RAPTOR SCIENTIFIC

PPCM Series

Global Provider of Test & Measurement Solutions

Part Number **18905810000** (Rackmount)
NSN: 4920-01-104-8652

Part Number **18905810002** (Benchtop)
NSN: 4920-01-512-3910

Ranges **Static (Ps)** -2,000 to 90,000 feet
Pitot (Pt) 0 to 1,000 knots

Benchtop or rackmount configurations

Use as a secondary or transfer pressure standard

Reliable, proven design

Front and rear panel Pitot and Static inputs

Precision Pressure Controller Monitor

The Precision Pressure Controller-Monitor (PPCM) is a calibration standard commonly used as a secondary or transfer pressure standard in calibration and test labs. The standard provides fast control of the operating pressures and monitors internal functions to prevent damage to the unit under test. The PPCM provides a stable, repeatable, and reliable standard for pressure calibration for of air data instrumentation, gauges and test sets. The PPCM operates in any one of five (5) modes:

- Dual Control - *both channels control*
- Altitude Only Control only - *Airspeed Channel is disabled*
- Airspeed Only Control - *Altitude Channel ports uncapped*
- Dual Monitor both channels display the pressure
- Reset both channels are vented to ambient pressure

There are two test modes of operation, selectable by the front panel that verify the PPCM's operation:

- Calibration Test is used to verify calibration of the two sensors against each other. It also checks the operation of the display modules and control circuitry and performs an internal system leak test.
- Auto/Exercise is a test that automatically cycles the unit through preset ranges of altitude and airspeed to ensure maximum accuracy and stability. After completion of test cycles, the program automatically switches the system to the RESET mode.

Units of pressure measurements and control of both channels are selectable in units including; inHg, mbar, feet or meters of Altitude, and Knots (Kts) or Km/hr of Airspeed.

RAPTOR SCIENTIFIC
Raptor Scientific - Avionics Systems
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PPCM Specifications

Altitude (Ps) Range	-2,000 to 90,000 ft
Altitude Accuracy	±0.004 inHg Full Scale
Altitude Rate	100 to 50,000 ft/min
Altitude Resolution	1 ft, 0.0001 inHg (Ps)
Altitude Units	feet, inHg, mbar
Airspeed (Pt) Range	0 to 1,050 knots
Airspeed Accuracy	±0.004 inHg to 0.008 at 110.0 inHg
Airspeed Rate	0 to 800 kts/min
Airspeed Resolution	0.1 kt, 0.0001 inHg (Pt)
Airspeed Units	knots (Vc), inHg, MACH
MACH Range	0.2 to 4.9 MACH
EPR*	0.5 to 9.9
Interfaces	IEEE-488 (GPIB)
Altitude (Static) Port	9/16"-18 Male JIC AN-6 flared bulkhead
Airspeed (Pitot) Port	7/16"-20 Male JIC AN-4 flared bulkhead
Calibration Cycle	One (1) year
MACH Range	0.0 to 4.9 MACH
Power	40 lbs, 59 lbs with accessories and case
Dimensions	Rackmount (19" x 14" x 20") Benchtop Case (21.5" x 13.5" x 24")
Weight	40 lbs, 59 lbs with benchtop case
Power	90-264 V AC, 47-63 Hz single phase

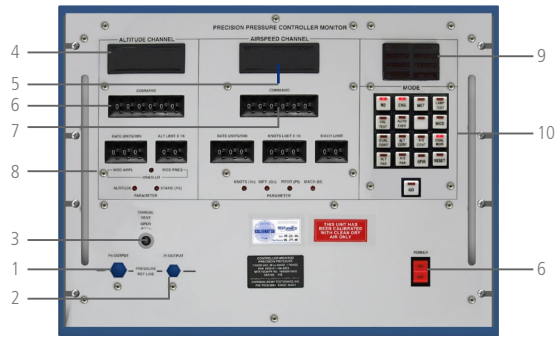
Model Types

PPCM Rackmount Unit
P/N: 18905810002
NSN: 4920-01-512-3910

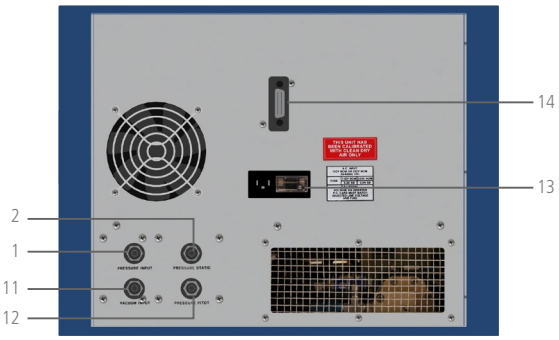
PPCM Benchtop Unit
P/N: 18905810000
NSN: 4920-01-104-8652

PPCM Front and Rear Panel Features

Front Panel



Rear Panel



1. Altitude Static (Ps) port
2. Airspeed Pitot (Pt) port
3. Manual Vent valve
4. Altitude Static (Ps) display
5. Airspeed Pitot (Pt) display
6. Altitude Static (Ps) thumbwheel
7. Airspeed Pitot (Pt) thumbwheel
8. Rate selectors and indicators
9. Mode Display
10. Mode Keypad
11. Source Vacuum
12. Source Pressure
13. Power Input and fuse holder
14. IEEE-488 connector

Vacuum and Pressure Sources

Pressure and Vacuum sources are required when using the ADC Series as a controller. Our line of oil-free pressure and vacuum sources provide clean, dry air to the calibrator. Standalone, benchtop and rackmount options are available.

Pressure Source
P/N: ADC-2500-PRES-115
NSN: 6830-01-653-2523
P/N: ADC-2500-PRES-230

Vacuum Source
P/N: ADC-2500-VAC-115
NSN: 4310-01-653-2521
P/N: ADC-2500-VAC-230
NSN: 4310-01-670-3652

Compact, high performance oil-free vacuum source features a hermetic design providing a robust pumping speed of 60 Lpm and a low base pressure. 115 and 230 models available.

19-inch rackmount **PRU Series** provides Pressure only or the **VPU Series** provides both Vacuum and Pressure - single or dual output options available.

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