WILLHI Digital Temperature Controller

User's Guide

Model: WH1436A

※ **New Safety Feature: The fuse reset button pops out when a short or overloading is detected. If the fuse reset pops out, the short or overloading condition must be fixed before the button will stay pushed in. Do not manually hold the button in as this will create a dangerous condition. The button needs at least 2cm(0. 8 inches) clearance to pop out. Be sure it's not blocked.**

Search "WH1436A INSTRUCTION" for the video on YouTube

Shenzhen Bayite Technology Co., Ltd
Email: service@bayite.com

Precautions

⚠ WARNING

※ This temperature controller is rated for 10 amps maximum. This is 1100 watts at 110 volts or 2200 watts at 220 volts. Check the power requirements of your intended output device prior to use to ensure compatibility.

※ DO NOT OVERLOAD THE CONTROLLER; DOING SO MAY RESULT IN FIRE!

— For safe operation —

⚠ WARNING

Installation

- Connect this unit's power cord only to an AC outlet of the type stated in this User's Guide or as marked on the unit. Failure to do so is a fire and electrical shock hazard.
- Do not allow water to enter this unit or allow the unit to become wet. Fire or electrical shock may result.
- Do not place a container with liquid on or near the controller. Liquid inside this unit is a fire and electrical shock hazard.
- Do not place heavy objects, on top of the power cord. A damaged power cord is a fire and electrical shock hazard. In particular, be careful not to place heavy objects on a power cord covered by a carpet.
- Be sure to connect to an appropriate outlet with a protective grounding connection. Improper grounding can result in electrical shock.

Operation

- Do not scratch, bend, twist, pull, or heat the power cord. A damaged power cord is a fire and electrical shock hazard.
- Do not remove the unit's cover. You could receive an electrical shock. If you think internal inspection, maintenance, or repair is necessary, contact your dealer.
- Do not modify the unit. Doing so is a fire and electrical shock hazard.
- If lightning begins to occur, turn off the power switch of the unit as soon as possible, and unplug the power cable plug from the electrical outlet.
- If a lightning strike has occurred, do not touch the power cable plug if it is still connected. Doing so may be an electrical shock hazard.

In case an abnormality occurs during operation

- Using the unit with a damaged power cord is a fire and electrical shock hazard.
- Should this unit be dropped or damaged, turn the power switch off, remove the power plug from the AC outlet. If you continue using the unit without heeding this instruction, fire or electrical shock may result.
- If you notice any abnormality, such as smoke, odor, or noise, or if a foreign object or liquid gets inside the unit, turn it off immediately. Remove the power cord from the AC outlet. Consult your dealer for repair. Using the unit in this condition is a fire and electrical shock hazard.

⚠ CAUTION

Installation

- Keep this unit away from the following locations:
  - Locations exposed to oil splashes or steam, such as near cooking stoves, humidifiers, etc.
  - Unstable surfaces, such as a wobbly table or slope.
  - Locations exposed to excessive heat, such as inside a car with all the windows closed, or places that receive direct sunlight.
  - Locations subject to excessive humidity or dust accumulation.
- Do not place the power cord close to a heater. It may melt, causing fire or electrical shock.
- Hold the power cord plug when disconnecting it from an AC outlet. Never pull the cord. A damaged power cord is a potential fire and electrical shock hazard.
- Do not touch the power plug with wet hands. Doing so is a potential electrical shock hazard.
- To relocate the unit, turn the power switch off, remove the power plug from the AC outlet, and remove all connecting cables. Dam- aged cables may cause fire or electrical shock.
- When setting up the product, make sure that the AC outlet you are using is easily accessible. If some trouble or malfunction occurs, immediately turn off the power switch and disconnect the plug from the outlet. Even when the power switch is turned off, electricity is still flowing to the product at the minimum level. When you are not using the product for a long time, make sure to unplug the power cord from the wall AC outlet.
- Do not place the device in a location where it may come into contact with corrosive gases or salt air. Doing so may result in malfunction.

Shenzhen Bayite Technology Co., Ltd
Email: service@bayite.com

Thank you for choosing this WILLHI Digital Temperature Controller! Please read through this manual for trouble free operation.

Features:

- Turn device on and off at desired temperatures.
- Settings are saved even when powered off.
- Temperature calibration correction
- High and low temperature alarm
- Built in time delay feature to protect output device from excessive on/off toggling.
- Auto shut off timer(disabled by default)

Technical Specifications:

- Max Load: 10 amps (1100 watts @110 volts)
- Power supply: AC 110V, 50/60Hz
- Probe measurement range: -58°F ~ 230°F / -50°C ~ 110°C
- Temperature Accuracy: 0.1
- Working temperature for the controller: -40°F~176°F / -40°C ~ 80°C
- Unit power consumption: < 3W
- Plug type: NEMA 5-15 AC plug

Using your Digital Temperature Controller

SET indicator is on	In setting mode
SET indicator is off	In control mode
HEAT/COOL indicator is on	Supplying output power
HEAT/COOL indicator is off	Not supplying output power
HEAT/COOL is flashing	Time delay in effect

1. **POWER** button: Press once to turn the unit on. Hold for 3 seconds to turn the unit off. In setting mode press once to save and exit.

2. **SET** button: Hold for 3 seconds to enter the settings menu. Once in the settings menu press set to modify a parameter and again to exit back to the menu.

3. **UP/DOWN** buttons: Press to navigate through the settings menu and adjust parameter value. Hold to quickly cycle through menu options or rapidly adjust a parameter.

4. **ALARM**: The alarm function is disabled by default but can be enabled if you specify a value for AL or AH. Press any button to silence the alarm when it sounds. Unplug the unit briefly to enable the alarm function again.

Quick Start:

Set two parameters, the on and off temperatures. These are “ON” and “OFF” respectively in the settings menu. Set “ON” to the desired temperature the unit should supply output power and “OFF” to the desired temperature the unit should shut off output power.

Example: If you want a heater to turn on at 60° and off at 70° simply set “ON to 60 and “OFF” to 70. Or if you want a cooler to turn on at 100° and off at 80° simply set “ON to 100 and “OFF” to 80.

Shenzhen Bayite Technology Co., Ltd
Email: service@bayite.com

Menu Key:

Code	Default	Range	Definition	Explanation
ON		-58 ~ 230	Temperature at which the unit supplies output power.	
OFF		-58 ~ 230	Temperature at which the unit shuts off output power.	
CA	0	-9~9	Calibrate the reading	*Optional*. If displayed temperature is 3 degree higher than the actual temperature, set CA to -3.
PT***	0	0~30	Compressor Time Delay (unit: minute)	*Optional*. It defines the time interval of 2 compressor cycles(On-Off)
AH	230	-58 ~ 230	High temperature alarm	*Optional*. It will beep once if temperature exceeds **AH.** Press any key to stop alarm.
AL	-58	-58 ~ 230	Low temperature alarm	*Optional*. It will beep once temperature is below **AL.** Press any key to stop alarm.
AT	0	0~999	Auto shut off timer (unit: minute) *Please refer to advanced settings	To shut off the device plugged in the controller rather than the controller itself. This parameter only appears after you enable timer in **advanced menu** by setting dL=ON.

Trouble Shooting:

A. The output device won't power on.

Check that the controller and the output device are securely plugged in and the value for power on temperature "ON" is set correctly.

B. The controller displays EEE while beeping.

The probe is not inserted completely into the jack or it may be defective. Email us at service@bayite.com for a free probe replacement.

C. The display shows LLL or HHH.

The temperature is outside the unit's measurement range either too high (HHH) or too low (LLL)

D. The unit keeps beeping at a certain temperature.

The alarm function can be disabled by setting "AH" to 230 and "AL" to -58.

E. The display shows "---", or there is some other malfunction.

Restore factory default settings by powering off the unit then powering it on and holding SET and UP buttons for 10 seconds while the unit cycles through showing "888" and "---".

Advanced Settings:

Hold SET and UP buttons for 3 seconds to enter the advanced settings menu.

Code	Default	Range	Definition	Explanation
CF	F or C	F or C	Temperature unit	The default unit is set according to region.
ST	1	1 or 10	Number increment for each click on UP/DOWN button	*Optional*. If you choose 10, the number jumps by 1. IE: 1, 2, 3, 4…. If you choose 1, the number jumps by 0.1. IE: 2.1, 2.2, 2.3…
dL	OFF	ON or OFF	Timer Switch	*Optional*. Once you choose ON, AT parameter will appear in main menu. And timer will only work after you set an AT value.
U		ON or OFF	Defines when to start counting down	ON: timer starts counting down once the **process is started** (the last step after you press POWER once). Refer to **Setup procedure 1**
				OFF: timer starts counting down once target temp is reached. Refer to **Setup procedure 2**

***Setup procedure 1**: Enter advanced menu→set dL=ON→ set **U=ON**→Press POWER once to quit advanced setting→enter main menu to set related parameter and set AT→ Press POWER once to quit setting→now the screen displays 'current temp' and 'OFF' alternately→ Press POWER once again to **start the process**. You'll hear a long beep. Now the timer starts counting down. The screen alternately displays 'remaining minutes' and 'current temp'. After counting down finishes, you can press POWER once to restart timer.

***Setup procedure 2**: Enter advanced menu→set dL=ON→ set **U=OFF**→ Press POWER once to quit advanced setting→ enter main menu to set related parameter and set AT→ Press POWER once to quit setting→The timer will start counting down only when the target temperature is reached.

※ Please contact us at Service@bayite.com if you have any difficulty.