Owners Manual

Room Slideout System with Control Box 1510000120 and 1510000121

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Room Slideout System with Programmable Control

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Introduction

SYSTEM DESCRIPTION

Your Power Gear Slideout System is a rack and pinion design operated by a 12 Volt DC electric motor.

MAJOR COMPONENTS

· Inner rail assemblies are designed to support the room weight.
· The 12 Volt DC gearmotor will operate the room using power from the on-board unit battery.
· Slideout systems are equipped with a manual override that allows you to extend / retract the room in the event of a loss of power.
· A specially designed control that gives the user full control of room movement,
in or out. The control has programmable stops that stop the motor when the room is fully extended or retracted and the ability to detect faults for ease in troubleshooting.

Preventative Maintenance

Your Power Gear slide-out system has been designed to require very little maintenance. To ensure the long life of your slide-out system read and follow these few simple procedures.

- When the room is out, visually inspect the inner slide rail assemblies. Check for excess build-up 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 silicone spray or lithium grease to the roller and bearing sleeve I.D., removing any excess lubricant so that dirt or debris do not build-up. DO NOT lubricate the slide-out drive gears, gear racks, or roller OD as this will attract dirt / debris.

IF YOU HAVE ANY PROBLEMS OR QUESTIONS CONSULT YOUR LOCAL AUTHORIZED DEALER.

WARNING

Prior to extending or retracting the room, take a moment to insure the following:

1. Follow the coach manufacturer instructions regarding the leveling of the coach and room slide out operation.
2. Verify the battery is fully charged. Keeping the coach running will ensure proper voltage for room extension/retraction.
3. Park brake must be set.
4. Check both inside and outside of the vehicle to make sure there are no people who could be harmed or obstacles that could cause damage due to room extension or retraction.
5. Check to ensure that all safety travel straps/locks/bars have been removed and that no obstructions exist between the inside wall flange and the inside wall of the coach.
6. If the slideout room is equipped with a couch or other furniture, make sure that the room is clear of people and pets during extension. Once the room has reached its maximum extension, the room may be occupied again.
7. Always keep away from the slideout room and rails when the room is being operated. The gear assembly may pinch or catch on loose clothing causing personal injury.

WARNING

Failure to follow these instructions could result in serious injury or death.

Operation Mode

Note:

- The system will not work until stops are properly set or faults are cleared.
- The GREEN LED indicates system operation. (Figure 7)
  - A solid GREEN LED indicates room movement
  - A flashing GREEN LED indicates room lock movement, if room is equipped with room locks.
- The RED LED indicates a fault or problem with the system. (Figure 7) Refer to Fault Diagnostics Mode in this manual for additional information.
- Prior to moving the slideout room, make sure the engine is running to ensure ample voltage to the motors and the parking brake is set.

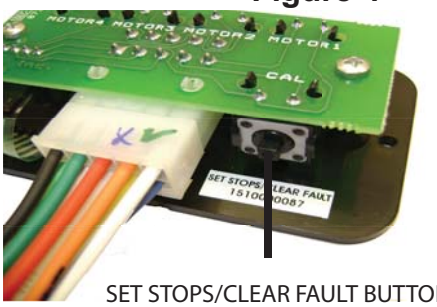
EXTENDING THE ROOM

1. Level the unit.
2. Remove transit bars (if so equipped).
3. Turn 'ON' the on/off switch or key (if so equipped).
4. Press and hold the OUT button (Figure 7). If equipped with room locks, the room locks will first retract prior to room movement. Reference the GREEN LED indications above to determine component movement.
5. Release the button, when room is fully extended and stops moving.
6. Turn 'OFF' the on/off switch or key (if so equipped).

RETRACTING THE ROOM

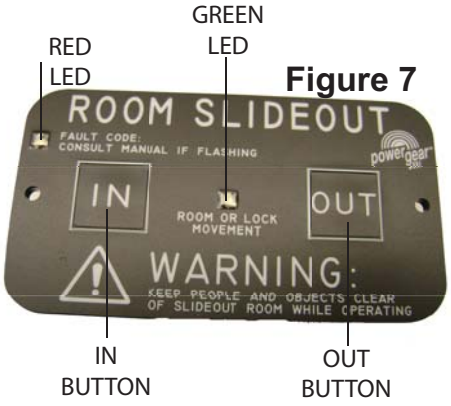
1. Turn 'ON' the on/off switch or key (if so equipped).
2. Press and hold the IN button (Figure 7) If equipped with room locks, the room locks will automatically extend when the room is fully retracted. Reference the GREEN LED indications above to determine component movement.
3. Release the button when room is fully retracted or when the room locks are fully extended and stop moving.
4. Turn 'OFF' the on/off switch or key (if so equipped).
5. Install the transit bars (if so equipped).

Figure 4



SET STOPS/CLEAR FAULT BUTTON

Figure 7



Fault Diagnostics

The control has the ability to detect several faults. When a fault is detected, the room movement will stop and the RED LED (Figure 7) will flash a number of times corresponding to a specific fault code listed below.

- There are 2 types of faults (Minor and Major) and a fault must be cleared in order for the room to operate.
  - **MINOR** faults can be cleared by pushing the 'IN' and 'OUT' buttons on the wall touchpad
  - **MAJOR** faults must be cleared by pushing the 'Set Stop/Clear Fault' button located on the back of the wall touchpad (Figure 4). This is done to alert the end user that there is a major problem with the system and to prevent damage to the slideout room.

    NOTE:

    - For fault codes 8, 9, or 10 the control must be overridden by following the **Emergency Retract Mode** (listed below) and the control must be reprogrammed (See **Program Mode**) when the fault is fixed.
- To determine the fault, count the number of GREEN and RED LED flashes on the wall touchpad (Fig 7) The number of flashes corresponds to a fault code number.
  - GREEN LED refers to the fault that has occurred with a specific motor. Example:1 LED flash represents Motor 1; 2 flashes represents Motor 2; etc.

    NOTE:

    - The only exception is with minor battery fault codes 2, 3, or 4. These faults apply to the entire system and are not motor specific but the control will flash the GREEN LED once to signify the start/end of the fault flash code.
  - RED LED refers to the fault that has occurred.

Troubleshooting

Fault Code	Fault Type	Description	Probable Cause	Possible Solutions
1	Major	Stop Not Programmed	No stop locations have been set for the control	Set stop locations. Refer to Program Mode procedures to set stops
2	Minor	Battery Dropout Voltage. Voltage dropped below 8.0V	Bad Battery, bad wire connection or short in system	Repair bad wire connection, short or replace battery
3	Minor	Low Battery Voltage. Voltage is below 10.5V when room movement was initiated	Bad wire connection from battery to control or low battery	Repair bad wire connection or replace battery
4	Minor	Excessive Battery Voltage. Battery Voltage is above 18.0V when room movement was initiated.	Bad battery	Replace battery
5	Minor	Slideout motor drawing excessive current	Excessive system/room drag, obstruction, improper stop locations or damaged component	Remove obstruction, re-adjust room, reset stops, or replace damaged component
6	Major	Slideout Motor Short	Shorted wiring or motor	Inspect motor harness wires and motor for shorts. Replace shorted component.
7	Major	Slideout Motor Open	Bad connection, motor or blown fuse.	Repair bad wire connection, replace motor or fuse
8	Major	No signal on motor sensor Out 1 (yellow) wire	Bad wire connection or sensor	Repair bad wire connection or replace motor *
9	Major	No signal on motor sensor Out 2 (blue) wire	Bad wire connection or sensor	Repair bad wire connection or replace motor *
10	Major	No signal on motor sensor wires yellow or blue	Bad wire connection or sensor	Repair bad sensor or motor lead connections. Lastly, replace motor. *
11	Minor	Room lock motor drawing excessive current	Excessive drag or obstruction or damaged component	Remove obstruction or replace damaged component
12	Major	Room lock motor short	Shorted wiring or motor	Inspect motor harness wires and motor for shorts. Replace shorted component
13	Major	Room lock motor open	Bad connection or motor	Repair bad connection or replace motor
14	Minor	Room lock timeout	Bad wire connection, obstruction, broken component or low voltage	Remove obstruction, replace battery, repair bad wire connection or fix broken component in room lock

***Refer to Tip Sheet 82-S0539 and 82-S0540**

CAUTION

During override mode the control has no stop locations. Use another individual to assist in determining when the room is retracted. Damage to the room can occur during over travel.

WARNING

After the room has been moved in the desired direction, the brake levers on each motor MUST be returned to the "engaged" position. When the motor brake is disengaged, the slideout room will not lock into place; therefore, the room will not be sealed. When the room has been manually retracted, be sure to install the transit bars (if so equipped) and return the motor brake lever to its normal engaged position in order to seal and lock the room into position. Do not travel unless each motor brake is in the "engaged" position!

WARNING

If the room has been moved while the motor sensing control harness has been unplugged, do not attempt to use the room again until a service center has reprogrammed the computerized controller according to the service manuals instructions. Failure to reset the controller may cause damage to the system or coach.

Override Modes

●●●●In the event of component failure of loss of system power●●●●
Your system can be manually overridden.

NOTE:

- At anytime during the override procedure, the unit will exit override mode if the room had not been moved for 45 seconds or if a fault is detected during overriding, the LED will flash rapidly for 10 seconds to indicate that the override procedure failed. After 10 seconds of flashing, the control will automatically default to fault code 1 (stops not programmed) and the override mode must be re-done.
- The room control will need to be re-programmed (refer to **Program Mode**) after the system has been overridden.

1. **Emergency Retract Mode** - use this procedure when there is NO loss of power or electrical problem with the system.
    1. Remove the touchpad (**Fig 7)** from the wall
    2. Press and hold the "Set Stops/Clear Fault" button on the back of the wall touchpad for 5 seconds **(Figure 4)**. Both LED's will light while the button is held down. **(Figure 7)**

NOTE:

- After 5 seconds, the GREEN LED will begin flashing and the RED LED will remain lit.
- If the room is equipped with room locks and the room locks are extended, the room locks will retract automatically.

    3. The unit is now ready to retract the room.
        a. Press the IN button on the front of the wall touchpad (**Figure 7**) until the room is fully retracted.
    4. Re-install the wall touchpad.
    5. Take your unit to a certified dealer for repairs. Done

2. ***-or-*** **Emergency Retract Module (ERM)** - This procedure is an alternate to the above procedure and can only be used with Power Gear control P/N 1510000108 (Refer to **Figure 1B**). This kit (P/N 1010001197) can be purchased from Power Gear. The kit contains a module that will bypass the control and send power to the slideout motors.

3. ***-or-*** **Manual Crank Mode** - use this procedure when the above procedures do not work.

The system has been equipped with 3/4" hex override couplers located on a drive component of the system. Due to the size and weight of some rooms, assistance may be needed and care taken during the process. Use the following steps to mechanically operate the room:

1. Locate the motor and 3/4" hex coupler. (Figure 8) The hex coupler may not be attached to the motor as pictured but attached to a system drive component.
2. Unplug each motor connector. Leave the sensor connector attached.

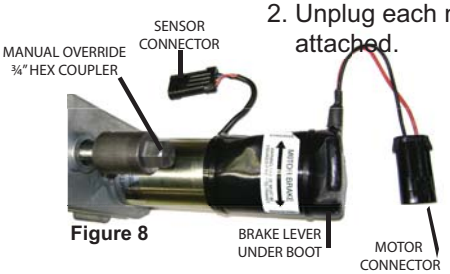


Figure 8

3. With your thumb, depress the spring lock lever on the right hand side of the boot cover, then rotate the override lever counter-clockwise with your index finger to disengage the motor brake. (Refer Fig 9.)
4. Use a wrench or socket and ratchet to turn the override coupler in the direction required to retract the room.

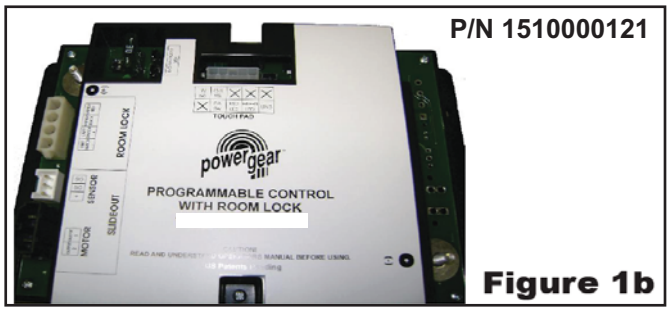
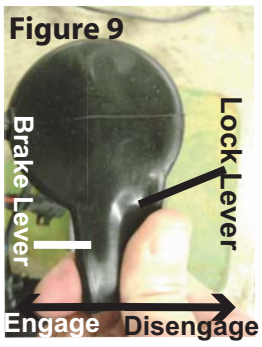


Figure 1b



Override Modes, continued...

NOTE:

If only one or two people are available to move the room, the following procedure must be followed:

- Start at the front of the coach, release the motor brake, rotate the shaft approximately 1/8 turn, re-apply the motor brake.
- Proceed to the next rail with motor. Release the motor brake, rotate the shaft approximately 1/8 turn, re-apply the motor brake.
- Repeat this procedure until the room has been fully opened or closed as desired.

5. Once room is fully retracted, re-engage brake lever on motor. (Fig 9)

6. Re-connect the motor leads to the connector.

7. Take the unit to an authorized dealer for service. Do not use the slideout room as damage to the room may result.

Additional Reference Publications located at powergearus.com

•3010001345 - Installation & Service Manual Room Slideout Systems with Control Box #1510000120 & #1510000121
•82-SO539 - Encoder Test 1
•82-SO540 - Encoder Test 2