HID Thermal Protectors

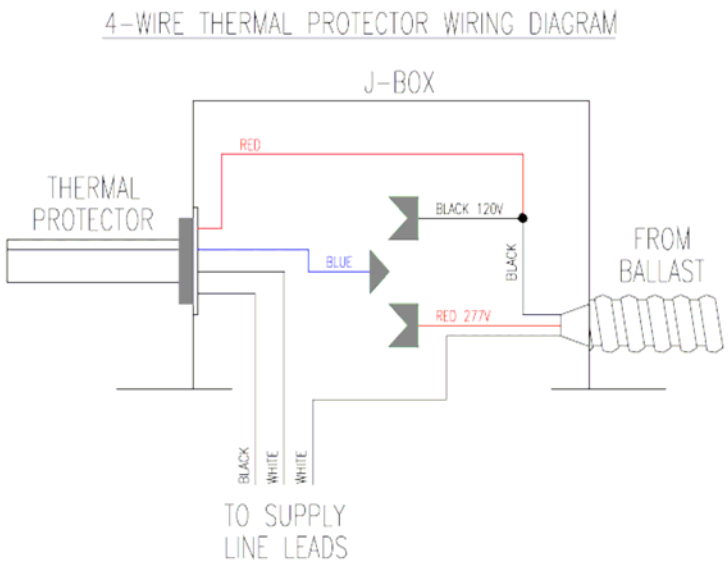
All Capri HID recessed light fixtures are protected by a thermal protector. A thermal protector is a safety device preventing the fixture from operating at excessive temperatures. Causes for a fixture to operate beyond its normal operating temperatures could include using a lamp not suitable for the fixture, using a lamp of higher wattage, placing ceiling insulation on a fixture not designed as IC, or not having any air circulation in an attic, plenum or crawl space.

Typically, a thermal protector for commercial grade products is a three-wire device. There is a black, white and red lead. The black is hot (source), white common, and red for the load, or fixture side, of the thermal. Three wire devices are voltage specific. To improve flexibility, reduce inventory, and reduce component part inventory, a four-wire thermal is available for fixtures with dual voltage transformers.

A four-wire thermal has a black, white, red and blue. The black is hot for the line side, the white is common, and the red lead is always tied to the 120 volt lead off the transformer. The blue lead remains open and is subject to contractor attachment.

For 120 volt systems, the blue lead is also tied with the red lead off the thermal to the 120 volt tap of the transformer. For 277 volt systems, the blue lead is tied to the 277 volt tap off the transformer while the red off the thermal remains on the 120 volt tap on the transformer. The 120 volt potential off the transformer operates an internal heater on the thermal.

HID THERMALS



120 Volt System
Attach the blue wire from the thermal with the insulated male spade terminal to the black wire with the insulated female spade terminal from the 120 volt lead off the HID transformer.

277 Volt System
Attach the blue wire from the thermal with the insulated male spade terminal to the red wire with the insulated female spade terminal from the 277 volt lead off the HID transformer.