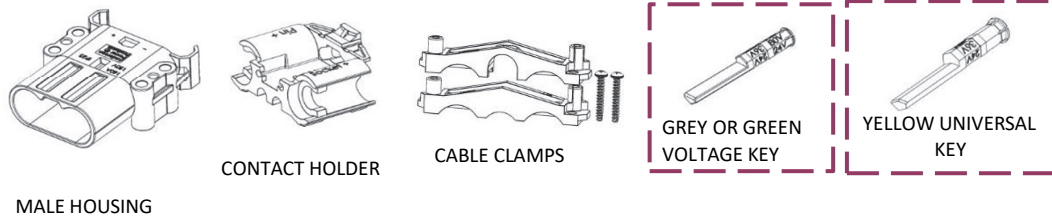


# A Series Male Connector Assembly Instructions

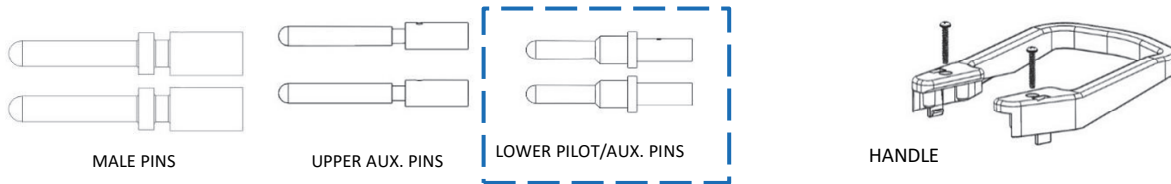
## Base Kit Components:



- Tools Required:**
- Crimp or solder tool
  - #2 Phillips head screwdriver
  - Torque wrench
  - Small flat screwdriver
  - \*Aux Contacts are solder only

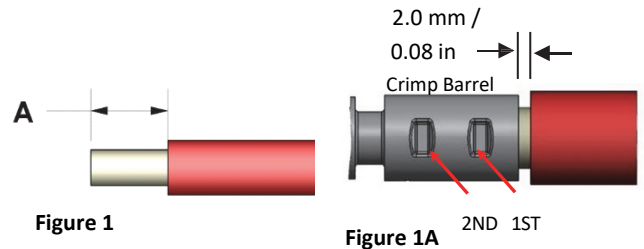
NOTE: Use either grey (wet), green (dry) or yellow (universal) key

## Optional Kit Components:

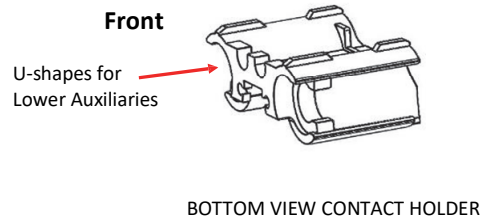
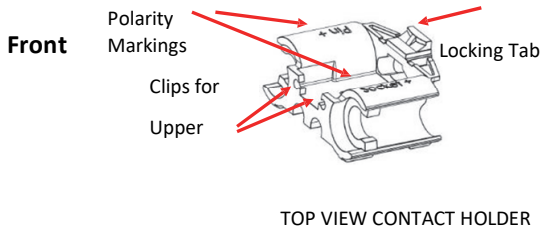


1. Strip wire per length specified in the table below (Figure 1)

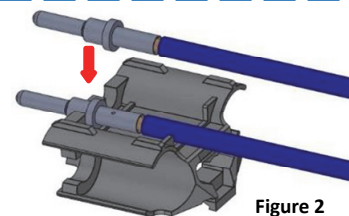
Contact Type	Wire Size	Dim. A
Power	1/0 – 2/0	20 mm / 0.8 in
Power	3/0 – 4/0	25 mm / 1 in
Auxiliary Contacts	#8 - #12	8.5 mm / 0.5 in



2. Insert wire into contact crimp barrel until wire bottoms in barrel. Solder or crimp contacts. Note: It is recommended to double-crimp when using wire sizes of 20mm-sq or greater. As shown in Figure 1A make the outer crimp first, then the inner crimp.
3. Pick up the holder and locate the Top and Bottom sides based on the diagrams below.



4. For Use of Lower Pilot/Auxiliaries (Installed on bottom side):
- Orient lower pilot/auxiliaries as shown in (Figure 2)
  - Line up contact grooves to U-shapes in holder
  - Press on each contact until the groove snaps into the U-shape



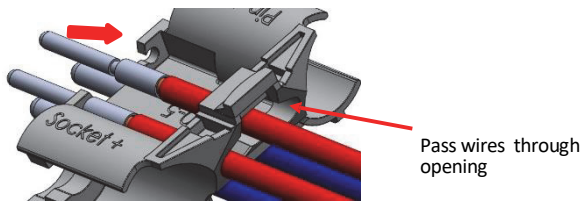


Figure 3

5. Install the upper auxiliary contacts on the top of the holder (Figure 3):
  - a. Pass the upper auxiliary leads through the opening in the top of the holder as indicated
  - b. Snap the groove of each contact into the retention feature by pushing from the center outward
  - c. The contacts should hold securely in the retention feature

6. Install terminated power contacts into the contact holder:

**CAUTION: Observe proper polarity. The positive and negative pin sides are indicated in Figure 4.**

- a. Line up the groove in the pin with the retention feature
- b. Push the contact towards the center until the contact snaps into place
- c. Repeat with the other pin on the opposite side

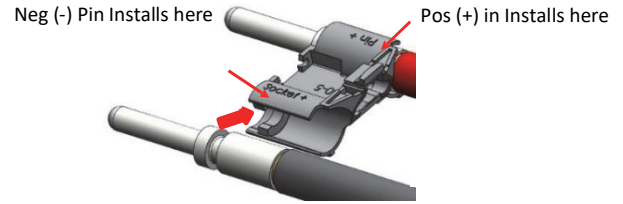
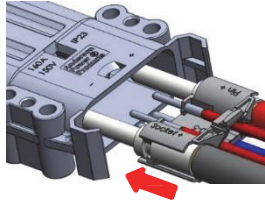


Figure 4

Figure 5



7. Install the fully assembled contact holder into the pin housing (Figure 5):
  - a. Orient both the holder and the housing with polarity markings facing up.
  - b. Slide the holder into the housing, lining up all contacts with their respective openings
  - c. Push from the back of the holder until the holder locking tab snaps into the rectangular opening (Figure 6)

Locking Tab engaged in hole

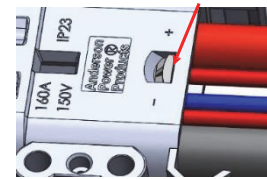


Figure 6

8. Install the voltage pin into the housing: The pin installs in the hex shaped opening on the inside of the plug housing.

- a. Orient the pin for the desired voltage. With the dry or wet voltage pins, the outer numbers correspond to the pin housing voltage. The universal pin only has one set of numbers.
- b. Push the pin forward, verifying that the pin is in the right orientation. (Figure 7)
- c. When the pin is close to flush with the inside plug housing, you should feel the latches engage, retaining the pin in the housing.

Outer numbers for male housing voltage

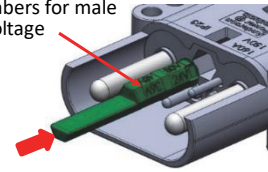


Figure 7 (Top Housing removed for clarity)

Larger "U" goes on the

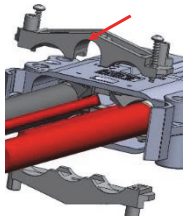


Figure 8

9. Secure the power cables using the cable clamps and self-tapping screws:

- a. Line up the top and bottom clamp with open pillars at the cable side of the housing (note the upper clamp has a larger "U" and should be on the side with polarity markings). (Figure 8)
- b. Install the two screws in the open holes on the upper clamp.
- c. Hold the two clamps tight to the cable while tightening the screws. Auxiliary wires will pass through "U" and are not be grabbed by the clamp.
- d. Tighten per table.

320 Series Clamp Tightening Torque				
Contact Size	min.		max.	
	N-m	in-lb	N-m	in-lb
50mm-sq	0.79	7	0.9	8
70 and 95mm-sq	0.68	6	0.79	7

Torque values are used with all wire sizes listed for that contact.

10. Install the optional handle on the top (polarity mark side) of the housing (Figure 9):

- a. Align the four posts on the underside of the handle with the four outer holes on the housing.
- b. Push down on the handle until the snap protrusions grab on the bottom of the housing
- c. Use the two self-tapping screws to secure the handle. Tighten to .7 to 1.0 N-M [6 – 9 in-lb] of torque.

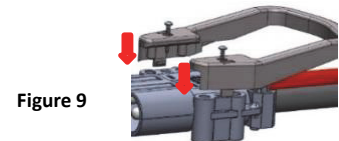


Figure 9

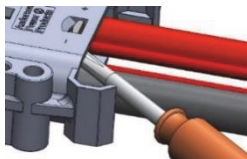


Figure 10

*If necessary to disassemble the connector, follow these instructions (Figure 10):*

1. Turn off all power sources
2. Remove the top and bottom cable clamps (optional handle does not need to be removed)
3. Slide a small flat screwdriver in through the back of the housing near the holder catch
4. Carefully rotate the screwdriver towards the back of the housing. The blade must wedge
5. Between the catch and the inside top of the housing, forcing the catch down.
6. Grasp both power wires and pull back until the holder is clear of the housing. This may require some force.