



Variable Depth Operating Mechanisms

For TKMA, THKMA (800 and 1200A); TK4V, THK4V (1200A); TLB2, THLC2 (225A); TLB4, THLC4 (400A); and TB6 (600A) and TB8 (800A)
Circuit Breakers

GENERAL

These variable depth operating mechanisms are for use with flanged enclosures whose minimum depth, measured from mounting surface of operating mechanism to handle mounting surface, is 9 inches. Maximum standard depth is 18³/₄ inches. Optional 22 inch rod will accommodate 24 inch deep enclosures.

The operating mechanism is to be driven by Type STDA1/1X or STDA2/2X flange-mounted operating handle. The mechanism may be field-converted to left hand operation.

Cat. No. TDOM6 operating mechanism will accommodate the following breaker types: 800 and 1200A TKMA, THKMA, TK4V, THK4V; 225A TLB2, THLC2 and 400A TLB4, THLC4.

Cat. No. TDOM7 is longer and is to be used with TB6 and TB8 600 and 800A integrally fused circuit breakers.

INSTALLATION OF OPERATING MECHANISM—(SEE FIGURE 1.)

1. If the operating mechanism is to be used for right-hand operation proceed to Step 2. If operating mechanism is to be used for left-hand operation, remove E-ring (2), and drive stud (3) from right side of yoke (4), and reassemble to left side of yoke.
2. Determine location of upper right (or upper left, for left-hand operation) operating mechanism mounting hole from Figure 2. Verify that recommended space from operating mechanism upper mounting hole to top of enclosure (or other closer grounded metal parts) will be met (use Table 1 as a guide). Drill and tap four 1/4-20 holes as shown in Figure 2.
3. Install flange mounted handle, Cat. No. STDA1/1X or STDA2/2X using instruction sheet GEH-5314.
4. Mount operating mechanism (1), to subplate using four 1/4-20 x 1/2" screws and lockwashers (5).
5. Refer to Figure 2 and determine "D" dimension, which is the distance from the handle mounting surface to the operating mechanism mounting surface. Cut drive rod (9) (see Figure 1.) 2 1/4 inches shorter in overall length than "D" dimension.
NOTE: Minimum "D" dimension is 9 inches.
6. Refer to Figure 1 and thread rod (9), into drive stud (3), until it is about flush with the opposite side of the stud (approximately 10 full turns).
7. With handle and mechanism yoke (4) in OFF position, place small hole in upper end of rod over stud in handle drive link (10).
8. Assemble pin (11) through handle drive link and then through hole in rod. Place washer (12) over pin and assemble cotter pin (13) through hole in pin. Do not bend cotter pin at this time. Slight movement of handle may be necessary to align pin and hole.

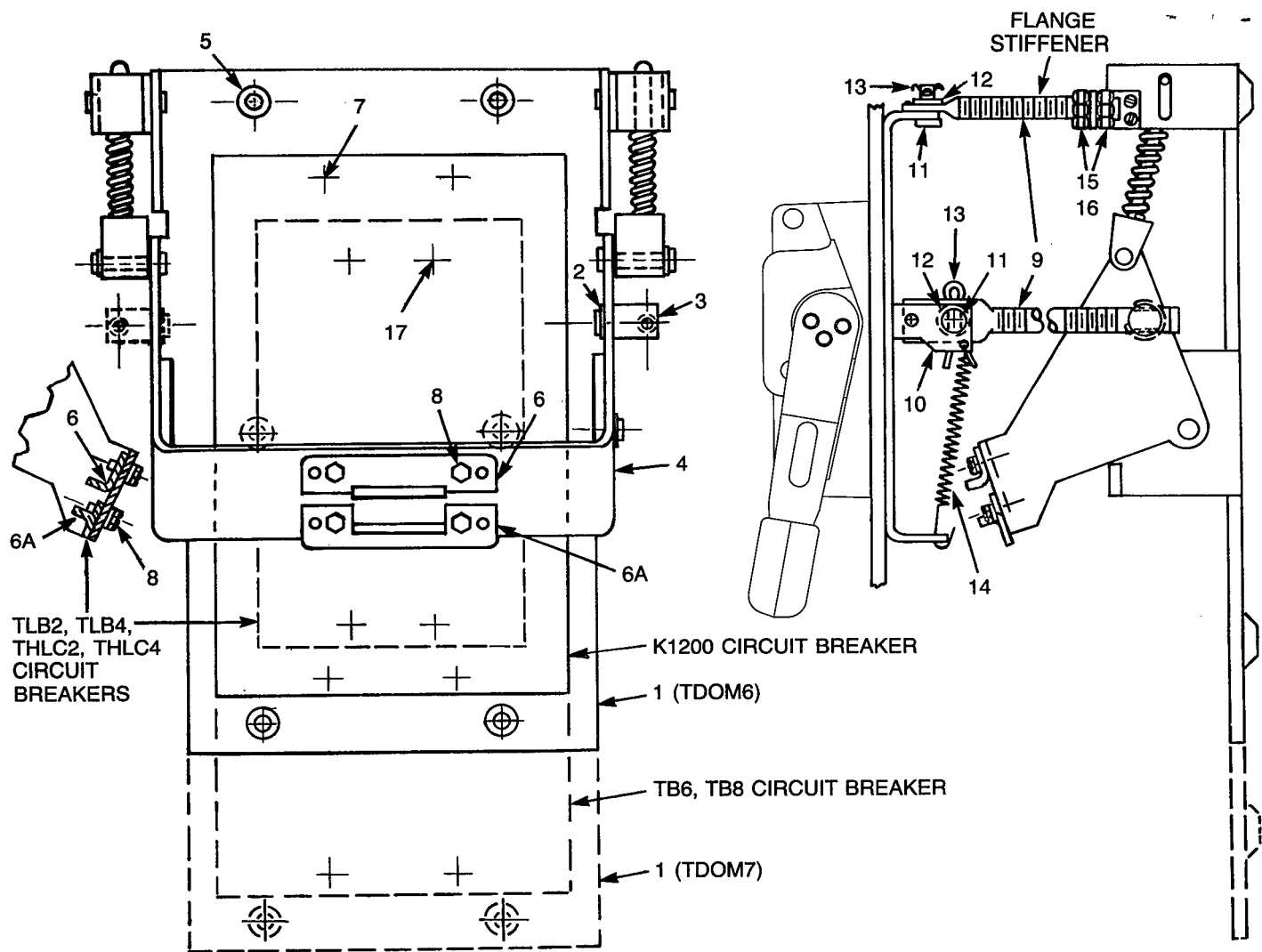


Figure 1.

A. INSTALLATION OF TKMA, THKMA (800 AND 1200A) ON TDOM6 AND TB6, TB8 (600 AND 800A) ON TDOM7

1. Move flange handle to ON position. KEEP HANDS AWAY FROM MECHANISM.
2. Turn circuit breaker to ON position
3. Using four $\frac{5}{16}$ -18 x $1\frac{1}{8}$ screws and lockwashers (7), mount circuit breaker to mechanism backplate.
4. Assemble yoke toggle plates (6) and (6A) on top of yoke using inner clearance holes. Note orientation of plates, allowing $\frac{1}{32}$ to $\frac{1}{16}$ inch clearance to circuit breaker toggle handle.
5. Attempt to turn circuit breaker OFF using flange handle. If it does not toggle to OFF position, disconnect drive rod from handle and thread rod one turn clockwise further into drive stud. Reassemble rod to handle.
6. Attempt to turn ON circuit breaker. If it does not turn ON, readjust toggle plate (6A) closer to toggle handle.
7. Once OFF and ON positions are working properly, bend legs of cotter pin to secure in place. Recheck all other fasteners and connections.
8. Assemble handle bias spring (14) included with flange handle.
9. Tighten all $\frac{1}{4}$ -20 screws to 45-50 lb.-in. and tighten $\frac{5}{16}$ -18 screws to 90-100 lb.-in.
10. Cut flange stiffener rod (9) $3\frac{7}{8}$ inch shorter than "D" dimension.
11. Assemble flange stiffener rod to top of mechanism using drive pin (11), washer (12), cotter pin (13) and $\frac{3}{8}$ inch nuts and lockwashers (15 & 16). Tighten nuts to 100-150 lb.-in.

B. INSTALLATION OF TLB2, TLB4 HIGH INTERRUPTING CAPACITY BREAKERS AND THLC2, THLC4 CURRENT LIMITING BREAKERS ON TDOM6

1. Follow steps A1 through A3.
2. Using four #10-32 x 2⁷/₈ screws and lockwashers (17), mount circuit breaker to mechanism backplate.
3. Assemble yoke toggle plates (6 and 6A) underneath yoke (4) using outer set of tapped holes in toggle plates and (4) 1/4-20 hex head screws and washers (8). Bent leg of plates must face in toward circuit breaker. (Note lower plate (6A) has cut out portion).
4. Follow steps A-6 through A-12.
5. Tighten #10-32 screws (17) to 25 lb.-in.

Table 1. Wire Bending Space

Circuit Breaker Type	Circuit Breaker Trip Rating, Amperes	"G" Minimum (Based on 75°C Copper conductors in raceway, NEC Table 373-6(b))	Assumed 75°C Copper cable size
TLB2, THLC2	125-150	2	(1) # 1/0
	175-200	3	(1) 2/0
	225	3 1/2	(1) 3/0
TLB4, THLC4	250	6 1/4	(1) 250 MCM
	300	9 3/4	(1) 350 MCM
	350	11 3/4	(1) 500 MCM
	400	4 1/4	(2) 3/0
TKMA, THKMA, TK4V, THK4V, TB6, TB8	300	11 3/8	(1) 350 MCM
	400	4 7/8	(2) 3/0
	500	7 7/8	(2) 250 MCM
	600	11 3/8	(2) 350 MCM
	800	10 3/8	(3) 300 MCM
	1000	9 3/8	(4) 250 MCM
	1200	13 3/8	(4) 350 MCM

Table 2. Kit Contents—Replacement Parts (See Figure 1.)

Item No.	Description	Part Number	Quantity Required	
			TDOM6	TDOM7
1	Complete assembly	Order by complete Cat. No. to right	1	1
2	E-ring	3/8 I.D.	1	1
3	Drive Stud	343L889G14	1	1
4	Yoke	-	1	1
5	Screw & lockwasher 1/4-20 x 1/2	-	4	6
6	Yoke toggle plate—upper	343L889G13	1	1
6A	Yoke toggle plate—lower	343L889G13	1	1
7	Screw & lockwasher 5/16-18 x 1 1/8	-	4	4
8	Screw & lockwasher 1/4-20 x 3/8	-	4	4
9	Drive Rod	TDSR	2	2
10	Drive Link (handle part)	-	-	-
11	Drive pin	343L889G10	1	1
12	Washer		1	1
13	Cotter pin		1	1
14	Spring (handle part)	343L889G5	-	-
15	Nut, 3/8-16	-	2	2
16	Lockwasher, 3/8	-	2	2
17	Screw & lockwasher 10-32 x 2 7/8	-	4	-

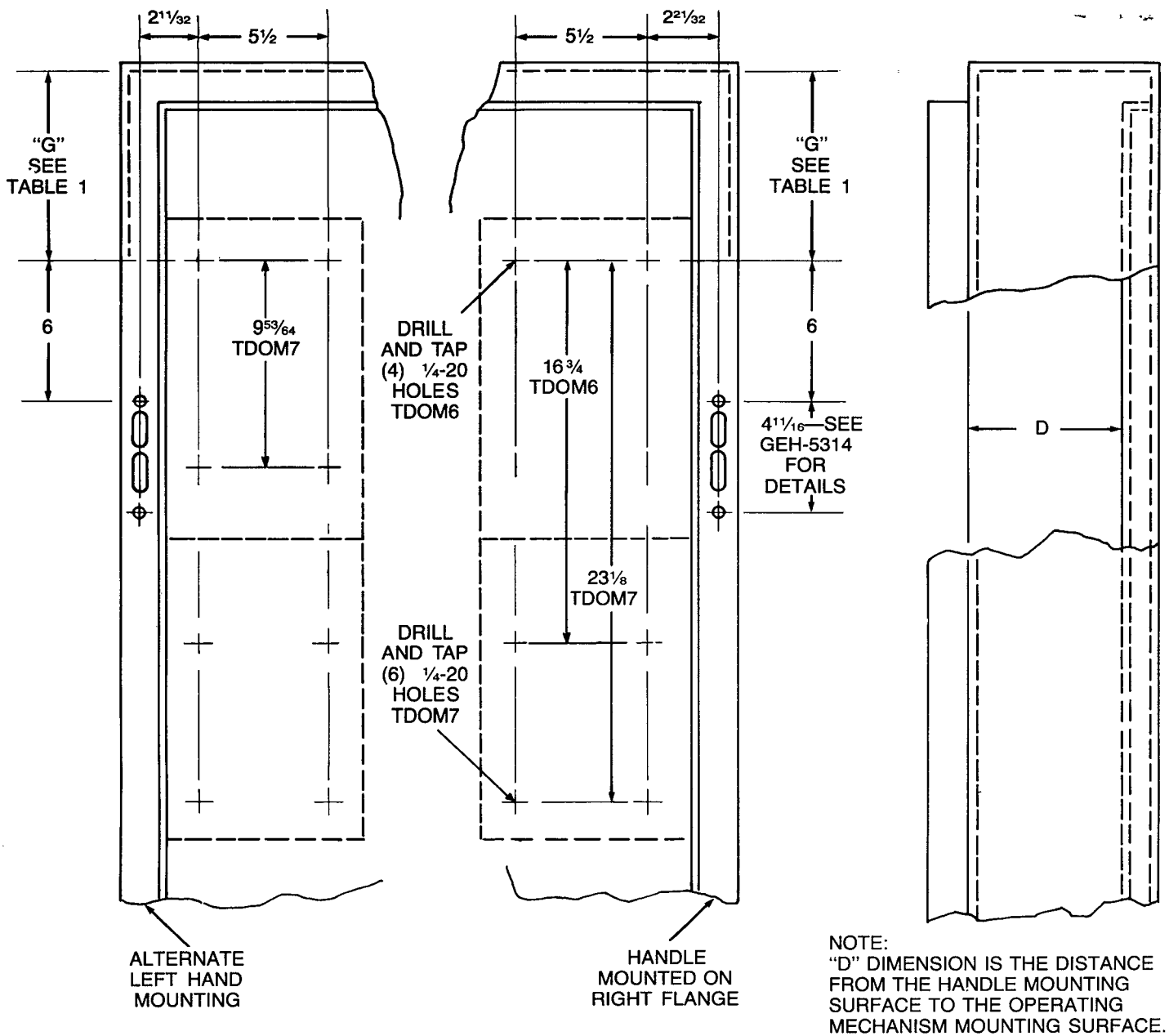


Figure 2. Customer sub-panel layout and drilling for left or right mounting.

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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