



USER MANUAL



SMART ZIGBEE RADIATOR VALVES STRV-Z1-WH STRV-Z1-B STRV-Z1-AG

Thank you for choosing electriQ.
Please read this user manual before using this
Smart valve and keep it safe for future reference.
Visit our page, www.electriQ.co.uk, for our entire product range.

SETTLING IN OK?

We hope this has been helpful to you.

We would love to see how you're getting on with your new purchase, so please share any snaps you have on the platform of your choice below.

Our community awaits your uploads - Snap, tag and hashtag away!



@electriQUK

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WE'RE HERE TO HELP

Should you have any problems or questions with your purchase, please contact a member of our customer service team.

☎ 0330 390 3061

✉ support@electriQ.co.uk

Mon-Fri | 9am to 5pm

Unit 2A, Trident Business Park,
Neptune Way, Leeds Road,
Huddersfield, HD2 1UA

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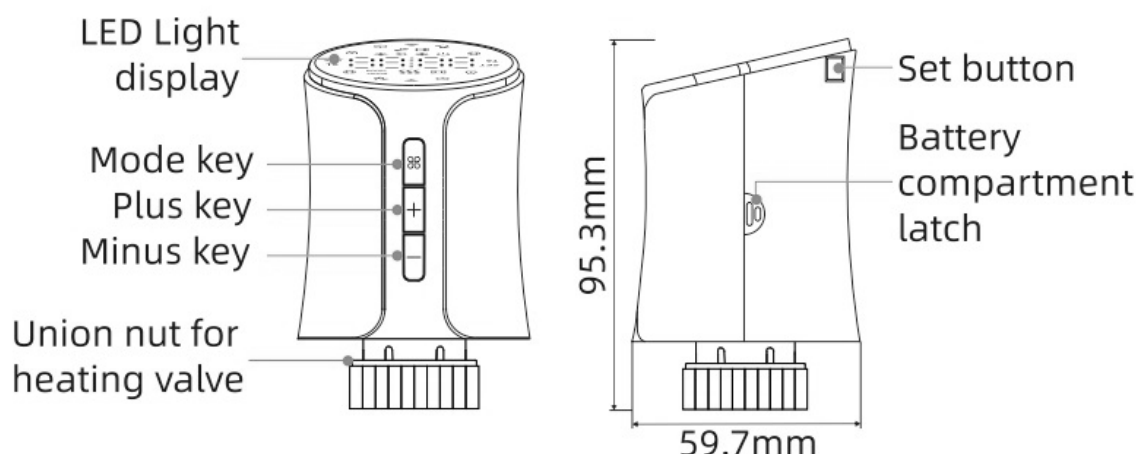
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SAFETY WARNINGS

For your continued safety, please follow all the safety precautions listed below:

- This device is designed for residential indoor use only. Please do not use it outdoors or in environments with high humidity, such as bathrooms or wet rooms, as it is rated IP20 (not waterproof).
- The device complies with CE and RoHS standards. Unauthorised modifications or repairs void the warranty and may compromise safety.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.
- Keep small parts and packaging out of reach of children to avoid choking hazards.
- Dispose of used batteries according to local regulations. Do not incinerate or expose them to excessive heat.
- When the radiators are heating, the valve connection may become hot. Take care when touching.
- Do not expose the device to open flames or other ignition sources.
- The battery cover should only be removed to install new batteries.
- Do not use the valve if the battery compartment fails to lock securely
- Install the device securely according to the manual.

PRODUCT OVERVIEW



PARTS LIST

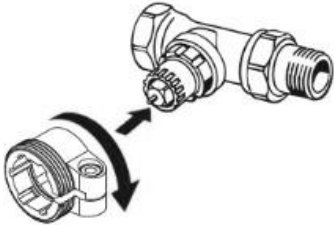
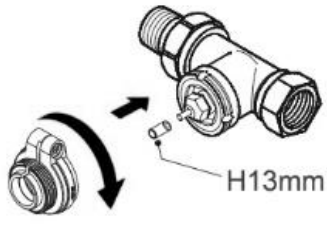
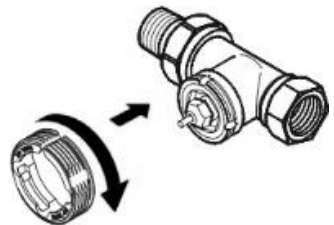
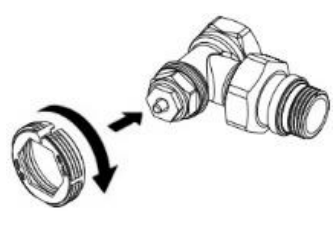
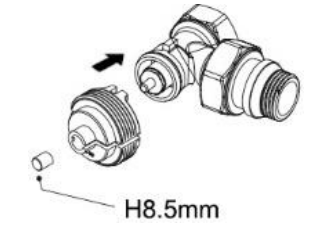
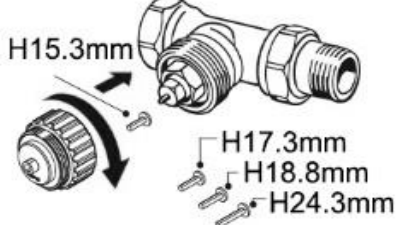
						
Danfoss RA adapter	Danfoss RAV adapter	Danfoss RAVL adapter	Caleffi adapter	Giacomini adapter	M28 adapter	4x screws for M28

BEFORE INSTALLING

- Improper installation may result in device malfunction or damage to your radiator system.
- If you are uncertain about installation or valve compatibility, consult a qualified technician.
- Do not apply excessive force to the knob or other components.
- Avoid dropping the device, which may result in internal damage.

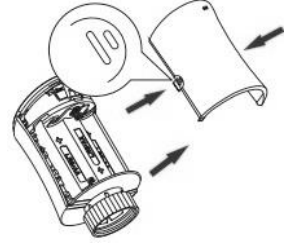
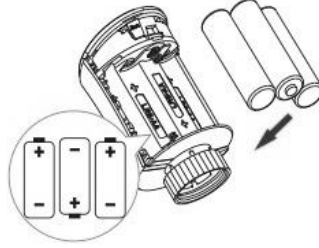

VALVE ADAPTER INSTALLATION

If your connector type is not M30 x 1.5, you will need to mount the adapter on the valve. Adapter sets and their corresponding installation can be found in the diagrams below:

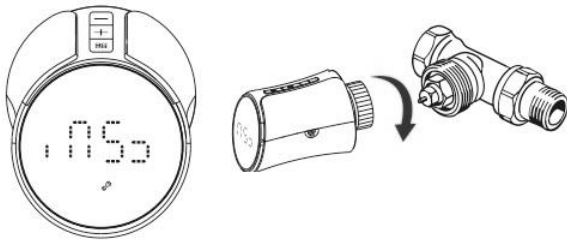
 <p>Danfoss RA valves</p>	 <p>Danfoss RAV valves</p>	 <p>Danfoss RAVL valves</p>
 <p>Caleffi valves</p>	 <p>Giacomini valves</p>	 <p>M28 valves</p>

BATTERY INSTALLATION

- To minimize the need for frequent battery changes, use only long-life, high-quality 1.5V alkaline AA batteries.
- Rechargeable batteries are not recommended.
- Insert batteries with the correct polarity (+/-) as indicated inside the battery compartment.
- Do not mix old and new batteries or different battery brands.
- Check and change the batteries each autumn to ensure uninterrupted operation during autumn and winter.
- Replace all three batteries simultaneously to ensure consistent performance.

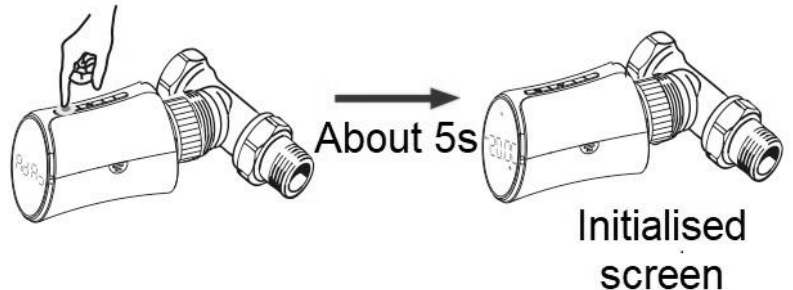
 <p>Press down on the battery compartment lock and gently pull the cover outward to remove it.</p>	 <p>Insert three LR6 AA batteries into the slots, ensuring they are aligned correctly with the indicated polarities (+/-).</p>	 <p>Reattach the battery cover and press it firmly into place until the lock clicks securely. Ensure the lock is properly aligned in its original position.</p>
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VALVE INSTALLATION

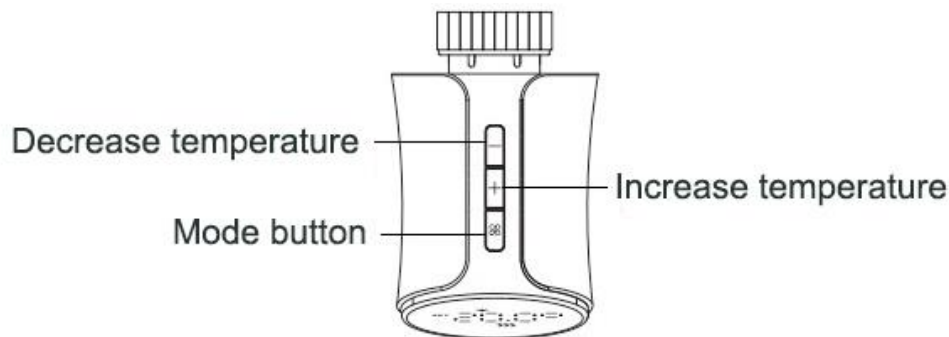


- Press the middle button to start the adaptation process. A flickering "AdAd" will appear on the display, indicating that the thermostat is adjusting itself to fit the radiator valve.

- A flickering '17.5' on the display indicates that the valve is still adjusting.
- Once the '17.5' symbol is steady on the display, the thermostat is ready to be installed onto the radiator.
- Adjust the angle of the thermostat to ensure the LCD display is clearly visible.



CONTROL PANEL



LED Light		Indicator					
		Displays room temperature. If "SET" is on, the target temperature is displayed.					
		<ul style="list-style-type: none"> • If there is no connection to the mains, this is off. • When connecting to a network, this will flash. • Once the network connection is established, this will light up. 					
	Heating		Programming mode		Custom mode		OFF mode
	Comfort Mode (20°C)		ECO mode (15°C)		Anti-Frost mode (5°C)		
	Child lock function		Vacation mode		Window opening detection		
	The indicator will flash if the battery power is less than 20%. Please replace the battery as soon as possible.					BOOST	BOOST mode

OPERATION

- Ensure the device operates within its specified temperature range of 5°C to 35°C.
- Ambient conditions should remain between 0°C and 50°C.
- Store the device in temperatures ranging from -10°C to 60°C. Prolonged exposure to temperatures outside this range may damage the device.
- Ensure the device is compatible with your radiator valve type. If necessary, use one of the six adapter accessories provided.
- If the device overheats or functions abnormally, remove the batteries immediately and contact customer support.

IMPORTANT INFORMATION FOR SMART VALVE USERS

- **Smart Valve Functionality:** Smart valves work by opening and closing the valve based on thermostatic readings. The valve will not create heat on its own.
- **Radiator Setup:** For the smart valves to work, at least one radiator in your heating system must have a non-TRV manual valve which is fully open.
- **External Thermostat Placement:** If using an external thermostat, place it in an area away from the smart valves and your warmest room. The thermostat will override the smart valves.
- **Anti-Frost Mode:** The valves will not operate if your boiler or heat pump is off or in non-heating mode. Although the temperature maintained is very low in anti-frost mode, a heat source such as a gas boiler or heat pump must be operational.
- **Optimal Operation:** For best results, use a smart boiler controller to trigger actions based on the smart valve readings.

SETTING THE TEMPERATURE

Press “-” or “+” to increase or decrease the temperature in precise increments of 0.5°C.



TEMPERATURE CONTROL MODES

Press the mode button briefly to toggle between Programming Mode and the four Standard Modes.

FOUR STANDARD MODES

1. COMFORT MODE (20°C)

- Provides an optimal indoor temperature for cosy living.
- The heating system maintains the set temperature constantly.

2. ECO MODE (15°C)

- Energy-saving mode designed to reduce heating costs while maintaining reasonable indoor comfort.
- Ideal for times when you want to conserve energy.

3. ANTI-FROST MODE (5°C)

- Protects pipes and radiators from freezing by maintaining a minimum temperature of 5°C.
- Recommended for extended periods of absence or during colder weather.

4. OFF MODE



- Switches the radiator off, but frost protection remains active.

To activate:

- Press the “-” until "OFF" appears on the display.
- The frost protection feature prevents the temperature from dropping below 5°C, reopening the valve above 7°C.

NOTE: To disable the OFF function, press the “-” button or switch to Auto mode.

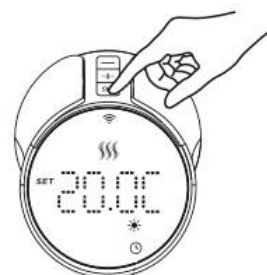
PROGRAMMING MODE

The “⌚” icon on the display signifies programming mode.

You may configure up to 6 heating programs per day for every day of the week.

Adjust temperatures for each program using the four standard modes.

Use the Tuya app to set customised schedules.



NOTE: Pressing “-” or “+” in a standard mode will switch the device to Custom Mode.

CUSTOM MODE

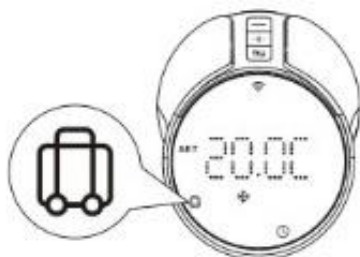
The “” icon on the display signifies custom mode.

The device follows the temperature set manually until further changes are made.



The screen alternates between displaying the room temperature and the set point temperature (indicated by the "SET" icon).

NOTE: Custom Mode is the default setting until the device is connected to the network.

VACATION MODE

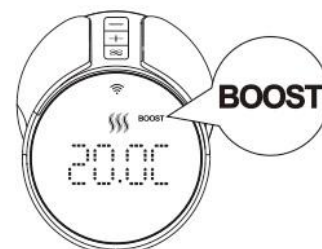



- Use this mode to save energy when you're away.
- Configure the duration in the Tuya app, and the device will maintain anti-freeze settings during this time.

NOTE: After the specified duration, the device will automatically return to the previous mode. When vacation mode is active, a “” and “” icon will appear on the display.

BOOST MODE

- Temporarily maximise heating for a specific duration.
- Set the duration through the Tuya app while on vacation or in programming mode.



NOTE: Once the boost period ends, the device will automatically return to the previous mode. When Boost Mode is active, a “” icon will appear on the display.

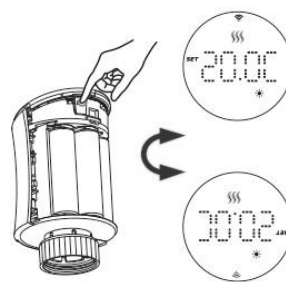


SWITCH-ON MODE & HEATING PAUSE

Press the “+” button until "ON" appears on the display to fully open the valve. During summer, turn the heating off to extend the battery and valve lifespan.

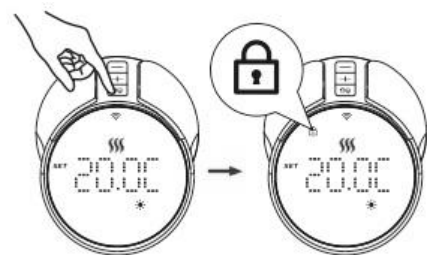
DISPLAY ROTATION

Press the “SET” button located under the battery compartment cover to flip the screen orientation.




CHILD LOCK FUNCTION

Lock the device to prevent unintentional changes to the settings.



TO ACTIVATE/DEACTIVATE:

Press and hold the  button for 3 seconds.

The child-lock indicator “” will appear on the screen when activated and disappear when deactivated.

WINDOW OPENING DETECTION

The device detects sudden temperature drops to conserve energy when windows are open.

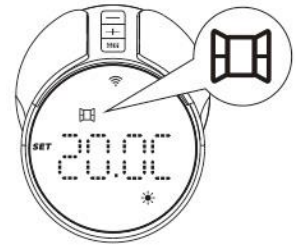
HOW IT WORKS:

If the room temperature drops by more than 1.5°C within 5 minutes, the valve will close, stopping heating for 30 minutes.

The screen will display "☐" during this period.

HOW TO CANCEL DETECTION:

- Adjust the temperature or change the mode using the app.
- If the temperature increases by more than 1.5°C within 4.5 minutes.
- After 30 minutes, with no further action.




ANTI-LIMESCALE PROTECTION

To prevent limescale build-up (calcification), the device automatically activates a maintenance cycle every Monday at noon.

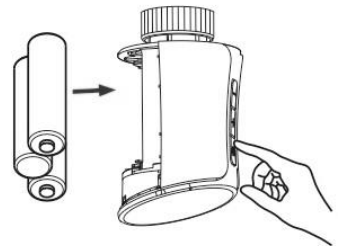
During this cycle, "CAL" will be displayed on the screen.

RESTORING FACTORY SETTINGS

Press and hold the  button while inserting the batteries.

The screen will display "FAC" blinking for 3 seconds.

This action restores the device to its original factory settings and restarts it.



NOTE: All previous settings will be permanently erased.

POWER FAILURE MEMORY FUNCTION

The device retains its last working mode during a power failure and automatically resumes the same mode when power is restored.

SETTING UP THE WIFI APP

This is designed as a general guide to the setup. There may be differences in the interface and features available due to product development and features of the model.

BEFORE YOU START

- Before setting up the app, ensure that your valves are properly installed with the correct adapter (if necessary).
- Ensure your router provides a standard 2.4 GHz connection to your Tuya Zigbee / BT gateway.
- If your router is dual-band, ensure both networks have different network names (SSID). Your router's provider or Internet service provider can provide advice specific to your router.
- Place the device as close as possible to the router during setup.
- Once the app has been installed on your phone, turn off the data connection and ensure your phone is connected to your router via Wi-Fi.
- Ensure your Tuya Zigbee / BT gateway is configured and the radiator valves are installed before adding any Zigbee radiator valves to the app.


DOWNLOAD THE APP TO YOUR PHONE

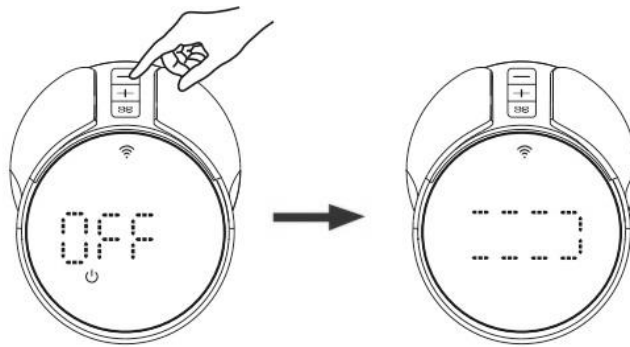
You can download the "TUYA SMART" app from your chosen app store by using the QR codes below or searching for the app in your chosen store.



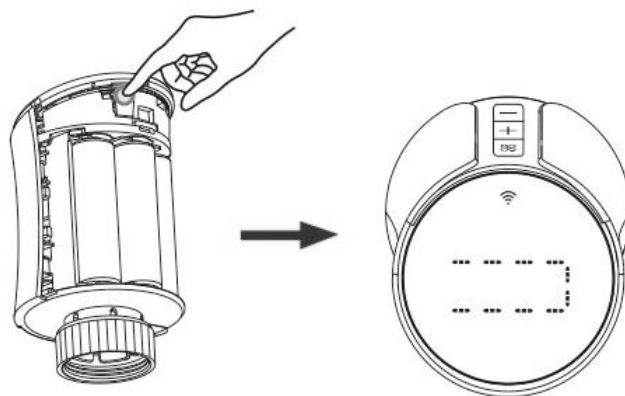
CONNECTING THE DEVICE

There are two ways to enter connection mode:

- 1) In customised mode, press the "-" button until the screen displays "OFF". Press and hold the  button for 3 seconds until "—" is blinking.



- 2) When the screen lights up, press and hold the "SET" button for 3 seconds until "—" is blinking.

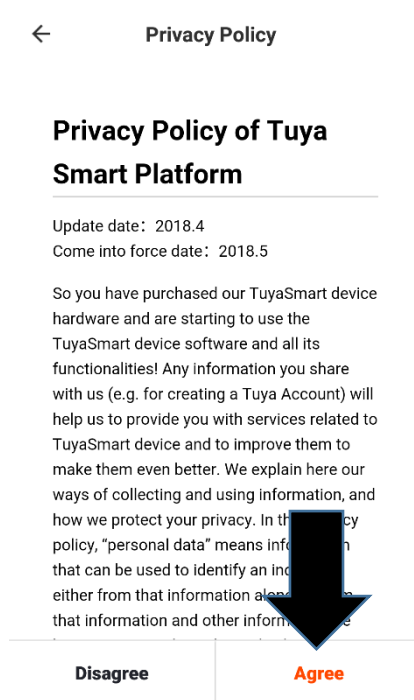


Note: This item must be used with the DUAL ZIGBEE / BT WIRELESS GATEWAY HUB (STRV-HUB) as the device will solely connect through hub and phone connectivity.

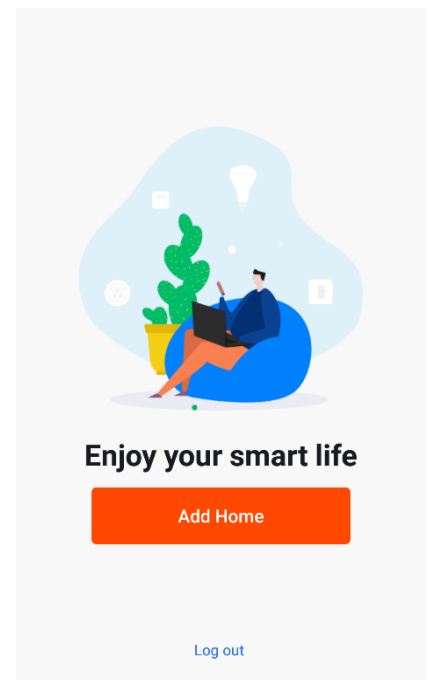
APP CONNECTION

NOTE: Some images may differ from the current app due to continuous product improvement. You can download it from the Apple or Google Play Store.

1. Press the register button at the bottom of the screen.
2. Read the Privacy policy and press the Agree Button.
3. Enter your email address or phone number and press continue to register.



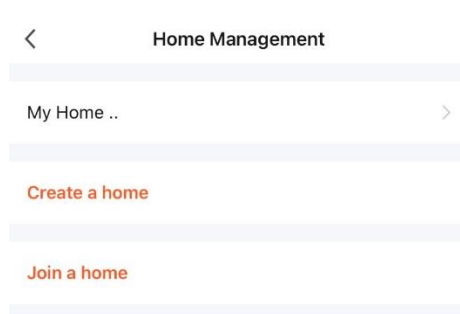
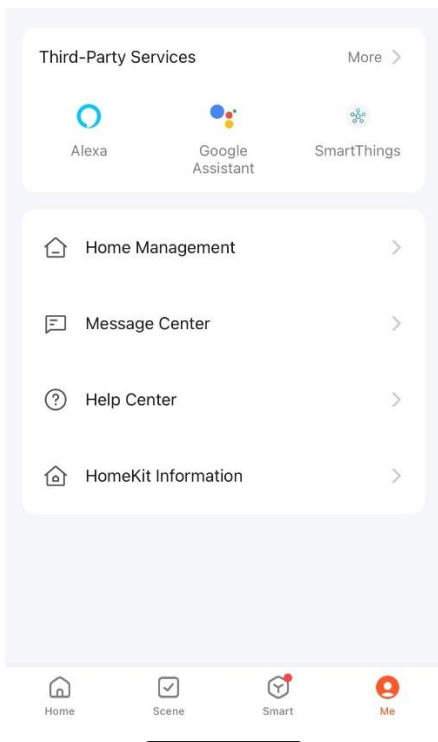
4. A verification code will be sent using the method selected in step 3. Enter the code into the app.
5. Type in the password you would like to create. This needs to be 6-20 characters, with letters and numbers.
6. The app is now registered. It will automatically log you in following registration.



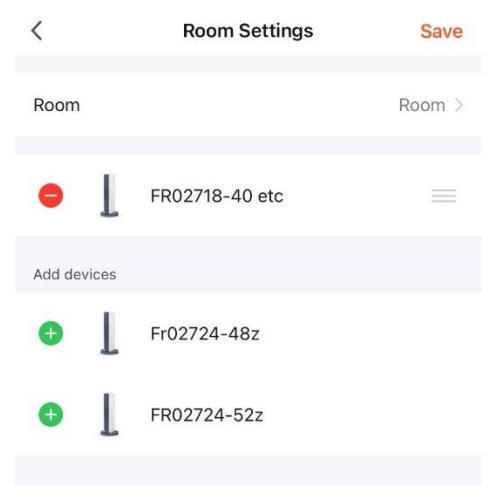
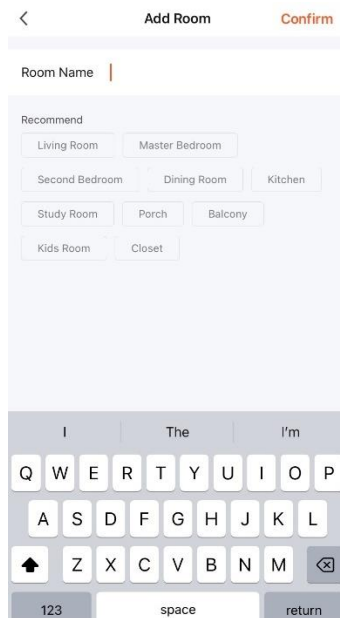
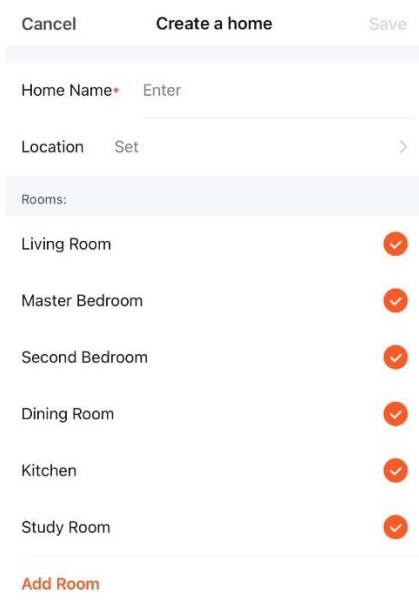
SETTING UP YOUR HOME WITHIN THE APP

The app allows you to set up multiple homes, rooms, and devices, so you must set up at least one to get started.

1. Select 'Me' at the bottom of the screen, then 'Home Management'.
2. Create and name your home, join a home or use the home you have set up already.
3. Select a location to either allow the app to pinpoint your location via GPS in your phone settings or type/ drop the pin on the map.



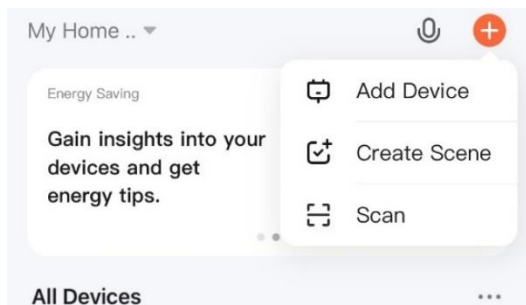
4. Select your rooms. Untick any rooms that you do not need. Click and add a room if you require more.
5. Add another room, type in the name, or select an option. Then select confirm.
6. Select the room your unit is in. Then click on the green cross to add the device to that room, then save.



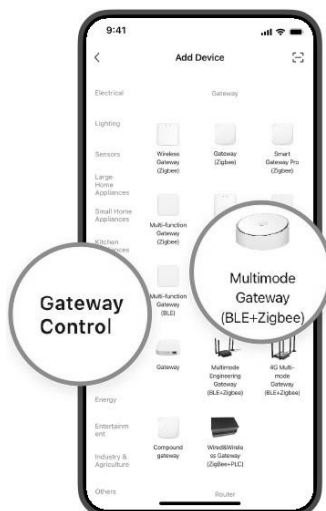
CONNECTING TO THE HUB

Note: The thermostatic valve is intended to be used with the DUAL ZIGBEE / BT WIRELESS GATEWAY HUB (STRV-HUB), as the device will solely connect through hub and phone connectivity.

1. Select the 'Add' button in the app in the top corner. Then, select 'Add Device'.



2. Ensure your phone is connected to the same Wi-Fi as the unit. Then select 'Gateway Control' and then 'Multimode Gateway (BLE+Zigbee)'.



3. Follow the on-screen instructions to connect the hub to your smartphone via the Zigbee/Bluetooth gateway.

4. Follow the steps found on page 10 under "connecting your device". Once the item is blinking, move to the next step.

5. Confirm the indicator is blinking on the app (if it is, return to step 1 if not).



Cable

Reset the device



Power on the device, make sure the indicator is blinking.



Confirm the indicator is blinking

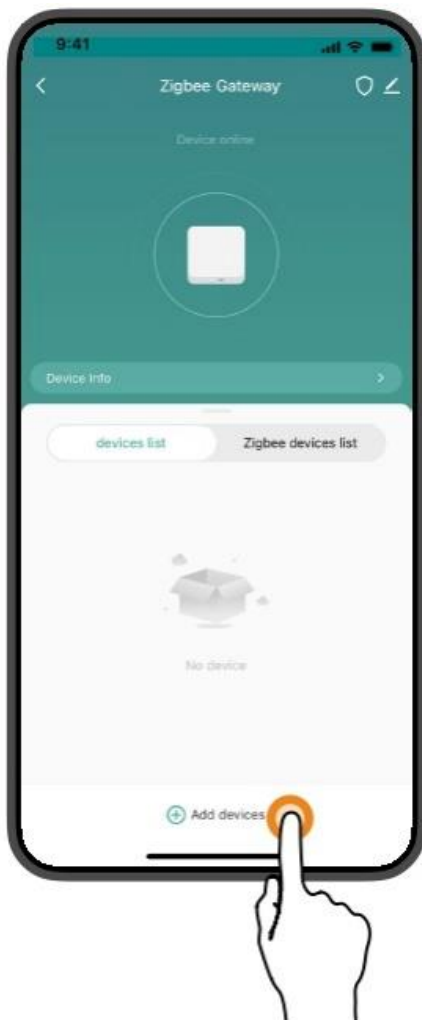
Next

[Reset Device Step by Step](#)

CONNECTING SUBDEVICES

ADDING SUB-DEVICES

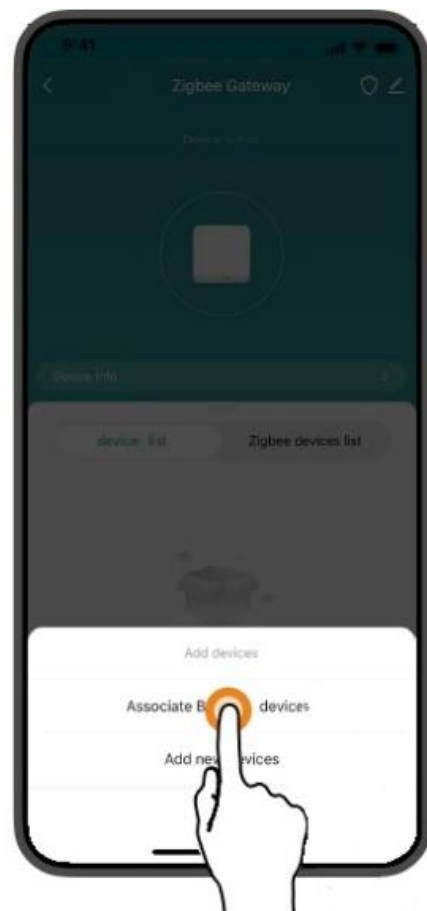
- Open the gateway interface in the TUYA app.
- Select the list where you want to add the sub-device.
- Tap Add Device at the bottom of the screen.
- The app will automatically scan for compatible devices via your phone's connectivity.
- Once the sub-device is detected, tap Done to complete the process.



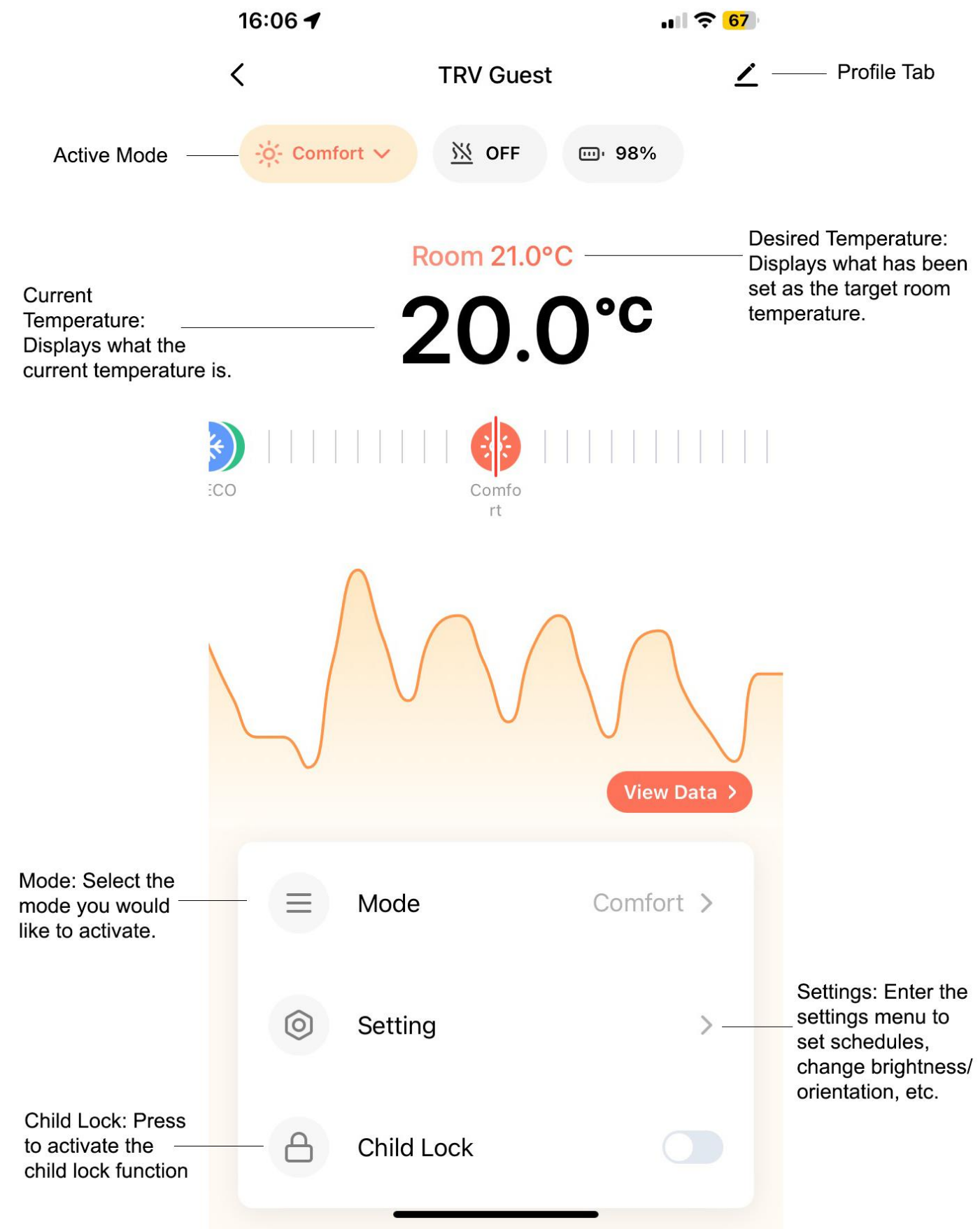
CONTROLLING SUB-DEVICES

- Go to Associated Devices in the TUYA app.
- Select the sub-device you want to control.
- Tap Confirm and follow the on-screen instructions to link the sub-device to the gateway.

Note: After successfully connecting, sub-devices can be controlled remotely via the app.



DEVICE HOME SCREEN



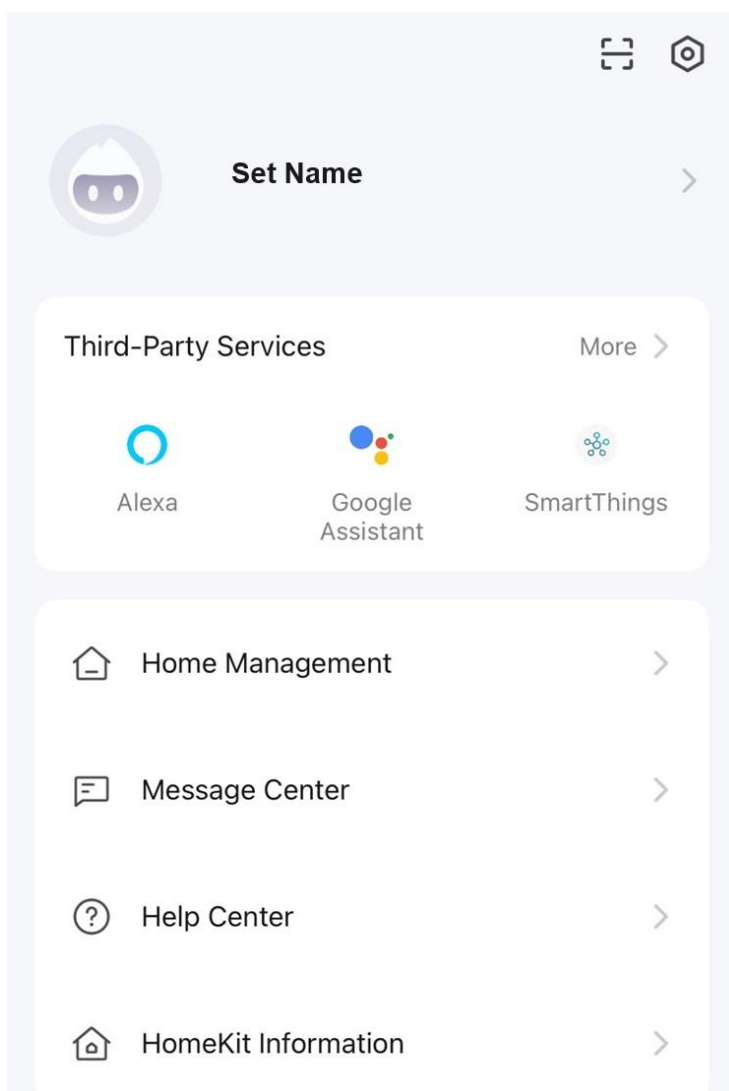
ADVANCED SETTINGS

To enter advanced settings, click settings on your home screen, scroll down, and then select advanced settings.

The screenshot shows the 'Advanced settings' interface with the following sections and callouts:

- System Mode Setting**
 - System Mode: ECO Mode >
 - Callout:** This is not the mode of the smart valves but your overall heating system control if you have one.
- Temperature**
 - Upper Limit: 30°C >
 - Callout:** To set the highest temperature the valves can reach.
 - Calibration: -1.0°C >
 - Callout:** Enables precise room temperature adjustments, as the valve is situated directly next to the heat you can offset the temperature to account for the higher reading.
 - Switching Hysteresis: 0.5°C >
 - Callout:** Set the tolerance of your valves. Use this function to offset the target temperature to prevent frequent turning on and off the valve.
- Anti-frost Protection Options**
 - Anti-frost Protection: ☒
 - Callout:** If you set your target temperature to 21°C, and do not set the hysteresis, as soon as this temperature is reached, the valve will turn off. If you set the hysteresis to 0.5°C, the valve will turn off at 21.5°C.

PROFILE TAB



The profile tab allows you to edit both your details and use the added features of the unit.

HOME MANAGEMENT

Home Management provides options for managing your TUYA account, such as adding a home, adding and removing rooms, and sharing devices with family.

MESSAGE CENTRE

View device notifications if alarms are set up (dependent on the device).

HELP CENTRE

Aids using the features provided within the app.

HOME KIT INFORMATION

Allows you to add home switches that are compatible with the TUYA app.

CONNECTION TROUBLESHOOTING

1. Check whether the device is powered on and in pairing connection mode.
2. Check if the BT / Zigbee hub is powered up.
3. Ensure the WiFi password has been entered into the app correctly (Case sensitive).
4. Check that the phone and hub are connected to the same WiFi.
5. Ensure the network you are connecting the Tuya Zigbee HUB to is 2.4GHz (5 GHz WiFi networks are not supported) and that the item has a strong WiFi signal.
6. If your router is dual band, ensure the 2.4 GHz network has a different name (SSID). Your Internet service provider or router manufacturer can provide further advice on changing router settings.
7. Check the settings on the WiFi router. Encryption should be WPA2-PSK, and the authorisation type should be set to AES.
8. Make sure the WiFi channels are set up not to interfere with the Zigbee.
9. Unable to activate the smart valve in setup mode. Ensure the smart valve is securely connected to the radiator non smart body using the correct adapter if required. Verify that the batteries are correctly installed.

CLEANING AND MAINTENANCE

IMPORTANT: Turn off the radiator before cleaning the valve.

- Clean the exterior with a dry or slightly damp cloth. Do not use abrasive materials or solvents or immerse the device in water.
- Periodically check for signs of damage or wear. Replace the device if its performance is compromised.
- Do not clean the unit by spraying it or immersing it in water.
- Remove the batteries when not in use, as this can prevent leakages and prolong battery life.

TROUBLESHOOTING


You may try to solve the following simple problems by yourself.

If they cannot be solved, please get in touch with the after-sales department.

Not powering on	Try replacing the batteries.
Not connecting to the app.	Ensure the valve is within range of the wi-fi. Check whether this is connected to the 2.4 GHz Wi-Fi network. Restart the valve and router. Follow the pairing steps again.
Battery draining quickly	Use high-quality alkaline batteries. Adjust the settings to reduce unnecessary adjustments.
Temperature readings are inaccurate.	Ensure the valve is not near heat sources such as direct sunlight or electronics. Recalibrate the temperature sensor in the app settings.
The valve makes unusual noises.	Remove the valve and inspect for any dirt or debris. Reattach it securely and ensure proper alignment.

- Do not alter, disassemble, or attempt to modify the smart valves in any way. Any changes to the unit may void the warranty and could result in a safety hazard.
- Do not attempt to repair or modify the valves yourself. In case of a malfunction, contact a qualified service professional.

ERROR CODES

Code	Problem	Solution
F0	Temperature sensor anomaly	Contact support
F1	Slow valve operation	Check the installation and heating valve
F2	The stroke is too long	Check the fastening of the valve
F3	The stroke is too short	Check the heating valve
F4	The battery is empty	Replace the batteries immediately
F5	Valve not detected	Check if the valve is installed properly
F6	Poor quality battery and insufficient power.	Replace the batteries immediately.
	Low battery	Replace the batteries within 1 week.

TECHNICAL SPECIFICATION

MODEL	STRV-Z1-WH / STRV-Z1-B / STRV-Z1-AG
DIMENSIONS (LxWxH)	59.4 x 59.4 x 94.7 mm
WEIGHT	154 g
SUPPLY VOLTAGE	3 x 1.5V Alkaline AA batteries
TEMPERATURE SETTING ACCURACY	0.5°C
AMBIENT TEMPERATURE	0°C-50°C
OPERATING TEMPERATURE RANGE	5°C-35°C
INGRESS PROTECTION LEVEL	IP20

electriQ UK SUPPORT

www.electriQ.co.uk/support

Call: 0330 390 3061 or complete the online form
Office hours: 9 AM - 5 PM, Monday to Friday

Unit 2A, Trident Business Park,
Neptune Way, Leeds Road,
Huddersfield, HD2 1UA.



Recycling facilities are now available for all customers, where they can deposit their old electrical products. Customers can take any old electrical equipment to participating sites run by their local councils. Please remember that this equipment will be further handled during the recycling process, so please be considerate when depositing your equipment. Please get in touch with the local council for details of your local household waste recycling centres.

PSTI STATEMENT OF COMPLIANCE

Description: Smart Thermostatic Radiator Valve

Model Number: STRV-Z1-WH, STRV-Z1-B and STRV-Z1-AG

Manufacturer: electriQ, 2A Trident Business Park, Leeds Road, Huddersfield, HD2 1UA

PSTI Contact: TiSecurity@buyitdirect.co.uk

We have prepared this statement of compliance and can confirm that this product is compliant with the deemed compliance conditions in Schedule 2 of The Product Security and Telecommunications Infrastructure (Security Requirements for Relevant Connectable Products) Regulations 2023.

Duration of security updates: 31.12.2029. This date is correct at the time of printing, but we may extend it. Please visit www.electriQ.co.uk for the latest information and details of our PSTI compliance.



Richard Leach

Compliance and Quality Manager, Buy It Direct, Huddersfield

4th December 2024

EU DECLARATION OF CONFORMITY

Hereby, electriQ declares that these air conditioners comply with Directive 2014/53/EU. The full text of the EU Declaration of Conformity is available at the following internet addresses:

<https://www.electriq.co.uk/content/DOC/EU/STRV-Z1-WH.pdf>

<https://www.electriq.co.uk/content/DOC/EU/STRV-Z1-B.pdf>

<https://www.electriq.co.uk/content/DOC/EU/STRV-Z1-AG.pdf>

UK DECLARATION OF CONFORMITY

Hereby, electriQ declares that these air conditioners comply with Radio Equipment Regulations 2017. The full text of the UK Declaration of Conformity is available at the following internet addresses:

<https://www.electriq.co.uk/content/DOC/UK/STRV-Z1-WH.pdf>

<https://www.electriq.co.uk/content/DOC/UK/STRV-Z1-B.pdf>

<https://www.electriq.co.uk/content/DOC/UK/STRV-Z1-AG.pdf>