COL

Carbon Monoxide Monitor and Logger

INSTRUCTION MANUAL

ENGLISH

RoHS
Compliant

REACH
Compliant

TABLE OF CONTENTS

COL OVERVIEW

In this manual and KANE LIVE™ app, this Carbon Monoxide Detector may be referred to as different part numbers, COL, CO79L, KANE79, or KANE-COL.

Your COL measures Carbon Monoxide (CO) levels in any indoor area where people work, live or travel.

Your COL is for use in any normal enclosed environment.

Do not use in areas known as "confined spaces" where other toxic gases may be present or in zoned areas where intrinsic safety is mandatory.

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Your COL Carbon Monoxide monitor features:

- Measures CO to 999ppm
- Logs up to 20,000 tests for transfer to KANE LIVE™
- Captures maximum value
- Preset & vibrating alarm
- Visual colour LED & audible tone
- Data hold
- Battery life Indicator
- Long life sensor with 5 year expected life

DATA LOGGING

Your COL can be set by our KANE LIVE™ app to log up to 20,000 tests

- See page 6

KANE ⬭ LINK™

• Wirelessly connect up to 4 COL CO monitors to your KANE LINK™ analyzer

• When powered on, they replace or add measurements to your KANE LINK™ analyzer

• See page 16 to add, manage or delete your KANE LINK™ device

⚠ SAFETY WARNING
Carbon Monoxide (CO) is life-threatening even at low concentrations.

- **Understand the Risks:** Before investigating, ensure you are aware of the dangers.
- **Monitor Usage:** This device measures combustion gases that can be toxic at low levels.
- **Initial Setup:** Always power on and zero the monitor in fresh outdoor air.
- **Qualified Personnel Only:** Only trained and competent individuals should use this monitor, considering all potential hazards.
- **Bump Test Required:** Perform a "bump" test before using the monitor. This test briefly exposes the monitor to known gas mixtures to ensure it operates within acceptable limits.
- **Note:** A bump test is different from calibration, which involves exposing the monitor to known gas mixtures and adjusting readings to match the test gas.
- **Bump Test Method:** You can conduct a bump test using a disposable CO canister, similar to those used for checking domestic CO alarms.

A
B
C — H
D
ppm
UEi Carbon Monoxide Logger **COL**
E
MAX HOLD F — I
G
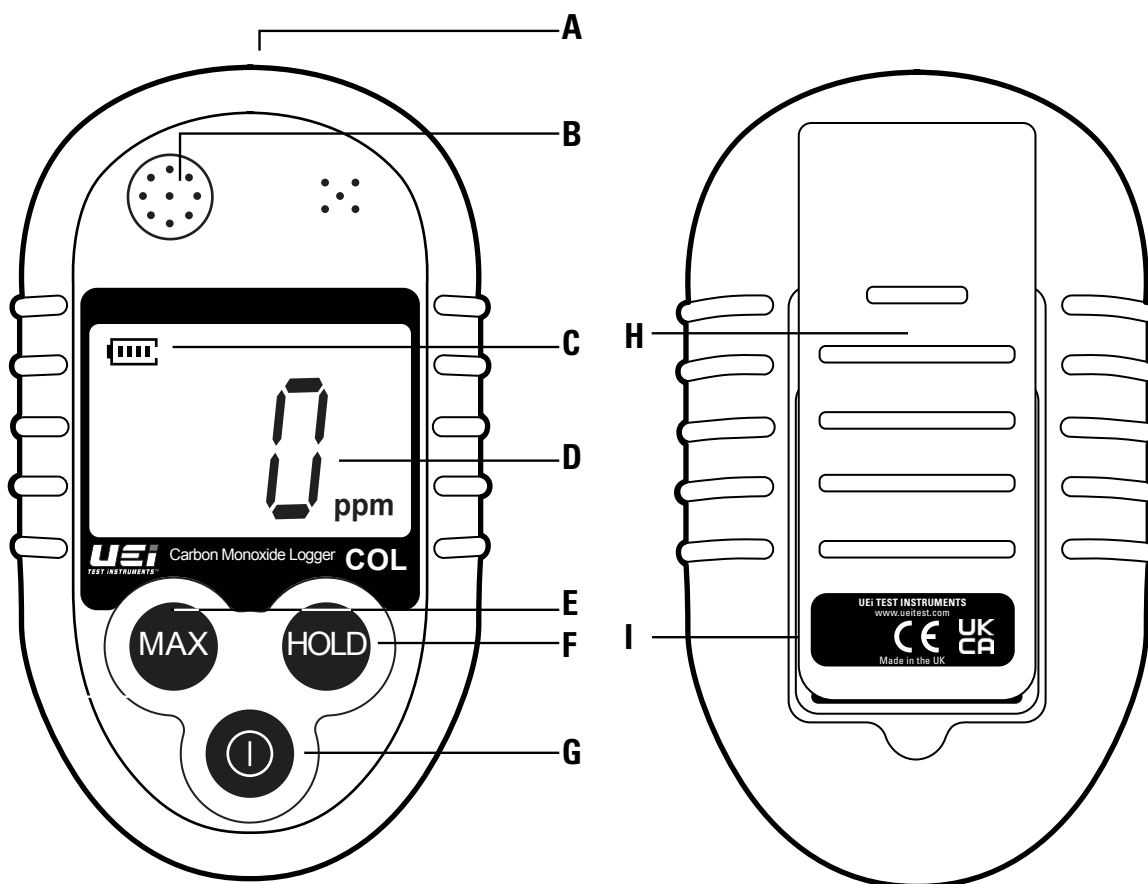
A. **Status LEDs**
B. **Sensor cover**
C. **Battery life**
D. **Large display**
E. **Max reading button**
F. **Data hold button**
G. **Power On/Off button**
H. **Belt clip**
I. **Serial number (back side of belt clip)**

OPERATING INSTRUCTIONS

Every button press makes an audible beep

⚠ WARNING

Always turn on the device in fresh outdoor air, away from boiler flues, vehicle exhausts, barbecues, smokers, and any other sources of carbon monoxide (CO)

Important: *After using the monitor, ensure it is exposed to fresh air until the readings drop below 5ppm before turning it off. This process may take a few minutes as the readings decrease gradually.*

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OPERATING INSTRUCTIONS

1. Power on by pressing On/Off button ⏻ for 3 seconds.
2. Zero countdown starts at 30
3. Normal display:

Monitor then displays CO in ppm 3 digits.

Battery level indicator is displayed in top left corner

CO ppm scale is displayed in bottom right corner
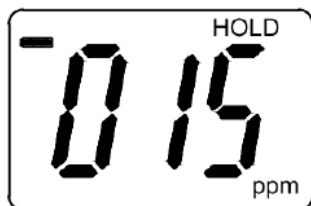
4. Display Maximum CO measured

Press MAX ⬤ to display highest measurement while monitor ON.

Press again to return to current value

Maximum value is reset when monitor powered off & on

5. "HOLD" CO measured

Press ⬤ to hold display

Press again to return display to current value

Hold value is reset when monitor powered off & on

6. Press power On/Off ⏻ for 3 seconds to power off monitor

MEASURING CO

Note: *Ensure monitor sensor cover is free from obstruction.*

COL is an ambient air monitor - It does not replace tests requiring specific probes for appliance testing.

Do not expose monitor to ambient temperatures above 104˚F

Do not use monitor to directly measure flue gases.

⚠ WARNING

If CO levels in a room or space exceed 20ppm

1. Switch off all appliances

2. Evacuate and ventilate the room or space
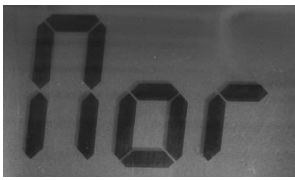
3. Contact Emergency Services

SET COL TO LOG, VIEW & TRANSFER LOGS

WIRELESS MODES - OFF, LINK & APP

To log CO tests, you must set your COL via KANE LIVE™ app.

Your COL powers on with wireless communications off (i.e. Normal Mode) to extend battery life.

Change modes as follows:

1. Press & hold **MAX** & **HOLD** for 2 seconds to open menu

2. Press **MAX** (Up) or **HOLD** (Down) to see modes

3. Press **ON/OFF** (ENTER) to select mode

Nor	**NORMAL** – All wireless communications disabled.
Lin	**LINK** – Your COL sends live CO measurements to a KANE LINK™ analyser but cannot connect to KANE LIVE™ app.
APP	**APP** – Your COL connects to KANE LIVE™ to set and start logging or share live readings.

NOTE: *After 10 minutes of no activity, your COL switches to NORMAL to extend battery life.*
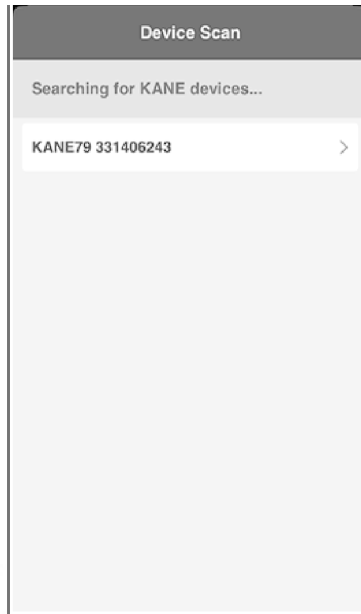
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CONNECT TO KANE LIVE™

NOTE: Download KANE LIVE™ app to your smartphone or tablet & enable bluetooth on your device.
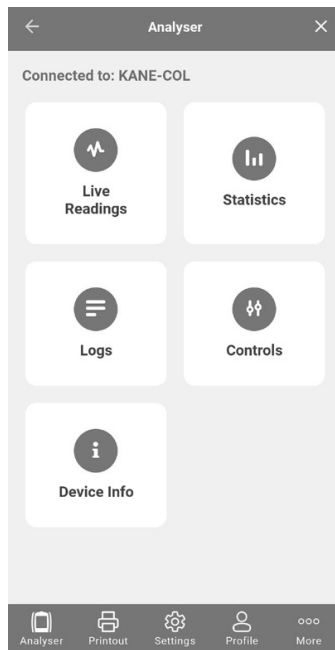

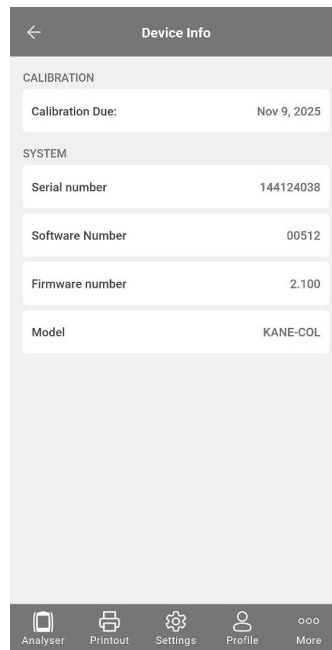Open KANE LIVE™ & tap **CONNECT**

Locate COL in Device Scan list & tap to connect
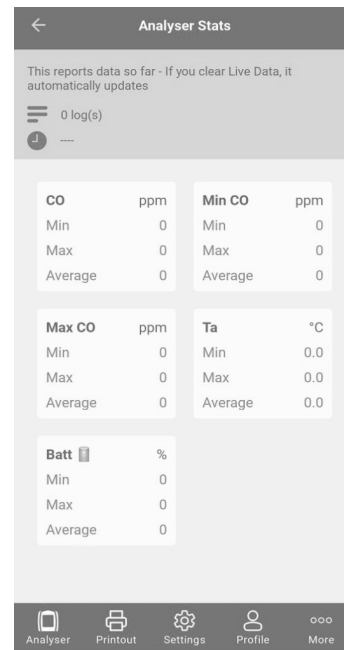

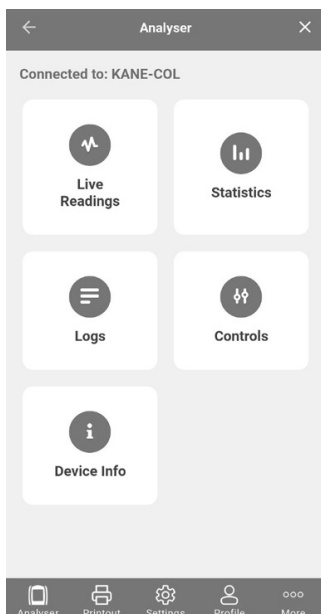KANE LIVE™ connects

Presents this HOME screen when connected

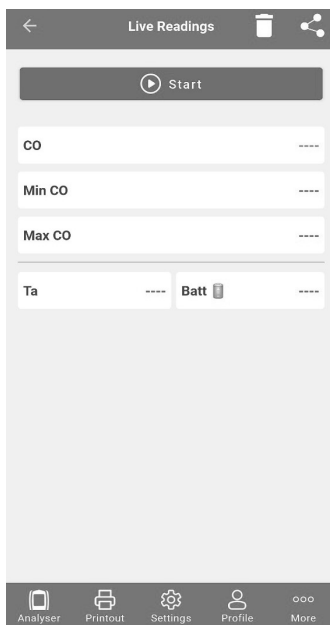From HOME screen Tap **Device Info** for detector details

From HOME screen Tap **Analyzer Stats** for testing details
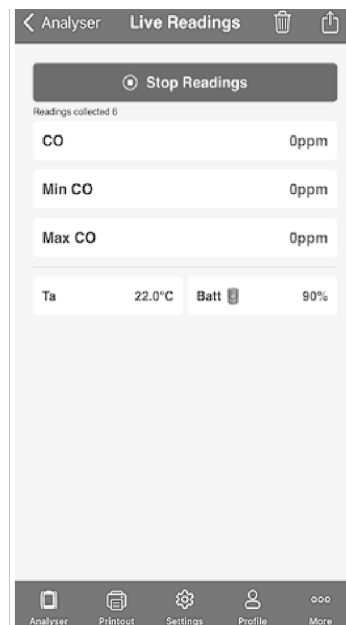
7

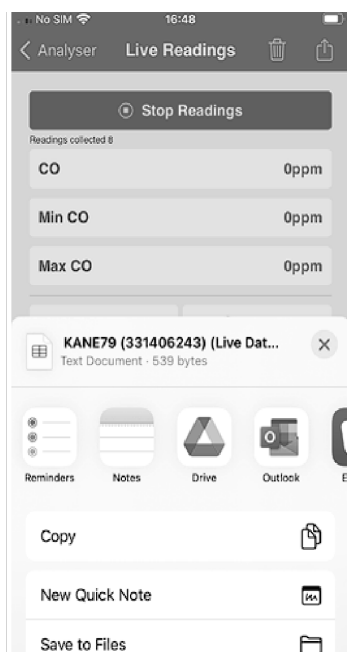## DISPLAY & RECORD READINGS
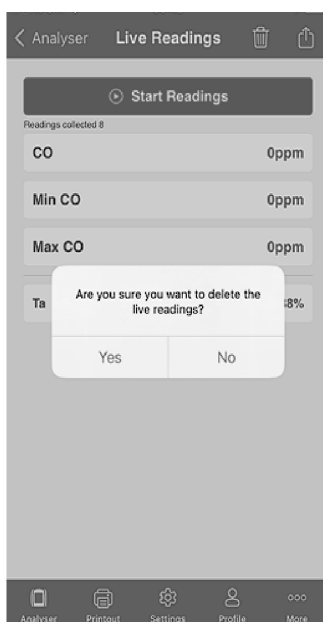

Tap **Live Readings**

To record live readings, tap **Start**
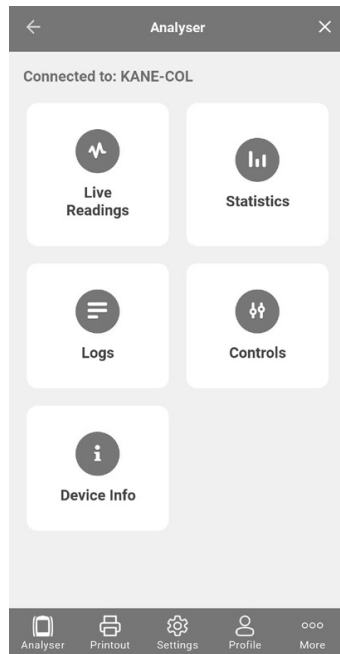

Stop & restart any time

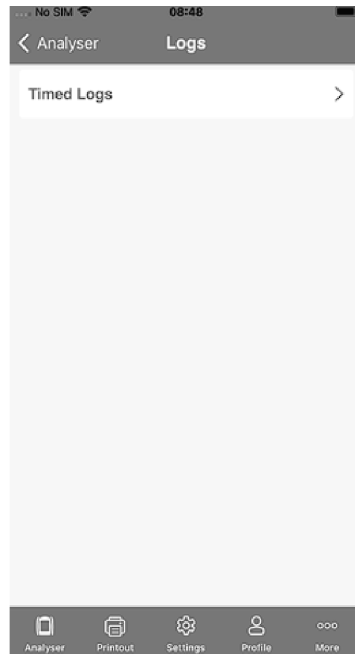To save recorded readings in *.csv format, tap share icon in app header bar & select app or action

To clear recorded readings from app, tap delete icon in app header bar

Recorded readings are lost if you close or disconnect app before sharing or saving.
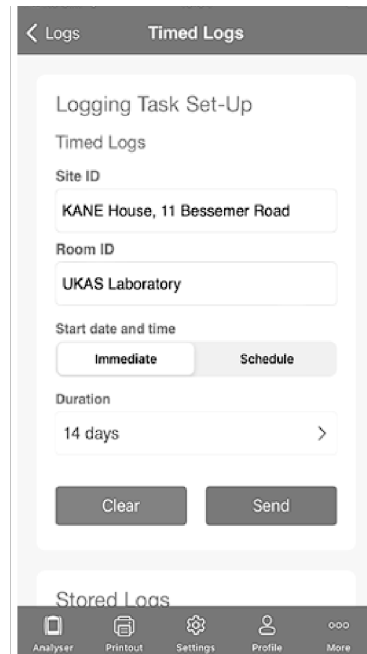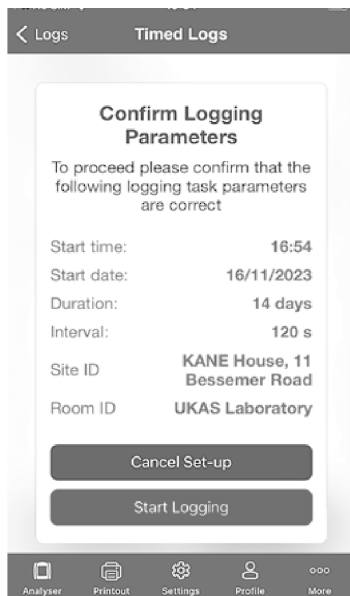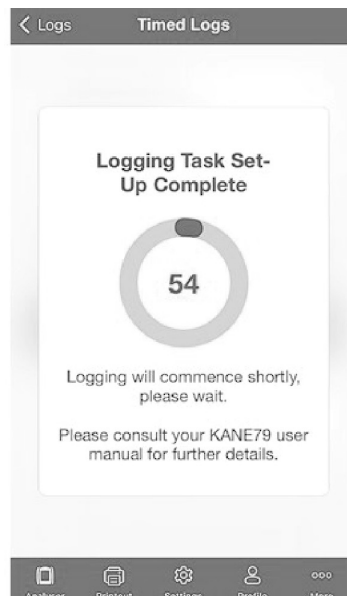
8

START IMMEDIATE LOG
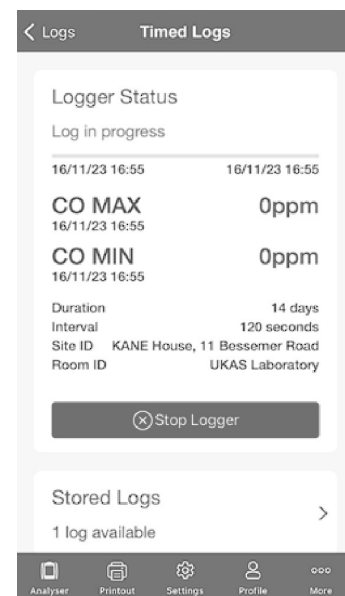
Tap **Logs**

Tap **Timed Logs**

Enter **Site ID** & **Room ID** and tap   **Immediate**, select duration then tap **Send**

Tap **Start Logging**

Task starts after a short countdown

See current progress & time stamped min & max CO readings - disconnect COL from KANE LIVE™

START SCHEDULED LOG

Tap **Logs**
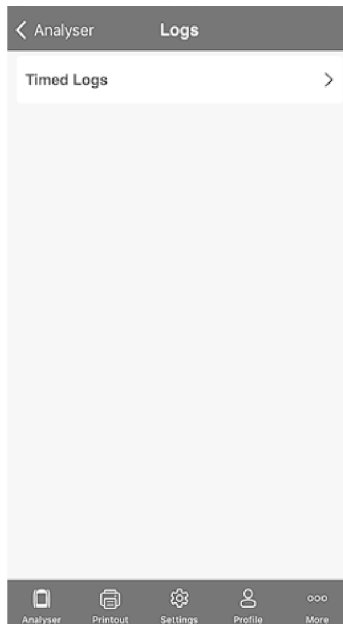
Tap **Timed Logs**
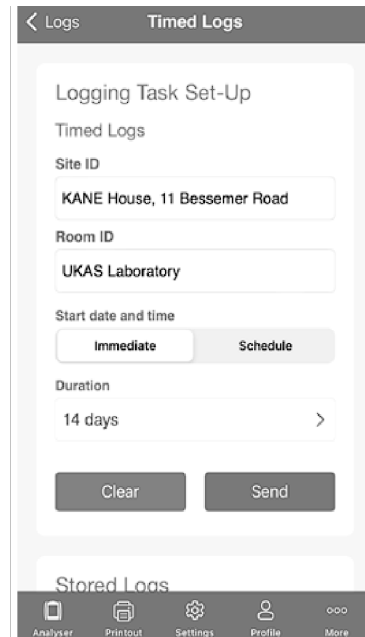
Enter **Site ID** & **Room ID** and tap **Schedule**,

select **Date** tap **Ok,**

select **Time,** tap **Ok,**

select **Duration** tap **Send**

Tap **Schedule Log** to set the logger
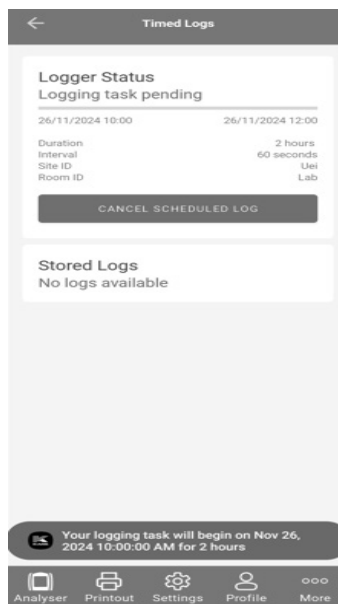
Your logging task will begin on (Date & Time & Interval)

To Cancel tap **Cancel Schedule Log**

Tap **YES** to confirm

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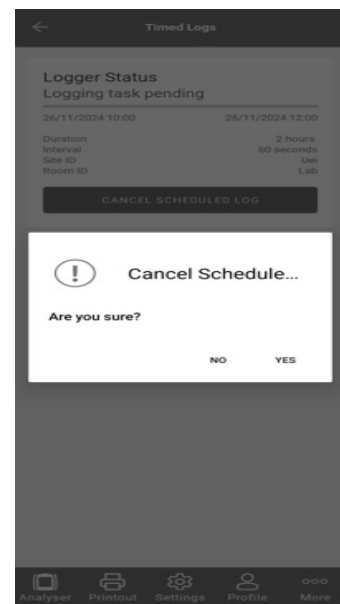
STOP SCHEDULED LOG VIA KANE LIVE™
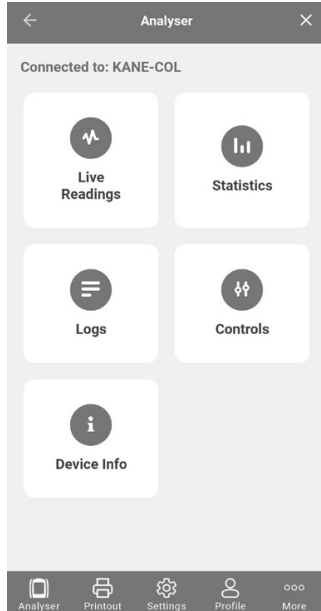
Tap **Logs**
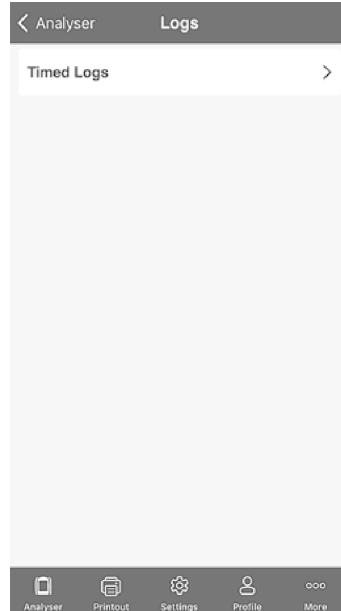
Tap **Timed Logs**

Tap **Cancel Scheduled Log**
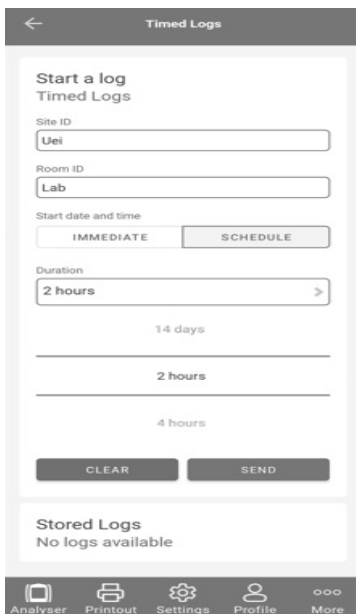
Task stops & returns to task set-up

SEE STATUS OF IN PROGRESS LOG
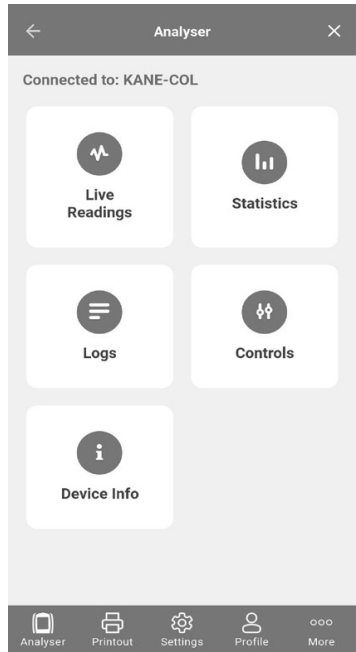
Tap **Logs**
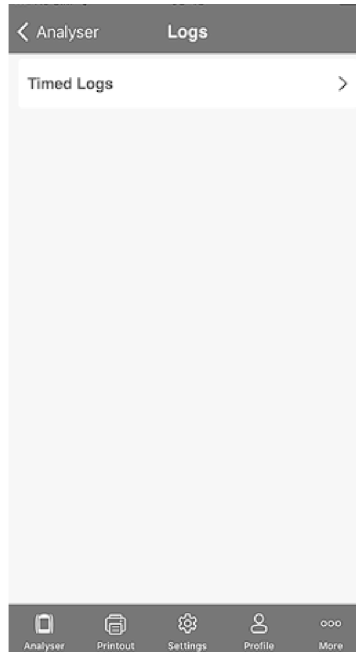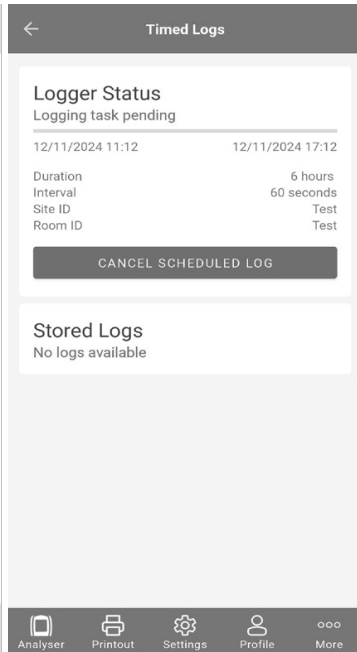
Tap **Timed Logs**

See status

STOP IN PROGRESS LOG
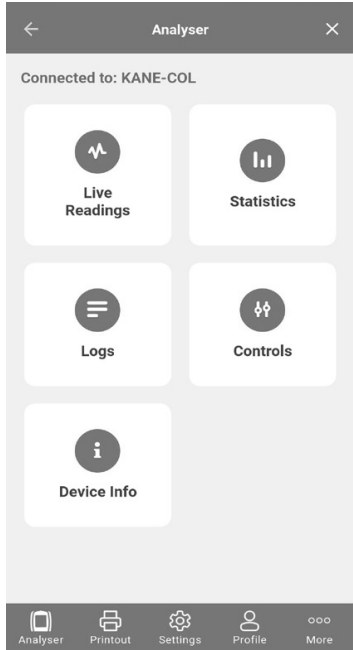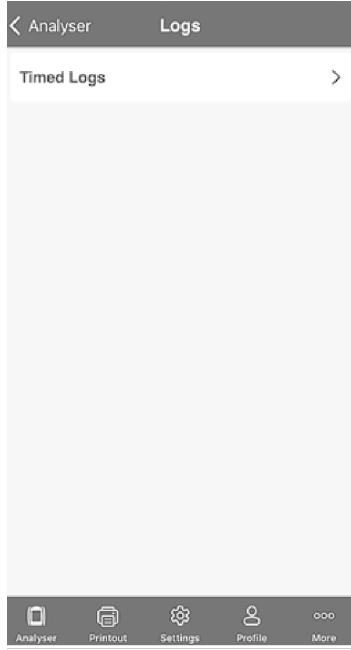
Tap **Logs**
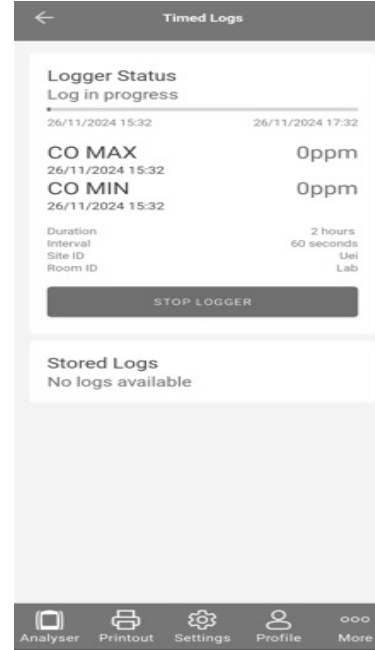
Tap **Timed Logs**

Tap **Stop Logger** & confirm
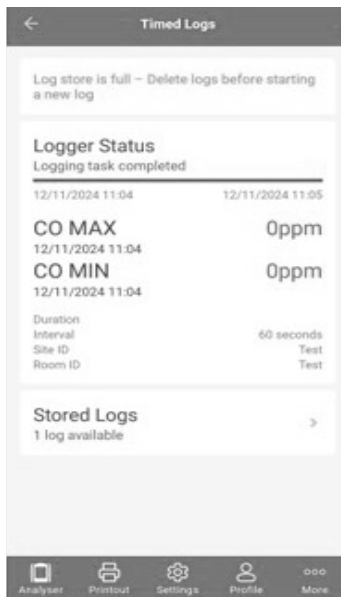
Task stops & displays summary

DOWNLOAD TIMED LOGS
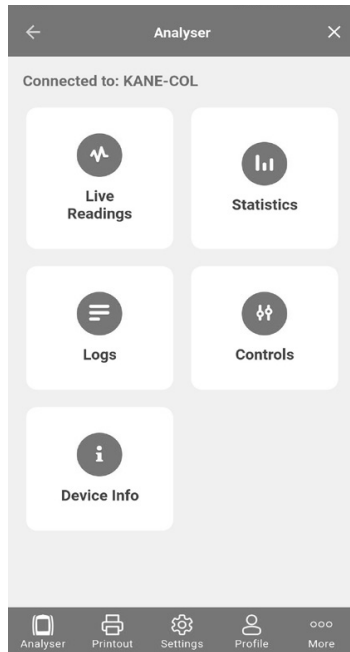
Tap **Logs**
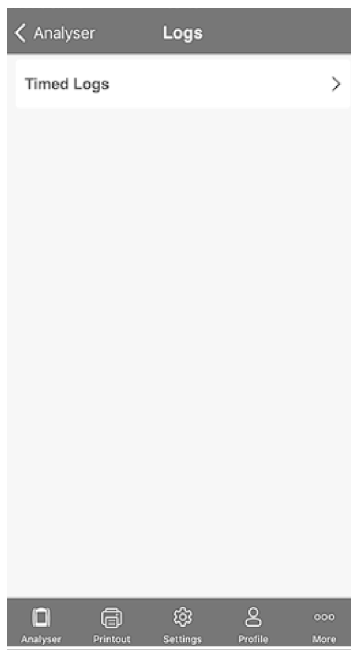
Tap **Timed Logs**
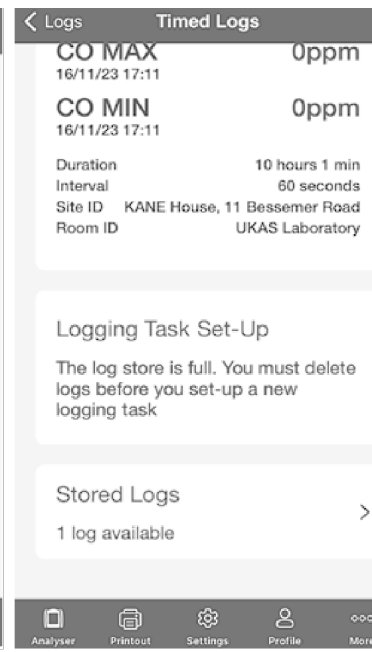
Scroll down & tap
Stored Logs
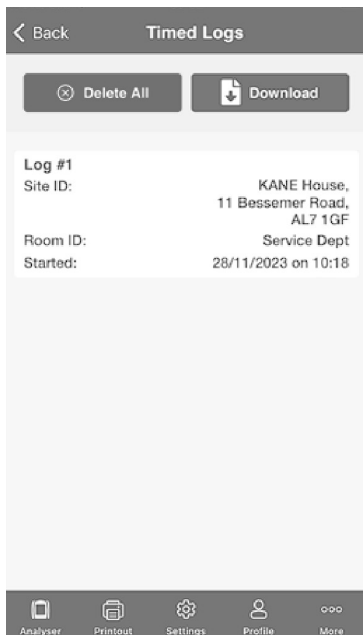
Tap **Download**
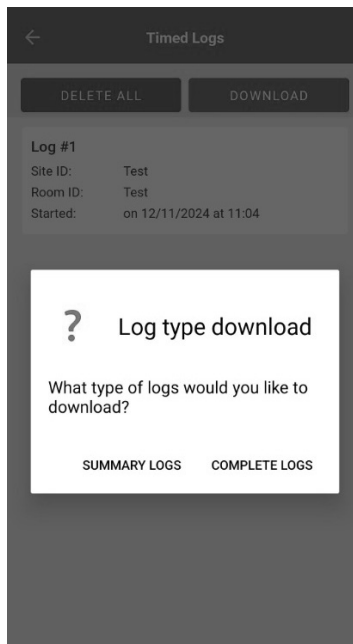
Tap log type preferred.

If log contains much data download may take time
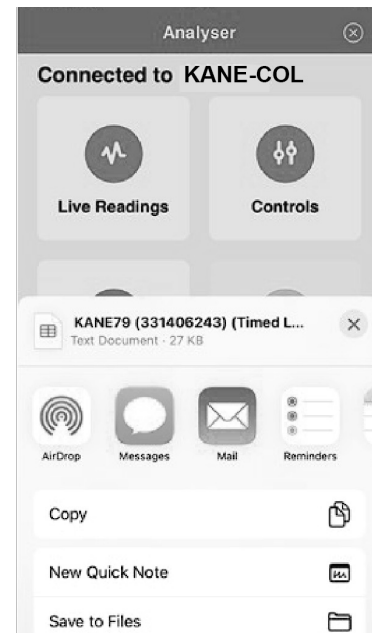
When download complete save or share data in *.csv format

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DELETE TIMED LOG DATA
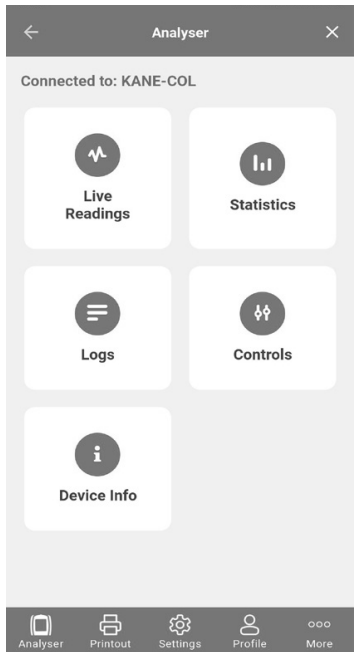
Tap **Logs**
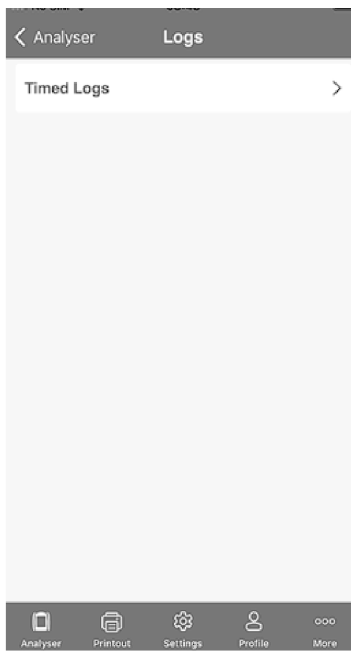
Tap **Timed Logs**
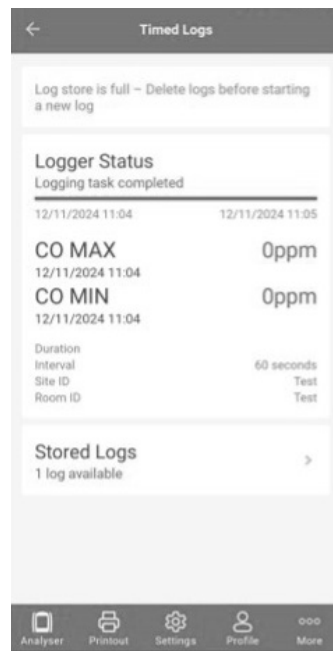
Scroll down & tap
Stored Logs
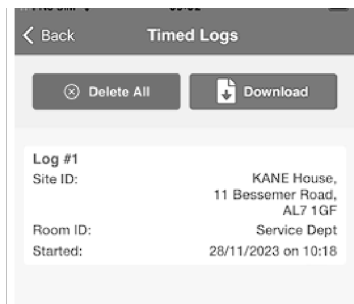
Tap **Delete All**
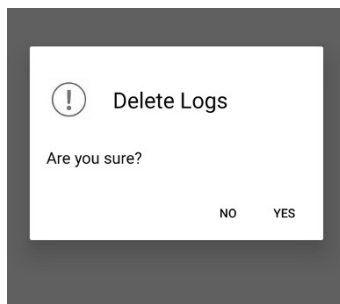
Tap **YES** to delete
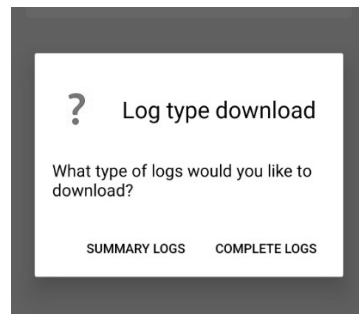
Tap log type to delete.
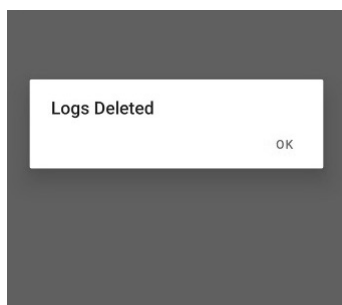
Tap **OK** to return to KANE
LIVE™ home

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USE KANE ⬯⬯ LINK™ TO CONNECT TO YOUR ANALYZER

Powering on your COL activates KANE LINK™ - an automatic wireless link to your KANE LINK™ analyser.

You can connect & display readings from up to 4 COL on your KANE LINK™ analyser
1. This means you can simultaneously test up to 4 rooms for CO while testing an appliance with your analyser.
2. Press & HOLD MAX & hold for 2 seconds
    To open COL MENU Press MAX or HOLD to select LINK then press ON/OFF once to confirm selection - see P 5.
3. Keep this setting to see COL readings on your analyser

To connect, find your COL serial number on reverse of the belt clip and prepare your KANE LINK™ analyser to add your COL serial number.
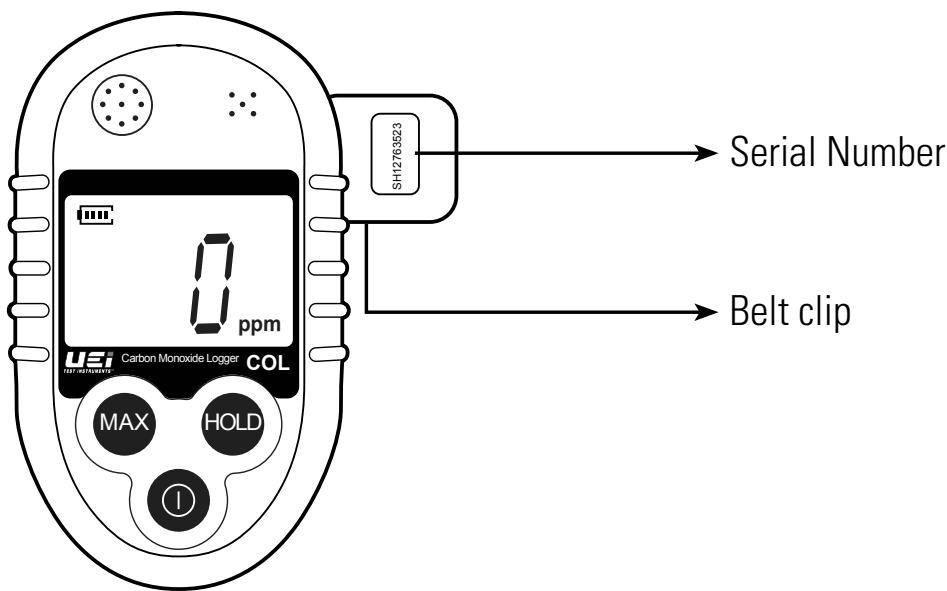
Enter serial number in your analyser - once entered, readings are automatically sent whenever powered on & connected to your analyser

NOTE:

Serial number must be 10 digits long - If shorter, enter 0's to make up to 10
For example - enter serial number J12345678 as 0012345678
Other KANE LINK™ *devices can be paired*

CO CONCENTRATION

These values are based on known environmental and health standards:

COppm in air	Inhalation Times and Toxic Symptoms
4ppm	World Health Organization (WHO) average allowable concentration in 24 hour period
10ppm	Maximum allowable concentration for an 8 hour period without any known health risks according to UK Department of Health and British Standards BS7967
30ppm	Maximum allowable concentration for competent persons to work in when investigating reports of fumes according to British Standards BS7967
200ppm	Mild headache, fatigue, dizziness and nausea after 2 to 3 hours
400ppm	Frontal headache and nausea within 1 to 2 hours. Life threatening after 3 hours
800ppm	Severe headache, dizziness and convulsions with 45 minutes. Unconsciousness within 2 hours. Death within 2 to 3 hours
1,600ppm	Headache, dizziness and nausea within 20 minutes. Death within 1 hour
3,200ppm	Headache, dizziness and nausea within 5 to 10 minutes, Death within 30 minutes
6,200ppm	Headache, dizziness and nausea within 1 to 3 minutes. Death within 10 to 15 minutes
12,800ppm	Death within 1 to 3 minutes

⚠ **WARNING**

Effects vary depending on size, age, sex and health - we are not liable for the accuracy of the information. ZERO concentration of CO in air is your objective.

AUDIBLE & VIBRATING ALARM

Your COL has 3 alarm levels:

CO Levels	Indication
2-9ppm	Green LED flash once every 3 seconds
10-19ppm	Red LED flash once every 2 seconds
> 20ppm	Red LED flash once per second, sound and vibration active

BATTERY STATUS
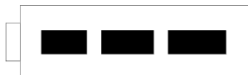
Full battery   Low battery

Do not use when battery symbol is low or empty - Replace battery immediately.

If battery levels fall to a level where accuracy may be compromised, monitor will give audible & visual warning then power off.

Low battery alarm before power off
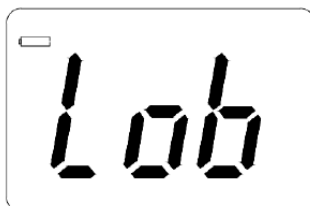
⚠ **WARNING**

Do not ignore warnings - your safety may be compromised.

REPLACING BATTERY

COL battery compartment is located underneath the belt clip.

Belt clip is spring loaded to prevent rotation in normal use.

1. Lift belt clip at pivot end against the spring by a few millimeters then rotate
   90 degree to clear battery compartment cover.

Belt clip in normal use
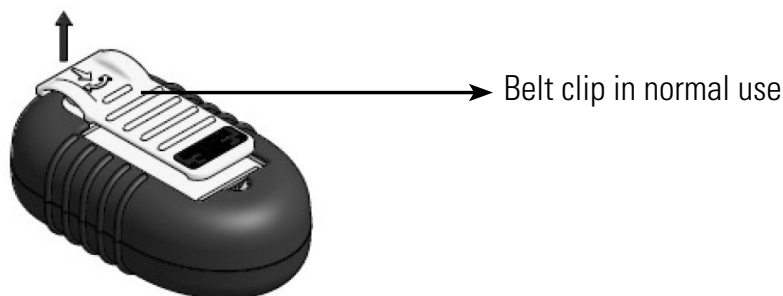
2. Remove cover and replace battery - We recommend alkaline battery.
   Always dispose of used batteries through an approved battery recycling process.

3. Replace cover and rotate belt clip back to normal position.

Battery compartment cover
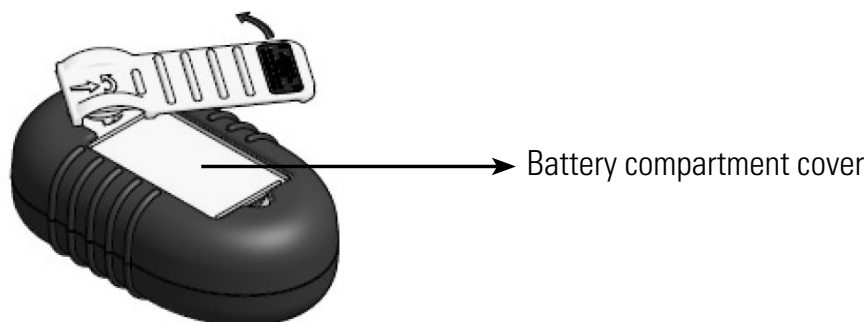
⚠ **WARNING**

Always verify your monitor's correct operation after replacing the battery, and zeroing it in outdoor fresh air.

TROUBLESHOOTING

If the display does not reset to zero within a few minutes, the sensor may have reached the end of its life or been exposed to high levels of CO. If this issue persists, contact UEi.
Always verify proper operation before each use.

To test your COL, use a known CO source, ensuring you handle it safely and avoid exposing the sensor to extreme temperatures or high CO concentrations. If unsure, contact UEi for guidance.

If you detect CO leaks during use, ensure you know the appropriate actions to protect yourself and others.

After use, expose the monitor to fresh air until the readings drop below 5ppm before turning off the monitor.

Note: Readings decrease slowly, so you may need to wait several minutes.

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SPECIFICATIONS

Range:	0-999ppm
Resolution:	1ppm
Accuracy:	±3ppm 0 to 100ppm[1] ±5% reading > 101ppm
Audible Alarm:	See page 6
Visual Indication:	LCD and LED
Battery:	3 x AAA alkaline batteries w/ cradle (x1 9V without cradle).
Battery Life:	Up to 2 weeks logging, and Up to 250 hours[2] Duracell Procell
Ambient Temperature:	32-104°F (0-40°C)
Warranty:	1 Year

[1] As per EN 50543 : 2011

[2] Based on normal use without alarms.

UK Directives	
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 Directives	
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)
Harmonised standards and technical specifications 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

NOTE: *No user serviceable parts. Recertify every 12 months. See page 21 for details. Check for correct operation using this manual before use.*

COLD WEATHER PRECAUTIONS

Avoid leaving your monitor in a cold place overnight. When electronic devices become cold and are then brought into a warm environment, condensation can form, impacting performance. Sensors are particularly sensitive to condensation or water. If this occurs, readings may show as "-" and sensors could be permanently damaged. If your monitor is affected by condensation or water ingress, place it in a warm area for a few hours. If issues persist, please contact UEi Customer Service.

PRODUCT REGISTRATION

Registering you CO logger online is quick and easy. Just log in or setup an account, it only takes a couple of minutes. Once logged in you can register you analyzer by providing some product information and uploading a proof-of-purchase.

USA ANNUAL RECERTIFICATION SERVICES

Request annual recertification service online at www.ueitest.com/service. NIST Certification and ISO Accredited Certification services are also available though our ISO/IEC 17025:2017 accredited service center in Indianapolis, IN.

DISPOSAL

Caution: This symbol indicates that equipment and its accessories shall be subject to separate collection and correct disposal.

CLEANING:

Periodically clean your meters' case using a damp cloth. DO NOT use abrasive, flammable liquids, cleaning solvents, or strong detergents as they may damage the finish, impair safety, or affect the reliability of the structural components.

STORAGE:

Remove the batteries when instrument is not in use for a prolonged period of time. Do not expose to high temperatures or humidity. After a period of storage in extreme conditions exceeding the limits mentioned in the General Specifications section, allow the   instrument to return to normal operating conditions before using it.

WARRANTY:

The COL is warranted to be free from defects in materials and workmanship for a period of 1 year from the date of purchase. If within the warranty period your instrument should become inoperative from such defects, the unit will be repaired or replaced at UEi's option. This warranty covers normal use and does not cover damage which occurs in shipment or failure which results from alteration, tampering, accident, misuse, abuse, neglect or improper maintenance. Batteries and consequential damage resulting from failed   batteries are not covered by warranty.

Any implied warranties, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the express warranty. UEi shall not be liable for loss of use of the instrument or other incidental or consequential damages, expenses, or economic loss, or for any claim or claims for such damage, expenses or economic loss.
 A purchase receipt or other proof of original purchase date will be required before warranty repairs will be rendered. Instruments out of warranty will be repaired (when repairable) for a service charge