

# 6300 Series Full Feature Low Energy Operator

## Model 6331 (Push Side)

### Installation Instructions

**Norton®**  
**ASSA ABLOY**

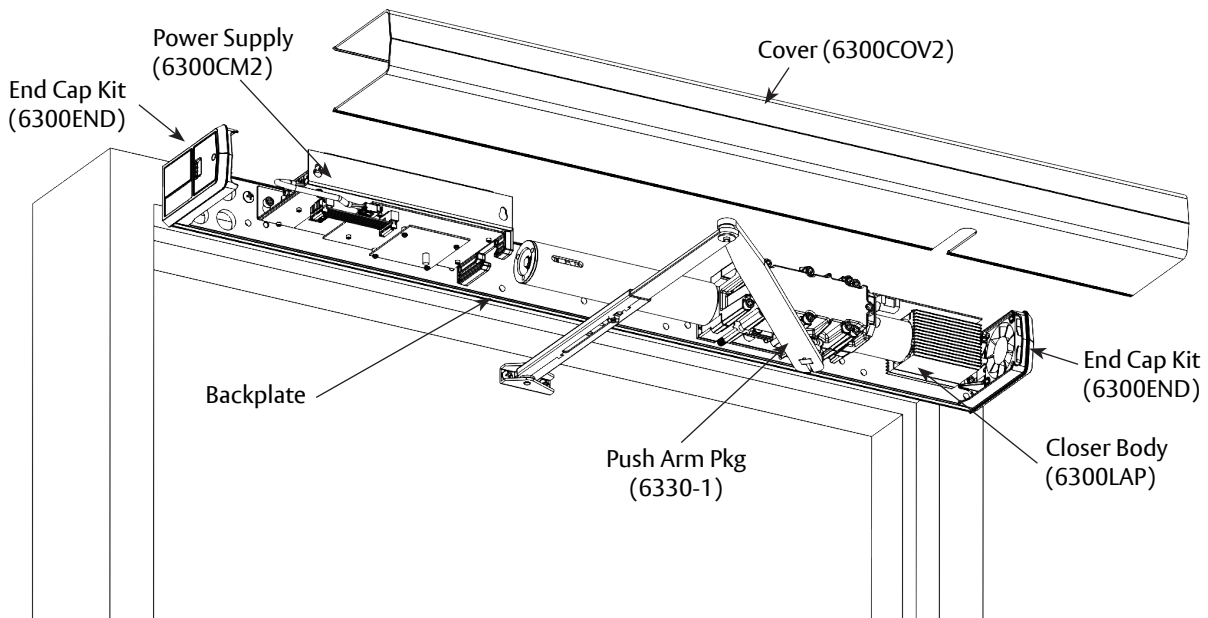
**⚠ WARNING**

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](http://www.P65warnings.ca.gov).

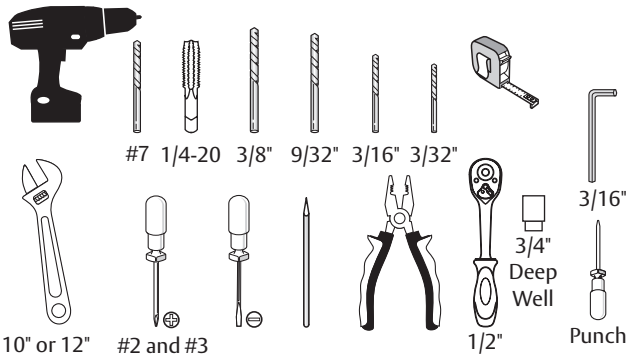
Pour la version française voir [www.nortondoorcontrols.com](http://www.nortondoorcontrols.com).

**READ AND FOLLOW ALL INSTRUCTIONS. SAVE THESE INSTRUCTIONS.**

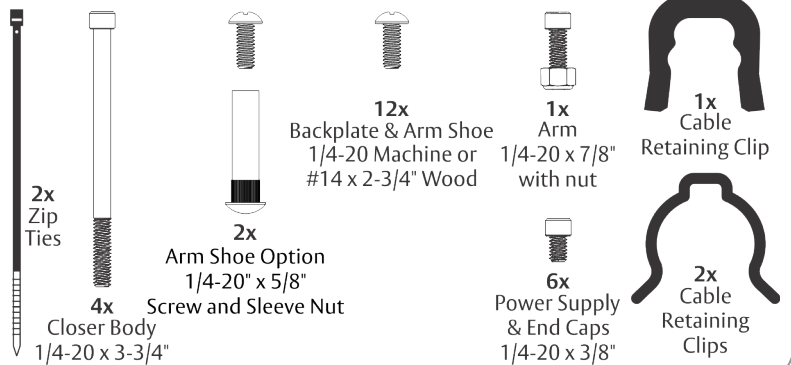
### 6331 Push Side 110° to 135° opening



## Tools Needed



### Supplied Fasteners



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## Certifications and Standards

- ETL Certified: Operator conforms to ANSI/UL standard 325 for automatic closing doors and UL10C Positive Pressure Fire Test for Door Assemblies.
- ANSI A156.19: These products are designed to conform to this specification “for power assist and low energy power operated doors.” These products are designed to exceed all the requirements for “Low Energy Power Operated Door”.
- Americans with Disabilities Act (A.D.A.): These door operators can be installed and adjusted to conform with A.D.A. regulations.
- ANSI A117.1: These door controls permit door assemblies to conform to the requirements of this specification “for buildings and facilities - providing accessibility and usability for physically handicap people”.

## Technical Data

Input power:	120VAC, 60Hz 3.0A
Power supply:	24 V DC, max. 6.5 Amp. ; 1.3A Available for Acc.
Door width:	36 - 48" (91-122 cm)
Door weight:	90-200 lb. (41-91 kg)
Push min angle:	110° with reveal of 6-3/4" max
Push max angle:	130° with reveal of 1/8" min
Pull max angle:	180°
Hold open time:	5-30 seconds (A.D.A. 5 seconds min.) Indefinite for Hold Open Input or Endcap 3 Position Switch

### Notes:

- Permanent wiring is to be employed as required by local codes.
- Activation devices: push plates, access control, mats, touchless wall switches, etc.
- Maximum wire size is:  
12AWG at terminals LINE and NEUTRAL  
(120VAC; 60Hz) on Power Input Terminal  
14AWG at all other terminals

## Product Safety Warnings

**WARNING:** To reduce risk of injury to person, use this operator only with Pedestrian Swing doors. **FOR INDOOR USE ONLY**

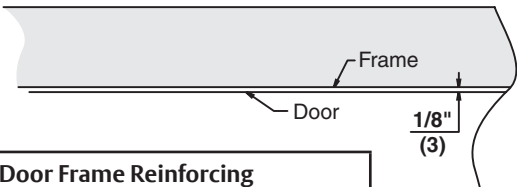
1. READ AND FOLLOW ALL INSTRUCTIONS.
2. Install only on a properly operating and balanced door. A door that is operating improperly could cause severe injury. Have qualified service personnel make repairs to any hardware before installing the operator.
3. Remove, or make inoperative, all locks (unless mechanically and/or electrically interlocked to the power unit) that are connected to the door before installing the operator.
4. Do not connect the door operator to the source power until instructed to do so.
5. Never let children operate or play with door controls. Keep remote control (when provided) away from children.
6. Personnel should keep away from a moving door in motion.
7. Test door's safety features at least once a month. After adjusting either force or limit of travel, retest door operator's safety features. Failure to adjust operator properly may cause severe injury or death.
8. KEEP DOOR PROPERLY OPERATING. See Door Manufacturer's Owner's Manual. An improperly operating door could cause severe injury or death. Have a trained door systems technician make repairs.
9. SAVE THESE INSTRUCTIONS.

Before You Begin

- Thickness recommended for reinforcements in hollow metal doors and frames is charted.
- This template information based upon use of 5" maximum width butt hinges.
- Maximum frame reveal is 1/8" up to 6-3/4" maximum for 6331 units.
- Before beginning the installation, verify that the door frame is properly reinforced and is well anchored in the wall.
- Concealed electrical conduit and concealed switch or sensor wires should be pulled to the frame before proceeding.

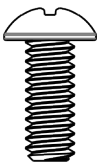
Fasteners for Frame:

- 1/4-20 Machine screws for hollow metal and aluminum.
- No. 14 x 2-3/4" (70mm) long sheet metal screws for wood.



Hollow Metal Door Frame Reinforcing		
Frame Material	Reinforcing	
	Recommended	Min. Required
12 Ga. .1046 (2.66)	12 Ga. .1046 (2.66)	18 Ga. .0478 (1.21)
14 Ga. .0747 (1.90)	10 Ga. .1343 (3.41)	12 Ga. .1046 (2.66)
16 Ga. .0598 (1.52)	10 Ga. .1343 (3.41)	12 Ga. .1046 (2.66)
18 Ga. .0478 (1.21)	8 Ga. .1644 (4.18)	10 Ga. .1343 (3.41)

Installation



A. Mount backplate.

1. Determine right hand or left hand installation. (Figure 1)
2. Measure and mark first mounting hole according to template. (Figure 2)
3. Attach backplate to frame with screw.  
Do not fully tighten screw at this time.

For Metal Frames:

Use #7 drill and 1/4-20 tap for 1/4-20 machine screws.

For Wood Frames:

Use 3/16" drill and supplied screws for self drilling, self tapping screws.

4. Ensure backplate is level and aligned with door frame. (Figure 3)
5. Using backplate as guide, mark and drill second hole. (Figure 3)
6. Insert second screw and tighten both screws.
7. Using backplate as a guide, drill and tap remaining eight (8) holes in frame. (Figure 3)
8. Secure with eight (8) screws and tighten.

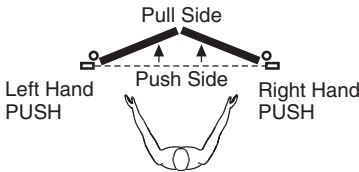


Figure 1

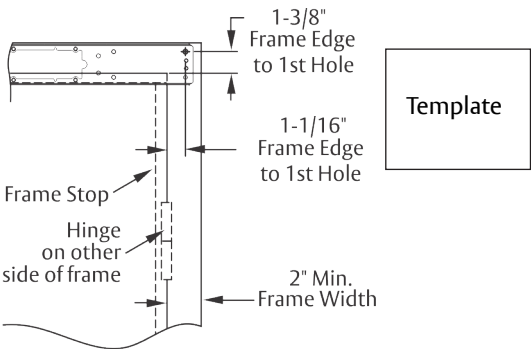


Figure 2 Right Hand Shown

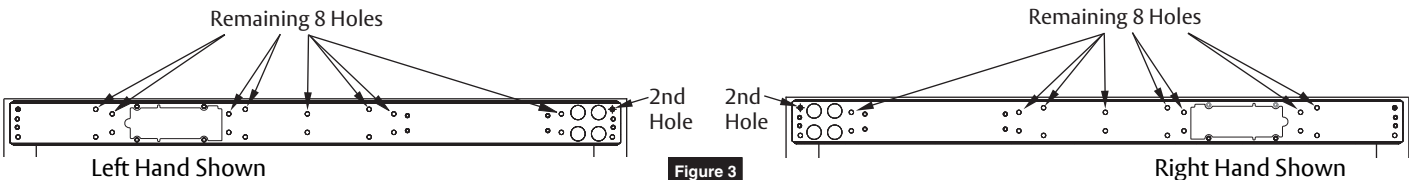
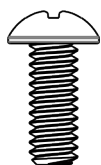
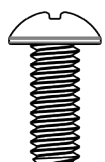


Figure 3



OR



## B. Mount arm tube with shoe.

1. Measure and mark first arm mounting hole using template. (Figure 4)
2. Drill holes.
  - a. For reinforced doors, drill and tap holes with #7 drill and 1/4-20 tap.
  - b. For wood doors or self-drilling screws, use 3/32" drill.
  - c. For sleeve nuts and bolts, see illustration. (Figure 5)
3. Mark and drill second hole using arm tube shoe as template.
4. With longer side of arm shoe toward hinge, secure arm tube to door. (Figure 6)

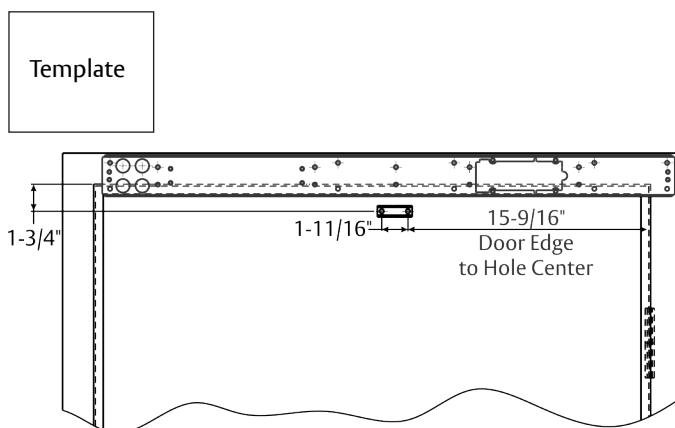


Figure 4

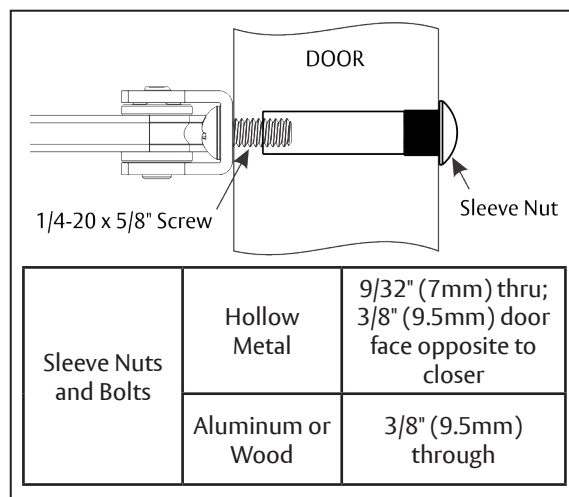


Figure 5

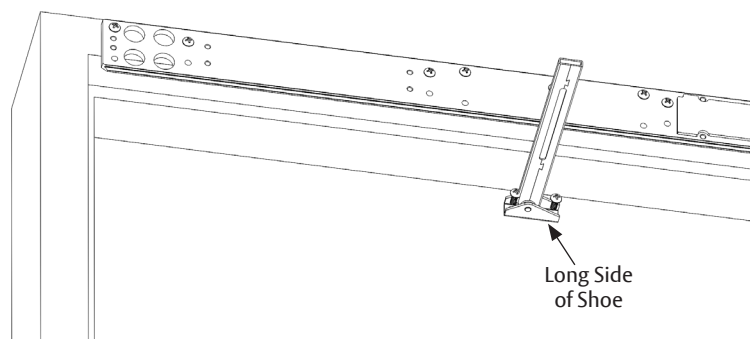
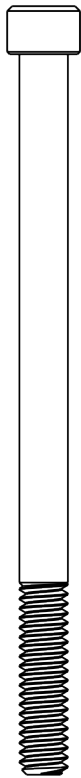


Figure 6



## C. Install closer body assembly.

1. Using four (4) screws, install closer body to backplate. (Figure 7)

**Note:** Screws must be tightened in a cross pattern until all four (4) screws are tight. (Figure 7)

2. Using three (3) supplied cable management clips, secure cables along closer body. (Figure 8)

**NOTE:** Closer body is in proper orientation for PUSH SIDE application when tube is NEAR backplate. (Figure 7)

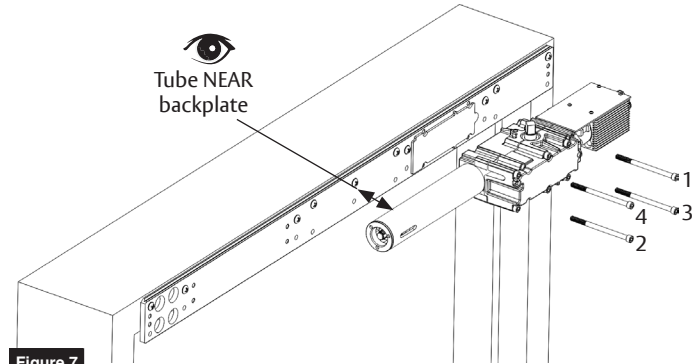


Figure 7

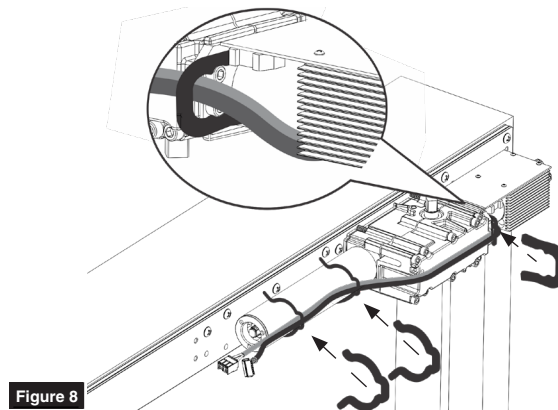
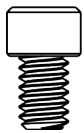


Figure 8



## D. Install power supply assembly.

1. Insert two (2) screws. Leave 3/16" gap between head of screw and backplate. (Figure 9)

2. Slide power supply key holes over screws allowing narrow slots of key holes to rest on screws. (Figure 9)

**NOTE:** Narrow slots of key holes are always at top and control board is always at bottom for proper installation. (Figure 9)

3. Tighten screws.
4. Plug motor and ribbon cables from closer body into power supply. (Figure 10)

### NOTE:

- Use slot in power supply to feed connectors to board. (Figure 10)
- Use provided zip ties to manage any excess cable between closer and power supply so that cover can be attached without damaging cables. (Figure 10)

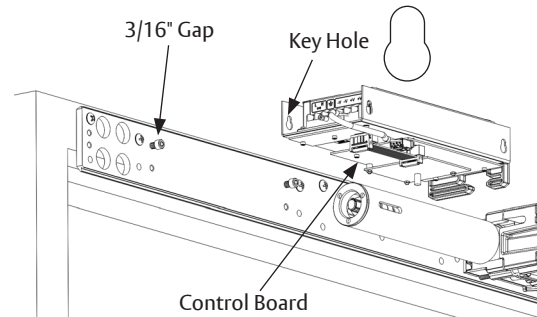


Figure 9

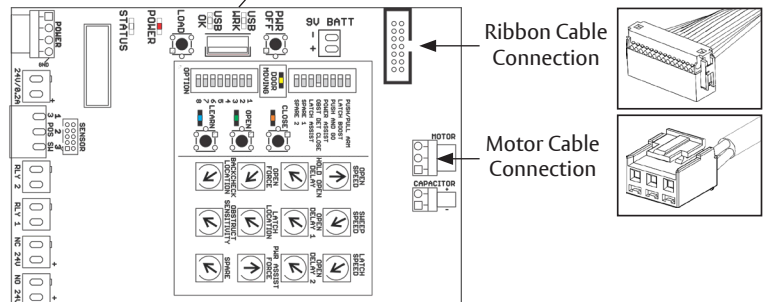
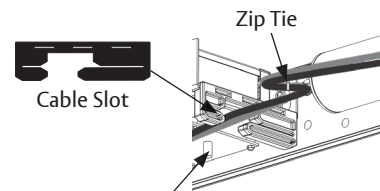


Figure 10



### E. Install end caps.

1. Install two (2) screws on each end of backplate leaving about 3/16" gap between head of screw and backplate. (Figure 11 & 12)
  2. Slide end caps behind screw heads and tighten screws. (Figure 11 & 12)
- NOTE: End cap with 3-position switch is always located on conduit side of backplate.**
3. Connect switch to power supply. (Figure 11)
  4. Connect fan to closer body. (Figure 12)

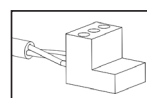
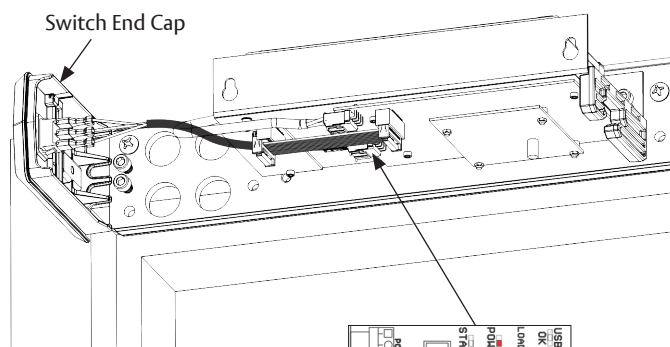


Figure 11

Switch Cable Connection

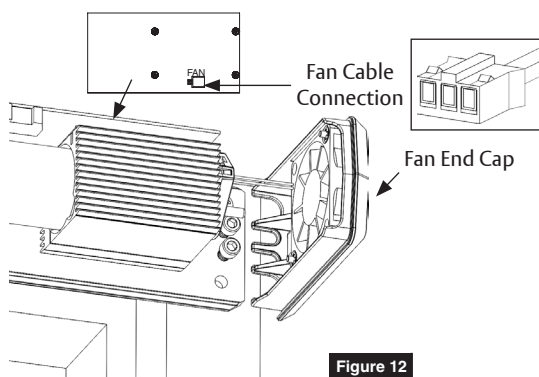
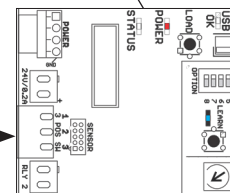


Figure 12



### F. Install main arm.

1. Using hex wrench, secure main arm to bottom pinion with screw and nut. (Figure 13)
2. Slide main arm rod into tube arm. (Figure 13)

**NOTE: If necessary, open door for rod to slide into tube.**

3. With door fully closed, rotate main arm toward latch edge of door until arm tube is at 90° angle (perpendicular) to door. (Figure 14)
4. Use arm screw provided with main arm to secure rod to tube. (Figure 14)

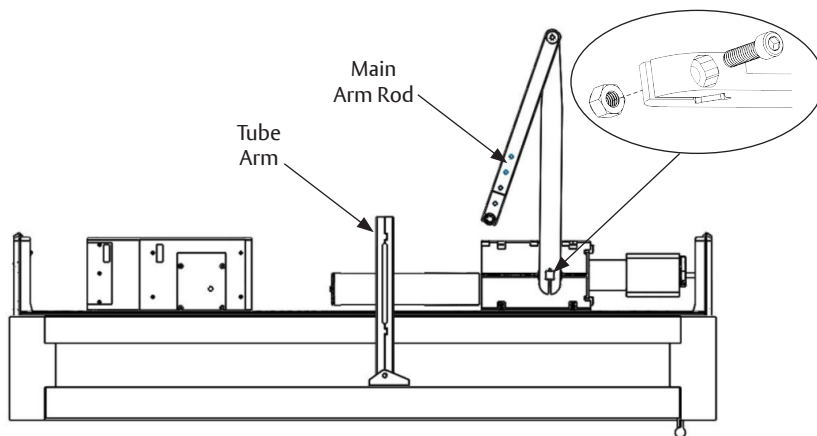


Figure 13 View: Looking up from floor

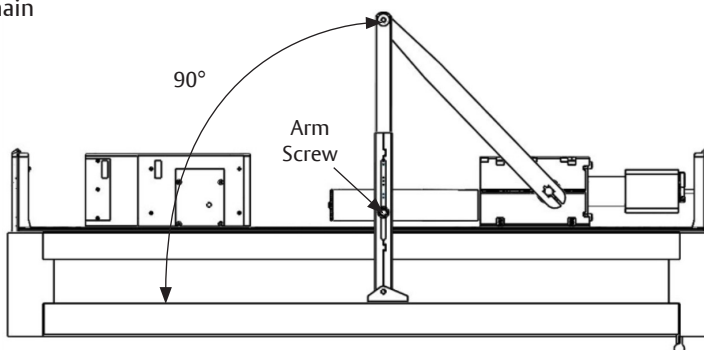


Figure 14 View: Looking up from floor

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## G. Adjust closing force.

**NOTE:** The amount of effort to manually open or close a door is called closing force.

1. Using 1/2" socket wrench with 3/4" deep well socket, turn nut in end of closer body tube to desired force. (Figure 15)

**NOTE:** Window in closer tube shows spring. (Figure 16)

**NOTE:** If additional closing force is only required in latching region, see Latch Boost and Lock Release features in separate programming manual 80-9363-0015-020.

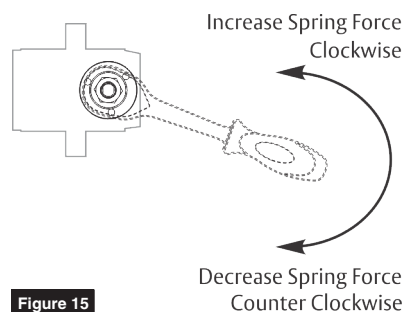


Figure 15

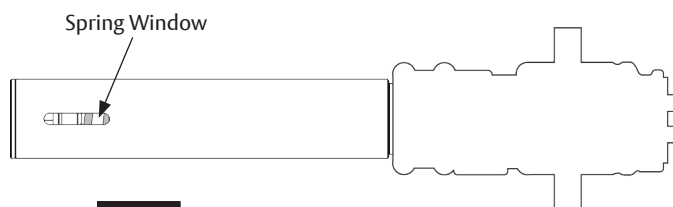


Figure 16

## H. Attach cover and end cap label plates.

**NOTE:** Attach cover after initial programming has been done. See separate programming manual 80-9363-0015-020.

1. Align cut-outs in cover to pinion shafts. (Figure 17)
2. Slide cover onto unit using end caps as guides.
3. Snap cover securely to back plate.
4. Attach a Norton label plate to each end cap by snapping into place by hand with gentle pressure. (Figure 17)

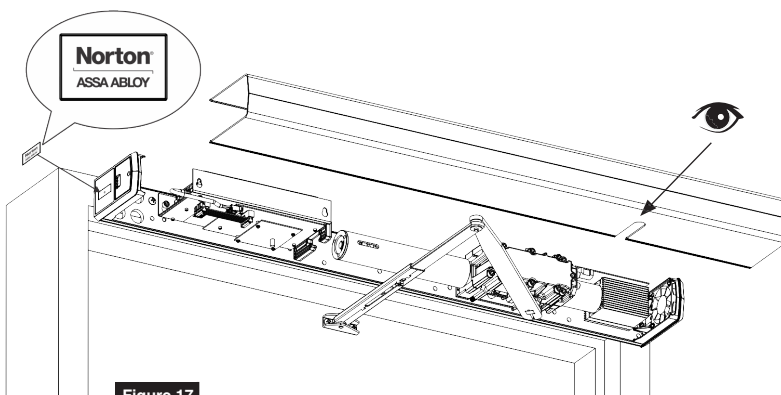


Figure 17

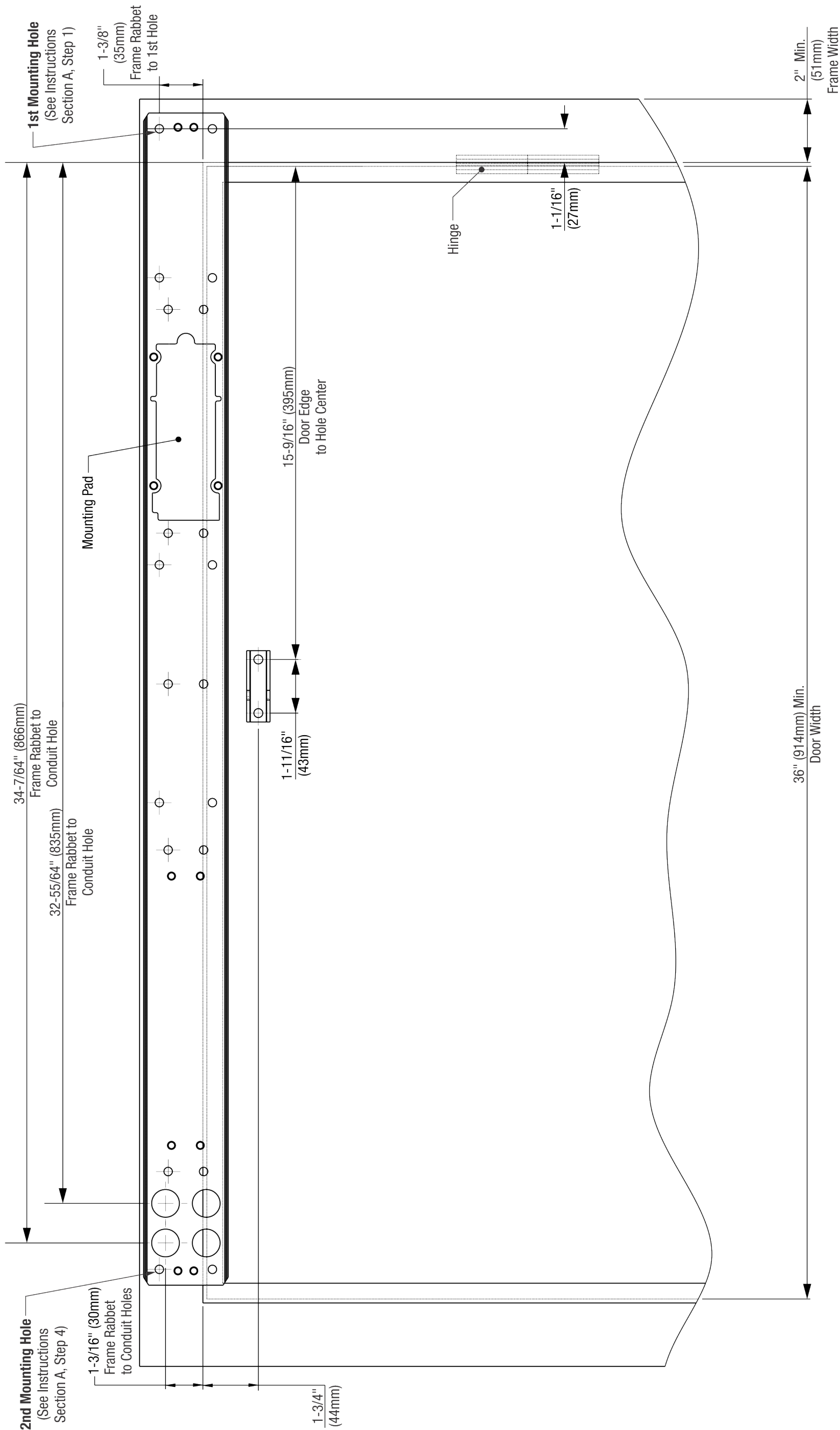


**WARNING:** Make sure no wiring is loose or can be caught by cover when it is snapped into place.

**You've now installed the 6331 PUSH SIDE Low Energy Operator.**  
Continue with separate Programming Manual 80-9363-0015-020 to set up and adjust operator.



6331 Series Template  
Push Side Application ONLY  
Right Hand Door Shown



**NOTE:**  
Ten (10) mounting holes and two (2) conduit holes to be drilled are shown with center marks.   
Dimensions given in inches (") and millimeters (mm).