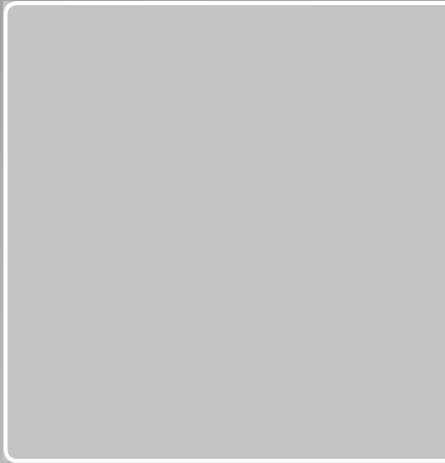


For the heating engineer

## Installation instructions



# timeSWITCH

VTS 160

**GB, IE**

# Table of contents

## Table of contents

<b>1</b>	<b>Notes on the installation instructions</b> .....	4	<b>5</b>	<b>Start-up</b> .....	13
1.1	Observing other applicable documents .....	4	5.1	Making settings for the operator .....	13
1.2	Document storage .....	4			
1.3	Symbols used .....	4	<b>6</b>	<b>Operating and display functions</b> .....	14
1.4	Applicability of the instructions .....	5	6.1	Operator level functions .....	14
1.5	CE label .....	5			
<b>2</b>	<b>Safety</b> .....	6	<b>7</b>	<b>Handing over to the operator</b> .....	15
2.1	Safety and warning information .....	6	<b>8</b>	<b>Rectifying faults</b> .....	16
2.1.1	Classification of warnings .....	6	8.1	Error messages .....	16
2.1.2	Structure of warnings .....	7	8.2	Faults .....	17
2.2	Intended use .....	7	8.3	Restoring factory settings .....	17
2.3	Basic safety instructions .....	8			
2.4	Regulations (Directives, laws and standards) .....	8	<b>9</b>	<b>Decommissioning</b> .....	18
<b>3</b>	<b>System description</b> .....	9	9.1	Replacing the timer .....	18
3.1	System design .....	9	9.2	Recycling and disposal of the timer .....	19
3.2	Functionality .....	9	<b>10</b>	<b>Warranty and customer service</b> .....	20
3.3	Identification plate .....	10	10.1	Vaillant warranty .....	20
			10.2	Vaillant Service .....	20
<b>4</b>	<b>Installation</b> .....	11			
4.1	Checking the delivery .....	11			
4.2	Installing the timer in the electronic box .....	11			

# Table of contents

<b>11</b>	<b>Technical data</b> .....	21
<b>12</b>	<b>Glossary</b> .....	22
<b>Index</b>	.....	23

# 1 Notes on the installation instructions

## 1 Notes on the installation instructions

The following instructions are intended to guide you throughout the entire documentation. Further documents apply in combination with these installation instructions. We accept no liability for damage caused by failure to observe these instructions.

### 1.1 Observing other applicable documents

- ▶ When installing the timeSWITCH, you must also pay attention to all installation instructions for other components that may be fitted to the system. These installation instructions are enclosed with the various additional system components.
- ▶ Also observe all the operating instructions supplied with the system components.

### 1.2 Document storage

- ▶ Pass these installation instructions and all other applicable documents and, if necessary, any required tools to the system operator. The system operator will store these so that they are available when required.

## 1.3 Symbols used

The symbols used in the text are explained below: Symbols for identifying dangers are also used in these operating instructions (→ **section 2.1.1**).



Symbol that denotes useful tips and information



Symbol for a required action

## 1.4 Relevance of the instructions

These installation instructions are valid for units with the following article numbers only:

Type designation	Article number	Countries
VTS 160	0020124498	GB

### 1.1 Type designations and article numbers

The 10-digit article number can be found in the serial number of your appliance.

The serial number is displayed when you press the left selector button under „Information/Serial number“. It is in the second line of the display (→ **Operating instructions**).

## 1.5 CE label

CE labelling shows that, based on the type overview, the appliances comply with the basic requirements of the following directives:

- Electromagnetic compatibility directive (Council Directive 2004/108/EC)
- Low voltage directive (Council Directive 2006/95/EC).



## 2 Safety







### 2 Safety

#### 2.1 Safety and warning information

- When installing the timeSWITCH, take account of the basic safety instructions and the warning notes that may appear before an action.

##### 2.1.1 Classification of warnings

The warning notes are classified in accordance with the severity of the possible danger using the following danger signs and signal words:

Danger sign	Signal word	Explanation
	<b>Danger!</b>	Immediate risk of death or risk of severe personal injury
	<b>Danger!</b>	Risk of death from electric shock
	<b>Warning!</b>	Risk of minor personal injury
	<b>Caution!</b>	Risk of material or environmental damage

#### 2.1 Meaning of danger signs and signal words



### 2.1.2 Structure of warnings

Warning signs are identified by an upper and lower separating line. and are laid out according to the following basic principle:




---

#### **Signal word!**

#### **Type and source of danger!**

Explanation of the type and source of danger.

- Measures for averting the danger.
- 

### 2.2 Intended use

The Vaillant timeSWITCH timer has been constructed using state-of-the-art technology in accordance with recognised safety regulations. Nevertheless, there is a risk of death or serious injury to the operator or others or of damage to the appliances and other property in the event of improper use or use for which they are not intended.

The timeSWITCH timer is a dual-channel timer switch which features daily and weekly programmes for time-dependent control of a Vaillant boiler with and without hot water production.

Operation is permissible with the following components and accessories:

- Domestic hot water cylinder (conventional)
- Vaillant stratified charge cylinder actoSTOR VIH RL

Any other use, or use beyond that specified, shall be considered as improper use. Any direct commercial or industrial use is also deemed to be improper. The manufacturer/supplier is not liable for any damage resulting from improper use. In this case, the user alone bears the liability. It is also considered as intended use to observe:

- the operating and installation instructions
- all other applicable documents
- compliance with the care and maintenance conditions.

Caution!

Improper use of any kind is prohibited!



## 2 Safety



### 2.3 Basic safety instructions

The unit must be installed by a competent person, who is responsible for compliance with the applicable requirements, regulations and directives.

- Read through these installation instructions carefully.
- Carry out the activities that are described in these installation instructions.
- During the installation, observe the following safety instructions and regulations.

#### **Protecting the timer from damage**

- The timer should only be installed in dry rooms.

#### **Preventing malfunction**

- Ensure that the heating system is in a technically perfect condition.
- Ensure that no safety or monitoring devices have been removed, bridged or disabled.
- Immediately rectify any faults and damage that may affect safety.

### 2.4 Regulations (Directives, laws and standards)

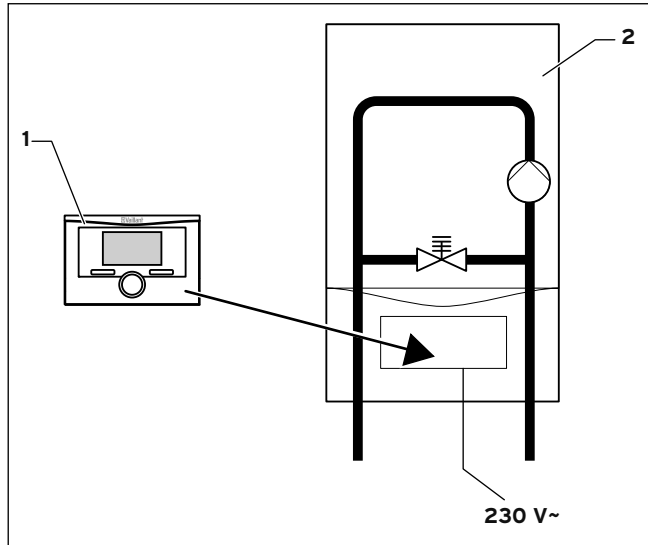
All wiring must be in accordance with Building Regulations Part P and BS 7671 (IEE Wiring Regulations), and must be carried out by a suitably qualified person.



### 3 System description

The timeSWITCH timer controls the heating system and hot water production.

#### 3.1 System design



3.1 System drawing

#### Key

- 1 VTS 160 timer
- 2 Boiler

The timer is plugged into the designated mounting recess in the boiler's electronic box.

#### 3.2 Functionality

##### Heating installation

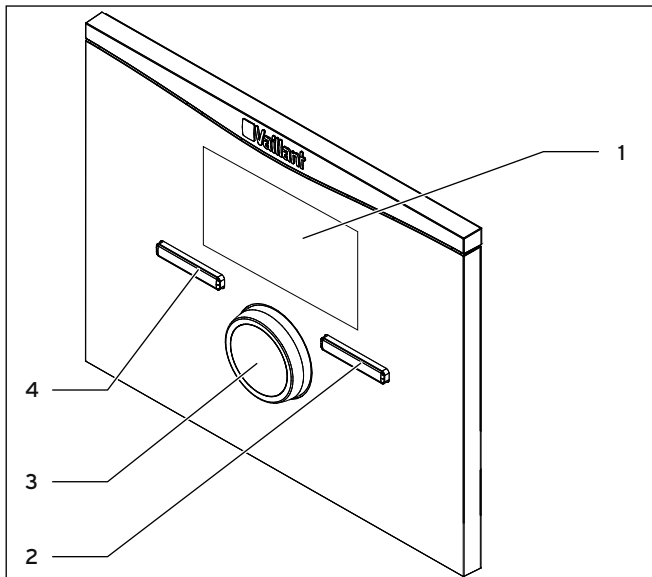
You can use the timeSWITCH timer to set the operating times for the heating system for different times of the day and for different days of the week.

##### Preparation

You can use the timeSWITCH timer to set the time for hot water production. The boiler heats the water in the domestic hot water cylinder. You can set a period during which hot water should be available in the domestic hot water cylinder.

## 3 System description

### Appliance design



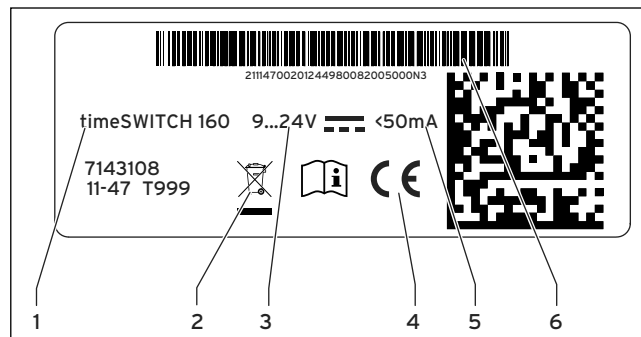
**3.2 timeSWITCH front view**

#### Key

- 1 Display
- 2 Right selector button
- 3 Control knob (without pushbutton function)
- 4 Left selector button

### 3.3 Identification plate

The identification plate is located on the rear of the timer's electronics module (PCB) and is not accessible from the outside after it has been installed in the boiler.



**3.3 Identification plate (example)**

#### Key

- 1 Appliance designation
- 2 Disposal symbol
- 3 Operating voltage
- 4 CE label
- 5 Current consumption
- 6 EAN code

## 4 Installation

The timer is connected to the boiler via the contact pins on the rear of the timer. The timer must be plugged into the designated mounting recess in the boiler's electronic box in order to establish the electrical connection to the boiler.

### 4.1 Checking the delivery

Quantity	Component
1	VTS 160 timer
1	3-pin pin header connector
1	Operating instructions
1	Installation instructions

#### 4.1 Scope of delivery

### 4.2 Installing the timer in the electronic box



#### **Danger!**

#### **Risk of death from live connections!**

When working in the control cabinet of the boiler there is a risk of death from electric shock. Continuous voltage is present on the mains connection terminals, even if the main switch is turned off!

- Switch the main switch off before working on the control cabinet of the boiler.
- Disconnect the boiler from the mains power by disconnecting the mains plug or by de-energising the boiler via an isolating device with a contact opening of at least 3 mm (e. g. fuses or power switches).
- Secure the power supply against being switched on again.
- Open the control cabinet only when the appliance is disconnected from the power source.

## 4 Installation



When fitting the timer in the boiler's electronic box, follow the instructions for fitting a controller given in the boiler's installation instructions.

- Switch off the boiler.
- Ensure that the boiler is disconnected from the power source.
- If necessary, open the front cover on the boiler.
- Remove the cover plate from the electronic box.
- Check which type of electronic box the boiler has:

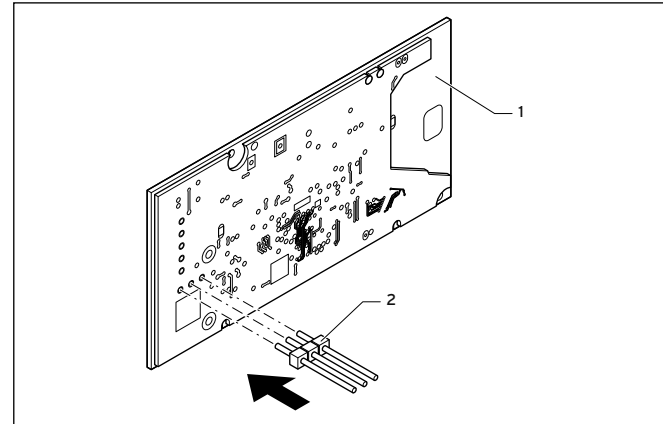
### Alternative 1 / 2

If there are **vertical** plug connections with pins on the electronics box:

- Carefully press the timer into the connection in the electronic box.

### Alternative 2 / 2

If there are **horizontal** plug connections without pins on the electronics box:



#### 4.1 Alternative 2 / 2: Inserting the pin header connector horizontally

- Insert the short ends of the 3-pin header connector (2) included with the timer into the 3 horizontal openings on the PCB for the timer (1).
- Carefully press the timer unit with the pin header connector into the connection in the electronic box.
- Switch on the power supply to the boiler.
- Bring the boiler into operation.
- Close the front panel of the boiler again.

## 5 Start-up

The operating concept, an example of operation and the menu structure are described in the timer's operating instructions (→ **Operating instructions**).

### 5.1 Making settings for the operator

Make the following settings for the operator via the Operating level:

- Set the date and the time.
- Set the mode for the heating function. The mode for hot water production is dependent on this and cannot be set separately.
- Set the period for automatic mode of the heating function.
- Set the period for hot water production.

## 6 Operating and display functions

### 6 Operating and display functions

#### 6.1 Operator level functions

For explanations regarding the various functions please refer to the timer's operating instructions.

- Language selection
- Set date, time
- Changing over to daylight saving time
- Setting the display contrast
- Setting the operating modes for heating and hot water production
- Restoring factory settings
- Set up time programmes for the heating circuit and hot water production
- Days away from home scheduling (holiday function)

### 7 Handing over to the operator

You must brief the operator of the unit on the handling and function of the timeSWITCH timer.

- Provide the operator with all relevant instructions and unit documentation for safe keeping.
  - Go through the operating instructions with the operator.
  - Answer any questions they may have.
  - Draw special attention to the safety instructions which the operator must follow.
  - Inform the operator of the necessity to ensure that the system is regularly inspected/maintained (inspection and maintenance contract).
  - Make the operator aware that the instructions must be kept near the timer.
  - To avoid malfunctions, provide information on which rules the operator must observe:
    - Only operate the heating system if it is in perfect technical condition.
    - Do not remove, bridge or disable any safety or monitoring devices.
    - Immediately rectify any faults and damage that may affect safety.
- To avoid damage from frost, inform the operator at the time of handover that
    - the operator must ensure that the heating system remains in operation and rooms are heated adequately during periods of absence during frost,
    - the operator must observe the frost protection instructions.

## 8 Rectifying faults

### 8 Rectifying faults

#### 8.1 Error messages

If a fault occurs in the heating system, an error message will appear in the timer's display instead of the basic display. The „Back“ selection button can be used to return to the basic display.

Display	Meaning	Connected appliances	Cause
Heat generator fault	Fault in boiler	Boiler	See boiler instructions
Communication fault heat generator	Boiler connection fault	Boiler	Incorrect plug connection

#### 8.1 Error messages



## 8.2 Faults

Fault	Meaning	Connected appliances	Cause
Display is dark	Timer fault	timeSWITCH timer	Appliance fault
No changes in the display via the rotary knob	Timer fault	timeSWITCH timer	Appliance fault
No changes in the display via the selector buttons	Timer fault	timeSWITCH timer	Appliance fault

### 8.2 Error messages

## 8.3 Restoring factory settings

You can reset your settings back to the factory settings  
(→ **Operating instructions**).

## 9 Decommissioning

### 9 Decommissioning

#### 9.1 Replacing the timer



**Danger!**

**Risk of death from live connections!**

When working in the control cabinet of the boiler there is a risk of death from electric shock. Continuous voltage is present on the mains connection terminals, even if the main switch is turned off!

- Switch the main switch off before working on the control cabinet of the boiler.
  - Disconnect the boiler from the mains power by disconnecting the mains plug or by de-energising the boiler via an isolating device with a contact opening of at least 3 mm (e. g. fuses or power switches).
  - Secure the power supply against being switched on again.
  - Open the control cabinet only when the appliance is disconnected from the power source.
- 

If you want to replace the heating system's timer, you must first shut down the boiler.

- To do this, follow the instructions in the boiler instructions.
- Ensure that the boiler is disconnected from the power source.
- Carefully lever the timer from the boiler.
- Install the cover plate on the electronic box.

## 9.2 Recycling and disposal of the timer

The timer and the associated transport packaging are predominantly manufactured from recyclable raw materials.



### Appliance

If your Vaillant unit is designated with this symbol, it does not belong with your household waste at the end of its useful life.

- Therefore, ensure that the Vaillant unit and any accessories are properly disposed of at the end of their useful life.

### Packaging

The heating specialist company which installs the unit is responsible for disposing of the transport packaging.

## 10 Warranty and customer service

### 10 Warranty and customer service

#### 10.1 Vaillant warranty

We only grant a Vaillant manufacturers warranty if a suitably qualified engineer has installed the system in accordance with Vaillant instructions. The system owner will be granted a warranty in accordance with the Vaillant terms and conditions. All requests for work during the guarantee period must be made to Vaillant Service Solutions (0870 6060 777).

#### 10.2 Vaillant Service

To ensure regular servicing, it is strongly recommended that arrangements are made for a Maintenance Agreement. Please contact Vaillant Service Solutions (0870 6060 777) for further details.

## 11 Technical data

Description	Unit	VTS 160
Operating voltage $U_{\max}$	V	24
Current consumption	mA	< 50
Protection type	-	IP 20
Protection class	-	III
Max. permitted ambient temperature	°C	50
Height	mm	97
Width	mm	147
Depth	mm	50

### 11.1 timeSWITCH technical data

## 12 Glossary

### 12 Glossary

#### **Heating circuit**

A heating circuit is a closed circulation system of pipes and heating devices (e. g. radiators). The heated water from the boiler flows into the heating circuit and returns to the boiler as cooled water.

A heating installation usually has at least one heating circuit.

#### **Periods**

Three time periods can be set per day for heating and hot water production.

#### **Example:**

Period 1: Mo 09.00 - 12.00

Period 2: Mo 15.00 - 18.30

The boiler is ready for heating in each time period designated HEATING 1.

The boiler is ready for hot water production in each hot water circuit time period.

In automatic mode the system is controlled as per the specified values in the time periods.

#### **Preparation**

The boiler heats the water in the domestic hot water cylinder to the selected target temperature. If the temperature in the domestic hot water cylinder falls by specific amount, the water is heated up again to the target temperature. You can set time periods for heating up the contents of the cylinder.

#### **Soft key function**

The function of the selector buttons alternates depending on the menu you are currently in.

The current functions of the selector buttons are displayed in the lower display line.

**Index****A**

Article number ..... 5

**D**

Directives ..... 8

Display ..... 10

**E**

Error messages ..... 16

**F**

Factory reset ..... 14, 17

**I**

Identification plate ..... 10

Installing the timer in the electronic box ..... 11

Intended use ..... 7

**O**

Operating modes ..... 14

Operator level ..... 14

**P**

Preparation ..... 13, 14

**S**

Settings for the operator ..... 13

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