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Assembly and operating instructions

ENCLOSURES POWER DISTRIBUTION CLIMATE CONTROL IT INFRASTRUCTURE SOFTWARE & SERVICES

RITTAL

FRIEDHELM LOH GROUP

Table of contents

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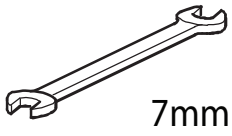
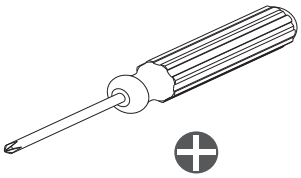
Loose Component supplied with enclosure /Hardware

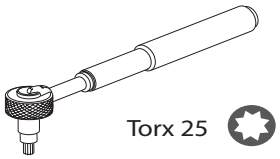
Required Tools (not provided)



WRENCH 7MM

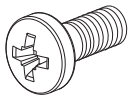


PHILLIPS SCREWDRIVER



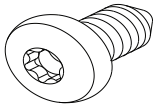
TORX DRIVER

Hardware (provided)

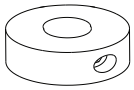


M4 x 12 Bolt

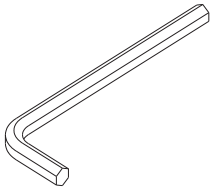
M4 Lock Nut



Screw 5.5 x 13 Pan Torx

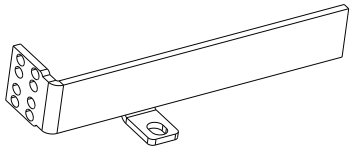


M5 Collet

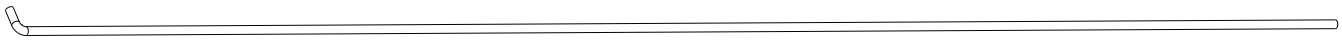


1.5mm ALLEN WRENCH

Loose Components (provided)



Defeater Lever



Connecting Rod

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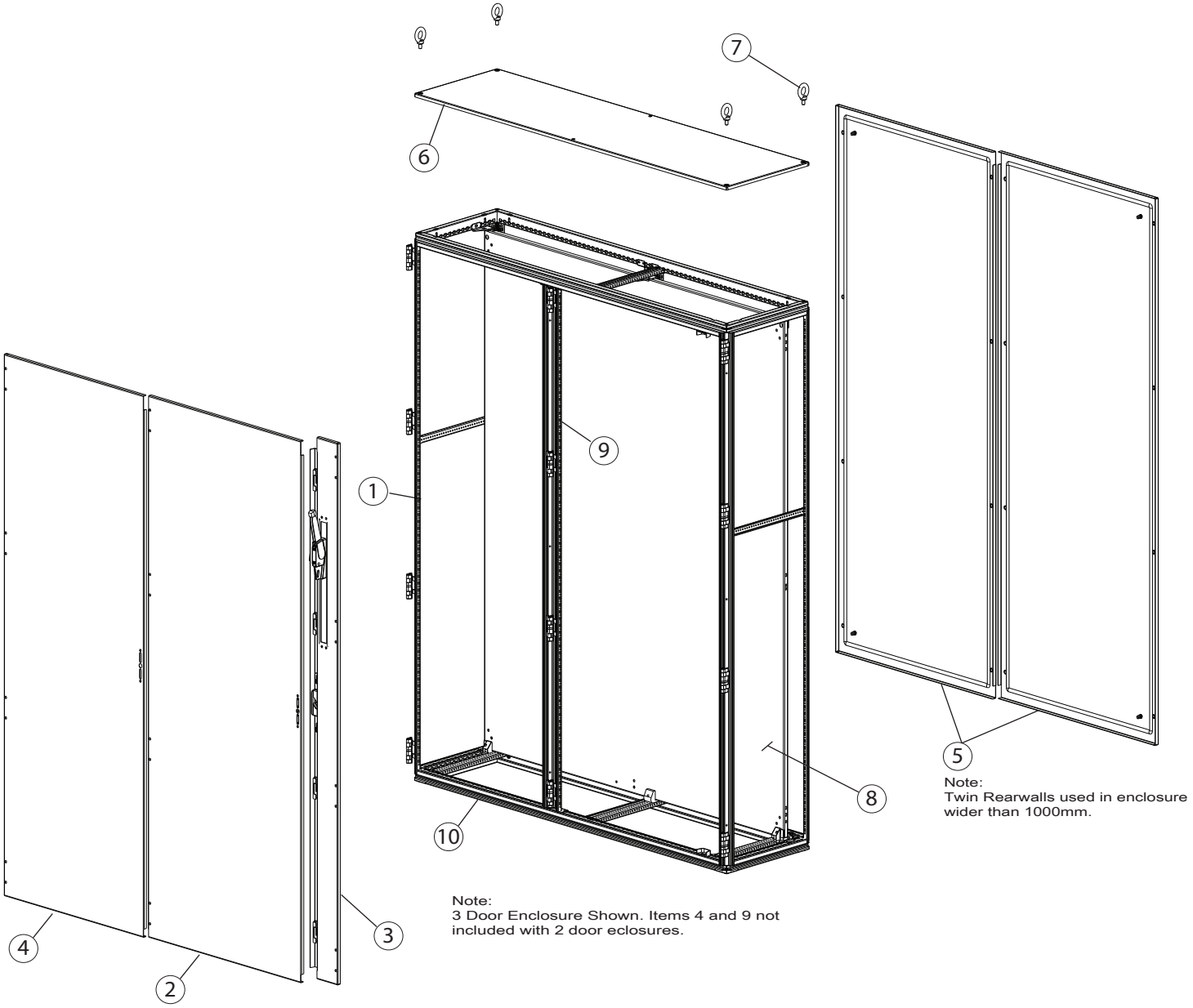
Enclosure Component Overview

TS FMDC ENCLOSURE / 2 Door / 3 Door



1. TS Frame
2. Master Door
3. FMDC Door
4. Slave Door
5. Twin Rearwalls
6. Roof
7. Eye bolt
8. Mounting Panel
9. Front Mullion
10. Baseframe With Cable Plates

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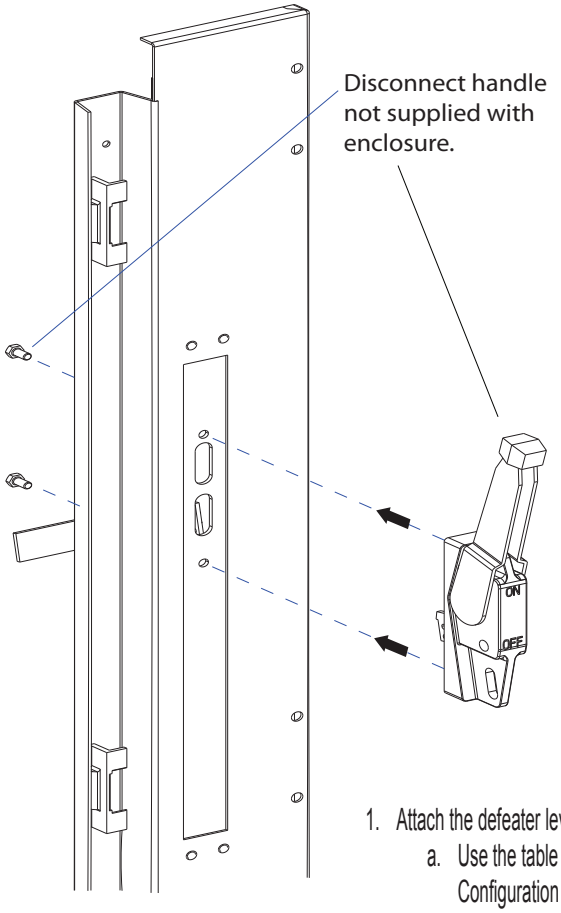
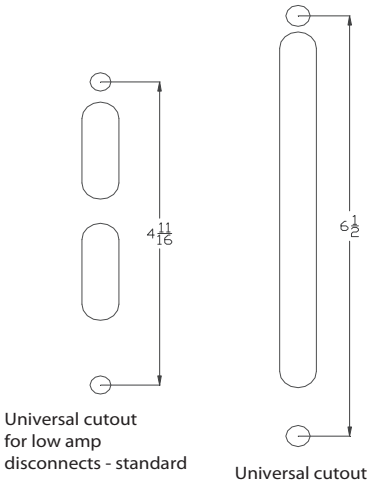
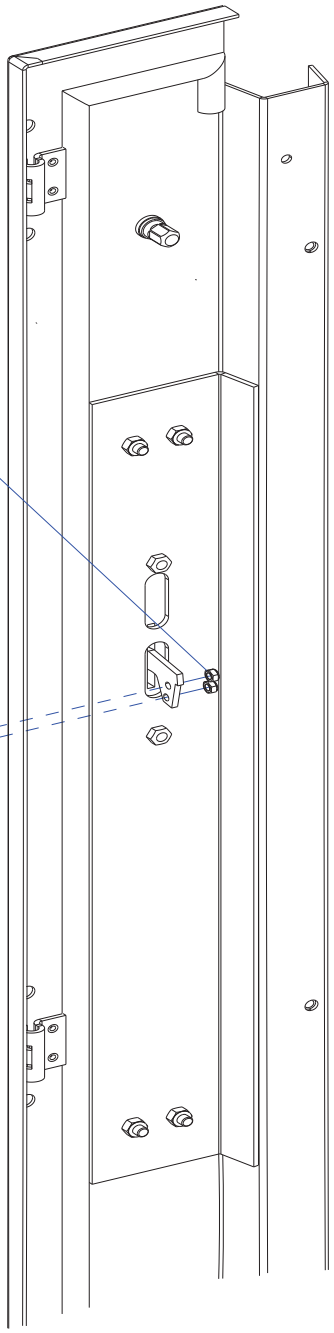
Installation of disconnect handle / defeater lever





Universal cutout
for low amp
disconnects - standard

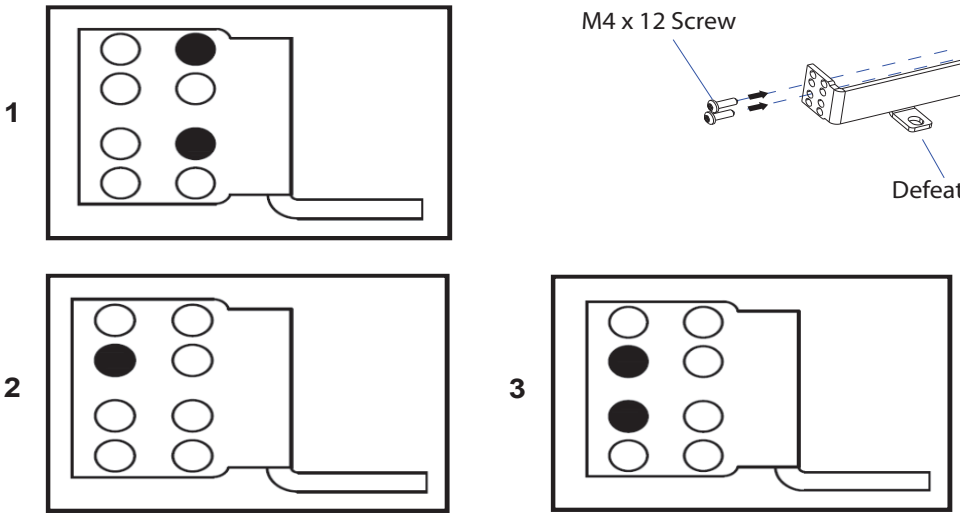
Universal cutout
for high amp
disconnects - optional



1. Attach the defeater lever to the disconnect handle after fixing handle to the enclosure.
   a. Use the table provided on page 5 for appropriate assembly.
      Configuration based on specific disconnect handle makes and models
   b. If the handle has threaded holes, use manufacturer hardware.
   c. If the handle has thru-holes, use Rittal M4x12 screw and nuts (7mm wrench).

Configuration Options

For Defeater lever



See: TABLE ON PAGE 5

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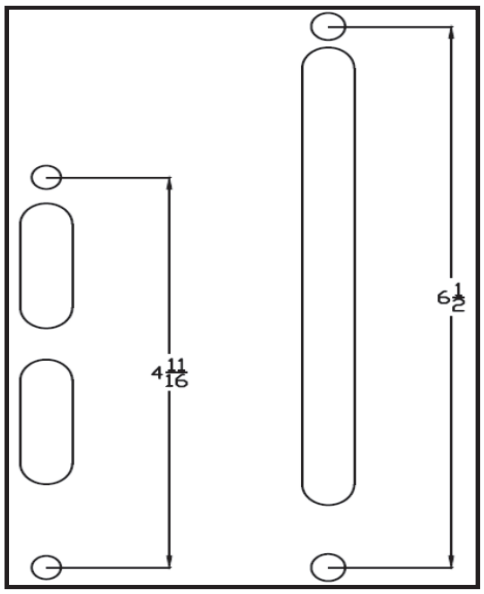
Disconnect handle configuration chart



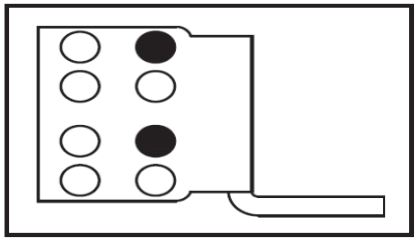
4-11/16" Cutout

	Handle/Operator	Configuration
Allen Bradley	140G (≤400A)	1*
	1494C (≤200A)	1*
	1494F M1/S1/P1	1*
	1494V (≤200A)	1*
	194R	1*
ABB	DSFHN-HS	3*
	OHF1C	2
Eaton	C361	3*
	C371	3*
	Flex Shaft CH	3*
GE	SCH1 / SCH2	3
	SCOM	3
	SDOM	3
	STDA	3
	TDOM	3
Siemens	FDH10 / FDH20	2
	FHOH	2
	Max Flex	2
	MFHM3R / MFHM4X	2
	VBHM1	2
Square D	9422 Type A1/A3/A9	3
	9422 Type A2/A4/A10	3

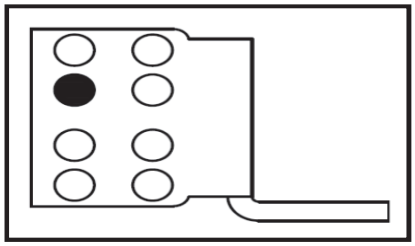
* Use hardware supplied by disconnect handle manufacturer.

Configuration Options

1

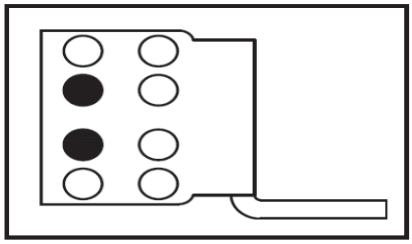


2



Note, for configuration #2 an extra bolt/nut should be used beneath the single hole to prevent accidental rotation.

3

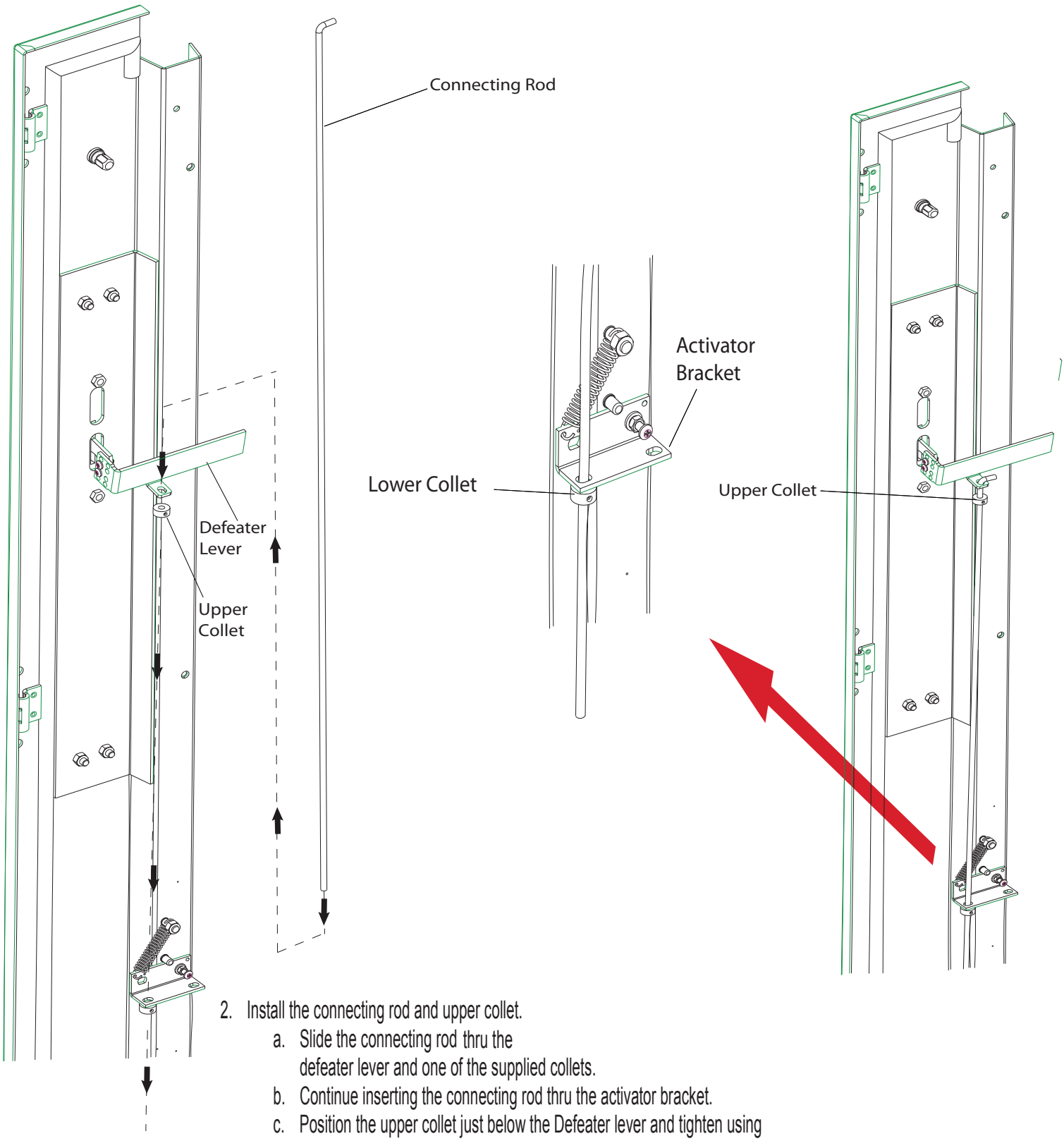


6-1/2" Cutout

	Handle/Operator	Configuration
Allen Bradley	140G (600 - 1200A)	1
	1494C (400 - 600A)	1
	1494F M2/S2	1
	1494V (400 - 600A)	1
ABB	K7FCH	2
Siemens	FHOHN	2
	MFHP3R / MFHP4X	2
	MFHP3R / MFHP4X	2
	VBH2	2

NOTE:
DOOR COMPONENTS SHOWN ON PAGE 4.

Installing the connecting rod and upper collet



2. Install the connecting rod and upper collet.
   a. Slide the connecting rod thru the defeater lever and one of the supplied collets.
   b. Continue inserting the connecting rod thru the activator bracket.
   c. Position the upper collet just below the Defeater lever and tighten using a 1.5mm hex key.

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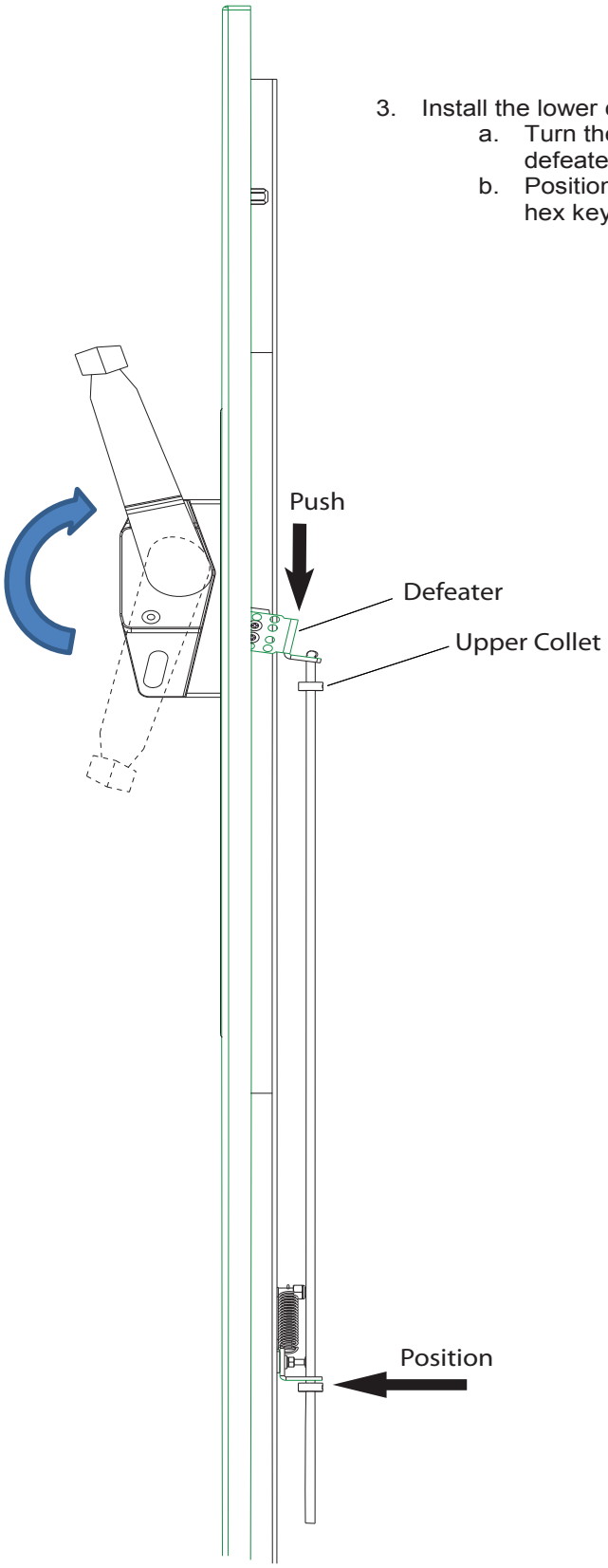
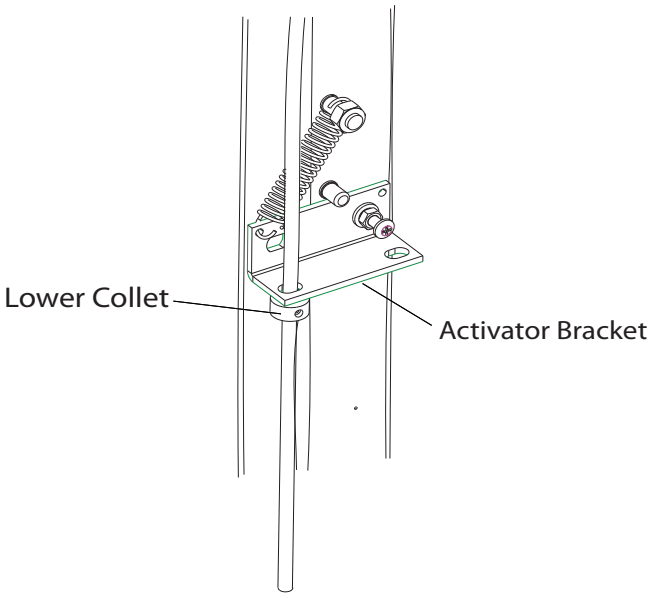
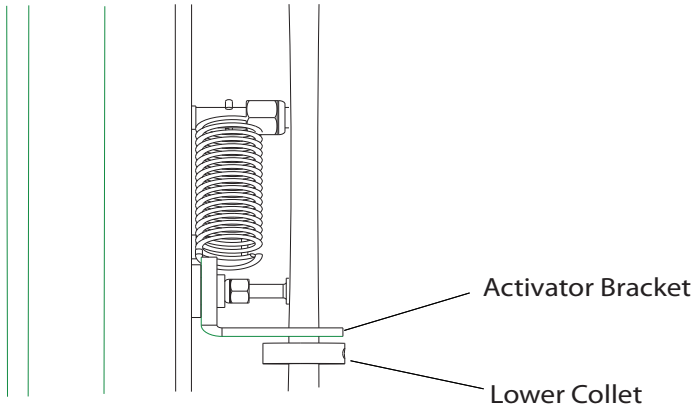
Installing the lower collet

3. Install the lower collet.
    a. Turn the disconnect handle to the ‘ON’ position by pushing down on the defeater lever.
    b. Position the lower collet just below the activator bracket and tighten using a 1.5mm hex key.







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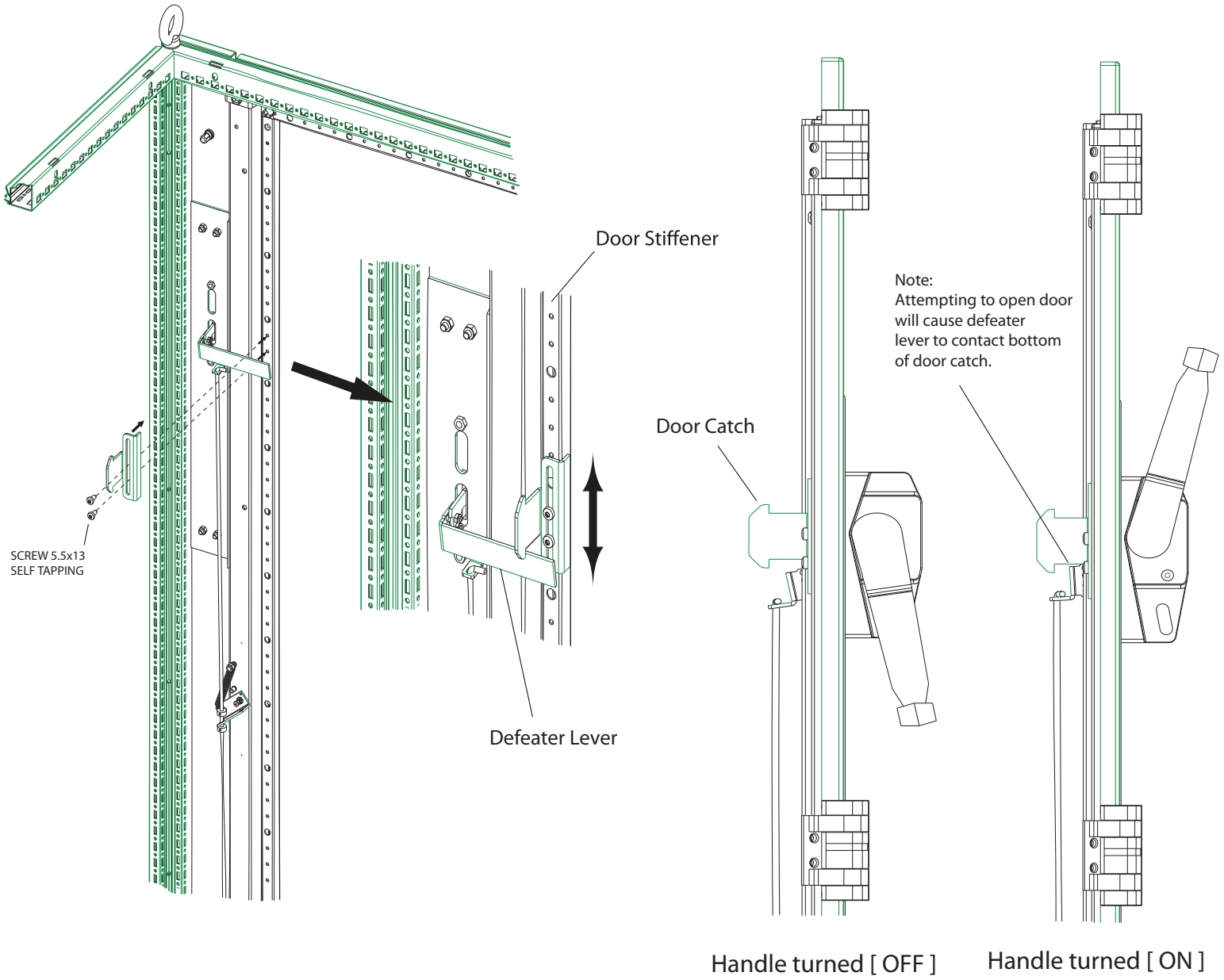
Adjusting the door catch



4. Adjust the door catch.
    a. The FMDC door should be closed and fully latched.
    b. Assuming that there is access from the side of the enclosure for installation, the master door should be closed but NOT latched.
    c. With the disconnect handle turned 'ON', position and tighten the door catch on the master door stiffener above the defeater lever such that it is effectively locking the main door and preventing it from opening.
    d. Turning the handle 'OFF' should lower the defeater lever and allow the door to open.

Testing and troubleshooting:

1. Test the handle-lockrod engagement (Door open).
    a. The FMDC Door should be closed and fully lactched.
    b. The disconnect handle should be 'OFF'.
    c. The Master Door should be open.
    d. Attempt to turn the disconnect handle to the 'ON' position.
        i. It should not allow this to happen.
    e. If the handle is capable of turning on, the lower collet is positioned too high.
        i. Position the lower collet slightly lower on the connecting rod and retest.
2. Test the handle-lockrod engagement (Door closed).
    a. The FMDC Door should be closed and fully latched.
    b. The disconnect handle should be 'OFF'.
    c. The Master Door should be closed and fully latched.
    d. Attempt to turn the disconnect handle to the 'ON' position.
        i. It should allow this to happen.
    e. If the handle is incapable of turning on, the lower collet is positioned too low.
        i. Position the lower collet slightly higher on the connecting rod and retest. After retest please go back to step 1.
3. Test the door lockout engagement. (After passing tests #1 and #2)
    a. The FMDC Door should be closed and fully latched.
    b. The disconnect handle should be 'OFF'.
    c. The Master Door should be closed and fully latched.
    d. Turn the disconnect handle to the 'ON' position.
    e. Attempt to open the Master Door.
        i. The defeater lever should engage the main door catch and lock the door.
    f. If the main door opens the main door catch is positioned too high.
        i. Position the main door catch lower on the main door stiffener and retest.

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Notes

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6/14 • US206

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