OWNER'S MANUAL

MODEL 209
Full Aluminum

MODEL 209
Full Vision

MANUAL PART #: 17A235-0622

Manual last updated on: November 8, 2022 3:31 PM

Safety Practices

This is a safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

CAUTION used without a safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE

NOTE explains general information.

⚠ WARNING

Read these safety practices before installing, operating or servicing the SLIDING door. Failure to follow these safety practices could result in property damage, death or serious injury.

READ AND UNDERSTAND ALL WARNING LABELS AND OPERATING INSTRUCTIONS IN THIS MANUAL BEFORE OPERATING THE SLIDING DOOR. If you do not understand the instructions, ask your supervisor to teach you how to use the SLIDING door.

Safety Practices (cont'd)

1. Do not operate the door while under the influence of drugs or alcohol.
2. Do not use the door if it looks broken or does not seem to work properly. Advise your supervisor at once.
3. Stay clear of the door when it is moving
4. Keep hands, feet and head clear of the door at all times.
5. Do not operate the door with equipment, material or people directly inside door opening.
6. Disconnect power before performing any electrical or mechanical service, cleaning or other maintenance on the door. OSHA requires disconnect to be properly tagged and locked out during all maintenance or service of equipment. With the power supply disconnected, always verify using a volt meter.
7. All electrical troubleshooting or service must be completed by a qualified electrician or service person and must meet all applicable local, state, federal, international and other governing agency codes.
8. When it is necessary to service the control box with power on, USE EXTREME CAUTION. Do not place fingers or uninsulated tools inside the control box. Touching wires or other parts inside the enclosure may cause electrical shock, serious injury or death.
9. It is your responsibility to keep all warning labels and instructional literature legible, intact and kept with the door. Replacement labels and literature are available from ASI Doors, Inc. or its representatives.
10. If you have any questions, contact your supervisor or your local ASI Doors, Inc. representative for assistance.
11. Train all service and personnel using or near door on intended use(s) and operation of the door.
12. Failure to operate the door as intended, as described, or heed any warning may result in equipment damage, property damage, serious bodily injury or death.

Warranty Policy

ASI Doors (herein called "ASI") warrants solely for the benefit of its customer that each door system manufactured by ASI (each a "Door System") will be free from defects in material and manufacture for a period of one (1) year from the date of original shipment by ASI. The following models receive a similar two (2) years from date of shipment warranty: 109, 209, 120-125, 1240-125-, 1240SS-1250SS, 1260-1270, 1260SS-1270SS, 130-135, 140-150, 160-170, 220-225, 220SS-225SS, 230-235, 230SS-235SS. In all instances warranty labor is covered for a period of one (1) year from the date of original shipment.

The foregoing limited warranty shall not apply to defects that result from improper installation, abuse, misuse, alteration, modification, or failure to maintain the Door System in accordance with the ASI Owner's Manual. Periodic maintenance and adjustment of the Door System as described in the ASI Owner's Manual are the sole responsibility of the customer. All claims for defects must be made to ASI within thirty (30) days after the defect is discovered or should, with reasonable care, have been discovered. **THE FOREGOING LIMITED WARRANTY CONSTITUTES THE EXCLUSIVE WARRANTY OF ASI WITH RESPECT TO THE DOOR SYSTEM. ASI EXPRESSLY DISCLAIMS ALL OTHER GUARANTEES OR WARRANTIES—WHETHER EXPRESSED, IMPLIED, OR STATUTORY, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

If a Door System does not comply with the foregoing limited warranty, and a claim is made by customer within the warranty period, ASI will, at the option of ASI, either repair or replace any defective equipment or parts free of charge and pay the reasonable labor costs to repair or replace the defective equipment or parts if within the defined warranty period. The remedy of repair or replacement shall be the exclusive and sole remedy for any breach of the foregoing limited warranty.

ASI SHALL NOT IN ANY EVENT BE LIABLE FOR ANY INCIDENTAL, INDIRECT, SPECIAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING WITHOUT LIMITATION ANY LOST PROFITS, ARISING FROM THE SALE OR USE OF THE DOOR SYSTEM, OR FROM ANY OTHER CAUSE WHATSOEVER, WHETHER THE CLAIM GIVING RISE TO SUCH DAMAGES IS BASED UPON BREACH OF WARRANTY (EXPRESSED OR IMPLIED) BREACH OF CONTRACT, TORT, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF A PARTY HAS BEEN ADVISED OF THE POSSIBILITY THEREOF, AND REGARDLESS OF ANY ADVISE OR REPRESENTATION THAT MAY HAVE BEEN RENDERED BY ASI CONCERNING THE SALE OR USE OF THE DOOR SYSTEM.

At ASI's request, customer shall return to ASI for inspection any Door System for which a warranty claim has been made, F.O.B. ASI's facility with freight prepaid. The customer is responsible for any removal costs.

The customer shall comply with the following procedures in filing a warranty claim with ASI:

1. Notify ASI of any and all defects in writing with photographic evidence. ASI will review the warranty request and issue a Returns Merchandise Authorization (RMA) form if the defective parts need to be returned to ASI for inspection and verification. The RMA form must accompany any materials returned for warranty consideration.

2. All replacement parts or equipment will be invoiced to the customer. Upon verification by ASI that the Door System is defective, ASI will issue a full credit to customer for the replacement parts or equipment.

3. If outside labor is needed to install the replacement parts or equipment, ASI requires a written estimate of the labor charges in advance so ASI may approve the labor charges and issue a purchase order. ASI will not accept any labor charges unless previously approved in writing and accompanied by the ASI purchase order number.

(Rev 12/21)

Crates and Contents

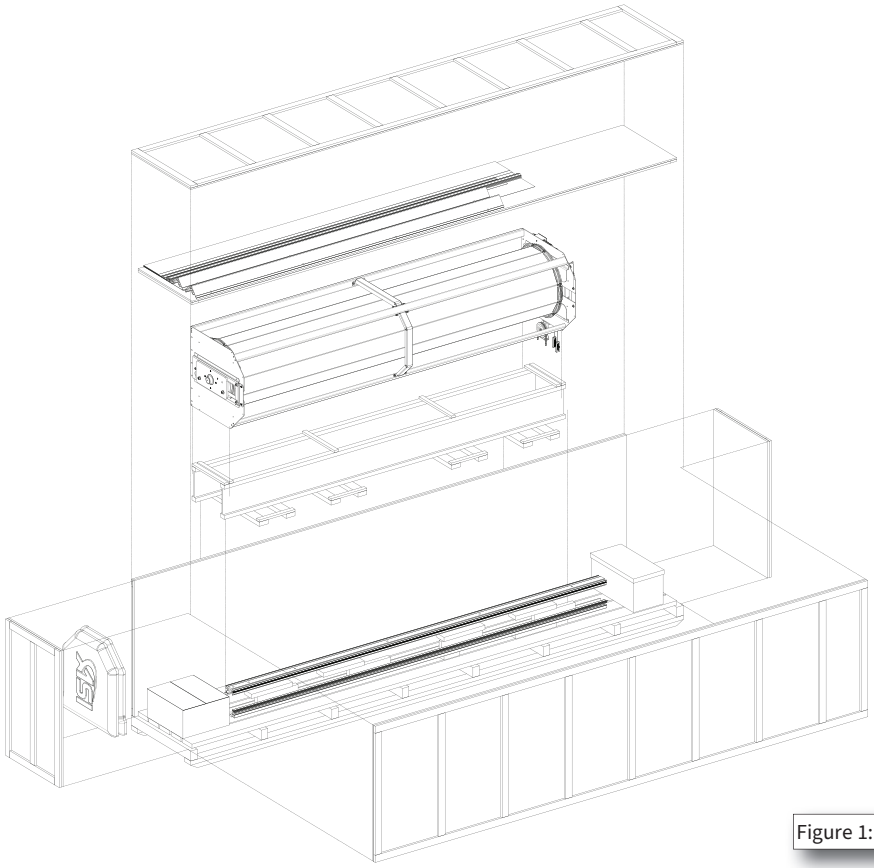


Figure 1: Crate and Contents

Upon receipt of the shipment, check that you have received the correct number of pieces as shown (Figure 1). Shipping crates will contain the face frame assemblies, the curtain and header assembly, the shroud components, the loose parts box, and the control box. For your protection, note any damages or shortages on the carrier's bill of lading before signing the bill for receipt.

The installation of this door will require at least a two man crew and a fork lift. Wider doors require 2 fork lifts. Select fork lifts with lifting height based upon the height of the door plus a minimum additional two feet.

NOTE

Because of variances in the construction of walls on which the door will be mounted, fasteners are not supplied. For proper anchoring of the door, we recommend the use of thru-bolts. DO NOT remove door sections from crate until you encounter the step in which they are to be installed.

Unless specifically called out as "Provided by ASI", installer is to provide all necessary mounting hardware, anchors, inserts, hangers, supports and equipment needed to install door in accordance with final shop drawings and manufacturer's instructions.

Loose Parts

Description	Qty.
Installation Instructions	1
Sales Drawing	1
Warning Nameplate Assembly	2
Chain Keeper	1
Hanger, Spreader Bar	2
Bracket, Lintel Seal, Slat Support	1
Filler Block, Lintel Seal, Slat	2
Gusset, Spreader Support	1
Support, End Cover, Long (Shroud Option)	5
Support, End Cover, Short (Shroud Option)	5
Manual/Auto Ext. Cord 10 Meter	1
Chain Extension, 2 Meter	As Req
Misc. Hardware Bag	1
Self Expanding Foam (Roll)	1

Un-bolt Lifting Cradle

⚠ WARNING

Lifting cradle is attached to shipping crate with lag bolts in 4 places. Be sure to remove the lag bolts before attempting to lift the lifting cradle & header out of the shipping crate.

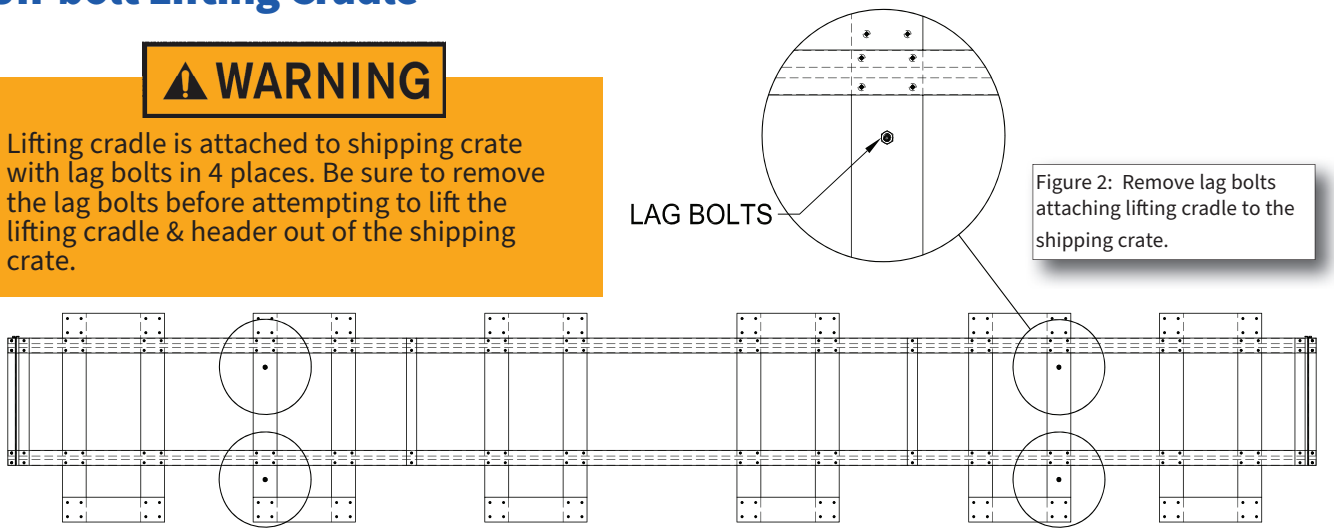


Figure 2: Remove lag bolts attaching lifting cradle to the shipping crate.

Opening Measurements

⚠ WARNING

Improper installation of anchoring devices, installation into aged or unsound concrete or mounting to a non-plumb wall without proper shimming could result in premature product wear or product failure. Failure to properly install equipment could result in property damage, bodily injury or death.

ASI Door assemblies are built to match the dimensions of a specific size opening and will match the sizes listed on the ASI Sales Drawing that was created for your specific opening.

Before mounting any components, check opening for width at top, middle, and bottom, and check square of opening. Check level of top of opening and plumb of sides. Check mounting surfaces for any obstructions or surface irregularities.

Mounting surfaces should be free of debris and as flat as possible before mounting components. Any deviations in the opening from the dimensions the door was built for will need to be compensated for when mounting door components.

⚠ WARNING

Mounting hardware must support a minimum of:
- 4000 Lbs Shear Force.
- 1000 Lbs Pull Force.

It is the owner's and installer's responsibility to use fasteners that meet or exceed the minimum forces listed, and that are appropriate for the wall type that this door is being mounted to. Failure to do so could result in property damage, bodily injury or death.

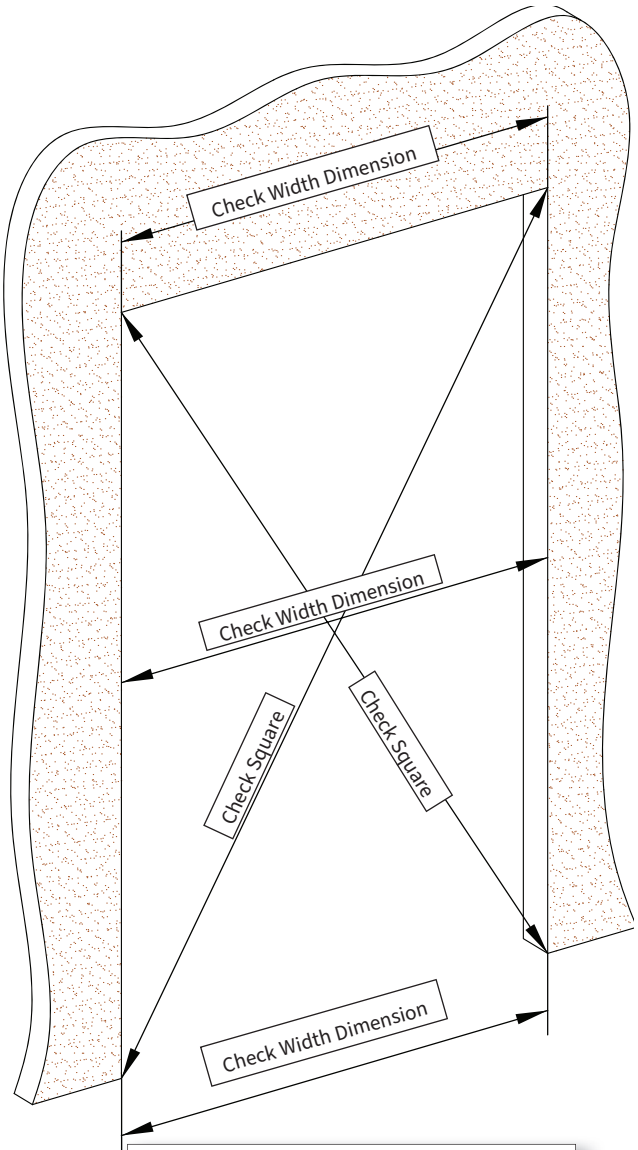


Figure 3: Check plumb, square, and width when mounting face frames to wall.

Mounting Face Frames

1. Retrieve face frame from shipping crate. If covers are attached to face frames, remove covers before mounting face frames. Note that face frames are handed, and must be installed on the correct side of opening. See Figure 5 for orientation.
2. Measure opening for width and height. Note any difference in width (WIC) and height (HIC) against those listed on sales drawings that door was built to. Also note the surface condition of mounting areas around opening.
3. Figure 5 & 7 show the layout & hardware for mounting face frames. 1/2"through bolts with steel backing plates on the far side of wall are recommended.
4. Measure and hold inside dimension between face frames at WIC plus zero/minus 1/8" as shown. Header mounts on the outside surfaces of the face frames so this dimension can't be oversize or the header will not fit properly. Outside dimension is show for reference. This dimension has to be less than the distance between header plates.

Face frame extrusions will be mounted to both sides of the opening. The header assembly mounts to the face frame extrusions. At the top of each face frame extrusion, there is a hanger bracket that holds the top spreader bar of the header assembly.

The position of the hanger brackets on the face frames will Dictate how the header is positioned, so it is critical to position and mount the face frames carefully and correctly for the header to be located correctly.

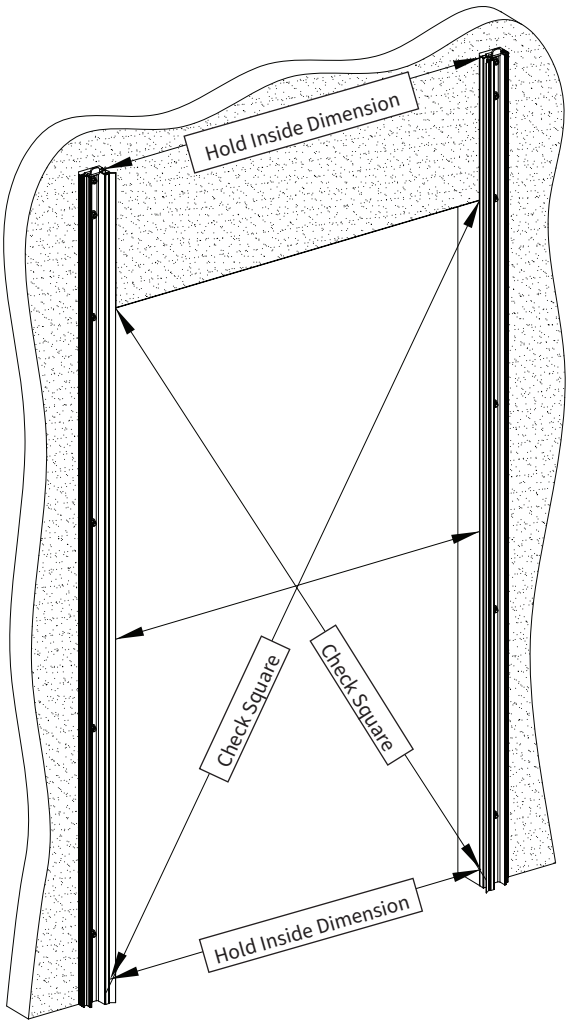


Figure 4: Keep Face Frames Square, And Hold Width When Mounting To Wall

⚠ WARNING

Mounting the face frames incorrectly will result in poor header location and may adversely affect the operation and performance of the door. Follow all mounting Instructions carefully to insure optimum performance.

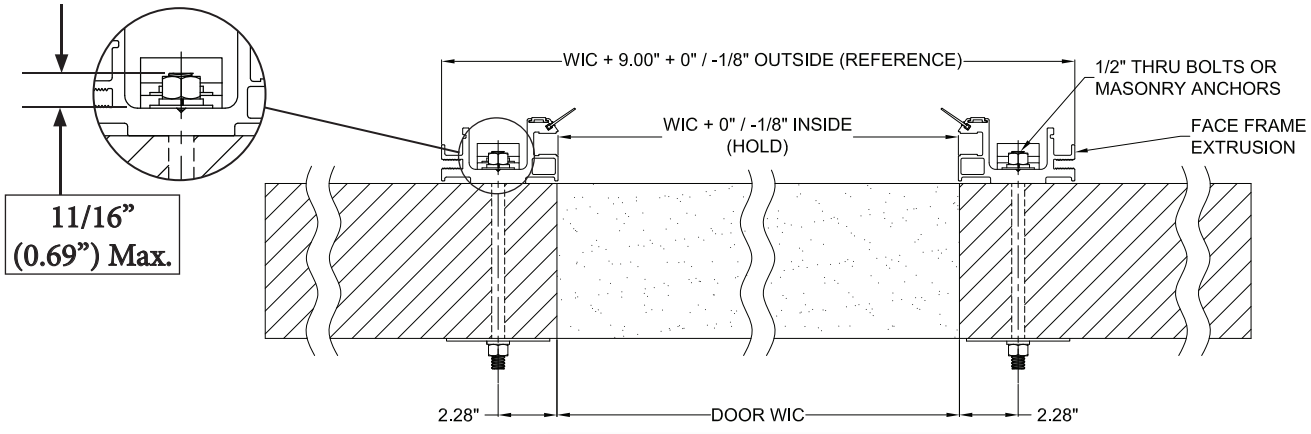


Figure 5: Face Frame Mounting Dimensions

Mounting Face Frames Continued

5. Header need to be in-line and plumb to the floor (Figure 6). If there are protrusions or obstructions on the wall, or if wall surface is not straight and plumb, face frames will need to be shimmed at specific spots to keep them plumb and in-line with respect to the header.
6. Because the hanger brackets at the tops of the face frames determine the position of the header, the tops of the face frames need to be level.
7. Position both left and right face frames against the wall. Note the distance between face frames (Figure 5). Recommended minimum hardware is 1/2" through bolts (see warning on page 7). Temporarily secure both face frames to each side of the opening at their approximate mounting locations using c-clamps.
8. Go to the top of the opening and laser level across the tops of both face frames to determine if the tops are level. If not, add shims to the bottom of the low face frame & re-check until they are level at the tops of the face frames.
9. Note that face frame assemblies with the covers on will project out from wall 4-5/8" when assembled (Figure 10). If floor is sloped away from wall, face frames need to be shimmed so that the bottoms of the installed face frame covers will sit flush with the bottoms of the face frames, and will not interfere with the floor surface.
10. Check plumb of mounting surfaces of both face frames. Add shims to low areas to keep face frames plumb and straight. Areas of face frames at through bolt mounting holes need to be flush with wall or shimmed properly so the face frame doesn't distort when through bolts are tightened. Distorting the face frame will prevent the face frame covers from mounting correctly later.
11. When face frames are plumb, and tops of face frames leveled, mount with hardware appropriate for wall at install location. Only the top (2) mounting holes are pre-drilled in face frames (holes for spreader bar hanger). Drill remaining holes for mounting through face frames & wall per dimensions (Figure 8) 36" spacing maximum.
12. Hand tighten fasteners. Check distance between face frames at top, middle, and bottom. Check diagonals for square and adjust if necessary. After all checks have been made, tighten fasteners except for top (3) fasteners on each frame. These will be tightened after mounting header. Making sure face frames are not distorting while tightening bolts.
13. Note: do not allow fasteners to protrude more than 11/16" (0.69") From face frame surface. Curtain chain links move in this area and bolts that are protruding too high will interfere with them potentially causing damage to the curtain components if fasteners are longer than this dimension.

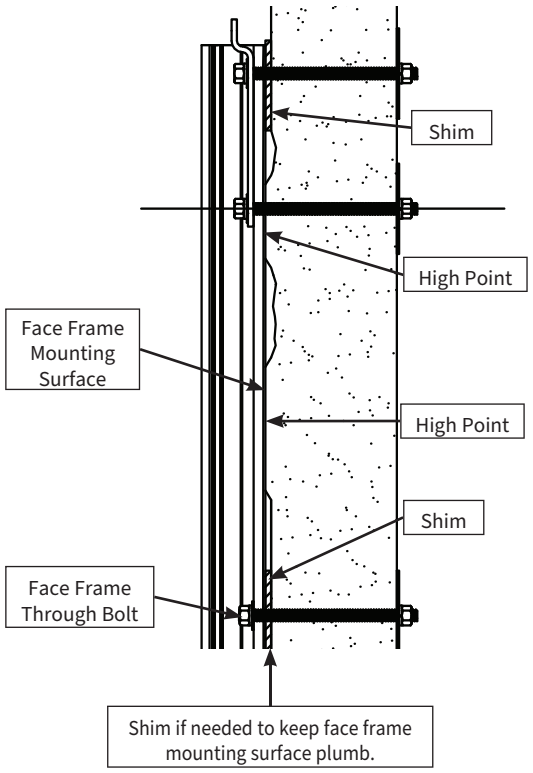


Figure 6: Face Frame Mounting Surface Detail

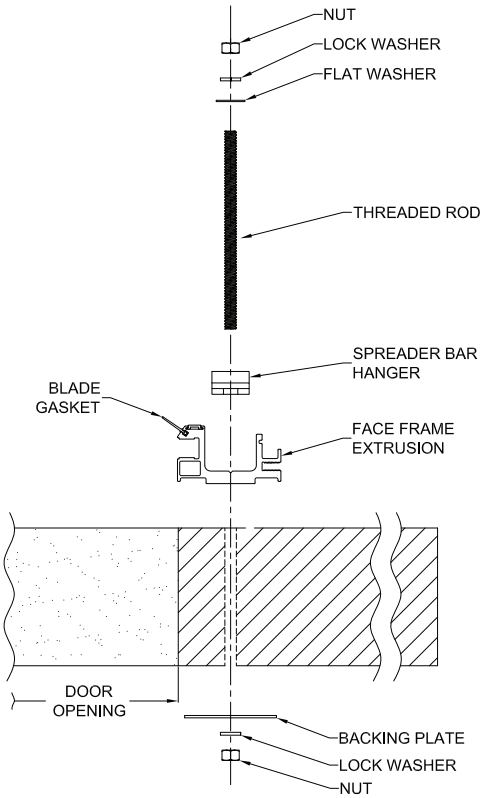


Figure 7: Face Frame Mounting Detail

Mounting Face Frames Continued

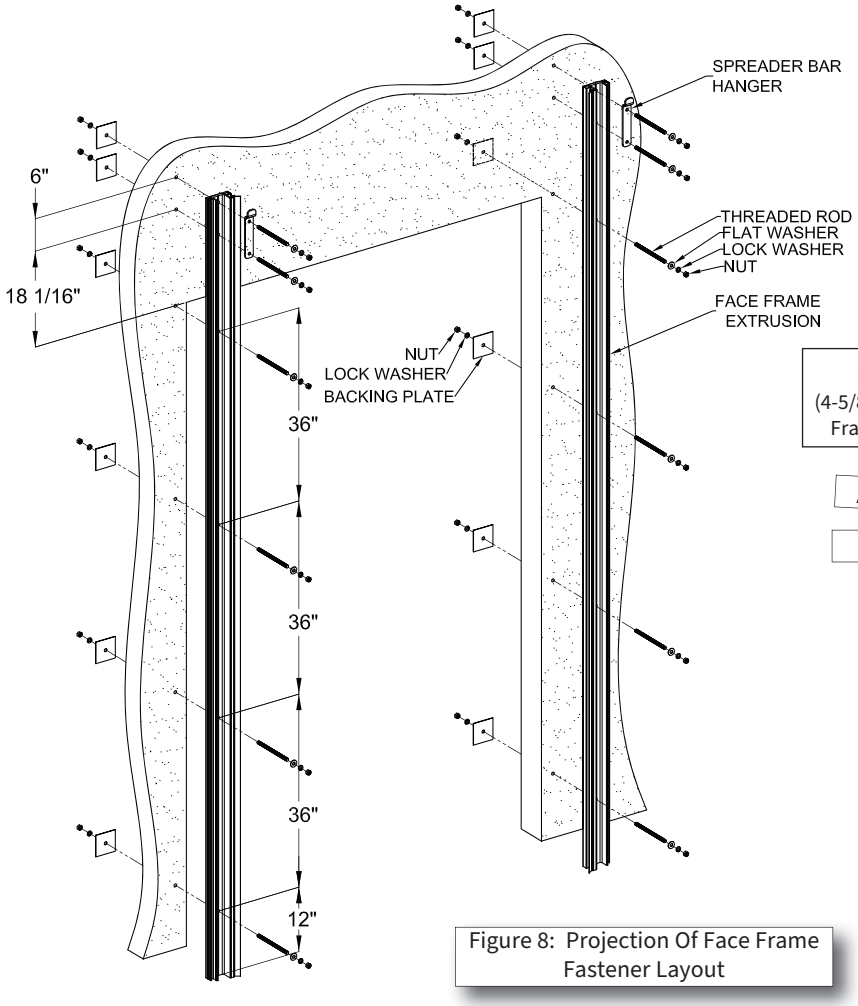


Figure 8: Projection Of Face Frame Fastener Layout

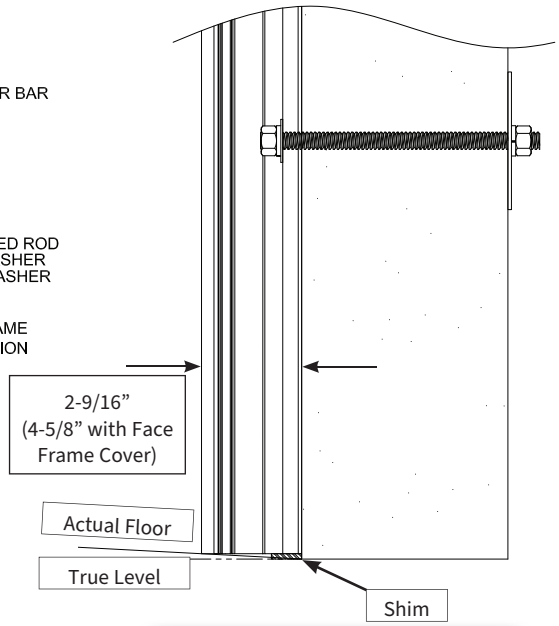


Figure 9: Projection Of Face Frame Assemblies From Wall

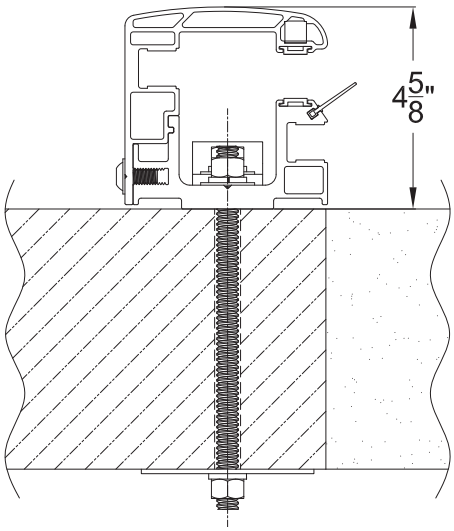


Figure 10: Projection of face frame assembly with cover from wall

NOTE

It is important that **tops of face frames are mounted level with each other.** The header will rest on the spreader bar hangers at the top of the face frames and the header will not be level if face frames are not level. **Use a laser level to insure tops of face frames are level.**
If floor is not level, mount 1st face frame on high side of opening, and shim bottom of other face frame to keep them level with respect to each other.

Face frames get mounted first, then the header assembly. Face frame covers get mounted **AFTER** header. **DO NOT** mount face frame covers before mounting header assembly.

If the door operator is left hand mounted, the door operator will be mounted opposite than views shown.

Mounting Header Assembly

1. Locate crated header & curtain assembly. The header & curtain assembly is packaged sitting on top of and is attached to a lifting frame (Figure 10). Remove all other packaging but leave assembly attached to the lifting frame
2. Using fork lifts, carefully lift lifting frame and header assembly, and move to a position directly in front of, and centered on the opening. Raise header & curtain assembly so rear spreader bar of header is above hanger brackets located at the tops of the face frames. Level forks and slowly move assembly towards wall. Use helper to help you guide assembly into position with back of header assembly flat against wall (Figure 12). End plates of header should fit outside of outer surfaces of face frame extrusions.
3. Slowly lower lifting frame & header assembly until rear spreader bar of header fits into hanger brackets on face frames.

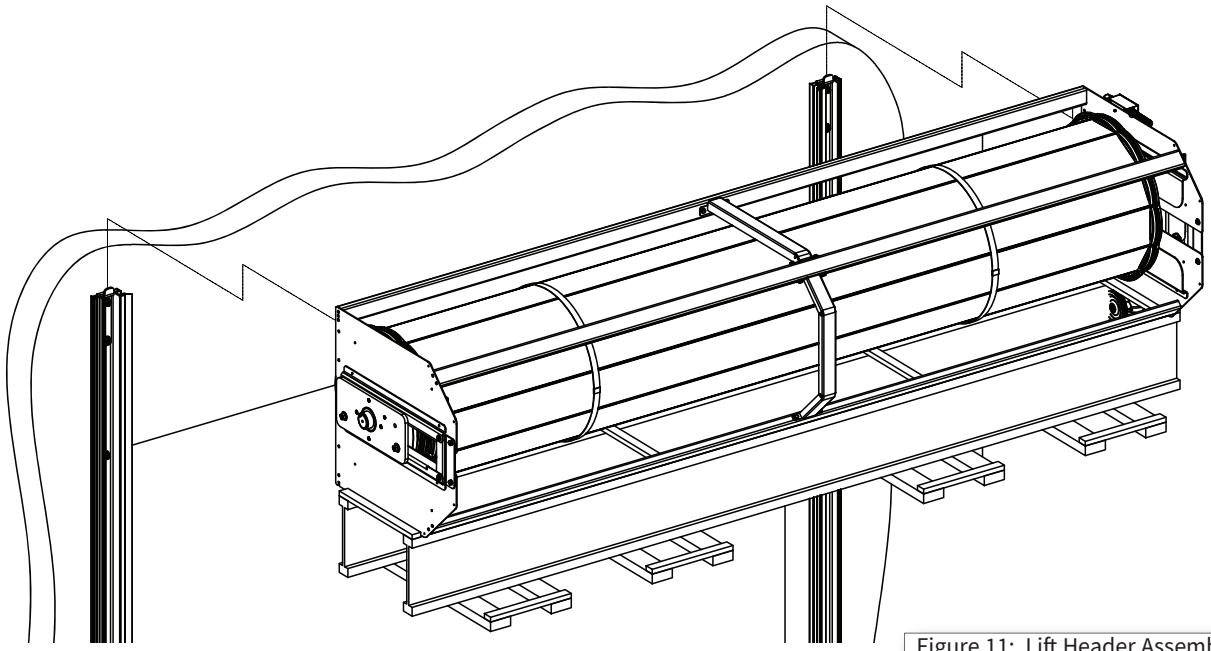


Figure 11: Lift Header Assembly Into Position On Lift Frame

⚠ WARNING

Keep weight supported by fork lifts until header is securely mounted to face frames.

On wide doors, use 2 fork lifts, one per side when lifting and mounting header.

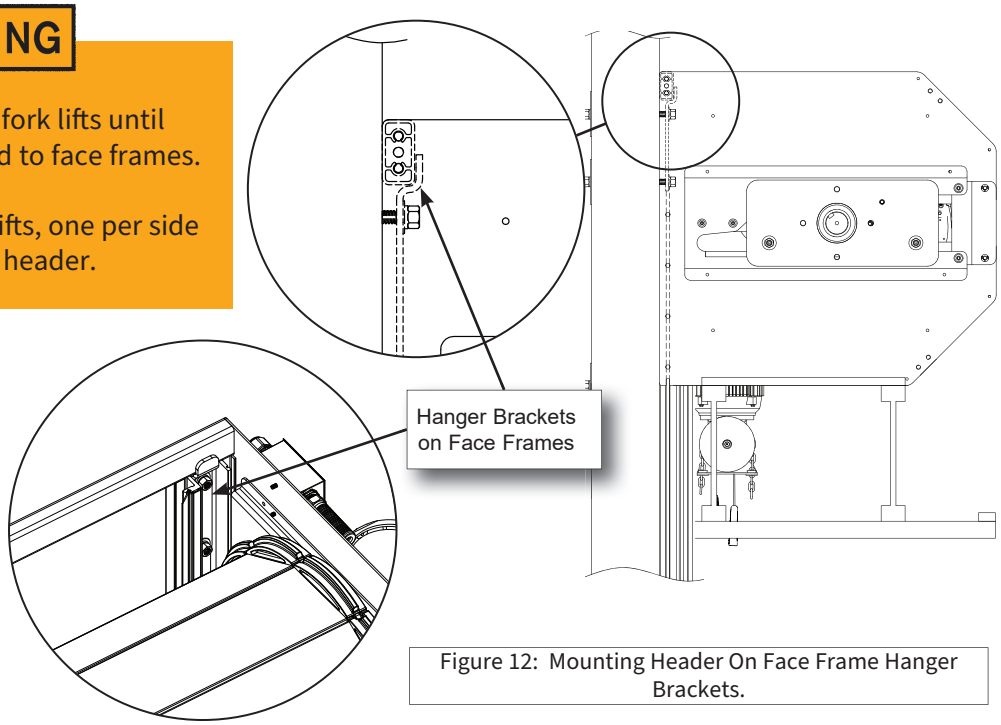


Figure 12: Mounting Header On Face Frame Hanger Brackets.

Mounting Header Assembly Continued

4. While header is in position and still supported by fork lifts, add 3/8”-16 x 0.75” Screws to attach header to face frames, 6 per side. Tighten all 12 screws securely. Use “pry point” slot to help align holes with threaded track in face frame extrusion if needed (Figure 13).

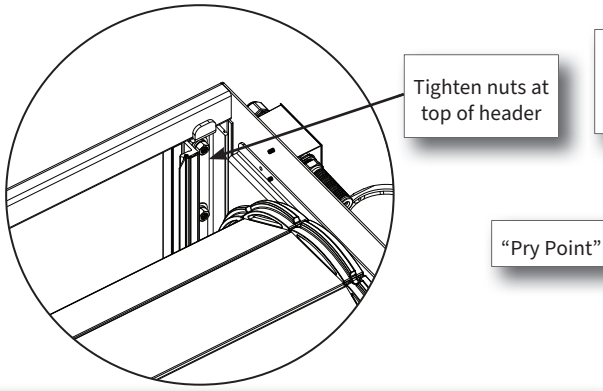


Figure 13: Mounting Header On Face Frame Hanger Brackets

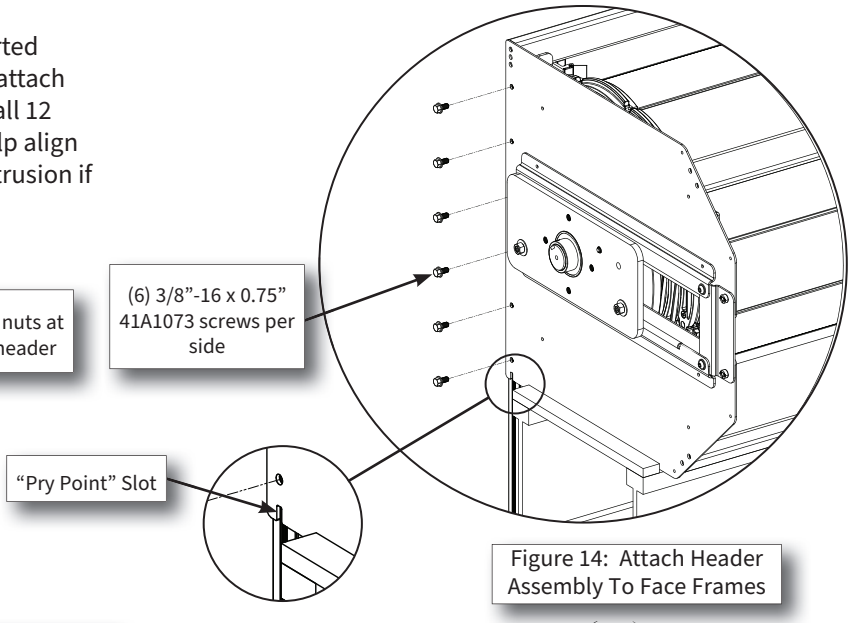


Figure 14: Attach Header Assembly To Face Frames

5. Tighten top nuts on each face frame that were left hand tight from previous step. If you can’t reach bottom nuts with curtain rolled up, tighten the ones you can reach. After curtain is unrolled in a later step you will check & re-tighten all mounting hardware.

⚠ WARNING

Do NOT remove fork lift support of header & lifting frame until header is securely anchored both face frames.

6. After header is securely mounted to both face frames, lifting frame may be removed.
7. With lift frame still supported by fork lift, remove all bolts and fasteners holding header assembly to lift frame.
8. Slowly lower lift frame out and away from header assembly and wall.
9. Carefully remove banding straps on curtain, and any other shipping materials protecting curtain (Figure 16).

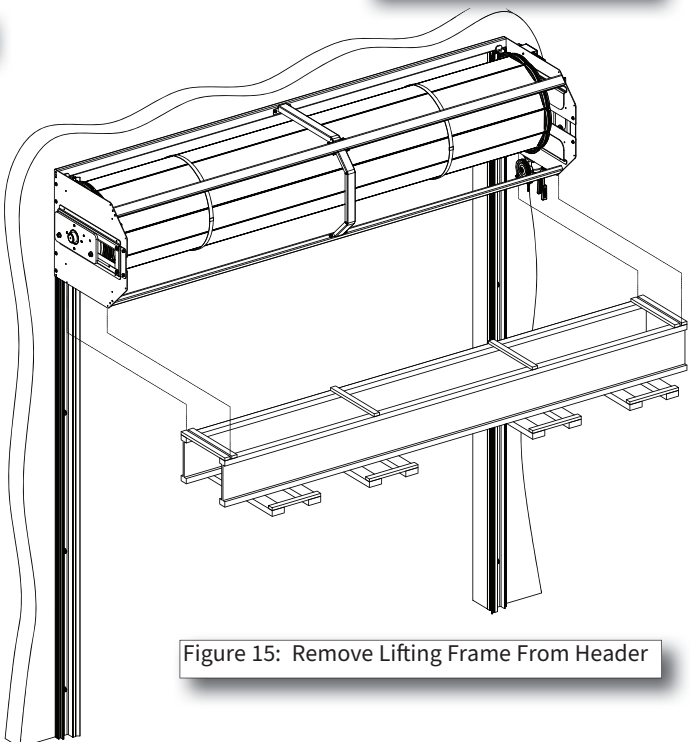


Figure 15: Remove Lifting Frame From Header

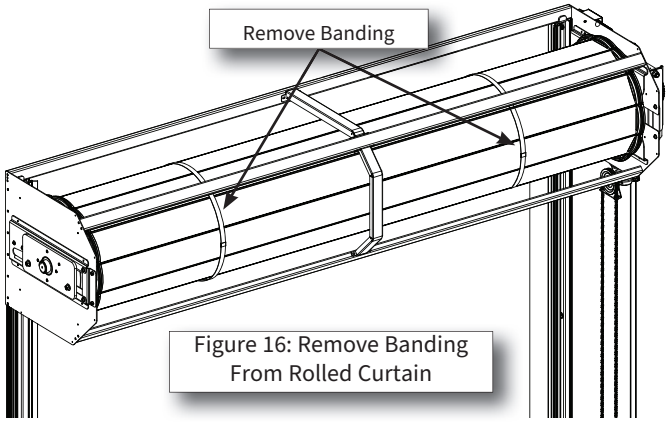


Figure 16: Remove Banding From Rolled Curtain

Unroll Curtain

1. To allow switching of manual operation of door from ground level, manual operation cord extensions need to be installed to both red and green pull handles on motor (found in loose parts box) (Figure 17 & 18). Install cord extensions to allow manual control from floor level.
2. Pull red handle on manual release pull cord to put motor in manual operation mode (Figure 18).
3. Use manual drive chain to lower curtain to the halfway point.
4. Check if the curtain chain links are true with the channel openings in both face frame extrusions (Figure 19).
5. If curtain is not centered, loosen the two adjustment bolts on the operator mounting bracket (Figure 20)

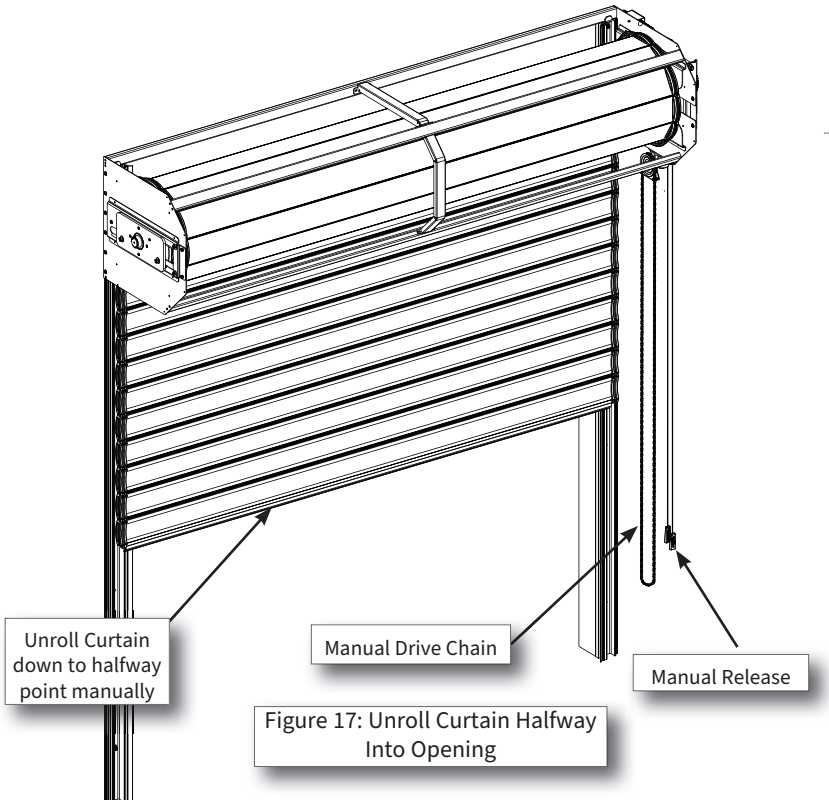


Figure 17: Unroll Curtain Halfway Into Opening

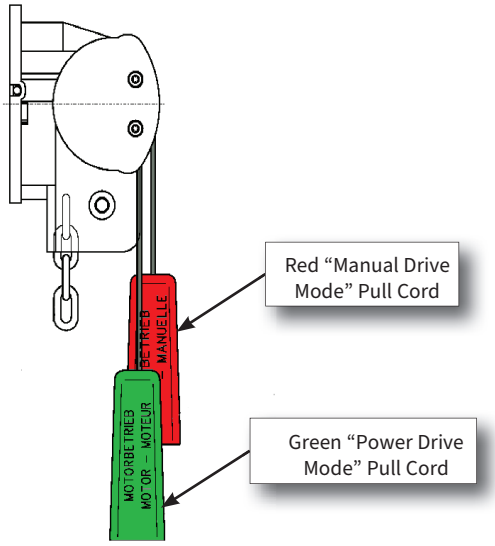


Figure 18: Manual Operation Pull Cords

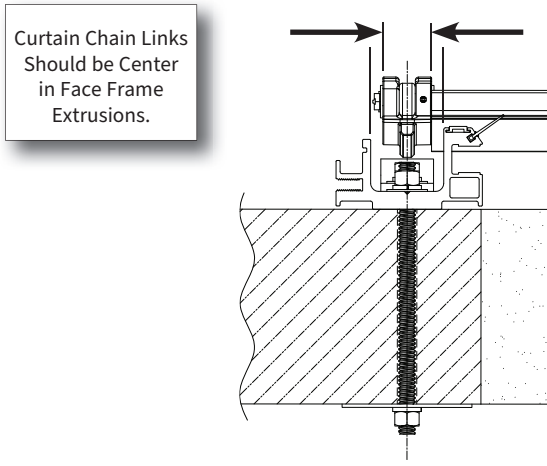


Figure 19: Alignment Of Ends Of Curtain Into Face Frames

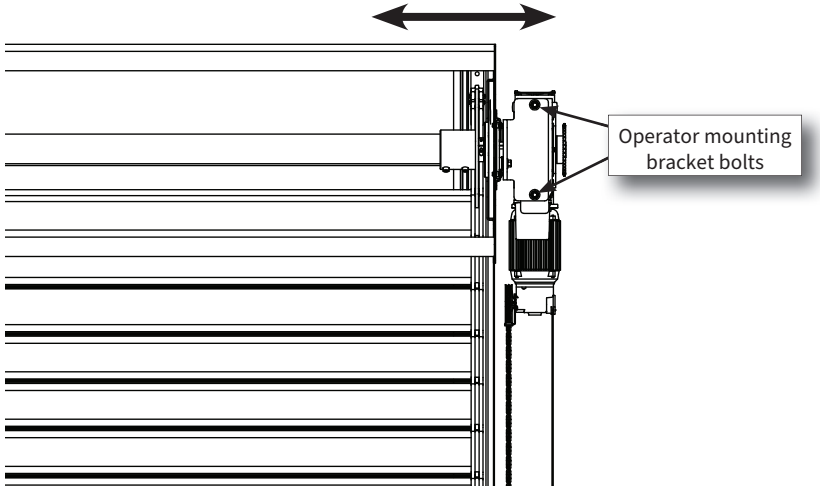


Figure 20: Adjust Position Of Operator & Curtain Assembly

Unroll Curtain Continued

6. With these bolts loosened, move operator, and curtain assembly horizontally to center curtain links in face frame extrusion channels.
7. Re-tighten adjustment bolts on operator mounting bracket.
8. If curtain is not hanging parallel and true to face frame extrusions;
9. Roll curtain down all the way.
10. Rotate torque tube until the adjustable link (always on left side) is accessible.
11. Tighten or loosen nut on adjustable link to raise or lower left side of curtain until curtain is straight and true with face frame extrusions (Figures 21 & 22).
12. With curtain in completely unrolled position, check and tighten any nuts at tops of face frames that were left hand tight from previous install steps.

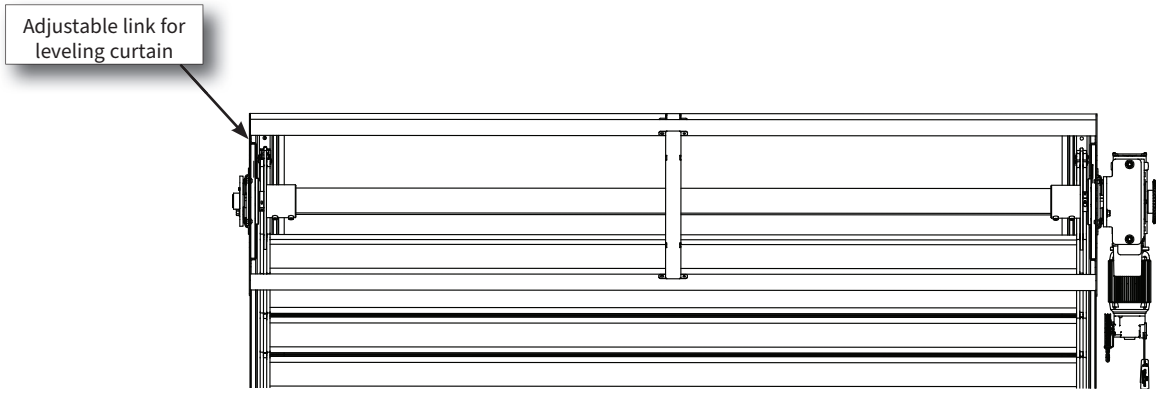


Figure 21: Adjustable Link Location

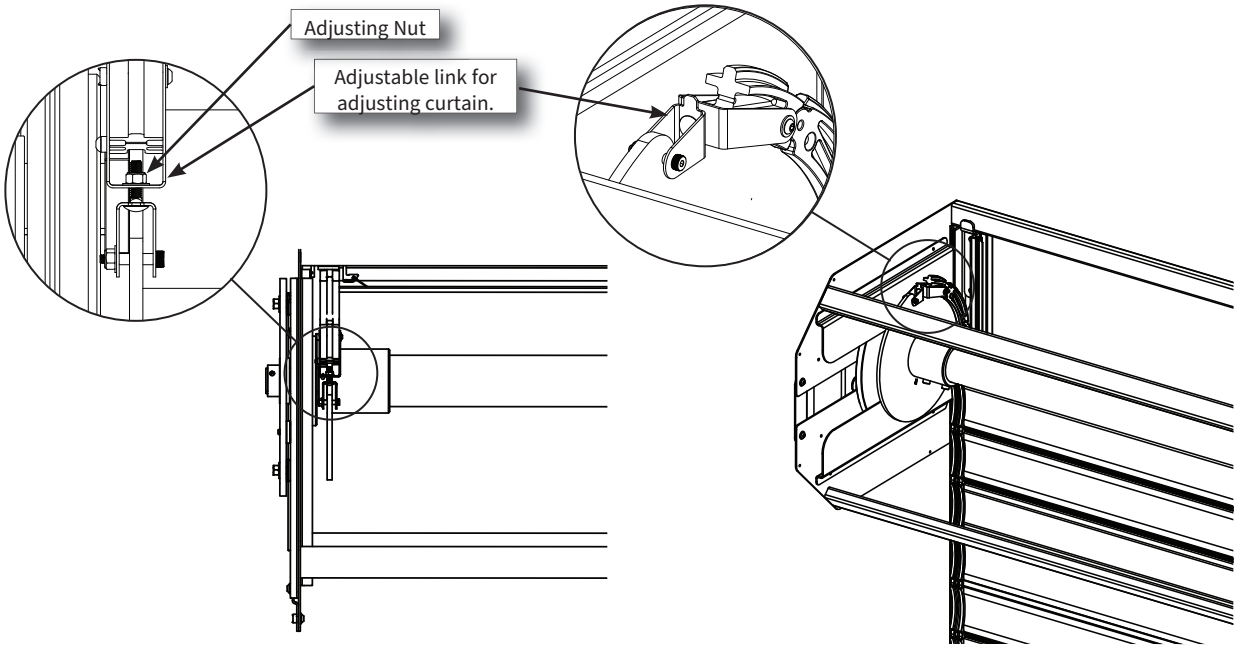


Figure 22: Adjustable Link Detail Views

Light Curtains & Photo-Eyes

If a light curtain or photo-eye option was ordered, light curtains or photo-eyes will be installed at the factory. Light curtains are held in position with two locking cams at the top & bottom (Figure 23).

Light curtains are mounted in the face frame covers in a channel on the opening side of the extrusion. Photo-eyes are mounted in a channel in the face frame base extrusion (Figure 24).

Wire leads from the light curtains or photo-eyes will be run up the length of the face frame, and out the top of the channel. Wire these leads into the control system for photoeye control, per the schematic for the door.

Light curtains or photo-eyes can also be added to an existing door in the field. If you are field installing light curtains or photo-eyes, install per (Figure 23 & 24), and wire them to the control system per the schematic for the door.

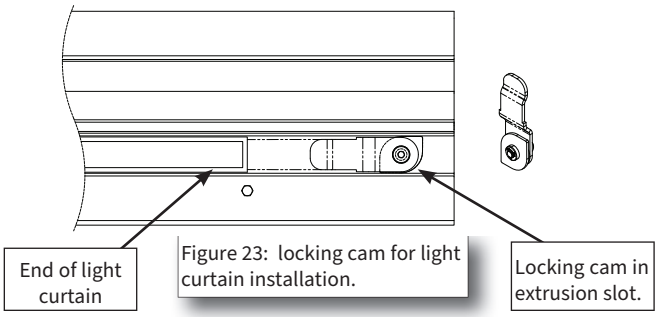


Figure 23: locking cam for light curtain installation.

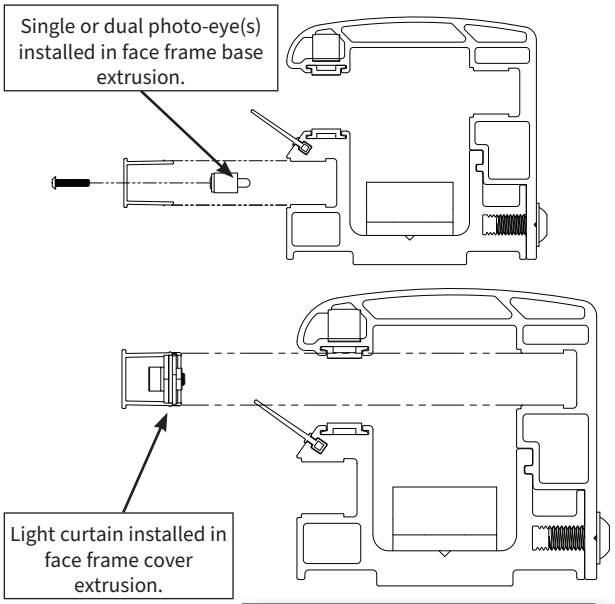


Figure 24: Photoeye And Light Curtains Installation Options

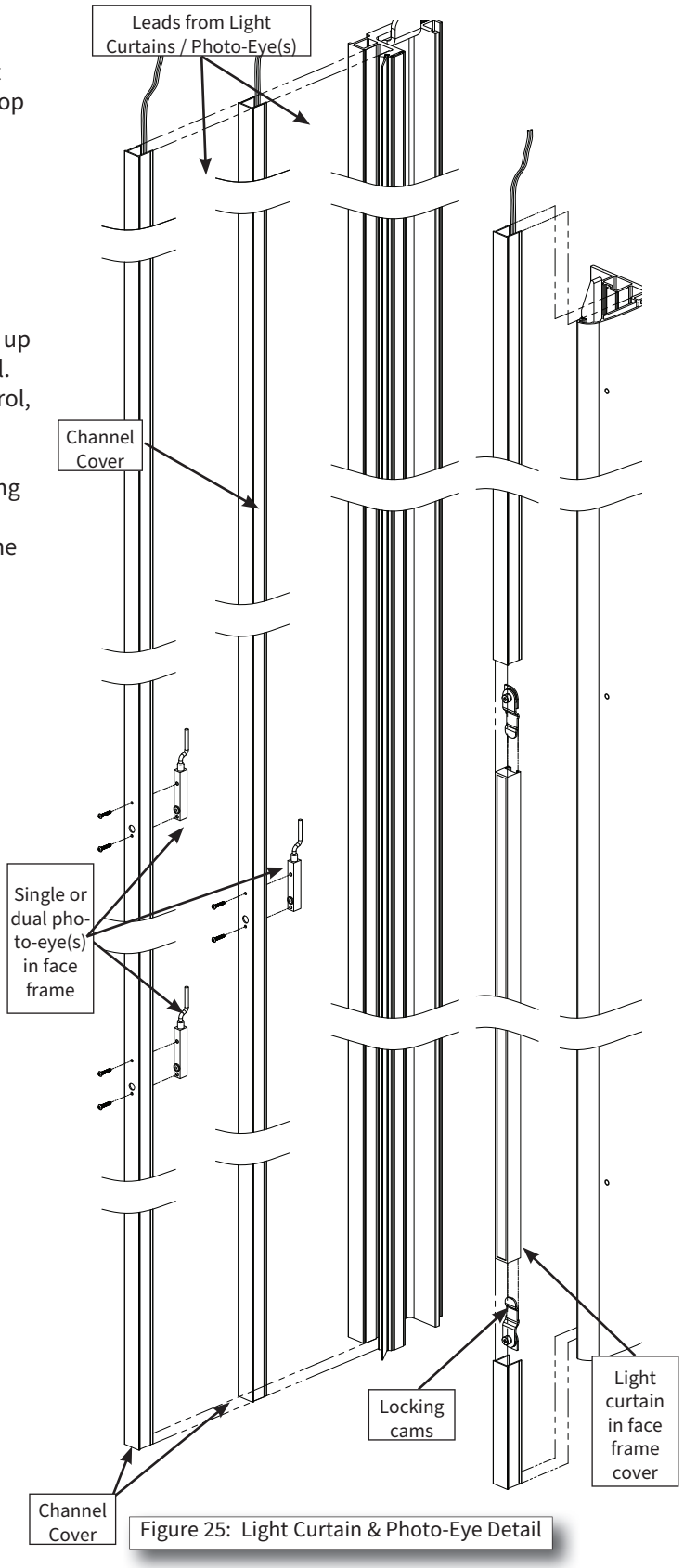


Figure 25: Light Curtain & Photo-Eye Detail

Mounting Face Frame Covers

After curtain is unrolled and adjusted, use the following steps to install Face Frame Covers:

1. Retrieve face frame covers from shipping crate. Note that covers are handed and need to be installed on the correct side (Figure 26). Tops of covers will have a plastic curtain guide inserted in the end of the extrusion.
2. Face frame cover extrusion profile mates with extrusion profile of face frame (Figures 27 & 29) and is attached with 3/8-16 x 3/4 button head screws. The face frame extrusions have a threaded slot that runs the entire length of the extrusion and the screws will thread into that slot at any position.
3. Put door in full open position with curtain completely up.
4. Lift face frame cover into vertical position and guide into position with mating face frame extrusion. Rotate face frame cover into position from curtain side to outside (Figure 29) to insure that tab in cover extrusion seats into base extrusion properly. Align holes in face frame cover with threaded slot in face frame extrusion.
5. Hold in position and starting from bottom, add fasteners 41A1029 to each hole in face frame covers.
6. Hand tighten each fastener as it is added and when all fasteners are in, tighten them all down.

NOTE

If you are installing face frame covers with light bar option installed, use care not to pinch cable from light bar protruding from top end of cover.

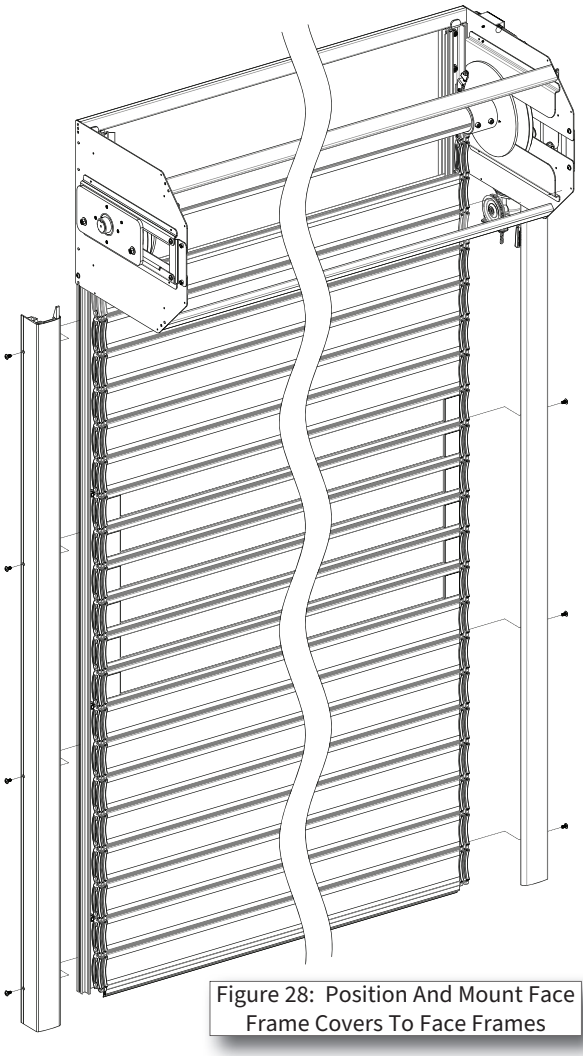


Figure 28: Position And Mount Face Frame Covers To Face Frames

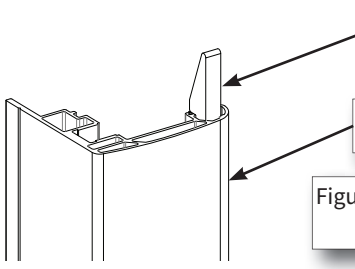


Figure 26: top of face frame covers.

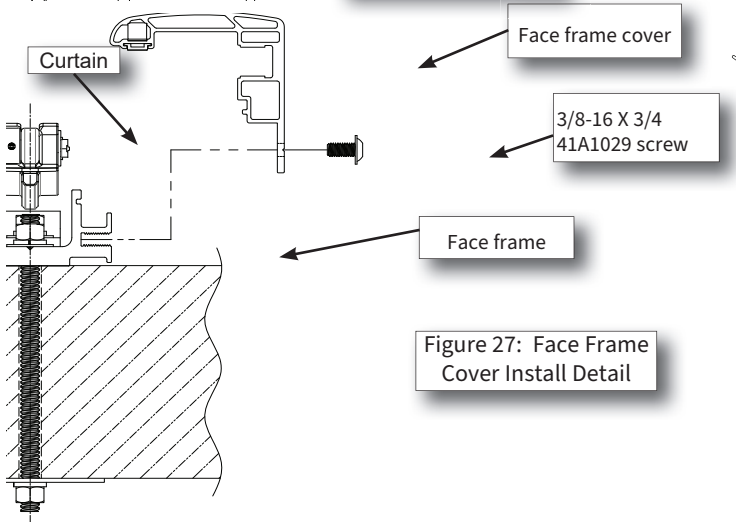


Figure 27: Face Frame Cover Install Detail

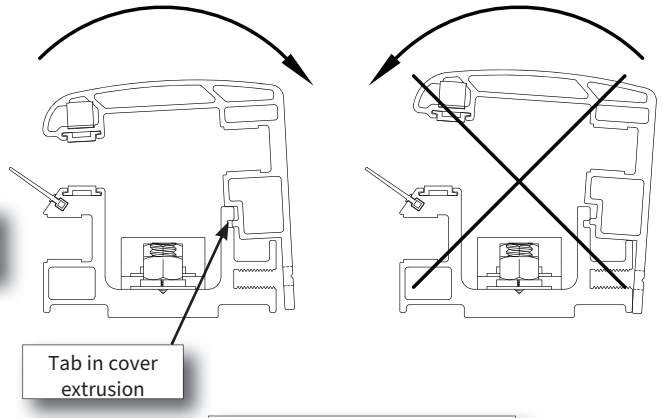
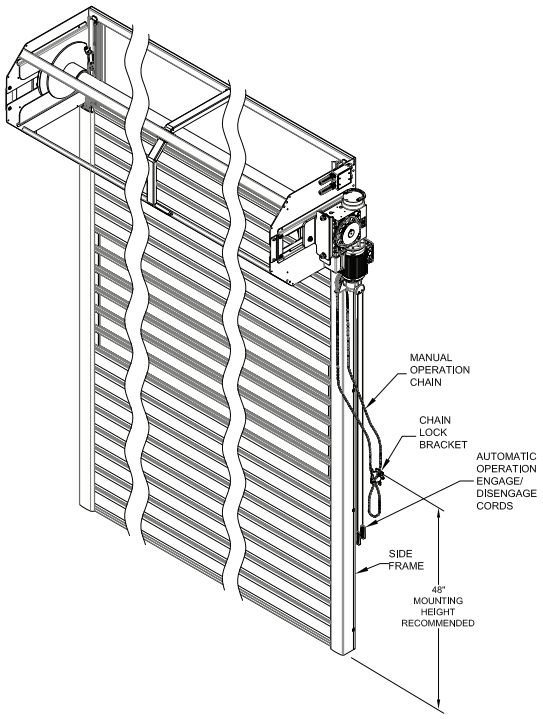


Figure 29: Rotate Face Frame Cover Into Position

Mounting Chain Bracket



Mount the chain lock bracket (packed in hardware bag in loose parts box) to the wall so that the slotted opening on the bracket is positioned (Figure 29 & 30).

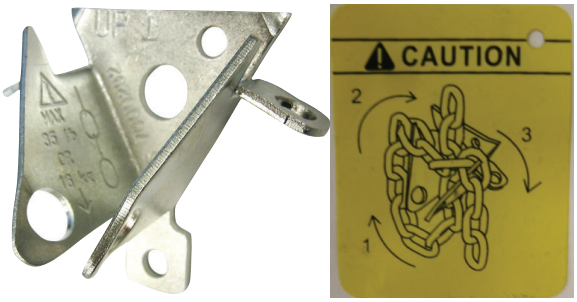


Figure 30: Chain Lock Bracket 13B1773NN

Top Spreader Bar Stiffener

For doors with shrouds, skip this section. The top spreader bar install will be part of the shroud install that will be performed later.

For doors without shrouds that are > 12' wide, a top spreader bar stiffener will need to be added between the top (2) spreader bars. Use the following steps to install the top spreader bar stiffener. The top spreader bar stiffener will be mounted in-line with the front shroud supports already mounted between the front (2) spreader bars. The top rear spreader bar needs to be leveled and a spreader support gusset installed to keep it fixed in place.

Doors without shrouds that are </= 12' wide do not get top spreader bar stiffeners and you can skip this section.

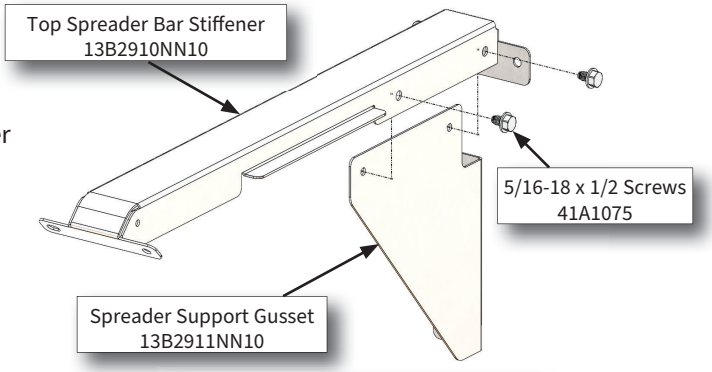


Figure 31: Spreader Support Gusset

1. Retrieve top spreader bar stiffener 13B2910NN10 & spreader support gusset 13B2911NN10 from the loose parts box.
2. Position & install the spreader support gusset 13B2911NN10 to the top spreader bar stiffener 13B2910NN10 (Figure 31) using (2) 41A1075 screws. Spreader support gusset attach on the inside of the channel of top spreader bar stiffener.
3. The upper spreader bars will have holes pre-drilled for mounting the top spreader bar supports. Position the top spreader bar stiffener and gusset as shown (Figure 32), and bolt only to the rear upper spreader bar (nearest wall) using (2) 41A1075 screws. Partially tighten screws.
4. Use a level to verify that the rear upper spreader bar is level. Upper rear spreader bar must be level before securing support gussets to the wall. (Continued on next page.

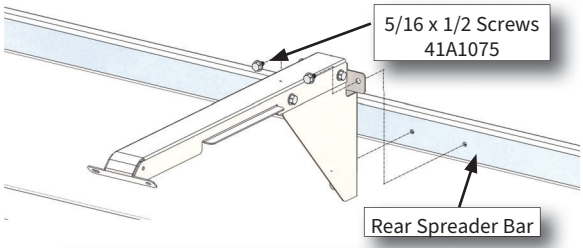


Figure 32: Position of Spreader Bar & Gusset

Top Spreader Bar Stiffener Continued

5. Use installer supplied 3/8” hardware appropriate for wall type to secure gusset to wall.
6. Attach the top spreader bar stiffener 13B2910NN10 to the front upper spreader bar using (2) 41A1075 screws (Figure 33).
7. Tighten all screws on the top spreader bar support and support gusset.

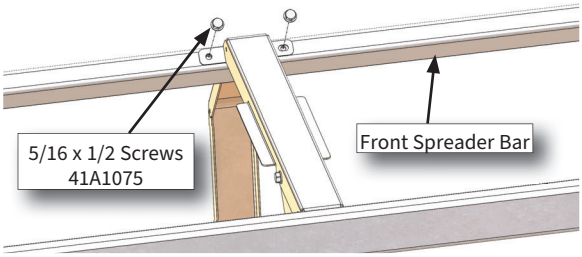


Figure 33: Position of Top Bar Stiffener

Routing Sensor Wires

Refer to Figures 34 – 35 for wire routing for the 209 door light curtains or photo eyes.

Leads from the light curtain or photo eye sensors come out at the top ends of the face frames or covers and need to be routed up through the pocket in the extrusion and out to the control box.

There are (4) possible routings for sensors depending on whether they are in the face frames, or covers, and whether they are on the drive or idler side of the door. All leads need to be routed to the control box which is normally mounted on the drive side of the door.

For sensors on idler side, leads will be routed through slots & holes in the header end plate and through the top rear spreader bar, across to the drive side of door. There should be a length of string routed through the top rear spreader bar to aid you in routing cables through it. Tie the string to the cables to be routed and pull them through the spreader bar from the other side of the header.

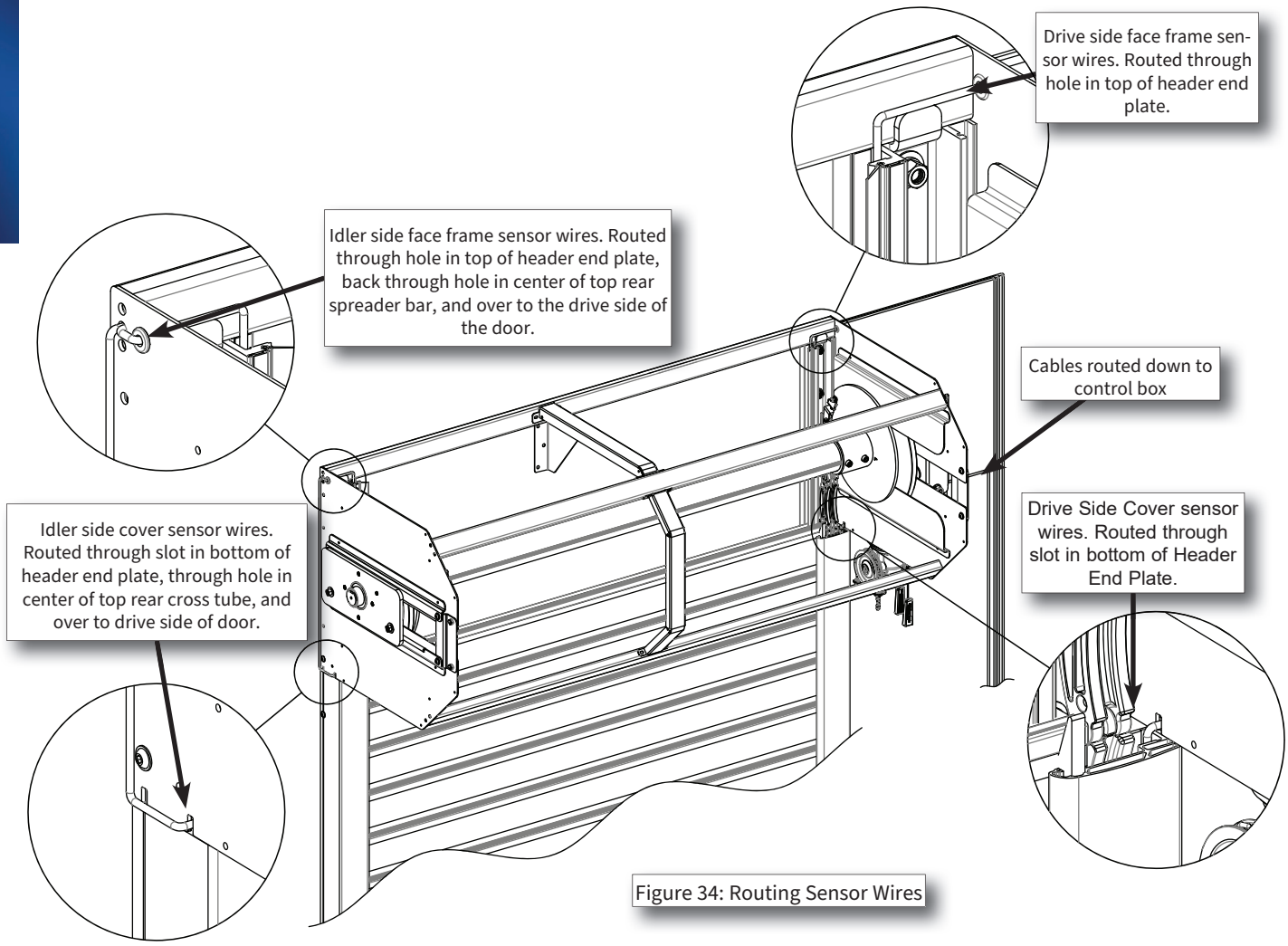


Figure 34: Routing Sensor Wires

Routing Sensor Wires Continued

Sensors In Drive Side Face Frame:
Leads will come out of the top of the face frame where the face frame meets the top rear cross tube. Route lead through hole in upper rear corner of header end plate, and down to control box.

Sensors In Drive Side Face Frame Cover:
Leads will come out of the top of the cover at the bottom of the header end plate. Route lead through slot in lower rear corner of header end plate, and down to control box.

Sensors In Idler Side Face Frame:
Leads will come out of the top of the face frame where the face frame meets the top rear cross tube. Route lead through hole in upper rear corner of header end plate to the outside of the header end plate. Route leads through center hole through center of top rear cross tube, to drive side of door, and down to control box.

Sensors In Idler Side Face Frame Cover:
Leads will come out of the top of the cover at the bottom of the header end plate. Route lead through slot in lower rear corner of header end plate to the outside of the header end plate. Route leads up to and through the center hole of top rear cross tube, over to drive side of door, and down to control box.

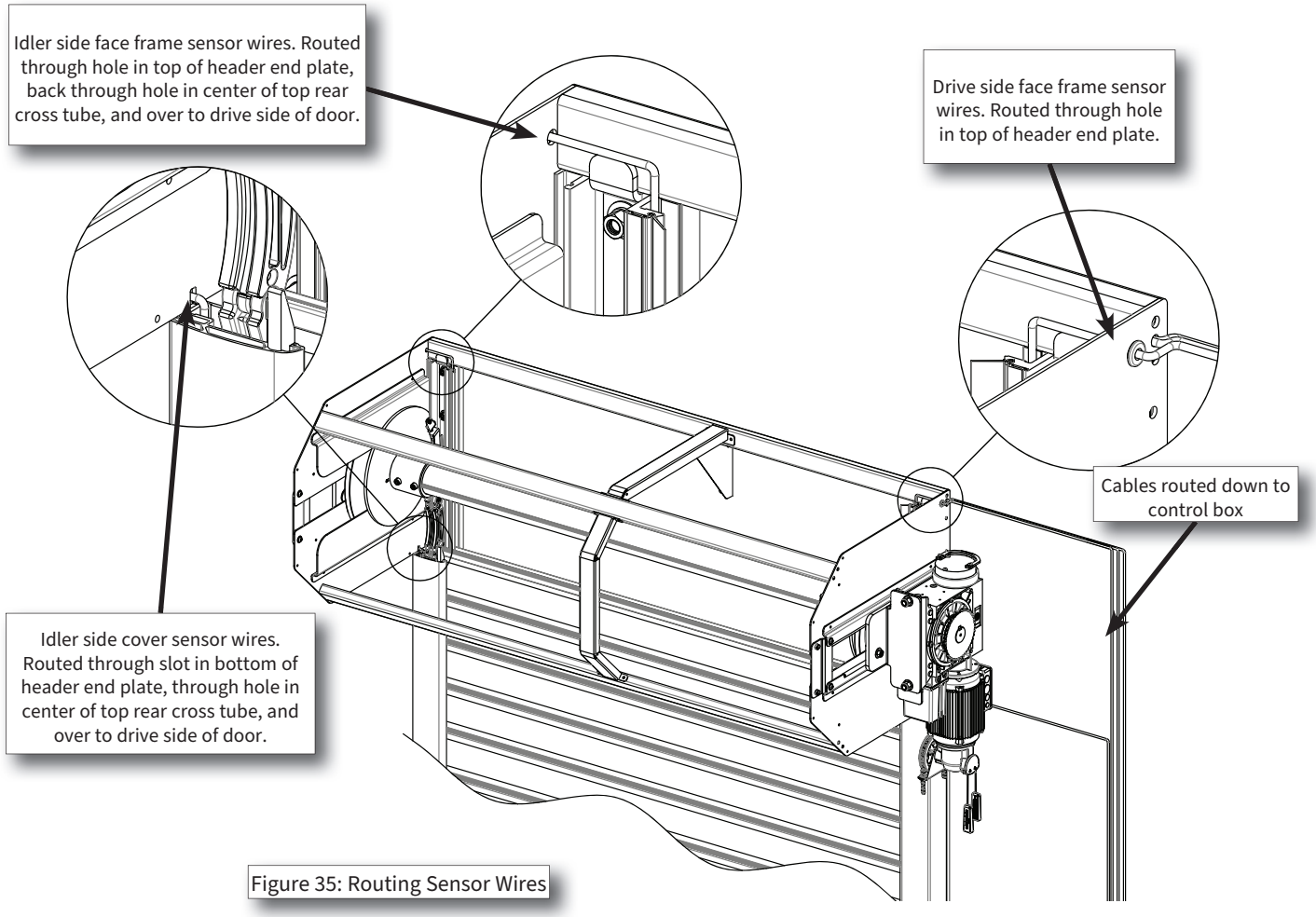


Figure 35: Routing Sensor Wires

Wiring Layout

Figures 36 -40 show a general wiring layout for power and signal wire routing to the 209 door, between the door motor and encoder, light curtains or photoeyes, the control box, and incoming power.

NOTE

All wiring and connections are detailed on and must conform to, the electrical schematic drawing that was shipped with your 209 door. The electrical schematic drawing is specific to your door and any options chosen for your application.

⚠ WARNING

208v power requires the use of a boost box to convert the voltage from 208v to 230v.

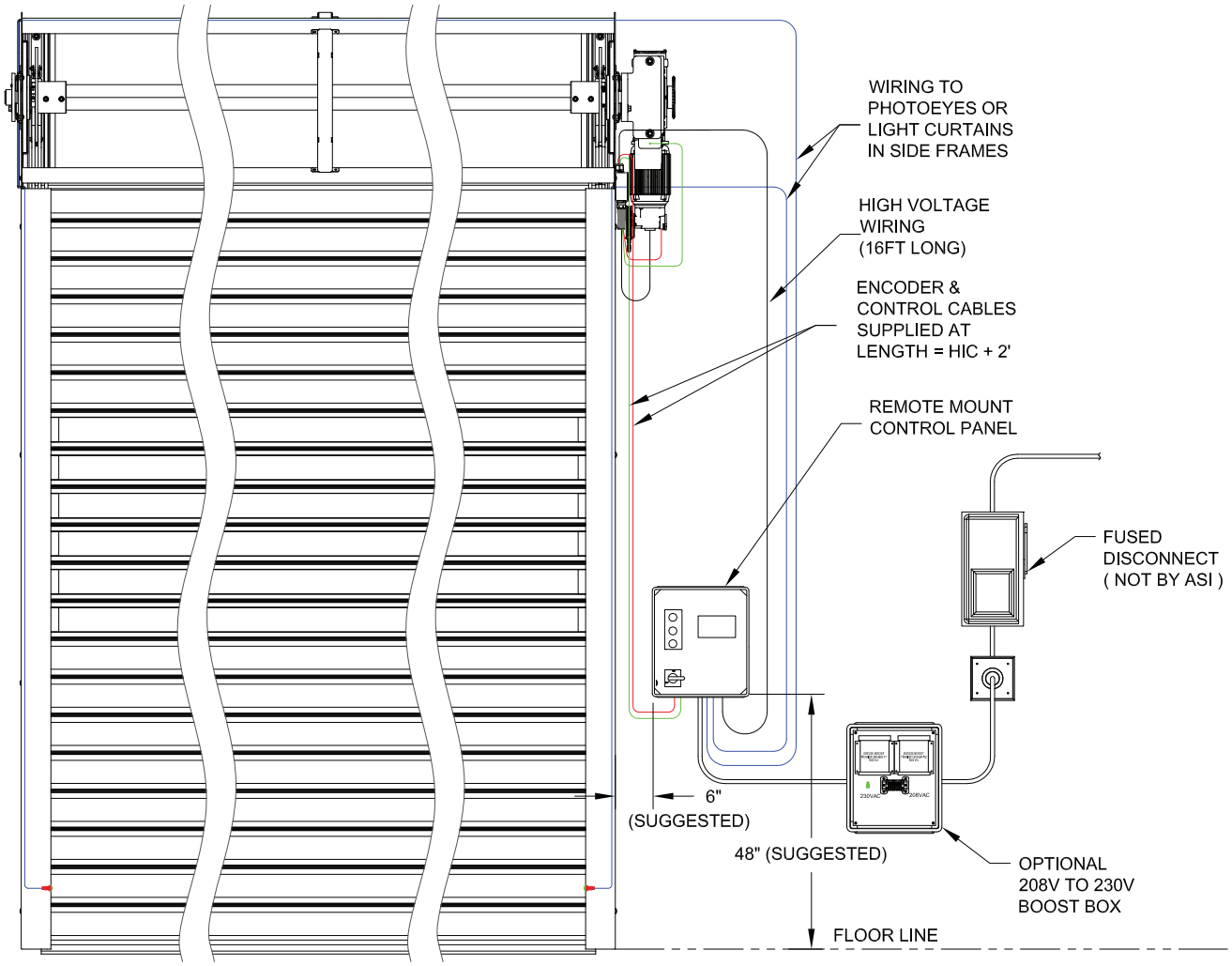


Figure 36: 209 Electrical Routing Detail..

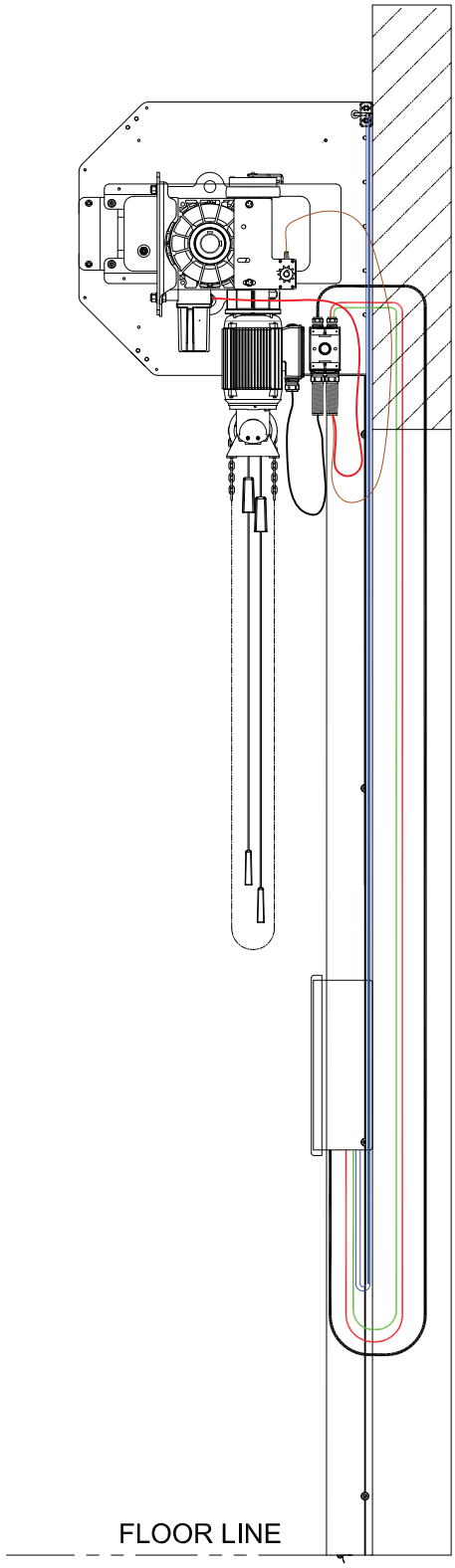


Figure 37: 209 Electrical Routing Detail, Side View

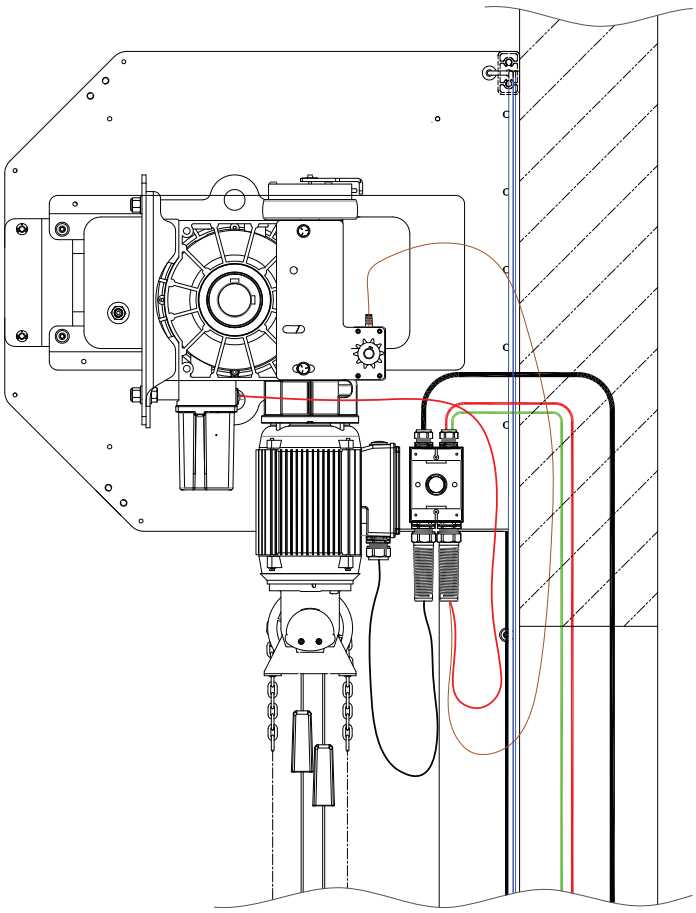


Figure 38: 209 Electrical Routing, Motor Connections Detail

Mounting Lintel Seal

The lintel seal needs to be installed to seal the top of the door when the curtain is closed. The lintel seal slides into the light curtain channels in the face frame extrusions at the top of the opening.

The lintel seal is a slat extrusion with self expanding foam attached to one side. The side with the foam goes towards the wall and will expand within 24 hours and seal any gaps to the wall. There are two lintel filler blocks that also need to be installed at the ends of the lintel seal.

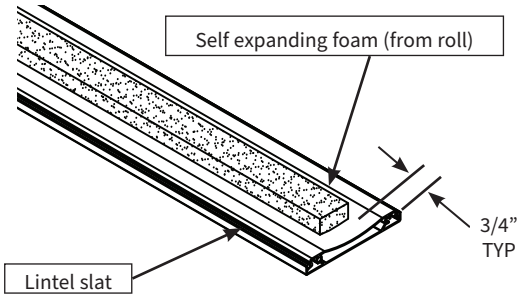


Figure 40: Lintel Seal

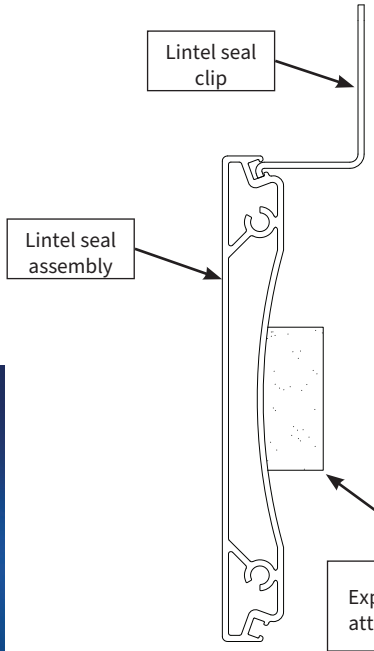


Figure 39: Lintel Seal And Clip

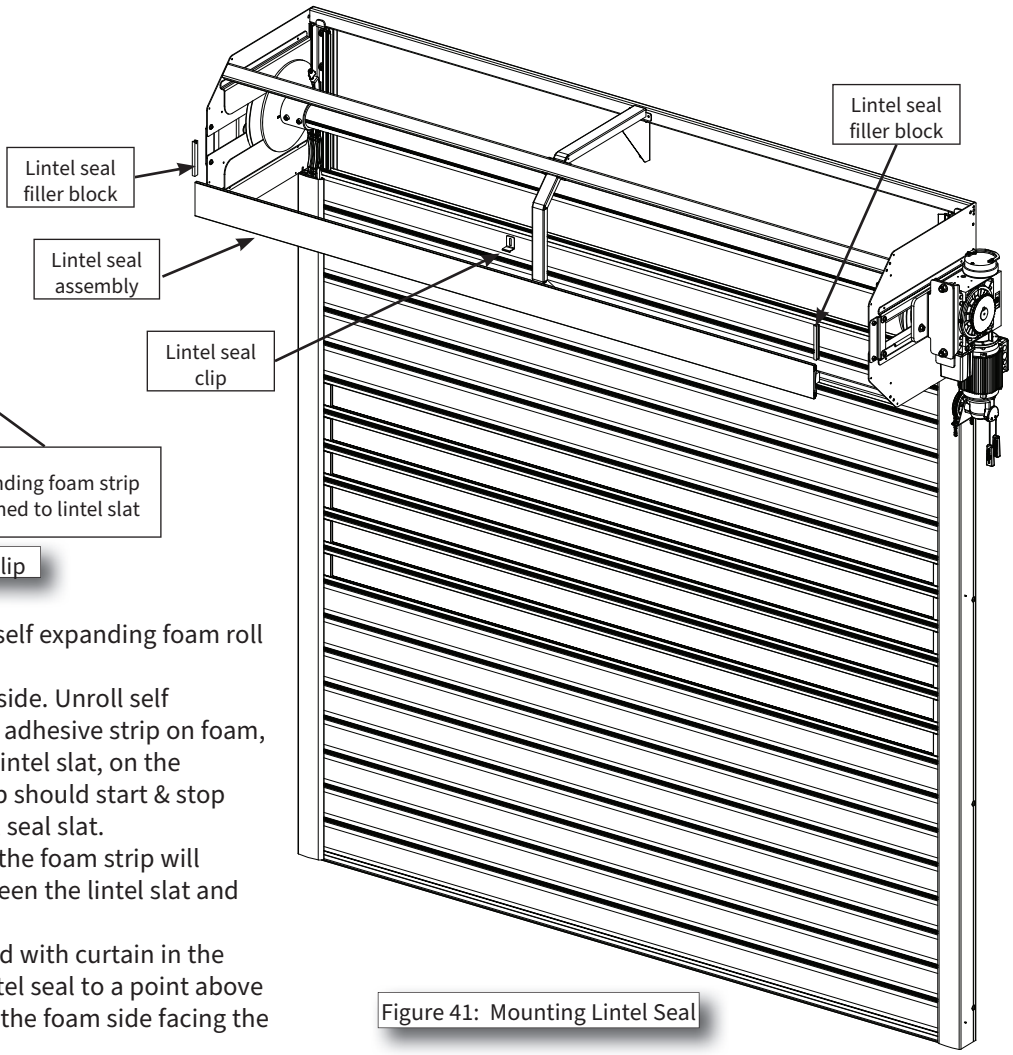
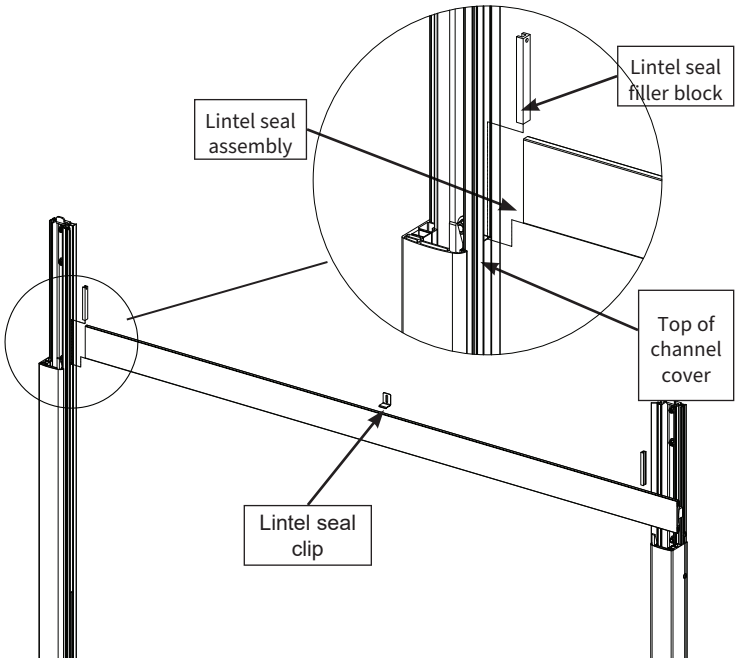


Figure 41: Mounting Lintel Seal

1 Retrieve lintel slat and the self expanding foam roll from loose parts.
2 Lay lintel slat down on flat side. Unroll self expanding foam, and using adhesive strip on foam, attach to the center of the lintel slat, on the concave surface. Foam strip should start & stop 3/4" from each end of lintel seal slat.
3 When lintel slat is in place, the foam strip will expand to fill any gap between the lintel slat and the wall surface.
4 After header is installed, and with curtain in the fully closed position, lift lintel seal to a point above the top of the curtain, with the foam side facing the wall.
5 The channel cover in the face frame extrusion should be cut to end right at the top of the opening. Insert one end of the lintel seal into the light curtain channel in the face frame extrusion, above the end of the channel

Mounting Lintel Seal Continued

1 Cover at the top of the opening.
2 Push the lintel seal completely into the curtain channel in the face frame extrusion. The lintel seal is cut shorter than the distance between the inside surfaces of the curtain channels in the face frame extrusions. When one end is completely in the curtain channel in the face frame extrusion, the other end should be able to slide past the end of the face frame extrusion on the opposite side. The lintel seal should now be resting on the tops of the channel covers on both face frame extrusions.
3 Center the lintel seal assembly between the face frames so there are equal gaps at the ends in the curtain channels.
4 Position the lintel seal filler blocks with the smooth side towards the lintel seal, the open end out towards the face frame extrusion, and the hole to the top. Insert the lintel seal filler blocks in the spaces between the ends of the lintel seal and the face of the curtain channels on both ends of the lintel seal.
5 If the lintel seal is bowing out from the wall excessively you can add a lintel seal clip to the top edge of the lintel seal. Slide the end of the lintel seal clip into the channel at the top rear of the lintel seal extrusion, slide to the center of the bowed area and use a fastener to fasten to the wall and pull the lintel seal in towards the wall.



NOTE

Header and Curtain hidden from view for clarity

Figure 43: Positioning Lintel Seal

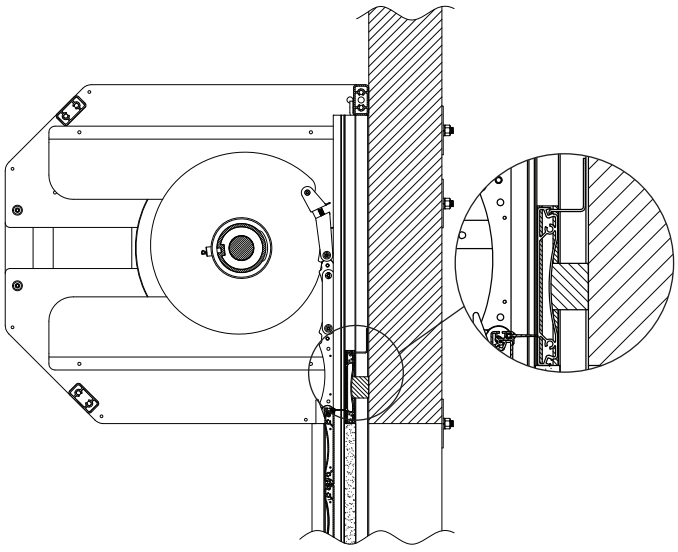


Figure 42: Lintel Seal And Clip Detail

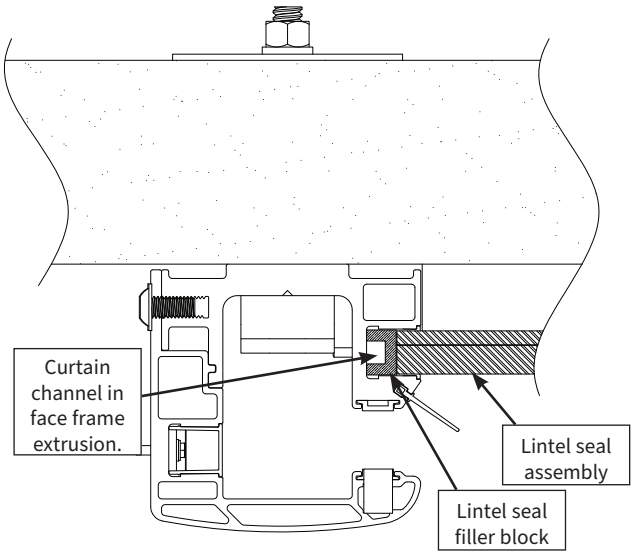


Figure 44: Lintel Seal Detail

Shroud Installation

Lower Shroud Support Brackets:

Begin the shroud install by mounting the lower shroud support brackets. For narrower doors, the shrouds will be in (2) sections, and have (1) lower shroud support, and wider doors will have shrouds with (3) sections, and have (2) lower shroud supports. These will be mounted in-line with the front shroud supports already mounted between the front 2 spreader bars (Figure 45) (Curtain & other parts are excluded from views for clarity).

1. Retrieve lower shroud support bracket(s) 13B2594NN10 & lower shroud support gussets 13B2591LN10 & 13B2591RN10 from the loose parts box.
2. The lower spreader bar will have holes pre-drilled on the lower & back sides for mounting the lower shroud supports. Position the lower shroud support as shown (Figure 46) and bolt to lower spreader bar using (2) 41A1075 screws. Partially tighten screws.
3. Add (1) 13B2591RN10 gusset to RH side of shroud support & attach with (2) 41A1074 screws (Figure 47). Add (1) 13B2591LN10 gusset to LH side of shroud support & attach with (2) 41A1074 screws. Partially tighten screws.
4. Add (2) 41A1075 screws to tabs on gussets to attach them to the lower spreader bar.
5. Tighten all screws on lower support & both gussets.

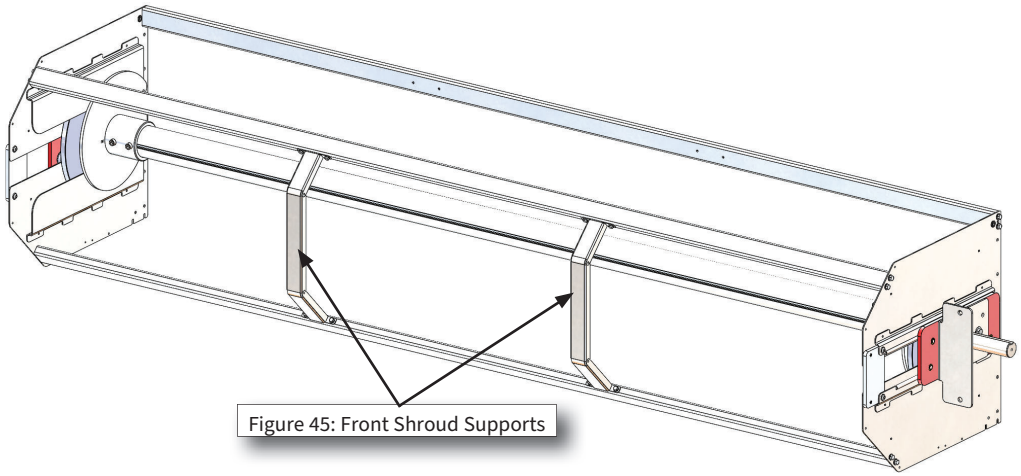


Figure 45: Front Shroud Supports

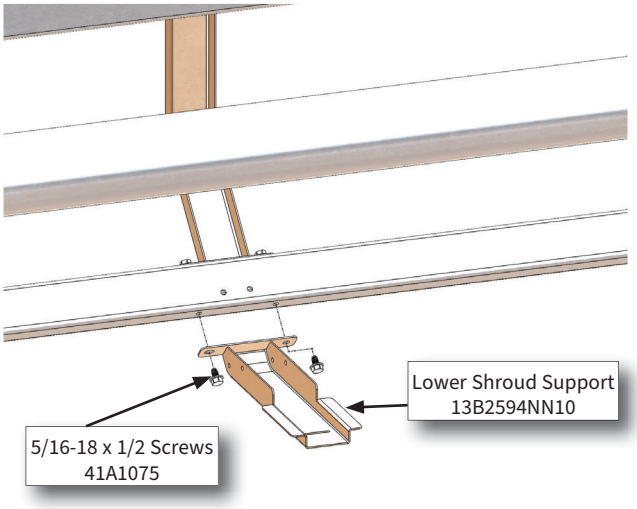


Figure 46: Lower Shroud Supports

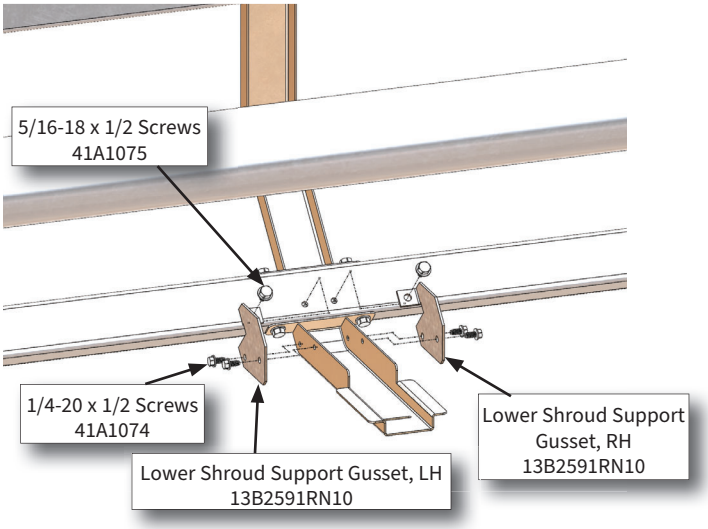


Figure 47: Lower Shroud Supports Gusset

Shroud Installation Continued

Top Spreader Bar Stiffeners:

Top spreader bar stiffeners need to be added between the top (2) spreader bars. Narrower doors will have (1) upper shroud support, and wider doors will have (2) upper shroud supports. These will be mounted in-line with the front shroud supports already mounted between the front (2) spreader bars. The top rear spreader bar needs to be leveled and a spreader support gusset installed to keep it fixed in place.

1. Retrieve top spreader bar stiffener(s) 13B2910NN10 & spreader support gusset(s) 13B2911NN10 from the loose parts box.
2. Position & install the spreader support gusset(s) 13B2911NN10 to the top spreader bar stiffener(s) 13B2910NN10 (Figure 31) using (2) 41A1075 screws. Spreader support gusset(s) attach on inside of the channel of top spreader bar stiffener(s).
3. The upper spreader bars will have holes pre-drilled for mounting the top spreader bar supports. Position the top spreader bar stiffener and gusset as shown (Figure 32), and bolt only to the rear upper spreader bar (nearest wall) using (2) 41A1075 screws. Partially tighten screws.
4. Use a level to verify that the rear upper spreader bar is level. Upper rear spreader bar must be level before securing support gussets to the wall.
5. Use installer supplied 3/8" hardware appropriate for wall type to secure gusset(s) to wall.
6. Attach the top spreader bar stiffener 13B2910NN10 to the front upper spreader bar using (2) 41A1075 screws (Figure 33).
7. Tighten all screws on the top spreader bar supports and support gussets.

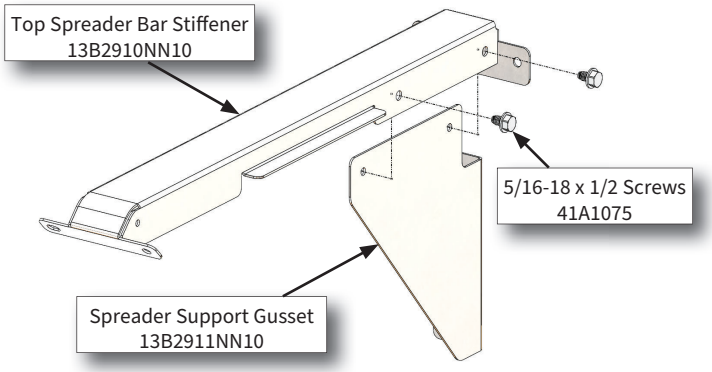


Figure 31: Spreader Support Gusset

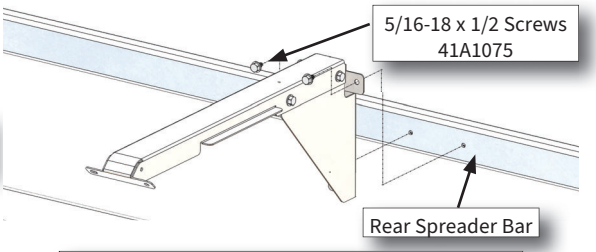


Figure 32: Position of Spreader Bar & Gusset

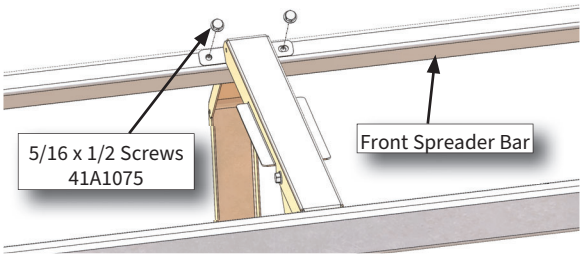


Figure 33: Position of Top Bar Stiffener

Shroud Installation Continued

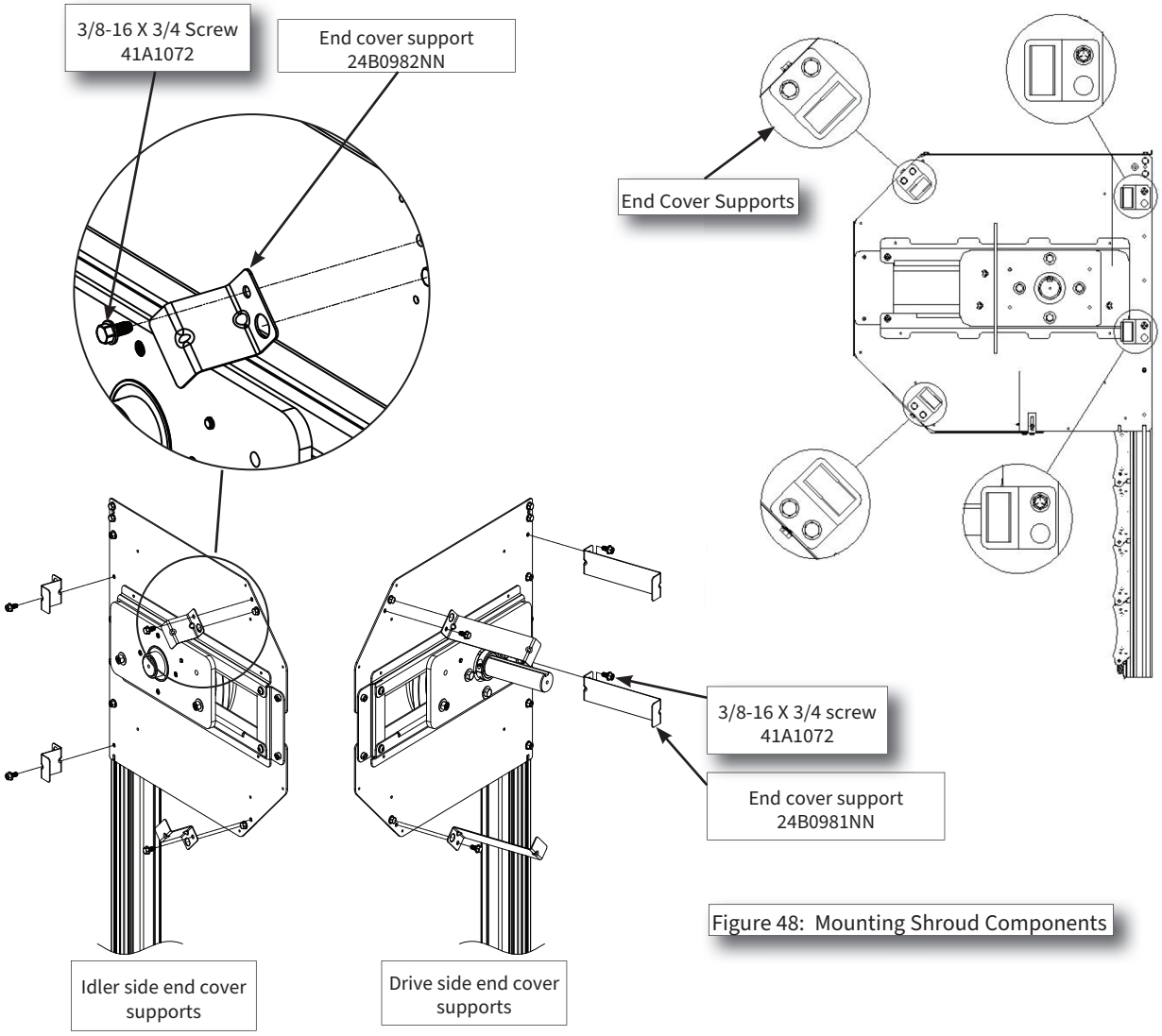


Figure 48: Mounting Shroud Components

Install End Cover Supports:

1. Retrieve end cover supports & hardware from the loose parts box 24B0981NN, 24B0982NN, & 41A1072.
2. Shorter supports 24B0982NN get mounted on the idler side, and longer supports 24B0981NN are mounted on the drive side.
3. Note that the (2) front end cover supports have one larger hole that goes over (1) existing screw holding in header cross tubes. Supports have an adhesive backed velcro pad on cover mounting flange, and supports are mounted with these flanges facing towards center of header plates (Figure 48).
4. Mount end cover supports on idler & drive sides as shown, removing (1) screw from cross tubes where needed and re-use those screws to mount supports (Figure 48). Leave removable paper coating in place until mounting end covers in a later step.

NOTE

Shroud install steps show install for a RH door. Install for a LH door is the same, but mirrored to the opposite side.

Shroud Installation Continued

Install Front Shroud Panels:

The next step is to install the front shroud panels. Narrower doors will only have (1) right & (1) left panel, and wider doors will have a center panel. The process shown is for (3) panel shrouds, but the process is the same for (2) panel shrouds excluding the center panel install. The pictures shown are for a RH drive door. Steps for LH doors is the same on opposite side.

Install Front Idler & Drive Side Shroud Panels:

1. Retrieve the front shroud panels. All panels are labeled as “drive side”, “idler side”, or “center”.
2. Mount “idler side” panel. Start by adding (2) 41A586 self-drilling screws to the (2) slotted holes in panel near the idler end of header. (Figure 49) holes are pre-drilled in the front spreader bars at these locations.
3. Add (3) 41A586 screws to the (3) slotted holes in panel at the other end of the panel. Keep edge of panel parallel to surfaces of the shroud supports. Panel profile should match profile of the front support and be slightly less than halfway across surface of supports. (Figures 50 & 51). Slotted hole of panel at rear horizontal surface should line up with slot in bottom support.
4. Mount “drive side” panel. Add (2) 41A586 self-drilling screws to the (2) slotted holes in panel near the drive end of the header. (Figure 52) holes are pre-drilled in the front spreader bars at these locations.
5. Add (3) 41A586 screws to the (3) slotted holes in panel at the other end of the panel. Keep edge of panel parallel to surfaces of the shroud supports. Panel profile should match profile of the front support and be slightly less than halfway across surface of supports. (Figures 53 & 54). Slotted hole of panel at rear horizontal surface should line up with slot in bottom support.

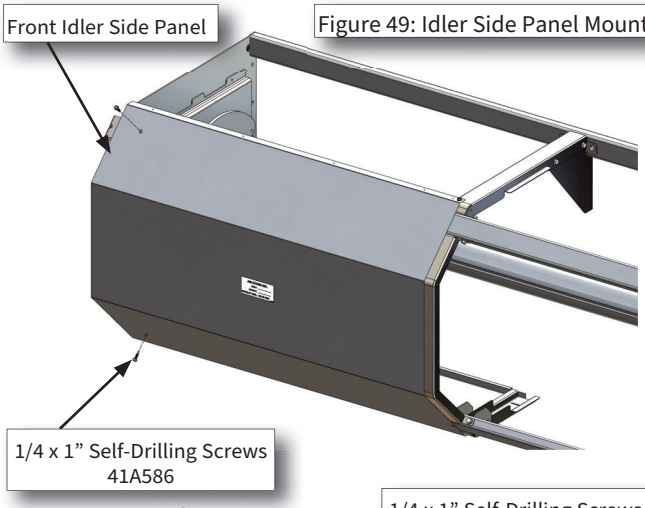


Figure 49: Idler Side Panel Mount

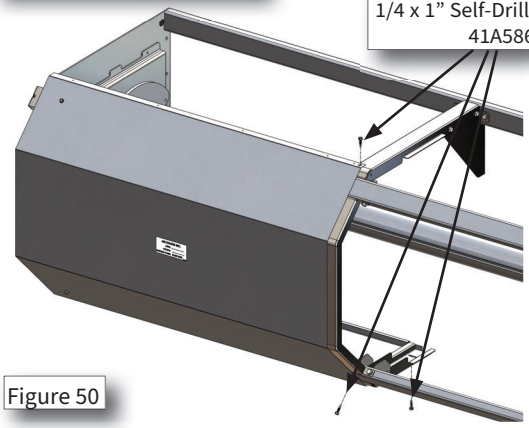


Figure 50

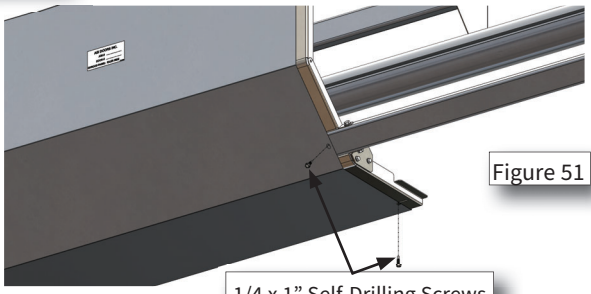


Figure 51

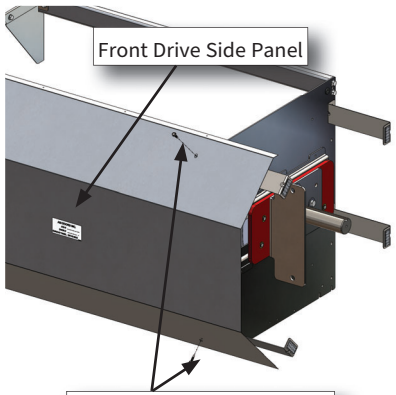


Figure 52

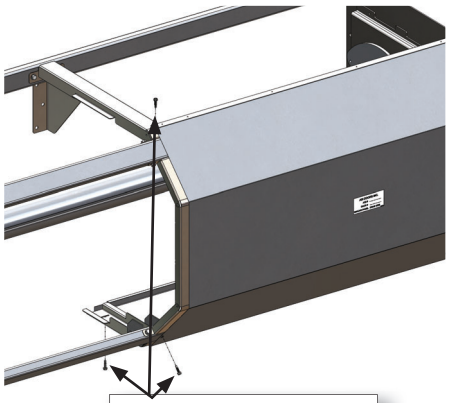


Figure 53

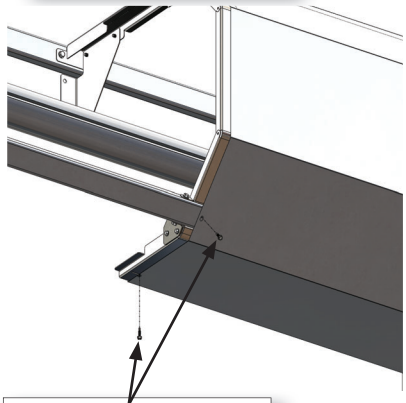


Figure 54

Shroud Installation Continued

Install Shroud Mount Angle Clips:

There are (2) small angle clips that hold rear corners of the “idler side” & “drive side” panels in place, where they meet the header plates.

1. Retrieve the (2) shroud mount angle clips 13B2592NN10 from the loose parts box.
2. Mount idler side angle clip. Long slotted leg of angle clip fits on outside surface of idler side header plate. Short leg of clip fits above horizontal flange of idler side shroud panel. Line up hole in clip with slotted hole in panel and attach with (1) 41A586 self-drilling screw (Figure 55).
3. Slotted hole in clip should align with a hole in header plate. Attach with (1) 41A586 self-drilling screw. Clip is slotted here to allow for visually leveling outer shroud panels when install is complete.
4. Repeat steps 2 & 3 on drive side panel (Figure 56).

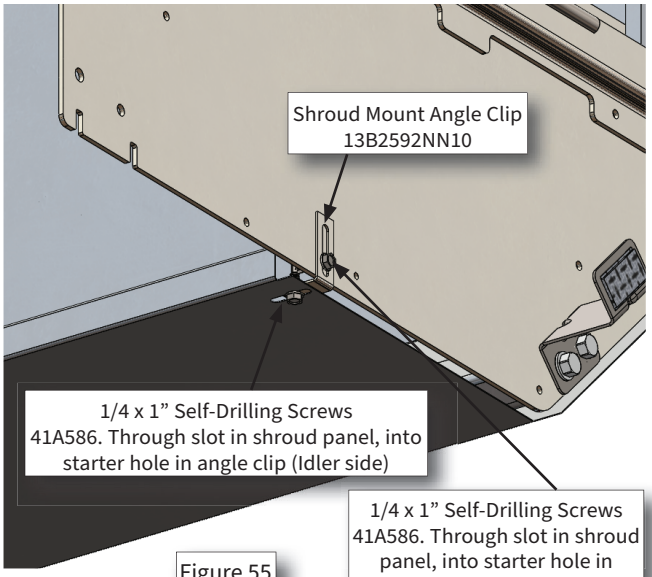


Figure 55

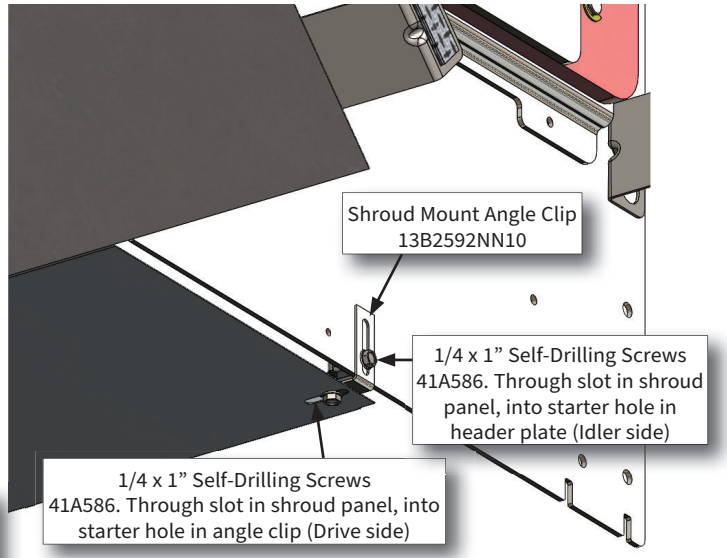


Figure 56

Install Front Center Shroud Panel (3 Panel Shrouds only):

1. Position front center shroud panel between idler side & drive side shroud panels and attach with (2) 41A586 self-drilling screws in top outside corners of panel. Panel should fit between existing panels with a 1/8” gap between panels on both sides (Figure 57).
2. Add (4) 41A586 self-drilling screws to slotted holes at lower front and rear of center shroud panel (Figure 58).

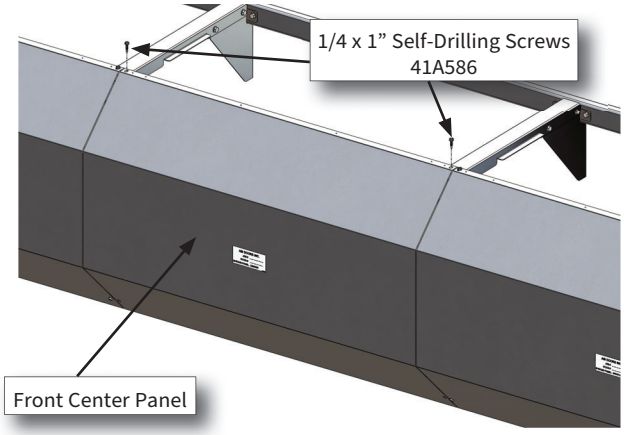


Figure 57

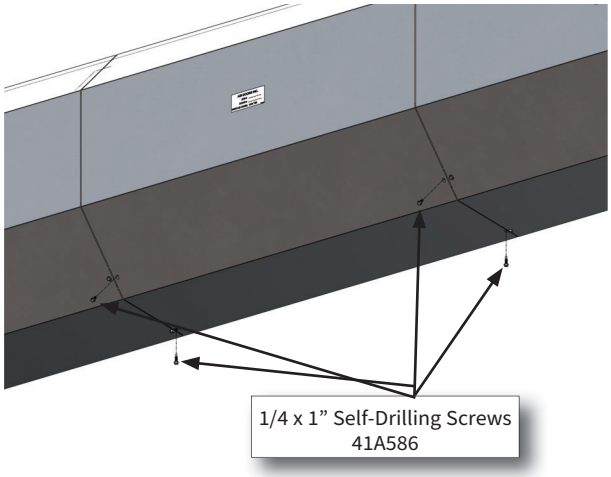


Figure 58

Shroud Installation Continued

Install Top Shroud Panels:

The next step is to install the top shroud panels. Start by installing outer panels first.

Install Top Idler & Drive Side Shroud Panels:

1. Retrieve the top shroud panels. All panels are labeled as “drive side”, “idler side”, or “center”. Install outside panels first.
2. Top panels sit on top of front panels. Position top idler side panel. Keep panel square and aligned with front panel. Align outside edge of top panel with front idler side panel. Front (4) clearance holes in top panel should align with starter holes in front panel underneath. Attach with (4) 41A586 self-drilling screws through these holes (Figure 59).
3. Attach top idler side panel to rear spreader bar of header with (3) 41A586 self-drilling screws through the (3) slotted holes at the rear of top idler panel.
4. Position top drive side panel. Keep panel square and aligned with front panel. Align outside edge of top panel with front drive side panel. Front (4) clearance holes in top panel should align with starter holes in front panel underneath. Attach with (4) 41A586 self-drilling screws through these holes (Figure 60).
5. Attach top drive side panel to rear spreader bar of header with (3) 41A586 self-drilling screws through the (3) slotted holes at the rear of top idler panel.

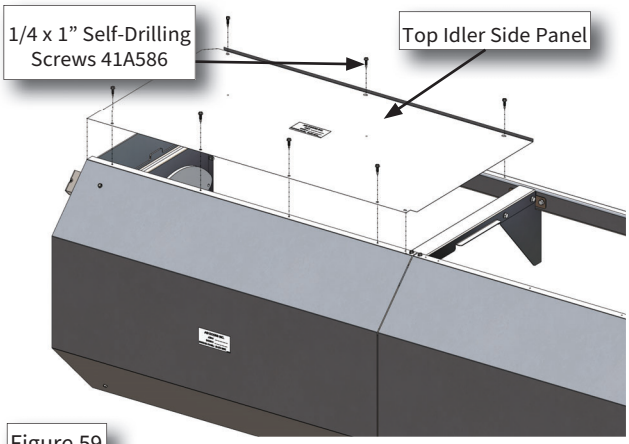


Figure 59

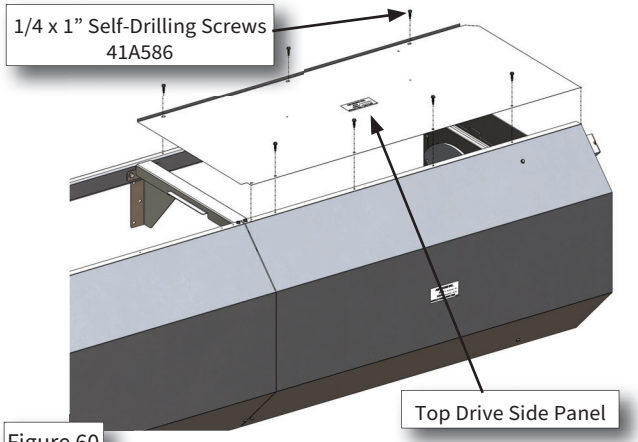


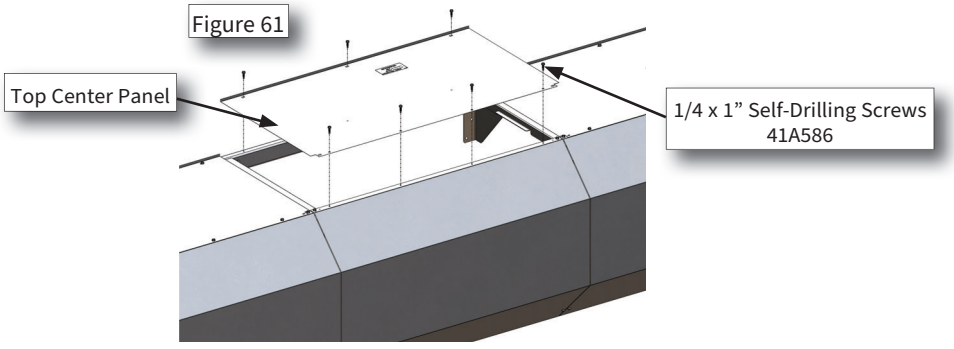
Figure 60

Install Top Center Shroud Panels:

For 3 panel shrouds, install the center top panel.

1. Position top center panel. Keep panel square and aligned with front panel. Panel should fit between existing panels with a 1/8” gap between panels on both sides. Front (4) clearance holes in top panel should align with starter holes in front panel underneath. Attach with (4) 41A586 self-drilling screws through these holes (Figure 61).
2. Attach top center panel to rear spreader bar of header with (3) 41A586 self-drilling screws through the (3) slotted holes at the rear of top center panel.
3. After installing all panels, remove protective coating & labels from all shroud panels.

Figure 61

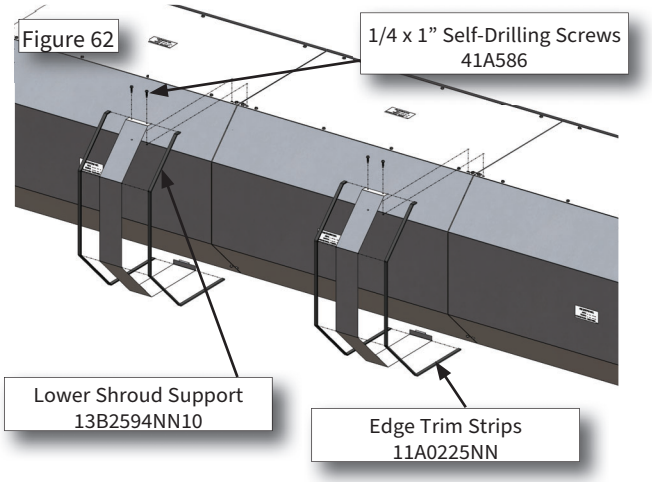


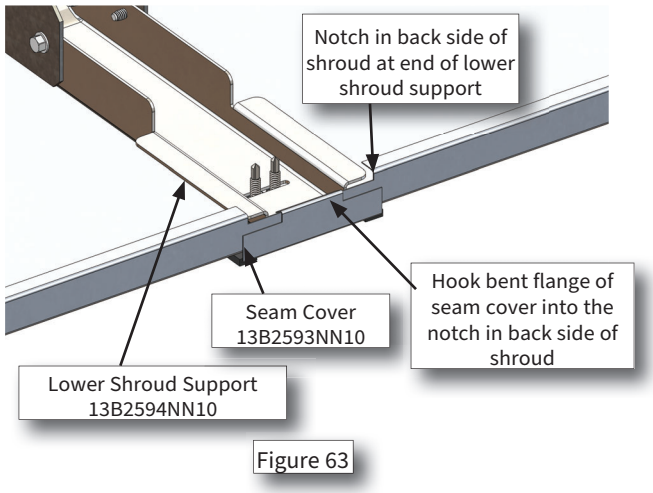
Shroud Installation Continued

Install Seam Covers:

When panels are installed, shrouds will have about an 1/8” gap between panels. Seam covers will be installed over the gaps between panels.

1. Retrieve the seam covers 13B2593NN35 and edge trim strips 11A0225NN from loose parts.
2. Remove protective film from seam covers.
3. Install (2) pcs of edge trim strips on sides of the seam covers (Figure 62). Start with end of edge trim flush with end of top flange of seam cover. Edge trim should end at 2nd last bend of seam cover.
4. Hook the small 45° tab at rear end of seam cover in the center of the notch of shroud at the end of the lower shroud support(s) (Figure 63).
5. Wrap seam cover around front profile of shroud, centered on the seam between panels, and attach at front top of shroud with (2) 41A586 self-drilling screws through the holes provided. Note: do not tighten completely, there are screw heads underneath seam cover.

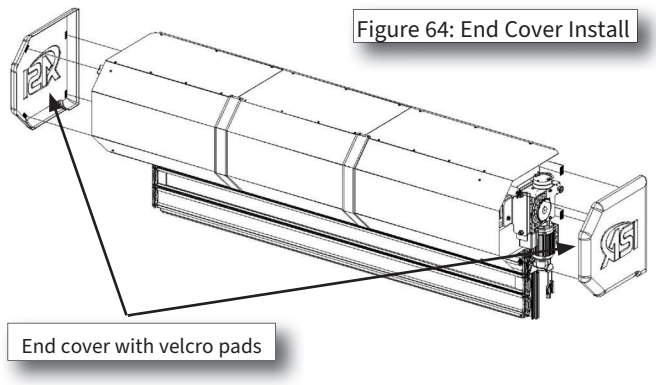




Adjust Bottom of Shroud:

After all shroud panels are installed, adjust the corners of the outside shroud panel.

1. Use the slotted angle clips at the outside rear corners of shroud panels to adjust the shroud so that it is level horizontally.



Install End Covers:

The last steps will be to install the end covers over the ends of the shroud panels.

1. Install the end covers. Each header end plate has 4 end cover supports. There is a (2) piece hook & loop velcro pad on each support with a removable paper coating covering the adhesive (Figure 64).
2. Before mounting the end covers, use isopropyl alcohol wipes, 04A0003, to clean the contact areas where the adhesive pads will meet the inside of the end cover.
3. After wiping down these areas of the end cover, remove the removable paper coating covering the adhesive on the end cover supports.
4. Carefully, line up the end covers so the lip is just outside of the shroud panels and push into position. Half of the hook & loop velcro pad will adhere to and stay permanently attached to the end covers. After the adhesive is set, you should be able to remove the end covers when needed, and re-mount them with the velcro pads.

Table 01 - Control Box Descriptions Table

Item	Description
OPEN button	Opens door when pressed.
STOP button	Stops door when pressed.
CLOSE button	Closes door when pressed.
Power Disconnect Handle	Applies/removes AC input power when rotated 90°. Vertical position (shown): Power applied horizontal position: Power disconnected.
Locks	Two locks help prevent unauthorized access to the controller.
Display	Organic LED (OLED) display that provides the primary user interface. Display is visible through the enclosure door. Provides controller and door status indications during normal operation. Provides programming and setup menus, and provides error indications.

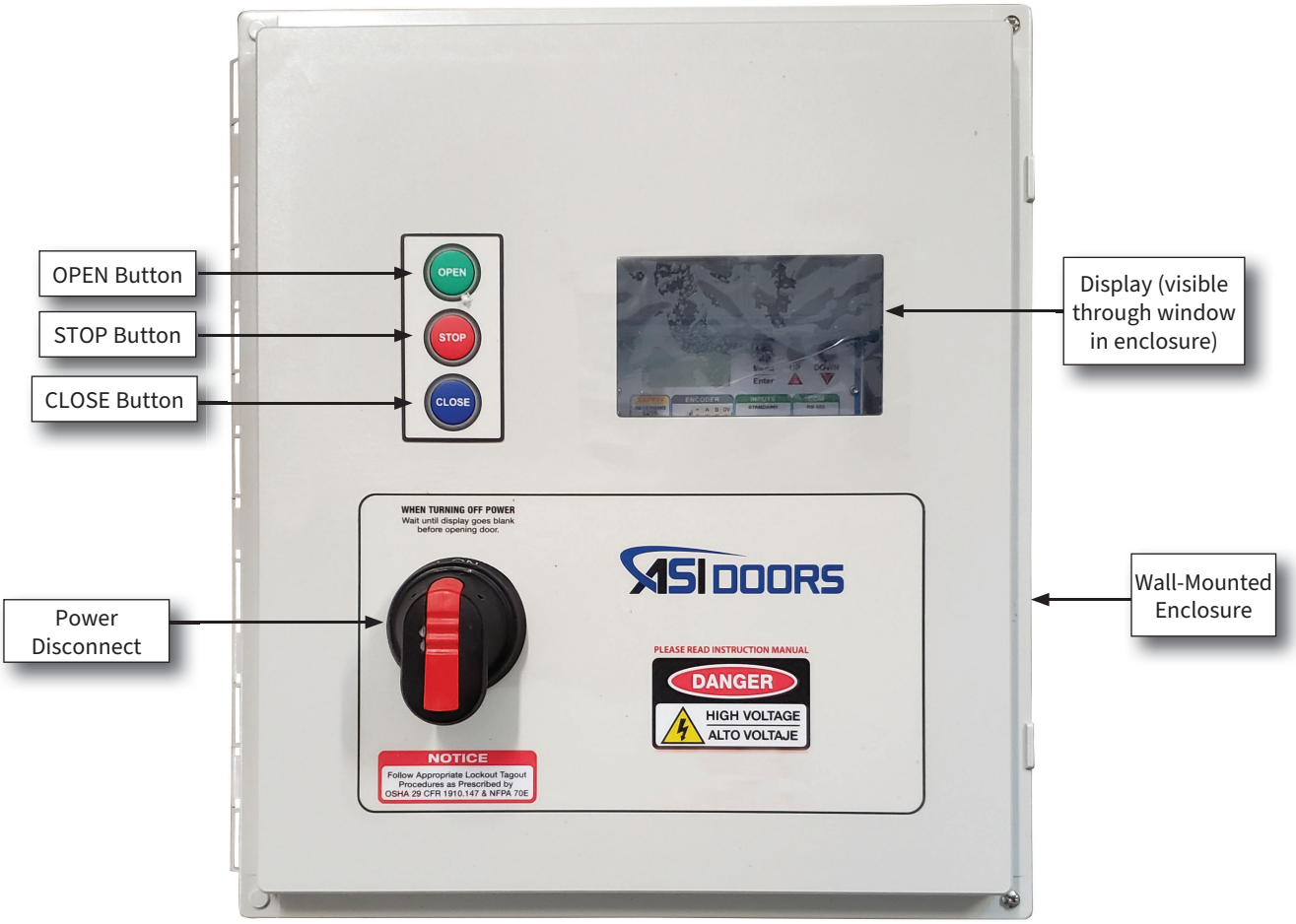


Figure 65: Control Enclosure Detail

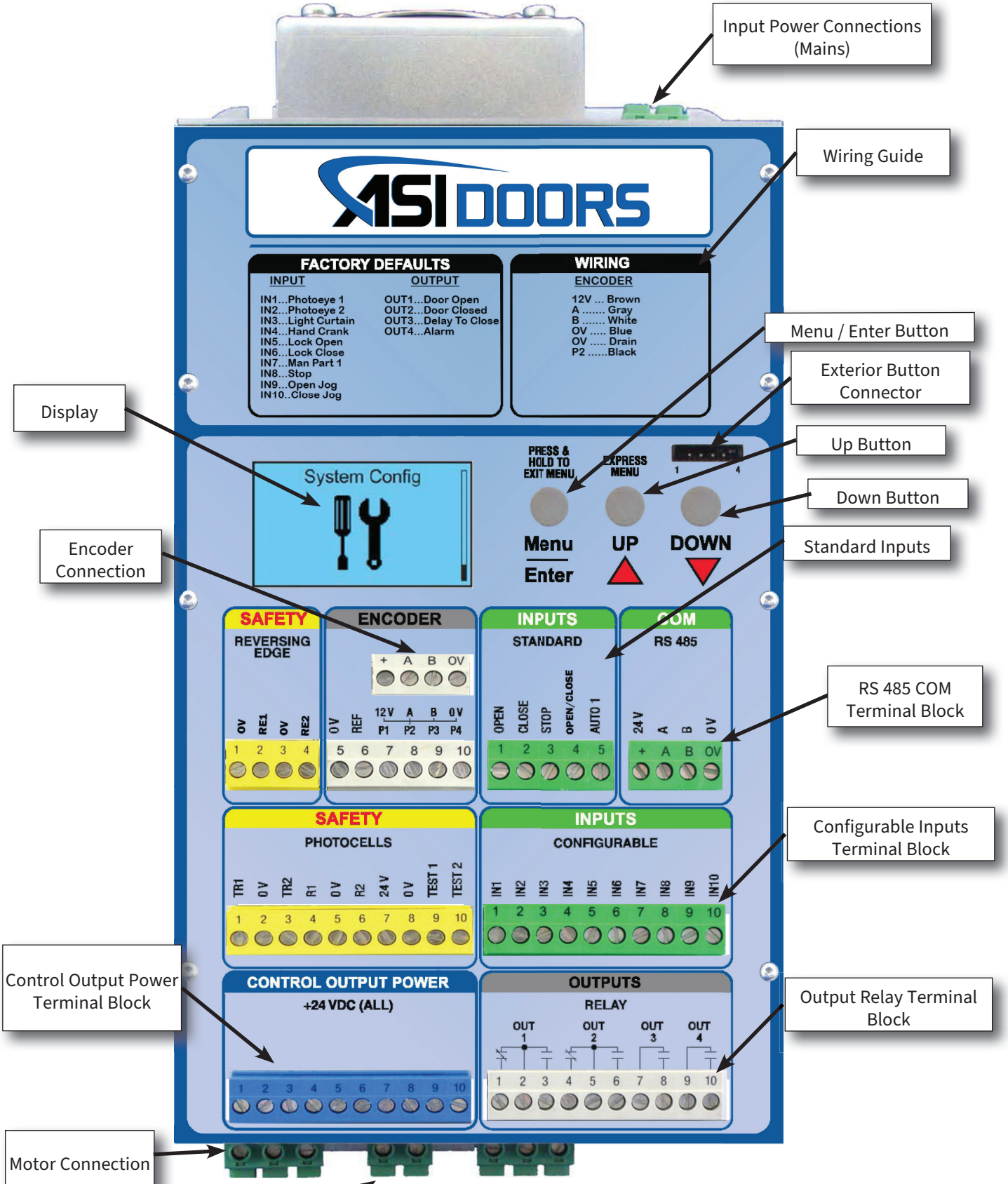


Figure 66: Controller Features

Table 02 - Controller Feature Descriptions Table

Item	Description
Menu/Enter button	Press once to enter a menu or confirm a selection during programming. Press and hold to exit the current menu or cancel a programming selection.
UP ▲ button	During programming and setup, press to navigate through menus or to jog the door in the open direction in certain menus. While on an IDLE screen, press to enter EXPRESS menu.
Exterior Button Connector	Connects the ribbon cable from the OPEN/STOP/ CLOSE switches on the enclosure door to the DGII.
DOWN ▼ button	During programming and setup, press to navigate through menus or to jog the door in the closed direction in certain menus.
Motor Connections	Terminal blocks for connecting the motor are located on the bottom of the controller.
Braking Resistor Connection	The braking resistor is supplied in the enclosure, pre-wired behind the subpanel.

Controller Functions

Controller Power-up

NOTE

Refer to Electrical Schematics for wiring connections

After all connections are made, apply power to the Controller by setting the power disconnect on the enclosure door to the ON position (rotate handle 90° clockwise so that handle is in the vertical position).

The Controller powers up when AC power is applied. Confirm that the following start-up screens are displayed when the controller is powered up. Screens are shown for 3 seconds each. Button presses or other inputs are ignored during start-up screen display. This screen sequence takes place whenever the controller is powered on.

- Controller size screen indicates the output capacity of the controller.
- Serial number screen displays the device's unique serial number.
- Software version screen displays the installed software version.
- Wireless state screen indicates if on-board wireless initialized successfully
- Controller registration screen indicates if the controller has been registered.
- Current profile screen displays the currently-selected door profile.
- Company logo screen

When the power-on sequence is complete, the idle screen is displayed. If there is a problem with a connection or with the controller, an error code may be displayed.

Using the Menus

- To enter any menu or selected submenu, briefly press the Menu/Enter button.
- Use the ▲ and ▼ buttons to scroll through menu options. The current selection is highlighted in black with light text.
- To exit any menu, press and hold the Menu/Enter button.

Entering a Passcode

Some menus may require a 3-digit passcode to gain access. This helps prevent unauthorized personnel from changing the controller settings.

The code request screen shown at left appears when a menu is protected by an access code. Use the ▲ and ▼ buttons to enter the code, then press the Menu/Enter button to accept the code.

Menu Structure

Figure 67 is a diagram showing the Controller menu structure. The key presses to navigate through the main menus are also shown (Menu/Enter, ▲ and ▼).
To exit any menu, press and hold the Menu/Enter button.

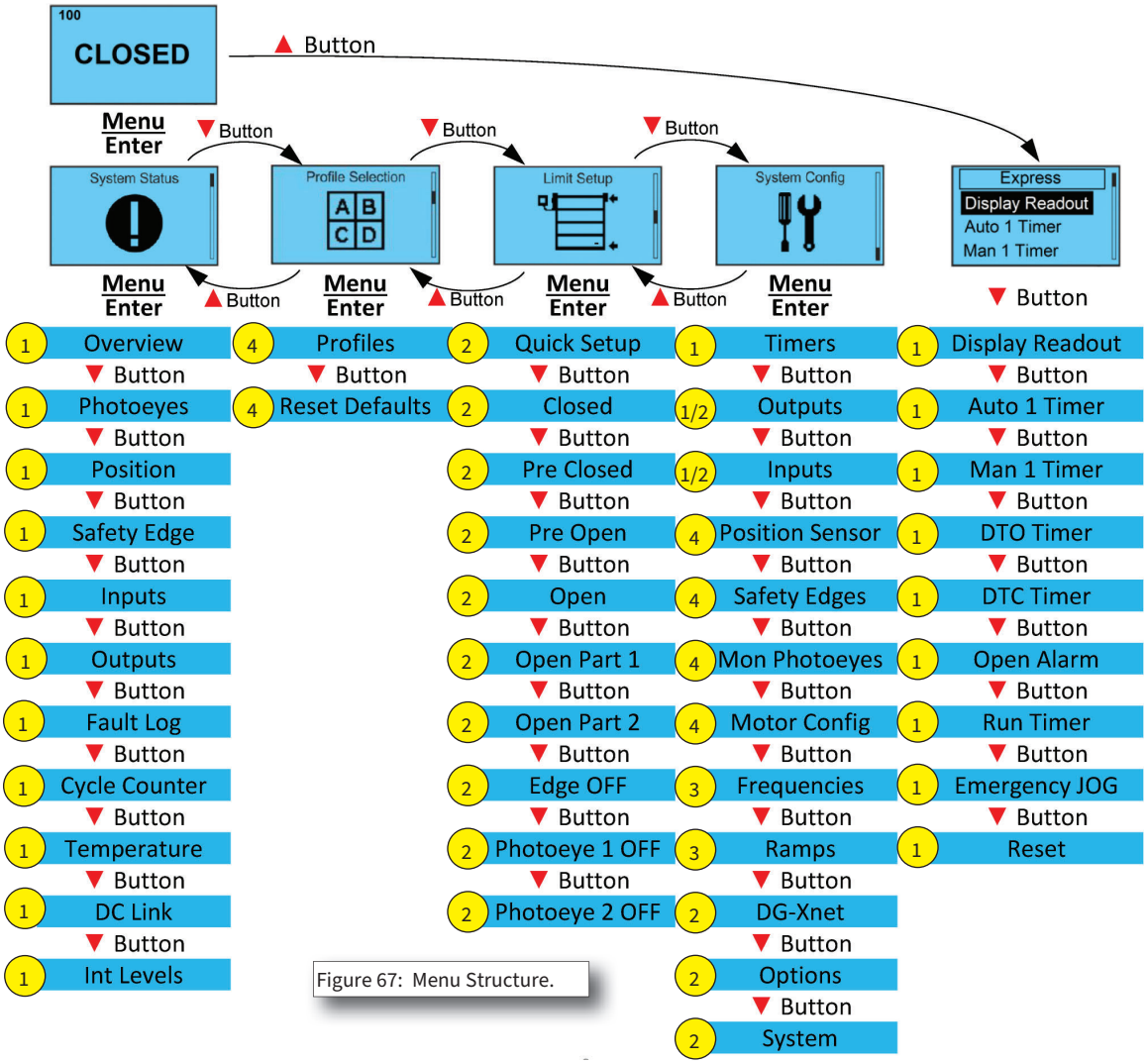


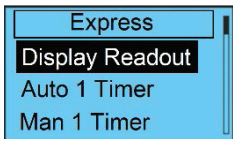
Figure 67: Menu Structure.

NOTE

The table at the right refers to the numbers by each menu item. Different menu items have different levels of security, and higher level items require a higher level password to access.

1	User Level
2	Tech Support Level 1
3	Tech Support Level 2
4	OEM Level

Express Menu



The express menu, allowing rapid programming, is available from the idle screen by pressing the ▲ button. The express menu provides options to the user to quickly access certain door parameters and view of internal controller parameters for troubleshooting. Press the ▼ button to scroll down through the express menu. Press and hold the menu/enter button to exit the express menu when finished.

Display readout
The following options are available for the controller display. The options other than **normal** are intended for use as troubleshooting aids only. The display should always be set to **normal** when the door is in use.

Use the ▼ button to highlight an option, then press the menu/enter button to select it.

Normal: select to return the display to the normal idle screen display after troubleshooting is complete.

Motor Current: displays the motor current when selected. This is useful for performing troubleshooting and is not intended for use as the normal operational display.

DC Link: displays the internal dc voltage when selected. This is useful for performing troubleshooting and is not intended for use as the normal operational display.

Position: displays the door's current position.

Measured Frequency: displays the measured frequency from the motor in hz. This value correlates to the speed of the motor.

Output Frequency: displays the current frequency being applied to the motor. This value correlates to the speed of the motor.

Auto Close Timer

The time period after which the door will close automatically after an auto input has been activated and released, in seconds and tenths of seconds. To edit the time interval, use the ▲ and ▼ buttons to select the desired value, then press the menu/enter button to store it. The message stored is briefly displayed, then the screen returns to the express menu.

Setting the value to zero disables the auto close timer.

Manual Close Timer

The time period, in seconds and tenths of seconds, after which the door will close automatically, after a manual input has been activated and released. To edit the time interval, use the ▲ and ▼ buttons to select the desired value, then press the menu/enter button to store it. The message stored is briefly displayed, then the screen returns to the express menu.

Setting the value to zero disables the manual close timer.

DTO Timer

Delay-to-open time period, in seconds and tenths of seconds. After an open input is activated, the controller will delay the opening of the door by the set amount. To edit the time interval, use the ▲ and ▼ buttons to select the desired time, then press menu/enter button to store it. The message stored is briefly displayed, then the screen returns to the express menu.

DTC Timer

Delay-to-close time period, in seconds and tenths of seconds. After a close input is activated, the controller will delay the closing of the door by the set amount. To edit the time interval, use the ▲ and ▼ buttons to select the desired time, then press the menu/enter button to store the value. The message stored is briefly displayed, then the screen returns to the express menu.

Open Alarm

Use this timer, along with an output whose function has been set to open alarm, to signal if a door has been left open for too long.

Open alarm timer, in seconds and tenths of seconds. To edit the time interval, use the ▲ and ▼ buttons to select the desired value, then press the menu/enter button to store it. The message stored is briefly displayed, then the screen returns to the express menu.

Setting this value to zero disables the open alarm.

Run Timer

Run timer value, in seconds. The run timer is a safety feature that stops door movement if the controller detects that the door is still in motion after the run timer period elapses. Set the run timer to a value of 1 to 4 seconds longer than the time required to open or close the door, whichever is greater. The run timer starts every time the door moves. If the door does not stop moving before the run timer expires, the dgii® stops the door.

To edit the time interval, use the ▲ and ▼ buttons to select the desired value, then press the menu/enter button to store it. The message stored is briefly displayed, then the screen returns to the express menu.

Emergency JOG

Provides the ability to jog the door using the ▲ and ▼ buttons. Any connected safety inputs are ignored to allow unrestricted door movement.

⚠ CAUTION

Any connected safety devices are ignored to allow unrestricted door movement

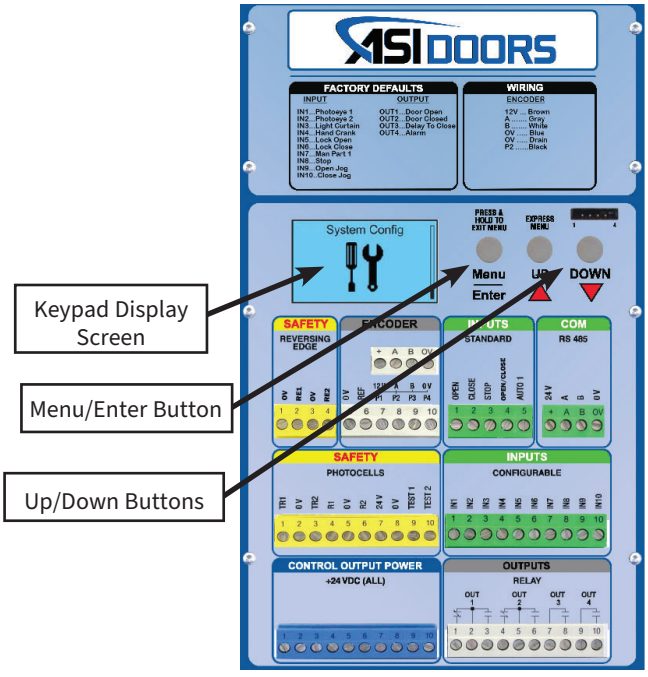
Setting Door Limits

Door limit Set-up (E17 SET LIMIT)

1 Manually move door approx. 24” from either end position.
2 Press the Menu/Enter button.
3 Using the up & down arrows go to LIMIT SET-UP screen.
4 Press the Menu/Enter button
5 If prompted for password use 777 and press Menu/Enter button.
6 Go to QUICK SETUP and press Menu/Enter button
7 Follow controller instructions on display screen
   a. Using the UP & DOWN buttons jog door to approx. center position (door could be phased wrong, if so use opposite button to move door to center position, DO NOT re-phase motor leads).
   b. Press Menu/Enter
   c. Controller now needs to check motor phasing. Press and hold the up button. The door will move approx.18” in a direction and stop automatically.
   d. Confirm door direction
      i. Press the UP button if door went up.
      ii. Press the DOWN button if the door went down.
   e. Door is now ready to set the open limit. Using the UP & DOWN buttons jog door to the desired open limit.
   f. Press Menu/Enter to complete open setting.
   g. Door is now ready to set the close limit. Using the UP & DOWN buttons jog door to the desired close limit.
   h. Press Menu/Enter to complete close setting.
8 Limit setup is now complete. The controller should return back to the main menu, if not press and HOLD the Menu/Enter button until on the main screen.
9 Test door operation. If additional limit adjustmentsare needed see instructions for minor limit adjustments.

Minor Door Limit Adjustments

1 Press Menu/Enter
2 Using the up & down arrows go to LIMIT SET-UP screen.
3 Press the Menu/Enter button
4 If prompted for password use 777 and press Menu/Enter button.
5 Go to ONLY the OPEN or CLOSE position and press Menu/Enter
6 Adjust position and press Menu/Enter.
7 Repeat as needed for either position.
8 When complete the controller must be returned back to the main screen. Press and HOLD the Menu/Enter button until on the main screen.



INSTALLATION

Warning Labels

⚠ WARNING

Check all warnings weekly. Door may unexpectedly close. Failure to mount and maintain all warning labels and instructional literature could result in death or serious injury.

1. Inspect warning labels 17A243 on face frame covers (Figure 68). Mount warning labels provided on other side of the wall opposite the side covers (Figure 69). The bottom of the warning label should be approximately 60” from the floor.

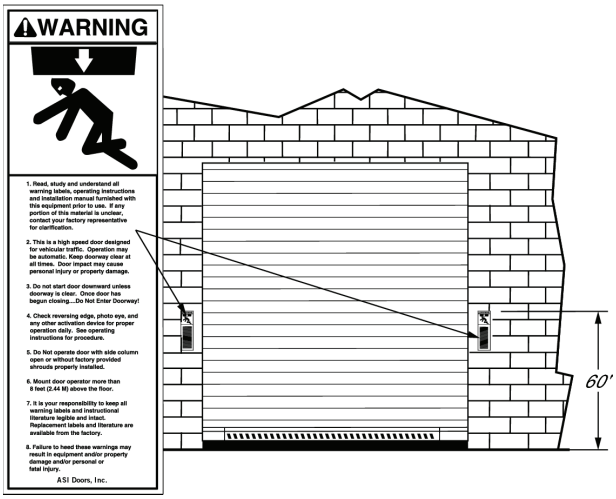


Figure 68: Warning Label Installation, Wall Mount

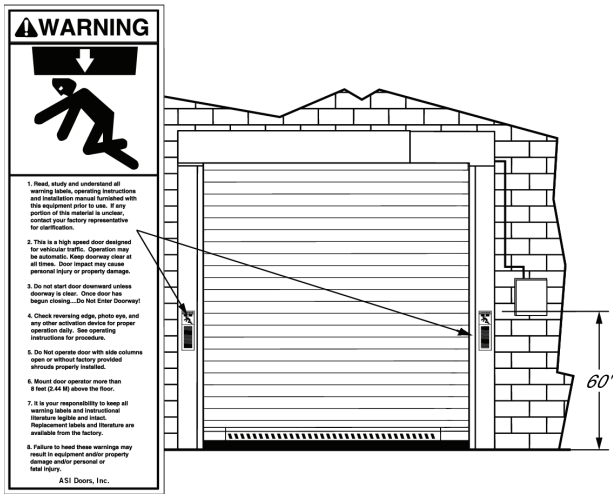


Figure 69: Warning Label Installation, Face Frames

Pair Transmitter & Controller

The wireless transmitter and the controller are “paired’ together at the factory. They need to be paired in order for the reversing edge to function correctly. If they ever become “un-paired” or if the wireless transmitter is replaced, perform the following steps to “pair” the wireless transmitter to the controller.

1 Remove the wireless transmitter from the bottom bar assembly on the curtain (Figure 70). The back side of the transmitter has a button used in the pairing procedure.
2 Press and hold button on transmitter for 15 seconds, until status light on transmitter turns solid, then release button.
3 On the controller, press “menu”
4 Scroll to “system config”
5 Press “enter”
6 Ender code “777”
7 Press “enter”
8 Scroll to “options”
9 Press “enter”
10 Select “seywave host”
11 Press “enter”
12 Scroll to “clear all”
13 Press “enter”
14 Press up button to “reset seywave”
15 Select “pairing” on controller, press “enter”, and within 10 seconds, press the button on the transmitter.
16 If the pairing is successful, the controller will beep.
17 Select the “press and hold” button to exit.
18 Replace the wireless transmitter on the bottom bar assembly. It is recommended that you mount it with the button against the bottom bar to prevent accidental un-pairing.

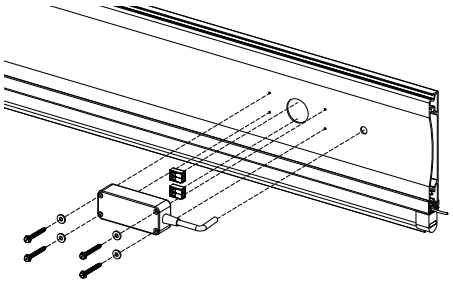


Figure 70: Remove Wireless Transmitter

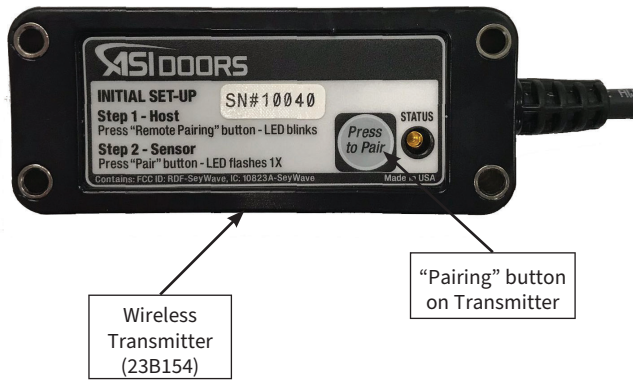


Figure 71: Wireless Transmitter Detail

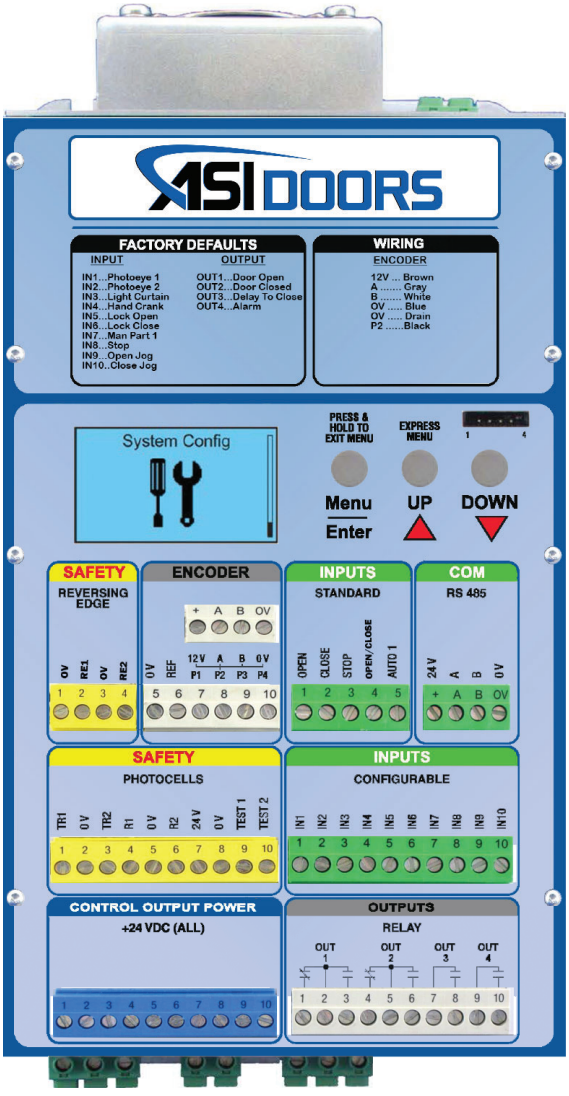


Figure 72: Controller Detail

Cleaning Procedures

⚠ WARNING

Remove power at the fused disconnect during all electrical or mechanical service. Disconnect must be properly locked out during maintenance or service of equipment. Failure to disconnect power could result in serious injury or death.

General Cleaning Procedures:

- Observe all noted cautions and warnings when cleaning around equipment with electrical power (See warning above).
- Avoid spraying Motor, Wiring, and Controls when cleaning the door.
- Use low pressure water when cleaning.

Cleaning Procedure for Acrylic Windows:

The following procedures and cautions should be followed when cleaning the Acrylic windows in the Vision Panels:

- Gently wash sheet with a solution of mild soap and lukewarm water, using a micro-fiber cloth to loosen any dirt or grime.
- Thoroughly rinse with clean water to remove any cleaner residue and dry the surface with a micro-fiber cloth to prevent water spotting.

Important Cautions for Cleaning Acrylic Windows:

- Never use abrasive or highly alkaline cleaner on Acrylic polycarbonate materials.
- Never use aromatic or halogenated solvents like toluene, benzene, gasoline, acetone or carbon tetrachloride on Acrylic polycarbonate materials.
- Use of incompatible cleaning materials with Acrylic sheet can cause structural and/or surface damage.
- Contact with harsh solvents such as methyl ethyl ketone (MEK) or hydrochloric acid can result in surface degradation and possible crazing of Acrylic sheet.
- Never scrub with brushes, steel wool or other abrasive materials.
- Never use squeegees, razor blades or other sharp instruments to remove deposits or spots.
- Do not clean Acrylic polycarbonate in direct sunlight or at high temperatures as this can lead to staining.
- For all mentioned chemicals consult the manufacturer's material safety data sheet (MSDS) for proper safety precautions.
- Do not use alcohols

Preventative Maintenance

⚠ WARNING

Remove power at the fused disconnect during all electrical or mechanical service. Disconnect must be properly locked out during maintenance or service of equipment. Failure to disconnect power could result in serious injury or death.

NOTE

For monthly and quarterly inspections record the date of inspection and the cycle count. The cycle counter is located in the control box. Recording daily inspections is usually not necessary.

Table 03 - Preventative Maintenance Table

	Daily	Monthly	Quarterly
Visual Damage Inspection	■		
Test Door Operation	■		
Inspect all Activation Devices	■		
Test Reversing Edge and Light Curtain / Photo-eyes	■		
Inspect Aluminum Dura or Vision Curtain		■	
Inspect Manual Release Function		■	
Inspect All Hardware			■
Inspect Bottom Bar			■
Inspect Electrical Control Box and Terminal Connection (4.4 Lbs. of Torque)			■
Inspect Windows			■
Door Lubrication and Cleaning			■
Inspect Bearings and Locking Collars			■
Inspect Operator Assembly			■
Braking Inspection			■
Inspect Curtain Connecting Links			■

Preventative Schedules

DAILY

VISUAL DAMAGE INSPECTION: Visually inspect the door for any damage that may be present. Example: evidence of face frame impact, damaged bottom bar assembly, damaged intermediate slats or broken windows.
TEST DOOR OPERATION: Run the door several cycles to see if the door is operating properly. Check to see that door is operating smoothly with no binding or unusual noises. Make the necessary adjustments if the door is not operating correctly. Do not leave the door in operation if a problem exists.
INSPECT ALL ACTIVATION DEVICES: Inspect all activation devices to insure proper actuation of the door. Make the necessary adjustments if the door is not operating correctly. If activation devices are not functioning, the door should be immediately taken out of service until the problem can be corrected.
TEST REVERSING EDGE AND LIGHT CURTAIN / PHOTO-EYES: The reversing edge and light curtains or photo-eyes should be checked on a daily basis. While the door is traveling to the closed position, test reversing edge for proper operation. Also, check reversing light curtains or photo-eyes to ensure proper operation when the beam is interrupted. Make the necessary adjustments if the door is not operating correctly. Do not leave the door in operation if a problem exists.

MONTHLY

INSPECT CURTAIN: Visually inspect the curtain for any holes, cracks or damage. Ensure that the end tabs and curtain are properly attached and in good working condition. Check curtain slat gasket seal.
INSPECT MANUAL RELEASE FUNCTION: Check manual release system for smooth operation. The door should engage and disengage manual mode freely without any hang up. Adjust and replace parts as necessary. Follow instructions provided in installation manual and take heed to all warning information provided with the door.

NOTE

For monthly and quarterly inspections record the date of inspection and the cycle count. The cycle counter is located in the control box. Recording daily inspections is usually not necessary.

QUARTERLY

INSPECT ALL HARDWARE: Insure that all bolts, screws, anchors and welds are intact and securely fastened.
INSPECT BOTTOM BAR: Visually inspect bottom bar reversing edge for any damage. Check for loose screws and tighten as necessary. Replace or straighten bottom bar assembly or parts if it has been impacted.
INSPECT ELECTRICAL CONTROL BOX: Disconnect power before opening panel cover. Check electrical box for any loose parts or wires. Repair and replace as necessary. Check all circuit relays and timers to ensure their proper operation. Replace if necessary. Reminder: record the number of cycles at each monthly and quarterly inspection. Check terminal connection—4.4 Lbs. of torque.
INSPECT WINDOWS: Check all windows for signs of damage. Windows will become dirty during frequent use and require cleaning. Clean and replace as necessary. See following section on cleaning windows.
DOOR LUBRICATION AND CLEANING: As with any piece of moving equipment, lubrication can increase the efficiency and life of the product. Clean and lubricate as necessary. Also, due to plant conditions, it may be necessary to clean the curtain slats. Degrease and clean the slats as necessary with standard household cleaners.
INSPECT BEARINGS AND LOCKING COLLARS: Visually inspect bearings and locking collars. Look for any signs of excessive wear on bearings. Look for any signs of bearings and collars drifting out of position on shafts. Ensure that locking collars are tight and holding the shaft without any rubbing. Adjust if necessary.
INSPECT OPERATOR ASSEMBLY: Over time due to heavy operating cycles, the bolts associated with the drive unit could become loose. Check to insure that all bolts are secure on the drive motor assembly. Examine the entire drive system for any sign of leaking or broken seals. Replace as necessary.
BRAKING INSPECTION: Check brake system using door close and stop buttons. While door is closing, press the stop button when door is 6”-12” from floor. Confirm how quickly door stops and/or drifts. Slow stop and drift may require brake adjustment or replacement. Brake air gap should be between 0.2 - 0.9 mm.
INSPECT CURTAIN CONNECTING LINKS: Remove face frame covers and inspect curtain connecting links for signs of wear or damage. Replace as needed.

Troubleshooting

Table 04 - Troubleshooting Table

Problem	Probable Cause	Corrective Measures
A. Motor will not start.	1. No power	1. Check power switches, fuses and connections. Verify 3 phase voltage at operator
	2. Control circuit breaker tripped while stopping	2. Reset – determine cause
	3. Wired for wrong voltage	3. Check transformer, motor and overload relay for proper wiring
	4. Loose or disconnected wire	4. Check wiring and connections
	5. Defective actuator	5. Check actuator and wiring with ohm meter
	6. In manual mode	6. Set chains to auto mode
B. Motor runs but “lacks power”.	1. Single phasing	1. Check power supply—Verify 3 phase voltage. Check contactor/motor wiring
	2. Blown fuse	2. Replace fuse
C. Inconsistent starting, stopping and reverse	1. Loose or poor connection	1. Check connections in control circuit
D. Reversing edge works on opening cycle instead of closing.	1. Phase sequence reversed	1. Shut off power. Change any two of the three line leads
E. Door closes and opens	1. Reversing edge switch signalling to reopen	1. Check lower limit and shorten travel so door does not hit at bottom
F. Brake does not disengage or limits vary.	1.Wrong voltage on rectifier module	1. Apply correct voltage (check nameplate)
	2.Rectifier defective	2. Replace rectifier
	3.Maximum permissible air gap exceeded due to brake lining wear	3. Readjust brake. If lining is completely worn out, replace brake disc.
	4.Voltage drop in the line	4. Ensure correct line voltage
G. Door does not stop consistently.	1. Brake lining completely worn	1. Replace brake assembly
	2. Air gap has increased to point where adjusting nuts are up tight	2. Reset brake

Error Codes

Controller Error Messages

If an error occurs, it is displayed in a window occupying the entire display similar to the example shown at left. Find the error code in the tables included in this chapter to determine the cause and corrective action.

Error messages originate in one of three categories:

- Inverter (power faults): see Table 05 on page 43 & 44.
- Door control codes related to the motor and encoder: see Table 06 on page 45 & 46.
- Option codes related to optional equipment used with the Controller: see Table 07 on page 47.

Table 08 on page 47 defines the priorities and reset conditions for error messages.

Table 05 - Inverter Error Codes

Code	Description	Cause	Corrective Action
UU	DC Link low (Top Priority)	The incoming mains voltage is too low.	View System Status - DC link to check that the voltage is within the range shown.
OU	DC Link high (Medium Priority)	Either the incoming mains voltage is too high or the deceleration rate is too short	View System Status - DC link to check that the voltage is within the range shown. Decrease the deceleration ramps.
OC1	Overcurrent 210% (Medium Priority)	The motor current exceeds the inverter rating by 210%	View the motor current display to check the current delivered to the motor. Check the motor nameplate data to confirm that the correct controller model is being used. Check for mechanical obstruction or damage.
OC2	Overcurrent 150%/30 sec (Medium Priority)	The motor current exceeds the inverter rating by 150% for more than 3 seconds	View the motor current display to see the current delivered to the motor. Check the motor nameplate data to confirm that the correct controller is being used. Check for mechanical obstruction or damage.
OC3	Overcurrent during acceleration	Over current while accelerating	View the motor current display to see the current delivered to the motor. Decrease the acceleration ramps
OC4	Overcurrent DC/ Brake (Medium Priority)	Over current while DC braking	View the Motor Current display to see the current delivered to the motor. Decrease the DC brake level.

Table 05 - Inverter Error Codes Continued

Code	Description	Cause	Corrective Action
OC5	Peak overcurrent (High Priority)	Severe overload	Check for: ▪ a short in the motor cable ▪ stalled motor ▪ mechanically or electrically damaged motor ▪ If equipped with a parketing brake, ensure that it is being released. Decrease the boost parameter.
OH	Controller overheat (High Priority)	The inverter is overheated	View System Status - Temperature to check that the reported temperature is within range. (Note: Temperature display shows raw analog counts and not actual temperature) Check ventilation and ensure fan, (if equipped), is operating. Reset the controller and confirm that the fan operates for 1 second during the power-up routine. Reduce the switching frequency and the DC brake level.
HE	Low internal 12V (Top Priority)	The internal 12VDC power supply voltage is too low	View the System Status - Int Levels to check that the voltage is within range. Check I/O wiring for shorts.
HE	Low internal 24V (Top Priority)	The internal 24VDC power supply voltage is too low	View the System Status - Int Levels to check that the voltage is within range. Check I/O wiring for shorts.

Table 06 - Door Control Error codes

Code	Description	Cause	Corrective Action
E01	Slip error (Low Priority)	Mechanical overload (Slip Monitoring) or missing signal from encoder.	Check door for obstruction. Ensure the pulse output from the encoder is connected to terminal P2 on the controller. Verify that the encoder pulse output is set correctly.
E02	Direction Error – occurs during setup only. (Low Priority)	The direction of the motor is incorrect. The encoder count must increment positively while the door is moving in the open direction.	Use the Motor Direction parameter to set the correct direction for the motor and encoder. If the motor moves in the incorrect direction and the encoder is decrementing, set the motor direction parameter to Motor REV. If the motor moves in the correct direction but the encoder is decrementing, set the Motor Direction parameter to Encoder REV. If the motor is moving in the incorrect direction and the encoder is incrementing, then set the motor direction parameter to both REV.
E03	No Signal From Pulse Generator – occurs during setup only. (Low Priority)	No pulse input detected from the encoder.	Check door for obstruction. Ensure the pulse output from the encoder is connected to terminal P2 on the Controller. Verify that the encoder pulse output is set correctly.
E04	N/A	N/A	N/A
E05	Reference Switch Connection (Medium Priority)	The reference switch is shorted or broken	Check the reference switch for damage and bad connections. Ensure the correct setting for the Reference parameter. Perform a quick setup to reset the position limits.
E06	Reference Switch False Activation (Medium Priority)	The reference switch was activated in the wrong position	Check the reference switch for damage and bad connections. Ensure the correct setting for the reference parameter. Perform a quick setup to reset the position limits.
E07	Run Timer Exceeded (Low Priority)	The run timer has expired.	Check the run timer parameter to ensure a correct value.
E08	Safety Edge Test Fail (Medium Priority)	The reversing edge test has failed	Check the connections from the reversing edge to the controller. If using the SeyWave wireless system, check operation of connected host and remote door sensor.

Table 06 - Door Control Error codes Continued

Code	Description	Cause	Corrective Action
E09	Safety Edge Connection (Medium Priority)	The reversing edge connection cannot be verified.	Check the connections from the reversing edge to the controller. If using the SeyWave wireless system, check operation of connected host and remote door sensor.
E10	Safety Edge 1 Activated (Low Priority)	The reversing edge has been activated	Check for obstruction in door's path.
E11	Safety Edge 2 Activated (Low Priority)	The reversing edge has been activated	Check for obstruction in door's path.
E12	Lifting Force Exceeded (Low Priority)	The torque limit has been exceeded	If the torque limiting feature is being used, adjust the torque limit parameter to suit the application.
E13	N/A	N/A	N/A
E14	Absolute Encoder Comm Loss. (Top Priority)	Communication with the absolute encoder has been lost.	Check the connections between the encoder and the controller.
E15	Installation Fault (Low Priority)	An error occurred during quick setup	Re-perform quick setup
E16	N/A	N/A	N/A

Table 07 - Option Error codes

Code	Description	Cause	Corrective Action
E17	Reset Limits (High Priority)	The position limits cannot be verified	Perform a quick setup
E18	Wireless Airlock Failed to Authorize Opening. (Low Priority)	The controller failed to receive an Airlock request acknowledgement	Check opposite controller to ensure that it is operational. Check that both controllers have been wirelessly connected together and that each controller has Wireless and airlock enabled. Disconnect controllers and run a discovery to reconnect controllers.
E19	Wireless No Response	There was no response from the onboard wireless	Ensure that the wireless is enabled then power cycle the controller.
E20	N/A	N/A	N/A
E21	Option - SeyWave OCS Remote Timeout	A paired SeyWave wireless O/C/S remote has timed out	Check the remote for operation. Refer to supplied SeyWave wireless manual for troubleshooting.
E22	Option - SeyWave DS Remote Timeout	A paired SeyWave wireless door sensor remote has timed out	Option - SeyWave DS connection fault
E23	Option - SeyWave DS Connection Fault	A paired SeyWave wireless Door sensor remote has reported a connection fault	Check the connection and remote for operation. Refer to supplied SeyWave wireless manual for troubleshooting.

Table 08 - Error code Priority Levels

Code	Description	Cause
Low	Activation input	Can also be reset by higher priority reset conditions
Medium	Stop, E-Stop or Menu/Enter button pressed	Can also be reset by higher priority reset conditions
High	Menu/Enter button pressed	
Priority Reset Limits	Successful quick setup	

Instructions for Ordering

This parts manual is intended to assist in the correct identification of the more commonly replaced parts; covering, generally, all models and styles offered within the marathon pharm. Line. The manual will also help identify obsolete parts, part design changes and current production parts. For more specific parts information, please contact an authorized representative or consult the factory's customer service or engineering departments. Asi doors reserves the right to discontinue any part and make design changes without notice.

General Instructions for Ordering Door Parts

Accurate information is always necessary to serve you correctly and promptly. Several steps should be followed to determine exactly the parts that are needed.

Refer to the information tag on your door and record the:

1. Door model number
2. Job number
3. Door number
4. Manufacturing date.

Use part numbers referenced in this manual.

If the item is not found in the manual, the product code on the back of the item is helpful.

If your door has no information label, the approximate purchase date is helpful.

Call

1-800-558-7068

or visit

asidoors.com/parts

to order parts

Door Identification

Determining the **Job Number, Model and Year of Manufacture** of your door is necessary to provide quick and accurate parts identification. The following is a description of labels and their locations.

When ordering parts, specify Job Number, Door Number and Manufacture Date

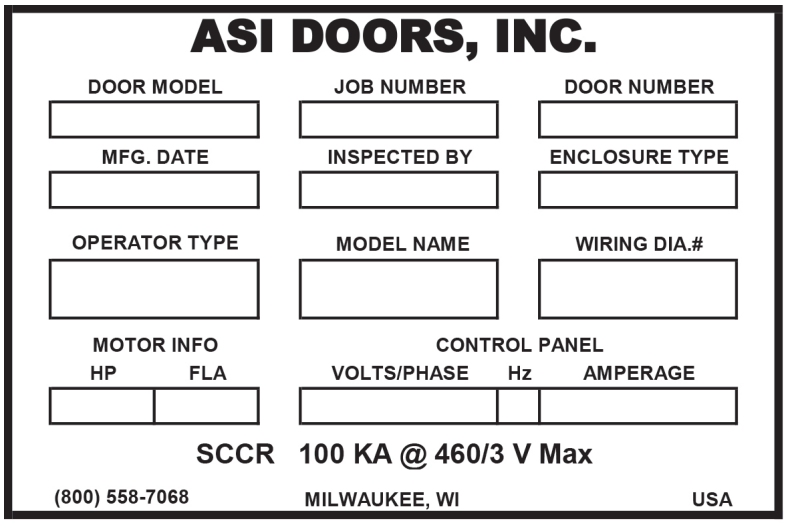


Figure 66: ASI Door Label

ID Tag Location

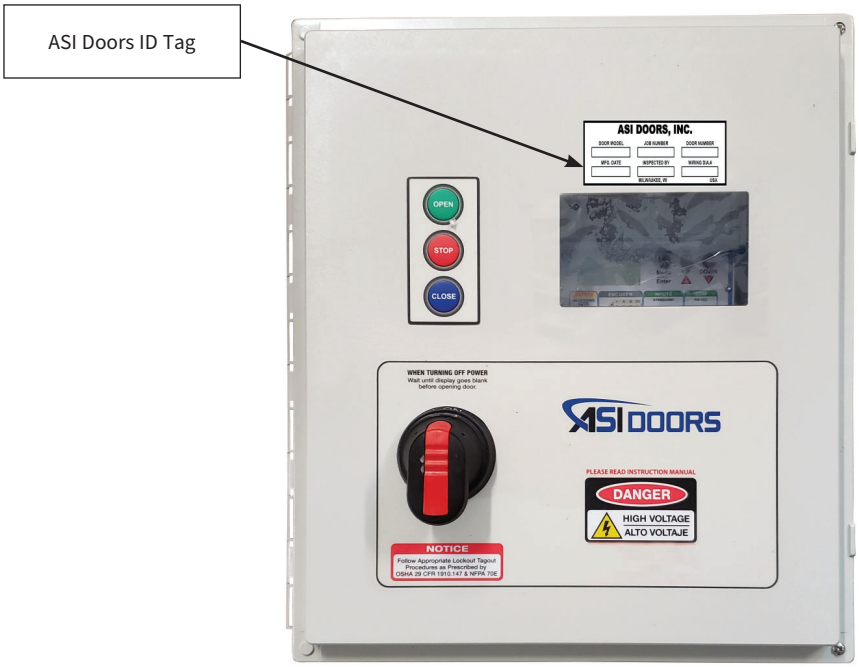


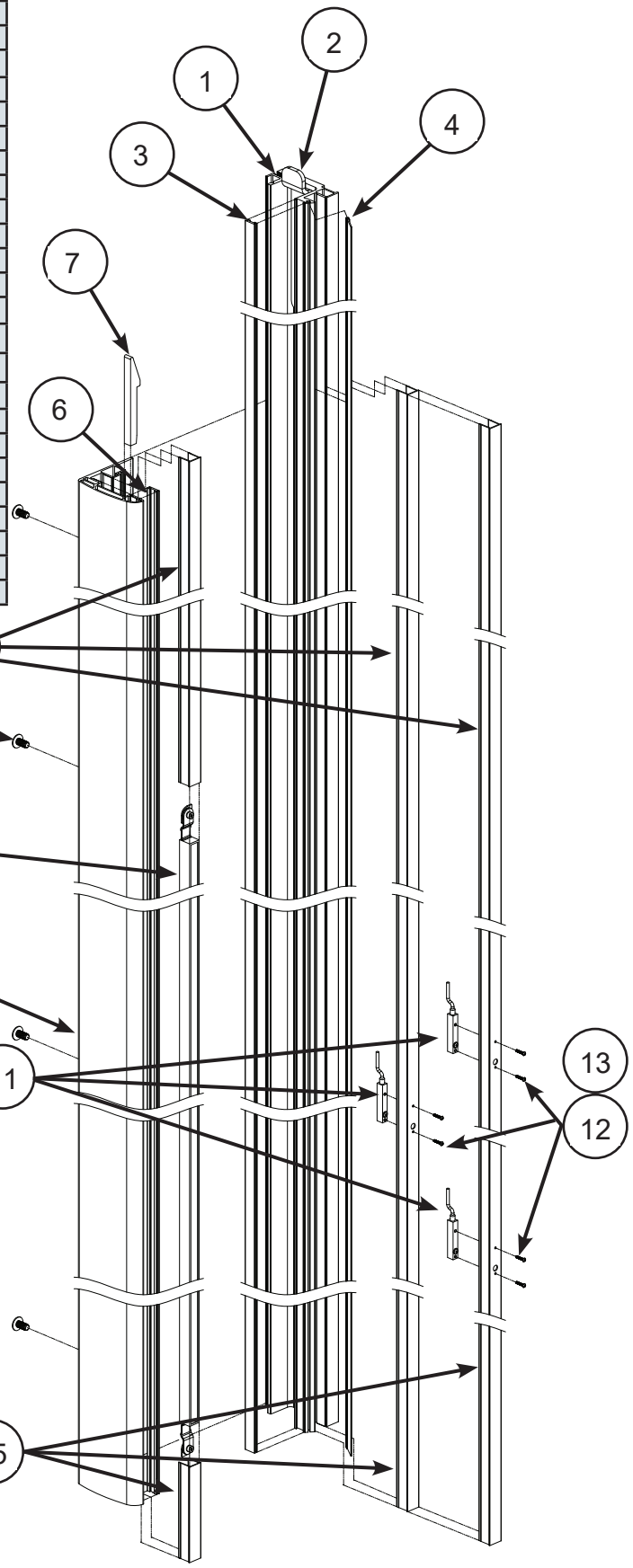
Figure 67: Label Location

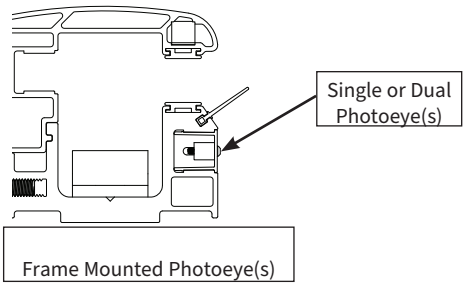
When ordering parts, have your ASI job number and door number available.

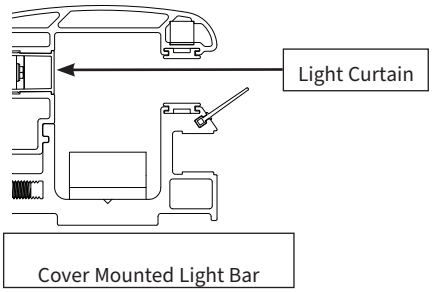
REPLACEMENT PARTS

Left Hand Face Frame

QTY	DESCRIPTION	PART #	ITEM #
-	ASM, BASE, SIDE FRM, LH, NO P/E	76B0054LV	-
-	ASM, BASE, SIDE FRM, LH, W/ SNGL P/E	76B0055LV	-
-	ASM, BASE, SIDE FRM, LH, W/ DUAL P/E	76B0056LV	-
1	EXTRUSION, VERTICAL COLUMN	44B0056	1
1	HANGER, SPREADER BAR	13B2736NN10	2
1	WEAR STRIP, SIDE COLUMN, 209, HIC + 25.31"	11B0314	3
1	GASKET, 1.0",GREY VINYL, HIC + 25.31"	15A009	4
AR	PHOTOEYE, TRANSMITTER	23B0124-T	10
AR	PHOTOEYE, RECEIVER	23B0124-R	11
AR	HEX, M3 X 0.5 MM, SS	41A1026	12
AR	M3 X 0.05MM X 16MM BH/HD, SS	41A1027	13
AR	EXTRUSION, PHOTO EYE TRACK	44B0047NV	14
	ASM, SIDE FRM CVR, LH, NO LIGHT CURTAIN	76B0057LV	-
	ASM, SIDE FRM CVR, LH, W/ LIGHT CURTAIN	76B0058LV	-
1	EXTRUSION, COVER, VERTICAL COLUMN	44B0055	5
1	WEAR STRIP, COVER, 209, HIC	11B0314	6
1	SLAT GUIDE WEDGE	14B0311NN	7
AR	ASM, LIGHT CURTAIN, RECEIVER	24B0815	8
AR	ASM, LIGHT CURTAIN, TRANSMITTER	24B0816	9
AR	EXTRUSION, PHOTO EYE TRACK	44B0047NV	14
AR	FILLER, PHOTO EYE TRACK, LOWER	44B0046NN	15
AR	SCREW, 3/8-16 X .75 BTN HD	41A1029	16





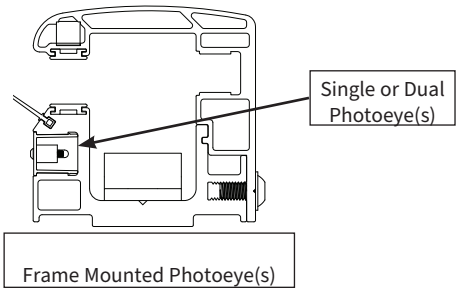


When ordering parts, specify Job Number, Door Number and Manufacture Date

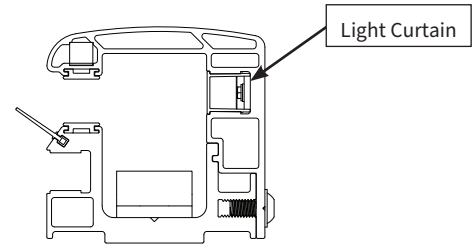
REPLACEMENT PARTS

Right Hand Face Frame

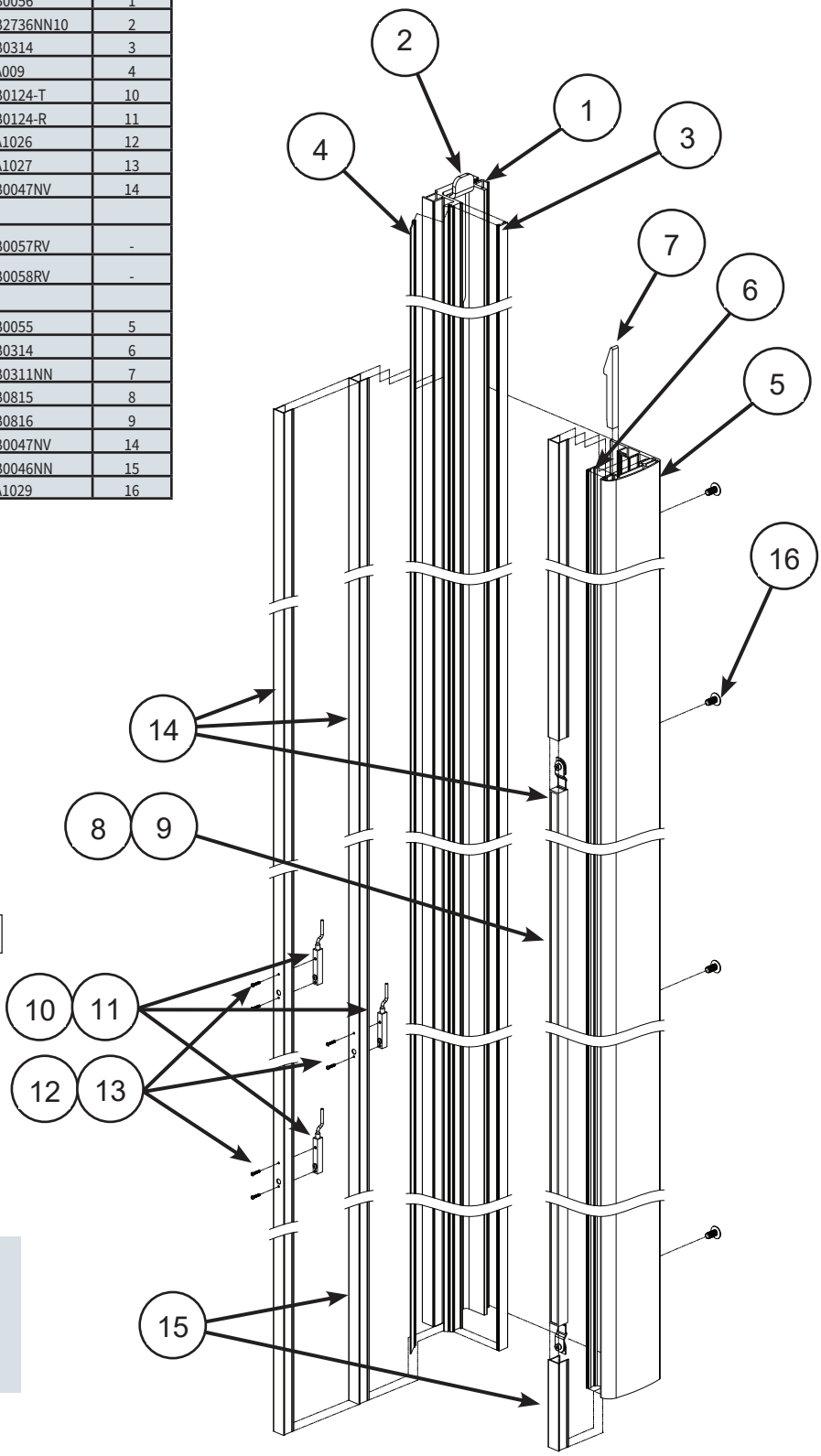
QTY	DESCRIPTION	PART #	ITEM #
-	ASM, BASE, SIDE FRM, RH, NO P/E	76B0054RV	-
-	ASM, BASE, SIDE FRM, RH, W/ SNGL P/E	76B0055RV	-
-	ASM, BASE, SIDE FRM, RH, W/ DUAL P/E	76B0056RV	-
1	EXTRUSION, VERTICAL COLUMN	44B0056	1
1	HANGER, SPREADER BAR	13B2736NN10	2
1	WEAR STRIP, SIDE COLUMN, 209, HIC + 25.31"	11B0314	3
1	GASKET, 1.0",GREY VINYL, HIC + 25.31"	15A009	4
AR	PHOTOEYE, TRANSMITTER	23B0124-T	10
AR	PHOTOEYE, RECEIVER	23B0124-R	11
AR	HEX, M3 X 0.5 MM, SS	41A1026	12
AR	M3 X 0.05MM X 16MM BH/HD, SS	41A1027	13
AR	EXTRUSION, PHOTO EYE TRACK	44B0047NV	14
	ASM, SIDE FRM CVR, RH, NO LIGHT CURTAIN	76B0057RV	-
	ASM, SIDE FRM CVR, RH, W/ LIGHT CURTAIN	76B0058RV	-
1	EXTRUSION, COVER, VERTICAL COLUMN	44B0055	5
1	WEAR STRIP, COVER, 209, HIC	11B0314	6
1	SLAT GUIDE WEDGE	14B0311NN	7
AR	ASM, LIGHT CURTAIN, RECEIVER	24B0815	8
AR	ASM, LIGHT CURTAIN, TRANSMITTER	24B0816	9
AR	EXTRUSION, PHOTO EYE TRACK	44B0047NV	14
AR	FILLER, PHOTO EYE TRACK, LOWER	44B0046NN	15
AR	SCREW, 3/8-16 X .75 BTN HD	41A1029	16



Frame Mounted Photoeye(s)



Cover Mounted Light Bar

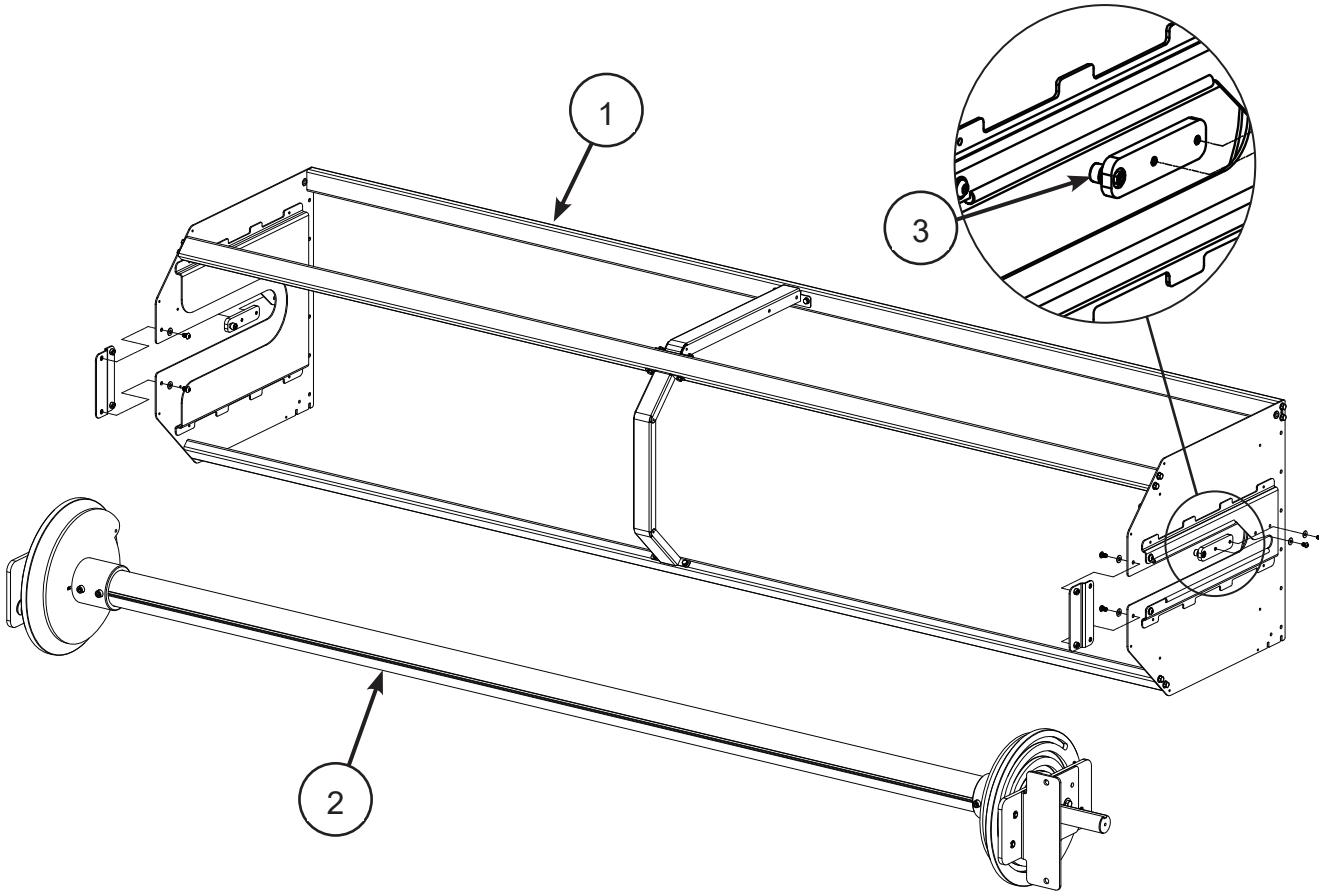


When ordering parts, specify Job Number, Door Number and Manufacture Date

REPLACEMENT PARTS

Header Assemblies

F4	F3	F2	F1	PART #	DESCRIPTION	PART #
			X	55B0146F1	ASM, HEADER, 1.50” DRIVE, LH	
		X		55B0146F2	ASM, HEADER, 1.50” DRIVE, RH	
	X			55B0146F3	ASM, HEADER, 2.0” DRIVE, LH	
X				55B0146F4	ASM, HEADER, 2.0” DRIVE, RH	
			1	81B0017LV	ASM, HEADER, 1.50” DRIVE, LH	1
		1		81B0017RV	ASM, HEADER, 1.50” DRIVE, RH	1
	1			81B0016LV	ASM, HEADER, 2.0” DRIVE, LH	1
1				81B0016RV	ASM, HEADER, 2.0” DRIVE, RH	1
			1	24B0966LV	ASM, TORQUE TUBE, LH, 1.5” DRIVE	2
		1		24B0966RV	ASM, TORQUE TUBE, RH, 1.5” DRIVE	2
	1			24B0953LV	ASM, TORQUE TUBE, LH, 2” DRIVE	2
1				24B0953RV	ASM, TORQUE TUBE, RH, 2” DRIVE	2
2	2	2	2	24B0459NN	ASM, CAM FOLLOWER	3



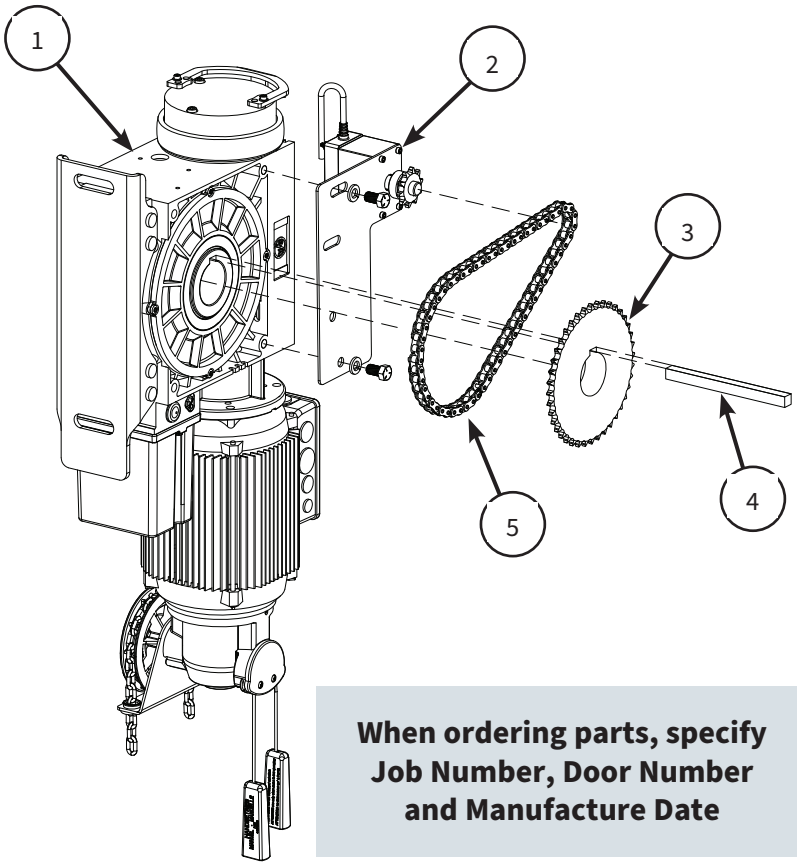
NOTE

Torque tube assemblies are sub-components of the header assemblies listed, and are listed for reference.

When ordering parts, specify Job Number, Door Number and Manufacture Date

Gear Motor Assembly

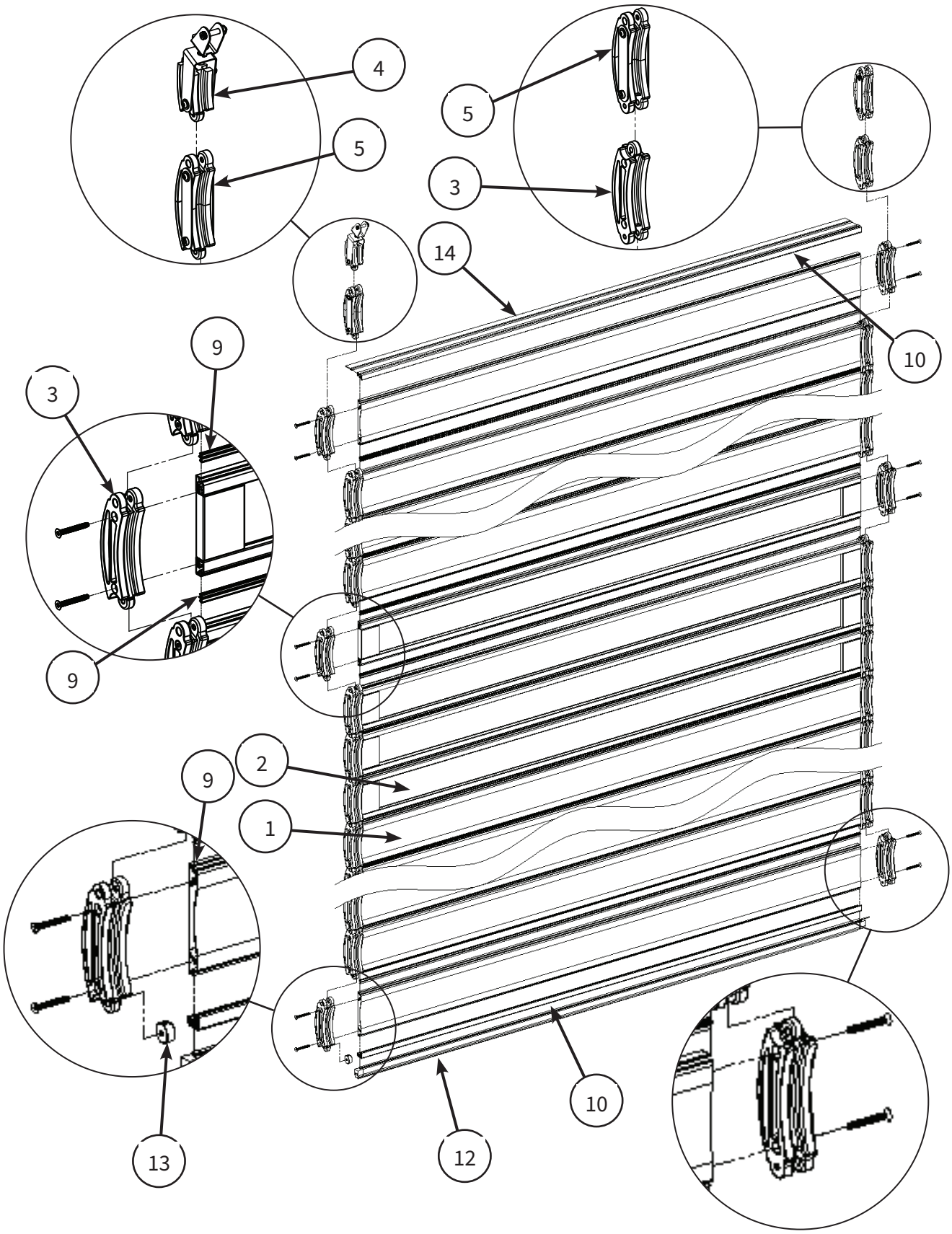
2.0" LH	2.0" RH	1.5" LH	1.5" RH	DESCRIPTION	PART #	ITEM #
			X	OPTION, DRIVE, 1.5" DRIVE, RH, 209 G2	55B0149F01	-
		X		OPTION, DRIVE, 1.5" DRIVE, LH, 209 G2	55B0149F02	-
	X			OPTION, DRIVE, 2" DRIVE, RH, 209 G2	55B0150F01	-
X				OPTION, DRIVE, 2" DRIVE, LH, 209 G2	55B0150F02	-
-	-	AR	AR	GEARMOTOR, 1.5" BORE, 230V	50A0217 F1	1
-	-	AR	AR	GEARMOTOR, 1.5" BORE, 460V	50A0217 F2	1
AR	AR	-	-	GEARMOTOR, 2" BORE, 230V, HIGH TORQUE	50A0216 F1	1
AR	AR	-	-	GEARMOTOR, 2" BORE, 460V, HIGH TORQUE	50A0216 F2	1
AR	AR	-	-	GEARMOTOR, 2" BORE, 230V, LOW TORQUE	50A0216 F3	1
AR	AR	-	-	GEARMOTOR, 2" BORE, 460V, LOW TORQUE	50A0216 F4	1
-	-	-	1	ASM, ENCODER, RH DRV, APEX	24B0792F2	2
-	-	1	-	ASM, ENCODER, LH DRV, APEX	24B0792F1	2
-	1	-	-	ASM, ENCODER, RH DRV, APEX	24B0792F2	2
1	-	-	-	ASM, ENCODER, LH DRV, APEX	24B0792F1	2
-	-	1	1	SPROCKET, 40 TEETH, #40 CHAIN, 1 1/2" BORE	50A220	3
1	1	-	-	SPROCKET, 40 TEETH, #40 CHAIN, 2" BORE	50A219	3
-	-	1	1	KEYSTOCK, .375 X .375 X 6.00	12B0063NN	4
1	1	-	-	KEYSTOCK, .500 X .500 X 6.50	12A0164NN	4
2.5	2.5	2.5	2.5	CHAIN, ROLLER, #40, 29 links	50A246	5
1	1	1	1	LINK, OFFSET, #40	50A256	5
1	1	1	1	LINK, CONNECTING, #40	50A255	5



When ordering parts, specify Job Number, Door Number and Manufacture Date

REPLACEMENT PARTS

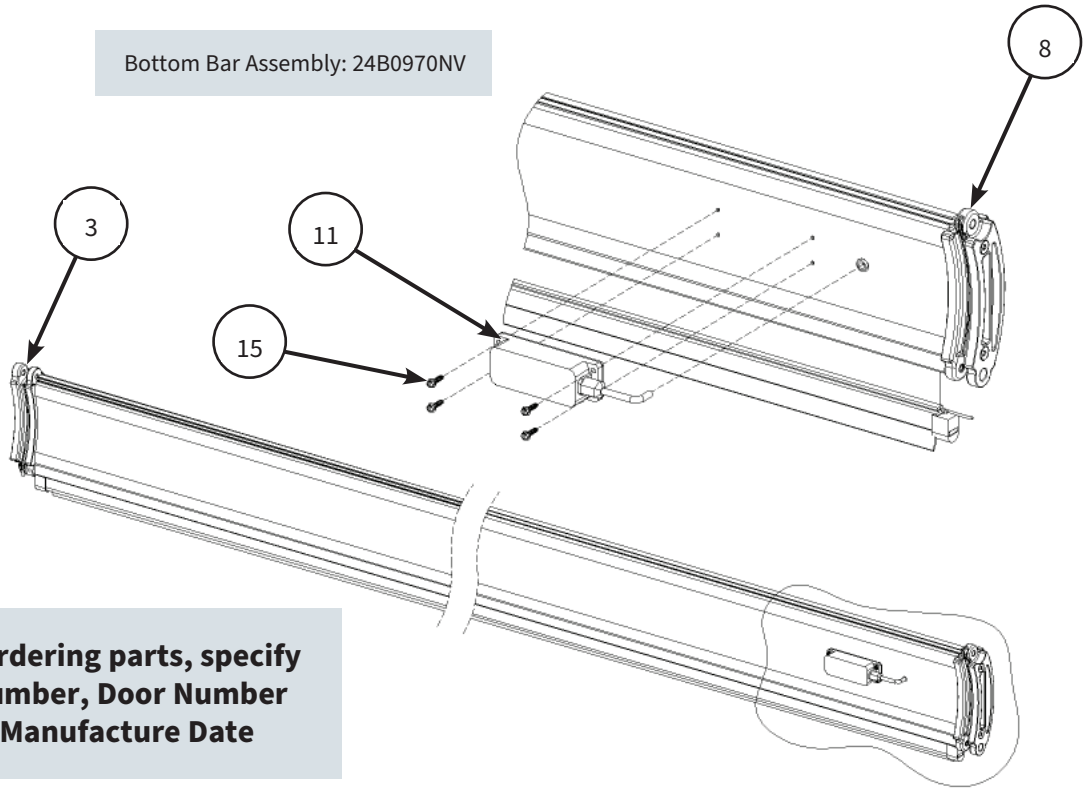
Curtain Assembly



Curtain Assembly Continued

QTY.	DESCRIPTION	PART #	ITEM #
AR	EXTRUSION, SOLID SLAT, WIC + 3.03”	14B0335NV	1
AR	ASSEMBLY, VISION SLAT	24B0959NV	2
AR	ASSEMBLY, ENDCAP LINK	24B0824NN	3
AR	ASSEMBLY, ADJUSTABLE LINK	24B0945NN	4
AR	ASSEMBLY, HYBRID LINK CAP	24B0935NN	5
1	ASSEMBLY, TOP SLAT, 209	24B0971NV	6
1	ASSEMBLY, BOTTOM BAR, 209	24B0970NV	7
1	END CAP, BOTTOM BAR, MACHINED	14B0324NN	8
AR	SEAL, SLAT HINGE	15B0062	9
1	EXTRUSION, LIVE EDGE ADAPTER, WIC + 3.03”	11B0147	10
1	TRANSMITTER, EDGE SENSOR, WIRELESS	23B154	11
1	ASSEMBLY, REVERSING EDGE, 209 GEN 2, WIC + 1.88”	24B1022NV	12
1	ASSEMBLY, ENDCAP LINK PLUG WHEEL	24B0936	13
1	GASKET, 1.0”,GREY VINYL	15A009	14
4	SCREW, #8 X 5/8”, HEX HD, SL ZN, THREAD-CUT	41A1110	15

Bottom Bar Assembly: 24B0970NV



When ordering parts, specify Job Number, Door Number and Manufacture Date

REPLACEMENT PARTS

ADDENDUM:

Hybrid and Adjustable Link Assembly Replacement

This bulletin is an addition to the standard owner's manual for the 209 apex dura & vision doors. All warranties, safety practices and warning descriptions pertaining to this door can be found in on page xx, and apply to procedures and instructions contained in this bulletin.

Installation

1. Curtain should be fully unrolled with bottom edge on the ground. DO NOT remove aluminum covers on vertical guides. Covers need to remain in place to hold curtain in position.
2. Hit the “Stop” button on the control. Use the disconnect lever on the control to disconnect power to the door. Use proper “Lock-out” “Tag-out” procedures to prevent power being restored to the door while you are working on it.

Figure 1: Adjustable Link Assembly

Figure 2: Hybrid Link Assembly

The adjustable link assembly is always on the left, and the hybrid link assembly is always on the right, regardless of which side the operator is on.

If you are replacing the idler side link assembly only, you do not have to move the barrel out. If you are replacing the drive side link assembly, or both assemblies, you do need to move the barrel out and the idler side link assembly must be unattached from the slat wheel before you do that.

⚠ WARNING

DO NOT remove vertical guide covers. Covers need to remain in place to hold curtain in position.

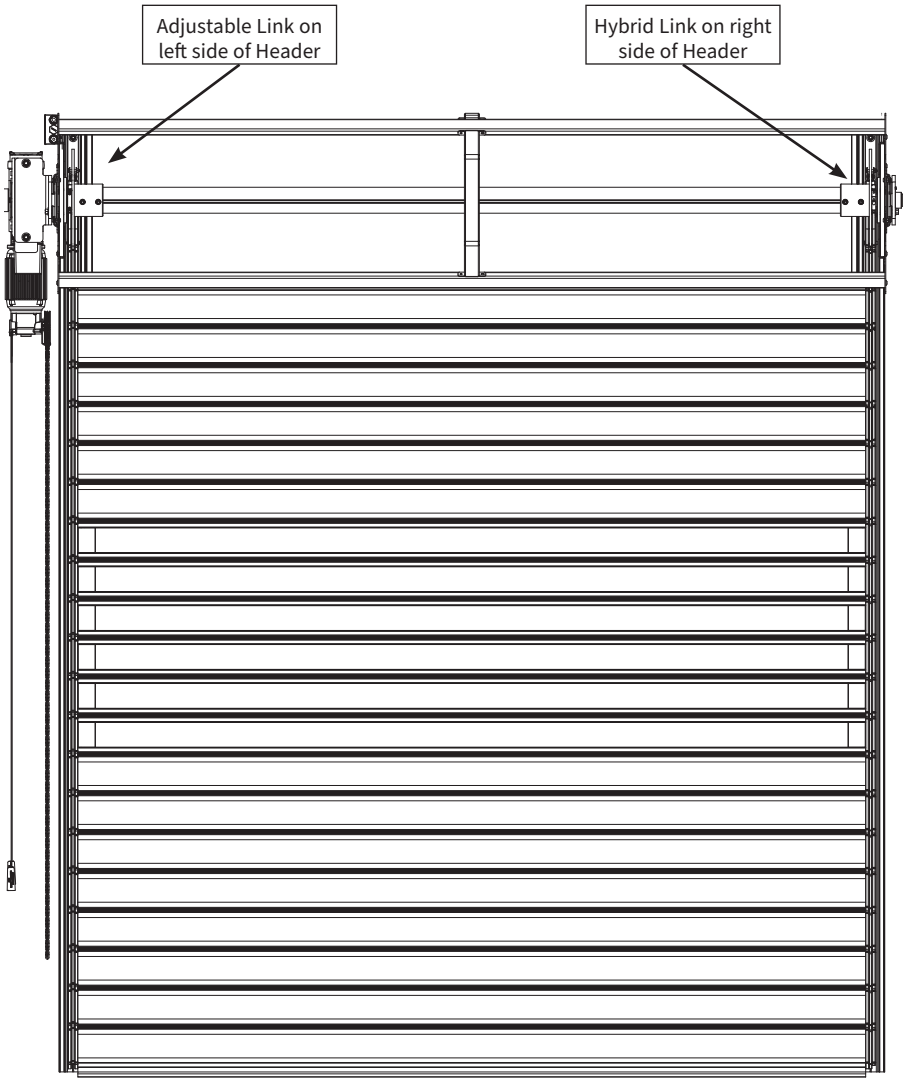


Figure 3: Link Assembly Locations

Unattached Link Assemblies from Slat Wheel

Unattach Existing Adjustable Link Assembly From Slat Wheel:

1 The adjustable link assembly, 24B0945NN (see Figure 4), attaches to the slat wheel on the left side of the header. Remove the shoulder screw & nut holding Adjustable link assembly on left side of header to the slat wheel.

2 Temporarily use a piece of tape to hold the adjustable link assembly against the wall and away from the barrel assembly.

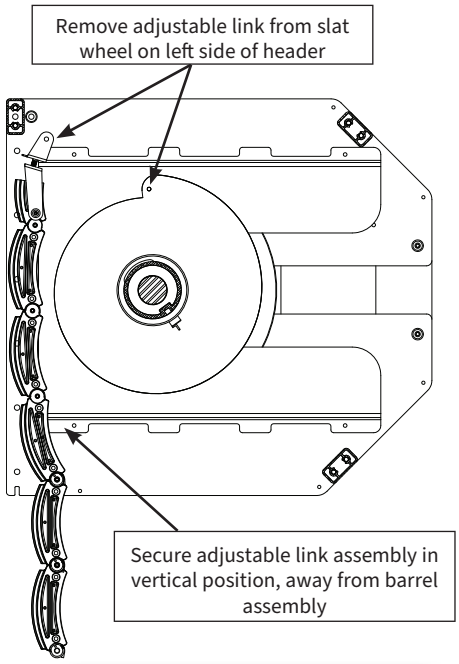


Figure 4: Unattach Adjustable Link Assembly From Slat Wheel

Unattach Existing Hybrid Link Assembly From Slat Wheel:

1 The hybrid link assembly, 24B0935NN (see Figure 5), attaches to the slat wheel on the right side of the header. Remove the fasteners holding the hybrid link assembly on right side of header to the slat wheel.

2 Temporarily use a piece of tape to hold the hybrid link assembly against the wall and away from the barrel assembly.

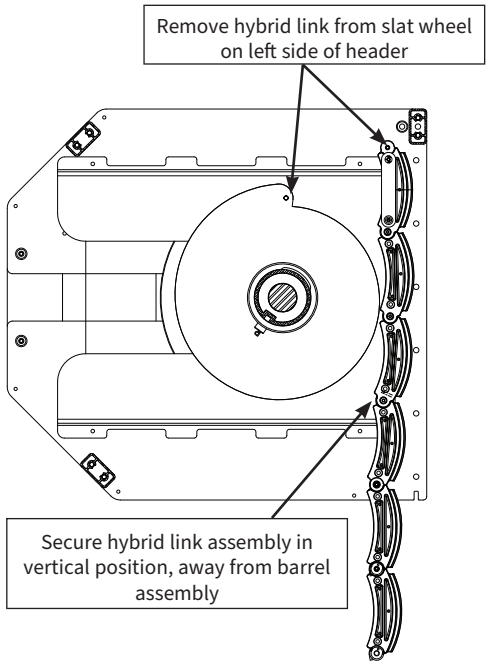


Figure 5: Unattach Hybrid Link Assembly From Slat Wheel

Rotate Barrel Assebly

Manually Rotate Barrel Assembly:

1 Use the “Red” manual operation pull cord to put the drive in manual operation mode.
2 Mark a clearly visible line on the drive sprocket for reference for the following steps (Figure 6). Draw this line to be in line with one of the ribs on the motor casting to make it easy to see when they are lined up.
3 Use the chain drive to rotate the barrel assembly, moving the barrel out, away from the wall, exactly three complete revolutions. Make sure you are moving barrel assembly OUT not IN.

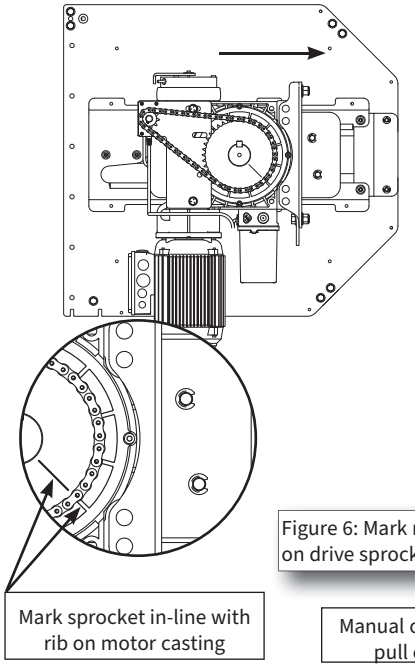


Figure 6: Mark reference line on drive sprocket.

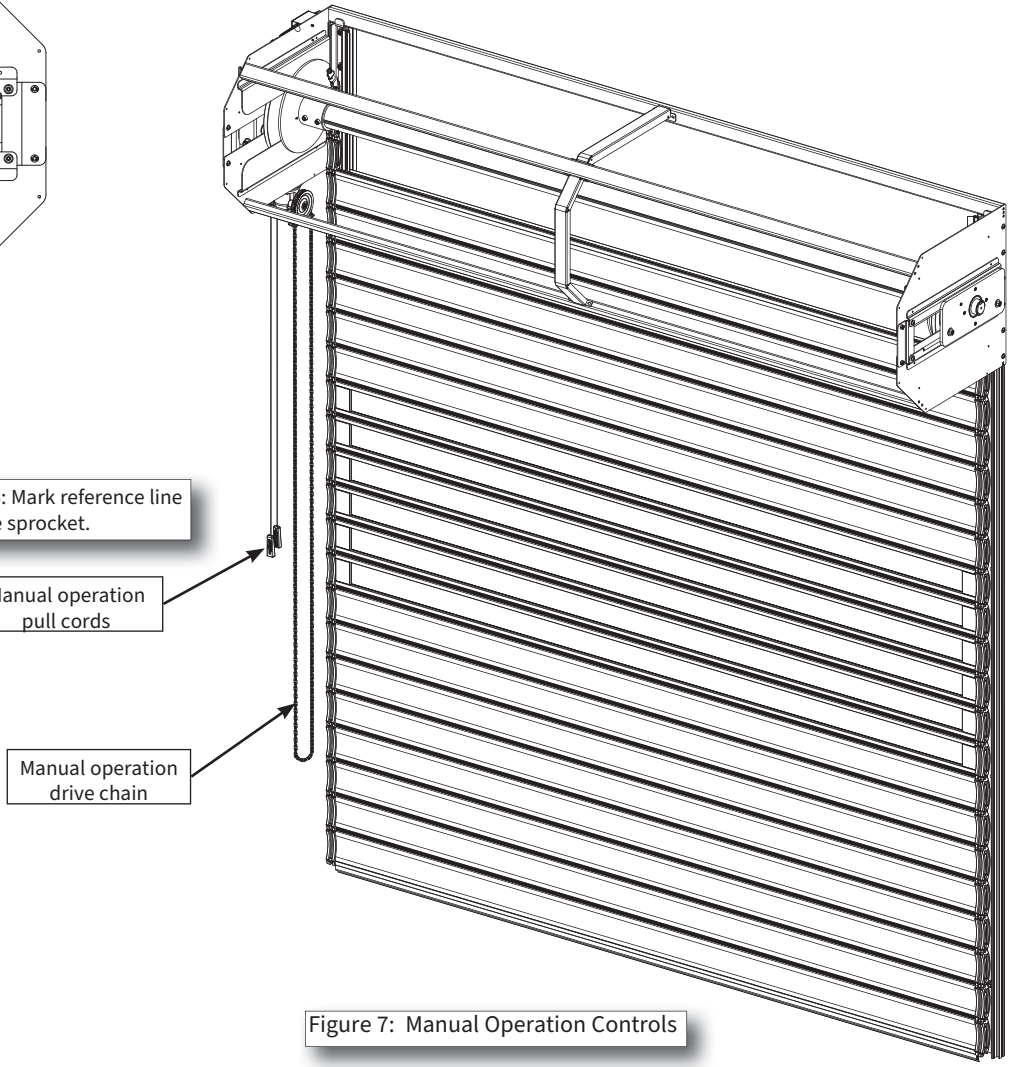


Figure 7: Manual Operation Controls

Drill Access Holes

Drill Access Holes In Header Plates For Removing And Replacing Link Assemblies:

Right Side of Header:

1 Referring to (Figure 8), note position of the attachment hole on the top link of curtain on the right side of the header. Measure position of this hole from the bottom of the header plate, and from the wall surface.

2 From outside of header on the right side, drill a ½" hole through the header end plate that lines up with the attachment hole on the top link of the curtain.

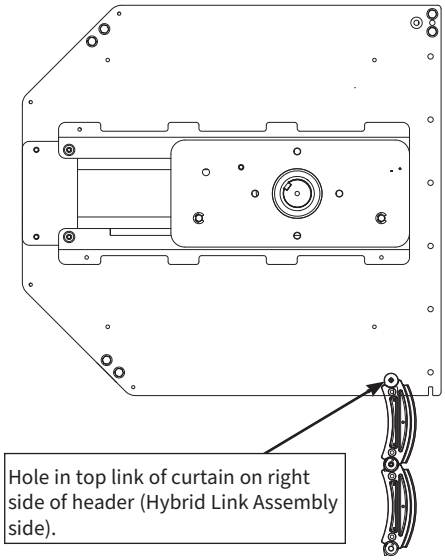


Figure 8: Top Link Of Curtain, Right Side Of Header

Left side of Header:

1 Referring to (Figure 9), note position of the attachment hole on the top link of curtain on the left side of header. Measure position of this hole from the bottom of the header plate, and from the wall surface.

2 From outside of header on left side, drill a ½" hole through the header end plate that lines up with the attachment hole on the top link of the curtain.

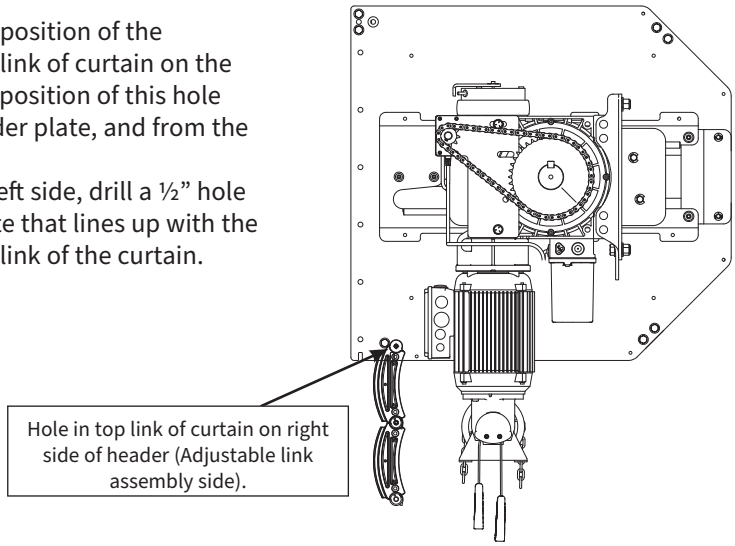


Figure 9: Top Link Of Curtain, Left Side Of Header

Remove Old Link Assemblies

Remove Existing Adjustable Link Assembly:

1 Remove the old adjustable link assembly, 24B0945NN (see Figure 10), from the curtain assembly.
2 Use the access hole you made and remove the shoulder screw holding the adjustable link assembly (3 full links, half link & 2 adjusting brackets) to the top slat link on the curtain.

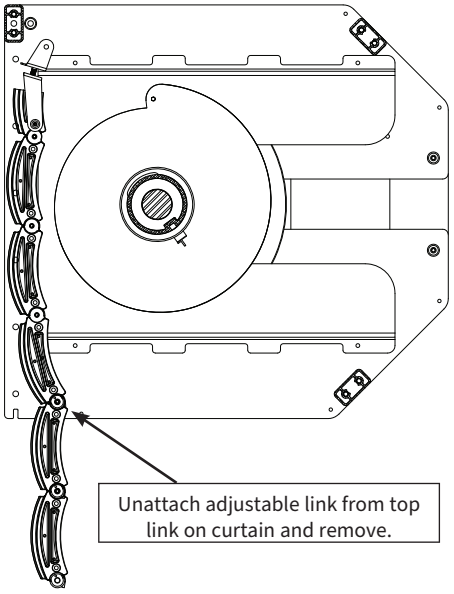


Figure 10: Remove Adjustable Link Assembly from Curtain

Remove Existing Hybrid Link Assembly:

1 Remove the hybrid link assembly, 24B0935NN (Figure 11), from the curtain assembly.
2 Use the access hole you made and remove the shoulder screw holding the hybrid link assembly (3 full links, & hybrid link) to the top slat link on the curtain.

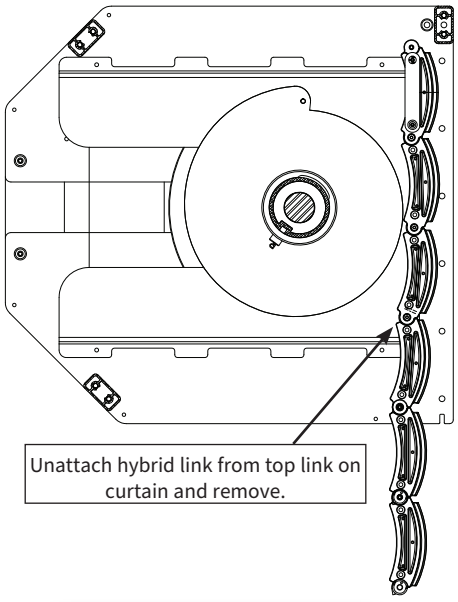


Figure 11: Remove Hybrid Link Assembly From Curtain

Attach New Link Assemblies

Attach new Link Assemblies:

Right side of Header (Hybrid Link Assembly):

1 Referring to (Figure 12), use the hole drilled through header in last step to attach the new hybrid link assembly to the top link of the curtain on the right side of the header. Use a 5/16” x 3/4” shoulder screw 41A1056 to join the links. Shoulder screw must be greased with a silicone lubricant.

2 Temporarily use a piece of tape to hold the hybrid link assembly against the wall and away from the barrel assembly until it is moved back into position.

Left side of Header (Adjustable Link Assembly):

1 Referring to (Figure 13), use the hole drilled through header in last step to attach the new adjustable link assembly to the top link of the curtain on the left side of the header. Use a 5/16” x 3/4” shoulder screw 41A1056 to join the links. Shoulder screw must be greased with a silicone lubricant.

2 Temporarily use a piece of tape to hold the adjustable link assembly against the wall and away from the barrel assembly until it is moved back into position.

Manually Rotate Barrel Assembly:

1 Use the chain drive to rotate the barrel assembly and move it back to it’s original position. Make sure you are moving barrel assembly IN.

2 Use the mark you made on the drive sprocket to verify that you rotate the assembly exactly 3 complete revolutions.

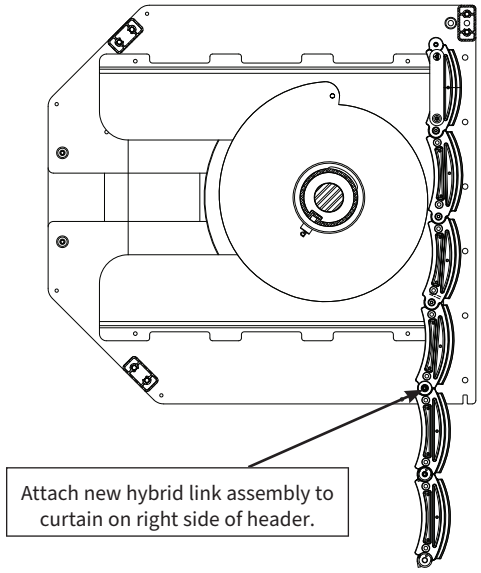


Figure 12: Hybrid Link Assembly, Right Side of Header

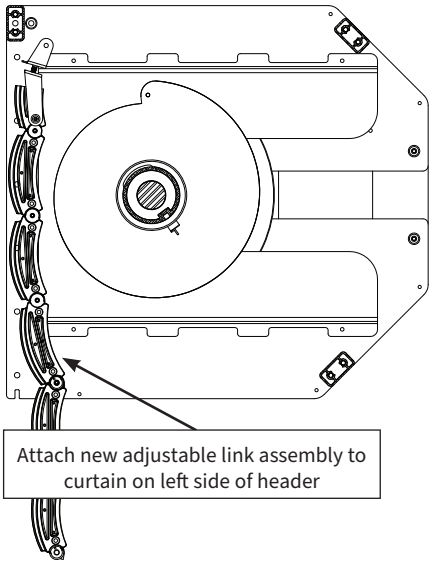


Figure 13: Top Link of Curtain, Right Side of Header

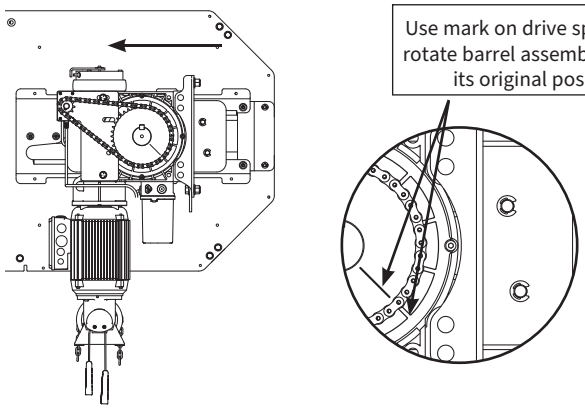


Figure 14: Move Barrel Back To Original Position

Attach New Link Assemblies Continued

Attach Adjustable Link Assembly to Slat Wheel:

1 With the barrel assembly back in it's original position, attach the adjustable link assembly 24B0945NN (see Figure 15 & 16), to the slat wheel.
2 Use the following hardware to attach the adjustable link assembly to the slat wheel: 5/16" x 1-1/8" shoulder screw 41A1063, 5/16" flat washer, 41A608, and 1/4"-20 nylock hex nut 41A639.

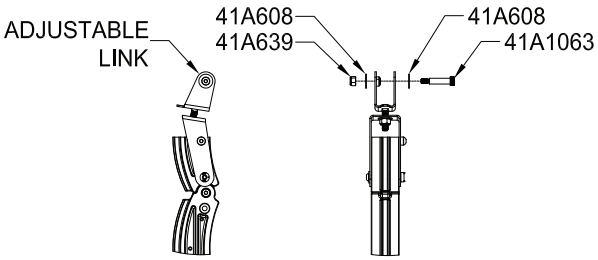


Figure 16: Adjustable Link Hardware

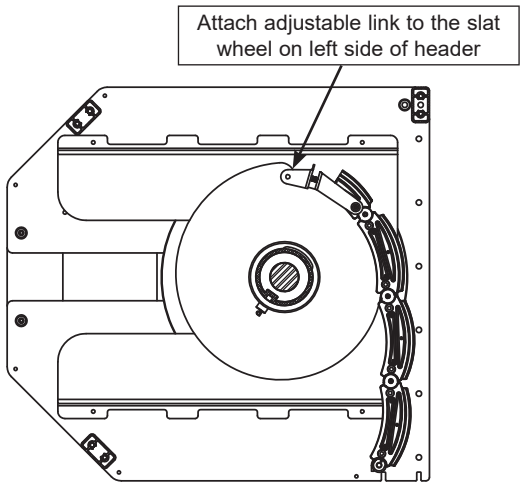


Figure 15: Attach Adjustable Link Assembly To Slat Wheel

Attach Hybrid Link Assembly To Slat Wheel:

1 Attach the hybrid link assembly 24B0935NN (see Figure 17 & 18), to the slat wheel.
2 Use the following hardware to attach the adjustable link assembly to the slat wheel: 5/16" x 3/4" shoulder screw 41A1056.

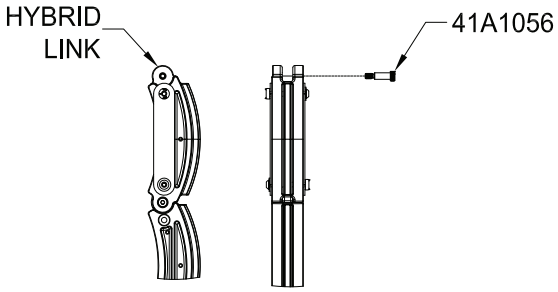


Figure 18: Adjustable Link Hardware

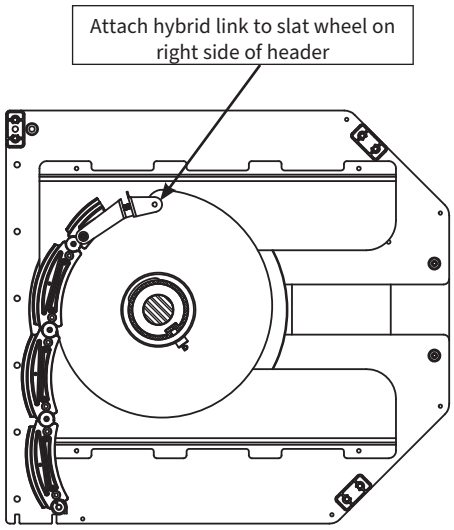


Figure 17: Attach Hybrid Link Assembly To Slat Wheel

ADDENDUM:

Reversing Edge and Wireless Transmitter Replacement

This bulletin is an addition to the standard owner's manual for the 209 apex dura & vision doors. All warranties, safety practices and warning descriptions pertaining to this door can be found in the original owner's manual, and apply to procedures and instructions contained in this bulletin. Please refer to the original owner's manual for that information.

Installation

Before You Start

- If you are replacing a reversing edge, it is necessary to remove the bottom bar assembly from the curtain.
- If you are replacing only the wireless transmitter, you can do that without removing the bottom bar assembly from the curtain. Skip to the wireless transmitter section.
- Replacing a wireless transmitter requires that you perform the “pairing” procedure listed in this bulletin. Replacing a reversing edge only does not require “pairing”.

1. Use the “Up” button on the control to move door up to a point where the bottom slat is at a good working height.
2. Hit the “Stop” button on the control to stop door motion. Use the disconnect lever on the control to disconnect power to the door. Use proper “Lock-out” “Tag-out” procedures to prevent power being restored to the door while you are working on it.

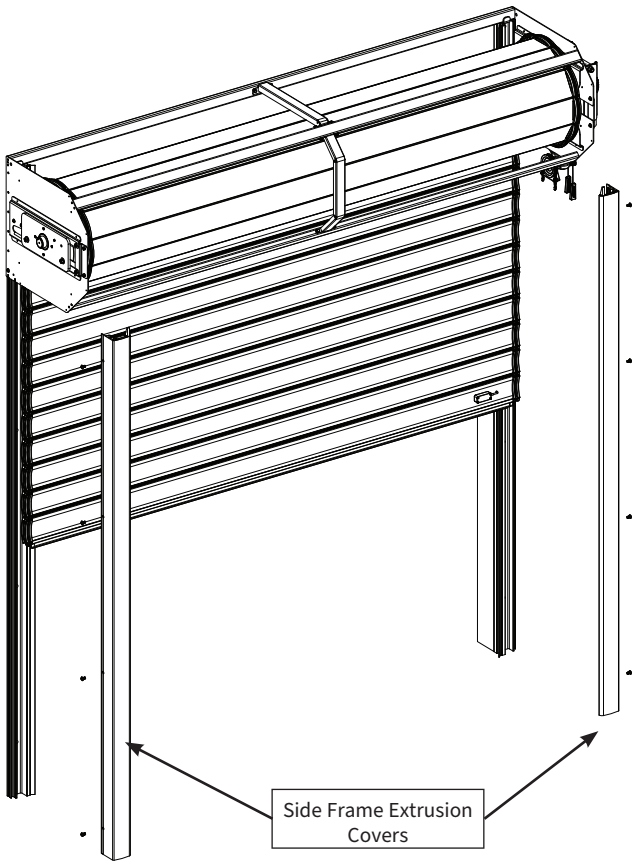


Figure 1: Remove Side Frame Covers

Remove Covers & Block Curtain

1 If you are only replacing the wireless transmitter, skip this section and go to the “wireless transmitter’ section. If you are replacing the reversing edge, remove mounting screws from sides of face frame covers. Pull off face frame covers and set covers & screws aside.

2 Place wood or foam blocks between curtain and face frame extrusion above the bottom slat assembly. This will allow curtain to hang in front of face frame extrusion to allow you to get access to the slat mounting bolts and make it easier to remove the slat.

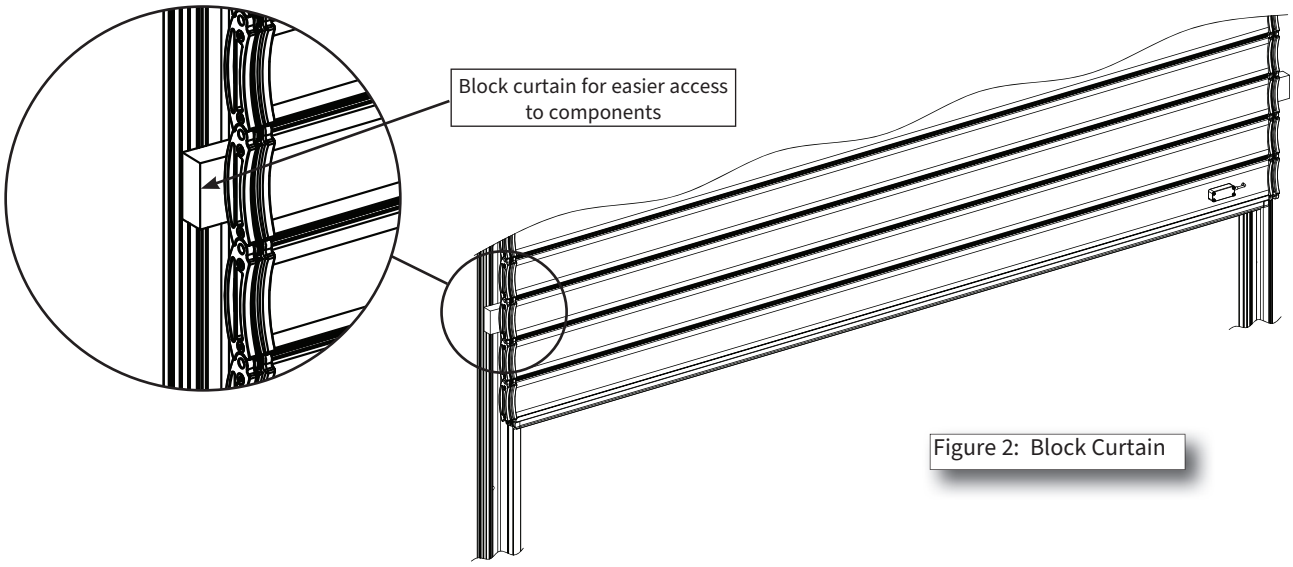


Figure 2: Block Curtain

Remove Bottom Bar Assembly

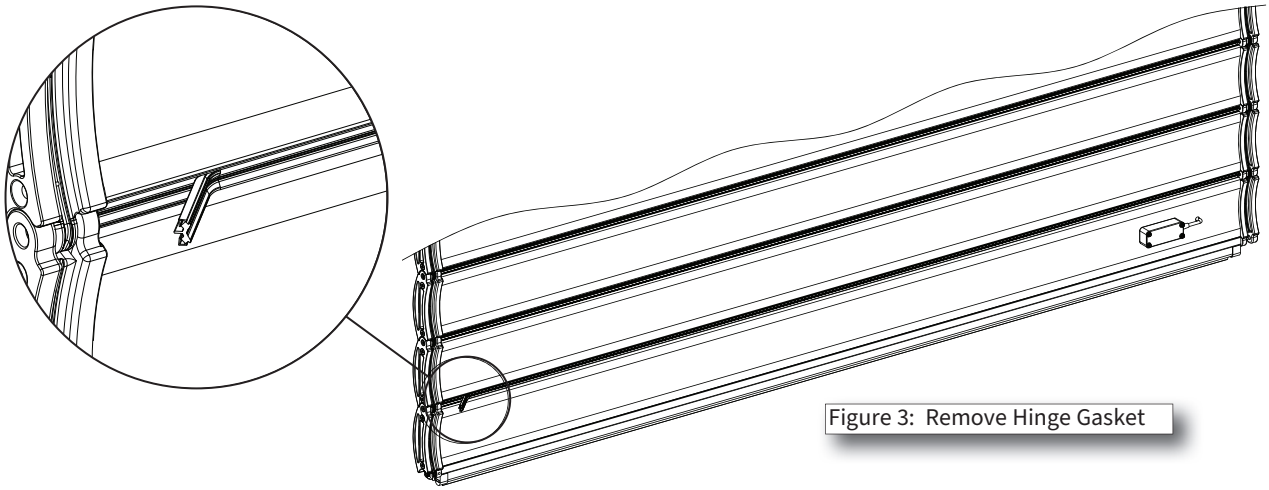


Figure 3: Remove Hinge Gasket

1 Locate ends of hinge gasket above bottom slat. Pry up one end of gasket. Grip gasket end and pull at an angle from face of slat all the way to the other end of gasket to remove gasket.
2 Support the bottom bar assembly from below and remove the screws holding it to the slat above it. Loosen and remove the 5/16 x 3/4 shoulder screws (41A1056) in endcap links from both ends of slat (Figure 4).
3 Remove entire slat assembly and lay on a work surface with the transmitter facing up.

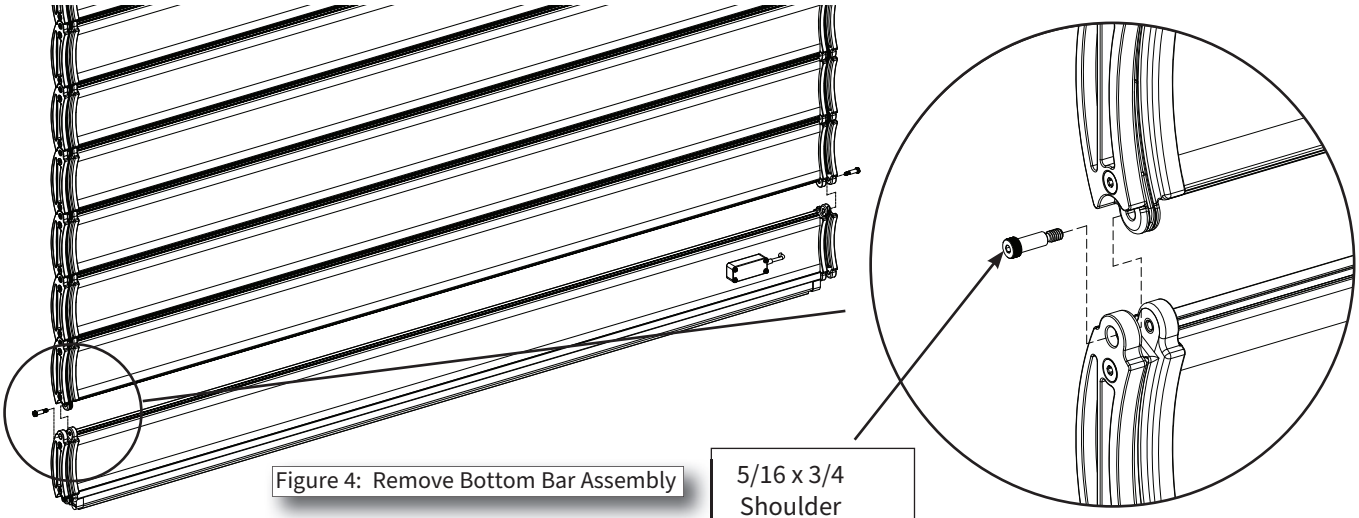


Figure 4: Remove Bottom Bar Assembly

Wireless Transmitter

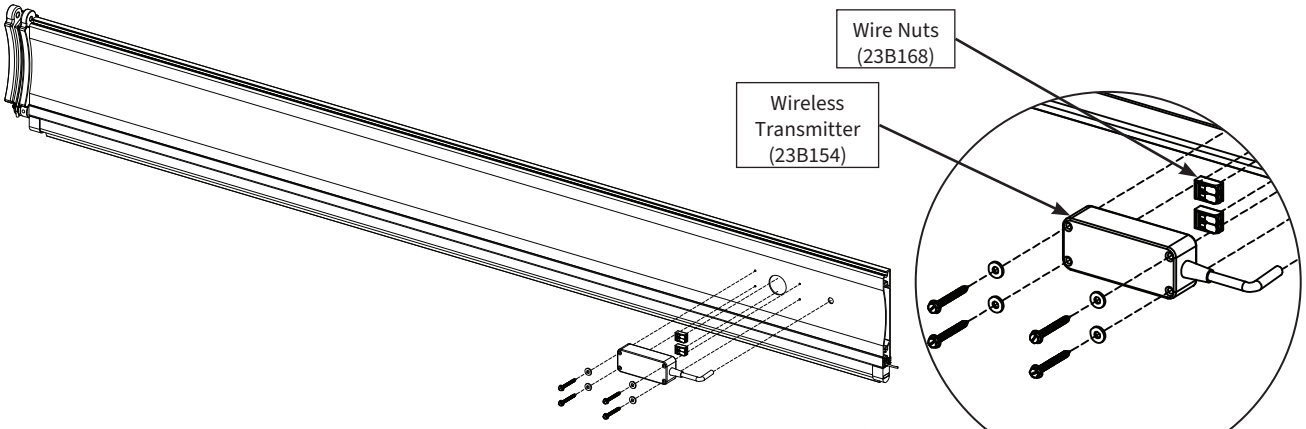


Figure 5: Remove Transmitter from Bottom Bar

1 Whether you are replacing the transmitter, the reversing edge, or both, you will need to remove the transmitter to get access to the connections from the reversing edge to the transmitter. Note the orientation of the transmitter. Note how the wires from the transmitter are routed through the grommet in the bottom bar and to the connectors before removing. When replacing the transmitter, you will route the wires as they were originally routed.

2 Remove transmitter 23B154 by removing the four screws holding it in place on the bottom bar. Keep hardware for re-install.

3 The wires from the transmitter are routed through an access hole under the transmitter to (2) “lever type” wire-nuts taped to the bottom bar extrusion in the access hole. Use the levers to release the wires.

4 If you are not replacing the transmitter but are only replacing the reversing edge, skip to that section now.

5 If you are replacing the transmitter and the reversing edge, skip to the reversing edge section, do steps 1 - 12, & return here to prep the new transmitter.

6 Prepare the new transmitter for install. The transmitter has 3 wires, black, blue, and white. The white wire is not used and should be cut off if it isn’t already. Strip the ends of the black & blue wires for connection.

7 To be able to make connections, you may need to pull the wire-nuts off the tape that is holding them in place while you are working.

8 Push the transmitter wires through the grommet in the hole. You need to guide the wires to the access hole, and you may need to twist the wires to get them to go in the correct direction. When you can see the wires through the access hole, pull them through the hole.

9 Using one “lever type” wire-nut, connect the blue wire from the reversing edge to the blue wire from the transmitter.

10 Using one “lever type” wire-nut, connect the brown wire from the reversing edge to the black wire from the transmitter.

11 Before you re-mount the wireless transmitter, it needs to be “paired” to the controller for the reversing edge to work. Skip to the “pairing” procedure before re-mounting the wireless transmitter.

Replace Reversing Edge

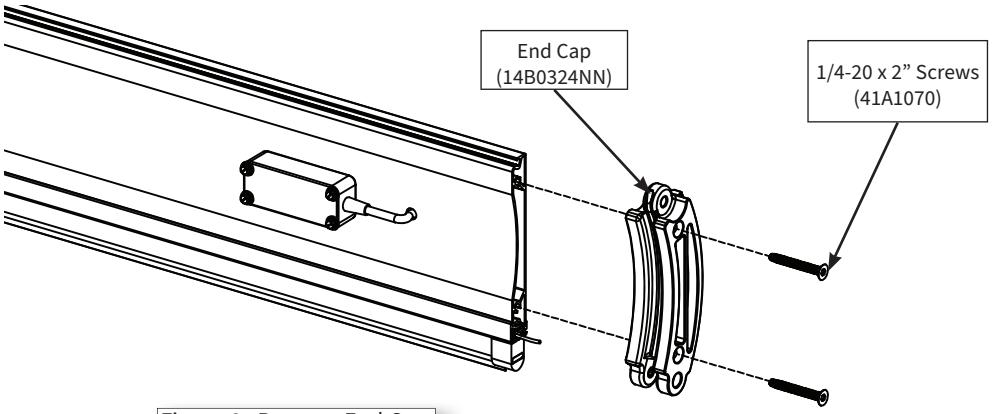


Figure 6: Remove End Cap

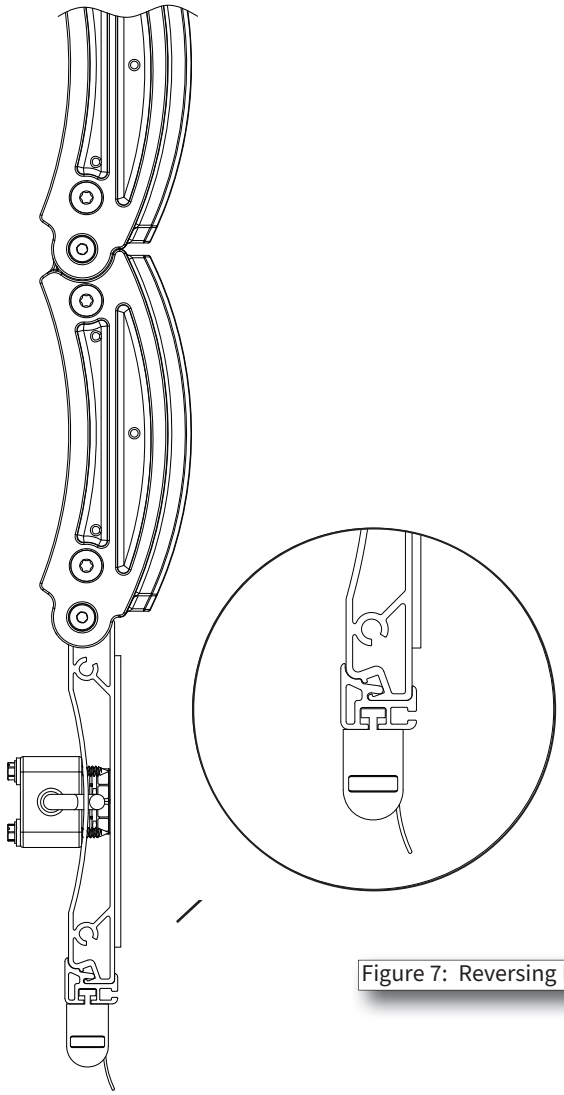


Figure 7: Reversing Edge Detail

1 Disconnect the wires from the Reversing Edge sensor to the wire nuts.
2 Remove (2) 1/4-20 X 2.00" screws (41A1070) holding the end cap link closest to the wireless transmitter (14B0324NN) and remove the end cap link (Figure 6). Save the screws for re-install. Note that this end cap has a channel cut into it that the wires from the reversing edge fit into. The wires of the new reversing edge will also have to fit into that channel.
3 The Reversing Edge Sensor has a "T" shaped profile at the top that slides into a slot in the extrusion above it in the bottom bar (Figure 7). Pull the reversing edge sensor out of the slot in the extrusion horizontally.
4 Orient the new reversing edge's wires to be on the same end of bottom bar as the transmitter was mounted on.
5 The reversing edge with the caps installed on the ends should be the same length as the slat.
6 Slide the new reversing edge sensor's "T" profile into the slot in the extrusion in the bottom bar. You may spray the reversing edge sensor's "T" profile with a soap water solution to make sliding it into the extrusion easier.
7 Pull the wires of the new reversing edge through the hole for the transmitter.

Replace Reversing Edge Continued

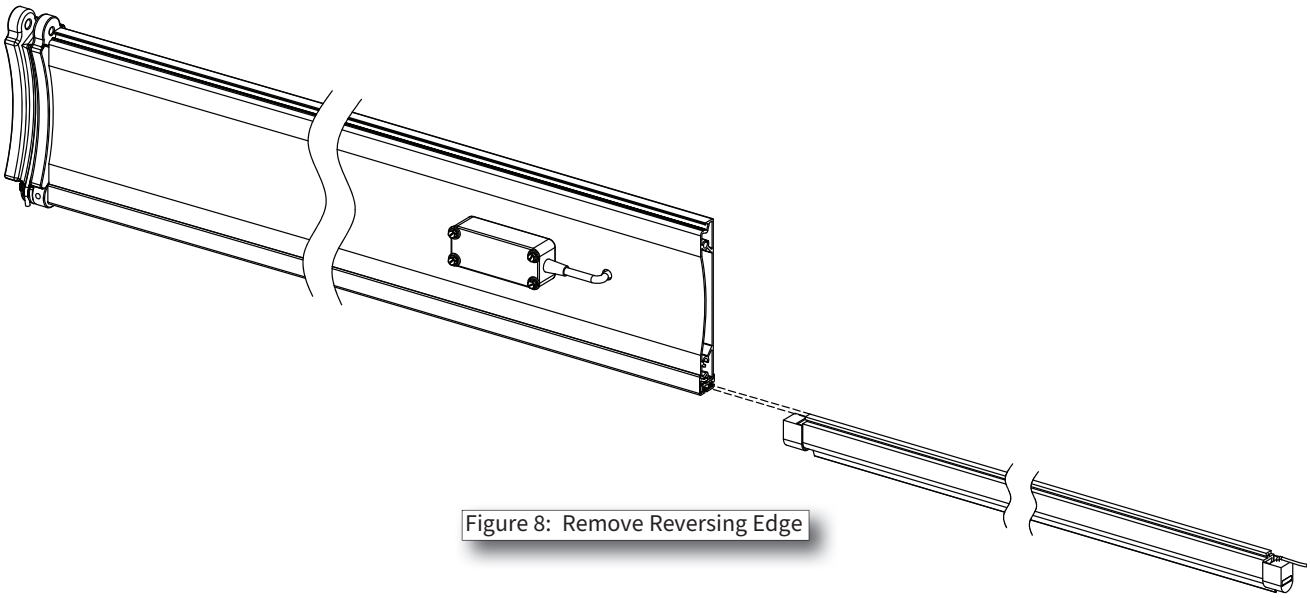


Figure 8: Remove Reversing Edge

1 Strip wires for connection.
2 Using (1) “lever type” wire-nut, connect the blue wire from the reversing edge to the blue wire from the transmitter.
3 Using (1) “lever type” wire-nut, connect the brown wire from the reversing edge to the black wire from the transmitter.
4 Fit the wires back into the cavity of the bottom bar and put the wire nuts back into the access hole where they were.
5 Route the wires from the reversing edge into the channel cut in the end cap link (14B0324NN) you removed earlier (Figure 9). Position the end cap link back on the slat, keeping the wires in the channel, replace the (2) 1/4-20 X 2.00” screws 41A1070, and tighten.
6 If you also replaced the wireless transmitter, go to the “pairing” procedure before re-mounting the wireless transmitter.

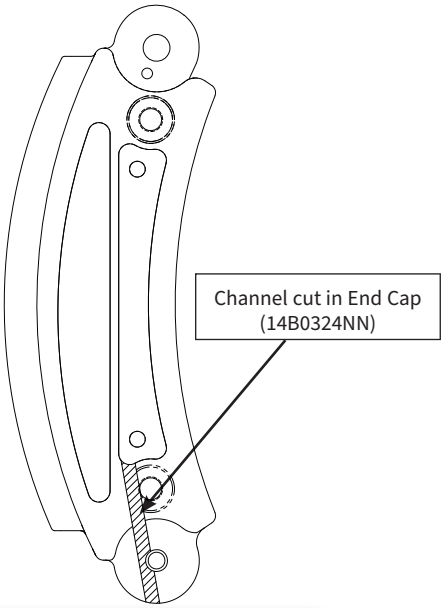


Figure 9: Channel Cut in End Cap

Pair Transmitter & Controller

The wireless transmitter and the controller are “paired’ together at the factory. They need to be paired in order for the reversing edge to function correctly. When replacing the wireless transmitter, or if they ever become “un-paired”, perform the following steps to “pair” the wireless transmitter to the controller.

1 Press and hold button on transmitter for 15 seconds, until status light on transmitter turns solid, then release button.
2 On the controller, press “Menu”
3 Scroll to “System Config”
4 Press “Enter”
5 Ender code “777”
6 Press “Enter”
7 Scroll to “Options”
8 Press “Enter”
9 Select “Seywave Host”
10 Press “Enter”
11 Scroll to “Clear All”
12 Press “Enter”
13 Press up button to “Reset Seywave”
14 Select “Pairing” on controller, Press “Enter”, and within 10 seconds, press the button on the transmitter.
15 If the pairing is successful, the controller will beep.
16 Select the “Press and Hold” button to exit.
17 Replace the wireless transmitter on the bottom bar assembly. It is recommended that you mount it with the button against the bottom bar to prevent accidental un-pairing.

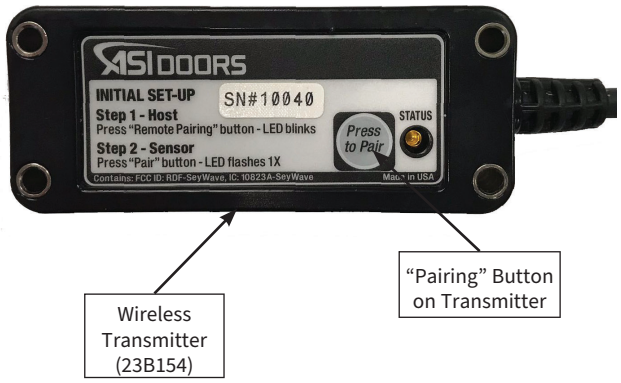


Figure 10: Wireless Transmitter Detail

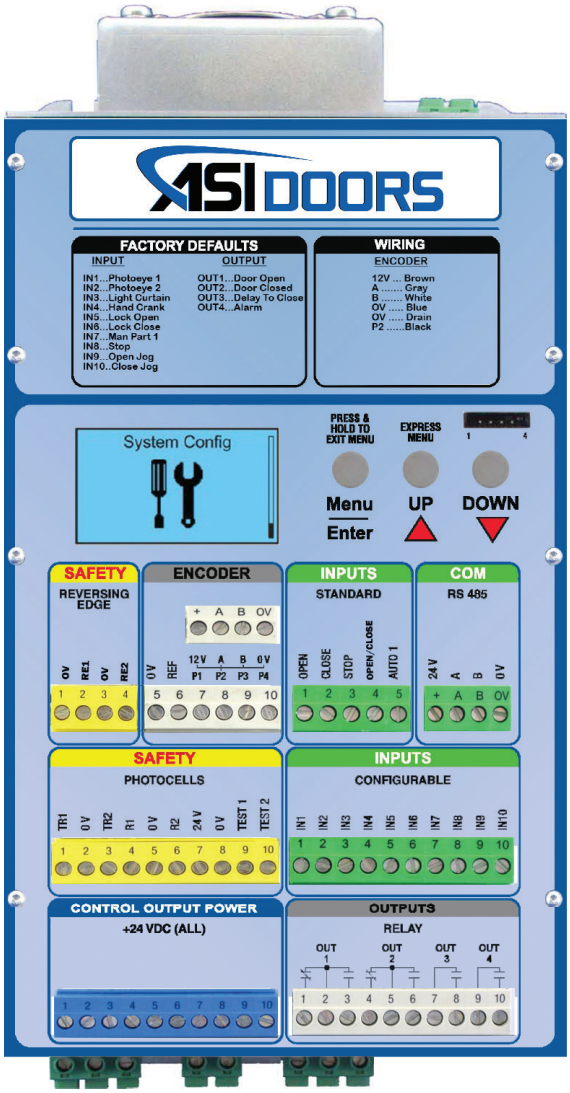


Figure 11: Controller Detail

Re-Install Bottom Bar

1 Replace bottom bar assembly on bottom of curtain.
2 Support the bottom bar assembly from below, line up holes in end caps, and replace the 5/16 x 3/4 shoulder screws 41A1056 on both ends of slat (Figure 12).

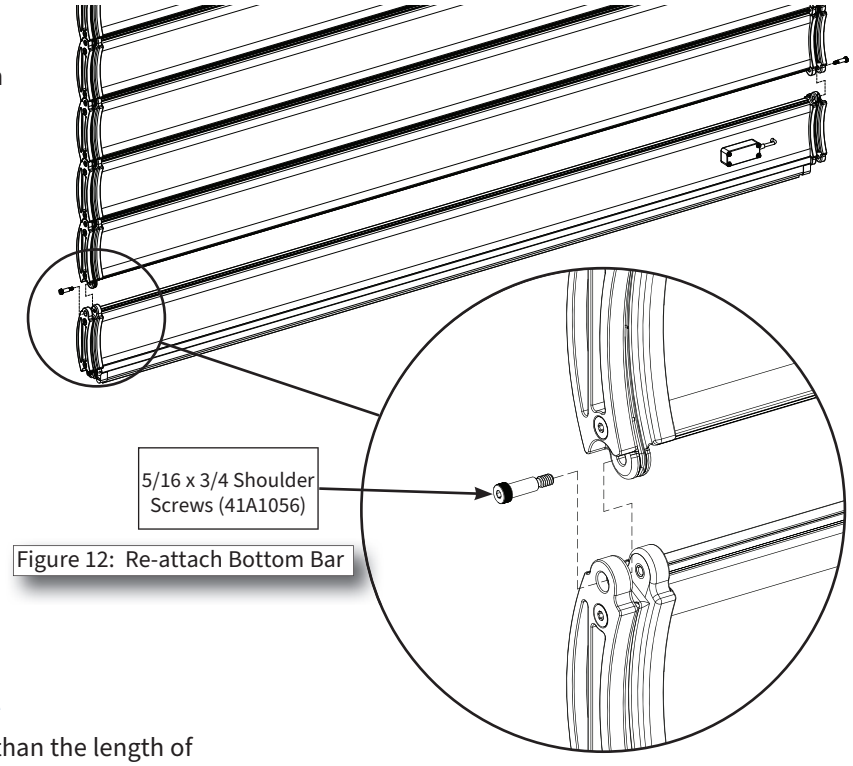


Figure 12: Re-attach Bottom Bar

Replace Hinge Gasket

1 Cut a length of gasket 6” longer than the length of the slat. Slat length is normally wic + 3.03”
2 The concave surface of the gasket faces out and both triangular ribs of the gasket get pressed into the small channels at the top & bottom edge of the slats. There is a rib on the gasket that must go in between the flat surfaces of the slats on the top & bottom of the gasket. (Figure 14)
3 The slats may sag in the center, closing up the space that this rib needs to be inserted into. To make sure the gasket rib is inserted properly, use a putty knife in the space between slats, and run it just ahead of the gasket as you insert it to keep that space open and give the gasket rib room to be inserted.
4 The gasket will stretch somewhat as you insert it so you have to be careful not to end up with a large gap on one end due to gasket stretch. One way to avoid this is to work from the center out.
5 Find center of the slat, and the center of the hinge gasket. Start installing hinge gasket from the center of the slat, and work towards the ends in both directions. Starting at the center of slat, push the triangular ribs of the gasket into the small channels of the slat extrusions, being careful to guide the gasket rib between the slats (Figure 15).
6 Using a putty knife as mentioned to guide the rib into position, apply pressure with your thumb to push against the concave surface of the gasket. Slide along the gasket for a short distance (12” or so). Switch sides and work from center in the opposite direction roughly the same distance until the center 2 ft. Or so of the gasket is seated.

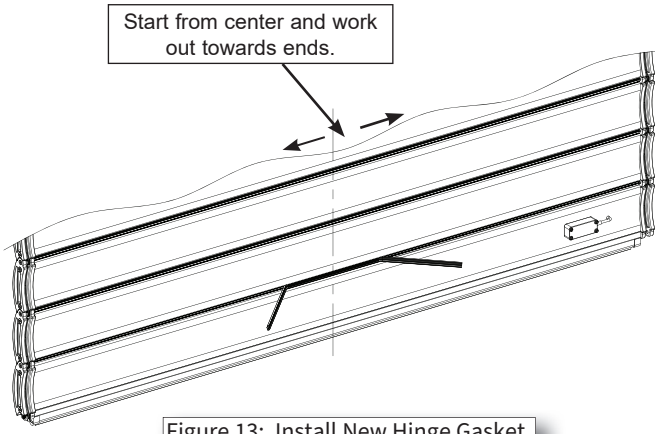


Figure 13: Install New Hinge Gasket

Re-Install Bottom Bar Continued

7 Care must be taken the ensure that the gasket is seated properly (Figure 13). When seated properly, the gasket will be smooth and both slats will be relatively even & flat with respect to each other. If there are bumps or warbles in gasket, or if one slat is noticeably un-level with adjacent slat, gasket is not seated correctly. Pull out poorly seated section of gasket and re-insert.

8 Also, the gasket will stretch and pull while working in one direction, so you need to take care to make sure the gasket will cover the slat to the end on both sides.

9 You should have some extra gasket hanging over ends of slat on both sides. Trim gasket to the ends of slat, and fully seat end of gasket into channel.

10 Check and re-tighten any screws on endcap links loosened in previous steps.

11 Replace face frame covers, replace screws holding covers in place, and tighten.

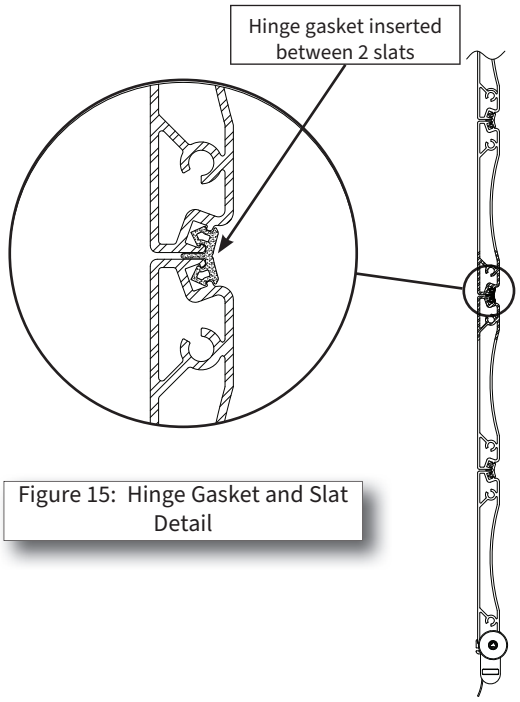


Figure 15: Hinge Gasket and Slat Detail

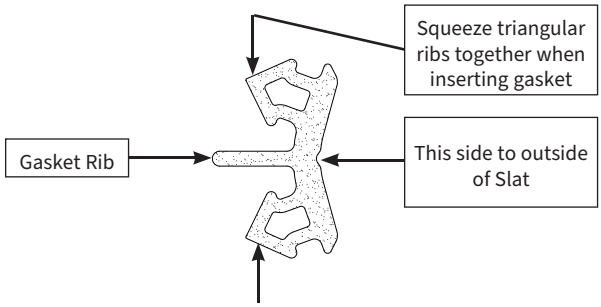


Figure 14: Hinge Gasket Detail

ADDENDUM:

Slat & Hinge Gasket Replacement

This bulletin is an addition to the standard owner's manual for the 209 apex dura & vision doors. All warranties, safety practices and warning descriptions pertaining to this door can be found in the original owner's manual, and apply to procedures and instructions contained in this bulletin. Please refer to the original owner's manual for that information.

Remove Slats & Gaskets

The following are instructions to remove damaged slats and/or hinge gaskets. To remove slats, follow all instruction steps. To remove only hinge gaskets, follow step 1 to step 4.

1 Move the door to a point where the slat to be replaced is at a good working height.
2 Hit the “Stop” button on the control to stop the door from moving. Use the disconnect lever on the control to disconnect power to the door. Use proper “lock-out” “tag-out” procedures to prevent power being restored to the door while you are working on it.
3 Remove mounting screws from sides of face frame covers. Pull off face frame covers and set covers & screws aside (Figure 1).
4 Place wood or foam blocks between curtain and face frame extrusion close to damaged slat(s). This will allow curtain to hang in front of face frame extrusion to allow you to get better access to the slat mounting screws, and make it easier to remove the slat(s) (Figure 2).

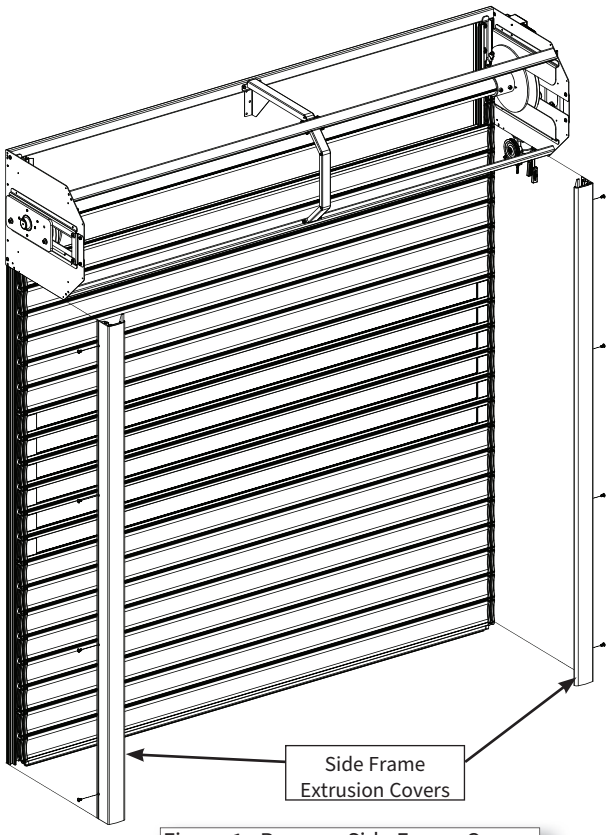


Figure 1: Remove Side Frame Covers

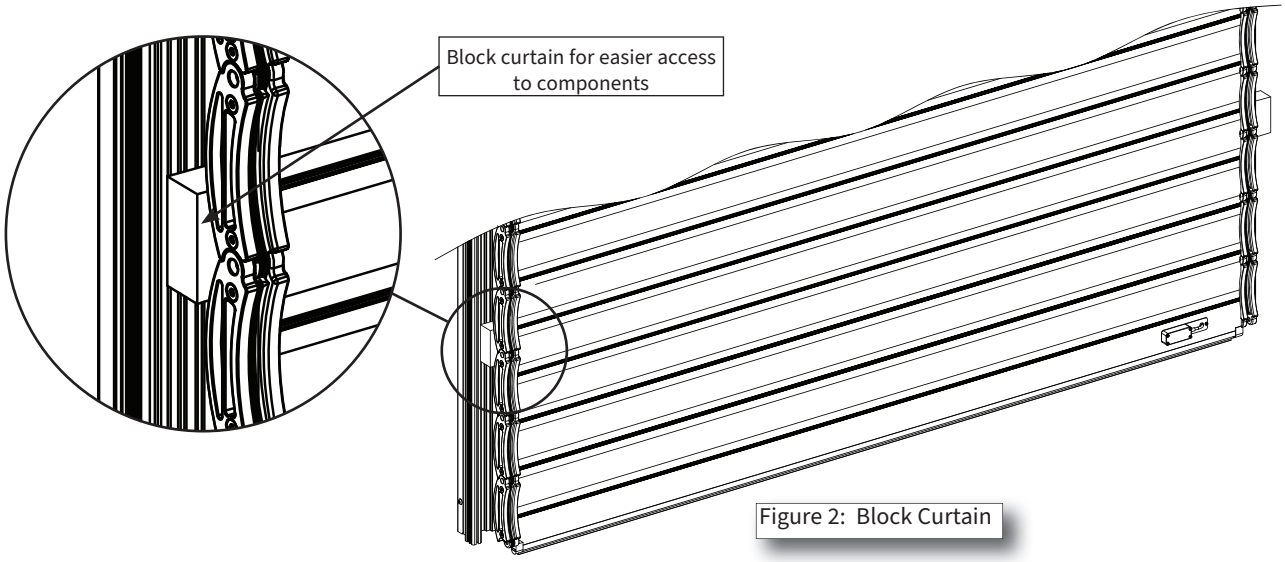


Figure 2: Block Curtain

Remove Slats & Gaskets Continued

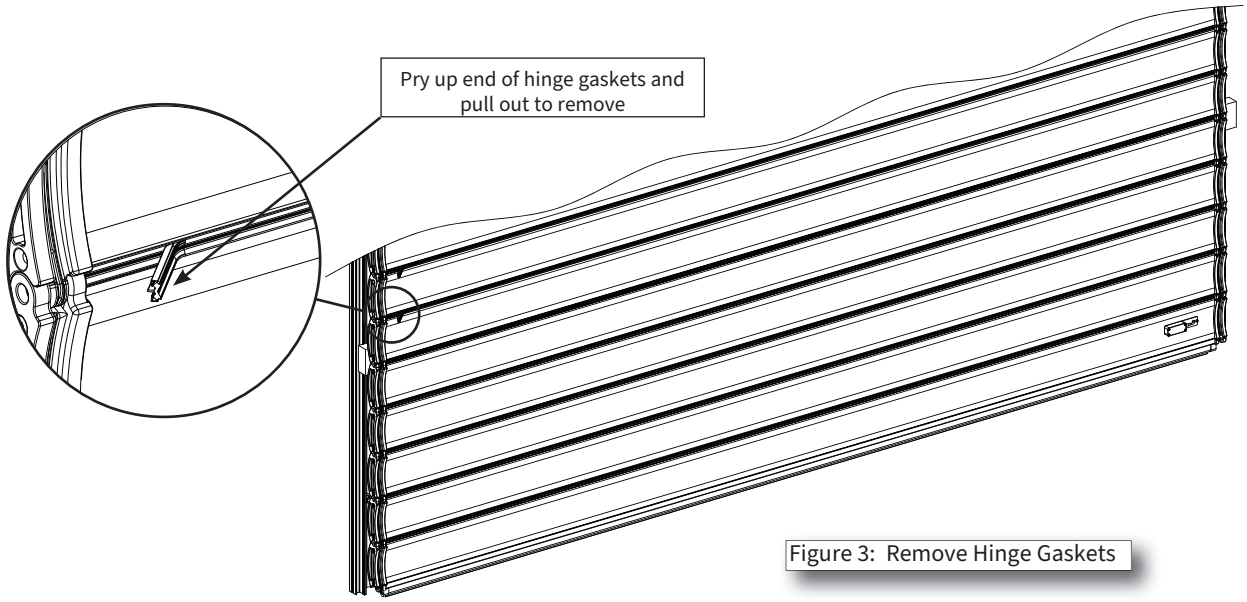


Figure 3: Remove Hinge Gaskets

5 Locate ends of hinge gaskets above and below slat(s) to be replaced (Figure 3). If you are replacing a slat, hinge gaskets above and below slat(s) need to be removed.

6 Pry up one end of gasket. Grip gasket end and pull at an angle from face of slat all the way to the other end of gasket to remove gasket.

7 On slat(s) to be replaced, loosen and remove two ¼”-20 screws in end cap links from both ends of slat(s) (Figure 4).

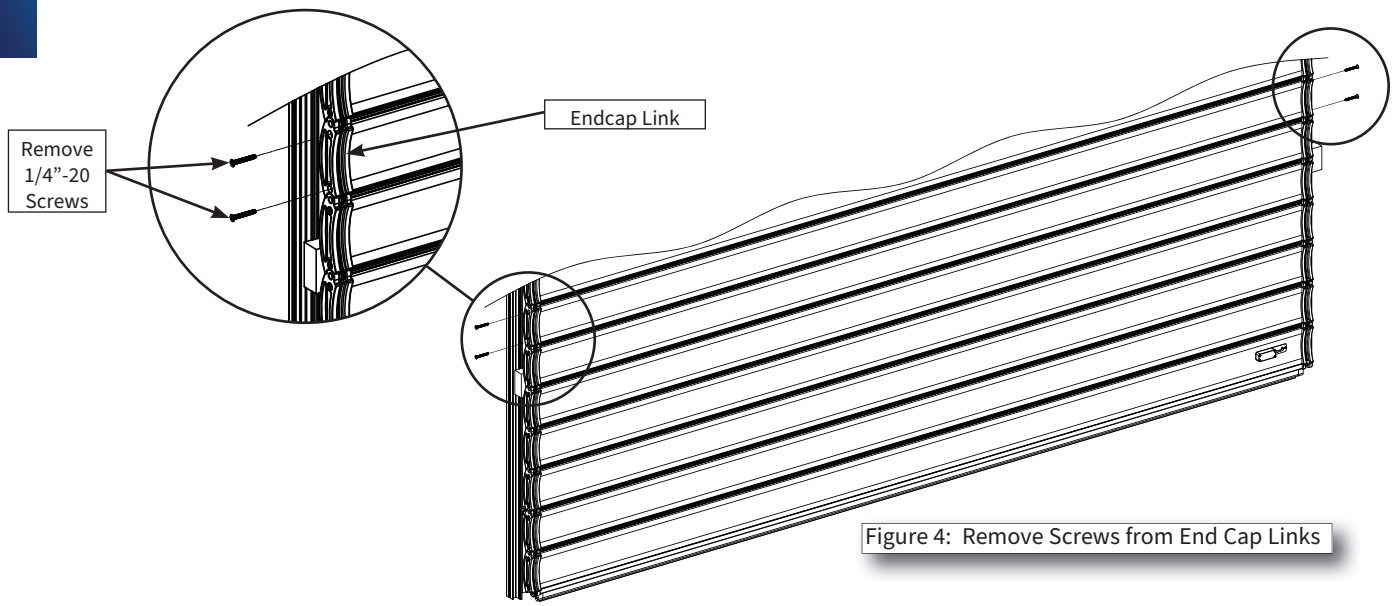


Figure 4: Remove Screws from End Cap Links

Remove Slats & Gaskets Continued

1 Remove slat by pushing slat straight out from behind (Figure 5). If slat is too tight to remove, loosen (but do not remove) screws on endcap links of slats above and below slat to be removed. Be sure to re-tighten these screws after replacing slat(s).

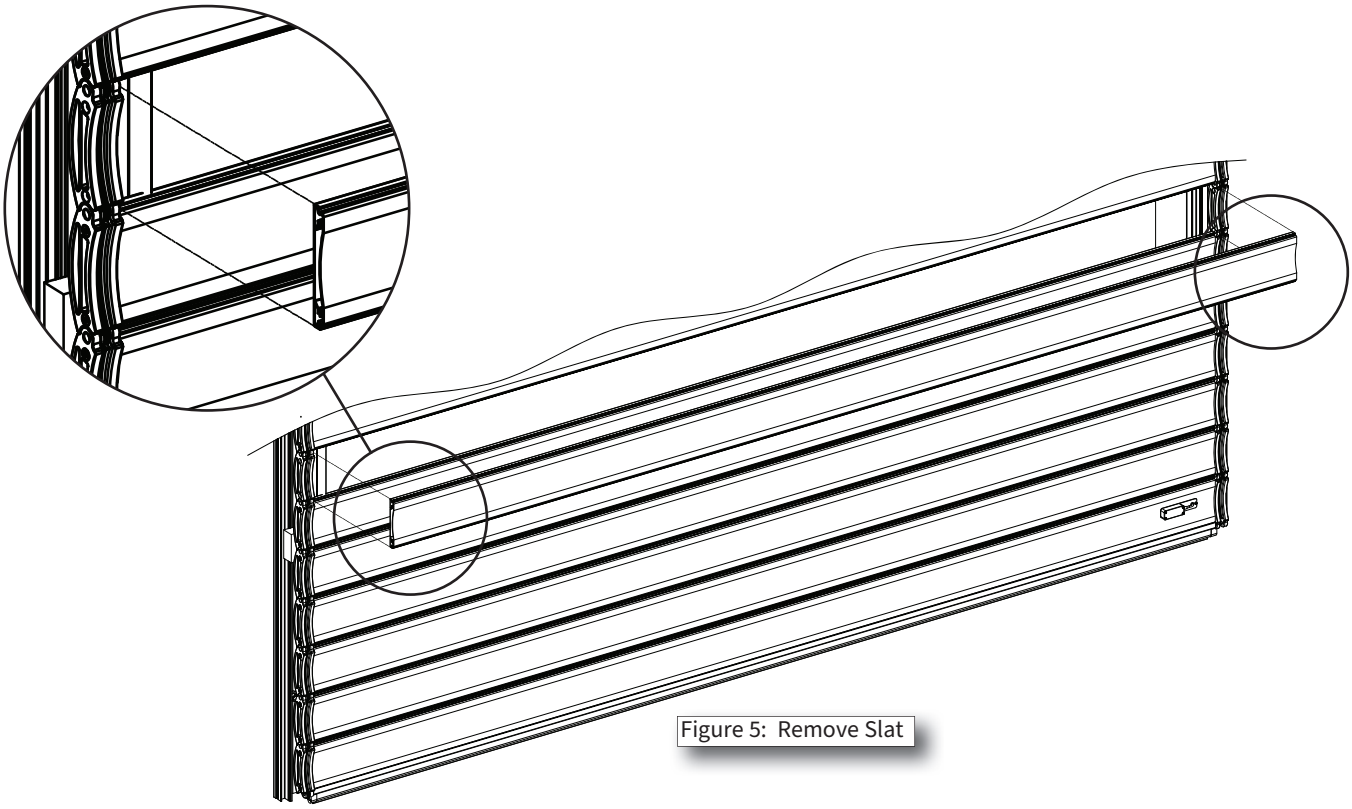


Figure 5: Remove Slat

Install Slats

The steps for installing slats and/or hinge gaskets are basically the reverse of removing them.

For Gasket only replacement, skip steps 1 - 3.

1 Orient new replacement slat the same as existing slats in curtain, with the slat facing the same way as the other slats in the curtain.
2 Push slat into position. Looking from end of curtain, towards endcap link, align screw channels in slat extrusion with holes in end cap link.
3 Replace ¼”-20 screws, and tighten. Tighten ¼”-20 screws on adjacent slats above and below if they were loosened in removing slat. Repeat on other side.

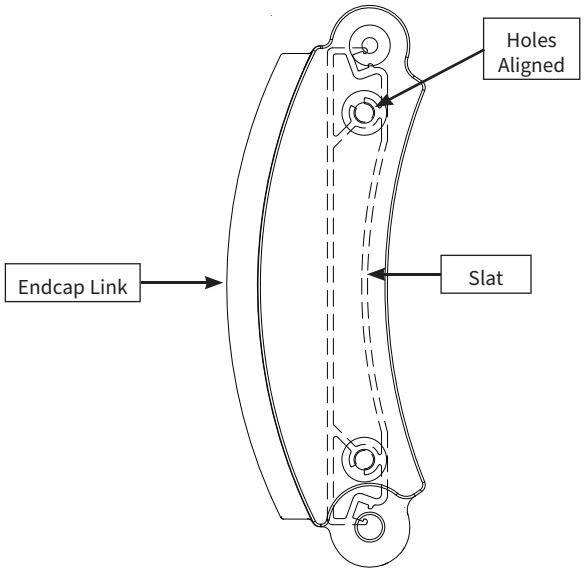


Figure 6: Slat and Endcap Link Profile

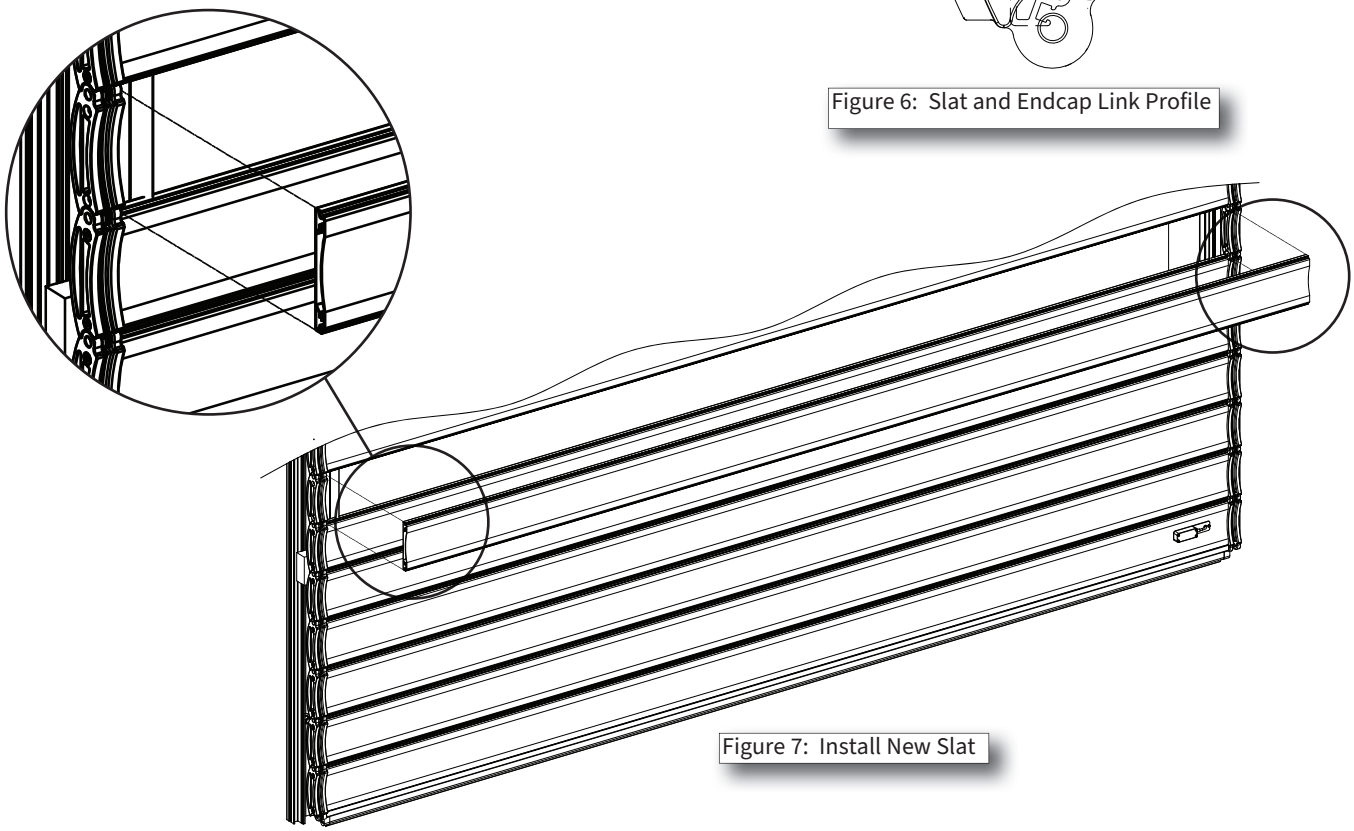


Figure 7: Install New Slat

Install Hinge Gaskets

1 Cut a length of gasket 6” longer than the length of the slat. Slat length is normally wic + 3.03”
2 The concave surface of the gasket faces out and both triangular ribs of the gasket get pressed into the small channels at the top & bottom edge of the slats. There is a rib on the gasket that must go in between the flat surfaces of the slats on the top & bottom of the gasket. (Figure 9)
3 The slats may sag in the center, closing up the space that this rib needs to be inserted into. To make sure the gasket rib is inserted properly, use a putty knife in the space between slats, and run it just ahead of the gasket as you insert it to keep that space open and give the gasket rib room to be inserted.
4 The gasket will stretch somewhat as you insert it so you have to be careful not to end up with a large gap on one end due to gasket stretch. One way to avoid this is to work from the center out.

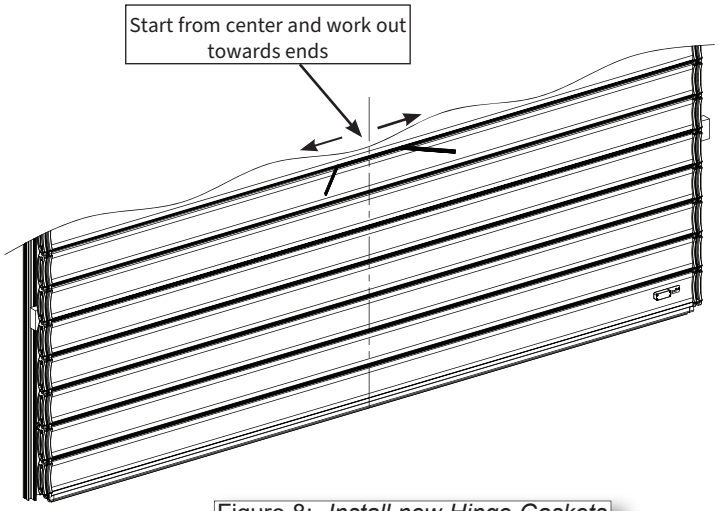


Figure 8: *Install new Hinge Gaskets*

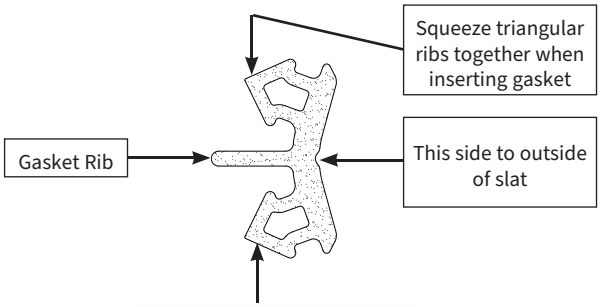


Figure 9: Hinge Gasket Detail

5 Find center of the slat, and the center of the hinge gasket. Start installing hinge gasket from the center of the slat, and work towards the ends in both directions. Starting at the center of slat, push the triangular ribs of the gasket into the small channels of the slat extrusions, being careful to guide the gasket rib between the slats (Figure 10).
6 Using a putty knife as mentioned to guide the rib into position, apply pressure with your thumb to push against the concave surface of the gasket. Slide along the gasket for a short distance (12” or so). Switch sides and work from center in the opposite direction roughly the same distance until the center 2 ft. Or so of the gasket is seated.
7 Care must be taken the ensure that the gasket is seated properly (Figure 13). When seated properly, the gasket will be smooth and both slats will be relatively even & flat with respect to each other. If there are bumps or warbles in gasket, or if one slat is noticeably un-level with adjacent slat, gasket is not seated correctly. Pull out poorly seated section of gasket and re-insert.
8 Also, the gasket will stretch and pull while working in one direction, so you need to take care to make sure the gasket will cover the slat to the end on both sides.
9 You should have some extra gasket hanging over ends of slat on both sides. Trim gasket to the ends of slat, and fully seat end of gasket into channel.
10 Check and re-tighten any screws on endcap links loosened in previous steps.
11 Replace face frame covers, replace screws holding covers in place, and tighten.

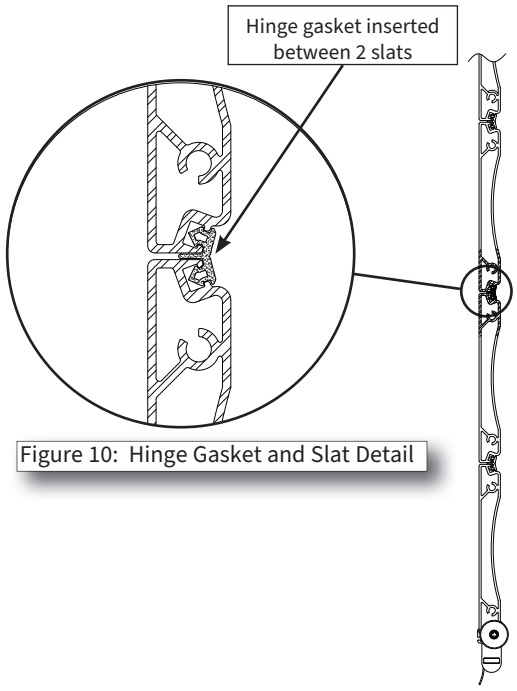


Figure 10: Hinge Gasket and Slat Detail

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