

INSTALLATION GUIDE

# Gateway - New Build Installation Guide

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<b>Section</b>	<b>Pages</b>
<b>Warnings</b>	<b>3-4</b>
<b>Introduction</b>	<b>5</b>
<b>What you'll need for installation</b>	<b>5</b>
<b>Key steps</b>	<b>6</b>
<b>Plan where to place the Gateway within the cooler</b>	<b>7-8</b>
<b>Configure Gateway and pair with the SCS Controller</b>	<b>9 - 16</b>
• Option A: OTA Commissioning	<b>10</b>
• Cradle app – before you start	<b>11</b>
• Option B: Cradle app - Program Screen	<b>11</b>
• Option C: Cradle app - Update Cooler Screen	<b>12</b>
• Option D: Field app	<b>13</b>
○ Configure Gateway using Field app	<b>14</b>
○ Configuration troubleshooting	<b>16</b>
<b>Mount the Gateway</b>	<b>17</b>
<b>Connect to the power supply</b>	<b>18</b>
<b>Use the LEDs to confirm operation</b>	<b>18</b>
<b>Test 1-1 pairing with Field app verification</b>	<b>19</b>
• Verification troubleshooting	<b>20</b>
<b>Technical Specifications</b>	<b>21</b>

Warnings	Important do's and don'ts
<p><b>Installation</b> The Gateway is electricity powered. Therefore it should only be installed in a suitable location within the cooler, and by an installer with appropriate qualifications in the country of installation.</p> <p>The Gateway must only be installed and configured by trained and authorized staff. Please follow the instructions provided in this Guide otherwise the warranty may be void.</p>	<ul style="list-style-type: none"> <li>• Only authorised and appropriately qualified staff should install the Gateway.</li> <li>• Mount the Gateway and the power connector in an environment that is not subject moisture or high humidity.</li> </ul>
<p><b>No serviceable parts</b> There are no serviceable parts inside the Gateway. Do not attempt to open the housing. Opening of the electronics housing, altering, or modifying the Gateway may invalidate the warranty and damage the device.</p>	<ul style="list-style-type: none"> <li>• There are no serviceable parts inside the Gateway.</li> <li>• Do not open the housing.</li> </ul>
<p><b>Fit for purpose</b> The Gateway must only be used for the purposes and functions described in this manual. While AoFrio may provide technical support on suitable applications and configurations of the Gateway (where such a relationship may exist), no liability, responsibility or risk is accepted in determining if the Gateway is fit for purpose for any particular application. No liability, responsibility or risk is accepted by AoFrio for the operational function of any particular installation or configuration.</p>	<ul style="list-style-type: none"> <li>• The Gateway must only be used for the purposes described in this manual.</li> </ul>
<p><b>Cellular connection, ownership, and activation</b> The Gateway requires a cellular connection, either LTE-M or 2G to set up and upload data to the Cloud.</p> <p>A cellular connection might not be available in all locations. The presence of LTE does not guarantee LTE-M signal being available. LTE-M is intended for low bandwidth Internet of Things (IoT) products where LTE is for mobile high bandwidth applications.</p> <p>Because this device is shipped in a non-active state, ownership is established as part of the setup process where AoFrio adds the device and owner to its database. Permission to manage pairing with other AoFrio hardware can be granted through User Roles within AoFrio's User Manager software.</p> <p>To use AoFrio's Field app as part of the configuration process, the Gateway feature needs to be activated for the database that you are working in.</p>	<ul style="list-style-type: none"> <li>• The Gateway requires a clear cellular connection</li> <li>• Each device needs to be registered with AoFrio as part of setup and activated to the correct database</li> <li>• Pairing requires additional user role permissions through User Manager.</li> </ul>
<p><b>Mains connection</b> Installation should only be done by a qualified technician.</p>	<ul style="list-style-type: none"> <li>• Only authorised and appropriated qualified staff should connect mains power</li> </ul>
<p><b>RF Exposure Information</b> This equipment complies with FCC and ISED radiation exposure limits This device should be installed and operated with a minimum distance of 20 cm between the radiator and your body to ensure compliance with RF exposure requirements.</p>	

Warnings	Important do's and don'ts
<p><b>Correct disposal</b>                      The Gateway 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.</p> <p>The Gateway must not be disposed of in municipal collections, it must be disposed of through an approved WEEE collection point. Alternatively, Gateway 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.</p> <p>The device contains a lithium battery. This may be hazardous if incinerated or physically damaged. The circuit board may contain hazardous substances which could affect health and the environment if disposed of incorrectly.</p> <p>Once the device's battery is depleted, remove the device from equipment and dispose of it according to local requirements. Leaving Gateway installed in the equipment presents risks due the potential for battery housing corrosion leading to chemical leakage.</p>	<ul style="list-style-type: none"> <li>• The Gateway must not be disposed of in municipal collections; it must be disposed of through an approved e-waste collection point.</li> <li>• <b>Safety warning:</b> The Gateway devices contain a lithium battery. This may be hazardous if incinerated or physically damaged.</li> <li>• Do not leave an old Gateway installed in field equipment after it has reached its end of life.</li> </ul>
<p><b>Chemicals</b>                      The Gateway must not be exposed to any liquids, solvents, or chemicals, as this may damage the housing and lead to unsafe operation. Exposure to such chemicals invalidates the warranty.</p>	<ul style="list-style-type: none"> <li>• Do not expose to liquids.</li> <li>• Any installation should be adequately assessed by the customer to meet the applicable end product standards for Hydrocarbon refrigerant environments.</li> </ul>
<p><b>Temperature</b>                      The Gateway must not be subjected to temperatures outside its specified temperature limits.</p> <p>Exceeding these ranges in operation, installation, transportation, or storage, will invalidate the warranty and may damage electronic circuits and housing components, leading to premature failure.</p>	<ul style="list-style-type: none"> <li>• Do not expose to high or low temperatures.</li> </ul>
<p><b>Vibration and impact</b>                      The unit must be installed in such a way as to be protected from vibration and impact during operation. Exposure to impact and mechanical shock, either in operation, installation, transportation, or storage, may damage electronic circuits and housing components, leading to premature failure, and may cause the Gateway to become unsafe. Damage caused by impact is not covered by warranty.</p>	<ul style="list-style-type: none"> <li>• Do not drop or install the Gateway in locations with vibration.</li> <li>• Mount the Gateway and its power connector in an environment that is not subject to movement.</li> </ul>
<p><b>Continuous development</b>                      AoFrio undertakes to continuously develop and improve products and services. The design and specification of Gateway and contents of this manual are subject to change without notice. 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.</p>	<ul style="list-style-type: none"> <li>• The design and specification of the Gateway is subject to change and new firmware may be released without notice.</li> </ul>

## Introduction

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The **Gateway** is one of the communications devices in the AoFrio IoT ecosystem. It provides automated one-to-one data acquisition from an AoFrio IoT device (SCS Controller or Monitor) installed in an asset or equipment in the field, adding a cellular connectivity option to the existing portfolio of data acquisition solutions provided by AoFrio.

Connectivity over the cellular network eliminates the need for cooler owners to make site visits to acquire data from their cooler fleet. (NB. Throughout this manual we use “cooler” as the asset type and “SCS Controller” as the AoFrio IoT device.).



**Gateway** is equipped with 2 different types of radio connectivity:

- **Bluetooth** – The device is fully compatible with the AoFrio IoT system and uses Bluetooth to acquire data from the SCS Controller it is paired with.
- **Cellular connectivity** – A global cellular module provides connectivity using LTE Cat M1 with 2G fallback. Cellular SIMs are installed at the time of manufacture and the data plan is managed by AoFrio unless an alternative arrangement has been made.

**Battery** - Each device has a rechargeable internal battery that is used for backup if the external power supply is removed. The battery life is approximately 12 hours during which time the Gateway will continue to operate fully as though still connected to its external power supply.

**Location Reporting** - Wi-Fi positioning is used to help determine the location of the Gateway, and therefore the cooler it is installed into. NOTE: Gateway is not able to establish a Wi-Fi connection to transfer data.

## What you'll need for installation


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- AoFrio Gateway
- Hardware (screws, cable ties, tape etc) to mount the Gateway

## Key steps




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These are the key steps when installing a Gateway in a new asset build. The order may change depending on the selected pairing option. For more detail see the section **Configure Gateway and pair with the SCS Controller**

	<b>Plan where to mount the Gateway within the cooler</b>
	<b>Pair the Gateway with the SCS Controller</b>
	<b>Mount the Gateway</b>
	<b>Connect to the power supply</b>
	<b>Use the LEDs to confirm operation</b>
	<b>(Optional) Test 1-1 pairing with Field app verification</b>

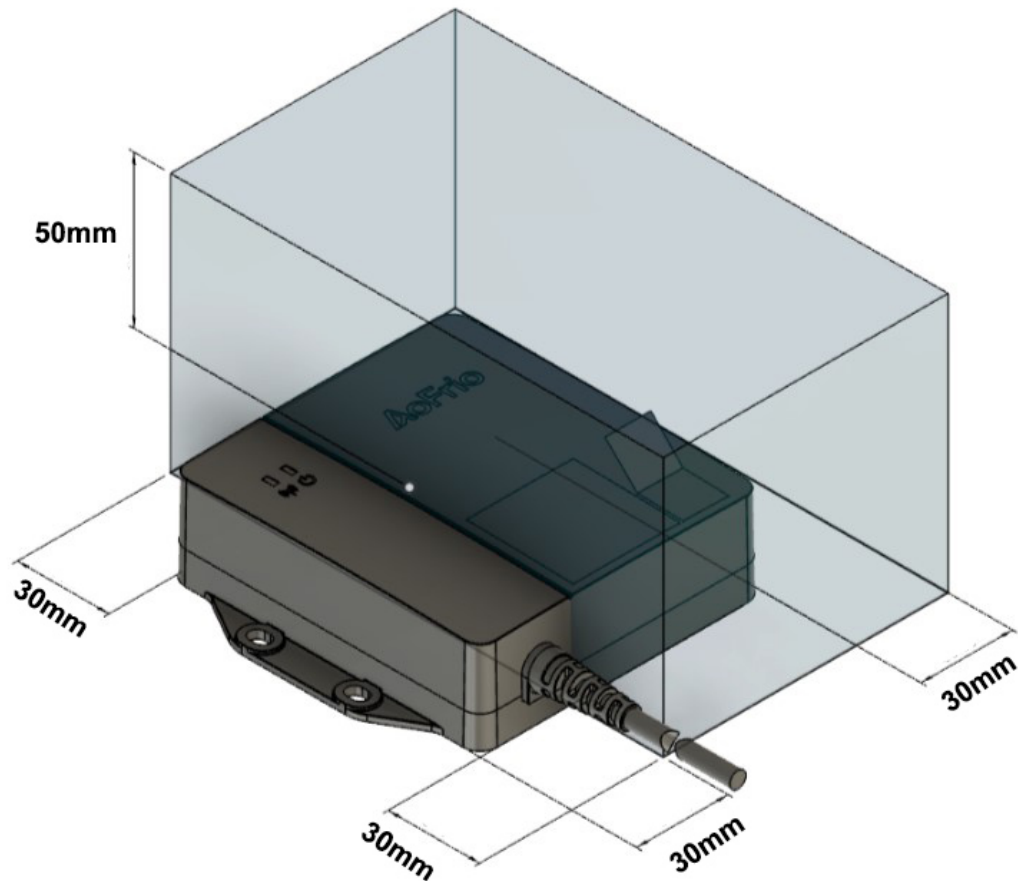
## Plan where to mount the Gateway within the cooler

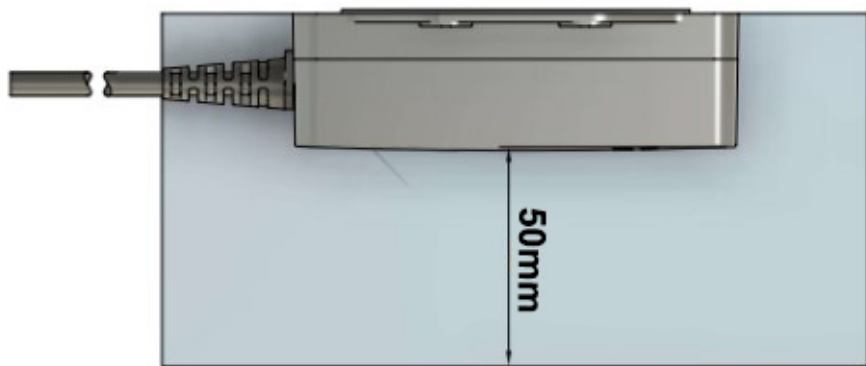
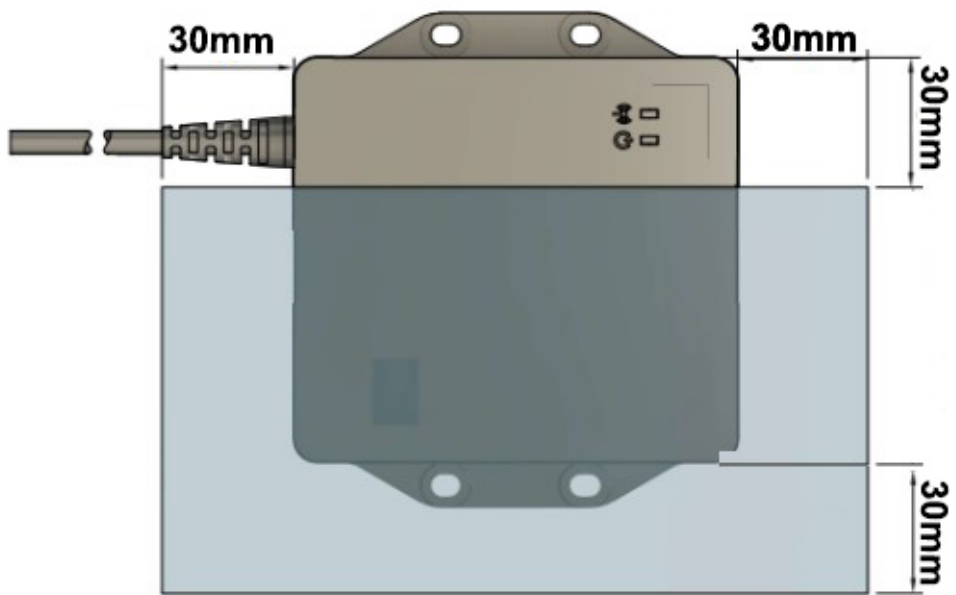
While the mounting location can vary widely depending on the asset type (e.g., Open Deck cooler, Bottle cooler, Ice cream chest freezer), we would recommend the following:

	<b>Ensure the Gateway will be in a position to successfully use Bluetooth</b> to pair with the SCS Controller housed inside the cooler. (See diagrams below)
	<b>Mount the device at or near the top of the cooler for the best cellular performance when possible.</b> This is especially relevant when paired with an SCS Controller that may be mounted closer to the equipment's motor or compressor.
	Wire the Gateway to <b>AC mains supply</b> within the cooler.

## Identify a suitable installation position to improve communications

We recommend installing the Gateway near the top of the equipment, ideally with sufficient space around the device away from metal parts to allow for an uninterrupted signal. See diagram below. The transparent box shows recommended clearance around Gateway from metal parts.







## Configure Gateway and pair with the SCS Controller

### Choose your preferred set up option

There are a number of options for OEMs to configure and set up the association with an SCS Controller when installing a Gateway into a new cooler. Each OEM should review the options and select the one that best suits their manufacturing and supply process.

NOTE: Each of the options below provides AoFrio with information about which SCS is paired with which Gateway. This pairing information is required for the correct operation of the Gateway solution. If one of these methods is not used, then the solution will not work.

Option	Advantages	How it works
<b>Option A: OTA Commissioning</b>	<ul style="list-style-type: none"> <li>Best choice when building to stock AND when Bottler/Asset # not known at the time of manufacturing.</li> </ul>	<ul style="list-style-type: none"> <li>The OEM <b>must</b> provide AoFrio with a CSV file with the following information for each dispatched cooler:               <ul style="list-style-type: none"> <li>Bottler</li> <li>Cooler Serial</li> <li>Asset #</li> <li>SCS Controller Serial</li> <li>Gateway Serial</li> </ul> </li> <li>Once AoFrio receives this information, they will update the pairing in the Cloud.</li> </ul>
<b>Option B: Cradle app - Program Screen</b>	<ul style="list-style-type: none"> <li>Best choice when building for a specific customer order and the SCS Controller and Gateway are paired together before they are installed.</li> <li>No extra configuration step to add a Gateway</li> </ul>	<ul style="list-style-type: none"> <li>The SCS is paired with the Gateway over an Internet connection while in the production line/factory.</li> <li>OEM will need to know, at the time of production:               <ul style="list-style-type: none"> <li>Bottler</li> <li>Asset #</li> <li>Cooler Serial</li> </ul> </li> <li>Once scanned, the association between the SCS Controller and the Gateway will be sent to AoFrio's Cloud.</li> </ul>
<b>Option C: Cradle app - Update Cooler Screen</b>	<ul style="list-style-type: none"> <li>Best choice when the SCS Controller and Gateway are fitted at different stages on the manufacturing line</li> <li>No need to power up the SCS to update with the pairing information</li> </ul>	<ul style="list-style-type: none"> <li>The SCS is paired with the Gateway over an Internet connection while in the production line/factory.</li> <li>OEM will need to know at the time of production:               <ul style="list-style-type: none"> <li>Bottler</li> <li>Asset #</li> <li>Cooler Serial</li> </ul> </li> <li>Once scanned, the association between the SCS Controller and the Gateway will be sent to AoFrio's Cloud.</li> </ul>
<b>Option D: Field app</b>	<ul style="list-style-type: none"> <li>Best choice when configuring a small quantity of units, or when either the Gateway or SCS Controller needs to be replaced and re-paired. Field app can also be used to test the operation of the system</li> </ul>	<ul style="list-style-type: none"> <li>OEM technician will need:               <ul style="list-style-type: none"> <li>Field app to set up the connection</li> <li>have correct permissions eg. Bottler access.</li> <li>power up the SCS Controller before connecting</li> </ul> </li> <li>Once scanned, the association between the SCS Controller and the Gateway will be sent to AoFrio's Cloud.</li> </ul>

Each of these options are detailed on the following pages. In the case of Cradle app or Field app, this installation manual explains the process of associating a Gateway with an SCS Controller assuming the user has previous knowledge on the use of the selected tool.

## Option A: OTA (Over-the-air) commissioning

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In many instances an OEM might not know all the information required to make the system work properly until the time of dispatching a cooler to a bottler.

For this scenario AoFrio provides a way of configuring the pairing between the SCS Controller and the Gateway over-the-air.

**NOTE:** For this process to work the OEM **must** send AoFrio a CSV file with the following information for each cooler before it goes to the bottler.

Send AoFrio the following information for each cooler as a CSV file:

- Bottler name
- Cooler Serial
- Asset #
- SCS Controller Serial AND the Gateway Serial that it is paired with

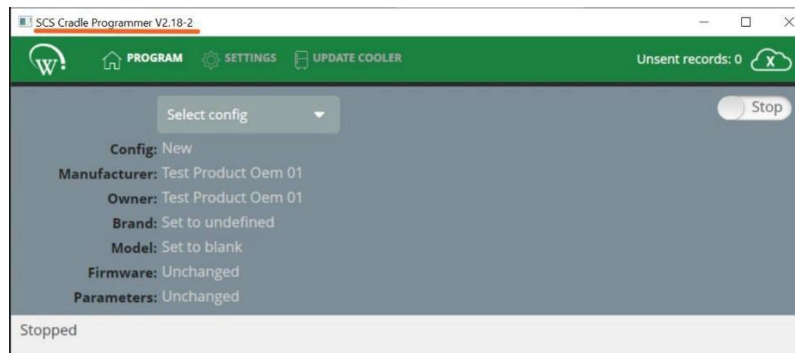
### What's next?

- The SCS Controller will still have to go through the Cradle process currently used by the OEM to upload firmware, parameter file and Cooler Serial #.
- If the Asset # is not provided the AoFrio cloud will set it to the SCS Controller Serial.

# Cradle app options

## Before you start

- Gateway features are available in version 2.18 or later of the Cradle app. Check the Cradle app version from the menu within the app and download the latest version if required.



- The Gateway does NOT need to be plugged in to proceed with configuration.
- Your computer needs an active Internet connection to perform this configuration.
- You will need a scanner that can read both barcodes and QR codes.

## Option B: Cradle app - Program Screen

The **Cradle app - Program Screen** provides the OEM with the opportunity to configure the Gateway and make the 1-to-1 pairing with the SCS Controller during the same configuration process already used for the SCS Controller.

Step	Detail
<p>1 Go to the <b>Settings</b> screen and select an <b>Owner</b> from the dropdown under <b>Set IDs</b>.</p> <p>2 Select checkboxes for:</p> <ul style="list-style-type: none"><li>• <b>Scan Serial</b></li><li>• <b>Scan Asset Number</b></li><li>• <b>Scan Network Pro</b></li></ul> <p>and other optional values as required.</p>	
<p>3 While programming the SCS Controller, scan the QR code for the <b>Gateway serial #</b> (either on the device or the supplied sticker) into the corresponding field.</p>	

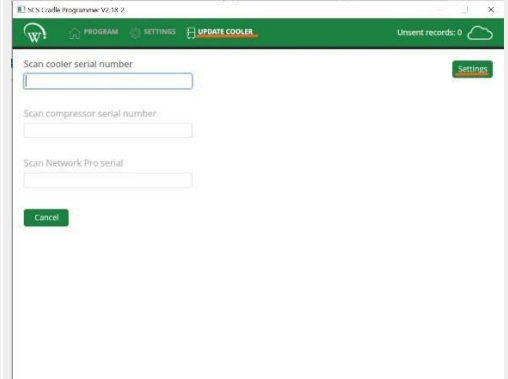
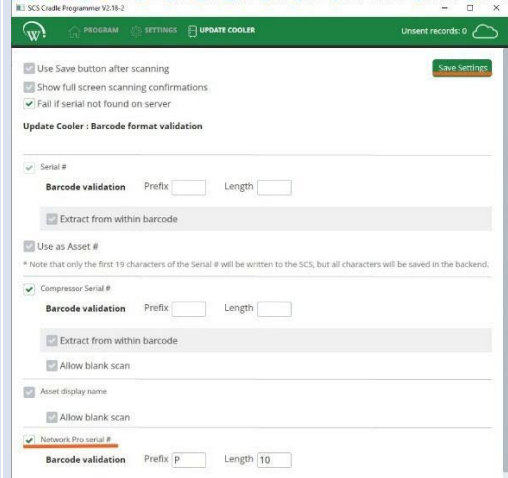
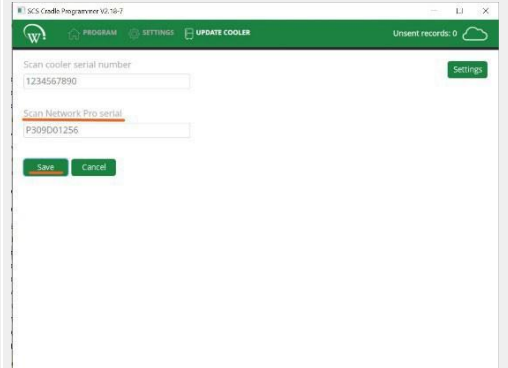
Once all the values have been scanned, the association between the SCS Controller and the Gateway will be sent to AoFrio's Cloud. The Gateway is now ready to be installed into the same cooler as the SCS. The Gateway will receive the association once it's activated and connected next time it's powered up.

## Option C: Cradle app - Update Cooler Screen

In some scenarios where the SCS Controller and Gateway are fitted at different stages on the manufacturing line, or the decision to add a Gateway to an asset might come at a later stage, the **Cradle app - Update Cooler Screen** can be used to configure the 1-to-1 pairing between the Gateway and the SCS Controller.

### Before starting

To use this method, the cooler Serial Number will have to have been written into the SCS Controller through the Cradle app at an earlier stage. Refer to the Cradle app manual for more detail.

Step	Details
1 Go to the <b>Update Cooler</b> screen and click <b>Settings</b> .	
2 Check the <b>Network Pro Serial #</b> checkbox and click <b>Save Settings</b> to confirm the changes.	
3 Go to the <b>Update Cooler</b> screen and scan the Serial number of the cooler you want to pair the Gateway with.  On the same screen, scan the Gateway serial number, then click <b>Save</b> to confirm the changes.	

Once all the values have been scanned, the association between the SCS Controller and the Gateway will be sent to AoFrio's Cloud.

The Gateway is now ready to be installed into the same cooler as the SCS. The Gateway will receive the association once it's activated and connected next time it's powered up.

## Option D: Field app

### About Field app

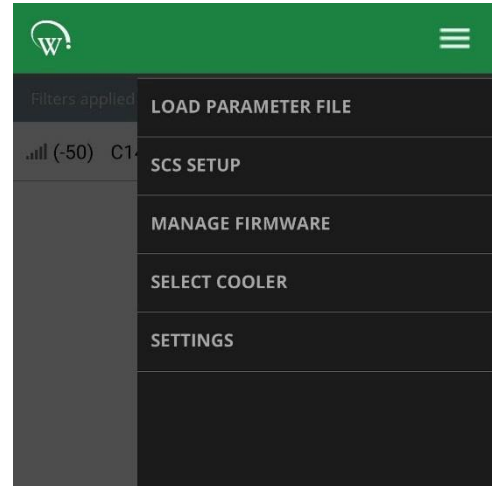
Although primarily intended for use at the field and not by the OEM, the Field app can also be used to configure the pairing between the Gateway and the SCS Controller.

To use Field app, you will need the correct access permissions assigned to your Role by AoFrio's support team in the AoFrio User Manager software. If your Role type does not include Gateway permissions, you will not have access to this feature.

The user will also require Bottler access level to be able to properly do the configuration.

### Before you start

- Gateway features are available in version 5.28 or later of the Field app. Check the Field app version from the menu within the app and download the latest version if required.
- Get the Gateway ready for installation. The Gateway does NOT need to be plugged in to proceed with the configuration.
- The SCS Controller you are planning to associate the Gateway with needs to be fully configured and powered. If you are installing a new SCS Controller, please refer to the SCS Controller manual first.
- Your mobile device needs an active Internet connection to perform this configuration.



### Download Field app

Use these QR codes to download AoFrio's Field app or visit the iOS store or Google Play to find the downloads.



Apple Store

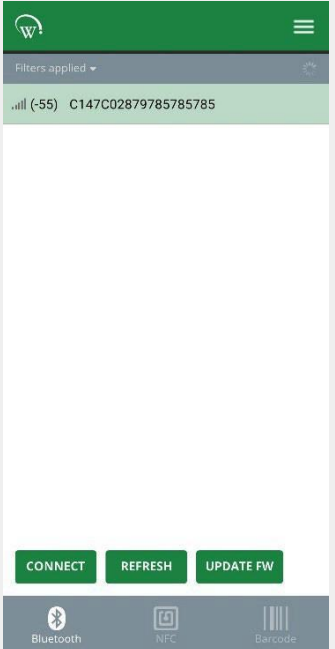
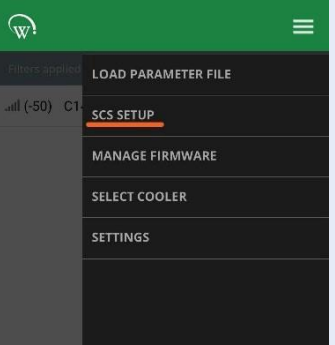


Google Play

## Configure Gateway using Field app

In this process we are pairing a Gateway with an SCS Controller already set up inside a bottle cooler.

**WARNING:** Power should not be applied to the Gateway until step #5.

Step	Details
<p>1. Select the SCS Controller to connect to from the list of visible devices. This list is filtered by your activation permission, so devices you are not authorized to connect to will not display</p> <p>Then select <b>CONNECT</b> to connect to the SCS Controller inside the cooler.</p>	
<p>2. Open the main menu then select <b>SCS SETUP</b></p>	
<p>3. Click EDIT in the relevant row to add details for the <b>ASSET #</b>, <b>COOLER MODEL</b>, and <b>MANUFACTURER SERIAL #</b>.</p> <p>NOTE: Leaving the <b>ASSET #</b> field empty means the device will not be tracked.</p>	

Continued...

4. Click **EDIT** in the row for **Gateway serial #**.

Either type in the Gateway serial number or scan the QR code by clicking **SCAN BARCODE**.

Click **SAVE** to complete the configuration.

If this process fails, refer to the section **Configuration Troubleshooting**.

You are ready to power up the Gateway. If it is already plugged in, unplug for at least 2 minutes, then plug again for it to download the latest configuration.

**NOTE:** To check that the Gateway is up and running at any stage, see section Test 1-1 pairing with Field app verification.

5. Apply power to the Gateway if you need to verify that the system is working.

If power had already been applied to the Gateway during configuration, unplug it from power for at least 2 minutes and then plug in again for it to receive the latest configuration from the cloud.

## Configuration troubleshooting






Problem	Possible Solution
<p><b>Internet Connection Required</b></p> <ul style="list-style-type: none"> <li>The mobile device being used to do the configuration requires an internet connection</li> </ul>	<p>Check the Internet connection on your mobile device</p>
<p><b>SCS Controller FW not supported</b></p> <ul style="list-style-type: none"> <li>This feature is only enabled for SCS controllers with FW version 4020 or later.</li> </ul>	<p>Update the SCS Controller firmware.</p>
<p><b>Gateway already belongs to someone else</b></p> <ul style="list-style-type: none"> <li>The Gateway you are trying to associate has already been claimed to another bottler or company.</li> </ul>	<p>Contact AoFrio support.</p>
<p><b>Gateway already tracking.</b></p> <ul style="list-style-type: none"> <li>The Gateway appears to be tracking an SCS Controller already.</li> </ul>	<p>Click <b>OK</b> to proceed and override the association.</p>
<p><b>SCS Controller already being tracked</b></p> <ul style="list-style-type: none"> <li>The SCS Controller appears as its being tracked by another Gateway already</li> </ul>	<p>Click <b>OK</b> to proceed and override the association.</p>










## Mount the Gateway

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### Things to avoid

	<b>Avoid mounting the device where it is fully surrounded by metal surfaces</b> as this may prevent successful communications.
	<b>Avoid external mounting on the side or back of a cooler</b> where the device can be damaged during cooler movement.
	<b>Avoid mounting the device inside a cold or warm space</b> as this will impact the communications and device battery. The mounting location must be an area where the temperature is maintained between 0°C (32°F) and 40°C (104°F).
	<b>Avoid mounting in areas where there is a high risk of condensation or moisture.</b>
	<b>Avoid mounting the power supply at or near a heat source.</b> The power supply mounting location must be an area where the temperature is maintained between -10°C (14°F) and 40°C (104°F).

### Recommended actions

	<b>Mount the device inside the cabinet.</b> While mounting can vary depending on cooler type, in most situations we recommend that the Gateway is mounted inside the cabinet (not the 'cold space'), but not in a place where it is fully enclosed by metal. See diagrams earlier in manual for installation recommendations.
	<b>Mount the device behind plastic paneling or a grid</b> as these are less likely to interfere with communications.
	<b>Mount the device where it is out of sight from customers</b> to minimize the risk of theft or tampering.
	<b>Mount the device at or near the top of the cooler</b> to ensure the best connection strength to a Cellular Network (LTE-M or 2G) for data upload to the Cloud.
	<b>Use screws and/or double-sided tape</b> to ensure secure mounting on metal or plastic surfaces. We also recommend that you use cable ties to secure the power cable in place.
	If you plan to configure the device after you have completed the cooler build, make sure you <b>remove and store the additional supplied QR code sticker</b> from the device separately so you can scan it later.
	The AC cable is supplied with open ends. We recommend that you <b>terminate the AC cable with an appropriate connector</b> to allow easy integration with the cabinet AC wiring.

## Screw mounting

Use 2 to 4, 8G (4.2mm) screws if screw mount is required. Screw type will depend on material. For example, use a stainless steel 8G 19mm self drilling screw when installing Gateway to a metal plate and set drive torque appropriate to material type and thickness to avoid damaging screw thread or Gateway enclosure. Maximum allowed torque to prevent damage to the enclosure is 3Nm.

1. Mark and drill pilot holes.
2. Using a screwdriver, tighten the two screws to secure the device to the surface.

## Tape mounting

1. Ensure the mounting surface and the back of the device are clean and dry.
2. Stick the adhesive pad to the back of the device.
3. Firmly press the device into position, ensuring it is secured to the surface.

## QR Code

If you mount the Gateway in a location that isn't easily accessible for later scanning of its QR code, AoFrio supplies a duplicate QR code sticker which can be attached to a more accessible location on the outside of the cooler.

## Connect to the power supply

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Connect the AC wires to the AC distribution point using AC terminations as per local regulations.

- Wire the AC side of the power supply to the cooler mains using your preferred connectors. 100-240V AC, 50/60Hz.
- (Optional) Secure the position of the device and cables with cable ties to avoid unplugging when the cooler is moved.



If the Gateway fails to operate, please check the following:

- Ensure that the Gateway is connected to the AC power outlet.
- Ensure that the voltage and current requirements of the device are within the specifications of the power

## Use the LEDs to confirm operation

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Gateways LEDs indicate:

Colour	Purpose	Behaviour
<b>Green</b> 	External power status	<ul style="list-style-type: none"><li>• On – not flashing = Power is connected</li><li>• On – flashin every second = Running from battery</li><li>• Off (Flight mode)</li></ul>
<b>Red</b> 	Cellular network connectivity status	<ul style="list-style-type: none"><li>• Slow short flash - searching for cellular network</li><li>• Slow long flash - connected to a cellular network, idle</li><li>• Fast flash - connected to a cellular network, sending data</li></ul>

## Test 1-1 pairing with Field app verification (Optional)

Where required the Field app can be used to verify that the Gateway is working and that the 1-to-1 association with the SCS Controller has been properly configured.

However, if this verification step is required then we recommend that it is only performed on a sample basis as there is a dependency on SIM card activation, cellular network connectivity and a sufficient level of backup battery voltage of the Gateway, some of which may not be available immediately following the installation. AoFrio is developing an API to make this step faster.




**NOTE:** The Gateway will not start advertising or communicating over Bluetooth until it is activated. We recommend that you always configure the Gateway first and then plug it in while working on the mounting process to reduce this wait time.




1. To verify the Gateway with Field app, open Field app and either: Scan the QR code on the Gateway with your mobile device camera OR

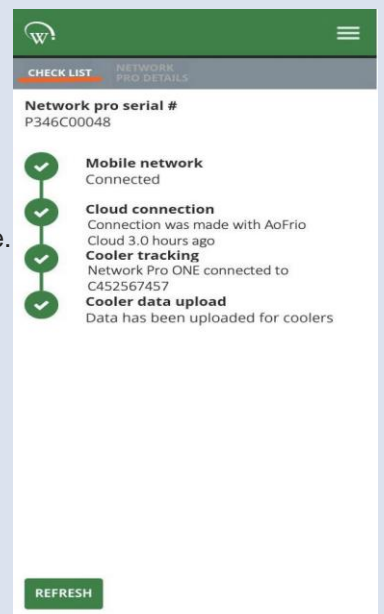
Select the Gateway from the list of available devices displayed on the Field app homepage and click **CONNECT**.



2. Click **REFRESH** button to retrieve the latest data from the AoFrio Cloud then read through the **CHECKLIST** screen to verify each function is operating as expected.








-  a dark green check mark shows the function is operating as expected.
-  a yellow check mark highlights a potential problem.
-  a red cross shows that the function is not working, and installation is incomplete.


If all items are marked with a dark green check mark,  then the device is fully operational. For assistance with functions marked with a yellow check mark  or a red cross  refer to the section on **Verification troubleshooting**.



. To check cellular connectivity, click **NETWORK PRO DETAILS** and review the signal strength and the connection between AoFrio's Cloud and the Gateway.

## Verification troubleshooting

Problem Observed	Possible Cause	Possible Solution
Can't see Gateway serial number in the list of devices in the Field app	<ol style="list-style-type: none"> <li>1. User role may not have access to the Gateway feature.</li> <li>2. Gateway hasn't been activated and therefore is not advertising over Bluetooth yet</li> </ol>	<ol style="list-style-type: none"> <li>1. Make sure the Gateway is powered. See section <b>Troubleshooting with LEDs</b> if required.</li> <li>2. The Gateway can take several minutes to activate. Please wait and try again.</li> <li>3. Contact Technical Support and request Gateway access in the Field app.</li> </ol>
 Red cross next to <b>Mobile Network</b>	The cellular account has not been activated. This may mean the mobile provider is not available in the area.	<ol style="list-style-type: none"> <li>1. See <b>Troubleshooting with LEDs</b> to check the cellular network status.</li> <li>2. Contact AoFrio support.</li> </ol>
 Yellow check mark next to <b>Mobile Network</b>	Gateway is in a location with poor cellular coverage	Move the Gateway to another location where it has a stronger signal reception
 Red cross next to <b>Cloud connection</b>	<p>Gateway has not been able to connect with the AoFrio cloud.</p> <p>It needs a connection to the mobile network. Check that the 'Mobile network' test shows a green check mark: </p>	Wait for a few seconds and click <b>REFRESH</b> .
 Red cross next to <b>Cooler Tracking</b>	If you see the message "Gateway has not been configured to connect to any cooler" this means that the pairing process has not completed.	<p>You may need to wait several days currently for this to update*. Click <b>REFRESH</b> and if the problem persists, try to configure the association again.</p> <p>*AoFrio is developing a solution to make this faster</p>
 Red cross next to <b>Cooler Tracking</b>	If you see the message "Gateway is not connected to any cooler. Gateway is assigned to track cooler XXXXX" this means that Bluetooth communications with the paired controller is not possible.	<ol style="list-style-type: none"> <li>1. Check that the SCS controller is powered.</li> <li>2. Move the Gateway to another location where it is closer to the SCS controller you want to pair it with.</li> <li>3. Wait for a few minutes and click <b>REFRESH</b></li> </ol>
 Red cross next to <b>Cooler Data Upload</b>	No cooler data has successfully been uploaded to the cloud.	Wait for a few minutes and click <b>REFRESH</b> .

Specifications	
Power Supply	Input 90-240V AC, 50/60Hz, 0.5A
AC Connections	2-core double-insulated 0.5m cable with ferrule ends
Cellular communications	LTE Cat M1 with 2G (GPRS) fallback
Cellular bands	B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B27, B28
Bluetooth	Bluetooth (BLE 4.2)
Wi-Fi	2.4GHz, 802.11 b/g/n
Battery*	1150mAh, 3.7V, Lithium-Polymer
Status LEDs	1 x Power; 1 x Communication
Mounting method	Screws or double-sided adhesive
Ingress protection	IP54
Operating temperature*	-20°C to +55°C (-4°F to 131°F)
Storage temperature	-20°C to +60°C (-4°F to 140°F)
Weight	~256g (~9oz)
Approvals†	

\* Backup battery charging only occurs between 0°C and 40°C

† NOM, CE, FCC, RCM, UL Recognised, other approvals pending

## Manufacturer

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 Binh Duong Province  
 Vietnam

# Gateway - New Build Installation Guide

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