



Record Plus™ Molded Case Circuit Breaker Accessories

Wire Connector Kits

Congratulations and thank you for choosing the **Record Plus™** family of current-limiting circuit breakers. This UL-listed lug connector kit is suitable for use with the FE 250 circuit breaker series.

Record Plus™ circuit breakers are designed with a full line of integrated accessories. All units use the latest in integrated modular circuit breaker technology for flexibility in application and maximizing the product's utilization and capabilities.

Record Plus™ circuit breakers are listed by Underwriters Laboratories to the UL489 standard.

Record Plus™ circuit breakers and their accessories are designed and manufactured to exceed our global customers' high standards for reliability and quality.



Warning: DANGER of electrical shock or injury. Ensure ALL electrical power supplies are **OFF** before installing or removing any devices. Do not remove circuit protective devices until the power is turned **OFF**. The breaker, trip unit, or accessories **MUST ONLY** be installed and serviced by **QUALIFIED** personnel. See NEMA publication AB4.

Avertissement: Danger contre les risques d'électrocutions. S'assurer avant TOUTES manipulations du disjoncteur que les différentes sources d'alimentation sont en position **OFF**. Les disjoncteurs, unités de protection, ou accessoires doivent être installés par des personnes qualifiées et habilitées. Ne pas retirer l'appareil de protection avant que l'alimentation soit coupée. Lire NEMA publication AB4.

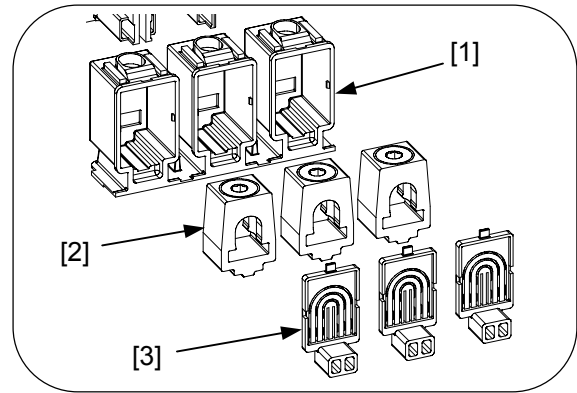


Figure 1a. Lug kit components.

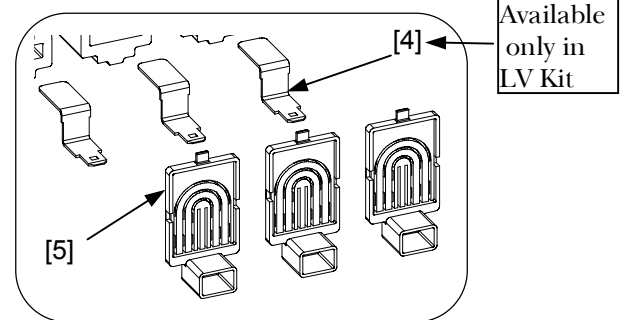


Figure 1b. Control wire terminal kit components.



CAUTION: This product is **NOT** suitable for use in equipment not specifically design to accept it. Contact the equipment manufacturer for possible equipment modifications.

ATTENTION: Cet appareil nedeoit pas etre employe dans un equipement non specialement adapte a cet effet. Contactez le constructeur concernant les possibles modifications

Product Description

These instructions describe the installation procedure for the wire connector accessories on **Record Plus™** #E-frame circuit breakers. The wire connector kits are available in five variants:

Product Catalog Numbers	Wire Range
FCAL15/FCALK15	#14-6/0 AWG Al #4-3/0 AWG
FCALK15LV Control Wire Terminal Kit	Use 250-series fully insulated receptacle connectors (ANSI/NEMA. DC-2-1982)
FCAL16/FCALK16	#8-1 AWG #1/0-350Kcm

Table 1. List of accessory lug kits.

The FCALK15/FCALK16 kit is suitable for two and three-pole applications. The FCALK15/FCALK16 kits contain 3 lug wire connectors, a lug cover, and 3 front covers. The FCAL15/FCAL16 catalog number is a replacement lug kit that contains 1 lug wire connector and 1 front cover for replacement use. The FCALK15LV/FCALK16LV kits provide control wire terminations at the lug.

Step 1 – Unpack and Inspect

Unpack the wire connector kit and inspect the parts for any shipping damage. Verify that all parts are supplied, as listed in Table 2 and illustrated in Figures 1 and 2. Numbers in brackets in the text and the figures refer to the item numbers in Table 2.

Item	Description	FCAL15	FCALK15	FCALK15LV	FCAL16	FCALK16	FCALK16LV
1	Lug Cover		1	1		1	1
2	Lug (Wire Connector)	1	3	3	1	3	3
3	Front Cover	1	3		1	3	
4	Control Wire Terminal			3			3
5	Control Wire Front Cover			3			3
6	Adhesive Base Cover	1	1	1	1	1	1

Table 2. List of parts in the lug accessory kits.

Step 2 – Installation

Note: When using aluminum wire, use of a joint compound recommended by the wire manufacturer.

Important: Dans les cas d'emploi de câble aluminium, utilisez le lubrifiant recommandé par le fabricant.

1. Please review installation instructions fully before installing lug kit. Lug kit installation is best done before breaker is mounted. Installation of front cover [3] (described below) may best be done before or after mounting, depending on application.
2. Align lug cover [1] terminal openings with breaker terminations. Push lug cover assembly over breaker terminations until lug cover is seated fully in, as illustrated in Figure 2. Be sure lug [2] is pushed and fully seated into lug cover [1]. Hex drive of lug screw, lug cover top hole, and IP20 hole on front face of breaker should be aligned to allow for hex driver access to lug screw.
3. Peel off the cover on the Adhesive Base Cover [6] and affix on the lug cover and breaker interface on line and load sides as illustrated in Figure 3.
4. Use joint compound recommended by the wire manufacturer when using aluminum wire.
5. Front Cover Installation [3] (Please refer to Figure 2):
 - a. FCAL15/FCALK15/FCALK16/FCAL16 Front Cover Installation: Install front covers [3] by inserting tab into square slot in lug cover [1] and pushing front cover [3] to seat on lug cover [1]. This is intended to be a press fit. Apply pressure to front cover [3] so that it fully sits on the lug cover [1].
 - b. FCALK15LV/FCALK16LV Control Wire Terminal Kit: Place the control wire terminal [4] on the breaker terminal strap with the lug [2] installed. Install control wire front covers [5] by inserting tab into lug cover [1], guiding the control wire terminal tab [4] through opening in the front cover [5], and pushing front cover [5] into press fit on lug cover [1]. **USE ONLY 250-SERIES FULLY INSULATED UL LISTED RECEPTACLE CONNECTORS.** 90° flag-style connectors are recommended.

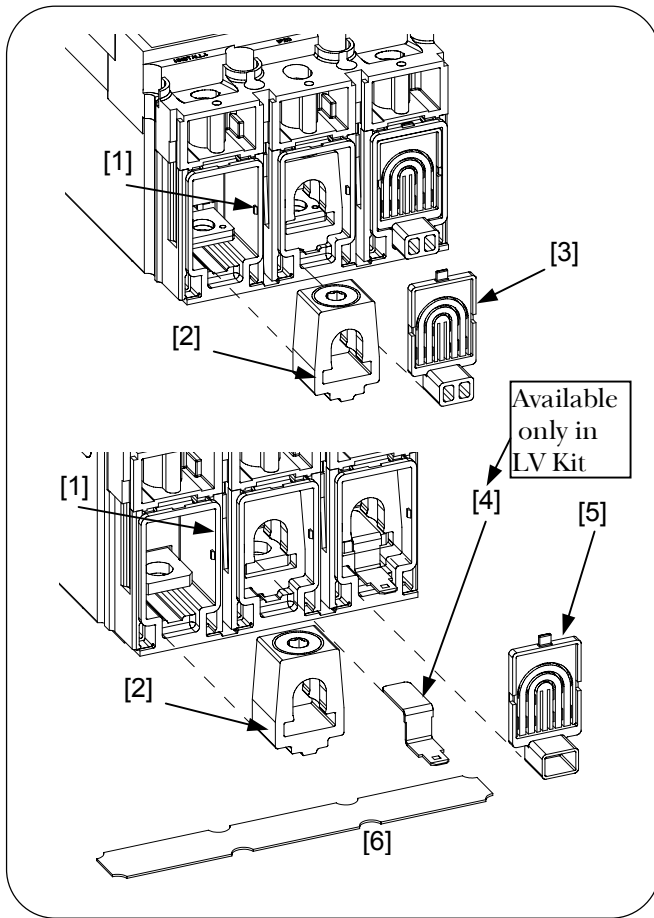


Figure 2. Installation of lug kit components on FE breaker.

6. Strip 20.2 - 23.4 mm (13/16 - 15/16 in) insulation from end of wire.
7. Install wire and torque lug screw with 6mm hex wrench for FCAL15 and FCALK15. 8mm driver is used for FCAL16 and FCALK16 according to Table 3. Check to make sure all terminals are torqued to the proper value. (1 N-m = 8.84 lb-in)

Wire	Torque N-m (lb-in)	Product Catalog Number
#14-#6 AWG	7.9 N-m (70 lb-in)	FCAL15/ FCALK15
#4-3/0 AWG	16.9 N-m (150 lb-in)	
#8-1AWG	19.8 N-m (175 lb-in)	FCAL16/ FCALK16
#1/0- 350Kcm	31.1 N-m (275 lb-in)	

Table 3. Lug Torque Values.

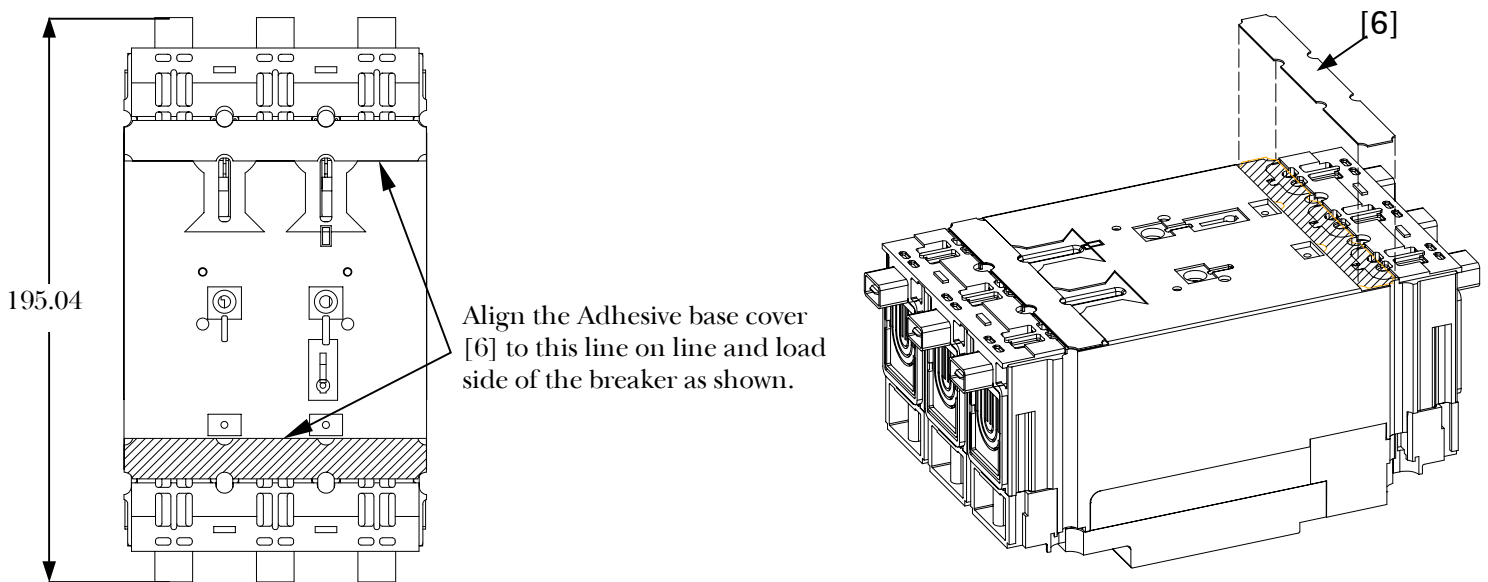


Figure 3. Installation of adhesive base cover on lug cover and FE breaker interface

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. The circuit breaker is a sealed unit that contains no user-serviceable parts. Tampering with the seal will void the warranty.



GE Consumer & Industrial

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