

Application

The ST7100 electronic central heating Programmer provides accurate and separate time control of heating and hot water and also enables the switching times for Monday to Friday, to be different for Saturday/Sunday. These four independent timing sequences give the Programmer the versatility to suit all fully controlled pumped and gravity central heating applications. While it may effectively be used on an uncontrolled gravity primary system, the separation of heating and hot water times, will be limited.

Specification

Power Supply: 240V ~ 50Hz, 7VA

Switch Rating: SPDT 2(2) A, 240 V ~

Operating Temperature Range: Ambient 0–45°C

Mains Failure Protection: 2 x AA size, 1.5V type LR6 alkaline batteries (supplied)

CAUTION

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

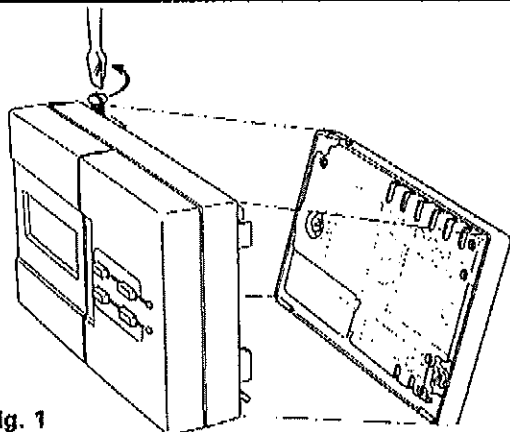


Fig. 1

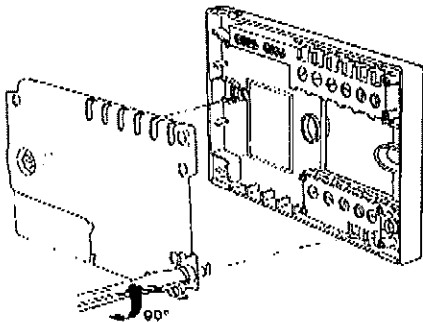
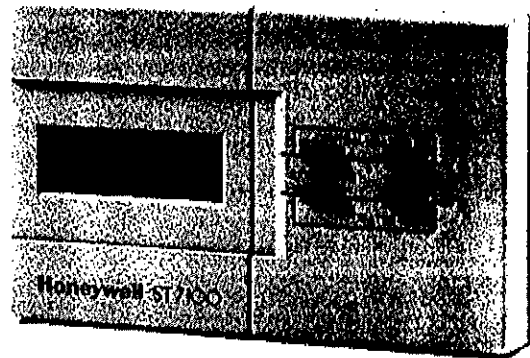


Fig. 2



ST7100 ELECTRONIC CENTRAL HEATING PROGRAMMER

INSTALLATION

Mounting

Slacken the Programmer securing screw indicated in Fig. 1, tilt the top edge back from the subbase and lift the Programmer upwards to release the bottom hinge hooks.

The subbase should be positioned at a level where the display will be clearly seen and where the ambient temperature does not exceed the specified range. Ensure there will be sufficient clearance above the subbase to allow a screwdriver to tighten up the securing screw.

Remove safety cover from the subbase by turning the securing screws through 90 degrees, see fig. 2.

Secure the subbase to the wall surface or to a single or double switch box with the fixing screws supplied. The fixing holes are spaced to suit BS 4662. A breakout is provided on the baseplate for double switch box mounting. If surface wiring is necessary, the subbase has been provided with entry points which may be broken out.

Wiring

**ALL WIRING MUST BE IN ACCORDANCE WITH I.E.E. REGULATIONS
NOT TO BE USED WITH LOW VOLTAGE SYSTEMS**

If using the Programmer with a Honeywell Sundial Plan, wiring should be carried out as shown in the appropriate Sundial Plan diagram, using a 10 way junction box. Alternatively, for simplicity and ease of wiring, the Programmer may be connected using the Honeywell Sundial Wiring Centre, 42005748-001, which provides one clearly marked block for each control used in Sundial Plans, with a numbered or lettered terminal for each wire.

For Sundial Plans, and all systems utilising both Central Heating and Hot Water outputs, a link must be provided between L - 3 - 6 on the subbase - See Fig. 3.

If it is required to use the subbase as a wiring centre, 3 spare terminals are provided and a further link should be added from N to the spare Neutrals block. A separate block is also provided for Earths.

Ensure the fixed wiring connection to the mains supply is via a fuse rated at not more than 3 amps and with a Class 'A' switch (having contact separation of at least 3mm in all poles).

ST7100 Internal Switching Arrangement

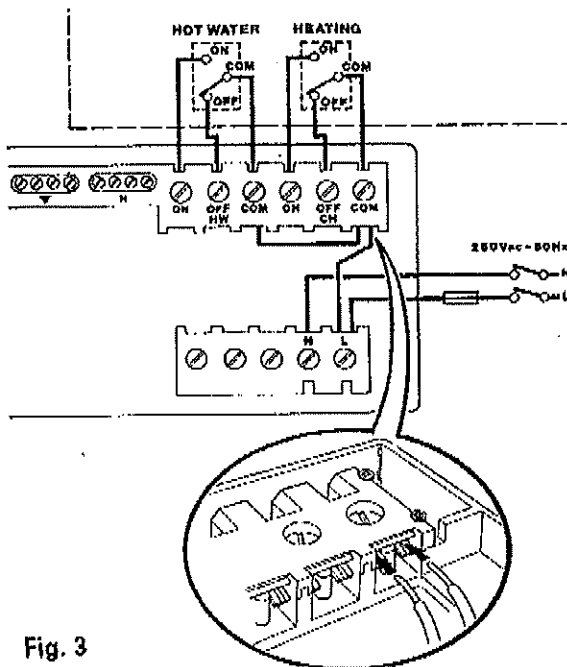


Fig. 3

ST699 Replacement

If using this ST7100 to replace a Honeywell ST699, the equivalent wiring terminations are as follows.

ST699	ST7100	
L	→	L LIVE
N	→	N NEUTRAL
3	→	5 CH-ON
4	→	4 CH-OFF
5	→	3 CH-COM
6	→	8 HW-ON
7	→	7 HW-OFF
8	→	6 HW-COM

A link must be provided between L - 3 - 6 on the subbase of ST7100 for all Sundial Plans, or fully controlled pumped primary systems.

Fitting the Batteries

Insert a small screwdriver in the battery compartment slot at the back of the Programmer see Fig. 4 and lever off the cover. Fit the two batteries supplied, as indicated by the label in the battery compartment. Replace the cover.

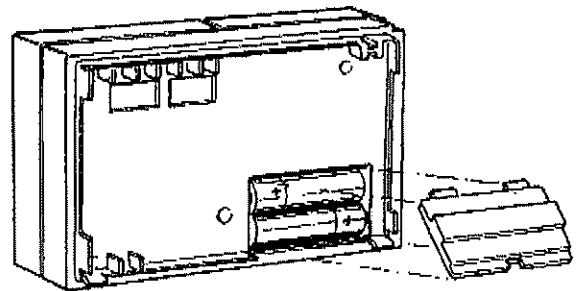


Fig. 4

Completion

After securing the subbase to the wall or switch box, replace the safety cover onto the subbase, and secure by turning the screws through 90 degrees. Fit the Programmer onto the subbase, by first engaging the bottom hooks and then tilting the top forwards and pushing it firmly home. Tighten the securing screw.

Reconnect power. The display should now be active. If not check wiring. The display shows Monday 12pm. A built-in programme will be operating. Details of this programme, together with how to adjust it if required and set the correct time and day, can be found in the User Guide.

Sundial Plan Wiring Diagrams

Y-Plan

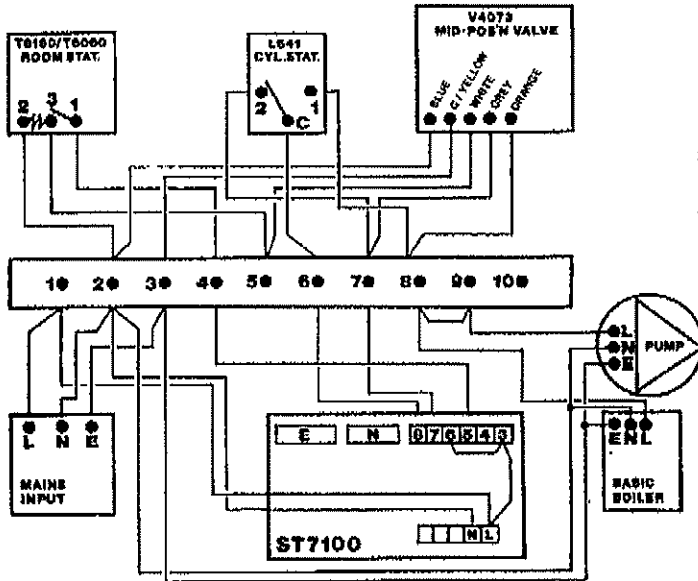


Diagram shows connections for basic boilers. For boilers with pump overrun, do not link 8 - 9 at junction box. Instead connect permanent live from 1 to boiler and pump live from boiler to 9 at junction box. 8 at junction box now connects to switched live of boiler.

S-Plan

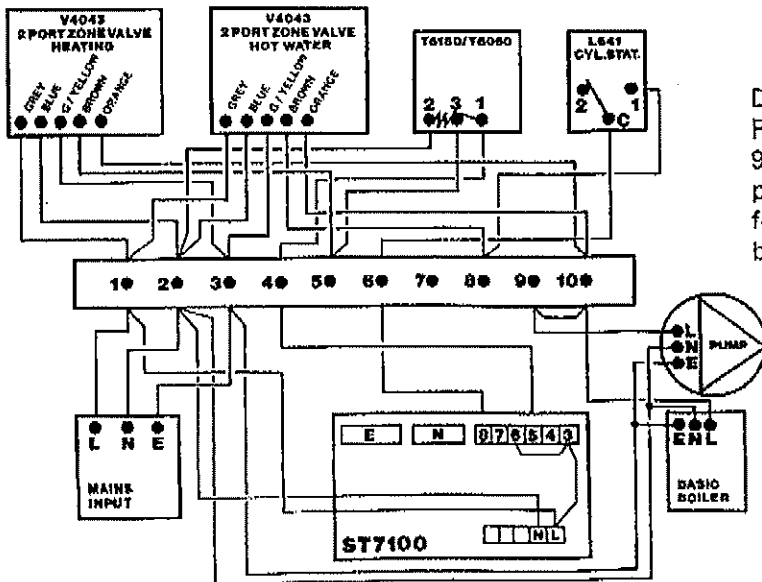
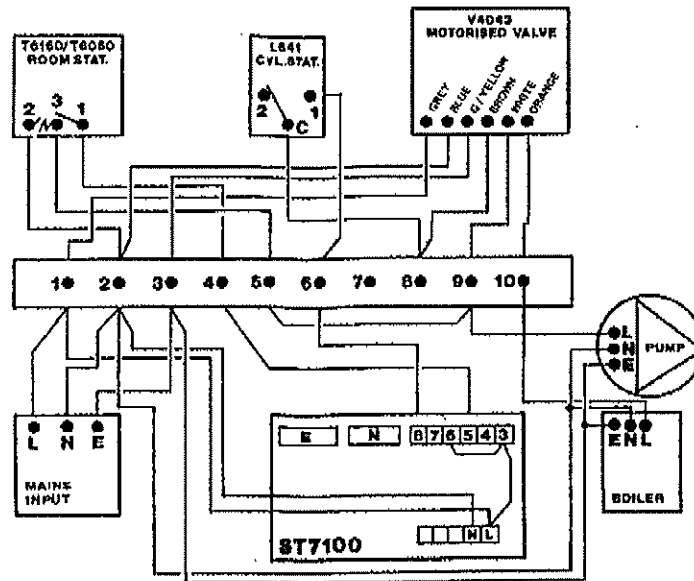


Diagram shows connections for basic boilers. For boilers with pump overrun, do not link 9 - 10 at junction box. Instead connect permanent live from 1 to boiler and pump live from boiler to 9 at junction box. 10 at junction box now connects to switched live of boiler.

C-Plan (Gravity DHW, pumped heating)



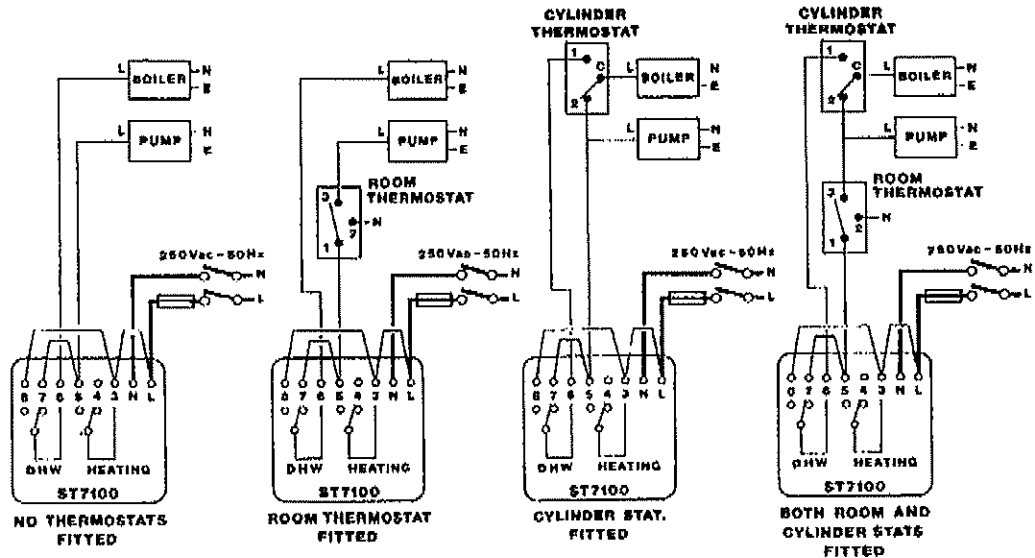
Wiring Basic Systems

FOR USE ON GRAVITY HOT WATER AND PUMPED CENTRAL HEATING SYSTEMS

When using a ST 7100 to control a basic central heating system it will not be possible to use the independent switching capability of ST 7100 for hot water and central heating. This can easily be overcome by using a Sundial Control System such as C-Plan (see above).

The wiring diagrams below show how the Honeywell ST 7100 Programmer can be adapted for use with existing wiring layouts.

The diagrams are typical of those found with boilers providing uncontrolled GRAVITY D.H.W. and PUMPED HEATING.



HEATING ONLY selection not possible.

When heating on - Cylinder stat does not control domestic hot water temperature.

Fitting the Honeywell ST 7100 will not reduce the functions previously available with the heating system.

EN1R 8176-R1

Whilst Honeywell takes all reasonably practicable steps to design and manufacture its products to comply with the requirements of the Health and Safety of 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 health.

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