

Perform enhanced
**Calibrations on a
Variety of Equipment**

Industry leading, expansive
10.4" LED Backlit Display

Easy to use, intuitive and upgradeable
Graphical User Interface

TestVronics Part Number
P/N: ADC-2500

National Stock Number
NSN: 6695-01-581-8231



ADC-2500 Air Data Calibrator

TestVronics ADC-2500 Air Data Calibrator is a high accuracy air data management system. The calibrator is capable of controlling and measuring Altitude and Airspeed pressures to the highest degree of accuracy. The control and measurement range of the test system meets or exceeds most requirements for commercial and military test applications. In addition, accuracy of ADC-2500 complies with requirements for RVSM.

Features

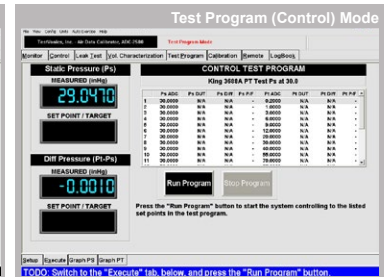
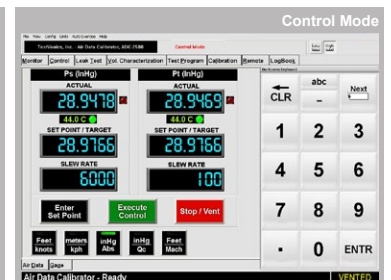
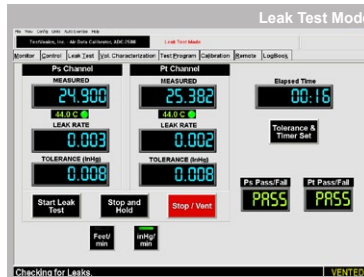
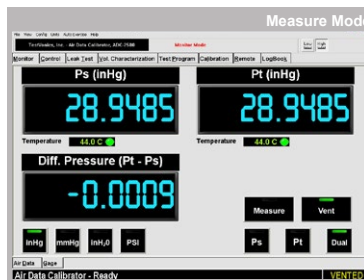
The ADC-2500 features a brilliant 10.4-inch LED backlit LCD display with a crisp 1024x768 pixel resolution. A resistive touchscreen allows the calibrator to be controlled directly from the front panel. An on-screen keyboard appears automatically when operator input is required. Additionally a USB keyboard and mouse is included with the calibrator for auxiliary data input. The calibrator uses quartz transducers which provide unmatched performance. Corrections are done through software requiring no mechanical adjustments and are capable of holding their accuracy for a period of one year.

Simple and Intuitive Interface

The ADC-2500 software provides a familiar and intuitive graphical user interface for any operator. The calibrator measures and record readings and displays the data readings with graphs. This data is stored on the calibrator and can be printed for calibration reports. In addition, the calibrator can be operated remotely through the RS-232 (serial) or IEEE-488 (GPIB) located on the rear panel. The ADC-2500 operating system platform provides for future expandability through software upgrades for additional testing applications.

Protection and Safety Features

The ADC-2500 is designed with both hardware and software safety features designed for maximum protection when testing. The calibrator features input pressure regulation, over-range, over-limit and over-pressurization protection. Micro-porous filters and screening prevent debris from entering the system. The calibrator is equipped with pressure relief valves to protect the pneumatic system components and the unit under test (UUT) from damage. In the event that the calibrator loses power, the front panel manual vent can be used to safely vent both the test set and the UUT to ambient. The Test Program function allows the operator to create virtually unlimited test number of test routines for automated testing. These test routines save time and provide improved test consistency.



TestVronics™ ADC-2500 Air Data Calibrator

	Specifications
Static (Ps) Altitude Control Range ¹	-2,000 to 109,985 ft (extended mode) 1088.65 to 6.772 mbar 32.1480 to 0.2046 inHg
Altitude Accuracy	± 0.003 inHg or 0.008% FS
Altitude Rate ²	0 to 50,000 ft/min / 20.0 inHg/min
Altitude Resolution	1 ft / 0.01 mbar / 0.0001 inHg (Ps) / 0.01 mmHg
Altitude Units ³	feet (ft) / meters (m) / millibar (mBar) / inches mercury (inHg) millimeters mercury (mmHg) / inches water (inH2O) / PSIA
Pitot (Pt) Airspeed Control Range ¹	0.00 to 1,050.0 kts 21.83 to 3803.69 mbar 0.6449 to 112.3230 inHg
Airspeed Accuracy	± 0.004 inHg or 0.008% FS
Airspeed Rate ²	0 to 800 kt/min / 40.0 inHg/min
Mach Range	0.002 to 10.0 Mach
Altitude Resolution	0.1 kt / 0.01 mbar / 0.0001 inHg (Pt) / 0.01 mmHg
Airspeed Units ³	knots (Vc) / Qc (Differential) / inches mercury (inHg) millimeters of mercury (mmHg) / millibar (mBar) / PSID / PSIA Total Pressure (Pt) / inches water (inH2O) / kilometers (km) / MACH
Control Stability	0.001% FS (Absolute or Differential)
Operating Medium	Clean Dry Air or Nitrogen
Display	10.4-inch LED backlit LCD
Interfaces	TTU-205J / RS-232 / USB (x2) / Ethernet / VGA (optional)
Altitude (Static) Port	37° Flare AN6 bulkhead (front panel)
Airspeed (Pitot) Port	37° Flare AN4 bulkhead (front panel)
Calibration Cycle	One (1) year
Power Requirements	90-260 VAC, 45 - 440 Hz, 1 PH
Dimension / Weight	19 x 10.5 x 20 in (19-inch rackmount) / 38 lbs (17.24 kg)

Calibrator Features

Front Panel

Rear Panel

- 10.4" LED Touchscreen LCD
- Manual Vent switch
- Power switch
- Airspeed Pitot (Pt) port
- Altitude Static (Ps) port
- TTU-205J Interface port
- USB ports (x2)
- RJ-45 Ethernet port
- RS-232 port
- VGA port (optional)
- Input Vacuum port
- Input Pressure port
- AC Power Input
- Intake/Exhaust fans

Optional Support Equipment

The ADC-2500 is designed to support calibration of the full range of organizational (O-Level) air data test sets, pitot static test sets and other air data equipment used by the US Military, Foreign Military Services and commercial organizations. Full Turn-key Air Data solutions can be tailored to meet the end users requirements



Optional Pressure & Vacuum Sources

Pressure Source
P/N: ADC-2500-PRES-115 ⁵
NSN: 6830-01-653-2523



Vacuum Source
P/N: ADC-2500-VAC-115 ⁵
NSN: 4310-01-653-2521

High performance oil-free vacuum and pressure sources are available for the ADC-2500. These sources provide ample pressure and vacuum to the calibrator and are suitable for use with a wide variety of other equipment.

1) Standard ranges listed. Ranges can be configured to comply with customer specific requirements. 2) The Altitude and Airspeed Slew Rates are load dependent. Slew rates and load test requirements may vary based on volume of the DUT and the performance of the pressure and vacuum source connected to the calibrator. 3) Standard units of measurement listed (at time of print). Additional units may be available upon user request. 5) The 115 VAC part numbers shown, 230VAC are available, use -230.