The Intellitec Stop Lamp Monitor detects inoperable stop lamps on a bus or truck. The unit operates each time the ignition is turned on and the battery voltage goes above 26.0 volts. When the system senses these two conditions, it operates the stop lamps for a short period (approximately 1 second), at a reduced voltage, to measure the current drawn. During this period, the dash-mounted indicator lamp will light to show the system is working. If the current is in the normal region (all lamps operating normally) the indicator will go out. If the current is out of the correct range, the indicator lamp will illuminate for approximately one minute to alert the driver of the lamp failure.

The system measures lamp current by powering the lamps through a power resistor and measuring the voltage across the lamps. The resistor is selected so the voltage is approximately half the battery. The test lasts for approximately one second to allow the lamps to warm up to normal brilliance and current. The voltage is measured with a “window” detector to allow for the tolerances of the lamps and power resistors.

Since the lamps are non-linear loads, the system adds the requirement of having the 24-volt system at or above 26 volts before the test begins. This assures that the voltage is in a limited range. At the end of the brief test period, the system checks for normal voltage. If it is normal, the indicator lamp will go out.

If the voltage is out of the window, the indicator driver will remain on for approximately one minute.

There are two power resistors included in the unit to accommodate two lamp and four lamp systems. The connection of these resistors is done through a jumper on the module. This jumper parallels the two resistors for four lamp systems or leaves one out for two lamp systems.
Specification:

Part Number: 00-00681-000
Nominal Input Voltage: 20 to 36 volts
Brake Lamp: 24 volt, 21 watt
Max Indicator Lamp Current: 0.500 Amps
Ambient Temperature Range: -40°C to +85°C
Positive Voltage Spike Protection: +150 volts
Reverse Voltage Spike Protection: -300 volts
Operating Environment: Out of direct weather

Typical Wiring Diagram: