



# Door Ring Interlock Catch Kit for Integral Handle Mechanisms

## Molded Case Circuit Breakers including Types SE, SF and SK Spectra RMS™ Circuit Breakers and QMR, QMW Disconnect Switches

### 1. SECURE INTEGRAL HANDLE TO DEVICE

For molded case circuit breakers:

Mount integral handle mechanism to circuit breaker (Types TB1, TEC, TED, THED, TFJ, TFK, THFK, TFL, THLC2, THLC4, TLB2, TLB4, TJJ, TJK, THJK, TKM, THKM, SKP, SED, SEH, SEL, SEP, SFD, SFH, SFL, and SFP) before the breaker is secured to the enclosure mounting surface.

For QMR disconnect switches:

Mount integral mechanisms (Cat. Nos. THMS31, THMS32, THMS33, THMS34, THMC31, THMC32, THMC33, and THMC34) and secure integrally attached devices to the enclosure mounting surface at the same time. Integral handles for THMRB35 and THMRB36 switches are factory assembled.

#### Mounting Instructions—Integral Handles

An instruction sheet for mounting integral handles is packed with each handle mechanism:

Cat. Nos. SEFR1, SEFR1H	GEH-5609
Cat. Nos. SKR1, SKR1H	GEH-5610
Cat. Nos. TEFR1B, TEFR1HB	GEH-2994
Cat. Nos. TFR1B, TFR1HB	GEH-2995
Cat. Nos. TFKR1B, TFKR1HB, TLC4RB, TLC4RHB	GEH-3018
Cat. Nos. TJR1B, TJR1HB	GEH-2998
Cat. Nos. TKMR1B, TKMR1HB	GEH-3000
Cat. Nos. THMR1B, THMR1HB	GEH-3004
Cat. Nos. THMR2B, THMR2HB	GEH-3005

### 2. CIRCUIT PROTECTIVE DEVICE MOUNTING

1. Locate the mounting position of the breaker or disconnect.

The distance from the vertical center line of the protective device to the enclosure wall (with hinges) has a minimum distance A, illustrated in Figure 10. Distance A must be equal to or greater than one-half the length of the enclosure door from the hinged side to the latch side. Preferably, the hole should be located toward the latch side for interlock leverage.

2. Dimensions for protective devices, integral handles and mounting holes are contained in Figures 1–9. Be sure to note the important dimension from the mounting surface to the front of the integral handle's pan.

	Basic Device	Integral Handle	Refer To Figure:
Circuit Breakers	TB1, TEC, TED, THED	TEFR1B, TEFR1HB	1
	SED, SEH, SEL, SEP, SFD, SFH, SFL, SFP	SEFR1, SEFR1H	2
	TFJ, TFK, THFK, TFL	TFKR1B, TFKR1HB	3
	TJJ, TJK, THJK	TJR1B, TJR1HB	4
	THLC2, THLC4, TLB2, TLB4	TLC4RB, TLC4RHB	5
	TKM, THKM, SKP	TKMR1B, TKMR1HB, SKR1, SKR1H	6
QMR QMW Switches	THMS31, THMC31, THMS32, THMC32, THMS33, THMC33	THMR1B, THMR1HB	7
	THMS34, THMC34	THMR2B, THMR2HB	8
	THMRB35, THMCRB35, THMRB36	(Handle is factory mounted as integral device)	9

NOTE: Figures 1–9 depict vertical mountings. For perspective of horizontal mounting, rotate each diagram 90° counterclockwise.

3. Mount the integrally-attached devices to the enclosure mounting surface.

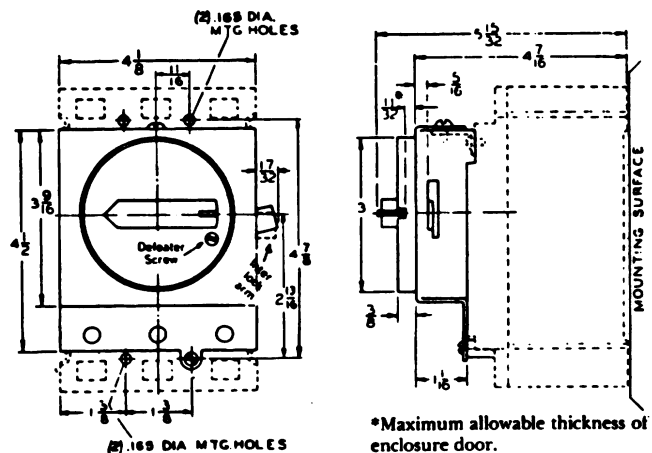


Figure 1. (TEFR1B, TEFR1HB)

\*Maximum allowable thickness of enclosure door.

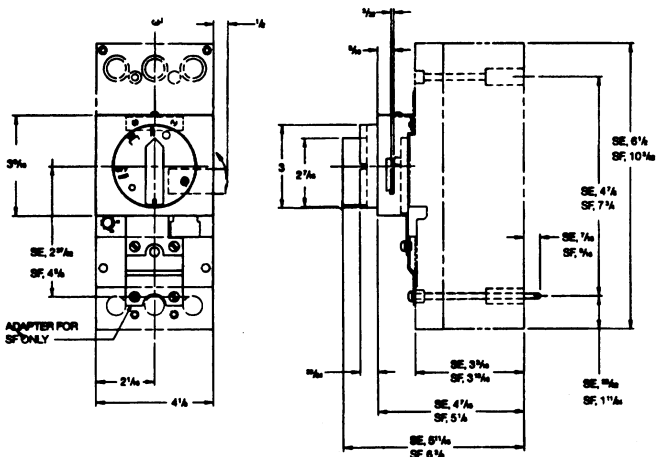


Figure 2. (SEFR1, SEFR1H)

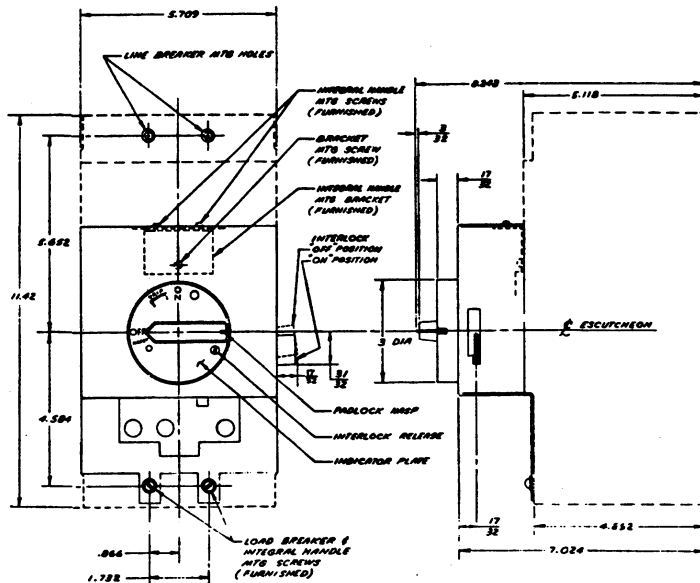


Figure 5. (TLC4RB, TLC4RH)

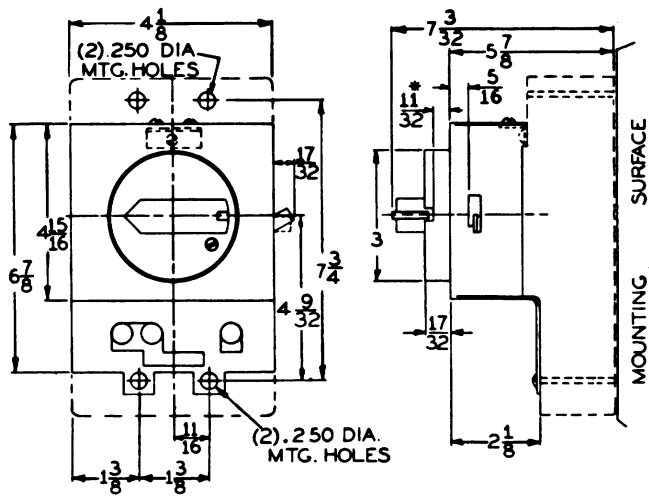


Figure 3. (TFKR1B, TFKR1HB)

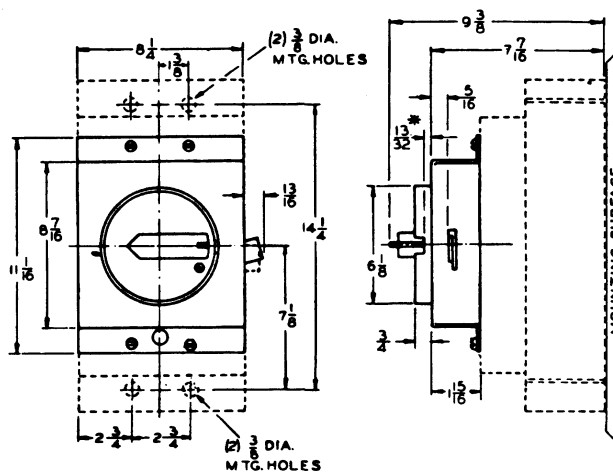


Figure 6. (SKR1, SKR1H, TKMR1B, TKMR1HB)

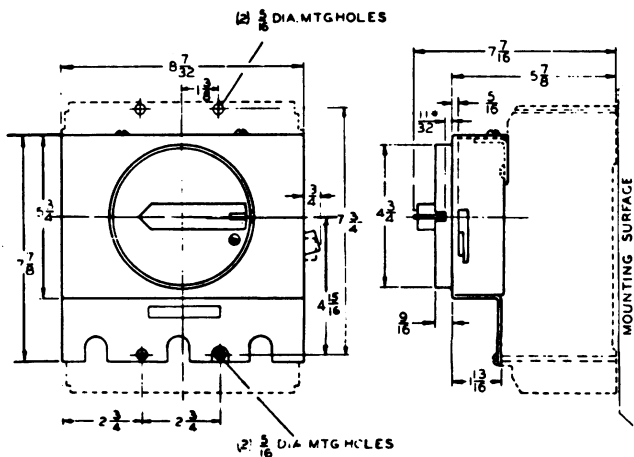


Figure 4. (TJR1B, TJR1HB)

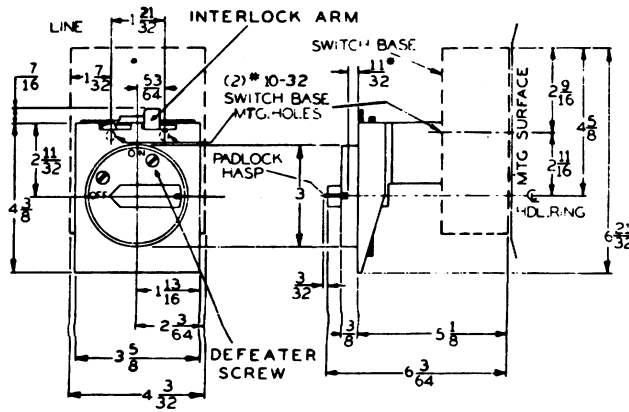


Figure 7. (THMR1B, THMR1HB)

\*Maximum allowable thickness of enclosure door.

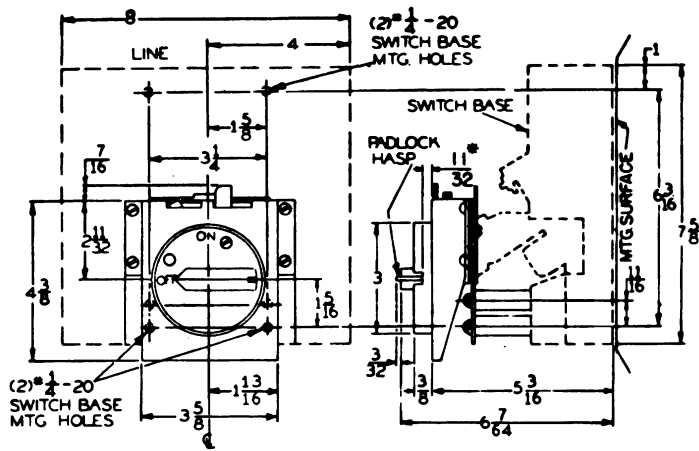


Figure 8. (THMR2B, THMR2HB)

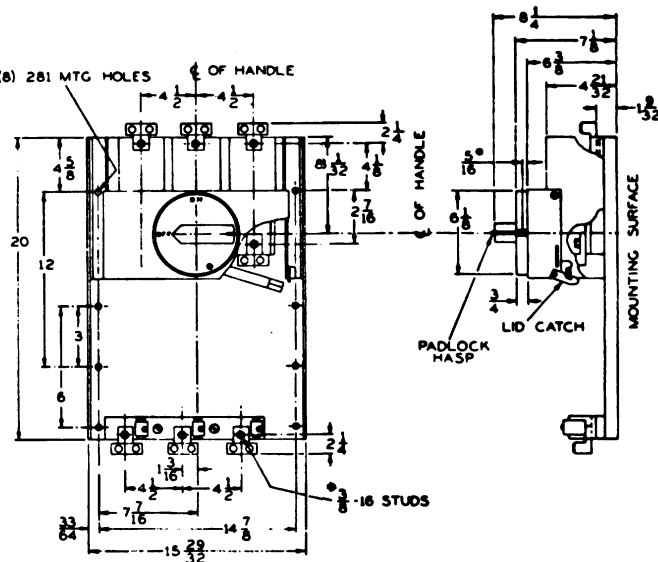


Figure 9. (THMCRB35, THMRB35, THMRB36)

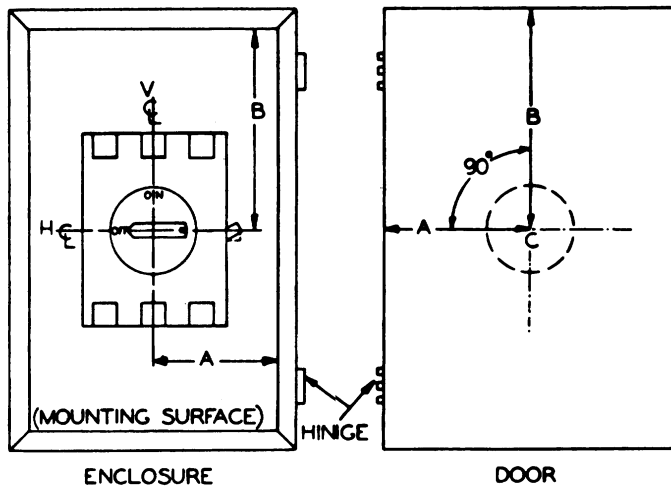


Figure 10.

\*Maximum allowable thickness of enclosure door.

### 3. SECURE DOOR RING INTERLOCK CATCH KIT

Each kit consists of an exterior ring, interior ring, interlock catch and mounting hardware. The kit is designed to assure proper door ring alignment and interlocking.

The interlock catch for the circuit breaker's interior ring is a separate item in each kit and must be secured to the ring by means of the screws furnished. Refer to the specific diagram (Figures 11-13) for the correct positioning. For QMR disconnects, the interlock catch is a stationary part of the interior ring.

A. Locate the center of the circle for the integral handle indication ring on the enclosure door, referring to Figure 10 and the following steps:

1. Obtain distances A and B.

A: The distance from the vertical centerline of the door ring to the side wall (with hinges) of the enclosure.

B: The distance from the horizontal centerline of the door ring to the top of the enclosure.

2. Assuming the mounting surface of the enclosure and the closed door to be parallel, transcribe dimensions A and B to the enclosure door per Figure 10.

3. Using point C as the center, scribe a circle whose diameter is D:

TEFR1B TEFR1HB	SKR1, SKR1H	TFKR1B, TFKR1HB	TJR1B, TJR1HB	SEFR1, SEFR1H
3.437"	6.562"	3.437"	5.187"	3.437"
TKMR1B, TKMR1HB	THMR1B, THMR1HB	THMR2B, THMR2HB	THMRB35, THMRB36	TLC4RB, TLC4RHB
6.562"	3.437"	3.437"	6.562"	3.437"

B. Cut out the circle in the enclosure door.

C. Drill three small holes in the enclosure door per the specific figure listed below:

Door Ring Interlock Catch Kit	Integral Handle Mechanism	Refer To Figure	Dia. of Holes
(343L483G1) SEFRDRCK	SEFR1, SEFR1H TEFR1B, TEFR1HB, THMR1B, THMR1HB, THMR2B, THMR2HB	11	.406
343L483G2	TJR1B, TJR1HB, TKR1B, TKR1HB	12	.437
(343I483G3) SKRDRCK	TKMR1B, TKMR1HB SKR1, SKR1H	13	.437
343L483G4	THMRB35, THMRB36	14	.437
343L483G5	TFKR1B, TFKR1HB	11	.406
343L483G9	TLC4RB, TLC4RHB	11	.406

D. Loosely secure each ring to the door with pan head screws.

Exterior ring—flanged side against door, small notch to the right of the hole's horizontal centerline.

Interior ring—secure per specific figure.

E. Adjust for proper alignment of indication plate and hole in the door.

1. Move integral handle to OFF position.

2. Close enclosure door.

3. Adjust external ring on door so it is concentric with handle ring.

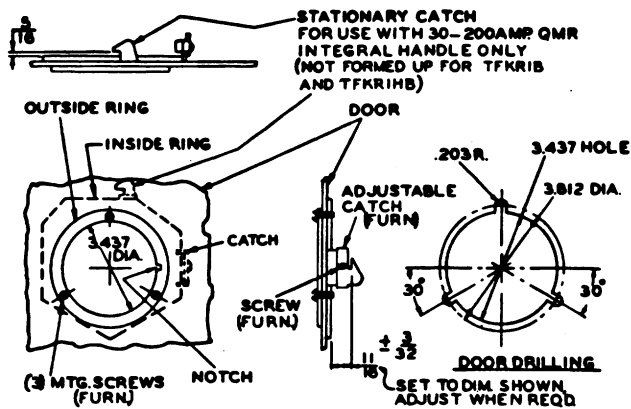


Figure 11.

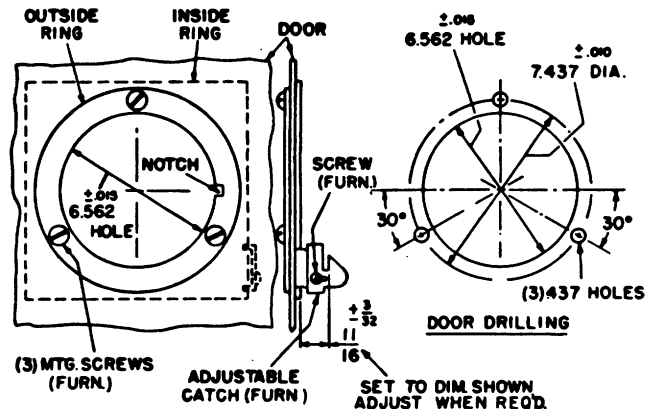


Figure 13.

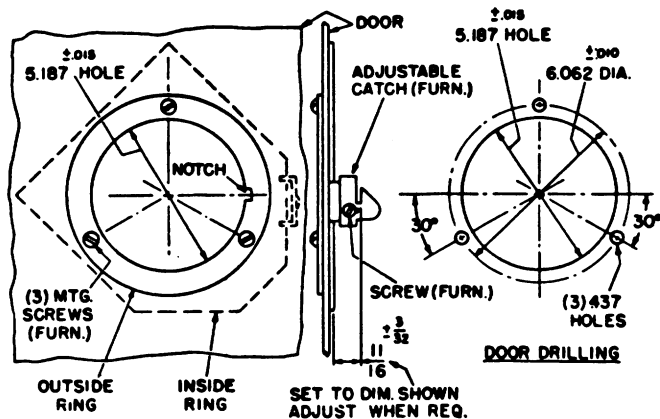


Figure 12.

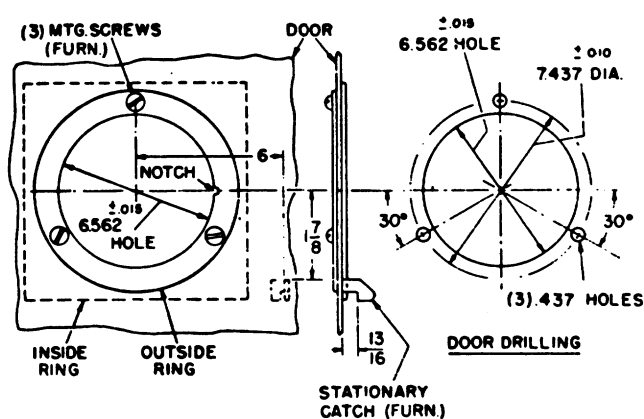


Figure 14.

**NOTE:** For vertical mountings, see Figures 11–14. For horizontal mountings, rotate the door drilling and interior door ring 90° counterclockwise.

4. Small notch at right hand side of exterior ring must be immediately adjacent to the right of the hole's horizontal centerline.
5. Tighten pan head screws.
- F. Adjust sliding interlock catch for circuit breakers, if desired, per Figures 11–13, and tighten with furnished screw.
- G. Check operation of interlocking features.
  1. Close enclosure door. Turn handle to ON. Door should not be able to open with handle in ON. To open door, turn defater screw (circuit breakers, Figure 1; switches, Figure 7), on indication plate, counter clockwise, or turn handle to OFF.
  2. Open enclosure door. Open door should prevent turning disconnect ON without first defeating interlock. For circuit breakers (Figure 1), the interlock arm must be pushed toward the mounting

surface and held. For switches (Figure 7), push the interlock arm to the right and turn the handle ON.

3. Adjustable hasp slides out to provide padlocking for up to three locks in the OFF position. It can lock enclosure door closed, or prevent door from being closed.
 

An optional provision for padlocking in the ON position is available. Remove the depressed material in the indication ring, opposite the word ON. Make a corresponding notch in the exterior ring on the enclosure door.

- H. Install optional gasket (if required) to the interior door ring, facing the pan of the integral handle. Consult GE BuyLog® Catalog for gasket kit for respective door ring–interlock catch.

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



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