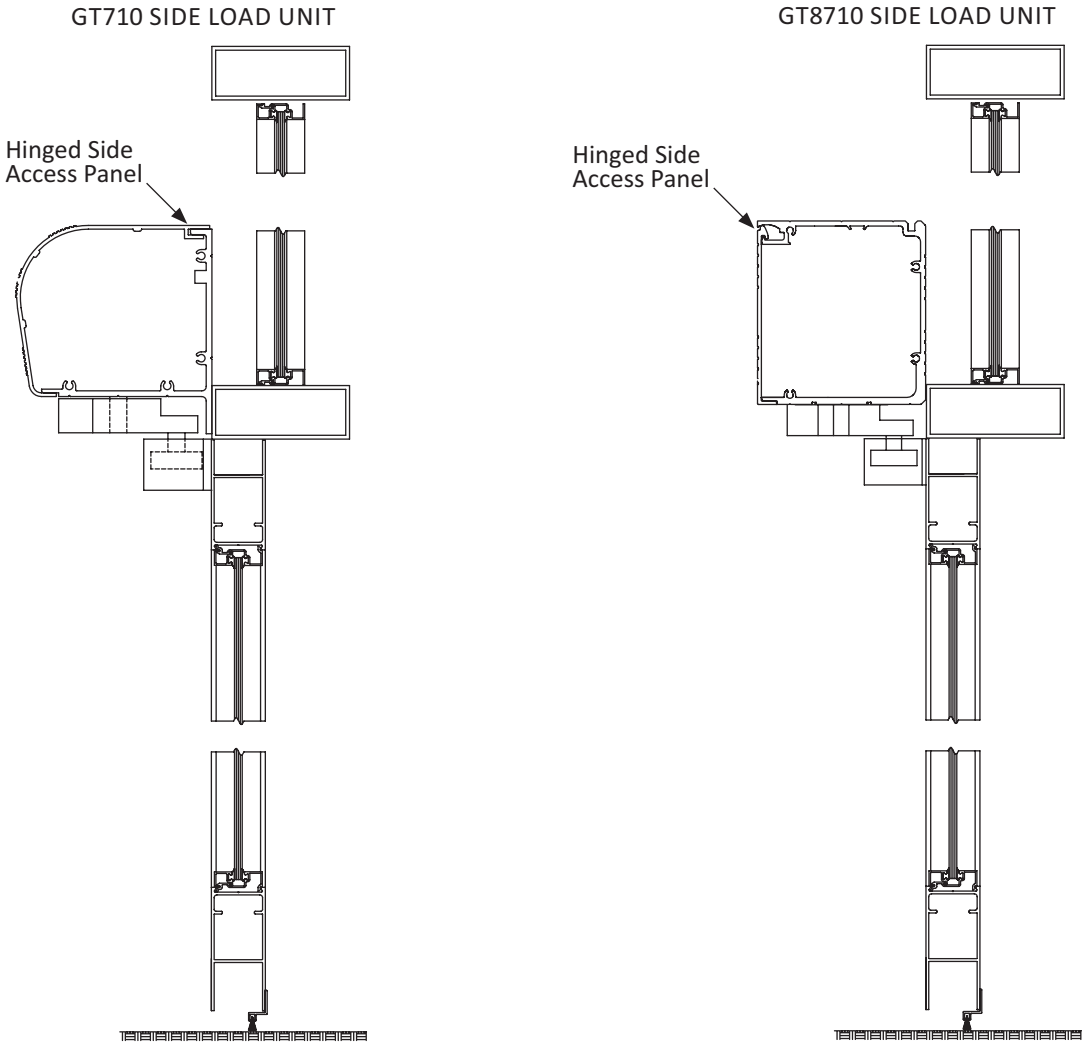




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Low Energy Operator Swing Door Systems

Side Load Units: GT 710 and 8710



DN 1078

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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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.

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

Read this “General Safety Recommendations” section before installing, operating or servicing the automatic door. Failure to follow these practices may result in serious consequences.

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.

WARNING

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

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

- ▶ 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.
- ▶ Disconnect power at the fused disconnect during all electrical or mechanical service. When uncertain whether power supply is disconnected, always verify using a voltmeter.
- ▶ All electrical troubleshooting or service must be performed by qualified electrical technicians and must comply with all applicable governing agency codes.
- ▶ It is the responsibility of the installing door technician to install all warning and instructional labels in accordance with ANSI 156.19.
- ▶ 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.

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.

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 156.19; ANSI Standard 117.1 and the Low Energy Operator section of ADA Standard covers the GT 710/8710 Swing Door Low Energy System. Other local standards or codes may apply. Use them in addition to the ANSI standard. Low Energy Swing door Units are 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 Swing door. The owner should follow these instructions to determine whether the door is operating properly and should immediately call for service if there is any malfunction. All installation changes and adjustments must be made by qualified, NABCO trained technicians.

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

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.**

Section 1b: Objective

GT 710/8710 Swing Door Low Energy Units are designed to be installed onto the top surface of the Door Frame. The Operator is controlled by the Magnum IV Control that offers many features to accommodate most installation options. This manual offers step by step instructions.

CHAPTER 2: GETTING STARTED

Section 2a: Electrical Standards

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

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

Electricity	Description
Power Input	120 (±10%) AC 50-60Hz, 10 Amps
Available Current for Accessories	0.5 Amps 24 VAC
Available wire size for incoming power	14 AWG

Section 2b: Installation Specifications

Specification	Measurement
Minimum Frame Face for Mounting	1-3/4 inches (44mm)
Minimum Clearance from Top of Door to Ceiling	7" (178 mm)
Door Hinge Requirements	3/4 inch Butt, Offset Pivot, or Center Pivot
Minimum Door Thickness	1-3/4 inches (44 mm)
Door Width	Specified when ordered

Section 2c: Base Unit Type

- ▶ Side Load Header only.
- ▶ Low Energy Swing doors 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.

DANGER

Always remove the bottom portion of the HandiCap Label stating “Push Door To Operate” if the “Push-n-Go” feature is not being used.

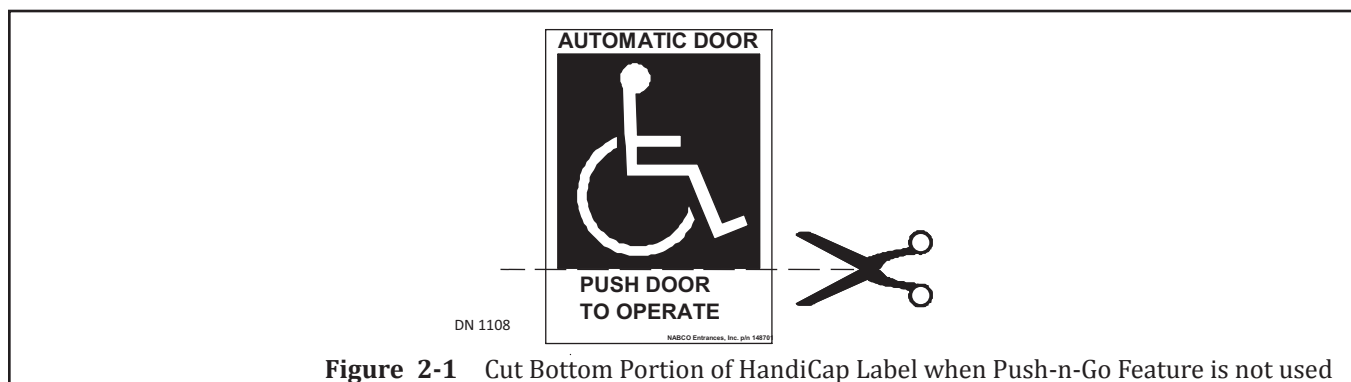
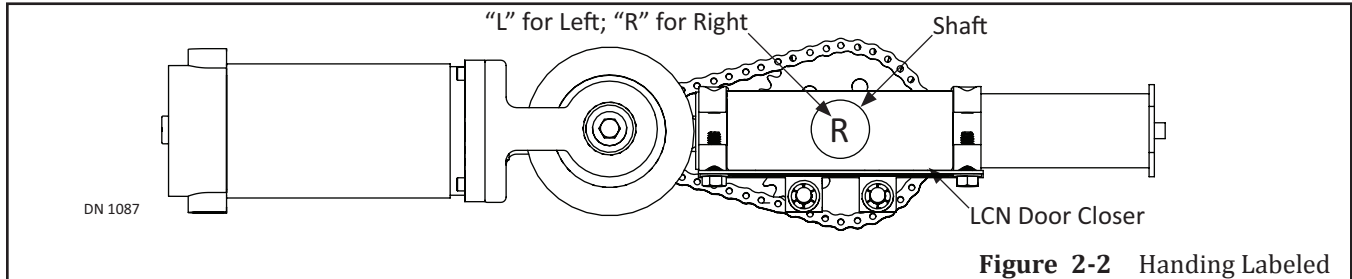


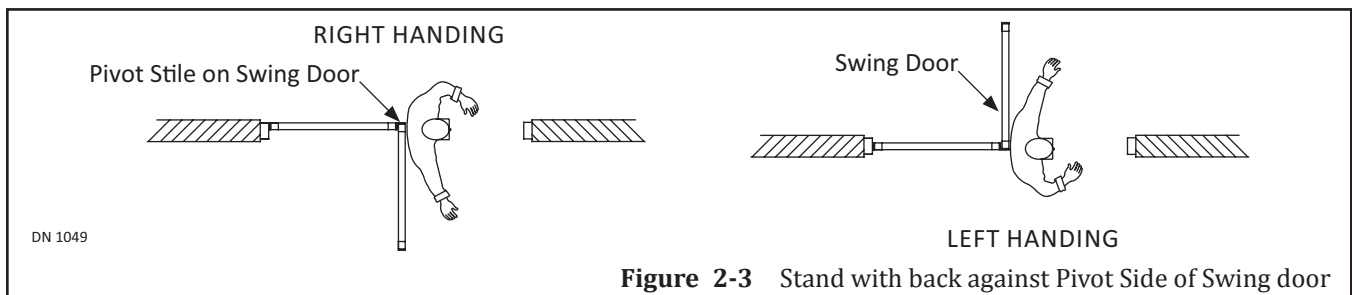
Figure 2-1 Cut Bottom Portion of HandiCap Label when Push-n-Go Feature is not used

Section 2d: How to Determine Handing

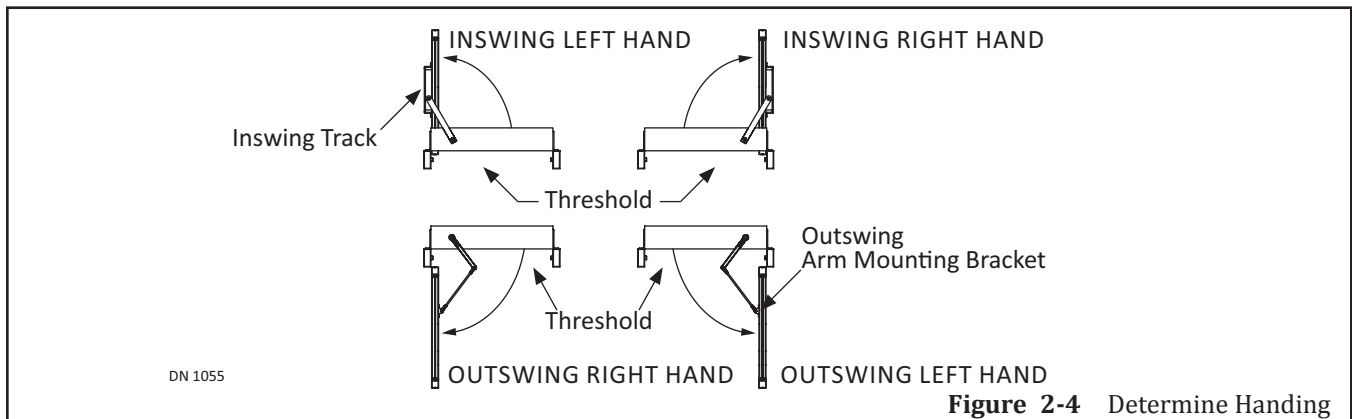
- ▶ To Determine Handing from the Operator: go to the top of the LCN Door Closer. The letter "R" or "L" will be marked on the Shaft by the NABCO Factory. Please see Figure 2-2.



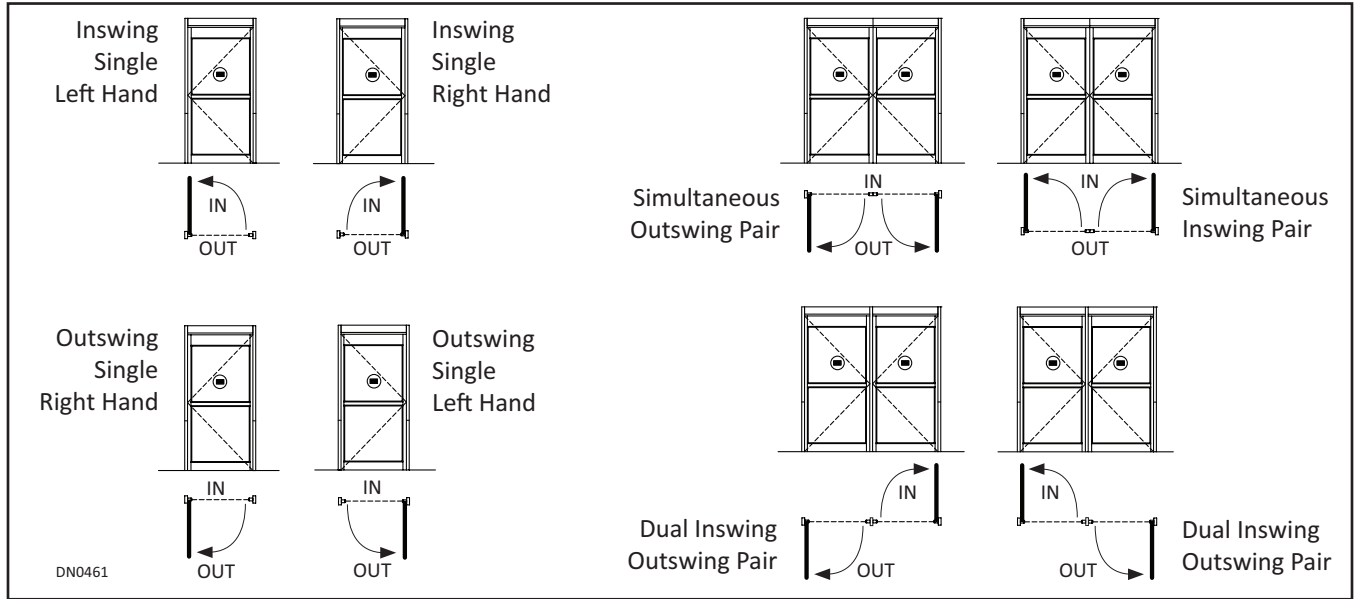
- ▶ To determine Handing from standing underneath the Header: Open the Swing door. Butt your back against the Pivot side of Swing door. Swing out the (right or left) arm in the direction the Swing door opened. Please see Figure 2-3.



- ▶ To determine Handing from the direction the Swing Arm opens. Please see Figure 2-4.
 - If the Swing Arm swings underneath the Threshold to open, it is an Outswing Unit.
 - If the Swing Arm does not swing underneath the Threshold to open, it is an Inswing Unit.



Section 2e: Swing Door Types



Section 2f: Associated Manuals Part Numbers

- ▶ Magnum IV Control Wiring and Adjustment Manual; P/N 15-10682
- ▶ GT710 Swing Door Low Energy Quick Setup and Parts Guide; P/N 15-12499-003

CHAPTER 3: INSTALL THE HEADER

Section 3a: Inswing Doors

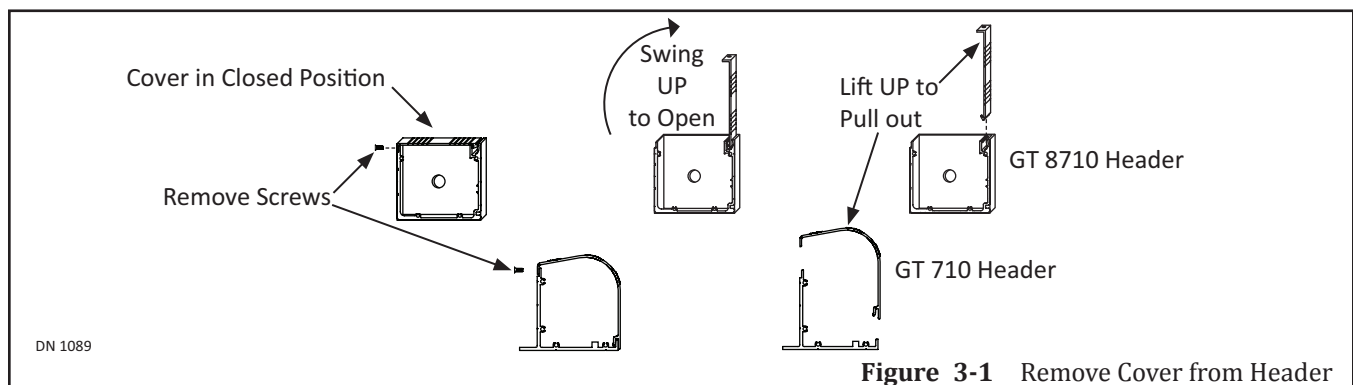
FOR OUTSWING UNITS SKIP TO SECTION 3B

1. Open the Swing door 90 degrees.
2. Measure between the wall and the outside face of the Swing Door.
 - a. There must be a 2 inch minimum gap.
 - b. If there is less than a 2 inch gap, please call Customer Service at (877) 622-2694.

Section 3b: Prepare the Header

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

1. Place Header on flat surface with Side facing up.
 - a. Protect header from scratches.
2. Remove two screws from underneath cover. Set Aside. Please see Figure 3-1.
3. Remove Cover by:
 - ▶ GT710: Lifting it straight off of Header.
 - ▶ GT8710: Lifting it up from Header, and then pulling it out.
4. Remove boxes and/or parts bags from inside Header. Set aside.

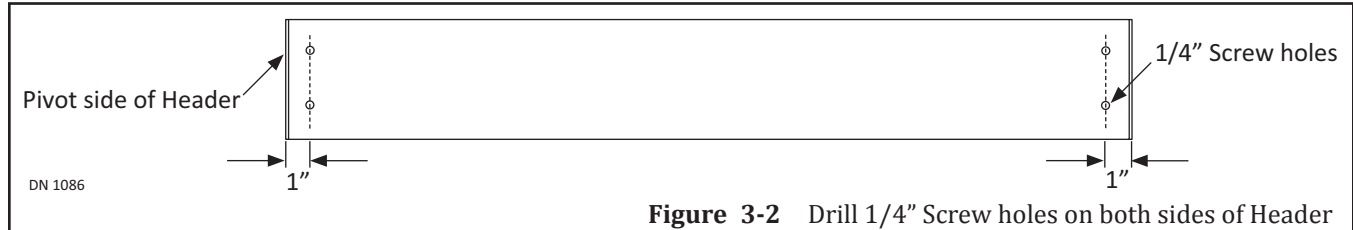


3.b.a: Drill Holes in Header (GT 8710)

FOR GT 710 UNITS SKIP TO SECTION 3C

1. Go to the Strike side of Header. Drill one 7/8 inch hole through the Header to allow all wiring to be drawn inside.
 - a. The GT-8710 Header can be ordered with a Knockout hole located at either end of the Header. For details, please call Customer Service at 1-888-679-3319.
2. Go to the back wall inside Header on the Pivot side. Please see Figure 3-2.

3. Measure 1 inch from the End Cap of Header towards the center. Mark a Vertical Line.
4. Measure at least 1/2 inch from the bottom of Header towards the top. Mark a Horizontal Line across the Vertical line. This is the center of the first screw hole. Drill 1/4 inch screw hole.
5. Mark (1) more Horizontal line across the Vertical line directly above the first screw hole. This is the center of the second screw hole. Drill 1/4 inch screw hole.
 - a. It may be necessary to install a Shim behind the Header if mounting the Header to a wall.
6. Go to the Strike side of Header. Repeat steps 3 thru 5.



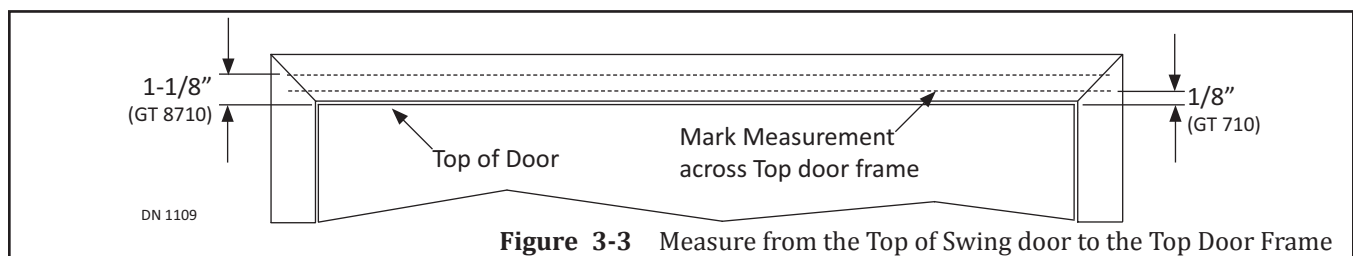
Section 3c: Prepare the Door Frame

Note: The following instructions are for typical Metal Doors and Frame Profile. It is recommended to use lag bolts.

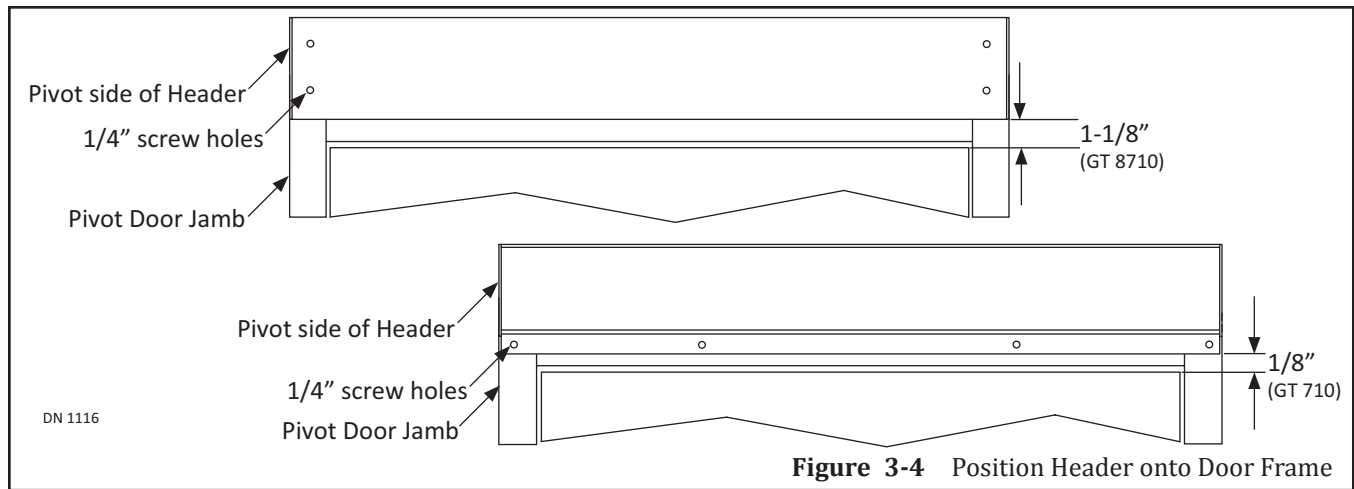
Note: If the Door Frame is not properly reinforced nor anchored to the building surface, and/or is hollow, reinforce the Door Frame with 1/4-20 blind rivnuts (not provided by NABCO).

Note: If the Door Frame is not Metal, ensure the Door Frame being used is of equal strength.

1. Go to the Pivot Side of Swing door.
2. Measure up from the Bottom edge of the Top door frame:
 - ▶ GT 710: 1/8 inch
 - ▶ GT 8710: 1-1/8 inch.
3. Mark a Horizontal Line on the face of Top door frame, at both ends. Please see Figure 3-3.



4. Lift the Header up against the Top door frame until the bottom edge of Header is butted up against the Horizontal Line, at both ends. Please see Figure 3-4.
5. To ensure proper operation of the Swing Arm:
 - ▶ For a Door Jamb that is 1-3/4 inches wide, position the Pivot side of Header so it is flush to the outside edge of the Pivot Door Jamb.
 - ▶ For a Door Jamb that is wider than 1-3/4 inches, measure from the inner edge of the Pivot Door Jamb to the center. Mark a vertical line at the 1-3/4 inch measurement. The Pivot side of Header must butt against the 1-3/4 inch mark.

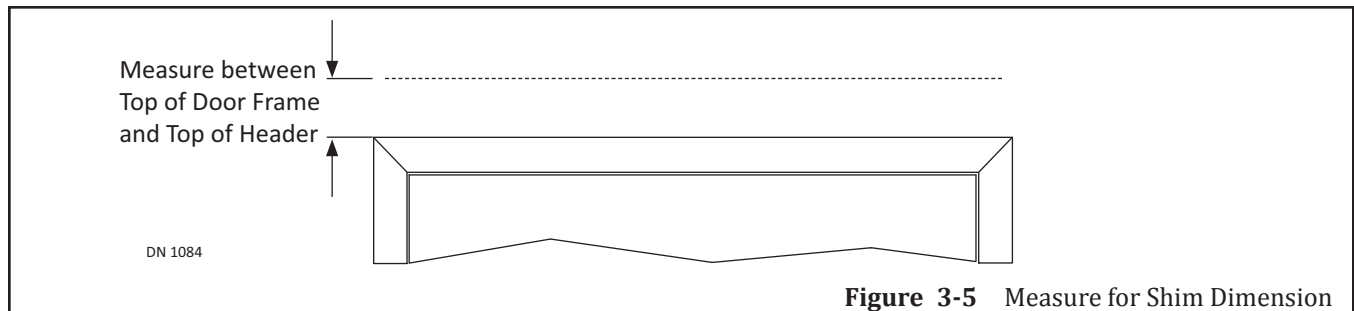


6. Ensure the Header is square and level.
7. Use the Header as a template to mark screw holes onto the face of the door frame.
8. Remove the Header. Set Aside.

3.c.a: Install Shim (Only if deemed necessary)

FOR UNITS NOT INSTALLING A SHIM SKIP TO SECTION 3D

1. Butt the Header up against the Horizontal line, line up the screw holes and then ensure the Header is square and level.
2. Go to the top of Header. Mark a horizontal line along the top edge of Header onto the wall. Please see Figure 3-5.
3. Measure the depth between the back side of the Header and the wall.
 - a. Write that measurement down and label it #1.
4. Measure the distance between the top of door frame and the horizontal line that was just drawn at the top of Header.
 - a. Write that measurement down and label it #2.



5. Obtain (1) Shim to be the same depth as measurement #1; no higher than measurement #2; and about the same width as the Header.
6. Secure the Shim to stud(s). It is recommended to use Lag Bolts. Please see Figure 3-6.

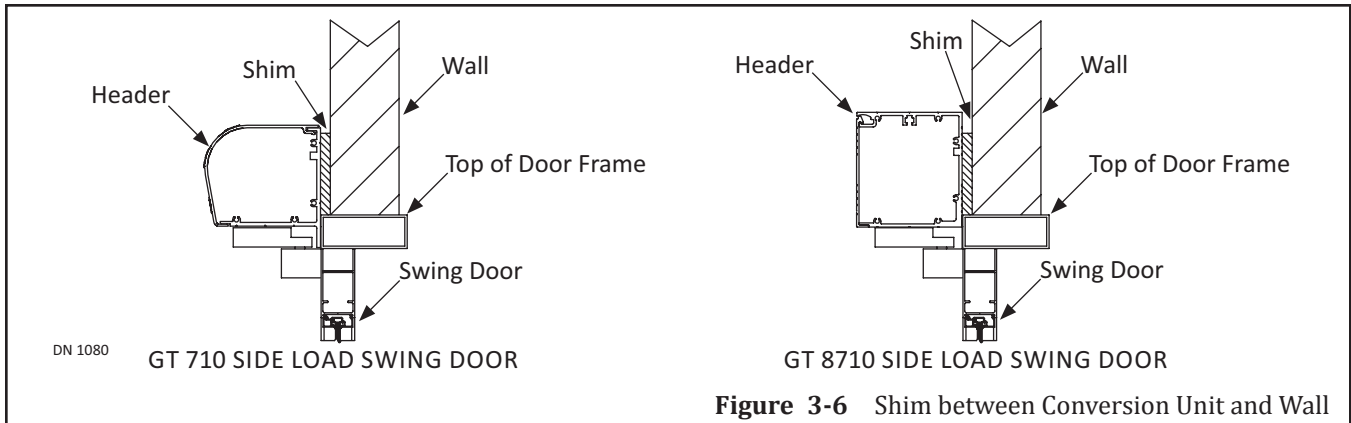


Figure 3-6 Shim between Conversion Unit and Wall

Section 3d: Secure Header to the Door Frame

1. Lift up the Header to insert Power Wiring through the 7/8 inch hole.
 - a. It is recommended to use a Conduit.
 - b. It is recommended to insert all other Wiring through a separate hole.
2. Line up the screw holes. Secure the Header to the Door Frame. It is recommended to use Lag Bolts. Please see Figure 3-7.
 - a. For additional mounting on GT 8710 units: secure the Header to Studs located behind the Shim. It is recommended to use Lag Bolts.

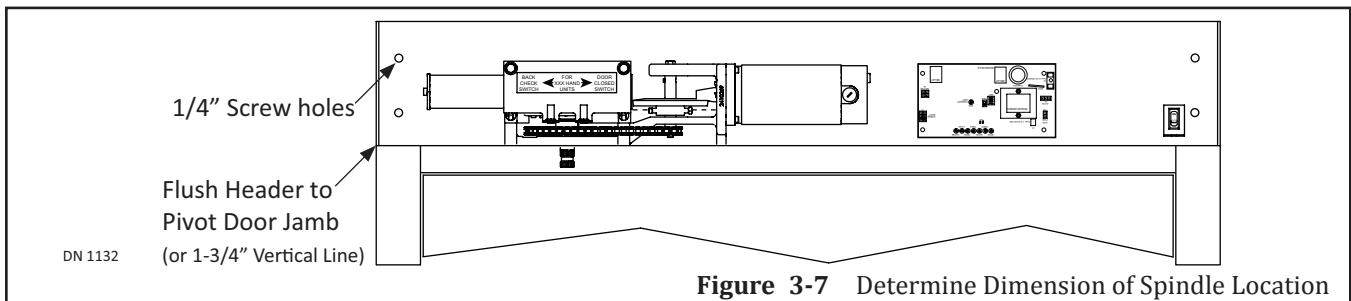
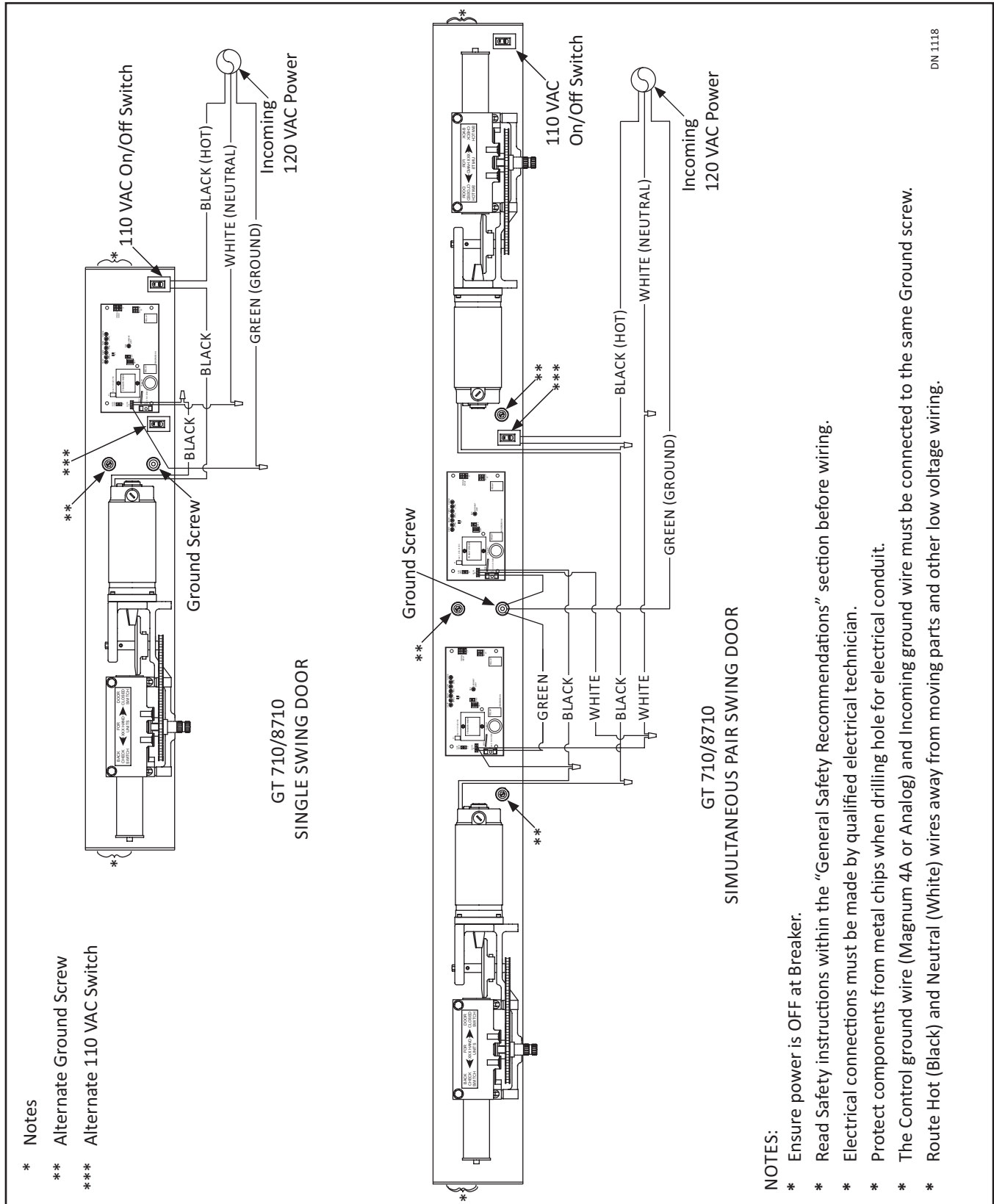


Figure 3-7 Determine Dimension of Spindle Location

CHAPTER 4: 110 VAC GENERAL WIRING



CHAPTER 5: INSTALL THE FIRST HALF OF SWING ARM

Section 5 a: Outswing Arm

FOR INSWING ARMS SKIP TO SECTION 5 B

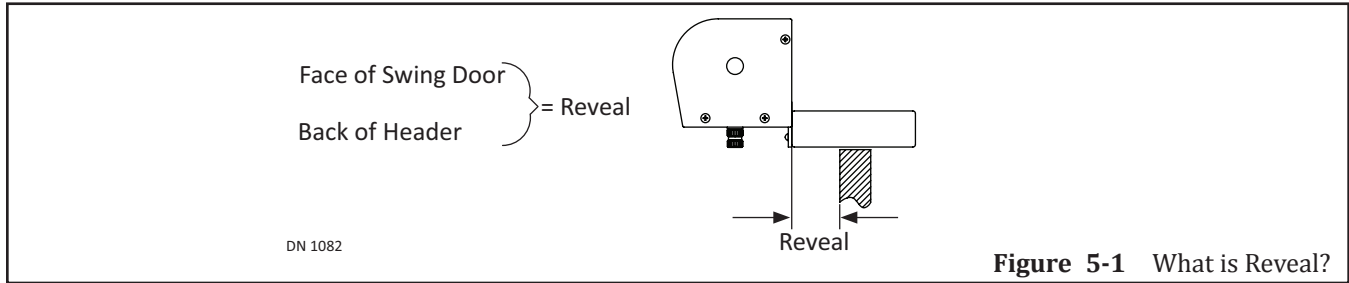


Figure 5-1 What is Reveal?

5.a.a: Prep the Swing Door

Table 5-1 Dimension "A" Arm Shoe Mounting Locations

Model	Pivot Type	Outswing	
		With Fingerguard	No Fingerguard
GT 710 & 8710	Butt/Offset	N/A	16-15/16"
	Center Pivot	N/A	16-15/16"

1. Go to Table 5-1 to measure the distance from the inside edge of the Pivot Door Jamb, or the Center Pivot to the center of the first Sex Bolt hole (used to attach the Arm Shoe). Please see Figure 5-2.
2. Mark a Vertical line on the face of the Swing door.
3. At the Vertical line, measure 1-1/2 inches from the top edge of the Swing door down to the center of the Swing Door.
4. Mark a Horizontal line to cross the Vertical line. This is the center of the first Sex Bolt hole.

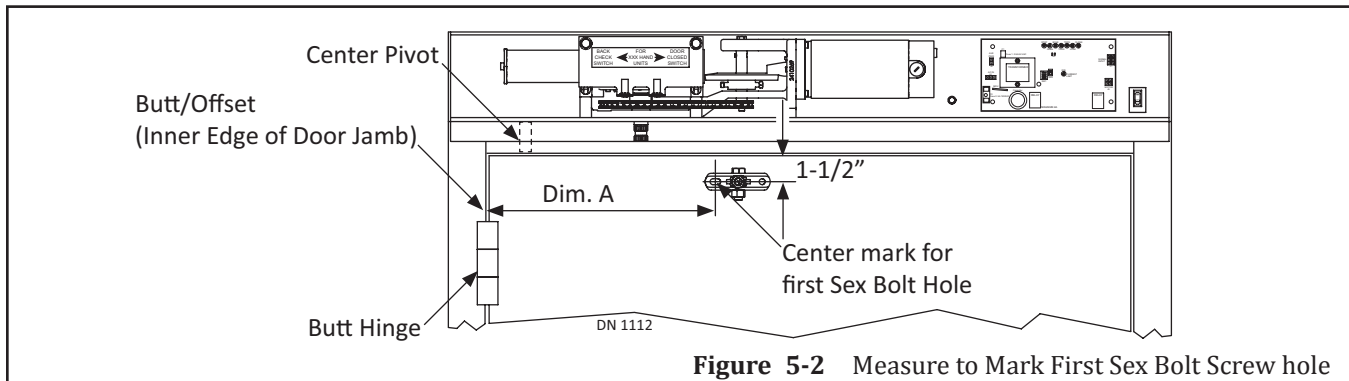
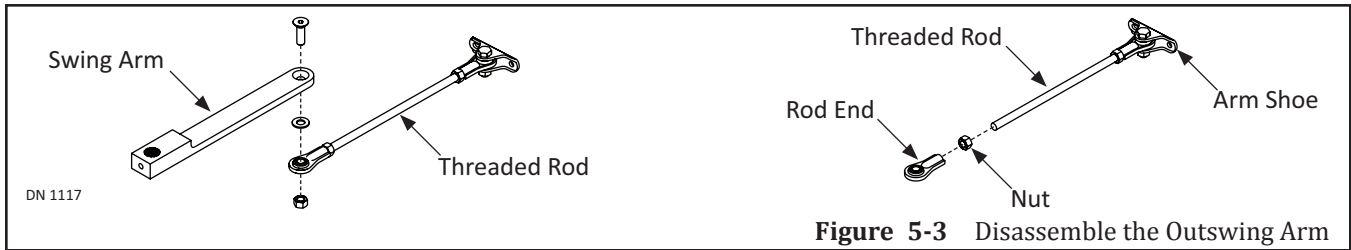


Figure 5-2 Measure to Mark First Sex Bolt Screw hole

5.a.b: Prep the Outswing Arm Assembly

1. Remove the Swing Arm from the Threaded Rod. Set aside. Please see Figure 5-3.

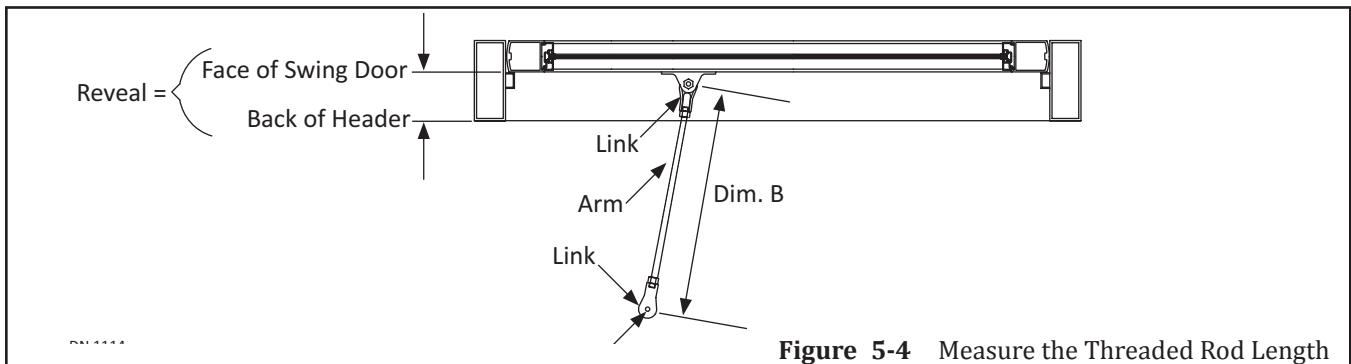


2. Go to Table 5-2 to locate the appropriate length measurement for the Threaded Arm.

Table 5-2 Dimension "B" Rod Length

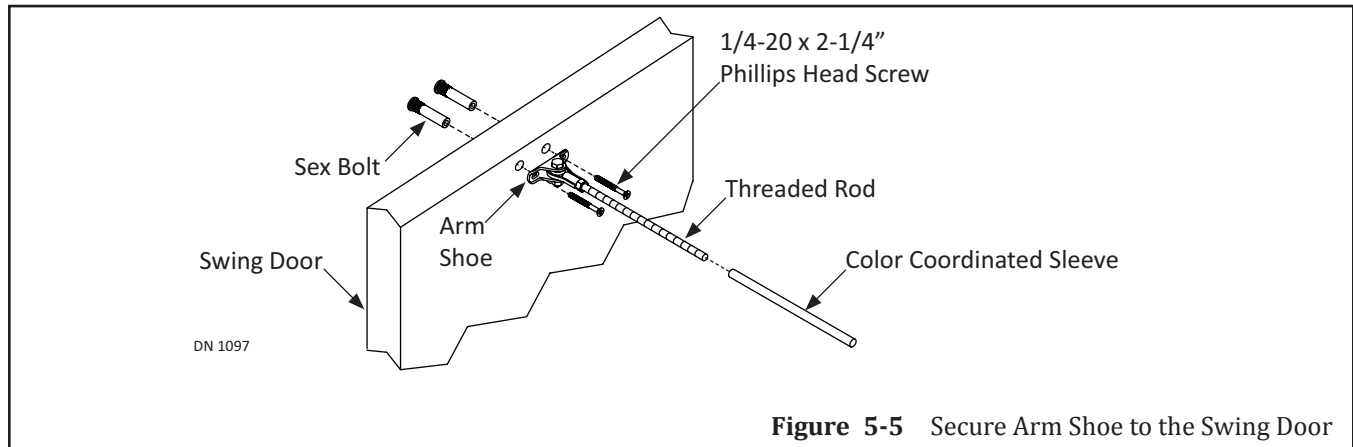
Reveal	Rod Length	Reveal	Rod Length	Reveal	Rod Length	Reveal	Rod Length	Reveal	Rod Length
0"	16-5/8"	3-1/4"	19-1/8"	6-1/2"	21-3/4"	9-3/4"	24-5/8"	13	27-1/2"
1/4"	16-13/16"	3-1/2"	19-5/16"	6-3/4"	22"	10	24-13/16"	13-1/4"	27-3/4"
1/2"	17"	3-3/4"	19-1/2"	7"	22-3/16"	10-1/4"	25"	13-1/2"	28"
3/4"	17-3/16"	4"	19-11/16"	7-1/4"	22-7/16"	10-1/2"	25-1/4"	13-3/4"	28-3/16"
1"	17-3/8"	4-1/4"	19-7/8"	7-1/2"	22-5/8"	10-3/4"	25-1/2"	14	28-7/16"
1-1/4"	17-9/16"	4-1/2"	20-1/8"	7-3/4"	22-7/8"	11	25-3/4"	14-1/4"	28-5/8"
1-1/2"	17-3/4"	4-3/4"	20-5/16"	8"	23"	11-1/4"	25-15/16"	14-1/2"	28-7/8"
1-3/4"	17-15/16"	5"	20-1/2"	8-1/4"	23-1/4"	11-1/2"	26-3/16"	14-3/4"	29-1/8"
2"	18-1/8"	5-1/4"	20-3/4"	8-1/2"	23-1/2"	11-3/4"	26-3/8"	15	29-3/8"
2-1/4"	18-5/16"	5-1/2"	20-15/16"	8-3/4"	23-3/4"	12	26-5/8"	15-1/4"	29-9/16"
2-1/2"	18-1/2"	5-3/4"	21-1/8"	9"	24"	12-1/4"	26-13/16"	15-1/2"	29-13/16"
2-3/4"	18-11/16"	6"	21-3/8"	9-1/4"	24-3/16"	12-1/2"	27-1/16"	15-3/4"	30"
3"	18-7/8"	6-1/4"	21-9/16"	9-1/2"	24-3/8"	12-3/4"	27-5/16"	16	30-1/4"

3. Measure the Threaded Rod between the center of each Eye, located on each Link, located at each end of the Rod. Please see Dim B in Figure 5-4.
4. Remove the Link that is not attached to the Arm Shoe, from the Threaded Rod. Please see Figure 5-3.
5. Cut the Threaded Rod according to the measurement that was determined in Step 3.



6. Obtain (1) color coordinated Plastic Tube from the Outswing Rod assembly. Please see Figure 5-5.

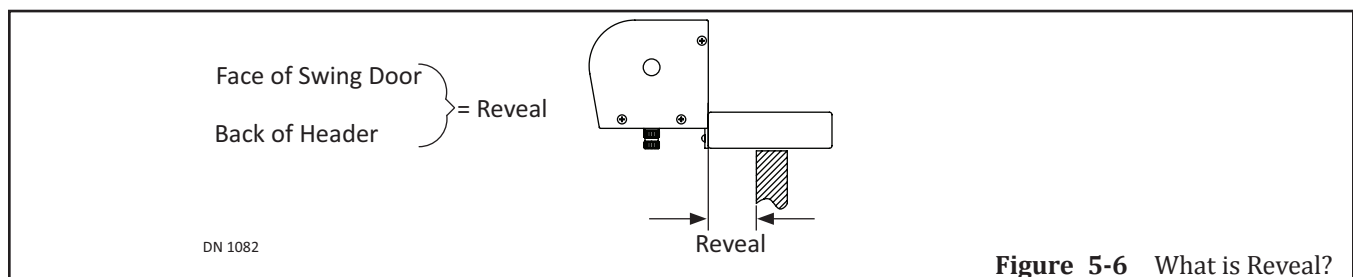
7. Cut the Plastic Tube to the same length as the exposed Rod (between the Links and Nuts).
8. Slide the Plastic Tube over the Threaded Rod.
9. Replace the Rod Link back onto the Threaded Rod.
10. Tighten the Nut against the Link to prevent the Rod from screwing In or Out.



5.a.c: Secure the Arm Shoe to the Swing Door

1. Butt the Arm Shoe against the Swing door. Align the first Sex Bolt hole to the measured Mark. Please see Figure 5-5.
2. Ensure the Arm Shoe is square and level.
3. Use the Arm Shoe as a Template to mark the second Sex Bolt hole. Set aside.
4. Drill (2) 3/8 inch bolt holes all the way through the Swing door.
5. Go to the back of the Swing door. Insert each Sex Bolt into the drilled holes.
6. Go to the front of the Swing door. Secure the Arm Shoe to the Swing Door with (2) 1/4-20 x 2-1/4" Screws.

Section 5 b: Inswing Arm



5.b.a: Prep the Swing Door

Note: Ensure there is a 2 inch gap between the wall and the outside face of the Swing door in the fully opened position (90 degrees).

1. Go to Table 5-3 or Table 5-4 to measure the distance from the inside edge of the Pivot Door Jamb, or the Center Pivot to the center of the first Sex Bolt hole (used to attach the Track).

2. Mark a Vertical line reflecting the measured distance on the face of the Swing door. Please see Figure 5-7.

Table 5-3 Small Track Mounting Locations (12-1/4 inches)

Reveal	Butt Hinge	Dim A	
		Center Pivot w/Finger Guard	Center Pivot no Finger Guard
0	7-5/8"	8-3/16"	7-3/16"
1/4"	7-3/4"	8-3/8"	7-3/8"
1/2"	7-15/16"	8-9/16"	7-9/16"
3/4"	8-1/8"	8-3/4"	7-3/4"
1"	8-5/16"	8-15/16"	7-15/16"
1-1/4"	8-1/2"	9-1/8"	8-1/8"
1-1/2"	8-11/16"	9-5/16"	8-5/16"
1-3/4"	8-7/8"	9-1/2"	8-1/2"
2"	9-1/16"	9-3/4"	8-3/4"
2-1/4"	9-1/4"	9-15/16"	8-15/16"
2-1/2"	9-1/2"	10-1/8"	9-1/8"
2-3/4"	9-11/16"	10-3/8"	9-3/8"
3"	13-1/8"	10-9/16"	9-9/16"
3-1/4"	13-3/8"	14-1/16"	13-1/16"
3-1/2"	13-9/16"	14-1/4"	13-1/4"
3-3/4"	13-3/4"	14-1/2"	13-1/2"

Reveal	Butt Hinge	Dim A	
		Center Pivot w/Finger Guard	Center Pivot no Finger Guard
4"	14"	14-11/16"	13-11/16"
4-1/4"	14-3/16"	14-3/4"	13-3/4"
4-1/2"	14-7/16"	14-3/4"	13-3/4"
4-3/4"	14-1/2"	14-3/4"	13-3/4"
5"		14-3/4"	13-3/4"
5-1/4"		14-13/16"	13-13/16"
5-1/2"			
5-3/4"			
6"			
6-1/4"	18-1/2"		
6-1/2"			
6-3/4"	18-9/16"	18-7/8"	17-7/8"
7"	18-9/16"	18-7/8"	17-7/8"
7-1/4"	18-5/8"	18-15/16"	17-15/16"
7-1/2"	18-5/8"	N/A	N/A

Table 5-4 Large Track Mounting Locations (21 inches)

Reveal	Butt Hinge	Dim A		
		Center Pivot w/Finger Guard	Center Pivot no Finger Guard	
7-1/2"	N/A	14-1/2"	13-1/2"	
7-3/4"	14-1/4"	14-9/16"	13-9/16"	
8"		14-9/16"	13-9/16"	
8-1/4"		14-5/8"	13-5/8"	
8-1/2"		14-5/8"	13-5/8"	
8-3/4"		14-5/8"	13-5/8"	
9"		14-5/8"	13-5/8"	
9-1/4"		14-5/8"	13-5/8"	
9-1/2"		14-5/8"	13-5/8"	
9-3/4"		14-5/8"	13-5/8"	
10"		14-9/16"	13-9/16"	
10-1/4"		14-3/16"	14-9/16"	13-9/16"

Reveal	Butt Hinge	Dim A	
		Center Pivot w/Finger Guard	Center Pivot no Finger Guard
10-1/2"	19-1/4"	14-9/16"	13-9/16"
10-3/4"	19-1/4"	19-5/8"	18-5/8"
11"	19-1/4"	19-11/16"	18-11/16"
11-1/4"	18-9/16"		
11-1/2"	19-5/16"		
11-3/4"			
12"			
12-1/4"			
12-1/2"			
12-3/4"			
13"			

3. Go to the top edge of the Swing Door. Measure:
 - ▶ 0 inch Reveal (Straight Arm):
 - 11/16 inch from the top edge of the Swing Door down to the center of the Swing Door.
 - ▶ Reveals greater than 0 inch (L-Shape Arm):
 - 1-9/16 inch from the top edge of the Swing Door down to the center of the Swing Door.
 - ▶ New dimension not shown (L-Shape Arm):
 - Reveal + 8-7/8 inch = New dimension
4. Mark a Horizontal line to cross the Vertical line. This is the center of the first Sex Bolt hole.

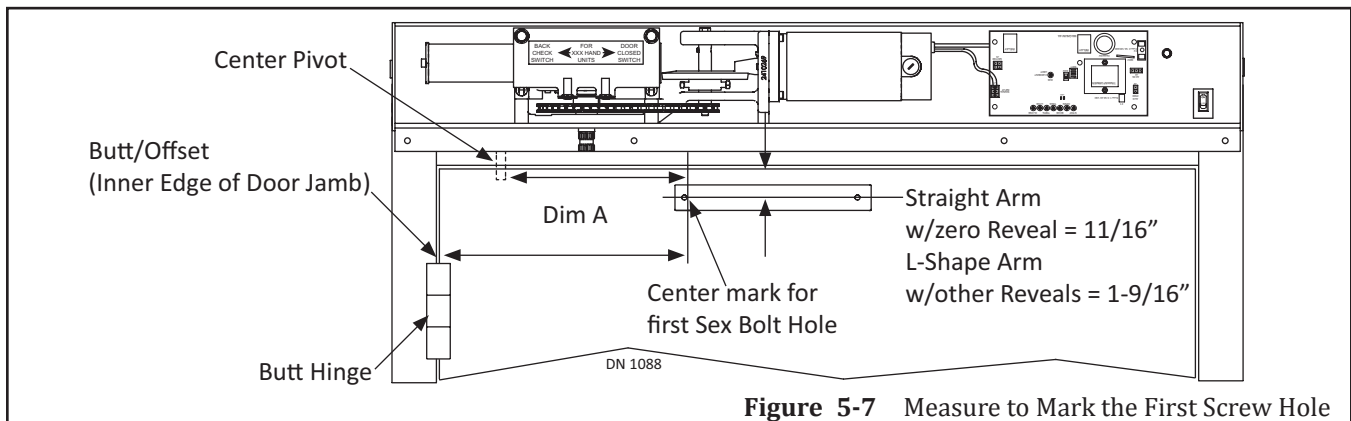


Figure 5-7 Measure to Mark the First Screw Hole

5.b.b: Secure the Track to the Swing Door

1. Butt the Track against the Swing door by aligning the first Sex Bolt hole with the measured Mark. Ensure the Track is square and level.
2. Use the Track as a Template to mark the second Sex Bolt hole. Set aside.
3. Drill (2) 3/8 inch bolt holes all the way through the Swing door.
4. Go to the back of the Swing door. Insert each Sex Bolt into the drilled holes.
5. Go to the front of the Swing door. Butt the Track against the Swing door. Align the Sex Bolt holes.
 - a. If the wall/frame is not straight, vertical, plum etc., install (1) Spacer (21-0902) behind the Track only if Reveal has a variance of zero to 1/4 inch and a Straight Arm is being installed.
 - b. A Spacer is used to prevent the Swing Arm from hitting the lip of the GT-710 Header only (the GT-8710 Header does not have a lip).
 - c. If a Spacer can not be obtained, a couple of washers can be used.
6. Secure the Track to the Swing Door with (2) 1/4-20 x 2-1/4" Screws. Please see Figure 5-8.

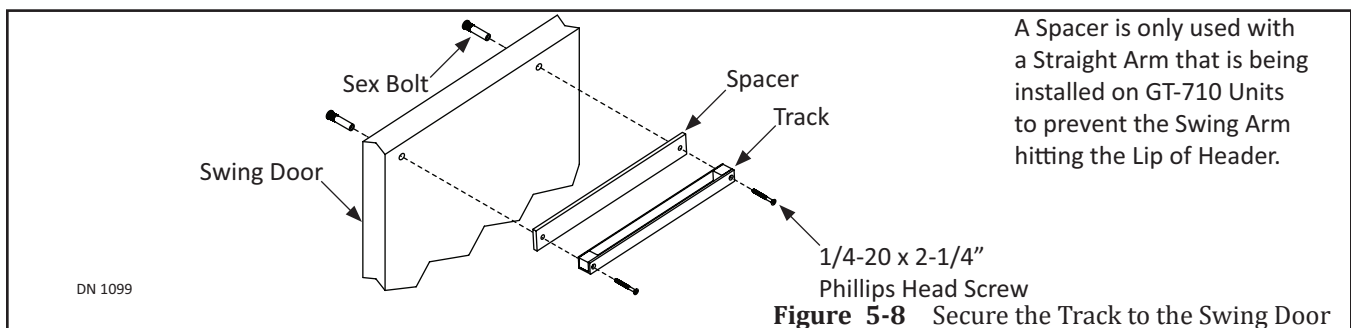


Figure 5-8 Secure the Track to the Swing Door

CHAPTER 6: INSTALL THE SECOND HALF OF SWING ARM

Section 6 a: Set Pre-Load

WARNING

Proper Preload is critical for the Control/Operator to open/close the Swing Door correctly.

CAUTION

Power must be turned OFF during the Swing Arm installation.

1. Locate pre-load numbers 1-4 on the Bottom of the Operator Spindle. Please see Figure 6-1.
 - a. Pre-load numbers 1-4 mark the correct installation position for pre-load.

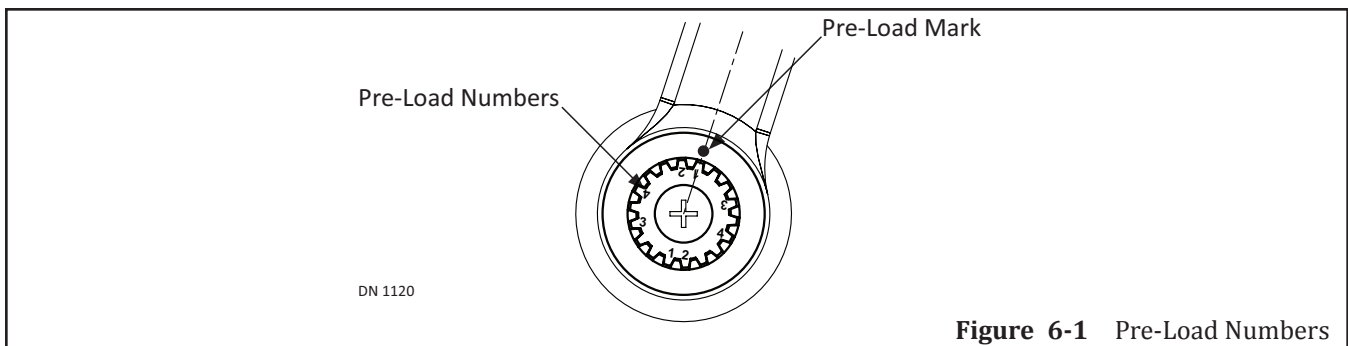


Figure 6-1 Pre-Load Numbers

2. Obtain the Swing Arm.
3. Slide the Swing Arm onto the Operator Spindle by aligning the appropriate pre-load number to the pre-load mark on the underside of Swing Arm:

RH Outswing	LH Outswing	RH Inswing	LH Inswing	RH Inswing-0 Reveal	LH Inswing-0 Reveal
1	2	3	4	4	3

4. Please see, Figure 6-2 or Figure 6-3, or Figure 6-4

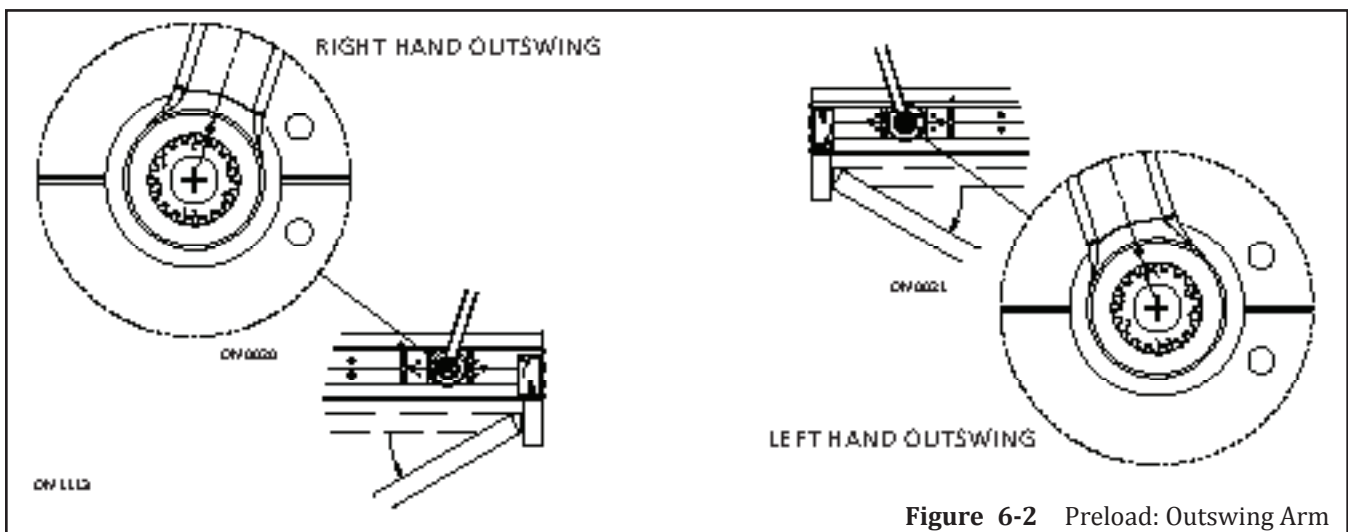
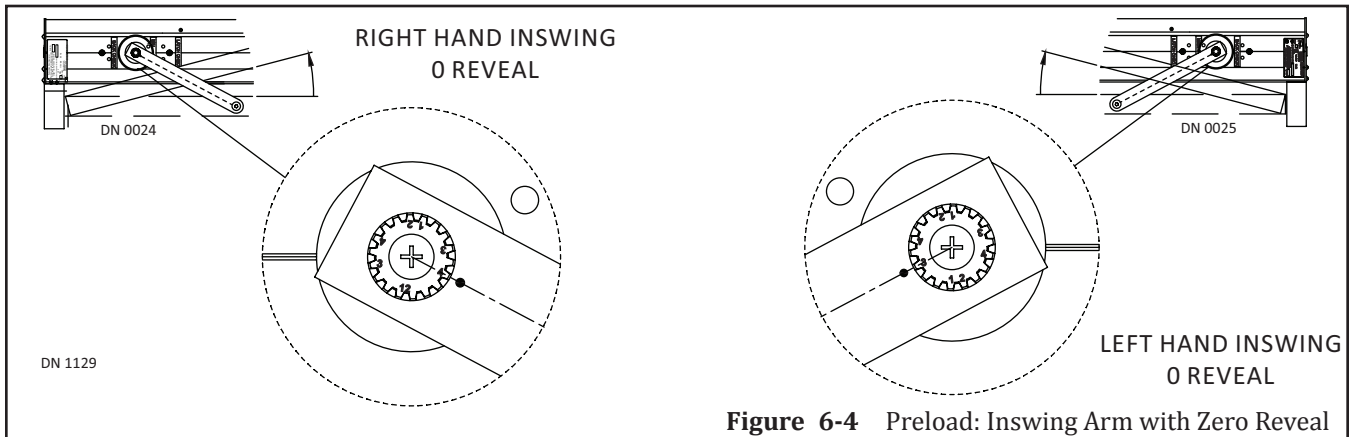
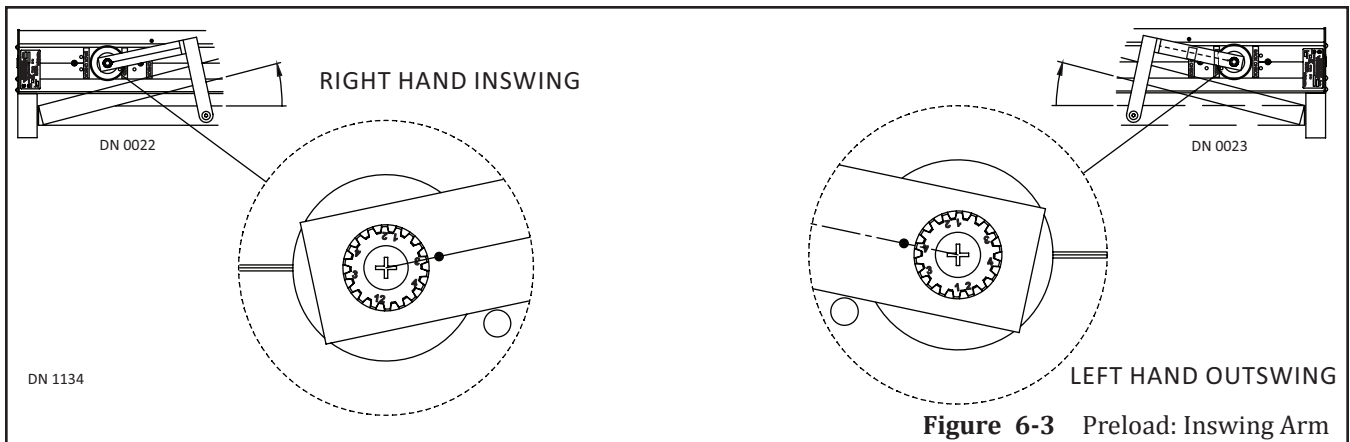


Figure 6-2 Preload: Outswing Arm



5. Secure the Swing Arm to the Operator Spindle with (1) Set Screw. Tighten but do not overtighten.
 - a. Ensure the Set Screw is seated correctly within the groove on the Operator Spindle.

Section 6 b: Secure the Swing Arm to the Swing Door

6.b.a: Outswing Arm

1. Align the screw hole at the end of Swing Arm to the Rod End screw hole. Please see Figure 6-5.
2. Pull the Swing Arm towards the Rod to connect.
3. Secure the Swing Arm to the Threaded Rod with (1) 3/8"-24 x 1-1/4" Socket Screw, (1) .405 Washer, and (1) 3/8"-24 Lock Nut.

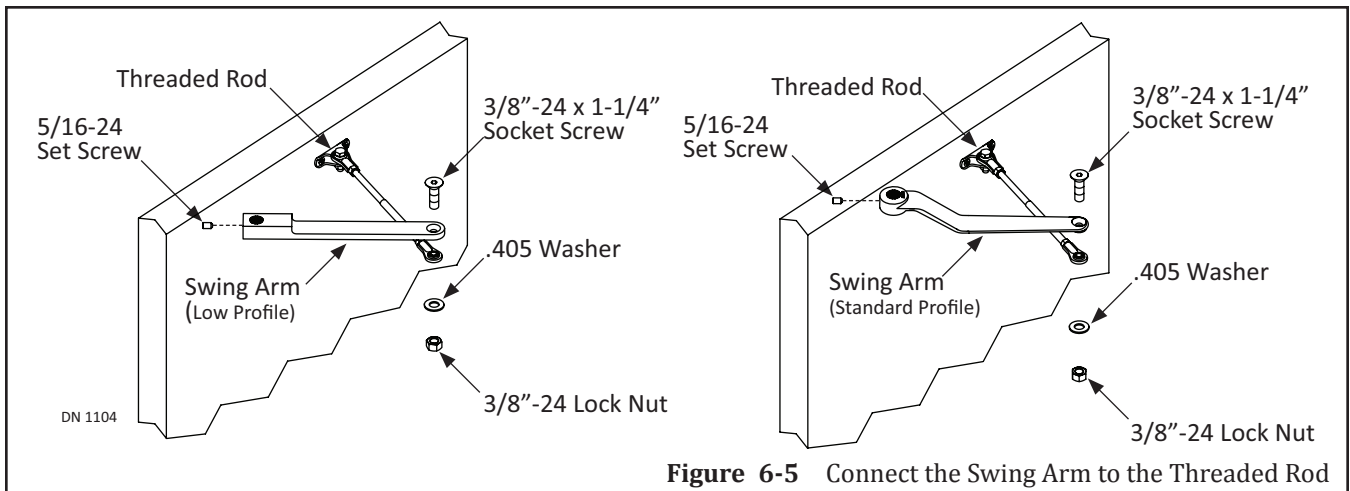


Figure 6-5 Connect the Swing Arm to the Threaded Rod

6.b.b: Inswing Arm

1. Remove the first 1/4-20 x 2-1/4" Screw (closest to the Pivot Door Jamb) that is used to secure the Track to the Swing door. Please see Figure 6-6.
 - a. That side of the Track will hang down.
2. Close the Swing door to allow the Wheeled Roller (located at the end of the Swing Arm) to butt against the Swing door.
3. Pull the Swing Arm to the Swing door, then raise the Track.
4. Secure the Track to the Swing door with (1) 1/4-20 x 2-1/4" Screw.

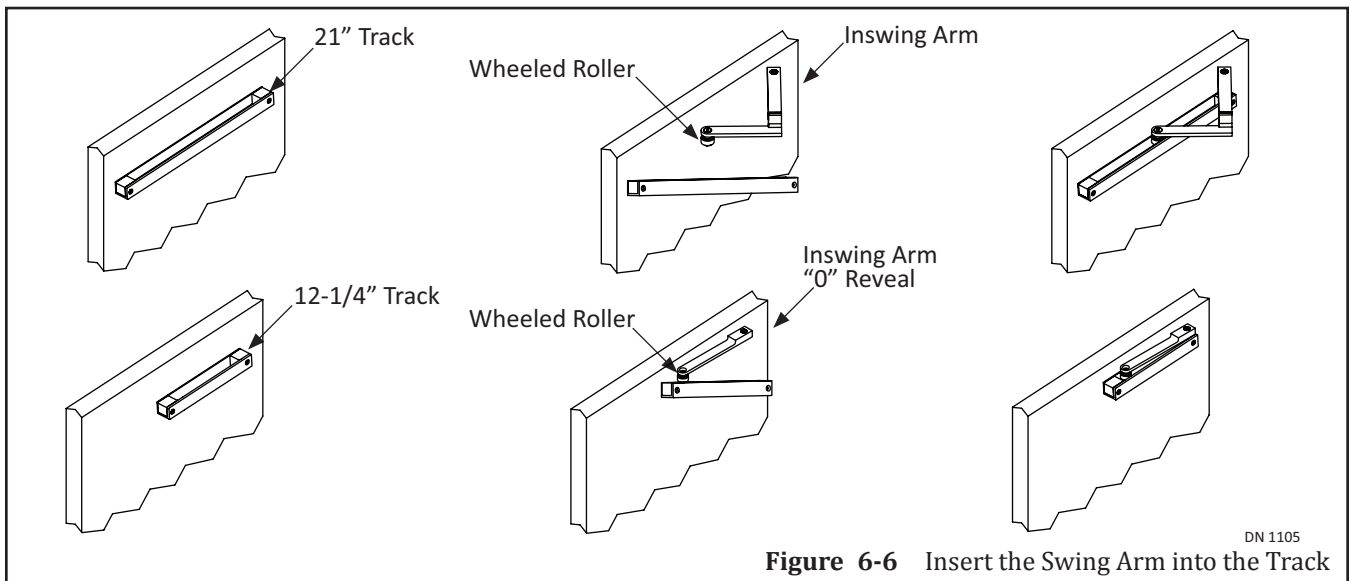


Figure 6-6 Insert the Swing Arm into the Track

CHAPTER 7: INSTALL THE MAGNETS

CAUTION

Power must be turned OFF while installing the Magnets.

Note: Magnetic Reed Switches are reversed according to Handing of door (LH vs RH).

When Magnets are correctly set, the Green LED on the Magnum 4A Control will be:

- ▶ OFF when the door is closed.
- ▶ Fast Flashing when opening.
- ▶ On Solid at Back Check.
- ▶ Slow flashing when closing.
- ▶ OFF again at Latch Check

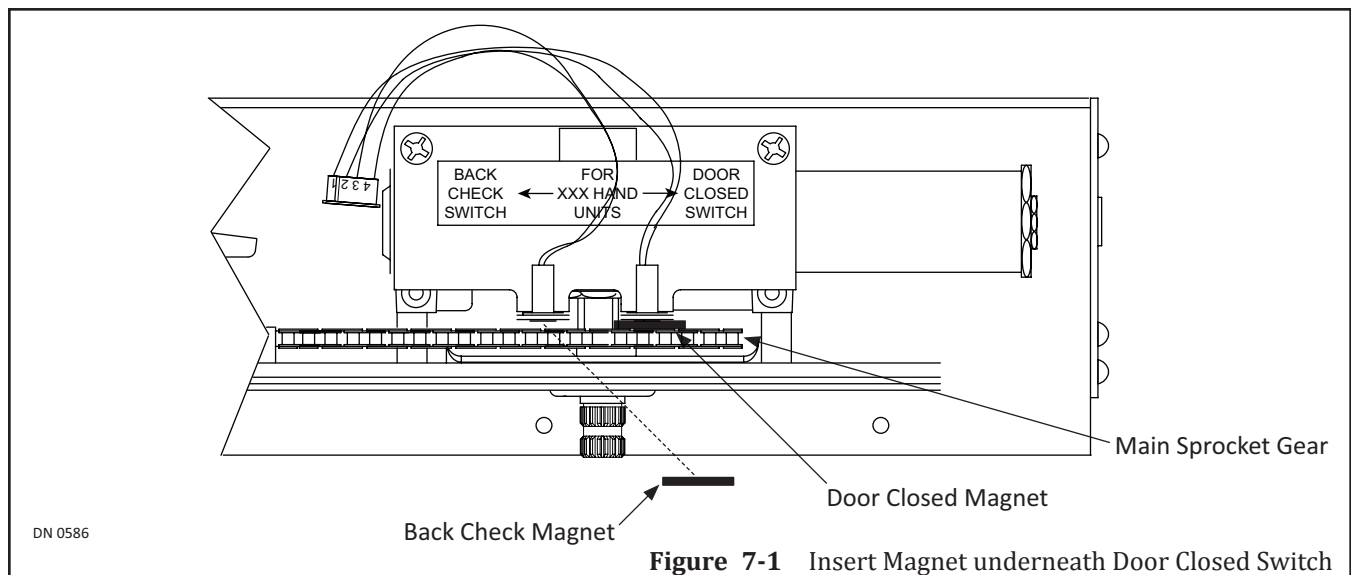
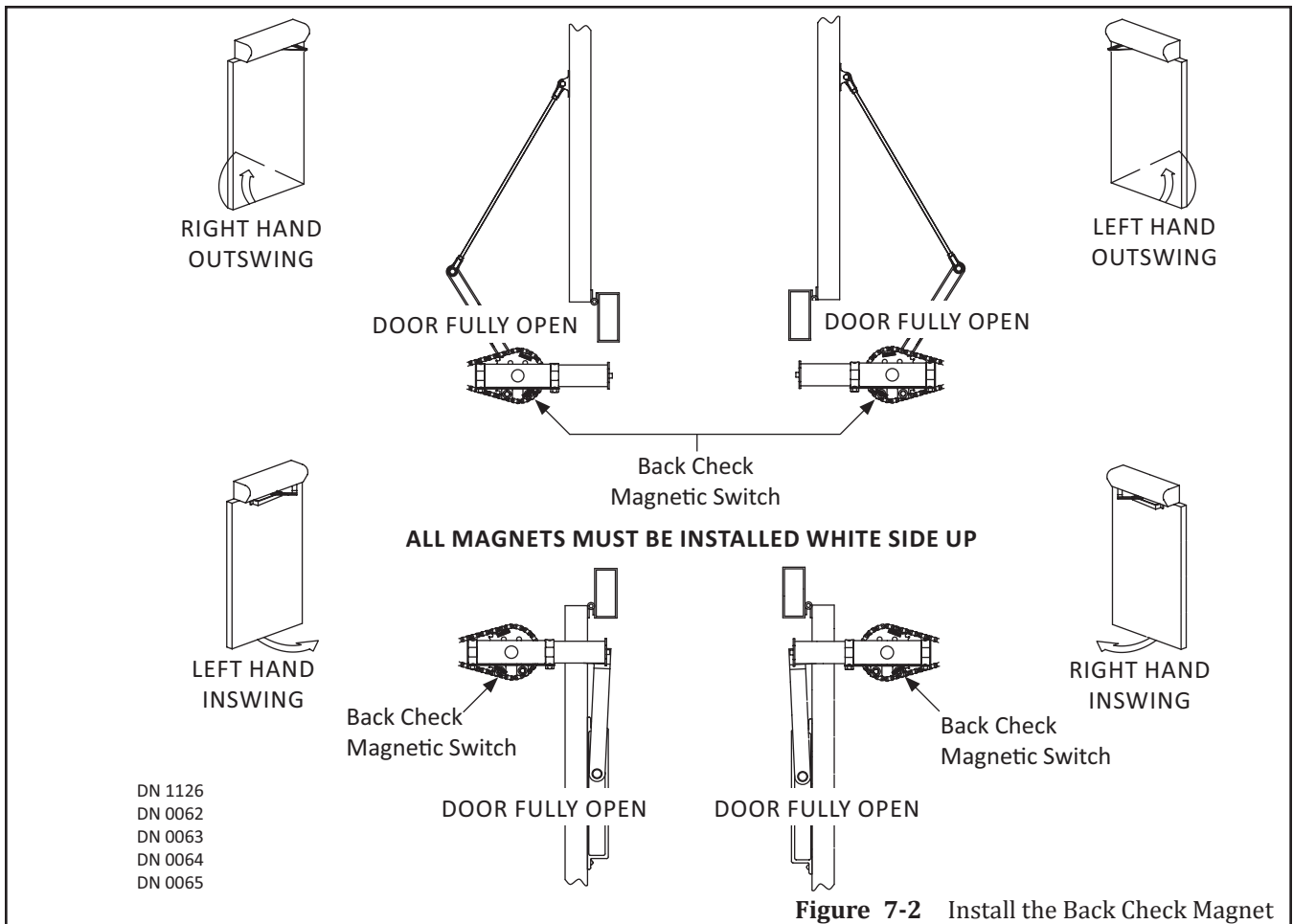


Figure 7-1 Insert Magnet underneath Door Closed Switch

1. Go to the Magnum 4A Control. Disconnect Power.
2. Unplug the J4 Connector.
3. Set the Current Limit Switch to Maximum. (Clockwise)

Section 7a: Insert the Back Check Magnet

1. Obtain (1) 1/4 inch square x 1 inch long Magnet. Please see Figure 7-2.
2. Manually open the Swing door to the Fully Open position (90 degrees).
3. Place the Magnet (White side up) directly underneath the Back Check Magnetic Switch.



5.1.1 Test the Back Check Magnet

Note: If the Back Check magnet is installed with the Swing door fully open (90°), opening speed does not need to be adjusted.

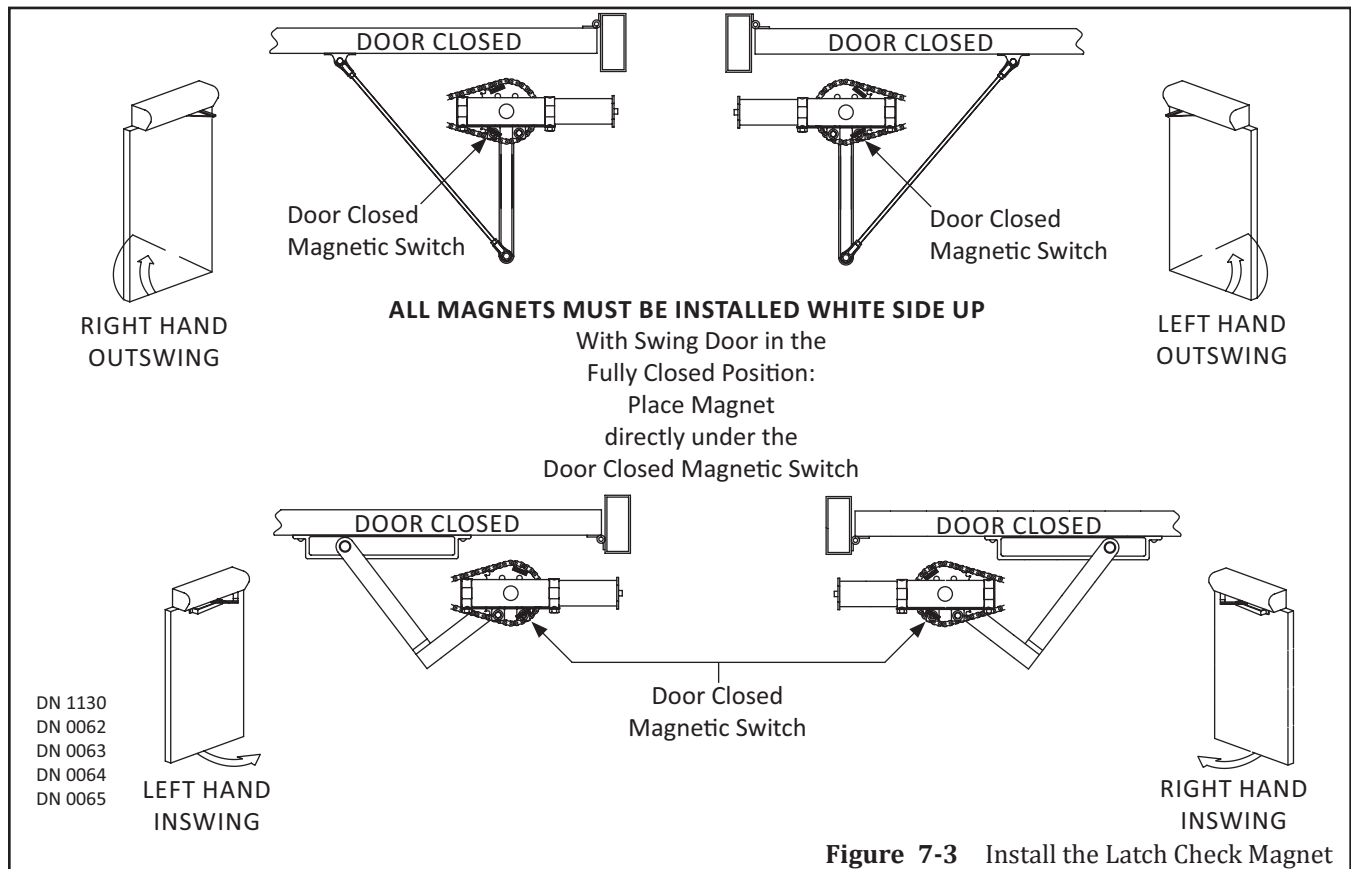
When the Magnet is correctly set, the Green LED on the Magnum 4A Control will be:

- ▶ ON steady when the Swing door is in the fully Open position after an activation.

1. Turn Power ON.
2. Electronically open the Swing door.
 - a. The Main Sprocket Gear rotates as the Swing door opens/closes.
 - b. As the Main Sprocket Gear rotates so do the Magnets.
 - c. As the Swing door opens to the 75 degree mark, the Back Check Magnet starts to rotate underneath the “Back Check” Magnetic Switch. The Swing door will start to slow down.
 - d. At the 90 degree mark, the Back Check Magnet is fully underneath the Magnetic Reed Switch.
 - a. The Swing door stays open until the timer counts down.
 - a. Please refer to Magnum 4A Control Wiring and Adjustment Manual P/N 15-10682 for additional information.
3. Relocate the Magnet if adjustment is deemed necessary.

5.2 Insert The Latch Check Magnet

1. Obtain (1) 1/4 inch square x 1 inch long Magnet. Please see Figure 7-3.
2. Manually Close the Swing door to the Fully Closed position (0 degrees).
3. Place the Magnet (White side up) directly underneath the Door Closed Magnetic Switch.



5.2.2 Test the Latch Check Magnet

When the Magnet is correctly set, the Green LED on the Magnum 4A Control will be:

- ▶ OFF when the Swing door is in the fully Closed position.

1. Turn Power ON.
2. Electronically close the Swing door.
 - a. As the Swing door closes to the 15 degree mark, the Door Closed Magnet starts to rotate underneath the "Door Closed" Magnetic Reed Switch. The Swing door will start to slow down.
 - b. At the 0 degree mark, the Latch Check Magnet is fully underneath the Door Closed Magnetic Switch.
3. Relocate the Magnet if adjustment is deemed necessary.

CHAPTER 8: ADJUSTMENTS

Section 8a: LCN Tension Spring

WARNING

Improperly installed/adjusted Tension Springs may cause property damage or personal injury. Please follow instructions carefully.

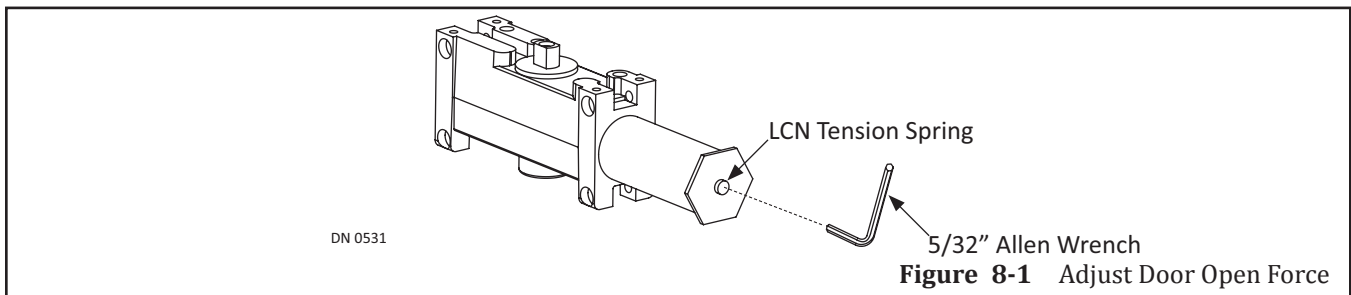
CAUTION

Opening Force must be properly adjusted on the LCN Tension Spring - BEFORE - the Magnum 4A Control can be adjusted.

8.a.a: Adjust Opening/Closing Force (Manual Mode)

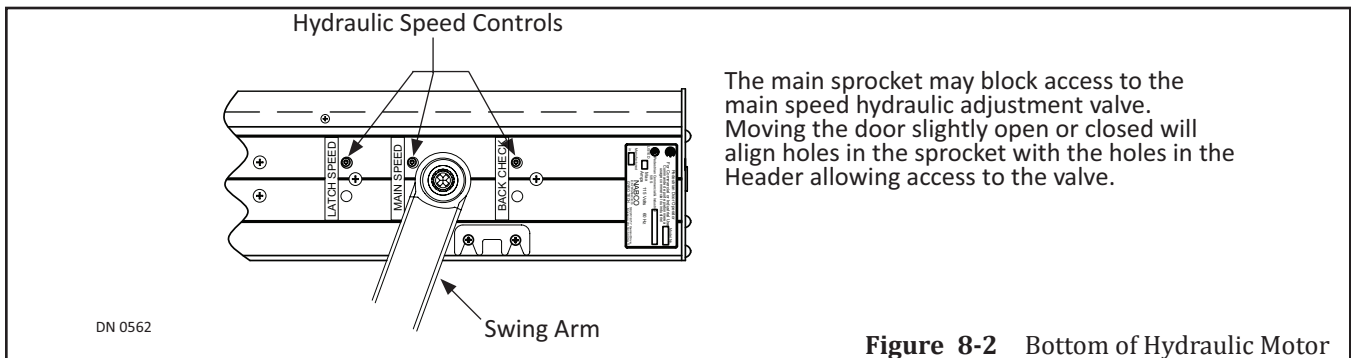
The LCN Tension Spring is used to adjust Opening/Closing Force when the Swing door is used Manually. The Factory preset force is ideal in most cases. Adjustment should only need to be done in special cases.

1. Turn Power OFF.
2. Insert 5/32 Allen Wrench in the Screw located at the end of the LCN Tension Spring. Please see Figure 8-1.
 - a. The Spring should be adjusted so that the Swing door can be easily pushed open, but still have enough force to fully close the Swing door.
3. To Increase Opening/Closing Force, turn the 5/32 Allen wrench clockwise not more than (9) full turns.
4. To Decrease Opening/Closing Force, turn the 5/32 Allen wrench counterclockwise not more than (4) full turns.



Section 8b: Hydraulic Speed Control (Automatic Mode)

Note: The Close and Latch Potentiometers located on the Magnum 4A Control is disabled and has no effect.



8.b.a: Adjust Main Speed

1. Turn Power OFF.
2. Insert 3/32 Allen Wrench into the Main Speed adjustment hole.
 - a. If the adjustment hole is blocked by the sprocket, slightly close the Swing door until the adjustment Valve can be accessed.
3. Turn the Allen Wrench clockwise to slow down closing speed.

8.b.b: Adjust Latch Speed

1. Turn Power OFF.
2. Insert 3/32 Allen Wrench into the Latch Speed adjustment hole.
3. Turn the Allen Wrench clockwise to slow down Latch Check speed.
4. Manually push the Swing door open, then let it close.
5. Test Latch Check speed. Re-adjust if necessary.

8.b.c: Adjust Back Check

This adjustment should not be confused with the Back Check (BCHK) setting located on the Magnum 4A control. BCHK determines the amount of power applied to the motor to push the door open through Back Check.

1. Turn Power OFF.
2. Insert Allen Wrench into the Latch Speed adjustment hole.
3. Turn Allen Wrench clockwise to increase hydraulic tension at back check.
4. Manually push the Swing door open.
5. Test Back Check speed. Re-adjust if necessary.

CHAPTER 9: INSTALL THE ARM STOP

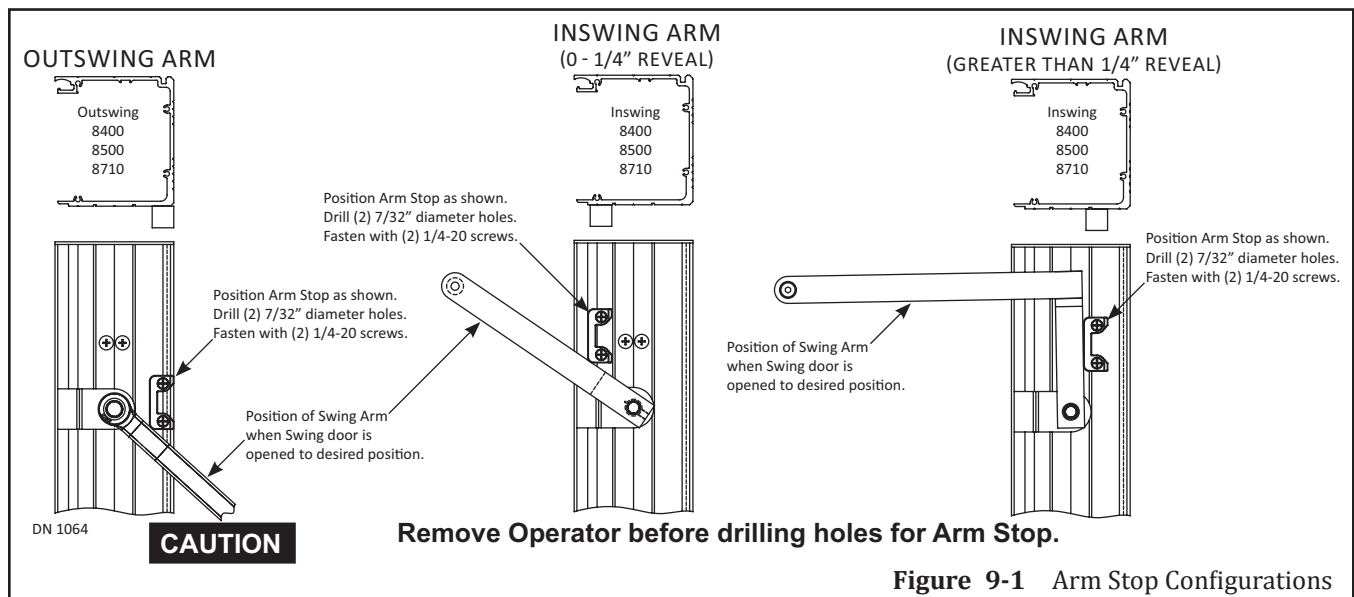
CAUTION

Power must be turned OFF while installing the Arm Stop.

CAUTION

Do Not drill screw holes for the Arm Stop into the Motor/Operator!!!

1. Turn Power OFF.
1. Manually open the Swing Door 90 degrees. Please see Figure 9-1.
2. Obtain the Parts Bag that includes (1) Arm Stop and (2) 1/4-20 x 1 inch Self Tapping screws.
3. Position the Arm Stop at the bottom of Header according to type of Swing Arm and Reveal shown in Figure 9-1.
4. Use the Arm Stop as a template to mark and drill (2) 7/32 inch diameter screw holes.
5. Secure the Arm Stop with (2) 1/4-20 x 1 inch Self Tapping screws.



CHAPTER 10: TROUBLESHOOTING

Table 10-1 Most Common Slide Door Problems

Problem	Action/Cause	Solution
Operator does not function.	Check Fuse 2 (F2)	Replace Fuse
	Check for 120 VAC at Connector J5	Check incoming power. If power is good, check connection to motor. Replace motor if necessary.
	Check power to activation device at Connector J2.	If current exceeds 0.5 amps at 24 VAC, replace with lower draw sensor.
	Check Fuse 1 (F1)	<ul style="list-style-type: none"> ▶ If blown, replace fuse. ▶ If F1 is OK, check power to activating devices at J2. ▶ If Voltage is too low, reduce accessory load
Adjustment of Hydraulic Closer has no effect.	Check 4 pin Motor Connector on board.	Pin #2 and #4 must be jumped by a wire.
Door slams closed.	Main speed on hydraulic closer not adjusted properly.	Turn main speed in direction of Turtle.
Door slams open.	Back check speed not adjusted or magnet not in proper location	Adjust Back Check potentiometer or relocate Magnet.
Fuse 1 (F1) blows when door open is triggered.	Check door activation device power consumption.	If current draw exceeds 0.5 amps at 24 VAC, replace with lower draw sensor.
Door moves in wrong direction.	Check polarity of motor input wires at connector on motor.	Reverse motor leads.
Back check adjustment on Magnum board has no effect.	The fully open door position is greater than 90 degrees and the Back Check adjustment on the Hydraulic Closer is overriding the controls of the Magnum board.	Adjust the Back Check screw on the bottom of the Header out one turn.
Unit leaks oil.	Adjusting screws on Hydraulic Closer have been removed.	Replace Hydraulic Closer.
No Back Check or Motor continues to drive after door is closed.	Magnets on main sprocket not in correct position.	Properly align magnets.
Door does not stay tightly closed.	Preload on swing arm is not correct.	Position arm 45 degrees.
	Building stack pressure is excessive.	Upgrade operator unit to GT 500.
Safety or Presence Sensor does not function.	No power to sensor or defective sensor.	Check harness wiring to wire diagram.
Safety or Presence Sensor is activated by closing door.	Sensor wiring harness was connected to "Safety" not "Safety w/Lockout".	Rewire Safety Sensor to "Safety w/Lockout".
Floor mat, holding beams or other accessories do not function while door is moving.	Accessories connected to "Safety w/Lockout" not "Safety".	Rewire accessory to "Safety".

Problem	Action/Cause	Solution
Sensor shows activation signal sent, but door does not open.	Sensor not connected properly to activation connector.	Check harness wiring to wiring diagram
One sensor does not activate both doors on a simultaneous pair.	Sensor is not connected to both control boards.	Install Simultaneous Pair Harness (P/N 2210270).