

KANE-GCU

GAS CONDITIONING UNIT



Stock No: MAN00294 Rev: 1.01122

NOVEMBER 2022

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1**KANE-GCU OVERVIEW**

Your KANE-GCU gas conditioning unit removes flue gas vapour to ensure accurate NO₂ & SO₂ measurements.

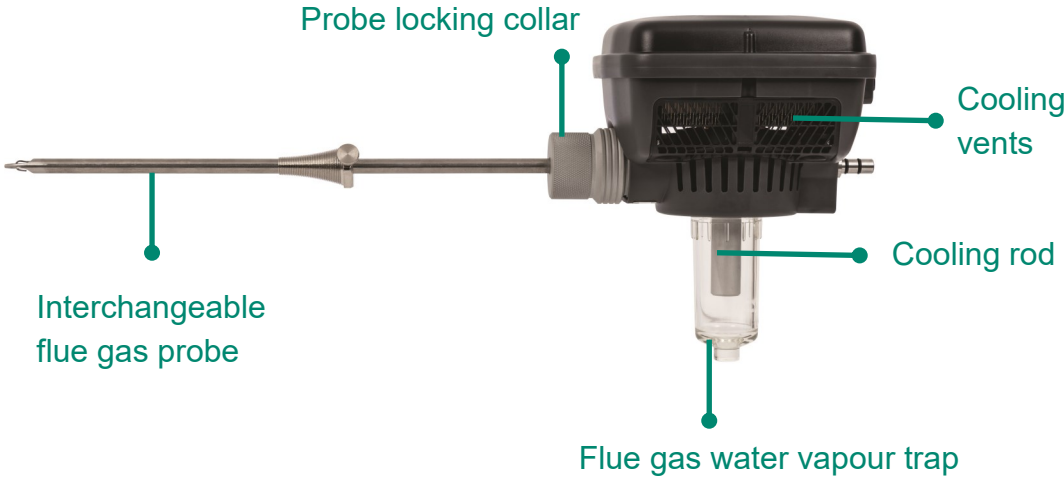
Flue gas water vapour is removed when flue gases pass through a cooling rod inside the KANE-GCU water trap - This causes water vapour to collect in the water trap.

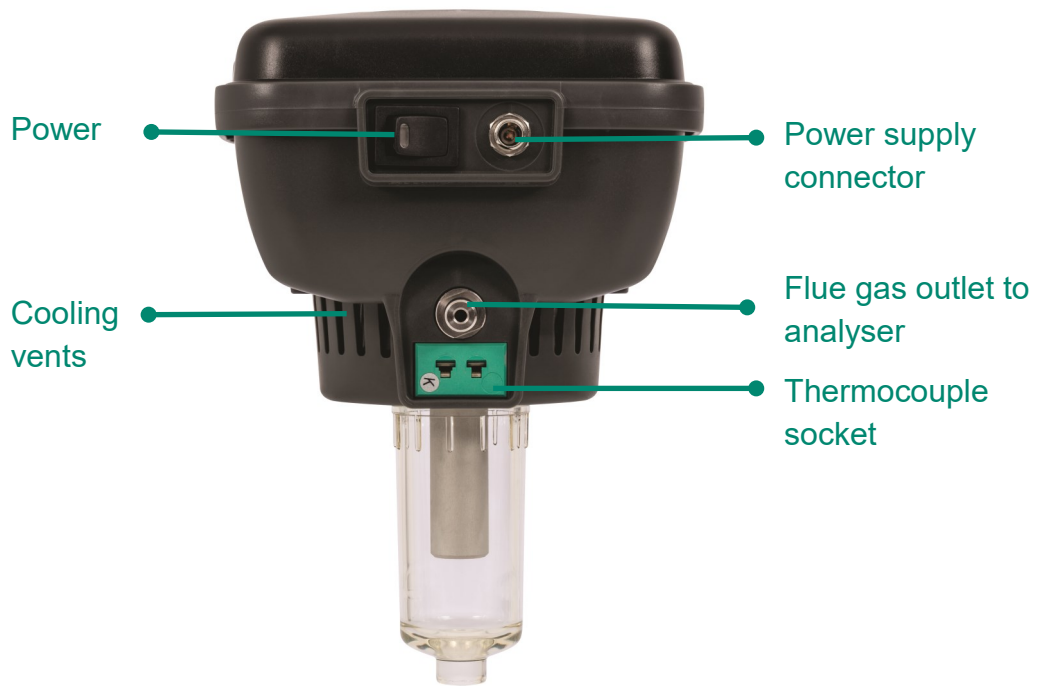
Your KANE-GCU can be used any time with KANE958 & KANE988 flue gas analysers and removes the need for a heated probe & hose.

Your KANE-GCU can use different optional flue gas probes for improved combustion efficiency calculation and mid-stream flue gas detection.

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KANE-GCU LAYOUT & FEATURES





Features:

- 285mm flue gas probe measuring flue gases & temperature to 1250°C
- Optional interchangeable probe lengths
- No heated line from probe to analyser required
- Easy to empty flue gas water vapour trap
- Light weight & easy to carry
- Quick to power on & off
- 110V - 230V power supply included with locking power connector

3**GENERAL SAFETY**

Observe these precaution for safe and correct equipment operation:



Only use with KANE analysers



DO NOT block cooling fans & vents - ALWAYS clean after use



ALWAYS empty water trap regularly - NEVER leave water after use

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

This device is designed as Class III equipment and should only be connected to SELV circuits. The power supply is designed as:

- Class II equipment
- Installation category II
- Pollution degree 2
- Indoor use only
- Altitude to 200m
- Ambient temperature 0°C-40°C
- Maximum relative humidity 80% for temperature up to 31°C decreasing linearly to 50%RH at 40°C
- Mains supply fluctuations not to exceed 10% of the nominal voltage

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HOW TO USE

1. Power on analyser and zero in fresh, outdoor air.
2. Connect KANE-GCU power supply to KANE-GCU, power on & wait 3 mins.
3. Connect KANE-GCU long hose to KANE-GCU flue gas outlet & analyser flue gas probe inlet.
4. Connect long hose temperature plug to KANE-GCU temperature socket & analyser flue gas temperature probe inlet.
5. Insert KANE-GCU flue gas probe in middle of flue & take measurements - results display on your analyser within 30 seconds.

**WARNING**

KANE-GCU collects flue gas water vapour in water trap - Keep water level below cooling rod by regularly emptying water trap.

Expect to do this every 15-20 minutes depending on application.

Do not obstruct cooling fan & vents as this reduces efficiency & performance.

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CHANGING PROBES

Your KANE-GCU is supplied with a 285mm x 8mm KMCHL high temperature / 1250°C flue gas probe

You can also use our optional 1000mm x 8mm diameter KMCHL high temperature / 1250°C flue gas probe

- Contact KANE if you need a different flue gas probe

To change flue gas probe, unscrew probe locking collar, replace probe then retighten collar by hand for a gas tight seal.

Probe locking collar



6**EMPTYING WATER TRAP**

Always empty KANE-GCU water trap during long periods of use & afterwards:

1. Turn water trap counterclockwise
2. Unscrew and completely remove
3. Empty contents and clean inside of water trap
4. Screw back into position



Do not leave water in water trap after use or during transport - always empty water trap and clean after use.

7**GENERAL MAINTENANCE**

Your KANE-GCU uses a Thermoelectric Cooler Peltier Chiller.

A peltier chiller has a hot side actively cooled by the KANE-GCU heatsink, cooling fan & vents.

Use a canned air duster to clean heatsink, cooling fan & vents after use.



Do not obstruct heatsink, cooling fan & vents during use.

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SPECIFICATION

Parameter	Specification
Dimensions WxLxH	120mm x 140mm x 180mm
Weight	670g without probe
Water Trap Capacity	20ml
Power Supply	AC/DC adapter 100-240VAC Input, 9V 3.34A 30W DC output
Storage Temperature	-10 to 50°C
Operating Conditions	
Temperature	5 - 40°C
Humidity	15 - 90% RH (non-condensing)

Your KANE-GCU operates automatically without user intervention - In the event of a fault refer to this table before contacting KANE

Issue	Possible cause & actions
Air leaking into sample	Check water trap reservoir O-ring sealing Check flue gas hose securely connected to KANE-GCU & analyser Check probe shaft securely connected to KANE-GCU
Poor cooling performance	Check cooling fan is running Check heatsink & vents are unobstructed. Ensure ambient conditions are within specification
Low flow into analyser	Check flue gas probe & hose are free of obstruction Check cooling rod is not frozen Check water trap reservoir is empty
Ice in cooling chamber	Flue gases under 65°C can cause ice to form in water trap especially monitoring >1hr, depending on water content Power off KANE-GCU and allow ice to melt.

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 GCU 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
2014/30EU	Electromagnetic Compatibility (EMC)
2011/65EU	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

EN61326-1:2013

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. February 2022

Kane International Ltd.




Paul Morrison

Engineering Manager



Welcome to KANE CARE

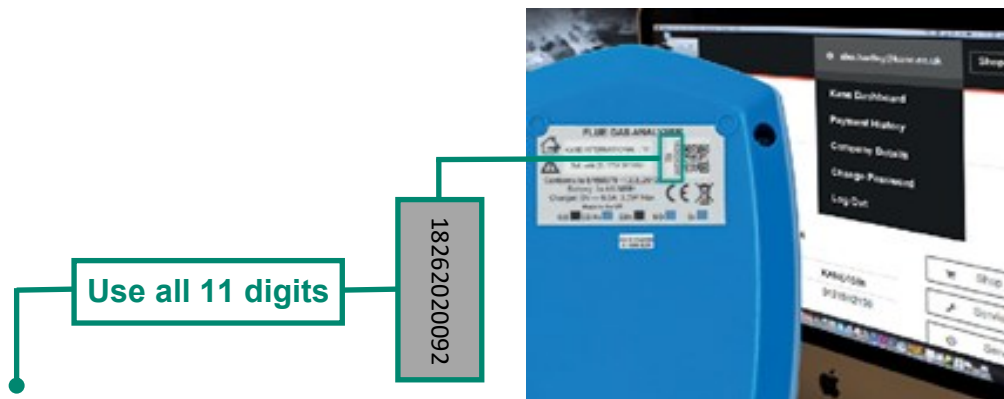
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KANE CARE is our award winning promise to never let you down or your money back

All analysers must be serviced and recertified every year - In some markets this is a legal requirement

KANE CARE is all inclusive and applies to any KANE product booked online via www.kane.co.uk & www.kanetest.ie - some exclusions apply

KANE CARE is also available for customers outside UK & Ireland - email: sales@kane.co.uk



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

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





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

Email: sales@kane.co.uk

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

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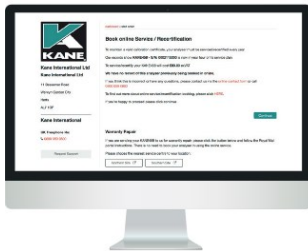
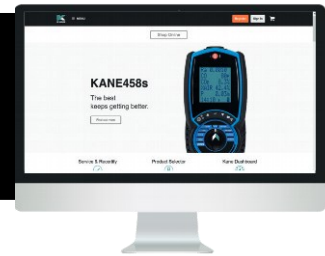
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UK & Ireland
Same Day Despatch
KANE CARE Service & Recertification



Register your analyser on
www.kane.co.uk or
www.kanetest.ie



Book & pay to Service & Recertify
via your dashboard

Select FREEPOST for tracked
carriage - UK & Ireland mainland only



Your analyser will be despatched
the same day we receive it...
OR YOUR MONEY BACK*

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

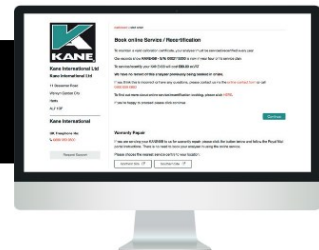


International
All Inclusive Price
KANE CARE Service & Recertification



email: sales@kane.co.uk with
analyser name & serial number

Pay our all inclusive
KANE CARE quote



Send your analyser & accessories

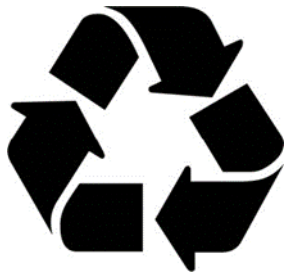
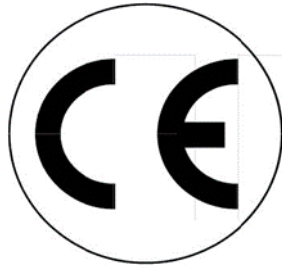
We will return free of charge* after
KANE CARE Service & Recertification
with 1 year warranty if under 10 years old



*Excludes local tax & duty

12 RECYCLING

THIS PRODUCT CONFORMS TO



PLEASE RECYCLE - CONTACT US

PACKAGING MADE IN THE UK

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THANK YOU

Thank you for buying this product.

Before use, please register on our website

www.kane.co.uk



Scan QR code to directly register your product online.

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