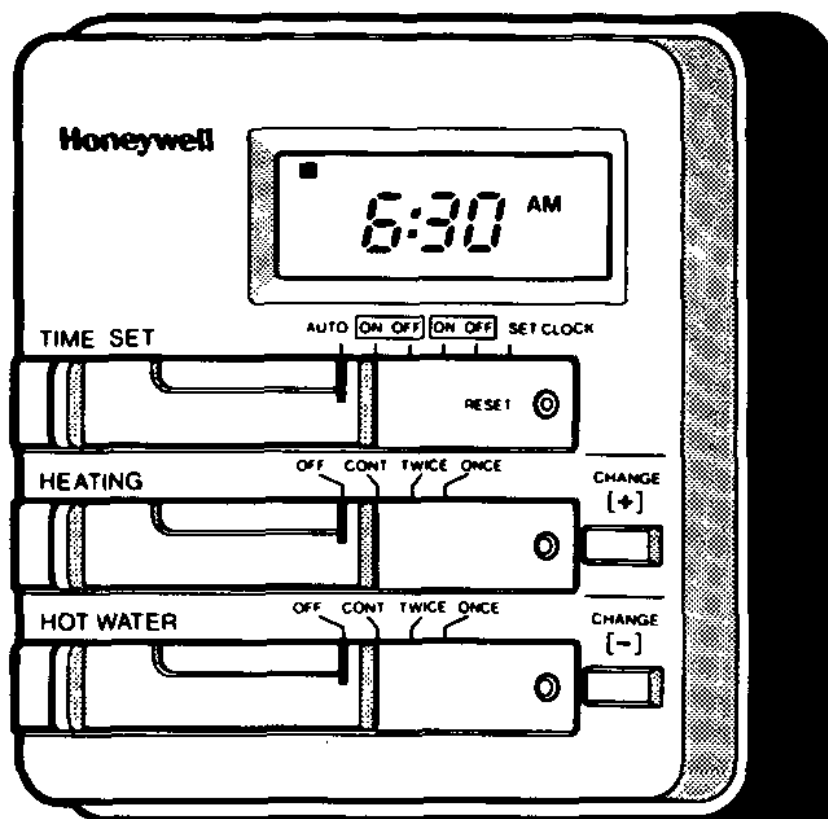


ST699 Programmer

Honeywell

86588



42008495-001 R4

USER GUIDE
TO BE LEFT
WITH USER

INTRODUCTION

The ST699 electronic programmer is used to control the **ON/OFF** timing of your heating and hot water system. The system may also incorporate a room temperature thermostat and a hot water cylinder thermostat to switch the heating appliance **ON** and **OFF** to maintain the correct temperatures.

ST699 INCORPORATES THE FOLLOWING FEATURES:

- 24-hour programme
- Independent Heating and Hot Water control
- Choice of two **ON/OFF** programme times per day (**TWICE**) or one programme time per day (**ONCE**)
- Built-in programme
- Temporary **ON/OFF** override (**CHANGE**)
- Continuous **ON** or **OFF** control (**CONT.** or **OFF**)
- **RESET** button

SETTING THE PROGRAMME TIMES

The unit has two **ON/OFF** programme times per day to control your Heating and Hot Water system. To help you set your personal programme quickly, a built-in programme has been incorporated with commonly used programme times. This programme is selected automatically when the unit is first connected to the mains power or when the **RESET** button is pressed.

Each programme time can be set between 3.00am and 2.50am (on the next day) to allow you to programme past midnight, if required.

- 1 Move the **TIME SET** selector to the first **ON** position (second from left). The first **ON** time will now be flashing in the display to indicate it can be changed
- 2 Press the \oplus or \ominus buttons to set the first **ON** time.

Each press of the button will change the time by 10 minutes. Holding the button down for more than a few seconds will change the time quickly. The display will stop flashing to indicate the time has been set.

- 3 Move the **TIME SET** selector to the first **OFF** position. Set the first **OFF** time using the \oplus or \ominus buttons.
- 4 Move the **TIME SET** selector to the second **ON** position. Set the second **ON** time using the \oplus and \ominus buttons.
- 5 Move the **TIME SET** selector to the second **OFF** position. Set the second **OFF** time using the \oplus and \ominus buttons.
- 6 Move the **TIME SET** selector to the **AUTO** position to complete setting the programme times.

REVIEWING AND CHANGING PROGRAMME TIMES

- 1 To review/change the **ON/OFF** programme times move the **TIME SET** selector to each of the **ON/OFF** positions in turn. Any time can be adjusted by using the \oplus or \ominus buttons.

- 2 Move the **TIME SET** selector to the **AUTO** position to complete reviewing/changing the programme times.

SETTING THE CORRECT TIME

- 1 Move the **TIME SET** selector to the **SET CLOCK** position. The display will now be flashing to indicate it can be changed.
- 2 Press the \oplus or \ominus button to set the correct time of day.

down for more than a few seconds will change the time quickly. The display will stop flashing to indicate the time has been set.

Each press of the button will change the time by one minute. Holding the button

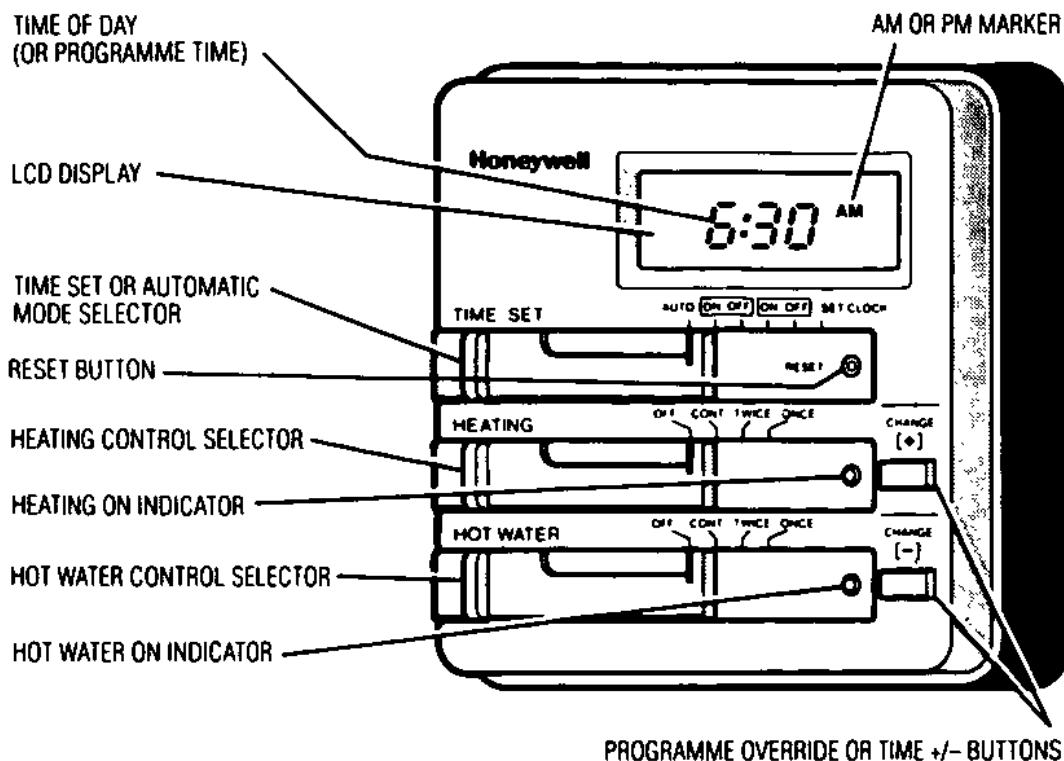
- 3 Move the **TIME SET** selector to the **AUTO** position to complete setting the time of day.

NOTES

- (i) On 12 hour clock versions ensure the **AM** or **PM** marker is correct. If not, adjust the time by a further 12 hours.
- (ii) Programme times cannot be set out of sequence. If the \ominus button is being pressed, the time will stop changing when it equals a previous programme time. If the \oplus button is being pressed,

subsequent programme times will be pushed forward along with the one being set.

- (iii) If the **TIME SET** selector is accidentally left in an **ON/OFF** or **SET CLOCK** position for a period of 10 minutes, the unit will start to operate as if it had been left in **AUTO**. The display will flash when this occurs to remind you to move the selector to the correct position.



IF THE DISPLAY REMAINS BLANK AFTER CONNECTING THE POWER OR IF YOU WANT TO RESET THE UNIT BACK TO THE ORIGINAL BUILT-IN PROGRAMME, PRESS THE RESET BUTTON WITH THE TIP OF A PEN OR PENCIL

PROGRAMME TIME	BUILT-IN PROGRAMME	YOUR PERSONAL PROGRAMME
Time 1	6.30am	
Time 2	8.30am	
Time 3	4.30pm (16.30)	
Time 4	10.30pm (22.30)	

OPERATING YOUR PROGRAMMER

For normal operation the **TIME SET** selector must be in the **AUTO** position.

Red indicator lamps show when the Heating or Hot Water is switched **ON**.

The two lower selectors are used to control your Heating and Hot Water as follows:

HEATING SELECTOR

OFF The heating will remain **OFF** permanently.

CONT The heating will remain **ON** permanently.

TWICE The heating will be switched **ON** and **OFF** automatically at the programme times.

ONCE The heating will be switched **ON** automatically after the first programme **ON** time and **OFF** at the last **OFF** time. The first **OFF** and second **ON** times will be ignored.

HOT WATER SELECTOR

The **HOT WATER** selector operates in the same manner as described above for the Heating.

CHANGE

The two **CHANGE** buttons switch the output **ON** or **OFF** (without altering the programme) when the **TIME SET** selector is in the **AUTO** position and the **HEATING** and/or **HOT WATER** selectors are set to **ONCE** or **TWICE**. When the indicator lamp is **ON**, pressing the **CHANGE** button switches the output **OFF** until the next programme **ON** time.

When the indicator lamp is **OFF**, pressing the **CHANGE** button switches the output **ON** until the next programme **OFF** time.

POWER FAILURE

This unit has a built-in battery to ensure correct operation after a mains power cut. No action should be necessary following a power cut of up to 7 days. Longer power cuts may require you to reprogramme the unit.

DISPOSAL CAUTION

This product contains a lithium rechargeable battery. Please observe the following safety precautions on disposal:

- Do not dispose of in fire or water.
- Do not attempt to replace the battery.
- Do not tamper with the battery.

Honeywell Control Systems Limited

Arlington Business Park
Bracknell
Berkshire
RG12 1EB

Tel: 01344 656000

Honeywell

Helping You Control Your World

ST699/ST799

ELECTRONIC CENTRAL HEATING PROGRAMMERS

Installation Guide

Introduction

ST699 and ST799 are Standard Programmers providing accurate time control for central heating systems with separate override facilities for heating and hot water.

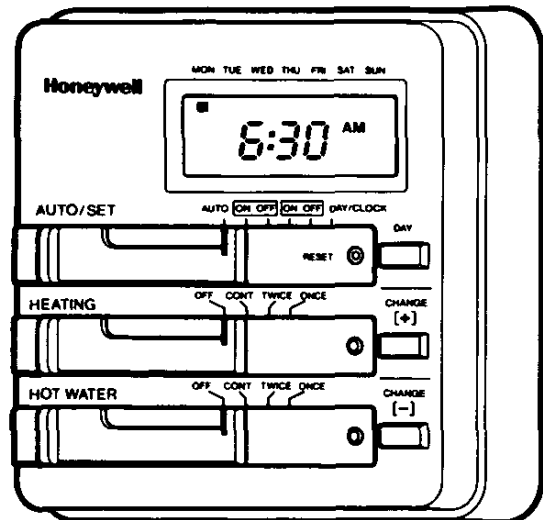
ST699 is a single 24 hour programmer.

ST799 is a 7 day programmer (or weekday-weekend programmer).

The Programmers can be combined with other Honeywell controls such as Room Thermostats, Cylinder Thermostats, Wiring Centres and Zone or Diverting Valves to form fully automatic heating control systems.

Specification

Power Supply: 230V~, 50Hz, 8VA.
Switch Action: 2 x SPDT, Type 1CSTU.
Switch Rating: 230V~, 50 ... 60Hz, 3(3)A.
Timing Accuracy ± 1 min./month.
Power Reserve: 7 days minimum.



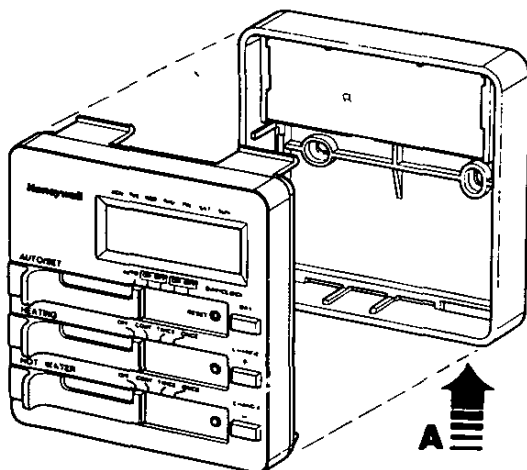
ST799

Mounting

The Programmer should be mounted at a level where the display can be clearly seen and the ambient temperature is within the range of 0 to 45°C. The unit is for use in normal domestic environments.

CAUTION

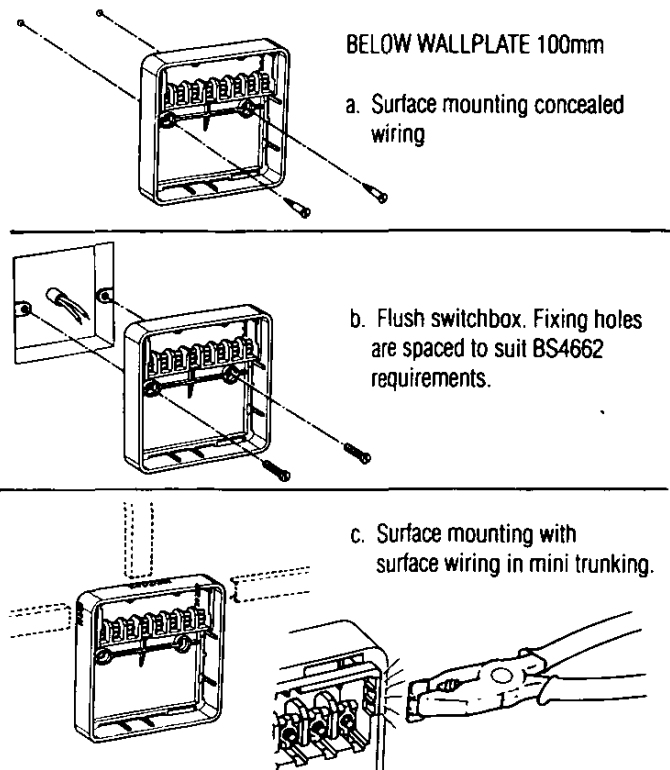
Disconnect power supply before wiring the programmer to prevent electric shock and equipment damage.



Remove the programmer front from the sub-base by pushing tab in bottom slot A with a small screwdriver and pulling the programmer front forward.

Mounting Options

MINIMUM CLEARANCE DISTANCES



Wiring

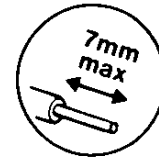
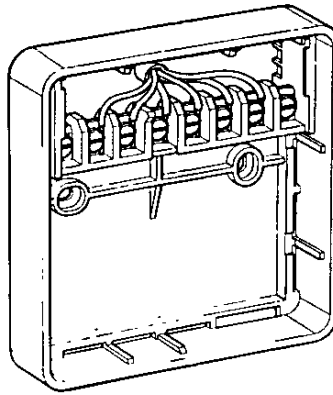
ALL WIRING MUST BE IN ACCORDANCE WITH I.E.E. REGULATIONS. THIS UNIT IS FOR FIXED WIRING ONLY.

A Class 'A' switch (having contact separation of at least 3mm in all poles) must be incorporated in the fixed wiring as a means of disconnecting the supply.

The Programmer is a class II (double insulated) device not requiring an earth connection. However, to comply with I.E.E. wiring regulations earth continuity for the heating system should be achieved by using the earth wiring stud in the switchbox (where used) or by using a suitable electrical connector installed in the programmer/timer wiring area.

The system must be appropriately fused. A fuse rated at no more than 3 Amps should be installed.

The unit has 3 knockouts on the sub-base for surface wiring installations. Care must be taken to use the knockout such that the cable completely fills the knockout hole without leaving any gaps. Where used, mini-trunking must be fitted firmly against the unit cover in such a way as to leave no gap.

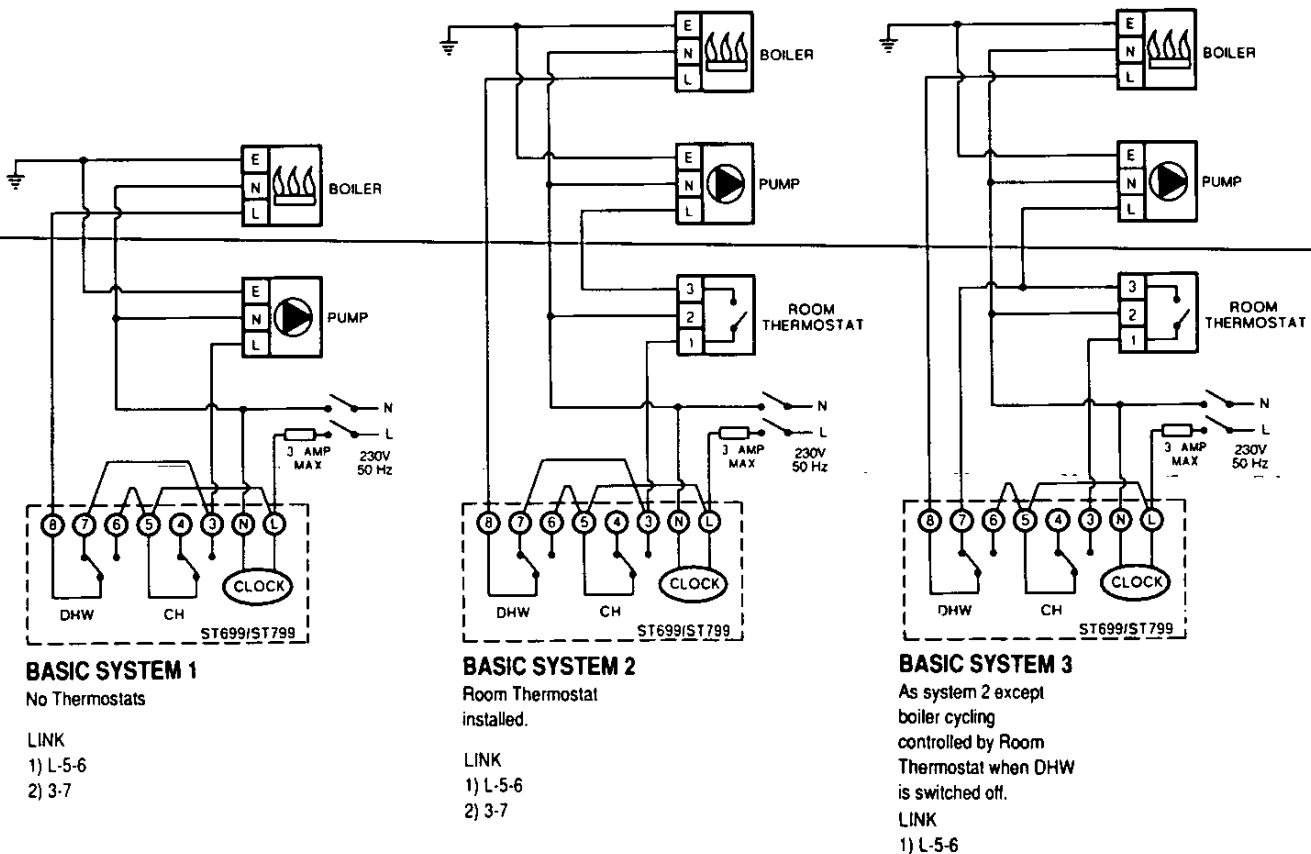


Note

In the SUNDIAL S, W and Y Plan wiring diagrams, connections are shown to basic boilers only. For wiring connections to Pump over-run boilers refer to Boiler manufacturers instructions or Honeywell for assistance.

*A link (not supplied) must be installed between L-5-8 on the sub-base of ST699/ST799 for all Sundial plans or fully controlled pumped or primary systems.

Wiring – Basic Gravity Hot Water/Pumped Central Heating Systems

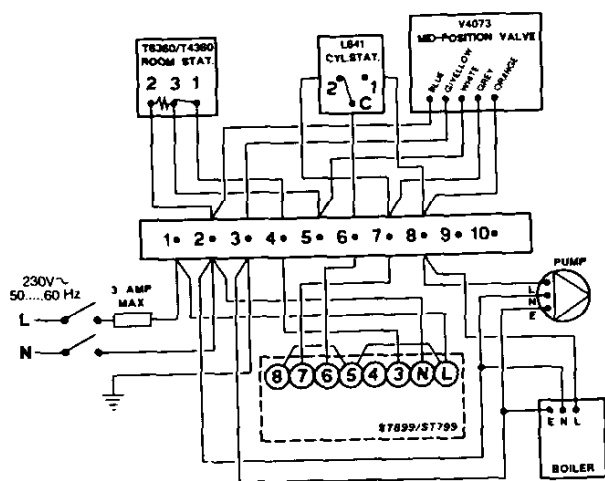


NOTE 1. Links 7-3; 6-5; 5-L not supplied.

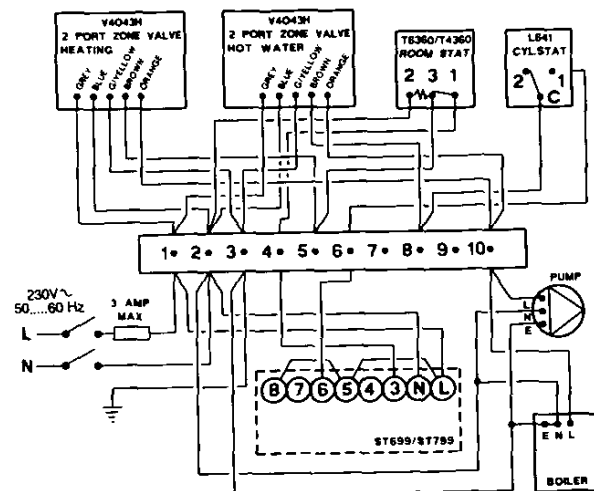
NOTE 2: The nature of the existing heating design prevents the selection of **HEATING ONLY**. Fitting the Honeywell Programmer will not reduce the functions previously available with the heating system.

Sundial Plan Wiring Diagrams

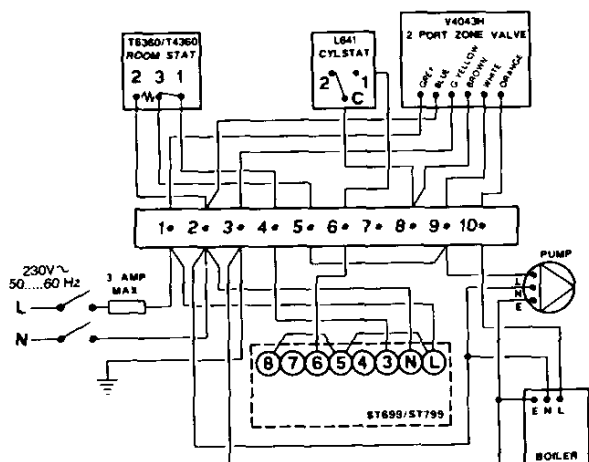
Y-Plan



S-Plan

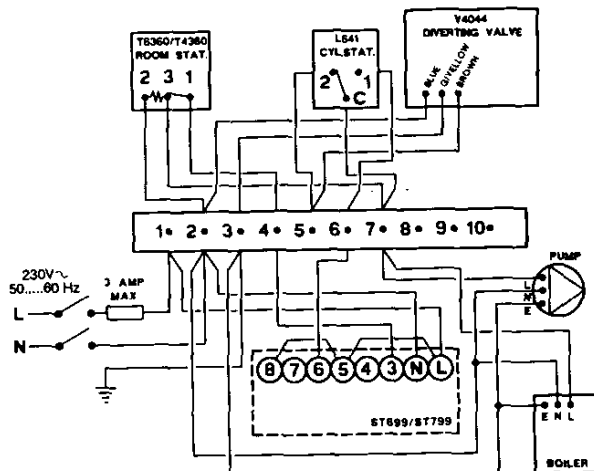


C-Plan



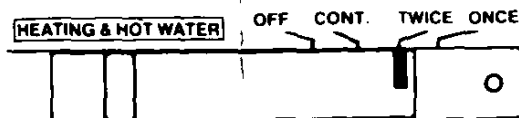
W-Plan

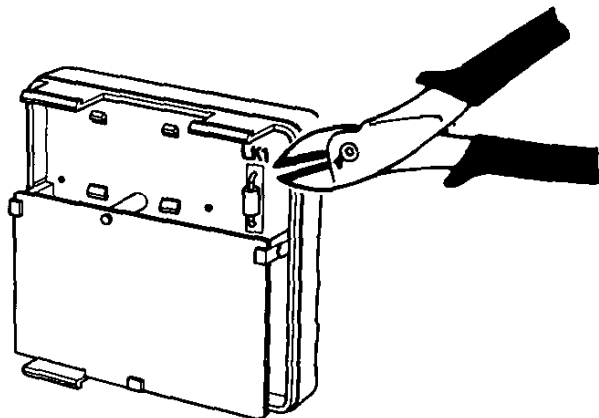
Wiring shown as a hot water priority system.



IMPORTANT NOTICE

When using ST699/ST799 on gravity hot water/pumped heating systems, a **HEATING & HOT WATER** sticker (supplied) should be placed over the existing **HEATING** caption (as illustrated below).





Note: ST799 Only

If weekday-weekend programming is required, cut and remove link **LK1**, from the circuit board, before replacing the programmer on the sub-base. The **RESET** button must then be pressed immediately after the power is switched on.

	7 DAY	WEEKDAY- WEEKEND
LK1		

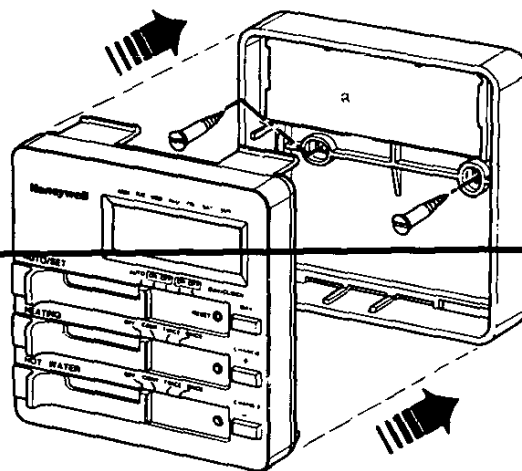
Final Assembly

When the wiring is completed, replace the terminal cover, ensuring ends are located below the tabs. Replace the programmer on the sub-base ensuring the tabs are firmly located in the slots.

Switch on the power, the unit will now operate according to the built-in programme. Refer to "USER GUIDE" for programming details.

Note

If the display remains blank press the RESET button with a blunt instrument (e.g. Pen or Pencil).



Whilst Honeywell takes all reasonably practicable steps to design and manufacture its products to comply with the requirement of the Health and Safety at Work Act 1974, all products must be properly used and Purchasers are reminded that their obligations under the Act are to ensure that the installation and operation of such products at a place of work should be safe and without risk to them.

Honeywell reserve the right at any time and without notice to change any product or any information contained in this publication

The wiring diagrams and installation instructions in this publication are for guidance purposes on recognised standard systems only. Any application of this product not shown here, or any deviation from these instructions, is neither recommended nor advised. Any such application or deviation must be referred to Honeywell for technical assistance.

Honeywell

Arlington Business Park, Bracknell, Berkshire RG12 1EB.

Tel: 01344 656 000