



**Opus Overhead Concealed Swing Door GT (8)300 - (8)350**  
**Installation Manual**  
P/N C-00175 Rev 4-2-24

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NABCO hours of Operation: Monday to Friday 8:00 a.m.- 4:30 p.m. (Central Time)

*Associated Manuals Part Numbers: Opus Control Wiring and Programming Manual; P/N C-00139  
Swing Door Owners Manual; P/N C-00110 (for Decal Installation)  
NABCO Price Book; P/N 16-9244-30 (for Sensors, Switches, and Accessories)*

**WARNING**

- 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: WARNING LABELS

Warning labels are universal and used to alert an individual of potential harm to one's self or to others. The following warning labels are listed in a hierarchy order that defines the most potential danger first, and the least potential danger last. Please refer to this page in the event that a warning label is displayed within this manual and further definition needs to be explained.

**DANGER** Indicates potentially dangerous situations. Danger is used when there is a hazardous situation where there is a *high* probability of severe injury or death. It should not be considered for property damage unless personal injury risk is present.

**WARNING** Indicates a hazardous situation which has *some* probability of severe injury. It should not be considered for property damage unless personal injury risk is present.

**CAUTION** Indicates a hazardous situation which *may result in a minor injury*. Caution should not be used when there is a possibility of serious injury. Caution should not be considered for property damage accidents unless a personal injury risk is present.

**Attention:** A situation where material could be damaged or the function impaired.

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

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

## CHAPTER 2: GENERAL SAFETY RECOMMENDATIONS

**WARNING** 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 bodily injury or property damage.

**WARNING** Read, study and understand the installation and operating instructions contained in or referenced in this manual before operating. If you do not understand the instruction, ask a qualified technician. Failure to do so may result in bodily injury or property damage and will nullify all warranties.

**DANGER** Disconnect all power to the junction box prior to making any electrical connections. Failure to do so may result in serious personal or fatal injury. When uncertain whether power supply is disconnected, always verify using a voltmeter.

**DANGER** Do not place finger or uninsulated tools inside the electrical controller. Touching wires or other parts inside the enclosure may cause electrical shock, serious injury or death.

**CAUTION** The Ground wire from the Opus Control 120 VAC Harness, and the Incoming 120 VAC Ground wire must be connected to the Ground screw located within the Swing door Header.

**CAUTION** If the door appears broken or does not seem to work correctly, it should be immediately removed from service until repairs can be carried out or a qualified service technician is contacted for corrective action.

**Notice:** This manual, the owner's manual and all other associated manuals must be given to and retained by the purchasing facility or end user.

**Notice:** Wiring must meet all local, state, federal or other governing agency codes.

**Notice:** All electrical troubleshooting or service must be performed by qualified electrical technicians and must comply with all applicable governing agency codes.

## CHAPTER 3: SCOPE

### SECTION 3.1: 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 156.10 (GT-300 and GT-8300), and ANSI Standard 156.19 (GT-350 and GT-8350) covers these types of doors and ANSI Standard Z97.1 covers Glass Installation. Other local standards or codes may apply. Use them in addition to the ANSI standard. The OHC Header assembly can be purchased as a stand alone unit and may be installed on other makes of doors and frames in lieu of the NABCO Complete Swing Door System. The GT-300, GT-8300, GT-350 and GT-8350 OHC Swing Door series is designed inline with the frame as a concealed unit.

If after troubleshooting a problem, a satisfactory solution cannot be achieved, please call Nabco Entrances at 1-877-622-2694 between 8 am – 4:30 pm Central time for additional assistance.

The owner should determine that 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.

### SECTION 3.2: Objective

The GT-300, GT-8300, GT-350 and GT-8350 OHC swing door series is designed inline with the frame as a concealed unit. The door function is operated by the Opus Control. 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 1ft<sup>2</sup> (0.9 m<sup>2</sup>) and having no dimension greater than 18 in (457 mm)”.**

### SECTION 3.3: Request a User Name/Password to gain access into the “myNABCO” portal

To gain access into the “myNABCO” portal, the User must first have an assigned User Name and Password. To request a User Name and Password, the following must be done:

1. Open the NABCO Website: [www.nabcoentrances.com](http://www.nabcoentrances.com)
2. Enter the “myNABCO” portal → Request Access → Fill out the Request Access Form → Click onto Register
  - a. A User Name and Password will be emailed back to the requestor.

## CHAPTER 4: GETTING STARTED

### SECTION 4.1: Associated Manuals

For User convenience there are now (2) ways to obtain associated Manuals:

- ▶ All Associated Manuals are packed within Decal Packets that are placed inside Header.
- ▶ For Electronic copies please log onto: [www.nabcoentrances.com](http://www.nabcoentrances.com) → myNABCO portal.

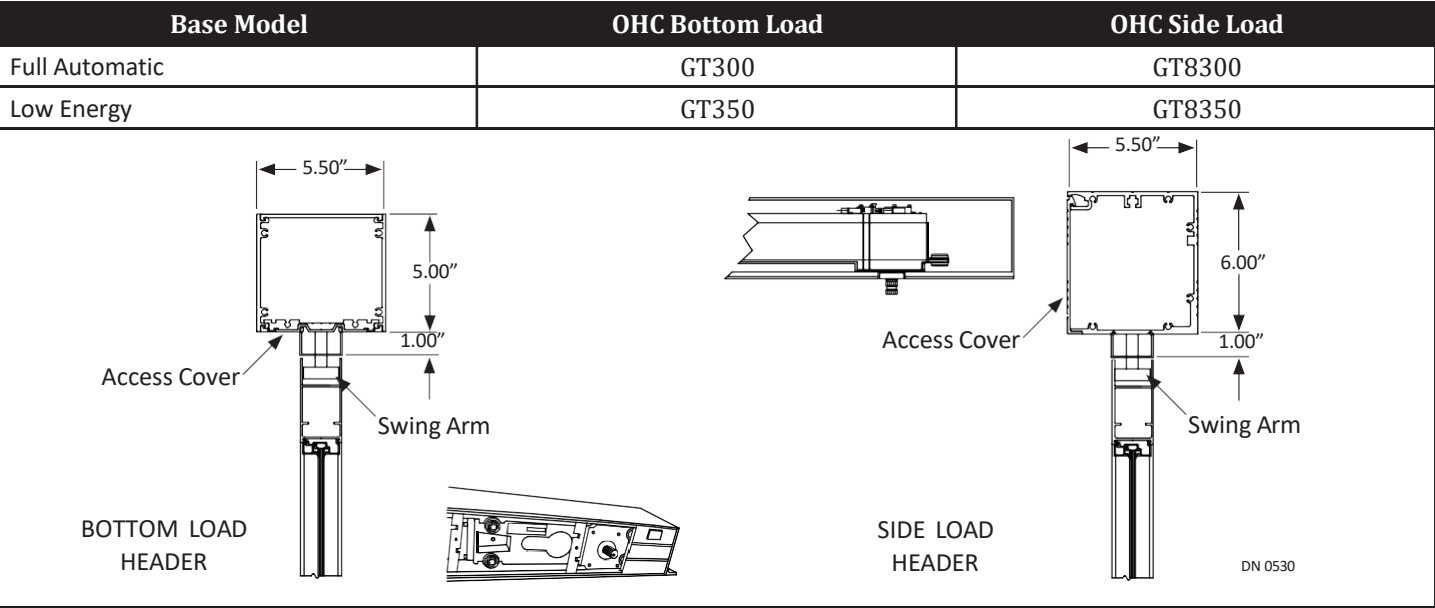
SECTION 4.2: Types of Swing Doors

4.2.1 Full Automatic

- ▶ Utilize Sensor(s) to open a Swing door.
  - Sensors activate the Control by detecting motion of pedestrians (or moving objects) that come into range.
- ▶ Must be compliant with ANSI Standard Code 156.10 to reduce chance of injury to pedestrians and wheeled traffic.

4.2.2 Low Energy

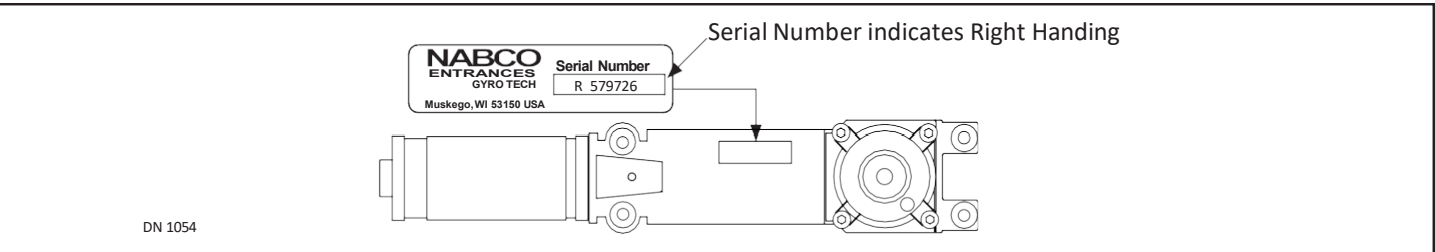
- ▶ Utilize a Knowing Act to open a Swing door.
  - A conscious effort that is carried out in many different ways, including (but not limited to): manually opening/closing a Swing door; pressing various types of Push Plates; turning a Key switch; flipping a Rocker Switch; utilizing a keypad or card reader, etc.
- ▶ Must be compliant with the ANSI Standard Code 156.19 to reduce chance of injury to pedestrians and wheeled traffic.



SECTION 4.3: Door Frame Specifications

| Specification                                 | Measurement          |                |
|-----------------------------------------------|----------------------|----------------|
| Minimum Frame Face for Mounting               | 1-3/4 inches (44mm)  |                |
| Minimum Clearance from Top of Door to Ceiling | Bottom Load          | Side Load      |
|                                               | 6-1/8" (156 mm)      | 7-18" (181 mm) |
| Minimum Door Thickness                        | 1-3/4 inches (44 mm) |                |

SECTION 4.4: How to Determine Handing



- ▶ Locate the Serial Number underneath the Operator. The Letter (L) or (R) located in front of the Serial Number indicates the Handing.

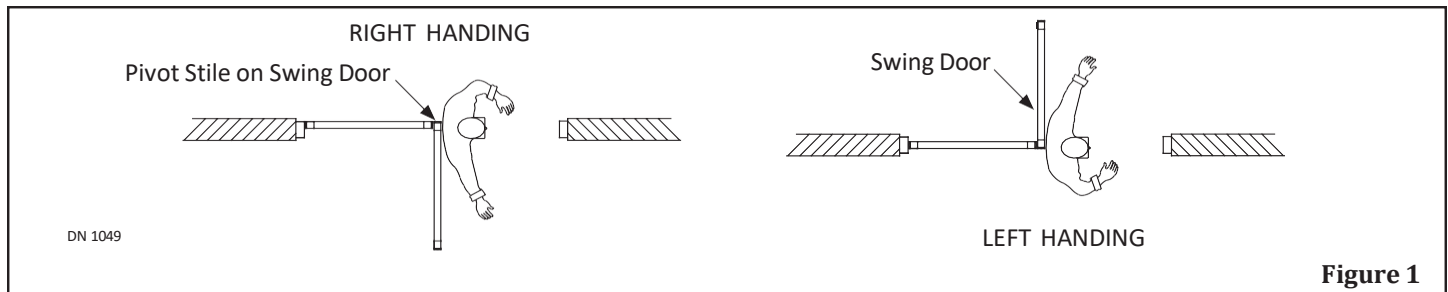


Figure 1

- Stand underneath the Header and open the Swing door. Butt your back against the Pivot side. Swing out your (right or left) arm in the direction the Swing door opened. If you swing out your Right Arm the Swing Door is Right Handed. If you swing out your Left arm the Swing Door is Left Handed.

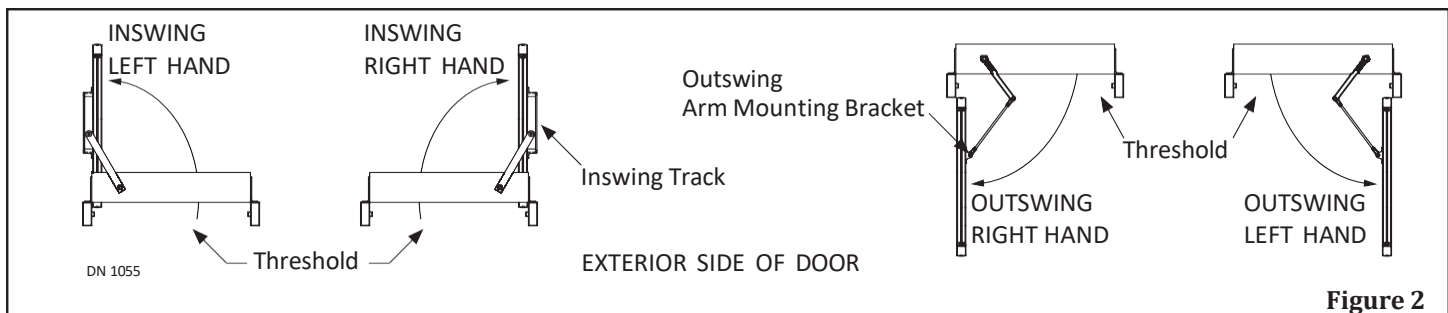
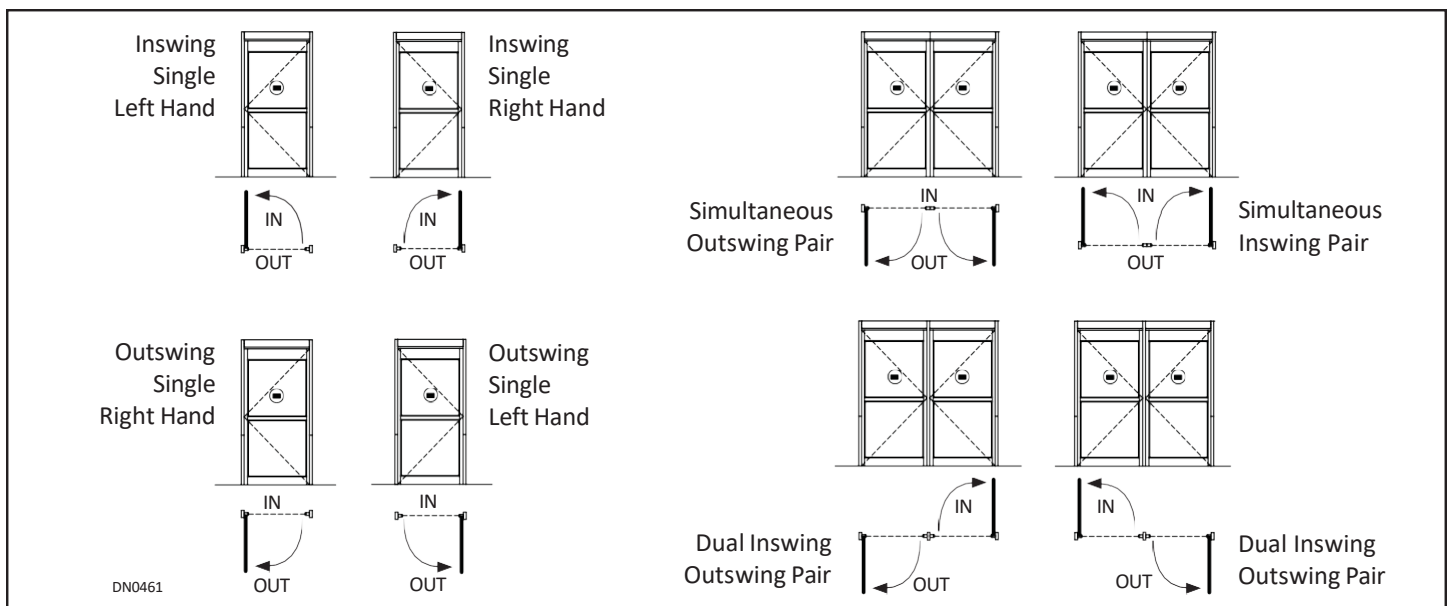


Figure 2

- If the Door swings underneath the Header to open, it is an Inswing Unit, and vice versa.

## SECTION 4.5: Types of Door Swing



## CHAPTER 5: BEFORE ASSEMBLING DOOR FRAME

### SECTION 5.1: Inspect the Rough Opening

1. Ensure the Rough Opening is correct size.
  - The width of the Rough Opening should equal: **PACKAGE WIDTH + 1/4 INCH ON EACH SIDE**
  - The height of the Rough Opening should equal: **PACKAGE HEIGHT + 1/4 INCH**

*Note: Make allowances for tile or other existing materials that may change the floor height.*

2. Ensure the floor is level across the entire opening. If used, check recessed threshold across the door opening.

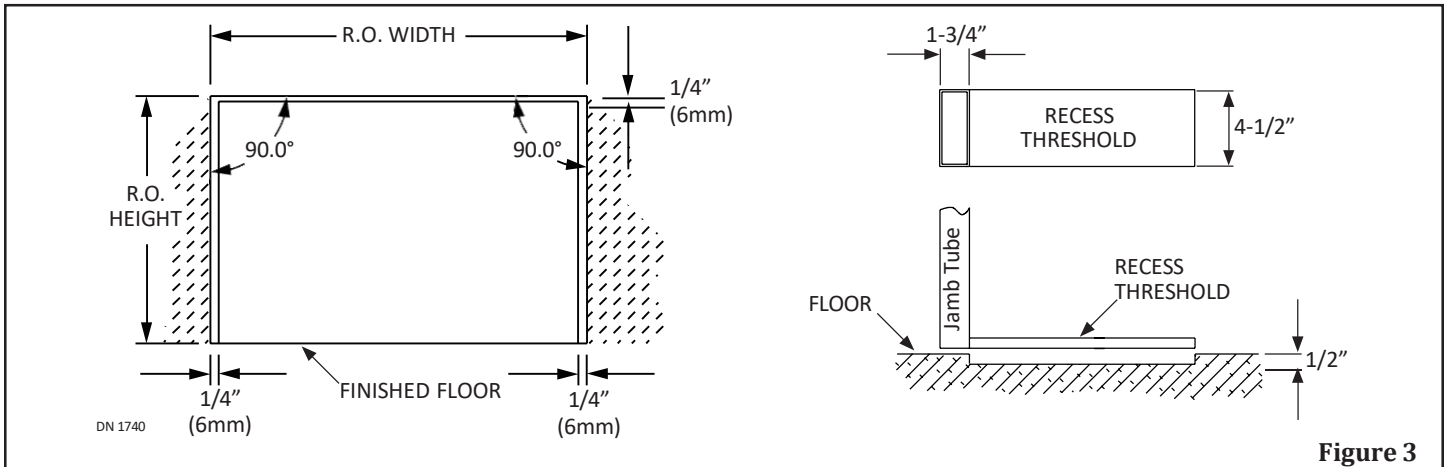


Figure 3

## SECTION 5.2: Remove the Header Cover

1. Remove (2) 8-32x0.625L Flat head screws. Remove Header Cover by lifting it up and then pulling it out.
2. Remove Parts boxes and/or Parts bags from inside Header.

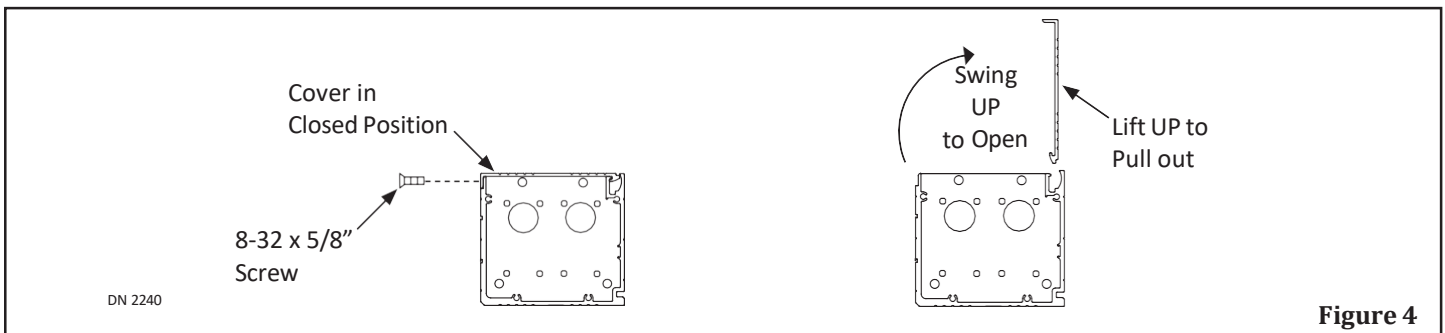


Figure 4

## CHAPTER 6: PREP THE JAMB TUBES

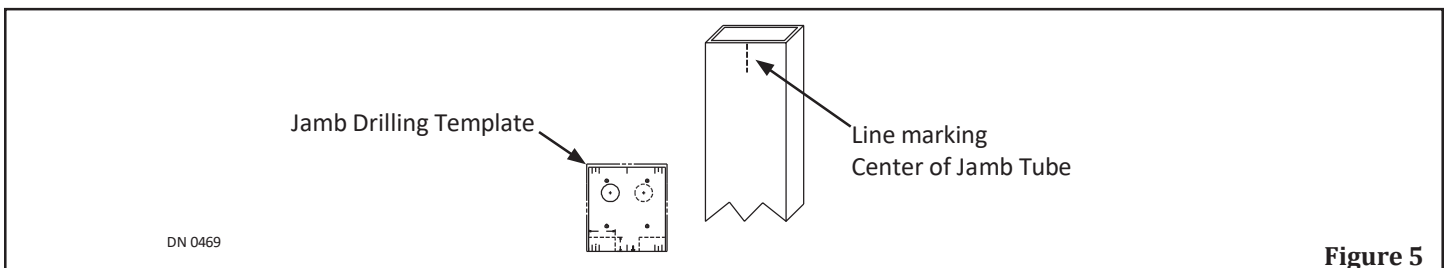


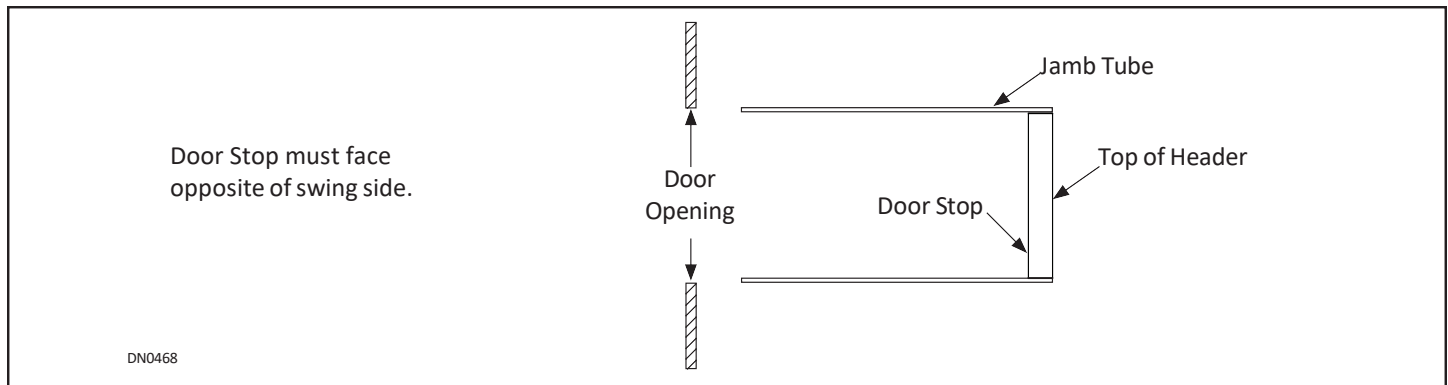
Figure 5

1. Measure the full height of existing Swing door.
2. Obtain (1) Jamb Drilling Template provided by NABCO.
3. Place the Jamb Drilling Template at the top of Jamb Tube so it is flush. Align the center to the previously drawn center mark.
4. Adhere the Jamb Drilling Template to each Jamb Tube. The Jamb Drilling Template is removable.
5. Drill (4) .391 diameter holes through (4) clearly marked (A)s on the Template. Countersink each screw hole.
6. Obtain (4) Rivnuts provided by NABCO. Install (1) Rivnut into each drilled .391 hole.
7. Drill (1) 1-1/4 inch diameter hole through (1 of 2) clearly marked (B)s on the Template to allow incoming 120 VAC Power.
  - a. The 120 VAC incoming power must be routed through the Strike Jamb, only.
8. Remove the Template from the Strike Jamb, then adhere same Template to the Pivot Jamb. Repeat steps

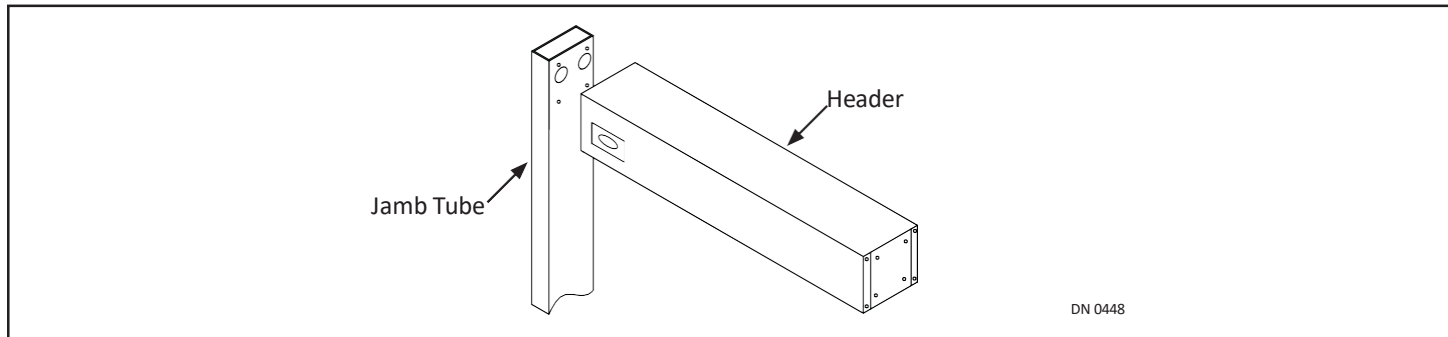
## CHAPTER 7: INSTALL THE SIDELOAD HEADER TO JAMB TUBES

### SECTION 7.1: Assemble Door Frame

1. Ensure to take into consideration the Handing of Door and direction of swing when installing Door Frame.
2. Position each Jamb tube at both sides of the Header.
3. Orientate the frame in relation to the outside of building/room.
  - a. The Door Stop side of Header must face opposite of swing side.
4. Secure Header to each Jamb Tube with (4) 1/4-20 x 3/4 inch Screws.

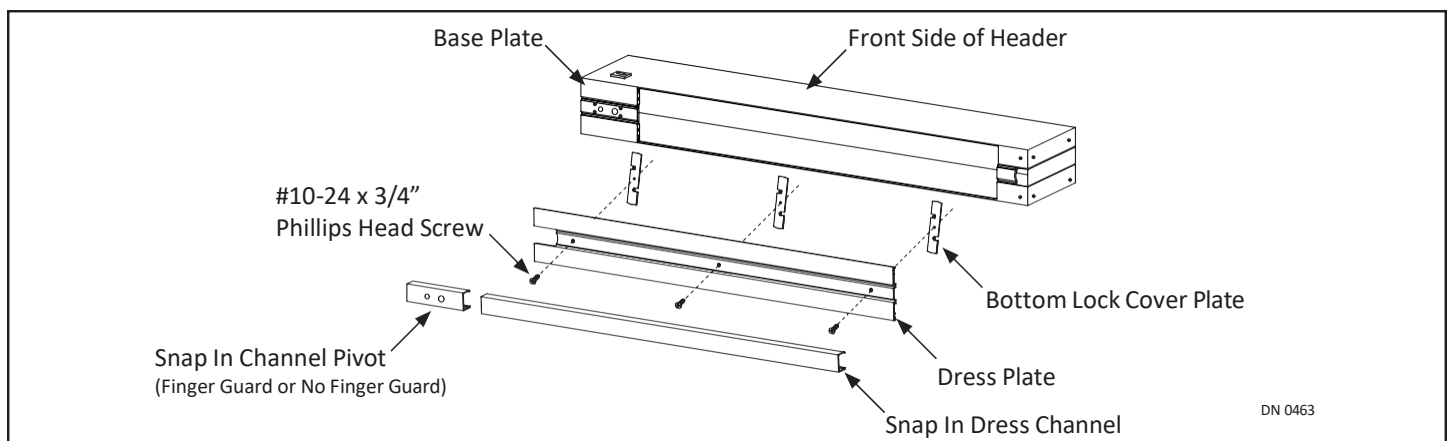


5. Secure Header to both Jamb Tubes with Anchors that are appropriate for the type of substrate being fastened into. Anchors are not provided by NABCO.



## CHAPTER 8: INSTALL THE BOTTOM LOAD HEADER TO JAMB TUBES

### SECTION 8.1: Prep the Bottom Load Header



1. Place Header on flat surface with Bottom facing up. Protect Header from scratches.

2. Remove #10-24 x 3/4 inch screws and Dress Plate. Set aside.
3. Mark the locations of each Lock Cover Plate to ensure it is reinstalled in the correct position.
4. Remove Lock Cover Plates from bottom of Header, then boxes and/or parts bags from inside Header. Set Aside.

## SECTION 8.2: Install the Panic Latch (Inswing Doors only)

- ▶ During Automatic Operation: The Inswing door opens to the Interior side of the building/room. The Panic Latch is then used as a Door Stop.
- ▶ During Emergency Operation: The Inswing door is manually pushed Out to the exterior side of the building/room (not to exceed 50 pounds of pressure; per ANSI code). The Panic Latch flips to allow emergency egress and immediately shuts the Swing door OFF.

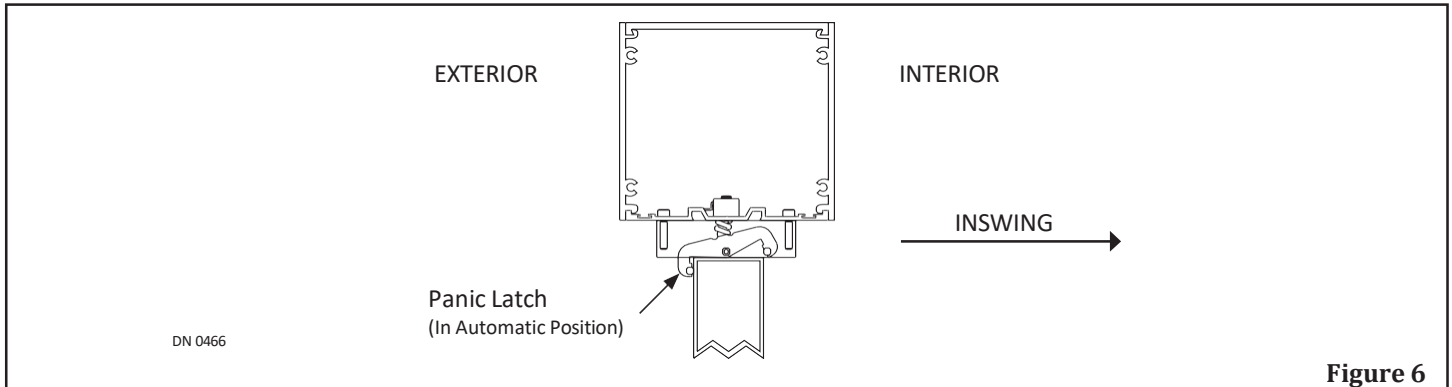


Figure 6

1. Obtain the Panic Latch. Remove (4) Socket Head Cap Screws and (4) Washers. Set aside.
2. Turn the Panic Latch so the (EXT→) (exit arrow) points to the Exterior side of the Building. Failure to do so, will install the Panic Latch backwards.

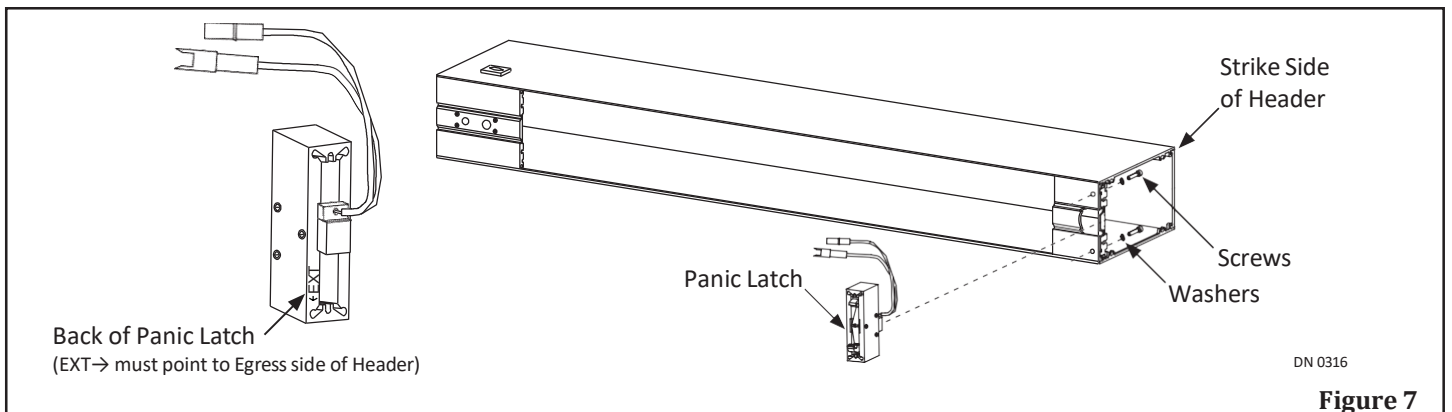


Figure 7

3. Go to the bottom, Strike side of Header.
4. Insert the Panic Latch wires and spring coil into the opening until the Panic Latch butts up against the Header.
  - a. For wiring instructions please refer to P/N C-00139 Opus Wiring and Programming Manual.

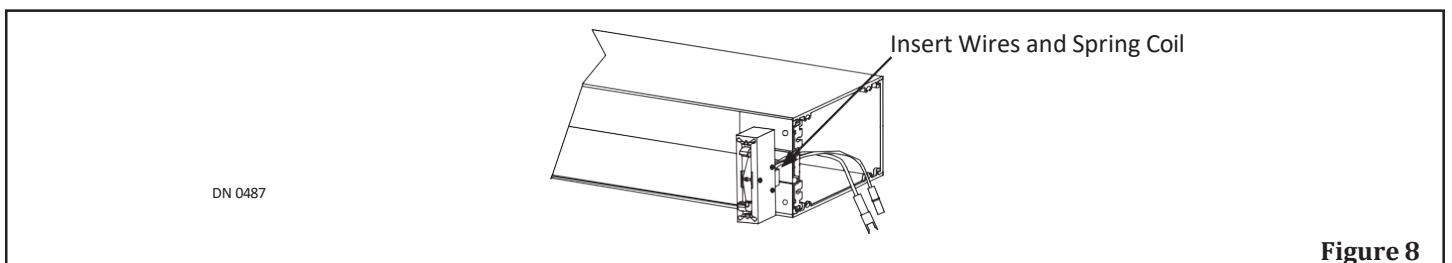


Figure 8

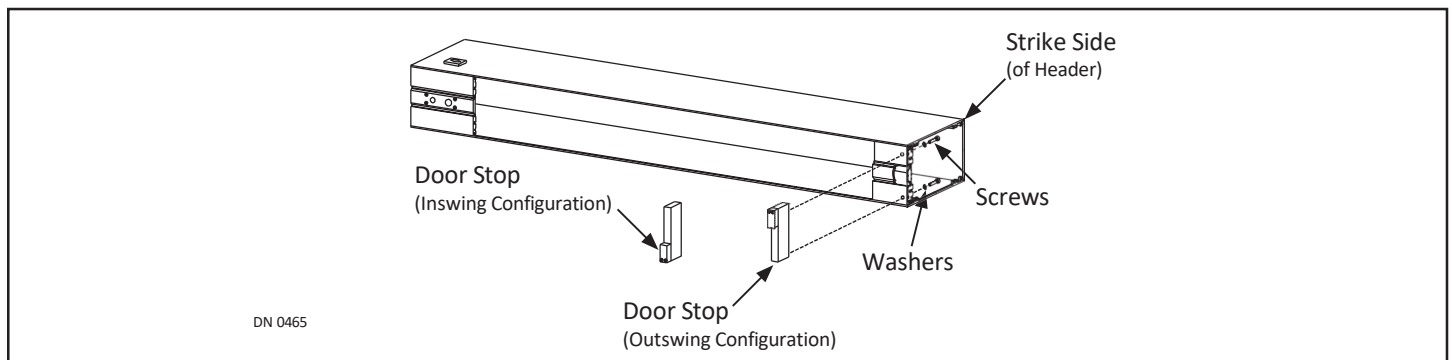
5. Secure the Panic Latch from inside the Header with (2) Socket Head Cap Screws and (2) Washers.
  - a. Do Not wire or test the Panic Latch at this time.

### SECTION 8.3: Install the Door Stop

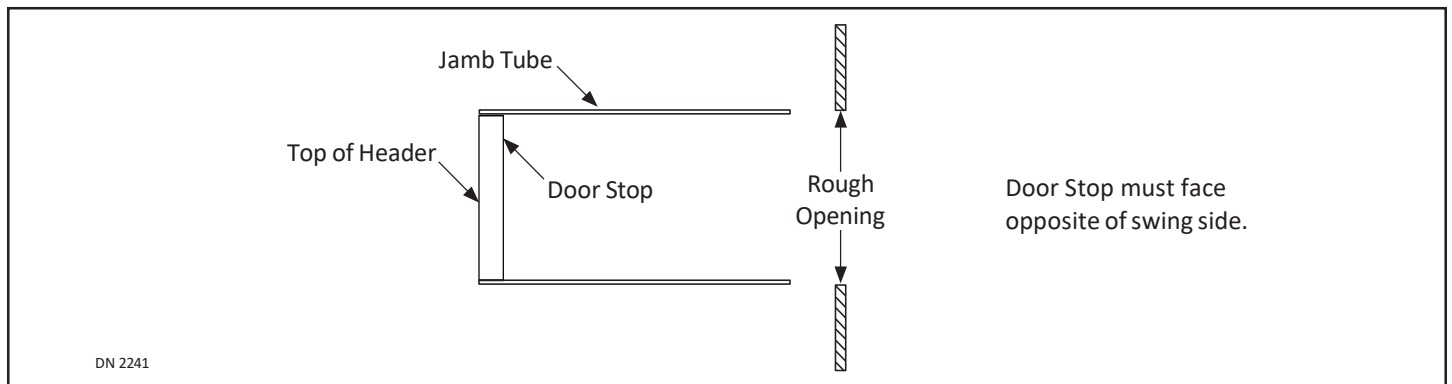
*Note: The Door Stop is installed at the NABCO Factory.*

The Swing door automatically closes after it has been opened. the Door Stop is utilized to stop the door from swinging past the fully closed position.

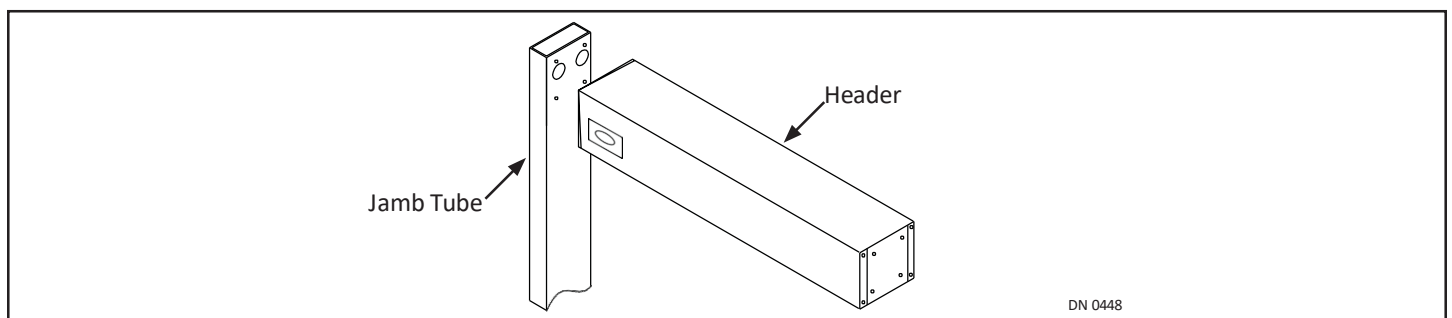
1. Obtain the Door Stop.
2. Remove (4) Socket Head Cap Screws and (4) Washers. Set aside.
3. Go to the bottom, Strike side of Header.
4. Butt the Door Stop against the underside of the 3-1/4 inch Strike Base, so the Stop end of Door Stop is facing opposite of swing side.
5. Secure Door Stop from inside Header with (2) Socket Head Cap Screws and (2) Washers.



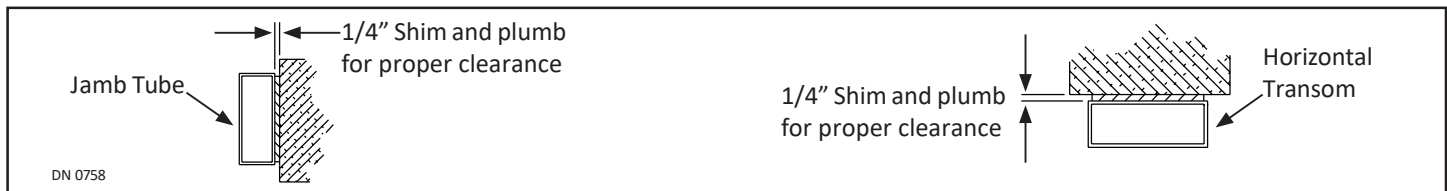
### SECTION 8.4: Install the Header to Jamb Tubes



1. Ensure to take into consideration the Handing of Door and direction of swing when installing Door Frame.
2. Position each Jamb tube at both sides of the Header.
3. Orientate the frame in relation to the outside of building/room.
  - a. The Door Stop side of Header must face opposite of swing side.
4. Secure Header to each Jamb Tube with (4) 1/4-20 x 3/4 inch Screws.

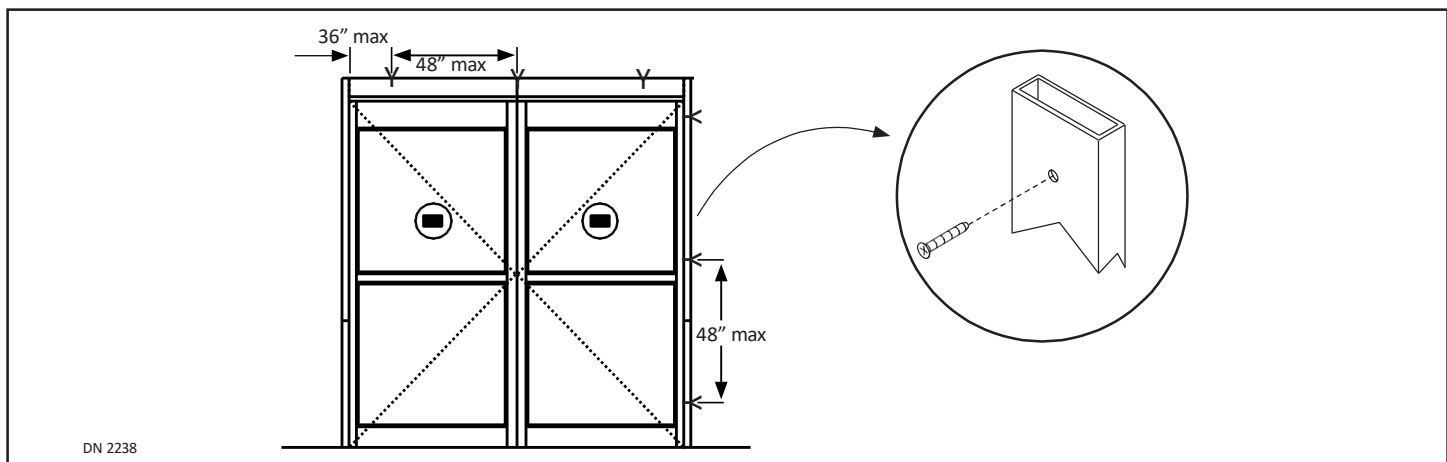


## CHAPTER 9: INSTALL DOOR FRAME TO OPENING



**Note:** Incoming 120 VAC Power wires must be pulled through the Strike end of Header for a single Swing door or the middle of Header for a simultaneous pair Swing door. It is recommended to install wires within an Electrical conduit.

1. Lift to position the assembled Frame into the rough opening. Insert all incoming wiring through the 1-1/4 inch Access Hole located on the Strike side of Header.
2. Plumb Jamb tubes in both planes to ensure the rough opening allows a 1/4 inch clearance. Shim back of Jamb as required.
3. Plumb the Header at the top to ensure the rough opening allows a 1/4 inch clearance. Shim top of Header as required.



**Attention:** Anchors must be appropriate for the type of substrate being fastened into. Anchors are not provided by NABCO.

**Note:** It is recommended to countersink holes as required to flush the surface.

**Note:** It is recommended to drill tap threads for anchors in a steel or aluminum structure.

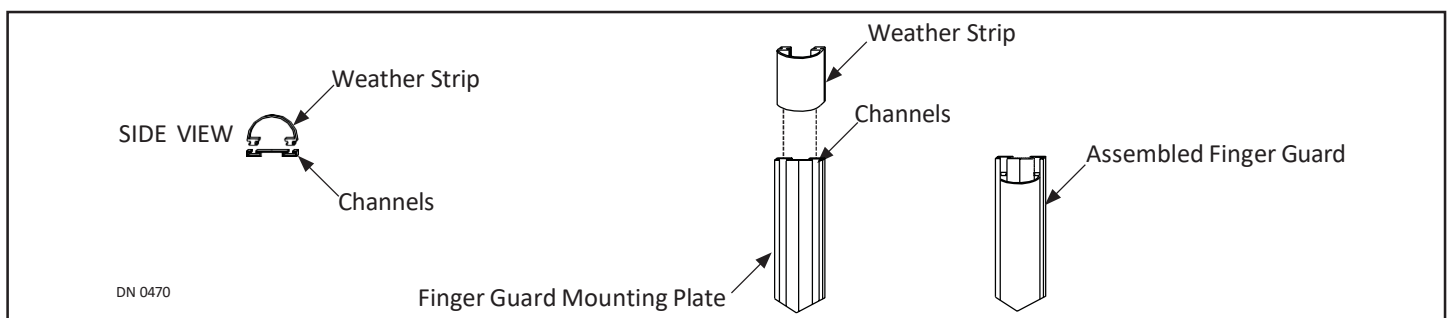
4. Secure the Frame with Anchors not provided by NABCO.

## CHAPTER 10: INSTALL THE FINGER GUARD

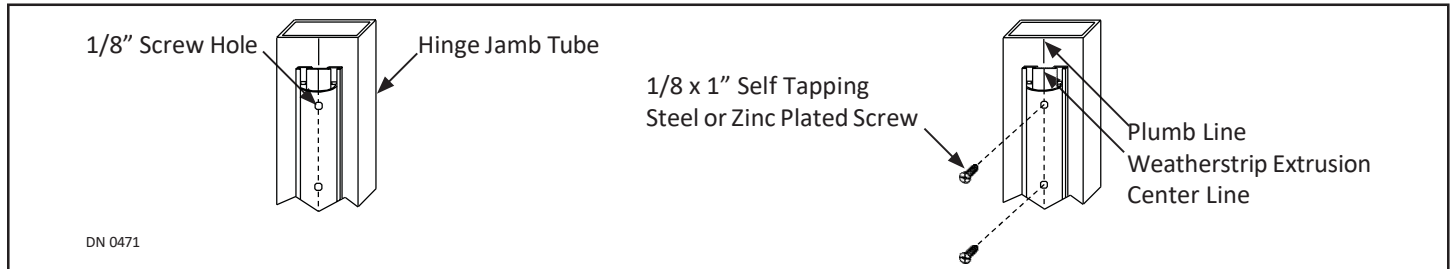
**Note:** Anchors must be appropriate for the type of substrate being fastened into. Screws are not provided by NABCO.

**Note:** Do not overtighten screws to prevent deforming Weatherstrip Extrusion. Ensure each screw is flush to the Jamb tube.

1. Go to the top of the Pivot Jamb tube, at the center, drop a Plumb Line to the floor.
2. Mark the Center line on the inside face of the Pivot Jamb Tube. It is recommended to use a level.
3. Insert the Weather Strip into both channels located on the Finger Guard Mounting Plate.
  - a. Spraying silicone (not included) inside the Channels may ease the insertion of the Weather Strip.



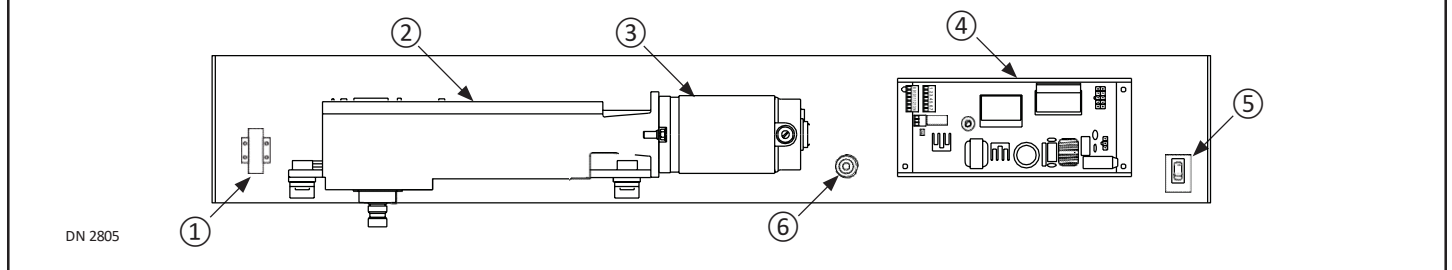
4. Line up the Center Notch located down the full length of the Finger Guard Mounting Plate, with the Center Mark located on the Pivot Jamb Tube. It is recommended to use a level.
5. Drill (3-4) 1/4 inch evenly spaced screw holes down the Finger Guard Assembly.
  - a. Each screw hole must go through the Weather Strip, Mounting Plate and the Pivot Jamb Tube.
6. Secure the Finger Guard Mounting Plate onto the Pivot Jamb with 1/4 x 1 inch self tapping Screws (zinc or steel plated).



## CHAPTER 11: INSTALL BOTTOM LOAD COMPONENTS

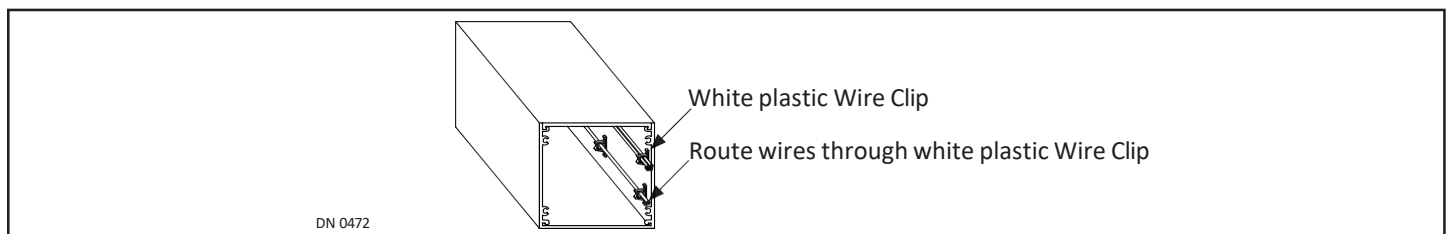
*Note: Location of Contents within Header are subject to change according to Swing door specifications.*

Example Shows components that are installed inside Header.  
The installation placement of components will be different



- |                           |                 |
|---------------------------|-----------------|
| 1. Transformer (Optional) | 4. Opus Control |
| 2. Operator               | 5. Power Switch |
| 3. Motor                  | 6. Ground Screw |

### SECTION 11.1: Secure Incoming Wires

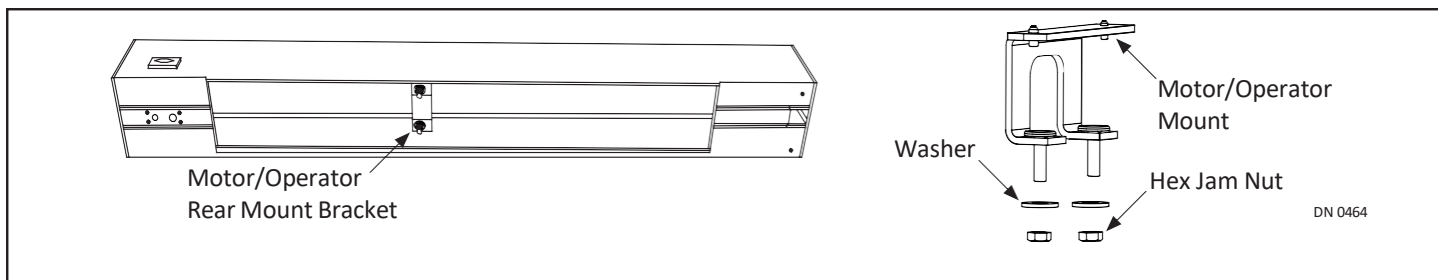


*Note: In the event 120 VAC Power wires must be installed from Hinge Side of Header, ensure that wires are securely clipped, to prevent pinching of the wires during the Motor/Operator installation process.*

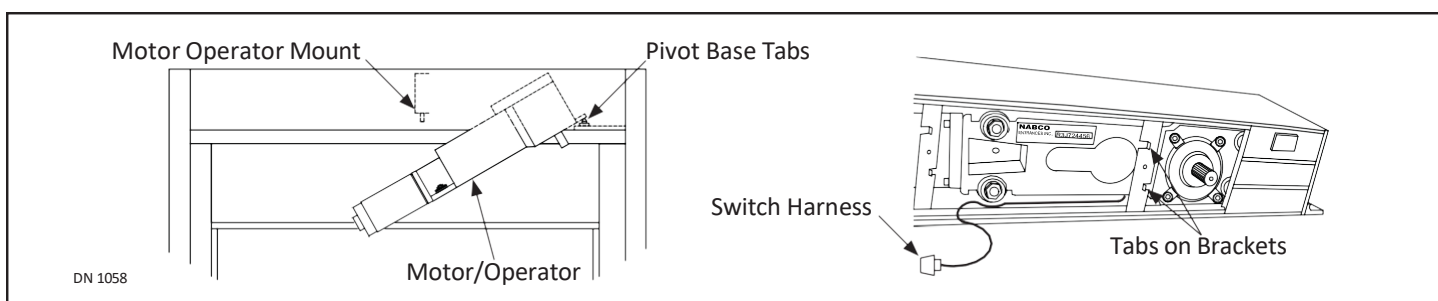
1. Adhere each (self sticking) Wire Clip to the sides of Header (near the top). Insert wiring (as deemed necessary).
  - a. 120 VAC Power wires must be routed separate from other wiring, to prevent pinching.

### SECTION 11.2: Install Motor/Operator into Header

1. Go to (inside) top of Header. Locate the Rear Mount Bracket.
2. With a 9/16 inch Deep Well Socket and Ratchet, remove (2) 3/8-16 Hex Jam Nuts and (2) Washers from (2) studs that extend downward from the Rear Mount Bracket. Set aside.

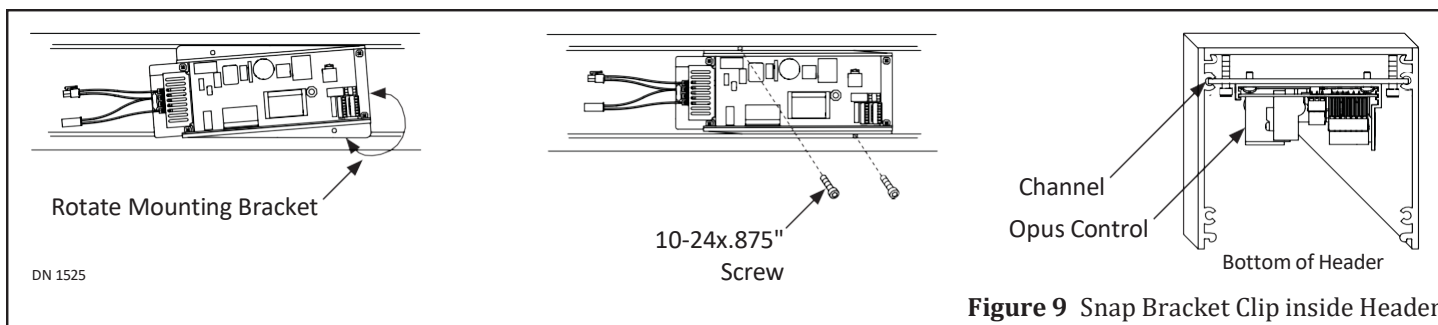


3. Hold the Front end of Motor/Operator at an upward angle to slide Front Mount onto (2) Pivot Base Tabs inside Header.
4. Lift the rear of the Motor Operator up onto (2) studs extending downward.
  - a. Ensure the Switch Harness is tucked between the back wall of Header and above the Mounting Bracket.
5. Secure the Motor/Operator with (2) 3/8-16 inch Hex Jam Nuts and (2) 7/16 x 1 inch Washers.
  - a. It is important not to pinch any wiring during the Motor/Operator installation.



### SECTION 11.3: Install the Opus Control

1. Obtain the Opus Control assembly. Locate where the Opus Control needs to be installed within the Header.
2. Insert the Opus Control with the Mounting Bracket at a 90 degree angle (Control will approximately be at a 4 degree angle).
3. Rotate the Opus Control until each side of the Mounting Bracket slides into each Channel located at the top; inside Header.
4. Secure the Mounting Bracket to the Header by tightening (2) 10-24x.875 inch Socket Head Cap screws, until the tip butts against the inside wall of the Header.



## CHAPTER 12: 120 VAC GENERAL WIRING

### **DANGER**

Disconnect power to the junction box prior to making any electrical connections. 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**

Permanent wiring shall be employed as required by local codes.

**CAUTION**

Electrical circuit to 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.

**CAUTION**

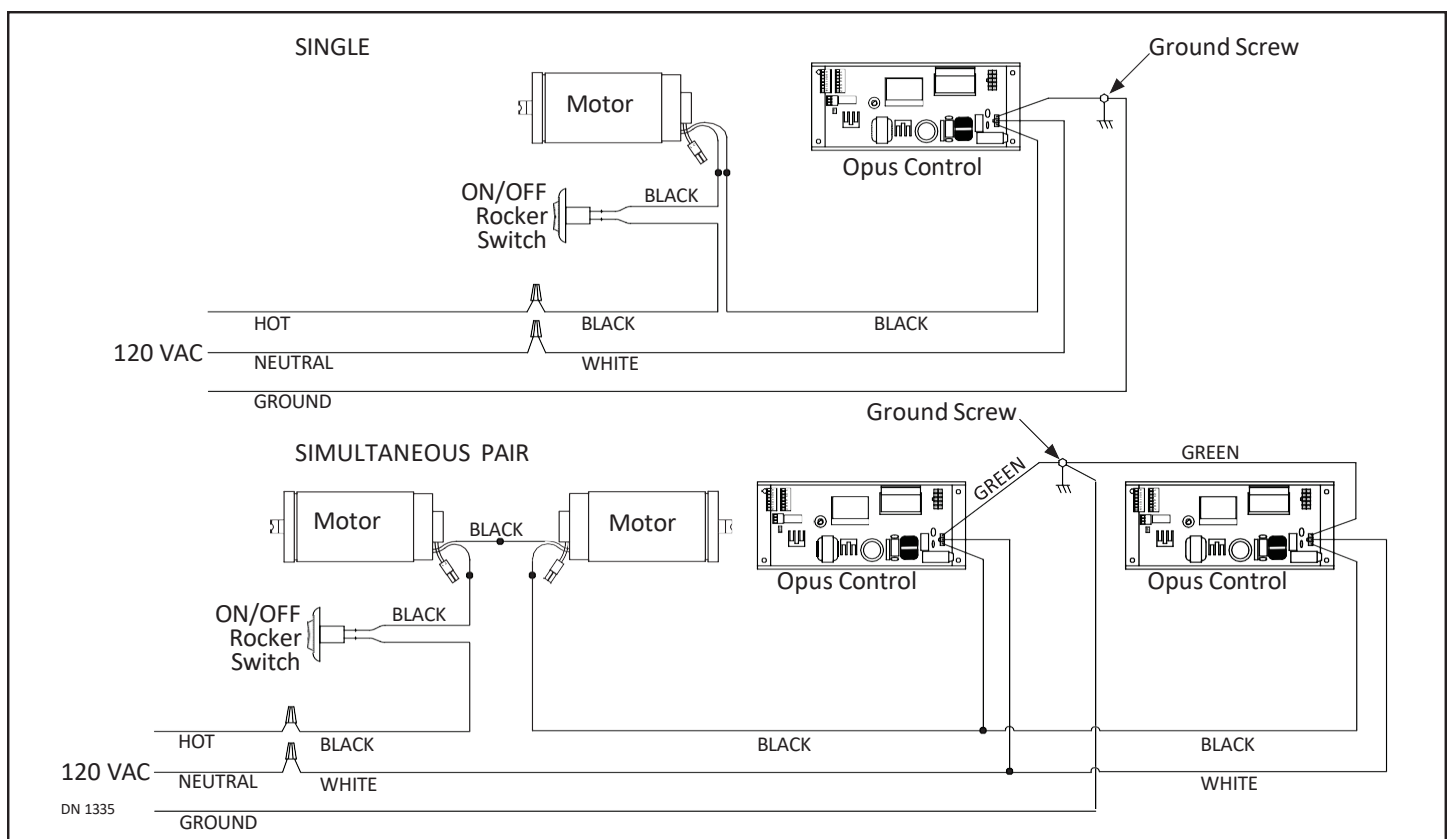
Keep sufficient spacing between high-voltage and low-voltage wiring. 120 VAC Power wires must be routed (separate from other wiring) located near the top of inside Header.

**CAUTION**

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

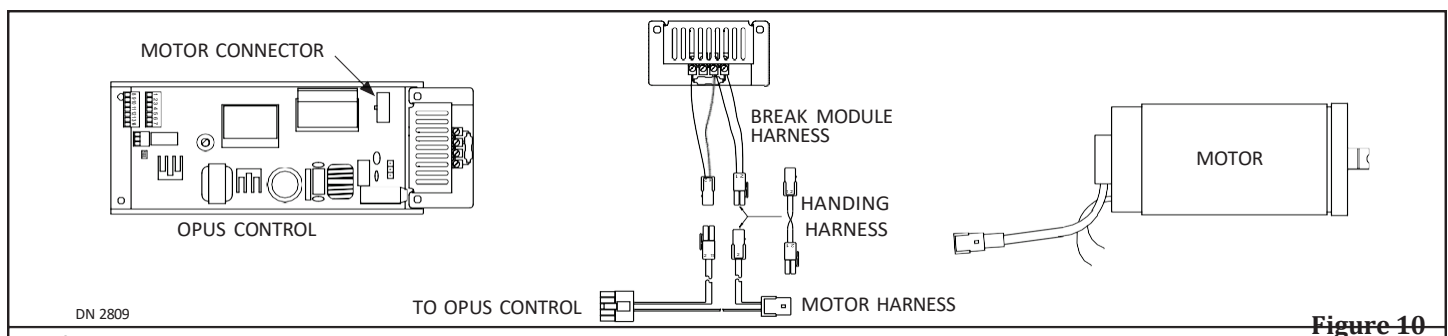
**Notice:** Wiring must meet all local, state, federal or other governing agency codes.

- Attention:**
- Electrical circuit to 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.
  - 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.



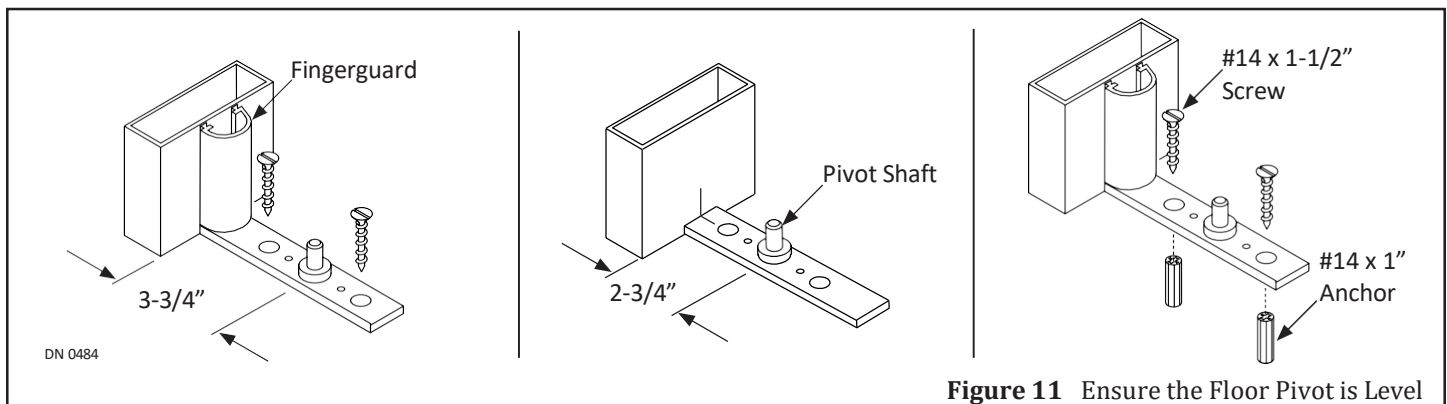
### SECTION 14.1: Install the Hanging Harness (for Right Handed Units only)

1. Obtain the Hanging Harness. Connect the (Break Module Harness) Female Pin to the Male Pin Housing (Hanging Harness).
2. Connect the (Break Module Harness) Male Pin Housing to the Female Pin (Hanging Harness).



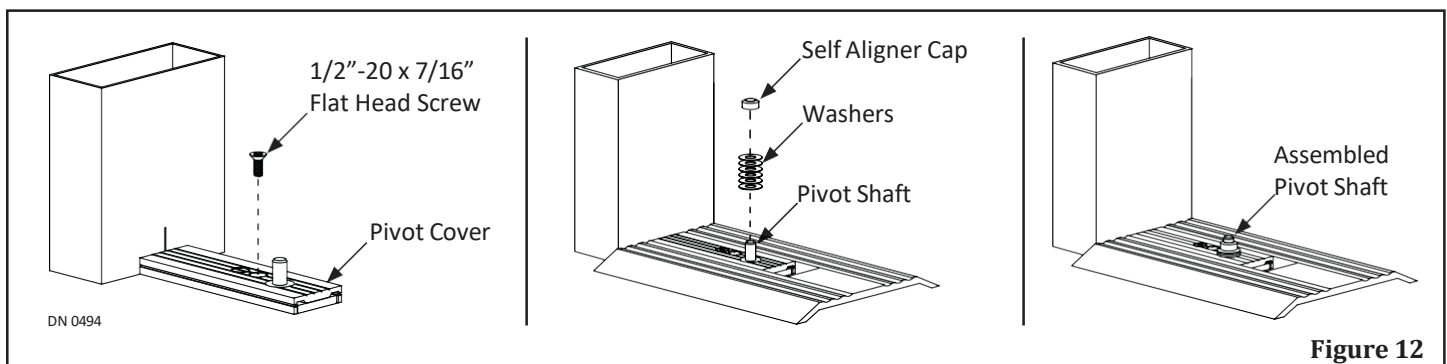
**Figure 10**

## CHAPTER 13: INSTALL THE FLOOR PIVOT



**Figure 11** Ensure the Floor Pivot is Level

1. Measure the width of the inside Face of Jamb Tube. At the center, mark that spot.
2. Obtain the Floor Pivot:
  - ▶ For Units utilizing a Fingerguard; Turn the Floor Pivot so the Pivot Shaft is farthest away from the Jamb Tube.
  - ▶ For Units Not utilizing a Fingerguard; Turn the Floor Pivot so the Pivot Shaft is closest to the Jamb Tube.
3. Ensure the Floor Pivot is level.
4. Measure the width of the Floor Pivot. At the center, mark that spot.
5. Butt the Floor Pivot to the Pivot Jamb Tube (at the center marks). If done correctly:
  - ▶ With a Finger Guard; the Center of the Pivot will measure 3-3/4 inches away from the Pivot Jamb.
  - ▶ Without a Finger Guard; the Center of the Pivot will measure 2-3/4 inches away from the Pivot Jamb.
6. Drop a Plumb Line (down the center) from the (Top) Pivot to the (Floor Base) Pivot to align both Pivots.
7. Use the Floor Pivot as a template.
  1. Mark where the (2) largest screw holes are located.
  2. Remove the Floor Pivot. For each Mark, drill 1 inch deep holes into the Floor.
8. Insert (1) #14 x 1" Blue anchor into each hole.
9. Secure the Floor Pivot with (2) #14 x 1-1/2 inch Flat Head Screws.

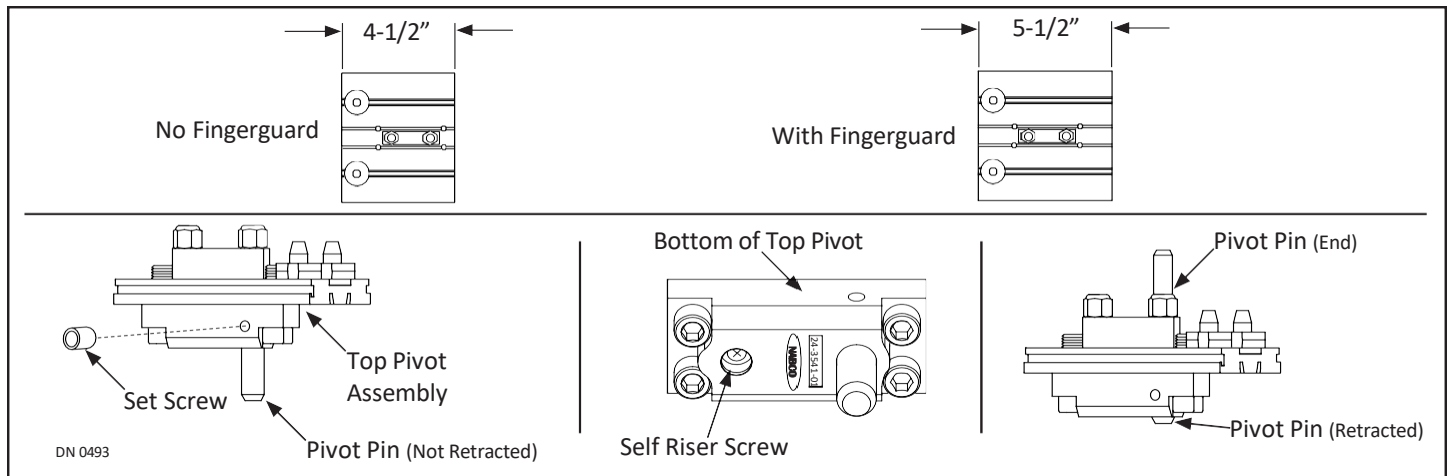


**Figure 12**

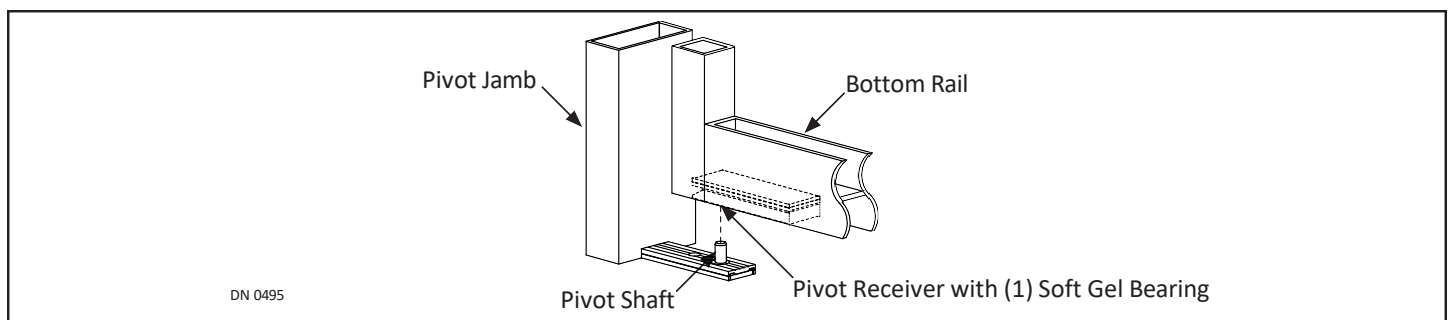
10. Secure the Threshold Cover to the Floor Pivot with (1) 1/2-20 x 7/16 inch Flat Head Machine Screw.
  - a. Threshold Plate Covers are installed only if a Threshold is installed.
11. Lay the Saddle Threshold onto the floor so the cut out is on the same side as the Floor Pivot.
  - a. Ensure the Saddle Threshold is square.
12. Do not permanently install the Saddle Threshold until the Swing Door is completely installed.

## CHAPTER 14: INSTALL THE SWING DOOR (PROVIDED BY NABCO)

1. Go to the Top Pivot Assembly located inside the Header. Loosen the Set Screw located directly above the Pivot Shaft.
2. Go to the Self Riser screw located underneath the Pivot Shaft. Turn the Self Riser Screw counter-clockwise until the Pivot Shaft is completely retracted.



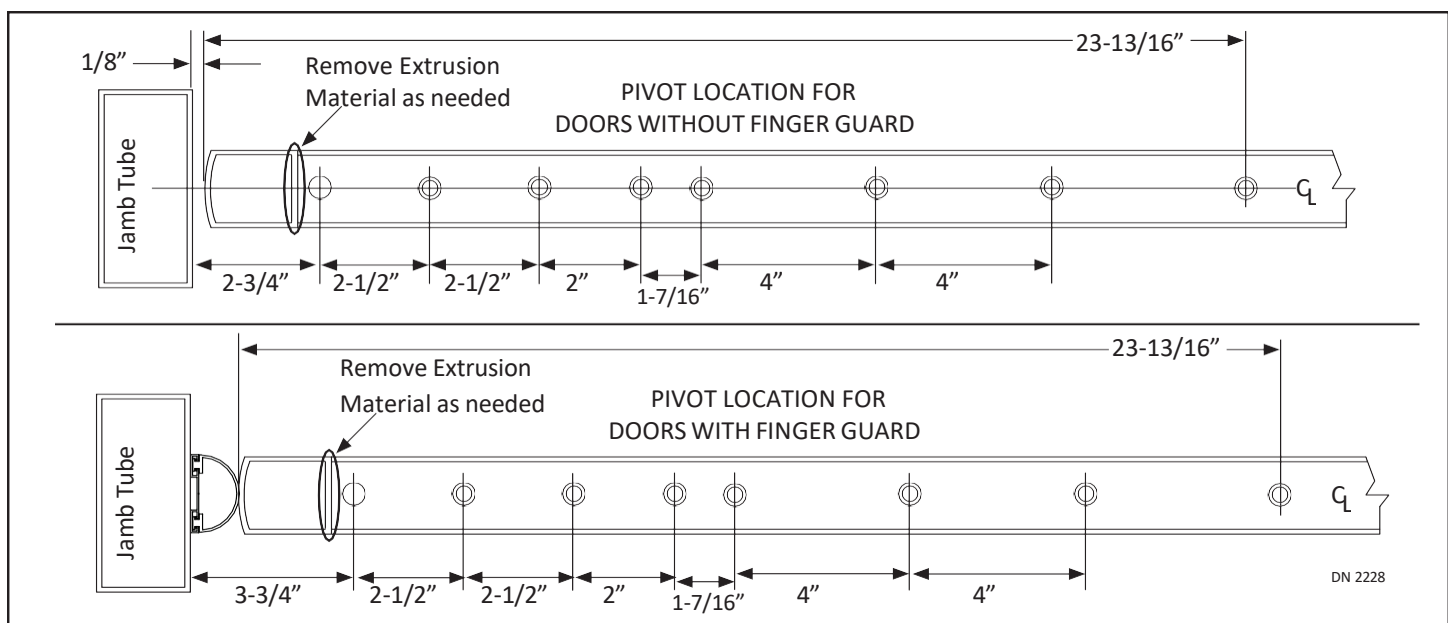
3. Go to the Bottom Pivot Assembly. Insert the Pivot Shaft into the Pivot Receiver.
4. Go inside the Header. With a flat head screwdriver, turn the Self Riser Screw clockwise until the Pivot Pin is inserted all the way down into the Bearing. Riser bar must be tight to the Base Pivot Plate.
5. Tighten the Set Screw located directly above the Pivot Shaft.



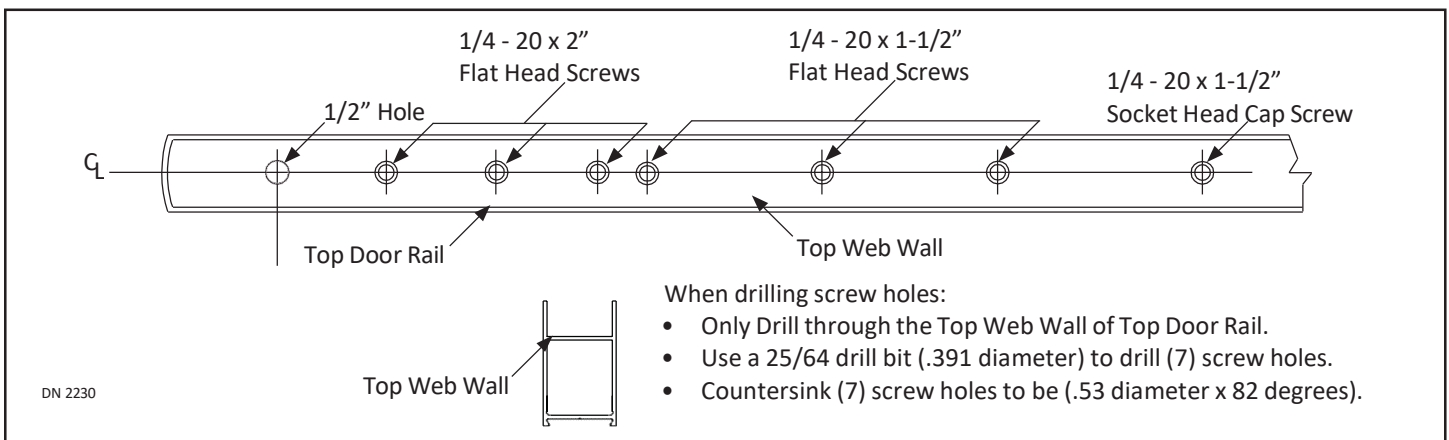
## CHAPTER 15: INSTALL THE SWING DOOR (NOT PROVIDED BY NABCO)

**Attention:** No matter what Top Pivot is used (Shipped/not shipped by NABCO), the Top Pivot Shaft must always be aligned with the Bottom Pivot Shaft.

### SECTION 17.1: Install the Top Door Pivot Receiver

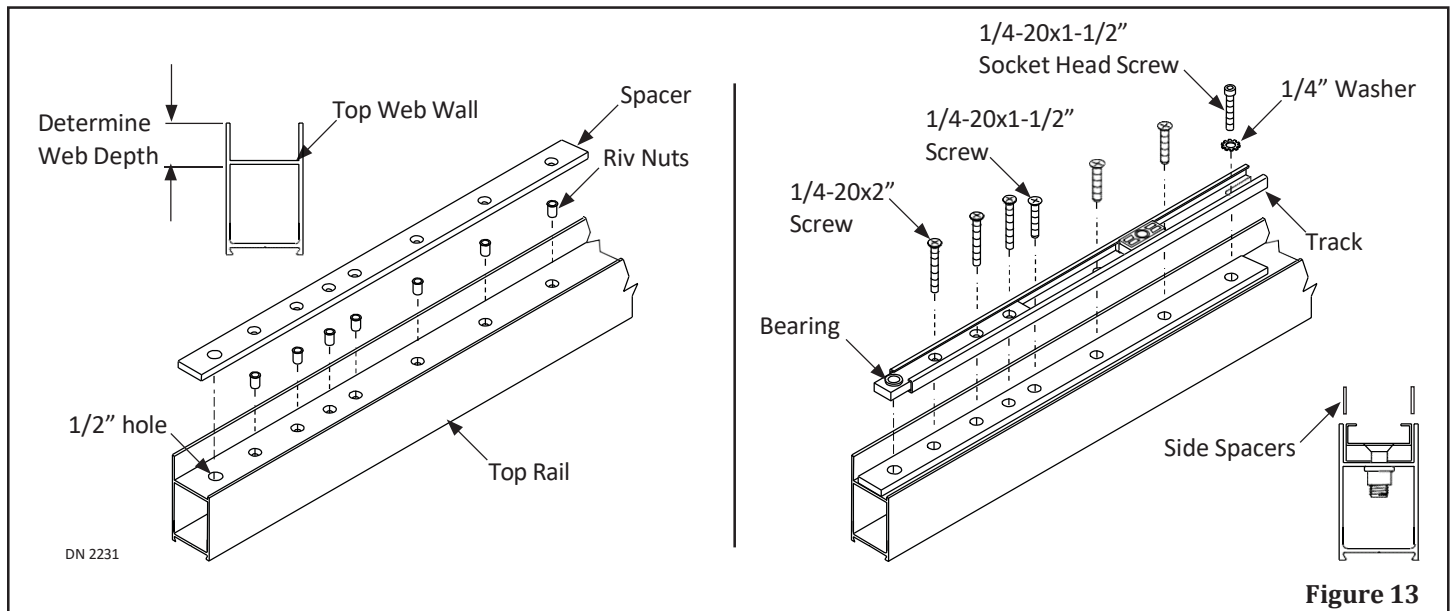


1. Go to the Top Rail. Measure and mark the Horizontal Center all the way across the full width of the Web face.
  - a. If the Horizontal Center measures less than 7/8 inches, the Door Rail may be too narrow for the Track to fit within.
2. Mill Out the extrusion material between the Web of Top Rail and Pivot Stile.
  - a. The extrusion material must be milled out to match the width and depth of the Web.
3. Determine the location of the Center Pivot (measurement includes a 1/8 inch clearance for Door Swing).
  - For Doors **without** a Finger Guard: Measure 2-3/4 inches from the Pivot Jamb Tube towards the Strike Jamb Tube.
  - For Doors **with** a Finger Guard: Measure 3-3/4 inches from the Pivot Jamb Tube towards the Strike Jamb Tube.
4. Mark a vertical line across the horizontal line. This is the center of a (1/2) inch diameter hole.
  - a. Ensure this measurement is aligned with Top Pivot Shaft.
5. Place the Track inside the Top Rail. Center the (1/2) inch diameter hole with the Top Door Pivot Receiver located on the Pivot end of Track.
  - a. If done correctly the center of Track will be aligned with the center mark drawn on the face of Web.
6. Use the Track as a template to mark (7) screw holes.
7. With a 25/64 drill (.391) diameter, drill (7) screw hole at the marked spots.
8. Countersink each screw hole to .53 diameter x 82 degrees.

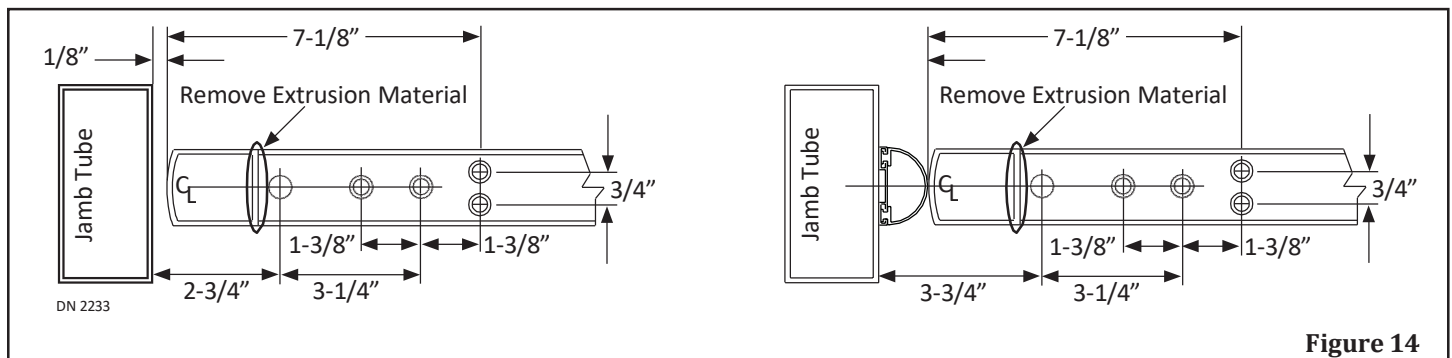


**Attention: NABCO Entrances self-aligning Pivot requires a 5/8 inch minimum web depth within both the Top and Bottom Rails.**

9. Insert (1) Riv Nut into each screw hole.
  - a. Do Not insert a Riv Nut inside the (1/2) inch hole.
10. Measure the depth of the Web to determine which Spacer is needed:
  - 5/8 inch depth = no spacer is needed
  - 7/8 inch depth = use 1/4 inch spacer
  - 1 inch depth = use 3/8 inch spacer
  - 1-9/16 inch = use (2) 3/8 inch spacers; plus 3/16 inch spacer
11. Lay the appropriate Spacer into the Web of Top Rail. Align the screw holes.
12. Place the Track onto the Spacer accordingly (or the Top Web Wall).
13. Place (1) 5/8 " x 1/16" Side Spacer on either side of the Track.
  - a. Side Spacers are used to ensure proper centering of Track.
14. Starting from the Pivot Side, secure the Track to the Top Rail with:
  - (3) 1/4-20 x 2inch Screws
  - (3) 1/4-20 x 1-1/2 inch screws
  - (1) Lock Washer placed under (1) 1/4-20x1-1/2 inch screw (for the Slot)

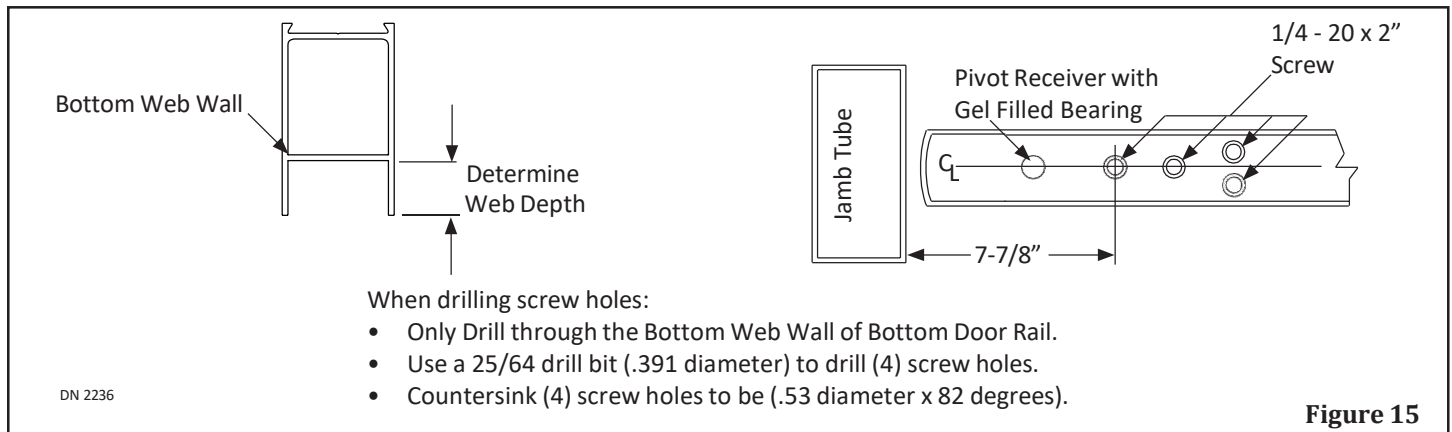


## SECTION 17.2: Install the Bottom Door Pivot Receiver

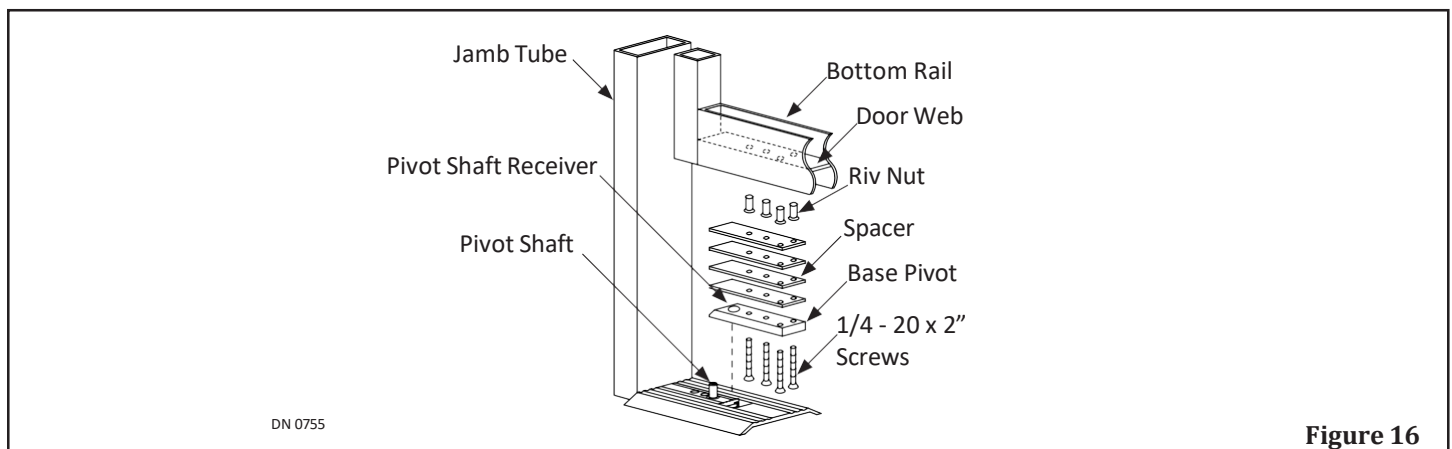


**Attention:** The NABCO Bottom Door Pivot Receiver is 1-3/8 inches wide, by 6 inches long, by 5/8 of an inch tall. The Web must be a minimum 1-3/4 inches wide; and a minimum 5/8 inches deep.

1. Ensure the Bottom Door Pivot Shaft is aligned with the Top Door Pivot Shaft.
2. Measure the Web Depth to ensure it is a minimum 5/8 of an inch; and Web Width to ensure it is a minimum of 1-3/8 inches.
3. Mill Out the extrusion material between the Bottom Rail and Pivot Stile.
  - a. The extrusion material must be milled out to match the width and depth of the Top Web.
4. Measure and mark the Horizontal Center across the length of the Top Web.
5. Flip the Bottom Door Pivot Receiver so the Flat side faces the floor, and the beveled side with the Gel Filled Bearing faces up.
6. Insert the Bottom Door Pivot Receiver inside the Web, so the 3/8 inch Pivot Receiver hole is closest to the Jamb Tube.
7. Measure to determine the proper Pivot Receiver location:
  - For Doors **without** a Finger Guard: Measure 2-3/4 inches from the Pivot Jamb Tube towards the Strike Jamb Tube.
  - For Doors **with** a Finger Guard: Measure 3-3/4 inches from the Pivot Jamb Tube towards the Strike Jamb Tube.
8. Mark a vertical line across the horizontal (center) line. This is the center of the Pivot Receiver hole.
9. Center the Pivot Receiver hole to the marked spot. Check to ensure the center of the Pivot Receiver hole is still aligned with the Bottom Pivot Shaft.
10. Square and center the Bottom Door Pivot Receiver to both Jamb Tubes



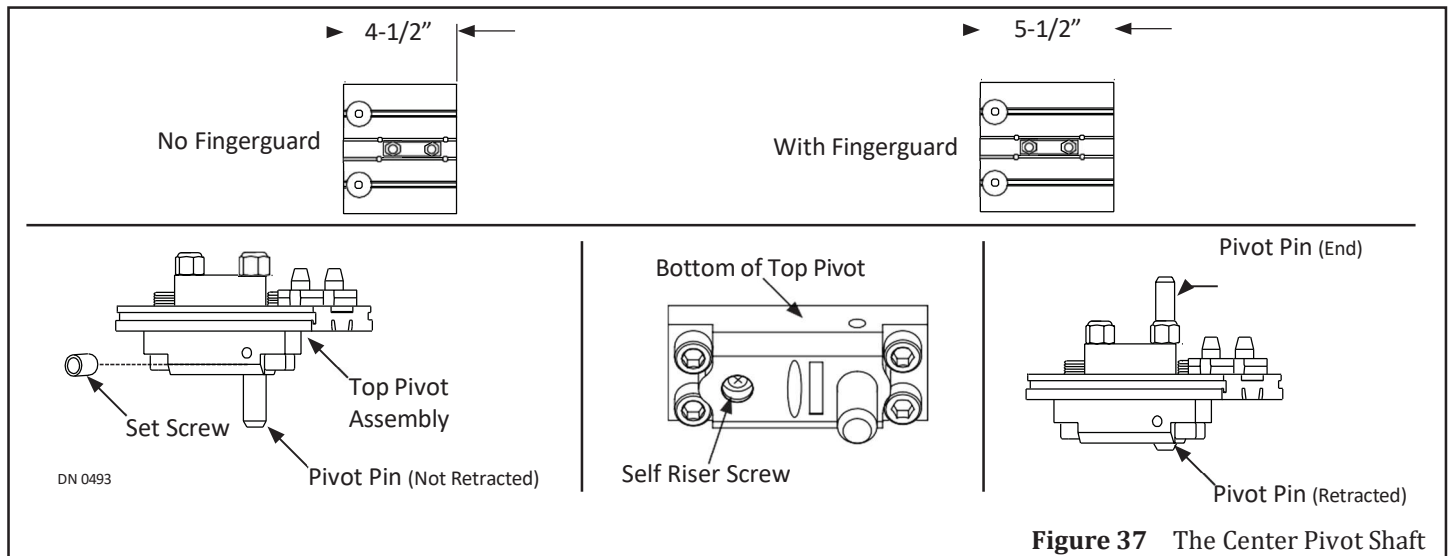
11. Center of the Bottom Door Pivot Receiver with the Center mark located on the Pivot Jamb Tube.
12. Use the Bottom Door Pivot Receiver as a template to mark (4) screw holes.
  - a. Do not drill a hole for the Pivot Receiver with the Gel Filled Bearing.
13. With a 25/64 drill (.391) diameter, drill (4) screw holes at the marked spots.
14. Countersink each screw hole to .53 diameter x 82 degrees.



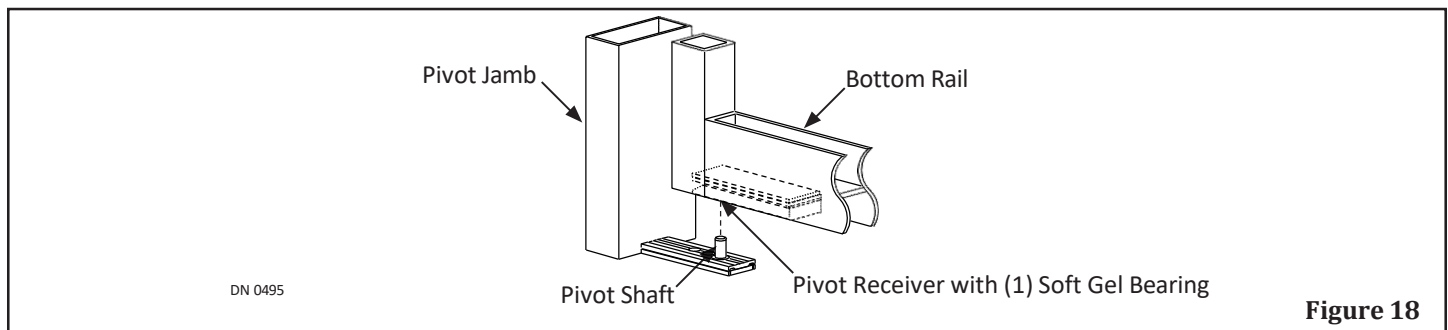
15. Insert (1) Riv Nut into each screw hole.
16. Insert the Bottom Door Pivot Receiver into the Bottom Door Rail to determine how many spacers may be needed.
17. Add/Subtract Spacers until the Flat side of the Bottom Door Pivot Receiver is flush to the outside rim of the Bottom Door Rail.
18. Secure the Bottom Door Pivot Receiver to the Bottom Door Rail with (4) 1/4 - 20 x 2 inch Screws.

### SECTION 17.3: Install the Swing Door

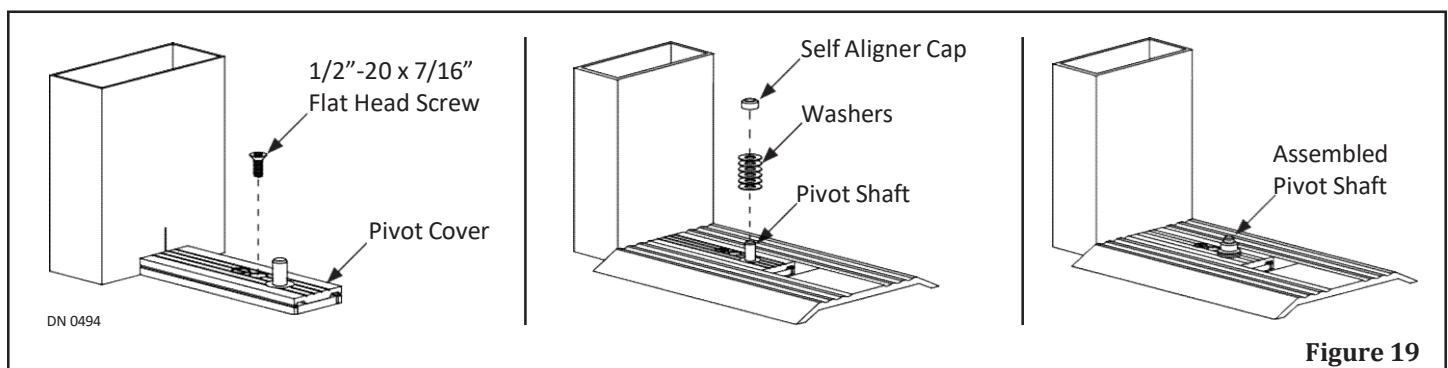
1. Go to the Top Pivot Assembly located inside the Header.
2. Loosen the Set Screw located directly above the Pivot Shaft.
3. Go to the Self Riser screw located underneath the Pivot Shaft. Turn the Self Riser Screw counter-clockwise until the Pivot Shaft is completely retracted.



4. Go to the Bottom Pivot Assembly. Insert the Pivot Shaft into the Pivot Receiver.
5. Go to the top Door Rail. With a flat head screwdriver, turn the Self Riser Screw clockwise until the Pivot Pin is inserted all the way down into the Bearing.
6. Tighten the Set Screw located directly above the Pivot Shaft.



## CHAPTER 16: ADJUST THE SWING DOOR HEIGHT



1. Measure for proper clearance:
  - ▶ Top of Swing door must be: 1/8 inch to 1/16 inch from Header.
  - ▶ Bottom of Swing door must be: 3/16 inch to 1/16 inch from Floor (or threshold if it is installed).
2. Remove the Swing door.
3. Slide (1-6) Spacer Shims onto the Pivot to adjust the Swing door for proper clearance.

4. Slide (1) Self Aligner Cap on top of the (1-6) Spacer Shims.
5. Reinstall the Swing door. Check the alignment.

## CHAPTER 17: INSTALL THE SWING ARM

1. Obtain the Swing Arm. With an 5/16 inch Allen Wrench, remove the Pivot Screw and (3) washers. Set aside.
2. Remove the Set Screw. Loosen the Shoulder Bolt with an 3/16 inch Allen Wrench. Set aside.

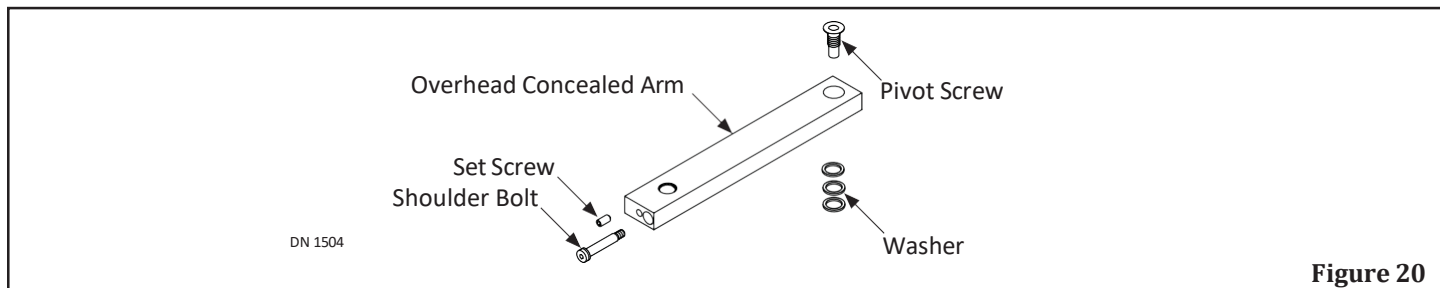


Figure 20

### SECTION 19.1: Set Pre-Load

#### CAUTION

Power must be turned OFF during the Swing Arm installation.

#### DANGER

Ensure the Motor/Operator is plugged into the Controller.

#### DANGER

Do not allow the Pin or 1/8 inch Allen Wrench to drop out of the Lovejoy Coupling Access hole at any time during installation. The Swing Arm will spring back to its original location and can result in personal injury or damage.

Table 1 Pre-Load

| Full Energy                               | Low Energy                          | Inswing Panic Breakout (Only)          |
|-------------------------------------------|-------------------------------------|----------------------------------------|
| 18 degrees to 144 degrees                 | 18 degrees or no greater than       | 144 degrees only (do not hit backstop) |
| Not to exceed 30 pounds of Pressure       | Not to exceed 15 pounds of Pressure | Not to exceed 50 pounds of Pressure    |
| 18 degrees equals (1) Tooth on the Spline |                                     |                                        |

1. Obtain (1) Pin or 1/8 inch Allen Wrench.
2. Ensure the Spring on the Operator is in the Unwound (0 degree) position.
  - a. The Motor/Operator is shipped in the Unwound (0 degree) position.
3. Go underneath the Header. Locate the Operator Spindle.
4. Slide the Swing Arm onto the Spindle.

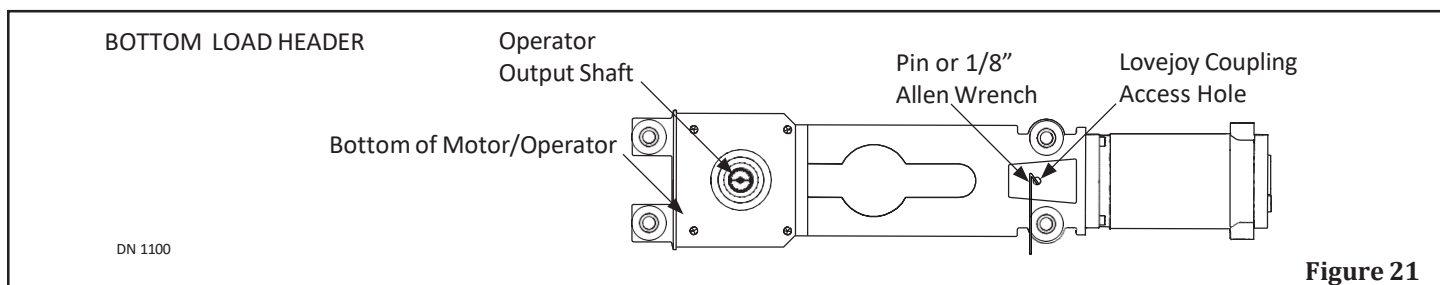


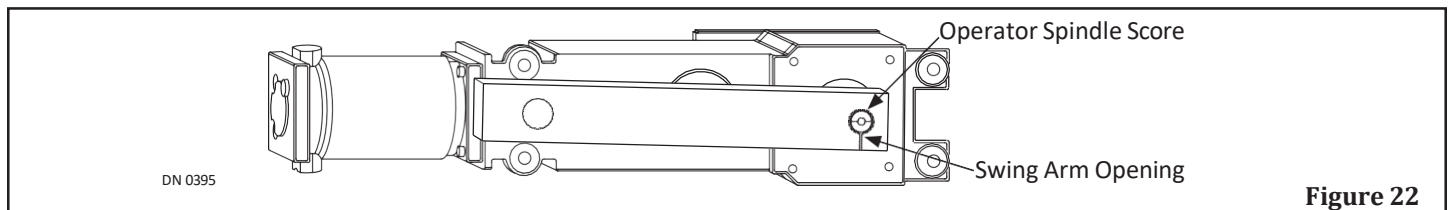
Figure 21

5. Wind the Operator by rotating the Swing Arm Clockwise for Left handing; Counterclockwise for Right Handing: according to the degrees listed within Table 1:
  - **Full Energy:** Spring on Operator must be wound up at least 18 degrees (1 Tooth on Spline).
  - **Inswing Panic Breakout Only:** Spring on Operator must be wound up approximately 144 degrees (8 Teeth on Spline).
    1. With a firm grip, rotate the Swing Arm approximately 72 degrees (4 Teeth on Spline).

2. While holding the Swing Arm in that position, insert (1) Pin or 1/8 inch Allen Wrench into the Lovejoy Coupling Access Hole.
  - a. If necessary, ease the Swing Arm back until the Pin or 1/8 inch Allen Wrench engages the Lovejoy Coupling.
3. Remove the Swing Arm from the Operator Spindle.
  - a. The Pin or 1/8 inch Allen Wrench will keep the Spring from unwinding.
4. Go to the 0 degree position again, slide the Swing Arm back onto the Operator Spindle. With a firm grip, rotate the Swing Arm an additional 54 - 72 degrees. The Spring on the Operator should be wound approximately 126 - 144 degrees.
5. Remove the Swing Arm.
  - **Low Energy:** Spring on Operator must be wound up approximately 18 degrees (1 Tooth on Spline).
  1. With a firm grip, rotate the Swing Arm approximately 18 degrees (1 Tooth on Spline).
  2. While holding the Swing Arm in that position, insert (1) Pin or 1/8 inch Allen Wrench into the Lovejoy Coupling Access Hole.
    - a. If necessary, ease the Swing Arm back until the Pin or 1/8 inch Allen Wrench engages the Lovejoy Coupling.
6. Remove the Swing Arm from the Operator Spindle.
7. Close the Swing Door. Reinstall the Swing Arm assembly
8. Carefully remove the Pin or 1/8 inch Allen Wrench from the Operator.

## SECTION 19.2: Secure the Swing Arm to the Operator

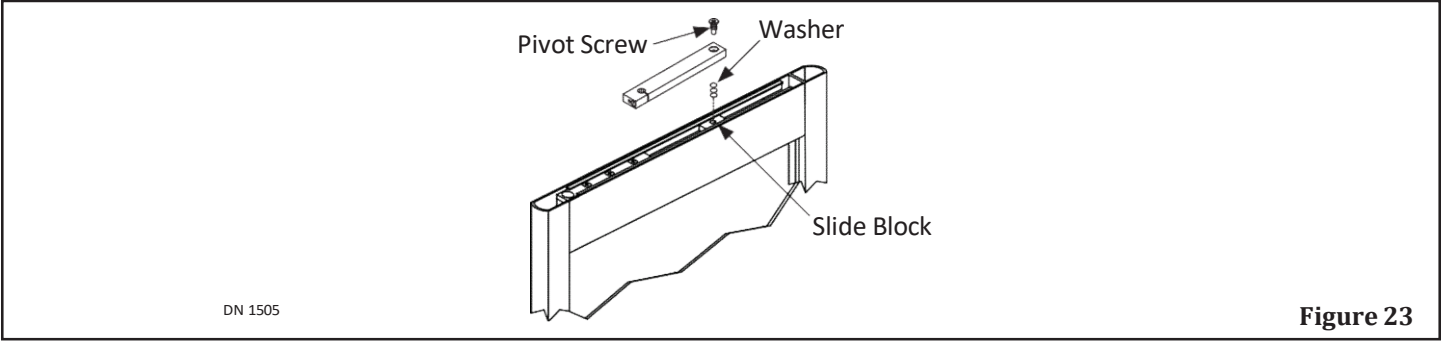
1. Fully close the Swing door. Go to the Output Spindle located at the bottom of the Operator.
  - a. A Score has been etched onto the bottom of Output Spindle.
2. Line up the Opening located on the bottom of the Swing Arm so it is perpendicular to the Spindle Score. Slide the Swing Arm onto the Spindle.
3. Tighten the Shoulder Bolt.
4. Reinsert Set Screw. Tighten.



**Figure 22**

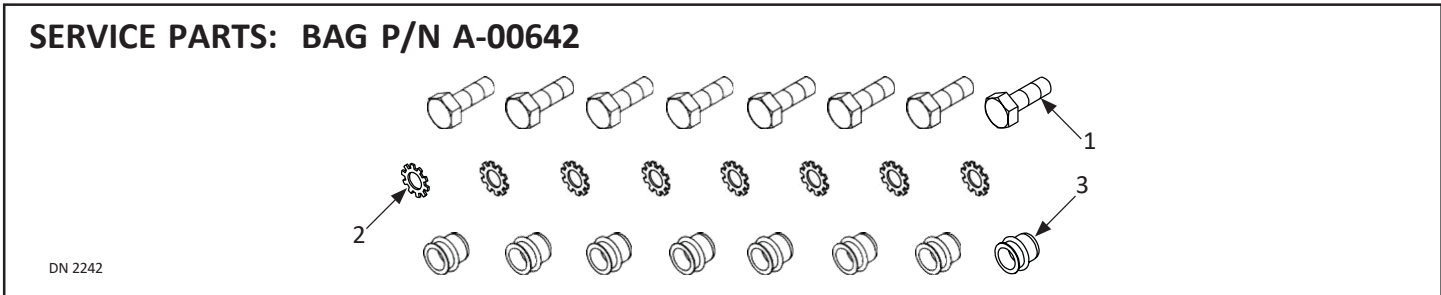
## SECTION 19.3: Secure the Swing Arm to the Swing Door

1. Open the Swing Door.
2. Insert (1) Pin or 1/8 inch Allen Wrench into the Lovejoy Coupling Access Hole.
  - a. If necessary, ease the Swing Arm back until the Pin or 1/8 inch Allen Wrench engages the Lovejoy Coupling.
3. Rotate the Swing Arm to align the Pivot Screw hole (located on free end of Swing Arm) to the Top Slide Block.
4. Check to see how many Washers will be necessary to install between the Swing Arm and the Swing door:
  - 3 for 3/16 inch Clearance Door
  - 2 for 1/8 inch Clearance Door
  - 1 for 1/16 inch Clearance Door
5. Secure the Swing Arm and Washers to the Slide Block with the Pivot Screw. Tighten.
6. Carefully remove the Pin or 1/8 inch Allen Wrench from the Operator.



CHAPTER 18: SWING DOOR SAFETY CHECK

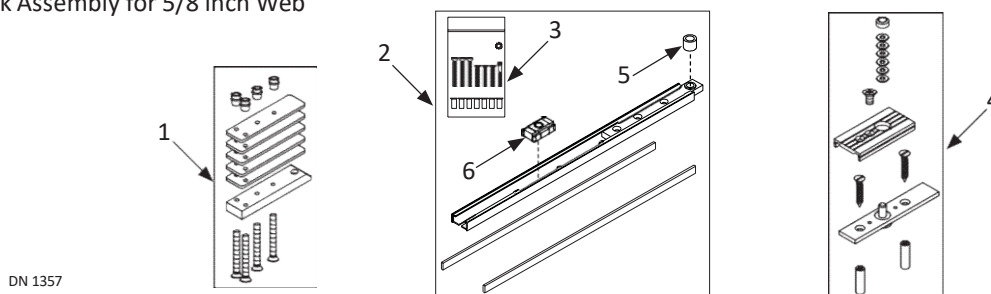
1. Ensure Header Cover has been replaced and properly secured with (2) 10-24 x 0.750 inch screws.
2. Ensure all other hardware and/or components are properly secured.
3. Ensure the Power Breaker is switched ON. Do not switch Power Breaker ON and OFF too quickly.
4. Ensure the Rocker Switch is set to "ON".
5. Activate the Swing Door.
  1. Door should open at a slow smooth pace (4 or more seconds), and stop without impact.
  2. Door must remain fully open for a minimum of (5 seconds) before beginning to close.
  3. Door should close at a slow, smooth pace (4 or more seconds), and stop without impact.
6. Check for proper door operation.
7. Inspect door's overall condition. The appropriate signage should be present and hardware should be in good condition.
8. Remove anything that does not belong in the path of the Swing door. There should be no bulletin boards, literature racks, merchandise displays, or other attractions in the door area that would interfere with use of the door or invite people to stop or stand in the door area.
9. Clean the doors, header, and frame.
10. Clean up the work area and floor area. Floor area should be clean with no loose parts that might cause user to trip or fall.



| OHC Screw Bag A-00642 |         |     |                                     |                             |
|-----------------------|---------|-----|-------------------------------------|-----------------------------|
| Item                  | Part    | QTY | Description                         | Used To                     |
| 1                     | T-00064 | 8   | HHCS,1/4-20x0.750L.,ZINC            | Secure Header to Jamb Tubes |
| 2                     | T-00087 | 8   | WASHER, LOCK, EXT, 1/4 ID, ZINC     |                             |
| 3                     | T-00048 | 8   | RIVNUT,1/4-20, .027-.165 GRIP RANGE |                             |

**SERVICE PARTS: BAG P/N A-00565**

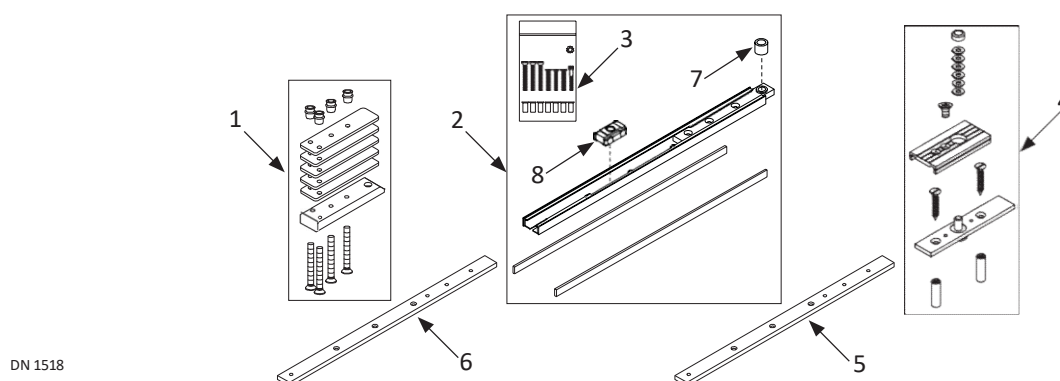
OHC Track Assembly for 5/8 inch Web

**OHC Track for 5/8 inch Web: A-00565**

| Item | Part    | QTY | Description                             | Used To                                         |
|------|---------|-----|-----------------------------------------|-------------------------------------------------|
| 1    | A-00500 | 1   | BTTM PIVOT ASSY, DOOR PORTION, SWING DR | Open/Close the Swing Door                       |
| 2    | A-00459 | 1   | TRACK,OHC,W/ SCREW BAG                  | Seat Swing Arm within the Top Web               |
| 3    | A-00450 | 1   | PARTS BAG,O.H.C. TRACK,SCREW            | Secure Track Assembly inside the Top Web        |
| 4    | A-00417 | 1   | FLOOR PIVOT ASSY, PIN & COVER           | Open/Close the Swing Door                       |
| 5    | V-00115 | 1   | BEARING, 1/2 x 3/4 x 5/8" WIDE          | Seat Pivot Pin                                  |
| 6    | A-00456 | 1   | SLIDE BLOCK,ASSY                        | Slide Swing Arm inside Track to Open/Close Door |

**SERVICE PARTS: BAG P/N A-01406**

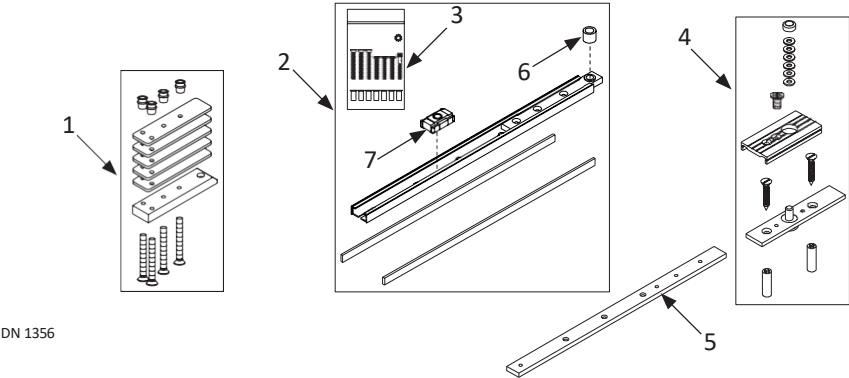
OHC Track Assembly with Spacer for 1-9/16 inch Web

**OHC Track for 1-9/16 inch Web: A-01406**

| Item | Part    | QTY | Description                             | Used To                                         |
|------|---------|-----|-----------------------------------------|-------------------------------------------------|
| 1    | A-00500 | 1   | BTTM PIVOT ASSY, DOOR PORTION, SWING DR | Open/Close the Swing Door                       |
| 2    | A-00459 | 1   | TRACK,OHC,W/ SCREW BAG                  | Seat Swing Arm within the Top Web               |
| 3    | A-00450 | 1   | PARTS BAG,O.H.C. TRACK,SCREW            | Secure Track Assembly inside the Top Web        |
| 4    | A-00417 | 1   | FLOOR PIVOT ASSY, PIN & COVER           | Open/Close the Swing Door                       |
| 5    | M-01337 | 1   | BLOCK,SPACER,3/16"                      | Adjust height of Track within Top Rail          |
| 6    | M-01342 | 2   | BLOCK - SPACER 3/8"                     | Adjust height of Track within Top Rail          |
| 7    | V-00115 | 1   | BEARING, 1/2 x 3/4 x 5/8" WIDE          | Seat Pivot Pin                                  |
| 8    | A-00456 | 1   | SLIDE BLOCK,ASSY                        | Slide Swing Arm inside Track to Open/Close Door |

SERVICE PARTS: BAG P/N A-01410

OHC Track Assembly with Spacer for 1 inch Web



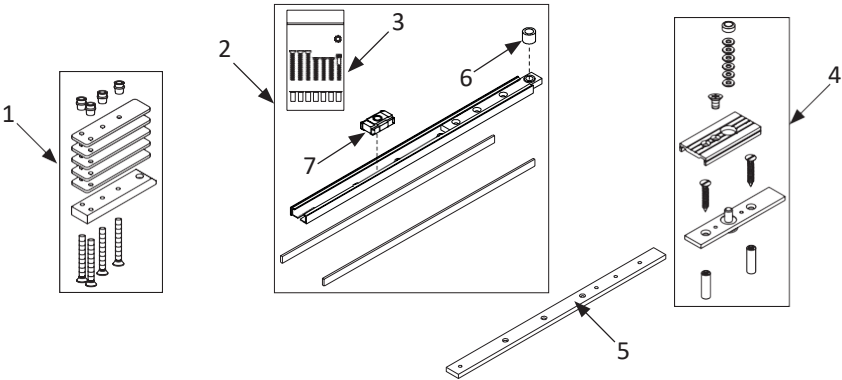
DN 1356

OHC Track for 1 inch Web: A-01410

| Item | Part    | QTY | Description                             | Used To                                         |
|------|---------|-----|-----------------------------------------|-------------------------------------------------|
| 1    | A-00500 | 1   | BTTM PIVOT ASSY, DOOR PORTION, SWING DR | Open/Close the Swing Door                       |
| 2    | A-00459 | 1   | TRACK,OHC,W/ SCREW BAG                  | Seat Swing Arm within the Top Web               |
| 3    | A-00450 | 1   | PARTS BAG,O.H.C. TRACK,SCREW            | Secure Track Assembly inside the Top Web        |
| 4    | A-00417 | 1   | FLOOR PIVOT ASSY, PIN & COVER           | Open/Close the Swing Door                       |
| 5    | M-01342 | 1   | BLOCK - SPACER 3/8"                     | Adjust height of Track within Top Rail          |
| 6    | V-00115 | 1   | BEARING, 1/2 x 3/4 x 5/8" WIDE          | Seat Pivot Pin                                  |
| 7    | A-00456 | 1   | SLIDE BLOCK,ASSY                        | Slide Swing Arm inside Track to Open/Close Door |

SERVICE PARTS: BAG P/N A-01411

OHC Track Assembly with Spacer for 7/8 inch Web

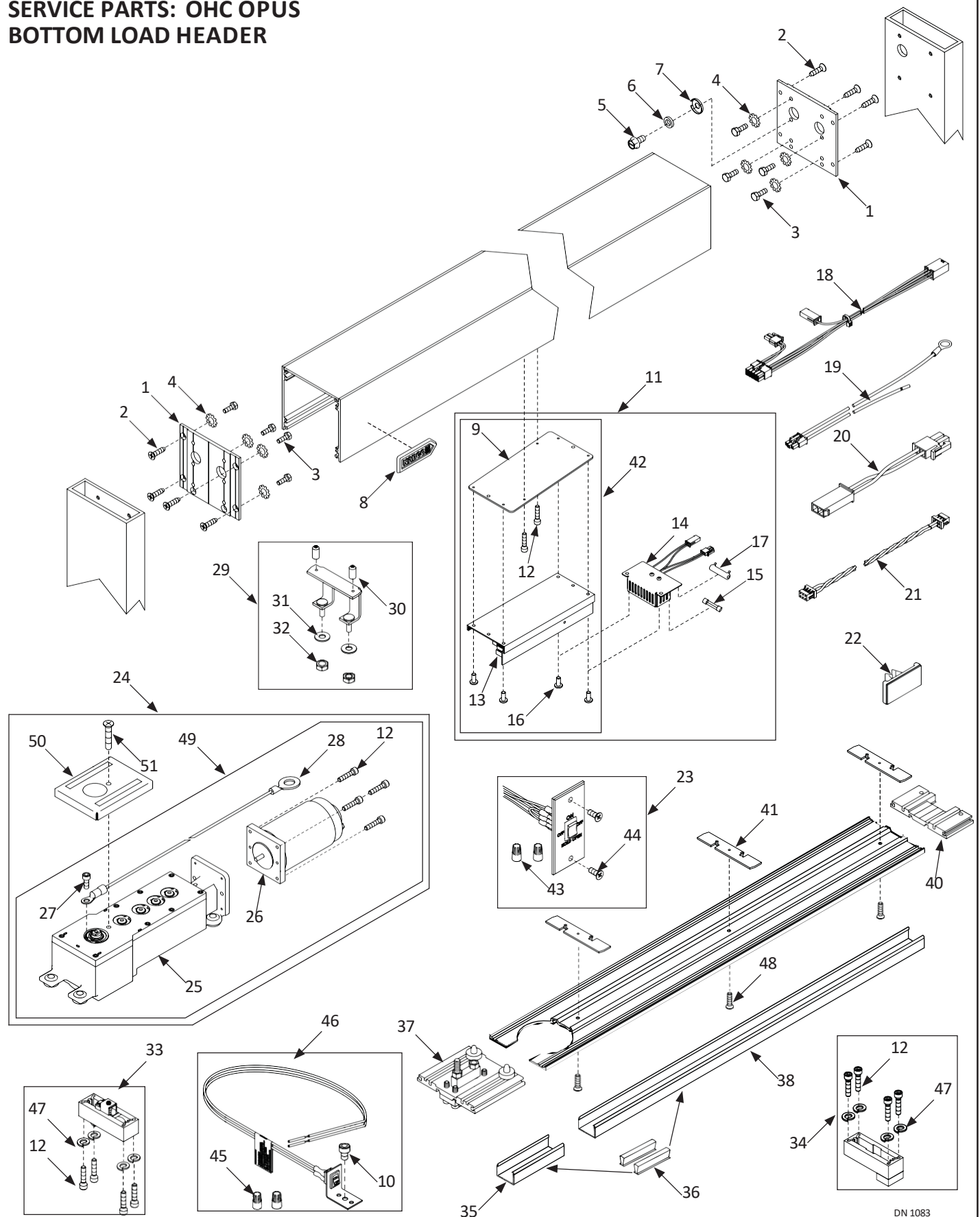


DN 1517

OHC Track for 7/8 inch Web: A-01411

| Item | Part    | QTY | Description                             | Used To                                         |
|------|---------|-----|-----------------------------------------|-------------------------------------------------|
| 1    | A-00500 | 1   | BTTM PIVOT ASSY, DOOR PORTION, SWING DR | Open/Close the Swing Door                       |
| 2    | A-00459 | 1   | TRACK,OHC,W/ SCREW BAG                  | Seat Swing Arm within the Top Web               |
| 3    | A-00450 | 1   | PARTS BAG,O.H.C. TRACK,SCREW            | Secure Track Assembly inside the Top Web        |
| 4    | A-00417 | 1   | FLOOR PIVOT ASSY, PIN & COVER           | Open/Close the Swing Door                       |
| 5    | M-01342 | 1   | BLOCK - SPACER 3/8"                     | Adjust height of Track within Top Rail          |
| 6    | V-00115 | 1   | BEARING, 1/2 x 3/4 x 5/8" WIDE          | Seat Pivot Pin                                  |
| 7    | A-00456 | 1   | SLIDE BLOCK,ASSY                        | Slide Swing Arm inside Track to Open/Close Door |

## SERVICE PARTS: OHC OPUS BOTTOM LOAD HEADER

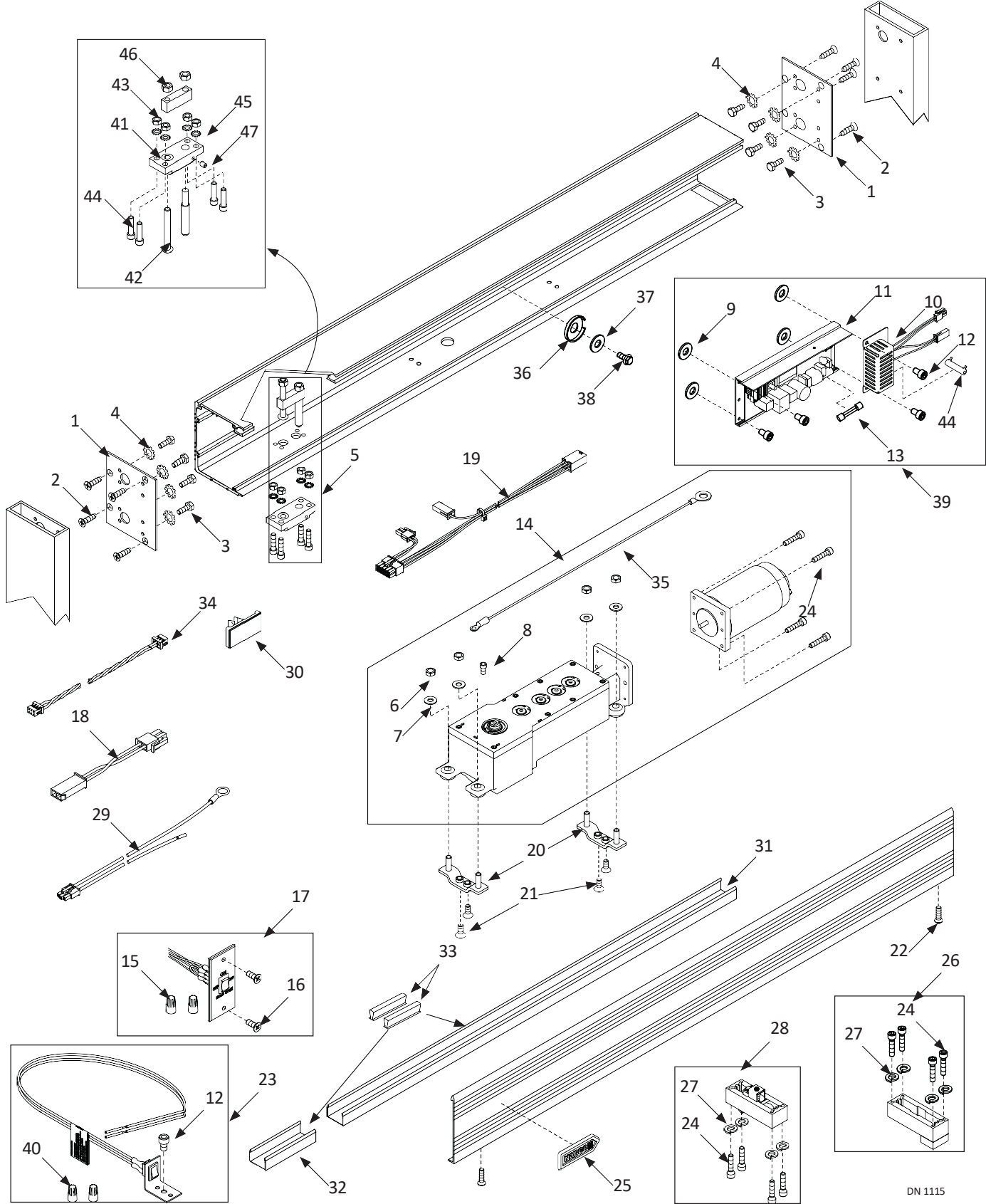


DN 1083

| OHC Opus Bottom Load Header |         |                        |                                          |
|-----------------------------|---------|------------------------|------------------------------------------|
| Item                        | Part    | Notes                  | Description                              |
| 1                           | A-01379 | Clear                  | END CAP,SWING HEADER,BTM LOAD,O.H.C.,204 |
|                             | A-71379 | Dark Bronze            | END CAP,SWING HEADER,BTM LOAD,O.H.C.,313 |
| 2                           | T-00061 |                        | FHMS,1/4-20x1.000L.,PHIL,TRI-LOBE,ZINC   |
| 3                           | T-00064 |                        | HHCS,1/4-20x0.750L.,ZINC                 |
| 4                           | T-00087 |                        | WASHER, LOCK, EXT, 1/4 ID, ZINC          |
| 5                           | T-00346 |                        | HHCS:1/4-20x0.375L:GREEN:WASH HD:SLOT    |
| 6                           | M-00450 |                        | SPACER,MTG.END CAP                       |
| 7                           | V-00104 |                        | WASHER, CUP.312 ID X .88 OD X .040 THICK |
| 8                           | C-00067 |                        | NAMEPLATE, ADHESIVE BACKED               |
| 9                           | M-01735 |                        | PLATE,BOTTOM LOAD,OPUS                   |
| 10                          | T-00335 |                        | SHCS:10-24x0.313L.                       |
| 11                          | A-01098 |                        | CONTROLLER,W/ BRAKE,BOTTOM LOAD,OPUS     |
| 12                          | T-00232 |                        | SHCS,10-24x0.875L.,ZINC                  |
| 13                          | M-01546 |                        | CONTROLLER,OPUS                          |
| 14                          | A-01003 |                        | BRAKE MODULE,OPUS                        |
| 15                          | A-00453 | Used on Brake Module   | FUSE,3AMP,W/HEAT SHRINK                  |
|                             | V-00552 | Used on Opus Control   | FUSE;5A;GMA;5X20mm                       |
| 16                          | T-00420 |                        | PHMS,8-32x0.375"L,PHIL,SWAGEFORM,ZINC    |
| 17                          | V-00411 |                        | RESISTOR,200 OHM,20 W.,WIREWOUND         |
| 18                          | A-01000 | Not used on GT710/8710 | HARNESS,MOTOR,OPUS CONTROL               |
| 19                          | M-01072 |                        | HARNESS,POWER,MAGNUM/OPUS                |
| 20                          | A-01001 | Not used on GT710/8710 | HARNESS,HANDING,NGT-10                   |
| 21                          | M-01680 | Simultaneous Pair      | HARNESS,OPUS CONTROL,SIM PAIR            |
| 22                          | V-00098 |                        | SADDLE, WIRE                             |
| 23                          | A-00805 |                        | SWITCH,ROCKER,SWINGER,ON/OFF/HOLD OPEN   |
| 24                          | A-01093 | RH                     | OPERATOR,SWING,WELDED,ENCODR,ROF,BTM,RH  |
|                             | A-01092 | LH                     | OPERATOR,SWING,WELDED,ENCODR,ROF,BTM,LH  |
| 25                          | A-01053 | RH                     | OPERATOR,SWNGR,WELDED,ROF,RH (NO MOTOR)  |
|                             | A-01052 | LH                     | OPERATOR,SWNGR,WELDED,ROF,LH (NO MOTOR)  |
| 26                          | V-00090 |                        | MOTOR,SHORT FRAME,ENCODER,DUOWEI         |
| 27                          | T-00185 |                        | SHCS,10-24x0.500L.,BK.OX.                |
| 28                          | A-00620 |                        | GROUND WIRE:SWING OPERATOR:OPUS          |
| 29                          | A-00501 |                        | BRKT.;MOTOR;REAR;BTM.LOAD                |
| 30                          | T-00073 |                        | SHSS,1/4-20x0.500L.,KNURL PT.            |
| 31                          | T-00092 |                        | WASHER,.438 ID,1.00 OD,.083 THK,ZINC     |
| 32                          | T-00067 |                        | NUT,HEX,JAM,3/8-16,ZINC                  |
| 33                          | A-00430 | Clear                  | KIT,PANIC LATCH,O.H.C.204                |
|                             | A-70430 | Dark Bronze            | KIT,PANIC LATCH,O.H.C.,313               |
| 34                          | A-00643 |                        | DOOR STOP:NON PANIC                      |
| 35                          | A-61176 | Clear                  | FILLER CHANNEL;HINGE STILE;5-15/32,204   |
|                             | A-71176 | Dark Bronze            | FILLER CHANNEL;HINGE STILE;5-15/32,313   |
| 36                          | M-00688 |                        | PILE WEATHERING .45 TALL W/ ADHESIVE     |

| OHC Opus Bottom Load Header |         |                             |                                          |
|-----------------------------|---------|-----------------------------|------------------------------------------|
| Item                        | Part    | Notes                       | Description                              |
| 37                          | A-61362 | Clear/No Finger Guard       | ASM,CENTER PIVOT,BOTTOM LOAD,4-1/2",204  |
|                             | A-71362 | Dark Bronze/No Finger Guard | ASM,CENTER PIVOT,BOTTOM LOAD,4-1/2",313  |
|                             | A-00560 | Clear/Finger Guard          | TOP PIVOT/BASE:OHC:204                   |
|                             | A-70560 | Dark Bronze/Finger Guard    | TOP PIVOT/BASE:OHC:313                   |
| 38                          | M-60897 | Clear                       | CHANNEL,SNAP IN,204,,EXTRU               |
|                             | M-70897 | Dark Bronze                 | CHANNEL,SNAP IN,313,EXTRU                |
| 40                          | M-01374 | Clear                       | OHC,SINGLE STRIKE BASE,3-1/4"            |
|                             | M-71374 | Dark Bronze                 | OHC,SINGLE STRIKE BASE,3-1/4"            |
| 41                          | M-01177 |                             | LOCK COVER PLATE - BOTTOM                |
| 42                          | A-01143 |                             | CONTROLLER,W/O BRAKE,BOTTOM LOAD,OPUS    |
| 43                          | T-00197 |                             | NUT,WIRE,RANGE 22-14AWG,GREY             |
| 44                          | T-00031 |                             | FHMS,10-32x0.500L.,PHIL,UCUT,T-LOBE,BKZN |
| 45                          | T-00047 |                             | NUT,WIRE,72B,2-18AWG-3-16AWG             |
| 46                          | A-00409 |                             | PARTS BAG,ON/OFF,SWINGER,SWITCH          |
| 47                          | T-00231 |                             | WASHER, LOCK, SPLIT, #10 ID, ZINC        |
| 48                          | T-00391 |                             | FHMS,10-24x0.750"L.,PHIL,ZINC            |
| 49                          | A-01090 |                             | OPERATOR,SWING,WELDED,ENCODR,ROF,SIDE,LH |
|                             | A-01091 |                             | OPERATOR,SWING,WELDED,ENCODR,ROF,SIDE,RH |
| 50                          | A-00348 |                             | COVER,SWITCH,SWINGER                     |
| 51                          | T-00238 |                             | FHMS,10-24x1.000L.,PHIL,ZINC             |

**SERVICE PARTS: OHC OPUS  
SIDE LOAD HEADER**



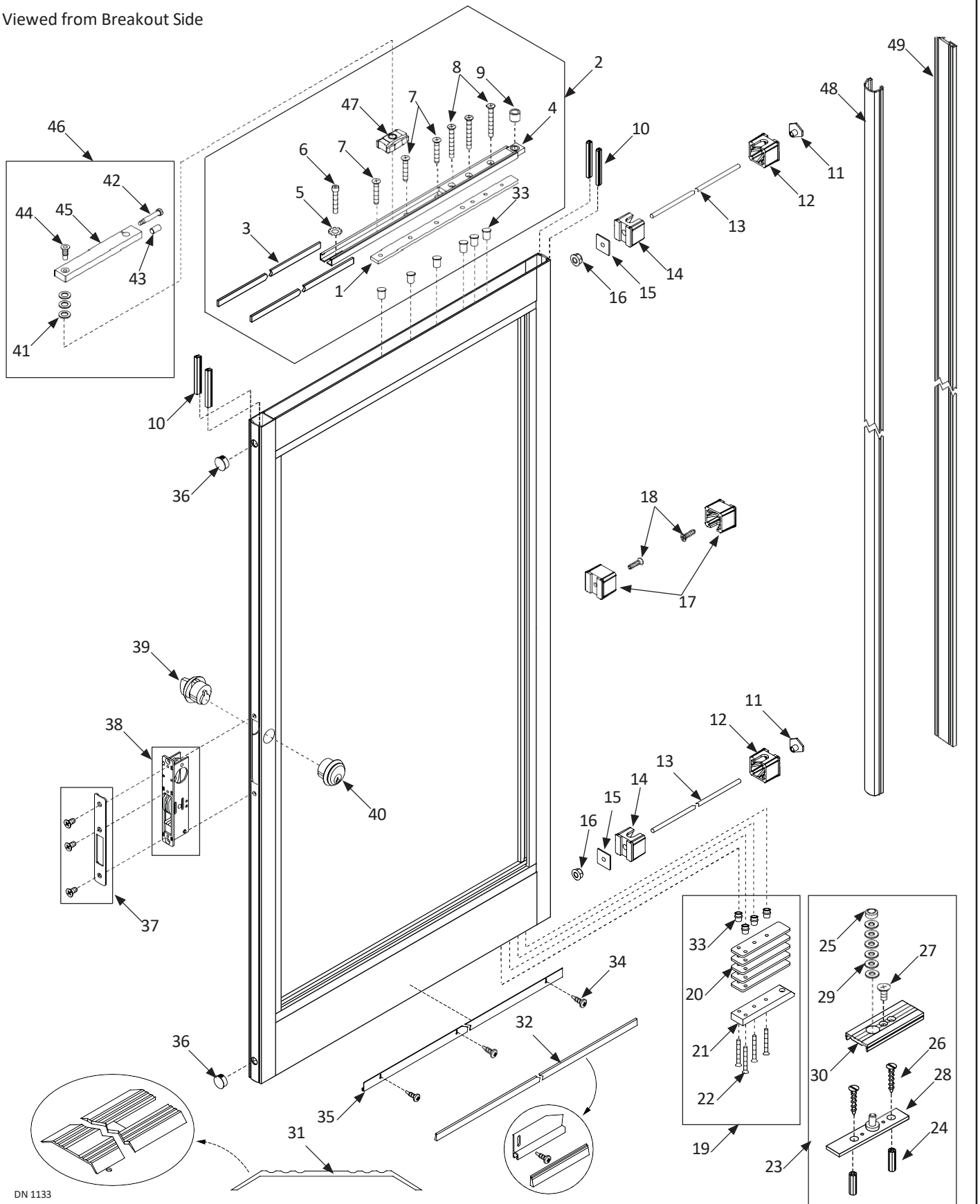
DN 1115

| OHC Opus Side Load Header |         |             |                                          |
|---------------------------|---------|-------------|------------------------------------------|
| Item                      | Part    | Notes       | Description                              |
| 1                         | M-61172 |             | END CAP,SIDELOAD,OHC,2 ACCESS HOLES,204  |
|                           | M-71172 |             | END CAP,SIDELOAD,OHC,2 ACCESS HOLES,313  |
| 2                         | T-00061 |             | FHMS,1/4-20x1.000L.,PHIL,TRI-LOBE,ZINC   |
| 3                         | T-00064 |             | HHCS,1/4-20x0.750L.,ZINC                 |
| 4                         | T-00087 |             | WASHER, LOCK, EXT, 1/4 ID, ZINC          |
| 5                         | A-00490 |             | PIVOT,TOP,SWINGER                        |
| 6                         | T-00067 |             | NUT,HEX,JAM,3/8-16,ZINC                  |
| 7                         | T-00092 |             | WASHER,.438 ID,1.00 OD,.083 THK,ZINC     |
| 8                         | T-00185 |             | SHCS,10-24x0.500L.,BK.OX.                |
| 9                         | T-00365 |             | WASHER:5/32IDx3/4ODx.020THK:POLYETHYLE   |
| 10                        | A-01003 |             | BRAKE MODULE,OPUS                        |
| 11                        | M-01546 |             | CONTROLLER,OPUS                          |
| 12                        | T-00335 |             | SHCS:10-24x0.313L.                       |
| 13                        | A-00453 |             | FUSE,3AMP,W/HEAT SHRINK                  |
|                           | V-00552 |             | FUSE;5A;GMA;5X20mm                       |
| 14                        | A-01091 |             | OPERATOR,SWING,WELDED,ENCODR,ROF,SIDE,RH |
|                           | A-01090 |             | OPERATOR,SWING,WELDED,ENCODR,ROF,SIDE,LH |
| 15                        | T-00197 |             | NUT,WIRE,RANGE 22-14AWG,GREY             |
| 16                        | T-00031 |             | FHMS,10-32x0.500L.,PHIL,UCUT,T-LOBE,BKZN |
| 17                        | A-00805 |             | SWITCH,ROCKER,SWINGER,ON/OFF/HOLD OPEN   |
| 18                        | A-01001 |             | HARNESS,HANDING,NGT-10                   |
| 19                        | A-01000 |             | HARNESS,MOTOR,OPUS CONTROL               |
| 20                        | M-01043 |             | BRACKET, OPERATOR, SIDELOAD HEADER       |
| 21                        | T-00334 | Clear       | FHMS:5/16-18x0.750L.:SOKT:ZN             |
|                           | T-00370 | Dark Bronze | FHMS:5/16-18x0.750L.:SOKT:BK.ZN          |
| 22                        | T-00337 |             | PHSMS:#8x0.625L.:PHIL                    |
| 23                        | A-00409 |             | PARTS BAG,ON/OFF,SWINGER,SWITCH          |
| 24                        | T-00232 |             | SHCS,10-24x0.875L.,ZINC                  |
| 25                        | C-00067 |             | NAMEPLATE, ADHESIVE BACKED               |
| 26                        | A-60643 | Clear       | DOOR STOP, NON PANIC, 204                |
|                           | A-70643 | Dark Bronze | DOOR STOP, NON PANIC, 313                |
| 27                        | T-00231 |             | WASHER, LOCK, SPLIT, #10 ID, ZINC        |
| 28                        | A-00430 | Clear       | KIT,PANIC LATCH,O.H.C.204                |
|                           | A-70430 | Dark Bronze | KIT,PANIC LATCH,O.H.C.,313               |
| 29                        | M-01072 |             | HARNESS,POWER,MAGNUM/OPUS                |
| 30                        | V-00098 |             | SADDLE, WIRE                             |
| 31                        | M-60889 |             | SNAP CHANNEL, GT8000,204,,EXTRU          |
|                           | M-70889 |             | SNAP CHANNEL, GT8000,313,EXTRU           |
| 32                        | M-01303 |             | SNAP IN,CHANNEL,204,W-FG                 |
|                           | M-71303 |             | SNAP IN,CHANNEL,313,W-FG                 |
|                           | M-01302 |             | SNAP IN,CHANNEL,204,NO-FG                |
|                           | M-71302 |             | SNAP IN,CHANNEL,313,NO-FG                |

| OHC Opus Side Load Header |         |       |                                          |
|---------------------------|---------|-------|------------------------------------------|
| Item                      | Part    | Notes | Description                              |
| 33                        | M-00688 |       | PILE WEATHERING .45 TALL W/ ADHESIVE     |
| 34                        | M-01680 |       | HARNESS,OPUS CONTROL,SIM PAIR            |
| 35                        | A-00620 |       | GROUND WIRE:SWING OPERATOR:OPUS          |
| 36                        | V-00104 |       | WASHER, CUP.312 ID X .88 OD X .040 THICK |
| 37                        | M-00450 |       | SPACER,MTG.END CAP                       |
| 38                        | T-00347 |       | HHCS:10-32x0.375L:GREEN:WASH HD:SLOT     |
| 39                        | A-00888 |       | CONTROLLER;OPUS W-CHASSIS & BRAKE        |
| 40                        | T-00047 |       | NUT,WIRE,72B,2-18AWG-3-16AWG             |
| 41                        | M-00009 |       | "BLOCK,CENTER PIVOT SUPPORT"             |
| 42                        | T-00409 |       | "RHMS,3/8-16x3.000L.MIN.THD.2.125"       |
| 43                        | T-00134 |       | "NUT,HEX,LOCK,3/8-16;GRIPCO;UL PART"     |
| 44                        | T-00102 |       | "SHCS,5/16-18x1.250L.,GR8"               |
| 45                        | T-00145 |       | WASHER, LOCK, EXT, 5/16 ID, ZINC         |
| 46                        | T-00144 |       | NUT,HEX,5/16-18,ZINC                     |
| 47                        | T-00411 |       | "SHSS,1/4-20x0.375L,NYLOCK,KNURL PT."    |

**SERVICE PARTS: SWING DOOR**

Viewed from Breakout Side



DN 1133

| OHC Swing Door |         |                              |                                         |
|----------------|---------|------------------------------|-----------------------------------------|
| Item           | Part    | Notes                        | Description                             |
| 1              | A-00948 | 1/4" Spacer                  | SPACER BLOCK 1/4"                       |
|                | M-01342 | 3/8" Spacer                  | BLOCK - SPACER 3/8"                     |
|                | M-01337 | 3/16" Spacer                 | BLOCK,SPACER,3/16"                      |
| 2              | A-00565 | No Spacer                    | OHC TRACK AND PIVOT ASM 5/8" WEB        |
|                | A-01406 | (2) 3/8" + (1) 3/16" Spacers | OHC TRACK AND PIVOT ASM 1-9/16" WEB     |
|                | A-01410 | 3/8" Spacer                  | OHC TRACK AND PIVOT ASM 1" WEB          |
|                | A-01411 | 1/4" Spacer                  | OHC TRACK AND PIVOT ASM 7/8" WEB        |
| 3              | M-01327 |                              | SPACER,SIDE                             |
| 4              | A-00455 |                              | PIVOT BLOCK,O.H.C.,TRACK W/STOP         |
| 5              | T-00087 |                              | WASHER, LOCK, EXT, 1/4 ID, ZINC         |
| 6              | T-00101 |                              | SHCS,1/4-20x1.500"L.,BK.OX.             |
| 7              | T-00089 |                              | FHMS,1/4-20x1.500L.,PHIL,UNDERCUT,ZINC  |
| 8              | T-00172 |                              | FHMS,1/4-20x2.000L.,PHIL,ZINC           |
| 9              | V-00115 |                              | BEARING, 1/2 x 3/4 x 5/8" WIDE          |
| 10             | M-00687 |                              | WEATHERING, PILE .57 TALL               |
| 11             | M-00416 |                              | T-NUT, 3/8"-16, TIE ROD                 |
| 12             | M-00460 |                              | CLIP,MUNTIN,.500 HOLE                   |
| 13             | M-00272 |                              | 3/8-16 THREADED ROD                     |
| 14             | M-00461 |                              | CLIP,MUNTIN,.386 HOLE                   |
| 15             | M-00422 |                              | PLATE,TIE ROD                           |
| 16             | T-00025 |                              | NUT,WHIZLOCK,3/8-16,ZINC                |
| 17             | M-00462 |                              | CLIP,MUNTIN,.261 HOLE                   |
| 18             | T-00061 |                              | FHMS,1/4-20x1.000L.,PHIL,TRI-LOBE,ZINC  |
| 19             | A-00500 |                              | BTTM PIVOT ASSY, DOOR PORTION, SWING DR |
| 20             | M-01053 |                              | SPACER,BASE PIVOT,OHC                   |
| 21             | A-01146 |                              | BASE PIVOT,O.H.C.SUB ASM.               |
| 22             | T-00172 |                              | FHMS,1/4-20x2.000L.,PHIL,ZINC           |
| 23             | A-00417 |                              | FLOOR PIVOT ASSY, PIN & COVER           |
| 24             | T-00314 |                              | SCREW ANCHOR, #16 X 1" LG               |
| 25             | M-01166 |                              | SELF ANGLER,PIVOT BASE,UL PART          |
| 26             | T-00313 |                              | FHSMS - SLOTTED, #14 X 1 1/12" LG       |
| 27             | T-00016 |                              | FHMS,1/4-20x0.438L.,PHIL,UNDERCUT,ZINC  |
| 28             | M-01183 |                              | SHAFT,BASE PIVOT,OHL-UL PART            |
| 29             | T-00312 |                              | SHIM WSHR, .437 ID X .969 OD X .032 THK |
| 30             | M-01230 |                              | COVER,THRESHOLD PLATE,5-1/4"            |
| 31             | M-60297 |                              | THRESHOLD, 5.00 X 1/2" SADDLE,204,EXTRU |
| 32             | M-00699 |                              | BRUSH,NYLON, .56"                       |
|                | M-00700 |                              | BRUSH, NYLON, .44"                      |
| 33             | T-00048 |                              | RIVNUT,1/4-20, .027-.165 GRIP RANGE     |
| 34             | T-00222 | Zinc                         | PHSMS,6x0.500L.,PHIL,TEKS,ZINC          |
|                | T-00260 | Black Zinc                   | PHSMS,6x0.500L. PHIL,TEKS BLK ZN        |

| OHC Swing Door |         |             |                                        |
|----------------|---------|-------------|----------------------------------------|
| Item           | Part    | Notes       | Description                            |
| 35             | M-60278 | Clear       | HOLDER,WEATHERING BRUSH,204,EXTRU      |
|                | M-70278 | Dark Bronze | HOLDER,WEATHERING BRUSH,313,EXTRU      |
| 36             | V-00720 |             | PLUG,HOLE,13/16 DOME                   |
| 37             | V-00014 | Clear       | COVER,MS LOCK,W/ CUTOUT,204            |
|                | V-70014 | Dark Bronze | COVER,MS LOCK,W/ CUTOUT,313            |
| 38             | V-00005 |             | LOCK, ADAMS-RITE #MS1853               |
| 39             | V-00116 | Clear       | CYLINDER,LOCK,THUMBTURN,204            |
|                | V-70116 | Dark Bronze | CYLINDER,LOCK,THUMBTURN,313            |
| 40             | V-00123 | Clear       | CYLINDER,LOCK,KEYED,204                |
|                | V-70123 | Dark Bronze | CYLINDER,LOCK,KEYED,313                |
| 41             | T-00319 |             | WASHER15/32 IDx5/8 ODx1-1/16THK        |
| 42             | T-00318 |             | BOLT,SHLDR.3/8 DIAx1.750L.             |
| 43             | T-00322 |             | SHSS,5/16-24x0.625L.,CUP PT.           |
| 44             | M-01331 |             | PIVOT SCREW,FHSMS                      |
| 45             | A-60788 | Clear       | ARM,SPLINED,O.H.C,204                  |
|                | A-70788 | Dark Bronze | ARM,SPLINED,O.H.C,313                  |
| 46             | A-60458 | Clear       | ARM,O.H.C.,N.H.,204                    |
|                | A-70458 | Dark Bronze | ARM,O.H.C.,N.H.,PANIC AND NO PANIC,313 |
| 47             | A-00456 |             | SLIDE BLOCK,ASSY                       |
| 48             | M-01171 | Black       | WEATHER STRIP BLUB, BLACK IN BULK      |
| 49             | M-80893 | Black       | WEATHERING CHANNEL,BLK.EXTRU           |