HAPPIJAC®

BY LIPPERT

HappiJac® Room Slide-out

OWNER'S MANUAL

TABLE OF CONTENTS

Introduction **2**
Overview **2**
Safety **3**
Resources Required **3**
Prior to Operation **4**
Operation **4**
Extending Slide-Out Room **4**
Retracting Slide-out Room **5**
Travel Limit Adjustment **5**
Maintenance **6**
Troubleshooting **6**
Troubleshooting Chart **7**
Manual Override **8**
Relay Control Module **9**

Introduction

The HappiJac® Slide-out is designed for the sole purpose of extending and retracting the slide-out room. Its function should not be used for any other purpose or reason other 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.

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/happijac-room-slide-out

Overview

The room slide mechanism utilizes a current switching relay module to alternate the direction of motor rotation hence slider movement. Adjustable microswitch stops are also used to set the travel limits at the fully extended and fully retracted positions, which provides fine adjustments for seal pressure in both the extended and retracted positions. It also reduces stress on the RV structure and the slide mechanism by eliminating unnecessary torque and linear pressure found in clutching or stall-type mechanisms.

Safety

Read and understand all instructions before 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.

⚠WARNING

Always make sure that the area around the slide-out is clear of people and objects before and during operation of the slide-out room.

⚠CAUTION

The "CAUTION" symbol above is a sign that a procedure has a safety risk involved that may cause personal injury and/or product damage, including voiding of warranty, if not performed safely and in accordance with the safety procedures stated herein.

⚠CAUTION

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

⚠CAUTION

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

Resources Required

- Voltmeter

Prior to Operation

Prior to operating the slide-out, do as follows:

1. Unit should be parked on the most level surface available.
2. If operating a motorized coach the parking brake **MUST** be engaged.
3. If operating a motorized coach the transmission **MUST** be in PARK.
4. If operating a motorized coach the ignition **MUST** be in the OFF position.
5. Make sure slide-out room path is clear of people, pets and objects before and during operation of the slide-out room.
6. 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.
7. Keep stored items in compartments clear of slide-out motor mechanisms and wiring to prevent interference of slide-out operation.
8. The 12V DC battery disconnect should be in the ON position.

NOTE: Batteries **MUST** be tested under a load to get an accurate reading. Use a voltmeter to make sure the battery is fully charged. The voltmeter must read 12.5V-13.7V DC for a full charge.

9. Level the unit before operating the slide-out.
10. Remove the transit bars, if so equipped.

Operation

⚠WARNING

Failure to act in accordance with the following may result in death, serious personal injury, severe product and/or property damage.

⚠CAUTION

If slide locks are installed, remove the slide locks before operating slide-out room.

⚠CAUTION

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

Extending Slide-Out Room

⚠CAUTION

Make sure there are no internal or external obstructions before operating the slide-out room.

1. Make sure the battery is fully charged and hooked up to the electrical system.
2. Press and hold the IN/OUT switch in the OUT (Fig. 1A) position until the room is fully extended and stops moving.

NOTE: Only hold OUT switch until the room stops.

3. Release the switch, to lock the room into place.

Fig. 1



⚠CAUTION

Make sure there are no internal or external obstructions before operating the slide-out room.

1. Make sure the battery is fully charged and hooked up to the electrical system.
2. Press and hold IN/OUT switch in the IN position (Fig. 1B) until the room is fully retracted and stops moving.

NOTE: Only hold IN switch until the room stops.

3. Release the switch to lock the room into position.

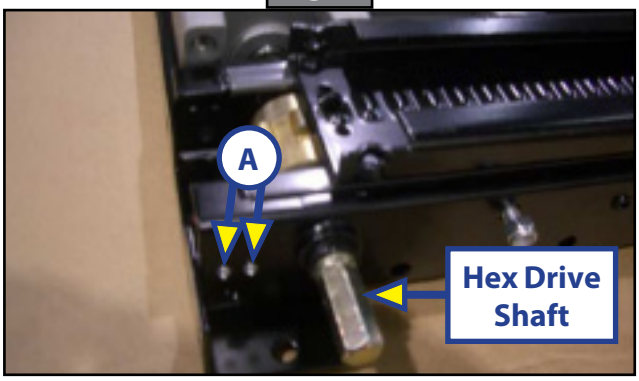
Travel Limit Adjustment

⚠WARNING

Adjust in small increments until slide just comes tight to seals. Improper adjustment could result in damage to the slide room or mechanism.

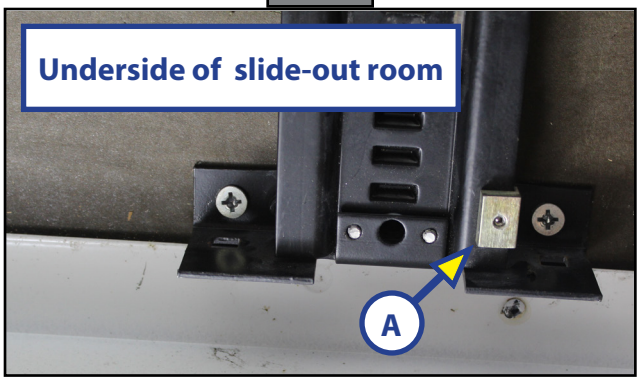
Adjustable microswitch stops set the travel limits at the fully extended and fully retracted positions. The microswitches are located inside and at the end of each of the drive channels to which the motor is attached. Their location can be found by looking for two small silver attaching screws (Fig. 2A) through the side of the drive channel.

Fig. 2



The adjustable stop (Fig 3A) is a gold-colored block secured to the underside of the drive rail with a set screw. This block contacts the wiper on the microswitch and opens the circuit between the IN/OUT switch and the relay board, shutting off the motor.

Fig. 3



To adjust the stop blocks:

1. Extend the room to access the stop block.
2. Loosen the set screw on the underside with a hex wrench.
3. Move the block to the desired stop point.
4. Tighten set screw.

Maintenance

⚠WARNING

Do not work on the slide-out system unless the battery is disconnected. Failure to act in accordance with the following may result in death or serious personal injury.

There is no routine maintenance required on the room slide drive mechanism. However, for smooth reliable operation and proper sealing, the rubber and foam sealing wipers around the slide room should be frequently cleaned and all dirt and debris removed. They can be washed with mild soap and water.

When the room is extended, visually inspect the inner slide rail assemblies. Check for excess buildup of dirt or other foreign material. Remove any debris or items that may be present.

If the system squeaks or makes any noises it is permissible to apply a light coating of dry lubricant to the roller and bearing sleeve ID. Do NOT lubricate the slide-out drive gears, gear racks, or roller OD with grease as this will attract dirt/debris.

Troubleshooting

When something restricts room travel, system performances will be unpredictable. It is very important that slide rails, rack and pinion be free from any form of debris or other type of contamination and allowed to travel freely the full distance or "stroke." Debris build-up during travel is an example of the type of contamination that may occur.

When beginning to troubleshoot the system, make sure the battery is fully charged by testing under a load to get an accurate reading. Make sure there are no visible signs of external damage to the motor or assembly or rails. Make sure the motor is wired properly and all connections are secure.

During troubleshooting, charging, altering or adjusting one component may affect another. Make sure any changes do not create a new problem.

Troubleshooting Chart

Use the Troubleshooting Chart as necessary to assist in the identification and resolution of other possible operational concerns.

What is Happening	Why?	What Should Be Done?
Slide-out does not move when IN/OUT switch is pressed. *No audible click at the relay control module.*	Missing 12V DC or Ground at relay control module.	Trace power & ground leads back from module to locate point of disconnect.
	Faulty relay control module.	Replace PnP control module
	Faulty IN/OUT switch.	Replace switch and switch board assembly
Slide-out does not move when IN/OUT switch is pressed. *Audible clicking sound at relay control module.*	Insufficient power at relay control module.	Check battery charge. Check for loose or corroded connections.
	Faulty ground on relay control module.	Check for loose or corroded ground line connections to PnP module.
	Defective motor.	Bench test and replace if defective.
	Defective brake, if equipped.	Remove brake. If slide runs replace brake.
Slide-out will go in one direction but does not move when switch is pressed for the other direction.	Faulty or loose wiring.	Check limit switch connections at PnP module.
	Faulty limit switch (microswitch).	Replace faulty limit switch (microswitch).
Slide-out stops or stalls before reaching the fully extended or fully retracted position.	External obstruction interfering with slide.	Check both internally within coach and externally for any obstruction.
	Faulty relay control module.	Replace PnP control module.
	Incorrectly adjusted limit stop block.	Readjust the limit stop block.
Motor turns but slide-out will not move.	Roll pin sheared in drive sprocket. (Single drive rail systems only.)	Roll pin must be replaced involving removal of slide room. Dealer service required.
Slide-out will not stay straight side-to-side when moved in and out.	Broken connecting shaft between slide rails. (Double rail systems only.)	Shaft must be replaced involving possible removal of the slide room. Dealer service required.
	Broken roll pin in drive sprocket. (Double rail systems only.)	Pin must be replaced involving removal of the slide room. Dealer service required.
	Slide-out room mechanism not secured properly to floor.	Resecure or improve securing of slide to floor.
	Slide-out room not secured properly to mechanism.	Resecure or improve securing of slide room to slide drive rails.
Slide-out room moves out while traveling	Rail tension setting too loose.	Adjust tensioning bolts, or install motor brake assembly for positive lock.

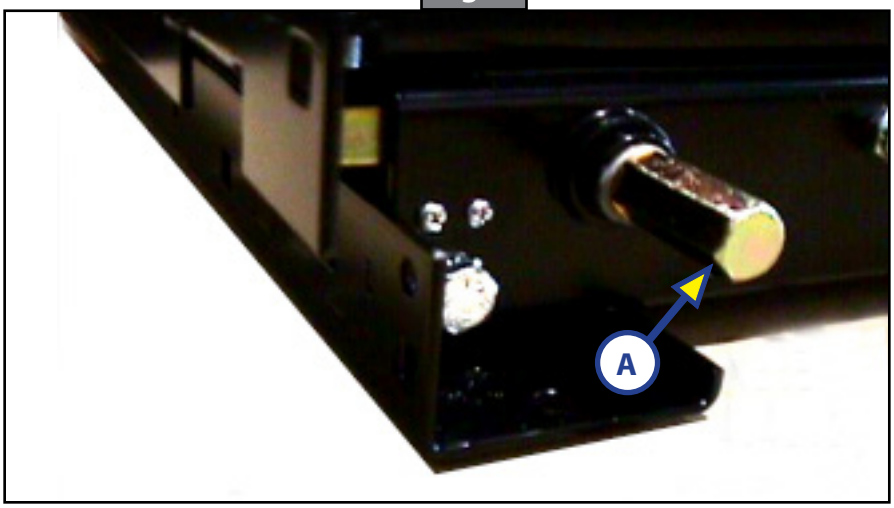
Manual Override

1. Locate the relay control module (Fig. 5) and unplug the motor connector (Fig. 5A). Release brake manual lever, if equipped with brake.

NOTE: It is necessary to electrically disconnect the motor and manually release brake from the circuit. If the motor is not disconnected from the circuit, and brake (if equipped) released, the slide room will not move.

2. Locate the 1/2" gold-colored hex shaft (Fig. 4A) from one or both sides of the slide mechanism, depending on configuration.

Fig. 4



3. Place a 1/2" socket wrench over either end of the hex shaft then rotate the shaft to the desired position.
4. As the slide-out nears full extension or retraction, take care not to crank the stop block beyond the limit switch (microswitch).
5. After the room is in the desired position, reconnect the motor and reset the brake, if equipped (step 1).

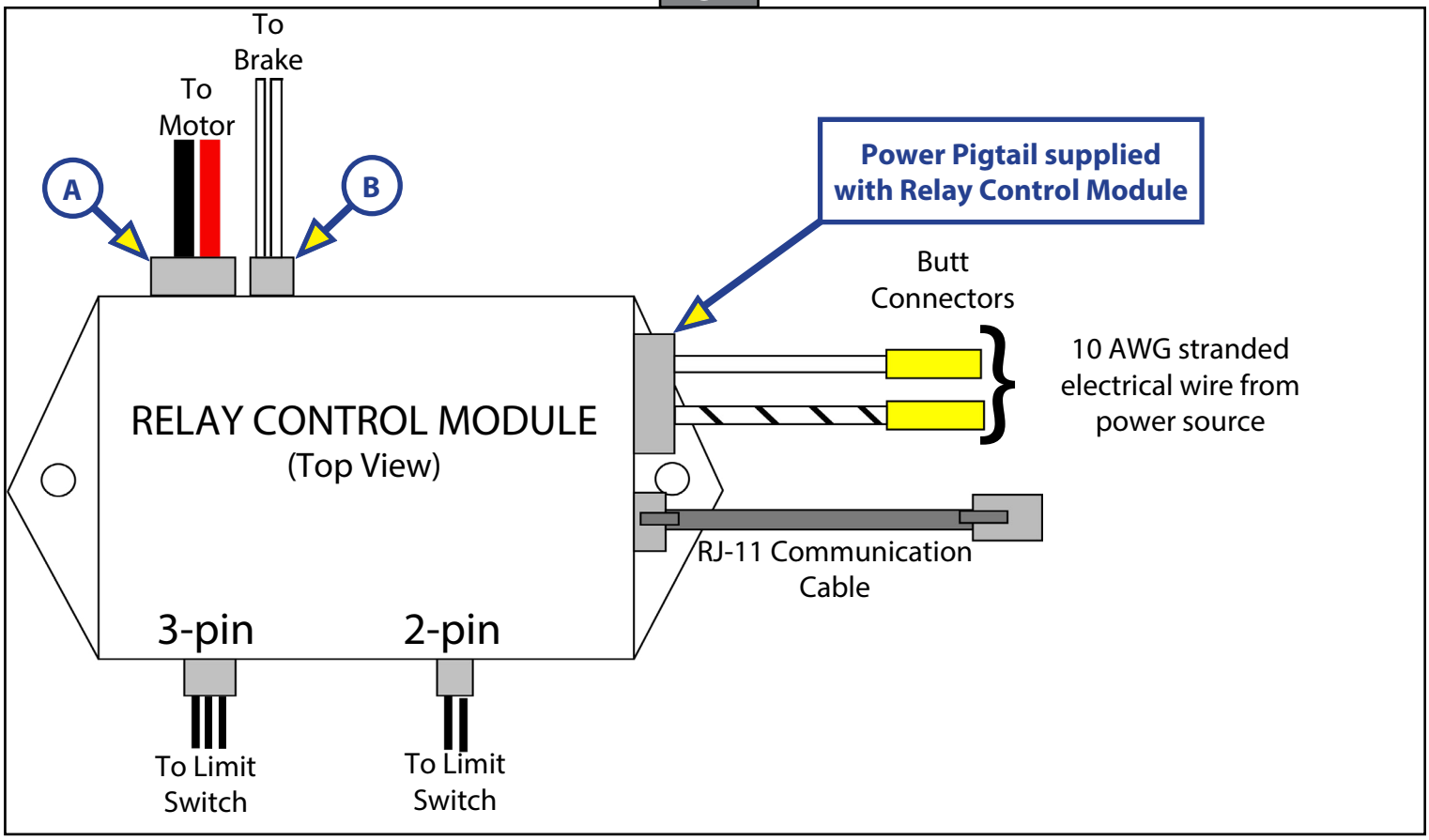
NOTE: Failure to reattach the motor lead (Fig. 5A) and reset the brake will allow the slide-out to drift.

Relay Control Module

Locate the plug and play (PnP) relay control module which should be installed on the exterior wall close to the motor.

NOTE: All outputs are marked on the underside of the module.

Fig. 5



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 lippert.com.

Please recycle all obsolete materials.

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