HD-MD421

6x1 4K60 4:2:0 AV Multiformat Switcher

The Crestron® HD-MD421 is a 4K60 4:2:0 multiformat AV switcher that provides a cost-effective solution for professional AV applications. The HD-MD421 includes four HDMI® inputs, two DM Lite® inputs, and one mirrored HDMI and DM Lite output.

In the Box

1	HD-MD421 AV Switcher

Additional Items

1	Power Pack, 24VDC 4.0A, 100-240VAC (2057005)
1	Power Cord, 5 ft 10 in. (1.78 m) (2042043)
1	Connector, 5-pin (2003577)
5	Connector, 3-pin (2003575)
2	Bracket, Rack Mount (2056673)
6	Screw, 6-32 x 5/16 in., Pan Head, Phillips, Black (2056674)

Install the Device

The device occupies 1 RU of rack space in a 19-inch equipment rack.

WARNING: To prevent bodily injury when mounting or servicing the unit in a rack:

- When mounting the unit into a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.

- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.

NOTE: Observe the following rack mount installation guidelines:
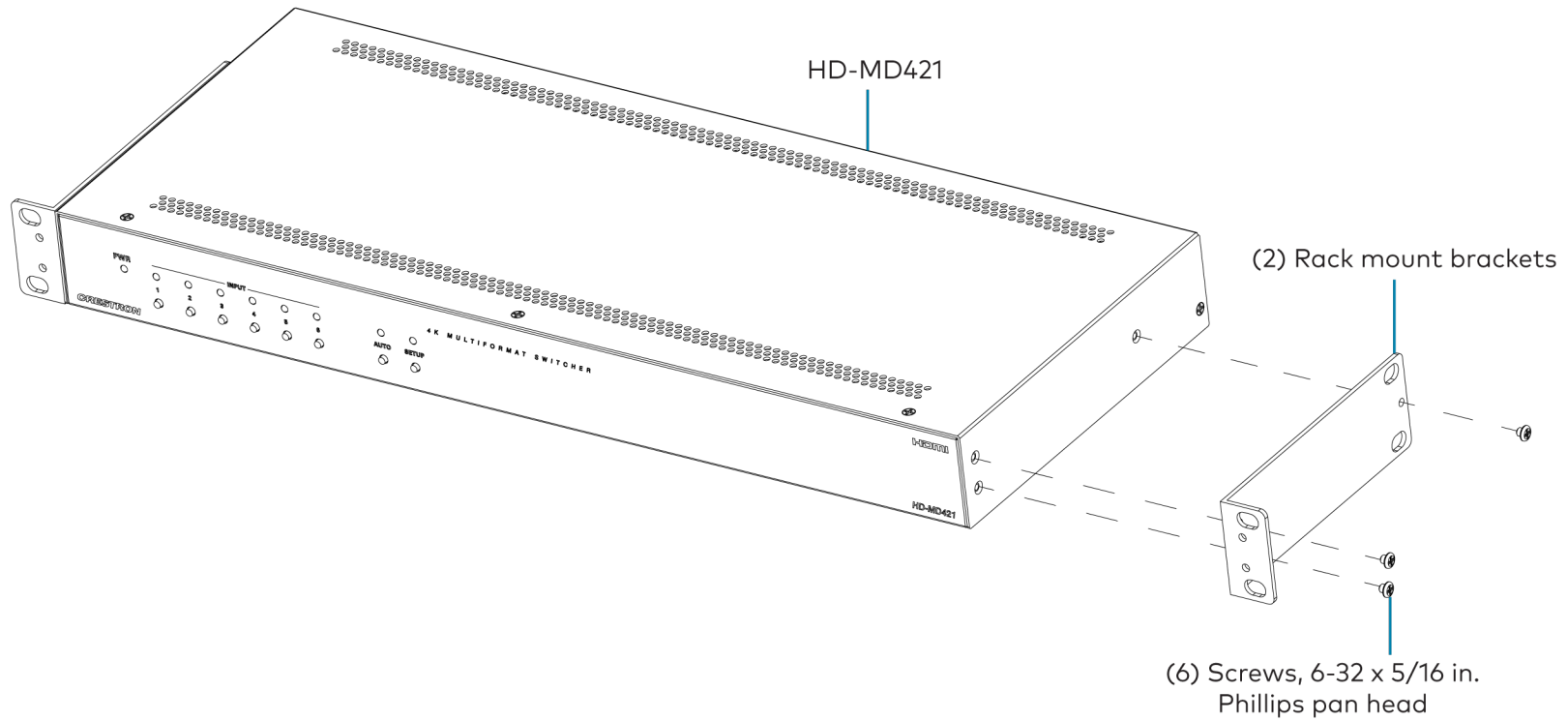
- **Elevated Operating Ambient Temperature:** If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.

- **Reduced Airflow:** Installation of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.

- **Mechanical Loading:** Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

- **Circuit Overloading:** Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

- **Reliable Earthing:** Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips).

To mount the device into a rack:

1. Attach the two included rack mount brackets to the switcher using the six included 6-32 x 5/16-inch Phillips pan head screws (three screws for each side of the device).

2. Mount the device into a rack using four rack mount screws (two screws per bracket, not included).
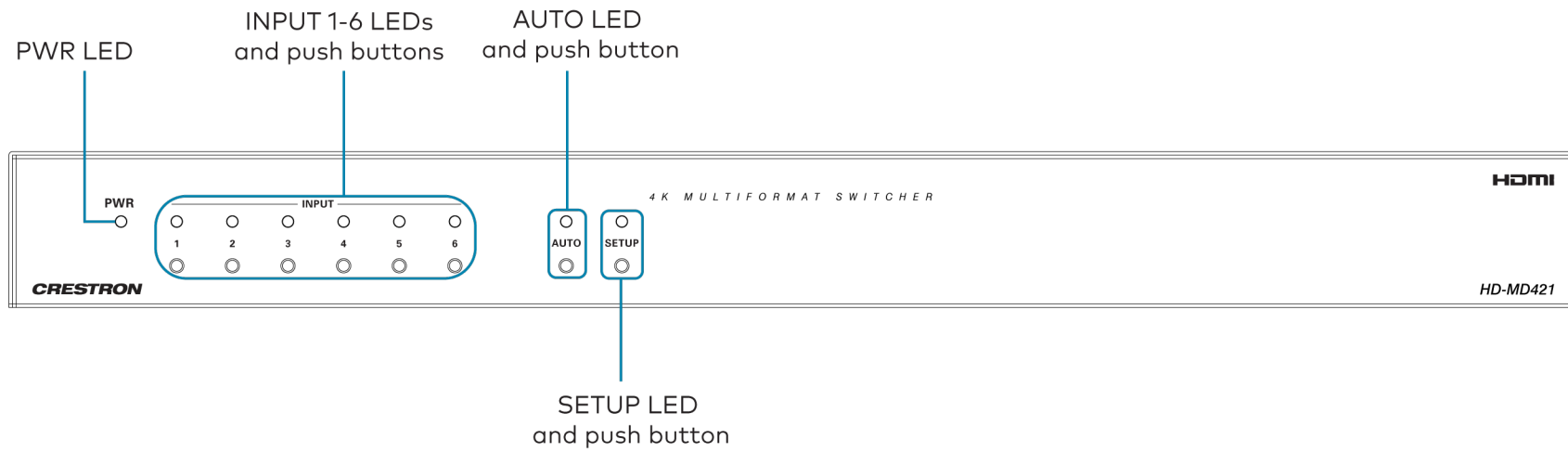
6x1 4K60 4:2:0 AV Multiformat Switcher

Rack Mounting

HD-MD421

(2) Rack mount brackets

(6) Screws, 6-32 x 5/16 in.
Phillips pan head

HD-MD421

6x1 4K60 4:2:0 AV Multiformat Switcher

Front Panel

PWR LED   INPUT 1-6 LEDs and push buttons   AUTO LED and push button
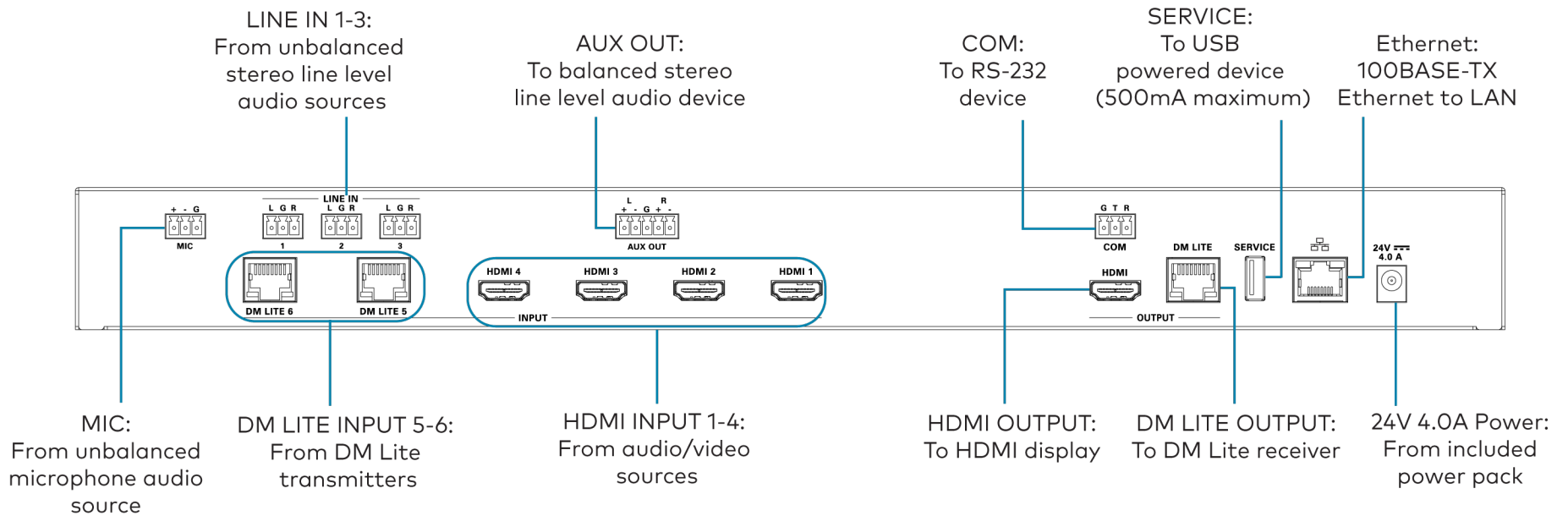
SETUP LED and push button

6x1 4K60 4:2:0 AV Multiformat Switcher

Connect the Device

Connect the rear panel of the device as required for the application.

Rear Panel Connections

LINE IN 1-3:
From unbalanced
stereo line level
audio sources

AUX OUT:
To balanced stereo
line level audio device

COM:
To RS-232
device

SERVICE:
To USB
powered device
(500mA maximum)

Ethernet:
100BASE-TX
Ethernet to LAN

MIC:
From unbalanced
microphone audio
source

DM LITE INPUT 5-6:
From DM Lite
transmitters

HDMI INPUT 1-4:
From audio/video
sources

HDMI OUTPUT:
To HDMI display

DM LITE OUTPUT:
To DM Lite receiver

24V 4.0A Power:
From included
power pack

6x1 4K60 4:2:0 AV Multiformat Switcher

NOTES:

- The HDMI and DM LITE outputs provide a mirrored output that displays the same image on two display devices.
- Supported DM Lite transmitters are the HD-TX-101-C-E and HD-TX-101-C-1G-E.
- Supported DM Lite receivers are the HD-RX-101-C-E, HD-RXC-101-C-E, HD-RX-101-C-1G-E, and HD-RXC-101-C-1G-E.
- The power connection powers the HD-MD421 and all devices connected to the DM Lite input and output ports. Power should not be connected to the HD-MD421 and DM Lite devices simultaneously.

Upgrade the Firmware

Before using the device, upgrade the firmware. The latest firmware can be downloaded from the HD-MD421 product page on the Crestron website (www.crestron.com).

Configure the Device

Configure the device using the web interface. To access the web interface, open a web browser and then go to the IP address of the device.

NOTE: By default, the IP address of an HD-MD421 device is assigned by a DHCP server on the network. If a DHCP server does not exist on the network, the IP address defaults to a link-local address in the 169.254.xxx.xxx range. To display the IP address on the connected display, press the **SETUP** button on the front panel of the device.

If no account has been created, create an account by entering a user name and password. After an account is created, log in to the web interface by entering the user name and password.

6x1 4K60 4:2:0 AV Multiformat Switcher

Observe the LED Indicators

Refer to the following table for information about the LED indicators on the device.

LED Indicator	Color	Meaning
PWR	Amber	Power is being applied to the device. The device is booting.
	Green	Power is being applied to the device. The device is operational.
AUTO	Green	Automatic switching is enabled.
SETUP	Red	The **SETUP** button is pressed.
Ethernet	Green	A 100BASE-TX link is established.
	Flashing amber	Data activity is occurring on the Ethernet link.
INPUT 1-6	Green	The corresponding input is routed to an output.
	Amber	A source is detected at the corresponding input but is not routed to an output.
DM LITE OUTPUT	Green	A DM Lite link is established.
	Flashing amber	Non-HDCP video is detected.
	Solid amber	HDCP video is detected.

Visit the Product Page

Scan the QR code to visit the product page.

HD-MD421

www.crestron.com/model/6511677

6x1 4K60 4:2:0 AV Multiformat Switcher

⚠ Important Instructions

Important Safety Instructions

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

1. Read these instructions carefully.

2. All cautions and warnings should be followed.

3. The equipment should only be used at maximum 40°C (104°F) ambient temperature.

4. Opening the equipment could result in electrical shock and should only be done by qualified service personnel.

5. Protect equipment from humidity.

6. Do not insert foreign objects or liquids into the openings, this could cause a fire or electrical shock.

7. Do not use chemical detergents to clean your device, use a soft dry cloth.

8. To avoid damage from electrical peaks unplug the device when it is not in use.

9. If one of the following situations arise, equipment has to be checked by qualified service personnel:

   - Liquid has penetrated into the equipment.

   - Equipment has been exposed to humidity.

   - Equipment has been dropped and/or is damaged.

   - Equipment has obvious sign of breakage.

   - Equipment does not work well or you cannot get it working according to user's manual.

10. Do not expose the equipment to water or place objects filled with water on top of it.

⚠ Instructions Importantes

Instructions de sécurité importantes

Les avertissements: concernant l'utilisation de ce produit doivent toujours être fondés sur les précautions fondamentales, notamment:

1. Lisez attentivement ces notes.

2. Tous les avertissements et avertissements doivent être respectés.

3. L'équipement ne peut être utilisé qu'à une température ambiante maximale de 40 °C (104 °F).

4. L'ouverture de l'appareil peut provoquer un choc électrique qui ne peut être assuré que par un personnel d'entretien qualifié.

5. Empêcher l'humidité du dispositif.

6. Il est interdit d'introduire des objets étrangers ou liquides dans l'ouverture, faute de quoi cela pourrait provoquer un incendie ou un choc électrique.

7. Ne pas utiliser d'appareil de nettoyage chimique et utiliser un tissu sec souple.

8. Pour éviter les dommages de crête électrique, retirez la fiche d'alimentation lorsque le dispositif n'est pas utilisé.

9. Dans l'un des cas enoncés ci dessous, le matériel doit être vérifié par un service qualifié:

   - Dispositif d'infiltration de liquide.

   - L'équipement est exposé à l'humidité.

   - Matériel tombé et / ou endommagé.

   - L'équipement a été endommagé.

   - Le matériel ne fonctionne pas correctement ou ne peut pas être utilisé conformément au Manuel de l'utilisateur.

6x1 4K60 4:2:0 AV Multiformat Switcher

10. L'équipement ne doit pas être exposé à l'eau ni être placé sur des objets remplis d'eau.

Additional Information

Original Instructions
The U.S. English version of this document is the original instructions.
All other languages are a translation of the original instructions.

Regulatory Model: M202028002

Crestron product development software is licensed to Crestron dealers and Crestron Service Providers (CSPs) under a limited nonexclusive, nontransferable Software Development Tools License Agreement. Crestron product operating system software is licensed to Crestron dealers, CSPs, and end-users under a separate End-User License Agreement. Both of these Agreements can be found on the Crestron website at www.crestron.com/legal/software_license_agreement.

The product warranty can be found at www.crestron.com/warranty.

The specific patents that cover Crestron products are listed at www.crestron.com/legal/patents.

Certain Crestron products contain open source software. For specific information, visit www.crestron.com/opensource.

Crestron, the Crestron logo, and DM Lite are either trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and/or other countries. HDMI and the HDMI logo are either trademarks or registered trademarks of HDMI Licensing LLC in the United States and/or other countries. Other trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography.

HDMI

©2021 Crestron Electronics, Inc.

Doc. 8892B

02/16/21