ASSEMBLY INSTRUCTIONS

NOTICE: READ BEFORE INSTALLING THIS DEVICE

This pin and sleeve device conforms to International Electrotechnical Commission Standards IEC 60309-1 and 60309-2. The arrangement of the pins, sleeves, and keys in this device cannot be mated with an IEC device of a different voltage, current, or system rating.

Pin and sleeve devices not made to IEC standards are made to standards established by individual companies. It is therefore possible that a non-IEC device can be improperly mated with an IEC device of a different voltage, current, or system rating.

To assure safety in the use of pin and sleeve devices, DO NOT USE non-IEC devices in the same premises as IEC devices, unless it has been determined beforehand that no mating is possible which can create an electrical situation which is hazardous to life or property.

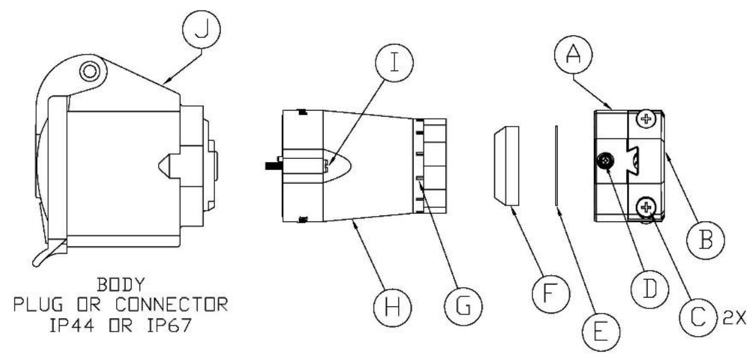
OPERATIONAL SAFETY NOTICE

This device has been tested for making and breaking a circuit at its rated voltage and current. However, it is still good electrical practice to de-energize the circuit before “unplugging”.

It is important that these devices be periodically examined for any foreign substances that might contaminate the pins/sleeves or the insulating material separating the terminals. Contamination decreases the insulation properties of the device which increase the possibility of arcing (another reason to de-energize the circuit before disconnecting) and might decrease the life of the product.

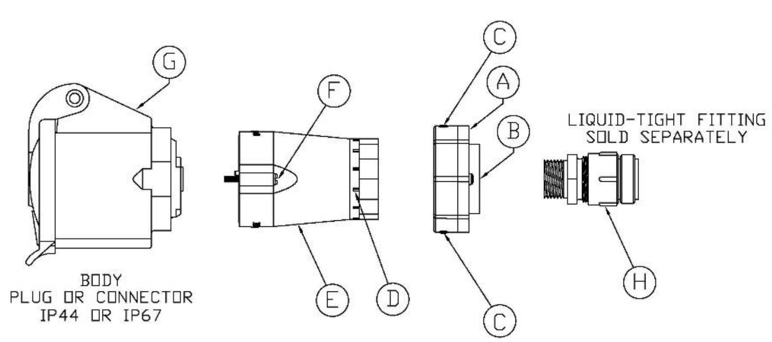
The frequency of inspections depends upon the type and degree of contamination and environmental factors.

PLUGS AND CONNECTORS



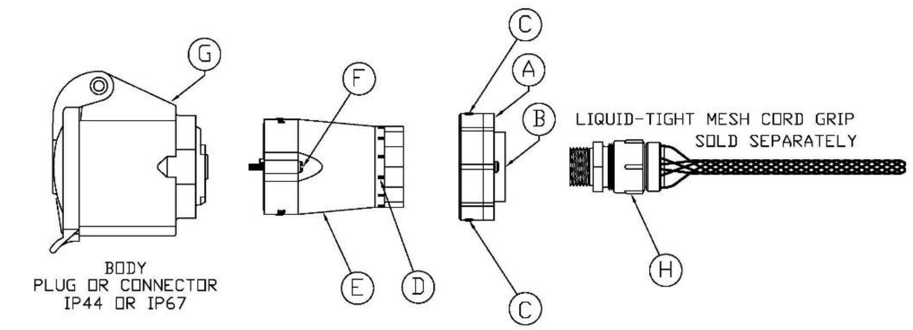
ASSEMBLY INSTRUCTIONS WHEN USING THE CORD CLAMP

1. Disassemble the device as shown.
2. Select the cord size from TABLE 3 – RECOMMENDED WIRE SIZE AND CORD TYPE.
3. Loosen cord clamp screws (C) to permit cord entry.
4. Slip the cord through the cord clamps (B), the compression nut (A), the thrust washer (E), the cord seal (F), and the back body (H).
5. Strip the cord jacket and the conductor insulation to the specified lengths in accordance with TABLE 1 - CORD STRIPPING GUIDE.
6. Loosen the terminal screws in the plug or connector body (J) enough to allow for conductor installation. Do not remove the screws.
7. Insert the conductors into the proper terminals. Tighten the terminal screws in accordance with TABLE 2 - TIGHTENING GUIDE.
8. Slide the back body (H) up the cord to the plug or connector body (J). Tighten the assembly screws (I) in accordance with TABLE 2 - TIGHTENING GUIDE.
9. Slide the cord seal (F) and the thrust washer (E) up the cord and into the back body (H).
10. Slide the compression nut (A) up the cord to the back body (H) and screw it into the back body (H).
11. Tighten the compression nut (A) in accordance with TABLE 2 - TIGHTENING GUIDE and align the locking screw (D) with one of the 12 witness marks (G) on the back body (H). Tighten the locking screw until it stops, about 2 in-lbs. Do not over tightening.
12. Retain or discard the cord clamp inserts as necessary. Engage the cord clamps (B) against the cord by tightening the cord clamp screws (C) in accordance with the TABLE 2 - TIGHTENING GUIDE.



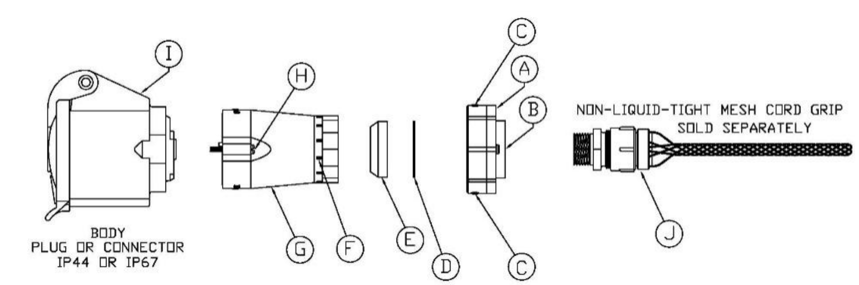
ASSEMBLY INSTRUCTIONS WHEN USING A LIQUID-TIGHT FITTING

1. Disassemble the device as shown.
2. Thread liquid-tight fitting (H) into threaded hole (B) and tighten to the torque range indicated in TABLE 4 – PIPE THREAD TIGHTENING GUIDE.
3. Screw the NPT Fitting (A) into the back body (E).
4. Tighten the NPT Fitting (A) in accordance with TABLE 6 – NPT FITTING TIGHTENING GUIDE and align the locking screws (C) with the witness marks (D) on the back body (E). Tighten each locking screws (C) until it stops, about 2 in-lbs. Do not over tightening.
5. Select the conductor size from TABLE 5 – RECOMMENDED WIRE SIZE FOR CONDUIT.
6. Strip the conductors to dimension B indicated in TABLE 1 – CORD STRIPPING GUIDE.
7. Loosen the terminal screws in the plug or connector body (G) enough to allow for conductor installation. Do not remove the screws.
8. Insert the conductors into the proper terminals. Tighten the terminal screws in accordance with TABLE 2 - TIGHTENING GUIDE.
9. Slide the conductors through the back body (E) and liquid-tight fitting (H) leaving about 3 inches to tuck into the back body (E). Assemble the back body (E) to the body (G). Tighten the assembly screws (F) in accordance with TABLE 2 - TIGHTENING GUIDE.
10. Slide the conductors through the conduit and assemble the conduit to the liquid-tight fitting.



ASSEMBLY INSTRUCTIONS WHEN USING A LIQUID-TIGHT MESH CORD GRIP

1. Disassemble the device as shown.
2. Thread the liquid-tight mesh cord grip (H) into threaded hole (B) and tighten to the torque range indicated in TABLE 4 – PIPE THREAD TIGHTENING GUIDE.
3. Select the cord size from TABLE 3 – RECOMMENDED WIRE SIZE AND CORD TYPE.
4. Push the cord through mesh cord grip (H) the length of the back body (E) plus 3 inches and tighten the cord grip to create the liquid tight seal.
5. Strip the cord jacket starting ½ inch away from the NPT Fitting (A).
6. Screw the NPT Fitting (A) into the back body (E).
7. Tighten the NPT Fitting (A) in accordance with TABLE 6 – NPT FITTING TIGHTENING GUIDE and align the locking screws (C) with the witness marks (D) on the back body (E). Tighten each locking screws (C) until it stops, about 2 in-lbs. Do not over tightening.
8. Strip the conductors to dimension B indicated in TABLE 1 – CORD STRIPPING GUIDE.
9. Loosen the terminal screws in the plug or connector body (G) enough to allow for conductor installation. Do not remove the screws.
10. Insert the conductors into the proper terminals. Tighten the terminal screws in accordance with TABLE 2 - TIGHTENING GUIDE.
11. Assemble the back body (E) to the body (G) tucking the conductors into the back body (E) in the process. Tighten the assembly screws (F) in accordance with TABLE 2 - TIGHTENING GUIDE.



ASSEMBLY INSTRUCTIONS WHEN USING
A NON-LIQUID-TIGHT MESH CORD GRIP

1. Disassemble the device as shown.
2. Thread the mesh cord grip (J) into threaded hole (B) and tighten to the torque range indicated in TABLE 4 – PIPE THREAD TIGHTENING GUIDE.
3. Select the cord size from TABLE 3 – RECOMMENDED WIRE SIZE AND CORD TYPE.
4. Push the cord through mesh cord grip (J), the thrust washer (D), and the cord seal (E) the length of the back body (G) plus 3 inches.
5. With the cord seal (E) pushed against the NPT Fitting (A) strip the cord jacket starting ½ inch away from the cord seal (E).
6. Screw the NPT Fitting (A) into the back body (G).
7. Tighten the NPT Fitting (A) in accordance with TABLE 6 – NPT FITTING TIGHTENING GUIDE and align the locking screws (C) with the witness marks (F) on the back body (G). Tighten each locking screws (C) until it stops, about 2 in-lbs. Do not over tightening.
8. Strip the conductors to dimension B indicated in TABLE 1 – CORD STRIPPING GUIDE.
9. Loosen the terminal screws in the plug or connector body (I) enough to allow for conductor installation. Do not remove the screws.
10. Insert the conductors into the proper terminals. Tighten the terminal screws in accordance with TABLE 2 - TIGHTENING GUIDE.
11. Assemble the back body (G) to the body (I) tucking the conductors into the back body (G) in the process. Tighten the assembly screws (H) in accordance with TABLE 2 - TIGHTENING GUIDE.

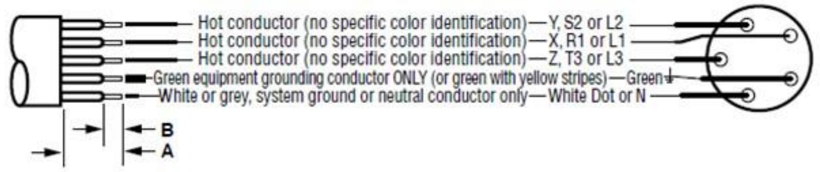


TABLE 1 - CORD STRIPPING GUIDE

Device Size	Con-ductors	A		B	
		inches	mm	inches	mm
30/32 Amp	All	1-1/2	38	13/16	21
60/63 Amp	All	2-3/4	70	13/16	21

TABLE 2 - TIGHTENING GUIDE

Device Size	Terminal Screw		Cord Clamp Screw		Assembly Screw		Compression Nut	
	in-lbs	N-m	in-lbs	N-m	in-lbs	N-m	in-lbs	N-m
30/32 Amp	7	0.8	6	0.7	7	0.8	18-27	2-3
60/63 Amp	17	1.9	6	0.7	7	0.8	18-27	2-3

TABLE 3 - RECOMMENDED WIRE SIZE AND CORD TYPE

Device Size	AWG	# of Conductors	Cord Type	Cord Diameter Min/Max
30/32 Amp	8	3, 4, 5	S/SJ	0.59 - 1.43
60/63 Amp	4	3, 4, 5	S or W	0.59 - 1.43

TABLE 4 – PIPE THREAD TIGHTENING GUIDE

NPT Fitting Material	1/2 NPT		3/4 NPT		1 NPT		1-1/4 NPT	
	in-lbs	N-m	in-lbs	N-m	in-lbs	N-m	in-lbs	N-m
Plastic	25-30	2.8-3.3	25-30	2.8-3.3	35-40	3.9-4.5	55-60	6.2-6.7
Metal	25-30	2.8-3.3	25-30	2.8-3.3	35-40	3.9-4.5	55-60	6.2-6.7

TABLE 5 – RECOMMENDED WIRE SIZE FOR CONDUIT

Device Size	AWG	# of Conductors	Insulation Type
30/32 Amp	10, 8	3, 4, 5	THHN
60/63 Amp	6, 4	3, 4, 5	THHN

TABLE 6 – NPT FITTING TIGHTENING GUIDE

NPT Fitting Material	NPT Fitting with Liquid-Tight Fitting/Mesh Cord Grip		NPT Fitting with Non-Liquid Tight Mesh Cord Grip	
	in-lbs	N-m	in-lbs	N-m
Plastic	25-30	2.8-3.3	18-27	2-3
Metal	25-30	2.8-3.3	18-27	2-3

NOTE: Wire size may vary with application. Select conductor size in accordance with Ampacity tables 400-5 (A) or (B) of the National Electrical Code® and Table 2 and 5A for the Canadian Electrical Code; use ampacities 60°C column of table 400-5 (B).