



**THROUGH FRAME
ELECTRIC SLIDE-OUT**

OWNER'S MANUAL

L I P P E R T
C O M P O N E N T S ®

TABLE OF CONTENTS

Introduction	2
Safety	2
Prior to Operation	3
Operation	4
Extending Slide-out Room	4
Retracting Slide-out Room	4
Maintenance	5
Inspection	5
Electrical System Maintenance	5
Mechanical Maintenance	5
Troubleshooting	6
Manual Override	7
Manual Override - Outside Frame	7
Manual Override - Inside Frame	8
Notes	9

Introduction

The Through Frame Electric Slide-out System is a rack and pinion guide system, utilizing an electric ball screw actuator to move the room assembly. The motor drives the ball screw in a forward and backward motion to move the slide room in and out. The actuator comes equipped with an automatic clutching system. The slide-out system is designed to operate as a negative ground system.

Safety

WARNING

The “WARNING” symbol above is a sign that a procedure has a safety risk involved and may cause death or serious personal injury if not performed safely and within the parameters set forth in this manual.

WARNING

Failure to act in accordance with the following may result in death or serious personal injury.

CAUTION

The “CAUTION” symbol above is a sign that a safety risk is involved and may cause personal injury and/or product or property damage if not safely adhered to and within the parameters set forth in this manual.

The slide-out system is intended for the sole purpose of extending and retracting the slide-out room. Its function should not be used for any other purpose or reason than to actuate the slide-out room. To use the system for any reason other than what it is designed for may result in death, serious injury or damage to the coach.

Before actuating the system, please keep these things in mind:

1. Parking locations should be clear of obstructions that may cause damage when the slide-out room is actuated.
2. Be sure all persons are clear of the coach prior to the slide-out room actuation.
3. Keep hands and other body parts away from slide-out mechanisms during actuation. Severe injury or death may result.
4. To optimize slide-out actuation, park coach on solid and level ground.

Prior to Operation

Prior to operating the Through Frame Electric Slide-out System, follow these guidelines:

1. Coach should be parked on the most level surface available.
2. Leveling or stabilizing system should be actuated to ensure coach will not move during operation of slide-out system.
3. Be sure battery is fully charged.
4. Be sure to keep all persons and pets clear of slide-out system during operation.

CAUTION

Always make sure that the slide-out room path is clear of people and objects before and during operation of the slide-out room. Always keep away from the slide rails when the room is being operated. The gear assembly may pinch or catch on loose clothing causing personal injury.

NOTE: Install transit bars (if so equipped) on the slide-out room during storage and transportation.

Operation

Extending Slide-out Room

1. Level Unit
2. Verify the battery is fully charged and hooked up to the electrical system.
3. Remove transit bars (if so equipped).
4. Press and hold the IN/OUT switch in the OUT position (Fig. 1B) until room is fully extended and stops moving.
5. Release switch, which will lock the room into position.

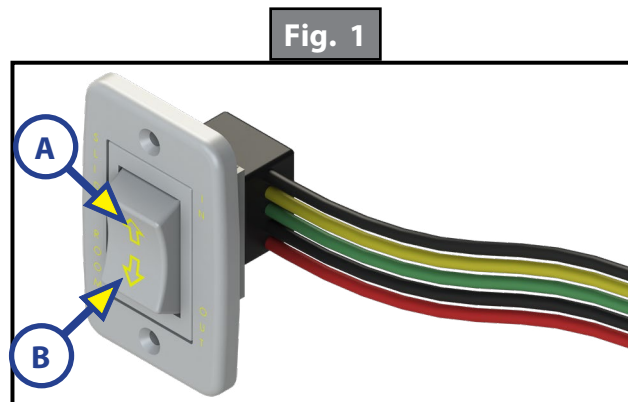
NOTE: Only hold OUT switch until room stops.

Retracting Slide-out Room

1. Verify the battery is fully charged and hooked up to the electrical system.
2. Press and hold the IN/OUT switch in the IN position (Fig. 1A) until the room is fully retracted and stops moving.
3. Release the switch. This will lock the room into position.

NOTE: Only hold IN switch until room stops.

4. Install the transit bars (if so equipped).



Maintenance

Inspection

After servicing the slide-out system in any way, be sure to check the following:

1. Slide-out stops are installed and adjusted properly.
2. Head assemblies are installed and adjusted properly.
3. System is mounted properly.
4. Cross shafts are mounted properly and clear all other components.
5. Gear packs function properly.
6. Manual override is accessible.
7. Outside seals compress when slide-out is retracted.
8. Inside seals compress when slide-out is extended.
9. Slide-out extends and retracts smoothly.
10. Both sides of slide-out are synchronized.
11. Any dirt or debris is cleaned from the interior or exterior of the coach.

The Through Frame Electric Slide-out System has been static tested to over 4,000 continuous cycles without any noticeable wear to rotating or sliding parts. It is recommended that when operating in harsh environments (road salt, ice build up, etc.) the moving parts be kept clean. They can be washed with mild soap and water. No grease or lubrication is necessary and in some situations may be detrimental to the environment and long term dependability of the system.

Electrical System Maintenance

For optimum performance, the slide-out system requires full battery current and voltage. The battery must be maintained at full capacity. Other than good battery maintenance, check the terminals and other connections at the battery, the control switch, and the system for corrosion, and loose or damaged terminals. Check motor leads under the trailer chassis. Since these connections are subject to damage from road debris, be sure they are in good condition.

NOTE: The Through Frame Electric Slide-out System is designed to operate as a negative ground system. A negative ground system utilizes the chassis frame as a ground and an independent ground wire back to battery is necessary. It is important that the electrical components have good wire to chassis contact. To ensure the best possible ground, a star washer should be used. Over 90% of unit electrical problems are due to bad ground connections.

Mechanical Maintenance

Although the system is designed to be almost maintenance free, actuate the room once or twice a month to keep the seals and internal moving parts lubricated. Check for any visible signs of external damage after and before movement of the travel trailer.

NOTE: For long-term storage: It is recommended that the room be closed (retracted).

Troubleshooting

This troubleshooting chart outlines some common problems, their causes and possible corrective actions. If any part or serial number information is available, provide it to the service technician when asking for assistance.

The Through Frame Electric Slide-out System is only one of four interrelated slide-out room system components. These four components are: chassis, room, coach, and Through Frame Electric Slide-out System. Each one needs to function correctly with the others or misalignment problems will occur.

Every travel trailer has its own personality and what may work to fix one trailer may not work on another even if the symptoms appear to be the same.

When something restricts room travel, system performance will be unpredictable. It is very important that slide tubes be free of contamination and allowed to travel full distance (Stroke). Ice or mud buildup during travel is an example of a type of contamination that can occur.

When you begin to troubleshoot the system, make sure the battery is fully charged, there are no visible signs of external damage to the system and that all connections are secure.

During troubleshooting, remember that if you change something, that change may affect something else. Be sure any changes you make will not create a new problem.

You can obtain additional information on the Through Frame Electric Slide-out System by visiting www.lci1.com/customerservice or by calling 574-537-8900.

What Is Happening?	Why?	What Should Be Done?
Room doesn't move when switch is pressed.	Restriction or obstruction inside or outside of unit.	Check for and clear obstruction.
	Low battery voltage, blown fuse, defective wiring.	Check battery voltage and charge if needed. Find and check fuse, replace if blown. Check battery terminals and wiring. Look for loose, disconnected or corroded connectors.
Actuator motor runs but room does not move.	Actuator not attached to front mounting drive bracket.	Check jam nuts/nylock nuts. Be sure that they are properly tightened and adjusted.
	Bad motor or gear housing.	Replace motor.
Motor runs but room moves slowly.	Low battery voltage, poor ground, extremely low outdoor temperature.	Charge battery and check ground wire.
	Room is in a bind.	Check to see that room is properly adjusted.
Room stalls in mid-travel.	Actuator in a bind.	Crank manual override and move room short distance then retry electric switch to move room.
	Bad actuator.	Replace actuator if above instructions do not work.

Manual Override

NOTE: Always disconnect battery from system prior to manually operating system. Failure to disconnect battery can cause electricity to backfeed through the motor and cause serious damage to the system as well as void the warranty.

The Through Frame Electric Slide-out System comes with a Manual Override system. There are two different methods for manually extending and retracting the slide-out room. A crank handle extension can be used outside the chassis main rail at the crank extension with pin (Figs. 2-3). A socket and ratchet can be used inside the main frame on the hex head crank extension (Figs. 4-5).

Manual Override - Outside Frame

Locate the crank extension with pin outside of the chassis main rail (Fig. 2). This is where the crank handle (standard fifth wheel landing gear crank handle or $\frac{3}{4}$ " socket and ratchet) fits on (Fig. 3) to allow the manual extension/retraction of the room. Rotate the crank handle clockwise to retract and counterclockwise to extend slide-out. It is important to note that you DO NOT need to attempt to disengage the motor as the actuator is "manual ready." Just hook up and crank.

NOTE: Use EXTREME CAUTION when extending and/or retracting room using the manual override feature. It is possible to operate the slide-out beyond the maximum extension and/or retraction and damage the slide components, slide room structure or trim components.

NOTE: The gears can be stripped out if the room is manually retracted/extended to its fullest extent and the operator continues to rotate the manual override. Any damage due to misuse of the Manual Override feature will disqualify any and all claims to the Limited Warranty.

Fig. 2

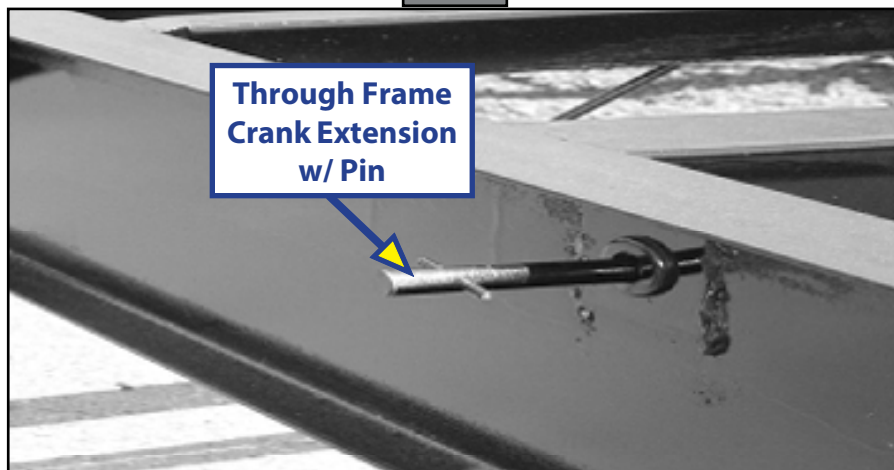
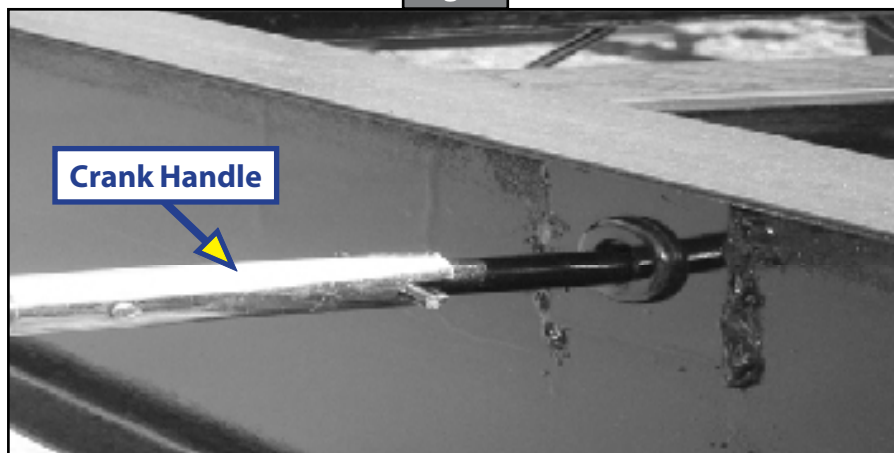


Fig. 3



Manual Override - Inside Frame

Locate the hex head crank extension at the top of the actuator inside the chassis main frame (Fig. 4). Using a $\frac{3}{4}$ socket and ratchet (Fig. 5), rotate the extension clockwise to retract the slide-out and counter clockwise to extend the slide-out. It is important to note that you DO NOT need to attempt to disengage the motor as the actuator is "manual ready."

NOTE: Use EXTREME CAUTION when extending and/or retracting room using the manual override feature. It is possible to operate the slide-out beyond the maximum extension and/or retraction and damage the slide components, slide room structure or trim components.

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Fig. 4

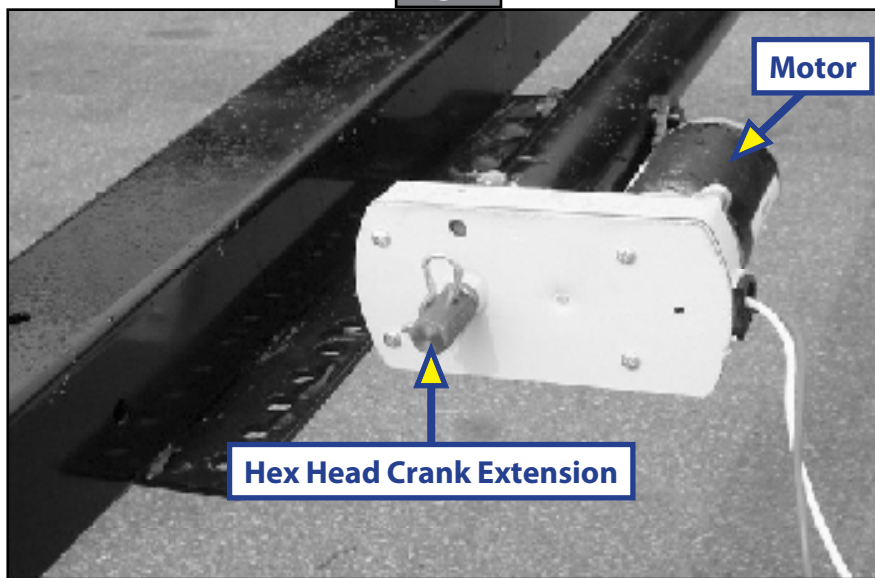
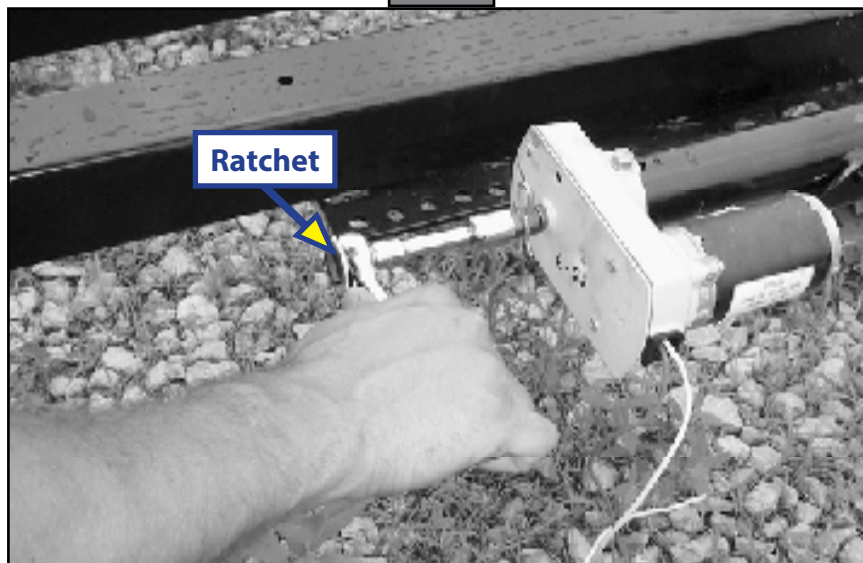


Fig. 5



Notes

This image shows a full page of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page, typical of notebook or legal stationery. There are no margins, text, or other markings present.



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