

Technical Note:

Thermino® ePlus/xPlus & Volt-Free Timer Wiring Instructions



NOTICE

Please read & understand all these instructions before commencing installation.

Failure to install and operate this system in accordance with these instructions will invalidate the manufacturer's warranty. Please use this technical guidance in conjunction with the main installation manual for detailed instructions and requirements.



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1. INTRODUCTION

1.1 GENERAL

The following instructions provide guidance for installing suitable **volt-free** timers and time switches to control the electric charging demand of Thermino® ePlus and xPlus Heat Batteries. These instructions must be read in conjunction with the Installation and User Instructions Manual for the Thermino ePlus (D0083) and xPlus (D0084) products.

The installation must be carried out by a competent installer in accordance with local codes and regulations for plumbing, electrical installations and potable water supply.

1.2 SYMBOLS USED

In these instructions the following symbols are being used to draw the user's attention to information of particular importance.



DANGER

Indicates a hazardous situation that, if not avoided, will result in death or serious injury.



WARNING

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.



CAUTION

Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury or material damage.



NOTICE

Signals information that is considered important but not hazard related.

2. SAFETY

2.1 GENERAL SAFETY NOTICES



WARNING

Only competent persons suitably qualified to carry out plumbing and electrical work may undertake installations, repairs or relocations of the appliance.

Product training on the full range of Thermino Heat Batteries is available from Sunamp or authorised training partners.



WARNING

All Electrical wiring must be carried out by a competent person and be in accordance with the latest local wiring codes and regulations.



WARNING

Risk of electric shock – potential dual-supply. Always isolate the power supply/ies to the Heat Battery controller before working on the appliance.



CAUTION

Do not operate the immersion heater until all heat exchanger circuits have been filled and the plumbing has been appropriately commissioned.



3. GENERAL WIRING INSTRUCTIONS FOR VOLT-FREE TIMERS



CAUTION

If switching the live supply to the Heat Battery's integrated heating element, please refer to the Thermino ePlus and xPlus with PV wiring and settings manual (D0085) for permanent and switched supplies wiring instructions.

Switching the supply to the immersion heater requires timers that can switch the following minimum resistive loads:

- (i) 16A for Thermino products fitted with a 2800W heating element,
- (ii) 10A for Thermino products fitted with a 1800W heating element.



CAUTION

The instructions included in this document are relevant for **VOLT-FREE** timers/time switches **only**, **and must not be used for switching live supplies!**



NOTICE

A suitable timer/time switch is one that provides a volt-free/dry contact signal, and must be wired in accordance with the manufacturer's instructions and local wiring codes and regulations.

The below wiring diagrams show how suitable volt-free timers/time switches must be wired to Thermino ePlus and xPlus Heat Batteries. Please refer to the terminal block sections below for more detailed information on timer wiring instructions.

3.1 THERMINO ePlus WIRING

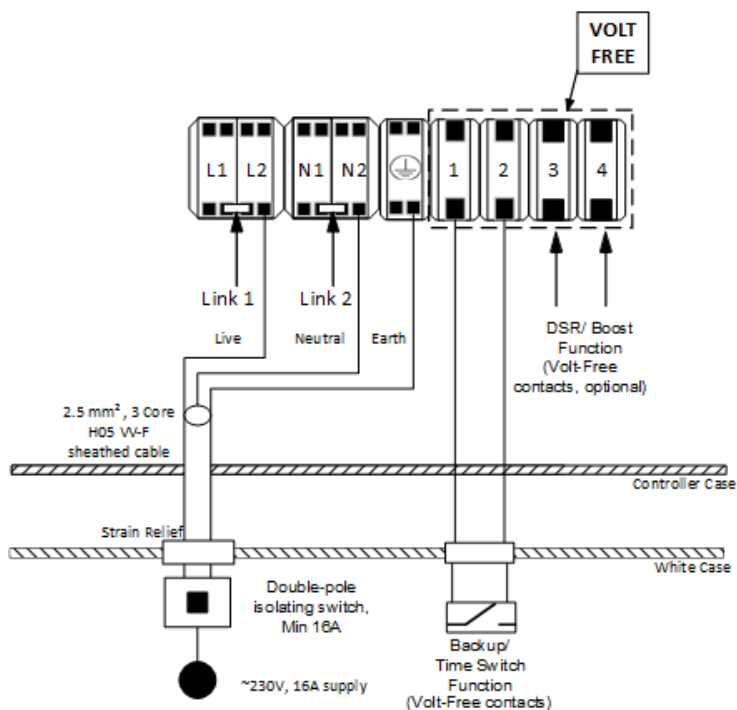


Figure 1 - Thermino ePlus with volt-free time switch

3.2 THERMINO xPlus WIRING

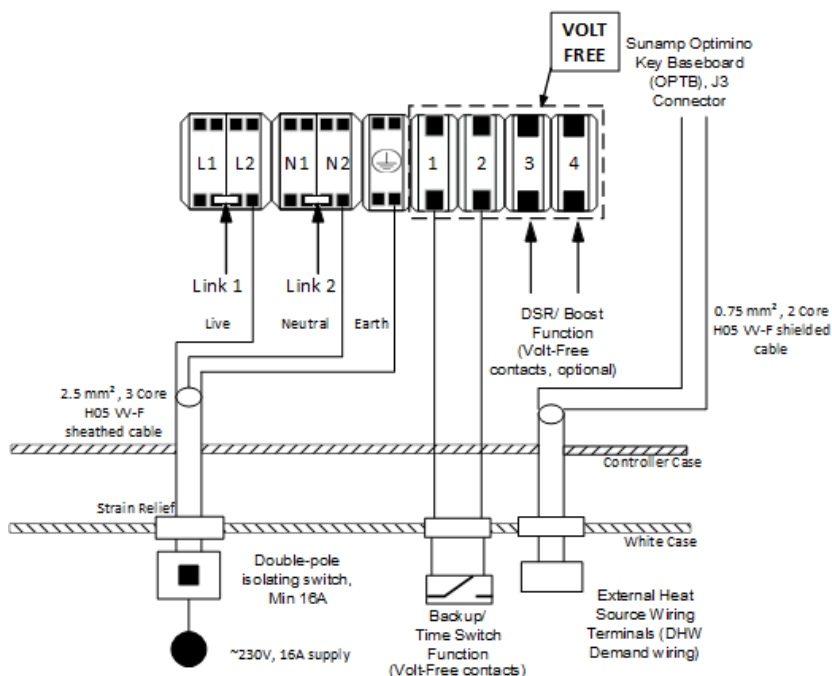


Figure 2 - Thermino xPlus with Back-up volt-free time switch



NOTICE

The intended use of Thermino xPlus products is to be charged by external heat sources as the primary source of energy. For more information on how to access back-up electric mode in Thermino xPlus products, and the circumstances under which it is permitted, please refer to document D0093.

4. OPTIMUM TIME SWITCH WIRING INSTRUCTIONS

TFC group manufacture a range of OPTIMUM Wi-Fi time switches that are suitable for use with Thermino products. These time switches are listed below:

- **OP-SBWF01 Wi-Fi Socket Box Timer**
- **OP-BM-IHTWF01 Wi-Fi Boiler Module**



NOTICE

If installed, the above time switches must be wired to Thermino ePlus/xPlus Heat Batteries as shown in Figures 1 & 2, and follow the wiring guidance in the table below. For detailed information on installation instructions and Wi-Fi comms set-up, please refer to the manufacturer's user and installation instructions.

Timer Model	Notes
OP-SBWF01	<p>Terminals "3" & "4" on the time switch need to be wired to the orange block terminals "1" & "2" on the Heat Battery's controller terminal strip.</p> <p>Note: Please remember to remove the charge link (bridge link) if present in orange block terminals "1" & "2"!</p>
OP-BM-IHTWF01	<p>The brass link between terminals "2" & "3" on the OPTIMUM time switch must be removed.</p> <p>Terminals "2" & "3" on the time switch need to be wired to orange block terminals "1" & "2" on the Heat Battery's controller terminal strip.</p> <p>Note: Please remember to remove the charge link (bridge link) if present in orange block Terminals "1" & "2"!</p>

Table 1 – OPTIMUM time switch wiring instructions



5. TIMEGUARD TIME SWITCH WIRING INSTRUCTIONS

Timeguard manufacture a time switch that is suitable for use with Thermino products. This time switch is listed below:

- **NTT04 – 24 Hour/7 Day Compact Electronic General Purpose Timeswitch with Voltage Free Contacts**

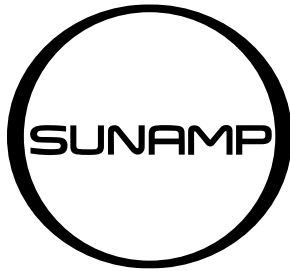


NOTICE

If installed, the above time switches must be wired to Thermino ePlus/xPlus Heat Batteries as shown in Figures 1 & 2, and follow the wiring guidance in the table below. For detailed information on installation instructions, please refer to the manufacturer's user and installation instructions.

Timer Model	Notes
NTT04	<p>Terminals "S OUT" & "S IN" on the time switch need to be wired to orange block terminals "1" & "2" on the Heat Battery's controller terminal strip.</p> <p>Note: Please remember to remove the charge link (bridge link) if present in orange block terminals "1" & "2"!</p>

Table 2 – Timeguard time switch wiring instructions



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