

# Hand Held 4 & 5 Gas Analyser

AUT04-1 & AUT05-1 OIML R99 Class 1

*it's easy with Kane*



4-1

5-1

CO  
HC  
O<sub>2</sub>  
CO<sub>2</sub>  
NO<sub>x</sub>  
Lambda/AFR

GAS ANALYSERS



## Features

- Easy to use hand held 4 or 5 gas analyser
- Declaration of conformity to OIML R99 Class 1
- Certificate of calibration supplied
- Ideal for emissions diagnostics, tuning and regulated testing
- Measures CO, HC, O<sub>2</sub>, CO<sub>2</sub>, and Lambda (or AFR)
- Easily upgradeable to NO<sub>x</sub> or can be ordered as 5 gas analyser AUT05-1
- Fast warm up time and fast response time with higher output pump
- RPM and oil temperature measurements plus accessories
- Prints via optional Infra-red printer
- PC compatible via RS232 for uploading stored data to PC for spreadsheet or graphical analysis and printing
- Complete with protective rubber sleeve, water trap and filter, lap-top style carry case, mains adapter/battery charger, 12v adapter cable, high temperature probe, RPM clamp, oil probe and manual

## Optional Extras

- Infra-red printer
- NO<sub>x</sub> upgrade
- PC Software

AUTO 5-1		
DATE		15-08-04
TIME		11:15:06
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FUEL		PETROL
O <sub>2</sub>	%	0.74
CO <sub>2</sub>	%	13.4
HC	ppm	08
CO	%	0.43
COK	%	0.46
Lambda		1.027
NO <sub>x</sub>	ppm	183



## Technical Specifications AUT04-1 & AUT05-1

	Specified Range	Over Range	Accuracy*1 Vol	Accuracy*1 %	Resolution
CO	0-10%	20%	+0.06%	+5%	0.01%
HC	0-5,000PPM	20,000PPM	+12PPM	+5%	1PPM
O <sub>2</sub>	0-21%	48%	+0.1%	+5%	0.01%
CO <sub>2</sub>	0-16%	25%	+0.5%	+5%	0.1%
NOx	0-5,000PPM		0-4000PPM	+4%	1PPM
Oil Temp	0-150°C 32-302°F		+2.0°C +3.6°F	+3% +3%	1.0°C/F
RPM	200-6,000RPM		50RPM		1RPM
Corrected CO	0-15%		Calculated		0.01%
Lambda	0.8-1.2				0.001
AFR Petrol LPG	11.76-17.64 12.48-18.72				0.01

KANE AUTO 4-1 & 5-1 SERIES		
Product Selection	OIML Class 1	
Kit Reference	AUTO 5-1	AUTO 4-1
<b>Hardware</b>		
Metrology Standard	OIML R99 Class 1	OIML R99 Class 1
Measured Gases – Using NDIR Bench	CO/CO <sub>2</sub> /HC	CO/CO <sub>2</sub> /HC
Using Electro-Chemical Cells	O <sub>2</sub> /NO	O <sub>2</sub>
Corrected CO (COK)	✓	✓
Lambda & AFR	✓	✓
Power Supply: Intern. Battery/Mains/12V	✓	✓
Measures RPM: 2, 4 Stroke, DIS, 2-12 Cyl.	✓	✓
Measures Oil Temperature	✓	✓
Warm Up Time in less than 3 Minutes	✓	✓
Fuel Types: Petrol, LPG, CNG, Diesel*	✓	✓
Infra Red Printer Compatible	✓	✓
PC Compatible	✓	✓
<b>Software</b>		
Pre-Programmed Language Options	✓	✓
Pre-Programmed Emission Test	✓	✓
Auto Store & Data Logging	✓	✓
Upgradeable Analyser Firmware	✓	✓
Service Software	✓	✓
<b>Accessories</b>		
High Temperature Probe	✓	✓
RPM Inductive Clamp	✓	✓
Oil Temperature Probe	✓	✓
Infra-red Printer	Optional/KMIRP	Optional/KMIRP
Laptop Style Carry Case	✓	✓
PC Software	Optional/AUTOSWKIT	Optional/AUTOSWKIT
NOx Upgrade	N/A	NOX4-1

\*1 Using dry gases at STP -  
CO calibration applies to exhaust gas only  
\* For diesel HC is not displayed



The Kane Auto 4-1 & 5-1 Series Exhaust Gas Analysers are truly portable and set new standards of convenience and ease of use. Weighing just 1kg, the handset fits comfortably in the hand and can run for up to 4 hours on its internal re-chargeable battery.

Ideal for emission diagnostics, tuning and regulated testing, where OIML Class 1 is specified.

The programmed recalibration procedure permits low cost servicing either on site or at approved European service facilities. The software includes pre-programmed language options, pre-programmed emission test, auto store & data logging, upgradeable analyser firmware and service software.

An automatic leak test can be performed on every power up. Integral flow checking provides warning of probe blockages.

The analyser goes to the car, not the car to the analyser! No need to shuffle vehicles around. For intermittent faults or for NOx analysis (engine under load conditions), why not data log the results during a road test? Use the PC software to upload and analyse the data as a spread sheet or graphically. With accuracy to OIML R99 Class 1, you are assured of the highest metrology standards.

Designed, developed and manufactured by Kane International Ltd in the UK.

Take the stress out of measuring gas and make it easy with KANE.

Your distributor



### Kane International Limited

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### Warranty

All Kane products are warranted from the date of purchase. This warranty covers any defects in materials or manufacturing and applies worldwide.

Kane Automotive is a division of Kane International Limited who specialise in the design and manufacture of electronic instruments for monitoring and optimising both energy usage and emissions from energy processes. Our Policy is to continuously develop and improve our products and so we reserve the right to change any part of our specifications without prior notice.



Ref: KA4-1LIT04

KANE AUTO 4 & 5 SERIES				
Product Selection	OIML R99 CLASS 1		NON CLASS 1 Pre-Compliance	
Kit Reference	AUTO 5-1	AUTO 4-	AUTO 5-2	AUTO4-2
<b>Hardware</b>				
OIML R99 Class 1 Certificate	,	,	Class 1 Accurate	Class 1 Accurate
Measured Gases ñ Using NDIR Bench	CO/CO2/HC	CO/CO2/HC	CO/CO2/HC	CO/CO2/HC
Using Electro-Chemical Cells	O2/NO	O2	O2/NO	O2
Corrected CO (COK)	✓	✓	✓	✓
Lambda & AFR	✓	✓	✓	✓
Power Supply: Intern. Battery/Mains/12V	✓	✓	✓	✓
Measures RPM: 2, 4 Stroke, DIS, 2-12 Cyl.	✓	✓	✓	✓
Measures Oil Temperature	✓	✓	✓	✓
Warm Up Time in less than 3 Minutes	✓	✓	✓	✓
Fuel Types: Petrol, LPG, CNG, Diesel*	✓	✓	✓	✓
Infra Red Printer Compatible	✓	✓	✓	✓
PC Compatible	✓	✓	✓	✓
<b>Software</b>				
Pre-Programmed Language Options	✓	✓	✓	✓
Pre-Programmed Emission Test	✓	✓	✓	✓
Auto Store & Data Logging	✓	✓	✓	✓
Upgradeable Analyser Firmware	✓	✓	✓	✓
Service Software	✓	✓	✓	✓
<b>Accessories</b>				
High Temperature Probe	✓	✓	✓	✓
RPM Inductive Clamp	✓	✓	✓	✓
Oil Temperature Probe	✓	✓	✓	✓
Laptop Style Carry Case	✓	✓	✓	✓
<b>Upgrades &amp; Optional Extras</b>				
Infra Red Printer	KMIRP	KMIRP	KMIRP	KMIRP
Software c/w interface lead for PC link	Autoswki	Autoswki	Autoswkit	Autoswkit
NO Upgrade (Electro-Chemical Cell)	-	NOX4-1	-	NOX4-2
* For diesel HC is not displayed				