

# Handheld Exhaust Gas Diagnostics Analyzer & Diagnostic Software

*Diagnose engine, exhaust & catalytic converter performance with unique NDIR sensor technology. Identify fuel flow, misfire and EVAP problems. Road test vehicles under real world driving conditions*

## KANE EGA5 Gas Analyzer

- Tests HC, O2, CO, CO2, NOx and LAMBDA
- Unique NDIR sensors for accurate measurement with fast warm up
- Great for vehicle smog checks, tune ups & diagnostics
- All readings live
- Self-calibrating, no-cal gas required.
- Dyno not required for NOx testing.
- Document test results with optional KANE-IRP3 portable printer



- Includes **KANE CO LINK** to wirelessly test vehicle A/C & refrigeration systems
- Connect to KANE LIVE App
  - The **KANE LIVE Software** is available to download from the Apple App Store & Google Play Store
  - Display, Log & Share data from your KANE Exhaust Gas Analyzer



## ANSED Exhaust Gas Diagnostics Software

- Effective interpretation of exhaust gas readings
- Offers problem identification and potential solutions
- Diagnose no-code drivability & performance issues
- Insure catalytic converter related repairs are complete
- Print test results reports: pre- and post-repair
- Verify vehicle running at max efficiency after repairs and prevent comebacks

**Smart diagnostic software quickly diagnoses problems & can prevent future costly repairs**



# ANSED/KANE-EGA5 5-GAS HANDHELD EXHAUST ANALYZER KIT

Diagnose engine, exhaust & catalytic converter performance with unique NDIR sensor technology. Identify fuel flow, misfire and EVAP problems. Road test vehicles under real world driving conditions. Now includes **KANE LINK** to wirelessly test vehicle A/C and refrigeration systems.

## Key features:

- Large Graphic Display (70mm x 52.6mm) (2.76" x 2.07")
- Unique NDIR sensors for accurate measurements with fast warm up
- Large internal pump
- Integrated Water Trap
- Battery Powered - 6 x NiMH AA rechargeable batteries.
- Connect to KANE LIVE Apps
- Rugged & portable with protective rubber sleeve.
- Document test results with optional KAN-IRP3 printer.
- Store over 200 tests.
- Fuel types: Petrol/Gasoline, Diesel, LPG or CNG.
- Measures:
  - CO 0-10%
  - CO2 0-20%
  - HC 0-5,000ppm
  - O2 0-21%
  - Lambda 0.8-1.2 (calculated)
  - NO(x) 0-1500ppm (calculated)



## With **KANE LINK** wireless measurement:

- Test A/C & Refrigeration systems
- Connect to KANE LIVE Apps
- Document test results with optional KANE-IRP3 Portable IR Printer
- Store up to 45 tests



## ANSED/KANE-EGA5 Kit supplied with:

- EGA5 5-Gas Analyzer
- KANE Live – downloaded free from App Store & Play Store
- ANSED Diagnostic Software
- KANE LINK wireless module
- EP1 emissions probe
- CL5 USB Lead
- CU12VDC2A21 charger
- CA10733/4 12V in vehicle charger
- PF2/10 Spare filters (pack of 10)
- 14102/2 carry bag

## Optional extras:

**KANE-IRP3 Portable IR Printer**



**KANE-HUB4** Test A/C system performance with 2 x wireless temperature clamps & 2 x pressure probes (also available separately)



# Diagnostic Software



The ANSED Exhaust Gas Diagnostics software interprets the exhaust gas analyzer readings in seconds!

The software uses a floating matrix formula for each gas reading, coupled with other diagnostic variables, to enhance the accuracy. Several possible solutions, in order of probability, are suggested with the first one the likely cause in 80% of the situations.

## Key Benefits

- Instant exhaust gas analysis with an easy-to-read PASS/FAIL report
- Provides a top-down list of probable causes and suggested service options
- Pre-repair reports provide initial gas analysis for review
  - Customer report offers a “customer-friendly analysis” of the exhaust diagnostic test
  - Technician report details the diagnostic test results and suggested procedures
- Post-repair report verifies that repairs have been completed and the vehicle is running at maximum efficiency
- All reports can be printed or saved for future reference

# KANE LIVE - Free from the App & Play Store

KANE LIVE connects and controls your KANE Gas Analyzer



## Key Benefits

- View, share & record live tests
- Snap shot test results like a printer
- Generate PDF reports & certificates
- Add company & user profiles
- Send test results in CSV for spreadsheets
- GPS tag your location
- Control analyzer pump, torch & fresh air purge
- Help via in-app guides & KANE Knowledge Center



# EGA1 Accessories and Consumables

- EP1** High temp stainless steel exhaust probe, 4m neoprene tubing, 350mm insertion depth.
- EP2** High temp stainless steel exhaust probe, 6m neoprene tubing, 300mm insertion depth, includes in-line 70 μ filter, ideal for “on road” & dyno testing.
- EP3** High temp stainless steel exhaust probe for motorbikes & scooters, 1.5m tubing, 230mm insertion depth.
- EP4** Same as EP3, includes thermocouple to measure exhaust temperature.
- EP5** In cab heater & forklift truck probe, 4m neoprene tubing, 350mm insertion depth.
- KANE-IRP3** Portable IR Printer
- TP5** Thermal paper rolls for KANE-IRP3 (pack of 5)
- CU12VDC2A21** Battery Charger 100-240V
- CL5** USB Lead
- CA10733/4** In Vehicle Charger
- WSF2/5** Water Stop Filter (pack of 5)
- PF2/10** Water Trap Filter (pack of 10)
- SM50675** Replacement Water Trap
- SM14980** Replacement Probe Connector
- USB1** USB Cable for charging KANE-IRP3
- KANE-HUB4** 2 x Wireless Temperature Clamps and 2 x Pressure Probes

# EGA5 Analyzer Specifications

PARAMETER	RESOLUTION	ACCURACY	RANGE
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## Temperature Measurement

T1 Temperature	0.1°C	±0.1°C ±0.3% reading	-50 to 1200°C (-58 to 2192°F) with suitable probe
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## Exhaust Gas Measurement \*1

Oxygen	0.1%	±0.3% Volume	0 - 25%
Carbon Monoxide High Range NDIR	0.1%	±5% or reading from 0.1% to 10%	0 - 10%
Nitric Oxide	1ppm	±5ppm<100ppm ±5%>100ppm	0 - 5000ppm
Nitrogen Dioxide	1ppm	±5ppm<100ppm ±10ppm<500ppm	0 - 1000ppm
Carbon Dioxide NDIR	0.1%	±0.3% reading	0 - 20%
Hydrocarbon NDIR	1ppm	+/- 5% of reading or +/- 12ppm volume	0 - 5000ppm Over-range: 10,000ppm

## Calculations

Efficiency High (C)	0.1%	±1% of reading	0 - 119.9%
Excess Air	0.1%	±0.2% of reading	0 - 119.9%
Lambda AFR (Petrol) (LPG)		0.001 0.01	0.8-1.2 11.76-17.64 12.48-18.72
Carbon Monoxide Corrected COK		0.01%	0-15%

## Pre-programmed Fuels

Pre-programmed Fuels	Petrol, LPG, CNG, Diesel
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## Pre-programmed Refrignents

R11, R12, R22, R123, R134a, R290, R401a, R401b, R402a, R402b, R404a, R406a, R407a, R407c, R408a, R409a, R410a, R414b, R416a, R417a, R420a, R421a, R421b, R422a, R422b, R422d, R424a, R427a, R434a, R437a, R500, R502, R503, R507a, R508b, R600, R718, R744, R1234YF, R1234ZE, R32, R434a, R437a
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## Battery Life

Battery Life	>6 hours from full charge
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## Operating Conditions

Temperatures	0 - 45°C (32 - 113°F)
Humidity	15 to 90% RH, (non-condensing)
Ambient Operating Range	-5°C to +50°C/10% to 90% RH non condensing (23F - 122F)
Power Supply (battery charger)	Input: 110Vac/220 Vac nominal Output: 12 VDC off load

## Physical Characteristics

Weight	Approx 1.2 kg (2.65 lbs)
Dimensions	240mm x 165mm x 65mm (9.45" x 6.50" x 2.56")

## KANE LIVE Software APP

The KANE LIVE Software is available to download from the APP Store & PLAY Store Display, Log & Share data from your KANE Exhaust Gas Analyser.



## ANSED Exhaust Gas Diagnostics Software

The ANSED Software is accessible on the Internet via a browser:

[www.ANSEDsoftware.com](http://www.ANSEDsoftware.com)

### System Requirements

To access and use the software, you will need the following:

- An Internet connection with at least a 512k connection speed. We recommend a minimum of 1 MB for best results.
- A web browser. The following browsers are supported:
  - CHROME, version 35.0 or later
  - FIREFOX, version 30.0 or later
  - INTERNET EXPLORER, version 10.0.6 or later
  - SAFARI, version 6.0.5 or later
- Other browsers are not supported by ANSED.

# KANE-EGA1/2/3 Handheld Gas Analyzers

## Key features:

- Rechargeable NiMH AA long-life batteries, supplied with USB1 charger.
- Illuminated display (7.5cm/3" diagonal).
- Rotary dial & 6-line display for ease of use.
- Connect to KANE LIVE APP
- Add optional KANE LINK devices when available
- Store up to 45 tests.
- Compact & rugged with protective rubber sleeve & magnets for hands-free operation.
- Integrated water trap with replaceable particle filter.
- Document test results with optional KANE-IRP3 Portable IR Printer.



## ANSED/KANE-EGA1NO NOx Exhaust Gas Analyzer

Single gas analyzer, to measure NOx, 0-600ppm, to test diesel engine NOx emissions.  
Measures NO and calculates true outlet NOx emissions making it ideal for diesel engine diagnostics.



## ANSED/KANE-EGA1HR CO Exhaust Gas Analyzer (High Range 0-10%)

Single gas analyzer, to measure CO, 0-10% / 100,000ppm, to test engine CO emissions.

Vehicles without catalytic converters can be tuned for optimal performance to run cleaner and more efficiently.

Ideal for checking CO after carburetor, ignition, and air filter maintenance as well as tuning pre-cat classic cars, motorcycles, off-road, forklift trucks and single cylinder engines. Classic car data manuals would often give you desired CO levels to meet manufacturers specs.

Ideal for checking CO after carburetor, ignition, and air filter maintenance as well as tuning pre-cat classic cars, motorcycles, off-road, Forklift Trucks and single cylinder engines. Classic car data manuals would often give you desired CO levels to meet manufacturers specs.



## IMPORTANT:

You can purchase 1-gas, 2-gas or 3-gas analyzers with any combination of the following: NOTE Only one CO Sensor

CO	0-10,000ppm	CO	0-10% / 100,000ppm	NO(x)	0-600ppm
CO2	0-20%	O2	0-21%		

## Kit contents

- KANE EGA Gas Analyzer
- EP1 high-temp stainless-steel exhaust probe
- PF400/5 Filter for Water Trap (pack of 5)
- USB1 & AC charger
- User manual
- 17820 carry bag

WITH: **KANE CO LINK** wireless measurement



# EGA1 Specifications

PARAMETER	RANGE	RESOLUTION	ACCURACY
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## Temperature Measurement

T1 Temperature	0-600°C (32-1112°F)	0.1°C	±0.5°C
T2 Temperature	0-600°C (32-1112°F)	0.1°C	±0.5°C
Inlet Temperature (Internal Sensor)	0.50°C (32.9°F)	0.1°C	±1°C

## Exhaust Gas Measurement

Carbon Monoxide	0 - 10,000ppm	1ppm	±5ppm or 5% of reading (whichever is greater)
Carbon Monoxide	0 - 10.0%%	0.01%	±5% reading 0.1% - 10.0%
Carbon Dioxide	0 - 20%	0.1%	±0.3% Volume
Nitrogen Dioxide (if fitted)	0 - 600ppm	1ppm	±5ppm or 5% of reading (whichever is greater)

## Calculations

Carbon Monoxide Corrected COK	0 -21%	0.01	±0.3% Volume
Battery Life	>8 hours (continuous with pump on)		

## Operating Conditions

Temperatures	0 - 45°C (32 - 113°F)		
Humidity	15 to 90% RH, (non-condensing)		
Power Supply (battery charger)	Rechargeable batteries, USB Charging		

## Physical Characteristics

Weight	Approx 0.625kg (1.38 lbs)		
Dimensions	216mm x 105mm x 45mm (8.50" x 4.13" x 1.77")		

# EGA1 Accessories and Consumables

EP1	Exhaust Probe - High-temp, 4m tubing, 350mm insertion depth
EP2	Exhaust Probe - High-temp, 6m tubing, 300mm insertion depth
EP5	Exhaust Probe - High-temp, 1.5m tubing, 230mm insertion depth
KANE-IRP3	IR Portable Printer
TP5	Thermal Printer Paper for KANE-IRP3
USB1	USB Charger
PF400/5	Water Trap Filter (pack of 5)
SM14980	Replacement Probe Connector
SM50515	Replacement Water Trap
WPCP2	Wireless Temperature Clamps (Set of 2)

For more information:



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