

INSTRUCTION MANUAL

**Electronic thermostat
for heating system**

MODEL TH135-01

TECHNICAL SPECIFICATIONS

Model :	TH135-01
Power supply :	2 AA size alkaline batteries
Max. resistive load :	5A @ 30 VAC 5A @ 30 Vdc
Max. inductive load :	2A @ 30 VAC 2A @ 30 Vdc
Auxiliary input : (telephone interface)	12 Vcc, +/- 10 %, 20 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
The terminals are designed for a range up to 2.5 mm ² of conductors' section.	

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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 partition wall.

Avoid places where there are:

- a) air draughts (the top of a staircase, an air outlet,...)
- b) dead air spots (behind a door, under a chimney or hidden pipes)
- c) direct sun rays

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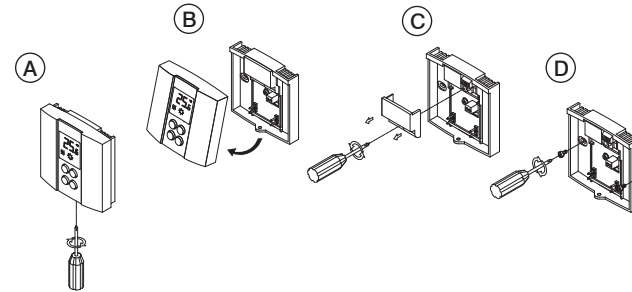
1.2 THERMOSTAT INSTALLATION AND ELECTRICAL HOOK-UP

Remove the mounting plate from the thermostat.

- A) Undo the screw holding the mounting plate to the thermostat.
- B) Lift the lower part of the plate to remove it from the thermostat.
- C) Undo the screw holding the wire cover, and remove it.
- D) Secure the mounting plate to the wall and do the appropriate connection (refer to section 2).

Stripping gauge for wires
0.5 to 1.5 mm²

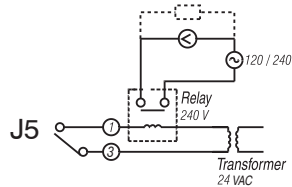
6 mm
max.



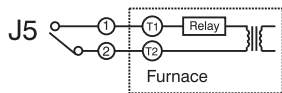
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WIRES CONNECTION

- A) Refer to the diagram below for the 2-wire hook-ups. Please note that the connection can be made on either terminal.



Hook-up of the circulator for a hot water system or for a baseboard through a 24 V relay



Hook-up at the furnace thermostat input for hot water heating, or at the furnace for hot air system

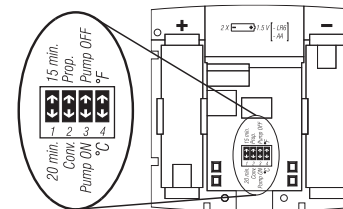
- B) Put the wire cover back on.

Note: If you have a CT240 telephone remote control, refer to section 3.1 for hook-up.

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1.3 THERMOSTAT CONFIGURATION

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



A) Cycles of 15 or 20 minutes

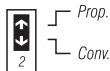
The TH135 offers you heating cycles of 15 or 20 minutes. The shorter the cycles, the bigger your comfort. However, your system will be solicited more often.

If you want 15 minute cycles, slide switch #1 upward. If you want 20 minute cycles, slide switch #1 downward.

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B) Regulation Modes

You have a choice between two regulation modes:



1. Proportional adaptive mode

This mode analyses previous cycles in order to define the length of the upcoming cycle. This mode guarantees an 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:

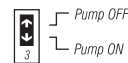
- Circulator control in a hot water system
- Radiant or convection electrical heating system

2. Conventional mode with anticipation

This mode commands the system's On and Off cycles when the temperature read by the thermostat reaches pre-set levels. This mode is compatible with all heating systems. It is recommended for a multi-zone system or for cases where a thermostat directly controls a furnace equipped with a combustion gas purge cycle of more than 30 seconds.

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C) Pump protection



For hot water installations, it is recommended to activate the pump at least one minute every 24 hours in order to avoid any seizing. Slide switch #3 downward to activate this function.

For all other installations, let the switch #3 in Off position (or else your system will be activated 1 minute every 24 hours).

D) Temperature in °C or °F



The TH135 is factory-set in °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 (☼), Economic (⌒) and Vacation (■) settings accordingly

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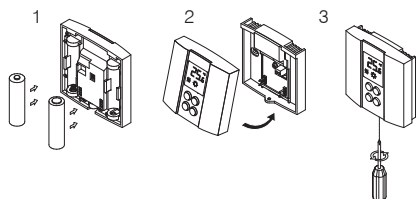
1.4 BATTERY INSTALLATION

When you first install the batteries in the TH135, the unit runs a sequence of tests which last 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.

Even if the thermostat indicates that the batteries are good, it is recommended to replace them once a year at the beginning of the cold season.



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2. SETTING THE COMFORT, ECONOMIC AND VACATION TEMPERATURES

- 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 Economic 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 remote control only.

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3. 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 the telephone keypad (stationary or portable). You can, for example, start the heating of your country house from your office on Friday, or your house from the airport or from your car on your way back from vacation.

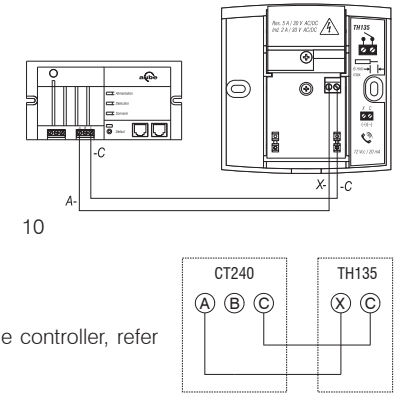
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3.1 CONNECTION TO THE CT240

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 the telephone.

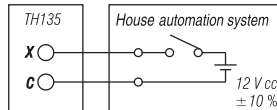
Connect the CT240's terminals A and C to the TH135's terminals X and C respectively. You must respect the polarity.

For details on operating the telephone controller, refer to the CT240's Instruction Manual.



3.2 CONNECTION TO A HOUSE AUTOMATION SYSTEM

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



3.3 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 during 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 from outside of the house. The red light will go off and the (📠) icon will disappear within a maximum of 5 seconds.

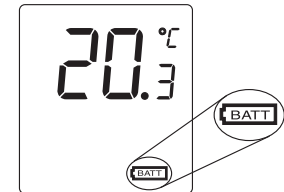
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4. BATTERY REPLACEMENT

The TH135 will display an icon indicating that the batteries must be replaced. This icon will flash for 60 days. After this delay, the thermostat will shut down your heating unit.

After the battery replacement, you have to reprogram the ☼, ☾ and 📠 settings (refer to section 2).

Even if the thermostat indicates that the batteries are good, it is recommended to replace them once a year.



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