

ENERAC 500

Micro Emissions Monitoring System

 **BLUETOOTH WIRELESS**



Thermoelectric
COOLER

O₂
CO
NO
NO₂
NO_x
SO₂
Draft
Combustibles (HCs)

A NEW GENERATION IN 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
- No-charge Loaners Available

COMPREHENSIVE

- Basic O₂-Efficiency Analyzer
- CO, Combustibles & Draft options
- Expandable Emissions Package
- Built-in Printer
- Palm and WindowsCE Software

AFFORDABLE

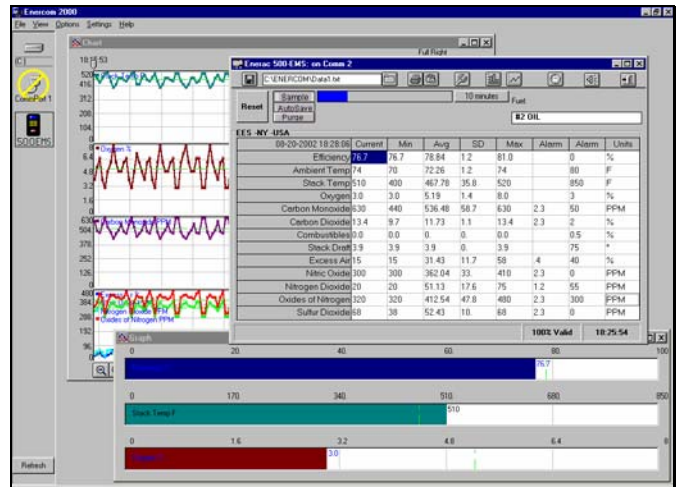
- Buy Only What You Need
- Reduce Testing Costs
- Reduce Energy Costs
- Receive a Generous Trade-in Allowance on your old analyzer



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 NO_x burners (0.1 ppm NO_x resolution) to large rich-burn engines (5000 ppm NO_x/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. Weight: 3 lbs.
2. PROBE: 9" L x 3.8" OD
Inconel steel stack probe. Probe housing connects to instrument via a 10 ft. Viton hose and water trap or Teflon hose 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: 120V, 60 Hz std. (220V, 50 Hz optional), using battery charger with NiCd/NiMH cells.

DISPLAY:

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

PRINTER:

Internal 2" thermal printer.

DATA STORAGE:

Internal: 100 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
Bluetooth Wireless Serial Port: Class 1 - Maximum Range 100m
Optional Internal Modem
Enercom software for Windows (9x/ME/XP/NT/2000) available.
EnercomCE software for Pocket PCs running Windows Mobile.
EnerPalm software for PalmOS.

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

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

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 0-20000 PPM	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 (NO _x)	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%

STANDARD FEATURES OPTIONAL FEATURES

NOTE: Emissions readings in PPM can be adjusted to any oxygen reference. (Oxygen correction factor for emissions adjustable 0-20% in 1% steps plus TRUE.)



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"THE POWER TO KNOW"

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