

WTC305 Wireless Temperature Controller

User Manual

Overview

The WTC305 Wireless Temperature Controller includes a transmitter and a receiver. The transmitter measures the temperature and sends the temperature data to the receiver. The receiver displays the temperature and controls the connected heating or cooling equipment.

The receiver features a large, clear LCD display for easy setup and monitoring. It supports high and low temperature alarms and records the maximum and minimum temperatures measured during the past 24 hours, providing smart and reliable temperature control for connected equipment.

Specifications

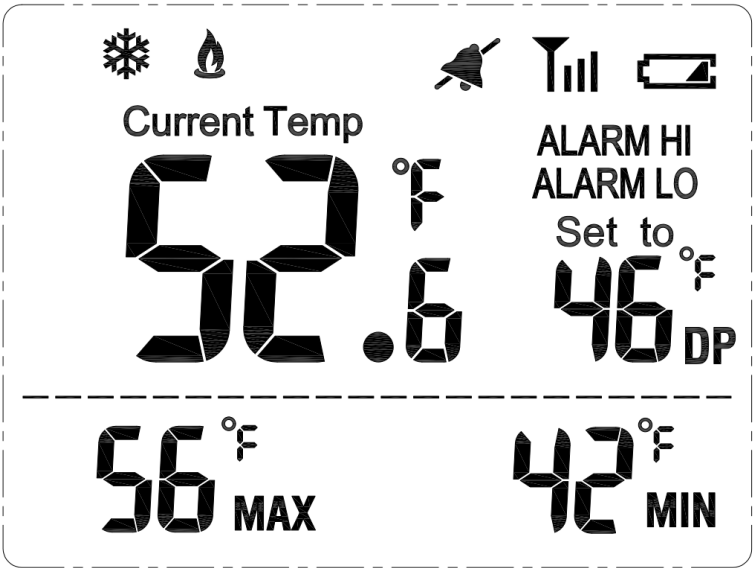
Transmitter

Item	Specification
Power Supply	2 × AAA, 3 V
Transmission Distance	100 m (328 ft) in open-air space
Probe	Built-in high precision NTC probe
Temperature Measurement Range	-40.0 °C to 60.0 °C / -40.0 °F to 140.0 °F
Refresh Rate	60 seconds

Receiver

Item	Specification
Power Supply	100-240 VAC
Measurement Range	-40.0 °C to 60.0 °C / -40.0 °F to 140.0 °F
Control Range	-40.0 °C to 60.0 °C / -40.0 °F to 140.0 °F
Display Resolution	±0.1 °C / °F
Setting Accuracy	±1 °C / °F
Mode	Heating / Cooling
High / Low Alarm Range	-20.0 °C to 60.0 °C / -4.0 °F to 140.0 °F
Cooling Delay Protection (DP)	0-10 minutes
Transmitter Low-Battery Alarm	Battery icon flashes

LCD Display



- Heating or Cooling mode — Snowflake / Flame icons
- Alarm Speaker — Bell icon (with or without slash)
- Transmitter battery is low — Battery icon flashes
- Current temp — Real-time measured temperature
- Cool / Heat — Current operating mode
- Set to — Target (setpoint) temperature value
- ALARM HI / ALARM LO — High and low temperature alarm thresholds
- DP — Compressor delay time in cooling mode (minutes)
- MAX / MIN — Highest and lowest temperatures recorded in the past 24 hours

Key Buttons

Button	Short Press	Long Press
SET	Advance to next setting	Enter advanced settings or save and exit
+	Increase value by 1	Rapid increase
—	Decrease value by 1	Rapid decrease
ALARM	Mute alarm beep	Enable or disable alarm function (3 seconds)

Factory Default Settings

Item	Default Value
Target Temperature (SET TO)	82 °F (28 °C)
Operating Mode	COOL
Temperature Unit	°F
ALARM HI	60.0 °C (140.0 °F)
ALARM LO	-40.0 °C (-40.0 °F)
DP (Compressor Delay)	0 minutes
Hysteresis (Diff)	2 °F (2 °C)
Alarm Function	Enabled

Working Principle

The target temperature (setpoint) is the temperature at which the load stops. Hysteresis (Diff) prevents short cycling. The default Diff is 2 °F (2 °C).

Cooling mode: The load turns on when the measured temperature rises above (setpoint + Diff) and turns off when the temperature falls to the setpoint.

Heating mode: The load turns on when the measured temperature falls below (setpoint – Diff) and turns off when the temperature rises to the setpoint.

Switching Temperature Unit

Press and hold + and – together for 3 seconds to switch between Celsius (°C) and Fahrenheit (°F).

Operation Instructions

Set Target Temperature

Press + or – to adjust the target temperature. The display returns to the main screen after 5 seconds of inactivity.

Advanced Settings (Mode, ALARM HI, ALARM LO, DP)

1. Press and hold SET for 3 seconds until the Cool or Heat icon blinks.
2. Press + or – to select Heat or Cool mode.
3. Short press SET. The ALARM HI value blinks. Use + / – to set the high-temperature alarm.
4. Short press SET. The ALARM LO value blinks. Use + / – to set the low-temperature alarm.
5. Short press SET. The DP value blinks. Use + / – to set the compressor delay time (0-10 minutes).
6. Long-press SET to save all settings and return to the main screen.

You may press and hold SET at any time during setup to save and exit.

Compressor Delay Protection (DP)

Restarting a compressor immediately after it stops can cause damage. The DP setting forces a waiting period (0-10 minutes) before the compressor is allowed to restart. The DP icon flashes during the delay and stops flashing when the delay ends and the compressor may start.

Setting Hysteresis (Diff)

Press and hold + and SET together for 3 seconds. Adjust the value with + / –, then press and hold SET to save.

High / Low Temperature Alarm

When the temperature rises above ALARM HI or falls below ALARM LO, the bell icon flashes and the buzzer sounds. Press ALARM briefly to silence the beep (the icon continues flashing until the temperature returns to the normal range).

To enable or disable the alarm function, press and hold ALARM for 3 seconds.

- Bell icon visible = Alarm ON
- Bell icon with slash = Alarm OFF

Transmitter-Receiver Pairing

1. Power on the receiver. Press and hold SET and ALARM together for 3 seconds until --.- blinks on the display.
2. Power on the transmitter. Briefly press the KEY button on the transmitter, or wait approximately 20 seconds for automatic transmission.
3. Pairing is successful when the receiver displays a valid temperature reading.

Note: One receiver can be paired with only one transmitter. If no signal is received, the display continues to show blinking --.-.

Restore Factory Defaults

While holding the SET button on the receiver, plug in the power cord. A long beep confirms that factory settings have been restored.

24-Hour MAX / MIN Records

The bottom of the main screen shows the highest (MAX) and lowest (MIN) temperatures recorded over the past 24 hours. To clear these records, press and hold + for 5 seconds.

Warranty

The DIGITEN products are guaranteed to the original owner for one year against defects in workmanship and materials. For service or support, contact:

Email: service@digit-en.com

Website: www.digit-en.com/support

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FCC Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 0cm between the radiator and your body.