BACHARACH
The Measurable Difference

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PCA® 2
Combustion & Environmental Analyzers

BACHARACH'S NEW STANDARD IN COMBUSTION & EMISSIONS ANALYSIS

PCA® 2

Affordable, State of the Art Combustion Analyzer

Smart Sensors
- Field replaceable
- Pre calibrated
- Easy access
- Quick and accurate response

Measures 4 Gases Simultaneously
- **Standard -** O_2, CO-H_2
- **Optional -** CO (High), NO, NO_2, & SO_2

Automatic CO Overrange Protection

Versatile Power Management
- Disposable batteries
- Rechargeable batteries
- Optional universal power supply

Graphic Display
- 160 x 160 graphic liquid crystal display
- Easy to read
- Backlit
- Zoom

FREE
SOFTWARE
USB CABLE
PRODUCT BOOT
INCLUDED !
(up to a $100 value!)

PCA® 2

The PCA® 2 is a commercial grade, handheld combustion and emissions analyzer for on demand or semi-continuous sampling of light industrial, institutional, commercial and residential furnaces, boilers and appliances. The PCA® 2 is the perfect tool for service technicians and boiler contractors who need to ensure safe operating conditions, determine combustion efficiency or perform emissions testing in combustion applications.

The PCA® 2 directly measures and displays flue gas Oxygen (O_2), Carbon Monoxide (CO), Stack Temperature, Draft, Differential Pressure, Combustion Air Temperature and optionally measures and displays Nitric Oxide (NO), Nitrogen Dioxide (NO_2) and Sulfur Dioxide (SO_2). Simultaneously, the PCA®2 calculates and displays Combustion Efficiency (EFF), Excess Air (EA), Carbon Dioxide (CO_2), NOx and Oxygen reference values. The PCA® 2 performs combustion calculations for ten fuels including, Natural Gas, Oil #2, Oil #4, Oil #6, Propane, Coal, Wood, Kerosene, Bagasse and Digester Gas. The large backlit graphic display shows eight different measurements and calculated values simultaneously, and also has zoom capabilities.

SPECIFICATIONS

Measurement Ranges	Primary/Ambient Air Temperature	–4° to 999° F
	Stack Temperature	–4° to 2192° F
	Oxygen	0 to 20.9%
	Carbon Monoxide (H_2 comp)	0 to 4,000 ppm
	Carbon Monoxide, high range	4,001 to 20,000 ppm
	Nitric Oxide	0 to 3,000 ppm
	Nitrogen Dioxide	0 to 500 ppm
	Sulfur Dioxide	0 to 5,000 ppm
	Pressure/Draft	–72 to +72 inwc
Calculated Ranges	Combustion Efficiency	0.1 to 100%
	Excess Air	1.0 to 250%
	Carbon Dioxide (dry basis)	0 to fuel dependent maximum
	NOx (NOx = NO + NO_2)	0 to 3,500 ppm
	NOx referenced to % O_2	0 to 9,999 ppm
	CO referenced to % O_2	0 to 9,999 ppm
	NO referenced to % O_2	0 to 9,999 ppm
	NO_2 referenced to % O_2	0 to 9,999 ppm
	SO_2 referenced to % O_2	0 to 9,999 ppm
Accuracy	Oxygen	± 0.3% O_2 (on flue gas)
	Stack or Flue Gas Temperature	± 4°F between 32 and 255°F (± 2°C between 0 and 124°C) ± 6°F between 257 and 480°F (± 3°C between 125 and 249° C) ±8°F between 482 and 752°F (± 4°C between 250 and 400°C)
	Primary-air/Ambient Temperature	± 2°F between 32 and 212°F (± 1°C between 0 and 100°C)
	Pressure/Draft	± 2% of reading or ± .02 inwc whichever is greater between 0 and ±10 inwc ±3% of reading between ± 10 and ± 72 inwc
	CO	± 5% of reading or ± 10 ppm whichever is greater between 0-2000 ppm CO; ± 10% of reading between 2001 to 20,000 ppm CO
	NO	± 5% of reading or ± 5 ppm whichever is greater between 0-2000 ppm NO
	NO_2 *	± 5% of reading or ± 5 ppm whichever is greater between 0-500 ppm NO_2
	SO_2 *	± 5% of reading or ± 10 ppm whichever is greater between 0-2000 ppm SO_2
Memory	500 complete combustion test records	
Logged Memory	500 complete logged combustion test records	
Selectable Fuels	Natural Gas, Oil #2, Oil #4, Oil #6, Propane, Coal, Wood, Kerosene, Bagasse and Digester Gas	
Size	9"H x 3"W x 2.5"D (22.9 cm x 7.6 cm x 6.3 cm)	
Weight	1.4 lbs (0.6 kg)	
Power Source	Four disposable AA alkaline batteries or NiMH rechargeable batteries providing 10 hours of continuous operation. Optional AC Power Adapter	
Display	160 x 160 (2.5 in x 2.5 in.) Graphic Liquid Crystal Display	
Warm Up Time	60 second total warm up time (Sensors are checked and autozeroed during warm up)	

PCA® 2 ORDERING INFORMATION

MODEL NUMBER	PART NUMBER	SENSOR 1	SENSOR 2	SENSOR 3	SENSOR 4	PRINTER
PCA 2 225	24-8350	O2	CO			
PCA 2 235	24-8351	O2	CO	NO		
PCA 2 245	24-8352	O2	CO	CO (high)		
PCA 2 255	24-8353	O2	CO	SO2		
PCA 2 265	24-8354	O2	CO	NO	NO2	
PCA 2 275	24-8355	O2	CO	NO	SO2	
PCA 2 225 Kit	24-8370	O2	CO			X
PCA 2 235 Kit	24-8371	O2	CO	NO		X
PCA 2 245 Kit	24-8372	O2	CO	CO (high)		X
PCA 2 255 Kit	24-8373	O2	CO	SO2		X
PCA 2 265 Kit	24-8374	O2	CO	NO	NO2	X
PCA 2 275 kit	24-8375	O2	CO	NO	SO2	X

TÜV ISO 9001

PCA® 2 REPLACEMENT PARTS

24-0788	Replacement O_2 sensor
24-0789	Replacement CO sensor
24-0881	Replacement NO sensor
24-0997	Replacement CO (high range)
24-0998	Replacement SO_2 sensor
24-1027	Replacement NO_2 sensor
24-1395	Smart sensor, CO
24-1397	Smart sensor, CO (high range)
24-1398	Smart sensor, SO_2
24-1399	Smart sensor, NO_2
24-1401	Smart sensor, NO
204-0020	Battery, NO bias battery
24-7059	Calibration kit (less calibration gas)
24-1400	IrDA Printer with disposable batteries
24-1310	Printer paper, 5 rolls
06-8733	Printer paper, 1 roll
24-3004	Probe assembly
19-3265	Replacement water trap assembly
07-1644	Replacement filter element (pkg of 3)
24-8414	Replacement thermocouple, 12 inch
19-3037	Probe stop
24-1124	Extended hose assembly, 20 ft.
104-1797	Thermocouple, 10 ft. (combustion air temp.)
104-1798	Thermocouple, 1 in. (ambient air temp.)
24-1409	Protective rubber boot
24-1404	AC power adapter
104-4032	USB cable
24-1425	PCA2 Data Recovery Software
21-7006	Tru Spot Smoke Tester
* 24 -7224	Compact Sample Conditioner

Instrument Comes Complete With:

- Hard Carry Case
- Probe and Hose Assembly
- Factory Calibrated and Installed Sensors
- Instuction Manual
- Batteries
- Product Boot
- USB Cable
- PC Software
- 2 Year Warranty

All instruments can be upgraded to include combination of CO (high), NO, NO_2 and SO_2

* The Compact Sample Conditioner is recommended when measuring NO_2 and SO_2 to ensure the highest degree of measurement accuracy.

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