

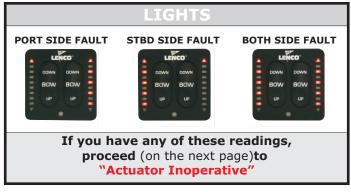
# GENERAL TROUBLESHOOTING FOR 123SC TRIM TAB SYSTEM

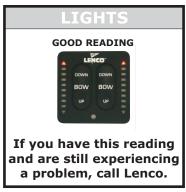
PG 1

This guide is intended to provide basic functional diagnostics and will assist in determining the source of the problem. Choose Power Fault or Actuator Fault and follow the steps.

## Are any lights on the Digital Switch illuminated?







### **SYSTEM INOPERATIVE (Power Fault)**

**Step 1:** Operate the system in TEST MODE.

#### **TEST MODE**

**Step 1:** Press and hold all four keypad buttons down for approximately three seconds. The LEDs on the keypad should track down than back up and stop with the top triangular LED lit on each side.

**Step 2:** Press the left side button on the keypad labeled "DOWN". The starboard actuator should extend and the left side indicating lights should track.

**Step 3:** Press the right side button on the keypad labeled "UP". The port actuator should extend and the right side indicating lights should track.

**Step 4:** Momentarily press all four keypad buttons down simultaneously. Both actuators should retract fully and keypad should have no indicating lights on.

Press & Hold 3 Sec.



Triangular LEDs Should Be Illuminated

- If the system works in the Test Mode there is a problem with the accessory signal.
   Check for proper connection to the orange accessory wire of the control box.
   NOTE:Under normal operation the control box's orange accessory wire requires a 12V level or a tachometer signal to turn the control box ON (top triangular LEDs on switch are lit)
- If the system does not work in Test Mode continue to **Step 2.**

**Step 2:** Verify there is 12V or 24V at the Power Plug: Disconnect the Power Plug from the control box's power receptacle and measure voltage using a DC voltmeter.

• If 12V or 24V is **not** at the Power Plug across the two pins

step 1: Check the fuse or circuit breaker (between battery and control box)

step 2: Verify that the power connection is firmly attached and that 12 or 24 volts is available.

step 3: Verify the Orange wire is connected to a 12 or 24V source or an Engine Tach Signal.

step 4: Check battery switch.

• If 12V or 24V is at the Power Plug across the two pins, Check the key pad connection.

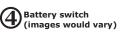
20 Amp Fuse

Power Wire Connection

Orange Wire Connection

Pattery switch





Key Pad Connection



11.08.08

**Step 3:** Call Lenco Marine for further technical assistance.

Lenco actuators come with 6FT actuator cables that feature Deutsch terminations.

Boat builders may use a separate wire harness connecting power and actuators to control box.

If you're not certain if there is a separate connection in your boat, contact the boat manufacturer.



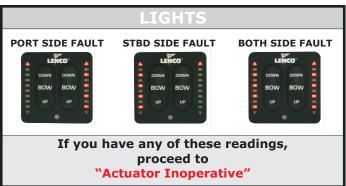
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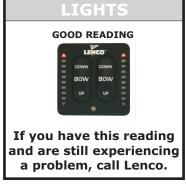
PG 2

This guide is intended to provide basic functional diagnostics and will assist in determining the source of the problem. Choose Power Fault or Actuator Fault and follow the steps.

## Are any lights on the Digital Switch illuminated?







### **ACTUATOR INOPERATIVE (Actuator Fault)**

- **Step 1:** Check to make sure that the Deutsch Connectors are firmly attached. If the connection is loose, firmly press the two connectors together.
- **Step 2:** If the fault continues, swap the connections to the actuators. Disconnect actuators from control box and reconnect actuators to opposite control box outputs.



**Step 3:** Perform the OPERATIONAL TEST.

#### **OPERATIONAL TEST**

**Step A:** Press the left-side button on the switch labeled "DOWN". The starboard actuator should extend and the left-side indicator lights should track.

**Step B:** Press the right-side button on the switch labeled "UP". The port actuator should extend and the right-side indicator lights should track.

- If fault reading is present at the <u>opposite side</u> of the key pad, the actuator (or its connections) may be defective. **Proceed to Step 4.**
- If fault reading is present at the <u>same side</u> of the key pad, the control box may be defective. Call Lenco Marine for further technical assistance.



**Step 4:** If fault continues, disconnect the Deutsch Connectors and remove the orange wedge.

**Step 5:** Remove the wire leads from the connector by depressing the small latches inside the connector housing and pulling on the wire leads.

**Step 6:** Once the wires are removed from the housing, touch the white wire leads to a Positive (+) 12V Battery Terminal and the black wire leads to a Negative (-) 12V Battery Terminal. The actuator should extend while connected to the battery. Reverse the polarity of the wire leads to the battery terminals and the actuator should retract.

• If the actuator does not extend and retract, replace the actuator.

• If the actuator extends and retracts properly, re-assemble the connector taking care to properly seat the wire leads into the connector housing. **Proceed to Step 7.** 

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Remove the orange wedge by lifting the wedge from the connector with a small flat head screwdriver or Deutsch connector tool.



Remove the wire leads from the connector by depressing the small latch inside the connector housing.

should

track



Extend the Actuator:
White Terminal to Positive
(+) Battery Terminal.
Black Terminal to Negative
(-) Battery Terminal.

**Step 7:** Attach the port and starboard connectors to the system. If the fault reading continues, contact Lenco's Customer Service at: info@lencomarine.com or 772-288-2662

FOR ADDITIONAL INFORMATION, CONTACT LENCO'S TECHNICAL SERVICE DEPARTMENT AT: TEL: 772-288-2662 FAX:772-288-2566 EMAIL: INFO@LENCOMARINE.COM