

ENERAC 500

Handheld Combustion Efficiency Emissions Analyzer



O₂
CO
NO
NO₂
NO_x
SO₂
DRAFT
COMBUSTIBLES (HCs)

**MADE IN THE
USA**

A NEW GENERATION IN *HANDHELD* COMBUSTION AND EMISSIONS MONITORING
The ENERAC 500 is everything you ever wanted in a low-cost, easy-to-use emissions monitoring system.

RUGGED

- Heavy Duty Aluminum Case
- Simple Modular Design
- 2 Year Warranty
- Download Latest Firmware Upgrades from our Website

COMPREHENSIVE

- Basic O₂-Efficiency Analyzer
- CO, Combustibles & Draft options
- NO, NO₂ & SO₂ Options
- Expandable Emissions Package
- Thermoelectric Condenser
- Built-in Printer
- Interface Computer Software

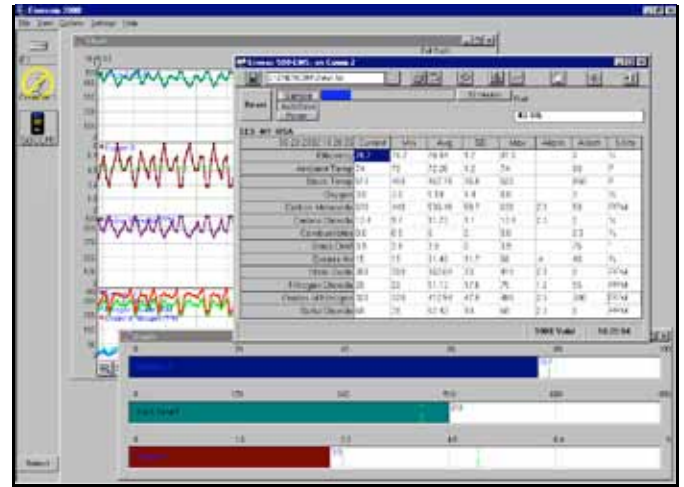
AFFORDABLE

- Buy Only What You Need and Add Later
- Reduce Testing Costs
- Reduce Energy Costs
- Receive a Generous Trade-In Allowance on your old analyzer.
- No-charge Loaners Available

The ENERAC™ 500 is a low-cost micro-emissions monitoring system utilizing large electrode-area, filtered electro-chemical sensors. It is designed to help you meet the challenges of a rapidly changing regulatory environment. It is easy to use, comprehensive (NO-NO₂-SO₂-CO-O₂-Comb) and flexible.

Equally at home with a simple combustion test, or with the monitoring of more sophisticated emissions reduction systems, the ENERAC™ 500 is designed to provide years of trouble-free service. It is flexible enough to be tailored to meet your specific needs yet simple enough to be completely maintained in the field. Simple design, rugged construction and an impressive array of options are its hallmark. Designed as a field workhorse, the ENERAC™ 500 can be upgraded at any time to meet your changing needs.

The ENERAC™ 500 provides a comprehensive range of automatic emissions calculations (Grams/Brake Horsepower Hour, Pound/Million BTU), advanced ENERCOM™ Windows® software, two-way communications, and factory support. From low NOX burners (0.1 ppm NOX resolution) to large rich-burn engines (5000 ppm NOX/20,000 ppm CO), the ENERAC™ 500 is designed to help you meet your monitoring needs at an affordable price.



ENERCOM WINDOWS SOFTWARE

MODEL 500 SPECIFICATIONS

PHYSICAL:

1. CASE: 9.75" x 4" x 2.75"
Aluminum case with magnetic support.
Weight: 3 lbs.
3. PROBE: 9" L x 3.8" OD (other lengths available)
Inconel steel stack probe. Probe housing connects to instrument via a 10 ft. Viton hose (other lengths available) and water trap and thermoelectric condenser.
Maximum continuous temperature: 2000 F.

ELECTRICAL POWER:

1. BATTERY: 4-6 VDC.
Rechargeable NiMH (included) or 4 disposable AA alkaline cells. Approx. 6-8 hours operating time (1.5 hours with T-cooler)
2. AC Charger: 120/240v. 60/50 hz. 9vdc output

DISPLAY:

Four line by 16 character Liquid Crystal Display with backlight illumination.

PRINTER:

Internal 2" thermal printer.

DATA STORAGE:

Internal: 400 individually selectable buffers hold one complete set of measurements each in non-volatile memory. Buffer contents can be sent to printer or serial port. Data is stored by pressing the STORE key or automatically on a periodic basis.

COMMUNICATIONS:

Serial Port (RS-232C port) settings: 9600,N,8,1
USB Port
Bluetooth Wireless (Class 1 – 100m)

FUELS:

15 Fuels: #2 Oil, #4 Oil, #6 Oil, Natural Gas, Anthracite, Bituminous, Lignite, Wood (50% H₂O), Wood (0% H₂O), Kerosene, Propane, Butane, Coke Oven Gas, Blast Furnace & Sewer Gas.
Custom fuels available on request or by customer programming using ENERCOM software

ENERAC 500 PRINTOUT

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ENERAC M500
Serial #: 000000
Company Name

Time: 12:00:00
Date: 01/31/03

Fuel: #2 OIL

Effic: 79.5 %
Amb Temp: 75 F
Stack T: 425 F
Oxygen: 6.0 %
CO: 490 PPM
CO2: 11.2 %
Combust: 0.2 %
Draft: 3.5 "
Ex.Air: 37 %
NO: 325 PPM
NO2: 60 PPM
NOX: 385 PPM
SO2: 40 PPM
Oxygen Ref:TRUE
    
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MEASURED PARAMETERS	RANGE	RESOLUTION	ACCURACY
1. AMBIENT TEMPERATURE	0-150°F	1°F or C	3°F
2. STACK TEMPERATURE	0-2000°F (1100°C)	1°F or C	5°F
3. OXYGEN (O ₂) Electrochemical Cell, 2 years	0-25%	0.1%	0.2%
4. CARBON MONOXIDE (CO) Electrochemical Cell, 2 Years	0-2000° or 0-20000PPM	1 PPM	4%*
5. NITRIC OXIDE (NO) Electrochemical Cell, 2 Years	0-300 0-2000 or 0-4000 PPM	0.1 PPM 1 PPM	4%*
6. NITROGEN DIOXIDE (NO ₂) Electrochemical Cell, 2 Years	0-500 or 0-1000 PPM	1 PPM	4%*
7. SULFUR DIOXIDE (SO ₂) Electrochemical Cell, 2 Years	0-2000 PPM	1 PPM	4%*
8. COMBUSTIBLES Catalytic Sensor	0-4%	0.1%	10% (CH ₄)
9. STACK DRAFT	+10° to -40° WC	0.1° WC	5%
10. SMOKE TEST	ASTM method D2156		
COMPUTED PARAMETERS	RANGE	RESOLUTION	ACCURACY
1. COMBUSTION EFFICIENCY	0-100%	0.1%	1%
2. CARBON DIOXIDE	0-40%	0.1%	5%
3. EXCESS AIR	0-1000%	1%	10%
4. OXIDES OF NITROGEN (NOx)	0-3000 or 0-5000 PPM	0.1 PPM 1 PPM	4%
5. POUNDS / MILLION BTU (CO, NO, NO ₂ , SO ₂)	0-99.99 #/B	0.01 #/B	5%
6. GRAMS / BRAKE-HP-HR (CO, NO, NO ₂ , SO ₂)	0-99.99GBH	0.01 GBH	5%

*+ or - 5 PPM for less than 100PPM



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