



**SLIMRACK[®] PLUS SLIDE-OUT
OWNER'S MANUAL**

TABLE OF CONTENTS

Introduction	2
Safety	3
Operation	4
Prior to Moving the Slide-Out Room	4
Extending the Slide-Out Room	4
Retracting the Slide-Out Room	4
Modes	5
Normal Operating Mode	5
Electronic Override Mode	5
Manual Override Mode	6
Alternate Override Modes	7
Troubleshooting	9
Mode Button Functions	9
Switching Between Operating Modes	10
Factory Resetting and Initial Synchronization	10
When to Perform a Factory Reset	10
Performing A Factory Reset	10
Performing an Initial Synchronization	10
Controller Connections	11
LED Indications	12
Maintenance	13
Wiring Diagram - Towable	14
Wiring Diagram - Motorized	15

Introduction

The Lippert SlimRack® Plus Slide-Out system maximizes interior RV space by providing added comfort and offering a practical solution for additional space needs. The Lippert SlimRack Plus Slide-Out system combines versatile above-floor placement with attractive, seamless flush-floor style for a sleek, polished, high-end look with no step up.

Additional information about this product can be obtained from lci1.com/support or by downloading the free LippertNOW app. The app is available on Apple App Store® for iPhone® and iPad® and also on Google Play™ for Android™ users.

Apple App Store®, iPhone®, and iPad® are registered trademarks of Apple Inc.
Google Play™ and Android™ are trademarks of Google Inc.

For information on the assembly or individual components of this product, please visit:
<https://support.lci1.com/slide-outs-support-slimrack>

NOTE: Images used in this document are for reference only when assembling, installing and/or operating this product. Actual appearance of provided and/or purchased parts and assemblies may differ.

Safety

Read and understand all instructions before installing or operating this product. Adhere to all safety labels. This manual provides general instructions. Many variables can change the circumstances of the instructions, i.e., the degree of difficulty, operation and ability of the individual performing the instructions. This manual cannot begin to plot out instructions for every possibility, but provides the general instructions, as necessary, for effectively interfacing with the device, product or system. Failure to correctly follow the provided instructions may result in death, serious personal injury, severe product and/or property damage, including voiding of the Lippert limited warranty.

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 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.

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.

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.

CAUTION

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

Operation

⚠ WARNING

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 gear racks when the slide-out is being operated.

Prior to Moving the Slide-Out Room

- Make sure the engine or generator is running to ensure ample voltage is being supplied to the slide-out room controller.
- On a towable unit, make sure the batteries are fully charged to ensure ample voltage is being supplied to the slide-out room controller.
- Set the parking brake, if applicable.

Extending the Slide-Out Room

1. The engine or generator must be running or unit must be plugged into shore power.
2. Transmission must be in park or neutral (if applicable).
3. If applicable, set the park brake and level the unit.
4. If equipped, remove the transit bars.
5. If equipped, turn "on" the on/off switch or key.
6. Press and hold the switch in the EXTEND position (Fig. 1). There will be a slight delay before the slide-out room will begin to move. This is normal.
7. Release the switch button when the slide-out room is fully extended and stops moving.

NOTE: Once the room has stopped moving, it is not necessary to press the switch a second time.

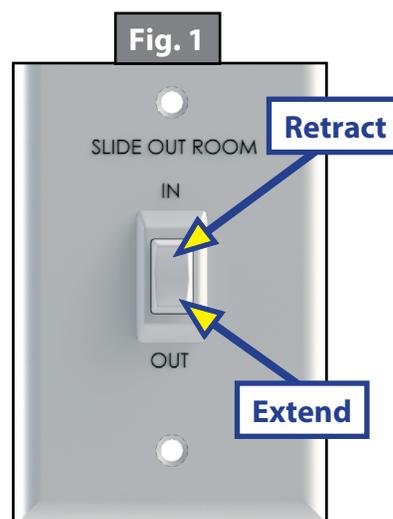
8. If equipped, turn "off" the on/off switch or key.

Retracting the Slide-Out Room

1. The engine or generator must be running or the unit must be plugged into shore power.
2. Transmission must be in park or neutral (if applicable).
3. If applicable, set the park brake and level the unit.
4. If equipped, turn "on" the on/off switch or key.
5. Press and hold the switch in the RETRACT position (Fig. 1). There will be a slight delay before the slide-out room will begin to move. This is normal.
6. Release the switch button when the slide-out room is fully retracted and stops moving.

NOTE: Once the room has stopped moving, it is not necessary to press the switch a second time.

7. If equipped, turn "off" the on/off switch or key.
8. If equipped, install the transit bars.



Modes

The SlimRack Plus Slide-Out controller has multiple operating modes.

Normal Operating Mode

This is the operating mode which extends and retracts the slide while maintaining synchronization between the two sides. The controller will self-synchronize, detect end-of-travel, detect and store faults and electronically protect the slide-out when certain faults are detected.

Electronic Override Mode

This operating mode will disable fault detection. The slide-out motors will be driven without electronic protections. The slide-outs will not self-synchronize or detect end-of-travel.

NOTE: Use caution in electronic override mode, electronic protections will be disabled.

NOTE: Driving the flanges of the slide-out into the RV wall could result in damage. Driving a single motor and skewing the slide-out box could result in damage.

1. To enter electronic override mode, press the on-controller mode button (See Mode Button Functions section) seven times and hold on the last press. The LEDs will rapidly blink one after another while the mode is active.
2. The controller can be returned to normal operating mode by pressing and holding the mode button on the controller for at least one second, or will return to normal operating mode on its own after two minutes, even if the slide is being driven.
3. To independently drive either side, unplug one of the opposite side's motor connectors. To move both sides at the same time, ensure both connectors are connected.

CAUTION

When connecting power to the motor, ensure the motor spade terminals are connected before attaching 12V power and ground. Attaching 12V power or ground directly to the motor inputs can damage the controller.

⚠ CAUTION

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 Mode

In the event that power is lost to the slide-out motor(s), the slide-out room can be manually retracted by following these steps.

1. Gain access from inside the unit to the vertical channel assembly by removing the OEM trim and flange pieces on the slide-out room box. The motors are 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. 2).
3. Pull down the bulb seal and remove the motor cover (Fig. 3). 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. 4). Do not remove the motor retaining screw.
5. 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.
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. Tighten the motor retaining screw (Fig. 4) 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.

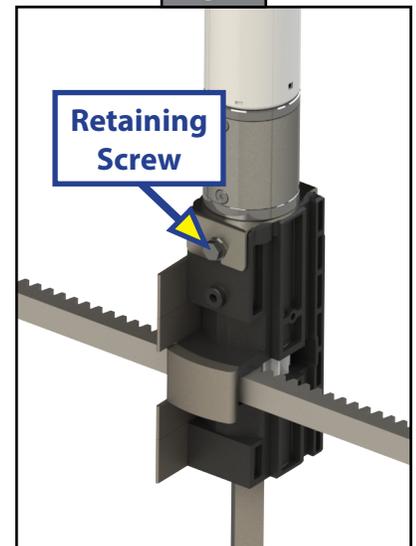
Fig. 2



Fig. 3



Fig. 4



Alternate Override Modes

If none of the previous override methods retract the slide-out room, it may be possible to manually retract the slide-out room by one of the following alternate methods. Both of these procedures will only be possible if there is access to the described areas.

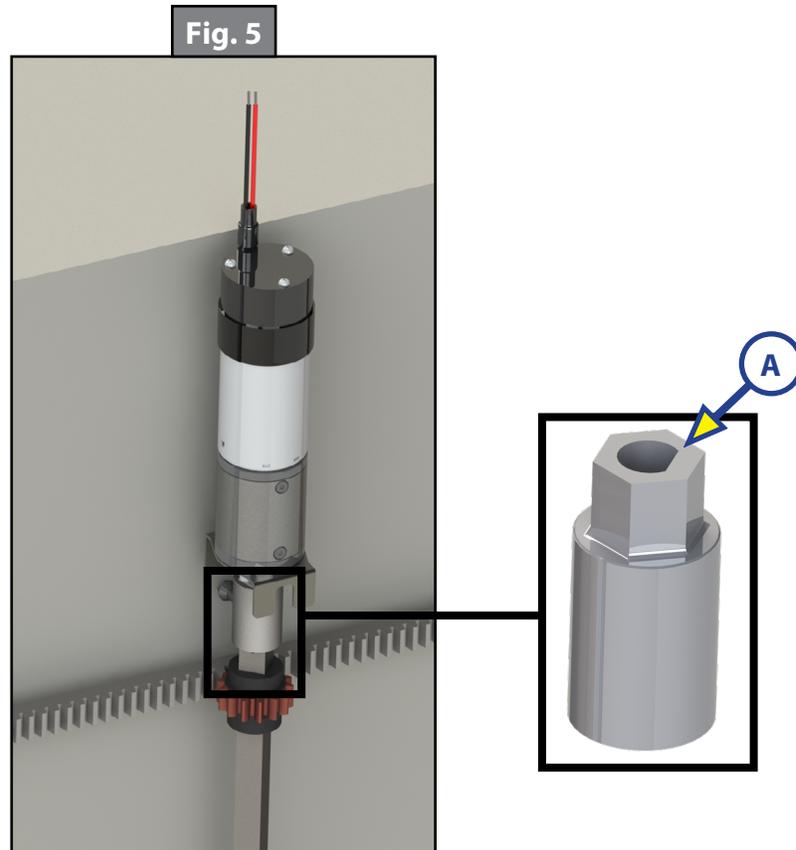
1. Manually retract the slide-out room using a ratchet and socket attached to the end of the coupler (Fig. 5A) to move the slide-out room.
 - A. Remove the motor. Follow steps 1-6 under the Manual Override Mode section.
 - B. Place a ratcheting wrench with a 3" extension and $\frac{5}{8}$ " deep well socket through the motor access opening and seat the socket onto the coupler (Fig. 5A).
 - C. Using the ratcheting wrench with socket and alternating from one side to the other, turn the wrench to bring the slide-out room in.

NOTE: One person per side of the slide-out room (two total) with ratchet and socket will expedite the process. Make sure that both sides of the slide-out room retract together uniformly. The slide-out room moves approximately $\frac{1}{4}$ " for every 30-40 degree turn of the wrench.

- D. Once the slide-out room is retracted, secure the slide-out room in place by:
 - I. Re-installing the motors.

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

- II. Tighten the motor retaining screw (Fig. 4) with the motor retainer fully engaged.
 - III. Using a transit bar (slide-out locking bar).
- E. Have the slide-out room serviced by an OEM-authorized dealer as soon as possible. Do not operate the slide-out room until service is complete as damage to the slide-out room may result.



⚠ CAUTION

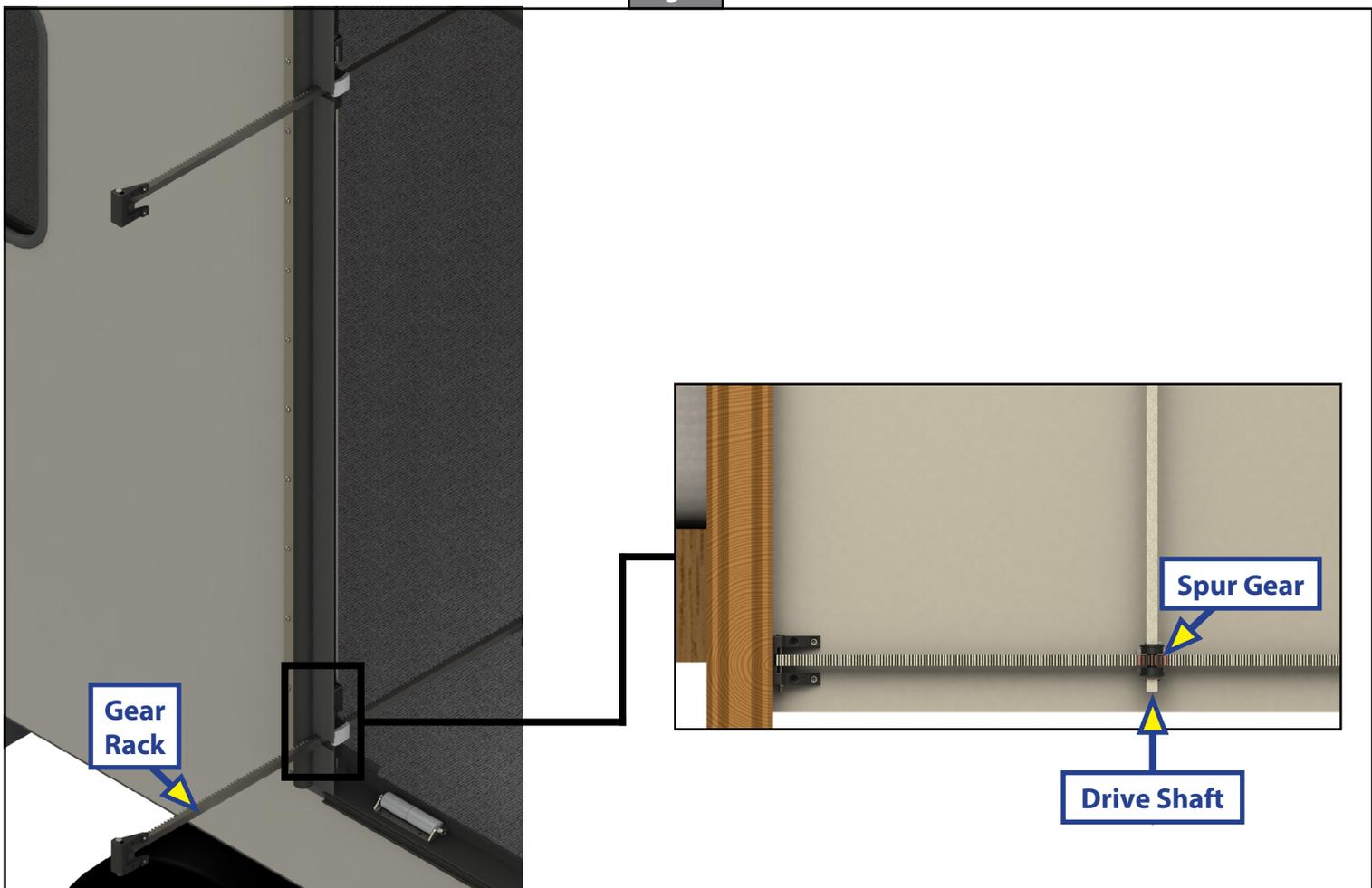
When manually retracting the slide-out room, make sure that both sides of the slide-out room move together. Damage to the slide-out room may result if movement is not uniform.

2. Manually retract the slide-out room by turning the $\frac{1}{2}$ " square drive shaft of each vertical channel assembly.
 - A. Remove the motor. Follow steps 1-6 of the Manual Override Mode.
 - B. Access the $\frac{1}{2}$ " square drive shaft (Fig. 6) of each vertical channel.
 - C. Using a $\frac{1}{2}$ " 8-point star socket and alternating from one side to the other, turn the $\frac{1}{2}$ " square drive shaft to bring the slide-out room in. A 15 mm 12-point socket is an option if the $\frac{1}{2}$ " 8-point star socket is not available. Use caution, as the 15 mm 12-point socket does not fit as snug as the $\frac{1}{2}$ " 8-point socket.
 - D. Once the slide-out room is retracted, secure the slide-out room in place by:
 - I. Re-installing the motors.

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

- II. Torquing the motor retaining screw to 40 in lbs. (Fig. 4) with the motor retainer fully engaged.
- III. Using a transit bar (slide-out locking bar).
- E. 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.

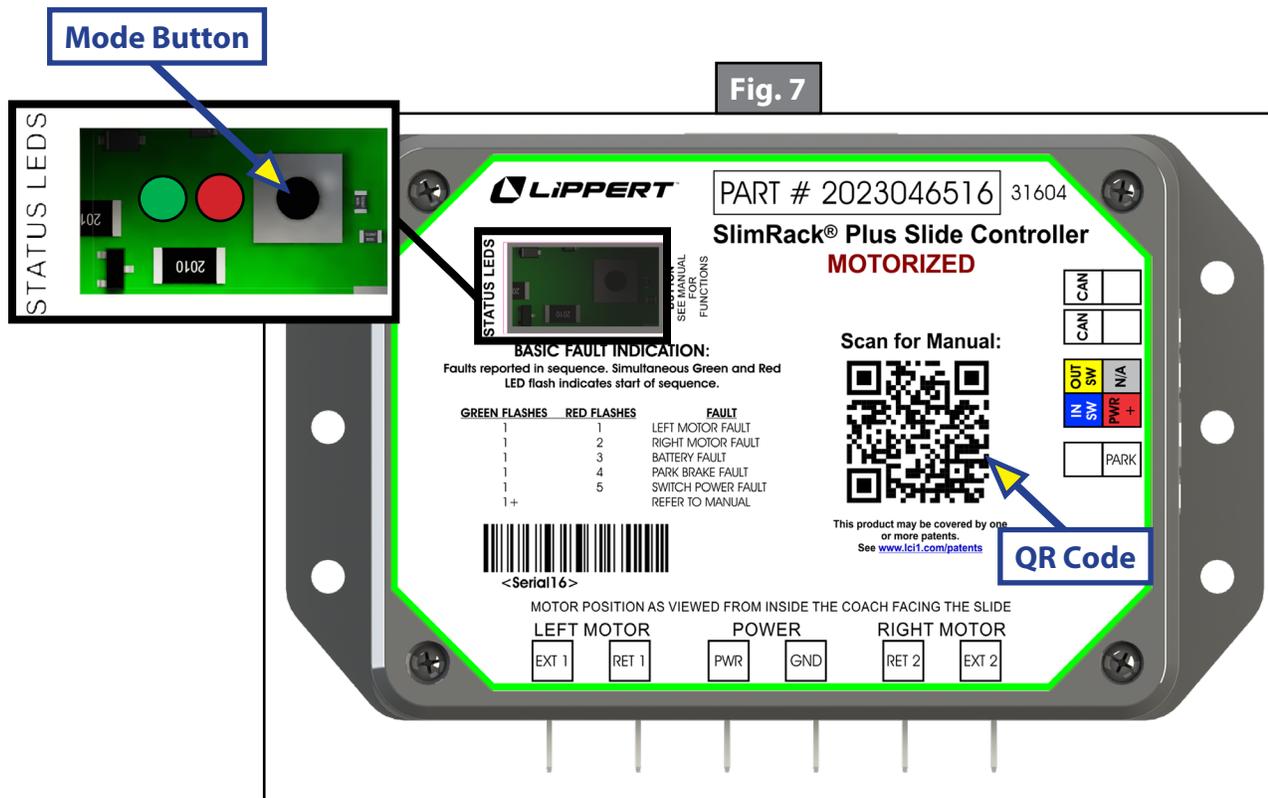
Fig. 6



Troubleshooting

The SlimRack Plus Slide-Out controller detects several faults. LEDs on the controller are used to indicate when the controller is driving a slide-out and faults. The QR code on the controller can be scanned with a mobile phone camera and leads to more troubleshooting documentation (Fig. 7).

NOTE: When in electronic override mode, electronic protections will be disabled.



Mode Button Functions

The mode button (Fig. 7) is used to perform a factory reset of the controller and switch between operating modes.

To use the mode button, press it the number of times needed to get to the desired function and hold on the last press for 1 second. With each press, the green and red LEDs will both illuminate. When pressed and held, the LEDs will remain illuminated for 1 second, then turn off. Consecutive presses must be made within 1 second.

Examples:

- Press x 6, press and hold – Enters electronic override mode.
- Press and hold (when in electronic override mode) – returns to normal operating mode.
- Press x 4, press and hold – Performs factory reset.

Switching Between Operating Modes

It is possible to switch between operating modes using the mode button. The controller will return to normal operating mode on its own after 2 minutes, even if being driven.

NOTE: When in electronic override mode, electronic protections will be disabled.

Operating Modes		
Presses	Function	Description
7 – hold on the seventh press	Enter Electronic Override Mode	Enter Electronic Override Mode
1 – hold on first press	Return to normal operating mode	Returns the controller to normal operating mode

Factory Resetting and Initial Synchronization

After maintenance and during troubleshooting, a factory reset (See Performing A Factory Reset section) may need to be performed. After performing a factory reset, perform an initial synchronization to ensure the sides of the slide-out are properly aligned.

When to Perform a Factory Reset

- After swapping motors.
- After reversing a motor's polarity to correct slide travel direction.
- After repairing faulty motor harnesses.
- After swapping controllers to operate different slides – even known good motors. Each slide is unique.
- During the initial installation of a controller on a slide fresh from factory.

Performing A Factory Reset

A factory reset will clear current synchronization. To perform a factory reset, press the mode button 5 times and hold on the 5th press for at least 1 second.

NOTE: After performing a factory reset, users will need to follow the steps under the initial synchronization instructions. Otherwise, the slide will not synchronize properly and may be misaligned or jackknife.

Performing an Initial Synchronization

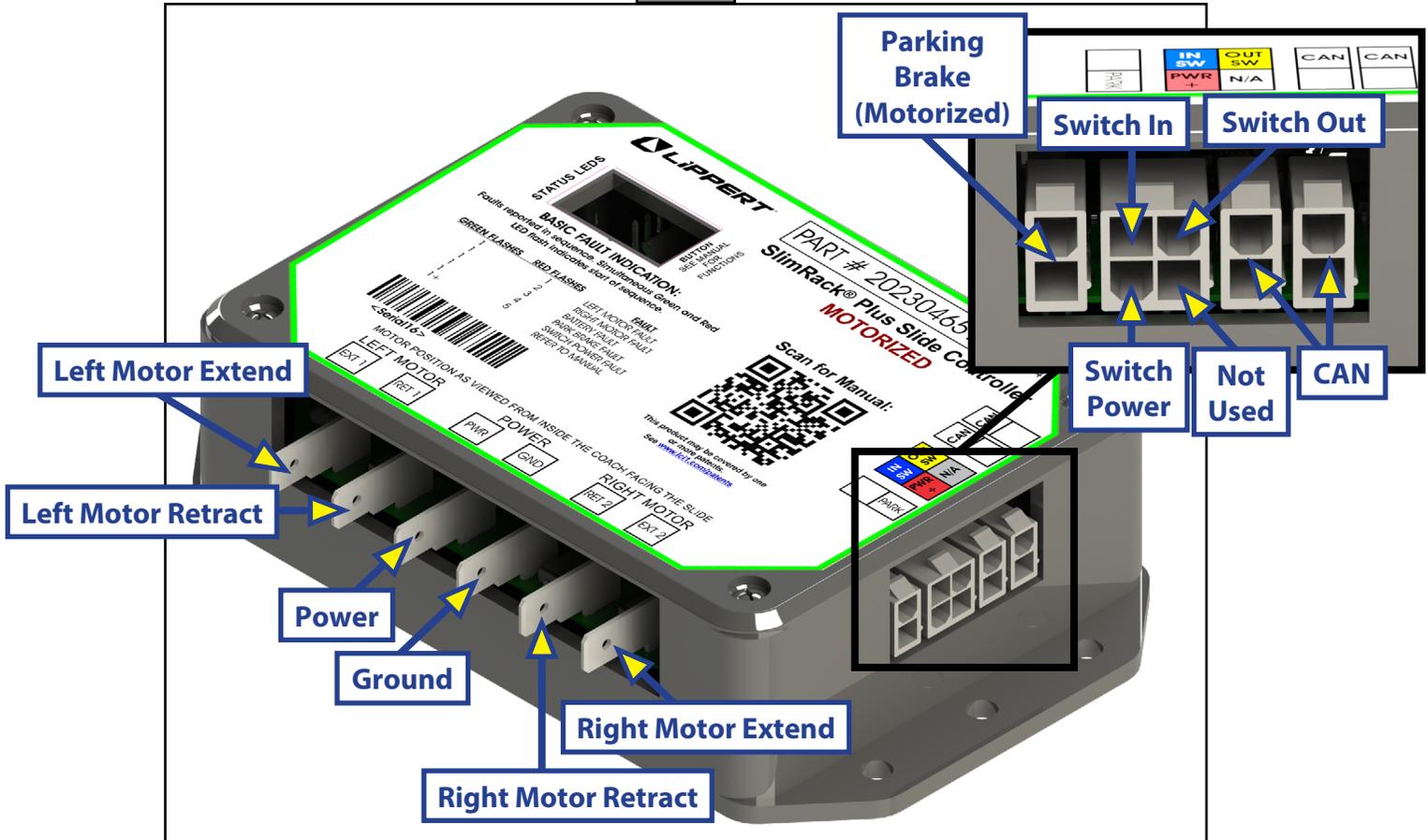
1. Retract slide-out until controller shuts motors off.
2. Confirm slide-out is fully retracted and controller does not report any faults.
3. Extend slide-out until controller shuts motors off.
4. Confirm slide-out is fully extended and controller does not report any faults.
5. Retract slide-out until controller shuts motors off.
6. Confirm slide-out is fully retracted and controller does not report any faults.

Controller Connections

The controller has connections on two sides (Fig. 8). The connections on one side are for power into the controller and extend and retract outputs to each motor.

The connections on the other side are for an external switch, a parking brake input and CAN communications to OneControl systems.

Fig. 8



LED Indications

- When driving motors, the green LED and red LED will blink synchronously.
- When indicating faults, the LEDs blink sequentially, report all faults and repeat. The green LED will blink once or twice to indicate the reporting mode, followed by one to several blinks of the red LED to indicate each fault.

Examples

A right motor fault:

Green LED blinks once, followed by the red LED blinking twice, then repeating. Then both lights will blink at the same time to indicate the beginning of the sequence and the pattern repeats.



A left motor fault and a right motor fault:

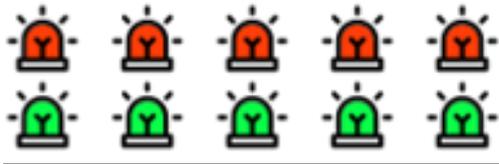
Green LED blinks once, red LED blinks once, green LED blinks once, red LED blinks twice. Then both lights will blink at the same time to indicate the beginning of the sequence and the pattern repeats.

- When switching between modes, both LEDs will blink to acknowledge the user selection.



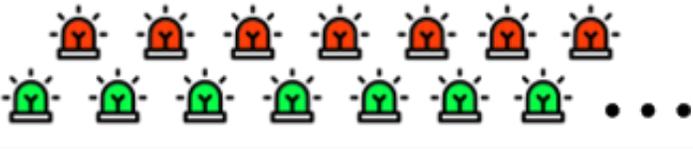
Factory reset:

After pressing the mode button 5 times to initiate a factory reset, there will be 5 blinks.



Electronic override mode:

When in electronic override mode, the LEDs will rapidly blink one after another while the mode is active. Active fault warnings and other electronic protections will be disabled.



Basic Fault Reporting Mode Table

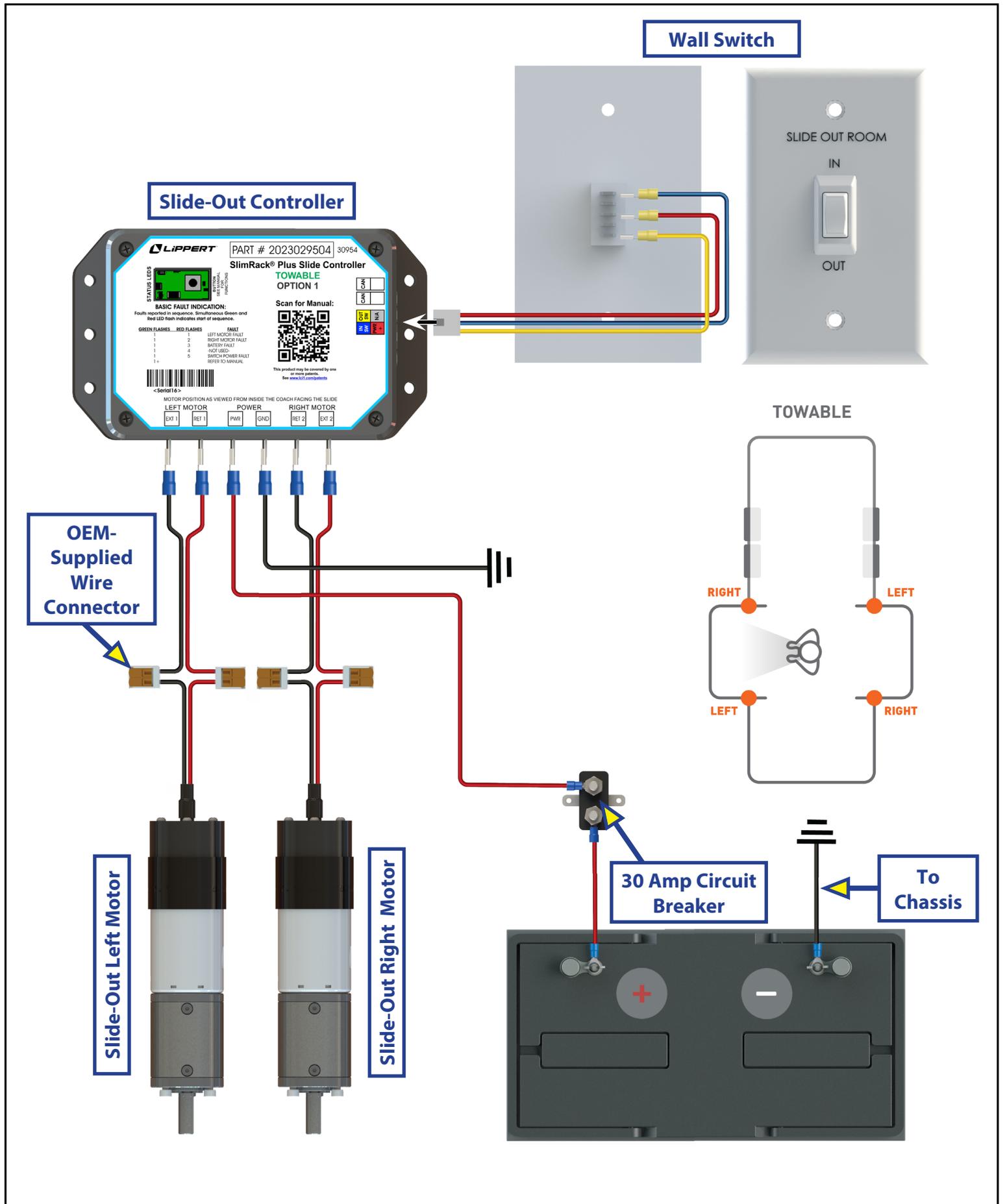
Green LED	Red LED	DTC: Diagnostic Trouble Code	Description	Troubleshooting Steps
1 (Basic fault)	1	Left motor fault	There is a problem with the left motor circuit.	Check connections on the motor, the controller and check the wire harness for damage. Motor may need to be replaced.
1 (Basic fault)	2	Right motor fault	There is a problem with the right motor circuit.	Check connections on the motor, the controller and check the wire harness for damage. Motor may need to be replaced.
1 (Basic fault)	3	Battery fault	There is a problem with the detected battery power.	Ensure the battery is fully charged and try actuating again.
1 (Basic fault)	4	Parking brake fault	There is a problem with the parking brake signal.	Check to ensure the parking brake is engaged.
1 (Basic fault)	5	Switch power fault	There is a problem with the switch circuit.	Check connections on the switch, the controller and check the wire harness for damage. Switch may need to be replaced.

Maintenance

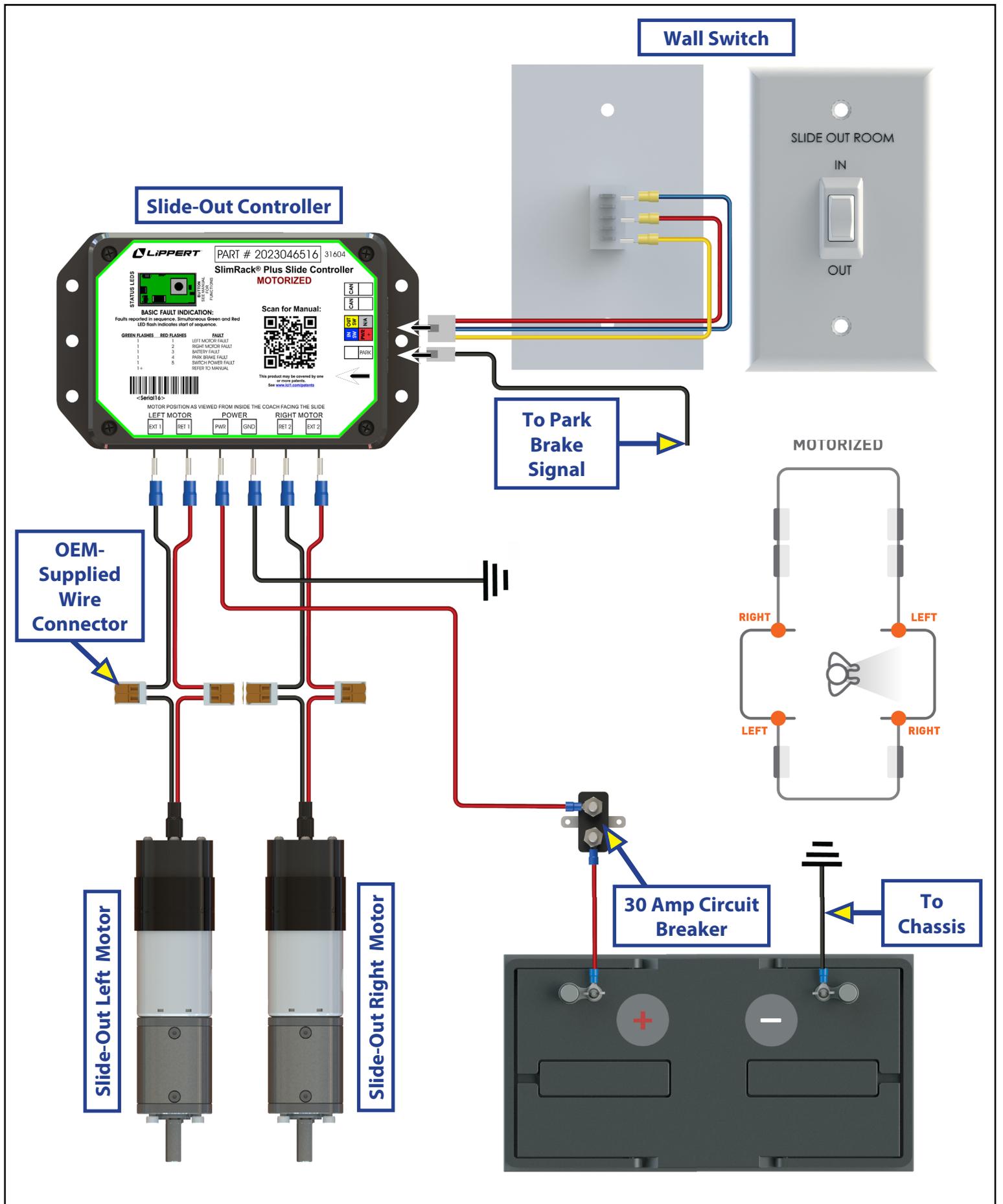
The Lippert slide-out system has been designed to require very little maintenance. To ensure the long life of the slide-out system, follow these simple procedures:

1. When slide-out room is extended, visually inspect the slide gear rack assemblies. Check for excess buildup of dirt or other foreign material. Remove any debris that may be present.
2. If the system squeaks or makes any noises, hand apply a dry lubricant to prevent and/or stop squeaking.

Wiring Diagram - Towable



Wiring Diagram - Motorized





The contents of this manual are proprietary and copyright protected by Lippert. Lippert prohibits the copying or dissemination of portions of this manual unless prior written consent from an authorized Lippert 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 Lippert. Revised editions are available for free download from lippert.com.

Please recycle all obsolete materials.

For all concerns or questions, please contact Lippert
Ph: 432-LIPPERT (432-547-7378) | Web: lippert.com | Email: customerservice@lci1.com