

AoFrio

USER MANUAL

SCS Click

Document # WT9758_i1

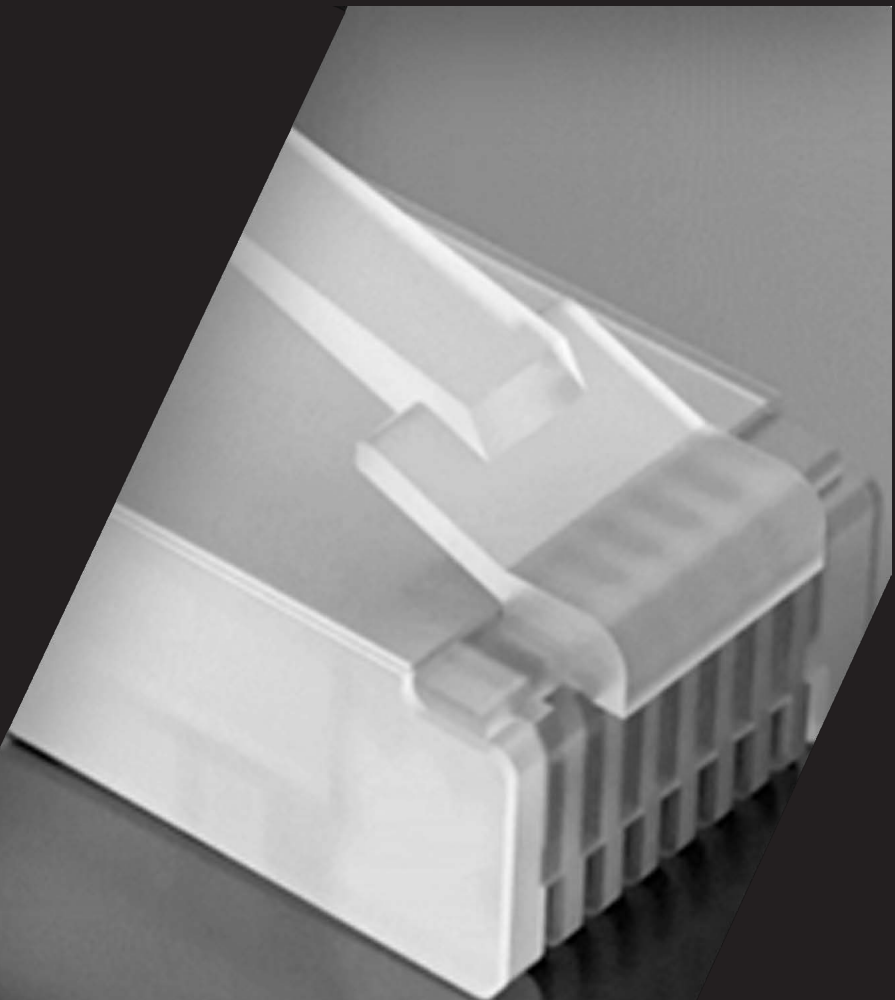
Issue date: March 2023

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Warnings

Please read the following warnings to maintain the safe function and continued performance of your AoFrio SCS Click:

Installation Installation of the SCS Click other than in accordance with the “Installation” section of this manual will invalidate the warranty. The SCS Click must only be installed and configured by trained and authorized staff.	Do not drop the SCS CLICK.
No serviceable parts There are no serviceable parts inside the SCS CLICK. Do not open the housing. Opening of the electronics housing, altering or modifying the SCS CLICK will invalidate the warranty.	There are no serviceable parts inside the SCS CLICK. Do not open the housing.
Consequential failures Failure of connected components may cause damage to the SCS CLICK. SCS CLICK is not warranted against damage caused by or to other components.	
Fit for purpose The SCS CLICK must only be used for the purpose and functions described in this manual. While AoFrio may provide technical support on suitable applications and configuration of the SCS CLICK (where such a relationship may exist), no liability, responsibility or risk is accepted in determining if the SCS CLICK is fit for purpose for any particular application. no liability, responsibility, or risk is accepted by AoFrio for the correct operational function of any particular installation or configuration.	The SCS CLICK must only be used for the purposes described in this manual.
Continuous development AoFrio undertakes to continuously develop and improve products and services. The design and specification for the SCS CLICK is subject to change without warning. The contents of this manual are subject to change without warning. While every endeavour is made to ensure that all specifications and documents are current and complete, AoFrio accepts no liability, responsibility, or risk due to omissions or changes caused by continuous improvement and design changes. Users of this manual should verify that they have the current released version (published on the AoFrio website www.aofrio.com) before proceeding.	The design and specification of the SCS CLICK is subject to change without warning.



Warnings continued

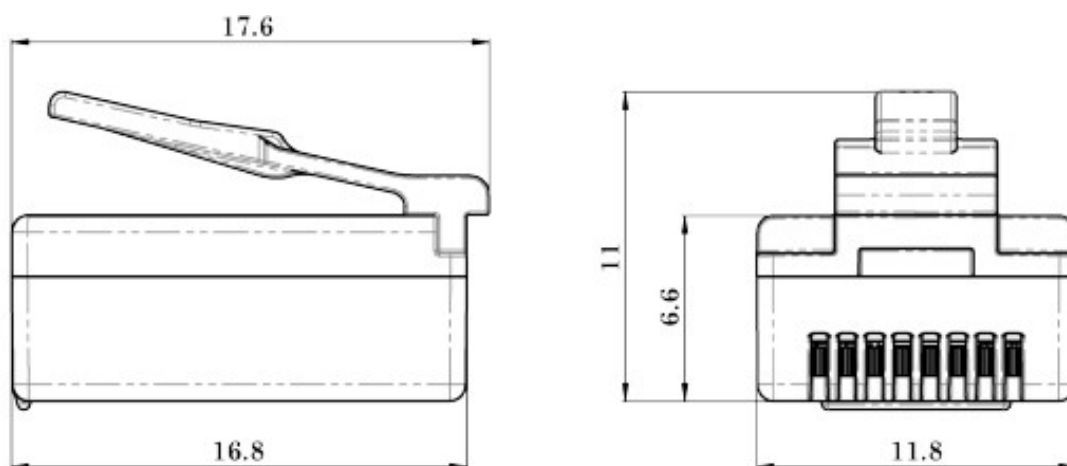
<p>Correct disposal</p> <p>The SCS CLICK is subject to EU Directive 2012/19/EU (WEEE) for e-waste. It may also be subject to other national legislation for the safe disposal of e-waste. The SCS CLICK must not be disposed of in municipal collections; it must be disposed of through an approved WEEE collection point. Alternatively, the SCS CLICK may be returned to an authorized AoFrio distributor at the end of its working life. Penalties may be applicable for incorrect disposal, as specified by national legislation. The circuit board may contain hazardous substances which could affect health and the environment if disposed off incorrectly. The SCS CLICK complies with EU Directive 2011/65/EU (RoHS).</p>	<p>The SCS Click must not be disposed of in municipal collections; it must be disposed of through an approved e-waste collection point.</p>
<p>Chemicals</p> <p>The SCS CLICK must not be exposed to any solvents or chemicals, as this will invalidate the warranty and may damage the housing, leading to unsafe operation.</p>	
<p>Temperature</p> <p>The SCS CLICK must only be subjected to temperatures as specified in the “Datasheet” and the “Technical specification” section of this manual. Exceeding these ranges either in operation, installation, transportation or storage, will invalidate the warranty and may damage electronic circuits and housing components, leading to premature failure.</p>	
<p>Vibration and impact</p> <p>The unit must be installed in such a way as to be protected from impact in operation. Exposure to impacts, either in operation, installation, transportation, or storage, may damage electronic circuits and housing components, leading to premature failure, and may cause the SCS CLICK to become unsafe. Any impact which causes visual damage to the housing will invalidate the warranty.</p>	<p>Do not drop the SCS CLICK.</p>
<p>Voltages</p> <p>The SCS CLICK must only be connected to equipment which comply with the acceptable voltage ranges specified in the “Datasheet” and the “Technical Specification” section of this manual. Connection to supply voltages outside of these ranges can damage electrical circuits, leading to premature failure, and may cause the SCS CLICK to become unsafe and invalidates any warranty due to incorrect voltages</p>	<p>Do not connect the SCS CLICK to the incorrect supply voltage.</p>



Introduction

The SCS CLICK is a Bluetooth LE transmission adaptor designed for providing radio connectivity to existing refrigeration controllers in the market. It adds functionality such as telemetry connectivity, asset tracking, and proximity-based marketing to existing coolers.

A unique feature is a mobile app that gives authorized Service Technicians full wireless access to data logging and diagnostic control.





Installation

Step 1

Remove the two screws holding the RJ45 cover in place with PZ1 screwdriver and remove cover



Step 2

Push SCS Click fully into the RJ45 socket. Ensure it makes a Click sound, and the retaining feature is clicked into place.

Step 3

Ensure that the SCS Click is flashing green every few seconds. This means it is installed correctly and powered up.



Step 4

Replace the cover and two screws.



Installation

EMS55 Setup process

To set up EMS55 – follow these seven steps:

Step 1

Press the top left button (“a”) and the device will be setup for the password.



Step 2

Enter the password by pressing the buttons on the controller in the following order.

- Top Left (“a”) - 3 times
- Top right (“b”) - 2 times
- Bottom right (“c”) - 1 time
- Bottom left (“d”) - 4 times

Step 3

You should now see P5 on the display.



Step 4

Press the Bottom right (“c”) button 5 times until “ddP” is displayed. It will alternate between displaying “ddP” and “00”



Installation

Step 5

Press the Top Left (“a”) button once. The display will continue alternating between displaying “ddP’ and “00”.



Step 6

Hold the Top right (“b”) button until “01” is displayed. The display will now alternate between displaying “ddP’ and “01”.

Step 7

Wait for 20-30 secs for the Elstat to timeout. It will then re-boot and return to normal operation.





Installation

Connect to the AoFrio Field app

Once you have installed the Click into the cooler, follow these steps.

1. Take photos of the:
 - Location or outlet where the cooler is in use (eg. from the outside of the building)
 - Cooler
 - Area inside the outlet where the cooler is located, showing enough of the surroundings to understand the cooler's in-store position
2. Turn on the Field app on your mobile device or phone.
3. Connect the Field app to the SCS Click.
4. Set the following details:
 - Model Number (Used for recording purposes)
 - Asset Number (Used for cooler identification in asset tracking)
 - Serial Number (Used for recording purposes)
 - Installation Address (Used by the asset tracking)
 - Store Phone
 - Cooler Photo

You can also add additional data, photos and notes using the Field App.

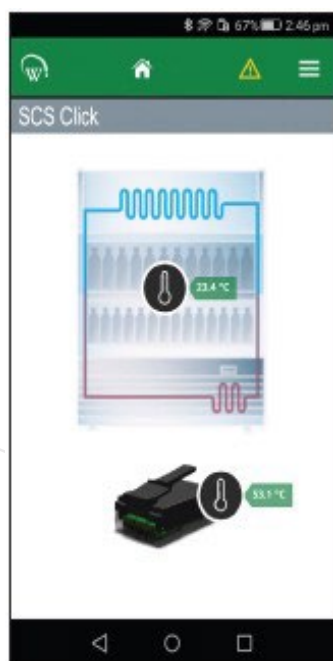


Graphical User Interfaces (GUI)

The AoFrio SCS Connect Track App provides a wireless connection to the SCS Click from mobile devices fitted with Bluetooth® LE. This gives users and technicians an unprecedented level of visibility and control.

Note: Screen shots shown are indicative only. Different devices have different screen ratios, sizes, and resolutions. The actual image seen on your device may vary from the screen shots shown in this guide. Holding your device in portrait or landscape mode may influence appearance and may change how the various windows and graphics are displayed and arranged on your screen.

User interfaces

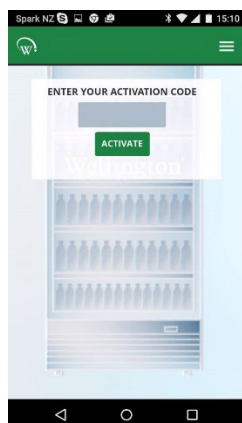
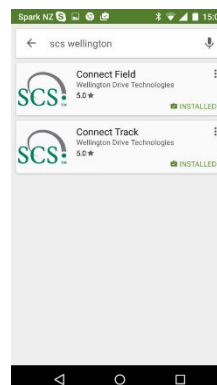




Install and authenticate the app

Step 1

Download and install the Connect Field app from Google Play (Search for “scs wellington” to find it)



Step 2

When you first run “Connect Field”, you will be requested to enter an activation code.

Contact your User Manager or AoFrio to receive your activation code (You must be connected to the internet at the time of activation).

Note: Your activation code is unique to you, and should NEVER be shared with anyone else, as it determines your personal access level for the app. The same code will give you access to all SCS apps you are authorised to use.

Step 3

Once activation is complete, you must define a 4-digit PIN code. This can be any code unique to you. Each time you start the app, you will be required to enter this same PIN code. This is to prevent other people accessing the app from unlocked phones.

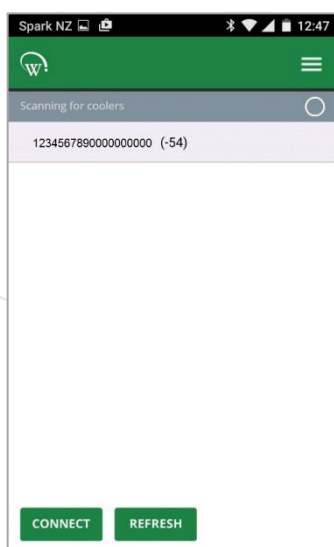
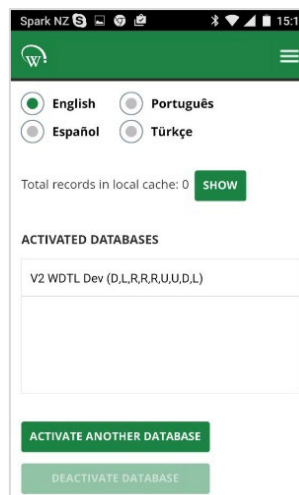




Install and authenticate the app

Step 4

You can see which databases you are activated against from the “Settings” screen. You can be activated to more than one database at the same time. Simply select “ACTIVATE ANOTHER DATABASE”, and enter the new databases unique activation code, as in Step 2.



Step 5

Select a device to connect to from the list of visible devices. Select “Connect” to connect to the cooler.

Note: Visible devices are filtered by your activation permissions, so devices you are not authorised to connect to will not be displayed.

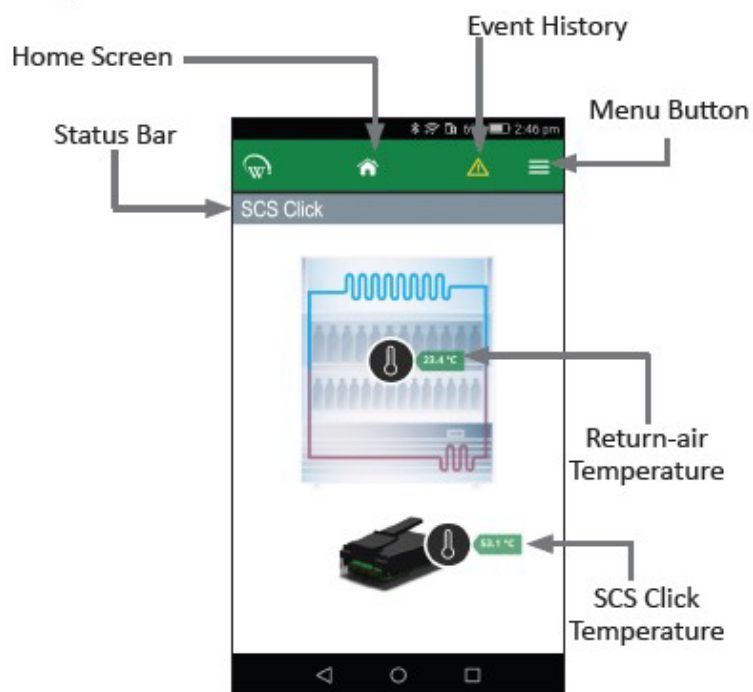
The signal strength is the number in brackets on the right of the cooler ID. If signal strength is lower (more -ve) than -80, connection may be unreliable: move closer to the cooler. If multiple cooler IDs are visible, the strongest (least -ve) signal is likely to be the one closest to you and make sure Bluetooth is turned on.



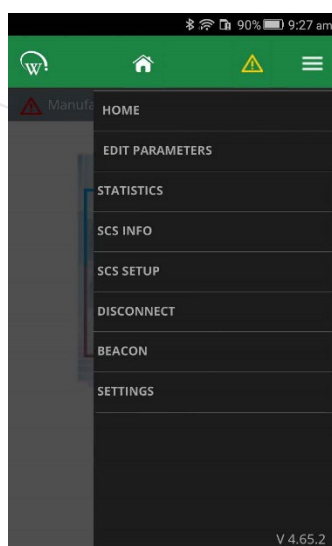
Home Screen

The Home Screen shows a graphic representation of the current state of the refrigeration unit being controlled.

Fridge Status



Main menu

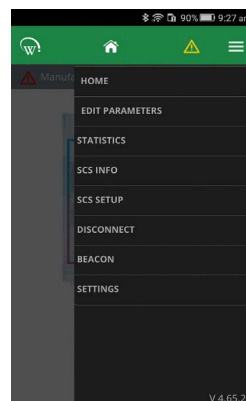




Add your cooler to the Field app

Step 1

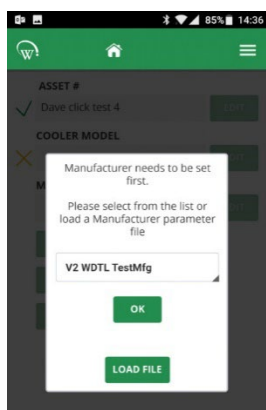
Open the Field app menu and click SCS SETUP.



Step 2

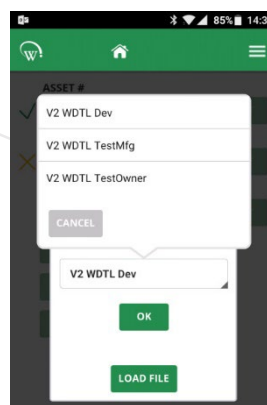
(Optional) Click LOAD FILE to upload a manufacturer parameter file.

Select the file from the dropdown list then click OK.



Step 3

To set the MANUFACTURER, select the cooler manufacturer from the dropdown list then click OK.



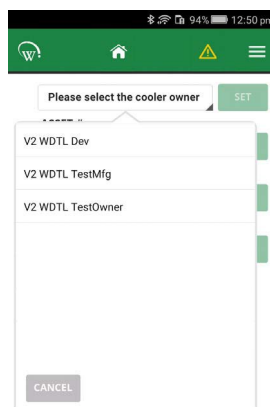


Add your cooler to the Field app

Step 4

To set the COOLER OWNER, click EDIT in the matching field and select the cooler owner from the dropdown list.

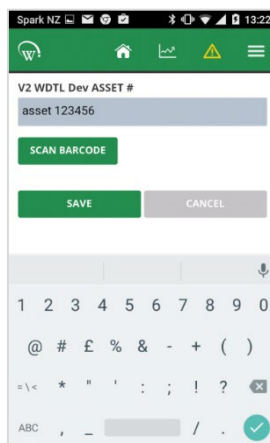
Click SAVE to confirm and click OK to accept.



Step 5

To add an ASSET NUMBER, add the number manually, or scan the asset number barcode using the phone's camera.

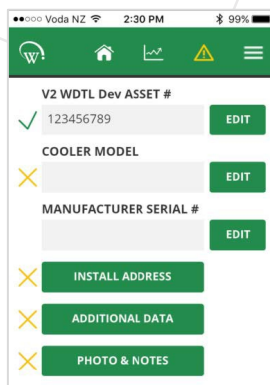
Click SAVE to confirm and click OK to accept.



Step 6

To set a COOLER MODEL, click EDIT in the matching field and select a model from the dropdown list.

Click SAVE to confirm and click OK to accept.



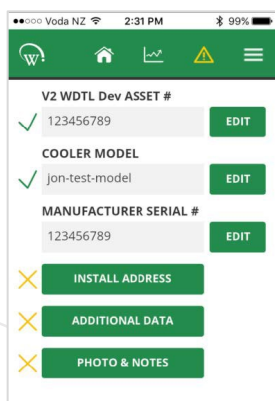
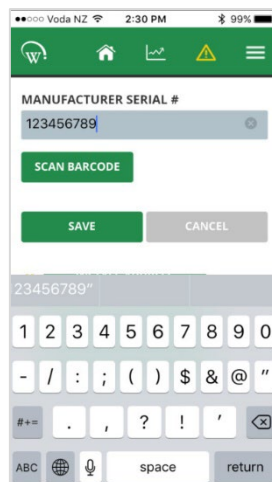


Add your cooler to the Field app

Step 7

(Optional) To add the Manufacturer Serial Number, click EDIT and add the number manually, or scan the Asset number barcode using the phone's camera.

Click SAVE to confirm and click OK to accept.



Step 8

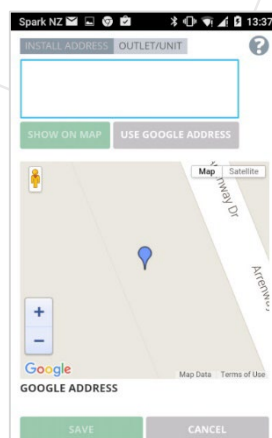
To add an installation address, click INSTALL ADDRESS and continue with the following steps.

Step 9

If your GPS is turned off, type the outlet address in the INSTALL ADDRESS text box and select SHOW ON MAP.

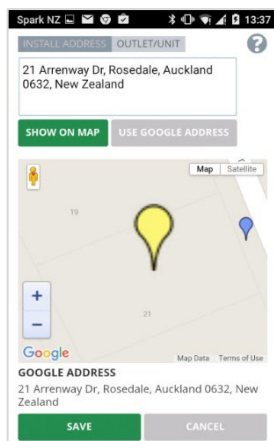
If GPS is turned on, the phone will automatically locate your current position (blue marker).

Note: It is best if your mobile device is connected online while updating your GPS as this is how the Google Maps lookup works. If you prefer to stay offline, just type in the address, and wait for the map screen to turn Green to indicate a GPS lock.





Add your cooler to the Field app



Step 10 (Optional)

If the Google address is not correct, enter the address manually in the text box then drag the yellow marker around the map screen to position the cooler's exact location.

Double tap the map screen to fix the cooler's exact location with a yellow marker.

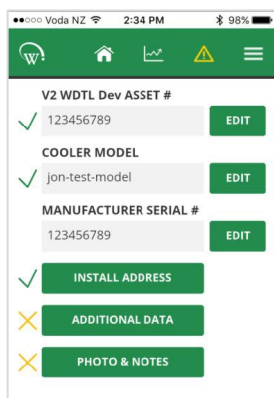
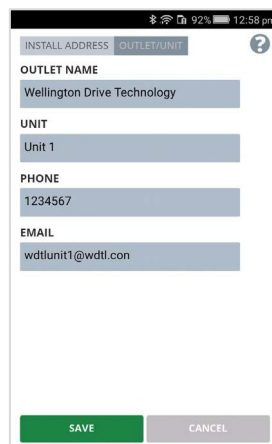
Note: It is not necessary to select SAVE at this point.

Step 11

Click on the OUTLET/ UNIT tab then enter:

- OUTLET NAME
- (Optional) UNIT e.g., 2nd floor, unit 3
- PHONE
- EMAIL

Then click SAVE and OK to confirm. You have now successfully completed adding the INSTALL ADDRESS.



Step 12

To add additional data such as the customer ID, click ADDITIONAL DATA.



Add your cooler to the Field app

Step 13

Enter CUSTOMER ID manually or scan the barcode number using the phone's camera.

(Optional) Enter the SALES ROUTE and TECH ROUTE.

Click in the field below ORG UNIT and select your organisation position from the dropdown list. Then click SAVE.

Step 14

To add a photo of the cooler in location, click PHOTO & NOTES.

Step 15

Enter any other information relevant to this photo in the text box.

Click the COOLER radio button to upload a cooler photo, or the STORE radio button to upload a store photo.

Click SELECT PHOTO to upload the photo from your phone gallery.

Choose SAVE to save changes.

Note: You can add notes without a photo, or a photo without notes. You can only add one photo at a time. To add extra photos, select PHOTO & NOTES again and repeat the steps above.

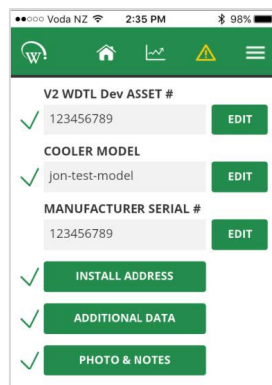


Add your cooler to the Field app

Step 16

Review your information. A green tick beside each field indicates all the fields are set and installation is complete.

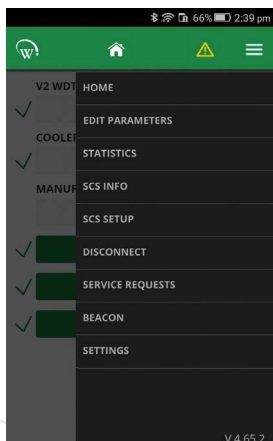
Note: The manufacturer's serial number doesn't get a green tick because the system regards this as optional.



Step 17

Once you are happy with the information you have entered, open the menu and click DISCONNECT to complete the process.

Note: It is important to complete the disconnect step to ensure that all asset data is properly stored in the SCS Click.

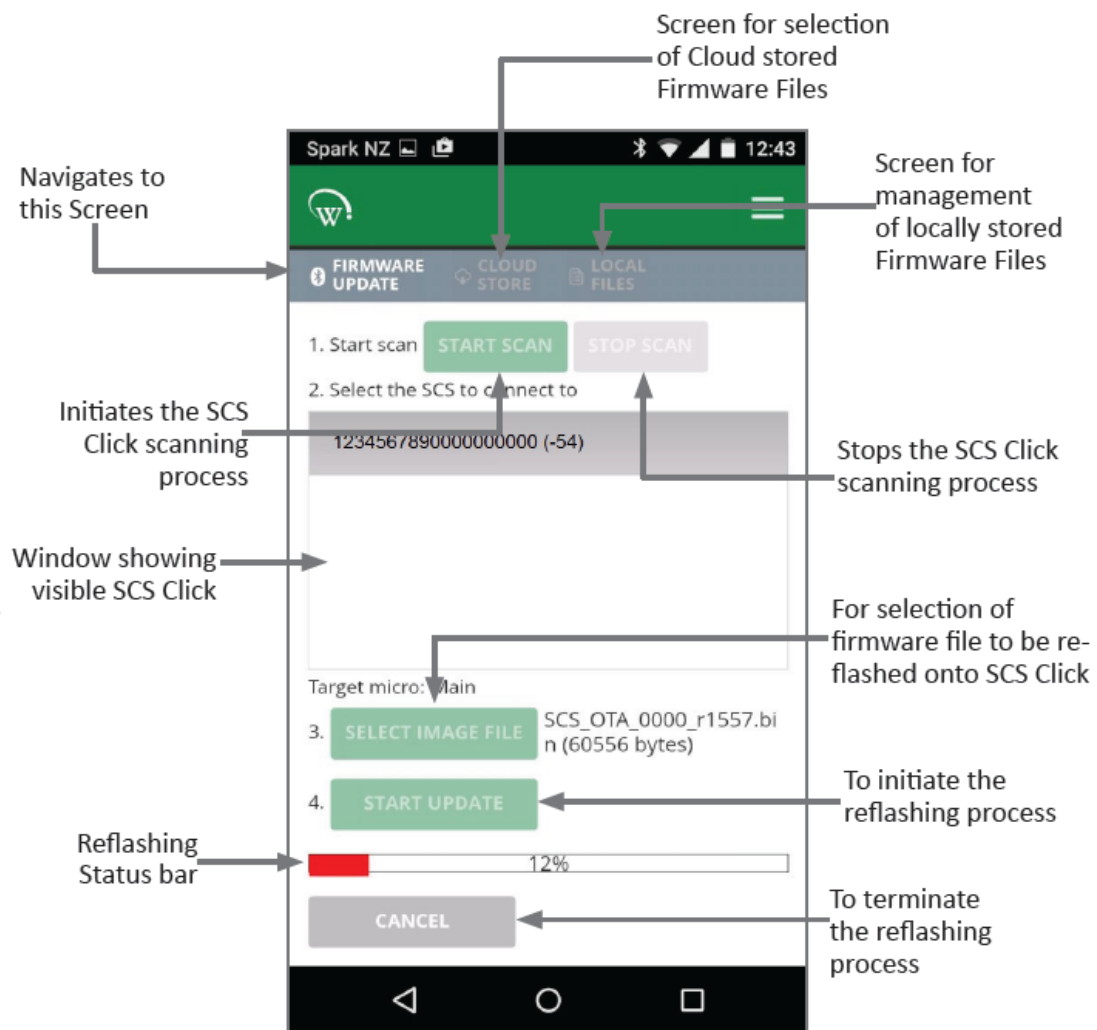




Upgrade Firmware

Firmware can be updated from either the mobile or desktop app. The steps are the same for both. Screenshots used are from the mobile app, but look the same on the desktop app.

Firmware update screen

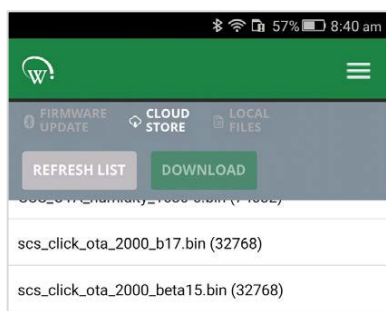




Firmware update process

Step 1

When you see a FIRMWARE UPDATE notification, click CLOUD STORE.



Step 2

Select the file you want to update from the dropdown list and click DOWNLOAD.

Note: If you see SCS CLICK_OTA, these are Main micro files.

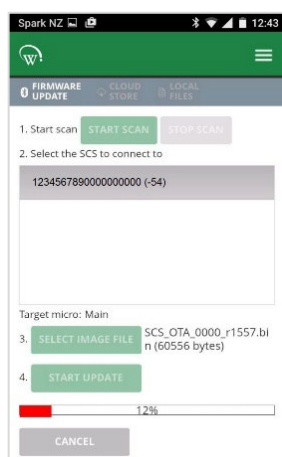
Step 3: Click START SCAN then select the SCS CLICK device to upgrade.

You will see the Bluetooth indicator on the SCS Click flash once it has successfully connected.



Step 4: Click SELECT IMAGE FILE to choose a locally stored firmware file for upgrade, then click START UPDATE.

Once the update is complete, you should see a message saying "Firmware Update Complete". Click OK.





Technical specifications

Power

Supply Voltage	5Vdc (supplied by EMS)
Power Consumption	150mW maximum
UART	5Vdc Full duplex

Environmental

Operational Temperature Range*	-10°C to +55°C (-14°F to +131°F) <90% RH non-condensing
Storage Temperature Range	-40°C to +80°C (-40°F to +176°F) <90% RH non-condensing

Connectivity

Bluetooth™ Capability	Bluetooth™ SMART
Supported Windows O/S for GUI module	Windows 7 Windows 8 Windows 8.1 Window 10
Supported Mobile App Devices	Android with BT 4.0 and OS 4.4.3 or above iPhone 4S or later iPAD 3rd Gen or later iPAD mini

Physical

Dimensions	SCS Click Overall Dimensions: 10.8mm (H) x 11.7mm (W) x 17.6mm (D)
Weight	2g (0.07oz)
Activity Indicators	LED Indicator
Housing Materials	Main Housing: PC

*Plus EMS internal temperature rise

**Approvals pending



Technical specifications

Compliance and approvals

Fire Rating	UL94-V0
Electrical Insulation Rating	Class II (when correctly installed)
Compliance**	cUL, FCC and CE-RED
Ingress Protection	IP 40 (weather protection provided by EMS)
EMC	Immunity: EN6100-6-2, EN 301 489-1, EN301 489-17 Emissions: EN55014-1 , EN301 489-17 , EN300 328 V1.8.1 EN50371 FCC Part 15B and 15C EN 300 328 ICES-001, RSS-247, RSS-102 AS/NZS 4268, AS/NZS CISPR 22
European Directive: Restriction of Hazardous Substances	EU Directive 2011/65/EU (RoHS)
European Directive: Waste Electrical and Electronic Equipment	EU Directive 2012/19/EU (WEEE)^
Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)	Regulation (EC) No 1907/2006
Bluetooth SIG**	BQB QDL

^ Article 11 Recovery and Recycling Calculation of Theoretical Recovery and Recycling Rate

*Plus EMS internal temperature rise

**Approvals pending



FCC Declaration

CLASS B DEVICE

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

Changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

FCC Statement

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

RSS-Gen & RSS-247 statement

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. l'appareil ne doit pas produire de brouillage, et
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.



FCC Declaration

RSS-102 Statement

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

Cet équipement est conforme à l'exposition aux rayonnements Industry Canada limites établies pour un environnement non contrôlé.

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