

Air Source Heat Pump

End User Guide



IG4-MP1-A1
IG6-MP1-A1
IG8-MP1-A1
IG10-MP1-A1
IG12-MP1-A1
IG16-MP1-A1
IG1-PCB-A1



**IMPORTANT SAFETY INSTRUCTIONS — READ AND
FOLLOW ALL INSTRUCTIONS**

Table of Contents

Section	Title
1	About Your Heat Pump System
1.1	Product Overview
1.2	System Components
2	Daily Operation & Controls
2.1	Controller Introduction — Icons & Display
2.2	Start / Stop the Heat Pump
2.3	Set Target Water Temperature
2.4	Operating Modes (Smart, Silent, Powerful)
3	Smart Features & Energy Efficiency
3.1	DHW Timer Settings
3.2	Weather Compensation (P22–P24)
3.3	Holiday Mode
4	Wi-Fi Setup & App Operation Guide
4.1	Download the App
4.2	Connect Your Heat Pump to Wi-Fi
4.3	Using the App — All Functions
5	Maintenance & Care

1. About Your Heat Pump System

1.1 Product Overview

InstaGroup's InstaGen R290 Air Source Heat Pumps transfer heat from ambient air into water, delivering high-temperature hot water of up to 70°C. This unique high-temperature heat pump solution is widely used for residential space heating and domestic hot water applications.

Using innovative and advanced technology, the heat pump operates reliably even at ambient temperatures as low as -20°C, while still delivering high output water temperatures of up to 60°C.

Compared with traditional oil or LPG boilers, InstaGroup's heat pumps can reduce CO₂ emissions by up to 50% and lower running costs by up to 80%, depending on installation conditions and usage patterns.

In addition to high efficiency, InstaGen heat pumps are designed for easy, safe, and user-friendly operation, making them an ideal low-carbon heating solution for modern homes.

1.2 System Components

The InstaGen R290 Air Source Heat Pump system consists of the following main components:

Component	Description
Outdoor Unit	The core of the system, where heat exchange with the ambient air takes place. Contains the key refrigeration components required to extract and transfer heat efficiently.
Wired Touch Screen Controller	The primary user interface for system operation. Allows users to adjust temperature setpoints, operating modes, and system settings.
Indoor PCB Box	Provides safe and easy wiring of system components including the secondary pump and immersion heater.

2. Daily Operation & Controls

2.1 Controller Introduction

The touch screen controller is your primary interface for operating the heat pump. Below are the home screen and settings menu screen views.



Display Icons (wording in controller may differ)

					
Heating	Cooling	Hot water	Heating + HW	Cooling + HW	Smart
					
Silent	Powerful	Holiday	Home screen	Fault	Anti-freeze
					
Water pump	Fan motor	Compressor	Defrosting	BUH heater	Sec.pump
					
Wi-Fi	H + HW (hot water)	H + HW (heating)	Aux heat source	Immersion	

Icon Label	Meaning	Icon Label	Meaning
Heating	Space heating active only	Cooling	Space cooling active only
Hot water	DHW active only. Feeding Hot Water cylinder only	Heating + HW	Combined both heating & hot water active, hot water priority
Cooling + HW	Combined both cooling & hot water active, hot water priority	Smart	Automatic — recommended

Icon Label	Meaning	Icon Label	Meaning
Silent	Quietest operation	Powerful	Maximum capacity output
Holiday	Limits flow temperature to avoid freezing of home and system	Home screen	Takes you back to Home screen
Fault	There is a fault with the system. Contact InstaGroup	Fan motor	Fan active
Water pump	Primary pump active	Defrosting	Defrost cycle active
Compressor	Flashing = preheating	Anti-freezing	Anti-freeze protection active
BUH heater	Backup electric heater working – space heating	H + HW (hot water)	Hot water currently running
Wi-Fi	Wi-Fi connected	Aux heat source	AHS active
H+HW (heating)	Heating currently running	Sec. pump	Secondary side pump active
Immersion heater	Immersion heater working – Hot Water / Legionella cycle		

Definition of Controller Buttons

						
Mode	Setting	Timer	On/Off	Temp(single)	Temp(dual)	Status
						
Faults	Wi-Fi	User params	Factory params	Oper. Curve	System info	Language

Button	Description	Function
Mode	Mode button	Switch the operating mode of the heat pump
Setting	Settings menu	Query running parameters, check and set system parameters, error code records, Wi-Fi, etc.
Timer	Timer settings	Set timer (working days apply for all timers - recommended for DHW only)
On/Off	Power button	Turn unit ON or OFF (recommended to leave on)

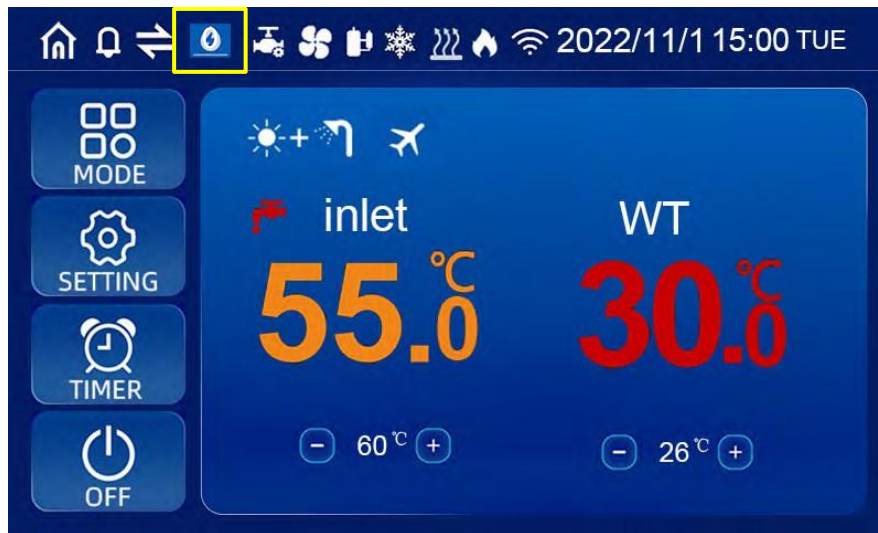
Button	Description	Function
+ / – (single)	1 temp setting	Temperature setting for only hot water, only heating, or only cooling mode
+ / – (dual)	2 temp settings	In combined modes: left = heating/cooling temp; right = hot water temp
Status	Status screen	Check the running parameters of the heat pump
Faults	Fault log	Record and shows the most recent error codes
Wi-Fi	Wi-Fi setup	Wi-Fi setting and connection
User Parameters	User settings	Check and set the user parameters of the heat pump
Factory Parameters	Advanced settings	Check and set the factory parameters — not advised to amend
Operating Curve	Performance graph	Shows system data over time in graph format
System Parameters	System info	Check version of the motherboard and remote controller
Language	Language select	Language selection

2.2 Start / Stop the Heat Pump

Switching the System On

On the main interface, press the **ON/OFF** button. A "Startup Confirmation" popup will appear. Press **OK** to confirm. Once the system is operating, the mode symbol (highlighted in yellow) will be displayed on the screen.

Controller home screen — mode symbol shown when system running



Touch Screen Controller home screen — mode symbol shown when system is running

■ Important Operating Advice

Do not regularly switch the heat pump on and off using the ON/OFF button.

Frequent switching can:

- Cause uneven or unstable room temperatures
- Increase electricity use and running costs
- Reduce system efficiency
- Increase wear on components
- Lead to slower heating response and potential fault messages

The heat pump is designed to run continuously and automatically adjust its output to match demand. When heating is not needed, the system will reduce output or stop automatically.

For best comfort, efficiency, and lowest running costs, keep the system switched on at all times.

2.3 Set Target Water Temperature

Single Mode Operation (Heating only, Cooling only, or Hot Water only)

In single mode, tap the "+" or "-" buttons on the touchscreen controller to adjust the required temperature for the active mode.

Dual Mode Operation (Heating + Hot Water or Cooling + Hot Water)

In dual mode:

- Use the "+" and "-" buttons on the **left side** to adjust the heating or cooling flow temperature.
- Use the "+" and "-" buttons on the **right side** to adjust the hot water storage temperature.

Dual mode display - left shows flow temp, right shows cylinder temp



Dual mode display - left shows flow temp, right shows cylinder temp

2.4 Operating Modes

In the touch screen controller, press the "**MODE**" key to enter the Operating Mode, Frequency Mode and Vacation Mode menu, and select the required setting.



Operating Mode selection screen

Mode	Description
Powerful	Runs at maximum capacity. Use only when required.
Silent	Reduces operating noise for quieter operation, particularly useful at night.
Vacation Mode	Heat pump runs in heating mode only, target temperature of 30°C return water temperature — cannot be changed.
Smart (Recommended)	Automatically adjusts output for the best balance of comfort, efficiency, and running costs.

*Recommendation: Leave the system in **Smart mode** for everyday use. Change modes only when necessary.*

3. Smart Features & Energy Efficiency

3.1 DHW Timer Settings

Note: This timer is best used for Hot Water only due to limited functionality. Days cannot be customised per timer.

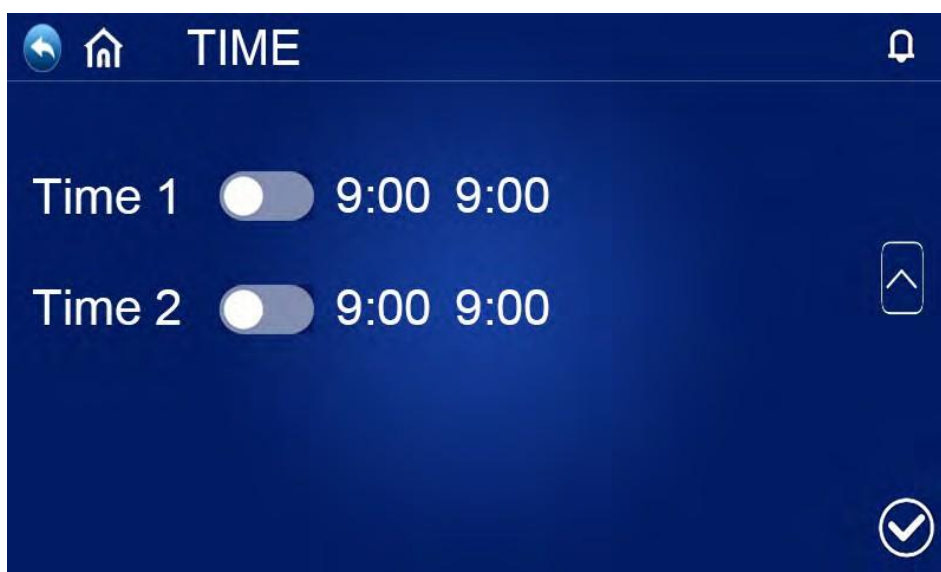
- From the **Home Screen**, press the **TIMER** button to access the timer settings.
- At the top of the screen, select the weekdays on which the timer should operate:
 - **White (MON–SUN)** = Timer active on that day
 - **Grey** = Timer inactive on that day
- You can set up to three time periods.
- Individual days **cannot** be set separately for each timer — the selected weekdays apply to **all three timers**.
- A timer is **inactive** if the ON time and OFF time are set to the same value.



Timer settings screen

Silent Mode Timer:

Click the Silent icon in the TIMER interface to enter the silent timer. The unit will run in Silent Mode during scheduled times every day.



Silent mode timer screen

3.2 Weather Compensation (P22–P24)

Weather Compensation (Heating Mode) — *not recommended to change without installer guidance*

In heating mode, the target water temperature can be automatically adjusted according to the ambient (outdoor) temperature to improve comfort and system efficiency.

Users can access the **temperature curve interface** via the touchscreen controller and set the following parameters:

Parameter	Description
P23 – Curve	Sets the slope of the weather compensation curve
P24 – Shift	Shifts the compensation curve up or down

Based on these settings, the controller will automatically generate the operating (heating) curve. If you need to change these settings, please contact your installer or InstaGroup.

3.3 Holiday Mode

In the touch screen controller, press the "**MODE**" key to enter the Operating Mode, Frequency Mode and Vacation Mode menu, and select the required setting.

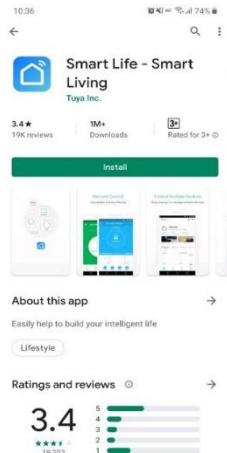
Vacation Mode: When this mode is enabled, the heat pump runs in heating mode only, with a target temperature of 30°C return water temperature, which cannot be changed.

4. Wi-Fi Setup & App Operation Guide

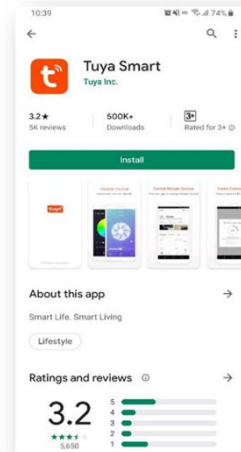
This section explains how to connect your heat pump to Wi-Fi and control it using your smartphone.

4.1 Download the App

Download one of the following apps from the Apple App Store or Google Play Store:



Smart Life app



Tuya Smart app

4.2 Connect Your Heat Pump to Wi-Fi

Step 1: Enable Pairing Mode

Option A – First Power-On: The unit will automatically enter pairing mode for **10 seconds** after being powered on. After this, Wi-Fi enters low-power mode.

Option B – Manual Setup (Recommended):

- On the wired controller home screen, press **Settings**
- Select **Wi-Fi Configure**
- Tap **Add Device**
- Choose **SMART Mode (recommended)** or **AP Mode (backup option)**
- A **flashing Wi-Fi icon** will appear — the device is ready to connect

Step 2: Connect Your Phone

- Turn on Wi-Fi and Bluetooth on your phone.
- Connect your phone to your home Wi-Fi network and ensure a stable internet connection.

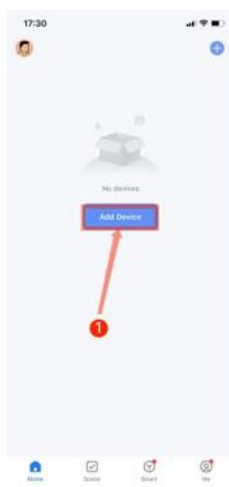


Turn on Wi-Fi & Bluetooth

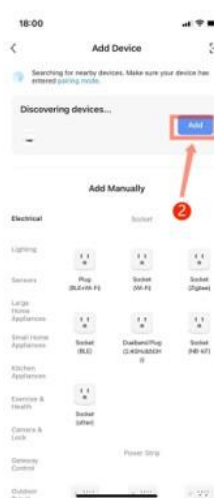


Connect to home Wi-Fi

Step 3: Add the Device — Method 1 (Quick Setup)



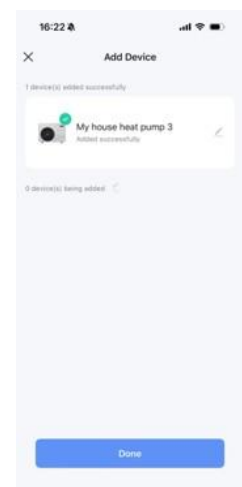
Open app



Tap Add Device

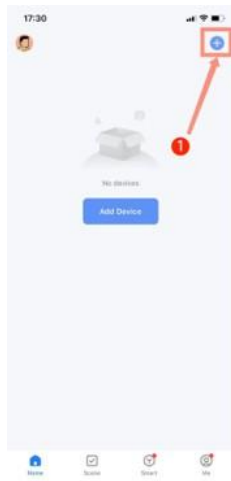


Enter password



Connection complete

Step 3: Add the Device — Method 2 (Manual Setup)



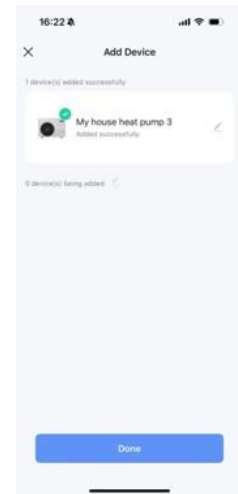
Tap + (top right)



Select Large Home Appliances



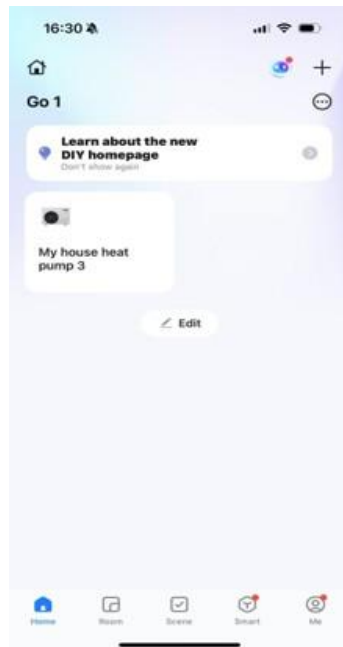
Select Air Conditioner



Complete

4.3 Using the App — All Functions

Once connected, your heat pump will appear (e.g. "My Heat Pump"). Tap it to open the control screen.

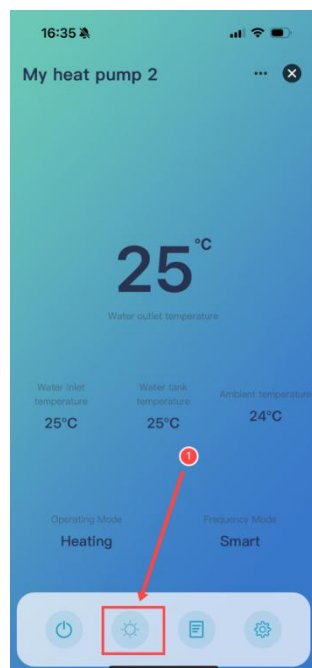


App main screen

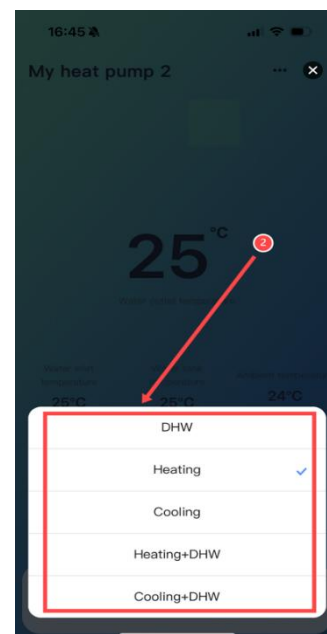


Device control screen

Change Operating Mode



Tap Mode icon

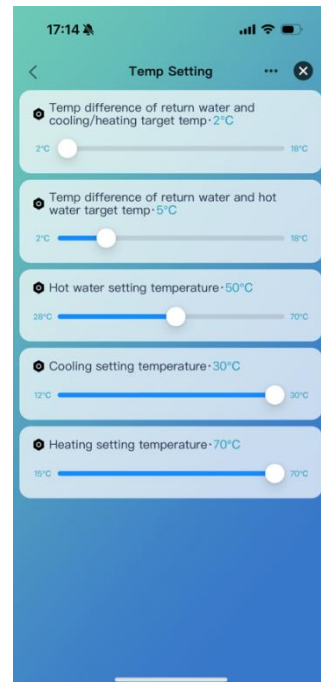


Select desired mode

Adjust Temperature



Go to Settings User Parameters

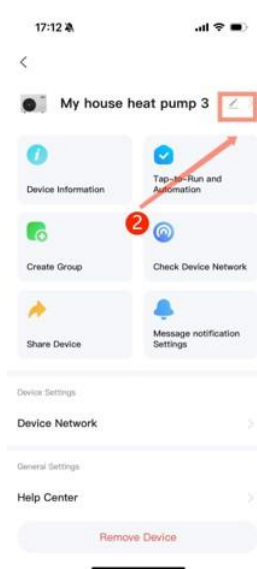


Adjust set temperature

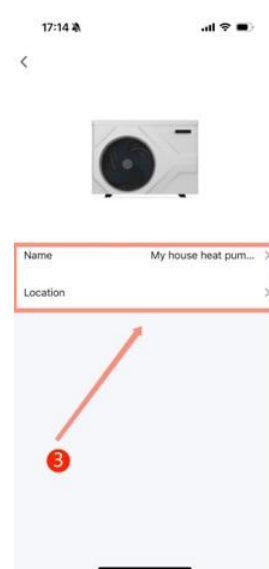
Rename Your Device



Open device settings

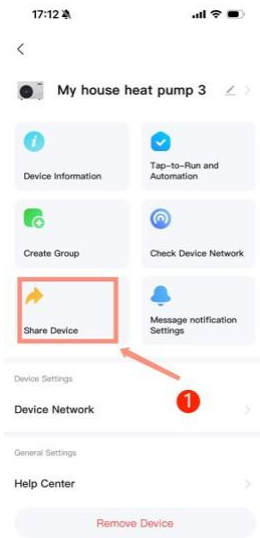


Tap Device Details

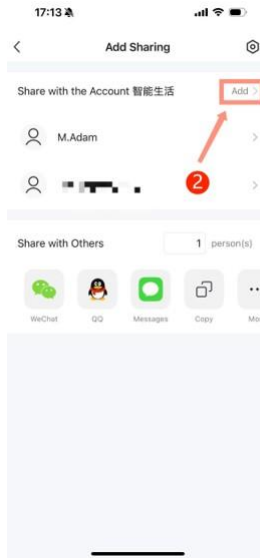


Enter new name

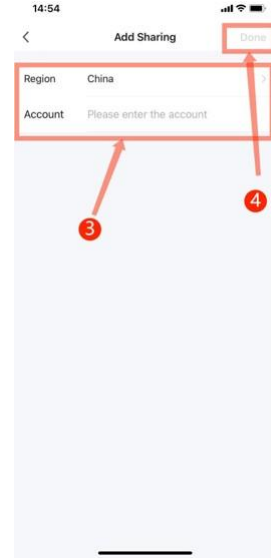
Share Access with Others



Go to Settings Shared Devices



Tap Add enter email

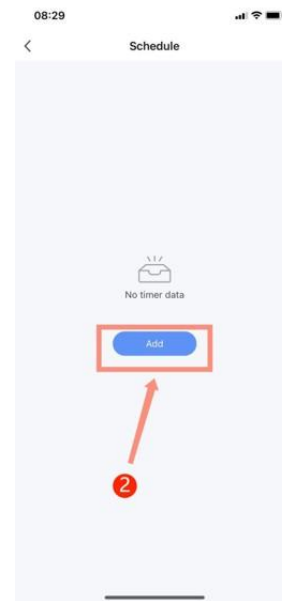


Tap Done

Set Timers



Timer settings screen



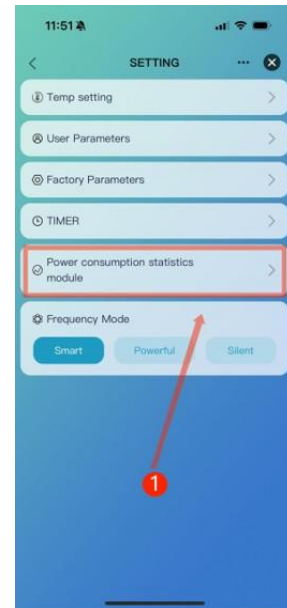
Swipe left to delete timer

■ Note: Up to 3 timers available. All timers apply to the same selected days — days cannot be individualised.

View Energy Usage

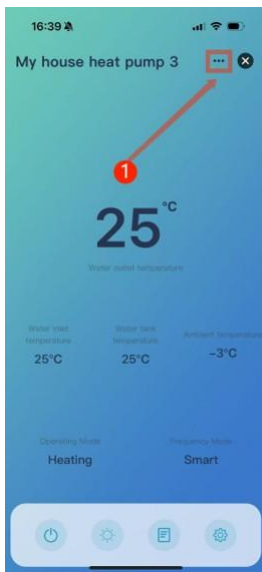


Power Consumption Statistics

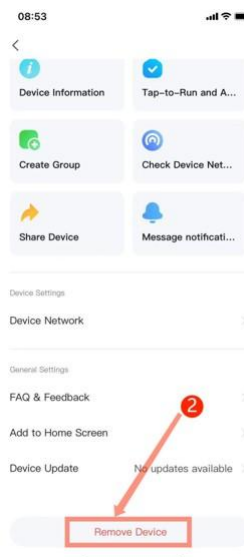


Daily and monthly energy use

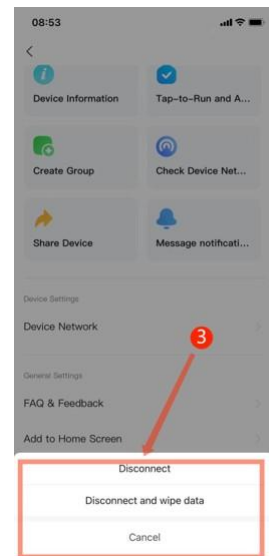
Remove the Device



Open device settings (top right)



Select Remove Device



Confirm removal

Function	How To	Notes
View Temperatures	Tap device > Temperatures	Flow, Return, Tank, Outdoor temp
Change Mode	Tap device > Mode icon	Heating, Cooling, Hot Water, Smart, Silent, Powerful
Turn On/Off	Tap device > Power button	Turns system ON or OFF
Rename Device	Settings / Device Details > Device Name	Enter a new name
Share Access	Settings > Shared Devices > Add > enter email > Done	To remove: press & hold > Delete
Adjust Temp.	Settings > User Parameters	Set required target temperatures
Set Timers	Settings > Timer > Add > set time, days, action > Save	Up to 3 timers. Same days for all. Swipe left to delete.
Energy Usage	Settings > Power Consumption Statistics	Daily and monthly energy use
Remove Device	Settings (top right) > Remove Device > Confirm	Removes device from app

5. Maintenance & Care

5.1 Maintenance

The InstaGen R290 Air Source Heat Pump is a highly automated system. Regular care and maintenance will help ensure reliable operation and maximise the lifespan of the unit. We recommend booking an annual service with a qualified engineer to maintain efficiency, performance and warranty compliance.

Important — Do Not:

- Do NOT adjust factory safety settings
- Always use qualified engineers for any servicing
- Keep unit clear of obstructions and debris
- Do not switch on/off more than necessary
- Avoid spraying water on the unit
- Do not stack anything (e.g. garden furniture, bicycles, etc.) on or against your heat pump
- Do not place any cover over the unit

For any unresolved issues, please contact:

- Your Installer
- A Qualified Engineer
- InstaGroup