

ADC-2522 Air Data Calibrator

Plug and Play qualified replacement for
Honeywell ADT-222B

Brilliant, High Resolution LED Backlit
10.4" LCD Touchscreen

Easy to use, intuitive and upgradable
Graphical User Interface

TestVonics Part Number
P/N: ADC-2522
NSN: 4920-01-105-0016

replaces ADT-222B Models:
P/N: 4047505-422 421 / 422



ADC-2522 Air Data Calibrator

TestVonics™ ADC-2522 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. The ADC-2522 features a plug-and-play Honeywell Sperry ADT-222B compatible IEEE-488 interface and protocol.

Features

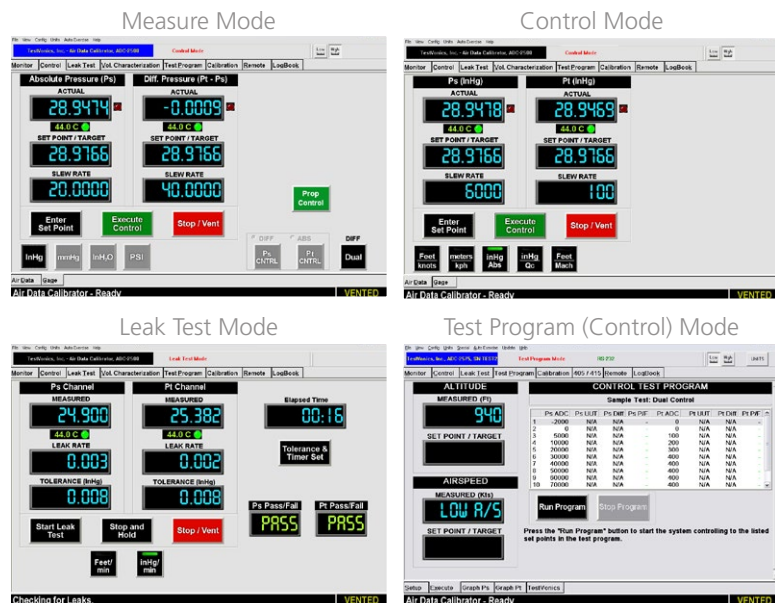
The ADC-2522 features a brilliant 10.4-inch LED backlit touchscreen LCD display. The calibrator uses two absolute digi-quartz transducers which provide unmatched accuracy. The ADC-2522 features a standard IEEE-488.2 interface, as well as a legacy Sperry / Honeywell ADT-222B IEEE-488-1975 emulator and rear panel circular connector. This emulation provides a plug and play solution for aging ADT-222B systems. The ADC-2522 has been tested and fully qualified for use by USAF PMEL organizations worldwide to replace the ADT-222B.

Simple and Intuitive Interface

The ADC-2522 software provides a familiar and intuitive graphical user interface. Modes of Operation are easily selected through tabs located along the top of the screen. The operator can easily switch between modes while testing without affecting operation. The calibrator measures and records readings, while displaying data as a table or graphically. All information is stored directly on the calibrator and reports can be printed. The ADC-2522 can be operated remotely using the RS-232 (serial) port on the rear panel. The operating platform allows the system to be upgraded for future test applications through software upgrades, standalone installer packages or customized software applications.

Protection and Safety Features

The ADC-2522 is designed with hardware and software features for maximum protection to the operator and unit under test (UUT). The calibrator features input pressure regulation, over-range, over-limit and over-pressurization protection. Micro-porous filters and screening prevent debris from contaminating the system. The calibrator is equipped with pressure relief valves to protect the pneumatic system components and the UUT from damage. In the event that the calibrator loses power, the 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-2522 Air Data Calibrator

	Specifications
Static (Ps) Altitude Control Range ¹	-2,000 to 99,000 feet 0.300 to 110.000 inHg
Altitude Accuracy	±0.003 inHg or 0.008% FS
Altitude Rate ²	0 to 50,000 ft/min
Altitude Rate Accuracy	±10 ft/min or ±1% of setting, whichever is greater
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 (inH ₂ O) / PSIA
Pitot (Pt) Airspeed Control Range ¹	0.00 to 1,050.0 kts 0.300 to 112.3230 inHg
Airspeed Accuracy	±0.008 inHg or 0.008% FS
Airspeed Rate ²	0 to 800 kt/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	knots (Vc) / Qc (Differential) / inches mercury (inHg) millimeters of mercury (mmHg) / millibar (mBar) / PSID / PSIA Total Pressure (Pt) / inches water (inH ₂ O) / kilometers (km) / MACH
Control Stability	0.001% FS (Absolute or Differential)
Operating Medium	Clean Dry Air or Nitrogen (Non-density sensitive)
Display	10.4-inch LED backlit touchscreen LCD
Interfaces	RS-232 / IEEE-488.2 / Honeywell ADT-222B IEEE-488-1975 USB (optional)
Altitude (Static) Port	Male 37° Flare AN -6 9/16"-18 bulkhead (rear panel)
Airspeed (Pitot) Port	Male 37° Flare AN -4 7/16"-20 bulkhead (rear panel)
Calibration Cycle	One (1) year
Power Requirements	90-264 VAC, 45 - 440 Hz, 1 PH
Dimension / Weight	19 x 10.5 x 20 in (19-inch rackmount) / 38 lbs (17.24 kg)

Optional Pressure & Vacuum Sources

Pressure Source

P/N: ADC-2500-PRES-115 ⁵



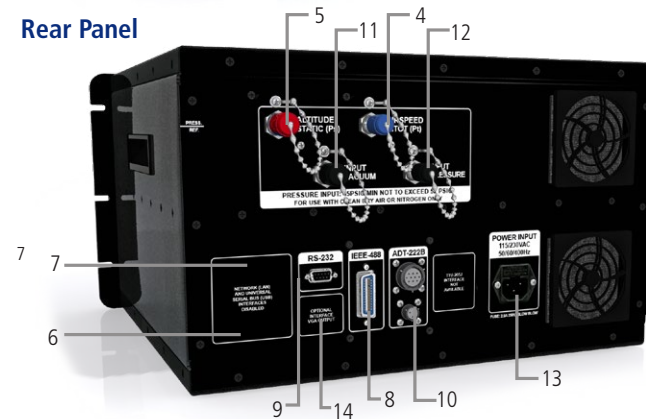
High performance oil-free vacuum and pressure sources are available for the ADC-2555. These sources provide ample pressure and vacuum to the calibrator and are suitable for use with a wide variety of other equipment.

Calibrator Features

Front Panel



Rear Panel



- 10.4" LED Touchscreen LCD
- Manual Vent switch
- Power Switch
- Airspeed Pitot (Pt) Port
- Altitude Static (Ps) Port
- USB 2.0 Ports (x2)
- RJ-45 Ethernet port
- IEEE-488.2 port
- RS-232 connector
- ADT-222B IEEE Interface
- Input Vacuum
- Input Pressure
- AC Power Input
- VGA Port (optional)

Optional Support Equipment

TestVronics provide complete calibration lab solutions. Standalone rackmount solutions can be tailored to meet any customers specification.



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.