



# SIDE PATIO RAIL KIT 3.0

## OEM INSTALLATION MANUAL

LIPPERT  
COMPONENTS®

# TABLE OF CONTENTS

|                                   |    |
|-----------------------------------|----|
| <b>Safety Information</b>         | 2  |
| <b>Preparation</b>                | 3  |
| <b>Resources Required</b>         | 3  |
| <b>Patio Railing Installation</b> | 3  |
| Right Panel Railing               | 3  |
| Left Panel Railing                | 6  |
| Keeper Bases                      | 7  |
| Optional Support Installation     | 8  |
| <b>Operation</b>                  | 10 |
| Set Up                            | 10 |
| Collapsing                        | 11 |

## Safety Information

### **WARNING**

The maximum weight rating for the door in patio mode is 1,500 pounds. Exceeding the maximum weight ratings can cause death, serious injury or damage to the trailer. **DO NOT** allow the patio door to fall while lowering into level 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 the owner's manual for instructions on use of the adjustable cable.**

**NOTE:** Cables are not shown in the images for clarity purposes.

**NOTE:** Some trailers are equipped with an optional adjustable cable system for the patio 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 patio door while in patio mode.

|  <b>WARNING</b>                                                                                                                                                                                                                                                                                                                    |  <b>CAUTION</b>                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Failure to follow these instructions may result in death, serious injury or property damage.</li> <li>• Always secure the ramp door in either the closed, ramp or party deck position.</li> <li>• Never use the ramp door while anything is obstructing operation.</li> <li>• Keep hands away from all openings, rollers and cables when operating the ramp door.</li> </ul> | <ul style="list-style-type: none"> <li>• Failure to follow these instructions may result in serious injury or property damage.</li> <li>• Read the instructions before installation or operation.</li> <li>• Never force the ramp door in any direction.</li> <li>• 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.</li> <li>• Do not operate the ramp door if the cable is frayed or damaged.</li> </ul> |

## Preparation

Ensure the patio door support cables are securely in the patio position prior to starting the installation. Installation will not be possible otherwise.

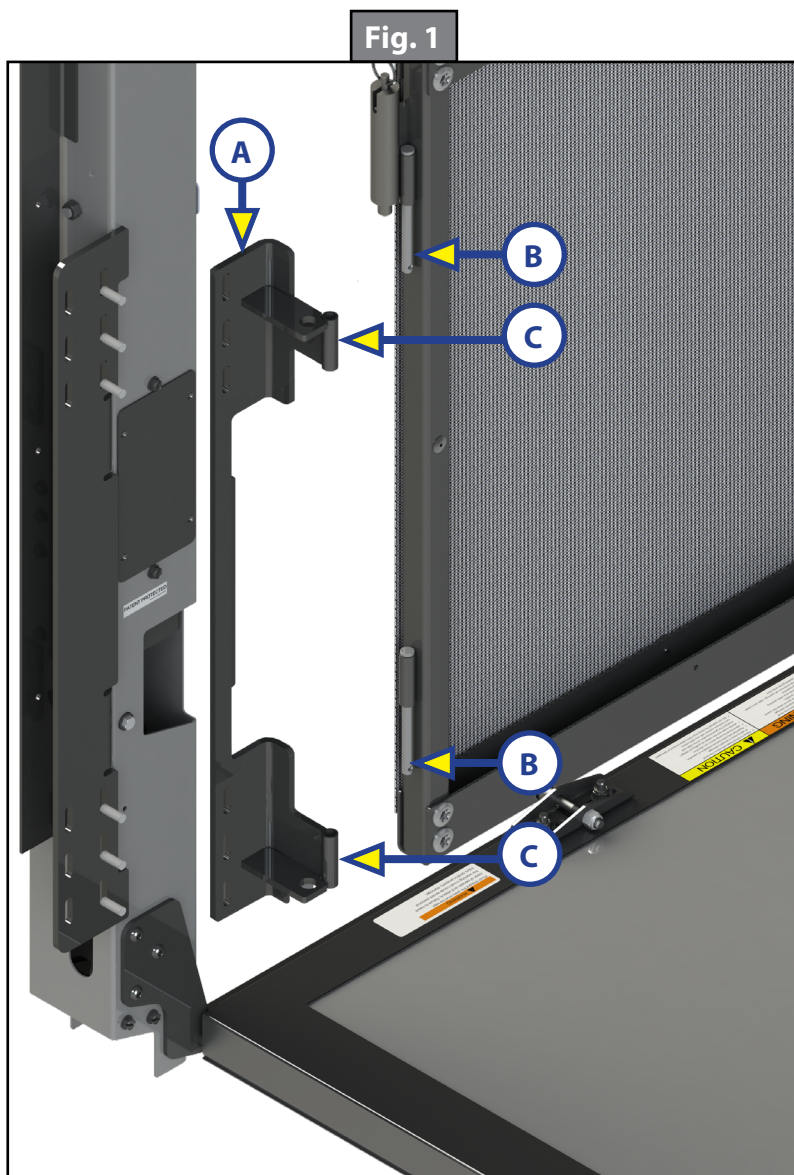
## Resources Required

- 1 to 2 People Depending on Task
- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Tape Measure
- Grease Pencil/Frame Marker

## Patio Railing Installation

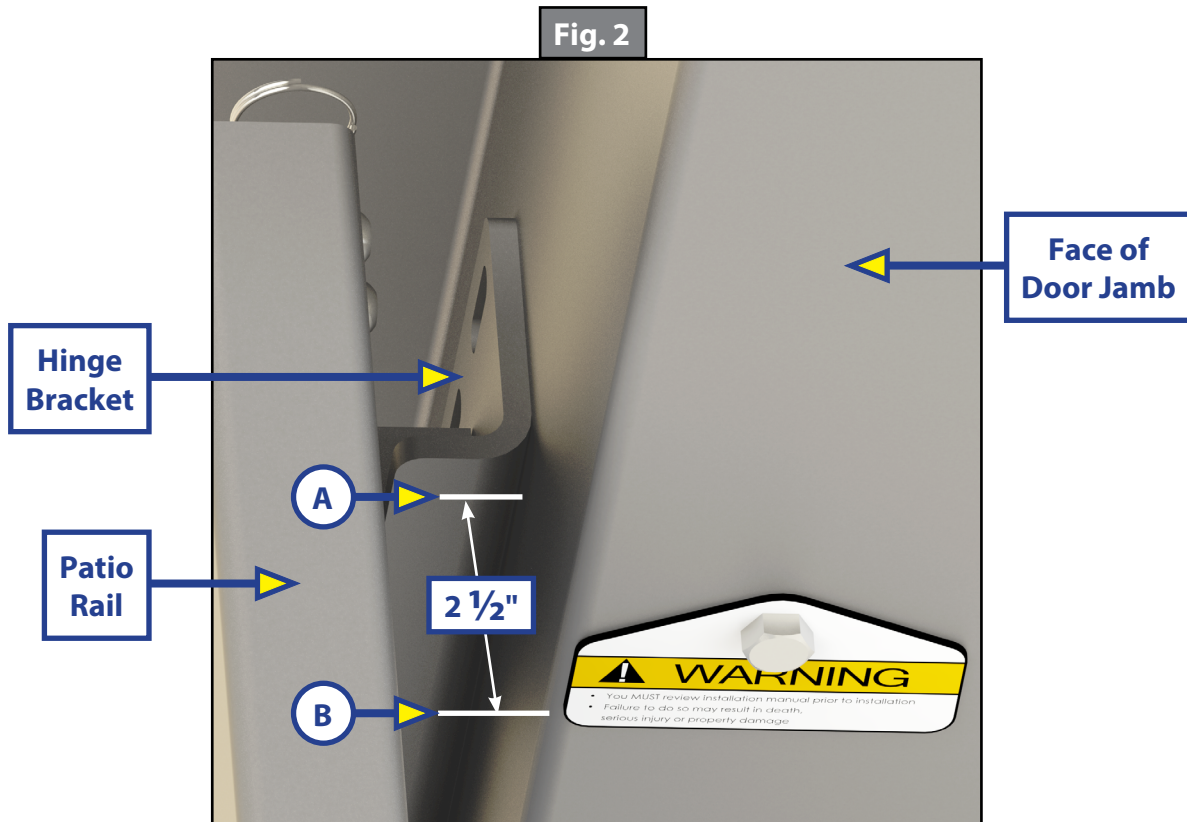
### Right Panel Railing

1. Fully extend the side patio door.
2. While facing the trailer from the outside, place the right panel railing onto the deck of the right side of the patio door.
3. Place the right end patio rail hinge pins (Fig. 1B) into the hinge bracket barrels (Fig. 1C) of the hinge bracket (Fig. 1A).



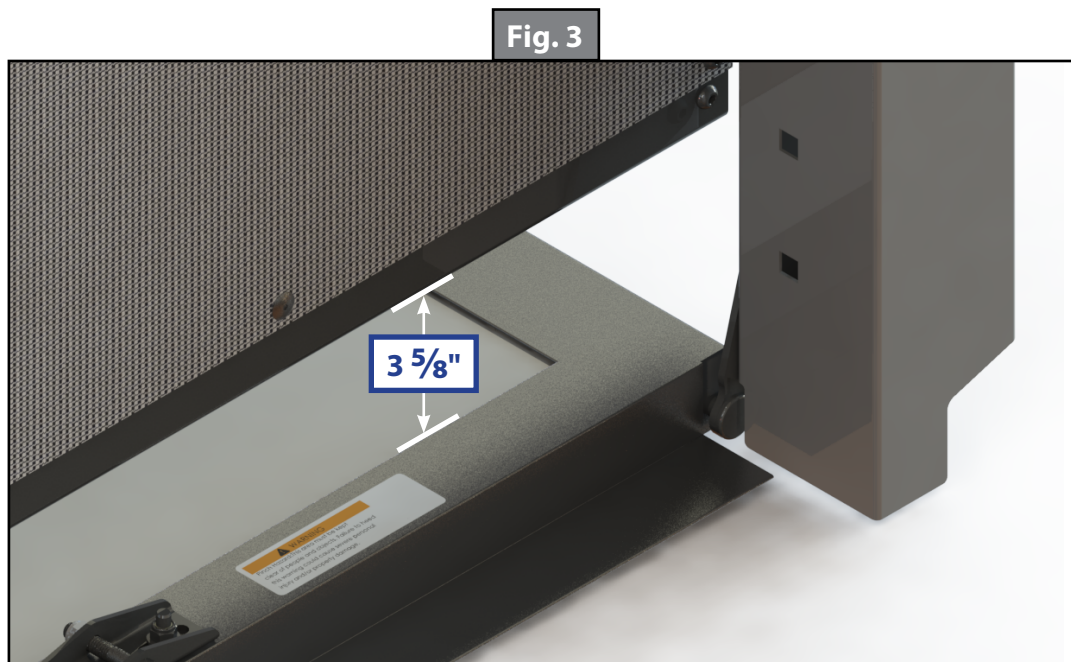
4. Measure from the face of the door jamb (Fig. 2B) back on the inside of the door jamb  $2\frac{1}{2}$ ". Align the right face of the hinge bracket (Fig. 2A) at the marked location.

**NOTE:** Make sure that all patio rail legs of the right panel railing are resting on the deck and not on the door frame.



5. While holding the railing and bracket in place at the  $2\frac{1}{2}$ " mark on the inside of the door jamb, measure from the patio deck to the bottom edge of the patio railing to ensure that there is  $3\frac{5}{8}$ " clearance (Fig. 3). Ensure that all patio rail legs are resting on the patio deck.
6. Mark where the top and bottom of the hinge bracket should be placed. Mark the center hole locations of where the screws need to be installed into the hinge bracket and inside door jamb.

**NOTE:** Remove the patio rail from the hinge bracket for easy access to drill the hinge bracket into place.



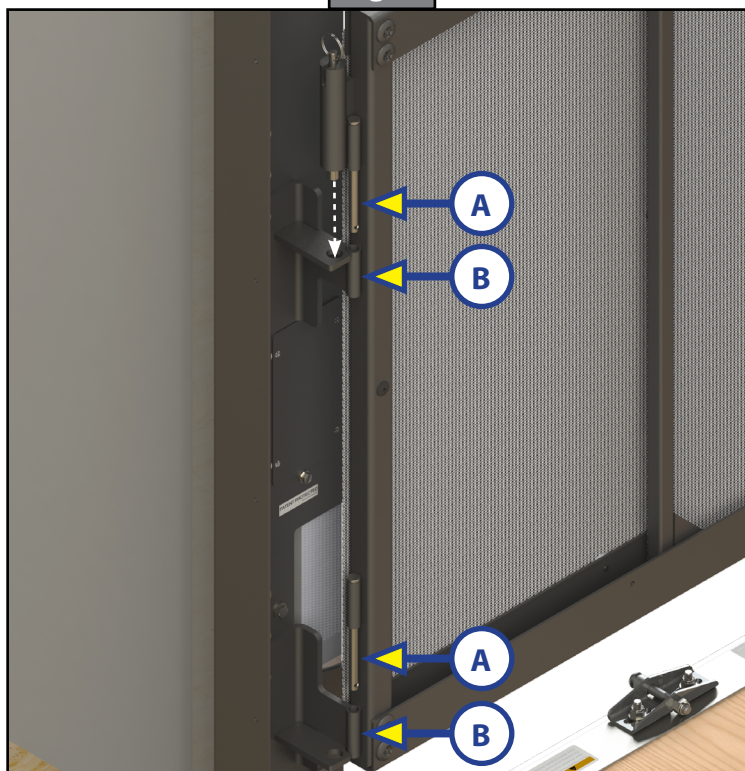
7. With the hinge bracket at its marked location, drill  $\frac{3}{16}$ " pilot holes at the very top hole in the hinge bracket and at the very bottom hole in the hinge bracket.
8. Secure the hinge bracket at top and bottom holes with  $\frac{5}{16}$ " screws. (Fig. 4).
9. Drill  $\frac{3}{16}$ " pilot holes for the other 4 holes and secure with  $\frac{5}{16}$ " screws.

Fig. 4



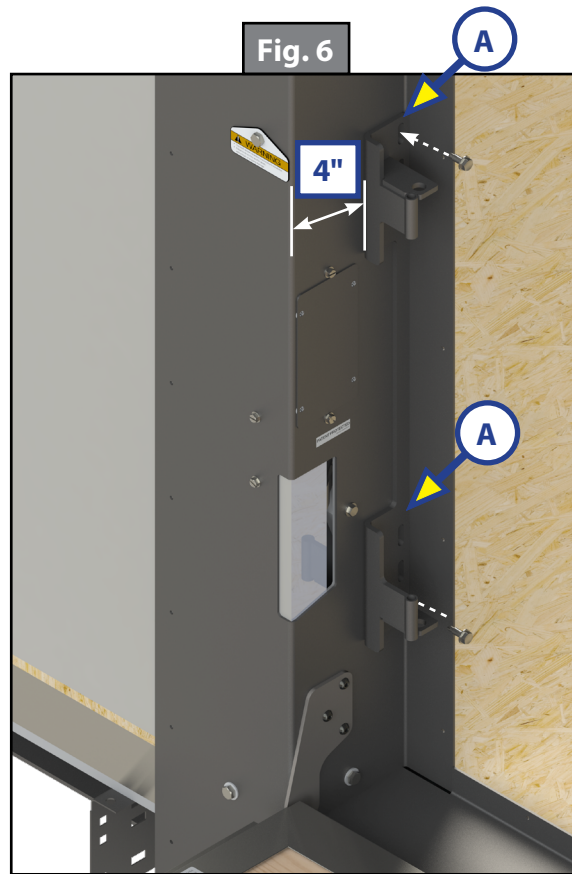
10. Once the hinge bracket is installed, place the patio rail hinge pins (Fig. 5A) back into the hinge bracket barrels (Fig. 5B).

Fig. 5



## Left Panel Railing

1. While facing the trailer from the outside, place the left panel railing onto the deck of the left side of the patio door.
2. Place the left end patio rail hinge pins into the hinge bracket barrels of the hinge bracket.
3. Seat the left side hinge bracket all the way to the back inside corner of the door jamb (Fig. 6A).



**NOTE:** The front face of the door jamb to the front face of the hinge bracket should be approximately 4".

**NOTE:** Make sure that all patio rail legs of the left panel railing are resting on the deck and not on the door frame.

4. While holding the railing and bracket in place, measure from the patio deck to the bottom edge of the patio rail kit to ensure that there is 3  $\frac{5}{8}$ " clearance (Fig. 3). Make sure that all patio rail feet are resting on the patio deck.
5. Mark where the top and bottom of the hinge bracket should be placed. Mark the center hole locations of where the screws need to be installed into the hinge bracket and inside door jamb.

**NOTE:** Remove the patio rail from the hinge bracket for easy access to drill the hinge bracket into place.

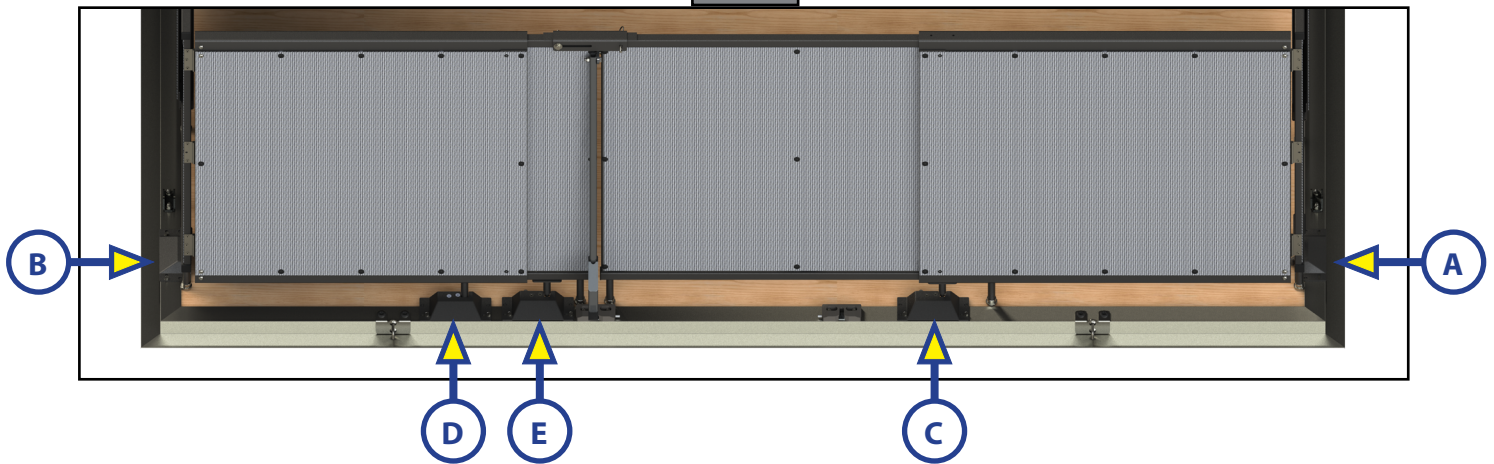
6. With the hinge bracket at its marked location, drill  $\frac{3}{16}$ " pilot holes at the very top hole in the hinge bracket and the very bottom hole of the hinge bracket.
7. Secure the hinge bracket at top and bottom holes with  $\frac{5}{16}$ " screws.
8. Drill  $\frac{3}{16}$ " pilot holes for the other 4 holes and secure with  $\frac{5}{16}$ " screws.
9. Once the hinge bracket is installed, place the patio rail hinge pins (Fig. 5A) back into the hinge bracket barrels (Fig. 5B).

## Keeper Bases

**NOTE:** Do not fasten the keeper bases to the ramp door until the patio railing is aligned.

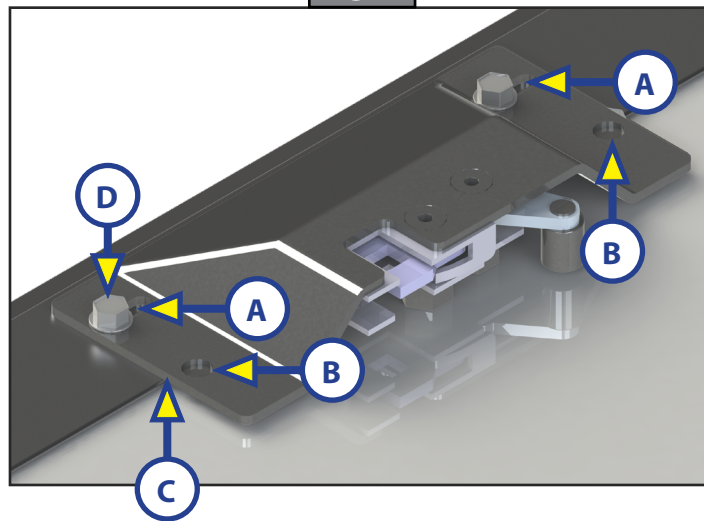
1. Open and extend the patio rail kit to its fully extended position (Fig. 7).
2. Attach the five keeper bases (Fig. 7A - Fig. 7E) to the keeper feet.

Fig. 7



**NOTE:** The keeper base is equipped with 2 slotted holes (Fig. 8A) and 2 shallow alignment pins (Fig. 8B) that will catch the lip of the flange of the ramp door frame (Fig. 8C).

Fig. 8



3. Align the keeper bases to the frame of the ramp door so that the notched bottom of the keeper base (Fig. 8B) sets flush against the inside edge of the ramp door frame (Fig. 8C).
4. Starting with keeper base "A" (Fig. 7A) fasten to the deck using 1/4" – 14x1 self-drilling screws.
5. Repeat step 4 for keeper bases "B-D" (Fig. 7) in that order.

**NOTE:** While attaching the keeper bases, keep the rail kit squared and aligned with the door. This can be helped by using the slide lock to attach the gate section with the support system.

6. Pull the gate section out of the right panel railing until there is at least a 26" gap between the right panel and the end of the left panel to create the amount of room the gate will open.
7. Install keeper base "E" on the deck (Fig. 7)

**NOTE:** Ensure at least 29 1/4" between keeper base "C" and keeper base "E" to allow sufficient room for a step to be added.

## Optional Support Installation

**NOTE:** Steps and a Drop Leg are optional components for Generation 3 Patio Railing kits.

### Drop Leg with Steps

1. If not already assembled, attach the drop leg to the left side of the step assembly. Thread a washer onto the provided bolt (Fig. 9A). Insert the bolt through the top hole on the side of the step assembly (Fig. 10A) and through the top hole of the drop leg (Fig. 9B), secure with another washer and nylon nut (Fig. 9C).
2. Using the provided snapper pin (Fig. 9D) secure the second hole from the top of the drop leg and the second hole straight down on the side of the step assembly (Fig. 10B).

**NOTE:** The third hole (Fig. 10C) that is located on the side of the step assembly is used when storing the drop leg. Remove the snapper pin from the drop leg in the upright position, swing the drop leg up and reattach the snapper pin through the drop leg and step assembly for storage.

Fig. 9

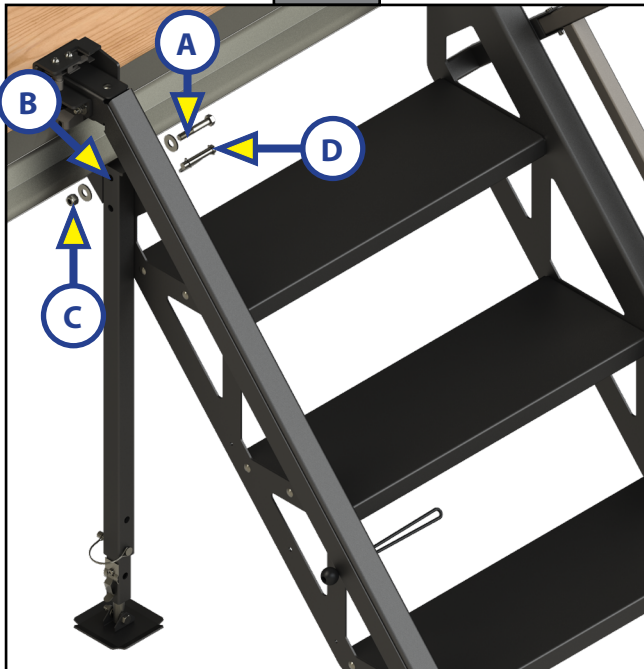
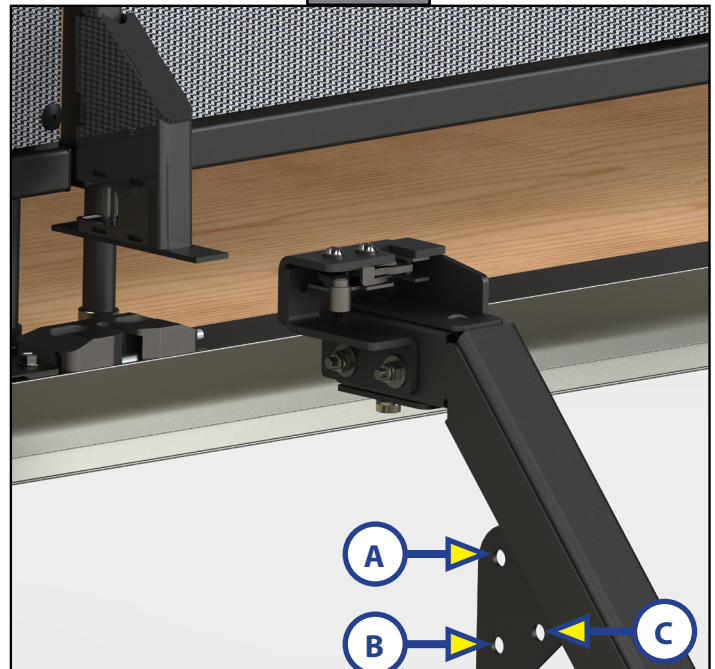
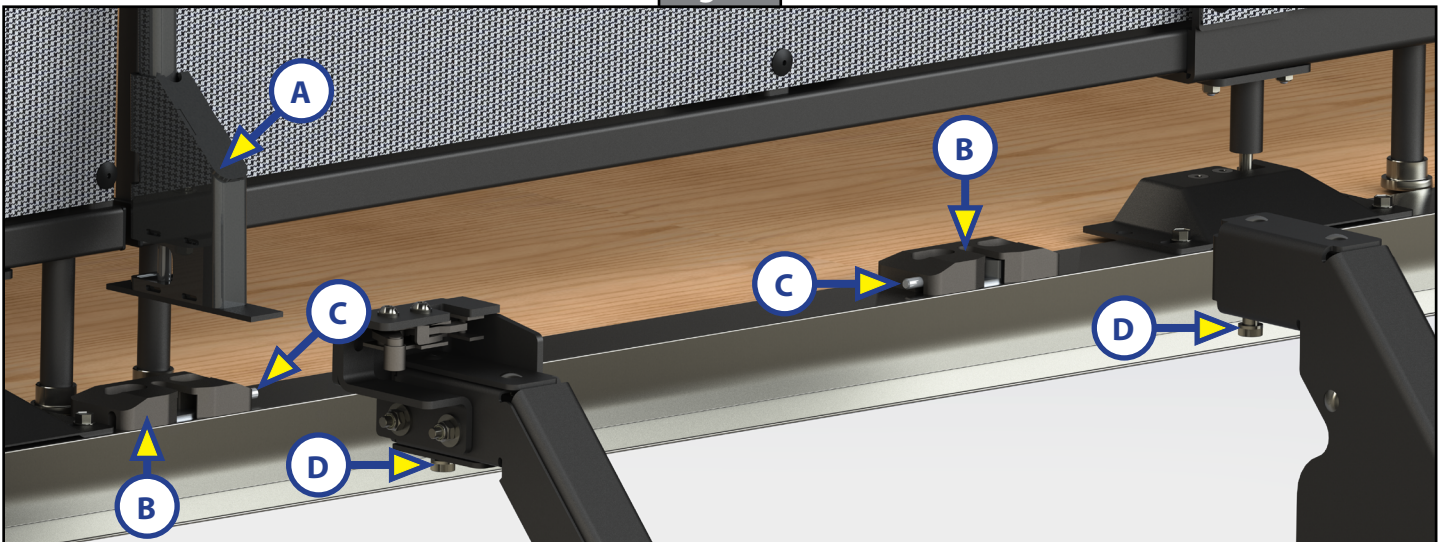


Fig. 10



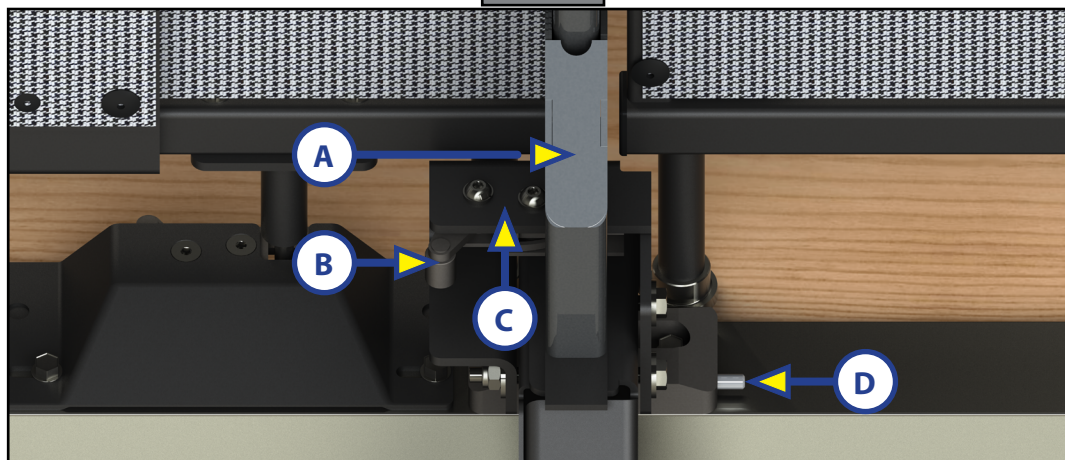
3. Attach the step keeper bases (Fig.11B) to the step assembly shoulder bolts (Fig.11D) so that the release pins on the keepers (Fig. 11C) are facing inward toward each other.

Fig. 11



4. Align the step assembly with the step keeper bases onto the patio flange lip, so that the step assembly is aligned with the patio rail support arm (Fig. 11A).
5. Insert the patio rail support arm (Fig. 12A) into the patio rail support arm keeper base located on the top of the left leg of the step assembly (Fig. 12C).
6. Verify that the step keeper bases are located within the aluminum top flange lip of the patio, so that the step keeper base is flush with the outer edge of the flange lip.
7. Fasten the step keeper bases to the aluminum flange lip using the supplied self tapping screws, two per keeper.
8. Check for proper functioning by pressing the release mechanism (Fig. 12B) for the support arm located on the top left of the step assembly and removing the support arm. Press in the two release pins on the step keeper bases (Fig. 12D) and remove the step assembly.

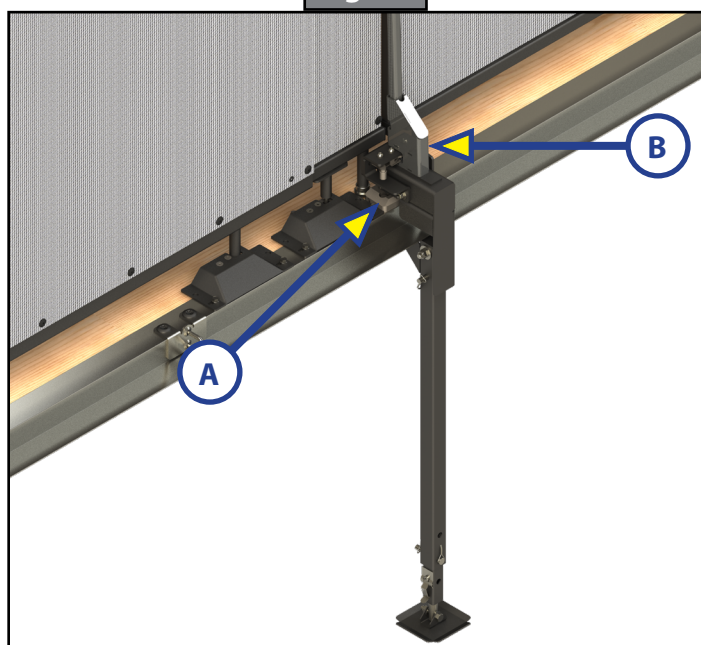
Fig. 12



### Drop Leg

1. The drop leg is inserted over the patio flange lip of the side door with an attached patio rail support arm keeper connected.
2. Center the drop leg keeper base underneath the patio rail support arm and place on the edge of the flange lip (Fig. 13A).
3. Fasten the drop leg keeper base to the side door flange lip using a 1/4" - 20 x 2 1/2" hex cap screw, 1/4" washer and a 1/4" x 20 nylon locking nut.
4. Insert the patio rail support arm (Fig. 13B) into the patio rail support arm keeper base located on the top of the drop leg.

Fig. 13



## Operation

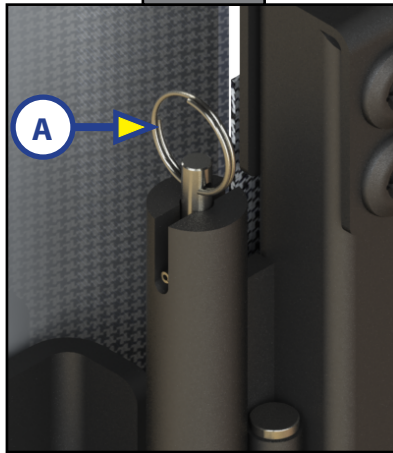
### **⚠ WARNING**

**Failure to attach the side door support cables before operation of the side patio deck feature may cause serious personal injury and/or damage. Do not proceed until side patio door support cables have been properly installed.**

## Set Up

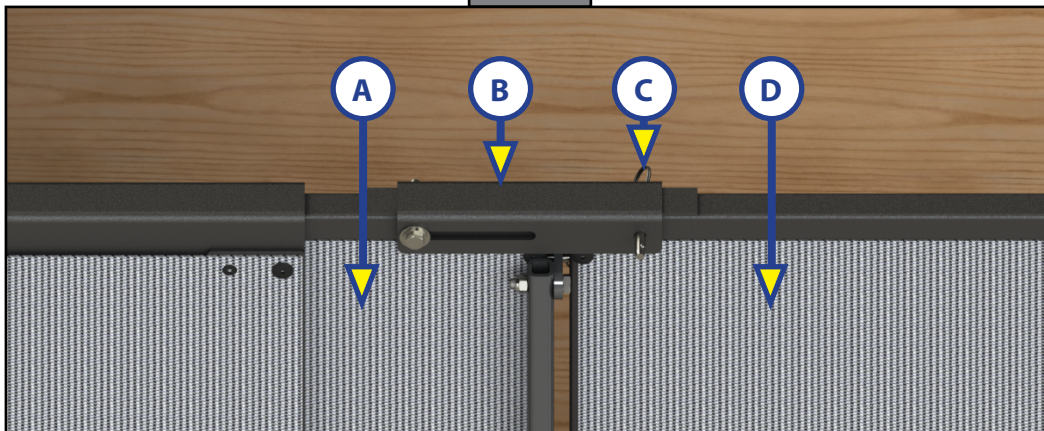
1. Open the right portion of the side patio rail kit system by pulling up on the ring pin (Fig.14A).
2. Swing and extend the right rail panel outward away from the side door jamb, until the patio rail keeper feet lock into the mounted keeper base.
3. Pivot the next portion of the right rail so that it aligns with the front edge of the door and extend the panel to latch into the respective keeper base.
4. Open the left portion of the side patio rail kit system by pulling up on the ring pin.
5. Swing and extend the left rail panel outward away from the side door jamb, until the patio rail keeper feet lock into the mounted keeper base.
6. Pivot the next portion of the left rail so that it aligns with the front edge of the door and extend the panel to latch into the respective keeper bases.

**Fig. 14**



7. Open the gate portion (Fig. 15D) of the right patio rail kit and extend the inner rail kit piece until it meets the left rail panel (Fig. 15A).
8. Remove the cotter pin (Fig. 15C) from the top end of the right rail.
9. Slide the lock (Fig. 15B) over from the left rail panel onto the right rail panel.
10. Align the hole in the lock and in the top of the right rail and insert the cotter pin (Fig. 15C) to secure the gate closed.
11. Attach any optional support items such as a drop leg or steps with a drop leg.

**Fig. 15**



## Collapsing

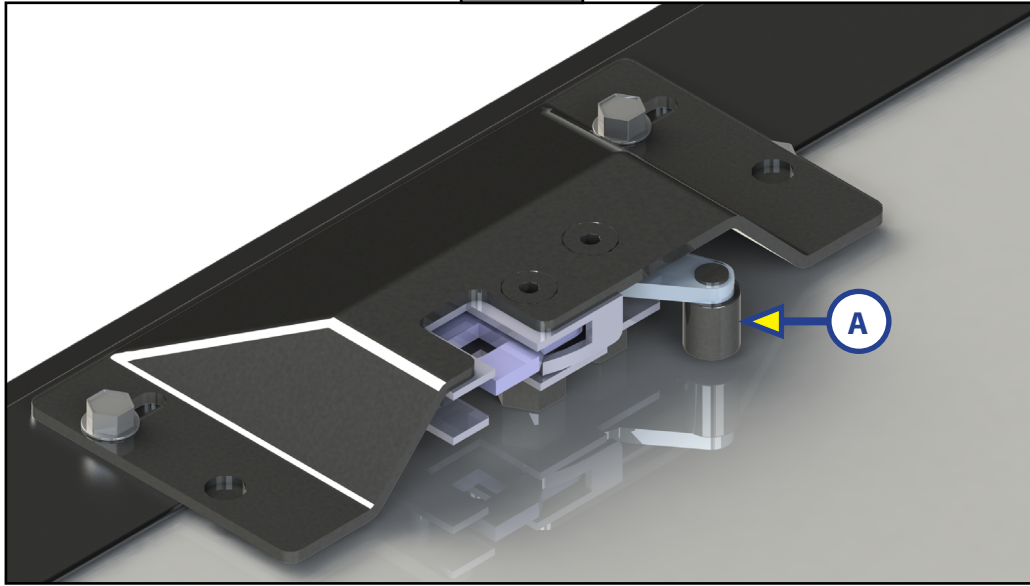
**NOTE:** Prior to closing the side patio door, verify that the rail kit is not going to be damaged by the closing of the side patio door.

1. Remove any optional support items such as a drop leg or steps with a drop leg and store.
2. Unlock the gate and slide the inner panel into the right rail panel.

**NOTE:** The left rail **MUST** be folded in first followed by the right rail.

3. Detach the rail panel from the keeper bases by pressing in on the toe-kick latching mechanisms (Fig. 16A) to release the patio rail keeper feet from the keeper bases.

Fig. 16



4. Fold the front portion of the left rail panel in towards the side of the rear panel.
5. Swing the entire left panel in towards the bottom of the door jamb.
6. Lock the ring pin into place.
7. Repeat steps 3-6 for the right rail panel.



# L I P P E R T C O M P O N E N T S®

The contents of this manual are proprietary and copyright protected by Lippert Components, Inc. ("LCI"). LCI prohibits the copying or dissemination of portions of this manual unless prior written consent from an authorized LCI representative has been provided. Any unauthorized use shall void any applicable warranty. The information contained in this manual is subject to change without notice and at the sole discretion of LCI.

Revised editions are available for free download from [lci1.com](http://lci1.com).

Please recycle all obsolete materials.

For all concerns or questions, please contact  
Lippert Components, Inc.

Ph: (574) 537-8900 | Web: [lci1.com](http://lci1.com) | Email: [customerservice@lci1.com](mailto:customerservice@lci1.com)

---



---

# This manual is provided courtesy of **RV Tech Cheat Sheet**



**Professional resources for the whole RV industry — free.**

We put manuals, wiring diagrams and hard-won tech knowledge in every technician's hands, so repairs get done right the first time, techs work faster, and RV owners everywhere get better service.

---



---

**[rvtechcheatsheet.com/manuals](https://rvtechcheatsheet.com/manuals)**

**Find thousands more RV manuals, wiring diagrams and parts lists**

**RV techs:** share fixes, ask questions and learn from each other.

**Join our free Facebook group →**

---



---

Follow proper safety practices. If in doubt, consult a professional RV technician.