



Encoder Test 1

Dual Sync Slide Controllers

(M2):

1510000122, 1510000143, and
1510000198

© Copyright PowerGear Issued: February, 2012

#82-S0521, Rev. 0B 06/2013



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



CAUTION

During emergency retract mode the control has no stop locations. Damage to the room can occur during over travel of the slide out rails. Do not allow rails to become too far out of sync with each other. This will cause the room to bind and may cause damage to the slide out rail.



WARNING

If the room was moved while the encoder was unplugged, the room stops will need to be reset. Consult the correct manual or TIP Sheet for the proper procedure.

Read, understand, and follow all instructions in this test before starting.

Test 1: Use this test only if the slide out room can be moved while in emergency retract mode (see manual #3010001344). **To enter emergency retract mode:**

1. Write down the number of flashes indicated by the red and green led's on the wall switch for reference later.
2. Remove the switch from the wall.
3. Press and hold the "sets stops/clear fault" button on the back of the wall switch for 5 seconds. Both led's will come on solid, after 5 seconds the Green LED will flash and Red will stay solid.
4. Press and hold **all** the motor buttons on the back of the wall switch. Press the IN or OUT button on the front of the wall switch until the room moves at least 12" in either direction. Once the room is moved 12", release the IN or OUT button. **The slide out control times out after 2 minutes of no movement. If it times out, start process over beginning with step 3.**
5. If the room will not operate in emergency retract mode, proceed to Test 2, or contact Power Gear at www.lci1.com

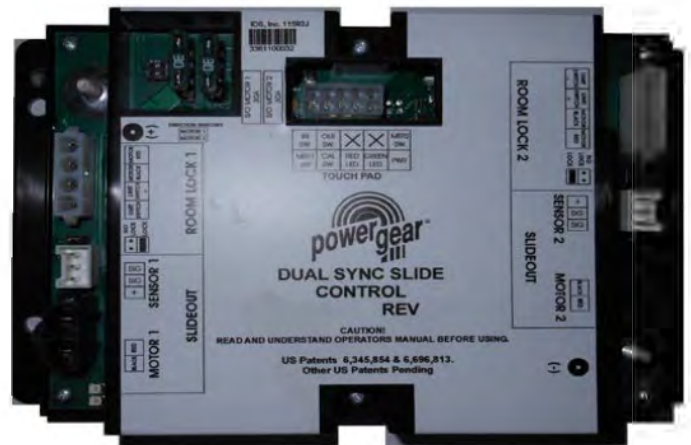
Note: All the harnesses need to stay plugged in during this test.

Fault Code:

Code 8, 9, or 10
on control
1510000122

4 Wire Internal Encoder Testing

Means no signal on sensor wire. On the wall switch, the Green LED flashes to identify which encoder is in fault (see owner's manual 3010001344)



1510000122

Fault Code:

Code 5 on control
1510000143 and
1510000198

4 Wire Internal Encoder Testing

Means no signal on sensor wire. On the wall switch, the Green LED flashes to identify which encoder is in fault (see owner's manual 3010001344)



1510000143 or 1510000198



! NOTE

Note: All the harnesses need to stay plugged in during this test.

! CAUTION

During emergency retract mode the control has no stop locations. Damage to the room can occur during over travel of the slide out rails. Do not allow rails to become too far out of sync with each other. This will cause the room to bind and may cause damage to the slide out rail.

! WARNING

If the room was moved while the encoder was unplugged, the room stops will need to be reset. Consult the correct manual or TIP Sheet for the proper procedure

Step 1: Verifying incoming voltage and ground to the control box.

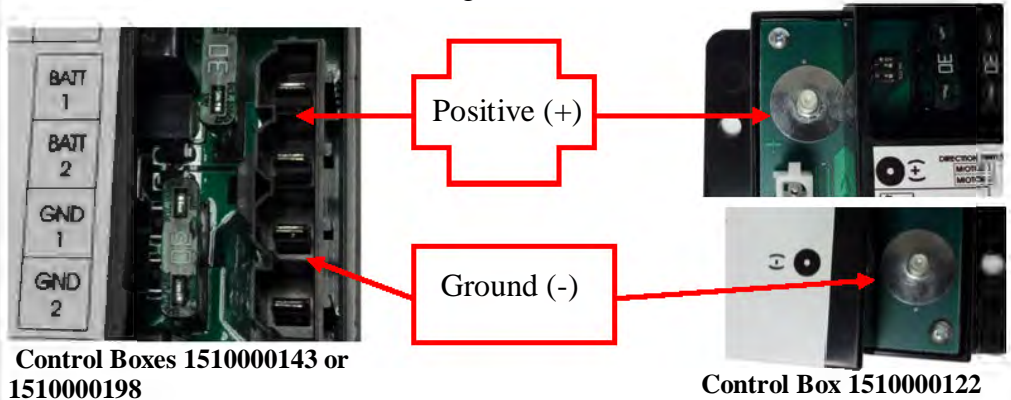
The slide out control main power connector needs a minimum of +12 VDC and a good ground to operate correctly. **This requires the coach engine to be running.** See note to left.

To test the 1510000122 control, use a multi-meter and check for +12 VDC at the main power connectors between the (+) symbol and the (-) symbol on the opposite sides of the control board. See Figure 1.

To test the 1510000143 or 151000198 control, back probe the connector using a multi-meter and check for a minimum of +12 VDC at the main power connection between the following: for the Front Encoder, probe between the "BATT 1" and "GND 1". For the Rear Encoder, probe between "BATT 2" and "GND 2". See Figure 1

If no power or ground or less than 12 DC Volts are measured between the pins, contact the OEM for the power and ground sources.

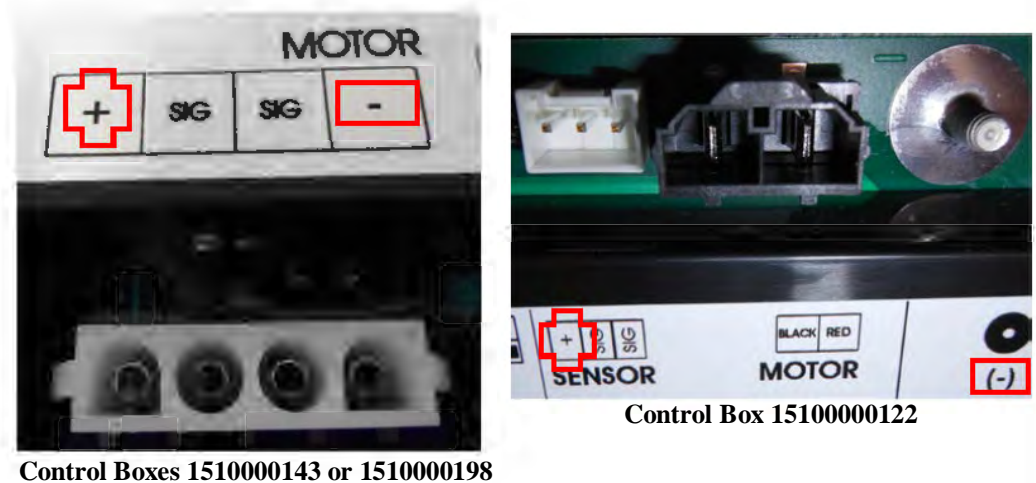
Figure 1



Step 2: Verifying the control box is sending power and ground to the encoder. See note to left.

Set multi-meter to DC volts, and back probe at the Controller Sensor Connection. To test the Front Encoder, probe between "+" (power) and "-" (ground) at motor 1 or sensor 1 depending on your control box part number. For the Rear Encoder, probe between "+" (power) and "-" (ground) at motor 2 or sensor 2 depending on your control box part number. This voltage should read 5-7 VDC. See Figure 2

Figure 2



NOTE

Note: All the harnesses need to stay plugged in during this test.

CAUTION

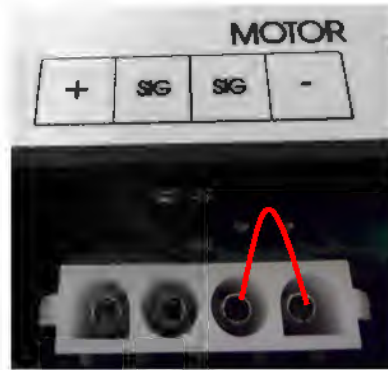
During emergency retract mode the control has no stop locations. Damage to the room can occur during over travel of the slide out rails. Do not allow rails to become too far out of sync with each other. This will cause the room to bind and may cause damage to the slide out rail.

WARNING

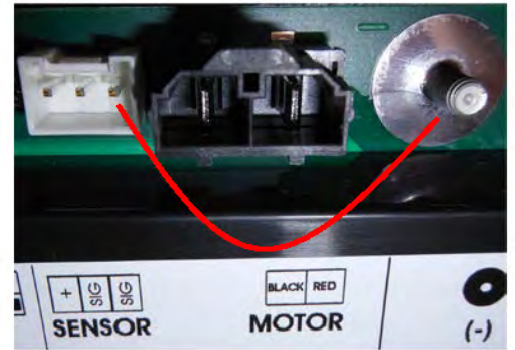
If the room was moved while the encoder was unplugged, the room stops will need to be reset. Consult the correct manual or TIP Sheet for the proper procedure

Step 3: Checking the first encoder signal. There are 2 signal wires per encoder. See note to left.

Set multi-meter to AC Volts, and while the room (use emergency retract mode) is moving back probe at the controller sensor connection. For the Front Encoder, probe between the "-" and "sig" at motor 1 or sensor 1 depending on your control box part number. For the Rear Encoder probe between the "-" and "sig" at motor 2 or sensor 2 depending on your control box part number. See Figure 3. This should be a steady AC signal. If there is a steady AC Voltage, proceed to step 5.



Control Boxes 1510000143 or 1510000198

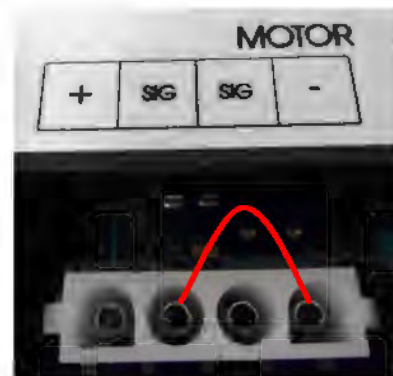


Control Box 1510000122

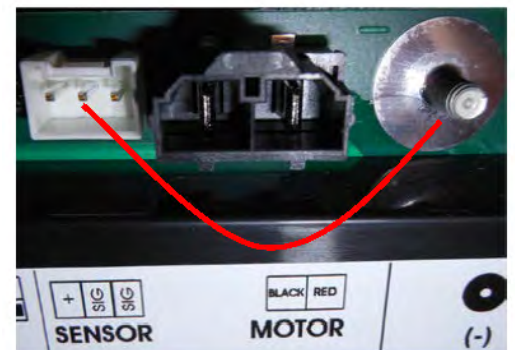
Figure 3

Step 3 Continued: Checking for the second encoder signal.

Set multi-meter to AC Volts, and while the room (use emergency retract mode) is moving, back probe at the controller sensor connection. For the Front Encoder probe between the "-" and "sig" at motor 1 or sensor 1 depending on your control box part number. For the Rear Encoder, probe between the "-" and "sig" at motor 2 or sensor 2 depending on your control box part number. See Figure 4. This should be a steady AC signal. If there is a steady AC Voltage, proceed to step 5.



Control Boxes 1510000143 or 1510000198



Control Box 1510000122

Figure 4

Step 4: Checking the harness continuity and all connections.

If there is no voltage reading from the encoder or the AC Voltage reading was **NOT** steady, check the following:

A: Check the continuity of the harness between the controller encoder pins and the motor encoder pins. If the harness does not have continuity, then replace the bad wire, or the harness. The harness can also be checked from pin to pin for continuity, and from each pin to ground. There should not be continuity to ground, or pin to pin.

B: Check the connections at the motor and control box. Repair any loose connections or loose pins. If the continuity of all the harness wires tests good, and connections are good, then replace the motor assembly. See the motor label for the Power Gear part number for replacement.

Step 5: If the tests in step 3 show a steady AC Voltage at the controller sensor connection, please contact Power Gear at www.lci1.com for further diagnostic.



Additional Reference Publication located at
www.lci1.com

Document #	Description:
3010001344	Owner's Manual M2 Sync Room Slide Out Systems: for Slide out Control boxes 1510000122, 1510000143 and 1510000198
3010001343	Installation and Service Manual for M2 Sync Slide Out Control Box 1510000122
30100002088	Installation and Service Manual M2 Sync Room Slide Out System Without Room Locks for Slide Out Control Boxes 1510000143 and 1510000198
82-S05022	Encoder Test 2 Dual Sync Slide Controllers (M2) , 1510000122, 1510000143, and 1510000198