

# ABC

## Advanced Brake Controller



The **Advanced Brake Control system** is a sophisticated dual-channel differential braking controller, incorporating **anti-skid** functionality and replacing the older legacy controllers of the F-16 aircraft.

**The system is in operational service on-board more than 700 Lockheed Martin's F-16 aircraft of different blocks, serving in more than 10 different Air Forces around the world.** Its superior braking performance, coupled with fully redundant features, provides unique "fail-safe" capabilities.

### Technical Data

- Dimensions: (HxWxL) 4.0"x5.1"x6.4" (102x130x163)mm
- Weight: 4 lb (1.8 Kg)
- Qualifications: MIL-STD-810, MIL-STD-461 and MIL-STD-704
- Power Consumption: 17 W
- MTBF exceeds 15,000 flight hours

### Benefits

- Improved landing and taxiing safety by:
  - Superior braking performance on slippery runway conditions - icy, snowy, flooded, transitional
  - Nominal braking performance even in case of a failure of a control channel.
  - Nominal braking performance even in case of a severely degraded wheel speed sensor.
  - Auto-recording of the last 9 landings for in-depth diagnostics
- Improves fleet availability and reduces fleet operation costs by:
  - Reducing maintenance effort
  - Reducing brake and tire wear, provides Life-Cycle-Cost reduction.
  - Increasing the entire braking system's MTBF
  - Reducing the entire braking system's MTTR

## Main Features

- Improved braking algorithms - Normal and Backup for effective braking on all runway conditions
- Qualified for F-16 block 15 through 60
- No aircraft modifications required - Retrofit is flight-line executable
- Full dual redundancy - two independent controllers in one LRU
- Fault detection automatically triggers the 2nd redundant braking control channel
- Advanced BIT (Built-In-Test) and diagnostics:
  - Covers the entire braking system (cockpit and wheels sensors, wiring and braking pads)
  - Diagnostics provides automatic fault isolation
- Auto recording of landings for in-depth diagnostics & debrief
- First failure will be isolated prior to affecting the braking performance
- Full braking performance even with a defective wheel sensor
- Special failure indicator for quick reference for flight-line technician
- Re-programmable via communication channel
- Flight-Line Test Equipment – Utilizing a laptop or a PDA unit
- NSN 1630-17-112-8746
- RSL P/N AY96011129
- LM P/N 16VL014005-1

## Additional RSL systems for F-16



**DESSC**  
Diagnostic Engine  
Starting System Controller



**DFMC**  
Diagnostic Fuel Management  
Controller

## COMPANY PROFILE

RSL Electronics USA Inc. designs, develops and manufactures state-of-the-art control and diagnostic solutions for defense and aerospace applications.

The wide range of systems offered by RSL includes airborne utilities and control systems as well as airborne Health and Usage Management Systems (HUMS). These are used in conjunction with turbo-jet, turbo-shaft & turbo-prop engines, fuel systems, and electrical power systems.

RSL maintains a strict quality assurance policy and is an approved supplier for the Israeli Air Force, the U.S. Army and Air Force, the Korean Air Force, the Japanese Air Force, Lockheed Martin, Israeli Aerospace Industries and many others.



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