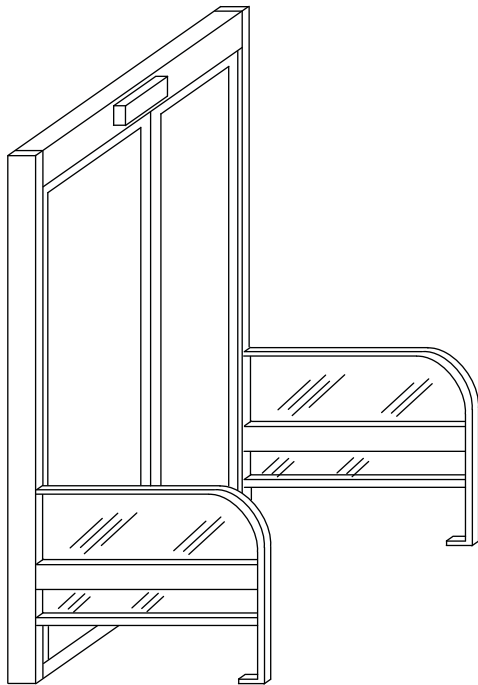


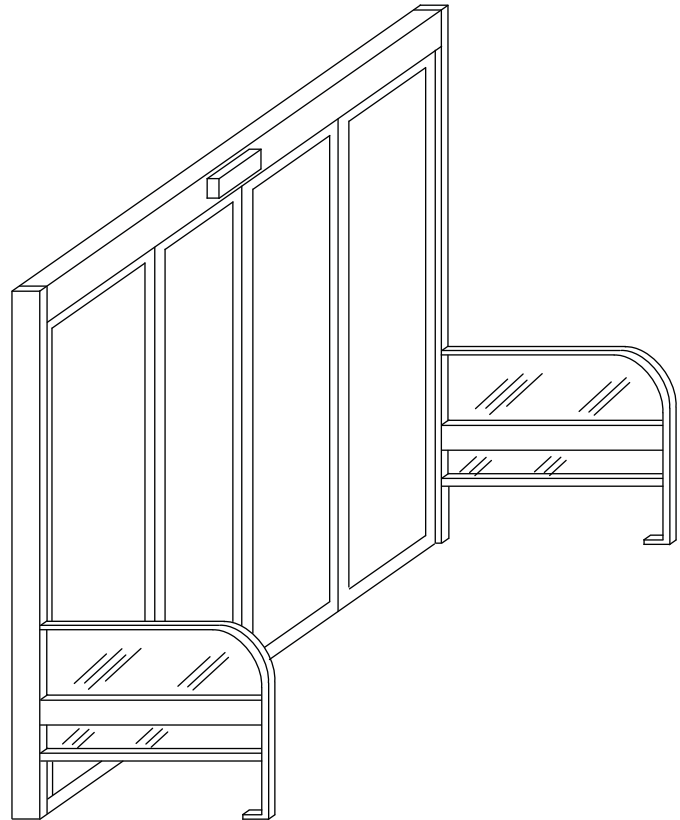


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Model GT 1400 Folding Door System ****With Magnum 4A Control**** Mechanical Installation Manual



DN 0321



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.

Part #15-9324
Rev. 11/26/14

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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 the 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.

GENERAL SAFETY RECOMMENDATIONS

WARNING

Do Not install or service this product unless Safety Practices, Warning Labels, Installation Instructions, and Operating Instructions, have been read and fully understood. Failure to do so may result in bodily injury or property damage.

CAUTION

Handle Glass With Care!!! Use caution when moving and installing the glass panels. These panels are designed to be assembled with tempered glass. Any sharp objects that come in contact with glass may cause the glass to shatter. NABCO Entrances is not responsible for glass that is broken during the installation of this Unit.

Notice: Read, study and understand the operating instructions contained in, or referenced in this manual before operating. If you do not understand the instruction, ask the installing qualified technician to teach you how to use the door.

Notice: This manual and the owner's manual must be given to and retained by the purchasing facility or end user.

Notice: Advise the purchasing facility or end user to make regular safety checks and all other duties that may apply.

- ▶ 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.
- ▶ It is the responsibility of the purchasing facility or end user to keep warning and instructional labels and literature legible, intact and with the door. Replacement labels and literature may be obtained from local NABCO Entrances, Inc. distributors. If the name of the local distributor is unknown, contact NABCO Entrances, Inc. at 1-877-622-2694 for assistance.
- ▶ Do Not take shortcuts.
- ▶ Ensure that all safety devices provided by the manufacturer work as intended.
- ▶ Ensure that all safety decals are properly displayed on any/all swing doors.

CHAPTER 1: SCOPE

Section 1a: 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 A156.10 covers the GT-1400 Fold Door System. All automatic equipment complies with UL325 and CAN/CSA-C22.2 No 247-92. Other local standards or codes may apply. Use them in addition to the ANSI standard. The GT-1400 is listed with the Underwriters Laboratory and is identified as such on the label.

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

Note: As an Option, the GT-1400 Fold door can be certified to have a Hurricane High Impact Compliant Version manufactured to meet the High Velocity Hurricane Zone (HVHZ) requirements of the Florida building codes.

Section 1b: Objective

The GT-1400 is designed to be installed within a Rough Opening of a Building. The door function is controlled by the Magnum Control. This Control offers many features to accommodate most installation options.

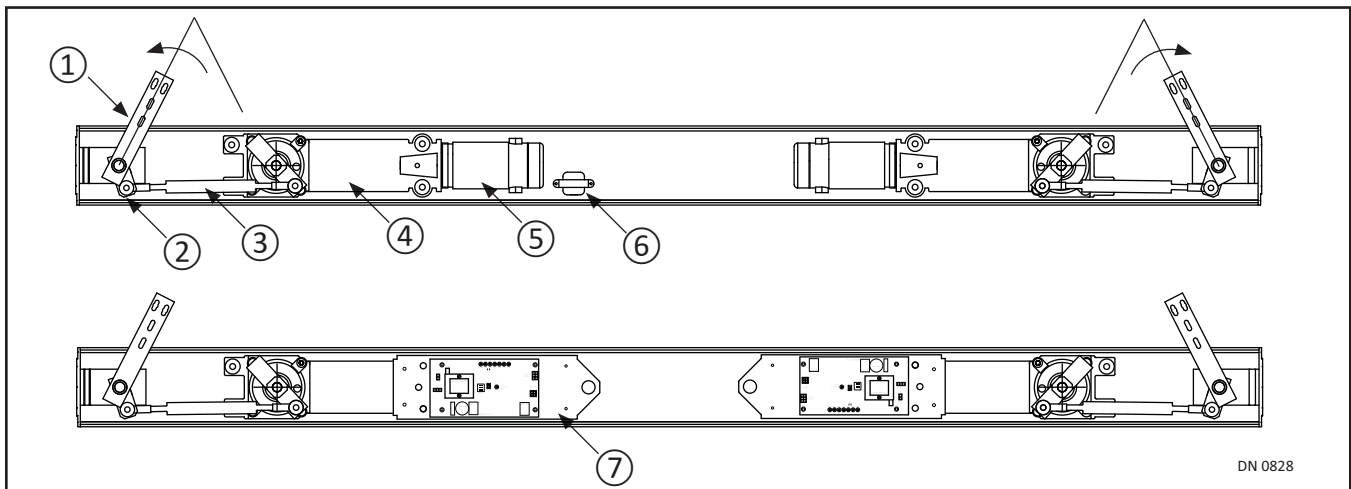
This manual offers step by step instructions.

CHAPTER 2: GETTING STARTED

GT-1400 Fold Door System is manufactured out of aluminum, and comes with the following:

- ▶ Installation Configurations:
 - Installed within Rough Opening of Building
 - Door Panel assemblies always fold toward the direction of breakout.
- ▶ Mechanical Configurations:
 - Bottom Load: The Access Cover is located at the bottom of the Header.
 - Single Fold: (1) Door Leaf assembly that slides to the right or left (FS - FX or FX - FS).
 - Bi-Part: (2) Door Leaf assemblies that slide apart from the center (FS -FX - FX - FS).
 - FS = Swing Panel
 - FX = Slide Panel
- ▶ Extrusion Configurations:
 - Slick Jamb Tubes
- ▶ Emergency Egress:
 - Full Open: Door Panel assembly breaks out for emergency egress.

Section 2a: Parts of the Header



- | | | |
|----------------------|-------------|--|
| 1. Spindle Drive Bar | 3. Push Rod | 5. Motor |
| 2. Rod End | 4. Operator | 6. Auxiliary Transformer |
| | | 7. Magnum Control and Mounting Bracket |

Section 2b: Handing

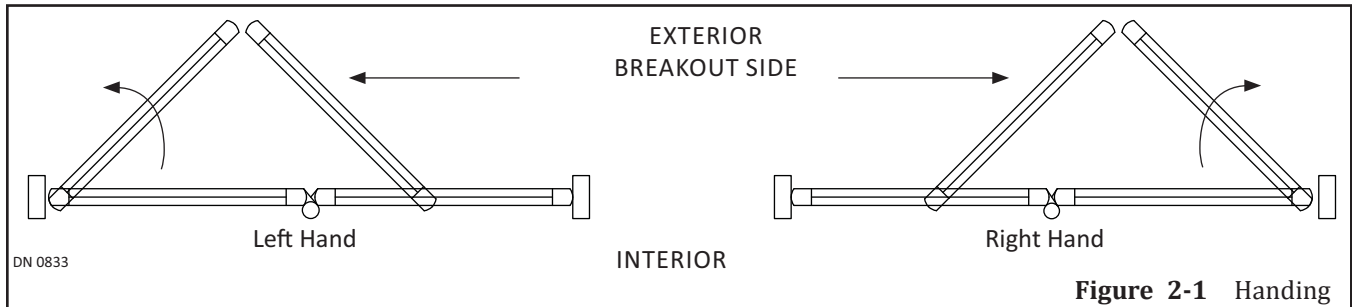


Figure 2-1 Handing

Section 2c: Wiring

For wiring details please refer to “Wiring and Adjustment Magnum 4A”; P/N 15-10682.

Section 2d: Electrical Specifications

Note: Electrical conduit should be pulled through the frame before mounting the Folding door.

Electricity	Description
Power Input	120 (±10%) AC 50-60Hz, 5 Amps per Operator
Available current for accessories	24 VAC .5 Amps from Magnum Control
	24 VAC 1 Amp from Auxiliary Transformer

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.

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

Section 2e: Magnum 4A Control

The Magnum 4A Control is programmed to open/close the Fold door according to how the door will be used in terms of Handing, Speed, and Time Delay. Please refer to “Wiring and Adjustment Magnum 4-4A”; P/N 15-10682 for details.

Section 2f: Panic Breakout

Note: Adjustments are not required for GT-1400 Panic Breakout to work.

When the Folding door is broken out, (2) Magnetic Reed Switches CLOSE the circuit to activate the Continuous Safety feature and disable the Operator. It should only take 50 pounds of force on the Strike end of any Folding door for Breakout to occur.

Section 2g: Associated Manuals Part Numbers

Note: Associated Manuals can be downloaded from the NABCO web site at: www.nabcoentrances.com.

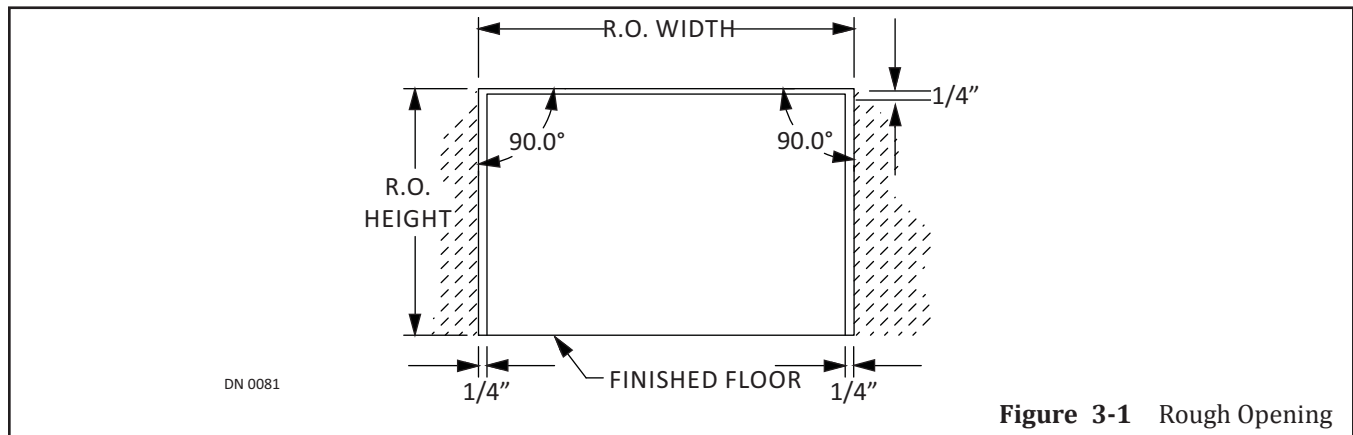
- Swing Door Wiring and Adjustment Magnum 4A Control; P/N 15-10682

CHAPTER 3: INSTALL THE DOOR FRAME

Section 3a: Prepare the Rough Opening

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

1. Ensure the Rough Opening is the correct size. Please see Figure 2-2.
 - ▶ 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 on each side



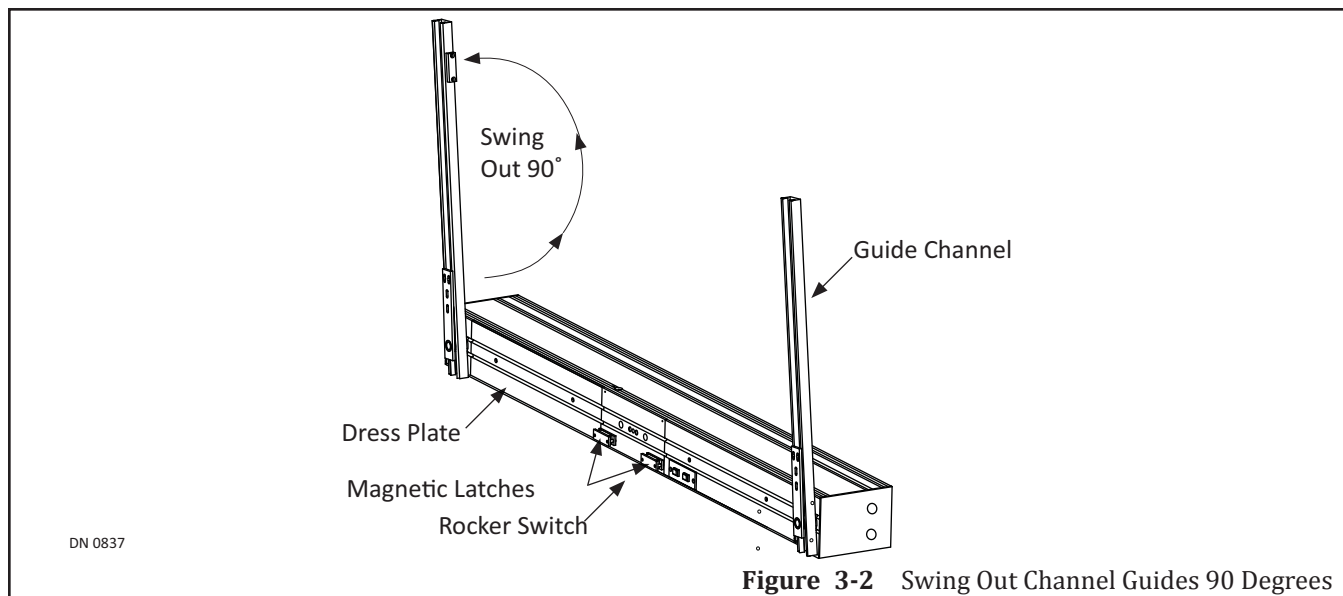
Section 3b: Remove Dress Plates from Header

1. Remove Header from Carton.
2. Position Header so the Magnetic Latches are on the floor. Please see Figure 3-2.
 - a. Protect Header from scratches.
3. Go to the Guide Channel located on the same side the Rocker Switch is installed on the Dress Plate.

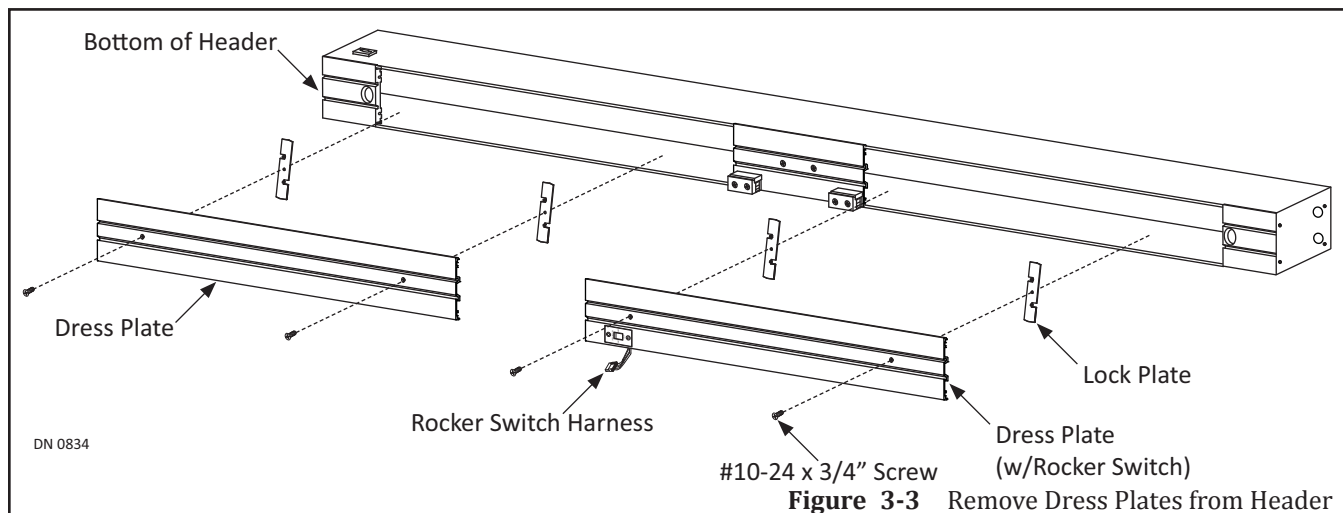
DANGER

Do not let go of the Guide Channel it will spring back to its original location and can result in personal injury or damage.

4. Swing out the Guide Channel 90 degrees away from the Magnetic Latch.
 - a. Manually hold the Guide Channel while taking off the Dress Plate and Lock Plates.



5. Remove #10-24 x 3/4 inch screws used to secure the Dress Plate. Please see Figure 3-3.
 - a. Save screws for reinstallation.
6. Carefully lower the Dress Plate until the Rocker Switch wiring is exposed.
7. Disconnect the Switch from the switch harness.
8. Remove the Dress Plate and Lock Plates.
 - a. Save hardware for reinstallation.
9. Manually return the Guide Channel so that it butts up against the Magnetic Latch.
10. Go to the other Guide Channel. Repeat steps 4 and 5 and 8 and 9.



Section 3c: Secure Header to Jamb Tubes

1. Remove (4) 1/4-20 x 3/4 inch bolts and (4) 1/4 inch star washers that were pre-screwed inside rivnuts located on each Jamb tube.
 - a. Save hardware for reinstallation.
2. Position Jamb tubes on either side of Header so the Weathering faces up, towards the Exterior side of building (opposite of Magnetic Latches). Please see Figure 3-4.
3. Orientate the Frame so the open end at the bottom of each Jamb Tube is facing the Exterior side of the building.

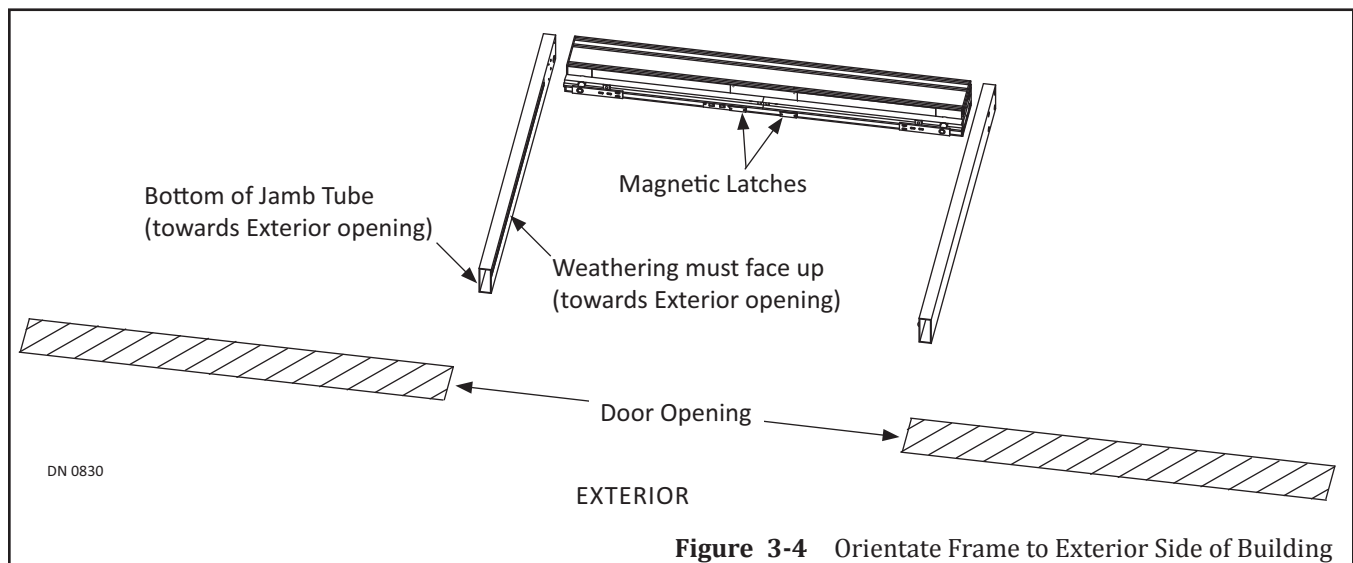


Figure 3-4 Orientate Frame to Exterior Side of Building

4. Use a 7/16 inch Socket on a 6 inch extension to secure the Header to each Jamb Tube with (4) 1/4-20 x 3/4 inch bolts and (4) star washers that were saved. Please see Figure 3-5.
 - a. Do not overtighten Bolts.

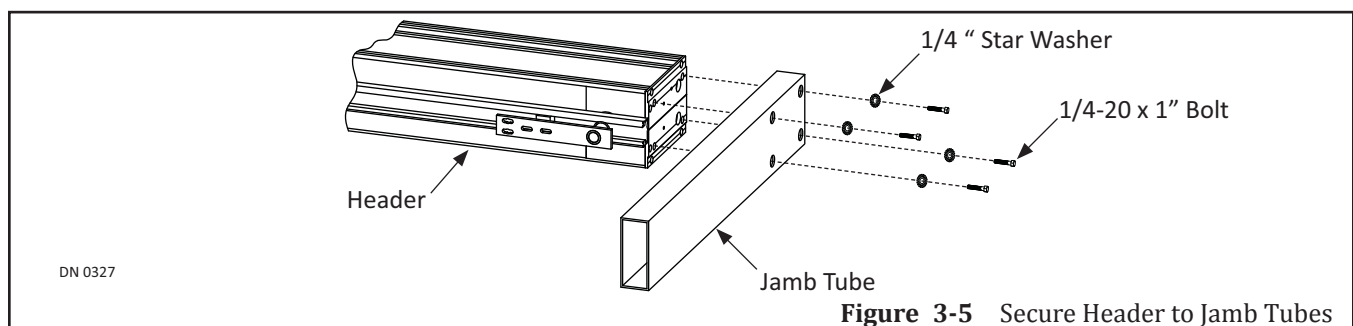


Figure 3-5 Secure Header to Jamb Tubes

Section 3d: Anchor Placement

- ▶ Anchors are not provided by NABCO.
- ▶ Anchors must be appropriate for the type of structure being fastened to.
- ▶ Ensure anchor heads to not come in contact with edges of glass to prevent breakage.

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

Note: It is recommended to drill tap threads for 1/4 inch anchors in a steel or aluminum structure.

Note: If anchor points in structure are known, the aluminum door framing can be predrilled prior to

installing into the opening.

Note: Do not overtighten anchors to prevent deforming Jamb tubes.

3.c.a: Secure Jamb Tubes to Rough Opening

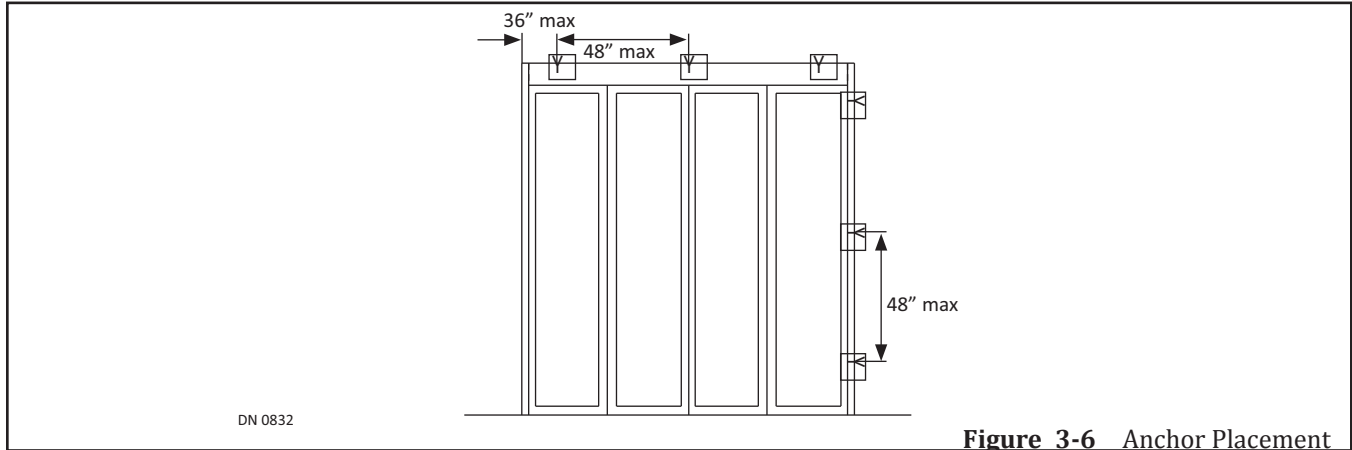


Figure 3-6 Anchor Placement

5. Lift to position assembled Frame into the rough opening.
 - a. Ensure the Panic Catch magnets are toward the Interior side of Building.
 - b. Ensure the Weathering Strips are toward the Exterior side of Building.
6. Plumb Jamb tubes in both planes to ensure the rough opening allows a 1/4 inch clearance. Please see Figure 3-7.
 - a. Shim back of Jamb as required.
7. Plumb the Header at the top to ensure the rough opening allows a 1/4 inch clearance.
 - a. Shim top of Header or Transom Horizontal as required.

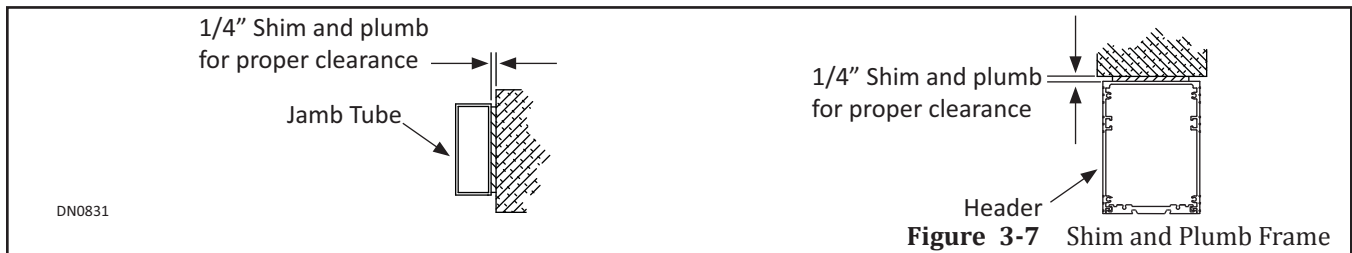


Figure 3-7 Shim and Plumb Frame

8. Secure Jamb Tubes to Rough Opening accordingly. Please see Figure 3-8.
 - ▶ Standard Fold Door
 - Use 1/4 inch diameter anchors with a minimum of 3 per Jamb tube, maximum is 48 inches on center. Drill 1/4 inch diameter holes in the face of Jamb Tube and then countersink each hole. Please see Figure 3-6.
 - ▶ Hurricane Fold Door
 - Screw in anchors to secure the Frame (per manufacturer’s certification document(s)).

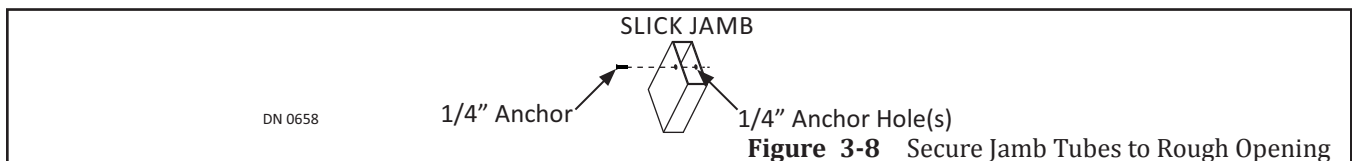


Figure 3-8 Secure Jamb Tubes to Rough Opening

3.c.b: Secure Header to Rough Opening

DANGER

Verify that each Motor is connected to the Magnum 4A Control before inserting Pin or 1/8" Allen Wrench into Lovejoy Coupling Access Hole via the Access Hole on the Magnum 4A Control. Failure to do so will allow the Fold Doors to slam shut without motor breaking in the event the Pin or 1/8" Allen Wrench falls out.

DANGER

Do not let go of the Guide Channel if a Pin or 1/8" Allen Wrench has not been inserted into the Lovejoy Coupling Access Hole, it will spring back to its original location and can result in personal injury or damage.

1. Ensure the Motor is connected to the Magnum 4A Control.
2. Swing the Guide Channel out and away from the Magnetic Latch. Please see Figure 3-9.
 - a. It will be necessary to manually hold the Guide Channel in the 90 degree position until the Pin or 1/8 inch Allen Wrench is inserted into the Lovejoy Coupling Access Hole.

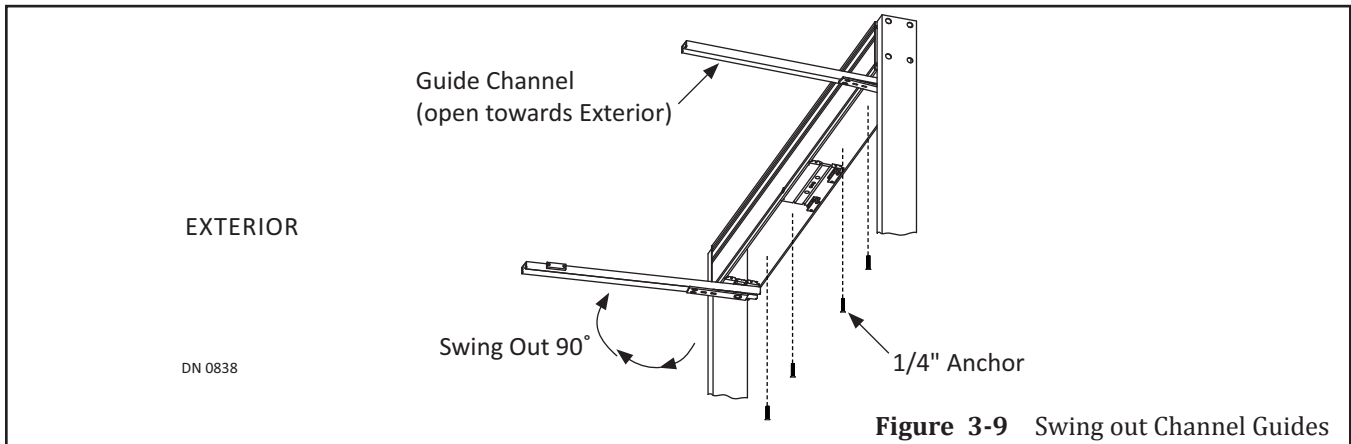


Figure 3-9 Swing out Channel Guides

3. Insert a Pin or 1/8 inch Allen Wrench into the access hole located on the Magnum Control mounting bracket which leads to the Lovejoy Coupling access hole in the Operator. Please see Figure 3-10.

DANGER

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

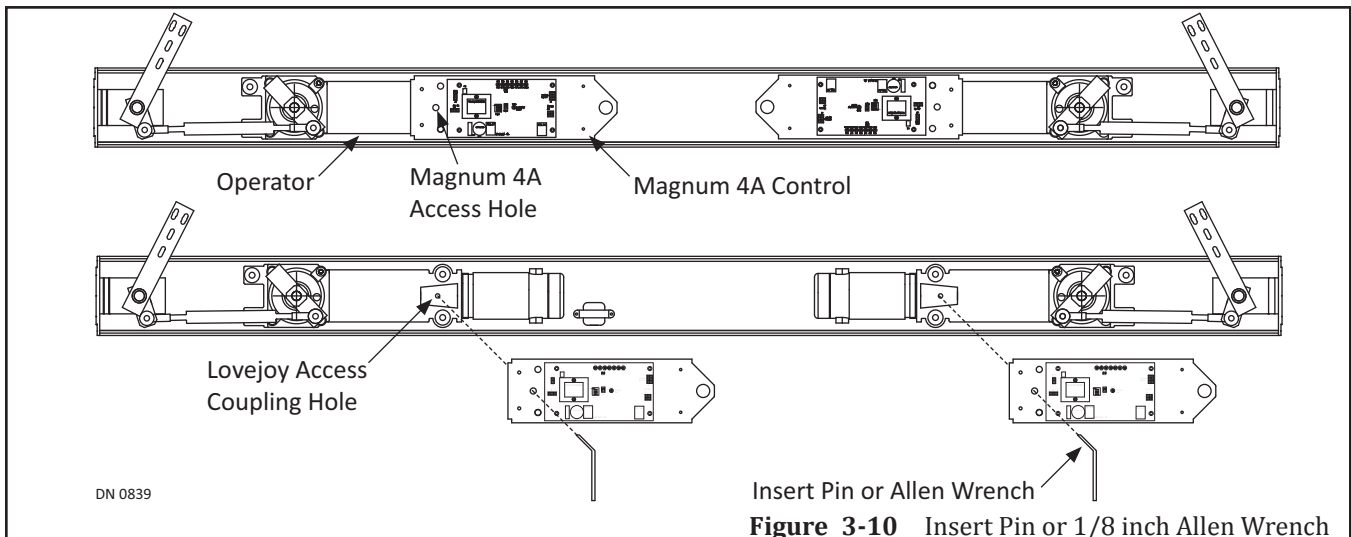


Figure 3-10 Insert Pin or 1/8 inch Allen Wrench

4. With both Guide Channels locked into the 90 degree open position, secure Header to the rough opening:
 - ▶ Standard Fold Door
 - Use 1/4 inch diameter anchors with a maximum 48 inches on center. First anchor maximum is 36 inches from each end of the Header. Secure with appropriate Fasteners.
 - ▶ Hurricane Fold Door
 - Screw in anchors to secure the Frame (per manufacturer's certification document(s)).

CHAPTER 4: 110 VAC GENERAL WIRING

The Magnum 4A Control Bracket has (3) 7/8 inch Holes that can be used to secure a Cable Clamp or Conduit. Please see Figure 4-1.

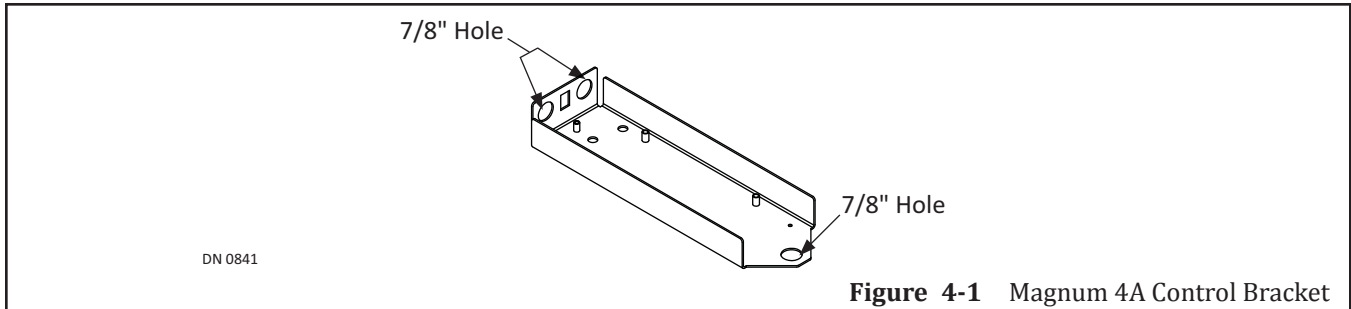


Figure 4-1 Magnum 4A Control Bracket

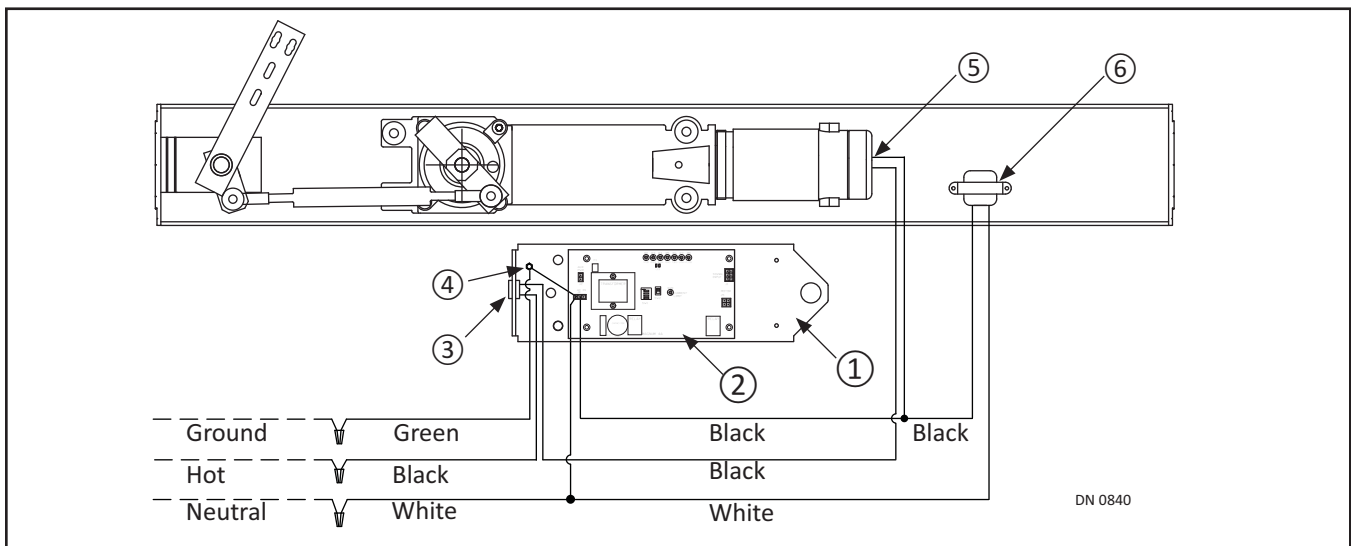
DANGER

Do not place finger or uninsulated tools inside electrical control box. Touching wires or other parts inside enclosure may cause electrical shock, serious injury or death.

1. Disconnect Power at Fused disconnect. Verify with voltmeter.
2. Route wiring away from moving parts and other low voltage wiring.

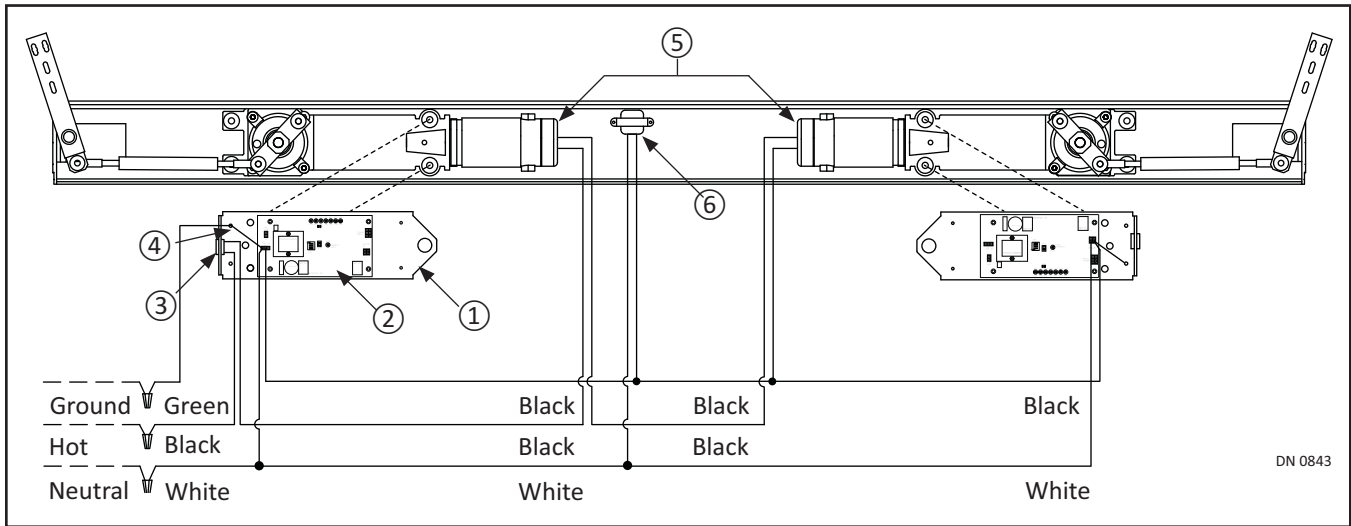
Note: Wire clamps are factory installed installed the Header to secure power wires as they come from the end of the Header.

4.a.a: Main Power Connections - Single Fold



- | | | |
|------------------------------|-----------------|-------------------------|
| 1. Magnum 4A Control Bracket | 3. Power Switch | 5. Motor Thermal Switch |
| 2. Magnum 4A Control | 4. Ground Screw | 6. Transformer |

4.a.b: Main Power Connections - Bi-Fold - 2 Controls



- | | | |
|------------------------------|-----------------|-------------------------|
| 1. Magnum 4A Control Bracket | 3. Power Switch | 5. Motor Thermal Switch |
| 2. Magnum 4A Control | 4. Ground Screw | 6. Transformer |

CHAPTER 5: INSTALL THE FOLDING DOOR

Section 5a: Install the Bottom Pivot (Floor Portion)

1. Obtain the Bottom Pivot Parts Box (P/N 22-9643) provided by NABCO.
 - a. (2) 1/4 - 20 round head screws provided by the Pivot Manufacturer are not required.
2. Obtain the Bottom Pivot (Floor Portion) from the Parts Box.
3. Insert the Bottom Pivot into Notch located at the bottom of Jamb tube. Please see Figure 5-1.
4. Temporarily secure Bottom Pivot to Jamb tube with (1) 1/4-20 x 7/8 inch Flat Head screw.

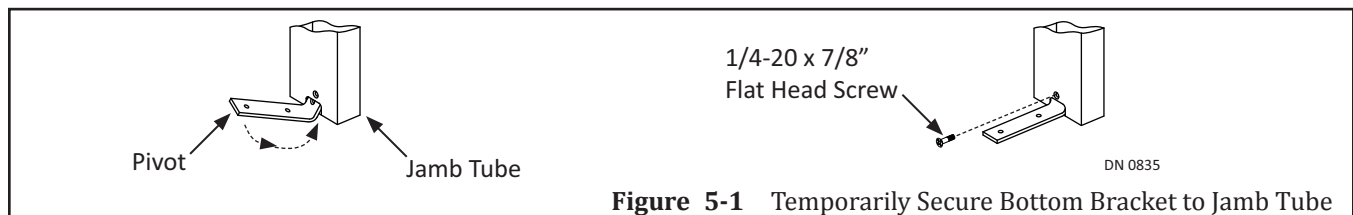


Figure 5-1 Temporarily Secure Bottom Bracket to Jamb Tube

5. Using the Bottom Pivot as a template, drill down through (2) screw holes with a 1/4 inch Masonry drill bit at least 1-1/2 inches into the floor.
6. Remove the Bottom Pivot Floor Portion.
7. Insert (1) 1 inch Anchor into each drilled hole. Please see Figure 5-2.
8. Replace Bottom Pivot. Align screw holes with Anchors.
9. Secure Bottom Pivot to Jamb tube with (1) 1/4-20 x 7/8 inch Flat Head screw.
10. Obtain the Pivot Base Bracket from the Parts Box.
11. With the open end pointing to Jamb Tube, align screw holes with the Bottom Pivot.
 - a. If deemed necessary, the Pivot Plate can be adjusted by sliding it in either direction.
12. Secure the Pivot Base Bracket to the Bottom Pivot and to the floor by inserting (1) #14 x 1-1/2 inch Flat Head screw into each Anchor.
13. Screw the Pivot Bearing onto the Thread Post.

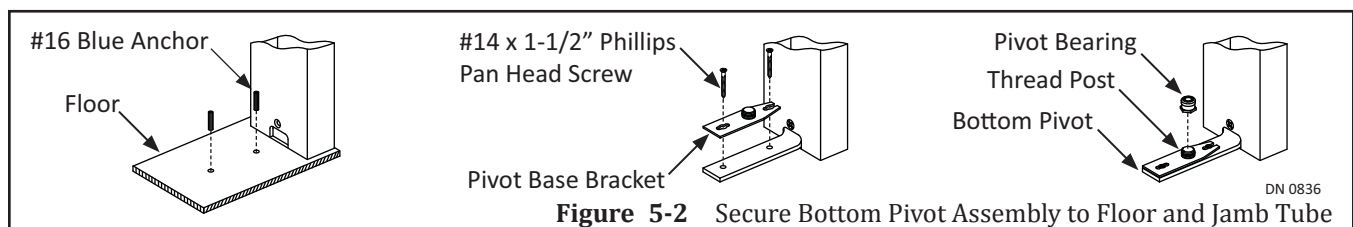
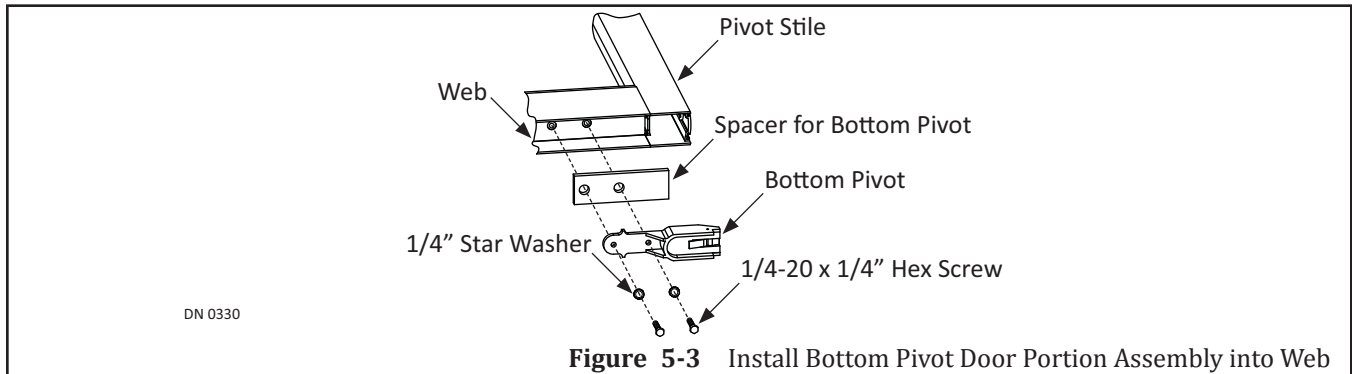


Figure 5-2 Secure Bottom Pivot Assembly to Floor and Jamb Tube

Section 5b: Install the Bottom Pivot (Door Portion)

1. Obtain the Folding Door provided by NABCO.
2. Lay the Folding Door on a flat surface.
 - a. Protect Folding Door from scratches.

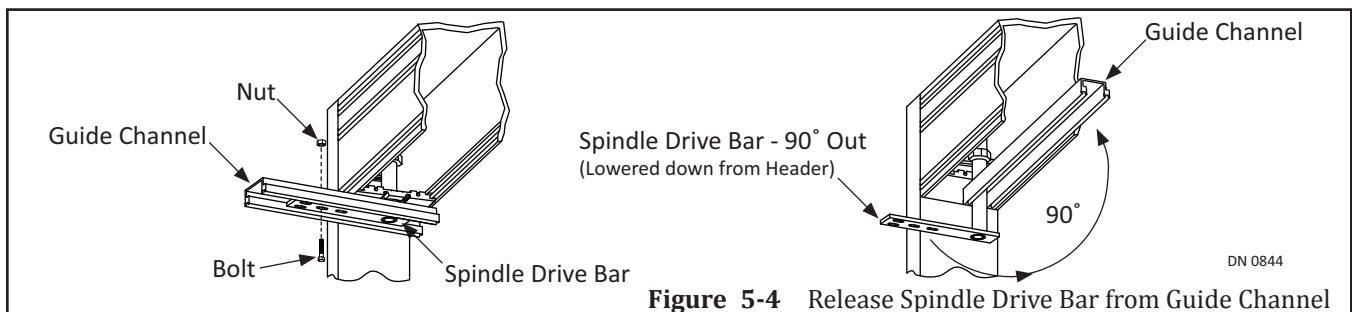
3. Go to the Bottom Rail. Locate (2) pre-drilled holes inside Web. Please see Figure 5-3.
4. Lay the Bottom Pivot (Door Portion) onto the Spacer. Align screw holes to the Web.
5. Secure the Bottom Pivot to the Spacer and to the Web within the Bottom Rail with (2) 1/4 - 20 x 1-1/4" Hex Screws.



Section 5c: Secure Spindle Drive Bar to Folding Door

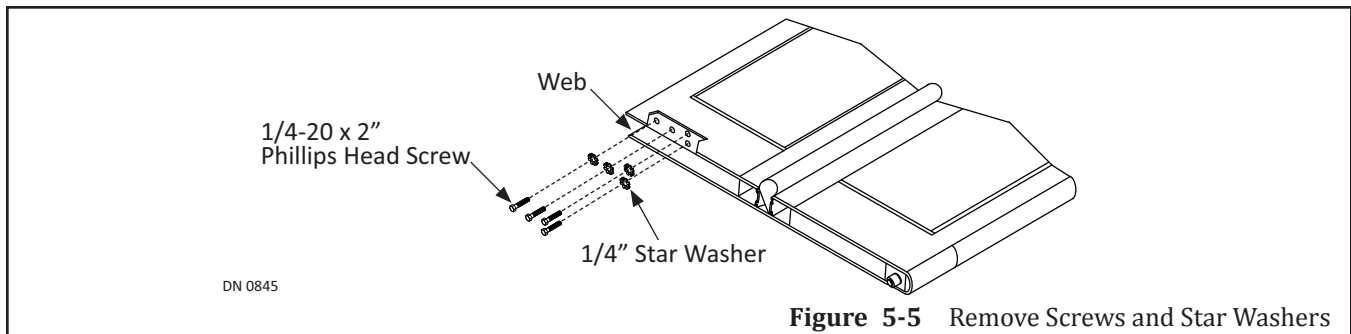
Note: The Drive Bar is installed to the Channel Guide at the NABCO Factory for shipping purposes only and must be removed from the Channel Guide before the Folding Door can be installed.

1. Ensure the Pin or 1/8 inch Allen Wrench is still inserted into the Lovejoy Coupling Access Hole. If not, please follow instructions listed in Section 3d; Steps 3 thru 4.
2. Go to the Spindle Drive Bar. Remove the Hex Bolt and Nut. Please see Figure 5-4.
 - a. Please refer to the Shipping Sticker located on the Spindle Drive Bar.
3. Release the Spindle Drive Bar from the Guide Channel.
 - a. The Spindle Drive Bar can be pushed up into the Header or down into the Top Web of the Folding door, but will remain at a 90 degree angle.
 - b. The Guide Channel can now freely swing closed or open.
4. Swing the Guide Channel up against the Magnetic Latch.

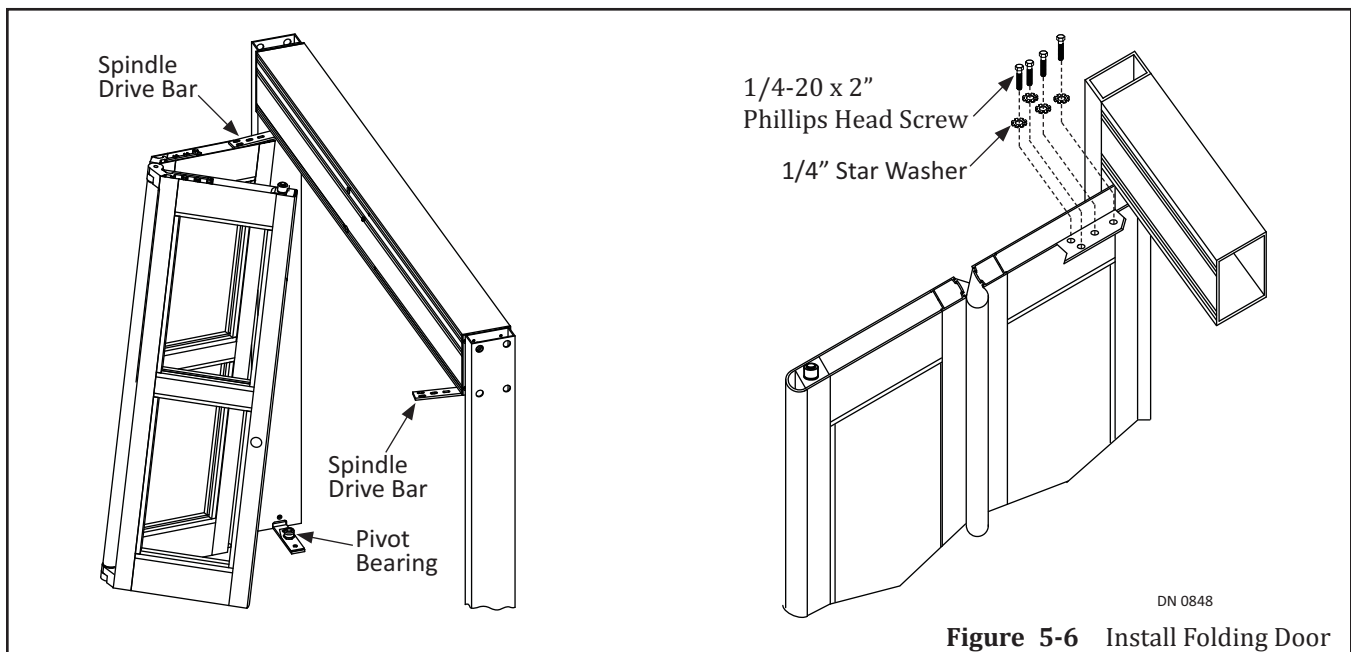


Section 5d: Secure Folding Door to Frame

1. With the Folding Door still on a flat surface, go to the Pivot End of the Top Web.
2. Remove (4) 1/4-20 x 3/4 inch Hex Head Screws and (4) 1/4 inch Star Washers from Riv-nuts located inside the Web. Save hardware for reinstallation. Please see Figure 5-5.



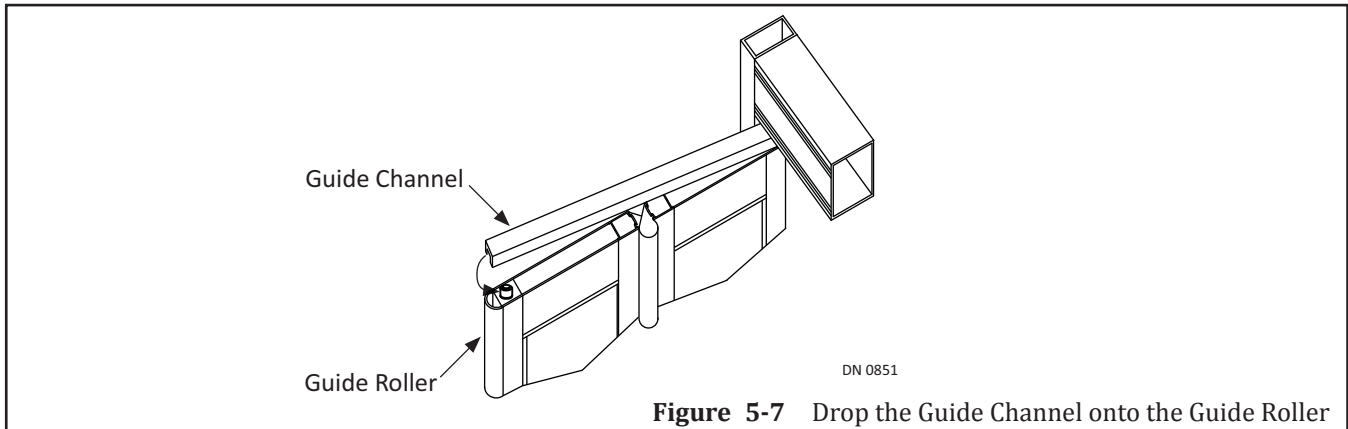
3. Lift the Folding Door from the flat surface. Please see Figure 5-6.
 - a. Keep Door Panels loosely folded.
4. Tilt the Folding Door to slide the Spindle Drive Bar into the Pivot end of Top Web.
 - a. The Spindle Drive Bar can be pushed up inside the Header to allow clearance.
5. Upright the Folding Door to slide the Bottom Pivot onto the Pivot Bearing located inside the Bottom Rail.
6. Go back to the Top Web. Lower the Spindle Drive Bar until it butts up against the Web.
7. Secure the Spindle Drive Bar to the Web with (4) 1/4-20 x 3/4 inch Hex Head Screws and (4) 1/4 inch Star Washers that were saved for reinstallation.
 - a. Do not tighten down bolts at this time.
 - b. Bolts need to be loose enough to allow the Folding Door to be adjusted.
 - c. It may be necessary to adjust the preload of the Folding Door at a later time.



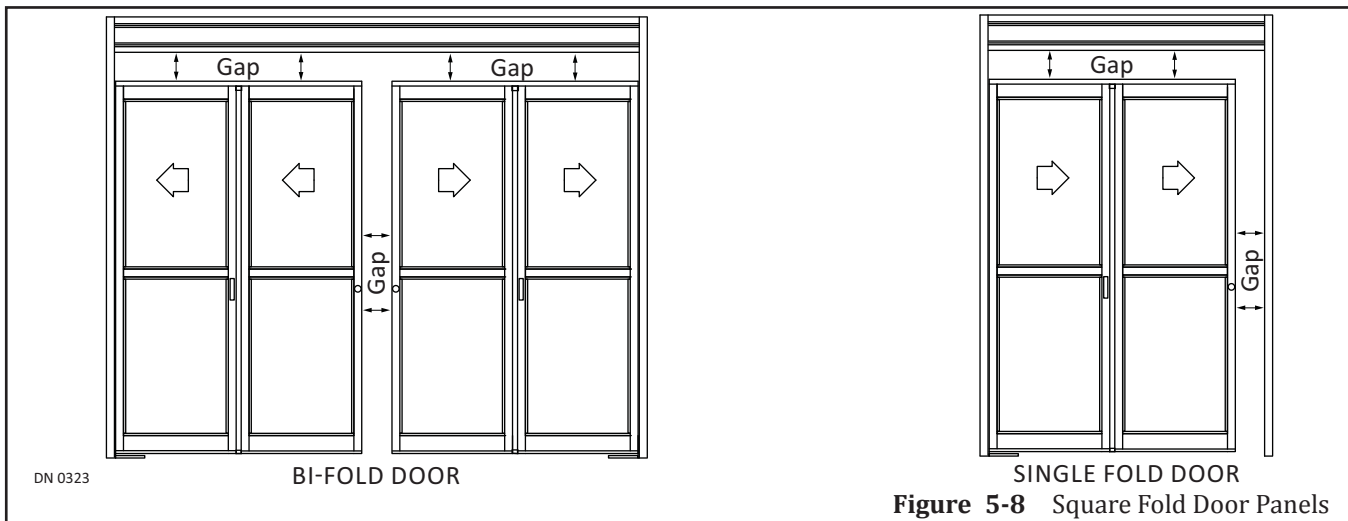
Section 5e: Secure Guide Channel to Folding Door

1. Manually hold open the Folding door while removing the Pin or 1/8 inch Allen Wrench from the Lovejoy Coupling Access Hole.

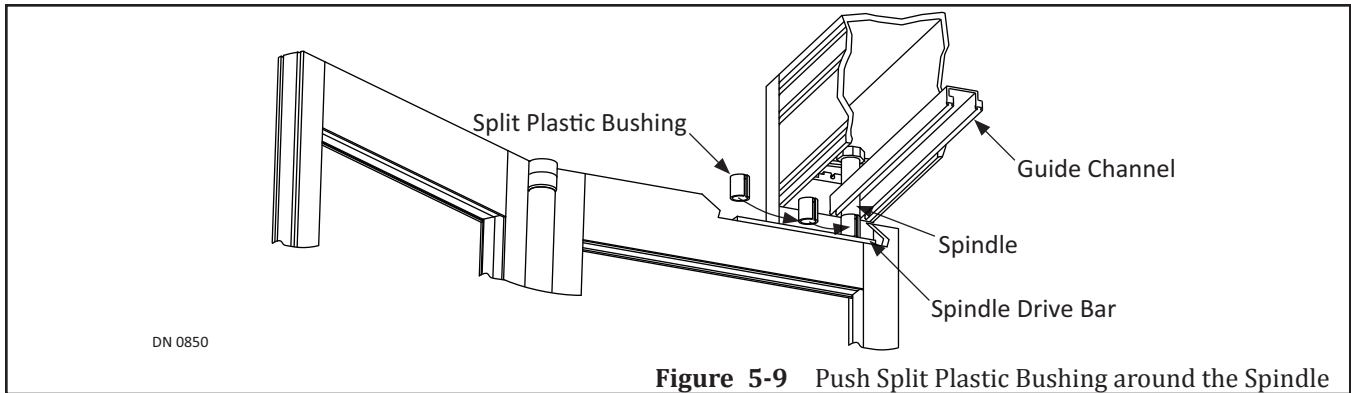
- a. Allow the Folding door to close without slamming closed.
2. Swing out and then lift the Guide Channel so it is directly on top of the Guide Roller located inside the Top Web at the Strike end. Drop the Guide Channel onto the Guide Roller.
3. Ensure gap at the top of Door Panel is parallel to the Header and the gap at the top of Doors are parallel to each other.



4. Ensure gap between the Strike Door and Strike Jamb Tube are parallel to each other and gap between Bi-Fold Doors are parallel to each other. Please see Figure 5-8.
5. It is important for all gaps to be parallel to each other. Move the Strike end of each Door Panel up or down until it is square within the door Frame.
6. Tighten down the (4) 1/4-20 x 3/4 inch Hex Head screws and (4) 1/4 inch Star Washers.



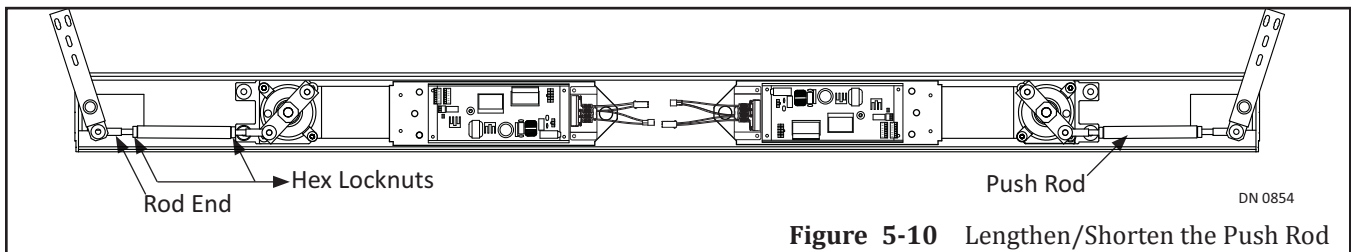
7. Push on the Bar located in the middle of (2) Door Panels to manually fold open the Door. Please see Figure 5-9.
8. Go to the Spindle Drive Bar located inside the Top Web, at the Pivot end.
9. Obtain (1) Split Plastic Bushing that was provided by NABCO.
10. Push the Split Plastic Bushing around the Spindle between the Guide Channel and Spindle Drive Bar.



Section 5f: Adjust Folding Door

Note: Each Push Rod has been pre-installed at the NABCO Factory to ensure the Folding door will fully close under normal operation. However, after installation adjustments may be necessary.

1. Go to the Push Rod that needs to be adjusted. Loosen both Hex Locknuts.
 - a. One Hex Locknut has left hand threads, the other Hex Locknut has right hand threads.
2. Turn the Push Rod clockwise or counterclockwise to lengthen or shorten the Push Rod until the Folding Door can fully close with both door panels flat.
 - a. One end of each Push Rod has left-hand threads; the other end has right hand threads.
3. Re-tighten both Hex Locknuts. Do not overtighten.



CHAPTER 6: INSTALL THE DOOR PANEL

3.1 Install the (Floor Portion) of Bottom Pivot

1. Obtain the Bottom Pivot Parts Box (P/N 22-9643) provided by NABCO.
 - a. (2) 1/4 - 20 round head screws provided by the Pivot Manufacturer are not required.
2. Obtain the Bottom Pivot (Floor Portion) from the Parts Box.
3. Insert the Bottom Pivot into Notch located at the bottom of Jamb tube.
4. Secure the Bottom Pivot with (1) 1/4-20 x 7/8 inch Flat Head screw.

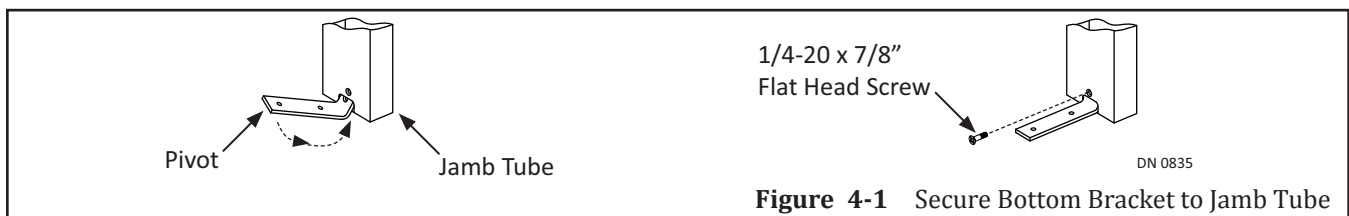


Figure 4-1 Secure Bottom Bracket to Jamb Tube

5. Using the Bottom Pivot as a template, drill down through (2) screw holes with a 1/4 inch Masonry drill bit at least 1-1/2 inches into the floor.
 6. Insert (1) 1 inch Anchor into each drilled hole.
 7. Obtain the Pivot Base Bracket from the Parts Box.
 8. With the open end pointing to Jamb Tube, align screw holes with the Bottom Pivot (The Pivot Plate can be adjusted by sliding it in either direction).
 9. Secure the Pivot Base Bracket to the Bottom Pivot and to the floor by inserting (1) #14 x 1-1/2 inch Flat Head screw into each Anchor.
1. Screw the Pivot Bearing onto the Thread Post.

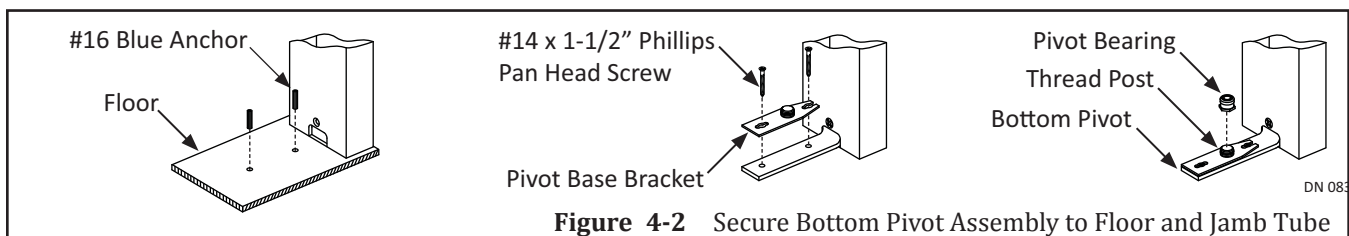
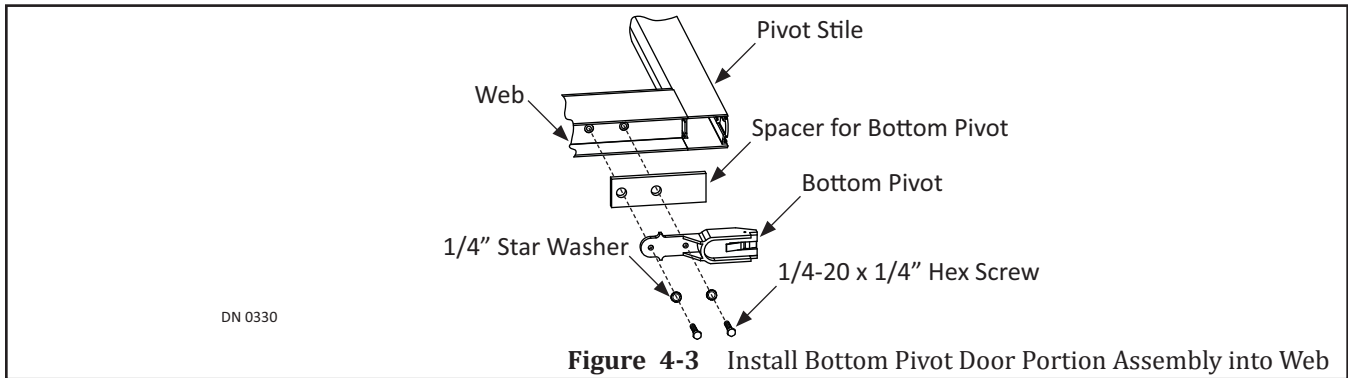


Figure 4-2 Secure Bottom Pivot Assembly to Floor and Jamb Tube

3.2 Install the (Door Portion) of Bottom Pivot

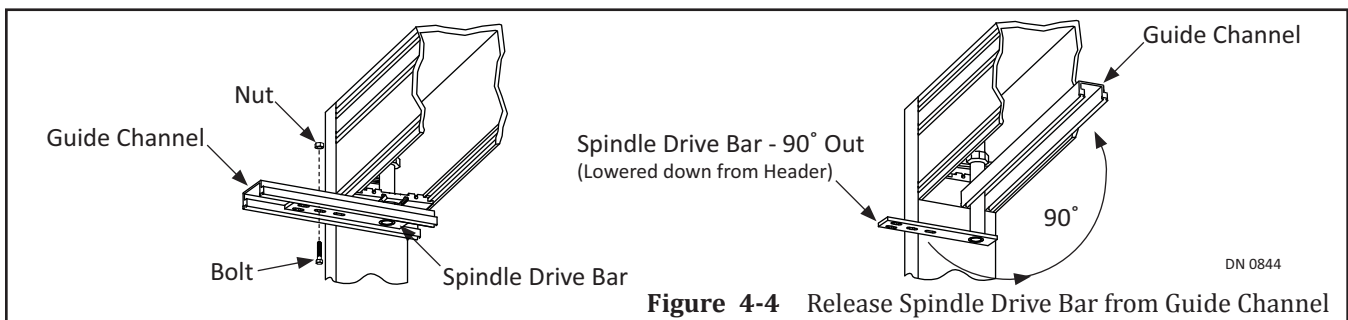
1. Lay the Folding Door on a flat surface.
2. Go to the Bottom Rail. Locate (2) pre-drilled holes inside Web.
3. Lay the Bottom Pivot (Door Portion) onto the Spacer. Align screw holes to the Web.
4. Secure the Bottom Pivot to the Spacer and to the Web within the Bottom Rail with (2) 1/4 - 20 x 1-1/4" Hex Screws.



3.3 Secure Spindle Drive Bar to Folding Door

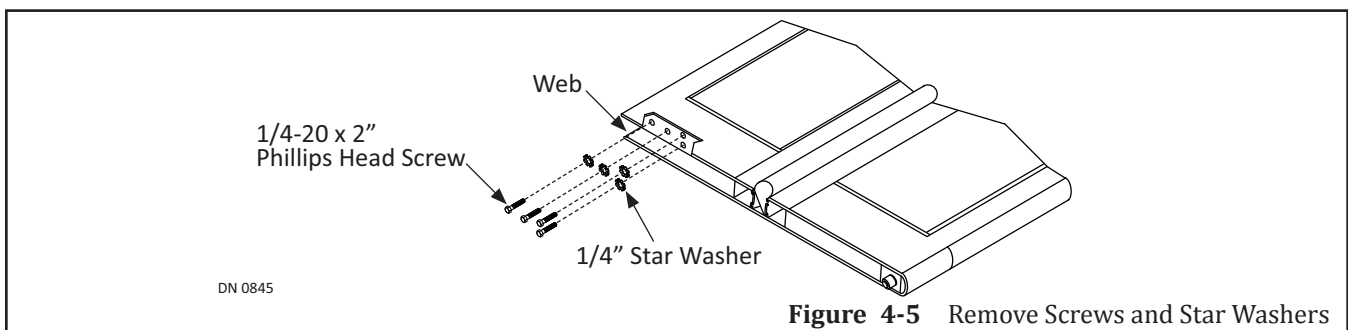
Note: The Drive Bar is installed to the Channel Guide at the NABCO Factory for shipping purposes only and must be removed from the Channel Guide before the Folding Door can be installed.

1. Ensure the Pin or 1/8 inch Allen Wrench is still inserted into the Lovejoy Coupling Access Hole.
2. Go to the Spindle Drive Bar. Remove the Hex Bolt and Nut.
 - a. Please refer to the Shipping Sticker located on the Spindle Drive Bar.
3. Release the Spindle Drive Bar from the Guide Channel.
 - a. The Spindle Drive Bar can be pushed up toward the Header or down into the Top Web of the Folding door, but will remain at a 90 degree angle.
 - b. The Guide Channel can now freely swing closed or open.
4. Swing the Guide Channel up against the Magnetic Latch.



3.4 Secure Folding Door to Frame

1. With the Folding Door still on a flat surface, go to the Pivot End of the Top Web. Remove (4) 1/4-20 x 3/4 inch Hex Head Screws and (4) 1/4 inch Star Washers from Riv-nuts located inside the Web. Save hardware for reinstallation.



2. Lift the Folding Door from the flat surface. Keep Door Panels loosely folded.
3. Tilt the Folding Door to slide the Spindle Drive Bar into the Pivot end of Top Web. The Spindle Drive Bar can be pushed up toward the Header to allow clearance.
4. Upright the Folding Door to slide the Bottom Pivot onto the Pivot Bearing located inside the Bottom Rail.
5. Go back to the Top Web. Lower the Spindle Drive Bar until it butts up against the Web.
6. Secure the Spindle Drive Bar to the Web with (4) 1/4-20 x 3/4 inch Hex Head Screws and (4) 1/4 inch Star Washers that were saved for reinstallation.
 - a. Do not tighten down bolts at this time. Bolts need to be loose enough to allow the Folding Door to be adjusted.

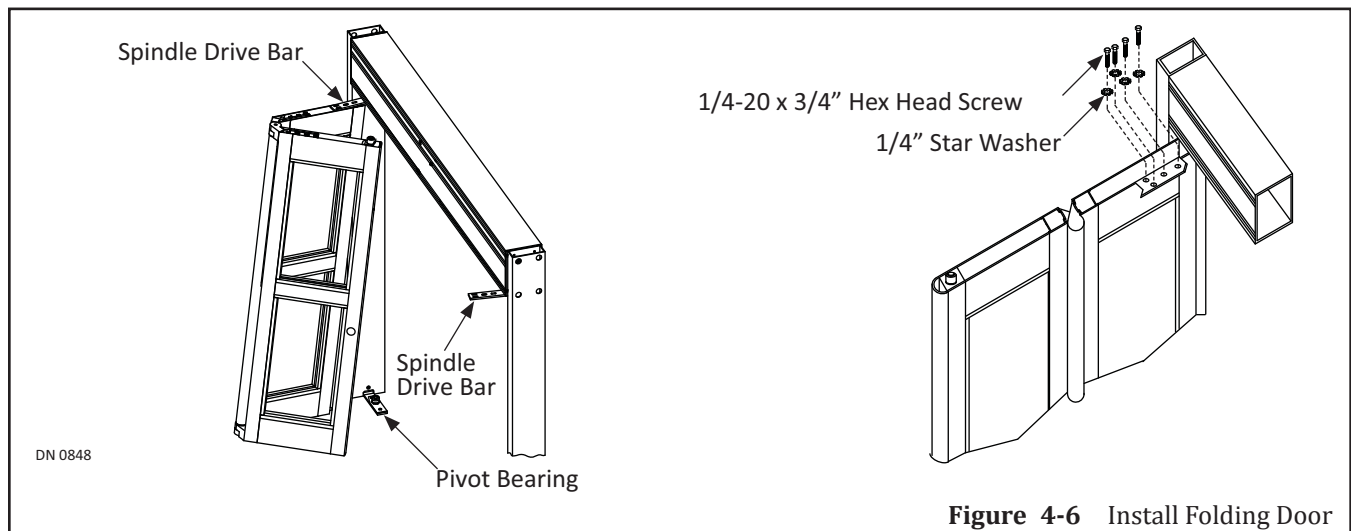


Figure 4-6 Install Folding Door

3.5 Secure Guide Channel to Folding Door

1. Manually hold open the Folding door while removing the Pin or 1/8 inch Allen Wrench from the Lovejoy Coupling Access Hole.
2. Swing out and then lift the Guide Channel so it is directly on top of the Guide Roller located inside the Top Web at the Strike end. Drop the Guide Channel onto the Guide Roller. Allow the Folding door to close without slamming closed.

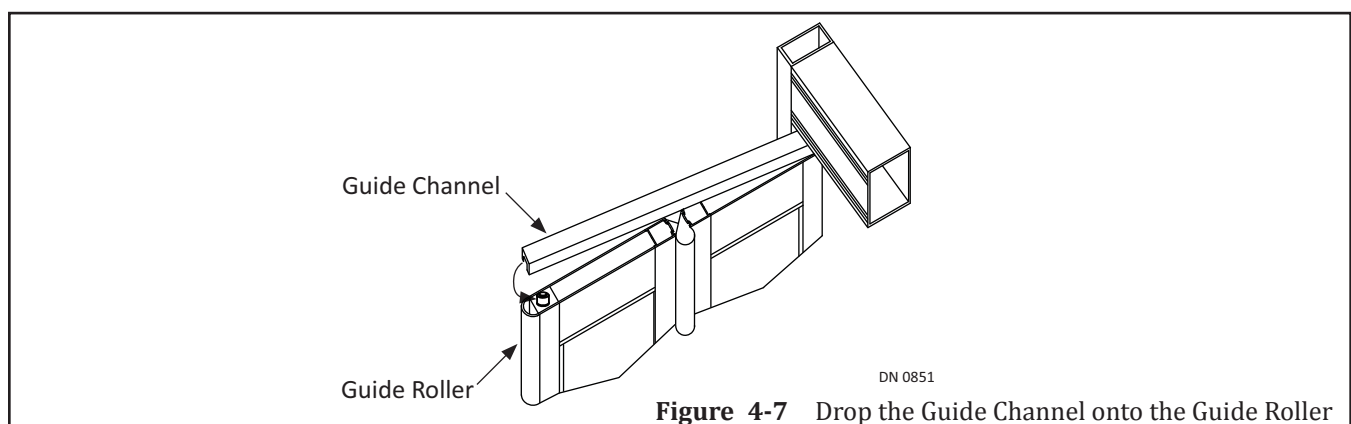
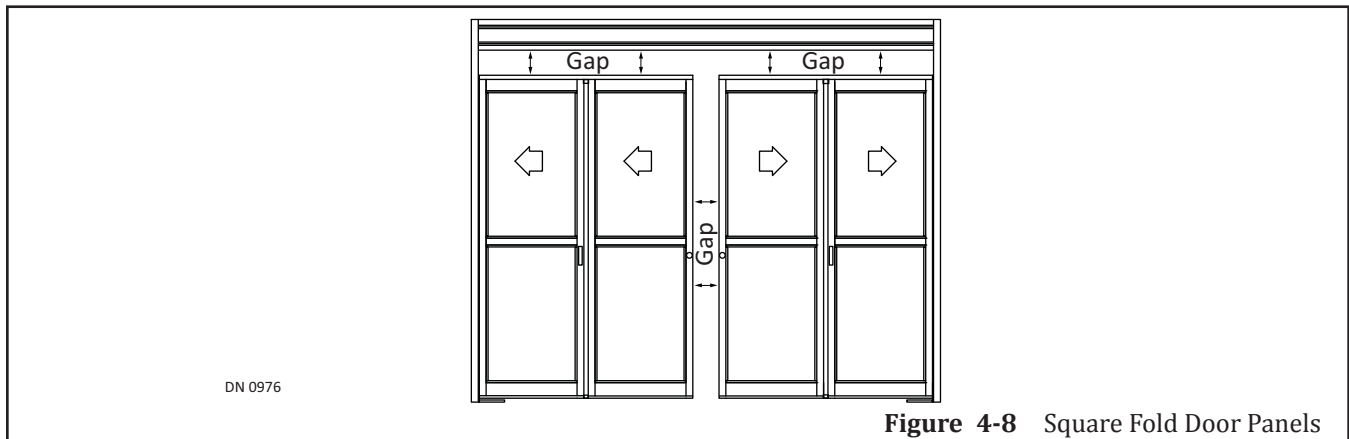
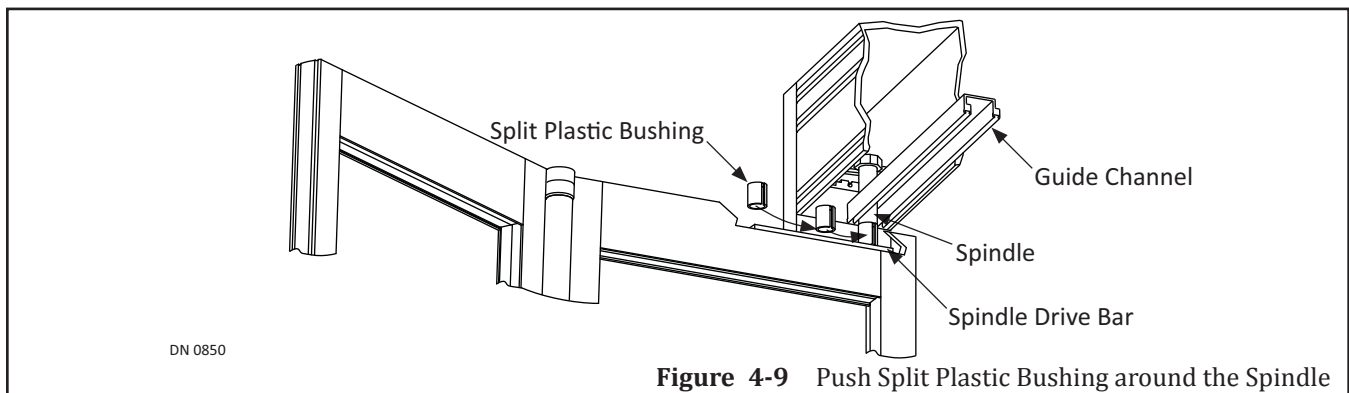


Figure 4-7 Drop the Guide Channel onto the Guide Roller

3. Adjust Door Panels so the gaps around the Top, Bottom, and Sides are parallel to the Jamb Tubes, Header, and Threshold.
 - a. Adjustments can be done using the Top Pivot Bracket and Bottom Pivot Bearing.
4. Tighten down the (4) 1/4-20 x 3/4 inch Hex Head screws and (4) 1/4 inch Star Washers.



5. Push on the Bar located in the middle of Bi-Fold Panels to manually fold open the Door.
6. Go to the Spindle Drive Bar located inside the Top Web, at the Pivot end.
7. Obtain (1) Split Plastic Bushing that was provided by NABCO.
8. Push the Split Plastic Bushing around the Spindle between the Guide Channel and Spindle Drive Bar.



CHAPTER 7: TROUBLESHOOTING

Magnum 4A Troubleshooting Chart		
Problem	Solution	
Operator does not function	Cause	Fuse 1 (F1) may be blown.
	Resolution	Replace Fuse.
	Cause	Fuse installed on Brake Module may be blown.
	Resolution	Test and Replace Fuse.
	Cause	No incoming power.
	Resolution	Ensure 120 VAC incoming power is connected.
	Cause	J5 Motor circuit may not be properly connected.
	Resolution	<ol style="list-style-type: none"> Go to J5 Motor Feed. Check connections to Pin (1) and Pin (2) and also both Motor Leads connected to brake module. Replace motor if necessary.
	Cause	Current consumption overload.
	Resolution	<ol style="list-style-type: none"> Go to Terminal Block. Check current consumption at Terminals 1 & 2. If current draw exceeds 0.5 amps at 24 VAC, disconnect auxiliary devices such as sensors from Terminals 1 and 2 and install an alternate power supply such as a Transformer.
	Cause	Motor may be blown.
	Resolution	Replace motor.
	Cause	Safety circuit is activated.
	Resolution	<ul style="list-style-type: none"> Check to ensure Dip Switch (2) is set correctly. Ensure safety sensors are not activated.
Door slams closed	Cause	Closing speed on Magnum control needs adjustment.
	Resolution	<ol style="list-style-type: none"> Go to CLOSE Potentiometer. Operation should continue as soon as recycling is done. Turn counterclockwise to decrease closing speed.
	Cause	Motor circuit may be open.
	Resolution	<ol style="list-style-type: none"> Go to J5 Motor Feed. Check connections on Pin (1) and Pin (2).
	Cause	Latch Check may be set too high.
	Resolution	<ol style="list-style-type: none"> Go to LCHK Potentiometer. Turn counterclockwise to decrease speed.
Door slams open	Cause	Back Check may be set too high.
	Resolution	<ol style="list-style-type: none"> Go to BCHK Potentiometer on Magnum 4A Control board. Turn counterclockwise to decrease speed.
	Cause	Operator may not be correctly preloaded.
	Resolution	Pre-load operator by correctly installing arm on operator spindle per hardware installation manuals.

Magnum 4A Troubleshooting Chart		
Problem	Solution	
Fuse 1 (F1) or Fuse 2 (F2) blows when OPEN Potentiometer is activated	Cause	Current consumption overload.
	Resolution	<ol style="list-style-type: none"> 1. Go to Terminal Block. 2. Check current consumption at Terminals 1 & 2. 3. If power exceeds 0.5 amps at 24 VAC, disconnect auxiliary devices such as sensors from terminals 1 and 2 and install an alternate power supply such as a transformer.
Motor spins when activated but door does not open.	Cause	Motor connected backwards.
	Resolution	Reverse motor leads on motor.
	Cause	Motor/Operator coupling or spider coupling loose between motor and operator.
	Resolution	<ol style="list-style-type: none"> 1. Remove motor and operator from Header. 2. Separate motor from operator. 3. Inspect couplings for looseness.
Back Check adjustment on Magnum 4A has no effect.	Cause	Door is not going into Back Check at 80 ° position.
	Resolution	<ul style="list-style-type: none"> • Pre-load operator by correctly installing arm on operator spindle per Hardware Installation manuals
No Back Check.	Cause	Back Check switch may not be closing at correct position.
	Resolution	Pre-load operator by correctly installing arm on operator spindle per Hardware Installation manuals
Door does not stay tightly closed.	Cause	Preload may not be correct.
	Resolution	Pre-load operator by correctly installing arm on operator spindle per hardware installation manuals.
Safety Sensor does not function.	Cause	No power to sensor.
	Resolution	Check wiring on harness and power to sensor.
	Cause	Sensor may not be properly connected to Terminal Block.
	Resolution	<ol style="list-style-type: none"> 1. Go to Terminal Block. 2. Connect the output of sensor to: <ul style="list-style-type: none"> • Header mounted sensor: Terminals 5 (Red) and Terminal 4 (White) • Door mounted sensor: Terminals 5 (Red) and Terminal 3 (Violet).
	Cause	Dip Switch (2) Safety may be Off instead of On or vice versa.
	Resolution	<ul style="list-style-type: none"> • Sensors using N.O. Contacts, turn Dip Switch ON. • Sensors using N.C. Contacts, turn Dip Switch OFF.
Header mounted Swing Side Presence Sensor is activated by opening or closing door.	Cause	Connection of Sensor to Terminal Block was to "Continuous Safety" not "Safety w/Lockout".
	Resolution	<ol style="list-style-type: none"> 1. Rewire Safety Sensor to "Safety w/Lockout". 2. Go to Terminal Block. 3. Connect the output of the Sensor to Terminal (5) Red Wire and Terminal (4) White Wire.

Magnum 4A Troubleshooting Chart		
Problem	Solution	
Sensor, safety mats, holding beams, or all other accessories mounted on swing side of door do not function while door is moving.	Cause	Connection of Sensor to Wiring harness to: "Safety w/Lockout" not "Continuous Safety".
	Resolution	<ol style="list-style-type: none"> 1. Rewire Safety Sensor to "Continuous Safety". 2. Go to Terminal Block. 3. Connect output of the Sensor to Terminal (5) Red Wire and Terminal (3) Violet Wire.
Sensor shows activation signal was sent; door does not open.	Cause	Sensor not properly connected activation circuit.
	Resolution	Check wiring on harness.
	Cause	Safety signal preventing door from opening.
	Resolution	Correct cause of safety signal.
One sensor does not activate both doors on a simultaneous pair.	Cause	Sensor is not connected to both control boards.
	Resolution	Install simultaneous pair harness (P/N 22-9953).