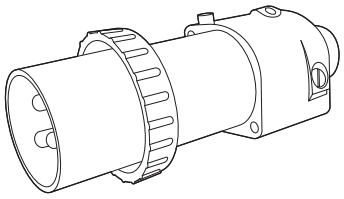
INSTALLATION INSTRUCTIONS

Spec Grade Non-Metallic FS/FD

30 Amp Circuit Interrupting Plugs

Russellstoll™



Part Numbers: 3750 and 3760 with suffixes; DP/__, PDG/__, and DPG/__

WARNING:

- **Risk of shock, disconnect power before installation.**
- **Equipment connected to circuits having different voltages, frequencies or types of current (AC or DC) must not have interchangeable attachment plugs per NEC Section 406.3(F).**

Important

Read and understand all instructions and safety information before use. Be aware of proper usage and potential hazards.

CAUTION:

- **Product should be installed by a qualified electrician in accordance with national and local electrical codes.**
- **Use only copper or copper clad aluminum wire with box mounted outlet or inlet. Use of other wire may result in the connector failing in service.**

Application:

Pin and sleeve contact design allows Spec Grade devices to be tailored to specific industrial applications and special purpose work in accordance with the National Electrical Code and local codes. The devices can be rated and polarized for specific voltages and amperages, preventing dangerous mismating of devices of different ratings

Preparation:

1. Recommended tools
   - Torque Wrench
   - Screw drivers
   - Wire strippers
   - Ohmmeter
   - Allen wrench 3⁄16"
2. Select cable size from table according to ampere rating of device.

Table	
Ampere rating	30
Cable size AWG	10
Cord type	S, SJ

3. Establish a wiring pattern so the same colored wire is put in the same terminal on all plugs, receptacles and connectors in the system. Spec Grade devices are polarized so the plug will enter the receptacle or connector only one way.
4. Interior markings for wiring as follows

2p 3w	3p 4w
X/L1,Y/L2,G/ ⏚	X/L1,Y/L2,Z/L3,G/ ⏚

Male plug installation

Instructions: (Figure on page 2)

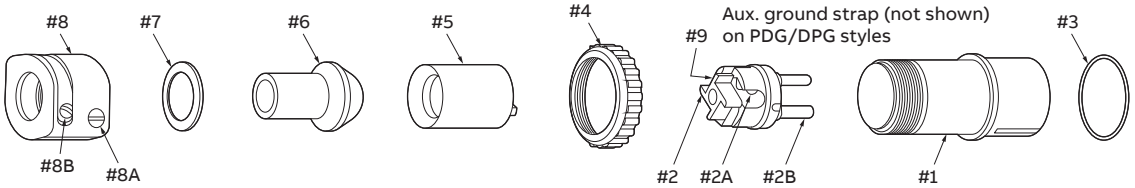
1. Turn power OFF.
2. Strip cable jacket 1-2 inches as needed and conductors ½ inch each.
3. Disassemble device removing gland nut #8, glide washer #7, bushing #6, liner #5, collar nut #4 (furnished with plug only) and interior #2 from housing #1.
4. Loosen screws #8B (2). Slide gland nut #8, glide washer #7, bushing #6, (conical face towards device) liner #5, and collar nut #4 over supply cable.
5. Loosen pressure screws #2A in pins. Insert stripped end of each conductor in pin #2B or sleeve #2B in accordance w/wiring pattern estab. in Step #3 under “preparation”.
6. Tighten pressure screws #2A to 20 in-lbs of torque.
   a. **For PDG/DPG styles:** Attach RFI shield braid if required to Aux. Ground strap #9 (if used) and tighten terminal screw to 5 in-lbs.
7. Reassemble interior #2 in housing #1 by lining up 2 tabs in housing with 2 notches on interior.

NOTE: Plug interiors must be rotated to “seat” by grasping pins while slowly turning housings. Interior must seat flat against housing inner ring (liner #5 flush with housing #1).

NOTE: O-rings on plug interiors are lubricated at factory for sealing and ease of assembly. If additional lubricant is required, apply a non-conductive lubricant such as GE type G661 silicone compound.

8. Slide liner #5 down cable, to seat on interior (in housing).

NOTE: Liner must be rotated by hand (note keyways) until properly engaged. Liner #5 seats completely in housing #1, flush with back end.



9. Position bushing (conical face down) into liner, with glide washer ring on top. Secure in place with gland nut #8. Tighten gland nut #8 on housing #1 to 40 inch pounds max or until bushing compression firmly grips cable. Max. compression of bushing is approx. 10% or to 90% of original I.D.. Other bushing sizes are available. Gland nut #8 has an additional thread locking screw #8A, tightened to 2 in-lbs, after clamps are assembled tight. See Note*

NOTE: Make sure O-ring gasket #3 is on housing (for plugs only)

***NOTE: Hand assemble** (item #8B) **both** cable clamp yokes, **both** machine screws an nuts (supplied loose) onto cable gland #8 as shown. **Alternately** tighten screws to firmly grip cable & bushing to 10-15 in-lbs. Use of automatic tools is NOT recommended unless verified torque limit <15 in-lbs.

General information

Electrical testing

Important: To avoid risk of shock or electrocution, or damage to electrical equipment do not connect to power until the following electrical tests have been performed.

1. Make continuity checks of wiring with ohmmeter to verify correct phasing and grounding connections.
2. Check insulation resistance to be sure system does not have any short circuits or unwanted grounds.

Connect all devices in the system, turn the power on and test the system.

Maintenance Manger:

MAINTENANCE MANAGER: Please record the following information for your records.

_____

COMPLETE CATALOG NO.
(As shown on device label)

_____

DATE OF INSTALLATION

Maintenance

Inspection of electrical equipment used in industrial and heavy use situations must be conducted regularly to ensure proper function and safely.

Check for and correct the following items during inspection:

1. Unsecured contact wire terminals
2. Cracked or broken housings
3. An unfastened or loose ground conductor
4. Deteriorated or misplaced gaskets
5. Loose or missing screws

WARNING:
If any part of a new plug, receptacle or connector appears to be missing or damaged, DISCONTINUE USE IMMEDIATELY. Call factory for return. Use only new authorized Russellstoll® factory replacements for any repairs.

tnb.abb.com (US/Latin America)
tnb.ca.abb.com (Canada)
abb.com
Warranty: tnb.abb.com/ecpwarranty