TERMATRAC

THE WORLD'S No.1 TERMITE DETECTOR

Termatrac iTraker

T5

User Guide

Version 1.0

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www.termatrac.com

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Contact Information

For the latest information about the Termatrac unit, see our web site at:

www.termatrac.com

or contact us at:

Termatrac Pty Ltd
Unit 44/ 28 Burnside Road
Ormeau
QLD 4208
Australia

Phone: +61 7 3386 3300
Fax: +61 7 3386 3333
Email: info@termatrac.com

FCC ID: 2BEMQ-T5B

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC's RF radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The unit shall be installed and used such that parts of all persons' body are maintained at approximately 8 inches (20 cm) or more.

Disclaimer

The recommendations contained in this document are not intended to establish the standard of care for the structural pest control industry, nor are they intended to promote any industry-wide practice. Rather, they are being made to assist the person undergoing training to further understand how to implement equipment into their inspection practices.

No claim or warranty is made or implied that the recommendations, methods or procedures contained in this restricted publication will ensure safe or preventable injury or prevent property damage or that the equipment will detect insects or other pests every time it is utilized.

Adherence to the recommendations in this manual is not a substitute for a careful pest inspection. This document is merely intended to assist the Operator in evaluating possible methods or procedures for inspecting a specific structure under a specific set of circumstances using the Termatrac ITraker device. It is the responsibility of the Operator to determine the appropriate method of procedures to utilize under a particular set of circumstances for inspecting any given facility.

Table of Contents

1 Overview

1.1 Conventions

The following conventions are used throughout this document.

Table 1 Conventions

Convention	**Description**
`Screen outputs`	This font is used to display information as it appears on the screen.
Screen displays	This typeface is used to indicate the commands to be typed in.

1.2 Definitions

Table 2 ITraker Suite Definitions

Term	**Description**
Accelerometer	A device for detecting physical movement of the iTraker in any direction.

Term	Description
Bluetooth LE®	A wireless communications technology developed for the transfer of information over a short distance.
Calibration Date	The date a device is due for calibration by a Termatrac Authorized Service Center. The Calibration Date indicates when the next scheduled maintenance is due. The sensors in the ITraker Device will continue to operate after the Calibration Date has past. However, any reports generated will display the words "NOT CALIBRATED" in all scan logs.
Calibration Center	The location where the Termatrac ITraker is serviced and calibrated.
Expiry Date	The Expiry Date is when a Leased device will not allow more sensor scan operations. However some Public Information operations will be supported after the Expiry Date has been reached.
Idle Mode	This mode is entered after the ITraker Operate program has begun and is waiting for the Operator to select a function to administer Scan Logs or begin a Pest investigation process.
Job	Investigative work carried out by the Operator. This usually results in Scan Logs and Notes about the termite activity observed.
Job Location	The physical address of where the termite investigation work will be carried out.
Log In	Gaining access to a device or program by

Term	Description
	entering a password or key.
Operator	The Termatrac Certified Technician who carries out pest inspections in the field.
Pairing	This is the process used in a Bluetooth network to ensure devices on the same Bluetooth network can communicate with each other.
Mobile Device	An Android or Apple based display device, which is used to control the iTraker and display the output of any sensor readings. This is normally a phone, but could also be a tablet.
Public Information	ITraker Device information that is not sensitive to the Operator and is known already e.g.

Term	Description
	serial number for the device.
Purchased Device	A ITraker Device that has been purchased by the Operator and will always be operational as long as the correct Operator Password has been entered.
Reference Value	This value represents a reference value set by the Operator or by the ITraker Device when a sensor is first started. The PDA will display the difference between the current value and the Reference Value.
Rented/Leased Device	A ITraker Device that will be rented or leased by the Operator and will be usable for a specific period being until the Expiry Date is reached.
Scan Log	This is the sensor data (radar, thermal or moisture) recorded by the PDA running the ITraker Operate program for a preset time period.
Sensors	The ITraker Device contains a radar, thermal sensor with laser pointer, and moisture sensor. These sensors will return information pertinent to their particular operation.
Setting Reference Value	This operation is undertaken by pressing the Pin icon or pressing on the display graph. This will reset the Reference Value to the current value of the sensor is displaying.
Signature	A common characteristic of a waveform that can be readily identified in any Scan Log.
ITraker Device	The handheld device containing the sensors used to detect termite activity.

Term	Description
ITraker Software Suite	The software used on PDA for operating the ITraker Device and managing the Scan Logs on the PC.
ITraker	Carry case containing the ITraker Device, PDA, batteries, chargers, cables, manuals and CDs.

2 Introduction

The Termatrac ® ITraker is an innovation in pest detection and tracking technology. This detection technology is of great assistance and an essential tool for professionals working in the pest inspection field.

The iTraker includes the following components:

- iTraker which contains the sensors used to detect and track pests.
- USB Charging Cable.
- Stand.
- Metal disc for magnetic attachment to Phone.
- Lanyard
- Carry Case

Utilizing patented radar technology, the Termatrac iTraker can locate and detect pests moving in unseen areas such as wall voids, cracks, crevices, air pockets, construction flaws etc.

The Termatrac ITraker will detect movement activity through materials such as brick, wood stucco, concrete blocks, ceramic s tiles, marble, terracotta tiles, mic a, plastic veneer, vinyl and many other common building materials.

Just as with any other tool, such as a Moisture Meters, Borescope or Infrared Camera, the Termatrac ITraker, combined with the expertise of the Pest Inspector, greatly assists in pinpointing hidden pest activity.

The ITraker has benefited greatly from the success of previous models. The Termatrac ITraker meets the evolving needs of the Pest Control Professional.

The major features of the ITraker Suite include:

- Real time control of the ITraker Device and visual feedback using a wireless Bluetooth connection to an Android or Apple phone or tablet.
- Enhanced pest detection radar.

- Moisture meter which operates in **Relative Mode**, showing changes from a reference point or in **Direct Mode** showing a meter with moisture percentage.
- Remote temperature sensor with laser pointer.
- Unit stability indicator to define differences in physical movement and pest movement.
- Data logging.
- Report Generation software via an account on the Termatrac Online web site.

3 Safety Precautions

This instrument contains highly accurate and precision components that can be affected by sharp knocks, abuse and/or falls. It contains highly sophisticated electronic components. The user should place the ITraker in its Carry Case when not in use to ensure a high level of physical protection.

The ITraker must be kept dry at all times. Failure to ensure this may cause the instrument to fail, cause false readings and may void the warranty.

The ITraker contains a laser pointer to indicate the location where a temperature measurement is being taken from. Although this laser pointer is **below 1mW** in power output, care must be taken to avoid direct or reflected contact with the eye. The laser, being a finely focused beam, will reflect quite easily off shiny surfaces. Care must be taken when aiming the laser to avoid any surface that may cause the laser beam to be reflected towards the user or others standing near by.

The Termatrac ITraker has undergone rigorous testing and qualification trials to make sure it conforms to current international safety standards. Although it uses microwave emission to pick up pest movement, the emission is much lower than the emission from a mobile phone. The ITraker is EMC approved indicating that the emissions are well within Australian and International Standards.

In the interests of safety:

- Never look into the radar head while the iTraker is operating.
- Do not point the radar unit at anyone while the iTraker is operating.
- Do not point the laser beam at anyone while the iTraker is operating.
- Turn the iTraker off when not in use.
- The operating temperature range of the Device is between 15°C and 45°C.
- It is recommended to avoid prolonged radar exposure to skin or any parts of the anatomy.

4 ITraker Overview

4.1 Components

4.1.1 *Carry Case*

This is a specially designed case that houses the components of the ITraker Suite. The inner lining of the carry case has been designed to hold and protect all of the ITraker components from shocks through rough handling. The location of the ITraker components are shown in *ITraker Suite 18 .*

Figure 1 ITraker

Detailed Description

The ITraker Suite Carry Case is a sturdy, UV resistant case for the safe transportation and storage of scientific equipment. The impac t resistant foam insert in the lower half of the Carry Case provides a safe housing for all components of the ITraker Suite. The inner lining of the Carry Case has been designed to protect all of the ITraker Suite components from shocks through rough handling.

The sealing rubber ring in the lower half of the Carry Case provides a moisture resistant barrier. This rubber ring must not be subjected to any treatment which will compromise its integrity and therefore, its moisture resistant properties.

The holes located on both sides of the handle of the Carry Case provide a convenient point to insert a locking device such as a padlock if desired.

4.1.2 iTraker

This is the handheld, instrument which contains the sensors for use in pest detection. As the iTraker is not waterproof, do not store in wet environments or use in heavy rain. Ingress of moisture into the iTraker may cause faults or failures and possibly void any warranties.

The iTraker comprises three sensors which take advantage of pest behavior to help Pest Control operators identify pest infestations.

The ITraker Sensor locations and the magnetic stand are shown in ITraker Sensors and Flip Stand

Figure 2 ITraker Sensors and Magnetic Stand

Detailed Description

The outer case of the ITraker incorporates a rubber over-mould which provides a tactile surface to allow the ITraker to be easily and firmly held. The rubber over-mould provides limited impact protection if the ITraker is dropped onto a hard surface.

4.1.3 Display Device

The iTraker is operated through and displays sensor data on a contemporary Android or Apple mobile device. Communication is facilitated via Bluetooth LE, with the mobile app overseeing the Bluetooth connection and handling communication.

The App can be downloaded via Google Play Store or Apple App Store, find the app by searching for iTraker or Termatrac.

** The app **T3i Operate** for the older T3i Termite Detection device is **NOT** compatible with the iTraker.

The mobile App provides real-time visual indication of the current ITraker state and display information obtained from the ITraker

Device sensors in an easy to view format.

4.1.4 Charging

Description of internal battery

Location of USB port
Picture of usb cable

Charging Source requirements(Plugpack)

Picture of iTraker >> USB Cable >> PlugPack >> Wall outlet

LED Indicator

Charging Specs
Battery Life
Time to charge from flat

5 ITraker Device Description

5.1 Plastic Case

The outer case of the ITraker is constructed out of a sturdy ABS plastic. This provides the protection needed for the electronic sensor circuits used to measure the environment and detect pest activity.

The plastic case is not waterproof however, it will provide some protection against the ingress of dust and moisture.

5.2 Hand Held Operation

The ITraker case has been designed to ergonomically fit into the palm of the hand. The ITraker has been designed for easy, one-handed operation. This is aided by a rubber over-mould which provides a non-slip, tactile surface to ensure the ITraker is easy to hold and operate.

Care should be taken to hold the ITraker very still when using the Radar Sensor. Above a Gain setting of 6, hand held operation should be avoided.

5.3 Stand Mounting

The ITraker also contains a mounting point for a camera stand attachment. This allows the ITraker to be mounted on a stand and then raised up to the ceiling, or other out-of-reach areas, to allow the analysis of surfaces beyond the reach of an arm.

The stand mount option should be used when the ITraker needs a stable platform to avoid possible hand shake.

Tripods and monopods can be purchased from Termatrac , with their uses being demonstrated in Tripod and Monopod against Wall 26. The monopod can also be held by hand when being used with the moisture sensor, allowing the user to easily reach places that would otherwise be hard or uncomfortable to reach, as seen in Monopod held to Ceiling 27 and Monopod held to Skirting Board 28.

Figure 5 Tripod and Monopod against Wall - Radar Sensor

Figure 6 Monopod held to Ceiling - Moisture Sensor

Figure 7 Monopod held to Skirting Board - Moisture Sensor

5.4 Magnetic Stand

The magnetic stand is attaches onto the body of the ITraker Device by way of magnetic mechanism.

The magnetic stand allows the iTraker to be placed at any angle to the floor. This is particularly useful when inspecting skirting boards for pest activity, or for corners of ledging. The flip stand can be seen in Magnetic Stand in Use 29.

Figure 8 Magnetic Stand in Use

5.5 Sensors

5.5.1 Sensor Descriptions

5.5.1.1 Radar

The ITraker uses radar technology to detect the movement of pests within building structures. The radar emits high frequency waveforms which can penetrate most building materials and detects any difference in the reflected waveform. These differences come about because of interference caused by moving pest shaped objects. The detected differences are displayed on the Mobile device screen.

Care must be taken when using the ITraker on the higher Gain settings. Any movement by the Operator adjacent to the Radar Sensor may cause unwanted interference in the radar circuit resulting in erroneous readings. It is advisable to use the stand or a camera type stand (see Stand Mounting 25) to hold the device and be positioned well behind the radar face.

If the ITraker is not held completely still on the wall, the small movements caused by an unsteady hand may show up as pest activity. As small hand movements cannot be readily seen, the ITraker Device has a built-in movement sensor referred to as an Accelerometer. Most movement of the ITraker is now detected and displayed in a separate graph on the Mobile device screen.

The Operator will see pest activity along with movement detection waveform in the mobile App. There will be enough correlation between both of these waveforms to indicate the Operator is causing false reading by not holding the ITraker steady. It may be the case where the ITraker is resting on a wall which is itself vibrating. The movement sensor will display this movement too. In this case a stand should be used with the ITraker moved off the wall.

5.5.1.2 Temperature

The Temperature Sensor measures the infra-red wavelength emissions from an object. This is an indication of its temperature. The Temperature Sensor is capable of measuring the **surface temperature** of structures (walls and ceilings) from some distance away. Please note, this sensor does not take readings from inside the object like the Radar and Moisture sensors. The actual surface where the temperature is being read from is indicated by the red spot of a laser pointer. This approach makes it much easier to target the Temperature Sensor at a specific part of a structure being investigated.

> The Temperature Sensor displays the difference in temperature between two points. When looking for unusual situations such as a pest infestation, a difference in surface temperature may indicate that this area needs closer investigation. The actual temperature value is not as important as the difference in temperature. For this reason the ITraker will show the relative temperature value from where the device was last referenced.

When the Temperature Sensor starts up it will sample the first object in its view and the Mobile device will emit a beep. This operation is termed as setting a "**Reference value**". This will be the reference point for the bar graph movement. If the relative temperature increases, a red bar will be displayed moving from left to right. If the relative temperature decreases, a blue bar will be displayed moving from right to left.

The Temperature Sensor has a 12:1 aspect ratio. This means at 12 feet (3.7m) from the wall the Temperature Sensor will read an average value within a 1 foot (30cm) diameter circle. Termatrac recommends using the Thermal Sensor from 3-6 feet (1-2m) away from the wall.

To "re-reference" the Thermal Sensor and make the current value the new reference point, tap the bar graph on the mobile App display.

5.5.1.3 Moisture

The moisture within any material will affect many characteristics of that material. In the case of the ITraker, the moisture will affect the electrical conductivity of the material. The ITraker measures the conductivity of a material and calculates a corresponding moisture estimation.

The iTraker has a Moisture Sensor located on the top surface, black UHMWPE (Ultra-high-molecular-weight polyethylene) scuff pads are located on the top and bottom outer edges of the iTraker allowing the ITraker to be rested on a surface at the correct distance to read a moisture value.

Relative Mode
It is important to note that the Moisture Sensor in relative mode does not display the absolute moisture value. It does show the relative difference in moisture between two points.

When the Moisture Sensor is first started, it initiates a calibration process. This process will take readings from the surface directly under the Moisture Sensor. The ITraker Device will calculate a relative value which will result in a "zero" reading being displayed on the bar graph.

This process will occur for any surface the Moisture Sensor is placed upon. This means there is no need to select the material to be checked for moisture as the ITraker will automatically adjust the level for any surface.

When the first valid moisture reading is taken (after calibration), this will become the new reference, or "**Reference value**" for the graph. It is advisable to start the moisture sensor in an area where there is no moisture to allow a "dry reference value" to be set. Then move the ITraker Device towards the suspect area to ascertain which direction the relative moisture level is moving.

The "reference value" can be reset to the current value by tapping on the bar graph or pressing the pin icon at the bottom of the Mobile device screen.

Direct Mode

5.5.2 Sensor Locations

The sensor locations for the ITraker Device are shown in ITraker Moisture Sensor Location [83] and ITraker Laser, Radar and Temperature Sensor Locations [84].

5.5.3 Moisture Sensor Scuff Pads

The Moisture Sensor is located under the top surface of iTraker. The area of the Moisture Sensor is within the black rectangular pad. This black pad is to be placed against a surface where a moisture reading is to be taken.

The correct operation of the Moisture Sensor depends upon the Moisture Sensor pads being in good condition. The pads will be

checked during each scheduled calibration of the iTraker. The two Moisture Sensor Scuff Pads can be seen in ITraker Moisture Sensor Wear Pads [35].

Figure 11 ITraker Moisture Sensor Wear Pads

5.6 Button and LED Indicator

Figure 12 ITraker Button Locations

5.6.1.1 Power Button

To **power up** the ITraker, press and release the Power button. This will initiate a brief start up self test sequence. At the end of this sequence the Power LED will be flashing green color.

To **power down**, press and release the Power button. All the LED will turn off and the device will enter a powered down mode.

5.6.2 LED Indicators

5.6.2.1 Power LED

The Power LED is used to indicate the state of the ITraker Device and whether it has a Bluetooth wireless connection to the PDA. This is described in Power LED States table.

Led Color & State	iTraker State	Description
Off	Sleep	Device is in Sleep mode waiting on Power button to be pressed.
White	On	Device is powering up and performing self-tests.
Green Flashing	On – Bluetooth unconnected	Device is on and waiting for connection to a mobile device.
Blue	On – Bluetooth connected	Device is on and connected to a mobile device.
Yellow Flashing	Flashing	Battery level is down to 10% and should be re-charged
Red Flashing	Fault	iTraker Internal Fault
Yellow	Charging	iTraker is powered off and connected to charger via USB C Cable, charging in progress
Green	Fully Charged	iTraker is powered off and connected to charger via USB C Cable, changing is complete

Table 3 Power LED States

6 ITraker Ready for Use

This section will help you prepare the ITraker for first time use.

6.3 *Android Display Device (Phone)*

The PDA is powered by a battery which will need to be charged before use. The PDA will provide an indication of its battery level on the main screen when it is first turned on. The PDA runs an Android app called ITraker Operate which is used to control the ITraker Device. This program will establish the Bluetooth connection with the ITraker Device and control the scanning operations.

The ITraker Operate app should be exited before the PDA is turned off.

The ITraker Operate app will provide a facility to view the output of the current sensor scanning operation. This scan data may be stored in the PDA for later review, or uploading to the Termatrac Cloud service in a customer report.

See section Use ITraker Operate on the PDA for details on the ITraker Operate app.

6.3.1 Pairing to Bluetooth Devices

Before the ITraker Device can be used it must be "paired" with a Mobile Device. This operation is carried out automatic ally by the ITraker app.

The Mobile Device must have Bluetooth LE capability built-in to establish a link with any device capable of supporting a Bluetooth LE wireless connection. The Termatrac iTraker is such a device.

The pairing process will establish a link between a specific iTraker and a Mobile Device. This will ensure the Mobile Device will connect to the supplied Termatrac iTraker. If the Mobile Device, or the iTraker, is to be changed in the future, this Bluetooth pairing process must be carried out again.

6.4 Battery Level

The ITraker app will constantly show the current state of the ITraker Device battery level.

When the battery is showing green, the Device is okay to use. When the battery is Yellow, the device can continue to be operated but it is strongly recommended to charge it at this point.

At a preset level, the low battery warning will be displayed on the Mobile Device screen. This is an indication that the batteries will need recharging soon. The ITraker can still be operated when this warning is given.

If the batteries reach an unacceptably low level, the Mobile Device will display a message to charge the iTraker now and no further action can be performed.

7 ITraker Quick Start

7.1 Turning On the ITraker Device

To turn on the ITraker Device, perform the following steps:

1. button (shown in Button Locations 36)to start the ITraker. The Power LED will flash green indicating it is in a ready state. The device is now ready for a connection from an Mobile Device using Bluetooth wireless connection technology.
2. If the Power LED does not turn on or quickly flashes yellow this may indicate the iTraker requires charging.
3. If the Power LED is Red this indicates an internal fault, in which case contact local Distribution Centre

7.2 Establishing a Connection

To establish a connection between the PDA and the ITraker, perform the following steps:

1. Ensure the ITraker is switched on and the power LED is flashing Green.
2. Open the iTraker App on the Mobile Device
3. If the iTraker has not been used before, or this is the first time use of the iTraker App, navigate through the "On Boarding" screens, paying careful attention to the information provided, until the "Select Your Serial Number" screen is displayed. If you have followed Step 1 & iTraker is powered on & LED is flashing Green then you will see the iTraker serial number listed. Tap the serial number to Connect with your iTraker.
4. On successful connection the iTraker Power LED will change to solid Blue and the iTraker App will open the Home screen with iTraker icons at top right showing the iTraker status.

7.3 Operating the ITraker Device

The main screen of the ITraker Operate app shows a menu with a button for each of the 3 sensors.

Select the desired sensor to be used by selecting the `Radar`, `Temperature` or `Moisture` buttons.

Operation of a selected sensor will be indicated by the appropriate screen being displayed along with sensor data on the Mobile Device screen.

7.4 Shutting Down iTraker and iTraker App

To stop the current scanning operation and shut down the ITraker from the Quick Scan function, perform the following steps:

1. Tap the `Home` button in the bottom left hand corner of any scanning screen to return to the Main menu.
2. Select the `Exit` button, the Yes button to exit the iTraker App
3. The iTraker Power LED will now flash Green indicating it is not connected, either press the power button to turn the iTraker off or it will automatically turn itself off after 3 minutes when the Power Led will turn off.

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8 Common Activities

8.1 Use ITraker on the Mobile Device

8.1.1 Starting iTraker App

To start the iTraker Operate program on the Mobile Device, select the icon from the Home screen, which can be seen in Mobile Device Home 51 . If the iTraker App icon is not found on the Home screen, it will be found in the Apps menu, which is accessed by selecting the `Apps` icon on the bottom right of the screen.

Figure 20 iTraker Home

After the initial On-Boarding screens and connection with iTraker is established, the iTraker Home screen is displayed.

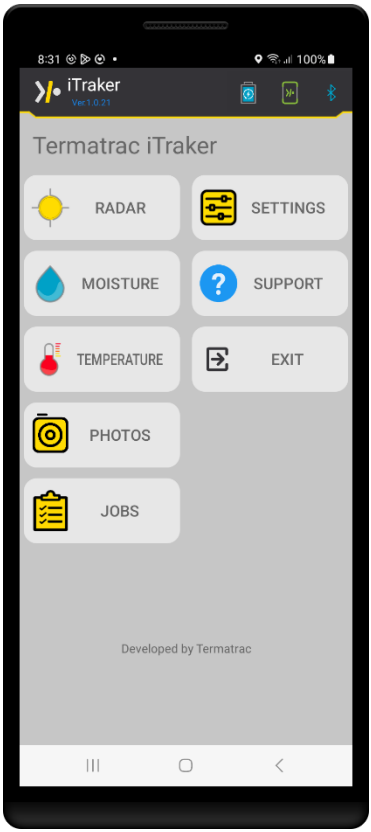


Figure 21 ITraker Home Screen

8.1.3 Using ITraker Sensors

8.1.3.1 Radar

To activate the termite detection radar, tap the `Radar` button. This is the yellow radar icon that is located at the top of the three sensors on the iTraker App home screen, as seen in ITraker Home Screen: Connected 53.

The iTraker App screen will look like Radar Sensor 55. This screen shows the termite activity using the Bar graph display mode.

Also shown is movement in the 'Shake' bar graph display mode. 'Shake' displays any movement that was picked up by the accelerometer in the ITraker. This indicates the ITraker was physically moving when the reading was taken. This will cause doubt over the pest activity reading. It is very important to ensure the ITraker is held still with no activity showing on the 'Shake' bar graph when pest activity graph is being viewed.

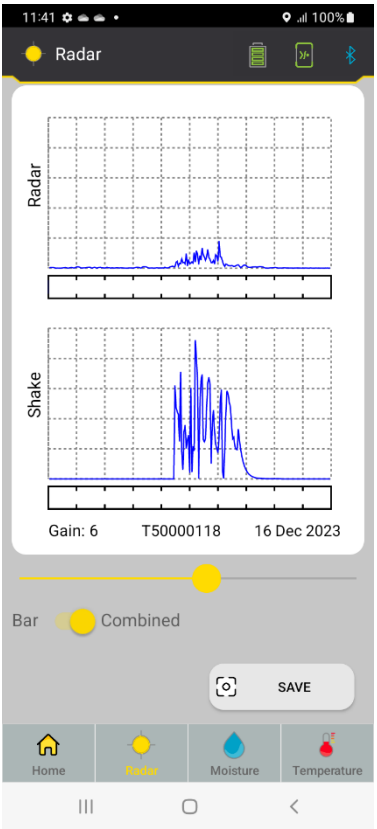


Figure 24 Radar Sensor

The `Save` button will record the last ten (10) seconds of the Radar Sensor values. If there are certain readings you wish to keep for records or future reference, tap on the `Save` button.

The recorded information will now be displayed on the Mobile Device screen. If this does not indicate the correct radar pattern you want to keep, press the `Cancel` button to return to the active radar sensor screen. Otherwise, tap the `Add Scan To Job` button to keep the information. For more information on saving scans, see Capturing Scans 79.

When generating a report on Termatrac Online, the Gain setting can be changed by sliding the yellow dot on the Gain setting meter. The

Gain setting will determine the scale of the graph that the scans are displayed on. The Gain setting can be changed on Scans that have already been saved, which is explained in the Termatrac Online User Guide - Editing Job Data.

8.1.3.2 Temperature

To activate the temperature sensor with laser pointer, tap on the `Temperature` button on the ITraker App home screen, as seen in ITraker Operate Home Screen: Connected 53.

The Mobile Device screen will look like Temperature Sensor 57.

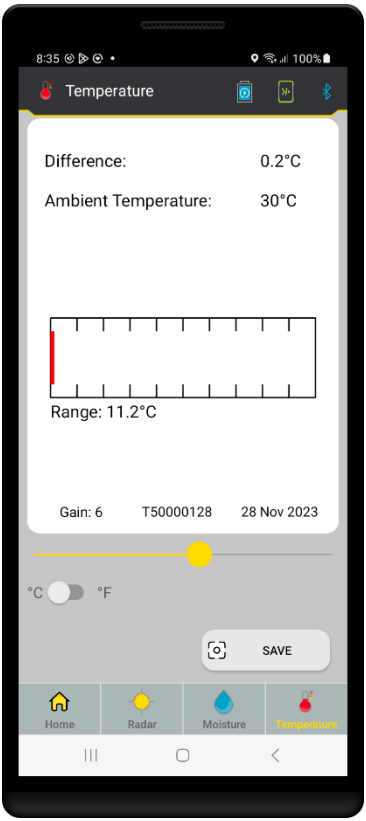


Figure 25 Temperature Sensor

The reference value is whatever the iTraker Temperature Sensor was pointing to when it was first activated. If the Temperature Sensor is now pointed to a slightly warmer surface, the `Difference` value will increase and the bar graph will turn red starting from the left hand side, as seen in Temperature Sensor 57.

Conversely, if the Temperature sensor is pointed to an area colder than the reference point, this is indicated by blue bar starting from the right hand side.

The reference value can be reset to the current value at any time by pointing the laser at a surface you want to use as a reference point and then by tapping a point anywhere within the Temperature Sensor bar graph. The resetting of the reference value will reset the `Change` value to 0.0°C/°F, and this will become your new reference point.

The `Save` button will record the last ten (10) seconds of the Temperature Sensor values. If there are certain readings you wish to keep for records or future reference, tap the `Save` button. The recorded information will now be displayed on the Mobile Device screen. If this does not indicate the correct temperature pattern you want to keep, tap the `Cancel` button to return to the active Temperature sensor screen. Otherwise, tap the Add Scan To Job button to keep the information. For more information on saving scans, see Capturing Scans 79.

When generating a report on Termatrac Online, the Gain setting can be changed by sliding the blue dot on the Gain setting meter. The Gain setting will determine the scale of the graph that the scans are displayed on. The Gain setting can be changed on Scans that have already been saved, which is explained in the Termatrac Online User Guide - Editing Job Data.

8.1.3.3 Moisture

To activate the Moisture Sensor, Tap on the `Moisture` button on the ITraker App home screen, as seen in ITraker Operate Home Screen: Connected.

There are two types of moisture meters in the ITraker, the Direct Moisture meter and the Relative Moisture meter. You can switch between the meter displays by tapping on the Relative <> Direct Switch.

Direct Moisture Meter

The Direct Moisture meter, as seen in Direct Moisture Meter 60 shows a meter style interface with a moisture percentage.

When the meter reaches a certain moisture level, that can be set by the operator, the Mobile Device will begin to beep. The beeping will become more frequent as the moisture level rises. The levels at which the beeping occurs can be specified in the Direct Moisture Settings screen as seen in Selecting Direct Moisture Options Menu 74 . The sound alerts can be switched off completely in the Settings. For more information on how to do so, see Direct Moisture Settings 74 .

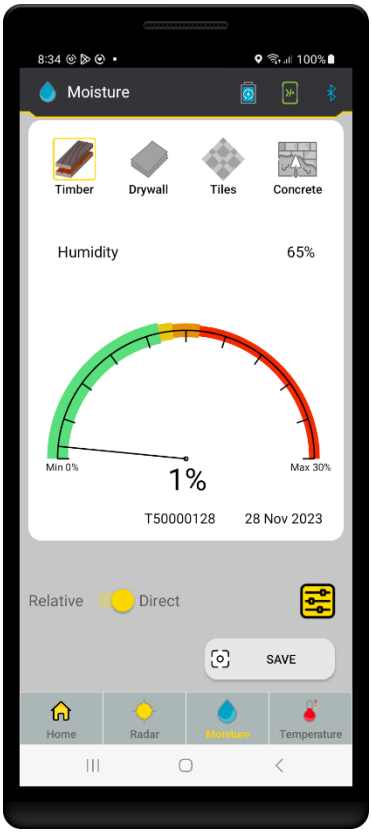
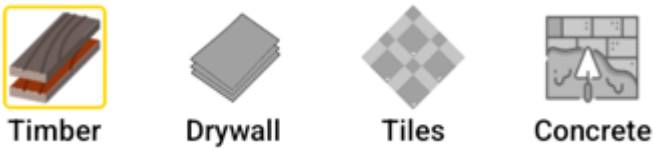


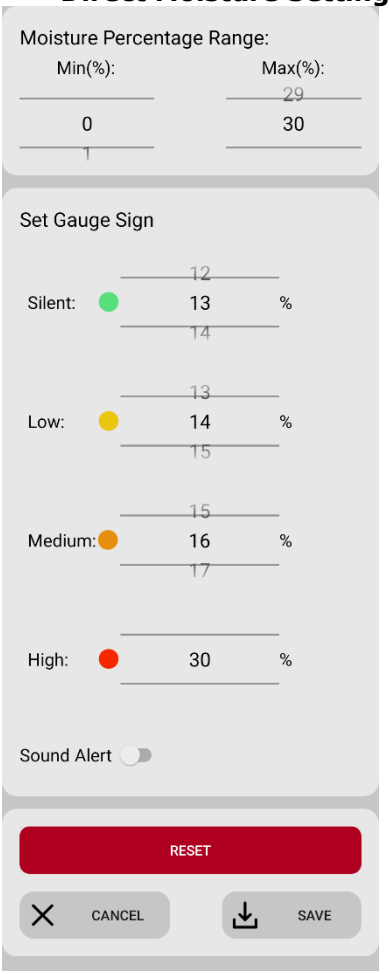
Figure 27 Direct Moisture Meter

Material Settings

Select the material being measured to set the Material Algorithm correctly



Direct Moisture Settings



Moisture Percentage Range
Set Minimum and Maximum percentages for the Moisture Gauge

Set Gauge Sign
Set Moisture Alert levels
The Direct Moisture meter will automatic ally be set to produce sound when the ITraker is exposed to high moisture levels, with more frequent beeping occurring as the level of moisture increases.

Sound Alert

Turn On/Off Moisture Level Sound Alert

Reset
Reset all values to Defaults

Cancel
Return to Moisture screen without changing settings

Save
Save Settings and return to Moisture Screen

Relative Moisture Meter

The Relative Moisture meter, as seen in Relative Moisture Meter 62 shows the difference in moisture from a reference point. This mode is useful for finding the wettest part of an area, or for scanning fibro type materials.

When the Moisture Sensor starts, a reference value has been set and all of the Relative Moisture readings will be displayed as a difference from this point (the reference point).

The initial reference value is established by the moisture content of the material the ITraker Moisture Sensor was resting against when it is activated. If the Moisture Sensor is now moved to a more moist surface, this will be indicated by a blue bar starting from the left hand side of the bar graph. Conversely, if the Moisture Sensor is moved to an area that is less moist, this will be indicated by red bar starting on the right hand side of the bar graph.

The reference value can be reset to the current value at any time by resting the Moisture Sensor against the surface you want to use as a reference point and then tapping a point within the Moisture Sensor bar graph.

When the meter reaches a certain moisture level, that can be set by the operator, the Mobile Device will begin to beep. The beeping will become more frequent as the moisture level rises. The levels at which the beeping occurs can be specified in the Relative Moisture Settings screen as seen in Selecting Relative Moisture Options Menu 73. The sound alerts can be switched off completely in the Settings. For more information on how to do so, see Relative Moisture Settings 72.

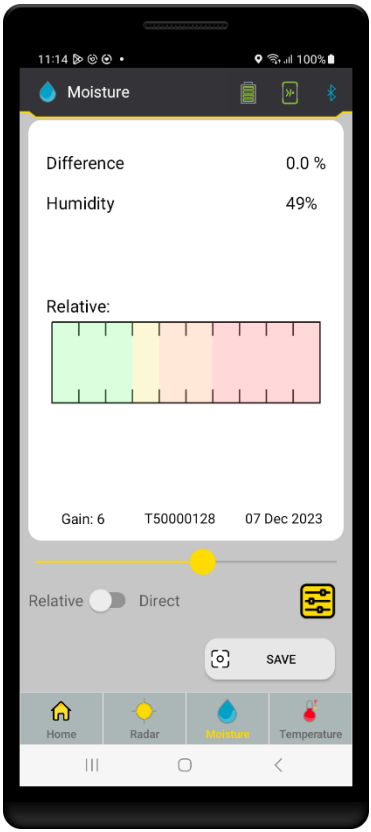
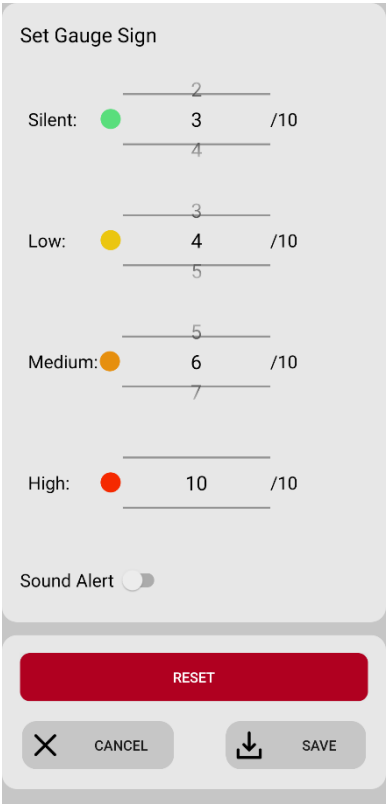


Figure 28 Relative Moisture Meter

Relative Moisture Settings



Set Gauge Sign
Set Moisture Alert levels
The Relative Moisture meter will automatic ally be set to produce sound when the ITraker is exposed to high moisture levels, with more frequent beeping occurring as the level of moisture increases.

Sound Alert
Turn On/Off Moisture Level Sound Alert

Reset
Reset all values to Defaults

Cancel
Return to Moisture screen without changing settings

Save

Save Settings and return to Moisture Screen

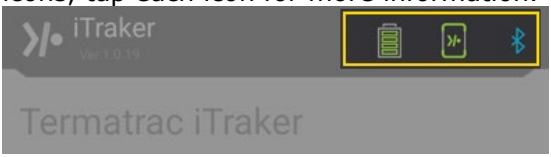
For both Direct and Relative Moisture Meters:

The `Save` button will record the last ten (10) seconds of the Moisture Sensor values. If there are certain readings you wish to keep for records of for future reference, tap on the `Save` button. The recorded information will now be displayed on the Mobile Device screen. If this does not indicate the correct moisture pattern you want to keep, press the `Cancel` button to return to the active moisture sensor screen. Otherwise, tap the `Add Scan To Job` button to keep the information.

For more information on saving scans, see Capturing Scans 79 hen generating a report on Termatrac Online, the Gain setting can be changed by sliding the blue dot on the Gain setting meter. The Gain setting will determine the scale of the graph that the scans are displayed on. The Gain setting can be changed on Scans that have already been saved, which is explained in the Termatrac Online User Guide - Editing Job Data.

8.2 iTraker Information

Information about the connected iTraker can be found in the top 3 iTraker icons, tap each icon for more information.



Battery
Shows the iTraker Battery Information
This icon will change depending on the iTraker Battery State

	iTraker Battery has 75% to 100% charge
	iTraker Battery has 50% to 75% charge
	iTraker Battery has 25% to 50% charge
	iTraker Battery has 10% to 25% charge
	iTraker Battery has 0% to 10% charge
	iTraker App is not connected to iTraker
	iTraker is connected to charger and charging is in progress
	iTraker is connected to Charger and Battery is fully charged
	Battery error, restart iTraker and connect to iTraker App again, if error still shows then contact Termatrac support

iTraker

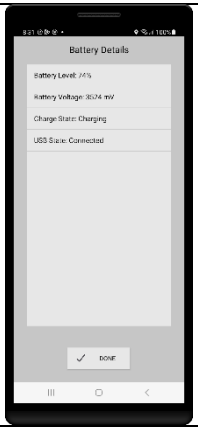
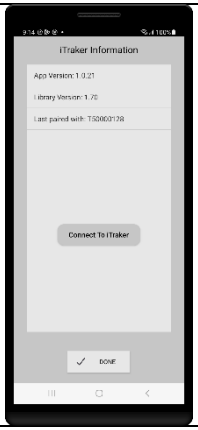
	iTraker is Connected and status is OK
	iTraker is not connected
	iTraker error, restart iTraker and connect to iTraker App again, if error still shows then contact Termatrac support

Bluetooth

	Mobile Device Bluetooth may be turned off, Open your Mobile Device (Phone or Tablet) Bluetooth settings & ensure Bluetooth is turned on
	Mobile Bluetooth is supported and is On.
	Mobile Device Bluetooth error, the Mobile Device may not support Bluetooth LE or has a Bluetooth error. Power Off/On your Mobile Device and check again, if the error persists the contact your Mobile Device Provider

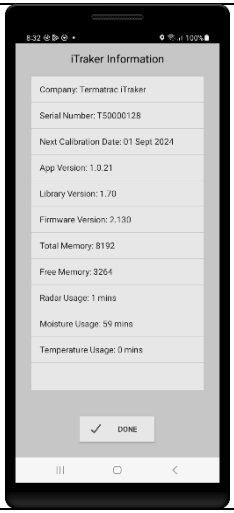
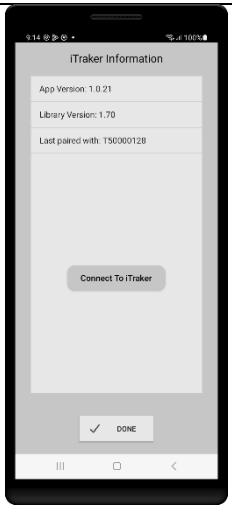
Battery Information

Tap the Battery Icon for more Information about the iTraker Battery

Connected To iTraker	Not Connected To iTraker
	

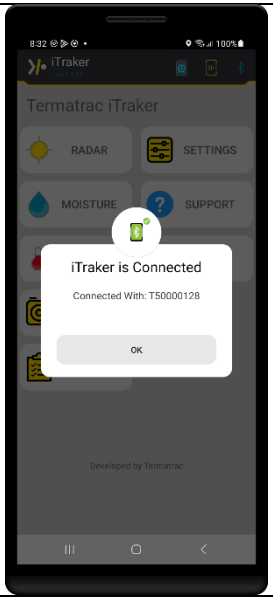
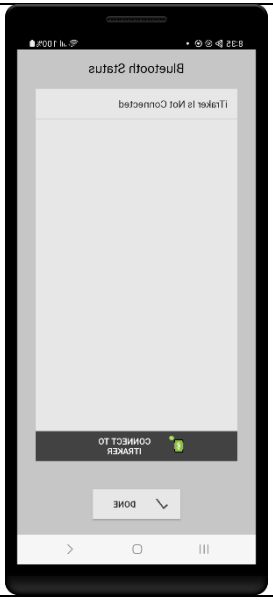
iTraker Information

Tap the iTraker Icon for more Information about the iTraker

Connected To iTraker	Not Connected To iTraker
	

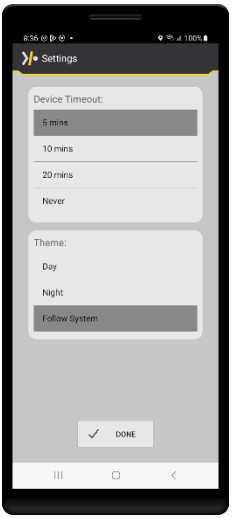
Bluetooth Information

Tap the Bluetooth Icon for more Information about the Mobile Device Bluetooth.

Connected To iTraker	Not Connected To iTraker
	

8.2.1 App Settings

Tap the `Settings` button on the Home screen to set iTraker App settings.



Device Timeout

Set the maximum time for continuous use of an iTraker Sensor, after the preset time the iTraker App will disconnect from the iTraker and return to the Home screen.

One minute before the device is about to time out, a little clock will flash under the scan window whilst the Mobile Device makes a beeping noise. This clock will only appear during a scan activity. The clock can be seen in the Timeout Clock figure. When the device times out, the Mobile Device will disconnect from the iTraker.

Theme

Select Day or Night Manually or follow the setting as configured in your Mobile Device theme settings.

Done

Save Settings and return to Home screen

8.2.2 Exit

By selecting the `Menu` button at the bottom of the screen and then selecting `Exit`, the ITraker Operate app can be terminated. A **Confirm** dialogue message will be displayed. Select `Yes` to close the program and return to the Mobile Device home screen.

8.3 Collecting Information

8.3.1 Job Activities

8.3.1.1 Job

For each Location, certain activities will be carried out and this will be called a Job. The Job indicates when an activity was carried out, by whom, the type of activity and so on.

8.3.1.2 Job Location

When using the iTraker it is helpful to understand the terms that will be used throughout this document. The details captured by the iTraker are specific to a location. The location or address will not change over time, unlike the owner (or customer) who may change over the years. The history of a location remains intact and is applicable for whoever the current owner is.

The Job Location is the unique means of identifying and storing information and this will not change once it is stored.

8.3.1.3 View Jobs

Information on how to View jobs on the Mobile Device can be found in Uploading Scans from PDA 82.

Alternatively, jobs can be viewed on the Termatrac Online website.

Please refer to the Termatrac Online User Guide under sections Job Locations and Job Reporting for further information.

8.3.2 Capturing Scans

During the course of a Job, the iTraker App shows information on the screen from the active sensors (Radar, Temperature or Moisture). This information is called a Scan.

When something of interest is being measured by any of the sensors on the iTraker, the option to save the current scan is available. This can be done by tapping `Save`, which is seen in Capture Scan: Save Log 80

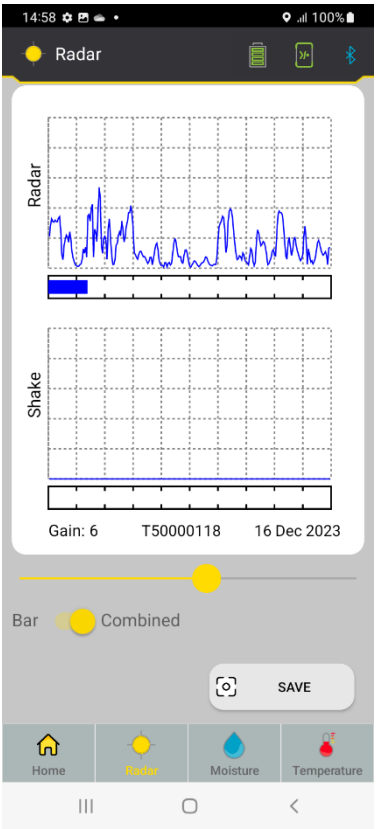


Figure 42 Capture Scan: Save Log

To confirm the capture, the `Save` button needs to be selected in Capture Scan: Confirm Capture 79. The `Cancel` button can be pressed to take the user back to the sensor screen without saving the scan.

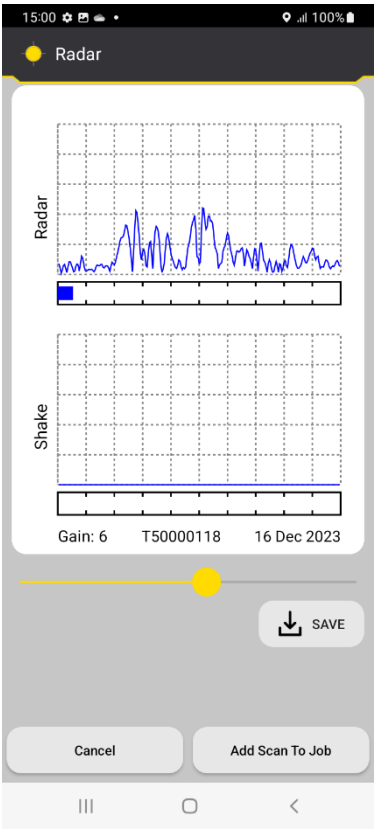


Figure 43 Capture Scan: Confirm Capture

Once a log has been confirmed to be saved, information regarding the scan must be entered. The Scan Log Information screen is shown as seen in Scan Log Information 82. In order to enter the necessary information about where the scan was taken, each field must be tapped and information either entered manually or selected from a drop-down list. To save the log, the `Save` button must be selected at the bottom of the screen, which is found by scrolling down the page seen in Scan Log Information 82. If the log is to be discarded, the `Cancel` button will cancel the log and take you back to the Home screen of ITraker Operate.

Note: Although only Current Location and Current Job are mandatory

for saving the log, it is recommended that values are selected for every field.

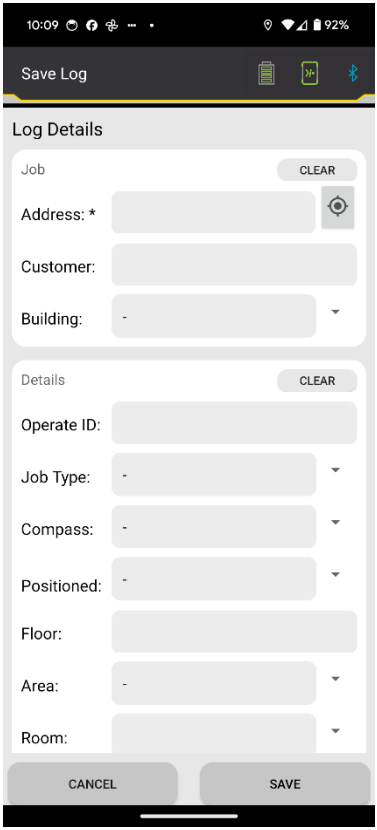


Figure 44 Scan Log Information

8.3.3 Uploading Scans from Mobile Device

The syncing of scans is done via the internet, and are uploaded to Termatrac Online.

When the ITraker App exits, a background tasks checks for an internet connection. Once this internet connection is detected, all unsynced Locations/Jobs are sent to the server, which will not interrupt usage of the PDA.

Each scan that has been saved is connected to the serial number of the ITraker, which is connected to the Company that Trematrac has on record as the owner of that iTraker.

Note that before scans can be uploaded, the Company must have an account on Trematrac Online. Please contact your sales agent, or Trematrac directly if you wish to have an account created.
Please refer to the Trematrac Online User Guide under section Getting Set Up.

After selecting Jobs from the Home screen, the Job List screen will display, showing list of Jobs previously created. The list can be filtered by Date using the Date filter at the top of the screen.

Figure 45 Selecting View Jobs Menu

It is possible to check if a scan has been successfully uploaded in the Job List screen. The Job List screen can be accessed by selecting the `Jobs` button on the Home Screen

After selecting View Jobs in the main menu, the Job List 8 screen will appear, allowing you to choose a job from a drop-down menu. Underneath this, the list of saved scans is displayed, with a small picture of a cloud next to each scan. Both of these images can be seen in Cloud Upload Images 85. The cloud image with the small green tick on it means that the scan has been successfully uploaded to the server. The cloud image with the small yellow exclamation point means that the scan has not yet been uploaded to the server.

Tap on a Job address to view the Scans for that job in the Job Readings screen.

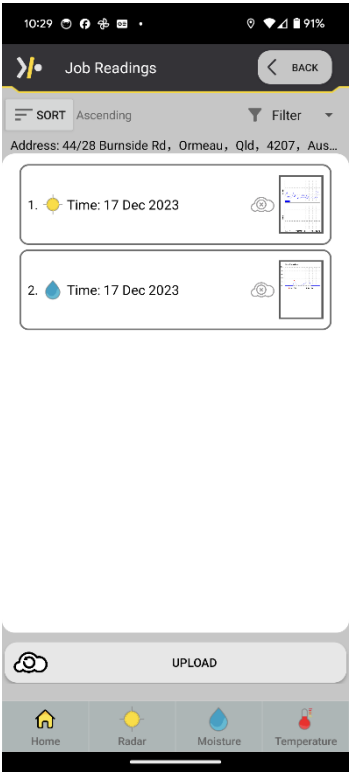


Figure 46 Job List

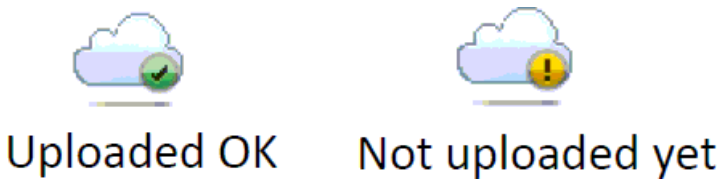
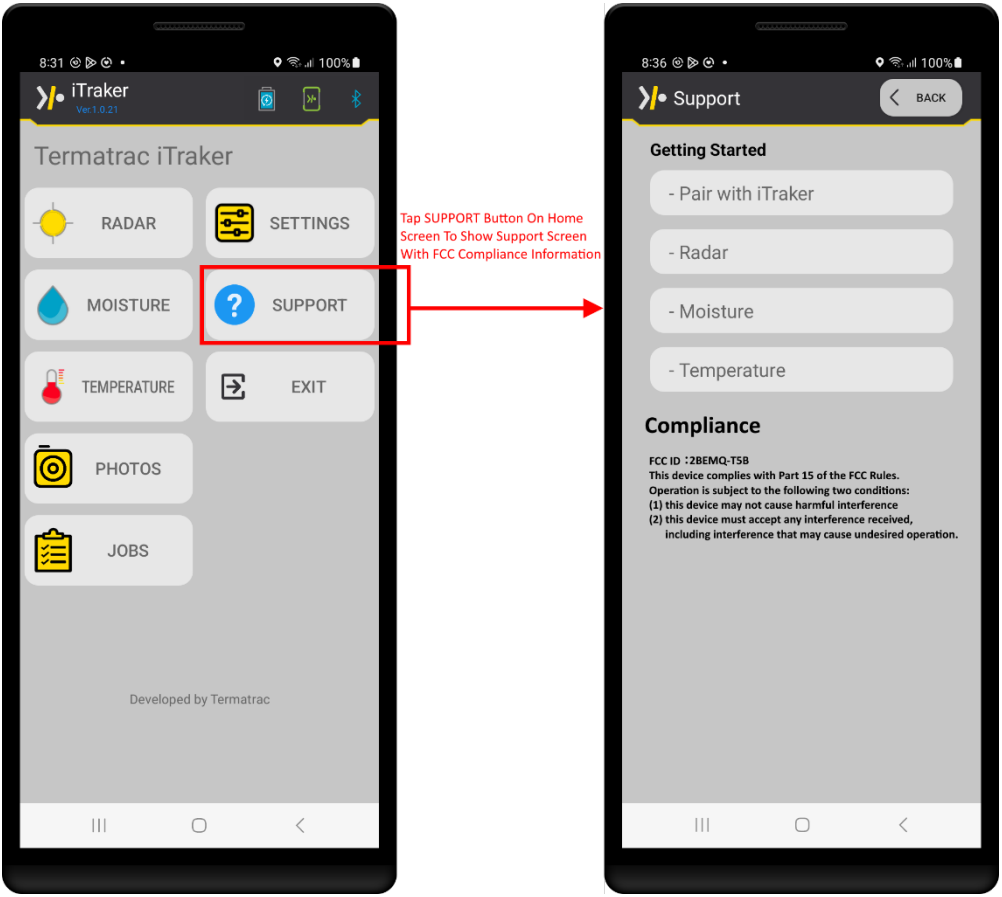


Figure 47 Cloud Upload Images

9 Support

iTraker Help & Compliance Information can be found on the Support screen.
Tap on the Support button from the Home screen to open Support.



10 Limitations of ITraker

The Termatrac readings should not be relied upon for the surface types shown in Surface Limitations 86.

Surface Types	Limitations	Recommendations
Metal	The radar does not penetrate these materials as it is completely reflected by the metal. It may also give false readings that indicate termite activity. This is caused by the signal reflecting off the material and back to the ITraker Device, which is interpreted as false movement	Visually inspect the area. Always make sure there is no metal sheeting between the devise and the area you want to check.
i.e. Foil building insulation		
i.e. Aluminum-cladding		
Materials with very high moisture content	The radar signal may be absorbed in high moisture areas	Circumnavigate around these areas in the dryer sections to detect activity and to determine size of the colony

Table 8 Surface Limitations

You can confirm the accuracy of your readings by checking other areas of the wall, as well as checking the wall from the other side. Use of other tools at your disposal is also recommended.

Termatrac ITraker Radar will have severely reduced effectiveness through very dense materials such as seasoned hardwoods that are of a certain thickness and density, or thick concrete that is of a high PSI or MPa.

11 Troubleshooting

11.1 ITraker Device Not Turning On

If the ITraker battery is dead flat, then there will be no activity when the Power button is pressed on the iTraker..

In this case charge the iTraker using the supplied USB C cable with a compatible charging source.

11.2 ITraker Device Power LED Flashes Yellow

If the Power LED flashed yellow after the Power button is pressed, the batteries within the iTraker Device are low

The iTraker will continue to operate for a short time before the battery is completely exhausted. At this point the iTraker will automatically turn off.
In this case charge the iTraker using the supplied USB C cable with a compatible charging source.

11.3 ITraker Device Power LED Flashes Red

If the Power LED flashes red after the Power button is pressed indicates sn internal fault. In this case contact your Tematrac Support Centre for further action.

Figure 48 - Two yellow lights

11.4 No Bluetooth Connection

The iTraker App on the mobile device cannot establish a connection to the iTraker if Bluetooth in the mobile deviceis not operating.

Ensure that Bluetooth is enabled on the mobile device.

11.5 ITraker Freezes

If the ITraker Devices does not respond to any of the button presses or any commands from the iTraker App on the mobile device, it may have entered a waiting state. If the ITraker Device does not recover from its current operation, terminate the ITraker App, power off/on the iTraker, re-open the iTraker App, connect with iTraker and start the operation again.