ALL-IN-ONE HEAT PUMP WATER HEATER

Sunniva Home All-in-One User & Service Manual

Installation, operation, fault codes and care for the 200, 300 and 500 litre models.

SE-HA-200	SE-HA-300	SE-HA-500
Sunniva Home All-in-One 200	Sunniva Home All-in-One 300	Sunniva Home All-in-One 500
200 L · Family of 3–4	300 L · Family of 5–6	500 L · Large family, villa, homestay

Read this manual before installing or using the unit. Installation and repairs must be done by Sunniva or an authorised technician. Keep this manual for later.

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01 Safety first

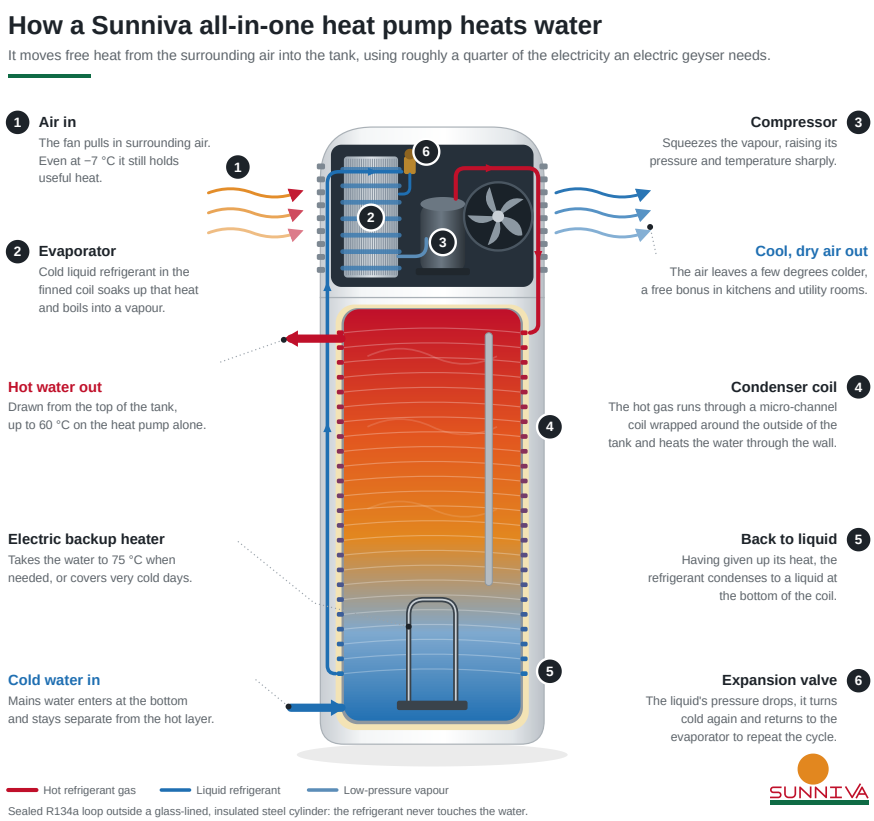
Read this manual before installing or using your heat pump, and keep it for later. Warnings marked **WARNING** can lead to serious injury; **CAUTION** can lead to injury or damage.

WARNING

- Installation, wiring, relocation and repair must be done only by Sunniva or an authorised, qualified technician. Wrong installation can cause water leakage, electric shock or fire.
- The unit must be **earthed**. Fit a dedicated circuit with a residual-current circuit breaker (RCCB, 30 mA, ≤ 0.1 s) and an all-pole isolator with at least 3 mm contact gap.
- Check that the supply voltage matches the rating plate (220–240 V, 50 Hz, single phase). Never use a fuse or cable of the wrong rating.
- Never switch the unit on with an empty tank. The backup heater will be damaged and this is not covered by warranty.
- Water above 50 °C can scald. Children, elderly and disabled users are most at risk: feel the water before bathing. A thermostatic mixing valve at the outlets is recommended.
- Do not put fingers, sticks or other objects into the fan grille. Switch off at the isolator before cleaning.
- Do not install where flammable gas can leak, or near salt spray, sulphur, chlorine, oil mist or strong acids or alkalis.
- If the hot water has not been used for two weeks or more, open a hot tap at a basin for a few minutes before using any appliance, with no flame or spark nearby, to release any gas that has collected in the pipes.
- If the power cord is damaged it must be replaced by Sunniva or a qualified technician.
- This unit is not intended for use by children or by people who need supervision, unless they are supervised. Children must not play with the unit.
- At the end of its life, do not throw the unit away with household waste. Hand it to an authorised e-waste collector.

02 How it works

Your Sunniva Home heat pump moves heat from the outside air into your water, like an air conditioner working in reverse. For each unit of electricity it uses, it delivers about three to four units of heat, which is why it costs up to 75% less to run than an electric geyser.



1. **Air in.** The fan pulls in surrounding air, which holds useful heat even at −7 °C.
2. **Evaporator.** Cold liquid refrigerant soaks up that heat and boils into a vapour.
3. **Compressor.** The vapour is compressed, so its pressure and temperature rise sharply.
4. **Condenser coil.** The hot gas runs through a micro-channel coil wrapped around the outside of the tank and heats the water through the wall.
5. **Back to liquid.** Having given up its heat, the refrigerant condenses to a liquid.
6. **Expansion valve.** The pressure drops, the liquid turns cold again and goes back to the evaporator.

Main parts

PART	WHAT IT DOES
Top unit	Compressor, evaporator coil, DC fan, electronic expansion valve and control box, under the top cover.
Enamel-lined tank	Stores the hot water. A micro-channel condenser coil is wrapped around the outside of the inner tank.
Backup heater	Electric heater behind the lower side cover, used in Hybrid and Electric modes.
Magnesium anodes	Sacrificial rods that protect the tank lining. Checked every 6 months.
PTR valve	Pressure and temperature relief valve. Opens if the tank pressure or temperature rises too far.
Tank sensors	Two sensors (top and middle) tell the controller how much hot water is left.
Condensate drain	Carries away the water that condenses on the cold coil; pipe it to a drain.
Controller	Display and six buttons on the front: SET, TIMER, M (mode), ON/OFF, ▲ and ▼. Built-in Wi-Fi.

03 Before installing

In the box

- Heat pump water heater
- One-way safety valve
- Condensate tube and joint
- This manual and warranty card

Water quality and pressure

- Chloride below 200 mg/L and pH between 6 and 9. Hard or saline water shortens tank and anode life: fit a softener.
- Inlet water pressure 0.15–0.65 MPa. Below 0.15 MPa fit a booster pump; above 0.65 MPa fit a pressure-reducing valve.
- Maximum working pressure of the tank: 0.8 MPa.

Choosing the place

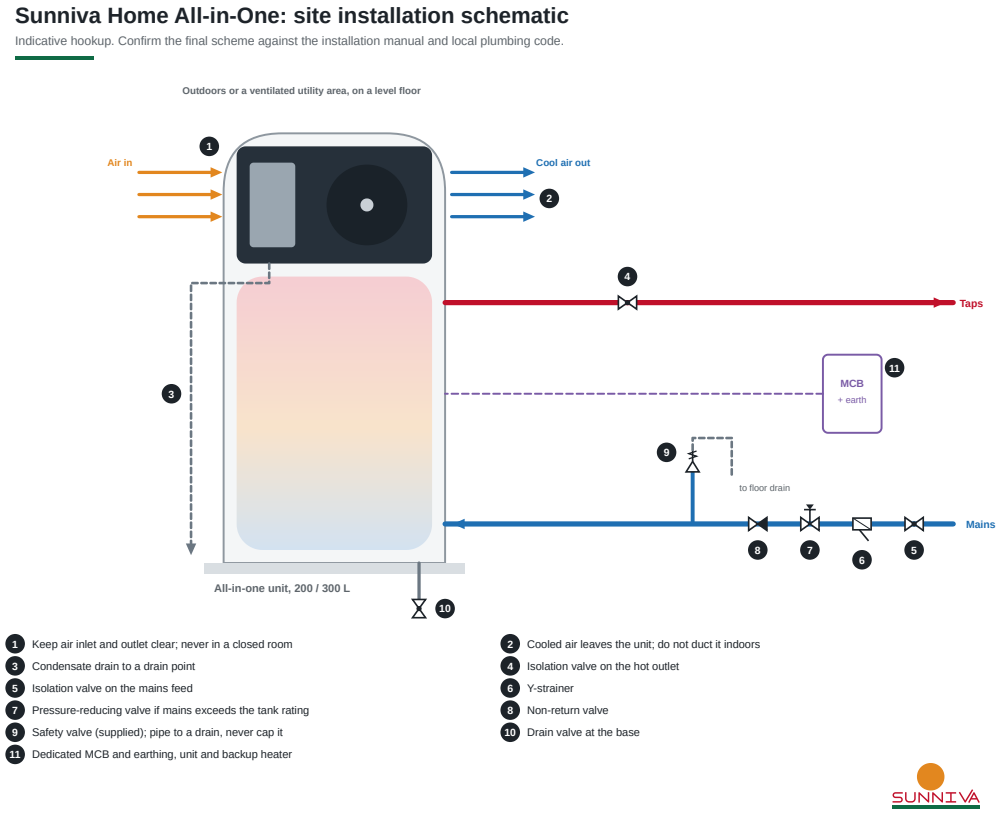
- Outdoors (the unit is rated IPX4) or in a garage, utility area or terrace room with plenty of free air. Never in a closed room, cupboard or small enclosure.
- Minimum room area if indoors: 25 m² for the 200 L, 32.5 m² for the 300 L, larger for the 500 L.
- Clearances: at least 300 mm on the sides and air-inlet side, 500 mm above the unit for service.
- A level floor (tilt no more than 2°) able to carry the full weight with water, with the condensate drain at the lowest point.
- Air temperature between −7 °C and 43 °C for heat-pump operation; outside this range the backup heater takes over.
- Away from cooking oil, salt spray, sulphur gases, chlorine, cleaning chemicals and direct heat sources. Fix the unit down in very windy places.
- Do not carry it tilted more than 45° or lay it on its side, and use two or more people to move it.

Electrical supply

MODEL	SUPPLY	CABLE (MIN.)	BREAKER	RCCB
Sunniva Home All-in-One 200	220–240 V, 50 Hz, 1 ph	2.5 mm²	16 A	30 mA
Sunniva Home All-in-One 300	220–240 V, 50 Hz, 1 ph	2.5 mm²	20 A	30 mA
Sunniva Home All-in-One 500	220–240 V, 50 Hz, 1 ph	2.5 mm²	25 A	30 mA

Use a dedicated circuit. Breaker sizes are minimums; follow local wiring rules.

04 Installation (for the installer)



Step by step

1. **Place the unit** upright on a level base with the clearances in section 3.
2. **Connect the water** to the cold inlet and hot outlet (G3/4" female thread). Fit the one-way safety valve on the cold inlet and a mixing valve on the hot line to the outlets. Insulate all hot pipes.
3. **Pipe the PTR valve drain** downwards to an open drain, sheltered from frost. Never block it or remove the valve.
4. **Fit the condensate tube** to the drain joint and run it downhill to a drain. In humid places a drain pan under the unit is recommended.
5. **Wire the unit** on a dedicated circuit with an RCCB near the unit, cable and breaker as in section 3. Check the earth before power-on.
6. In freezing places, **insulate all water piping** and the drain pipes, and keep the unit out of unheated spaces where possible.

05 First start and draining

Filling and first start

1. Open the cold water inlet valve and a hot tap.
2. When water runs steadily from the hot tap with no air, the tank is full. Close the hot tap.
3. Check every joint for leaks.
4. Switch on the power. The display lights up.
5. Measure the running current; it must not exceed the maximum on the rating plate.

Commissioning checklist

- Unit installed and wired correctly, earth and RCCB in place
- Tank full, no air in the pipes, all valves open
- Inlet pressure 0.15–0.65 MPa
- Safety valve drain and condensate drain open and running to a drain
- Owner shown how to use the controller, the safety valve lever and the 6-monthly care routine

> **Never run the unit with an empty tank.** The backup heater burns out within seconds and this is not covered by warranty.

Draining the tank

Drain the tank before moving the unit, before a long break in freezing weather, or for cleaning.

1. Switch off the power.
2. Close the cold inlet valve.
3. Open a hot tap to release pressure.
4. Open the drain valve and let the tank empty fully.
5. Close the drain afterwards.

06 Using your heat pump

SET Press to set the water temperature, then ▲▼. Heat-pump range up to 60 °C; up to 75 °C with the backup heater.

TIMER Set the clock and the timer on/off times.

M Change mode: Standard, Hybrid or Electric.

⏻ Turn the unit on or off.

▲▼ Raise or lower the set temperature, clock and parameters.

🔒 Hold a key for 3 s to lock or unlock all keys.

MODE	WHAT IT DOES	WHEN TO USE IT
Standard	Heat pump only	Every day. The lowest running cost.
Hybrid	Heat pump plus backup heater	Fastest recovery, e.g. when guests arrive.
Electric	Backup heater only	Standby, or when the heat pump is out of its air range.

24-hour automatic reset. If Hybrid or Electric mode is left on, the unit returns to Standard by itself after 24 hours, so a forgotten setting cannot push up your bill. Your installer can turn this off if you need to.

Setting the clock and timer

1. Press TIMER once: the hours flash. Set them with ▲▼ and press TIMER; set the minutes the same way.
2. Press TIMER again to set the switch-on time (the ON icon flashes), hours then minutes.
3. Press TIMER again to set the switch-off time (the OFF icon flashes), then TIMER to confirm.
4. The ON and OFF icons stay lit when the timer is set. To cancel all timer settings, press SET during timer setting.

Display icons

ICON	MEANING
Snowflake-sun	Standard mode
Two-tone	Hybrid mode
Lightning	Electric heater mode
Defrost	Lit during defrost; flashes during frost protection
Fan	Lit while the fan runs
Lock	Keys locked
Wi-Fi	Flashing while pairing, steady when connected

Connecting to Wi-Fi

1. **Get the app.** Install Smart Life or Tuya Smart from the Play Store or App Store and create an account.
2. **Prepare your phone.** Connect it to your home Wi-Fi on the 2.4 GHz band (5 GHz is not supported) and turn on Bluetooth.
3. **Start pairing on the unit.** With the unit powered on, press and hold ▲ and M together for 3 seconds. The Wi-Fi icon starts flashing.
4. **Add it in the app.** Tap +, then Add Device. The app finds the heat pump by itself: tap it, then Done.
5. **If it times out.** Pairing stays open for 3 minutes. If the icon stops flashing, hold ▲ and M for 3 seconds again.

Once paired you can switch the unit on or off, set the temperature, change mode, set timers and see faults from anywhere. To give family members access, open the device in the app, tap … and choose Device Sharing.

07 Functions, features and benefits

FEATURE	WHAT IT DOES	WHAT YOU GET
Three operating modes	Standard runs on the heat pump alone. Hybrid adds the backup heater for the fastest recovery. Electric mode is a standby option.	Lowest bills day to day, extra speed when guests arrive
Back to economy in 24 hours	If someone leaves Hybrid or Electric mode on, the unit returns to Standard by itself after 24 hours.	A forgotten setting can’t quietly push up your bill
Phone control over Wi-Fi	Pair with the Smart Life app: switch on or off, set the temperature, change mode, set timers and see fault alerts from anywhere.	Hot water ready when you get home, and warnings before a cold shower
Timers, clock and key lock	Set switch-on and switch-off times on the unit or in the app. Hold one button for 3 seconds to lock every key.	Heat in off-peak hours, safe from curious children
Two tank sensors	Sensors in the top and middle of the tank. It heats only when the stored water has cooled, not every time a tap runs.	Fewer starts, longer compressor life, steadier temperature
DC fan and electronic expansion valve	The fan speed and refrigerant flow are adjusted continuously to the conditions.	Quieter, more efficient running across seasons
Up to 75 °C for hygiene	The heat pump gives up to 60 °C; the backup heater can take the tank to 75 °C.	An occasional high-temperature cycle keeps stored water hygienic
Defrost, frost and self-protection	Automatic defrost, anti-freeze protection on standby, and a self-check that restarts the unit once a problem clears.	Runs through winter and power fluctuations without a service call
Safety valve and anode included	Pressure and temperature relief valve, magnesium anode and a 0.8 MPa enamel-lined tank.	Safe on mains or pump pressure, with a tank built to last

08 Troubleshooting and fault codes

If a code appears, note it before switching off. Most codes clear by themselves once the cause is gone; the unit runs a self-check and restarts.

CODE	MEANING	WHAT TO DO
P01	Middle tank sensor fault	Check the sensor connection; replace the sensor or PCB if broken.
P02	Bottom tank sensor fault	As above.
P03	Coil sensor fault	As above.
P04	Suction sensor fault	As above.
P05	Outdoor air sensor fault	As above.
P06	Frost protection active	Normal. The water in the tank is below 5 °C on standby and the unit is protecting itself.
P07	Discharge sensor fault	Check the sensor connection; replace the sensor or PCB if broken.
P08	Top tank sensor fault	As above.
E01	High-pressure protection	Check the switch and wiring, blocked refrigerant circuit or overcharge. Call service.
E02	Low-pressure protection	Check the switch, blockage or refrigerant leak. Call service.
E03	DC fan motor fault	Check the fan connection; replace the motor or PCB. Call service.
E04	High discharge temperature	Check the sensor, blockage or refrigerant charge. Call service.
E08	Communication fault	Check the cable between PCB and controller. Call service.
PA	Air outside working range	Normal. The air is outside −7 °C to 43 °C; use Electric mode until it returns to range.

> If E01, E02 or E04 appears 3 times within 30 minutes, the unit locks out and will not restart until the power is switched off and on again. Call service.

Common questions

SYMPTOM	LIKELY CAUSE	WHAT TO DO
Display off, cold water	Plug or supply loose; set temperature too low; sensor or PCB fault	Reconnect; raise the set temperature; call service
No water at the tap	Mains supply off, inlet pressure below 0.15 MPa, inlet valve closed	Wait for supply; fit a booster pump; open the valve
Water leaking	Pipe joints not sealed	Re-seal all joints
Display temperature falls while running	Cold mains water mixing in at the bottom of the tank	Normal
Unit stays off although temperature fell	It starts only when the lower tank has cooled, to avoid frequent starts	Normal
Drips from the PTR valve drain	Water expands while heating	Normal in small amounts; continuous flow: call service

09 Care and maintenance

WHEN	WHAT
Every 6 months	Check the magnesium anode and replace it when used up; clean the tank and the backup heater
Every year	Operate the safety valve lever to check water flows freely
Before a long break	Switch off, drain the tank in freezing areas, and close the valves

Checking the safety valve

Once a year, lift the lever on the safety valve (PTR valve) for a few seconds. Water should flow freely from the drain pipe. If it does not, have the valve replaced.

Saving energy

Set the lowest temperature that gives you enough hot water: 50 °C is enough for most homes and reduces scale and heat loss. Run an occasional 65–75 °C cycle with the backup heater for hygiene.

Replacing the anode (technician)

1. Switch off the power and close the cold inlet valve.
2. Open a hot tap to release the pressure.
3. Open the drain valve and empty the tank.
4. Remove the cover over the anode and unscrew the anode rod.
5. Fit a new anode with a fresh seal.
6. Open the cold inlet and run a hot tap until water flows, then close it.
7. Switch the power back on.

Our 6-monthly check covers the anode, tank cleaning, electrical connections and the safety valve. Book it on WhatsApp. Keeping to it keeps the warranty valid and the unit efficient.

10 Specifications

MODEL	SE-HA-200	SE-HA-300	SE-HA-500
Tank capacity	200 L	300 L	500 L
Heating capacity (heat pump)	1.9 kW	2.65 kW	6.5 kW
Rated power input (heat pump)	410 W	552 W	1,600 W
With backup heater	3.9 kW · 2,410 W · 12.9 A	4.65 kW · 2,552 W · 14 A	8.5 kW · 3,600 W · 18.2 A
Hot water	55 °C rated, up to 60 °C on the heat pump, 75 °C with backup heater	55 °C rated, up to 60 °C on the heat pump, 75 °C with backup heater	55 °C rated, up to 60 °C on the heat pump, 75 °C with backup heater
Outdoor air range	−7 °C to 43 °C	−7 °C to 43 °C	−7 °C to 43 °C
Refrigerant / compressor	R134a, 710 g · GMCC rotary	R134a, 950 g · Panasonic rotary	R134a, 1,200 g · Panasonic rotary
Noise	≤ 46 dB(A)	≤ 48 dB(A)	≤ 52 dB(A)
Size, net weight	Ø570×1,790 mm, 105 kg	Ø640×2,000 mm, 125 kg	700×1,000×1,950 mm (W×D×H)
Water connections	DN20	DN20	DN32
Heat exchanger	Micro-channel coil wrapped outside the enamel-lined steel tank	Micro-channel coil wrapped outside the enamel-lined steel tank	Micro-channel coil wrapped outside the enamel-lined steel tank
Power supply	220–240 V / 50 Hz / 1 ph, Class I, IPX4 (outdoor-rated)	220–240 V / 50 Hz / 1 ph, Class I, IPX4 (outdoor-rated)	220–240 V / 50 Hz / 1 ph, Class I, IPX4 (outdoor-rated)

Rated at outdoor air 20 °C (wet bulb 15 °C), water heated from 15 °C to 55 °C. Maximum tank working pressure 0.8 MPa. Specifications may change without notice.

11 Warranty and service

PART	WARRANTY
Enamel-lined tank	5 years
Compressor	5 years
Whole unit, parts and labour	3 years

Conditions

- Register the unit online within 30 days of installation.
- Installed by Sunniva or an authorised partner, following this manual.
- Used within the water-quality limits in section 3.
- Magnesium anode checked every 6 months and replaced when used up.
- Not covered: damage from running with an empty tank, wrong supply voltage, freezing, scale from untreated hard water, accident, misuse or repair by unauthorised people.

Need service?

Scan the code to reach our service team on WhatsApp, or call **+91 93213 65103**.
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