![HORSTMANN logo]

ChannelPlus H47XL Series 2 User Operating Instructions

Four Channel Central Heating and Hot Water Programmer

The ChannelPlus family of electronic programmers offer a range of advanced features coupled with simplified 'menu driven' programming all designed to help save energy.

The Horstmann ChannelPlus H47XL series 2 is designed to give independent time control over 4 channels of heating and hot water on a 7 day weekly programme.

Each channel offers up to 3 programmed On/Off operations per day for each day of the week.

For day to day operation each channel has a manual 1 or 2 hour boost button as well as an advance button to bring forward the next programmed operation.
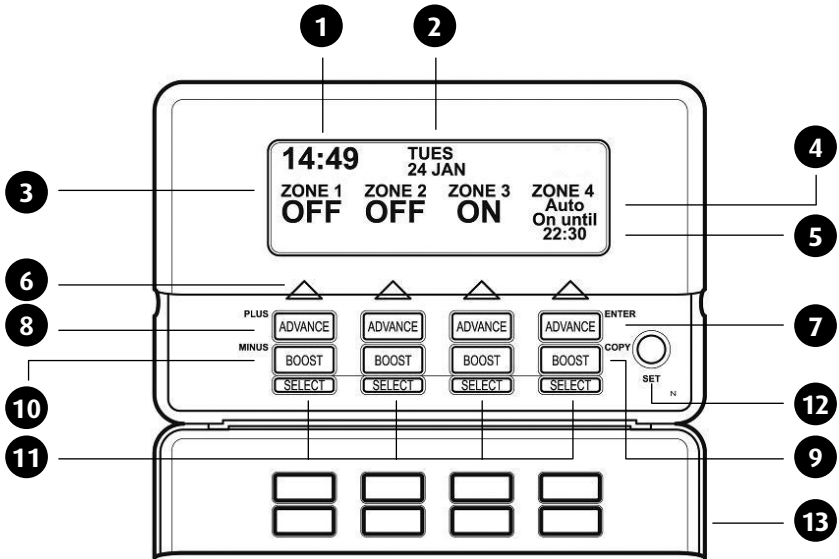
The back lit display, automatic clock and menu driven programming are all features designed to make the operation of the ChannelPlus H47XL as simple as possible to use.

All series 2 ChannelPlus programmers are direct replacements for earlier ChannelPlus models.

The ChannelPlus H47XL Series 2 Programmer

The simple instructions contained in this user guide are designed to help with the programming and operation of the unit. Most of the following instructions require the front flap to be lowered. Please replace the flap when normal operation is required.
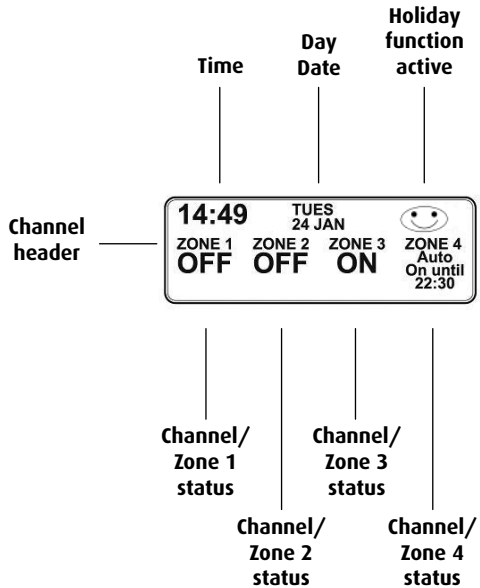
PRODUCT OVERVIEW - DETAIL SHOWN WITH THE FLAP LOWERED

1	Current time of day
2	Day of week and date
3	Channel Heading
4	Current Channel programme
5	Next On/Off time
6	Channel ON indicator
7	ADVANCE and ENTER button	ILLUMINATED WHEN ACTIVE
8	ADVANCE and PLUS button	ILLUMINATED WHEN ACTIVE
9	BOOST and COPY button	ILLUMINATED WHEN ACTIVE
10	BOOST and MINUS button	ILLUMINATED WHEN ACTIVE
11	Programme Select buttons (Coloured Blue)
12	SET button (Coloured Green)
13	Front Flap (Lowered)

Display Information

The ChannelPlus H47XL Series 2 programmer has a fully graphical, back-lit display. In the normal run mode the display is divided into 4 sections, each section represents a controlled channel. The information displayed will change depending upon the settings made and which mode you are in. During different programming modes and/or setting screens the current time, day/date, holiday indicator will only appear when necessary, this is to reduce confusion during the programming process. This is explained further in later sections of this guide.

Time **Day Date** **Holiday function active**

Channel header

```
14:49      TUES        ☺
            24 JAN
ZONE 1   ZONE 2   ZONE 3   ZONE 4
OFF      OFF      ON       Auto
                           On until
                           22:30
```

Channel/ Zone 1 status **Channel/ Zone 3 status**

Channel/ Zone 2 status **Channel/ Zone 4 status**

ACTIVATING THE BACK–LIT DISPLAY
The display will illuminate for approximately 1 minute whenever a button is pressed.

To illuminate the display for viewing purposes only press the green menu button under the front flap twice.

SETTING AND ADJUSTING
When setting or adjusting, the programmer will automatically return to the running mode if no buttons are pressed for approximately 1 minute.

If the setting or adjusting has not been finished, please start the procedure again.
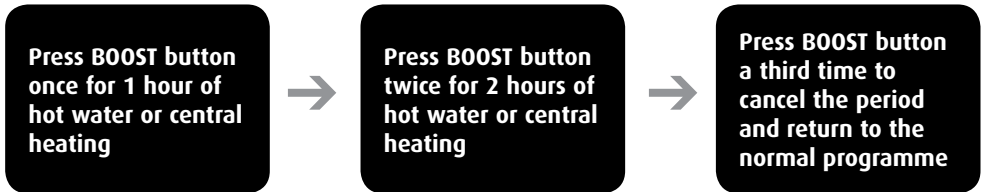
TIME OF DAY
The ChannelPlus H47XL incorporates a factory set clock and calendar which means that no adjustments should be necessary to the time of day and BST/GMT time changes take place automatically.
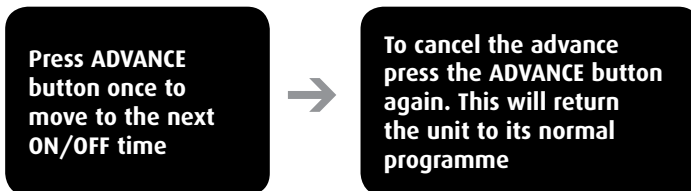
Manual Overrides

BOOST FUNCTION - 1 OR 2 HOUR TEMPORARY OVERRIDE

The boost facility will allow the user to either activate a channel which is currently 'OFF' for 1 or 2 hours, or to extend a current 'ON' period by 1 or 2 hours. To indicate the boost being activated the 'BOOST' button under the selected channel will stay illuminated for the duration of the boost/extension period. The display will also indicate the extension to the time visually on the screen.

Press BOOST button once for 1 hour of hot water or central heating → **Press BOOST button twice for 2 hours of hot water or central heating** → **Press BOOST button a third time to cancel the period and return to the normal programme**

ADVANCE FUNCTION - BRINGS FORWARD THE NEXT ON OR OFF OPERATION

The advance facility will allow the user to either bring a channel 'ON' which is currently 'OFF' or switch a channel 'OFF' which is currently 'ON'. To indicate the advance feature being activated the 'ADVANCE' button under the selected channel will stay illuminated until the next programme switching time, the user display will change to also indicate the status of the channel and the next switching time.

Press ADVANCE button once to move to the next ON/OFF time → **To cancel the advance press the ADVANCE button again. This will return the unit to its normal programme**
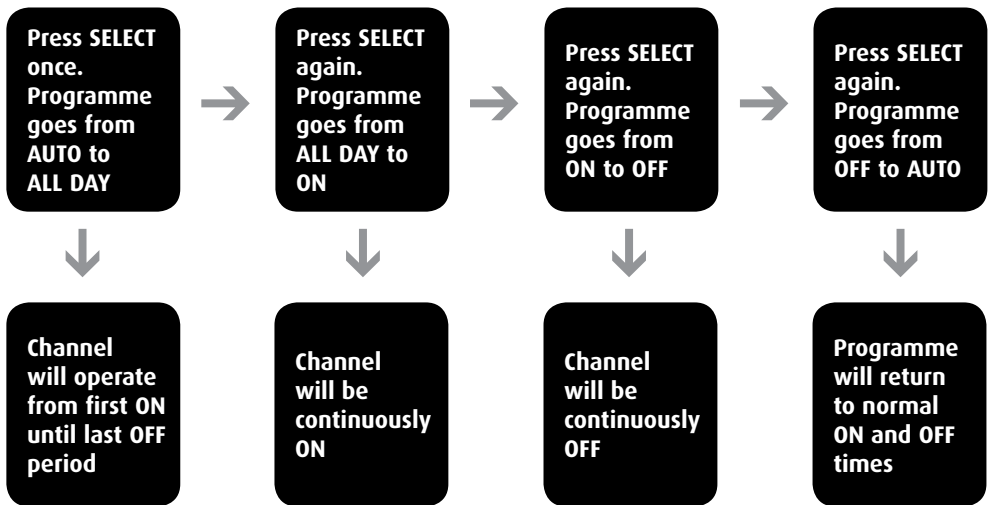
Programme Override Facilities

With the ChannelPlus H47XL Series 2 programmer operating in the normal running mode it is possible to alter the functionality of the programme on each individual channel by means of the blue 'select' buttons under the front flap.

The options include;

AUTO - Programmer follows all programmed 'ON' and 'OFF' times.

ALL DAY - Channel operates from 1st 'ON' time until 3rd 'OFF', ignoring all switching times in between.

ON - Channel will be constantly 'ON'.

OFF - Channel will be constantly 'OFF', there is the ability to turn off heating during summer without altering the programme times. 1 or 2 hour boost still available.

All of the settings above will be permanent, i.e. unaffected by programme times, until alteration by the user.

The diagram below illustrates how to alter the setting, it assumes that the channel is in the AUTO mode to begin with. As all channels are totally independent it is possible to have them set differently if necessary*.

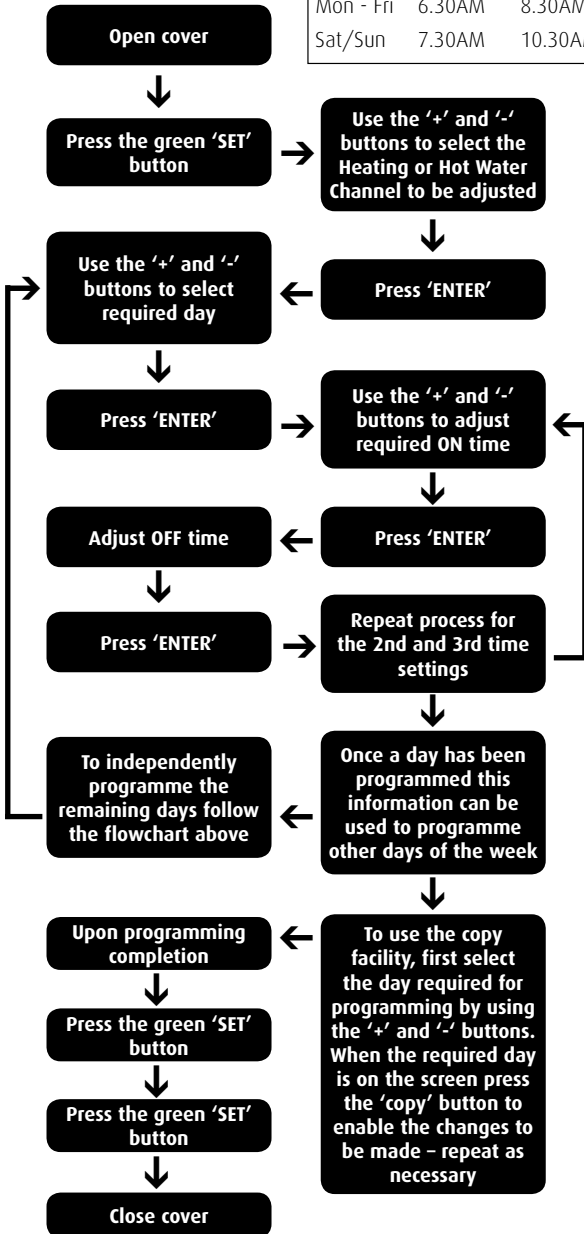| **Press SELECT once. Programme goes from AUTO to ALL DAY**	→	**Press SELECT again. Programme goes from ALL DAY to ON**	→	**Press SELECT again. Programme goes from ON to OFF**	→	**Press SELECT again. Programme goes from OFF to AUTO**
↓		↓		↓		↓
Channel will operate from first ON until last OFF period		**Channel will be continuously ON**		**Channel will be continuously OFF**		**Programme will return to normal ON and OFF times**

* It may not be possible to programme heating and hot water independently on certain systems.

Setting the Programme Times

The programme times have been preset as shown in the chart below.
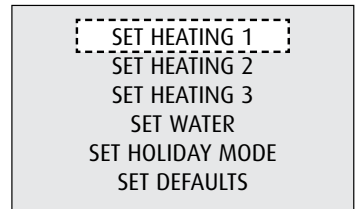
DEFAULT TIME SETTINGS - AM/PM

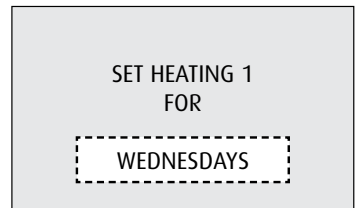|	1st ON	1st OFF	2nd ON	2nd OFF	3rd ON	3rd OFF
Mon - Fri	6.30AM	8.30AM	12.00PM	12.00PM	4.30PM	10.30PM
Sat/Sun	7.30AM	10.30AM	12.00PM	12.00PM	5.00PM	11.00PM

If any changes are required to the programme times please complete the operation as described in the flowchart left.
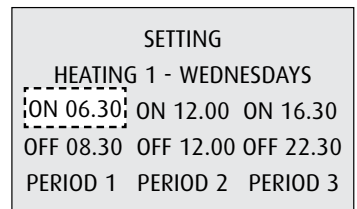
Open cover

↓

Press the green 'SET' button → **Use the '+' and '-' buttons to select the Heating or Hot Water Channel to be adjusted**

↓

Use the '+' and '-' buttons to select required day ← **Press 'ENTER'**

↓

Press 'ENTER' → **Use the '+' and '-' buttons to adjust required ON time**

↓

Adjust OFF time ← **Press 'ENTER'**

↓

Press 'ENTER' → **Repeat process for the 2nd and 3rd time settings**

↓

To independently programme the remaining days follow the flowchart above ← **Once a day has been programmed this information can be used to programme other days of the week**

↓

Upon programming completion ← **To use the copy facility, first select the day required for programming by using the '+' and '-' buttons. When the required day is on the screen press the 'copy' button to enable the changes to be made – repeat as necessary**

↓

Press the green 'SET' button

↓

Press the green 'SET' button

↓

Close cover

SAMPLE DISPLAYS

Select the required channel setting

```
SET HEATING 1
SET HEATING 2
SET HEATING 3
SET WATER
SET HOLIDAY MODE
SET DEFAULTS
```

Select the day to set

```
SET HEATING 1
FOR

WEDNESDAYS
```

Enter the required on and off times

```
           SETTING
      HEATING 1 - WEDNESDAYS
 ON 06.30  ON 12.00  ON 16.30
 OFF 08.30 OFF 12.00 OFF 22.30
 PERIOD 1  PERIOD 2  PERIOD 3
```

ADJUSTING SETTINGS

When carrying out any alterations to the programmed times and settings the programmer will return to its normal run mode in 1 minute if no adjustments are made in that time.

Setting the Holiday Mode

The holiday mode can be used to suspend the program function of the ChannelPlus programmer, it can be set in advance of your departure date and for as long a period as required. The holiday function operates from mid-day to mid-day, this means it can be easily set to ensure your home is warm for your return. When the holiday mode has been set a smiley face ☺ will appear on the display. When the holiday mode is active only the day/date and smiley face will be displayed.

To cancel an active holiday period please press any of the select buttons under the front flap.

PLEASE NOTE: Any alteration to the current time or date will cancel any Holiday programme set.
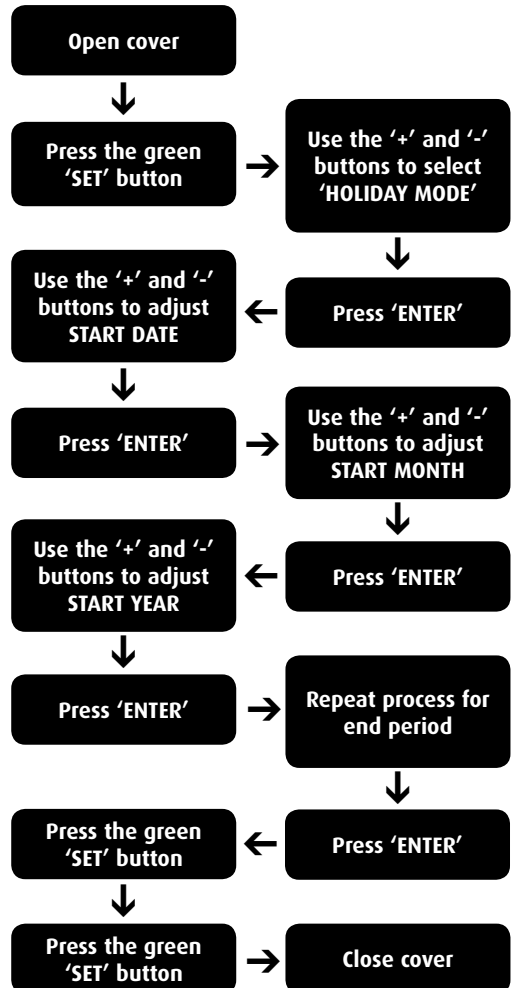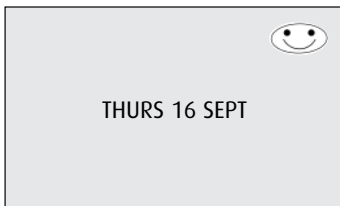
N.B. Do not use the holiday programme when conditions are such that frost damage to the heating system is possible (unless a frost protection thermostat is fitted to your system).

SAMPLE DISPLAYS
Enter holiday dates

SETTING HOLIDAY MODE
START AT MID-DAY ON
1 SEPT 2009
FINISH AT MID-DAY ON
21 SEPT 2009

Display when holiday mode is set

☺

THURS 16 SEPT

Open cover
↓
Press the green 'SET' button → **Use the '+' and '-' buttons to select 'HOLIDAY MODE'**
↓
Use the '+' and '-' buttons to adjust START DATE ← **Press 'ENTER'**
↓
Press 'ENTER' → **Use the '+' and '-' buttons to adjust START MONTH**
↓
Use the '+' and '-' buttons to adjust START YEAR ← **Press 'ENTER'**
↓
Press 'ENTER' → **Repeat process for end period**
↓
Press the green 'SET' button ← **Press 'ENTER'**
↓
Press the green 'SET' button → **Close cover**

Adjusting Default Settings

The ChannelPlus H47XL Series 2 has a number of default settings which are normally installed. These settings are designed to reduce the need for user intervention upon installation of the programmer. However it is possible to customise the user display by following the procedures in the following pages. The factory default normally installed are illustrated below;

Time and Date	Clock Options	Headings
Time and calendar are factory set	Time displayed in 24hr clock format	Channel heading set to standard installation i.e. Heating 1, Heating 2, Heating 3 and Hot Water

↓   ↓

↓

↓   ↓   ↓   ↓

14:49	TUES 24 JAN				14:49	TUES 24 JAN			

14:49   TUES 24 JAN
HTG1	HTG2	HTG3	WATER
Auto	Auto	Auto	Auto
Off until 18.30	Off until 18.30	Off until 18.30	Off until 18.30

14:49   TUES 24 JAN
HTG1	HTG2	HTG3	WATER
Auto	Auto	Auto	Auto
Off until 18.30	Off until 18.30	Off until 18.30	Off until 18.30

HTG1	HTG2	HTG3	WATER
Auto	Auto	Auto	Auto
Off until 18.30	Off until 18.30	Off until 18.30	Off until 18.30

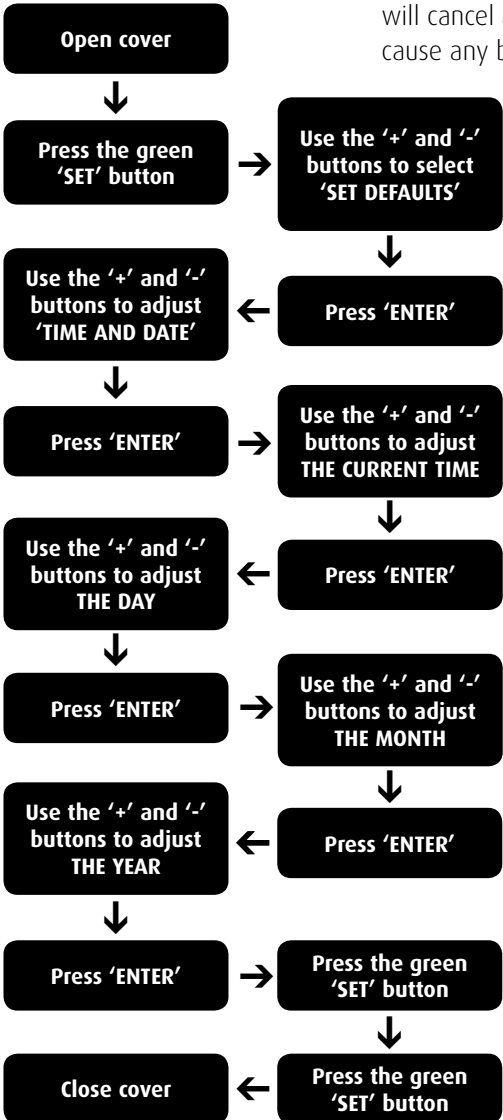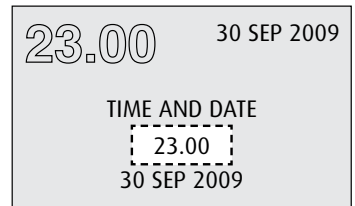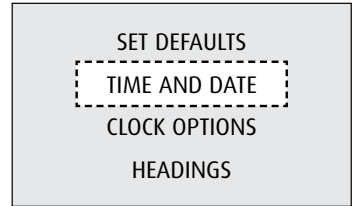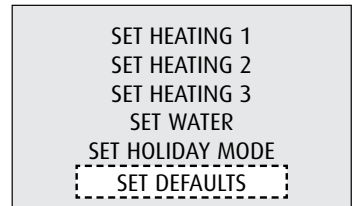| Options	Options	Options
The programmer has been set with the current time and date during manufacture. No alteration should be required to the time and date. However, if any modification is required please refer to the flowchart on page 9	24 hour or AM/PM	Heating/Water Zones Channels

Adjusting Time and Date

The ChannelPlus H47XL Series 2 programmer has been set with the current time and date during manufacture. No alteration should be required to the time and date, however if any modification is required please refer to the flowchart below.

PLEASE NOTE: Any alteration to the current time or date will cancel any Holiday programme set. It will also cause any boost or advance operations to be cancelled.
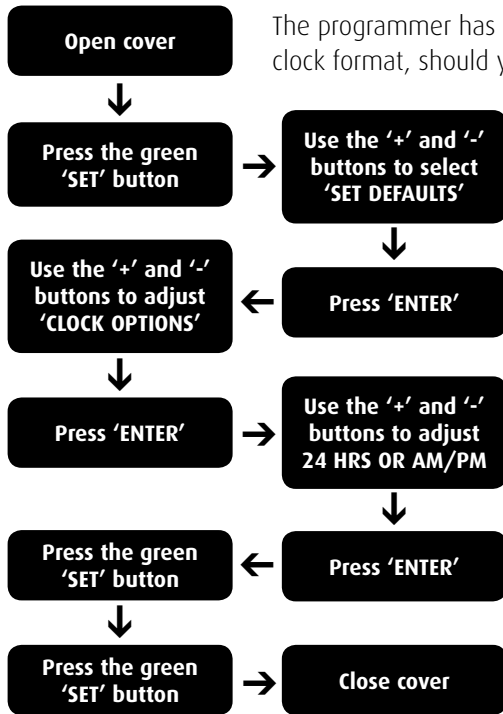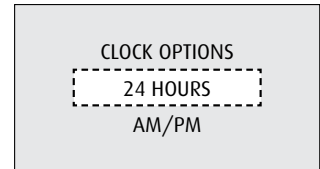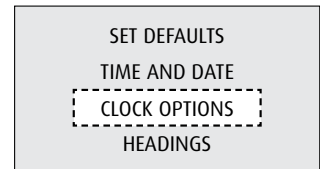
Open cover

↓

Press the green 'SET' button → **Use the '+' and '-' buttons to select 'SET DEFAULTS'**

↓

Use the '+' and '-' buttons to adjust 'TIME AND DATE' ← **Press 'ENTER'**

↓

Press 'ENTER' → **Use the '+' and '-' buttons to adjust THE CURRENT TIME**

↓

Use the '+' and '-' buttons to adjust THE DAY ← **Press 'ENTER'**

↓

Press 'ENTER' → **Use the '+' and '-' buttons to adjust THE MONTH**

↓

Use the '+' and '-' buttons to adjust THE YEAR ← **Press 'ENTER'**

↓

Press 'ENTER' → **Press the green 'SET' button**

↓

Close cover ← **Press the green 'SET' button**

SAMPLE DISPLAYS

```
SET HEATING 1
SET HEATING 2
SET HEATING 3
SET WATER
SET HOLIDAY MODE
SET DEFAULTS
```

```
SET DEFAULTS
TIME AND DATE
CLOCK OPTIONS

HEADINGS
```

```
23.00          30 SEP 2009

        TIME AND DATE
          23.00
        30 SEP 2009
```

Adjusting Clock Options

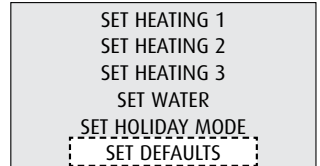|	
Open cover	
↓	
Press the green 'SET' button →	**Use the '+' and '-' buttons to select 'SET DEFAULTS'**
	↓
Use the '+' and '-' buttons to adjust 'CLOCK OPTIONS' ←	**Press 'ENTER'**
↓	
Press 'ENTER' →	**Use the '+' and '-' buttons to adjust 24 HRS OR AM/PM**
	↓
Press the green 'SET' button ←	**Press 'ENTER'**
↓	
Press the green 'SET' button →	**Close cover**

The programmer has been preset to display the time in 24 hour clock format, should you prefer AM/PM format then please use the procedure given in the flowchart opposite.

SAMPLE DISPLAYS

```
SET HEATING 1
SET HEATING 2
SET HEATING 3
SET WATER
SET HOLIDAY MODE
SET DEFAULTS
```

```
SET DEFAULTS
TIME AND DATE
CLOCK OPTIONS
HEADINGS
```

```
CLOCK OPTIONS
24 HOURS
AM/PM
```

General Information

BATTERY

The programmer is fitted with a non-rechargeable, non-serviceable long life battery, which will maintain the clock and programmed time settings with the mains supply disconnected.
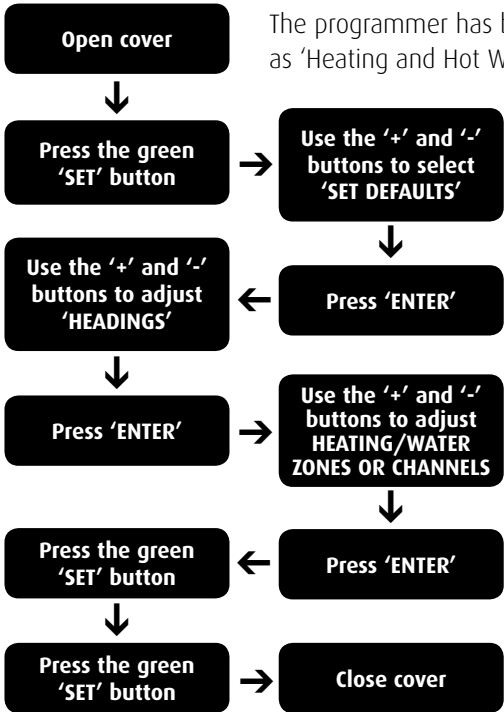
THIS RESERVE SHOULD BE SUFFICIENT TO COVER POWER INTERRUPTIONS DURING THE LIFE OF THE UNIT.

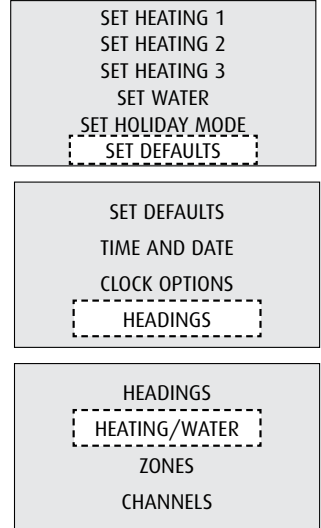During power interruptions the display will be blank.

SERVICE AND REPAIR

This programmer is NOT user serviceable. Please do not dismantle the unit. In the unlikely event of a fault developing please refer to the RESETTING THE CHANNELPLUS H47XL section on the right. If this fails to resolve the problem please contact a local heating engineer or a qualified electrician.

Adjusting Channel Headings

Open cover

↓

Press the green 'SET' button → **Use the '+' and '-' buttons to select 'SET DEFAULTS'**

↓

Use the '+' and '-' buttons to adjust 'HEADINGS' ← **Press 'ENTER'**

↓

Press 'ENTER' → **Use the '+' and '-' buttons to adjust HEATING/WATER ZONES OR CHANNELS**

↓

Press the green 'SET' button ← **Press 'ENTER'**

↓

Press the green 'SET' button → **Close cover**

The programmer has been preset to display the channel heading as 'Heating and Hot Water', should you require either the 'Zone' or 'Channel' options then please follow the flowchart opposite.

SAMPLE DISPLAYS

```
SET HEATING 1
SET HEATING 2
SET HEATING 3
SET WATER
SET HOLIDAY MODE
SET DEFAULTS
```

```
SET DEFAULTS
TIME AND DATE
CLOCK OPTIONS
HEADINGS
```

```
HEADINGS
HEATING/WATER
ZONES
CHANNELS
```
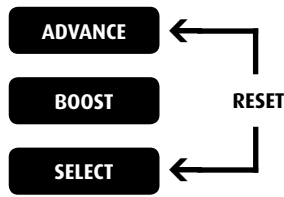
General Information

RESETTING THE CHANNELPLUS H47XL SERIES 2
Electronic equipment can in some circumstances be affected by electrical interference. If the display becomes frozen or scrambled; or if you wish to revert back to the default settings please use the following procedure:

RESET PROCEDURE
PLEASE NOTE: Using this procedure will restore the ChannelPlus to the original factory programme settings, the time setting will remain correct.

Lower the front flap of the unit. On the right hand Channel press the ADVANCE (Enter) and SELECT (Blue) buttons together, then release and the programmer will return to the preset factory settings.

ADVANCE

BOOST **RESET**

SELECT

What is a programmer?

... an explantion for householders.

Programmers allow you to set 'On' and 'Off' time periods. Some models switch the central heating and domestic hot water on and off at the same time; while others allow the domestic hot water and heating to come on and go off at different times.
Set the 'On' and 'Off' time periods to suit your own lifestyle. On some programmers you must also set whether you want the heating and hot water to run continuously, run under the chosen 'On' and 'Off' heating periods, or be permanently off.

The time on the programmer must be correct. Some types have to be adjusted in Spring and Autumn at the changes between Greenwich Mean Time and British Summer Time. You may be able to temporarily adjust the heating programme, for example, 'Override', 'Advance' or 'Boost'. These are explained in the manufacturer's instructions.

The heating will not work if the room thermostat has switched the heating off. And, if you have a hot-water cylinder, the water heating will not work if the cylinder thermostat detects that the hot water has reached the correct temperature.

HORSTMANN

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