



**TEST INSTRUMENTS™**

# COL

## Carbon Monoxide Monitor and Logger

**INSTRUCTION MANUAL**

**ENGLISH**



BACKED BY



UP TO  
**10**  
YEAR  
WARRANTY




FREE  
SHIPPING  
ON ANNUAL SERVICE



**RoHS**  
Compliant

**REACH**  
Compliant

## TABLE OF CONTENTS

<b>COL OVERVIEW &amp; SAFETY WARNING</b> .....	<b>3</b>
<b>COL FEATURES &amp; KEYPAD</b> .....	<b>4</b>
<b>OPERATING INSTRUCTIONS</b> .....	<b>5</b>
<b>MEASURING CO</b> .....	<b>6</b>
<b>SET COL TO LOG, VIEW &amp; TRANSFER LOGS</b> .....	<b>6-15</b>
WIRELESS MODES - OFF, LINK & APP .....	6
CONNECT TO KANE LIVE™ .....	7
DISPLAY & RECORD READINGS .....	8
START IMMEDIATE LOG .....	9
START SCHEDULED LOG .....	10
STOP SCHEDULED LOG VIA KANE LIVE™ .....	11
SEE STATUS OF IN PROGRESS LOG .....	12
STOP IN PROGRESS LOG .....	13
DOWNLOAD TIMED LOGS .....	14
DELETE TIMED LOG DATA .....	15
<b>USE KANE  LINK™ TO CONNECT TO YOUR ANALYSER</b> .....	<b>16</b>
<b>CO CONCENTRATION</b> .....	<b>17</b>
<b>AUDIBLE &amp; VIBRATING ALARM</b> .....	<b>17</b>
<b>BATTERY STATUS</b> .....	<b>17</b>
<b>REPLACING BATTERY</b> .....	<b>18</b>
<b>TROUBLESHOOTING</b> .....	<b>18</b>
<b>SPECIFICATIONS</b> .....	<b>19</b>
<b>CLEANING</b> .....	<b>19</b>
<b>COLD WEATHER PRECAUTIONS</b> .....	<b>19</b>
<b>WHERE TO SEND YOUR ANALYZER</b> .....	<b>20</b>
<b>EU DECLARATION OF CONFORMITY</b> .....	<b>20</b>
<b>USA Annual Recertification Services</b> .....	<b>21</b>
<b>Product Registration</b> .....	<b>21</b>
<b>THANK YOU</b> .....	<b>22</b>

## COL OVERVIEW

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.

## Your COL Carbon Monoxide monitor features:

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

**CO is life threatening even at low concentrations.  
Ensure you understand the risks before investigating**

This monitor measures combustion gases that may be toxic in relatively low concentrations.

**Always power on and zero monitor in fresh outdoor air.**

**This monitor must only be used by trained and competent persons after due consideration of all the potential hazards.**

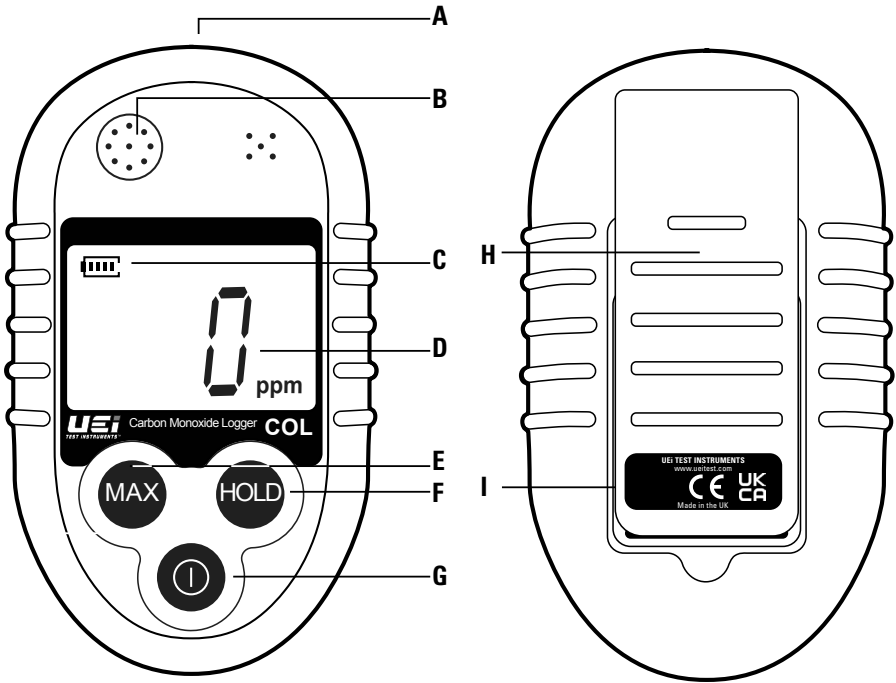
You should conduct a “bump” test before using monitor.

A “bump” test is a way to check a monitor works within acceptable limits by briefly exposing it to known gas mixtures.

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

A bump test can be conducted using a disposable canister of CO sometimes used to check domestic CO alarms.

## COL FEATURES & KEYPAD



- 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 power on in outdoor fresh air away from boiler flues, vehicle exhausts, bbq, smokers and any other sources of CO.

**NOTE:** After use, always expose monitor to fresh air until readings fall below 5ppm, before powering off monitor. Readings fall slowly so you may need to wait some minutes.

## OPERATING INSTRUCTIONS

1. Power on by pressing On/Off button ①
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

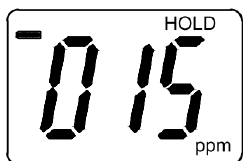
Press MAX  to display highest measurement while monitor ON.




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

	<b>NORMAL</b> – All wireless communications disabled.
	<b>LINK</b> – Your COL sends live CO measurements to a KANE LINK™ analyser but cannot connect to KANE LIVE™ app.
	<b>APP</b> – 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.

## SET COL TO LOG, VIEW & TRANSFER LOGS (CONT.)

### CONNECT TO KANE LIVE™

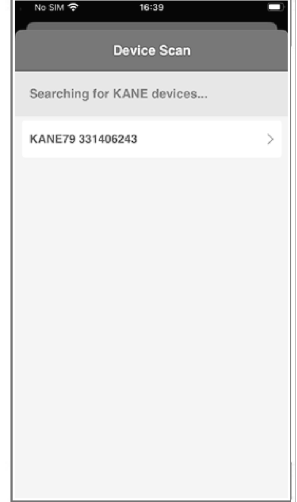
**NOTE:** Download KANE LIVE™ app to your smartphone or tablet & enable bluetooth on your device.



Follow page 5 to change COL to APP MODE



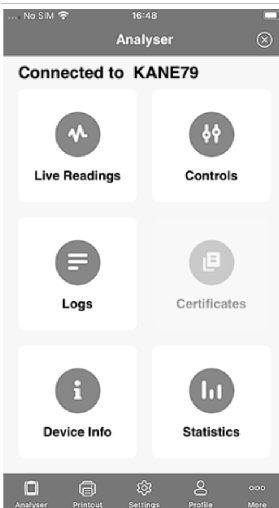
Open KANE LIVE™ & tap **CONNECT**



Locate COL in Device Scan list & tap to connect



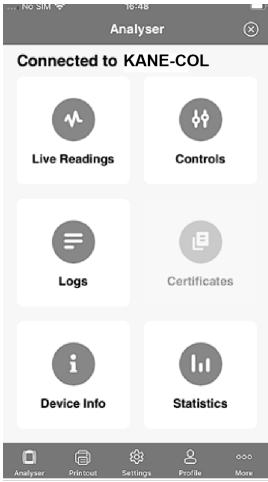
KANE LIVE™ connects



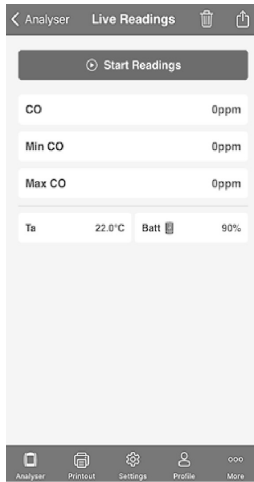
Presents this screen when connected

## SET COL TO LOG, VIEW & TRANSFER LOGS (CONT.)

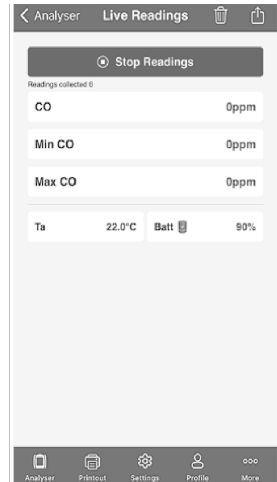
### DISPLAY & RECORD READINGS



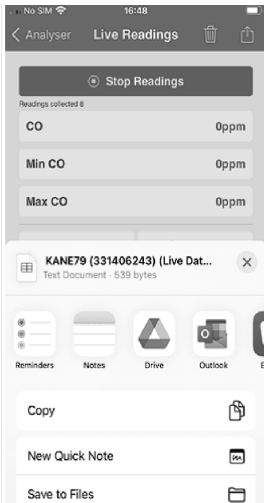
Tap **Live Readings**



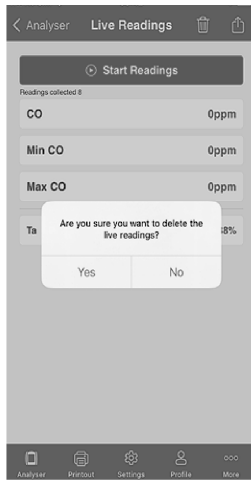
To record live readings, tap **Start Readings**



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

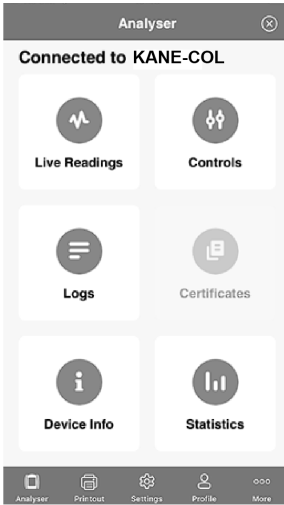
### **WARNING**

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

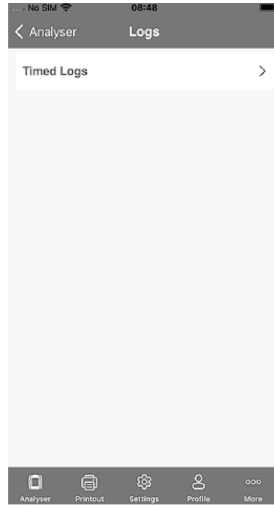


## SET COL TO LOG, VIEW & TRANSFER LOGS (CONT.)

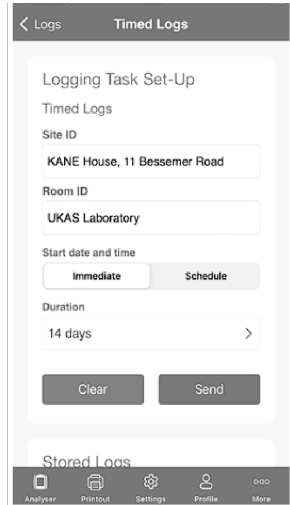
### START IMMEDIATE LOG



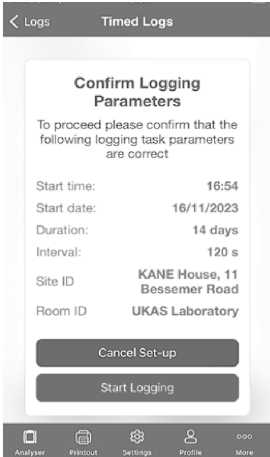
Tap **Logs**



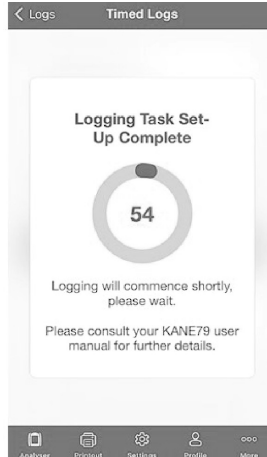
Tap **Timed Logs**



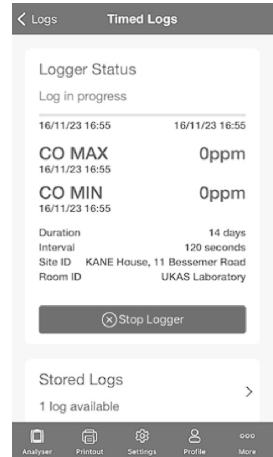
Enter **Site ID & Room ID** and tap **Immediate**, select duration then tap **Send**



Tap **Start Logging**



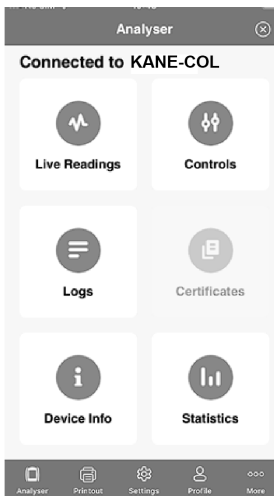
Task starts after a short countdown



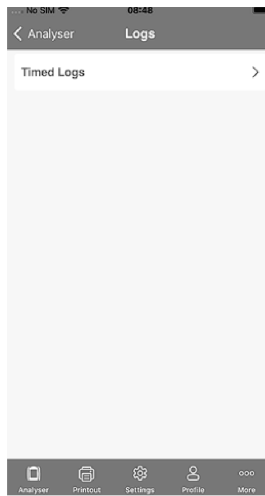
See current progress & time stamped mini & max CO readings - disconnect COL from KANE LIVE™

## SET COL TO LOG, VIEW & TRANSFER LOGS (CONT.)

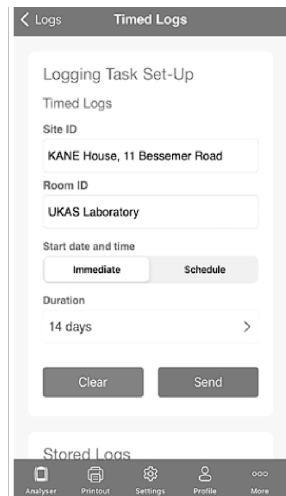
### START SCHEDULED LOG



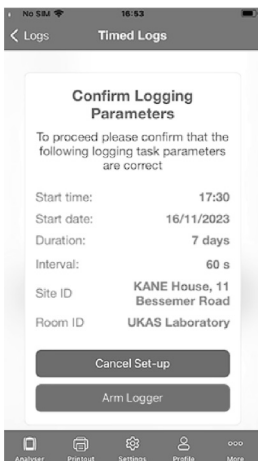
Tap **Logs**



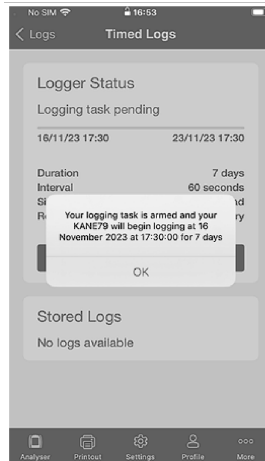
Tap **Timed Logs**



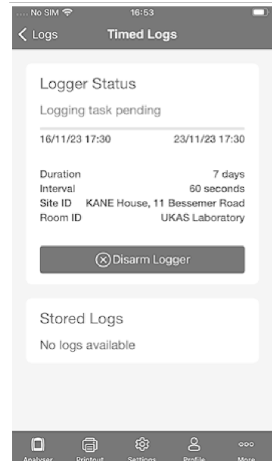
Enter **Site ID & Room ID** and tap **Immediate**, select duration then tap **Send**



Tap **set Logger** to schedule logging



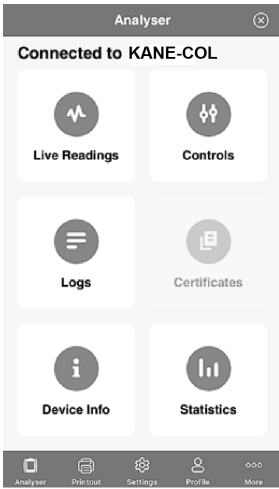
See confirmation your task is set



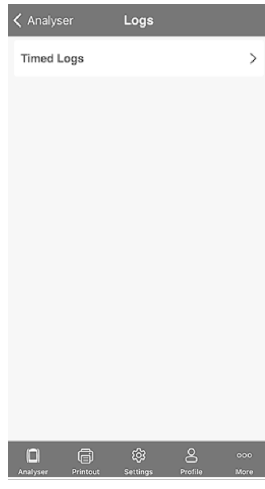
Disconnect COL from KANE LIVE™

## SET COL TO LOG, VIEW & TRANSFER LOGS (CONT.)

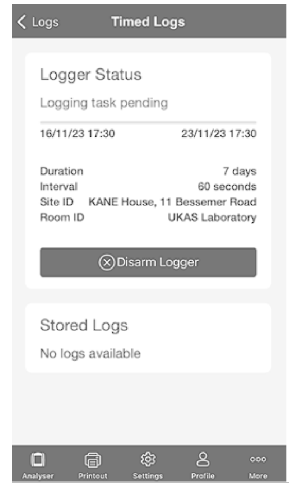
### STOP SCHEDULED LOG VIA KANE LIVE™



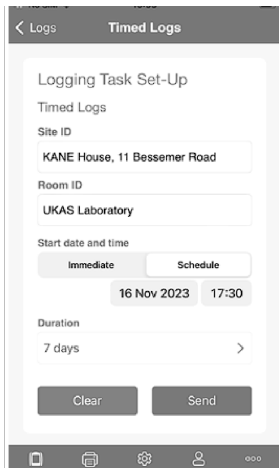
Tap **Logs**



Tap **Timed Logs**



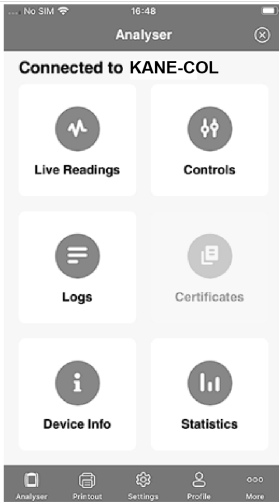
Tap **Stop Logger** & confirm



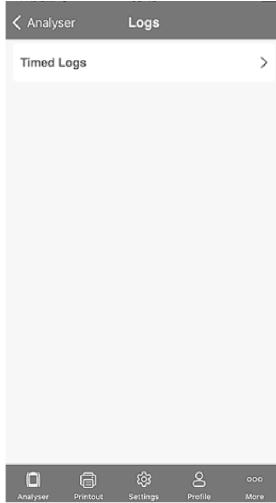
Task stops & returns to task set-up

## SET COL TO LOG, VIEW & TRANSFER LOGS (CONT.)

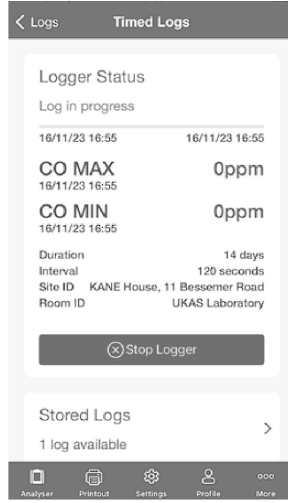
### SEE STATUS OF IN PROGRESS LOG



Tap **Logs**



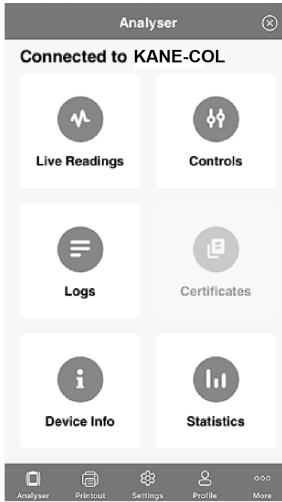
Tap **Timed Logs**



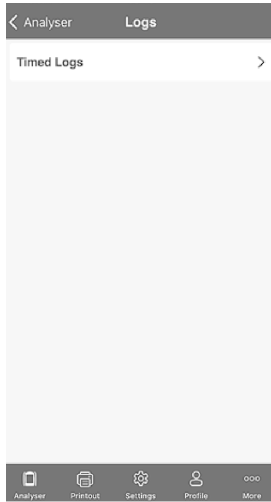
See status

## SET COL TO LOG, VIEW & TRANSFER LOGS (CONT.)

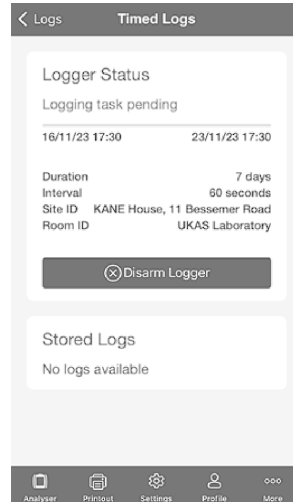
### STOP IN PROGRESS LOG



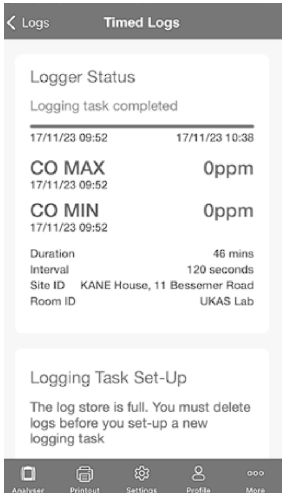
Tap **Logs**



Tap **Timed Logs**



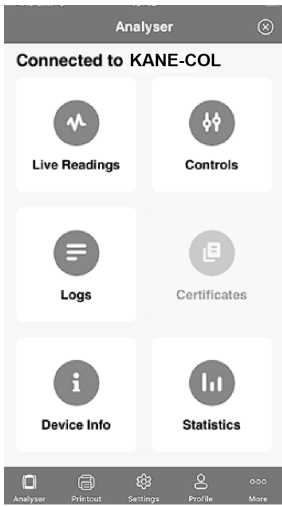
Tap **Stop Logger** & confirm



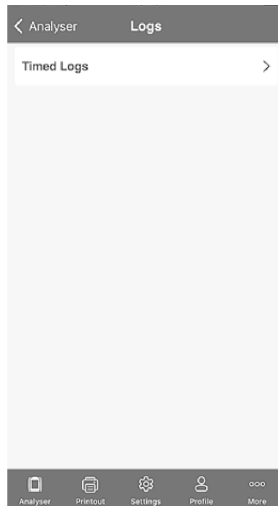
Task stops & displays summary

## SET COL TO LOG, VIEW & TRANSFER LOGS (CONT.)

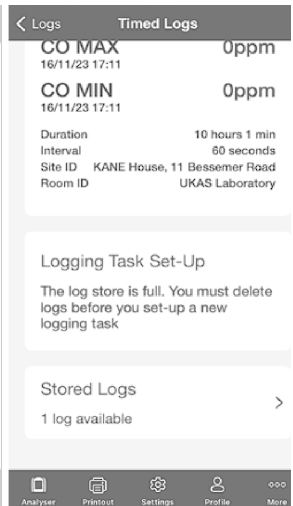
### DOWNLOAD TIMED LOGS



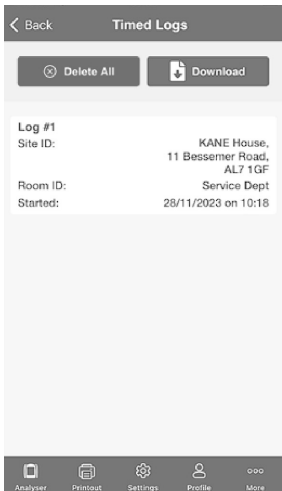
Tap **Logs**



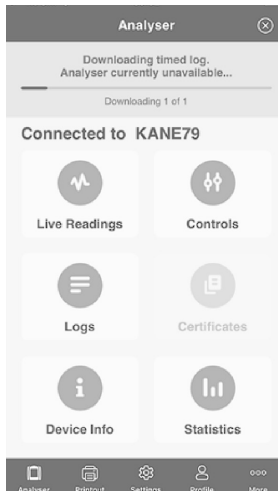
Tap **Timed Logs**



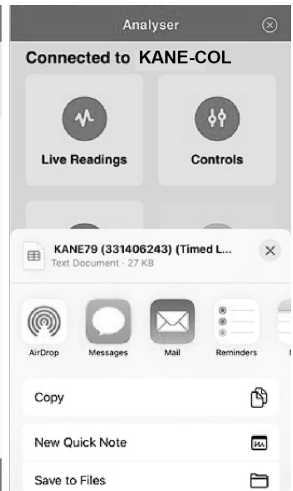
Scroll down & tap  
**Stored Logs**



Tap **Download**



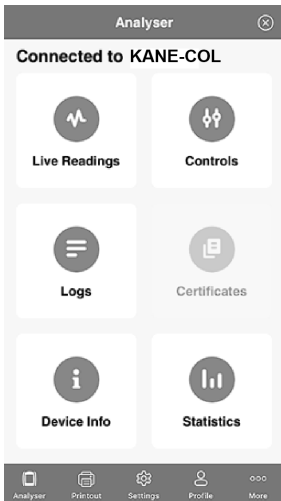
If log contains much data  
download may take time



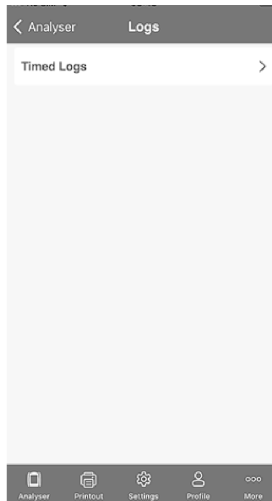
When download complete  
save or share data in \*.csv  
format

## SET COL TO LOG, VIEW & TRANSFER LOGS (CONT.)

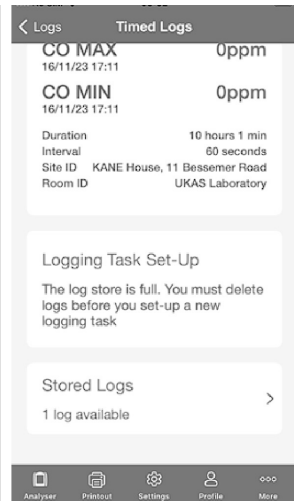
### DELETE TIMED LOG DATA



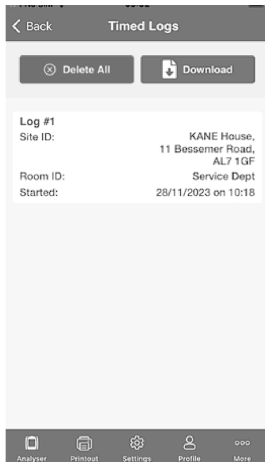
Tap **Logs**



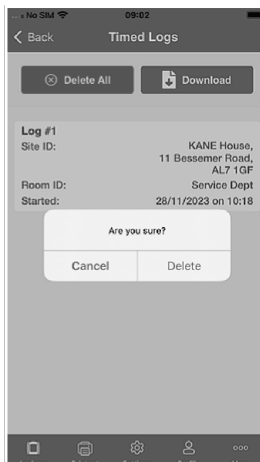
Tap **Timed Logs**



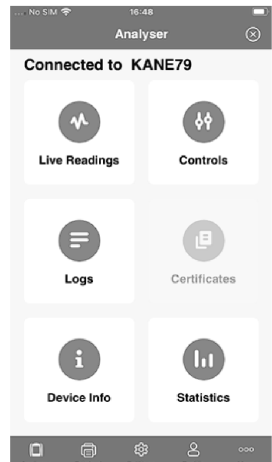
Scroll down & tap  
**Stored Logs**



Tap **Download**



Confirm you wish to  
delete all logs



Return to KANE LIVE™ home

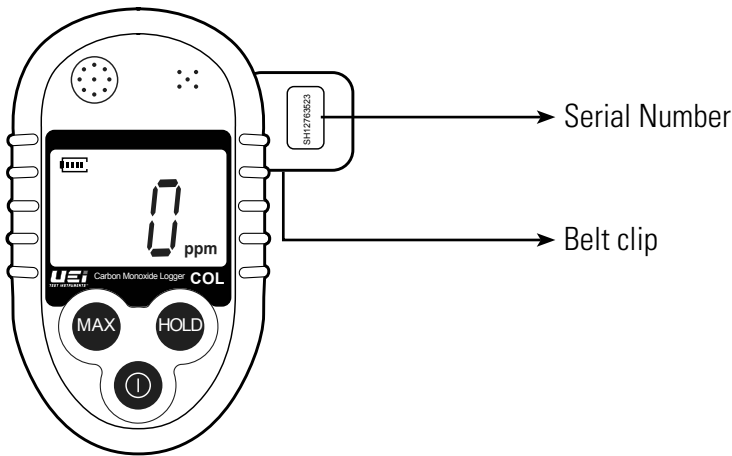
## USE KANE LINK™ TO CONNECT TO YOUR ANALYSER

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	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

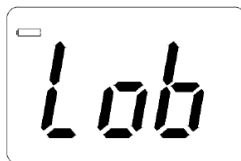
Full battery 

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

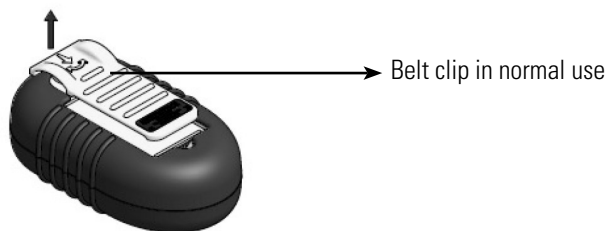
Do not ignore warnings - your safety may be compromised.

## REPLACING BATTERY

COL battery compartment is located underneath the belt clip.

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

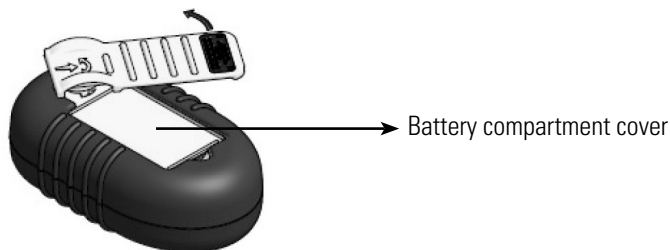
1. Lift belt clip at pivot end against the spring by a few millimeters then rotate 90 degree to clear battery compartment cover.



2. Remove cover and replace battery - We recommended alkaline battery.

Always recycle spent battery through an approved battery recycling procedure.

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



### **WARNING**

Always check your monitor for correct operation after replacing battery and always zero in outdoor fresh air.

## TROUBLESHOOTING

If display fails to zero within minutes the sensor has reached end of life or was exposed to excessive levels of CO. Contact UEi if this continues. Always check for correct operation before each use.

To test your COL, use a known source of CO taking care to act in a safe manner and not expose sensor to extreme temperatures or CO concentrations. Contact UEi if in doubt.

If during use you detect CO leaks, ensure you know what action to take to protect yourself and others.

After use, always expose monitor to fresh air until readings fall below 5ppm, before powering off monitor.

**Note:** Readings fall slowly so you may need to wait some minutes.

## SPECIFICATIONS

Range:	0-999ppm
Resolution:	1ppm
Accuracy:	±3ppm 0 to 100ppm <sup>1</sup> ±5% reading > 101ppm
Audible Alarm:	See page 6
Visual Indication:	LCD and LED
Battery:	3 x AAA alkaline batteries
Battery Life:	Up to 2 weeks logging, and Up to 250 hours <sup>2</sup> Duracell Procell
Ambient Temperature:	32-104°F (0-40°C)
Warranty:	1 Year

<sup>1</sup> As per EN 50543 : 2011

<sup>2</sup> Based on normal use without alarms.

<b>UK Directives</b>	
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	
<b>EU Directives</b>	
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)
<b>Harmonised standards and technical specifications applied</b>	
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

Do not leave your monitor in a cold place overnight. Electronic devices that become cold suffer when taken into a warm place. Condensation may form affecting performance. Sensors are affected by condensation or water. When this happens, readings may display as “-” & sensors may be permanently damaged. If your monitor is affected by condensation or water ingress, leave in a warm place for a few hours. If you still experience problems 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](http://www.ueitest.com/service). NIST Certification and ISO Accredited Certification services are also available through 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

This warranty gives you specific legal rights. You may also have other rights, which vary from state to state.