Variable Depth Operating Mechanisms

For TJJ, TJK4, THJK4 (400A); TJK6, THJK6, TJ4V, THJK6, TJ4V, THJ4V (600A); TJH, TJL6S and TB4 (400A) 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 8 inches. Maximum standard depth is 18 3/4 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.

Operating mechanism TDOM4 is for use with 400A and 600A J-frame circuit breakers. The TDOM5 mechanism is longer and is to be used with TJL1S-6S MicroVersa-Trip® RMS-9 and with TB4 integrally fused TriBreak® 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 8 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.

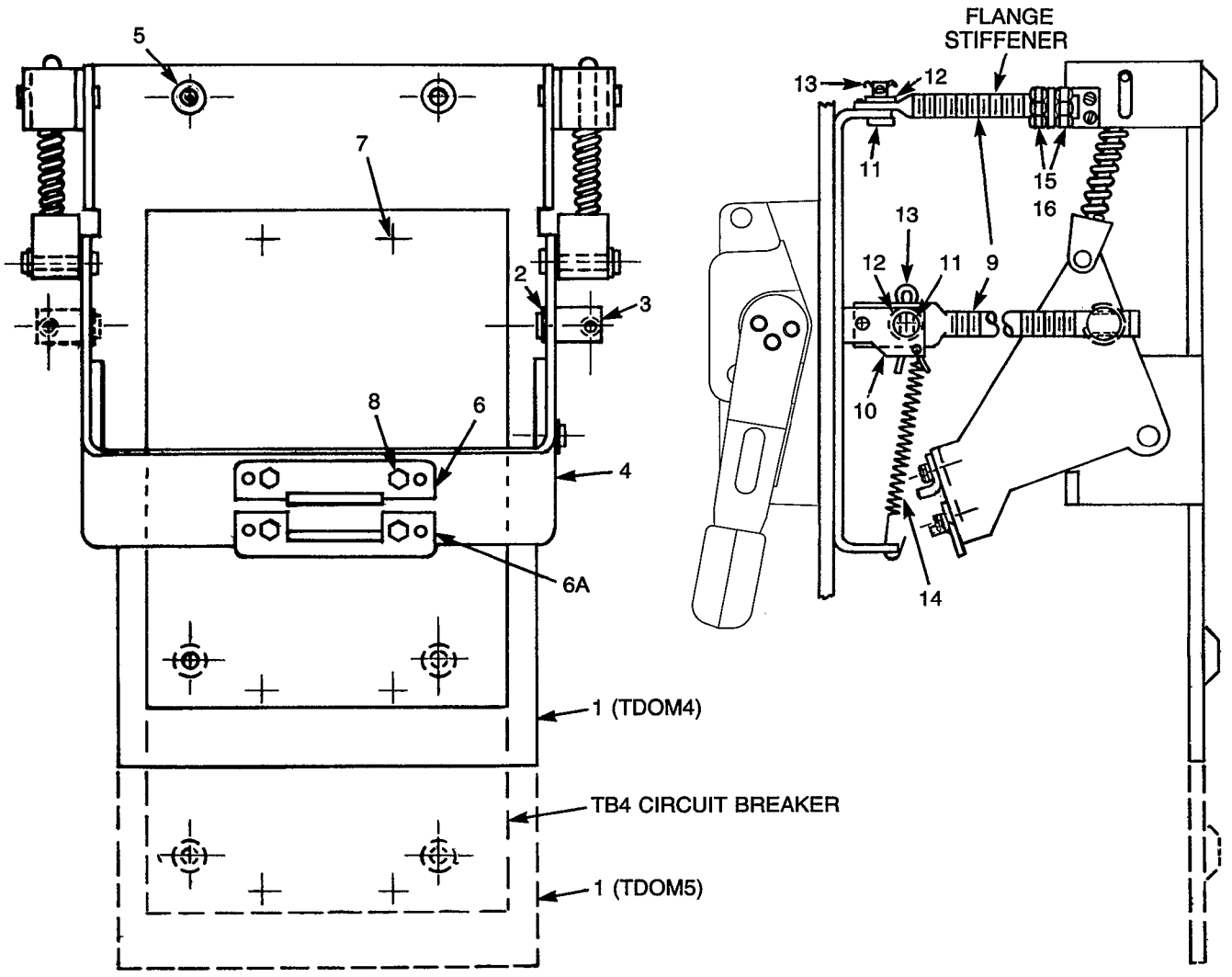

Figure 1.

INSTALLATION OF TJJ, TJK4, THJK4 (400A) AND TJKJ6,THJK6, TH4V, THJ4V (600A) ON TDOM4 OR TJH/TJL1S-6S, TB4 (400A) TriBreak® on TDOM5 (See Figure 1.)

1. Move flange handle to ON position. KEEP HANDS AWAY FROM MECHANISM.
2. Turn circuit breaker to ON position
3. Using four 1/4-20 x 1 1/2 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 1/32 to 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 1/4-20 screws to 45-50 lb.-in.
10. Cut flange stiffener rod (9) 3 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 3/8 inch nuts and lockwashers (15 & 16). Tighten nuts to 100-150 lb.-in.

Table 1. Wire bending space

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
250	8 1/8 in.	(1) 250 MCM
300	11 5/8 in.	(1) 350 MCM
400	14 5/8 in.	(1) 600 MCM
	6 1/8 in.	(2) 3/0
500	8 1/8 in.	(2) 250 MCM
600	11 5/8 in.	(1) 350 MCM

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

			Quantity Required	
Item No.	Description	Part Number	TDOM4	TDOM5
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	4
6	Yoke toggle plate–upper	343L889G13	1	1
6A	Yoke toggle plate–lower	343L889G13	1	1
7	Screw & lockwasher 1/4-20 x 1 1/2	–	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	2	2
12	Washer	343L889G10	2	2
13	Cotter pin	343L889G10	2	2
14	Spring	343L889G5	1	1
15	Nut, 3/8-16	–	2	2
16	Lockwasher, 3/8	–	2	2

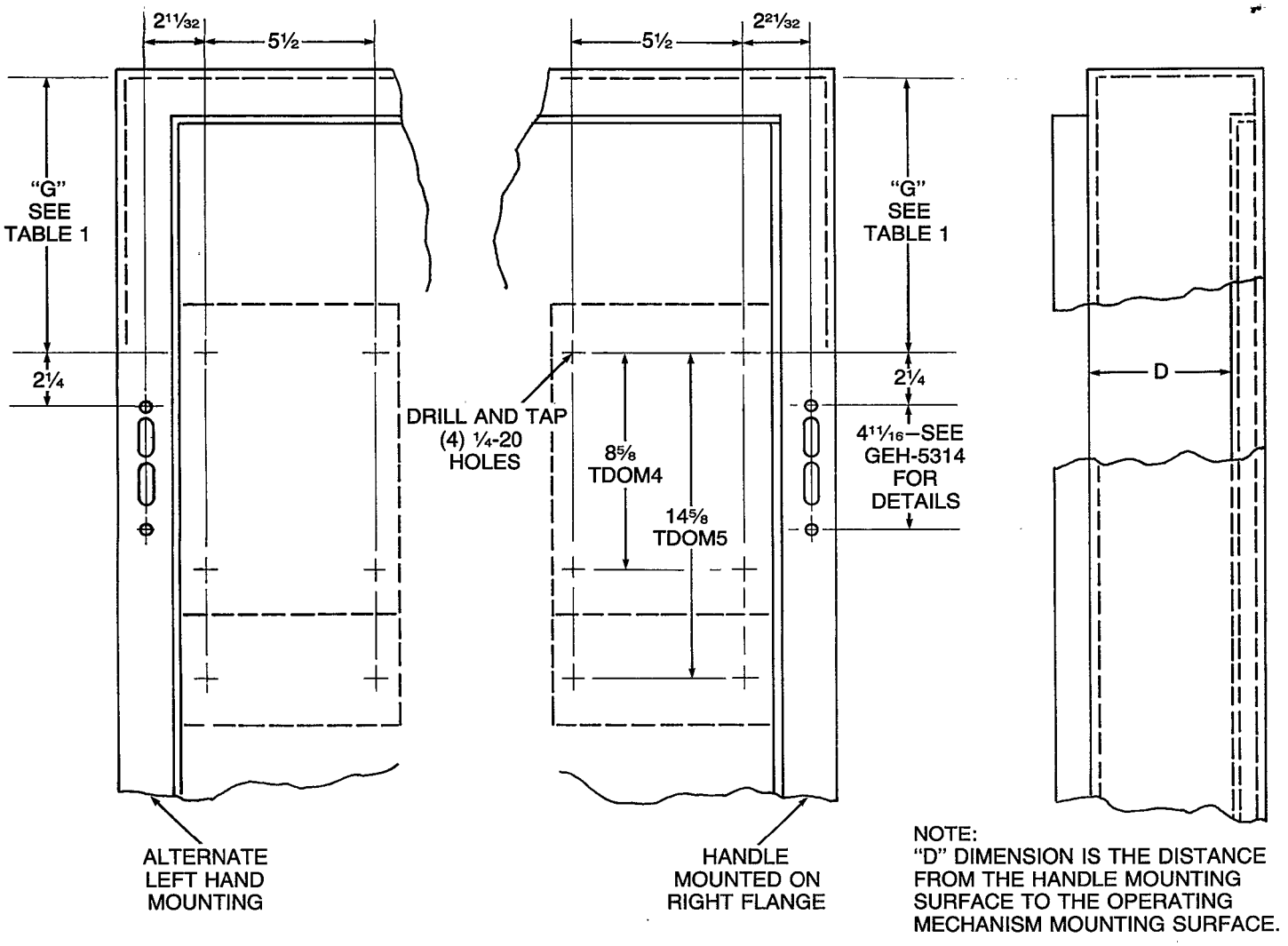

Figure 2. Customer sub-panel layout and drilling for left or right mounting.

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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