

# Advanced Test Equipment Corp. www.atecorp.com 800-404-ATEC (2832)



# **KANE-EGA4/5**



## **Exhaust Gas Analyser**







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## **1** KANE-EGA4/5 OVERVIEW

Your analyser measures up to 5 engine exhaust gases Depending on your options it measures or calculates:

- Carbon Monoxide 0-10% (CO)
- Carbon Dioxide (CO2)
- Hydrocarbons 0-5000ppm (HC)
- Oxygen (O2)
- Nictric Oxide (NO)
- Nitrogen Oxide (NOx)
- Corrected Carbon Monoxide (COk)
- Temperature
- Differential Temperature
- Lamba
- Air Conditioning & Refrigeration systems

Your analyser has an integral protective rubber cover and easy fit accessory clip on rear above the battery compartment.

Your analyser flow detector system automatedly detects a blockage in the sampling system.

Your analyser prints test results using an optional infrared KANE printer or wirelessly sends test results to the KANE LIVE App.

#### **MEMORY**

Your analyser stores tests, known as logs:

- 178 engine exhaust analysis tests
- 178 temperature tests
- 89 KANE DTHA2 airflow, temperature & humidity tests
- 2 tests of up to 1440 timed logs
- 163 air conditioning & refrigeration tests

You can personalize your test results, entering up to 2 lines of 24 characters.

## KANE COLINK

You can wirelessly connect optional KANE LINK devices to your analyser.

When connected, they stay connected until you use KANE LINK to remove them.

When powered on, they automatically replace or add measurements to your analyser.

See page 35 to add, manage or remove optional KANE LINK devices.

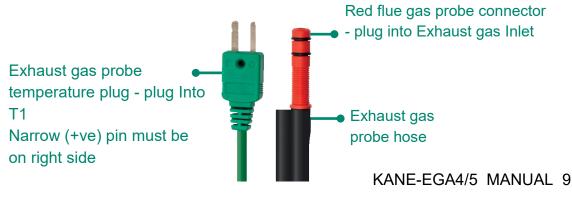
## 2 ANALYSER FEATURES AND KEYPAD



## 21 KEYPAD BUTTONS

| ICON          | DESCRIPTION  |
|---------------|--|
| PLAY / PAUSE  | Pump On / Off  |
| PRINT F1      | Short press to print a report - Analyser offers destination choice when wireless & irda fitted |
| STORES / F2   | Short press to Store / F2  |
| HOME          | Return to home screen  |
| UP<br>UP      | Short press to scroll up   |
| DOWN          | Short press to scroll down   |
| BACK / CANCEL | BACK / CANCEL  |
| OK / ENTER    | OK / ENTER   |





## BACK OF ANALYSER & PROBE



## 3 BATTERIES

## 31 BATTERY TYPE

Your analyser uses rechargeable Nickel Metal Hydride (NiMH) batteries. Using other battery types may void your analyser warranty.



## WARNING

Although you can use Alkaline batteries do not charge your analyser with Alkaline batteries fitted.

Do not mix NiMH cells with different capacities or from different manufacturers - All batteries must be identical.

## REPLACING BATTERIES

Turn over your analyser & remove battery compartment cover. Fit 6 x NiMH "AA" rechargeable batteries with correct battery polarity. Replace battery compartment cover.

## 33 TIME AND DATE

After changing batteries reset your analyser time & date.

## 34 CHARGING NIMH BATTERIES

Your first charge should be for 8 hours - Thereafter NiMH batteries can be topped up any time, even for short periods.

## **BATTERY DISPOSAL**

Always dispose of depleted batteries using approved disposal methods that protect the environment.

## 4 GENERAL SAFETY

#### SAFETY WARNING

Your analyser extracts gases that may be toxic in relativity low concentrations.

These gases are exhausted from the back and bottom of the analyser.

This analyser must only be used in well-ventilated locations by trained and competent persons after due consideration of all potential hazards.

Portable gas detectors should conduct "bump" tests before relying on units to verify atmospheres are free from hazards.

A "bump" test checks an analyser works within acceptable limits by briefly exposing it to known gas mixtures to change output of sensors present.

NOTE: This is different from a calibration where your analyser is exposed to known gas mixtures but allowed to settle to a steady figure with readings adjusted to the test gas concentration.

Protection Against Electric Shock - (In accordance with EN 61010-1:2010).

This analyser is designed as Class III equipment and should only be connected to SELV (Safety Extra Low Voltage) circuits.

The battery charger is designated as:

- Class II equipment
- Installation category II
- Pollution degree 2
- Indoor use only
- Altitude to 2000m
- Ambient temperature 0°C-40°C
- Maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50%RH at 40°C
- Mains supply fluctuations not to exceed 10% of the nominal voltage

## 5 FIRST TIME USE

Charge your analyser batteries for 8 hours - an overnight charge should be sufficient for an average 8-hour day.

Take time to read this manual fully and be aware your analyser configuration may not support all features explained in this manual.

Use ▲ or ■ & to select your choices - Press HOME to exit without change.

Set up your analyser to your requirements - Press HOME then select from setting, reports, on screen trend, set up & tools.

## DAILY USE

After powering on your analyser, choose tasks to perform using MENU.

Most tests can be made with little user activity.

Your analyser status bar on the bottom of the displays shows current time, date and battery status.

Check time and date are correct as they can only be changed if you have no stored logs in analyser memory to protect stored data integrity.

Always check you analyser before use and power on in fresh air - See section 9 on page 22.

Press HOME menu to start using your analyser - See section 8 on page 15.

Use ☑ or ☑ & ☑ to select what happens next - Press HOME to exit what change.

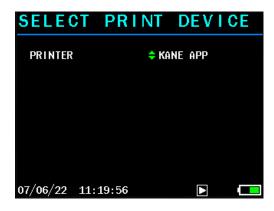
## **USER INTERFACE**

Navigate via the 5 button control panel - press HOME to return to HOME MENU:



## PRINT A TEST REPORT

Press PRINT key 🔁 to select print destination.



Press ENTER key - display changes to show print progress.

## 12 LOG A TEST REPORT

Press STORE key until display shows LOG STORED.

To print logged data:
Select LOG ON in REPORTS menu

Press PRINT key or select desired test from MEASUREMENT MENU and use View Logs

Select LOG NO and press PRINT key



Press HOME to display MENU, use to enter each item.

Press HOME to exit without change

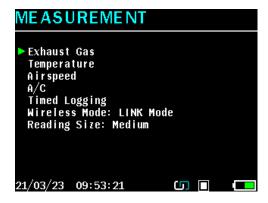


| MENU ITEM        | COMMENTS   |
|------------------|--|
| MEASUREMENT      | Select task to perform   |
| SETTINGS         | Change date, time, measurement parameters, alarms etc                  |
| REPORTS          | Configure logging parameters and view stored data                      |
| ON-SCREEN TRENDS | Configure and display trend information                                |
| STATUS           | Current instrument status, software vertion etc                        |
| SETUP            | Change analyser settings and add, manage or delete KANE<br>LINK device |
| TOOLS            | Manual air and pressure zero, mid-stream finder tool                   |
| SERVICE          | Reserved   |

#### **MEASUREMENT**

Start measurements and tests

Press HOME to exit without change

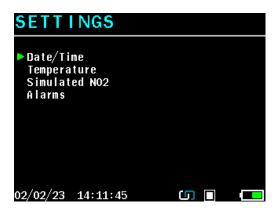


See page 28 for details

## 82 SETTINGS

Change default setting - Use △ 🗖 & 🔁 to edit each setting.

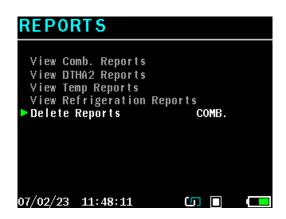
Press **HOME** to exit without change



| MENU ITEM     | OPTIONS / COMMENTS   |  |
|---------------|--|--|
| DATE / TIME   | Set date and time - NOTE: Can only change if all logs in memory are cleared  |  |
| TEMPERATURE   | Select desired option via UP / DOWN and OK to confirm  |  |
| SIMULATED NO2 | Set assumed % of NO2 present in sample for NOx<br>Calculation - 5% default   |  |
| ALARMS        | Set Toxic Gas Alarm YES / NO<br>Set Battery Low Alarm YES / NO<br>Set Watertrap Check Warning YES / NO<br>Set excess CO Warning YES / NO |  |



Create, edit and remove reports - Use 🛚 🗖 & 🔁 to edit each setting. Press HOME to exit without change

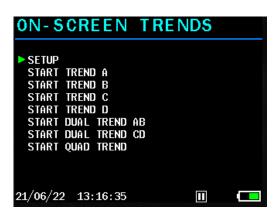


| MENU ITEM               | OPTIONS / COMMENTS           |  |
|-------------------------|------------------------------|--|
| VIEW COMB. REPORTS      | View reports                 |  |
| VIEW PRS & TEMP REPORTS | View reports                 |  |
| VIEW AIRFLOW REPORTS    | View reports                 |  |
| VIEW DTHA2 REPORTS      | View reports                 |  |
| DELETE REPORTS          | Select by report type or all |  |

## **ON-SCREEN TRENDS**

Create and display custom measurement trends - Use △ ♣ to edit each setting.

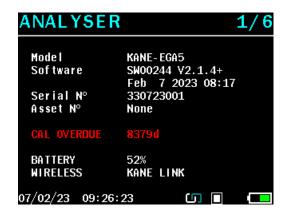
Press HOME to exit without changing

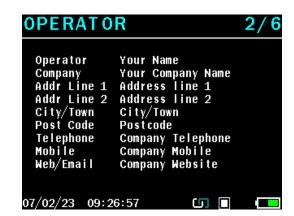


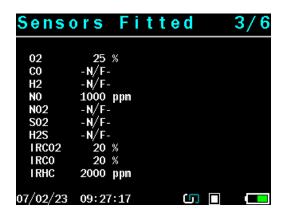
| MENU ITEM           | OPTIONS / COMMENTS   |  |
|---------------------|--|--|
| SETUP               | Set: SAMPLING INTERVAL TREND A Parameter TREND B Parameter TREND C Parameter TREND D Parameter |  |
| START TREND A       | Start  |  |
| STATY TREND B       | Start  |  |
| START TREND C       | Start  |  |
| START TREND D       | Start  |  |
| START DUAL TREND AB | Start  |  |
| START DUAL TREND CD | Start  |  |
| START QUAD TREND    | Start  |  |

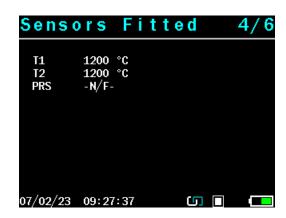


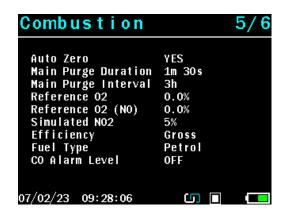
View current configuration and setup - Use ☑ 🖬 to view each page Press HOME to exit change

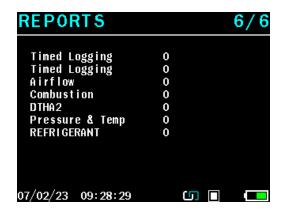






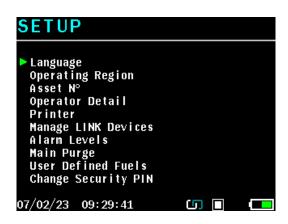








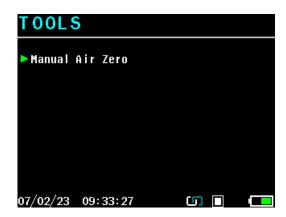
Make further changes - Use 🗖 🗖 & 🔁 to edit each setting. Press HOME to exit without change



| MENU ITEM           | OPTIONS / COMMENTS  |  |
|---------------------|---|--|
| LANGUAGE            | Select analyser operating language  |  |
| OPERATING REGION    | Select fuel table country or region   |  |
| ASSET NO.           | Enter equipment asset number  |  |
| OPERATION DETAIL    | Enter operator / owner information  |  |
| PRINTER             | Select IR printer type  |  |
| MANAGE LINK DEVICES | Add or remove KANE LINK devices   |  |
| ALARM LEVELS        | Set alarm trigger levels for each gas sensor -<br>Note alarms set in increments of 25ppm      |  |
| MAIN PURGE          | Set: MAIN PURGE DURATION Time in seconds MAIN PURGE INTERVAL Time in minutes AUTO ZERO YES/NO |  |
| USER DEFINED FUELS  | Add custom fuel types   |  |
| CHANGE SECURITY PIN | Set to stop changes without PIN code entry  |  |



For more accurate measurements



| MENU ITEMS      | OPTIONS / COMMENTS               |
|-----------------|----------------------------------|
| MANUAL AIR ZERO | Manually trigger Air Zero purge. |



Restricted area for authorized personnel only.

## **USING YOUR ANALYSER**

#### **CHECK BEFORE SWITCH-ON:**

- 1. Particle and water stop filters are dry and clean
- 2. Water trap and probe line are empty of water
- 3. Water trap is correctly fitted and instrument upright
- 4. All hoses connections, etc, are properly made
- 5. Analyser & probe will sample fresh outdoor air

Power ON by pressing **()** to start automatic calibration count down.

#### **AUTOMATIC CALIBRATION**

During automatic calibration analyser samples fresh air to zero toxic sensors and set oxygen sensor to 20.95%.

After power on your analyser displays identity, software version and serial number.

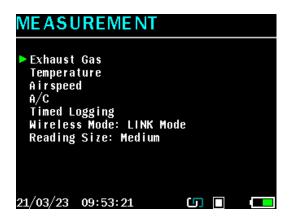
"ANALYSER PURGING 90 secs" countdown appears on display.

Calibration time counts down in seconds to zero and can be changed to 90, 120, 180 or 300 seconds.

**NOTE:-** 180 seconds is recommended to allow sensors to fully stabilise - anything less may result in toxic and oxygen sensor drift.



Start measurements and tests - Use 🛚 🗖 & 🔁 to edit each test

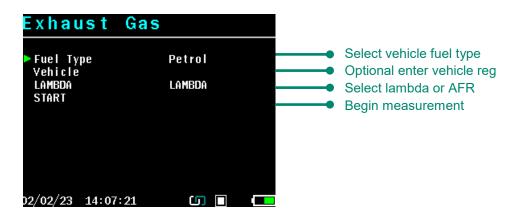


NOTE:- Ensure analyser displays correct date & time before making measurement.

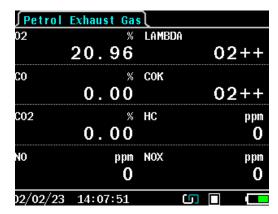


Begins measurement process.

Use ⚠ 🛣 & 🔁 to manage options and start tests

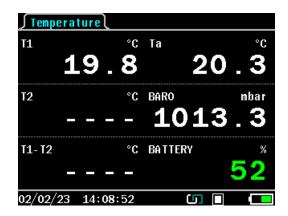


Typical exhaust gas analysis screen





Start pressure and temperature measurements



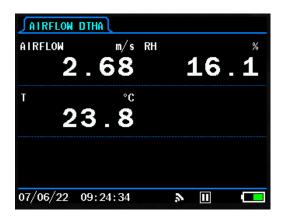


Your analyser tests airflow, RH & temperature with an optional KANE-DTHA2 wireless anemometer.

Requires KANE-DTHA2 connected via KANE LINK - See page 35



Typical KANE-DTHA2 screen when connected





Your analyser tests A/C & Refrigeration systems with optional KANE LINK devices.

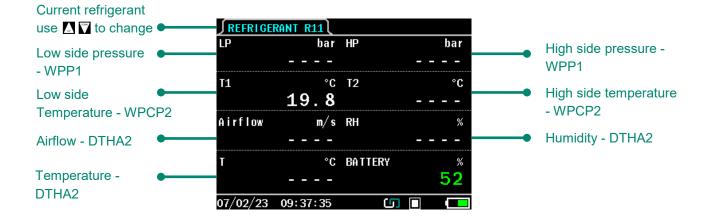
When using for example:

- 2 WPCP temperature pipe clamp probes
- 2 WPP1 pressure probes
- 1 DTHA2 anemometer

Your analyser simultaneously displays high side / low side pressure & temperature and in vehicle temperature, humidity & airflow on one screen. See page 20 & page 30 to add devices

Manage Link devices - Use ♣ 🗖 & 🔁 to edit each device Press HOME to exit without change



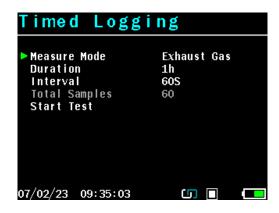


## 105 TIMED LOGS

Configure and perform timed logs

Use 🛕 🗖 & 🔁 to select

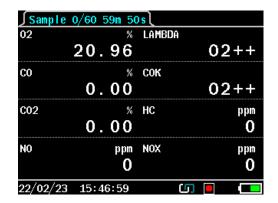
Press HOME to exit without change



| MENU ITEMS    | OPTIONS / COMMENTS  |  |
|---------------|---|--|
| MEASURE MODE  | Select required measurement parameters:<br>EXHAUST GAS<br>AIRFLOW             |  |
| DURATION      | Choose test duration from 1 to 24 hours                                       |  |
| INTERVAL      | Choose sampling interval from 3 to 60 seconds                                 |  |
| TOTAL SAMPLES | Indicates number of samples collected based on DURATION and INTERVAL settings |  |
| START TEST    | Begin test  |  |



## Typical test running screen





Select KANE LINK or KANE APP modes



Select text size for task screens

## **MEASURING EXHAUST GASES**

After countdown is finished and your analyser is ready to use, put your exhaust probe into the engine exhaust.

For normal emission testing, ensure engine is at normal operating temperature.

Engine conditions must be constant to give stable measurements.

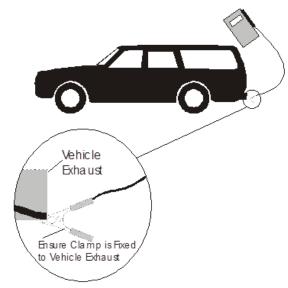
Ensure probe is fully inserted in exhaust pipe to avoid exhaust dilution with back-flushing ambient air.

Position hose assembly away from hot surfaces.



## **SAFETY WARNING**

Use suitable protection when disconnecting probe which may be hot!



Do not exceed analyser operating specifications - In particular:

- Do not exceed analyser internal temperature operating range
- Do not put analyser on hot surfaces
- Do not exceed analyser water trap max levels
- Do not let analyser particle filter become dirty and blocked

Check readings are stable and within expected range.

## 12 REGULAR CHECKS DURING SAMPLING

Do not exceed analyser operating specifications:

- Do not exceed probe maximum temperature
- Do not exceed analyser internal temperature
- Do not place analyser on a hot surface
- Keep analyser water trap vertical water vapour condenses in probe line and can quickly fill analyser water trap
- Keep analyser in-line particle filter clean and dry

## 13 NORMAL SHUTDOWN SEQUENCE

#### DO THIS EVERY TIME YOU USE THE ANALYSER



Remove probe from exhaust - TAKE CARE! HOT PROBE - and allow to cool naturally.

Allow analyser to purge in fresh air for at least three minutes or until all toxic sensor readings are below 10ppm.

Do not immerse probe in water as this will damage pump and sensors.

**NOTE:** It is good practice to hang probe hose vertically after sampling so condensate drains away.

## **14** PRINTOUTS

#### Air Conditioning Test

## Your Name Your Company Name Address line 1 Address line 2 City/Town Postcode Company Telephone Company Mobile Company Website KANE-EGA5 Serial N° 151922092 S/W SW00244, V2.1.4+ $\mathsf{AC}$ LOG LOG 1 Date 07/02/23 Time 12:00:50 REFRIGERANT R11 LP bar 0.0 HP bar 0.0 WT1 °C 59.6 WT2 °C 16.0 Airflow m/s ---RH % ---T °C ----Ta °C 22.1 BARO mbar 1029.0 CUSTOMER REFERENCE

#### **Exhaust Gas Test**

| Your Name<br>Your Comp<br>Address 1<br>Address 1<br>City/Town<br>Postcode<br>Company T<br>Company M<br>Company W | ine 1<br>ine 2<br>elephon<br>obile |  |  |
|--|------------------------------------|--|--|
| KANE-EGA5<br>Serial N°<br>S/W S  |                                    |  |  |
| Exhaust G  | as                                 |  |  |
| Date<br>Time   |                                    | 07/02/23<br>11:38:42   |  |
| FUEL 02 AFR LAMBDA C02 HC N0 NOX COK   | % ppm ppm ppm %                    | Petrol<br>0.00<br>12.84<br>0.873<br>13.6<br>1088<br>55<br>58<br>3.09 |  |
| Ta   | °C                                 | 21.6<br>1029.3   |  |
| CUSTOMER   |                                    | :  |  |

#### Humidity - DTHA2

# Your Name Your Company Name Address line 1 Address line 2 City/Town Postcode Company Telephone Company Mobile Company Website KANE-EGA5 Serial N° 151922092 S/W SW00244, V2.1.4+ HUMIDITY CUSTOMER REFERENCE

#### Temperature

| T1 °C 94.8<br>T2 °C 74.5<br>T1-T2 °C 20.3<br>Ta °C 21.1<br>BARO mbar 1025.7  |   |  |                       |
|--|---|--|-----------------------|
| Serial N° 151922092 S/W SW00244, V2.1.4+  Temperature  Date 08/02/23 Time 08/02/23 Time 10:31:02 T1 °C 94.8 T2 °C 74.5 T1-T2 °C 20.3 | Your Co<br>Address<br>Address<br>City/To<br>Postcod<br>Company<br>Company | mpany Nam<br>line 1<br>line 2<br>wn<br>e<br>Telephon<br>Mobile |                       |
| Date 08/02/23 Time 10:31:02 T1 °C 94.8 T2 °C 74.5 T1-T2 °C 20.3 Ta °C 21.1 BARO mbar 1025.7 BATTERY % 100  CUSTOMER  REFERENCE       | Serial  | N° 1   |                       |
| Time 10:31:02  T1 °C 94.8 T2 °C 74.5 T1-T2 °C 20.3  Ta °C 21.1 BARO mbar 1025.7 BATTERY % 1000  CUSTOMER                             | Tempera   | ture   |                       |
| T2 °C 74.5 T1-T2 °C 20.3  Ta °C 21.1 BARO mbar 1025.7 BATTERY % 1000  CUSTOMER   |   |  | 08/02/23<br>10:31:02  |
| Ta °C 21.1 BARO mbar 1025.7 BATTERY % 1000  CUSTOMER   | T2<br>T1-T2   | °C   | 94.8<br>74.5<br>20.3  |
| REFERENCE  | Ta<br>BAR0  | mbar   | 21.1<br>1025.7<br>100 |
| REFERENCE  |   |  |                       |
|  | :   |  |                       |
|  | REFEREN   |  |                       |
|  |   |  |                       |

# WATER TRAP, PARTICLE FILTER AND WATER STOP FILTER

Your analyser has a water trap & particle filter to stop gas water vapour & dust entering your analyser.

However, some boilers & engines produce much higher volumes of water vapour which can affect your analyser.

Your analyser also has a hydrophobic water stop filter located inside the water trap in a filter carrier located above the particle filter.

You must replace water stop & particle filters when wet, dirty or your analyser displays LOW FLOW.

#### To replace:



Carefully remove
 water trap from housing



2)Pull reservoir vertically from filter holder





3) Rotate top part of filter housing 30° anti-clockwise



Pull particulate filter
 receiver vertically from
 water stop filter receiver



### Replacement part numbers:

Water Stop filter: WSF2

Particle filter: PF2

Water trap: SM50675

## 16 KANE LINK WIRELESS MEASUREMENT AND DATA TRANSFER

You can connect optional wireless KANE LINK devices to your analyser.

Navigate to MANAGE LINK DEVICES in SETUP MENU - see page 20.

To ADD, REMOVE and check STATUS of optional KANE LINK device select LINK using **AV** & **INK** using **AV** & **INK** using **AV** & **INK** using **INK** usin **INK** using **INK** using **INK** using **INK** using **INK** using **IN** 

To wirelessly transfer data to a connected smart device running our KANE LIVE App, select App using



#### DTHA2 ANEMOMETER

To add your DTHA2 anemometer select DTHA2 using ▲▼ & ◆

Enter serial number using **A V** & **toler** buttons - Each serial number must be 10 digits long.

If shorter enter 0's to make up to 10, eg enter serial number below as 0002001228.



## 16.2

#### WPCP TEMPERATURE PIPE CLAMP PROBE

To add a temperature probe clamp probe, select WPCP then enter serial number using **A** & **—** 

Enter serial number using ▲▼ & ← - Each serial number must be 10 digits long.

If longer use last 10 digits, e.g. enter serial number below using last 10 digits: 2105094301



Other KANE LINK devices can be paired - Contact KANE for more details

34 KANE-EGA4/5 MANUAL

## **WPP1 Pressure Probe**

To add a pressure probe select WPP1 using ▲▼ & ← buttons.

Enter serial number using  $\blacktriangle \blacktriangledown \& \blacktriangleleft \blacksquare$  buttons - Each serial number must be 10 digits long.

If longer use last 10 digits, e.g, enter serial number below using last 10 digits: 2208000602



## **MANE79 CO MONITOR**

To add a KANE79 select KANE79 using ▲▼ & ◆ buttons.

Enter serial number using  $\blacktriangle \blacktriangledown \& \blacktriangleleft \blacksquare$  buttons - Each serial number must be 10 digits long.



Use numeric part of serial number to pair your KANE LINK analyser. KANE LINK requires a 10-digit serial number - If shorter, use 0's to make up to 10 infant of serial number.

For example: Enter serial number J12345678 above as 0012345678.

## **17** SPECIFICATIONS

| PARAMETER                          | RESOLUTION | ACCURACY                                 | RANGE                                   |
|------------------------------------|------------|--|---|
| Temperature Measuremen             | t          |  |   |
| Temperature                        | 0.1°C      | ±0.1°C<br>±0.3% reading                  | -50 - 1200°C<br>With suitable probe     |
| Exhaust Gas Measuremen             | t *1       |  |   |
| Oxygen                             | 0.1%       | ±0.3% Volume                             | 0 - 25%                                 |
| Carbon Monoxide<br>High Range NDIR | 0.1%       | ±5% or reading from 0.1% to 10%          | 0 -10%                                  |
| Nitric Oxide<br>(optional)         | 1ppm       | ±5ppm<100ppm<br>±5%>100ppm               | 0 - 5000ppm                             |
| Nitrogen Dioxide<br>(optional)     | 1ppm       | ±5ppm<100ppm<br>±10ppm<500ppm            | 0 - 1000ppm                             |
| Carbon Dioxide<br>NDIR             | 0.1%       | ±0.3% reading                            | 0 - 20%                                 |
| Hydrocarbon<br>NDIR                | 1ppm       | +/- 5% of reading or<br>+/- 12ppm volume | 0 - 5000ppm<br>Over-range:<br>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%                               |
| _ambda<br>AFR (Petrol)<br>(LPG)    |            | 0.001<br>0.01                            | 0.8-1.2<br>11.76-17.64<br>12.48-18.72   |
| Carbon Monoxide<br>Corrected COK   |            | 0.01%                                    | 0-15%                                   |
| Pre-programmed Fuels               |            |  |   |

Petrol, LPG, CNG, Diesel

#### **Pre-programmed Refringents**

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

## **SPECIFICATIONS CONTINUED**

| Battery Life                   | >6 hours from full charge                                |  |  |  |
|--------------------------------|--|--|--|--|
| Operating Conditions           |  |  |  |  |
| Temperatures                   | 0 - 45°C   |  |  |  |
| Humidity                       | 15 to 90% RH, (non-condensing)                           |  |  |  |
| Ambient Operating Range        | -5°C to +50°C/10% to 90% RH non condensing               |  |  |  |
| Power Supply (battery charger) | Input: 110Vac/220 Vac nominal<br>Output: 12 VDC off load |  |  |  |
| Physical Characteristics       |  |  |  |  |
| Weight                         | Approx. 1.2kg  |  |  |  |
| Dimensions                     | 240mm x 165mm x 65mm                                     |  |  |  |

## **18** EU DECLARATON OF CONFORMITY

This declaration of conformity is issued under the sole responsibility of the manufacturer:-

Kane International Ltd.

Kane House, 11 Bessemer Road, Welwyn Garden City, Hertfordshire, AL10 1GF, UK. Tel: + 1707 375550 Web: www.kane.co.uk

The KANE-EGA4/5 is in conformity with the relevant Union harmonization legislation below:

| UK Directive  |   |  |  |  |
|---|---|--|--|--|
| The Electromagnetic Compatibility Regulations 2016 (EMC)  |   |  |  |  |
| The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (RoHS) |   |  |  |  |
| Electrical Equipment (Safety) Regulations 2016  |   |  |  |  |
|   |   |  |  |  |
| EU Directive  | Title   |  |  |  |
| 201430EU  | Electromagnetic Compatibility (EMC)   |  |  |  |
| 201165EU  | Restriction of the use of certain hazardous substances in electrical and electronic equipment (EMC) |  |  |  |
| 2014/35   | Low Voltage Directive (LVD)   |  |  |  |

The following harmonised standards and technical specifications have been applied:

**EMC** 

EN50270:2015

SAFETY

EN61010-1:2010

ROSH (UK & EU)

IEC62321-2:2013, IEC62321-1:2013, IEC62321-3-1:2013, IEC62321-5:2013, IEC62321-4:2013, IEC62321-7-2:2017, IEC62321-7-1:2015, IEC62321-6:2015

Signed for on behalf of:-01. July 2022

Kane International Ltd.

UK (E

Paul Morrison Engineering Manager

## **10** COLD WEATHER PRECAUTIONS

Do not leave your analyser in a cold place overnight.

Cold electronic devices suffer when taken into a warm place. Condensation may form affecting analyser performance.

Sensors are affected by condensation or water - When this happens, readings may display as "-" & sensors may be permanently damaged.

If your analyser is affected by condensation or water ingress, leave running in a warm place with pump 'ON' sampling fresh air for up to 3 hours - Connect charger to avoid draining batteries.

If you still experience problems please contact KANE Customer Service.

Northern Customer Service Kane International Ltd Gibfield Park Avenue Atherton, Manchester M46 0SY. UK

e: nservice@kane.co.uk

t: 0800 059 0800

Outside UK Call +44 1707 375550

Southern & International Customer Service Kane International Ltd Kane House, 11 Bessemer Road

Welwyn Garden City Hertfordshire

AL7 1GF, UK

e: service@kane.co.uk

t: 0800 059 0800



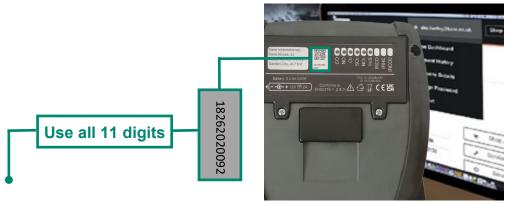
# Welcome to KANE CARE

20

KANE CARE is our award winning promise to never let you down or your money back

KANE CARE applies to any KANE Analyser Service & Recertification booked online via www.kane.co.uk & www.kanetest.ie - some exclusions apply

For KANE CARE International Service & Recertification email: sales@kane.co.uk



- ★ Please register your analyser on our website to download your instruction manual
- ★ PLEASE READ ALL SAFETY WARNINGS IN THE MANUAL
- ★ Use our website to manage your Analyser, buy spares & other KANE products
- ★ Find FAQs on our website or YouTube Channel
- ★ Any questions? Call our Customer Service Team 7am 5pm any normal weekday 0800 059 0800

More info at: www.kane.co.uk/service-and-re-calibration

www.kane.co.uk www.kanetest.ie www.kane.eu www.kane-care.com



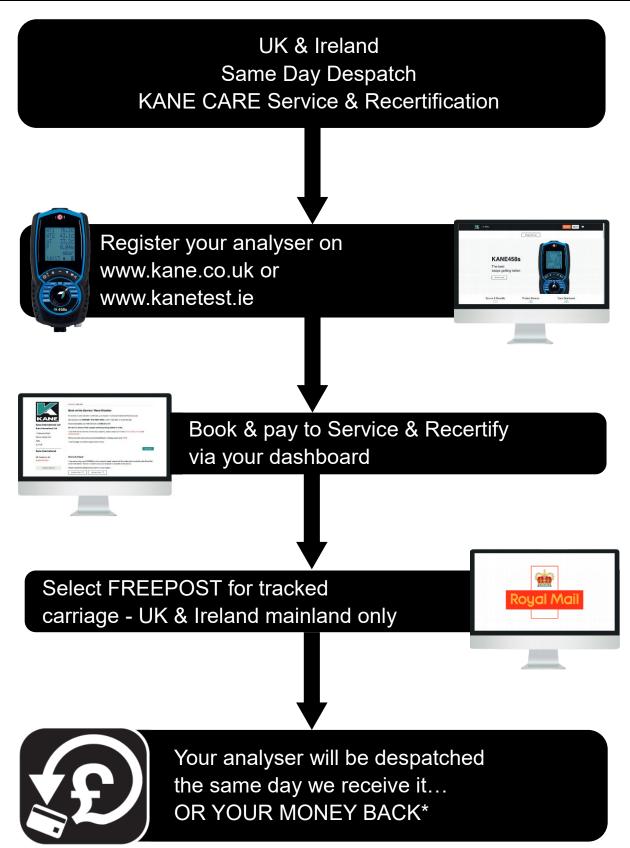












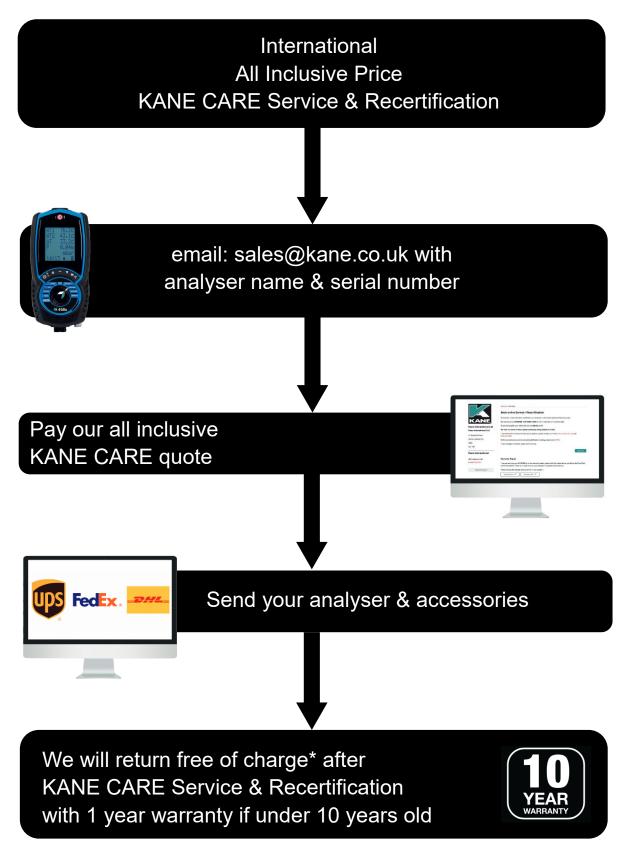
\*Excludes KANE-EGA, AUTO600, '9 series' analyser & UKAS certificates - Ireland 2 day turnaround











\*Excludes local tax & duty









#### KANE CARE UK & Ireland Service & Recertification

KANE CARE is our promise to never let you down or your money back

- ★ 10 Year warranty with annual Service & Recertification
- Same Day Service & Recertification guaranteed
- Free next day tracked delivery to KANE
- ★ 🛮 Free pre 9am next day return & Saturday am
- ★ Theft protection 50% off when replacing your stolen KANE analyser

KANE CARE applies to any KANE FGA Service & Recertification booked online via www.kane.co.uk & www.kanetest.ie - some exclusions apply

More info at: www.kane.co.uk/service-and-re-certification

#### **KANE CARE International Service & Recertification**

KANE CARE is our promise to never let you down or your money back

- ★ 10 Year warranty with annual Service & Recertification
- 20 Year all inclusive pricing
- ★ Includes accessory repair or replacement as required including probe, charger, carry bag & printer
- Free tracked return
- ★ Full test certification & repair report

KANE CARE International applies to any KANE Analyser Service & Recertification booked & quote confirmed via sales@kane.co.uk - some exclusions apply

More info at: www.kane.co.uk/service-and-re-certification

Customer Service **0800 059 0800** +44 1707 375550

www.kane.co.uk www.kanetest.ie www.kane.eu www.kane-care.com

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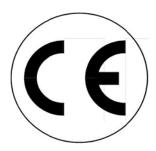


Email: sales@kane.co.uk





### THIS PRODUCT CONFIRMS WITH THE FOLLOWING











## PLEASE RECYCLE

PACKAGING MADE IN THE UK



Thank you for buying this analyser.

Before use, please register on our website

## www.kane.co.uk



Scan the QR code to go directly to Register your product online.

Kane International Ltd
Kane House, 11 Bessemer Road
Welwyn Garden City
Hertfordshire

Stock No: MAN00426 Rev: 1.00323 MARCH 2023