

Washer, Electrical Equipment Bond

WEEB[®] WASHER

INSTALLATION INSTRUCTIONS For DP&W Solar Power FAB[™] CRS Only

BURNDY recommends that the sufficient details of the installation be submitted to the AHJ for approval before any work is started.



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WEEB[®] WASHER COMPATIBILITY

The WEEB[®] washer family of products can be used to bond anodized aluminum, galvanized steel, steel and other electrically conductive metal structures. All installations shall be in accordance with NEC requirements in the USA and with CSA C22.1 in Canada. The WEEB[®] washers are for use with modules that have a maximum fuse rating of less than 25A.

Certain module frames do not have enough structural strength to withstand the force required to embed a WEEB[®] washer. These frames will deform and therefore not allow sufficient penetration of the WEEB[®] washer teeth. The general requirements for minimum module frame thickness of boxed type module frames are illustrated below. For more information regarding module compatibility, please see the technical documents section of our website.



Note:

Inspect each module frame used with a WEEB [®]device to ensure that the bottom mounting face of the frame is flat, and that there are no hindrances to embedding WEEB[®] washer teeth. Do not use a module with a frame that prevents the WEEB[®] washer teeth from embedding fully.





SYSTEM OVERVIEW



to equipment ground conductor.

Important Notes:

- 1. Anti-Seize or BURNDY PENETROX[™] oxide inhibitor is not required on mounting hardware.
- 2. Secure PV cables and reliably route cables using Wiley ACC cable clips for proper wire management.
- 3. The NEC section 690.43 states "Exposed non-current carrying metal parts of module frames, equipment, and conductor enclosures shall be grounded in accordance with 250.134 or 250.136 (A) regardless of voltage".



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Module Mounting Brackets and Joiner Brackets

Use at least one WEEB-11.5 under every mounting bracket and joiner bracket. Use more than one when that bracket joins two or more separate rails together. Place one WEEB-11.5 on the T-bolt of each individual rail, under a module mounting bracket or joiner bracket.





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East-West Formed Angles

If running wire outside of conduit and in or along the E-W members or ballast tray, the E-W members and ballast trays must be grounded as shown below, or as shown on the next page.



Use one WEEB-9.5 at every mounting point that joins the E-W formed angles to the mounting bracket. Place the WEEB-9.5 on the formed angle with the legs pointing down onto the slot. The WEEB[®] washer must be positioned perpendicular to the slot, to ensure proper bonding when the hardware is tightened. Where ballast pans are connected to the E-W formed angle, they may be connected to equipment ground by using one WEEB-11.5 at one of the connection points.





Ballast Pans and Rail Splices

If running wire outside of conduit and in or along the ballast tray, the ballast trays may be connected to equipment ground by using one WEEB-WMC at one of the connection points.



WEEB-DPF ASSEMBLY

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Pre-assemble WEEB-DPF to mid clamp assembly as shown. Pre-Assembling WEEB-DPF to mid clamp assembly will contain the small individual parts, reducing the possibility of losing parts during installation.





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WEEB-DPF ASSEMBLY 6) Slightly lift solar module and slide the teeth of the WEEB-DPF under the module. The edge of the WEEB® washer will automatically align when both modules are correctly installed. No more than 3.00 mm

Important note:

To correctly install WEEB-DPF, each side of the mid clamp must cover at least 135mm² of the module frame. This means that there can be no more than 3.00 mm of space between the mid clamp and the module frame. Check with the module manufacturer for any additional installation requirements.



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WEEB-DPF LAYOUT

EVEN NUMBER OF MODULES IN ROW



X DENOTES PLACES TO INSTALL WEEB-DPF

COLUMN X ROW = C X R = 4 X 1 = 4

WEEB-DPF NEEDED = 4

ODD NUMBER OF MODULES IN ROW



X DENOTES PLACES TO INSTALL WEEB-DPF [COLUMN + 1] X ROW = [C + 1] X R = [5 + 1] X 1 = 6 WEEB-DPF NEEDED = 6

Important Note:

When replacing a single faulty module, also remove the adjacent module which contacts the same WEEB[®] washers as the faulty module. This will ensure that there are never ungrounded modules in the array.



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WEEB® WASHER QUANTITIES

WEEB® WASHER	QUANTITY NEEDED
WEEB-DPF	 See calculations on previous page
WEEB-9.5	 2 for every E-W Formed Aluminum Angle
	At least 1 under every Module Tilt Bracket
	(1 for every rail joined to the brackets)
WEEB-11.5	 1 at every hole of every Tie Plate
	 1 for every Ballast Pan connected to an E-W
	Formed Aluminum Angle
	 2 for every 2-Hole Side Splice
WEEB-WMC	 1 for every Ballast Pan connected to Power Beam Extrusion





WEEB-LUG ASSEMBLY



Important Notes:

WEEB-LUG-8.0 may be used with a maximum equipment ground wire of 6 AWG.



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WEEB-LUG ASSEMBLY

Customer Service Department 7 Aviation Park Drive Londonderry, NH 03053 1-800-346-4175 1-603-647-5299 (International)



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