

Danfoss

EVER INCREASING INNOVATION



**GP Range
Timeswitches &
Mini-Programmers**

A range of general-purpose timeswitches and mini-programmers, which provide either a single output circuit (103 timeswitch range) or linked outputs for Water and Heating (102 mini-programmer range).

Both ranges include simple 24-hour electro-mechanical models, as well as electronic models, which offer Weekday/Weekend or 24 hour operation, and a 7-day or Weekday/Weekend operation.

All models fit the GP wallplate and have an identical wiring configuration, allowing systems to be upgraded without the need for rewiring.

The electro-mechanical 102 programmer and 103 timeswitch have a thumbwheel, which allows early selection of future switching operations. All models show clearly the current state of the output.

The electronic units have extra programmes and overrides and incorporate a battery to provide back up of time and programme.

All models

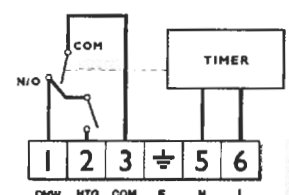
- Proven reliability
- All units interchangeable on same wallplate
- Available in 24 hour, 5/2 day and 7 day versions
- Available in electro-mechanical and electronic versions



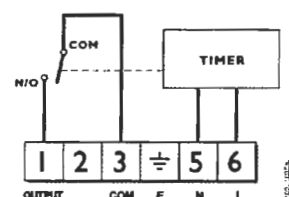
GP RANGE



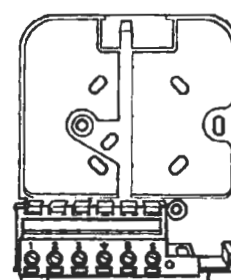
Features	102 / 103	102E5 / 103E5	102E7 / 103E7
Code No - 102 range	087N652100	087N653400	087N653600
- 103 range	087N652300	087N653500	087N653800
Electro-mechanical	24 hour		
Electronic		24 Hour or Weekday/Weekend	7 Day or Weekday/Weekend
HW only or HW and CH	102	102E5	102E7
Programmes Selectable	Timed Off Constant	Off Auto Allday Constant	Off Auto Allday Constant
Factory Pre-set Programmes (all changeable)		•	
On's & OFF's per day	2	3	3
Advance Override	•	•	•
+1 Hour Override		•	•
Voltage Rating		230 Vac, 50 Hz	
Contact Rating	6 (2)A	3 (1)A	
Switching Action	SPST		
Max ambient temp	55°C	45°C	
Memory Back-up	N/A	up to 15 days	min of 24 hours
Dimensions (mm)	106 wide 135 high 63 deep	102 wide x 136 high x 47 deep	



102, 102E5, 102E7



103, 103E5, 103E7



GP wallplate

GP Time Controls

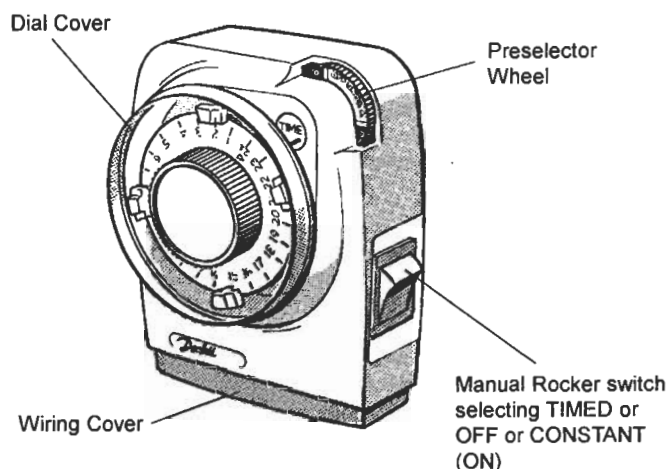
103 Electro-Mechanical 24 Hour Timeswitch

USER INSTRUCTIONS

The Danfoss Randall 103 Timeswitch controls your system automatically, to save you the trouble of switching manually every day.

Normally the timeswitch dial provides 2 ON periods and 2 OFF periods each 24 hours.

1 ON period and 1 OFF period can be SELECTIVELY obtained by the use of the Pre-Selector Wheel (see point 5).



1. Setting the programme (TAPPETS A, B, C, D)

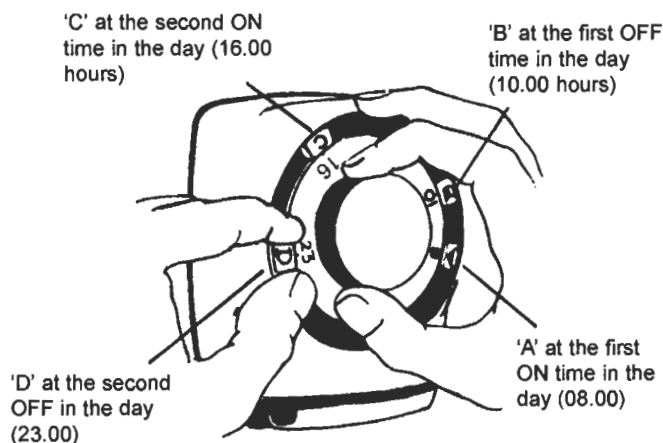
- i) Remove the dial cover by turning slightly to the left and pull off.
- ii) Decide when you want the ON periods. While gripping the dial knob slide the dial tappets firmly, as shown. The tappets may be quite stiff to move.

If you want the switch ON between 8 a.m. and 10.00 a.m. and then between 4 p.m. (16.00 hours) and 11.00 p.m. (23.00 hours), set the tappets as shown. (A to 8, B to 10, C to 16, D to 23).

Remember: Red tappets (A and C) switch ON
Blue tappets (B and D) switch OFF

- iii) Ensure that the installer has removed the protective tape covering the pre-selector wheel.
- iv) Using the dial knob, rotate the dial completely twice, clockwise only, to clear the mechanism.

Note: Tappets can be moved around the dial in a clockwise or anti-clockwise direction, as convenient.



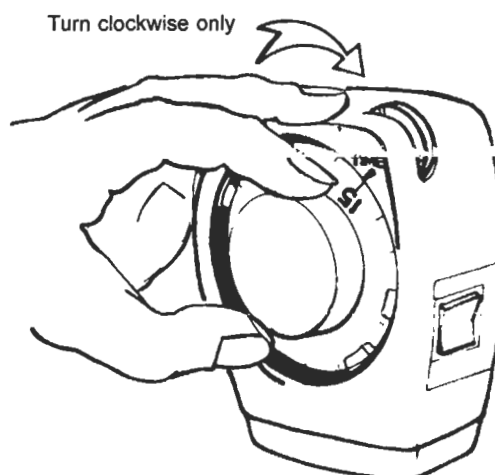
2. Setting the Time of Day

Suppose it is 3.00 p.m. (15.00 hours) when you are making this adjustment. Using the dial knob, rotate the dial (clockwise only) until '15' on the dial is next to the 'Time' mark, as shown.

Remember you will have to re-set the time after a power-cut, and also when the clocks change in Spring and Autumn.

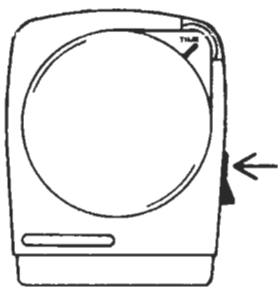
IMPORTANT: Any adjustment to the Time of Day setting must be made by rotating the dial clockwise only.

Replace the dial cover when setting has been completed.



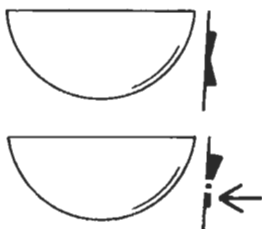
3. Selecting the Services

Use the Rocker Switch on the side of the unit as shown.



Rocker pressed to TIMED control is by the Timeswitch Programme

Rocker central gives permanent OFF



Rocker pressed to CONSTANT gives permanent ON

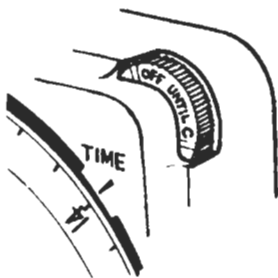
4. The 103 unit has now been set, and the current 'state' of the timeswitch can be seen on the wheel at the top righthand corner of the unit, (eg "OFF UNTIL C", etc).

This wheel can also be used, if required, to give a very useful 'pre-selector' effect for special occasions when departing from normal heating routine.

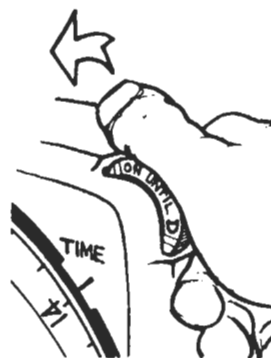
5. Use of the Pre-Selector

Suppose your Dial Programme is set as described in point 1, but you arrive home earlier than usual, at 2.00p.m. (14.00 hours), and you need the heating ON immediately.

Your unit looks like this:



You can use the Wheel as a Pre-Selector by turning it anti-clockwise until it displays ON UNTIL 'D' as shown.



Thus the system is turned ON manually at 2.00p.m. but will revert to its normal automatic switching programme at the next operation (i.e. OFF at 11.00p.m.)

Similarly, you can turn the unit OFF when it is ON.

Probably the most useful pre-selections are:

ALL DAY ON (1 ON/1 OFF).
Turn the Wheel to display "ON UNTIL D".

ALL DAY OFF.
Turn the Wheel to display "OFF UNTIL A".

Note: Do not attempt to operate the pre-selector whilst a tappet is in the immediate vicinity of the 'Time Mark', as this may cause the actual time of day setting of the clock to be altered, which would necessitate re-setting as described under point 2.

This product complies with the following EC Directives:
Electro-Magnetic Compatibility Directive.
(EMC) (89/336/EEC), (92/31/EEC)
Low Voltage Directive.
(LVD) (73/23/EEC), (93/68/EEC)



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