

4033

*electro-mechanical
programmer for controlling
heating & hot water*

Installation & User Instructions



This product complies with the following EC Directives:
Electro-Magnetic Compatibility Directive.
(EMC) (2004/108/EC)
Low Voltage Directive.
(LVD) (2006/95/EC)

CE

Danfoss

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Installation Instructions

Please Note:

This product should only be installed by a qualified electrician or competent heating installer, and should be in accordance with the current edition of the IEEE wiring regulations.

Product specification

Specification	
Power supply	230 ± 15% Vac, 50/60Hz
Switch action	2 x SPDT, type 1B
Switch rating	Max 264 Vac, 50/60Hz, 3(1) A
Timing accuracy	± 1 min/month
Enclosure rating	IP30
Max. ambient temperature	55°C
Dimensions, mm (W, H, D)	102 x 210 x 60
Design standard	EN 60730-2-7
Construction	Class 1
Control Pollution Situation	Degree 2
Rated Impulse Voltage	2.5kV
Ball Pressure Test	75°C

Specification

Installation

Installation

1. Unscrew fixing rings from selector switches, move all four tappets to top of dial and remove outer case.
2. Slacken two screws securing plug-in module to backplate and separate module from backplate by pulling upwards.
3. Fix backplate to wall (3 hole fixing).
4. Wire mains, motorised valve(s), thermostat(s) according to instructions shown on page 6-7.
5. Secure cables under clamp bar.
6. Ensure all dust and debris has been cleared away from the area then plug in programmer module and re-tighten the 2 retaining screws - do not overtighten.
7. Switch on mains, turn both selector switches to 'ON' and light up boiler according to manufacturer's instructions.
8. With both room and cylinder thermostats turned up to maximum, check the switching action of the 4033 with a neon screwdriver or test lamp.
NOTE: This is a Class 1 product and must be earthed.

WATER SWITCH

- (a) With selector switch in **ON** position, terminal 4 should be LIVE.
- (b) With selector switch in **OFF** position, terminal 5 should be LIVE.
- (c) With selector switch in **TIMED** position, terminal 4 should be LIVE between tappets A-B and C-D and terminal 5 should be LIVE between tappets B-C and D-A.

HEATING SWITCH

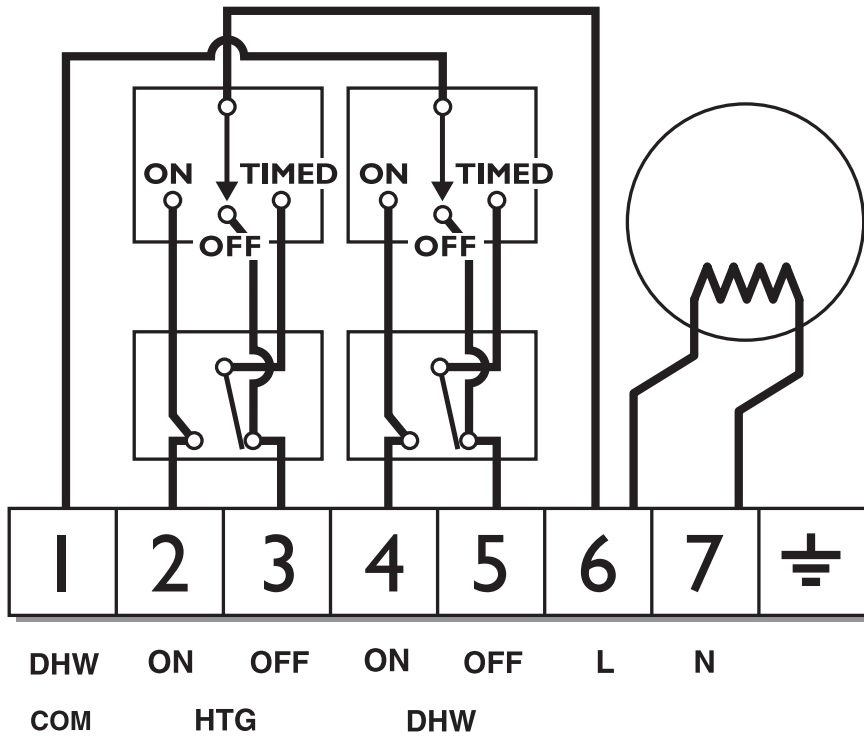
- (d) With selector switch in **ON** position, terminal 2 should be LIVE.
 - (e) With selector switch in **OFF** position, terminal 3 should be LIVE.
 - (f) With selector switch in **TIMED** position, terminal 2 should be LIVE between tappets A-B and C-D and terminal 3 should be LIVE between tappets B-C and D-A.
9. Remove cut-out from bottom of outer case as required. Refit outer case and selector switch fixing rings. Check that outer case sits squarely on body and is not distorted by an uneven wall surface.
 10. Rotate dial clockwise through at least one complete revolution and check that all four tappets are clear of outer case aperture.
 11. Ease of installation can be achieved by the use of the Danfoss Randall Wiring Centre which is obtainable from most Builders Merchants and Distributors.



NOTE: If a Wiring Centre is used follow the installation instructions included with that unit and not the wiring diagrams overleaf.

Wiring

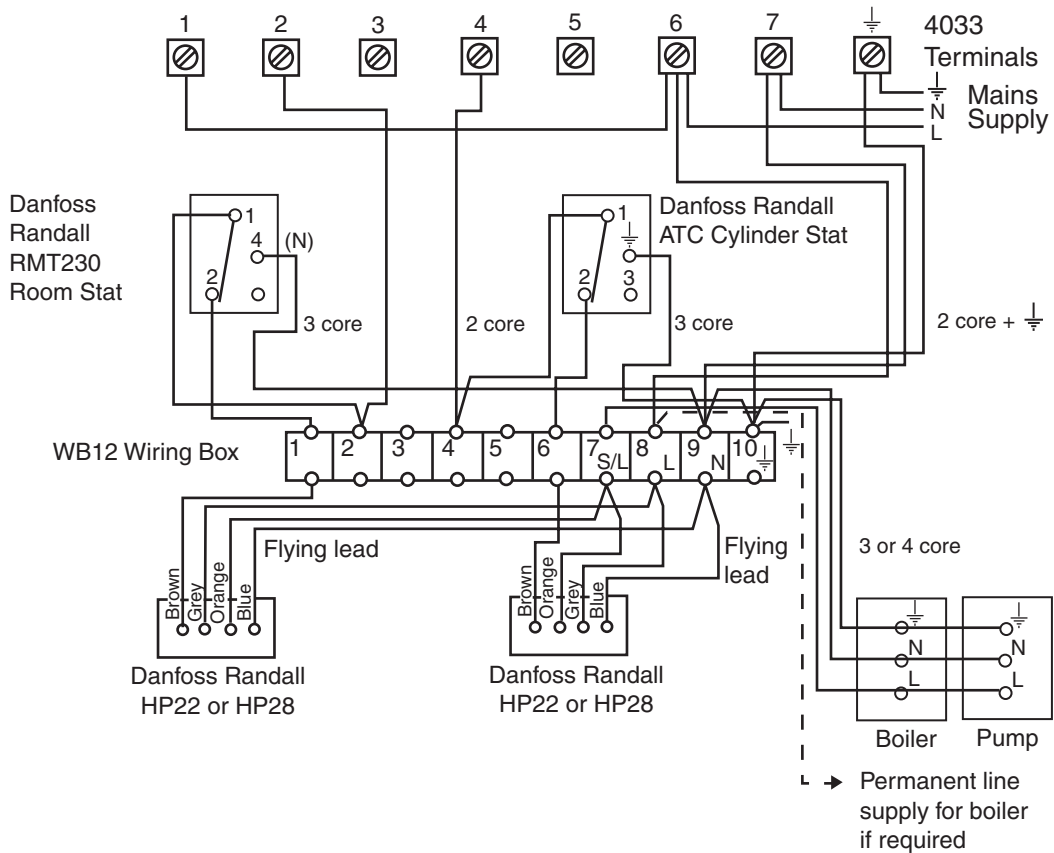
4033 PROGRAMMER WIRING



4033 (3023 12/01)

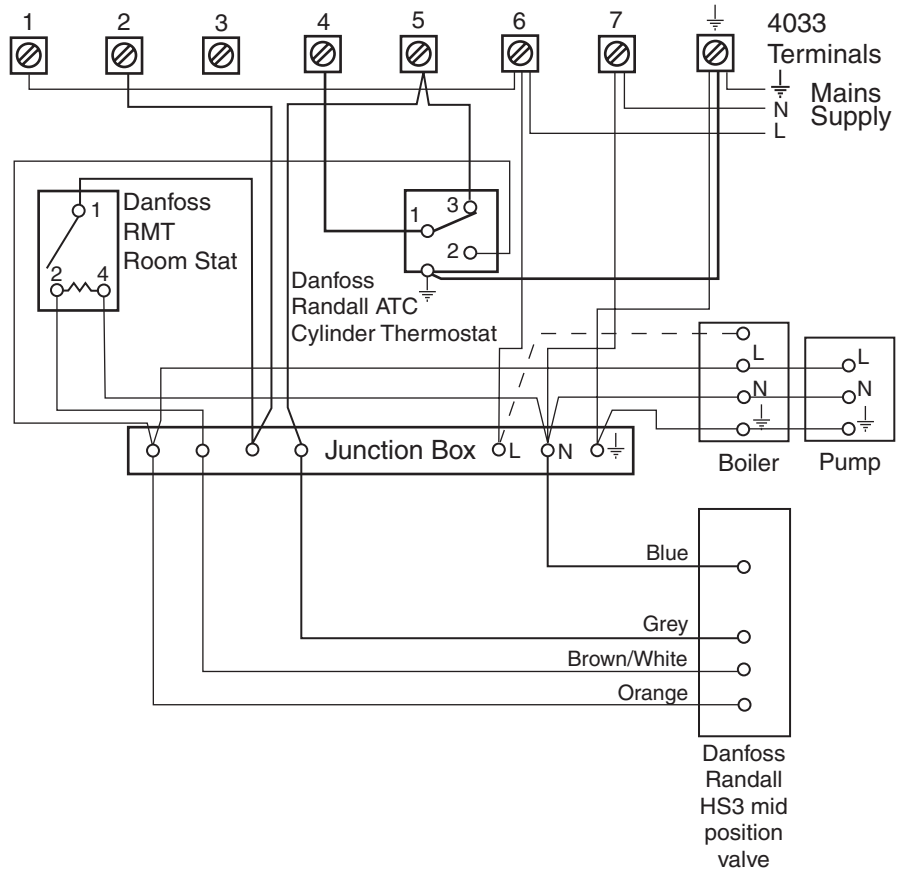
WIRING - 2 X 2 PORT VALVES

Wiring



Wiring

WIRING - 1 X MID-POSITION VALVE



User Instructions

Your programmer

The 4033 programmer allows you to switch your hot water and heating on and off at times that suit you.

Four tappets on the timing dial let you decide when you want your hot water and heating to come on and go off each day. The programmer provides 2 ON times and 2 OFF times per day.

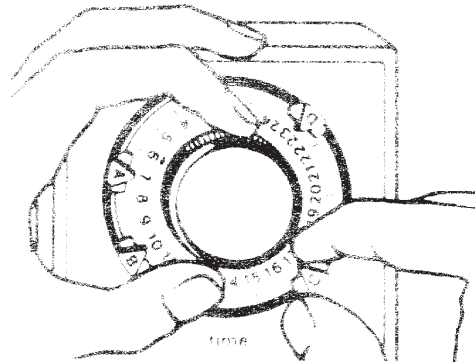
Using two simple switches you can run your Heating and Hot Water independently of each other, either at the set times, constantly ON, constantly OFF.

Programming the unit

There are four TAPPETS on your timing dial, two red and two blue:

- the **red** tappets are the **ON** switches
- the **blue** tappets are the **OFF** switches

1. Hold the central black & silver knob with one hand and move the red tappet marked 'A' **clockwise** to the time you want your HEATING/HOT WATER to switch **on** in the morning.



NB. you may find the tappets quite stiff, so you may have to push them quite firmly to move them.

- 2 Still holding the central knob, move the blue tappet marked 'B' to the time you want your HEATING/HOT WATER to switch **off** in the morning.
- 3 You can set your other two tappets in the same way to set your HEATING/HOT WATER for the afternoon or evening.

EXAMPLE

(NB. Clock is in 24 hour mode)

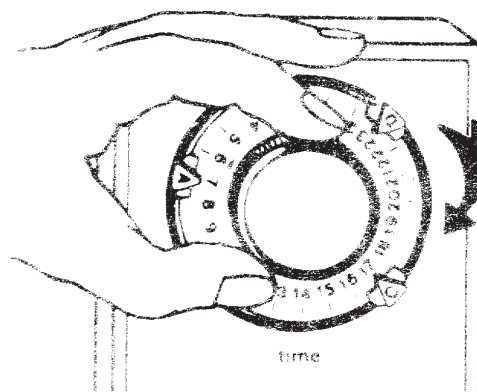
If you want your heating and hot water ON between 7am and 10am and ON again between 5pm and 11pm, set tappets as follows:

A at 1st ON time = 7
B at 1st OFF time = 10
C at 2nd ON time = 17
D at 2nd OFF time = 23

Setting the Clock

- Turn the dial **clockwise** until the correct time is lined up with the dot labelled **TIME**

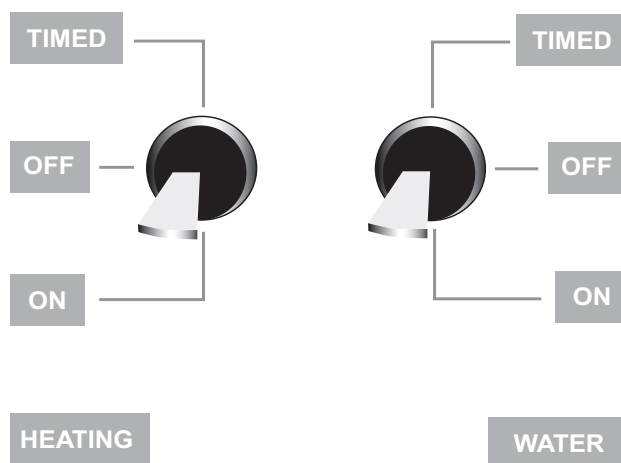
NB. clock is in 24 hour mode



! **REMEMBER**
You will have to reset the time after a power cut and also when the clocks change in Spring and Autumn

Using the Programmer

The 2 switches are used to select how the 4033 controls your hot water and heating. The heating and hot water can be operated independently, in various combinations.



Using the programmer

Each of the selector switches can be put into one of three positions marked 'TIMED', 'OFF' and 'ON'. They operate completely independently of one another, letting you select different programmes for each service.

HEATING switch

- TIMED** - the Heating will be switched ON and OFF according to the times at which the tappets have been set.
- OFF** - the Heating will ignore the tappet positions and remain OFF (this enables the heating to be switched off during the Summer).
- ON** - the Heating will be ON constantly. This enables you to switch the Heating ON during a period when the time clock is off.

WATER switch

- TIMED** - the Hot Water will be switched ON and OFF according to the times at which the tappets have been set.
- OFF** - the Hot Water will ignore the tappet positions and remain OFF.
- ON** - the Hot Water will be ON constantly. This enables you to switch the Hot Water ON during a period when the time clock is off, enabling you to have constant hot water.

Still having problems?

Call your local heating engineer:

Name:

Tel:

Visit our website:

www.danfoss-randall.co.uk

Email our technical department:

dri_technical@danfoss.com

Call our technical department

0845 121 7505

(8.45-5.15 Mon-Thurs, 8.45-4.45 Fri)

For a large print version of these instructions please contact the Marketing Services Department on 0845 121 7400.



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