



## Electric Eye Troubleshooting

The detector incorporates 3 LED lights. These lights are used to verify operation.  
 The YELLOW light indicates the beam is broken.  
 The RED and GREEN lights indicate the beam strength.

First make sure you have the proper beam strength. Here are the different light scenarios.  
 RED and GREEN off, no beam.  
 RED light on - GREEN light off, low beam strength.  
 RED and GREEN light on, medium beam strength.  
 GREEN light on, good beam strength.

### CALIBRATION

With the transfer deck control box turned on, make sure that pot #1 arrow is between the curved line and the X. **Pot #2** is full counter clockwise and **#3** full clockwise. Adjust the sensors until only the green light comes on.

Then place a board between the sensors. The green light should go out and the yellow light should come on. Remove the board. The green light will come back on and the yellow light will go off after 4-5 seconds. If the yellow light stays on to long, turn **Pot #1** counter-clockwise. If the yellow light turns off to quick, turn **Pot #1** clockwise.

### TROUBLESHOOTING SENSOR FUNCTION

#### Transmitter

With the transfer deck control box turned on, place your voltmeter black lead on terminal #1 and the red lead on terminal #2. Meter should read 24vdc, +/- 0.5v. If not, check terminal #1 connections between sensor and ground and terminal #2 connections between sensor and transformer. If the green light on the receiver does not work but the yellow is on, replace the transmitter first then continue testing.

### **Receiver**

With the transfer deck control box turned on, place your voltmeter black lead on terminal #1 and the red lead on terminal #2 of the receiver sensor. Meter should read 24vdc, +/- 0.5v. If not, check terminal #2 connections between sensor and transformer and terminal #1 between sensor and ground.

If above test is good, place your black lead on terminal #1 and the red lead on terminal #5. Meter should read 24vdc, +/- 0.5v. If not, check terminal #5 connections between sensor and terminal #2.

If above test is good, place the black lead on terminal #1 and the red lead on terminal #6. Meter should read 24vdc, +/- 0.5v. If not, check for yellow light on. If light is not on replace sensor.

If above test is good, place the black lead on terminal #1 and the red lead on terminal #6. Meter should still read 24vdc, +/- 0.5v. Place a board between the sensors. When the yellow light is on the #6 terminal should not have voltage. If it does, replace sensor.

### **TROUBLESHOOTING TRANSFER DECK OPERATION**

Every time a board passes between the sensor eye a signal is sent to the air valve. It opens and allows the deck to raise.

The following test is performed after verifying the sensor functions are normal.

#### **DECK WILL NOT RAISE**

With the transfer deck control box turned on, switch in auto. Verify that yellow light is off and that there is 24vdc on terminal #5 and #6 of the receiver sensor.

Next, verify there is 24vdc on the green wire in the junction box at the base of the conveyor.

Next, verify there is 24vdc at terminal #1 and #2 of the control switch of the control box.

If no voltage on terminal #2 replace switch.

Next, check that the light on the air valve plug is lit.

If not, check air valve harness for broken wire or loose connection.

If lit, replace air valve.

#### **JOG SWITCH WILL NOT WORK**

Check for 24vdc at terminal #3 of switch. Check for 24vdc on terminal #4 when in toggle position. If no voltage on #4 replace switch. If voltage reading is good, check connections between terminal #4 and air valve.

#### **DOWN SWITCH WILL NOT WORK**

Replace switch.

#### **DECK WILL NOT LOWER**

Check for yellow light on receiver sensor. If yellow is lit replace sensor.