Relay Control Module location ... RVIA wiring requirements restrict the length of exposed motor leads to a maximum of ten (10) inches. Therefore, the Relay Control Module must be placed above the motor or on the wall of the coach in close enough proximity to the motor that the 10" motor lead will reach.







POWER: It is best to operate the room slide with a well charged deep cycle battery installed in the RV unit. While the operating current for the slide room is relatively low, the motor startup current, although lasting only a few milliseconds, can be higher than the inverter is capable of supplying. This can be especially true if other devices such as air conditioning, appliances, lights, etc. are turned on.

OPERATION: To operate the slide room, locate the **slide room control switch**. This will either be a rocker style switch marked **IN & OUT** or may be a key switch with similar markings.

NOTE: Some RV manufacturers employ the use of a "Kill" (ON-OFF) switch to remove power from the room slide circuit when not in use. If such is installed, it must first be set to the on position before the slide will operate.

<u>CAUTION</u>: IF SLIDE LOCKS ARE INSTALLED, REMOVE SLIDE LOCKS BEFORE OPERATING SLIDE. Ensure that there are no internal or external obstructions.

After clearing all obstructions, (interior & exterior) press the switch or turn the key to desired direction of movement. Hold until the room fully extends or retracts, (motor sound will stop) then release.

<u>ALWAYS</u>: Fully retract the slide room when RV is being towed or moved. *If Slide Locks are provided, install slide locks.*

MAINTENANCE: There is no routine maintenance required on the room slide drive mechanism. However, for smooth reliable operation and proper sealing, the rubber & foam sealing wipers around the slide room should be frequently cleaned and all dirt and debris removed. Commercial products are available which clean, recondition and protect these rubber seals. **Operational Overview:** This room slide mechanism utilizes a current switching relay module to alternate the direction of motor rotation hence slider movement. Also used are adjustable micro-switch stops to set the travel limits at the fully extended and fully retracted positions. This 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.

The micro-switches are located inside and at each end of the drive channel to which the motor is attached. Their location can be found by looking for two small silver attaching screws through the side of the drive channel.

The adjustable stop is a gold colored block secured to the underside of the drive rail with a set screw. This block contacts the wiper on the micro-switch and opens the circuit between the IN/OUT switch and the relay board, shutting off the motor. Adjustment can be accomplished by loosening the set screw and moving the block to the desired stop point.

The relay module is a small white plastic box 2" x 3" and is mounted in close proximity to the motor. Connections to this relay control module include:

- +12 VDC and Chassis Ground (Pigtail connector)
- Plug in Motor Leads M1 & M2
- RJ11 telephone cord for the In/Out and switch common to the control switch
- · Plug in leads from each micro limit switch

(See wiring diagram on last page of this document)

<u>Troubleshooting tips</u>: NOTE: Most slider electrical problems are caused by either loose wires (not properly secured connectors). Poor wiring splices or shorts due to screws, staples, etc.

- There should be an audible click heard at the relay control module when the In/Out Switch is depressed. The absence of a click would indicate one of the following conditions:
 - a) +12VDC or Ground missing from relay board.
 - b) An open line on the In/Out Switch
 - c) A micro-switch wired incorrectly
 - d) A defective micro-switch
- If there is an audible click but the motor does not engage:
 - a) loose motor connector
 - b) defective motor







FIG. 2

1/2" Hex Drive Shaft



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<u>Manual Override</u>: In the event that it becomes necessary to manually operate the slide room. The following procedure should be followed.

1. Locate the relay control module and unplug the motor connector. *Also unplug the brake connector if a brake connector is present.*

This is necessary to electrically disconnect the motor *(and brake)* from the circuit. If this is not done the motor will not turn freely and the slide room will be very difficult to move.

[See Fig. 1 opposite page]

- Locate the ½" gold colored hex shaped shaft protruding from one or both sides of the slide mechanism. (Depending on model configuration). [See Fig. 2]
- 3. Place a ¹⁄₂" socket wrench over either end of this shaft (a socket wrench extension may be needed) then rotate the shaft in the desired direction.
- As the slide room nears full extension or retraction, be careful not to crank the micro limit switch stop block beyond the limit switch. [See Fig. 3]
- 5. Once the desired position is reached, plug in the motor *(and brake)* unplugged in step 1.

Failure to reattach the motor lead will allow the slide room to drift.

Troubleshooting:

Problem	Possible Cause
Slide will not move when In/Out switch is pressed <i>No audible click at the relay</i> <i>control module.</i>	 Missing 12 VDC or Ground at relay control module. Faulty wiring or defective relay control module. Faulty IN/Out switch
Slide will not move when IN/OUT switch is pressed Audible clicking sound at relay control module.	Insufficient power at relay control module. Faulty ground on relay control module. Defective motor Defective brake (if unit utilizes brake)
Slide will go one direction but does not move when switch is pressed for the other direction.	Faulty or loose wiring Faulty micro limit switch.
Slide stops or stalls before reaching the fully extended or fully retracted position.	External obstruction interfering with slide. Faulty relay control module.
Motor turns but slide room will not move.	Roll pin sheered in drive sprocket. (Single drive rail systems only)
Slide room will not stay straight side to side when moved in and out.	 Broken connecting shaft between slide rails. (double rail systems only) Broken roll pin in drive sprocket. (double rail systems only) Slide room mechanism not secured properly to floor. Slide room not secured properly to mechanism.
Slide room moves out while traveling.	Rail tension setting too loose. Contact Happijac Co. for setting procedure.

Troubleshooting Flow Chart:



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