

3 Position Mini SPEC Pak™ Assembly Instructions



WARNING – Connectors should never be assembled or disassembled when wires are live.

Step 1 Sealing assembly

If using the (optional) wire protection, slide it over the multi-conductor cable's outer jacket with the larger opening facing the end of the wires to be terminated. Any lubrication used must be compatible with TPV, Polycarbonate, PBT, and silicone rubber.

Slide the wire sealing grommets onto each wire with the smaller diameter facing the end of the wire to be terminated (See Figure 1).

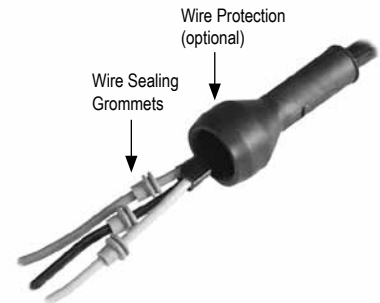


Figure 1

Step 2 Crimping wire contacts

1. Strip insulation from the end of the wire to be terminated, being careful not to damage the copper conductors. For bundled cables strip 1.73" (44mm) of the outer jacket off the end of the cable. See below for strip lengths of individual wires within the bundled cable. If the wire insulation OD is smaller than the crimp barrel ID, strip to the following dimensions:

For Pin Contacts X = 0.18", 4.5 mm	For Socket Contact X = 0.21", 5.5 mm
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If the wire insulation OD is greater than the crimp barrel ID, strip the wire to the dimensions:

For Pin Contact X = 0.24", 6 mm	For Socket Contact X = 0.28", 7 mm
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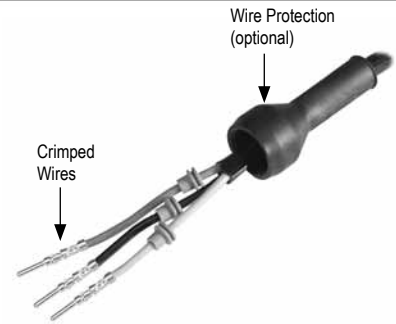


Figure 2

2. Set up crimp tool (PM1000G1) per the operating instructions for the appropriate PowerMod® Pin and Socket contact.

PM1000G1 - Crimp Depth Chart

- Size -		Contact	Set
AWG	(mm²)		
24	(0.20)	—	0.7
20	(0.5)	1620	1.1
20	(0.5)	—	1.1
16	(1.5)	1616	1.2
16	(1.5)	—	1.0
14	(2.0)	1614	1.2
12	(3.5)	1612	1.3

PM1000G1 - Locator Contact Positions

Position	Contact Designation
1	PM16SXXXXS32
2	PM16XXXXS30
3	PM16XXXXA30
4	PM16XXXXB30
5	PM16PXXXXC30

Additional APP Approved PowerMod® Crimp Tools Include:

- PM1001G1 Semi-automatic Pneumatic Tool
- TM0001 (Daniels AF8) Hand Tool with TL0002 (Sockets) and TL0001 (Pin) locators
- TP0001 (Daniels WA27F) Pneumatic Tool with TL0002 (Sockets) and TL0001 (Pin) locators.

3. Insert the wire into the crimp barrel to the full depth. Visually verify that the wire is inserted fully by observing the strands through the inspection hole. All strands must be inserted into the barrel. Completed crimp wires are shown in Figure 2.

The maximum dimension across the crimp at any point must not exceed 0.129" (3.30mm) or the contact will not latch into the housing. Crimps should be verified for the specific application due to variations in wire and stranding.

Crimp Specification 1S6494 and additional tool operating instructions are on the APP website, www.andersonpower.com.

Step 3 Insertion of contact into housings

• Crimped contacts are to be inserted from the rear side of the connector using insertion tool PM1002G1 or 111038G3 (See Figure 3a). Insert sockets into the Receptacle (SK1-016M03) and pins in the Plug (SK6-016M03). A tactile snap will be felt when contact is latched. Apply a slight tug to confirm latching. If using discrete wires, they will spin freely when latched in the housing. Contact retention should be 12 lb (53N).

• If necessary, contacts are released from the front side of the connector by using extraction tool PM1003G1 (See Figure 3b) and removed from the rear:

1. Slide tool over pin or socket body until the tool bottoms on the housing.
2. Push the button on the top of the tool with thumb.
3. Simultaneously, gently pull on the wire from the back of the connector.
4. Contact should release.

Care should be taken not to damage the contact OD or housing ID. If there is any doubt with respect the housing integrity after contact removal, replace the housing. When replacing contact in completed assemblies, great care must be taken to ensure that the replacement contact is latched. (See instructions above).

Step 4 Final sealing assembly

1. Wire sealing grommets should be slid along the wire into the back of the housing until the back of the seal is flush with the back of the connector (See Figure 4). Take care not to damage the wire sealing grommet when inserting them into the housing. Do not use any tools that could damage the seals (such as contact insertion tool or other sharp metallic objects).

2. The sealing grommet retainer cover should be aligned with the back of the connector such that the three wires are in the three slots in the cover (See Figure 5). The sealing grommet retainer will mate with the back of the housing in any of the three possible orientations. The sealing grommet retainer should then be snapped over the back of the connector (See Figure 6).

3. Optional: if using the (optional) wire protection, it should be slid over the back of the connector until the lip seats fully in the recess in the housing (See Figure 7).

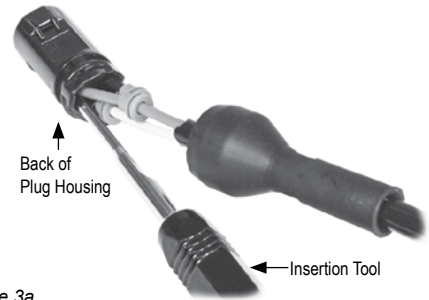


Figure 3a

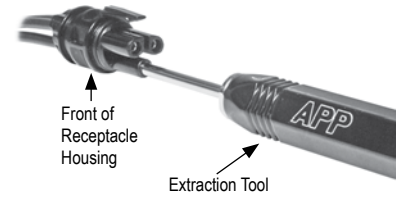


Figure 3b

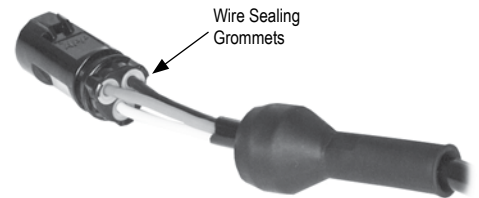


Figure 4

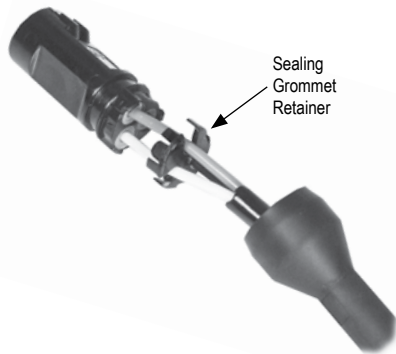


Figure 5



Figure 6



Figure 7

REGISTRATION

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PATENTS AND TRADEMARKS

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