



RAMP DOOR REPLACEMENT INSTRUCTIONS

TI-241

DOORS

The following information is intended to provide instructions for the replacement of LCI Ramp Doors. Failure to adhere to the recommended installation procedures in this document may result in voiding of the product warranty. For any alterations outside of the provided instructions in this document, please consult your LCI Representative.

Introduction

As of September 2016, the hinge bracket placement for all LCI Ramp Doors will be changing. Therefore, when installing a replacement door, the hole pattern for attaching the ramp door to the frame will not align with the replacement door hinge brackets. In order to cover the existing holes and install the replacement door, LCI recommends the method set forth in this document.

Weight Ratings

Ramp Door

- A. Overall Capacity - 3,000 lbs. for doors with 5 or more hinge leaves.
- 1,600 lbs. for doors with less than 5 hinge leaves.
- B. Maximum per-wheel contact - 1,000 lbs.
- C. Speed Rating - The vehicle should not exceed 5 MPH while driving up the ramp.

Patio Door

- D. Overall Capacity - 1,500 lbs. or 10 people.

NOTE: Stabilizer jacks must be used when the door is in the patio position.

Resources Required

- 2-3 People
- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- $\frac{3}{16}$ " Drill Bit
- $\frac{3}{8}$ " Drill Bit
- Grinder
- Pan Head, $\frac{3}{8}$ " Thread Diameter, Case Hardened Trilobular Bolt with Flat Washer and Flange Nut (In locations where bolts were previously used, reuse or replace with equivalent as necessary). (Amount will vary depending on width of ramp door, but a minimum of two (2) will be required).
- Self-Tapping Screws (In locations where self-tapping screws were previously used, replace with equivalent as necessary). (Amount will vary depending on width of ramp door).
- Silicone Sealant
- Non-Permanent Method of Attachment
- Non-Permanent Method of Marking
- Black Spray Paint

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Prior to Installation

1. Remove bumpers/stops/stabilizer jacks (if equipped) from the top of the ramp door per manufacturer's instructions. Set bumpers/stops/stabilizer jacks and hardware aside for future use.
2. Remove all ramp door accessories (if equipped) per manufacturer's instructions. Set items and hardware aside for future use.
3. With the ramp door in the open position and supporting the weight of the door, detach the support cables (if equipped). Set any hardware aside for future use.
4. Close the ramp door and set compression latches or latching mechanisms to lock the door in place.

Removing the Ramp Door

1. Remove all fasteners securing the hinge brackets to the frame of the unit. Set fasteners aside for future use.
2. Supporting the weight of the door, carefully unlock the compression latches or latching mechanisms holding the door in place. Lift ramp door and set aside.

NOTE: If compression latches or latching mechanisms will be reused for the replacement ramp door, remove latches per manufacturer's instructions. Set latches and hardware aside for future use.

3. Using a grinder, remove all rough edges and/or burrs around the fastener holes left behind on the frame of the unit.

NOTE: If bare metal is exposed after grinding down rough edges and/or burrs, the frame of the unit may be susceptible to rust. Use black spray paint to cover and seal the exposed area.

Installing the Cover Plates

To cover the existing holes on the frame of the unit, cover plates should be installed as a backer for the replacement ramp door hinge brackets. Depending on the width of the ramp door, two (2) or three (3) cover plates will be required.

Two Plate Method (For Doors Smaller Than 10')

1. Using a cover plate as a guide, center the cover plate over the existing holes on the frame of the unit and mark along the top or bottom of the cover plate. Continue along the length of the frame, being sure the line is square with the frame.
2. Each cover plate will have two (2) pre-drilled holes located at one end of the cover plate. Position this end of the cover plate flush with the outer edge of the frame and in alignment with the line drawn in Step 1 (Fig. 1). Using a non-permanent method of attachment, temporarily anchor the cover plate to the frame.

NOTE: In some cases, the frame of the unit may contain obstructions preventing the cover plate from being installed flush with the edge of the frame. In this instance, butting the cover plate up against the obstruction is acceptable.



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3. Using two (2) of the hex head self-drilling screws provided, secure the cover plate to the frame (Fig 2).
4. Repeat Step 2 and Step 3 for the other end of the frame.

NOTE: The cover plates will overlap in the middle. Do not use fasteners to secure this section down. Fasteners throughout the midsection of the frame can interfere with the hinge bracket locations. Instead, use a non-permanent method of attachment to temporarily anchor the cover plates in place.

5. Once secured and aligned, apply a thin bead of silicone sealant along the top of the cover plates.



Three Plate Method (For Doors Larger Than 10')

1. Using a cover plate as your guide, center the cover plate over the existing holes on the frame of the unit and mark along the top or bottom of the cover plate. Continue along the length of the frame, making sure the line is square with the frame.
2. Position the first cover plate in the direct center of the frame and in alignment with the line drawn in Step 1. Using a non-permanent method of attachment, temporarily anchor the cover plate to the frame.

NOTE: Although the cover plate will have pre-drilled holes, do not to use any fasteners to secure this cover plate down. Fasteners throughout the midsection of the frame can interfere with the hinge bracket locations.

3. With the two (2) pre-drilled holes located at the outer edge of the frame, position the second cover plate flush with the outer edge of the frame and in alignment with the line drawn in Step 1 (Fig. 1). This cover plate should overlap the center cover plate installed in Step 2. Using a non-permanent method of attachment, temporarily anchor the cover plate to the frame.

NOTE: In some cases, the frame of the unit may contain obstructions preventing the cover plate from being installed flush with the edge of the frame. In this instance, butting the cover plate up against the obstruction is acceptable.

4. Using two (2) of the hex head self-drilling screws provided, secure the cover plate to the frame (Fig. 2).
5. Repeat Step 3 and Step 4 for the other end of the frame.
6. Once secured and aligned, apply a thin bead of silicon sealant along the top of the cover plates.

Installing the Replacement Ramp Door

1. Reinstall the previously-removed bumpers/stops/stabilizer jacks (if equipped) to the top of the ramp door per manufacturer's instructions.

NOTE: Ensure the bumper/stop/stabilizer jack is not within 8" of the corner, as this will degrade the integrity of the door.

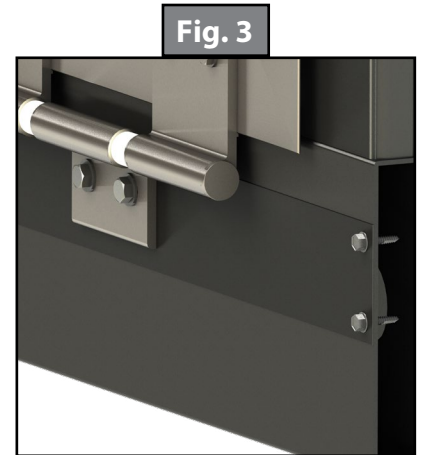
2. Reinstall the previously- removed compression latches or latching mechanisms per manufacturer's instructions.

NOTE: Do not install any mechanism within 8" of the top corner of the door.

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3. Set the door in the wall opening so that the bottom edge sets flat on the frame and center the door in the opening. Should the door require a shim to get the desired height, ensure that the door is shimmed on both sides and the center.
4. Set the compression latch or latching mechanism for the door to hold it in place while the hinge is installed.
5. Measure the hinge location on the door to the frame and ensure that it is even.
6. Using a $\frac{3}{16}$ " drill bit, drill a pilot hole for the bolts in the furthest hole of the left lower hinge bracket and the last bolt hole of the right lower hinge bracket.
7. Using a $\frac{3}{8}$ " drill bit, repeat Step 6.
8. Installing from the outside of the frame inward, replace the previously-removed pan head, $\frac{3}{8}$ " thread diameter, case hardened trilobular bolts through the holes drilled in Step 7. Place the flat washers and nuts on the back of the bolts and tighten (Fig. 3).
9. Working from the outside of the frame inward, repeat Step 6, Step 7 and Step 8 for all midsection hinge brackets.

NOTE: LCI recommends the use of a pan head, $\frac{3}{8}$ " thread diameter, case hardened trilobular bolt with a flat washer and flange nut for securing the hinge brackets of the ramp door. Self-tapping screws may also be used in this situation, as long as the self-tapping screws are equivalent to the self-tapping screws that were removed. If self-tapping screws are used, LCI recommends at least the far left and far right lower hinge brackets be bolted.



10. Release the compression latches or latching mechanisms to open the ramp door and ensure functionality of the hinge.
- NOTE:** If a bar lock hasp is chosen, use two T-nuts in order to secure each hasp. This will maintain the structural integrity of the lock. Failure to comply may result in damage to the core when weight is applied.
11. With the ramp door in the open position and supporting the weight of the door, reattach the support cables (if equipped).
12. Reinstall all ramp door accessories (if equipped) per manufacturer's instructions.
13. Ensure bulb sealant around the backside of the H-channel is in good condition. Replace if necessary.

NOTE: LCI recommends bulb ramp seal. On the corners of the door, cut and shape the seal corner to the product for a better seal rather than creating a rounded edge.

14. Close the ramp door and set compression latches or latching mechanisms to lock the door in place.
15. In order to clean the door, use only an alcohol-based cleaner. Other chemicals and cleaners may result in the degradation of the seal and cause de-lamination to the door.