CTC EZIPROG 1 (EP1)
1 Channel Programmer

C E

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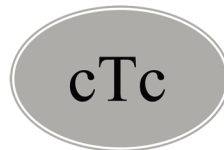
User &
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Commissioning

Switch on mains supply. Referring to the user guide:

1. Use the buttons to ensure correct product functionality.

2. Set timing and programme details in accordance with customer requirements.

3. Normally unit will be left with channel in 'Auto' mode.

4. Set backlight either permanently ON or OFF in accordance with customer requirements (refer to SETTING THE BACK LIGHT in the User Instructions).

5. Leave these installation instructions with customer for reference.

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

Electrical Connections

Internal Wiring Diagram
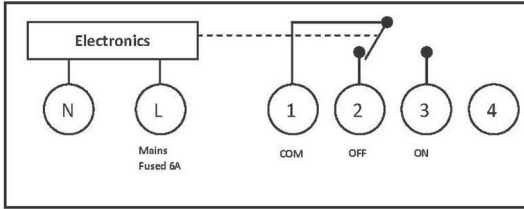
Note: The Switch is volts free. COM should be linked to L for mains switching.

Fitting the Programmer

Loosen the two 'captive' retaining screws on the bottom of the back plate. Now fit the programmer to the back plate, ensuring the lugs of the back plate engage with the slots on the programmer. Swing the bottom of the programmer into position ensuring the connection pins on the back of the unit locate into the terminal slots in the back plate. Tighten the two 'captive' screws to fix the unit securely.


User Instructions

INTRODUCTION – What is a programmer?...
an explanation 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 upon the changes between Winter and 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.
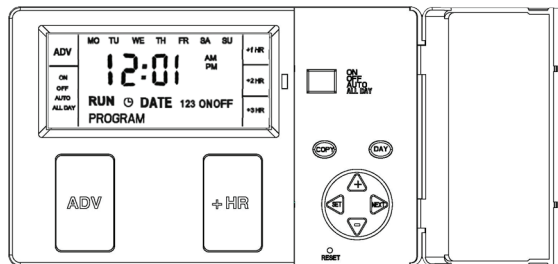
Existing Installations

1. Remove old programmer from its back plate mounting, loosening any securing screws as dictated by its design.

2. Check compatibility of existing back plate & wiring arrangement with that of the new programmer. See online Programmer Replacement Guide for direction.

3. Make all necessary changes to back plate & wiring arrangement to suit new programmer.

N.B!! Isolate all power supply before fitting and wiring back plate, and before mounting programmer on back plate.

A 3-6 Amp fused spur is recommended and in most installations compulsory.

(This programmer range has a 6 Amp rating.)

New Installations

Example circuit diagram for a typical installation is shown below. This diagram is schematic and should be used as a guide only.

Please ensure that all installations comply with the current IEE regulations.

For reasons of space and clarity the diagram has been simplified. For instance some Earth connections have been omitted.

Other control components shown in the diagram i.e. Valves, Room Stats etc are general representations only. However, the wiring detail can be applied to the corresponding model of most manufacturers e.g. Horstmann, Honeywell, Danfoss Randall, Drayton etc.
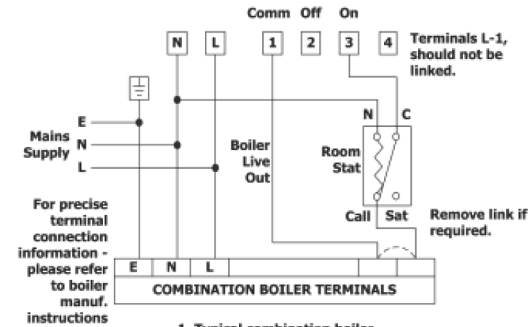
Cylinder and Room Thermostat Key

C=Common

Call = Call for heat or break on rise

SAT = Satisfied on rise

N= Neutral

1. Typical combination boiler installation with Roomstat

PROGRAMMER SUMMARY

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 and 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 it 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).

The large, easy to read display makes programming easy and 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 over facia.

- The 24 hour programmer option runs the same programme every day.
- The 5/2 Day programmer option allows different ON/OFF times at weekends.

- The 7 Day programmer option allows different ON/OFF times for each day of the week.

IMPORTANT: These settings should only be changed by a qualified person. Contact your installer. This programmer is not suitable for the switching of devices greater than 6Amp rated. (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

The 24 hour, or 5 day/2 day, 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	Monday to Sunday Indicators flash
7 DAY	Mon to Sun individually shown
5/2 DAY	Mon to Fri together then Sat & Sun together shown
24 HOUR	Mon to Sun together shown

Now press the set button to move to Setting the Time and Day

Fitting Back Plate – Direct Wall Mounting

1. Position the wall-plate (terminals along 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. The ideal location would be 1.4M above floor level, easily accessible, reasonably lit and free from condensation or temperature extremes. N.B!! Fitting programmer too high may lead to difficulty in reading LCD screen.

3. Offer the back plate to the wall in the position where the programmer is to be mounted remembering that the back plate fits to the left hand end of the programmer. Mark the fixing positions through the slots in the back plate, drill and plug wall, then secure back plate in position.

4. All necessary electrical connections should now be made. 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.

Fitting Back Plate – Wiring Box Mounting

1. Fix the wall-plate to a flush mounting single conduit box type UA1 (BS4662) using M3.5 x 14 bolts. Take care to ensure the opening is adequate and will allow mounting of the unit onto the base plate. Also, the use of glue, mastic, or other sealants should not be required to secure the unit to the wall if the correct fitting instructions are followed.

2. All necessary electrical connections should now be made. 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.

Pre-Installation Product Set Up

Before installing, set the bank of 4 DIP Switches on the back to configure the unit according to the chart below:
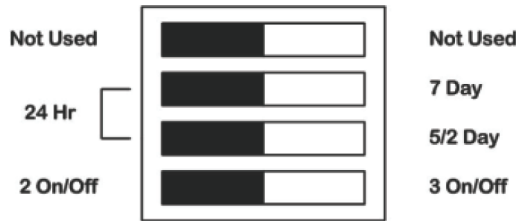
DIP Switches: Shown in Factory Default Positions.

24 Hr – runs same programme every day.

5/2 Day – allows different on/off times at weekend.

7 day – allows different on/off times every day.

Installation Safety Notes

This unit must be installed by a suitably qualified person in accordance with the latest IEE Wiring Regulations.

Isolate mains supply before commencing installation. 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. The recommended cable sizes are 1.0mm sqr or 1.5mm sqr.

If the unit is fitted to a metal surface, IT IS ESSENTIAL that the metal be earthed. DO NOT use a surface mounting box.

No earth connection is required as the product is double insulated but ensure continuity of earth throughout the system.

NEVER fit or remove the unit to a live wall-plate.

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

Configuration 2Pu	Configuration 3Pu	Mon – Fri	Sat– Sun
1st ON	1st ON	06:00am	07:00am
1st OFF	1st OFF	08:30am	09:00am
—	2nd ON	12.00noon	12.00noon
—	2nd OFF	12.00noon	12.00noon
2nd ON	3rd ON	04:30pm	04:30pm
2nd OFF	3rd OFF	10.30pm	11.00pm

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

SELECTING OPERATING MODE
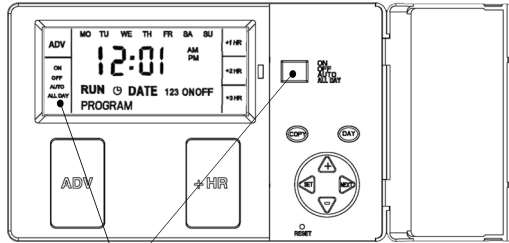
Mode

| ON	Central Heating and Hot Water is **ON** continuously
AUTO	Central Heating and Hot Water will be switched **ON** and **OFF** in accordance with set programmes
ALL DAY	Central Heating and Hot Water will switch **ON** at the first **ON** and switch **OFF** at last **OFF**
OFF	Central Heating and Hot Water continuously **OFF**

Techical Data

Power Supply	230V AC, 50Hz
Operating Temperature	0°C to 35°C
Switch Rating	230V AC, 6(2)A SPDT Volt Free
Battery Type	Lithium Cell CR2032
Enclosure Protection	IP30
Plastics	Thermoplastic, flame retardant
Insulation Class	Double
Wiring	For fixed wiring only
Back Plate	Industry standard
Dimensions	140mm x 87mm x 37mm
Clock	12 hour am/pm, 1 minute resolution
BST/GMT time change	Automatic
Clock Accuracy	+/- 1 sec/day
Programme Cycle	24hr, 5/2 day or 7 day selectable
Programme On/Offs per day	2on/off, 3on/off selectable
Programme Selection	Auto, On all day, On constant, Off
Programme Override	+1,2 or 3Hr, Advance
Heating System	Pumped, Gravity selectable (Not available in EP1)
Complies with	EN60730-1, EN60730-2.7, EMC Directive 2004/108/EC, LVD Directive 2006/95/EC

Installation Instructions

SETTING THE TIME

- Press the SET button (1) once. The configuration setting will appear on the screen. (E.G. 2PU)

- Press the SET button (1) again. The clock icon (2) on the screen will flash.

- Press the +/- buttons (3) to adjust the time. Time will change quicker if pressed continually.

- Press SET (1) once to move on to setting the DATE or press multiple times to return to RUN mode.

(2)   (4)   (1)   (3)   (5)
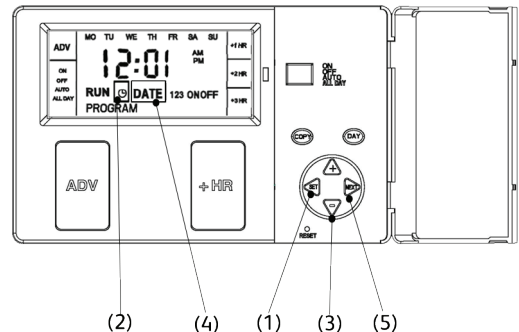
SETTING THE DATE

- Press the SET button (1) until the Y:XX icon (Year) appears and the D (DATE) icon (4) flashes.

- Press the +/- button (3) to set the year.

- Press NEXT button (5). M:XX appears (Month).

- Press +/- button (3) to set month.

- Press NEXT button (5). D:XX appears (Day).

- Press +/- button (3) to set day.

You can review or edit the date you have set just by pressing NEXT button (5) again and repeating the sequence above. To confirm the date and move on to PROGRAM mode press SET button (1) once or press SET button (1) multiple times to return to RUN mode.

Setting the Backlight

The backlight can either be set permanently ON or OFF. The programmer backlight is pre-set to be permanently OFF. When backlight is permanently OFF, the backlight will turn ON for 15 seconds when + or – button is pressed, then turn OFF automatically. To change setting to permanently ON, press SET repeatedly until L IR is displayed. Press + or – to turn backlight ON or OFF. Press SET to confirm.

N.B!! If the back light is in the OFF mode do not press Advance or Boost Buttons to turn the back light ON as doing so may activate the boiler. Only use + or - Buttons.

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.

NOTE:

If the programmer is in the AUTO or ALL DAY mode and then +HR button (2) is pressed (+1 HR, + 2 HR, or + 3 HR) and the resulting time of the boost overlaps a START / ON time in the programme memory then the boost will disengage.

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 goes to RUN mode.

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.

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 day 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 day /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. Monday to Friday group to Saturday/Sunday only.

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 effect if installed as a 24 hour programmer.

PROGRAMMING NOTES

The unit will automatically return to RUN mode if a period of 5 minutes 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 12:00 pm and the date to 01/01/2000. Initially the display shows all segments lit for a few seconds, but then will show the current configuration. See SETTING THE TIME AND DATE section to continue.

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

NOTE: Use of excessive force may result in the reset button sticking behind the front cover of the programmer. If this happens the unit will "freeze" and the button can only be released by a qualified installer.

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 use the ON or OFF buttons.

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

To advance Central Heating Press the ADV (1) 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(1) button is pressed again, or until a programmed ON/OFF period commences. The word ADV will appear in the top left hand corner of the LCD.

(1)   (2)
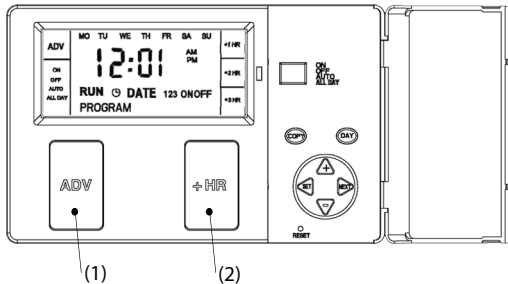
USING THE +HR BOOST

Press the +HR button (2). One press of the button will give one extra hour of heating two presses of the button will give two extra hours and three presses of the button will give the maximum three extra hours. Pressing it again will switch off the +HR function.

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

CHANGING PROGRAMME TIMES

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

To change the times

•Press the SET button (1) once. The configuration setting will appear on the screen. (E.G 2PU)

•Press the SET button (1) again. The time display on the screen will flash.

•Press the set button (1) again and date display appears.

•Press the set button (1) again and program icon (2) flashes, and the first on time appears.

•Press the +/- buttons (3) to adjust the time. Time will change quicker if pressed continually.

(2)   (5)   (1)   (3)   (4)
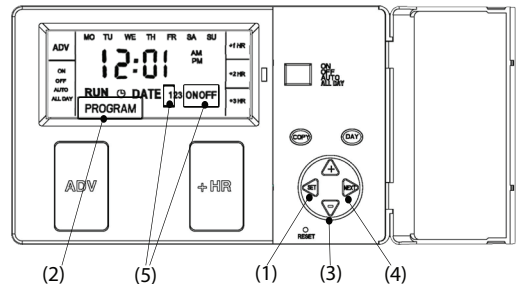
•Press NEXT button (4), display will now show 1 OFF (5).

•By pressing the +/- buttons (3) you can alter the OFF time to the time you want.

•Press NEXT button (4) 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.