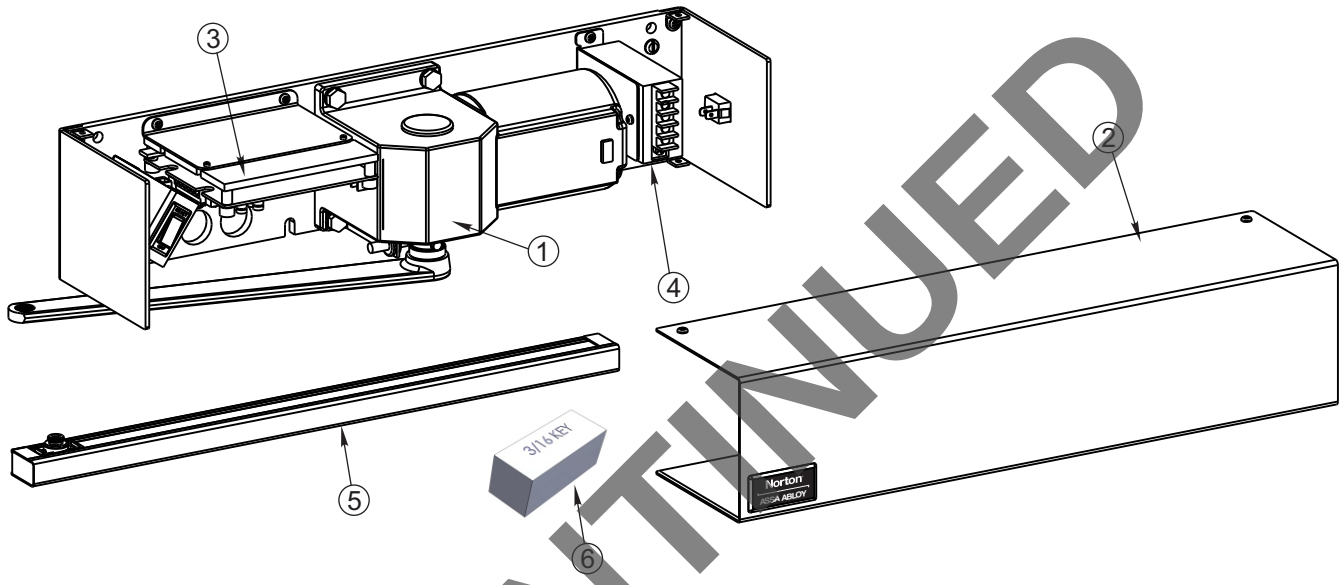
5600 Series
Power Operator
Installation and Instruction Manual



DISCONTINUED

Item No.	Description
1	Motor (5600M)
2	Cover (5600COV)
3	Control Inverter (5600IN)
4	Power Supply 24VDC (5600PS)
5	Track Assembly (5610-1)
6	3/16 Replacement Motor Key (5600KEY)

Tools required:

- Allen wrench set (inch)
- Flat blade screwdriver (potentiometer & terminal size)
- Screwdriver (Phillips size 2)
- Tape ruler
- Power drill
- Center punch
- Wire stripper
- #7 drill 1/4-20 tap (metal frame install)

Use screw pack and hardware provided to mount operator.

WARNING: To reduce the risk of injury to person, use this operator only with: Pedestrian Swing doors.

ETL certified; conforms to ANSI/UL standard 325 for automatic closing doors.

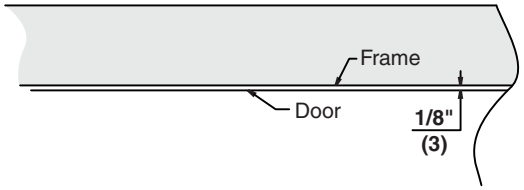
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Door Prep

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)

Fasteners for Frame

- 1/4-20 Machine screws for hollow metal and aluminum.
- No. 14x2-3/4" (70mm) long sheet metal screws for wood.



Templating is based on 1/8" gap between door and frame.

Notes:
- All dimensions are given in inches.
- Thickness recommended for reinforcements in hollow metal doors and frames is charted at the left of this page.
- Do not scale drawing.
- This template information based upon use of 5" maximum width butt hinges.
- Maximum frame reveal is 4" for this application.
- Before beginning the installation, verify that the door frame is properly reinforced and is well anchored in the wall.
- Unreinforced hollow metal frames and aluminum frames should be prepared and fitted with 1/4-20 blind rivet nuts, furnished by others.
- Concealed electrical conduit and concealed switch or sensor wires should be pulled to the frame before proceeding.

Technical Data

Input power:	120VAC, 60Hz
Power consumption:	.6 amps
Circuit breaker:	5 amps
Power supply:	24 V DC, max. 1.1 Amp.
Door width*:	32-36" (81-91cm)
Door weight:	100-150 lb. (45-68 kg)
Door opening angle:	Pull arm: 80° - 95°, with reveal 0 - 1/8" (0 - 3 mm)
Hold open time:	0-30 seconds (A.D.A. 5 seconds min.)

*Interior Doors Only

Notes: Input connections - torque to 4.8 in/lbs (.55nm)
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 HOT and COM (120VAC; 60Hz) on “T1” Power Input Terminal.
14AWG at terminals 1 thru 4 on Accessory Terminal .

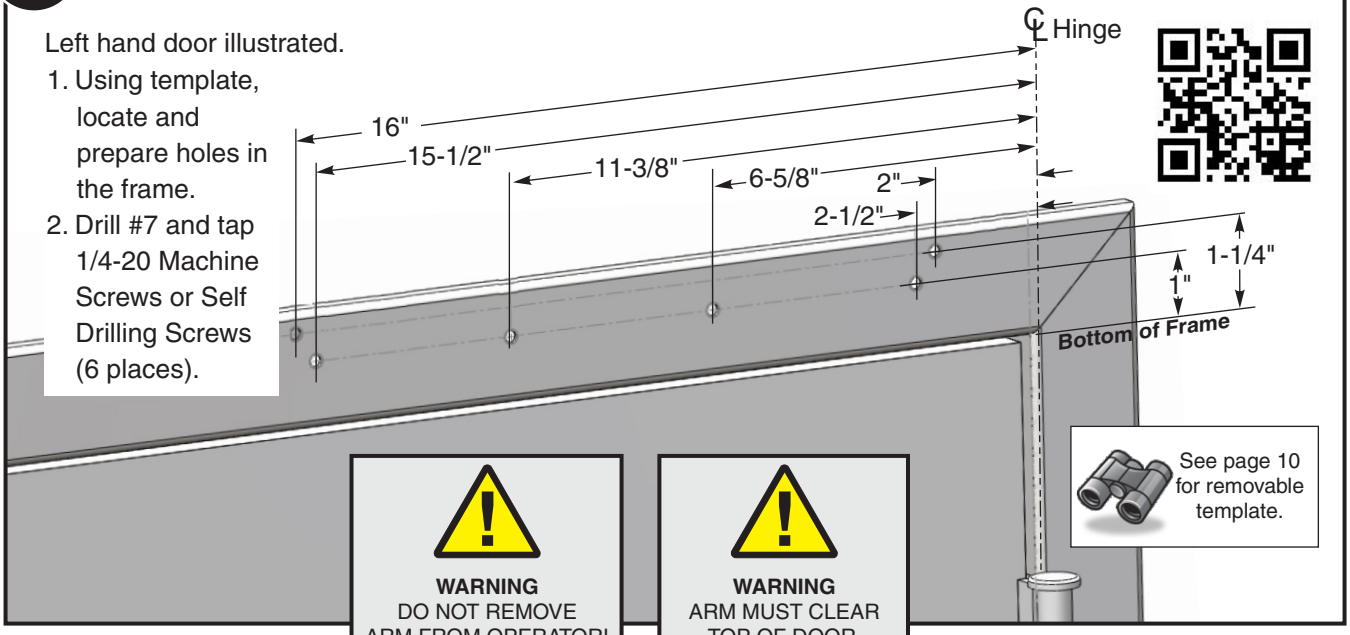
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1 Operator Mounting

Left hand door illustrated.

1. Using template, locate and prepare holes in the frame.
2. Drill #7 and tap 1/4-20 Machine Screws or Self Drilling Screws (6 places).

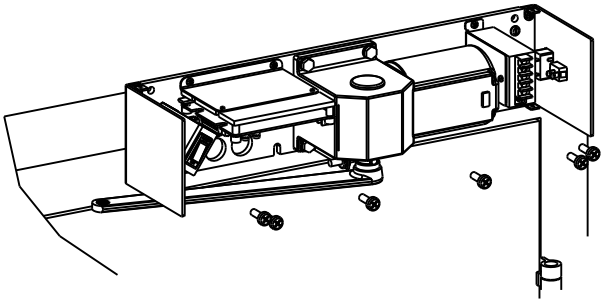


See page 10 for removable template.

WARNING
DO NOT REMOVE ARM FROM OPERATOR!

WARNING
ARM MUST CLEAR TOP OF DOOR.

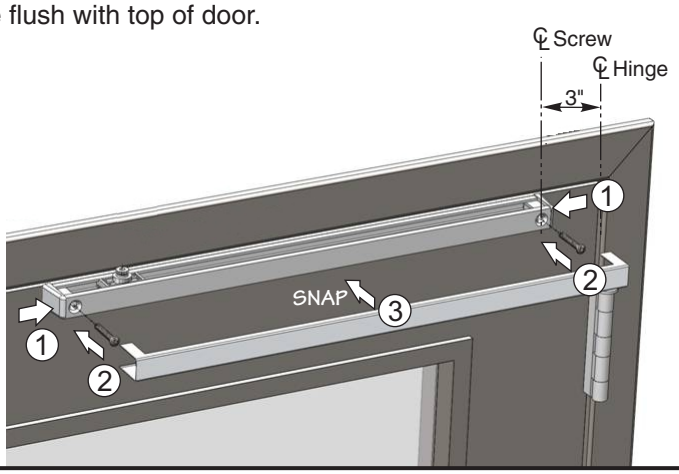
2 Attach Operator



Attach operator to frame using supplied screws.

3 Track Mounting

- Using template, locate and mount track.
- Track MUST be flush with top of door.



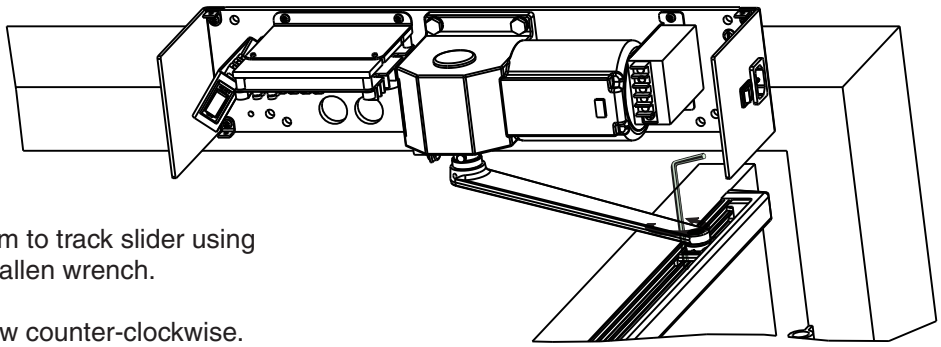
1 - Insert end caps
2 - Attach screws
3 - Snap on track cover

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80-9356-0001-020 (02-14)

4 Attach Arm



Attach arm to track slider using provided allen wrench.

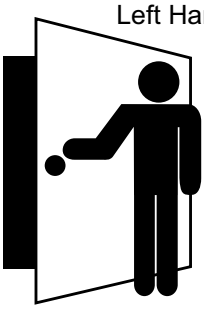
Turn screw counter-clockwise.

5 Determine Hand of Door

Right Hand

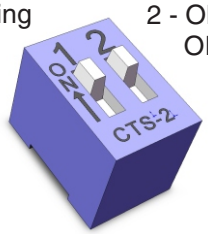


Left Hand

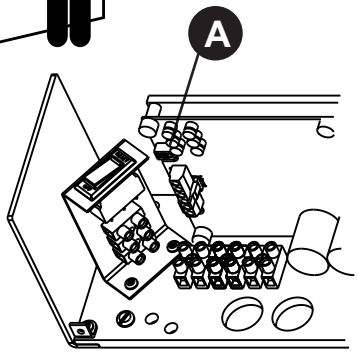


A

1 - Door Mounting
ON = RH
OFF = LH



2 - ON = Push & Go
OFF = Door Closer Mode

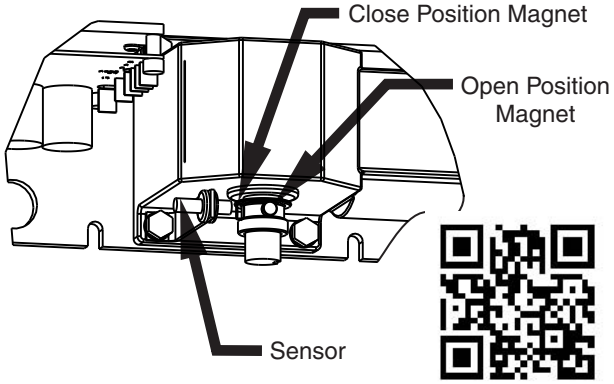


6 Adjustment of Closed and Open Position

Magnets are used to signal the unit at closed and fully open positions.

- With door in the closed position, slide Close Position Magnet so it aligns directly with the sensor.
- With door in the open position, slide Open Position Magnet so it aligns directly with the sensor.

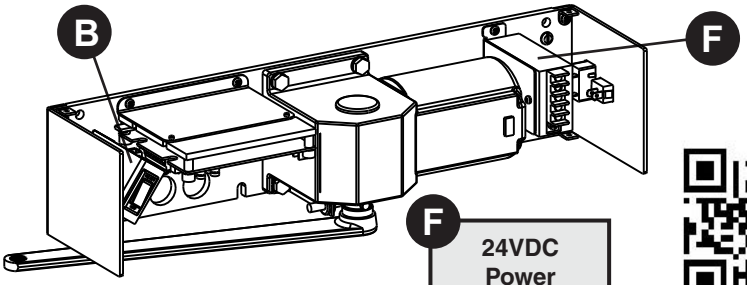
Note: Magnets must be adjusted to meet specific application needs. Latch and backcheck positions depend on magnet positions.



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7 Activation Connection

See wiring diagram examples on pages 7-9.



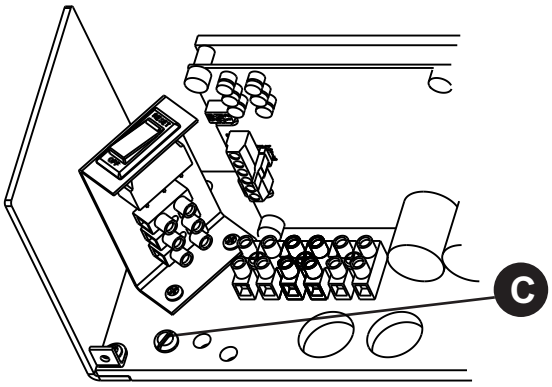
B

Signal input	1
Signal common	2
Relay output (K2)	3
Relay output (K1)	4
24 VDC (+)	5
24 VDC (-)	6

F

24VDC Power Supply for Powered Accessories

8 Grounding



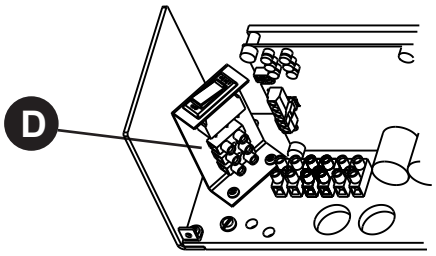
C

WARNING
UNIT WILL NOT FUNCTION CORRECTLY WITHOUT PROPER GROUNDING
GROUND WIRE MUST BE SECURED TO BACKPLATE UNDER HEAD OF (GREEN) GROUND SCREW LABELED “GND”.

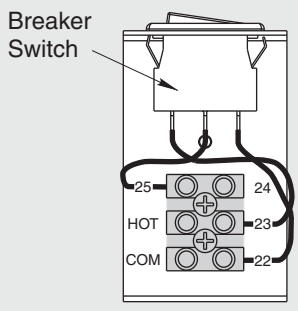
9 Power Connection

Input Wiring Instructions

Terminal	Description
COM	Common power lead (Neutral)
HOT	Hot power lead (120VAC, 60Hz)



D

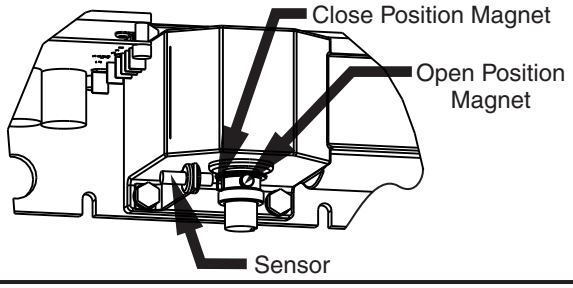


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10 Power-On Procedures

1. Align Close Position Magnet with sensor.
2. Turn power on at the Unit On/Off Switch located on the end cap.
3. Turn Breaker Switch to "Reset" (Breaker Switch shown in step 9). Red LED in breaker should be on and circuit board LEDs should illuminate.



11 Control Set-Up

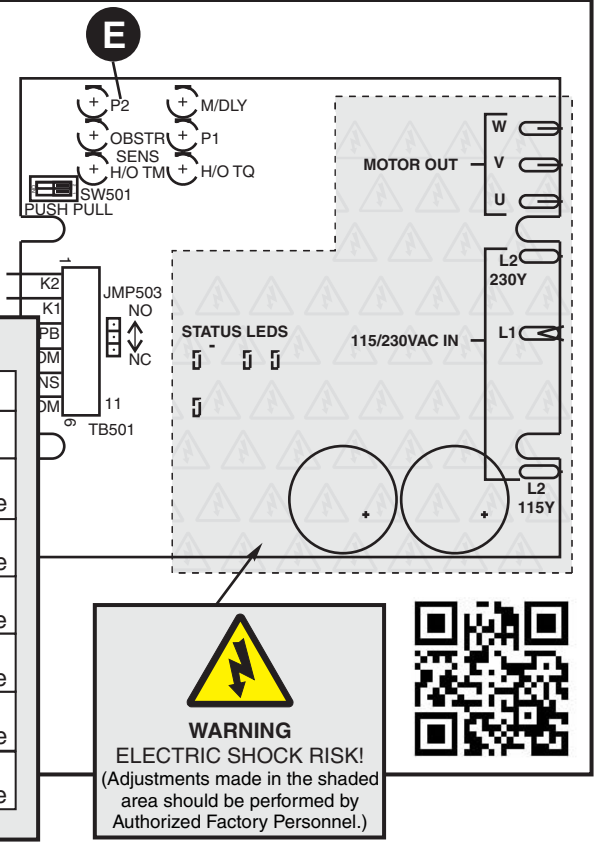
Inverter Control Board Adjustments:

` Based on function adjustment desired, use table below to determine which POT is to be adjusted.

Required: Magnets must be adjusted for specific application.

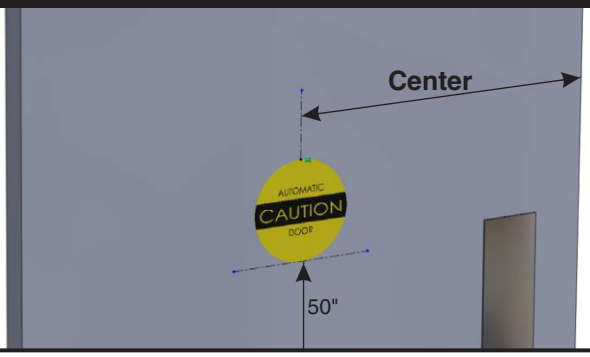
E

ADJUSTMENT TABLE		
POT	**DESCRIPTION**	**FUNCTION**
H/O TQ	Motor Torque at Hold Open Backcheck Position	CW - Increase CCW - Decrease
P1	Sweep Closing Force (90° - 20°)	CW - Increase CCW - Decrease
M/DLY	Motor Delay on Opening	CW - Increase CCW - Decrease
H/O TM	Hold Open Time (5 - 30 Seconds)	CW - Increase CCW - Decrease
OBSTR SENS	Obstruction Detection on Open	CW - Increase CCW - Decrease
P2	Latch Force (20° - 0°)	CW - Increase CCW - Decrease



12 Signage

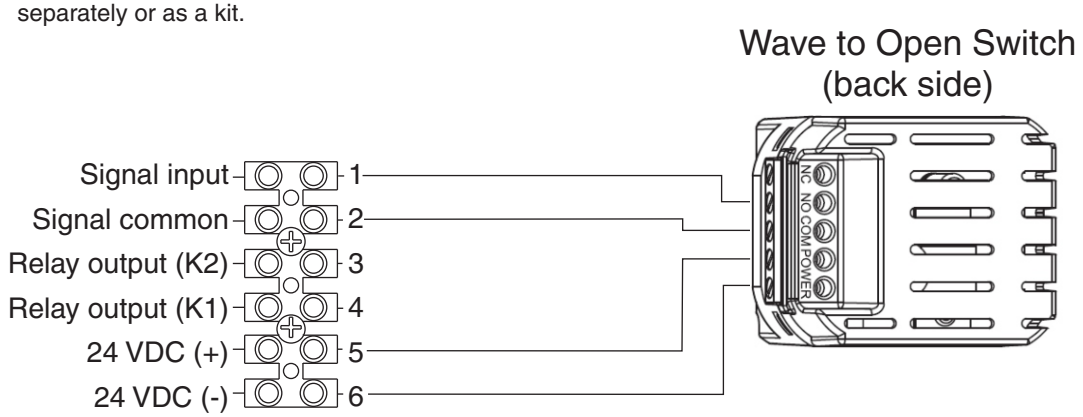
Affix "Caution" Labels on both sides of the door. Labels should be centered across the width of the door and 50" from the floor.



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Wave to Open Switch Wiring

Notes:
1. Power input to Door Operator Unit is at "T1" Power Input Terminal (not shown) 120VAC 60Hz.
2. Wave to Open Switch can be ordered separately or as a kit.

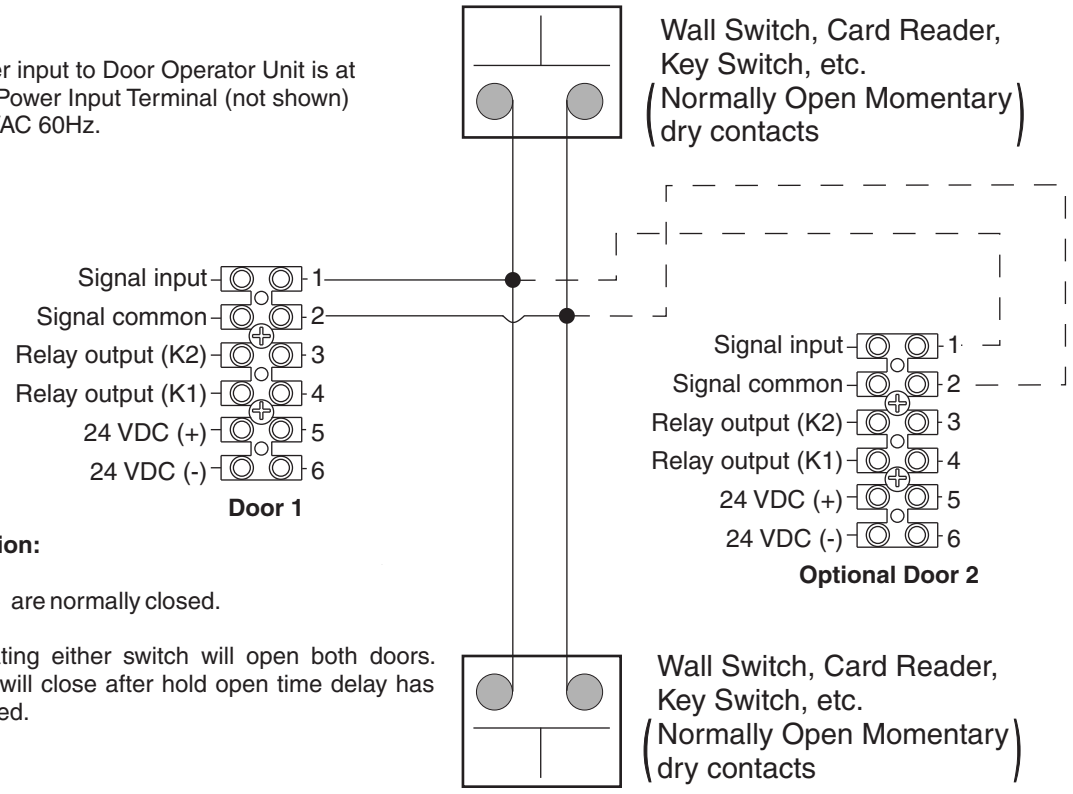


Operation:

Door is normally closed.
Activating Wave to Open Switch will open the door.
The door will close after hold open delay elapses.

Standard Function with Switches

Notes:
1. Power input to Door Operator Unit is at "T1" Power Input Terminal (not shown) 120VAC 60Hz.



Operation:

Doors are normally closed.

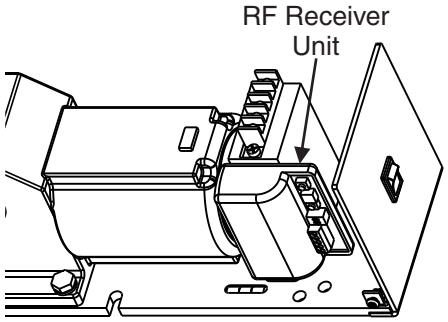
Activating either switch will open both doors. Door will close after hold open time delay has elapsed.

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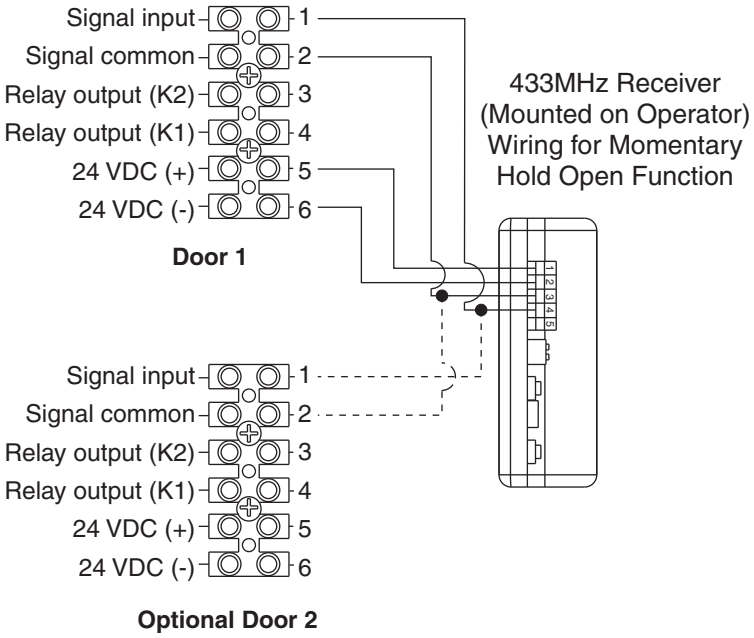
Radio Frequency Function Option

Notes:
1. Power input to Door Operator Unit is at "T1" Power Input Terminal (not shown) 120VAC 60Hz.

2. Radio Frequency Feature can be purchased as a separate kit and installed as pictured below.



Operation:
- Door is normally closed.
- Activating wireless switch or hand held wireless transmitter will open the door.
- Door will close after hold open delay elapses.



Fail Secure / Fail Safe Electric Strike Wiring

Operation:

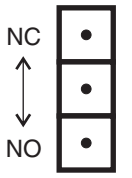
Door is normally closed and latched.

Activating switch will unlock the electric strike and the door will automatically open. Door will close after hold open time delay has elapsed.

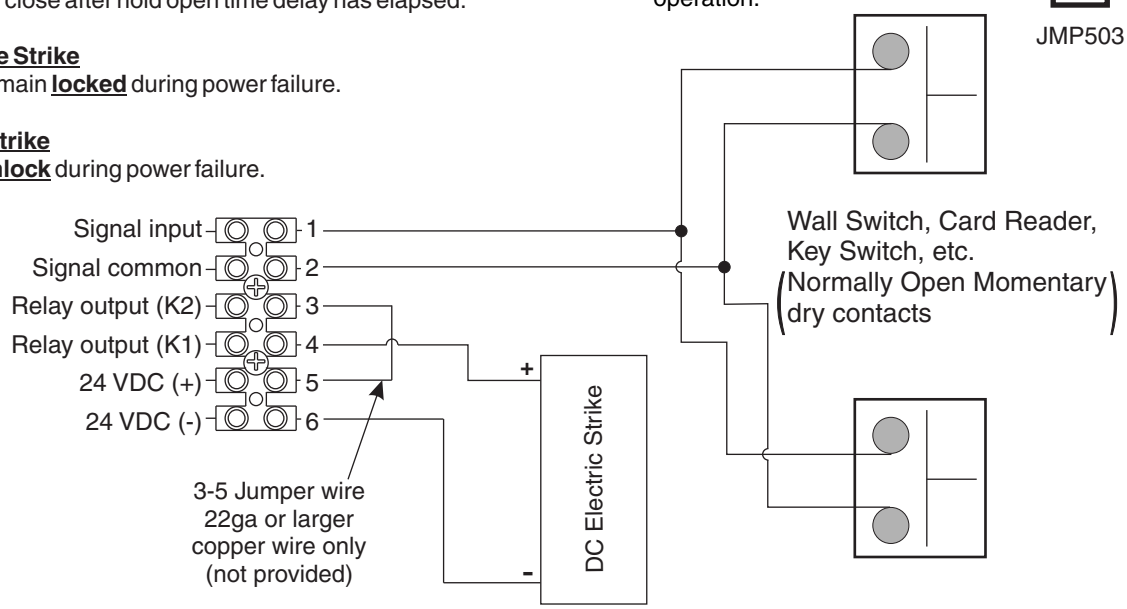
- **For Fail Secure Strike**
  The door will remain **locked** during power failure.

- **For Fail Safe Strike**
  The door will **unlock** during power failure.

Jumper Settings
Place jumper to upper position for normally closed (Fail Safe) operation or to lower position for normally open (Fail Secure) operation.



JMP503



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Fail Safe Electromagnetic Lock 24VDC Wiring

Notes:
1. Power input to Door Operator Unit is at "T1" Power Input Terminal (not shown) 120VAC 60Hz.

2. Unit's Relay Rating: 30VDC @ 1A or 125VAC @ .5A

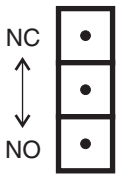
Operation:

Door is normally closed and latched.

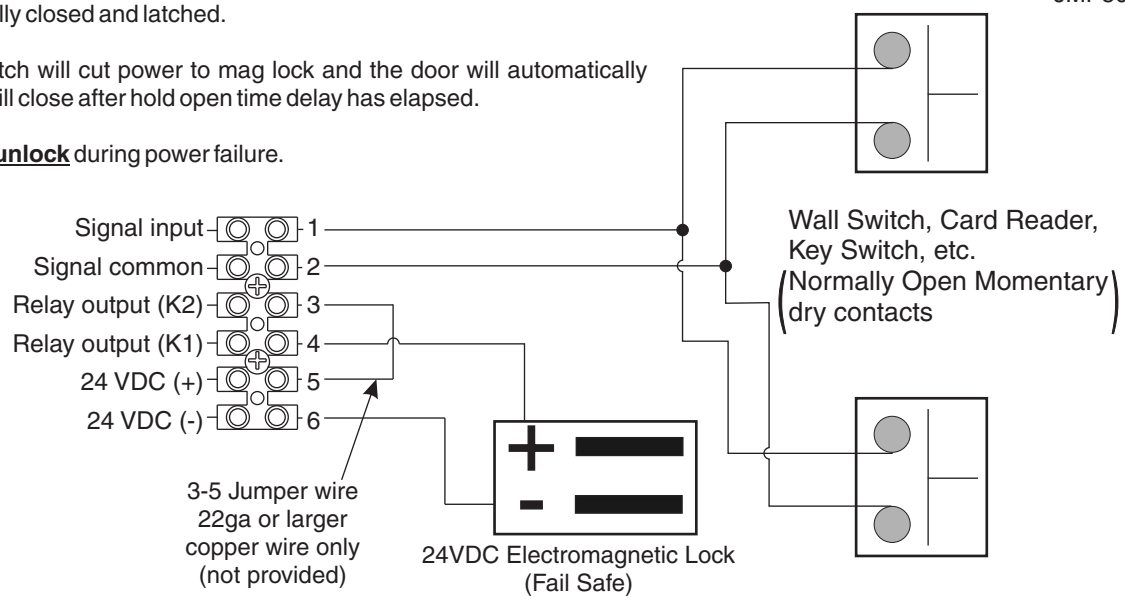
Activating switch will cut power to mag lock and the door will automatically open. Door will close after hold open time delay has elapsed.

` The door will **unlock** during power failure.

Jumper Settings
Place jumper to upper position for normally closed operation.



JMP503

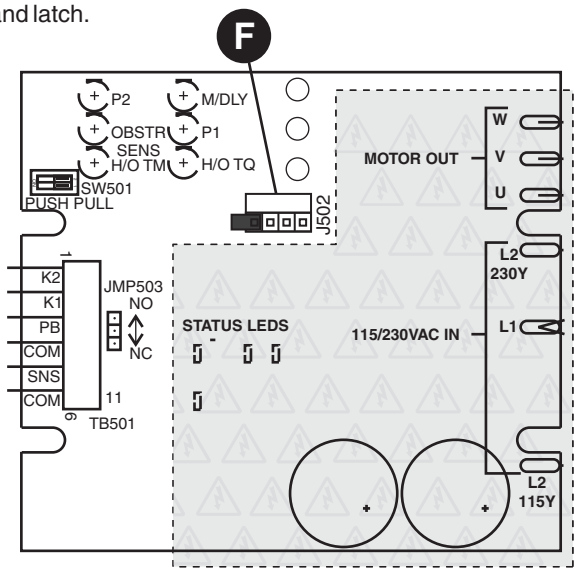


Executive Feature

Operation:

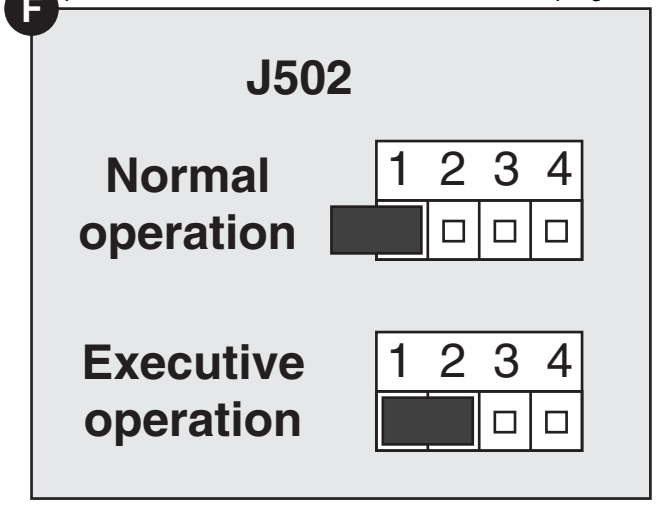
Door is normally closed and latched.

Activating switch will open the door and the door will stay open until the button is depressed again, then the door will close and latch.



Notes:
1. All switches, latches, and other accessaries should be connected according to standard wiring instructions.
2. Recommend RF kit #573 for use with Executive Feature.

Jumper Settings
WITH POWER DISCONNECTED, Place jumper on pins 1 and 2 to activate the Executive Feature program.

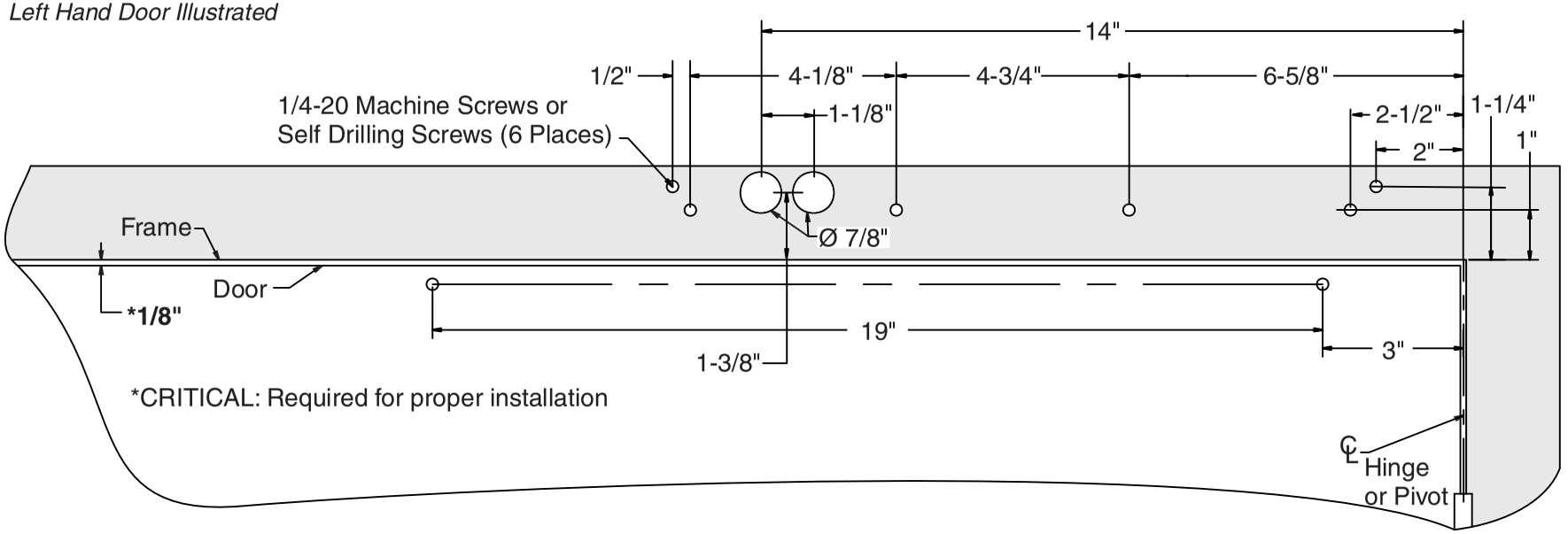


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PULL SIDE

Left Hand Door Illustrated

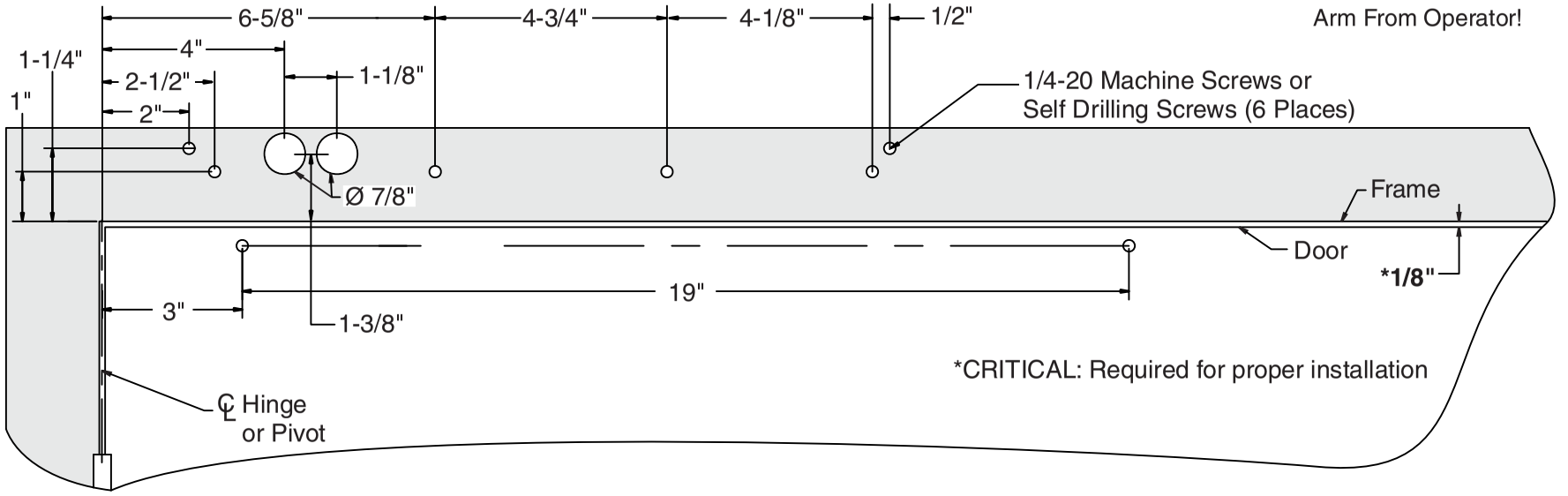




WARNING
Arm must clear top of door. Do Not Remove Arm From Operator!

PULL SIDE

Right Hand Door Illustrated



ASSA ABLOY

Norton®

Troubleshooting

Fault	Possible Reasons Why	Remedies/Explanations
The door does not open - the motor does not start	Control switch is set to OFF position	Change the setting of the ON/OFF switch
	Circuit breaker is set to OFF position	Reset the circuit breaker to the ON position
	Electrical power is missing	Check the electrical power switch
	Activation unit does not function	Jump activation input to verify
- the motor continues to run	Motor is driving in wrong direction	Flip Door Mounting Dip Switch to other direction
	Something jammed beneath the door	Remove object
	Arm has come loose	Re-install arm and key
The door does not close	Closing power set too low	Adjust P1 or P2 according to instructions on pg. 8
	Arm has come loose	Re-install arm and key
	The door is binding or obstructed	Inspect hinges and frame for wear or obstruction
	Control switch is set to OFF position	Change the setting of the ON/OFF switch
The door opens and stays open when first energized.	SW501 is set incorrectly	Change the switch setting to the correct handing. See instructions on page 4
The electric strike or electromagnetic lock does not work.	JMP503 is set incorrectly	See instructions on page 8 or 9
	Loose or shorted wire to strike or lock	Inspect wires running from unit to latch device
	Power from unit insufficient for strike or electromagnetic lock	Provide power to strike or electromagnetic lock from another source.

Maintenance (Service by Authorized Personnel Only):

Disconnect power before servicing.
Frequency of maintenance will depend on factors such as traffic, climate, etc. To make sure your operator is working correctly you should periodically check wire connections, tightness of arm connection and screws, and wear and tear on hinges/pivots. **No serviceable user parts!**

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General Information

Operation:

Your Low Energy Operator can be configured in three variations to meet the standards:

1. Push plates, Wave-to-open switches, etc. are available to activate the operator.
2. Push & Go can be enabled. In this mode, your door is pushed (or pulled) 5° manually, and then automatically opens to full open position.
3. Door can be used as a manual door (Door Closer Mode). The door will work and act like a standard door closer, with power, when pushed or pulled open manually. Push plates still active.

If desired, overhead presence devices can be provided for an extra level of protection. Consult local authority having jurisdiction. These are not required by current ANSI/BHMA A156.19 standards.

Opening:

When an opening signal is received by the control unit, the door opens to the fully open position. The open position is held by the motor. If the door is obstructed while opening, the door will stop; the operator will sense obstruction and the door will close.

Note: Door must be visible by person operating activation switch(es). Auxiliary door stop (by others) required.

Closing:

When the hold open time has elapsed, the operator will close the door automatically, using the motor. The door will slow to low speed at latch before it reaches the fully closed position. The door is kept closed by low power. If the door is obstructed while closing, the door will stop; the operator will sense obstruction, stop and stall. If obstructed more than two minutes, the unit will turn off. To reset, manually close the door, cycle power and turn switch on. Activate push plates to test operation.

WARNING: Make sure that (120V, 60Hz) input power is turned off at facility's main circuit breaker before proceeding with installation. Do not remove arm for installation.

For assistance, contact Norton Technical Product Support at 877-974-2255.

Norton
ASSA ABLOY
3000 Highway 74 East • Monroe, NC 28112
Tel: (877)-974-2255 • Fax: (800)-338-0965
www.nortondoorcontrols.com

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