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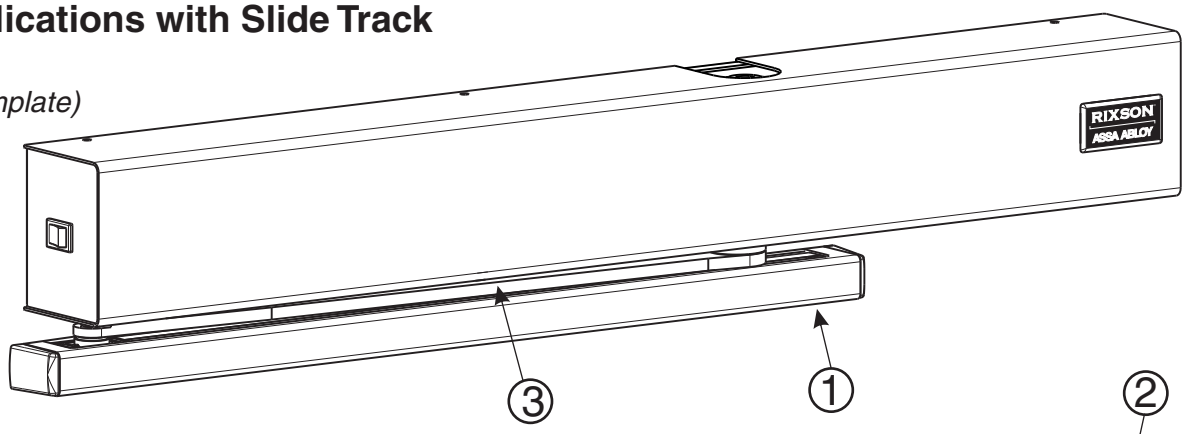
ASSA ABLOY

Smok-Chek® VI
Installation and Instruction Manual

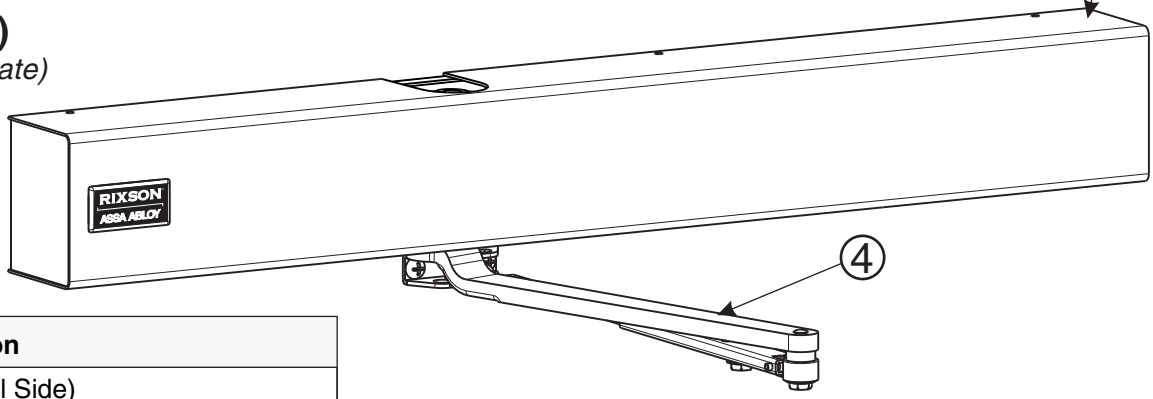
Pull Side Applications with Slide Track (4 Pull, 6 Pull)

(see page 7 for template)



Push Side Applications with Double Lever Arms (4 Push, 6 Push)

(see page 2 for template)



Item No.	Description
1	Track (Pull Side)
2	Cover
3	Track Arm (Pull Side)
4	Double Lever Arm (Push Side)

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Tools required:

- Allen wrench set (inch)
- Flat blade screwdriver (potentiometer & terminal size)
- Screwdriver (Phillips size 2)
- Tape ruler
- Power drill
- Center punch
- Wire stripper

Use screw pack and hardware provided to mount operator.

Requirements:

- Units are handed. Hand of unit and hand of door must be the same.
- All dimensions shown in inches (mm).
- Door must be hung on ball bearing butt hinges or 3/4" (19) offset pivots.
- Door thickness must be 1-3/4" (44) to 2-1/4" (64).
- Door must swing freely through the entire opening and closing cycle before beginning the installation procedure.
- Frame face must be a minimum of 2" (51).
- Ceiling clearance must be a minimum of 3 -1/2" (89) for push side application or 4" (102) for pull side application. See pages 2 and 7 for templates.
- Power input to unit must be of the same voltage as that stated on the unit.
- Unit to be mounted on interior of building in dry environment, maximum humidity of 95%.
- See NFPA70 for wiring requirements and NFPA72 for alarm system requirements.

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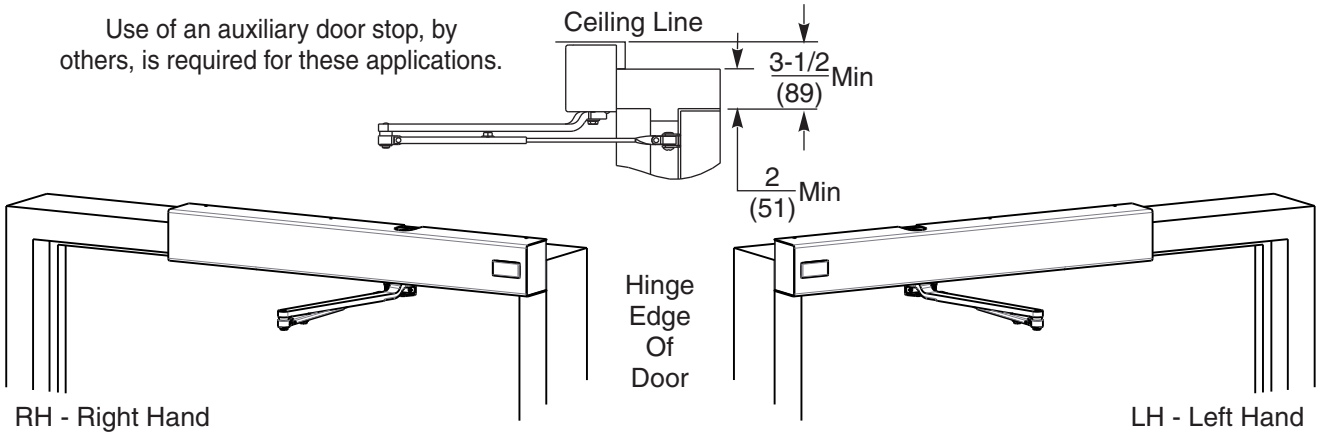
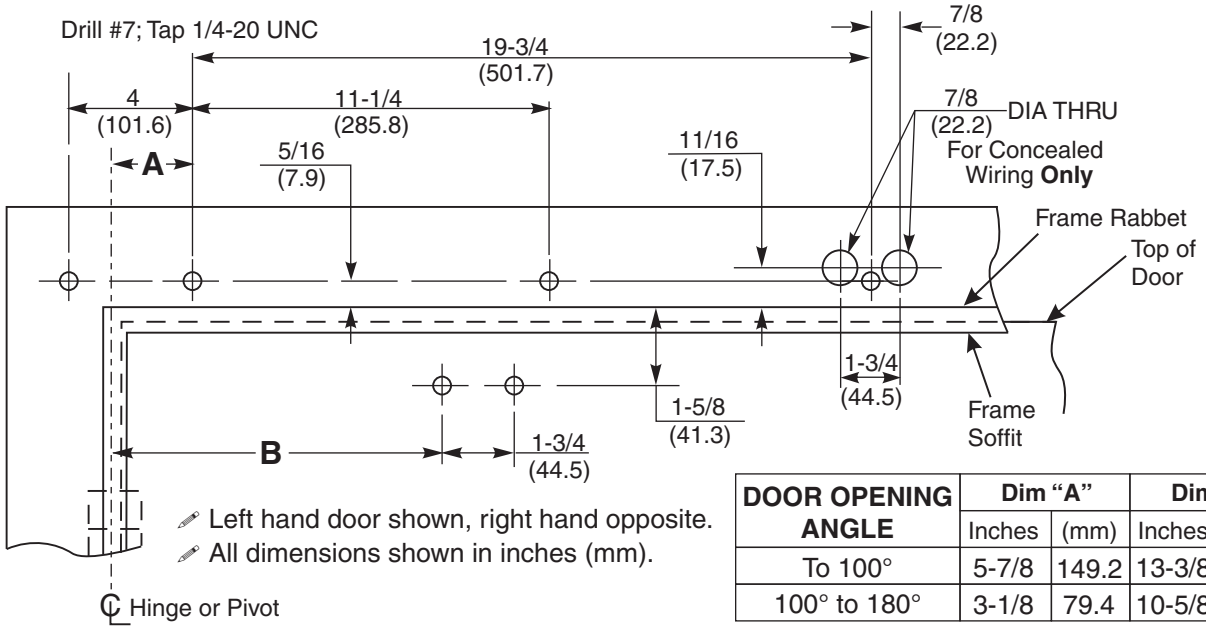
80-9372-0100-015 (02-14)

Double Lever Arm (Push Side)

Use of an auxiliary door stop, by others, is required for these applications.



1 Prepare Frame

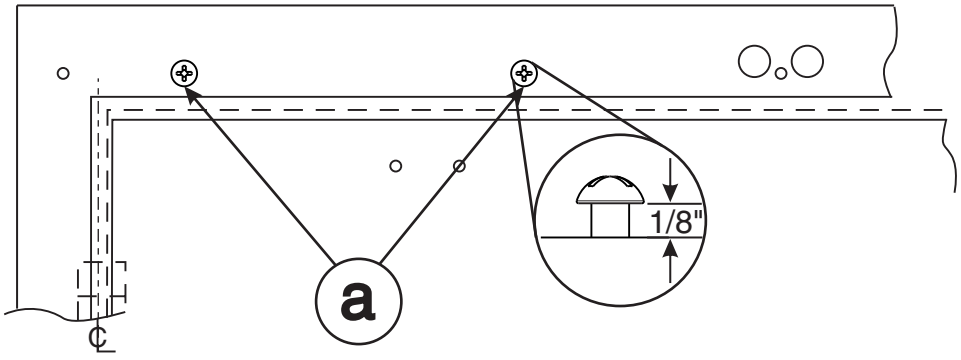


- Left hand door shown, right hand opposite.
- All dimensions shown in inches (mm).

DOOR OPENING ANGLE	Dim "A"		Dim "B"	
	Inches	(mm)	Inches	(mm)
To 100°	5-7/8	149.2	13-3/8	339.7
100° to 180°	3-1/8	79.4	10-5/8	269.9

2 Closer Mounting

Install two screws in the key slot locations leaving 1/8" gap between screw head and frame face as shown (a).



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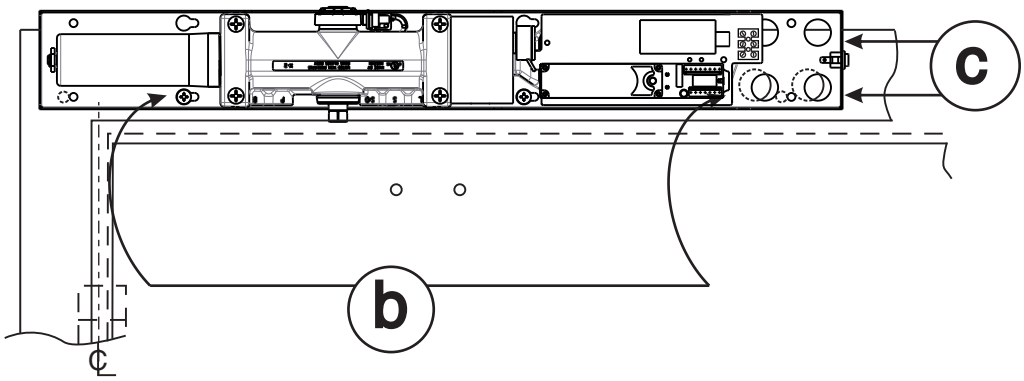
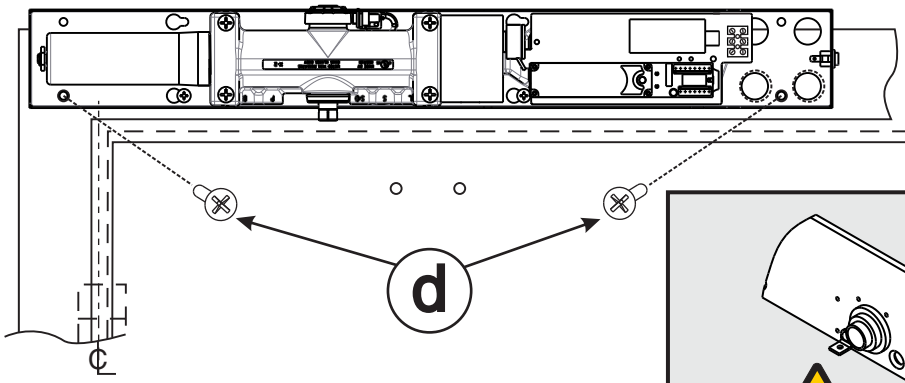
3 Operator Mounting

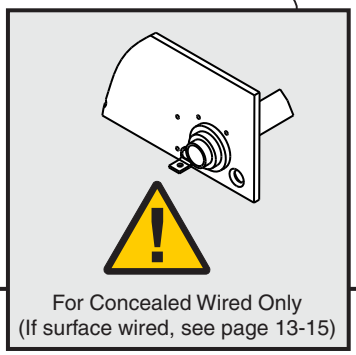
Hang closer body by key hole slots (b) and slide closer toward hinge to capture screw heads (c).
Warning: Do not allow pedestrian traffic through opening until all mounting screws are tightened.



4 Closer Mounting

Install remaining mounting screws through back plate and tighten all four screws (d). Pull wiring through holes (if concealed wired).

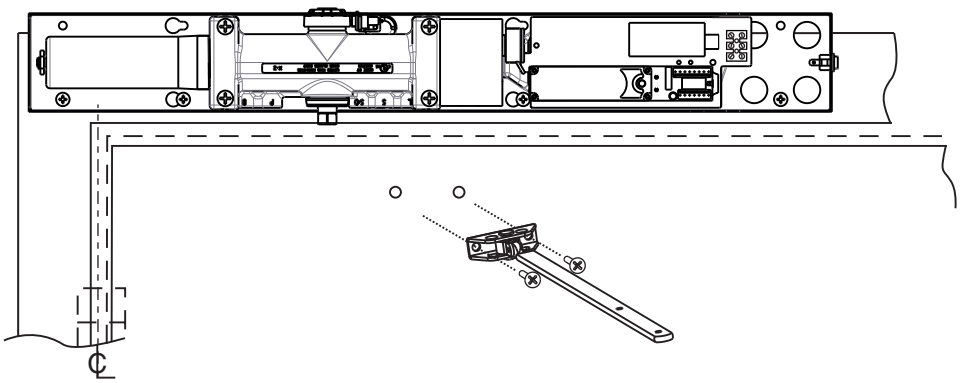




For Concealed Wired Only
(If surface wired, see page 13-15)

5 Arm Shoe Mounting

Mount closer arm shoe to door face as shown.



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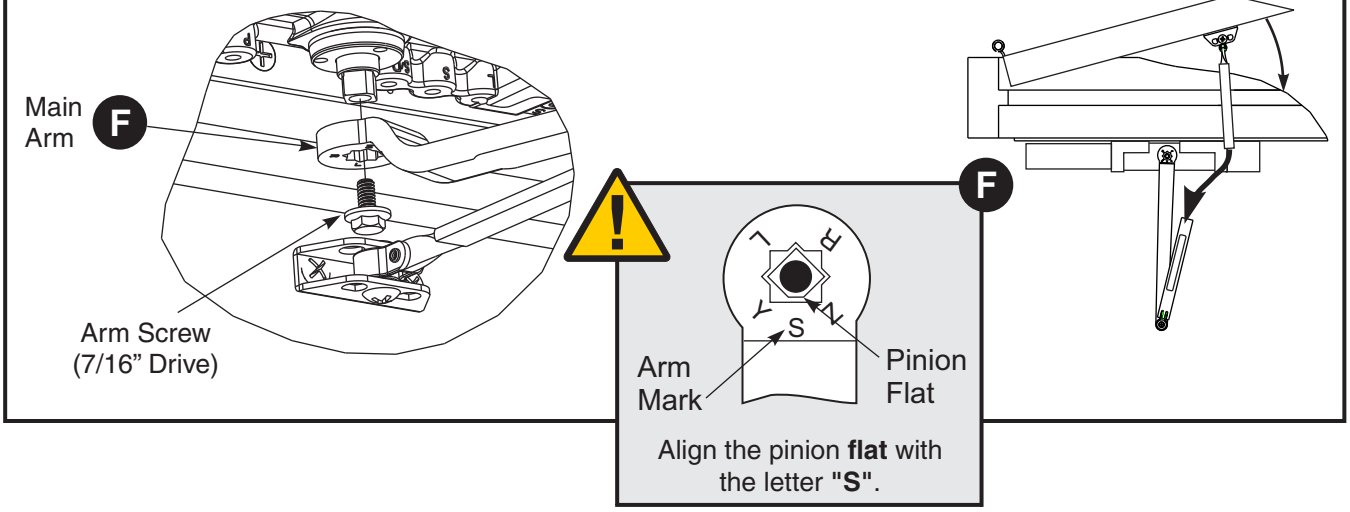
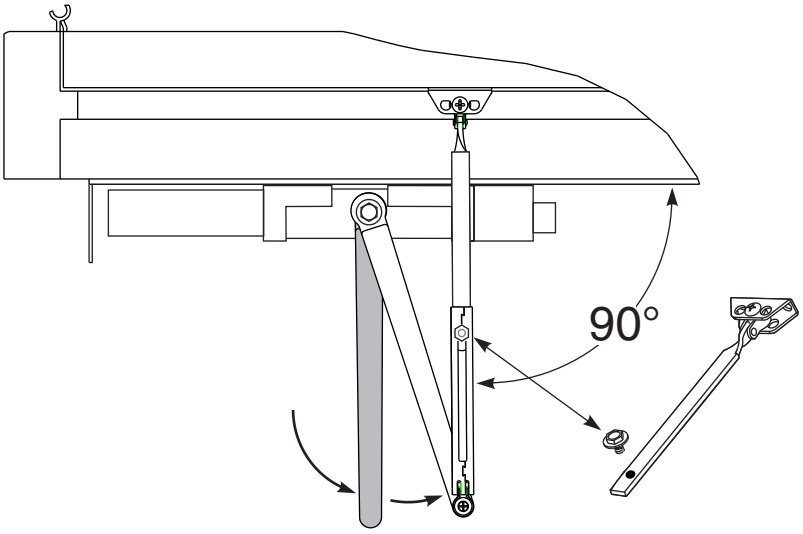
6 Attach Arm



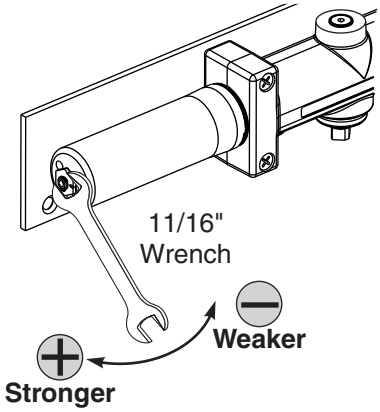
7 Preload Closer Spring

With the door closed and latched, rotate main arm until secondary arm is perpendicular to the door frame, then tighten adjustment screw as shown with 7/16” wrench.



8 Closer Spring Adjustment

Closing Force



Slowly increase closer power until door closes consistently. A closer set to the ADA required 5 lbs opening force may not be strong enough to close the door due to latching hardware, air pressure, or frame issues.

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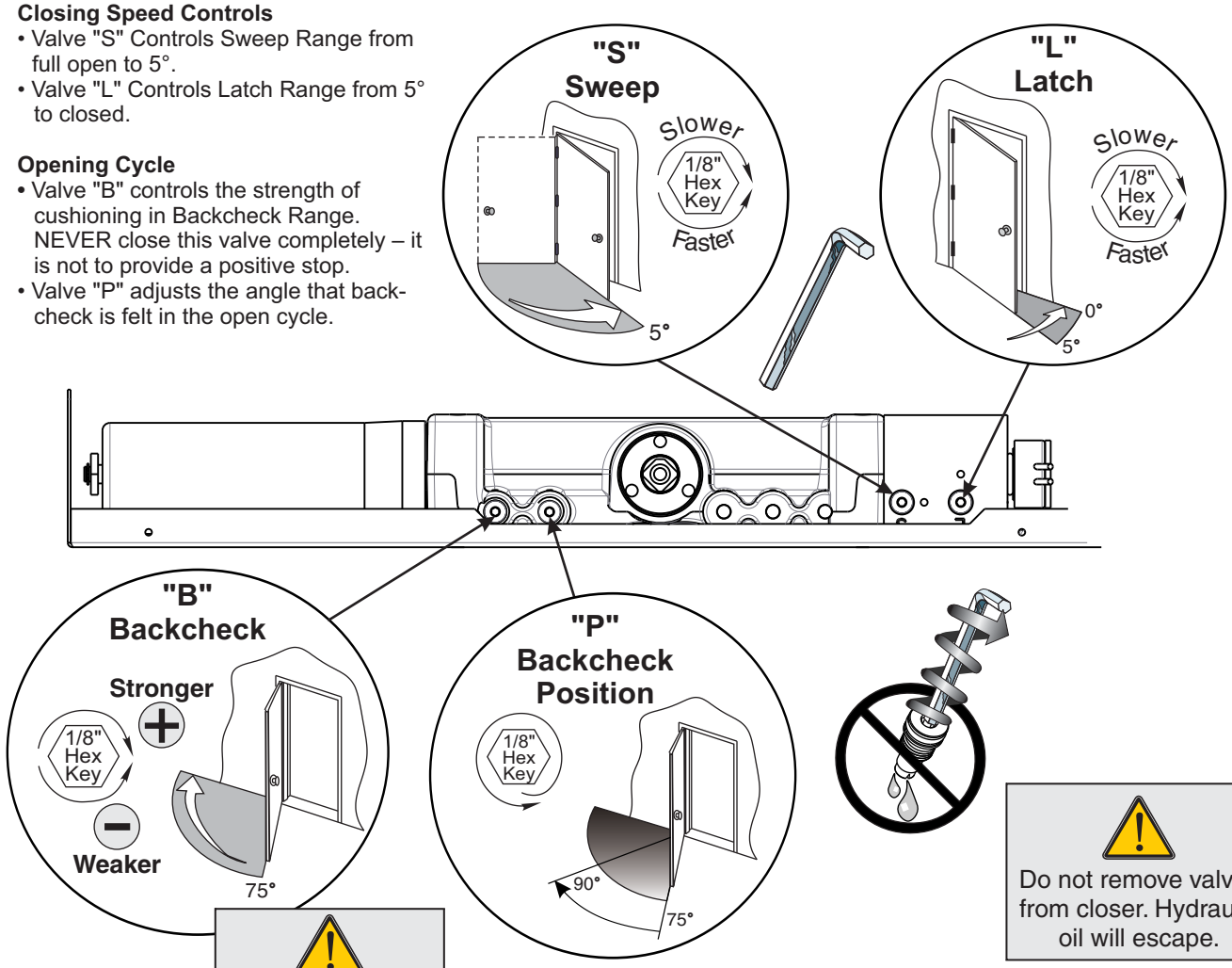
9 Closer Adjustments

Closing Speed Controls
- Valve "S" Controls Sweep Range from full open to 5°.
- Valve "L" Controls Latch Range from 5° to closed.

Opening Cycle
- Valve "B" controls the strength of cushioning in Backcheck Range. NEVER close this valve completely – it is not to provide a positive stop.
- Valve "P" adjusts the angle that back-check is felt in the open cycle.



Never Close backcheck valve completely

Do not remove valves from closer. Hydraulic oil will escape.

10 Electrical Connections

See Page 13 for Non-Detectored Units
See Page 14 for Detectored Units
See Page 15 for RF Units

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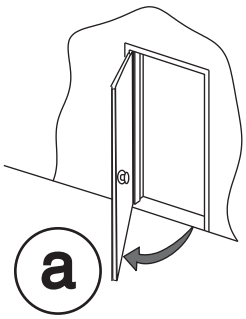
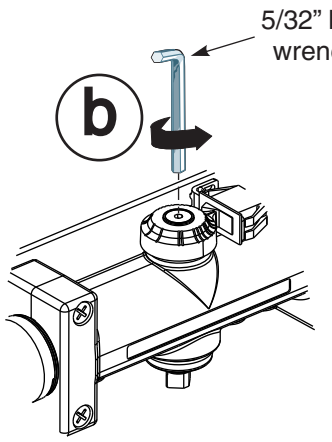
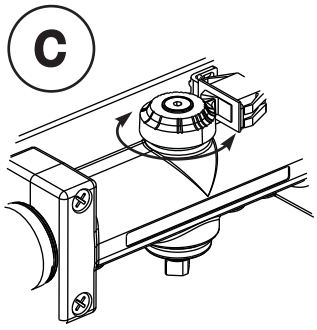
11 Selective Hold Open Cam Adjustment

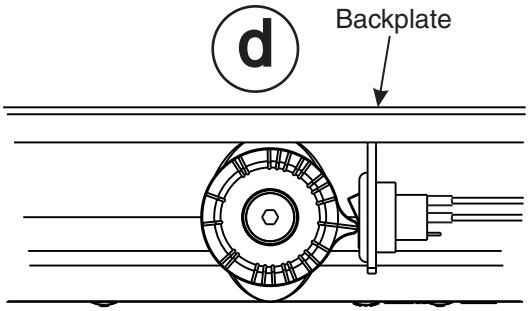
Setting Hold Open Angle

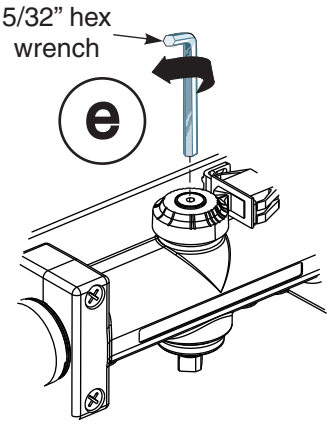
- Make all required electrical connections and turn power switch to on for non-detectored units (detectored units cannot be turned off at the closer). (See previous step)
- Open door to desired hold open angle.
- Loosen cam screw and rotate cam until switch closes and door holds open.
- Rotate cam until it touches the switch.
- Tighten cam screw but do not over torque as this will cause damage to cam.
- Force door out of hold open by closing the door, then test hold open by opening to hold open angle again.





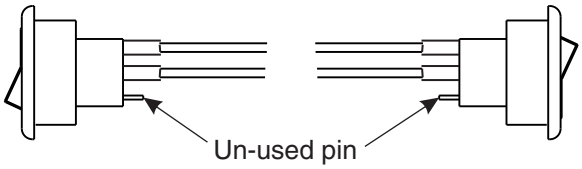






Right hand pull-side shown.
Switch shown in hold open position (closed).

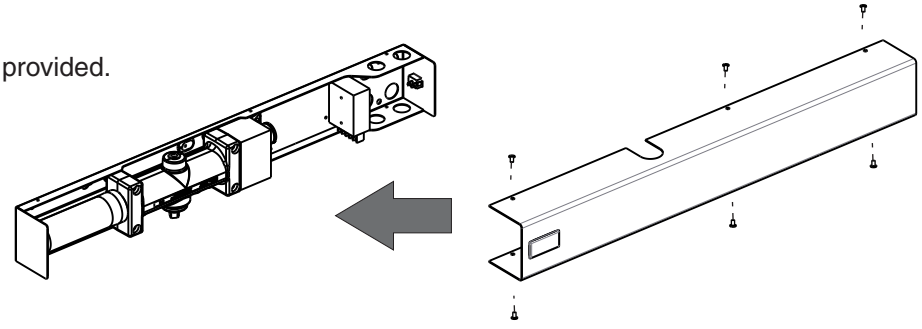
SHO switch in open position. Closer not in hold open.



SHO switch in closed position. Closer in hold open.

12 Attach Cover

Attach cover using screws provided.



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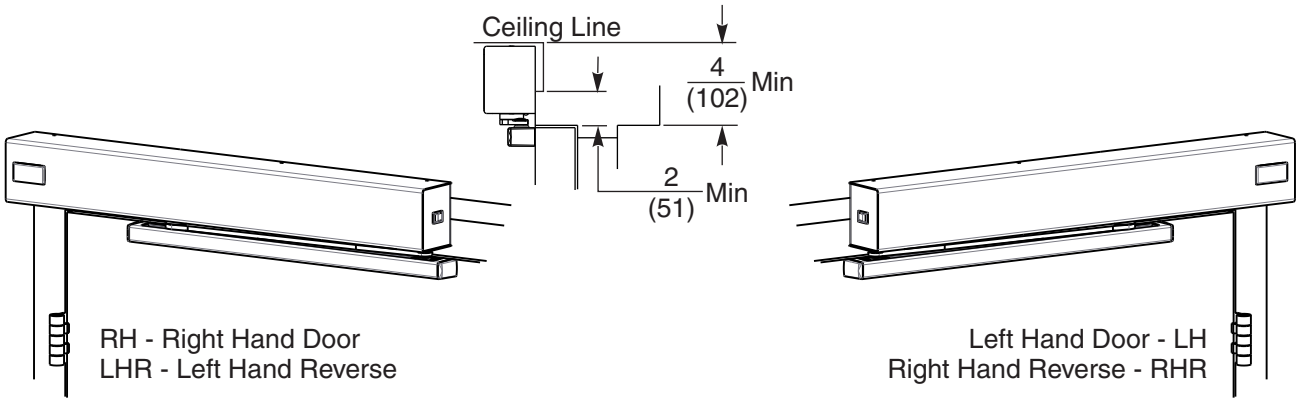
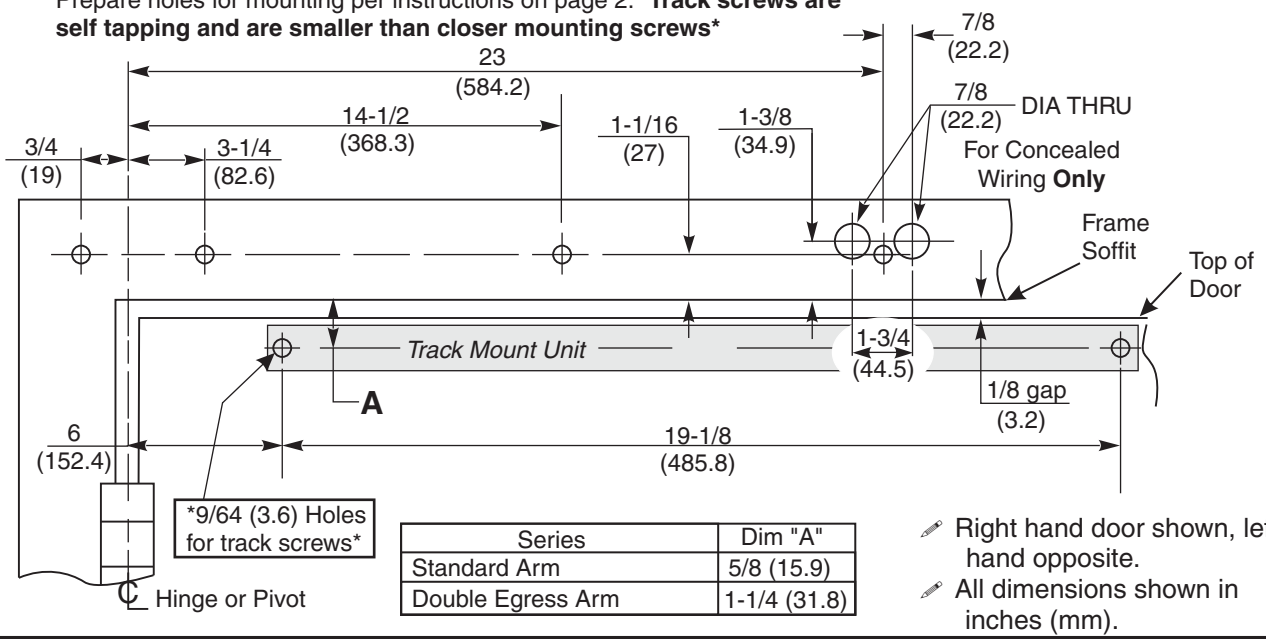
Track Mount (Pull Side)



1 Prepare Frame

Prepare holes for mounting per instructions on page 2. ***Track screws are self tapping and are smaller than closer mounting screws***

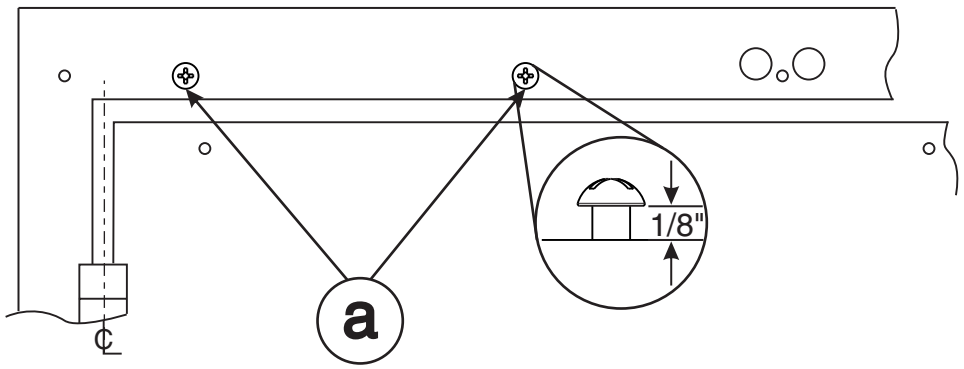


Series	Dim "A"
Standard Arm	5/8 (15.9)
Double Egress Arm	1-1/4 (31.8)

- Right hand door shown, left hand opposite.
- All dimensions shown in inches (mm).

2 Closer Mounting

Install two screws in the key slot locations leaving 1/8" gap between screw head and frame as shown (a).



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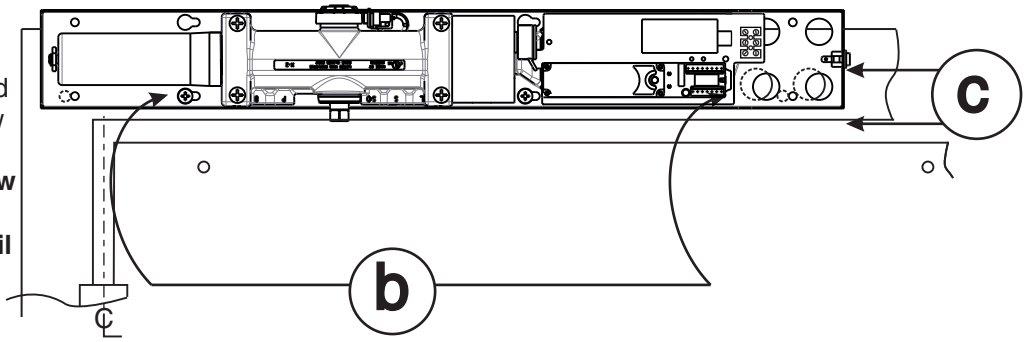
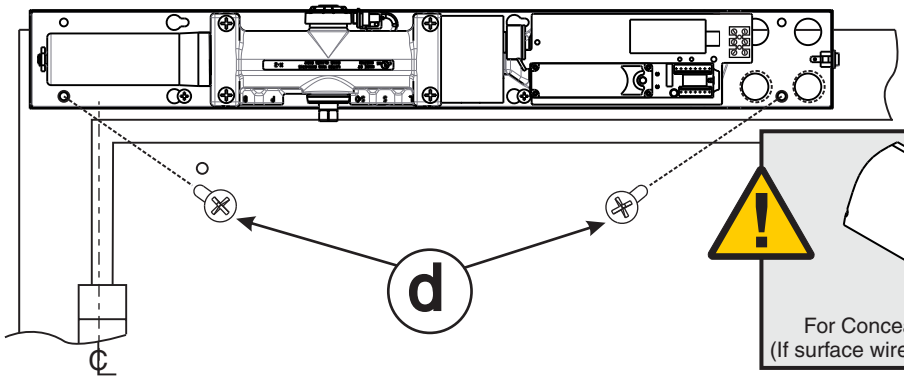
3 Closer Mounting

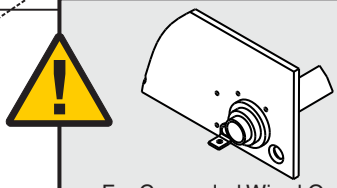
Hang closer body by key hole slots (b) and slide closer toward hinge to capture screw heads (c).
Warning: Do not allow pedestrian traffic through opening until all mounting screws are tightened.



4 Closer Mounting

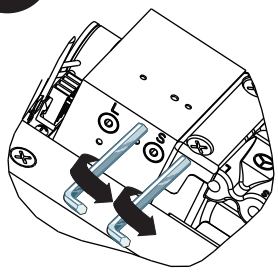
Install remaining mounting screws through back plate and tighten all four screws (d). Pull wiring through holes (if concealed wired).





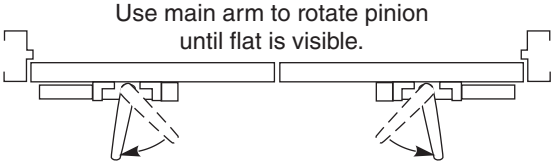
For Concealed Wired Only
(If surface wired, see page 13-15)

5 Arm Mounting

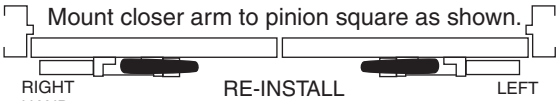


Fully close Latch & Sweep Valves with 1/8" wrench provided.

Use main arm to rotate pinion until flat is visible.

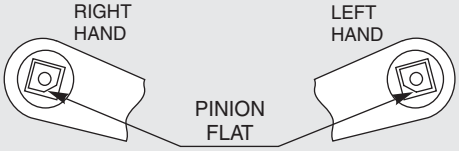


Mount closer arm to pinion square as shown.



All views from floor looking upward

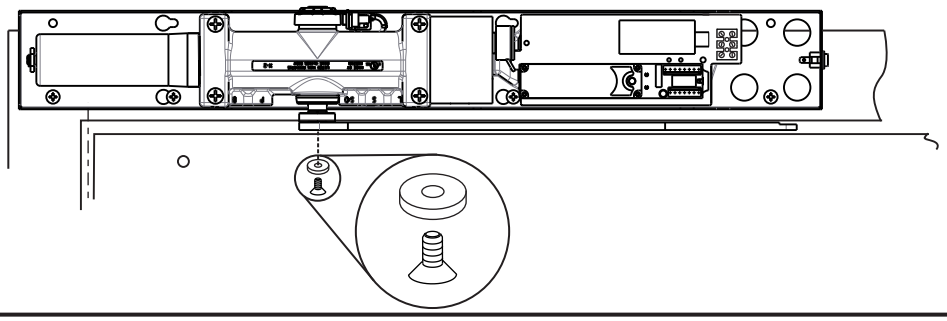
Align the pinion **flat** as shown.



For Connected Free Swing Arm see Instructions 80-9372-0101-000

6 Attach Arm

Attach with provided screw and washer. Tighten arm screw with 5/32" hex wrench.



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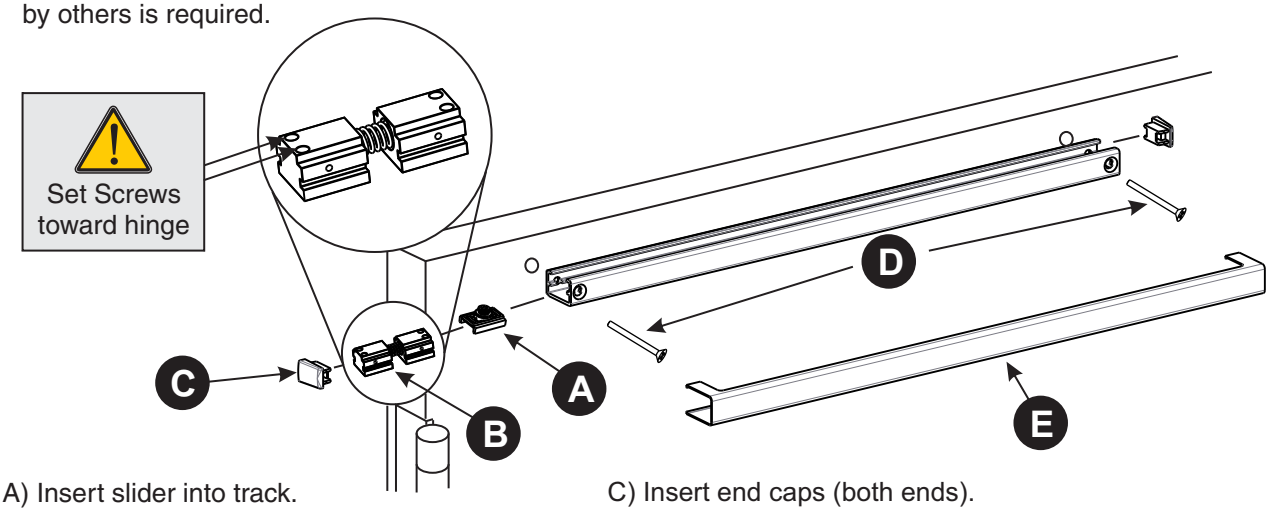
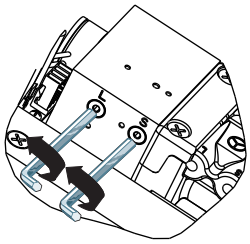
7 Mount Track

If opening angle greater than 125°, spring cushion stop cannot be used and an auxiliary stop by others is required.



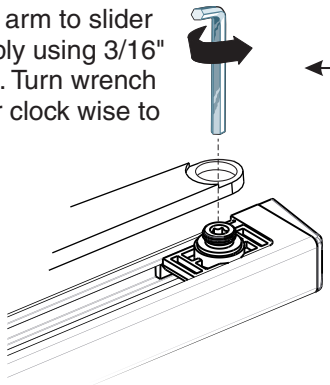
A) Insert slider into track.
B) For openings 125°or less, insert spring cushion stop on hinge side of track . **For openings greater than 125°, omit spring stop.**
C) Insert end caps (both ends).
D) Secure track to door using screws provided.
E) Snap on cover.

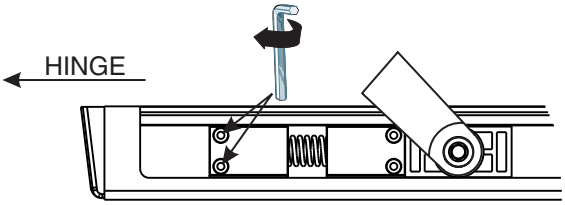
8 Connect Arm to Track



Open Latch & Sweep Valves with 1/8" wrench provided.

Secure arm to slider assembly using 3/16" wrench. Turn wrench counter clock wise to tighten.

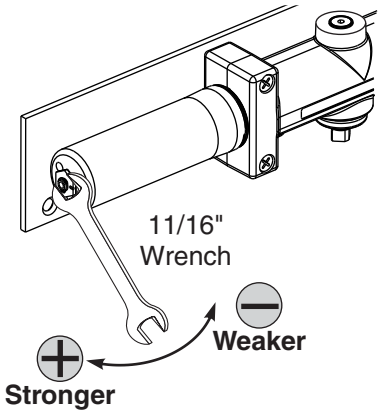




Open door to maximum desired swing minus 5° and hold. Slide spring cushion stop assembly against slider assembly and secure to track using 5/64" or 2mm wrench.

9 Closer Spring Adjustment

Closing Force



Slowly increase closer power until door closes consistently. A closer set to the ADA required 5 lbs opening force may not be strong enough to close the door due to latching hardware, air pressure, or frame issues.

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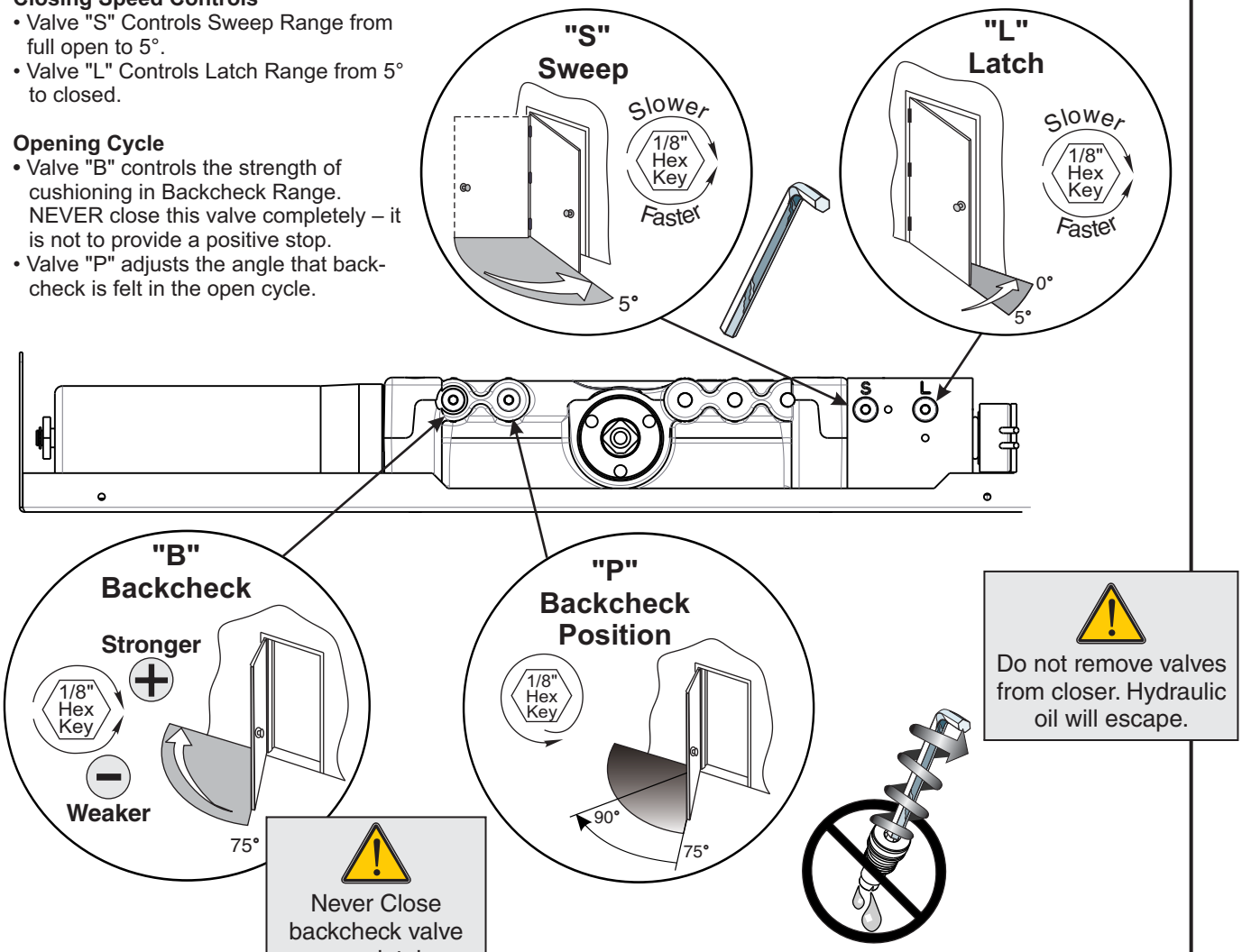
10 Closer Adjustments

Closing Speed Controls
- Valve "S" Controls Sweep Range from full open to 5°.
- Valve "L" Controls Latch Range from 5° to closed.

Opening Cycle
- Valve "B" controls the strength of cushioning in Backcheck Range. NEVER close this valve completely – it is not to provide a positive stop.
- Valve "P" adjusts the angle that back-check is felt in the open cycle.



11 Electrical Connections

See Page 13 for Non-Detectored Units
See Page 14 for Detectored Units
See Page 15 for RF Units

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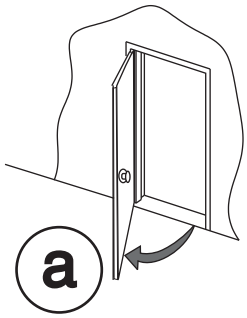
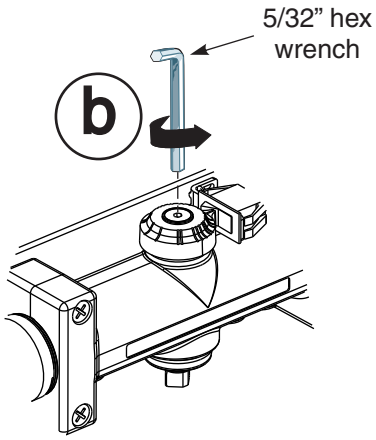
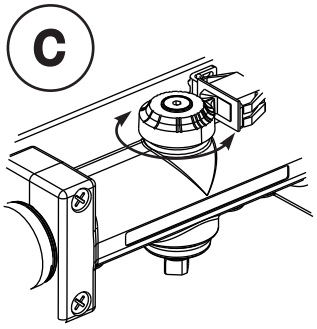
12 Selective Hold Open Cam Adjustment

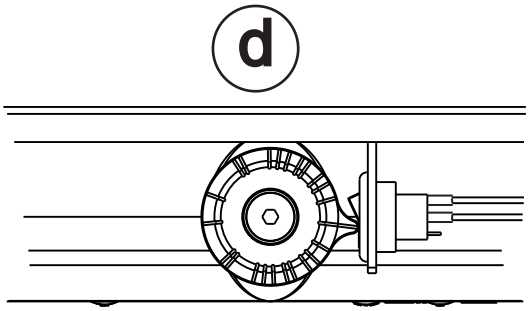
Setting Hold Open Angle

- Make all required electrical connections and turn power switch to “ON” for non-detectored units (Detectored units cannot be turned off at the closer).
- Open door to desired hold open angle.
- Loosen cam screw and rotate cam until switch closes and door holds open.
- Rotate cam until it touches the switch.
- Tighten cam screw but do not over torque as this will cause damage to cam.
- Force door out of hold open by closing the door, then test hold open by opening to hold open angle again.

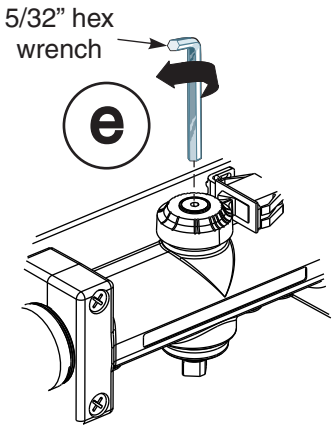




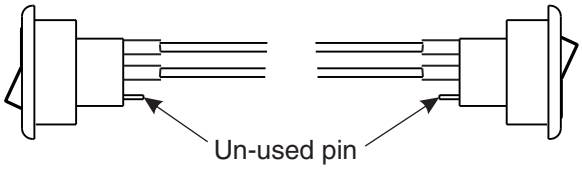




Right hand pull-side shown.
Switch shown in hold open position.



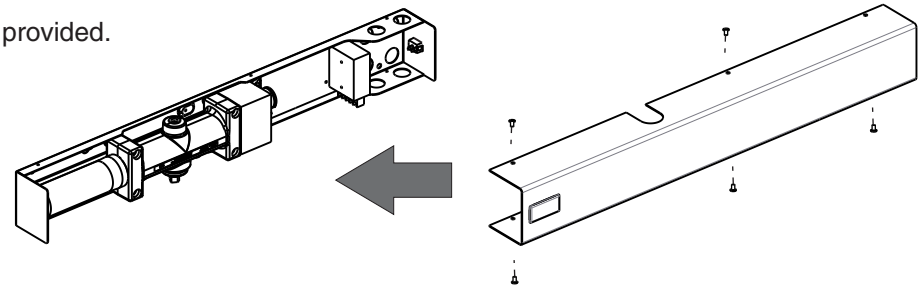
SHO switch in open position. Closer not in hold open.



SHO switch in closed position. Closer in hold open.

13 Attach Cover

Attach cover using screws provided.



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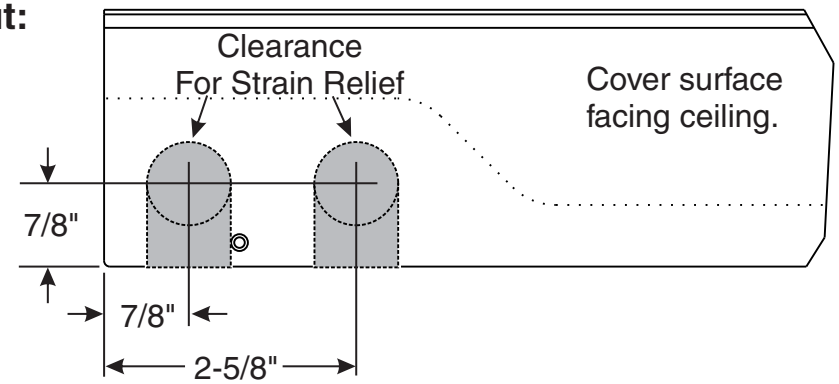
NON-DETECTORED ELECTRICAL CONNECTIONS

Caution:
Determine proper
input power; 24V or 120V.

- Power input to unit must be of the same voltage as that listed on the label.
- All wiring connections use standard wiring practice conforming to local wiring codes.
- Maximum wire size is 18AWG.
- Make input power connections to the terminal block or power supply using illustrations below.

Surface mount power input:

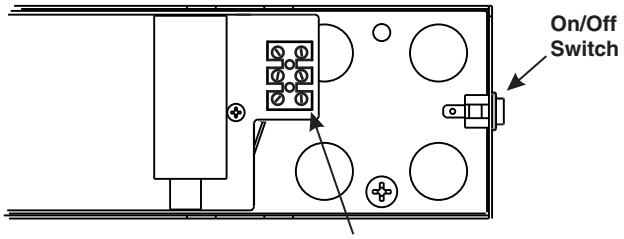
Remove appropriate shaded area from cover for surface wired installations only. Repaint cut edges as necessary to prevent corrosion.



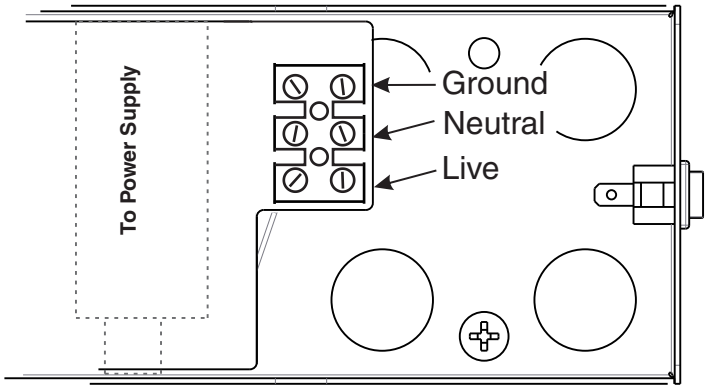
Stand-Alone wiring instructions below. (To incorporate other devices, see included wiring instruction manual: 80-9342-0904-000)

120V AC INPUT

Make power connections as shown below.

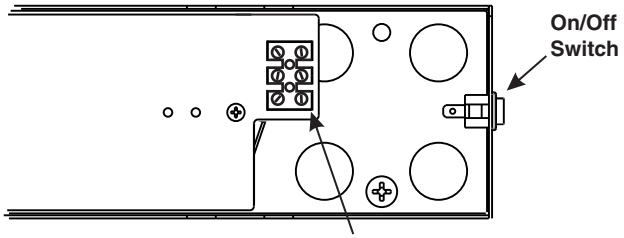


Terminal Block
Make Connections
Here

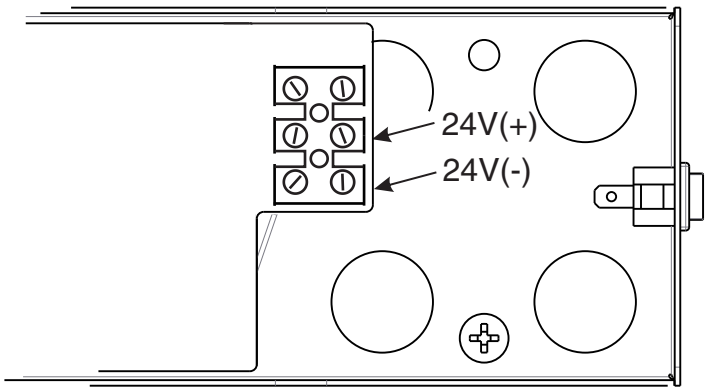


24V DC INPUT

Make power connections as shown below.



Terminal Block
Make Connections
Here



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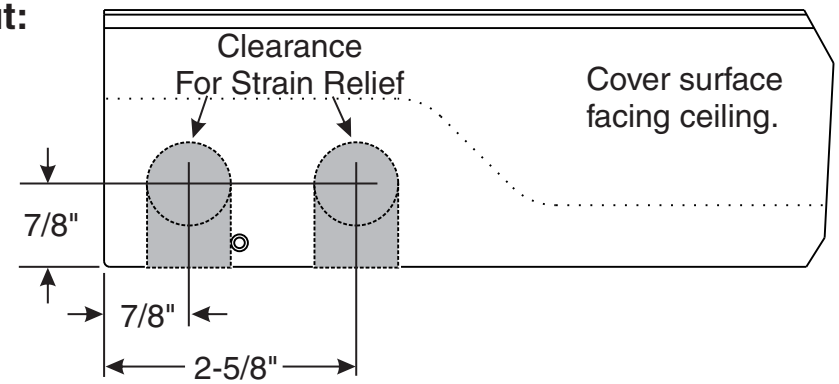
SMOKE DETECTOR ELECTRICAL CONNECTIONS

Caution:
Determine proper
input power; 24V or 120V.

- Power input to unit must be of the same voltage as that listed on the label.
- All wiring connections use standard wiring practice conforming to local wiring codes.
- Maximum wire size is 18AWG.
- Make input power connections to the terminal block or power supply using illustrations below.

Surface mount power input:

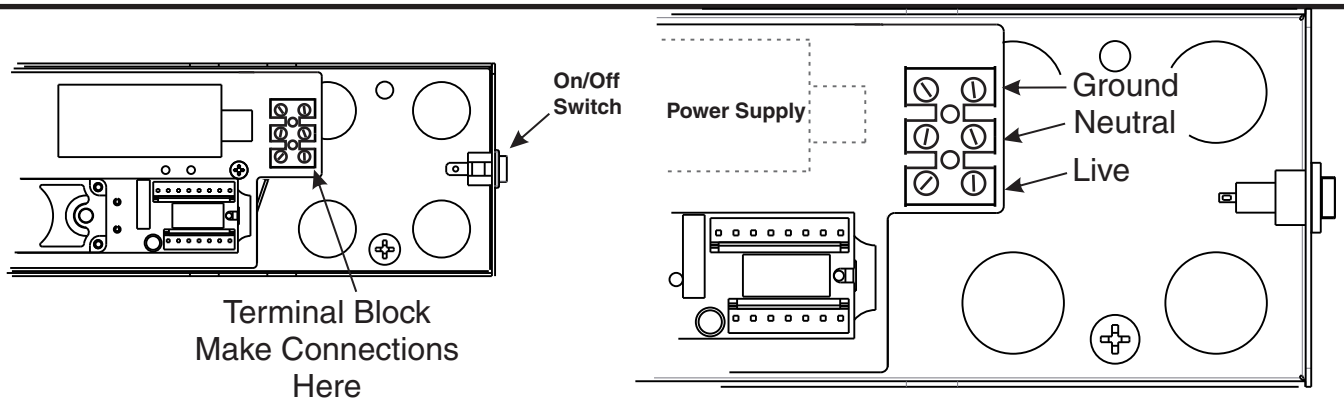
Remove appropriate shaded area from cover for surface wired installations only. Repaint cut edges as necessary to prevent corrosion.



Stand-Alone wiring instructions below. (To incorporate other devices, see included wiring instruction manual: 80-9342-0904-000)

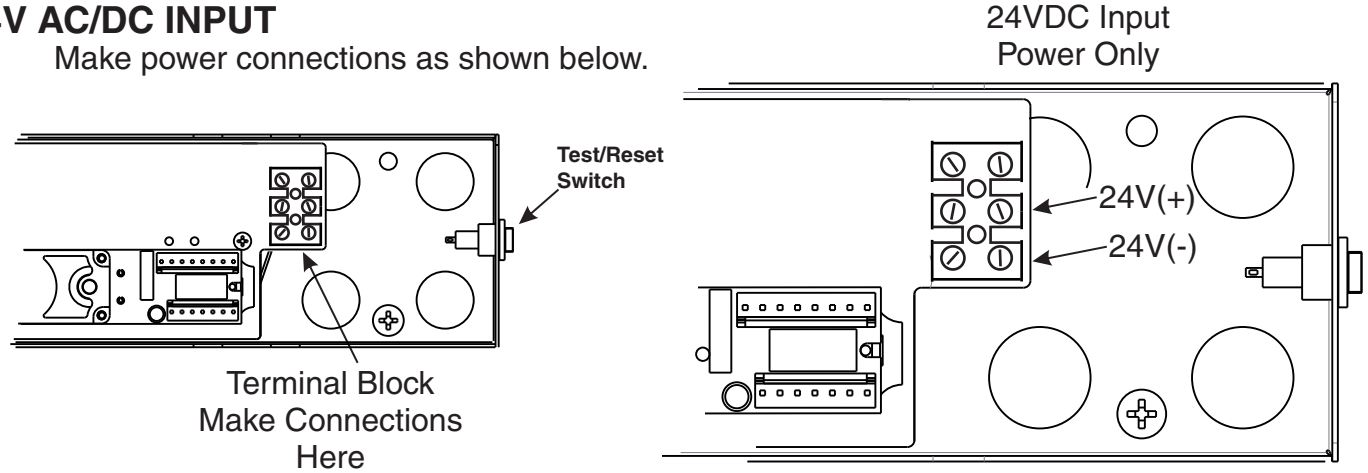
120V AC INPUT

Make power connections as shown below.



24V AC/DC INPUT

Make power connections as shown below.



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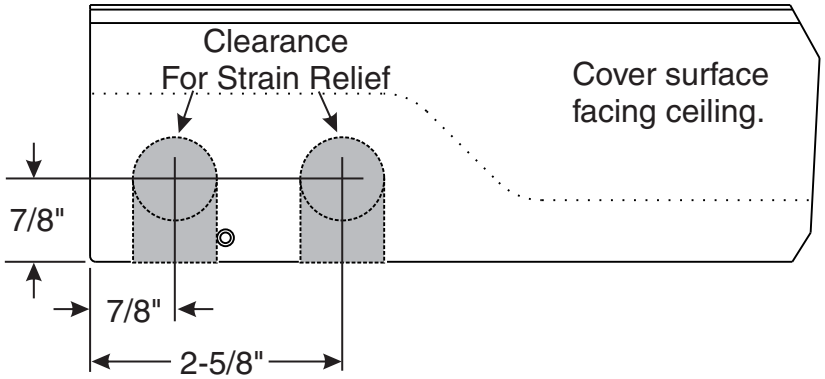
RF REMOTE RECEIVER UNITS ELECTRICAL CONNECTIONS

Caution:
Determine proper
input power; 24V or 120V.

- Power input to unit must be of the same voltage as that listed on the label.
- All wiring connections use standard wiring practice conforming to local wiring codes.
- Maximum wire size is 18AWG.
- Make input power connections to the terminal block or power supply using illustrations below.

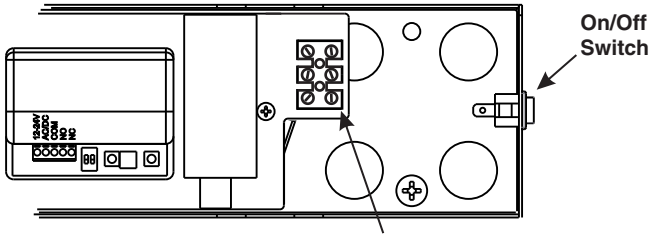
Surface mount power input:

Remove appropriate shaded area from cover for surface wired installations only. Repaint cut edges as necessary to prevent corrosion.

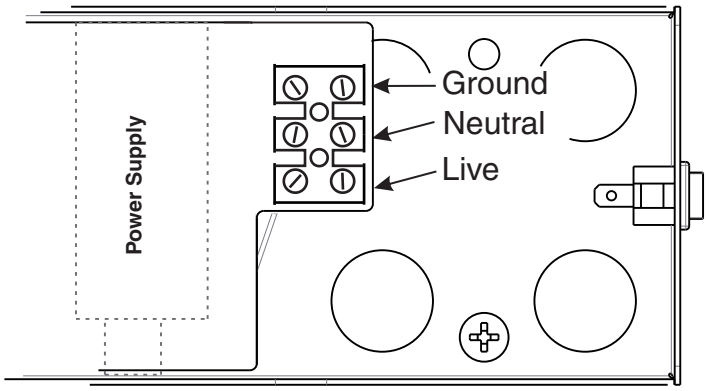


120V AC INPUT

Make power connections as shown below.

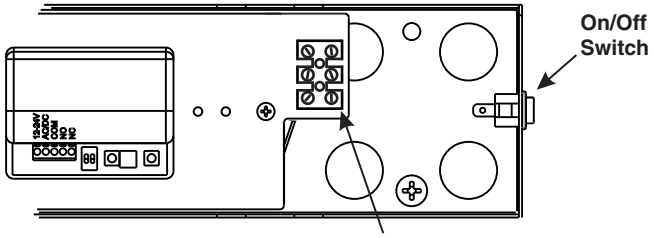


Terminal Block
Make Connections
Here

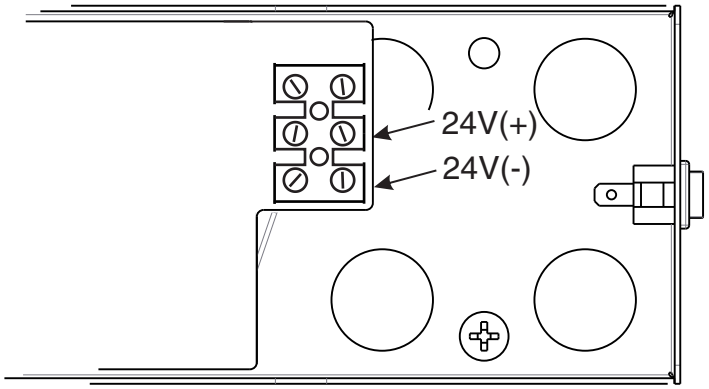


24V AC/DC INPUT

Make power connections as shown below.



Terminal Block
Make Connections
Here



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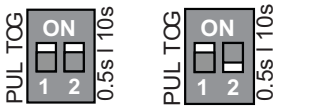
PROGRAMMING RF REMOTE RECEIVER UNITS

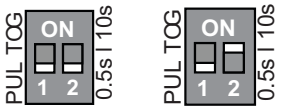
DIP SWITCH SETTINGS

# 1	DESCRIPTION	FUNCTION
OFF	Pulse Relay	Press the transmitter once and the relay will be active momentarily.
ON	Toggle Relay	Press the transmitter once and the relay output is active indefinitely, press it again and the relay will de-energize indefinitely.



In Toggle Setting (1-ON), the Hold Time is inactive. Either setting for #2 dip switch will have the same result.

# 2	DESCRIPTION	FUNCTION (Pulse Mode Only)
OFF	0.5 sec Hold Time	Relay will remain active 0.5 second after the loss of activation.
ON	10 sec Hold Time	Relay will remain active 10 seconds after the loss of activation.



0.5 second Pulse Setting **10 second Pulse Setting**

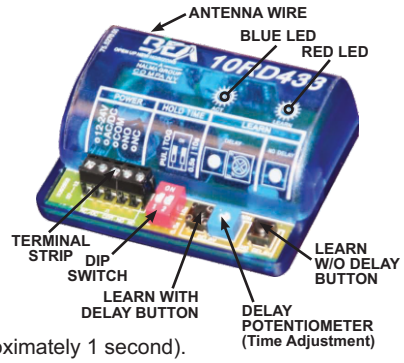
HAND HELD CONFIGURATION

1. Set dip switches on the receiver to the desired activation cycle (dip switch 1 -Toggle or Pulse and dip switch 2 - 0.5s or 10s hold).
2. Press either Learn w/Delay Button or Learn w/No Delay Button on the receiver depending on the activation requirements (If delay learn is selected, adjust potentiometer to counterclockwise limit, 0 second delay). After learn cycle is complete, adjust potentiometer to desired delay time (0-30 sec).
3. Depress transmitter button repeatedly until Blue LED on the receiver illuminates (indicating reception of signal from transmitter).

   NOTE: Repeat Steps 2-3 to program additional transmitters.
4. To test the system, depress transmitter button (Red LED on Transmitter will illuminate) and observe that the Blue LED illuminates on the receiver. This indicates that the relay has been activated.

PUSH PLATE CONFIGURATION

1. Before beginning, it is easiest to have already prepared the installation of the pushplate.
2. Connect the wires from the transmitter to the NO and COM contacts of the pushplates switch.
3. Follow Steps 1-4 (Hand-Held Configuration); depress the pushplate to activate the transmitter.
4. Attach the transmitter to the inside of the electrical box and complete the installation.



REMOVING TRANSMITTER CODE(S)

SINGLE TRANSMITTER CODE

1. Press both DELAY and NO DELAY BUTTONS simultaneously until Red LED flashes once (approximately 1 second).
2. Press transmitter button twice within 10 seconds and the transmitter code will be deleted.

ALL TRANSMITTER CODES

1. Press and hold both DELAY and NO DELAY BUTTONS simultaneously until Blue LED illuminates then release (approximately 10 seconds).

Troubleshooting

DETECTORED AND NON-DETECTORED UNITS

SYMPTOMS	PROBABLE CAUSE	CORRECTIVE ACTION
Door does not hold open.	No power to unit. Loose wire connection. Cam switch not engaged.	Check input voltage: 24VDC or 120VAC Inspect wiring for loose connections. Adjust Cam position (see pg. 6 or 11)
Door holds open but at the wrong angle.	Cam switch engaged too early or too late. Cam switch shorted.	Adjust Cam position (see pg. 6 or 11) Inspect Cam switch wiring for short circuit.
Door not closing when Test/Reset switch depressed. (Detectored units only)	Wiring incorrect. Short circuit across Test/Reset switch.	Inspect wiring (see pg.13-15). Inspect Test/Reset switch for short circuit.

RF UNITS

SYMPTOMS	PROBABLE CAUSE	CORRECTIVE ACTION
Red LED flashes on RF unit and can't program receiver.	Push plate stuck or faulty transmitter.	Disconnect each push plate or remove batteries until LED goes out. Replace faulty push plate.
Receiver intermittently doesn't receive the transmitter signal.	Receiver antenna wire is too short	Add 6 3/4' lengths of wire to antenna until it receives signal.

For problems not listed here, see page 16 for Technical Product Support Contact info.

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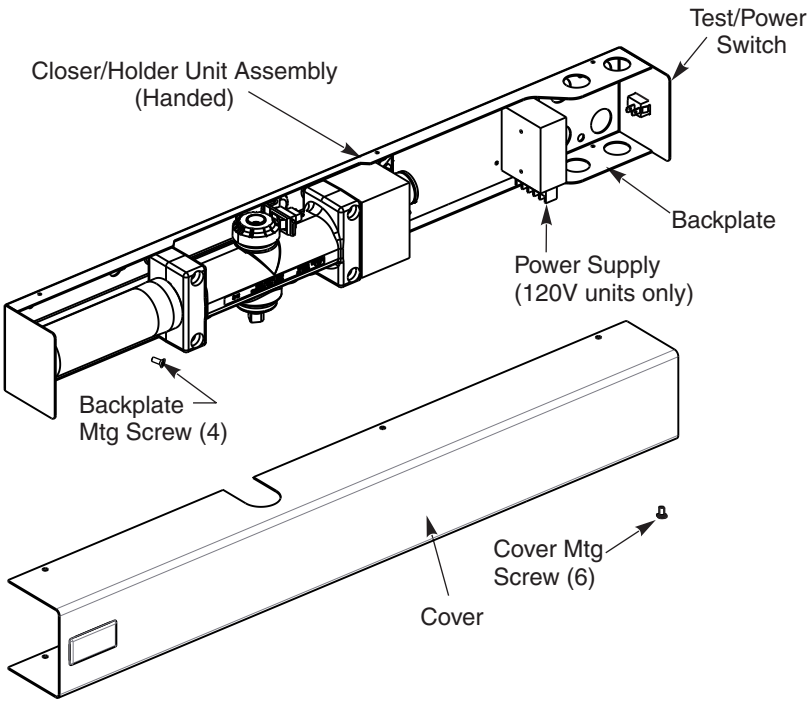
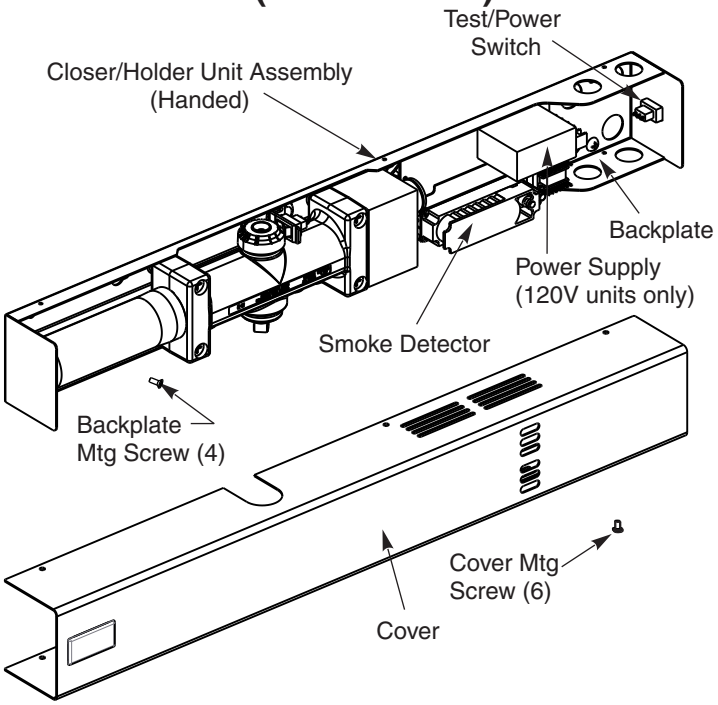
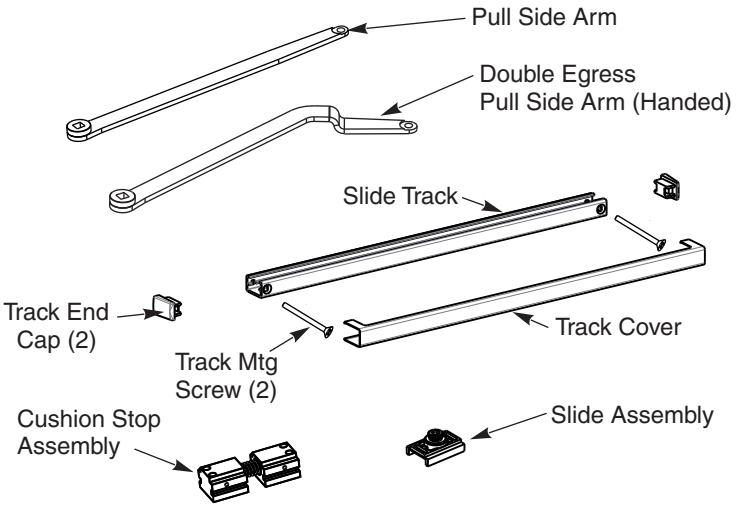
4 (Non-Detectored)



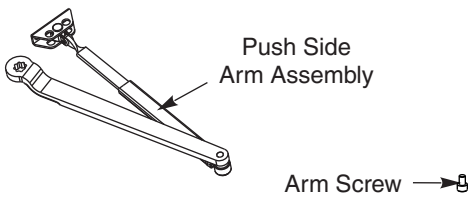
6 (Dectectored)



Included with Pull Side or Double Egress



Included with Push Side



Preparation for Fasteners			
	Fasteners	**Door or Frame**	**Drill-Sizes**
Standard	1/4" - 20 machine screw	Metal	Drill: #7 (0.201" dia.) Tap: 1/4" - 20
	Self tapping screw (Track screws only)	Metal / Wood	Pre-Drill: 9/64 hole
	Self tapping screw (Closer mounting screws only)	Metal / Wood	Pre-Drill: 3/16 hole
	Sleeve nuts and bolts (Shoe screws only)	Hollow Metal	9/32" (7 mm) through; 3/8" (9.5 mm) door face opposite to closer
		Aluminum or Wood	3/8" (9.5 mm) through
Optional	Through-bolts and grommet-nuts	All	9/32" (7 mm) thru; 3/8" (9.5 mm) dia. x 3/8" (9.5 mm) deep on door opposite to closer

Certifications

UL228, UL10B

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