



# Bulletin 1494C Cable Operated Disconnect Switch Kit (400A) Installation Instructions

(Cat 1494C- \_ \_ \_ Series 2 : 400A)



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



**ATTENTION:** 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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# QUICK INSTALLATION GUIDE

**IMPORTANT:** When locating the **400A** switch, verify that the minimum diameter for the loop of the cable between the switch mechanism and handle mechanism is not less than **16 inches**.

Any reduction to the diameter of the bend loop for the cable will reduce the efficiency of the cable system, and create additional drag and friction within the cable conduit.

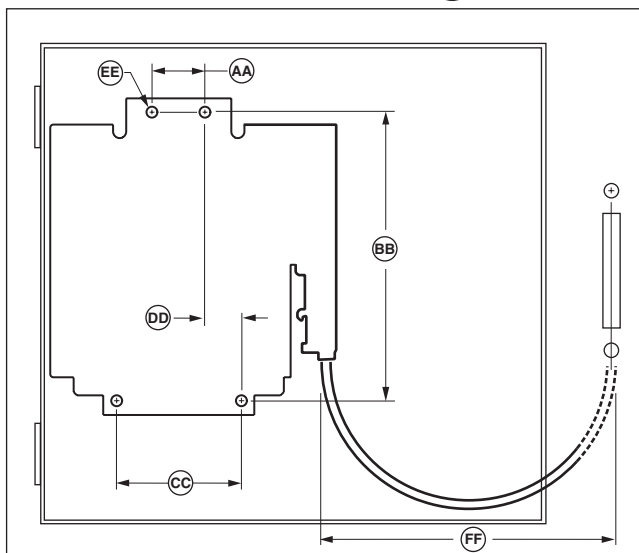
**IMPORTANT:** Verify that the cable assembly does not interfere with any mechanical and moving parts. Keep the cable conduit a minimum of 1/2" from all heat sources and current carrying terminals, fuses, transformers, etc.

## 1 Disconnect Switch Installation

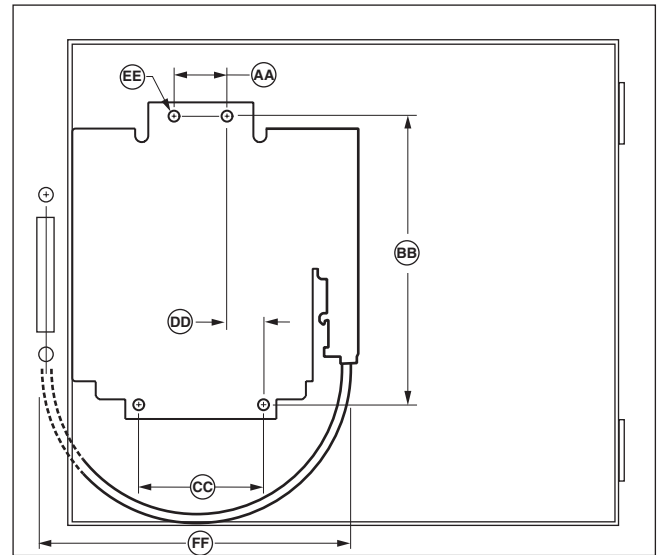
### Panel Mounting Dimensions

Switch Size	AA	BB	CC	DD	EE (4) Mounting Plate Holes	FF Minimum Bend Diameter
400A	2"	11"	4-3/4"	1-3/8"	9/32" Dia.	16" Dia.

### 1a Locate switch with right hand mechanism

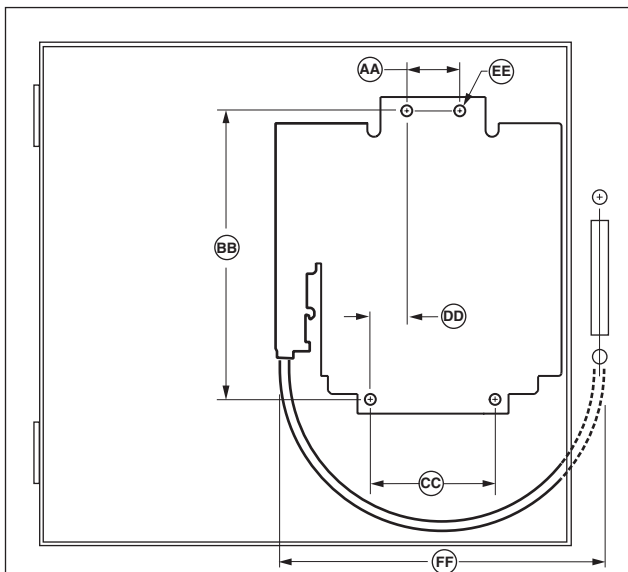


Enclosure with Right Hand Flange

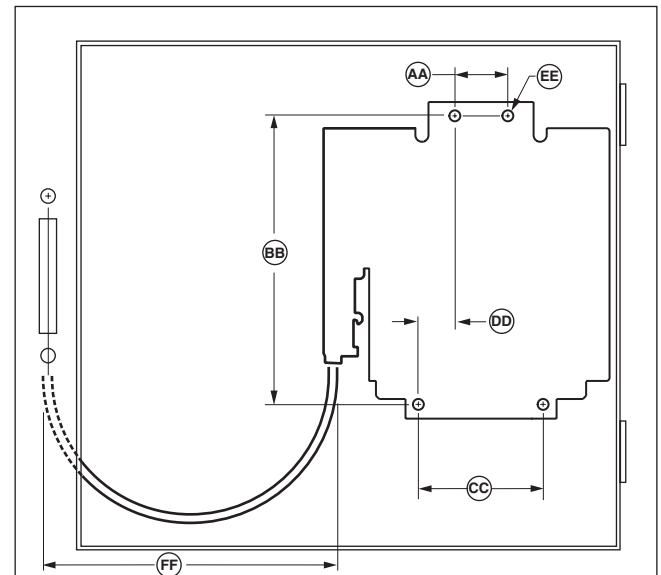


Enclosure with Left Hand Flange

### 1b Locate switch with left hand mechanism



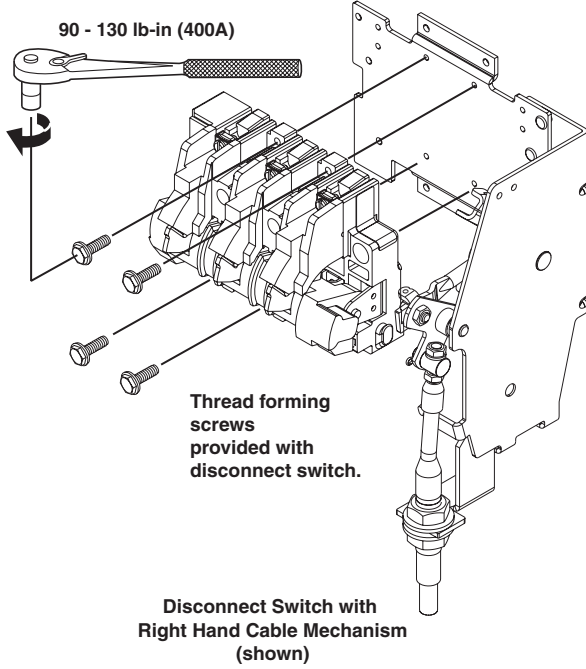
Enclosure with Right Hand Flange



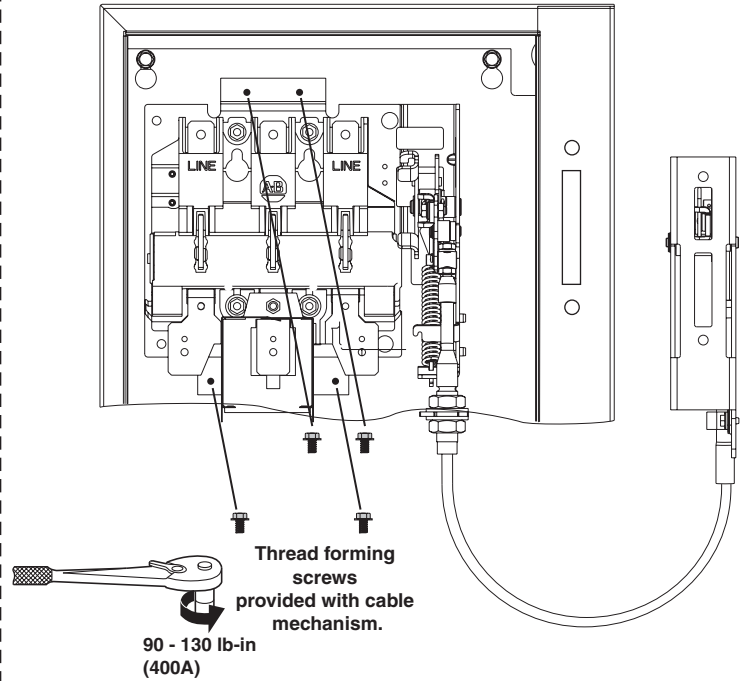
Enclosure with Left Hand Flange

# 1 Disconnect Switch Installation (Cont'd)

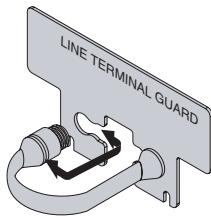
## 2 Assemble disconnect switch to cable switch mechanism



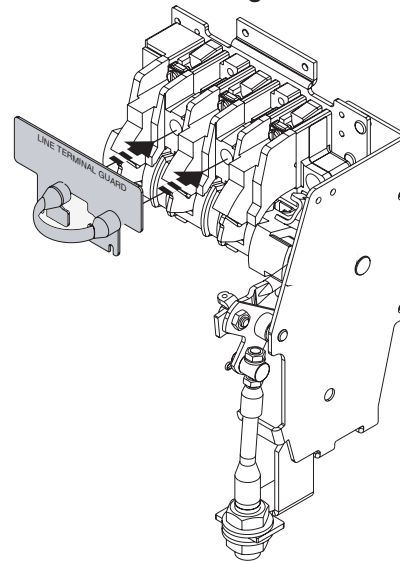
## 3 Assemble disconnect switch assembly to mounting plate



## 4 Install rubber handle on line terminal guard

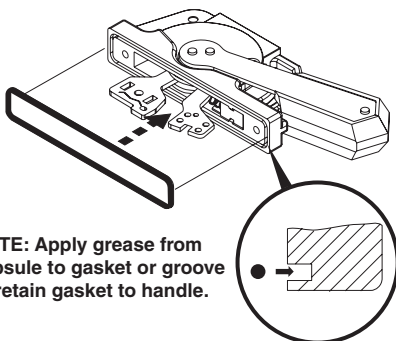


## 5 Install the line terminal guard on disconnect switch

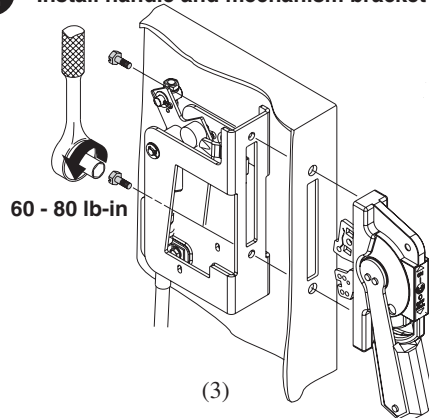


# 2 Disconnect Handle Installation

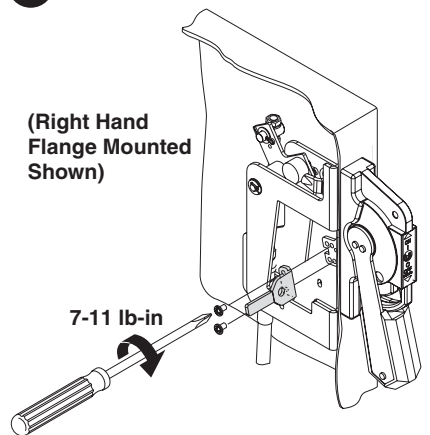
## 1 Install gasket



## 2 Install handle and mechanism bracket

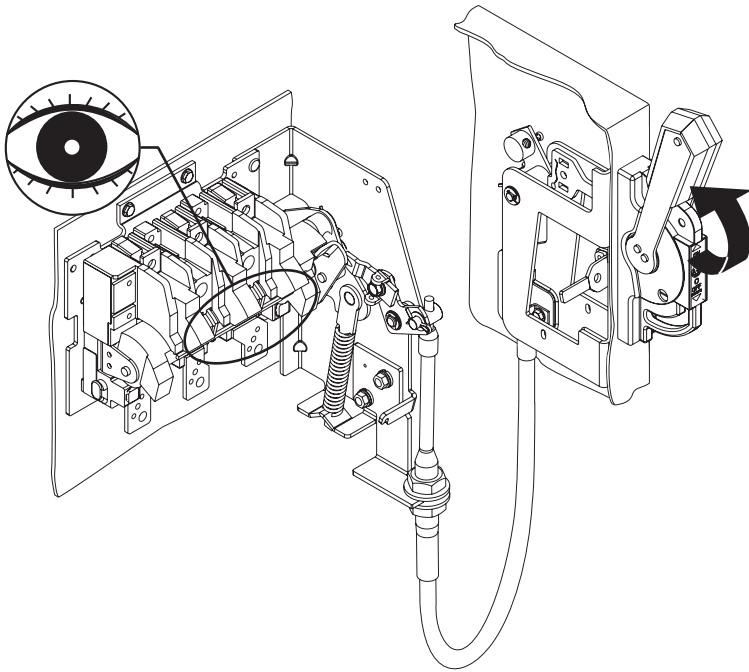


## 3 Install defater lever

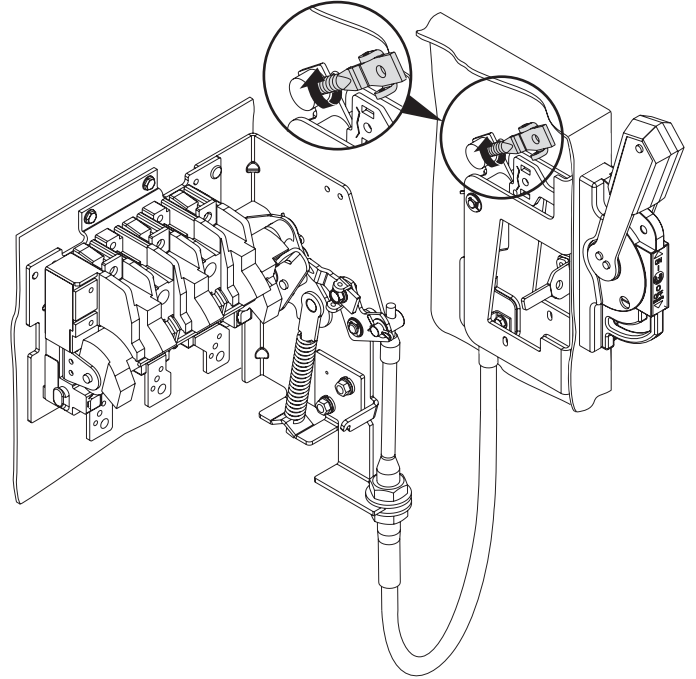


### 3 Cable Mechanism Installation

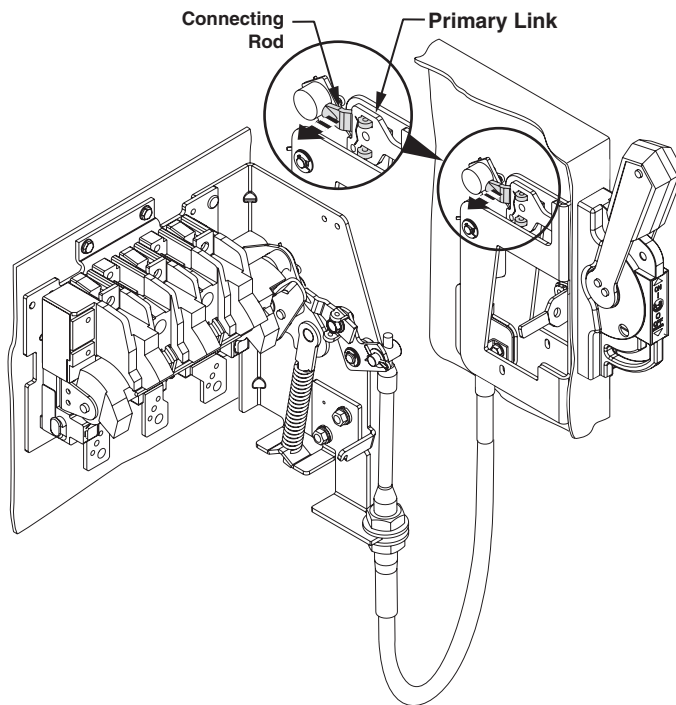
1 Verify that disconnect switch and handle are in "ON" position. (Switch blades will not be visible)



2 Rotate connecting rod (clockwise) into drive bar until it begins to exit the drive bar (approximately 18 full turns).

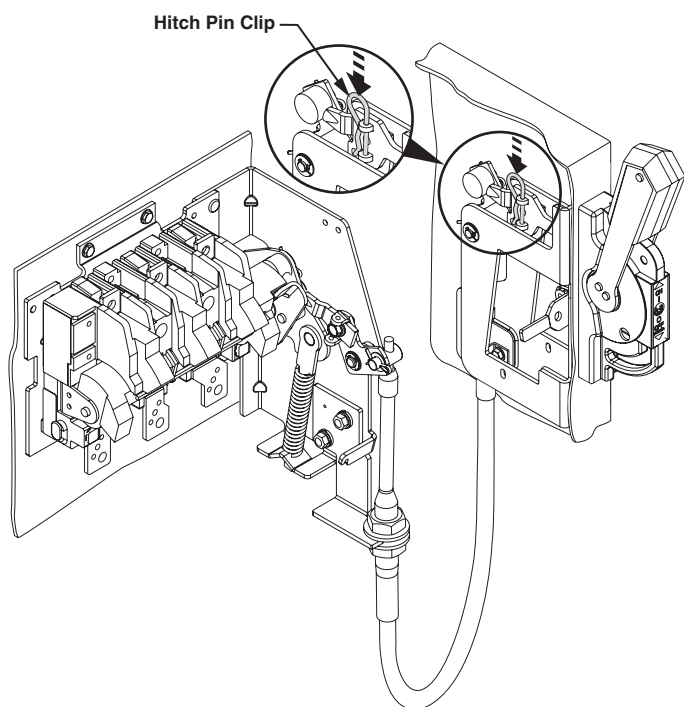


3 Align connecting rod with primary link

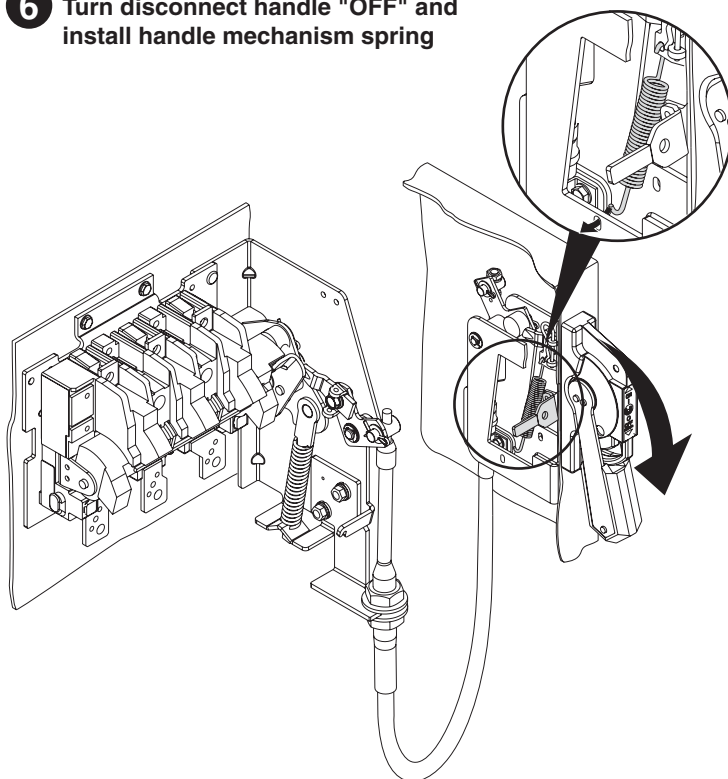


### 3 Cable Mechanism Installation (Cont'd)

#### 5 Install hitch pin clip



#### 6 Turn disconnect handle "OFF" and install handle mechanism spring



### 4 Connecting Rod Adjustment Procedure

#### "ON" Position

- 1 Move disconnect handle to the "ON" position.
- 2 If switch does not fully close, return handle to "OFF" position.
- 3 Remove link spring hitch pin and disengage the connecting rod from the primary link.
- 4 Turn connecting rod counter-clockwise (1 or more) full turns.
- 5 Re-engage connecting rod in primary link of handle, insert hitch pin and re-test
- 6 Repeat 1 - 5 as necessary.
- 7 Re-install link spring.

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#### "OFF" Position

- 1 Move disconnect handle to the "OFF" position.
- 2 If switch does not fully open, return handle to "ON" position.
- 3 Remove hitch pin and link spring, then disengage the connecting rod from the primary link.
- 4 Turn connecting rod clockwise (1 or more) full turns.
- 5 Re-engage connecting rod in primary link of handle, insert hitch pin and re-test.
- 6 Repeat 1 - 5 as necessary.
- 7 Re-install link spring.

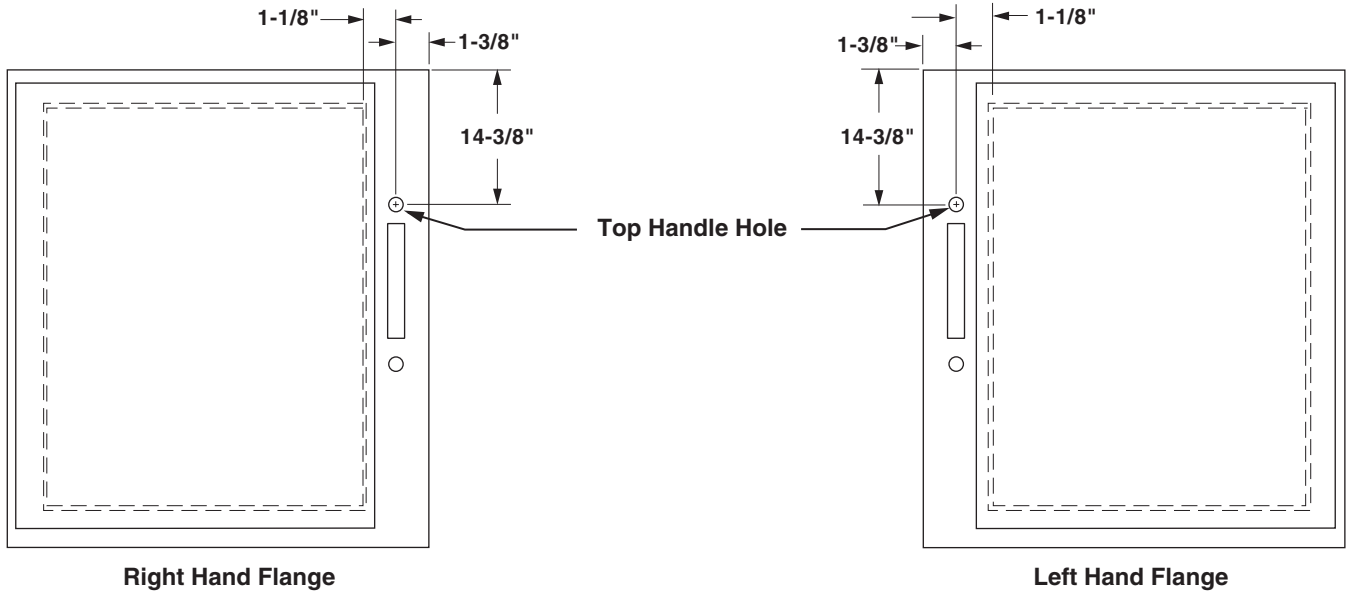


**ATTENTION:** CHECK FOR PROPER OPERATION. Upon completion of the installation instructions, no further adjustment of the cable mechanism is required.

# Enclosure without Handle Cutout

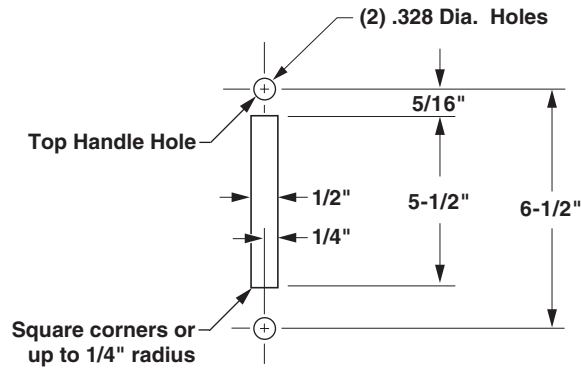
- Enclosures with a Flange Thickness less than 3/16" use dimensions below to install disconnect handle.

## 1 Locate Handle



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## 2 Drill Handle Holes



# Door Catch Bracket Installation

Right hand installation shown (for left hand installation follow similar procedures)

## Door Catch Mounting Bracket:

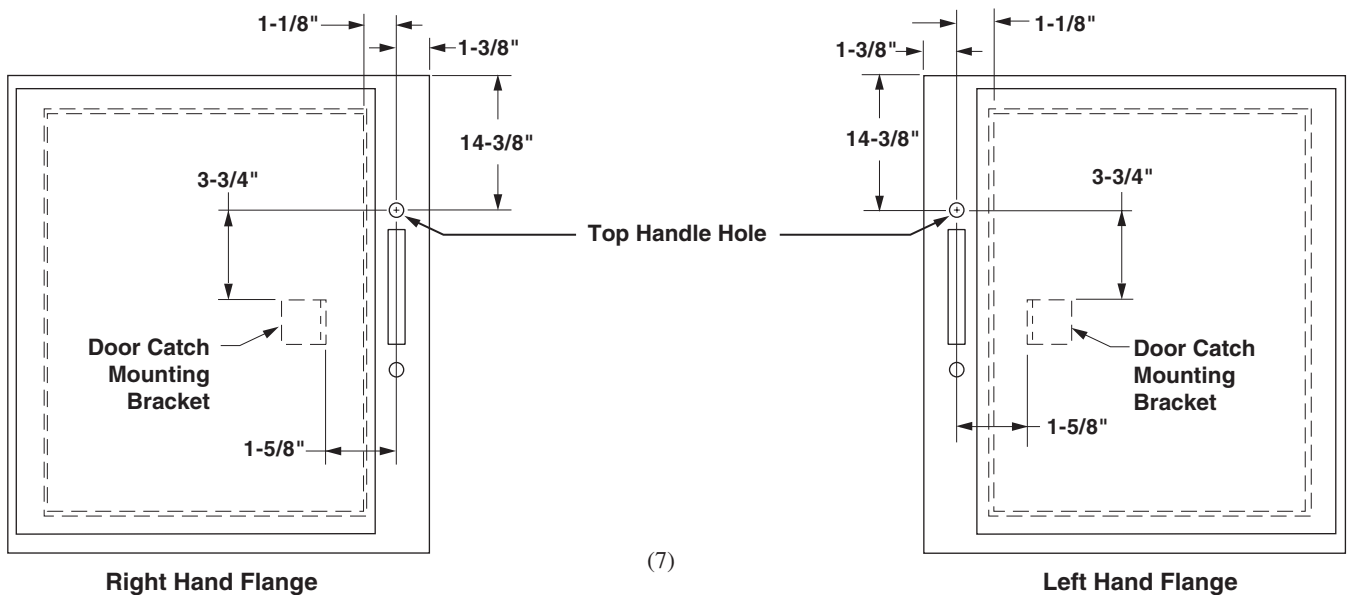
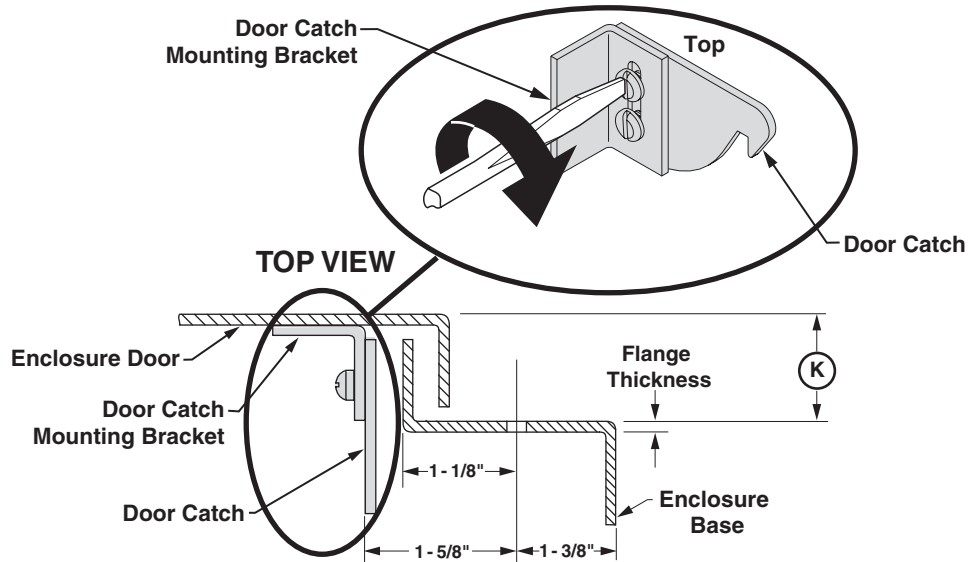
- Provided with projections for welding.
- Projections can also be used as a guide for drilling holes.
- Can be used as a template to drill corresponding holes in the enclosure door.
- User to supply the hardware for fastening the bracket.
- Fasteners must provide the degree of ingress protection for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

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

- When using large disconnect handle kit only (1494F-M2 or -S2), use door catch provided with handle kit.
- When using large disconnect handle kit and small door hardware kits (1494V-L1, -LL1, -L2 or -LL2), use door catch provided with door hardware kit.

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

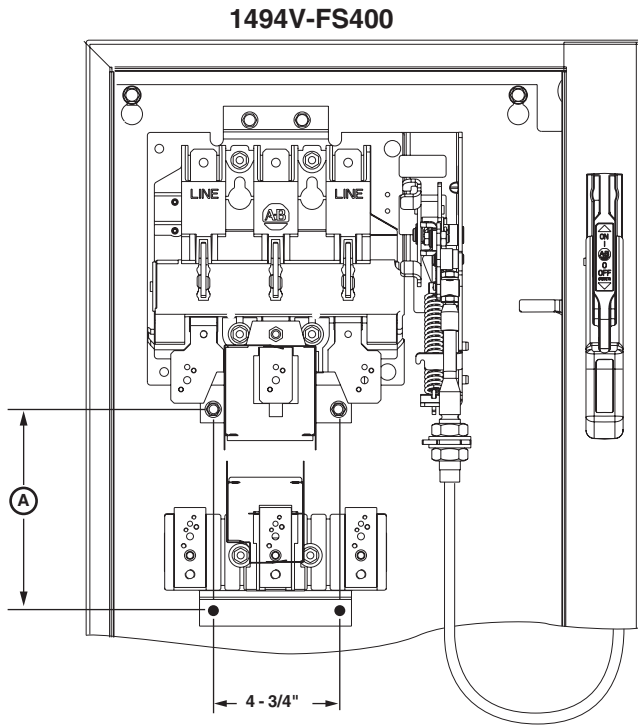
- When using large disconnect handle kit and large door hardware kits (1494V-L3 or -LL3), use door catch provided with door hardware kit.



# Trailer Fuse Block Installation (Switch Rating 400A)

## 1 Trailer Fuse Block Location

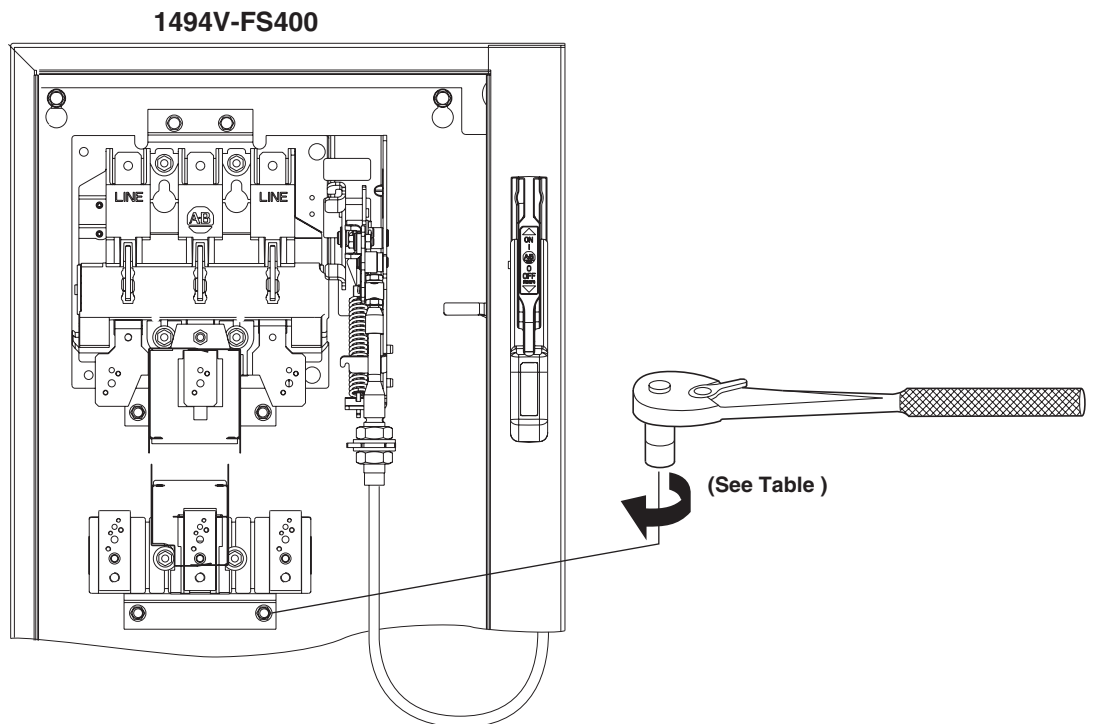
**Note:** Refer to the figures and chart below to determine the **location** on the mounting plate for the trailer fuse block. (Not required for non-fusible disconnect switch applications.)



400 Amp Trailer Fuse Block (1494V-FS400)

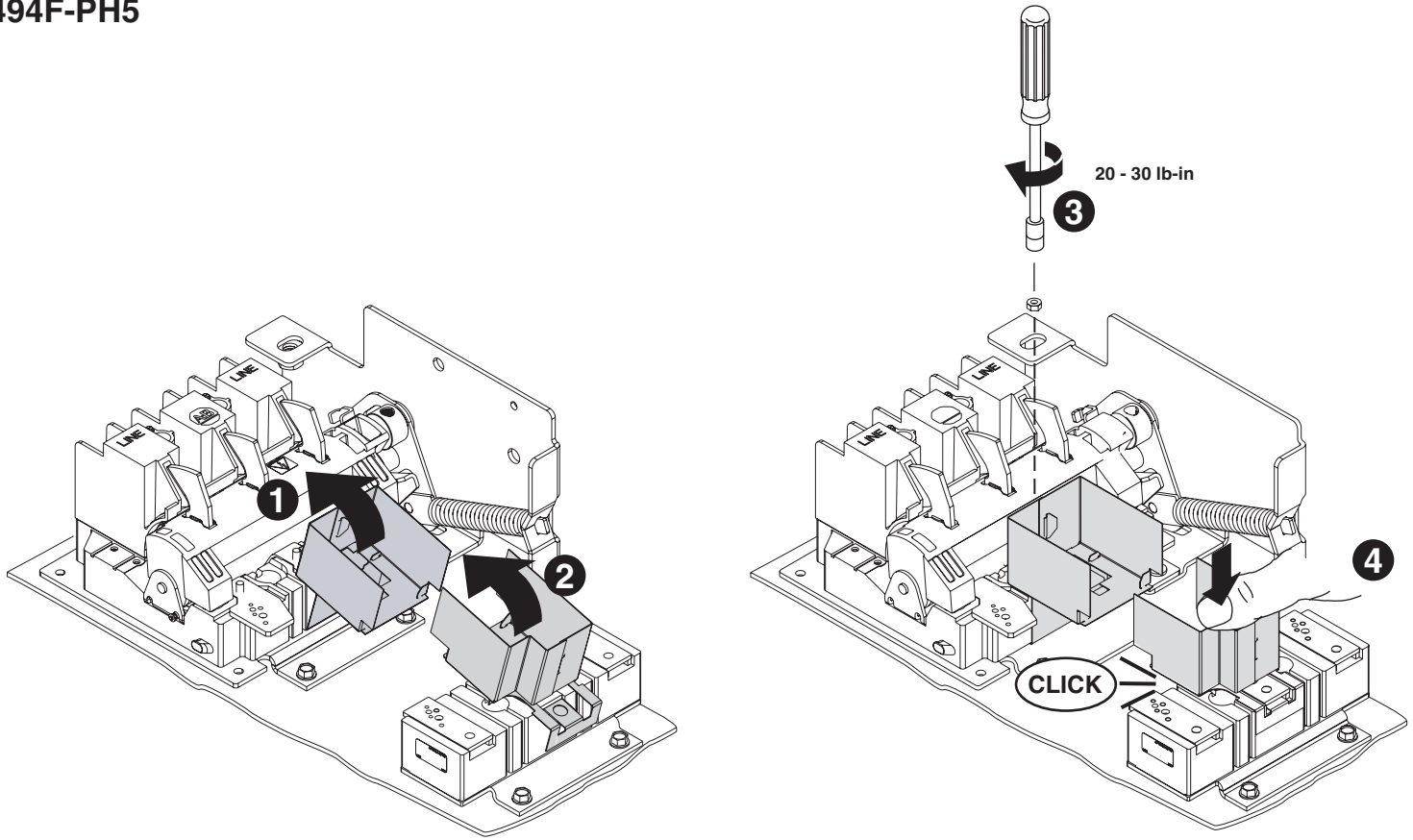
Amps	Voltage	Class	A	Torque (lb-in)			
				Fuse Block	Fuse Clip	Lug to Terminal	Wire into Lug
200	250	H/R	7-11/16"	90-130	16-22	175-200	275-305
200	600	H/R	10-3/16"				
200	600	J	6-3/8"				
200	600	HRCII-C	6-3/8"				
400	250	H/R	8-11/16"	90-130	22-37	175-200	275-305
400	600	H/R	11-11/16"				
400	600	J	7-3/16"				
400	600	HRCII-C	8-11/16"				

## 2 Install Trailer Fuse Block

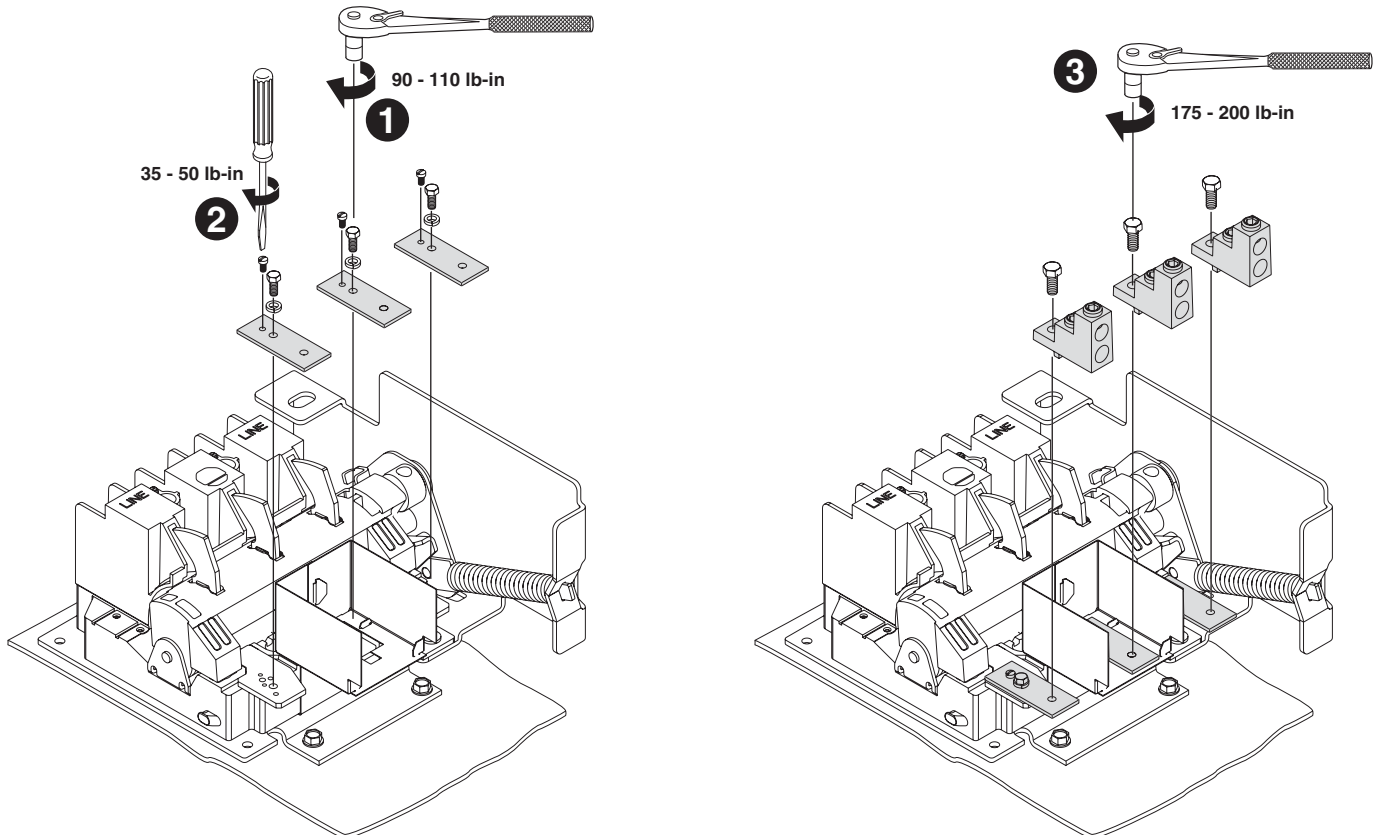




# Phase Barrier Replacement Kit (Switch Rating 400A) 1494F-PH5



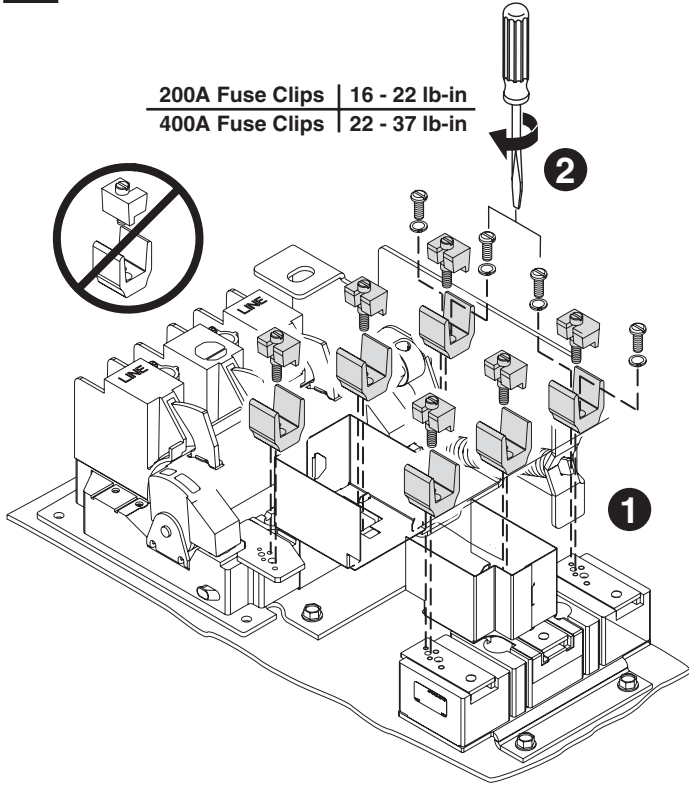
## Terminal Adapter Installation - Conversion from Fusible to Non-Fusible (Switch Rating 400A)



# Fuse Clip Installation (Switch Rating 400A)

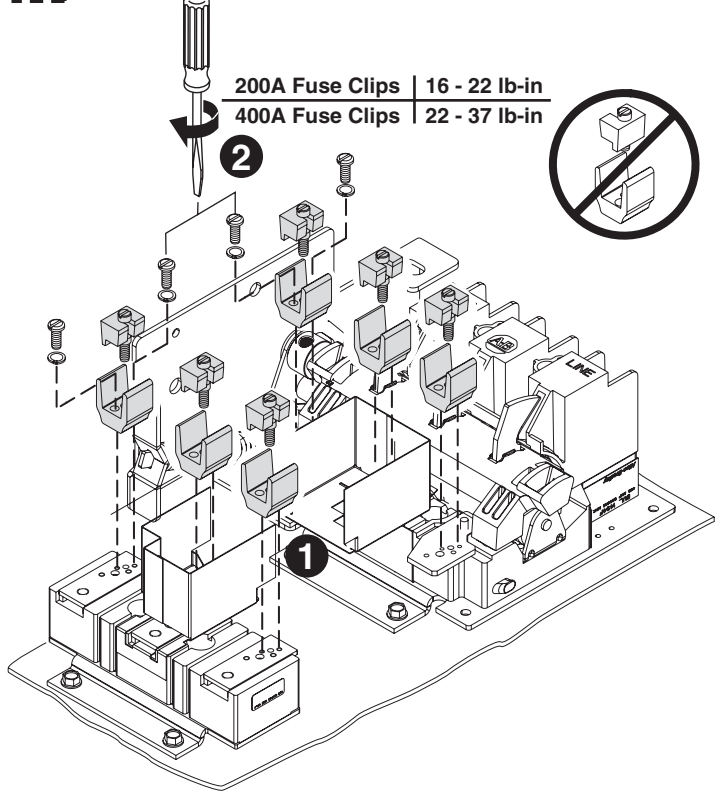
## 1 Switch for Right Hand Mechanism

200A Fuse Clips	16 - 22 lb-in
400A Fuse Clips	22 - 37 lb-in



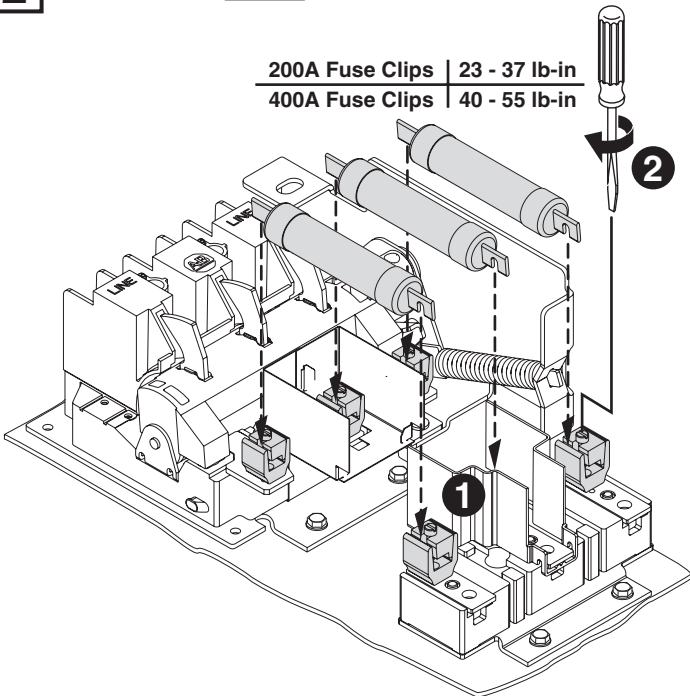
## 1 Switch for Left Hand Mechanism

200A Fuse Clips	16 - 22 lb-in
400A Fuse Clips	22 - 37 lb-in



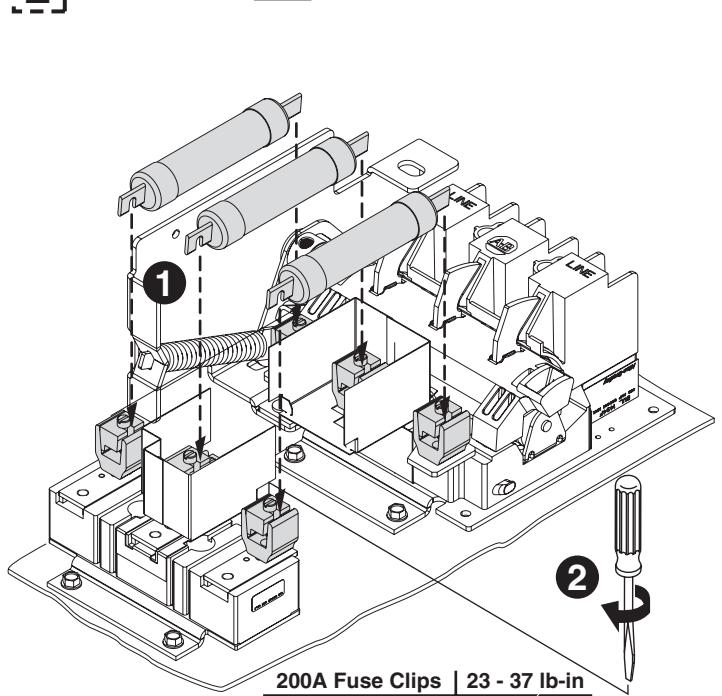
## 2 Switch for Right Hand Mechanism

200A Fuse Clips	23 - 37 lb-in
400A Fuse Clips	40 - 55 lb-in

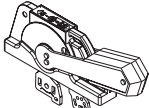
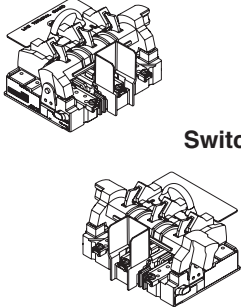
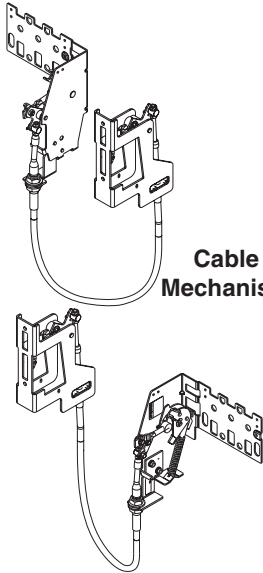
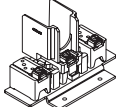
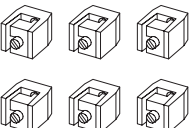


## 2 Switch for Left Hand Mechanism

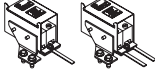

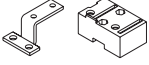
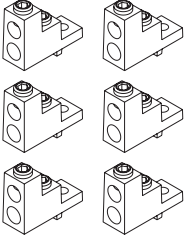
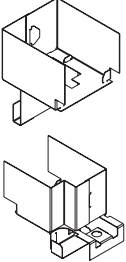
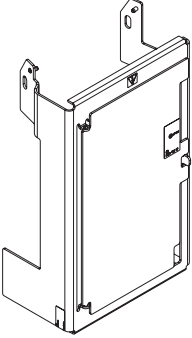
200A Fuse Clips	23 - 37 lb-in
400A Fuse Clips	40 - 55 lb-in



# Bulletin 1494C Cable Operated Disconnect Switch Kit Components

Disconnect Switch Kit	Cat No.
 <p><b>Handle</b></p>	<p>1494F-M2 (7-1/2" Painted Metal) (400A - 600A)            1494F-S2 (7-1/2" Stainless Steel) (400A - 600A)</p>
 <p><b>Switch</b></p>	<p>Switch for <u>Right Hand</u> Mechanism            1494F-D400 (400A)</p> <p>Switch for <u>Left Hand</u> Mechanism            1494F-DX400 (400A)</p>
 <p><b>Cable Mechanism</b></p>	<p>Cable with <u>Right Hand</u> Mechanism            1494C-CM9: 400A (4 Ft Cable)            1494C-CM10: 400A (5 Ft Cable)            1494C-CM11: 400A (6 Ft Cable)            1494C-CM12: 400A (10 Ft Cable)</p> <p>Cable with <u>Left Hand</u> Mechanism            1494C-CMX9: 400A (4 Ft Cable)            1494C-CMX10: 400A (5 Ft Cable)            1494C-CMX11: 400A (6 Ft Cable)            1494C-CMX12: 400A (10 Ft Cable)</p>
 <p><b>Fuse Block</b></p>	<p>1494V-FS400 (400A)</p>
 <p><b>Fuse Clips</b></p>	<p>1401-N45 (Class H,J, 200A - 250V, 200A - 600V)            1401-N46 (Class H,J, 400A - 250V, 400A - 600V)            1401-N54 (Class R, 200A - 250V, 200A - 600V)            1401-N55 (Class R, 400A - 250V, 400A - 600V)</p>

# Bulletin 1494C Cable Operated Disconnect Switch Kit Optional Accessory List

Optional Accessories (Installation Instructions Not Included)	Cat No.				
 <p><b>Electrical Interlock</b></p>	<p>Switch with <u>Right Hand</u> Mechanism 1495-N43 (1-N.O./N.C.) (200A - 400A) 1495-N44 (2-N.O./N.C.) (200A - 400A)</p> <p>Switch with <u>Left Hand</u> Mechanism 1495-N41 (1-N.O./N.C.) (400A) 1495-N42 (2-N.O./N.C.) (400A)</p>				
 <p><b>Auxiliary Contact</b></p>	<p>1495-N8 (1-N.O.) (30A - 400A) 1495-N9 (1-N.C.) (30A - 400A)</p>				
 <p><b>Auxiliary Contact Adapter Kit</b></p>	<p>1495-N25 (200A - 400A) (Required only for switch with <u>Left Hand</u> Mechanism)</p>				
 <p><b>Wire Lug Connectors</b></p>	<p>1494R-N14 (CU Wire Size (2) - #1/0-250 MCM (400A) 1494R-N15 (CU Wire Size #4.....500 MCM (400A)</p>				
 <p><b>Phase Barrier</b></p>	<p>1494F-PH5 (400A)</p>				
 <p><b>Fuse Cover with Door</b></p>	Switch Rating	Fuse Class	Fuse Clip Rating		Cat No.
			250V	600V	
	400A	H, J, R Non-Fusible	200A 400A ----	200A 400A ----	1495-N68 <sup>①</sup>
	400A	H, J, R Non-Fusible	200A 400A ----	200A 400A ----	1495-N63 <sup>②</sup>

① Switch with right hand mechanism

② Switch with left hand mechanism