

Figure 1

### 1. INTRODUCTION

Solid Wire Grounding Assemblies 2058729-1 (shown in Figure 1) and 2106831-1 are used with metal-framed photovoltaic (solar) panels and related products that require grounding for safety reasons.

**NOTE** *All numerical values in this instruction sheet are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters [and inches]. Figures are not drawn to scale.*

Reasons for reissue of this instruction sheet are provided in Section 6, REVISION SUMMARY.

### 2. DESCRIPTION

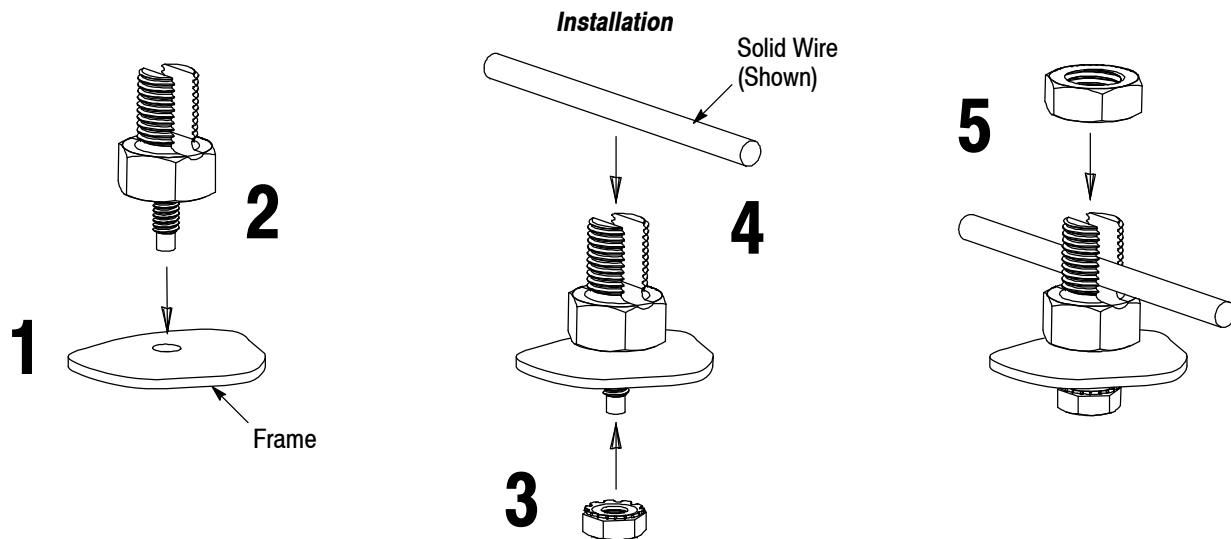
Each grounding assembly consists of a wire bolt (wire slot on one end and threaded post on the other), wire binding hex nut, and mounting hex washer nut. See Figure 1.

Each grounding assembly accepts uninsulated solid copper wire sizes 12 through 6 AWG or uninsulated stranded (having 7 or 19 strands) copper wire sizes 10 through 6 AWG. DO NOT use any wire having more than 19 strands. DO NOT use stranded wire size 12 AWG.

### 3. INSTALLATION (See Figure 2)

For frame thickness range, refer to Figure 2. Then proceed as follows:

1. Drill a hole in the frame (refer to Figure 2 for drill bit size and mounting hole diameter).
2. Insert the thread post end of the wire bolt into the hole.
3. Thread the mounting hex washer nut onto the threaded post end of the wire bolt. Finger-tighten.
4. Position the wire into the wire slot.



GROUNDING ASSEMBLY	FRAME THICKNESS RANGE	DRILL BIT SIZE	MOUNTING HOLE DIAMETER	WRENCH SIZE	
				Wire Binding Hex Nut	Mounting Hex Washer Nut
2058729-1	1.143-2.413 [.045-.095]	1 <sup>1</sup> / <sub>64</sub> in.	4.37±0.20 [.172±.008]	9 <sup>1</sup> / <sub>16</sub> in.	1 <sup>1</sup> / <sub>32</sub> in.
2106831-1	1.143-10.67 [.045-.420]	No. 8 (.1990 in.)	5.03±0.20 [.198±.008]		3 <sup>3</sup> / <sub>8</sub> in.

Figure 2

5. Thread the wire binding hex nut onto the wire slot end of the wire bolt. Finger-tighten until the wire is compressed.

6. Using a  $\frac{9}{16}$ -in. open end wrench, hold the hex body of the wire bolt, and using a socket wrench (refer to Figure 2 for wrench size), tighten the mounting hex washer nut to a torque of 2.82 N-m [25 in.-lbs.].

7. Continue holding the hex body, and using a socket wrench (refer to Figure 2 for wrench size), tighten the wire binding hex nut to a torque of 5.08 N-m [45 in.-lbs.].

#### 4. REMOVAL

1. Using a  $\frac{9}{16}$ -in. open end wrench, hold the hex body of the wire bolt, and using a socket wrench (refer to Figure 2 for wrench size), loosen the wire binding hex nut.

2. Remove the wire from the wire slot.

3. Continue holding the hex body, and using a socket wrench (refer to Figure 2 for wrench size), loosen the mounting hex washer nut. Remove the wire bolt from the frame.

#### 5. REPLACEMENT AND REPAIR

Each grounding assembly can be re-used up to 5 times after proper removals. The grounding assembly can not be repaired. DO NOT use defective or damaged product.

Order replacement grounding assemblies through your Representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 717-986-7605, or write to:

CUSTOMER SERVICE (038-035)  
TYCO ELECTRONICS CORPORATION  
PO BOX 3608  
HARRISBURG PA 17105-3608

#### 6. REVISION SUMMARY

Revisions to this instruction sheet include:

- Changed company logo
- Added wire limitations to Section 2