GRANT UK

FITTING and USER INSTRUCTIONS

Electronic Programmer Kit for Multi Pass Kitchen and Vortex boilers

1 Kit contents

The Electronic Programmer Kit for the Grant Multi Pass Kitchen and Vortex boilers (Ref. EPKIT) contains the following items:

- 1 ACL Type 722 7-day two channel electronic programmer
- 1 Wiring harness
- 1 Fitting and User instructions

2 Electrical connections

The wiring harness must be connected to the ACL Type 722 electronic programmer as follows:

Brown wire:	To **Mains Line** (**L**) terminal of the programmer
Blue wire:	To **Mains Neutral** (**N**) terminal of the programmer
Red wire:	To **Heating On** terminal of the programmer
Brown wire:	To **Water On** terminal of the programmer
Yellow wire:	To **Water Off** terminal of the programmer

3 Fitting procedure

IMPORTANT: Ensure the electrical supply to the boiler has been isolated before fitting the programmer.

Remove the screws holding the back of the control panel in place and move it back enough to allow access to the rear of the timer aperture.

1 From underneath the control panel, remove the screw securing the bracket behind the timer aperture. Withdraw and discard the bracket.

2 Remove the blanking piece from the programmer aperture, in the control panel fascia, by firmly pressing in the centre of the black square until it has detached from the rear of the fascia. Remove and discard the blanking piece.

3 **IMPORTANT NOTES:**
   a. **Multi Pass kitchen - Disconnect and remove the RED wire link between terminals 1 and 9 on the 12-way boiler terminal block** located on top of the control panel, at the right hand end.
   b. **Vortex kitchen -** Remove the link between terminals 1 and 8 on the 12-way terminal block.
   c. **Vortex system -** Remove the link between terminals 1 and 10 on the 14-way terminal block.

4 Fit the 6-way plug on the programmer wiring harness, firmly into the 6-way socket, to connect the programmer to the boiler.

5 Carefully fit the programmer into the aperture, and gently push it fully home.

6 Refer to Wiring section in the instruction manual, supplied with the boiler, for details of the electrical wiring for the heating system controls.

7 Reconnect the electrical supply and check the operation of the programmer and system controls. Refer to the instructions on the following pages for operating and setting the programmer.

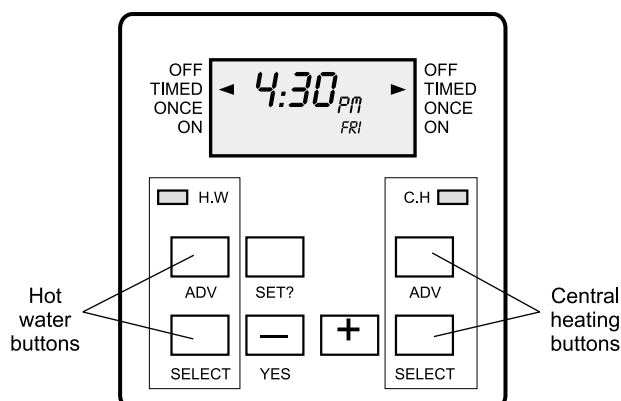**IMPORTANT: Leave these instruction with the User**

Fig. 1

4   General programmer notes

The programmer automatically controls the times at which your boiler operates (up to two On - Off periods per day) each day of the week. It also provides a permanent display of the time of day (12 hr with am and pm) and day of the week. Small neon lights, marked HW (hot water) and CH (central heating) will light when these services are in an 'On' period.

If the power supply to the boiler is interrupted, a built-in rechargable battery will retain all the settings in the programmers memory for up to 24 hours (the display will go blank after about 1 hour).

The programmer is supplied with a set of standard On - Off settings (see section 10) or you can set your own if required.

When setting the programmer, questions will be displayed. Use the **YES** and **SET ?** buttons to answer these (the **SET ?** button indicates no and moves the programmer to the next question). Pressing **SET ?** after altering a setting stores that setting in the programmers memory.

Always release a button after pressing it. When using the **+** or **-** buttons to change times, pressing and releasing the button changes the time in single units but keeping the button pressed in changes it more quickly.

Read the useful tips section before setting the programmer.

5   Set the time and day of the week, see Fig. 1

1   Press the **SET ?** button.

The display will
appear as shown ⇨

```
   SET

  CLOCK ?
```

2   Press the **YES** button and the day of the week part of the display will flash. Press the **+** or **-** buttons to set the correct day.
With the correct day of the week displayed press the **SET ?** button.

3   The hour part of the display will now flash.

Press the **+** or **-** buttons to set the hour (am or pm) then press the **SET ?** button.

4   The minutes part of the display will now flash.

Press the **+** or **-** buttons to set the minutes then press the **SET ?** button.

5   Ignore the Set Prog ? display and press the **SET ?** button again.

6   Ignore the Test ? display and press the **SET ?** button again.

7   Ignore the Set H'day ? display and press the **SET ?** button again.
The correct time of day and day of the week will now be displayed.

6   Operating mode

The programmer provides you with four operating modes for both central heating (CH) and hot water (HW) services as follows:-

OFF .... Service permanently off

TIMED . Service available during the set On/Off periods

ONCE.... Service available for one period per day (from first On till last Off settings)

ON .... Service constantly available

To select the mode you require for central heating press the **SELECT** button on the CH side until the arrow in the display is next to the mode you require. Repeat the operation for the hot water using the **SELECT** button on the HW side.

Your programmer will now operate using the set of standard On/Off settings as shown in the table on back page.

7   Set your own programme

With the display showing the correct time and day of the week set your own programme as follows:-

1   Press **SET ?** button and *Set Clock ?* will be displayed.
Press **SET ?** button again and *Set Prog ?* will be displayed.
Press **YES** button.

The display will
appear as shown ⇨

```
       SET

MON TUE WED THU FRI

      PROG ?
```

2   **To set On/Off timings to be the same each day**, Monday to Friday press **YES**.

The display will
appear as shown ⇨

```
      SET   CH

MON TUE WED THU FRI

      PROG ?
```

To set different timings for each day, see paragraph 3.

The CH on the display indicates you are setting heating On/Off timings.

Press **YES**. The start of the first (ON1) heating period is displayed.

Press the + or **-** buttons to alter the time display in 10 minute steps to set the required time.

Press **SET ?**. The end of the first period (OFF1) is displayed.

Set time required as above using + or **-** buttons.

Press **SET ?**. The start of the second (ON2) heating period is displayed.

Set time required as above using + or **-** buttons.

Press **SET ?**. The end of the second period (OFF2) is displayed.

The display will
appear as shown ⇨

```
SET  HW
MON TUE WED THU FRI
PROG ?
```

The HW on the display indicates you are setting hot water On/Off timings.

Follow the same procedure used for setting heating On/Off timings, as above.

When the OFF2 time is set, press **SET ?**.

The display will
appear as shown ⇨

```
SET  HW
MON
PROG ?
```

3   **To set different timings for each day of the week**, press **YES** to change the Monday settings, or press **SET ?** to move to Tuesday.

If **YES** is pressed, CH appears in the display indicating you are setting heating On/Off timings.

Press **YES**, and alter the settings as described in paragraph 2 above.

If you do not wish to alter the heating times, press **SET ?** and HW appears in the display indicating you are setting hot water On/Off timings.

Press **YES**, and alter the settings as described in paragraph 2 above.

Press **SET ?** to move to Tuesday.

Continue to alter each day, as necessary, or press **SET ?** to move through the weekdays.

4   **To set timings for weekend**, after the Friday display, press **SET ?**.

The display will
appear as shown ⇨

```
SET
SAT SUN
PROG ?
```

Press **YES** to set timings for Saturday and Sunday **together**.

Press **SET ?** to set timings for Saturday and Sunday **separately**.

5   After setting weekend timings (as previously described above) press **SET ?**.

Ignore the *Test ?* display and press **SET ?**.

Ignore the *Set H'day ?* display and press **SET ?** to return the programmer to its operating mode.

The display will show the correct time of day and day of the week.

7	*Check the programme settings*

To check the timings you have set, press **YES** when *Test ?* is displayed.

The display will show the time as just after midnight on actual day you are in.

Press **YES** and keep it pressed. The time will advance to the start of the first On period (ON1). The display will pause for 2 to 3 seconds and the relevant neon (HW, CH or both) will light. Continue pressing **YES** to advance to the end of the first On period (OFF1). The display will pause and the neon(s) will switch off.

Continue to press **YES** and the rest of the On/Off periods will be displayed for the rest of that day, then the next day and so on until all the days of the week have been checked.

8	*Set holiday*

You can use this function just before you go on holiday to set the number of days you require the boiler to be off.

Press and release **SET ?** until *Set H'day ?* is displayed.

Press **YES** and 00 appears on the display.

Press + or **-** buttons to set the number of days you require the boiler to be off (up to 99 days).

Press **SET ?** and *H'day* will be displayed.

9 Useful tips

When setting the times for the 'on' periods it is useful to remember that it might take up to an hour for the house to become warm, especially in colder weather. Also the effect of the central heating will remain for a time when the central heating is turned off.

A hot water cylinder may take ½ hour or more to heat up fully. A well insulated cylinder will retain its heat for quite some time after the boiler is turned off.

When setting the time for the start of the first on period (ON1) it must be after midnight. The time for the end of the last on period (OFF2) can be after midnight, but it must not be more than 23 hrs 50 mins after (ON1).

The switching times must be in sequence, if you try to set OFF1 at an earlier time than ON1 the display will stop at the ON1 time with the OFF symbol flashing. If you try to set ON2 at an earlier time than OFF1 the display will stop at the ON2 time and with the ON symbol flashing.

If you attempt to set ON1 after OFF1, the ON symbol will flash and the OFF1 setting will follow the ON1 time being set to prevent incorrect programming. The same applies to the other ON and OFF times and also between the OFF and ON times.

If you become confused while setting your programme and wish to restart again, press the **SET ?** and **-** buttons together for a moment. The display will change to a midnight display and the standard set of On - Off settings (see table below). You will now have to reset the time and day of the week and set your own programme again.

While setting any times, if a button is not pressed for 1 to 2 minutes, the programmer will go back to its normal operating mode.

To temporarily override the current switching time, i.e. change Off to On or On to Off, simply press the relevant **ADV** button to advance to the next switching time. The programme returns to normal at the end of the switching time just selected.

For Summer use the central heating can be turned off by using the CH **SELECT** button to move the arrow in the CH side of the display to OFF.

If the electricity supply to the boiler is interrupted, the programmer will retain the time settings for up to 24 hours and will not have to be reset to the correct time of day when the supply is restored (the display remains for up to 1 hour, but will re-appear when the supply is restored).

10 Programmer settings

Switching mode		Monday - Friday				Saturday - Sunday			
		Standard times		Your own times		Standard times		Your own times	
		HW	CH	HW	CH	HW	CH	HW	CH
First timed period	ON1	6:30am	6:30am			6:30am	6:30am		
	OFF1	8:30am	8:30am			9:00am	9:00am		
Second timed period	ON2	4:30pm	4:30pm			4:00pm	4:00pm		
	OFF2	10:30pm	10:30pm			11:00pm	11:00pm		

Complies with the EC Low voltage and
Electromagnetic compatibility Directives

CE

89/336/EEC
73/23/EEC
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