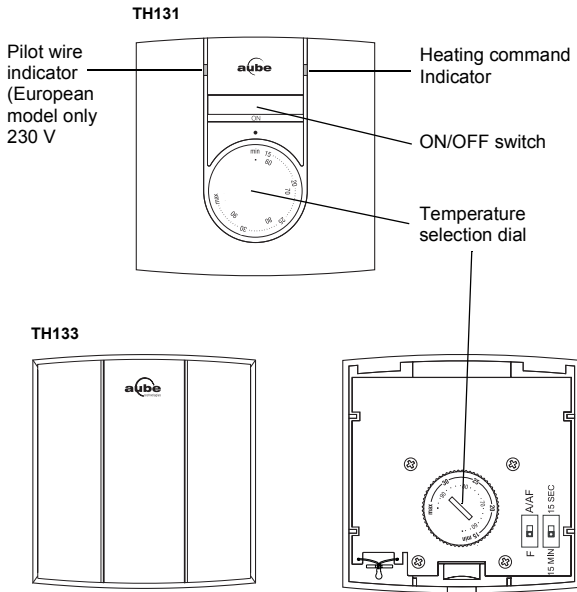




# TH131 & TH133 A/AF/F

## User Guide

### Control Module



Thank you for choosing an Aube product.

The TH131 and TH133 non programmable thermostats are equipped with a microprocessor and proportional integral adaptive (PIA) temperature control technology.

They can be installed on a 230 V power base (European model) or a 24 V low voltage base and combined with an electromechanical or TRIAC relay.

The TH131 can use all six pilot wire commands when installed on a 230 V power base (see section 4).

## 1 Configure the Switches

### Temperature Control (A and AF only)

Position the switch according to your application:

Model	Switch	Temperature Control
A	UP (A/AF)	AMBIENT (no floor sensor)
AF	UP (A/AF)	AMBIENT WITH FLOOR LIMIT (requires a floor sensor)
F	DOWN (F)	FLOOR (requires a floor sensor) (ambient sensor is deactivated)

## Heating Cycles

▶ 230 V LINE VOLTAGE BASE

**ALWAYS 15 minutes**

▶ 24 V LOW VOLTAGE BASE

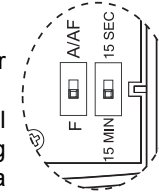
• 15 MIN

Use with a TRIAC or electromechanical relay.

Recommended for mechanical actuated system (water heating using a solenoid valve, etc.) or a fan-forced heater.

• 15 SEC

Use only for installations with a solid state relay (SSR). Recommended for electric heating (baseboards, convectors, etc.).



### ON/OFF Switch (TH131 only)

The thermostat also features an On/Off switch making it possible to turn off the thermostat when it is not required (e.g. summer).

## 2 Min/Max Temperature (TH131 only)

Use this feature to establish a temperature range by setting minimum and maximum setpoints. Depending on the model, you can establish the temperature range for:

- ▶ the ambient air (A)
- ▶ the floor (AF and F)

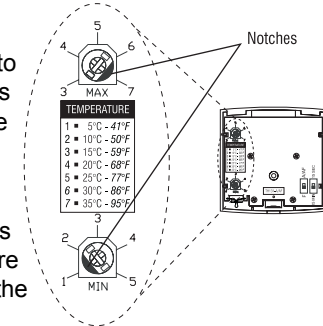
Use a flat tip screwdriver to rotate the potentiometers until the notch points to the desired temperature.

### Example

When the temperature is set outside the temperature range, it will revert to the nearest setpoint.

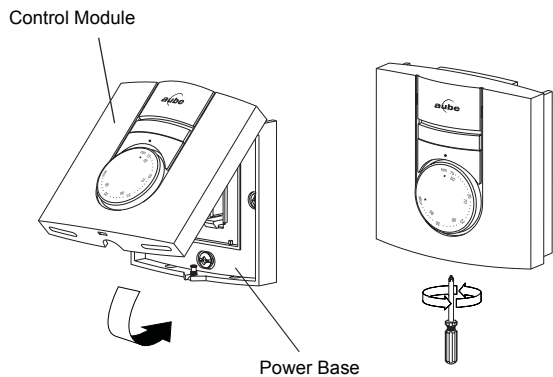
Example: MIN is 59°F and MAX is 77°F.

- ▶ Using the front dial, you set the temperature at 50°F, the TH131 will revert to the minimum set value 59°F.
- ▶ Using the front dial, you set the temperature at 86°F, the TH131 will revert to the maximum set value 77°F.



## 3 Install the Control Module

Align the bracket tabs on the control module with the holes located on the power base and secure using the screw.



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

**NOTE:** The screw cannot be removed completely.

## 4 Pilot Wire Commands

### EUROPEAN MODEL ONLY (230 V BASE)

The TH131 accepts the six pilot wire commands:

MODE <sup>1</sup>	SIGNAL	COMMAND
1	No signal	Heating as per defined setpoint
2		Current setpoint minus 3,5°C
3		Setpoint at 7°C
4		Stop heating
5		Current setpoint minus 1°C
6		Current setpoint minus 2°C

1. 1) Comfort 2) Reduced setpoint 3) Above freezing (min)  
4) Stop heating 5) 1°C setback 6) 2°C setback

## Technical Specifications

**Models:** TH131 and TH133 A / AF / F

**Setting Range:** 45°F, 59°F to 95°F (7°C, 15°C to 35°C)

MIN: above-freezing temperature 45°F (7°C)

MAX: maximum temperature 95°F (35°C)

### Potentiometers:

MIN: 41°F to 77°F (5°C to 25°C)

MAX: 59°F to 95°F (15°C to 35°C)

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

**Software:** Class A

**Controller:** Electronic

**Temperature Control:** Proportional integral adaptive, 15-minute or 15-second heating cycles

**Accuracy:** ± 0.36°F (0.2°C)

### Size (H/W/D):

TH131: 3.1 x 3.1 x 0.64 in (78.9 x 78.9 x 16.3 mm)

TH133: 3.1 x 3.1 x 0.71 in (78.9 x 78.9 x 18 mm)

## Warranty and Service

AUBE TECHNOLOGIES INC. TWO (2) YEAR LIMITED WARRANTY

This product is guaranteed against workmanship defects for a two-year period following the initial date of purchase. During this period, AUBE Technologies Inc. will repair or replace, at our option and without charge, any defective product which has been used under normal conditions.

The warranty does not cover delivery costs and does not apply to products poorly installed or randomly damaged following installation. This warranty cancels and replaces any other manufacturer's express or implied warranty as well as any other company commitment.

AUBE Technologies Inc. cannot be held liable for related or random damages following the installation of this product. The defective product as well as the purchase invoice must be returned to the place of purchase or mailed, prepaid and insured, to the nearest address.

If you have any questions concerning the TH131 or TH133 thermostat, call our technical support team at:



705 Monrillard  
Saint-Jean-sur-Richelieu  
Quebec, Canada J2X 5K8  
Tel.: (450) 358-4600  
Toll Free: 1-800-831-AUBE  
Fax: (450) 358-4650  
service@aubetech.com



10 rue Ampère  
95500 Gonesse  
France  
33 (0) 1 34 07 99 00  
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advaube@comintes.com

## 1 Introduction

The PB130-230 power base is used to power a TH13x Series control module. The resistive load must not exceed 3450 watts (NI) @ 230 VAC (15 A).

## 2 Installation Guidelines

Turn off power to the heating system at the main power panel to avoid electrical shock. Installation should be carried out by an electrician.

- ▶ All work must conform to the applicable country standards for electrical installations and wiring.
- ▶ This thermostat should be connected on a circuit equipped with a fuse or a circuit breaker. It must be installed on a certified electrical box.
- ▶ For a new installation, choose a location about 1.5 m above the floor.
- ▶ For electric baseboards, convectors and fan-forced heaters, the thermostat must be installed facing the heating system.
- ▶ The thermostat must be installed on an inside wall.
- ▶ Avoid locations where there are air drafts (top of staircase, air outlet), dead air spots (behind a door), direct sunlight or concealed chimneys or stove pipes.

## 3 Included Parts

- 1 One (1) PB130-230 power base
- 2 One (1) floor sensor (for AF and F control modules only)
- 3 One (1) wall plate (optional, in certain countries)

## Technical Specifications

**Model:** PB130A-230

**Supply:** 230 VAC, 50 Hz

**Load:** 15 A maximum (resistive only)

**Power:** 3450 Watts (NI) @ 230 VAC

**Conformity:** EN60730-2-9 / EN50081-1 / EN50082-2

**Storage:** -20°C to 50°C

**Protection:** Class 2

**Protection degree:** IP20

**Automatic action:** Type 1.B

**Environment:** Normally polluted

**Size (H • W • D) :** 2.95 x 2.95 x 0.55 in. (75 x 75 x 14 mm)

**NOTE:** The terminals are designed to handle a cross-section of wire measuring 0.33 to 3.1 mm<sup>2</sup>.

If you have any questions concerning the installation of the PB130-230 power base, contact our technical support team at:



705 Montrichard  
Saint-Jean-sur-Richelieu  
Quebec, Canada J2X 5K8

Tel.: (450) 358-4600  
Toll Free: 1-800-831-AUBE  
Fax: (450) 358-4650  
Email: service@aubetech.com



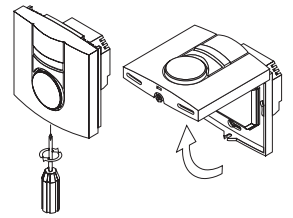
10 rue Ampère  
95500 Gonesse  
France

33 (0) 1 34 07 99 00  
33 (0) 1 34 07 99 19  
advaube@comintes.com

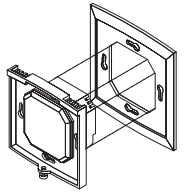
For more information on our products, visit us at  
[www.aubetech.com](http://www.aubetech.com)

## 4 Installation and Wiring

- 1 Remove the screw holding the control module to the power base and lift the lower part upwards. The screw cannot be completely removed.

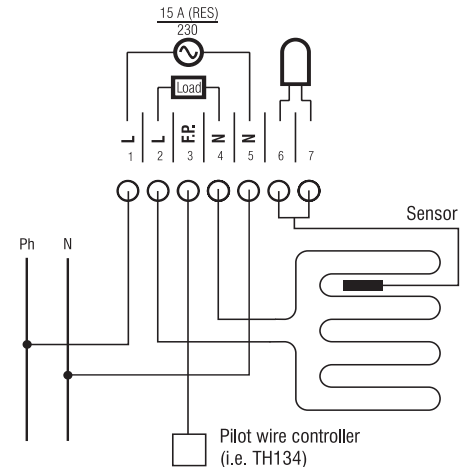


- 2 Before making the connections, make sure that the base covers the electrical box entirely. If not, install a wall plate at the back of the base as shown.



- 3 Connect the wires:

- **Power:**  
Terminals 1 & 5
- **Load:**  
Terminals 2 & 4  
see note 1
- **Pilot Wire:**  
Terminal 3  
see note 2
- **Floor sensor:**  
Terminals 6 & 7  
(no polarity)  
see note 3

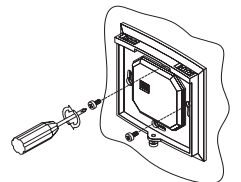


**Note 1** If a contactor is used between the thermostat and the load, install a snubber at the contactor's coil terminal to ensure the proper operation of the thermostat.

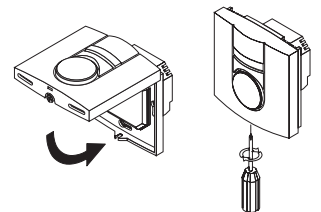
**Note 2** This connection is required on some models only.

**Note 3** For the proper operation of the thermostat, the floor sensor must be centered between two heater wires having a maximum temperature of 80°C. The floor sensor wire must not cross any heater wire or be placed close to it.

- 5 Push wires into the electrical box and secure the base to the electrical box anchorage. The head of the screw must be less than 2 mm thick.



- 6 BEFORE installing the control module onto the base, set the configuration switches (if any) on the control module (refer to the user guide).



**WARNING:** This power base must be used **only** with **15-minute** heating cycles. If your control module has a selector switch for choosing the heating cycle, ensure that the switch is correctly set.

- 7 Return power to the heating system.

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