

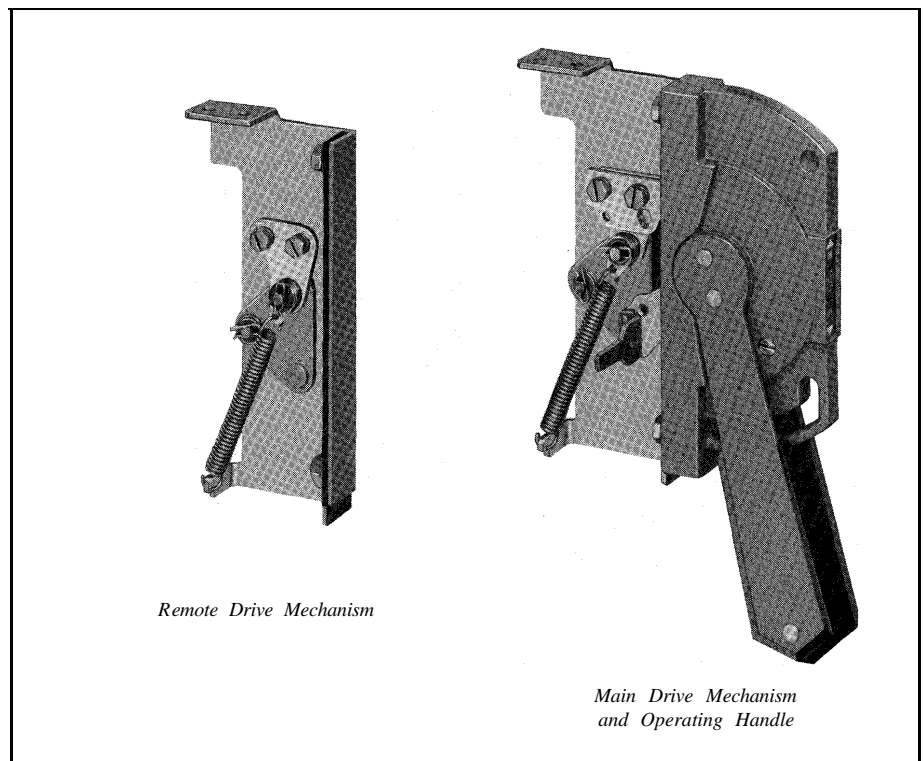


## REMOTE OR DUAL OPERATING MECHANISM

Used With Disconnect Switches 1494V-DS30, 1494V-DS60 and 1494V-DS100 and Circuit Breaker Mechanisms 1494V-M40, 1494V-M50 and 1494V-M60 (Series A) and Disconnect Switches 1494V-DS100 and 1494V-DS200 (Series B)

Catalog Numbers 1494V-H5; 1494V-HL5; 1494V-HL10; 1494V-W5; 1494V-WL5; 1494V-W10; 1494V-WL10; 1494V-H50; 1494V-HL50; 1494V-H95; 1494V-HL95; 1494V-W50; 1494V-W95 and 1494V-WL95.

### Instruction Sheet



### Table of Contents

Application Notes .....	Page 2
Enclosure Instructions.....	Page 3 - 4
Installation Instructions.....	Page 5 - 7
Channel Support Installation.....	Page 8
Door Hardware Installation	
Small and Intermediate Enclosures.....	Page 8 - 10
Large Enclosures .....	Page 11



**WARNING:**

To avoid hazards of electrical shock, remove all power before proceeding. Auxiliary contacts commonly control separate sources of power. Be sure they and all sources of power are disconnected. The procedures outlined below should only be performed by qualified personnel familiar with the operation of the equipment in which the switch is mounted.

**Application Notes**

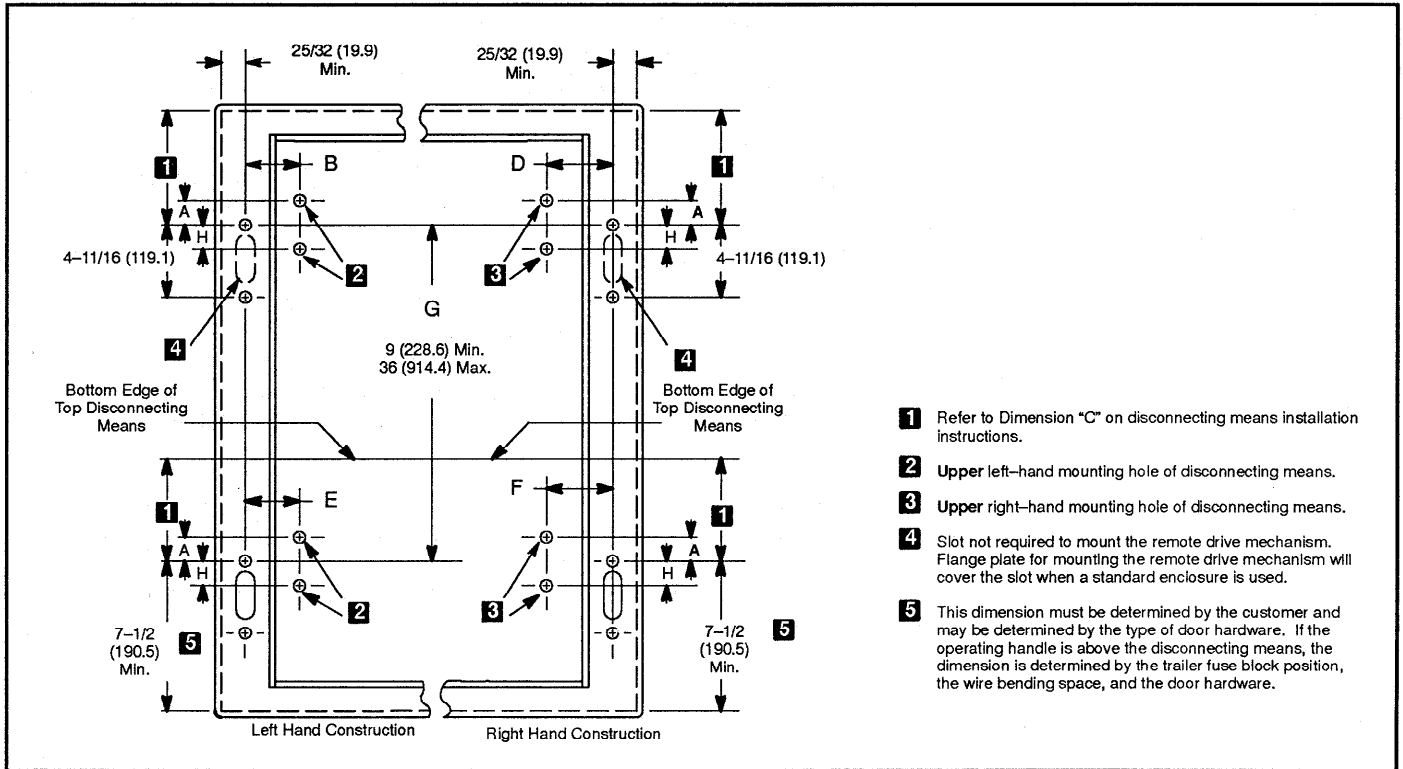
1. Catalog Numbers 1494V-H5, 1494V-H50, etc. without a letter "L" in the suffix are designed for use on enclosures with right-hand flange construction.
2. Catalog Numbers 1494V-HL5, 1494V-HL50, etc. are designed for use on enclosures with left-hand flange construction.
3. The adaptor kits will permit mounting the operating handle either below or above the disconnecting means.
4. Two disconnecting means of the same or different sizes may be used in dual operation with the operating handle mounted in line with the upper or lower disconnecting means.

**Note:** Due to the high operating forces, two Series A Bulletin 1494V-DS100 disconnect switches or two Series B Bulletin 1494V-DS200 disconnect switches cannot be used in dual operation.

5. Use on enclosures with flange thickness from 1/16" to 3/16" (1.5-4.8mm).

## Enclosure Instructions

1. Check all enclosure and door dimensions required per the instruction sheets for the disconnecting means and the door hardware kit being installed to ensure that all minimum dimensions are being maintained.  
  
**Note:** For applications with door hardware kits also refer to either Figure 5 on Page 9 and Figure 6 on Page 10 (Catalog Numbers 1494V-L1, 1494V-LL1 and 1494V-L2) or Figure 7 on Page 11 (Catalog Numbers 1494V-L3 and 1494V-LL3).
2. Provide flange slots and holes as shown in Figure 1 on Page 4 and the Disconnecting Means Instructions.
3. Locate the holes required to mount the disconnecting means as shown in Figures 1 and 2 on Page 4 and the Disconnecting Means Instructions.
4. Locate and mount the door catch bracket as shown in the Disconnect Means Instructions unless a Door Hardware Kit (Catalog Numbers 1494V-L1, 1494V-LL1, 1494V-L2, 1494V-L3 or 1494V-LL3) is used. Then use the door catch bracket or catch supplied with the door hardware kit.



- 1** Refer to Dimension "C" on disconnecting means installation instructions.
- 2** Upper left-hand mounting hole of disconnecting means.
- 3** Upper right-hand mounting hole of disconnecting means.
- 4** Slot not required to mount the remote drive mechanism. Flange plate for mounting the remote drive mechanism will cover the slot when a standard enclosure is used.
- 5** This dimension must be determined by the customer and may be determined by the type of door hardware. If the operating handle is above the disconnecting means, the dimension is determined by the trailer fuse block position, the wire bending space, and the door hardware.

Figure 1

Figure 2

Series Letter	Disconnecting Means Catalog Number	Dimension Chart in Inches (Millimeters) <b>6</b>					
		A	B <b>7</b>	D <b>7</b>	E <b>8</b>	F <b>8</b>	H
A	1494V-DS30 1494V-DS60	1-27/32 (46.8)	2-37/64 (65.5)	3-29/64 (87.7)	2-13/16 (71.4)	3-11/16 (93.7)	—
B	1494V-DS100	1-27/32 (46.8)	2-37/64 (65.5)	3-29/64 (87.7)	2-13/16 (71.4)	3-11/16 (93.7)	—
A		2-63/64 (75.8)	2-61/64 (75)	3-53/64 (97.2)	—	—	—
B	1494V-DS200	2-63/64 (75.8)	2-61/64 (75)	3-53/64 (97.2)	—	—	—
A	1494V-M40	—	2-7/64 (53.6)	2-7/64 (53.6)	2-11/32 (59.5)	2-11/32 (59.5)	1/4 (6.4)
A	1494V-M50	—	2-9/32 (57.9)	2-9/32 (57.9)	—	—	13/16 (20.6)
A	1494V-M60	1/4 (6.4)	2-13/16 (71.4)	2-13/16 (71.4)	—	—	—

- 6** These dimensions apply only to Figure 1.
- 7** These dimensions always apply only to the remote disconnecting means whether the operating handle is above or below it (same dimensions as on the Disconnecting Means Installation Instructions).
- 8** These dimensions are only used for the disconnecting means in line with the operating handle on dual applications. (The dimensions are increased by 15/64" (6) from those given on the disconnecting means installation instructions.)

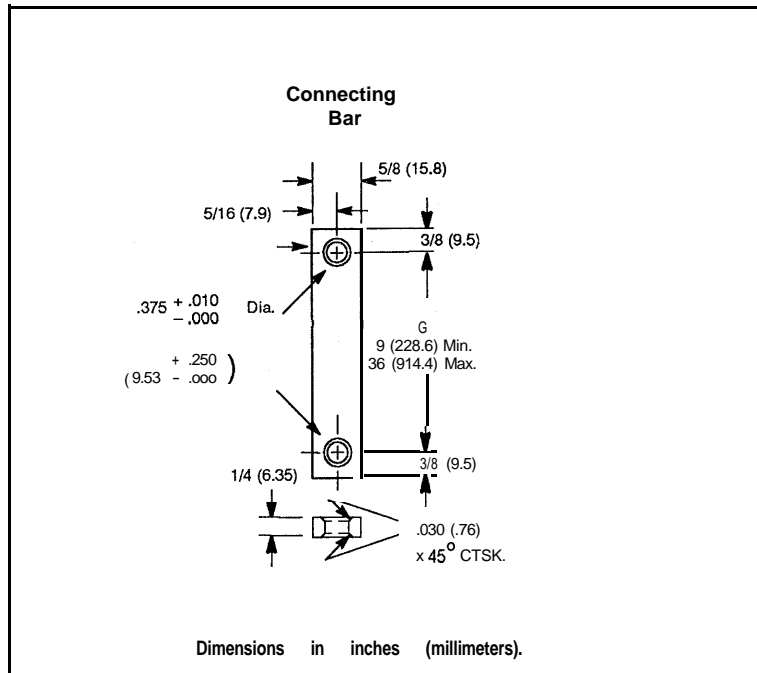


Figure 3

## Installation Instructions

1. Measure the "G" dimension on the enclosure as shown in Figure 1. Cut and drill the connecting bar as shown in Figure 3 above. Do not exceed the minimum and maximum limits.

**Note:** These 1/4"(6.4) x 5/8" (15.8) standard mill rectangular connecting bars are not supplied with these kits.

2. Remove the hitch pin, washer, and pivot plate assembly from the main drive mechanism, Figure 4 on Page 6. Slide the connecting bar onto the pivot plate assembly and reassemble the main drive mechanism.

**Note:** The main drive mechanism on remote adapter kits is the assembly without a connecting link. On dual adapter kits it is the assembly having the 1/8" (3.2) longer connecting link shaft on the pivot plate assembly.

3. Remove the other hitch pin, 1/4" (6.4) inside diameter washer, and the spring anchor and four 3/8" (9.5) inside diameter washers or the connecting link from the main drive mechanism assembly, see Figure 4 on Page 6. Insert the operating handle connecting link through the flange slot and onto the shaft of the pivot plate assembly as shown. Secure the drive mechanism assembly and operating handle to the flange with the two 1/4"-20 x 5/8" (15.8) screw assemblies. The gasket must be installed in the handle housing groove as shown in Figure 4 on Page 6. Torque the screw assemblies to 30-40 lb.-in.

**Instruction Sheet**  
 Remote or Dual Operating Mechanism

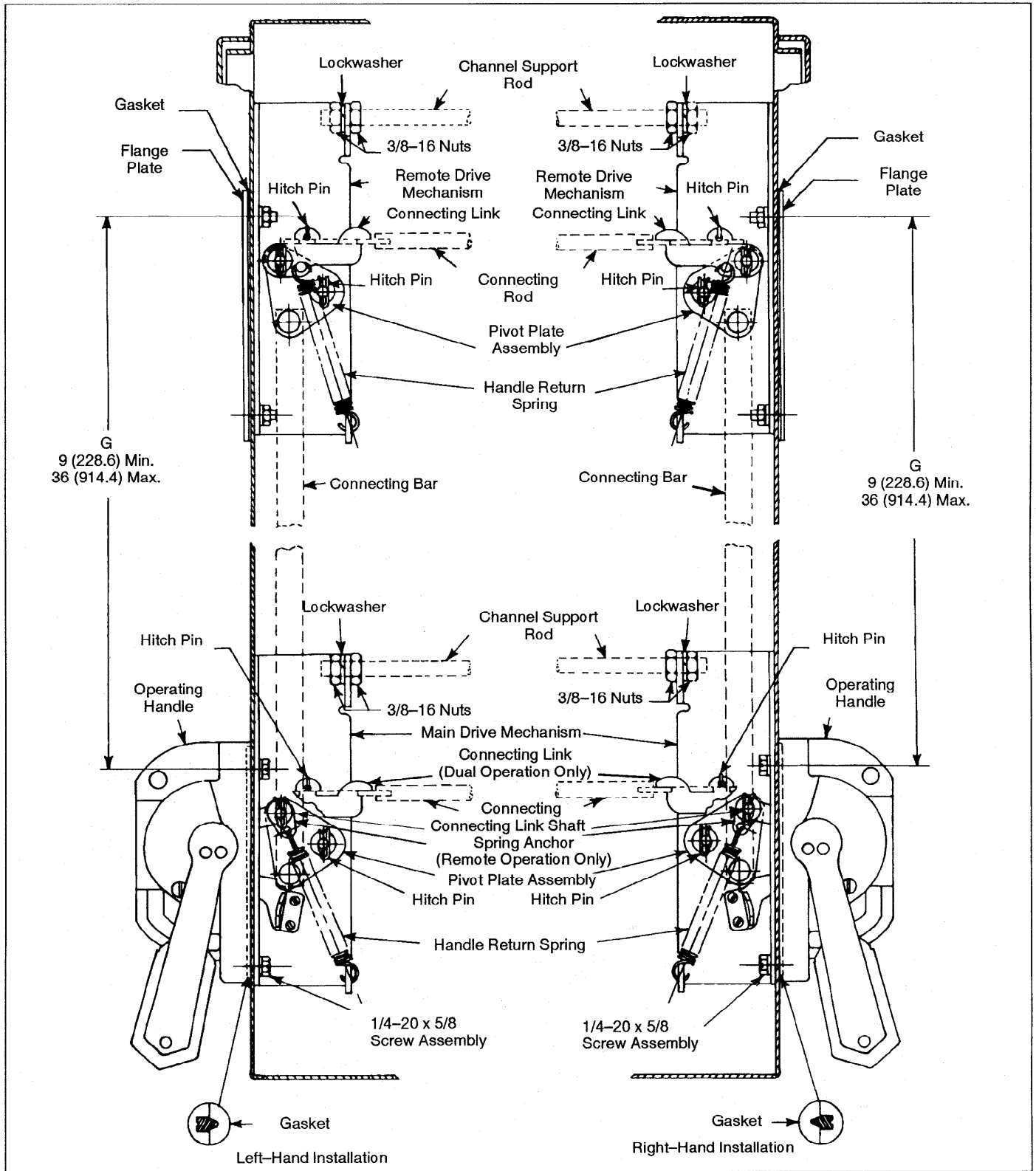


Figure 4

4. Final Main Drive Mechanism Assembly:
  - a. On remote operated only, reassemble the four 3/8"(9.5) inside diameter washers, spring anchor, 1/4"(6.4) inside diameter washer and hitch pin removed in Step Number 3.
  - b. On dual operation, replace the connecting link, the 1/4"(6.4) inside diameter washer and hitch pin.
5. Remove the hitch pin, washer, and pivot plate assembly from the remote drive mechanism, Figure 4. Fasten the remote drive mechanism bracket to the enclosure with the flange plate, gasket, lockwashers and 1/4 -20 nuts provided. Torque to 40 -50 lb.-in.
6. Slide the connecting bar onto the pivot plate assembly and reassemble the remote drive mechanism.
7. Cut the connecting rod (Catalog Number 1494V-RA1 or 1494V-RA2) and turn it into the disconnecting means drive bar as instructed in the Disconnecting Means Installation Instructions. Adding a chamfer to the threaded end will provide ease of assembly into the drive bar.

**Note:** Depending on your enclosure flange thickness the initial installation may require several extra turns.
8. Mount the disconnecting means, assemble the connecting link and rod, and adjust the connecting rod as instructed in the Disconnecting Means Installation Instructions. Insert the hitch pin in the hole of the ear on the connecting link, see Figure 4.
9. Attach the handle return springs as shown in Figure 4.
  - a. Place the spring in the outside groove of the connecting link on the remote drive mechanism.
  - b. Main Drive Mechanism:
    1. Attach the spring to the spring anchor on remote applications only.
    2. On dual applications, place the spring in the inside groove of the connecting link.
10. Assemble the defeater bracket, and fasten and adjust the door catch as instructed in the Disconnecting Means Installation Instructions.

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## Channel Support Installation

Catalog Number 1494V-H4

1. Drill and tap the mounting plate as instructed in the Channel Support Kit Instruction Sheet, Publication 1494V-5.3
2. Cut the 3/8 -16 threaded rod to the proper length  $L = N - 3.5(88.9)$ . "N" is the dimension obtained from the disconnecting means installation instructions.
3. Do not use Items 1, 2, and 3 (the channel support bracket, support plate and nutsert assembly) of the channel support kit.
4. Secure the rod to the remote (main) drive mechanism as shown in Figure 4 on Page 6 with a lockwasher and two 3/8 -16 nuts (not included in this kit). Torque to 175-200 lb.-in.
5. Fasten the panel support bracket to the panel as instructed in Publication 1494V-5.3

## Door Hardware Installation

Small and Intermediate Enclosures

Catalog Numbers 1494V-L1, LL1, and L2

1. Figure 5 and Figure 6 on Page 10 are for right hand flange installation. The left hand flange installation layout is diametrical of Figure 5 and Figure 6 on Page 10. The dimensions shown for the locking bars are the same for left-hand and right-hand installation.
2. The door hardware handle can be installed either below the bottom operating handle position or between the top and bottom positions as shown in Figure 5 and Figure 6, on Page 10, respectively.
3. All door hole diameters and the remaining hole locations are as shown on the Door Hardware Instruction Sheet, Publication 1494V-5.4.
4. Establish the length of the locking bar for the application. Drill and tap it as shown in Figure 5 and Figure 6 on Page 10.
5. Locate the door catch as shown in Figure 5 or Figure 6 on Page 10 to satisfy the application.
6. Assemble the door hardware as instructed in the Door Hardware Instruction Sheet.



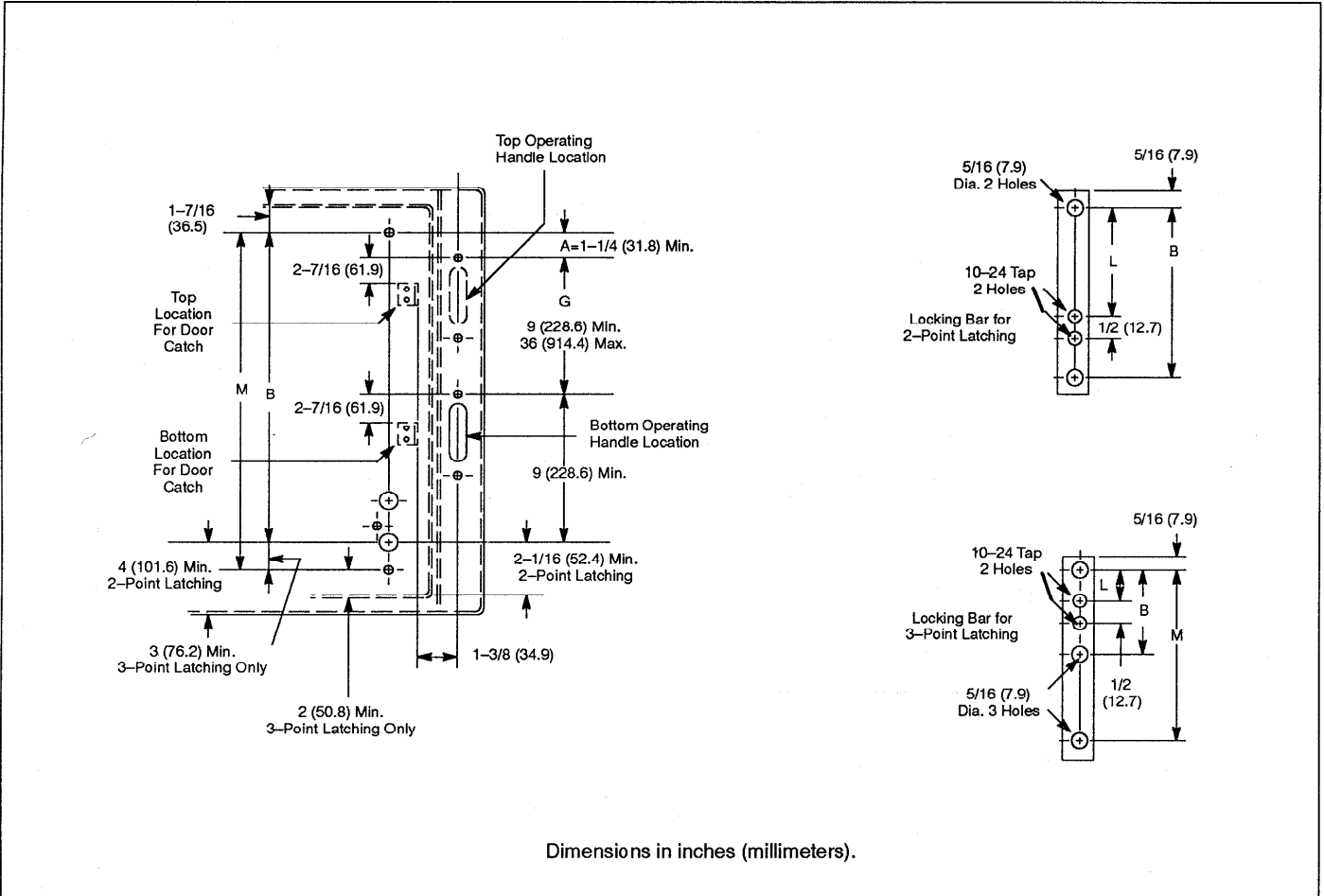
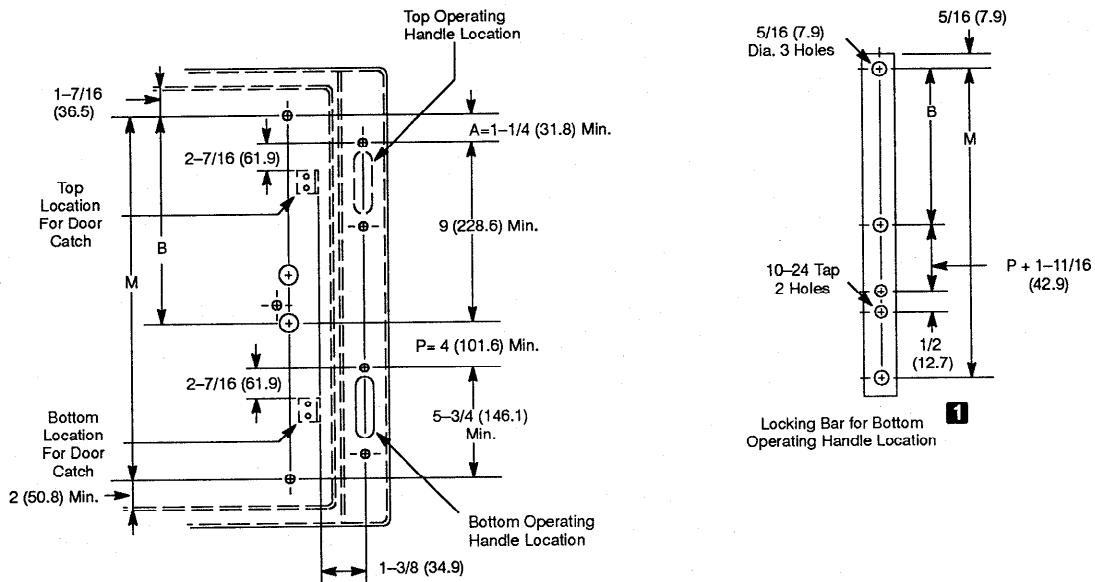


Figure 5

Operating Handle Location	L Dimensions in inches (millimeters)
Top	A Dimension + 1-11/16" (42.9)
Bottom	A Dimension + G Dimension + 1-11/16" (42.9)

NOTE: From Publication 1494V-5.7 dated April 1984.



**1** Use locking bar dimensions for 3-point latching in Figure 5 on Page 9 for top operating handle location.

Dimensions in inches (millimeters).

Figure 6

**Large Enclosures**  
**Catalog Numbers**  
**1494V-L3 and -LL3**

1. Figure 7 is for a right hand flange installation. The left hand flange installation layout is diametrical of Figure 7.
2. The door hardware handle must be located below the operating handle. It can be installed between the sets of flange drillings as shown in Figure 7 only when the operating handle is located in the top location.
3. All door hole diameters and the remaining hole locations are as shown on the Door Hardware Instruction Sheet, Publication 1494V-5.5.1.
4. Establish the length of the locking bar for the application. Drill and tap it as instructed in the Door Hardware Instruction Sheet, Publication 1494V-5.5.1.
5. Locate the door catch as shown in Figure 7 to satisfy the application.
6. Assemble the door hardware as instructed in the Door Hardware Instruction Sheet.

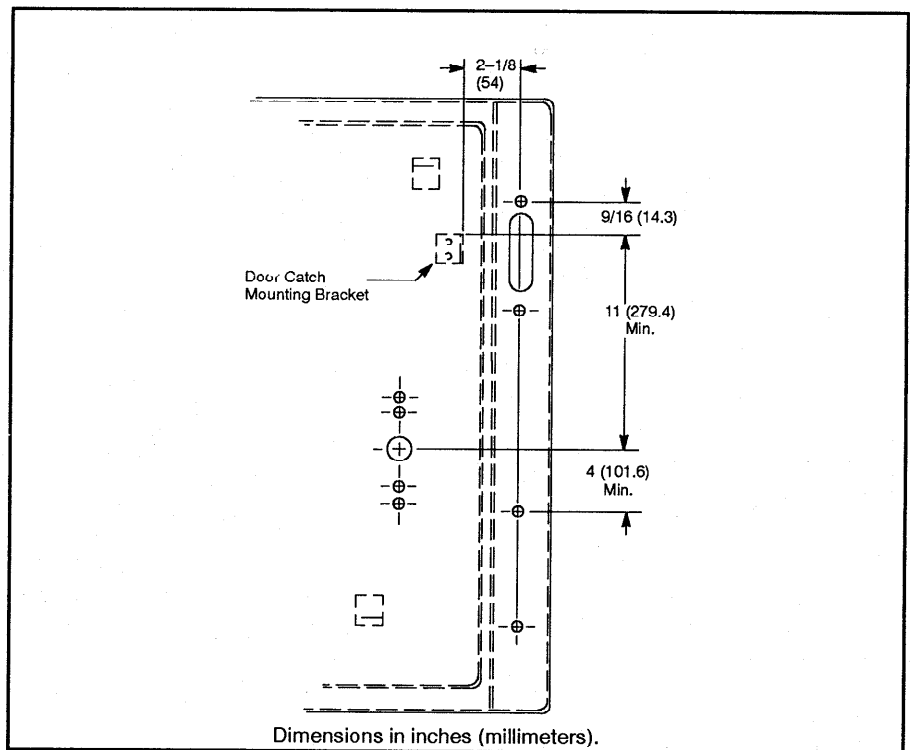


Figure 7



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