

## 3022 Electro-Mechanical Timeswitch (For 3-Port Priority Diverter Valves)

# INSTALLATION INSTRUCTIONS

### SPECIFICATION

Power Supply	: 220/240 Vac, 50 Hz
Switch Action	: 2 x SPST, type 1B
Switch Rating	: 220/240 Vac, 50 Hz, 3(1)A
Timing Accuracy	: +/- 1 min/month
Enclosure Rating	: IP30
Max. Ambient Temperature	: 55°C
Designed to meet BS EN60730-2-7	
Overall Dimensions	: 102mm wide, 210mm high, 60mm deep
Construction	: Class 1
Control Pollution Situation	: Degree 2
Rated Impulse Voltage	: 2.5Kv
Ball Pressure Test	: 75°C

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)

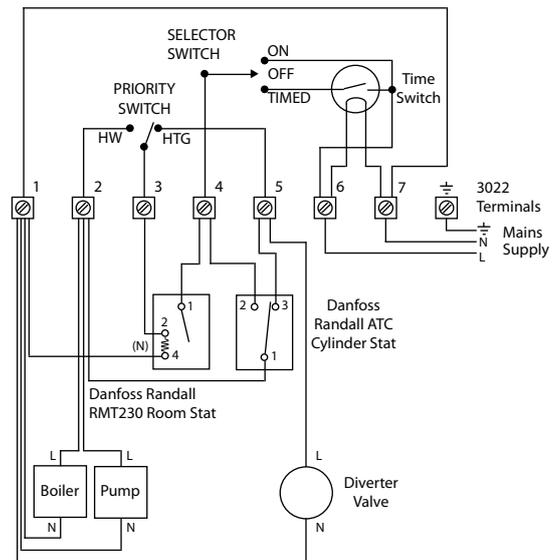


The unit must be installed by a competent electrician and the installation should conform to IEE Wiring Regulations. The supply to this unit should be wired through full disconnect in accordance with BS EN60730-1, i.e. one which provides an air gap of at least 3mm in both poles of the mains, e.g. a 13 amp plug and unswitched socket, or a switched, fused outlet with neon; either fitted with a 3 amp (max.) fuse.

### INSTALLATION AND WIRING INSTRUCTIONS

1. Unscrew fixings rings from selector switches, move all four tappets to top of dial, 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. Referring to wiring diagrams opposite make electrical connections as shown (as applicable).
5. Secure cables under cable clamp.
6. Plug in programmer module and re-tighten the two retaining screws - **do not overtighten.**
7. Remove cut-out from outer case as required, replace outer case and fixing rings. Check that outer case sits squarely on body and is not distorted by uneven wall surface.
8. Select left hand switch to 'ON' and light up boiler according to manufacturers instructions.
9. Rotate dial clockwise through at least one complete revolution and check that all four tappets are clear of outer case aperture.
10. Operating checks:- Select left hand switch to 'TIMED'. Rotate dial by hand to observe that both boiler and pump operate together during 'ON' periods. Select left hand switch to 'ON'. Select right hand switch to 'HEATING PRIORITY'; under this condition the room thermostat should take preference over the cylinder thermostat (i.e. hot water will not be available until the room thermostat is satisfied: in other words when the room thermostat is calling for heat the DIVERTER VALVE will be energised irrespective of the state of the cylinder thermostat). Now select 'HOT WATER PRIORITY'. Under this condition the cylinder thermostat takes preference over the room thermostat and heating will only be available when the cylinder thermostat is satisfied (i.e. when the cylinder thermostat is calling for heat the DIVERTER VALVE will remain unenergised irrespective of the state of the room thermostat). When both cylinder and room thermostats are satisfied check that the boiler, and pump are electrically 'dead' and the diverter valve is sprung open to the cylinder.

### EXTERNAL WIRING TO DANFOSS RANDALL HEATPLAN CONTROLS PACK



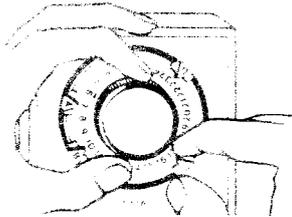
# 3022 Electro-Mechanical Timeswitch (For 3-Port Priority Diverter Valves)

## USER INSTRUCTIONS

### 3022 PROGRAMMER OPERATING INSTRUCTIONS

#### 1) Setting the programmer (Example 1)

i) 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 7am and 10am and between 5pm (1700 hours) and 11pm (2300 hours), set the tappets as shown (A to 7, B to 10, C to 17 and D to 23).



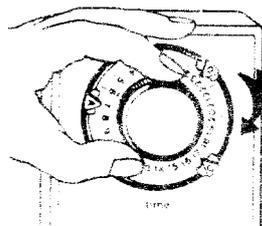
Remember:-  
Red tappets switch ON  
Blue tappets switch OFF

ii) Using the Dial Knob rotate the dial completely at least twice, clockwise only, to clear the mechanism.

'A' at the first ON time in the day (7)  
'B' at the first OFF time in the day (10)  
'C' at the second ON time in the day (17)  
'D' at the second OFF time in the day (23)

#### 2) Setting the Time (Example 2)

Suppose it is 2pm (1400 hours) when you are making this adjustment. Using the dial knob rotate the dial clockwise only until '14' on the dial is next to the 'Time' mark, as shown.



Remember that you will have to reset the time after a power cut and also when the clocks change by one hour in spring and autumn.

Important: Any adjustment to the time setting must be made by rotating the dial **clockwise only**.

#### 3) Selecting the Programme Required

The two selector switches operate entirely independently of each other as follows:

The 3-way selector switch with positions marked TIMED, OFF and ON is used to operate and override the tappet settings on the clock as follows:



**TIMED (Selector switch in the up position).** The clock will switch your system ON and OFF according to times at which you have set the four tappet arms. See example 1.

**OFF (Selector switch in the middle position).** This position will completely override the tappet setting and the ON-OFF function of the timeclock enabling you to switch your system off.

**ON (Selector switch in the down position).** This position operates in the opposite way to the OFF position. It will completely override the tappet settings and ON-OFF function of the timeclock enabling you to switch your system ON (e.g. during the winter when the timeclock is in an off position).

The 2-way priority switch is set to give the emphasis or priority on the service which you require. On a cold morning for example you may want the heating to come on first. In this case the switch is set to 'HEATING PRIORITY'.

Or you may require two baths in succession, so 'WATER PRIORITY' would be selected. Whichever priority is chosen, it will remain in that state until the switch is moved to the other priority position.

To obtain water only, select 'WATER PRIORITY' and turn the room thermostat down to the lowest setting.

