

Installation Instructions



⚠ DANGER

Hazardous voltage. Will cause death or severe injury.

Turn off and lock out power supplying device before installing.



SAFETY INSTRUCTIONS

These instructions outline the recommended installation procedure. When properly installed, the Rotary Handle Operator provides single point latching of the enclosure door. For maximum protection against unauthorized entry into the enclosure, additional latching means should be provided.

The rotary handle operator provides through-the-door operation of enclosure mounted circuit breakers. A complete operator consists of (1) handle, (1) breaker operator, and (1) shaft. The term Circuit Breaker used in these instructions also includes motor circuit interrupters and molded case switches.

FEATURES

- Handle can be padlocked in OFF position with up to three 5/16 padlocks.
- Breaker operator can be padlocked in OFF position.
- Handle is vertical when breaker is ON and horizontal when breaker is OFF.
- Interlocks with enclosure door.

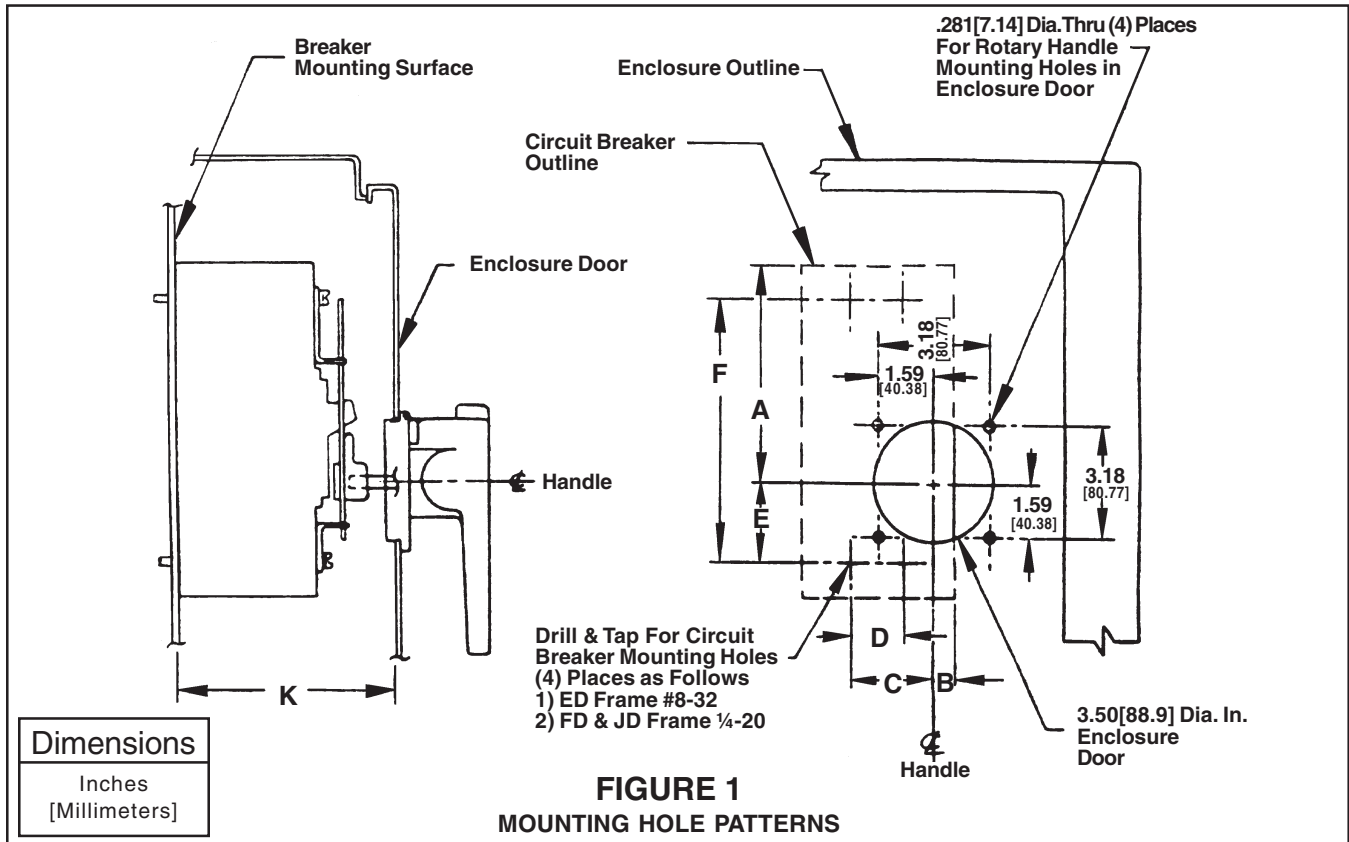
All dimensions are in inches.

Cat. No.	Used With:
RHOH Handle	1, 3, 3R, 12 & 13 enclosures
RHOH4 Handle	4 & 4X enclosures
RHOEBO Breaker Operator	E, ED & EF Frame Circuit Breaker (Three Pole Only) Types E2-A, (H)E4-A, (H)E6-A, (ETI), ED2(Y), (H)ED4, (H)ED6, (ETI), CED6(ETI), EFC, EFF
RHOFBO Breaker Operator	F, FD & FF Frame Circuit Breakers Types (H)F6, FJ6, FXD6(ETI), (H)FD6, CFD6, CLF, SFD6, SHFD6, FFC, FFF
RHOJBO Breaker Operator	JD, LD, JF & LF Frame Circuit Breakers Types JXD2(-A), JXD6(-A), HJXD6(-A), HHJXD6, CJD6(-A), LXD6(-A), HLXD6(-A), HHLXD6, CLD6(-A), JXD6(-A) ETI, CJD6 (-A) ETI, LXD6(-A) ETI, CLD6 (-A) ETI, SJD6(-A), SHJD6(-A), SCJD6(-A), SLD6(-A), SHLD6 (-A), SCLD6(-A), JFC, JFF, LFC, LFF
RHOLMBO Breaker Operator	LMD & LMF Frame Circuit Breakers Types LMXD, HLMXD, LMFC & LMFF
RHOSSD Shaft	Standard Depth
RHOSVD Shaft	Variable Depth
RHOSXD Shaft	Extra Depth



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1. PREPARE MOUNTING SURFACES



Cat. No.	RHOSSD	RHOSVD	RHOSXD
K Dim.	Min.	Max.	Max.
ED & EF Frame	5.81 [147.6]	16.12 [409.4]	19.62 498.3]
FD & FF Frame	6.26 [159.0]	16.57 [420.9]	20.00 [508.0]
JD, JF, LD, LF Frame	6.59 [167.4]	16.90 [429.2]	20.40 [518.1]
LMD & LMF Frame	7.09 [180.0]	17.40 [441.9]	20.90 [530.8]

TABLE 1

	A	B	C	D	E	F
ED & EF FRAME	3.84 [97.5]	.69 [17.9]	1.31 [33.3]	1.00 [25.4]	1.81 [45.9]	5.00 [127.0]
FD & FF FRAME	6.19 [157.2]	.62 [15.7]	2.38 [60.4]	1.50 [38.1]	2.31 [58.6]	7.50 [190.5]
JD, JF, LD & LF FRAME	7.00 [177.8]	2.12 [53.8]	2.88 [73.1]	2.50 [63.5]	3.37 [85.6]	9.75 [247.6]
LMD & LMF FRAME	9.50 [241.3]	2.12 [53.8]	2.88 [73.1]	2.50 [63.5]	3.37 [85.6]	9.75 [247.6]

TABLE 2

Cat. No. RHOSSD standard depth shaft used for minimum depth enclosures.

Cat. No. RHOSVD variable depth shaft cut to length described in figure 4.

Cat. No. RHOSXD extra depth shaft cut to length described in figure 4.

Place circuit breaker mounting holes in breaker mounting surface and handle mounting holes in enclosure door as shown in figure 1 and table 2.

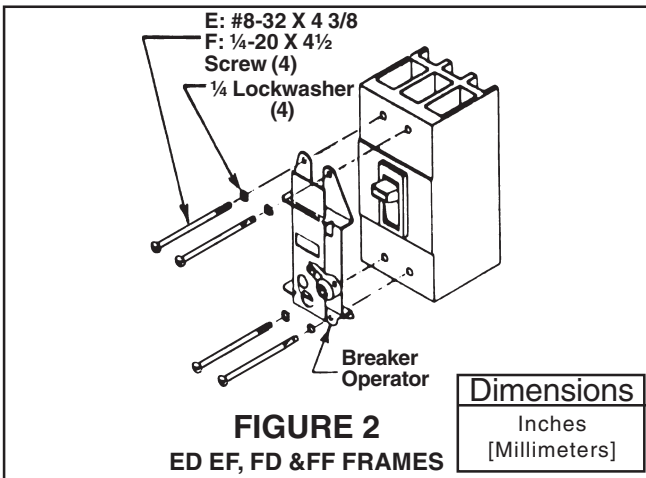


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2. INSTALL BREAKER AND BREAKER OPERATOR

ED, EF, FD & FF FRAMES (see figure 2)

Attach circuit breaker and breaker operator to the enclosure panel using the four mounting screws and lockwashers as shown. Tighten to 20 In-Lbs.[2.26 N/m] for the E Frame and 75 In-Lbs.[8.47 N/m] for the F Frame.



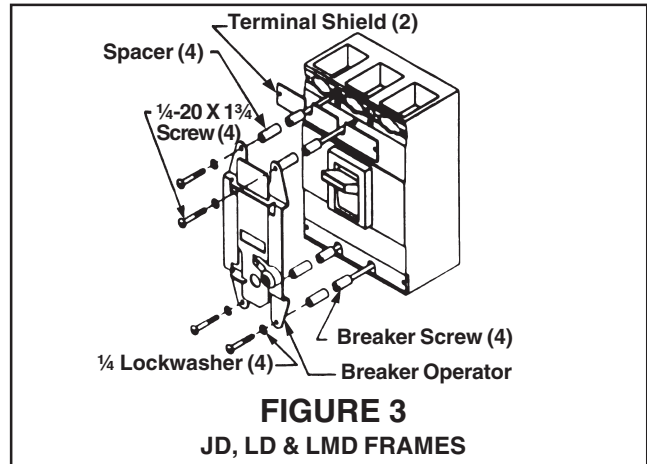
JD, JF, LD, LF & LMD FRAMES (see figure 3)

- Remove the two terminal shields from the circuit breaker and punch or drill out the two .53[13.5] diameter knockouts.

Note: Cut slots in terminal shields as shown to allow access to terminal lugs after installation of breaker operator without prior removal of mechanism.

CAUTION: REPLACE THE TERMINAL SHIELDS.

- Mount circuit breaker to enclosure panel using the four breaker mounting screws as shown. Tighten to 75 In-Lbs.[8.47 N/m].
- Insert spacers into the four circuit breaker mounting holes and attach the breaker operator using the four mounting screws and lockwashers as shown. Tighten to 75 In-Lbs.[8.47 N/m].

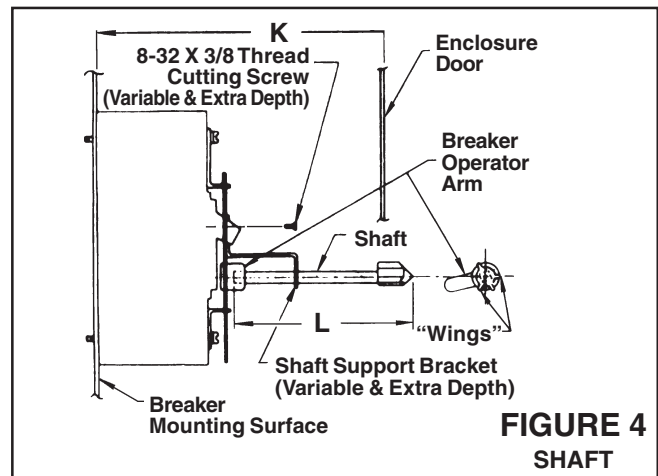


3. INSTALL SHAFT

Shaft Length "L" For Variable Depth Operators

ED & EF Frame	$L = K - 3.16$ [80.2]
FD & FF Frame	$L = K - 3.61$ [91.7]
JD, LD, JF & LF Frames	$L = K - 3.94$ [100.0]
LMD & LMF Frame	$L = K - 4.44$ [112.7]

Attach the shaft to the operating arm of the breaker operator and tighten set screw to 70 In-Lbs.[7.90 N/m] min. Note proper orientation of the "wings" (shown in off position) at the end of the shaft when breaker is in OFF position as shown in figure 4.



Note: It is recommended that the shaft support bracket be installed if enclosure depth exceeds 10 inches. Attach as shown in figure 4. Tighten to 45 In-Lbs.[5.08 N/m]. [On catalog number RHOEBO mounting hole for shaft support is under label.]



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4. INSTALL HANDLE

Attach the handle and gasket to the enclosure door and secure with the four bolts, lockwashers and nuts as shown in figure 5. Tighten to 75 In-Lbs.[8.47 N/m]

Check that when the enclosure door is closed, the handle interlocks with the shaft in all handle positions except RESET/OPEN. To open the enclosure door when the breaker is in the ON position, rotate the screw slot on the handle plate counter-clockwise. Verify operation and recheck instructions if necessary.

To lock handle in OFF position, pull the lock plate from the handle into the grooves on the handle plate located at the interlock defeater screw and insert padlocks.

The unit can be modified to lock in the ON position by cutting slots in the boss located beneath the letters ON. Note score lines on the inside diameter below the letters ON indicating slot locations.

