# SANGAMO
## Fit & forget...
### Choice PR2n - 2 Channel Programmer
#### User Instructions
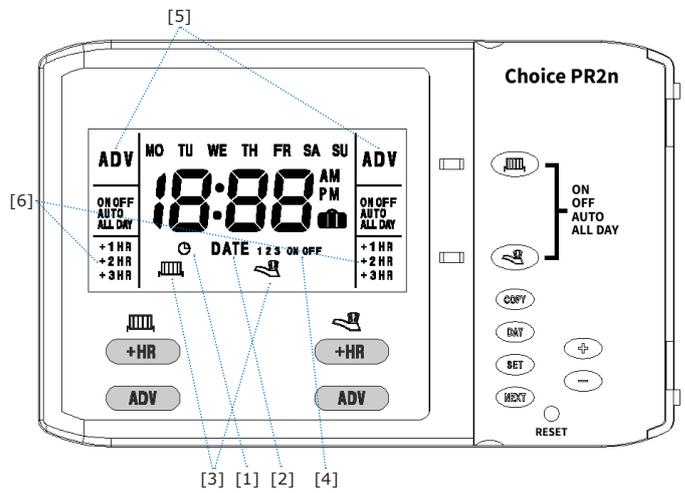


## Introduction

This programmer can automatically switch your central heating or hot water ON and OFF up to 3 times a day, at whatever times you choose. Timekeeping is maintained through power interruptions by a non-replaceable battery designed to last for the lifetime of the programmer. The clock is automatically put forward 1 hour at 1:00am on the last Sunday of March and back 1 hour at 2:00am on the last Sunday of October. The clock is factory pre-set to UK time and date, but you can alter the time setting if you wish.

During installation, the installer selects 24 hour, or 5 day/2day, or 7 day programming and 2 or 3 on/off periods per day, via a 4 position DIP switch on the back of the unit (see installation instructions).

**IMPORTANT: These settings should only be changed by a qualified person. Contact your installer.**

**IMPORTANT: This programmer is not suitable for the switching of devices greater than 2 Amp rated per channel. (e.g. Not suitable for use as an immersion timer)**

## Configuration

When setting time, date or changing programme times the first screen displayed indicates the configuration as set up by the installer. (See 'Setting The Time section)

| Configuration | Display |
| --- | --- |
| 2 ON/OFF Pumped System | 2PU |
| 3 ON/OFF Pumped System | 3PU |
| 2 ON/OFF Gravity System | 2Gr |
| 3 ON/OFF Gravity System | 3Gr |
| Times for Central Heating and How Water can be independently set. | |

The 24 hour, or 5 day/2day, or 7 day programming option as set up by the installer can also be verified at this stage by how the Monday to Sunday indicators are displayed.

| Programming Option | Mon to Sun Indicators flash |
| --- | --- |
| 7 DAY | Mon to Sun individually shown |
| 5/2 DAY | Mon to Fri together then Sat & Sun together |
| 24 HOUR | Mon to Sun together shown |

Now press any button to move to Setting the Time and Day.

## Built In Programme

For convenience, the programmer has a built in programme which will be satisfactory for many people, but which can be changed very easily (see section CHANGING PROGRAMME TIMES). Once the unit is powered up this built in programme will run.

If the user changes from the built in programme and wishes to return to it, then pressing the reset button with a non metallic pointed tool will return the unit to the built in / default programme.
**NOTE: Every time the reset is pressed, the time and date must be set again.** See the sections 'Setting The Time & Setting The Date'

## Factory Programme Settings

| 2Pu & 2Gr | 3Pu & 3Gr | Mon-Fri | Sat-Sun |
| --- | --- | --- | --- |
| 1st ON | 1st ON | 6:00am | 7:00am |
| 1st OFF | 1st OFF | 8:30am | 9:00am |
| - | 2nd ON | 12:00 noon | 12:00 noon |
| - | 2nd OFF | 12:00 noon | 12:00 noon |
| 2nd ON | 3rd ON | 4:30pm | 4:30pm |
| 2nd OFF | 3rd OFF | 10:30pm | 11:30pm |

If the unit is installed as a 24 hour programmer the built in programme will be the same for each day (i.e. Sat-Sun be same as Mon-Fri above).

## Selecting Operating Mode
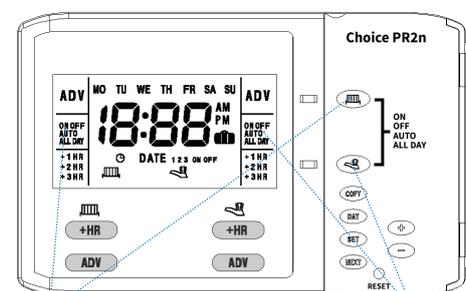


| ON | Central Heating and Hot Water is ON continuously |
| --- | --- |
| AUTO | Central Heating and Hot Water will be switched ON or OFF as programmed |
| ALL DAY | Central Heating and Hot Water will be switched ON only once each day between the first ON time and last OFF time |
| OFF | Central Heating and Hot Water is OFF continuously |

## Setting The Time

- Press the **SET** button once. The configuration setting will appear on the screen.
- Press the **SET** button again. The clock icon [1] on the screen will flash.
- Press the **+/-** buttons to adjust the time. Time will change quicker if pressed continually.
- Press **SET** once to move on to setting the DATE or press multiple times to return to RUN mode.

## Setting The Date

- Press the **SET** button until the Y:XX icon (year) appears and the D (DATE) icon [2] flashes.
- Press the **+/-** button to set the year.
- Press **NEXT** button. M:XX appears (month).
- Press **+/-** button to set month.
- Press **NEXT** button. D:XX appears (Day).
- Press **+/-** button to set day.

You can review or edit the date you have set just by pressing **NEXT** button again and repeating the sequence above. To confirm the date and move on to PROGRAM mode press **SET** button once or press **SET** button multiple times to return to RUN mode.

## Changing Heating Times

The built in programmes can easily be changed to better suit your lifestyle.

- Press **SET** button until radiator icon [3] flashes in the display and 1 ON [4] appears. This indicates the time shown on the display is the first ON time.
- By pressing the **+/-** buttons you can alter the ON time to the time you want.
- Press **NEXT** button, display will now show 1 OFF [4].
- By pressing the **+/-** buttons you can alter the OFF time to the time you want.
- Press **NEXT** button to access remaining ON/OFF periods and alter in same manner as above.
- To return to RUN mode, press the **SET** button until the display indicates **RUN** on the display

**NOTE:** Programming is in 10 minute segments.

## Changing Hot Water Times

Press **SET** button until tap icon [3] flashes in the display and 1 ON [4] appears. This indicates the time shown on the display is the first ON time and proceed in same manner as 'To change the Central Heating Times' above.

## 7 Day Programmer Option

If the unit is installed as a 7 day programmer, the initial programme displayed will be for Monday.

You can go to any date of the week by pressing the **DAY** button repeatedly.

The ON/OFF times can be changed for each day as described above in the section "CHANGING PROGRAMME TIMES".

If you press the **COPY** button, the current programme will be copied onto the next day.
NOTE: it is not possible to copy Sunday to Monday.

## 5/2 Day Programmer Option

If the unit is installed as a 5 day/2 day programmer, the initial programme displayed will be for Monday to Friday.

Pressing the **DAY** button will take you to the programme for Saturday and Sunday.

The ON/OFF times can be changed for each day group as described above in the section "CHANGING PROGRAMME TIMES".

If you press **COPY** button, the current programme will be copied onto the next day group.

## 24 Hour Programmer Option

If the unit is installed as a 24 hour programmer, the built in programme will be the same for each day. The **COPY** & **DAY** buttons have no affect if installed as a 24 hour programmer.

## Programming Notes

The unit will automatically return to normal running mode if a period of 30 seconds passes without any buttons being pressed.

For convenience, to allow for programmes to go past midnight, the programme day is from 03:00am to 02:50am the next day.

If a programme is required to run from 1.00 am to 8.00 am then 2 programmes must be used because it is not possible to programme through 2.50 am. (The programme should be split up into two sections; 3.00 am > 8.00 am and 1.00 am > 2.50 am).

## Reset

Press the reset button with a non-metallic pointed tool to restore the built in programme. As well as restoring the built in programme, it also resets the time to 12:00pm and the date to 01/01/2014. Initially the display shows all segments lit for a few seconds, but then will show the current configuration. See 'Setting The Time' section to continue.

As a safety feature after reset the unit will be in OFF operating mode. Reselect your required operating mode.

## Using Advance

The ADVANCE function allows the user to move to the next ON or OFF programme for a "one off" event, without having to change the programme or the operating mode.

**Warning:** The ADVANCE function is only available when programme is in AUTO or ALL DAY operating modes.

### To advance Central Heating

Press the Central Heating channel **ADV** button. This will turn the Central heating ON if it is in an OFF period and OFF if it is in an ON period. It will stay in this state until either **ADV** button is pressed again, or until a programmed ON/OFF period commences. The word ADV [5] will appear in the top left hand corner of the LCD.

### To advance Hot Water

Press the Hot Water channel **ADV** button. This will turn the Hot Water ON if it is in an OFF period and OFF if it is in an ON period. It will stay in this state until either **ADV** button is pressed again, or until a programmed ON/OFF period commences. The word ADV [5] will appear in the top right hand corner of the LCD.

**Choice PR2n**

[5]

[6]

[3]  [1]  [2]  [4]
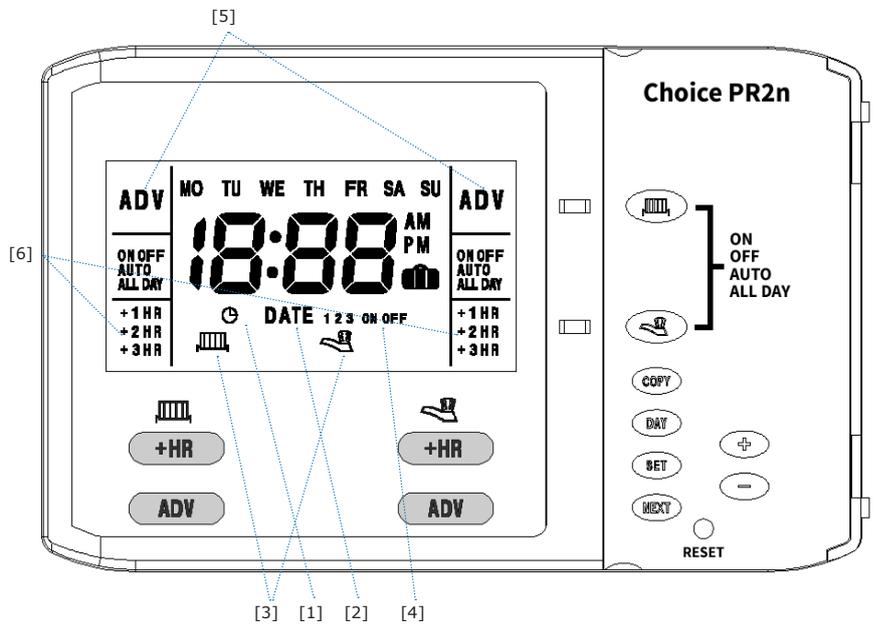
## Using +HR Boost

### For +Hr Central Heating

Press the Central Heating channel **+HR** button to make the desired selection with one, two or three hours extra heating [6] and cancel options offered.

**Warning:** The +HOUR function is only available when programme is in AUTO, ALL DAY or OFF operating modes.

If the Central heating operating mode is OFF, then it will switch on for the extra hours selected. If the Central heating mode is AUTO or ALL DAY, then during an OFF period, it will switch on for the extra hours selected. If during an ON period, then it will temporarily extend that programme by the number of hours selected.

### For +Hr Hot Water

Press the Hot Water channel **+HR** button. to make the desired selection with one, two or three hours extra heating [6] and cancel options offered.
**Warning:** The +HOUR function is only available when programme is in AUTO, ALL DAY or OFF operating modes.

If the Hot Water operating mode is OFF, then it will switch on for the extra hours selected. If the Hot Water mode is AUTO or ALL DAY, then during an OFF period, it will switch on for the extra hours selected. If during an ON period, then it will temporarily extend that programme by the number of hours selected.

**NOTE:** If the programmer is in the OFF mode and then **+HR** button is pressed (+1 HR, + 2 HR, or + 3 HR) and the resulting time of the boost overlaps a START / ON time in the AUTO mode programme memory then the boost will disengage. If this happens simply press **+HR** button again and the boost will activate for the time period chosen.

## Holiday Mode

The Holiday function allows the user to turn all channels to the OFF operating mode, for a settable amount of days from 01-99 days. During this function a suitcase icon will be displayed.

The number of days will decrease at midnight each day.

The +HR boost override can be used during a holiday period.

1. Press & Hold **DAY** button for 4 seconds to enter the holiday function , d:01 flashes.
2. Press **+/-** button to set the holiday days.
3. Press **DAY** button to activate.
4. Press & Hold **DAY** button for 4 seconds to cancel a holiday period.

**Warning:** The Holiday function is only available in AUTO, ALL DAY or ON operating modes.

## Power Interruption

In the event of a mains supply failure the screen will go blank but the back-up battery ensures that the programmer continues to keep the time and retain your stored programme. When power is restored, if there has been no change to the rear DIP switch, the programmer then returns to its expected operating condition.

If the configuration setting on the rear DIP switch has been altered during the power interruption the screen will initially show the new configuration. And the appropriate factory default programme (see BUILT IN PROGRAMME section) will be installed. Press **SET** button to return to RUN mode.

If you have a problem or require any further information please contact us on:

**01475 745131**

**Sangamo Limited**
**Industrial Estate, Port Glasgow,**
**Renfrewshire, PA14 5XG**

**Tel 01475 745131**
**Fax: 01475 744567**
**Email: enquiries@sangamo.co.uk**
**Web: www.sangamo.co.uk**

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