



**F.A.S.T. SIDE PATIO
OEM INSTALLATION MANUAL**

L I P P E R T
C O M P O N E N T S ®

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Safety Information

WARNING

The maximum weight rating for the door is 1,500 pounds. Exceeding the maximum weight ratings can cause death, serious injury or damage to the trailer. DO NOT allow the side door to free fall while lowering into position, as this could cause injury or damage to the trailer or door.

CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution.

WARNING

Do not remove the set screw. Failure to follow this warning may result in death, serious personal injury and/or property damage. See owner's manual for instructions on use of adjustable cable.

NOTE: Safety cables are not shown in the images for clarity purposes.

NOTE: Some trailers are equipped with an optional adjustable safety cable system for the door. Follow applicable set screw warning for use of the adjustable cable. The adjustable cable system allows for up to +/- 2.5" of adjustment in order to achieve a 90° angle for the door.

 WARNING	 CAUTION
• Failure to follow these instructions may result in death, serious injury or property damage. • Always secure the ramp door in either the closed, ramp or party deck position. • Never use the ramp door while anything is obstructing operation. • Keep hands away from all openings, rollers and cables when operating the ramp door.	• Failure to follow these instructions may result in serious injury or property damage. • Read the instructions before installation or operation. • Never force the ramp door in any direction. • Always make sure the cables are pulling out straight, staying in the grooved portion of the rollers and not coming in contact with any obstructions. • Do not operate the ramp door if the cable is frayed or damaged.

Resources Required

- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Tape Measure
- Grease Pencil/Frame Marker
- (4) C-Clamps
- 1 x 1 or 1 x 2 Aluminum Square Tube Stock (Optional)

Prior to Installation

1. Chassis subfloor must be installed.
2. Sidewalls must be installed.

Installation

Door Jamb

NOTE: The rough opening width for the side wall cut-out should range from 90"- 166 $\frac{3}{4}$ ". The rough opening distance for the height must be a minimum 77" and can range up to 85" (determined by OEM).

NOTE: The Side Door with F.A.S.T. (Force Assisted Spring Tension) Technology is set after the walls have been installed onto the chassis. The side wall cut-out dimensions should be 8 $\frac{1}{2}$ " greater on both sides than rough opening width and 2" greater than the rough opening height. This ensures the wall opening has sufficient space for wiring and that the door jamb is properly supported.

1. Recess the cut-out a minimum of 7" into the trailer, add proper support (determined by OEM).
2. Make the cut-out of the side wall for the door jamb (determined by OEM).
3. Stabilize the cut-out (determined by OEM).

Setting the Door Jamb

NOTE: The door jamb can weigh in excess of 350 pounds. Use appropriate lifting equipment and proper personal protective equipment to guide the door jamb onto the chassis.

1. Lift the door jamb and place it in front of the cut-out.
2. While the door jamb is still suspended, insert the top edge of the door jamb into the cut-out opening, making sure the cinch latch motors have cleared the interior side wall.

NOTE: If necessary to distribute the weight of the door jamb, the OEM can use 1 x 1 or 1 x 2 aluminum square tube stock under the door jamb.

3. Insert the bottom of the door jamb into the cut-out opening.
4. The door jamb should be level with the trailer floor.

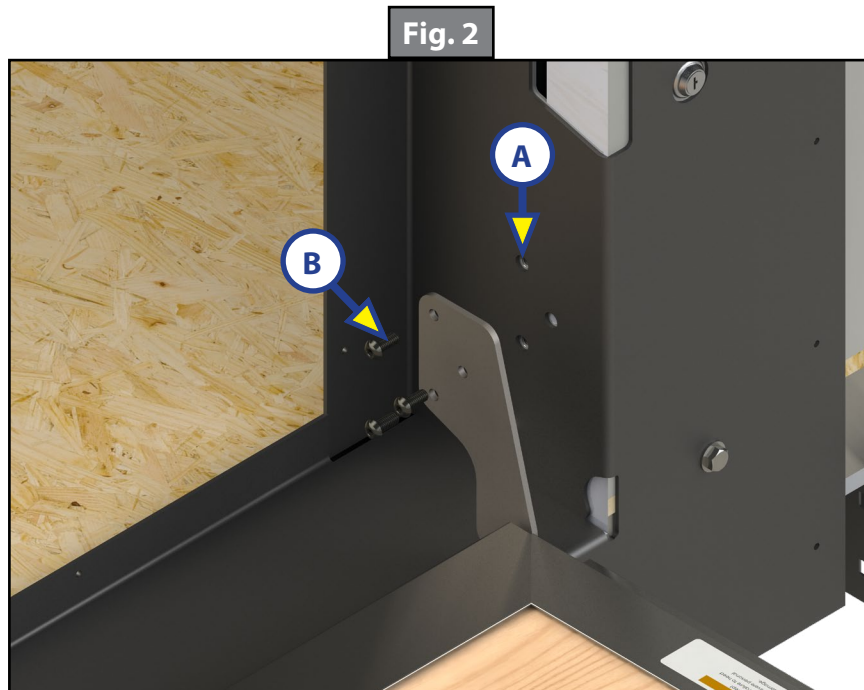
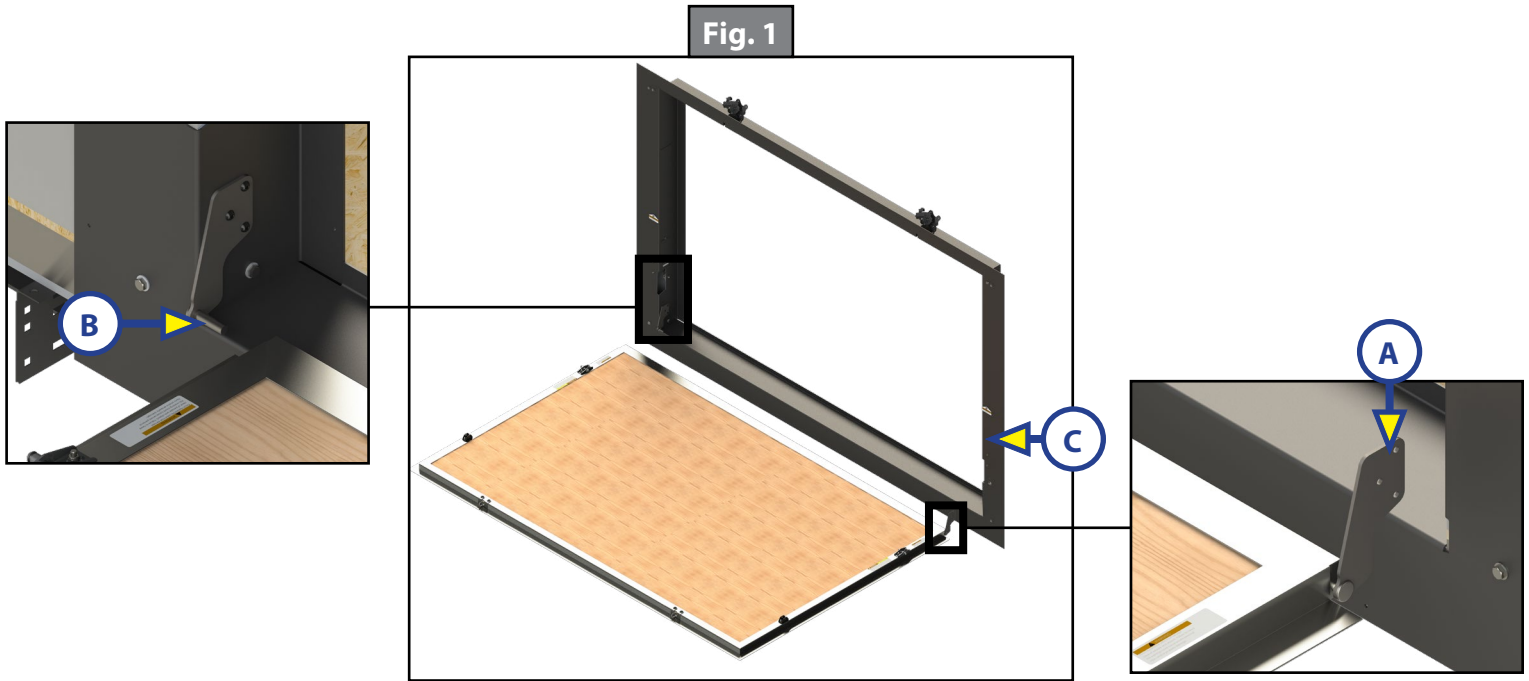
NOTE: LCI recommends using #10 x 1" self-tapping pan head screw.

5. Once the trailer floor, the side wall cut-out and the door jamb are flush, fasten the door jamb to the exterior side wall of the trailer using #10 screws (OEM supplied).
6. Attach the interior of the door jamb to the cut-out, using the same OEM-supplied fasteners.

NOTE: In order to support the side door jamb, it is essential to anchor the door jamb to as many points within the interior frame work as possible. This helps to distribute the weight of the side door and door jamb, while also helping to enhance the structural integrity of the trailer.

Hidden Hinge Installation

1. Place the right hidden hinge bracket (Fig. 1A) into the cylindrical pocket on the right side of the door.
2. Mount the side door onto the left hidden hinge pin (Fig. 1B), using the left cylindrical pocket located on the side door.
3. Slide the side door, along with the right hidden hinge, into the door jamb
4. Align right hidden hinge into predrilled mounting holes (Fig. 2A).
5. Secure the right hidden hinge onto the vertical column (Fig. 1C) using three $\frac{5}{16}$ " - 18 x $\frac{3}{4}$ " button head fasteners (Fig. 2B).



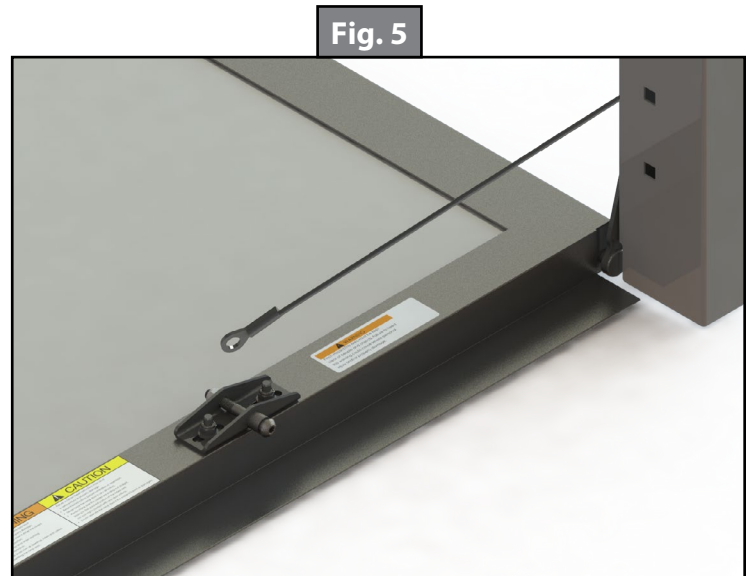
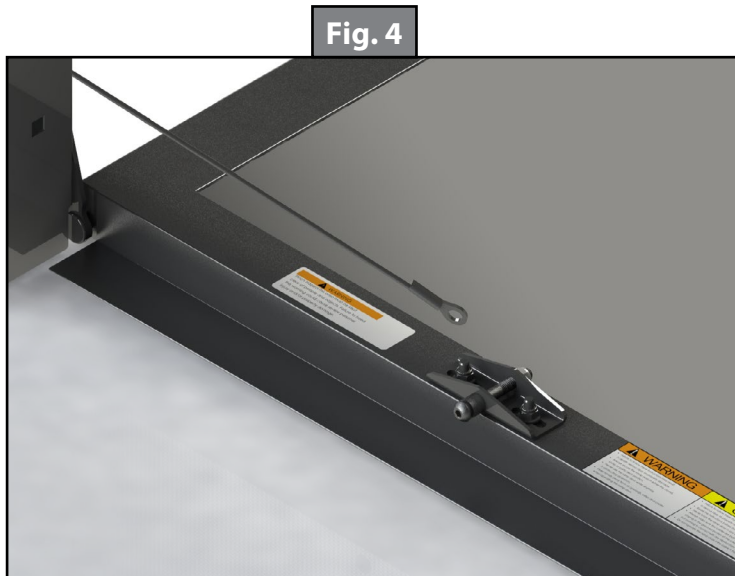
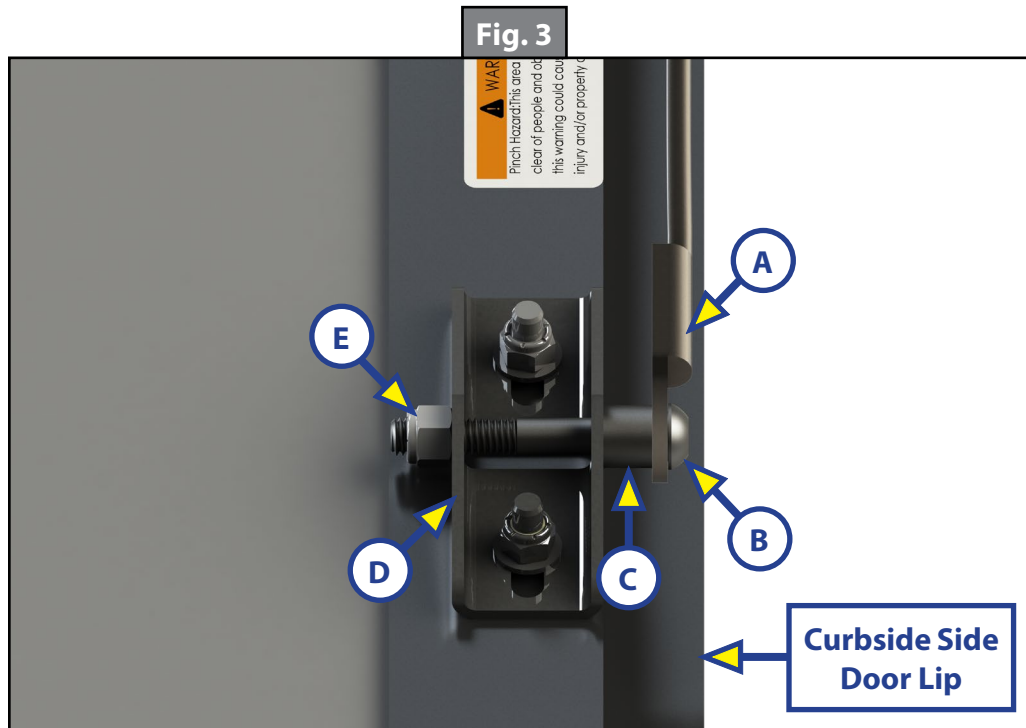
Door Cable System

1. Insert the cable eyelet, seam side out (Fig. 3A), onto the $\frac{3}{8}$ " - 16 x 2 $\frac{3}{4}$ " button head bolt (Fig. 3B).
2. Insert the metal bushing onto the exposed button head bolt (Fig. 3C). The small step of the metal bushing should seat into the inside of the eyelet.
3. Insert the bolt through the side door cable anchor (Fig. 3D) mounted to the surface of the side door.
4. Thread a $\frac{3}{8}$ " nylon insert lock nut (Fig. 3E) onto the exposed button head bolt.
5. With $\frac{7}{32}$ " hex key and a $\frac{9}{16}$ " box-end wrench, secure the cable assembly to the anchor bracket.
6. Repeat steps 1-5 on the opposite side of the side door.

NOTE: Refer to Fig. 4 and Fig. 5 for the roadside and curbside cable assemblies. The cables **MUST** be secured to the anchor brackets before proceeding in the installation.

⚠ WARNING

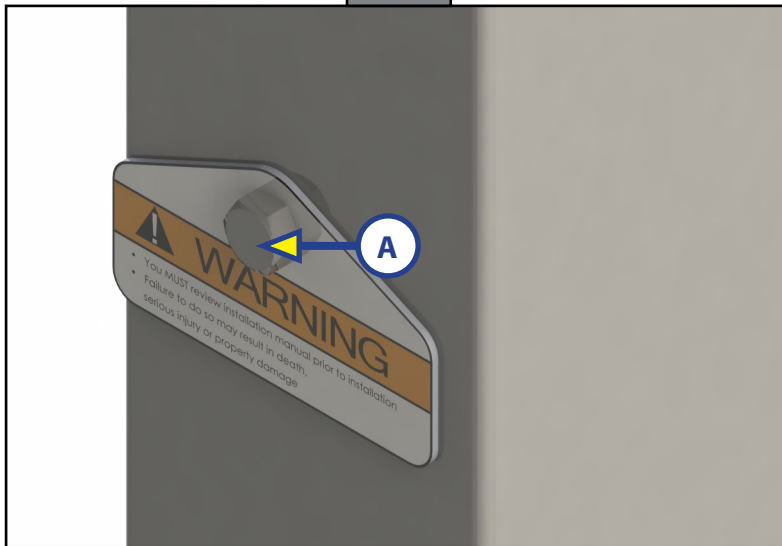
Failure to properly secure both tension cables and anchors can result in catastrophic failure of the FAST Side Door System, serious injury, and or damage to the trailer.



Setting Side Door Tension

1. With the side door open and parallel to the ground, use a $\frac{9}{16}$ " socket on either a ratcheting wrench or impact wrench and remove the $\frac{3}{8}$ " - 16 x 4 $\frac{1}{2}$ " tensioning bolt (Fig. 7A) from the vertical columns of the side door jamb.
2. As the two bolts (Fig. 6A) are drawn out of the vertical columns, tension will be transferred to the side door cable assembly.
3. Once both tensioning bolts have been removed from both vertical columns, slowly lower the side door. Once this is completed, the F.A.S.T. side door is now operational.
4. Tensioning bolt holes on the vertical columns should be plugged with the hole plugs that are provided with the LCI F.A.S.T. Side Door kit.

Fig. 6

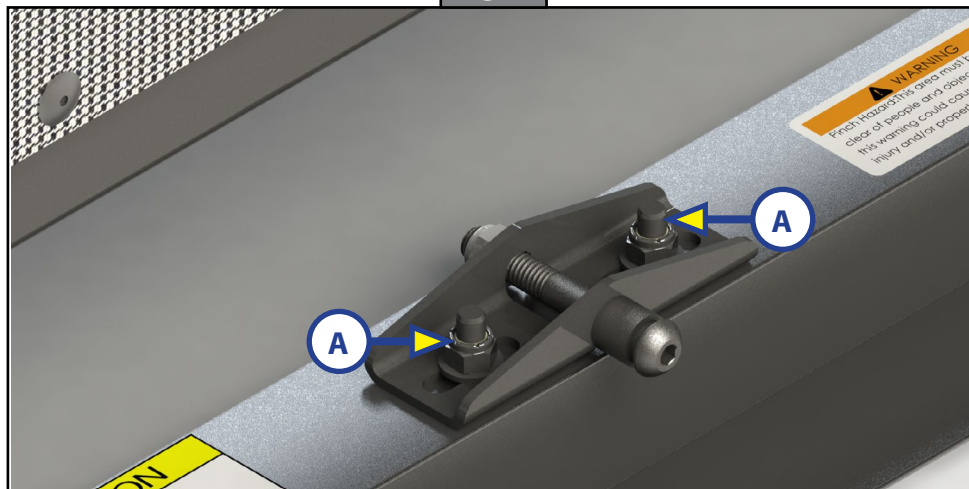


Cable System Adjustment

The side door was designed to be ready for use without adjustment. However, in the rare possibility that there is more than a $\frac{1}{2}$ " of cable sag with tension applied; adjusting the cable tension can still be accomplished.

1. Extend the side door and reinsert the two side door tension bolts (Fig. 6A).
2. Once pressure has been released from the side door cable system, loosen the 2 anchor mounting bolts (Fig. 7A).
3. With the bolts loosened, slide the anchor bracket along the channel to achieve maximum tension.
4. Tighten the anchor bolts.
5. Remove the two tension bolts to reset side door tension.

Fig. 7



⚠ WARNING

The side door was designed to have two safety cables installed before any use. Failure to connect the safety cables from the side door to the door jamb may result in serious injury or property damage.

1. Starting at the top of the door jamb, clip the end of the support cable that has the locking carabiner to the top anchor plate (Fig. 8A) in the door jamb.
2. Install the other end of the safety cable (Fig. 9A) into the pre-mounted anchor point (Fig. 9B), located on the front corner, by placing the safety cable end into the anchor point and securing the eyelet with the supplied snapper pin.
3. Repeat steps 1 and 2 for the other side of the door.

Fig. 8

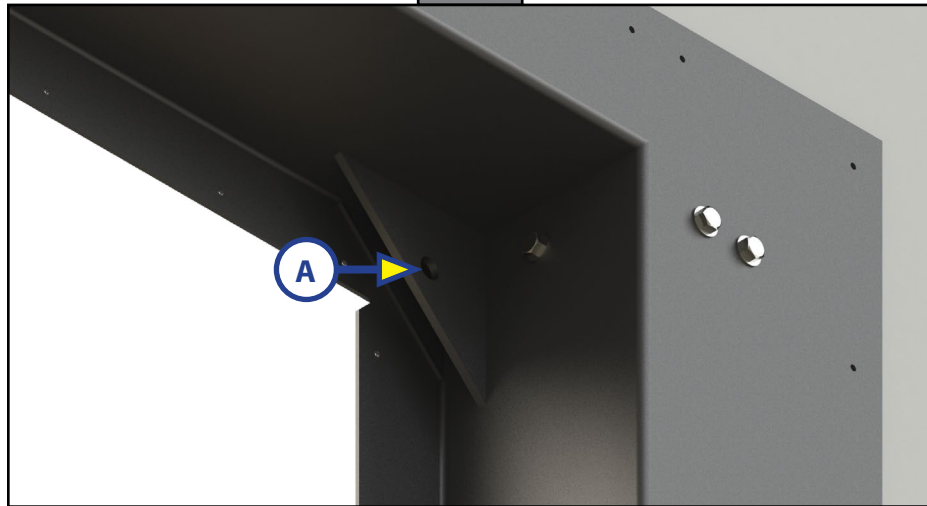
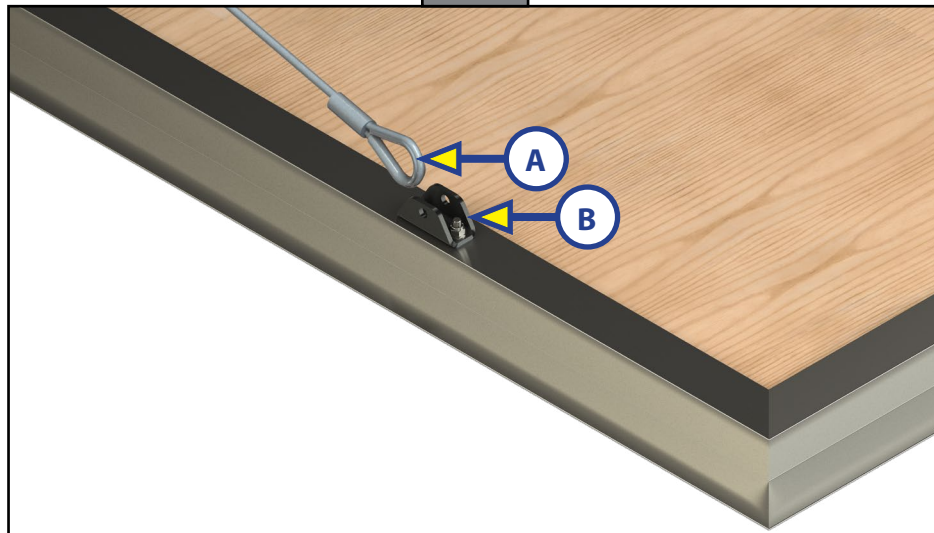


Fig. 9



Controller

1. Mount the controller (Fig. 10A) in a clean and dry, weather-tight location that will keep it from being damaged, but is easily accessible for service. The controllers are **NOT** waterproof.

NOTE: The controller **MUST** be mounted with the face visible.

NOTE: The controller can be mounted anywhere inside the trailer. The controller should be hidden, accessible, and the wires need to reach the motor.

2. Route and attach the switch harness (Fig. 10B) from the controller to where the key switch and the LED are located on the door jamb. One red wire and one purple wire go to the key switch and one red wire and one green wire go to the LED.

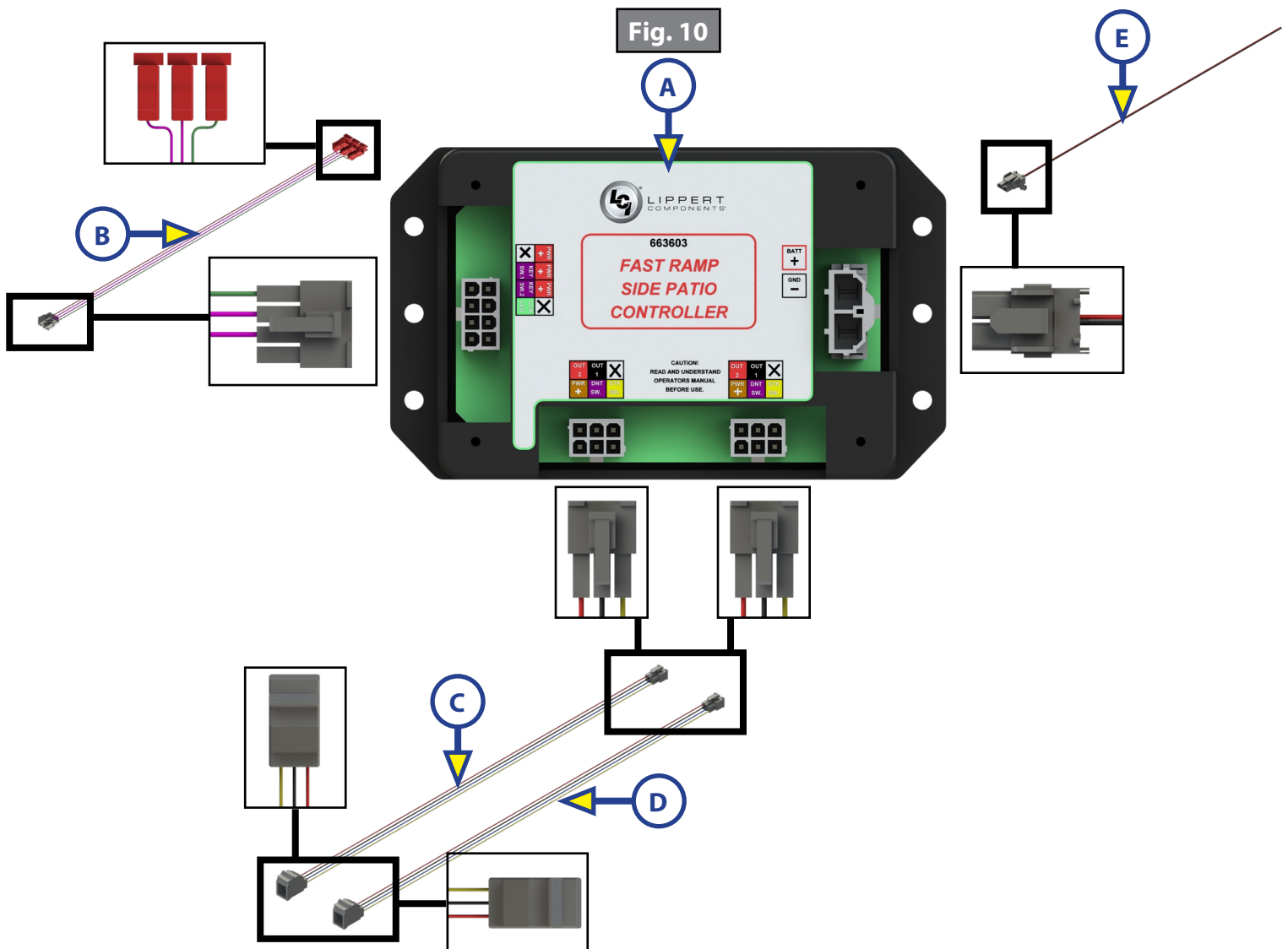
NOTE: Located on the switch harness, there is also an additional red wire and purple wire for an internal switch to open the door from the inside of the trailer (determined by OEM). This is an optional attachment but the wires are provided on the harness.

3. Route and attach the motor 1 harness (Fig. 10C) and motor 2 harness (Fig. 10D) from the controller to each motor.

NOTE: The controller has two “motor leads” which can be either motor.

NOTE: It is recommended by LCI that this system be wired using a 10 gauge wire minimum and to wire all wires independently.

4. Route and attach the power wiring harness (Fig. 10E) to the controller. Use the proper gauge wire to support the 12V DC battery when connecting to the power source.



⚠ WARNING

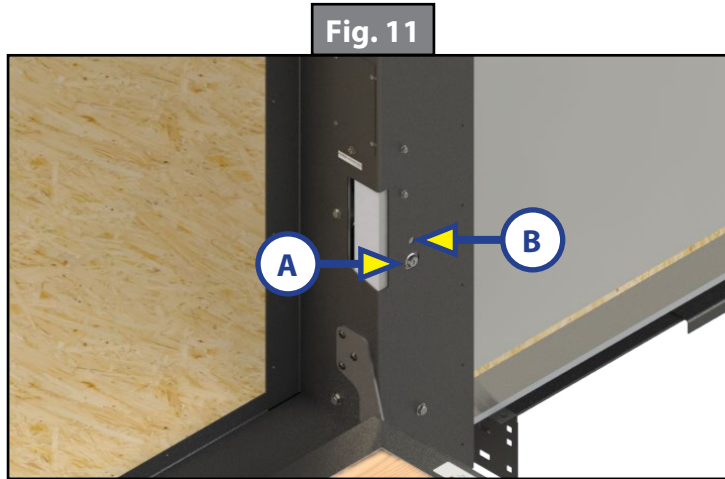
The use of the side door without an optional rail kit, could cause personal injury.

Operation

Stowed Position

NOTE: Ensure that the trailer is connected to a power source.

1. Insert the key into the keyed access point located in the door jamb of the side patio (Fig. 11A).



2. Turn the lock mechanism. The door will visibly pop open slightly, releasing pressure on the seals.
3. Once the lock mechanisms have been released, the patio door is ready to extend. Slowly extend the patio door. The F.A.S.T. technology actively counter balances the weight of the door, allowing for one handed operation of the side door.

NOTE: If the door does not visibly open try the key again. If still does not open then refer to the manual override on the latch itself inside the trailer. The controller is designed in such a way that if one latch is cinched and the other is not it will automatically release the cinched latch. The only way this will not happen is in the event that power is failing to reach the system properly.

NOTE: When the door is fully extended the side door will be at a level position.

4. The key can now be removed.

Extended Position

NOTE: If optional rail kit is installed, ensure that the rail kit is in its closed and stowed position for transport. Disconnect any optional step assembly from the side door.

1. Carefully retract the side door, verifying that the safety cables do not become pinched in between the side door and the door jamb.
2. When the two latch pins (Fig. 12A) come in contact with the two cinch latches (Fig. 13A), positive pressure must be maintained until the cinch latch has cycled and engaged the locking mechanism.
3. If the cinch latch pins properly engage into the cinch latches, the LED light (Fig. 11B) will turn green.

NOTE: If both cinch latches do not actuate, the controller will automatically reset the closed latch and will open the door slightly. Close the door again to get both latches to engage. If both latches engage the LED next to the key access will turn green.

Fig. 12

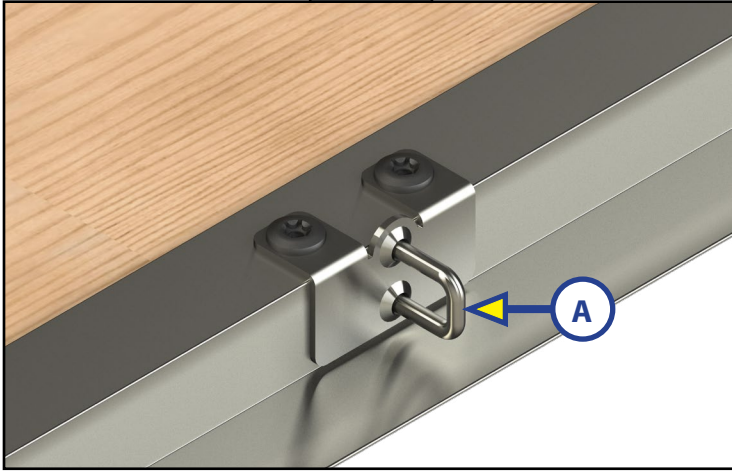
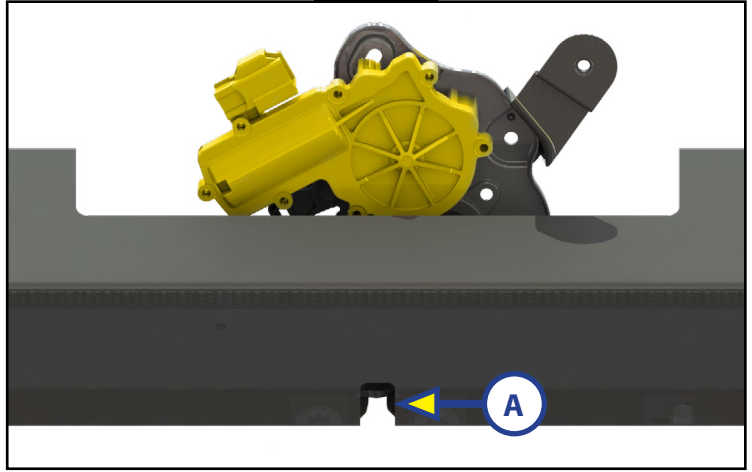


Fig. 13



Troubleshooting

1. Check cables for excessive fraying.
2. Check the door jamb location where the tension cables exit the columns for excessive wear.
3. Check the latch pin to ensure that it is not bent, and is properly aligned with the cinch latch mechanism.
4. Check the hidden hinges for loose fasteners.
5. Check the door jamb for loose debris that would interfere with the function of the side door.

Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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