

K-Detect-iON

Mobile App User Manual



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Section 1**Introduction**

The K--Detect-iON mobile app provides a quick and easy way of being able to interrogate and configure a K-Detect-iON Flammable Gas Detector.

The app can be installed on any Tablet or Smart Phone which is running the Android operating system version 8.0 or higher.

The App provides the user multiple features:

- Visual display of Gas Levels, Internal temperature and Humidity readings.
- Configuration of relay functionality
- Configuration of Modbus communication parameters
- Record gas tests
- Diagnostic information
- Upload and download of configuration settings
- Ability to update K-Detect-iON firmware

Section 2

Compatibility and Disclaimer

This mobile application is currently available exclusively for Android devices (Android V8.0 minimum). It is not compatible with iOS (iPhone/iPad) or any other operating systems at this time. We are actively working to expand support for additional platforms and sensor types in future updates.

Please note that this app is currently designed **specifically for use with K-Detect-iON sensors**. Compatibility with other Kentec sensors will be announced as new versions are released.

To ensure proper functionality, your Android device must have a USB Type-C Port with support for reverse wired charging.

If your Android device does not support reverse wired charging, you can still use the app by powering the sensor externally. Simply supply 12-24V DC* to the sensor before connecting it to your device.

* See Man-1611 K-Detect-iON User Manual for power supply requirements.

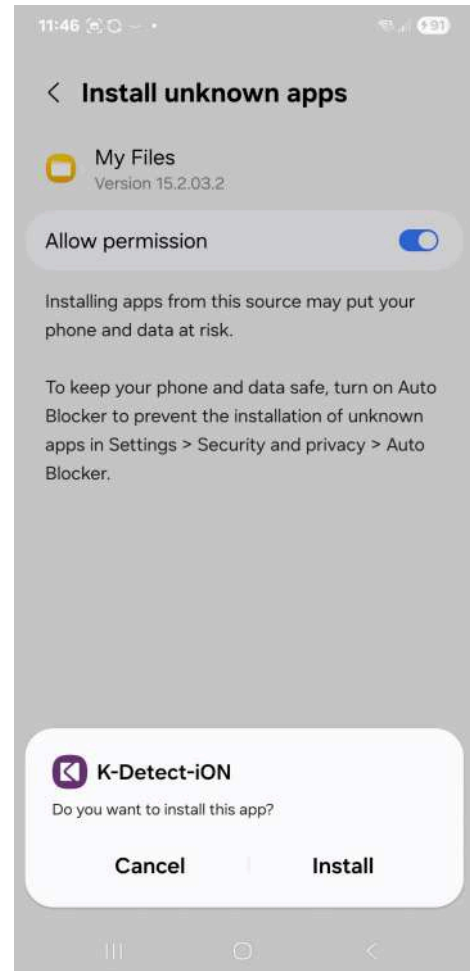
Section 3

Installation

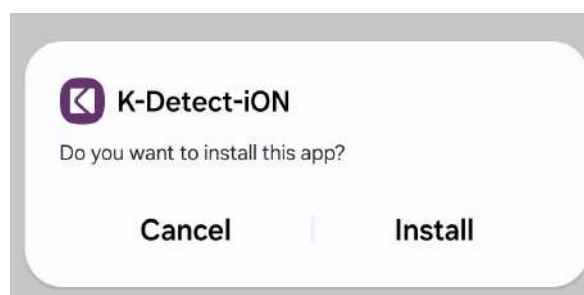
Prior to install you will need to request the K-Detect-iON app installation file via our website www.kentec.co.uk.

To install the K-Detect-iON mobile app on your Android device follow the steps below:

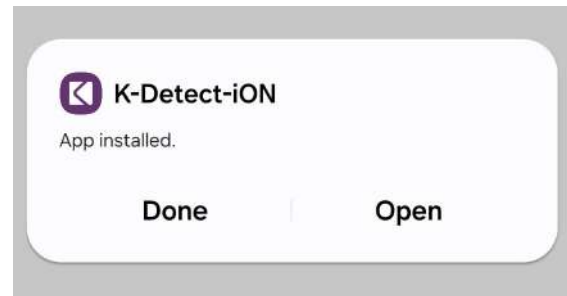
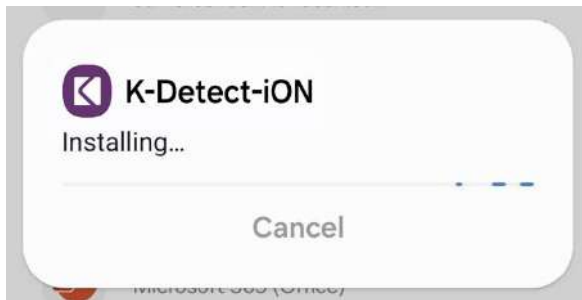
Note: If this is your first time installing an app outside the Google Play Store, your device may prompt you to allow installations from unknown sources. Follow the on-screen instructions to enable this setting.



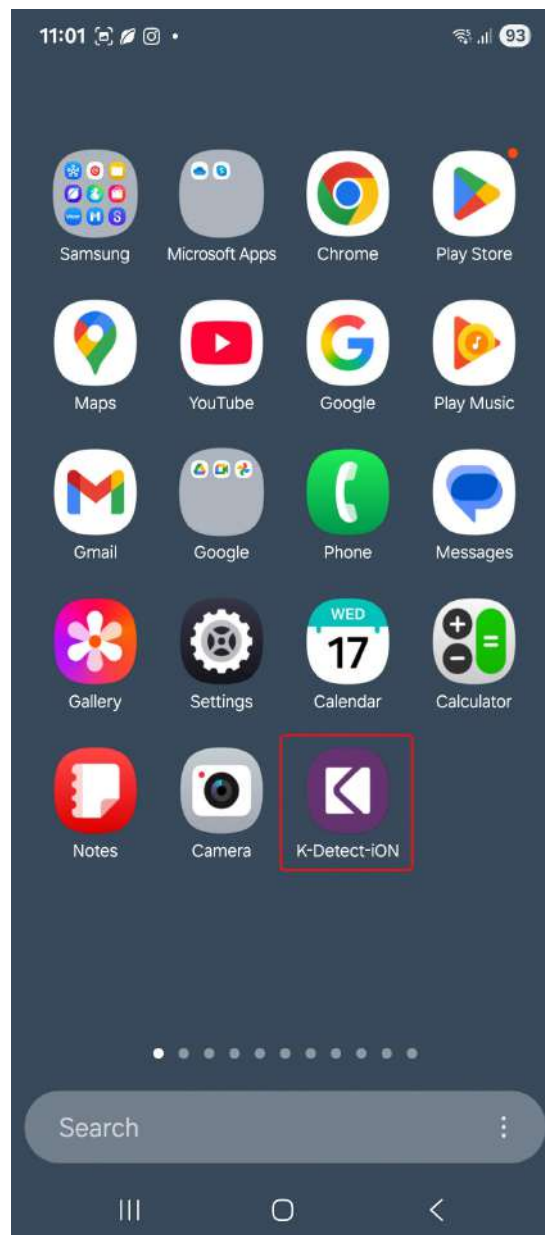
- a) Following the request for the installation file you will receive a *.apk file (Example: kentec_1_5_1.apk).
- b) Copy the application file into a suitable folder on your Android device.
- c) Tap the application file to start the installation process. The following window will be displayed to confirm install, click on **Install** to proceed



- d) Wait for the installation to complete - A progress screen will appear, followed by a confirmation message: **App installed** as shown below:



- e) Once installed, the K-Detect-iON app icon-featuring the Kentec Logo will appear on your home screen or app drawer.



Section 4

Connecting your Device

To begin using the K-Detect-iON mobile app, you'll first need to establish a physical connection between the sensor and your Android device. This section will guide you through the simple setup process to ensure a stable and reliable connection.

Before you begin, make sure you have the following items ready:

K-Detect-iON sensor



AX-USB-RJ45-KIT consisting of:



USB-C to RJ45 Adapter



USB-C to USB-C charger cable



Ethernet patch lead

Android Phone or Tablet (with a USB TYPE-C port)



Note:

If the K-Detect-iON is not already powered, it can be powered from your Android device if it supports reverse charging.

If your Android device does not support reverse charging then you will require a suitable power supply, reference Man-1611 K-Detect-iON User Manual for power supply requirements.

The Ethernet patch lead connects the K-Detect-iON to the USB-C to RJ45 Adapter and the USB-C to USB-C lead connects the USB-C to RJ45 Adapter to your Android device as shown in the below photo.



Section 5

Getting Started

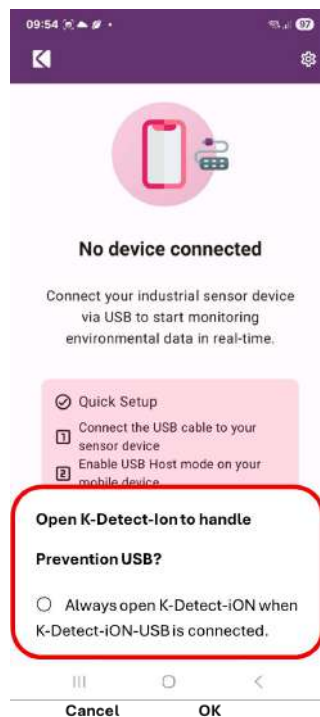
Once the application is installed and a physical connection between the K-Detect-iON sensor and your android device is successfully established, you're ready to begin using the mobile app.

Unlike traditional methods that require accessing a sensor through its IP address and logging in with credentials, this mobile app offers a credential-free and direct connection experience. Simply tap the K-Detect-iON app icon, and you're instantly ready to view and configure your sensor - no login required.

5.1 Home Screen Overview

The Home Screen provides a user-friendly interface that displays the current connection status and real-time sensor data. Here's what to expect based on your connection state:

When the app is opened for the first time on your Android device you may see the window shown in the screenshot below.

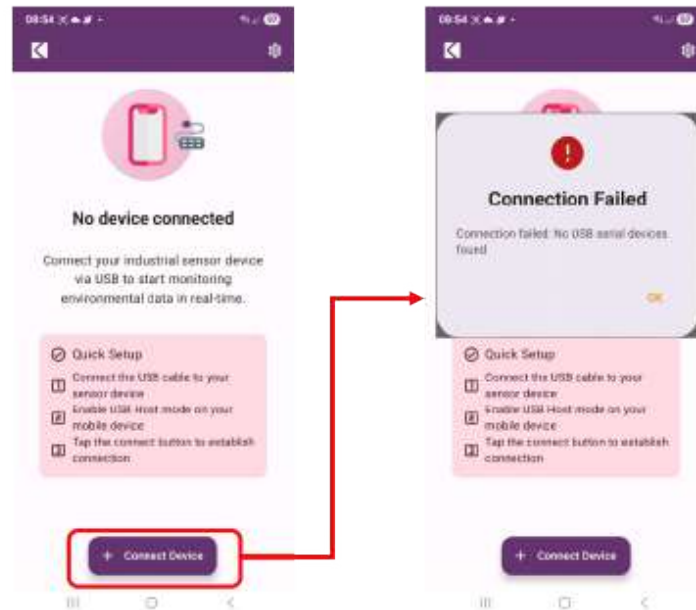


This is a request to allow the K-Detect-iON App to automatically open on the Android device when a USB connected to a K-Detect-iON unit is plugged into it.

To accept click on the circle so a tick appears and click on **OK**.

No device connected

If the App is opened and it is unable to establish communication with a K-Detect-iON device the **No Device Connected** screen will be shown as in the screenshot below:



If you tap the **+Connect Device** button and no sensor is connected the **Connection Failed** window will appear.

Check all cables and connections to ensure the K-Detect-iON is connected to the App before tapping the **+Connect Device** button.

Once your device is successfully connected, a message labelled **Warming Up** will appear at the top of the screen. Please note that the warm-up process may take up to 2 minutes. During this time, the sensor is stabilizing to ensure accurate and reliable readings. Sensor values will become available once it reaches full operational status.

Once the warm-up process is complete, the app will display the real-time sensor values along with the current status of the K-Detect-iON sensor.



At the top of the screen, you can toggle between the two main views:

Sensors - Displays live status and values for a range of sensor readings.

Relays - Displays relay status and configuration, also allows relay configuration to be changed to suit requirements.

This intuitive interface makes it easy to monitor sensor data and adjust output settings without the need for additional hardware or complicated setup steps.



5.2 Device Information

The **Connected** icon at the top of the app screen is not just a status indicator - it also functions as a **button** that provides access to detailed device information and settings.



Tapping on **Connected** button opens the Device information screen which provides the information detailed below:

Sensor Type

Currently the App only supports one sensor type which is the K-Detect-iON.

Sensor ID

Each K-Detect-iON sensor has a unique ID number.

Device Status

A simple indication of panel status will either show as **OK** or **Not OK**.

Run Diagnostics

Opens the Device Diagnostics screen which provides status indication of various detection elements, as well as Test functionality for LEDs and Relays.

Update Firmware

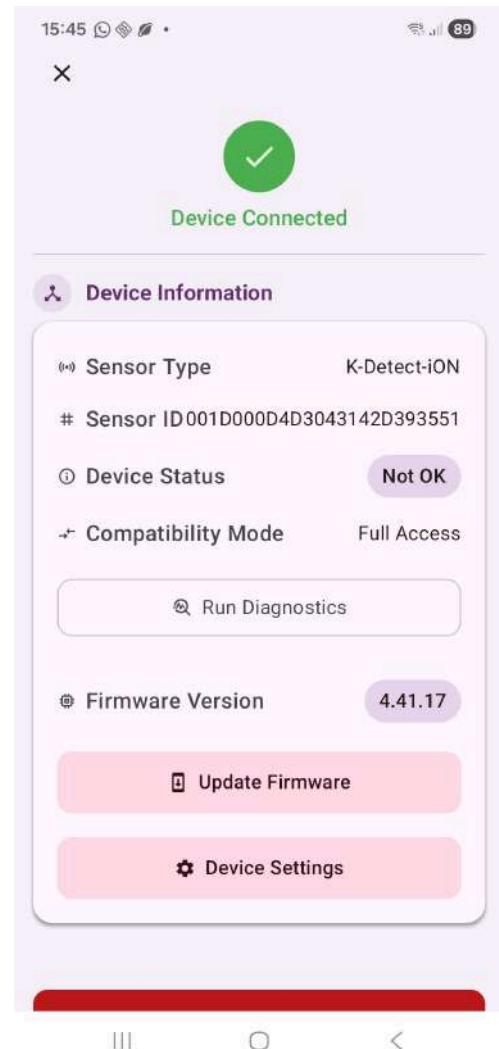
Function to enable the upgrade of the firmware within the K-Detect-iON module.

Device settings

Opens the **Device Settings** screen allowing access to configuration options.

Disconnect

Disconnects the app from the K-Detect-iON module in a safe manner



Section 6

Sensors

The **Sensors** tab is the default home screen displayed once your device is successfully connected.

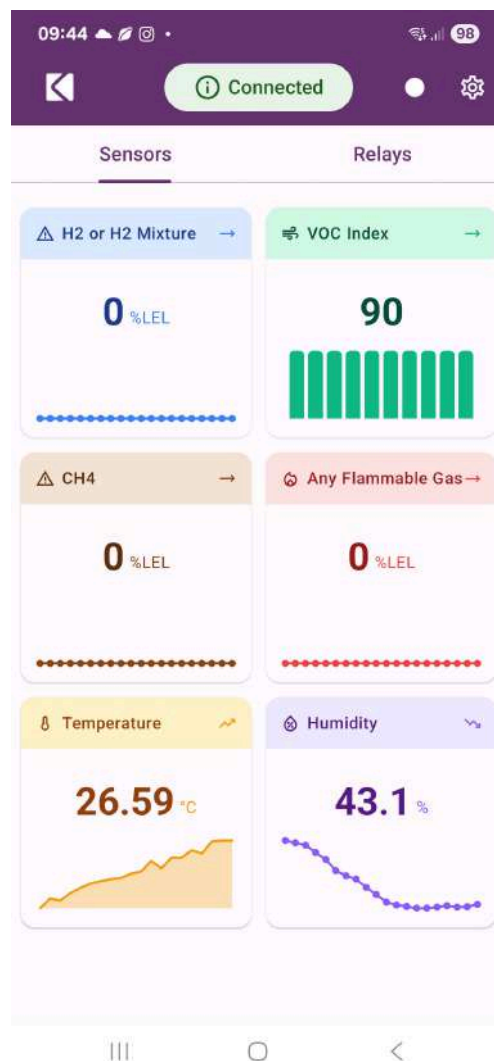
The screen provides an indication of the real time sensor values as shown in the screenshot.

The following sensor values are displayed:

- H2 or H2 Mixture
- VOC Index
- CH4
- Any flammable Gas
- Temperature
- Humidity

This live data display allows for immediate insight into environmental conditions and gas levels, making monitoring fast, accurate, and accessible directly from your Android device.

Tapping on any of the sensors shown will provide a full screen display of details for the sensor selected.



6.1 H2 or H2 Mixture

Tapping on the **H2 + H2 Mixture** sensor will open a new screen which displays detailed information relating to this sensor - **Current Reading**, Real Time Graph, key Statistical information and any associated relay configurations.



If relays are configured to the sensor, the screen will show the relay status and the threshold level at which the relay will trigger. The threshold at which the relay triggers can be changed using the slider bar. The trigger source of the relay can be changed through this screen also, if the trigger source for the relay is changed the relay settings will disappear from this screen and will appear on the relevant sensor screen.

6.2 VOC Index

Tapping on the **VOC Index** sensor will open a new screen which displays detailed information relating to this sensor - **Current Reading**, Real Time Graph, key Statistical information and any associated relay configurations. The values displayed allow monitoring of changes in air quality, assessing the presence of Volatile Organic Compounds (VOC) over time.



If relays are configured to the sensor, the screen will show the relay status and the threshold level at which the relay will trigger. The threshold at which the relay triggers can be changed using the slider bar. The trigger source of the relay can be changed through this screen also, if the trigger source for the relay is changed the relay settings will disappear from this screen and will appear on the relevant sensor screen.

6.3 CH₄ (Methane)

Tapping on the **CH₄** sensor will open a new screen which displays detailed information relating to this sensor - **Current Reading**, Real Time Graph, key Statistical information and any associated relay configurations.



If relays are configured to the sensor, the screen will show the relay status and the threshold level at which the relay will trigger. The threshold at which the relay triggers can be changed using the slider bar. The trigger source of the relay can be changed through this screen also, if the trigger source for the relay is changed the relay settings will disappear from this screen and will appear on the relevant sensor screen.

6.4 Any Flammable Gases

Tapping on the **Any Flammable Gas** sensor will open a new screen which displays detailed information relating to this sensor - **Current Reading**, Real Time Graph, key Statistical information and any associated relay configurations.



If relays are configured to the sensor, the screen will show the relay status and the threshold level at which the relay will trigger. The threshold at which the relay triggers can be changed using the slider bar. The trigger source of the relay can be changed through this screen also, if the trigger source for the relay is changed the relay settings will disappear from this screen and will appear on the relevant sensor screen.

6.5 Temperature

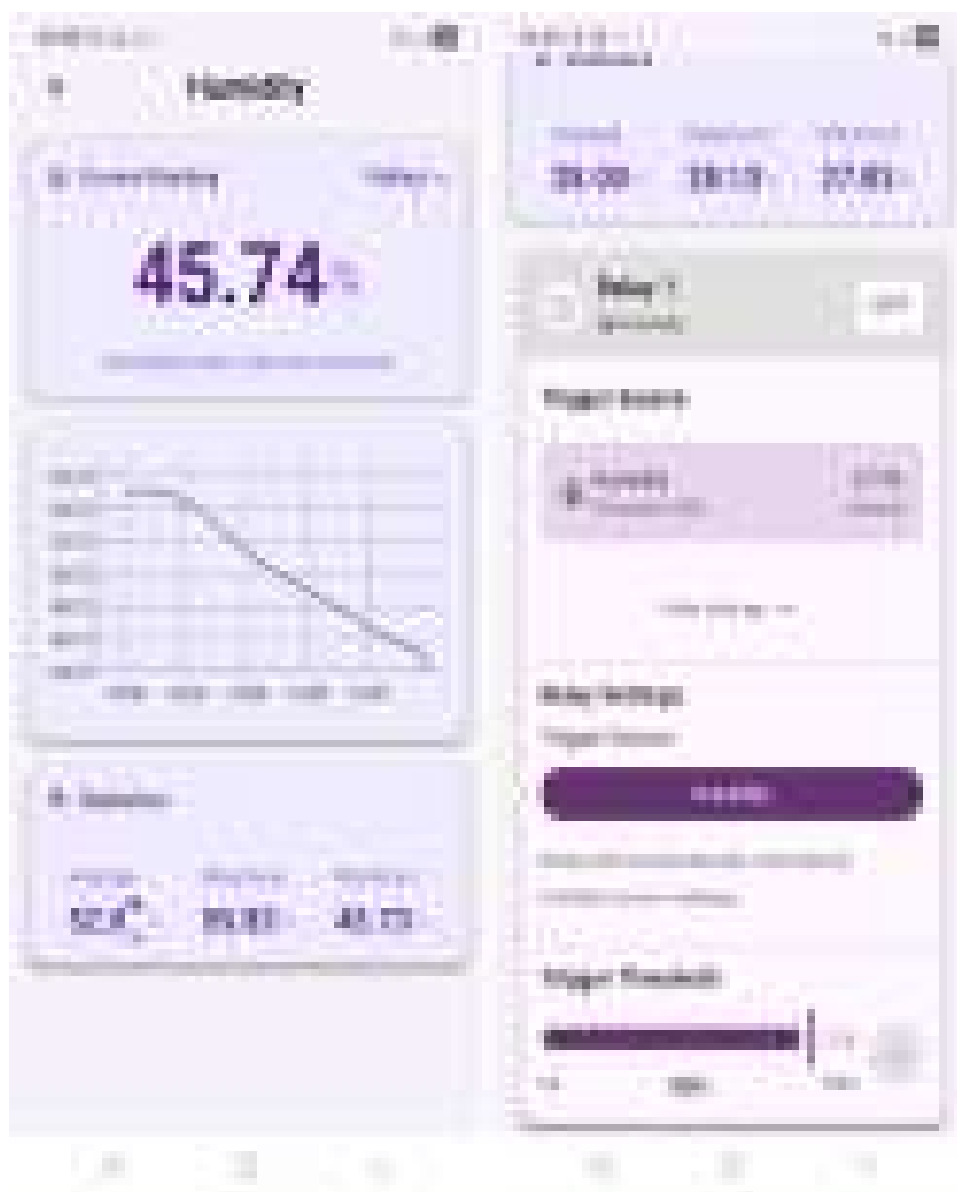
Tapping on the **Temperature** sensor will open a new screen which displays detailed information relating to the internal temperature of the sensor - **Current Reading**, Real Time Graph, key Statistical information and any associated relay configurations.



If relays are configured to the sensor, the screen will show the relay status and the threshold level at which the relay will trigger. The threshold at which the relay triggers can be changed using the slider bar. The trigger source of the relay can be changed through this screen also, if the trigger source for the relay is changed the relay settings will disappear from this screen and will appear on the relevant sensor screen.

6.6 Humidity

Tapping on the **Humidity** sensor will open a new screen which displays detailed information relating to this sensor - **Current Reading**, Real Time Graph, key Statistical information and any associated relay configurations.

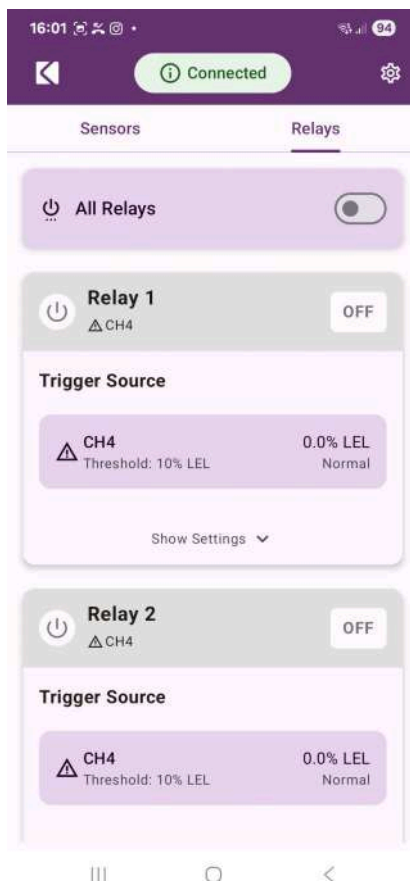


If relays are configured to the sensor, the screen will show the relay status and the threshold level at which the relay will trigger. The threshold at which the relay triggers can be changed using the slider bar. The trigger source of the relay can be changed through this screen also, if the trigger source for the relay is changed the relay settings will disappear from this screen and will appear on the relevant sensor screen.

Section 7

Relays

Under the Relay tab you will find three configurable relays that can be manually controlled or automatically triggered based on specific sensor readings.



7.1 Assigning a Sensor to a Relay

Each relay can be configured to a particular sensor type or a fault condition.

This section details how to assign a sensor to a relay, the example below shows how to assign Relay 1 to the H2 + H2 mixture sensor. The process is the same for all sensors and relays.

1. On the **Relays** screen tap the **Show Settings** option for **Relay 1** to show the configuration settings, highlighted in the screenshot below.
2. To change the Trigger Source tap on the **Trigger Source** button highlighted in the screenshot below. The text shown on the button is the current configured **Trigger Source**, in this example the **Trigger Source** is **Direct Control**
3. From the list that appears select the new **Trigger source** by tapping on it.
4. The change of **Trigger Source** will be signified by the change in the text on the button which will display the new **Trigger Source**.
5. Trigger Sources can be changed at any time by tapping the **Trigger Source** button and selecting a new source.

Important note:

When changing the trigger source the trigger threshold will not be adjusted automatically therefore it could lead to a unwanted activation of the relay. It is recommended not to change the relay configuration with the relay wiring connected. Disconnect the relay terminals, configure the relay and reconnect the wiring.



7.2 Setting the Trigger Threshold

Once the sensor is assigned the **Trigger Threshold** will need to be adjusted to suit the requirements. The adjustment process is detailed below:

1. Locate the **Trigger Threshold** slider.
2. Use your finger to slide the threshold marker to the value required and tap the check button to apply changes.



7.3 Verifying the Assigned Relay

To confirm that Relay 1 has been successfully assigned:

1. Navigate back to the Sensors tab.
2. Tap on H2 + H2 Mixture.
3. Scroll to the bottom of the screen - you will see Relay 1 listed there, confirming its active assignment.



7.4 Relay configuration - Latching/Non-latching

Relays on the K-Detect-iON module are set as default to non-latching, this means they will automatically return to their normal state once the trigger event has cleared.

Through this app the relays can be configured as latching, which means the relay will hold its active state even when the trigger event has been cleared, a manual intervention will be required to return the relay to its normal state.

To change the relays latching/non-latching setting, open the device settings screen as shown below:



On the Device settings screen scroll down to locate the **Relay Latching Configuration** section.

This section has four configuration slide switches:

Set All Relays

This switch is a global setting. In the **All latching** position (to the right) all relays will automatically be set to latching mode.

In the **Mixed/Non-Latching** position (To the left) the relays will either be all set to non-latching mode or they can be independently configured as latching or non-latching via there specific slide switch.

Relay 1, Relay 2, Relay 3

These three settings enable independent configuration of each relay. Non-latching mode - switch to the left, Latching mode - switch to the right.

Relays can only be independently configured if the **Set All Relays** switch is in the **Mixed/Non-Latching mode** (To the left).

If the **Set All Relays** switch is set to **All Latching** and an individual relay switch is reverted back to non-latching, the **Set All Relays** switch will automatically revert back to the **Mixed/Non-Latching** position.

Resetting a latched relay

There are two methods for resetting a latched relay.

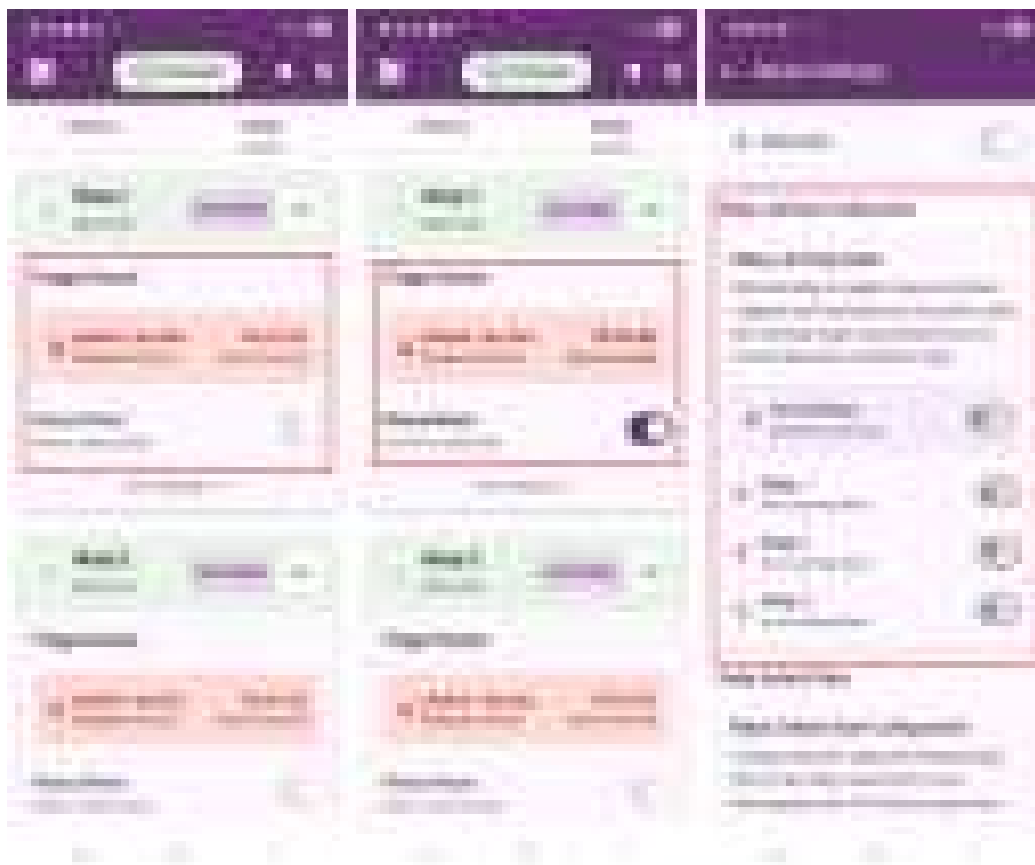
Relays screen

If a relay is latched go to the Relays screen shown below.

A latched relay will be identified in the Trigger Source section, this shows in red text **Latched** followed by the gas type. The current LEL reading is shown to the right with text indicating whether the level is above or below the Threshold. If the level is above the threshold the text will be red, if its below the threshold the text will be black.

A latched relay will also display the **Manual Reset** slider switch, this switch will only be functional once the LEL reading has dropped below the trigger threshold.

Once the LEL reading has dropped below the LEL reading the **Manual Reset** switch will become available, moving the switch to the left position will reset the latched relay. The screen will go back to its normal state and the **Manual Reset** switch will disappear.



The alternative method for resetting a latched relay is to go to the **Relay Latching Configuration** settings on the Device Settings screen and toggle the switch of the relay you wish to reset from latched to non-latched and back to latched.

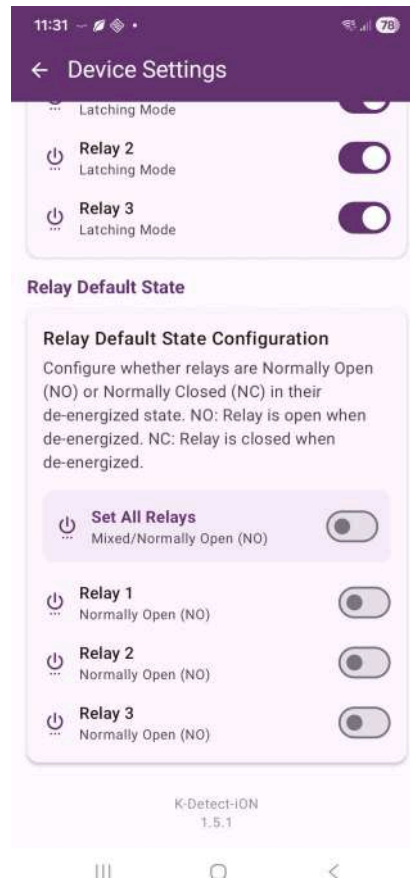
Note: This will only reset the latched relay if the LEL reading has dropped below the trigger threshold.

7.5 Relay configuration - Normally Open/Normally Closed

Relays on the K-Detect-iON module are set as default to Normally Open contacts, this means they will close their contacts when the relevant trigger event occurs.

Through this app the relays can be configured as Normally Closed, which means the relay contacts will be closed as default and will open when the relevant trigger event occurs.

To change the relays Normally Open or Normally Closed setting, open the device settings screen and scroll to the **Relay Default State** section as shown below:



This section has four configuration slide switches:

Set All Relays

This switch is a global setting. In the **All Normally Closed (NC)** position (to the right) all relay contacts will automatically be set to Normally Closed (NC) and will open when triggered.

In the **Mixed/Normally Open (NO)** position (To the left) the relay contacts will either be all set to Normally Open (NO) or they can be independently configured as Normally Open or Normally Closed via there specific slide switch.

Relay 1, Relay 2, Relay 3

These three settings enable independent configuration of each relay. Normally Open (NO) - switch to the left, Normally Closed (NC) - switch to the right.

Relays can only be independently configured if the **Set All Relays** switch is in the **Mixed/Normally Open (NO)** mode (To the left).

If the **Set All Relays** switch is set to **All Normally Closed (NC)** and an individual relay switch is reverted back to Normally Closed (NC), the **Set All Relays** switch will automatically revert back to the **Mixed/Normally Open (NO)** position.

Section 8

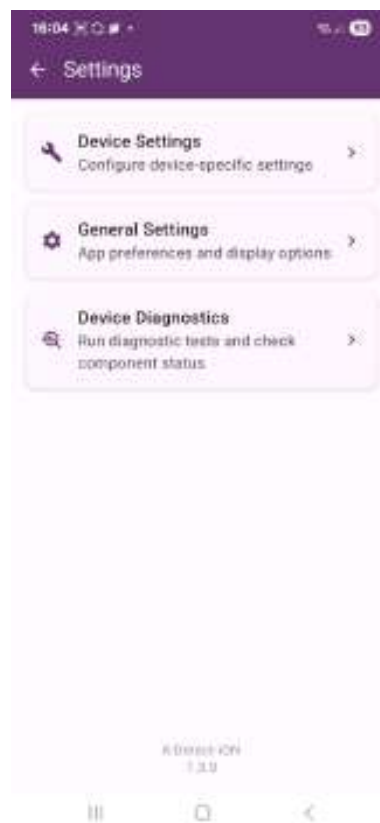
Settings

To access the settings menu click on the cog icon on the top right of the main screen, as shown below.



Three menu options will be displayed Device Settings, General Settings, General Diagnostics as shown below.

Tap the relevant menu option to open the settings screen.



8.1 Device Settings

The Device Settings display is split into five sections - **Device Configuration**, **Modbus configuration**, and **Fault Relay Configuration**.

Device Configuration

Device configuration allows you to save a configuration, load a previously saved configuration or apply BESS settings.

Modbus configuration

Sets the communication parameters for connecting to a Modbus system

Fault Relay configuration

This section allows selection of conditions which will trigger the fault relay.

Relay Latching Configuration

This section allows the configuration of the K-Detect-iON modules relays as latching or non-latching.

Relay Default State

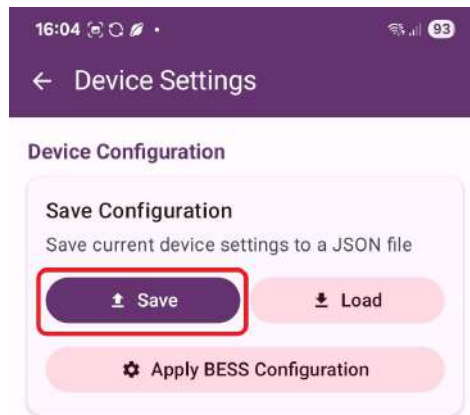
This section allows the configuration of the K-Detect-iON module relays to be Normally Open or Normally closed configuration.



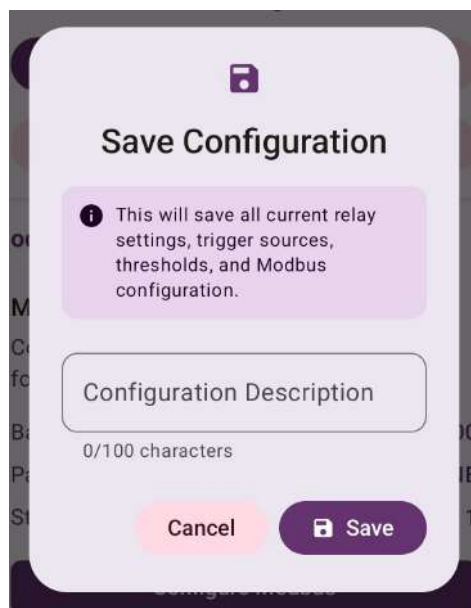
8 1.1 Save Configuration

The **Save** button allows you to save the current configuration of the K-Detect-iON module. This configuration file can be used to restore the settings of the K-Detect-iON module if required.

1. Tap the **Save** button to start the process.



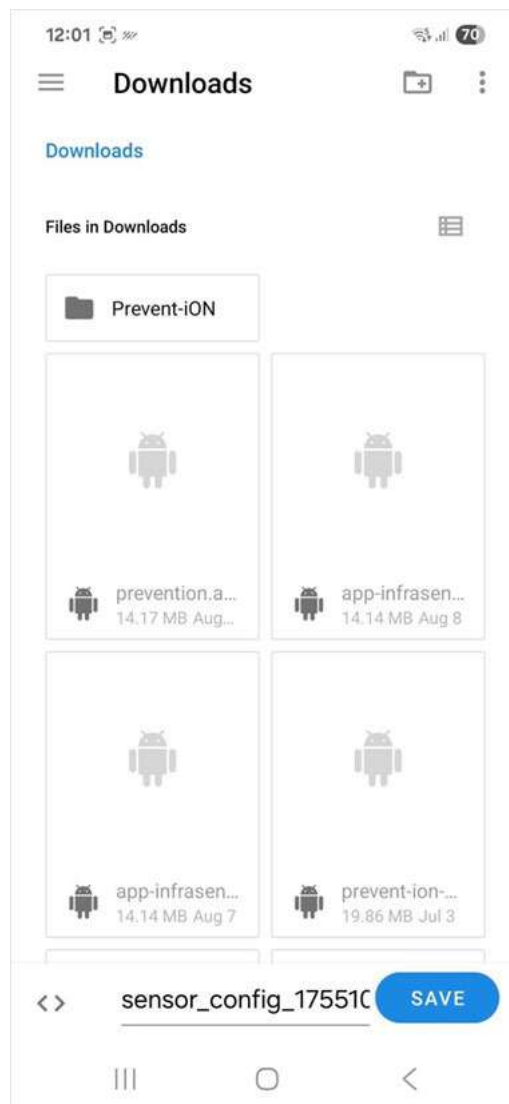
2. In the Save Configuration pop-up click on the Configuration Description box and enter a description - up to 100 characters including spaces.



3. Tap on the **Save** button to proceed.

- The app will open the file explorer window for your device, select a location to save the configuration file to. The filename at the bottom of the screen can be customised to suit. Tap the **Save** button at the bottom of the screen to complete

Note: Config files are stored as a *.json file.

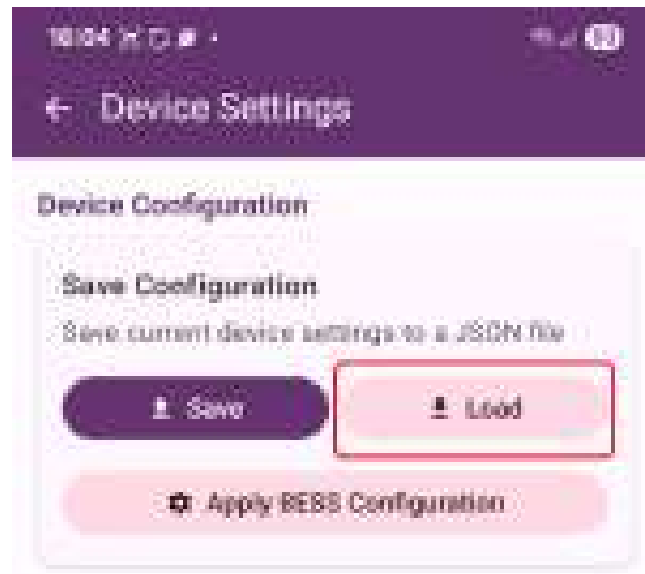


A confirmation message will display temporarily at the bottom of the screen.

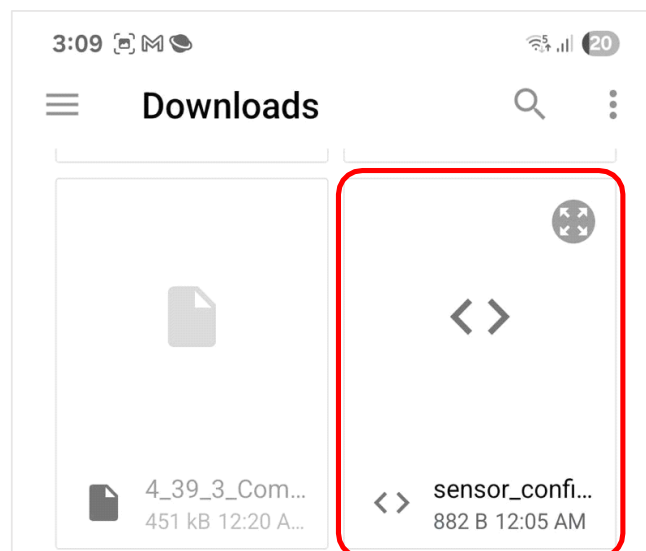
8.1.2 Load Configuration

The **Load** button allows you to upload a previously saved configuration. When loaded the settings on the K-Detect-iON module will be replaced by those in the loaded configuration file.

1. Tap the Load button and the app will open the file explorer on your device.



2. Locate and select the save configuration file.



- When the configuration file is selected the **Load Configuration** screen will open, this screen displays the settings associated with the config file.

16:06 93

Load Configuration

Created Sept 17, 2025 at 4:05 pm

Description

BESS (Battery Energy Storage System)
Default Configuration

Sensor Information

Sensor Type K-Detect-iON

Relay Configuration

1	Relay 1
Trigger Source	Threshold
H2 Or H2 Mixture	25
2	Relay 2
Trigger Source	Threshold
H2 Or H2 Mixture	10
3	Relay 3
Trigger Source	Threshold
Fault	0

Fault Relay Triggers

Cancel Apply

Click on the Apply button to complete the configuration upload. Once complete a "Configuration applied successfully" message will appear temporarily at the bottom of the screen.

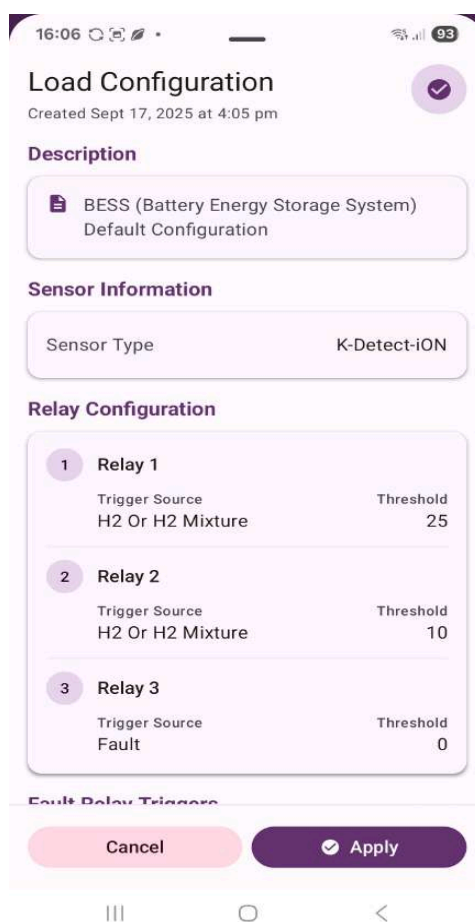
8.1.3 Apply BESS Configuration

This option loads a pre-saved configuration optimized for BESS applications. Selecting this setting automatically applies the recommended parameters for optimal performance and compatibility in BESS environments.

1. Tap the **Apply BESS Configuration** button to apply the recommended parameters for the device.



2. The Load configuration screen will be displayed which provides an overview of the recommended settings for detection of Hydrogen gas in Battery Energy Storage Solutions.

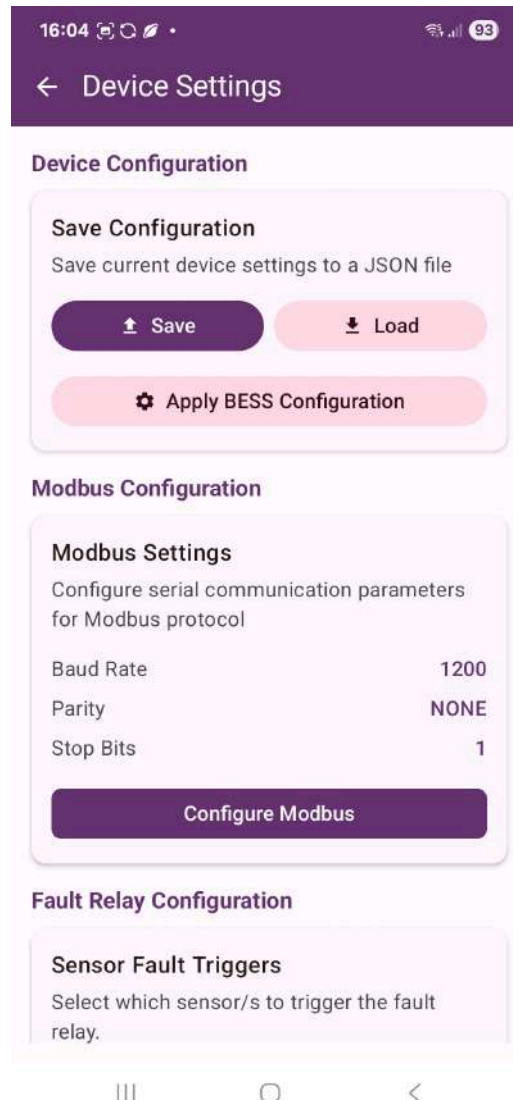


If happy with the settings shown tap the **Apply** button.

8.1.4 Modbus Configuration

This option sets the communication parameters to enable the K-Detect-iON module to successfully connect to a Modbus system.

1. Tap the **Configure Modbus** button to open the **Modbus configuration** window.



2. Tap on each box and enter the correct communication parameters for the Modbus system.



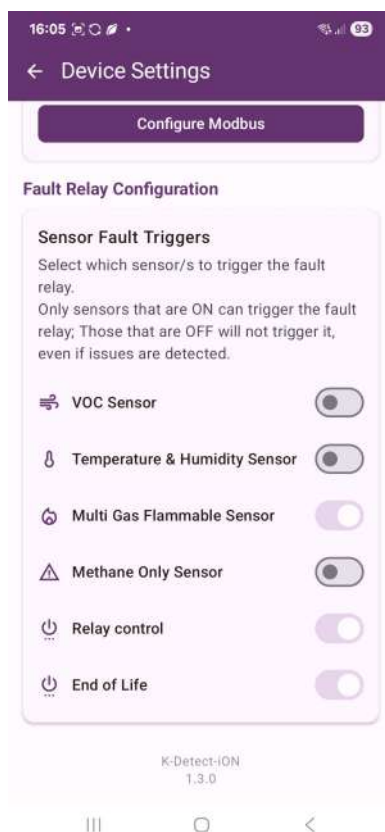
A dialog box titled "Modbus Configuration" with a light blue background. It contains three input fields: "Baud Rate" with the value "1200", "Parity" with the value "NONE", and "Stop Bits" with the value "1". At the bottom right, there are two buttons: "Cancel" and "Apply".

8.1.5 Fault Relay Configuration

This section allows you to configure which sensors will activate the fault relay. Only sensors which are ON (slide switch to the right) will activate the fault relay.

If a sensor is set to OFF (slide switch to the left) it will not trigger the fault relay even if an issue is detected.

Multi Gas Flammable Sensor, Relay Control, and End of Life options are always on and cannot be turned off. **VOC sensor, Temperature & Humidity Sensor, and Methane Only Sensor** can be turned On or Off as required.



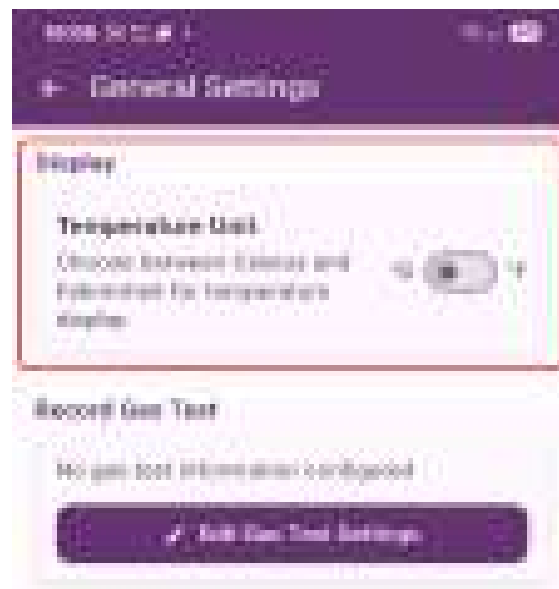
A screenshot of the "Device Settings" app. The top bar is blue with a back arrow and the text "Device Settings". Below it is a blue button labeled "Configure Modbus". The main section is titled "Fault Relay Configuration" and contains a box labeled "Sensor Fault Triggers". Inside this box, there is explanatory text: "Select which sensor/s to trigger the fault relay. Only sensors that are ON can trigger the fault relay; Those that are OFF will not trigger it, even if issues are detected." Below the text are six toggle switches, each with an icon and a label: "VOC Sensor" (off), "Temperature & Humidity Sensor" (off), "Multi Gas Flammable Sensor" (on), "Methane Only Sensor" (off), "Relay control" (on), and "End of Life" (on). At the bottom of the screen, the text "K-Detect-iON 1.3.0" is visible.

8.2 General Settings

The **General settings** screen allows configuration of two basic settings. - **Display units**, and **Record Gas Test**.

8.2.1 Display

This is a simple slider button which selects the unit of measurement for temperature readings. The slider button selects either Celsius (°C) or Fahrenheit (°F).



8.2.2 Record Gas Test

This option allows entry of information relating to gas tests, tap the Edit Gas Test Settings to open the Gas Test Settings screen as shown below:

The information entered in this screen will appear on the gas test report.

Engineer Name

This is the name of the engineer who is carrying out the gas test.

Engineer Email

This is the email of the engineer carrying out the gas test.

Target Gas

This is the gas type that the K-Detect-iON has been configured to detect.

Gas Bottle ID

This is an identifying number or alphanumeric code for the gas bottle used for the test e.g. Serial Number

LEL%

The slider bar allows the setting of the LEL% of gas that is going to be applied during the test.

Once the information has been entered click the save changes.

It is important the information entered here is checked and amended for each gas test.

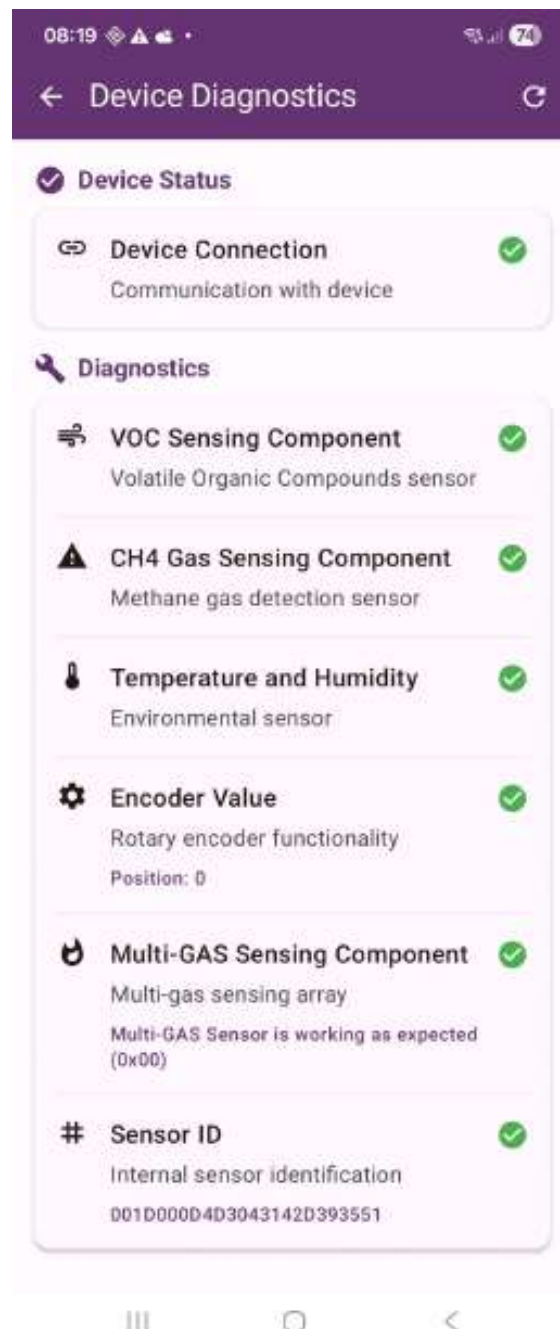
8.3 Device Diagnostics

This option allows access to information regarding the functional state of key sensors and components. It also provides access to various test functions.

8.3.1 Diagnostics

Tap on the **Device Diagnostics** option to open the **Device Diagnostics** screen.

When the **Device Diagnostics** screen opens it automatically starts diagnostic testing of the key sensors/components. As each test is completed the result will be shown next to each sensor/component listed, marking it as **OK** or **Failed**.



8.3.2 Manual Tests

The **Device Diagnostics** screen also provides controls for performing manual tests of LED's and Relays on the K-Detect-iON modules, see screenshot below.

LED Test

Tapping the ON button for this test will flash the status LED through its range of colours - Red, Amber, Green. The LED will continue to flash through the colour sequence until the OFF button is tapped.

Relay Test

Important!

The relay test will activate and de-activate each relay in turn continuously until the test is manually stopped, if any of the relays are connected to third party equipment it must be considered whether there is a requirement to disconnect this connection prior to testing.

Tapping the ON button will start the test, each relay will activate and de-activate in sequence, an audible click should be heard to indicate when a relay has changed state. The relays will continue to go through the activate/de-activate cycle until the OFF button is tapped.

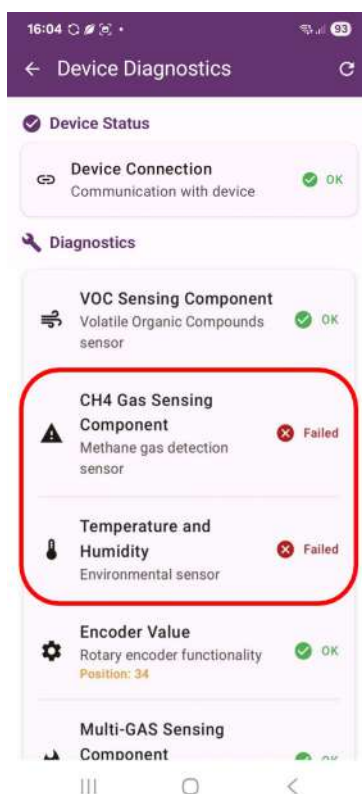


8.3.3 Automatic Diagnostics

K-Detect-iON app also features an automatic diagnostics function. The app will automatically run its diagnostics check when it has been connected to a K-Detect-iON module which has a faulty sensor or non-functional component.

The outcome of the checks will be displayed on the **Device Diagnostics** screen, an example is shown below:

Note: For accurate diagnostic results allow at least one minute before reviewing the diagnostic test results.



Section 9

Gas Test Recording

The K-Detect-iON app provides the ability to record any gas testing that is carried out, which can then be used as proof of testing for the end user.

On completion of testing a signed report is provided which can be included along with any other commissioning or test documentation.

9.1 Gas Test Settings

Before performing a gas test it is essential to add/edit the **Gas Test Settings**.

To locate the **Edit Gas Test Settings** screen go to the **General Settings** screen and tap on the **Edit Gas Test Settings** button, this will open the **Gas Test Settings** screen as shown in the screenshots below.



On the Gas Test Settings screen enter the required details for the test being carried out, it is important the information entered is accurate as it will be included in the test report.

Engineer Name

This is the name of the engineer who is carrying out the gas test.

Engineer Email

This is the email of the engineer carrying out the gas test.

Target Gas

This is the gas type that the K-Detect-iON has been configured to detect. To change the Target Gas tap the button and select a new target gas from the list that appears.

Gas Bottle ID

This is an identifying number or alphanumeric code for the gas bottle used for the test e.g. Serial Number.

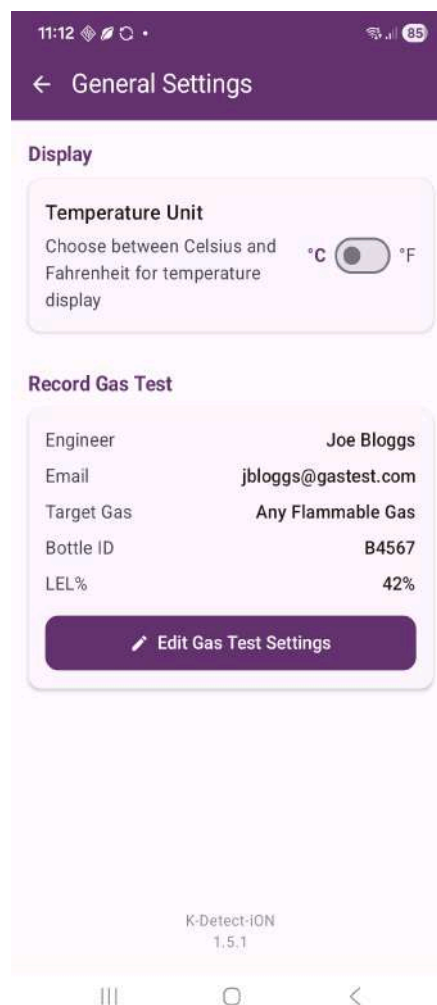
LEL%

The slider bar allows setting of the LEL% of gas that is going to be applied during the test.

Once the information has been entered click the **Save Changes** button.

It is important the information entered here is checked and amended if necessary for each gas test.

Confirm the settings have been accepted by returning to the General Settings screen, the settings will be displayed in the Record Gas Test section as shown below:



9.2 Recording the gas test

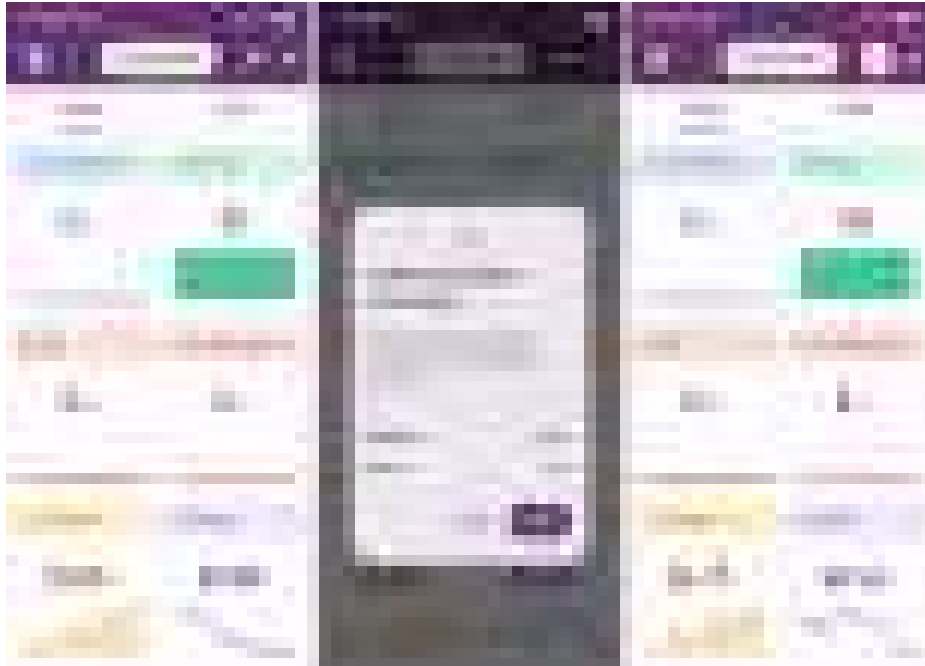
Once the Gas Test Settings have been entered the app is now ready to start recording a gas test.

Make sure everything is set up and ready to go before starting recording.

To start recording go to the main screen and locate the white button at the top right of the screen highlighted in the left hand screenshot below.

Tap this button and the Confirm Gas Bottle Information pop-up will appear as shown in the middle screenshot below.

Check the details are correct, if not return to the Edit Gas Test Settings screen and correct them. If the details are correct tap the Start button to start recording. The white button on the main screen will change to a flashing red button in a white circle as highlighted below on the right hand screenshot.



Once recording is underway the required gas tests can be carried out.

Note: While recording, you can still browse within the application. However, avoid closing the app or switching to a different application, as this will interrupt and stop the recording process.

Once the gas test is complete tap the record button to stop the recording and a **Capture Signature** screen will be displayed as shown below. The engineer who carried out the test should sign their name in the box provided and tap the **Save** Button.



The report will be saved to the Android device in a PDF file format. An example of a Gas Test Report can be found in Appendix A of this document.

9.3 Gas Test Report document

The **Gas Test Report** is saved as a *.pdf and can be opened using any Apps or software which support this file format.

If the Gas Record Test settings are set to All Gases as the Target Gas, the report will provide details for each gas sensor type. If the Target gas is set to a specific gas sensor type only i.e. H2 + H2 Mixture, only details relating to this gas type will be provided in the report.

An example report layout is shown below followed by an explanation of the report contents.



The report is separated into sections which are explained below:

Test Information

This section contains general information relating to the testing:

Location -	If not restricted the app will use your phones location to complete.
Test Date -	Date on which the testing is performed.
Test time -	The start and end time of the test period.
Test Duration -	The total duration time of the testing period.
Firmware version -	The firmware version of the K-Detect-iON module being tested.
Sensor ID -	The unique identification number of the K-Detect-iON module being tested.
Engineer -	The name of the engineer carrying out the testing.
Email -	The email of the engineer carrying out the testing.

Bottle ID - Identification code/number relating to the gas/bottle cylinder used for the testing.

LEL% - The quantity of gas being applied to the detector during the testing.

Gas Measurements

The information in this section will depend upon the **Target Gas** setting of the app. If the **Target Gas** is set to **All Gases** as per our example the performance of every gas sensor is displayed, identified on the graph by colour coded lines.

If a single Target Gas is selected this section will only show performance results specific to the gas selected.

The colour coded boxes below the graph display the Peak, Average (Avg) and Minimum (Min) values recorded during the test.

Environmental Sensors

This section displays the performance of Temperature and Humidity sensors within the K-Detect-iON. The boxes below the graph show the Peak, Average (Avg), and Minimum (Min) values recorded during the test.

Relay Configuration & Events

This section will display details of any relays configured for the Target Gas and how many times the relay was activated during the test.

Trigger event log

This section lists all events of when a relay was activated including the relay number, Time stamp, Target gas, LEL value when the relay activated, the relay action, relay state, Latching/Non-latching setting.

Operator Signature & Certification

This shows the signature entered on completion of the test recording and should be the signature of the engineer who performed the test.

Section 10

Sensor Firmware Update

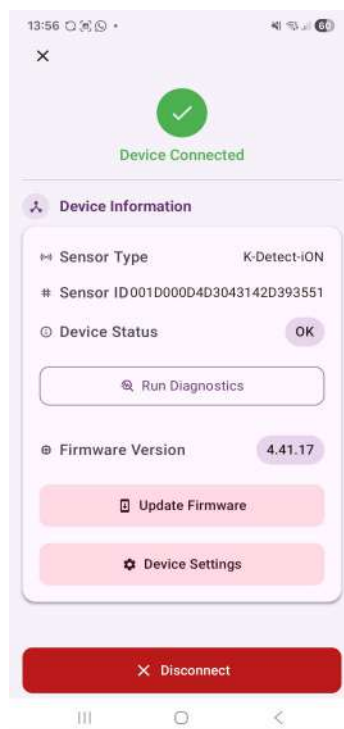
The app enables quick and easy upgrade of the K-Detect-iON modules firmware in the field.

Firmware updates may be required from time to time to add new features, address reported issues or improve functionality. It is always important to ensure your K-Detect-iON modules are installed with the latest firmware version.

Important!!

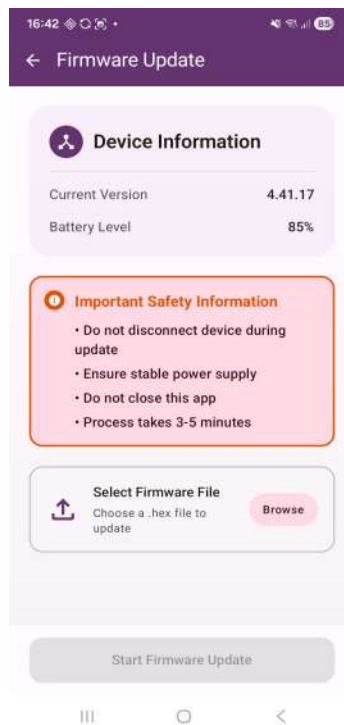
Please read the **Important Safety Instructions** shown on the screen before performing the firmware update.

To perform a firmware update tap on the status button at the top of the main screen, to open the **Device Information** screen.



This screen displays the current firmware version for the connected K-Detect-iON module.

Tap on the **Update Firmware** button to start the process. This will open the **Firmware Update** screen:

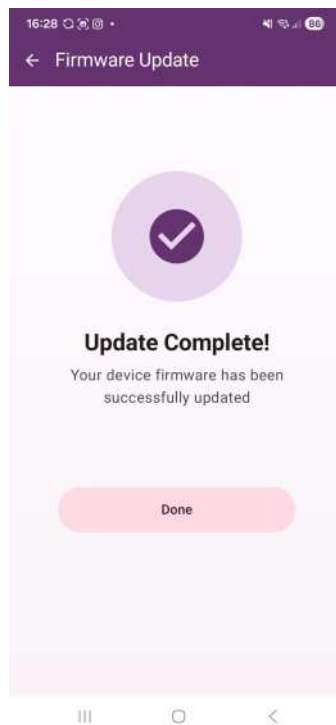


Tap on the **Browse** button in the **Select Firmware File** box, this will open your Android device's file explorer screen. Locate and select the firmware *.hex file required and you will return to the **Firmware Update Screen**.

Tap the Start Firmware Update screen the update in progress screen will appear showing the progress.



On completion of the firmware update the screen will provide confirmation as shown below:

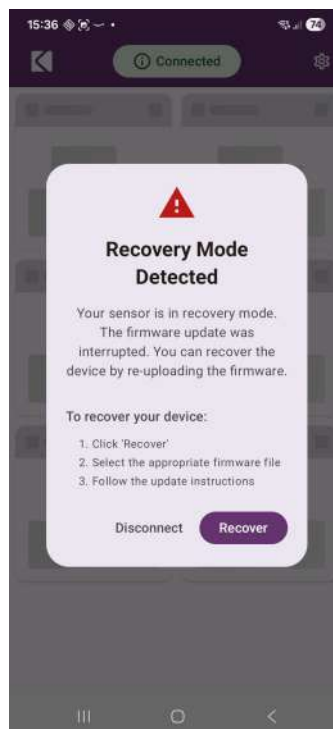


Tap the Done button to return to the main screen.

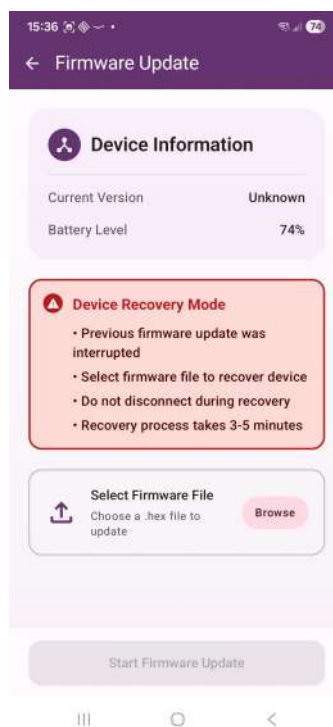
Return to the Device Information screen to confirm the Firmware version displayed is as expected.

Firmware update failure

If there is a disconnection or failure in the communications between the app and the K-Detect-iON the firmware update will fail and display the following screen:



Tap the **Recover** button this will open the Firmware Update screen in **Device Recovery Mode** as shown below:



Tap the **Browse** button, locate and select the firmware file to upload and then tap the **Start Firmware Update** button to restart the update process.

Once complete return to the **Device Information** screen to check the correct firmware version is displayed.