

#1 S/O FAILURE SYMPTOM

AFTER PUSHING S/O SWITCH, GREEN LITE COMES ON SOLID & VOICE IS ACTIVATED, POWER LOCK ARMS RETRACT & THEN LITE AT SWITCH BEGINS BLINKING & S/O DOES NOT MOVE.

1. IDENTIFY THE AFFECTED S/O CONTROL MODULE & INSPECT CAREFULLY 9 PIN CONNECTOR FOR ANY PINS THAT ARE NOT FULLY SEATED IN CONNECTOR – IF ALL PINS ARE SEATED CORRECTLY, PROCEED TO NEXT STEP.
2. IF A TEST BOX IS AVAILABLE, UNPLUG WIRING FROM S/O CONTROL MODULE & CONNECT TEST BOX, IDENTIFY WHICH LOCK ARM LITE ON TEST BOX (LA #1 OR LA #2) IS NOT LIT – PROCEED TO “LOCK ARM PROXIMITY SWITCH TEST/ADJUSTMENT”.
3. IF A TEST BOX IS NOT AVAILABLE, PUSH S/O SWITCH AGAIN UNTIL S/O HAS COMPLETED FOLLOWING CYCLE, PUSH S/O SWITCH AGAIN & IMMEDIATELY GO TO STORAGE COMPARTMENT ON SAME SIDE AS S/O & VIEW S/O CONTROL MODULE, SEE NOTE BELOW; IDENTIFY WHICH LA LITE THAT IS NOT LIT – PROCEED TO “LOCK ARM PROXIMITY SWITCH TEST/ADJUSTMENT”.

NOTE: JUST BEFORE S/O CONTROL MODULE GOES INTO FAULT MODE AND BOTH LA LITES BEGIN BLINKING, THERE WILL BE ONE LA LITE THAT IS NOT LIT.

LOCK ARM PROXIMITY SWITCH TEST/ADJUSTMENT

1. IF S/O TEST BOX IS AVAILABLE, USE TEST BOX TO RETRACT BOTH LOCK ARMS & EXTEND S/O ROOM, EXTEND LOCK ARM WITH FAULTY PROXIMITY SWITCH ABOUT $\frac{1}{2}$ TO $\frac{3}{4}$ OF EXTENSION, REMOVE LOCK ARM PIN C-CLIP AND THEN REMOVE THE PIN, THEN USING TEST BOX, FULLY RETRACT DISCONNECTED LOCK ARM ACTUATOR – DISCONNECTED LOCK ARM PADDLE NOW HAS FULL RANGE FREE MOVEMENT – INSPECT LOCK ARM PROXIMITY SWITCH MOUNTING TABS FOR CRACKS OR LOOSE MOUNTING SCREWS – INSPECT LOCK ARM PROXIMITY SWITCH FOR CORRECT ORIENTATION – PLACE A SMALL STEEL SCREW OR BOLT ON PROXIMITY SWITCH MAGNET – CHECK S/O TEST BOX TO SEE IF NOTED LOCK ARM LITE IS LIT – IF NOTED LOCK ARM LITE IS NOT LIT, PROCEED TO STEP #3.
2. IF NOTED LOCK ARM LITE IS LIT, REMOVE BOLT/SCREW FROM PROXIMITY SWITCH MAGNET & PLACE A SMALL BALL OF PLUMBERS PUTTY (OR LIKE SUBSTANCE) ON PROXIMITY SWITCH MAGNET & THEN CLOSE LOCK ARM PADDLE, REOPEN & OBSERVE LOCK ARM PADDLE ADJUSTMENT SCREW IMPRINT IN PUTTY – ADJUST SCREW TO OBTAIN A GAP NO GREATER THAN 1/16” BETWEEN PROXIMITY SWITCH “SWEET SPOT” CENTER & LOCK ARM PADDLE ADJUSTMENT SCREW – RECONNECT LOCK ARM PADDLE TO POWER ACTUATOR & TEST OPERATION ON TEST BOX THEN RECONNECT WIRING TO S/O CONTROL MODULE & TEST OPERATION.

3. GAIN ACCESS TO POWER LOCK ARM ELECTRICAL CONNECTIONS LOCATED IN INTERIOR OF S/O USUALLY LOCATED IN END OF OVERHEAD CABINET – THERE ARE 4 WIRES – 2 FOR MOTOR AND 2 FOR LOCK ARM PROXIMITY SWITCH 0 USING AN AMP™ PIN REMOVAL TOOL, REMOVE BOTH PROXIMITY SWITCH WIRES FROM PIN SIDE OF CONNECTOR – INSPECT FOR PROPER WIRE INSULATION REMOVAL PRIOR TO PIN BEING CRIMPED ONTO WIRE – IF THIS CHECKS OK, THEN SET A VOM METER TO CONTINUITY SETTING & TEST FOR CONTINUITY BETWEEN THE 2 PROXIMITY SWITCH – IF THERE IS NO CONTINUITY, THEN THE WIRES MUST BE TESTED BETWEEN THE PROXIMITY SWITCH & THE S/O CONTROL MODULE.

NOTE: NEVER TEST A PROXIMITY SWITCH USING VOLTAGE.

#3 SLIDE OUT FAILURE SYMPTOM

AFTER PUSHING THE SLIDE OUT SWITCH AND THE SLIDE FULLY RETRACTS INWARD AND STOPS, BUT THE SLIDE OUT LOCK ARMS DO NOT EXTEND AND LOCK.

1. IDENTIFY THE AFFECTED SLIDE OUT CONTROL MODULE AND CAREFULLY INSPECT THE 9 PIN CONNECTOR - ARE ALL WIRES/PINS FULLY SEATED IN CONNECTOR
2. CHECK FOR A GAP OF 3/16" OR LESS BETWEEN SPACER BLOCK LOCATED ON THE SIDE OF THE SLIDE OUT ACTUATING ARM AND SLIDE OUT ROOM PROXIMITY SWITCH – ADJUST GAP IF NECESSARY
3. IF TEST BOX IS AVAILABLE, CONNECT TEST BOX TO SLIDE OUT WIRING, WITH SLIDE OUT RETRACTED INWARD DOES SLIDE OUT ROOM LITE COME ON? IF LITE DOES NOT COME ON, CUT SLIDE OUT ROOM PROXIMITY SWITCH WIRES AT BUTT CONNECTORS
 - CONNECT THE 2 WIRES THAT GO TO THE SLIDE OUT CONTROL MODULE
 - IF THE SLIDE OUT ROOM LITE COMES ON, REPLACE THE SLIDE OUT PROXIMITY SWITCH
 - IF THE LITE DOES NOT COME ON, CHECK THE WIRING BETWEEN SLIDE OUT ROOM PROXIMITY SWITCH AND SLIDE OUT CONTROL MODULE

#4 SLIDE OUT FAILURE SYMPTOM

AFTER PUSHING THE SLIDE OUT SWITCH, THE SLIDE BEGINS TO MOVE AND THEN SHUTS OFF BEFORE COMPLETEING A FULL CYCLE.

1. CHECK THE HOUSE BATTERY VOLTAGE AT THE HOUSE BATTERY DISCONNECT PANEL, OR AT THE INVERTER/CONVERTER REMOTE PANEL – VDC SHOULD BE 12.4 OR GREATER – IF VOLTAGE IS 12.4 OR LESS, PROCEED TO THE NEXT STEP
2. CONNECT THE SHORE POWER CORD TO A VAC SOURCE OR START GENERATOR
3. IF THE VDC IS 12.6 OR GREATER, THE ROOM POTENTIOMETER MAY NEED TO BE ADJUSTED TOWARDS “MAX” FOR MORE AMPERAGE TO THE SLIDE OUT MOTOR – THIS ADJUSTMENT IS DONE AT THE SLIDE OUT CONTROL MODULE

NOTE: THIS INCREASE IN AMPERAGE SHOULD ONLY BE DONE AFTER THE SLIDE OUT STOP ROD ADJUSTMENTS HAVE BEEN VERIFIED.

**SLIDE-OUT LOCK ARM TEST TOOL
OPERATING INSTRUCTIONS**

1, Connecting the test tool.

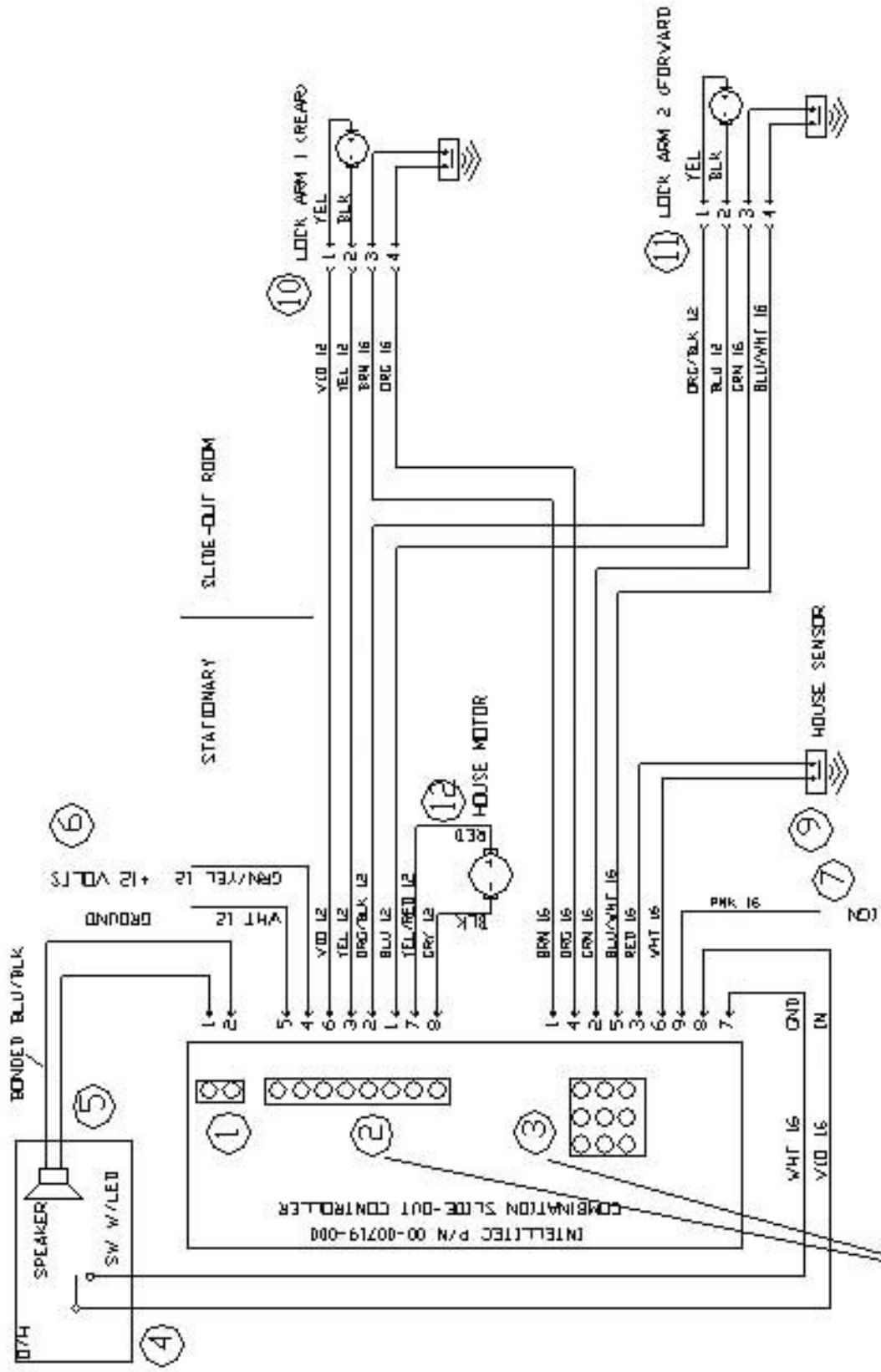
The test tool is configured with an operating panel that includes 3 switches for independent operation of 2 lock arm motors and 1 slide-out motor. Situated above each switch is an indicator lights to confirm proper operation of the proximity sensors. Included with the test tool is an Intellitec 310 slide-out controller. The 310 controller is used by the test tool to run the slide-out in/out motor. Use the 8 pin in-line and 9 pin matrix connectors to connect into the slide-out system. Remove the 8 pin in-line and 9 pin matrix connectors from the appropriate slide-out control box and plug the removed connectors to the connectors of the slide-out tool.

2, Using the test tool.

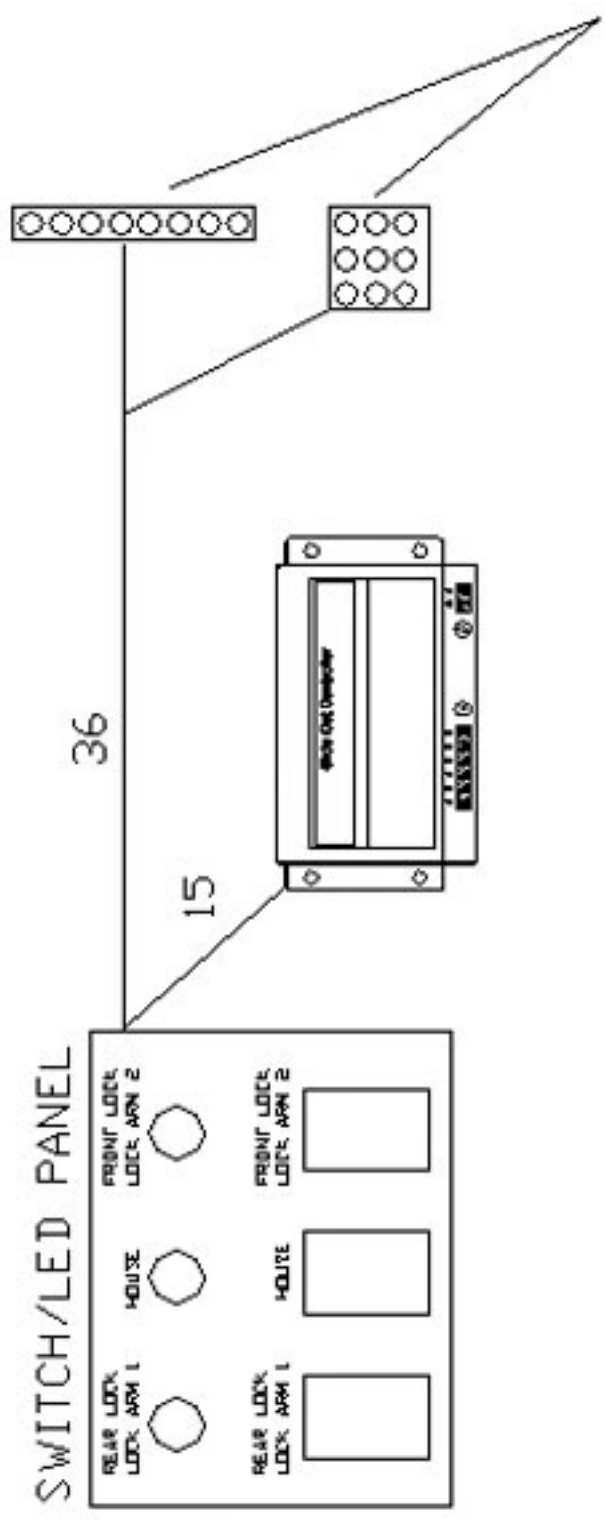
The test tool will aid you in determining the cause of the slide-out room failure. The two outer indicator lights illuminate when the lock arms are in the retracted position. The center indicator light illuminates when the slide-out room is in the fully-in position. Use these indicator lights to determine if the proximity sensors (PS) are working properly. Each lock arm has a PS to tell the slide-out control when it is retracted and the slide-out room has a PS to tell the slide-out control when the room is in the full-in position. When the lock arm is in the retracted position the PS will actuate and create a closed circuit to the slide-out control. If the PS is not aligned properly with mating components it will not close the circuit. This will be indicated on the test tool by a failure of the light to illuminate with the lock arm retracted. This will prevent the slide-out controller from driving the room out. If the PS is damaged it may show a closed circuit regardless of the position of the lock arm. This will be indicated on the test tool by observing if the lock arm indicator light remains on when the lock arm is moved into the extended position. Driving the room to its full-in position will cause the slide-out room PS to actuate and create a closed circuit to the slide-out control. The slide-out control will then deploy the lock arms to the extended position. This will be indicated on the test tool with illumination of the center indicator light when the room is in. If the indicator light does not illuminate with the slide-out room in the lock arms will not deploy. If the center indicator light stays illuminated with the slide-out room extended the lock arms will deploy when the room is extended. If the center indicator light stays on with the room extended the PS most likely needs replaced. However, it could also indicate a short in the wiring between the slide-out control box and the PS.

The lock arm switches are reversing switches used to extend and retract the lock arms. Use these switches to verify operation of each lock arm independently.

The center switch is a momentary on switch. Press and release the switch to move the slide-out room in or out. Pressing this switch signals the 310 slide-out controller attached to the test tool to operate the slide-room. The 310 controller will shut the slide-out motor off on high current. Press and release the switch during room movement to stop room travel and reverse direction.

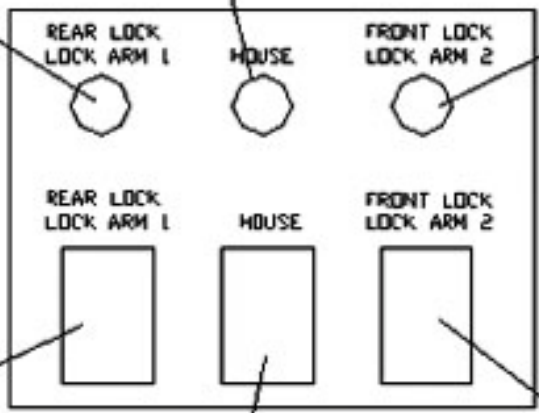


1. Remove connectors 2 & 3 from slide-out control box.



2, Plug the removed connectors into the connectors on the end of the 36" pigtail of the slide-out test tool.

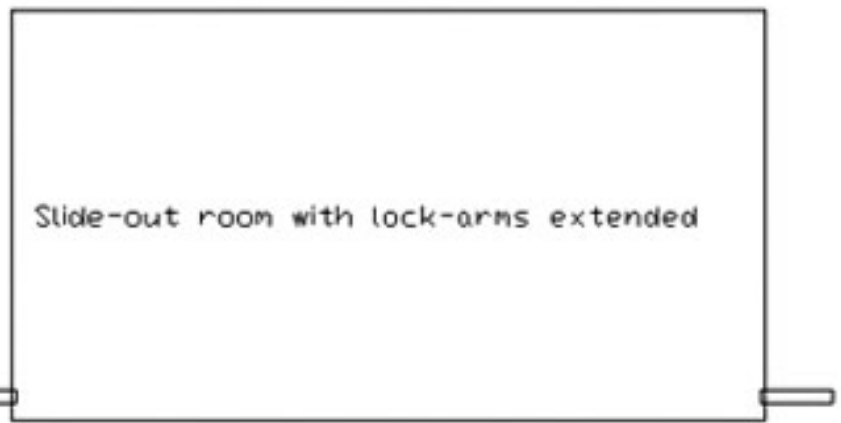
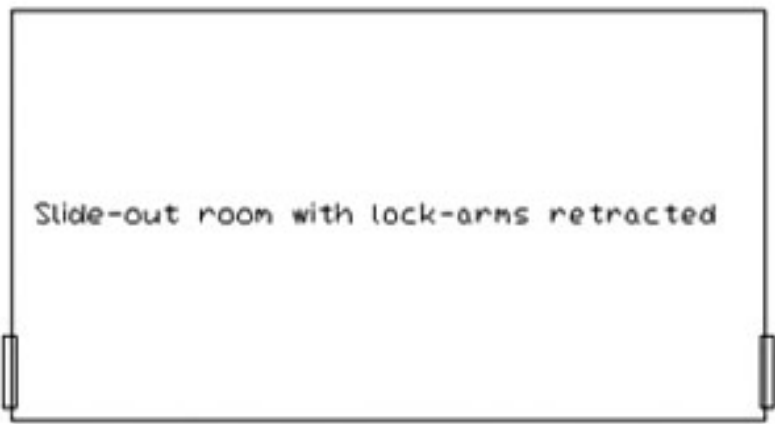
Illuminates when house is fully in
 Illuminates when rear lock arm is retracted
 Illuminates when front lock arm is retracted



Rock and hold forward or backward to extend or retract rear lock arm

Rock and hold forward or backward to extend or retract front lock arm

Push and release to automatically extend or retract house



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Supplemental Information

Helpful Information for Power Lock Equipped Rooms:

1. In order to operate the power lock arm system a minimum of **9 Volts** must be available.
2. There are 3 LED lights on the slide-out controller. When the 2 outside lights are on it indicates the paddles are properly shut and the center LED when lit indicates the room is in the travel position.
3. There is an ignition safety lock-out that prevents the room's operation when the ignition key is on.
4. When both the MPX (operation) switch's lights and the LEDs on the controller flash it indicates that the potentiometer for the lock-arm motors is set too high.
 - a. There are 3 potentiometers on the control. 1 for paddle control, 1 for room movement, and 1 voice volume control. (Small moves of the adjustment screw are all that should be taken. *(5 degrees per trial run is a significant adjustment)*
 - i. The one that is visible with the cover in place is for the **room's slide-out motor** setting. **Counterclockwise** movement increases the amperage to the motor.
 - ii. The **lock-arm motor's (paddle) potentiometer** is located under the cover so the cover requires removal if adjustment is needed. The adjustment for this potentiometer increases amperage to both paddle motors with a **clockwise** movement. On the circuit board next to the potentiometer is the number **R-13**.
 - iii. The **voice** module volume is adjusted with the **R-59** potentiometer. Its adjustment is **clockwise** for **adding volume** to the voice message.
5. The operator will need to hold the MPX (operation) switch **momentarily (1 ½-2 Seconds)** to start the action of the slide-out room. After the voice message ends there is a 5 second delay to move items, or occupants, in the way of the slide-out room.
6. It is designed not to operate when the following occurs on the controller's panel:
 - a. If the center LED is not on when the room is in the in position the lock arms will not close and the room will not move.
 - b. For the room to move out, all 3 LEDs need to be on.

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c. For the room to move in, the outside LED lights need to be on.

Troubleshooting:

1. The proximity switches are a magnetically actuated type.
2. If the center light is off when the room is in the in position check the gap between the actuating tube's plate and the room's sensing switch. The switch is designed for a gap of 1/4" maximum.
3. If the room is out and the power lock-arm's doors open check to see if the center LED light is on at the controller. If the center light is on then check to see if the room's sensing switch is out of adjustment. It should have a 7/16" gap away from any ferrous (iron) object.
3. The room's sensing proximity switch completes a circuit. It can be checked with a multi-meter set for "continuity reading". Without a ferrous object within the switch's operating range it will read open and when being within 1/4" of a ferrous metal object it completes a circuit and is closed. When the room is in the switch completes a circuit by reading the metal plate attached to the tube and is closed. When the room is out, the distance from the tube to the switch exceeds 7/16" therefore the switch is open.
4. If an emergency, or inconvenient service condition exists for the customer, then the switch can be disconnected and by manipulation of the 2 wires create the needed open or closed condition.
5. There is 1 room sensing switch per slide-out and it can be found at the cog wheel.
6. There are 2 paddle sensing proximity switches, 1 per lock-housing, which are factory set. They rarely require service and should only be serviced by experienced service personnel.
7. As a rule the paddle's motors require 4 amps to properly lock the room for travel. This setting is factory made for the customer.
8. These proximity switches have a life of 50,000 – 100,000 cycles and if installed properly will provide years of trouble free service.
9. The switch will read ferrous material through dirt, or any non-ferrous object, and are designed for exterior automotive use. They are water proof.

Do not:

1. **Do not** hit the proximity switches with a hammer. They do not like shock therapy.
2. **Do not** send an electrical charge though the switch as this will ruin the switch.