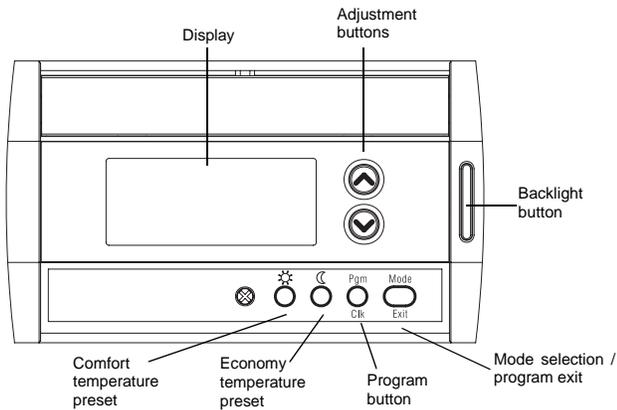


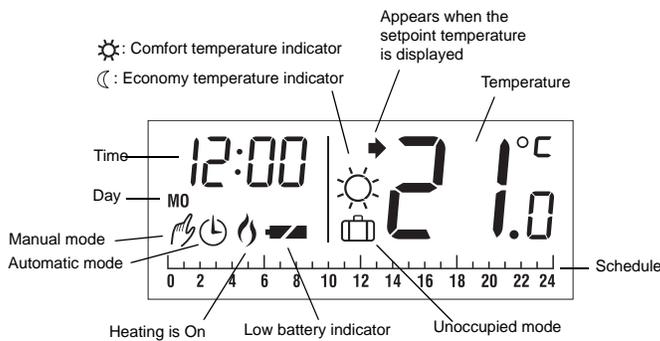
### 1 Introduction

The TH147E-P and TH148ELE-P thermostats can be used to control:

- a forced air system - 2 or 3 wires
- a hot water system with or without pump - 2 wires
- a millivolt system - 2 wires



#### Display



### 2 Installation

*Note: The installation must be performed by an electrician.*

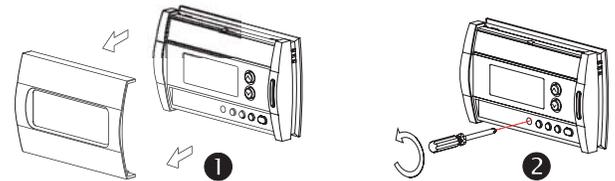
#### 2.1 Removing the Old Thermostat

**IN ORDER TO AVOID ANY RISK OF ELECTRIC SHOCK, CUT POWER TO THE HEATING SYSTEM.**

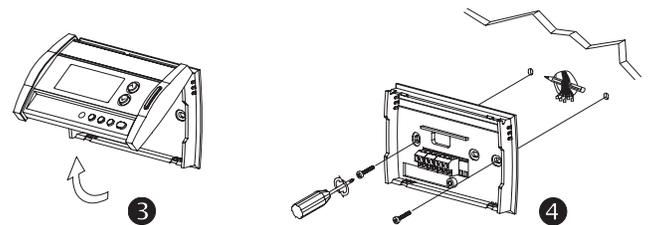
- 1 Remove the old thermostat to access the wires.
- 2 Identify and label each wire (with the corresponding letter on the wire terminal) and remove them from the terminals.
- 3 If necessary, strip the end of each wire (maximum of 6 mm).

#### 2.2 Installing the New Baseplate

Choose a location approximately 1.5 m above the floor and on an inside wall. Avoid draughty areas (top of staircase, air outlet, etc.), dead air spots (behind doors), direct sunlight or areas near concealed pipes or chimneys.



- 1 Remove the thermostat faceplate.
- 2 Loosen the locking screw in order to separate the thermostat from its baseplate (the screw cannot be completely removed).



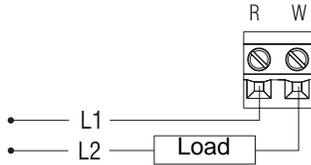
- 3 Gently tilt the thermostat upwards.
- 4 Pass the wires through the opening of the baseplate and secure the baseplate to the wall using the appropriate screws.

#### 2.3 Terminal Designations

R	Power
W	Load
Un / Un	Unoccupied mode input (TH148ELE-P only)

Features	TH147E-P	TH148ELE-P
Pump protection	X	X
Programmable cycle length	X	X
Battery replacement indicator	X	X
Backlit display	X	X
Programming:	X	X
- Preprogrammed schedule	X	X
- Temporary bypass	X	X
- Time display (12 h or 24 h)	X	X
Interchangeable faceplates	X	X
Unoccupied mode activated remotely		X
Automatic daylight savings changeover		X

## 2.4 Connecting the Heating System



**NOTE:**  
No polarity to observe.

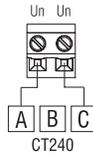
## 2.5 Unoccupied Mode Input (TH148ELE-P only)

TH148ELE-P has an input that can be used to lower the temperature when the house is unoccupied. You can connect an Aube's CT240 telephone controller (optional) or another remote control system.

When the thermostat receives a 12-VDC signal, it switches to the unoccupied mode where the setpoint programmed for that mode is used (see section 5). When the signal is removed, the thermostat returns to the previous mode.

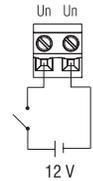
### 2.5.1 Connecting to CT240

Connect TH148ELE-P terminals UN and UN to CT240 terminals A and C (no polarity to observe).

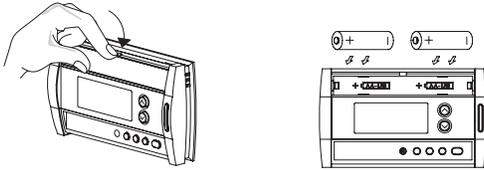


### 2.5.2 Connecting to a Home Automation System

Connect TH148ELE-P terminals UN and UN to a 12-VDC circuit as shown (no polarity to observe).



## 2.6 Installing the Batteries

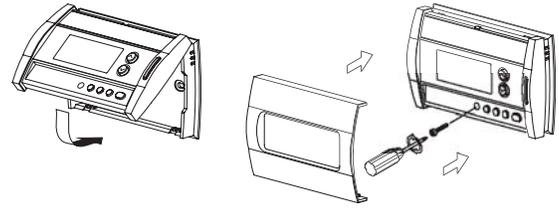


- 1 Gently pull out the battery cover.
- 2 Install the batteries as shown. Observe the polarity.
- 3 Re-install the battery cover. You will hear a clicking sound.

After the batteries are installed, the thermostat performs a series of tests for approximately 5 seconds.

Afterwards, the thermostat displays the temperature. It is possible that the displayed temperature is higher than the ambient temperature if you are holding the thermostat in your hands. Once installed on the wall, the thermostat will display the ambient temperature. The time and day settings flash to indicate that they must be set (see section 4.1).

## 2.7 Completing the Installation



- 1 Once the baseplate and the batteries are installed, mount the thermostat on the baseplate.
- 2 Secure the thermostat using the locking screw and install the faceplate.
- 3 Apply power back to the system.

## 3 Basic Functions

### 3.1 Backlight

The display illuminates for 12 seconds when the backlight button or any other button is pressed.

### 3.2 Displaying the Temperature

The actual (measured) temperature is normally displayed. To view the setpoint temperature, press once on either of the buttons. The setpoint, along with the icon, will be displayed for the next 5 seconds.

### 3.3 Setting the Temperature

Press one of the buttons until the desired temperature is displayed.

### 3.4 Comfort and Economy Temperatures

The thermostat has 2 preset temperature buttons:

- Comfort temperature
- Economy temperature

To set the thermostat at the Comfort or Economy temperature, press the corresponding preset button. The corresponding symbol will be displayed.

The following table shows the use and the factory setting of each preset button.

Button	Intended use	Default setting
	Comfort (when the occupant is awake and at home)	21°C
	Economy (when the occupant is absent or asleep)	17°C

To modify the Comfort or Economy temperature:

- 1 Set the desired temperature using the buttons.
- 2 Press and hold the appropriate preset button until the corresponding symbol is displayed.

## 3.5 Control Mode

### 3.5.1 Manual

Use this mode to set the temperature manually. To use this mode, press **Mode** to display  and set the desired temperature using the   buttons or the   buttons.

### 3.5.2 Automatic

Use this mode to set the temperature according to the programmed schedule (see section 4.3). To place in Automatic mode, press **Mode** to display .

#### Temporary Bypass

If you modify the setpoint temperature when the thermostat is in automatic mode, the new temperature will be used for the next 2 hours. Afterwards the thermostat will return to the automatic mode and use its current temperature setting. The  icon flashes during the bypass.

### 3.5.3 Unoccupied (TH148ELE-P only)

To place the thermostat in Unoccupied mode, see section 2.5. When the thermostat is in this mode, the unoccupied mode setpoint is used and the  icon is displayed.

#### Temporary Bypass

If you modify the setpoint temperature when the thermostat is in unoccupied mode, the new temperature will be used for the next 2 hours. Afterwards, the thermostat will return to the unoccupied mode setpoint. The  icon flashes during the bypass.

## 3.6 Low-battery Indicator

An icon appears when the batteries need replacement. This icon will flash for 60 days, then the thermostat will cut power to the heating system. The icon disappears once the batteries are replaced.



After replacing the batteries, re-adjust the clock and day (see section 4.1). For TH148ELE-P model, re-adjust the date also (see section 4.2). The rest of the settings are unaffected when the batteries are removed.

## 4 Programming

### 4.1 Setting the Clock and Day

- 1 Press **Clk** for 3 seconds. The hour display flashes.
- 2 Set the hour using .
- 3 Press **Clk**. The minute display flashes.
- 4 Set the minutes using .
- 5 Press **Clk**. The day display flashes.
- 6 Set the day using .
- 7 Press **Exit** to exit the programming mode.

### 4.2 Setting the Date (TH148ELE-P only)

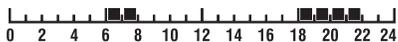
This setting is necessary only if you use the automatic daylight savings changeover (see section 5).

- 1 Press **Clk** for 3 seconds. The time setting is displayed.
- 2 Press **Clk** for 3 seconds again. The year setting is displayed.
- 3 Set the year using   and press **Clk** to display the month setting.
- 4 Set the month using   and press **Clk** to display the date setting.
- 5 Set the day using  .
- 6 Press **Exit** to exit the programming mode.



### 4.3 Schedule

When the thermostat is placed in automatic mode, it switches between the Comfort temperature and the Economy temperature according to the programmed schedule. You can set a different program for each day of the week. The following schedule has been programmed in the thermostat as follows:

Monday to Friday	Comfort  :	Economy  :
	6:00 to 8:00 18:00 to 22:00	8:00 to 18:00 22:00 to 6:00
		
Saturday and Sunday	Comfort  :	Economy  :
	6:00 to 22:00	22:00 to 6:00
		

### 4.4 Modifying the Schedule

- 1 If not already done, set the Comfort and Economy temperatures (see section 3.4).
- 2 Press **Pgm**. The program for Monday will appear and the first period (0:00 a.m. to 1:00 a.m.) is selected (flashes). Each period is a one-hour interval.  
*Note: If you wish to use the same program every day, press **Pgm** for 3 seconds to select all the days of the week.*
- 3 Press  or  to advance to the next or preceding period respectively.
- 4 Select the Comfort or Economy temperature by pressing on the corresponding button ( or .
- 5 Repeat steps 3 and 4 as required.
- 6 To modify the program for another day, press **Pgm** until the day is selected and repeat steps 3 to 5.
- 7 Press **Exit** to exit the programming mode.

## 5 Configuration

- 1 Press the backlight button until the configuration menu appears (3 seconds).
- 2 To go to the next parameter (menu item), press the backlight button (1 second).
- 3 To modify a parameter, press  $\odot \odot$ .
- 4 Repeat steps 2 and 3 if necessary.
- 5 To end, press the backlight button until the configuration menu disappears (3 seconds).

DISPLAY	DESCRIPTION	DEFAULT	SELECTIONS
H <sub>r</sub>	Time display	12 h	12 h or 24 h
PP	Pump protection <sup>1</sup>	Off	On or Off
dLS	Automatic daylight savings changeover <sup>2</sup> (TH148ELE-P only)	Off	On or Off
H L d	Unoccupied mode temperature setting <sup>3</sup> (TH148ELE-P only)	10°C	5°C to 28°C
[ PH	Number of cycles per hour <sup>4</sup>	4	2, 3, 4, 5 or 6

<sup>1</sup> When pump protection is On, the thermostat will activate the heating system for 15 seconds if it has not been activated for the past 24 hours.

<sup>2</sup> Daylight savings time starts on the last Sunday of March and normal time starts on the last Sunday of October.

<sup>3</sup> See section 2.5.

<sup>4</sup> The corresponding cycle lengths are: 2=30 min., 3=20 min., 4=15 min., 5=12 min., 6=10 min. Select the cycle according to the type of heating: gas boiler <30kW: 10 minutes; oil boiler: 20 minutes

## 6 Technical Specifications

**Power supply:** 2 LR6 (1.5V) Alkaline batteries

**Maximum load:** 5 A (resistive), 0.95 A (inductive) @ 240 VAC

**Power across UN terminals:** 20 mA @ 12 VDC

**Setpoint range:** 5 to 28°C

**Display range:** -10 to 50°C

**Display resolution:** 0.5°C

**Accuracy:** ± 0.5°C

**Cycle length:** 10, 12, 15, 20 or 30 minutes (programmable)

**Conformity:** IEC60730-1

**Storage temperature:** -20 to 50°C

**Dimensions:** 127 mm x 75 mm x 28 mm

## 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,

- (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 Aube Technical Support at 33 (0) 1 34 07 99 00. Technical Support will make the determination whether the product should be returned to the following address: 10 rue Ampère, 95500 Gonesse, France, 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.

If you have any questions concerning this warranty, please write Aube, 705 Monrillard, Saint-Jean-sur-Richelieu, Quebec J2X 5K8 Canada.



## Technical Assistance

For any questions regarding the product installation or operation, contact our technical support team at

**Tel.:** 33 (0) 1 34 07 99 00

**Fax:** 33 (0) 1 34 07 99 19

**Email:** advaube@comintes.com

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