iR37 Build & Operations Manual

Device - 7” iR37 – Thermometer/Camera/Ultrasonic Distance Sensor/Facial Recognition

Use Case - Standalone Deployment

Firmware Ver- v1.9.4xxx

Ver 1.1 – May 2020

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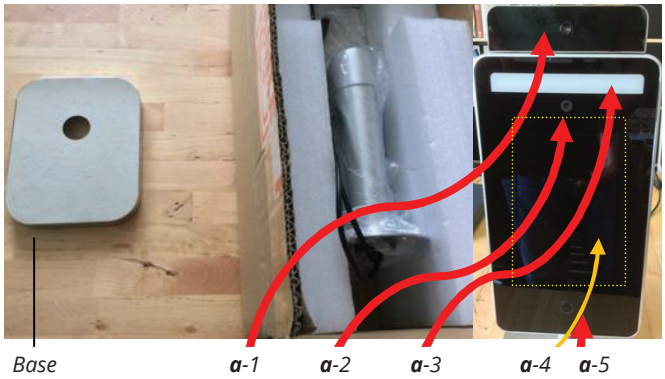
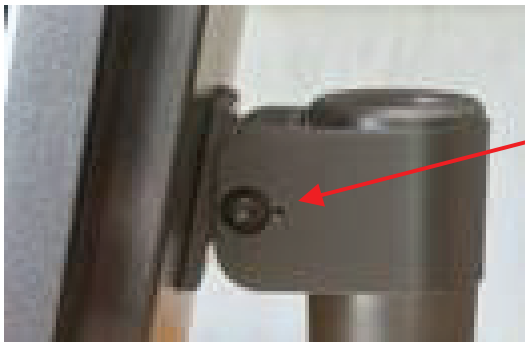
CONTENTS

1. Parts 4
2. Assembly – Desk Stand 4
3. Assembly – Floor Stand 6
4. Initial Screen 9
5. Default Screen 10
6. Top-Level Menu 11
7. Device Information 12
8. Device Management 13
9. Facial Recognition 14
10. Query Attendance Data 15
11. Import Facial Image 16
12. Privacy Protection – GDPR/ Data Protection 17
13. Visitor Notification 18
14. Visitor Identification Switch 18
15. Temp Display Format Switch 19
16. High Temp Alarm Settings 19
17. Temperature Display Switch 20
18. System Settings 20
19. Base URL 21
20. Voice Settings 22
21. Prompt Text 25
22. Abnormal prompt text 26
23. Display Usage Statement 26
24. Range Switch 27
25. Change Password 28
26. Date Display Format 28

27. Network Settings 29
28. Display Settings 30
29. Set Gate Opening 31
30. Flashlight Setting 32
31. System Update..... 32
32. Face Database..... 33
33. Setting Time Zone and Date and Local Time 34
34. Second System Menu 35
35. Data Management – Scan Deletion 36
36. Mail Settings – Alert Notifications 37
37. Capture Resolution 38

1. PARTS





a. Tablet

1. Heimann thermometer sensor
2. Himax camera
3. Camera LED light
4. 7” Android touch screen
5. Ultrasonic distance sensor – do not touch/ press.

b. Base

c. PSU

1. Uses a 13a standard UK plug to IEC female aka “kettle plug”.
   - Standard supplied length is 6 ft 5 inches
2. LV supply 12v 3amp output
   - Standard supplied length is 5 ft

d. Allen key

1. Key to tighten and lock screen tilt in desired position.
2. Gently tighten both left and right hand (small) Allen key bolts.

2. ASSEMBLY – DESK STAND

a. Unscrew and remove black collar from screen pole.

b. Leave large vinyl washer in place.

c. Thread captive cables x3 through base aperture, fattest first, top in bottom out.

d. Thread cables through black threaded collar.

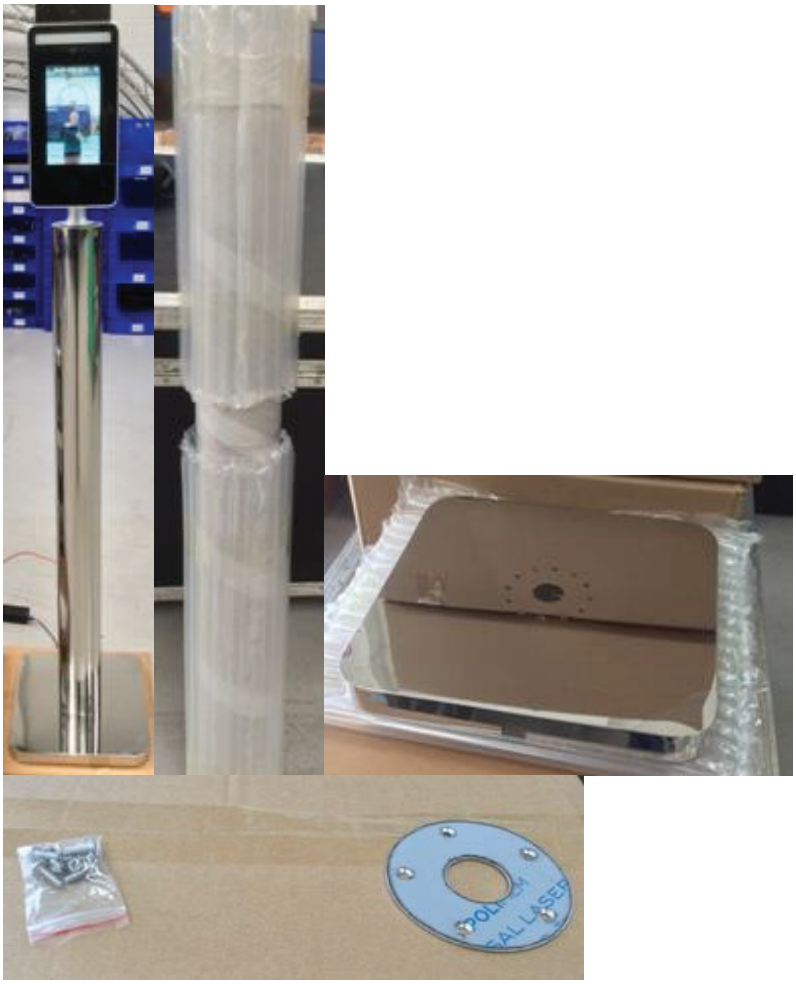
1. Do largest connector first then in diminishing size. For ease, do largest connector first then in diminishing size.
2. Thread collar onto pole.
3. Hand tighten clamping column and base together – ensure base is orientated such that the cable slot is to the rear of iR37.
4. Fanout cables to rear of screen base aperture.
5. Place into position.

Connect IEC to PSU

6. Connect LV connector to captive connector of same type.
7. Connect IEC to PSU.
8. Plug in power cable to 13a socket.
9. Switch on power at socket.

* Note there is **NO** on/off switch on the iR37 unit itself.

3. ASSEMBLY – FLOOR STAND



There are two boxes for the floor stand.

1. Polished stainless steel column 9 shown above wrapped.

a. With pre-drilled and tapped bolt holes top (#5) and bottom (#6).

2. Floor base with

a. 1x pack of screws with

- 6 x dome cross head bolts
- 5 x cross head countersunk bolts.

b. 1 x top plate mirror polished and pre-drilled and countersunk 5 holes.

3. The pole has a tube of bubble wrap on each end. Tube itself is cling film wrapped.

a. Remove the bubble wrap; these slide off no need to cut.

b. Leave the cling film wrap on the pole section.

c. Only remove the cling film from the tube ends to expose the fixing plate holes.

- Film should peel back.

4. Unwrap base plate and remove the protective film around/ over the central hole.

a. Invert the base and place on the pole end with 6 pre-drilled and tapped holes, as shown in photograph. If working in a “hard floor area” leave bubble wrap on other tube end to avoid marking mirror finish.

b. Insert the 6 bolts a couple of turns as shown.

c. Tighten with a cross head/ Phillips screwdriver, tighten opposites in order, so 1,4,2,5,3,6 – DO NOT over tighten – hand tight is adequate.

5. If working alone, lay the pole down and thread the power cord from bottom to top.

a. Add in the contact closure extension cable and network cable if relevant for your use case.

b. Easiest achieved with two persons, one to thread and one to hold the pole steady in an inverted postion.

6. Stand the pole up on its base.

Take the main device and unthread the black collar from the underside.

a. Remove the protective film from the top plate.

b. Hold the plate the shiny side is upwards.

c. Thread the captive cable through the top plate central hole.

d. Thread the black screw collar over these cables.

e. Connect cables to power/contact closure/ network.

f. Place the assembly on top of the pillar.

g. Line up the holes in plate and column.

h. Make sure the screen is oriented correctly with the base.

1. Cables should exit the base to the rear.
2. Screen should face away from the cables on the opposite side.
3. If necessary, loosen and rotate upper assembly and top plate; retighten black collar.
4. Check and repeat until satisfied.

i. Now insert two of the screws – only a couple of turns.

j. Tighten one of the screws gently using a screwdriver.

1. This will ensure all holes now line up.
2. Insert remaining three screws.

k. Tighten all screws.

l. Remove remaining cling film from pole.

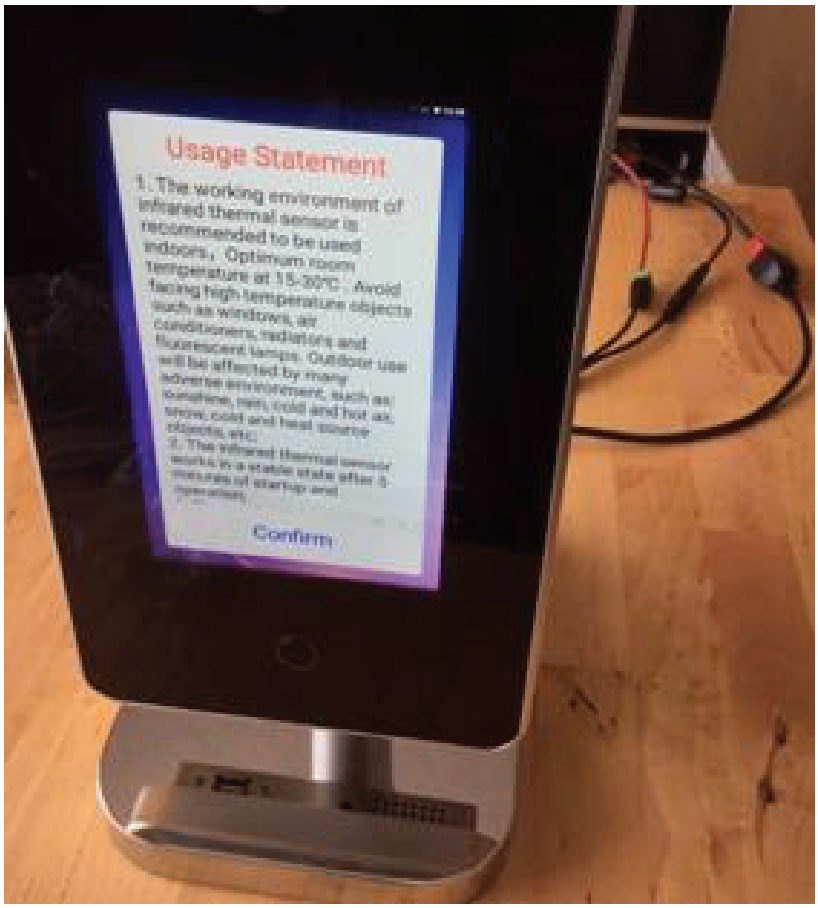
1. AVOID using a knife or scalpel – the pillar will scratch and sadness, anger and four letter words will follow!!
2. Scissors are best; snip the roll of cling film near the top of the pole. The cling film should then unwind from the pillar.
3. Clean the metal with a soft lint-free cloth.

m. Screen and pillar are now ready to be switched on and used.

j-1

4. INITIAL SCREEN

After connecting power, the iR37 will show this page.



Usage Statement

1. The working environment of the infrared thermal sensor is recommended to be used indoors. Optimum room temperature is 59 to 86 deg F. Avoid facing high-temperature objects such as windows, air conditioners, radiators and fluorescent lamps. Outdoor use will be affected by many adverse environments, such as, sunshine, rain, cold, hot air, snow, cold and heat source objects, etc.

2. The infrared thermal sensor works in a stable state after 5 minutes of start-up and operation.

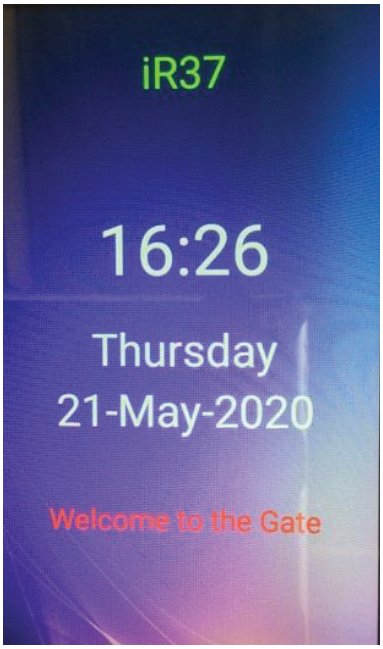
3. The product is a non-medical device. The temperature measurement function of this equipment is only to assist rapid self-help body screening. Once the abnormal body temperature shows, it is recommended to use medical temperature measurement equipment to measure and confirm again.

4. The circle button under the screen is the ultrasonic module, which is used to detect the most effective temperature measurement distance of 50cm. When using, please make sure there is no obstruction object within 1.5m in front of the screen. DO NOT touch or press with your hand or fingers.

5. Tap “confirm” if this is understood and accepted.

6. Wait 5 minutes for environment to stabilise.

5. DEFAULT SCREEN

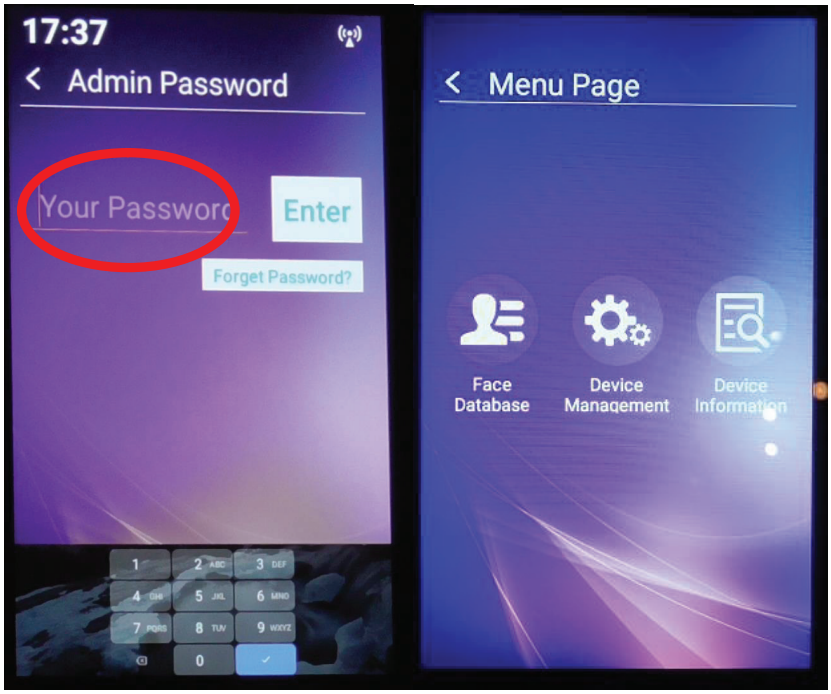


Standby screen shows:

1. Device name/company (user can set – see 11c viii)
2. Time
3. Day
4. Date
5. Welcome/Corporate message (user can set)

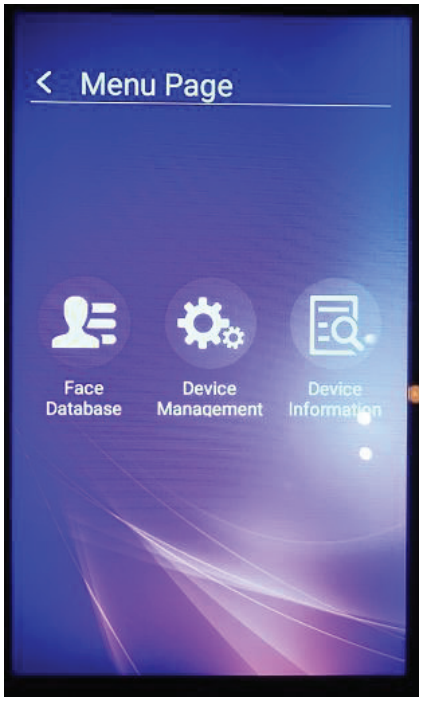
Menu access – via Password

Tap date time bar at top of screen.



Enter password number – default is 6666.

6. TOP-LEVEL MENU

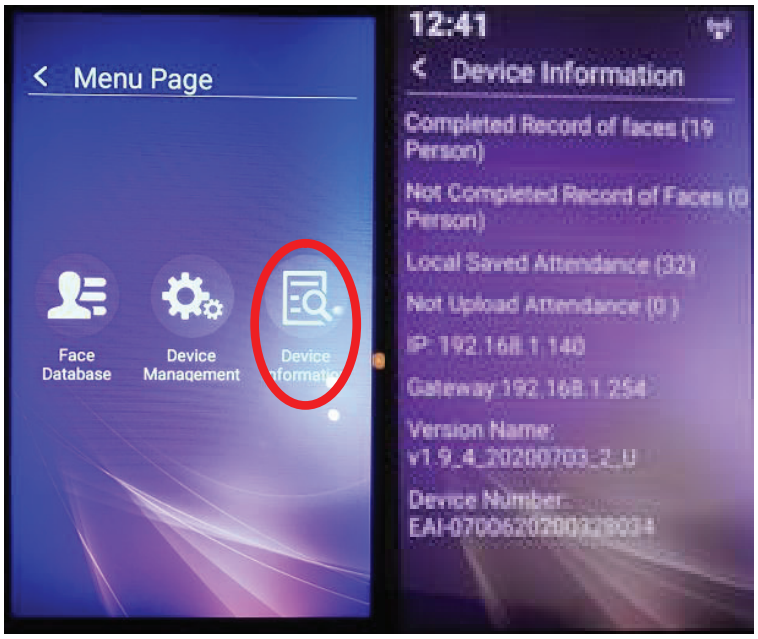


Facial Recognition

Device Management

Device Information

Tap Device Information



7. DEVICE INFORMATION

Items listed (cannot be changed on this screen) in order are:

a. Complete record of faces (xx person).

b. Shows the number of profiles on the device registered for facial recognition.

c. Not completed record of faces (xx person).

d. Records for facial recognition which are incomplete.

e. Local saved attendance (xxx).

f. Total number of temperature scans completed.

g. Not uploaded attendance (xxx).

h. Number of scans with no photo ID (i.e. generic anonymous visitors).

i. IP – allocated IP address or blank/"check network" if none – only required for networked deployment, NOT as a standalone device.

j. Gateway – allocated gateway or blank/"check network" if none – only required for networked deployment, NOT as a standalone device.

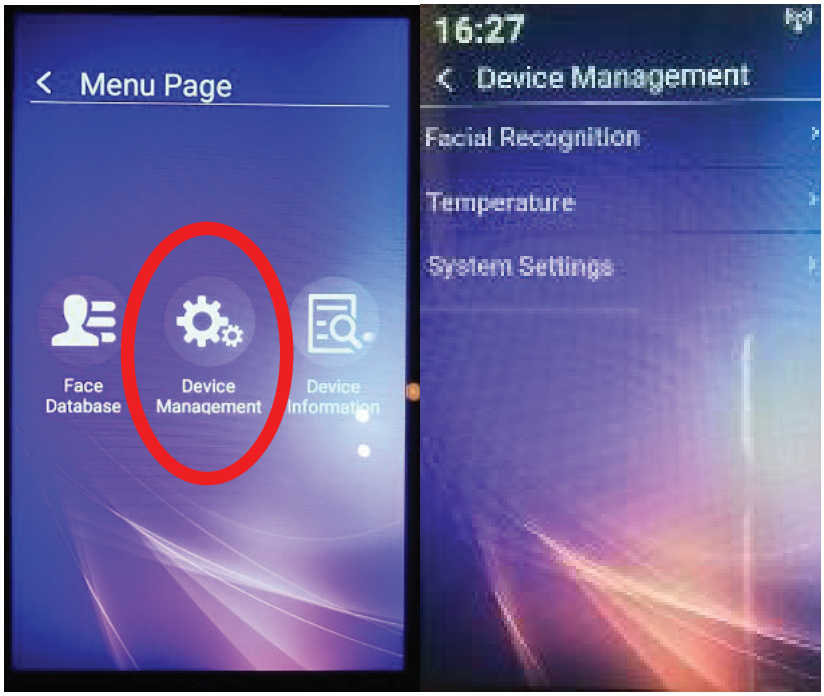
k. Version number – firmware version on device.

l. Device number – unique serial number of device.

- Write down the serial number of the device and keep it with product paperwork. For example, write it on the cover page of this manual.

Tap back arrow top left

Tap Device Management



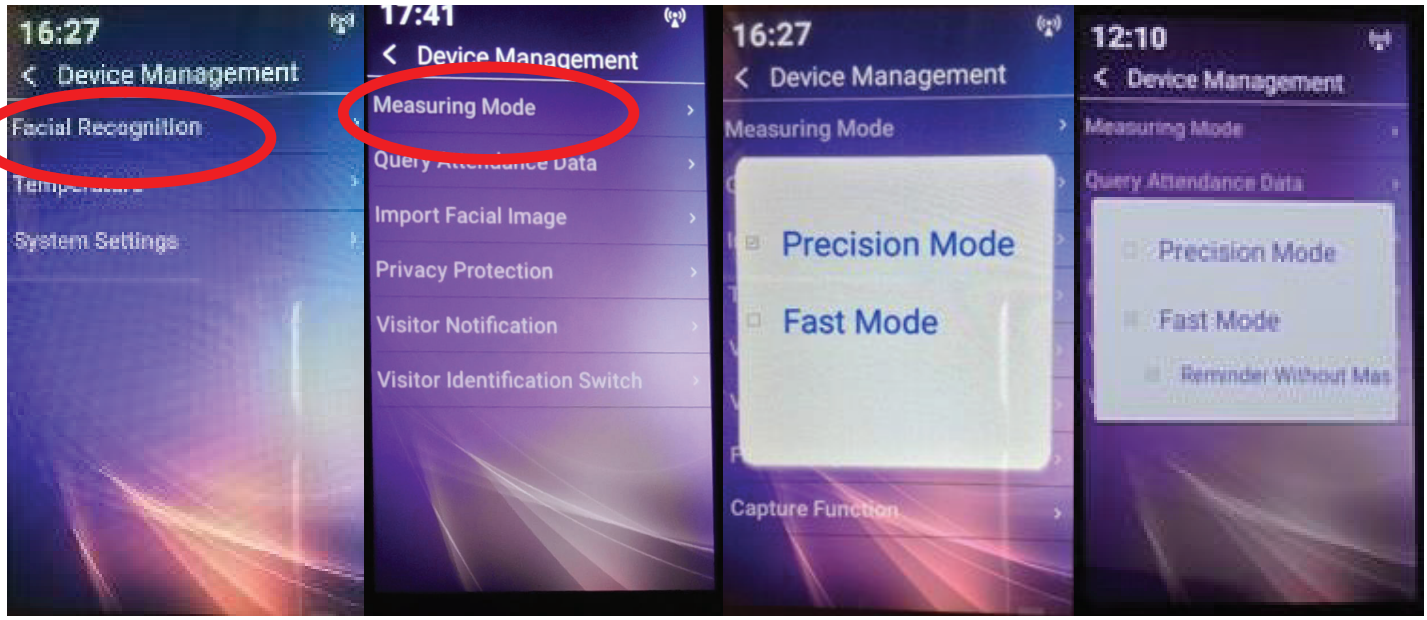
8. DEVICE MANAGEMENT

Each item listed is accessed by a single tap; exit by tapping anywhere else or back arrow (top left of screen).

Tap Facial Recognition

9. FACIAL RECOGNITION

Tap **Measuring Mode**



Precision mode (default)

a. This enables facial recognition.

b. Places a head outline on the screen.

c. User needs to be 300 to 600mm distant.

d. User positions their face image within the outline.

e. Screen prompts if too close or too far away.

f. Suitable use - to log individual employees from a known data set.

g. Still enables visitors to be scanned.

Fast mode

a. No facial recognition.

b. Suitable for fast scanning at a greater distance of individuals for temperature.

c. Enable “reminder without mask” if you wish to ensure all persons are wearing a mask. Device will not allow a pass without a mask and issues verbal reminder to put on a face mask.

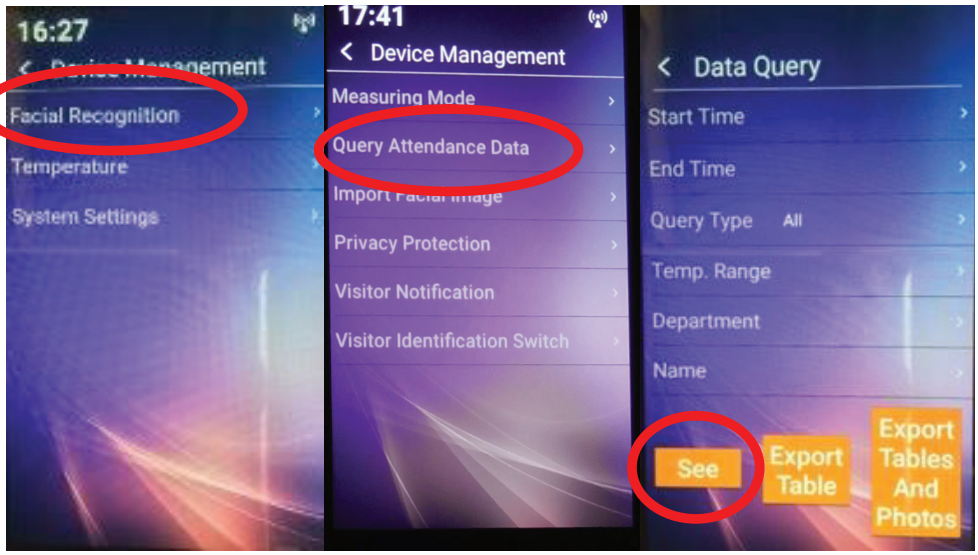
d. Social distancing between users is advised to ensure quick reading.

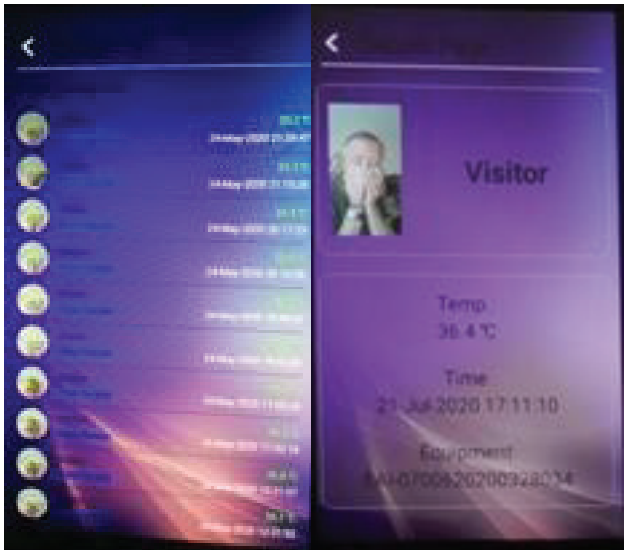
e. Users need to be 500 to 800mm from device.

f. Screen prompt if too close or too far away.

g. Suitable uses are for multi-tenanted offices, cinemas, restaurants, schools, where individual identity is not of paramount importance.

10. QUERY ATTENDANCE DATA





See

• Will list every person scanned with name (if facial recognition ON) and date, time and temperature.

• Tapping any entry on list will bring up further detail.

Export Table

Exports to USB the list without any images, but includes all other data.

Export Tables and Photos

Exports to USB the list of all scans and their photos (if enabled) at time of scan.

• The query can be narrowed by time – from and to.

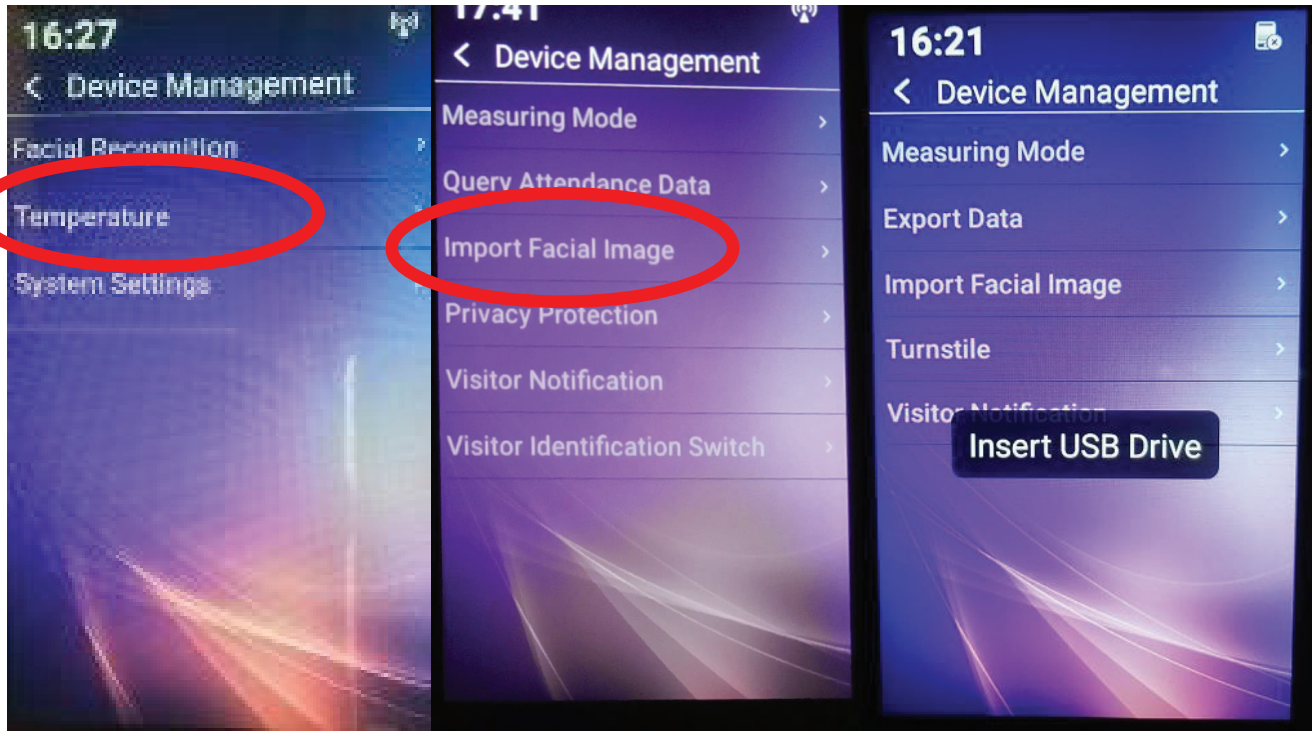
• Temp range – so say over 37.3 deg C or 100.4 deg F.

• Department – if users on database.

• By name – search for an individual's scans from the database.

NOTE – all of this data can be uploaded via the network if unit deployed in that environment by wireless or wired – see separate manual (Server Software Ver 3).

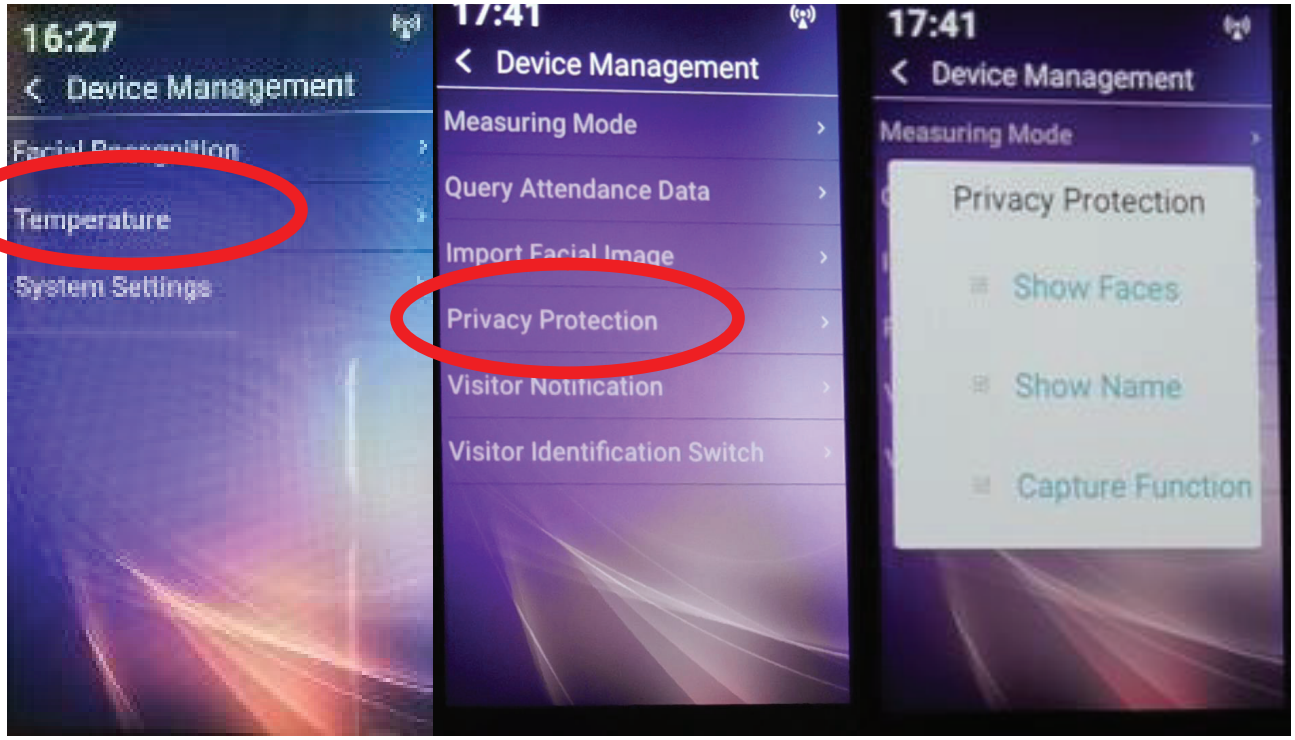
11. IMPORT FACIAL IMAGE



Via USB using a predefined dataset and format for employee/staff records.

See (Server Software Ver 3) for details.

12. PRIVACY PROTECTION – GDPR/ DATA PROTECTION



Show Faces

When a registered user presents themselves to the device and is passed or failed, the device will show their stored image; switch off to hide the image displaying.

Show Name

When a registered user presents themselves to the device and is passed or failed, the device will show their stored name; switch off to hide the name displaying.

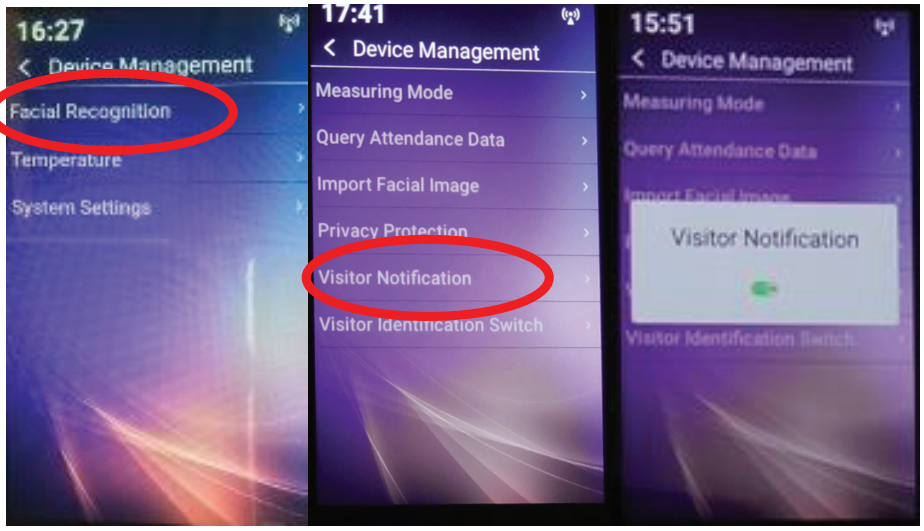
Capture Function

When a registered user presents themselves to the device and is passed or failed, the device will take a picture at the time of scan; switch off to turn off picture-taking function.

With all the choices set to off (empty tick boxes) a scan still takes place and will say pass or fail but will only show the individual as a “registered user”.

The scan is however recorded with whom and date/time/temp and device.

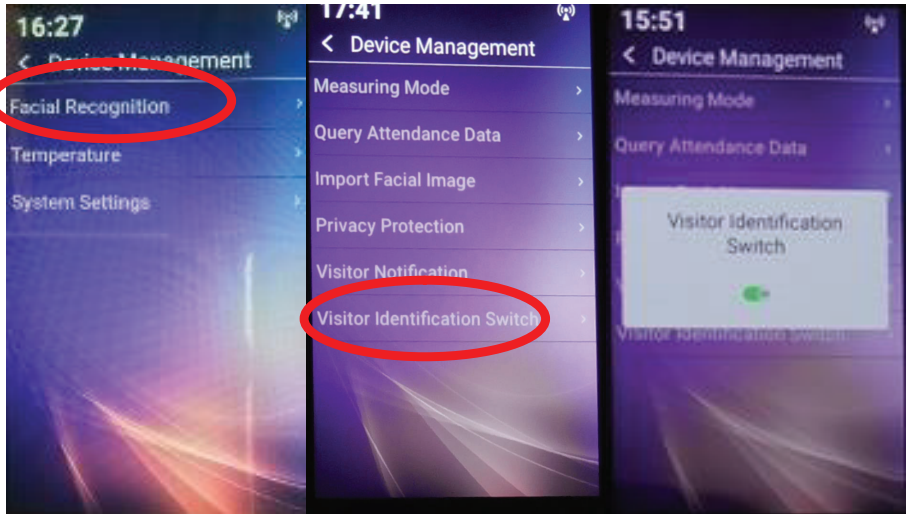
13. VISITOR NOTIFICATION



a. On - will record every visitor.

b. Off - will not record any visitor.

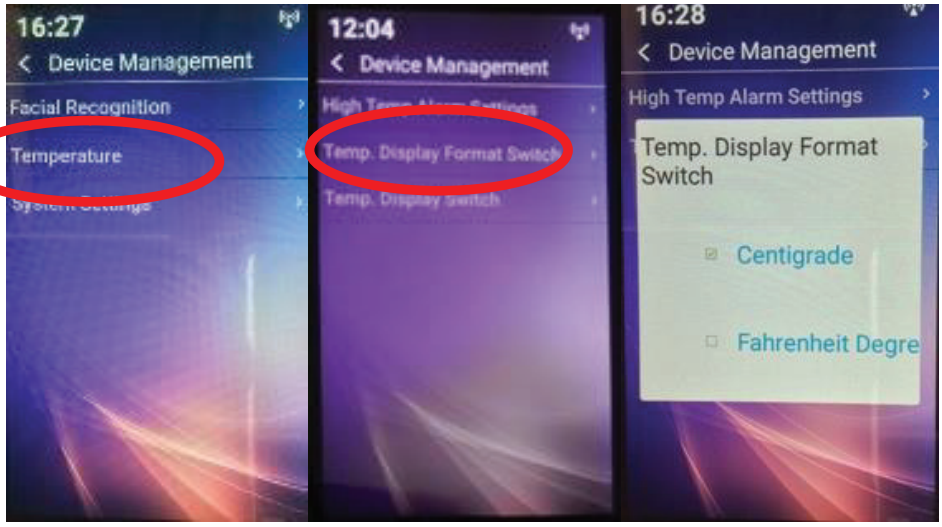
14. VISITOR IDENTIFICATION SWITCH



a. On – will take a picture of every visitor at time of scan.

b. Off – does not take a picture of any visitor.

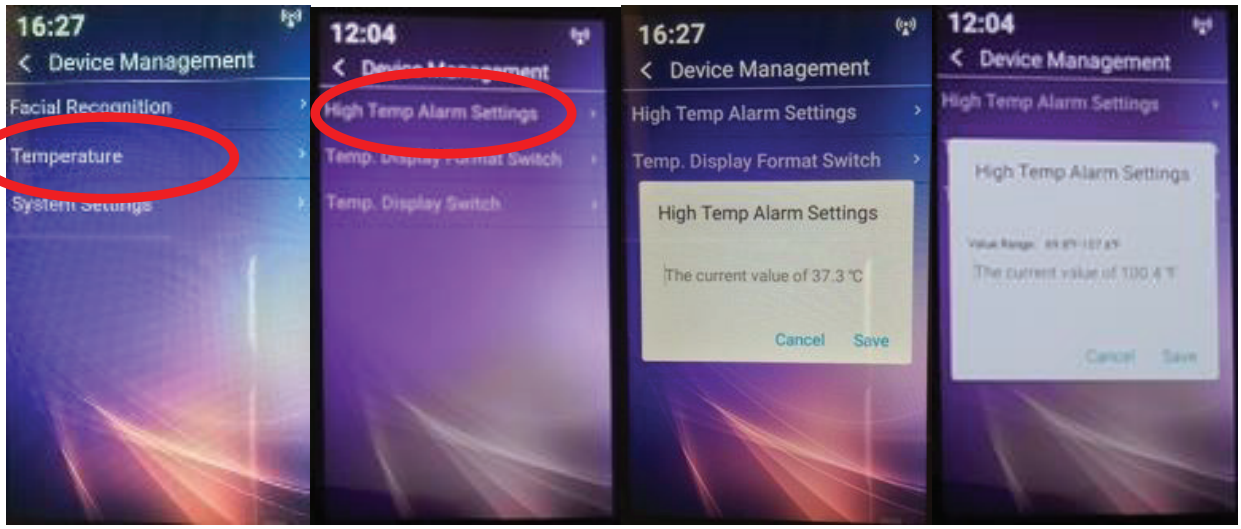
15. TEMP DISPLAY FORMAT SWITCH



a. Centigrade – default – displays in real time the temperature to individual being scanned.

b. Fahrenheit – displays in real time the temperature to the individual being scanned.

16. HIGH-TEMP ALARM SETTINGS



Default is set to 37.3 degrees C.

• Note – this allows for 0.3 degree potential error of a temperature scan.

• Temperature at which a "fail" is triggered can be set higher or lower.

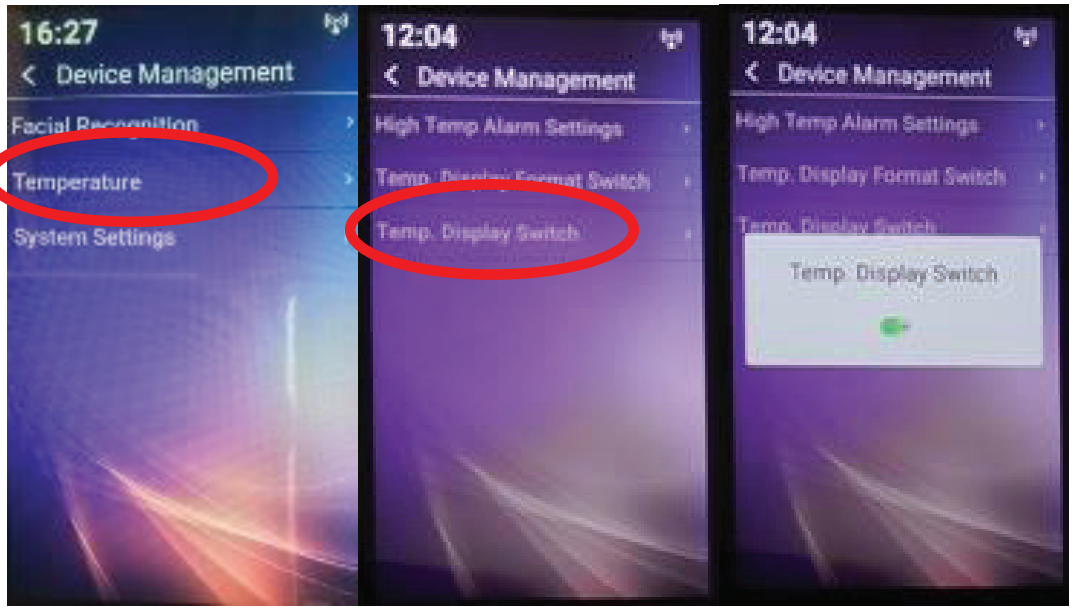
• To set, tap figure area and enter desired value.

If using Fahrenheit - the current advice (July 2020) from CDC is 100.4 deg F.

• Temperature at which a "fail" is triggered can be set higher or lower.

• To set, tap figure area and enter desired value.

17. TEMPERATURE DISPLAY SWITCH

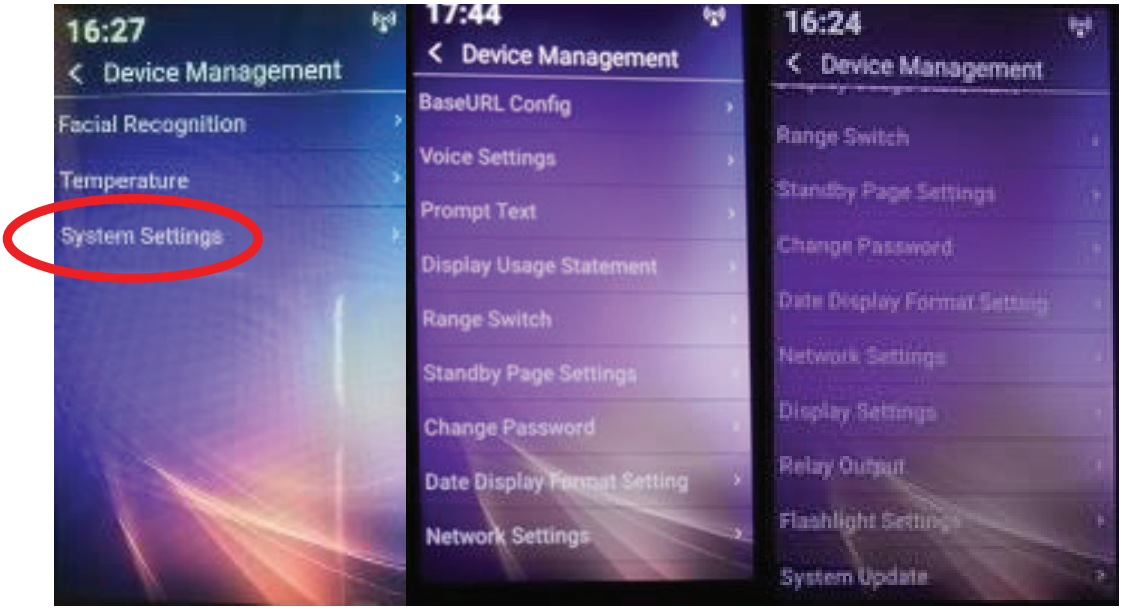


On shows scanned temperature to user on screen.

Off, no temperature is displayed.

Temperature is recorded whether on or off.

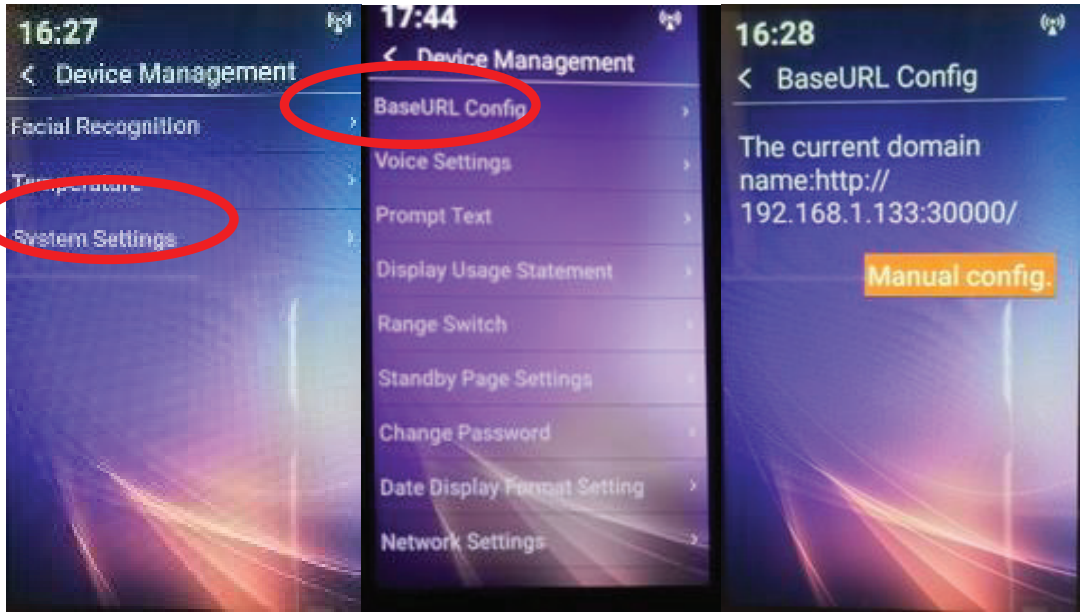
18. SYSTEM SETTINGS



System settings are where you customize the user experience and set certain parameters to enable control and monitoring across your network, wired or wireless.

We will deal with each menu item in order as shown above.

19. BASE URL



a. For use with server software in a networked environment, for standalone deployment, no value required.

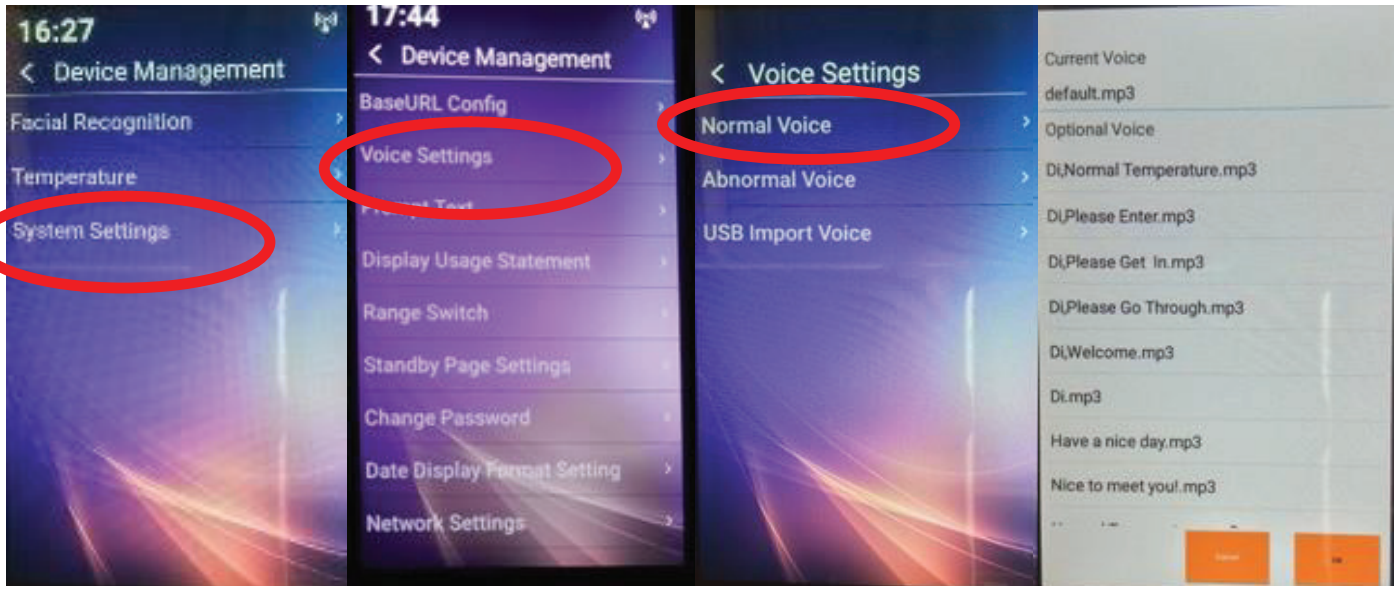
b. This field will be blank, by default and/or when device first used.

c. This item is required to be entered when the iR37 is used across a network either singly or as part of a larger group of units (max 200).

d. This is dealt with in detail in the software manual Ver3.

20. VOICE SETTINGS

a. Normal Voice



Generally on successful scan the default is used.

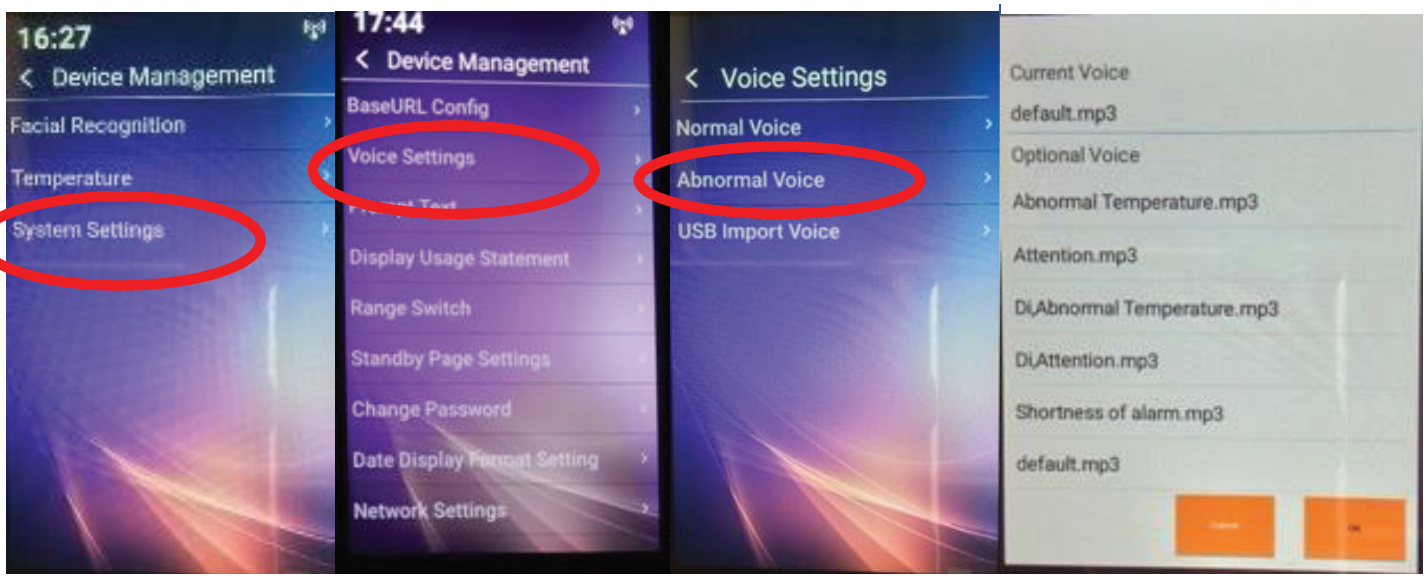
“Please Enter”

• There are other options listed in English and other languages.

• If you require a more personalized message, this needs to be recorded in an mp3 format. You may record your own message; we would suggest a short message of 4 seconds or less.
E.g. “Please enter, Welcome to ABC Company, have a productive day”.

• The message, once uploaded, will appear as an option; it is played as recorded – it is NOT electronically synthesized.

b. Abnormal Voice



Generally on an unsuccessful scan the default is used.

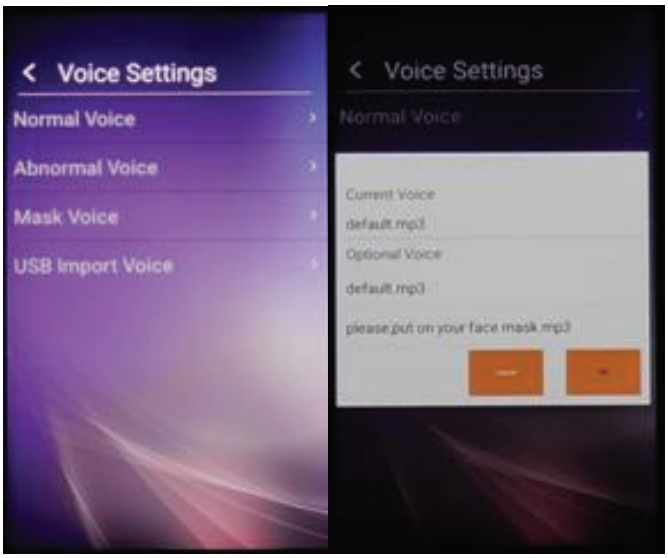
“DENIED”

• There are other options listed in English and other languages.

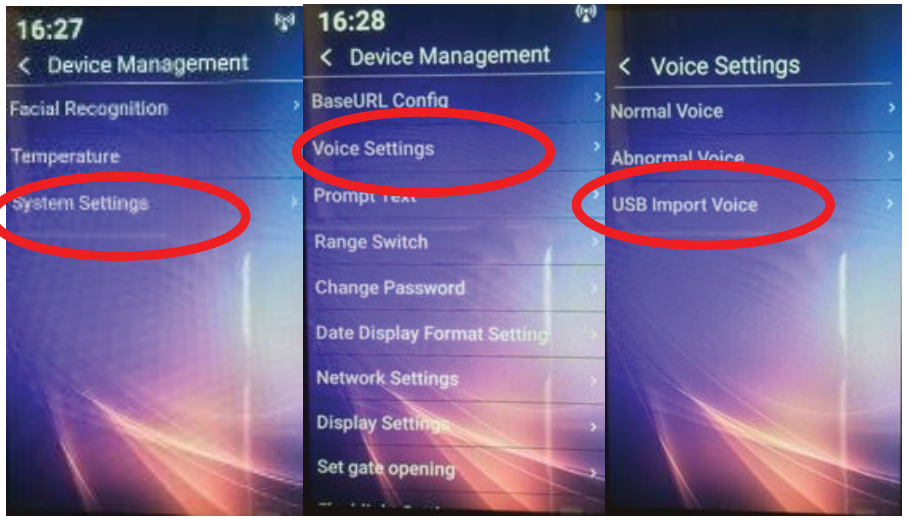
• If you require a more personalized message, this needs to be recorded in an mp3 format. You may record your own message; we would suggest a short message of 4 seconds or less.
E.g.”Sorry, there may be a problem; please go to reception/ see security”.

• The message once uploaded will appear as an option; it is played as recorded – it is NOT electronically synthesized, but “as recorded”.

When the measuring mode is in “fast mode with face mask warning enabled” a third option for “mask voice” is offered; this again can be recorded as an mp3 file and loaded into the provided directory face-voice, mask voice. This structure is provided once the software is unzipped – see manual for Face Server Software Ver 3. In brief, this is described below:



c. USB Import Voice



This is how additional voice messages are uploaded to the device. There are some provided on the Dropbox link, in English, Spanish, French, German, Arabic, Chinese, Russian, Greek.

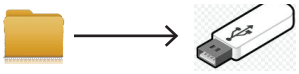
1. First, make a directory called face-voice.

2. Then three sub-directories: abnormal, normal and mask.

3. Create your own message in mp3 format.

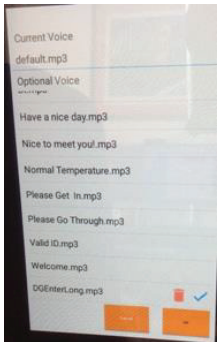
4. Save each into the relevant sub-directory.

5. **Transfer the main and sub-directories to a USB stick.**



6. Plug this USB into the iR37 and it will import the new additional voices.

7. These are selectable by a simple tap and a green tick will appear.
   Do not worry about the trash can symbol! (Simply means you can delete at a later date)

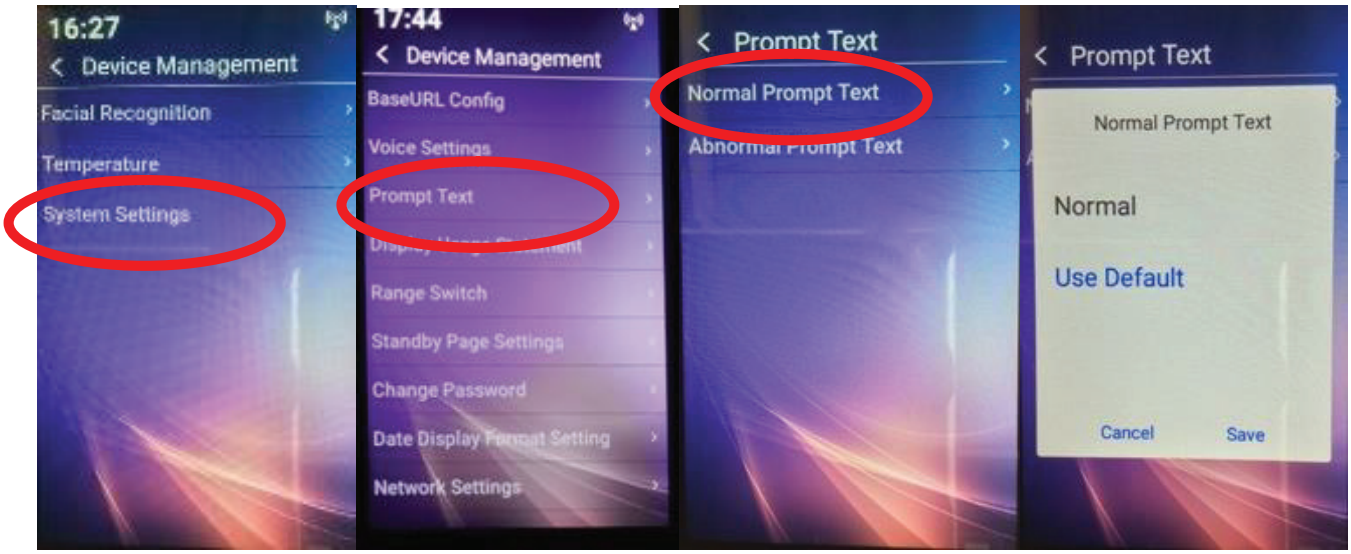


8. Tap the desired message; tap OK.

9. Repeat as necessary.

21. PROMPT TEXT

Normal Prompt Text



• Default is a text message on screen in addition to the audio.

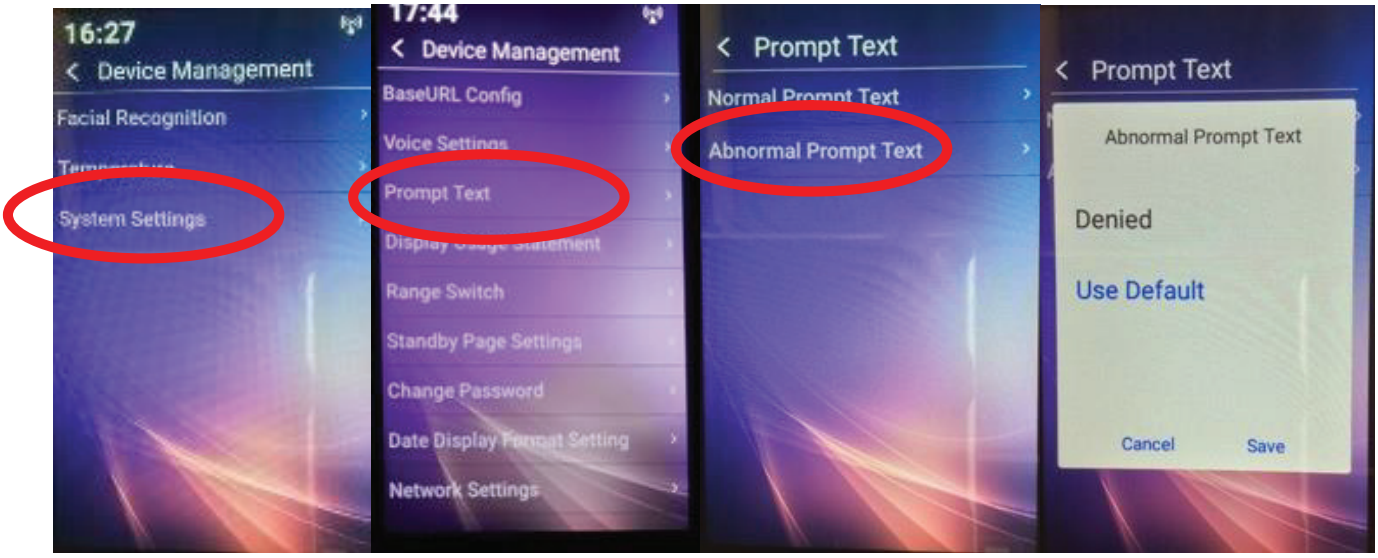
• Screen has a GREEN border and the word NORMAL in the lower portion of the screen.

• The GREEN border is not optional.

• The text may be changed. To change the text.

• Tap the “normal” text and replace with desired word/s.

22. ABNORMAL PROMPT TEXT



a. Default is a text message on screen in addition to the audio.

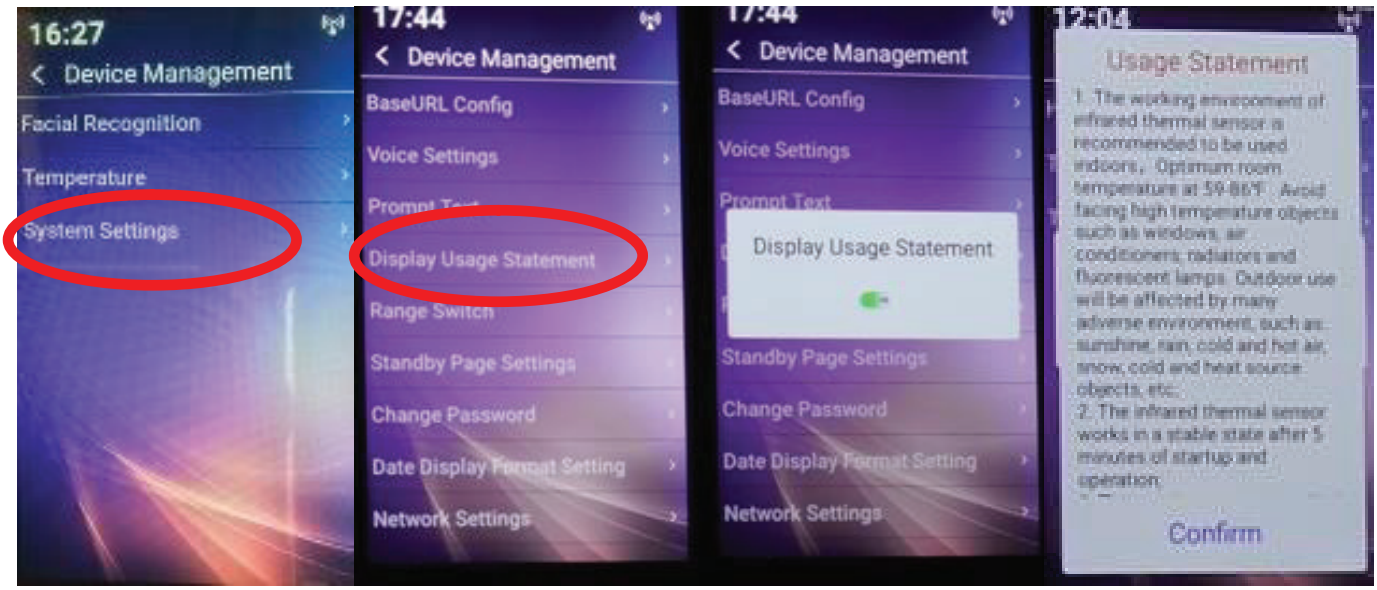
b. Screen has a RED border and the word DENIED in the lower portion of the screen.

c. The RED border is not optional.

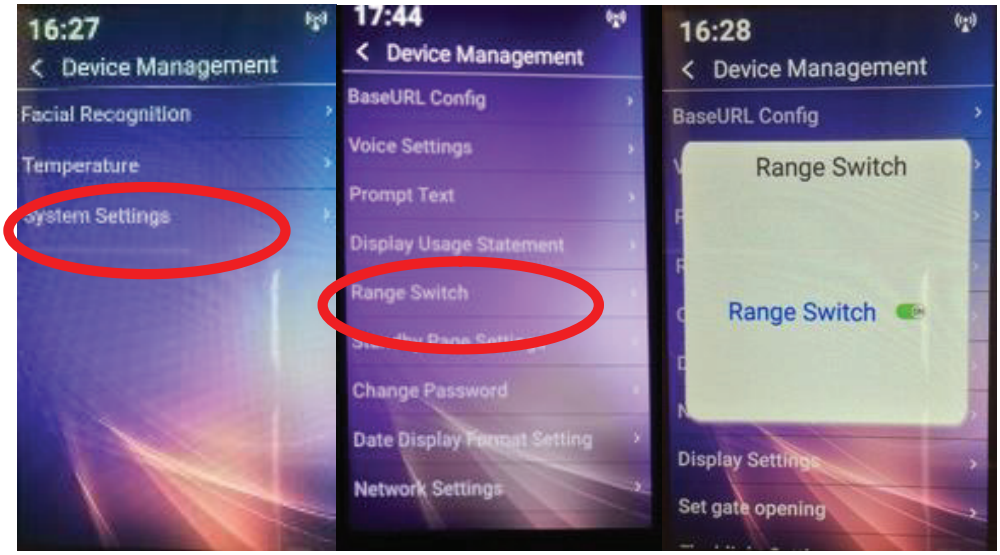
d. The text may be changed. To change the text.

- Tap the “denied” text and replace with desired word/s.

23. DISPLAY USAGE STATEMENT



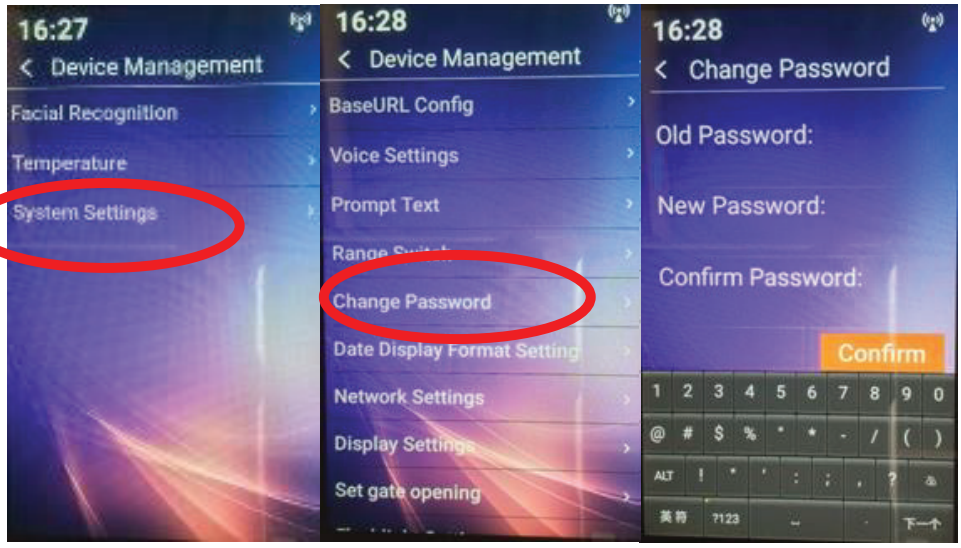
24. RANGE SWITCH



a. Default is ON.

b. OFF will disable the range sensor, which removes the text promt on the main screen that indicates if you are too close or too far from the device.

25. CHANGE PASSWORD



a. Enter existing password.

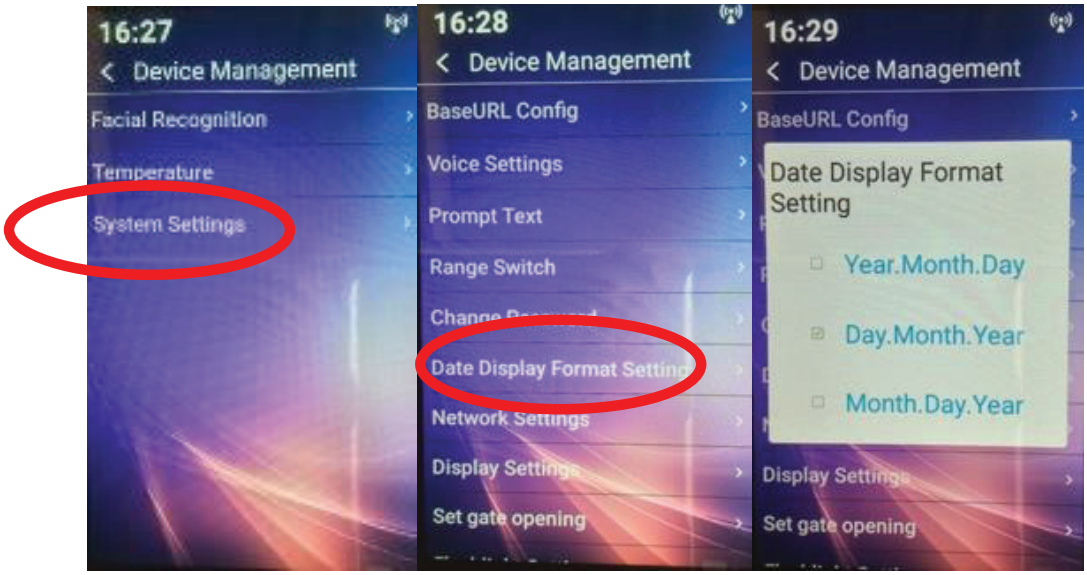
b. Enter new password (4 digits).

c. Re-enter new password.

- PLEASE do write this down somewhere safe and not on the base or a sticker anywhere on or near the device.

d. Passwords may also be remotely changed and viewed from the software when the iR37 is networked.

26. DATE DISPLAY FORMAT



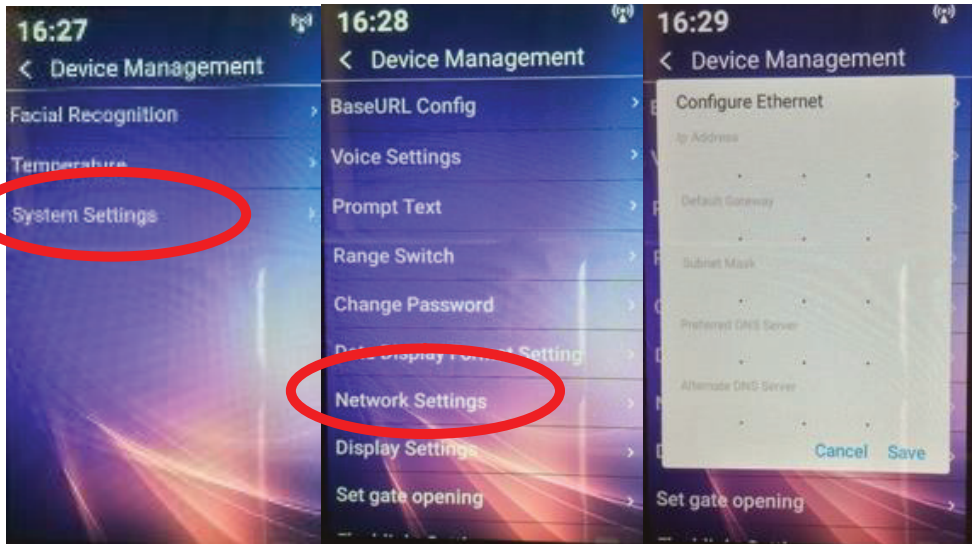
a. Select from the options how you wish the date to appear i.e. UK/USA/Eastern.

Year – Month – Day (yyyy-mmm-dd) Eastern

Day – Month – Year (dd-mmm-yyyy) UK

Month – Day – Year (mmm-dd-yyyy) USA

27. NETWORK SETTINGS



a. The device has NO default IP address; it is blank (out of the box).

b. This is where the IP you wish to allocate to the device is entered.

c. For standalone deployments not in a networked environment this can be left blank.

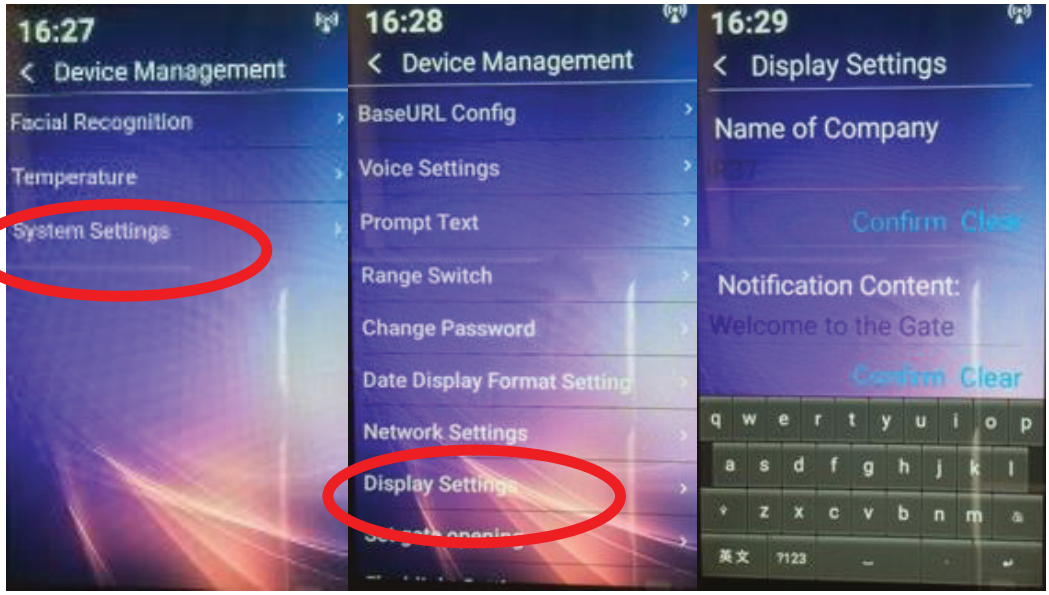
d. Please note, the fields will always appear blank on re-entering this screen after an IP has been set. It is not a fault.

e. If you wish to check the device's IP, see section 9 above.

f. Note: In a networked environment, the device will require TWO DNS servers. If you have only one, simply enter it twice as both the preferred and alternate.

g. Full details of how to enter and use are in the Server Software manual V3.

28. DISPLAY SETTINGS



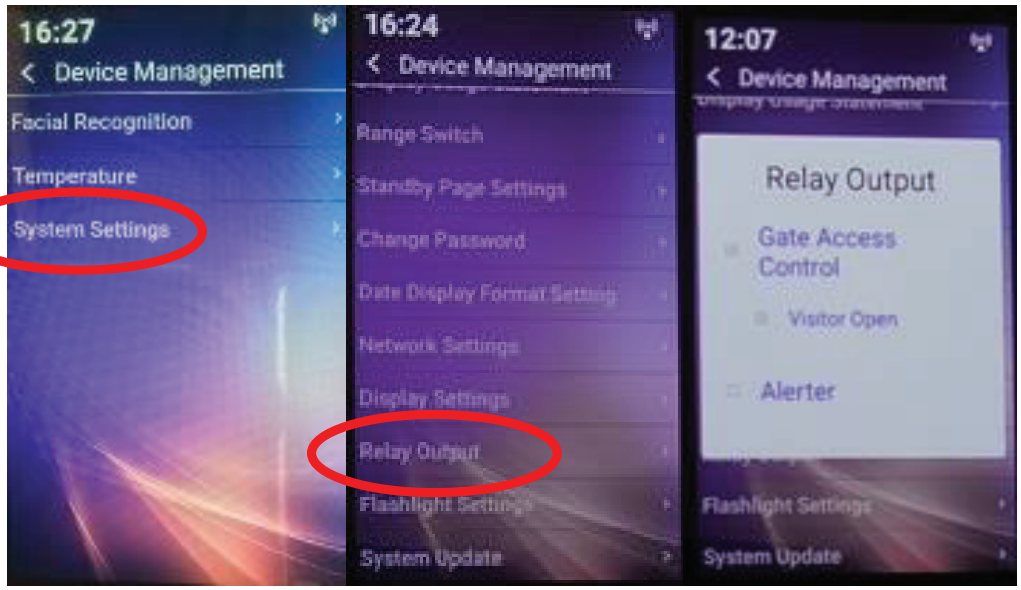
a. Name of Company

1. Enter here the name of the location or organization.
2. This appears as a single line, centrally justified at the top of the screen in standby mode.
3. The font and color cannot be altered.
4. ENSURE you tap confirm for any changes.

b. Notification Content

1. Enter here a short message, such as “Welcome to ABC Corp.” etc.
2. Text which does **not** fit on one line will scroll, like a ticker tape it does not word wrap or scroll line by line.
3. ENSURE you tap confirm for any changes.

29. SET GATE OPENING



a. Gate Access Control

1. ON – If connected to a turnstile/gate, a successful scan will activate a connected device for a registered user.

2. OFF - A successful scan will NOT open the connected gate for anyone.
   - Set to OFF if you wish a visitor after a successful scan to sign in at reception, secure a pass/ sign in before entering the facilities.

b. & Visitor Open

1. OFF - A successful scan will NOT open the connected gate for a visitor. It will still operate for an employee.
   - Set to OFF if you wish a visitor after a successful scan to sign in at reception, secure a pass before entering the facilities.

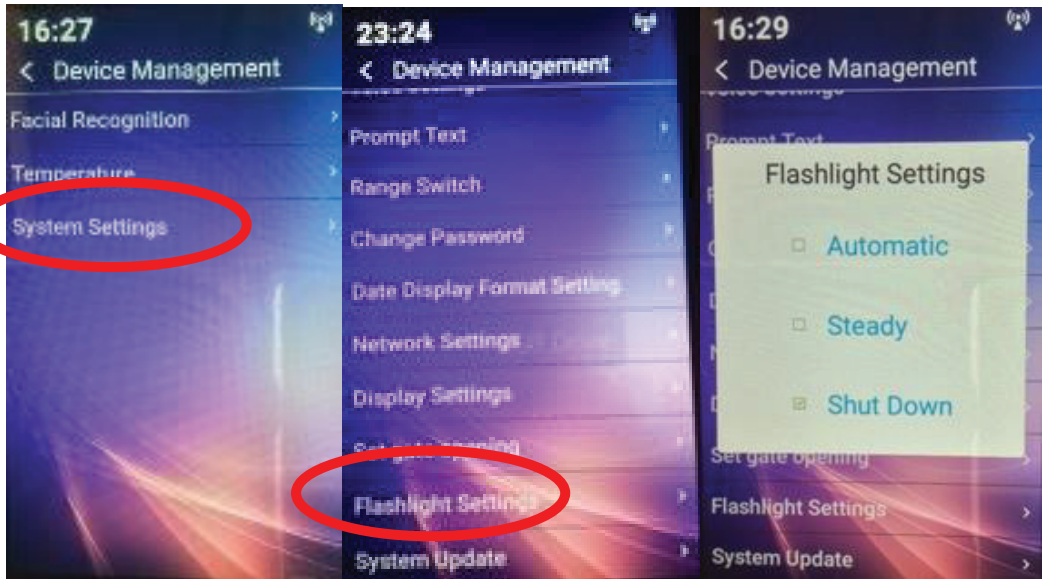
2. ON – A successful scan will open the gate for visitor and employee alike.

c. OR Alerter

1. OFF – nothing

2. ON – will close the relay enabling connection to a bell (say) for a specified duration.
   - Use where secure access is controlled by (say) security guard locally or remotely – to buzz people in or ask for identification.

30. FLASHLIGHT SETTING



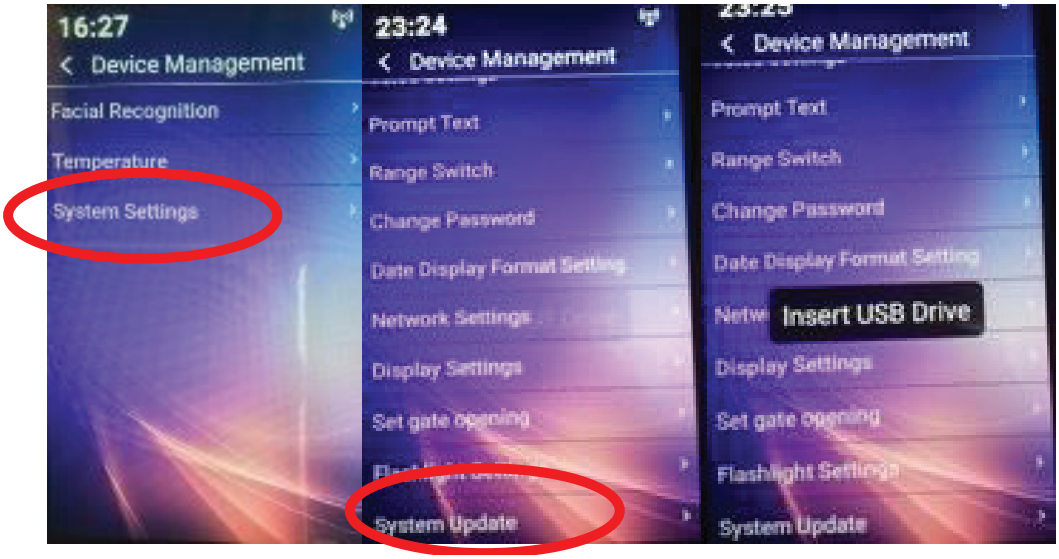
a. Three settings available:

1. **Automatic** - additional light for camera only comes on in the event of low ambient light.

2. **Steady** – camera light is always on.

3. **Shut down** – camera light is always off.

31. SYSTEM UPDATE

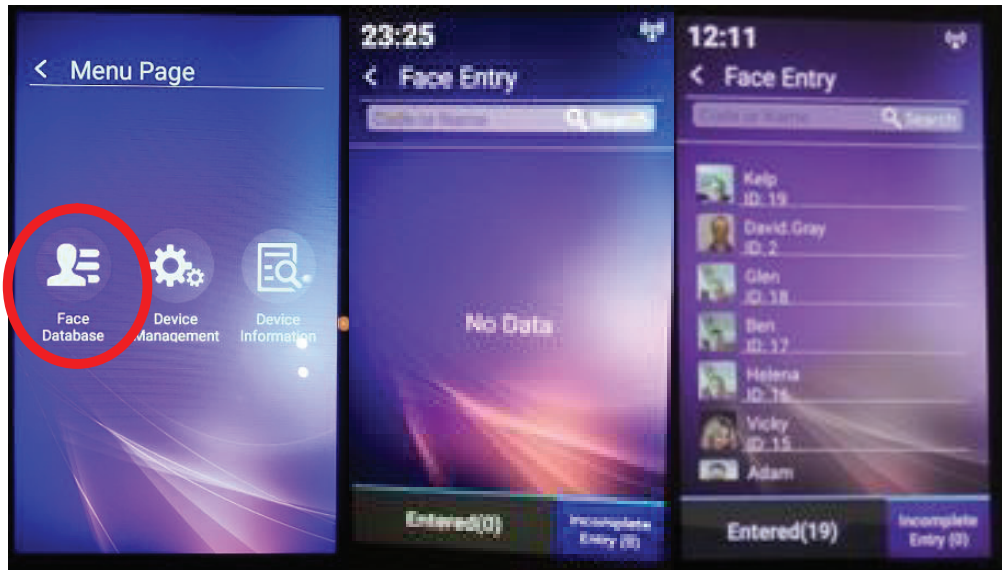


a. This where updates to firmware are uploaded using a USB stick or a network connection.

b. When a firmware update is required you will be sent a link to download the firmware to a USB - this is simply inserted into the iR37 and autoruns.

c. For those devices on a network this can be effected across the network from a central location.

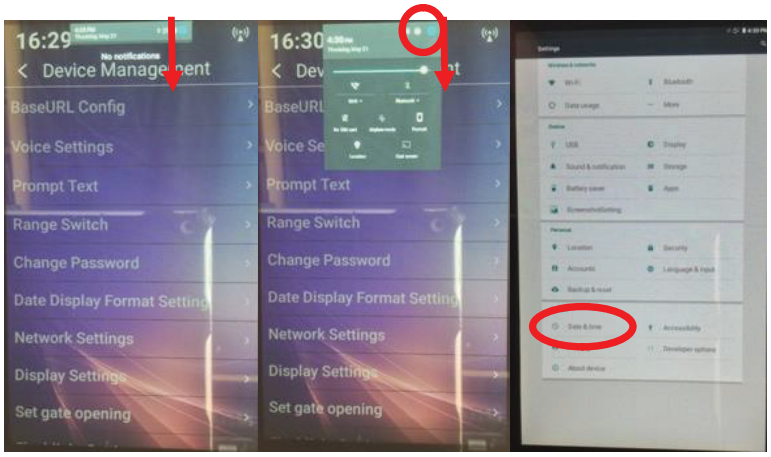
32. FACE DATABASE

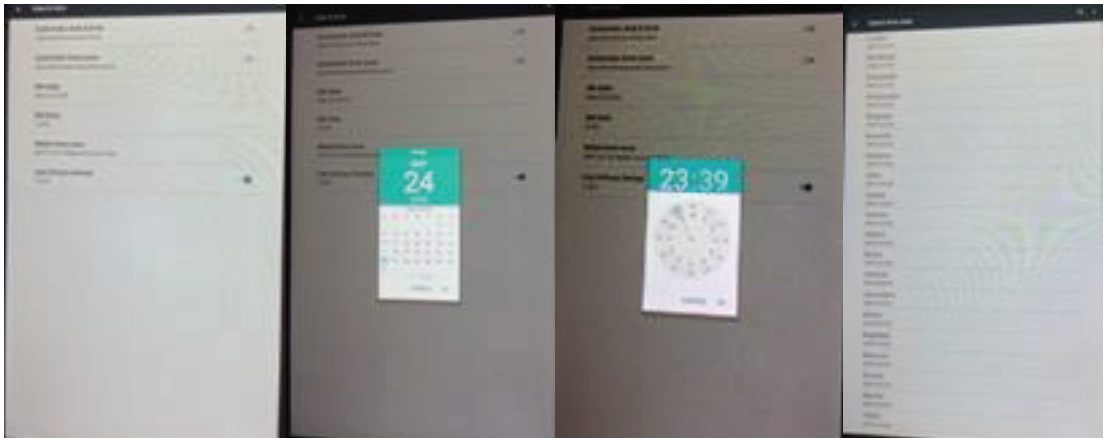


a. List of all registered users with their system name and image and ID number.

b. If no database set for registered users list will be empty.

33. SETTING TIME ZONE AND DATE AND LOCAL TIME





a. **Swipe down TWICE from date/time bar.**

b. **Tap square.**

c. **Tap gear wheel.**

d. **Tap Time/Date** (2nd to last row option on left).

1. Tap Date.
   - Tap relevant month and then tap relevant date.
2. Set Time (we advise to switch OFF auto and system time options – top 2 rows).
   - Move highlighted circle using your fingertip to correct hour; release your finger.
   - Repeat for correct minute; release your finger.
3. Set Time Zone.
   - Swipe up/down to find e.g. London 00:00 plus British Summer Time.

e. **Set 24/12-hour format.**

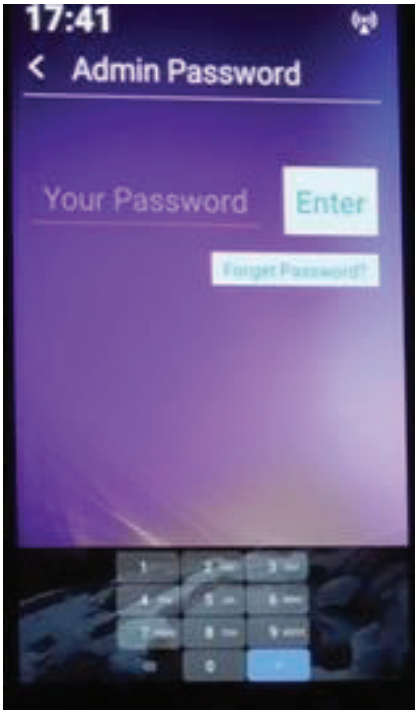
1. In 24-hour mode time will display using 24-hour clock e.g. 16:29.
2. In 12-hour mode time will display as 04:29 PM.

f. When finished swipe up from bottom of screen. **Tap back arrow.**

ALL settings made as above are saved.

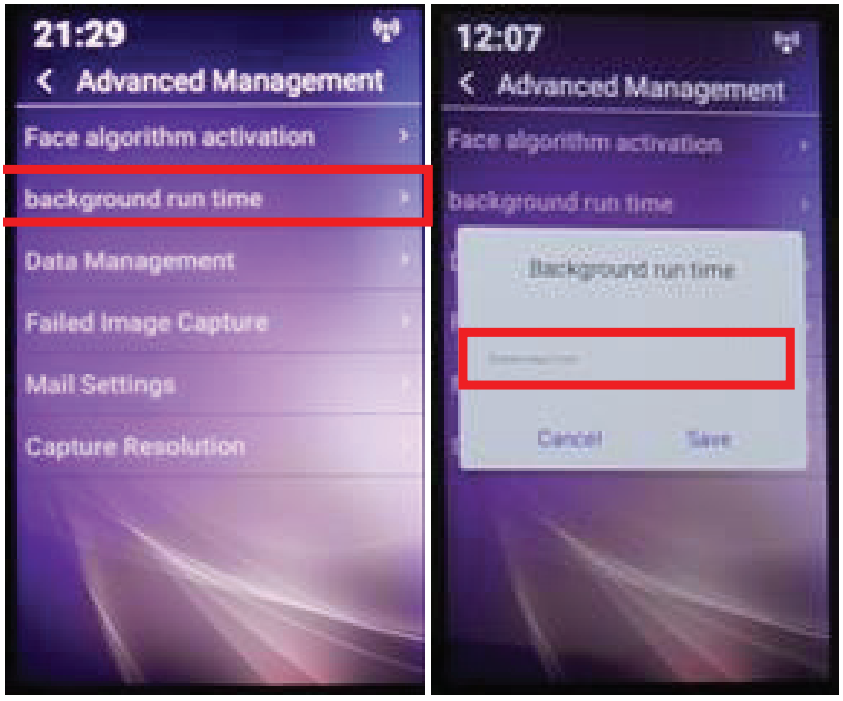
ALL settings are saved at power off and will be used at next power on/connection.

34. SECOND SYSTEM MENU



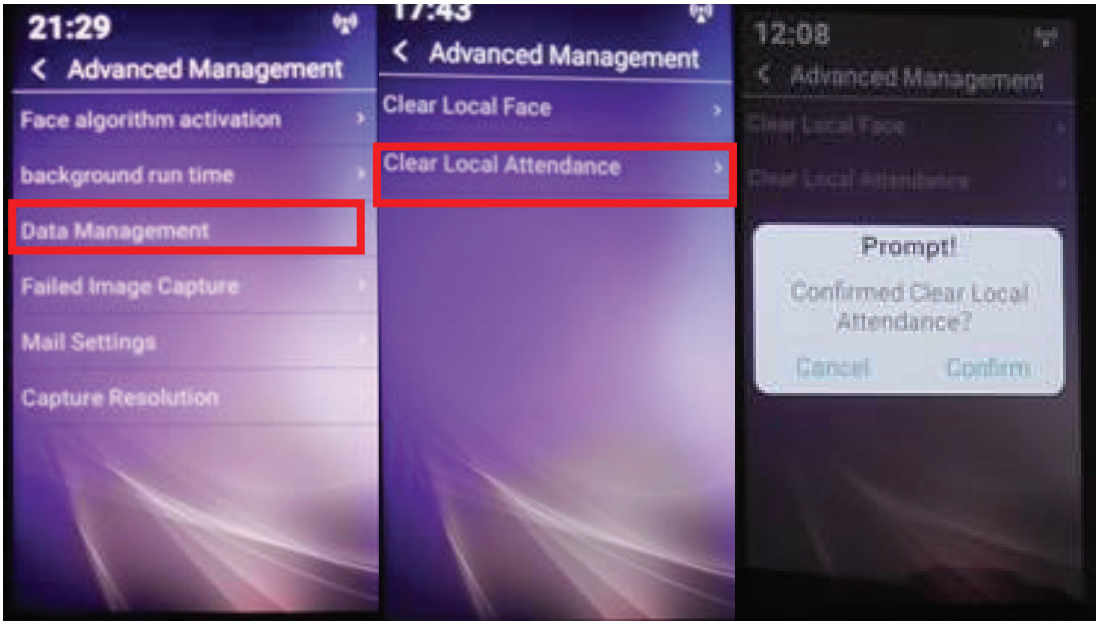
Enter password; **this is provided only to bona fide purchasers**, please contact your distributor directly.

You will then be presented with another menu screen as shown here:



If you are having trouble entering email addresses in the time allotted before the screen reverts back to scanner mode, you can tap on the available time here (default is 1 minute) and enter a longer period.

35. DATA MANAGEMENT – SCAN DELETION



Selecting data management brings up the sub-menu shown above; you have two options:

Clear Local Face – this will delete ALL registered users from the device.

Clear Local Attendance – this will delete ALL scans from the device.

Note:

a. If you have uploaded these (scans) to the server via the software, those records are NOT deleted, ONLY those on the iR37.

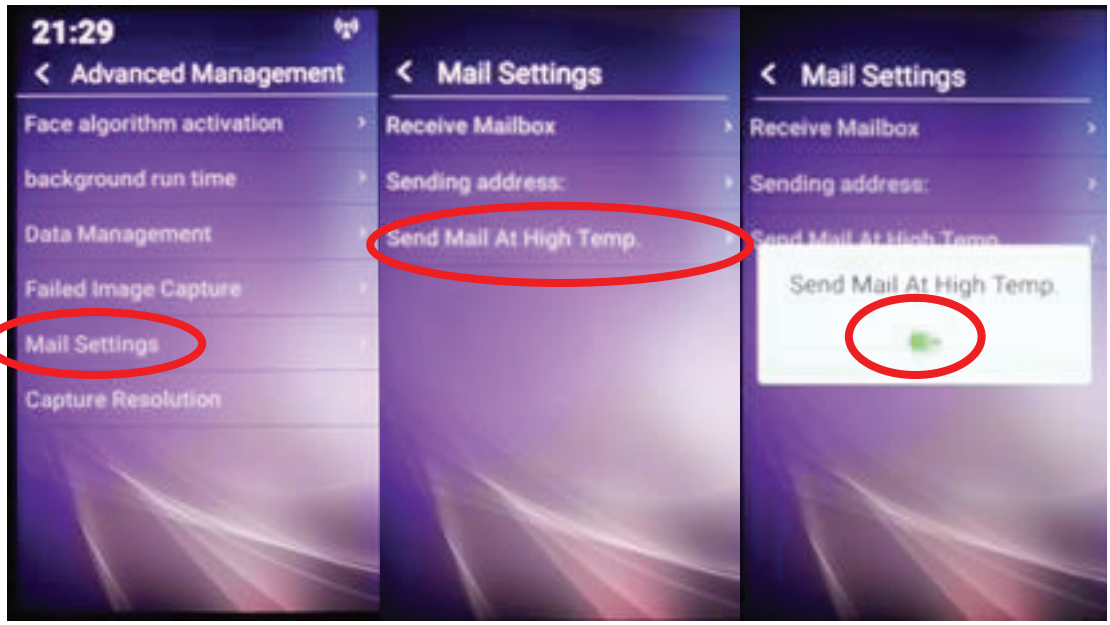
b. Use this option if you wish to clear at the end of the day all visitor and employee scans – say for data protection or GDPR considerations.

c. If using the device/s across a network you will still need an internal GDPR policy to remove those scans from your data sets which are no longer required within the regulatory period.

36. DATA MANAGEMENT – SCAN DELETION

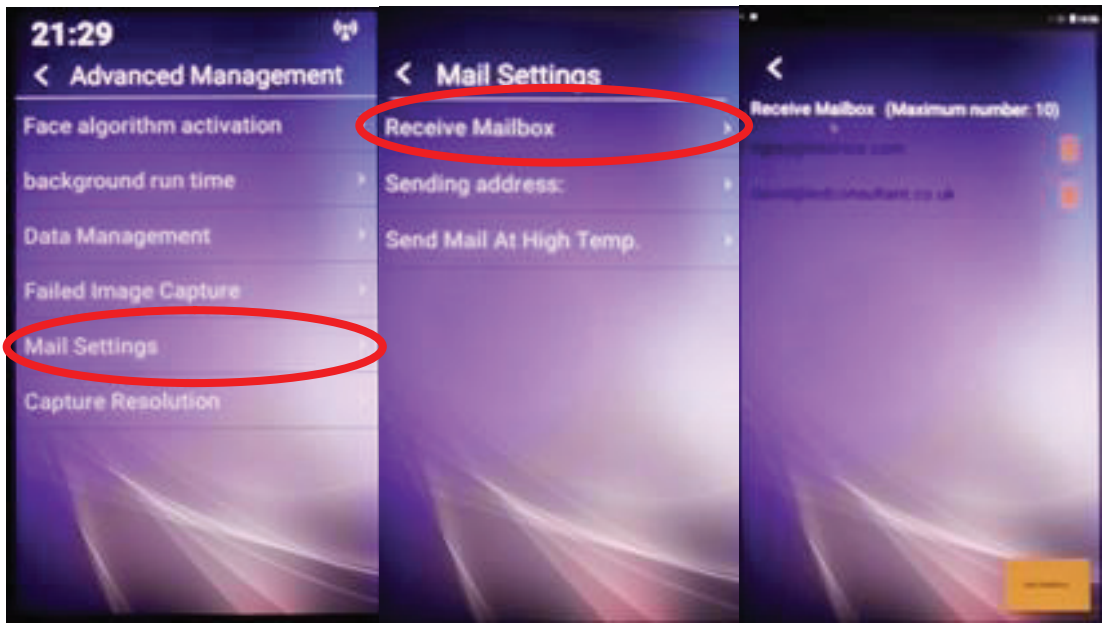
This is a facility to send an email to specific address/s for each over temperature scan.

The email will contain the date/time/device name/temperature/user or visitor.



To activate facility, select as above “send mail at high temp” – set to - ON.

Next



Select “Receive Mailbox”, enter up to 10 email addresses; all are sent the same email, the setting only applies to the specific iR37 unit.

You do not need to and cannot change the originating address, which is Foxmail, designed for the Android platform. There are NO blind copies sent or logged or stored. Once sent it is deleted automatically.

37. CAPTURE RESOLUTION

This enables you to opt for a higher than default image resolution at time of scan.

For normal use, regular resolution is more than adequate and will enable you to store the maximum number of scans on the device.

If at initial set-up and use it is your intention to use the device to capture images of (say) employees and use that image to convert them from visitor to a registered user, then the higher resolution setting would provide better images for subsequent facial recognition.

You may toggle between these two settings without affecting any other settings already or subsequently made.

The iR37 is now ready for use.

< End of Document >

Thank you for your purchase.

Please contact us with your questions and comments.

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