Panduit® StructuredGround™ Telecommunications Bonding

- Increases reliability by minimizing the risk to network equipment and interconnecting cabling from electrical hazards
- Facilitates communications by improving immunity from electromagnetic interference (EMI)
- Complete solution available, designed for flexibility and ease of installation with virtually any racks or cabinets

Five Steps to Bonding Data Centers and Telecommunications Spaces

Step 1. Protect against electrostatic discharge (ESD)

Part Number	Part Description	Quantity Required
RGESD2-1	ESD wrist strap docking port kit for threaded rail racks and cabinets (#12-24 and M6).	1 per rack with active equipment*
RGESD2B-1	ESD wrist strap docking port kit for cage nut rail racks and cabinets.	1 per rack with active equipment*
RGESDWS	Wrist strap with 6' (2M) coil cord.	1 per ESD wrist strap docking port kit*

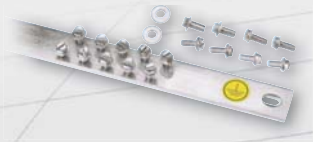
*One ESD wrist strap port can be used effectively for up to three open-faced racks, however it is recommended to use one port for each enclosed cabinet because the doors may interfere.

Step 2. Bond the equipment to the rack or cabinet

Part Number	Part Description	Quantity Required
For equipment with a grounding pad (e.g. core switches), use an equipment jumper to bond the equipment to the rack or busbar.		
RGEJ657PFY	Equipment jumper kit (also known as a Unit Bonding Conductor); 57" (1.4M); #6 AWG (16mm²) jumper; pre-terminated on one end.	1 per piece of equipment
CNBK	Bonding cage nut for cage nut rail racks and cabinets.	1 per piece of equipment
For equipment that bonds through its mounting flanges (no grounding pad) (e.g. top of rack switches), use bonding hardware to connect the equipment to the rack.		
RGTBSG-C	Bonding screw for threaded rail racks.	1 per piece of equipment
CNBK	Bonding cage nut for cage nut rail racks and cabinets.	1 per piece of equipment

Step 3. Ensure the rack or cabinet is electrically continuous

Use a busbar to bond the vertical equipment mounting rails together to create continuity in racks/cabinets. A busbar can also be used to bond multiple equipment jumper kits to a single rack unit (RU).



Part Number	Part Description	Quantity Required
RGRB19Y	Busbar for threaded rail racks and cabinets; provided with thread-forming screws.	1 per rack
RGRB19CN	Busbar for cage nut rail racks and cabinets; provided with bonding studs for cage nut applications.	1 per rack

All Panduit racks and cabinets are designed to be electrically continuous, so they do not require a busbar bonded to the rails.

Step 4. Bond the rack or cabinet to the Telecommunications Grounding Busbar (TGB)

Part Number	Part Description	Quantity Required
For small installations with only a few racks/cabinets, bond racks/cabinets directly to the TGB using a Telecommunications Equipment Bonding Conductor (TEBC).		
GJ672UH	TEBC; 72" (1.8M); #6 AWG (16mm²) jumper; pre-terminated on both ends.	1 per rack
GJ696UH	TEBC; 96" (2.4M); #6 AWG (16mm²) jumper; pre-terminated on both ends.	
GJ6120UH	TEBC; 120" (3.0M); #6 AWG (16mm²) jumper; pre-terminated on both ends.	
GJ6144UH^	TEBC; 144" (3.7M); #6 AWG (16mm²) jumper; pre-terminated on both ends.	
GJ6168UH	TEBC; 168" (4.3M); #6 AWG (16mm²) jumper; pre-terminated on both ends.	
GJ6192UH	TEBC; 192" (4.9M); #6 AWG (16mm²) jumper; pre-terminated on both ends.	
GJ6216UH	TEBC; 216" (5.5M); #6 AWG (16mm²) jumper; pre-terminated on both ends.	
GJ6240UH	TEBC; 240" (6.1M); #6 AWG (16mm²) jumper; pre-terminated on both ends.	
GJ6264UH	TEBC; 264" (6.7M); #6 AWG (16mm²) jumper; pre-terminated on both ends.	
GJ6288UH	TEBC; 288" (7.3M); #6 AWG (16mm²) jumper; pre-terminated on both ends.	
HDW1/4-KT	Stainless steel hardware for the TGB and thread-forming screws for the rack.	1 per TEBC
CNBK	Bonding cage nut for cage nut rail racks and cabinets.	2 per jumper
GB2B0306TPI-1	TGB; 1/4" x 2" x 12".	1 per room
For large installations, like a computer room, use Rack Bonding Conductors (RBC) for bonding individual racks and cabinets to a Supplemental Bonding Grid (SBG, a.k.a. MCBN)		
RGCBNJ660P22	RBC; 60" (1.5M); #6 AWG (16mm²) jumper; provided with HTAP connector for #6 AWG – #2 AWG (16mm² – 25mm²) SBG.	1 per rack
CNBK	Bonding cage nut for cage nut rail racks and cabinets.	2 per jumper
HTCT250-2-1	HTAP for bonding 1/0 TGB conductor to #6 AWG – #2 AWG SBG.	1 per TGB
LCC1/0-14AW-X	Two-hole copper compression lug for bonding 1/0 conductor to TGB.	1 per TGB
HDW1/4-KT	Stainless steel hardware for bonding the two-hole copper compression lug to the TGB.	1 per TGB
GPQC07-1/0	Access floor bonding clamp; works with round pedestals: 3/4" (19.1) – 7/8" (22.2mm).	Use one connector wherever SBG conductors cross one another
GPQC10-1/0^	Access floor bonding clamp; works with square pedestals: 7/8" (22.2mm), works with round pedestals: 1" (25.4mm) – 1 1/8" (28.6mm).	
GPQC15-1/0	Access floor bonding clamp; works with square pedestals: 7/8" (22.2mm), works with round pedestals: 1 1/2" (38.1mm).	
GB2B0306TPI-1	TGB; 1/4" x 2" x 12".	1 per room

^Most popular product.

Step 5. Bond nearby conductive items, such as pathways, to the TGB

Part Number	Part Description	Quantity Required
Bond the pathway to the TGB.		
GACB-2	Bonding bracket; 1.63" (41.4mm) width, 3.95" (100.3mm) height, 5.22" (132.6mm) depth; provided with one mounting screw.	1 per pathway
GACB-3	Bonding bracket; 1.88" (47.6mm) width, 4.58" (116.3mm) height, 5.29" (134.4mm) depth; provided with one mounting screw.	
GACBJ618U	Jumper for bonding bracket to the TGB; 18.0" (457mm) length; #6 AWG (16mm²); pre-terminated on both ends with straight, two-hole, long barrel compression lugs; provided with .16 oz. (5cc) of antioxidant and four mounting screws.	1 per pathway
HDW1/4-KT	Stainless steel hardware for bonding the GACBJ618U to the TGB.	1 per pathway
Bond pathway sections together.		
GACB-2	Bonding bracket; 1.63" (41.4mm) width, 3.95" (100.3mm) height, 5.22" (132.6mm) depth; provided with one mounting screw.	2 per bond
GACB-3	Bonding bracket; 1.88" (47.6mm) width, 4.58" (116.3mm) height, 5.29" (134.4mm) depth; provided with one mounting screw.	
GACBJ618U	Jumper for bonding pathway sections; 18.0" (457mm) length; #6 AWG (16mm²); pre-terminated on both ends with straight, two-hole, long barrel compression lugs; provided with .16 oz. (5cc) of antioxidant and four mounting screws.	1 per bond
Bond alternate wire basket sections.		
SBC3-C	Copper split bolt #4 STR – #8 STR.	2 per bond

All Panduit pathway systems are designed to be electrically continuous, so they do not require bonding of sections.

For more information

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