



HORSTMANN

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525

ELECTRONIC PROGRAMMER

USER'S OPERATING INSTRUCTIONS

Model 525 Central Heating Programmer	Page 1
Re-set, Display and Programme	Page 8
Removal of Programmer	Page 10
Specification	Page 11

1

THE CONTROLS

These are shown on the illustration inside the back cover of this booklet.

THE NORMAL WORKING POSITION OF THE SLIDE SWITCH IS *auto*.

2

SETTING THE TIME OF DAY

First, ensure that a switch cover plate has been fitted over the slide switch. When the programmer left the factory a switch cover plate for Fully Pumped Systems, Fig 1, will have been fitted. For Gravity Hot Water Systems the installer should have fitted the alternative switch plate, Fig 2.

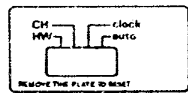


Fig 1 Fully Pumped System

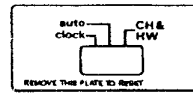


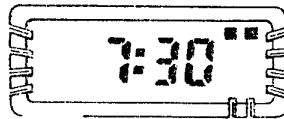
Fig 2 Gravity Hot Water System

Switch on power to the programmer, the display will show 0:00.

To set the time of day move the slide switch to the position marked *clock*. Adjust the time using the *time +* and *time -* buttons. The time may be adjusted forward by pressing the *time +* button and release. This will advance the time by one minute. To fast cycle the time press the *time +* button and hold; after 2 seconds the display will move rapidly, release the button when the desired time has been reached.

To move the time backwards press the *time -* button and repeat the procedure.

Return the slide switch to the *auto* position. The display colon will now pulse and the time of day will be displayed.



3

SWITCH TIME SETTING – FULLY PUMPED HOT WATER AND CENTRAL HEATING

When used with this type of system, the **on** and **off** times for Hot Water and Central Heating programmes can be set completely independently of each other.

First ensure that the switch cover plate has separate positions for Central Heating (CH) and Hot Water (HW) as shown in Fig. 1.

We have already put a programme of **on** and **off** times into the memory based on the most commonly used time settings, but these can be varied as required.

The pre-set times are:-

Hot Water

1st on 06:00
1st off 08:00
2nd on 16:00
2nd off 20:30

Central Heating

1st on 06:30
1st off 08:30
2nd on 15:45
2nd off 22:30

Hot Water

To adjust the Hot Water switching times, move the slide switch to the position marked *HW*, the 24 hour clock display will go blank.

Press the **1 ON** button. The display shows **1 ON** and the pre-set **1st on** time (06:00). Adjust the **1st on** time as required using the *time +* and *time -* buttons as in section 2. Repeat this procedure for **1st off**, **2nd on** and **2nd off** switching times.

Central Heating

To adjust the Central Heating Switching times, move the slide switch to the position marked *CH*, the 24 hour clock display will go blank.

Press the **1 ON** button. The display shows the pre-set **1st on** time (06:30). Adjust the **1st on** time as required using the **time +** and **time -** buttons as for Hot Water.

Repeat this procedure for **1st off**, **2nd on** and **2nd off** switching times.

This unit can also be programmed to switch past midnight, for example,

1 ON	1 OFF	2 ON	2 OFF
06:00	08:00	16:00	02:00

However, if any times overlap, for example,

1 ON	1 OFF	2 ON	2 OFF
06:00	12:30	12:00	20:00

then an error message **Err** will appear on the display when returning the slide switch to either the **clock** or **auto** positions. The slide switch must be returned to the **HW** or **CH** position, and a new time selected.

4 SWITCH TIME SETTING – GRAVITY HOT WATER/PUMPED CENTRAL HEATING

On this type of system the same switching times are used for both Hot Water and Central Heating, although the Central Heating can be switched off while the Hot Water heating is left on.

First ensure the switch cover plate to be fitted is the one shown in Fig. 2 and has a common CH & HW position.

Pre-programmed switching times are already in the memory as follows:-

Hot Water and Central Heating

1st on	06:30
1st off	08:30
2nd on	15:45
2nd off	22:30

To set the Hot Water and Central Heating Switching times move the slide switch to the position marked **CH & HW**. Use the procedure for setting the times as described for Hot Water in Section 3.

This unit can also be programmed to switch past midnight, for example,

1 ON	1 OFF	2 ON	2 OFF
06:00	08:00	16:00	02:00

However, if any times overlap, for example,

1 ON	1 OFF	2 ON	2 OFF
06:00	12:30	12:00	20:00

then an error message **Err** will appear on the display when returning the slide switch to either the **clock** or **auto** positions. The slide switch must be returned to the **CH & HW** position, and a new time selected.

5 PROGRAMME SELECTION

The programmes for Hot Water and Central Heating can be selected independently using the programme selection buttons. To select the appropriate programme ensure the slide switch is in the **auto** position.

When **off** is selected the programmer clock remains working but neither the Hot Water nor Central Heating will be switched **on**.

When **on twice** is selected the system switches **on** and **off** twice in 24 hours.

When **on all day** is selected the system will switch **on** at the **1st on** time setting and **off** at the **2nd off** time setting. The intermediate time settings are ignored.

When **on all the time** is selected the system remains switched **on** continuously, ignoring all time settings.

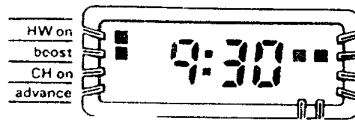
Note: On a Gravity Hot Water system the Central Heating will not function without the hot water being heated. For this reason the Central Heating programme will be overridden by the Hot Water programme selection.

6 BOOST HOT WATER

To operate the one hour hot water boost facility, press the **boost hot water** button and release, the boost indicator will appear on the display.

To cancel press the **boost hot water** button again and release, the indicator will disappear from the display.

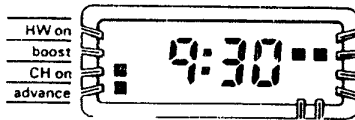
This facility can be used even when the Hot Water is programmed **off**.



7 ADVANCE HEATING

The advance control allows you to start a Central Heating **on** or **off** period early without altering the time or programme settings. This facility is only available when the *on twice* or *on all day* central heating programmes have selected.

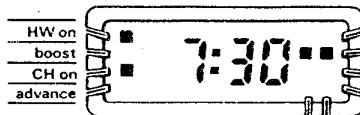
Press the *advance heating* button and release, the advance indicator will appear on the display.



To cancel, press the *advance heating* button again and release, the indicator will disappear from the display.

8 OUTPUT INDICATORS

There are 2 red indicator lights marked *HW* and *CH*. These will be illuminated when the programmer is **on** for Hot Water and/or Central Heating. At the same time indicators will appear on the display showing *HW on* and *CH on*.



Note: The boiler and/or pump may not be running when these indicator lights are lit if the circuit has been temporarily overridden by other controls in the system such as thermostats.

9 RE-SET, DISPLAY and PROGRAMME

Electronic equipment can in exceptional circumstances be affected by electrical interference.

If your programmer's display or switching programme becomes frozen or scrambled, or if you simply wish to revert to the factory pre-set programme, you can re-set the programmer as follows.

Carefully lift off the switch cover plate, move the slide switch to the extreme left hand position for approximately 5 seconds, then return it to a mid position. The switch cover plate must now be re-fitted as shown in Fig. 3.

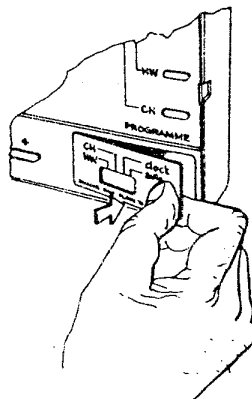


Fig. 3. Fitting Switch Cover Plate.

The time of day and all switching times must now be set into the programmer as previously described in either Section 3 or 4.

10 BATTERY

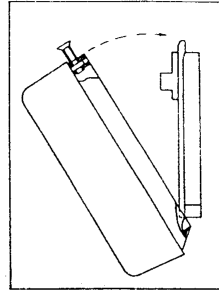
The unit is powered through a permanent rechargeable battery which ensures that the settings and programmes are maintained during a power cut. In prolonged power cuts the display may disappear but will re-appear again when the power is restored. It may also be necessary to re-enter your own switching times, if the power cut approaches 150 hours.

REMOVAL OF PROGRAMMER

For your safety this must only be carried out by a qualified person.

Warning: Isolate the programmer from the mains supply before removal.

The programmer can be removed from the fixed backplate attached to the wall without disturbing the wiring. First loosen the two screws at the top of the unit (do not remove them completely) then firmly pull the control from the top and disengage it from the lugs at the bottom. To replace the programmer first engage the lugs in the flange of the backplate and then press the programmer onto the backplate until it is secure. The 2 screws at the top of the unit may now be screwed in.



11 SERVICE AND REPAIR

Your programmer is NOT user serviceable.

DO NOT TRY TO DISMANTLE THE UNIT.

In the unlikely event of it developing a fault please contact a local Heating Installer or qualified Electrician, but before doing so try RE-SETTING your programmer as described in section 9 of this leaflet.

SPECIFICATION

Contact Ratings

Double Circuit 3 (1) A 240V A.C.

Contact Type Microgap change over

Supply 240V A.C. 50 Hz only

Double Insulated

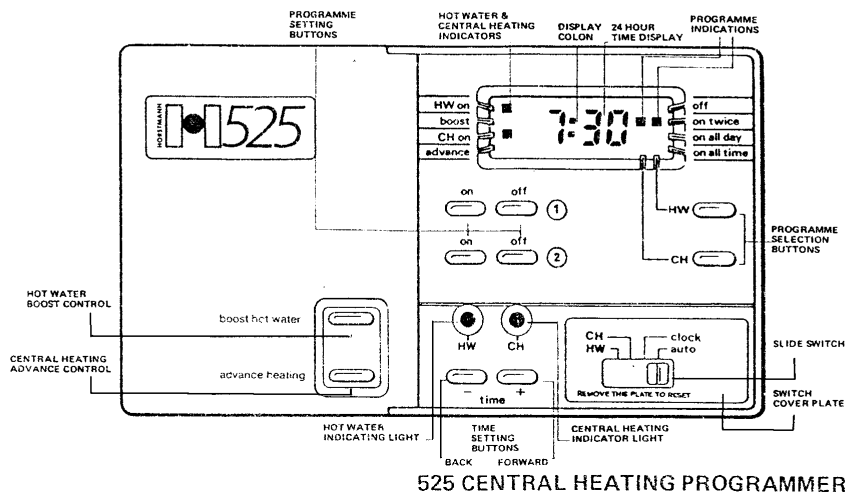
Dirt Protection Normal situations

Moisture Protection Normal situation

Max. Operating Temperature 40°C

To comply with the requirements of British Gas for future interchangeability the unit should not be located where the normal ambient temperature might exceed 40°C.

Battery Reserve: 150 hours, automatically charged on restoration of power supply.



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