



e-SYNC™
SLIDEOUT SYSTEM
SERVICE
MANUAL

82-S0347
09-02

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SERVICE MANUAL

!!! CAUTION !!!

**THE FOLLOWING INFORMATION IS FOR AUTHORIZED
RV DEALERS AND SERVICE TECHNICIANS.**

**RV OWNERS SHOULD NOT ATTEMPT THESE REPAIRS
OR PROCEDURES.**

**ANYONE OTHER THAN A RV AUTHORIZED SERVICE
TECHNICIAN ATTEMPTING REPAIRS WILL VOID
WARRANTY.**

!!! CAUTION !!!

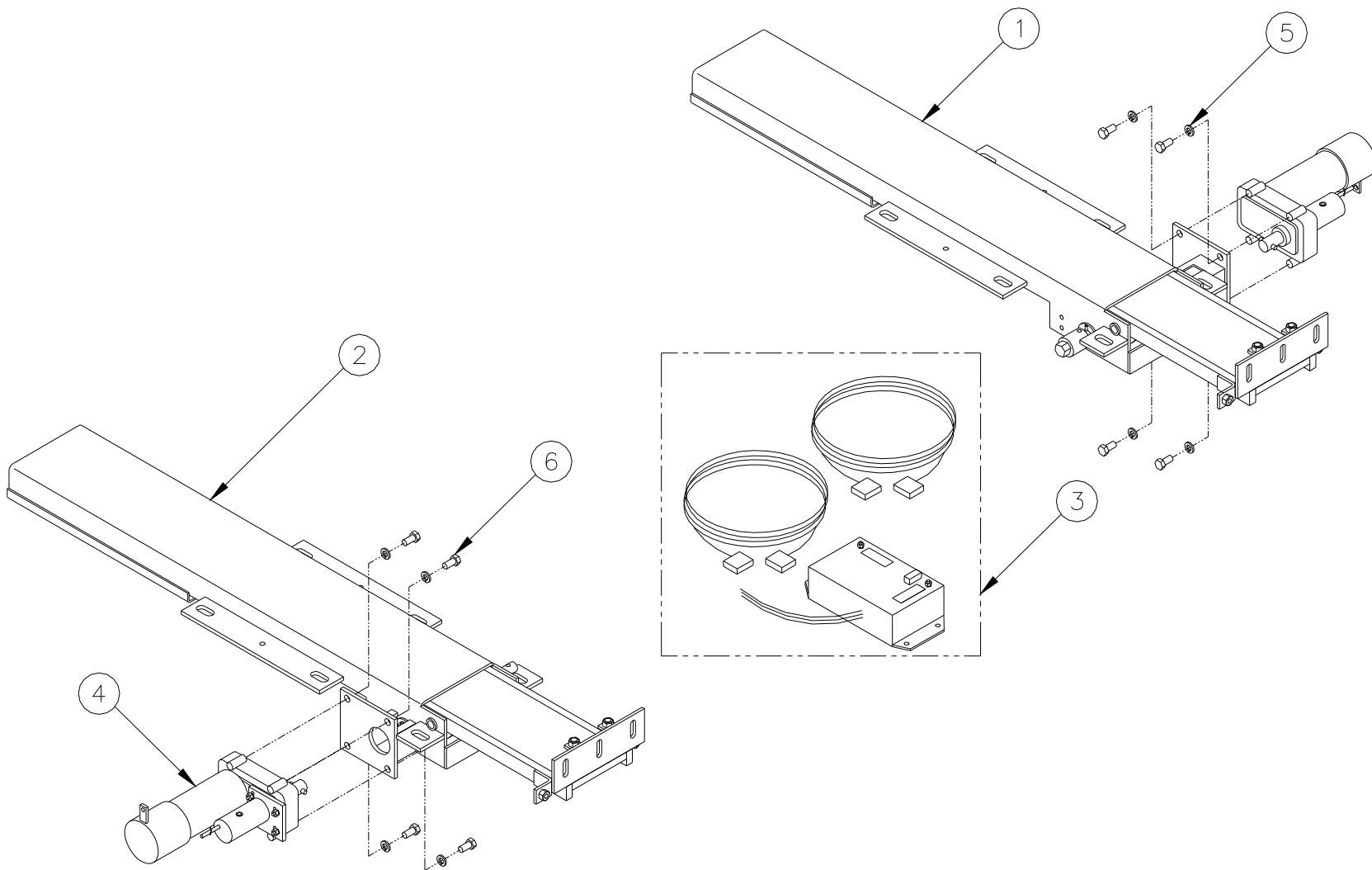


Fig. 1 - Typical e-SYNC™ Lo-Pro Rail Slideout System
(Motor orientation may be different)

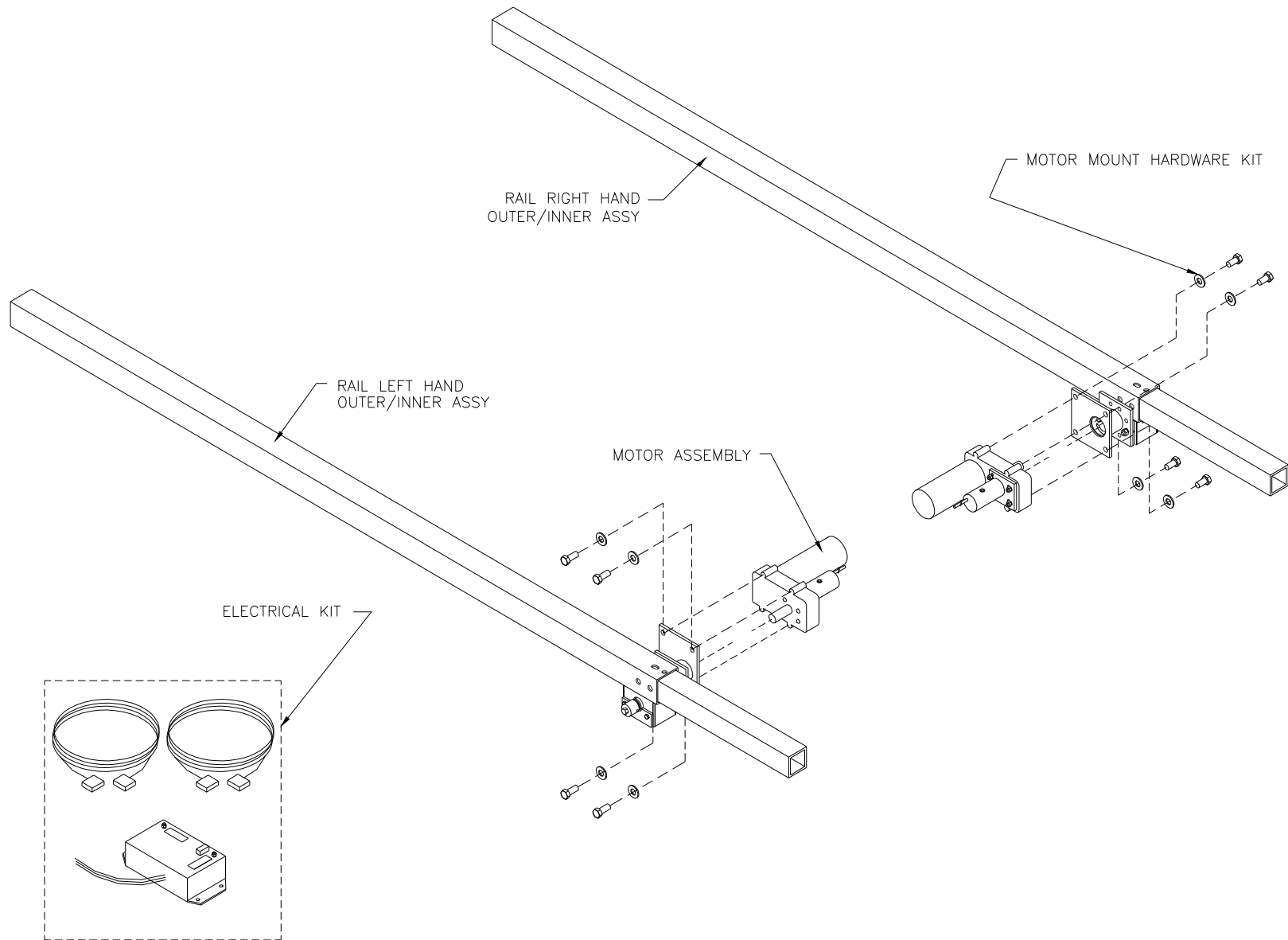


Fig. 2 - Typical e-SYNC™ Tube Rail Slideout System
(Motor orientation may be different)

2. POWER GEAR SLIDEOUT SYSTEM REPLACEMENT KITS

2.1 MECHANICAL COMPONENTS

CONTACT POWER GEAR SERVICE FOR PART NUMBERS, REPLACEMENT PARTS,
AND SERVICE INFORMATION.

2.2 ELECTRICAL COMPONENT REPLACEMENT KITS

<u>KIT P/N</u>	<u>DESCRIPTION</u>
800003	KIT, ELECTRICAL, e-SYNC™

Contents of kit:

<u>Description</u>	<u>Quantity per Kit</u>
HARNESS CNTL BOX TO MTR	2
CNTRL BOX DUAL MTR	1

2.3 REPLACEMENT GEARMOTORS

<u>MOTOR P/N</u>	<u>DESCRIPTION</u>	<u>Quantity per System</u>
522609	MOTOR ASSY DS MT e-SYNC™	2

3. TROUBLESHOOTING THE SLIDEOUT SYSTEM

If a problem occurs with a Power Gear Slideout System Consult the following table. If a problem is not listed or you require further assistance, please call Power Gear and talk to our Customer Service Department at 1-800-334-4712.

NOTE: BEFORE REPLACING PARTS ON THE SLIDEOUT SYSTEM MAKE SURE THE BATTERY HAS BEEN DISCONNECTED.

Problem	Check/Inspect	Probable Cause	Solution	
The room does NOT move and the motor does NOT turn.	Electrical wiring and components.	Bad wiring or components.	Check wiring and components.	
	The room will move slightly then stop.	Excessive drag on the room.	Check to insure the transit bars are removed.	
			Check for proper fit of room. Refer to TIP sheet #82	
	Motor turns but gear shaft does not turn.	Pin in motor output shaft broken.	Gear shaft pin or coupler broken.	Replace motor/gear shaft. Refer to replacement instructions.
			Replace gearmotor assembly. Refer to replacement instructions.	
	Spur gear spins freely on shaft.	Sheared Woodruff key.	Replace key and reprogram stops. Refer to replacement instructions.	
Check for motor brake lever in 'engaged' position.	Motor brake lever disengaged.	Engage brake lever. Refer to Fig. 3		
The room does NOT seal.	One side seals and the other side does not seal.	Stops not programmed correctly.	Reprogram stops. Refer to TIP sheet #167	
		Room height misadjusted.	Check for proper room height. Refer to TIP sheet #82	
		Room/opening not square.	Measure room/opening for proper fit.	

Problem	Check/Inspect	Probable Cause	Solution
The room STARTS to move but then STOPS .	Test by visual inspection.	Transit bar still installed.	Remove transit bar.
		An obstruction blocking path of travel of the room.	Remove obstruction or relocate the unit.
		Debris lodged between the gear and rack.	Remove the debris.
		Dirt or corrosion build-up.	Remove dirt and lubricate with LIGHT coat of oil.
The room moves VERY slowly.	The room moves slowly when it is nearly in or beginning to go out.	Improper room height setting, rails are pinching.	Check for proper room height. Refer to TIP sheet #82
	The room moves slowly all the way in or out.	Room is binding.	Adjust item binding room.
		Check for 12 Volts DC at the motor while room is in operation. If not 12 volts...	Recharge or replace battery. Check wiring harnesses.
System makes a LOUD chatter noise When operating.	Check the slideout room height adjustment.	Slideout room height out of adjustment.	Readjust slideout room. Refer to TIP sheet #82

!!! WARNING !!!

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.

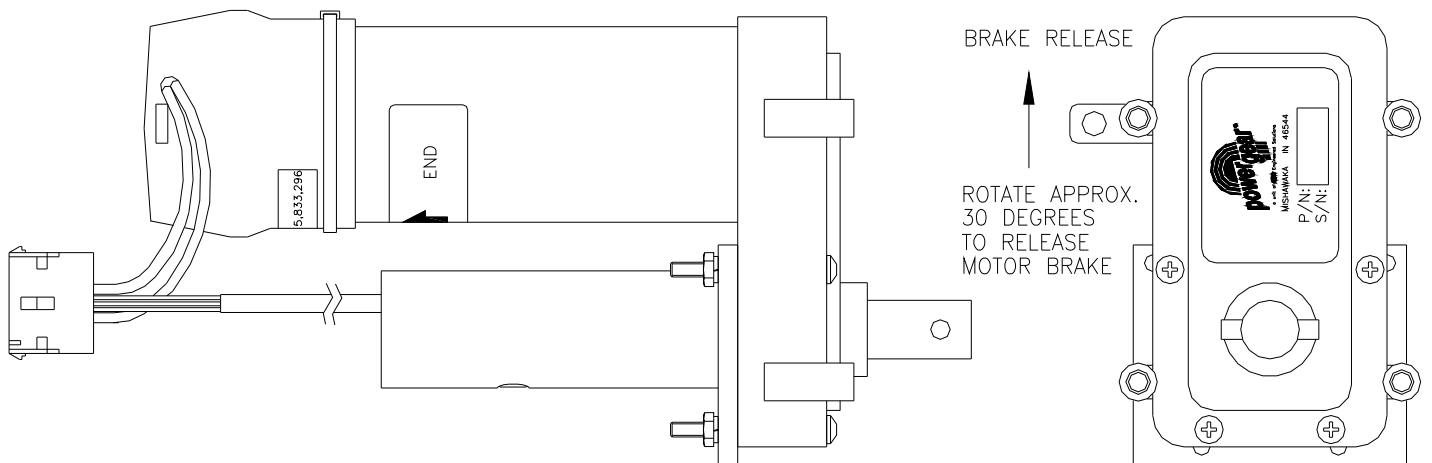


Fig. 3 Motor Brake Lever

4. COMPONENT PART REPLACEMENT INSTRUCTIONS

NOTE: BEFORE REPLACING PARTS ON THE SLIDEOUT SYSTEM MAKE SURE THE BATTERY HAS BEEN DISCONNECTED.

4.1 Replacing the Electric Gearmotor

1. Disconnect battery.
2. Disconnect motor harness.
3. Remove the (4) motor mounting bolts with a 1/2" socket/wrench and remove the gearmotor.
4. Install the new gearmotor and bolt into place. NOTE: Refer to Part Ordering Information in Section 5.
5. Check to ensure the brake lever on the motor is in the engaged position.
6. Reconnect the motor harness.
7. Reconnect the battery and test the system operation.
8. Reprogram the in and out stops for the new motor. NOTE: Refer to TIP Sheet #167 for programming instructions.

5. REQUIRED INFORMATION FOR ORDERING PARTS

WHEN ORDERING PARTS, PLEASE PROVIDE THE FOLLOWING INFORMATION:

- YOUR NAME
- COMPANY NAME
- PHONE NUMBER
- SHIPPING ADDRESS
- BILLING ADDRESS
- PURCHASE ORDER NUMBER

FOR EACH PART NEEDED:

- COACH / TRAILER
 - VIN or S/N
 - MAKE
 - MODEL
 - WHEEL BASE (IF APPLICABLE)
 - MILEAGE (IF APPLICABLE)
- SINGLE OR DOUBLE RAIL SLIDEOUT SYSTEM
- SIDE OF COACH / TRAILER THE SLIDEOUT ROOM IS ON (ROADSIDE OR CURBSIDE)
- PART NUMBER
- DESCRIPTION
- QUANTITY

NOTE

ALL REPAIRS MUST BE MADE BY AN AUTHORIZED SERVICE CENTER. SYSTEMS THAT HAVE BEEN TAMPERED WITH, MODIFIED, ADJUSTED OR REPAIRED BY ANY PARTY OTHER THAN AN AUTHORIZED SERVICE CENTER WILL VOID ALL WARRANTIES.

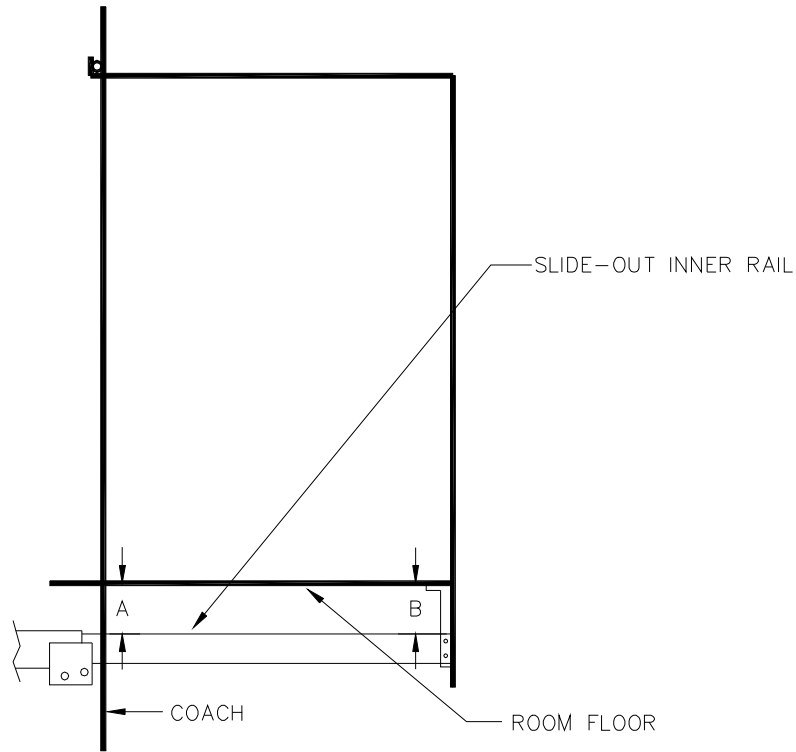
APPENDIX

<u>TIP SHEET #</u>	<u>DESCRIPTION</u>	<u>PAGE #</u>
82	SLIDEOUT ROOM HEIGHT ADJUSTMENT	11
167	e-SYNC™ INITIALIZATION PROCEEDURE	12
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SLIDE-OUT ROOM HEIGHT ADJUSTMENT

For proper slide-out operation the slide-out room floor to slide-out rail height must be set. This procedure is to be performed at the factory during room installation and should be checked periodically.

To set the room height please refer to the Figure below



$$B = A_{-0}^{+1/8}$$

The distance between the bottom of the floor and the top of the inner rail must be the same distance ($A=B$) or the distance at the end of the inner rail can be 1/8" greater than the inside distance ($B=A+1/8$).

Tip Sheet # 82
81-1299 REV. 2



T.I.P. Troubleshooting Information on Power Gear

E-SYNC INITIALIZATION PROCEDURE

1. Plug SETUP CONTROL harness into control box.
2. Hold "CLEAR", and push "ROOM OUT" or "ROOM IN" to clear stop settings.
3. Plug both five pin Molex connectors from motors into control box. Motor on right side of slideout, from out side of room, is plugged into plug zone next to the negative connection.
4. When "ROOM OUT" is pressed both pieces of steel must move out, if one or both of the arms moves in the wrong direction, move the plug in that zone.
1. Move room IN, using "ROOM IN" button, until seals are compressed, (use "MOTOR STOP" left or right button to hold one motor while the other runs further, as necessary).
2. Move room OUT, using "ROOM OUT" button, until inside fascia seal is compressed (use "MOTOR STOP" left or right button to hold one motor while the other runs further, as necessary).
3. Move room IN until desired position is reached; (use "MOTOR STOP" left or right button to hold one motor while the other runs further, as necessary).
4. Push and hold "SET".
5. While holding "SET", push "ROOM IN". This sets the room IN stop positions.
6. Move room OUT until desired position is reached; (use "MOTOR STOP" left or right button to hold one motor while the other runs further, as necessary).
7. Push and hold "SET".
8. While holding "SET", push "ROOM OUT". This sets the room OUT stop positions.
9. Procedure is complete.

NOTE:

Once the stop points are set operation is as follows;

The IN stops are used as the "room square" reference. During room travel, the slideout will be kept in that relative relationship, during room extension and retraction. During room extension, if one of the set points is further than the other, one tube will stop when it reaches its set point and the other will continue moving until it reaches its set point. When first retracting the tube that has extended the furthest will move until it reaches the "room square" reference, they will then move together synchronized until they both reach the IN stop points.



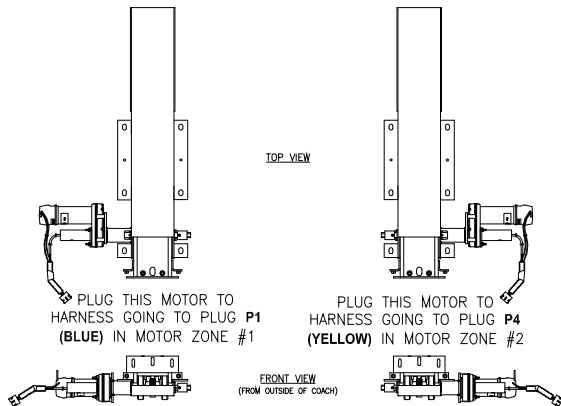
T.I.P. Troubleshooting Information on Power Gear

e-SYNC™ INSTALLATION AND TROUBLESHOOTING

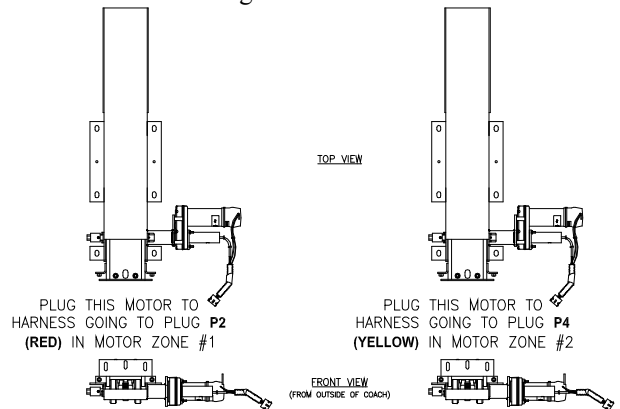
1. The location for the control box needs to be dry, away from the elements, and near enough to the motors so that the 10 foot harnesses will reach. (Orientation of box is not important.)
2. Connection to control box is as follows:
 - a) Positive and negative terminals need to be connected to a 12V battery source.
 - b) The red, blue, and green wires need to be connected to the wires coming from the room slide out switch using the attached butt splices.
3. Motor connections and initialization procedure can be found on TIP Sheet #167. More detailed description of the motor connections can be found below.

Motor to Control Box Connections

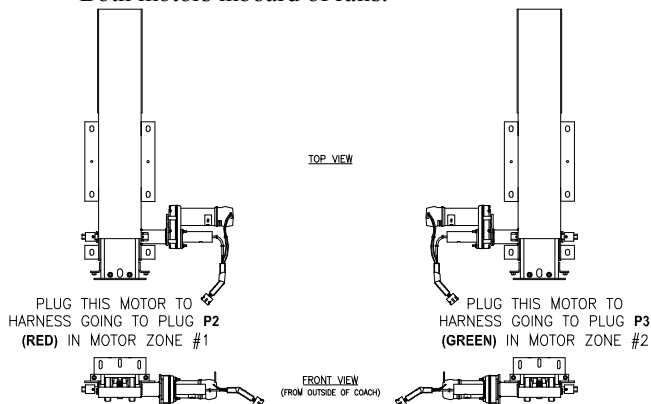
Both motors outboard of rails:



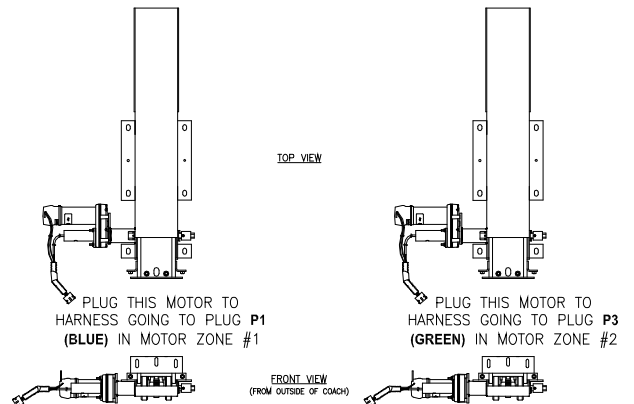
Both motors to right side:



Both motors inboard of rails:



Both motors on left side:





T.I.P. Troubleshooting Information on Power Gear

Troubleshooting

Description of Problem	Solution
Motors will not run.	Check all connections.
	Check in-line fuse to switch.
	Check that harnesses are connected to proper plug and that only one plug is each motor zone.
Room does not stop going out.	Need to reprogram out stops.
Room does not stop coming in.	Need to reprogram in stops.
After switching motor connections, nothing moves.	Reset controller.
Motors run backwards from switch designation.	Switch the blue and green wires going to the switch.
Motors run in opposite directions.	Switch one motor plug in its respective zone.