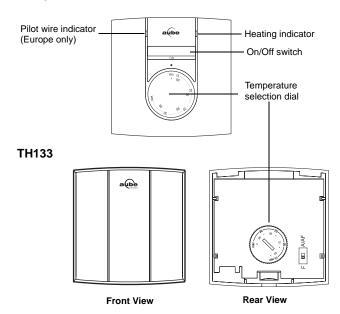




User Guide

Electronic Thermostat

TH131



NOTE: Even if the following illustrations show the TH131 model only, they can also apply to the TH133 model.



Description

This user guide covers the following thermostat models:

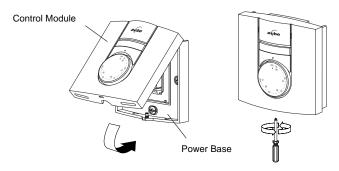
- TH131 A/F/AF
- TH133 A/F/AF

The TH131 model is designed for residential applications, whereas the TH133 model is designed for public areas as its controls are hidden and thus protected against unauthorized access. Both models can be configured for the following applications:

Туре	Application	
Α	Controls the ambient (room) temperature	
F	Controls the floor temperature	
AF	Controls the ambient temperature and limits the floor temperature	

2

Installation



NOTE: Keep the thermostat's air vents clean and free from obstructions.

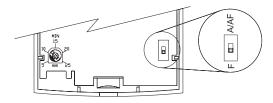


Configuration

3.1 Application Types

Туре	Switch Position
Α	UP (A/AF)
AF	UP (A/AF)
F	DOWN (F)

Position the switch, on the back of the control module, according to your application.

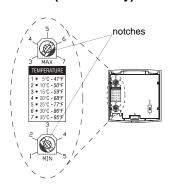


3.2 Minimum and Maximum Limits (TH131 only)

Use the two potentiometers on the back of the control module to set the minimum and maximum temperature limits. Depending on your application, the potentiometers limit the following temperature:

- ambient temperature (A)
- floor temperature (F or AF)

Use a flat-tip screwdriver to rotate the potentiometers until the notch points to the desired temperature limit.





Operation

4.1 Temperature Adjustment

TH131

Use the dial on the front of the thermostat to set the desired temperature.

NOTE: If the dial is placed at a temperature beyond the high or low temperature limit, the temperature will be maintained at that limit (see section 3.2).

TH133

Remove the control module from the base and use the dial on the back of the control module to set the desired temperature.

4.2 On/Off Switch (TH131 only)

Use the On/Off switch to turn the thermostat Off when it is not used (e.g., in the summer).



Pilot Wire Orders (Europe only)

TH131 accepts the six following pilot wire orders when installed on a 230 V power base.

ORDER	SIGNAL	DESCRIPTION
Comfort	No signal	Maintain temperature at setpoint
Reduced setpoint (3.5k setback)	\bigcirc	Maintain temperature at 3.5°C below setpoint
frost protection		Maintain temperature at 7°C
Off		Stop heating
1k setback		Maintain temperature at 1°C below setpoint
2k setback		Maintain temperature at 2°C below setpoint



Specifications

Setpoint range: 7°C, 15°C to 35°C (45°F, 59°F to 95°F)

Minimum temperature limit: 5°C to 25°C (41°F to 77°F)

Maximum temperature limit: 15°C to 35°C (59°F to 95°F)

Accuracy: ± 0.2°C (0.36°F)

Storage: -20°C to 50°C (-4°F to 120°F)

Heating cycle length: 15 minutes

Software: Class A **Controller**: Electronic

Size (H/W/D):

TH131 & TH133

TH131: 78.9 x 78.9 x 16.3 mm (3.1 x 3.1 x 0.64 in.)
 TH133: 78.9 x 78.9 x 18 mm (3.1 x 3.1 x 0.71 in.)



Warranty

AUBE TECHNOLOGIES INC. THREE (3) YEAR LIMITED WARRANTY

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

If the product is defective,

- return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it, or
- (ii) contact Aube. Aube will make the determination whether the product should be returned, 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 Aube that the defect or malfunction was caused by damage which occurred while the product was in the possession of a consumer.

Aube's sole responsibility shall be to repair or replace the product within the terms stated above. AUBE SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. Some regions do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

THIS WARRANTY IS THE ONLY EXPRESS WARRANTY AUBE MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE THREE-YEAR DURATION OF THIS WARRANTY. Some regions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may have other rights which vary from region to region.



Customer Assistance

If you have any questions about the product installation or operation, or concerning the warranty, contact us at:







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For more information on our products, go to www.aubetech.com

400-131-002-C



Installation Instructions 24-V Low-Voltage Power Base



Applications

This document describes the connections when the PB130-024T power base is used on any TH13x series thermostat. This low-voltage power base can be connected to a line-voltage load using a relay or directly to a 24-volt device. The PB130-024T is compatible with most relays; however, the following Aube relays are optimized for use with this power base:

- RT850 solid-state relay (SSR)
- RT850T solid-state relay (SSR) with built-in 24-V transformer
- RC840 electromechanical relay
- RC840T electromechanical relay with built-in 24-V transformer

Supplied Parts

- One (1) power base
- 2 Two (2) plastic anchors
- Two (2) mounting screws

Installation Guidelines

- For a new installation, choose a location about 1.5 m (5 ft.) above the floor.
- The thermostat must be installed on an inside wall facing the heating system (except for floor heating systems).
- Avoid locations where there are air drafts (top of staircase, air outlet), dead air spots (behind a door), direct sunlight or concealed chimney or stove pipes (except for floor heating systems).

Installation Procedure

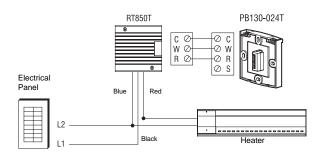
The installation must be carried out by an electrician and must comply to local electrical codes.

- Turn off power to the heating system at the main electrical panel to avoid electrical shock.
- Wire the base according to your application. See typical wiring diagrams in sections 4.1 to 4.4.
- For a floor heating system installation, connect the floor sensor between the S and R terminals.

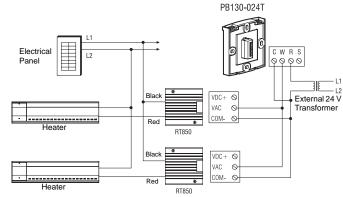


- Secure the base to the wall using the provided screws and wall anchors.
- Configure the switches located on the control module (if any). Refer to the user guide.
- 6 Install the control module onto the base.
- Apply power to the heating system.
- Verify the installation by checking that the heating system can be turned On or Off using the thermostat.

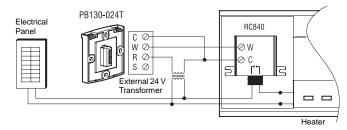
4.1 Single SSR with Built-in Transformer



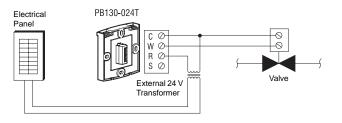
4.2 Multiple SSRs with External Transformer



4.3 Electromechanical Relay with External Transformer



4.4 Hot Water Heater Valve



Technical Specifications

Maximum load: 0.5 A / 24 VAC

Operating temperature: 0°C to 50°C (32°F to 122°F)

Storage: -20°C to 50°C (-4°F to 122°F)

Size (H • W • D): 75 x 75 x 13 mm (2.9 x 2.9 x 0.5 in)

Wire gauge: 14 to 22 AWG