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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 slide out rails when room is being operated. The gear assembly may pinch or catch on loose clothing.
### Reference Numbers

<table>
<thead>
<tr>
<th>Reference #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Programmer (teach pendant) connection</td>
</tr>
<tr>
<td>2</td>
<td>LED operation indicator</td>
</tr>
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<td>5</td>
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</tr>
</tbody>
</table>

![Diagram of Slide Out Controls]

- **Reference #1**: Programmer (teach pendant) connection
- **Reference #2**: LED operation indicator
- **Reference #3**: Motor plug
- **Reference #4**: Sensor plug
- **Reference #5**: Incoming Battery + / Battery -
- **Reference #6**: Room locks plug with jumper wire

**Diagram Notes**:
- **5**: Incoming Battery -
- **5**: Incoming Battery +
- **6**: Room locks plug
Trouble Shooting Slide Out Controls

**Slide room will not operate at all**

- Were the field reset buttons or I and O buttons pressed on the control box?
  - Yes
    - The programmed in and out stops were erased. Use a teach pendant / programmer and instructions to reprogram the stops.
  - No

- Does the control have constant +13VDC between the battery - and battery + lug? (See REF #5)
  - Yes
    - When the wall switch is pressed, does pin 2 of the switch connector on the control box have 12 VDC output? (See REF #1)
      - Yes
        - Unplug switch harness and test pin 2 of the switch connector on the control box. Does pin 2 have 12 VDC output? (See REF #1)
      - No
        - Replace the fuse.

- Is there power across the 40 amp motor fuses on the control box?
  - Yes
    - Contact the coach manufacturer for the wiring diagram from the wall switch to control box and further trouble shooting.
  - No
    - Contact the coach manufacturer for the power / ground supplies for the slide out control box.

- Is there power across the 40 amp motor fuses on the control box?
  - Yes
    - Use teach pendant / programmer 140-1176 and see document number 82-S0514 at www.powergearus.com
  - No

- Start engine, does the slide out room move when wall switch is pressed?
  - Yes
    - Use slide out room as designed.
  - No
    - Is the engine running?
      - Yes
        - Contact the coach manufacturer for the wiring diagram from the wall switch to control box and further trouble shooting.
      - No
        - Replace the control box

- Does the control box have constant +13VDC between the battery - and battery + lug? (See REF #5)
  - Yes
    - When the wall switch is pressed, does pin 1 (OUT) at the switch connector on the control box have 12 VDC input? (See REF #1)
      - Yes
        - Use teach pendant / programmer 140-1176 and see document number 82-S0514 at www.powergearus.com
      - No
        - Replace the fuse.
  - No
    - Use teach pendant / programmer 140-1176 and see document number 82-S0514 at www.powergearus.com

- When the wall switch is pressed, does pin 3 (IN) at the switch connector on the control box have 12 VDC input? (See REF #1)
  - Yes
    - Contact the coach manufacturer for the wiring diagram from the wall switch to control box and further trouble shooting.
  - No

**LED’s**

- LED’s stay solid or momentary flash when the wall switch is pressed? (See REF #2)
  - Yes
    - Momentary flash
      - Go to “B”
  - No
    - Go to “C”
Trouble Shooting Slide Out Controls 140-1233, 140-1249(S), 151

**“A”** Control box motor LED’S stay solid

The control box is sending power to the motor assemblies. If the room is not moving inspect rails for damaged parts. Contact the coach manufacturer for the “Power Gear system number” for parts breakdown.

- Are the hitch pin clips installed on the gear shaft?
  - Yes
    - Replace the hitch pin clips. Contact the coach manufacturer for the “Power Gear system number”
  - No
    - Are the shear pins or woodruff key broken or missing on the inner rail?
      - Yes
        - Replace the shear pins or woodruff key. Contact the coach manufacturer for the “Power Gear system number”
      - No
        - Are all the teeth still on the slide out gear?
          - Yes
            - Contact the coach manufacturer for the “Power Gear system number”
          - No
            - Are all the teeth still on the gear rack of the inner rail?
              - Yes
                - Contact the coach manufacturer for the “Power Gear system number”
              - No
                - Are the inner and outer rollers broken or missing?
                  - Yes
                    - Contact the coach manufacturer for the “Power Gear system number”
                  - No
                    - Are the gear shaft bearings broken or missing?
                      - Yes
                        - Contact the coach manufacturer for the “Power Gear system number”
                      - No
                        - Contact Power Gear at www.powergearus.com

- Hitch pin
- Shear Pin
- Woodruff Key
- Gear
- Gear Rack on the bottom of Inner Rail
- Roller
- Hitch Pin, Bearing, Roller, Gear Shaft, Woodruff Key, Gear, Roller, Bearing, Hitch Pin
Control box LED’s Momentary Flash

Control box is not operating because it senses one of these conditions:
1) bad harness connection
2) low voltage / high motor amp draw
3) one or more motors not moving
4) reversed motor wires
5) reversed encoder signal wires

Are the connectors pinned correctly at each end of the 4 pin sensor harnesses? (REF 4 & wiring diagram)
Yes
No
Re-pin the 4 pin sensor harnesses correctly. (REF 4 & wiring diagram)

Are the connectors pinned correctly at each end of the 2 pin motor harnesses? (REF 3 & wiring diagram)
Yes
No
Re-pin the 2 pin motor harnesses correctly. (REF 3 & wiring diagram)

Correctly plug in harnesses and try to move the room. Does the room move?
Yes
No
Use slide out room as designed.

Are the motor and encoder harnesses all plugged in?
Yes
No
Unplug the motor connectors at the slide out control box. Do the motors operate when direct 12VDC is applied to the motor leads?
Yes
No
Fix or replace the motor harness wires

Unplug the motor harness back into control box. Unplug motor connector at motor. Do the motors operate when direct 12volts is applied to the red wire and ground to the black wire at the slide out motor leads?
Yes
No
Replace the slide out motor

Replace the control box

Are the wires pinned correctly on the 2 pin slide out motor connector? (REF wiring diagram)
Yes
No
Re-pin the 2 pin motor connector correctly on motor

Are the wires pinned correctly on the 4 pin slide out motor sensor connector? (REF wiring diagram)
Yes
No
Re-pin the 4 pin sensor connector correctly on motor

Replace the motor

Use teach pendant/programmer 140-1176 and see document number 82-S0514 at www.powergear.com

Are the connectors pinned correctly at each end of the 4 pin sensor harnesses? (REF 4 & wiring diagram)
Yes
No
Re-pin the 4 pin sensor harnesses correctly. (REF 4 & wiring diagram)

Fix or replace the motor harness wires

Replace the slide out motor

Use teach pendant/programmer 140-1176 and see document number 82-S0514 at www.powergear.com

Are the connectors pinned correctly at each end of the 2 pin motor harnesses? (REF 3 & wiring diagram)
Yes
No
Re-pin the 2 pin motor harnesses correctly. (REF 3 & wiring diagram)

Fix or replace the motor harness wires

Replace the slide out motor

Use teach pendant/programmer 140-1176 and see document number 82-S0514 at www.powergear.com

Are the connectors pinned correctly at each end of the 4 pin sensor harnesses? (REF 4 & wiring diagram)
Yes
No
Re-pin the 4 pin sensor harnesses correctly. (REF 4 & wiring diagram)
Are the connectors pinned correctly at **each end of the 4 pin sensor harnesses**? (REF 4 & wiring Diagram)

---

Are the wires pinned correctly on the **4 pin slide out motor sensor connector**? (REF wiring Diagram)

---

Are the wires pinned correctly on the **2 pin slide out motor sensor connector**? (REF wiring Diagram)

---

Are the wires pinned correctly on the **2 pin motor harnesses**? (REF 3 & wiring Diagram)

---

Are the wires pinned correctly on the **2 pin motor connector**? (REF wiring diagram)

---

Are the motors operate when direct 12VDC is applied to the motor leads?

---

Unplug the motor connectors at the slide out control box. Do the motors operate when direct 12VDC is applied to the motor leads?

---

Plug motor harness back into control box. Unplug motor connector at motor. Do the motors operate when direct 12VDC is applied to the red wire and ground to the black wire at the slide out motor leads?

---

Fix or replace the motor harness wires

---

Replace the control box

---

Use teach pendant/programmer 140-1176 and see document number 82-S0514 at www.powergearus.com

---

Replace the slide out motor

---

Re-pin the 2 pin motor harnesses correctly. (REF wiring diagram)

---

Re-pin the 4 pin sensor harnesses correctly. (REF 4 & wiring diagram)

---

Replace the 2 pin motor connector correctly on motor.
The slide out room works in **teach mode** but not in **run mode** when using the teach pendant /programmer.

- **Start engine, does the slide out room move when wall switch is pressed?**
  - No
  - Use slide out room as designed.
  - Yes
  - Is the engine running?
    - No
    - Use teach pendant /programmer for the power /ground supplies for the slide out control box.
    - Yes
    - **Does the control box have constant +13VDC between the battery - and battery + lug?** See (REF #5)
      - No
      - **Were the field rest buttons or I and O buttons pressed on the control box?**
        - Yes
        - The programmed in and out stops were erased. Use a teach pendant/programmer and the instructions to reprogram the stops.
        - No
        - Test encoders per document number 82-S0524 at www.powergearus.com
          - No
          - **Is the encoder on the motor sending the signals to the control box?**
            - Yes
            - Repair wiring or replace encoder(s) or motor/encoder assembly. See part number label on motor for identification.
            - No
            - Re-pin the 4 pin sensor harnesses correctly. (REF wiring diagram)
              - Yes
              - Re-pin the 2 pin motor harnesses correctly. (REF wiring diagram)
                - No
                - Re-pin the 2 pin motor harnesses correctly. (REF wiring diagram)
                  - Yes
                  - Are the wires pinned correctly at each end of the 2 pin motor harnesses? (REF wiring diagram)
                    - Yes
                    - Are the wires pinned correctly on the 4 pin sensor connector on the motor? (REF wiring diagram)
                      - Yes
                      - Are the wires pinned correctly on the 2 pin motor connector? (REF wiring diagram)
                        - Yes
                        - Are the wires pinned correctly on the motor? (REF wiring diagram)
                          - Yes
                          - Contact the coach manufacturer for the power /ground supplies for the slide out control box.
                            - No
                            - Use slide out room as designed.
                              - No
                              - Are the field rest buttons or I and O buttons pressed on the control box?
                                - Yes
                                - **Does the control box have constant +13VDC between the battery - and battery + lug?**
                                  - Yes
                                  - Use teach pendant /programmer 140-1176 and see document number 82-S0514 at www.powergearus.com
                                    - No
                                    - **Were the field rest buttons or I and O buttons pressed on the control box?**
                                      - Yes
                                      - The programmed in and out stops were erased. Use a teach pendant/programmer and the instructions to reprogram the stops.
                                        - No
                                        - Test encoders per document number 82-S0524 at www.powergearus.com
                                          - No
                                          - **Is the encoder on the motor sending the signals to the control box?**
                                            - Yes
                                            - Repair wiring or replace encoder(s) or motor/encoder assembly. See part number label on motor for identification.
                                              - No
                                              - Re-pin the 4 pin sensor harnesses correctly. (REF wiring diagram)
                                                - Yes
                                                - Re-pin the 2 pin motor harnesses correctly. (REF wiring diagram)
                                                  - No
                                                  - Re-pin the 2 pin motor harnesses correctly. (REF wiring diagram)
Slide out room works with teach pendant /programmer in run mode, but does not work when coach wiring connections are plugged back into slide out control.

The slide out control and slide out system is working as designed.

The slide out control box is not receiving the correct inputs signals from the coach side wiring to operate the slide out control box.

Contact the coach manufacturer for the wall switch to control box wiring diagram and further trouble shooting.
### Additional Reference Publications Located At

**WWW.POWERGEARUS.COM**

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<thead>
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<th>Reference Code</th>
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<tbody>
<tr>
<td>81-1299</td>
<td>Slide out room height adjustment</td>
</tr>
<tr>
<td>82-S0295</td>
<td>Flat floor room height adjustment</td>
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<tr>
<td>82-S0378</td>
<td>Operators manual full wall slide systems</td>
</tr>
<tr>
<td>82-S0379</td>
<td>Service / Installation manual full wall slide system</td>
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<tr>
<td>82-S0503</td>
<td>Electric slide out system operations and service manual</td>
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<tr>
<td>82-S0510</td>
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<td>82-S0514</td>
<td>140-1176 Programmer / teach pendant Instructions</td>
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<tr>
<td>82-S0524</td>
<td>Encoder Test 1: slide out controls 140-1233, 140-1249 (S), 1510000165</td>
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<tr>
<td>82-S0525</td>
<td>Encoder Test 2: slide out controls 140-1233, 140-1249 (S), 1510000165</td>
</tr>
<tr>
<td>3010000062</td>
<td>Service manual Gulf Stream electronic full wall slide systems</td>
</tr>
<tr>
<td>3010000067</td>
<td>Trouble shooting Information for Rv slide outs, emergency retract module instructions (ERM)</td>
</tr>
</tbody>
</table>
Over the years of running a mobile RV repair service, having a dedicated place to access service manuals for all the different appliances and components found on RVs was something that I always had a desire to create.

I hope this resource makes your RV repairs easier, as it has mine, but please be careful and follow proper safety practices when attempting to repair your own RV.

If in doubt, please consult with a professional RV technician!

All service manuals provided on www.myrvworks.com are believed to be released for distribution and/or in the public domain.