



BI-FOLD DOOR INSTRUCTION MANUAL

Tools Needed



Hammer



3/8" Open End Wrench



5/32" Allen Wrench



6" Socket Extension

Socket Sizes Needed



1/4"



3/8"



7/16"



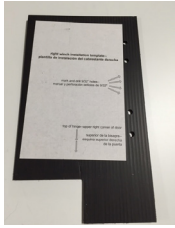
1/2"



9/16"

INDEX OF PARTS

MOST PARTS ARE LABELED



TEMPLATE



**DRUM KEYS, SHAFT
COLLARS, SPRING
BOLTS & NUTS**



**EXTRUSION TO
PANEL BOLT KIT
(LTL SHIPMENTS ONLY)**



**3" x 0.375"
LAG SCREWS
w/washers and 9/32 drill bit**



**ROLLER STOP
BOLTS**



**DOOR LATCHES
w/bolts**



**TOP COVER
SELF-DRILLING
SCREWS**



**0.625" x 1.125"
RAIL LAG SCREWS
w/ 3/16 drill bit**



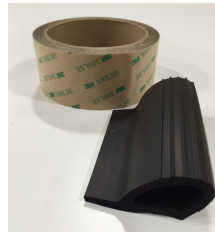
**DOOR
KICKERS
w/bolts & nuts**



**UPPER & LOWER
SEAL BOLTS
(LTL SHIPMENTS ONLY)**



**SELF DRILLING
FLATHEAD SEAL
SCREWS & WASHER
(LTL SHIPMENTS ONLY)**



**FLD SEAL
w/1.5" seal tape
(LTL SHIPMENTS ONLY)**



**D-SEAL
w/0.625" seal tape
(LTL SHIPMENTS ONLY)**



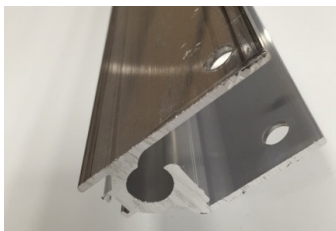
ALCOHOL WIPES



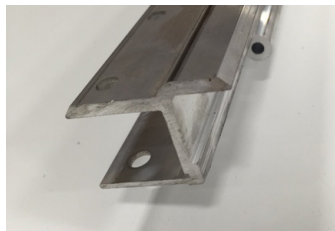
**MEETING RAIL
(LTL SHIPMENTS ONLY)**



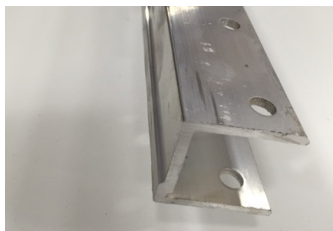
**PANEL A,B,C,D
ALL LABELED
SEPARATELY
(LTL SHIPMENTS ONLY)**



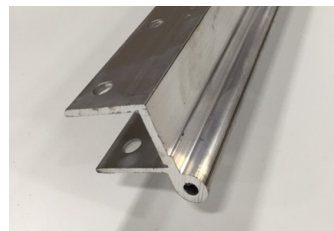
BOTTOM EXTRUSION



**UPPER CENTER HINGE
EXTRUSION**



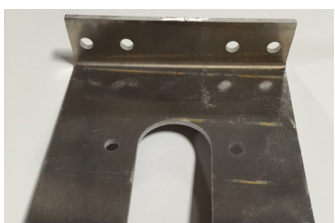
**LOWER CENTER HINGE
EXTRUSION**



**UPPER HINGE
EXTRUSION**



SIDE RAILS



**CENTER ROD
SUPPORT
BRACKET**



**LEFT CABLE DRUM
AND CABLE (RED)
RIGHT CABLE DRUM
AND CABLE (BLACK)**



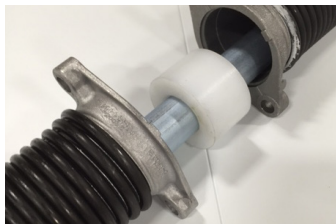
**END ROD
SUPPORT
BRACKET &
BUSHING**



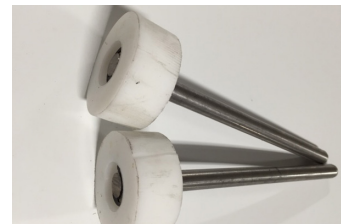
CHAIN DRIVE



**SHAFT AND
SPRINGS
RED - LEFT
BLACK - RIGHT**



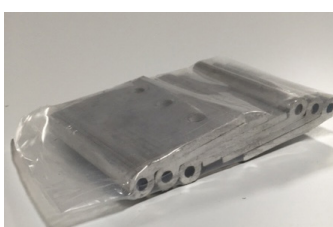
**CENTER ROD
SUPPORT BUSHING**



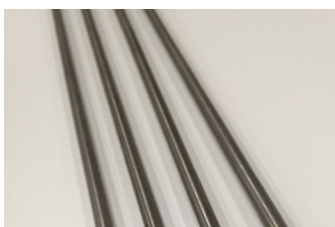
**DOOR AXLES
AND ROLLERS**



**LATCH
KEEPER**



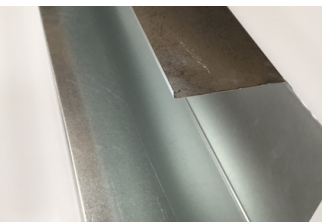
**HINGE TABS
(LTL SHIPMENTS ONLY)**



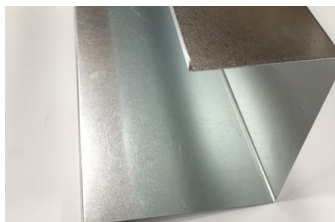
**STAINLESS STEEL
HINGE RODS (4)
(LTL SHIPMENTS ONLY)**



CABLES



**DRIVE SIDE TOP
COVER**



**OFF SIDE TOP
COVER**

FRAMING OF DOOR

Start by placing a 2" x 12" at the top of opening. Next use two 2 x 8 boards on both sides of the door opening. This is the frame that the door will both seal against and use to roll up.
(See Figure 1)

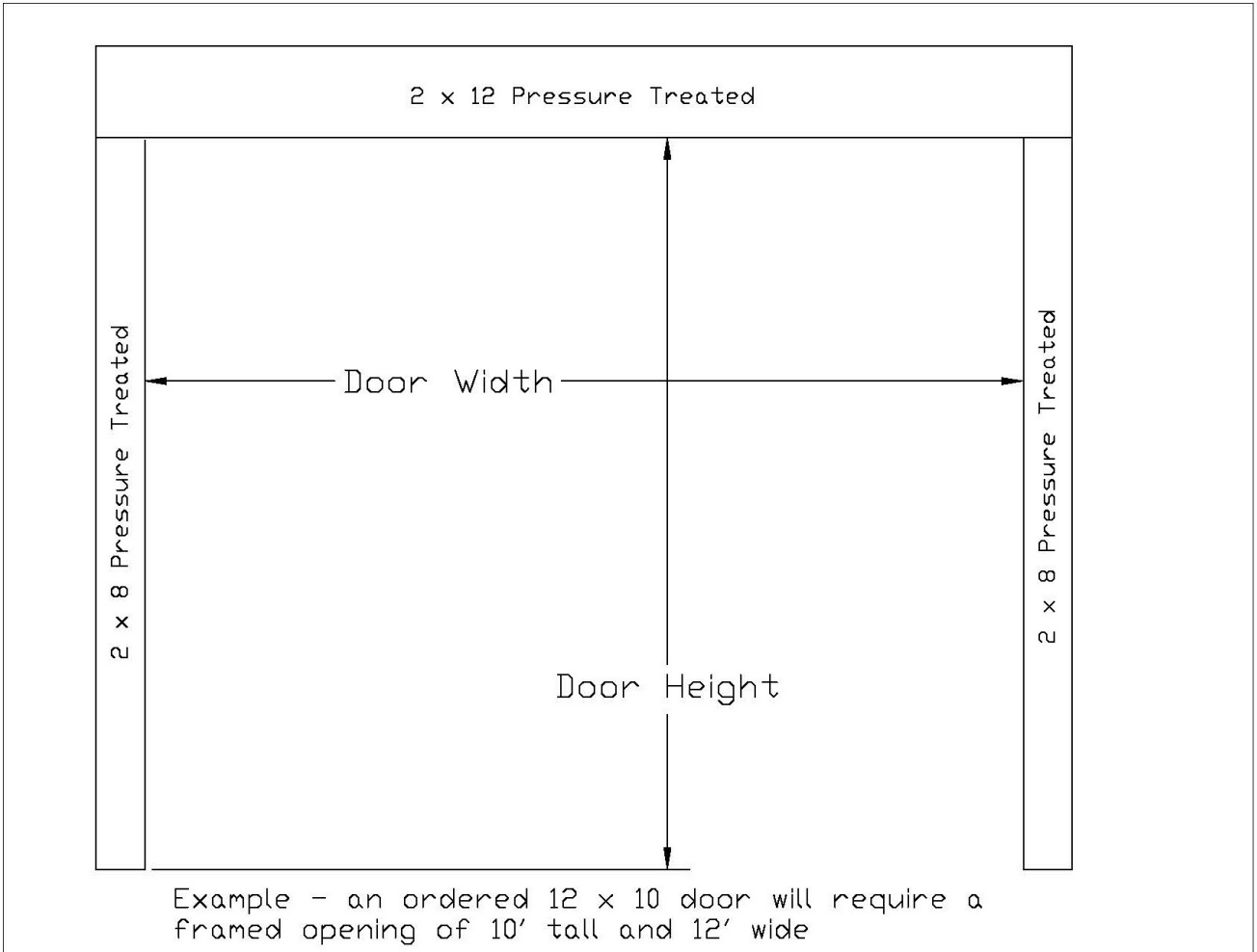


Figure 1

ASSEMBLY OF DOOR

Two Men Needed



STEP 1 - Assemble upper section door.

- Connect panels A and B with meeting rail (labeled).
- Attach upper hinge section extrusion to panels. Properly seat the extrusion onto panel with hammer.
- Attach upper middle section extrusion to panels.
- Bolt together, leaving the outer two bolt holes empty. Bolts should be installed with the head of the bolt on outside and nuts on the inside of the door.

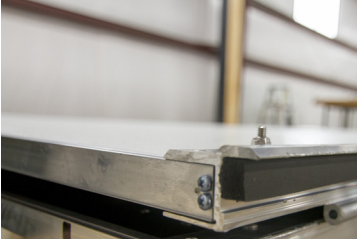
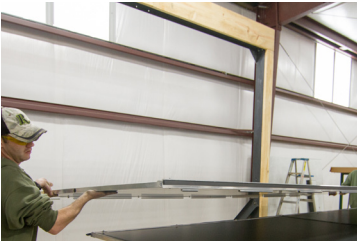




STEP 2 – Assemble lower section door.

- Connect panels C and D with meeting rail (labeled)
- Attach lower hinge section extrusion to panels making sure the pre-drilled latch holes are to the outside corners closest to the hinge extrusion. Properly seat the extrusion onto panel with hammer.
- Attach lower door bottom extrusion to panels.
- Bolt together, leaving the outer two bolt holes, on each side empty. Bolts are installed with the head of the bolt on outside and nuts on the inside of the door.





STEP 3 - Mate two sections together.

- Set the lower section of door on sawhorses with backside (black) facing up.
- Set the upper section of door on top of lower section and mate the upper half to lower half, aligning hinge bosses.
- Install the center hinge rods (2), one from each end. Use a hammer to insert rods until rod end is flush with outside hinge.
- Now install upper hinge tabs and insert upper hinge rods (2) through the six tabs. There are three tabs on each side of 12' door, and 4 on 14' door.

STEP 4 - Seal the door.

- Set up another sawhorse that will support the upper door half.
- Open the door up with backside (black) facing up.
- Use alcohol wipes to clean off any oil and fingerprints from top and sides of door. Let dry completely.
- Adhere the 5/8" seal tape to top of door between the bolts and upper hinge. Do not pull or stretch tape.
- Adhere the D-seal to the tape. DO NOT stretch the D-Seal.
- Adhere the 1.5" seal tape to the door sides. Do not pull or stretch tape.
- Adhere the FLD-seal to the tape. DO NOT stretch the FLD-Seal.
- Install the FLD 1 3/4" x 1/4" socket head seal fasteners with nylon washers (four on each side in the bolt holes that we did not use) May need to use a drill to drill through the FLD-Seal. Head will be on the inside (black) side of the door.
- Install the self-drilling flathead screw with nylon washer in center end of each panel to complete the door seal.
- Refold door.

INSTALLATION OF PRE-ASSEMBLED DOOR

Two Men Needed For Installation



1.



2.



3.



4.



5.



6.

STEP 1 - Attach door to opening.

- Place (2) 2'x 4' x 12' boards on the ground in front of opening.
- Move door from sawhorses to the ground in front of opening with door bottom and hinge tabs on opening side, centered in front of building opening with two inch overlap on each side. (1.)
- Unfold the door. Door will be laying facedown (black side up.)
- Insert the axle into the pin boss of the bottom door extrusion. DO NOT put the cables on. (2.)
- Each man picks up door on the sides in the center and raises it up to the opening. NOTE: Door weights approximately 200 lbs
- One man stands in the center of the door to hold it in place, while other man pushes axles into place and measures the door at top and bottom to make sure it is centered over the opening.
- Bolt door to opening. While one man continues to hold the center of door, other man uses ladder to predrill the hinge tab holes with a 9/32" drill bit.
- Install the 3/8" x 3" lag bolts into the two outside hinge tabs.
- Once those are installed (3 bolts per hinge), the man holding the door can release it.
- Re-measure the door around all four corners for accuracy, and then proceed with installing the other bolts into the other four hinge tabs.

STEP 2 - Mount center shaft support.

- Sit winch mounting template on top of hinge boss. (5.)
- Use winch mounting template to line up the correct place to mark the pre-drill holes on right side. Use the 9/32" drill bit to drill holes.
- Move to center, flip the template upside down (see template instructions) and mark and drill the holes. (6.)
- Move to left side, mark and drill the holes.
- Mount the center shaft support with the 3/8" leg bolts.



7.

STEP 3 - Shaft and springs installation.

- Loosen set screws and springs.
- Spread the springs apart just about two inches. It will take two men holding the shaft and springs to align it in the center mounting bracket. Make sure the black spring is on right side, red spring is on left side.
- Slide the bushing into the center bracket. (8.)
- Line up the springs and reattach and tighten the bolts. (8.)
- Shaft is now supported by the center bracket.



8.



9.

STEP 4 - Mount left side mounting bracket.

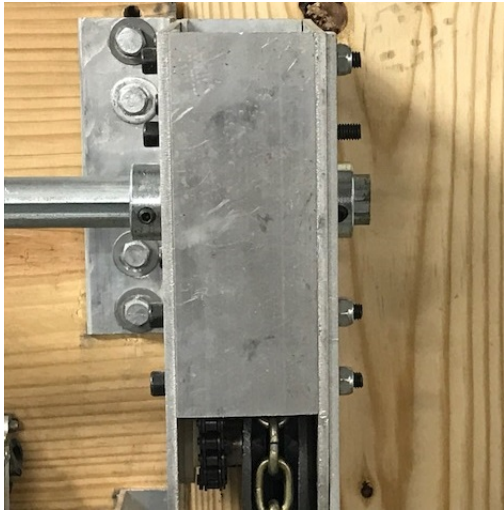
- Slide on the left (red) drum with set screws on side facing center of the door. (9.)
- Install bushing into the end support bracket
- Install the end support bracket.
- Once mounted, pull shaft through bearing to leave 3/8" of shaft on the outside. Leave the drum loose. Do not tighten the set screws.



10.

STEP 5 - Right side drive chain installation.

- Add right (black) side drum with set screws facing to center of the door and then add the collar. Leave the collar loose, do not tighten the set screws. (10.)
- Install the chain drive onto the shaft with mounting bracket of chain drive facing edge of door. (10.)
- Align bolt hole with the drive and bolt in the 3/8" x 3" lag bolts.
- Push first collar flush on inboard side of the chain drive. (11.)
- Take the second collar and put it on the outboard side of the chain drive. (11.)
- Tighten collar set screws. (11.)



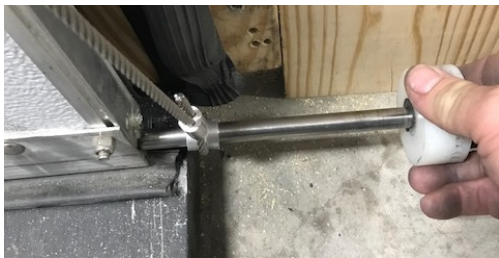
11.

STEP 6 - Stretch springs.

- On right side, measure 3" from end of spring and make a mark with marker on the shaft. (12.)
- Pull spring over to mark and tighten the set screws. On left side, measure 3" from end of spring and make a mark with marker on the shaft.
- Pull spring over to mark and tighten the set screws.
- Unwind the cable from the drum.
- Pull the axle out of the bottom of the door.
- Put the axle through the cable bushing. (13.)
- Reinstall the axle and roller back in the bottom door extrusion.



12.



13.

STEP 7 - Install side roller covers.

- Set cover upright next to roller, leaving a 1/4" gap between the cover and the roller.
- Predrill hole at bottom and install 5/16" x 1 1/2" lag bolt.
- Measure the distance from roller cover to edge of the door.
- Go to middle of the door and measure same distance to ensure it is plumb. In the middle hole, pre-drill hole and install the chain keeper.
- Go to top hole, measure and pre-drill and install bolts. Work your way down installing bolts.
- Repeat on left side.



14.

STEP 8 - SIDE RAIL ROLLER STOP BOLT INSTALLATION—REPEAT FOR BOTH RAILS

15.



1. Install bolt in bushing from inside the rail

16.



2. Raise door and check for positive stop



17.

Overview



18.

STEP 9 - Wind and load the springs.

- With the drums loose and using keyway slot as a reference, turn the chain drive backwards nine revolutions to wind the springs and lock the chain in the chain keeper (for a 12 x 10 door). For larger doors, the spring may be wound up to a maximum of 12 revolutions.
- Measure 1 ¼" from chain drive to inside of black drum. (18.)
- Align and insert the key stock in drum.
- Tighten both set screws on the drum.
- Slide drum against bushing on the left side.
- Align the key in the drum and the shaft and insert the key stock.
- Tighten both set screws on the drum.
- Remove chain from keeper putting tension on cables.



19.

STEP 10 - Install door latches.

- Partially open door.
- Install carriage head bolts into back side of door. Seat with a hammer.
- Add the latch to the front and tighten the nuts. (19.)
- Repeat on the left side.
- Close the door and check for alignment.



20.

STEP 11 - Install door kicker.

- Install the door kicker to the top half of center hinge using the existing screw hole. Using the kicker as a drill guide, drill a 5/16" hole and install the second bolt and nut provided with the kit. (20.)
- Install the base of the kicker to the bottom half of the center hinge using the existing screw hole. Using the kicker as a drill guide, drill 5/16" hole and install the second bolt and nut provided with the kit.



STEP 12 - Install top cover.

- 21.
- Install notched half (side with decal) of top cover on the chain drive side by installing two self-drilling screws through face of chain drive—locate screws approximately 1 ¼" from top and bottom of chain drive.
 - Install un-notched portion of the top cover on the off-side by installing two self-drilling screws through the offside end bracket—locate screws approximately 1 ¼" from the top and bottom of end bracket.
 - Install two self-drilling screws through the overlapped covers in center support bracket—locate screws approximately 1 ¼" from the top and bottom of the center support bracket.
 - Release the chain.