MAKING MODERN LIVING POSSIBLE

SET 2E

Electronic 24 Hour Mini-Programmer for Heating and Hot Water

Danfoss Heating

Installation Guide

For a large print version of these instructions please call Marketing on 0845 121 7400.

Certification Mark

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

CE

Installation Instructions

SET2E

Electronic 24-Hour Mini-Programmer for Heating and Hot Water

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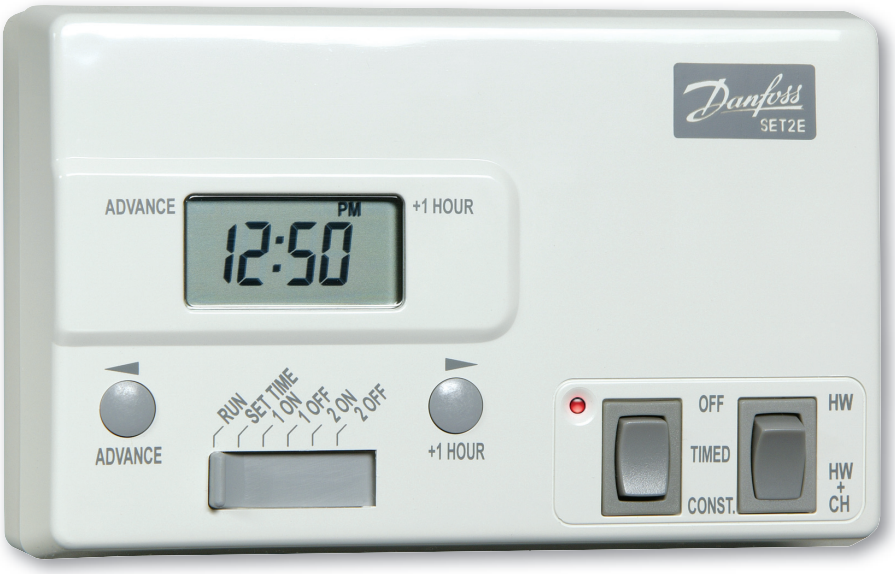

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1.0 Installation Guide

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.

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2.0 System Overview

Specification	
Power supply	230 ± 15% Vac, 50/60Hz
Switch action	2 x SPDT Type 1B
Switch rating	Max 264Vac, 50/60Hz, 3(1) A
Timing accuracy	± 1 min/month
Power reserve	minimum 10 hours
Enclosure rating	IP30
Max. ambient temperature	45°C
Dimensions, mm (W, H, D)	158 x 98 x 38
Design standard	EN 60730-2-7
Control Pollution Situation	Degree 2
Rated Impulse Voltage	2.5kV
Ball Pressure Test	75°C

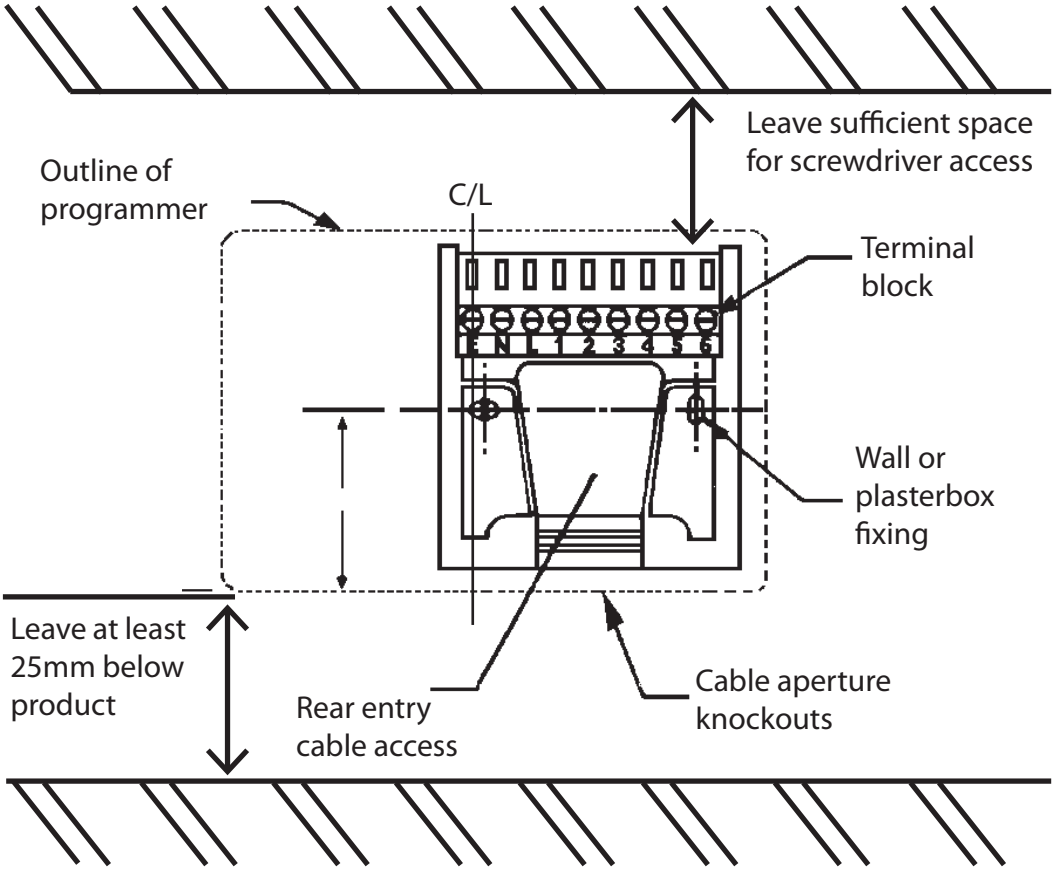
3.0 Installation

1. Fix the wallplate to the wall or flush mounted box as required. The connections are at the top and the vertical centre line of the unit, at the position shown on the diagram C/L (in line with terminal ⏚).

2. Surface cables can only enter from below the unit. If mounted on a flush mounted box, cables can enter from the rear through the aperture in the wallplate.

3. For mains voltage applications a link must be fitted between terminals L and 2 and between 1 and 5.

4. Whilst the unit does not require an Earth connection, a terminal is provided on the wallplate for Earth continuity purposes.



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5. Referring to the wiring diagrams on page 6-9, connect the unit as shown.

6. Ensure all dust and debris are cleared from the area.

7. Locate the module on the latches at the bottom of the wallplate and hinge upwards to fully engage the unit connectors into the wallplate. Tighten the two fixing screws to secure the unit to the wallplate.

8. Before setting the programme, check the unit and circuit. Switch on the mains supply and set the left-hand rocker switch to the **CONSTANT** position and the right-hand rocker switch to the **HW + CH** position.
   The red LED should now be illuminated. Adjust any remote thermostats to check the services operate correctly.

9. Press the left-hand rocker switch to the **OFF** position and check that both services do not operate.

10. Finally, return the left-hand rocker switch to **TIMED** and the right-hand rocker switch back to **HW + CH** (winter) or **HW** (summer).

3.1 Wiring

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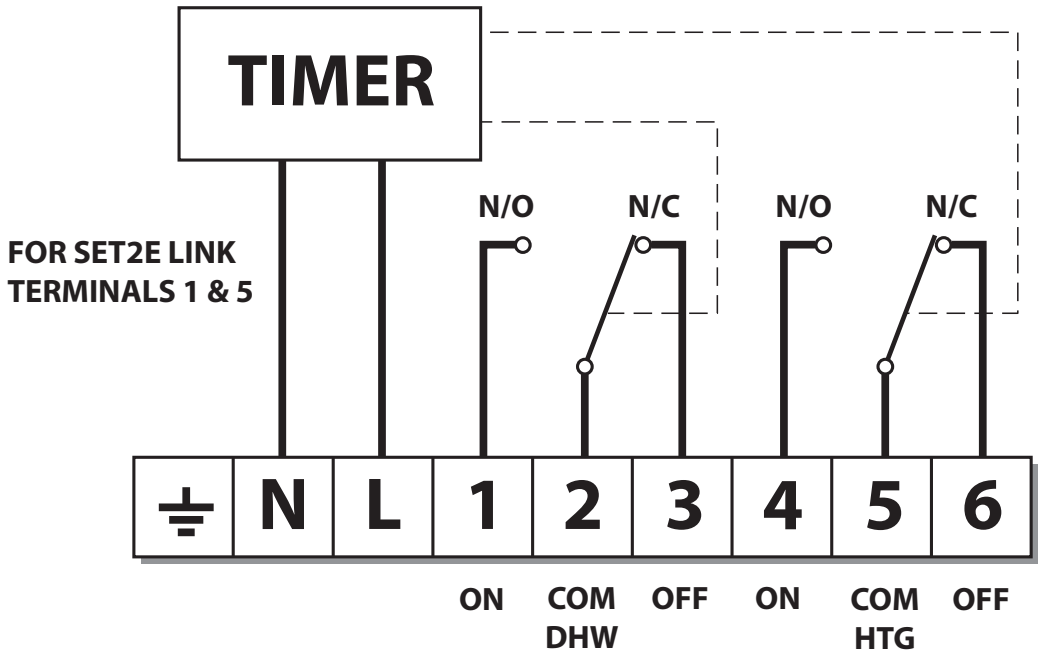
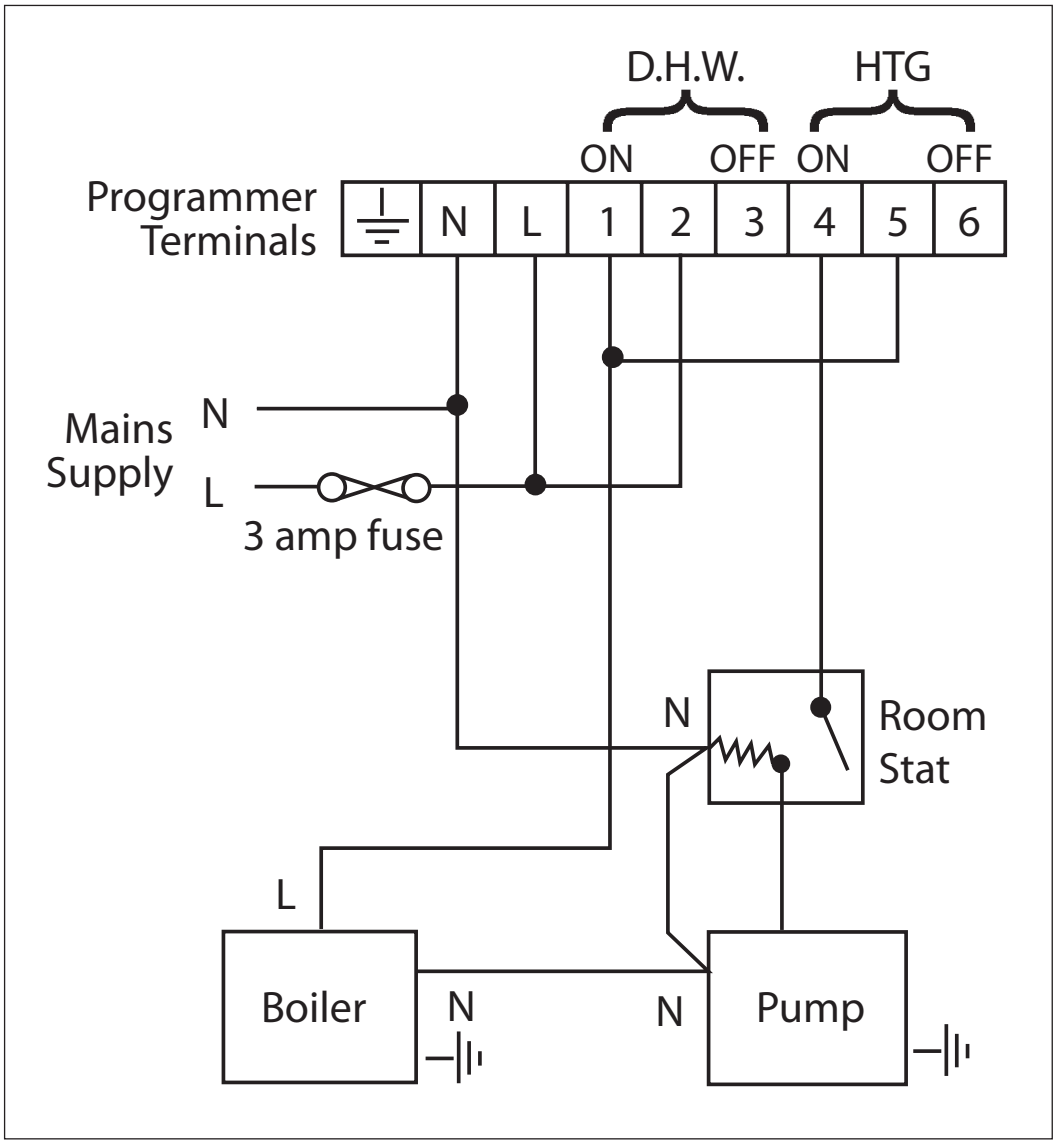


NOTE*: For mains voltage applications links must be fitted between terminals L and 2 and between 1 and 5.*

Typical wiring diagrams for various types of systems are shown on the following pages.

Note: Whilst every attempt has been made to ensure the accuracy of this information it is recommended that the specific information relating to the ancillary controls is obtained from the manufacturers concerned.

3.2 Typical Gravity DHW With Pumped Central Heating



DHW = Domestic Hot Water

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3.3 Typical Fully Pumped System with Spring Return Zone Valve in Heating

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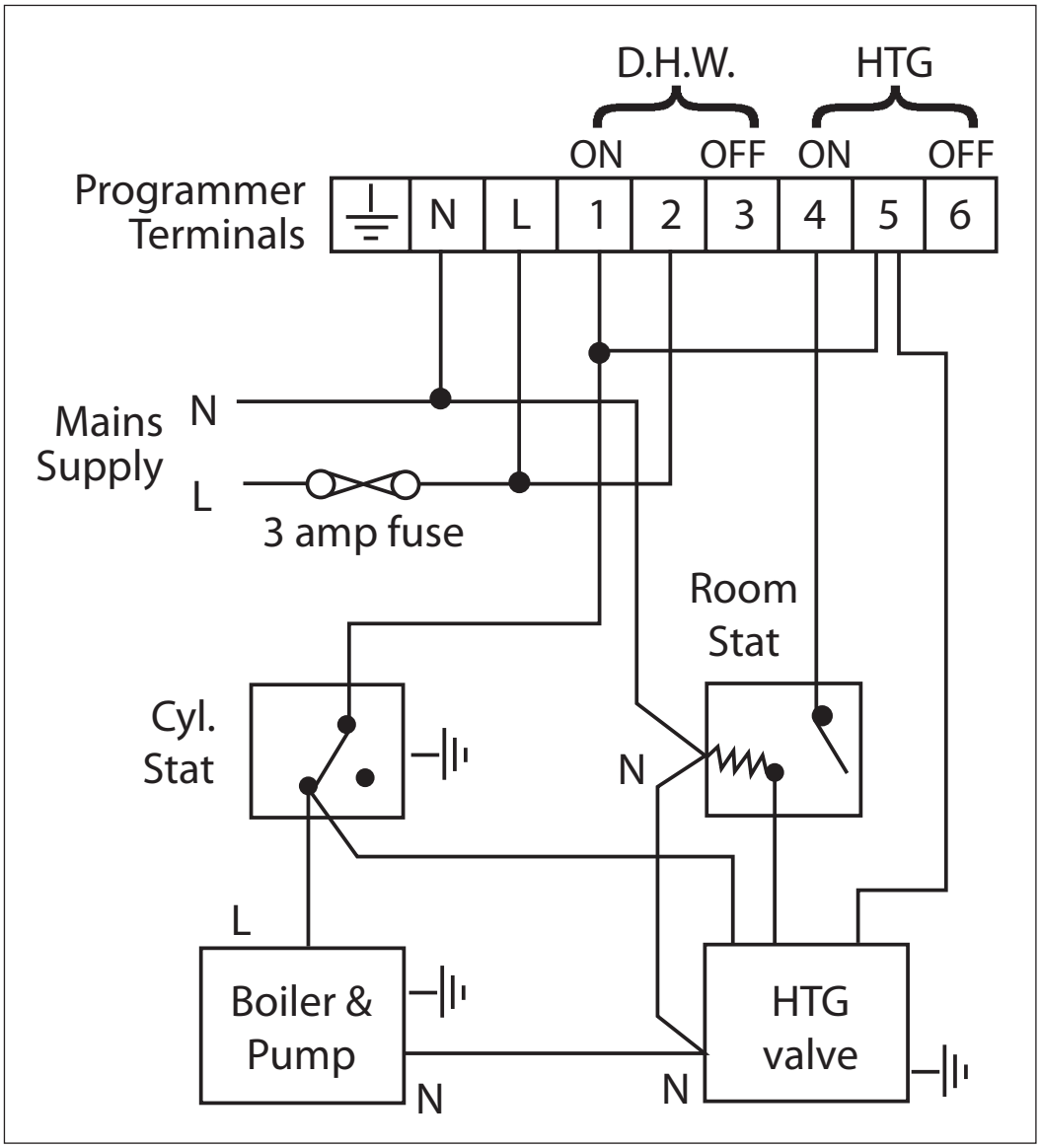
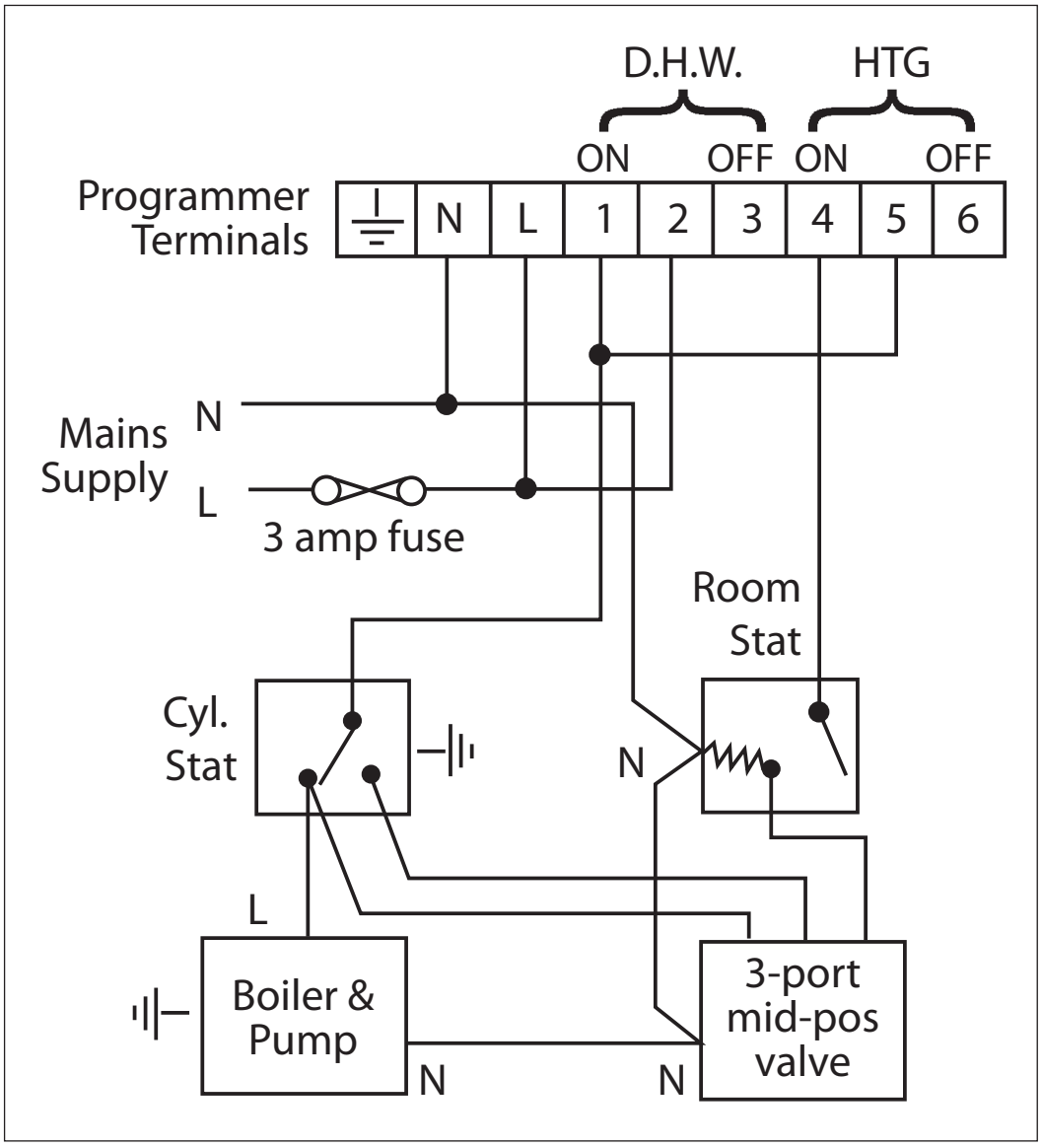


3.4 Typical Fully Pumped System With 3-Port Mid-Position Valve



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4.0 Replacement

Please see overleaf for a table containing replacement wiring information. Some controls are connected in different ways depending upon the type of system and/or the controls which are fitted. If there is any doubt about the way in which the existing unit is connected, please contact our Technical Services Department before proceeding with replacement.

If the unit is to be used in association with a 6 wire Honeywell Y Plan, a special wiring diagram may be required. Contact the Danfoss Randall Technical Services Department for details.

Note: The SET2E is a direct replacement for a Danfoss Randall SET2.

DANFOSS RANDALL **SET2E** **with terminals L - 2 and 1 - 5 linked**	**MAINS**			**WATER**			**HEATING**			**NOTE** This conversion applies only if..	An additional terminal block is required where these disconnected leads (or pairs of leads) should be terminated			
	⏚	N	L	ON	COM	OFF	ON	COM	OFF		A	B	C	D
	⏚	N	L	1	2	3	4	5	6					
DANFOSS RANDALL SET 2	⏚	N	L	1	2	3	4	5	6	Direct plug-in replacement				
DANFOSS RANDALL TSR2P	⏚	3	1,2	5,6	-	-	7	-	-	Terminals 1 & 2 are linked and 5 & 6 are linked	4			
DANFOSS RANDALL 3060 & 3020P	⏚	1,7	6	4	-	-	2	-	-		3	5		
DANFOSS RANDALL 102/102E	⏚	5	3,6	1	-	-	2	-	-					
DANFOSS RANDALL 701	⏚	N	L	3	6	4	1	5	2					
HONEYWELL ST6200	⏚	N	L	3	-	1	4	-	2					
HORSTMANN CORAL 423 & 424	⏚	2,3	1	Boiler (8)	-	-	AirStat (8)	-	-		4,7	5	6	
HORSTMANN DIADEM 425	⏚	N	L	1	2	3	4	5	6	Programme selectors linked				
HORSTMANN DIADEM 525	⏚	N	L	1	2	3	4	5	6	Programme selectors linked				
HORSTMANN DIAMOND 423	⏚	N	L,1,3	2	-	-	4	-	-		5	6		
HORSTMANN DIAMOND 424	⏚	N	L,1,3	2	-	-	4	-	-		5			
LANDIS & GYR RWB2	⏚	N	L	3	-	1	4	-	2	Programme selectors linked				

POTTERTON 423	⏚	N	L,1,3	2	-	-	4	-	-		5	6		
POTTERTON MINI-MINDER	⏚	N	L	3	-	1	4	-	2	Programme selectors linked				
POTTERTON EP2000	⏚	N	L	3	-	1	4	5	2	Programme selectors linked	A	B	C	D
SANGAMO M5 410 FORM 4	⏚	4,5	3	1,6	-	2	8	-	7	Terminals 1 & 6 are linked				
SANGAMO S409 FORMS 1 & 4	⏚	N,1,3	L	2	-	-	5	-	-		4,6			
SANGAMO (EARLY MODEL) S410 FORM 4	⏚	N,2	L	1,3	-	-	4	-	-	Terminals 1 & 3 are linked				
SMITH IND. CENTROLLER 100	⏚	N	L	3	-	-	2	-	-		1	4		
SMITH IND. CENTROLLER 60	⏚	1	2	5	-	-	4	-	-		3			
SMITH IND. CENTROLLER 10	⏚	N	L	3	-	-	2	-	-		1,4			
SMITH IND. CENTROLLER 70	⏚	1	2	5	-	-	4	-	-		3	6		
SMITH IND. CENTROLLER 1000	⏚	N	L	3	-	1	4	-	2	Programme selectors linked				
SWITCHMASTER 320 & 350	⏚	N	4,L	3	-	-	1	-	-	Terminals L & 4 are linked	2			
SWITCHMASTER 400	⏚	N	L	3	-	-	1	-	4		2			
SWITCHMASTER 600	⏚	N	L	3	-	-	1	-	-		2	4		
SWITCHMASTER 900 & 9000	⏚	N	L	3	-	4	1	-	2	Programme selectors Linked	A	B	C	
VENNER VENOTROL	⏚	N,A,M	L,L,1	V	-	-	S,F	-	-		T,P	O		
VENNER VENOTROL 80 (Air Stat)	⏚	N,1 3,4	L	2	-	-	A/S	-	-		A/S, 5			
VENNER VENOTROL 80 (Air Stat)	⏚	N,1 3,4	L	2	-	-	5	-	-					

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