

Electronic 2-channel full programmer for heating & hot water

## **Installation & User Instructions**



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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Central Heating		Hot Water
IT IN OVERINGE		
Central Heating MAN override —	+1HR AUTO MAN +1HR SE ON +1HR AUTO AUTO AUTO AUTO MAN H MAN H MAN H MAN H MAN H MAN H MAN	Hot Water MAN override
Central Heating Mode SELECT —	PROG + DAY	Hot Water Mode SELECT
		RESET

## **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 Vac, ±10%, 50/60 Hz					
Switching action	2 x SPDT internally linked, Type 1B					
Switch rating	230 V ac, 3(1)A					
Battery back-up	24 hours minimum					
Programme resolution	1 minute					
Dimensions, mm (W, H, D)	135 x 88 x 32					
Design standard	EN 60730-2-7					
Control Pollution Situation	Degree 2					
Rated Impulse Voltage	2.5kV					
Ball Pressure Test	75°C					

- Remove wallplate from unit by unscrewing the two screws on the bottom edge of the unit.
- From the top left hand corner of the wallplate, there must be clearances of at least 140 mm to the right, 15mm to the left, 30mm above and 100mm below in order to mount the plug-on module.
- The wallplate must be securely mounted either directly to the wall using suitable wood screws or to a flush mounted 1-gang electrical accessory box using M3.5 screws.
- Cable access can either be from behind for concealed cabling, or from below for surface cabling. If surface cable is used, cut out cable access slot on plug-on module prior to mounting the module.
- For wiring connections refer to diagram on page 5. FP715 models are double insulated and do not require an earth connection, however a parking terminal is provided on the wallplate. This is clearly marked with an Earth symbol.
  - Prior to mounting the plug-on module, DIL switches on the rear of the plug-on module must be set. See diagram on page 5 for available options.
  - Mount plug-on module to wallplate by locating tabs on top of wallplate in apertures on rear of module, hinge down and press firmly to wallplate before tightening securing screws on bottom of wallplate.



Always switch off mains first and never fit programmer to a live wallplate.

For Wiring Conversion tables see - pages 6-13

## **DIL Switch Settings**

Before mounting the unit, ensure the 4 DIL switches on the rear of the unit have been moved to the required settings

Remember to tick the INSTALLER SETTING box on the inside flap label to notify

INSTALLER SETTING							
24 Hour							
5+2 Day							
7 Day							

user in which mode their unit is set (24hr, 5/2 day or 7 day).



## WIRING CONVERSIONS

Wiring conversions can be used when replacing the following programmers with the FP715. Some time controls are connected differently depending on the type of system they are controlling. Consult the column headed "NOTE

Table A DANFOSS RANDALL FP715, CP715		MAINS			HTG OFF	DHW ON
(PUMPED)	<u> </u>	N	L	1	2	3
DANFOSS RANDALL 922/972	Ţ	N	L	1	4	3
DANFOSS RANDALL 4033	Ļ	7	6	5	3	4
DANFOSS RANDALL SET 5	<u> </u>	N	L	3	6	1
HORSTMANN 423, AMETHYST 7 & 10	<u> </u>	2,3	1	4	6	5
HORSTMANN 424 GEM	<u> </u>	2,3	1,10	6	9	4
HORSTMANN LEUCITE 423 & 424	<u> </u>	2	1	4	8	3
HORSTMANN 425 DIADEM	<u> </u>	Ν	L	3	6	1
HORSTMANN 525 & 527	Ť	N	L	3	6	1
HONEYWELL ST669	<u> </u>	Ν	L	7	4	6
HONEYWELL ST6300 & ST6400	<u> </u>	Ν	L	1	2	3
PEGLER SUNVIC SP50/SP100	<u> </u>	Ν	L	1	4	2
POTTERTON EP2000, EP3000	<u> </u>	N	L	1	2	3
RANDALL TSR3+3	<u> </u>	3,6	7	2	5	1
RANDALL 3033	<u> </u>	1,7	6	5	3	4
RANDALL 702		Ν	L	4	2	3
SANGAMO FORM 1 410 & 414	<u> </u>	4,5	6	2	7	1
SANGAMO S409/1		N,1,3	L	-	-	2

This conversion ..." to determine whether **Table A (pages 6-9)** or **Table B (pages 10-13)** should be used. If in any doubt, contact our Technical Services Department before proceeding with the replacement. \*Any wires connected to switch COMMONS which are linked LIVE on existing wallplates must be transferred to the LIVE terminal on the new wallplate.

HTG ON Wires other than links in these terms got to LIVE		other links nese s got .IVE	NOTE This conversion applies only if	An additional terminal block may be required where these discon- nected leads (or pairs) should be terminated				
4	L	L		Α	В	С	D	
6	2	5	Programmed selectors UNLINKED					
2	1	-						
4	2	5						
7	-	-		8				
7	5	8	Terminals 5,8 & 10 are LINKED					
6	5	7	Terminals 5 & 7 are LINKED					
4	2	5	Programme selectors UNLINKED					
4	2	5	Programme selectors UNLINKED					
3	8	5						
4	-	-						
5	3	-		S	S			
4	-	5	Programme selectors UNLINKED	A	В	С	D	
4	-	-						
2	-	-						
1	6	5						
8	3	-						
5	-	-						

Table A cont DANFOSS RANDALL FP715, CP715		MAINS	5	DHW OFF	HTG OFF	DHW ON
(PUMPED)		N	L	1	2	3
SANGAMO S409/3		3,6	7	4	2	5
SATCHWELL LIBRA & DHP 2201	<u> </u>	1	2	8	5	6
SATCHWELL ET 1401 & 1451	<u> </u>	1	2	8	5	7
SMITHS IND. CENTROLLER 90	<u> </u>	1	2	-	-	5
SMITHS IND. CENTROLLER 1000		Ν	L	1	2	3
SWITCHMASTER 800 & 805		Ν	L	4	2	3
SWITCHMASTER 900 & 9000		N	L	4	2	3
SWITCHMASTER SONATA	<u> </u>	Ν	L	3	6	1
VENNER CHC/W2 (WITH STAT)	I-	N,2,4	L	-	-	1
VENNER CHC/W2 (AIR STAT LINKED)		N,2,4	L	-	-	1
VENNER VENOTROL 80M & 80PM (WITH AIR STAT)	<u> </u>	N,3	L	1	4	2
VENNER VENOTROL 80M & 80PM (AIR STAT LINKED)	<u> </u>	N,3	L	1	4	2

HTG Wires other than links in ON these terms got to LIVE		other inks in terms LIVE	NOTE This conversion applies only if	An additional terminal block may be required where these discon- nected leads (or pairs) should be terminated				
4	L	L		Α	В	С	D	
1	-	-						
3	7	4						
4	6	3						
4	-	-		3	6			
4	-	-	Programme selectors UNLINKED					
1	-	-						
1	-	-	Programme selectors UNLINKED	A	В	С		
4	-	-						
A/S	-	-	Used in a system having independent control of water	A/S 3				
3	-	-	and heating					
A/S	-	-		A/S 5				
5	-	-						

Table B DANFOSS RANDALL FP715, CP715		MAINS	DHW OFF	HTG OFF	
(PUMPED)	Ļ	N	L	1	2
DANFOSS RANDALL 922/972	<u> </u>	Ν	L	1	4
DANFOSS RANDALL 102/102E/102E7	Ļ	5	3,6	-	-
HORSTMANN 423 DIAMOND POTTERTON 423		N	L,1,3	-	-
HORSTMANN 424 DIAMOND	<u> </u>	Ν	L,1,3	-	-
HORSTMANN CORAL 423 & 424	<u> </u>	2,3	1	-	-
HORSTMANN 425 DIADEM	<u> </u>	N	L	3	6
HORSTMANN 525 & 527	Ţ	N	L	3	6
HONEYWELL ST669	Ţ	N	L	-	-
POTTERTON EP2000, EP3000	<u> </u>	N	L	1	2
RANDALL TSR2P	<u> </u>	3	1,2	-	-
RANDALL MKII R6	Ļ	3	1,2	-	-
DANFOSS RANDALL 3060 & 3020P	<u> </u>	1,7	6	-	-
RANDALL 701		Ν	L	4	2
DANFOSS RANDALL SET 2		Ν	L	3	6
SANGAMO M5 410 FORM 4	<u> </u>	4,5	3	2	7
SANGAMO S409 FORMS 1 & 4		N,1,3	L	-	-
SANGAMO (EARLY MODEL) S410 FORM 4		N,2	L	-	-
SATCHWELL LIBRA	<u> </u>	1	2	8	5

DHW ON	HTG ON	Wires than li these got to	other nks in terms LIVE	ther ks in erms IVE applies only if		ddition k may k ere thes ed lead uld be t	al tern be requ se disc s (or p termina	ninal uired con- airs) ated
3	4	L	L		Α	В	С	D
3	6	2	5	Programmed selectors UNLINKED				
1	2	-	-					
2	4	-	-		5	6		
2	4	-	-		5			
BOILER (8)	AIR STAT (8)	-	-		4,7	5	6	
1	4	2	5	Programme selectors UNLINKED				
1	4	2	5	Programme selectors UNLINKED				
8	7,3	6	5	set for gravity HW				
3	4	-	5	Programme selectors UNLINKED	A	В	С	D
5,6	7	-	-	1 & 2 are LINKED 5 & 6 are LINKED	4			
4	5	-	-		6	7		
4	2	-	-		3	5		
3	1	6	5					
1,5	4	2	-	With Links L-2 & 1-5				
1,6	8	-	-	1 & 6 are LINKED				
2	5	-	-		6,4			
1,3	4	-	-	1 & 3 are LINKED				
6	3	7	4					

Table B cont DANFOSS RANDALL FP715, CP715		MAINS	DHW OFF	HTG OFF	
(PUMPED)	<u> </u>	N	L	1	2
SMITHS IND. CENTROLLER 1000	Ţ	N	L	-	-
SMITHS IND. CENTROLLER 60	Ļ	1	2	-	-
SMITHS IND. CENTROLLER 10	Ļ	N	L	-	-
SMITHS IND. CENTROLLER 70	Ļ	1	2	-	-
SMITHS IND. CENTROLLER 1000	Ļ	N	L	1	2
SWITCHMASTER 320 & 350	<u> </u>	N	4,L	-	-
SWITCHMASTER 400		Ν	L	-	4
SWITCHMASTER 600	<u> </u>	Ν	L	-	-
SWITCHMASTER 900 & 9000	Ļ	N	L	4	2
VENNER VENTROL	Ļ	N,A,M	L,L,1	-	-
VENNER VENOTROL 80 (AIR STAT)	Ţ	N,1, 3,4	L	-	-
VENNER VENOTROL 80 (AIR STAT LINKED)	Ţ	N,1 3,4	L	-	-
VENNER CHC/W2 (WITH STAT)	Ţ	N,2,4	L	-	-
VENNER CHC/W2 (AIR STAT LINKED)	Ţ	N,2,4	L	-	-
VENNER VENOTROL 80P (WITH AIR STAT)	<u> </u>	N,1,3	L	-	4
VENNER VENETROL 80P (AIR STAT LINKED)		N,1,3	L	-	4

DHW ON	HTG ON	Wires other than links in these terms got to LIVE		NOTE This conversion applies only if	An a bloc whe nect sho	dditior k may l ere thes ed lead uld be	hal tern be requ se disc ls (or p termin	ninal uired con- oairs) ated
3	4	L	L		Α	В	С	D
3	2	-	-		1	4		
5	4	-	-		3			
3	2	-	-		1,4			
5	4	-	-		3	6		
3	4	-	-	Programme selectors UNLINKED				
3	1	-	-	L & 4 are LINKED	2			
3	1	-	-		2			
3	1	-	-		2	4		
3	1	-	-	Programme selectors UNLINKED	А	В	С	
V	S,F	-	-		T,P	0		
2	A/S	-	-		A/S 5			
2	5	-	-					
1	A/S	-	-	Used in a system having control of	A/S 3			
1	3	-	-	WATER ONLY or WATER & HEATING TOGETHER				
2	A/S	-	-		A/S 5			
2	5	-	-		6,4			

## **User Instructions**

#### Your programmer

The FP715 allows you to switch your heating and hot water on and off at times that suit you.

You can programme up to 3 ON/OFF times per day for the heating and the hot water and the two systems can be operated independently.

### **Preset Programmes**

Your FP715 comes ready programmed with a set of operating times which often suit most people.

Event No.	Hot Water & Heating	Mon-Fri	Sat-Sun**					
1	1st ON	6:30	7:30					
2	1st OFF	8:30	10:00					
3*	2nd ON*	12:00*	12:00*					
4*	2nd OFF*	12:00*	12:00*					
5	3rd ON	17:00	17:00					
6	3rd OFF	22:30	22:30					
* Not applicable if unit set to 2 ON/OFFs per day by installer								

See page 17 for explanations of different settings

If you want to change any of these settings, you can do so by following the instructions on pages 17-23. First, follow the steps on page 15-16 to set the correct time and date.

#### **Before you start**

Open the flap on the front of the clock. Press the **RESET** button using a non-metallic object (e.g. pencil/matchstick) until you hear a click and the 2 red lights on the front of the unit flash once.

This will reinstate the preset programmes and set the time to 12.00pm on Monday (MO)



### Choice of 24hr or AM/PM display

Press and hold **DAY & NEXT ON/OFF** for 1.5 seconds to toggle between 24hr clock and AM/PM display, as required.



## Setting the correct Time and Day

#### SETTING THE TIME

Press PROG once.

The words **SET TIME** will appear at the top of the display & the time will flash on and off.

Use the **+ and - buttons** to set the correct time (press and hold to change in 10 min increments).







#### SETTING THE DAY

Press **DAY** repeatedly until the correct day of the week is displayed. MO is Monday, TU is Tuesday etc.



## Accepting the preset programmes

If you are happy to use the preset programmes on page 14, you don't need to do anything else.

To accept the factory presets just press the **PROG** button until the time appears & colon in the display begins to flash.



Your unit is now in **RUN** mode and will control your heating and hot water according to the preset programmes.

**INSTALLER SETTING** 

24 Hour

5+2 Day 7 Day

#### Before you change the preset programmes

Your installer will have set your unit to operate in one of the following modes:

- 5/2 day one set of programmes for weekdays and another for weekends (page 18-19)
- 7 day different settings for each day of the week (page 20-21)
- 24 hour one set of programmes for the whole week (page 22)
  - See INSTALLER SETTING tick box on inside flap label to ascertain which
- mode your unit is set .

#### Please Note

The unit must be programmed in sequence and ON/ OFF times cannot be set out of sequence.

If you want to leave a preset time as it is, simply press **NEXT** to move on to the next setting

Your installer will have set your unit to programme either 2 or 3 ON/OFFs per day. If your clock has been installed to allow 3 ON/OFFs and you do not wish to use one of the ON/OFF settings, simply programme the ON time to be the same as the OFF time and the setting will not operate.

If at any time you get confused and need to reset your timings to the standard programme, press the RESET button to return to the preset programmes.

# Programming the heating in 5/2 day mode

 Press PROG until SET CH ON TIME appears at the top of the display and MOTUWETHFR appears at the bottom of the display.

> Use the **+ and -** buttons to set the time you would like your heating to first come on in the morning (Event 1).

2. Press **NEXT ON/OFF** once only.

Use the **+ and -** buttons to set the time you want your heating to go off (Event 2).

To move to the next setting, i.e. when you would like your heating to come on again (Event 3) press the **NEXT ON/OFF** button again.

Continue programming the central heating ON and OFF times for weekday Events 4, 5 & 6 as in Step 2.









Programming heating - 5/2 day mode

4. Press the **DAY** button once and SASU will appear at the bottom of the display.

> You can press COPY to keep the same settings for Saturday and Sunday as you have programmed for Monday to Friday.

Alternatively, programme new ON/OFF times by pressing the NEXT ON/OFF button to move to the next setting and using the + and - buttons to set the time you want.

- 5. Press the **PROG** button to return the unit to RUN mode (time appears & colon in the display begins to flash)
- 6. Proceed to page 23.













# Programming the heating in 7 day mode

 Press PROG until SET CH ON TIME appears at the top of the display and MO appears at the bottom of the display.

> Use the **+ and -** buttons to set the time you want your heating to first come on in the morning (Event 1).

2. Press **NEXT ON/OFF** to move to Event 2.

Continue programming the central heating ON and OFF times in this way by using the **+ and -** buttons to set the time you want and pressing the **NEXT ON/OFF** button to move to the next setting.

3. Press **DAY** button once only. **TU** will appear at the bottom of the display.











Programming heating - 7 day mode

Continue programming the rest of the week by pressing:

a) **NEXT ON/OFF** button to move to the next setting,

b) **+ and -** buttons to amend the time

c) **DAY** to advance to the next day.

Alternatively press **COPY** to keep the same settings as the day before

- Press the **PROG** button to return the unit to **RUN** mode (time appears & colon in the display begins to flash)
- 5. Proceed to page 23.



# Programming the heating in 24 hour mode

1. Press **PROG** until **SET CH ON TIME** appears at the top of the display.

> Use the **+ and -** buttons to set the time you want your heating to first come on in the morning (Event 1).

2. Press **NEXT ON/OFF** to move to Event 2.

Continue programming the central heating ON and OFF times by pressing:

a) **NEXT ON/OFF** button to move to the next setting,

b) **+ and -** buttons to amend the time

- 3. Press the **PROG** button to return the unit to RUN mode (time appears & colon in the display begins to flash)
- 4. Proceed to page 23.









## **Programming the hot water**

To set the hot water programme press the **PROG** button until **SET HW ON TIME** appears on the display.

Set the hot water programme in the same way as the heating programme, using:

- a) + and buttons to alter the time
- b) pressing the NEXT ON/OFF button to move to the next setting
- c) pressing DAY to advance through days of the week (7 day mode) or to advance to Saturday and Sunday programming (5/2 day mode).

Finally press **PROG** to return the unit to run mode (time appears & colon in the display begins to flash).





SELECT

To run the central heating programme: press the SELECT button next to the radiator symbol.

To run the hot water programme: press the SELECT button next to the tap symbol.

As you press the **SELECT** button the display will change between **ON, OFF, ALLDAY** and **AUTO**.



- **AUTO** = the heating/hot water will come on and go off at the programmed times
- **ON** = the heating/hot water will remain on constantly
- **OFF** = the heating/hot water will not come on
- **ALLDAY** = the clock will turn the heating/hot water on at the first programmed ON and will leave it on until your last programmed OFF

Select the option you require depending on your circumstances, time of year, etc.

## **Temporary override buttons**

Sometimes you may need to change the way you use your heating temporarily, i.e. due to unusually cold weather. The FP715 has two convenient overrides which can be selected without affecting the set programme.



- The grey buttons next to the **radiator symbol** are the **Heating** override buttons
- The grey buttons next to the **tap symbol** are the **Hot Water** override buttons
- **+1HR** = pressing this button when either system is in AUTO or ALLDAY mode will cause the heating/hot water to remain on for an extra hour. If it is pressed while the programme is OFF the heating/hot water will come on immediately for 1 hour then go off again.
- MAN = pressing this button when either system is in AUTO or ALLDAY mode will cause the heating/hot water to go OFF until the next programmed ON, or vice versa.

## **Changing clocks forward & back**

Open the flap on the front of the unit to reveal the programming buttons.

To change from **Summer to Winter** (clocks back) -

press and hold - button



To change from **Winter to Summer** (clocks forward) -

press and hold + button



NOTE: After the first time this change has been made this feature will only allow the clock to be changed in the opposite direction.

> Take care when making this change for the first time. If it is made in the wrong direction the unit will have to be reset and any user-settings re-entered

(see pages 15-16 on how to Reset the unit and how to set the Time and Day).

## Fault Check List

#### No Hot Water

Check FP715 programmer. Turn the heating selector to OFF and the water selector to ON.

Is the red light by the water switch on? —	No —— Check fuse in fused spur Yes —— Check cylinder thermostat ————
Is the stat set to a temperature of 60°C? —	No — Turn knob to 60°C Yes — Check boiler
Is the boiler on?	No — Check the boiler thermostat Yes — Water should be hot in 45 mins.
Set boiler stat to maximum ——— Is boiler on? —	No — Check the reset button Yes — Water should be hot in 45 mins.
Push the boiler reset button in ——— Did boiler light?	No

Telephone your local Heating Engineer

After the water has been heated, return the programmer and other controls to the required settings.

#### **No Heating**

Check FP715 programmer. Turn the water selector to OFF and the heating selector to ON.

Is the red light by the heating switch on? —	No —— Check fuse in fused spur Yes —— Check room thermostat
Is stat. temp. set higher than room temp?	No —— Set stat to 30°C Ves —— Check boiler ————————————————————————————————————
Is the boiler on?	No —— Check boiler thermostat is set to max.– Yes —— Radiators should be hot in 45 mins.
Set boiler stat to maximum Is boiler on?	No —— Check the reset button — Yes —— Radiators should be hot in 45 mins.
Push the boiler reset button in ——— Did boiler light?	No Yes Radiators should be hot in 20 mins.

Telephone your local Heating Engineer

After the heating has come back on, return the programmer and other controls to the required settings.

# Still having problems?

Call your local heating engineer:

Name:	•••	•••	•••	•	••	•	••	•	•	• •	• •	•	•	•	•	•••	•	•	•	•	• •	•••	•	•	•	•	• •	• •	•	•	•	• •	•	•	•	•	•	• •	• •	 •	•	•	• •	 •
Tel:																																												

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**0845 121 7505** (8.45-5.15 Mon-Thurs, 8.45-4.45 Fri)

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