Troubleshooting Slide-Out Controls 140-1233, 140-1249(S), 1510000165

© Copyright Power Gear Issued: October 2012 3010002189, Rev. OB 8/13

Table of Contents: Page:

Control box pictures 1
Wiring diagram 2

Reference numbers 3

Slide room will not operate at all 4

"A": Control box motor LED's stay solid 5

"B": Control Box motor LED's Momentary flash 6

"C": No motor LED's 7

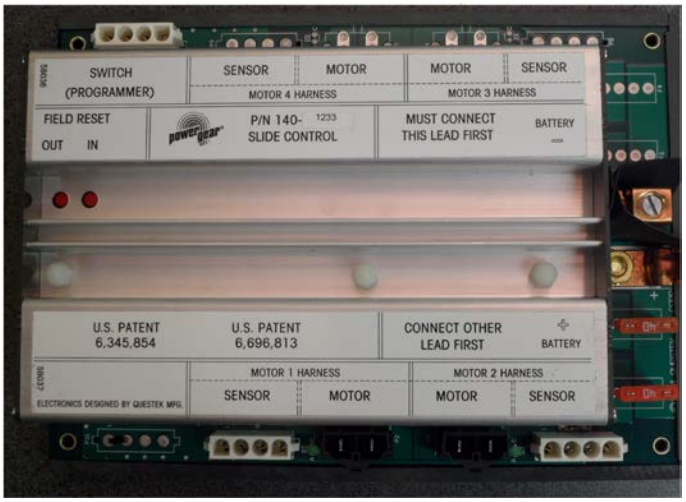
The slide-out room works in teach mode, but **not** in run mode when using the teach pendant / programmer 8

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. 9

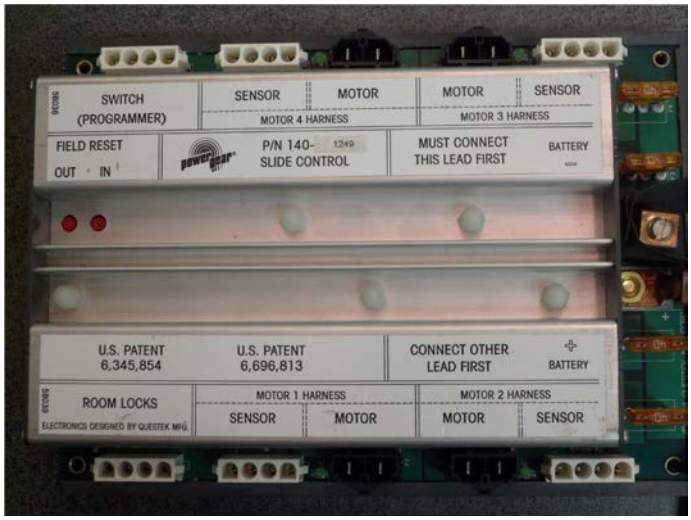
Additional reference documents 10

WARNING

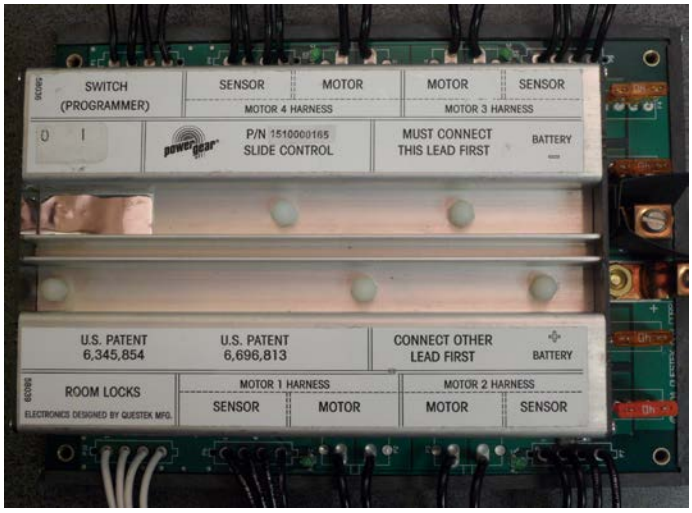
Always make sure that the slide-out room path is clear of people and objects before and during operation of the slide-out room. Always keep away from the slide-out rails when room is being operated. The gear assembly may pinch or catch on loose clothing.



140-1233

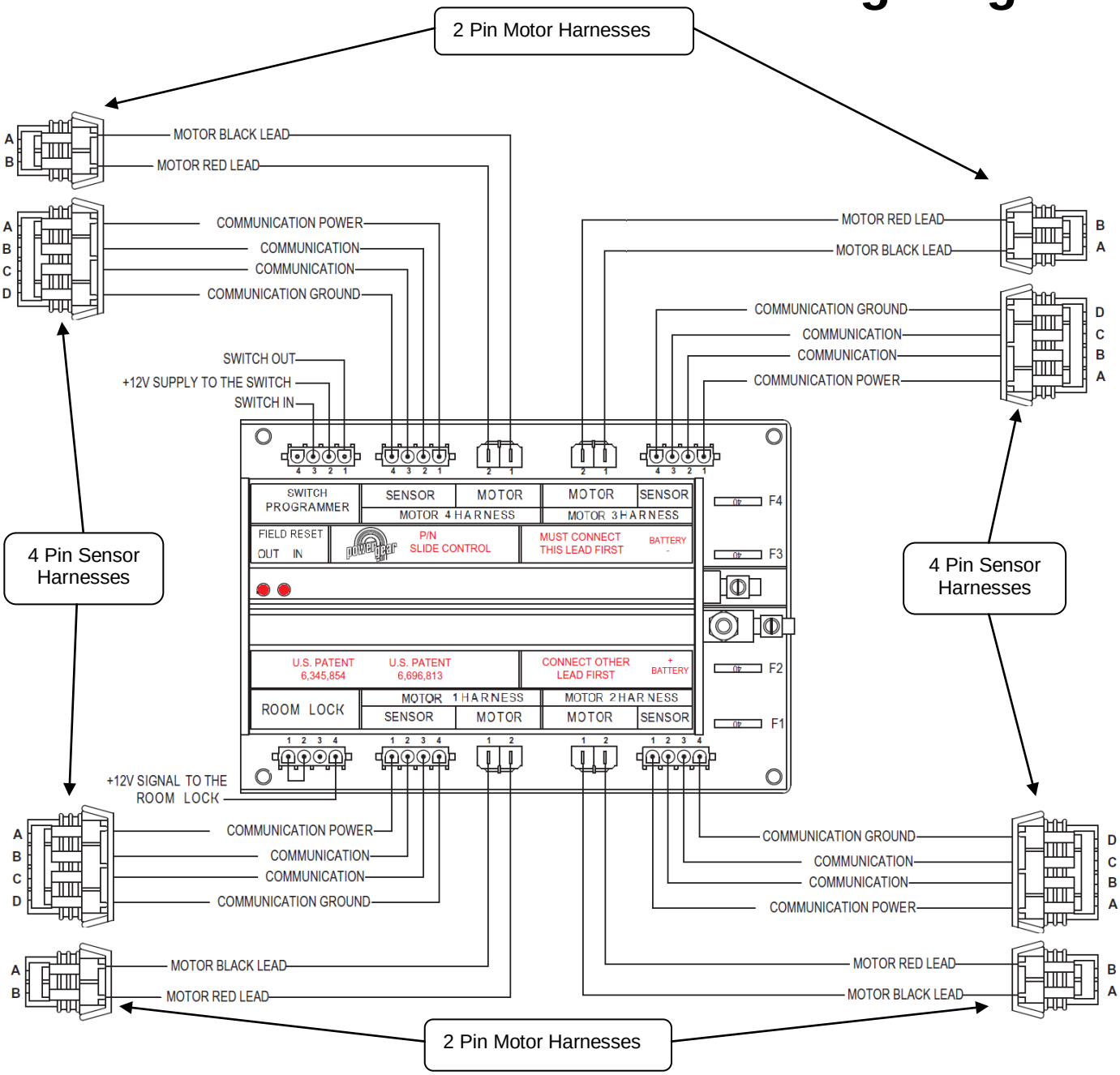


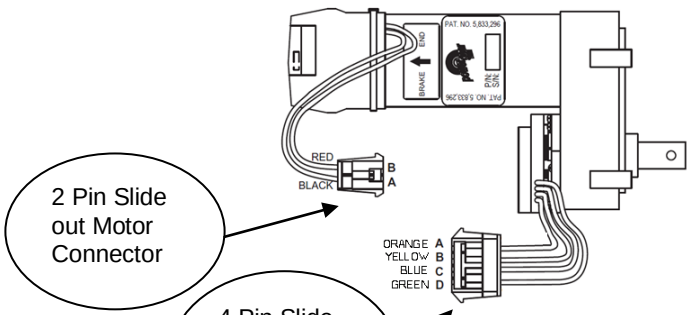
140-1249(S)



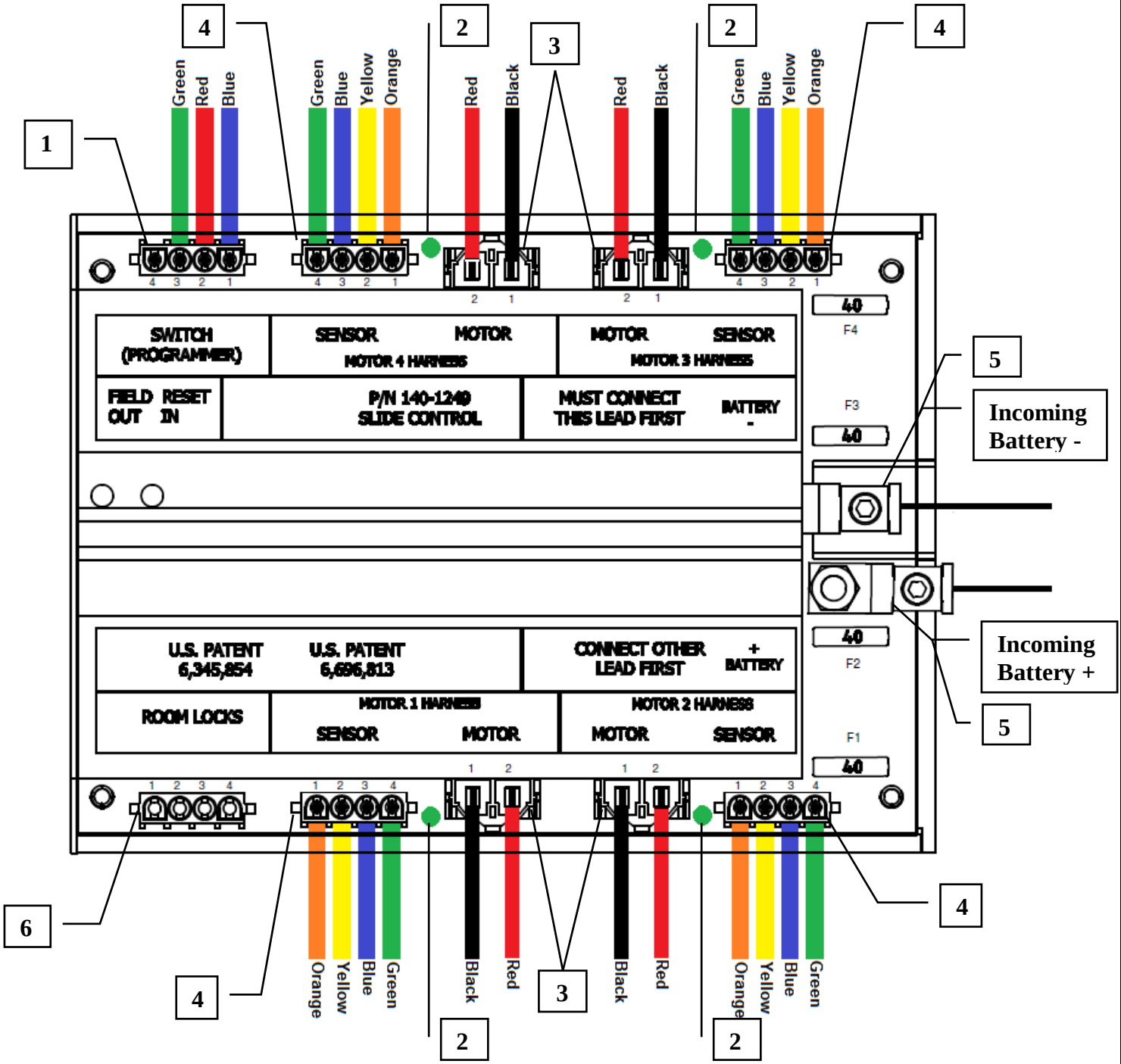
1510000165

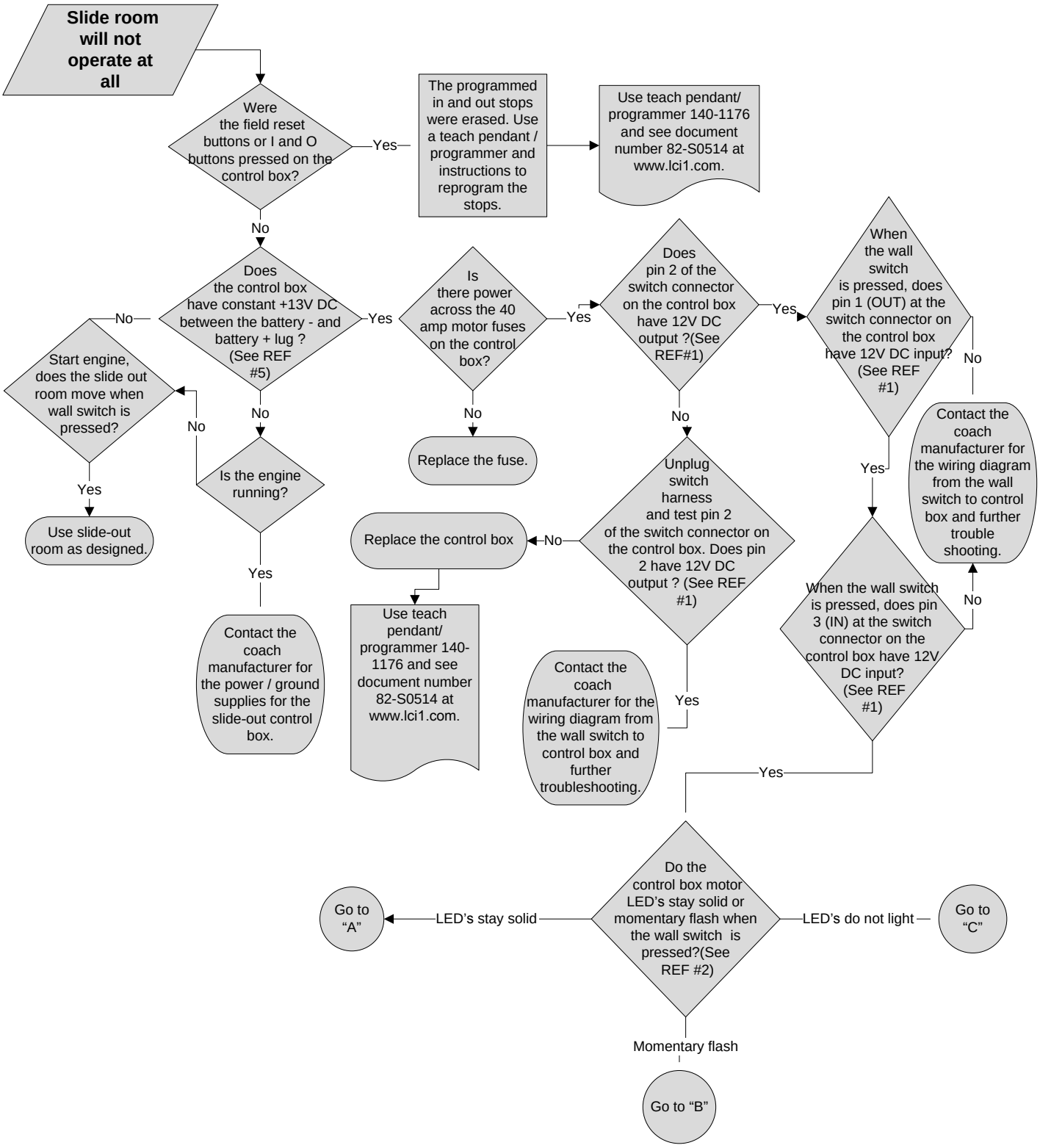
Wiring Diagram





REFERENCE NUMBERS	
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




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.
Use teach pendant/ programmer 140-1176 and see document number 82-S0514 at www.lci1.com.
No
Does the control box have constant +13V DC between the battery - and battery + lug ? (See REF #5)
No
Yes
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 power / ground supplies for the slide-out control box.
No
Is there power across the 40 amp motor fuses on the control box?
Yes
No
Replace the fuse.
Does pin 2 of the switch connector on the control box have 12V DC output ?(See REF#1)
Yes
No
Unplug switch harness and test pin 2 of the switch connector on the control box. Does pin 2 have 12V DC output ? (See REF #1)
No
Replace the control box
Use teach pendant/ programmer 140-1176 and see document number 82-S0514 at www.lci1.com.
Yes
Contact the coach manufacturer for the wiring diagram from the wall switch to control box and further troubleshooting.
When the wall switch is pressed, does pin 1 (OUT) at the switch connector on the control box have 12V DC input? (See REF #1)
No
Contact the coach manufacturer for the wiring diagram from the wall switch to control box and further trouble shooting.
Yes
When the wall switch is pressed, does pin 3 (IN) at the switch connector on the control box have 12V DC input? (See REF #1)
No
Yes
Do the control box motor LED's stay solid or momentary flash when the wall switch is pressed?(See REF #2)
LED's stay solid
Go to "A"
LED's do not light
Go to "C"
Momentary flash
Go to "B"

"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 break down.

Are the hitch pin clips installed on the gear shaft?
- No → Replace the hitch pin clips. Contact the coach manufacturer for the "Power Gear system number"
- Yes ↓

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?
- No → Replace the gear using tip sheet 82-S0507 at www.lci1.com
- Yes ↓

Are all the teeth still on the gear rack of the inner rail?
- No → Contact the coach manufacturer for the "Power Gear system number"
- Yes ↓

Are the inner and outer rollers broken or missing?
- Yes → Contact the coach manufacturer for the "Power Gear system number"
- No ↓

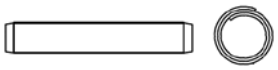
Are the gear shaft bearings broken or missing?
- Yes → Contact the coach manufacturer for the "Power Gear system number"
- No ↓

Contact Lippert Components at www.lci1.com.

Hitch pin



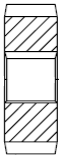
Shear Pin



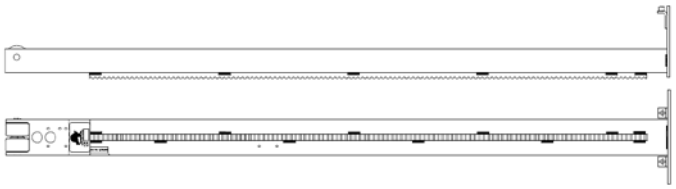
Woodruff Key



Gear



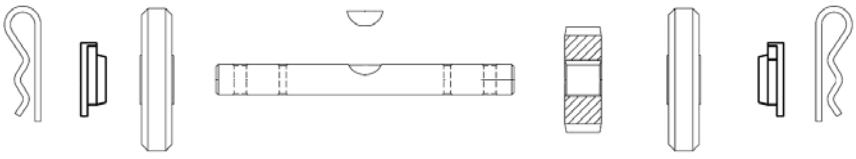
Gear Rack on the bottom of Inner Rail

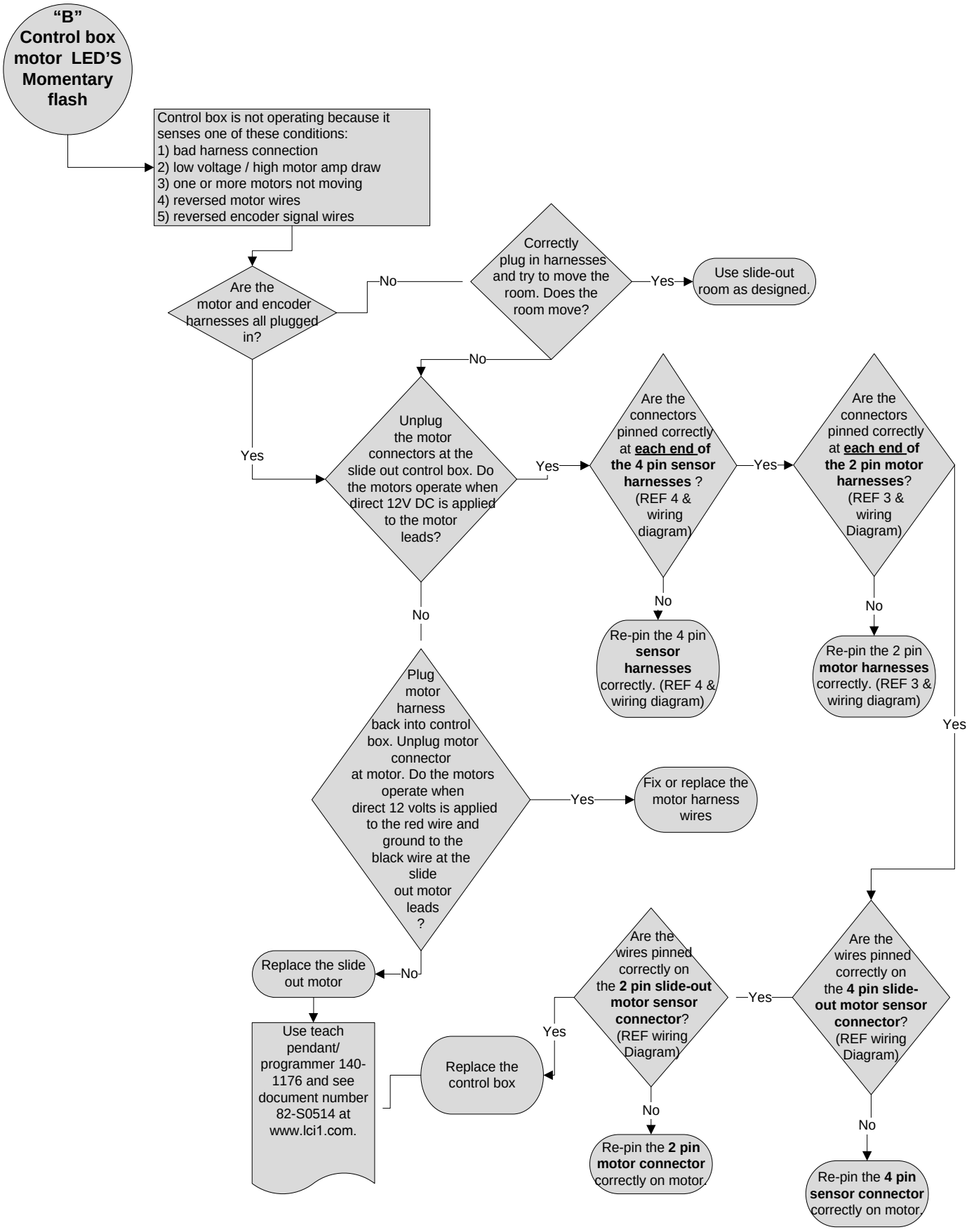


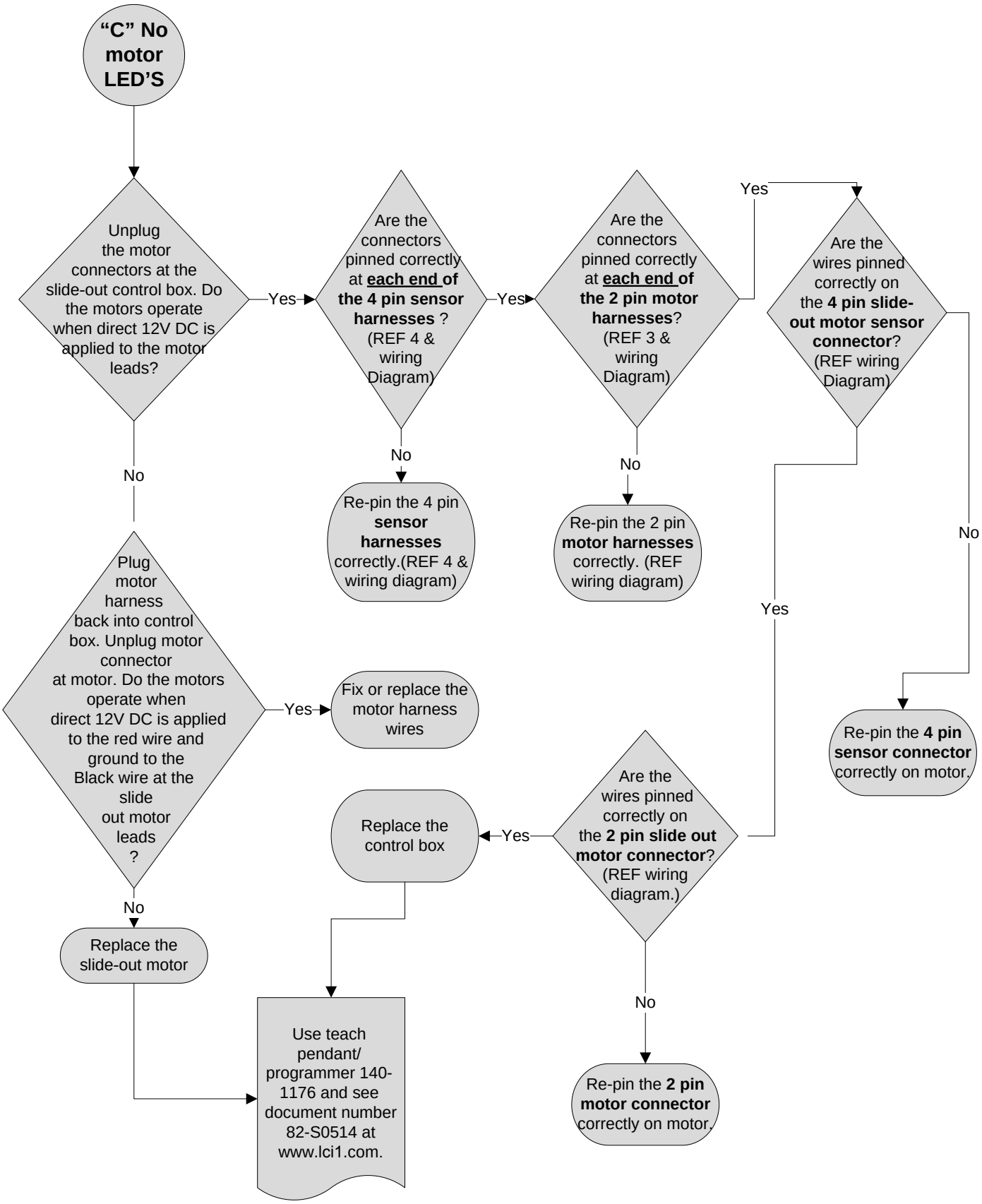
Roller

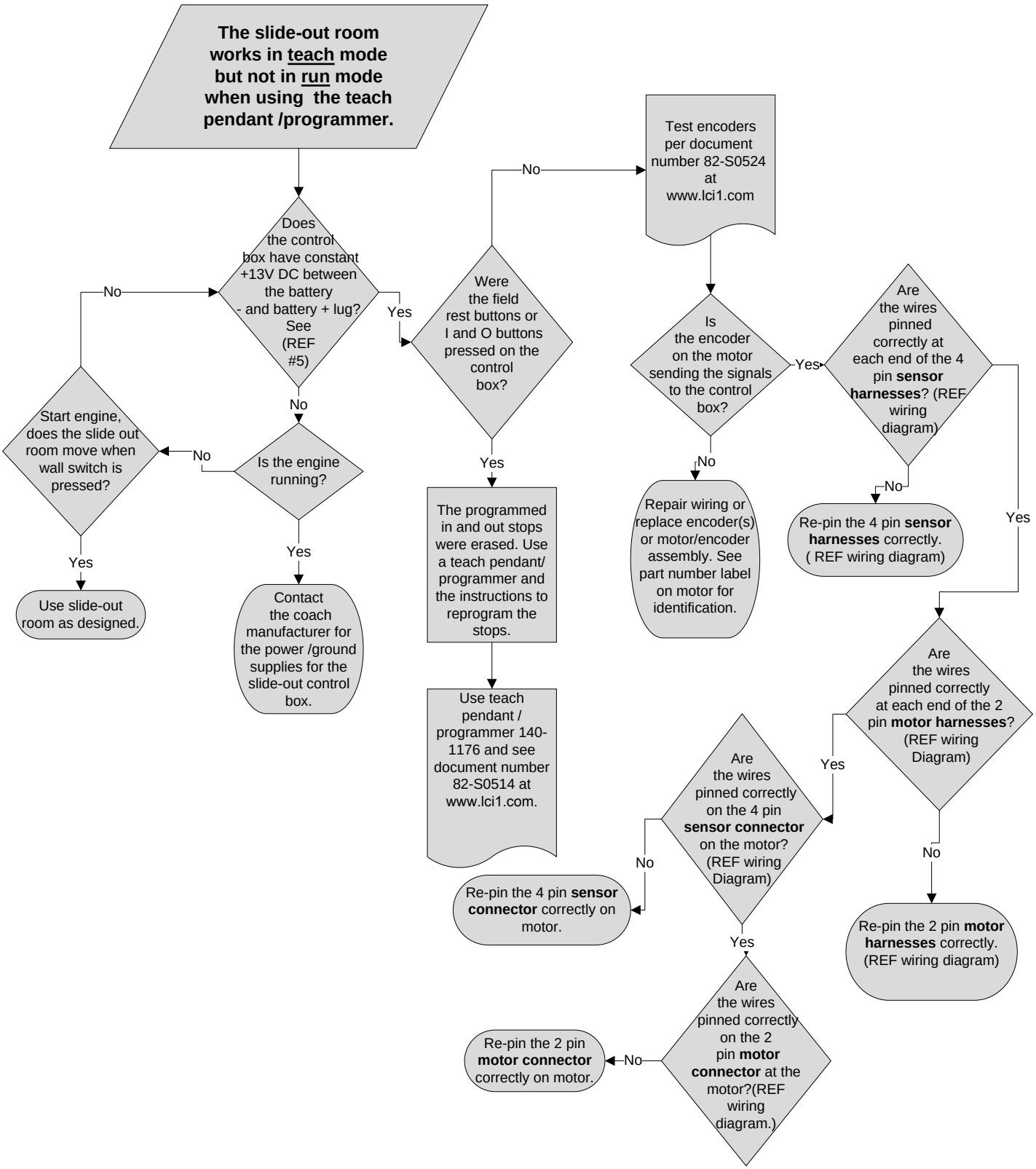


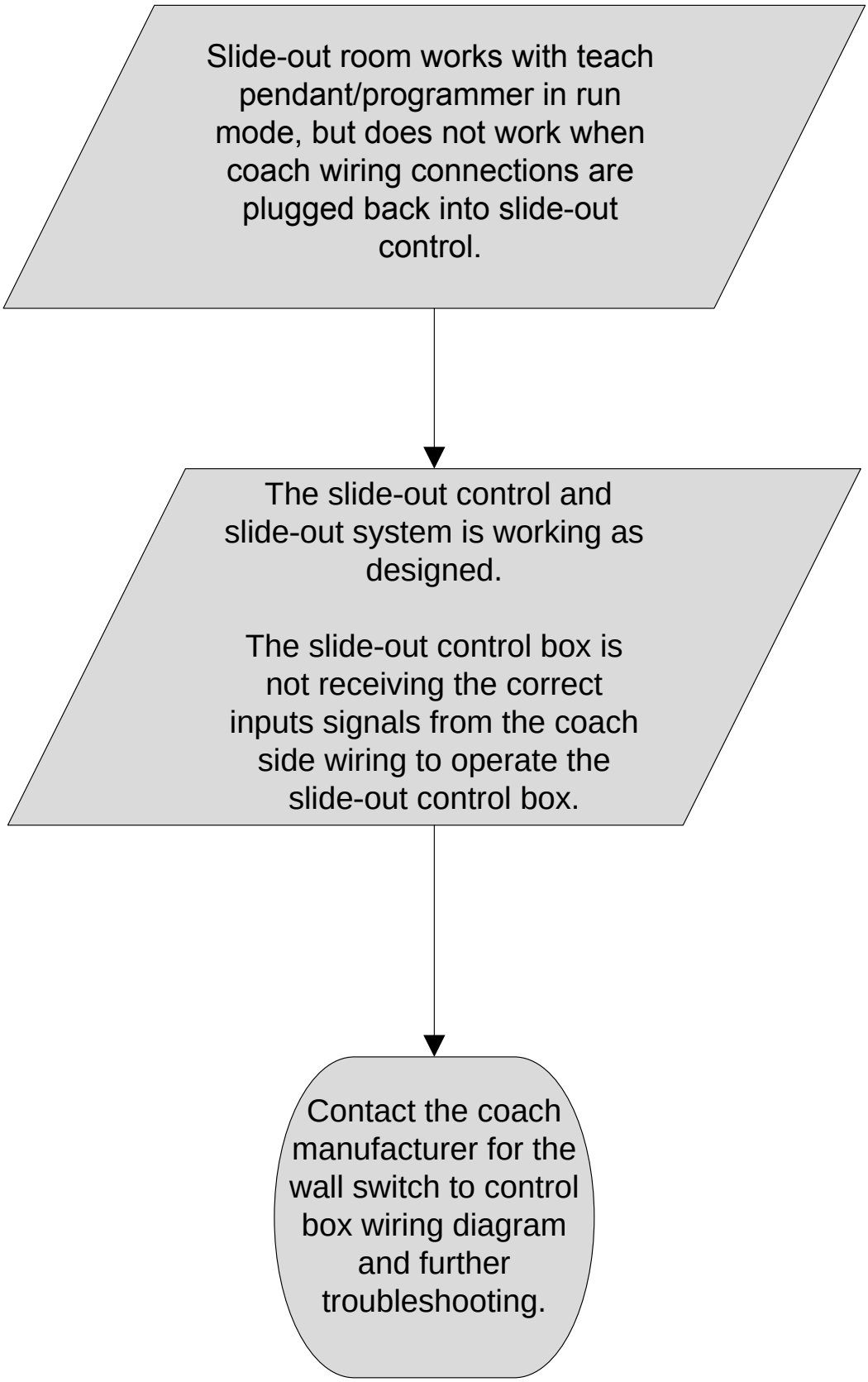
Hitch Pin, Bearing, Roller, Gear Shaft, Woodruff Key, Gear, Roller, Bearing, Hitch Pin




"B" Control box motor 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 motor and encoder harnesses all plugged in?
No
Correctly plug in harnesses and try to move the room. Does the room move?
Yes
Use slide-out room as designed.
No
Yes
Unplug the motor connectors at the slide out control box. Do the motors operate when direct 12V DC is applied to the motor leads?
Yes
Are the connectors pinned correctly at each end of the 4 pin sensor harnesses ? (REF 4 & wiring diagram)
Yes
Are the connectors pinned correctly at each end of the 2 pin motor harnesses? (REF 3 & wiring Diagram)
No
Re-pin the 4 pin sensor harnesses correctly. (REF 4 & wiring diagram)
No
Re-pin the 2 pin motor harnesses correctly. (REF 3 & wiring diagram)
No
Plug motor harness back into control box. Unplug motor connector at motor. Do the motors operate when direct 12 volts is applied to the red wire and ground to the black wire at the slide out motor leads ?
Yes
Fix or replace the motor harness wires
No
Replace the slide out motor
Use teach pendant/ programmer 140-1176 and see document number 82-S0514 at www.lci1.com.
Replace the control box
Yes
Are the wires pinned correctly on the 2 pin slide-out motor sensor connector? (REF wiring Diagram)
Yes
Are the wires pinned correctly on the 4 pin slide-out motor sensor connector? (REF wiring Diagram)
No
Re-pin the 2 pin motor connector correctly on motor.
No
Re-pin the 4 pin sensor connector correctly on motor.


"C" No motor LED'S
Unplug the motor connectors at the slide-out control box. Do the motors operate when direct 12V DC is applied to the motor leads?
Yes
Are the connectors pinned correctly at each end of the 4 pin sensor harnesses ? (REF 4 & wiring Diagram)
Yes
Are the connectors pinned correctly at each end of the 2 pin motor harnesses? (REF 3 & wiring Diagram)
Yes
Are the wires pinned correctly on the 4 pin slide-out motor sensor connector? (REF wiring Diagram)
No
Re-pin the 4 pin sensor harnesses correctly.(REF 4 & wiring diagram)
No
Re-pin the 2 pin motor harnesses correctly. (REF wiring diagram)
No
Re-pin the 4 pin sensor connector correctly on motor.
No
Plug motor harness back into control box. Unplug motor connector at motor. Do the motors operate when direct 12V DC is applied to the red wire and ground to the Black wire at the slide out motor leads ?
Yes
Fix or replace the motor harness wires
Yes
Are the wires pinned correctly on the 2 pin slide out motor connector? (REF wiring diagram.)
Yes
Replace the control box
No
Re-pin the 2 pin motor connector correctly on motor.
No
Replace the slide-out motor
Use teach pendant/ programmer 140-1176 and see document number 82-S0514 at www.lci1.com.


The slide-out room works in teach mode but not in run mode when using the teach pendant /programmer.
Does the control box have constant +13V DC between the battery - and battery + lug? See (REF #5)
No
Yes
Start engine, does the slide out room move when wall switch is pressed?
No
Yes
Use slide-out room as designed.
Is the engine running?
No
Yes
Contact the coach manufacturer for the power /ground supplies for the slide-out control box.
Were the field rest buttons or I and O buttons pressed on the control box?
No
Yes
The programmed in and out stops were erased. Use a teach pendant/ programmer and the instructions to reprogram the stops.
Use teach pendant / programmer 140-1176 and see document number 82-S0514 at www.lci1.com.
Test encoders per document number 82-S0524 at www.lci1.com
Is the encoder on the motor sending the signals to the control box?
Yes
No
Repair wiring or replace encoder(s) or motor/encoder assembly. See part number label on motor for identification.
Are the wires pinned correctly at each end of the 4 pin sensor harnesses? (REF wiring diagram)
No
Yes
Re-pin the 4 pin sensor harnesses correctly. (REF wiring diagram)
Are the wires pinned correctly at each end of the 2 pin motor harnesses? (REF wiring Diagram)
Yes
No
Re-pin the 2 pin motor harnesses correctly. (REF wiring diagram)
Are the wires pinned correctly on the 4 pin sensor connector on the motor? (REF wiring Diagram)
Yes
No
Re-pin the 4 pin sensor connector correctly on motor.
Are the wires pinned correctly on the 2 pin motor connector at the motor?(REF wiring diagram.)
Yes
No
Re-pin the 2 pin motor connector correctly on motor.


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 troubleshooting.

Additional Reference Publications Located At www.lci1.com

81-1299	Slide-out room height adjustment
82-S0295	Flat floor room height adjustment
82-S0378	Operators manual full wall slide systems
82-S0379	Service/Installation manual full wall slide system
82-S0503	Electric slide-out system operations and service manual
82-S0510	Slide-out control replacement
82-S0514	140-1176 Programmer/teach pendant Instructions
82-S0524	Encoder Test 1: slide-out controls 140-1233, 140-1249 (S), 1510000165
82-S0525	Encoder Test 2: slide-out controls 140-1233, 140-1249 (S), 1510000165
3010000062	Service manual Gulf Stream electronic full wall slide systems
3010000067	Troubleshooting Information for RV slide-outs, emergency retract module instructions (ERM)