

A complete air data calibration and test solution
For testing and Fault Isolation of pneumatics for
the F-16 Air Data Computer (ADC) and Pneumatic
Sensor Assembly (PSA)

- F-16 Avionics Intermediate Shop (I-AIS) test set modernization - replaces legacy configurations
- Fully tested and approved for compatibility with the Latest F-16 Test Program Sets (TPS)
- Part No. **TVCS-5500-16**



Line Switching Unit can provide multiple outputs from a single Pitot or Static input and can be operated locally or remotely over RS232

Rear panel supplied with covers (far left) allows for easy access to connections and hoses

Self-contained test solution with two (2) air data test sets, vacuum source, pressure source capable of operation locally or remotely



F-16 I-AIS Avionics Test System

The primary function of the Air Data Test System (ADTS) is to perform testing and fault isolation of pneumatic-type Units Under Test (UUT). To test a UUT, the operator connects the associated Line Replaceable Unit (LRU) Integrated Test Adapter (ITA) to the rackmount Avionics Intermediate Shop (AIS) test station. The operator connects the ADTS to the I-AIS via an RS-232 Interface and then finally, connects the UUT to the ADTS using supplied cables, hoses, plugs, etc.

The test program executes the ADTS self-test and leak test embedded for each of the associated UUTs. Faulty Shop Replaceable Units (SRUs) within the UUT are identified and replaced. Thereafter, the UUT is retested and returned to service after successful completion of the test program.

Automated Remote Operation

The system can be operated remotely through standard SCPI commands or using the latest Test Program sets (TPSs) through RS232, IEEE-488 or Ethernet interfaces.

The F-16 AIS Air Data Test System modernization involves both system and component level modernization. The system features:

- Two (2) ADTS-1575 Air Data Test Sets - accurately control and measure Pitot and Static pressure functions via remote protocol
- Line Switching Unit (LSU) - used for distribution and isolation to multiple Pitot and Static outputs, controlled via remote protocol
- Vacuum Source with dual outputs and source hoses
- Pressure Source with dual outputs and source hoses
- Remote Interface Panel with Manifold Block Mount*
- Retractable Work Surface
- Programmable Resistance Substituter (PRS)*
- 16U mobile enclosure w/casters / 11U top stacking enclosure
- Complete accessory and interconnect hoses and cables



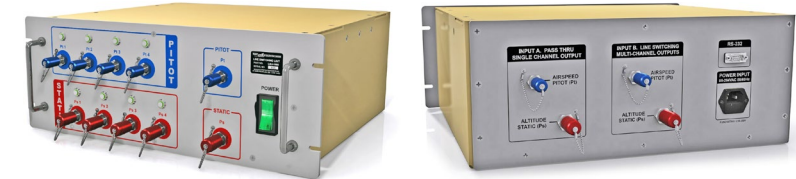
ADTS-1575 Test Set Specifications (2 per system)	
Static (Ps) Altitude Control Range ¹	-3,000 to 109,000 ft
Altitude Accuracy	± 0.003 inHg or 0.01%, whichever is greater RVSM →
Altitude Rate ²	0 to 50,000 ft/min
Altitude Rate Accuracy	± 10 ft/min or ± 1% of setting, whichever is greater
Altitude Units ³	feet, meters, inHg, mmHg, mbar, hPa, PSIA
Pitot (Pt) Airspeed Control Range ¹	0 to 1,000 knots
Airspeed Accuracy	± 0.003 inHg or 0.01%, whichever is greater
Airspeed Rate ²	0 to 800 kts/min
Airspeed Rate Accuracy	1% of setting
Altitude Resolution	0.1 kt / 0.01 mbar / 0.0001 inHg (Pt) / 0.01 mmHg
Airspeed Units ³	IAS/CAS, kts, Mach, inHg, mmHg, mbar, EPR, hPa, PSIA, kph
Display	10.4-inch LED backlit Touchscreen LCD
Interfaces	RS-232 / USB / VGA
Altitude (Static) Port	Male JIC 37° bulkhead (AN6) with blue anodized cap
Airspeed (Pitot) Port	Male JIC 37° bulkhead (AN4) with red anodized cap
Calibration Cycle	One (1) year
Power Requirements	90-260 VAC, 45 - 440 Hz, 1 PH



ADTS-1575 Front View

Rear View

LSU-1000 Line Switching Unit Specifications	
Inputs (rear panel)	Switched: 1 Pitot / 1 Static pass through: 1 Pitot / 1 Static
Outputs (front panel)	Switched: 4 Pitot / 4 Static pass through: 1 Pitot / 1 Static
Altitude (Static) Ports	Male JIC 37° bulkhead (AN6) with blue anodized cap
Airspeed (Pitot) Ports	Male JIC 37° bulkhead (AN4) with red anodized cap
Remote Interface	RS-232
Dimension	19.0 x 19.5 x 6.9 in 21.85 lbs

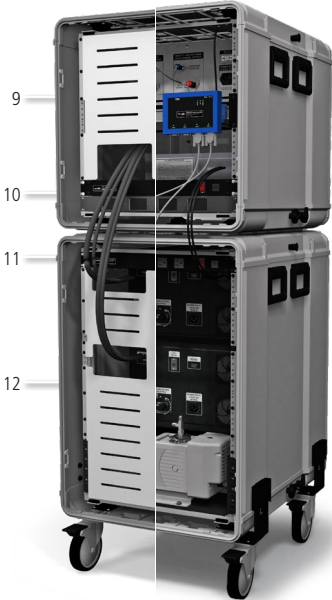


LSU-1000 Front View

Rear View



F-16 AIS Air Data System Front View



Rear View

1. ADTS-1555 Air Data Test Set
2. PRU-2000 Pressure Source
3. LSU-1000 Line Switching Unit
4. Interface Panel and PSA Mount
5. Programmable Resistance Substituter
6. Retractable Work Surface
7. 11U Rack Enclosure Assembly with front/rear covers w/ storage pouch
8. 16U Rack Enclosure Assembly with front/rear covers w/ storage pouch and locking casters
9. Enclosure A Rear panel cover
10. Enclosure A Power Management
11. Enclosure B Rear panel cover
12. Enclosure B Power Management

1) Standard ranges listed. 2) The Altitude and Airspeed Slew Rates are load dependent. Slew rates and load test requirements may vary based on volume of the DUT. 3) Standard units of measurement listed (at time of print). Additional units may be available.