

C.A.T Manager[®] Online

Mobile application for the gC.A.T4 range of
Radiodetection's Cable Avoidance Tool family

Operation manual

90/UG108INT/03

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1 Preface

1.1 Before You Begin

Please read this user manual before accessing or using the C.A.T Manager Online - Mobile app

Scans and surveys scoring feedback provided by the C.A.T Manager online system and this application is intended to be used for reference only. It cannot be used as an indication of the true performance of the operators and the quality of their surveys. You should always analyse all scans details and keep in consideration the type of survey been carried out and the nature of the location.

This app, once set-up, has been designed to operate without user intervention to retrieve gC.A.T4 scans' data as they become available and transfer them to the C.A.T Manager Online server for review and analysis. This may fail if your android device has any connectivity issues or because of interference to the C.A.T Manager Mobile app by other apps.

Radiodetection recommend to always check, at the end of each locate operations (survey), if the data has been successfully transferred.

Note that this manual and all its contents are subject to change. Radiodetection products are under continuous development. Radiodetection Ltd reserves the right to modify the product without notice and some product changes may have taken place after this user manual was published.

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Contact your local Radiodetection office or dealer, or visit www.radiodetection.com for the latest products and service information.

1.2 Important Notice

This guide has been written using **Android 5.1.1** and **iOS 10.3.3** as a reference. Some minor variations with your device are possible.

C.A.T .Manager Online for Android and iOS have the same look and feel and work in the same way. Any significant difference is highlighted.

Radiodetection makes every effort to ensure that all technical information, statements and recommendations about its products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In no event shall Radiodetection be liable for any loss, inconvenience, damage or problems caused through use of any equipment or software.

Due to a policy of continued development, we reserve the right to alter or amend any published specification without notice.

1.3 Copyright and Trademarks

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The Bluetooth word, mark and logos are registered trademarks of Bluetooth SIG, Inc. and any use of such trademarks by Radiodetection is under license.

Google Play, Google Maps and Google Earth are trademarks of Google Inc., registered in the U.S. and other countries.

Microsoft Windows is a registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

2 Introduction



C.A.T Manager Online - Mobile app is part the C.A.T Manager Online systems, allowing Radiodetection's gC.A.T4 users to transmit automatically their locate data to the C.A.T Manager server to be analysed and stored.

The C.A.T Manager online system helps health and safety operatives to quickly identify training needs and to promote correct behaviours thus improving operators' safety and reducing damages to underground utilities.

Immediate feedback to the operator also helps improving locating procedures and adherence to company locating practises.

C.A.T Manager Online – Mobile is a free App available for android and iOS devices from Google's Play Store and Apple's App Store.

To be able to use it you will need a valid C.A.T Manager account. You can obtain this from your manager/supervisor or company's administrator.

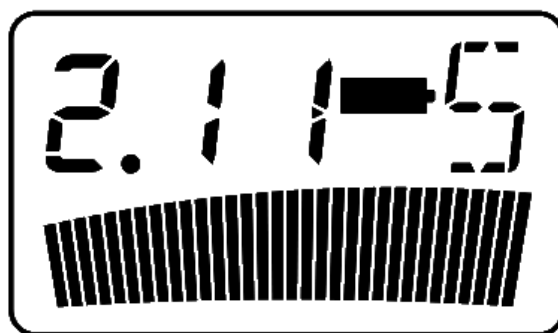
3 Compatibility requirements

C.A.T Manager mobile is compatible with any Radiodetection's gC.A.T4 model running software version 2.11 or higher.

3.1 gC.A.T4's software version

To identify what software version your gC.A.T4 is running, squeeze the trigger and press the depth button whilst the gC.A.T4 is powering up (the display is showing all the icons). Release the depth button when the letter C appears on the left of the display.

The display automatically step through the following information: configuration number 'C', software version 'S' and calibration expiry date as day 'D', month 'M', year 'Y'.



If required, you can update your gC.A.T4 locator to the latest software by installing and using the C.A.T Manager for PC. This can be downloaded by visiting the [C.A.T Manager for PC web page](http://www.spx.com/en/radiodetection/resources/software-downloads/cable-pipe-locators/C.A.T%20Manager/) or, if the link does not work, by copying and pasting the following URL into your web browser:

[http://www.spx.com/en/radiodetection/resources/software-downloads/cable-pipe-locators/C.A.T Manager/](http://www.spx.com/en/radiodetection/resources/software-downloads/cable-pipe-locators/C.A.T%20Manager/) If

To use C.A.T Manager for PC you will need a Windows PC with XP or higher operating system. For further information please refer to the C.A.T Manager for PC operational guide.

3.2 Android and iOS device compatibility requirements

gC.AT4 built before August 2016 are equipped with Bluetooth 3.0 BR + EDR connectivity.
Newer gC.A.T4 built after August 2016 offer Bluetooth 4.0 LE (Bluetooth Low Energy or BLE).

To understand if your gC.A.T4 is compatible with your android or iOS devices you can check the label above the battery compartment.



If it says “**Works with Android and iOS devices**” your g.C.A.T4 is compatible with **android** devices running operating system **5.1.1 Lollipop**, or higher, supporting Bluetooth 4.0 LE connectivity and with **iOS** devices running **iOS 9** or higher.

If it does not show the statement above your gC.A.T4 is compatible only with **android** devices running operating system **5.1.1 Lollipop**, or higher, supporting Bluetooth 3.0 BR + EDR.



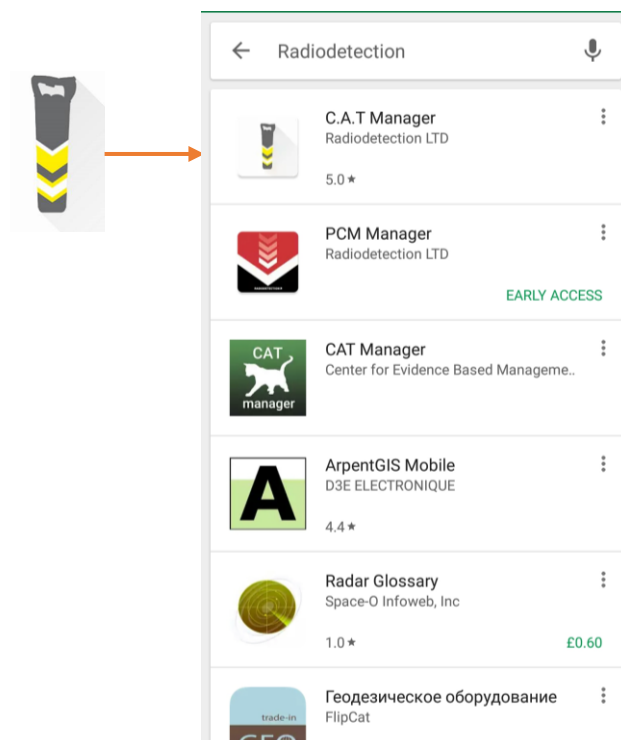
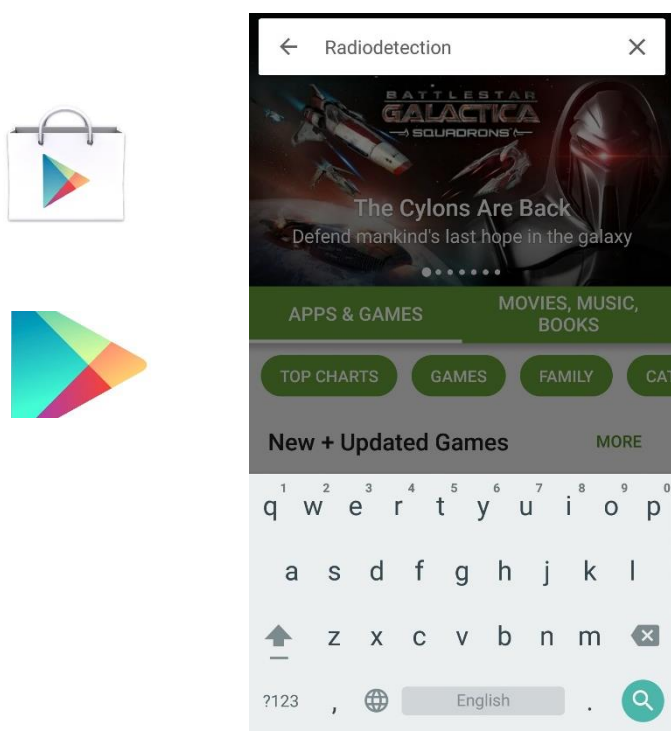
4 Installing C.A.T Manager Online

4.1 Android

C.A.T Manager Online mobile is a free App from Radiodetection which can be downloaded and installed from the Google Play Store.

NOTE: To access Google Play store you need to be signed into your [Google account](#).

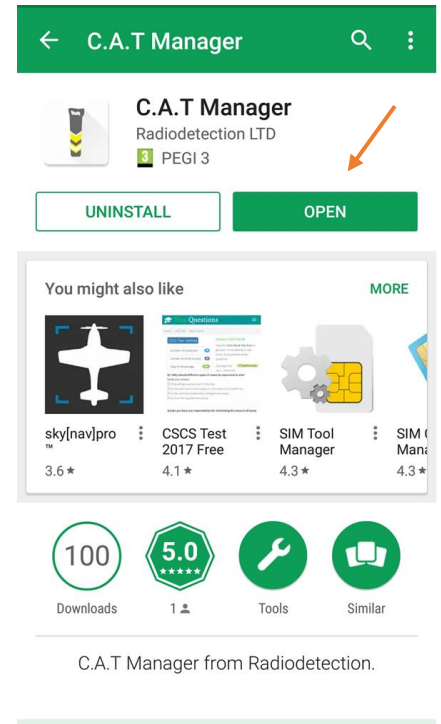
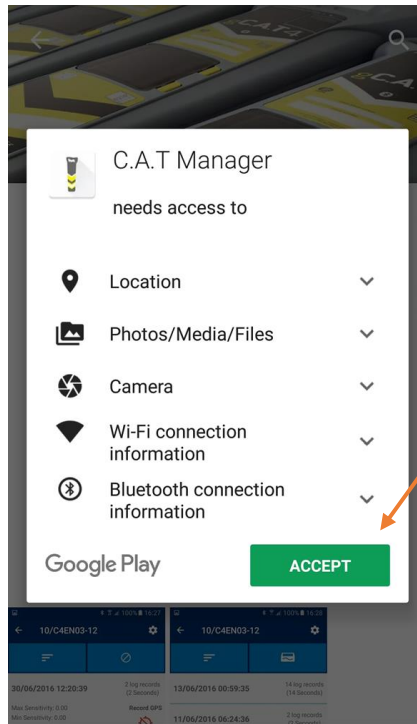
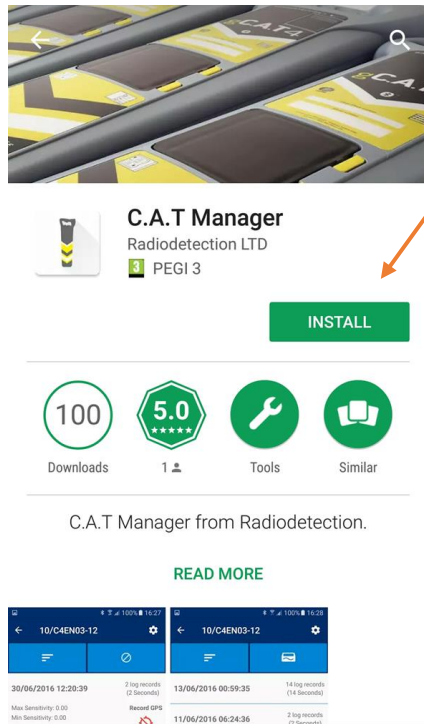
1. Run the **Play Store** app on your android device or click this link



2. Search for **Radiodetection**

NOTE: Availability of C.A.T Manager Online may be restricted for your country or operating system. [Contact us](#) if you cannot find C.A.T Manager from Radiodetection Ltd in the Play Store.

3. Select **C.A.T Manager** from Radiodetection LTD



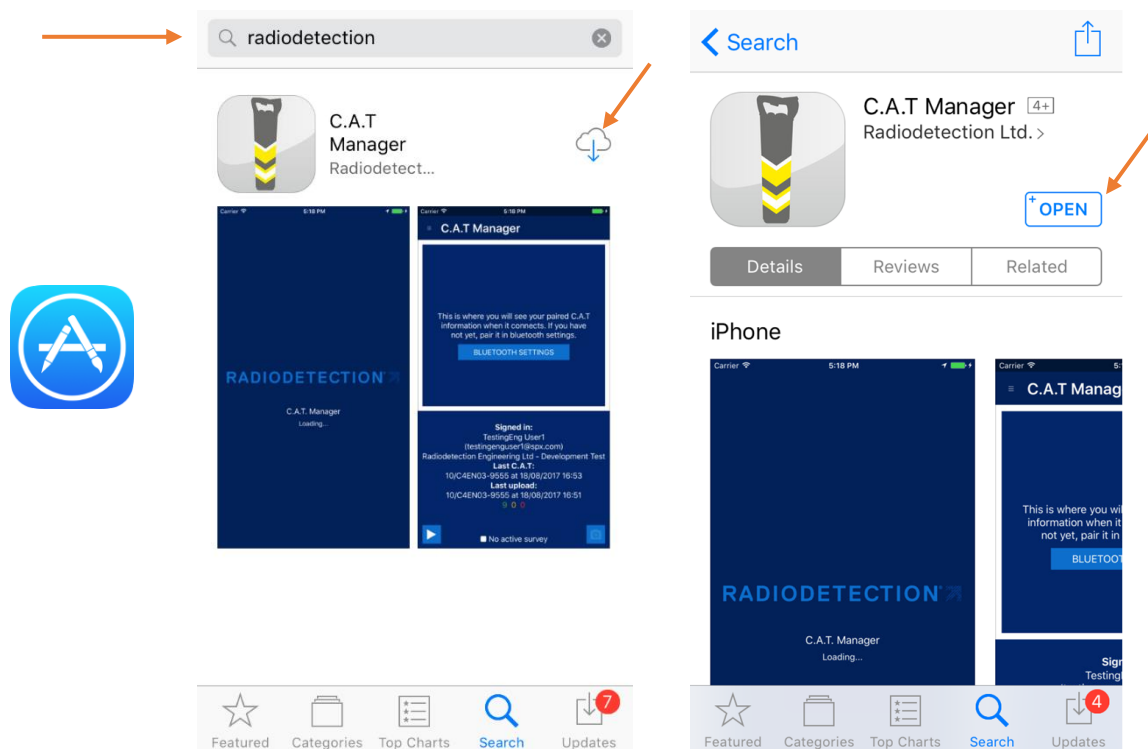
4. Select **INSTALL**
5. Select **ACCEPT**
6. Wait for **C.A.T Manager** to download and install
7. Press **OPEN**

4.2 iOS

C.A.T Manager Online mobile is a free App from Radiodetection which can be downloaded and installed from the Apple's App Store.

1. Run the **App Store** app on your iOS device or click this link

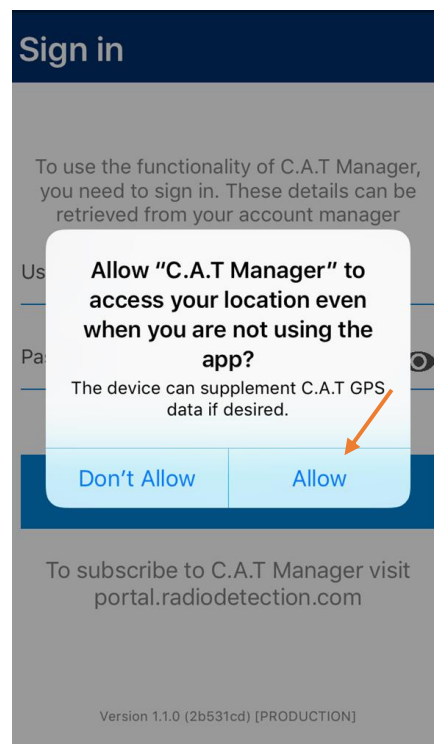
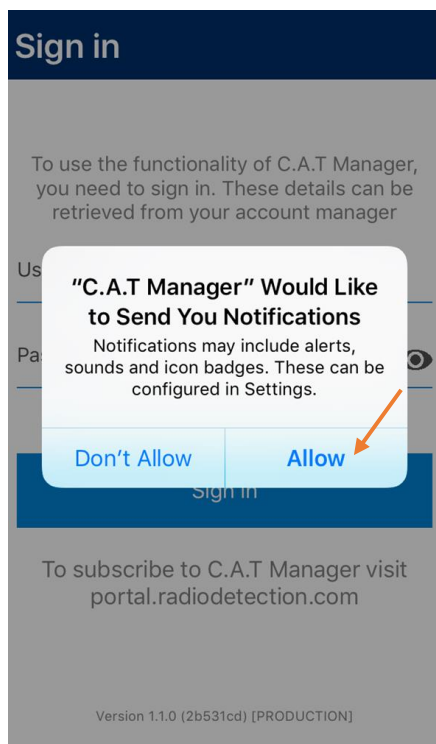




1. Search for **Radiodetection**

NOTE: Availability of C.A.T Manager Online may be restricted for your country or operating system.
[Contact us](#) if you cannot find C.A.T Manager from Radiodetection Ltd in the App Store.

2. Select **C.A.T Manager** from Radiodetection LTD
3. Select **INSTALL**
4. Wait for **C.A.T Manager** to download and install
5. Press **OPEN**



6. **Allow** C.A.T Manager to send notifications
7. **Allow** C.A.T Manager to access your location

5 Sign In

When you run the App for the first time, or if you have logged out, you will need to **Sign in** using your Radiodetection Portal account login details.

You can obtain your login details from your manager/supervisor or company's Radiodetection Portal administrator.

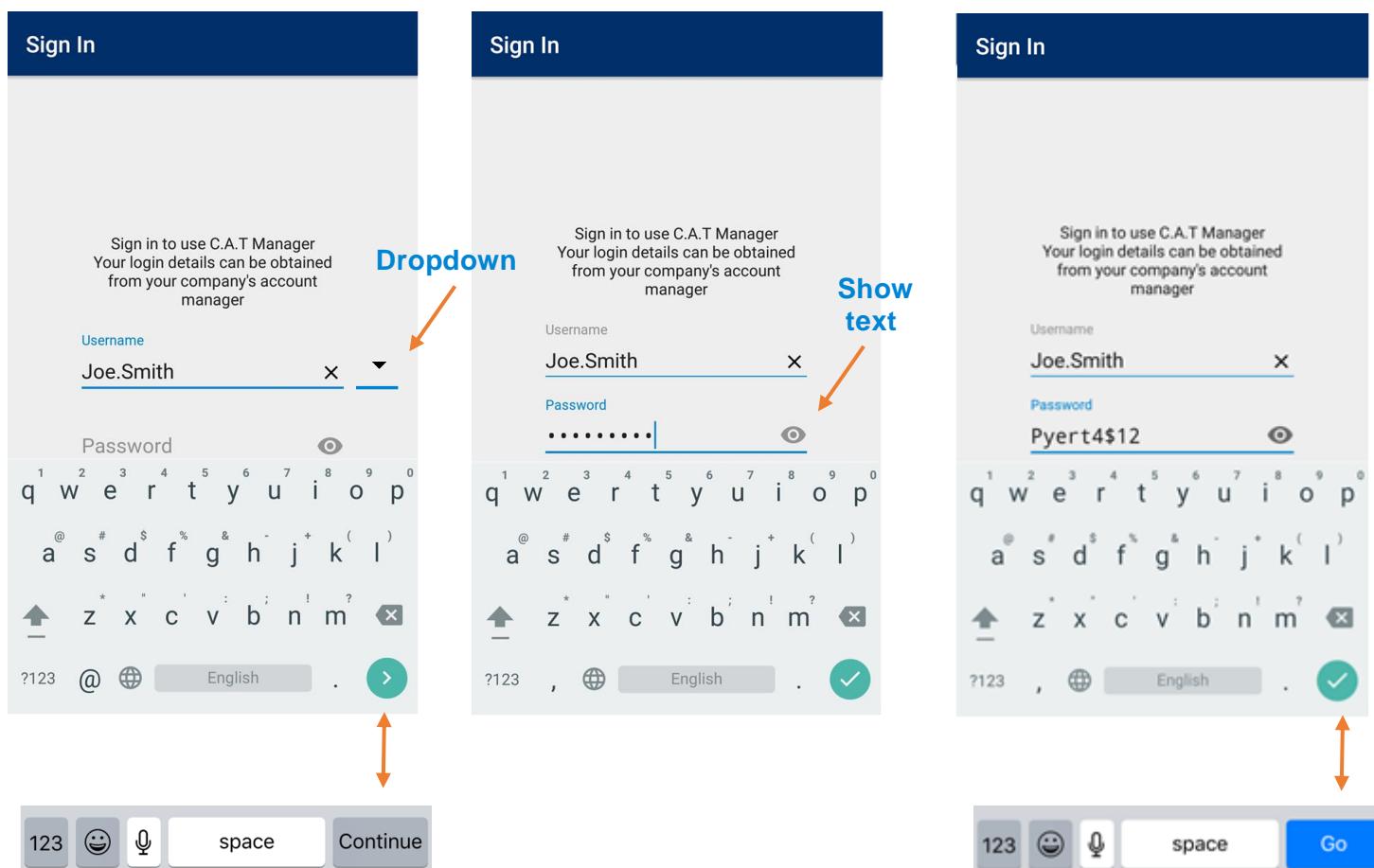
NOTE: Your account need to be authorised need to be authorised to use the C.A.T Manager online. See the [Setting up user privileges](#) in the Radiodetection Portal guide.

Radiodetection Portal accounts can be created by registering at <https://portal.radiodetection.com>.

[Registration](#) is free. For further information on how to register and use the Radiodetection Portal account consult the [Radiodetection Portal guide](#) or copy and paste this link

http://online.radiodetection.com/doclib/Radiodetection_Portal_User_Guide.pdf in your web browser.

NOTE: An active internet connection is required to login into you C.A.T Manager account.



1. Enter your **Username**

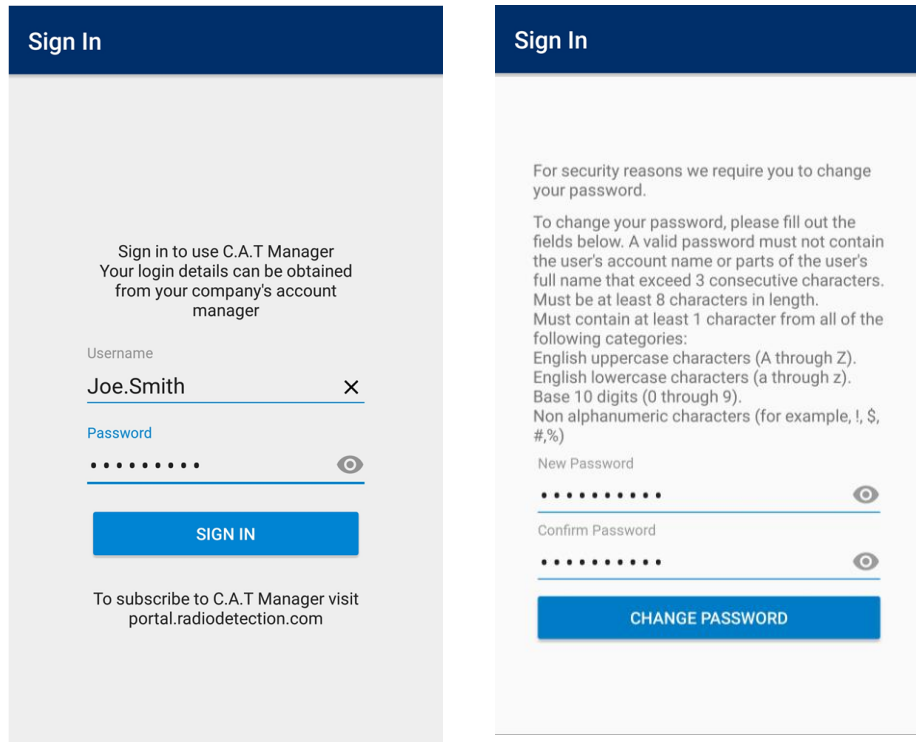
If you share the device with other users or if you have different usernames you can use the Dropdown icon to select one of the 3 usernames used last

2. Press the **Next** icon (android) or **Continue** (iOS) at the bottom left of your keyboard

3. Enter your **Password**

If required, you can press the **Show text** icon to be able to check your password

- Press the **Done** icon (android) or **Go** (iOS) at the bottom left of your keyboard



Sign In

Sign in to use C.A.T Manager
Your login details can be obtained
from your company's account
manager

Username
Joe.Smith X

Password
.....

SIGN IN

To subscribe to C.A.T Manager visit
portal.radiodetection.com

Sign In

For security reasons we require you to change
your password.

To change your password, please fill out the
fields below. A valid password must not contain
the user's account name or parts of the user's
full name that exceed 3 consecutive characters.
Must be at least 8 characters in length.
Must contain at least 1 character from all of the
following categories:
English uppercase characters (A through Z).
English lowercase characters (a through z).
Base 10 digits (0 through 9).
Non alphanumeric characters (for example, !, \$,
#,%)

New Password
.....

Confirm Password
.....

CHANGE PASSWORD

- Press **Sign In**
- You will be required to change to a new password the first time you login into the C.A.T Manager system (mobile app or web).
Enter and confirm the new password and press **CHANGE PASSWORD**.

Password rules:

- Must not** contain the user's account name or parts of the user's full name that exceed 3 consecutive characters.
- Must** be at least 8 characters in length.
- Must** contain at least 1 character from all of the following categories:
 - English uppercase characters (A - Z)
 - English lowercase characters (a - z)
 - Base 10 digits (0 - 9)
 - Non alphanumeric characters (for example, !, \$, #,%)

← Terms and Conditions

To access C.A.T manager, you must read and accept the End user License Agreement. Rejection will log you out. You can view this agreement at any time in the About section.

1

C.A.T MANAGER APP END USER LICENSE AGREEMENT

These end user license agreement ("EULA") together with the C.A.T Manager Privacy Policy, which can be viewed at <http://radiodetection.com/EndUserLicenseAgreement>, create an agreement between You ("You" or "Your") and Radiodetection Ltd, a company incorporated under the laws of England and Wales, with registered office at Western House, Street 2014 001 United Kingdom (inclusive of Radiodetection's successor(s) in interest ("Radiodetection")) in respect of Your use of Radiodetection's C.A.T Manager Online mobile app ("App"), the data You upload and subsequently access, retrieve, view and download via the App ("Customer Data"), Radiodetection's data which you can access, retrieve and view ("Radiodetection Data") and Radiodetection's documentation, if any, that prescribes how the App is to be used ("Documentation").

Before using the App, You should carefully read the following terms and conditions contained in this EULA as they govern Your use of the App, the Radiodetection Data and Documentation. By using the App, You accept this EULA and agree that (i) You are hereby bound by this EULA's terms and conditions, and (ii) Your use of the App, Customer Data, Radiodetection Data and Documentation is for legitimate and legal third business purposes in the normal and proper course of the business of your employer only.

Radiodetection is willing to license and/or allow the use of the App, the Radiodetection Data and the Documentation only on the condition that You accept and agree to all of the terms and conditions contained in this EULA. If You do not agree with this EULA, You are not granted permission to use the App, the Radiodetection Data and Documentation. No other license or rights are granted (whether expressly, by implication or otherwise) to You under this EULA.

You should print a copy of this EULA for future reference.

IT IS HEREBY AGREED

1. ACKNOWLEDGEMENTS

1.1 Your employer ("Employer") has entered into terms with Radiodetection to subscribe to and use Radiodetection's C.A.T Manager Online service ("Service"). To this end, You may need to use the App, the Radiodetection Data and the Documentation.

1.2 Radiodetection licenses the use of the App to You as an end user of the App and subject to any rules or policies apply by any app store provider or operator from whose site or platform You downloaded the App. Radiodetection does not sell the App to You. Radiodetection remains the owner of the App, the Radiodetection Data and the Documentation at all times.

1.3 This App is intended to be used by employees of the Employer only. Radiodetection disclaims all responsibility and liability if You use the App and You are not an employee of the Employer.

DECLINE ACCEPT

← Terms and Conditions

To access C.A.T manager, you must read and accept the End user License Agreement. Rejection will log you out. You can view this agreement at any time in the About section.

6

C.A.T Manager EULA

Copyright ©2017 Radiodetection Ltd. All rights reserved. Radiodetection is a subsidiary of SPX Corporation.

13.4 If any provision (or part thereof) contained in this EULA is determined to be void, invalid, or otherwise unenforceable by a court of competent jurisdiction or on account of a conflict with an applicable government regulation, such determination shall not affect the remaining provisions (or parts thereof) contained herein and the illegal, invalid, or unenforceable clause shall be modified in compliance with applicable law in a manner that most closely matches the intent of the original language.

13.5 No joint venture, partnership, employment, or agency relationship exists between You and Radiodetection as a result of this EULA or Your use of the App.

DECLINE ACCEPT

7. Read and **ACCEPT** the End User License Agreement

← Accounts & Contracts

Choose a Contract and Account to associate your scans against

Note: This feature is not available for Standard company accounts.

Last update: 04 Jan 15:50:09

Accounts

Default

Contracts

Default

UPDATE

Dropdown selectors

8. Chose an **Account** and **Contract**, from the drop down boxes.

NOTE: Standard free account have no available selections. Pro and Advance accounts will show selections only if created by the company administrator.

The Account and Contract chosen will remain active until you change this selection and all the scans and survey uploaded will be associated to them.

9. Press **UPDATE** to go to the main screen

WARNING: You will remain logged in even if you stop the C.A.T Manager app or reboot your device.
You need to log out if you do share your device with other gC.A.T4 users

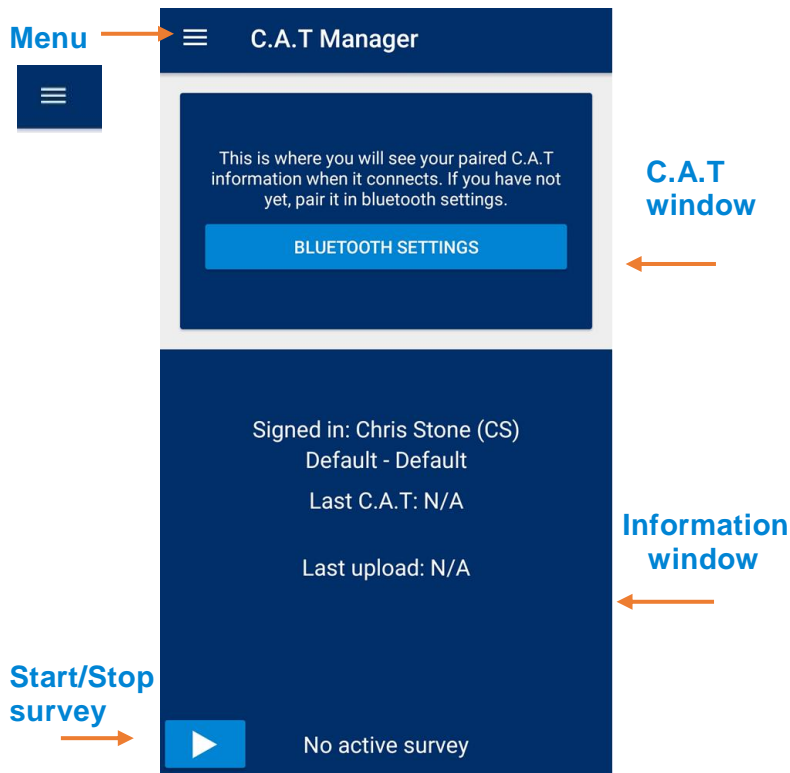
5.1 Sign In problems

If you have issues trying to Sign In to C.A.T manager for Android, you should read and follow the troubleshooting instructions provided in Chapter 16.

Please ensure you have followed all steps before contacting Radiodetection support.

6 C.A.T Manager home screen

The C.A.T Manager home screen is the main app's screen.



The home screen offers 2 commands buttons: a **Menu** button on the top right corner and a **Start/Stop Survey** button in the bottom right.

The screens is split into 2 sections:

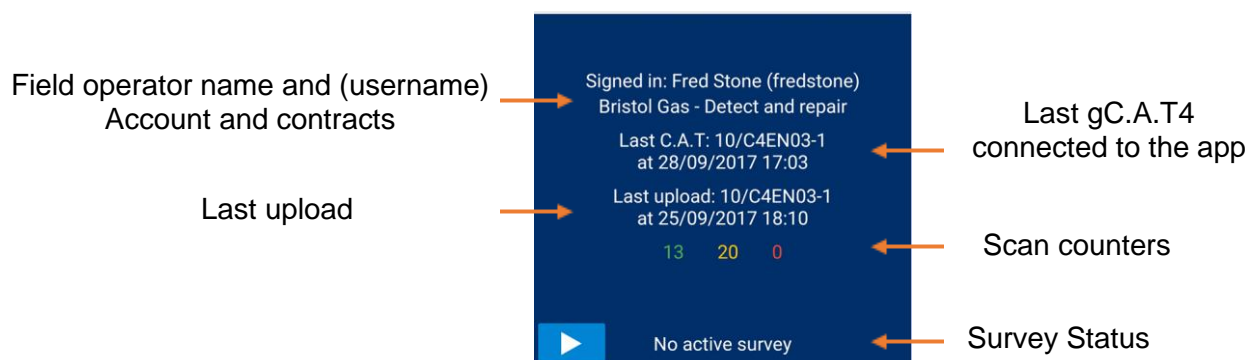
1. C.A.T window



This window lets you access the C.A.T locators screen to manage your gC.A.T4 devices and gives you feedback on the connected gC.A.T4 when there is an active Bluetooth connection.

2. Information window

This window gives feedback about the app's operation.



The 3 scan counters provide immediate feedback on the data flow:

- **Green** = number of scans successfully transferred to the server
- **Orange** = number of scans received and/or pending
- **Red** = number of scans which have failed to transfer

The orange counter increases with each scan data received from the gC.A.T4.

As the scans are transferred to the C.A.T Manager Online cloud, the orange counter decreases as the green increase.

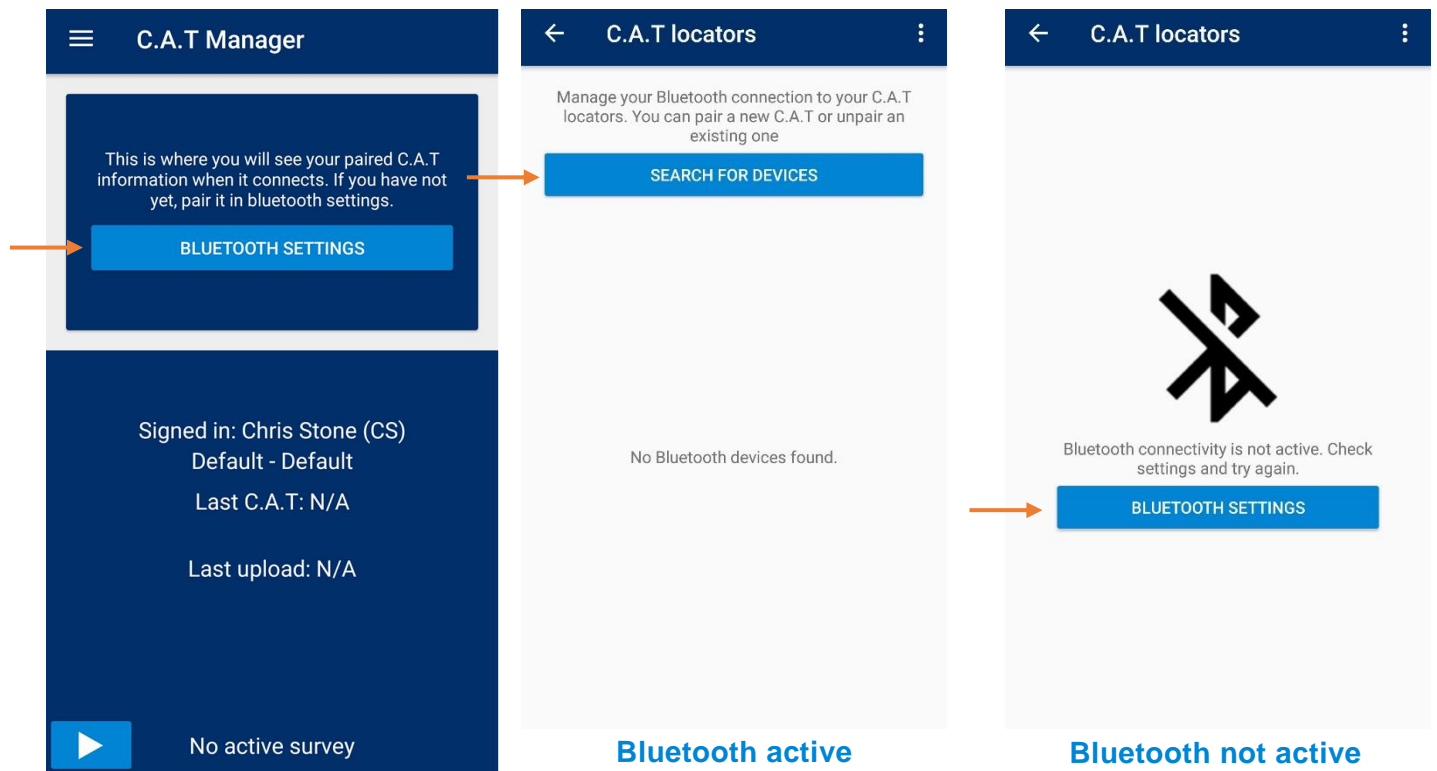
The red counter shows how many have failed to transfer. This number should be normally zero.

[Contact us](#) if you are experiencing any errors.

7 Pair to a gC.A.T4

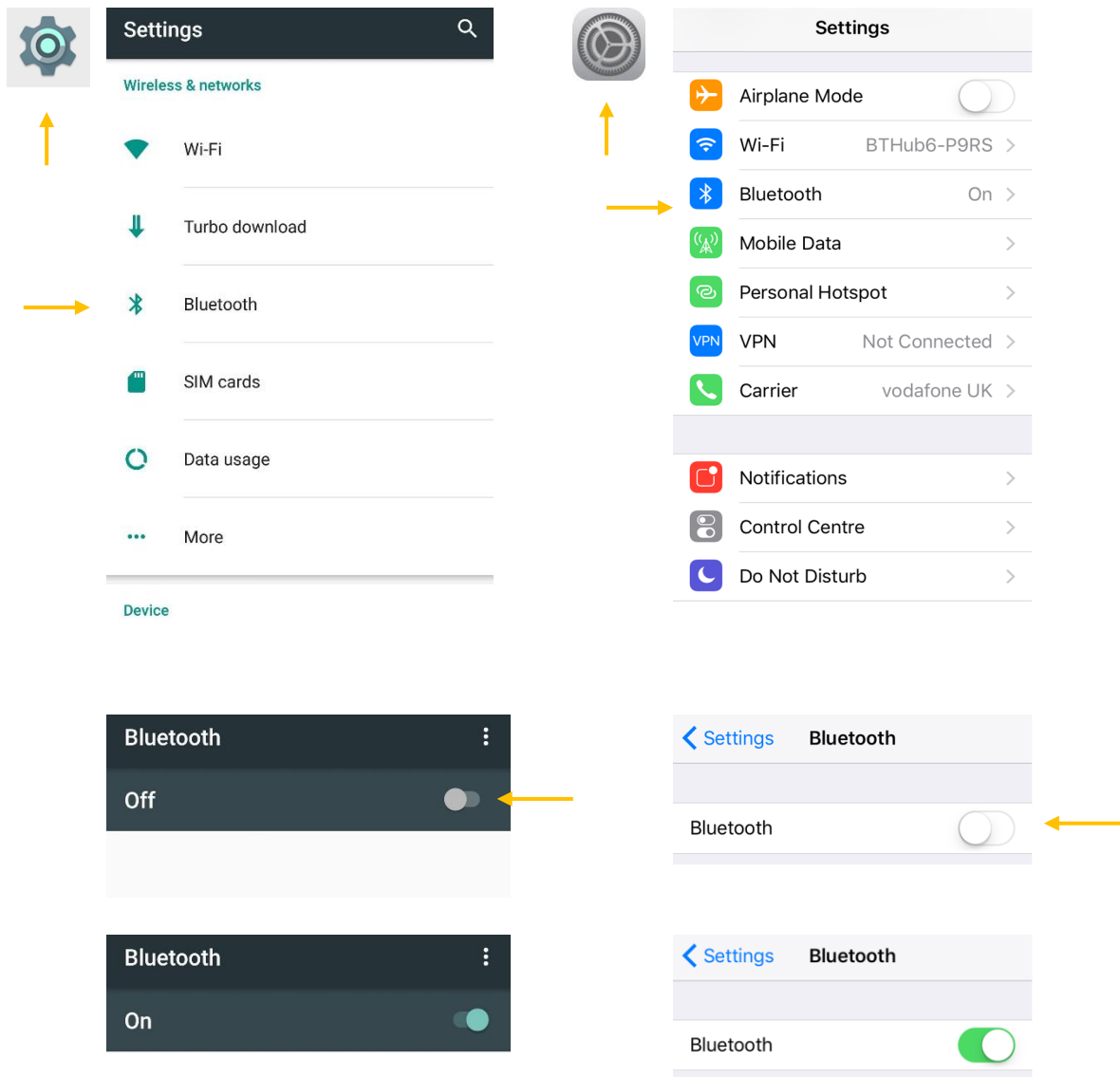
To connect to your gC.A.T4 you need to pair it with your mobile device.

NOTE: You can only have 2 gC.A.T4 paired to your device at any time.



To pair a gC.A.T4:

1. Click on the **BLUETOOTH SETTING** button to access the C.A.T locators screen
If the screen shows the **SEARCH FOR DEVICES** button skip to **step 5**
2. Press the **BLUETOOTH SETTINGS** button to access the Bluetooth settings screen



3. Turn **On** Bluetooth connectivity in the android Bluetooth setting screen. The screen will show all the devices which are already paired to your android device

NOTE: This screen may vary depending on your android device and operating system.

4. Go back to the C.A.T Manager app

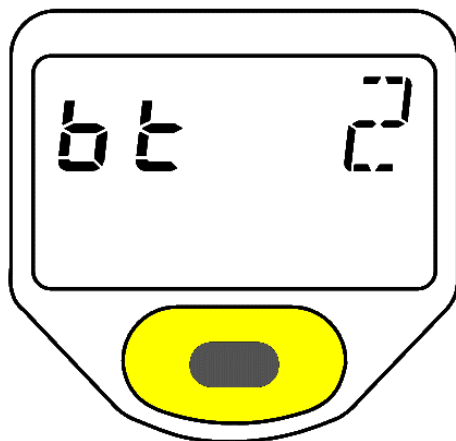
Skip to step 6 if your gC.A.T4 offers Bluetooth 4.0 LE (Bluetooth Low Energy or BLE). You can determine this by checking for the presence of the “Works with Android and iOS devices” Bluetooth statement on the label on top of the gC.A.T4 battery compartment.

“Works with Android and iOS devices”

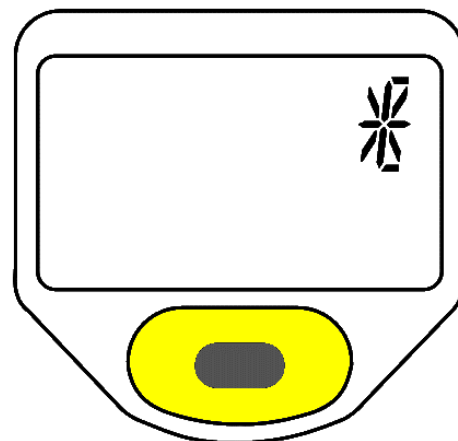


5. Set your gC.A.T4 in **pairing mode**:

- pull the gC.A.T4 trigger to switch it on
- release the trigger
- press and hold the depth button



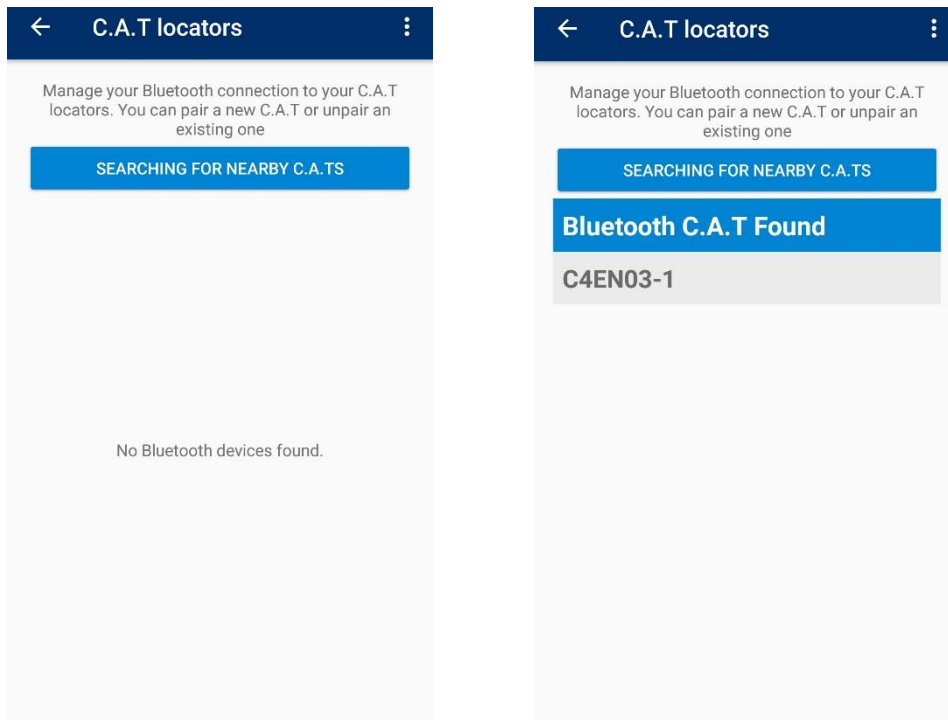
Bluetooth countdown



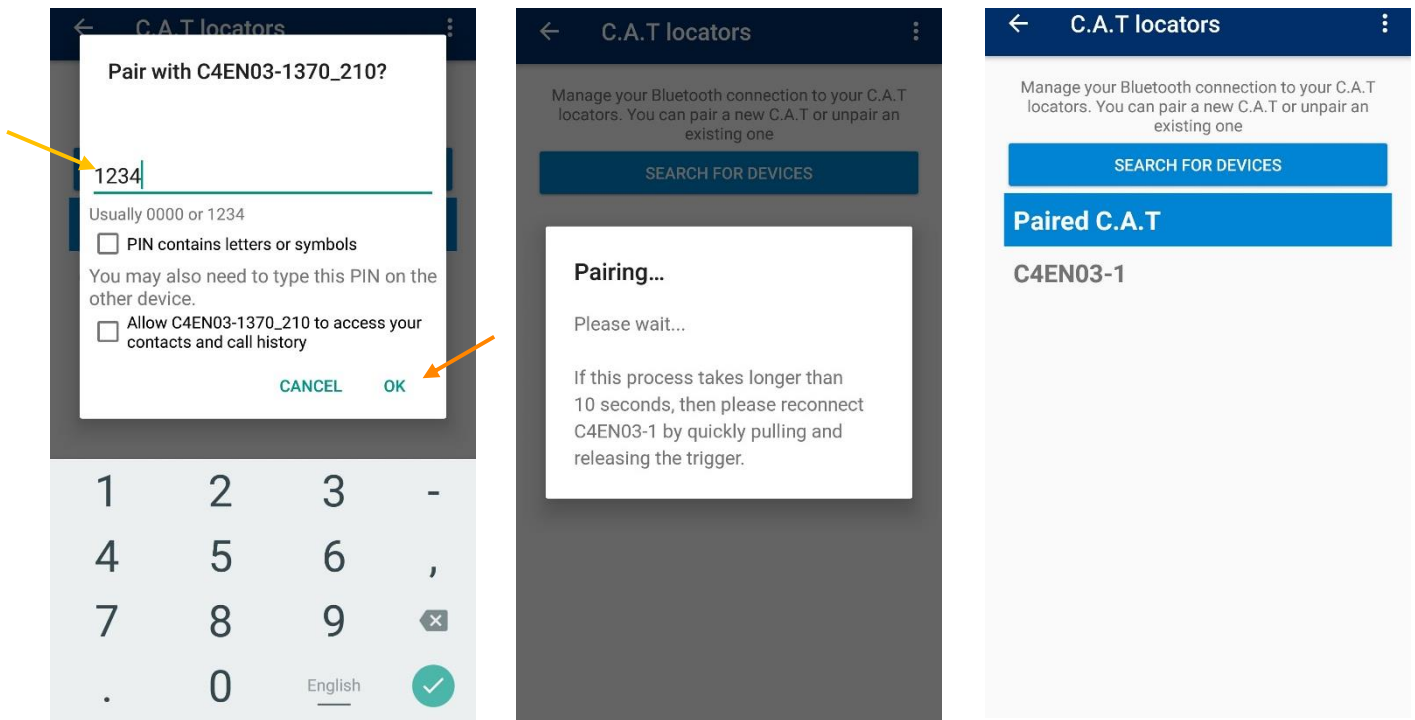
Bluetooth pairing

- after 8 seconds the screen will flash a **5 seconds** a Bluetooth (**bt**) countdown and beep for the last 3 seconds
- the Bluetooth icon will start flashing on the screen – the gC.A.T4 is ready for pairing
- release the depth button

6. Press **SEARCH FOR DEVICES** on the C.A.T locators screen



- When your gC.A.T4 serial number appears on the screen, select it by pressing on it



- Depending on the Bluetooth connectivity type of your gC.A.T4 you may be requested to enter a pairing code. If this is the case enter **1234** and press **OK**.
- When the pairing process ends the gC.A.T4 will emit a double tone sound, only if pairing with Android and your gC.A.T4 will appeared on the list of paired C.A.Ts
- Exit the C.A.T locators screen by pressing the **back** ← icon on the screen's top right corner

Your gC.A.T4 is now ready to use.

8 Using C.A.T Manager Online

gC.A.T 4 units are equipped with an internal recorder which every seconds, automatically stores all the locate parameters of your C.A.T and your location (if locked into a GPS signal) into non-removable built-in memory.

The large memory capacity of the gC.A.T4, will be able to store 2 years or more of usage data (based on 8 hours per day, 5 days per week).



If you are running the C.A.T Manager Online mobile app and if you have successfully signed in, this will run in the background automatically retrieving the gC.A.T4 logged data every time you complete a scan (release the trigger).

NOTE: The app does not delete the data stored in the gC.A.T4.

When you release the trigger, the gC.A.T4 will remain on for at least 1 minute searching for a nearby paired device. If your C.A.T Manager mobile app is running, the locator will connect to it. Its screen will display a fixed Bluetooth icon for the duration of the data transfer.



The gC.A.T4 will turn itself off as soon the data transfer is complete.

If your mobile device has an active data connection, the logged data will be sent to the C.A.T Manager Online server where it will be stored and analysed.













If your mobile device does not have a live data connection, the data will be stored and transmitted as soon as a working connection is available.

NOTE: Your mobile device needs to be paired to the gC.A.T4 you are using. The data transfer of one single scan between your C.A.T and your mobile device is very quick, so it is normal to see your C.A.T off after less than 1 minute.

WARNING: If you are sharing a gC.A.T4 with other operators, make sure that all your scans been correctly uploaded to the server against your account, before handing the gC.A.T4 to the next operator.

When the C.A.T manager app connects to the gC.A.T4 it checks for the last known scan by the server for the specific gC.A.T4. If this is an unknown unit or if it has not been synchronised for a while (for example if you did not have the app running or forgot your mobile device), the app will retrieve up to 10 working days of scans history from the gC.A.T4 internal memory and transmit it to the server. For example, (refer to the calendar below):

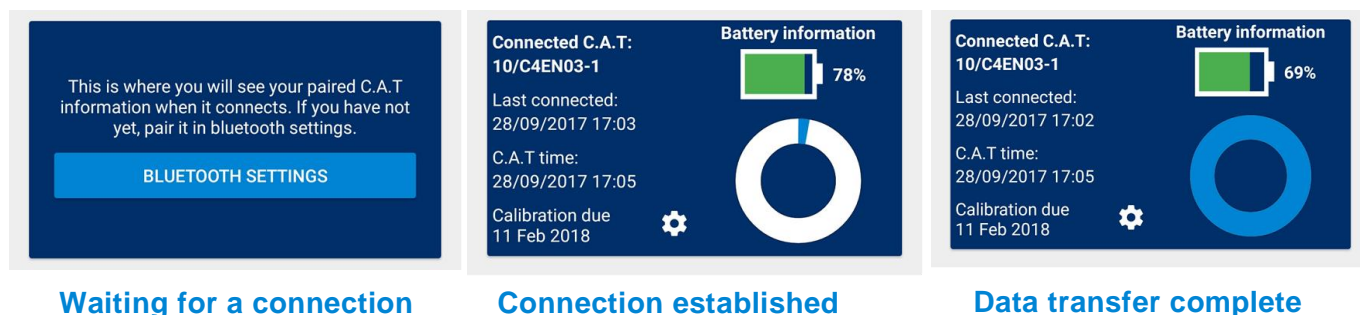
- Today is the 19th and you connecting to your gC.A.T4 for the first time.
- Your gC.A.T4 is unknown to the C.A.T Manager Online server, or it has not be synchronised for more than 10 working days

Calendar						
1	2 	3 	4 	5 	6	7 
8	9 	10 	11 	12	13 	14
15 	16 	17 	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

- The app will retrieve the data for the 4th, 5th, 7th, 9th, 10th, 11th, 13th, 15th,16th and 17th and send them to the server.

Note: Data over 10 working days old not upload via the app will require manually through the C.A.T Manager PC application

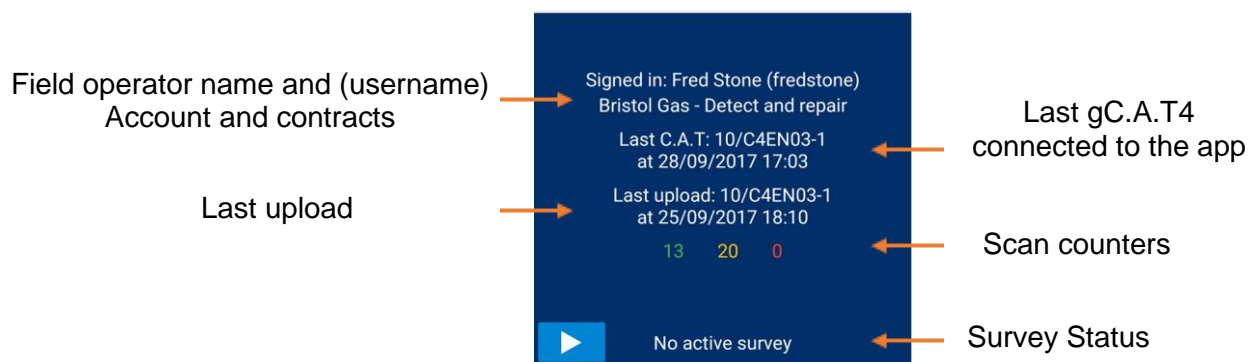
During a data transfer the C.A.T section of the home screen shows the different phases:



When the transfer is completed, the C.A.T section will report that there are no C.A.T connected, and will continue display some feedback information about the last gC.A.T4 connected.

The C.A.T window will turn back into its “waiting for a connection” status after a short while.

The information window gives up-to-date feedback about the connection to the C.A.T Manager Online server:



The 3 scan counters provide immediate feedback on the data flow:

- **Green** = number of scans successfully transferred to the server
- **Orange** = number of scans received and/or pending
- **Red** = number of scans which have failed to transfer

The orange counter increases with each scan data received from the gC.A.T4.

As the scans are transferred to the C.A.T Manager Online cloud, the orange counter decreases as the green increase.

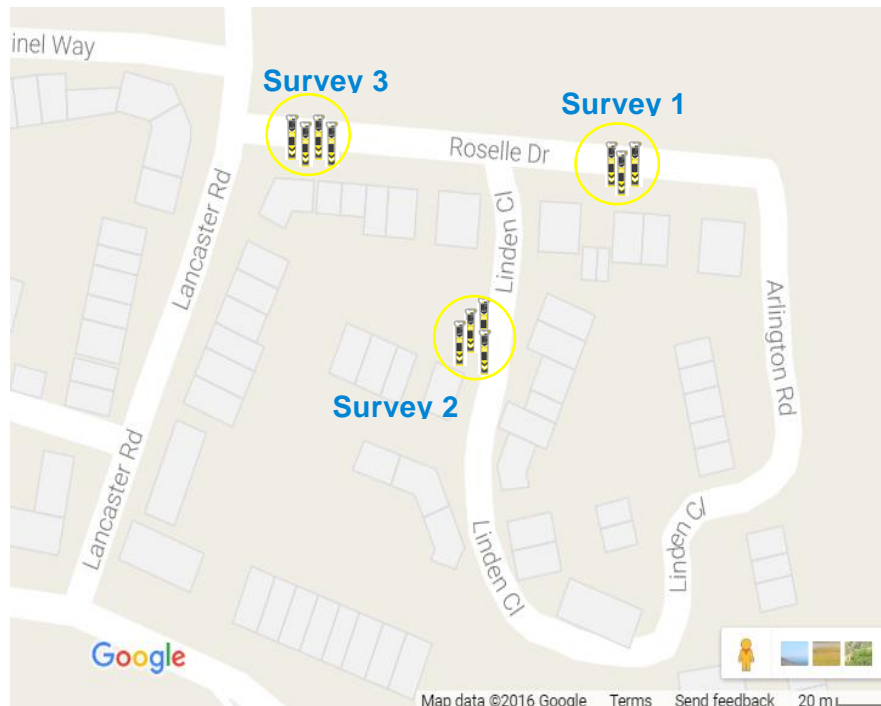
The red counter shows how many have failed to transfer. This number should be normally zero.

[Contact us](#) if you are experiencing any errors.

9 Manage your surveys

C.A.Ts and Gennys are used to survey an area prior and during an excavation. Depending on the complexity of the area surveyed it is normal for C.A.T operators to perform a large number of scans in different modes.

All the scans performed to survey an area are grouped into a single **Survey**



9.1 Automatic Survey grouping

The C.A.T Manager Online system automatically groups different scans into **survey** as they are received.

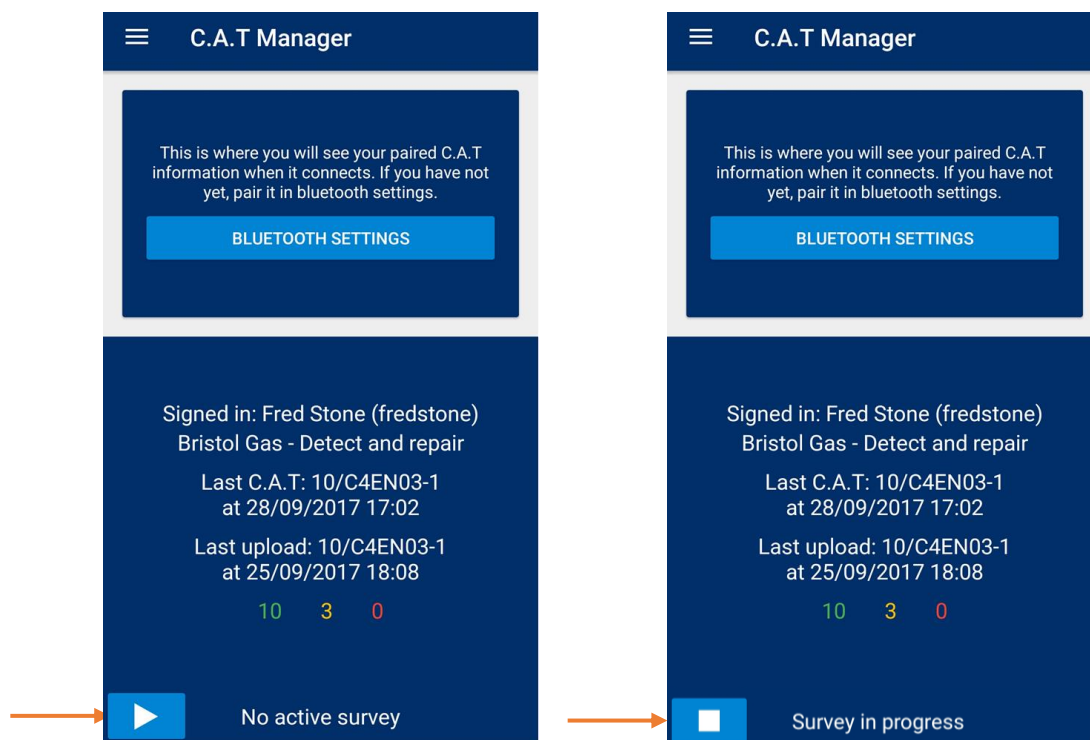
The system looks at time difference and distance between subsequent scans. Scans which are within 30 minutes or 30m apart are considered part of the same survey.

9.2 Manual Survey creation

C.A.T field operators may want to start and stop a survey manually to ensure that only the correct scans are part of the survey being conducted and which will be monitored and analysed by their supervisor

For example if before starting a survey, the gC.A.T4 is tested in different modes and with its Genny in the same area in which the survey will be conducted, these “test” scans may be considered as a part of the same survey by the C.A.T Manager Online system.

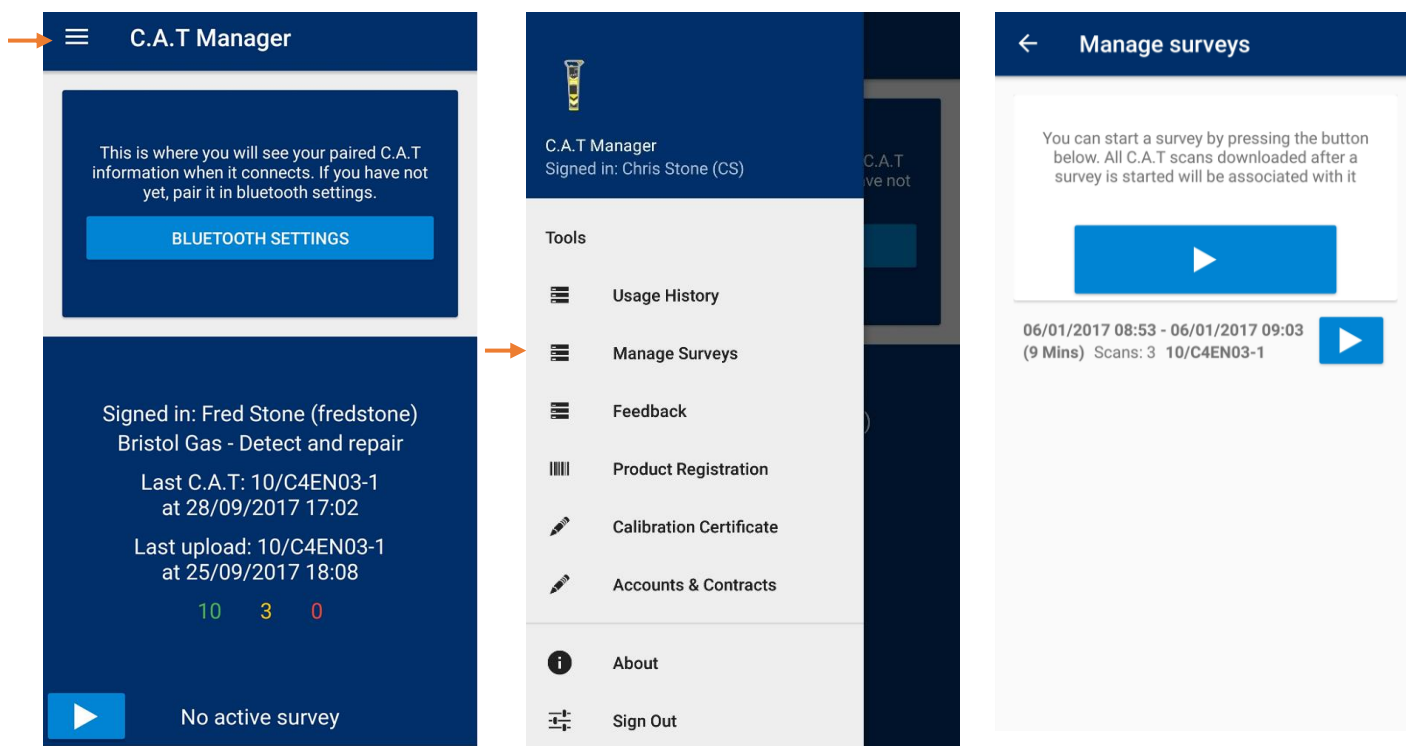
You can start or end a survey directly from the home screen surveys screen:



1. Press the **Play** button to start a survey
The button will change to Stop and the **Survey in Progress** message will be shown
2. Press the **Stop** button to **end a survey**
The button will change to a Play and the **No active survey** message will be shown

NOTE: the survey will automatically close after 90min of inactivity

You can resume the previous survey, if this was ended no longer than 6 hours earlier, or just start and end a new one from the **Manage surveys** screen:



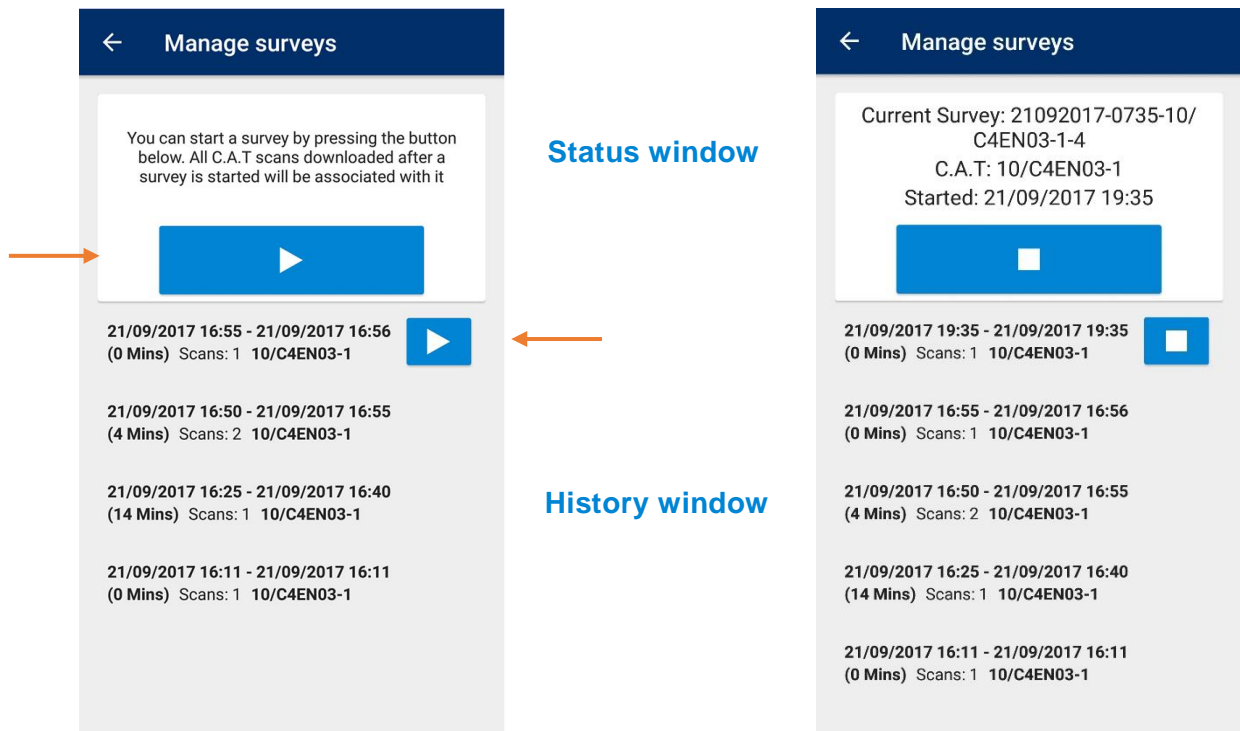
1. In the home screen select the **menu icon** on the top right corner
2. Select **Manage surveys**

The **Manage surveys** screen is divided into 2 sections:

The top section is the **Survey Status** window. From her you can start a new survey, stop it and check feedback about the current status

The bottom section is the **Surveys History** window and from here you may be able to resume the previous survey.

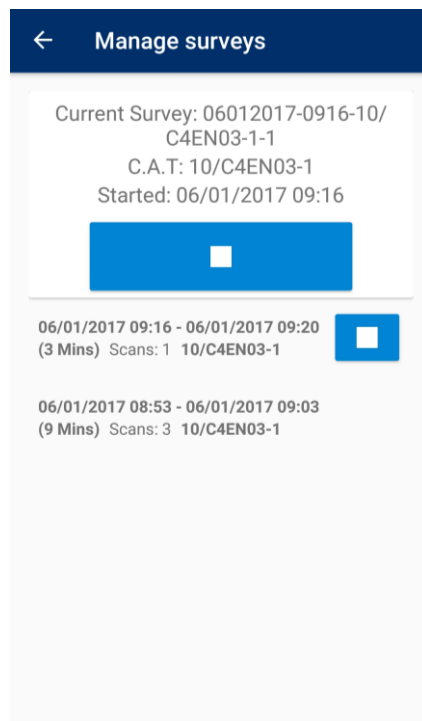
NOTE: The last survey can only be resumed if not older than 12 hours.



- You can start a new survey by pressing the **Play ►** button on the top part of the screen or resume the last one by pressing the **Play ►** button in the history window.

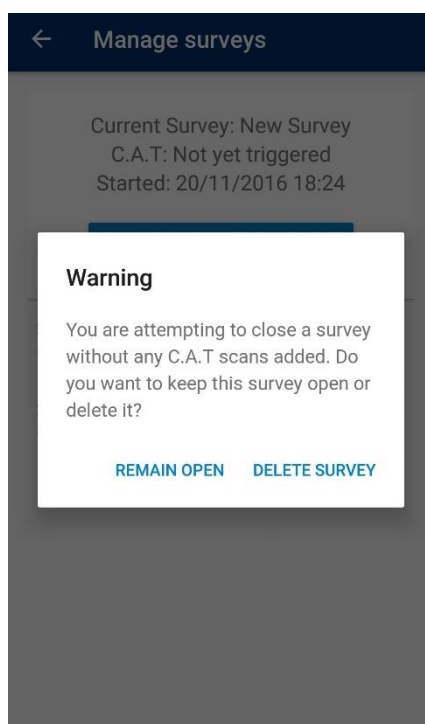
The survey will start and wait for the first scan to become active.

When a survey become active this will appear the first scan is received the survey become active and appear in the history window



- Press the **Close ■** button to stop the survey

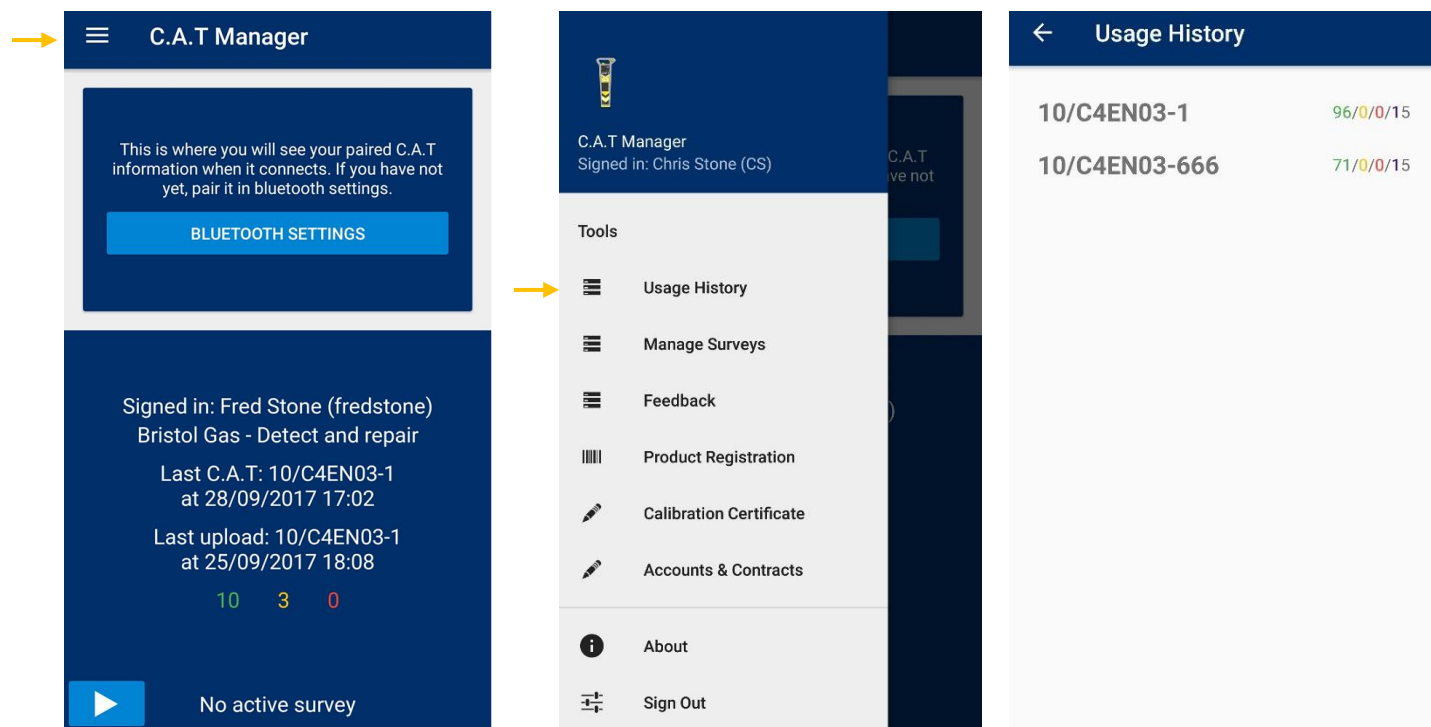
NOTE: the app will warn you if you are trying to close a survey with no scan associated with it



10 C.A.Ts' usage history and last known status

The C.A.T Manager app maintains a detailed usage history for all the gC.A.Ts connected since you signed in.

NOTE: The usage history will be deleted if you sign out from the C.A.T Manager app.

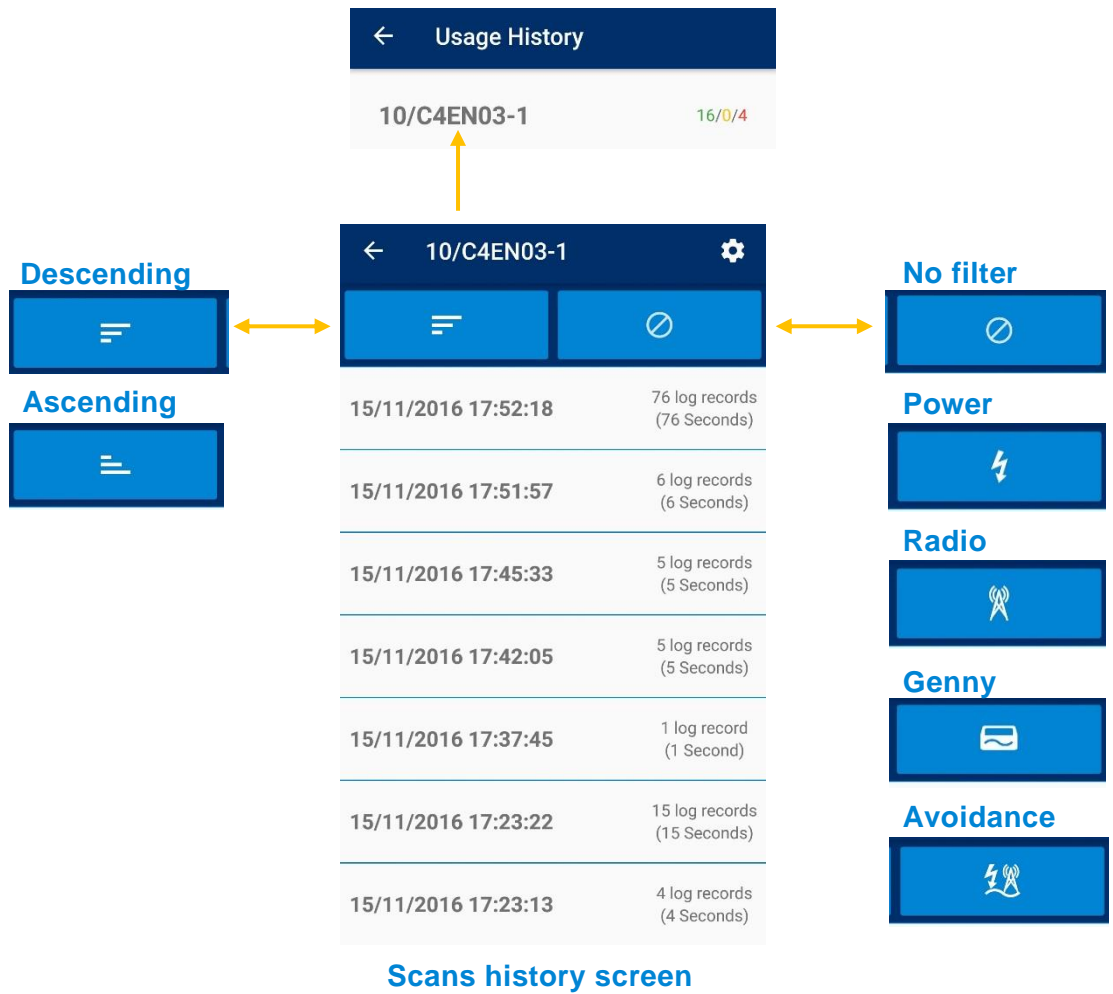


To access the app usage history:

1. Select the **menu icon** on the top right corner of the home screen
2. Select **Usage History**

The Usage History screen will list all the C.A.Ts, sorted by their serial number, you have used since login into the C.A.T Manager app

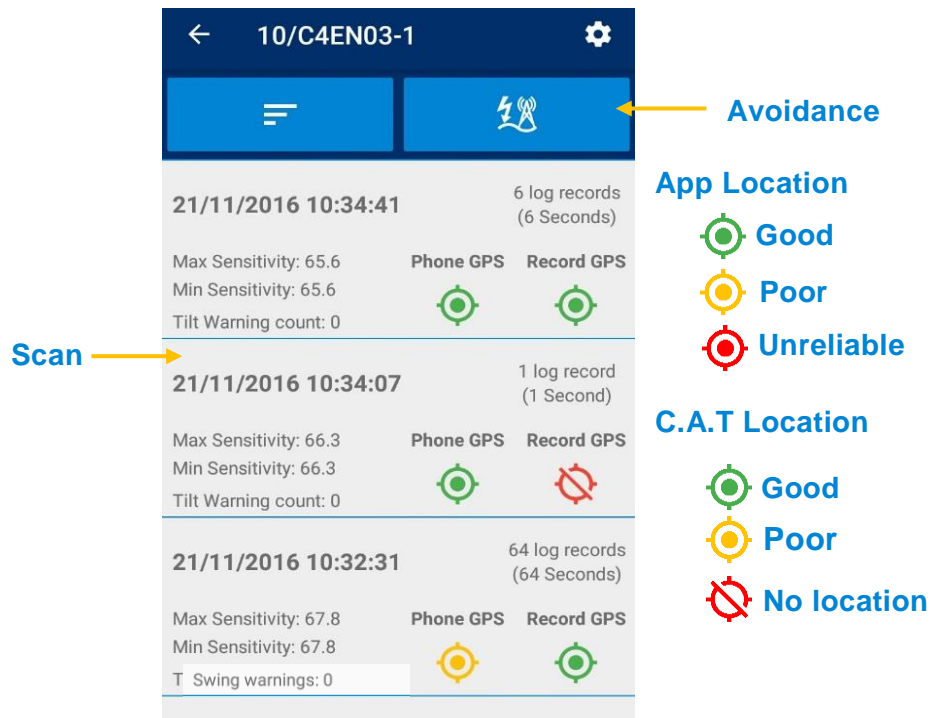
3. Select a C.A.T to look at all its scans



The Scans history screen will show all the scans sorted by date and time in descending order.

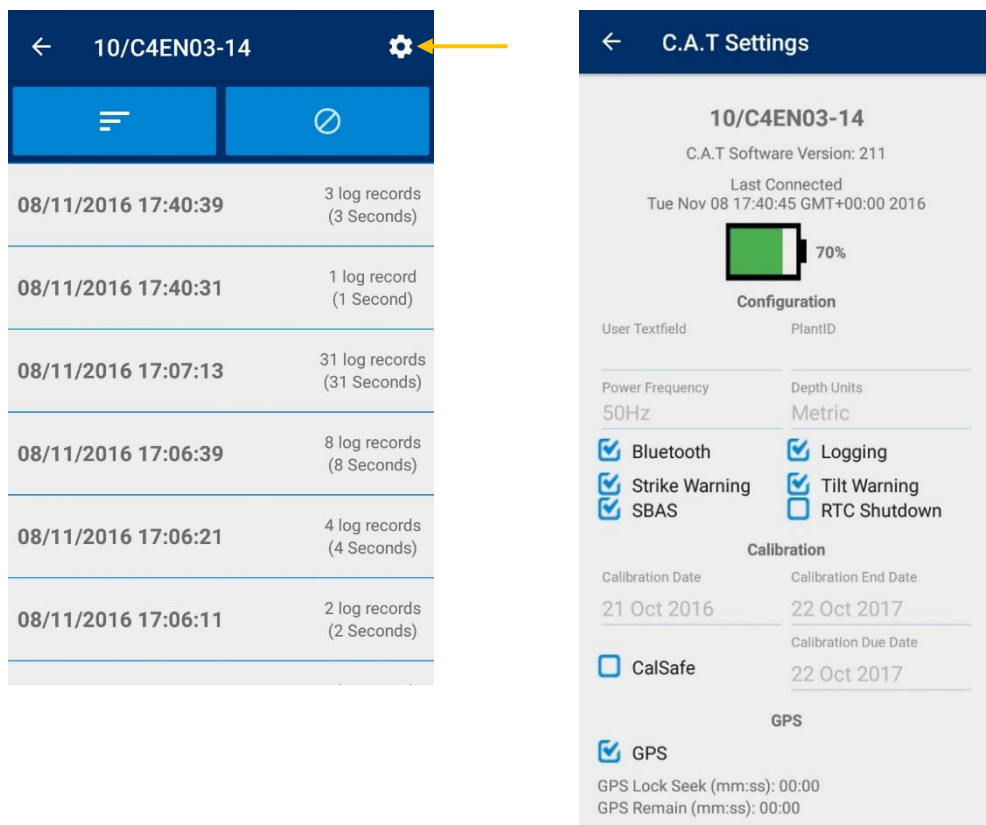
- Click on the **sort** button to toggle between **descending** and **ascending** order
- Click on the **mode** button to cycle the scan filter through Power, Radio, Genny and Avoidance modes

NOTE: If a single scan was conducted using 2 modes, for example Power and then Radio, this scan will be split into 2 distinct one: Power and Radio. If the sequence is Power followed by Radio followed by Power again, the scan will be split into 3.



6. Click on any scan to see more details:

- **Min and Max sensitivity**
- Number of **Swing** warnings
- Scan duration in **seconds**
- App and C.A.T location (**GPS**) status and accuracy

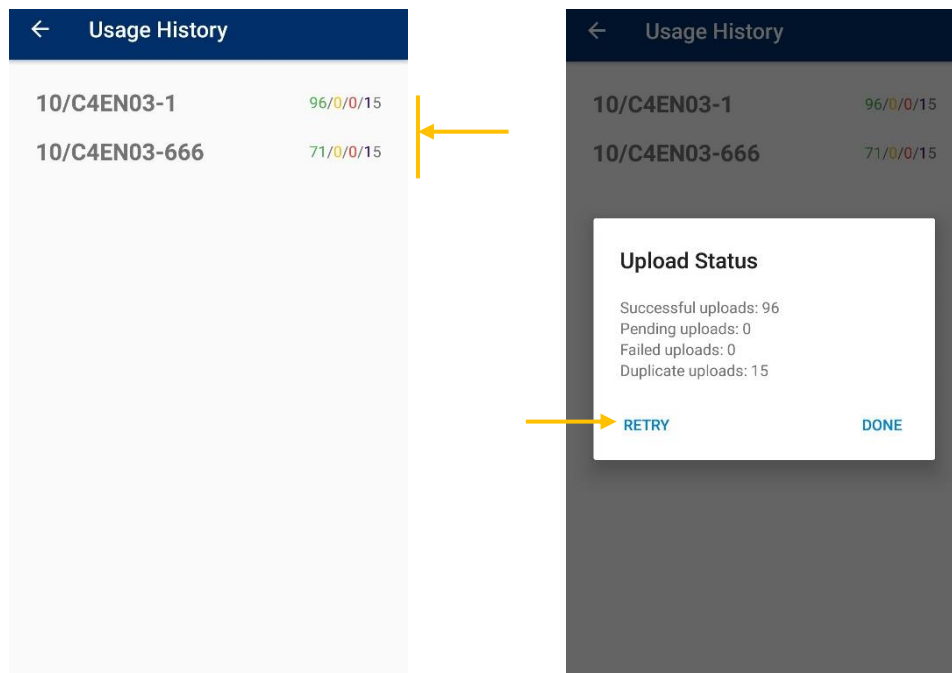


- Click on the setting button to review the status of your C.A.T4 the last time it was connected to the C.A.T Manager app

The C.A.T Status screen shows configuration, calibration and other status information

On the **Usage History** screen for each different C.A.,T the app indicates the status of the scans upload to the server by showing 4 numbers: **Successful** / **Pending** / **Failed** / **Duplicate**

Successful	Uploaded to the C.A.T Manager online server
Pending	Attempting to upload data to the C.A.T Manager online server
Failed	The data has failed to upload to the C.A.T Manager Online server
Duplicate	The scans data is already present in the server

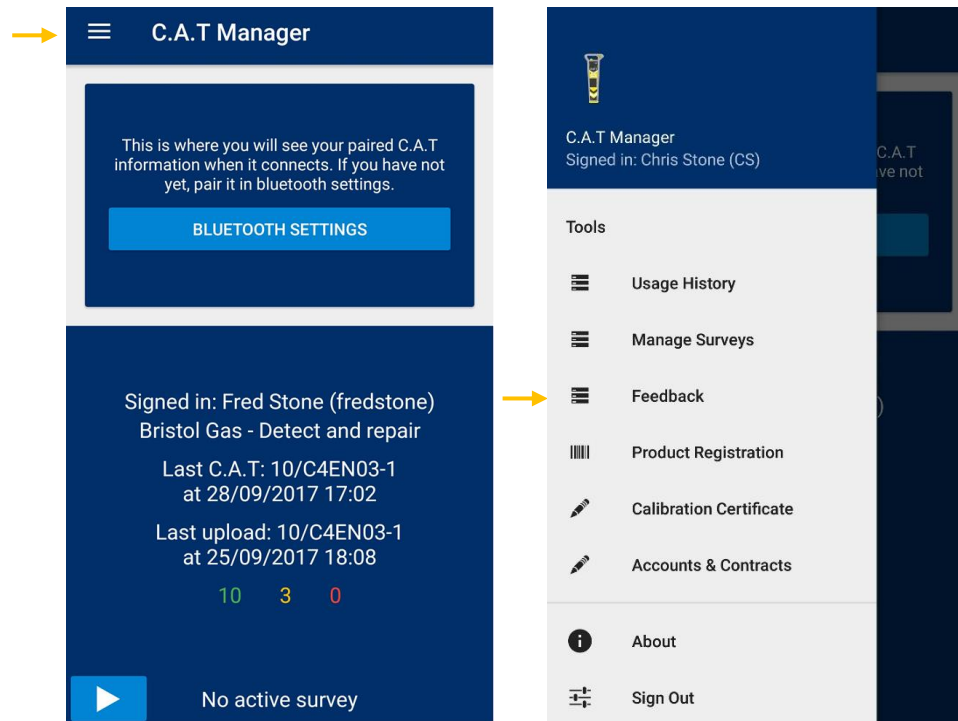


- Select the 4 numbers to see a broken down view of the scan upload to the server status.
- If you have failed uploads, press **Retry** to attempt the data upload again

11 Review your C.A.T operation

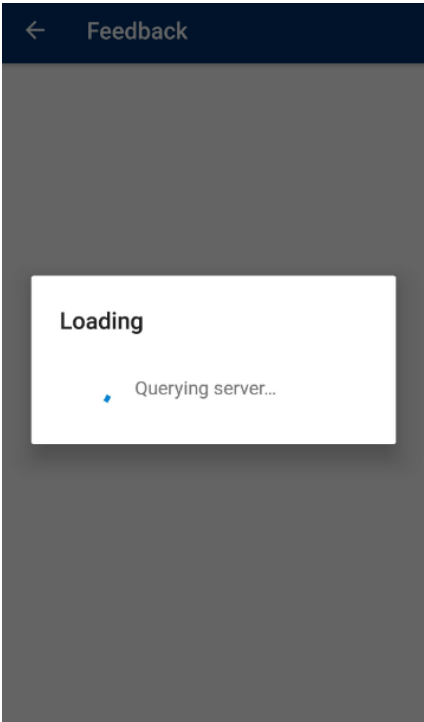
At the end of a survey or of a day work, field operators can use C.A.T Manager to review their work.

NOTE: A working data connection is required to use this features.

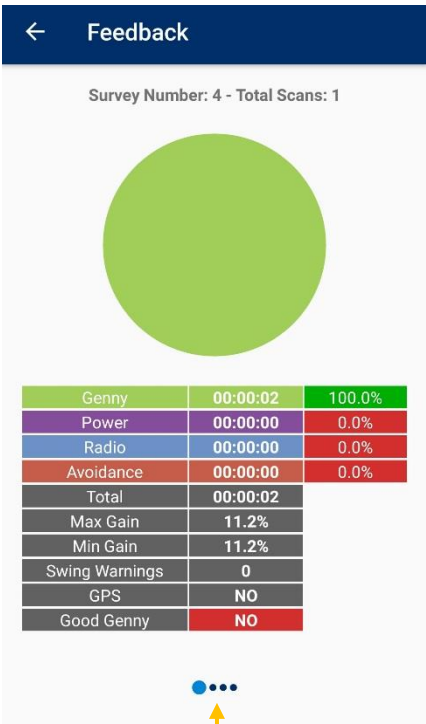


To obtain feedback about your survey(s):

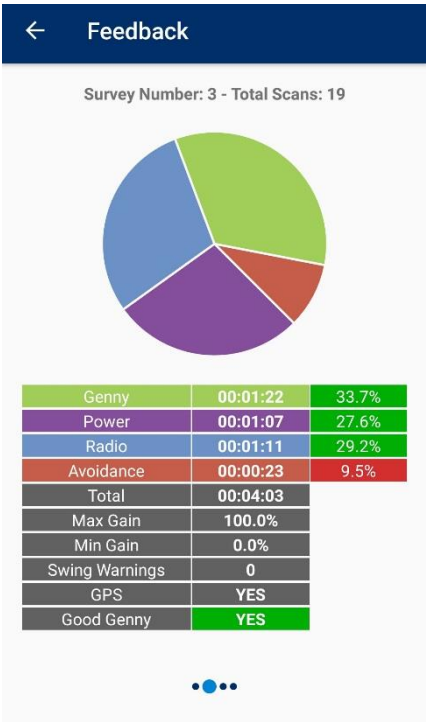
1. Select the **menu icon** on the top right corner of the home screen
2. Select **Feedback**



3. The C.A.T Manager app will retrieve feedback for all the scans and surveys completed on the day



Swipe right or left



Each mode overall use (duration) is compared to the overall usage during the specific survey or day. Colour scoring follows the following table:

Less than 10%
Between 10% and 20%
More than 20%

4. Swipe the screen right or left to navigate all your surveys

NOTE: feedback is only provided for the surveys conducted on that day. To review your work performance for other days, [Sign In](https://portal.radiodetection.com) into the Radiodetection Portal (<https://portal.radiodetection.com>) and use the C.A.T Manager online web app.

Good Genny signal provides feedback on whether a significant Genny signal was received by the locator when used in the correct modes: If scored red or green depending on whether a signal with a strength above 10% of the full scale on the display, was received or not

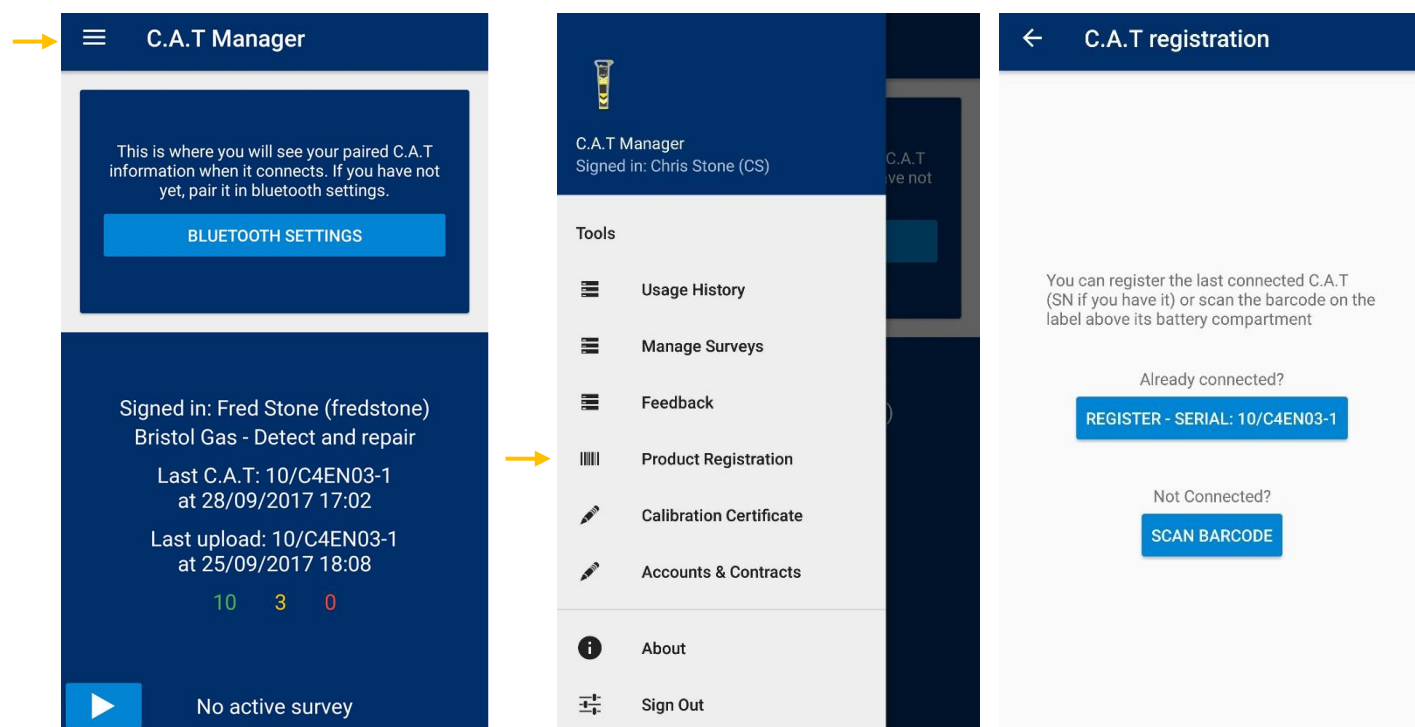
No signal above 10%
Presence of signal above 10%

NOTE: The scoring feedback provided by the C.A.T Manager online system and this app is intended to be used for reference only. It cannot be used as an indication of the true performance of the operators and the quality of their surveys.

NOTE: Scans and surveys scoring feedback provided by the C.A.T Manager online system is intended to be used for reference only. It cannot be used as an indication of the true performance of the operators and the quality of their surveys. You should always analyse all scans details and keep in consideration the type of survey been carried out and the nature of the location.

12 Registering your gC.A.T4

If required, you can register your C.A.T locator using the C.A.T Manager app.

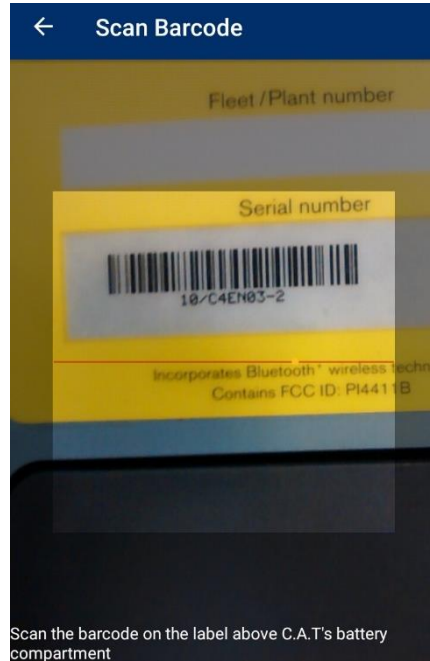


To register you C.A.T locator:

1. Select the **menu icon** on the top right corner of the home screen
2. Select **Register C.A.T**
3. The **C.A.T registration** screen will appear
4. To register the last C.A.T connected to the app click on the **Register – Serial:10/C4xxxx-x** and skip to **step 8**

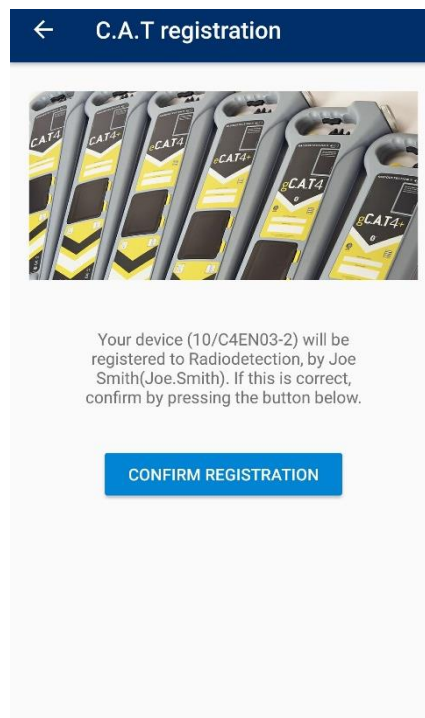
or

To register an unknown/unpaired C.A.T you can press the **SCAN BARCODE** button to use your device camera



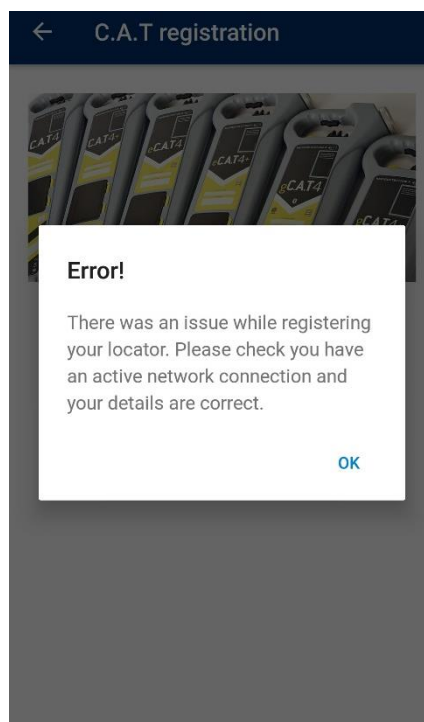
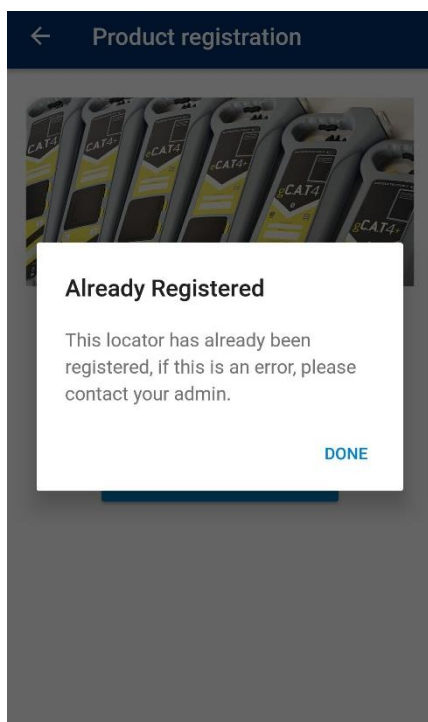
Barcode position

5. Point the camera at the serial number barcode of the C.A.T you wish to register. This can be found on the label above the battery compartment.
6. Hold the camera at around 10cm from it, ensuring the barcode is inside the clear box
When the barcode has been acquired, the C.A.T Manager mobile app will display a solid picture with the full serial number decoded at the bottom of it
7. Press the **X** icon at the screen's top right corner to re-scan the barcode or press the ✓ icon to proceed with the registration



8. Check the details and press **CONFIRM REGISTRATION**

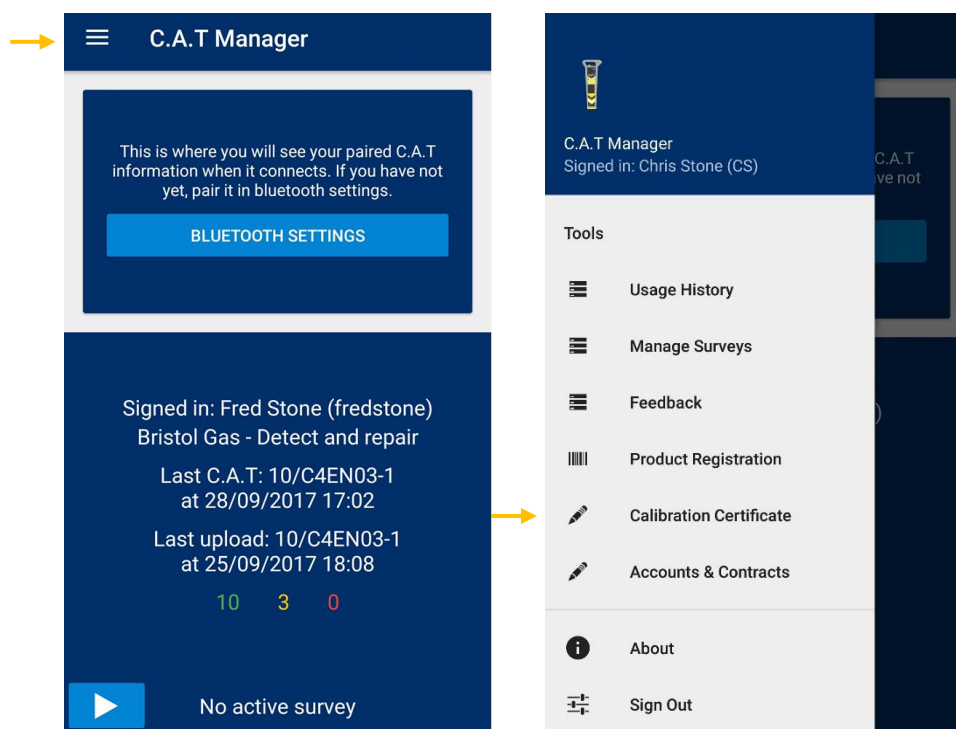
9. The system will confirm if the registration was successful or not



13 Retrieving the Calibration Certificate

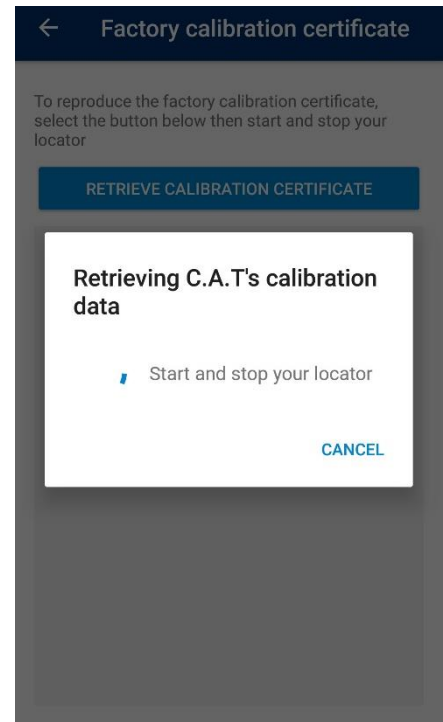
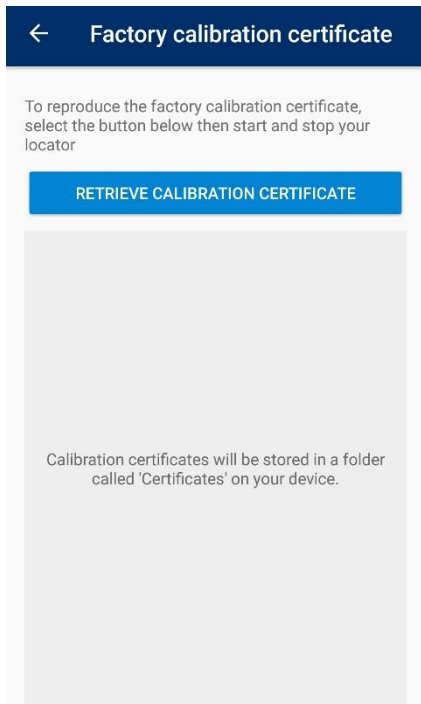
You can use the C.A.T Manager Online app to reproduce the C.A.T Factory Calibration certificate of the paired gC.A.T4 locator.

NOTE: Calibration certificates for C.A.T devices validated using the eCERT calibration system are not available through C.A.T Manager mobile.

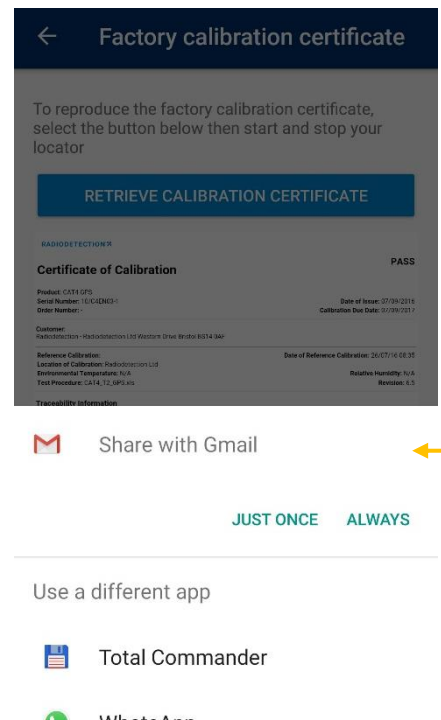
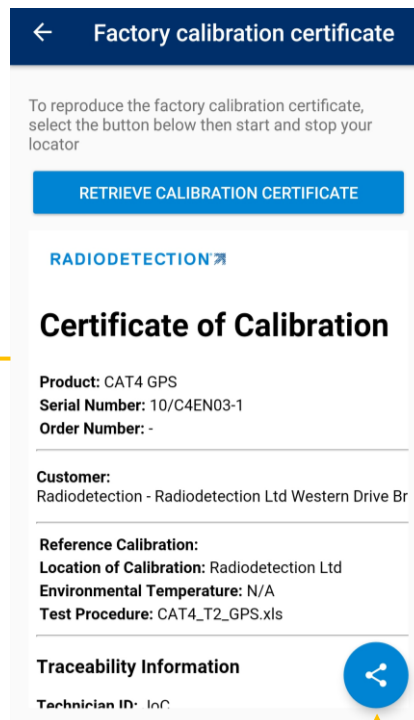


To reproduce the calibration certificate of your paired C.A.T:

1. Select the **menu icon** on the top right corner of the home screen
2. Select **Calibration certificate**
3. The **Factory Calibration Certificate** screen will appear



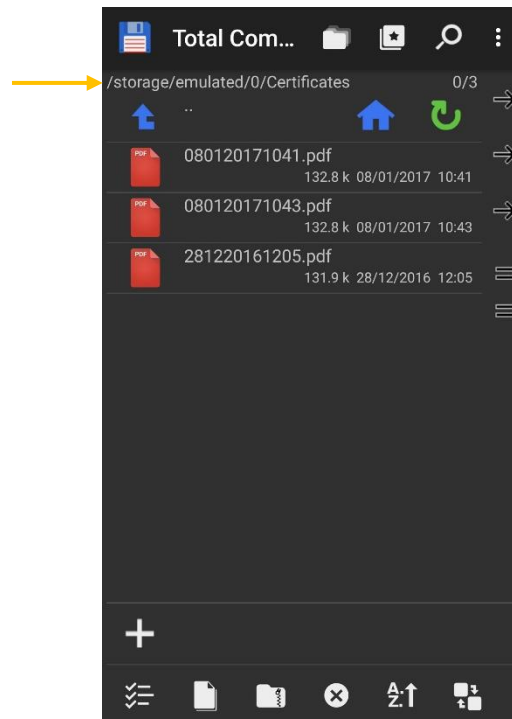
4. Select **RETRIEVE CALIBRATION CERTIFICATE**
5. **Start and stop** your C.A.T locator by **pulling the trigger**, wait for the unit to start, and **release the trigger**



6. Once ready, the calibration will appear on the bottom part of the screen, from where you can browse it
7. If you need to share the document, click on the **Share** icon at the bottom left corner of the screen

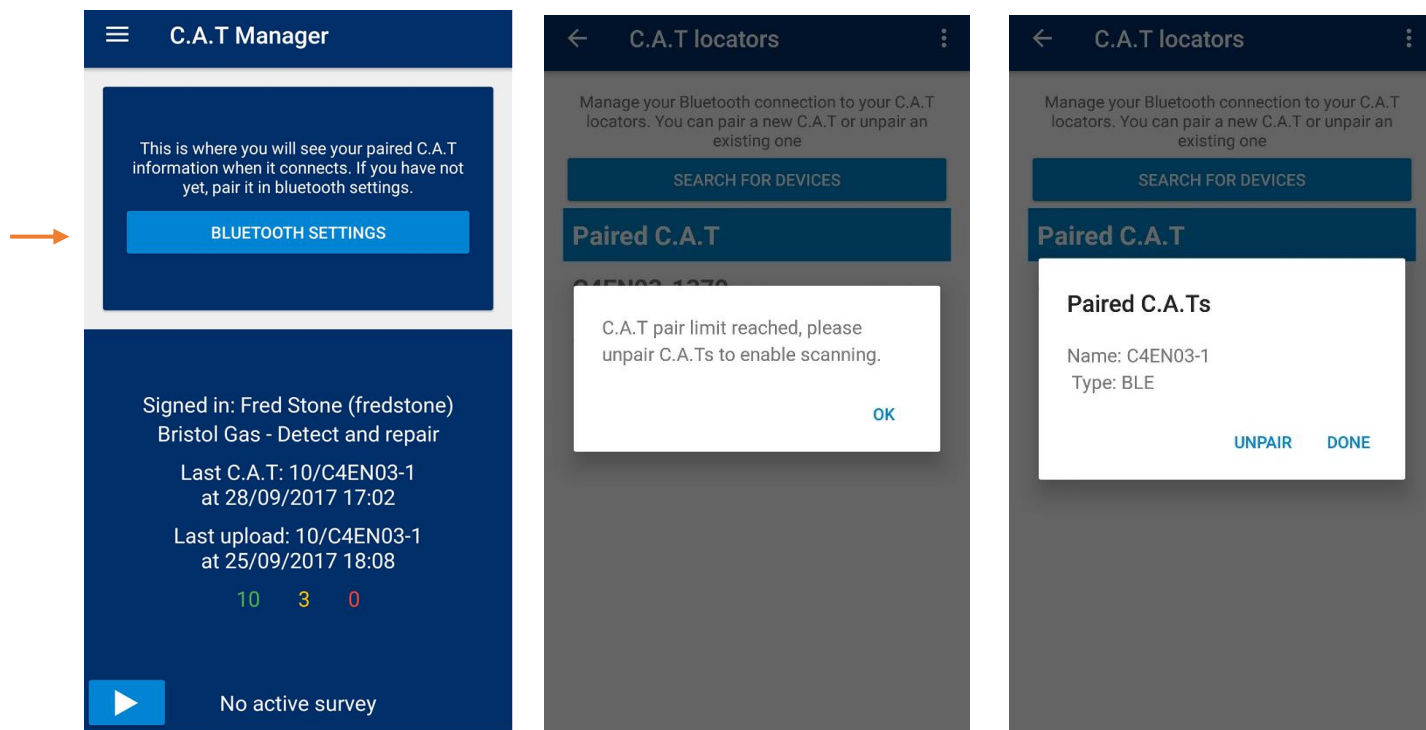
Use the **share interface** to distribute it by using the app of your choice. For example, you can use Gail to e-mail it to the site manager or health and safety official, if requested

8. If you are using an android device you can use at any time a file manager app, such as Total Commander shown in the example below, of your choice to navigate to the Certificates folder, and browse and manage all existing certificate stored on your android device



Remove a gC.A.T4 from your list of Paired C.A.Ts

You may need to remove a gC.A.T4 device from your list of paired devices. This is necessary if you already have 2 gC.A.T4s connected and you want to use a third one. If you are sharing your gC.A.T4 with another user it is also recommended to unpair your device every time you stop using it to avoid erroneous connections to your device.



To remove a gC.A.T4 from the list of paired C.A.Ts:

1. Go to the C.A.T locators screen
2. Click on C.A.T you wish to remove
3. Select **UNPAIR** or **DONE** to exit

14 Troubleshooting

14.1 Sign In problems

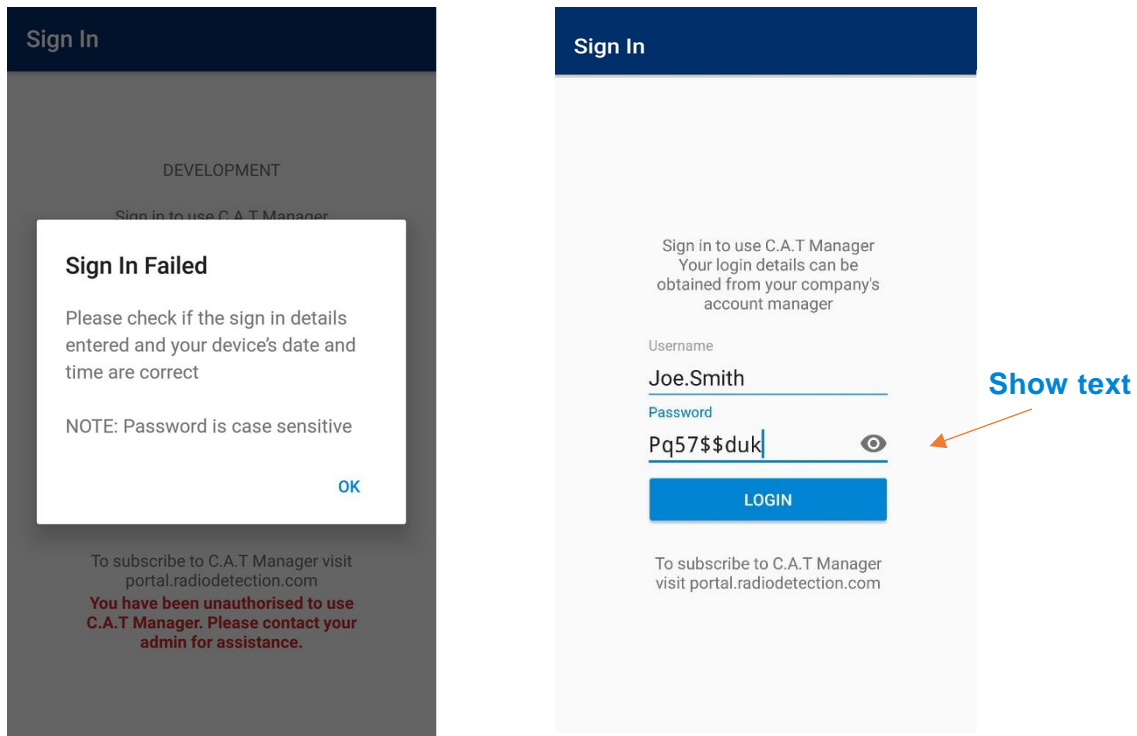
If you cannot Sign In into the C.A.T Manger Online mobile app there are a few steps you should take to troubleshoot the issue.

Please ensure to have followed this guide before contacting customer support.

The table below outline possible failures login problem:

Error message	Cause
<div> Sign In Failed Please check if the sign in details entered and your device's date and time are correct NOTE: Password is case sensitive OK </div>	Problem with your Sign In details or with your device's date and time
<div> Unauthorised User You are not authorised to use this app. Please contact your company's supervisor or administrator OK </div>	Your account is locked or Not authorised to use the C.A.T
<div> Woops, something went wrong! Something went wrong, please try again! Ensure you have an active data connection OK </div>	Cannot connect the C.A.T Manager Online server

14.1.1. Problems with your Sign In details:



1. Check your username – This is not case sensitive
2. Check your password. You can check your password by selecting the Show text icon which will show the text

NOTE: The password field is case sensitive.

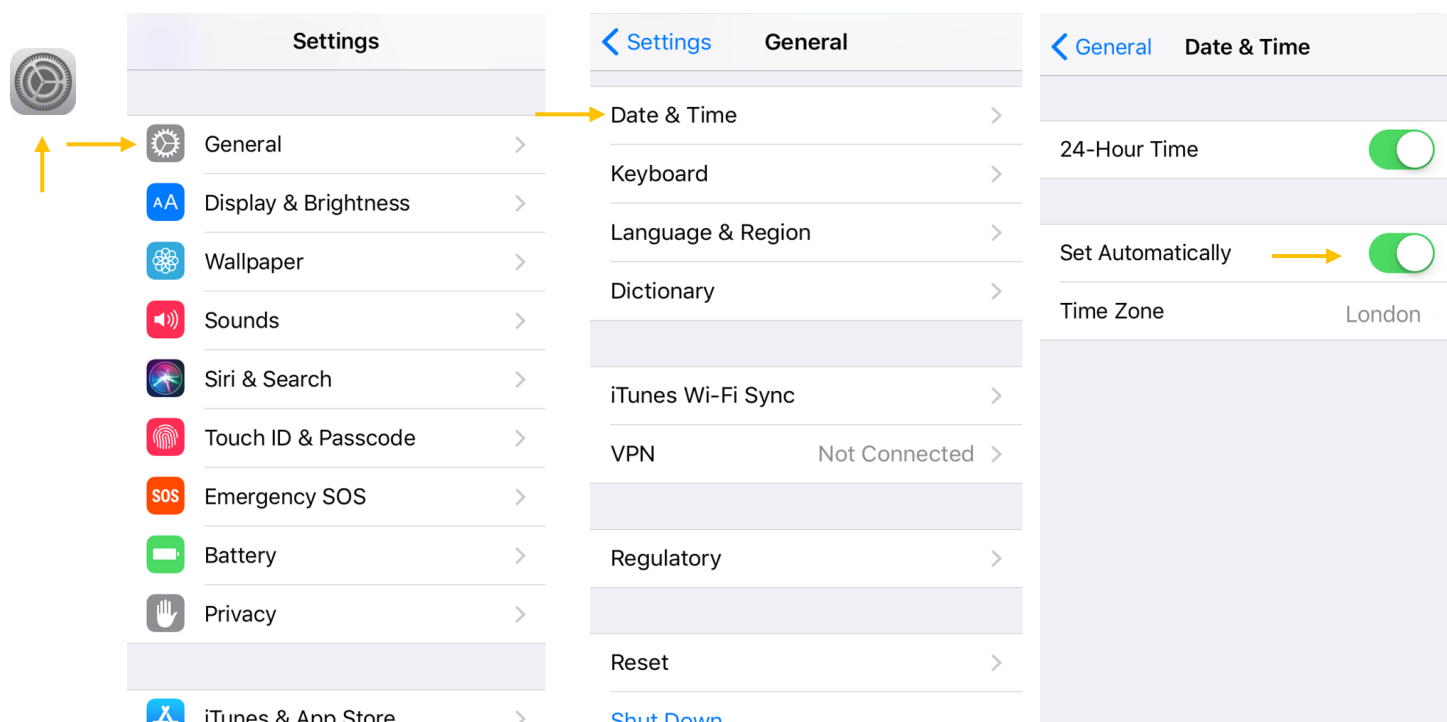
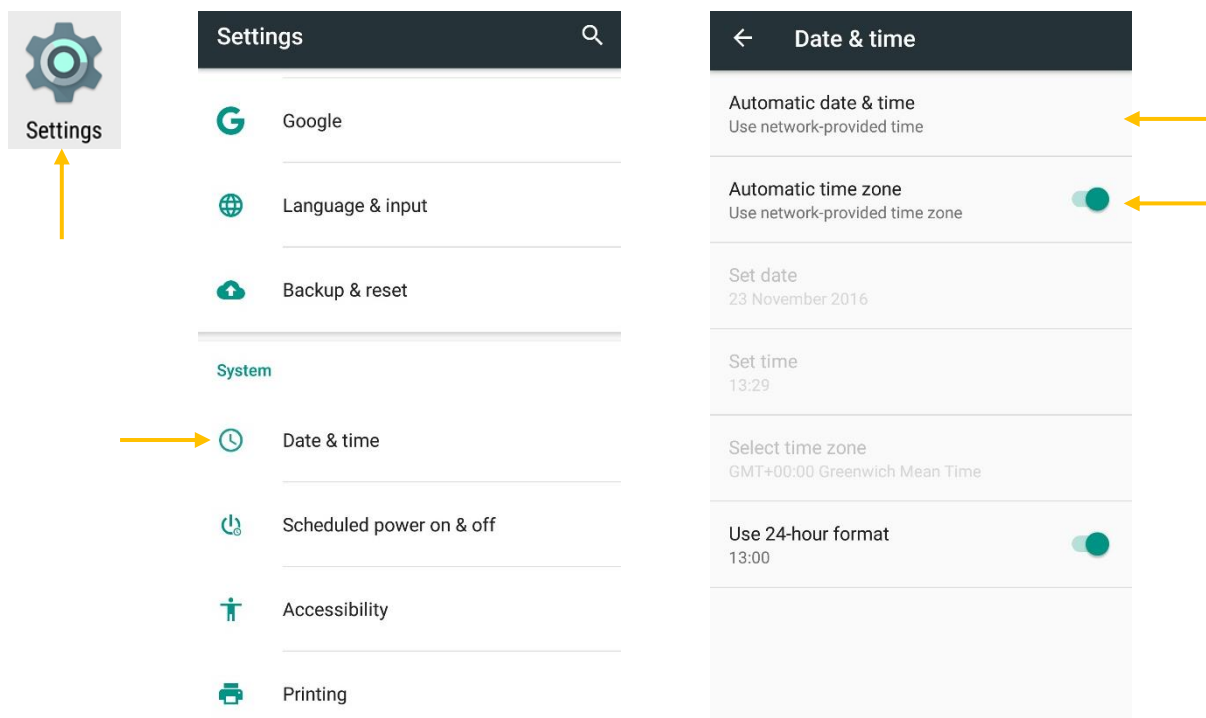
1. Check your username
2. Check your password. You can check your password by selecting the Show text icon which will show the text

NOTE: The password field is case sensitive.

3. Try to login again
4. Contact your system administrator
5. If you have forgotten your password and your username is a valid e-mail address you can use the [forgot password link](#) on portal.radiodetection.com. Follow this [link](#) for help on how to reset your password. here for further info.

14.1.2. Problems with your device's date and time settings

For security reasons, your device's date and time must be correct.

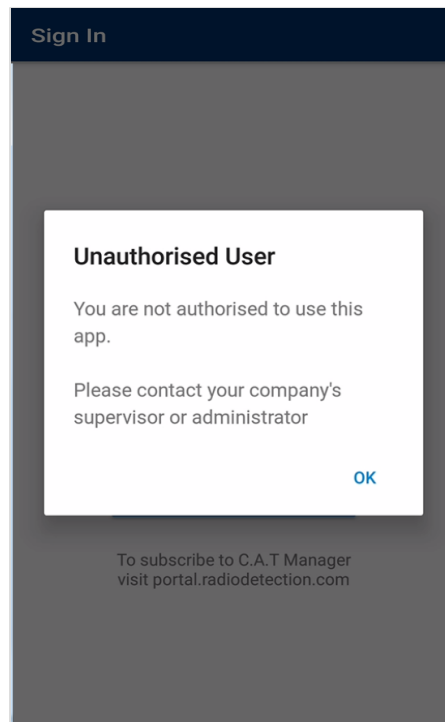


1. Go to your device **Date & Time** settings
2. Android user: set Date & Time to **Use network-provided time** and **Use network-provided time zone**
iOS users: choose Date & Time to be Set **Automatically**

NOTE: If you prefer to set the Date & Time and the time zone manually ensure these are correct

3. Check time and date accuracy and try to Sign In again

14.1.3. Locked account or Not authorised to use the C.A.T Manager app

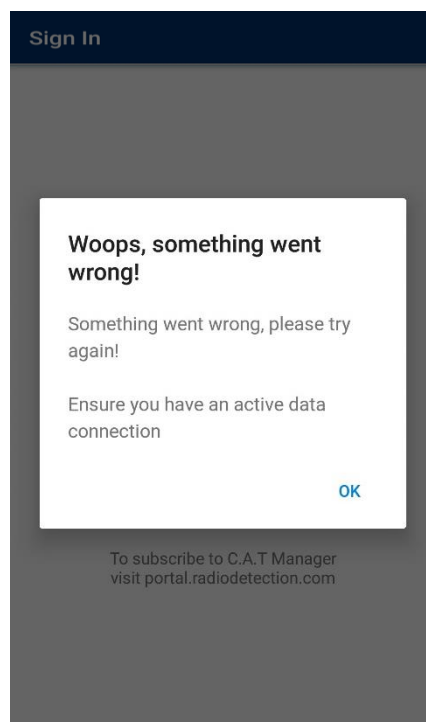


If you have been shown the above message, you have locked the account, by attempting to Sign In with the wrong details for more than 5 times, or you are not authorised to use this app.

Contact your company administrator or supervisor to rectify this if you believe that there has been a mistake.

If your username is your e-mail address you can also reset your password by following the forgot password link.

14.1.4. Problems in connecting to the C.A.T Manager Online server



Your device may have data connectivity issues.

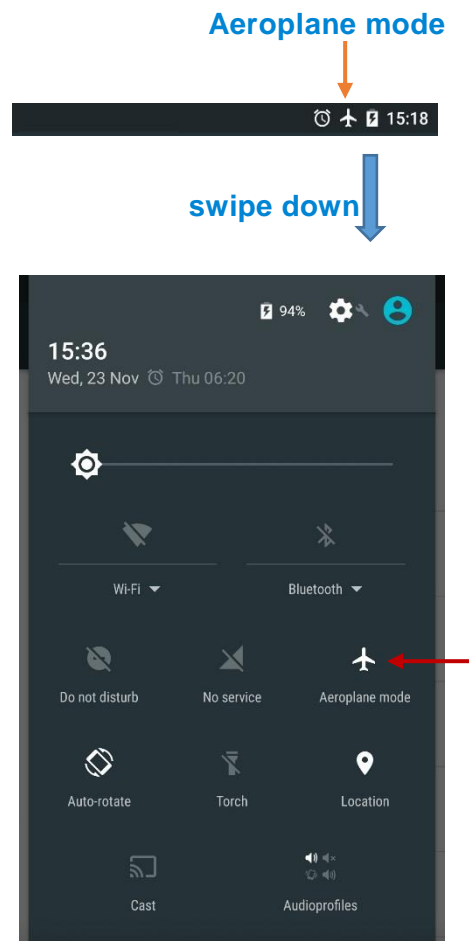
To Sign In to C.A.T Manager you need an active data connection and your firewall (if you use one) must allow connections to <https://portal.radiodetection.com> .:



Possible data connections:

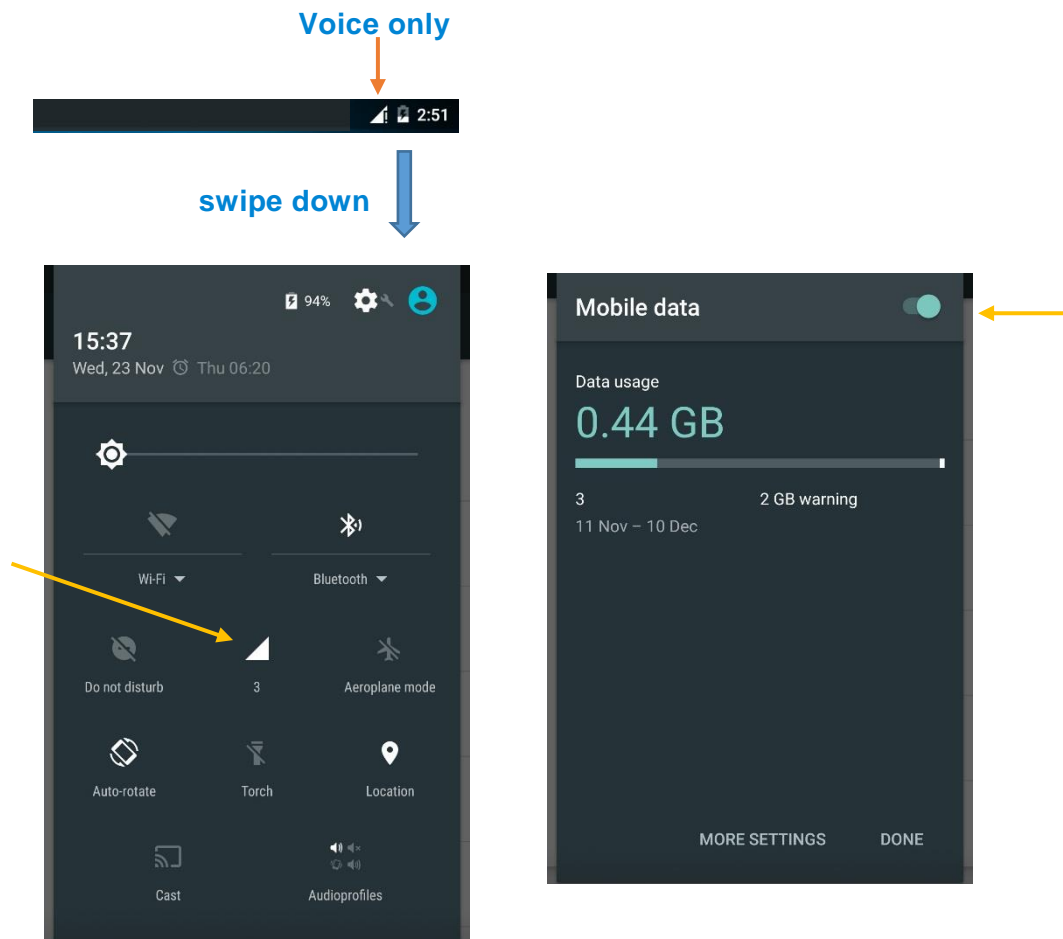
G/2G/E/3G/H/H+/4G

1. Check for a **Wi-Fi** or **Mobile data** connection icon. If present skip to **step 11**
2. If you do not have network coverage move around until you find a signal
3. If your device is in **Aeroplane mode**, you need to turn it **Off**

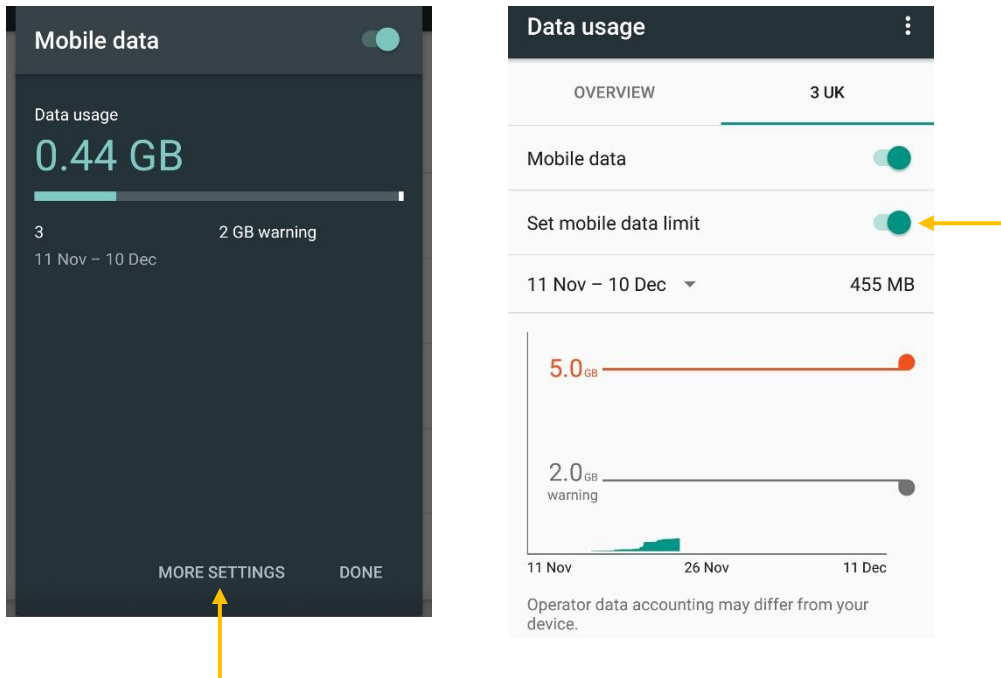


Swipe the screen down from the top right corner of your Android's device to access the **quick settings window**

4. Select the **Aeroplane icon** to turn it **Off** and skip to step



5. If you see the **Voice only** icon you need to turn **Mobile data** On
6. Swipe the screen down from the top right corner to access the **quick settings window**
7. Select the **Network icon**
8. Switch the **Mobile data** On

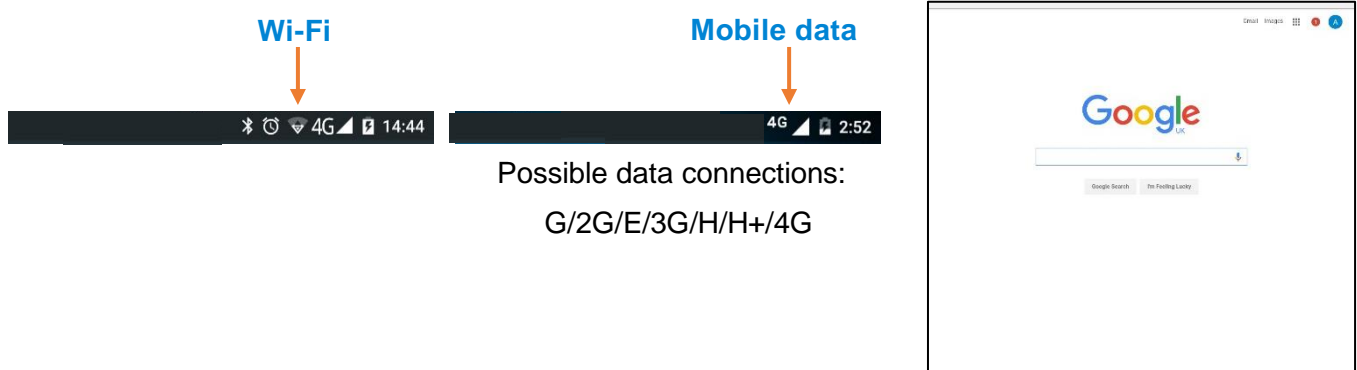


9. Select **More settings**

10. Check if you have a data limit set and if you have reached the limit. If yes, turn it Off or increase your data limit.

Warning: Disabling the data limit, if set, or increasing its limit will increase your data usage and you may incur over charges from your network operator. If unsure consult with your company administrator or supervisor before making this change.

11. If you do have an active data connection, test it using your device's web browser and trying to visit a known web site, for example www.google.com



12. If you cannot see the web site and get an Offline warning, you have a network issue.

If you are using a pay as you go data plan, check that you still have data available or if on a monthly plan check if you have not exceeded your data allowance.

Contact your network provider or your company system administrator for further help.

13. If you can visit a known web site, try to visit the Radiodetection portal online login page. If the link does not work copy and paste this address in your web browser navigation box:
<https://portal.radiodetection.co.uk/>.



If you **can see** this page contact [rd_support](#) for further help

or

If you **cannot see** this page use a PC to visit the [Radiodetection portal online login page](#). If the link does not work copy and paste this address in your web browser navigation box:
<https://portal.radiodetection.co.uk/>.

If using your PC you can see the Radiodetection Portal Sign-in page you must contact your **Wi-Fi or Mobile system administrator** to check if you have a firewall set to block this

If you cannot see the page on your PC's web browser, you should check with your **network administrator** to check if you have a firewall set to block this

Contact rd_support@spx.com for further help

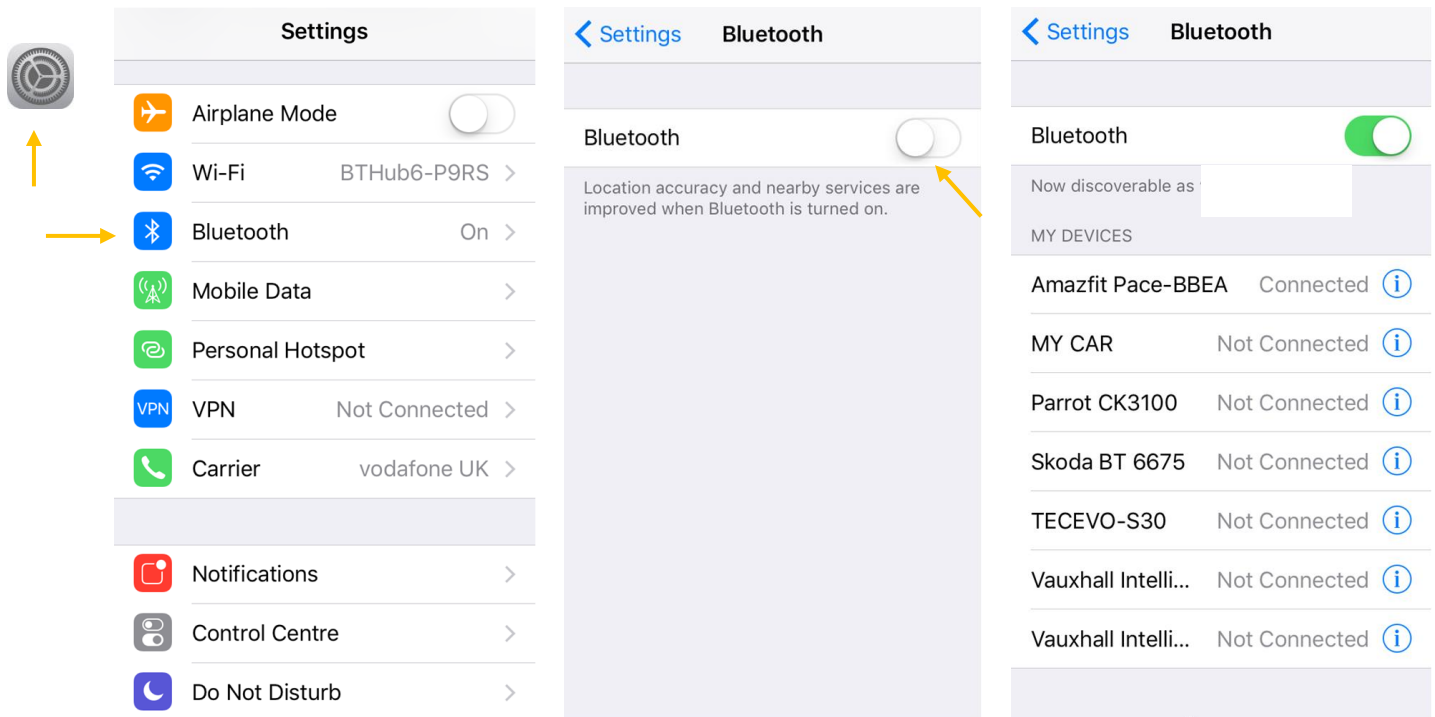
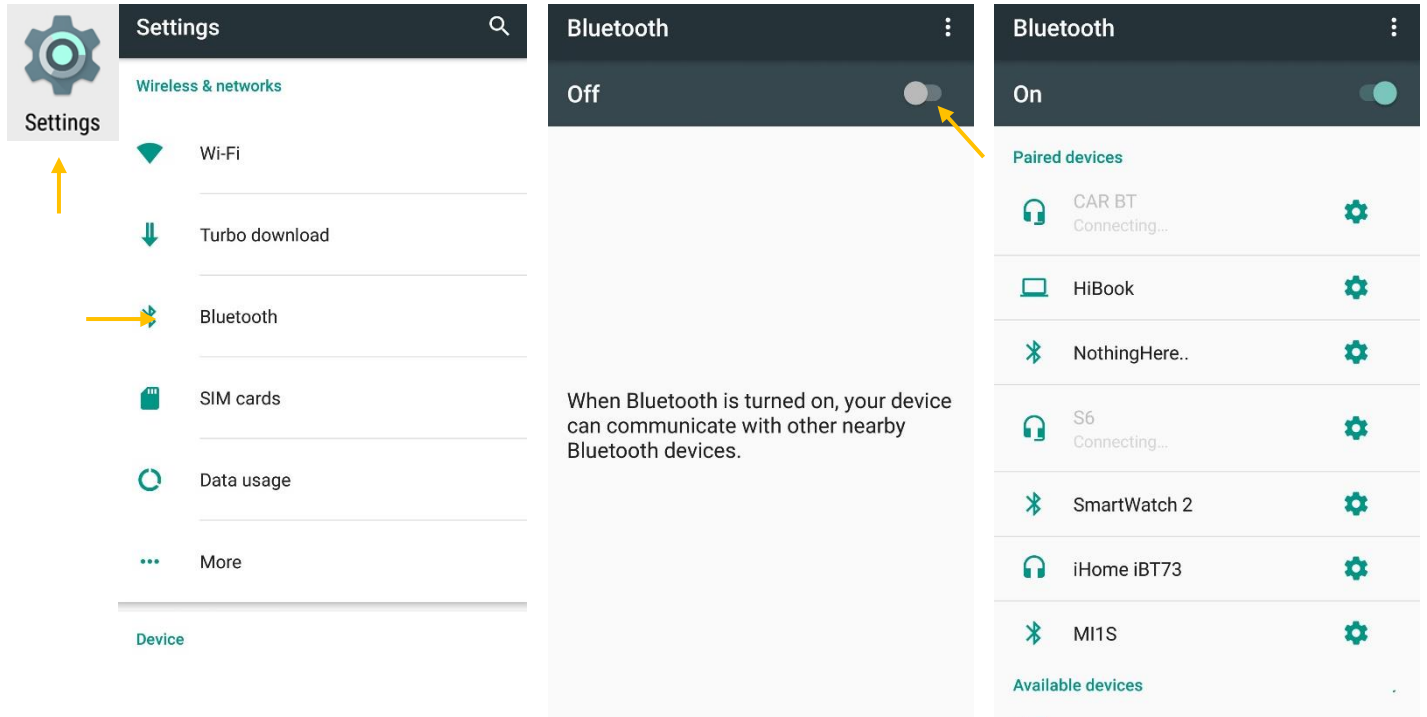
14. Try to **Sign In** again

14.2 Troubleshooting connecting your device to the gC.A.T4

It is not unusual to experience problems when trying to pair a mobile device to a Bluetooth device such the gC.A.T4.

In the event that you cannot pair to your gC.A.T4 or cannot see data being transferred from your locator to the C.A.T Manager app you can try any of the following procedures:

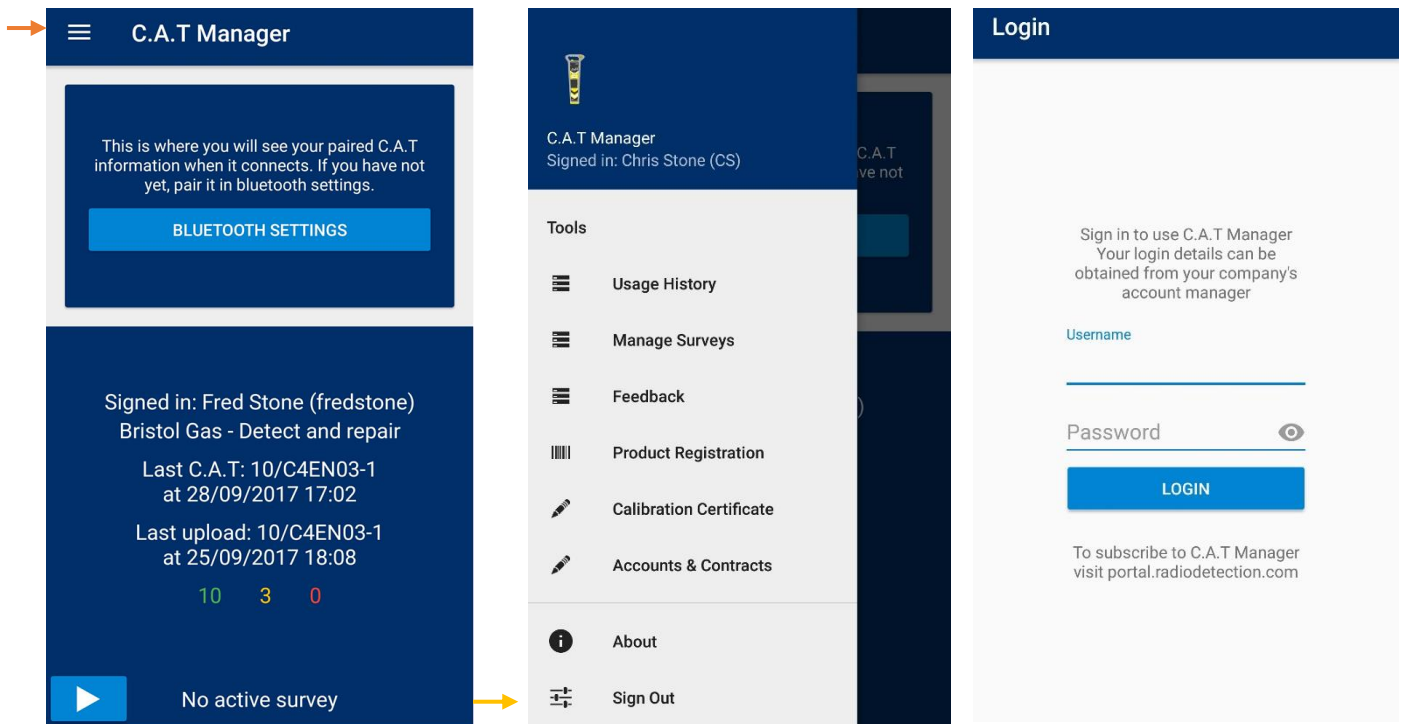
14.2.1. Disable your mobile device Bluetooth connectivity for 10 seconds



1. Go to the **settings** menu
2. Select **Bluetooth**
3. Turn the Bluetooth **Off** for 10 seconds

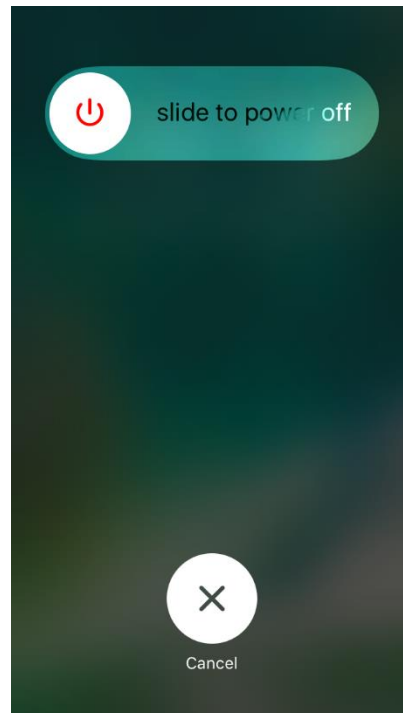
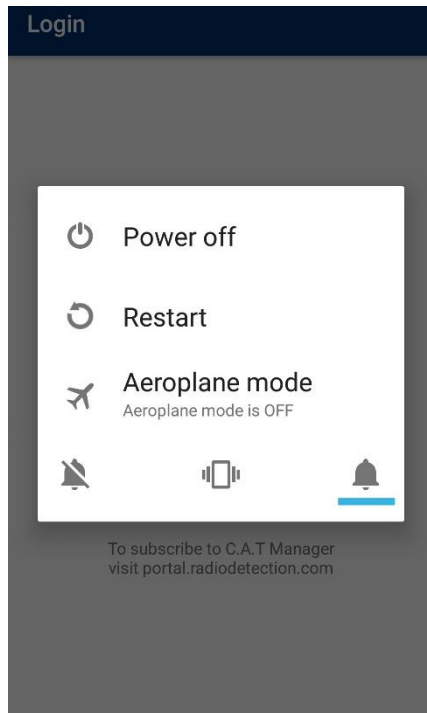
4. Turn the Bluetooth **On**

14.2.2. Sign out of C.A.T Manager and restart your mobile device



1. Select the **menu** icon on the top right corner of the home screen
2. Scroll the list to the bottom and select **Sign Out**

3. **C.A.T Manager** will log you out and it will return to the Login screen



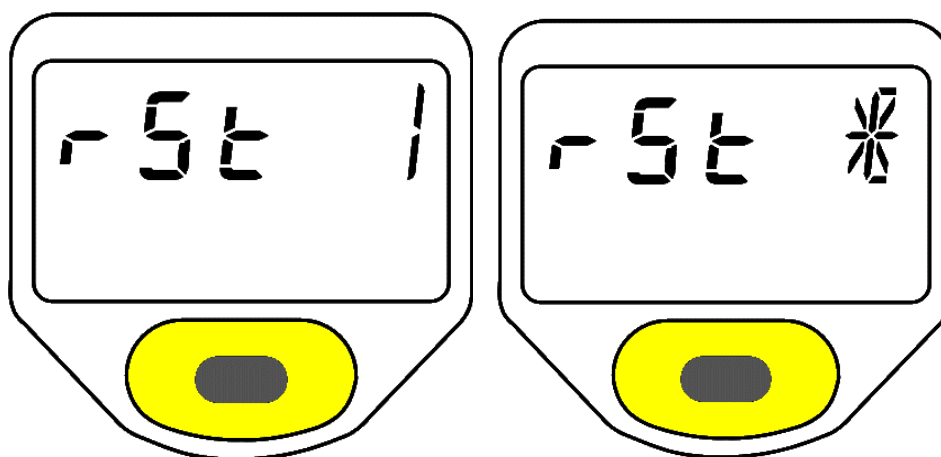
4. **Power off** and **on** your device

14.2.3. Reset your gC.A.T4 Bluetooth 3.0 connectivity

This function is only available for gC.A.T4s with Bluetooth 3.0 connectivity.

The procedure to reset your gC.A.T4 connectivity module is similar to the one followed to put it into pair mode:

1. Pull the gC.A.T4 trigger to turn it **ON**
2. Release the trigger
3. Press and hold the **depth button**
4. After 8 seconds the screen will flash a 5 seconds Bluetooth countdown and beep for the last 3 seconds
5. The Bluetooth icon will start flashing on the screen – **keep pressing the depth button**



Reset countdown

Bluetooth reset

6. After 12 seconds the screen will flash a 5 seconds reset countdown and beep for the last 3 seconds
7. When the countdown has finished release the depth button. After a few seconds the gC.A.T4 reset (rSt) the Bluetooth connectivity.

Visit www.radiodetection.com

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Tel: +1 800 688 8094 Tel: +1 760 343 7350 pearpoint.sales.us@spx.com www.pearpoint.com

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