# **A27-HW**





2 Zone Programmer
Installation and Operation Guide

### **Table of contents**

Installation Instructions	
Factory Default Settings	5
Frost Protection	5
Specifications	6
Quick introduction to your A27-HW Programmer	7
Wiring diagram	8
Mounting & Installation	9
Operating Instructions	
LCD Symbol Description	13
Button Description	14
Resetting the Timesitch	15
Keypad lock and unlock	15
Setting the date and time	16
Factory Program Setting	17
Mode selection	18
Adjust the program setting	19

Reviewing the program settings	21	
Boost function	21	
Advance function	22	
Holiday mode	23	
Backlight mode selection	24	
PIN Function	25	
Service Interval	27	

20

Copy Function



2 Zone Programmer **Installation Instructions** 

### **Factory Default Settings**



Contacts: 230VAC

Program: 5/2D

Backlight: On

Keypad: Unlocked

Clock type: 24 Hr Clock

Daylight saving: On

Frost protection: 5°C - Not adjustable

#### **Frost Protection**



5°C

Frost protection is built into this programmer.

It is pre fixed at 5°C and is not adjustable.

It will only be activated when the programmer is in the OFF mode and the room temperature falls below 5°C.

### **Specifications**

Power Supply: 200 - 240 Vac, 50-60 Hz, 8 VA

Ambient Temperature: 0 ... 45°C
Relative Humidity Range: 5-95% RH
Contact Rating: 250VAC 3(1)A
Switch Output: 230VAC

Program Memory backup: 3 months
Battery: LIR2032
Backlight: Blue
IP Rating: IP20

Backplate: British System Standard
Pollution Degree: Pollution Degree 2
Rated Impluse Voltage: 2.500V as per EN 60730

Automatic Action: Type 1.C

Software: Class A

Ball Pressure Test Temperature: 70°C

Dimensions: 140 x 99 x 35mm

### **Quick introduction to your A27-HW Programmer**

The A27-HW programmer is used to control two separate zones in your central heating system, hot water and heating.

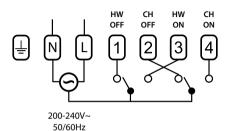
Each zone can be independently operated and programmed to suit your needs. Each zone has up to three daily heating programs called P1, P2 and P3. See Page 19 for instructions on how to adjust the program settings.

On the LCD screen of your programmer you can see what mode the zone is currently in, information about the hot water zone is displayed on the left. Information about your heating zone is displayed on the right.

For 'Mode Selection' please see page 18 for further explanation.

When the zone is ON, you will see the red LED for that zone light up. This indicates that power is being sent from the programmer on this zone.

### Wiring diagram



#### **Terminal Connections**

±	Earth	
N	Neutral	
L	Live	
1	Hot Water OFF	- N/C Normally closed connection
2	Central Heating OFF	- N/C Normally closed connection
3	Hot Water ON	- N/O Normally open connection
4	Central Heating ON	- N/O Normally open connection

8 A27-H

### **Mounting & Installation**

#### Caution!

- Installation and connection should only be carried out by a qualified person.
- Only qualified electricians or authorised service staff are permitted to open the programmer.
- If the programmer is used in a way not specified by the manufacturer, its safety may be impaired.
- Prior to setting the programmer, it is necessary to complete all required settings described in this section.
- Before commencing installation, the programmer must be first disconnected from the mains.

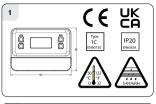
#### This programmer can be mounted in the following ways:

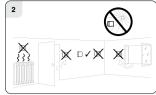
- 1) Surface mounted
- 2) Mounted to a recessed conduit box

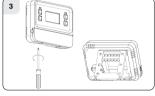
#### Mounting & Installation (Continued)

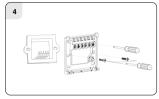
- 1) Remove the programmer from its packaging.
- 2) Choose a mounting location for the programmer:
  - Mount the programmer 1.5 metres above the floor level.
  - Prevent direct exposure to sunlight or other heating / cooling sources.
- Use a philips screwdriver to loosen the screws of the backplate on the bottom of the programmer. The programmer is lifted upwards from the bottom and removed from the backplate.
   (See Diagram 3 on Page 11)
- Screw the backplate onto a recessed conduit box or directly to the surface.
- 5) Wire the backplate as per the wiring diagram on page 8.
- 6) Sit the programmer onto the backplate making sure the programmer pins and the backplate contacts are making a sound connection, push the programmer flush to the surface and tighten the screws of the backplate from the bottom. (See Diagram 6 on Page 11)

10 A27-H\













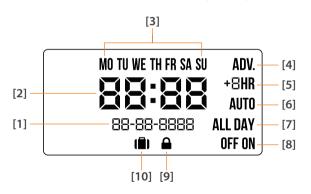


# 2 Zone Programmer **Operating Instructions**

## **LCD Symbol Description**

- [1] Displays day / month / year [6] Displays
- [2] Displays current time.
- [3] Displays day of the week.
- [4] Displays advance function.
- [5] +1hr function.

- Displays auto mode is activated.
- [7] Displays all day mode.
- [8] Displays off & on mode.
- [9] Displays when keypad is locked.
- [10] Displays holiday mode.



#### **Button Description**



The state of the s		
	Clock set / Run / Program Set	
+1 HR button	OK Button	+1HR button
Advance Hot Water	<ul> <li>Set point decrease</li> </ul>	Advance heating
+ Button	Holiday mode	Reset button
Select Hot Water	Select Heating button	clock set / Run /Program Set

14 A27-HW

### Resetting the programmer

To reset the programmer to factory settings.

Press the RESET button.

This button is located behind the flap on the front of the unit.

'rst no' will appear on the screen.

Press the button to change from 'rst no' to 'rst yES'.

Press to confirm.

The programmer will restart and revert to factory defined settings.

The time and date will not reset.

## **Keypad lock and unlock** (E) Unlocked



To lock the keypad, press and hold the and buttons for 5 seconds.

will appear on the screen. The keypad is now locked.

To unlock the keypad, press and hold the and and buttons for 5 seconds

will disappear from the screen. The keypad is now unlocked.

### Setting the date and time

Lower the flap on the front of the unit.

Move the selector switch to the **CLOCK SET** or position.

Press the or obuttons to adjust the day.

Press the or obuttons to adjust the month.

Press the obutton.

Press the or obuttons to adjust the year.

Press the obutton.

The date, time and mode are now set. Move the selector switch to the RUN of the PROG SET of th

16 A27-H1

# Factory Program Setting ( 5/2d, 7D. 24H



5/2 Day						
	P1 0N	P1 OFF	P2 0N	P2 OFF	P3 0N	P3 OFF
Mon-Fri	06:30	08:30	12:00	12:00	16:30	22:30
Sat-Sun	07:30	10:00	12:00	12:00	17:00	23:00
			7 Day			
	P1 0N	P1 OFF	P2 0N	P2 OFF	P3 0N	P3 OFF
All 7 days	06:30	08:30	12:00	12:00	16:30	22:30
24 Hour						
	P1 0N	P1 OFF	P2 0N	P2 OFF	P3 0N	P3 OFF
Everyday	06:30	08:30	12:00	12:00	16:30	22:30

#### Mode selection

There are 4 modes available for selection.

AUTO The zone operates three 'ON/OFF' periods per day. (P1,

P2, P3)

ALL DAY The programmer operates one 'ON/OFF' period per day.

This operates from the first ON time to the third OFF

time.

**ON** The programmer is permanently 'ON'.

**OFF** The programmer is permanently 'OFF'.

By pressing the 'SELECT HOT WATER' O button, you can change between AUTO / ALL DAY / ON / OFF.

Repeat this process for heating by pressing the 'SELECT HEATING' Obutton. Press 'SELECT HOT WATER' O to change the hot water zone between AUTO / ALL DAY / ON / OFF. The current mode will be shown on the left of the sreen. Press 'SELECT HEATING' O to change the current mode. The current mode will be shown on the right.

18 A27-HV

## Adjusting the program settings

Lower the flap on the front of the unit.

Move the selector switch to the **PROG SET** \*\*\* position.

Programming for hotwater is now selected.

Press the  $\bigcirc$  or  $\bigcirc$  buttons to adjust the **P1 ON** time.

Press the  $\bigcap_{OK}$  button.

Press the  $\bigcirc$  or  $\bigcirc$  buttons to adjust the **P1 OFF** time.

Press the  $\bigcirc_{OK}$  button.

Repeat this process to adjust the ON & OFF times for P2 & P3.

Press the 'SELECT HEATING' button and repeat the above process to adjust for HEATING.

When completed, move the selector switch to the **RUN** axx axx axx position.

### **Copy Function**

Copy function may only be used if the programmer is in the 7d mode.

(See page 16 to select 7d mode)

Lower the flap on the front of the programmer.

Move the selector switch to the **PROG SET**  $\frac{1}{357}$   $\frac{1}{1}$  position.

Set the ON & OFF times for the day of the week you wish to copy from.

Press the  $\bigcirc$  button for 2 seconds.

The next day of the week will begin to flash.

Press the Obutton to copy the ON & OFF times to this day.

Press the  $\bigcirc$  button to skip a day.

**ON & OFF** times can be copied to multiple days by using the  $\bigcirc$  button.

Press the  $\bigcirc_{OK}$  button when copying has been completed.

20 A27-HV

### **Reviewing the Program Settings**

Lower the front flap on the front of the programmer.

Move the selector switch to **PROG SET**  $\frac{1000}{100}$   $\frac{1}{100}$   $\frac{1}{100}$  position.

Press ok to scroll through the periods for the individual day (block of days).

Press SELECT to jump to the next day (block of days).

Move the selector switch to  $\frac{1}{2} \sum_{s=1}^{NN} \sum_{s=1}^{NN} to return to normal operation.$ 

#### **Boost function**

The programmer can be boosted for 1, 2 or 3 hours while it is in the AUTO, ALL DAY & OFF mode. Press +1HR 1, 2 or 3 times, to apply the desired boost period. When a +1HR is pressed there is a 5 second delay before activation where +1HR will flash on the screen, this gives the user the time to select the desired boost period. To cancel a boost, press +1HR again. When a boost period has ended or has been cancelled, the programmer will return to the mode that was previously active prior to the boost.

Note: A Boost cannot be applied while in the ON or Holiday Mode.

#### **Advance function**

If the zone is currently timed to be <b>OFF</b> and the <b>ADV</b> is pressed, the
zone will be switched <b>ON</b> until the end of the next switching time.
If the zone is currently timed to be $\mathbf{ON}$ and the $\mathbf{ADV} \bigcirc$ is pressed, the
zone will be switched <b>OFF</b> until the end of the next switching time.
Press the ADV HOT WATER Or ADV HEATING

This function allows the user to bring forward the next switching time.

To cancel the **ADVANCE** function, simply press the **ADV** O button again.

**22** A27-HV

## **Holiday mode**

Lower the flap on the front of the unit. Move the selector switch to the **RUN** coor man position. Press the button. The current date and time will flash on the screen. It is now possible to enter the date when you plan to return. Press the  $\bigcirc$  or  $\bigcirc$  buttons to adjust the holiday period required. Press the Dutton. The programmer is now switched **OFF** until the holiday period ends. By pressing the  $\bigcirc$  button again, this will cancel the holiday mode, thereby returning the programmer to the normal setting. To cancel the holiday press  $\bigcirc$  . The programmer will return to normal operation when a holiday is finished or cancelled.

# **Backlight mode selection** $\bigcirc$ on



There are two settings for selection. The factory default setting is **ON**.

ON The backlight is permanently ON.

AUTO On pressing any button the backlight stays on for 10 seconds.

To adjust the backlight setting, lower the flap on the front of the unit.

Ensure the selector switch is in the RUN "SOFT TOOK position.

Press and hold the  $\bigcirc$  button for 5 seconds.

ពីក មាន will appear on screen.

Press either the  $\bigcirc$  or  $\bigcirc$  buttons to select between the **ON** or **AUTO** mode.

Press the button.

#### **PIN Function**

This function allows the user to put a PIN lock on the programmer.

The PIN lock will reduce the functionality of the programmer.

The user will have two options to choose from:

- 01: All buttons will be disabled.
- **02:** Functionality will be reduced to a 1 hour boost. The only modes available are the AUTO & OFF.

#### **Set up the PIN**

Ensure the selector is in the <b>RUN</b> "" position.
Press and hold $\bigcap_{oK}$ and $\bigcap_{t}$ buttons for 5 seconds, ' <b>OFF</b> ' will appear on
the screen. Press $igcap_+$ to change from <b>OFF</b> to <b>ON</b> . Press $igcop_{ m oK}$ . $lacksquare$ will
flash on the screen. Press $igcap_+$ and $igcup$ to set the value from 0 to 9 for the
first digit. Press $igcirc$ to move to the next PIN digit. When the last digit of
the PIN is set, press $\bigcirc_{DK}$ . <b>'VErIFy'</b> is displayed with $0000$ . Press $\bigcirc$ and
$\bigcirc$ to set the value from 0 to 9 for the first digit. Press $\bigcirc_{K}$ to move to
the next PIN digit. When the last digit of the PIN is set, Press $\mathop{\bigcirc}\limits_{OK}$ .

# PIN Function (Continued)

The PIN is now verified ' <b>OP:01'</b> will appear on the screen. Press $igcap$ an
$\bigcirc$ to select between OP:01 and OP:02. Press $\bigcirc_{\rm ok}$ confrim PIN option
and the PIN lock is activated.

If the verification PIN is entered incorrectly the user is brought back to the menu. When the PIN lock is active the Lock symbol  $\triangle$  will flash every second on the screen. When the programmer is PIN locked, pressing the  $\bigcirc$  will take the user to the PIN unlock screen.

#### To Unlock the PIN

Press  $\bigcirc_{\mathsf{K}}$ , 'UNLOCK' will appear on the screen.  $\bigcirc$  will flash on the screen. Press  $\bigcirc$  and  $\bigcirc$  to set the value from 0 to 9 for the first digit. Press  $\bigcirc_{\mathsf{K}}$  to move to the next PIN digit. When the last digit of the PIN is set. Press  $\bigcirc$ . The PIN is now unlocked.

26 A27-H<sup>1</sup>

If a PIN has been unlocked on the timeswitch, it will automatically reactivate if there is no button pressed for 2 minutes.

#### To Deactivate the PIN

When the PIN is unlocked (see above instructions)

Ensure the selector is in the **RUN** sector position.

Press and hold  $\bigcirc_{N}$  &  $\bigcirc$  for 5 seconds, 'ON' will appear on the screen.

Press  $\bigcirc$  or  $\bigcirc$  to select 'OFF'. Press  $\bigcirc$  .  $\square \square \square \square \square$  will flash on the screen.

Enter the PIN. Press . The PIN is now disabled.

### Service Interval ( OFF



The service interval gives the installer the ability to put an annual countdown timer on the timeswitch. When the Service Interval is activated 'SErv' will appear on the screen which will alert the user that their annual boiler service is due.

For details on how to enable or disable the Service Interval, please contact customer service.

#### **EPH Controls IE**

technical@ephcontrols.com www.ephcontrols.com/contact-us +353 21 471 8440 Cork, T12 W665





technical@ephcontrols.co.uk www.ephcontrols.co.uk/contact-us +44 1933 322 072 Harrow, HA1 1BD



