

AR500 TROUBLESHOOTING GUIDE

I. Fixture does not retain focus.

- A. Torque bolts to 20ft/lbs.
- B. On the Remote Version, remove excess silicone from remote mount top and bottom, replace O-ring. You may need to roughen the mating surfaces.

II. There is water in the fixture.

- A. Remove all components within head. Dry thoroughly. Verify all extrusion seams are flush. Spray sealant (Permatex Form-A-Seal Leak Repair) or use RTV 108 along seams. Allow to dry.
- B. Inspect gaskets and replace.
- C. Verify the watertight cable fittings are in place and RTV'd.
- D. If conduit is used a water tight seal must be used to block any opening.

III. Fixture does not strike.

A. For Composer Units:

- 1. Verify power to the fixture.
- 2. If the fixture has the Remote Strike feature:
 - Check CPU LEDs. Amber LED should be on solid, green LED should be flashing.**
 - a) If amber is not lit, check or replace power supply.
 - b) If amber is on and the green LED is not flashing, replace CPU.
 - c) If amber is on and green is flashing, continue to the next line.
- 3. Disconnect power to the fixture and replace lamp.
- 4. Inspect high voltage connections inside the stanchion. Replace or repair as necessary.
- 5. Replace igniter and/or lamp lead wires.

B. For DMX units:

- 1. Verify power to the fixture.
- 2. Check power supply LED. LED should be on solid.
 - a) If LED is not lit, check or replace power supply.
 - b) If LED is on , continue to the next line.
- 3. Disconnect power to the fixture and replace lamp.
- 4. Inspect high voltage connections inside the stanchion. Replace or repair as necessary.
- 5. Replace igniter and/or lamp lead wires.

IV. Fixture does not change certain colors.

- A. For Composer units, set thumb wheels on CPU to '00'. For DMX units, set thumb wheels to '990.' Self test will be enabled. Colors will cycle.
 - 1. Can you hear the motor?
 - a) Yes- Verify connection between actuator shaft and color head.
 - b) No- Check for a open or shorted motor/wiring. This is very important on remote ballast installations. You should get between 80 and 100 ohms for each motor pair. There are eight pairs of motor control wiring between the

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ballast and head. A short in the motor or wiring can damage the control card drivers and may even destroy the control card/power supply entirely.

V. Noisy operation of Linear Actuator motor.

- A. Replace motor.

VI. Fixture does not respond to its thumb wheel address, but does respond MCP self test.

- A. Does it effect multiple fixtures?
 - 1. Yes- Check control data.
 - 2. No- Check address and programming.
- B. Address to a known working address. Does it work now?
 - 1. No- Replace CPU.
 - 2. Yes- Verify programming address.

VII. Fixture calibrates, but does not respond to any command.

- A. For Composer units:
 - 1. Verify data connections are good. Green LED blinking slowly indicates unit is not receiving data.
 - a) Check for swapped or disconnected data + and data - outside and inside the unit.
 - b) Check for shorts between data + or data - to shield.
 - c) Has the correct cable type been used, (Belden 9827 or equivalent).
 - d) Measuring between data + and - it should measure approximately 120 ohms.
 - e) Is the data run 'daisy-chained', data cannot be 'home-run'.
 - f) Verify that the data run does not exceed the maximum run length of 1000ft.
 - 2. Does this happen to one unit?
 - a) Yes- Replace CPU.
 - b) No- Verify data and fuses on MCP/DMXi
- B. For DMX units:
 - 1. Verify data connections are good. Red LED blinking slowly indicates unit is not receiving data.
 - a) Check for swapped or disconnected data + and data - outside and inside the unit.
 - b) Check for shorts between data + or data - to shield.
 - c) Has the correct cable type been used, (Belden 9827 or equivalent).
 - d) Measuring between data + and - it should measure approximately 120 ohms.
 - e) Is the data run 'daisy-chained', data cannot be 'home-run'.
 - f) Verify that the data run does not exceed the maximum run length of 1000ft.
 - 2. Does this happen to one unit?
 - a) Yes- Replace CPU.
 - b) No- Verify data and fuses on MCP/DMXi

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VIII. Fixture misses presets intermittently.

- A. Verify grounding of fixture.
- B. Verify data shield is not connected to ground in the fixture.
- C. Are the fixtures running a Sequence?
 - 1. Yes. Address fixture to an address that is functioning properly. Continue to next line.
 - 2. No. Continue to next line.
- D. Does the fixture continue to drop presets?
 - 1. No. Check programming.
 - 2. Yes. Continue to next line.
- E. Verify data wiring.

IX. Fixture runs backwards.

- A. Is the fixture controlled via DMX?
 - 1. Yes. Check personality for flipped channels.
 - 2. No. Continue to the next line.
- B. One data wire is disconnected.
- C. On remote ballast units, verify wiring between ballast and head.
- D. Check and replace input harness wiring.