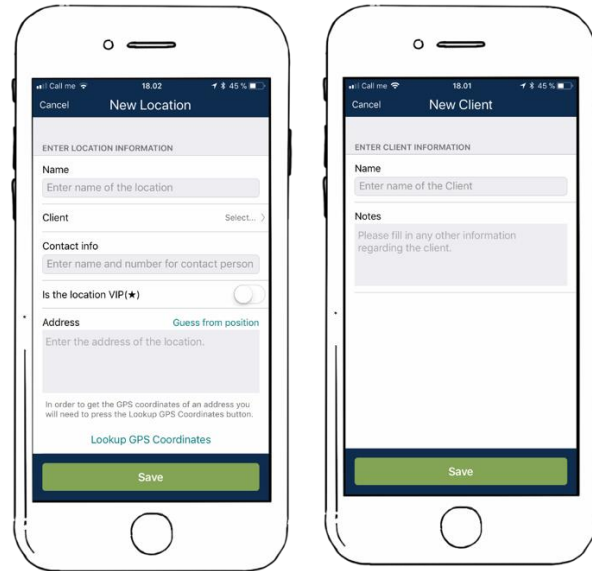




USER INSTRUCTIONS

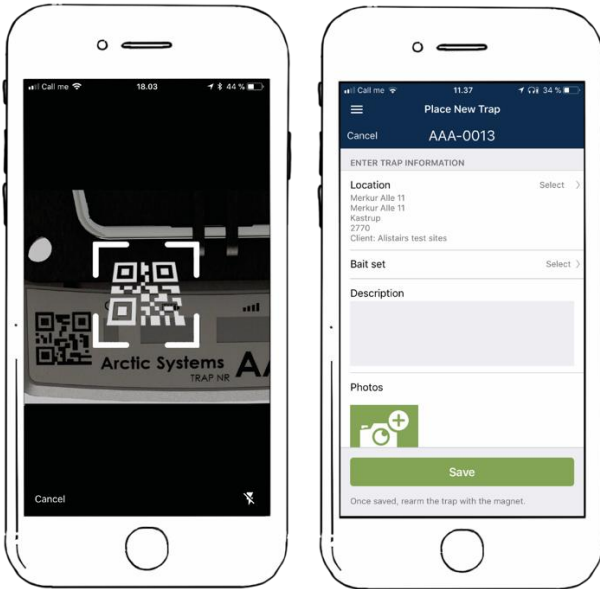
Rev11.0 05-12-2022

RATMO QUICK START GUIDE.



2. Mount the RATMO to the trap with the cable tie included.

1. Log in*, create a CLIENT and create a LOCATION



4. Scan the QR code on the RATMO and register the trap details.



3. Arm the trap with magnet key

**Log in name and password are created in the Web Terminal interface*

CAGE TRAPS

There are 2 mounting options for cage traps **DOOR** and **TOP MOUNT**. For cage traps with hinged door the best solution is to attach the RATMO on the **DOOR**, the RATMO will sense the shock from the door closing, the cheese logo should be as far from the hinge as possible see pictures below. For cage traps with a falling door, there is the option to have the RATMO mounted on the **TOP** of the cage, here the RATMO will sense the shockwave that goes through the trap as the door falls in to its final position.



TOP MOUNT A run through cage trap with the RATMO mounted top side close to the door.



DOOR MOUNT The RATMO mounted on the cage door, note the position of the “cheese” logo on the RATMO, this should always be as far away from the hinge as possible.

EXPERIENCE MEETS TECHNOLOGY

THE FUTURE IS NON-TOXIC



From my 20 years on the front line of rodent control its clear to see that times are changing. We have for too long based our businesses on rodenticides.

I believe in a non-toxic future, and to do that the Arctic Systems team have been focusing on creating a professional system for professionals.

We hope that you enjoy using our system and that it will help you in your endeavours.

We are committed to constant improvement and your feedback matters.

Contact us with any questions or comments.

A handwritten signature in black ink, appearing to read 'Rune Barslund'.

Rune Barslund, CEO, Arctic Systems

WARNING

RATMO is a professional product and should not be used by children.

When mounted on a rodent trap there is the danger of trapped fingers, follow the rodent traps operating instructions for setting and making the traps safe.

Areas with Explosive Atmospheres.

Using the device in areas containing explosive gases shall be avoided. The device is not approved for use in areas where explosive gasses can be found. Sparks from the device or any trap mounted may cause fire resulting in personal injury or death.

Signal

Whilst every effort has been made to ensure good signal reception, metal clad buildings and structure such as underground parking cellars may have poor signal reception. Poor reception requires more power to push the signal out, and will have an effect on the battery life of the product.

Electro Magnetic Radiation.

The RATMO device is a radio transmitter and receiver. When in operation and when communicating via NBIOT network, the unit operates in the ranges shown in the table below. The RATMO is designed to operate within the exposure guidelines set by national and international authorities

OPERATING FREQUENCIES

Ratmo 2.5 NBloT	617-960 MHz and 1805-2180 MHz
-----------------	-------------------------------

Battery

The RATMO device is designed to use 3 regular alkaline AA batteries. Do not expose the batteries to extreme temperatures, never above +60°C(+140°F) or under -25°C(-4°F). A battery life of two years can be expected when using the device in the temperature range 10 – 20 deg. Battery life will be reduced at extreme temperatures. For changing the battery see the instructions in this manual. Used batteries must not be disposed of in regular waste and must be delivered to the relevant local facility.

Protection

Always wear safety glasses when dealing with armed traps.

Armed traps can be dangerous, always follow the instructions of the trap provider for setting and disarming the traps. Always assess if a trap is still armed, and follow the aforementioned traps instructions for a safe disarm. Always dis-arm a mounted trap before handling for service or removal.

Pathogens

Bacteria, pathogens, and micro- or macro-parasites can be present on rats, mice and other rodents, always use a mask, glasses and rubber gloves when removing them from traps. Follow the local laws for disposal. Disinfect all traps by washing with a lukewarm weak bleach solution before changing the battery.

Do not place RATMO in the dishwasher.

Run Away Protection

When using the device without a box, make sure the device is tethered, so that any rodent not killed cleanly does not leave the area with the trap. Also be aware that Arctic Systems during testing have witnessed larger heavier bait boxes been moved due to tails and rear legs of larger rats becoming food for foxes or such other predators that pull the potential food source in the direction of their den.

Marking

Mark your traps, please follow local by-laws as to the marking of traps. Many countries require as minimum the name and address of the company responsible for setting the trap.

Trapping

Please follow the local laws in your country as to the trapping and killing of rodents.

Low Power

Do not place a device in the field that is indicating a status of low power.

Federal Communications Commission (FCC) Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, 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 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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

RF Exposure Warning

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This product may not be collocated or operated in conjunction with any other antenna or transmitter

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

CE Statement

1. In cases where there are restrictions, there were two descriptions, one is that Restrictions or Requirements in following countries, another is that Add pictogram like as below:

	AT	BE	BG	CH	CY	CZ	DE	DK
	EE	EL	ES	FI	FR	HR	HU	IE
	IS	IT	LI	LT	LU	LV	MT	NL
	NO	PL	PT	RO	SE	SI	SK	

2. Frequency band(s) in which the radio equipment operates:

LTE

Band 1: 1920 ~ 1980 MHz; Band 3: 1710 ~ 1785 MHz; Band 8: 880 ~ 915 MHz;

Band 20: 832 ~ 862 MHz; Band 28: 703 ~ 748 MHz;

GSM

E-GSM900: 880 ~ 915MHz; DCS1800: 1710 ~ 1785MHz

3. Maximum radio-frequency power transmitted in the frequency band(s) in which the radio equipment operates.

Class 5 (20dBm±2dB) for LTE-FDD bands

Class 4 (33dBm±2dB) for GSM850

Class 4 (33dBm±2dB) for EGSM900

Class 1 (30dBm±2dB) for DCS1800

Class 1 (30dBm±2dB) for PCS1900

Class E2 (27dBm±3dB) for GSM850 8-PSK

Class E2 (27dBm $\pm$ 3dB) for EGSM900 8-PSK

Class E2 (26dBm $\pm$ 3dB) for DCS1800 8-PSK

Class E2 (26dBm $\pm$ 3dB) for PCS1900 8-PSK

4. This device meets the EU requirements on the limitation of exposure of the general public to electromagnetic fields by way of health protection. The device complies with RF specifications when the device is used at 20 cm from your body.

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Glossary

Smart City APP App	The Mobile application for iPhone and Android developed by Arctic Systems
Backend	This is the database where all the information is stored. The RATMO communicates with the backend to retrieve new instruction and to report status
Daily Check in	The RATMO device will check in once every day. Normally the check in can be expected 24 hrs after the trap was set out. Some countries may require a more frequent check-in in which case Arctic Systems would be happy to help with the set up.
Web Terminal	The Web terminal developed by Arctic Systems to give a good overview and administer the clients, locations and traps.
Snap	The action of the trap closing by the mechanical force of the spring when the activation paddle is presses.
Registered E-mail Address	Each user registered with their e-mail address via the Web Terminal
Registered Password.	Each user registered is given a password in the Web Terminal.
User Account	In the Web Terminal users can be set up with different privileges. The user can just have access to the APP or may be an administrator and have more access and control of system set up.
Technician	A person that will set the RATMO devices out as well as servicing them. The technicians can be assigned to different Locations (by Administrators on Web Terminal) over the ones they create themselves in the Smart City App.
Administrators	Administrators have access to both the Web Terminal & APP. They have the rights to assign technicians to different locations as well as the ability to delete locations and clients within the Web Terminal.
Clients	The customer that will receive the invoice.
VIP Clients	Clients that get first priority.

False Positive	If the traps are located near moving objects such as bins, cars, or children, a kick or bang on the box giving a large vibration in some cases can trigger the RATMO to call in and indeed also the trap to snap. Poor selection of location can lead to traps reporting false positives. Always place you trap sensibly, in a stable way on a solid vibration free surface. Remember Sensible -- Solid – Stable
Last Visit	A term used to describe the time since the last scanning of the RATMO device when set on a location
Location	The Site where the smart traps are located
Device	The RATMO device by itself, once a trap is mounted it become a smart trap.
Grace period.	As the RATMO is a vibration sensor-based device, picking the trap up to remove a dead animal or scan the trap will cause the trap to wake up. The grace period is a period of time the user has to service and reset the trap before the trap communicates with the back end. In the same way if an animal goes into the trap and the trap snaps, the trap will wait for the set grace period before calling the back end.

SYSTEM SPECIFICATION

Purpose:	Remote monitoring device for rodent control	Check in	Once a day
Weight:	201g		
Size:	77x163x24.5mm working height 17mm		
Sensor:	Shock and vibration	Housing	Impact resistant PC
Waterproof:	IP67	Impact tested to	MIL-STD-810
Batteries:	3 x Alkaline AAA.	QR CODE	Individual Serial Number.
Battery life	2 years. Will be lower at colder temperatures	Fixation to surroundings	Pins or lanyard
Temp	-22 to +50 °C -4 to 122 °F	Fixation to trap	250mm Cable tie
Modem	Quectel BG95	Number Traps per site	Unlimited
Antenna	Quectel Antenna - YC0017BA		
Frequencies	Cat M1: B1/ 2/ 3/ 4/ 5/ 8/ 12/ 13/ 18/ 19/ 20/ 25/ 26/ 27/28/ 66/ 85 Cat NB2: B1/ 2/ 3/ 4/ 5/ 8/ 12/ 13/18/ 19/ 20/ 25/ 28/ 66/71/ 85	Number Traps per user	Unlimited

Software versions *(At time of writing)*

RATMO Firmware Version	522
Smart City App Version	1.1.0
Web Terminal Version	2

Limited Warranty

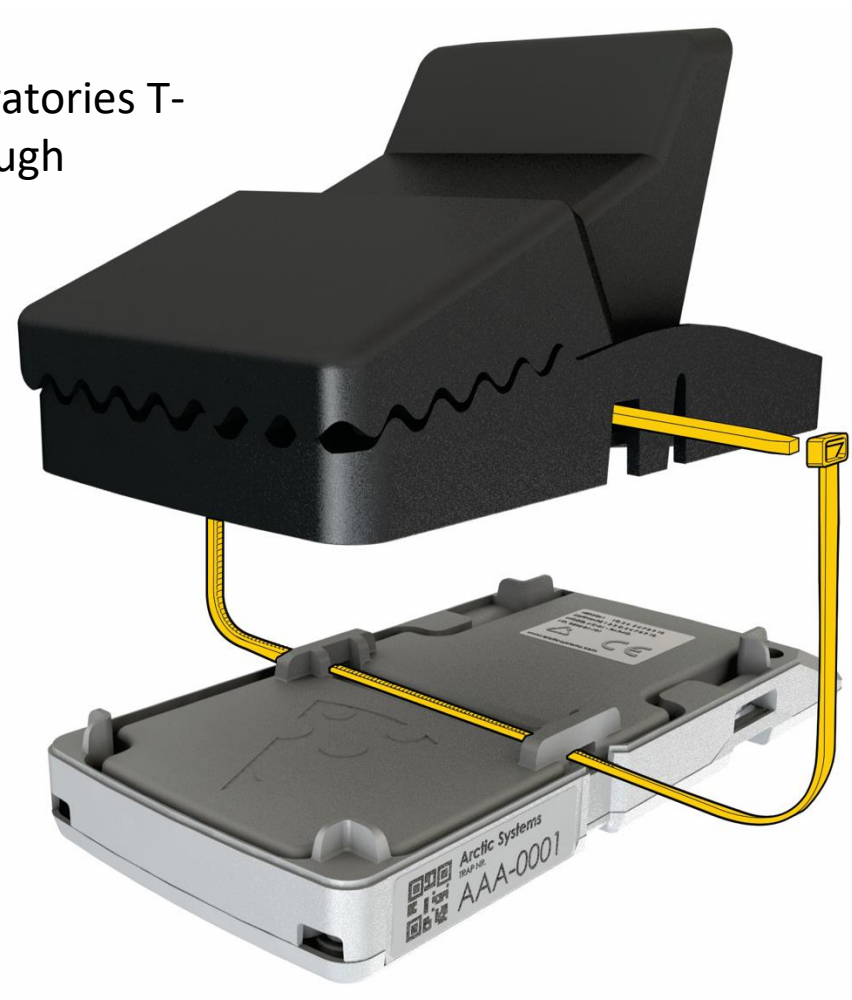
Subject to the conditions of this limited warranty Arctic Systems warranty this product to be free from defects in the design, materials and workshop at the time of its original purchase by the customer and for a subsequent period of one year. Should your device need warranty service please return it to the dealer from whom it was purchased or contact Arctic Systems ApS.

RATMO MEETS TRAP

MOUNTING TRAPS – Bell laboratories T-Rex.

The first thing to do with your new RATMO device(s) is to mount a rodent trap. The RATMO performs best when mounted to a Bell Laboratories T-Rex or similar. The method of mounting is to use a standard 350mm cable tie round the body of the trap, either through the hoops, as for the T-Rex, or round the RATMO for other brands.

Bell Laboratories T-Rex. Through hoops



MOUNTING TRAPS – Kness Big Snap-E

A cable tie works best on the Big Snap-E going in the channel around the body



Trim the cable tie with a pair of sharp cutters
Tip – a pair of pliers can help to pull the cable tie tight before cutting

THE RATMO

The RATMO is designed to give the user the information required, these include, Status, Battery Level, Signal Level.

QR CODE ID

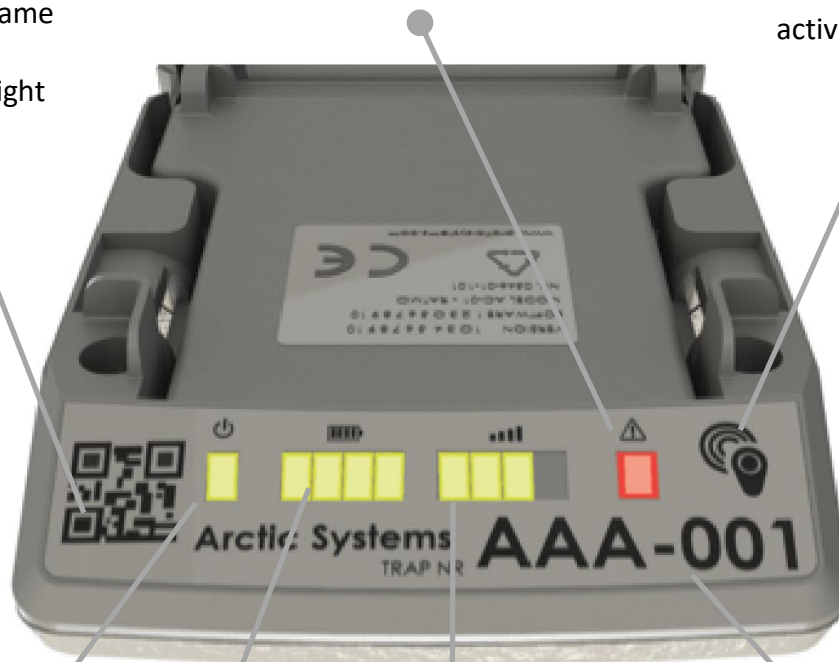
This is the unique RATMO number that is used to identify the device, is it the same as the numerical number on the right hand side.

ARMED LIGHT

This red LED is used to show the user that the unit is armed, when armed the Led turns when in monitoring mode

ACTIVATION POINT

The area around this symbol is where the RATMO is turned on, re-armed, and turned off with the magnetic activation key.



POWER INDICATION

This LED indicates that the unit is powered up when the unit is turned on

BATTERY LEVEL

These LEDS display the battery level of the unit. Units with one level of battery should have the batteries replaced within 4 weeks.

SIGNAL LEVEL

These LEDS display the signal level at the location. This highlights areas of poor signal quality when placing the traps.

NUMERICAL ID

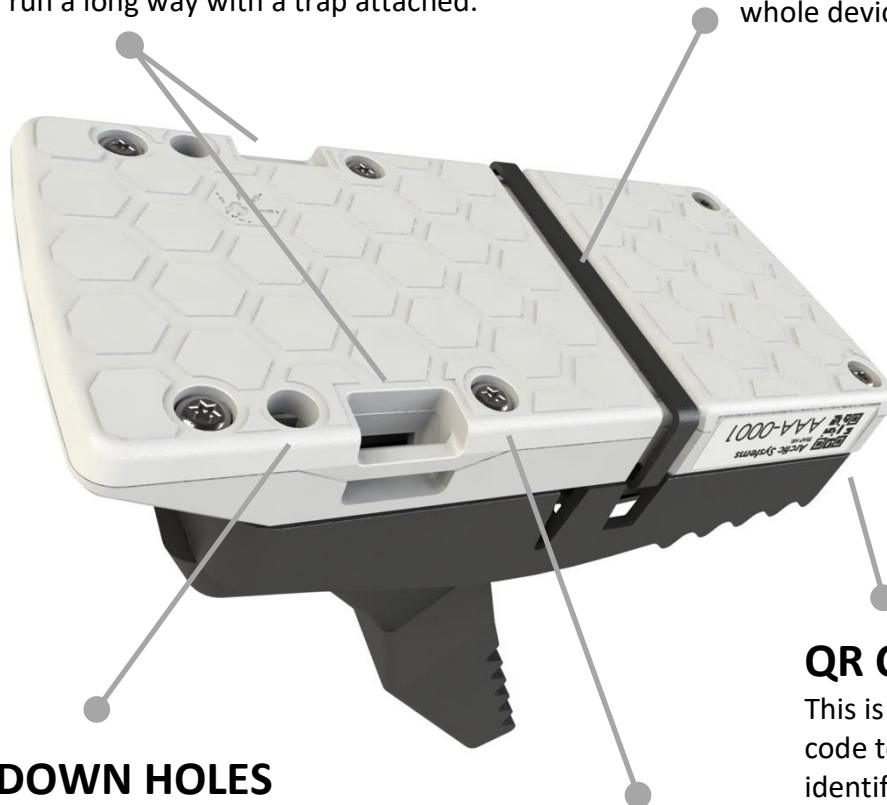
This is the unique number used to identify the trap. The QR code when scanned delivers this number to the APP.

LANYARD ATTACHMENT POINTS

This bar on each side of the device can be used to tie the traps to objects when been used out of the box for example in a building under a shelf system, or when trapping under a floor. Remember in rare circumstances a rodent can run a long way with a trap attached.

CABLE TIE CHANNEL

For attaching traps when the cable tie needs to go round the whole device



TIE DOWN HOLES

The tie down holes allows the device to be attached to different surfaces, using, screws, wire, string, pegs or cable ties. Let your imagination fly!

QR CODE

This is an extra QR code to scan and identify the device.

BATTERY ACCESS SCREWS

There are 6 tx10 screws that hold the battery door closed. These will need access approximately once every 2 years for a battery change.

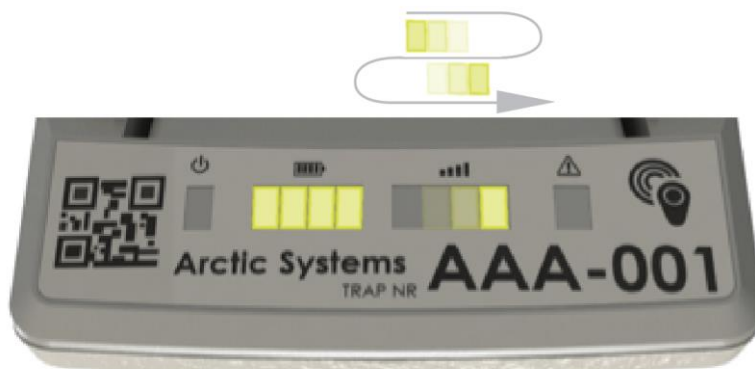
USER INTERFACE OVERVIEW

TURN ON AND ARM

Holding the magnet key over the activation symbol for 2 seconds will start the RATMO unit up. After which the below sequence will run as the RATMO runs a self test and contacts the Smart City Platform.



1. Before turning the trap on, make sure the bait is in the trap and the trap is ready to be placed.
The magnet key is held for 2 seconds this first shows the battery status then after 2 seconds shows all the lights and makes a single short tone, remove the magnetic key, a second short tone will be heard to confirm start up.



2. The Ratmo will now look for a signal, this can take between 5 and 20 seconds. If the RATMO is in an area with no signal the trap will not arm.



3. When the RATMO has found a signal the power light will light up to indicate a connection to the Smart City Platform. The signal indicator will show the level of the signal and the arming light will now begin to flash. There is now approx. 20 seconds to place the trap in its monitoring position.
(Note if the final armed tone, from the next step is heard, simply repeat step one, by holding the magnet key over the activation symbol and the start sequence will run once more.)



4. After the short tones, the RATMO will arm, only the arming light will show, and one long tone will be heard. After the long tone, the arming light will be visible for 20 seconds. After this all the LEDs will turn off and the RATMO will go into low power monitoring mode.
 As mentioned above if the final arming tone is heard before you are ready simply use the magnet key as in step one to restart the process.

STATUS

You can check which state the RATMO is in by flashing the magnet key over the activation zone.

BATTERY STATUS WHEN OFF

Starting **off**. When Holding the magnet key over the activation symbol for 1 second the RATMO will flash the status of the battery, this is useful for quickly identifying units that are in need of a battery change. Holding the magnet key for longer, 2 sec, will turn the unit on.

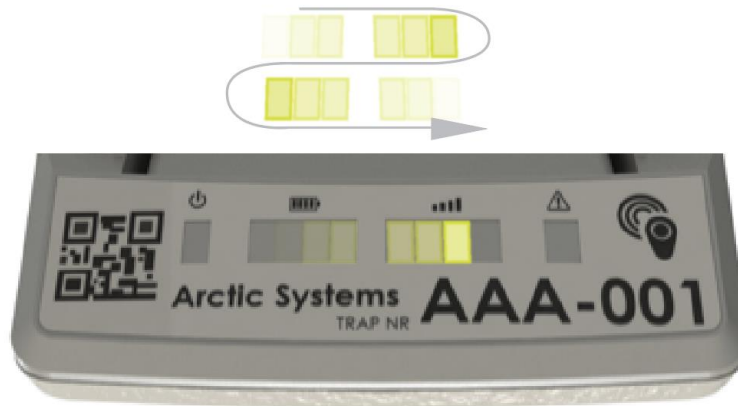


STATUS WHEN ARMED

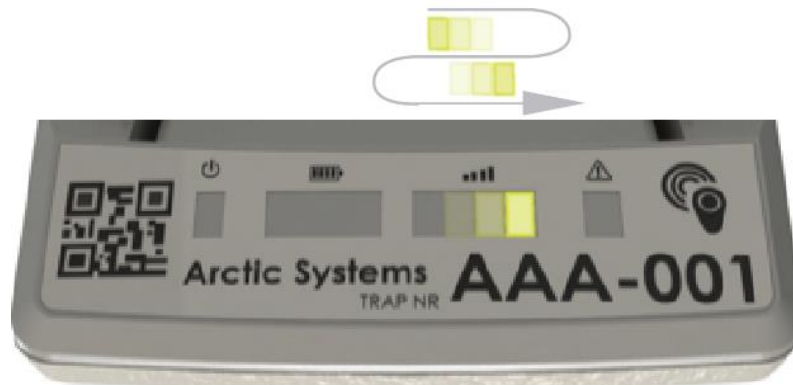
Status **Armed**: When the trap is armed you can see the status by holding the magnet key over the activation zone for one second, the power light will light up. Holding the magnet key for longer, 9-10 sec, will cause a reset of the trap.



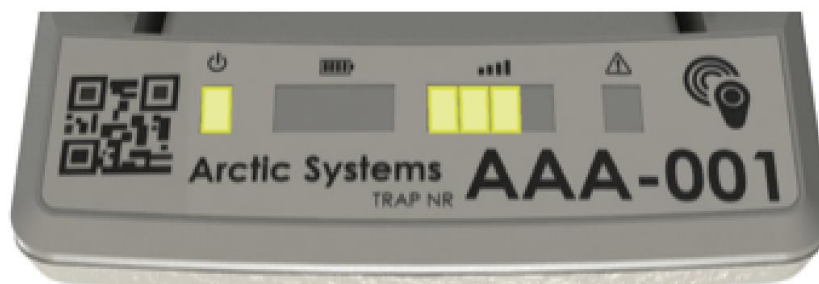
SEQUENCE WHEN SNAPPED



1. When the trap has snapped or if the trap has been nudged hard the trap will wake up and enter the grace period of around 30 seconds. During this time the 8 LEDs in the 2 centre sections will display a cycle pattern. This is the “grace period” where the trap can be re-armed or powered down without sending a snapped message to the Smart City Platform.



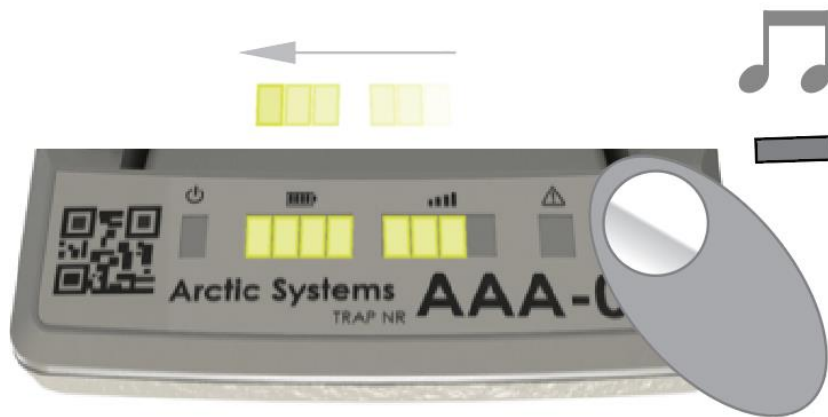
2. The signal lamp will now cycle until a signal is found.



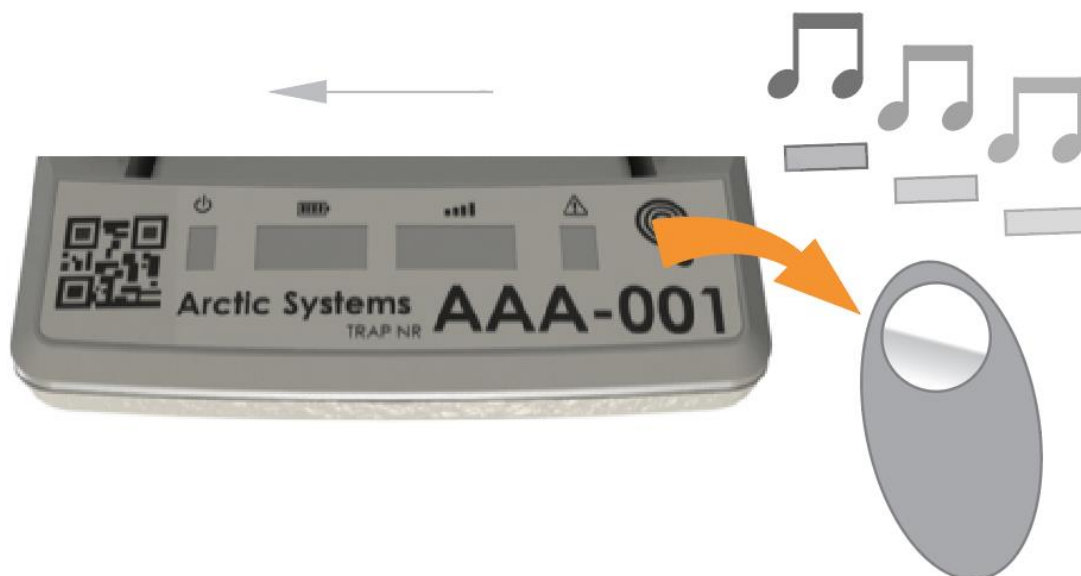
3. Once a signal is found the strength is indicated in the signal window and the power light is lit to show the data connection to the Smart City Platform. After this the trap will go into monitoring mode and the LEDs will go out.

TURNING THE RATMO OFF

The RATMO can be turned off at any time and in any state. Simply hold the magnet key over the activation zone to start with.

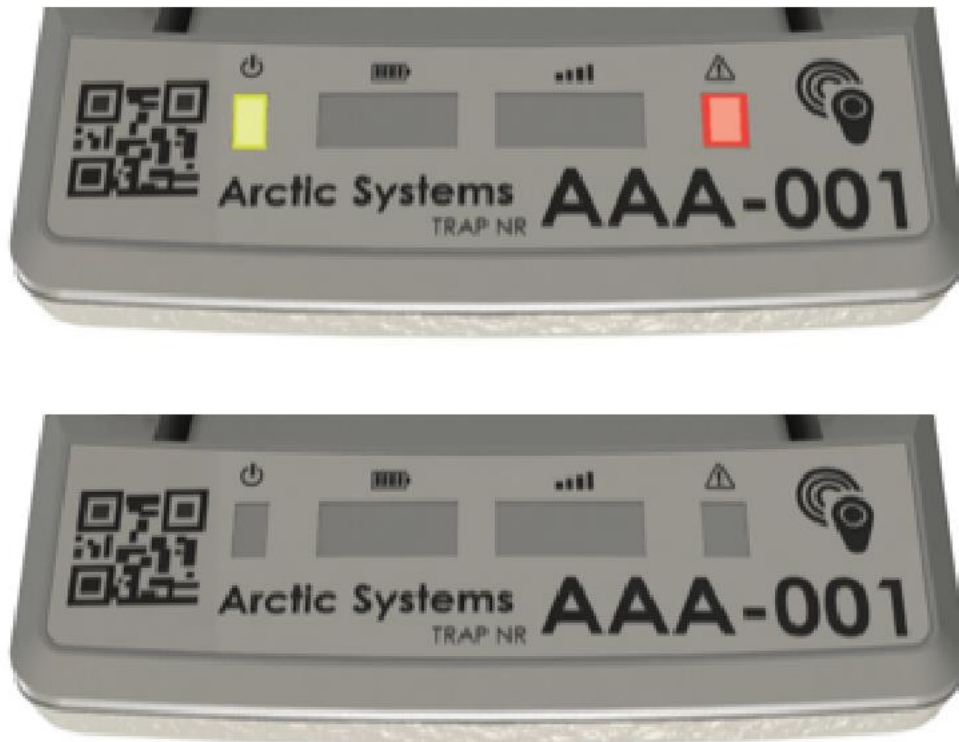


Holding the magnet key over the activation zone, this will cause the middle 8 LEDs to light up and a single tone to be given. Hold the key in position for 3 seconds while the lights count down one by one.



When all the LEDs are extinguished remove the key, 3 tones will be heard in a down going tone sequence, the turn off procedure is now started. The RATMO will ring to the Smart City Platform and log itself off the system.

WHEN NO SIGNAL CAN BE FOUND / REMOTE POWER DOWN



When arming the trap, the following situation may arise.

There can be 2 reasons for this.

1. If there is no signal the unit will display the LEDs as shown in the top image followed by a power down as in the lower image.
2. When the traps have been retired from the handheld device via the Smart City App, or if they have been retired via the Web Terminal then you may experience a check in and power down. This power down occurs either after the 24 hours check in, or if the user collects the trap before then the power down will happen if the RATMO is nudged hard.

Remote update.

3. If the power light is alternating between low and high levels of illumination, then this is an indication that the RATMO is updating. This can occur in any process where the RATMO has called the back end.

FROM CLIENTS TO TRAPS

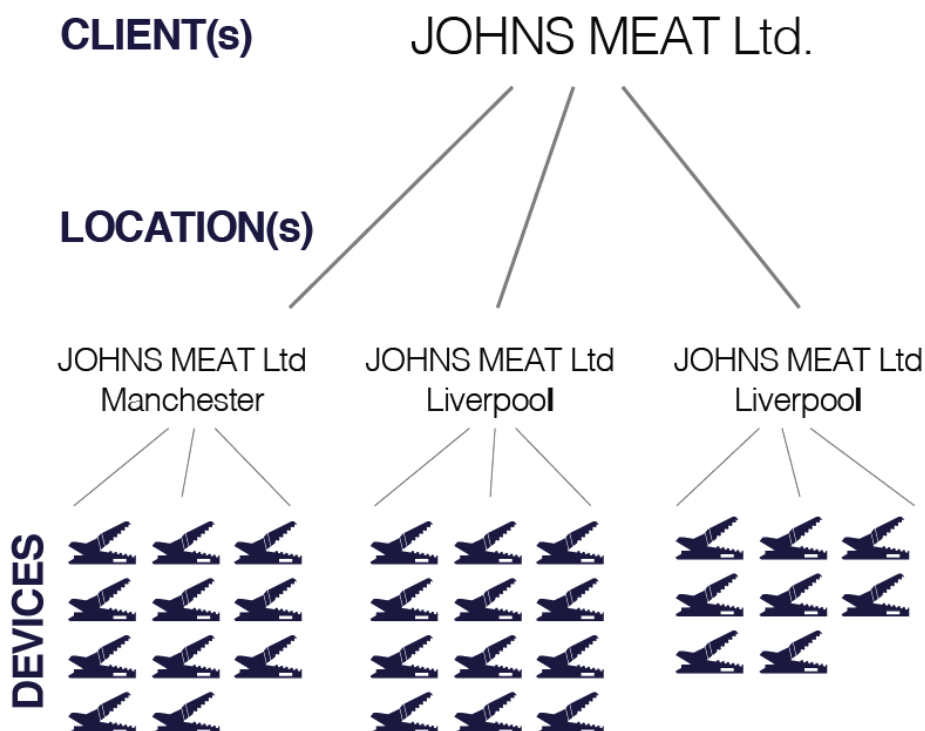
System overview

After preparing the smart traps, the next thing to look at is how the RATMO System is built up. At the top of the tree there is always one or more **clients**, the client is ultimately the one receiving the invoices and site reports. A **client** can have one or more **locations**.

Locations are the sites where pest monitoring & prevention work will take place

For example, the **client** Johns Meat Ltd is the head office that takes care of 3 **locations** where production is done. Alternatively, the Client could have been Johns meat Ltd Liverpool, in which case the location would have the same address as the client.

Each location can have one or more RATMO devices monitoring activity



APP OVERVIEW

Note: to log on to the app the user must be set up in the Web Terminal.

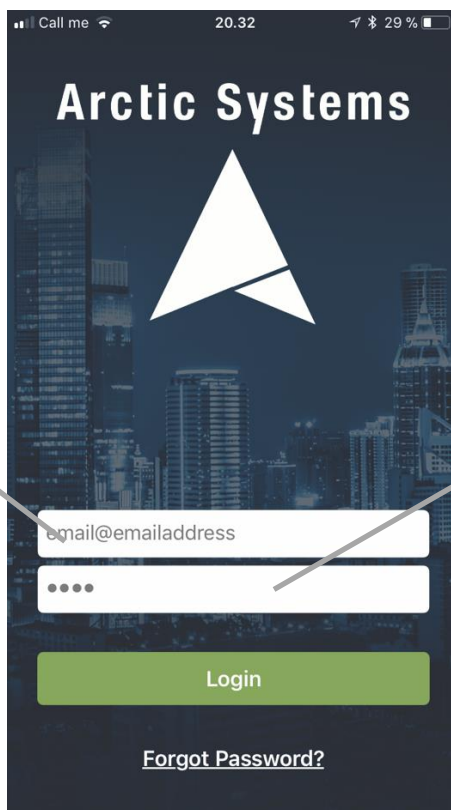
The APP gives the overview for the crew in the field. Clients, sites and trap status can all be set-up and access from within the app.

Download the App from Apples APP Store. Search for Arctic Systems Smart City APP.

Arctic Smart City

Once the app has started, log on using the e-mail and password that has been assigned to your User Account in the Web Terminal. Contact your System Administrator for this.

REGISTERED E-MAIL ADDRESS

A screenshot of the Arctic Systems mobile app login screen. The background is a dark city skyline at night. At the top, the text 'Arctic Systems' is displayed in white, with a large white triangle logo below it. There are two input fields: the first contains the placeholder text 'email@emailaddress' and the second contains four dots. Below these fields is a green 'Login' button. At the bottom, there is a link that says 'Forgot Password?'. The status bar at the top shows 'Call me', '20.32', and '29%' battery.

email@emailaddress

.....

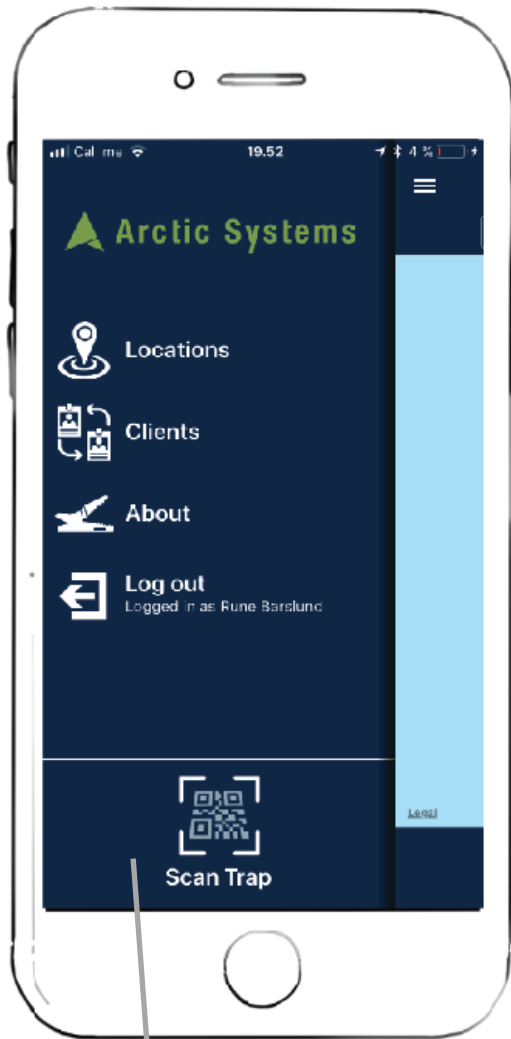
Login

[Forgot Password?](#)

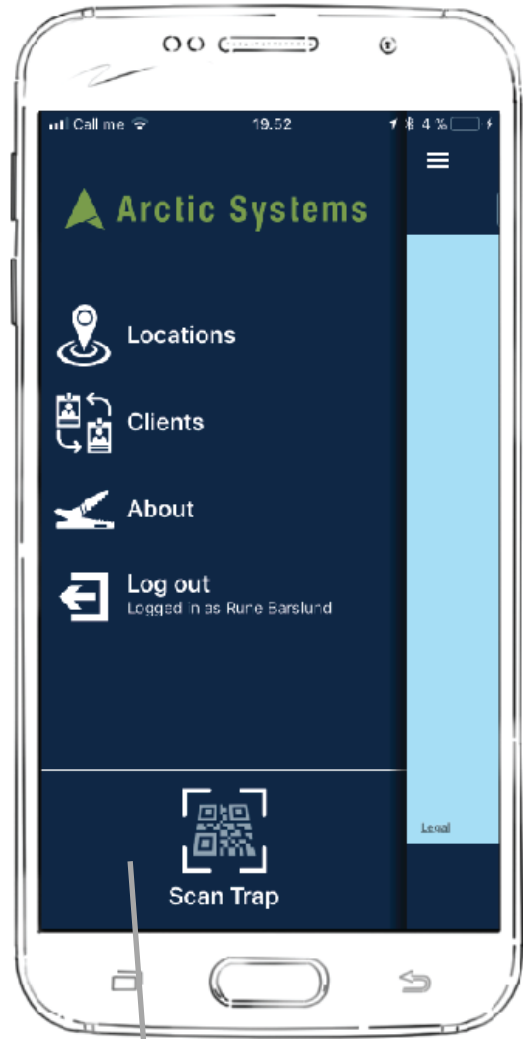
REGISTERED PASSWORD

ANDROID AND IPHONE

The APP is designed for the 2 different operating systems. This manual will use the iPhone to explain how to use the APP. Where there is a difference in the operating system this will be highlighted with an illustration of the Android version.



● **APP AS SEEN ON
IPHONE**

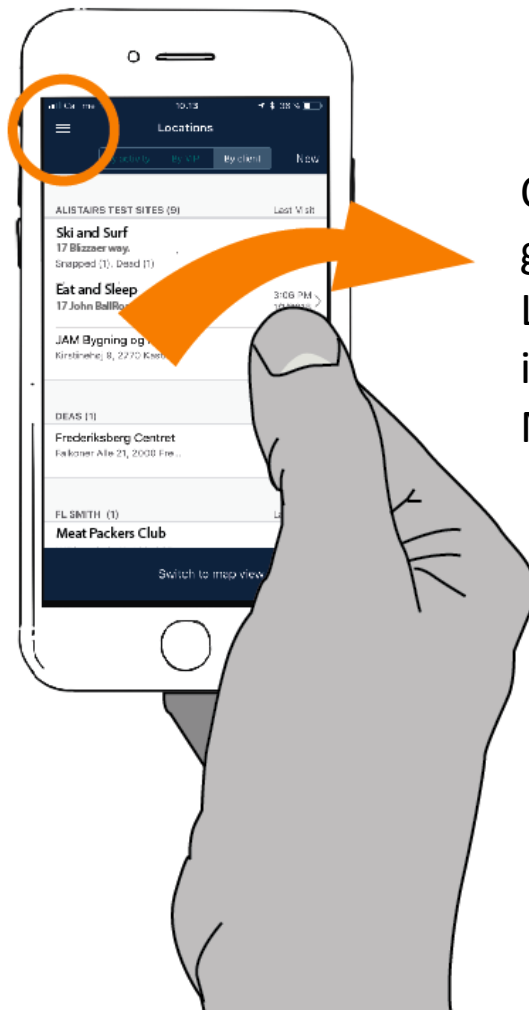


● **APP AS SEEN ON
ANDROID**

MAIN MENU

When entering the APP, you will always be greeted with a list of the active locations in the LOCATIONS MENU. This is to give you a quick overview of your locations and traps.

Click on the
MAIN MENU
Icon....



Or swipe right to
go from the
LOCATIONS menu
into the MAIN
MENU

To access the mail menu swipe to the right, this will bring you into the main menu, alternatively you can press the main menu logo in the top right-hand corner.

LOCATION MENU

For access to location date

ABOUT

All about the APP version and setup



CLIENTS MENU

For access to client dates and settings

LOG OUT

Log out and protect client data

SCAN TRAP

If your anywhere you can pick a trap up and scan it and go to work!



Adding a client is the first thing to do in the process of set up. The CLIENTS MENU is where you can manage your clients, this includes also adding and removing clients. A Client is the one who will receive the invoice and the reports. A client may have one or more locations.



Adding locations is the second thing to do in the overall process, however the LOCATION MENU will be the menu that is used most in service. In the LOCATION MENU you can add one or more locations to a client. The locations generally will be different addresses belonging to the client but we will talk more about this in the LOCATION MENU chapter.



The ABOUT MENU is where you can see which application version you are using.



LOG-OUT is used for simply logging out of the system. Logging out is recommended when you are not working to protect the data in the system.



SCAN TRAP is a log you will see in a few places around the APP. By using this tool and scanning any trap you be brought either to the place in the system the trap is regestered, ie the location you are standing in. Or if the trap is not regestered you will be asked to regester the trap to a site.



THE CLIENT'S MENU

In the CLIENT'S MENU it is possible to see all of your clients. These clients may have been set up by yourself, or assigned to you by the Administrator from the Smart City Terminal web interface.

Under each client's name is the number of locations each client has.

MAIN MENU

To return to the
MAIN MENU click here

CLIENTS NAME

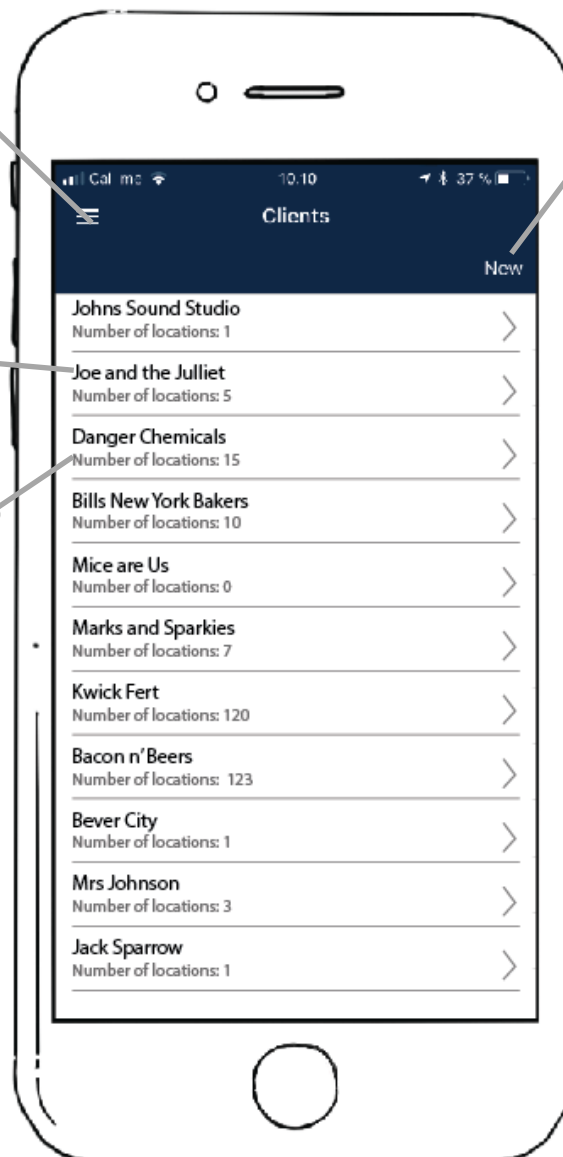
Usually the company
name

No. LOCATIONS

The number of locations

NEW CLIENT

Click here to set up a
new client



ADDING A CLIENT

To access the NEW CLIENT form, click NEW in the upper right window of the clients menu, see the previous page.

CLIENT NAME

This is the name of the client that will be paying the bills, eg,
Daves Butchers
Yorkshire bank
Mrs Brown

CONTACT INFORMATION

Name of Contact and telephone number,

Call me 19.50 41%

Cancel New Client

ENTER CLIENT INFORMATION

Name
Enter name of the Client

Contact Information
Enter contact information

Address
Enter the address of the client

Notes
Please fill in any other information regarding the client.

Save

ADDRESS

This is the address where the invoice and audit report will be sent.

NOTES

Any special extra info on the client. How best to contact them, any special agreements etc.

There are 3 important pieces of information for setting up a client out in the field.

1. The name of the client, this should be the name of the company you will be working for.
2. The address, the should be the address where the invoice and reports will be sent
3. Contact Info, the name and number of the contact person.
(e-mail info can be added in the Smart City Terminal)
4. Notes, any notes about preferences, or past suppliers or infestations can be written here.

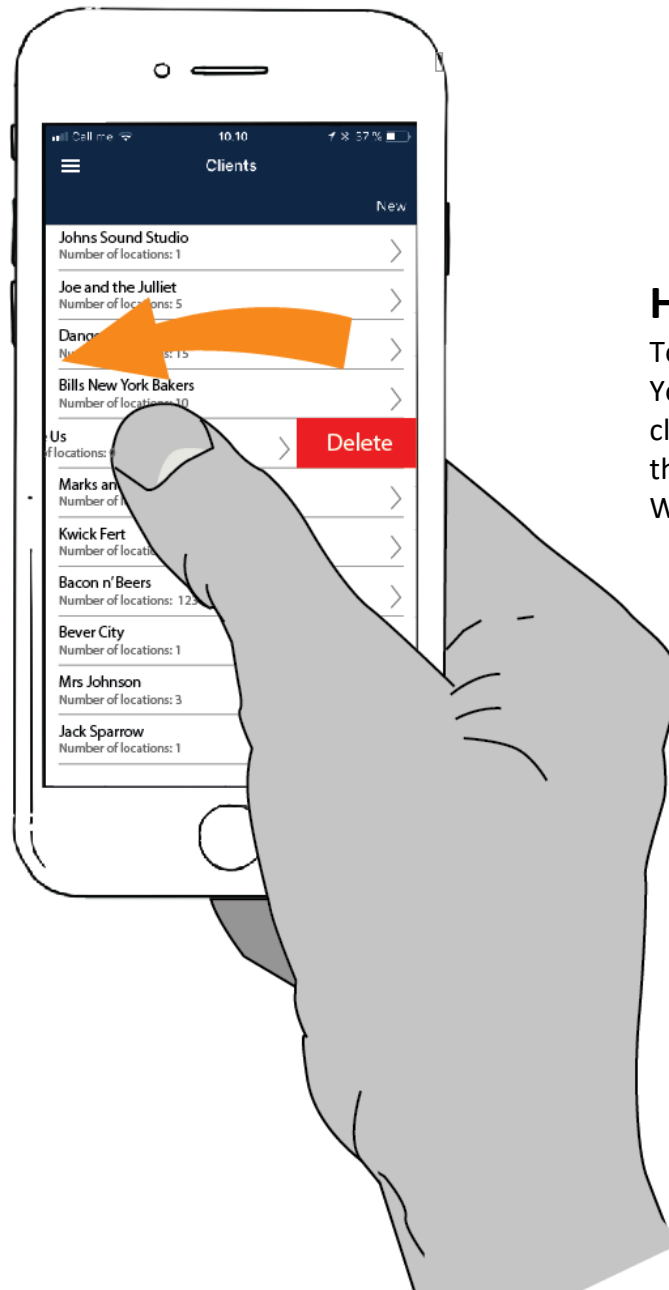
The information written here can be edited via the WEB TERMINAL by any user with administrator privileges.

DELETING A CLIENT

To delete a client, simply swipe left to show the delete button and press delete, the client will be removed from the list on the APP, but the information will be retained in the WEB TERMINAL.

SWIPE LEFT

On a client to access the delete button



HIT DELETE

To clear the client from Your working list. The client will still exist in the back end on the Web Terminal



THE LOCATION MENU

The location menu is where an overview of trap activity can be made.

MAIN MENU

Short cut back to the MAIN MENU

ADDRESS+STATUS

Below the location name is the first line of the address and an overview of the active traps

CLIENT NAME

The client name is shown in the bar above the locations.

NEW LOCATION

Click here to add a new location

ACTIVITY LOGO

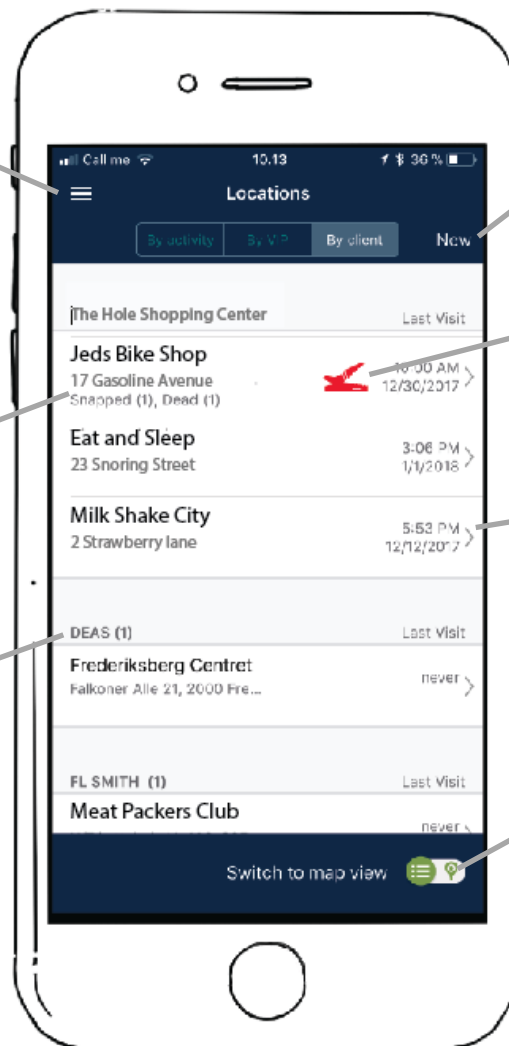
A red trap highlights Activity on this location

LAST VISIT

This is the date of the last visit.

MAP VIEW

If you press this switch a full overview of all the traps and activity can be seen on google maps.



The locations can be filtered in 3 ways

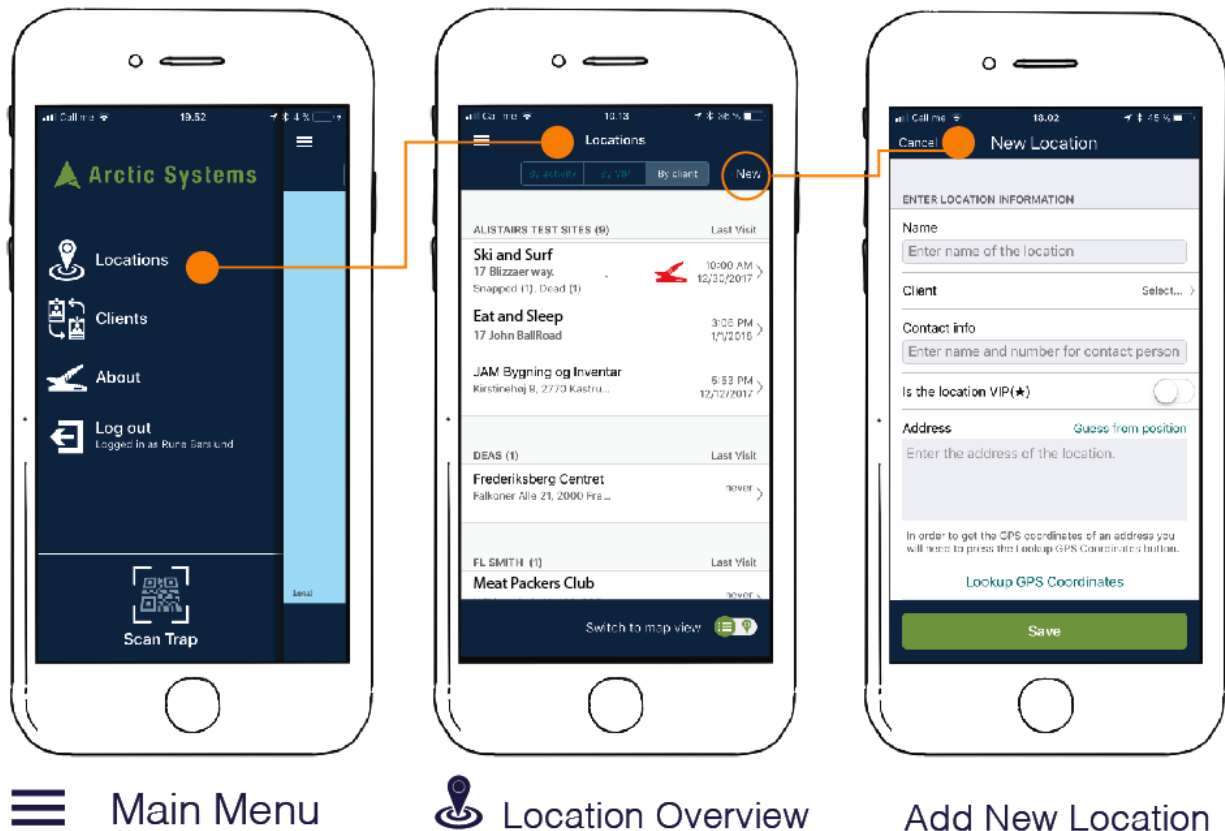
Activity - By Activity will show the sites with the most activated traps

Clients - By Client will list the location by Client alphabetically

★ **VIP** - This will always put the important clients to the front of the list, VIP clients will receive a yellow background and a star icon in the list .

ADDING A NEW LOCATION

To add a new location, go from the MAIN MENU by selecting the LOCATION menu, then in the upper right corner click NEW to select the NEW LOCATION form.



≡ Main Menu

📍 Location Overview

Add New Location

ADDING A LOCATION OVERVIEW

The image shows a smartphone screen with a 'New Location' form. The form is titled 'New Location' and has a 'Cancel' button at the top left. Below the title is a section 'ENTER LOCATION INFORMATION'. The form contains the following fields and controls:

- Name:** A text input field with the placeholder 'Enter name of location'.
- Client:** A dropdown menu with a 'Select' arrow.
- Contact Info:** A text input field with the placeholder 'number and number of the contact person'.
- Is the location VIP ():** A toggle switch.
- Address:** A text input field with the placeholder 'Enter the name and number of the contact person'. Above this field is a green link 'Guess from position'.
- Lookup GPS Coordinates:** A green button below the address field.
- Save:** A large green button at the bottom of the form.

Callout lines from the text blocks on the right point to the following elements:

- NAME:** Points to the 'Name' input field.
- CLIENT:** Points to the 'Client' dropdown menu.
- CONTACT INFO:** Points to the 'Contact Info' input field.
- VIP:** Points to the 'Is the location VIP' toggle switch.
- ADDRESS:** Points to the 'Address' input field.

NAME

This is the name of the location where the traps will be placed. In the case of a Client with more than one location then this will name one of the satellite locations. In the case of a Client with only one location then could be the same location as the billing address.

CLIENT

This menu allows you to select the client that will own this location.

CONTACT INFO

This will be the contact info for the gate keeper to this site, it could be a caretaker, facility manager or the owner of the site. Write the name and number here.

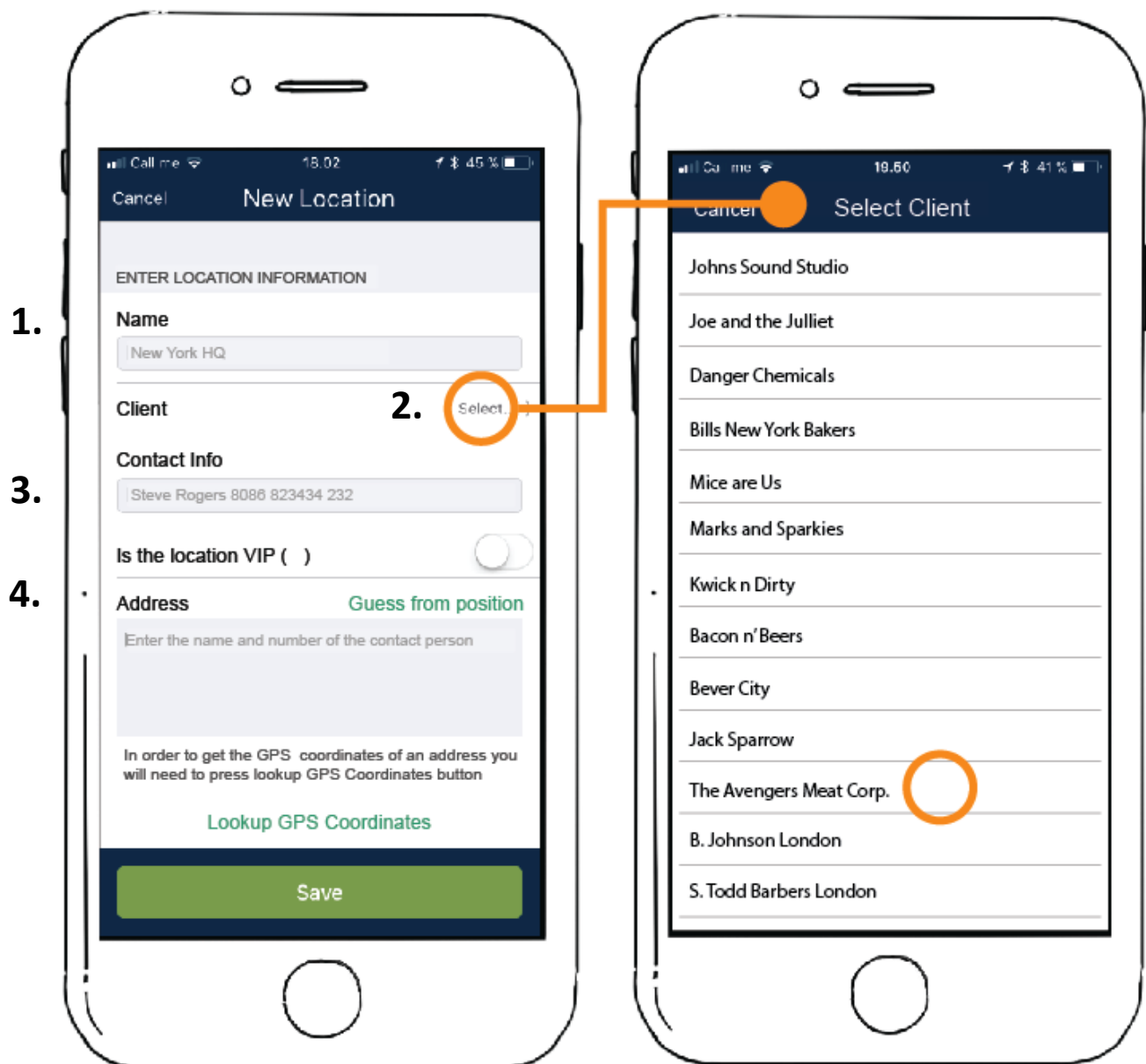
VIP

Selecting this allows a Location to have VIP status, this could be a food production facility, pharmaceutical factory or restaurant where immediate action is required.

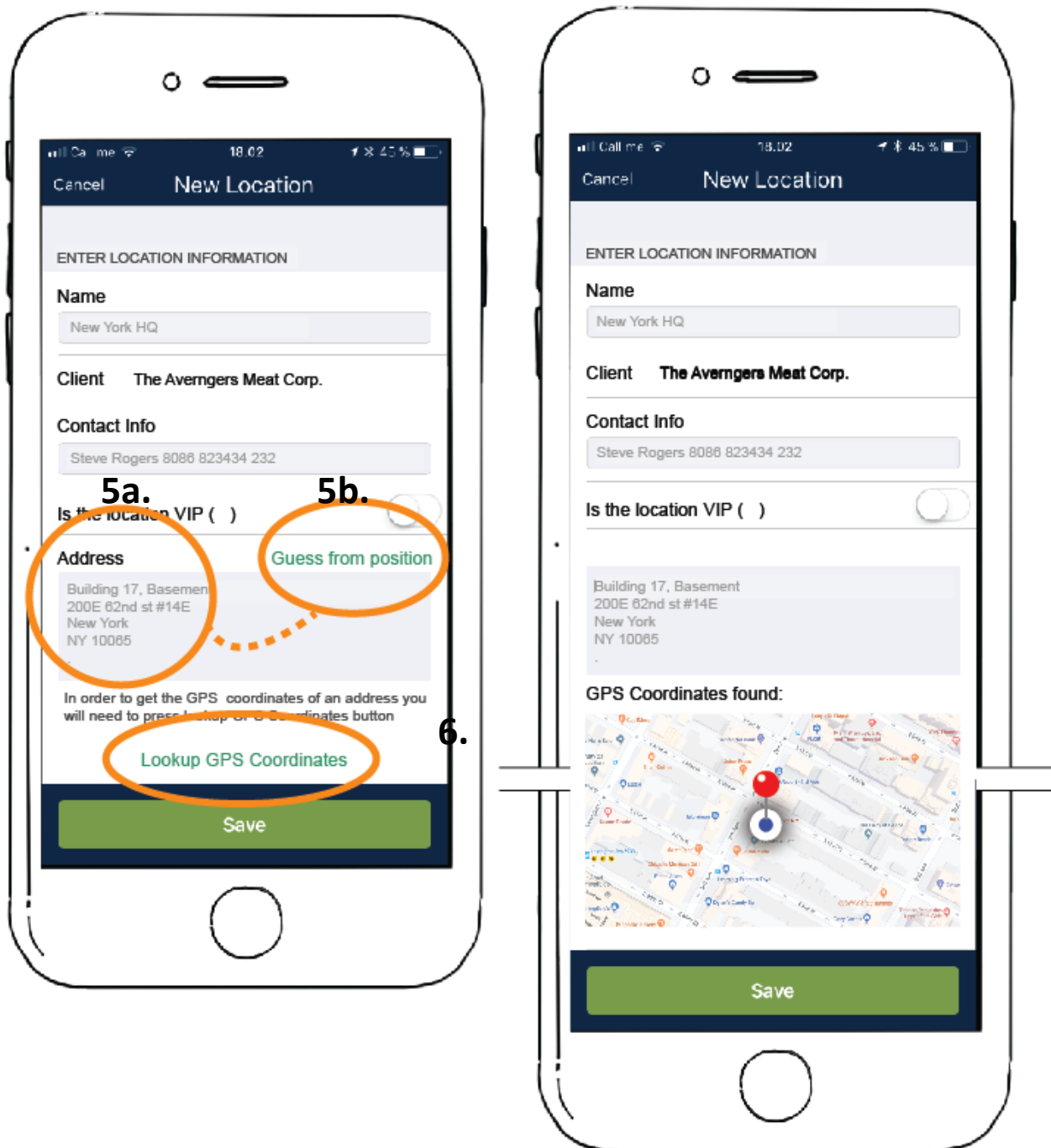
ADDRESS

This is where the address of the location will be recoded, see the next section for more information. Write the address in, or guess from position then press lookup GPS coordinates to add to map.

ADDING A LOCATION PROCESS



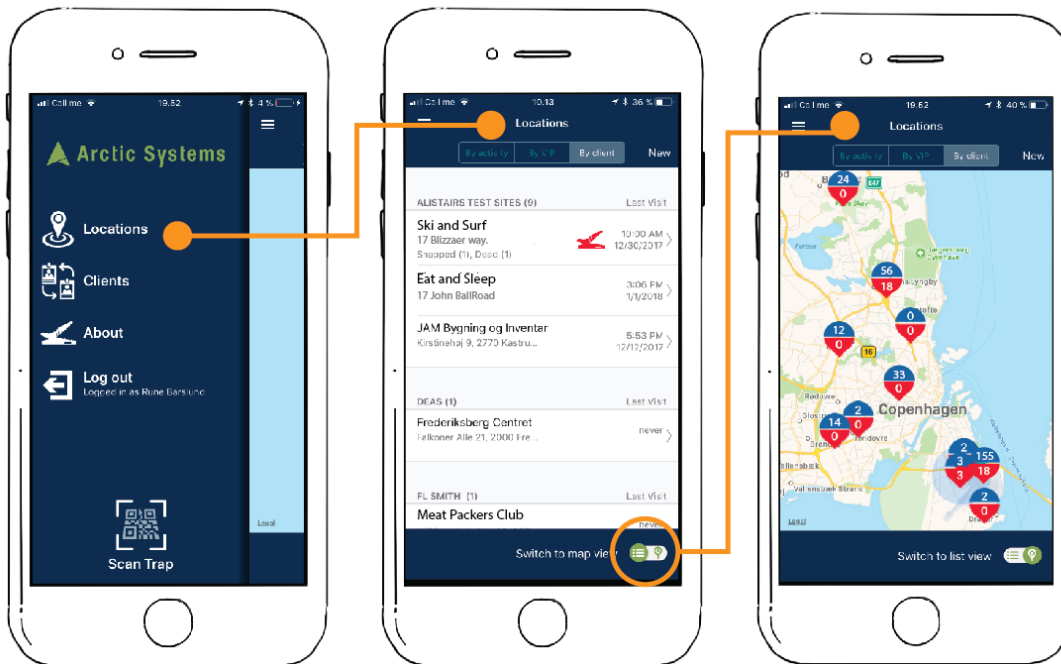
1. Add the name of the Location by typing this in the NAME box.
2. Select the client from the SELECT CLIENT MENU as illustrated above.
3. Write the site contact name and number in the CONTACT INFO box.
4. Select if the site should have VIP status.



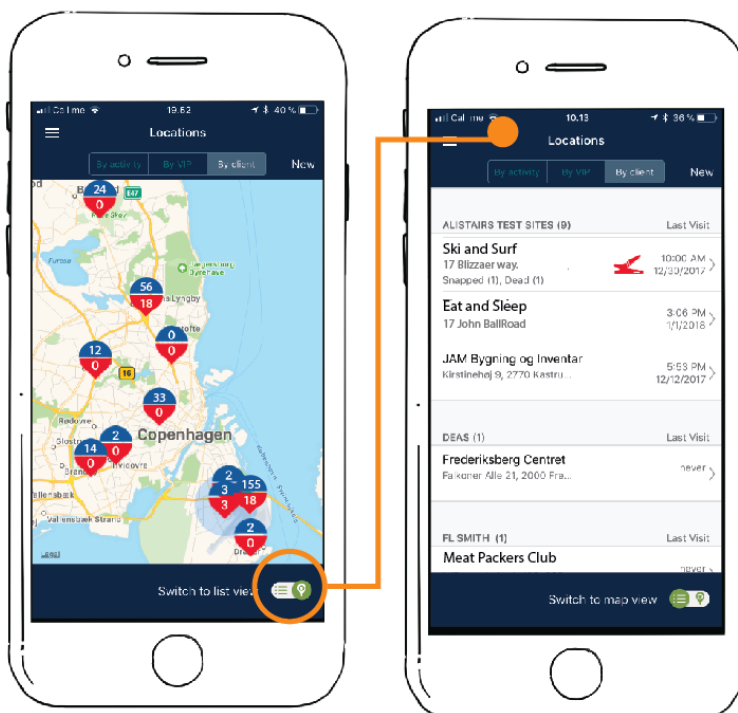
5. a. The first option is to type the location address in manually.
b. The second option is to guess the location address from the GPS in the phone, to do this press the green text button GUESS FROM POSITION. This can always be corrected manually if there is a slight error, for example if you are close to a location boundary and it takes the neighbours address.
6. One this address is correct press LOOK UP GPS COORDINATES and the location will be stored on the map.
7. Press SAVE to complete registering a new location.

LOCATION MAP ACCESSING

The LOCATION MAP OVERVIEW can be accessed from the LOCATION LIST by pressing MAP TOGGLE BUTTON, your LOCATIONS can now be seen marked with a marker, Note IPHONE and ANDROID are different for this feature. (See the next pages).



To return to the LOCATIONS LIST press the MAP TOGGLE BUTTON one more time.



MAP OVERVIEW (IPHONE)

The map overview is used to get an overall impression of where things are happening. This can be on a large scale over an area of the city or on a smaller street scale if there is more than one location on a street. Note due to programming differences these are displayed differently on Iphone and Android.

MAIN MENU

Short cut back to the MAIN MENU

FILTER SELECTION

The overview can be displayed according to Activity, Clients or VIP.

STATUS BALLS

Each status ball represents the status at one location. Zooming out will cause the status balls to merge. Zoom in again to split them. Clicking* on the ball will bring you to the location overview the with the selected client.

(* in next software release)

TRAPS ON LOCATION

The number show in blue represents the number of RATMOs on the given location

X MARKS THE SPOT

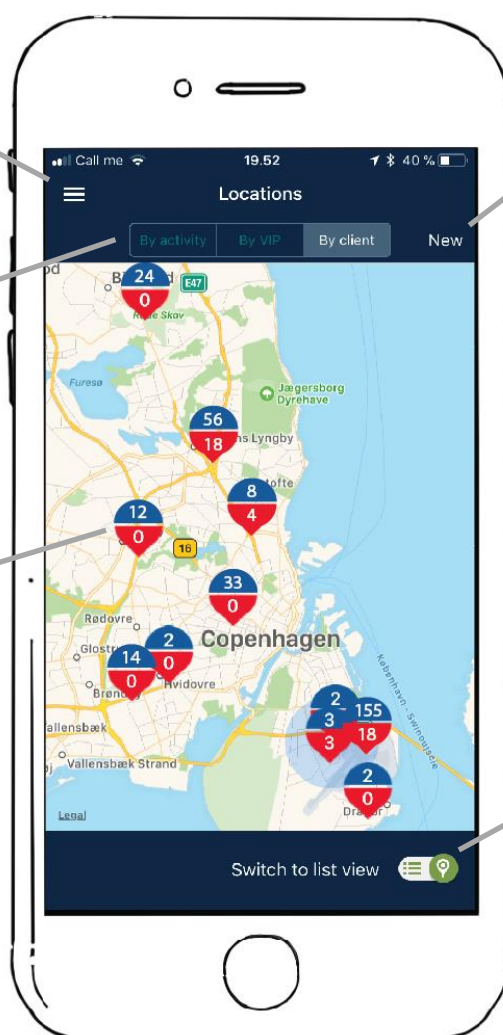
Well not quite X, but the point marks the location on the map where the RATMOs are located

NEW LOCATION

Short cut back to the MAIN MENU

MAP VIEW

To go back to the location menu, press this switch



ACTIVATED TRAPS

The number in red shows the number of RATMOs that have snapped or that require attention

MAP OVERVIEW (ANDROID)

The map overview is used to get an overall impression of where things are happening. This can be on a large scale over an area of the city or on a smaller street scale if there is more than one location on a street. Note due to programming differences these are displayed differently on Iphone and Android.

MAIN MENU

Short cut back to the MAIN MENU

FILTER SELECTION

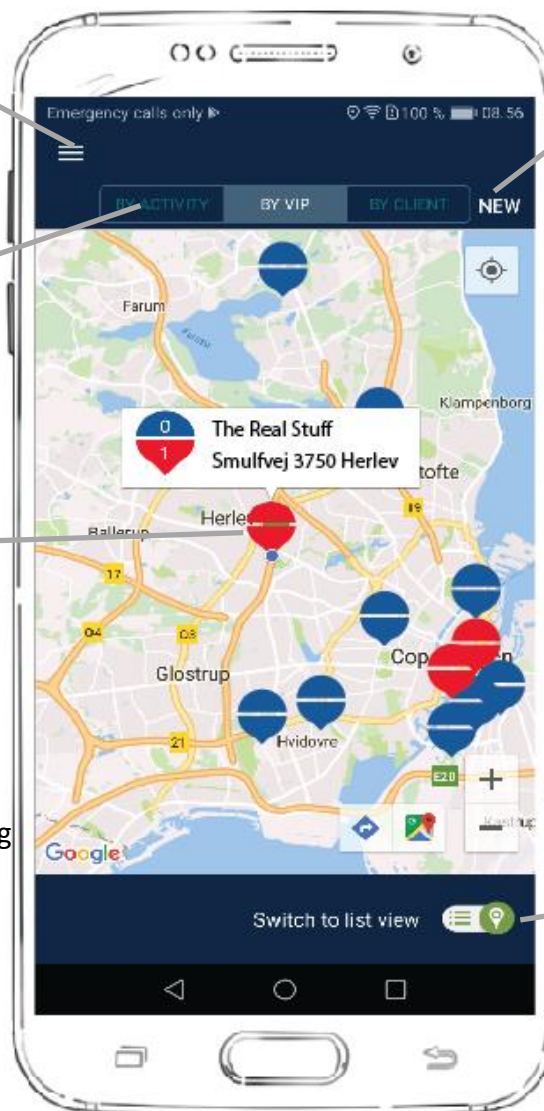
The overview can be displayed according to Activity, Clients or VIP.

STATUS BALLS

On the android version the Status Balls are blue when all the RATMOs on site are OK and not snapped. If a trap required attention, then the ball will turn red. Clicking on the ball will bring up the status and the address

NEW LOCATION

Short cut back to the MAIN MENU

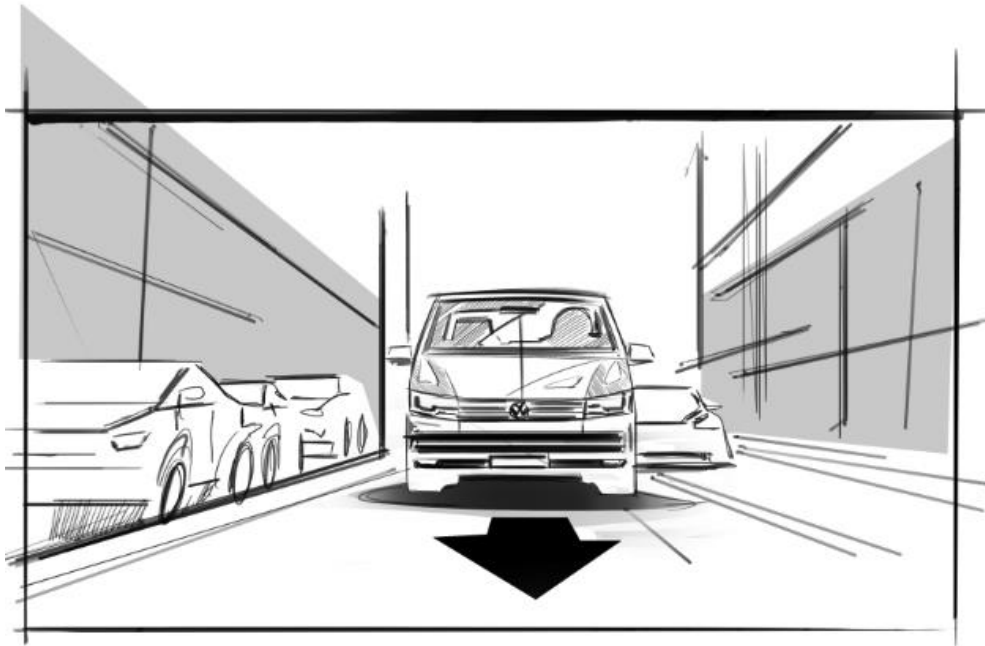


MAP VIEW

To go back to the location menu press this switch

WORKING THE RATMO.

In this section, we will share with you our best tips for traps placement, monitoring and emptying and removal.

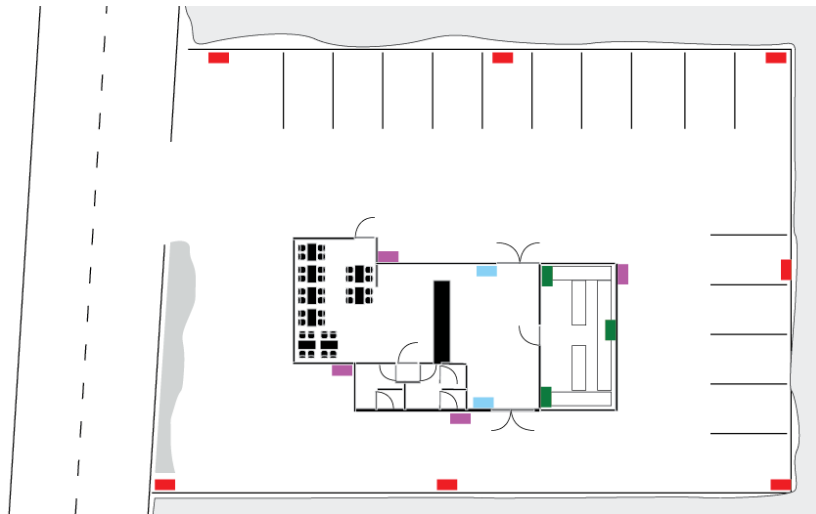


Pack your kit with care.

Good preparation and planning is the best way to approach a job. To help with this we have put together our recommended equipment list for site work.

- Ratmo Traps (mounted with traps & ready)
- Magnet key for activation of traps, a spare in the car is always recommended
- Bait boxes for traps out side, See the list of approved bait boxes in the Appendix
- Wire or cable ties for rats in roof locations
- Several types of bait depending on location
- Torch – for getting into those dark corners.
- iPhone or Android Phone for access to the App.
- Cable cutters for removing traps tied to pipes or beams
- Gloves – for hygiene
- Alcohol Spray or gel – Great for disinfecting hands after removing a rat.
- Plastic bags – for packing those little critters in
- Tape measure – in cases where recording size is important.

MAKE A PLAN – SITE STRATEGY



For buildings there are several options in regards to preventing rodent infestation. We recommend making a sketch before coming to site with a general plan.

Site Perimeter monitoring

In this situation a site may have an outer circumference of traps to monitor and catch rodents coming in from fields or neighbouring buildings. In this we recommend that bait boxes are used, and that the traps are placed with a distance of 40-60m apart, with the bait boxes placed up against a wall or fence. Boxes may be closer if there is a sewer or hole in fence. Remember to inform the client if site maintenance is required

Building Perimeter monitoring

A second set of traps can be set up around the building to catch any rodents scurrying in the shadows of the buildings. In this we recommend that bait boxes are used, and that the traps are placed with a distance of 20-50m apart

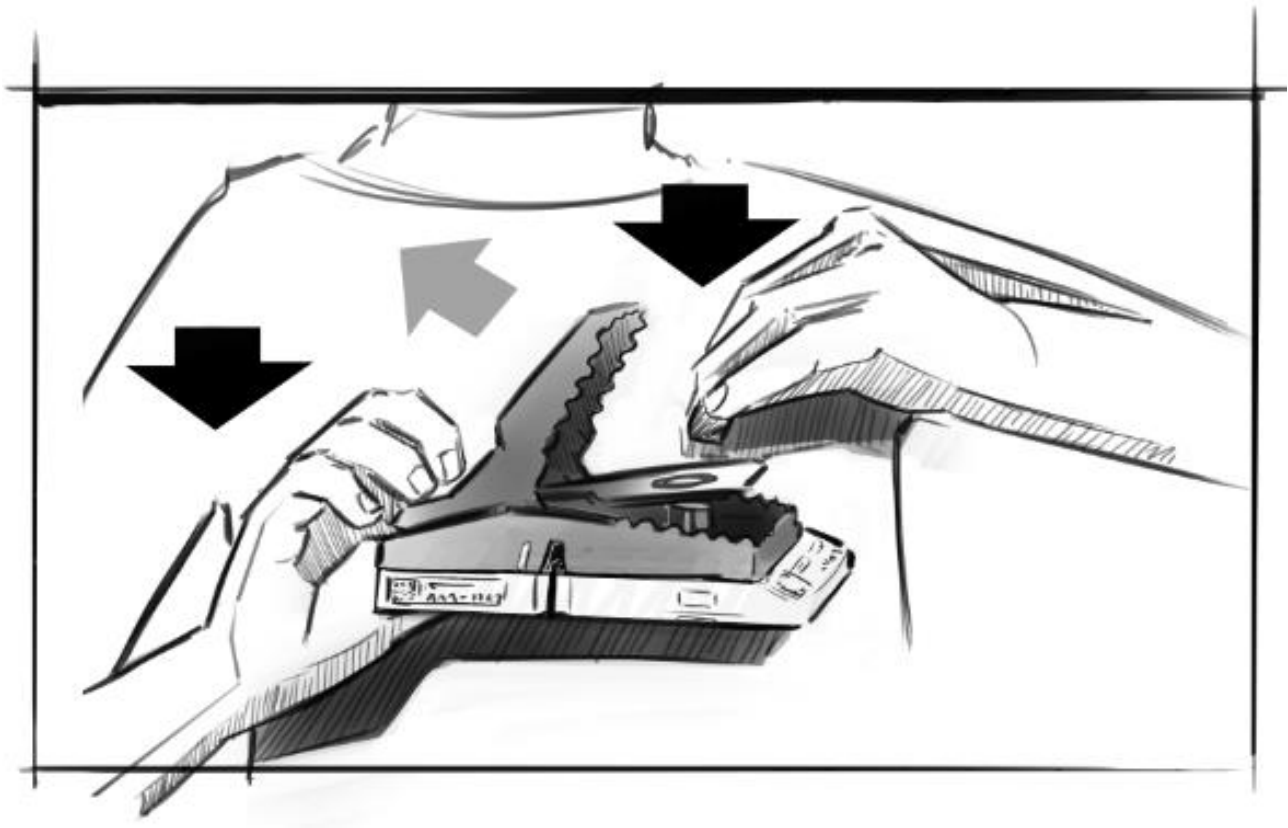
Internal doors and ports

Internally its always advisable to monitor all doors and ports. This can be even more so important in places where doors are held open for loading and that can lead rodents into stores or hygienic areas. Place the Ratmos in boxes up against the walls and in the corners of the room

Internal general.

General areas can be food and product stores, industrial areas, storage areas, production areas etc.

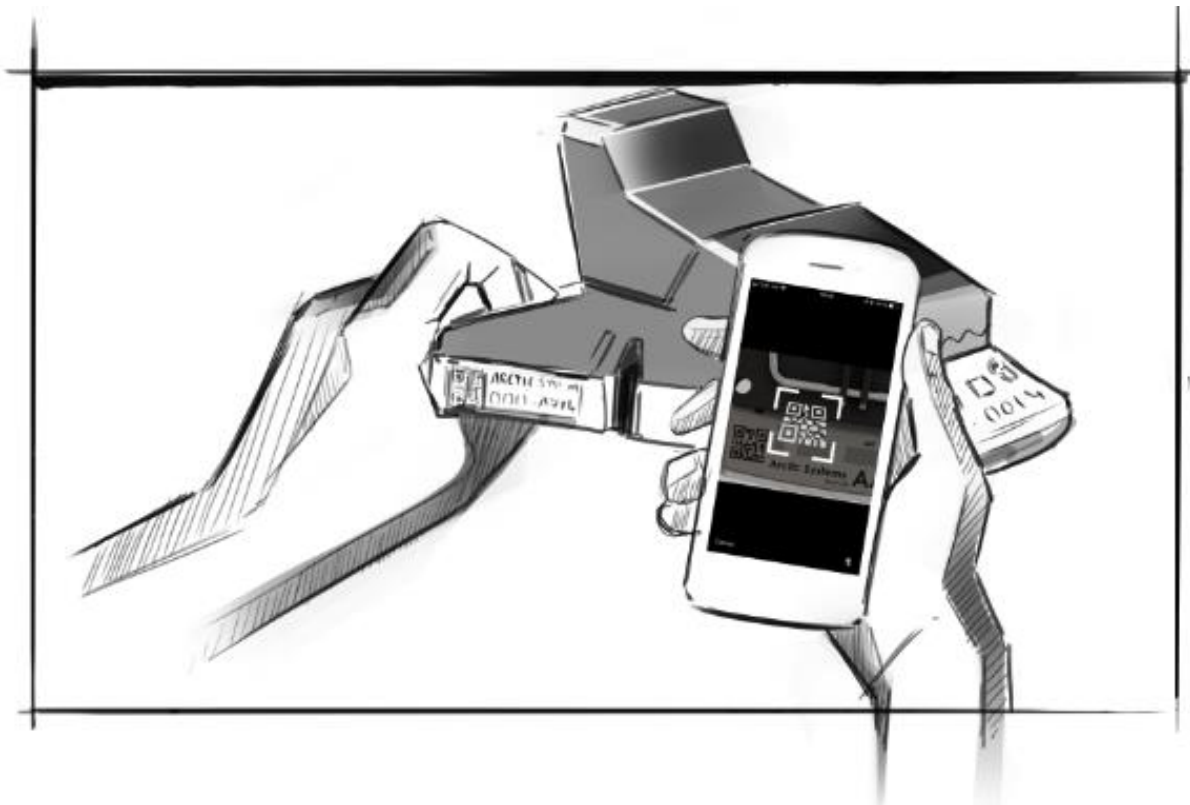
BAIT THE RATMO



Adding bait to the traps can be done prior to the site visit or once on site. To bait the traps hold the arm firmly in place with one hand and place the bait in the trap with the other.

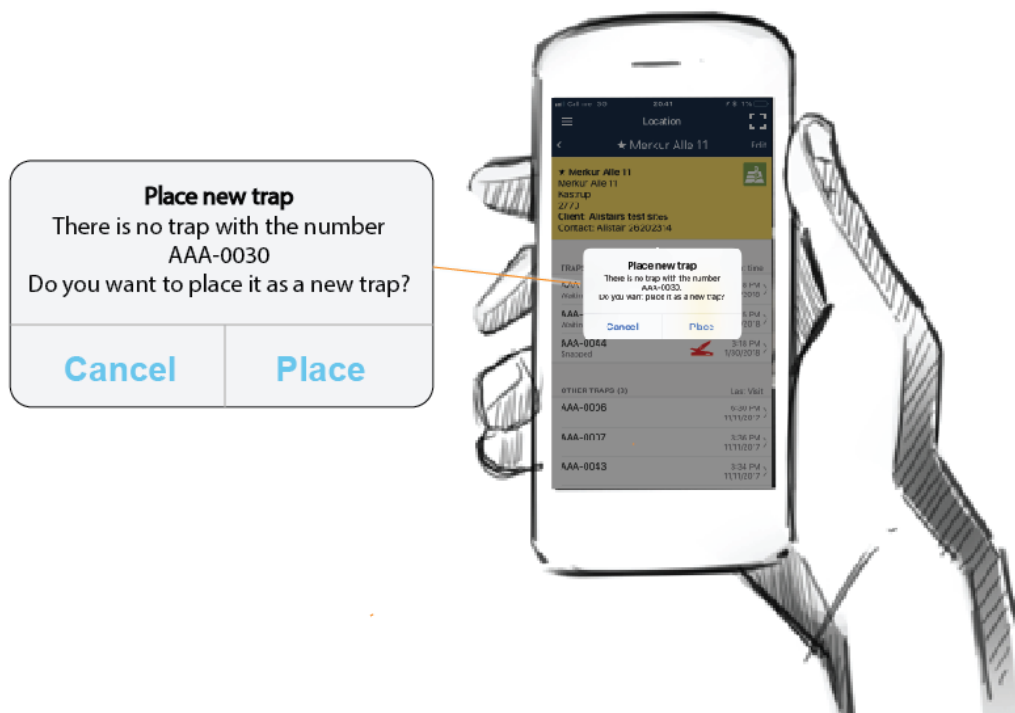
Baits should be chosen that suit the environment and can be left on site until the next inspection.

TIP – Choose a bait depending on the location. If you are in a grain depot, then your quarry is most likely eating grain. If you are in a cinema your quarry is most likely eating popcorn. Look what food sources are available in the local area and adapt your techniques.



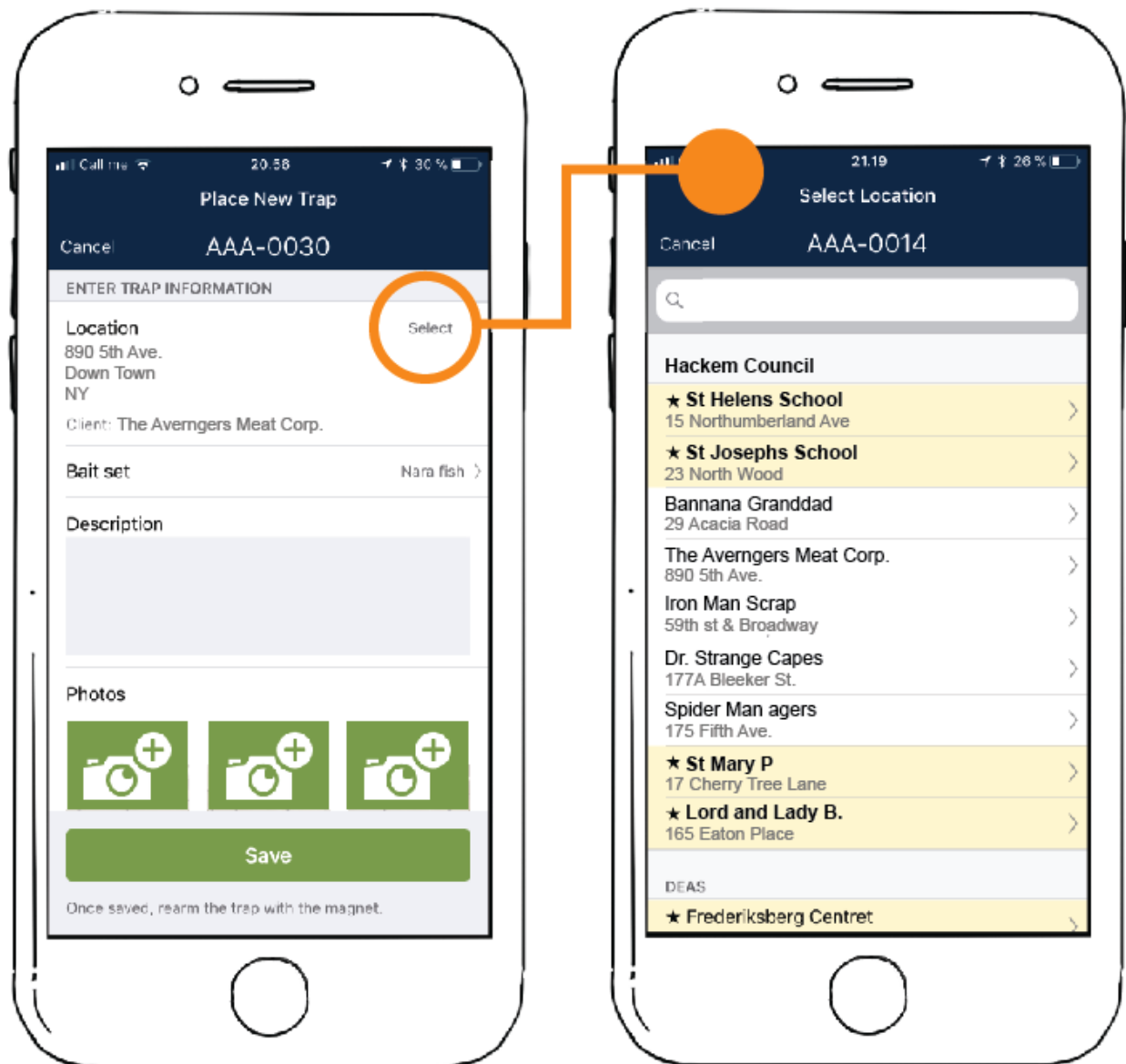
SETTING THE RATMO – SCAN THE QR CODE

Take a new RATMO and scan the code on the front or side of the device. The APP will now identify the unit and ask you to confirm placement of the trap. Press **Place**



ENTER THE DETAILS

SELECT LOCATION

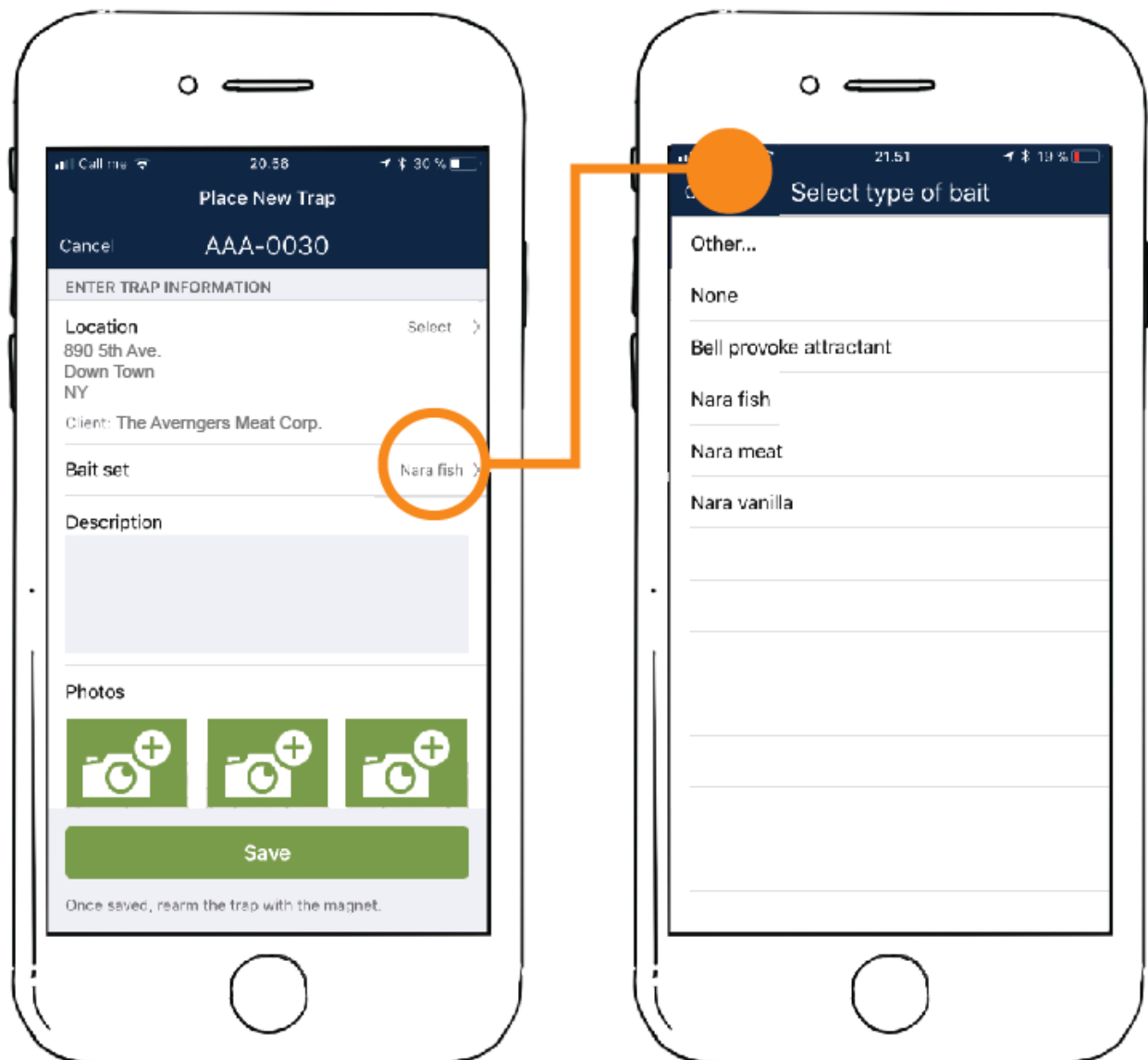


Select a **Location** from the drop-down menu to do this click on **Select** then select a **Location** from the list.

Locations are sorted according to the **clients**.

Clients with stars and yellow backgrounds are the VIP clients.

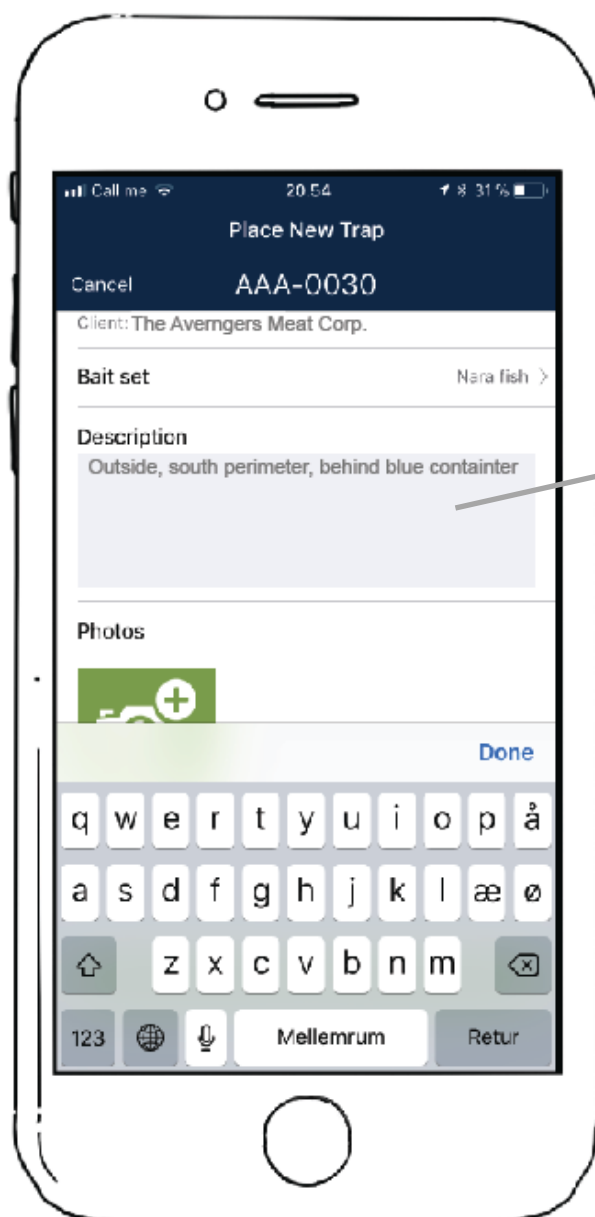
INPUT THE BAIT TYPE



On the **Bait menu** there are several standard industrial baits, choosing other will allow you to type and experiment with your own baits.

Note: We are working on a new bait list and plan to update this page soon! Watch this space!

TYPE SOME NOTES.



NOTES

Type notes using the keypad as you would with a normal text or e-mail

Notes are one of the most important things when placing a trap. The notes will not only help you locate a trap next time, but they will also be one of the ways to arrange the RATMO traps in the audit reports. Type your notes and press **Return** to continue.

Example descriptions could be as follows.

Example 1: Building 1, external, north side, by bin.

Example 2: Building 2, inside, 2nd Floor, grain room, by pipes.

Example 3: Outer Perimeter, north side, trap 1

Example 4: Inner Perimeter, east side, 6th trap.

A PICTURE SPEAKS A 1000 WORDS

Adding some pictures is the best way to help identify your traps when you get called out, it's also a great way to help make great site audit reports in the future.



1. Click on the green picture icon to add a picture.
2. When the camera has opened take a picture as you normally would by a. pressing the button on the screen, or on the iPhone also using one of the volume buttons.

TIP – Pictures are best take in the landscape mode.

After pressing the shutter, you will be asked to approve the picture by pressing **Use Photo** or given the opportunity to **Retake** the picture.

You can take up to 3 pictures per trap. We recommend taking a close up of the trap so that any set up details are recorded for future use. We also recommend taking a step back and getting a picture that gives good context for finding the trap in the future.



THE CLOSE UP

A good way to make a visual record of how you set the trap.



TAKE A STEP BACK

In the above picture we only needed to take 2 steps back to see the only blue container on site. In other locations it may be necessary to go even further backs to get a good picture to identify the location.

SAVE AND ARM



Before you save the data check you have the right address and bait settings. Press **Save**, you will be reminded to **Arm** or **Rearm** the trap by placing the magnet over the magnet key icon, we will do that in the next step. Press **OK** to continue.

ARMING THE RATMO



Arm the RATMO with the magnet key, this is done by holding the magnet key over the logo until a beeping sound is heard. The arming process has now been started, once the RATMO has a run through a self-check and contacting the backend there is approx. 45 seconds before the trap is armed. The arming sequence can be heard as a series of tones followed by a long tone, the LED under the arming logo will show red for 15 seconds.



Close the bait box and place it on a stable piece of ground before the final beeping tone is heard.

RATMO's MONITORING PAGE

ADDRESS OF LOCTION

The location where rodent control is in progress.

CLIENT

The company or person paying the invoice

LOCATION CONTACT

The contact who is responsible for giving access to the site, and the person who should be given feedback about issues.

REGISTER VISIT

When servicing the trap this button or the scan function is used to start the process of registering a visit.

TRAP STATUS

There are 3 different status icons that can be displayed here. (See the section on trap status)

HISTORY

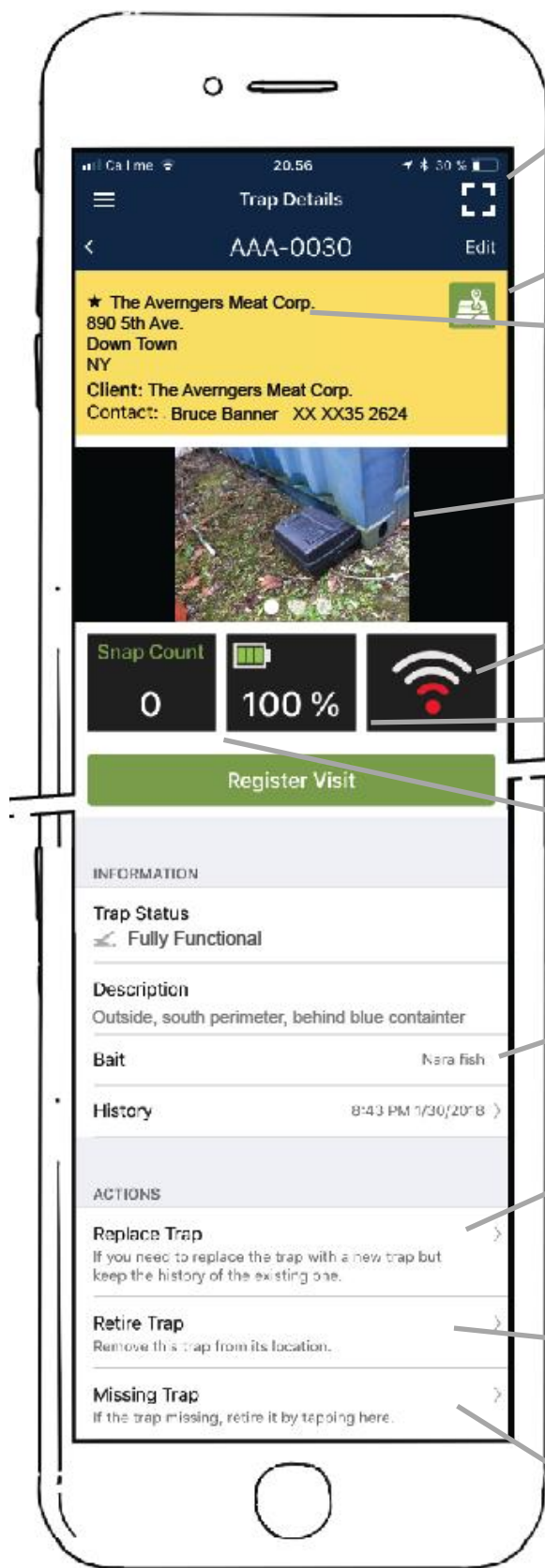
Clicking on the history bar gives an overview of check-ins from the first day the trap was placed. (See the section on history for more details)

Once the trap is entered into the system and had been armed the icon and "Fully Functional" will be displayed under Trap Status. This normally takes 1 – 2 seconds after the final arming tone is heard.

This **Trap Details** page can also be accessed in 3 ways

1. Picking the RATMO up and scanning the QR code. Then selecting "Trap Details"
2. 2 from the location page, by selecting a specific trap.
3. As the last step in the layout of the RATMO.





SCAN

You can hop to any trap by picking it up and scanning from this page

MAP VIEW

Select this icon to get driving directions to the site

NAME OF LOCATION

You can hop to any trap by picking it up and scanning from this page

PICTURE OF TRAP LOCATION

By default, this is the first picture taken

SIGNAL LEVEL

Signal this is the strength of the signal at the location

BATTERY LEVEL

Battery is the status of the battery. (See the section on battery life for more details.)

SNAP COUNT

Snap count is the number of successful kills the trap has made in the location.

BAIT

The bait selected when setting the RATMO up on location

REPLACE

This "Actions" option allows for a trap with a low battery in an important place to be replaced with a new trap, whilst the collected data at this location will remain linked to the location.

RETIRE TRAP

This "Actions" option allows for retirement to be programmed into the backend, so the next time the traps is woken it will retire, useful for closing down a site.

MISSING TRAP

Will delete a trap from the list in the event that it is damaged or stolen.

ACTIONS

TRAP STATUS

What the alert icons mean:



Fully Functional. The normal status of traps in the field when monitoring and in good condition.



Snapped. The trap has seen a snap event. The trap should be inspected as soon as possible.



Live animal in trap. In this circumstance, the trap has seen movement after the snap event. This may be caused by an injured animal that was not killed or by similar animals inspecting or attempting to eat the dead rodent. In any case these traps should receive extra attention. Visiting a site where a half-eaten animal can be found is a clear sign that more rodents are in the area.



Missed Check-in. From time to time RATMOs may be placed in places with poor signal coverage, or a mast may be busy or undergoing maintenance when a RATMO tries to check in. In such a case the message “Missed check-in” will be displayed. Under most circumstances the trap will check in again the next day.



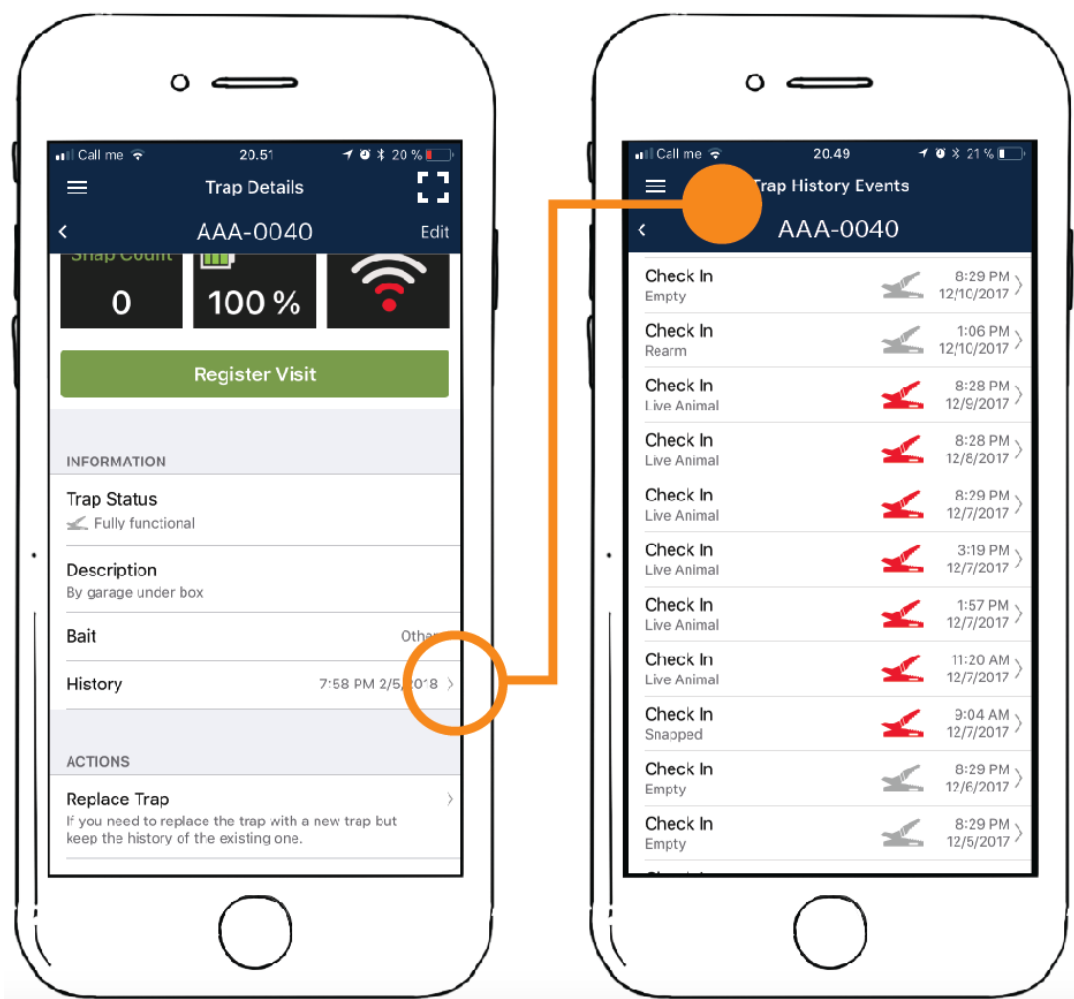
DEAD / Missing in Action. If for some reason the trap has been damaged or stolen this message may appear. The back end has been waiting for 4 days for the RATMO to check in. In the event that you RATMO has experienced technical issues please contact us, we will gladly help you out and get you monitoring again!



LOW BATTERY it's time to start planning those battery changes!

HISTORY

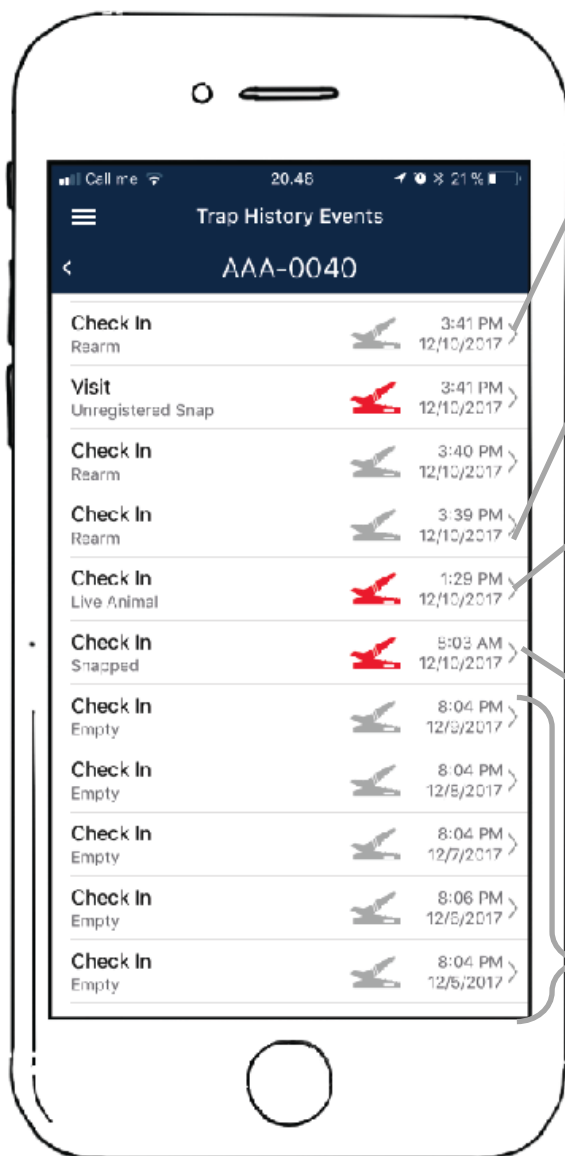
Every day the RATMO's check in to confirm they are OK, on doing so they will log a **Check-In – Empty** report under **History**. If the trap snaps the trap will ring in and log a **Check-in – Snapped report**. If there continues to be movement on the traps then there will be issued at **Check-in – Live Animal** report. If the trap is not visited, then the status will remain until the following day and ultimately until the trap is visited. (note this 24 hr check in may be changed depending on local requirements and requirements to extent the battery life beyond the normal specified life)



Trap History Events

The history events log can be accessed under trap details for each trap. It contains all the check in details since the trap was placed on location.

HISTORY LOG



Rearm

This is the trap been re-armed with the magnet key and entering in to monitoring mode again.

Visit

When clearing a trap the visit is logged, there are several extra things recorded during a visit, including a picture of the rodent, the actual status of the trap and the new bait if the trap is re-armed.

Live Animal

In the rare occasion that the rodent is caught and not killed out right, then the trap will detect vibrations and upgrade to a Live Animal in trap. Note this could also be other rodents playing with a kill.

Snapped Trap.

The trap has snapped and has called to register this event. The trap will report the time of the snap and the temperature, as well as reporting battery & signal levels.

24 Hr Check ins.

These check-ins are standard check-ins where the trap is saying, I am ok, this is my battery and signal level, and this is the temperature where I am.

The Trap History Events tell the story of what the trap has seen since it was deployed in this location. It can be useful for checking battery levels, temperature on site and for seeing which point in time the RATMOs have snapped.