



Illuminating Flight Control Through Innovation.

## INTEGRATED SWITCH PANELS Switch Panels, Keyboards and Bezels

### Experts in Human Machine Interface Solutions.

IDD Aerospace develops flightdeck keyboards, bezels and integrated switch panels for many of the world's most recognized civil and military aircraft. IDD is the preferred technology for both the Boeing and Airbus fleets including the Airbus A-320 and A330 Families, the Airbus A380, Boeing 747, 767, 777 and the new Boeing 787 Dreamliner.

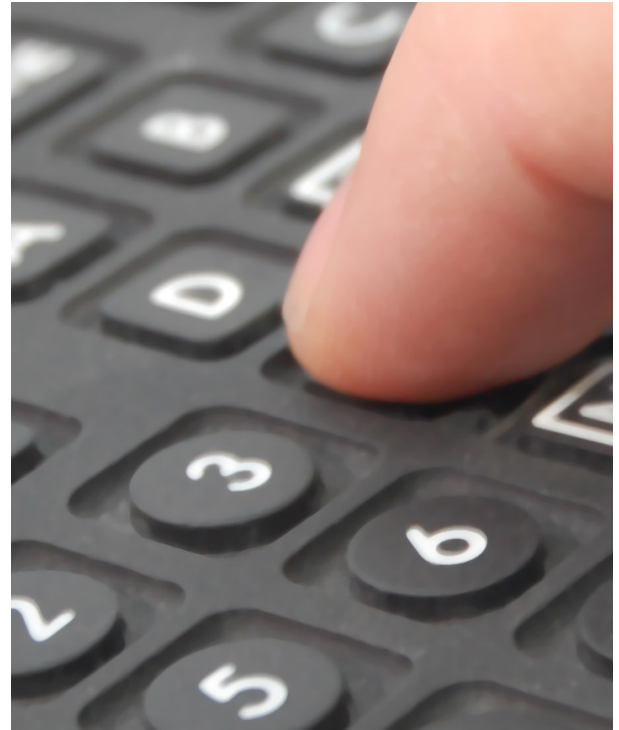
Business Jet applications include Bombardier Challenger aircraft and Cessna aircraft as well as Gulfstream 450, 550 and G650 aircraft. Our many military installations include the F/A-18 Super Hornet, F/A-22 Raptor, and the Airbus A400M aircraft.

IDD Aerospace is recognized globally for producing advanced human machine interface solutions with uniform lighting, sharp crisp tactile feedback, and revolutionary packing concepts that de-clutter pilot controls and streamline manufacturing.

IDD Aerospace offers a variety of integrated switch panels for flight decks. We have developed proprietary keyboard designs that result in optimum switching and industry-renowned tactile response. Our keyboards are trans-illuminated to SAE AS7788, MIL-L-85762, MIL-STD-3009 specifications. The result is homogenous illumination and low power consumption. Annunciation can be provided on the push buttons or separately on the front panel and options are available for sunlight-readability per MIL-S-22885.

Our Night Vision Goggle (NVG) and Night Vision Imaging System (NVIS) compatible design capabilities makes us a perfect development partner for military aircraft applications as well as military all-terrain-vehicle (M-ATV) controls.

Contact an IDD Aerospace representative today to talk about your next custom human machine interface project.



# CAPABILITIES

## Features

- Value-Added Engineered Designs
- Sealed Switches
- Gold-Plated, Wiping Three Point Contacts
- Spill-Proof Construction
- Transillumination per SAE AS7788
- Low Profile Designs
- Designed for Manufacturability
- 1 Million Plus Actuations
- LED or Incandescent and LED Conversion for Incandescent Designs

## Optional Features

- Sand/Dust Sealing
- Sunlight Readable Annunciators
- LED Designs Match Incandescent Curve
- Night Vision Technology
- EMI/RFI Shielding
- Potentiometer or Switchable Dimming
- Elastomeric Keypad
- Embedded Character Displays or Illuminated Indicators
- Embedded Pulse Width Modulation (PWM) dimming Control

## Mechanical – Sample Capabilities:

Life: Over 1,500,000 Actuations  
Actuation Force: Cust. Specified: 20+/- 5oz. nominal  
Total Travel: 0.050 nominal  
Pre-travel: .015 minimum  
Over-travel: .010 minimum  
Panel Depth: .375 minimum with flush key caps and transillumination  
Panel Termination: Customer preference  
Lamp: T-1 unbased lamp mounted on circuit board or single chip White, Amber or Green LED's rated > 150,000 hour life  
Illuminated Color: (LED) Unfiltered White or IPL White, Amber or Green; (Incandescent) IPL White  
Switch Size: Mounts on .470 centers; 400 square key cap is standard  
Panel Material: Machined aluminum or Acrylic plastic

## Electrical and Electronic

Contact Rating (maximum): 3 watts or 100 volts DC or 50 milliamps  
Contact Type: SPST-NO; gold-plated contacts  
Contact Bounce: Less than 1 millisecond  
Contact Resistance (Initial): Less than 25 milliohms  
Insulation Resistance: 400 megohms  
Dielectric Strength: 300 VRMS  
Illumination control and curve-fitting circuits

## NVG and NVIS

IDD Aerospace's state-of-the-art engineering and manufacturing processes ensure superior NVIS-compatible lighting performance. NVIS Red and Green panel class A or B illumination can meet or exceed NVIS A or B performance requirements of MIL-L-85762A or MIL-STD-3009. This is achieved through the use of the latest LED or incandescent illumination technologies.

## Environmental

Temperature (Operating): -55°C to +85°C (Storage): -65°C to +95°C  
Designed to meet the environmental requirements of MIL-S-22885 and applicable portions of SAE-AS-7788

## IDD AEROSPACE

AIRCRAFT SYSTEMS

