

**Installation Guide** 



### Safety and Warning



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

- Improper use of this product may lead to serious injury. Read and understand all instructions for proper installation and use of this product.
- Wear proper safety equipment to prevent injuries.
- Do not attempt to unload or move the cabinets by yourself. Make sure to have sufficient amount of personnel and equipment to safely move this product.
- Take caution when moving the cabinets with casters. There is a possibility of tilting. Always move cabinet over smooth floor surfaces and short distance only. Cabinet should only be moved by pushing on the front or rear of the cabinet. **Do not** push from the side.
- Cabinet casters are not intended to support the cabinet loads for extended periods of time. Always use levelers to stabilize the cabinet after positioning.
- Adjust the leveling feet to level and stabilize the cabinet before loading equipment in the cabinet.
- Load heavy equipment at the bottom of the cabinets first. To maintain cabinet stability, load 1/2 of the total equipment weight in the bottom 1/3 of the cabinet. Do not exceed maximum load capacity. Load capacity information is in Product Features section.
- Ensure that the floor has a structural load capacity that will support the weight of the cabinet loaded with equipment.
- Some parts of the racking system may not be effectively bonded to the Protective Earth Terminal (PET). If these parts need to be bonded to the PET it should be done in accordance with Article 250 of the National Electrical Code.
- Cabinet is intended for use in ambient temperatures of 0°C to 60°C.
- Minimum spacing between equipment and the cabinet shall be maintained in accordance with the National Electric Code, ANSI/NFPA 70.



### Contents

| Product Features                             | 3  |
|--|----|
| Components of GX Series                      | 4  |
| Hardware and Tools                           | 5  |
| Unpacking and Handling                       | 6  |
| Setting up the Cabinet                       |    |
| Grounding and Bonding                        | 7  |
| Leveling                                     | 8  |
| Anchoring                                    | 9  |
| Adjusting Vertical Mounting Rail             | 10 |
| Front and Rear Door: Removing and Installing | 11 |
| Side Panel: Removing and Installing          | 12 |
| Top panel: Removing and Installing           | 13 |
| Ganging the Cabinets                         | 14 |

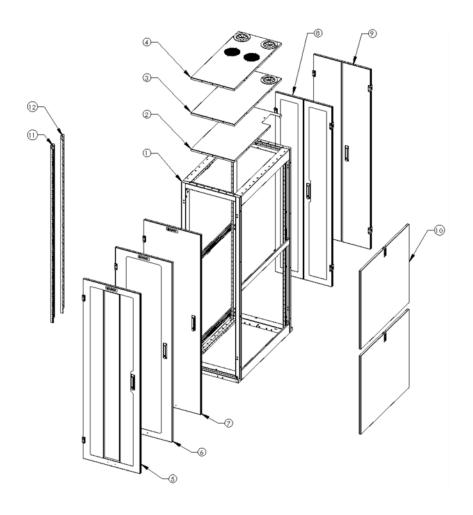


### **Product Features**

- Cabinet Rack Space and Overall Heights:
  - 24U (46.45")
  - 42U (77.95")
  - 45U (83.20")
  - 48U (88.45")
- Cabinet Widths: 24", 29.5", and 31.5"
- Cabinet Depths: 36", 42", and 48"
- Front Door: Full Width Left or Right Handed or Split
- Rear Door: Full Width Left or Right Handed or Split
- Side Panel: Lockable, 2 panels on each side
- Vertical Mounting Rails:
  - EIA patterned 0.375" square holes
  - EIA patterned #12-24 threaded holes
- Load ratings:
  - 3,000 lbs. static weight
  - 2,250 lbs. with casters
  - UL Rating: 1,500 lbs. (using 4X load factor tested to 6,000 lbs.)
- Colors: Black and White



# Components of GX Series



- 1. Frame
- 2. Top Panel, H Cable Entry
- 3. Top Panel, 2 Cable Ports
- 4. Top Panel, Vented with Cable Ports
- 5. Door, Mesh
- 6. Door, Plexiglass

- 7. Door, Solid
- 8. Split Door, Mesh
- 9. Split Door, Solid
- 10. Side Panels
- 11. Mounting Rail, 0.375" Sq. Holes
- 12. Mounting Rails, #12-24 Tapped



### Hardware and Tools

#### **Included Hardware**

- Door Keys (when equipped with optional doors)
- Side Panel Keys (when equipped with optional side panels)
- Cage Nuts and Screws (pre-configured cabinets, ordered separately on configured to order cabinets)
- Anchor Brackets and Bolts

#### **Required Tools and Hardware**

#### Unpacking

- Utility Knife
- 3/8" Drive Socket or Open End Hand Wrench
- Socket Wrench or Power Drill/Screwdriver

#### Cabinet Installation and Setup

- Screw Driver(s) Flat and Phillips
- 3/8" Drive Socket or Open End Hand Wrench
- Socket Wrench or Power Drill/Screwdriver
- 1/2" Open End Hand Wrench
- Level
- Tape Measure
- Step Ladder
- Anchor Hardware floor (NOT SUPPLIED)
- Grounding Terminal (NOT SUPPLIED)



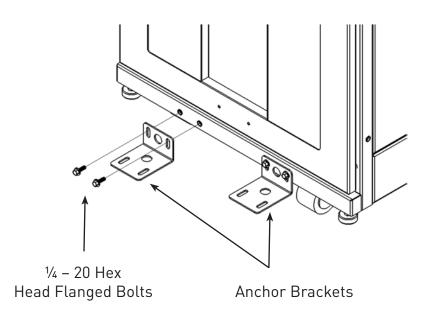
### Unpacking and Handling

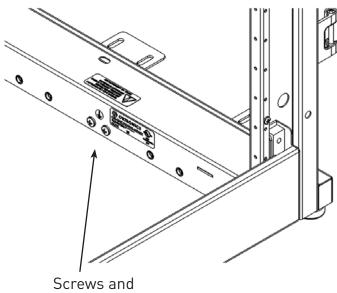
### **Tools Required**

- Utility Knife
- 3/8 Drive Socket
- Socket Wrench or Power Drill/Screwdriver

### **Unpacking**

- Using the utility knife, carefully cut and remove the plastic wrap surrounding the cabinet.
- Remove the four corner protectors and other honeycomb material.
- Inspect the cabinet and inside the cabinets to insure all frame and accessory parts are securely fastened. Remove any items that were shipped inside the cabinets that are not installed on the frame.
- Remove the shipping brackets anchoring the cabinet to the pallet. Do not discard the brackets. They will be needed to the anchor the cabinets to the floor.
- Remove the cabinet from the pallet.





Threaded Holes for bonding conductor

#### **Grounding and Bonding**

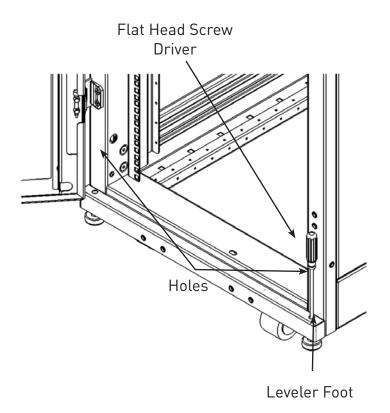
NOTE: Proper installation of an equipment grounding terminal must be made and the cabinet must be grounded in accordance with the National Electric Code. ANSI/ NFPA 70

- 1. Locate two 1/4-20 threaded holes or 1/4-20 screws inside the bottom front or rear of the cabinet. These are marked with the ground symbol  $\frac{1}{2}$ .
- 2. Secure the ground terminal block or lug (not included) to the rack using the 1/4-20 screws.
- 3. Attach the main earth conductor to the terminal block or lug. Make sure the bonding conductors are properly crimped to the block or lug. The ground connector size must be in accordance with Article 250 of the National Electric Code.



The following parts are not effectively bonded to the protective earth terminal: Rack rails, shelves, baffle, blanking panels, cable managers. If these parts need to be bonded to the protective earth terminal it shall be done in accordance with Article 250 of the National Electrical Code.





#### Leveling

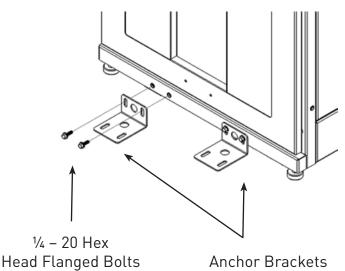
Tools: Flat Head Screw Driver or 1/2" Open-end hand wrench (for small leveler)

- 1. Move the cabinet to desired location. Use as many people as required to safely move the cabinet.
- 2. Open the cabinet door(s). Locate the holes by the bottom corners of the cabinet. A slotted, threaded bolt will be visible through these holes.
- 3. Insert a flat head screw driver into the holes
- 4. Turn the screw driver clockwise to raise the cabinet. Turn the screw driver counter-clockwise to lower the cabinet. All four leveling feet must be in firm contact with the floor.
- 5. Check if the cabinet is level and that it does not 'rock' back and forth.
- 6. Check if the cabinet is at same height as to any adjacent cabinets. Make adjustment(s) if necessary.

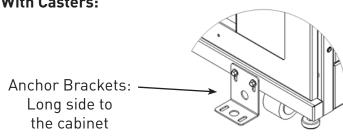
NOTE: 1/2" Open-end hand wrench can be used to adjust the small (1 1/2") leveler.

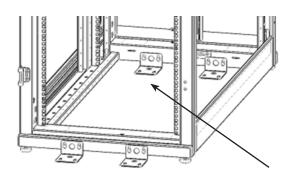


#### Without Casters:



#### With Casters:





#### **Anchoring**

(Optional) Anchor the cabinets to the floor after it has been placed in the desired location and is level. The hardware to anchor the cabinet to the floor is not supplied. Use proper anchors for the type of floor where installed.

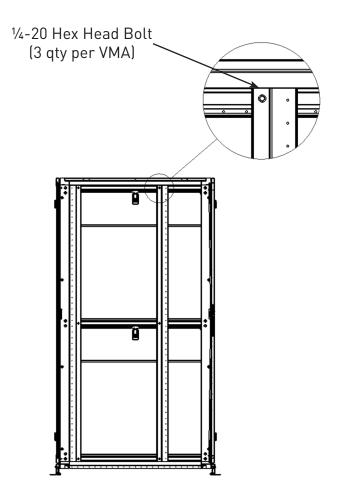
Tools: 3/8 Drive Socket, Socket Wrench, and Level.

- 1. Attach the anchor brackets to the cabinet, in both the front and the rear, using the supplied Hex Head Flanged Bolts. NOTE: The brackets must be near or touching the floor.
- 2. Before fastening brackets to the floor, make sure that the front and rear doors can open and close. Make adjustments to the brackets as necessary so that all doors open and close.
- 3. Using a level check that the cabinet is plumb. Make adjustments to levelers as necessary.

Optional Method: Anchor brackets can be mounted inside the cabinet. See illustration on the left.

**Anchor Brackets** 





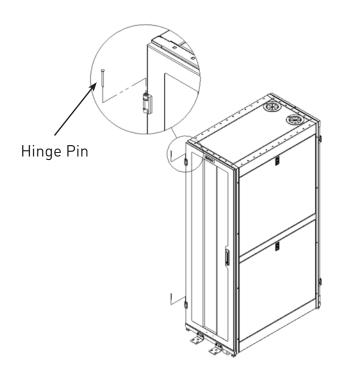
#### **Adjusting Vertical Mounting Rail**

NOTE: Adjustment to the mounting rail location should only be made when there is no equipment mounted to the rails.

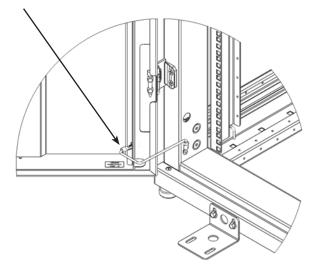
Tools: 3/8 Drive Socket, Socket Wrench, Tape Measure.

- Loosen the 1/4-20 hex head bolts securing the VMA to the unistrut being careful not to completely remove the bolts. Do not remove the bolts. There are 3 bolts per mounting rail.
- 2. Once all 3 bolts have been loosened, using a tape measure, move the mounting rails to the desired location, and fasten the 3 bolts.

NOTE: On some cabinet models, the mounting rails may have a spacer bracket. Follow the instructions above to loosen the bolts and change the VMA location. Please ensure that the VMA is positioned such that it mirrors the mounting rails on the opposite side.



### **Bonding Conductor**



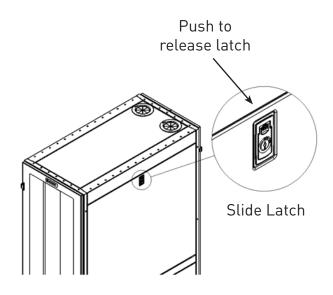
### Front and Rear Doors: Removing and Installing

- 1. All door hinges have a pin to secure the door to the cabinet. The doors can be detached from the cabinet by removing the hinge pin.
- 2. Open the doors to disconnect the bonding conductor located at the bottom of the doors. The quick disconnect can slide off the door side so no tools are required.
- 3. While the door is open, lift and remove the hinge pins from all hinges.
- 4. Pull the door away from the cabinet.

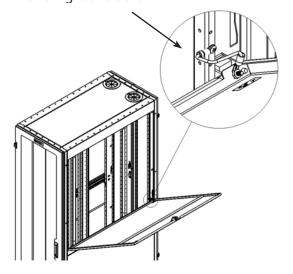
NOTE: To avoid losing pins, replace pins in hinges for future use.

5. Reverse the steps to attach the door to the cabinet.





### **Bonding Conductor**



#### Side Panel: Removing and Installing

The Side Panels are equipped with a slide latch. Keys are required to unlock the slide latch.

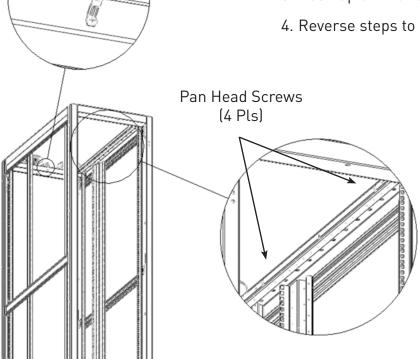
- 1. Unlock the slide latch with the provided keys.
- 2. Push lever (see illustration at left) to release the latch.
- 3. Allow the side panel to tilt away from the cabinet.
- 4. Disconnect the bonding conductor located at the inside bottom corner of the panel. The quick disconnect is on the side panel side so no tools are required.
- 5. Lift the panel and remove it from the cabinet.
- 6. Reverse steps to install the side panel.

**Bonding Conductor** 

### Top Panel - Removing and Installing

Tools: Phillips Screw Driver

- 1. Disconnect the bonding conductor located at the rear or front of the cabinet.
- 2. Loosen or remove the 4 screws with a phillips screw driver on both sides of the cabinet.
- 3. Push up on the Top Panel and remove.
- 4. Reverse steps to install the to panel.



1/4-20 Flanged Hex

### **Ganging the Cabinets**

Tools: 3/8 Drive Socket and Wrench

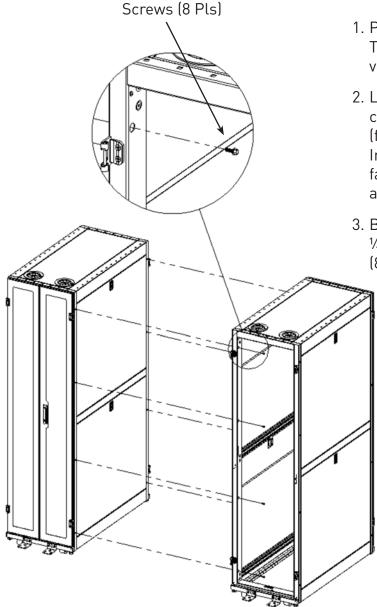
Hardware: 1/4-20 Flange Hex Screws

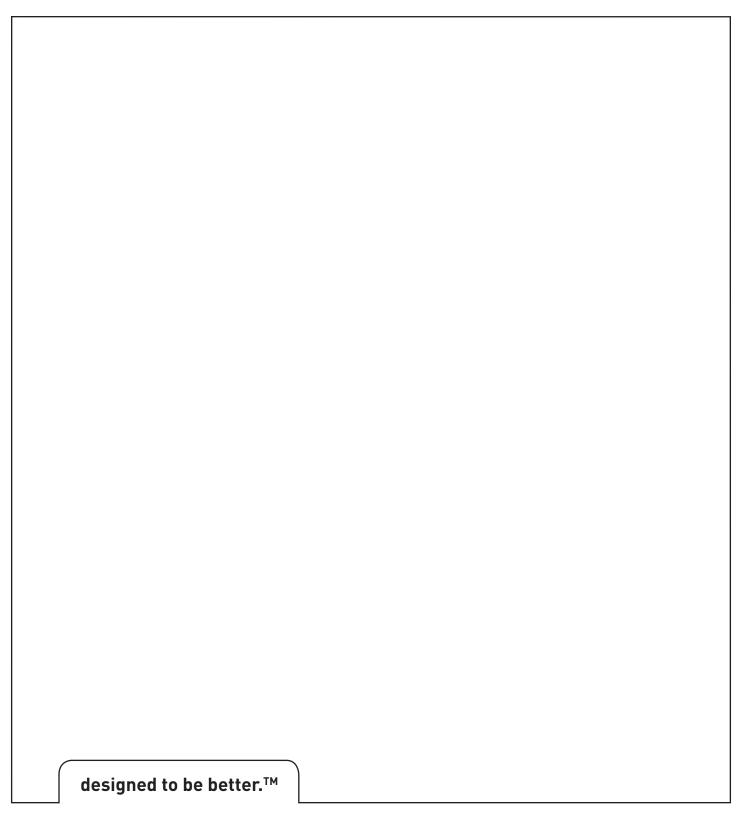
(8 qty)

1. Position and level the adjacent cabinet. The cabinets must be aligned both vertically and front to back.

2. Locate 4 clearance holes in the corner post on left side of the frame (facing front or rear) inside the cabinet. Insert screws into these holes and fasten to pre-installed nuts on the adjacent cabinet.

3. Bolt the cabinets together using 1/4-20 x 3/4" Long Flanged Hex screws (8 total qty - 4 front & 4 rear).







125 Eugene O'Neill Drive New London, CT 06320 800.934.5432 860.445.3800 (sales) 860.405.2974 (fax) www.legrand.us/ortronics