



ENGINEERING SPECIFICATION

INSTALLATION INSTRUCTION SHEETS

1.0 SCOPE

This specification consists of installation instructions for the Self Contained Power Connector for 2-wire cable with ground applications.

2.0 PURPOSE

To define material number system for the above instructions.

3.0 REFERENCE MATERIAL NUMBERS

See pages 2-4 for the actual instruction sheets. These pages can be used as originals.

4.0 DEFINITIONS

Not applicable.

5.0 PROCEDURES

Place one (1) instruction sheet in the smallest unit container.

6.0 IMPLEMENTATION

December 6, 2005

REVISION: J	ECR/ECN INFORMATION: EC No: 171319 DATE: 2018 / 01 / 24	TITLE: SELF CONTAINED POWER CONNECTOR INSTALLATION INSTRUCTIONS FOR 2 WIRE CABLE WITH GROUND APPLICATIONS	SHEET No. 1 of 4
DOCUMENT NUMBER: SD-19045-002	CREATED / REVISED BY: ETHRODAHL/GROJAS	CHECKED BY: JMACNEIL	APPROVED BY: JMACNEIL

Self Contained Power Connector Installation Instructions For 2 Wire Cable With Ground Applications

The 2-circuit-with-ground connectors will splice non-metallic-sheathed cable in the following wire ranges and types:

Self Contained Connector -

2 Circuit with ground for Solid Wire & Stranded Wire

Wire Range AWG	Order No.	Optional Hand Tool	Optional Bench Mount Tool	Optional Bench Arbor Press	Housing Color
10	19403-1300	19285-0084	19285-0088	64006-0200	White



Reference Information

UL File Number: E217798 & E196349

NEC Article: 550, 551, and 545, HUD Section: 3280.801

10 AWG Version, 30A, 300V

Self Contained Connector -

2 Circuit with ground for Stranded Wire

Wire Range AWG	Order No.	Optional Hand Tool	Optional Bench Mount Tool	Optional Bench Arbor Press	Housing Color
14-16	19403-1011	19285-0074	N/A	64006-0200	Blue
12	19403-1010	19285-0074	N/A	64006-0200	Yellow



Reference Information

UL File Number: E182087 Vol 2, CSA File Number: LR18689-C53

NEC Article: 550, 551, and 545, HUD Section: 3280.801

16 to 12 AWG Version, Current: 15-20A, Voltage: 600V.

Self Contained Connector -

2 Circuit with ground for Round Stranded Cable

Wire Range AWG	Insulation Diameter	Order No.	Optional Hand Tool	Optional Bench Arbor Press	Housing Color	Cover Color
14	.340-.440	19403-1310	19285-0100	64006-0200	White	Clear
14	.600	19403-0011	19285-0100	64006-0200	White	Blue
12	.340-.440	19421-0001	19285-0100	64006-0200	Yellow	Clear
12	.600	19421-0002	19285-0100	64006-0200	Yellow	Blue

Installation Procedure:

- Carefully strip and prepare the wires to the configuration as shown in **Figure 1**.

WIRE SIZE	"A" In.	"B" In.
10 AWG	1.95	.96
12 AWG	1.0	1.0
14 AWG	1.0	1.0
16 AWG	1.0	1.0

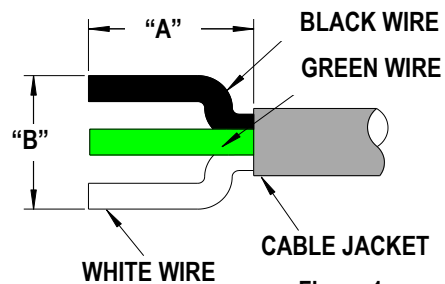
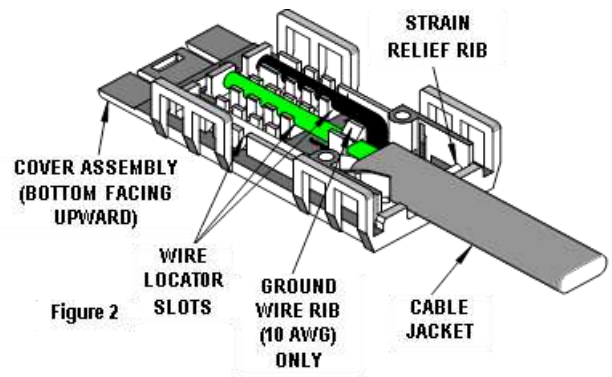
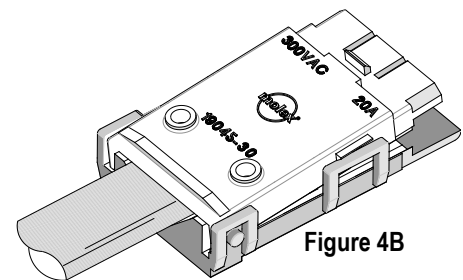
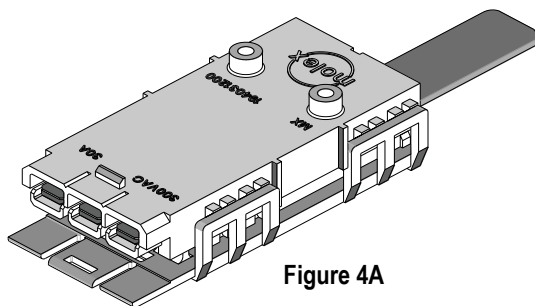
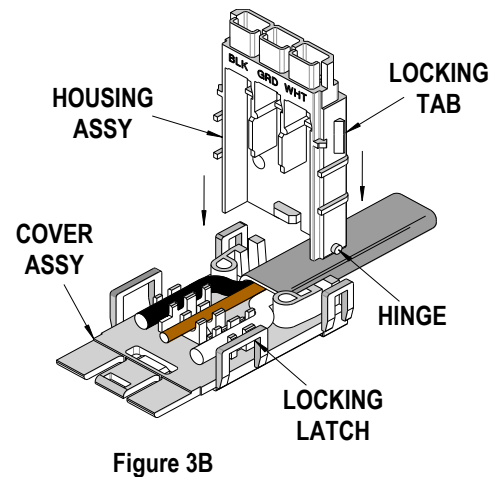
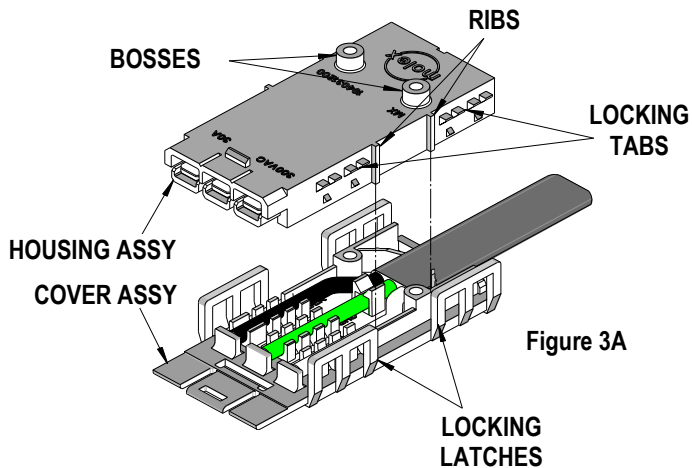


Figure 1

- Position the clear cover (bottom facing upward) as shown in **Figure 2**. (Cover for 4 latch 10 AWG connector shown).
- Position wires into locator slots. Be certain to place the black wire in the slot marked BLK, green or bare wire in slot marked GRD, and the white wire in the slot marked WHT. Upon final positioning of all wires, be certain the end of the cable jacket is rolled into the integral strain relief slot and is a minimum of .06" past the second strain relief rib as shown in **Figure 2**.



- For connectors with 4 latches, position the housing assembly over the cover with the ribs in the housing aligned between the latches as shown in **Figure 3A**. Then push the two halves together until the locking tabs engage as shown in **Figure 4A**. For the hinged connectors, position the hinge pins on the housing assembly into the mating holes in the cover as shown in **Figure 3B**. Then press down until both lock into place as shown in **Figure 4B**.



- Close the strain relief cover and housing by hand. Place assembly into Molex tool as shown in **Figure 5** for connector with 4 latches or **Figure 6** for the hinged connector. Squeeze the tool until the connector bottoms out and the locking latches engage on both sides. OR alternately, squeeze the top and bottom closed with tongue and groove (slip joint) pliers as shown in **Figure 7** (Hinged connector assembly shown). Pliers must be a minimum of 10" long. Squeeze firmly on both sides, squarely across the connector between ribs A and B to ensure wires seat completely into slots.

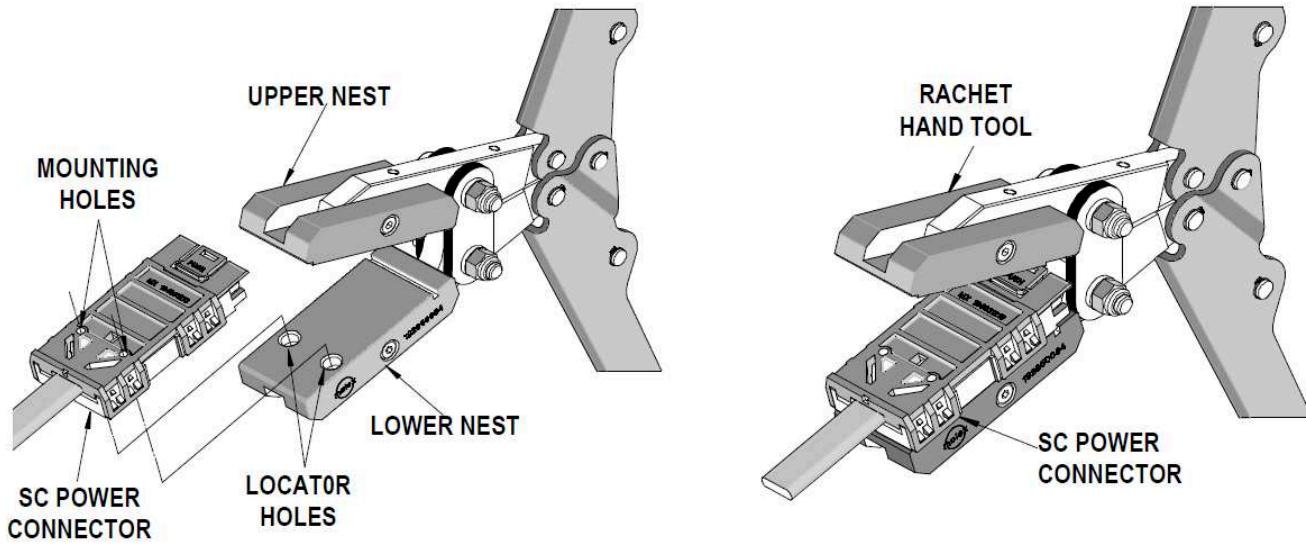


Figure 5

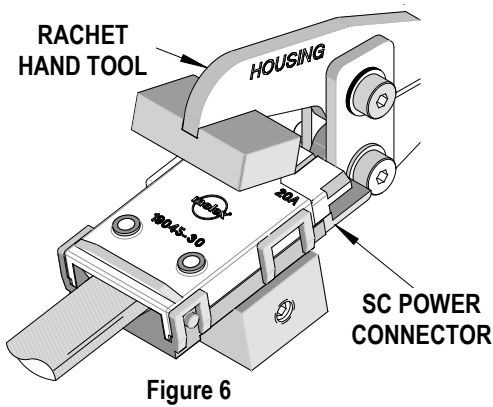


Figure 6

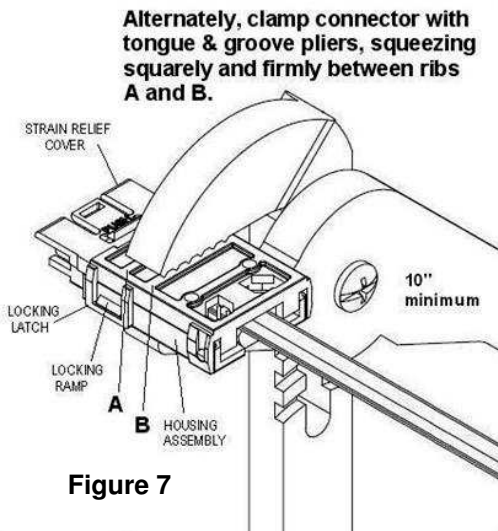
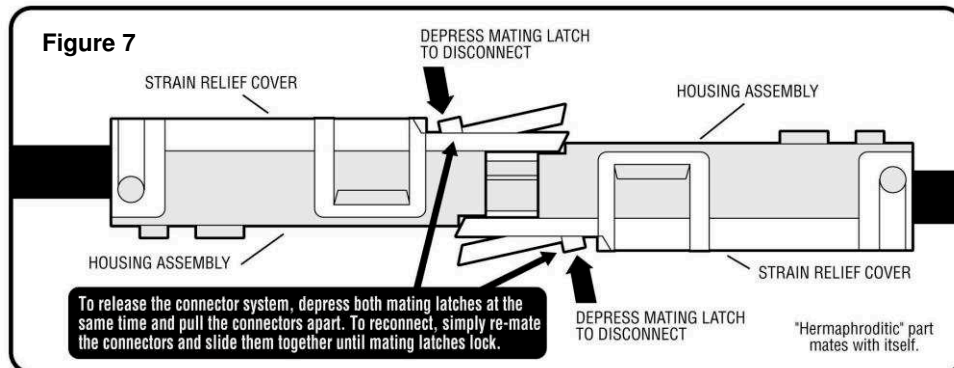


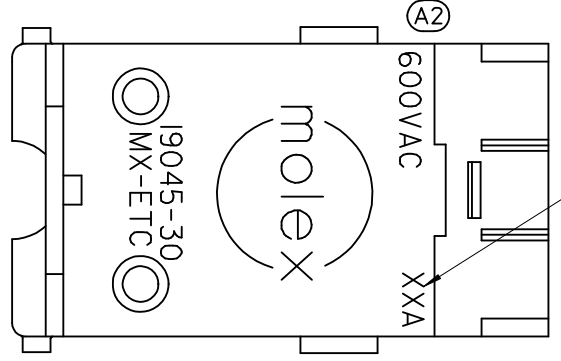
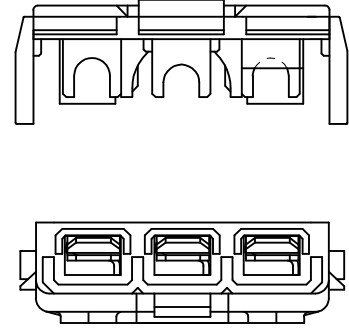
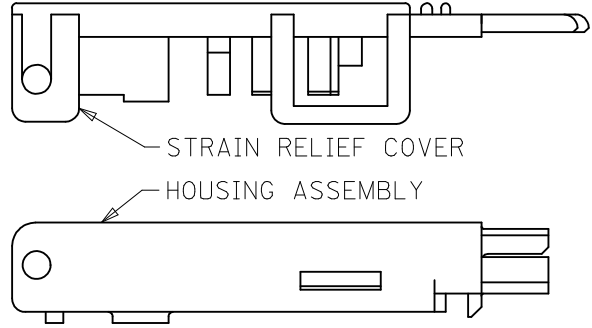
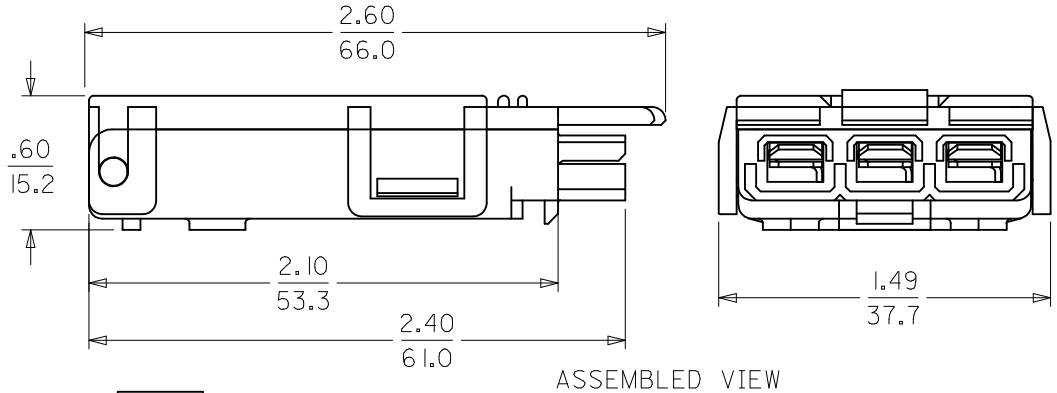
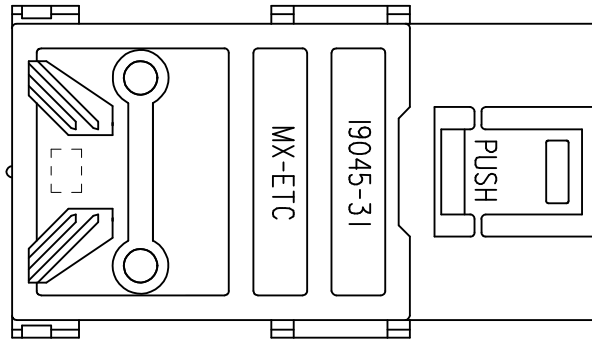
Figure 7

6. Inspect the connector to ensure the wires have been properly engaged into the housing assembly contacts. A properly terminated wire is fully seated into its proper slots with no significant bow of the cover. If the wires extend past the insulation stops, the wires must be re-terminated with a NEW CONNECTOR. Once the cover has been closed the connector cannot be re-used. Failure to comply with this procedure may result in the failure of the connector.

7. Mating and un-mating the completed connector is illustrated in **Figure 7**.



PART NUMBER	WIRE GAUGE RANGE	XX AMPS	HOUSING COLOR
194031010	12 AWG	20A	YELLOW
194031011	16-14 AWG	15A	BLUE



NOTE: PARTS ARE PACKAGED 50 UNITS PER CONTAINER.

CORRECTED MARKING EC NO: IPG2017-1056 DRAWING: JAS01 2017/05/15 CHKD: JMACNEIL 2017/05/15 APPR: JMACNEIL 2017/05/22 A2	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE IN/MM		SCALE ---	DESIGN UNITS INCH	THIRD ANGLE PROJECTION	
		mm INCH		DRAWN BY DATE DAY 1999/01/19		TITLE CUSTOMER DRAWING SC POWER CONNECTOR ASSY STRANDED WIRE CABLE			
		4 PLACES ± --- ± --- 3 PLACES ± --- ± .005 2 PLACES ± 0.13 ± .01 1 PLACE ± 0.25 ± --- 0 PLACE ± ±		CHECKED BY DATE RWD 1999/01/19		MATERIAL NO. DOCUMENT NO. SEE CHART SD-19403-110			
		ANGULAR ± 1/2° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY DATE		SHEET NO. 1 OF 1			