

6011/6021 Series

LAP Replacement

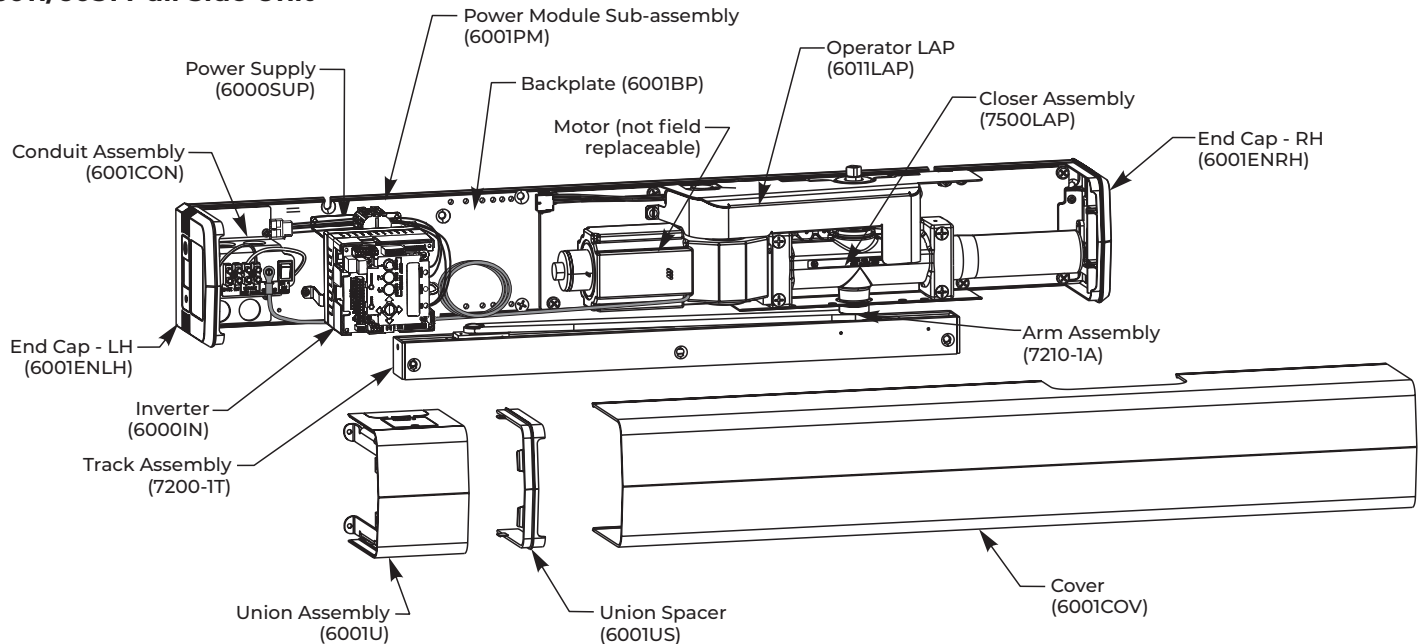
Installation Instructions

⚠ WARNING

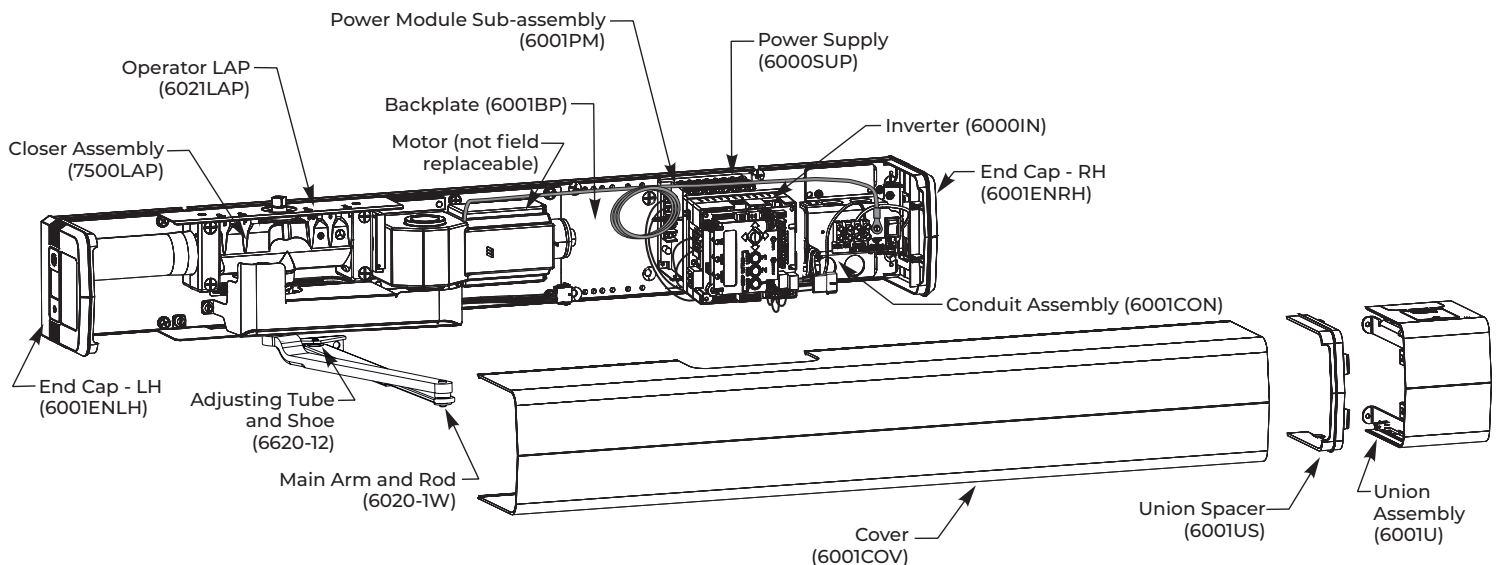
This product can expose you to lead which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65warnings.ca.gov.

Pour la version française voir NortonRixson.com.
READ AND FOLLOW ALL INSTRUCTIONS.
SAVE THESE INSTRUCTIONS.

6011/6051 Pull Side Unit



6021/6031/6061/6071 Push Side Unit



Prepare Unit for Replacement Operator LAP

A. Turn off control of door.

1. Open union assembly access door and flip selector mode switch to OFF position. (Fig. 1)

NOTE: Close access door after use.

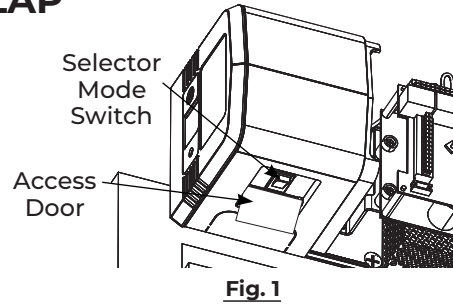


Fig. 1

B. Remove Cover.

1. Grasping at locations shown, pull cover off of unit. (Fig. 2)



NOTES:

- Cover is not secured with screws.
- Take care not to pull union assembly or end caps which are secured with screws.

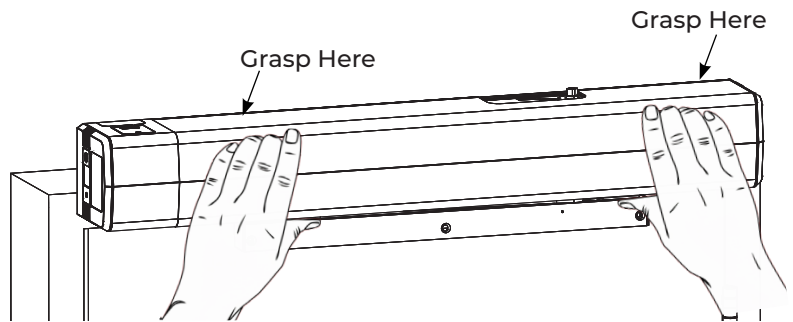


Fig. 2

C. 6011/6051 PULL Unit: Disconnect Arm from Pinion.

1. Open door.
2. Using a flat head screw driver, pull out clip in track slider. (Fig. 3)
3. Pull up slightly on arm so arm stud comes out of slider. (Fig. 3)



CAUTION: Arm will immediately start to move toward door frame.

4. Remove screw and countersunk washer using a Phillips screw driver. (Fig. 4)
5. Using an adjustable wrench, rotate top pinion 45 degrees toward door hinge and hold. (Fig. 5)
6. Slide arm off pinion and release adjustable wrench.

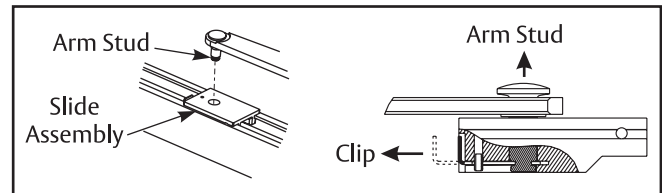


Fig. 3

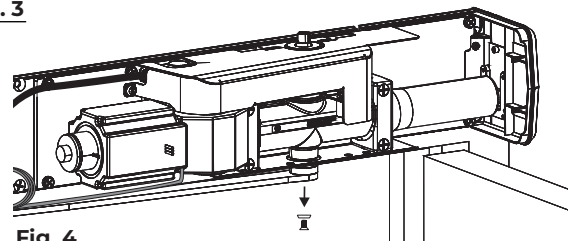


Fig. 4

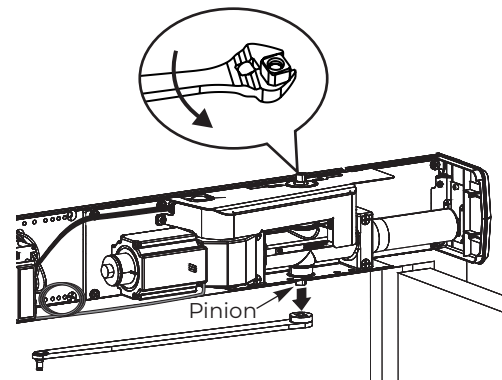


Fig. 5

Prepare Unit for Replacement Operator LAP (cont.)

D. 6021/6031/6061/6071 PUSH Unit: Disconnect Arm from Pinion.

1. Open the door.
2. Using a 7/16" wrench, remove pinion screw holding main arm on pinion. (Fig. 6)
3. Using a 7/16" wrench, loosen forearm screw in main arm rod and adjusting tube so that main arm can slide out of tube. (Fig. 7)
4. When pinion and main arm rotate so main arm is perpendicular to door, slide main arm off of pinion.



CAUTION: Arm will immediately start to rotate.

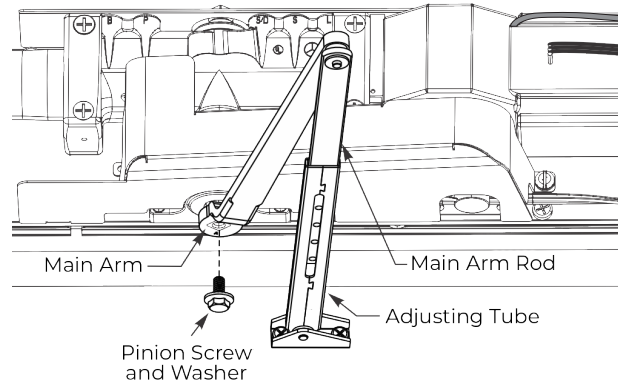


Fig. 6 6021/6031 Arms Shown

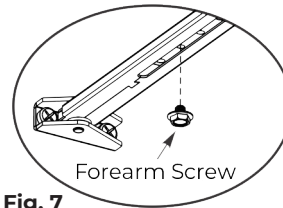


Fig. 7

E. Turn off power to unit.

1. Turn On/Off switch to OFF position on conduit assembly. (Fig. 8)

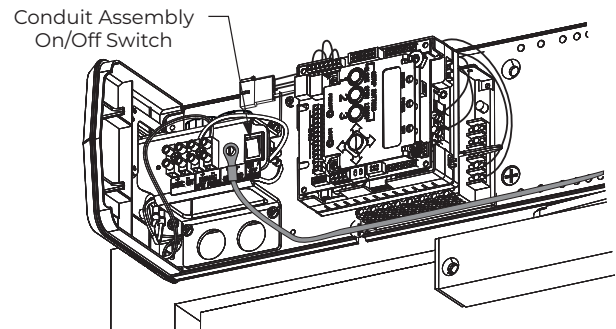


Fig. 8 Union Assembly and Spacer not shown

Replace Operator LAP

A. Disconnect Operator LAP from Power Module Sub-assembly.

1. Detach 10-pin black connectors between operator LAP and power module sub-assembly. (Fig. 9)
2. Detach 3-pin white connectors between operator LAP and power module sub-assembly. (Fig. 9)
3. Remove the screw fastening the motor ground wire and remove the wire from the conduit assembly. **Do not discard screw.** (Fig. 9)

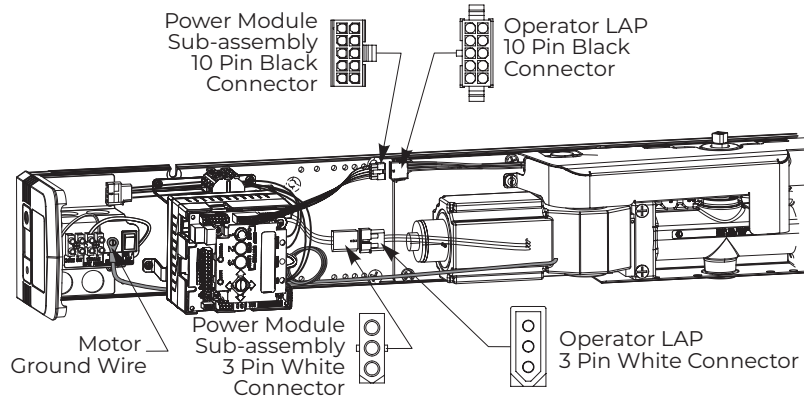


Fig. 9

B. Remove Operator LAP.

1. Remove the six (6) 1/4-20 x 1/2" Phillips head screws securing LAP to backplate. (Fig. 10)
2. Loosen the two (2) protruding screws and lift LAP off of unit. (Fig. 11)

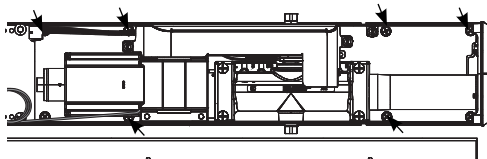


Fig. 10 6 LAP Mounting Screws

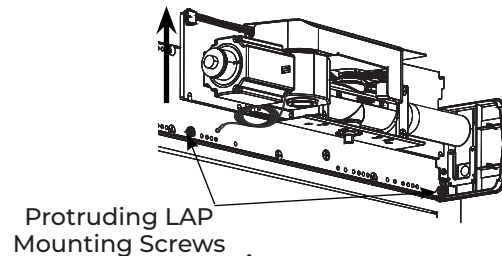
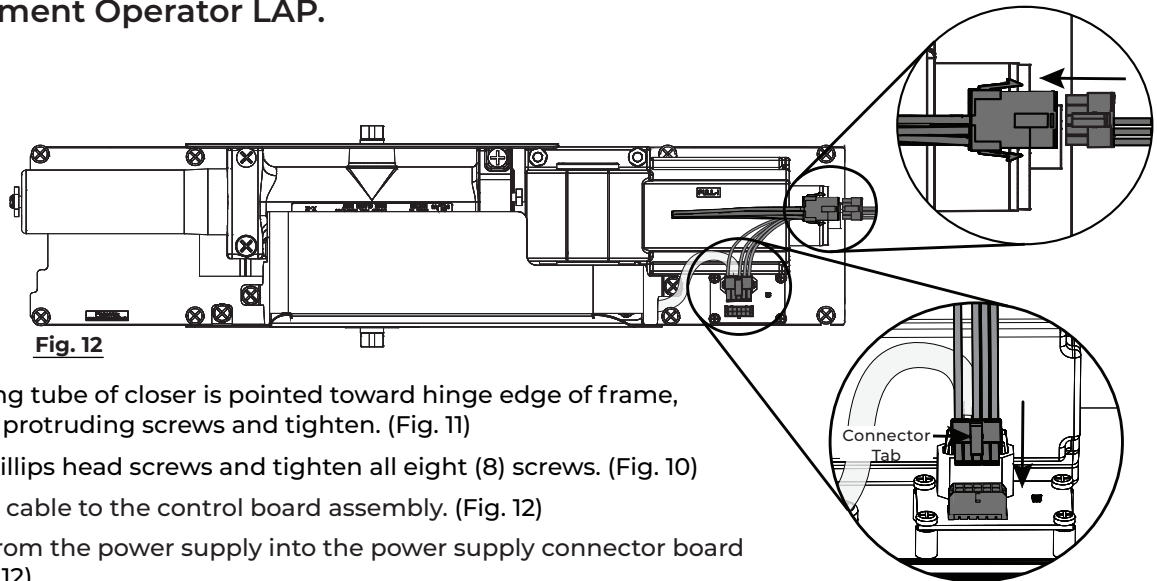


Fig. 11

C. Install Replacement Operator LAP.

1. Orienting LAP so spring tube of closer is pointed toward hinge edge of frame, slide LAP over two (2) protruding screws and tighten. (Fig. 11)
2. Replace the six (6) Phillips head screws and tighten all eight (8) screws. (Fig. 10)
3. Reconnect the motor cable to the control board assembly. (Fig. 12)
4. Plug the connector from the power supply into the power supply connector board on the MPS LAP. (Fig. 12)



NOTE: The tab on the power supply connector should be facing away from the LAP motor. Connectors are keyed and only attach one way.

Reconnect Arm

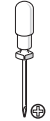
6011/6051 PULL Unit



1. Open door.
2. Using an adjustable wrench, rotate top pinion 45 degrees toward door hinge. You will feel resistance from spring. (Fig. 13)
3. **While holding pinion at 45 degrees**, slide arm on bottom pinion parallel to frame as shown. (Fig. 13)



NOTE: Pinion flat should be aligned as shown. (Fig. 14)



4. Secure arm to pinion with 1/4-20 x 1/2" screw and countersunk patch washer. (Fig. 13)
5. Insert stud on arm into slider in track by pressing clip on backside of slider onto stud. (Fig. 15)



6. To adjust track stop:
 - Use allen wrench to loosen set screw in bumper stop.
 - Open door to full open position.
 - Slide bumper stop until it just touches end of slider.
 - Tighten set screw in bumper stop so bumper will stay in position. (Fig. 16)

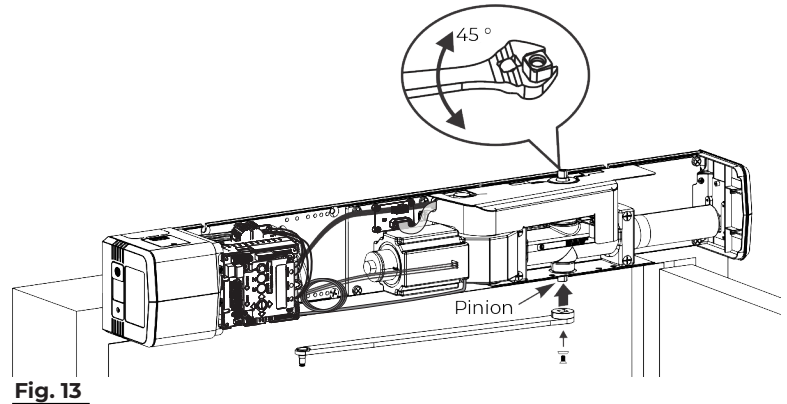


Fig. 13

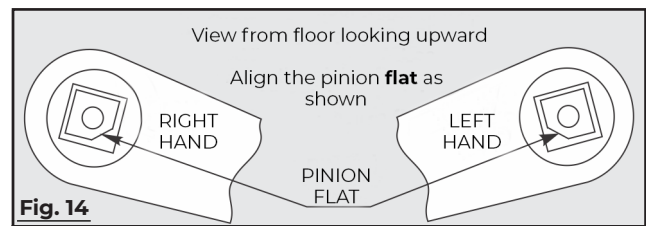


Fig. 14

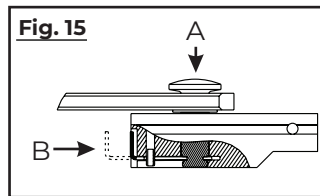


Fig. 15

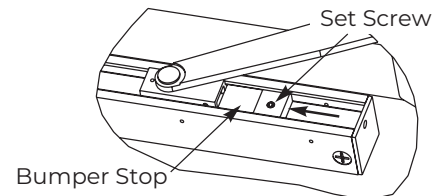


Fig. 16

6021/6031/6061/6071 PUSH Unit



1. Place square of main arm onto closer pinion. (Fig. 17)

NOTE: Pinion flat should be aligned as shown. (Fig. 18)

2. Attach main arm to pinion with pinion screw and tighten with 7/16" wrench. (Fig. 17)
3. With door closed, rotate main arm away from hinge until adjusting tube is perpendicular (90 degrees) with door. (Fig. 19)
4. While holding arm in position, secure rod to adjusting tube with forearm screw. (Fig. 20)

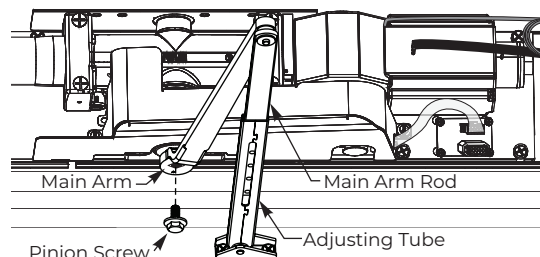


Fig. 17 6021/6031 Arms Shown

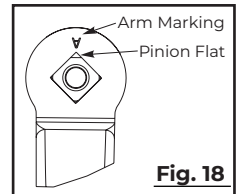


Fig. 18

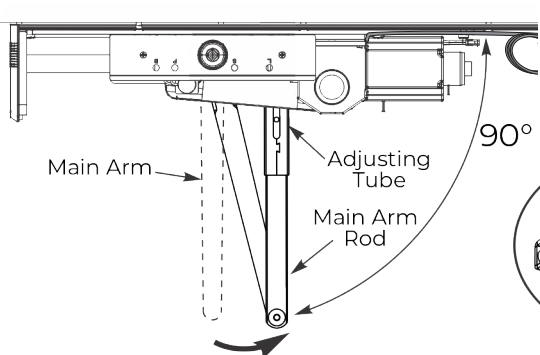


Fig. 19 View from ceiling looking downward

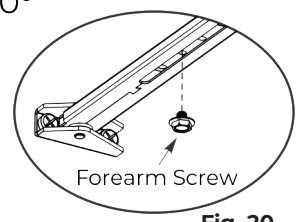


Fig. 20

Adjustments

A. Adjust mechanical closer features.

NOTES:

- Make necessary mechanical adjustments so unit functions as a standard surface mounted door closer before adjusting spring force, applying power, adding accessories or making electrical/programming adjustments.
- Valve location S/D is not adjustable.
- Chain protection plate cutouts allow access to valves. Use 1/8" hex wrench to make adjustments. (Fig. 21)

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

1. Closing Speed Controls (Fig. 21)

- Valve "S" controls Sweep Range from full open to 10°.
- Valve "L" controls Latch Range from 10° to closed.

2. Opening Cycle (Fig. 21)

- Valve "B" controls strength of cushioning in Backcheck Range.

! NOTE: NEVER close Backcheck valve completely – it is not to provide a positive stop.

- Valve "P" adjusts angle that backcheck is felt in open cycle. Factory preset is typically acceptable.

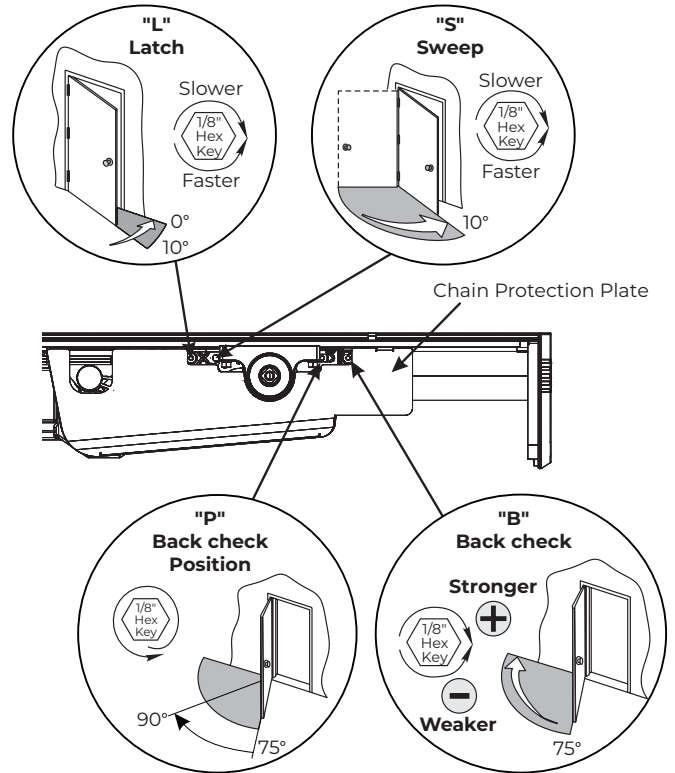


Fig. 21 View from ceiling looking down

B. Adjust spring force.

NOTES:

- The amount of effort to manually open or close a door is called force and is controlled by the operator's closer spring.
- Make necessary mechanical adjustments described in "A" above.
- A closer set to ADA required 5 lbs opening force may not be strong enough to close door due to latching hardware, air pressure, or frame issues.

Push Side Unit: Using an adjustable wrench or a ratchet with an 11/16" socket, turn the nut in end of closer body tube clockwise to increase or counterclockwise to decrease force until desired setting is reached. (Fig. 22)

Pull Side Unit: To adjust the spring force, access the Spring Force Adjustment Nut through the End Cap Access Door.

1. Remove the small torx head screw from end cap.
2. Slide the End Cap Access door, exposing the spring adjustment nut.
3. Using a ratchet with an 11/16" socket, turn the nut in end of closer body tube clockwise to increase or counterclockwise to decrease force until the desired setting is reached. (Fig. 23)
4. Once the desired force has been set:
 - Remove the ratchet.
 - Slide the end cap access door closed.
 - Replace the end cap screw.

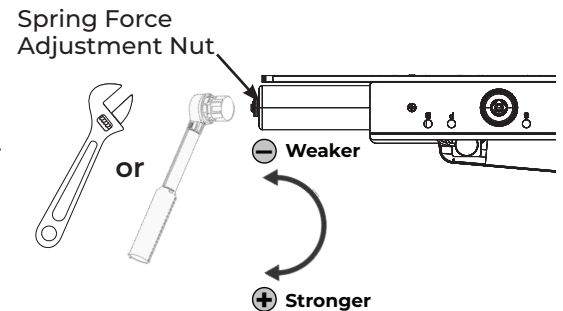


Fig. 22 View from ceiling looking downward

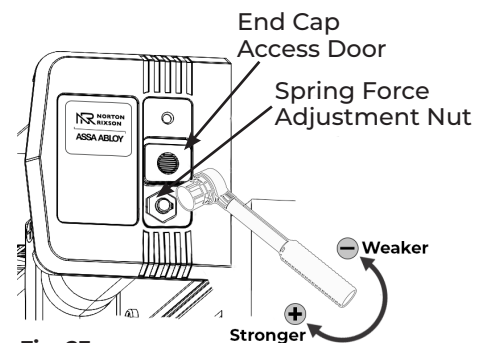
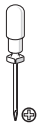


Fig. 23

Power Operator

1. Turn on building power.
2. Turn On/Off switch to "ON" position on conduit assembly. (Fig. 24)



WARNING: Door may begin to move immediately when power is applied. An open union assembly door on a PULL unit has potential to pinch fingers if hand is not withdrawn quickly when switching on power. (Fig. 26)

- To scroll through menu items, push up or down on joystick. (Fig. 24)
- To change setting of a menu item, when cursor is on that item, push joystick right to increase or left to decrease value.

NOTE: Values will auto-save 3 seconds after adjustments.

3. Set 'HOME' procedure for door.
 - With door closed and selector mode switch of union assembly in "OFF" position, use joystick to scroll down menu on LCD screen to "Home".
 - Push in on joystick to activate menu feature. Display changes to "Set Close Limit".
 - Push in on joystick again, while door is still closed, to set Home or closed position (Fig. 25). Display changes to "Set Open Limit".
 - Open door to desired open position (Fig. 25) and push in on joystick again. Display changes to "Closing to Home".
 - Allow door to fully close again (Fig. 25). Display changes to "Home".

NOTE: Values will auto-save.

4. Make necessary adjustments to inverter and add required accessories.
5. Place selector mode switch of union assembly in 'ON' position for activation by push plate, RF button, or other activation devices. Place switch in 'H/O' for continuous hold open. (Fig. 26) Secure union assembly door with #4 Phillips screw when finished.



WARNING: Door may begin to move immediately when selector mode switch is changed. An open union assembly door on a PULL unit has potential to pinch fingers if hand is not withdrawn quickly when adjusting switch. (Fig. 26)

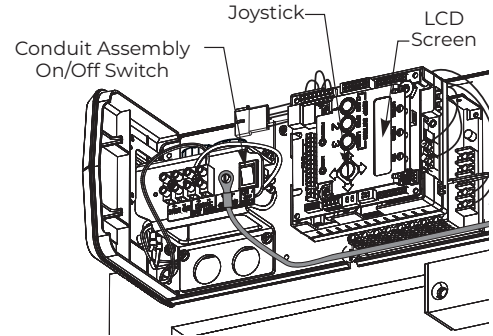


Fig. 24 Union Assembly and Spacer not shown

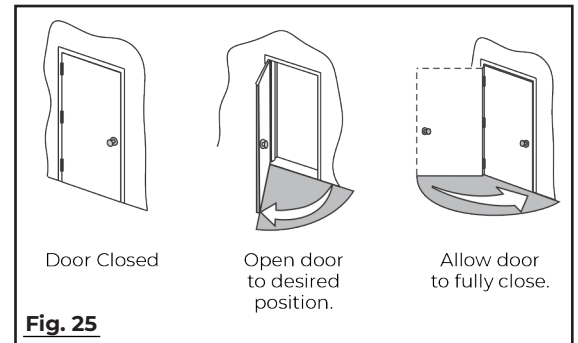


Fig. 25

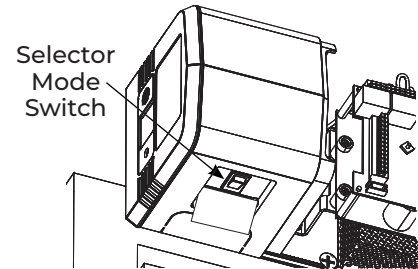


Fig. 26

Finalize Installation

Attach Cover to finalize installation

1. Align cut-outs in cover to pinion shafts.
(Fig. 27)
2. Slide cover onto unit using end cap and union spacer as guides.
NOTE: Verify all wiring and sheet metal guards are inside cover.
3. Snap cover securely to backplate. Pull on cover to verify it is secure.

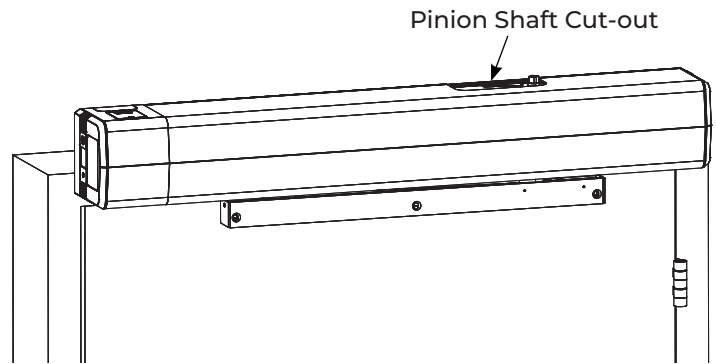


Fig. 27



WARNING: Make sure no wiring is loose or can be caught by cover when it is snapped into place.

The **6011 or 6021 Operator LAP** has now been replaced.