



**Built With Quality In Mind**

# HVAC Combustion Analyzer Catalog



[www.E-Inst.com](http://www.E-Inst.com)

**P:** (215) 750-1212

**F:** (215) 750-1399

**A:** 402 Middletown Blvd, Suite 216

Langhorne, PA 19047

# BTU1500



Built with Quality in Mind

The Latest in Combustion Analysis Technology

## Residential & Commercial COMBUSTION ANALYZER

**Accurate**

**Reliable**

**Robust**

**Fast**

CO<sub>2</sub>

CO

O<sub>2</sub>

**NEW!**



Combustion Efficiency



Draft & Differential Pressure



Flue & Ambient Temp



Ambient CO Monitor



Built-In Manometer



5 Tools-In-One



PC Software w/ Auto Saving



Unbreakable Metal Connections



**THE All-In-One Combustion Analyzer For Your Condensing & High Efficiency Systems**



Bluetooth®

**BUILT-IN Printer**

**Full COLOR Graphic Display**

**Field Replaceable Sensors**

**E Instruments International**

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# BTU1500 Features



Built with Quality in Mind



**PC Software & Bluetooth Included**



**Large Color Graphic Display**

**All BTU1500 Kits Include:**

- Built-In Printer
- Large Color Display
- O<sub>2</sub>, CO, CO<sub>2</sub>
- Combustion Efficiency & Excess Air
- Draft & Differential Pressure
- Temperature Measurements
- 2000 Test Internal Memory
- Bluetooth Connectivity
- Li-Ion Rechargeable Battery & AC Charger
- Gas Sampling Probe & Hose
- Water Trap with Filter Cartridge
- Magnetic Rubber Holster
- PC Software & USB Cable
- Operating Manual
- Calibration Certificate
- Carrying Case

Parameter	Sensor	Range	Resolution	Accuracy
O <sub>2</sub>	Electrochemical	0 - 25 %	0.1 %	±0.2 % vol
CO H <sub>2</sub> Compensated w/ Built-In NO <sub>x</sub> Filter	Electrochemical	0 - 8000 ppm	1 ppm	±10 ppm <400 ppm ±5 % rdg up to 2000 ppm ±10 % rdg for >2000 ppm
CO <sub>2</sub>	Calculated	0 - 99.9%	0.1 %	
Tair	Pt100	-10 to 212 °F	0.1 °F	±1 °F
Tgas	Tc K	-10 to 1830 °F	0.1 °F	±2 °F
Differential Temp.	Calculated	-10 to 1830 °F	0.1 °F	
Pressure/Draft	Semiconductor	±0 - 80 inH <sub>2</sub> O	0.001 in H <sub>2</sub> O	±1 % (-4.014 - 0.806 inH <sub>2</sub> O) ±0.008 (-0.802 - 0.802 inH <sub>2</sub> O) ±1 % (0.806 - 0.292 inH <sub>2</sub> O)
Excess Air	Calculated	0 - 850%	1 %	
Efficiency	Calculated	0 - 100%	0.1 %	
Warranty	2 years: Analyzer + Sensors			

## Ordering Information

Model No.	Description
1500-1	BTU1500 Base Kit = Analyzer w/ O <sub>2</sub> , CO, CO <sub>2</sub> , Efficiency, Excess Air, Draft, Pressure, Temp, Rechargeable Battery & AC Plug, 10' Dual Hose, 12" Probe, Vinyl Case, Calibration Certificate, Operating Manual, Cheat Sheet, Water Trap, Paper Roll, 2000 Internal Data Storage, PC Software, Bluetooth™ Connectivity, <b>Incoming Air Temperature Probe for ALL 90%+ Systems &amp; Condensing Systems + Built-In Printer</b>
1500-Oil	Standard 1500-1 Kit <b>PLUS: Oil Smoke Pump</b> , Smoke Filter Papers, and Comparison Chart

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# BTU900



Built with Quality in Mind

The Latest in Combustion Analysis Technology

## Economical Residential Combustion Analyzer

Accurate

Reliable

Robust

Fast

**NEW!**  
Now With Wireless  
Bluetooth™ Printer

CO<sub>2</sub>

CO

O<sub>2</sub>

● Combustion Efficiency

● Upgradeable to NO/NO<sub>x</sub>

● Flue & Ambient Temp

● Ambient CO Monitor

● Built-In Manometer

● Draft & Differential Pressure

● PC Software w/ Auto Saving

● Unbreakable Metal Connections

● **THE Combustion Analyzer For  
Your Condensing & High  
Efficiency Systems**



Bluetooth®

**Wireless Bluetooth™ Printer**

**Field Replaceable Sensors**

**Upgradeable to NO/NO<sub>x</sub>**



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# BTU900 Features



Built with Quality in Mind

Incoming Air  
Temperature Probe



Internal Memory &  
PC Software Included

10 Fuel / Oil Types  
Including Bio-Heat 5%

Pre-Calibrated  
Field Replaceable  
Sensors

Unbreakable Metal  
Connections

NEW!



Optional Wireless  
Bluetooth™ Printer  
(No More Lining Up  
Infrared Printers!)

Parameter	Sensor	Range	Resolution	Accuracy
O <sub>2</sub>	Electrochemical	0 - 25%	0.1%	±0.2% vol
CO	Electrochemical	0 - 8000 ppm	1 ppm	±10 ppm <400 ppm ±5% rdg up to 2000 ppm
CO <sub>2</sub>	Calculated	0 - 99.9%	0.1%	
NO	Electrochemical	0 - 4000 ppm	1 ppm	±5 ppm <100 ppm ±5% rdg up to 1000 ppm ±10% rdg for >4000 ppm
NO <sub>x</sub>	Calculated	0 - 5000 ppm	1 ppm	
Tair	Pt100	-10 to 212°F	0.1°F	±1°F
Tgas	Tc K	-10 to 1830°F	0.1°F	±2°F
Differential Temp	Calculated	-10 to 1830°F	0.1°F	
Pressure/Draft	Semiconductor	±0 - 80 inH <sub>2</sub> O	0.001 inH <sub>2</sub> O	±1% (-4.014 - 0.806 inH <sub>2</sub> O) ±0.008 (-0.802 - 0.802 inH <sub>2</sub> O) ±1% (0.806 - 0.292 inH <sub>2</sub> O)
Excess Air	Calculated	0 - 850%	1%	
Efficiency	Calculated	0 - 100%	0.1%	
Warranty	2 years: Analyzer + Sensors			

## Ordering Information

Model No.	Description
900 - 2	<b>Base Kit</b> = O <sub>2</sub> , CO, CO <sub>2</sub> , Upgradeable to NO/NO <sub>x</sub> , Draft, Diff. Pressure, Flue/Air Temperature, Efficiency, Excess Air, 600 Internal Test Memory, PC Software Included
900 - 2P	<b>Base Kit w/ Printer</b> = O <sub>2</sub> , CO, CO <sub>2</sub> , Upgradeable to NO/NO <sub>x</sub> , Draft, Diff. Pressure, Flue/Air Temperature, Efficiency, Excess Air, 600 Internal Test Memory, PC Software Included + <b>Wireless Bluetooth™ Printer</b>
900 - 3	<b>NO<sub>x</sub> Base Kit</b> = O <sub>2</sub> , CO, CO <sub>2</sub> , <b>NO/NO<sub>x</sub> Included</b> , Draft, Diff. Pressure, Flue/Air Temperature, Efficiency, Excess Air, 600 Internal Test Memory, PC Software Included
900 - 3P	<b>NO<sub>x</sub> Kit w/ Printer</b> = O <sub>2</sub> , CO, CO <sub>2</sub> , <b>NO/NO<sub>x</sub> Included</b> , Draft, Diff. Pressure, Flue/Air Temperature, Efficiency, Excess Air, 600 Internal Test Memory, PC Software Included + <b>Wireless Bluetooth™ Printer</b>

## All BTU900 Kits Include:

- O<sub>2</sub>, CO, CO<sub>2</sub>
- Upgradeable to NO/NO<sub>x</sub>
- Combustion Efficiency & Excess Air
- Draft & Differential Pressure
- Temperature Measurements
- 600 Test Internal Memory
- Bluetooth Connectivity
- Li-Ion Rechargeable Battery & AC Charger
- Gas Sampling Probe & Hoses
- Water Trap with Filter Cartridge
- Magnetic Rubber Holster
- PC Software & USB Cable
- Operating Manual
- Calibration Certification
- Vinyl Carrying Case
- Optional Wireless Bluetooth™ Printer

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# BTU4500



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The Latest in Combustion Analysis Technology

## Industrial & Commercial Combustion Analyzer

**Accurate**

**Reliable**

**Robust**

**Fast**

CO<sub>2</sub>

CO

O<sub>2</sub>

**NEW!**

Up To FOUR Gas Sensors

Combustion Efficiency

Low NO<sub>x</sub> & Total NO<sub>x</sub>

CO Sensor w/ NO<sub>x</sub> Filter

Draft & Differential Pressure

2 Channel Thermometer

2000 Test Internal Memory

PC Software w/ Auto Saving

Zoom Feature

Dilution Pump For CO  
Auto-Range Measurements  
Up To 50,000 ppm



NO

NO<sub>x</sub>

NO<sub>2</sub>

SO<sub>2</sub>

Bluetooth®

**BUILT-IN Printer**

**Full COLOR Graphic Display**

**Field Replaceable Sensors**

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# BTU4500 Features



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**BUILT-IN Printer**

**Full COLOR  
Graphic Display**

**Pre-Calibrated  
Field Replaceable  
Sensors**

**Magnetic  
Rubber Holster**

**Simple Menu  
Interface**

**Unbreakable Metal  
Connections**

**Incoming Air  
Temperature Probe  
(Condensing Boilers)**

**NEW!**



**New Auto-Save  
Feature**

**Probes & Hoses**

**Standard:** 12", 300mm Probe,  
1470°F/800°C max with  
10'/3m Dual Hose

**Long:** 30", 750mm Probe,  
1470°F/800°C max with  
10'/3m Dual Hose

**Long & High Temp:** 40", 1m Probe,  
2190°F/1200°C max, with  
10'/3m Dual Hose

**Hose Extensions:** 10'/3m Length  
Available

**All 4500 Kits Include:**

- Built-In Printer
- Draft & Differential Pressure
- Temperature Measurements
- Calculation for CO<sub>2</sub>, Efficiency & Excess Air
- Li-Ion Rechargeable Batteries & AC Charger
- Gas Sampling Probe & Hoses
- Water Trap with Filter Cartridge
- Magnetic Rubber Holster
- 2000 Test Internal Memory
- PC Software & USB Cable
- Bluetooth Connectivity
- Operating Manual
- Calibration Certificate
- ABS Hard Plastic Carrying Case



Parameter	Sensor	Range	Resolution	Accuracy
O <sub>2</sub>	Electrochemical	0 - 25 %	0.1 %	±0.2 % vol
CO H <sub>2</sub> Compensated w/ Built-In NO <sub>x</sub> Filter	Electrochemical	0 - 8000 ppm	1 ppm	±10 ppm (0 - 200ppm) ±5 % rdg (201 - 2000ppm) ±10 % rdg (2001 - 8000ppm)
CO DILUTED	Electrochemical	0.8% - 5.00%	0.01%	±10% rdg
CO <sub>2</sub>	Calculated	0 - 99.9%	0.1 %	
NO	Electrochemical	0 - 5000 ppm	1 ppm	±5 ppm (0 - 100 ppm) ±5% rdg (101 - 5000ppm)
NO <sub>2</sub>	Electrochemical	0 - 1000 ppm	1 ppm	±5 ppm (0 - 100 ppm) ±5% rdg (101 - 1000ppm)
Low NO and/or Low NO <sub>2</sub>	Electrochemical	0 - 500 ppm	0.1 ppm	±2 ppm (0.0 - 40.0ppm) ±5% rdg (40.1 - 500.0ppm)
NO <sub>x</sub>	Calculated	0 - 5000 ppm	1 ppm	
SO <sub>2</sub>	Electrochemical	0 - 5000 ppm	1 ppm	±5 ppm (0 - 100ppm) ±5% rdg (101 - 5000ppm)
T <sub>air</sub>	Pt100	-10 to 212 °F -10 to 100 °C	0.1 °F 0.1 °C	±1 °F ±1 °C
T <sub>gas</sub>	Tc K	-4 to 2280 °F -20 to 1250 °C	0.1 °F 0.1 °C	±0.5 °C (-20 to 100 °C) ±0.5% rdg (101 to 1250 °C)
Pressure/Draft	Semiconductor	±0 - 80 inH <sub>2</sub> O	0.001 inH <sub>2</sub> O	±1.0% rdg
Excess Air	Calculated	0 - 850%	1 %	
Efficiency	Calculated	0 - 100%	0.1 %	
Warranty	2 Years: Analyzer + All Sensors			

## Ordering Information

Model No.	Description
BTU4500-2	4500 with O <sub>2</sub> , CO, <b>Upgradeable</b> to NO/NO <sub>x</sub> Gas Sensors
BTU4500-3	4500 with O <sub>2</sub> , CO, NO/NO <sub>x</sub> Gas Sensors Installed, <b>Upgradeable</b> to 4th Gas Sensor
BTU4500-N	4500 with O <sub>2</sub> , CO, NO/NO <sub>x</sub> , <b>NO<sub>2</sub></b> Gas Sensors & CO Dilution Auto-Range to 50,000 ppm
BTU4500-S	4500 with O <sub>2</sub> , CO, NO/NO <sub>x</sub> , <b>SO<sub>2</sub></b> Gas Sensors & CO Dilution Auto-Range to 50,000 ppm

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# Gas Sniffer Model 7899



## Combustible Gas Leak Detector

- Auto Zero-Drift Adjustment
- Visual and Audible Alarms
- LCD and Bar Graph Display

Batteries:	9V, 6 x 1.6V AAA
Battery life:	4 hours minimum
Measurement range:	0.0 - 10,000 ppm CH <sub>4</sub>
	0.0 - 1% VOL CH <sub>4</sub>
	0.0 - 20% LEL CH <sub>4</sub>
	0.0 - 1,800ppm LPG (isoC <sub>4</sub> H <sub>10</sub> )
Resolution:	1 ppm
Accuracy:	± 20% f.s. @ 20°C ± 1°C
Measurement units:	ppm, % vol, % L.E.L.
Sensor type:	Semiconductor
Pre-heating time:	Max. 45 seconds fixed
Auto-shut-off time:	OFF, 1 - 30 minutes
Display:	LCD TN
Operating temperature:	32° to 104°F (0° to 40°C)
Storage temperature:	14° to 122°F (-10° to +50°C)
Humidity limits:	20% - 80% RH non-condensating
Enclosure:	ABS HB self-extinguishing
Dimensions:	2.8" x 6" x 1.5" (W x H x D)
Weight:	0.7 lbs. (0.3 kg)
Flexible Probe Length:	11" (270 mm)



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**E Instruments International is a designer, manufacturer, & provider of a complete range of innovative instrumentation solutions including portable combustion gas analyzers, gas leak detectors, and IAQ Monitors, which we export to over 50 countries worldwide.**



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