

# Installation Instructions for E & G-Frame 3-Wire Terminal Connector Kit, Catalog No. 3TA100G3K



## WARNING

DO NOT ATTEMPT TO INSTALL OR PERFORM MAINTENANCE ON EQUIPMENT WHILE IT IS ENERGIZED. SEVERE PERSONAL INJURY, DEATH, OR SUBSTANTIAL PROPERTY DAMAGE CAN RESULT FROM CONTACT WITH ENERGIZED EQUIPMENT. ALWAYS VERIFY THAT NO VOLTAGE IS PRESENT BEFORE PROCEEDING WITH THE TASK, AND ALWAYS FOLLOW GENERALLY ACCEPTED SAFETY PROCEDURES.

CUTLER-HAMMER IS NOT LIABLE FOR THE MISAPPLICATION OR MISINSTALLATION OF ITS PRODUCTS.

The user is cautioned to observe all recommendations, warnings, and cautions relating to the safety of personnel and equipment, as well as, all general and local health and safety laws, codes, and procedures.

The recommendations and information contained herein are based on Cutler-Hammer experience and judgement, but should not be considered to be all-inclusive or covering every application or circumstance which may arise. If any questions arise, contact Cutler-Hammer for further information or instructions.

### 1. INTRODUCTION

For use on Cutler-Hammer E & G-Frame Circuit Breakers, Molded Case Switches and Motor Circuit Protectors. This kit is U.L. Listed for field installation on the "LOAD END" terminals.

Table 1-1.  
E & G-Frame 3-Wire 1 Terminal Connector Kit Contents:

3 – Multi-Wire Connectors
3 – Molded Insulators
3 – #10-32 Mountina Screws
3 – #10 Flat Washers
3 – #10 Lock Washers
1 – Torque Label
3 -- #10 Nut

① Wire Range #14-#2 AWG (Maximum 3) Copper or Aluminum Wires



## CAUTION

THE PURPOSE OF THESE CONNECTORS IS TO DISTRIBUTE POWER TO MORE THAN ONE LOAD AND ARE TO BE INSTALLED ONLY ON THE "LOAD END" OF THE CIRCUIT BREAKER.



## WARNING

CONDUCTORS SIZED FOR LOAD CURRENTS LOWER THAN THE CIRCUIT BREAKER RATING WILL NOT BE PROTECTED BY THE CIRCUIT BREAKER. EACH LOAD CONDUCTOR MUST BE PROTECTED BY AN INDIVIDUAL OVERCURRENT DEVICE, AND MEET ANY ADDITIONAL REQUIREMENTS OF THE NATIONAL ELECTRIC CODE.

### 2. INSTALLATION

If circuit breaker is installed in equipment, it MUST be removed for installation of this kit. This kit is intended for use ONLY on the LOAD END of the circuit breaker. G breaker must be either a "Special Purpose Only Breaker" with tapped terminals or be supplied with aluminum single wire connectors.



## CAUTION

SUPPLIED MOLDED INSULATORS MUST BE INSTALLED TO MAINTAIN ELECTRICAL SPACINGS.

2-1. For breakers equipped with:

a. Tapped Terminals (Refer to Fig. 2-1):

- 1a. Remove and discard existing LOAD END wire connectors (saddle clamp and screw) from breaker.
- 2a. Place Kit Multi-Wire Connector into Molded Insulator as shown.
- 3a. Place Molded Insulator and Multi-Wire Connector on top of breaker terminal.

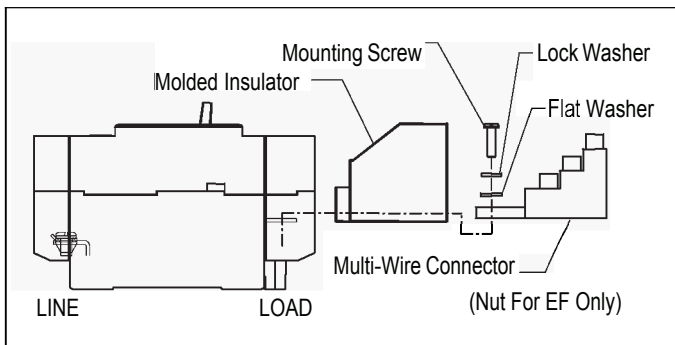


Fig. 2-1. Multi-Wire Terminal Connector Kit Installation Layout



**CAUTION**

**USE ONLY MOUNTING SCREWS PROVIDED WITH KIT. DO NOT SUBSTITUTE OR ELECTRICAL SPACINGS MAY NOT BE MET.**

- 4a. Install provided mounting screw, lock washer and flat washer as shown. Torque mounting screw to 35 in-lbs.
- 5a. Repeat steps 2a through 4a for the remaining poles.
- 6a. Apply Torque Label to side of breaker.

**b. E Collar Assemblies (Refer to Fig. 2-1):**

- 1b. Gently pry off the existing steel collar and discard.
- 2b. Place Kit Multi-Wire Connector into Molded Insulator as shown.
- 3b. Place Molded Insulator and Multi-Wire Connector on top of breaker terminal.
- 4b. Install provided mounting screw, lock washer and nut as shown. Torque to 35 in-lbs.
- 5b. Repeat steps 2b through 4b for the remaining poles.
- 6b. Apply Torque label to side of breaker.

**c. G Frame Breaker with Installed Aluminum Single Wire Connectors (Refer to Fig. 2-1):**

- 1c. The mounting screw, nut, and washers are not used.
- 2c. Place Kit Multi-Wire Connector into Molded Insulator as shown.
- 3c. Loosen the aluminum single wire connector clamping screw sufficiently to permit the tang of the multi-wire connector to fit into the opening.
- 4c. Insert the tang of the multi-wire connector into the aluminum single wire connector.
- 5c. Tighten the aluminum single wire connector clamping screw to a torque value of 50 in-lb.

2 2. The circuit breaker may now be installed into equipment

**3. FIELD WIRING**

**Note:** It may not be possible to install the largest conductors in adjacent holes due to the wire insulation thickness. Use only connections which allow insertion of wires without undue insulation interference between wires at the connector. When fully inserted into the connector the insulation should be within 1/8 inch of the connector.

Strip wires to lengths shown in Table 2 1.

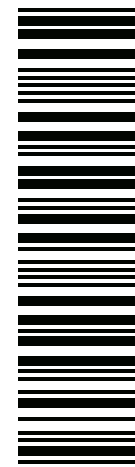
Table 2-1. Wire strip lengths for connector hole locations	
HOLE POSITION	WIRE STRIP LENGTH
Upper	3/8 to 1/2 inch
Middle	3/4 to 7/8 inch
Lower	1 1/4 to 1 3/8 inch

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**Qty. 1 3TA100G3K**

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