**SLIDE-OUTS** 

#### **About this Document**

This document is a field troubleshooting guide meant to help end users resolve common issues quickly, and to help retract the slide for travel if further troubleshooting is required at a service location. For more detailed troubleshooting, more technical documentation is available at: <a href="https://support.lci1.com/slide-outs-support-slimrack">https://support.lci1.com/slide-outs-support-slimrack</a>.

Please see the following steps below. These are the most common remedies used to get the RVer back to camping.

- 1. The steps to resolve the most common issues are:
  - **A.** Inspect for obstructions and damage.
  - **B.** Check for low battery voltage.
  - **C.** Reset and reprogram.
- **2.** If after following the above steps the slide-out is not fully retracting, override the system:
  - **A.** First, perform an electronic override, see page 8.
  - **B.** If an electronic override fails to move the slide-out, perform a manual override, see page 9.

### **Safety**

Read and understand all instructions before installing or operating this product. Adhere to all safety labels.

This manual provides troubleshooting procedures. Many variables can change the circumstances of the service procedure, i.e., the degree of difficulty involved in the service operation and the ability level of the individual performing the operation. This manual cannot begin to plot out procedures for every possibility, but will provide the general instructions for effectively servicing the vehicle. In the event the skill level required is too high or the procedure too difficult, a certified technician should be consulted before performing the necessary service. Failure to correctly service the vehicle may result in death, injury or voiding the warranty. The owner's manual for your unit may have more procedures for service and maintenance.

The Lippert SlimRack 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 unit.

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 unit prior to the slide-out room actuation.
- **3.** Keep hands and other body parts away from slide-out mechanisms during actuation. Death or serious injury may result.
- **4.** To optimize slide-out actuation, park unit on solid and level ground.



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## **AWARNING**

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.

# **AWARNING**

Failure to follow instructions provided in this manual may result in death, serious personal injury and/or severe product and property damage, including voiding of the component warranty.

# **A** CAUTION

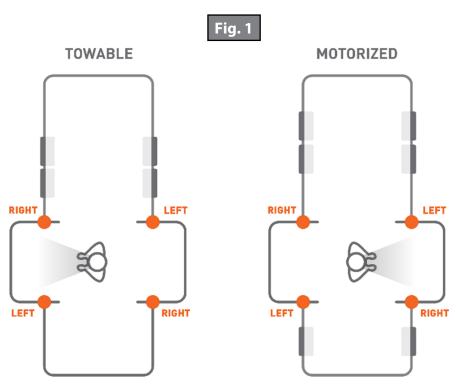
The "CAUTION" symbol above is a sign that a safety risk is involved and may cause personal injury and/or product or property damage if not safely adhered to and within the parameters set forth in this manual.

# **A** CAUTION

Always wear eye protection when performing service, maintenance or installation procedures. Other safety equipment to consider would be hearing protection, gloves and possibly a full face shield, depending on the nature of the task.

#### **Motor Orientation**

Each slide-out has two motors. The convention used is based on viewing the slide from the inside of the RV (Fig.1). The motor on the left side of the slide is considered motor 1. The motor on the right side of the slide is considered motor 2.





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#### TROUBLESHOOTING AND REMEDIES

#### **Step One: Inspect For Obstructions And Damage**

Obstructions such as rocks and twigs will interfere with slide operation. Check the rails for obstructions and clear them if present.

#### **Step Two: Check For Low Power**

Make sure the battery is fully charged. Even when connected to shore power, it can take a battery time to build sufficient stored charge to properly operate the slide.

#### **Step Three: Reset Controllers**

Performing a Factory Reset and reprogramming the soft stops can facilitate troubleshooting and sometimes correct the issue. It must also be performed after any mechanical/motor/harness repair.

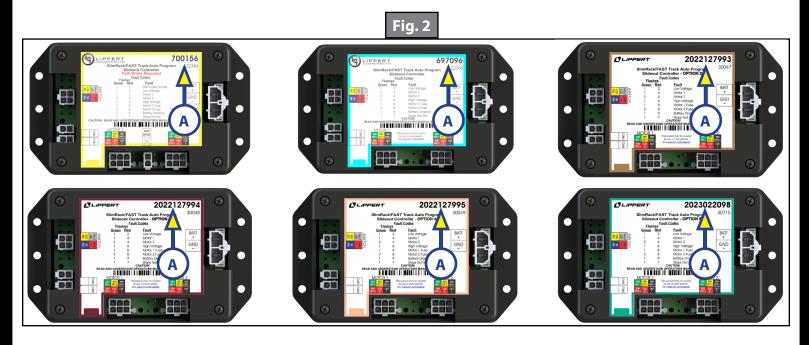
An underlying fault and/or the repair can make the controller think the motors are at different locations. The fault condition may cause the auto-program controller to enter a jog mode. The jog mode may interfere with testing the repair. A Factory Reset exits the mode (as does a power cycle).

#### Factory Reset - Auto Programmable Controllers

1. Identify Controller and Revision

**NOTE:** If your controller is not shown in Fig. 2, skip to <u>Factory Reset - Programmable Controllers</u> section.

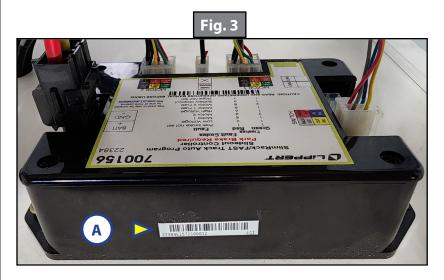
**A.** The controller part number can be found in the upper right corner of the label on the front of the controller (Fig. 2A).





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**B.** On the side of the SlimRack controller will be a small bar code identification label (Fig. 3A) and below the bar code will be the controller's 16-digit serial number (Fig. 4).





- **2.** Perform Reset Procedure (All Revs)
  - **A.** Mark the harnesses as Motor 1 and Motor 2 (Fig. 5), and unplug them from the controller.

**NOTE:** The motor receptacles are identified on the controller as Motor 1 and Motor 2 (Fig. 5).

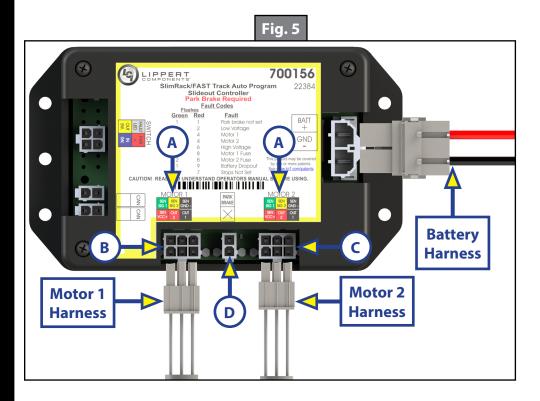
- **B.** Go to the wall switch (Fig. 6) and press **OUT (Extend)** (Fig. 6A) for at least two seconds.
- **C.** Next, press **IN (Retract)** (Fig. 6B) for at least two seconds.
- **D.** Press **OUT** (**Extend**) again and hold for at least two seconds.

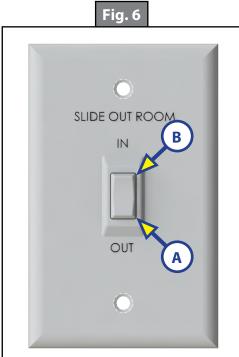
**NOTE:** The sequence does not have to be **OUT (Extend)** first, as long as both **OUT (Extend)** and **IN** (**Retract**) are pressed alternately and held for at least two seconds each.



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- **E.** Plug Motor 1 harness back into the Motor 1 receptacle (Fig. 4B) and plug Motor 2 harness back into the Motor 2 receptacle (Fig. 5C).
- **F.** Verify that the controller is in Jog Mode:
  - **I.** Press **OUT (Extend)** or **IN (Retract)**. The room should only move for about one second and then stop every time the switch is toggled. This is Jog Mode.
- **G.** Exit Jog Mode in one of two ways:
  - **I.** Disconnect 12V power from the controller by removing the 2-pin battery harness (Fig. 5D) for 5 seconds. After 5 seconds, plug the battery harness back into the controller.
  - **II.** Wait for 5 minutes. The controller will time out and exit Jog Mode, returning to normal operation mode.
- **H.** The slide-out room IN and OUT stops may now be set. See Setting Room Stops on the last page of this document.





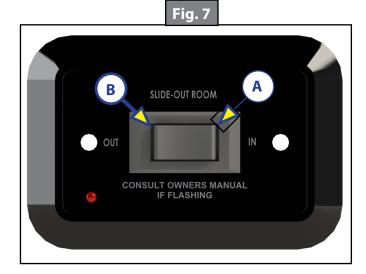


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#### 3. Set IN and OUT Stops

- **A.** Setting the IN Stop
  - **I.** Press and hold the IN (retract) position on the rocker switch (Fig. 7A).
  - **II.** Move the slide-out to the fully retracted position while continuing to hold the switch IN (retract) for three to four seconds after the room stops. Release the rocker switch.
  - **III.** When retracting the slide-out, the rocker switch must be depressed and held for three seconds after the slide-out stops moving. Failure to do so will cause the stops to NOT be set.
  - **IV.** Visually inspect the slide-out's seal to make certain the slide-out is fully retracted. If not, press and hold the IN position until the slide-out is fully retracted. This procedure may need to be repeated until both sides of the slide-out are fully retracted.
- **B.** Setting the OUT (Extend) Stop
  - Press and hold the OUT (extend) position on the rocker switch (Fig. 7B).
  - II. Move the slide-out to the fully extended position while continuing to hold the switch OUT (extend) for three seconds after the room stops. Release the rocker switch.

**NOTE:** When extending the slide-out, the rocker switch must be depressed and held for three seconds after the slide-out stops moving. Failure to do so will cause the stops to NOT be set.



III. Visually inspect the slide-out's seal to make certain the slide-out is fully extended. If not, press and hold the OUT button until fully extended. This procedure may need to be repeated until both sides of the slide-out are fully extended.



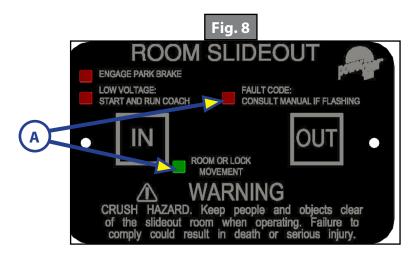
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#### Factory Reset - Programmable Controllers

Factory reset is performed when entering manual programming mode as described in the Setting Soft-stops section for Manually Programmed Controllers. Use this procedure to initially set the IN and OUT stops or change the current stop settings.

**NOTE:** At any time during the program procedure, the unit will exit program mode if the slide-out has not been moved for two minutes or if a fault is detected during programming. The FAULT CODE and ROOM OR LOCK MOVEMENT LEDs will flash rapidly for 10 seconds to indicate that the programming procedure failed. After 10 seconds of flashing, the controller will automatically default to Fault Code 1—Troubleshooting section—and programming must be restarted.

1. If the touch-pad switch (Fig. 8) is mounted to the wall, remove it to access the buttons (Figs. 9 & 10) on the backside.

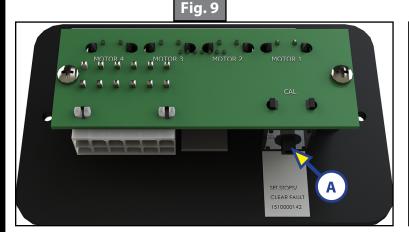


- 2. Press and hold the set stops/clear fault (Fig. 9A) button on the back of the touch-pad switch for five seconds.
  - **A.** The fault code and room or lock movement LEDs (Fig. 8A) will light while the button is held down.
  - **B.** After five seconds, the green LED (room or lock movement) will begin flashing and the red LED (fault code) will remain lit.
- **3.** The retracted, or "IN", stop is ready to be set. The "IN" stop must be programmed first.
  - **A.** Press and hold the slide-out motor buttons (Motor 1 and Motor 2, Fig. 10), located on the back of the touch pad switch, that correspond to the slide-out motors to be moved.
  - **B.** Press the IN or OUT button on the front of the touch-pad switch, depending upon direction of slide-out movement desired.
  - **C.** Move the slide-out to the fully retracted position.
    - Press and release the set stops/clear fault (Fig. 9A) button on the back of the touch-pad switch to program the retracted stop position.
    - **II.** The red LED (FAULT CODE) will now start to flash and the green LED (ROOM OR LOCK MOVEMENT) will remain lit.
- **4.** The extended or "out" stop is ready to be set.
  - **A.** Press and hold the same slide-out motor buttons (Motor 1 and Motor 2, Fig. 10).
  - **B.** Press the IN or OUT button on the front of the touch pad switch (Fig. 8), depending upon direction of gear rack movement.



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- **C.** Move the slide-out to the fully extended position.
- **D.** Press and release the SET STOPS/CLEAR FAULT button (Fig. 9A) located on the back of the touchpad switch to program the extended stop position.
  - **I.** If both LEDs flash rapidly for one second, then shut off, the controller has been programmed correctly and is now in normal operation mode.
  - II. If both LEDs flash rapidly for 20 seconds, the controller has not been programmed correctly or the system is wired incorrectly. The touch pad switch will flash the fault code that occurred during programming. Refer to the fault codes chart in the troubleshooting section.
    - **a.** Repair the fault.
    - **b.** Repeat the program mode procedure starting with step 1.
  - **III.** The controller must be programmed correctly before it will operate in normal mode. The "IN" stop must be programmed before the "OUT" stop.
- **5.** Programming of the manual program controller is now complete.
- **6.** Mount the touch pad switch to the wall with two screws.



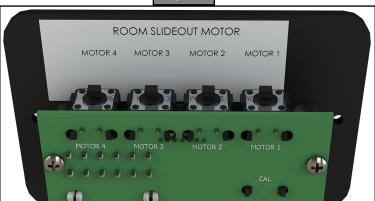


Fig. 10

## Step Four: Override For Retracting the Slide For Travel to Service Location

If resetting the controller does not allow the slide to be retracted, first try electronically overriding the slide. If that does not work, manually override the slide.

#### **Electronic Override**

#### **Auto Programmable Controllers**

**NOTE:** If your controller is not shown in Fig. 2, skip to **Programmable Controllers** in this section.

If the two sides of the slide do not appear to be retracting together, and the motors are correctly wired, force the controller into jog mode by pressing the extend and retract switch in the following sequence.

- 1. Mark the harnesses at the controller as Motor 1 and Motor 2 (Fig. 4), and unplug them from the controller.
- **2.** Go to the wall switch and press OUT (Extend) for at least two seconds.
- **3.** Next, press IN (Retract) for at least two seconds.
- **4.** Next, press OUT (Extend) for at least two seconds.

**NOTE:** The sequence does not have to be OUT (Extend) first. It could also be IN (Retract), OUT (Extend), and IN (Retract); as long as the hold time for each action is at least two seconds.



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- **5.** Plug Motor 1 harness back into the Motor 1 receptacle and plug motor 2 harness back into the Motor 2 receptacle.
- **6.** Verify that the controller is in Jog Mode: A. Press OUT (Extend) or IN (Retract). The room should only move for about one second and then stop every time the switch is toggled. This is Jog Mode.
- **7.** Retract the slide fully.
- **8.** To exit Jog Mode, either:
  - **A.** Disconnect 12V power from the control by removing the 2-pin battery harness for 5 seconds. After 5 seconds, plug the battery harness back into the control; Or,
  - **B.** Wait for 5 minutes. The control will time out and exit Jog Mode, returning to normal operation mode.

**NOTE:** During certain faults, auto programming controllers enter a jog mode automatically. Jog mode limits the movement of the slide to very short intervals. Repeatedly press and hold retract until the slide is fully retracted.

**NOTE:** It will take several attempts. Retract the slide fully for transport to service.

#### **Programmable Controllers**

- 1. After a factory reset and during certain faults, the in and out buttons on the touch pad will only work if the controller is in programming mode. To enter programming mode, see the Factory Reset Programmable Controllers section. Then, retract the slide fully for transport to service.
- 2. If the controller detects signal issues from the motor, it may stop moving after 1 second of operation. You will need to repeatedly press and hold retract to completely retract the slide.



When manually retracting the slide-out room, make sure that both sides of the slide-out room move together. Damage to the slide-out room may result if movement is not uniform.

#### Manual Override

In the event that power is lost to the slide-out motor(s) or when the Electrical Override Mode does not work, the slide-out room can be manually retracted by following these steps.

- 1. Gain access from either the inside or outside of the unit, whichever is more convenient, to the vertical channel assembly by removing the OEM trim and flange pieces on the slide-out room box. The motors are currently located at the top of the channel.
- 2. If applicable, use a Phillips head screwdriver to remove the top screw from the bulb seal at the top of the vertical channel (Fig. 11).
- **3.** Pull down the bulb seal and remove the motor cover (Fig. 12). The motor cover may stick to the bulb seal.
- 4. Using a  $\frac{5}{16}$ " open-ended wrench or ratcheting box wrench, loosen the motor retaining screw from the block by turning  $\frac{1}{2}$   $\frac{3}{4}$  turn, (Fig. 13). Do not remove the motor retaining screw.
- 5. Unplug the motor from the harness and remove the motor by lifting it up and out of the column.
- **6.** Repeat steps 1-6 for the other side.
- **7.** Push the slide-out room uniformly into the retracted position.



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- **8.** Once the slide-out room is retracted, secure the slide-out room in place by:
  - **A.** Re-installing the motors.

**NOTE:** Make sure the motor is properly seated on the block with no gap between the mounting bracket and block.

- B. Torquing the motor retaining screw to 40 in lbs. (Fig. 13) with the motor retainer fully engaged.
- **C.** Using a transit bar (slide-out locking bar).
- **9.** Have the slide-out room serviced by the OEM-authorized dealer as soon as possible. Do not operate slide-out room until service is complete, as damage to the slide-out room may result.



