WEAR-RESISTANT ILLUMINATED PANEL
FOR ANY ENVIRONMENTAL CONDITIONS

stacosystems™
Using a **patented, durable, polymer material** coupled with **advanced optical technology**, Staco Systems has developed **THE ONLY** wear-resistant, illuminated panel that can perform in any environmental condition. **TOUGHER THAN ANYTHING ELSE ON THE MARKET.**

### FEATURES

- Surface and legends will never wear through
- Patented polymer material replaces traditional painted acrylic
- In some configurations, a completely opaque chassis material prevents light leakages when damaged, for mission-critical applications
- Can directly replace any existing panel
- Wear-resistant properties reduce life cycle costs
- Built-in hidden SLR legends available with no increase in panel thickness or weight
- Proprietary optical characteristics allow for state-of-the-art design capabilities in a panel display
- Vertically integrated manufacturing provides design flexibility and quicker lead times

### OPTIONS

- NVIS-compliant lighting
- LED or incandescent lighting
- Unlimited color options available for panel face
- Multiple colors may be used for legends on any panel
- Customized or build-to-print designs
DEMAND MORE FROM YOUR ILLUMINATED PANELS

DESIGN

The hidden annunciation capabilities of the illuminated panel eliminate excess weight, space and panel depth by removing the need for additional components.

- Lighting conforms to MIL-PRF-22885
- All hidden legends are SLR in energized (lit) state and undetectable in unenergized (unlit) state

SUN AMBIENT CAPABILITIES*

Background Gloss (GU) 2–3

Hidden Legends

- CuL (unlighted contrast ratio) = 0 Typical @ 10 KFC**

At a distance of 15–18 inches (381–457 mm), a person with 20/20 vision cannot see the legend when it is in the unenergized condition.

Contrasting Legends

- CuL (unlighted contrast ratio) = 15 Typical @ 50 FC**

In dim lighting, the legend is 15 times more detectable than the background.

Hidden Indicator Lights

- CL (lighted contrast discerned over sunlight) = 1.0 Typical @ 10 KFC**

Higher lighted contrast ratios (CL) result in better visibility. The average industry CL values are ≈ 0.6 to 0.4 relative. The visibility of Staco System’s legends is 67 to 150 percent higher.

- Lighting in all instances is directed at the panel from 45°, and viewing/measuring angle is 0° (perpendicular) to the surface of the display.

** FC stands for Foot Candles.
The Staco Systems illuminated panel consistently outperforms all other panels with innovative optical technology that can endure even the harshest environments.

**SURFACE FUNCTIONALITY SOLVENT EXPOSURE**

A single unit under test (UUT) was exposed to all four solvents. The UUT was divided vertically into four equal areas. From left to right, the sections of the UUT were exposed to the following solvents per MIL-DTL-7788-H:

- Lacquer Thinner, A-A-857
- Grease Cleaning Compound, P-C-444
- Engine Oil of Grade 1010, MIL-PRF-6081
- Hydraulic Fluid, MIL-PRF-83282

<table>
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<th>Solvent</th>
<th>A-A-857</th>
<th>P-C-444</th>
<th>MIL-PRF-6081</th>
<th>MIL-PRF-83282</th>
<th>Chlorine Bleach</th>
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All measurements are in Gloss Units (GU). Pass condition is ≤ 5.0 GU.

**SURFACE ENDURANCE TESTS AFTER SOLVENT EXPOSURE**

The vertical load of 9.8 Newtons (35.3 oz)(1,000 grams) applied to the point of the needle was increased to 39 Newtons (141.1 oz)(4,000 grams).

Surface endurance tests after solvent exposure 4x MIL-SPEC load requirement at 39 Newtons.

BREACH OF SURFACE IS VISIBLE

NO DISTORTION OF LEGEND IS OBSERVED

NO BREACH OF PANEL LIGHTING OCCURS

ILLUMINATED PANEL WITHSTANDING 100 POUNDS (45.4 KILOGRAMS) OF APPLIED PRESSURE WITH NO BREAKAGE OR DELAMINATION