

1 Installation

1.1 Installing a New Thermostat

For a new installation, select a position about 5 feet (1.5 m) above the floor, where there is good air circulation. The thermostat must be installed on an inside wall.

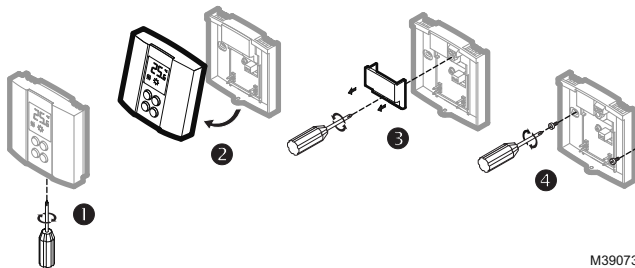
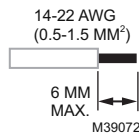
Avoid places where there are:

- air draughts (the top of a staircase, an air outlet,...)
- dead air spots (e.g., behind a door)
- direct sunlight
- chimneys or hidden pipes

1.2 Thermostat Installation

Remove the mounting plate from the thermostat.

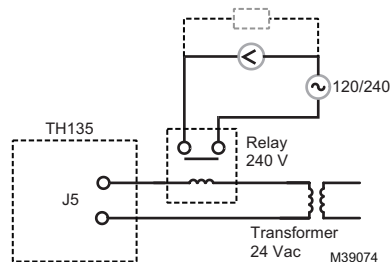
- 1 Loosen the screw holding the mounting plate to the thermostat.
- 2 Lift the lower part of the plate to remove it from the thermostat.
- 3 Loosen the screw holding the wire cover, and remove it.
- 4 Secure the mounting plate to the wall and make the appropriate connection (refer to section 2).



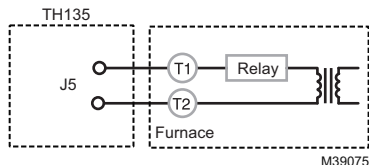
1.3 Wiring

- 1 Refer to the diagram. Connect one wire to either terminal and the other wire to the other terminal.

Connection to a circulator of a hot water system or to a baseboard heater through a 24-V relay



Connection to the furnace of a hot water system, or to the boiler of a hot air system

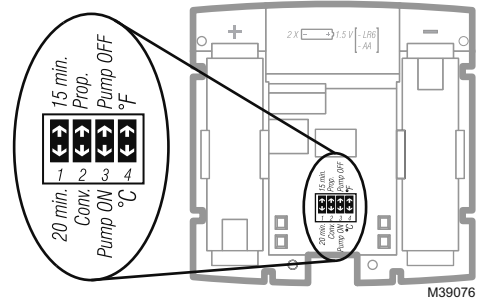


- 2 Put the wire cover back on.

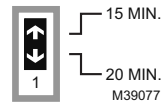
NOTE: If you have a CT240 telephone controller, refer to section 5.1 for hook-up.

2 Thermostat Configuration

Before installing the thermostat on the wall, it must be configured using the dip switches at the back.

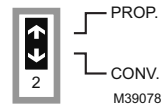


2.1 15- or 20-minute Cycles



The TH135 can operate on 15- or 20-minute cycles. While 15-minute cycles provide greater comfort, the heating system will be running more often.

2.2 Temperature Control Modes



You can choose between two temperature control modes:

Proportional Adaptive Mode

This mode analyses previous cycles in order to define the length of the upcoming cycle. This mode guarantees optimal regulation of 3 cycles (switch #1 to 20 min.) or 4 cycles (switch #1 to 15 min.) per hour, regardless of the season.

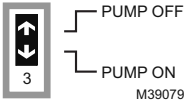
Ideal for:

- Central heating (gas, oil or electric)
- Radiant or convection electrical heating system
- Circulator control in a hot water system

Conventional Mode with Anticipation

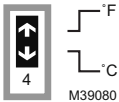
This mode turns the system On or Off when the temperature reaches preset levels. This mode is compatible with all heating systems. It is recommended for a multi-zone system or when a thermostat directly controls a furnace equipped with a combustion gas purge cycle of more than 30 seconds. The temperature span (deadband) is 0.5°C (0.9°F).

2.3 Pump Protection



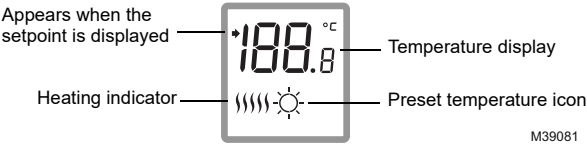
For hot water installations, it is recommended to activate the pump at least one minute every 24 hours in order to avoid seizure. Place switch #3 down to activate this function. For all other installations, leave switch #3 in the Off position (otherwise your system will be activated 1 minute every 24 hours).

2.4 Temperature in °C or °F



The TH135 is factory-set to °C. If you wish to change the temperature display to °F, slide switch #4 upward. Please note that if you change from °C to °F or vice versa, you must reset the Comfort (☼), Economy (⌚) and Vacation (🏠) settings accordingly.

3 Battery Installation



When you first install the batteries in the TH135, the unit runs a sequence of tests for approximately 5 seconds. After the tests, the screen should display the current temperature. It is normal for the displayed temperature to be higher than the room temperature if you are holding the TH135 in your hands. It will return to normal about one hour after installation on the wall. Mount the thermostat on the wall plate and screw it in place.

4 Temperature Settings

Preset Temperature	Default Setting
Comfort temperature ☼	20 °C (68 °F)
Economy temperature ⌚	18 °C (64 °F)
Vacation temperature 🏠	10 °C (50 °F)

- 1 To set the Comfort temperature, select the desired degree using the ⬅ ➡ buttons and push the ☼ button until the ☼ icon is displayed (about 3 seconds).
- 2 To set the Economy temperature, select the desired degree using the ⬅ ➡ buttons and push the ⌚ button until the ⌚ icon is displayed about 3 seconds).
- 3 To set the Vacation temperature, select the desired degree using the ⬅ ➡ buttons and push simultaneously the ☼ and ⌚ buttons until the 🏠 icon is displayed (about 3 seconds). This setting is used by the telephone controller.

5 Telephone Controller

The TH135 incorporates a telephone controller interface which allows you to switch from the ☼ or ⌚ setting to the Vacation setting (🏠), and vice versa using a touchtone telephone. You can, for example, start the heating of your secondary residence from your office on Friday, or your house from the airport or from your car on your way back from vacation.

5.1 Connection to the CT240

The TH135 is designed to connect directly to the CT240 telephone controller. This combination allows the activation and deactivation of the Vacation setting from the CT240 or telephone. Connect the CT240's terminals A and C to the TH135's terminals X and C respectively. You must respect the polarity. For details on operating the telephone controller, refer to the CT240's instruction manual.

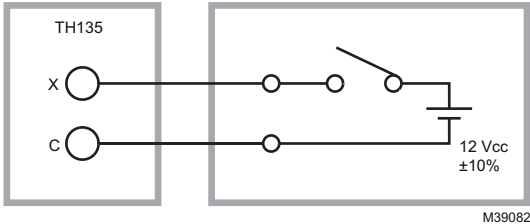
5.2 Operating the Telephone Interface

You can activate the Vacation setting using the Vacation button of the telephone controller (🏠) or using a telephone from outside of the house.

- 1 To activate the Vacation setting, press the Vacation button of the CT240 (🏠). The Vacation setting will be displayed for 5 seconds and the (🏠) icon will flash on the screen. You no longer have access to the TH135 keypad if this function is activated by the telephone controller.
- 2 To deactivate the function and return to the previous setting, press the Vacation button of the telephone controller again or use a phone. The red light will go off and the (🏠) icon will disappear within 5 seconds.

6 Connection to a Home Automation System

The Vacation setting can also be activated from a home automation system.



7 Battery Replacement

The TH135 will display an icon indicating that the batteries must be replaced. This icon will flash for 60 days. After this period, the thermostat will shut down your heating unit. After the battery replacement, you have to reprogram the ☼, ⌚ and 🏠 settings (refer to section 4). Even if the thermostat indicates the batteries are good, it is recommended to replace them once a year at the beginning of the heating season.



8 Technical Specifications

Power supply: 2 AA alkaline batteries
Max. resistive load: 5A @ 24 VAC & 24 VDC
Max. inductive load: 2A @ 24 VAC & 24 VDC
Auxiliary input (telephone interface): 12 VDC, +/- 10 %, 2.5 mA
Control device: Electronic
Automatic action: Type 1 B
Storage temperature: -20 °C to 50 °C (-4 °F to 122 °F)
Operating temperature: 0 °C to 50 °C (32 °F to 122 °F) (
95 % relative humidity without condensation)
Temperature setting range in heating: 5° C to 30 °C (40 °F to 85 °F)
Temperature display scale: 0.1 degree
Temperature reading accuracy: +/- 0.5 °C (+/- 0.9 °F)
Software: Class A
Insulation: class II
Protection degree: IP 20
Environmental Compliance: RoHS-Directive 2011/65/EU



Warranty

Resideo warrants this product, excluding battery, to be free from defects in workmanship or materials, under normal use and service, for a period of three (3) years from the date of first purchase by the original purchaser. If at any time during the warranty period the product is determined to be defective due to workmanship or materials, Resideo shall repair or replace it (at Resideo's option).

If the product is defective,

(i) return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it; or
(ii) call Resideo Customer Care at 1-800-468-1502. Customer Care will make the determination whether the product should be returned to the following address: Resideo Return Goods, 1985 Douglas Dr. N., Golden Valley, MN 55422, or whether a replacement product can be sent to you.

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by Resideo that the defect was caused by damage which occurred while the product was in the possession of a consumer.

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www.resideo.com

Resideo Technologies, Inc.
1985 Douglas Drive North, Golden Valley, MN 55422

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