

# GP Programmers & Timeswitches

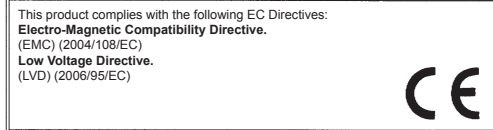


102, 103 and 106 Models, for time control of Domestic Central Heating Systems.

## INSTALLATION AND WIRING INSTRUCTIONS

### SPECIFICATIONS

Power Supply	: 220/240Vac, 50/Hz
Switch Action	: 1 x SPST, Type 1B
Switch Rating	: 220/240Vac, 50/60Hz, 6(2)A.
Timing Accuracy	: ± 1 min./month
Enclosure Rating	: IP20
Pollution Situation	: Degree 2
Max. Ambient Temp.	: 55°C
Designed to meet	BS EN60730-2-7
Dimensions	: 112mm wide, 135mm high, 69mm deep
Rated Impulse voltage	: 2.5kV
Ball Pressure Test	: 75°C

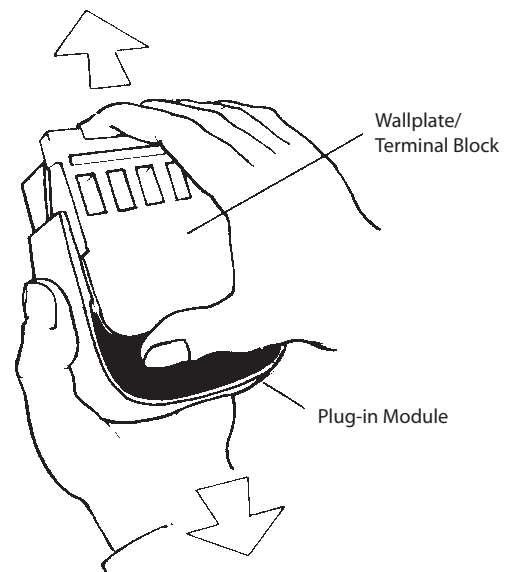
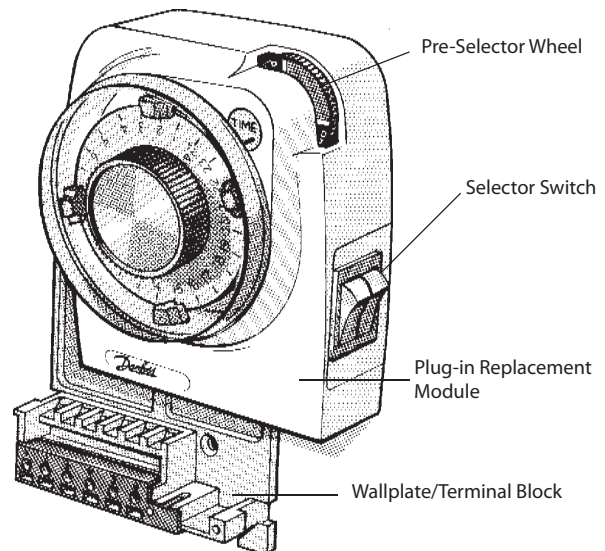


The unit must be installed by a competent electrician and the installation should conform to I.E.E. Regulations. This unit should be wired via full disconnect in accordance with BS EN60730-1, e.g. via a plug and unswitched socket or double pole switch outlet with neon.

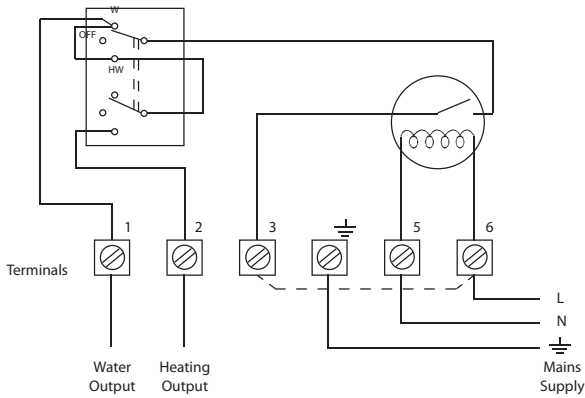
### INSTALLATION INSTRUCTIONS

1. Loosen the fixing screw in the base of the unit to release the grey plastic Wiring Cover. Ensure the protective tape over the thumbwheel remains in place.
2. Holding the unit clockface downwards, press firmly in the centre of the wallplate and slide it from the module as shown.
3. Fix the Wallplate/Terminal Block to the wall with countersunk No.8 woodscrews or to a steel box to BS 4662. 1970 or a surface mounting steel or moulded box having centres of  $2\frac{3}{8}$ " (60.3mm).
4. Referring to the Wiring Diagrams overleaf, connect the unit as shown. Ensure that terminals 3 and 6 are linked where required (Mains Voltage applications) with insulated cable capable of carrying full load current.
5. Ensure all dust and debris have been cleared away from the area, then plug the module firmly into the wallplate ensuring that the hook at the top of the wallplate engages with the slot at the back of the body. Press the module down until it locates solidly.
6. Cut a cable aperture in the Wiring Cover if necessary; replace the Wiring Cover, and tighten the fixing screw.
7. Switch on Mains and test for correct operation as follows:
  - i) Remove protective tape from the pre-selector wheel.
  - ii) Remove the dial cover and rotate the clock dial two complete revolutions to clear the mechanism.
  - iii) Check that all positions of the Selector Switch and Tappets operate correctly. (See instructions in User Booklet.)
8. Replace the dial cover. Finally leave the USER INSTRUCTIONS with the Householder.
9. If the unit is to be left turned off and is in a dusty atmosphere, protect the pre-selector wheel by re-affixing the protective tape.

IMPORTANT: Remove tape prior to putting unit into service.

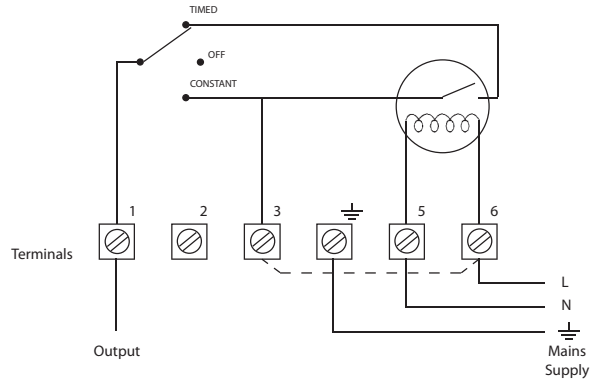


### INTERNAL WIRING MODEL 102



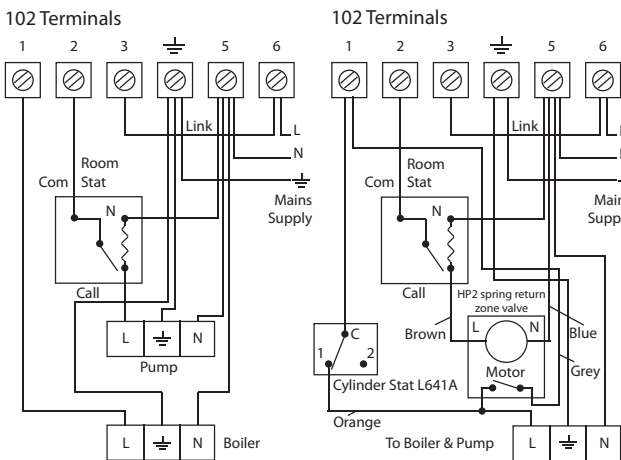
**NOTE:** Terminals 3 and 6 **MUST** be linked externally (except when voltage free switch contacts are required).

### INTERNAL WIRING MODEL 103



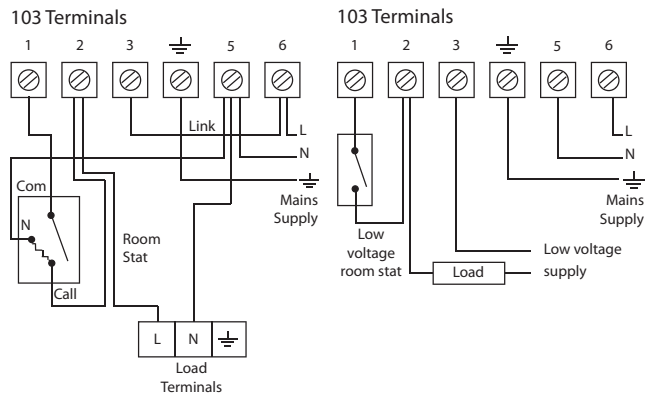
**NOTE:** Terminals 3 and 6 should (in most instances) be linked externally. Exceptions are when control circuits are operating at low voltage (e.g. 24 volts) or for certain Combination Type Boilers (see Boiler Manufacturers Handbook).

### TYPICAL EXTERNAL CIRCUITS



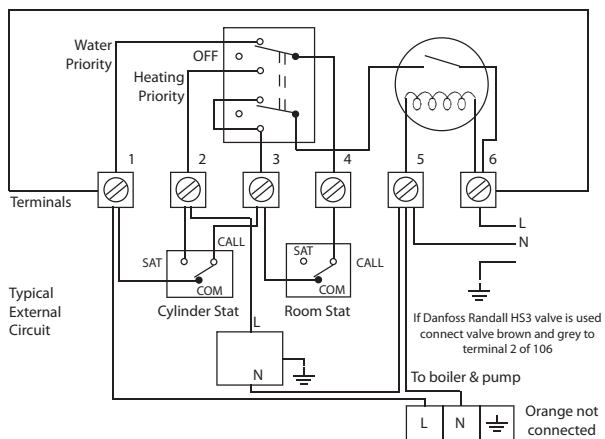
- 1) Typical domestic gas or oil fired system with gravity hot water and pumped heating. (If a room stat is not required wire pump L directly to terminal 2 on the 102).
- 2) Fully pumped system with cylinder stat in HW circuit and room stat and 2 port spring return zone valve in heating circuit.

### TYPICAL EXTERNAL CIRCUITS



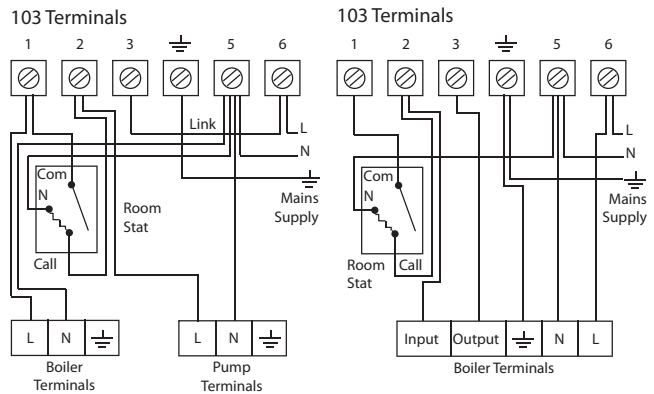
- 1) Control of Heating Function only (Mains Voltage)  
Note: If room thermostat is not required join timeswitch terminals 1 and 2 with a link suitable for full load current.
- 2) Control of Low Voltage Systems (e.g. warm air gas valves, low voltage burners).

### INTERNAL WIRING MODEL 106



Honeywell 'W' plan or Satchwell 'K' plan.

Fully pumped system with 3 port (2 way) diverter valve.



- 3) Typical gas or oil fired heating system with gravity hot water primary and pumped heating.
- 4) Typical control of heating when used with combination type boilers.

**NOTE:** Ease of installation can be achieved by using the Danfoss Randall Wiring Centre which is obtainable from most Builders Merchants and Distributors.

IF A WIRING CENTRE IS USED, follow the installation instructions included with the unit and not the wiring diagrams shown on this page.



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