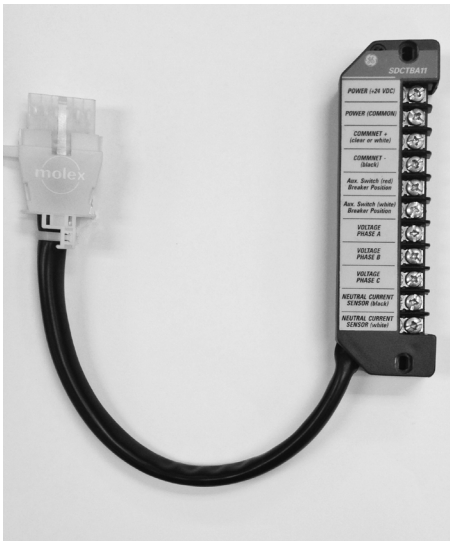


GEH-6257 Installation Instructions

Distribution Cable Terminal Block

For Spectra® RMS Molded-Case Circuit Breakers
with *microEntelliGuard*™, MicroVersaTrip® PM or MicroVersaTrip® Plus Trip Units

For Catalog Number SDCTBA11
UL LISTED Circuit Breaker Accessory



Overview

The General Electric Distribution Cable Terminal Block is a modular attachment primarily used to provide an alternate means of connecting input/output signals to Spectra® RMS Molded-Case Circuit Breakers with *microEntelliGuard*™ or MicroVersaTrip® PM/Plus Trip Units. The terminal block connection points are as follows:

Spectra® RMS Breaker with *microEntelliGuard*™ or MicroVersaTrip® PM Trip Unit

- Control power (+24vdc)
- Control power (-common)
- System communications (Comm. +)
- System communications (Comm. -)
- Breaker position (Aux. Switch red)
- Breaker position (Aux. Switch white)
- Voltage A ϕ (must be from Voltage Module or Voltage Conditioner Plate or Voltage Conditioner Assembly)
- Voltage B ϕ (must be from Voltage Module or Voltage Conditioner Plate or Voltage Conditioner Assembly)
- Voltage C ϕ (must be from Voltage Module or Voltage Conditioner Plate or Voltage Conditioner Assembly)
- Neutral current sensor - black (for equipment ground fault)¹
- Neutral current sensor - white (for equipment ground fault)¹

Spectra® RMS Breaker with MicroVersaTrip® Plus or *microEntelliGuard*™ (with Basic Metering) Trip Unit

- Control power (+24vdc)
- Control power (-common)
- Neutral current sensor - black (for equipment ground fault)¹
- Neutral current sensor - white (for equipment ground fault)¹

¹ Neutral current sensor input is required for 3 ϕ /4W or 1 ϕ /3W systems. For 3 ϕ /3W systems do not make any connections.

Figure 1 shows how the Distribution Cable Terminal Block is used in a typical MicroVersaTrip® PM system. Figure 2 shows how the Distribution Cable Terminal Block is used in a typical MicroVersaTrip® Plus system. The *microEntelliGuard™* Trip Unit can be used with either configuration, i.e. Figure 1 or Figure 2. The connection diagram shown in Figure 2 applies to *microEntelliGuard™* Trip Units with Basic Metering.

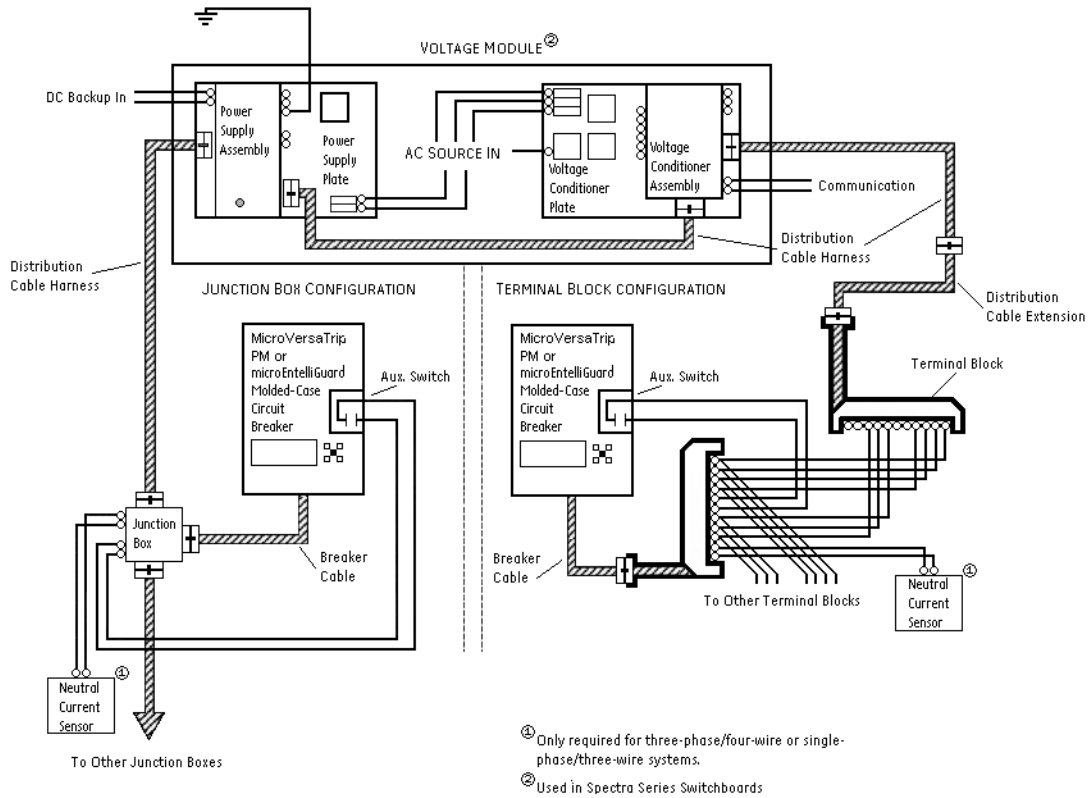


Figure 1. Typical MicroVersaTrip® PM Trip Unit System detailing the Distribution Cable Terminal Block.

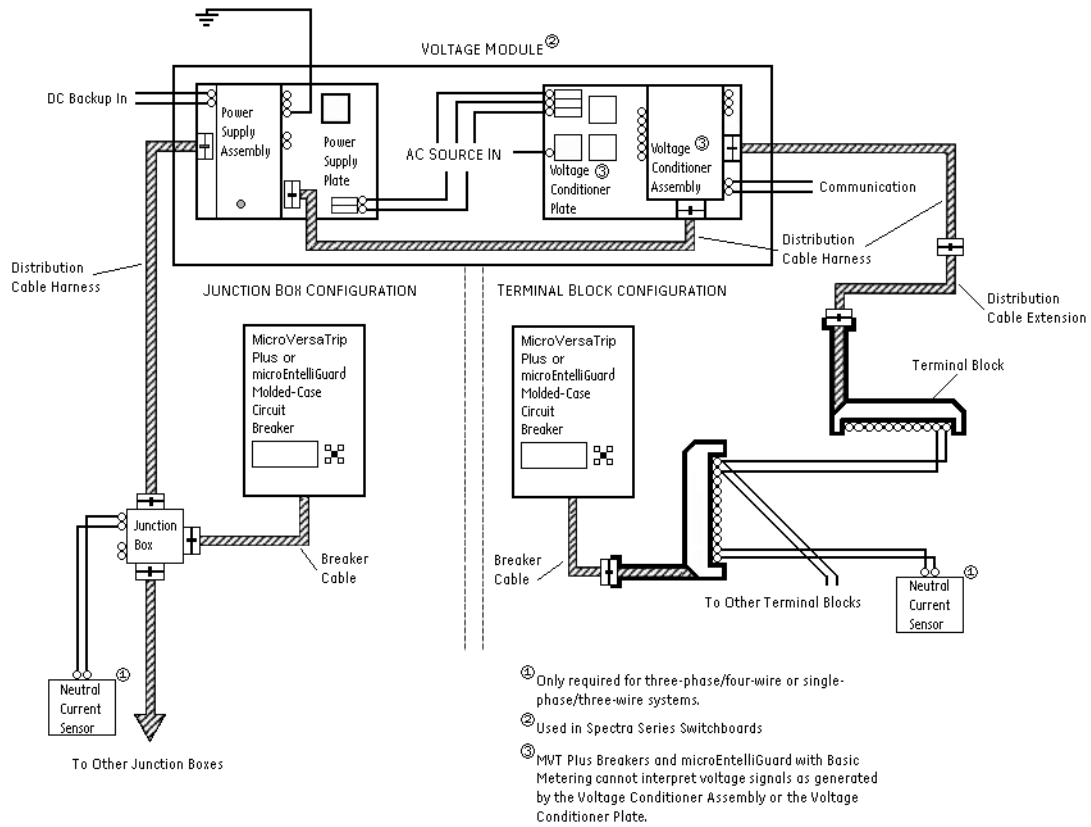


Figure 2. Typical MicroVersaTrip® Plus Trip Unit System detailing the Distribution Cable Terminal Block.

The Distribution Cable Terminal Block can also be used to provide a connection into or out of the Distribution Cable System. The system is used to carry a variety of electronic signals between Spectra® RMS Molded Case Circuit Breakers with *microEntelliGuard*™ or MicroVersaTrip® PM/Plus Trip Units and Distribution Cable accessories. The electronic signals supported by the Distribution Cable System vary depending on the type of molded-case circuit breaker used; a list of supported signals appears below.

Spectra® RMS Breaker with *microEntelliGuard*™ or MicroVersaTrip® PM Trip Unit

- Control power (+24vdc)
- Control power (-common)
- System communications (Comm. +)
- System communications (Comm. -)
- Voltage A ϕ (must be from Voltage Module or Voltage Conditioner Plate or Voltage Conditioner Assembly)
- Voltage B ϕ (must be from Voltage Module or Voltage Conditioner Plate or Voltage Conditioner Assembly)
- Voltage C ϕ (must be from Voltage Module or Voltage Conditioner Plate or Voltage Conditioner Assembly)

Spectra® RMS Breaker with MicroVersaTrip® Plus or *microEntelliGuard*™ (with Basic Metering) Trip Unit

- Control power (+24vdc)
- Control power (-common)

Figure 3 shows the individual breaker input connector pinout for the Distribution Cable Terminal Block for each type of trip unit, and Figure 4 shows the system connector pinout for the Distribution Cable Terminal Block for each type of trip unit.

To use the Distribution Cable Terminal Block to provide a connection into or out of the Distribution Cable System, you must use one of the Distribution Cable Harnesses (cat. nos. SDCHA11, SDCHA30 or SDCHA60 as a jumper into a Distribution Cable Junction Box (cat. no. SDCJBA).

A Distribution Cable Terminal Block dimensioned drawing is provided in Figure 5 to assist in mounting the accessory.

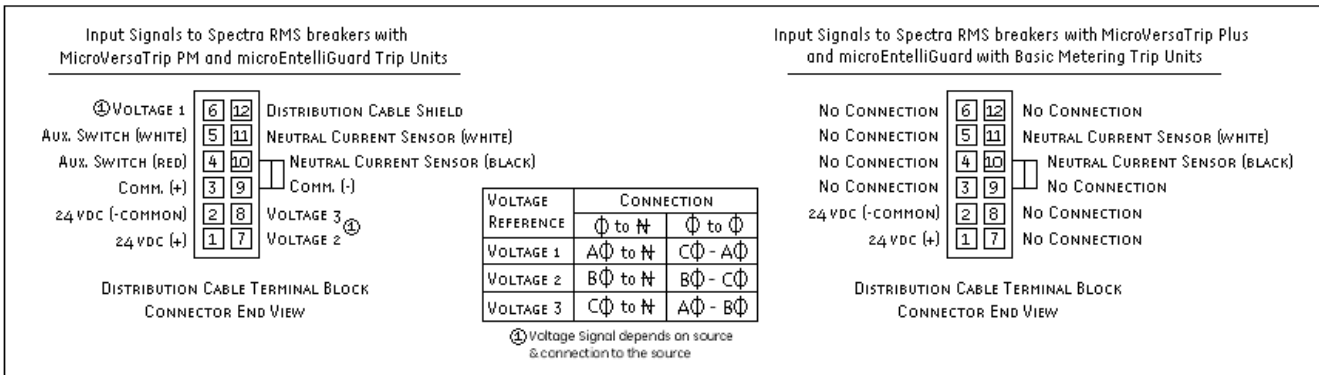


Figure 3. End view of Distribution Cable Terminal Block detailing available breaker input pinout connections.

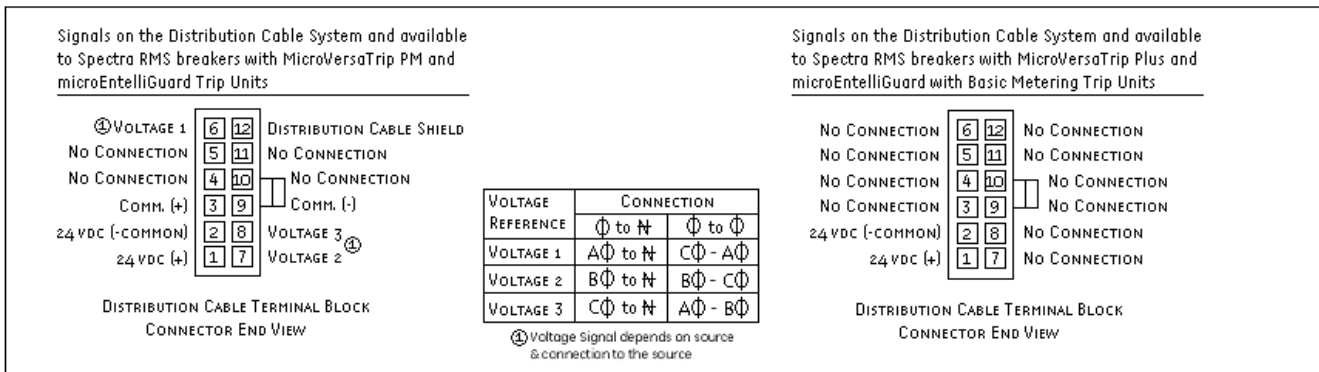


Figure 4. End view of Distribution Cable Terminal Block detailing available system pinout connections.

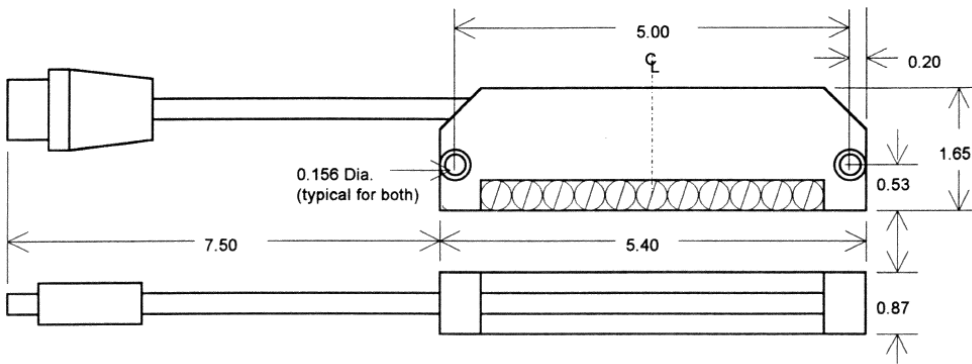


Figure 5. Dimensioned drawing of the Distribution Cable Terminal Block (dimensions shown in inches).

Figure 6 contains a point-to-point wiring diagram for a Distribution Cable Terminal Block connected to a Spectra® RMS Molded-Case Circuit Breaker with a MicroVersaTrip® Plus Trip Unit. Figure 7 contains a point-to-point wiring diagram for a Distribution Cable Terminal Block connected to a Spectra® RMS Molded-Case Circuit Breaker with a MicroVersaTrip® PM Trip Unit. The *microEntelliGuard™* Trip Unit can be used with either configuration, i.e. Figure 6 or Figure 7. The connection diagram shown in Figure 6 applies to *microEntelliGuard™* Trip Units with Basic Metering.

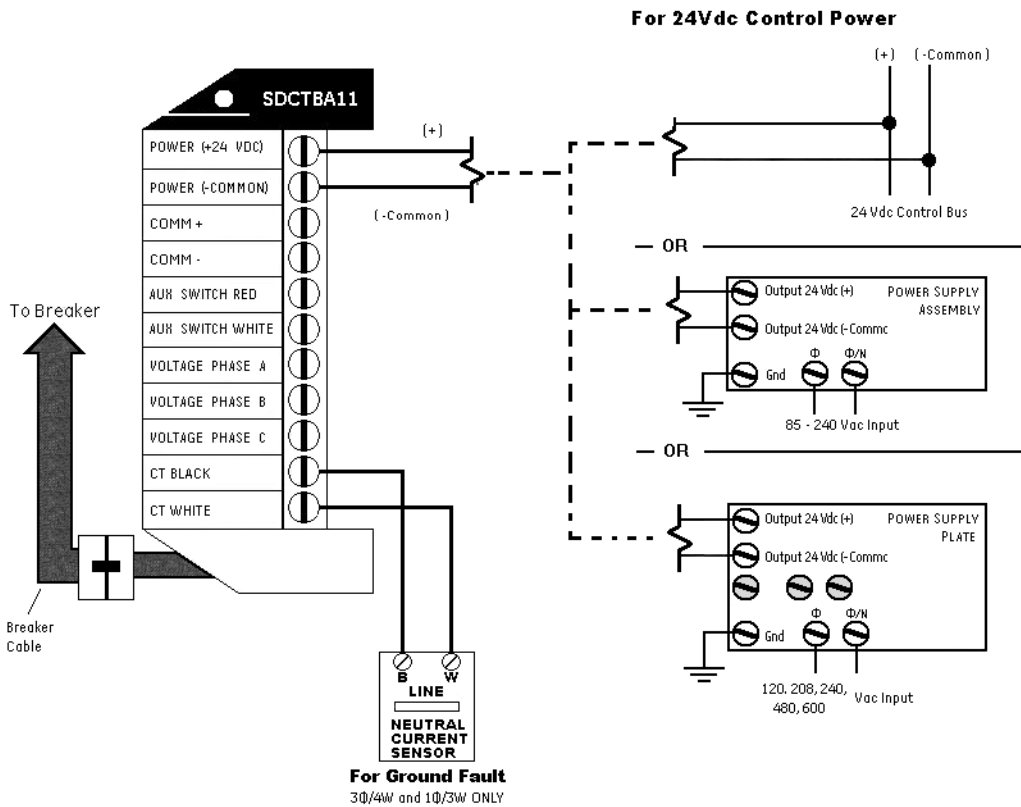


Figure 6. Wiring connections to the Distribution Cable Terminal Board for a Spectra® RMS breaker with a MicroVersaTrip® Plus Trip Unit.

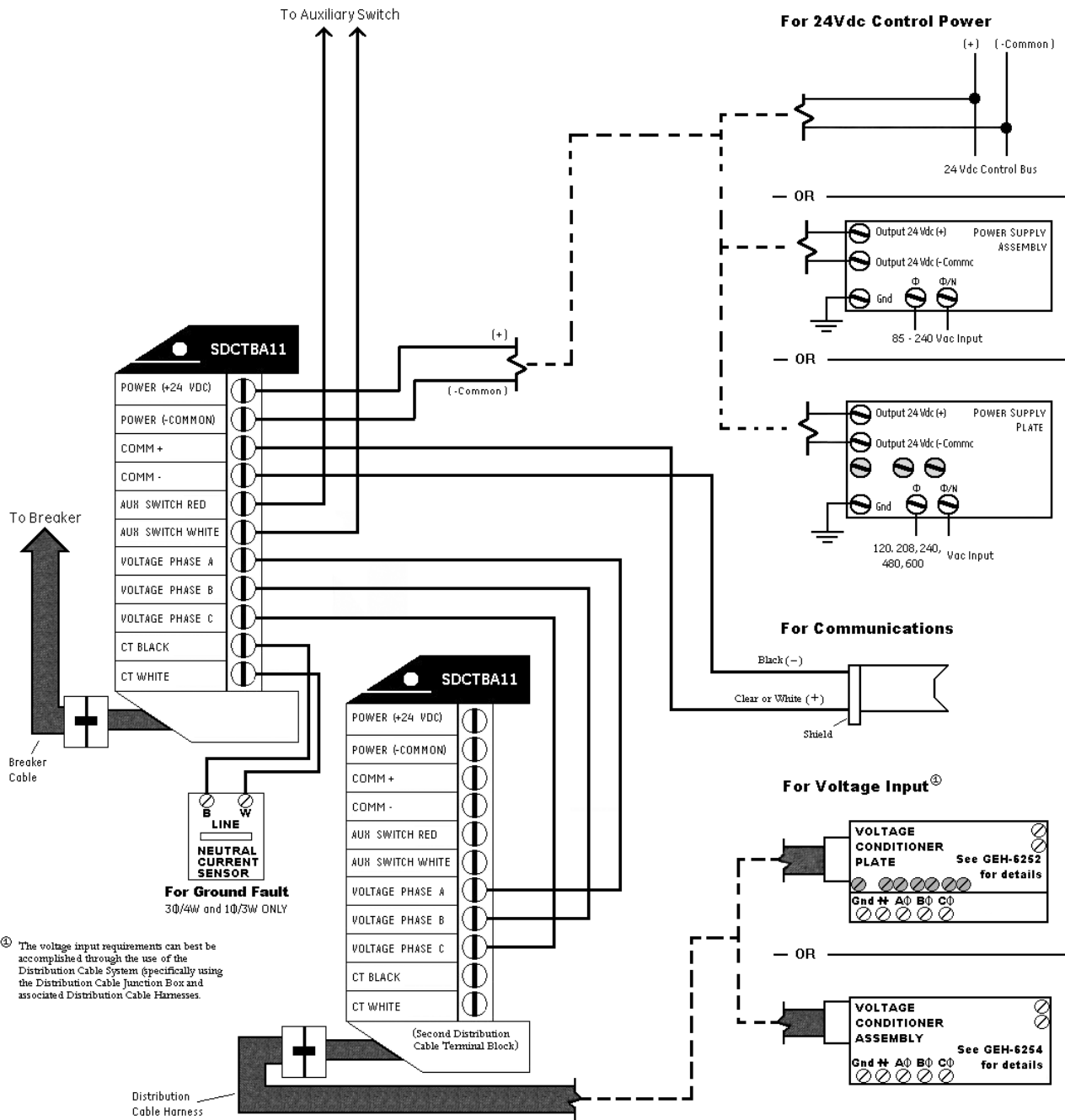


Figure 7. Wiring connections to the Distribution Cable Terminal Board for a Spectra® RMS breaker with a MicroVersaTrip® PM Trip Unit.

Connections

The screw terminals on the Distribution Cable Terminal Board are labeled by function for clarity. The terminal strip pocket will accommodate a spade lug or ring terminal with a tongue width up to 0.320 inches. The terminal screw size is 10-32. To make the connection, attach an appropriate spade lug or ring terminal to the wire, slip the fastener beneath the terminal screw and tighten.

The Distribution Cable Terminal Block also contains a cable with a 12-pin plug connector. This connector is keyed so it cannot be inserted incorrectly into a mating 12-pin receptacle connector.

To connect the end of the Distribution Cable Terminal Block to a Spectra® RMS Molded-Case Circuit Breaker with a *microEntelliGuard™* or a MicroVersaTrip® PM/Plus Trip Unit with a breaker cable or another Distribution Cable Accessory, align the plug hook connector of the Distribution Cable Terminal Block with the mating receptacle interlock and insert the plug into the receptacle until the interlock and hook catch (or click), see Figure 8.

To disconnect the Distribution Cable Terminal Block, press down at the rear of the receptacle interlock until the interlock clears the plug hook and remove the plug (see Figure 9).

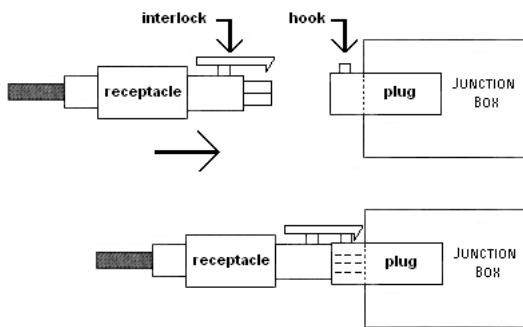


Figure 8. Side view of plug-receptacle connection insertion.

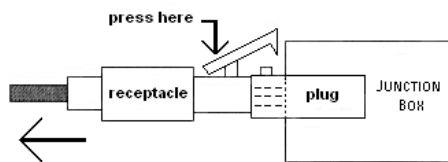


Figure 9. Side view of plug-receptacle connection removal.

Additional Information

Refer to these other user's manuals for more details:

- GEH-5934 MicroVersaTrip® Plus and MicroVersaTrip® PM Trip Units in Spectra® RMS Molded-Case Circuit Breakers
- GEH-700 Spectra® G Breaker w/ *microEntelliGuard™* Trip Unit
- GEH-701 Spectra® K Breaker w/ *microEntelliGuard™* Trip Unit
- GEH-702 *microEntelliGuard™* Trip Unit Users Manual
- DEH-41318 Universal Rating Plug
- GEH-6250 Voltage Module
- GEH-6251 Power Supply Plate
- GEH-6252 Voltage Conditioner Plate
- GEH-6253 Power Supply Assembly
- GEH-6254 Voltage Conditioner Assembly
- GEH-703 MET Battery Pack Adapter
- GEH-704 MET Advanced Distribution Cable Junction Box
- DEH-006 Distribution Cable Junction Box
- GEH-705 MET Distribution Cable Extension (20-pin)
- GEH-6256 Distribution Cable Extension (12-pin)
- GEH-6255 Distribution Cable Harness (12-pin)
- GEH-706 MET Distribution Cable Terminal Blocks (11 point & 22 point)
- GEH-6491 POWER LEADER™ Modbus Concentrator
- GEH-6502 POWER LEADER™ PMCS 5.0 Network Architecture Guide
- GEH-707 MET Sealable Cover kits
- DEH-4568 GTU digital test kit (GTUTK20)
- GEH-5551 Shunt Trip and UVR instructions
- GEH-5593 Aux switch and bell alarm
- GEK-64467 TIM-1 Zone Selective Interlock Module

Spectra and MicroVersaTrip are registered trademarks and EntelliGuard and *microEntelliGuard* are trademarks of the General Electric Company.

These instructions do not cover all details or variations in equipment nor do they provide for every possible contingency that may be met in connection with installation, operation, or maintenance. Should further information be desired or should particular problems arise that are not covered sufficiently for the purchaser's purposes, the matter should be referred to the GE Company.

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