications network.

Front Panel Features

The front panel features are the same within these groups:

- PVT CV D and PVT CV AAP, and
- PVT RGB D, PVT RGB D Plus, and PVT RGB AAP:

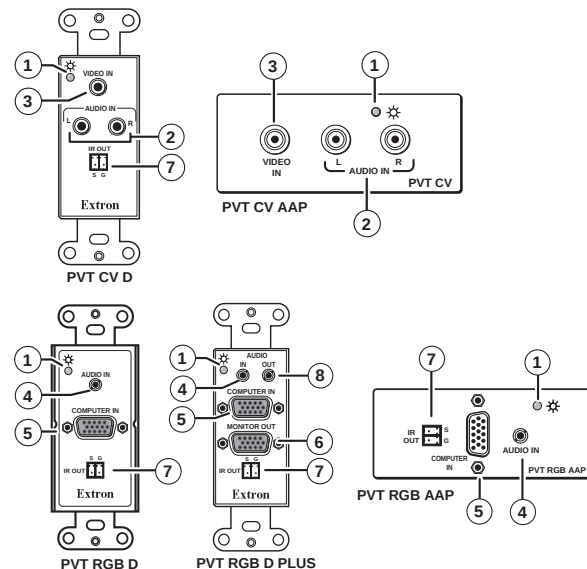


Figure 9. PVT series front panel features

- ① **Dual color power LED (all models)** — This LED lights red when power only (no signal) is applied to the PVT, and green when power and signal are both present.



- ② **Audio (left and right) input (CV D and CV AAP models)** — For unbalanced left and right audio input, plug male RCA audio plugs into these two female RCA jacks (white = left, red = right).

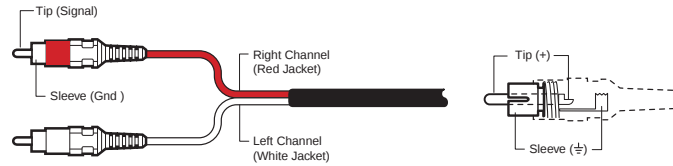


Figure 10. RCA audio connectors

- ③ **Composite video input (CV D and CV AAP models)** — To input a composite video signal from a suitable source, insert a male RCA plug into this yellow female RCA jack.



- ④ **Audio input (RGB D and RGB AAP models)** — Plug a 3.5 mm stereo audio plug into this jack for unbalanced audio input. Wire the plug as shown in figure 13.

IN

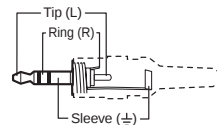


Figure 11. 3.5 mm stereo audio plug

- ⑤ **RGB video input (RGB D and RGB AAP models)** — Connect a computer video source to this 15-pin HD connector for high resolution RGB video input.



- ⑥ **Local monitor output (RGB D Plus model)** — Connect a monitor to this 15-pin HD to view the output locally.



- ⑦ **IR pass-through (All models except PVT CV AAP)** — Connect to this 2-pole IR pass-through connector to provide control via IR devices



- ⑧ **Audio pass-through (RGB D Plus model)** — Plug a local audio device into this 3.5 mm stereo jack for audio pass-through. Wire the plug as shown in figure 13.

OUT

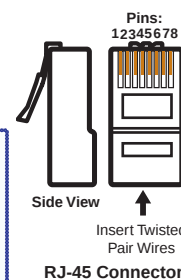


Rear Panel

Output cabling

The PVT cable termination method is specific for PVT input wall plates used with the PoleVault switcher. The supplied cables are terminated to TIA/EIA T 568A standard.

NOTE: When terminating CAT 5e, CAT 6, and Skew-Free AVV UTP cables with RJ-45 connectors, it must comply with the TIA/EIA T 568A or T 568B wiring standards, with the same standard used at both ends. DO NOT connect to an MTP system.



Pin	568A Wire Color	568B Wire Color
1	White-green	White-orange
2	Green	Orange
3	White-orange	White-green
4	Blue	Blue
5	White-blue	White-blue
6	Orange	Green
7	White-brown	White-brown
8	Brown	Brown

Rear Panel — Features

All models have the output connectors on the rear panel.

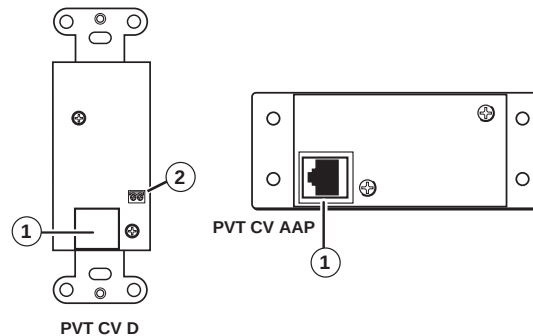


Figure 12. PVT CV models rear panel features

- ① **Composite video output (PVT CV models)** — For composite video output, using CAT 5e or 6 UTP cable, connect this RJ-45 female video output port to one of the two composite video RJ-45 input connectors (labelled 3 and 4 video), on the rear panel of the PoleVault switcher.

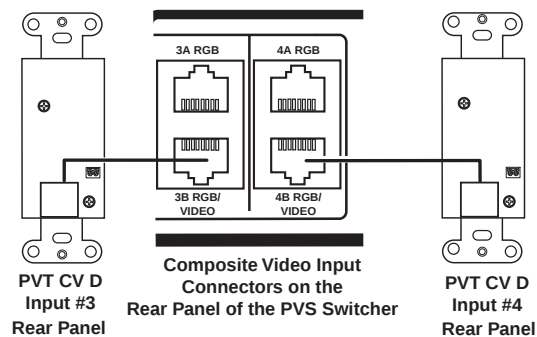


Figure 13. Connecting the PVT CV D to the PoleVault switcher

- ② **IR connector (2-pole) (PVT RGB D, PVT RGB AAP, PVT RGB D Plus models)** — For IR pass-through control, wire this connector from the IR controller, with ground to “G” and signal to “S”).

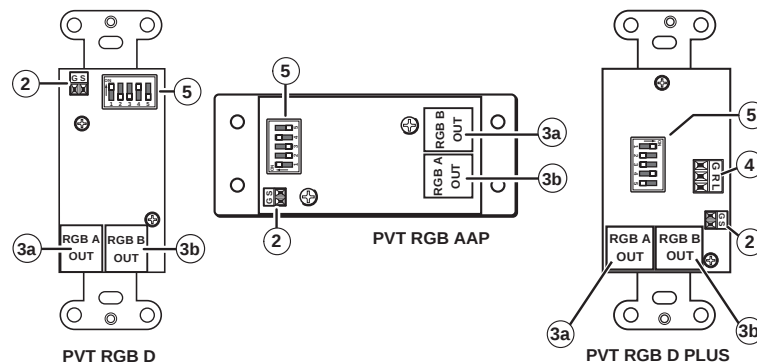
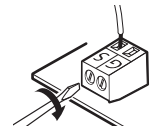


Figure 14. PVT RGB models rear panel features

- ③a **RGB A output (PVT RGB models)** — Using CAT 5e or 6 UTP cable, connect this RJ-45 female output port labelled “RGB A out” to one of the input ports labelled A (for example, 2A) on the PoleVault switcher.

- ③ **RGB B output (PVT RGB models)** — Using CAT 5e or 6 UTP cable, connect this RJ-45 female output port labelled “RGB A out” to one of the input ports labelled B (for example, 2B) on the PoleVault switcher.

NOTE: Cable A carries horizontal sync information and the red, green, and blue signals. Cable B primarily carries the audio signal, the vertical sync information, and 5 VDC to power the PVT transmitter.

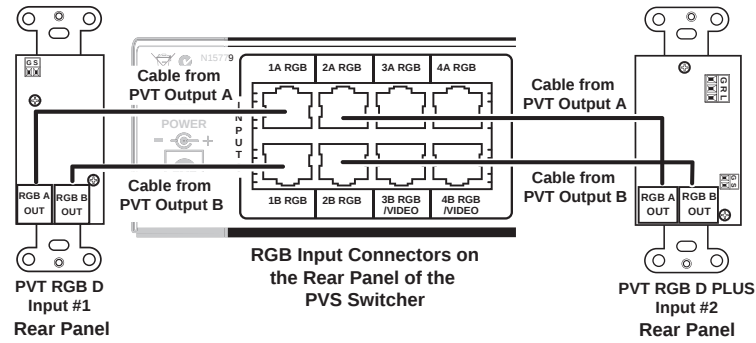


Figure 15. Connecting the PVT RGB D or PVT RGB D Plus to the PoleVault switcher

- ④ **Audio pass-through connector (PVT RGB D Plus models)** — Connect an audio source to this 3-pole connector for audio pass through output. Connect the ground to “G”, right speaker to “R”, and left speaker to “L”.
- ⑤ **EDID Minder 5-pole DIP switch** — If the display refresh rate and resolution is known, set the EDID Minder 5-pole DIP switches according to the EDID table (see “**EDID Minder**” section, page 13 for details). Alternatively, if the EDID Minder is used in Learn mode, set all the DIP switches to off.



EDID Minder

The PVT RGB D (EDID), PVT RGB D Plus (EDID), and PVT RGB AAP (EDID) incorporates EDID Minder, which allows the transmitter to communicate the appropriate EDID information to the source, ensuring correct video output resolution.

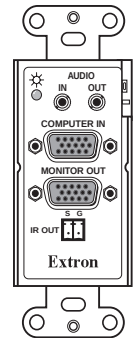
The 5-pole EDID Minder settings DIP switch is located on the rear of the wallplate. Once installed, these switch settings are only accessible by removing the device from its installed location.

The factory EDID setting (default) is 1024x768@60 Hz (preset 2).

The EDID Minder has two modes; a **Preset** (Emulation) mode and a **Learn** mode.

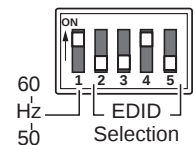
- **Preset Mode** is available on all PVT RGB (EDID) models, and allows selection of pre-programmed EDID rates, as shown in the table below.
- **Learn Mode** is available only on the PVT RGB D Plus model, and enables the displays specific EDID information to be recorded and emulated by the input wallplate.

To use the EDID Minder mode in Preset or Learn Mode, follow the instructions below



Using Preset mode

1. If already installed, disconnect any sources and displays from the front panel and remove the wallplate from the wall.
2. On the rear panel, set DIP switch 1 to 50 or 60 kHz as desired.
3. Set DIP switches 2 - 5 accordingly to match the desired EDID rate (see table below).
4. Connect the video source to the "Computer In" VGA connector and a local display device to the "Monitor Out" port.
5. Restart the video source and display devices. Verify the image, making any changes to the EDID settings as needed.
6. When the image is correct, re-install the wallplate. Re-connect and restart the source and display devices.

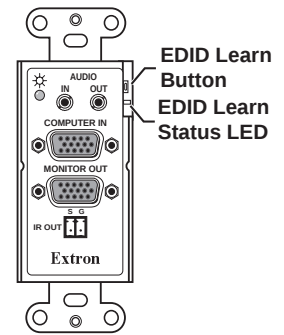


This setting is for 1024x768@60 Hz, preset 2 (factory default)

Preset Number	Switch setting				Resolution
	2	3	4	5	
0	OFF	OFF	OFF	OFF	Learn Mode (PVT RGB D Plus only)
1	OFF	OFF	OFF	ON	800x600
2	OFF	OFF	ON	OFF	1024x768 (default)
3	OFF	OFF	ON	ON	1280x720
4	OFF	ON	OFF	OFF	1280x768
5	OFF	ON	OFF	ON	1280x800
6	OFF	ON	ON	OFF	1280x1024
7	OFF	ON	ON	ON	1360x768
8	ON	OFF	OFF	OFF	1366x768
9	ON	OFF	OFF	ON	1400x1050
A	ON	OFF	ON	OFF	1440x900
B	ON	OFF	ON	ON	1600x1200
C	ON	ON	OFF	OFF	1680x1050
D	ON	ON	OFF	ON	1920x1080
E	ON	ON	ON	OFF	1920x1200
F	ON	ON	ON	ON	N/A

Using Learn mode (available on PVT RGB D Plus only)

1. Disconnect any sources from the front panel and remove the wallplate from the wall.
2. On the rear panel, set all the DIP switches to off (down).
3. Temporarily connect the main display device (the projector) to the "Monitor Out" port.
4. On the front panel, the learn LED is lit solid green. Press and release the Learn button.
5. The LED flashes red when in "learning" mode, then returns to solid green when complete.
6. Re-install the wallplate and reconnect the source device. Connect a local display device to the "Monitor Out" port as needed.
7. Reconnect the projector to the PoleVault switcher. Restart the source and display devices



Final installation

After testing and making any adjustments, do the following:

1. Turn off the power supply to the PoleVault switcher.

NOTE: The power to the transmitter is supplied by the PoleVault switcher.

2. Mount the transmitter into the box or mud ring, and attach the supplied Decora faceplate to the transmitter, as shown below.

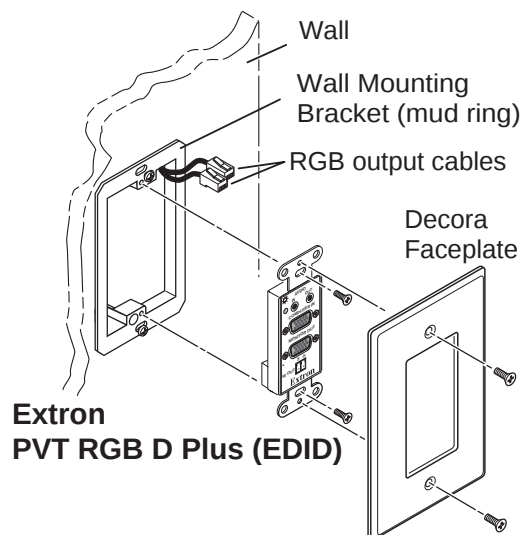


Figure 16. Mounting the PVT RGB D Plus (EDID)

3. Reconnect the cables and turn on the power supply to the switcher. This powers up the wall plates.

Reference Material

This section provides information about:

- **Specifications**
- **Part Numbers and Accessories**

Specifications

PVT Series

NOTE: These transmitters are compatible only with an Extron PoleVault® Switcher (PVS). They are not compatible with other models of twisted pair receivers.

Video — RGB

Gain..... Unity

Video input and loop-through — RGB

Number/signal type
PVT RGB D Plus models..... 1 VGA-UXGA RGBHV, RGBS
1 buffered RGBHV, RGBS local monitor loop-through
All other models 1 VGA-UXGA RGBHV, RGBS
Connectors
PVT RGB D Plus..... 2 female 15-pin HD (1 for input, 1 for loop-through)
All other models 1 female 15-pin HD
Nominal level 0.7 Vp-p for RGB
Minimum/maximum levels..... Analog: 0.3 V to 1.5 Vp-p with no offset
Impedance 75 ohms
Horizontal frequency 15 kHz to 130 kHz
Vertical frequency..... 30 Hz to 150 Hz
Return loss <-30 dB @ 5 MHz
DC offset (max. allowable) 250 mV

Video output — RGB

Number/signal type 2 analog proprietary signals
Connectors
All models 2 female RJ-45

Sync — RGB

Input type RGBHV, RGBS
Input level 3.5 V to 5.5 Vp-p, unterminated
Input impedance 510 ohms
Max. input voltage 5.5 Vp-p

Video — composite video

Gain..... Unity
Differential phase error..... <1.0° at 3.58 MHz and 4.43 MHz
Differential gain error <1.0% at 3.58 MHz and 4.43 MHz

Video input — composite video

Number/signal type	1 composite video
Connectors	1 female RCA
Nominal level	1 Vp-p for composite video
Minimum/maximum levels	Analog: 0.3 V to 1.5 Vp-p with no offset
Impedance	75 ohms
Return loss	<-30 dB @ 10 MHz
DC offset (max. allowable)	100 mV

Video output — composite video

Number/signal type	1 analog proprietary signal
Connectors	
All models	1 female RJ-45

Sync — composite video

Standards	NTSC 3.58, NTSC 4.43, PAL, SECAM
-----------------	----------------------------------

Audio input

Number/signal type	
PVT RGB D Plus	2 stereo, unbalanced: 1 input, 1 pass-through
All other models	1 stereo, unbalanced
Connectors	
All RGB models	(1) 3.5 mm mini audio jack (tip, ring, sleeve)
All CV models	1 pair female RCA
Impedance	>10k ohms unbalanced, AC coupled
Nominal level	-10 dBV (316 mVrms)
Maximum level	+11 dBu, (unbalanced) at 1% THD+N

NOTE: 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV $\approx$ 2 dBu

Audio output to a PoleVault switcher (all models)

Number/signal type	1 analog proprietary signal
Connectors	
All models	1 female RJ-45

Audio output — pass-through, PVT RGB D Plus only

Number/signal type	1 stereo, unbalanced
Connector	(1) 3.5 mm mini audio jack (tip, ring, sleeve)

Control — IR port — PVT CV D, PVT RGB D Plus, PVT RGB D (EDID), PVT RGB AAP (EDID)

Number and connectors	1 female 3.5 mm captive screw connector, 2 pole, for IR pass-through
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General

Power	Supplied by a PoleVault twisted pair receiver/switcher
Power input requirements	
PVT RGB D, PVT RGB AAP, PVT RGB D Plus	
5.5 VDC, 0.15 A	
PVT CV AAP, PVT CV D	5.5 VDC, 0.11 A
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing
	Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Cooling	Convection, no vents
Mounting	
Rack mount	
PVT CV AAP, PVT RGB AAP	Yes, with optional faceplate
Furniture or wall mount	
PVT CV D, PVT RGB D, PVT RGB D Plus	
	Yes, with the included Decora® wall plate
PVT CV AAP, PVT RGB AAP	Yes, with optional faceplates or AAP wall plates

Enclosure type	
PVT CV D, PVT RGB D, PVT RGB D Plus	Plastic
All other models	Metal
Enclosure dimensions	
)PVT CV D, PVT RGB D and PVT RGB D Plus (including EDID models)	
Faceplate	2.6" H x 1.3" W x 0.2" D (6.6 cm H x 3.3 cm W x 0.6 cm D) (Fits the openings in a 1 gang Decora® plate.)
Device.....	2.7" H x 1.7" W x 1.6" D (6.9 cm H x 4.3 cm W x 4.1 cm D) (Depth excludes connectors, height excludes mounting tabs.)
PVT RGB AAP (EDID)	
Faceplate	1.4" H x 3.5" W x 0.1" D (3.5 cm H x 8.9 cm W x 0.3 cm D) (double space AAP plate)
Device.....	1.4" H x 2.7" W x 1.6" D (3.6 cm H x 6.9 cm W x 4.1 cm D) (Depth excludes connectors, height excludes mounting tabs.)
Product weight	
All models	0.2 lbs (0.1 kg)
Shipping weight	2 lbs (1 kg)
Vibration	ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance	
Safety	CE, c-UL, UL
EMI/EMC	CE, C-tick, FCC Class A, ICES, VCCI
MTBF	30,000 hours
Warranty	3 years parts and labor

NOTES: All nominal levels are at $\pm 10\%$.
Specifications are subject to change without notice.

Part Numbers and Accessories

PoleVault AV Input Plate Part Numbers

Description	Part Number
PVT CV D	60-819-33
PVT RGB D	60-1066-03
PVT RGB D PLUS	60-1065-03
PVT CV AAP, black, white	70-579-12,13
PVT RGB AAP, black, white	70-722-02,03

Included Parts

Items marked * are for PVT CV D, PVT RGB D, and PVT RGB D Plus models only.

Description	Quantity
Single gang Decora® wall plate*	1
Single gang mudring*	1
Captive screw connector, 2-pole	1
6-32, 7/8L, mounting screws*	2
Tie Wrap	1
Setup guide	1

Optional Accessories

Description	Part Number
CAT 5e cable, 35', plenum	26-637-35
CAT 5e cable, 50', plenum	26-637-50
CAT 5e cable, 75', plenum	26-637-75
CAT 5e cable, 100', plenum	26-637-100

AAP Optional Parts

These items can be ordered separately and for AAP models only:

Description	Part Number
AAP 100 panel, black, white	60-593-02, 03
AAP 102 panel, black, white	60-300-02, 03
AAP 104 panel, black, white	60-301-02, 03
AAP 201 panel, ½ rack width, 1U, black	60-302-02
AAP 301 panel, 1 rack width, 1U, black	60-632-02
AAP 302 panel, 1 rack width, 2U, black	60-633-02

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
1001 East Ball Road
Anaheim, CA 92805
U.S.A.

Japan:

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

Europe and Africa:

Extron Europe
Hanzeboulevard 10
3825 PH Amersfoort
The Netherlands

China:

Extron China
686 Ronghua Road
Songjiang District
Shanghai 201611
China

Asia:

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

Middle East:

Extron Middle East
Dubai Airport Free Zone
F12, PO Box 293666
United Arab Emirates, Dubai

This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions, or if modifications were made to the product that were not authorized by Extron.

NOTE: If a product is defective, please call Extron and ask for an Application Engineer to receive an RA (Return Authorization) number. This will begin the repair process.

USA: 714.491.1500 or 800.633.9876

Asia: 65.6383.4400

Europe: 31.33.453.4040

Japan: 81.3.3511.7655

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

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

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

Extron Headquarters +1.800.633.9876 (Inside USA/Canada Only) Extron USA - West +1.714.491.1500 +1.714.491.1517 FAX	Extron USA - East +1.919.850.1000 +1.919.850.1001 FAX	Extron Europe +800.3987.6673 (Inside Europe Only) +31.33.453.4040 +31.33.453.4050 FAX	Extron Asia +800.7339.8766 (Inside Asia Only) +65.6383.4400 +65.6383.4664 FAX	Extron Japan +81.3.3511.7655 +81.3.3511.7656 FAX	Extron China +4000.398766 (Inside China Only) +86.21.3760.1568 +86.21.3760.1566 FAX	Extron Middle East +971.4.2991800 +971.4.2991880 FAX	Extron Korea +82.2.3444.1571 +82.2.3444.1575 FAX	Extron India 1800.3070.3777 (Inside India Only) +91.80.3055.3777 +91.80.3055.3737 FAX
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