

AWT1000 Thermostat

Installation & User Guide

2026

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Welcome

Thank you for your purchase!

Your new Autani networked thermostat delivers uniform and comfortable temperature control throughout every room in your property, as part of the Autani EnergyCenter software.

The Autani Manager provides centralized, intelligent control of your thermostat — enabling automated scheduling, real-time monitoring, and energy optimization across your entire facility. We bring together advanced networking technology, precision craftsmanship, and the highest quality materials to provide you with a safe, reliable product combined with a sleek, contemporary design.

Please read this installation/programming manual for comprehensive instructions on installing and operating your thermostat. Please also ensure a suitably qualified person installs your thermostat and that all local regulations are observed.

The AWT1000 is a standard 24VAC thermostat that follows industry-standard terminal conventions. Any qualified HVAC professional familiar with low-voltage thermostat installation will find the wiring approach familiar.

In The Box

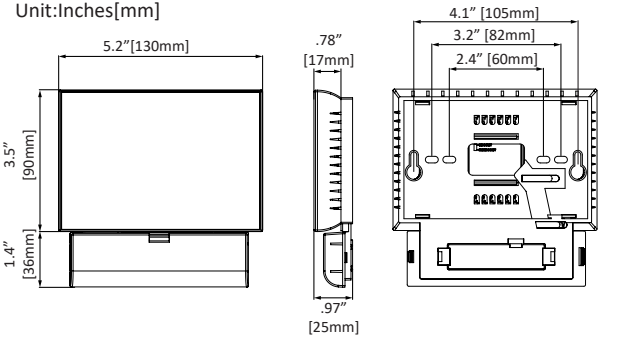
Thermostat	1	Marking tape	1
Mounting screws	4	Installation & User Guide	1
QC Passed	1		

CAUTION

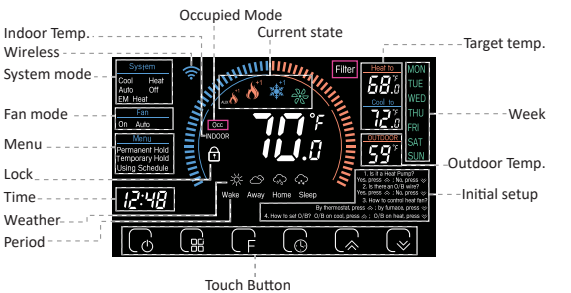
1. Electrical Shock or Equipment Damage Hazard. Can shock individuals or short equipment circuitry. Disconnect power supply before installation.
2. Check whether the power supply is 24V. If it is 95–220V, this thermostat cannot be used.
3. A 24VAC Common (C) wire is required for operation. The AWT1000 SKU does not include a power-stealing module or add-a-wire adapter.

Dimensions

Unit:Inches[mm]



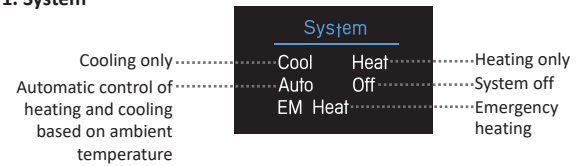
Main Page



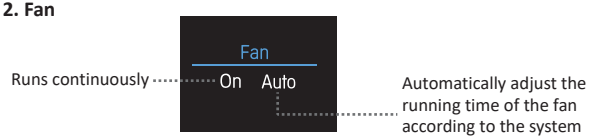
NOTE: The on-screen text '1. Is it a Heat Pump?…' only appears during the initial setup and is not present on the normal main page after configuration.

System, Fan, and Menu modes

1. System



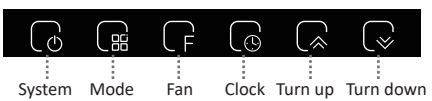
2. Fan



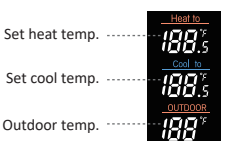
3. Menu



4. Touch Button



5. Screen



Compatibility

The AWT1000 is a 24VAC low-voltage thermostat that follows standard HVAC industry conventions. It is compatible with most residential and light-commercial systems.

Supported systems

System type	Supported configurations
Conventional gas / electric / oil	Up to 2 stages of heating and 2 stages of cooling.
Heat pump (air-source)	Up to 2 compressor stages plus up to 2 stages of auxiliary / electric strip heat.
Heat pump (geothermal)	Up to 2 compressor stages plus up to 2 stages of auxiliary heat.
Dual fuel / hybrid	Heat pump with fossil-fuel backup (enable Code 21 = 1).
Boiler / radiant + air handler	Hydronic heat with separate air-handled cooling. Supports dual-transformer wiring — see Special Wiring Cases.
Heating only	Single-stage or two-stage heating without cooling.
Cooling only	Single-stage or two-stage cooling without heating.

Wire requirements

Minimum wire gauge: 18 AWG solid copper for all HVAC terminal connections.
Recommended cable: thermostat cable rated for the number of conductors required by the system (typically 5- to 8-conductor).

Not supported

Incompatible systems

- Line-voltage systems (95–220 VAC). The AWT1000 is for 24VAC control circuits only.
- Millivolt systems (e.g., older gravity furnaces, some fireplaces).
- Proprietary communicating systems (Carrier Infinity, Bryant Evolution, Trane ComfortLink II, Lennox iComfort/iHarmony, etc.). These systems use manufacturer-specific data buses, not standard 24VAC relay control.
- Systems without a dedicated C-wire (24VAC Common). The AWT1000 does not include a power-stealing or add-a-wire accessory.

Installation

1. Verify compatibility

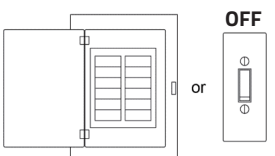
✓ 24VAC system (not line voltage)

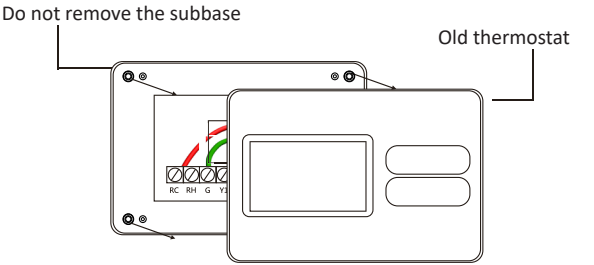
✓ C-wire available at thermostat location

✓ Not a proprietary communicating system

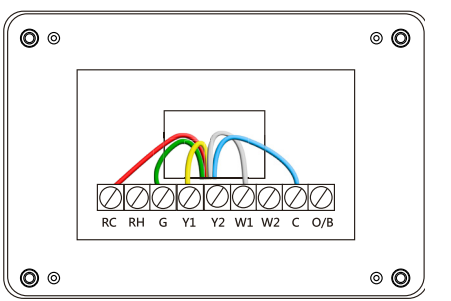
2. Power OFF, remove the old thermostat.

NOTE: Do not remove the subbase;

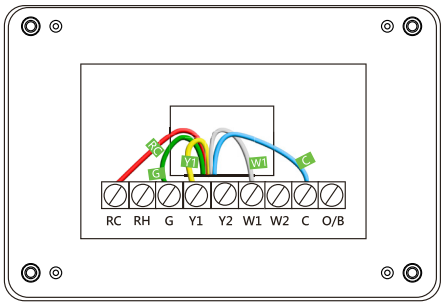




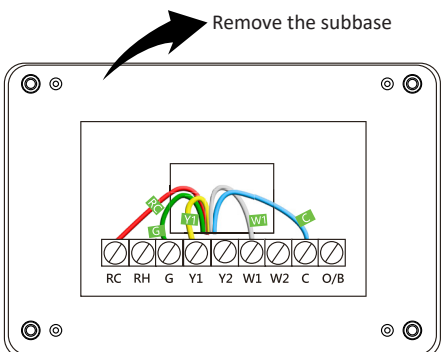
3. Take a picture of your old thermostat wires
showing how each wire connects to the thermostat;



4. Label the wires with Tags

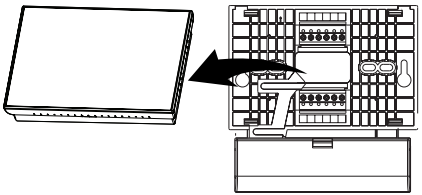


5. Remove the old subbase from the wall



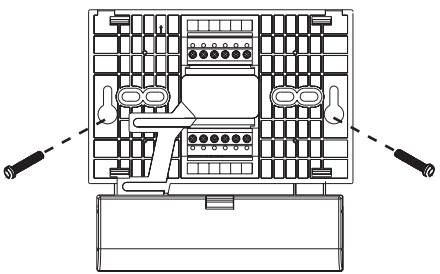
6. Separate the Faceplate from the Subbase

Before mounting anything to the wall, detach the faceplate from the subbase by pulling the faceplate away from the subbase. Set the faceplate aside. It will be reattached after wiring is complete.



7. Mounting the new subbase to the wall

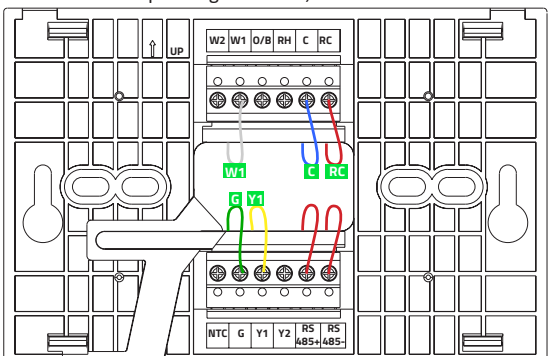
Screw the Subbase on the wall.



8. Connect all wires to the subbase

Wire the cables through the holes in the temperature controller subbase;

NOTE: Connect the R or RC wire into the RC terminal, Connect other wires to the corresponding terminals;



9. Wire-to-terminal mapping

Land each labeled wire on the corresponding AWT1000 terminal using the table below. The mapping is based on the wire's function as labeled at the existing thermostat — not the equipment side.

Wire at old thermostat	AWT1000 terminal	Notes
R	RC	Single-transformer systems. Set the DIP switch to CONNECT (see Step 10).
RH	RH	Heating-side 24VAC. Use with RC when two transformers are present.
RC	RC	Cooling-side 24VAC. If RH and RC are both wired, set DIP to DISCONNECT.
C	C	24VAC Common. REQUIRED.
W or W1	W1	First stage heat. On heat-pump systems, this is auxiliary / electric strip heat — wired at the air handler.
W2	W2	Second stage heat (or second stage of heat-pump auxiliary heat).
Y or Y1	Y1	First stage compressor.
Y2	Y2	Second stage compressor.
G	G	Indoor fan / blower.
O/B	O/B	Heat-pump reversing valve. O/B convention is set in the Initial Setup.
E (emergency heat)	W1	Wire depends on the air handler: • If the air handler has a single W/E input (E and W1 land on the same terminal at the air handler) — combine E with the existing W1 wire at the AWT1000 W1 terminal. • If the air handler has separate W1/W2 and E terminals — cap and abandon the E wire. The AWT1000 EM Heat system mode energizes W1 immediately and W2 after the configured stage delay, without energizing Y1, Y2, or O/B, providing staged emergency-heat operation through the aux strip stages. Do not jumper E to W1; jumpering back-feeds the air handler's EM relay during normal aux calls and can lock out the compressor mid-cycle on systems with defrost-board lockout. If unsure which configuration applies, consult the air handler's installation manual or contact Autani Technical Support before powering up.

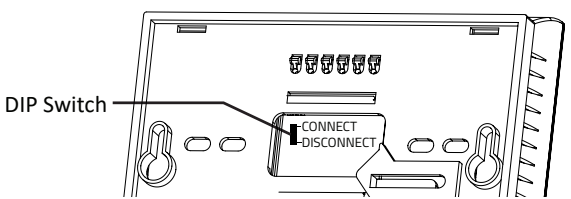
Wire at old thermostat	AWT1000 terminal	Notes
X or AUX	W1	Auxiliary heat on older heat-pump thermostats. Equivalent to W1 on the AWT1000.
L (heat pump fault)	—	Not used. Cap and abandon the L wire.
S1, S2 (outdoor sensor)	NTC	Connect only if the existing sensor is a 10K Type II thermistor / temperature sensor. Otherwise install a compatible 10K Type II thermistor.

Don't see your wire here?

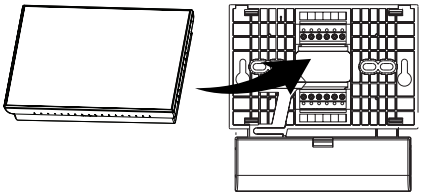
If the existing thermostat has a labeled terminal not shown in the table, consult the equipment manufacturer's installation manual to determine the wire's function. The AWT1000 supports all standard 24VAC HVAC terminal functions but does not support proprietary or vendor-specific communicating-system wiring.

10. DIP switch location

System has...	Set DIP switch to
One transformer (only R wire, no separate RH/RC)	CONNECT — the thermostat internally bridges RH and RC.
Two transformers (separate RH and RC wires)	DISCONNECT — the thermostat keeps RH and RC isolated. Remove any factory RH/RC jumper.



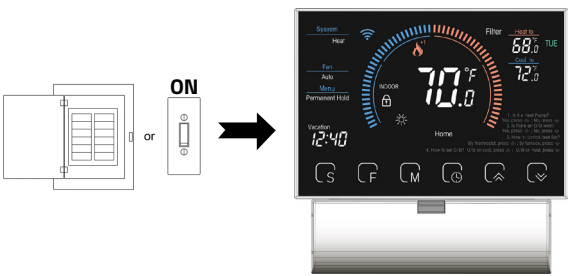
11. Attach the thermostat on base



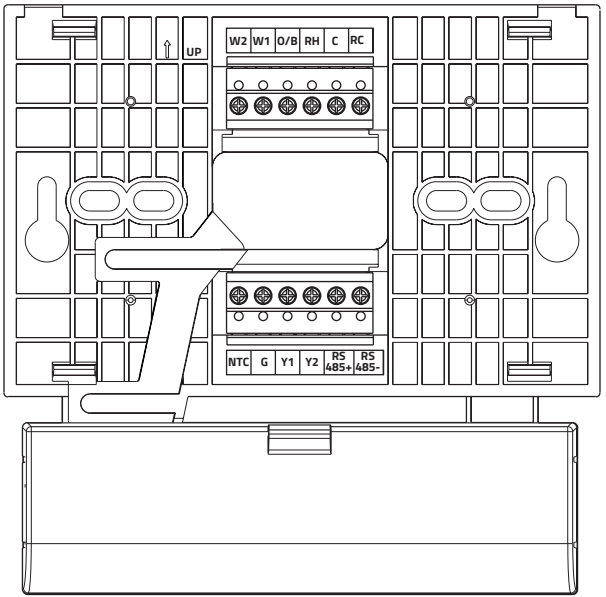
Note the MAC Address on the lower portion of the back plate before attaching the radio cover.

12. Power ON your system

Once powered up, the thermostat screen will light up and display the initial setup to complete configuration.



Terminal Designation Reference



Terminal	Function
RH	24VAC primary for heating equipment.
RC	24VAC primary for cooling equipment. Also used as the single-R terminal when only one transformer is present (DIP = CONNECT).
C	24VAC Common (return). Required for operation.
W1	Heat relay, stage 1. On heat-pump systems, this drives auxiliary / electric strip heat at the air handler.
W2	Heat relay, stage 2.
Y1	Compressor relay, stage 1.
Y2	Compressor relay, stage 2.
G	Indoor fan / blower relay.
O/B	Heat-pump reversing valve. Configured as O (energized in cool) or B (energized in heat) during Initial Setup based on the equipment manufacturer's convention.
NTC	Remote temperature sensor input (10K Type II thermistor).

Special Wiring Cases

Most installations are straightforward wire-for-wire mappings from the existing thermostat (Step 4). The cases below require additional attention.

Case A — C-wire not available

The AWT1000 requires a dedicated 24VAC Common (C) wire. If the existing installation does not have a C-wire, the contractor must run one before installing the AWT1000.

Common solutions:

• Pull a new thermostat cable with sufficient conductors (5-conductor minimum for most configurations).

• Repurpose an unused conductor in the existing cable if one is available (verify continuity with a meter).

The AWT1000 does not include a power-stealing module or add-a-wire adapter. Third-party add-a-wire kits are not supported.

Case B — Dual-transformer systems (RH and RC both wired)

Systems with separate heating and cooling power sources — typically a boiler with separate cooling air handler — have two 24VAC transformers. In this case:

1. Land the heating transformer's R on RH.
2. Land the cooling transformer's R on RC.
3. Remove any factory jumper between RH and RC.
4. Set the DIP switch to DISCONNECT.

Important — do not bond transformer commons

- Each transformer has its own 24VAC Common (C) terminal. These must remain electrically isolated. Bonding them together will short the two transformers and may destroy one or both.
- Land only ONE transformer's C wire on the AWT1000 C terminal — typically the cooling transformer's C, as it generally supplies the larger load. If both transformers require a Common return at the thermostat, consult an HVAC professional.

Case C — Heat pump O/B convention

The reversing valve on a heat pump is energized either in cooling (O convention — Carrier, Trane, Lennox, most US heat pumps) or in heating (B convention — Rheem, some legacy systems). The AWT1000 supports both.

The O/B convention is selected during the Initial Setup:

• O convention: reversing valve energizes in cooling mode (most common in North America).

• B convention: reversing valve energizes in heating mode.

Refer to the heat pump's installation manual to confirm the convention. If unsure, the equipment nameplate or service documentation will indicate it.

Case D — Heat pump auxiliary heat

On a heat-pump system, the auxiliary / emergency / strip heat (W1, W2) is installed at the air handler — not at the outdoor heat-pump unit. This is true for both air-source and geothermal heat pumps.

Wire as follows:

• Y1 (and Y2 if 2-stage) → from the outdoor heat-pump unit to AWT1000 Y1 / Y2.

• O/B → from the outdoor heat-pump unit (or air handler, depending on equipment) to AWT1000 O/B.

• W1 (and W2 if 2-stage) → from the air handler's auxiliary heat terminals to AWT1000 W1 / W2.

Configure auxiliary heat lockout temperature in Advanced Installer Options 14 if outdoor temperature sensing is available via EnergyCenter.

Case E — Dual fuel (hybrid heat pump)

Dual-fuel systems use a heat pump for moderate outdoor temperatures and a fossil-fuel furnace below a low balance point.

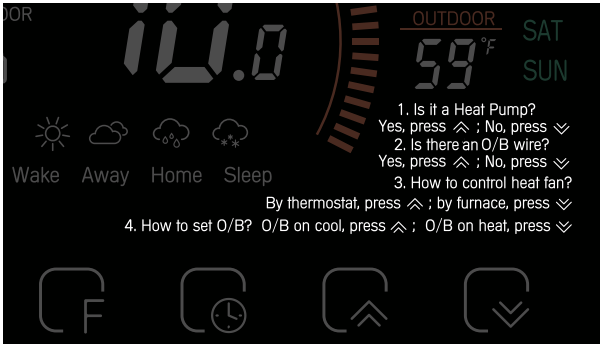
1. Wire as a heat pump (Case D) but with the fossil-fuel furnace providing W1/W2 instead of electric strip heat.

2. Enable dual energy: Advanced Installer Options 21 = 1. This automatically forces Code 15 = 0 (compressor and fossil-fuel heat will not run simultaneously, protecting the heat exchanger).

3. Set the low balance point (Code 28) to the outdoor temperature below which the system should switch from heat pump to furnace.

Initial Setup

Follow the on-screen instructions to finish the initial setup after initially powering ON the device.



Question	Press ⩓ if...	Press ⩔ if...
1. Is it a heat pump?	Yes — heat pump system	No — conventional system
2. Is there an O/B wire?	Yes — O/B is wired	No — O/B is not used
3. How is the heat fan controlled?	By thermostat (G terminal)	By furnace (internal fan control)
4. How is O/B configured?	O — energized in Cool	B — energized in Heat

TIP If you are unsure how to answer any of these, refer to the HVAC equipment manufacturer's installation manual. The initial setup can be re-run later by performing a factory reset (Advanced Installer Option Code 19 = 1).

Operation

IMPORTANT

Initial Setup is a device-only step
Initial Setup must be completed on the device at install time per the on-screen instructions (see Initial Setup, page 21). These settings determine how the thermostat drives your HVAC equipment and cannot be configured remotely from EnergyCenter.

Day-to-day operation — setpoints, schedules, system mode, fan mode, and the Advanced Installer Options — is normally managed through the Autani Manager appliance running EnergyCenter software. The controls described below are for use when the thermostat is operated standalone or temporarily disconnected from the Autani Manager. Please consult the 'Help' section of EnergyCenter for the steps to manage this thermostat using wireless connectivity.

1. Selecting System Mode

Press to select the mode of: Cool(Cooling only); Heat(Heat only); Auto(Automatic control of heating and cooling based on ambient temperature); EM heat(Emergency heating); Off(Off system).

2. Selecting Fan Mode

Press to select the fan mode of: On(Runs continuously); Auto(Automatically adjust the running time of the fan according to the system).

3. Set time

Press , the min of time will flash,touch icon / to set your time; Press , the hour of time will flash, touch the icon / set your hour; Press , the week of time will flash, Wait for 4-5 seconds, the settings will be saved automatically.

4. Child lock

Press & for 3 seconds to lock or unlock.

Advanced Installer Options

Press and hold for 3 seconds, press to change the different items, you can press / arrows to change settings. Before setting, please enter the menu lock. The default is 10. Press for three seconds again to exit.

Code	Function	Setting and option	Default
1	Modbus device address	1-199	1
2	Baud rate	1 : 9600; 2 : 19200; 3 : 38400; 4 : 57600; 5 : 115200	4
3	Temperature Calibration	-9-9	-3°C, -6°F
4	Standby brightness	3-99	20
5	Cooling min temp set	0–35°C, 32–95°F	5°C, 41°F
6	Heating max temp set	0–35°C, 32–95°F	35°C, 95°F
7	12/24 hours	0 : 12H, 1: 24H	0
8	Compressor delay time	1–5 minutes	1
9	Fan off delay time	0–5 minutes	5
11	Whether to turn on the outdoor compressor at the lowest	0: no 1: Yes	1
12	Compressor minimum outdoor temperature	°C: 0-37; °F: 32-99	2°C, 35°F
13	Turn on the maximum temperature of the auxiliary heat	0: No, 1: Yes	1
14	Auxiliary heat on outdoor maximum temperature	°C: 0-37; °F: 32-99	°C:18, °F: 64
15	Whether the heat pump compressor and auxiliary heat are turned on at the same time	0:no 1:Yes ** when dual energy is enabled that this setting is automatically set to 0.	1

Code	Function	Setting and option	Default
16	Interval temperature	°C: 1.5-5 , °F: 3-9	°C: 1.5 , °F: 3
17	Cool & Heat set	0 = Auto (Both Heat & Cool modes can be selected 1 = Cool only operation permitted 2 = Heat only operation permitted 3 = Manual mode	3
18	°F&°C display	0: °C, 1: °F	1
19	Reset to factory settings	0: no ,1:Yes	0
20	Filter replacement countdown reminder	0 to 180 days	180
21	Enable dual energy	0: No, 1: Yes	0
22	Production line test	0: Normal Code, 1: Test Code	0
23	Thermostat Stage 1 Span (cool/heat)	0-10	°C: 0.5 , °F: 1
24	Thermostat Stage 2 Span (cool/heat)	0-10	°C: 1.0 , °F: 2
25	Thermostat Stage 3 Span (heat)	0-10	°C: 1.5 , °F:3
26	Thermostat Stage 4 Span (heat)	0-10	°C: 2.0 , °F: 4
27	High Balance point	°C: 0-37 , °F: 32-99	°C: 37 , °F: 99
28	Low Balance point	°C: 0-25 , °F: 32-77	°C: 5 , °F: 41
29	External temperature Calibration	°C: -4.5-4.5 , °F: -9-9	°C: 0, °F: 0
30	Version number	/	L3
31	Setup Menu PIN	0–99 | Default: 10	10

Installer notes

* Code 3 ships at −6 °F to compensate for self-heating from the radio module installed inside the faceplate. Raising Code 4 (Standby brightness) above the default of 20 will increase self-heating; if doing so, re-verify the displayed temperature against a reference thermometer and adjust Code 3 accordingly.
** Code 5 sets the MINIMUM cooling setpoint the user can select (not the maximum). The default of 5 °C / 41 °F effectively allows the full cooling range. To restrict the lowest selectable cooling setpoint (e.g., to 65 °F to prevent overcooling), increase this value.
Code 15 is automatically forced to 0 when Code 21 (dual energy) is enabled — this prevents the compressor and fossil-fuel heat from running simultaneously, protecting the heat exchanger.
Codes 25–26 (Stage 3 / Stage 4 Span) apply only to heat-pump systems with auxiliary heat staging.
If Code 31 (Setup Menu PIN) has been changed and forgotten, the radio module can be reset by pressing and holding SW1 for 10 seconds, which restores factory defaults.

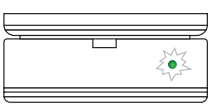
Adding to EnergyCenter

Serial Number Information and Tracking
The MAC address noted on the label for the thermostat is used to track device installation location and details for the commissioning process.
The identification information for each thermostat should be tracked in a meaningful way so that the thermostat may be labeled appropriately in EnergyCenter.

Adding In EnergyCenter
In order to add your thermostat to EnergyCenter, please proceed to 'Settings' → 'Device Setup' → 'Add Device'. If you have not yet formed a Zigbee network, you will start with 'Easy Setup' under 'Device Setup'.
Note the LED behavior of the thermostat's radio module. In order to add the thermostat, the LED should be solid green, indicating it is searching for a network to join.

LED Behaviors

Pressing SW1 will 'double flash' the LED if device is on a network. The LED will also 'double flash' if the 'identify' command is sent to the device.



LED Color		Device Status Description
	Solid Green	Searching for a network
	Flashing Green	Joining a network
	LED OFF	Device is on a network

NOTE: If need be, the thermostat's radio may be reset by pressing and holding the SW1 button for 10 seconds.

Troubleshooting

Common installation issues and resolutions. For issues not covered here, contact Autani Technical Support.

Symptom	Likely cause and resolution
Thermostat is blank or reboots randomly	C-wire is not landed at the thermostat, or is shared with another device that pulls excessive current. Verify 24VAC between RC and C with a meter. If voltage is correct but the unit still resets, the C-wire may be shared with another thermostat or relay — run a dedicated C.
Compressor short-cycles	Compressor delay (Code 8) is too short. Increase Code 8 to 3–5 minutes. Verify the deadband (Code 16) is at least 3 °F to prevent rapid switching between heating and cooling in Auto mode.
Auxiliary heat won't engage on heat-pump system	W1 / W2 may be wired at the outdoor heat-pump unit rather than at the air handler. Auxiliary heat is always located at the air handler. Re-route W1 (and W2 if applicable) from the air handler's aux-heat terminals to the thermostat. Also check Code 13 (aux heat lockout) and Code 14 (aux heat max outdoor temperature).
Heat pump runs in cool when heat is called (or vice versa)	O/B convention is set incorrectly for the equipment. Re-run Initial Setup (factory reset via Code 19 = 1) and verify question 4 against the equipment manufacturer's convention. Most US heat pumps use O; some legacy Rheem and others use B.

Symptom	Likely cause and resolution
Cooling won't run; heating works	On a dual-transformer system, RH and RC are bridged. Set DIP switch to DISCONNECT and remove any factory RH/RC jumper. Verify cooling-transformer R is on RC and heating-transformer R is on RH.
Displayed temperature is off by 3–6 °F	Internal sensor calibration (Code 3) is compensating for radio self-heating. If a remote NTC sensor is connected, use Code 29 (External calibration) instead and set Code 3 back toward 0. If running on internal sensor, leave Code 3 at the factory default unless brightness (Code 4) has been changed from default.
Two transformers — one keeps blowing	Transformer commons have been bonded at the thermostat. On a dual-transformer system, only ONE transformer's C wire is landed on the thermostat C terminal. The other transformer's common stays at the equipment. See Special Wiring Cases, Case B.
Heat pump and furnace running simultaneously on a dual-fuel system	Dual-energy mode is not enabled. Set Code 21 = 1. This automatically sets Code 15 to 0, locking out simultaneous compressor and fossil-fuel operation. Also set Code 28 (low balance point) to the desired switchover temperature.

Symptom	Likely cause and resolution
Thermostat won't join EnergyCenter network	Radio is already joined to a different network, or out of range of the Autani Manager / Zigbee coordinator. Reset the radio by pressing and holding SW1 for 10 seconds. The LED should return to solid green. Confirm the EnergyCenter is in Add Device mode and the thermostat is within Zigbee range.
Fan runs even when there is no heat or cool call	Fan mode is set to On. Press the Fan button to change to Auto. If the fan still runs with no call, check that G is not shorted to RC at the equipment side.
"Filter" reminder showing on display	Filter replacement countdown (Code 20) has expired. Replace the filter and reset the timer by entering the Advanced Installer Options menu and setting Code 20 back to 180 (or the desired interval).
Existing wire does not reach the AWT1000 terminal	The AWT1000 is dimensionally larger than some thermostats (5.18" wide) and the terminal block is offset. If existing wires are too short, splice in a short pigtail using appropriate low-voltage connectors. Do not exceed 18 AWG.

Need Help?

Technical Support For installation, configuration, and troubleshooting assistance
Support Center: https://autani.zendesk.com/hc/en-us | Email: support@autani.com
Phone: +1 (443) 320-2233 | Hours: Monday-Friday, 9 AM - 5 PM ET

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App Guide: https://guide.keilton.com

Document Information
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