



# EAGLE X

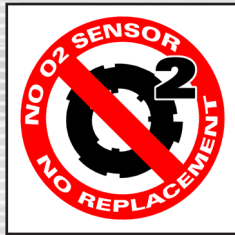
**X**TENDED LIFE COMBUSTION & SYSTEM ANALYZERS™



**X**TENDED LIFE  
**CO** SENSOR

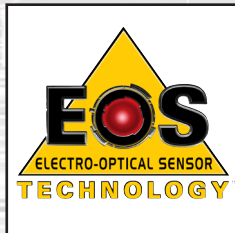
THIS CHANGES EVERYTHING

## LOWEST COST OF OWNERSHIP



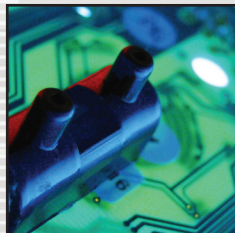
### **NO O2 SENSOR:**

The new Eagle X Combustion & System Analyzers eliminates the number one hassle experienced by HVAC contractors, the annual cost and down time of replacing the O2 sensor. This new technology for combustion analysis replaces the everyday electro-chemical O2 sensor with the EOS Technology™ CO2 sensor, lowering the cost of ownership.



### **EOS TECHNOLOGY:**

The new EOS CO2 sensor takes direct CO2 measurements and calculates the O2 level. This CO2 sensor has no physical contact with the gas, so there is no deterioration of the sensor over time. This exclusive EOS sensor has a 5 year limited warranty and an unmatched industry-leading life expectancy of 10 years!

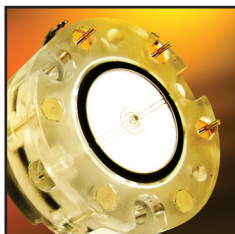


### **NEW EOS VS Electro-Chemical Sensors:**

In an electro-chemical sensor, the gas measured passes into the sensor to an electrode where it produces a chemical reaction generating a current. The amount of current created is relative to the level of gas detected.

This process eventually wears down the sensor causing accuracy to drift and eventually losing all current output all together. Any mathematical calculations based on these measured levels will also drift accordingly. The typical industry standard life span of these sensors is between one to two years pending use.

In the Electro-Optical Sensor, or EOS Technology™, the gas flows between an Infrared transmitter and a receiver. The receiver detects the gas particles and communicates the level as a result. The advantage to this process is there are no parts to wear down and no physical cause for accuracy drifting. This benefits all calculations that are based on the measured value by maintaining a longer and higher level of accuracy.



### **Xtended LIFE CO SENSOR:**

The Eagle X also offers a new Xtended Life CO Sensor, which has a life expectancy of 5 years and is backed by a 5 year limited warranty. Reducing the sensor's replacement frequency helps to minimize the analyzer's cost of ownership to just the CO sensor calibration. Most manufacturers recommend annual calibration to maintain sensor specifications.



# EAGLE X: FEATURES & SPECIFICATIONS

## Measures

- NEW!**  • CO<sub>2</sub> (EOS Technology)
- NEW!**  • CO (Long Life Sensor)
- Inlet Temp/Flue Temp
- Hi-Res Differential Manometer (select 0.01"/0.001"wc)
- NO (EAGLE 3X: installed, EAGLE 2X: available as upgrade)

## Calculates

- NEW!**  • O<sub>2</sub>
- Net Temp
- Efficiency
- Excess Air
- Differential Temp (T1-T2)
- Differential Pressure (P1-P2)

## PreProgrammed Fuels

- Natural Gas
- Propane
- Heavy Oil
- Light Oil
- NEW!**  • Bio Fuel
- NEW!**  • Wood

## Features

- NEW!**  • Gas Zero<sup>1</sup>
- NEW!**  • High level CO alarm
- CO data logger
- Heat exchanger test
- Worklight
- 4 line backlit LCD display
- 179 memory positions
- User customizable auxiliary screen
- User programmable headers
- Individual report printouts
- Time and date stamp
- Rotary style selector
- Protective boot w/integral magnet
- Real time clock
- CO readings as low as 1 ppm
- Infrared printer port
- Low battery indicator
- Field replaceable sensors (USA ONLY)
- NEW!**  • 5 year limited warranty (including sensor)



Temperature	EAGLE X: C155 & C157
Flue Temp Range	20~2400°F (-29~1315°C)
Inlet Temperature (probe - T2)	20~2400°F (-29~1315°C)
Inlet Temperature (ambient)	32~112°F (0~50°C)
Net Temperature (ΔT)**	20~2400°F (-29~1315°C)
Resolution	0.1°C/F
Flue (T1, Inlet T2 & ΔT) Accuracy	±(0.3% rdg +3.6°F(2°C))
Inlet Temperature Accuracy	±(0.3% rdg +1.8°F(1°C))

Gas	EAGLE X: C155 & C157
Oxygen	0~21%**
O <sub>2</sub> resolution / accuracy	0.1% / ±0.3%
Carbon Monoxide (CO)	0~2000 ppm (4000 max 15 min)*
CO resolution / accuracy	1 ppm / ±10 ppm<100ppm, ±5% rdg>100ppm
Carbon Dioxide (CO <sub>2</sub> )	0~20%*
CO <sub>2</sub> resolution / accuracy	0.1% / ±3%
Efficiency**	0~99.9%**
Efficiency resolution/accuracy	0.1% / ±3%
Excess Air**	0~250%**
Excess Air resolution/accuracy	0.1% / ±3%
CO/CO <sub>2</sub> ratio**	0~0.999
CO/CO <sub>2</sub> resolution/accuracy	0.001 / ± 5% rdg
Nitric Oxide (NO <sub>1</sub> )***	0~100 ppm
NO <sub>1</sub> resolution/accuracy***	±2 ppm <30ppm ±5ppm <100ppm

Pressure	EAGLE X: C155 & C157
Range	Accuracy
±0.08" wc (±0.2mBar)	2±0.002" wc (±0.005mBar)
±0.4" wc (±1mBar)	±0.01" wc (±0.03mBar)
±32" wc (±80mBar)	±3% rdg
Resolution	0.001" wc < 9.999" wc 0.01" wc >10.00" wc 0.001mBar<24.999mBar 0.01mBar > 25 mBar

\* Measured at STP (standard temperature and pressure)

\*\* Calculated value

\*\*\* NO<sub>1</sub> sensor installed on C157. Available as an upgrade for C155.

<sup>1</sup> Gas Zero (Fresh Air Zero) - Is a reset procedure to maintain accurate readings from the EOS sensor. This procedure compensates for any change in ambient conditions that may impact the readings.



# EAGLE 2X

XTENDED LIFE COMBUSTION & SYSTEM ANALYZER™ C 1 5 5

## EAGLE 2X: C155



- C155 Analyzer
- Flue Probe
- Particle Filter
- Hard Case
- Batteries
- Quick Start Guide
- Owners Manual

## EAGLE 2X: C155KIT



- C155 Analyzer
- Flue Probe
- IR Printer
- (2) K-Type Temp Probes
- (2) Static Pressure Hoses
- (1) True Draft Probe
- Gas Tap and Hose
- AC Adapter/Charger
- Hard Case
- (2) Printer paper rolls
- (2) Particle filters
- Batteries
- Quick Start Guide, & Owners Manual

## EAGLE 2X: C155OILKIT



- C155 Analyzer
- Flue Probe
- Smoke Pump Tester
- Smoke Test Paper & Chart
- IR Printer
- (2) K-Type Temp Probes
- (2) Static Pressure Hoses
- (1) True Draft Probe
- Gas Tap and Hose
- AC Adapter/Charger
- Hard Case
- (2) Printer paper rolls
- (2) Particle filters
- Batteries,
- Quick Start Guide, & Owners Manual

# EAGLE 3X

XTENDED LIFE COMBUSTION & SYSTEM ANALYZER™ C 1 5 7

## EAGLE 3X: C157



- C157 Analyzer
- Flue Probe
- Particle Filter
- Hard Case
- Batteries
- Quick Start Guide
- Owners Manual

## EAGLE 3X: C157KIT



- C157 Analyzer
- Flue Probe
- IR Printer
- (2) K-Type Temp Probes
- (2) Static Pressure Hoses
- (1) True Draft Probe
- Gas Tap and Hose
- AC Adapter/Charger
- Hard Case
- (2) Printer paper rolls
- (2) Particle filters
- Batteries
- Quick Start Guide, & Owners Manual

## EAGLE 3X: C157OILKIT



- C157 Analyzer
- Flue Probe
- Smoke Pump Tester
- Smoke Test Paper & Chart
- IR Printer
- (2) K-Type Temp Probes
- (2) Static Pressure Hoses
- (1) True Draft Probe
- Gas Tap and Hose
- AC Adapter/Charger
- Hard Case
- (2) Printer paper rolls
- (2) Particle filters
- Batteries
- Quick Start Guide, & Owners Manual



## EAGLE X: REPLACEMENT PARTS & UPGRADES

### Accessories

Bluetooth® Communication Module .....	EABT
Thermal Printer: IR Link .....	KMIRP2
AC Adapter/Charger .....	AACA4
Smoke Pump Test Kit.....	SPT1
Hard Carrying Case .....	AC509
Soft Carrying Case .....	AC75
Inlet Temperature Probe.....	ATT100
Eagle II/III Accessory Kit.....	EAKit
Field Sensor Calibration Kit <sup>3</sup> (USA ONLY).....	CALKIT <sup>3</sup>
Eagle RS232 Cable.....	EARS232

### UPGRADES

C155 Analyzer to C155KIT .....	EAGLEUPGRADE
C157 Analyzer to C157KIT .....	EAGLEUPGRADE
C155KIT or C157KIT to an Oil Service Kit .....	SPT1
C155 to C157 (NO <sup>1</sup> sensor) .....	17979 <sup>2</sup>

### Replacement Parts/Supplies

Flue Probe .....	KMCP2
Flue Probe Extension .....	FPTEXT
Pressure Tubing .....	11000
Thermal Paper for KMIRP2 .....	16646
Thermal Paper for KMIRP2 (10 pack).....	16646PACK
Smoke Paper and Chart .....	SP9
Particle Filter .....	17631
Particle Filter (10 pack) .....	17631PACK
Inlet Tube/Probe Connector .....	SM11103
Water Trap .....	SM11827
Water Trap Drain Plug .....	CM11667/2
Water Trap Drain Plug (10 pack).....	CM11667/2PACK
K-Type thermocouple .....	ATT29
Gas Valve Pressure Adapter (1/4 MPT to Hose Barb).....	BF100
CO Sensor <sup>1</sup> .....	16184 <sup>1</sup>
NO Sensor <sup>2</sup> .....	17979 <sup>2</sup>
Static Pressure Probe .....	SPP
True Draft Probe .....	TDP
Quick Start Guide (Available online for download).....	17117
Owner's Manual (Available online for download).....	18323

<sup>1</sup> **EAGLE X Series:** To maintain specified accuracy UEi recommends calibration in a controlled environment against a traceable calibration gas at the UEi Service Center or by an authorized UEi representative. Field replacement services are **only** eligible in the United States.

<sup>2</sup> **EAGLE 3X: C157:** NO<sub>x</sub> (Nitric Oxide) sensors are factory replacement and calibration only and are not eligible for user or in-field service.

<sup>3</sup> **CALKIT:** The Sensor Replacement & Calibration Kit (CALKIT) is for trade professionals familiar with gas analysis and detection, with experience in calibrating gas measurement systems. (USA ONLY)

## DISTRIBUTED BY:



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