

Cessna 208 & 208B Caravan

Lumatech™ LED Panels make your existing annunciators obsolete



- LED Reliability & Low Temperature output eliminate costly Lamp and Cap related failures and departure delays.
- Laser Crisp Sunlight Readable Lighting with FAA Approved "Goggle Ready" Aviation Colors.
- Less than a third the replacement cost of your existing Incandescent Panel.
- Plug & play design allows simple half-day Installation easily accomplished in parallel with other routine maintenance. No wiring changes or flight testing required.

Five Year Warranty

"Never Replace another Lamp or broken Cap Assembly Again"

Why your old Caution Warning Panel is obsolete and costing you time and money!

Obsolete Design

The design of the annunciators used in the existing 208 panel dates back to the mid-sixties and relies on older incandescent lamp technology. Your panel is based on a matrix of 24 individual annunciators strap-welded in a ganged cluster which in turn are driven by a stack of low tech wide trace board assemblies packed with thru-hole diodes, relays, unprotected transistors and other analog components; all jammed together in a heavy and very deep box.

Add to that, each cap assembly in your existing panel contains two T-1¾ incandescent lamps that run red-hot (48 lamps in total). This intense heat means almost fifty chances for a lamp failure which then needs to get wrestled out of its brittle cap assembly at some point in the future. It's a brutal and frustrating cycle that sooner or later will lead to a cancelled or delayed departure. Not good if you're trying to keep on schedule (or budget)!

Compare that to the cool-running reliable LEDs and modern-day electronics of our panels that never fail in the first place. The Lumatech $^{\text{TM}}$ system is an all solid-state design including LEDs, fail-safe system logic, drivers, power conditioning, and more. The unit weighs significantly less and requires one fifth the power of what you're flying today.

Costly Maintenance

Your incandescent panel continues to age and require ongoing and costly maintenance. Besides sudden death from overheating and other lamp related failures, the unit is also susceptible to cap breakage, repeated transistor failures, and even catastrophic shorting should a lamp accidentally fall into the body of the annunciator while relamping. This involves a scramble for a working replacement panel and a trip to the repair depot for the damaged one; none of which is covered under warranty.

Your existing OEM panel will require more and more repairs as time goes on and the cost of replacement parts or a new or exchange unit are continually going up. End the cycle now by upgrading today.

Dispatch Delays

Regardless if it's lamps, broken caps, failed transistors, or any combination; if it fails on the ramp or in the field it causes a maintenance event that often leads to dispatch delays. This costs you serious time and money; all because of a burned out lamp and subsequent escalation.

Safety Cost

The cost of flight safety is difficult to quantify, but situational awareness is key. Common sense says that unreliable, hard-to-read Caution Warning alerts reduce situational awareness and flight safety - and reduced flight safety is the nightmare of all expenses.

How the Lumatech[™] 4208 LED Caution Warning panel saves money and Improves Safety

LEDs - Lifetime Reliability

All LumatechTM systems incorporate solid-state LEDs while your existing incandescent panel wastes 80% of its power generating destructive heat, instead of light. LEDs generate almost no heat, so they can last up to 60,000 hours – virtually the life of the aircraft.

Bright Sunlight Readable Legends

Luma's proprietary single piece cast legend plates provide high contrast crisp and even lighting which is truly sunlight readable. The panel's legend has a modern anti-reflective coating for sharper contrast when illuminated and totally dead-front when not. The lettering is laser crisp and will never get fuzzy or change color from heat or age. Each panel is certified to meet FAA requirements for legibility, aviation color differentiation, and most importantly that they be clearly visible in direct, full-sun conditions.

Goggle Ready for NVIS Operations

Each panel also includes proprietary filtration that assures NVG compatibility for current or future NVIS installations. Every cell delivers unmistakable Aviation Colors while having no significant impact to goggle sensitivity during NVIS operations (still requires third-party NVIS certification).

Fail-safe Circuits

Each Lumatech[™] Caution Warning system utilizes a proven "seriesparallel" redundant fail-safe circuitry with an added proprietary feature so that even with multiple single point failures, all legends remain brightly lit.

Warranty & STC Data

Every panel ships complete with all necessary installation data and a full <u>Five Year Warranty</u> from the date of installation, including LEDs.

Zero Maintenance Cost

You will never replace another lamp or cap assembly again. Except for some unforeseen accidental damage, your only maintenance going forward will be with a dust rag. Imagine the money to be saved with a LumatechTM display that will never cause an annunciator or lamp related flight delay again. And we back this up with our bumper-to-bumper Five Year Warranty.

Plug and Play Installation

Luma's LED Caution Warning panel is installed via STC as a one for one replacement on all Cessna 208 and 208B models. Installation is plug-and-play and easily done in less than a day and can be combined with other routine scheduled maintenance.

An Investment that Pays for Itself

Luma's Goggle Ready LED Caution Warning system will quickly pay for itself with direct savings in maintenance costs, fewer dispatch delays, and improved safety. And the initial cost is at least half that of cost of your existing unit (now fully amortized and off warranty). Also, LED panels from Luma are proven to increase the value and appearance of your aircraft. So why go on wasting money on your obsolete Caution-Warning system? Start saving money right now by installing a LumatechTM LED system

Give us a call today: 425-643-4000, x305

