

STEMCO Aeris SmartSense® Driver Warning Lamp

Driver Warning Lamp Image Retention vs. Temperature Variance and Time

The AERIS SmartSense® Driver warning lamp has a zero-power display built into the unit. (See Fig. 1) Zero-power LCD technology on the Driver Warning Lamp is a temporary static image of the last powered on state.

Standard Operating Temperatures

The display will hold an image without power applied to the system. This image can be used to diagnose past faults after the trailer is dropped off and power connections are removed. Zero-power Driver Warning Lamp display operating temperature is -38°C to 68°C (-36°F to 154°F). Survival range is -50°C to 85°C (-58°F to 185°F).

Temperatures Outside Operating Range (Within Survival Range)

The display will erase and turn completely black (see Fig. 2) in as little as 60 seconds. After the temperature returns to the operating range, and when power is cycled or reapplied, the display image will be redrawn and visible again. (See Fig. 1)

Unpowered Display for a Prolonged Period

When the Driver Warning Lamp is unpowered for long periods of time the display will begin to fade as temperature varies and time passes. (See Fig. 3) If the temperature is varied repeatedly by more than 50°F (27°C) then the display will begin to fade in as little as two weeks.

In a constant temperature environment, similar to a trailer being parked in a temperature controlled building, the display will remain visible indefinitely.

The larger the temperature swing each day, the shorter the duration before the display image will begin to fade. In all cases, once the unit is powered up and in the operational temperature range, the image will be refreshed and will no longer appear faded.



Fig. 1

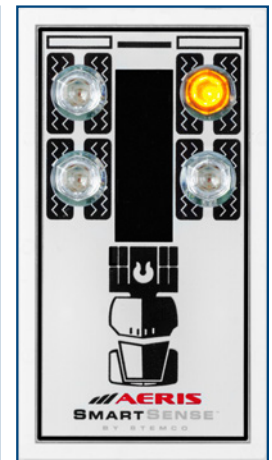


Fig. 2



Fig. 3