Test Procedures for Power Lock Boxes

Tools Needed

- 1) Test Tool #81944 (newmar part shown below)
- 2) #10-32 x 1-1/4" Screw Philips Pan Head Zinc



Alexander Screw Products will not authorize the replacement of a power lock box without the use of Newmar test tool #81944.

Sequence for troubleshooting a power lock box

- 1. Find and unplug the combinational slide-out with voice, Intellitect controller (shown below).
- 2. Connect test tool #81944 to the slide-out wiring harness.
- 3. Turn on the auxiliary power and close the lock box doors by pressing down lock arm buttons 1 and 2 on test tool.
- 4. The doors should close between 10 -12 seconds. Visually check to see that both doors have closed on slide-out room before extending. If the doors do not close skip to troubleshooting linear actuators. If the doors do close continue to step 5.
- 5. Once doors close the led lights for both lock arms 1 and 2 on test tool #81944 should display on. If both led lights do not display on then extend slide-out room and skip to troubleshooting proximity sensors.
- 6. If a problem has not occurred to this point after running a few cycles then the problem does not lie with the power lock boxes and lies with another part of the slide-out.



Troubleshooting Linear Actuators

- Check for loose or faulty connections at the Intellitect Controller/slide-out wiring harness connection. Perform a test to see if the actuator cycles.
- Listen to here if the actuator is running during the individual test of each lock arm. If the actuator is running and the door does not close on each individual lock arm test then there are two possibilities for that particular lock arm.

First possibility is that the lock box door has broken welds and there is no connection for the actuator to retract with. Manually close the lock box door, then extend the slide-out room and visually inspect for broken welds. If upon inspection of lock box door you find broken welds; replace and return the lock box door and frame assembly only.

Second possibility is the pin that holds the actuator in place has come loose; with this problem you should be able to hear the actuator hitting the box by pushing the button back and forth on the test tool. If the lock box is diagnosed that the pin has come loose; replace and return the lock box only as long as there is nothing functionally wrong with the door assembly.

• When pressing the buttons on test tool #81944 the actuator does not cycle and you have already checked for loose connections. Replace and return the Lock box only.

Troubleshooting Proximity Sensors

Visually check the proximity sensors when the slide-out room is in full out position and the doors or extended completely to see if the casing has broken tabs. Should the tabs be broken replace and return the proximity sensor only.



• Second check for loose or faulty connections at the Intellitect Controller/slide-out wiring harness connection. Inspect the test tool to see if the led light in question has come on. If light comes on perform a few test cycles.



Loose connections; wire pin is not completely inserted into the plug, loose wire pin crimp • No loose or faulty connection then continue testing by placing the #10-32 x 1-1/4" Screw Philips Pan Head Zinc (or a small piece of metal) onto the magnetic part of the proximity sensors (shown below).



View the test tool to see if the led light in question comes on. If the led light comes on then the $\#10-32 \times 1-1/4$ " Screw Philips Pan Head Zinc on the door is out of position and will need adjustment.

If the proximity sensor fails to respond to the previous testing then remove the proximity sensor PRX+4136 from the lock box and perform one final test to absolutely make sure the sensor is bad before installing a new sensor.

• Final test; strip the insulation on the wires of the proximity sensor and connect them to multimeter using the ohmmeter setting. Next place the #10-32 x 1-1/4" Screw Philips Pan Head Zinc or a small piece of metal on the magnetic part of the sensor. If the proximity sensor is good the multimeter reading should be stable and displaying zero, also the overload sound will be triggered. If the sensor is found to be good then there is a wire pin crimp connection at the plug where the wire barrel has been crimped onto the insulation. The lock box will have to be replaced if this is the case.



• If the proximity sensor is bad the multimeter reading will not be stable at zero and the overload sound will not be triggered. This test is important because it verifies that the proximity sensor is bad and not the wire pin crimp connection on the universal mat-n-lok plug of the power lock box. Upon determination that the proximity sensor is bad install a new proximity sensor into the box.

Checking the lock box doors

• Visually check the lock box arm doors for broken welds. Upon inspection a broken weld is found on the door assembly replace and return the door assembly only not the entire lock box.