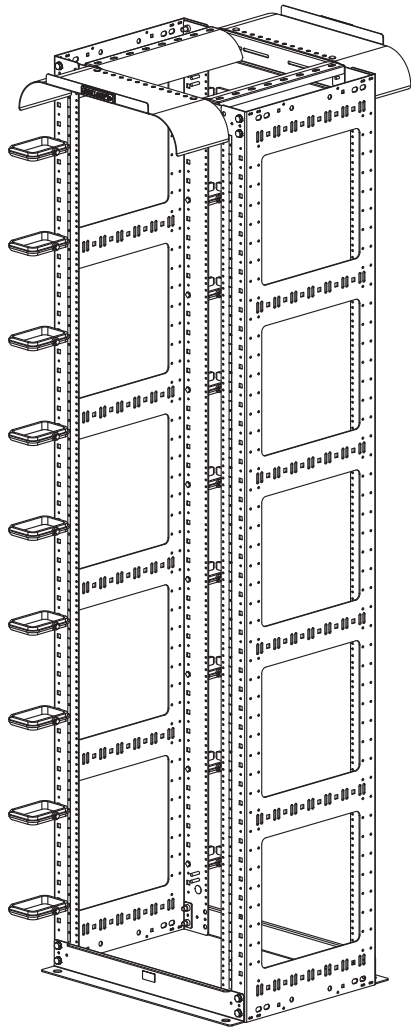


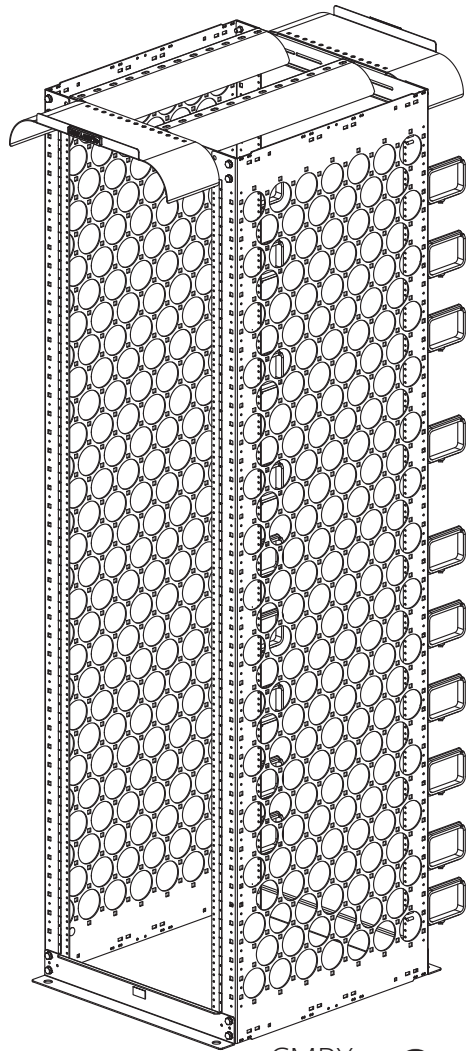
CMR & CMRX

Cable Management Racks

Installation Instructions



CMR  LISTED
UL2416



CMRX  LISTED
UL2416

GreatCabinets.com

1.866.879.4522

PREFACE

This manual is provided to prevent service personnel from committing an act that results in the risk of fire, electric shock, or injury to persons. Only trained service personnel should receive, unpack, and assemble the racks. In addition, only trained service personnel should install equipment in enclosures.

SAFETY SYMBOLS USED IN THIS MANUAL

This manual provides general safety guidelines to be observed during installation, operation, and maintenance of the racks.



WARNING:

Failure to follow directions in the warning could result in injury to persons or loss of life.

BEFORE ASSEMBLY, PLEASE SEE PAGE 9 FOR SAFETY CONSIDERATIONS.

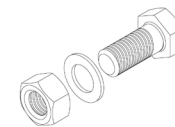
INSTALLATION

RECEIVING, UNPACKING, AND REMOVING THE RACK

Inspect and report damage before receiving. Unpack the rack by carefully removing the corrugated cartons and corners. Avoid damaging the rack when removing packaging.

SERVICE

The CMR/CMRX Racks should be repaired by personnel trained by Great Lakes, or returned to Great Lakes for repair or replacement. Contact Great Lakes Technical Support at 814.734.7303 or at greatcabinets.com



HARDWARE

Racks and accessories ship with hardware to accommodate multiple assembly configurations. Depending on the configuration you are building, you may have additional hardware.

INSTALLATION QUESTIONS?

Call Technical Support at 1-866-879-4522 or email TechSupport@GreatCabinets.com

CMRX AND CMR, CABLE MANAGEMENT RACKS

INSTRUCTIONS APPLY TO THE FOLLOWING GREAT LAKES CABLE MANAGEMENT RACKS

CMRX Racks							
Part No.	RMU	H"	W" (19" EIA)	W" (23" EIA)	Channel Depth"	Overall Depth"	Rail Rating lbs.
CMRX-45U10	45	84	24	28	10.5	14.1	2500
CMRX-45U16	45	84	24	28	16.25	19.85	2500
CMRX-45U24	45	84	24	28	24	27.6	2500
CMRX-45U30	45	84	24	28	30	33.6	2500
CMRX-45U36	45	84	24	28	36	39.6	2500
CMRX-52U10	52	96.25	24	28	10.5	14.1	2500
CMRX-52U16	52	96.25	24	28	16.25	19.85	2500
CMRX-52U24	52	96.25	24	28	24	27.6	2500
CMRX-52U30	52	96.25	24	28	30	33.6	2500
CMRX-52U36	52	96.25	24	28	36	39.6	2500
CMRX-59U10	59	108.5	24	28	10.5	14.1	2500
CMRX-59U16	59	108.5	24	28	16.25	19.85	2500
CMRX-59U24	59	108.5	24	28	24	27.6	2500
CMRX-59U30	59	108.5	24	28	30	33.6	2500
CMRX-59U36	59	108.5	24	28	36	39.6	2500

CMR Racks							
Part No.	RMU	H"	W" (19" EIA)	W" (23" EIA)	Channel Depth"	Overall Depth"	Rail Rating lbs.
CMR-45U6	45	84	24	28	6	12.5	2500
CMR-45U10	45	84	24	28	10.5	17	2500
CMR-45U12	45	84	24	28	12	18.5	2500
CMR-45U16	45	84	24	28	16.25	22.75	2500
CMR-52U6	52	96.25	24	28	6	12.5	2500
CMR-52U10	52	96.25	24	28	10.5	17	2500
CMR-52U12	52	96.25	24	28	12	18.5	2500
CMR-52U16	52	96.25	24	28	16.25	22.75	2500
CMR-59U6	59	108.5	24	28	6	12.5	2500
CMR-59U10	59	108.5	24	28	10.5	17	2500
CMR-59U12	59	108.5	24	28	12	18.5	2500
CMR-59U16	59	108.5	24	28	16.25	22.75	2500

CMRX AND CMR, CABLE MANAGEMENT RACKS

OVERVIEW

Cable Management Racks are designed to securely hold 19" or 23" rack mount equipment, networking equipment, phone equipment, etc.

The CMRX and CMReach include components listed below. All components ship in the same box.

WHAT'S INCLUDED:

COMPONENT	QTY.
Bottom Horizontal Feet	2
Upright Channel	2
Top Width Cross Brace	2
Center Waterfall Bracket, adjustable	2
Front/Rear Top Waterfall Trough	
Rack Assembly Hardware Kit	1
Rack Mounting Hardware	50
CM-26 kit of 10, 1/4 turn 3.5" x 5" plastic "D" rings	2 Kits

SPECIFICATIONS

Specifications of the CMRX and CMR are the same.

Certifications: UL2416 Listed

Construction: Upright Channels, 12 ga. steel; Bottom Horizontal Feet, 11 ga. steel; Top Cross Brace, 14 ga. steel; Center Waterfall Bracket, 16 ga. steel

Finish: Powder Coat

Grounding: Ground Studs located on Upright Channels

Rail Type: #12-24 UNC tapped

Total Max.

Load Capacity: 2500 lbs.

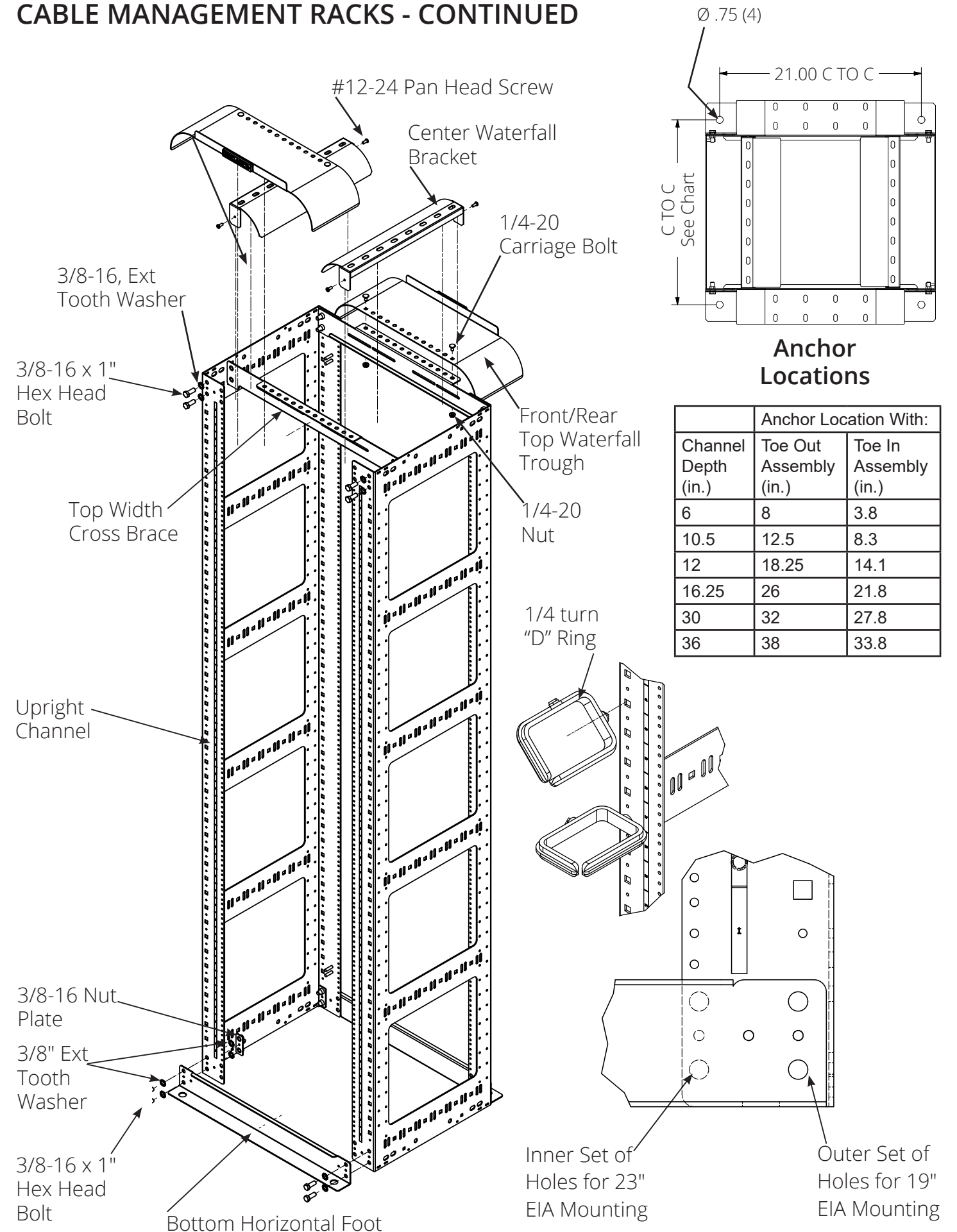
CABLE MANAGEMENT RACKS - CONTINUED

TOOLS: 9/16" socket or wrench, Phillips head screwdriver

ASSEMBLY

- Install top width cross brace and bottom horizontal foot
 - Lay upright channels on rack mount face with open sides of the channel facing each other.
 - Locate thru holes at the top of the channel and align with top width cross brace holes on **inside** of channel. (For 19" mounting, use outer set of holes; for 23" mounting, use inner set of holes). Install with (2) 3/8" hex head bolts, **FINGER TIGHTEN**.
 - Locate thru holes at the bottom of the channel; for toe out configuration mount bottom horizontal foot on outside of channel, for toe in configuration mount on inside. Install (2) 3/8" hex head bolts, (4) 3/8" external tooth lock washers into (1) 3/8" nut plate on each channel. **FINGER TIGHTEN**.
- Stand rack upright. Repeat steps 1.B. & 1.C. for the opposite side of rack.
- Determine the orientation of center waterfall brackets :
 - Orient center waterfall bracket with radius toward **outside** of rack when : cables run on the **inside** of channel and exit the top of the rack **without** Ladder Rack Brackets (4PLRBV48)
 - Orient center waterfall bracket with radius toward **center** of rack when : cables and bundles run **outside** of the channel or when using Ladder Rack Brackets (4PLRBV48)
- Install center waterfall bracket on inside of rack fastened with (1) #12-24 screw through both front and rear horizontal slots on top cross brace. Install second center waterfall bracket in the same way.
- Final tightening
Rack is self-squaring: Ensure pins in horizontal top and bottom members align with thru hole slots in vertical uprights. Tighten all bolts using a 9/16" socket or wrench (24 ft-lb torque is recommended).
- Slide center waterfall brackets to desired locations and tighten with screwdriver.
- Install front and rear top waterfall trough with 1/4-20 Carriage bolts and 7/16" socket or wrench. Round dome should be on top.
- Installing CM-23 & CM-24 1/4 turn "D" Rings
 - Racks come with (2) kits of (10) CM-24 1/4 turn "D" rings. On each 1/4 turn "D" ring there are (2) square protrusions. Insert either square (depending on your desired orientation) into the any 3/8" square receiving hole on the rack and turn the 1/4 turn "D" ring 45° to lock into place. This rack also accepts Optional CM-23 1.5" x 3.5" 1/4 turn "D" rings and install in the same fashion.
 - Slide center waterfall brackets to desired locations and tighten with screwdriver.
- Racks come with (2) kits of (10) CM-24 1/4 turn "D" rings. On each 1/4 turn "D" ring there are (2) square protrusions. Insert either square (depending on your desired orientation) into the any 3/8" square receiving hole on the rack and turn the 1/4 turn "D" ring 45° to lock into place. This rack also accepts Optional CM-23 1.5" x 3.5" 1/4 turn "D" rings and install in the same fashion.
- When mounting to a cement floor, recommended mounting hardware is Great Lakes Seismic Anchor Kit (AK101). For other floor construction, the installer must provide appropriate hardware.

CABLE MANAGEMENT RACKS - CONTINUED



POWER AND GROUNDING OF ALL RACKS

When using PDUs, each PDU should be connected to a committed branch circuit that is rated for the continuous load of all the equipment connected. When not using a PDU, each piece of equipment should be connected to a dedicated branch circuit.

PROTECTIVE EARTHING/GROUNDING

A main protective earthing stud is provided.



WARNING:

To avoid injury to persons or loss of life, ground rack individually to the dedicated branch circuit earthing ground.

CONNECTING MAIN PROTECTIVE EARTHING STUD TO THE DEDICATED BRANCH CIRCUIT EARTHING GROUND CONDUCTOR

Connect the dedicated branch circuit earthing ground conductor to the main protective earthing stud located on the support frame using a listed ring or closed-loop terminal.

PARTS NOT BONDED TO PROTECTIVE EARTHING TERMINAL

The following parts are not effectively bonded to the protective earthing terminal: Center Waterfall Bracket on the CMR Racks. If these parts need to be bonded to the protective earthing terminal, do so in accordance with Article 250 of the National Electric Code.

Although equipment may physically fit into a Great Lakes rack, with or without brackets, customers must also review and comply with the equipment manufacturer's installation and other requirements. For more information, please contact your Great Lakes representative or call 1-866-879-4522.

When any equipment or accessory is installed in a Great Lakes product, the installation procedures, recommendations and product warranty requirements of the equipment manufacturer must be followed. Great Lakes will not be responsible for any losses or claims arising from a customer's installation of electrical, electronic or other third party products in any Great Lakes racks, unless caused solely by a written configuration prepared by Great Lakes for that customer or by a configuration provided by Great Lakes' website, any configuration relies on complete and accurate information from the customer.

Product specifications are subject to change without prior notice.

SAFETY CONSIDERATIONS



WARNING: Improper handling and use of the racks could result in equipment damage, serious injury, or possible death.

Only trained service personnel should be used to remove the enclosure from the pallet. Also, be sure you have a sufficient number of service personnel. Do not attempt to move enclosures by yourself.

LOADING EQUIPMENT



WARNING: Only install equipment after the CMR/CMRX Racks have been properly secured. Do not move the rack assembly while loaded. To maintain a uniform distribution of the mechanical load in the rack, load the heaviest equipment first, at the bottom of the rack and load the lighter units at the top.

Only UL® Listed ITE (Information Technology Equipment) units should be installed inside the rack.

Be sure to read and follow all individual manufacturer equipment manuals for safety and installation instructions.

Proper spacing is required when installing electrical equipment to avoid electrical shock. Maintain minimum spacing between the accessories and components and the computer enclosure assembly for safe operation of the equipment when installed in accordance with the National Electric Code ANSI/NFPA 70-1999.

The ambient temperature operating range for the racks and accessories is +50 to +95° F (+10 to +35° C). The non-operating temperature is -4 to +140° F (-20 to +60° C).



Thank you
for your
business!



ETSI Associate Member

FORM: #MS-5.02-63 Rev. 0