

product spotlight

GROUNDING ACCESSORIES



Grounding is an important topic with regard to enclosures, equipment mounted within them and in compliance with EIA/TIA/J-STD-607A standards.

Many electrical equipment manufacturers have their own requirements/guidelines and many data center managers have certain procedures they wish to follow or certain accessories they would like to see included in the products installed within their data center spaces.

Great Lakes offers a number of products which can provide flexibility to meet your own specific grounding needs:

Grounding Kits: We offer two types of easy-to-install grounding kits – The GR101 is for free-standing enclosures; it includes quick disconnect grounding wires and hardware. The GR102 grounding kit is designed for use with WM, WS, WD, and WE wall mount enclosures.

Copper Bus Bars: We offer several sizes of isolated copper bus bars:

- CBB-19 For 19" mounting
- CBB-30 For the GL300E enclosure
- CBB-48 For 48" H enclosures
- CBB-60 For 60" H and 72"H enclosures
- CBB-72 For 78" H and 84" H enclosures
- CBB-78 For 91" H enclosures

Tinned Copper Ground Bus Bar: We also offer the RGB-78, a tinned copper ground bus bar, 70"H to be installed prior to any equipment. It fits over existing EIA holes and is recommended for use with two and four post racks.

(Continued on back)

The **Grounding Studs** in our E and ES series enclosures provide a point to which the doors may be grounded to the enclosure and from which the enclosure may be connected to the facility's common ground. The studs are made from copper which is a conducting metal.

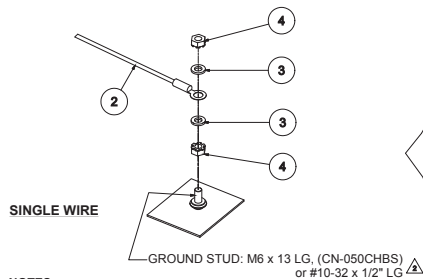
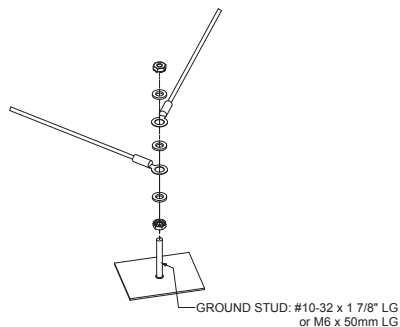
It is important to note that grounding the enclosure does not ground the equipment mounted within it. In order for any individual devices and components mounted within an enclosure to be grounded, they must be connected to a bus bar.

The **Copper Bus Bar** is a long piece of solid copper which is used to ground multiple devices to a single point. The respective devices then ground to the bus bar which, in turn, can be connected to the common grounding point within the facility. The conductivity of the copper material helps create a strong, uninterrupted connection to the common ground, providing good contact for any grounding of individual devices, all the way to the earth grounding point.

Copper has a tendency to oxidize and as a result, copper bus bars must be of significant thickness to maintain conductivity. A tinned copper bus bar uses tin as a coated material to reduce the rate of oxidation of the copper material itself, allowing a tinned copper bus bar to be much thinner. The Great Lakes **Tinned Copper Bus Bar RGB-78** is designed to include a hole pattern which mirrors a 45 RMU mounting pattern. This bar is "sandwiched" between equipment mounting points and any EIA vertical mounting pattern. The bar is then connected to the facility's common ground.

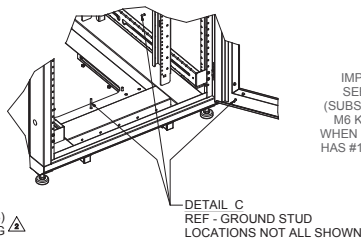
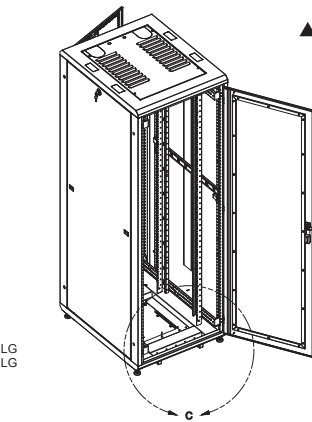
For more information on any of our grounding products, please call 1-866-TRY-GLCC (1-866-879-4522) or visit us on the web at werackyourworld.com

REVISION HISTORY				
REV	DESCRIPTION	DATE	APPROVED	WBS
0	ECO-01377	3/25/2004		WBS
1	ECO-02894	3/4/2015		B
2	ECO-03175	3/28/2011		FED



NOTES:

- ⚠ 1) SORT HARDWARE & PLACE EACH SIZE & TYPE INTO ITS OWN LABELED PLASTIC BAG.
- ⚠ 2) PACKAGING INSTRUCTIONS : SEAL ALL STRAPS & BAGGED HARDWARE WITH A COPY OF THIS DRAWING INTO A CLEAR PLASTIC BAG. APPLY SELF ADHESIVE PART No.(GR101) LABEL ONTO OUTSIDE OF BAG.



BOM of Material						
ITEM	PART NUMBER	STOCK NO	QTY	DESCRIPTION	FILE NAME	REV
1			1	GROUND WIRE ASSY 48"	IG13624.iam	0
2			1	GROUND WIRE ASSY 24"	IG13622.iam	0
3	M6FLWSHR		24	M6 ZINC-PLATED STEEL FLAT WASHER	M6FLWSHR.gr	-
4	M6NUT		24	M6 KEPS NUT	M6NUT.gr	-
5	#10-32	#10-32	24	#10-32 KEPS NUT, ZINC RAHS	#10-32KPT.iam	-

Overview:

Objective is to ground cabinet parts to the frame such that they then can be connected to a common building ground. This kit allows you to ground the enclosure such that it is ready to be connected to the customer's common building ground.

Frame Ground Studs:

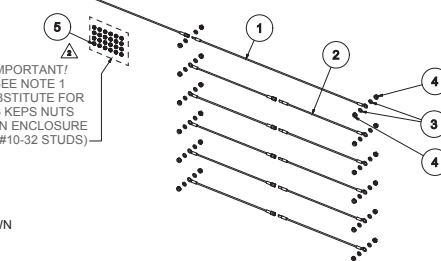
GL300E/GL480E/GL600E have two (2) copper ground studs in the frame of the enclosure (One in front center and one in back center)

GL720EXXXX -GL840EXXXX have a total of three (3) ground studs in the frame of the enclosure. (Two in the top and one in the bottom)

GL480ES2442 -GL780ESXX42 - GL840ESXX42 a total of two (2) ground studs in the frame of the enclosure. (Two in the bottom rear)

- ⚠ Using the Ground Wire Assemblies supplied, connect one end to a copper ground stud on each of the side panels and doors and the other end to copper ground stud located on the frame (or top) of the enclosure. (See Detail C)
- ⚠ A longer Ground Wire Assembly has been included for 42" and 48" deep cabinets so that the front door can be connected to the ground stud when a side panel is not installed.
- ⚠ Once all Ground Wire Assemblies have been connected to a copper frame stud, have at least one frame stud connected to the common building ground. (See Details for Multiple Straps and/or Single Strap)

IMPORTANT!
SEE NOTE 1
(SUBSTITUTE FOR
M6 KEPS NUTS
WHEN ENCLOSURE
HAS #10-32 STUDS)



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