



# Spectra Series™ Power Panelboards

## Circuit Breakers and Modules



**WARNING:** Danger of electrical shock or injury. Turn OFF power ahead of the panelboard or switchboard before working inside the equipment or removing any component. Do not remove circuit protective devices or any other component until the power is turned OFF.

### General

These instructions apply to the following catalog numbers:

- Circuit breaker modules AMC6FJ, AMC4FJ, AMC3FJ, AMC2FJ, AMC6FLS, AMC3FLS, AMC2FLS, and AMC4FLS
- Circuit breaker frames TFJ, TFK, THFK, TFL, SFHA, SFJA, and SFPA

### Installation

**1. Phase balancing for two-pole devices in three-phase systems.** To balance the panelboard load, remove the screws on the appropriate bus clip, reposition the bus clip as shown in Figure 1, then install and tighten the screws to 27–32 in-lb.

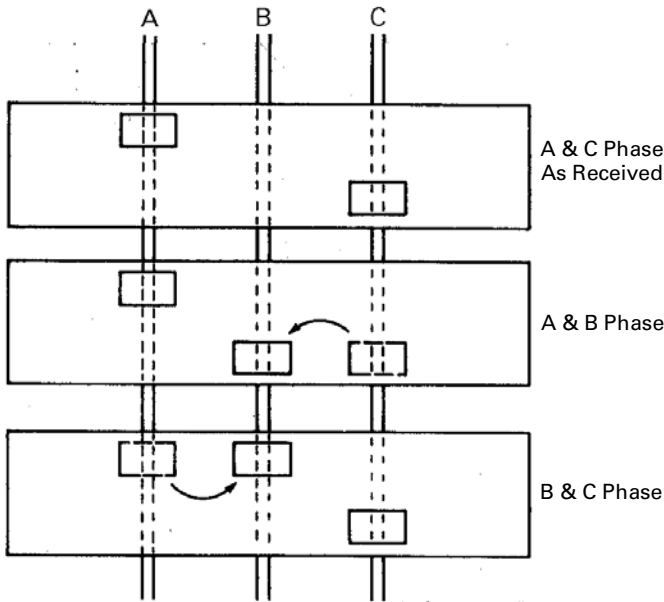


Figure 1. Repositioning the bus clip to balance the load.

**2. Prepare the breaker module.** Remove the protective caps or insulating tape only from the tops of the stud posts to which the circuit breaker is to be attached, as shown in Figure 2. Fasten the filler supports, as shown in Figure 3, with #10-32 x 3/4" hex-head screws tightened to 15–20 in-lb. The proper position of the filler support is listed in Table 1.

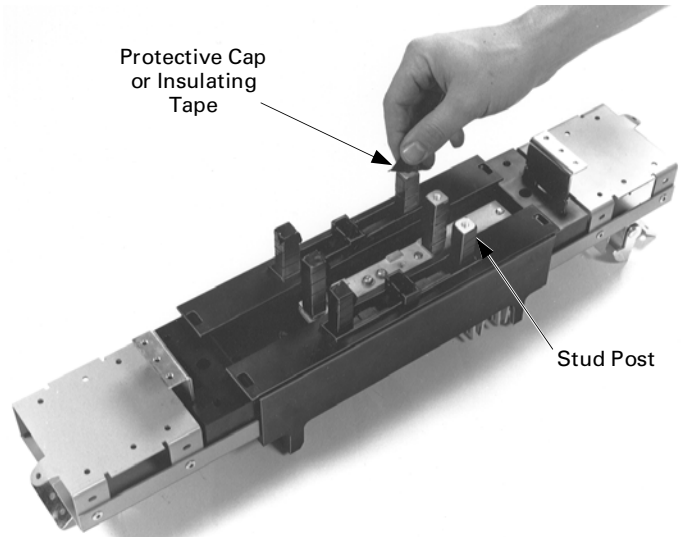


Figure 2. Removing the caps or tape from the stud posts of the breaker module.

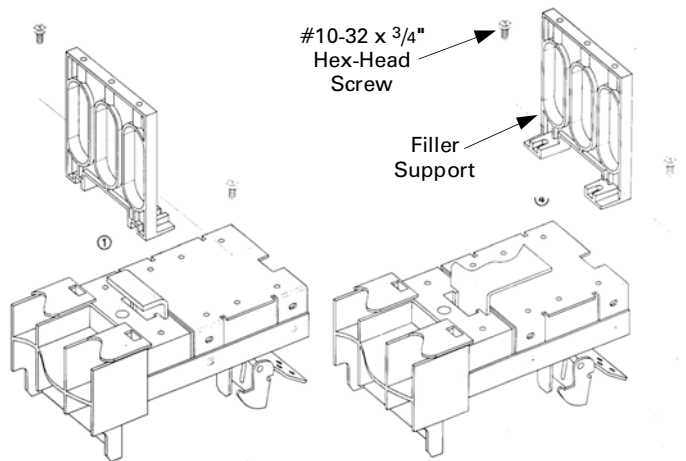


Figure 3. Fastening the filler supports in position.

Breaker Module	Filler Support Position
AMC6FJ AMC4FJ AMC6FLS	4
AMC3FJ AMC2FJ AMC3FLS	1

Table 1. Filler support position per module type.

### 3. Install the circuit breaker.

- a. **Main devices (lugs only on ON side of circuit breaker).** Place the OFF side of the breaker over the stud posts, as shown in Figure 4. Fasten the breaker to the module with  $1/4$ -20 x  $3/4$ " screws with conical washers and #10-32 x  $3/4$ " screws with #10 flat washers. After all screws are in place, tighten the  $1/4$ -20 screws to 40–50 in-lb and the #10-32 screws to 25–30 in-lb.
- b. **Branch devices (lugs only on OFF side of the breaker).** Remove the lug cover, if present. Place the ON side of the breaker over the stud posts, as shown in Figure 4. Secure the breaker to the module with  $1/4$ -20 x  $3/4$ " screws with conical washers and #10-32 x  $3/4$ " screws with #10 flat washers. **Do not** remove the protective cap or tape from the top portion of the stud posts unless a breaker is to be installed in that position. After all screws are in place, tighten the  $1/4$ -20 screws to 40–50 in-lb and the #10-32 screws to 25–30 in-lb. Replace the lug cover, if present.

For double-branch devices, repeat this procedure for the other breaker. Breaker types TFJ, TFK, THFK, or TFL may be combined and breaker types SFHA, SFLA, or SFLA may be combined.

4. **Position the breaker module.** Loosen the latch lock screws and fully retract the latches. Line up the guide fingers on both ends of the module with the notches in the panelboard interior rails, as shown in Figure 5. Allow no space between units.

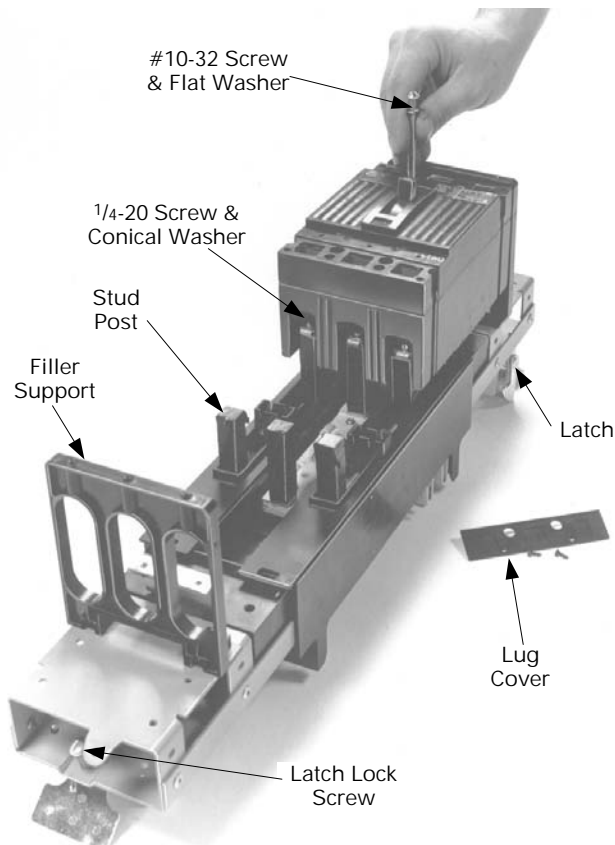


Figure 4. Installing the breaker on the module.

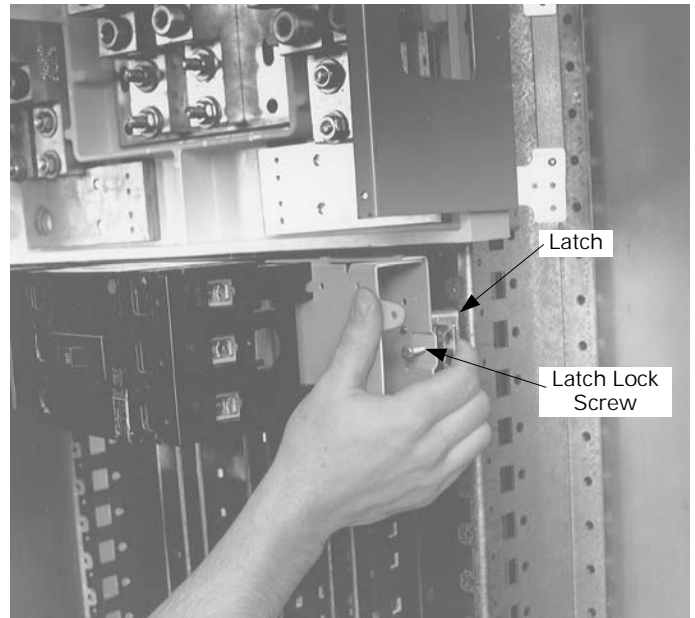


Figure 5. Positioning the breaker module.

5. **Install the module.** Latch one side of the circuit breaker module. Release the rail latch. Pivot the module onto the bus bars and engage the second latch. Release the rail latch. Tighten the rail latch screws to 25 in-lb, as shown in Figure 6.

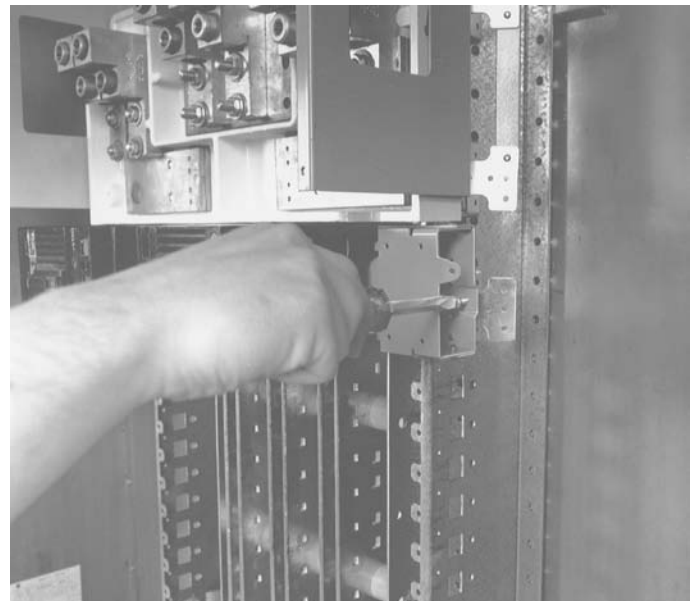


Figure 6. Installing the breaker module.

6. **Wire the circuits.** Refer to the label on the circuit breaker for the proper tightening torque.
7. **Filler plate kits.** Install the appropriate filler plate kits, as listed in Table 1.

<b>Filler Plate Cat. No.</b>	<b>Module Type</b>
AFP3SFD	AMC6FJ AMC4FJ
AFP3SFS	AMC3FJ AMC2FJ
AFP4SFD	AMC6FLS AMC4FLS
AFP4SFS	AMC3FLS AMC2FLS

*Table 1. Filler plate kit for each breaker module type.*

### ***Attention – Procedure for Aluminum Terminations***

1. Strip the insulation, being careful to not nick the wire.
2. Clean the wire strands with a wire brush.
3. Thoroughly coat the stripped conductor with a suitable antioxidant compound, such as ALNOX or PENETROX A13.
4. Insert the conductor and tighten the connector screw to the indicated torque, as indicated on the rating label.

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.



**GE Industrial Systems**