# Photo: Physical Address Confirm home site in background



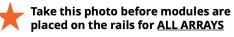


**Photo Tip:** For homes hidden by a long driveway, provide photo of street address and a <u>second photo</u> of house at end of driveway.

# Photo: Array Racking Before Module Installation U-Series requirement only







# Photo: Array Bond on Equinox™ AC Modules Sample of row-to-row grounding clip or sample of grounding lugs



**Sample** photo confirming the use of torqued row-to-row grounding clips on-site.

A mark

Row-to-row

grounding clip

Attaches between module rows and enables the ground path to continue from one row to the adjacent row.

10 mm deep socket

• 85 +5/-0 in-lb (9.6 N-m)



If row-to-row clips aren't used, show sample of racking before modules were laid down to confirm bonding.

|   |  | Lug Range | Tightening Torque |
|---|--|-----------|-------------------|
| 5 | Lay-in lug wire<br>terminal (from UL<br>1741 Table 66.1) | 18-10 AWG | 35 in-lb          |
|   |  | 8 AWG     | 40 in-lb          |
|   |  | 6-4 AWG   | 45 in-lb          |

Photo: Modules

Show all installed modules on-site



**Photo Tip:** For long arrays, use a panoramic feature from middle of the array or take multiple photos from both sides of the array.

# Photo: Wire Management Sample photo of wire management under the arrays



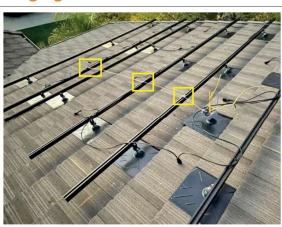


**Photo Tip:** Take this photo from between the top and bottom rail of the row. This photo is not allowed to be taken from ground level. Wires touching the roof will result in an automatic failure of a quality audit.

# Photo: Array Bond on Equinox™ U-Series Modules Sample of row-to-row bonding jumper or sample of grounding lugs



Or Copper and Lugs



If row-to-row clips aren't used, show sample of racking before modules were laid down to confirm bonding.

| 8                                    | Lug Range | Tightening Torque |
|--------------------------------------|-----------|-------------------|
| Lay-in lug wire<br>terminal (from UL | 18-10 AWG | 35 in-lb          |
| 1741 Table 66.1)                     | 8 AWG     | 40 in-lb          |
|                                      | 6-4 AWG   | 45 in-lb          |

### Photo: Roof/Attic Solar J-Box Sample photo of rooftop J-box installed on site









#### **Photo Tips:**

- Photo must show completed work with the lid off and wiring complete.
- Capture the rail ground lug in photo, if applicable.
- Show all torque marks on ground lug.
- Use camera flash if it's dark out.
- Reference SunPower's installation requirements regarding disallowed circuit wire splicing methods.



Make sure all grounding terminations are also torqued and marked.

If using a DIN rail, ensure torque marks can be seen for wiring terminations.

| LAY-IN LUG WIRE TERMINAL |                 |           |                   |  |  |
|--------------------------|-----------------|-----------|-------------------|--|--|
| 5                        | Lay-in lug wire | Lug Range | Tightening Torque |  |  |
|                          | terminal (from  | 18-10 AWG | 35 in-lb          |  |  |
|                          | UL 1741 Table   | 8 AWG     | 40 in-lb          |  |  |
|                          | 66.1)           | 6-4 AWG   | 45 in-lb          |  |  |

#### RAIL GROUND LUG



An assembly that fits securely into the top rail channel and accommo-dates the equipment grounding conductor.

For M6 bolt:

• 10 mm deep socket

• 85 +5/-0 in-lb

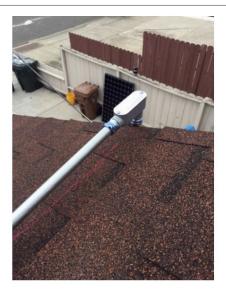
• ½" socket

- 35 +5/-0 in-lb

# Photo: Conduit Penetration Sample photo of site roof penetration taken from rooftop







**Photo Tip:** A J-box with flashing incorporated into the design counts as both J-box wiring photo and conduit penetration photo.

If no roof penetration, show the conduit going off the roof edge.

Photo: Electrical Equipment Wide-angle shot of all indoor and outdoor ground-level electrical equipment on-site



### May require multiple photos:

- Meter or meter/main service panel
- Solar load centers (if applicable)
- AC disconnects (if applicable)
- PVS device





# Photo: Solar Circuit Load Center (If Applicable) Cover removed, showing wiring





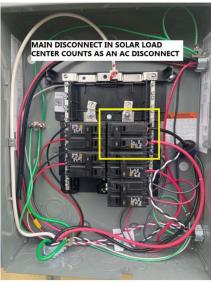
Make sure all grounding terminations are also torqued and marked

**Photo Tip**: Ensure breaker sizes are legible. Ensure torque marks for field wiring terminations can be seen.

# Photo: AC Disconnect (If Applicable) Cover removed, showing wiring







**Photo Tip:** Ensure torque marks can be seen for field wiring terminations. And remember, a main disconnect breaker in a solar load center also counts as the AC disconnect photo.

Photo: Interconnection – Entire Utility
Wide-angle of entire enclosure for the utility interconnection point (cover removed)







Make sure all grounding terminations

**Photo Tip**: Ensure breaker sizes are legible. Ensure torque marks for field wiring terminations can be seen.

### Photo: Interconnection Method

Close-up of the method of interconnection (solar breaker, disconnect fuse, line taps, etc.)







#### Photo Tip:

- Close-up photos of solar breakers need to clearly show breaker size
- For line or load-side taps, photos need to show both the taps' main panel and the fuses in the disconnect
- Remember, close-up photo of the <u>main disconnect breaker</u> for a <u>solar load</u> <u>center also counts as a fuse</u>
- Ensure all torque marks can be seen for field-wiring terminations



### Photo: PVS

PVS wiring and serial number, lid removed

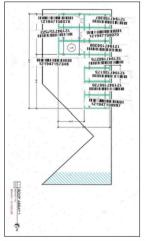


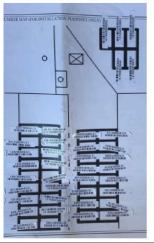


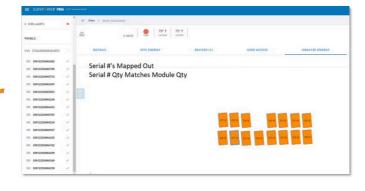
## Photo: Array Map

### Microinverter serial number array map

- Using the microinverter serial number stickers located on the back of the solar modules, create a map of the array where the serial number represents the location of that module on the roof
- A screen shot of a completed map in the SunPower Pro Fleet Management or SunPower Pro Connect also works









## SunVault™ Storage

Photo examples in order of JCO Checklist for SunVault™ System (if applicable)

- Minimum of 15-22 photographs depending on system
- SunPower's Minimum NEC code requirement year is 2017
- Reference SunPower's 2022 installation requirements

### Photo: Outdoor and Indoor Electrical Work

Wide-angle of all electrical work done outside and inside home







**Photo Tip**: The meter or meter/main service panel must always be in a photo.

Photo: Indoor Electrical (If Applicable)
Wide-angle of all SunVault-related electrical enclosures, including new and existing subpanels







## Photo: Meter/Main Service Panel (MSP) <u>or</u> Home Main Load Center Cover removed and show interconnection wiring



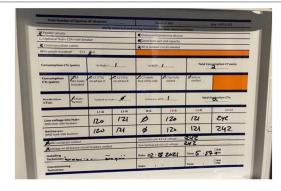




**Photo Tip**: Ensure torque marks can be seen for field wiring terminations.

## Photo: System Forms for Hub+ and ESS Units

All fields completed and voltage values filled in to confirm Pre-Commission Checklist was completed



#### Located inside the door of the Hub+

- Signed by installing technician
- Completed label signifies that ALL voltage and system checks described in Section 1.11 Testing and Commissioning on page 101 of the SunVault Installation Guide



#### Located inside the doors of the BASE ESS and BASE X ESS

- Signed by installing technician
- If only a BASE ESS on-site, just one form photo needed

### Photo: Hub+ Dead Front

Dead front cover showing clear photo of Hub+ circuits



### Photo Tips:

- Use a label maker for legible circuit labels
- Use "medium" or "high" photo size to show breaker sizes
- Use the flash function on the camera accordingly

### Photo: Inside the Hub+

Dead front cover removed, PVS door open, <u>TOP HALF</u> of the Hub+ w/ elements outlined below



### **Photo Tips:**

- Photograph the top half of the Hub+
- Show the <u>wiring behind the PVS door</u>
- Ensure the feeder circuits and MIDC are captured in the photo
- Ensure torque marks can be seen on field wiring terminations

### Photo: Inside the Hub+

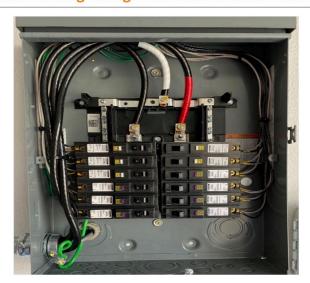
Dead front cover removed, showing <u>BOTTOM HALF</u> of the Hub+



### **Photo Tips:**

- Photograph the <u>bottom half</u> of the Hub+
- Ensure the backup pan, generation pan, and non-backup pan are all captured in the photo
- Ensure torque marks can be seen for field wiring terminations (torque paint marks on the wire next to wire termination is okay, too)
- Make sure all grounding terminations are also torqued and marked
- If used, ensure the maximum 125 A breaker protecting the non-back up pan uses a screw-down kit

# Photo: Field-Installed Load Centers (If Applicable) Cover removed and showing wiring of all field-installed backup and non-backup load centers



grounding terminations

**Photo Tips:** Ensure torque marks can be seen for field wiring terminations. Torque paint marks on the wire next to termination are accepted.

# Photo: MIDC Communication Wiring Photograph of the ENTIRE MIDC

### Photo Tip:

Show all data terminations for the MIDC in one photo.











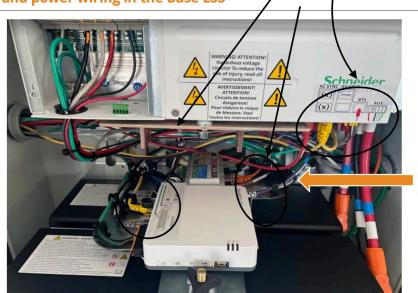
**Photo Tip**: Make sure every circuit in the home is measured with a consumption CT.



Close-up of comm and power wiring in the Base ESS

#### **Photo Tip:**

Stand in front of the Gateway. Capture Inverter AC terminations and communication connections in one photo.



#### Photo Tip:

Ferrite core snapped on the gray communication cable and plugged into the J1 port of the MIO.

**Photo Tip**: Ensure torque marks can be seen for field power conductor terminations in AC1 and AC2.

### Photo: Production CTs

**Show ALL production CTs used on-site, including factory installed CTs** 







**Photo Tip**: Make sure every PV circuit not installed in the generation panel has a production CT measuring output. Ensure labels of additional production CTs face the same direction as the factory-installed production CT.

### Photo: ESS Multi-Inverter - Second Enclosure

Close-up required for the multi-inverter second unit

#### Photo Tip:

Stand in front of the Gateway. Capture Inverter AC terminations and communication connections in one photo.



**Photo Tip:** Ensure torque marks can be seen for AC wiring terminations. Torque paint marks on the wire next to termination are also ok.