

TROUBLESHOOTING GUIDE FOR FLUORESCENT LAMP BALLASTS

SAFETY

1. Only fully qualified and certified person should perform electrical ballast maintenance on lighting fixtures.
2. The case ballasts must be grounded in accordance with CSA or NEC. If necessary, remove paint by scraping at the point of grounding.
3. Fixtures are to be disconnected from the power supply during troubleshooting.

LAMPS NOT STARTING

1. Check input voltage, lamp type, and number of lamps match the ballast label.
2. Rotate lamps fully in the lamp holders to ensure good electrical contact.
3. Replace with lamps operating well in a neighbouring fixture or with other known good lamps.
4. Check the grounding of the fixtures and ballasts.
5. Check for damage to lamp holders and that their connection to the ballast label or its specification.
6. Replace the ballasts involved if everything above has been checked and is in order.

TROUBLESHOOTING GUIDE FOR HID LAMP BALLASTS

SAFETY

1. Only fully qualified and certified persons should perform electrical ballast maintenance on lighting fixtures.
2. Ballasts must be grounded in accordance with CSA or NEC.
3. Fixtures are to be disconnected from the power supply during troubleshooting. After disconnection, discharge the capacitor by shortening its terminals or wires together after the fixture is opened.
4. Wear gloves, eye protection and other protection equipment while troubleshooting and inspecting.

PREMATURE FAILURE OF LAMPS AND EARLY END BLACKENING

1. Ensure shunted lamp holders have been used with instant start (IS) ballasts and never with Rapid Start (RS) ballasts.
2. If IS ballasts are being used in fixtures with frequent on-off switching it is recommended to change to RS ballasts and lamp holders.
3. Check for damage to lamp holders and that their connection to the ballast and fixture wiring is in accordance with the ballast label or its specification.
4. Make sure the lamp type is listed on the ballast label or in the ballast specification.
5. Pay attention to some lamp types which should only be used with ballasts with a preheat function.
6. Check for low input voltage.
7. Check the grounding of fixtures and ballasts.

CYCLING (SWITCHING OFF WHEN OVERHEATING AND SWITCHING BACK ON WHEN COOLING DOWN)

1. Measure ambient temperature and remove any insulation above the fixture.
2. Check the supply voltage is within the range of allowable values.
3. Reduce the ambient temperature or replace the ballasts with cooler operating types.

TROUBLESHOOTING PROCEDURE

1. Check input voltage and make sure the lamp type is listed on the ballast label.
2. Check for lamp socket damage and their connection to lamps and internal wiring. Replace the socket if defective.
3. Replace the known good lamps.
4. Check the breakers and fuses of the power supply.
5. Visually verify proper wiring of lamps, ballasts, capacitors and ignitors and inspect for physical damage or signs of failure, such as overheating.
6. Check the value of the capacitance and voltage rating of the capacitor and it is not installed too close to the ballast.
7. Check the type of ignitor matches the ballast.
8. Check the ambient temperature. If it is too high ballast temperatures can exceed specified values.
9. Replace the ballast if everything above has been checked and is in order.

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