

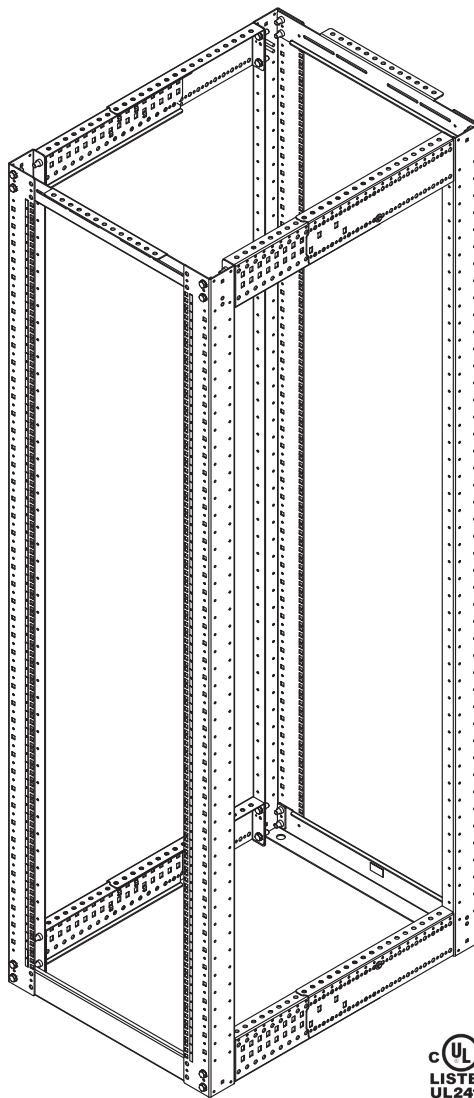


GREAT LAKES
DATA RACKS & CABINETS

VRX

Variable Depth Racks

Installation Instructions



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.

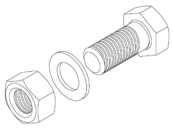
INSTALLATION

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 VRX Rack 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

VRX, VARIABLE DEPTH RACKS

INSTRUCTIONS APPLY TO THE FOLLOWING GREAT LAKES VARIABLE DEPTH RACKS

Part No.	RMU	H"	W" (19" EIA)	W" (23" EIA)	Channel Depth"	Overall Depth"	Rail Rating lbs.
VRX-45U-2436	45	84	24	28	24-36	27.6-39.6	2500
VRX-52U-2436	52	96.25	24	28	24-36	27.6-39.6	2500
VRX-59U-2436	59	108.5	24	28	24-36	27.6-39.6	2500

For rack with #12-24 mounting, add "-1224" to end of part number.

For rack with 3/8" sq. (M6) mounting, add "-SQM6" to end of part number.

WHAT'S INCLUDED:

COMPONENT	QTY.	COMPONENT	QTY.
Vertical Uprights (2 left/2 right)	4	Rack Assembly Hardware Kit	1
Rack Mounting Hardware	50	Rear Cross Members	4
Top Width Brackets	2	Front Extension Bars	4
Bottom Width Brackets	2		

SPECIFICATIONS

Certifications: UL2416 Listed

Construction: Vertical Uprights, 12 ga. steel; Cross Members, 14 ga. steel; Extension Bars, 12 ga. steel; Bottom Width Brackets, 12 ga. steel; Top Width Brackets, 14 ga. steel

Finish: Steel - Black or Winter White Powder Coat

Grounding: Ground Studs located on Vertical Uprights

Rail Type: #12-24 UNC tapped or 3/8" sq. (M6) (rail type designated by rack part number)

Total Max.

Load Capacity: 2500 lbs.

DETERMINE RACK DEPTH

When assembled, cross members and extension bars create the variable depth brackets. Use

DIAGRAM A to determine the desired rack depth.

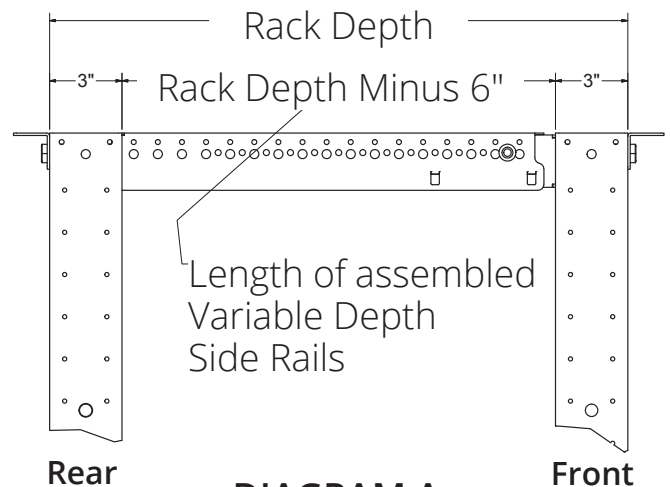
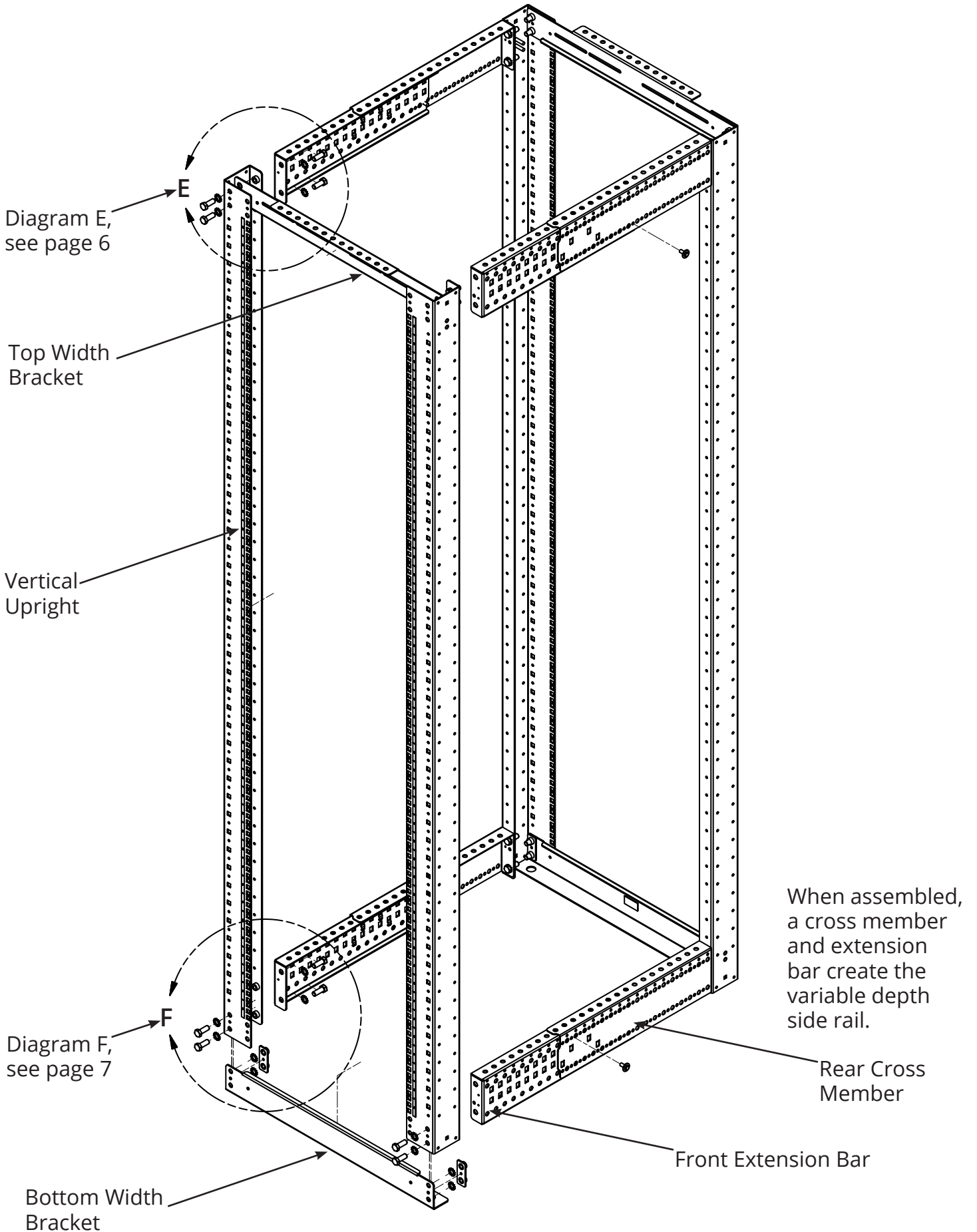


DIAGRAM A

DIAGRAM B

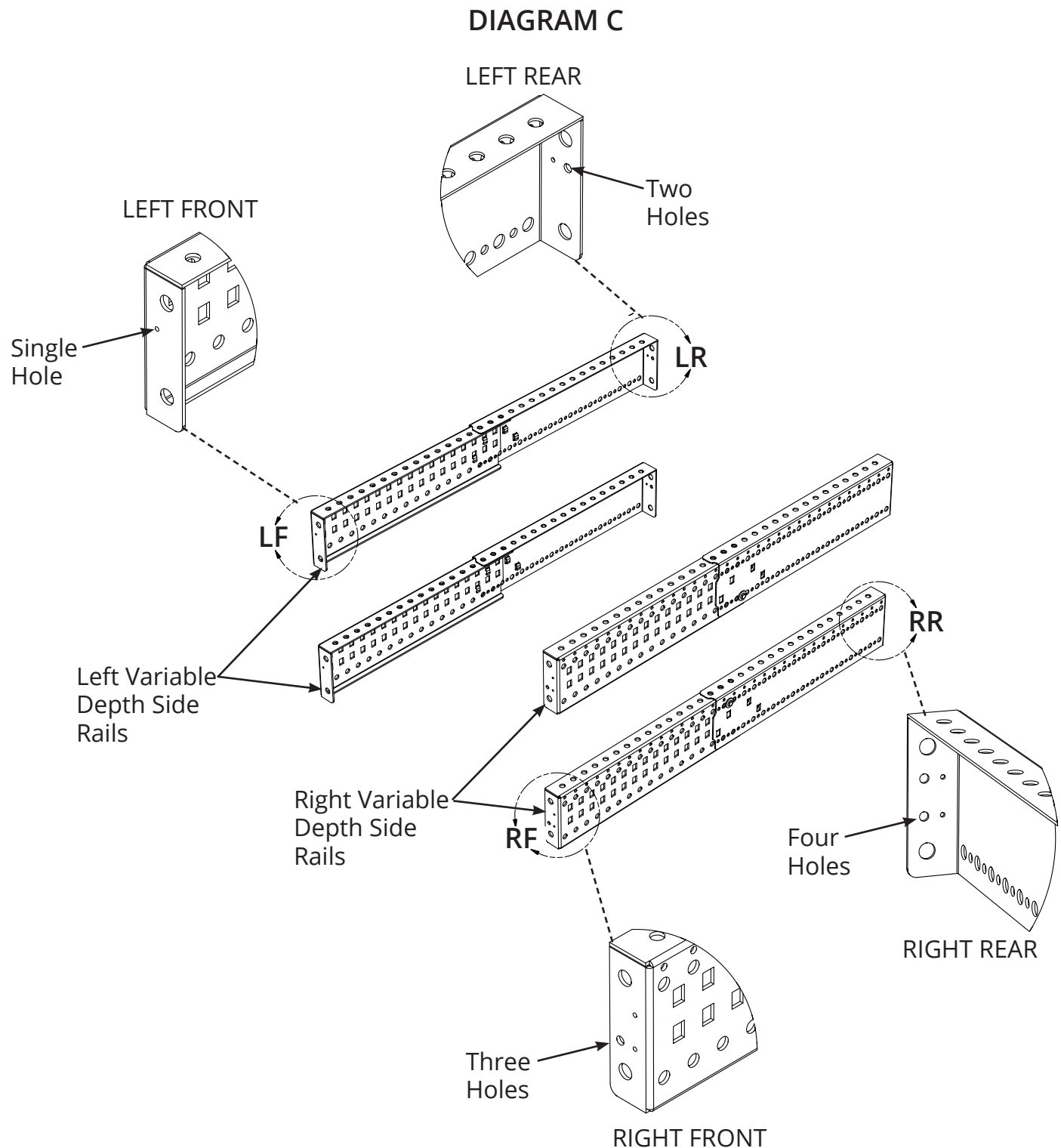


TOOLS - 3/4" socket and 3/4" wrench

Assembly

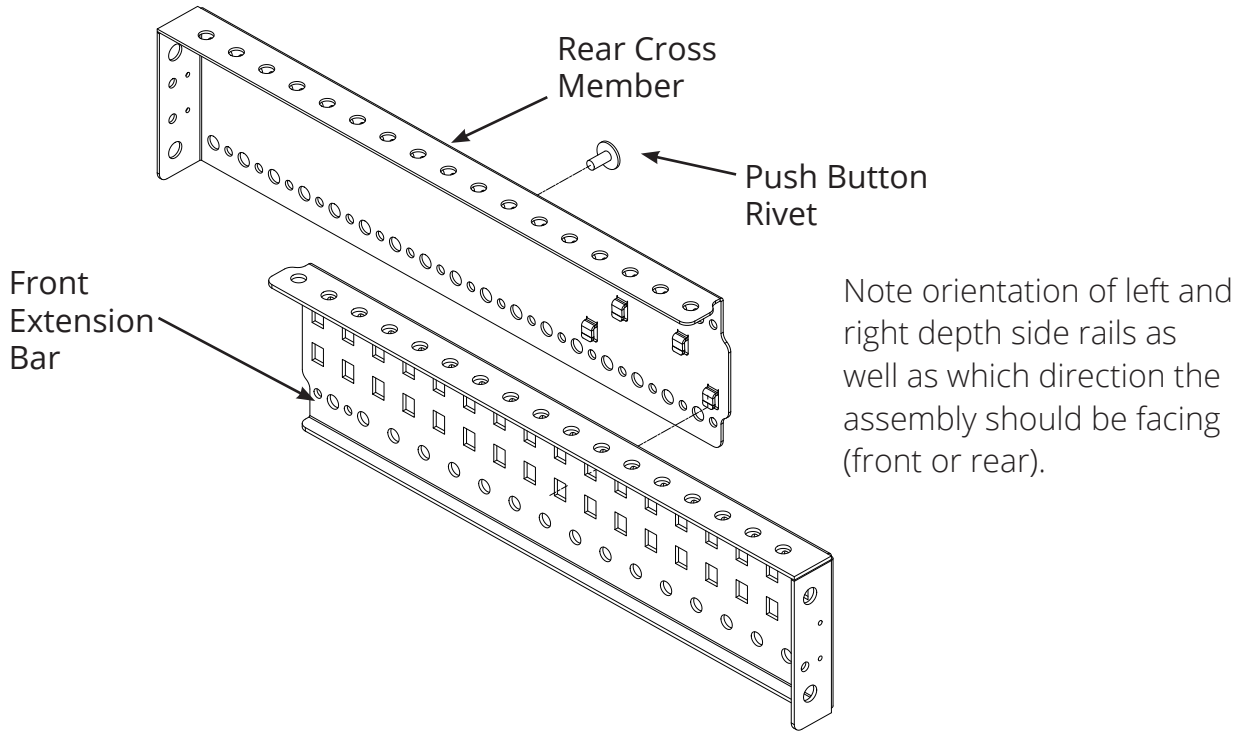
1. The variable depth side rails are assembled by firmly snapping a front extension bar into the hooks of a rear cross member. (See **DIAGRAM D**, sheet 6/7)

Side rails are same top and bottom. Side rails are specific to the left and right side of the rack. Refer to **DIAGRAM C** and hole patterns indicated on each depth member to be sure side rails are oriented properly. Note, indicator holes are reference only & not used for assembly.



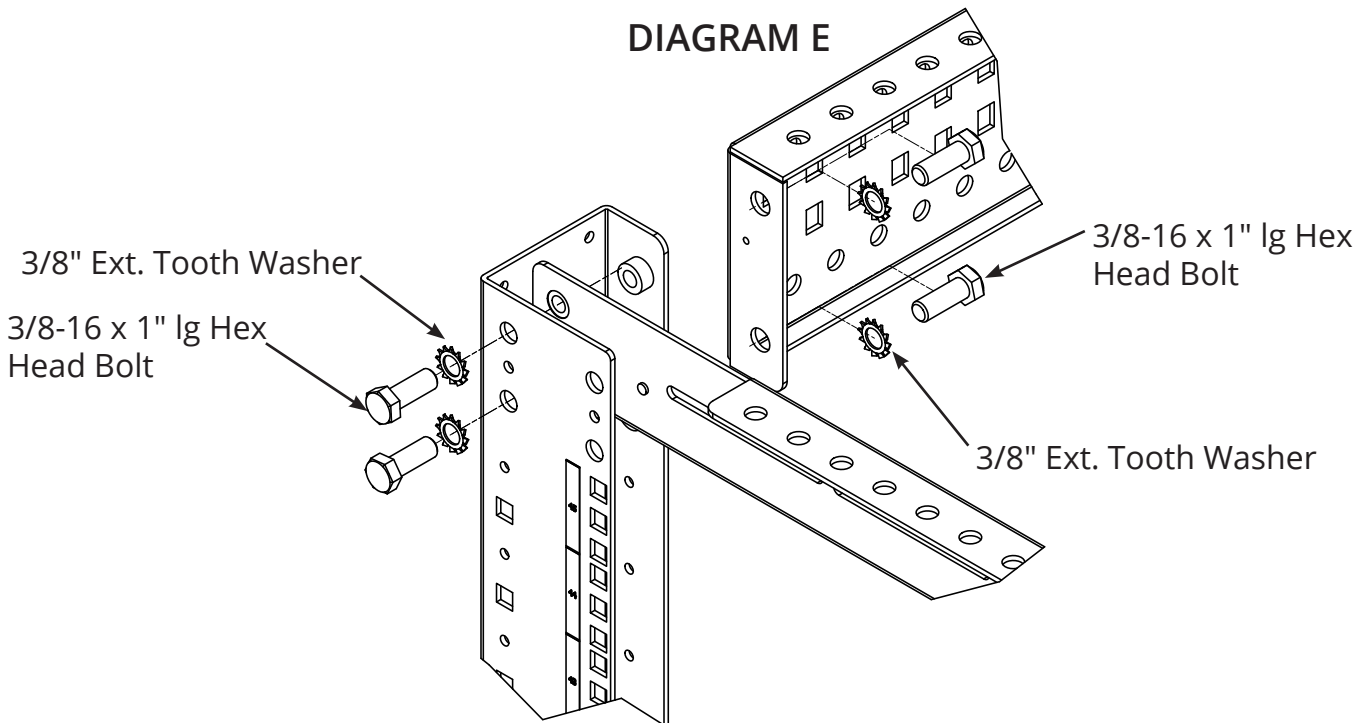
STEP 1 CONTINUED To assemble a cross member and extension bar, determine the desired rack depth. Insert the small square tab of the rear member cross piece into the correct square hole on the extension bar. Push down on the cross member so that the tab is inserted firmly into the extension bar hole. Install push button rivet on any side hole as shown in **DIAGRAM D**. Once the cross members and extension bars have been assembled, the variable depth side rails can be mounted to the uprights (see **DIAGRAM E & F**).

DIAGRAM D



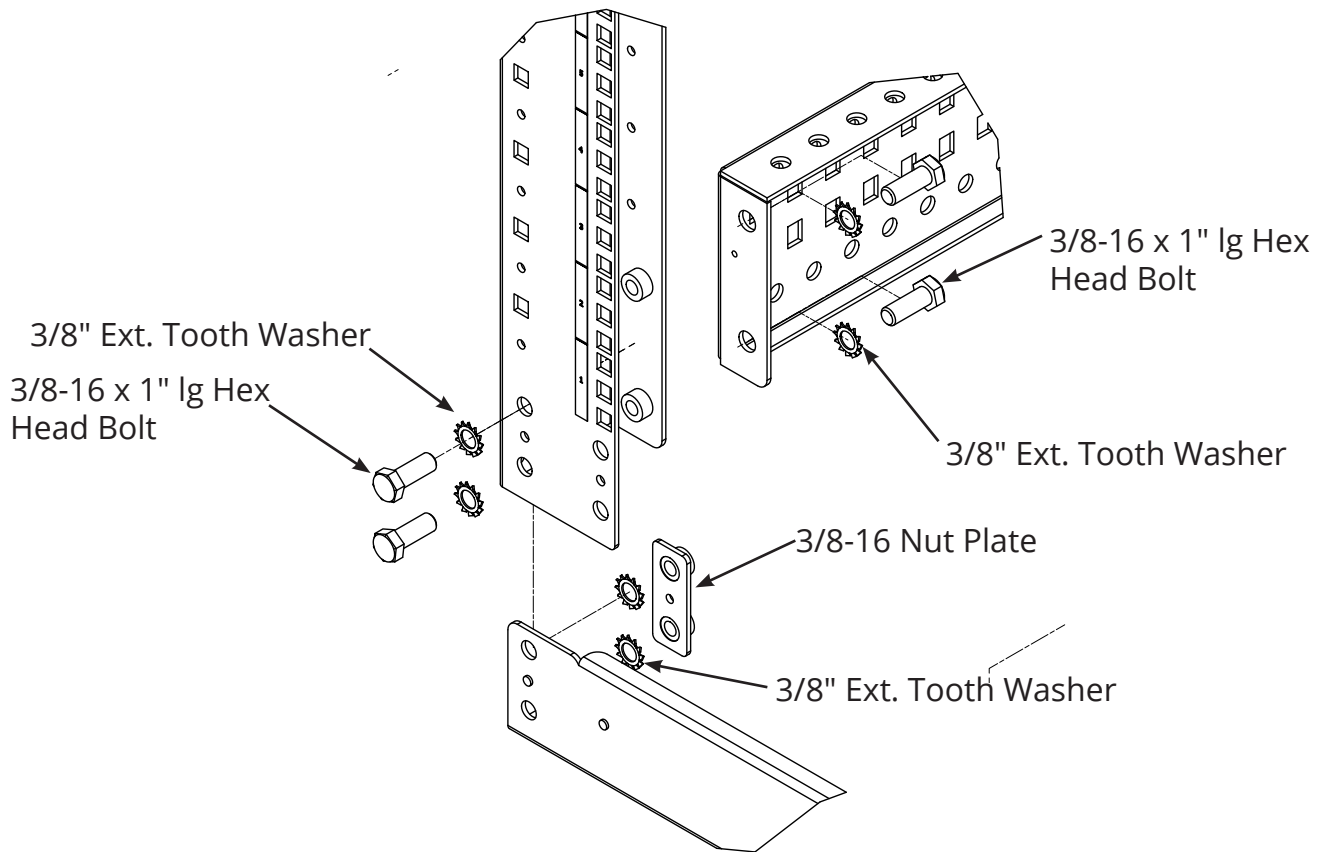
2. Assemble top width brackets to vertical uprights. **DO NOT TIGHTEN!**

DIAGRAM E



3. Assemble bottom width brackets to vertical uprights.

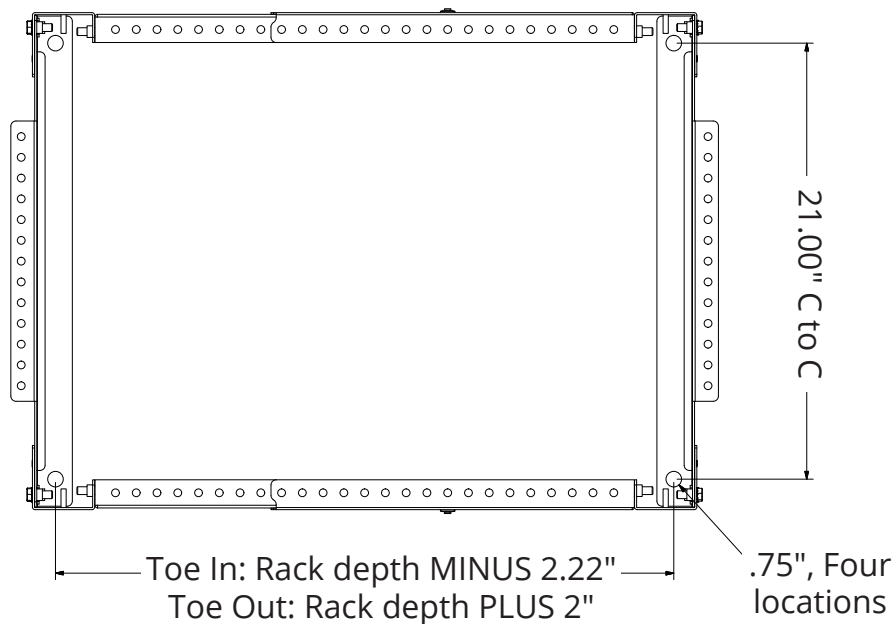
DIAGRAM F



4. Use appropriate tool and tighten all hardware (54 ft-lb torque is recommended).

5. When mounting to a cement floor, recommended mounting hardware is Great Lakes Seismic Anchor Kit (AK10). For other floor construction, the installer must provide all appropriate hardware.

DIAGRAM G



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: Top and Bottom Inside Extension Bars - and Top and Bottom Outside Cross Members on the VD4PM6-2436, VD4P1224-2436 and VD4PHD-2436 Racks and the Center Waterfall Bracket on the CMR-45U and CMR-45U16. 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-TRY-GLCC.

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 ER Rack has been properly secured. Do not move the ER Rack assembly while loaded. To maintain a uniform distribution of the mechanical load in the ER Rack, load the heaviest equipment first, at the bottom of the ER 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-5.02-64 Rev. 4