GT(8)400-(8)500 CU (Surface Applied) Swing Doors with Opus Control Installation Manual

P/N C-00174 Rev 6-15-26

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PN 1000

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: *Opus Control Wiring and Programming Manual, P/N C-00139*
(Power input: 100-130VAC, AC 50-60 Hz, minimum 5A service, per Controller, see OPUS manual for more information)
GT 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 potential harm to oneself or to others. The following warning labels are listed in a hierarchy 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 fully understand the instructions, please ask a qualified technician. Failure to do so may result in death, serious injury, or property damage and will nullify all warranties.

This product is 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 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, branch 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.**

WARNING **All high voltage electrical connections must be made by licensed electricians according to National and Local electrical codes/regulations.**

CAUTION **Keep all incoming 120 VAC wiring separate from low voltage wiring within Header. 120 VAC power wires must be routed (separate from other wiring) located near the top of inside Header.**

CAUTION **Ensure that the Grounding of the Electric Power Supply is installed/connected in a proper way (especially the PE Cable from the Building Site).**

NOTICE **Pre-drill the End Caps or back wall of the Header. Insert all incoming 120 VAC Conduit and route wires into the Header Can.**

NOTICE **Electrical circuits 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.**

NOTICE **Any non-factory low voltage wiring added inside the Header must be Type CL2 wire or the equivalent in accordance with Article 725 of the NEC.**

CHAPTER 2: PREPARE and ORGANIZE

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); ANSI Standard 156.10 (used to cover Full Energy Doors) and the Low Energy Operator Section of ADA Standard cover the GT (8)400 or (8)500 Swing Door Systems. Also in the United States, all installed glass must meet ANSI Standard Z97.1.** Other local standards or codes may apply. Use them in addition to the ANSI standards. Nabco Swing Door Units are listed with the Underwriters Laboratory and are identified as such on the label.

The owner should 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 for additional assistance.

SECTION 2.2: Objective

The (8)400/500 Swing Door System is designed to be surface mounted onto the Door Frame. The door function is controlled by the Opus Control. This manual offers step-by-step instructions through the installation process. Wiring and programming of the OPUS control will be covered in a separate manual – *C-00139 – Swing Door and Fold Door OPUS Control Wiring and Programming*.

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 1ft^2 (0.9 m^2) 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

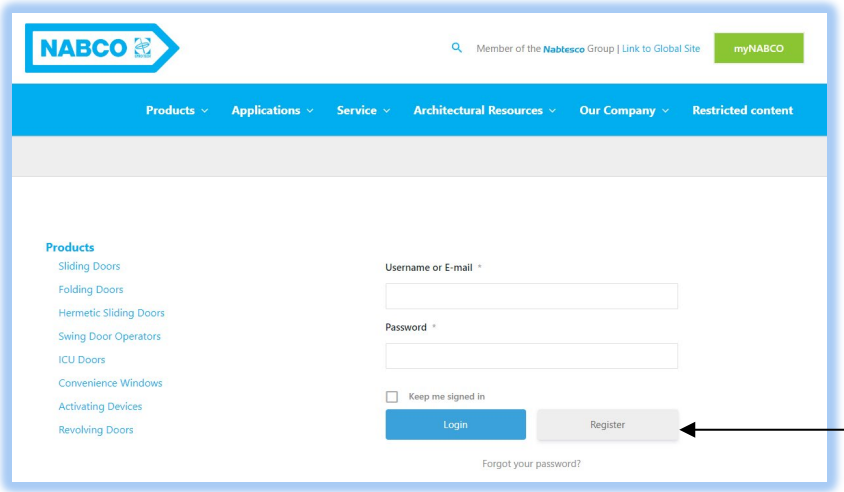
2.4.1 Email and Password

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.

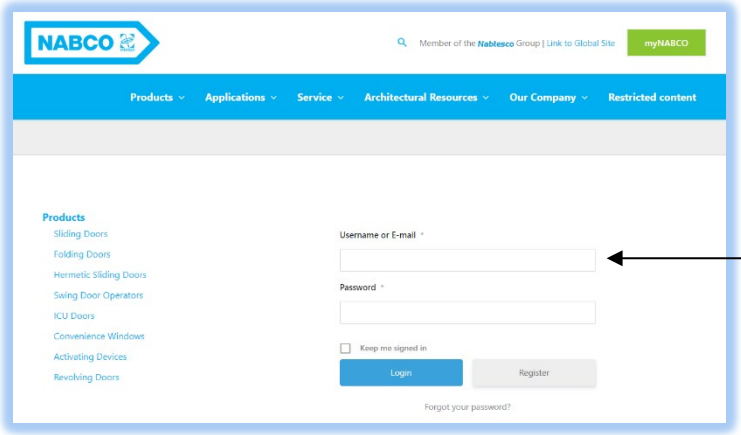


5. Complete the form.
   a. Enter a username, first name, last name, email address and chosen password/verify it, AND then click on the blue **Register** button.
6. A confirmation will be sent back to the **Distributor** verifying the registration.
7. Use the confirmed username and password to Login.

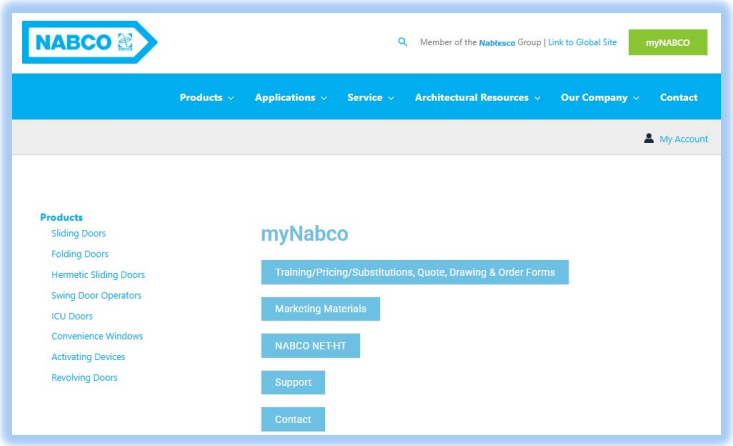
2.4.2 Accessing Installation, Wiring and Programming Manuals

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 Service Parts Page OR see the back of the manual:

Service Parts: GT8400-8500 Side Load Header
Service Parts: GT400-500 Bottom Load Header
Service Parts: Swing Arm and Track Assemblies

SECTION 2.6: Tool List

- Torpedo Level
- Tape Measure
- Shim-Stack Shims to keep the header level
- Rubber Mallet
- Complete set of Standard & Metric Allen Wrenches
- 3/16ths, 1/4-inch, and 5/16ths Masonry Drills
- Complete Drill Index
- Side-Cutters
- 12” Aircraft Drills 3/16ths and ¼-inch
- Hole Saw Kit or a variety of Step-Down Bits (7/8” minimum)
- 6” Clamps or larger
- Drill Gun with Rotary-hammer capability and/or Impact Gun
- 6” Apex Bits(s)
- Wire-Strippers
- Meter, reading voltage, resistance and continuity
- Electrical Tape
- 3/32nds 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, TapCons, 4-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

SECTION 2.7: Planning the Layout

2.7.1 Mechanical Configurations

Table 1

Base Model	Conversion Unit Bottom Load	Conversion Unit Side Load
Full Power	GT 400	GT 8400
Low Energy	GT 500	GT 8500

1. Open the door 90 degrees.
2. Measure between the wall and the outside face of the Swing Door. There must be a 2-inch minimum gap.
   a. If there is less than a 2-inch gap, NABCO recommends not using this door automatically.

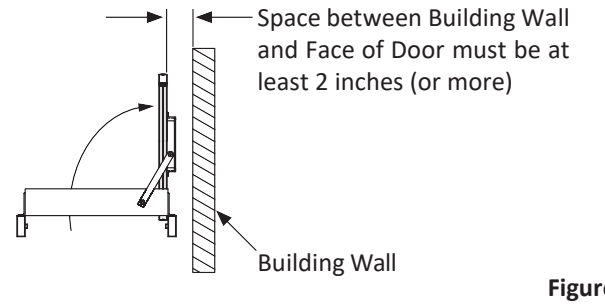


Figure 1: Door Gap

NOTE: *It may be necessary to remove the Motor/Operator from the Header to reduce weight, while positioning the Header onto the Door Frame.*

2.7.2 Electrical Standards

NOTE: *It is recommended for the Installer to use an Electrical Conduit to house all incoming 120 VAC wires.*

NOTE: *All wiring must conform to standard wiring practices and be in accordance with national and local electrical codes.*

Table 2

Electricity	Description	Current Consumption
Power Input	110 VAC - 130 VAC, AC 50-60 Hz	3A (NABCO recommends min. 5A service)
Available Current for accessories	12 VDC	900mA
Available wire size for incoming power	14 AWG	-

TOTAL current draw from the Opus Control must not exceed 0.9A when providing power to:

- Sensors, Modules, Accessories. Auxiliary Equipment

If the TOTAL current draw exceeds 0.9A the installer must use an auxiliary power supply such as the NABCO P/N V-00022, 24 VDC, 0.5A.

2.7.3 Base Unit Types

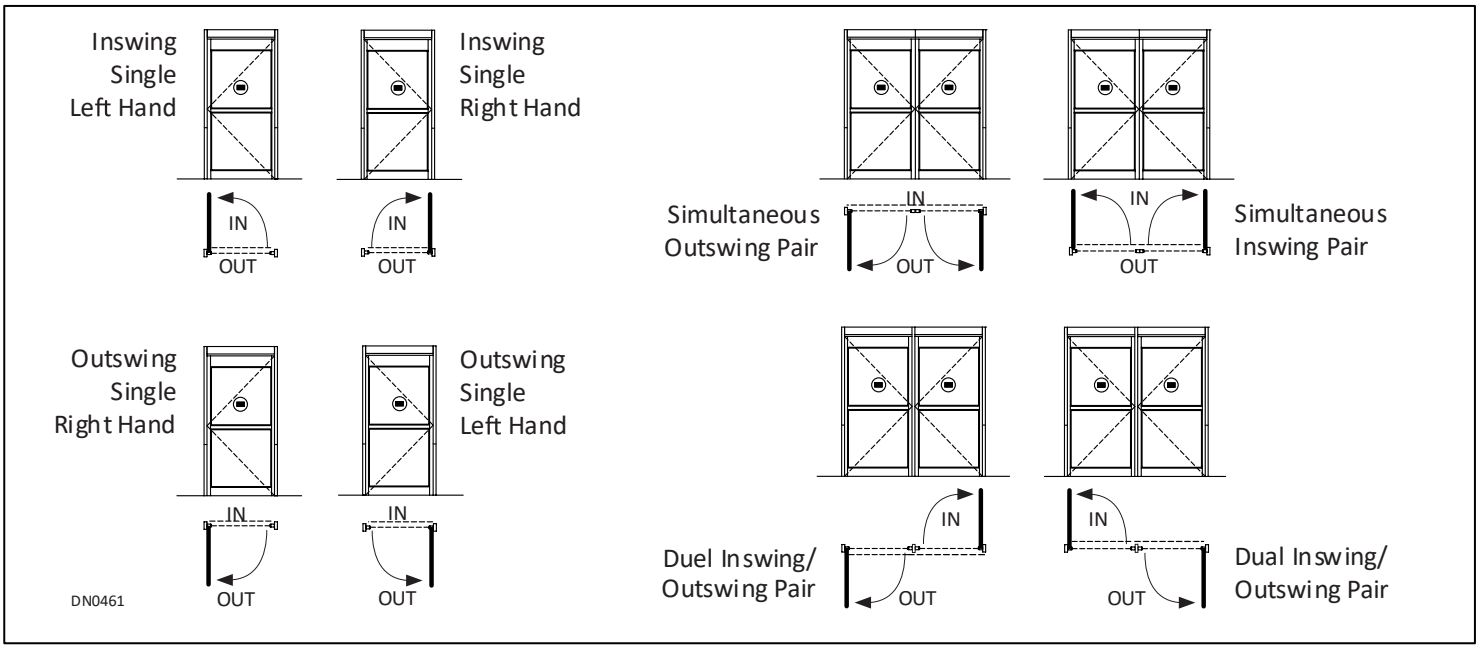
2.7.3.1 Full Energy Doors

Use Sensors to open a Swing Door and provide safety zones per ANSI A156.10 Standard. Sensors activate the Control by detecting the presence and motion of pedestrians (or moving objects).

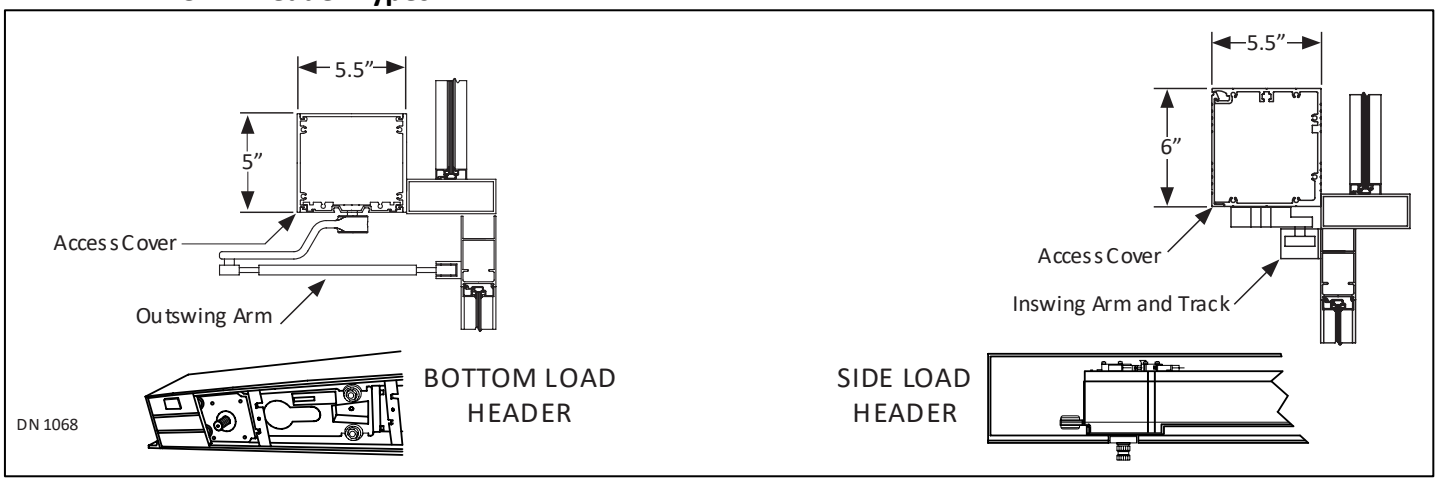
2.7.3.2 Low Energy Doors

Use a Knowing Act to open a Door: A conscious effort that is carried out in many ways, including (but not limited to): manually opening a Door, pressing various types of Push Plates, waving at sensor for wave plates, turning a Key switch; using a keypad or card reader, etc.

2.7.4 Swing Door Types



2.7.5 Header Types



SECTION 2.8: Spindle Location

NOTE: *When referred to this Section, follow the chart and* ***Figure 2*** *below for spindle location.*

Table 3: Spindle Location

		OUTSWING				INSWING			
Bottom Load Units		**With Fingerguard**		**No Fingerguard**		**With Fingerguard**		**No Fingerguard**	
Model	**Pivot Type**	**Spindle Location (Dim A)**	**Base Plate**	**Spindle Location (Dim A)**	**Base Plate**	**Spindle Location (Dim A)**	**Base Plate**	**Spindle Location (Dim A)**	**Base Plate**
GT 400	Butt/Offset	N/A	N/A	7-1/4”	4-3/4””	N/A	N/A	5”	2-1/2”
	Center Pivot	8-1/4”	5-3/4”	7-1/4”	4-3/4”	6”	3-1/2”	5”	2-1/2”
GT 500	Butt/Offset	N/A	N/A	5”	2-1/2”	N/A	N/A	5”	2-1/2”
	Center Pivot	6”	3-1/2”	5”	2-1/2”	6”	3-1/2”	5”	2-1/2”

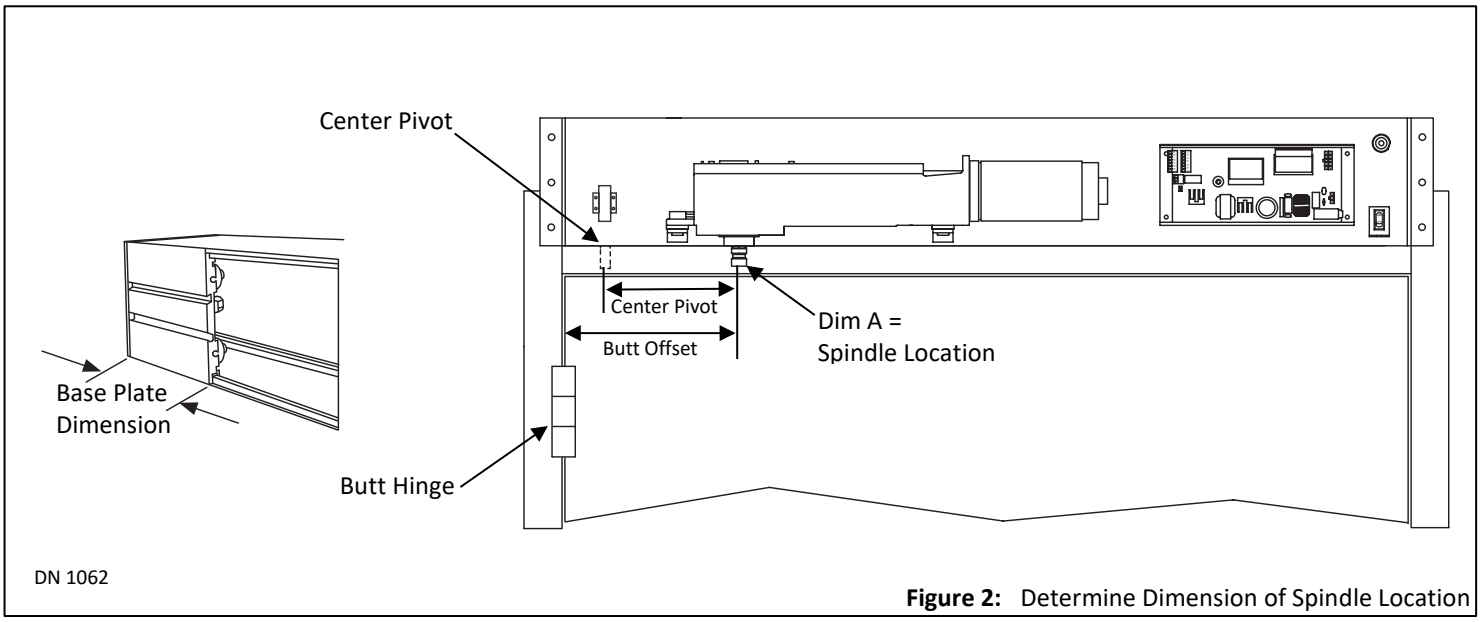
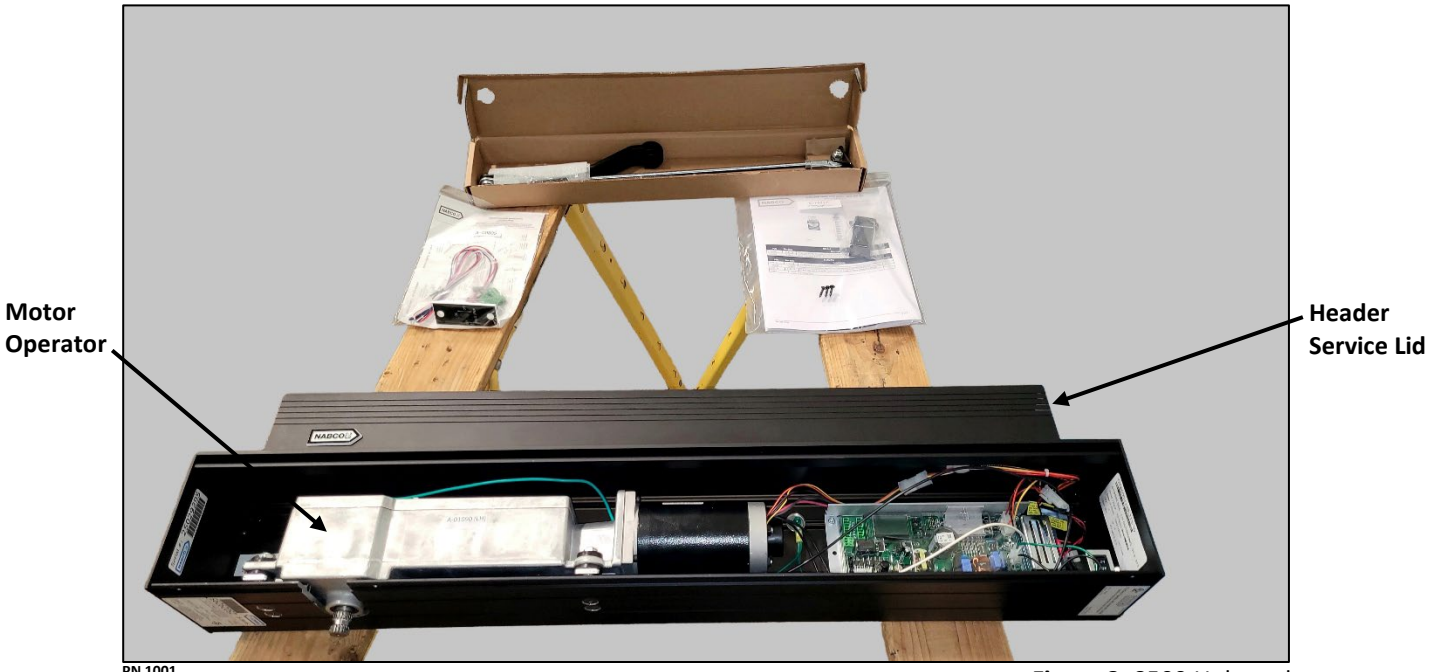


Figure 2: Determine Dimension of Spindle Location

CHAPTER 3: INITIAL ASSEMBLY (SIDE LOAD Header Installation – GT8400-8500)

SECTION 3.1: Staging and Organization

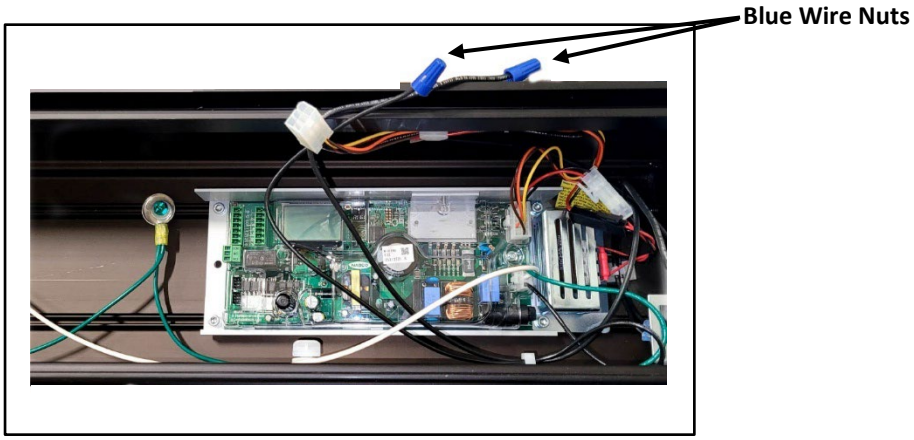
Remove the Side Load Header from the packaging, along with the Arm Assembly, Decal Package with Instructions, and any other kitted bags/boxes. Set Header on the Sawhorses and visualize the surface applied, side load installation.



PN 1001

Figure 3: 8500 Unboxed

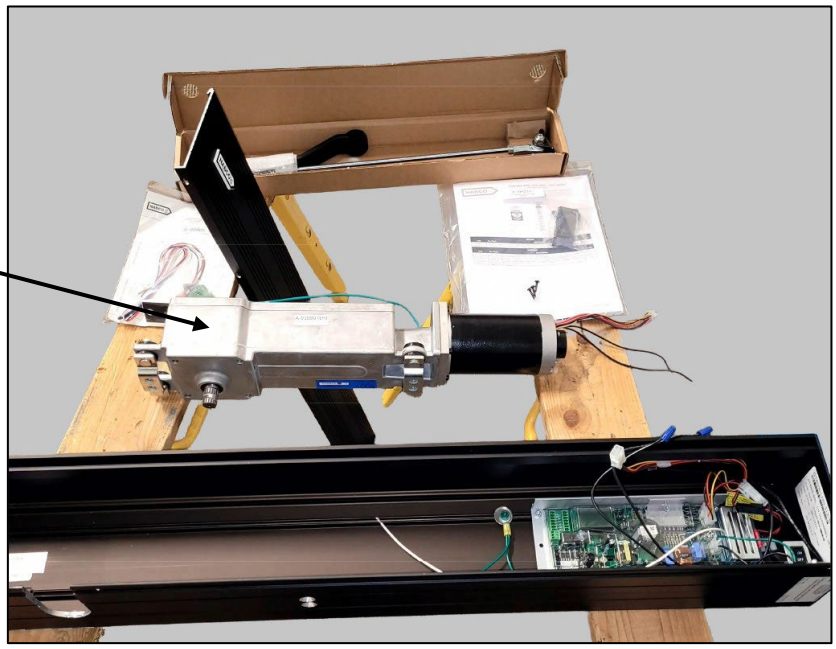
1. Remove the **Header Service Lid** and set it aside.
2. Remove the 6 pin Motor Plug closest to the Motor/Operator, leaving the Brake Module connected to the Opus Control.
3. Remove the **blue wire nuts** from the black wires, then remove the wires so that the **Motor/Operator** (A-0109X) is isolated completely.



PN 1002

Figure 4: OPUS with 8500 Motor Removed

4. Remove the T-00340 or T-00370 screws and set the Motor/Operator aside.



PN 1003

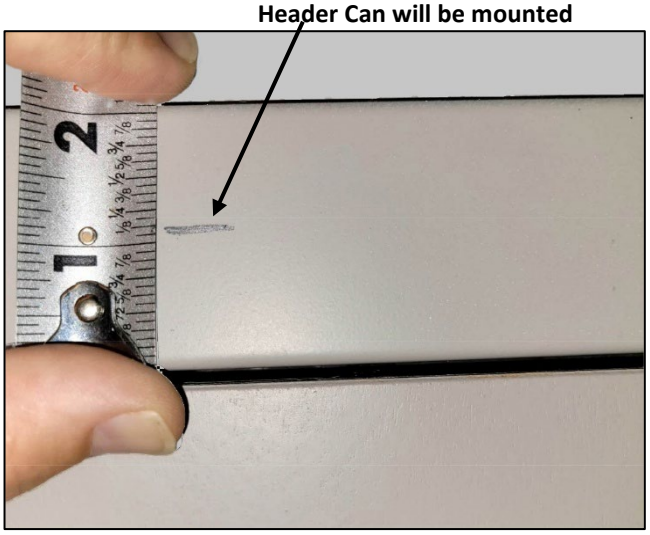
Figure 5: Motor/Operator Removed

SECTION 3.2: Marking the Frame and Back Wall

1. Mark lightly with a pencil ***where the Header Can will be mounted*** on the wall or frame.
2. Mark the left and right sides according to your Jamb Size Dimensions and/or Pivot Overlap dimension identified on your cut sheets.
3. Mark where the ***bottom* of the Header Can** will end up:

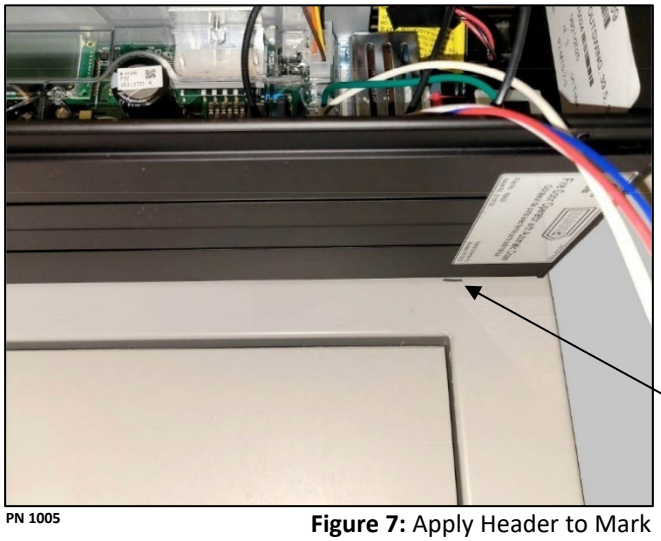
NOTICE If the header is specific to the door (made specifically for the door), the spindle location will be correct by centering the header on the door frame.

4. If this is a **stock header** intended for any door, see **Table 3** and **Figure 2** on Page 13 for the correct spindle location.



PN 1004

Figure 6: Inswing marking the Wall



PN 1005

Figure 7: Apply Header to Mark

3.2.1 Outswings

Typical **Outswings** are mounted flush with the bottom of the Horizontal Frame but can be mounted higher or lower depending on application.

NOTICE *Be sure that the arm will clear the bottom of the Horizontal Frame when the Door is articulated "Outward".*

3.2.2 Inswings

1. Typical **Inswings** are mounted 1-1/8" higher than the bottom of the Horizontal Frame but can be mounted slightly higher depending on application.

NOTICE

- *The Spindle of the Operator will hang down 1" from the bottom of the Header Can when finished.*
- *The Door will need to pass under the Spindle when articulated "Inward".*

SECTION 3.3: Preparing the Header Can

1. Identify studs and anchor points as well as Power and Low Voltage wiring that will need to penetrate the Header Can.
2. Correlate the dimensions of all these points to the Header Can and mark them.
3. Try to spread out anchor point holes evenly:
   - 2 vertically at each end
   - 1 directly in the middle of the Header Can, if possible
4. Drill mounting holes accordingly starting with a 1/4" Drill Bit, then use a Step-Down Bit to widen holes for Power, Low Voltage and any other Junction Wiring.

PN 1006

Figure 8: Mounting Holes

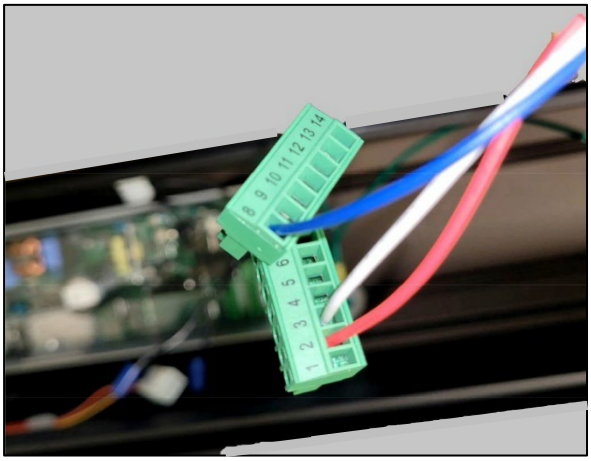
PN 1007

Figure 9: Mounting Holes 2

3.3.1 On/Off/HO Switch

1. When required by the end user, drill and mount the A-00805 On/Off/HO Switch into the Header Can at the end user's preferred location.

2. Prewire this switch as follows:
   - **Red** Wire to Pin #2
   - **White** Wire to Pin #3
   - **Blue** Wire to #8.
   - **Black** Wire will not get terminated and can be capped.



PN 1008 **Figure 10:** Red, White, Blue Wires

3.3.2 Wireless Activation

When wireless activation is being used:

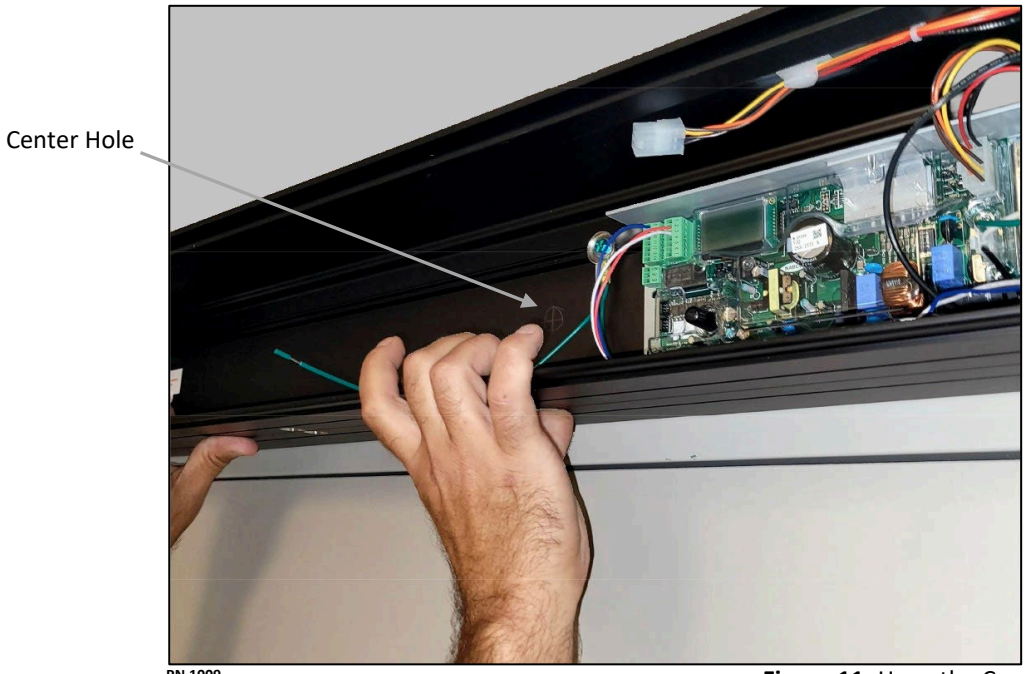
1. Wire in the Receivers(s) to the Opus Control at Pins 1, 2, 3 (and 4 if required)
2. Mount/adhere the Receiver in the Header Can, out of the way of the pre-drilled holes

   NOTE:*Open a hole for the Antenna at the top of the Header for better reception.*

SECTION 3.4: Hang and Level the Header Can

1. Apply the Prewired Header Can to your pencil marks, then use the center hole to mark your first anchor point in the wall, pre-drill, and anchor it.
2. Route any incoming Power/Access Control/Junction wiring and use a screw (not provided by Nabco) to anchor the Header Can to the wall.
3. Using your Torpedo Level, level the Header Can lengthwise and screw it to the frame/wall using the rest of your pre-drilled anchor points.
4. Add shims for leveling and backing behind the Header Can, and double check the Header Can is level, widthwise, using your Torpedo Level.
5. Once tightly hung, vacuum the Header and Opus completely to remove all metal shavings.
6. Reinstall the Motor/Operator Assembly in the Header Can with the T-00340 or T-00370 screws.

WARNING *Be sure to terminate the black power wires and Motor Plug.*



PN 1009

Figure 11: Hang the Can

NOTICE **If you are not moving on to the Secondary Assembly, reinstall the Service lid and keep track of all included kitted parts.**

CHAPTER 4: INITIAL ASSEMBLY (BOTTOM LOAD Header Installation – GT400-500)

SECTION 4.1: Staging & Organization

1. Remove the Bottom Load Header from Packaging, along with Arm Assembly, Decal Package with Instructions, and any other kitted bags/boxes.
2. Set the Header onto Sawhorses and visualize the surface applied, Bottom Load installation.
3. Using a Step bit, drill appropriate holes for passthrough or junction including Power/Low Voltage Cabling to the Header when required.
4. Remove the three screws (#10-24 x 3/4”), the Dress Plate and three Cover Plates and set them aside.

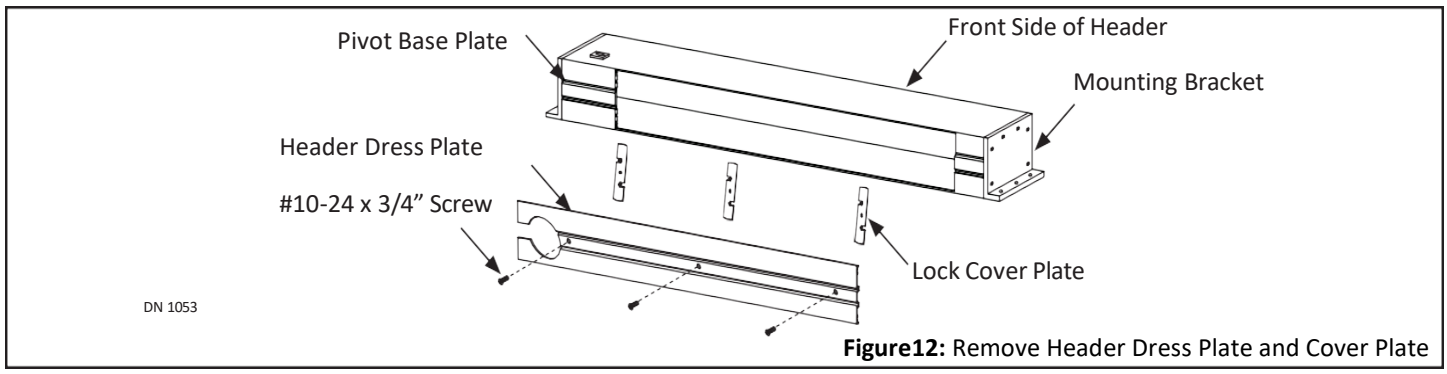


Figure12: Remove Header Dress Plate and Cover Plate

SECTION 4.2: Marking the Frame and Back Wall

1. Mark lightly with a pencil ***where the Header Can will be mounted*** on the wall/door frame.
2. Mark the lengths according to your Jamb Size Dimensions and/or Pivot Overlap dimension identified on your cut sheets.
3. Mark where the *bottom* of your Header Can will end up:

4.2.1 Typical Outswings

Typical Outswings are mounted flush with the bottom of the Horizontal Frame but can be mounted higher or lower depending on the application.

NOTICE Be sure the arm will clear the bottom of the Horizontal Frame when the Door is articulated “Outward”.

Figure13: Left Hand Outswing

4.2.2 Typical Inswings

Typical Inswings are mounted 1-1/8" higher than the bottom of the Horizontal Frame but can be mounted slightly higher depending on application.

NOTE: *The Spindle of the Operator will hang down 1" from the bottom of the Header Can when finished.*

NOTICE The Door will need to pass under the Spindle when articulated "Inward".

PN 1011

Figure14: Inswing and Stop

SECTION 4.3: Prepare and Hang the Header Can

1. When required, mount Switches, Sensors, and drill penetrations for Access Control and 120VAC power.
2. Clean metal shavings from inside the Header Can.
3. Lift the Header Can up against the Horizontal Door Frame until the *bottom edge* of Header Can is where you need it to be.

NOTICE Keep in mind: *INSWINGS must be mounted 1 1/8" higher to account for the Spindle.*

4.3.1 Pivot Side Location

NOTICE If the header is specific to the door (made specifically for the door), follow the directions below.

NOTE: *If this is a stock header intended for any door, see* ***Table 3*** *and* ***Figure 2*** *on* *Page 13* *for the correct spindle location.*

- For a vertical Door Jamb that is **1-3/4 inches wide**, position the Pivot side of Header so the Bracket flushes to the outside edge of the Pivot Door Jamb.
- For a Door Jamb that is ***wider*** **than 1-3/4 inches**, line up the outside edge of the Header Can to the inner edge of the Pivot Door Jamb *(see Figure 15)*.
- Ensure the Header is square and level and use Brackets as templates to mark the 1/4"diameter screw holes onto the face of the door frame/wall.

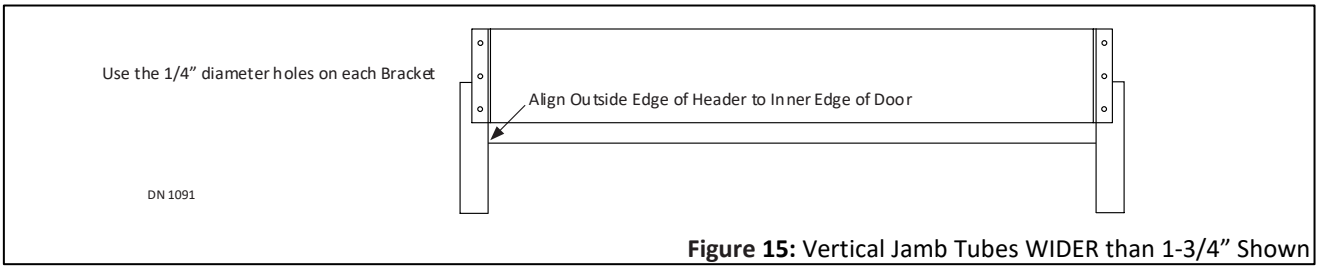


Figure 15: Vertical Jamb Tubes WIDER than 1-3/4” Shown

4.3.2 Mounting

1. Drill 3/16” Holes into Horizontal Frame/Wall.
2. Secure with appropriate screws for the type of material being anchored to (not provided by Nabco).
3. Apply Stackable Shims or Wood Filler behind the Header Can where required to ensure the Header is level.

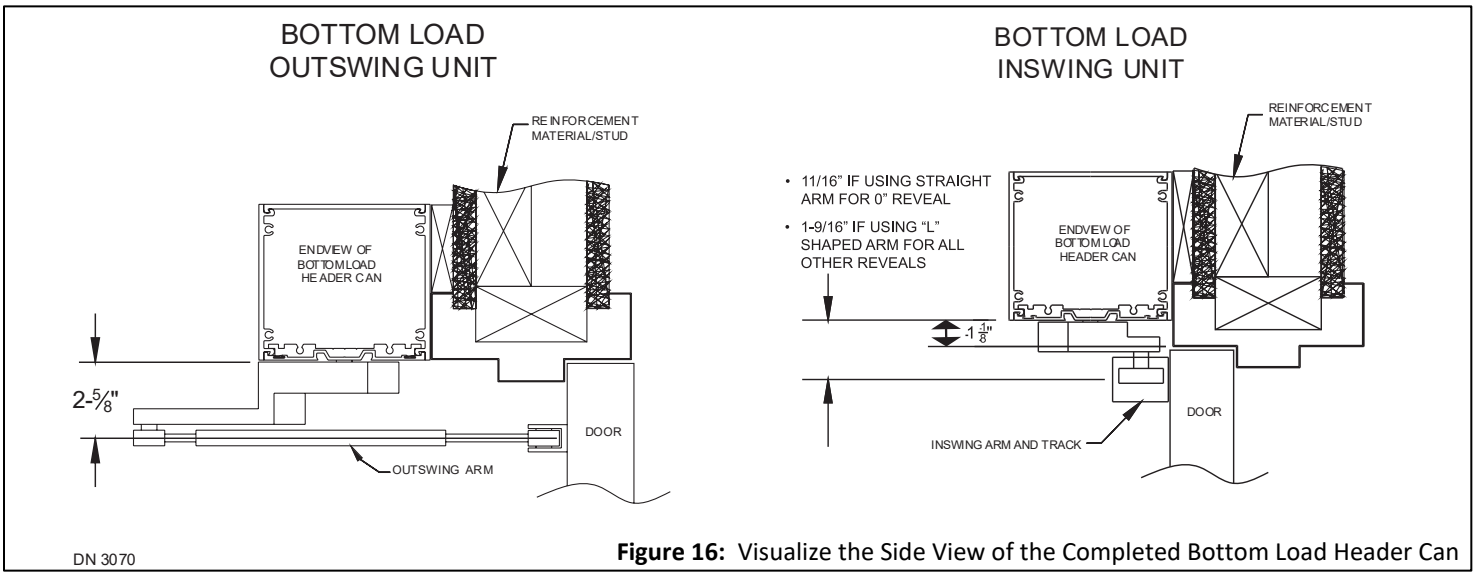


Figure 16: Visualize the Side View of the Completed Bottom Load Header Can

SECTION 4.4: Load the Empty Header Can

1. Remove the two 9/16” Hex Nuts (T-00067) and Washers (T-00092) from the Motor Mount Bracket (A-00501).
2. Locate the two Operator Pins (M-01059) at the Pivot Base Plate.

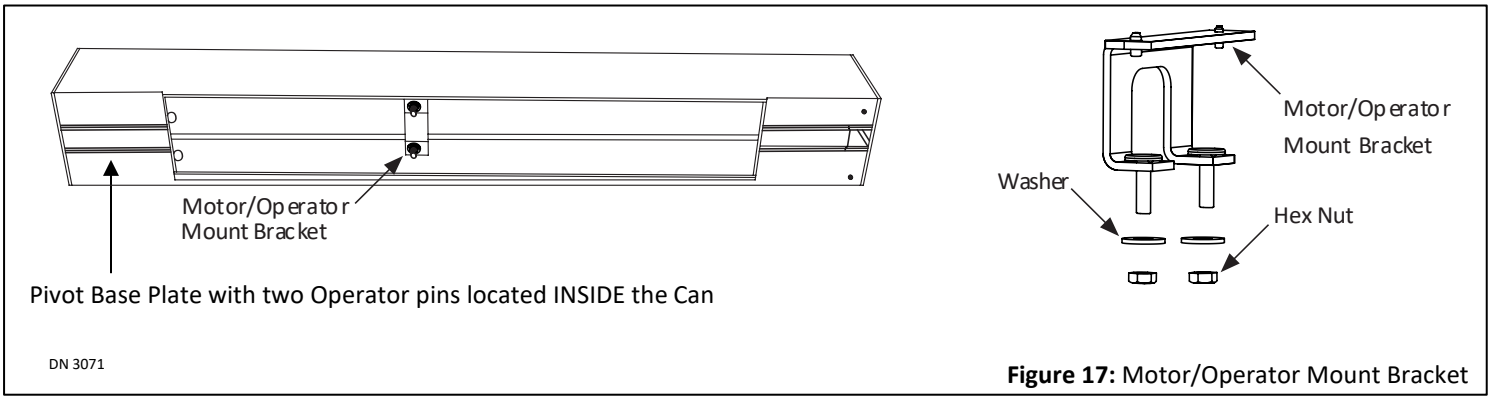


Figure 17: Motor/Operator Mount Bracket

4.4.1 Mount & Assemble the Motor/Operator

1. Lift and place the pivot side Operator Tabs onto the Operator Pins inside of the Header.
2. When the pivot end is tabbed correctly, the Operator Tabs at the middle of the Motor Operator will line up with the Mount Bracket studs.

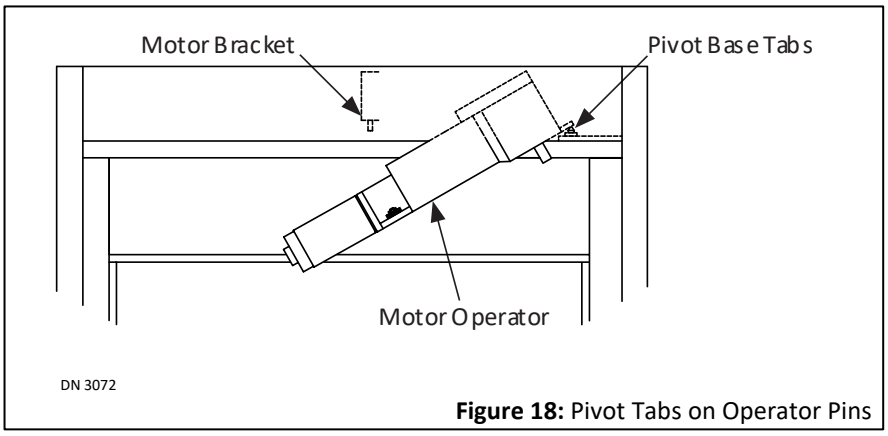


Figure 18: Pivot Tabs on Operator Pins

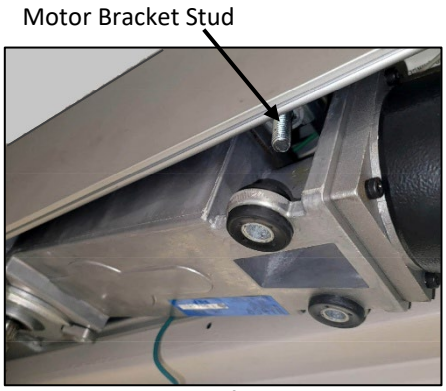


Figure 19: Lift and Pivot Upward

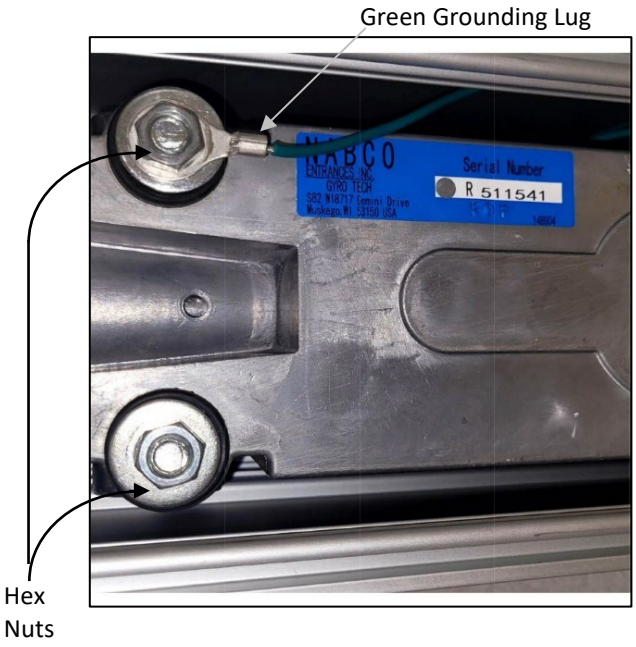


Figure 20: Tighten Motor Bracket Studs with Hex Nuts

3. Push Upward at the Motor until the middle Operator Tabs are fully seated onto the studs.
4. Finger tighten one 9/16” Hex Nut to one stud to hold the Operator in place.
5. At the other stud, assemble the Washer first, the green lug second and then fully tighten a 9/16” Hex Nut.
6. Remove finger tightened Hex Nut, apply a Washer and then fully tighten the second Hex Nut.

4.4.2 Loosely Assemble the Ring Stop

Apply the Limit Ring to the bottom of the mounted Operator, around the Spindle, and secure *loosely* with four Hold Down Tabs using the 3/16" Allen Screws (5/16" x 18 x 3/4").

NOTE: *This assembly will be adjusted later in Chapter 5, Section 5.1.5 for Outswings and 5.3.5 for Inswings.*

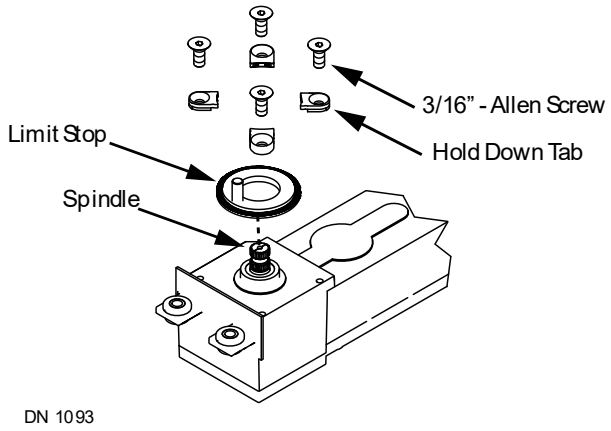


Figure 21: Secure Hold Down Tabs Loosely

4.4.3 Mount the Opus Control

a. Insert the Opus Control Assembly (A-01098) into the Header Can at ≈ 4°, so the Opus mounting Plate will slip between the inside channels at the top of the Header Extrusion. The Opus Screen and Controls will be facing down.

b. Rotate the Opus Control Assembly ≈ 4° so that the 2 edges of the Opus mounting Plate will be retained by the channels.

c. Tighten two 5/32" Allen screws (10-24x7/8").

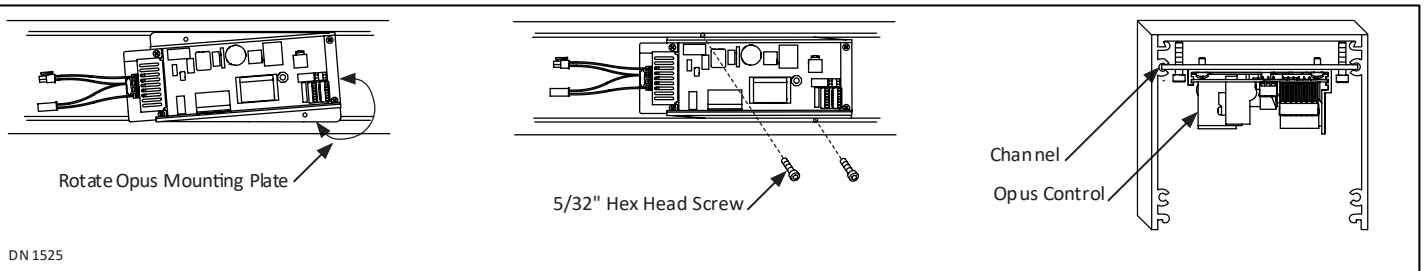


Figure 22: Rotate Mounting Plate into Header Channel

4.4.4 Electrical Connections:

a. Use the C-00139 Manual (Swing & Fold Opus Wiring and Programming) to land and connect 120VAC Power, Access Control, Brake Modules, Handing Harnesses (RH Doors only), Sensors and Switch wires.

b. Ensure all terminations are made, or that loose wires are insulated with wire nuts or electrical tape.

c. Connect the 6 pin Motor plug and route wires neatly with wire ties and sticky back wire tie downs.

CHAPTER 5: SECONDARY ASSEMBLY/ARM INSTALLATION (Outswing Arm, Inswing Arm and Inswing Track)

SECTION 5.1: Outswing Arm Prep and Disassembly

Measure the Reveal, or the distance from the Face of the Door to the Back of the Header Can.

PN 1014

Figure 23: Measure Reveal

1. Remove the Threaded Rod **from the Knucklebolt** that is ALREADY ATTACHED TO THE POWER ARM, not from the shoe.
    a. Use the number “11” and subtract the Reveal measurement from it
    b. Use the number “21” if any 30” reinforced arm assembly is required
2. The **remainder** is the amount that is cut off from the Threaded Rod.
3. Mark the Rod, then loosen the Jam Nut beyond your line, then cut the Rod.

EXAMPLE*:*

1. ***If the reveal is 4.5 inches***

2. ***Subtract*** 4.5 inches from **11**

3. *11 - 4.5 = 6.5*

4. **Cut** 6.5 inches off from the threaded rod end that has been disassembled from the knucklebolt.

5. Additionally, the plastic sheath would be cut the exact same amount; in this case, cut off/remove 6.5 inches.

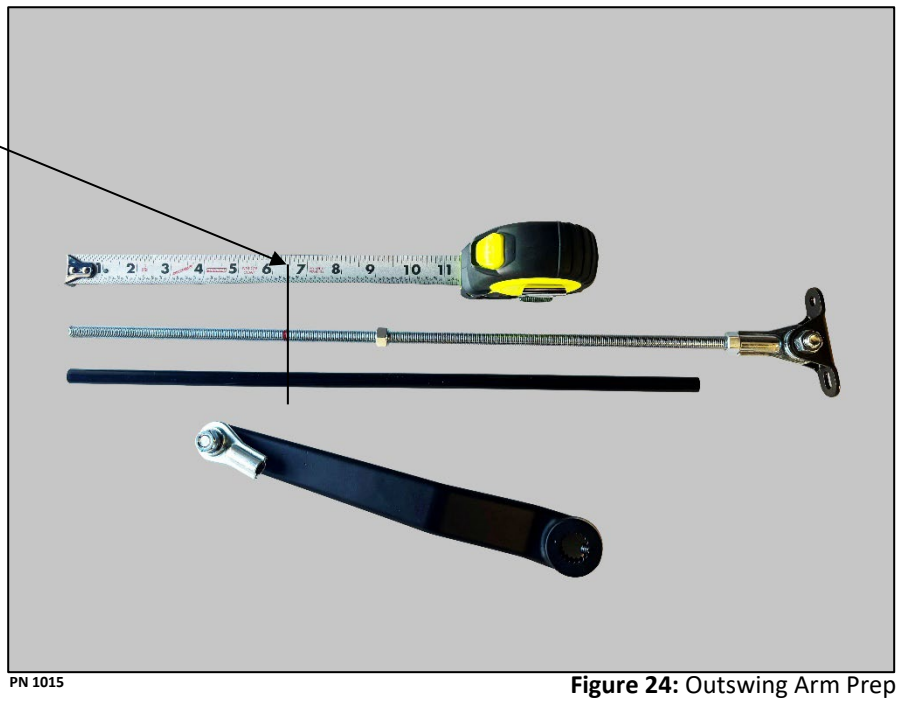


Figure 24: Outswing Arm Prep

5.1.1 Reassemble the Arm

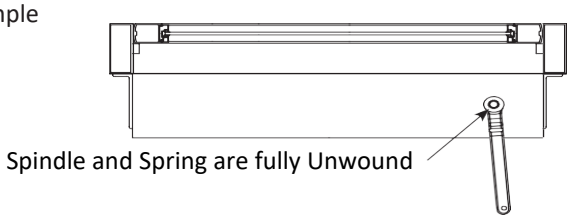
1. Slip the **cut** Plastic Sheath back onto the cut Rod.
2. Tighten the Jam Nut.
3. Spin the Threaded Rod back into the knuckle bolt that is still connected to the Power Arm.

5.1.2 Attach the Arm Assembly to the Spindle

1. From a ladder, assemble the fabbed Outswing Arm Assembly onto the spindle shaft of the unwound Operator directly facing you, ≈ 90º from the door at fully closed position.

See Example Below:

Right Hand Operator – Outswing Example



DN 1069

Figure 25: – Arm position before Preload

5.1.3 GT 8500 (Typical Install, No Finger Guard, No Center Pivot) Attach Arm Assembly to Door

1. Fully close the door.
2. Mark the door at 10 3/16” and 12 1/2” from the pivot jamb, and 2-5/8” down from the top of the door **(if you are mounting your Header Can to the bottom of the top door frame).**
3. These two marks represent where the Shoe portion of your Outswing Arm Assembly will land.

PN 1016

Figure 26: 10 3/16” x 12 1/2” Shoe Location

See Shoe Mounting Charts below for additional Center Pivot and Butt Hinge applications:

Table 4

Model	Pivot Type	Outswing With Fingerguard		Outswing No Fingerguard	
		Dim A	Dim B	Dim A	Dim B
GT 400 & 8400	Butt/Offset	N/A	N/A	12-7/16”	14-3/4”
	Center Pivot	16”	18-5/16”	15”	17 5/16”
GT 500 & 8500	Butt/Offset	N/A	N/A	10-3/16”	12-1/2”
	Center Pivot	13-3/4”	16-1/16”	12-3/4”	15-1/16”

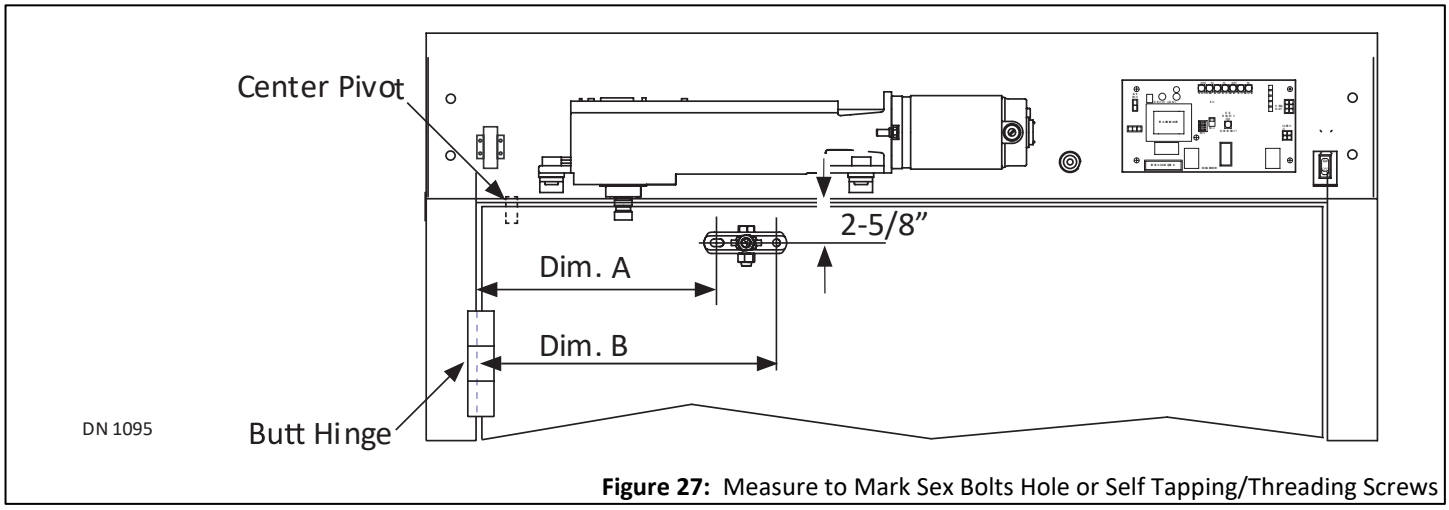


Figure 27: Measure to Mark Sex Bolts Hole or Self Tapping/Threading Screws

4. Wedge or Lock the door in the fully closed position.
5. Pull the shoe over and confirm with a Torpedo Level that the Threaded Rod will be level if mounted at the 2 5/8” mark.
6. Adjust accordingly.
7. Predrill for Sex Bolt or if able, use self-tapping/threading screws to anchor the shoe to the door.

NOTE:*This ≈25º or so that you pulled your arm over becomes your Spring Preload.*

5.1.4 Side Load - Attach Surface Doorstop

1. Articulate the Door to 90º or more (wherever the end user prefers the travel angle to be).
2. Wedge the Door into place.
3. Use the A-00454 Surface Mounted Door Stop to stop the arm at its angled position, nearest to the spindle.
4. Use a 7/32” Drill for the kitted screws.

Figure 28: Door Stop Outswing

5.1.4 Bottom Load – Adjust Ring Stop

1. Loosen the four Hold Down Tabs at the 3/16" Allen screws.
2. Adjust the Limit Stop Ring to hold the Outswing Arm at its furthest arc of travel.
   NOTE: *90 degrees is the minimum travel per ANSI Standards.*
3. Once adjusted, re-tighten the Hold Down Tabs at the 3/16" Allen screws.

5.1.6 Check the Manual Opening/Closing of the Door

Open the Door manually all the way to the 90º Surface Mounted Door Stop or Stop Ring.

NOTES: *The Door should swing freely without obstruction and/or physical bind at 15lbs of pressure (or less).*
The Door should completely close from this point (slowly and with control).

NOTICE **Proceed to Chapter 6: End Process/Commissioning.**

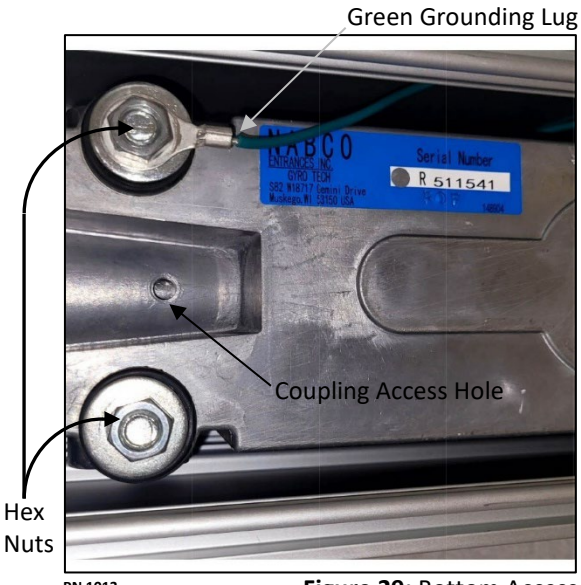
NOTE: If you are not advancing to Chapter 6: End Process/Commissioning, reinstall the Service lid and keep track of all left over included parts.

SECTION 5.2: Inswing Arm Prep

With the Door in its fully closed position, attach the Inswing Arm to the Spindle Shaft so that the Roller is as close to the Door as possible, but do not tighten the Set Screw.

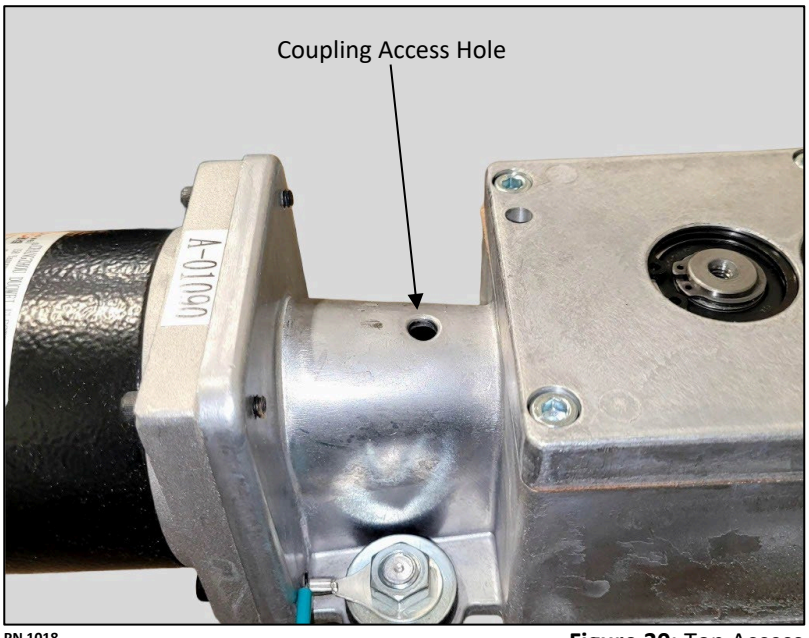
5.2.1 Locating the Coupling Access Hole

1. Locate the Coupling Access Hole at the top of the Motor/Operator; just above the middle Motor Mount.
2. This hole will be used for Spring Preload.
3. Mark it if you can.



PN 1013

Figure 29: Bottom Access Hole



PN 1018

Figure 30: Top Access Hole

5.2.2 Preload Operator

1. With a firm grip from the unwound position, rotate the arm towards you, underneath the Header, approximately 20º to 30º.
2. Insert a 1/8” Allen Wrench or 1/8” Drill Bit into the Coupling Access Hole to pin the Operator.
3. Remove the Inswing Arm from the Motor Shaft and reattach it as close to the fully closed Door as possible.
4. Tighten the Set Screw and remove the 1/8” Allen Wrench from the Coupling Access Hole.
5. The spring tension will now close the Inswing Arm to the Door.

NOTE: Be careful not to pinch your fingers.

The preload tension will spring back towards the closed door with enough force to keep the entire Door Panel sealed.

PN 1019

Figure 31: Inswing Arm Preload

Table 5: Track Mounting Locations

Model	Pivot Type	Inswing Standard Track (ST) 12-1/4"		Inswing Standard Track (PT) 21"	
		With Fingerguard	No Fingerguard	With Fingerguard	No Fingerguard
GT 8400	Butt/Offset	N/A	8-1/4"	N/A	N/A
	Center Pivot	13"	12"	3-3/4"	2-3/4"
GT 8500	Butt/Offset	N/A	8-1/4"	N/A	N/A
	Center Pivot	13-3/4"	12"	3-3/4"	2-3/4"

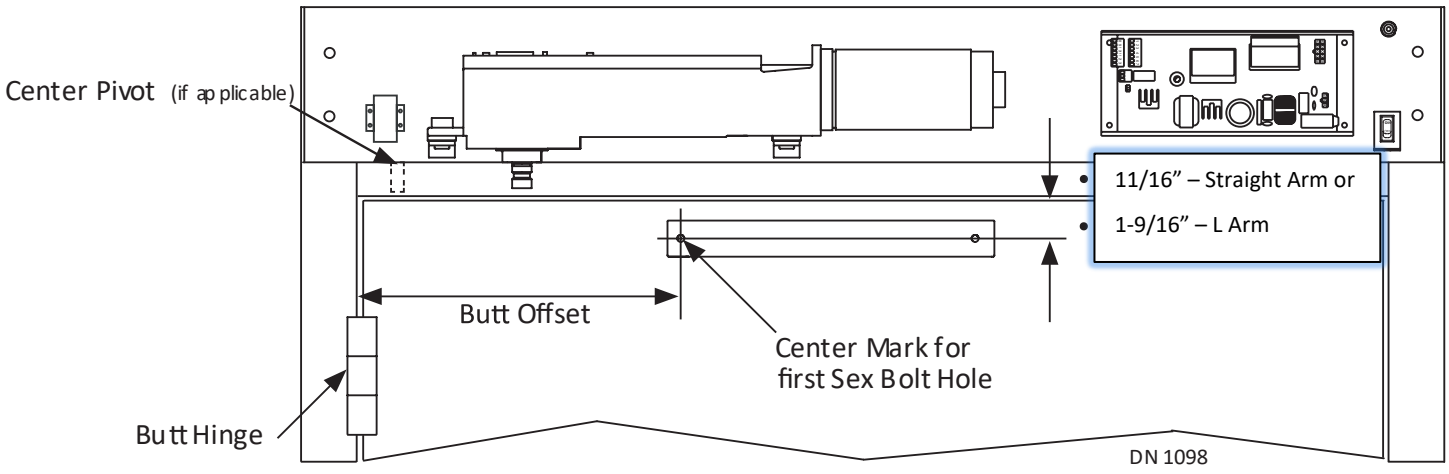


Figure 32: Measure to Mark the First Screw Hole

- **Straight Arm (0"-1/4" Reveal)**: ≈11/16 inch from the Bottom of Door Frame down to the Horizontal Line. Draw a vertical line across the horizontal Line to mark the center of the first Sex Bolt hole.
- **L-Shape Arm**: ≈1-9/16 inch from the Bottom of Door Frame down to the Horizontal Line.

SECTION 5.3: Inswing Track Prep/Assembly

1. Measure and mark a centering mark from Butt Offset Pivot (Or Center Pivot, if applicable) to the center of the Face of the Door according to Table 5 and Figure 32 above.
2. This becomes the anchor point of the Inswing Track for the first Anchor Point / Sex Bolt.
3. Rotate Inswing Arm out of the way and pin it again at the Coupling Access hole.

5.3.1 Align/Level

a. Butt the Guide Track against the swing door by aligning the first Sex Bolt hole with the measured mark.
b. Insert wheel from the attached Inswing Arm into the Track.
c. Level the Track and use it as a template to mark the second Sex Bolt hole.
d. The Inswing Arm should clear the top of the Inswing Track by 1/4" when prepped properly.
e. Remove the Track.

5.3.2 Pre Anchor Inswing Track

a. Drill (2) 3/8-inch holes completely through the Swing door at centering marks.
b. At the opposite side of the swing door, insert each Sex Bolt into the drilled holes and lightly hammer into place.
c. Secure the Track against the Swing Door with the Sex Bolt closest to the Center of the Door and one Phillips Screw (1/4"-20 x 2 1/4") while angling the Track downward *(Figure 33)*.
d. Remove Pin at the Coupling Access Hole and allow Inswing Arm to close

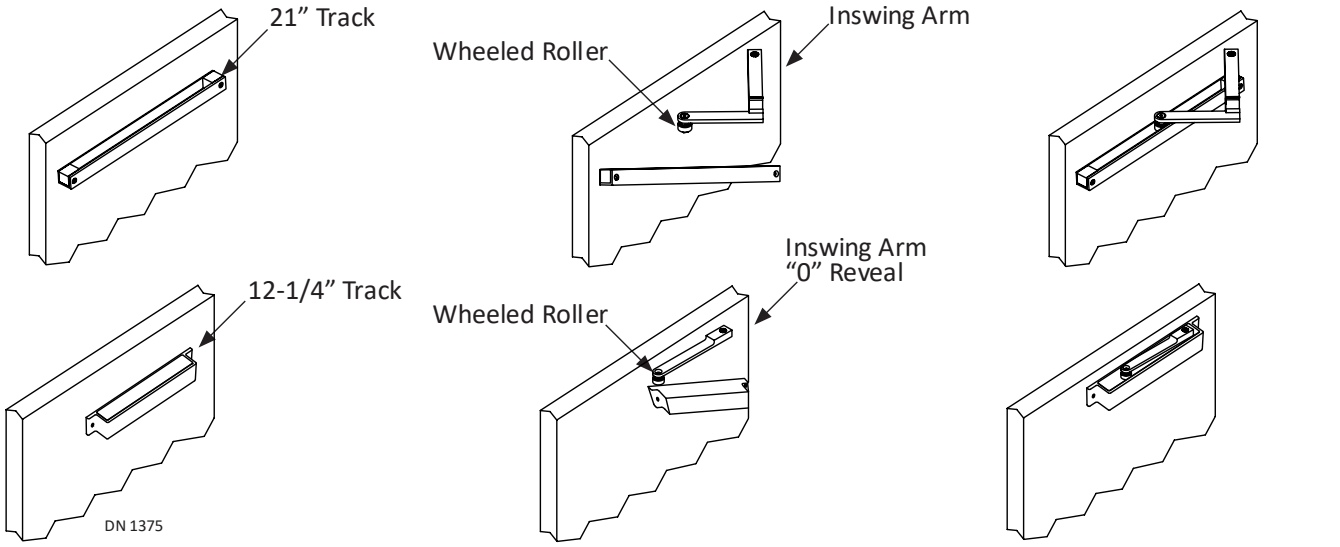
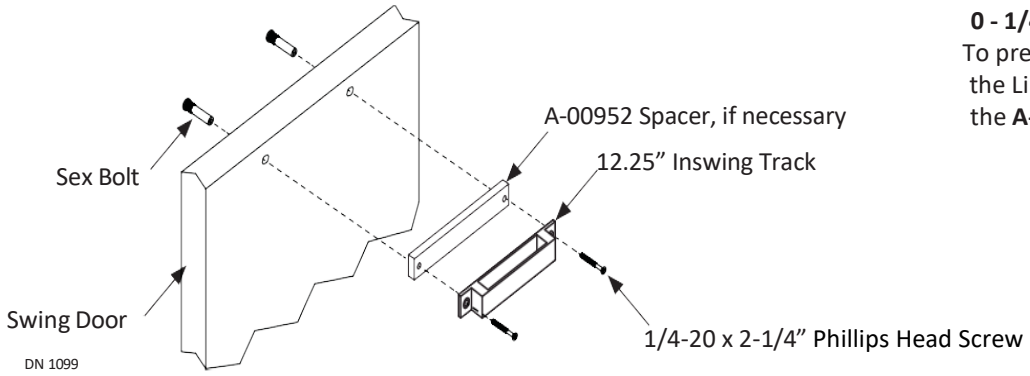


Figure 33: Insert the Swing Arm into the Track

5.3.3 Secure the Track

a. Pull the Track upward to the Sex Bolt hole closest to the Hinge while allowing the Inswing Arm Roller to rest in the Track.
b. Secure the Track to the Swing Door with the second 1/4-20 x 2-1/4” Phillips Screw.
c. Tighten ***both*** screws (*see Figure 34).*



0 - 1/4” Reveal using a Straight Arm: To prevent the Swing Arm from hitting the Lip of Header or Top Door Frame, the **A-00952 Spacer** can be used with 12.25” Tracks.

Figure 34: Secure the Track to the Swing Door

5.3.4 Side Load - Attach Doorstop

a. Articulate the door to 90º or more (wherever the end user prefers the travel angle to be) and wedge into place.
b. Use the A-00454 Surface Mounted Door Stop to stop the arm at its angled position, nearest to the spindle.

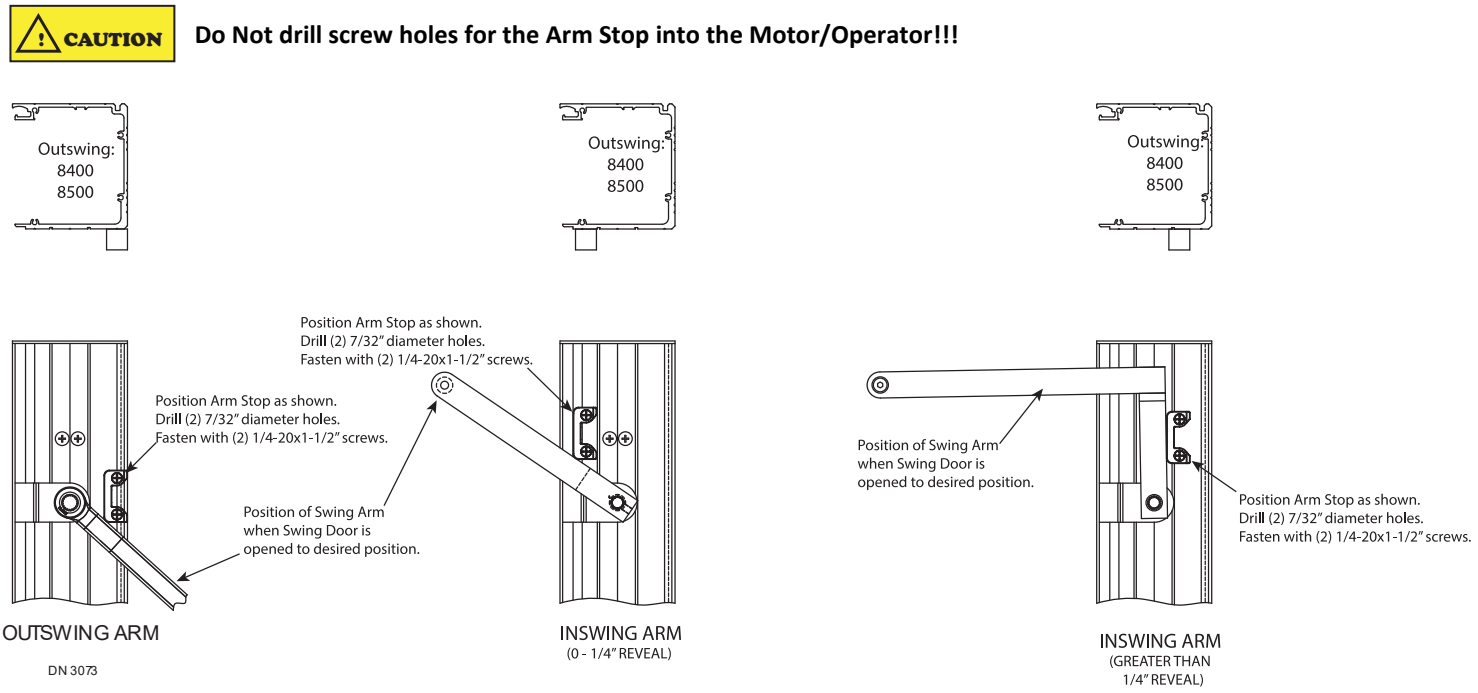


Figure 35: Arm Stop (A-00454) Configurations

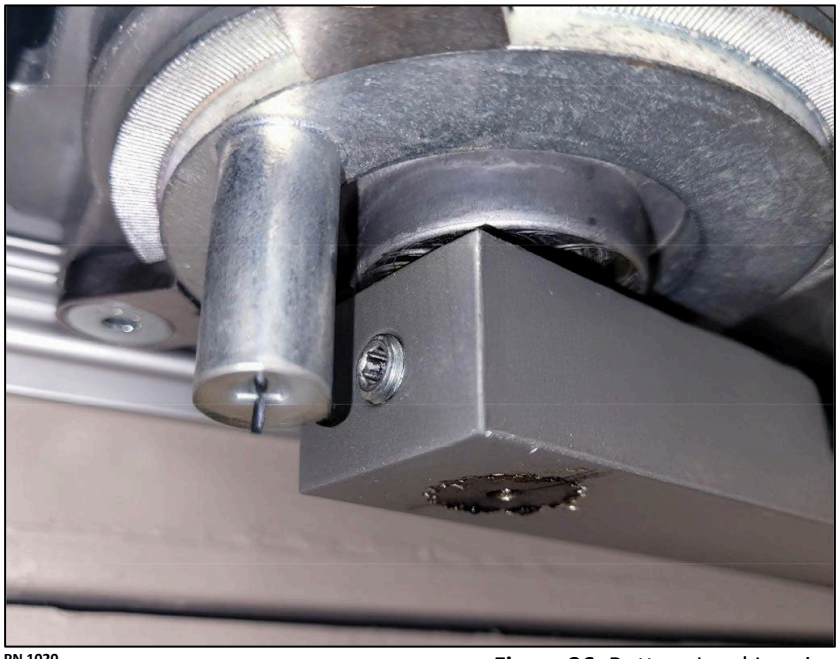
5.3.5 Bottom Load - Adjust Ring Stop Assembly

a. Loosen the four Hold Down Tabs at the 3/16" Allen screws.

b. Adjust the Limit Stop Ring to hold the Inswing Arm at its furthest arc of travel.

NOTE: *90 degrees is the minimum travel per ANSI Standards.*

c. Once adjusted, re-tighten the Hold Down Tabs at the 3/16" Allen screws.



PN 1020

Figure 36: Bottom Load Inswing

PN 1021

Figure 37: Sideload Right Hand Inswing

5.3.6 Check the Manual Opening/Closing of the Door

Open the Door manually all the way to the 90º Doorstop / Ring Stop.

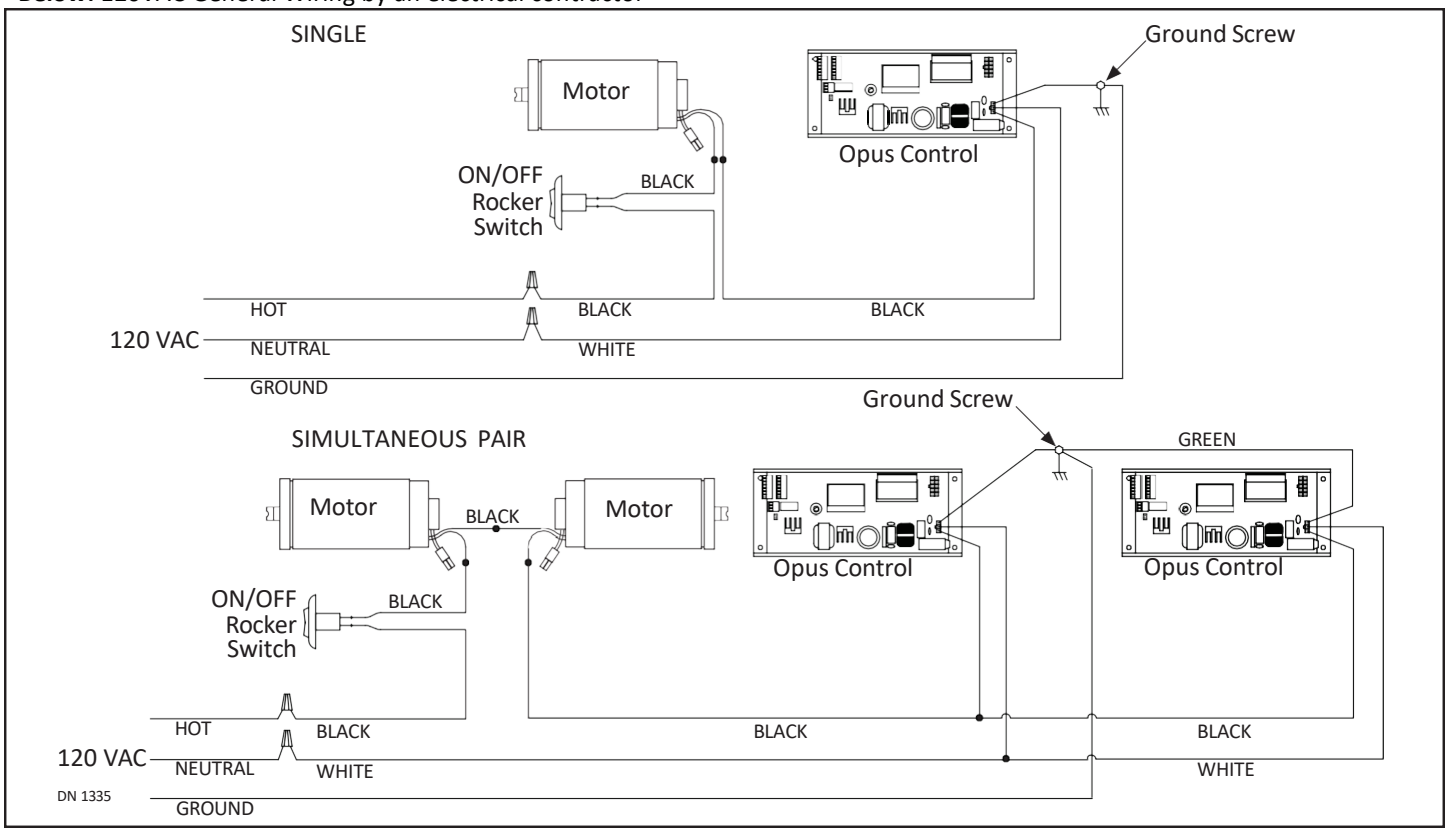
NOTES: *The Door should swing freely without obstruction and/or physical bind at 15lbs of pressure (or less).*

The Door should completely close from this point slowly and with control.

NOTICE ***If you are not moving on to Chapter 6: End Process/Commissioning, reinstall the Service lid and keep track of all left over included parts.***

CHAPTER 6: END PROCESSES

Below: 120VAC General Wiring by an electrical contractor



SAFETY

- Ensure the work area is free of people and impediments that will interrupt the finalization of the door.
- Use barricades and Caution Tape, if needed, to isolate the work area and make it safe from/for the general public.

SECTION 6.1: Final Adjustments – GT(8)500 Low Energy Swing Door

1. Consult the ANSI/BHMA A156.19 Standard for Knowing Act Device location, Signage locations and general operating requirements.

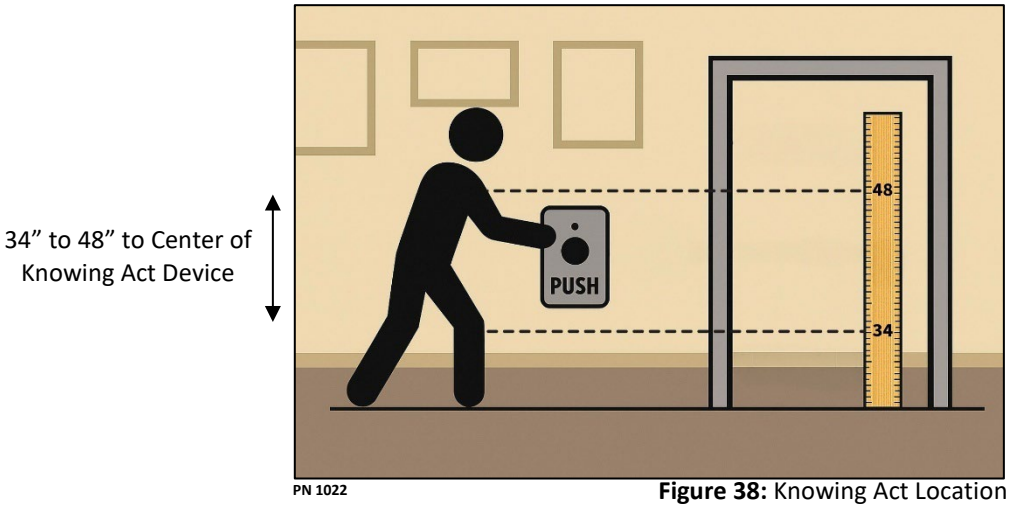
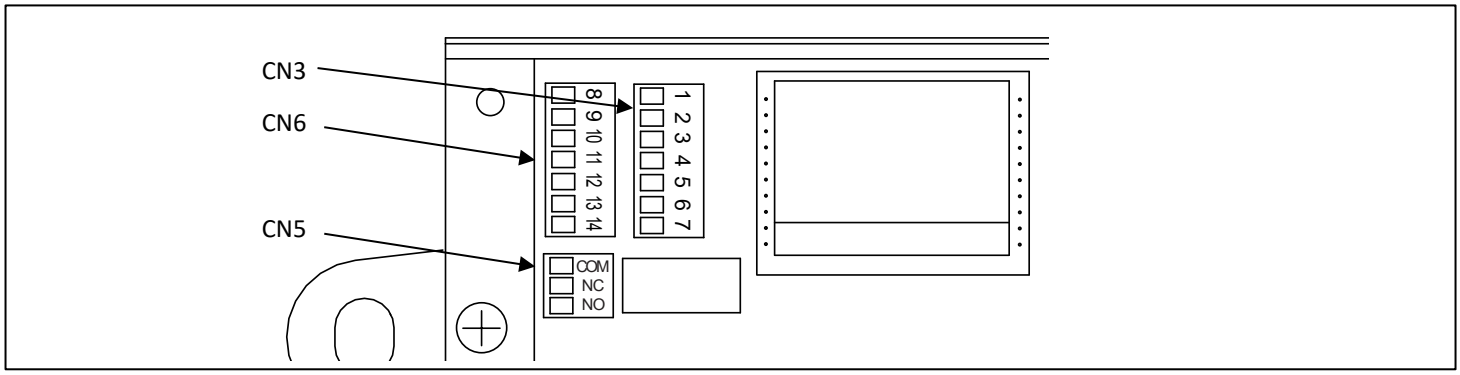


Figure 38: Knowing Act Location

2. Install the Knowing Act Device (includes key fobs, touchless sensors, waveless sensors, etc).
    a. Obtain the Knowing Act Devices from a reputable AAADM Dealer (preferred).
    b. Follow the dealership installation directions to ensure the proper operation of the Knowing Act Device.
3. Land all low voltage Knowing Act Device wiring to the correct Opus terminals.
    a. Refer to **C-00139 - Swing Door and Fold Door Opus Control Wiring and Programming Manual** for more information.



IO Terminal strips (CN3/CN6)

I/O Terminal Strips						
1	12VDC	+12VDC	8	BA	Breakout	
2	GND	Common for 12V and signals	9	SQ*	Sequential activation (signal to open, signal to close) (Programmable)	
3	61	Interior Activation	10	H*	No Function (Programmable)	
4	62*	Exterior Activation (Programmable)	11	M0	One-way when connected to Common	Hold Open when both M0 and M1 connected to Common
5	6B	Continuous Safety				
6	SWL*	Safety With Lockout (Programmable, Rev.27 or later)	12	M1	Night when connected to Common	
7	Out1	Fully Opened Position (Programmable) Closes to GND	13	Out 2	Fully Closed Position (Programmable), Closes to GND	
			14	GND	Common for all above signals	

* Parameters on the LCD Screen will differ between Revisions. For details refer to "4.2.1.2" in manual C-00139.

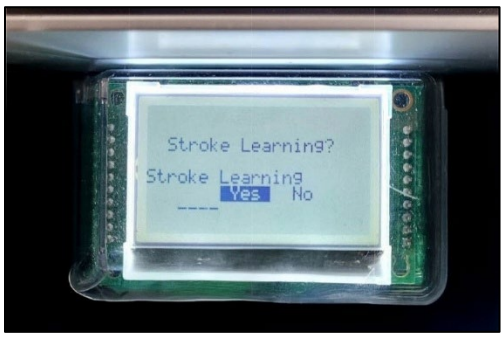
4. Switch the ON/OFF (120VAC Power) and On/Off/HO switches to the **"ON"** position and touch the black dial at the Opus.

NOTICE Confirm that lights are on at the Opus and any *powered* Knowing Act Devices (if equipped).

5. Prevent any Maglock, Electric Strike, or other latching/locking mechanism(s) from inhibiting the Low Energy Operator.

NOTICE The door must move from fully closed to fully opened without any physical bind.

6. Use the **C-00139 Swing Door and Fold Door Opus Control Wiring and Programming Manual** to perform Stroke Learn of the GT(8)500 Low Energy Door.
    a. Adjust speeds, forces, time delays, access control and locking mechanisms per the ANSI/BHMA A156.19 Standard.
    b. Adjust Safety Sensors, if equipped, to the ANSI/BHMA A156.10 Standard (Section 8.2.2).



PN 1023 **Figure 39:** Stroke Learn

PN 1024 **Figure 40:** Low E

7. Apply the appropriate Signage and Daily Safety Check decal.
8. Secure Header Can lid with three Phillips-head screws.
9. Prepare any close-out documents and service reports for the end user's endorsement, including the Serial Number of your GT(8)500 and an AAADM Inspection.
    a. Instruct the user on the functionality of the door and perform a Daily Safety Check.
10. Take a video or photo of the completed and operational GT(8)500 for record keeping.

SECTION 6.2: Final Adjustments – GT (8)400 Full Energy Swing Door

1. Consult the ANSI/BHMA A156.10 Standard for Full Energy Swing Door operation including activation/safety sensors, knowing act location (if applicable), entrapment, signage requirements and rails.

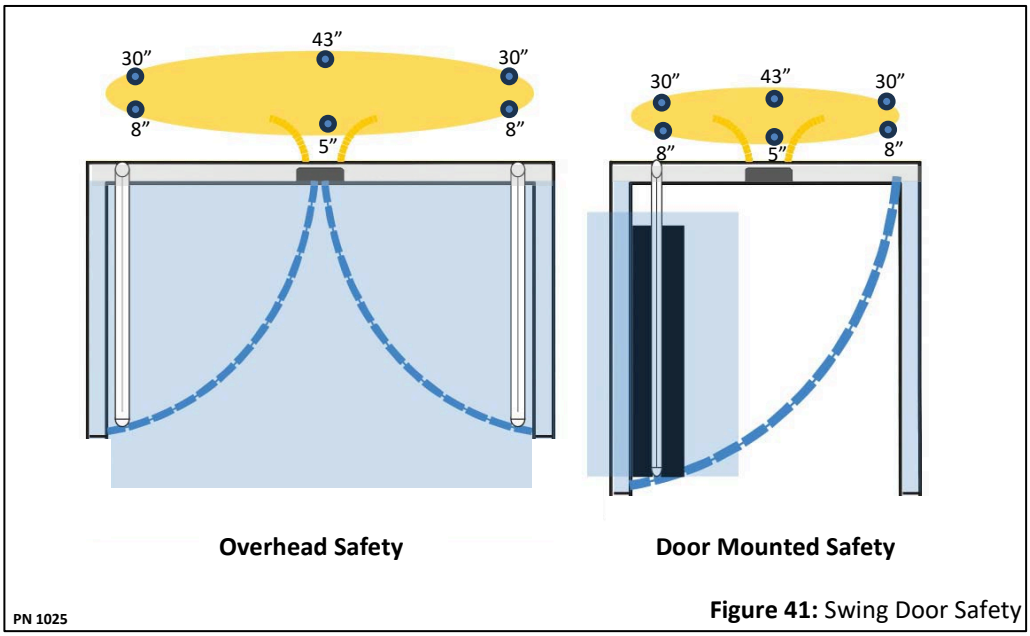
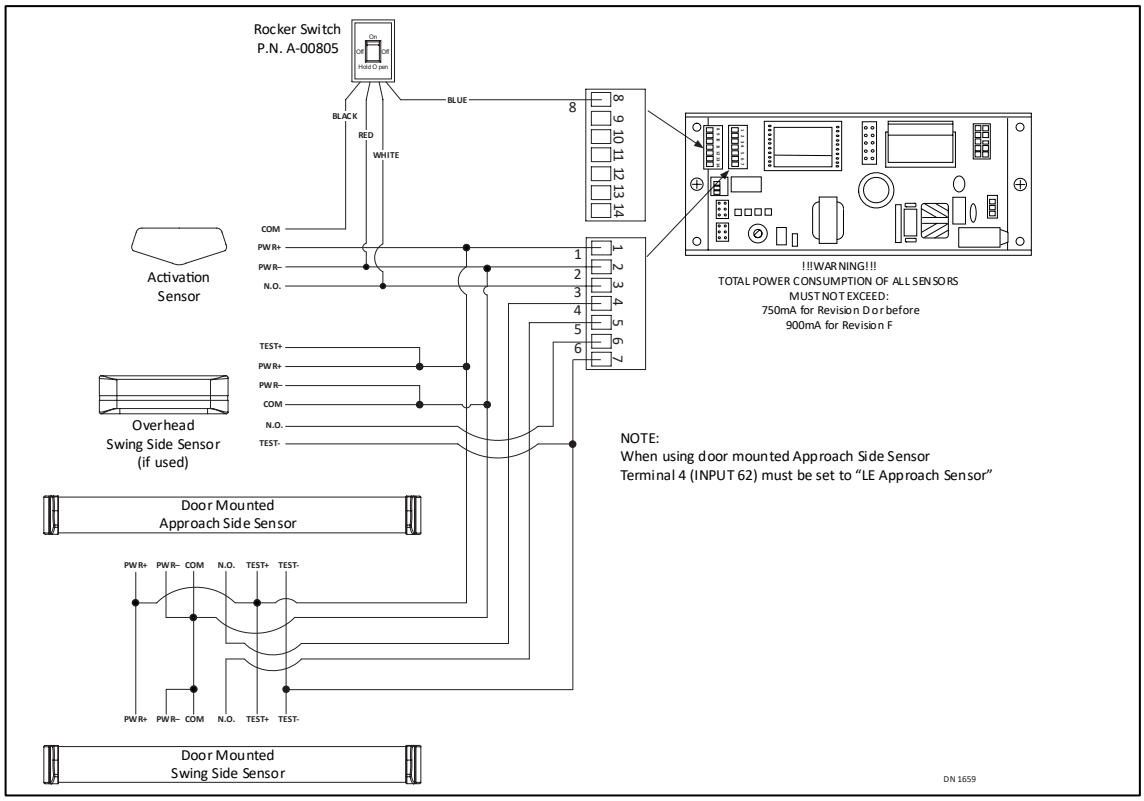


Figure 41: Swing Door Safety

2. Install the necessary Activation and Safety Devices.
   a. Obtain the Activation and Safety devices from a reputable AAADM Dealer (preferred).
   b. Follow the dealership installation directions to ensure the proper operation of the Activation and Safety Devices.
3. Land all low voltage Activation/Safety Device wiring to the correct Opus Terminals referring to the **C-00139 Swing Door and Fold Door Opus Control Wiring and Programming Manual**.



4. Switch the ON/OFF (120VAC Power) and On/Off/HO switches to the **"ON"** position and touch the black dial at the Opus.

NOTICE Confirm that lights are on at the Opus and any sensors.

PN 1026 **Figure 42:** OPUS at Start-up

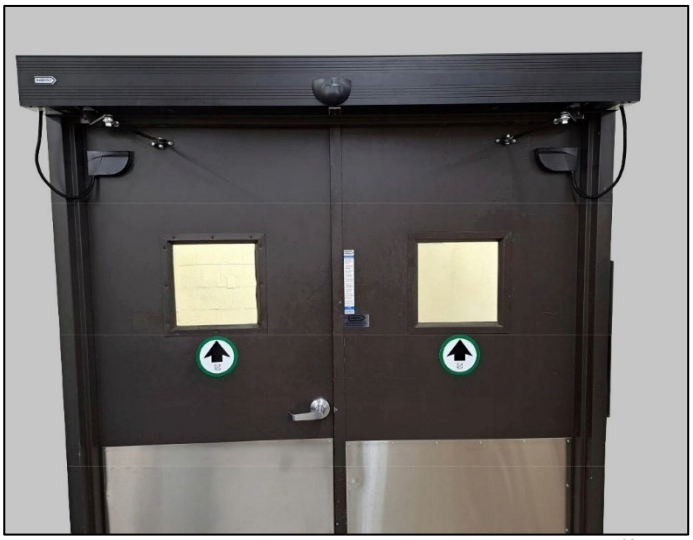
5. Prevent any Maglock, Electric Strike, or other latching/locking mechanism(s) from inhibiting the Full Energy Operator.

NOTICE The door must move from fully closed to fully opened without any physical bind.

6. Use the **C-00139 Swing Door and Fold Door Opus Control Wiring and Programming Manual** to perform Stroke Learn of the GT(8)400 Full Energy Swing Door.
   a. Adjust speeds, forces, time delays, access control and locking mechanisms per the ANSI/BHMA A156.10 Standard.
   b. Adjust Safety Sensors, if equipped, to the ANSI/BHMA A156.10 Standard (Section 8.2.2).

   NOTE: *Confirm the Opus control Base Settings are set to "Full" Energy.*

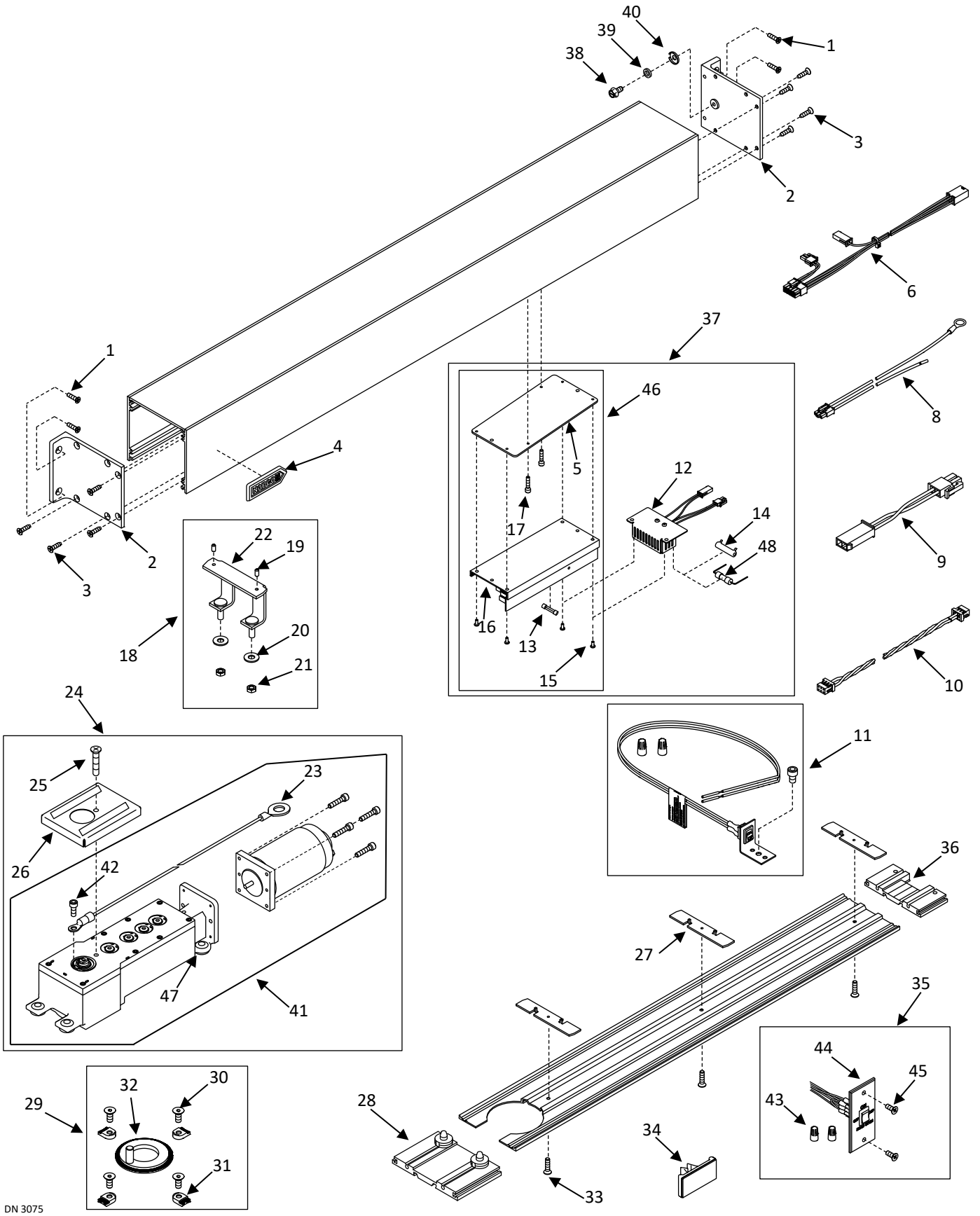
7. Apply appropriate Signage and Daily Safety Check decal.



PN 1027 **Figure 43:** One-way Traffic, Full Energy Simultaneous Pair

8. Secure Header Can Lid with three Phillips-head screws.
9. Prepare any close-out documents and service reports for the end user's endorsement, including the Serial Number of your GT(8) 400 and an AAADM Inspection.
    a. Instruct user on the functionality of the door and perform a Daily Safety Check.
10. Take a photo or video of your completed and operational GT(8)400 for record keeping.

SERVICE PARTS: C.U. OPUS BOTTOM LOAD HEADER



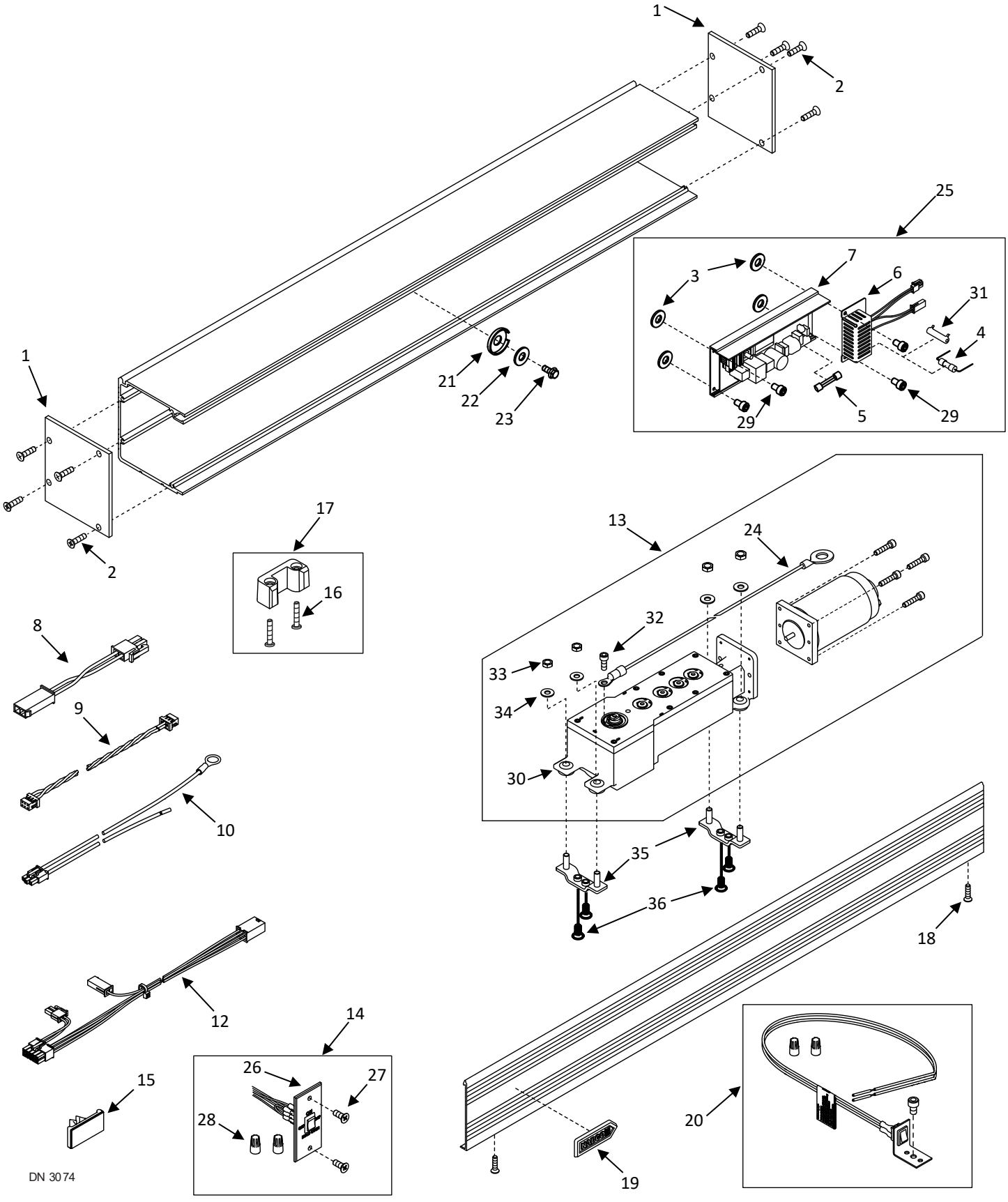
Opus Bottom Load Header

Item	Part	Finish/Sizes/Notes	Description
1	T-00294		FHMS,1/4-20x1.000L.,PHIL,ZN
2	A-60733	Clear	BRACKET,END CAP,C.U.,204
	A-70733	Dark Bronze	BRACKET,END CAP,C.U.,313
3	T-00061		FHMS,1/4-20x1.000L.,PHIL,TRI-LOBE,ZINC
4	C-00067		NAMEPLATE,NABCO LOGO
5	M-01735		PLATE,BOTTOM LOAD,OPUS
6	A-01000	Not used on GT710/8710	HARNESS,MOTOR,OPUS
8	M-01072		HARNESS,POWER,OPUS
9	A-01001	For Right Hand Operator only	HARNESS,RH OPERATOR,OPUS
10	M-01680	Simultaneous Pair	HARNESS,SIM PAIR,OPUS
11	A-00409		PARTS BAG,ON/OFF,SWINGER,SWITCH
12	A-01003		MODULE,BRAKE,OPUS
13	V-00552	Used on Opus Control	FUSE;5A;GMA;5X20mm
14	V-00411	Used on Brake Module	RESISTOR,200 OHM,20 WATT
15	T-00420		PHMS,8-32x0.375L,PHIL,SWAGEFORM,ZINC
16	M-01546		CONTROLLER,OPUS
17	T-00232		SHCS,10-24x0.875L.,ZINC
18	A-00501		BRKT.;MOTOR;REAR;BTM.LOAD
19	T-00073		SHSS,1/4-20x0.500L.,KNURL PT.
20	T-00092		WASHER,.438 ID,1.00 OD,.083 THK,ZINC
21	T-00067		NUT,HEX,JAM,3/8-16,ZINC
22	M-01181		TOP FRAME MOUNT, SUB - ASSY - SWINGER
23	A-00620		GROUND WIRE:SWING OPERATOR:OPUS
24	A-01093	RH	OPER.SWGR,W/ENCOD,ROF;RH;NO CLUTCH;B-LO
	A-01092	LH	OPER.SWGR,W/ENCOD.ROF;LH;NO CLUTCH;B-LO
25	T-00238		FHMS,10-24x1.000L.,PHIL,ZINC
26	A-00348		COVER,SWITCH,SWINGER
27	M-01177		LOCK COVER PLATE - BOTTOM
28	A-60731	Clear/Out	BASE PIVOT,C.U.,OUTSWING,204
	A-70731	Dark Bronze/Out	BASE PIVOT,C.U.,OUTSWING,313
	A-60738	Clear/In	BASE PIVOT,C.U.,IN/OUTSWING,2-1/2in:204
	A-70738	Dark Bronze/In	BASE PIVOT,C.U.,IN/OUTSWING,2-1/2in:313
29	A-00489		STOP,RING ASSY
30	T-00334		FHMS:5/16-18x0.750L.:SOKT:ZN
31	M-01159		RING, STOP - HOLD DOWN
32	M-01475		LIMIT STOP:C.U.
33	T-00391		FHMS,10-24x0.750L.,PHIL,ZINC
34	V-00098		SADDLE, WIRE
35	A-00805		SWITCH,ROCKER,SWINGER,ON/OFF/HOLD OPEN
36	A-61176	Clear	CU - SGL STRIKE BASE 3-1/4,204
	A-71176	Dark Bronze	CU - SGL STRIKE BASE 3-1/4,313

Opus Bottom Load Header

Item	Part	Finish/Sizes/Notes	Description
37	A-01098		CONTROLLER,W/ BRAKE,BOTTOM LOAD,OPUS
38	T-00346		HHCS:1/4-20x0.375L:GREEN:WASH HD:SLOT
39	M-00450		SPACER,MTG.END CAP
40	V-00104		WASHER, CUP.312 ID X .88 OD X .040 THICK
41	A-01091	RH	OPER.SWGR,W/ENCOD,ROF;RH;NO CLUTCH;S-LO
	A-01090	LH	OPER.SWGR,W/ENCOD.ROF;LH;NO CLUTCH;S-LO
42	T-00185		SHCS,10-24x0.500L.,BK.OX.
43	T-00197		NUT,WIRE,RANGE 22-14AWG,GREY
44	M-01576		SWITCHPLATE,ON/OFF/HOLD OPEN
45	T-00031		FHMS,10-32x0.500L.,PHIL,UCUT,T-LOBE,BKZN
46	A-01143		CONTROLLER,W/O BRAKE,BOTTOM LOAD,OPUS
47	M-00991		BUSHING, RUBBER MOUNT, .406ID .80OD
48	A-00453		FUSE,3AMP,W/HEAT SHRINK

SERVICE PARTS: C.U. OPUS SIDE LOAD HEADER

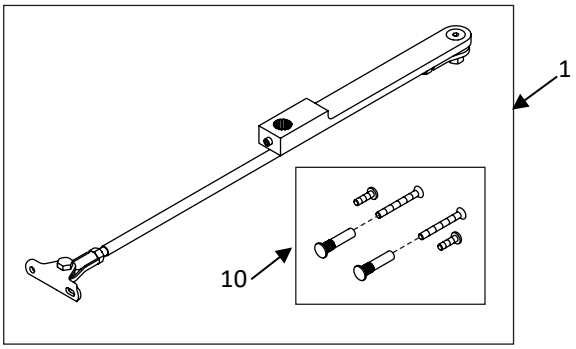


Opus Side Load Header

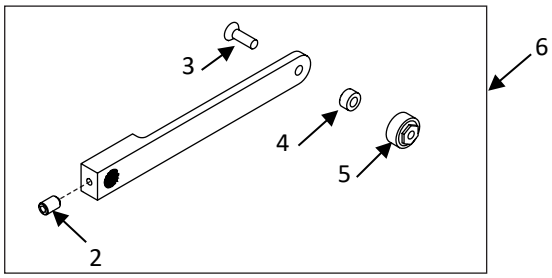
Item	Part	Finish/Sizes/Notes	Description
1	M-61051	Clear	END CAP,SIDELOAD HDR,84-8500 4HOLE,204
	M-71051	Dark Bronze	END CAP,SIDELOAD,NO ACCESS HOLE,313
2	T-00016	Clear	FHMS,1/4-20x0.438L.,PHIL,UNDERCUT,ZINC
	T-00108	Dark Bronze	FHMS,1/4-20x0.438L.,PHIL,UNDERCUT,BLK ZN
3	T-00365		WASHER,.170 ID,.625 OD,.032 THK,NYLON
4	A-00453	Included on Brake Module (#6)	FUSE,3AMP,W/HEAT SHRINK
5	V-00552	Used on Opus Control	FUSE;5A;GMA;5X20mm
6	A-01003		MODULE,BRAKE,OPUS
7	M-01546		CONTROLLER,OPUS
8	A-01001	For Right Hand Operator only	HARNESS,RH OPERATOR,OPUS
9	M-01680	Simultaneous Pair	HARNESS,SIM PAIR,OPUS
10	M-01072		HARNESS,POWER,OPUS
12	A-01000	Not used on GT710/8710	HARNESS,MOTOR,OPUS
13	A-01091	RH	OPER.SWGR,W/ENCOD,ROF;RH;NO CLUTCH;S-LO
	A-01090	LH	OPER.SWGR,W/ENCOD.ROF;LH;NO CLUTCH;S-LO
14	A-00805		SWITCH,ROCKER,SWINGER,ON/OFF/HOLD OPEN
15	V-00098		SADDLE, WIRE
16	T-00325		PHMS, 1/4-20X1.500L, PHIL, TYPE F
17	A-00454		ARM STOP,ASSEM FOR 400, 8400, 500, 8500
18	T-00337		PHSMS:#8x0.625L.:PHIL
19	C-00067		NAMEPLATE,NABCO LOGO
20	A-00409		PARTS BAG,ON/OFF,SWINGER,SWITCH
21	V-00104		WASHER, CUP.312 ID X .88 OD X .040 THICK
22	T-00029		WASHER,.250 ID,.563 OD,.049 THK,ZINC
23	T-00347		HHCS:10-32x0.375L:GREEN:WASH HD:SLOT
24	A-00620		GROUND WIRE:SWING OPERATOR:OPUS
25	A-00888		CONTROLLER,W/ BRAKE,SIDELOAD,OPUS
26	M-01576		SWITCHPLATE,ON/OFF/HOLD OPEN
27	T-00031		FHMS,10-32x0.500L.,PHIL,UCUT,T-LOBE,BKZN
28	T-00197		NUT,WIRE,RANGE 22-14AWG,GREY
29	T-00335		SHCS,10-24x0.313L.,ZINC
30	M-00991		BUSHING, RUBBER MOUNT, .406ID .80OD
31	V-00411	Included on Brake Module (#6)	RESISTOR,200 OHM,20 WATT
32	T-00185		SHCS,10-24x0.500L.,BK.OX.
33	T-00067		NUT, HEX, JAM, 3/8-16, ZINC
34	T-00092		WASHER, 438 ID, 1.00 OD, .083 THK, ZINC
35	M-01043		BRACKET, OPERATOR, SIDELOAD HEADER
36	T-00334	Clear	FHMS:5/16-180.750l.:SOKT:ZN
	T-00370	Dark Bronze	FHMS:5/16-180.750l.:SOKT:ZN

SERVICE PARTS: SWING ARM AND TRACK ASSEMBLIES

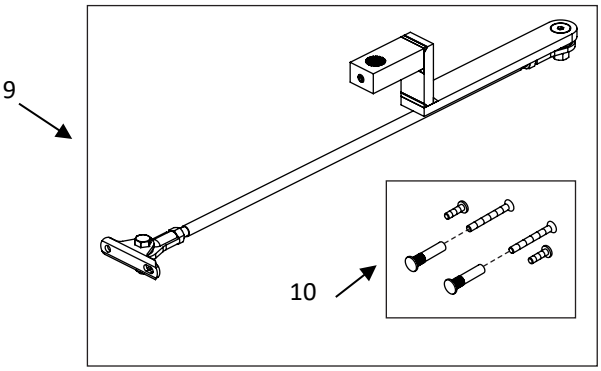
Low Profile Outswing Arm Assembly



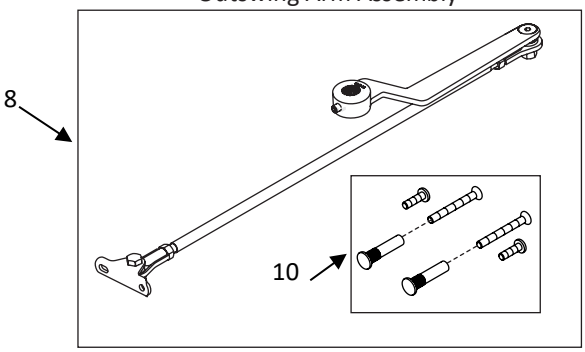
Inswing Arm
Reveal ***Equal*** to 0 inches



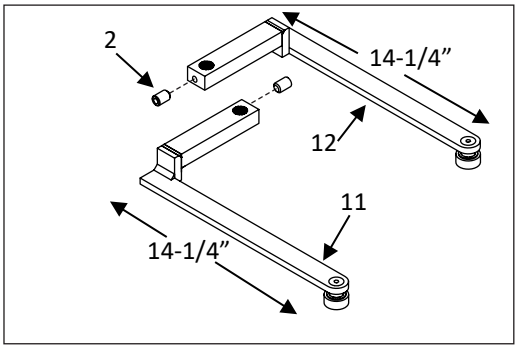
Outswing Arm, Double Egress Assembly

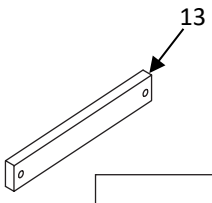


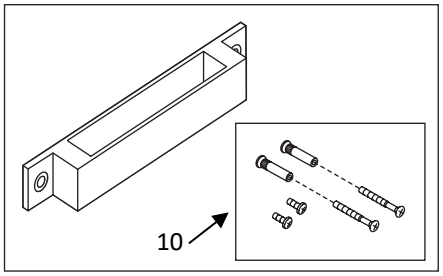
Outswing Arm Assembly

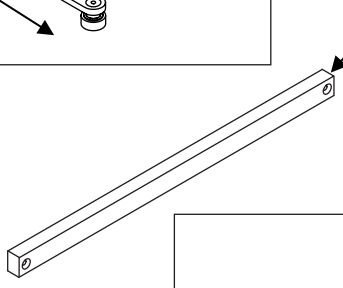


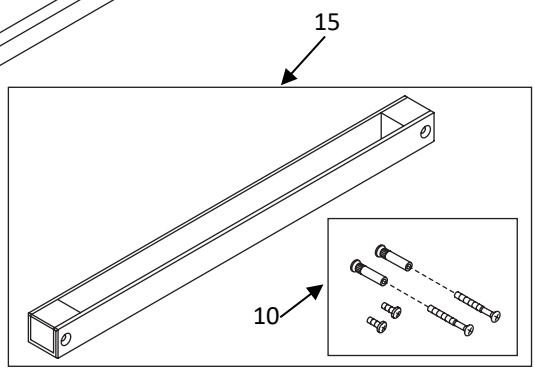
(CU) Inswing Arm Assembly
Reveal ***Greater Than*** 0 inches











Swing Arm Assemblies			
Item	**Part**	**Finish/Sizes/Notes**	**Description**
1	A-60770	Clear/Low Profile/No Reveal	ARM,OUTSWING,CU,20in: 204
	A-70770	Dark Bronze/Low Profile/No Reveal	ARM,OUTSWING,CU.20in: 313
2	T-00261		SHSS,5/16-24x0.500L.,CUP PT.
3	T-00223		FHCS,3/8-24x1.250L.,ZINC
4	M-01045		WASHER,STEEL,.375IDx.75ODx.375INTHK.
5	A-00752		ROLLER,REPLACEMENT
6	A-60545	Clear	ARM,INSWING,CU,NON PANIC,NH, 204
	A-70545	Dark Bronze	ARM,INSWING CU,NO PANIC,NH, 313
8	A-60425	20”/Clear	ARM,OUTSWING,STD ASM,20in: 204
	A-70425	20”/Dark Bronze	ARM:OUTSWING:STD ASM:20in: 313
	A-60426	30”/Clear	ARM,OUTSWING,STD ASM,30in: 204
	A-70426	30”/Dark Bronze	ARM:OUTSWING:STD ASM:30in: 313
9	A-60427	20”/Clear	ARM, OUTSWING, DBL EGRS ASM,20in: 204
	A-70427	20”/Dark Bronze	ARM, OUTSWING, DBL EGRS ASM:20in: 313
	A-60428	30”/Clear	ARM, OUTSWING, DBL EGRS ASM, 30in: 204
	A-70428	30”/Dark Bronze	ARM, OUTSWING, DBL EGRS ASM, 30in: 313
10	A-00389	Clear	PARTS BAG,SEX BOLTS & HARDWARE, 204
	A-00388	Dark Bronze	PARTS BAG,SEX BOLTS & HARDWARE, 313
11	A-60722	3-1/4” Reveal/RH/Clear	C.U. INSWING ARM,0 TO 3-1/4in:REVEAL,RH, 204
	A-70722	3-1/4” Reveal/RH/Dark Bronze	C.U.,INSWING ARM,0-3-1/4in REVEAL,RH, 313
12	A-60726	3-1/4” Reveal/LH/Clear	C.U. INSWING ARM,0 TO 3-1/4in: REVEAL,LH, 204
	A-70726	3-1/4” Reveal/LH/Dark Bronze	C.U.,INSWING ARM,0-3-1/4in REVEAL,LH, 313
13	A-00952	12.25” Long	SPACER,INSWING TRACK, FOR 0” REVEAL
14	A-60639	Clear/12.25” Long	ASM, TRACK, CU, SHORT, 204
	A-70639	Dark Bronze/12.25” Long	ASM, TRACK, CU, SHORT, 313
15	A-00481	Clear/21” Long	ASM, TRACK, CU, LONG, 204
	A-70481	Dark Bronze/21” Long	ASM, TRACK, CU, LONG, 313
16	M-02045	21” Long	SPACER,INSWING TRACK,LONG, 710