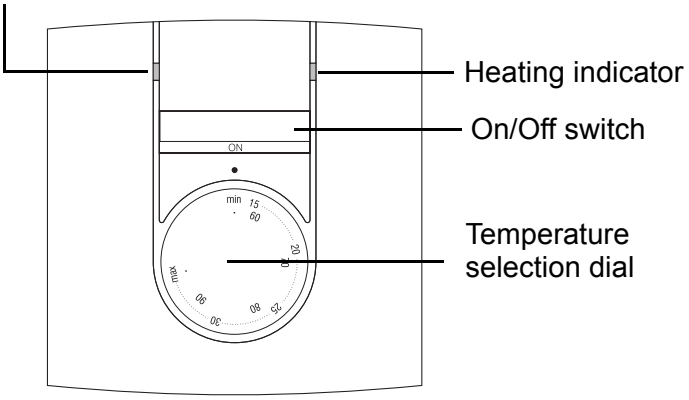
# A16c

Pilot wire indicator
(Europe only)

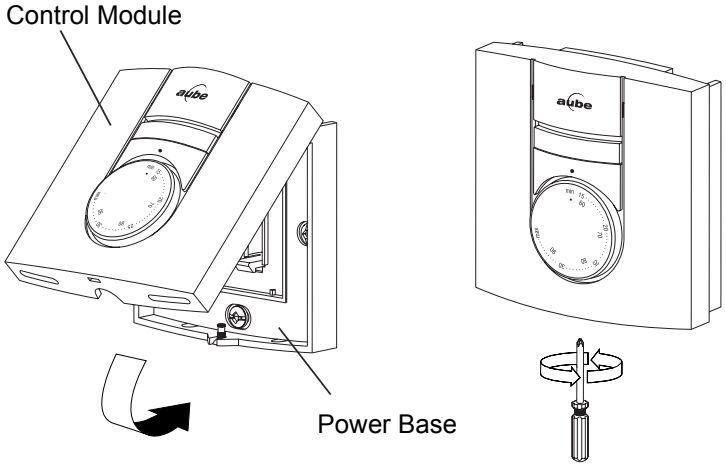



## ❶ Description

The A16c model is designed for residential applications, and can be configured for the following applications:

| Type | Application |
|---|---|
| A | Controls the ambient (room) temperature |
| F | Controls the floor temperature |
| AF | Controls the ambient temperature and limits the floor temperature |

## ❷ Installation



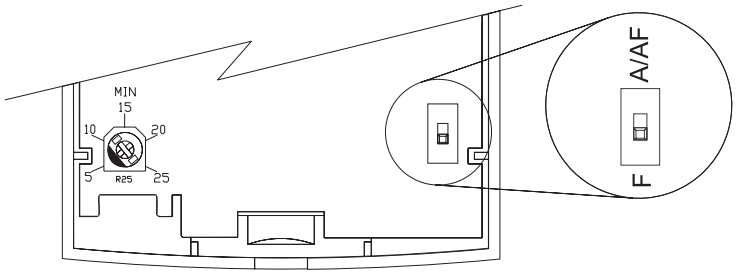

***NOTE**: Keep the thermostat's air vents clean and free from obstructions.*

## ❸ Configuration

### 3.1 Application Types

| Type | Switch Position |
|---|---|
| A | UP (A/AF) |
| AF | UP (A/AF) |
| F | DOWN (F) |

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

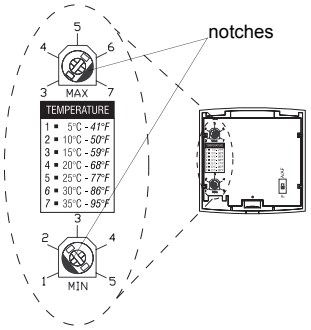



### 3.2 Minimum and Maximum Limits

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.




## ❹ Operation

### 4.1 Temperature Adjustment

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).*

### 4.2 On/Off Switch

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

## 5 Pilot Wire Orders (Europe only)

A16c 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) |  | 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 |

## 6 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)**:

- 78.9 x 78.9 x 16.3 mm (3.1 x 3.1 x 0.64 in.)

## Customer Assistance

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BN thermic

# PB130

## Installation Instructions

230 V Line Voltage Power Base

The PB130-230 power base is used to power an A16c control module. The resistive load must not exceed 3450 watts (NI) @ 230 VAC (15 A).

## 1 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)

## 2 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.

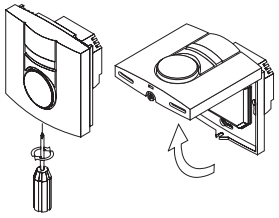
## 3 Technical Specifications

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 : IP21
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)

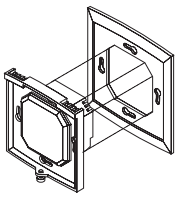
NOTE: The terminals are designed to handle a cross-section of wire measuring 0.33 to 3.1 $mm^2$.

## 4 Procedure

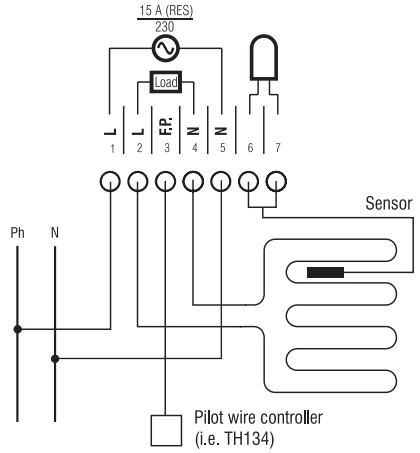
1. Remove the screw holding the control module to the power base and lift the lower part upwards. The screw cannot be completely removed.



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

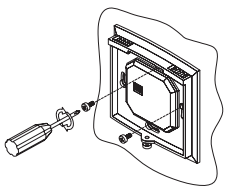



Note 1 If a contactor is used between the thermostat and the load, install a snubber at the contactor's coil terminal to ensure the proper operation of the thermostat.

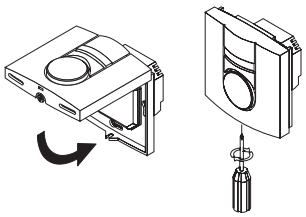
Note 2 This connection is required on some models only.

Note 3 For the proper operation of t he 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 m odule has a selector switch for choosing the heating cycle, ensure that the switch is correctly set.

7. Return power to the heating system.