OPTRONIC™
LABORATORIES

POSSIBLE CAUSES FOR TRANSISTOR FAILURES IN THE OL 65A CURRENT SOURCES

Operating a Load with the Incorrect Wattage Settings

Operating a glower with the OL 65A wattage switch set for 200 watts will cause the OL 65A to run out of current while it is trying to drive to the typical 7A current at which glowers are operated. This causes the transistors to run out of overhead operational voltage and one of them will blow at the emitter.

Operating Loads that are Greater than 45 Watts

If this is done with the switch set in the 45 watt position, it will cause the OL 65A to run out of voltage and blow a transistor at its collector.

Operating Loads (Lamps) that are 45 Watts or Less

If this is done with the wattage switch set for 200 watts, it will cause the overhead operational voltage to be high and may cause thermal break down of a transistor.

Not Replacing all Transistors when One has Blown

When one transistor blows, it is recommended that all *(4)* transistors be replaced, as one or more of the others may be considerably weakened at the time of the incident. It is standard G & H policy to replace all transistors when performing such a repair.

Hot Plugging Loads

This may cause a shock to the transistors, weakening them or blowing one. The OL 65A should be ramped down and turned completely off when changing lamp loads.

Shorting the Output of the 65A while Turned On

Care must be taken to ensure the output of the 65A is not inadvertently grounded to a load chassis or optical table.

Loose Connections

This may cause arcing that could damage the OL 65A transistors or main PCB. Load connectors and lamp cable connections should be periodically inspected for loose hardware and typical wear from usage. Lamp cable wire should periodically be completely inspected for breaks and wear in the wire insulation that may cause shorting to ground or shorting between the two output connections.

Using Terminals as "Grounding" Connections

The OL 65A has red and black output terminals - neither of these terminals are "grounding" connections and should never be used as one.