

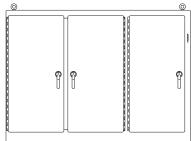
## OPERATOR ADAPTER APCABVA

Installation Instructions for Allen-Bradley Bulletin 1494V (Variable Depth) 1494C, 140G and 140U Cable Controlled

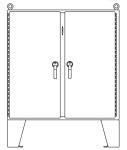
For floor-mounted enclosures with disconnect on the right flange



For one- through five-door free-stand enclosures with the disconnect on the right flange



For floor-mounted enclosures with disconnect on the centerpost



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The functions, fits and clearances of the installation described hereon are calculated from information supplied by the manufacturers of the equipment to be installed. Be certain to check the function, fits and clearances of all equipment both before and after installation to assure that it operates properly and safely and meets all applicable codes, standards and regulations.

In the event the completed installation does not function properly or fails to meet any such codes, standards or regulations, **do not attempt to make alterations or operate the equipment**. Report such facts immediately to:

Hoffman Customer Service 2100 Hoffman Way Anoka, MN 55303 763 422 2211 http://hoffman.nvent.com/contact-us

# PARTS LIST Operator Adapter, Catalog Number APCABVA, for Allen-Bradley Bulletin 1494V, 1494C, 140G and 140U Disconnects

Item No.	Part Name	Part Number	Quantity	
1	Slide Arm, Flat	26250001	1	
2	Shoulder Collar, 5/8 Diameter	26419001	1	
3	Screw, 1/4-20x7/8 Hex Head	99401030	1	
4	Lockwasher, 1/4 Spring	99401318	1	
5	Washer, Flat	22101003	2	
6	Lockwasher, 1/4 Internal Teeth	99401300	2	
7	Nut, Hex, 1/4-20	99401406	2	
8	Door Catch	23101002	1	
9	Screw, #10-32x3/8 Pan Head	99401007	2	
10	Lockwasher, #10 Internal Teeth	99401307	2	
11	Label (Ectra)	26147001	1	
12	Installation Instructions	87400038	1	

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#### INTRODUCTION

This installation instruction is for the Allen-Bradley Small Handle.

Bulletin 1494V (variable depth), 1494C, 140G and 140U (cable control) mechanisms.

These mechanisms are for disconnect switches and circuit breakers mounted in Hoffman two-door, floor-mounted enclosures with cutout on right-hand flange or centerpost and one- through five-door, free-stand enclosures with the disconnect on the right flange.

#### ALLEN-BRADLEY SMALL HANDLE INSTALLATION STEPS

See Figure 1 for 1494V or Figure 2 for 1494C, 140G and 140U Mounting.

- Step 1: Install Allen-Bradley Small Operating Handle 1494F-S1 (Stainless Steel), 1494F-P1 (Non-metallic) or 1494F-M1 (Metal).
- (1494V) Assemble the Allen-Bradley small operating handle and Allen-Bradley spring bracket to the enclosure flange. Omit cap screw and lockwasher which fit into bottom hole of Allen-Bradley operating handle.
- (1494C) Assemble the Allen-Bradley small operating handle and Allen-Bradley 1494C CM and CMX operating mechanism to enclosure flange. Omit cap screw and lockwasher which fit into bottom hole of Allen-Bradley operating handle.
- (140G) Assemble the Allen-Bradley small operating handle and Allen-Bradley 140G, H, I, J or K operating mechanism to enclosure flange. Omit cap screw and lockwasher which fit into bottom hole of Allen-Bradley operating handle.
- (140U) Assemble the Allen-Bradley small operating handle and Allen-Bradley 140U H, J, K, M, OR N operating mechanism to enclosure flange. Omit cap screw and lockwasher which fit into bottom hole of Allen-Bradley operating handle.
- Step 2: Install Slide Arm.
- **Note:** When mounting to centerpost, cut 2.50 inches off bottom of slide arm (item 1). Bottom of slide arm has three rectangular slots.
- (A) For 1494V install the slide arm (item 1) through the hole in bottom of Allen-Bradley spring bracket and over the defeater part of the Allen-Bradley operating handle as shown.
- (A) For the 1494C, 140G and 140U install the slide arm (item 1) over the defeater part of the Allen-Bradley operating handle as shown.
- **(B)** Note that the notch in the slide arm (item 1) is positioned toward the door opening. Place the smaller diameter end of the shoulder collar (item 2) through the oval slot in the slide arm (item 1). Install long cap screw (item 3) with lockwasher (item 4) through shoulder collar into the bottom mounting hole of the Allen–Bradley operating handle and tighten. The slide arm (item 1) should move up and down smoothly. Install Allen–Bradley defeater bracket per Allen–Bradley instructions.
- **Step 3:** Attach the bottom of the slide arm (item 1) to the offset arm of the operator release mechanism. Use two flat washers (item 5), two lockwashers (item 6), and two hex nuts (item 7). Do not tighten until parts are adjusted (see Step 4B).
- **Step 4:** The operator release mechanism is adjustable in two places.
- (A) Check the adjustment of the factory-installed roller bracket. The door latch should hit against the latch portion of the roller bracket when the door is closed and latched. Adjust up or down if necessary. The mechanism will then provide the necessary updown motion required to operate the safety lock release in the Allen-Bradley operating handle.
- **(B)** Adjust the length of the slide arm assembly with proper adjustment of the slide arm. The safety lock (in the Allen-Bradley operating handle) should release just before the master door is fully latched. Lengthen slide arm if safety lock releases too soon. Shorten slide arm if safety lock releases too late. Tighten all hardware.
- **Step 5:** Attach the door catch (item 8) provided by Hoffman to the tapped spacer on the door using the bottom set of mounting holes. Use two screws (item 9) and two lockwashers (item 10). The door catch prevents the door from being opened when the Allen-Bradley operating handle is in the "ON" position. The door catch may be adjusted up or down to hook properly on the defeater bracket. The door catch (item 8) must be positioned so it just clears the top of the defeater bracket when the Allen-Bradley operating handle is in extreme "OFF" position (handle pushed down against the handle housing surface).

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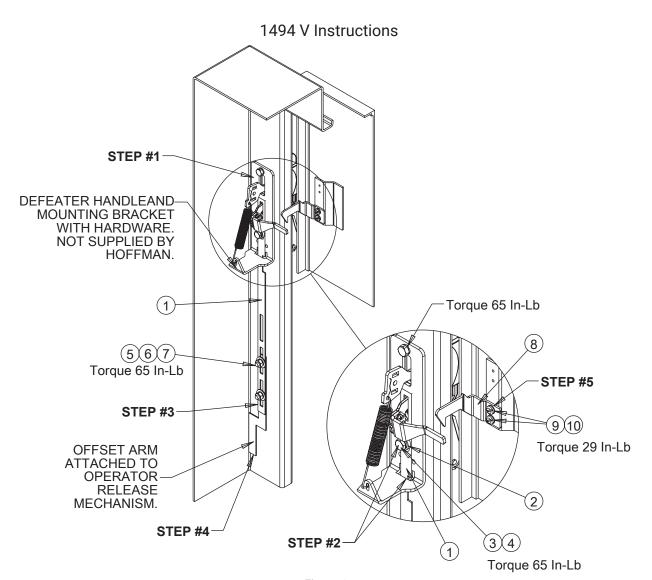
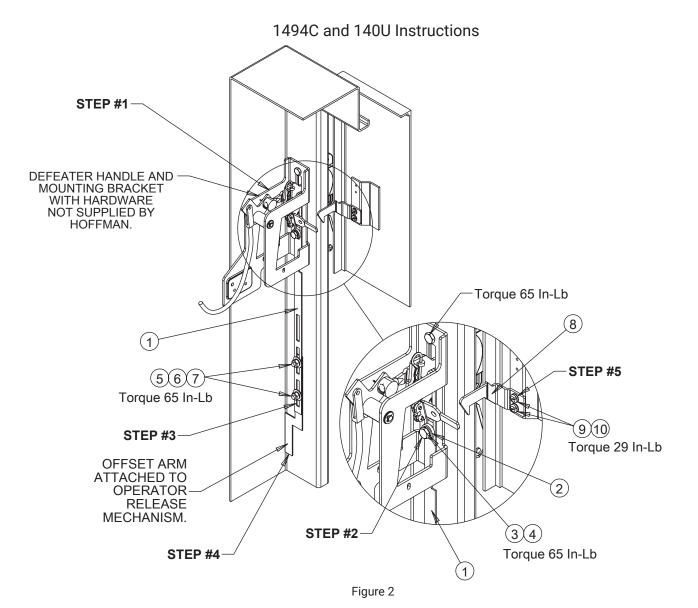


Figure 1

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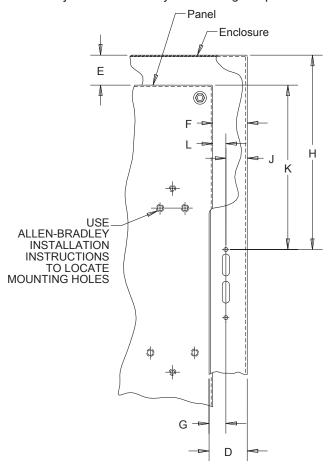
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## Right-Hange Flange Disconnect Sub-Panel Instructions

- Step 1: Drill and tap holes in panel PER ALLEN-BRADLEY INSTRUCTIONS.
- Step 2: Install panel in enclosure.
- Step 3: Mount disconnect switch or circuit breaker on panel using Allen-Bradley instructions and parts.

For variable depth disconnects, find the enclosure depth dimension. See Allen-Bradley instructions to cut the connecting rod to length required and Install and adjust Allen-Bradley connecting rod per Allen-Bradley instructions.



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Enclosure					П	Small Handle					
	Height	Depth <sup>1</sup>	D	E	F		G	Н	J	K	L
A21S4	60.12	12.12 18.12 24.12²	3.00	2.06	2.44		1.47	7.88	1.53	5.82	0.91
	72.12							13.88		11.82	
A28S4	72.12	18.12	3.00	4.06	2.44		1.47	11.87	1.53	7.81	
1 & 2	84.12	20.12						17.87		13.81	0.91
DOOR	90.12	24.12 <sup>2</sup>						20.87		16.81	
	72.12	18.12 24.12²	3.50	4.06	2.94		1.47	11.87	1.53	7.81	0.91
A28S4 3 Door	84.12					2.94		17.87		13.81	
	90.12							20.87		16.81	
A28S4	72.12	18.12	3.50	4.09	2.94		1.47	11.88	1.53	7.82	0.91
4 Door	84.12	10.12					1.47	17.87		13.81	
A28S4 5 DOOR	84.12	24.12	3.50	4.09	2.94		1.47	17.88	1.53	13.82	0.91
WS2D	62.81	12.12	3.10	3.00	2.44		1.73	9.34	1.07	6.35	1.07
	74.81	8.12 24.12²						15.34	1.37	12.35	1.07

<sup>(1)</sup> The enclosure depth dimension is used to calculate the length of Allen-Bradley connecting rod(s). See Allen-Bradley instructions.

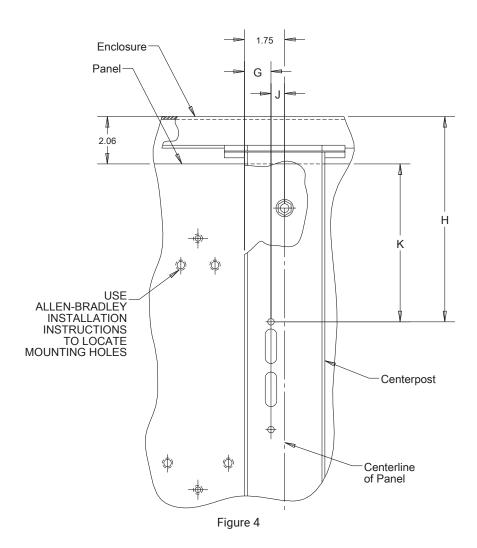
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<sup>(2)</sup> The 24.12 depth dimension exceeds maximum depth for 1494V-DS30, DS60, DS100, DS200 and H4. A six inch platform is required for the enclosure to position the disconnect within the depth range of the 1494V-RA4 connecting rods. (Order Separately ADSCPA)

### Center Post Disconnect Sub-Panel Instructions

- Step 1: Drill and tap holes in panel PER ALLEN-BRADLEY INSTRUCTIONS.
- Step 2: Install panel in enclosure.
- Step 3: Mount disconnect switch or circuit breaker on panel using Allen-Bradley instructions and parts.

For variable depth disconnects, find the enclosure depth dimension. See Allen-Bradley instructions to cut the connecting rod to length required and Install and adjust Allen-Bradley connecting rod per Allen-Bradley instructions.



Enclosure			Small Handle				
	Height	Depth <sup>1</sup>	G	Н	J	K	
A21S4	60.12	12.12	1.47	7.88	0.30	5.82	
	72.12	18.12	1.47	13.88	0.28	11.82	

<sup>(1)</sup> This enclosure depth dimension is used to calculate the length of Allen-Bradley connecting rod(s). See Allen-Bradley instructions.

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## **NOTES**

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