

Solar SPEC Pak® 4 Position Plug & Inline Receptacle

Assembly Instructions

SPEC Pak® Kit (PK6-050B04 & PK1-050B04) Components



Wire Protection Product Options for Solar SPEC Pak® Plugs & Inline Receptacles are Sold Separately (Contact Customer Service for More Information).

1. Slide sealing gland onto wires and/or cable with PG 16 sized threads facing the direction of the wire to be terminated (See Figure 1).

2. Cable and/or Wire Preparation:

- a. Jacketed Cable – Strip 1 1/2 - 2 inches (38 - 50 mm) of the outer jacket. Strip insulation from individual wires according to lengths listed in 2b & 2c below, being careful not to damage the copper conductors. Be sure to allow length for any future service, as required.
- b. Discrete Wire for Powerpole® or Ground Contacts – Strip insulation 5/16 inch (8 mm) from the end of the wires to be terminated, being careful not to damage the copper conductors. (See assembly instruction 1S1072 for complete directions.)
- c. Discrete Wires for PPMX – Strip insulation 0.25 inches (6.3 mm) from the end of the wires to be terminated, being careful not to damage the copper conductors. **IMPORTANT: Strip length must be 0.25 inches ± 0.03 (6.3mm ± 0.8) to ensure normal operation.** (See assembly instruction 1S6543 for complete directions.)

3. Terminate contacts to individual wires by inserting contact into the recommended Anderson crimping tool and crimp. For a full list of crimp tools, see the Application Tooling section in the 4 position Solar SPEC Pak® Data sheet or on the APP website, www.andersonpower.com. Keep all Powerpole® and ground contacts on a similar plane while crimping to make installation of the Housing into the Powerpole® Holder easier and for proper engagement (See Figure 2).

NOTE: Crimping with non-APP recommended tools may produce high resistance or contact distortion resulting in improper seating of the contact in the Powerpole® Housing. Use of other tools may effect UL & CSA approval.

4. Slide Solar SPEC Pak® Shell onto wires and/or cable with internal threads facing the Sealing Gland (See Figure 3).

5. Standard orientation for Powerpoles® in Solar SPEC Pak® Plugs are Hood Down (See Figure 4a). Standard orientation for Powerpoles® in the Solar SPEC Pak® Receptacle are Hood Up (See Figure 4b).

6. Install contacts into housings.

- a. Powerpole® or Ground Housing: Position Powerpole® contacts as shown, holding the Powerpole® Housings in the “Hood Up” position (See Figure 5a). Push contact and wire into Powerpole® Housing so contact snaps into place. The contact will slip under the internal barrier and snap over the end of the internal retaining spring. (See Figure 5b) Tug on wire to assure the contact is fully inserted. Repeat until all wires and contacts have been firmly locked into their respective Powerpole® Housings.

- b. PPMX Housing: If applicable, install crimped PPMX pin contacts into the Holder as shown (See Figure 6a). Make sure the contact shoulders are seated into holder groove. Flip the holder over and install the crimped socket contacts into the stepped side of the Holder, making sure the contact shoulders are seated in the holder grooves (See Figure 6b). Orient the PPMX housing as shown (See Figure 6c). With the sockets on top, insert the loaded Holder into the PPMX housing until latch catch engages with latch hole (See Figure 6c). A “click” will be felt and heard as the latch catch engages the hole. Gently tug the wires to confirm the housing is locked together.

SPEC Pak® Exploded Diagram



Figure 4b

Figure 4a

Figure 4b



Figure 5b

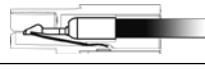


Figure 6a

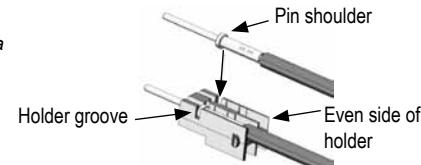


Figure 6b

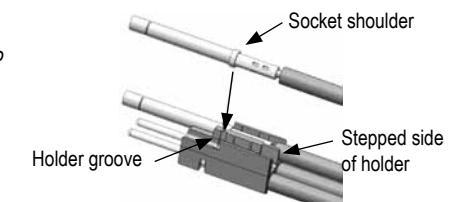
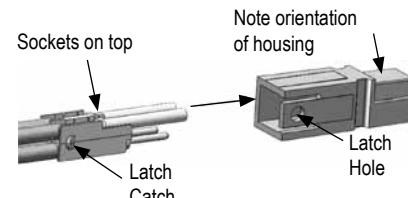


Figure 6c



7. Position Holder with arrow on the front face of the holder pointing up. (See Figure 7a). Insert Powerpole® Housings into Holder (positions 1 & 2 from the top and positions 3 & 4 from the bottom). See Figure 7b (**NOTE:** Plug Housing hood down, Receptacle Housing hood up).

8. Position Plug or Receptacle Shell with APP Logo facing up and Plug or Receptacle Holder with the arrow pointing up. Press Holder into Plug or Receptacle Shell until Powerpole® Holder snaps into place. Repeat for Receptacle.

If you need to remove the Holder from the Shell, insert a small flat head screw driver beside the holder latch and depress the latch on one side (See Figure 9), then the other. Pushing the wire and/or cable from behind while depressing latches will help to remove the Holder. To reinsert the Holder repeat step 8.

9. Screw Cable Gland onto the back of the respective Solar SPEC Pak® Shell. It is recommended that a plastic thread locker be used on the sealing gland in order to prevent the gland components loosening under extremes of temperature and humidity. Permatex Plastic Threadlocker, #19920 and Loctite 4204 have been evaluated and approved for this purpose. To use, apply a bead across both sets of male threads on the gland body. Rotate gland body 180 degrees and apply additional beads on opposite side.

Tighten down outer sealing gland nut to form a watertight seal on jacketed cable (See torque requirements below). Assembly is complete (See Figure 10).

Torque requirements

- Cable Gland to housing: hand tighten until snug, tighten additional 1/8 - 1/4 turn with wrench
- Cable Gland Sealing Nut to cable: hand tighten until snug, tighten additional 1/2 - 3/4 turn with wrench

NOTE: The wire protection products listed above have been approved for use with the SPEC Pak® and will meet IP68 sealing requirements when used with the specified wire or cable. If other wire protection products are used, it is important to select the correct size sealing gland or adapter for the wire or cable being used to ensure proper sealing. 4 Position Solar SPEC Pak® is designed to accommodate industry standard PG-16 sealing glands and adapters.

NOTE: Product data sheets, assembly instructions, drawings, tooling information and other information for APP products may be found at www.andersonpower.com.

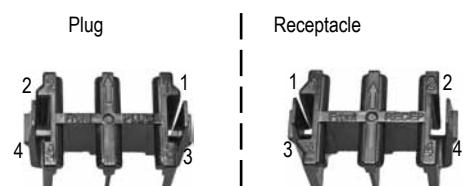


Figure 7a

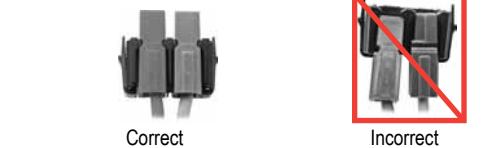


Figure 7b

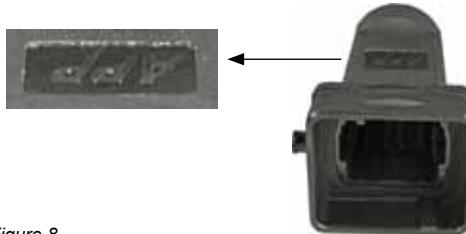


Figure 8



Figure 9



Figure 10