

DRA-707

Digital Radio Altimeter Test Set

The Atlantis Avionics DRA-707 Digital Radio Altimeter Test Set is designed to facilitate testing of digital altimeters by providing simulated aircraft radio altitude information in a flight-line environment. Using operator-defined parameters such as start altitude, stop altitude, and vertical speed, the DRA-707 defines a radio altitude ramp. This information, along with error and fault control information, is transmitted in digital form to drive the radio altitude buses of up to three aircraft altimeters.

The DRA-707 is connected to the front of the aircraft's altimeter by a cable adapter and accurately simulates descent, approach, flare, and touchdown. The DRA-707 may be used whenever active control of the radio altitude bus is a test requirement. It may be operated from any convenient location, but is designed to be used in the cockpit area.

The following accessories are available:

- Various aircraft cables to support a variety of aircraft altimeters
- Fifty-foot extension cable
- Remote control unit.

The DRA-707 is housed in a portable, weather-resistant case. The lower portion of the case houses the electronics and the detachable upper part of the case provides storage space for cables and manuals. The principal electronic circuits are attached to the front panel, which is easily removed for maintenance. All printed circuit assemblies are designed to allow convenient removal and replacement using standard electronic shop tools.



Features

- Can drive up to three altimeters independently
- 3-part sequence to simulate descent, approach, flare, and touchdown
- Smooth and repeatable sequences
- Precise control of parameters
- Stop/start/backup at any time during sequence
- Allows introduction of simulated altimeter faults
- Precise control of simulated altimeter reading inaccuracies
- Sophisticated, yet easy to install and operate
- Operable from the cockpit
- Memory capacity of 99 test sequences
- Digital circuitry with crystal-controlled accuracy
- Altitude selectable to 1 foot from -20 ft to +8,000 ft
- Large ramp rate range of $\pm 16,000$ fpm
- Ramp rate resolution of 1 fpm

Specifications

Accuracy:

- Better than 0.1% in all parameters

ARINC 429 Bus Frequency:

- Variable, 10 kHz to 15.9 kHz, selectable with resolution of 0.1 kHz; default 12.5 kHz

Simulated Faults:

- Failed LRU (AFCS data *Continuous* or *Interrupted*)
- No Computed Data (no ground return)
- Altitude Error (altimeter calibration error)

Maximum Signal Line Loads:

- ARINC 429 outputs - 1000 ohms
- TTL outputs - 150 ohms
- RS 422 outputs - 100 ohms

Output Channels:

- Three radio altimeters can be driven, each having TTL and ARINC 429 outputs plus AFCS discretes.



Output Word Labels:

- ARINC labels 164 and 165 (BNR and BCD radio altitude)

Altitude Range:

- +8,000 ft to -20 ft, with a resolution of 0.125 ft (BNR) and 0.1 ft (BCD)

Power:

- 115 or 230 VAC, 47-440 Hz or self-contained battery

Dimensions:

- 19.5 in x 9.5 in x 13.5 in (50 cm x 24 cm x 34 cm)

Weight:

- 24 lbs (11 kg) with battery

For more information on the DRA-707 Test Set or other Atlantis Avionics test equipment products, contact Customer Support at:



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