# **5700 Series Power Operator**Pull and Push Side Installation Instructions

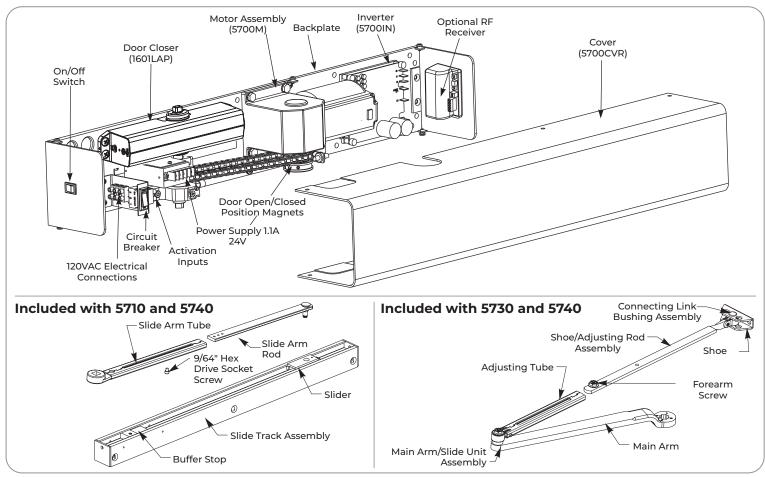


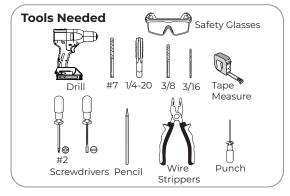


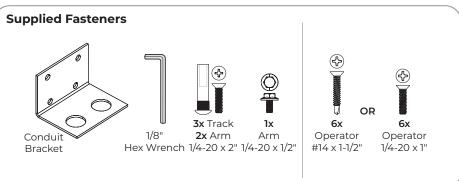


This product can expose you to lead which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to: www.P65warnings.ca.gov.

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







The table below provides a list of documents associated with this product. These documents are available for download from www.nortonrixson.com. If additional information or assistance is needed, contact Technical Product Support.

Document Title	Document Number
5700 Series Push to Pull Application Conversion Instruction Document	80-8357-0140-020
Series 5710 Pull Side Template	80-7357-0110-020
Series 5730 Push Side Template	80-7357-0130-020



#### Contents

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### ADA / ANSI / UL

- 1. Americans With Disabilities Act (A.D.A.) These door operators can be installed and adjusted to conform with A.D.A. regulations.
- 2. ANSI Standards &

ANSI A117.1 - These door operators permit door assemblies to conform to the requirements of this specification "for buildings and facilities - providing accessibility and usability for physically handicapped people".

ANSI A156.19 - These products are designed to conform to this specification "for power assist and low energy power operated doors".

- "PAS" Function is designed to meet or exceed all of the requirements for the "Power Assist Door".
- "POR" Function is designed to meet or exceed all of the requirements for the "Low Energy Power Operated Door".
- 3. U.L. Listing 🕪

Underwriters Laboratories, Inc. listed for use on fire and smoke barrier door assemblies when the 120VAC (60Hz) power input is supplied through the normally closed alarm contacts of a compatible UL Listed alarm system or alarm panel.

### **Product Safety Warnings**

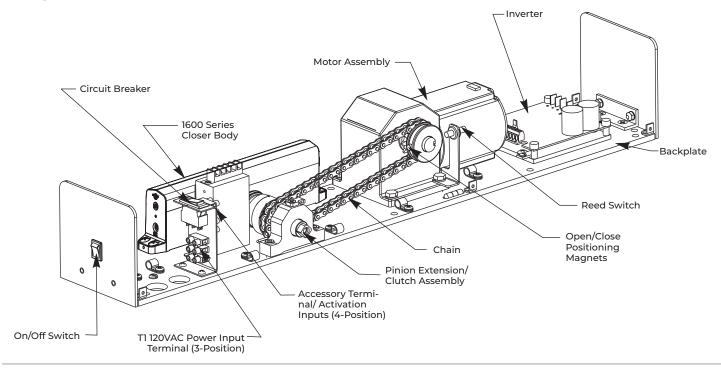
WARNING: To reduce risk of injury to person, use this operator only with Pedestrian Swing doors. FOR INDOOR USE ONLY

- 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 7. Test door's features at least once a month. After 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 9. SAVE THESE INSTRUCTIONS. 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.
- adjusting either force or limit of travel, retest door operator's features. KEEP DOOR PROPERLY OPERATING. An improperly operating door could cause severe injury or death.
- 8. Maximum door size: 48" (1219mm) wide x 250 lb (113.4kg)



### Components



### **General Information**

- UL labeled fire or smoke barrier door assemblies require that the 120VAC (60Hz) power input to the 5700 door operator be supplied through normally closed alarm contacts of the alarm system / alarm panel.
- Power input to 5700 door operator must be 120VAC (60Hz) to terminals HOT and COM at terminal strip T1. Earth ground (GND) to green screw on backplate.
- All wiring must conform to standard wiring practice in accordance with national and local wiring codes.
- Unit is Non-Handed.
- · Door must swing freely through the entire opening and closing cycle before beginning the installation.
- Use of an auxiliary door stop (by others) is always recommended.
- An incorrectly installed or improperly adjusted door operator can cause property damage or personal injury. These instructions should be followed to avoid the possibility of misapplication or misadjustment.

### **Technical Data**

Input power:	120VAC, 60Hz
Power consumption:	.6 amps
Circuit breaker:	3 amps
Power supply:	24 V DC, max. 1.1 amp.
Door width:	28" - 48" Max. (71-122 cm)
Door weight:	100-250 lb Max. (43-113 kg)
Door opening angle:	up to 110° PULL side; up to 170° PUSH side; Manually to 180° PUSH/PULL side
Hold open time:	5-30 seconds (A.D.A. 5 seconds min.)

#### **NOTES:**

- Permanent wiring is to be implemented 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 4 on Accessory Terminal
  - 18AWG at terminals 22 25 on T1 Power Input
- Rate of operation shall not exceed 300 cycles of opening and closing per hour.



WARNING: Make sure (120V, 60Hz) input power is turned OFF at facility's main circuit breaker before proceeding with installation



### **Before You Begin**

- · All dimensions are given in inches (millimeters). DO NOT scale drawings.
- Thickness recommended for reinforcements in hollow metal doors and frames is charted.
- Template information is based on use of 5" (127mm) maximum width butt hinges or 3/4" (19mm) offset pivots.
- Maximum frame reveal is 1/8" (3mm) for PULL units and 2-5/8" - 6-3/4" (67-171mm) for PUSH units.
- Before beginning the installation, verify that the door frame is properly reinforced and is well anchored in the wall. Frame header must be straight - without warp or bow.
- 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.

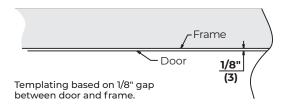
#### **Fasteners for Frame:**

Hollow metal and aluminum: 1/4-20 Machine screws

No. 14 x 2-3/4" (70mm) sheet metal screws

#### **Fasteners for Door:**

1/4-20 Machine screws 3/8 x 1-5/8" sex nut



Hollow Metal Door Frame Reinforcing		
Fue we a Mada vial	Reinforcing	
Frame Material	Recommended	Min. Required
12 Ga.	12 Ga.	18 Ga.
.105	.105	.048
(2.66)	(2.66)	(1.21)
14 Ga.	10 Ga.	12 Ga.
.075	.134	.105
(1.90)	(3.41)	(2.66)
16 Ga.	10 Ga.	12 Ga.
.060	.134	.105
(1.52)	(3.41)	(2.66)
18 Ga.	8 Ga.	10 Ga.
.048	.164	.134
(1.21)	(4.18)	(3.41)

### **Mounting Hardware**

	Mounting Hardware	Door or Frame	Drill
Unit: 14 x 2-3/4" Sheet Metal Screw  Unit: 1/4-20 x 1" Flat Head Machine Screw		Wood	3/16" (4.76mm)
		Hollow Metal or Aluminum	Drill #7 (.201 dia. or 5.10mm) Tap 1/4-20
( Sanonnou	Track or Arm: Sex Nut and Bolt (SNB)	Hollow Metal	9/32" (7.00mm) thru 3/8" (9.50mm) door face opposite to closer
	(optional) `	Aluminum or Wood	3/8" (9.50mm) thru



#### **PULL Side Installation**

Become familiar with operator components and fasteners. It is recommended that components remain in box until installed. Verify there is minimum ceiling clearance for operator installation before proceeding. (Figure 1)

#### **Prepare Door and Frame**

### A. Prepare frame for operator.

- 1. Verify frame reveal is maximum 1/8" (3mm). (Figure 1)
- 2. Determine if push or pull and if left hand or right hand installation. (Figure 2)



**NOTE:** These steps are for PULL side only. See page 8 for PUSH side installation.

 Frame header MUST be flat / without twists. Backplate of operator can be used as reference.

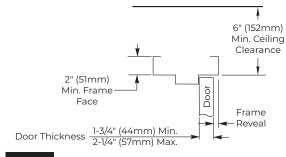
**NOTE:** If frame is not flat or is twisted, an additional steel back plate or shimming is required. Failure to mount unit properly can result in improper function of operator.

- Using detailed template on page 19, prepare six (6) holes for 1/4-20 machine screws or 14 x 2-3/4" wood screws. Blind rivet nut (by others) is suggested for unreinforced hollow metal or aluminum frames. (Figure 3)
- For concealed mounted conduit (if applicable):

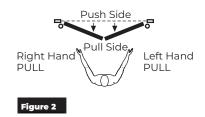
Prepare two (2) 7/8" (22mm) diameter holes for conduit, for power input and for switch/ sensor wires.

**NOTE:** On new construction, these holes will generally be drilled by frame supplier at their shop or at time-of-install.

Door Opening Angle	Dim A	
Up to 110°	15-1/2" (394mm)	
111° to 180°	13-1/4" (337mm)	







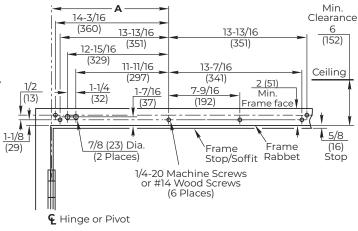


Figure 3 Right Hand Shown

### B. Prepare door for track.

 Using template on page 19, locate and prepare holes in door for three (3) 3/8" (9.5mm) sex bolts (Figure 4)

**NOTE:** Standard units are supplied with sex nuts and bolts for 1-3/4" (44mm) thick door. Sex nuts and bolts for other door thicknesses are available to order.

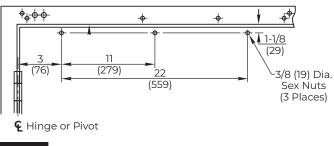


Figure 4 Right Hand Shown

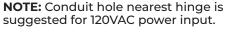
### **PULL Side Installation (cont.)**

### **Install Operator**

A. Remove cover from unit and set cover and screws aside.

### B. Mount unit to frame. (Figure 5)





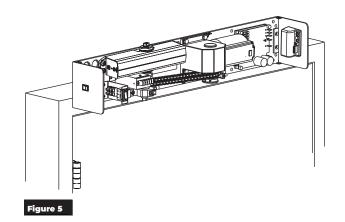
Select Concealed or Surface option.

#### **Concealed Wired Units Only:**

- Connect conduit to frame side of backplate.
- · Secure unit to frame with six (6) screws.

#### **Surface Wired Units Only:**

- Secure unit to frame with six (6) screws.
- Mount conduit bracket (found in screw pack) to unit backplate with two (2) provided screws.
- Connect wiring conduit to bracket.



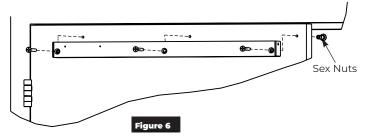
#### Install Track and Arm

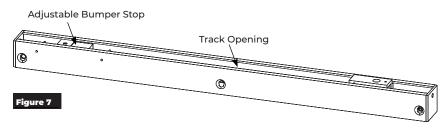
#### A. Mount track to door.

 Using previously prepared holes in door, install three (3) 1/4-20 x 1-5/8" screws through track and into sex bolts. (Figure 6)

NOTES: (Figure 7)

- Opening of track is toward top of door.
- Adjustable bumper stop is toward hinge edge of door.









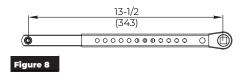
### **PULL Side Installation (cont.)**

### Install Track and Arm (cont.)

#### B. Assemble arms.

- Insert slide arm rod into slide arm tube.
   Distance between pinion square and slide stud is 13-1/2" (343mm). (Figure 8)
- 2. Install 9/64" socket head screw included in screw pack.

**NOTE:** Center threaded hole of slide arm should align with seventh hole of slide tube. Stud in slide arm should point to same side as holes in slide tube.



### C. Install arm assembly to operator.

- 1. Open door.
- 2. Using an adjustable wrench, rotate top pinion 45 degrees toward door hinge. You will feel resistance from spring. (Figure 9)
- 3. While holding pinion at 45 degrees, slide arm on bottom pinion.

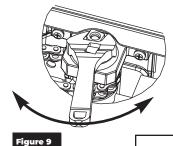


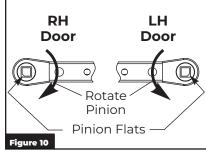
**NOTE:** Pinion flat should be aligned as shown. (Figure 10)

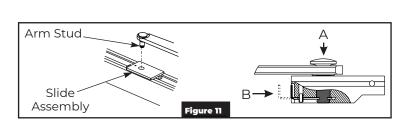
- 4. Secure main arm to pinion with 1/4-20 x 1/2" screw.
- Insert stud on arm into slider in track then press clip on backside of slider onto stud. (Figure 11)



- 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. (Figure 12)







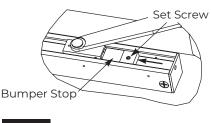


Figure 12





#### **PUSH Side Installation**

Become familiar with operator components and fasteners. It is recommended that components remain in box until installed. Verify there is minimum ceiling clearance for operator installation before proceeding. (Figure 13)

#### Prepare Frame and Door

#### A. Prepare frame.

1. Verify frame reveal width is 2-5/8"-6-3/4" (67mm-171mm). (Figure 13)

**NOTE:** If frame reveal is less than 3" (76mm), arm adjusting rod can be field cut to 9-1/2" (241mm) measured from centerline of connecting link bushing assembly.

2. Determine if push or pull and if left hand or right hand installation. (Figure 14)



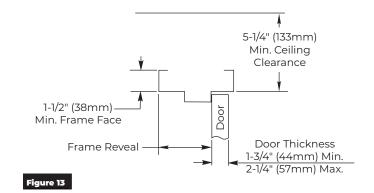
**NOTE:** These steps are for PUSH side only. See page 5 for PULL side installation.

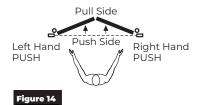
 Frame header MUST be flat / without twists. Backplate of operator can be used as reference.

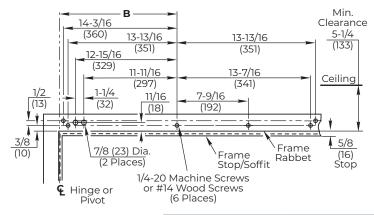
**NOTE:** If frame is not flat or is twisted, an additional steel back plate or shimming is required. Failure to mount unit properly can result in improper function of operator or inability to snap on cover.

- 4. Using detailed template on page 20, prepare six (6) holes for 1/4-20 machine screws or 14 x 2-3/4" wood screws. Blind rivet nut (by others) is suggested for unreinforced hollow metal or aluminum frames. (Figure 15)
- For concealed mounted conduit (if applicable): Prepare two (2) 7/8" (22mm) diameter holes for conduit, for power input and for switch/sensor wires.

**NOTE:** On new construction, these holes will generally be drilled by frame supplier at their shop or at time-of-install.







Door Opening Angle	Dim B
Up to 110°	15-3/4" (400mm)
111° to 170°	13-1/4" (337mm)

Figure 15 Left Hand Shown



9-1/2" (241mm)

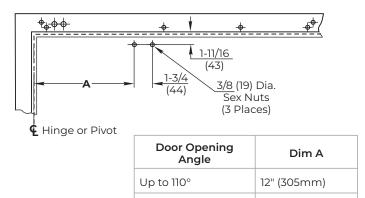
### **PUSH Side Installation (cont.)**

### Prepare Frame and Door (cont.)

### B. Prepare door for arm assembly

 Using template on page 20, locate and prepare two (2) 3/8" (9.5mm) holes in door for sex bolts. (Figure 16)

**NOTE:** Standard units are supplied with sex nuts and bolts for 1-3/4" (44mm) thick door. Sex nuts and bolts for other door thicknesses are available to order.



111° to 170°

Figure 16 Left Hand Shown

### **Install Operator**

A. Remove cover from unit and set cover and screws aside.

### B. Mount unit to frame. (Figure 17)

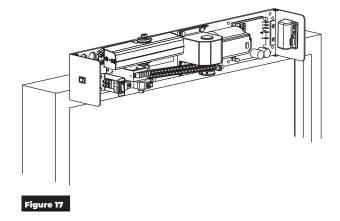
NOTE: Select Concealed or Surface option.

#### **Concealed Wired Units Only:**

- Connect conduit to frame side of backplate.
- Secure unit to frame with six (6) screws.

#### **Surface Wired Units Only:**

- · Secure unit to frame with six (6) screws.
- Mount conduit bracket (found in screw pack) to unit backplate with two (2) provided screws.
- Connect wiring conduit to bracket.









### **PUSH Side Installation (cont.)**

#### Install Arm

#### A. Mount forearm shoe to door.

1. Using previously prepared holes in door, install two (2) 1/4-20 x 1-5/8" screws through shoe and into sex bolts. (Figure 18)

**NOTE:** Orient shoe with short side of shoe toward hinge.





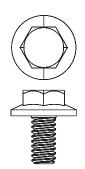
### B. Install main arm to operator.

1. Insert main arm onto pinion shaft of unit at 90° angle to frame. (Figure 19)



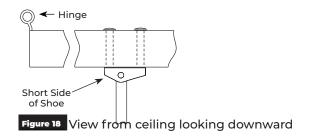
**NOTE:** Align arm mark "S" with flat corner of pinion shaft square. (Figure 20)

2. Secure main arm to pinion with 1/4-20 x 1/2" flange head screw.



#### C. Preload arm.

- 1. Open door.
- 2. Remove 1/4-20 hex head screw on forearm adjusting rod. (Figure 21)
- 3. Insert adjusting rod into adjusting tube. (Figure 21)
- 4. Reinstall 1/4-20 screw and leave loose.
- 5. Rotate main arm in direction away from hinge edge until adjusting rod and tube are perpendicular (at 90° angle) to frame.
- 6. Tighten 1/4-20 hex head screw on adjusting rod to secure arm in this new position.



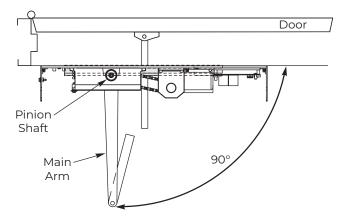
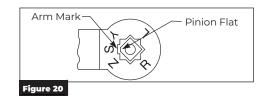


Figure 19 View from ceiling looking downward



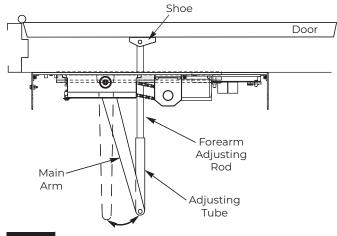


Figure 21 View from ceiling looking downward



### **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.
- Refer to table for recommended minimum opening/closing times per ANSI/BHMA A156.19. (Figure 24)
- Use hex wrench to make adjustments.

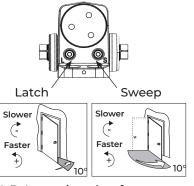


Do not remove valves from closer. Hydraulic oil will escape.

- 1. Closing Speed Controls (Figure 22)
  - Valve "S" controls Sweep Range from full open to 10°.
  - Valve "L" controls Latch Range from 10° to closed.
- 2. Opening Cycle (Figure 23)
  - Valve "BC" controls strength of cushioning in Backcheck Range.



**NOTE:** Too much backcheck can affect operation of unit pump, preventing full open of door. This valve may require fine tuning after all other adjustments have been made.



A.D.A. requires that from an open position of 70°, door will take at least 3 seconds to move to a point 3" (75mm) from latched position, measured at leading edge of door.

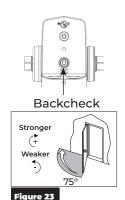


Figure 22

ANSI/BHMA A156.19 Minimum Opening/Closing Times			es		
Door Leaf		Door W	<b>/eight</b> - Pou	nds (kg)	
<b>Width</b> - Inches (mm)	100 (45.4)	125 (56.7)	150 (68.0)	175 (79.4)	200 (90.7)
30" (762)	3.0 sec	3.0 sec	3.0 sec	3.0 sec	3.5 sec
36" (914)	3.0 sec	3.5 sec	3.5 sec	4.0 sec	4.0 sec
42" (1067)	3.5 sec	4.0 sec	4.0 sec	4.5 sec	4.5 sec
48" (1219)	4.0 sec	4.5 sec	4.5 sec	5.0 sec	5.5 sec

Backcheck: Adjust backcheck to have minimum opening time to backcheck or 80 degrees (whichever comes first) based on Table.

Closing Time: Adjust latch and sweep to have minimum closing time from 90 degrees to latch check or 10 degrees (whichever comes first) based on Table.

Figure 24

### 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.
- Using 1/8" hex wrench, turn power adjustment screw clockwise to increase door closing power. (Figure 25)

**NOTE:** Door control is shipped set at midpoint of power setting. Maximum closing power can be achieved with 8 (360°) clockwise turns of power adjustment screw.



11

ncoming

Power

Low Voltage Control

Wiring

Figure 26

### **Input Power Configurations**

#### For Concealed Wiring:

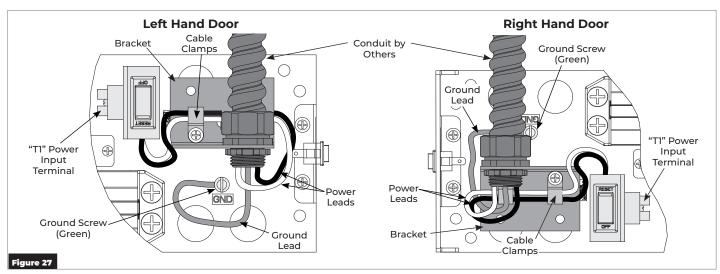
- 1. Secure conduit fitting(s) onto backplate. (Figure 26)
  - **NOTE:** Before mounting unit, pull conduit out of header and attach to conduit fittings
- 2. After installing operator, attach the incoming ground wire to the backplate with the green ground screw labeled GND.
- Attach incoming HOT and COM wires to Terminal Block TI. (Figure 28)

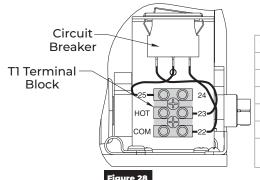
#### For Surface Wiring:

- Secure conduit and conduit fitting(s) to the bracket as shown. (Figure 27)
- Remove the screws holding the cable clamps to back plate.Do not discard.
- 3. Remove the green ground screw closest to the terminal block.
- 4. After installing operator, route incoming HOT and COM wires thru the cable clamps.
- 5. Secure the bracket and cable clamps to the backplate using the screws saved from step 2 above.
- 6. Attach incoming ground wire to back plate with green ground screw labeled GND.
- 7. Attach incoming HOT and COM wires to Terminal Block T1. (Figure 28)

#### NOTES:

- · A second conduit fitting is required for low voltage control wires.
- Install in accordance with local codes.
- Ground wire must be secured to back plate under head of green ground screw.



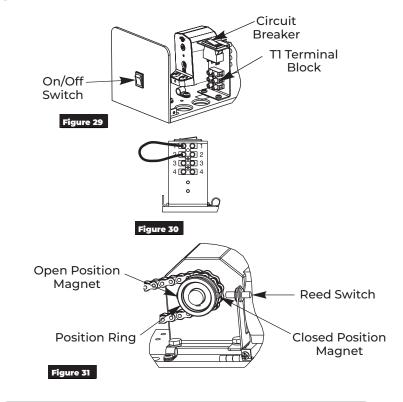


Terminal	inal Description	
СОМ	Common power lead	
НОТ	Hot power lead	
25	Circuit Breaker	
24	Switch	
23	Circuit Breaker	
22	Common connection to Circuit Breaker / Inverter	
	Circuit Breaker / Inverter	



### **Final Electrical and Mechanical Setup**

- Confirm all mechanical adjustments have been made and wiring connected.
- 2. Turn on facility's main circuit breaker.
- 3. Turn on power at On/Off switch and flip breaker switch to "RESET". (Figure 29)
- 4. Using a short jumper cable, jump terminals 1 and 2 to activate unit. When door reaches 20°, flip Breaker Switch to "OFF" position cutting power to unit. Allow door to fully close (door may be manually pulled closed). (Figure 30)
- 5. Adjust Closing Position Magnet (Figure 31)
  - With door in closed position, use finger to slide Closed Position Magnet so it aligns directly with Reed Switch.
- Adjust Open Position Magnet Use fingers to slide Open Position Magnet 180° from Open Position Magnet.
- 7. Flip Breaker Switch to "RESET" to turn power on.
- 8. Jump terminals 1 and 2 to activate door. Note open position of door. Allow door to close.
- 9. Use finger to readjust Open Position Magnet to desired door open position.
- 10. Repeat Step 7 to verify door open position.
- Make all connections necessary for any accessories to 4-position Accessory Terminal. See Wiring Section.
- 12. Make necessary adjustments to inverter. See Inverter Details Section.





WARNING: 120VAC power supplied to operator must be a dedicated circuit from the main circuit breaker panel and must NOT be connected into any building lighting system that operates fluorescent lights.

The **5700 Operator - PULL SIDE or PUSH SIDE** has now been installed. Continue with Electrical Instructions to customize the installation.

13



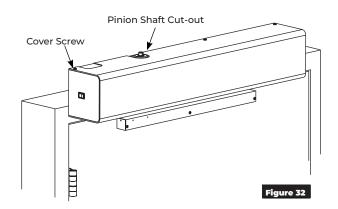
### **Attach Cover to Finalize Installation**

- 1. Align cut-outs in cover to pinion shafts. (Figure 30)
- 2. Slide cover onto unit.

**NOTE:** Verify all wiring and sheet metal guards are inside cover.

3. Secure cover to backplate with cover screws.

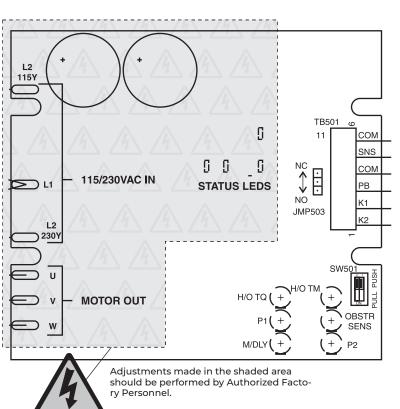
**NOTE:** If cover will not securely install onto unit, verify backplate is not warped or twisted. Additional support or shimming may be required. See Sections A & B under Prepare Frame and Door.





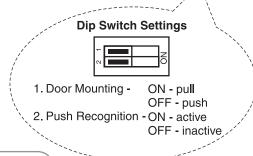
WARNING: Make sure no wiring is loose or can be caught by cover when it is snapped into place.

### **Inverter Details**



Inverter Adjustments:
Use table to determine which POT to adjust based on function.

РОТ	Description	Function
M/DLY	Motor Delay on Opening	
OBSTR SENS	Obstruction Detection on Open	Clockwise:
P1	Closing Speed	Increase
Н/О ТМ	Hold Open Time (5-30 Secs)	Counter Clockwise:
H/O TQ	Motor Torque at Hold Open Position	Decrease
P2	Opening Speed	



WARNING Electric Shock Risk

WARNING: 120 high volt potential present. Make sure power is turned off during installation procedure.



### **Wiring Options**

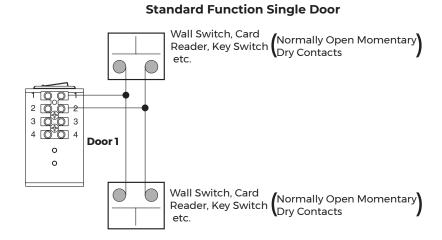
#### **Standard Function With Switches**

#### Operation:

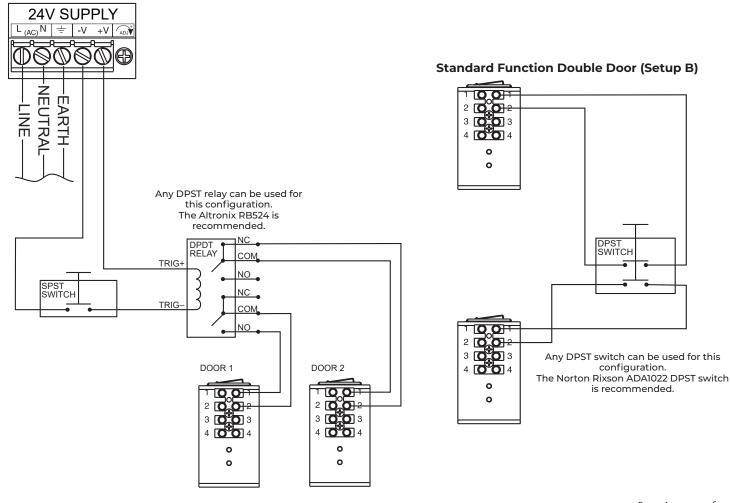
- Door is normally closed.
- Activating either switch will open both doors.
- Door will close after hold open time delay has elapsed.

#### NOTES:

- Power input to Door Operator Unit is at "T1" Power Input Terminal (not shown) 120VAC 60Hz.
- Door must be visible by person operating activation switch(es).



#### Standard Function Double Door (Setup A)



### **Radio Frequency Function Option**

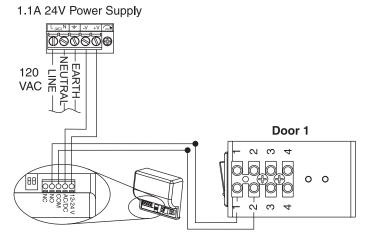
#### Operation:

- · Door is normally closed.
- Activating wireless switch or hand held wireless transmitter will open door.
- Door will close after hold open time delay has elapsed.

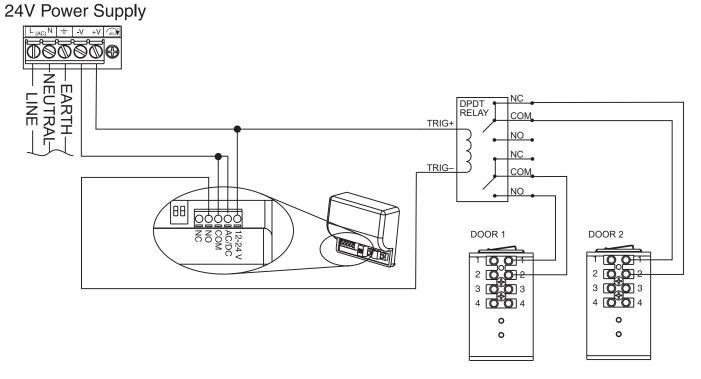
#### **NOTES:**

- Power input to Door Operator Unit is at "T1" Power Input Terminal (not shown) 120VAC 60Hz.
- 2. Radio Frequency feature is purchased as a separate kit.
- 3. Door must be visible by person operating activation switch(es).

#### **Radio Frequency Function Single Door**



#### **Radio Frequency Function Double Door**





### Fail Safe Electromagnetic Lock 24VDC Wiring

#### Operation:

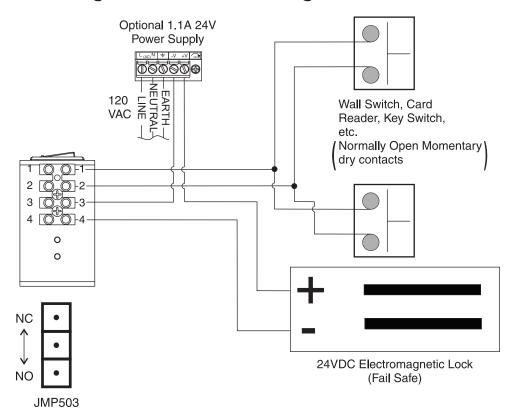
- Door is normally closed and latched.
- Activating switch will cut power to mag lock and door will automatically open.
- Door will close after hold open time delay has elapsed.
- Door will unlock during power failure.

#### **NOTES:**

- Power input to Door Operator Unit is at "T1" Power Input Terminal (not shown) 120VAC 60Hz.
- 2. Unit Relay Rating: 30VDC @ 1A or 125VAC @ .5A
- Door must be visible by person operating activation switch(es).

#### **Jumper Settings:**

Place jumper to upper position for normally closed operation or to lower position for normally open operation.



### Fail Secure/Fail Safe Electric Strike Wiring

#### **Operation:**

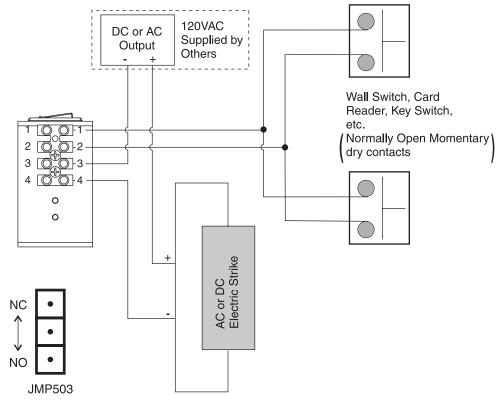
- Door is normally closed and latched.
- Activating switch will unlock electric strike and door will automatically open.
- Door will close after hold open time delay has elapsed.
- For Fail Secure Strike door will remain locked during power failure.
- For Fail Safe Strike door will remain unlocked during power failure.

#### **NOTES:**

- Power input to Door Operator Unit is at "T1" Power Input Terminal (not shown) 120VAC 60Hz.
- Unit Relay Rating for strike interface: 30VDC @ 1A or 125VAC @ .5A
- Door must be visible by person operating activation switch(es).

#### **Jumper Settings:**

Place jumper to upper position for normally closed operation or to lower position for normally open operation.





#### 433MHz Receiver User's Guide





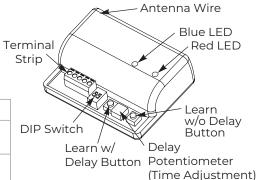
In Toggle Setting (1-ON), Hold Time is inactive. Either setting for #2 dip switch will have same result.



0.5 second Pulse Setting



10 second Pulse Setting



Pulse Relay	Press transmitter once and relay will be active momentarily.
Toggle Relay	Press transmitter once and relay output is active indefinitely. Press it again and relay will de-energize indefinitely.
Description	Function
	Toggle Relay

#2	Description	Function
OFF	0.5s Hold Time	Relay will remain active 0.5 sec after loss of activation.
ON	10s Hold Time	Relay will remain active 10 sec after loss of activation.

#### **NOTES:**

- Always stop pedestrian traffic through doorway when performing tests that may result in unexpected reactions by door.
- Ensure compliance with all applicable safety standards upon completion of installation.

#### **Hand-Held Configuration**

- 1. Set dip switches to receiver to desired activation cycle (dip switch 1 Toggle or Pulse and dip switch 2 0.5s or 10s hold).
- Press either Learn w/ Delay Button or Learn w/o
   Delay Button on receiver depending on activation
   requirements (if delay learn is selected, adjust
   potentiometer to counterclockwise limit, 0 second
   delay). Red LED on receiver will flash. After learn cycle
   is complete, adjust potentiometer to desired delay
   time (0 30 sec).
- Depress transmitter button repeatedly until Blue LED on receiver illuminates (indicating reception of signal from transmitter).

**NOTE:** Repeat Steps 2 - 3 to program additional transmitters.

4. To test system, depress transmitter button (Red LED on Transmitter will illuminate) and observe that Blue LED illuminates on receiver. This indicates that relay has been activated.

#### **Push Plate Configuration**

- 1. Before beginning, prepare installation of push plate.
- 2. Connect wires from transmitter to NO and COM contacts of push plate's switch.
- 3. Follow Steps 1 4 (Hand-Held Configuration); depress push plate to activate transmitter.
- 4. Attach transmitter to inside of electrical box and complete installation.

#### Removing Transmitter Code(s) Single Transmitter Code:

- Press both Delay and No Delay Buttons simultaneously until Red LED flashes once (approximately 1 second).
- Press transmitter button twice within 10 seconds and transmitter code will be deleted.

#### All Transmitter Codes:

 Press and hold both Delay and No Delay Buttons simultaneously until Blue LED illuminates then release (approximately 10 seconds).

Troubleshooting		
Problem	Solution	
LED on receiver is flickering - unable to program and/or won't work	Push plate stuck or faulty transmitter. Disconnect each push plate until LED goes out. If LED does not go out, remove each transmitter battery until it does. Replace appropriate transmitter.	
Receiver intermittently doesn't receive transmitter(s) signal.	Extend receiver antenna wire only in multiples of 6-3/4" (171) Example: 6.75 x 4 = 27" (686) of extended antenna wire.	



# **Troubleshooting Guide**

Problem	Possible Reasons Why	Solution
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 circuit breaker to the ON position
	Electrical power is missing	Check the electrical power switch
	Activation unit does not function	Jump activation input
- The motor starts	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-time and re-install arm.
The door does not close	Spring tension too low	Increase spring tension
	Arm has come loose	Re-time and re-install arm
	Something jammed beneath the door	Remove object





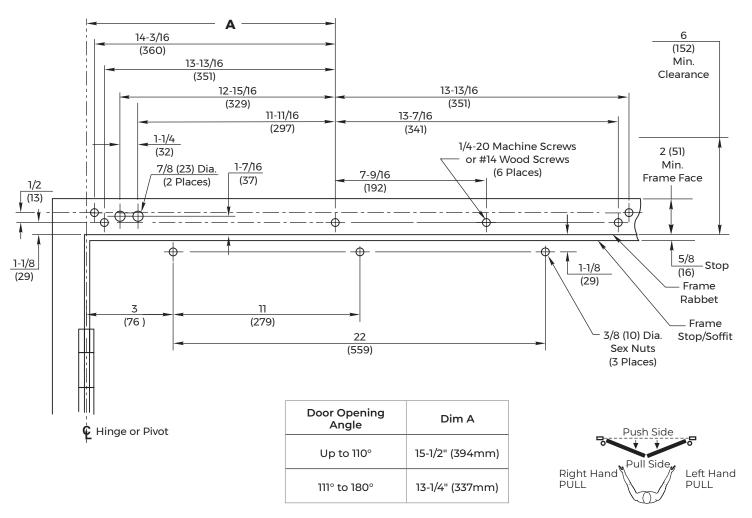
### **Pull Side Template**



Right hand door opening to 110° shown.

 ${\bf PULL} \ {\bf side} \ {\bf application} \ {\bf is} \ {\bf shown}.$ 

PUSH side mounting template is provided on page 21.



- · Do not scale drawing.
- · Right hand door shown.
- · All dimensions given in inches (mm).
- Maximum frame reveal is 1/8" (3mm) for this application.

#### **NOTES:**

- 1. Thickness recommended for reinforcements in hollow metal doors and frames is charted on page 4.
- 2. This template information based upon use of 5" (127mm) maximum width butt hinges or 3/4" (19mm) offset pivots. A separate template is required for other conditions.
- 3. Conduit hole nearest hinge is suggested for 120 VAC power input.
- 4. Door must be visible by person operating activation switch(es).

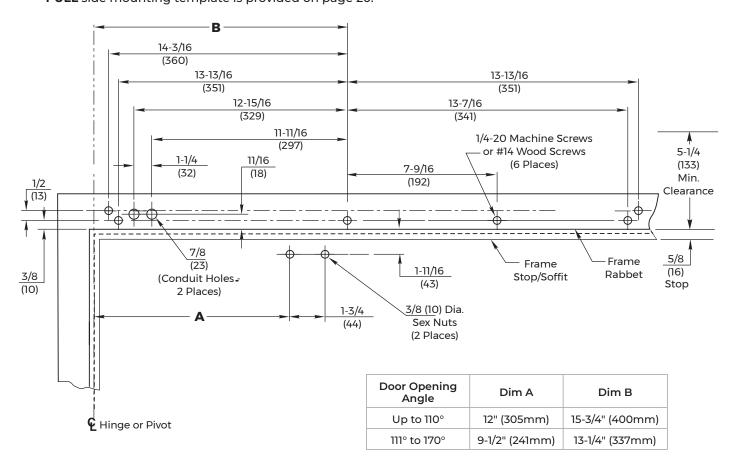


### **Push Side Template**



Left hand door opening to 110° shown.

**PUSH** side application is shown. **PULL** side mounting template is provided on page 20.



- Do not scale drawing.
- · Left hand door shown.
- · All dimensions given in inches (mm).
- Frame reveal is 2-5/8"-6-3/4" (67mm-171mm) for this application.

#### **NOTES:**

- 1. Thickness recommended for reinforcements in hollow metal doors and frames is charted on page 4.
- 2. This template information based upon use of 5" (127mm) maximum width butt hinges or 3/4" (19mm) offset pivots. A separate template is required for other conditions.
- 3. Conduit hole nearest hinge is suggested for 120 VAC power input.
- 4. Door must be visible by person operating activation switch(es).

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