

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.

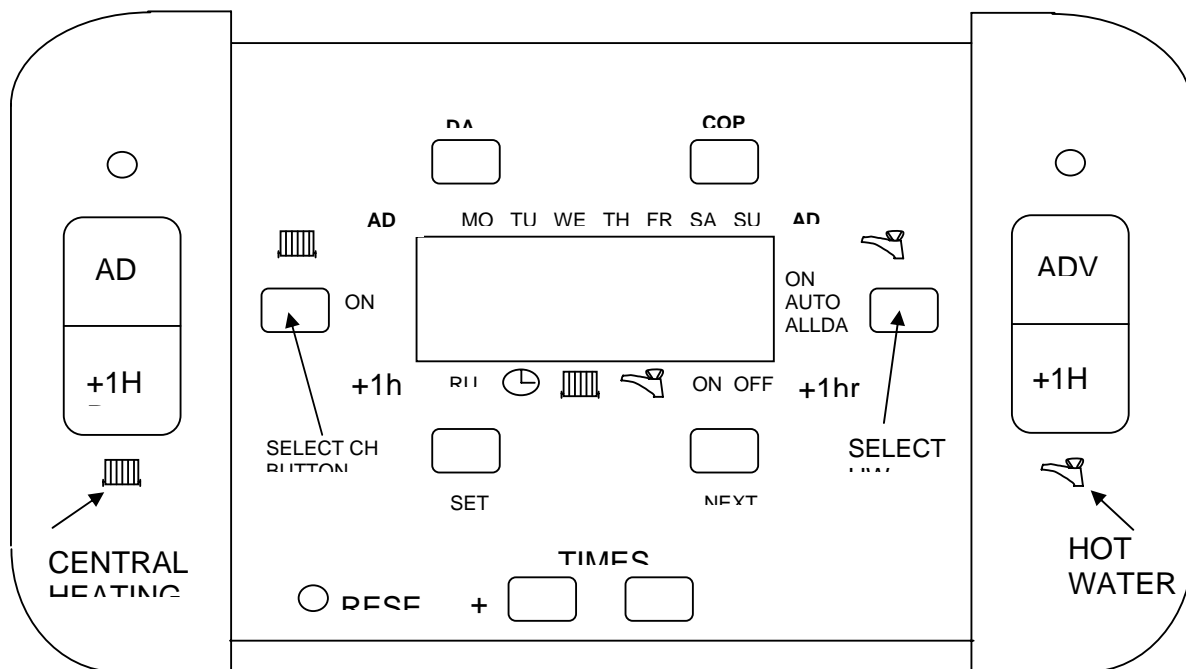
The time on the programmer must be correct. Some types have to be adjusted in spring and autumn at the changes between Greenwich Mean Time and British Summer Time.

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.



## SELECT 207XL USER INSTRUCTIONS



### INTRODUCTION

This central heating programmer can automatically switch your central heating and hot water ON and OFF, independently, up to 3 times a day, at whatever times you choose.

During installation, the installer selects 24 hour, or 5 day/2 day, 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.

The 24 hour programmer option runs the same programme every day.  
 The 5 day/2 day programmer options allows different ON/OFF times at weekends.  
 The 7 day programmer option allows different ON/OFF times for each day of the week.

The unit is designed to eliminate the possibility of accidental changes to your programme. Buttons normally visible, only affect your set programme temporarily. All buttons which can permanently change your programme are located behind the flip-down fascia.

### SELECTING OPERATING MODE

The Heating and Hot water mode select buttons are used to set the operating mode for CENTRAL HEATING and HOT WATER respectively. Each has 4 modes as described:-



- ON** Central heating and/or Hot water on continuously (I.E. All the time).
- AUTO** Central heating and/or Hot water will be switched On or Off as programmed
- ALLDAY** Central heating and/or Hot water will be switched On only once each day. It will switch ON at the first ON time and OFF at the last OFF time.
- OFF** Central heating and/or Hot water continuously OFF.

Press the **SET** button once.  
 The display will flash above the clock.  
 Press the **+/-** buttons to adjust the time.  
 Hold down button to change time quicker.  
 Press **DAY** button to move indicator to Current day.  
 Press SET button repeatedly to move Indicator to **RUN** position.  
 NOTE: The unit will automatically return To run mode if a period of 5 minutes passes Without any buttons being pressed.



### BST/GMT TIME CHANGES

To move the time forward or back 1 hour, press and hold for 3 secs, the TIME +/- button (as appropriate), while the unit is in run mode.

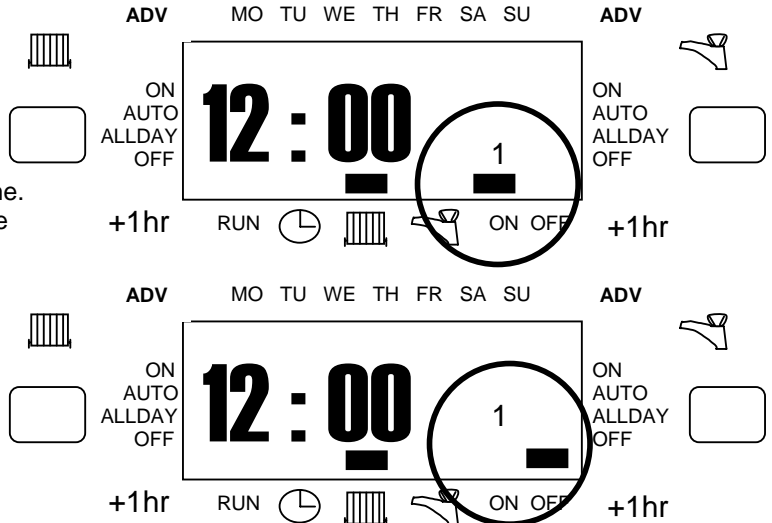
### CHANGING PROGRAMME TIMES

The two built in programmes, one for Central Heating and one for Hot water, can easily be changed to better suit your needs.

To change the Central heating programme  
Press **SET** button repeatedly until the display Indicator is flashing above the radiator symbol.  
An indicator will appear above ON and the Number 1 will show above it. This indicates the time shown on the display is the first ON time.  
Change this to the required time by pressing the +/- buttons.

Press **NEXT** button to move indicator to above OFF. Time now shown is the 1<sup>st</sup> OFF time.  
Change as before.

Use the NEXT and +/- buttons in this way to Program the second time period.  
If the unit is set for three ON /OFF periods, the Number 3 will appear. This is set in exactly the same way as the previous second time period.



If unit is installed as a 7 day programmer, the initial programme displayed will be for Monday. You can go to any day of the week by pressing **DAY** button repeatedly. The ON/OFF times can be changed for each day as above. If you press **COPY** button, the current programme will be copied into the next day.

If unit is installed as a 5day/2day programmer, the initial programme displayed will be for Monday to Friday. Pressing **DAY** button will take you to the programme for Saturday and Sunday. The ON/OFF times can be changed for each day group as above. If you press **COPY** button, the current programme will be copied into the next day group.

If the unit is installed as a 24hr. Programmer, the built in programme will be the same for each day (as for Monday to Friday). The **COPY** function is not required if installed as a 24 hr. programmer.

To return to **RUN** mode, press **SET** button until the display indicator returns to above the **RUN** position.

To change **HOT WATER** programme

Press **SET** button repeatedly until flashing indicator on display is above the tap symbol and proceed exactly as Central heating above.

#### Note

It is not possible to copy Sunday to Monday.

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

If your programme gets scrambled, or you want to start again, press the reset button using a non-metallic tool to re-load the default programmes, then press any button to clear the DIP switch configuration code. The unit should revert to time setting mode ready for programming.

#### USING ADVANCE

This function is only available when programme is in **AUTO** or **ALLDAY** operating modes.

#### To Advance Central Heating

Press the left hand **ADV** button. This will turn Central heating **ON** if it was in an **OFF** period And vice versa. It will stay in this state until either **ADV** is pressed again, or until a programmed **ON/OFF** commences.

An indicator will appear on display top left hand Corner, pointing at **ADV**. This is normally covered By the flip down front fascia panel.



### To Advance Hot Water

Press the right hand **ADV** button. This will turn Hot Water **ON** if it was in an **OFF** period And vice versa. It will stay in this state until either **ADV** is pressed again, or until a programmed **ON/OFF** commences.

An indicator will appear on display top left hand Corner, pointing at **ADV**. This is normally covered By the flip down front fascia panel.



### USING+1HR.

#### For +1hr Central Heating

Press the left hand **+1hr** button. If the central Heating operating mode is **OFF** then it will switch on for 1 hr. If the central heating operating mode is **AUTO** or **ALLDAY**, then during an **OFF** period, it will switch on for 1hr. If during a **ON** period, then it will temporarily extend that programme by 1hr.

An indicator will appear on display lower left corner pointing at **+1hr**. This is normally covered by the flip down front fascia panel.

Pressing **+1hr** again cancels this function. When in the **ON** mode the **+1hr** button has no effect.



### USING+1HR.

#### For +1hr Hot Water

Press the right hand **+1hr** button. If the hot water operating mode is **OFF** then it will switch on for 1hr. If the hot water operating mode is **AUTO** or **ALLDAY**, then during an **OFF** period, it will switch on for 1hr. If during a **ON** period, then it will temporarily extend that programme by 1hr.

An indicator will appear on display lower right corner pointing at **+1hr**. This is normally covered by the flip down front fascia panel.

Pressing **+1hr** again cancels this function. When in the **ON** mode the **+1hr** button has no effect.



### POWER INTERRUPTION

In the event of mains supply failure, the back up battery ensures programmer continues to keep time and retain your stored programme. The screen will go **BLANK**, but will return when power is restored. If left continuously without power for more than 30 days, it will stop keeping time. When power is restored, it will be necessary to reset time and day.

### BATTERY REPLACEMENT

Replace with a 3v Lithium button cell type Cr2032. Fit into the back of the unit, observing correct polarity as marked.

### RESET BUTTON

Press the reset button with a non-metallic pointed tool to restore the built in programme. The display will then show the current state of the configuration switches.

## LINKING CENTRAL HEATING AND HOT WATER

If required, it is possible to set both central heating and hot water to follow the same program.

This is done by holding the **COPY** button down, while pressing reset.

This simplifies programming as changes need only be made once, and will affect both central heating and hot water.

Configuration	Display
2 on/2off/pumped	2 PU
3 on/3off/pumped	3 PU
2 on/2off/gravity	2 GA
3 on/3off/gravity	3 GA
	Mon to Sun day indicators
7 day	Mon to Sun successively on
5/2 day	Mon to Fri on alternating with Sat, Sun on
24Hr	Mon to Sun all on together

E.G. 24hr. 2 on/2off pumped, would look like this:-



### NOTE

The last letter of the display (i.e. the **U** or the **A**) will be **L**, if central heating and hot water have been linked.

E.G. 2 PL = 2on/2off pumped, linked CH/HW

Press any button to revert to time setting mode. The unit is then ready for programming. See **SETTING TIME OF DAY** section.

### BUILT IN PROGRAMME

For convenience, the programmer has a built in programme which for many people is perfectly satisfactory, but it can be changed quite easily (see section **CHANGING PROGRAMMING TIMES**)

If the unit is installed as a 24 hour programmer, the built in programme will be the same for each day (as Mon. to Fri. above).

Factory programme settings		
	Mon-Fri	Sat&Sun
1 <sup>st</sup> ON	6:00am	7:00am
1 <sup>st</sup> OFF	8:30am	9:00am
2 <sup>nd</sup> ON	12:00 noon	12:00 noon
2 <sup>nd</sup> OFF	12:00 noon	12:00 noon
3 <sup>rd</sup> ON	4:30pm	11:00pm
3 <sup>rd</sup> OFF	10:30pm	11:00pm

Installation Instructions  
SELECT207XL  
Programmer

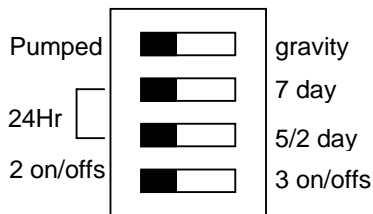
Select 207xl Technical Data

Power supply	230v AC 50Hz.
Ambient temperature	Operating 0°C to 35°C
Total Input	6A
Switch Rating	230vAC 6(2)A
Battery type	3v Lithium button Cr2032
Battery back up	30 days(Time & programme)
Wiring	For fixed wiring only
Maintenance	No user maintenance reqd.
Disconnection class	1B

This unit must be installed by a competent person in accordance with the latest appropriate wiring regulations.

**Pre Installation set-up**

Before installing, set the bank of 4 DIP switches on the back, to configure the unit according to the chart below.



DIP switches shown in factory default position

**Pumped** – Allows independent control of CH and HW.

**Gravity** – Does not allow CH without HW, but can Provide HW without CH.

**24Hr.** - Runs same programme every day

**5/2 Day** - Allows different ON/OFF times at weekend

**7 Day** - Allows different on/off times every day

Locate the back up battery, remove packing and fit to the back of the unit, observing correct polarity as marked.

This will ensure times and programme settings are maintained during temporary power interruptions.

When unit is first switched on, or when the reset button is pressed, the status of the DIP switches is displayed.

**Energy saving feature**

Sunvic's patented 'De-Latch' saves energy and increases the life of 3 port spring return motorised valves.

All 3 port spring return motorised valves can remain powered **ON** in the CH position after the demand for heating has been satisfied, even if the boiler and the pump are switched off. It can be left on all night, using twice as much energy as it should. The valve will only return from this 'latched' position to the HW position after a demand for HW or HW & CH together. This can lead to motor burn out, and failure of **any** make of 3 port spring return motorised valve.

The Select 207 programmer is supplied with a patented system to prevent this 'latching'. Whenever the programme stops calling for CH, it sends a signal to the valve to fully switch it off. This will significantly prolong the life of **all** makes of 3 port spring return motorised valves and save energy. The Select 207 is supplied with 'DE-LATCH' activated. (It has no effect on 2 port valves).

To de-activate the 'DE-LATCH', cut the link as indicated on the back of the programmer before installing.

**INSTALLATION**

This unit is compatible with many other programmers and may be fitted to existing standard wall plates. Please consult the '**WIRING INTERCHANGE GUIDE**' for compatible programmer types. Some are directly interchangeable, others will require minor changes to wiring connections.

Be sure to switch off the mains supply before starting. Please read all installation instructions before proceeding.

Ensure that the fixed wiring connections to the mains supply, is via a fuse rated at not more than 6 amps, and a class 'A' switch, having a contact separation of a minimum of 3mm in all poles.

## DIRECT UPGRADE FOR EXISTING PROGRAMMERS

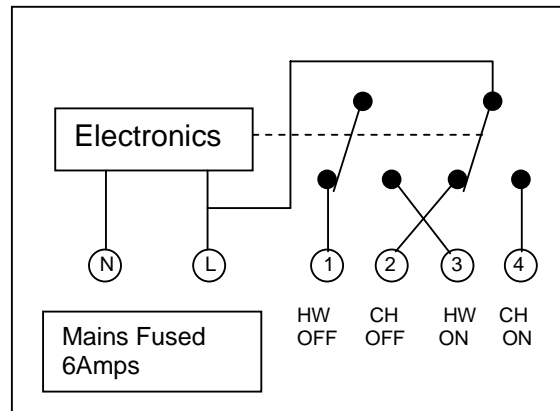
1. Switch off mains. Loosen 2 securing screws on old programmer and unplug it.
2. Check existing wall-plate has been correctly fitted. (See section, Fitting wall plate)
3. Plug SELECT programmer into wall-plate and re-tighten screws. Switch on at mains.
4. Press **RESET** button located behind the flip-down fascia panel. The status of the DIP switch settings will be displayed. Pressing any button will cause the display to go to time setting mode.
5. Set timing and programme as detailed in user guide

## FITTING WALL PLATE

1. Position the wall-plate (terminals along the top edge) with 60mm (Min) clearance to its right, 25mm (Min) above, 90mm (Min) below. Ensure that the supporting surface will fully cover the back of the programmer.
2. Ideal location would be 1.4m above floor level, easily accessible, reasonably lit and free from condensation or temperature extremes.
3. Fix the wall-plate to a flush mounting single conduit box type UA1 (BS4662) using M3.5 x 14 bolts.
4. Ensure that the wiring to the wall-plate terminals leads directly away from the terminals and is completely enclosed within the wall-plate aperture. Wire ends must be stripped and screwed to the terminals, so that minimal bare wire is showing.
5. If the unit is fitted to a metal surface, IT IS ESSENTIAL that the metal be earthed. Do not use a surface mounting box.
6. Ensure the mains supply is switched off, then make wiring connections. No EARTH connection is required, but ensure continuity of EARTH throughout the system.
7. After wiring, plug unit into wall plate and tighten the securing screws. Switch on at mains.
8. Press **RESET** button located behind the flip-down fascia panel. The status of the DIP switch settings will be displayed. Pressing any button will cause the display to go to time setting mode.
9. Setting timing and programme as detailed in user guide.
10. NEVER fit or remove the unit to a LIVE wall-plate.

This product complies with the essential requirements of the following EC Directives:  
Electro-magnetic compatibility directive  
EMC 89/336/EEC (as amended by 91/263/EEC  
And 92/31/EEC  
Low Voltage directive  
LVD 73/23/EEC; 93/68/EEC

## Programmer Internal Wiring Diagram



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In the interests of continuous product improvement, Sunvic Controls reserve the right to alter designs, specifications and materials, without prior notice, and cannot accept liability for error.

Installation leaflet LE/497/0001 ISSUE 01 FEB 2003

## DIRECT PLUG-IN REPLACEMENT FOR EXISTING PROGRAMMERS

Programmer will plug directly onto existing wall-plates of the following programmers without any rewiring, just follow the installation instructions.

MANUFACTURER	MODEL	MANUFACTURER	MODEL
ACL	LP112, LS241, LS522 LS722, LP241, LP522 LP722	LANDIS & GYR	RWB2, RWB2.9, RWB 102 RWB200, RWB252, RWB20, RWB40
DANFOSS RANDALL	FP75, FP15, CP75, CP15	POTTERTON	MINIMINDER
DRAYTON	TEMPUS 3 & 4 & 7	GLOW-WORM	MASTERMIND
		SUNVIC	SELECT 207

Otherwise fit new wall-plate supplied, and refer to wiring interchange guide below.

#### WIRING INTERCHANGE GUIDE

When replacing any of the below with your Sunvic SELECT 207XL programmer, fit new wall-plate supplied and follow the connection details shown. Whilst every effort is made to ensure accuracy of the instructions given, you will appreciate that discrepancies may occur, due to various reasons outside of our control.

Make	Model	Terminals					
		N	L	1	2	3	4
Sunvic	SELECT 207XL						
	SP100 & SP50	N	L	1	4	2	5
	SP2	N	L	1	4	3	6
Satchwell	Libra & DHP2201	1	2	8	5	6	3
Satchwell	ET1401 & ET1451	1	2	8	5	7	4
Honeywell	ST699B & C	N	L	7	4	6	3
	ST499A	N	L	-	-	6	3
	ST6300 & ST6400	N	L	1	2	3	4
	ST7100	N	L	7	4	8	5
ACL	MP	2	1	-	-	6	10
	FP	2	1	8	11	6	10
	2000	N	L	hw off	ch off	hw on	ch on
Randall	922 & 972	N	L	1	4	3	6
	4033	7	6	5	3	4	2
	701	N	L	-	-	3	1
	702	N	L	4	2	3	1
	102	5	6	-	-	1	2
	3060 & 3020P	1&7	6	-	-	4	2
	3033	1&7	6	5	3	4	2
	SET2 & SET5	N	L	3	6	1	4
	TSR3+3	3&6	7	2	5	1	4
	MK11 R6	3	1&2	-	-	4	5
	TSR2P	3	1	-	-	5	7
Sangamo	410F1 & F9 & F414	4&5	3&6	2	7	1	8
	M5	4	3	-	-	1	6
Potterton	EP2000 & EP3000	N	L	1	2	3	4
Horstmann	Amethyst 7 & 10	2	1	4	6	5	7
	Coral	2	1	-	-	8	4
	Diadem	N	L	3	6	1	4
	Diamond	N	L	-	-	2	4
	Gem	2	1	6	9	4	7
	Leucite	2	1	8	4	3	6
Smiths	Centroller	N	L	1	2	3	4
Switchmaster	400 & 600	N	L	-	-	3	1
	805 & 900 & 9000	N	L	4	2	3	1
Thorn	Microtimer	N	L	7	4	6	3
Towerchron	T2002	N	L	-	-	HW	CH
	T2000 & T2003	N	L	HW OFF	CH OFF	HW ON	CH On