48431448

Senior Swing IQ

9500/2800 Series Upgrade

Installation Instructions

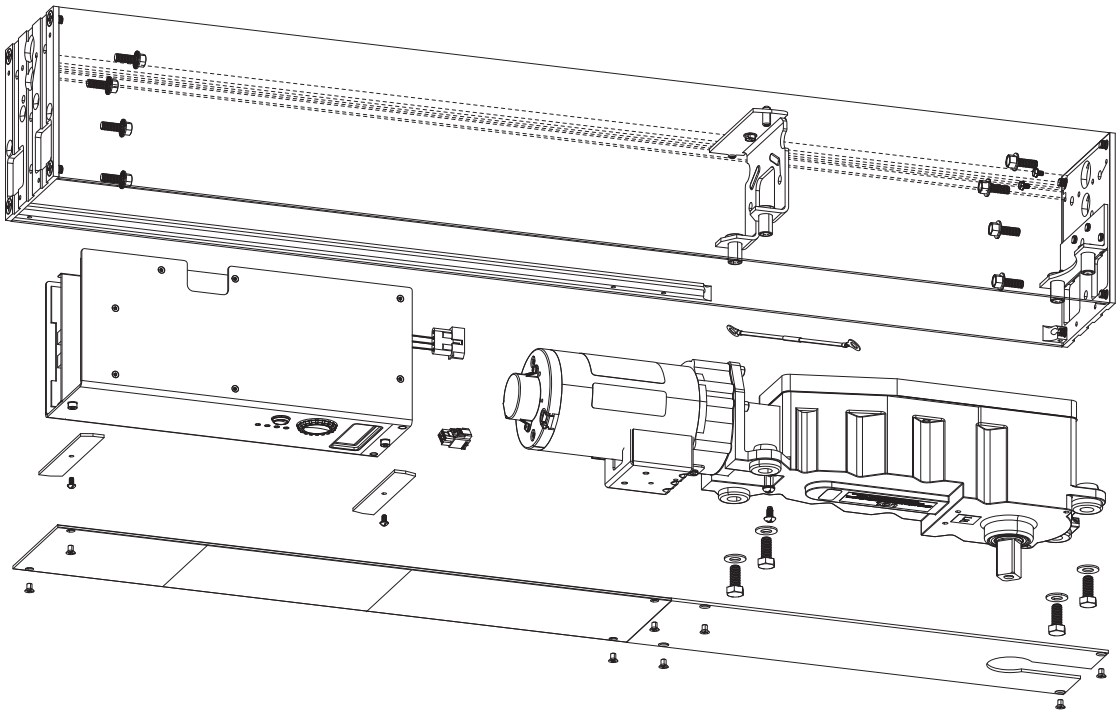
Table of Contents

General

The Senior Swing IQ is an automatic electromechanical swinging door operator for a single door, simultaneously operated, or independently operated pair of doors. The concealed application operates center pivoted, offset pivoted, or butt hung/hinged doors. The surface application operates balanced (push side only), center pivoted, offset pivoted, or butt hung/hinged doors in either push or pull mode.

When activated, the Senior Swing IQ drives the door to the full open position and the door is closed by spring force. The activating circuit opens the door from any position in the closing swing. During a power failure, the Senior Swing IQ acts as a manual door closer (size 3). Door opening and closing cycles, including opening speed, back check speed, hold open time delay, closing speed, and latch position, are adjustable.

Introducing AdaptivIQ™ from LCN. This groundbreaking technology automatically and intuitively self-adjusts LCN low-energy electromechanical operators to changing environmental conditions—providing smooth, consistent performance year-round. It's like adaptive cruise control, but for your doors



Digital Experience, Please Read!

For the best installation experience, scan the QR code with your Smartphone or go to: qr.alle.co/r?Model=9500IQ

This will give you access to specialized interactive installation instructions as well as specific product information

Customer Service

1-877-671-7011 www.allegion.com/us

⚠ CAUTION ⚠

The Senior Swing IQ Power Operator System is a low energy product and must conform to the latest version of ANSI/BHMAA156.19 (American National Standard for Power Assist and Low Energy Power Operated Doors).

All installation instructions are valuable references and should not be discarded. They should be given to the building owner or maintenance supervisor after installation is complete.

⚠ CAUTION ⚠

Improper installation or set up may result in personal injury or property damage. Follow all instructions carefully. For answers to questions, call: Technical Support 1-877-671-7011

⚠ IMPORTANT ⚠

These instructions are presented in step-by-step sequence. It is very important that installation begins with "1. Pre-Installation Site and Product Check" (page 2) and continues as directed after each section.

⚠ WARNING ⚠

Always disconnect main power to the operator prior to installing or replacing.

⚠ WARNING ⚠

Ensure all wiring is compliant with local codes.

1 Pre-Installation Site and Product Check

⚠ IMPORTANT ⚠

Do not install the Senior Swing unless all of the following conditions are correct.

1a Check that the product model is correct for the required application.

1b Check that all parts listed on the bill of material are in the shipping container.

1c Check architectural and final approved shop drawings for position of frame and openings.

1d Required tools and included Hardware are as follows:

Required Tool List
• No. 2 and No. 3 Phillips Head Screwdriver
• 1/4" Slotted or Flat head Screwdriver
• 5/16" and 1/2" Hex Socket
• 1/4" Hex Key
• Tape Measure with 1/16" Divisions
• Power Drill, Hand Saw and Try-Square or equivalent
• #36 and G (Dia - 0.262) Drill bits
• 6-32 tap and 1/2" Countersink (82°)
• Center-Punch
• Masking Tape

9500/2800 Upgrade Hardware List

Part Number	Description	QTY	
		2810/9530/9540	2850/9550
	Gearmotor	1	2
	Control Box	1	1
	Plastic Filler Plate	1	1
48179392	Legacy Rocker/Key Switch Adapter	1	1
	8-32 1/4" Flat head screws	8	8
47989164	Harness, 9550IQ and 2850IQ Companion		1
48364118	Parts Bag Assy, SRSW IQ Control Box	1	1
48053228	Bag, Cable/Parts	1	2
48213799	Screw Bag, Gearmotor Concealed Mount	1	2

1e **For 120 VAC Incoming Power:** The 120 volt power supply must be a dedicated circuit from the main circuit breaker panel and must not be connected into a building lighting system operating fluorescent lights.

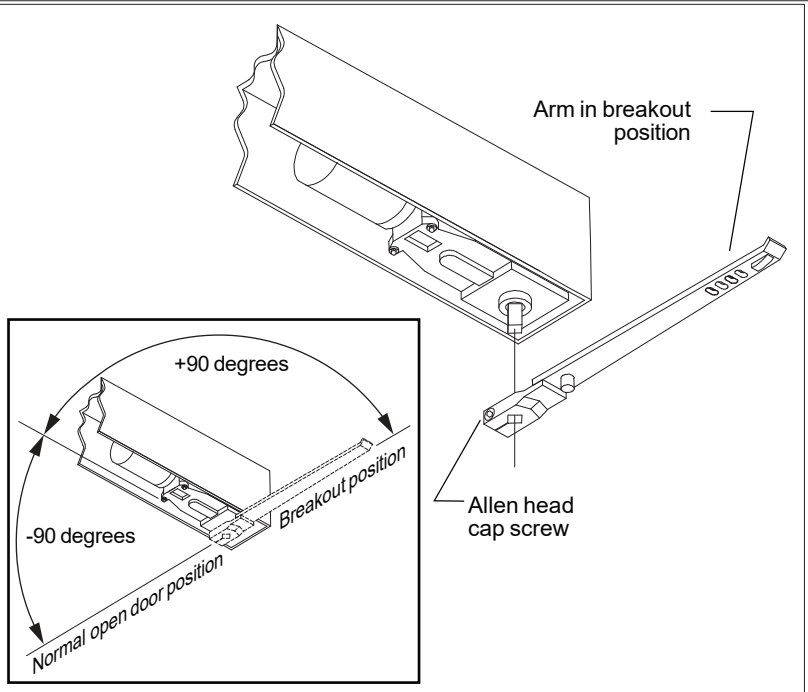
1f **For 230 VAC Incoming Power:** The 230 VAC power supply must be a dedicated circuit from the main circuit breaker panel and must not be connected into a building lighting system operating fluorescent lights.

2 Legacy Operator and Control Box Uninstallation

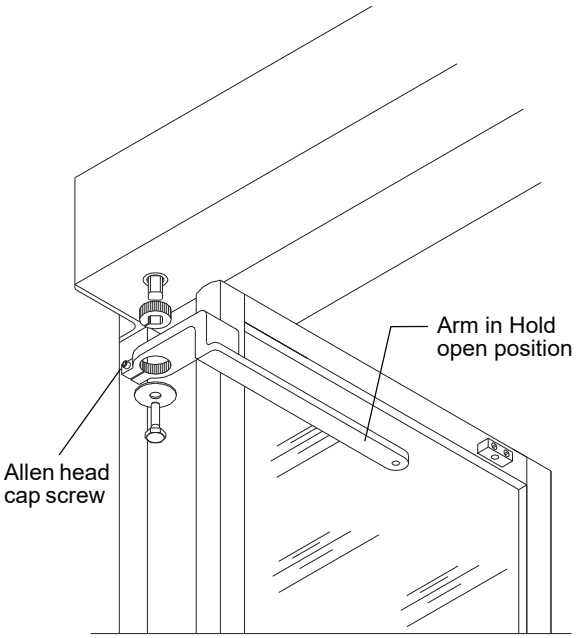
2a Switch the operator to Breakout (for Concealed) or Hold Open (for Surface mount) position and remove the arm from the Gearmotor spindle by unscrewing the Allen head cap screw. Refer appropriate arm installation instructions (PN-740008/740009/740013/740132 available in LCN digital library)

ⓘ **If there is a Breakaway Switch (BKY), push the door to its +90° breakout position.**

ⓘ **If there is a Positive Stop (POS), remove the POS from The Header and push the door to its +90° breakout position.**



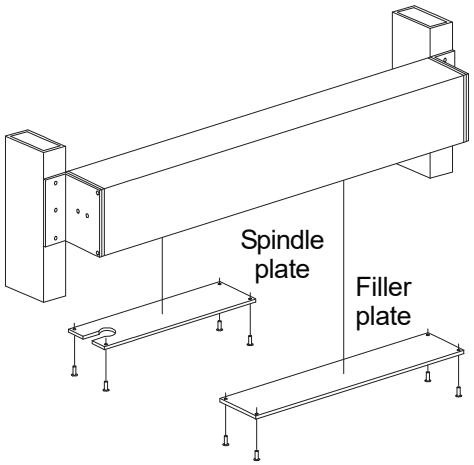
Concealed Operator



Surface Mount Operator

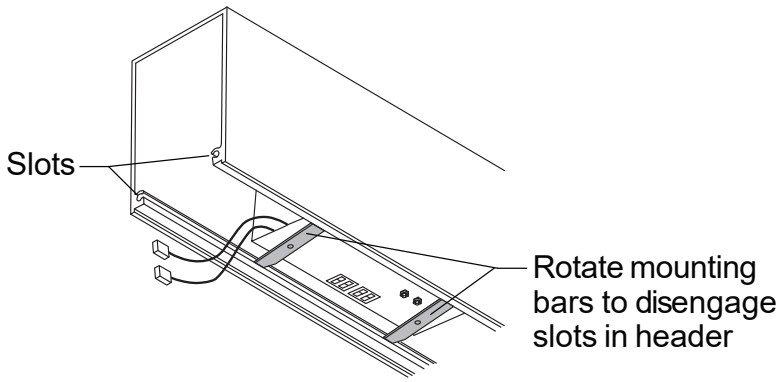
2b Disconnect Main power to the operator.

2c Remove Spindle plate and Filler plates from the Header bottom.

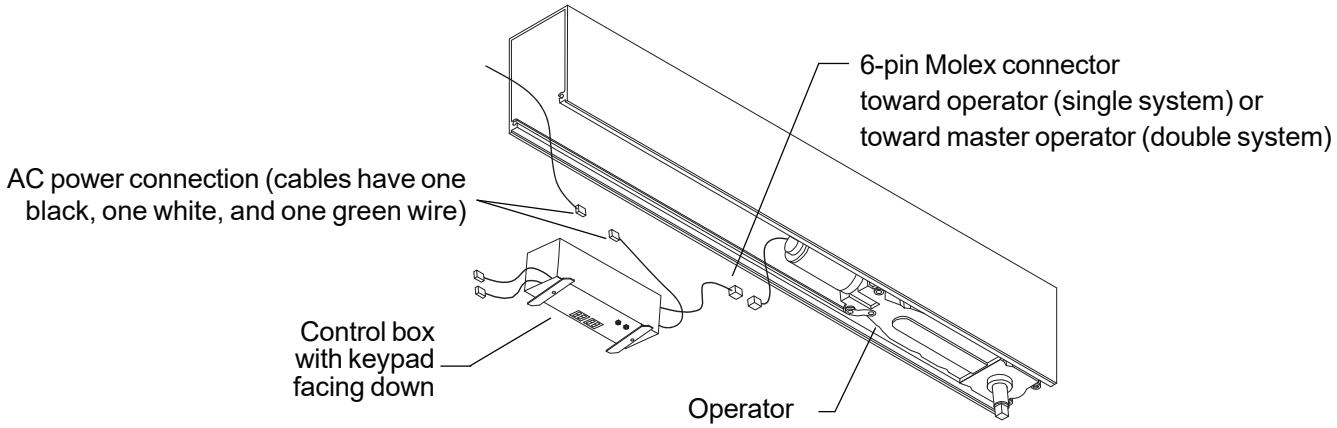


2d Control Box Uninstallations:

a. Rotate the two mounting bars to disengage the Control Box from the slots that run the length of the operator.

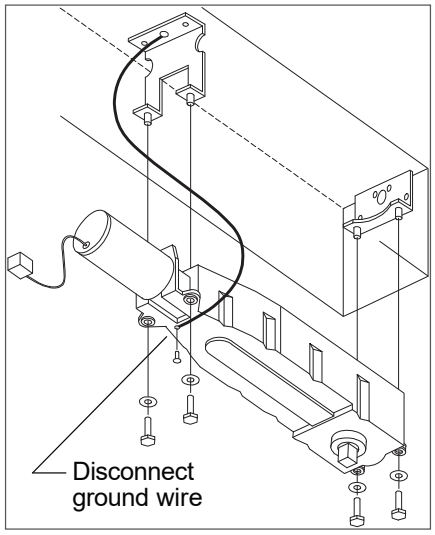


b. Disconnect the AC power cable, 6-pin Molex connector to the operator and other accessories (if any) connected to the Control Box.



2e Operator uninstallation:

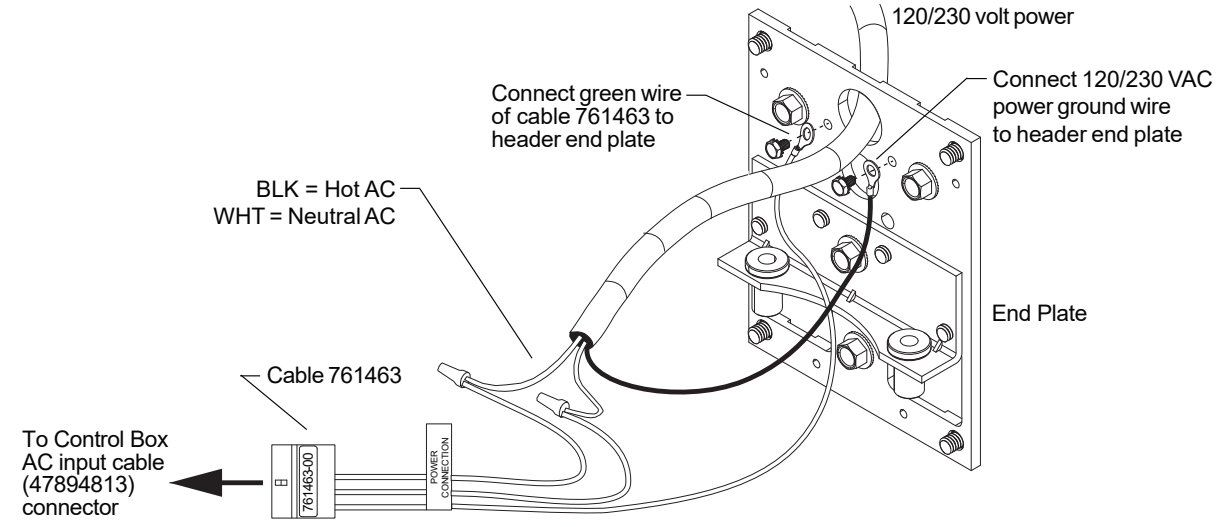
a. Disconnect the ground wire from the operator and remove the four 5/16-18 hex head screws from the mounting studs while holding the operator in place. Pull the operator down to disengage it from the brackets. For a header with two operators, uninstall the second operator in the same manner.



Warning: Be careful to have firm grasp of Operator while removing fasteners to prevent it from uncontrollably falling.

3 AC Power and Ground Wiring

3a Double check the existing Power connections. Make sure the 120/230V building power wires are connected to the AC power cable (part number 761463) and ground wires to the header end plate as shown in Figure 3-1.



Warning: Do NOT connect the 761463 wire harness connector to the Control Box AC Input connector (47894813) until step 5 has been completed

Figure 3-1

4 New Operator Installation

4a For double operator systems with differently handed operators, make sure that the correct operator is installed in each end of the header. The handing of the operator (R.H. or L.H.) is indicated on a label on the operator (Figure 4-2).

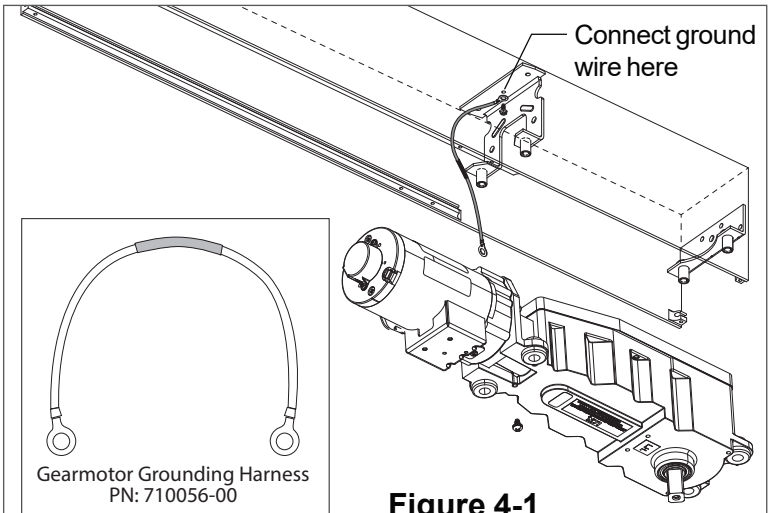


Figure 4-1

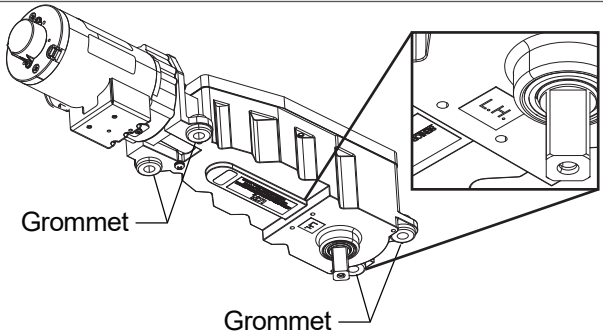


Figure 4-2

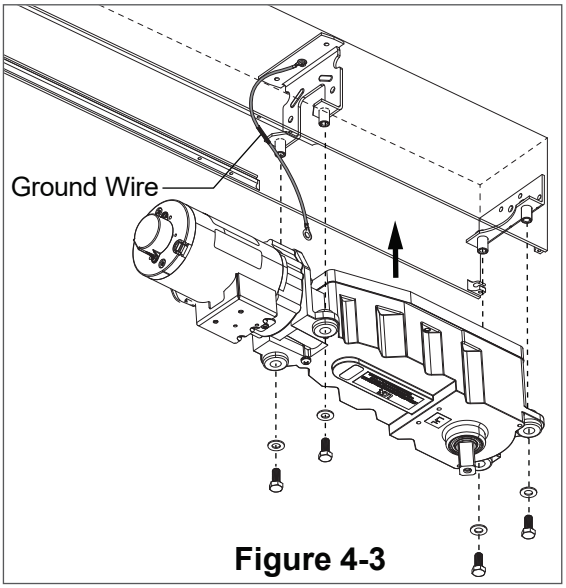


Figure 4-3

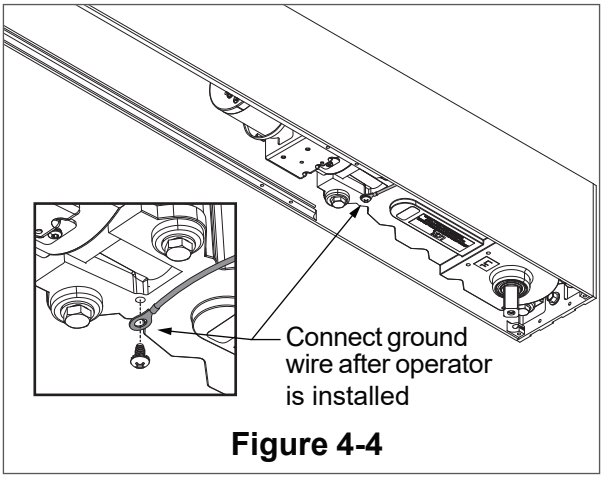


Figure 4-4

4b Connect the end of the green operator ground wire to the rear operator mounting bracket in the header (Figure 4-1) using the #10-32 hex head green ground screw supplied in the operator screw pack.

4c Make sure there is a rubber grommet inside each of the four operator mounting holes (Figure 4-2).

4d Line up the four mounting holes on the operator with the four mounting studs on the operator brackets (Figure 4-3). Make sure that the operator cables are hanging down freely and push the operator up onto the mounting studs. Make sure cables are not pinched when operator is installed. (The mounting studs fit snugly into the grommets, and firm pressure may be required to get the operator into position.)

4e Secure the operator to the header using four 5/16-18 hex head screws and washers (Figure 4-3). Tighten the screws until they make contact with the mounting studs on the operator brackets.

4f Connect the other end of the green ground wire to the bottom of the operator (Figure 4-4).

4g For a header with two operators, install the second operator in the same manner.

5 New Control Box Installation

5a Orient the control box so the keypad faces down and the Molex connectors faces the operator for a single operator system or the Primary operator for a double operator system (Figure 5-1).

5b Raise the control box into the header and rotate the two mounting bars so they engage the slots that run the length of the header (Figure 5-2).

5c See Figure 5-3 for final positions of operator(s) and control box inside the header. Keep approximately 1/2” gap between Control Box and Operator

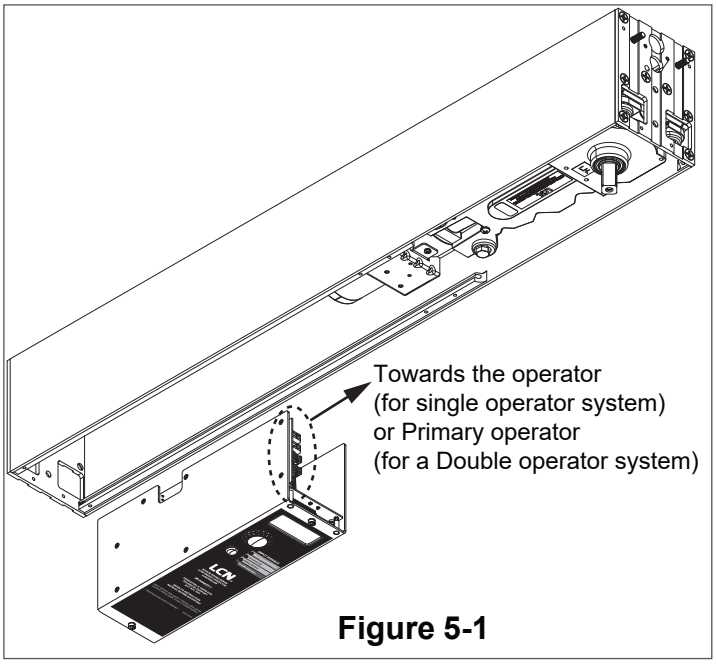


Figure 5-1

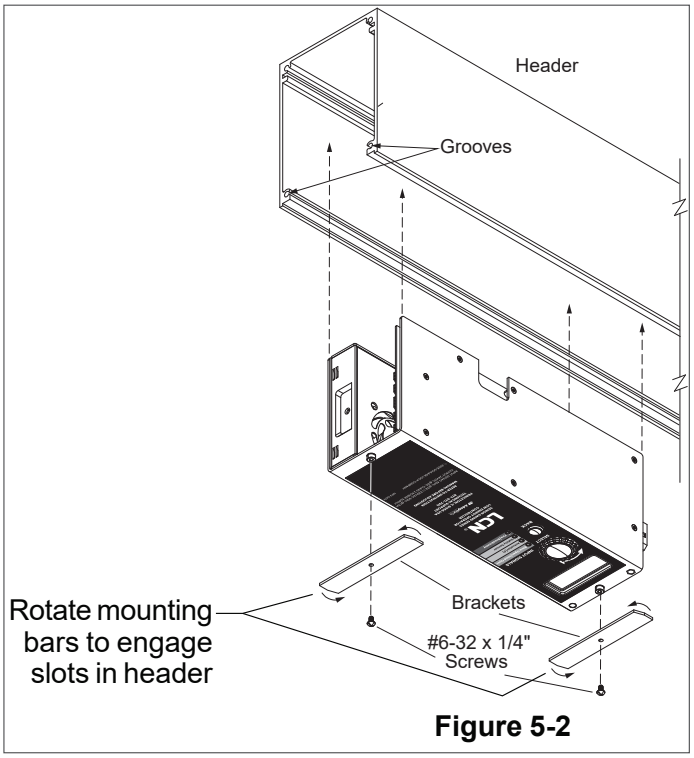


Figure 5-2

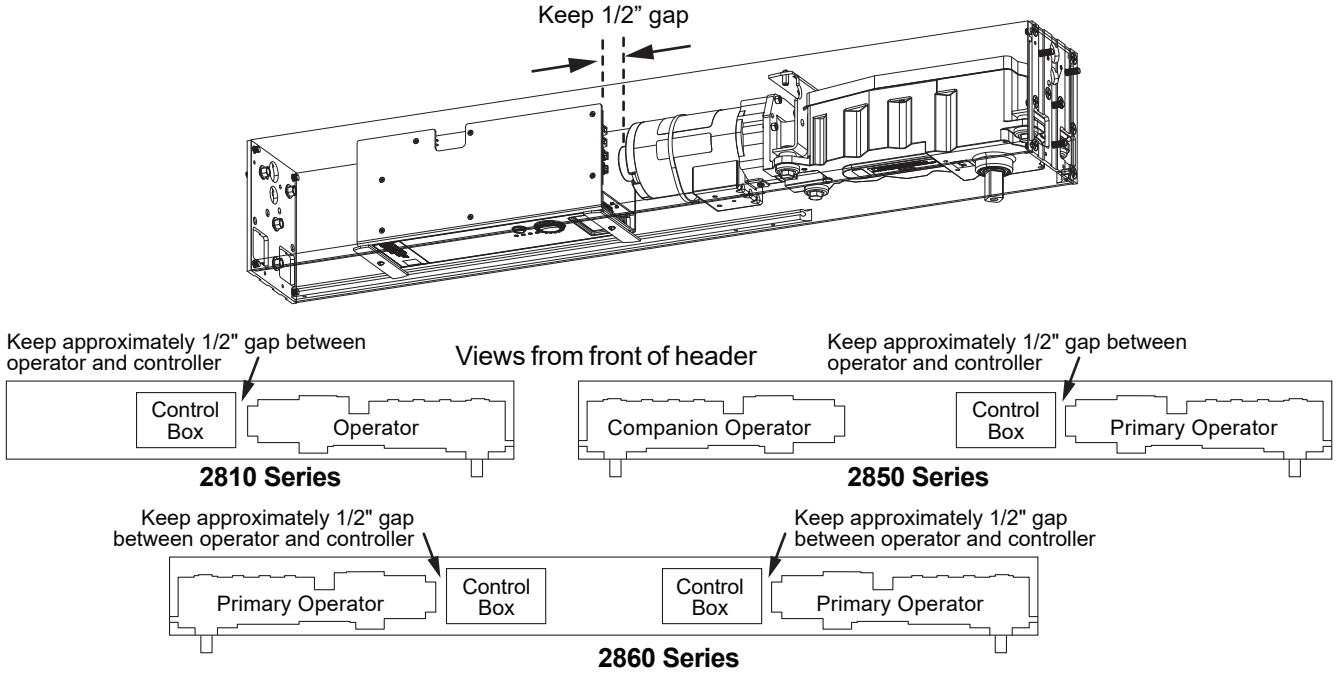


Figure 5-3

6 Control Box Wiring

⚠ CAUTION ⚠

High voltage wiring must be separated from low voltage wiring by UL listed wiring for the control box, operators, and low voltage accessories.

⚠ CAUTION ⚠

When joining or separating a Molex plug and receptacle, do not push or pull on any of the wires. This may cause a wire to be pulled loose from a terminal, which may result in a malfunction.

6a Single operator system minimum wiring requirements:

- AC power
- Primary motor power
- Breakaway switch or jumper

Double operator system minimum wiring requirements:

- AC power
- Primary motor power
- Companion motor power
- Breakaway switches or jumpers; if two Breakaway switches are used, wire switches in series

6b Primary operator Power wiring must be completed by connecting both Gearmotor harnesses to the two black Control Box headers facing the Gearmotor. See Figure 6-1. Only remove the Fire/Breakaway Jumper Harness if wiring the Control Box into the building fire system or if using a breakaway switch. For wiring of companion operator and additional accessories, see the Senior Swing IQ Control Box Installation (PN-48348385).

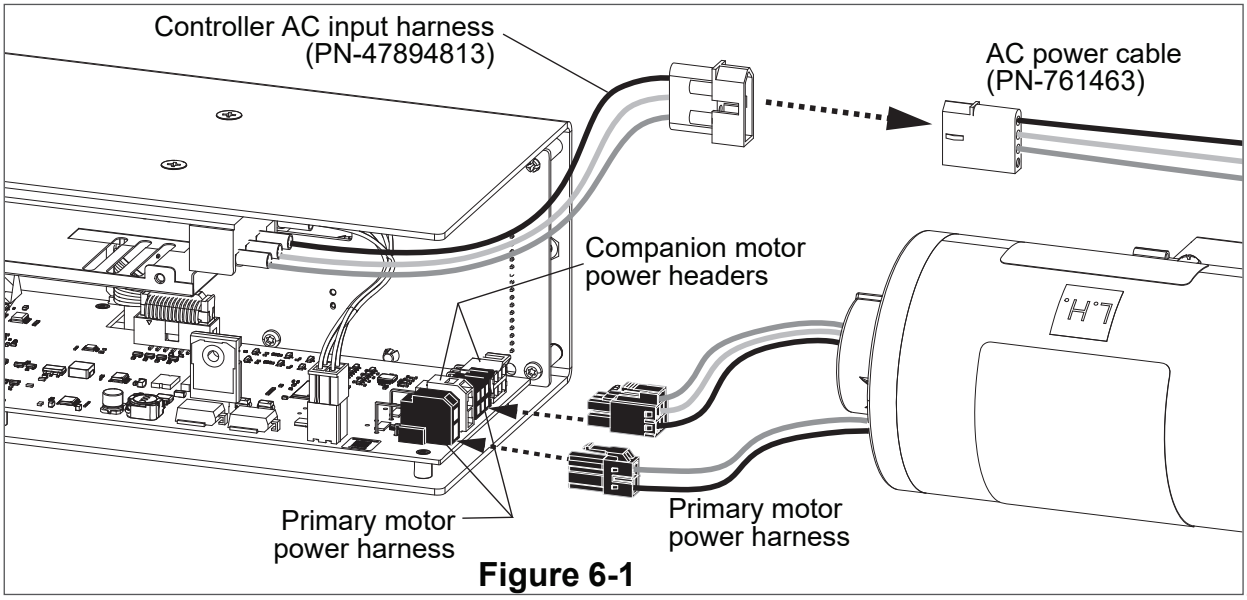
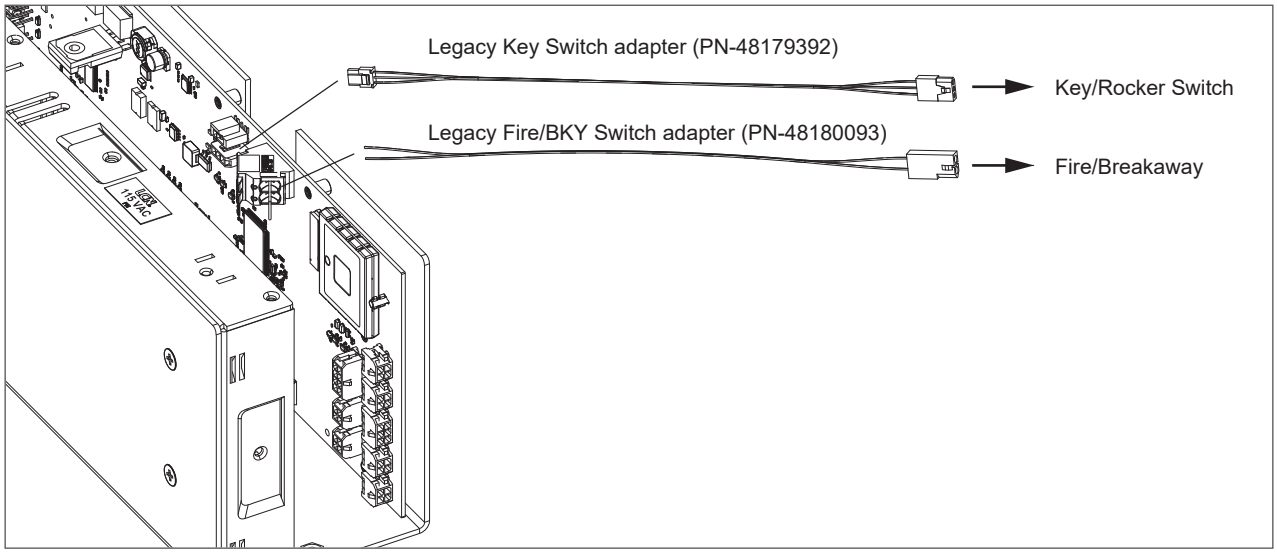
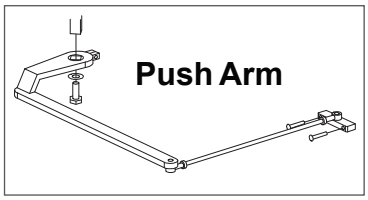
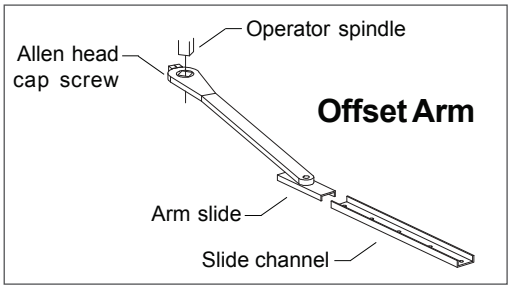
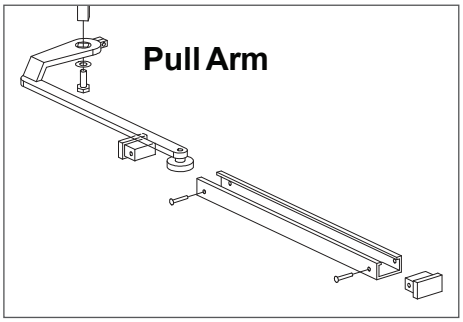


Figure 6-1

ⓘ **Use appropriate legacy adapter harness to connect existing Key/Rocker switch or Fire/Breakaway (if applicable)**



7 Arm Installation

Surface	Concealed
Push Arm: For surface header applications. To install, see separate instructions for Push Arm & Link Assembly. (PN-740008)  	For concealed header with Center Pivoted Doors, refer “Senior Swing Overhead concealed and Surface applied Installation Instructions (PN-740132)” section 11c. For concealed header applications using offset arm with butt hung and offset pivoted doors, follow the steps below, 1. Note position of operator spindle. Turn on operator power. Ensure that the Key/Rocker Switch is set to the “HO” state and wait for the operator spindle to rotate to a complete stop (Alternatively, shortening the activation wire together with a wire nut). The blue LED on the Control Box will indicate that Hold Open is active. 2. Insert arm slide into slide channel, slide arm onto spindle, and tighten arm Allen head cap screw. 3. Set the Key/Rocker Switch to “AUTO” state (Alternatively, remove wire nut from activation wires). Then turn off power. 
Pull Arm: For surface header applications, see separate instructions for Pull Arm Assembly. (PN-740009)  	

8 Control Box Functions

To set control box functions, see the Senior Swing IQ Control Box installation instructions (PN-48348385).

9 Plate Installation

9a To achieve optimum Bluetooth/WIFI performance, it is necessary to modify existing Filler plates and install the Plastic filler plate (PN-48264151).

9b Mark the location of Control Box edge (away from the Primary Operator) on the Header surface.

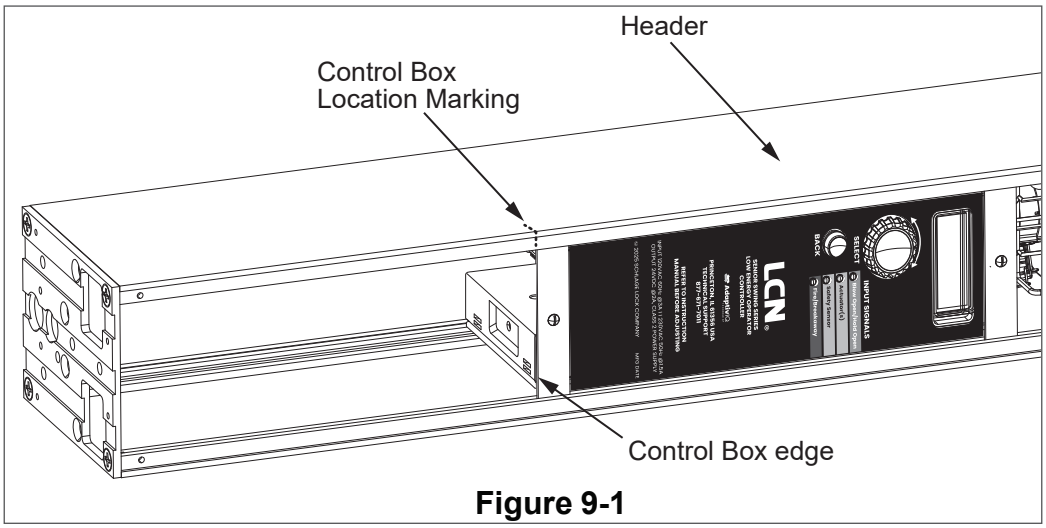


Figure 9-1

9c Permanently Install the existing Spindle plate; Spindle plate cutout fits over operator spindle. Place the Filler plates to previously installed position and tape it to the Header so that they are safely held in place. Filler plates will now be in position to be marked for new cut length.

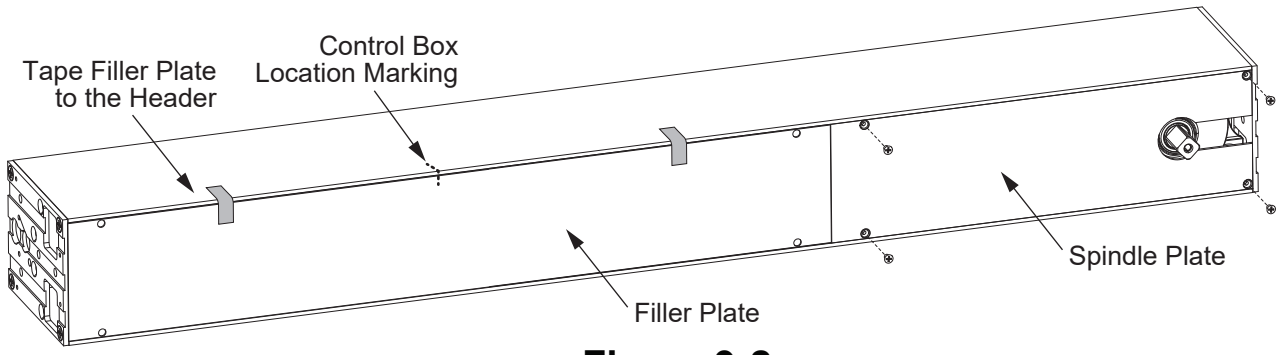
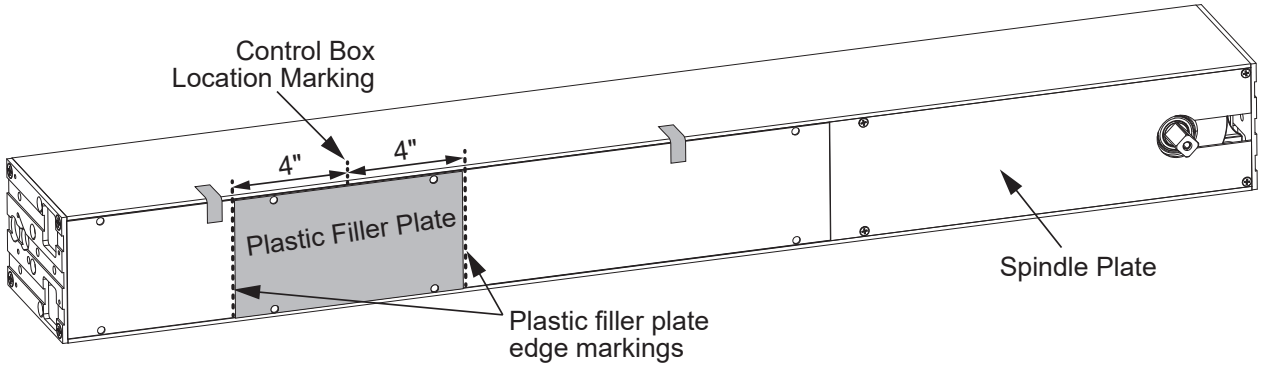


Figure 9-2

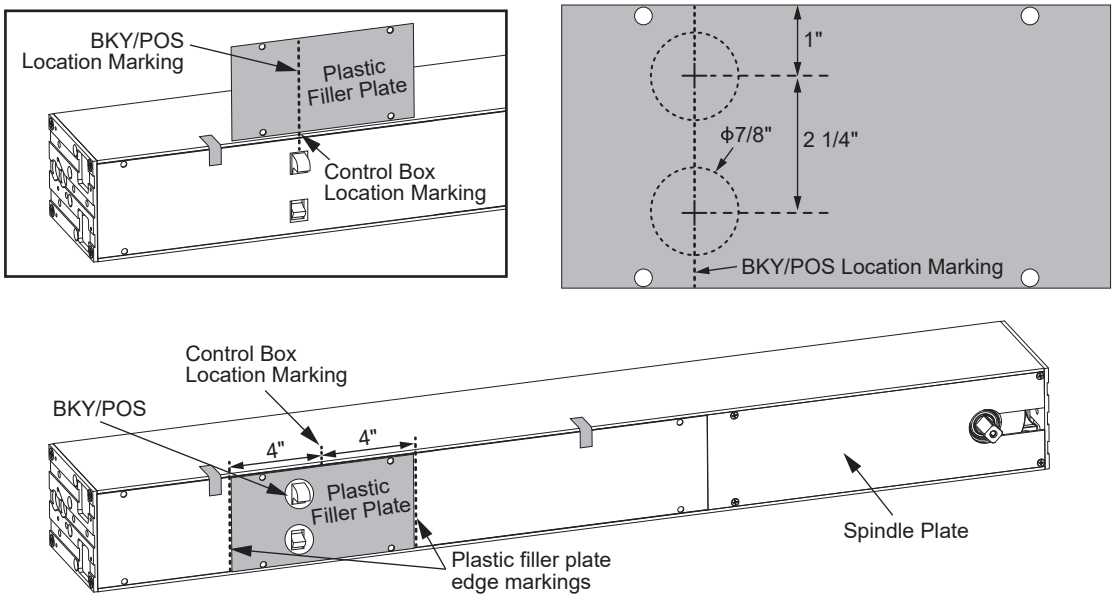
9d Overlay the 8” long Plastic filler plate (PN-48264151) such that the Control Box Location marking (previously marked on the Header) is centered approximately 4” from either edge of the Plastic filler plate. Mark the Plastic filler plate edges on to the Aluminum Filler plate (to indicate where they must be cut).



HEADER WITHOUT BKY/POS

Figure 9-3

ⓘ **If there is a Breakaway(BKY)/Positive Stop(POS) switch in the way, mark the location of BKY/POS switch on the plastic filler plate. Modify the plastic filler plate with two holes (7/8”diameter) for BKY/POS using a standard or Step drill (Figure 9-4). If there is an interference between plastic filler plate holes and BKY/POS Switch during installation, discreetly sand or shave away the interfering plastic material.**



HEADER WITH BKY/POS

Figure 9-4

9e Remove the Aluminum Filler from the Header. Cut the Aluminum filler plate along the markings and discard the middle piece. To assure a nice aesthetic fit with the new Plastic filler plate, make sure the cuts are straight and perpendicular to the Aluminum filler plate edges.

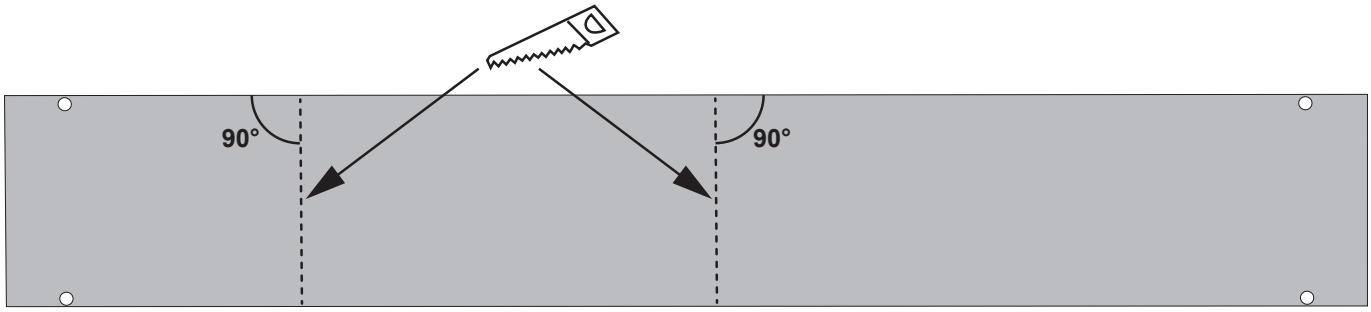


Figure 9-5

9f Discard the middle, cut section.

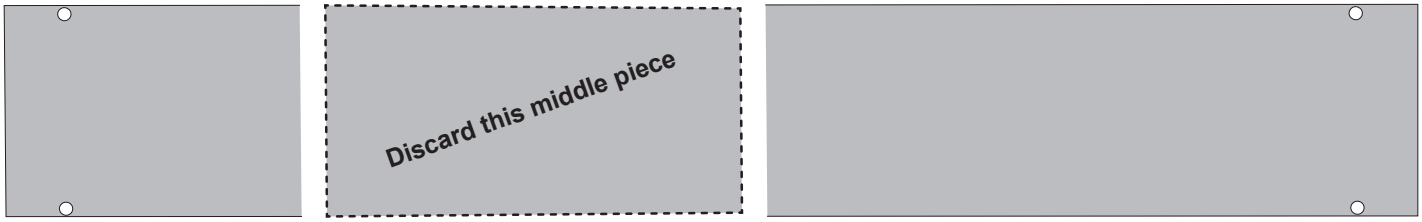


Figure 9-6

9g Drill (Drill# G) and Counter sink fastener holes near the Aluminum Filler plate cut edges as shown. Refer Fig. 9-7 for reference dimensions. Be careful not to break through the edge of Aluminum filler plate with drill hole or countersink.

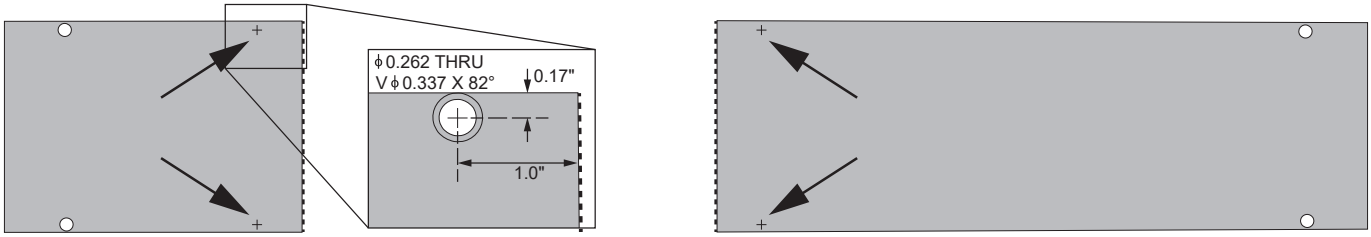


Figure 9-7

9h Place the Cut Aluminum filler plate sections and Plastic filler plate and tape to Header so that they are safely held in place. Using the Aluminum and Plastic filler plate as a template, mark the new fastener hole locations on the Header using a center punch.

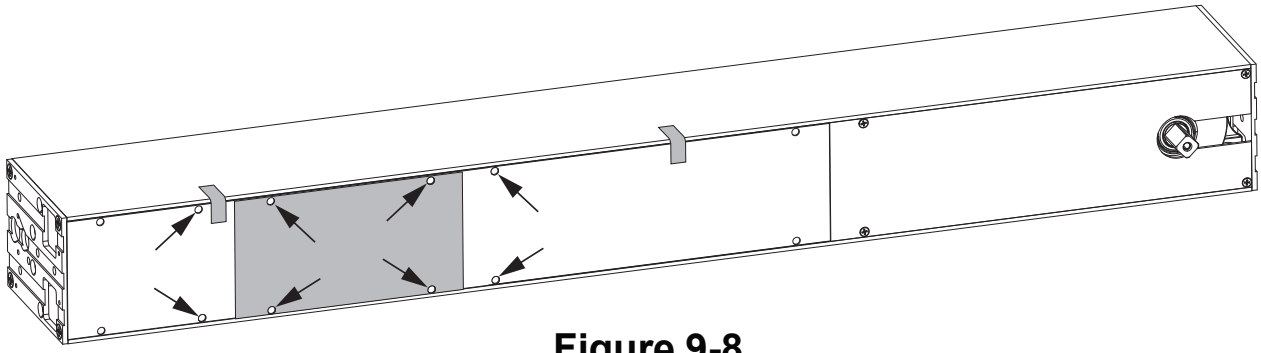


Figure 9-8

9i Remove the Aluminum filler plate sections and Plastic filler plate from the Header. Drill (Drill#29) and Tap (8-32) holes in the marked locations on the Header channels.

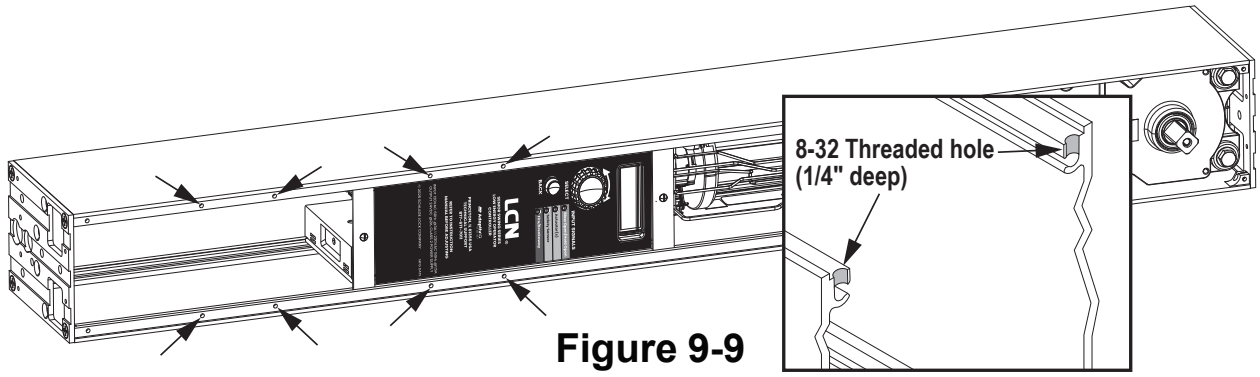


Figure 9-9

9j Permanently install the Aluminum filler plate sections and Plastic filler plate to the Header.

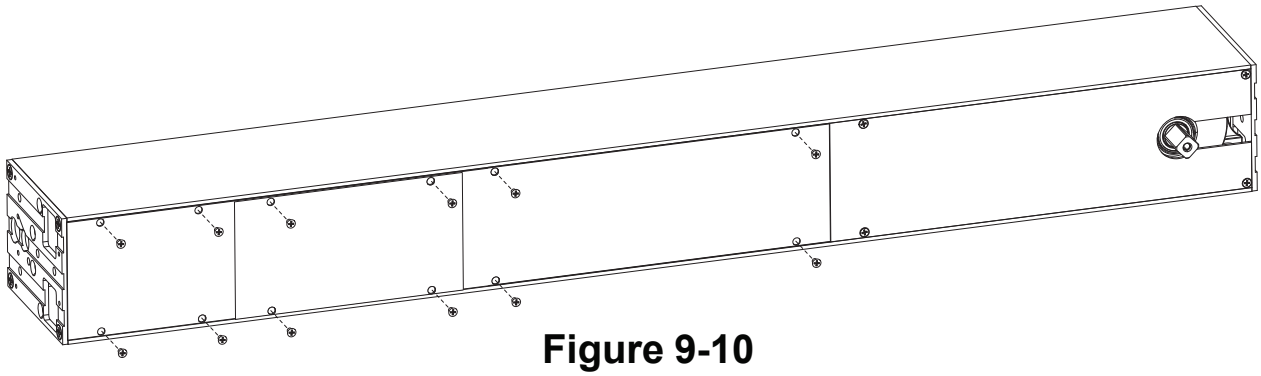


Figure 9-10

9k Series configurations

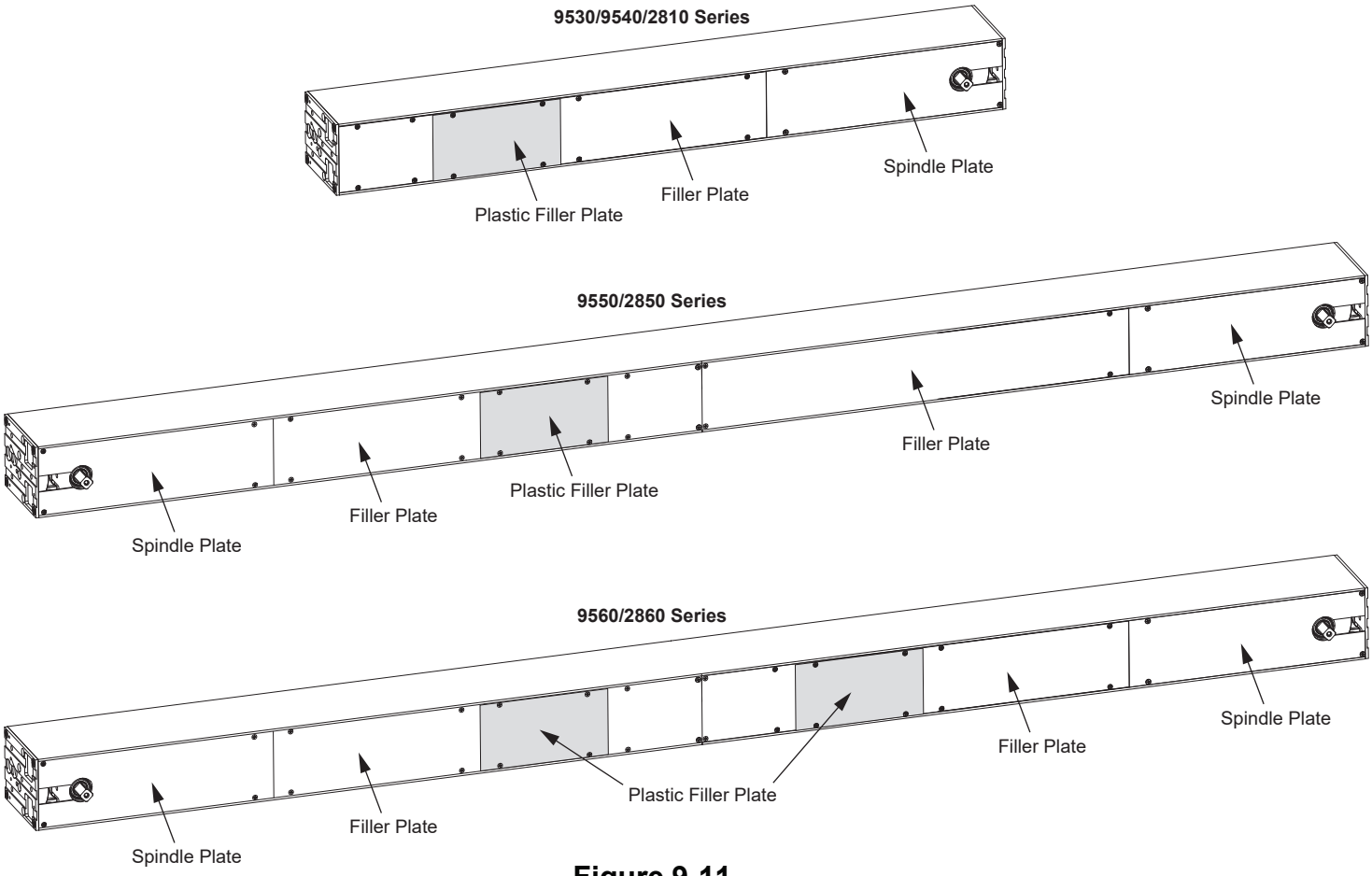


Figure 9-11

10 Release for Service

10a Remove all tools, installation equipment, and debris from the vicinity of the door.

10b Install all safety, traffic control, and instruction decals on the door as required by the latest revision of ANSI/ BHMA156.19 for the Senior Swing. This is very important! Failure to do this leaves the installer LIABLE for any accident that might occur. This must be done!

10c Verbally instruct the owner or person in charge of the proper operation of the door.

10d Instruct the owner or person in charge to routinely inspect the door for occasional damage, developing problems, minor preventive maintenance.

10e Instruct the owner or person in charge who and where to call for service when required.

⚠ IMPORTANT ⚠

Make sure to install all safety, traffic control, and instruction decals on the door as required.

Customer Service

1-877-671-7011 www.allegion.com/us

ALLEGION

48431448 Rev. 07/25-a