NEW for Twin Cessna

# Lumatech<sup>™</sup> LED Display Panels

## **Make Your Existing Annunciators Obsolete**

## Reliability & Performance you can see...



Replace your outdated incandescent annunciators with reliable LED Caution Advisory Panels & Gear Status Lights from Luma Technologies

- Cut Maintenance & Repair Cost to Zero
- One Piece Dead-front Legends deliver laser sharp sunlight readability for increased Situational Awareness & Flight Safety
- No More Cancellations or Trip Delays. Eliminate the risk and eyesores from broken and missing Cap Assemblies
- Eliminate Safety Hazards tied to poor lighting, lamp and circuit failures, fortyyear-old brittle wiring, and other age-related issues

DOOR WAR

- Modern-day Appearance and Technology add value & desirability to your aircraft
- TEN YEAR WARRANTY



#### **Obsolete Design**

Let's face it, your annunciators were designed in the sixties & seventies and likely built back then as well. Each cell has two incandescent lamps that generate extremely high heat, with a massive current draw and inherently fragile lamp filaments. Pack all that into a fist-sized cluster of annunciators and what do you expect? Explains your ongoing battle with lamp failures and cap issues—compared to Luma's low temp LEDs that never burn out.

#### **Safety Cost**

The cost of flight safety for you and your family is difficult to quantify but common sense says unreliable, hard to read annunciators reduce flight safety; especially if they're trying to tell you something you need to know!

#### **Unreadable Legends**

Forty-plus years of high lamp temperatures take their toll by degrading your cap assemblies and internal components to the point they begin to swell and warp, break easily, or simply refuse to latch upon reinsertion. Add to that those lamps don't come out as easily as they used to often leading to another broken cap (DOH!).

Plus a lifetime of extended high temperatures often result in darkened, blurry legends that permanently change color and gotten harder and harder to read over time. Sure, you know what they say but you and your passengers deserve better.

#### Sad, but True

Aging panels require on-going and sometimes expensive repairs yet the traditional options for Twin Cessna owners are drying up quickly. Support from the annunciator OEM's is non-existent and the odds (and prices) of getting a replacement from Cessna are beyond belief. Your shop is left to working with the parts brokers to find a serviceable unit or a frantic search on eBay for one that can be cannibalized to keep your existing unit going.

## Departure Delays and Other Hassles

When an annunciator breaks or needs re-lamping it often leads to a delayed departure or worse. "Do I have any lamps, is the cap going to break, maybe not latch," etc, etc.

This leads to wasted time and potentially serious money all because of a burnedout lamp or failed internal diode.

## How Lumatech<sup>™</sup> LED Panels Save You Money and Improve Safety

#### LEDs – Lifetime Reliability

All Lumatech<sup>™</sup> status display panels incorporate solid-state LED technology. Most don't realize it, but your existing annunciators waste 80% of their electrical draw generating heat instead of visible light. LEDs generate almost no heat, so they can last up to sixty thousand hours—well beyond the foreseeable life of most aircraft.

#### Fail-Safe Circuits

The LED circuits in all Lumatech panels have a "series parallel" arrangement combined with other proprietary components assuring fail-safe operation. Even with multiple single point failures, all legends remain fully functional and brightly illuminated.

#### **Plug and Play Installation**

All of Luma's LED display panels are STC certified as a one for one direct replacement for most models. Installation is quick and easily combines with other routine maintenance.

#### **Flat Panel Appearance**

Similar to newer avionic systems, Lumatech LED panels have a single-piece flat surface with an anti-reflective treatment for maximized contrast enhancement. All those uneven caps and typical visual clutter is gone.

#### **Zero Maintenance Cost**

Lumatech LED Panels and Gear Status lights never require lamp or cap assembly replacements so your pre-flight routine is reduced to an occasional wipe with a dust rag. Plus, they come with a TEN YEAR WARRANTY for as long as you own your plane (no exceptions, see back page).

#### **No More Delays**

Imagine the peace of mind you'll get with all new laser crisp LED status displays on board. Unexpected lamp failures and cap breakage are gone for good with Luma's solid-state LEDs and fail-safe circuitry.

#### **Bright Legends – Readable** in Direct Sunlight

High-output LEDs provide brighter, and more uniform illumination. Each panel offers vastly superior lighting performance even in direct sunlight. Luma's cast legend process assures cell indicia never gets fuzzy or off-color from heat and age.

#### An Investment that Pays for itself

Lumatech LED Panels and Gear Status lights provide a meaningful ROI with direct savings in maintenance costs, departure delays, and improved safety. Held up to your existing annunciators the acquisition cost is low compared to what you will ultimately spend replacing or repairing the panel and gear lights you have now. So why keep ignoring or wasting money on obsolete annunciators?



## Lumatech<sup>™</sup> LED Panels...

### All the Performance & Reliability of Modern-day Avionics

#### **Rugged Solid-state Design**

Lifetime LEDs Eliminate Fragile Incandescent Lamps and Last the Life of the Aircraft

#### **Zero maintenance**

(Maybe just a dust rag)

#### **Modern-day Flat** Front Surface

No Uneven Cap Assemblies or Visual Clutter

#### **Cool to the touch**

Lumatech<sup>™</sup> Panels Generate One Third the Heat so Your **Cockpit Stays Comfortable** 

#### L ALT OUT R ALT OUT BACK COURSE HEATER OVHT L FUEL LOW **R FUEL LOW** L TRANS R TRANS WINDSHIELD SURF DEICE T & B TEST A COND HYD COURTESY LT INTERCOMM SEAT BELT NO SMOKING

#### **Sunlight Readable Legends**

Anti-Reflective, High Contrast Background

Cast Legend substrate with Laser Crisp Lettering that never gets blurry or uneven from Heat and Age



All Panels and Gear Status Displays Include new Cable Harnesses & Connectors

#### **Damage Resistant Legend Plate** Luma's multi-celled single piece

legend plate is cast from tough high-density polymer that won't deteriorate from age, high heat, or wear. Even if scratched or gouged, • the sub-surface indicia remains readable and is easily replaced on your schedule.

#### **Reduced Power Consumption** Lumatech LED panels draw sixty percent less current than your existing annunciators.

#### Plug and Play

Each Lumatech panel has been certified as a drop-in replacement for twin Cessna aircraft with an easy Quickturn installation (see back page).



#### Legends Easy to Update If indicia needs to be updated,

the legend plates are affordably replaced. One week turn-around.

#### Adds Resale Value

Lumatech LED panels add value and • quick return on your investment with added savings tied to eliminated • repairs and trip delays. Potential buyers choose Lumatech<sup>™</sup> LEDs over incandescent every time.

#### **Off-angle Viewing**

Luma's bright and laser crisp legend text make each cell easily read from any angle. No blurry or uneven illumination. Clear messages add to safety.



#### **Ten Year Warranty**

If any part fails during normal use, we will repair or replace it at no charge for ten years from the date of installation.

#### **Saves Weight**

#### **Proven Reliability & Performance**

The installed base of Luma's LED panels, pushbutton switches, annunciators, and other devices number into the thousands with combined "fleet flying hours" totaling well over half a million hours. Lumatech<sup>™</sup> LED products are a popular choice in civil and military applications for their proven ability to withstand shock, vibration, and the harsh environmental aspects of fixed and rotary-winged aircraft (and they like the lighting too).

# Bundle & Save!



Panel Configuration	Model Applicability
LT-4316 Series (16-Station Panel W/Test Switch)	340, 401B, 402B, 414, 421B
LT-4318 Series (18-Station Panel)	340A, 402B, 414,
LT-4322 Series (22-Station)	402C, 404, 414A, 421C
LT-4441 Series (Two Panel Set)	425, 441 (Available 2022)
Integrated LED Gear Status Module, Single Unit, Multiple Formats	

## Luma Technologies LLC

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