GT630 – NABCO Swing Installation & Programming Manual – Dual Operator Types

P/N C-00413 Rev 3-24-26

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Manual & Tech Call Disclaimer

The information and material contained in the program manuals, guides, and instructions (the "**Manuals**") are being provided for informational purposes and as a general guide only; some applications and installations vary, however, and may require additional steps. The Manuals are intended to be used by skilled American Association of Automatic Door Manufacturers ("**AAADM**") certified technicians qualified to perform authorized installation, maintenance, and other work on NABCO Entrances, Inc.'s ("**NABCO**") products. The information contained in the Manuals does not purport to cover all details or variations in NABCO products and does not claim to provide for every possible contingency met in connection with installation, operation, or maintenance. The Manuals are not intended to be a substitute for advice from a skilled, qualified, and AAADM certified technician. The information provided in the Manuals or by NABCO's tech service department, while attempting to troubleshoot, is being provided for general informational purposes only and is not intended to substitute for advice from a skilled, qualified, and AAADM certified technician. For any assistance outside of general assistance based on the Manuals, a skilled, qualified, and certified AAADM technician should be consulted.

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Associated Manuals Part Numbers:

Swing Door and Fold Door Opus Control Wiring and Programming Manual P/N C-00139
(Power input: 100-130VAC, AC 50-60 Hz, minimum 5A service, see OPUS manual for more information)
Low Energy Power Swing Doors Owner's Manual P/N C-00125
Full Automatic Swing Door Owner's Manual P/N C-00110 for Decal Installation



- **Turn OFF all power to the Automatic Door if a Safety System is not working.**
- **Instruct the Owner to keep all power turned OFF until corrective action can be achieved by a NABCO trained technician. Failure to follow these practices may result in serious consequences.**
- **NEVER leave a DOOR operating without all Safety detection systems operational.**

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CHAPTER 1 SAFETY FLAGS

SECTION 1.1 Warning Labels

Warning labels are universal and used to alert an individual of a potential hazard to oneself or to others. The following warning labels are listed in a hierarchical order that defines the most hazardous: **DANGER,** to the least hazardous: **SAFETY** . Please refer to this page if a warning label is displayed within this manual and requires further definition.



Indicates an immediate hazard; a hazard capable of producing irreversible damage, injury, or death. It should not be considered for property damage unless personal injury risk is present.



Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. It should not be considered for property damage unless personal injury risk is present.



Indicates a potentially hazardous situation; a hazard capable of resulting in severe but not irreversible injury or damage. The CAUTION label should not be used when there is a possibility of death or serious irreversible injury.



Indicates a situation where general information is provided to prevent material from damage or prevent the function of the equipment from being impaired. The NOTICE label should NOT be used when there is a hazardous situation or personal risk.



Indicates a statement of company policy as the message relates to the personal safety or protection of property. The SAFETY label should not be used when there is a hazardous situation or personal risk.

NOTE: ***Indicates important information that provides further instruction.***

SECTION 1.2: General Safety Recommendations



Always disconnect all power to the junction box and use proper Lockout / Tagout procedures prior to making any electrical connections. Failure to do so may result in irreversible damage, injury, or death. Ensure the equipment is disconnected from the energy source by using the operating controls and by using a voltmeter to check voltage.



Do not place any extremity or uninsulated tool inside the *Header*. Touching wires or other parts inside the enclosure may cause electrical shock, serious injury or death.



Do not install, operate, or service this product unless you have read and understand the General Safety Recommendations and Warning Labels contained in this manual. Failure to do so may result in death, serious injury or property damage.



It is imperative to read, study and understand the installation and operating instructions contained in or referenced in this manual before performing any service or maintenance. If you do not understand the instructions, please ask a qualified technician. Failure to do so may result in death, serious injury, property damage and will nullify all warranties.



For indoor use only.



Use this operator only with Nabco swinging doors.



The ground wire from the OPUS Control 120 VAC harness and the incoming 120 VAC ground wire must be connected to each other secured with a UL-listed electrical connector within the Swing Door Header.

CAUTION **If any equipment appears damaged or is not working correctly, it should be immediately removed from service until repairs can be carried out, or a qualified service technician is contacted for corrective action.**

SAFETY **This manual, the owner's manual and all other associated manuals must be given to and retained by the purchasing facility or end user. The Owner's Manual is intended to be used by the Building Owner or Manager. ONLY a qualified service technician can use any of the manuals to make changes to the product.**

SAFETY **It is the responsibility of the purchasing facility or end user to keep warning instructional labels in accordance with ANSI A156.10.**

SAFETY **All electrical wiring work performed must meet all local, state, federal and/or other governing agency codes. All electrical troubleshooting or service must be performed by qualified electrical technicians and must comply with all applicable governing agency codes.**

SECTION 1.3 Shut Off Circuit Breaker

DANGER **Shut the installation site Circuit Breaker OFF. Failure to do so may result in serious personal or fatal injury. When uncertain whether power supply is disconnected, always verify using a voltmeter.**

CAUTION **Ensure that incoming electrical ground is properly secured to the grounding screw or grounding wire, whichever is provided.**

CAUTION **Keep all incoming 120 VAC wiring separate from low voltage wiring within Header. Do not route 120 VAC wires near the OPUS Control and/or Motor/Operator.**

CAUTION **Insert all incoming 120 VAC Power wires into the pre-drilled Electric Service Access Hole located at the left or right side of Header End Cap. It is recommended to house all wires into an Electrical Conduit.**

NOTICE **All high voltage electrical connections must be made by licensed electricians according to National and Local electrical codes/regulations and permanent wiring shall be installed as required by local codes.**

NOTICE **Electrical circuit to the Nabco operator must not be shared with other equipment such as lighting, cash registers, or any device that might cause electrical interference on the circuit.**

CHAPTER 2 SCOPE

SECTION 2.1 To the Installer

The purpose of this manual is to familiarize the installer and purchaser with the proper installation and operation of this system. It is essential that this equipment be properly installed and operational before the door is used by the public.

It is the installer's responsibility to inspect the operation of the entrance system to be sure it complies with any applicable standards. In the United States, ANSI Standard 156.19 (used to cover Low Energy doors); and ANSI Standard 156.10 (used to cover Full Energy doors). Other local standards or codes may apply. Use them in addition to the ANSI standard. Swing door Units are listed with the Underwriters Laboratory and are identified as such on the label.

Instruct the building owners and operators on the essentials of the operation of the door and this device. The owner should follow these instructions to determine whether the door is operating properly and should immediately call for service if there is any malfunction. All installation changes and adjustments must be made by qualified NABCO-trained technicians.

If, after troubleshooting a problem, a satisfactory solution cannot be achieved, please call NABCO Entrances at 1-877-622-2694

Option #3 between 7 am – 5:30 pm Central time or email techsupport@nabcoentrances.com reference NABCO Swing.

SECTION 2.2 Objective

The NABCO Swing is designed to be installed onto the face of the Door Frame. The door function is controlled by the Opus Control. The OPUS Control offers many features to accommodate most installation options. This manual offers step-by-step instructions.

CAUTION **A pedestrian Door that does not have its glass sections installed at the Factory shall specify that the glazing material employed is to comply with the requirement in UL 325 par.30.5.1:**

> **"The glazing material in both fixed and sliding panels of all sliding doors and in all unframed swinging doors shall comply with the requirements in the Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings, ANSI Z97.1. Glazing material for other pedestrian doors shall also comply with ANSI Z97.1, except that single strength or heavier glass may be used for those portions of doors involving a glazed area of less than 1ft2 (0.9 m2) and having no dimension greater than 18 in (457 mm).**

SECTION 2.3: Limited Warranty

NABCO ENTRANCES, INC., for its product line, provides its customers the following limited warranty:

- NABCO ENTRANCES, INC. will exchange or repair, F.O.B. the plant, any component found defective in workmanship and/or material, subject to NABCO's inspection, for a period of 12 months after the date of shipment from NABCO.
- Warranty does not include field service labor. The installation contractor/customer will be responsible for installation and field service. This is NABCO ENTRANCES, INC.'s sole warranty.
- The warranty does not cover loss or damages resulting from causes beyond the manufacturer's control, misuse, neglect, accidents, windstorms, or other acts of God, or acts of terrorism.
- The warranty is for normal use and service. This warranty does not apply to equipment that has been tampered with, repaired, or altered so as to adversely affect conditions of operation.
- Warranty will not obligate NABCO for damages resulting from such alterations, misuse, or acts of God, or acts of terrorism.

If you require additional information, please contact:

Nabco Entrances, Inc.
Technical Services Team
Phone Number: 877-622-2694 Option #3
E-Mail Address: techsupport@nabcoentrances.com

SECTION 2.4: Gaining access into the "myNABCO" Portal

2.4.1 Email and Password

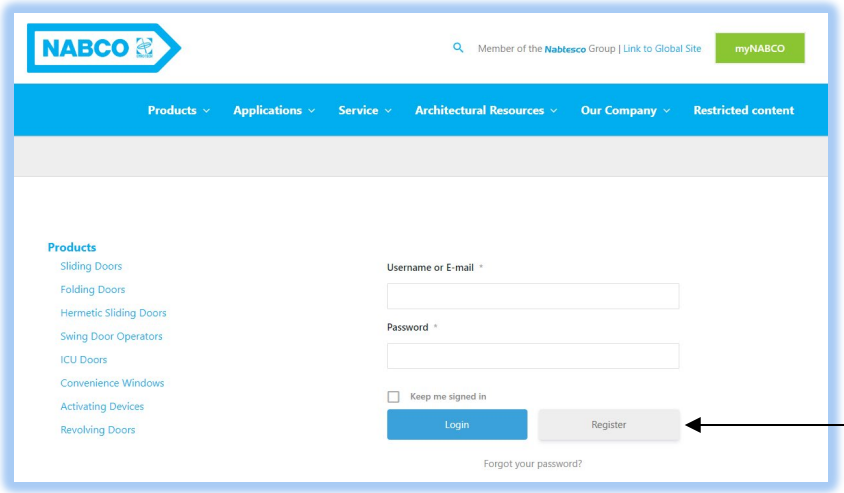
This is for DISTRIBUTOR ACCESS ONLY

To gain access into the "myNABCO" portal, the **Distributor** must first have an assigned Email and Password. **To request** an Email and Password, the following must be done:

1. Open the NABCO Website: www.nabcoentrances.com
2. Click on the "myNABCO" button (Green Button)



3. Click on the "Register" button (see below)
4. A form appears.



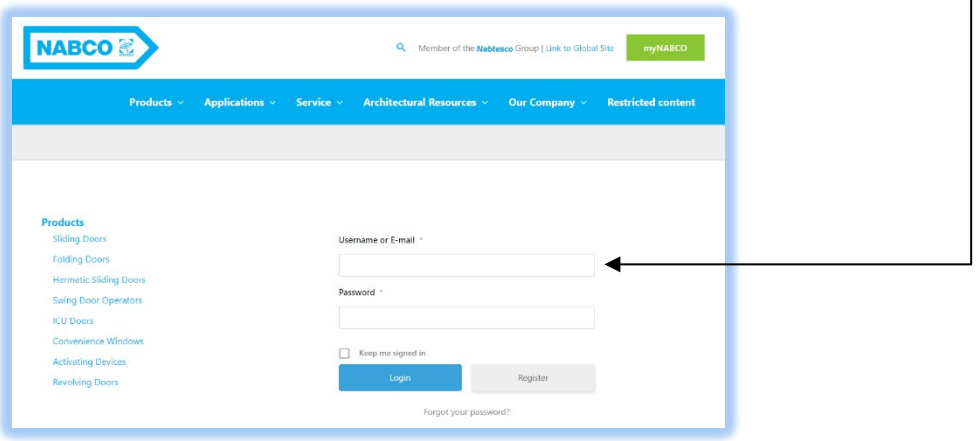
1.
2.

5. Complete the form.
   a. Enter a username, first name, last name, email address and chosen password/verify it, AND then click on the blue **Register** button.
6. A confirmation will be sent back to the **Distributor** verifying the registration.
7. Use the confirmed username and password to Login.

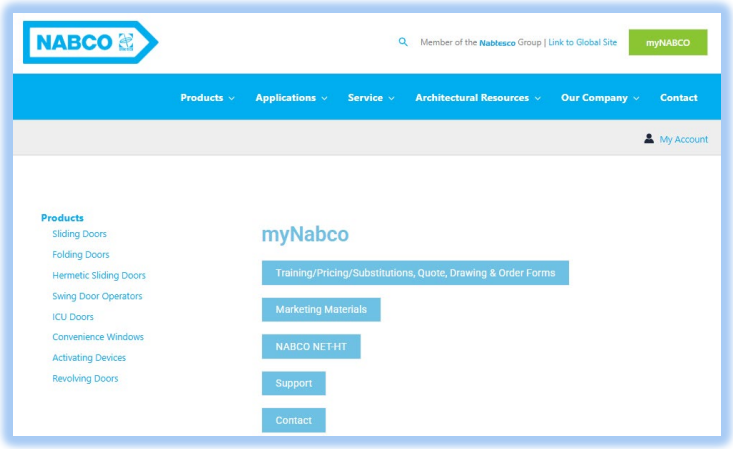
2.4.2 Accessing Installation, Wiring and Programming Manuals

For User convenience there are now (2) ways to obtain associated Installation, Wiring and Programming Manuals:

- All Associated Manuals are packed within Decal Packets that are placed inside the Header.
- For Electronic copies please Login: **www.nabcoentrances.com → myNABCO portal→LOGIN.**



- The screen below appears once you are logged in.
- Navigate to the information needed.



2.4.3 Obtaining Associated Manuals, Cut Sheets and Shop Drawings

- Secure Cut Sheets, Pick Lists and Shop Drawings from your Project Coordinator or General Contractor and review them.

SECTION 2.5: Access to Other Information and Associated Links

2.5.1 Locating Service Part pages

- Service Parts are located at the end of this manual; this is for your reference ONLY.
- Service parts can ONLY be ordered by an **Authorized Distributor** or **Branch**.
- *If questions,* please call NABCO Entrances Technical Service at 1-877-622-2694, Option 3, between 7 am – 5:30 pm Central Time for additional assistance.

2.5.2 Links to Service Parts pages in this manual

Click on the link below to reach the appropriate Parts Page OR see the back of the manual:

Operator Assembly (A-01490)

OPUS Assembly (A-01534)

Spindle Kits

Outswing Arm Kit, 0-12" Reveal

Inswing Arm Kit, 0" Reveal

Inswing Arm Kits, 0-6" Reveal

SECTION 2.6 Specifications

Specification	Description	
Weight Operator Assembly	23 pounds (10,5 kg)	
Service Needed	110-120 VAC, 50/60 Hz, 5A max per controller	
Motor Type	DC Brush Motor (with Encoder installed)	
Motor Power Consumption	100 W	
Power consumption	Max. 580 W	
Maximum Door Weight	Full Power	200 pounds (90 kg)
	Low Energy	330 pounds (150 kg)
Maximum Door Width	Full Power	32" - 36" (812mm - 915mm)
	Low Energy	32" - 48" (812mm - 1,219mm)
Standard Reveal	Outswing 0-12" or Inswing 0-6"	
Header Dimensions	Depth	4-3/4" (120mm)
	Height	3" (76mm)
Operating Temperature	5 to 122 ˚F (-15 to +50 ˚C)	
Protection Type	IP 44 Weather Resistant to Water and Dust	
Door Opening Angle	105˚	
Maximum Opening Speed	40˚ (opening degree per second)	
Maximum Closing Speed	40˚ (closing degree per second)	
Hold Open Time	0 - 30 seconds	

CHAPTER 3 PREPARE and ORGANIZE

SECTION 3.1 Tool List

- 5’ LEVEL or larger
- Tape-Measure
- Chalk Line
- Shim-Stack Shims
- Cedar Shake Shims
- Pry-Bar
- Hammer and Rubber Mallet
- Razor Blade or Utility Knife
- Side-Cutters
- 3/8ths, 7/16ths, ½inch, 9/16ths, 11/16ths, and 15/16ths Wrenches
- Complete Set of Standard & Metric Allen Wrenches
- 3/16ths, 1/4 inch and 5/16ths Masonry Drills
- Complete Drill Index
- 12” Aircraft Drills 3/16ths and 1/4 inch
- Hole Saw Kit or a variety of Step-Down Bits
- 6” Clamps or larger
- Drill Gun with Rotary-hammer capability and/or Impact Gun
- 6” Apex Bit(s)
- Wire-Strippers
- Meter, reading Voltage, Resistance and Continuity
- Electrical Tape
- 3/32nd Straight Screwdriver, for OPUS terminations
- #2 and #3 Phillips Screwdrivers
- Sawhorses
- Traffic Cones and/or Caution Tape
- Bin with SPARE Screws (for both Wood and Metal), Washers, Nuts, Lock Nuts, Wire-Nuts, Rowels, 4-Conductor Wire, Drill Bits, Self-Drilling/Tapping Screws and Bit Extension Tools (i.e., Counter sinks, 3/8ths Nut Drivers, Spare Screw tips, etc.)
- Broom & Dustpan and/or Vacuum
- Drop Chain or Fish Tape
- Pencil or Marker
- Door Pressure Guage for AAADM Inspection

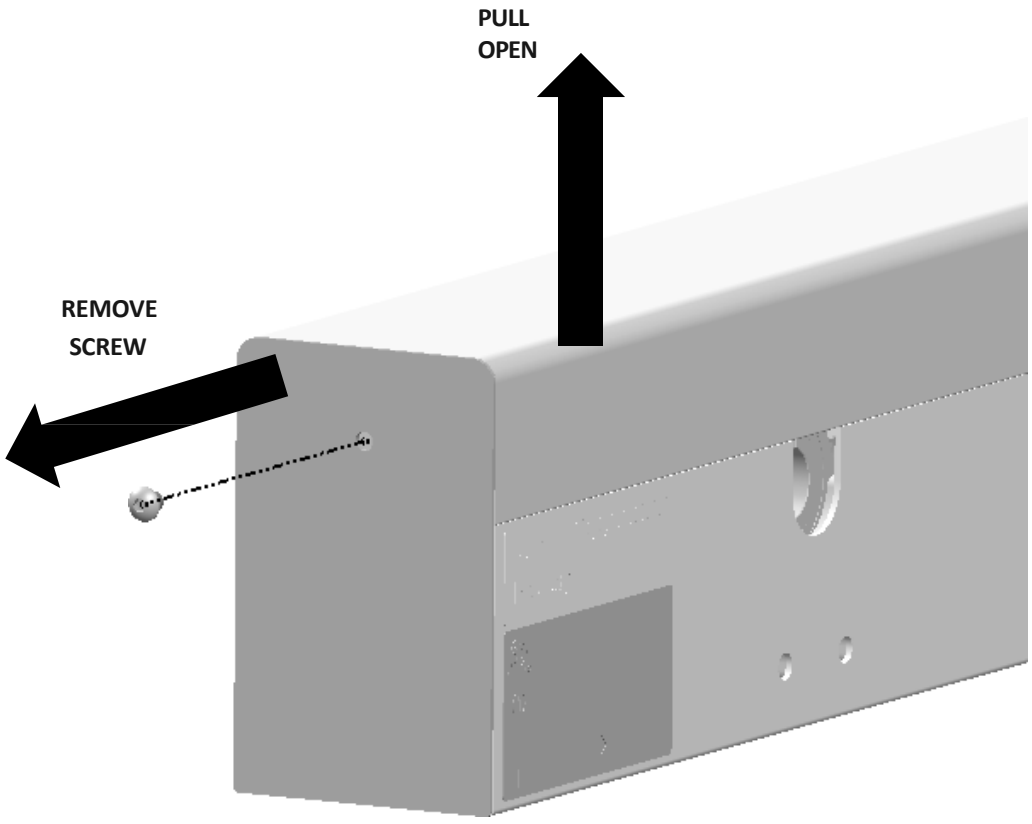
CHAPTER 4 INITIAL ASSEMBLY (Header and Spindle)

SECTION 4.1 Install the Header

4.1.1 Remove the Header Cover

NOTICE **To avoid permanent damage, do not use sharp tools.**

1. Locate the protruding screw on side of header and remove screw using 1/8” Allen wrench.
2. Pull the top cover from the bottom main extrusion.
3. If needed obtain a Tool that is 3/16” (4.7mm) or less in diameter to pry open.



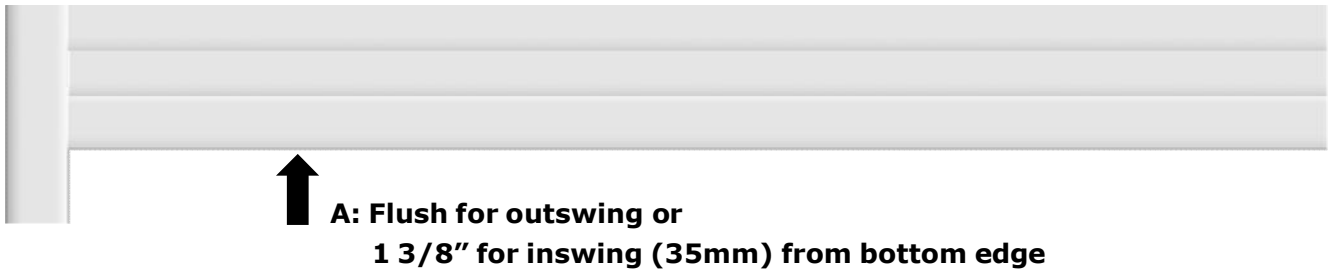
4.1.2 Prepare the Door Frame

1. On the face of the door frame where the operator will be installed, measure “up” from the bottom edge of the header jamb towards the Top, make at least two marks.

   - **Measurement A**

     1. Outswing Door: The header can be mounted flush from bottom edge of mounting surface.

     2. Inswing Door: Measure 1 3/8” (35mm) from top of door, this mark is the bottom of the header.



2. Verify the spindle location.

   - **Measurement B**

     1. Measure 5” (127mm) from the center of the pivot to the center of the spindle.

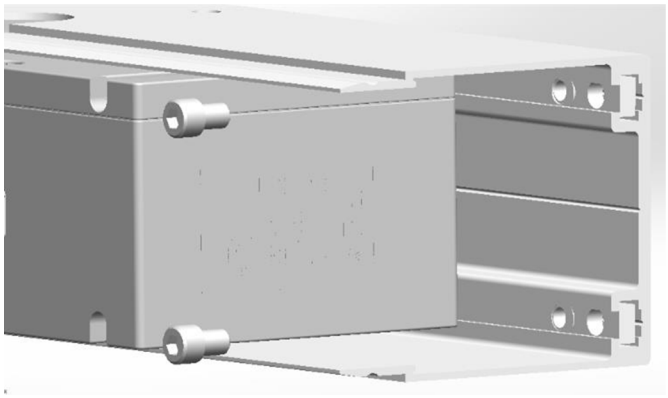


   - **Repeat**

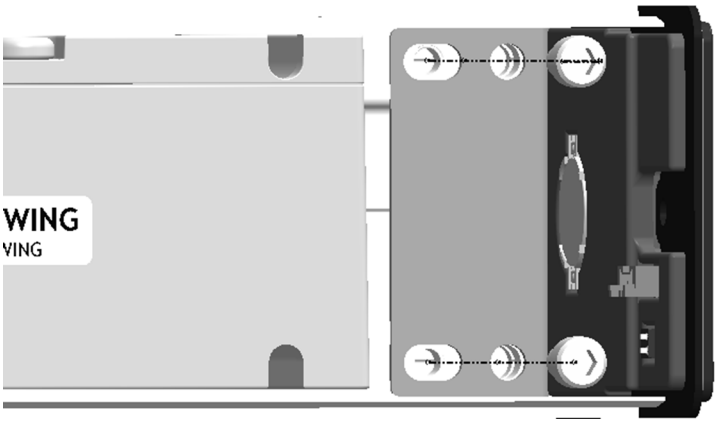
     Repeat Measurement A and Measurement B for the other door.

4.1.3 Install NABCO Connect

1. The NABCO Connect is placed in its own box along with 2 x 1/4-20 nuts and 2 x 1/4-20 socket head cap screws.

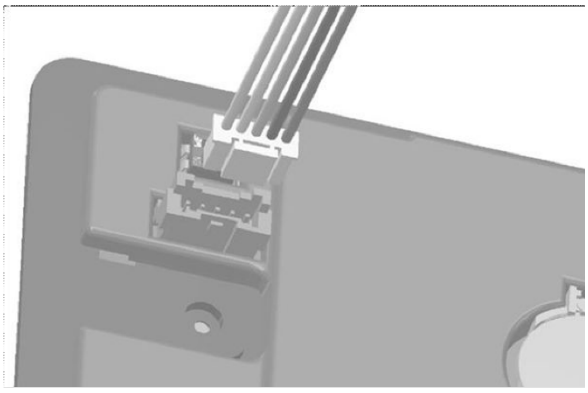


2. Slide the nuts into the nut chases on the open end of the header. Place the socket head cap screws through larger slotted holes on the NABCO Connect and tighten with a 3/16” Allen wrench making sure the back side of the NABCO Connect is flush with the side of the aluminum extrusion.



3. Locate the harness lying loose within the header, the clip side should be towards the center of the unit. Connect it to the backside of the NABCO Connect making sure it is aligned correctly.

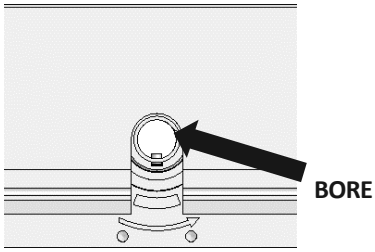
NOTICE **The connector is keyed and can only be inserted one way, don’t force it or you will damage or break the connector.**

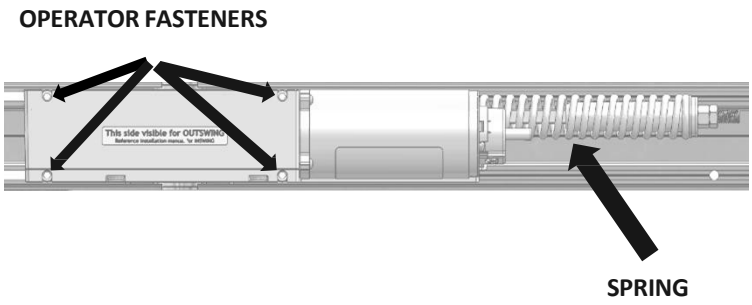


4.1.4 Header Orientation & Handing

NOTICE **This product can be set up as Outswing or Inswing. You will receive it configured Outswing.**

1. To change from outswing to inswing loosen the 4 fasteners with a 3/16” Allen wrench and place the spring side of operator closest to you.



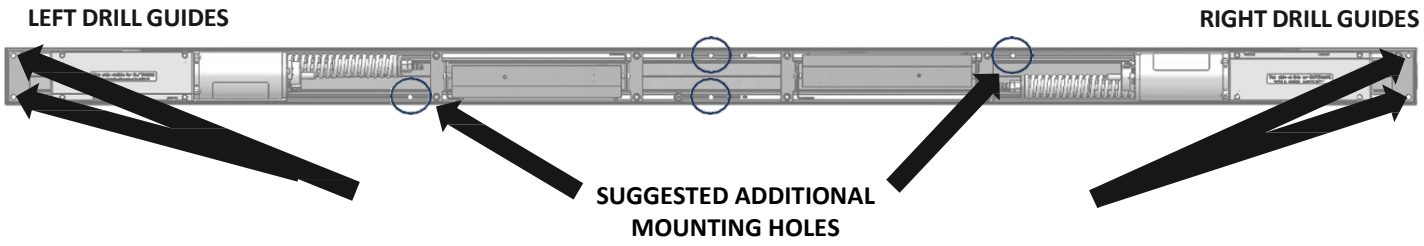


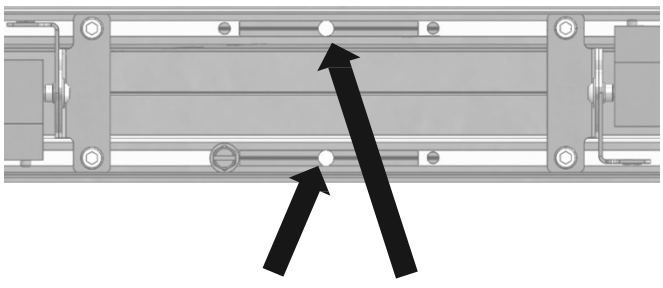
4.1.5 Drill Mounting Hole into Header

NOTICE **Remove or cover the Opus controller before drilling the mounting holes and power wiring hole to prevent damage to the controller from metal shavings.**

1. Align the header up against the marked lines from 4.1.2 (Measurement A), while ensuring that it is square and level.
2. Looking at the back wall of the header, between the (2) drill guide holes located on each side of header, find a stud somewhere in the center.
3. Measure, mark, and drill (4) 1/4” (6mm) screw hole so the header can be secured to a stud.
   a. If deemed necessary, the Opus control and/or the motor/operator can be temporarily removed using 3/16” Allen wrench on the 4 socket head cap screws on the control or operator.

NOTICE **Header must be level and securely fastened to the door frame and/or solid wood blocking (shim) above door frame to prevent flexing or movement of header during operation.**





NOTICE

If no studs exist behind drill guides, install fasteners in nut chase similar to center hole. DO NOT USE back wall of header because header will flex, and injury may result.

4. Looking at the back wall of the header. Drill a hole for power wiring somewhere in the middle.
5. Line up screw holes. Secure the header to the door frame.
   a. It is recommended to use a total of 8 or more fasteners.
   b. Examples: socket head cap screws, lag bolts, wood screws, 1/4" (6mm) screws, or rivnuts.
   c. The header must be level to frame and securely fastened to the door frame and/or solid wood blocking (shim) above door frame to prevent flexing or movement of header during operation.

SECTION 4.2 Install Spindle

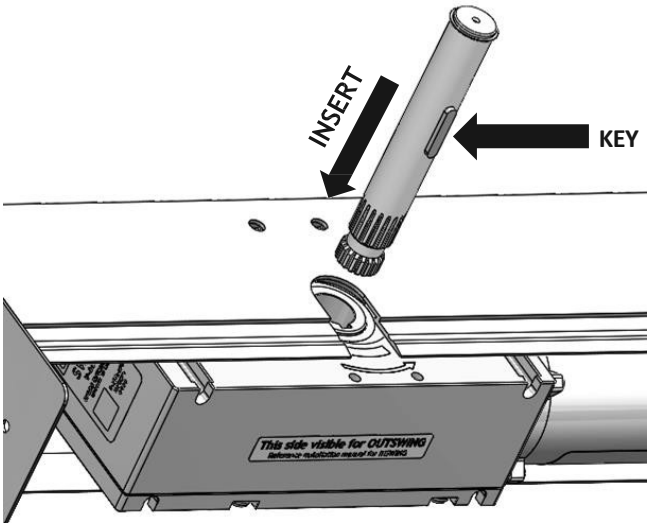
4.2.1 Spindle

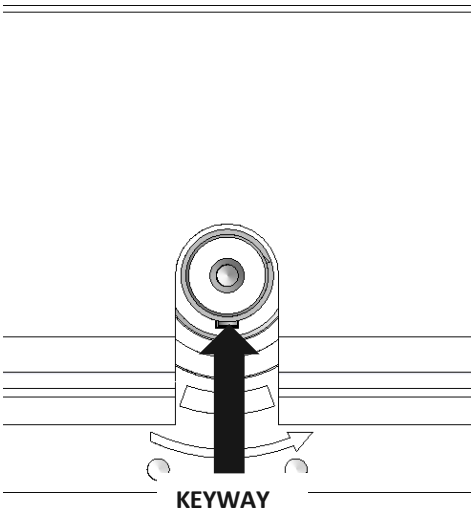
Spindle Kits			
Length	**Arm**	**Standard Use**	**Part Number**
4"	Short	Inswing	A-01540
5"	Medium	Outswing	A-01540-10
6"	Long	Extreme cases	A-01540-20

NOTE: If needed, a longer spindle can be used to lower the arm. For instance, when the header needs to be mounted higher.

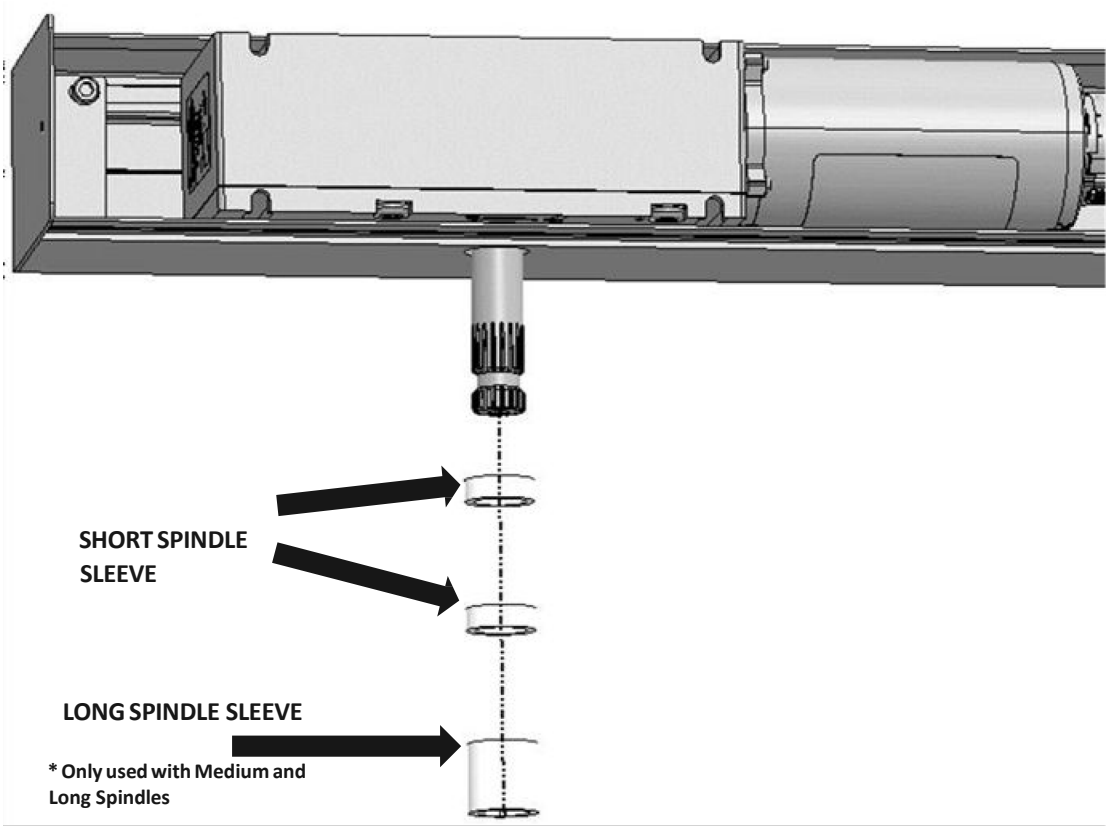
4.2.2 Spindle Installation

1. Locate machined holes on top of header. Locate the keyway (notch) inside the bore.
2. Obtain the spindle. Locate the spindle keyway (small protrusion).
3. Align the spindle so the spindle key can slide into the keyway. Slide the spindle into the shaft.



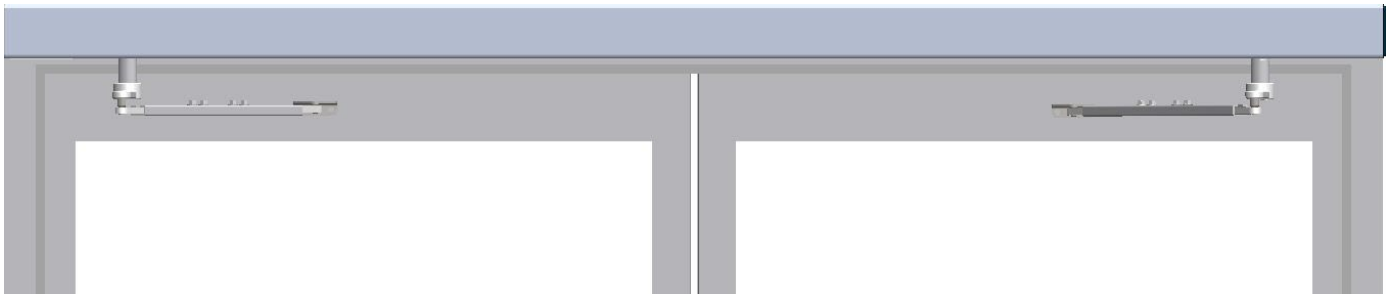


4. From the bottom of the header. Slide the (2) short spindle sleeve onto the shaft, then if needed slide (1) long spindle sleeve on to the shaft for the medium spindle or (2) long spindle sleeves for the long spindle.



CHAPTER 5 SECONDARY ASSEMBLY (Outswing Arm, and Inswing-Arm, 0” Reveal)

SECTION 5.1 Install Simultaneous Pair Outswing-Arm Assembly

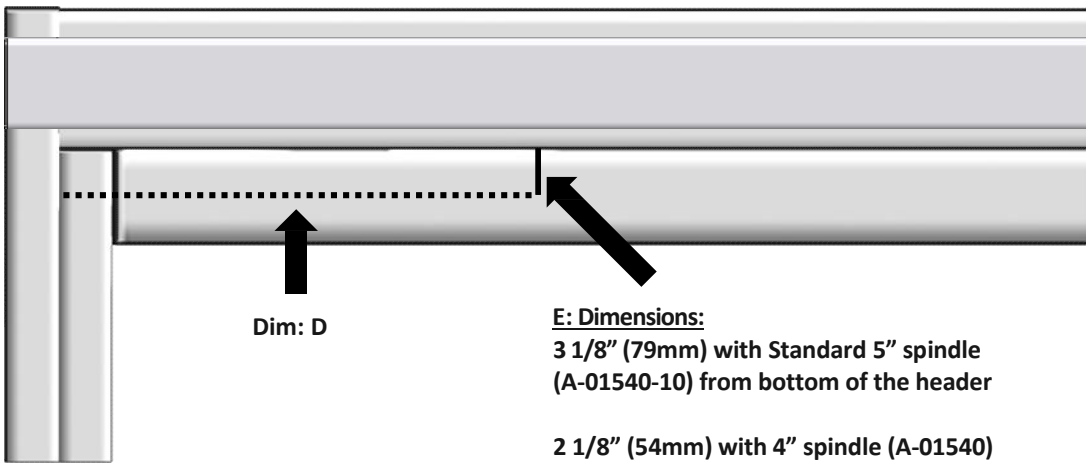


5.1.1 Install the Outswing Arm Shoes

1. With the door fully closed, measure 14 1/8” (359mm) **(Measurement D)** from the center line of pivot towards center of door panel based on the chart below:

Set-Up	Measurement D
Butt Hinge	14 1/8” (359mm)
Center Pivot Hinge without Finger Guards ***NOTE:*** *The spindle location will move 2” (50 mm) away from the jamb as well.*	16 1/8” (410mm)
Center Pivot Hinge with Finger Guards ***NOTE:*** *The spindle location will move 3” (76mm) away from the jamb as well.*	17 1/8” (435mm)

2. Mark a vertical line 3 1/8” (79mm) **(Measurement E)** down from bottom of header.
   NOTE: *See the chart below for 4” and 6” spindles.*
3. Position the arm shoe assembly up against the door panel. Center the first screw hole (pivot side of door panel) to the vertical line. Ensure the arm shoe assembly is level.
4. Repeat for second door panel.

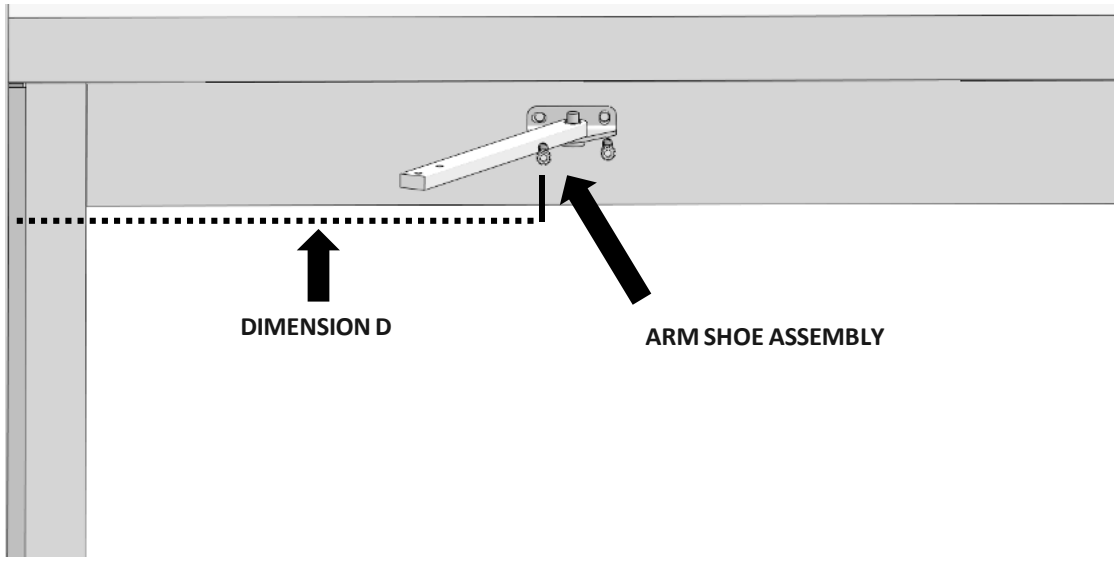


E: Dimensions:
3 1/8" (79mm) with Standard 5" spindle (A-01540-10) from bottom of the header

2 1/8" (54mm) with 4" spindle (A-01540) from bottom of the header

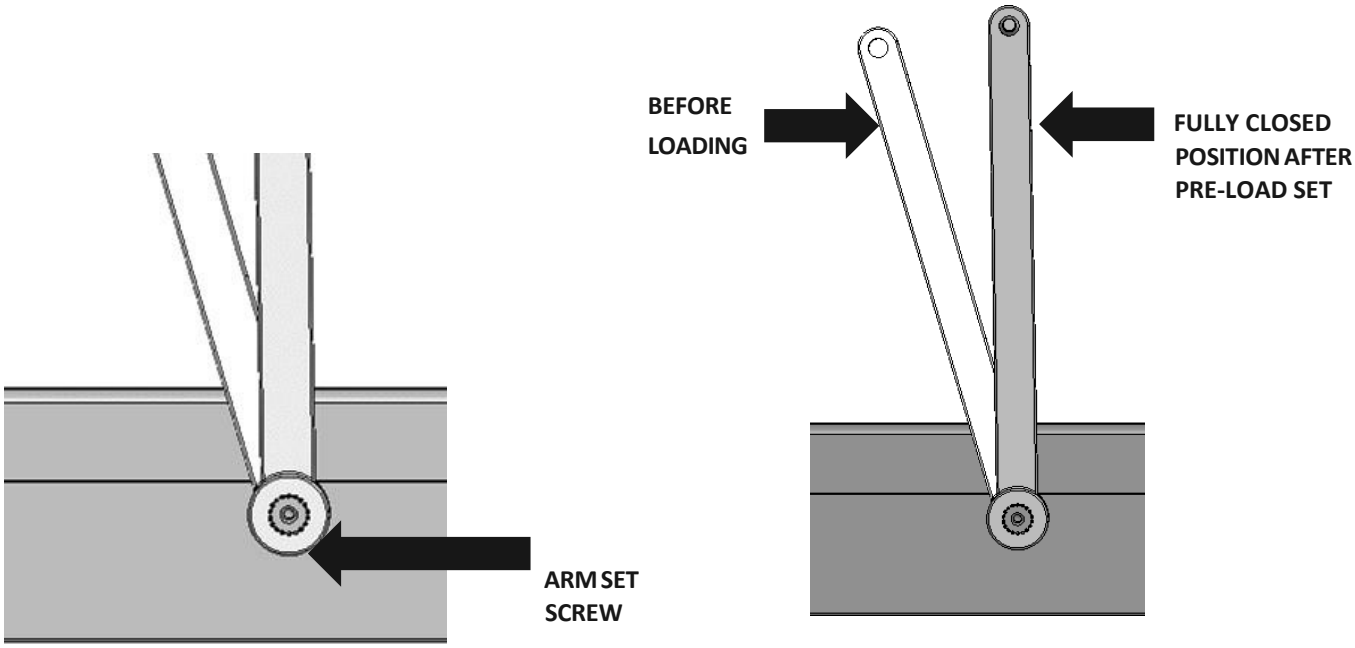
4 1/8" (105mm) with 6" spindle (A-01540-20) from bottom of the header

5. Use the Arm Shoe Assembly as a template to mark (2) 1/4" (6mm) screw holes.
    1. If installing (2) sex bolts:
        a. Drill (2) 3/8" (9.5mm) screw holes all the way through the door panel.
        b. Insert (1) sex bolt into each hole from back side of the door until they are flush to the door.
        c. Secure the arm shoe assembly to the door panel with (2) 1/4-20 x 7/8" screws.
    2. If not installing sex bolts: Prepare and use appropriate 1/4" hardware for door material.



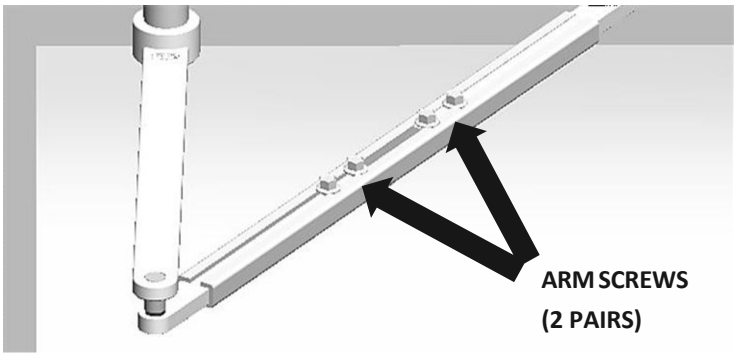
5.1.2 Install the Outswing Arms

1. Place the splined part of the arm under the spindle at 90° pointed directly away from door.
2. Watching the splines on the spindle turn the arm towards the pivot side of door one notch.
3. Push up on arm to fit it onto the spindle.



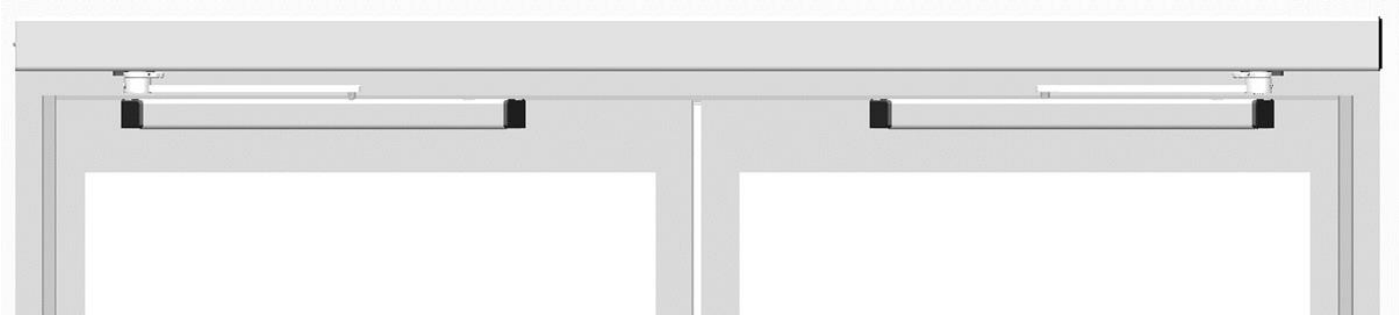
4. Tighten the set screw with a 5/32” Allen wrench on the arm to make sure it is secured.
5. Assemble arm assembly by sliding steel bars into aluminum extrusion.
6. Take the arm attached to the operator and bring to 90°, while holding the door fully closed.

7. Apply provided Threadlocker on both pairs of screws and tighten to 10 ft-lbs of torque using 3/8 wrench or socket.



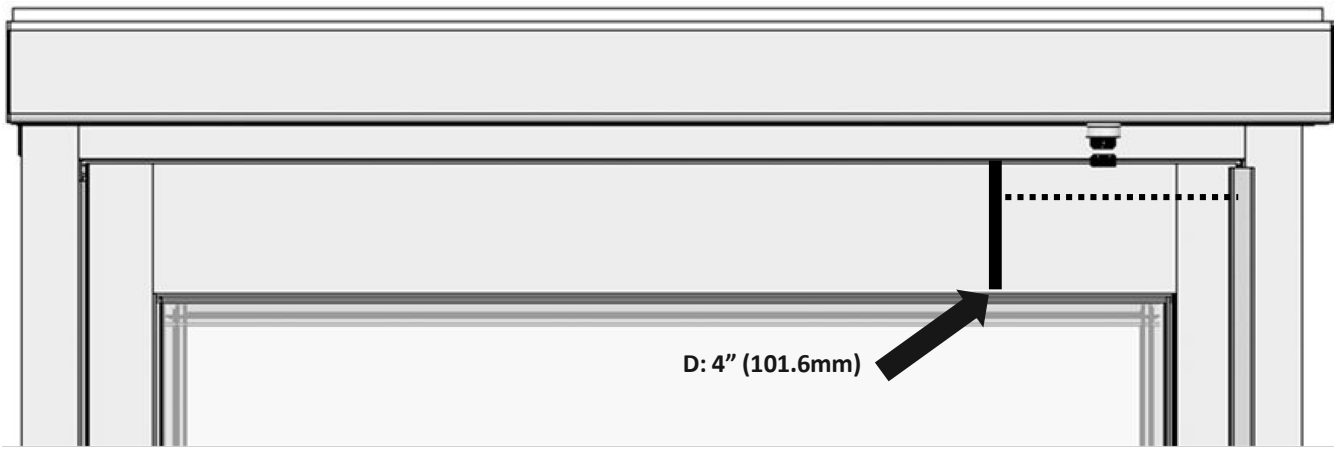
8. Open the door up to the desired angle, move the stop hammer to touch the stop block and tighten socket head cap screw.
9. Go to Section 6.1 to make adjustments and finish installation.

SECTION 5.2 Install Simultaneous Pair Inswing-Arm Assembly, 0” Reveal

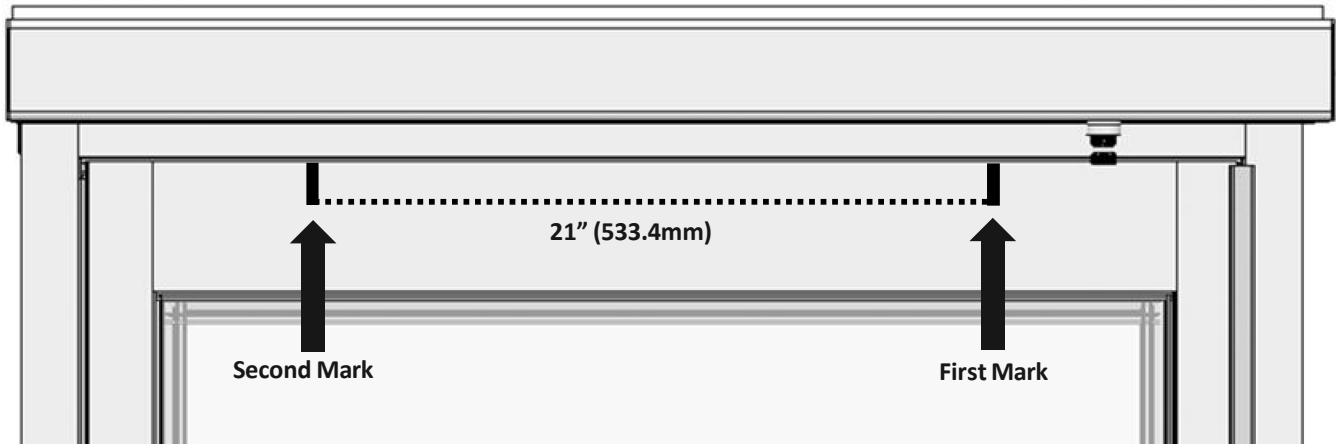


5.2.1 Prepare for the Inswing Tracks

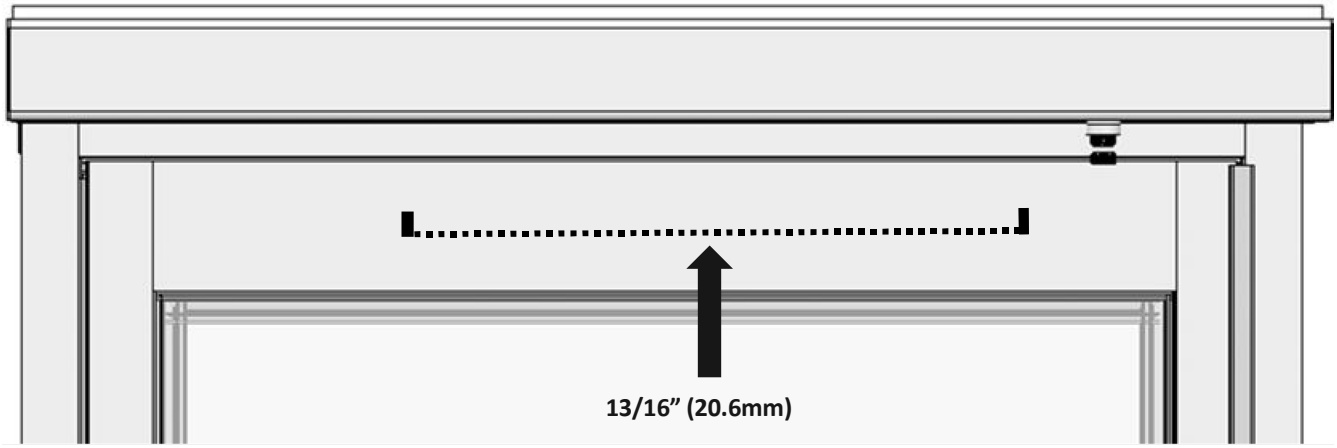
1. With the door fully closed, measure 4” (101.6mm) from the pivot towards the center of the door make a mark. This is the location of the first hole for the track.



2. Measure 21” (533.4mm) from the first mark to the left and make a mark.



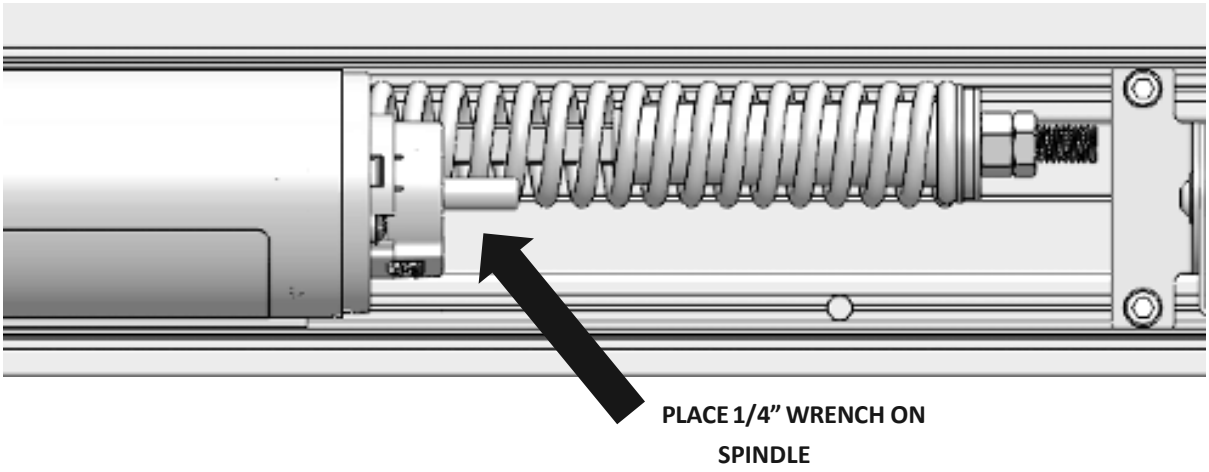
3. Then measure 13/16” (20.6mm) down from top of rail, where the two marks cross will be the screw locations for the track.



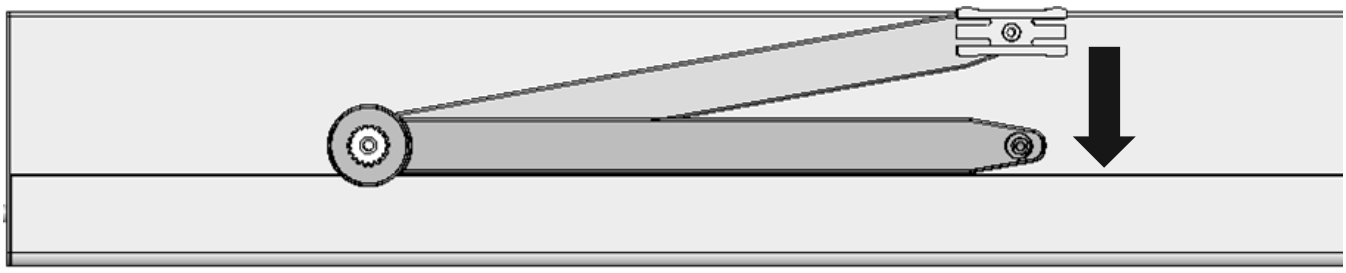
4. Position the inswing track up against the door panel, top of track should be flush with top of door panel and holes in the track should line up with the marks on the panel.
5. If installing (2) sex bolts:
    1. Drill (2) 3/8" (9.5mm) screw holes all the way through the door panel.
    2. Insert (1) sex bolt into each hole from the back side of the door until they are flush to the door.
6. If not installing sex bolts: Prepare appropriate 1/4” hardware for door materials.

5.2.2 Install the Inswing Arm

1. Place the splined part of the arm under the spindle with glide block as close to panel as possible.
2. Turn splined end of arm slowly away until splines line up.
3. Push up on the arm to fit it onto the spindles.
4. Pull arm away from the door frame.
5. On the protruding motor shaft there is a notch, place a 1/4” wrench on the notch and slowly release arm until wrench contacts the header extrusion.



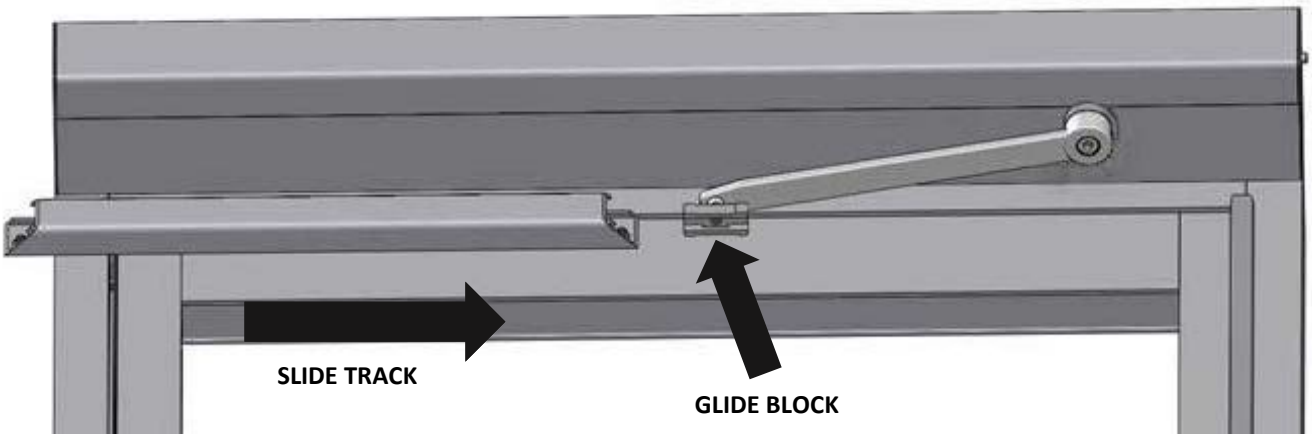
6. Carefully pull the arm down off spindle, rotate the arm one spline towards door, and push back on.



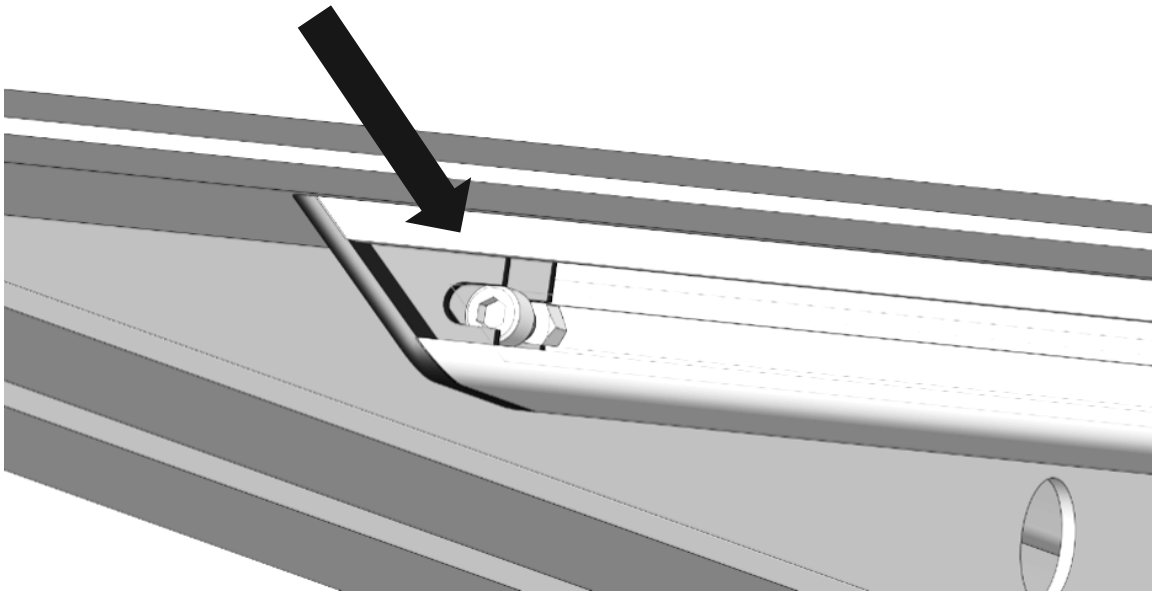
7. Tighten the set screw with a 5/32” Allen wrench on the arm to make sure it is secured.

5.2.3 Install the Inswing Track

1. Slide track onto the glide block and line up mounting holes.
2. Secure the track to the door panel with (2) 1/4-20 x 7/8” screws or other appropriate 1/4" fastener.



3. Place 1/4-20 nut, and 1/4-20 screw on each side of Track.
4. Slide Track End Cap to each side and tighten screws with 3/16” Allen wrench.
5. Go to Section 6.1 to make adjustments and finish the installation.



CHAPTER 6 END PROCESSES

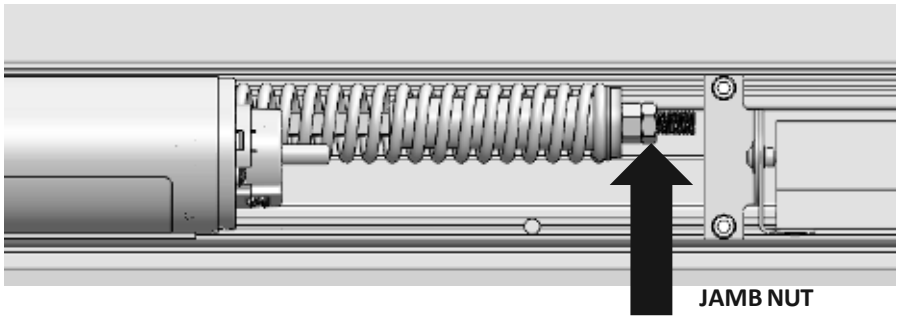
SECTION 6.1 Adjustments and Final Installation

6.1.1 Increase Spring Tension

1. Open the door fully and let go, checking if the door closes properly.
2. If stack pressure, seals, latches, or anything prevents the door from fully closing, more tension may be needed.
   a. Remove the jamb nut at the end of the operator spring.
   b. Use 9/16” wrench to tighten the inner nut to set a higher preload, after a few turns check if door will close fully.
   c. Continue adjusting until the door fully closes every time, but do not exceed 1” from end of ~~rack~~ screw to tightened jamb nut.

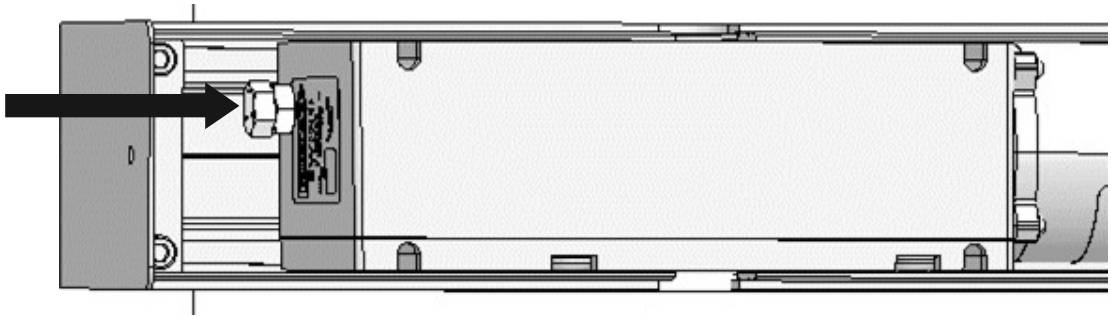
   CAUTION Do not exceed a length of 1” of thread showing on the screw after adjusting the door. If more than 1” is showing, it will decrease the life of the operator.

   d. Re-install the jam nut on the spring and hand tighten.



6.1.2 Adjust Door Stop

1. Using a 9/16” wrench loosen bolt and jam nut on back of operator and unscrew it a few turns.



2. Open the door fully until the operator hits the stop.
3. Continue turning the bolt and checking the door opening until the desired door angle has been reached.
4. Apply provided blue threadlocker onto bolt.
5. Using the 9/16” wrench, tighten the jam nut to the outside of the operator which will secure the door stop in place.

NOTICE **If threadlocker was not applied to bolt, over time the nut may come loose causing the doorstop to move.**

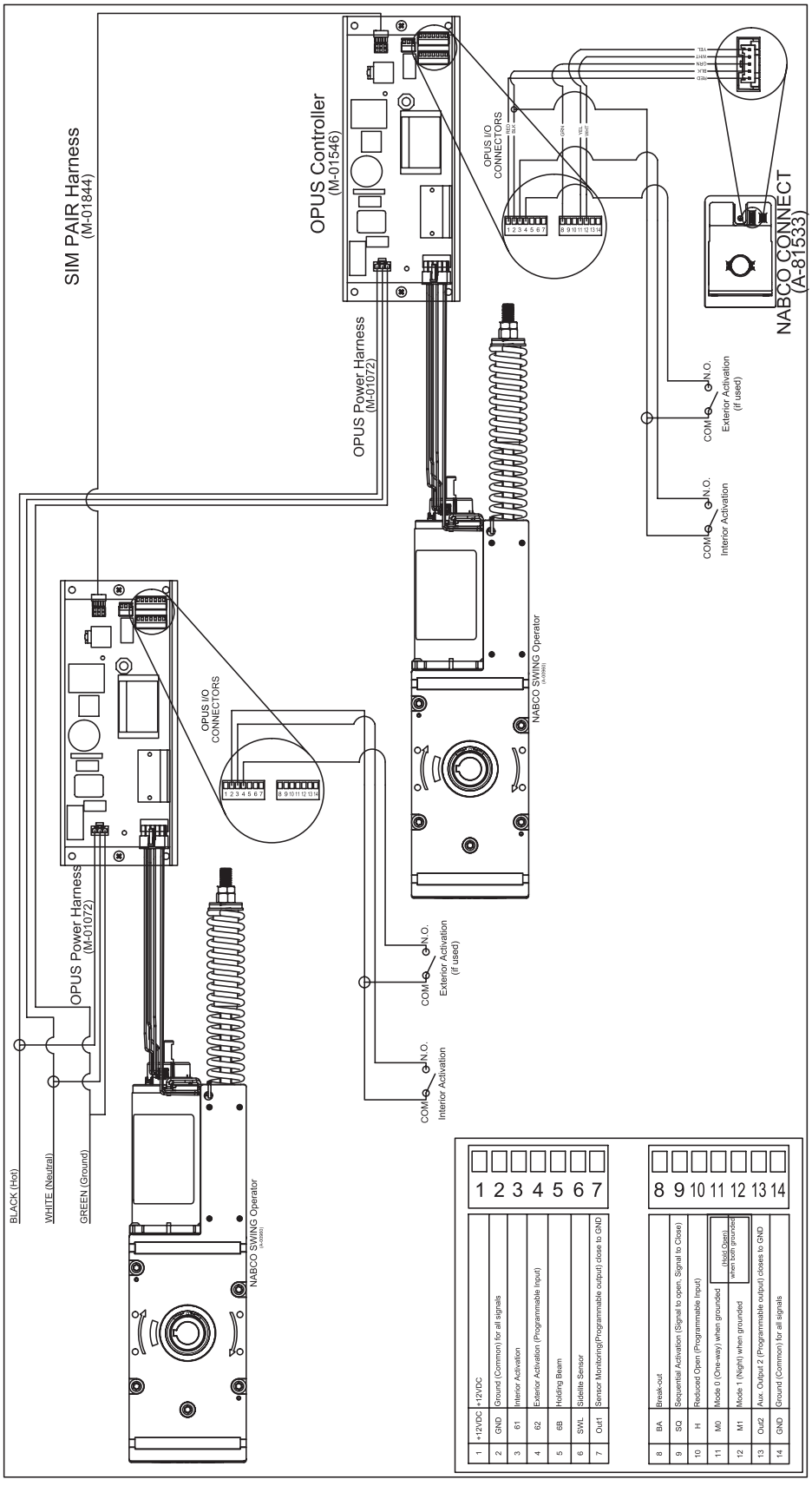
6.1.3 Finish Installation

1. Using dial on Opus controller, navigate to optional settings and change flip screen so it is readable (if needed).
2. Under “Base settings”, be sure “Operator Type” is set to “Nabco Swing.”
3. Perform a stroke-learn.
4. Make other programming / adjustments as needed. See the C-00139: Opus Swing Wiring and Programming manual for details of the above steps.
5. Look at spring clips on each end of header cover and move if needed to be flush with each end of cover. One spring clip will have a screw installed, move it to the NABCO connect side of header.
6. Place cover onto header base and push to snap in place.
7. Replace (2) 10-24 screws on each end of header with a 1/8” Allen wrench and hand tighten.

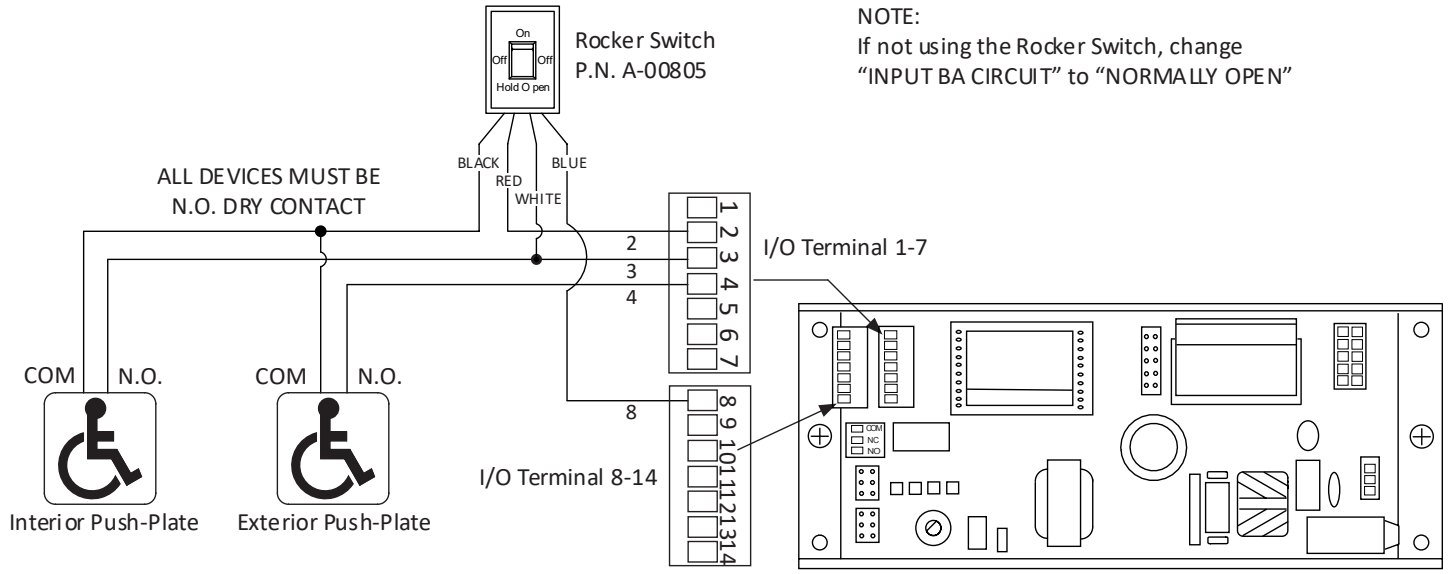
NOTICE **If one or more screws cannot be installed on end caps, drill 0.152” (#24) sized hole on top or bottom of cover and secure cover with provided panhead Phillips TEKS sheet metal screws.**

SECTION 6.2 Swing Door Wiring Diagrams

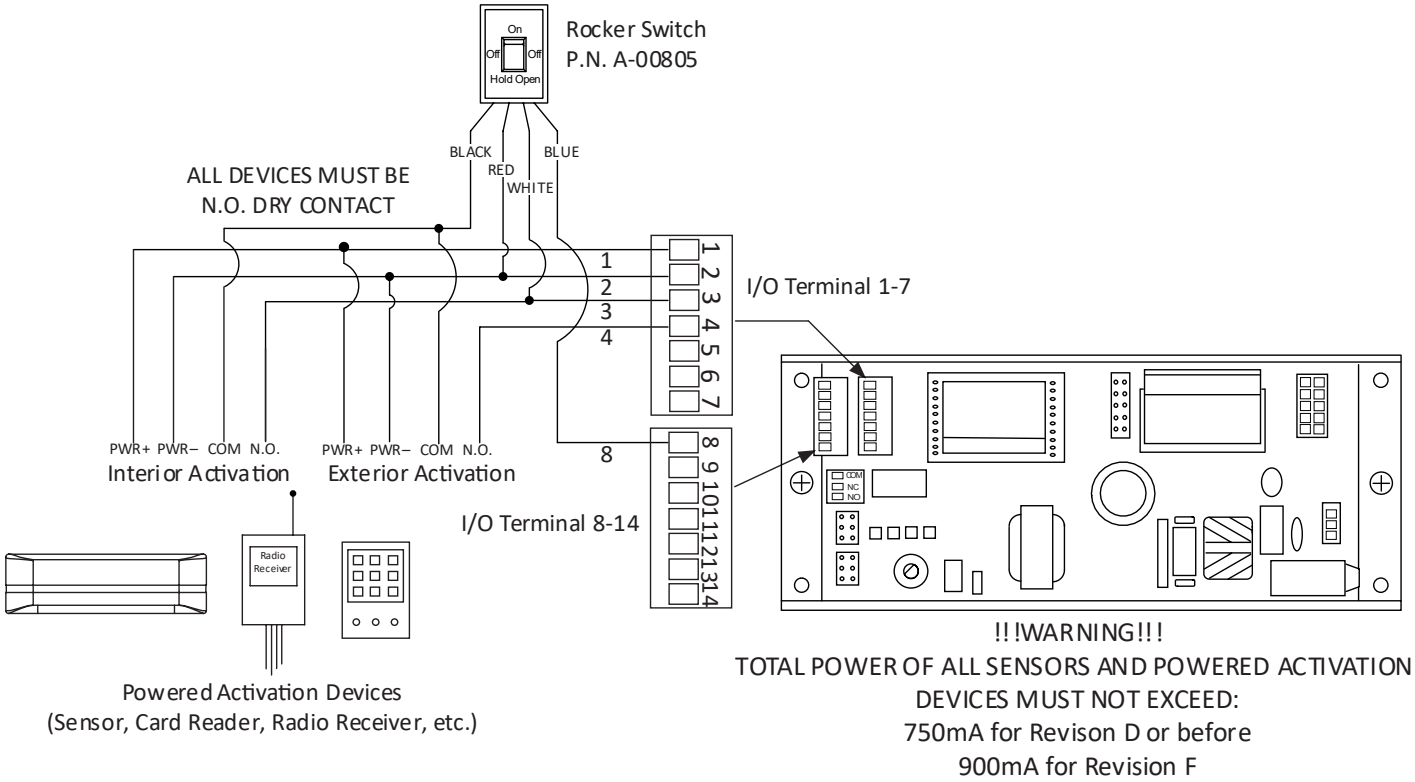
6.2.1 NABCO Swing General Wiring



6.2.2 Activation using ON/OFF/Hold-Open Switch



NON-POWERED ACTIVATION DEVICES



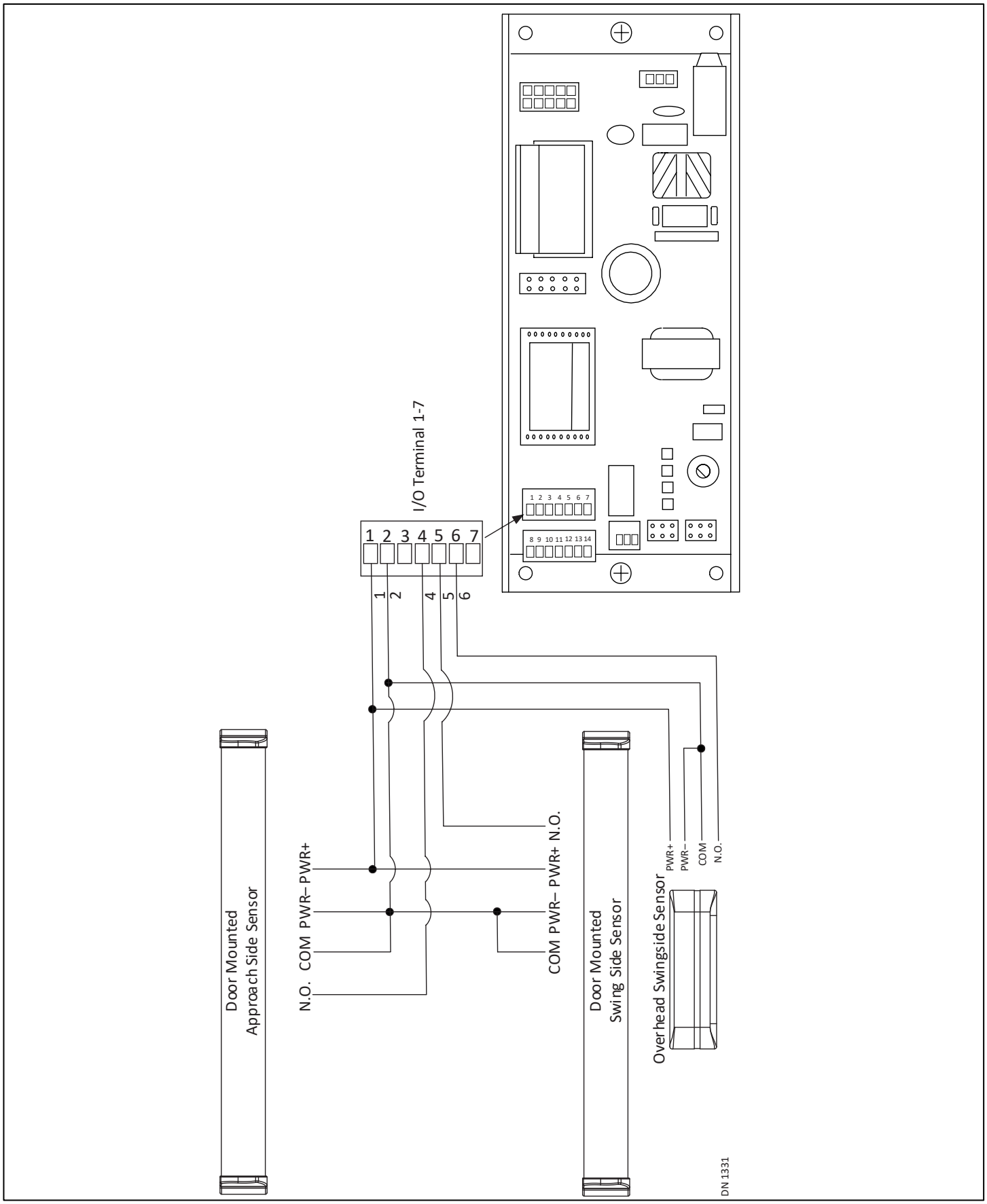
Powered Activation Devices
(Sensor, Card Reader, Radio Receiver, etc.)

!!!WARNING!!!
TOTAL POWER OF ALL SENSORS AND POWERED ACTIVATION DEVICES MUST NOT EXCEED:
750mA for Revison D or before
900mA for Revision F

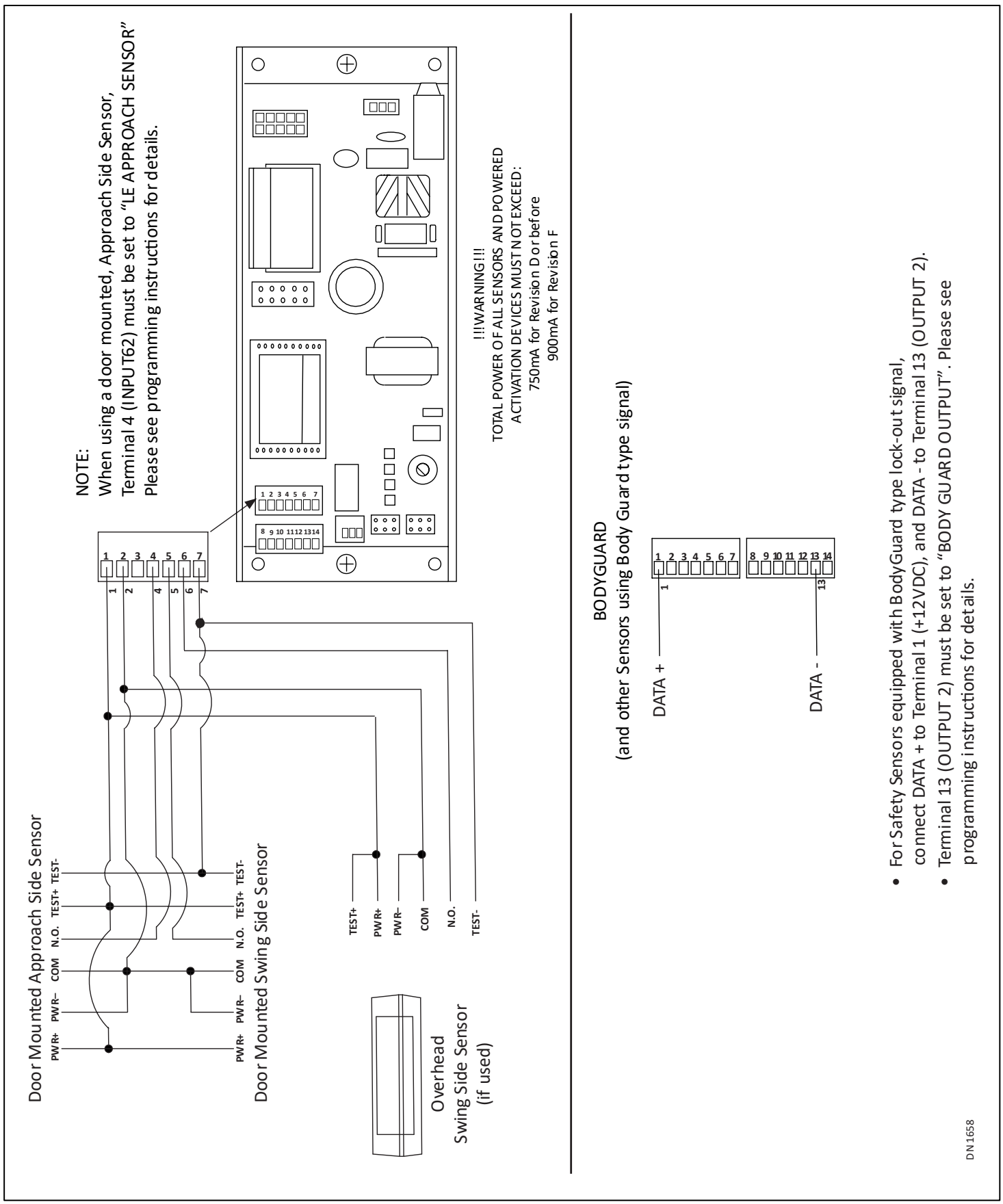
POWERED ACTIVATION DEVICES

DN 1330

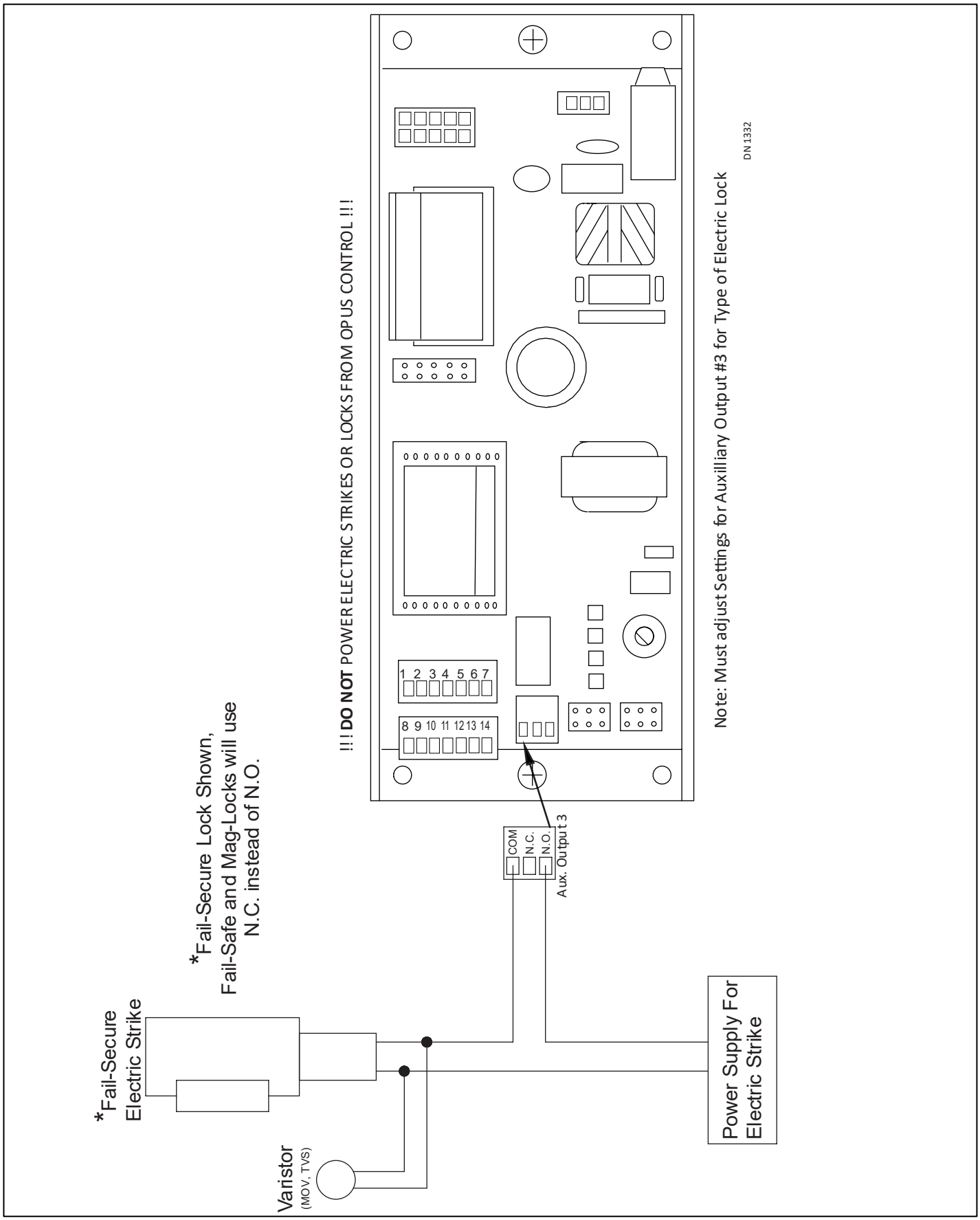
6.2.3 Safety without Monitoring



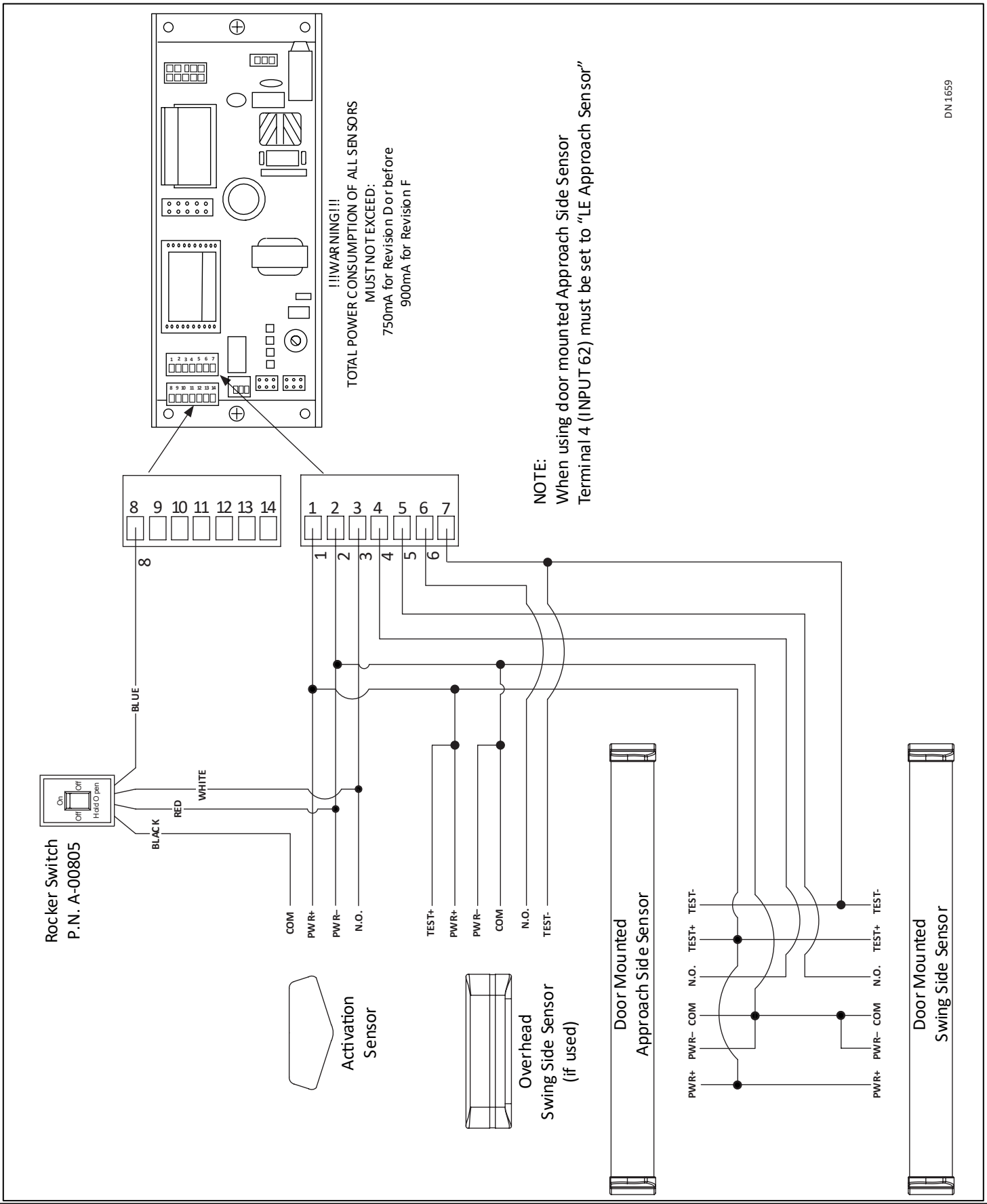
6.2.4 Safety with Monitoring



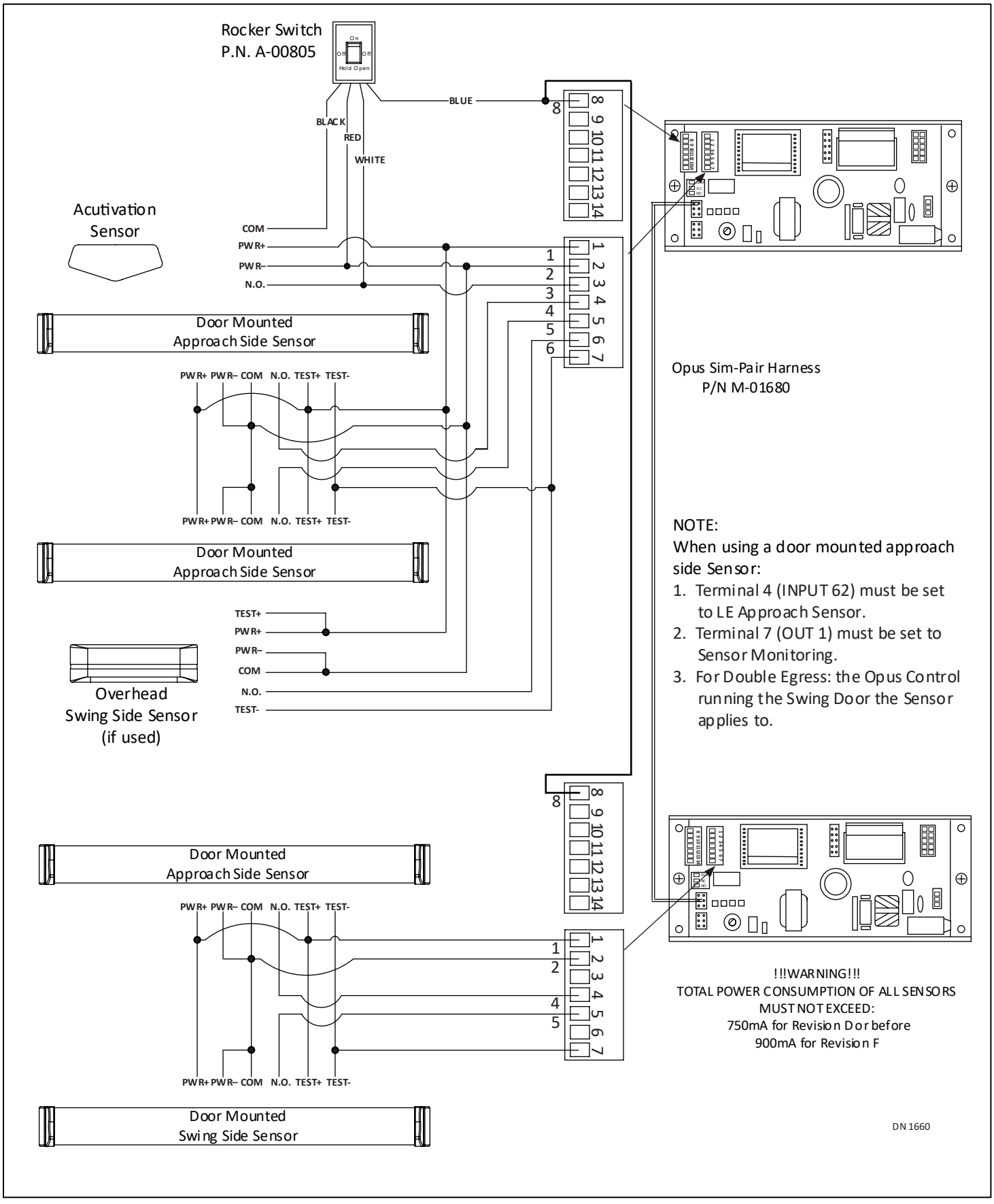
6.2.5 Lock


!!! DO NOT POWER ELECTRIC STRIKES OR LOCKS FROM OPUS CONTROL !!!
1 2 3 4 5 6 7
8 9 10 11 12 13 14
COM
N.C.
N.O.
Aux. Output 3
Note: Must adjust Settings for Auxilliary Output #3 for Type of Electric Lock
DN 1332
*Fail-Secure Lock Shown,
Fail-Safe and Mag-Locks will use
N.C. instead of N.O.
*Fail-Secure
Electric Strike
Varistor
(MOV, TVS)
Power Supply For
Electric Strike

6.2.6 Single Fully Automatic with Monitoring



6.2.7 Simultaneous Pair Fully Automatic with Monitoring



CHAPTER 7 PROGRAMMING MENUS

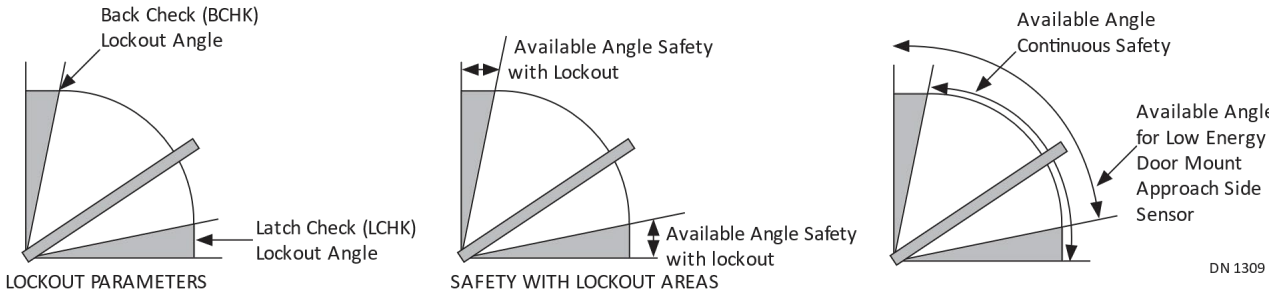
SECTION 7.1 Base Settings

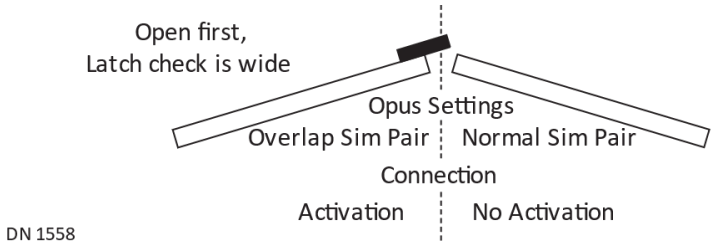
Base Setting			
Setting Category	**Menu Item**	**Default**	**Action**
■ Operator Type[*1]	► NABCO Swing	GT-710 Swing	► Select Operator Type

SECTION 7.2 Movement Settings

Movement Settings			
Parameter	**Range**	**Default**	**Description**
■ Open Speed	0 - 7	3	The higher the number the faster the Door opens
■ Back Check Speed	0 - 7	3	Sets door speed during Back Check
■ Back Check Range	0 - 7	3	Swing Door: 2-1/2° to 35° of Fully Opened
■ Close Speed	0 - 7	3	The higher the number, the faster the Door closes
■ Latch Check Speed	0 - 7	3	Sets door speed during latch check
■ Latch Check Range	0 - 7	3	Swing Door: 10° to 45° of Fully Closed
■ Open Timer	0-10, 12, 15, 20, 25, 30	5	Hold Open time (in seconds) after Door reaches Full Open and activation signal is no longer present.
■ Reaction Power	0 - 7	3	Determines how fast the door reacts to a reactivation when closing.
■ Open Recycle Sens ■ Close Recycle Sens	0 - 7	3	Recycle detection Sensitivity. Determines how much force is exerted during opening or closing cycle. ► "0" = most sensitive ► "7" = least sensitive
■ After Open Recycle	► Slow Open ► Stop	Stop	Determines what happens after a recycle during Opening cycle. ► Slow Open = Door stops then slowly opens. ► Stop = Door stops then slowly closes.
■ Close Recycle Reopen	► Yes ► No	Yes	Determines what happens after a recycle while closing cycle. ► Yes = Door re-opens ► No = Door stops then slowly closes

SECTION 7.3 Optional Settings

Optional Settings			
Parameter	**Range**	**Default**	**Description**
► Hold Close Force	0 - 3	0	► 0 = OFF, 3 = Strongest Hold Close Force
► Power Close Range	► No Power Close	No Power Close	Closing assisted by Motor to fight wind or stack pressure.
	► Whole Close Cycle		
	► Latch Check Only		
	► Latch and Back		
■ Manual Open Function	► No Action	No Action	Does nothing (Power close selection will not work when used manually)
	► Push and Go		Door will Open to Fully Opened Position when door is pushed.
	► Stop and Close		Door pauses at opened position then closes
	► Open Assist		Motor power assists in manually opening the door. Assist Power depends on how strongly the door is pushed at first.
► Manual Open Sens	0 - 3	1	Angle to activate Push and Go (1-3 recommended Do Not use 0)
► Manual Open Timer	0-10, 12, 15, 20, 25, 30 Same as Open Timer	3	Hold open time for Manual Open Function.
► BCHK Lockout Angle	0-9, A	0	► Sensor lockout angle at Back Check. ► The range is from 0° to 30° from **Fully Opened Position**. ► Used to disable the detection of a Door Mounted Sensor for the **Pull Side** near the fully opened position. ○ "0" = Narrow ○ "A" = Wide
► LCHK Lockout Angle	0-9, A	0	► Sensor lockout angle at Latch Check. ► The range is from 0° to 30° from the **Fully Closed Position.** ► Used to disable the detection of a Door Mounted Sensor for **Approach Side** near the fully closed position. ○ "0" = Narrow ○ "A" = Wide
			
► Stop Force Adjustment	0-7	3	Used to apply motor voltage during the stoppage of the door. 0 = less voltage, 7= most voltage
► Stop Relief (Only for Nabco Swing)	► Yes ► No	No	To reduce the stress for the doorstop, OPUS-tries to stop the door before the door hits the stop. This feature does NOT guarantee the door will STOP; therefore, it is necessary to install a physical door stop.
► Anti-Slam Open?	► Yes ► No	No	Choose Yes if the door is being thrown open due to wind conditions. It increases brake torque near the fully open position.

<table>
<tr><th colspan="4">Optional Settings, CONTINUED</th></tr>
<tr><th>Parameter</th><th>Range</th><th>Default</th><th>Description</th></tr>
<tr><td rowspan="4">► Sim Pair Setting</td><td>► Single Door</td><td rowspan="4">Single Door</td><td>-</td></tr>
<tr><td>► Normal Sim Pair</td><td>Two Opus operate each door simultaneously.
► (for detail, refer to CHAPTER 6)</td></tr>
<tr><td>► Double Egress</td><td>► The Activation signal (only) is shared between doors. All other signals are independent.</td></tr>
<tr><td>► Overlap Sim Pair</td><td>► Overlap Sim Pair is for an Astragal Application.
► Opus Control connected to door that must open first:
• Have activation signals connected to it.
• Be set to “Overlap Sim Pair”.
► The delayed control will be set to “Normal Sim Pair”.
► Latch Check range is wider than normal setting.</td></tr>
<tr><td colspan="4">
</td></tr>
<tr><td>Oneway Secure</td><td>► Yes
► No</td><td>No</td><td>Ignore “Interior Activation” when “Exterior Activation” is ON during Oneway mode at Fully Closed Position.</td></tr>
<tr><td>Flip Screen</td><td>► Yes
► No</td><td>No</td><td>Choose Yes if Opus is installed upside down.
LCD will flip upside down.</td></tr>
</table>

SECTION 7.4 Output Settings

Output Settings				
Parameter	**Terminal**	**Default**	**Range**	**Description**
Output 1	Term 7	Fully Opened Position	► — —	► No Output
Output 2	Term 13	Fully Closed Position	► Fully Closed Position	► Output closes when fully closed
Relay Output 3	Relay Output Terminals	— —	► Closing Status	► Output closes when door is closing
			► Opening Status	► Output closes when door is opening
			► Fully Opened Position	► Output closes when door fully opened.
			► Error State Output	► Output closes when error detected
			► Recycle happened	► Output closes when recycle occurs
			► Electric Strike Lock*1	► Set for electric strike functionality. Output closes just before door opening.
			► Electric Magnetic Lock*1	► Set for Mag lock functionality. Output closes except fully closed position.
			► Air lock	► Set for Air lock functionality. Output closes when door is not fully closed.
			► Breakout Pass through	► Output closes when breakout occurs
			► TrmnL H PassThrough	► Output closes when Terminal H was closed.
			► Door Sequencing	► Set for door sequencing. After activation, wait for "Sequence Delay Timer" seconds, then Output close.
			► ■ Monitoring Norm. Open*2	► Normally open Monitoring circuit (high loigic)
			► ■Monitoring Norm. Close*2	► Normally closed Monitoring circuit (low logic)
			► Bodyguard Output	► Outputs data for bodyguard sensors and other sensors that use the same data to share the Door State.
			► BAorNot-FC Norm.Open	► Output Close when Breakout or Not in Fully Closed Position (N.O.)
			► BAorNot-FC Norm.Close	► Output Open when Breakout or Not in Fully Closed Position (N.C.)
Open Delay Timer	N/A	0.5	0.5, 1.0, 1.5 sec After Unlock Feed Back	Delay time after activation to allow lock to unlock before the door starts moving. Only functional if Electric Lock is selected or Lock Release Force is not 0.
Lock Release Force	N/A	0	0-3	Can change the force to help unlock the electric lock. Only when the lock is locked, the door is pushed toward the closed side before it is activated to open.
Lock Condition	N/A	Every Fully Closed	► Every Fully Closed ► One-way/Night Only	Determines when the electric lock engages.
Sequence Delay Timer	N/A	0	0-10, 12, 15, 20, 25 Same as Open Timer	Delay Time before seconds Door opens when an output is being used for Door Sequencing.
Only Act. Sequenced	N/A	No	► Yes ► No	Change output timing for Door Sequencing. If you choose Yes, Door Sequencing will be on only when activated. (Not output Beam, LE Approach).

*1 To make it easier to unlock an electric lock, the Opus applies closing force preceding door opening. When the Output is related to an electric lock, Hold Close will be 0 as the lock is locked (Rev.28 or later).

*2 If Monitoring is selected here, then either 61/62/6B/SWL Monitoring must be set to "Active".

SECTION 7.5 Input Settings

Input Settings				
Parameter	**Terminal**	**Default**	**Range**	**Description**
Input 62 Setting	Term 4	Ext Activation	► — —	► No input
Input SWL Setting	Term 6	Safety With Lockout	► All Mode Activation	► Activates in all modes except OFF (works in one-way and night)
Input SQ Setting (Rev 28 or later)	Term 9	Sequential Input	► Interior Activation	► Interior Activation (works in both one-way and auto)
			► Exterior Activation	► Can be shunted in one-way
Input H Setting	Term 10	No Function	► Beam Sensor (for Slider)	► Threshold sensor. If activated when the door is not fully closed, the door will re-open.
			► LE Approach Sensor (for Swinger)	► **Door mounted** Sensor (Approach Side)- If activated then will disable hold close at Fully Closed position, Re-open at Closing*1.
			► Unlock Feed Back	► When you choose "Open Delay Timer" and "After Unlock Feed Back", the door will not open until this input is made.
			► Disable Power Close (for Swinger)	► Turns off power close and hold close
			► Sequential Input	► Takes one activation to open door, another to close door
			► Open Slow	► Causes slow opening of the door
			► Safety with Lockout (for Swinger)	► Swing side **header mounted** Sensor- if activated, the door will keep closed at Fully Closed and hold open at Fully Opened
			► Continuous Safety (for Swinger)	► **Door mounted** Sensor (Pull Side)- if activated, door will not open at Fully Closed, stop and close (or slow open) at Opening, do nothing or stop at Closing*2.
			► Reduced Opening	► Change activation to a set reduced point which is measured by "[Base Settings]-[Reduced Stroke]".
			► Emergency Close and Lock	► Forces the door to close*3 and lock (if equipped).
			► Hold Open Mode	► Holds door in the fully open position
			► Reduced Int Act	► Reduced Opening & Interior Activation.
			► Reduced Ext Act	► Reduced Opening & Exterior Activation.
			► AsiaSpec_IntActSwgSd ► AsiaSpec_ExtActSwgSd	**DO NOT USE.**

*1 Only if the door was Fully Opened automatically (ex. Opened by Activation or Push & Go).
*2 This behavior changes depending on how "6B Stop Closing" and "After 6B Open?" is set.
*3 The door will close slowly if any Activations are present

Input Settings, CONTINUED				
Parameter	**Terminal**	**Default**	**Range**	**Description**
Input 62 Timer	Term 4	Same as Open Timer	0-10, 12, 15, 20, 25 Same as Open Timer	Hold open time for Input 62
Input SWL Timer	Term 6	Same as Open Timer		Hold open time for Input SWL
Input SQ Timer	Term 9	Same as Open Timer		Hold open time for Input SQ
Input H Timer	Term 10	Same as Open Timer		Hold open time for Input H
Holding Input H Timer	Term 10	0 sec	► 0, 0.5, 1, 3, 5,10, 15, 30 sec.	Hold ON signal for seconds from OFF trigger.
Input 61 Circuit	Term 3	Normally Open	► Normally Open ► Normally Close	Circuit logic for Input 61
Input 62 Circuit	Term 4	Normally Open		Circuit logic for Input 62
Input 6B Circuit	Term 5	Normally Open		Circuit logic for Input 6B
Input SWL Circuit	Term 6	Normally Open		Circuit logic for Input SWL
Input BA Circuit	Term 8	Normally Close		Circuit logic for Input BA
6B Stop Closing	Term 5	No	► Yes ► No	When 6B is ON at latch check, while closing, the cycle determines the door movement: • Stop or Close
After 6B Open?	Term 5	Yes	► Yes ► No	Determines the door movement (open or close) if 6B is ON.
■ 61 Monitoring	Term 3	Not Active	► Active ► Not Active	Sensor monitoring function* **CAUTION** If monitoring is enabled for any input, a sensor must be connected to the input that is capable of monitoring. That sensor's input must then be connected to an Opus Output programmed for monitoring. If this is not done, errors will occur resulting in the door not operating until the problem is fixed.
■ 62 Monitoring	Term 4	Not Active	► Active ► Not Active	
■ 6B Monitoring	Term 5	Not Active	► Active ► Not Active	
■ SWL Monitoring	Term 6	Not Active	► Active ► Not Active	

SECTION 7.6 History Setting

History Data	
Parameter	**Description**
Operation Cnt	► Indicates the number of door **open** cycles. ► Updated every 100 door cycles.
Open Recycle Cnt	Indicates number of times the Door reversed direction during Opening cycle after sensing: ► A struck object. ► Any amount of friction that surpassed the Open recycle sensitivity setting.
Close Recycle Cnt	Indicates number of times the Door reversed direction during Closing cycle after sensing: ► A struck object. ► Any amount of friction that surpassed the Close Recycle Sensitivity Setting.
Latest Recycle Position	► Indicates the last recycle position during opening and closing. ► For swing doors, it displays the **approximate angle from closed** at recycle. ► For slide doors it displays the position in inches from closed.

SECTION 7.7 Test Open / Close Setting

<= Test Open =>
Tests Open/Close door cycle while ignoring Safety Signals.

CHAPTER 8 TROUBLESHOOTING

NOTICE

If after troubleshooting a problem, and a satisfactory solution cannot be achieved, please call Nabco Entrances at 1-877-622-2694 Option #3 between 7 am – 5:30pm Central time or email techsupport@nabcoentrances.com reference NABCO Swing.

DO NOT leave any problem unresolved. If the door cannot be repaired immediately, turn off the door and leave it inoperable until repairs can be made. Advise the owner **NOT** to operate the door in automatic mode until repairs are affected. **NEVER** leave a door operating without all safety detection systems operational.

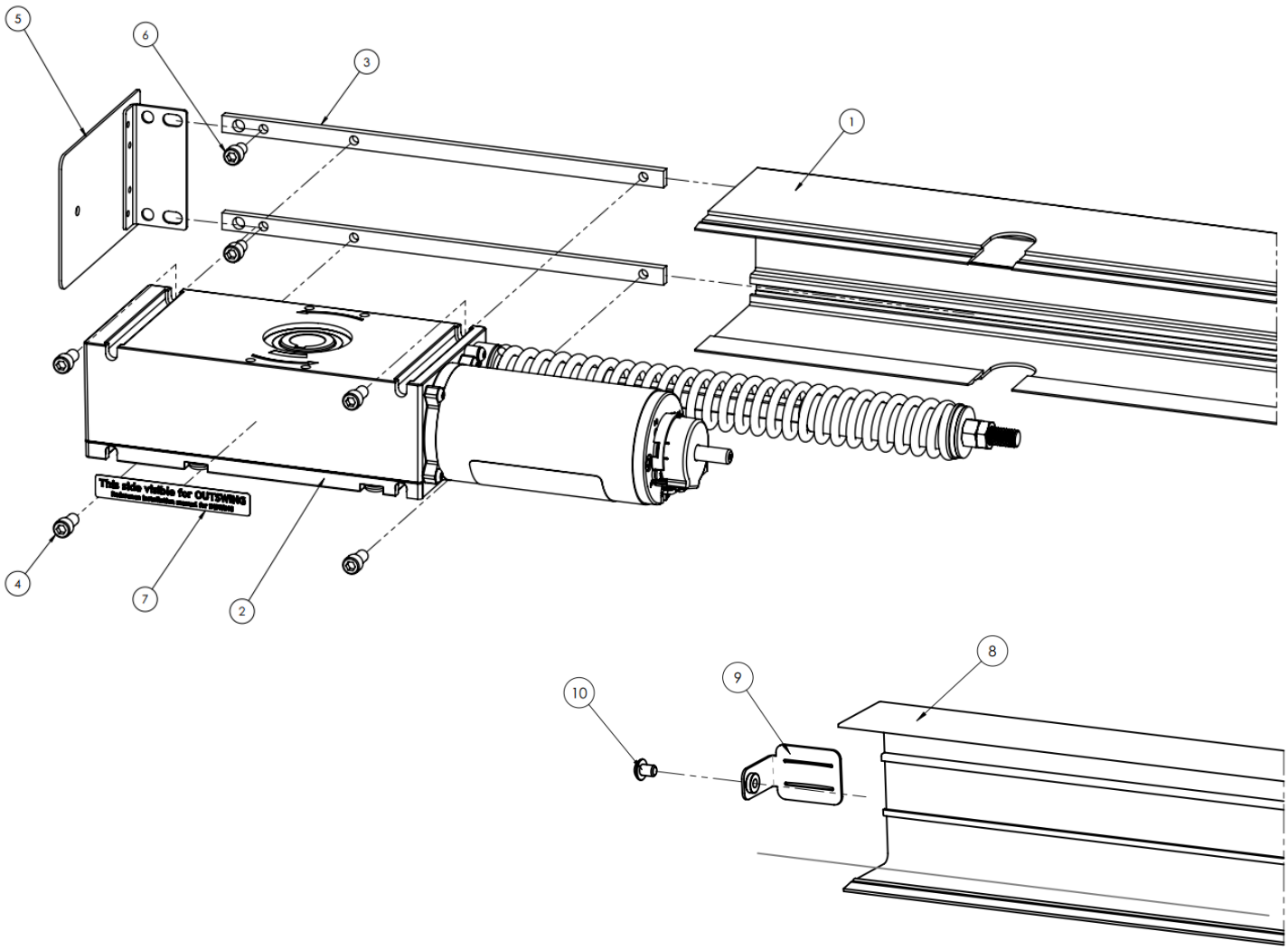
Programming Issues	
Problem	**Possible Solution**
Control does not react to Activation signal	▶ At the main screen, confirm that "IN" or "EXT" highlights when an activation signal is applied. If not, check the wiring or the activation device.
	▶ At the main screen, determine if "BA" is highlighted. If a 4-wire on/off/hold-open switch is being used, with a blue wire connected to terminal 8, then "Input BA Circuit" (found under "Input Settings") must be set to "Normally Closed". If a 3-wire switch is being used, or no switch is being used (nothing connected to terminal 8), then "Input BA Circuit" should be set to "Normally Open".
	▶ At the main screen, if Status shows "Stopped" while the door is closed, and BA is not highlighted, turn off power for at least 4 seconds then turn on again. With the door still closed, status should now show "Fully Closed". ▶ Must navigate back to the main screen (as shown at right) for an activation signal to work.
Hard to manually open door	▶ On outswing only: Check if shoe position and rod length are in accordance with dimensions shown within the manual.

CONTINUED ON FOLLOWING PAGE

Error Messages		
Opus Error Msg	**NET-HT Error Msg**	**Resolution**
Drive	Drive-Motor error	► Check all connections between the Control and Motor. ► Check Motor for open circuit, short circuit, or short to ground. ► It is possible electrical noise may cause a false error. If the error does not occur repeatedly then it's most likely not an issue.
	Drive-A/D error	
Encoder Error	Encoder Error	► Check all connections between the Control and Motor. ► It is possible electrical noise may cause a false error. If the error does not occur repeatedly then it's most likely not an issue.
MPU	MPU-RAM error	► This could be a random error. • If the error occurs repeatedly, please replace the OPUS Control.
	MPU-ROM error	
	MPU-Clock error	
	MPU-Interrupt error	
	MPU-SW reset error	
	MPU-HW WDT error	
	MPU-EEPROM error	
No Motor	Motor disconnection error	► Check all connections between the Control and Motor.
Thrml Warning	Thermal-on warning	► Check all connections between the Control and Motor. ► Cool down the motor and adjust the recycle sensitivity and Open/ Close speed.
No Load	No load error	► Check operator (gear cracked, belt skipped).
Electrical Lock	Electrical lock error	► Check lock settings and wiring. ► Ensure lock delay is long enough and not set to (After Lock Input). ► Ensure no programmable inputs are set to "Unlock Input" assuming there is no lock feedback.
Communication	NET communication error	► Check the CAN-bus Cable between the two OPUS Controls.
	NET connection error	
	NET transmission delay error	
	NET receiving buffer error	
61 Sensor	T3:61 sensor error	► Check Sensor wiring. ► Check Settings on Sensor and/or Control related to Sensor Monitoring. ► Try a new Sensor.
62 Sensor	T4:62 sensor error	
6B Sensor	T5:6B sensor error	
SWL Sensor	T6:SWL sensor error	

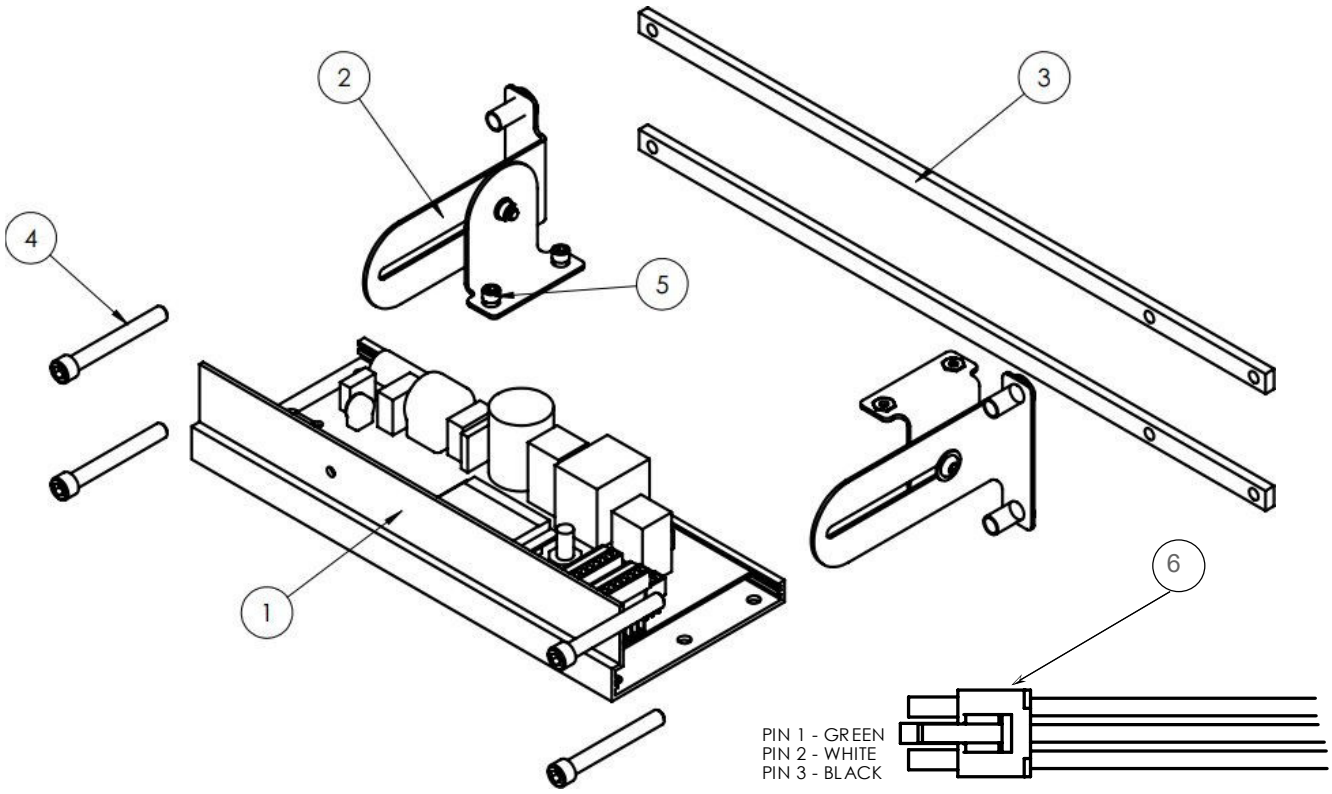
CHAPTER 9 STANDARD PARTS AND COMPONENTS

SECTION 9.1 Operator Assembly (A-01490)



ITEM	QTY	PART NUMBER	PART NAME
1	1	M-X2205	HEADER,MACHINED,SWINGER.NH,CUT TO LENGTH
2	1	V-00960	OPERATOR,SWING,NH
3	2	M-02190	BAR,NUT,SWINGER,NH,OPERATOR
4	4	T-00053	SHCS,1/4-20x0.500L,ZINC
5	1	A-81486	END CAP,HEADER,SWING,NH
5A	1	A-81533	NABCO CONNECT *(Not Shown)*
6	2	T-00559	SHCS,1/4-20x0.375L,ZINC
7	1	M-02199	LABEL,SWING,NH,OUTSWING ORIENTATION
8	1	M-X2204	COVER,MACHINED,SWINGER,NH,CUT TO LENGTH
9	2	M-02194	CLIP, SPRING, COVER
10	1	T-00563	BHCS, 10-24x.250L, ZINC

SECTION 9.2 OPUS Assembly (A-01534)



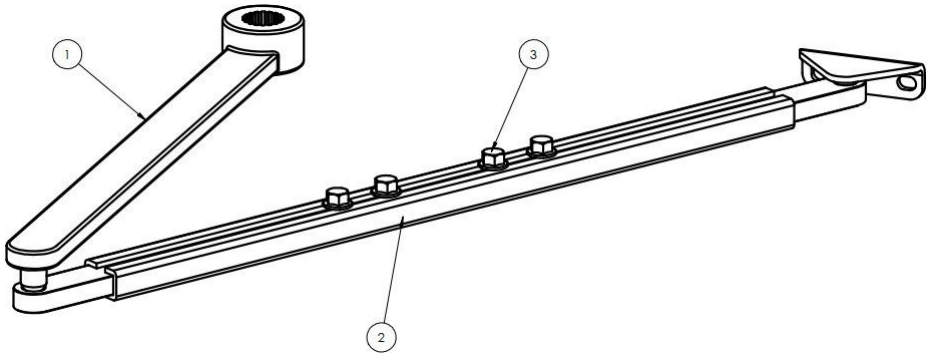
ITEM	QTY	PART NUMBER	PART NAME
1	1	M-01546	CONTROLLER,OPUS
2	2	A-01484	BRACKET,MTG,SLIDE,SWING,NH,OPUS
3	2	M-02191	BAR,NUT,SWINGER,NH,OPUS
4	4	T-00552	SHCS,1/4-20x 2.00L,ZINC
5	4	T-00560	SHCS,8-32x 0.188L,ZINC
6	1	M-01072	HARNESS, POWER, OPUS

SECTION 9.3 Spindle Kits

LENGTH	STANDARD USE	OPTIONAL USE	PART NUMBER	PART NAME
4 5/16”	INSWING	-1IN OUTSWING	A-01540	KIT,SPINDLE,SWING,NH,SHORT
5 5/16”	OUTSWING	ADD +1IN TO INSWING	A-01540-10	KIT,SPINDLE,SWING,NH,MEDIUM
6 5/16”	EXTREME CASE	ADD +2IN TO INSWING OR +1IN TO OUTSWING	A-01540-20	KIT,SPINDLE,SWING,NH,LONG

SECTION 9.4 Outswing Arm Kit, 0-12” Reveal

PART NUMBER	PART NAME
A-61480	204 CLEAR/SILVER
A-71480	313 DARK BRONZE
A-81480	BLACK

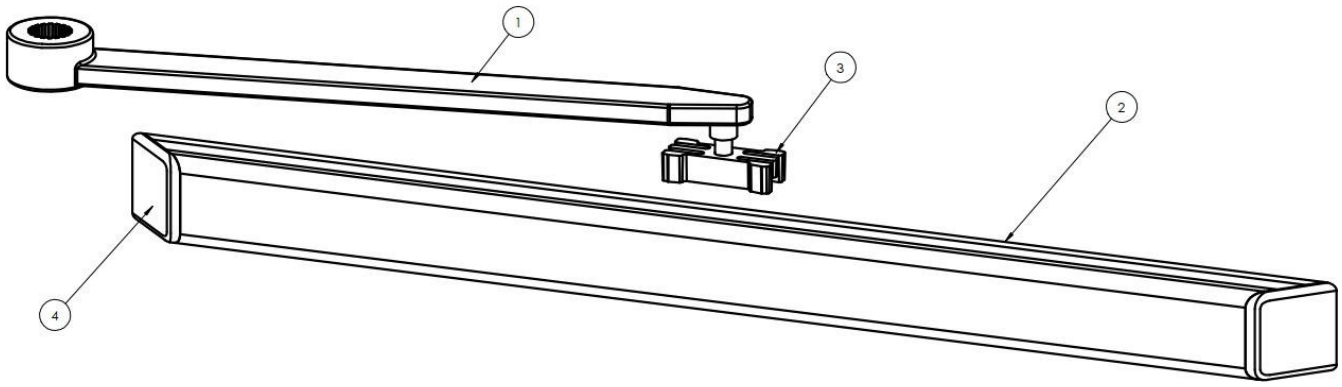


*FOR A REVEAL GREATER THAN 12” ORDER ITEM 2a ALONG WITH ARM KIT

OUTSWING ARM SERVICE PARTS			
ITEM	QTY	PART NUMBER	PART NAME
1	1	A-61483	ARM,ASM,SWING,NH,OUTSWING,0-12 REV,204
		A-81483	ARM,ASM,SWING,NH,OUTSWING,0-12 REV,BLK/313
2	1	M-62299-10	ARM,SLEEVE,SWING,NH,OUTSWING,0-12,204
		M-72299-10	ARM,SLEEVE,SWING,NH,OUTSWING, 0-12,313
		M-82299-10	ARM,SLEEVE,SWING,NH,OUTSWING, 0-12,BLK
2a	1	M-62299-11	ARM,SLEEVE,SWING,NH,OUTSWING,12-18,204
		M-72299-11	ARM,SLEEVE,SWING,NH,OUTSWING,12-18,313
		M-82299-11	ARM,SLEEVE,SWING,NH,OUTSWING,12-18,BLK
3	4	T-00561	1/4-20 X 3/8 HEX FLANGE BOLT GRADE 5

SECTION 9.5 Inswing Arm Kit, 0” Reveal

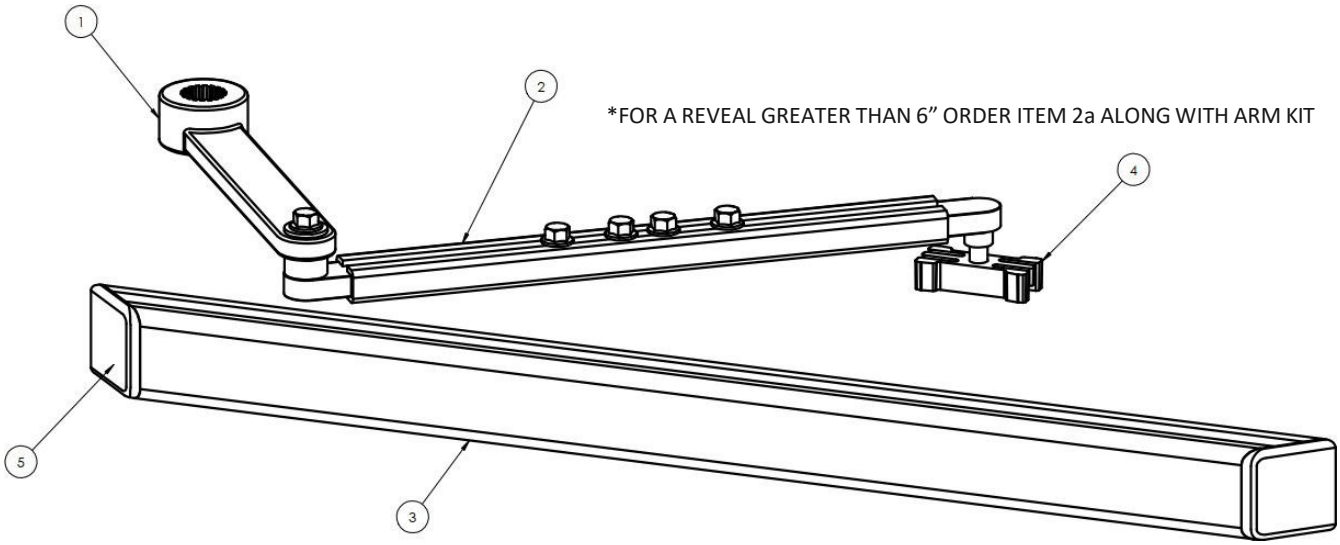
PART NUMBER	PART NAME
A-61481	204 CLEAR/SILVER
A-71481	313 DARK BRONZE
A-81481	BLACK



INSWING ARM SERVICE PARTS			
ITEM	QTY	PART NUMBER	PART NAME
1	1	A-61478	ARM,ASM,SWING,NH,INSWING,0 REVEAL,204
		A-81478	ARM,ASM,SWING,NH,INSWING,0 REVEAL,BLK/313
2	1	M-62203	TRACK,MACHINED,SWING,NH,204
		M-72203	TRACK,MACHINED,SWING,NH,313
		M-82203	TRACK,MACHINED,SWING,NH,BLK
3	1	M-02192	GUIDE BLOCK,ARM,SWING,NH,INSWING
4	1	A-01513	END CAP,TRACK,SWING,NH,INSWING (2 PIECE)

SECTION 9.6 Inswing Arm Kits, 0-6” Reveal

PART NUMBER	PART NAME
A-61482	204 CLEAR/SILVER
A-71482	313 DARK BRONZE
A-81482	BLACK



INSWING ARM WITH REVEAL SERVICE PARTS			
ITEM	QTY	PART NUMBER	PART NAME
1	1	A-61479	ARM,ASM,SWING,NH,INSWING,0-6 REVEAL,204
		A-81479	ARM,ASM,SWING,NH,INSWING,0-6 REVEAL,BLK/313
2	1	M-62299-20	ARM,SLEEVE,SWING,NH,INSWING 0-6,204
		M-72299-20	ARM,SLEEVE,SWING,NH,INSWING 0-6,313
		M-82299-20	ARM,SLEEVE,SWING,NH,INSWING 0-6,BLK
2a	1	M-62299-21	ARM,SLEEVE,SWING,NH,INSWING 6-12,204
		M-72299-21	ARM,SLEEVE,SWING,NH,INSWING 6-12,313
		M-82299-21	ARM,SLEEVE,SWING,NH,INSWING 0-6,BLK
3	1	M-62203	TRACK,MACHINED,SWING,NH,204
		M-72203	TRACK,MACHINED,SWING,NH,313
		M-82203	TRACK,MACHINED,SWING,NH,BLK
4	1	M-02192	GUIDE BLOCK,ARM,SWING,NH,INSWING
5	1	A-01513	END CAP,TRACK,SWING,NH,INSWING (2 PIECE)

NOTES