

# CONNECTORS

SECURE MOUNT® SERIES



## INTRODUCTION

RigPower's mission is to create new industry standards in industrial electrical connectors by combining appropriate technological advances, quality production methods and dependable customer support.

The Secure Mount® series was designed using the latest technological advances in materials and designs to help protect roughnecks and equipment while providing ease of installation and superior electrical connections. Drilling industry tested for added safety, function, and durability.

### Applications

The Secure Mount® series (U.S. Patent 7,399,194) provides economical yet secure connection of 1,000 volts AC or DC loads up to 1,135 amps. The Secure Mount® is compatible with existing socket and pin style connectors, but offers increased withdrawal protection, easier phase identification, simplified mounting, improved electrical connection and improved working environment for all area workers.

### Background

Existing board socket and pin connectors are mounted into a large expensive piece of insulating board, usually fiberglass or melamine, and requires a precision mounting hole. Small knurls on the shaft of the connectors are pressed into the mounting hole to prevent rotation. Over-tightening of the connector can easily strip the knurls out of the mounting hole, rendering the connector inoperable. Additionally, the design of the rear of the existing connector does not allow for direct attachment of a standard electrical lug and can not carry higher amp loads offered by the Secure Mount® receptacle.

### Secure Mount® Receptacle With Mated Plug



Back Design of Single Hole Receptacle



### Phase Identification

The Secure Mount® connectors are color coded to provide easy circuit identification. The receptacle flanges and mating boots are color coded to provide positive phase identification before and after connection. Color coding prevents reverse phasing or cross polarization of DC circuits. Colors are available for both AC and DC circuits.

AMPACITY RATINGS IN 40° AMBIENT		
CABLE SIZE	90°	125°
313 MCM	513 AMPS	636 AMPS
444 MCM	642 AMPS	796 AMPS
535 MCM	724 AMPS	898 AMPS
646 MCM	814 AMPS	1009 AMPS
777 MCM	916 AMPS	1135 AMPS

### Type P Cables

RigPower's Secure Mount® series connectors are designed to work in conjunction with the latest generation of Type P drilling cables, per IEEE 45. Cable accommodations are 313 MCM through 777 MCM.

### Available Colors



### Secure Mount® Field Installation/Repair Kit

#### APPLICATIONS

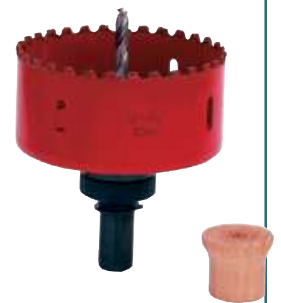
This kit is designed to allow quick and easy field replacement of a PD-501 style connector with a Secure Mount® connector. The Kit contains enough supplies to field mount five Secure Mounts® in an existing panel.

#### FEATURES

- No replacement of insulating board is required, even damaged boards can be saved
- No need to remove adjacent undamaged connectors from insulation board
- Save cost, labor and downtime when field repairs are necessary

#### KIT CONTENTS

- Parts to field mount five Secure Mount® Receptacles.
1. Five Tapered wooden plugs
  2. One 3 and 3/4 inch diameter carbide tipped hole saw
  3. Twenty sets of mounting bolts
  4. Five adhesive drilling templates
  5. Complete instructions



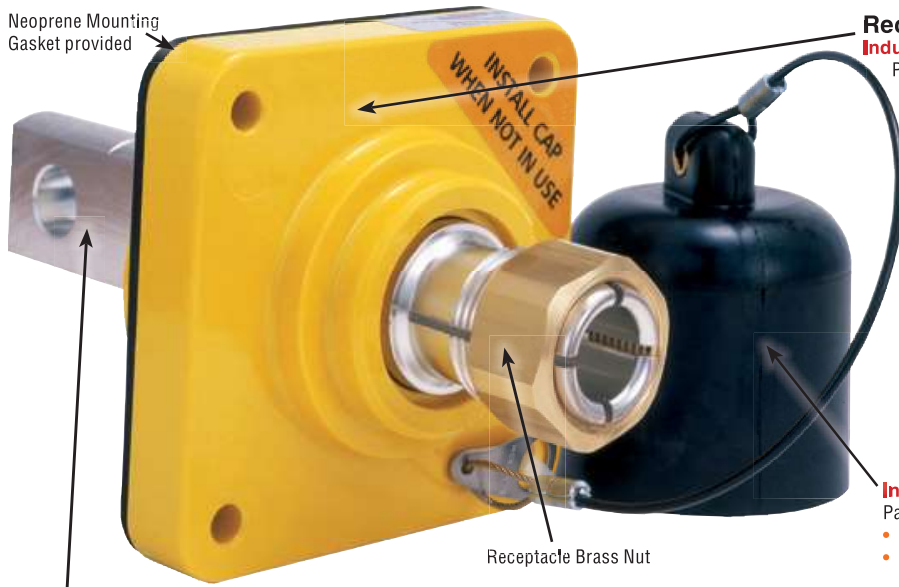


## INDUSTRY FEATURES AND BENEFITS

### Application Information

The Secure Mount® Series connectors have been designed to safely distribute 1,135 Amps @ 1,000 volts, AC or DC, continuously. **For personnel protection, the Panel Mounted Receptacle should always be covered by the provided safety cap when a cable is not connected.** Contacts may be attached to cables by soldering or by crimping with the appropriate dies and equipment.

Neoprene Mounting Gasket provided



### Receptacle

#### Industry Exclusive –

Panel Mounting Base (U.S. Patent 7,399,194) designed specifically with the requirements of the drilling industry in mind.

- Mounts directly into any stainless or aluminum panel which eliminates the need for expensive melamine or fiberglass board
- Uses four 5/16 bolts and nuts
- Design supports quick, easy installation and replacement, if required
- Allows operators to accurately space each receptacle on switchgear and SCR drives
- Large Color Coded Mounting Base is made from an Advanced Thermoset Glass filled Polymer
  - » UV resistant
  - » High temperature performance
  - » Provides easy phase identification before and after the cable is connected
  - » Available in ten colors

#### Industry Exclusive

Panel Mounted Receptacle Protective Cap

- Securely attached to Mounting Base for quick and easy use
- Protects roughnecks from accidentally coming into contact with receptacle tip when not in use
- Material: Black Neoprene

A robust Buss Bar style back provides for greater amperage rating.

- Rated at 1,000 volts AC or DC up to 1,135 amps
- Single or Double Hole Buss Bar
- Buss Bar back eliminates the need for copper flags
- Installation is quick, reliable and safer than jam nut style connectors
- Receptacle will not strip out like other board sockets
- Made from Duplex Sn plated high conductivity copper

### Dust Cap

#### Industry Exclusive

Designed to securely connect to the rubber boot and provides protection to the cable end when not in use.

- Material: Black Neoprene

### Contact

#### Industry Exclusive

Advanced design “Hammer Head” Contact (U.S. Patent 7,399,194)

- Designed to ensure a secure and complete connection between the shaft of the contact and receptacle opening when tightened together.



Double Crimp Style base is longer than other manufacturers, which provides a more complete and secure connection between the cable and contact.

- Crimping locators are designed into the base for ease of installation
- Uses the same crimping die sets as the RigPower “RMP® II” series
- Made from Duplex Sn plated high conductivity copper

### RUBBER BOOT

#### Industry Exclusive

Boots are made from a Proprietary Synthetic Thermoset Rubber (not Thermoplastic) with “Self-Lubricating” technology. The boots are resistant to oil, mud, sea water and petroleum products found in the drilling industry and are designed to provide weatherproof service in a variety of demanding environments. Correctly assembled, the connectors provide safe trouble-free operation in the most extreme working conditions.

Molded ring indicators on the cable end of the boot are designed to be cut down to accommodate cable sizes ranging from 313 MCM to 777 MCM.

### Retention Ring

#### Industry Exclusive

- Helps prevent the loss of rubber boot when cable is not connected
- Made from Delrin® which is resistant to high temperatures

Delrin® is a registered trademark of DuPont.

**WARNING:** The RigPower Secure Mount® series 646 and 777 contacts are designed for higher amperage loads than other panel board sockets can handle. Use these two contact sizes only with Secure Mount® Receptacles (only in red).

