Crestron **DMCO Single-Slot Output Card Upgrade Package**

Installation Guide

CRESTRON®

Regulatory Compliance

As of the date of manufacture, the DMC Series has been tested and found to comply with specifications for CE marking.

CE

Federal Communications Commission (FCC) Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Industry Canada (IC) Compliance Statement

CAN ICES-3(B)/NMB-3(B)

The DMC Fiber Series are Class 1 laser products. They comply with safety regulations of IEC 60825-1, FDA 21 CFR 1040 11 and FDA 21 CFR 1040 10.

WARNING: Visible and invisible laser radiation when open. Avoid direct exposure to beam.

NOTE: Plug the included dust cap into the optical transceiver when the fiber optic cable is unplugged.

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

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DMCO Single-Slot Output Card Upgrade Package

Introduction

DMCO multicard output modules occupy the Crestron® DM-MD8X8, DM-MD8X8-RPS, DM-MD16X16, DM-MD16X16-RPS, DM-MD32X32, and DM-MD32X32-RPS DigitalMedia™ switchers. Using the DMCO Single-Slot Output Card Upgrade Package (DMA-DMCO-SINGLE CARD UPGRADE PACK), one or more cards in a DMCO output module can be replaced with one or more DMC single-slot output cards.

NOTE: Throughout the remainder of this manual, all references to the DM-MD8X8, DM-MD16X16, and DM-MD32X32 apply to the RPS models as well as to the standard models.

This document provides installation instructions for the following:

- Replacing a card in a DMCO 2-card output module with a DMC single-slot output card (DM-MD8X8 and DM-MD32X32 only)
- Replacing a card in a DMCO 4-card output module with a DMC single-slot output card (DM-MD16X16 only)

Package Contents

Items supplied with the upgrade package (DMA-DMCO-SINGLE CARD UPGRADE PACK) are as follows:

- One or more DMC single-slot output cards
- One or more single-card faceplates
- Two or more thumb screws (black)
- Two or more hex screws
- One hex wrench
- One ESD wrist strap

NOTE: The quantity of output cards, faceplates, thumb screws, and hex screws that are supplied with the upgrade package varies depending on the physical configuration of the output cards and whether a DMCO 2-card or 4-card output module is to be upgraded.

In addition to the upgrade package, the following items are supplied in a separate package (DMA-DM-MD16X16-DMCO-BRKTS) for the upgrade of a 4-card output module only:

- Four plastic brackets
- Two thumb screws (silver)
- Alcohol wipes

Replacing a Card in a DMCO 2-Card Output Module

DMCO 2-card output modules occupy the card positions above and below the ABG/EIG ports on the rear of DM-MD8X8 and DM-MD32X32 switchers. Each card in a 2-card output module can be replaced with a DMC single-slot output card if desired. If only one of the DMCO cards is replaced with a DMC single-slot output card, the remaining DMCO card can be reinstalled as a single card.

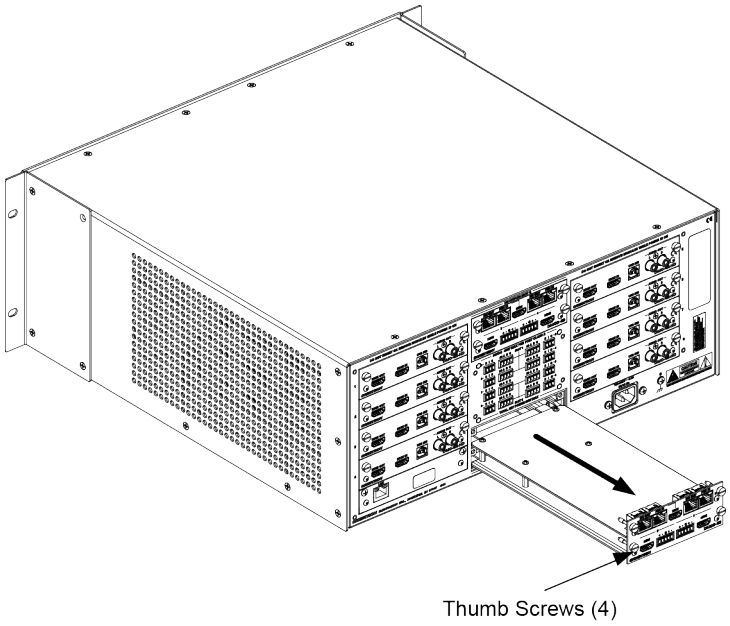
CAUTION: Output cards are susceptible to damage from electrostatic discharge (ESD). Standard ESD precautions must be followed when handling the cards. Always wear the supplied ESD wrist strap connected to ground, and place the cards on grounded surfaces only.

NOTE: Output cards are not hot swappable; therefore, always shut down the DigitalMedia switcher before adding or replacing cards.

To replace a card in a DMCO 2-card output module with a DMC single-slot output card and to reinstall the remaining DMCO card, use the supplied upgrade package and a Phillips head screwdriver (not supplied). Perform the following steps:

1. Disconnect all cables from the 2-card output module being replaced, loosen the four thumb screws that secure the module to the chassis, and then slide the module out of the chassis (refer to the illustration below).

Removal of a 2-Card Output Module from the Chassis



2. For the DMCO card that is to be reinstalled, detach the card from the 2-card output module by doing the following (refer to the illustration on the following page):

   a. Using the supplied hex wrench, detach the 2-card faceplate from the module by removing all of the hex screws.

   NOTE: The number of hex screws that are required to be removed varies depending on the cards that comprise the 2-card output module. In the illustration on the following page, four hex screws (two screws for each card) are shown for illustrative purposes only.

   b. Using a Phillips head screwdriver (not supplied), detach the standoffs that connect the two cards by removing the Phillips head screws.

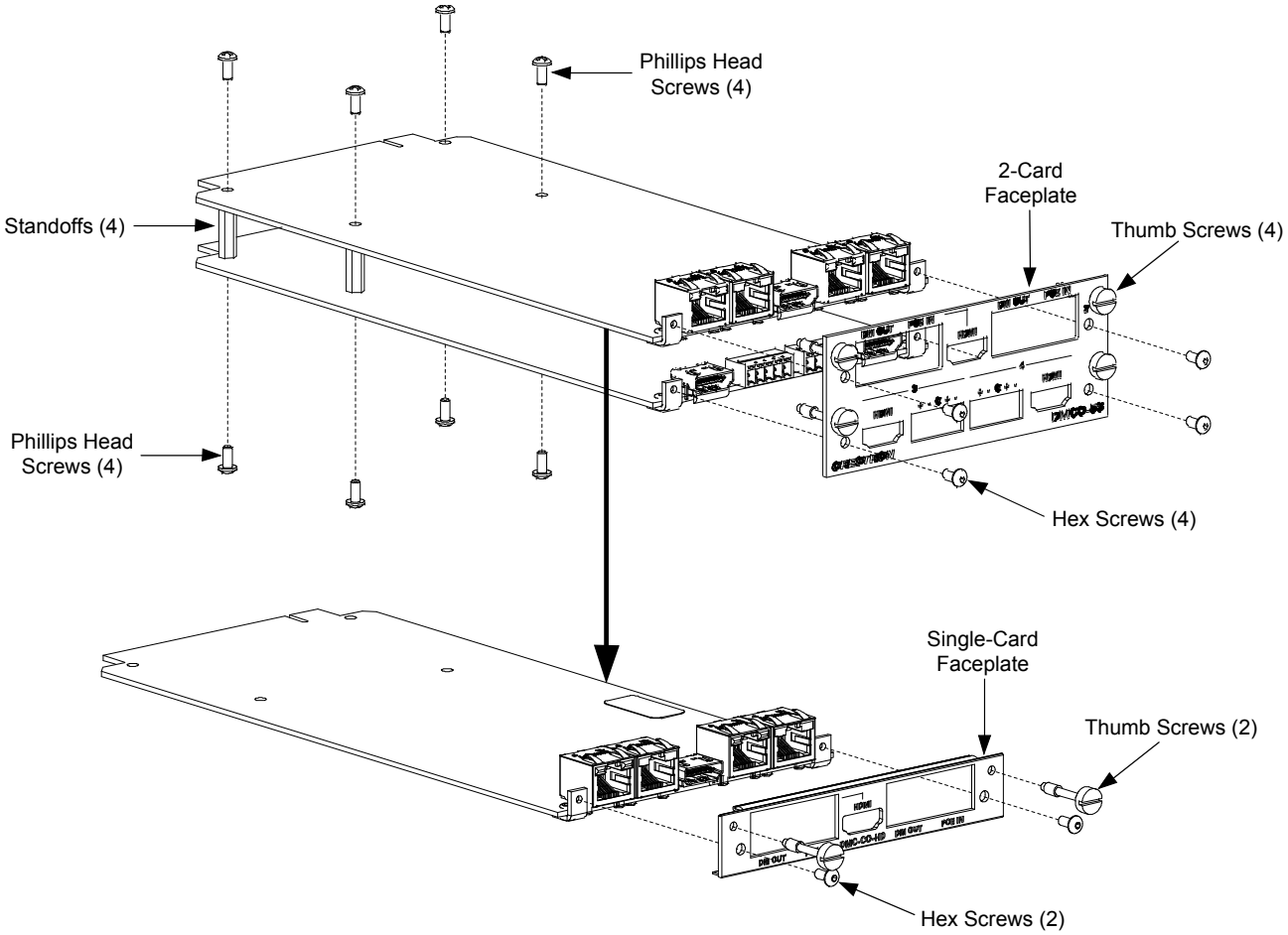
   NOTE: The number of standoffs and Phillips head screws that are required to be removed varies depending on the cards that comprise the 2-card output module. In the illustration on the following page, four standoffs (two standoffs on each side) and eight Phillips head screws (four screws for each card) are shown for illustrative purposes only.

   c. Using the single-card faceplate supplied for the DMCO card to be reinstalled, attach the faceplate to the card using the supplied hex screws and hex wrench.

   NOTE: The number of supplied hex screws varies depending on the DMCO card. In the illustration on the following page, two hex screws are shown for illustrative purposes only.

   d. Insert the two thumb screws supplied for the single-card faceplate into the appropriate holes in the faceplate.

Detachment of a DMCO Card from a 2-Card Output Module and the Attachment of a Single-Card Faceplate



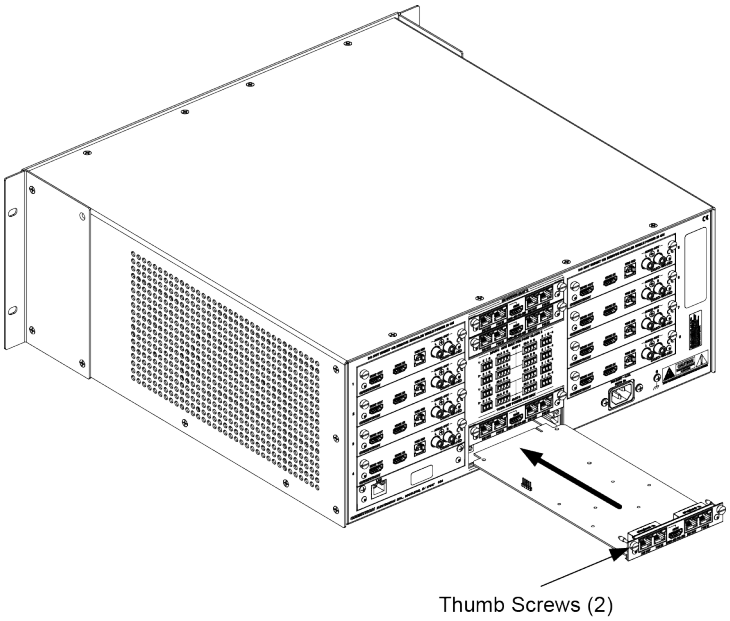
3. Using the card positions vacated in step 1, install each output card by doing the following (refer to the illustration on the following page):

   a. Using caution to avoid damage to the pins on the bottom of the output card, insert the card into the card guides until the card is 1/4 inch (26 mm) from the fully seated position.

   b. Align the two thumb screws of the card with the corresponding holes in the chassis, and then push the card inward until it is fully seated and engages the chassis backplane.

   c. Finger-tighten the two thumb screws to secure the card—do not overtighten the screws.

Output Card Installation



4. Connect the cables to each output card.

Replacing a Card in a DMCO 4-Card Output Module

DMCO 4-card output modules occupy the card positions above and below the ABG/EIG ports on the rear of a DM-MD16X16 switcher. Each card in a 4-card output module can be replaced with a DMC single-slot output card if desired. If fewer than four cards are to be replaced, the remaining DMCO cards can be reinstalled as single cards.

CAUTION: Output cards are susceptible to damage from electrostatic discharge (ESD). Standard ESD precautions must be followed when handling the cards. Always wear the supplied ESD wrist strap connected to ground, and place the cards on grounded surfaces only.

NOTE: Output cards are not hot swappable; therefore, always shut down the DigitalMedia switcher before adding or replacing cards.

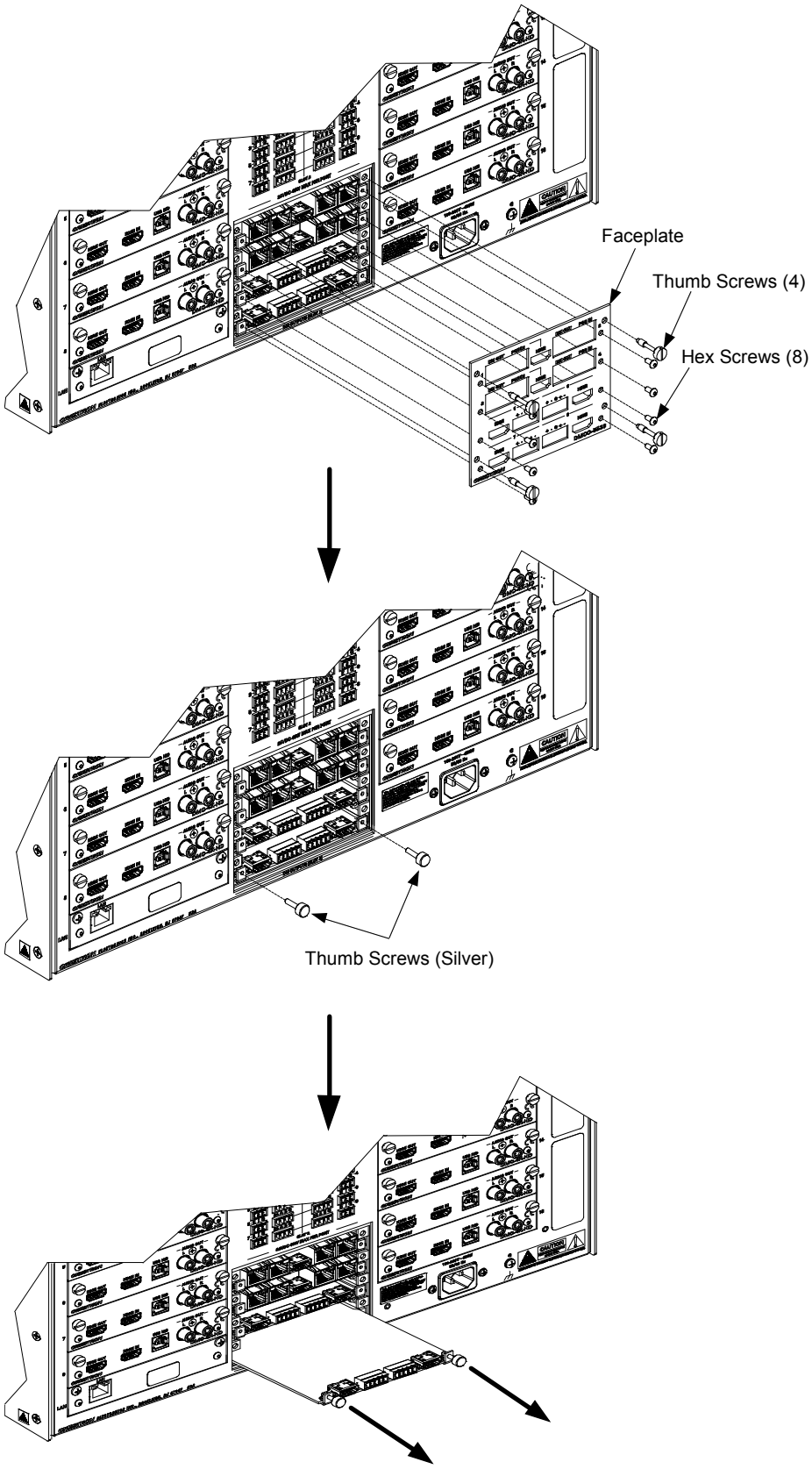
To replace one or more of the cards in a DMCO 4-card output module with the corresponding amount of DMC single-slot output cards and to reinstall one or more of the remaining DMCO cards as desired, use the supplied upgrade package as well as the package containing plastic brackets. Perform the following steps:

1. Remove the 4-card output module from the chassis as follows (refer to the illustration on the following page):
   a. Disconnect all cables from the module being replaced.
   b. Remove the four thumb screws that secure the module to the chassis.
   c. Using the supplied hex wrench, detach the faceplate from the module by removing all of the hex screws.

      NOTE: The number of hex screws that are required to be removed varies depending on the cards that comprise the 4-card output module. In the illustration on the following page, eight hex screws are shown for illustrative purposes only.

   d. Using the two silver thumb screws (supplied with the plastic brackets) for the left and right angle brackets on a card to be removed, thread each thumb screw about 1/4 inch (26 mm) into the angle bracket, and then pull both thumb screws to remove the card from the chassis.
   e. Repeat step 1d to remove each remaining card from the chassis.

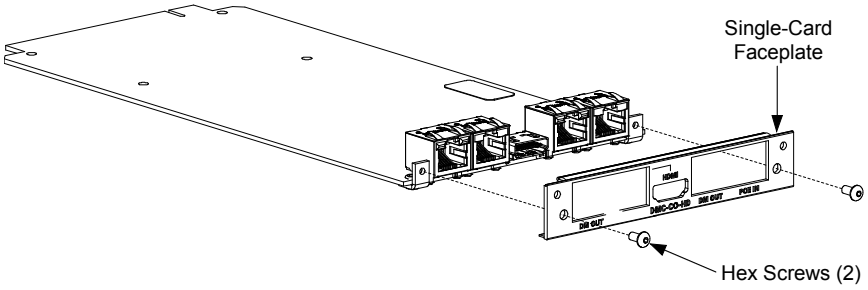
Removal of a 4-Card Output Module from the Chassis



2. Using the single-card faceplate supplied for each DMCO card to be reinstalled, attach the faceplate to the card using the supplied hex screws and hex wrench.

NOTE: The number of hex screws that are required for attachment of the faceplate varies depending on the card. In the illustration below, two hex screws are shown for illustrative purposes only.

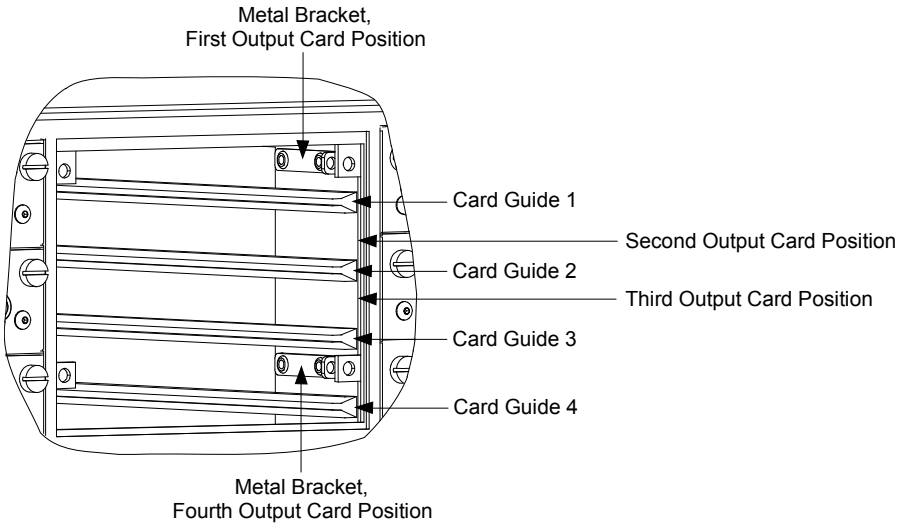
Attachment of a Single-Card Faceplate to a DMCO Card



3. Do either of the following:

   - If the output card cage assembly does *not* contain metal brackets in the second and third output card positions (refer to the illustration below), continue with step 4.
   - If the output card cage assembly *does* contain metal brackets in the second and third output card positions, omit step 4 and continue with step 5.

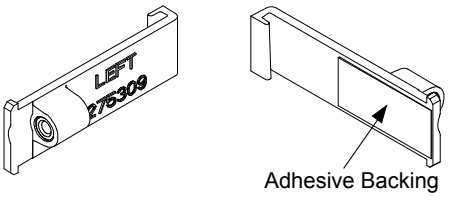
Output Card Cage Assembly, Second and Third Card Positions Shown without Brackets



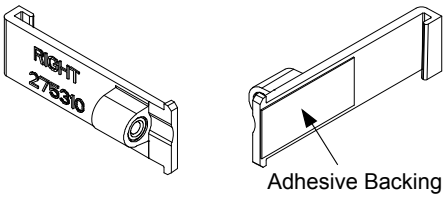
4. *(Second and third output card positions only)* Attach the supplied plastic brackets to the metal plate between card guides 1 and 2 and card guides 2 and 3 as follows:

   a. Locate the two sets of plastic brackets. Each set of brackets is marked **LEFT** and **RIGHT** (refer to the illustrations below).

   Left Bracket, Front and Rear Views Shown

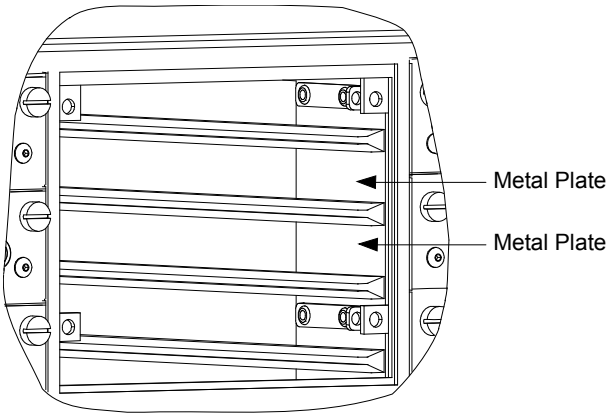
   

   Right Bracket, Front and Rear Views Shown

   b. Using the supplied alcohol wipes, clean the metal plate between card guides 1 and 2 and card guides 2 and 3 on the left and right sides of the card cage assembly.

   Metal Plates, Right Side of Card Cage Assembly Shown

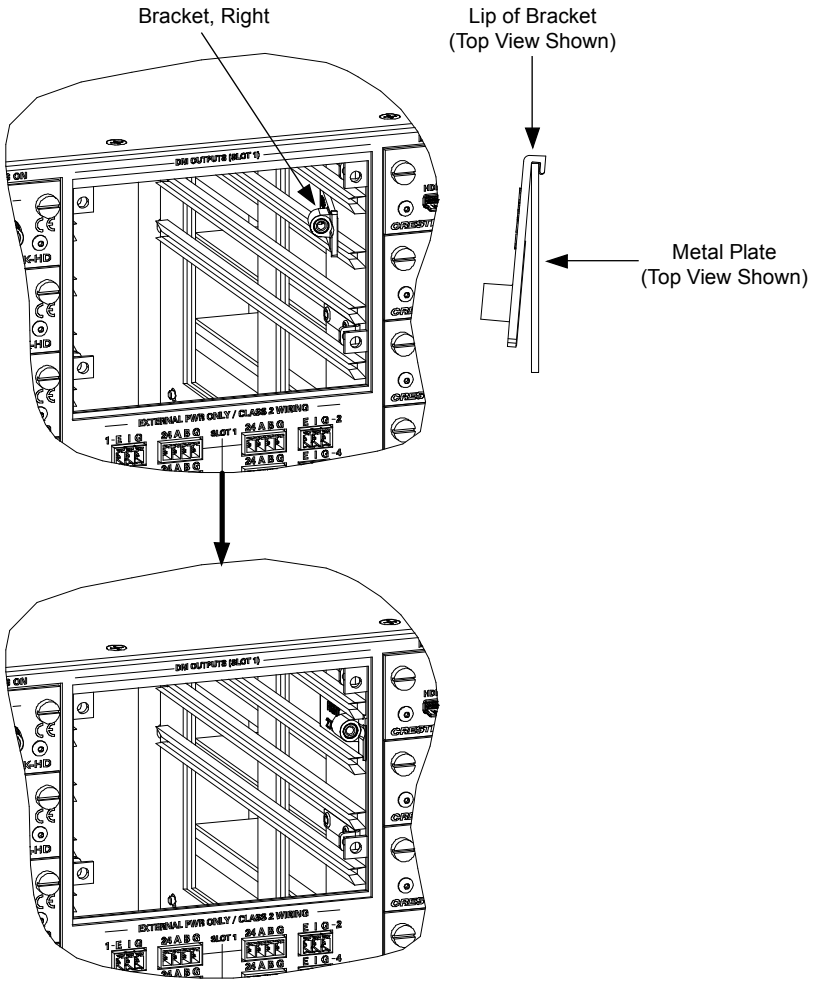
   c. Using a **LEFT** bracket for the left side of the card cage assembly and a **RIGHT** bracket for the right side of the card cage assembly, do the following:

      i. Peel off the adhesive backing.

      ii. Position the lip of the bracket so that it latches onto the rear of the metal plate (refer to the illustration on the following page).

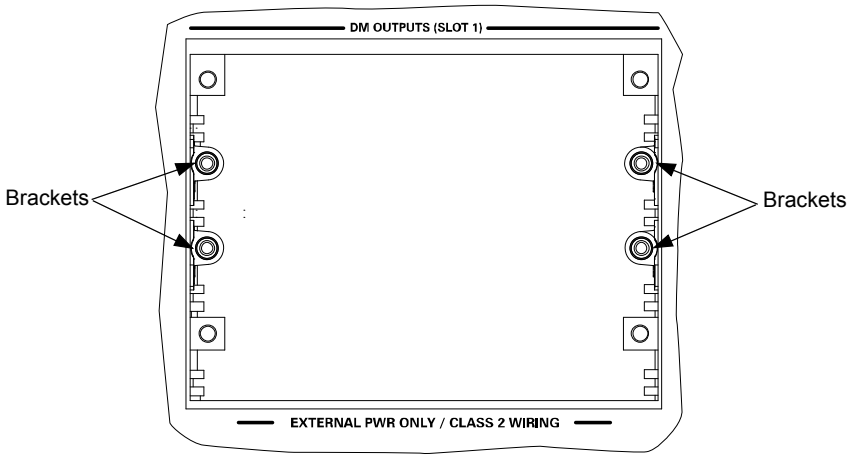
      iii. Press and hold the bracket against the metal plate for about 5 seconds, ensuring that the adhesive adheres to the plate.

Bracket Installation, Right Bracket Shown



Installation of the four brackets appears as shown below.

Bracket Installation, Four Brackets Shown



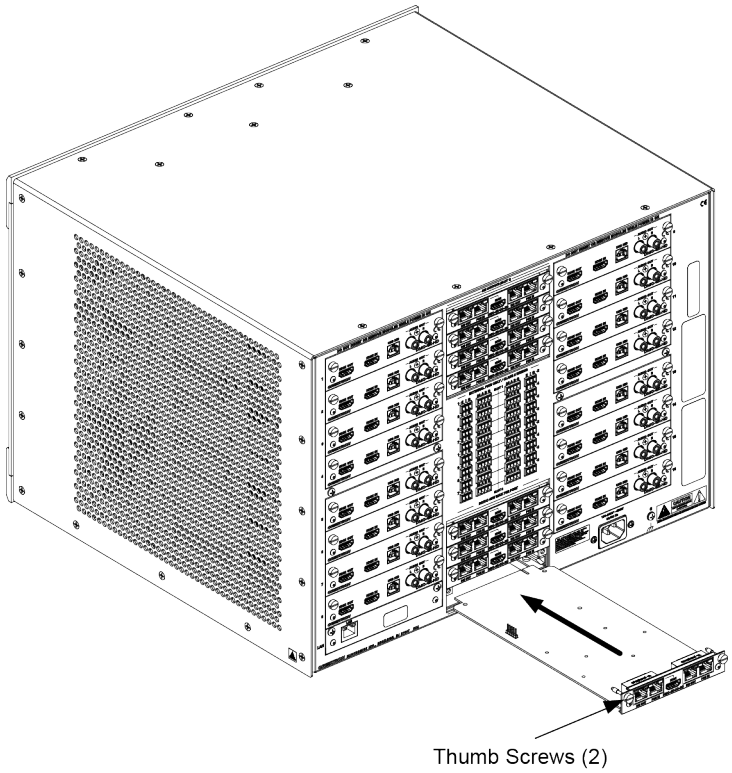
5. Using the card positions vacated in step 1, install each output card by doing the following (refer to the illustration below):

   a. Using caution to avoid damage to the pins on the bottom of the output card, insert the card into the card guides until the card is 1/4 inch (26 mm) from the fully seated position.

   b. Align the two thumb screws of the card with the corresponding holes in the chassis or plastic brackets, and then push the card inward until it is fully seated and engages the chassis backplane.

   c. Finger-tighten the two thumb screws to secure the card—do not overtighten the screws.

   Output Card Installation



6. Connect the cables to each output card.

Further Inquiries

To locate specific information or resolve questions after reviewing this guide, contact Crestron's True Blue Support at 1-888-CRESTRON [1-888-273-7876] or, for assistance within a particular geographic region, refer to the listing of Crestron worldwide offices at www.crestron.com/offices.

To post a question about Crestron products, log onto Crestron's Online Help at www.crestron.com/onlinehelp. First-time users must establish a user account to fully benefit from all available features.

Return and Warranty Policies

Merchandise Returns / Repair Service

1. No merchandise may be returned for credit, exchange or service without prior authorization from Crestron. To obtain warranty service for Crestron products, contact an authorized Crestron dealer. Only authorized Crestron dealers may contact the factory and request an RMA (Return Merchandise Authorization) number. Enclose a note specifying the nature of the problem, name and phone number of contact person, RMA number and return address.
2. Products may be returned for credit, exchange or service with a Crestron Return Merchandise Authorization (RMA) number. Authorized returns must be shipped freight prepaid to Crestron, 6 Volvo Drive, Rockleigh, N.J. or its authorized subsidiaries, with RMA number clearly marked on the outside of all cartons. Shipments arriving freight collect or without an RMA number shall be subject to refusal. Crestron reserves the right in its sole and absolute discretion to charge a 15% restocking fee plus shipping costs on any products returned with an RMA.
3. Return freight charges following repair of items under warranty shall be paid by Crestron, shipping by standard ground carrier. In the event repairs are found to be non-warranty, return freight costs shall be paid by the purchaser.

Crestron Limited Warranty

Crestron Electronics, Inc. warrants its products to be free from manufacturing defects in materials and workmanship under normal use for a period of three (3) years from the date of purchase from Crestron, with the following exceptions: disk drives and any other moving or rotating mechanical parts, pan/tilt heads and power supplies are covered for a period of one (1) year; touch screen display and overlay components are covered for 90 days; batteries and incandescent lamps are not covered.

This warranty extends to products purchased directly from Crestron or an authorized Crestron dealer. Purchasers should inquire of the dealer regarding the nature and extent of the dealer's warranty, if any.

Crestron shall not be liable to honor the terms of this warranty if the product has been used in any application other than that for which it was intended or if it has been subjected to misuse, accidental damage, modification or improper installation procedures. Furthermore, this warranty does not cover any product that has had the serial number altered, defaced or removed.

This warranty shall be the sole and exclusive remedy to the original purchaser. In no event shall Crestron be liable for incidental or consequential damages of any kind (property or economic damages inclusive) arising from the sale or use of this equipment. Crestron is not liable for any claim made by a third party or made by the purchaser for a third party.

Crestron shall, at its option, repair or replace any product found defective, without charge for parts or labor. Repaired or replaced equipment and parts supplied under this warranty shall be covered only by the unexpired portion of the warranty.

Except as expressly set forth in this warranty, Crestron makes no other warranties, expressed or implied, nor authorizes any other party to offer any warranty, including any implied warranties of merchantability or fitness for a particular purpose. Any implied warranties that may be imposed by law are limited to the terms of this limited warranty. This warranty statement supersedes all previous warranties.

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