

# ADC-2500 Air Data Calibrator

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

High Resolution  
**10.4" Active Matrix LCD**

Easy to use, intuitive and upgradeable  
**Graphical User Interface**

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

TestVonics Part Number  
**P/N: ADC-2500**



## ADC-2500 Air Data Calibrator

TestVonics 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

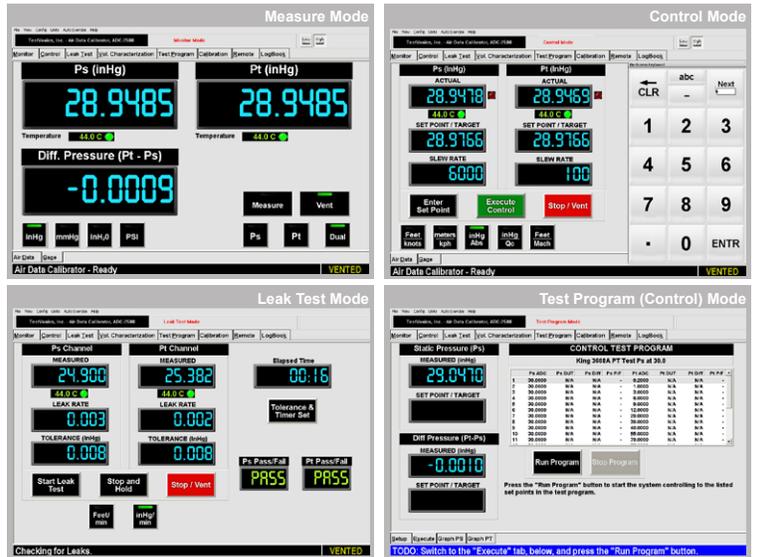
The ADC-2500 features a brilliant 10.4-inch LED backlit LCD display. The display features a 1024x768 pixel resolution. A resistive touchscreen allows the calibrator to be controlled directly from the front panel. An on-screen keyboard appears automatically when operator input is required. Additionally 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.



# TestVonics ADC-2500 Air Data Calibrator

Altitude	Specifications
Altitude Range	-2,000 to 99,000 ft (109,985 ft using Ext. Range)
Altitude Accuracy	0.01% or $\pm 0.002$ inHg $\pm 0.0015$ inHg (RVSM range)
Altitude Rate Range	0 to 50,000 ft/min <sup>1</sup> (0 to 30 inHg/min)
Resolution	Display $\pm 1$ ft or .0001 inHg Rate 1 ft/min
Units	inHg, feet, meters, millibar, PSIA, InH <sub>2</sub> O

Airspeed	Specifications
Airspeed Range	0 to 1,050 knots (0.645 to 112.323 inHg)
Airspeed Accuracy	$\pm 0.004$ inHg or 0.01% whichever is greater
Airspeed Rate Range	0 to 800 kt/min (0 to 60.0 inHg/min)
Mach Range	0.002 to 10.0 Mach
Resolution	$\pm 0.1$ Knot or .0001 inHg
Units	Knots, Qc, PSID, inHg, Mach, Total Pressure, millibar, kilometers, PSIA, InH <sub>2</sub> O

Leading Particulars	Specifications
Weight	40 lbs, 59 lbs in case with accessories
Dimensions	Rackmount (19" x 10.5" x 20")
Power	90-264 VAC, 47-63 Hz single phase
Interfaces	USB, RS-232, RS-422 (TTU-205), Ethernet

## ADC-2500 Calibrator Features

### Front Panel

- 10.4" LCD Display brilliant LED backlit display panel features a crisp 1024x768 resolution.
- Power Switch
- Manual Vent Switch
- TTU-205J Interface
- Airspeed Pitot (Pt) input
- Altitude Static (Ps) input

### Rear Panel

- USB 2.0 (x2)
- RJ-45 (Ethernet)
- Source Vacuum input
- Source Pressure input
- RS-232 (Serial)
- AC Power Input

## Calibrate a variety of Air Data Equipment

For TTU-205 maintainers, the ADC-2500 features the latest version of Enhanced Calibration Capability (ECC) software. This USAF approved software has been in use by most military organizations servicing TTU-205J test sets. The ADC-2500 front panel port connects directly to the TTU-205. With ECC, fully automated TTU-205 testing and calibrations can be performed by clicking a few buttons and walking away. The ADC-2500 automatically generates and maintains reports for each unit. In addition, fully automated recharacterization data acquisition can be used to perform curve fits for transducers.



## ADC-2500 Series Support Equipment

TestVonics high performance oil-free vacuum, pressure and universal power sources provide easy system integration that are suitable for a wide variety of applications.

### Pressure Source

P/N: ADC-2500-PRES-115

Vacuum Source  
P/N: ADC-2500-VAC-115

### Universal Power Source

P/N: TVCS-PS-1350

Frequency Adjustment    Voltage Adjustment    Output Range

<sup>1</sup>The ADC-2500 slew rate is load dependent. Slew rates and load test requirements will vary based on the volume of the device under test (DUT). The product can be modified to fit customers specifications or requirements.

