

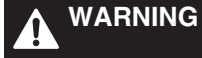


Bulletin 1494F Fixed Depth Disconnect Switch Installation Instructions

(Cat 1494F-N30; -N60; -N100; -N200) (Series B)

**WARNING**

To prevent electrical shock, disconnect from power source before installing or servicing. Follow NFPA 70E requirements. Install in suitable enclosure. Keep free from contaminants.

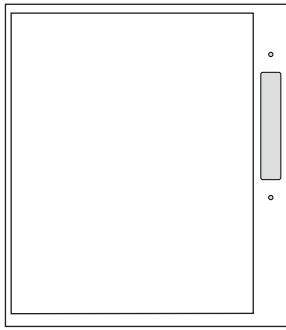
**WARNING**

The following procedures are critical to the proper operation of the disconnect handle and switch. Failure to follow these steps can result in damage to the equipment and/or serious injury or death to the operator.

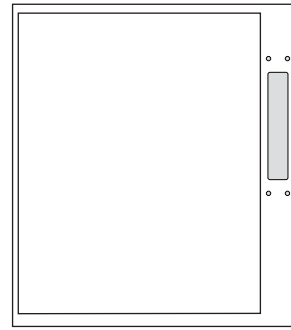
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Enclosure with Pre-Drilled Handle Cutout

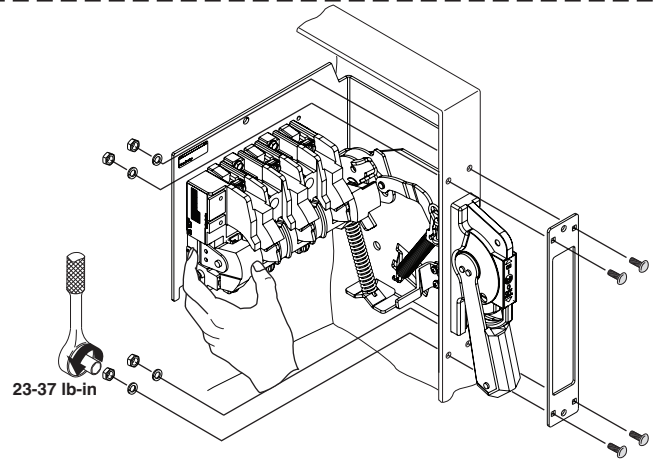
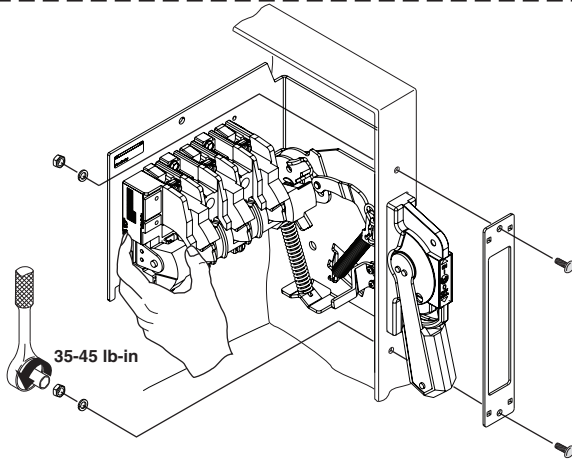
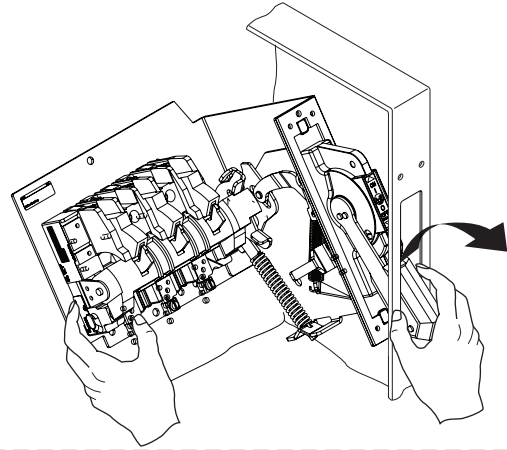
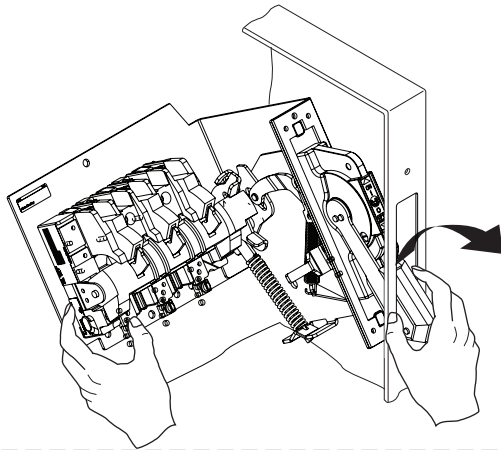
Option 1



Option 2

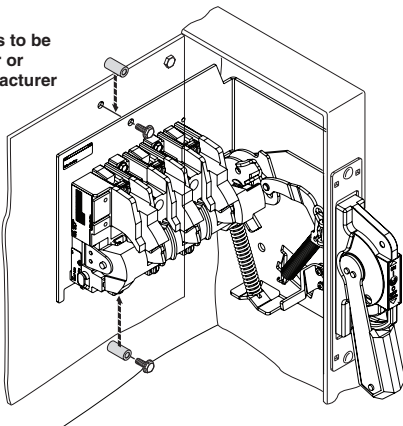


1 Install Disconnect Switch (Left-hand installation unavailable.)

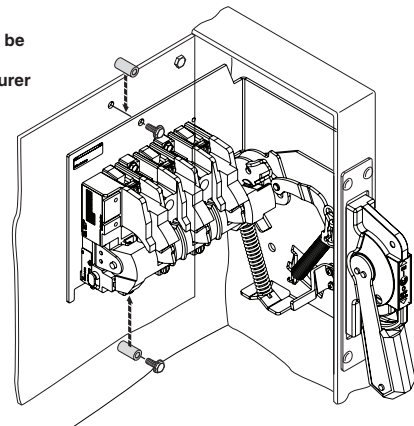


2 Install Disconnect Switch Standoffs

Standoffs & Bolts to be Provided by User or Enclosure Manufacturer



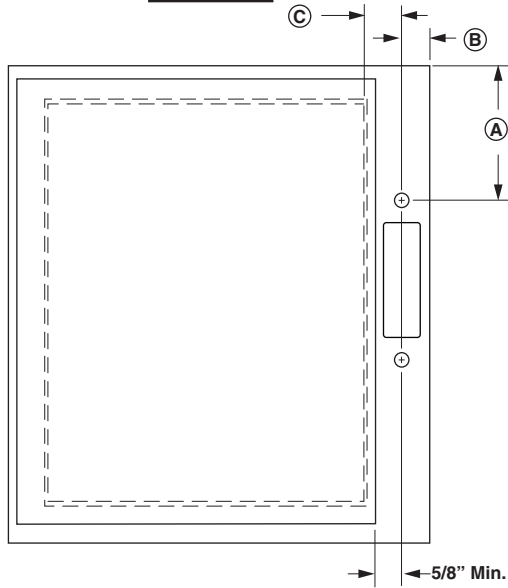
Standoffs & Bolts to be Provided by User or Enclosure Manufacturer



Enclosure without Pre-Drilled Handle Cutout

1 Locate Handle

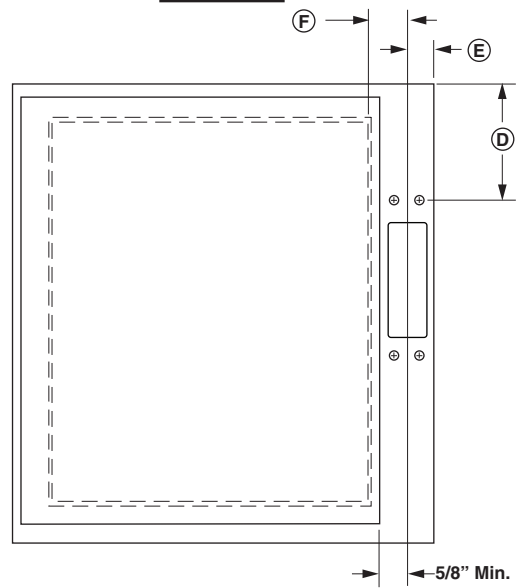
Option 1



Enclosure Flange Cut-Out Dimensions (Option 1)

NEMA SIZE	A (min)	B (min)	C (min)
30A, 60A	2-3/4"	1 - 3/16"	1 - 1/16"
100A	4-1/4"	1 - 3/16"	1 - 1/16"
200A	8-1/4"	1 - 3/16"	1 - 1/16"

Option 2

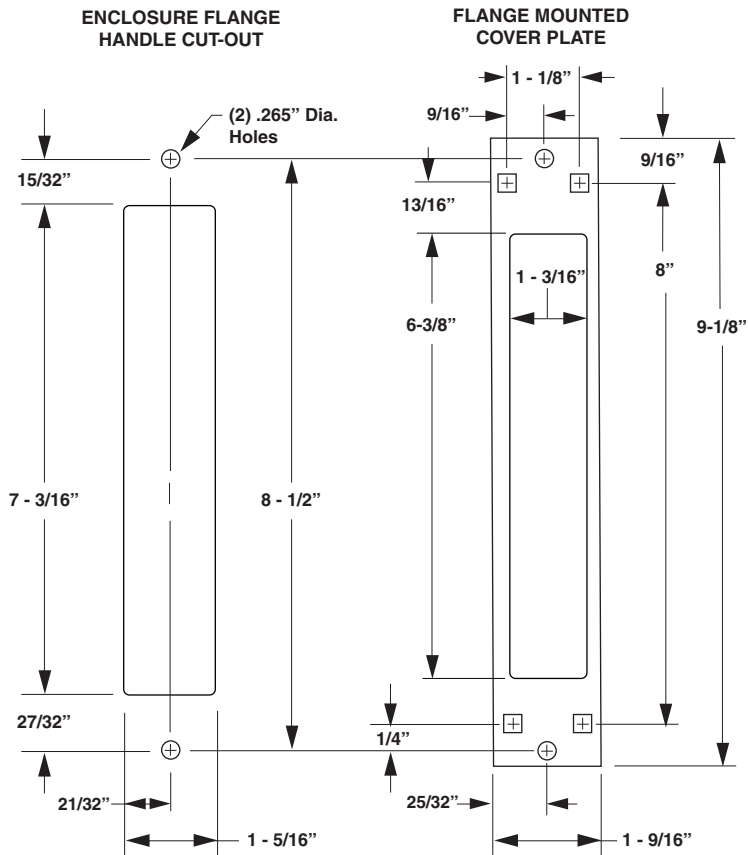


Enclosure Flange Cut-Out Dimensions (Option 2)

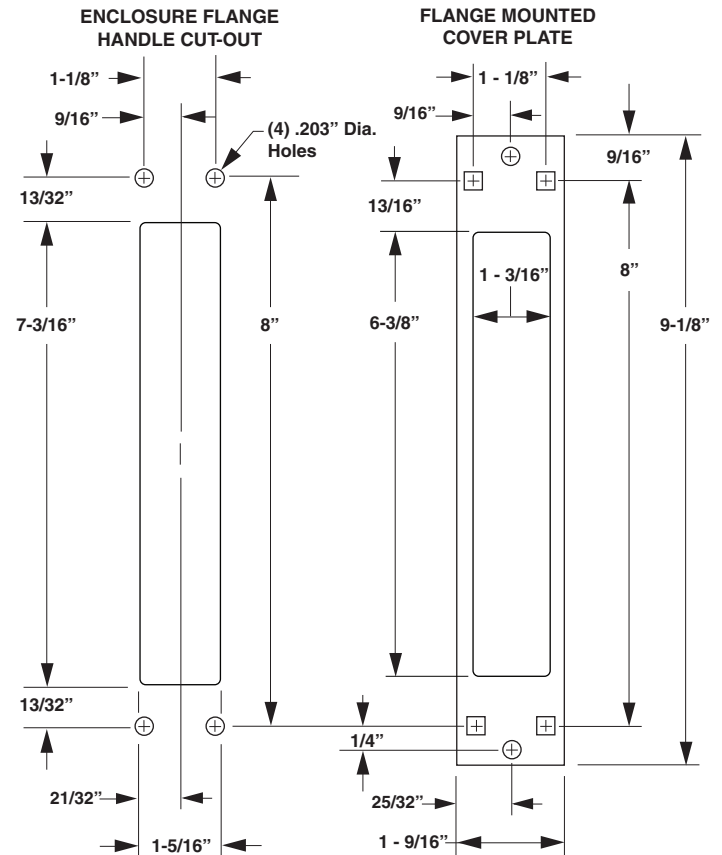
NEMA SIZE	D (min.)	E (min.)	F (min.)
30A, 60A	3	1 - 3/16"	1 - 1/16"
100A	4-1/2"	1 - 3/16"	1 - 1/16"
200A	8-1/2"	1 - 3/16"	1 - 1/16"

2 Drill Handle Holes

Option 1



Option 2



Enclosure Requiring Door Catch Bracket

Right-hand installation shown with or without enclosure door vault hardware

(Left-hand installation unavailable)

Door Catch Mounting Bracket:

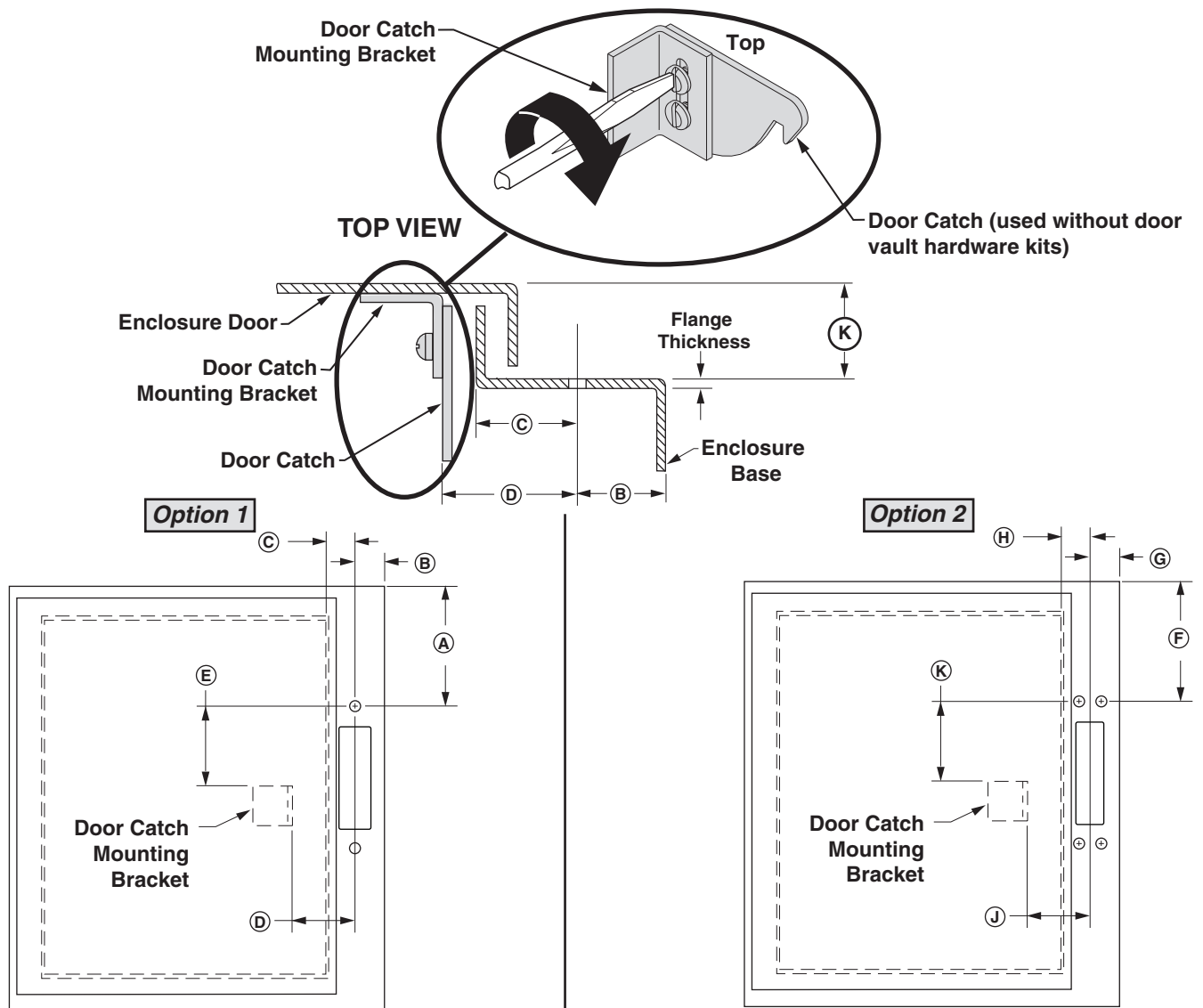
- Provided with projections for welding.
- Projections can also be used as a guide for drilling holes.
- Can be used as a template to drill corresponding holes in the enclosure door.
- User to supply the hardware for fastening the bracket.
- The bracket hardware must be inaccessible to unauthorized personnel.
- Fasteners must provide the degree of ingress protection for the environmental rating of the enclosure.

Dimension **(K)** (3/4" to 1")

- When installed in any size enclosure without door vault hardware, use door catch provided with disconnect switch kit.
- When installed in small and intermediates size enclosures (15 inches to 40 inches) using door vault hardware kits (1494F-L1, 1494F-L2 and 1494F-L3), use door catch with pivot lever provided with disconnect switch kit. Discard the door catch supplied with the door vault hardware kit.

Dimension **(K)** (1-1/8" to 1-3/8")

- When installed in large enclosure using door vault hardware kit (1494F-L4), use the door catch assembly with the pivot lever included with the disconnect switch. Discard the door catch supplied with the door vault hardware kit.



Enclosure Dimensions

NEMA SIZE	A (min)	B (min)	C (max)	D	E
30A, 60A	2 - 3/4"	1 - 3/16"	1 - 1/16"	2 - 1/8"	3 - 13/16"
100A	4 - 1/4"	1 - 3/16"	1 - 1/16"	2 - 1/8"	3 - 13/16"
200A	8 - 1/4"	1 - 3/16"	1 - 1/16"	2 - 1/8"	3 - 13/16"

Enclosure Dimensions

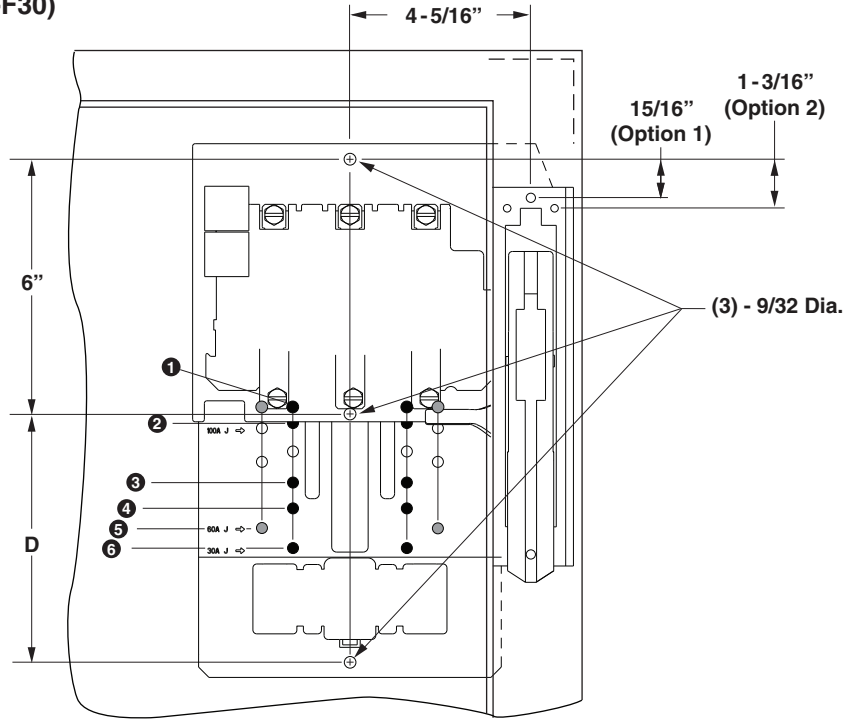
NEMA SIZE	F (min)	G (min)	H (max)	J	K
30A, 60A	3"	1 - 3/16"	1 - 1/16"	2 - 1/8"	3 - 9/16"
100A	4 - 1/2"	1 - 3/16"	1 - 1/16"	2 - 1/8"	3 - 9/16"
200A	8 - 1/2"	1 - 3/16"	1 - 1/16"	2 - 1/8"	3 - 9/16"

Fuse Block Adapter Plate Installation (Switch Rating 30A - 60A - 100A)

1 30 Amp Fuse Block Adapter Plate Kit (1494F-F30)

Fuse				
Amps	Voltage	Class	Position	D
30	250	H/R	⑥	2 - 13/16"
30	600	H/R	②	5 - 5/8"
30	600	J	⑥	2 - 13/16"
30	600	HRCII-C	③	4 - 3/16"
60	250	H/R	④	3 - 5/8"
60	600	H/R	①	6 - 1/8"
60	600	J	⑤	3"
60	600	HRCII-C	③	4 - 3/16"

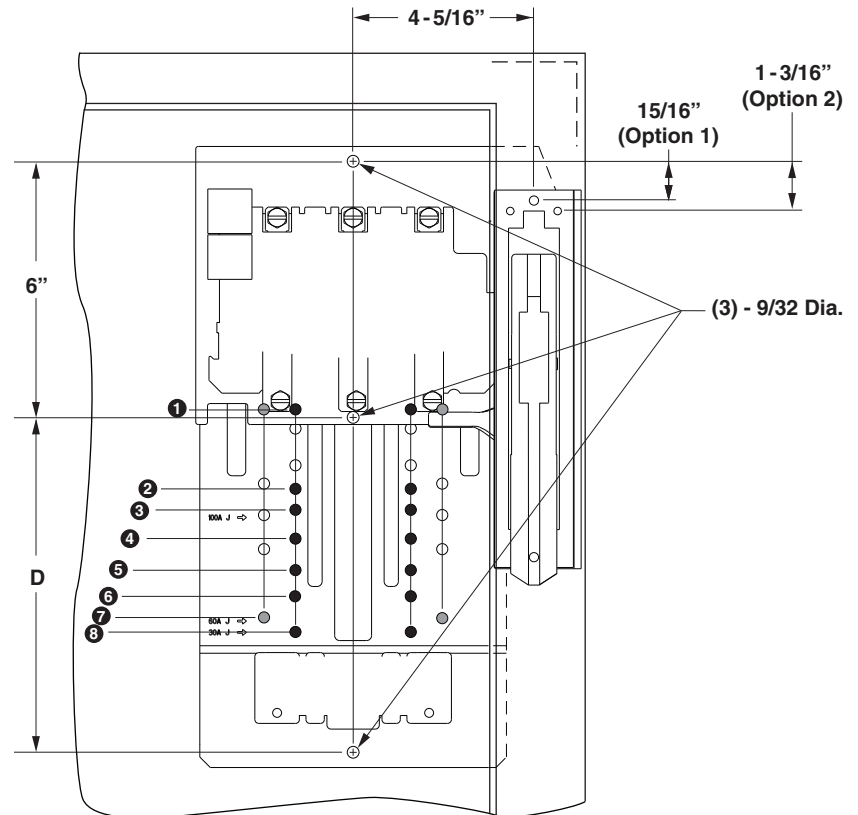
Hardware Torque (lb-in)				
Fuse Amps	Fuse Block Adapter Kit	Fuse Clip	Lug to Terminal	Wire into Lug
30	40-60	22-37	20-25	20-25
60				



60 Amp Fuse Block Adapter Plate Kit (1494F-F60)

Fuse				
Amps	Voltage	Class	Position	D
30	250	H/R	⑧	2 - 13/16"
30	600	H/R	③	5 - 5/8"
30	600	J	⑧	2 - 13/16"
30	600	HRCII-C	⑤	4 - 3/16"
60	250	H/R	⑥	3 - 5/8"
60	600	H/R	②	6 - 1/8"
60	600	J	⑦	3"
60	600	HRCII-C	⑤	4 - 3/16"
100	250	H/R	②	6 - 1/8"
100	600	J	④	4 - 15/16"
100	600	H/R	①	8 - 1/8"

Hardware Torque (lb-in)				
Fuse Amps	Fuse Block Adapter Kit	Fuse Clip	Lug to Terminal	Wire into Lug
30	40-60	22-37	40-60	45-50
60				
100	40-60	16-22	40-60	45-50



Fuse Block Adapter Plate Installation (Switch Rating 30A - 60A - 100A) - (Cont'd)

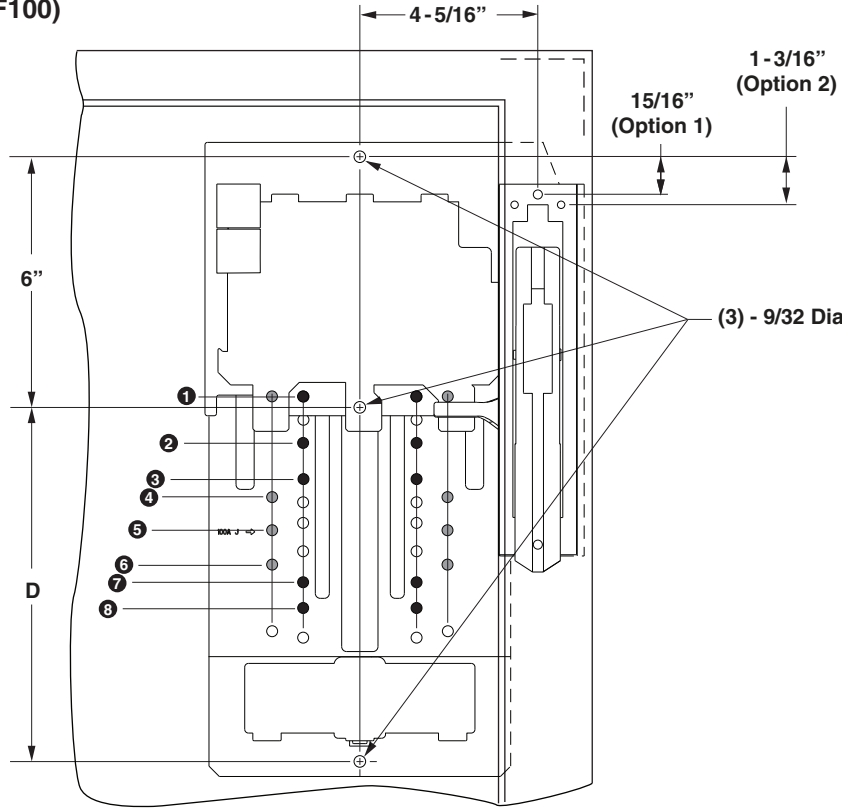
100 Amp Fuse Block Adapter Plate Kit (1494F-F100)

100 Amp Trailer Fuse Block (1494F-F100)

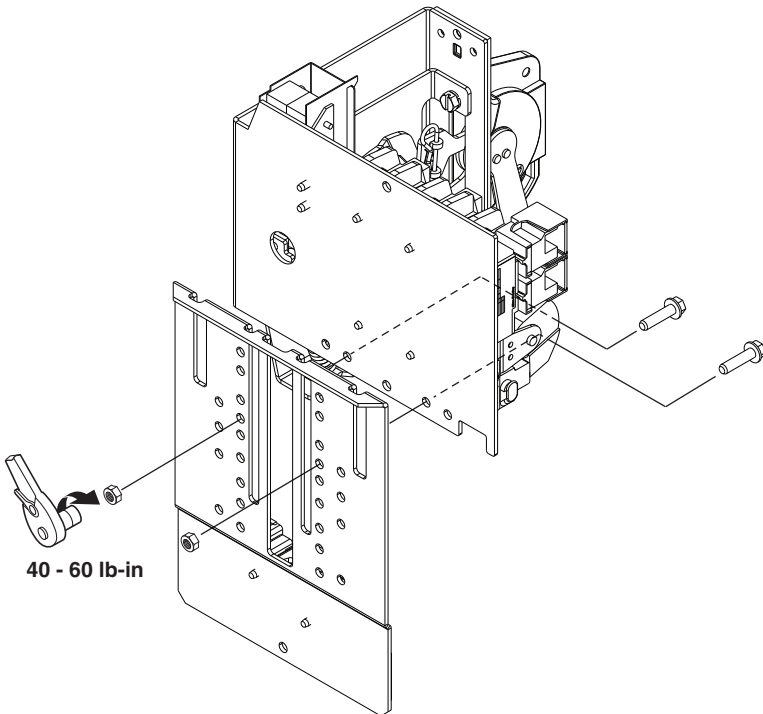
Fuse				
Amps	Voltage	Class	Position	D
60	250	H/R	7	4 - 3/16"
60	600	J	8	3 - 9/16"
60	600	H/R	3	6 - 11/16"
60	600	HRCII-C	6	4 - 11/16"
100	250	H/R	3	6 - 11/16"
100	600	H/R	1	8 - 11/16"
100	600	J	5	5 - 1/2"
100	600	HRCII-C	2	7 - 9/16"
200	600	J	4	6 - 1/4"

Hardware Torque (lb-in)

Fuse Amps	Fuse Block Adapter Kit	Fuse Clip	Lug to Terminal	Wire into Lug
60	40-60	22-37	90-110	150-165
100 200	40-60	16-22	90-110	150-165

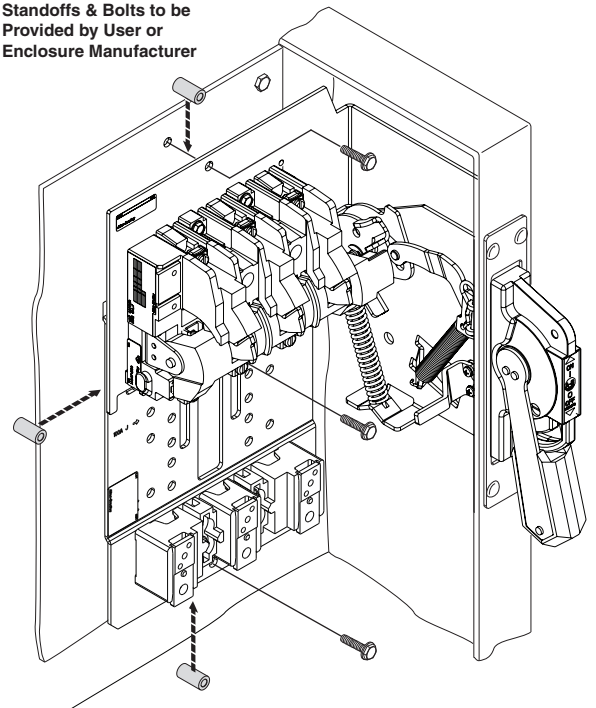


2



3

Standoffs & Bolts to be Provided by User or Enclosure Manufacturer



Fuse Block Adapter Plate Installation (Switch Rating 200A)

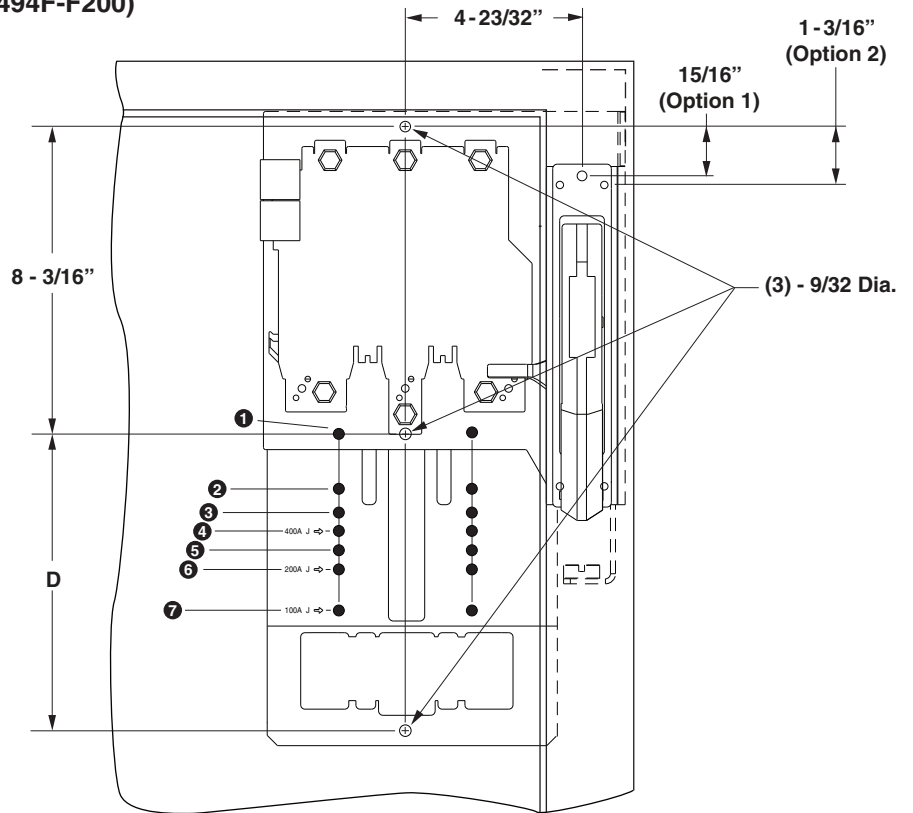
1 200 Amp Fuse Block Adapter Plate Kit (1494F-F200)

200 Amp Trailer Fuse Block (1494F-F200)

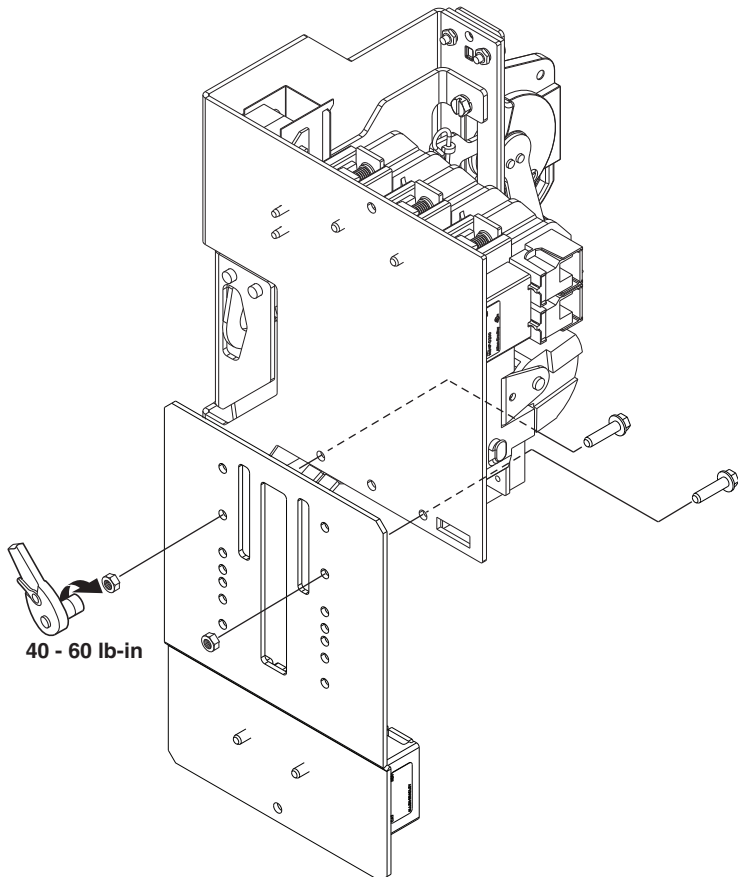
Fuse				
Amps	Voltage	Class	Position	D
100	250	H/R	5	5-7/8"
100	600	H/R	2	7-7/8"
100	600	J	7	4-5/8"
100	600	HRCII-C	7	4-5/8"
200	250	H/R	3	6-3/4"
200	600	H/R	1	9-1/4"
200	600	J	6	5-3/8"
200	600	HRCII-C	6	5-3/8"
400	600	J	4	6-1/4"

Hardware Torque (lb-in)

Fuse Amps	Fuse Block Adapter Kit	Fuse Clip	Lug to Terminal	Wire into Lug
100	40-60	16-22	160-190	275-305
200	40-60	16-22	160-190	275-305
400	40-60	16-22	160-190	275-305

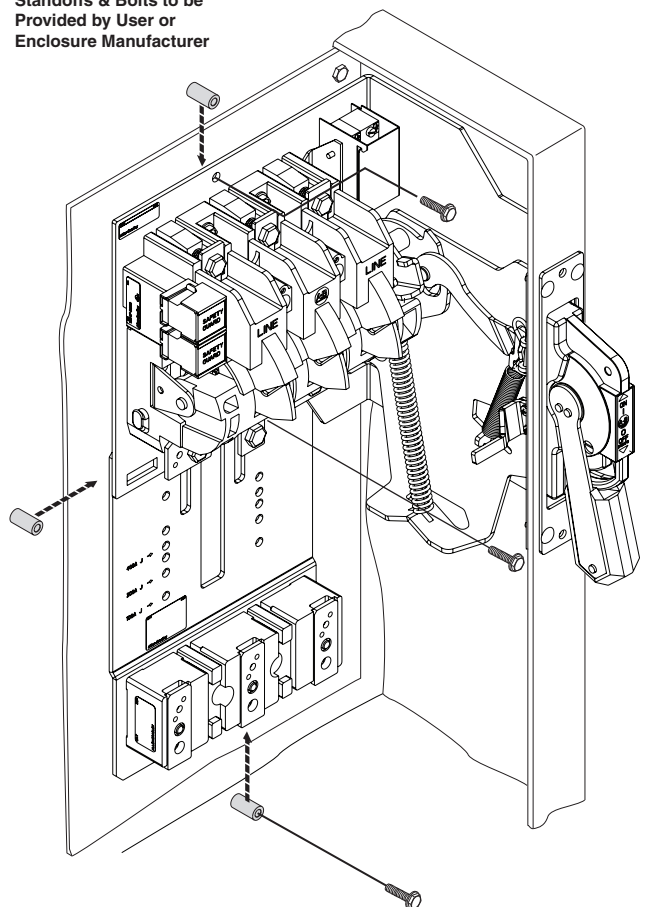


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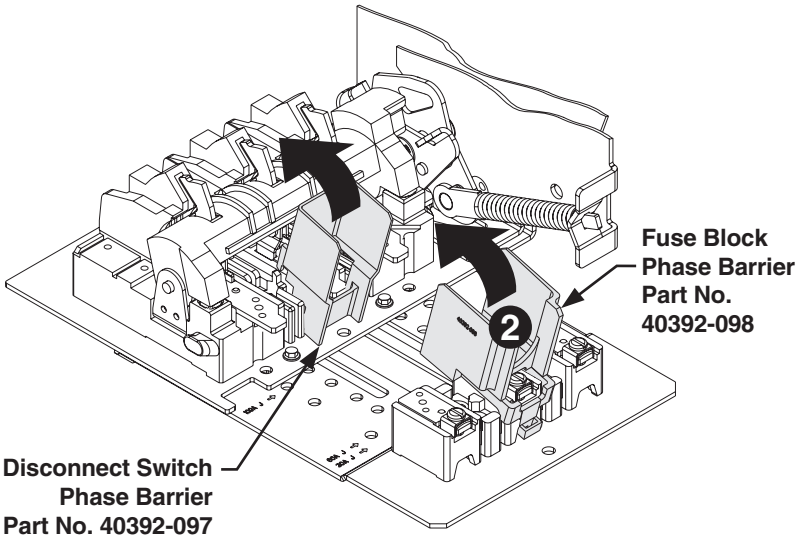
Standoffs & Bolts to be Provided by User or Enclosure Manufacturer



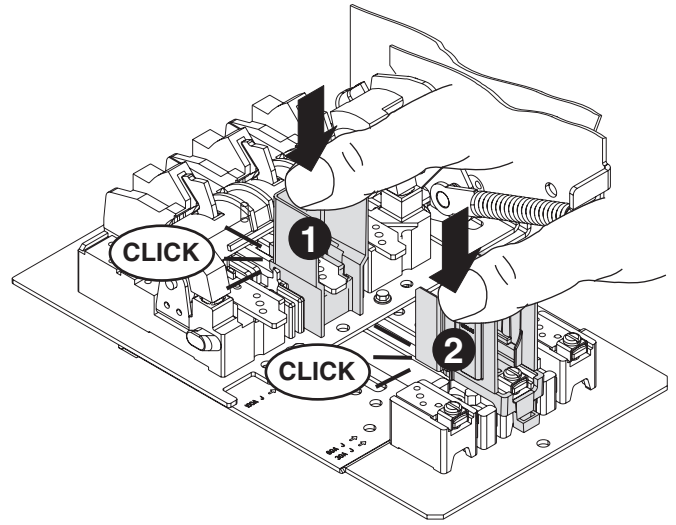
Phase Barrier Replacement Kit (Switch Rating 30A - 60A)

1494F-PH2

1



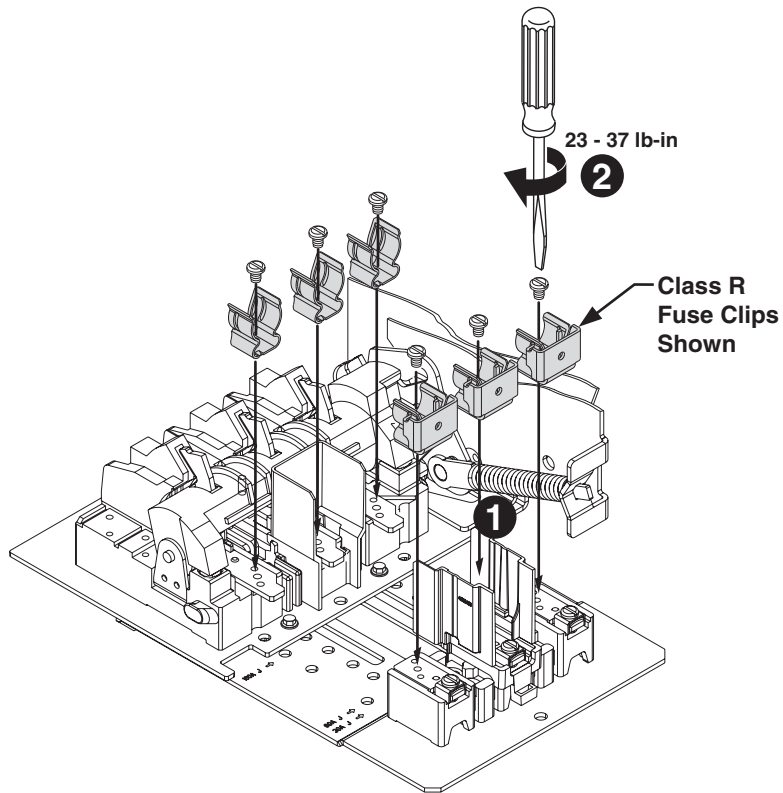
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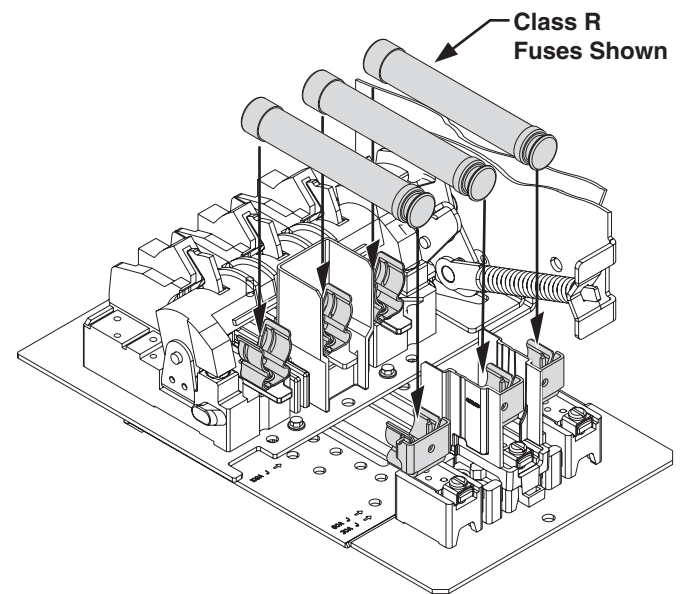
30 Amp Disconnect Switch and Fuse Block Shown

Fuse Clip Installation (Switch Rating 30A - 60A)

1



2



30 Amp Disconnect Switch and Fuse Block Shown

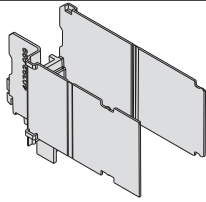
Phase Barrier Replacement Kit (Switch Rating 100A)

1494F-PH3

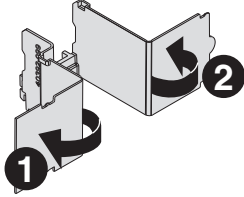
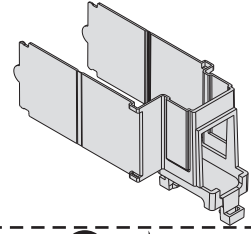
Switch Phase Barrier

Trailer Block Phase Barrier

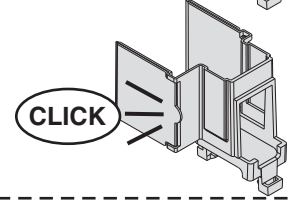
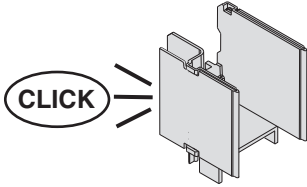
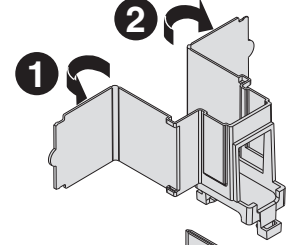
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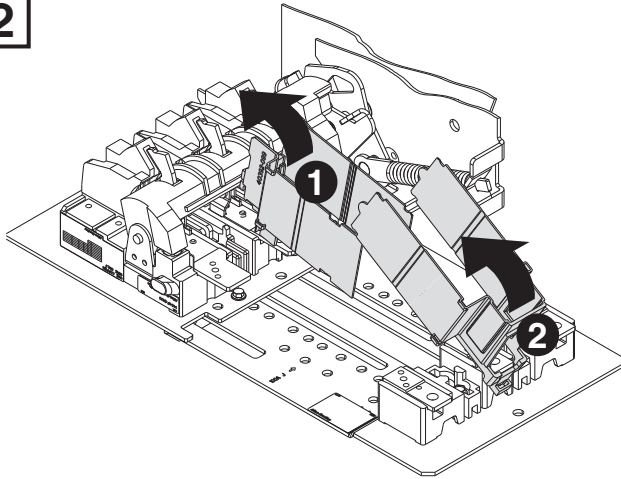
Fuse Clip Size and Class		
60 A	600V	H - R
100 A	600V	H - R
200 A	600V	H - R
200 A	250V	H - R



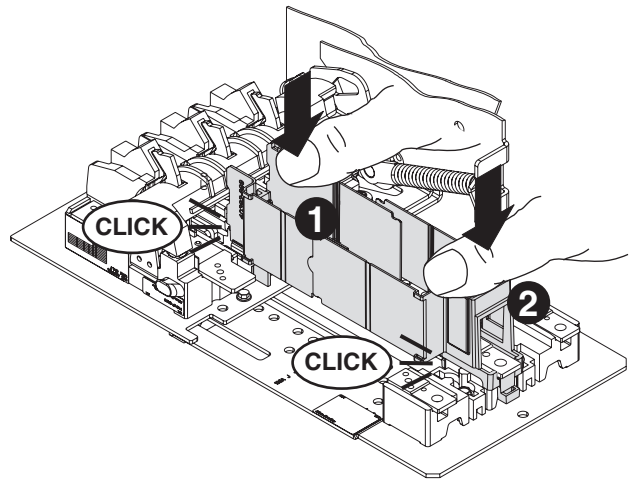
Fuse Clip Size and Class		
60 A	250V	H - R
60 A	600V	J
100 A	250V	H - R
100 A	600V	J
200 A	600V	J



2

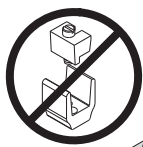


3



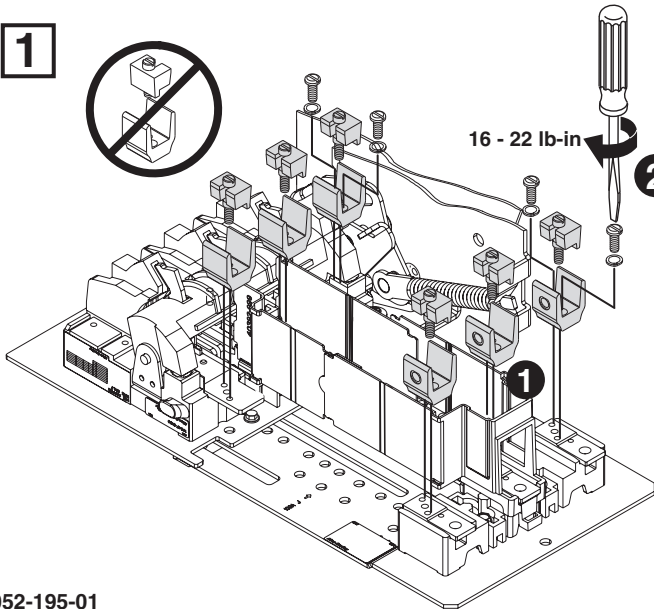
Fuse Clip Installation (Switch Rating 100 Amp)

1



16 - 22 lb-in

2

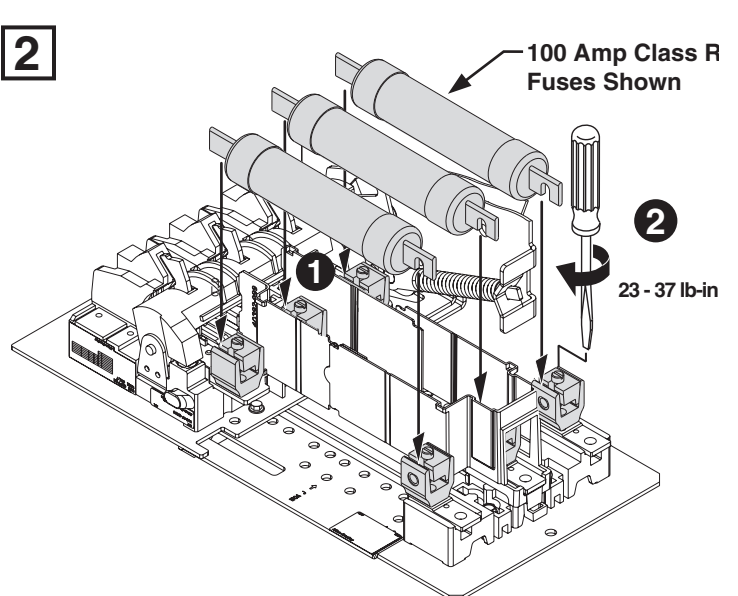


2

100 Amp Class R Fuses Shown

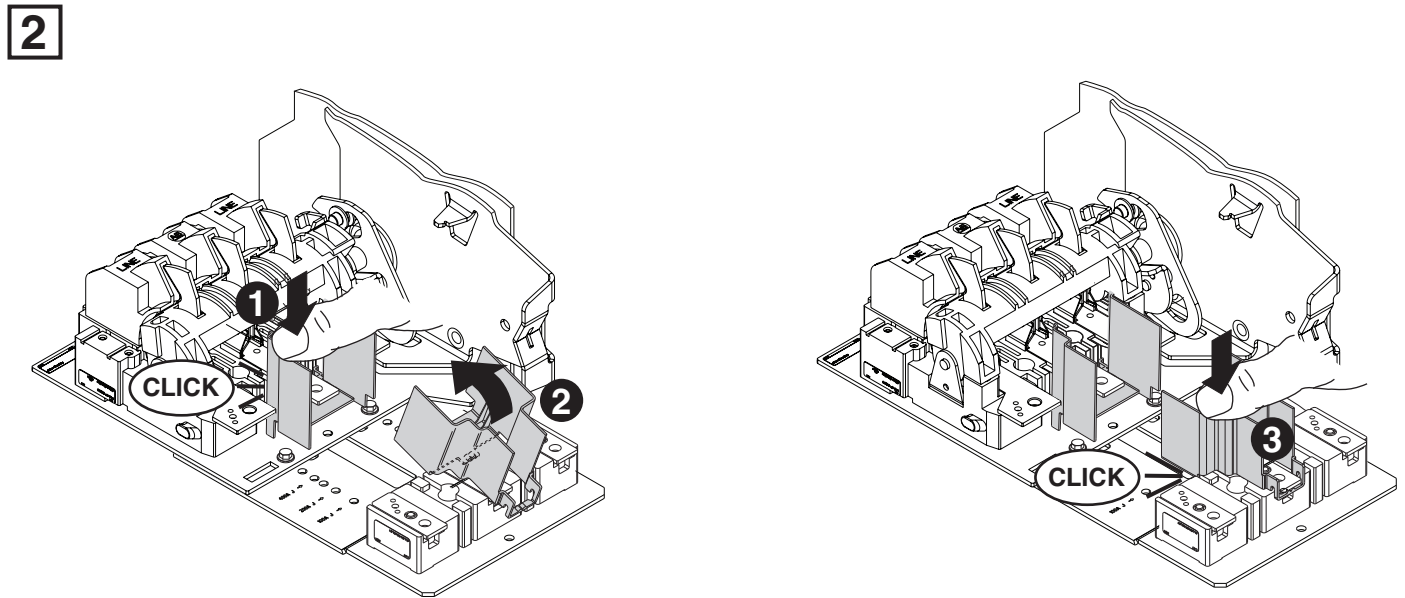
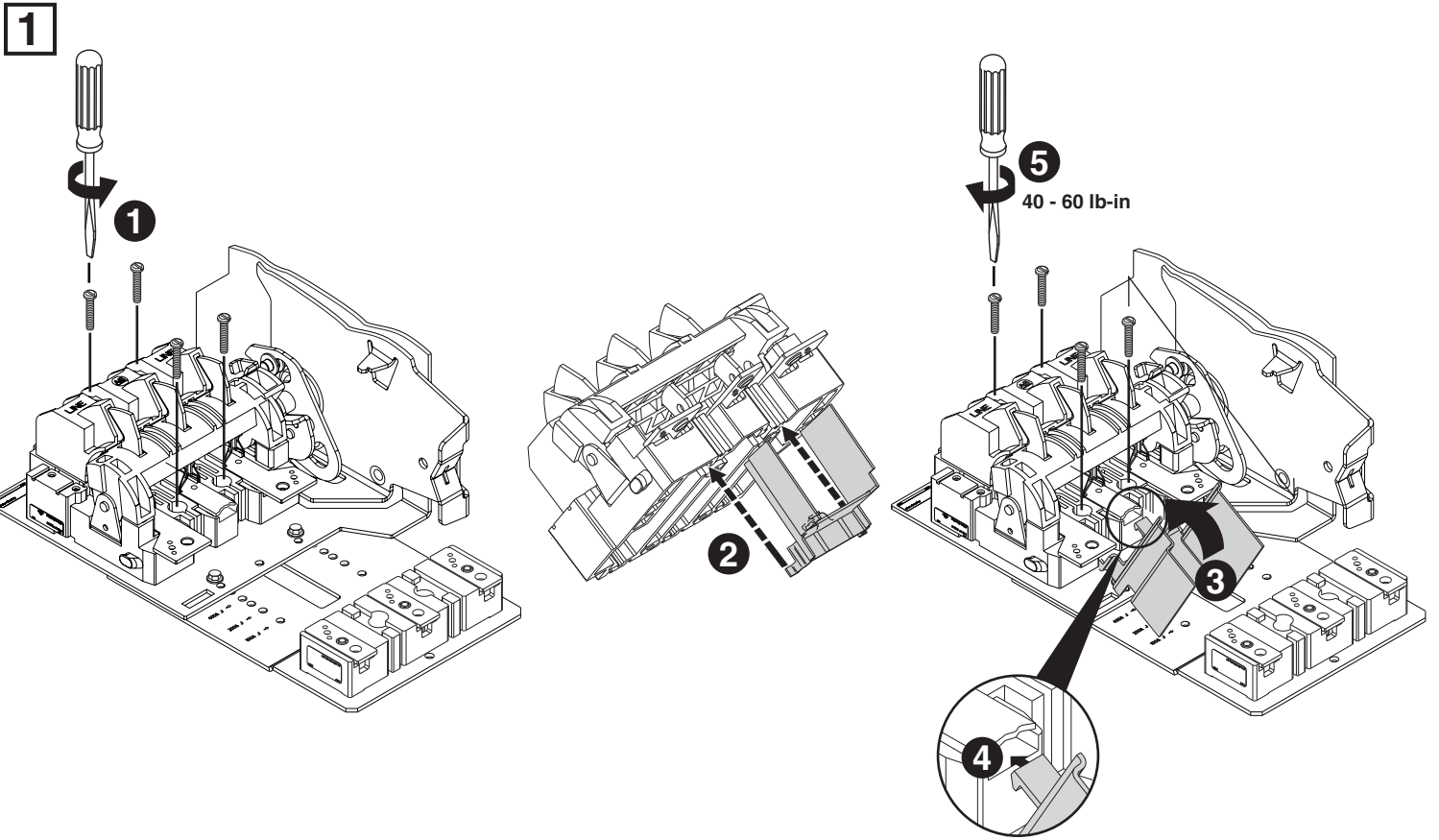
2

23 - 37 lb-in

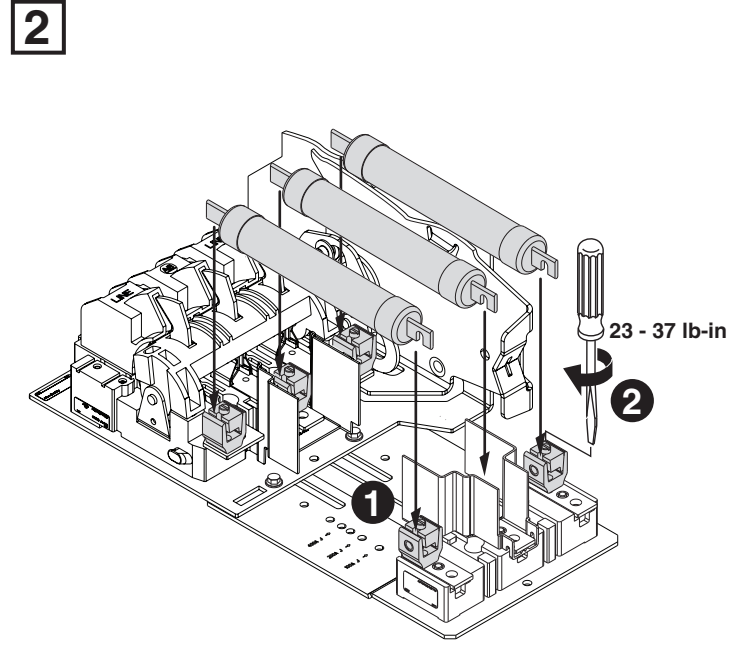
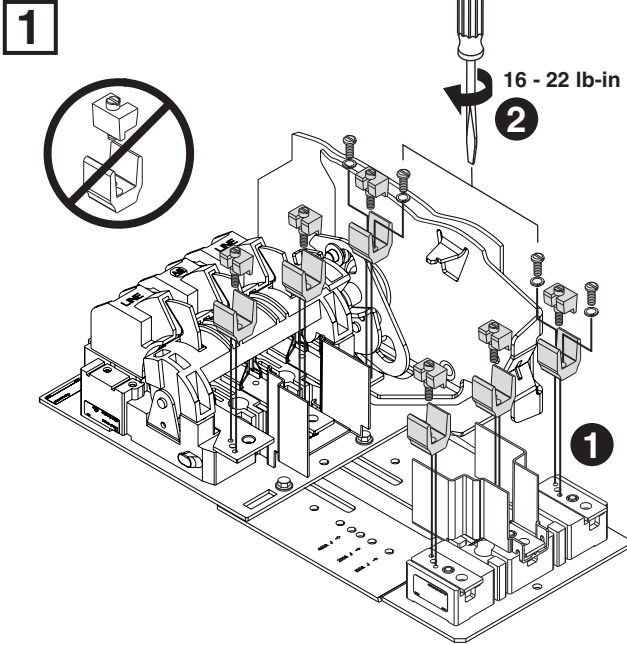


Phase Barrier Replacement Kit (Switch Rating 200A)

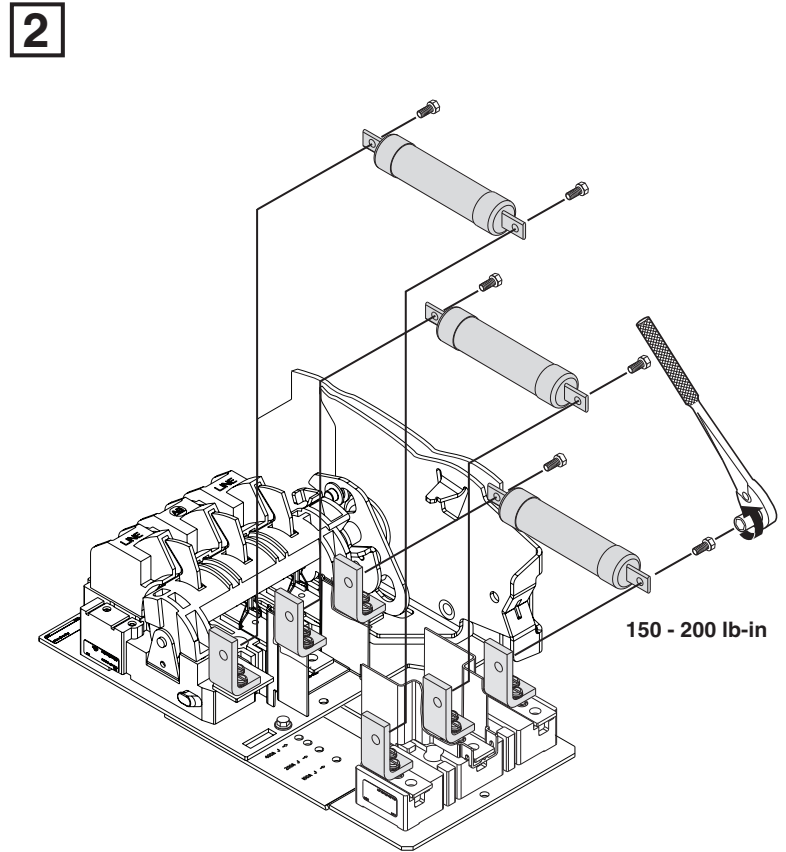
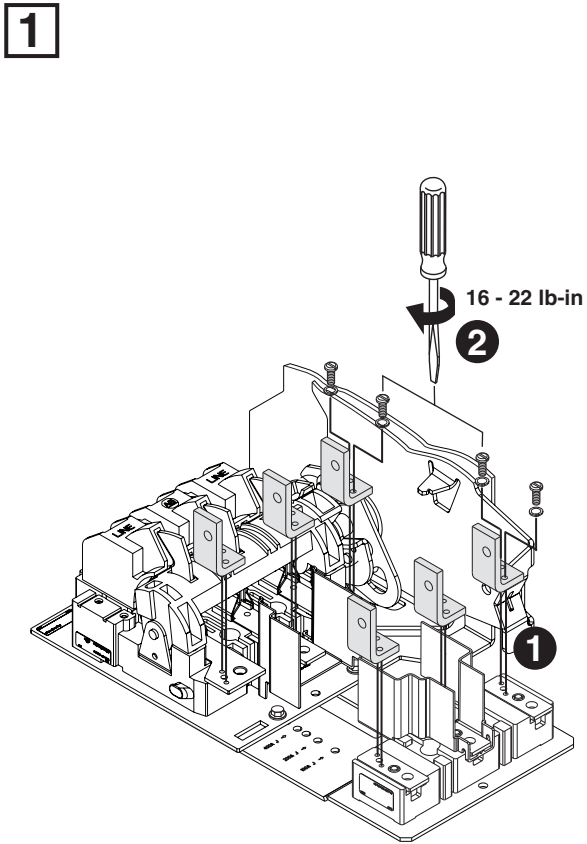
1494F-PH4



Fuse Clip Installation (Switch Rating 200A)

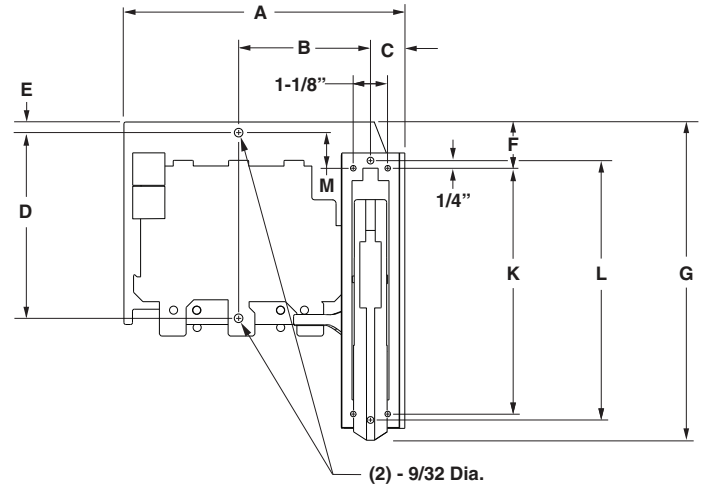
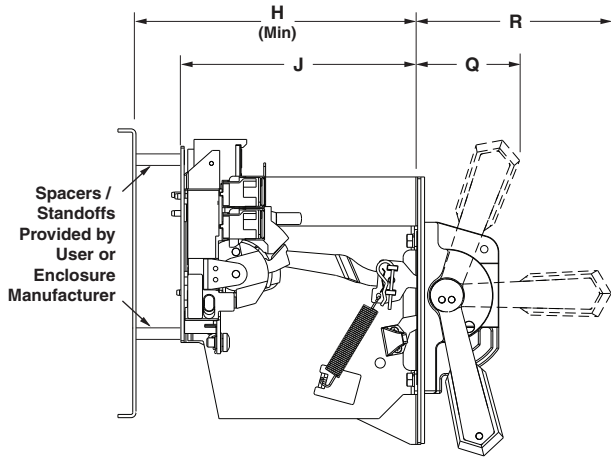


Fuse Clip Installation (Switch Rating 200A) for 400A Class J Fuses (Cat. No. 1401-N171)

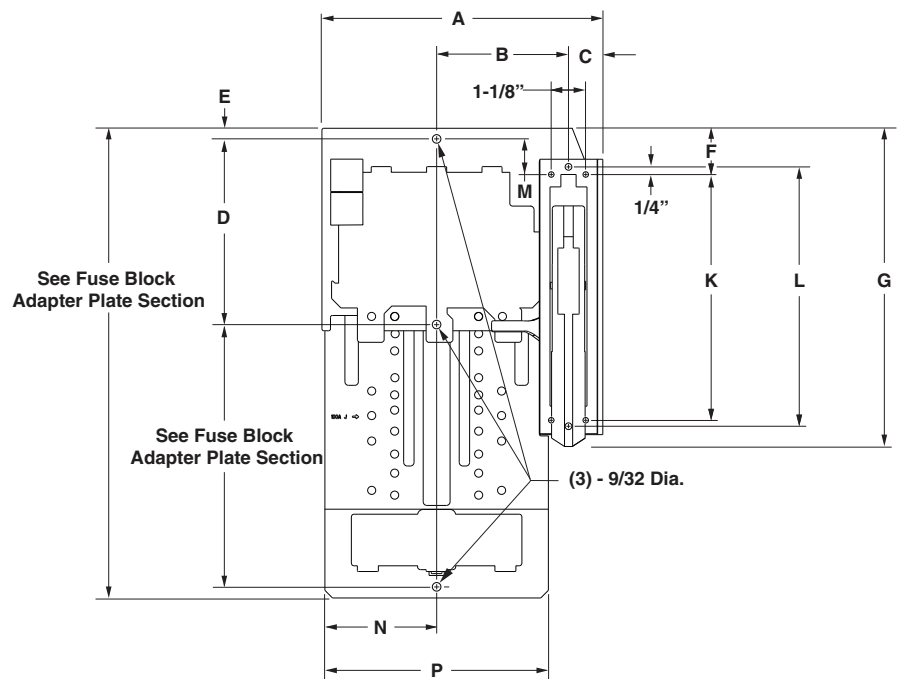
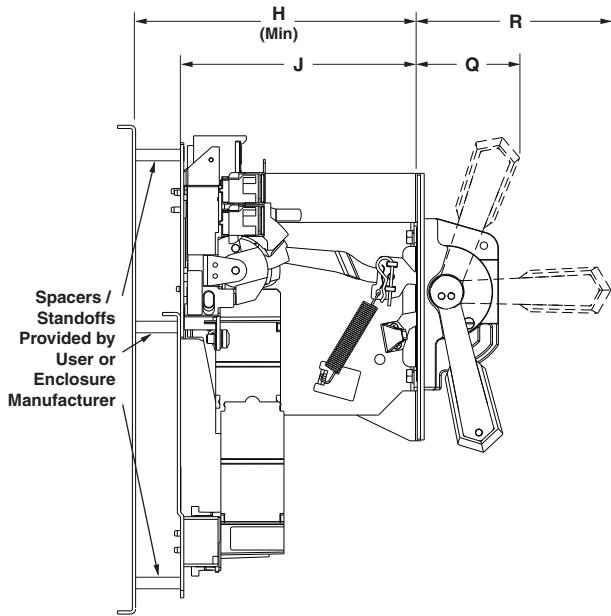


Dimensions

Non-Fusible Disconnect Switch



Fusible Disconnect Switch

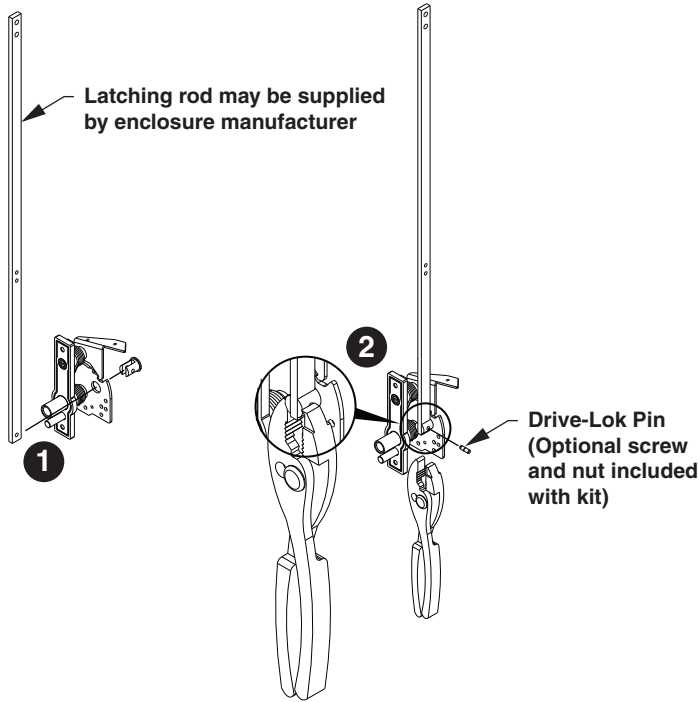


Switch Size	A	B	C	D	E	F	G	H (Min)	J	K	L	M	N	P	Q	R
30A	9-3/16"	4-5/16"	1-1/8"	6"	3/8"	1-9/16"	10-1/2"	8-1/2"	6-7/8"	8"	8-1/2"	15/16"	3-21/32"	7-5/16"	3"	5-7/16"
60A	9-3/16"	4-5/16"	1-1/8"	6"	3/8"	1-9/16"	10-1/2"	8-1/2"	6-7/8"	8"	8-1/2"	15/16"	3-21/32"	7-5/16"	3"	5-7/16"
100A	9-3/16"	4-5/16"	1-1/8"	6"	3/8"	1-9/16"	10-1/2"	9-3/4"	8-1/8"	8"	8-1/2"	15/16"	3-21/32"	7-5/16"	3"	5-7/16"
200A	9-5/8"	4-3/4"	1-5/32"	8-3/16"	7/16"	2"	10-29/32"	9-3/4"	8-1/8"	8"	8-1/2"	1-5/16"	3-3/4"	7-1/2"	3"	5-7/16"

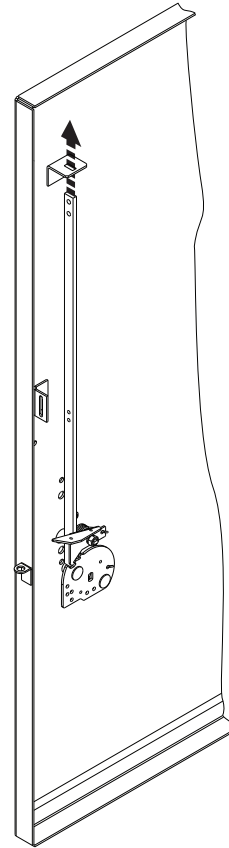
Installation--

Vault Hardware Latching (1494F-L1) - Top and Side Latching (40 Inches Maximum Enclosure Height)

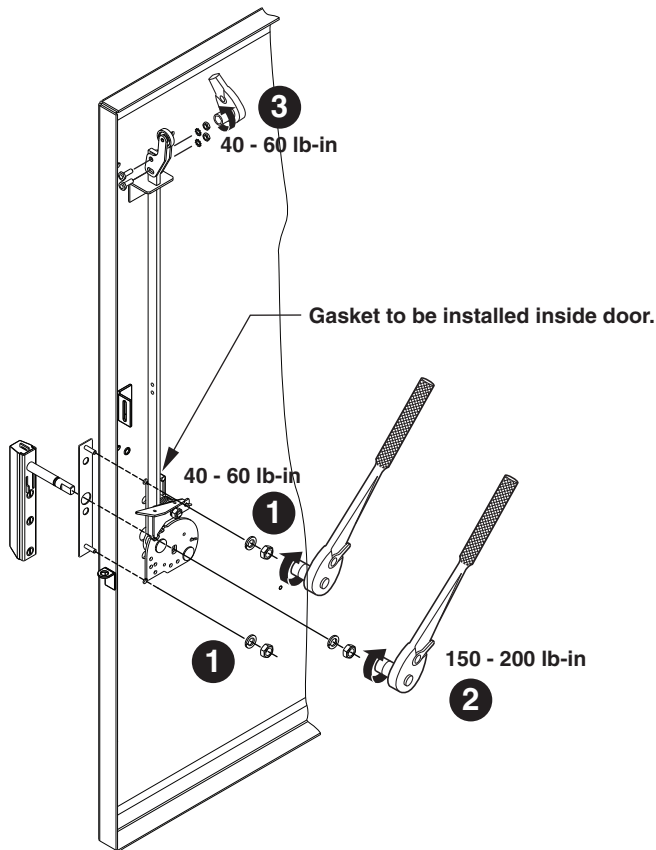
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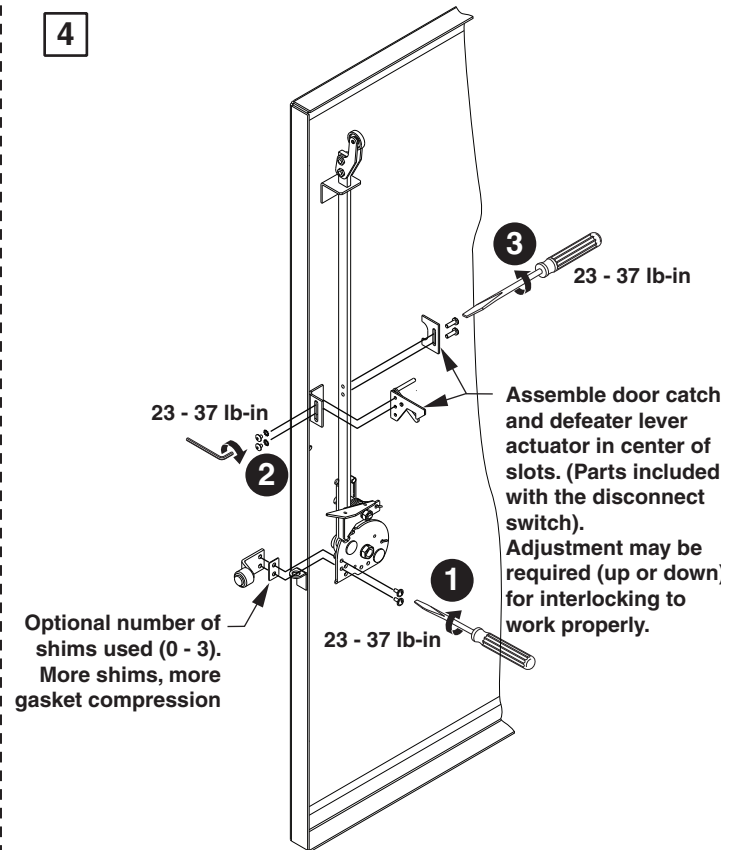
2



3



4



Installation--

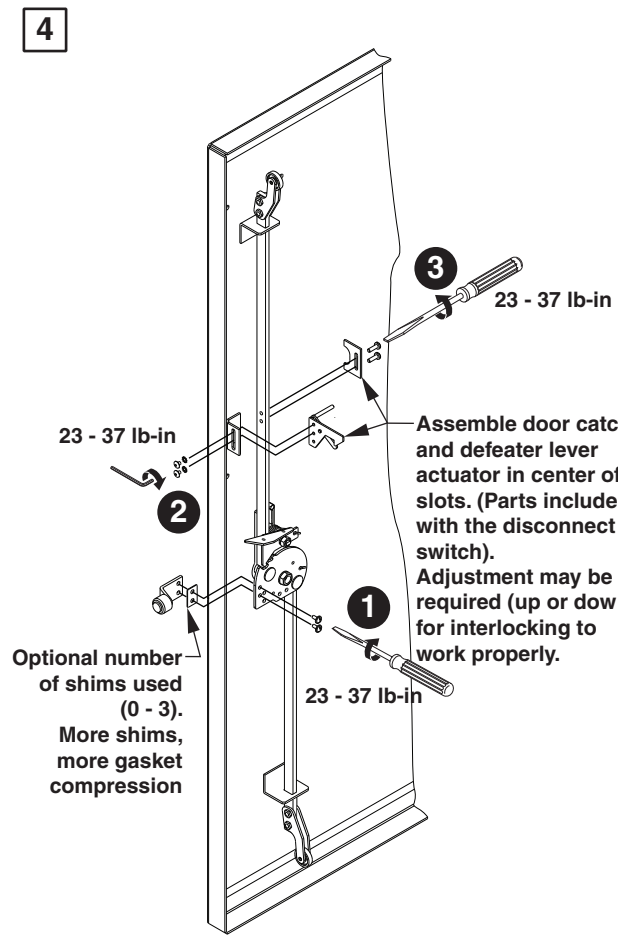
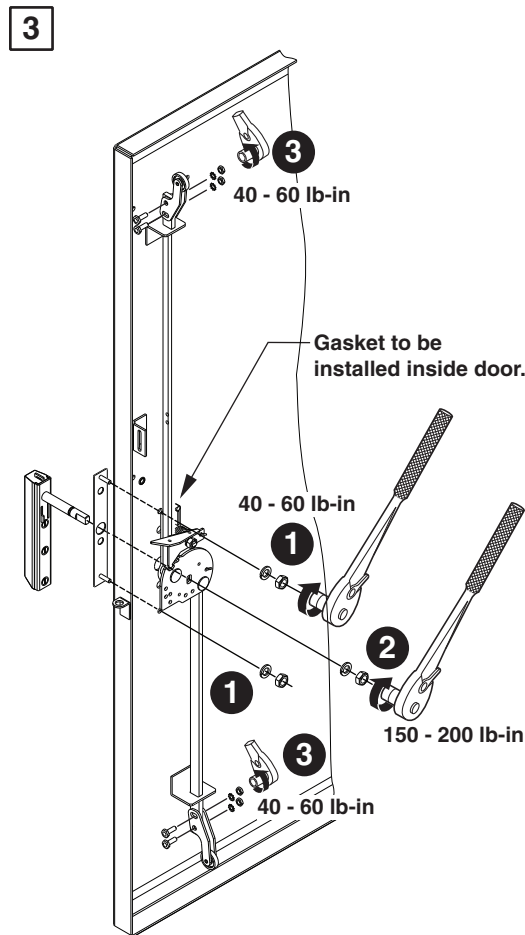
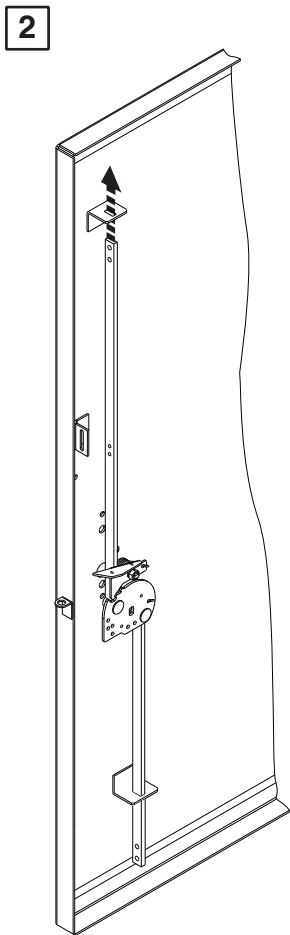
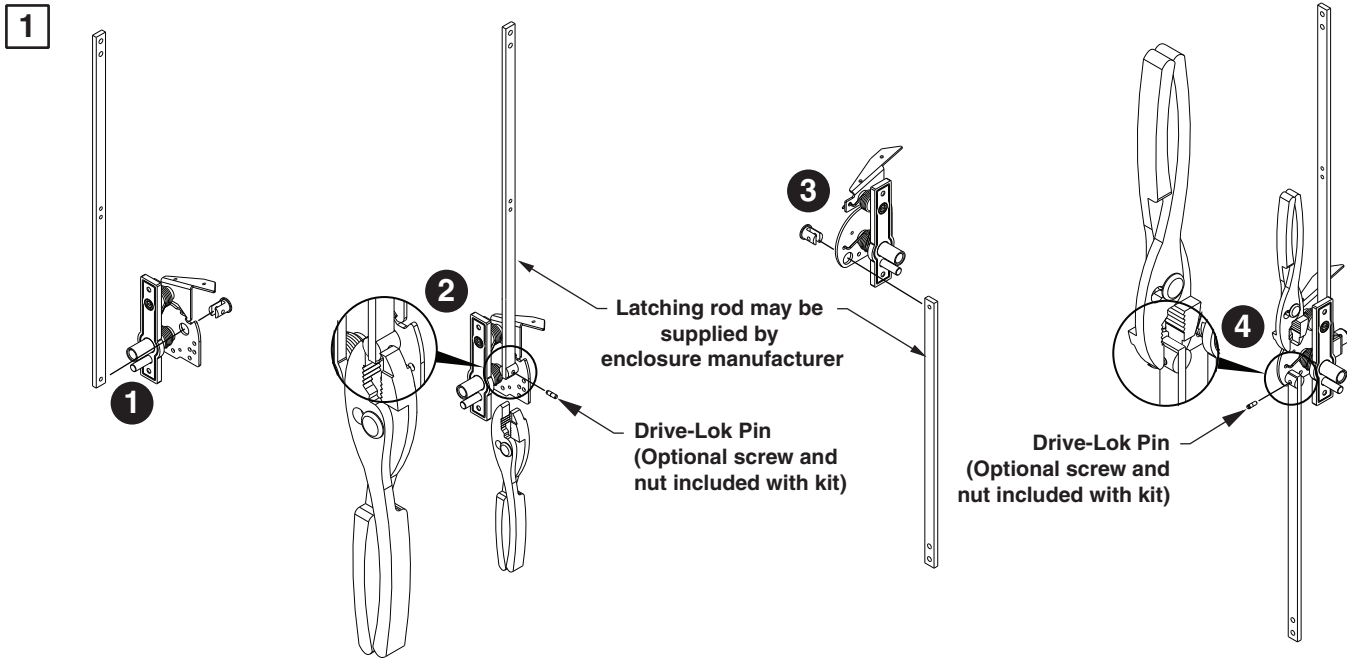
Vault Hardware Latching (1494F-L2, -L3) - Top and Bottom Latching or Top, Side and Bottom Latching

(40 Inches Maximum Enclosure Height-1494F-L2)

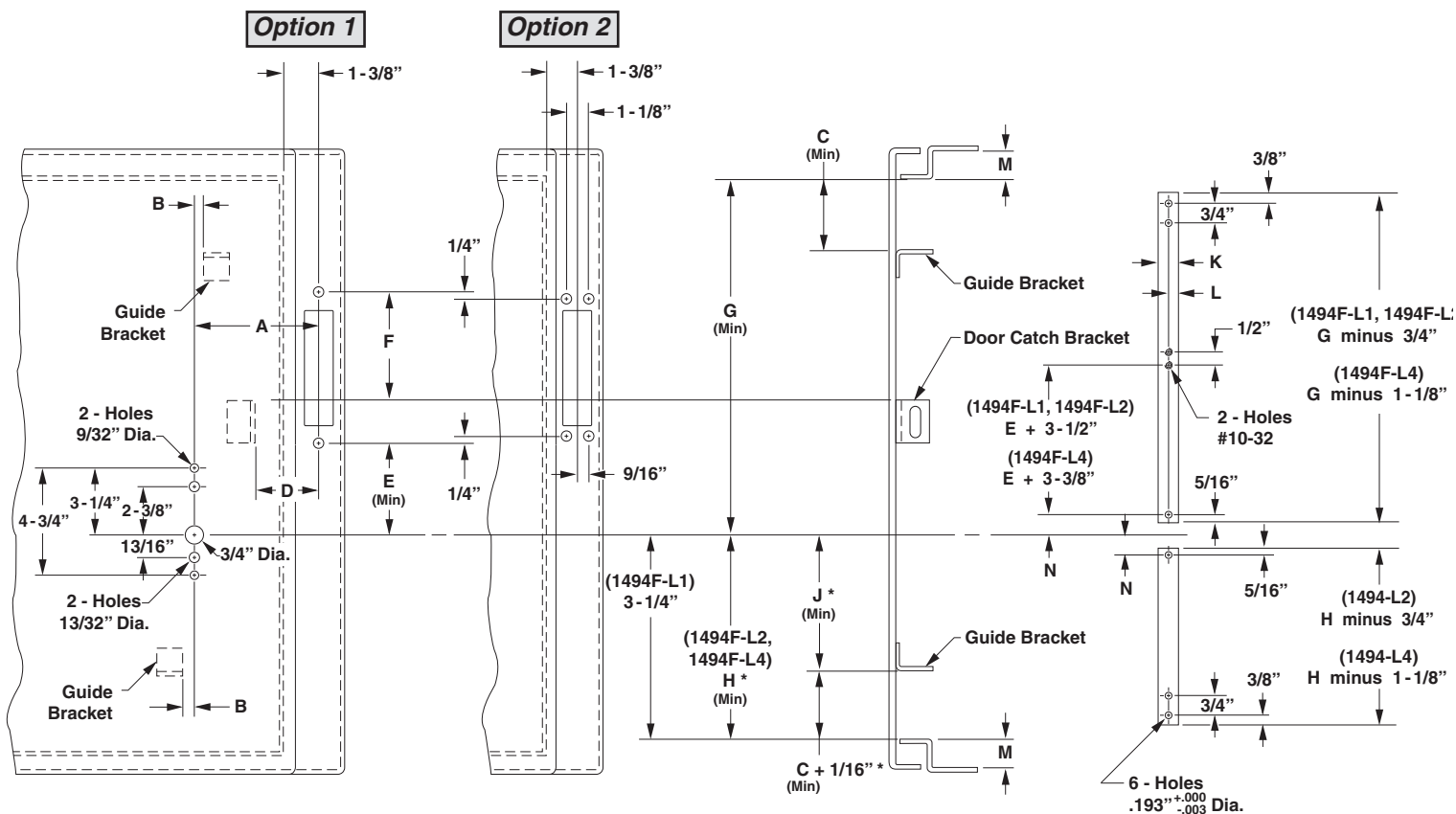
(60 Inches Maximum Enclosure Height-1494F-L2, -L3)

Vault Hardware Latching (1494F-L4 for Large Enclosures) - Top, Side and Bottom Latching

(84 Inches Maximum Enclosure Height)



Installation-- Vault Hardware Latching (Non Pre-Drilled Enclosures)



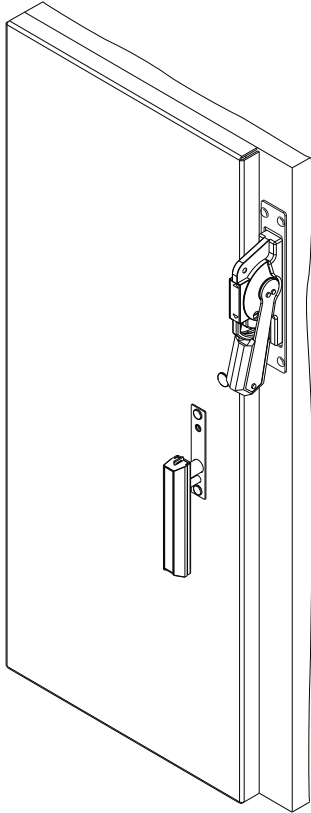
* Non applicable for 1494F-L1

Vault Hardware Kits	Switch Size	A	B	C (Min)	D	E (Min)	F	G (Min)	H (Min)	J (Min)	K	L	M	N
Small and Intermediate Enclosures														
1494F-L1 * 1494F-L2 * 1494F-L3 *	30A	3-7/8"	3/8"	3-1/16"	2-1/8"	4-1/2"	3-13/16"	13"	8-1/8"	5"	1/2"	1/4"	11/16"	1/2"
	60A	3-7/8"	3/8"	3-1/16"	2-1/8"	4-1/2"	3-13/16"	14"	8-1/8"	5"	1/2"	1/4"	11/16"	1/2"
	100A	3-7/8"	3/8"	3-1/16"	2-1/8"	4-1/2"	3-13/16"	18-7/8"	8-1/8"	5"	1/2"	1/4"	11/16"	1/2"
	200A	3-7/8"	3/8"	3-1/16"	2-1/8"	4-1/2"	3-13/16"	23-25/32"	8-1/8"	5"	1/2"	1/4"	11/16"	1/2"
Large Enclosures														
1494F-L4 *	30A	4"	1/2"	3-3/4"	2-1/8"	5"	3-13/16"	13-1/8"	9-13/16"	6"	5/8"	5/16"	1-1/4"	3/4"
	60A	4"	1/2"	3-3/4"	2-1/8"	5"	3-13/16"	13-5/8"	9-13/16"	6"	5/8"	5/16"	1-1/4"	3/4"
	100A	4"	1/2"	3-3/4"	2-1/8"	5"	3-13/16"	18-1/2"	9-13/16"	6"	5/8"	5/16"	1-1/4"	3/4"
	200A	4"	1/2"	3-3/4"	2-1/8"	5"	3-13/16"	23-13/32"	9-13/16"	6"	5/8"	5/16"	1-1/4"	3/4"

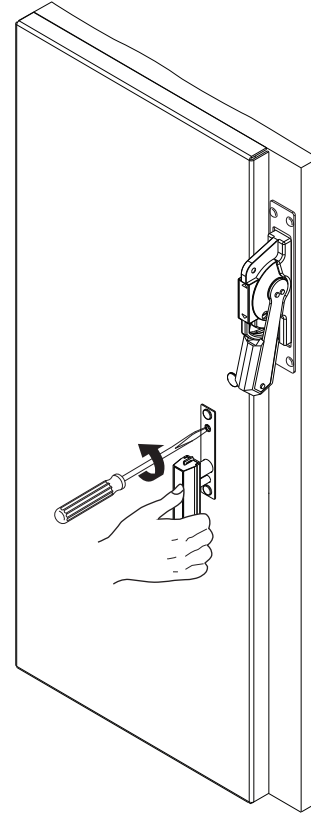
* When using 1494F-L1, -L2, -L4 vault hardware kits with Series A 1494F-N30, 1494F-NF30, 1494F-N60, 1494F-NF60, 1494F-N100, 1494F-NF100, 1494D-N4, 1494D-N5, 1494M-N30, 1494M-NF30, 1494M-N60, 1494M-NF60, 1494M-N100 or 1494M-NF100 it may be necessary to order adapter 1494F-N13. (Required for Hoffman A22 Series B or later enclosures.)

Testing Vault Hardware Latching and Enclosure Seal

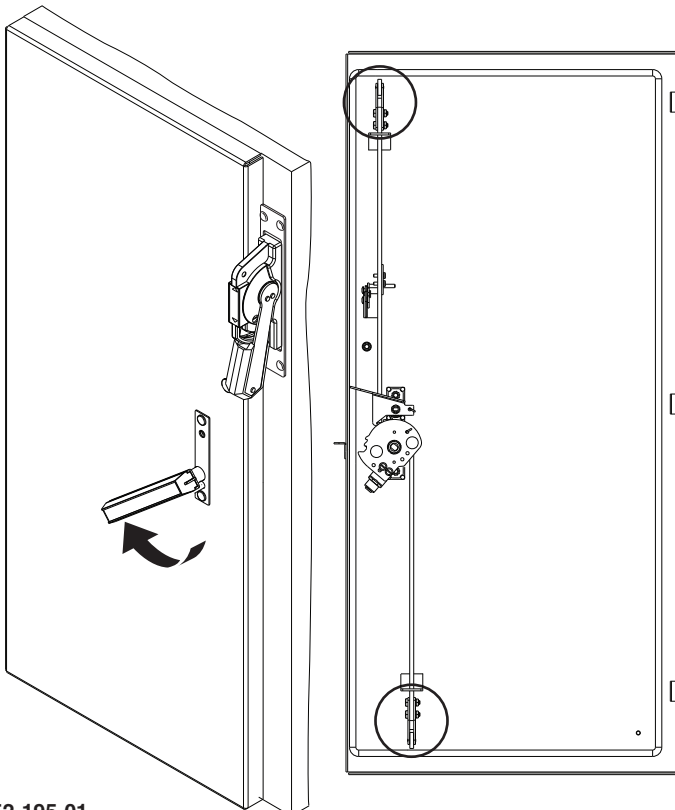
1 Close door against enclosure base. The door handle should be in the 6 o'clock position in line with the length of the door when fully latched and the enclosure is sealed.



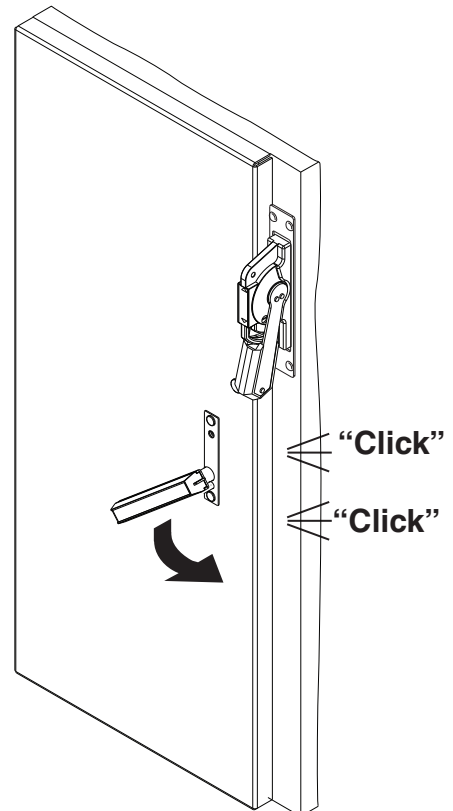
2 Turn release screw counterclockwise and hold screw in that position to release initial catch from beneath enclosure flange.



3 Handle should rotate clockwise to approximately the 9 o'clock position under spring action. The locking bars should have retracted from top and bottom of door and center latch cleared right hand flange.

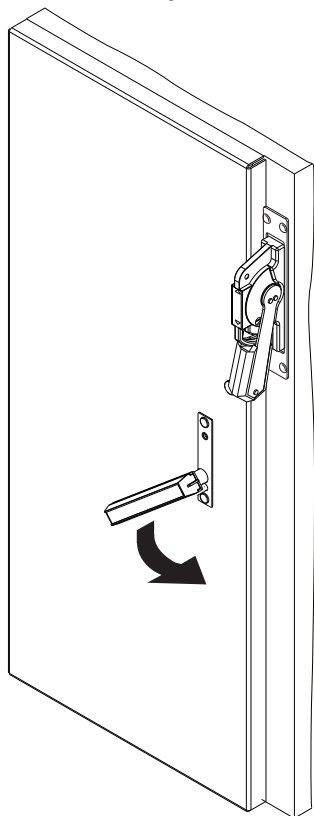


4 Reclose door against enclosure base. Turn door handle counterclockwise to the 6 o'clock position. You should hear two distinct clicks as you turn the handle. Handle should remain in this position.

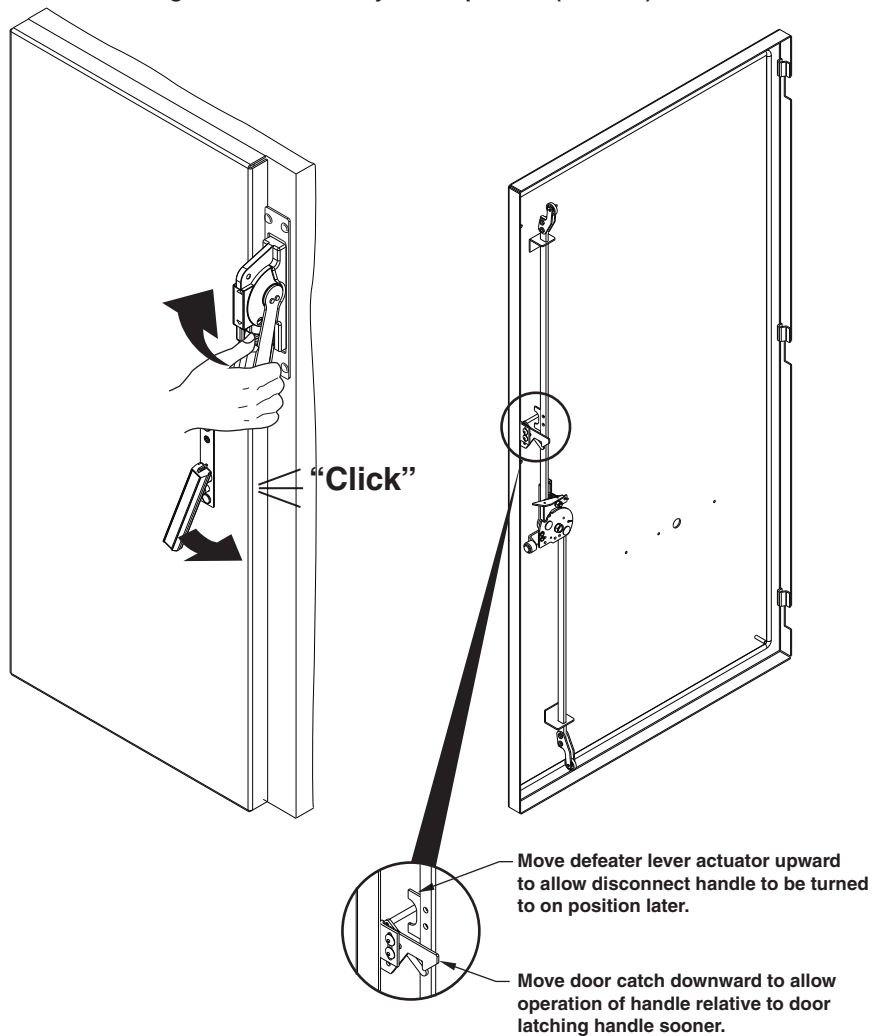


Testing Vault Hardware Latching and Enclosure Seal (Cont'd)

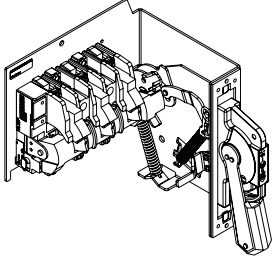
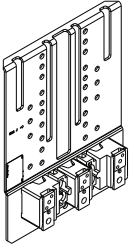
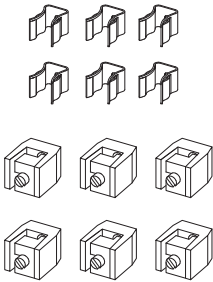
- 5** Return to Step 3 to open door. Close the door on the base and turn the handle to the 6 o'clock position. Door should be sealed securely to the enclosure base.



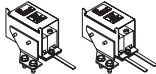
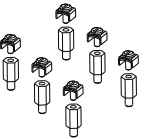
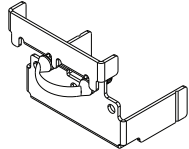

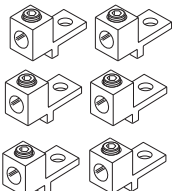
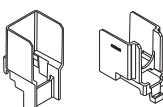
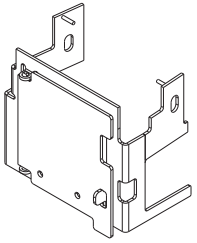
- 6** Close the door and turn the door handle counterclockwise until the first "click" is heard. Move the disconnect handle to the ON position (do not force). If the disconnect handle can be moved, the defater lever actuator is properly adjusted. Continue rotating door handle to fully closed position (6'o'clock).



Bulletin 1494F Disconnect Switch Kit

Disconnect Kit	Cat No.
<p data-bbox="440 302 782 357">Disconnect Switch and Handle with Mechanism</p> 	<p data-bbox="797 392 1239 445">Switch and Handle with Right Hand Mechanism (Non-Fusible and Fusible)</p> <p data-bbox="797 445 987 546"> 1494F-N30 (30A) 1494F-N60 (60A) 1494F-N100 (100A) 1494F-N200 (200A) </p>
<p data-bbox="513 787 724 842">Fuse Block with Adapter Plate</p> 	<p data-bbox="797 898 987 999"> 1494F-F30 (30A) 1494F-F60 (60A) 1494F-F100 (100A) 1494F-F200 (200A) </p>
<p data-bbox="570 1325 695 1350">Fuse Clips</p> 	<p data-bbox="797 1356 1239 1661"> 1401-N41 (Class H, 30A - 250V) 1401-N42 (Class H,J, 30A - 600V, Class H, 60A-250V) 1401-N43 (Class H,J, 60A - 600V) 1401-N44 (Class H,J, 100A-250V, 100A-600V) 1401-N45 (Class H,J, 200A-250V, 200A-600V) 1401-N50 (Class R, 30A - 250V) 1401-N51 (Class R, 30A - 600V, 60A-250V) 1401-N52 (Class R, 60A - 600V) 1401-N53 (Class R, 100A - 250V, 100A-600V) 1401-N54 (Class R, 200A-250V, 200A-600V) 1401-N171 (Class J, 400A-250V / 600V) </p>

Bulletin 1494F Disconnect Switch Optional Accessory List

Optional Accessories (Installation Instructions Included with Accessory Kits)	Cat No.					
 Electrical Interlock	Use with Switch with Right Hand Mechanism 1495-N34 (1-N.O./N.C.) (30A - 60A - 100A) 1495-N35 (2-N.O./N.C.) (30A - 60A - 100A) 1495-N43 (1-N.O./N.C.) (200A) 1495-N44 (2-N.O./N.C.) (200A)					
 Terminal Adapter Kit	1494R-N16 (30A) 1494R-N17 (60A) 1494R-N18 (100A) 1494R-N19 (200A)					
 Line Side Cover	1495-N80 (30A - 60A - 100A) 1495-N81 (200A)					
 Auxiliary Contact	1495-N8 (1-N.O.) (30A - 60A - 100A - 200A) 1495-N9 (1-N.C.) (30A - 60A - 100A - 200A) Low Energy 1495-N8X (1-N.O.) (30A - 60A - 100A - 200A) 1495-N9X (1-N.C.) (30A - 60A - 100A - 200A)					
 Lug Connectors	(Saddle Clamps Included) (CU Wire Size #14 . . #8 AWG) (30A) 1494R-N1 (CU Wire Size #14 . . #4 AWG) (60A) 1494R-N2 (CU Wire Size #8 . . #1/0 AWG) (100A) 1494R-N3 (CU Wire Size #6 . . #4/0 AWG) (200A)					
 Phase Barrier	1494F-PH2 (30A - 60A) 1494F-PH3 (100A) 1494F-PH4 (200A)					
 Fuse Cover with Door	Switch Rating	Fuse Class	Fuse Clip Rating		Cat No.	
			250V	600V		
			30A	Non-Fusible	----	----
			30A	H, R	30A	----
			60A	H, R	60A	----
			30A	J	30A	30A
			60A	J	60A	60A
			60A	Non-Fusible	----	----
			100A	Non-Fusible	----	----
			30A	H, R	----	30A
			60A	H, R	----	60A
			100A	J	100A	100A
			100A	H, R	100A	100A
			100A	J	200A	200A
			200A	Non-Fusible	----	----
			200A	H, J, R	200A	200A
			200A	J	400A	400A

