Extron

WMK 160 • Installation Guide

IMPORTANT SAFETY INSTRUCTIONS

Read all instructions before using this furnishing.

When using this furnishing, basic precautions should always be followed, including the following:

⚠ **WARNING:** Risk of electric shock. Disconnect the power to this furnishing before cleaning.

AVERTISSEMENT : Risque de choc électrique. Débranchez ce furnishing avant cleaning.

- Devices used in this furnishing should be connected to a properly grounded outlet only (see Grounding Instructions in the device manual).
- Les appareils utilisés avec ce type de mobilier devraient uniquement être connectés à une prise correctement mise à la terre (voir les Instructions de mise à la terre dans le mode d'emploi de l'appareil).

CAUTION: **Risk of Personal Injury.** Read and follow the steps below to reduce the risk of burns, fire, electric shock, or injury to persons.

ATTENTION: **Risque de blessure mineure :** Lisez et respectez les instructions ci-dessous afin d'éviter les risques de brûlures, d'incendie, de choc électrique, ou de dommage corporel.

1. Always unplug devices installed in this furnishing from outlets before putting on or taking off parts.

2. Close supervision is necessary when this furnishing is used by, or near children, invalid, or disabled persons.

3. Use this furnishing only for its intended use as described in these instructions. Do not use attachments not recommended by the manufacturer.

4. Never operate a device in this furnishing if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the device used in this furnishing to a service center for examination and repair.

5. Never operate the furnishing with the air openings blocked. Keep the air openings free of lint, hair, and the like.

6. Never drop or insert any object into any opening.

7. Do not use outdoors.

8. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.

9. To disconnect the devices, turn all controls to the off position, then remove plugs from outlet.

SAVE THESE INSTRUCTIONS

GROUNDING INSTRUCTIONS

This product must be connected to a grounded metal, permanent wiring system, or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the product.

⚠ **WARNING: Risk of Personal Injury.** Maximum load for the WMK 160 is **15 lbs (7 kg).**

AVERTISSEMENT : Risque potentiel de blessure grave. La charge maximum pour le WMK 160 est 7 kg (15 lbs).

The Extron WMK 160 Wall Mount Kit is used for hanging WallVault® System AV products on a wall near a flat screen display or short throw projector.

The WMK 160 has a **17.3 x 16.5 x 2.75 inches (439 x 419 x 69 mm)** enclosure, and a base plate on which to mount the switcher (for example the PVS 407D or PVS 405D) and the associated power supply, with room for cable management.
In addition, an accessory device can be mounted on the base plate. The cover has knockouts on three sides that allow external raceways to be used where needed for cabling.

NOTE: The WMK 160 is to be used only with Extron UL listed products.

The key components (base plate, cover, and PVS switcher mounting plate) of the WMK 160 are shown in figure 1 at right. Included in the kit are the following:

(4) ¼-20 x 2" pan head bolts, (4) ¼" KapToggle® assemblies, (2) #14 x 1¾" self tapping metal/wood screws, (4) cover screws.

Not shown but included are (3) 4-40 x ¼" screws, (2) tie wraps (15"), (8) 4-40 x 3/16" screws (used to attach other Extron devices).
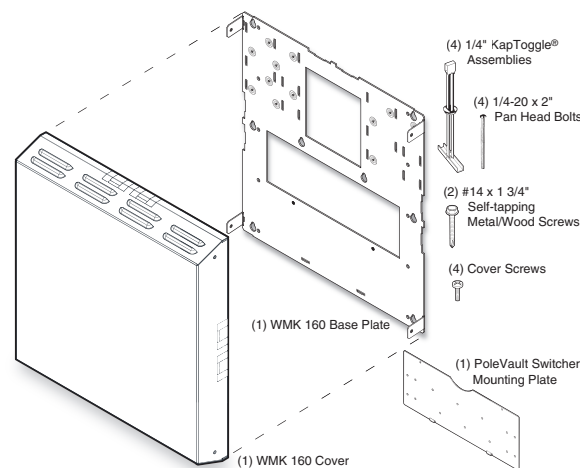

(4) 1/4" KapToggle® Assemblies
(4) 1/4-20 x 2" Pan Head Bolts
(2) #14 x 1 3/4" Self-tapping Metal/Wood Screws
(4) Cover Screws
(1) WMK 160 Base Plate
(1) PoleVault Switcher Mounting Plate
(1) WMK 160 Cover

Figure 1.   WMK 160 parts

Installation

> **NOTE:**   Refer to local building standards and codes to verify that the installation will meet the regulatory requirements. Observe all local and national building and safety codes, UL requirements, and ADA accessibility guidelines.

Before installation identify the type of wall (masonry or non-masonry) and the location where the WMK 160 will be installed. This determines the installation approach and type of fasteners needed to secure the plate to the wall.

Step 1. — Mount the Base Plate
Follow the steps within **1A** or **1B**, as applicable.

> **NOTE:**   The base plate can be installed over an existing electrical outlet (see figure 2 at right).

1A. To mount the WMK 160 onto masonry walls:

i. Hold the base against the wall, level it, and mark the positions of four slotted mounting holes (indicated by + marks in figure 2 at right). Set the plate aside.

ii. Using a masonry drill bit, drill 1¾ inch (4.4 cm) deep pilot holes at the marked locations.

iii. Screw in ¼ x 1¾ inch masonry screws (not supplied) until a gap of about 3/8 inch (9 mm) remains between the wall and the screw heads.

iv. Align the slotted mounting holes of the base plate over the installed screws, then slide the plate down so the screws fit into the slots (see figure at immediate right).

v. Verify level and position and tighten all the screws to secure the plate flush to the wall.
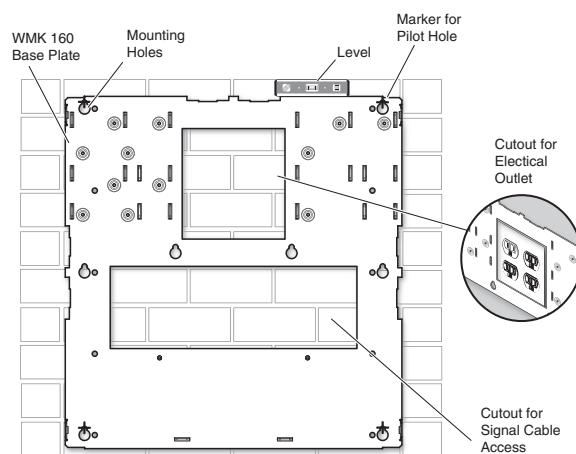
Proceed to step 2.

WMK 160 Base Plate
Mounting Holes
Level
Marker for Pilot Hole
Cutout for Electical Outlet
Cutout for Signal Cable Access

Figure 2.   Masonry wall mounting

1B. To mount the WMK 160 onto a non-masonry wall:

i. At the desired site, locate and mark the wall studs.

> **NOTES:**
> - For ideal installation secure the base plate to at least one wall stud (see figure 3 at right). Drywall KapToggles can be used for holes not aligned with studs.
> - Always use the widest spacing of screws and KapToggles.
> - The base plate can be installed over an existing electrical outlet (see figure 2 above).

ii. Hold and level the base plate against the wall and mark the positions of the slotted mounting holes that are on the stud lines (see figure 3 indicated by + marks). Where applicable, mark the mounting holes on the wall for drywall toggles.
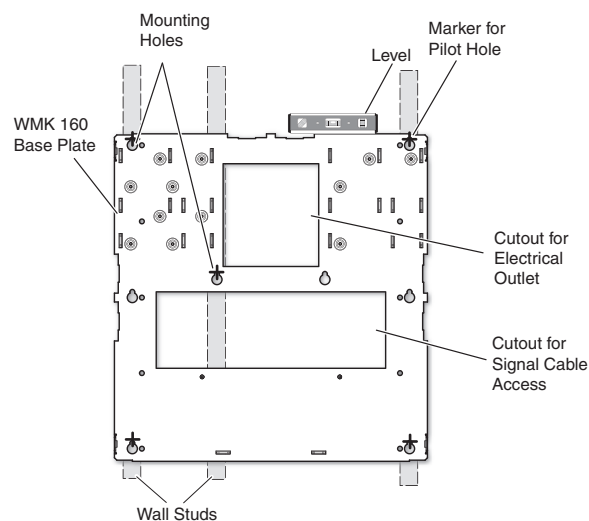

Mounting Holes
Level
Marker for Pilot Hole
WMK 160 Base Plate
Cutout for Electrical Outlet
Cutout for Signal Cable Access
Wall Studs

Figure 3.   Non-masonry wall mounting

iii. If the cables are to be run behind the wall to the WMK 160 location, mark the cutout area on the wall for the signal cable access hole (see **figure 3** on the previous page). Remove the base plate and set the plate aside.

iv. Drill 1¾ inch (4.4 cm) deep pilot holes at the hole marks.

v. Cut out the marked area for cable access.

vi. At the pilot holes, screw in the screws until a gap of about 3/8 inch (9 mm) remains between the wall and the screw heads.

> **NOTE:** If using toggle assemblies, see figure 4 for method.

vii. Align the slotted mounting holes in the base plate over the installed screws, then slide the plate down so the screws fit into the slots (see figure at immediate right).

viii. Verify level and position, and tighten down all the screws to secure the plate flush to the wall.
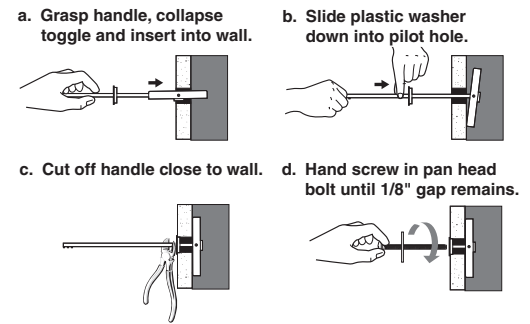
a. Grasp handle, collapse toggle and insert into wall.

b. Slide plastic washer down into pilot hole.

c. Cut off handle close to wall.

d. Hand screw in pan head bolt until 1/8" gap remains.

Figure 4. Toggle Assembly Installation

Step 2. — Mount the Switcher, Power Supply, and Accessory Device

> **NOTE:** Always use a power supply supplied 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. Unless otherwise stated, the AC/DC adapters are not suitable for use in air handling spaces or in wall cavities. The installation must always be in accordance with the applicable provisions of National Electrical Code ANSI/NFPA 70, article 75 and the Canadian Electrical Code part 1, section 16. The power supply shall not be permanently fixed to a building structure or similar structure.

a. Invert the switcher and place it (base up) on a flat surface. Place the mounting plate flat on the switcher base with the plate tabs (raised section up) over the edge of the front panel. Align the two mounting holes in the switcher base with the corresponding holes on the mounting plate. Secure the plate to the switcher with the supplied 4-40 x ¼ inch screws.

b. Secure the switcher mounting plate (with switcher attached) to the base plate by sliding the two tabs into the slots at the bottom edge of the base plate. Secure to the standoffs with 4-40 x 3/16 inch screws (see figure 5 at right).

c. Secure the power supply to the right of the electrical outlet cutout by threading the supplied tie wraps through the loops on the base plate. Attach it so the cables are easily and safely routed to the electrical outlet and switcher alike.

d. An optional ¼ rack, 3 inch deep accessory device, such as the Extron IPCP Pro 250, can be installed on the WMK 160 base plate.
To do so, place the device towards the top of the base plate, align the holes on the base plate and the device, and secure with the supplied 4-40 x 3/16 inch screws.
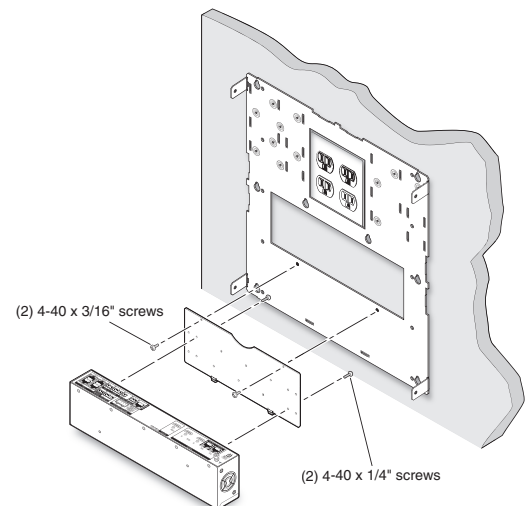
(2) 4-40 x 3/16" screws

(2) 4-40 x 1/4" screws

Figure 5. Attach the switcher to the mounting plate and secure both to the base plate.

Step 3. — Run Cables

Run the included XTP DTP 24 cables from the proposed PVT input wallplates, control device location, and the speakers to the WMK 160 location. Cables can be routed behind the walls, or through a surface raceway (for example, Wiremold® V700 or 2400 series) directly to the WMK 160 (see figure 6 at right).

3A. If running cable behind the walls:

i. Run all the cables from the various locations to the WMK and through the access cutout.

3B. If using a surface raceway:

i. Slide the WMK cover over the base plate, then identify and mark the most suitable raceway entrance to the WMK 160.

ii. Run the raceway from the signal source, speaker, and display locations to the marked raceway entrance at the WMK.

iii. Remove the WMK cover, and remove the desired knockout.

iv. Attach the raceway to the wall. Run cables from the sources and outputs through the raceway to the WMK.
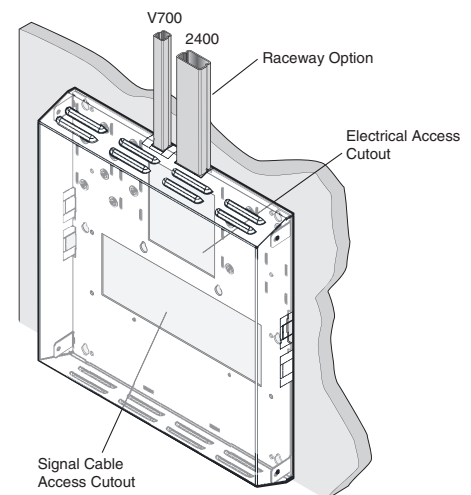
V700
2400
Raceway Option
Electrical Access Cutout
Signal Cable Access Cutout

Figure 6. Cabling run options

3

Step 4. — Cable the Switcher

a. Connect the cables from the PVT wallplates, control device (MediaLink Controller), speakers, and optional accessories (VoiceLift® and Page Sensor Kit) to the rear ports of the switcher (see figure 7 below).

Refer to the *PVS 407D Setup Guide* for additional details.

> **NOTE:** If using a device other than a PVS 407D (such as a PVS 405D or PVS 305SA IP), refer to the user guide for that device.

b. Run an HDMI cable from the switcher to the output display device through the wall or, where fitted, the raceway.

> **NOTE:** It is recommended that the HDMI output cable used, should not exceed a distance of 50 feet.

c. Connect the power supply to the switcher and plug it in to the electrical outlet.

> **NOTE:** If the electrical outlet is outside the WMK, pass the IEC power cable out through one of the raceway knockouts.
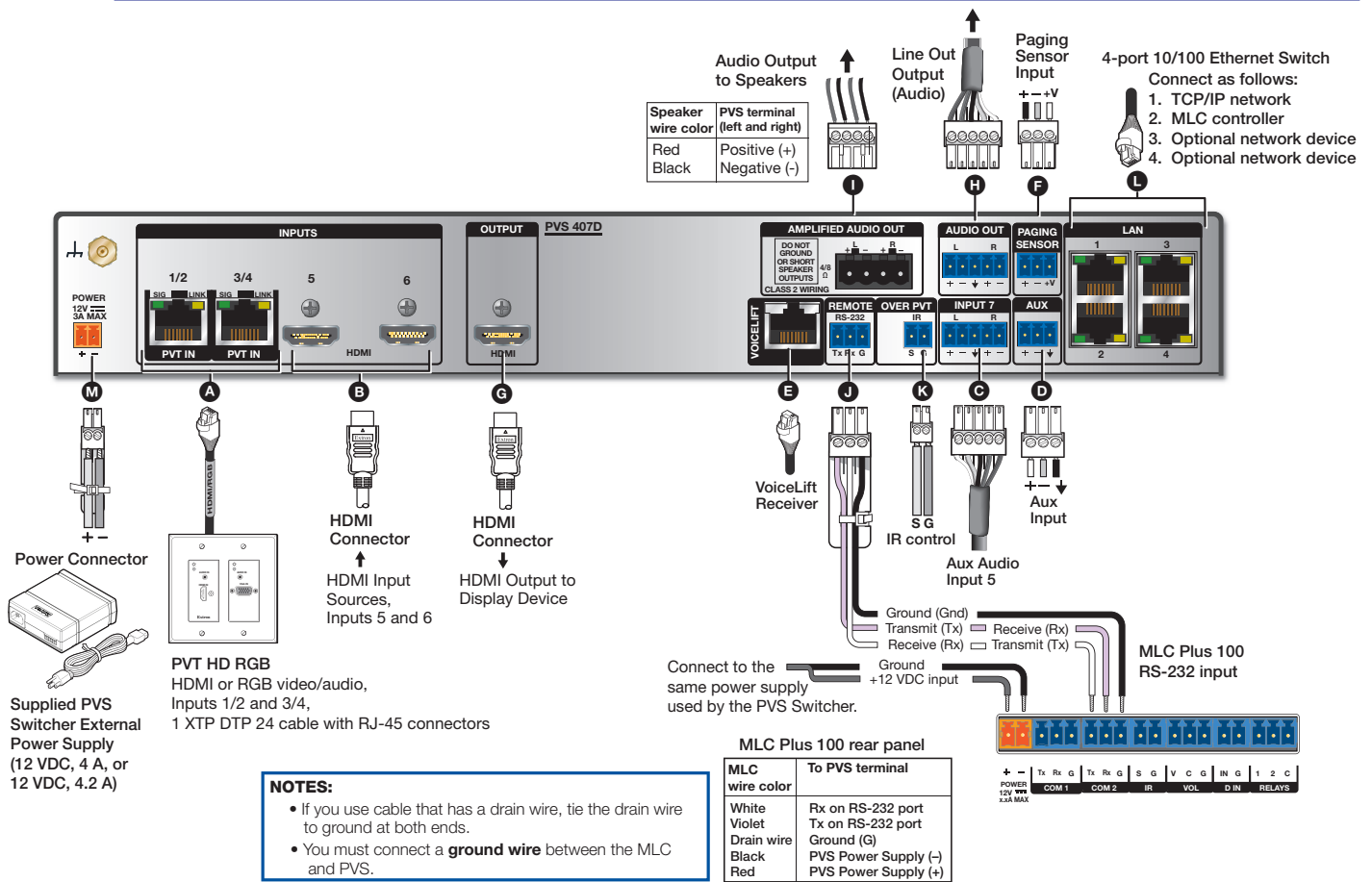

Figure 7. Cabling the switcher (PVS 407D shown)

> **NOTES:**
> - Use only the supplied 12 V, 4 A or 12 V, 4.2 A power supply for the PVS 407D or PVS 405D switcher.
> - Either of those power supplies can support a typical system: for example, a PVS 407D, two PVT Wallplates, two or four speakers, an MLC Plus 100, and a VoiceLift Microphone system.

Step 5. — Final Installation.

a. After completing cabling, place the cover over the installed plate, and secure at each corner with the provided cover screws (see figure 8 at right).

> **NOTE:** Ensure any cables exiting the box to a display device and external electrical outlet pass through a raceway knockout.

b. Switch on the display device, control device, signal sources, and then adjust and configure the system as needed.

For full configuration and setup details, refer to the *PoleVault System Installation Guide (featuring the PVS 407D Switcher)*, the *MLC Plus 50/100/200 User Guide*, and the *PVS 407D User Guide,* (or the appropriate PVS switcher guide), all available online at **www.extron.com**.
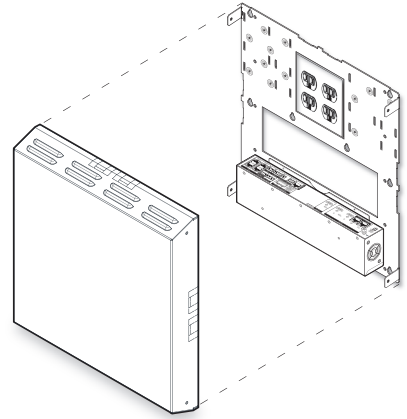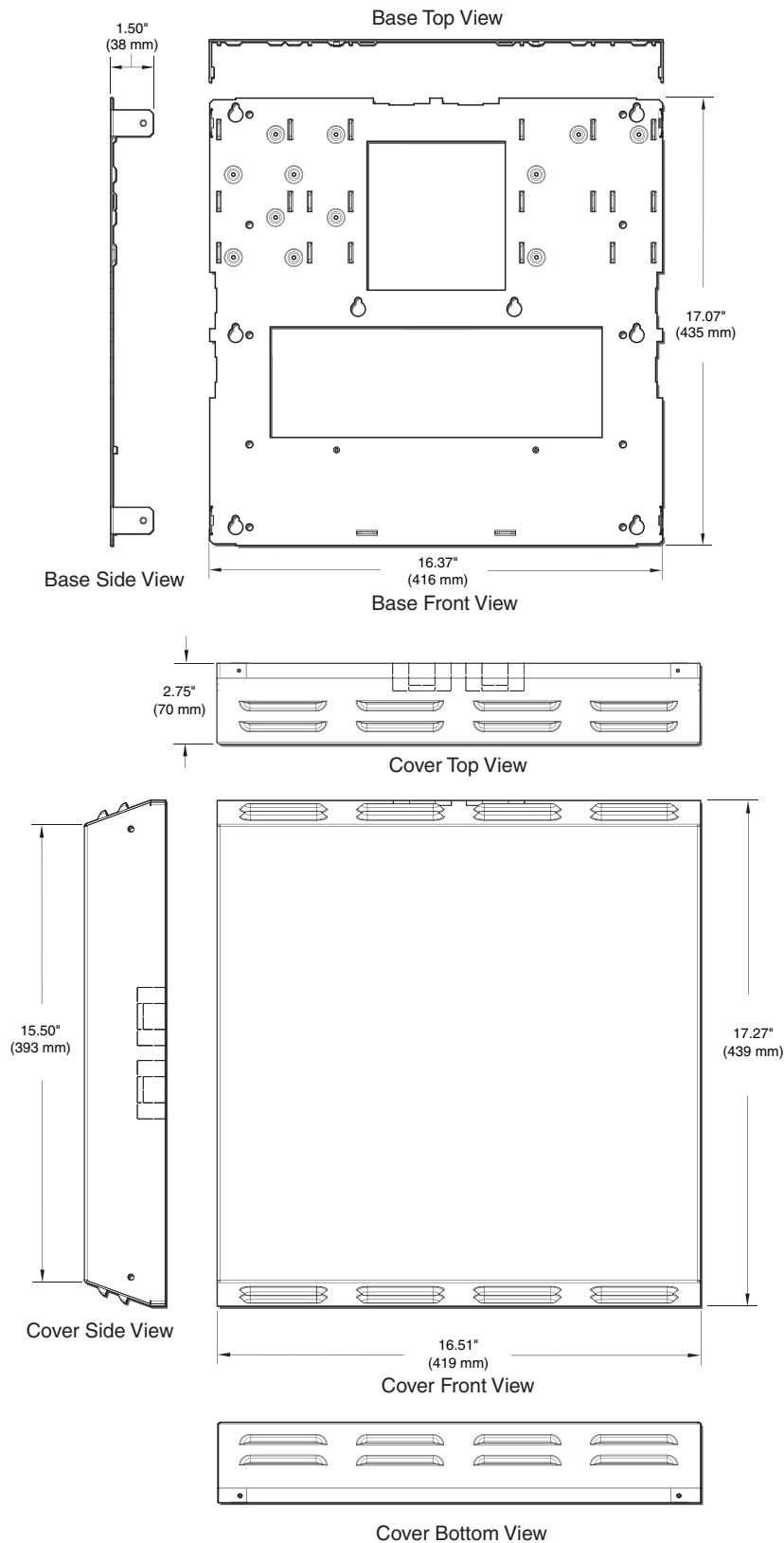

Figure 8.   **Attach WMK 160 cover**

WMK 160 Dimensions

Base Top View

1.50" (38 mm)

17.07" (435 mm)

16.37" (416 mm)

Base Side View

Base Front View

2.75" (70 mm)

Cover Top View

15.50" (393 mm)

17.27" (439 mm)

Cover Side View

16.51" (419 mm)

Cover Front View

Cover Bottom View

For information on safety guidelines, regulatory compliances, EMI/EMF compatibility, accessibility, and related topics, see the **Extron Safety and Regulatory Compliance Guide** on the Extron website.

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