TS715

Electronic Single Channel Timeswitch
User & Installation Guide

+1HR override

+1HR

○

SET   ON   TIME

MAN override

MAN

1 6:30 AM

MOTUWETHFR

PROG   +   DAY

RESET

R/S

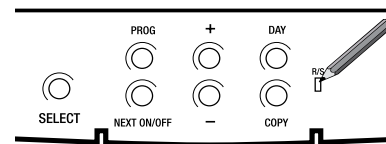**Mode SELECT**

SELECT   NEXT ON/OFF   −   COPY
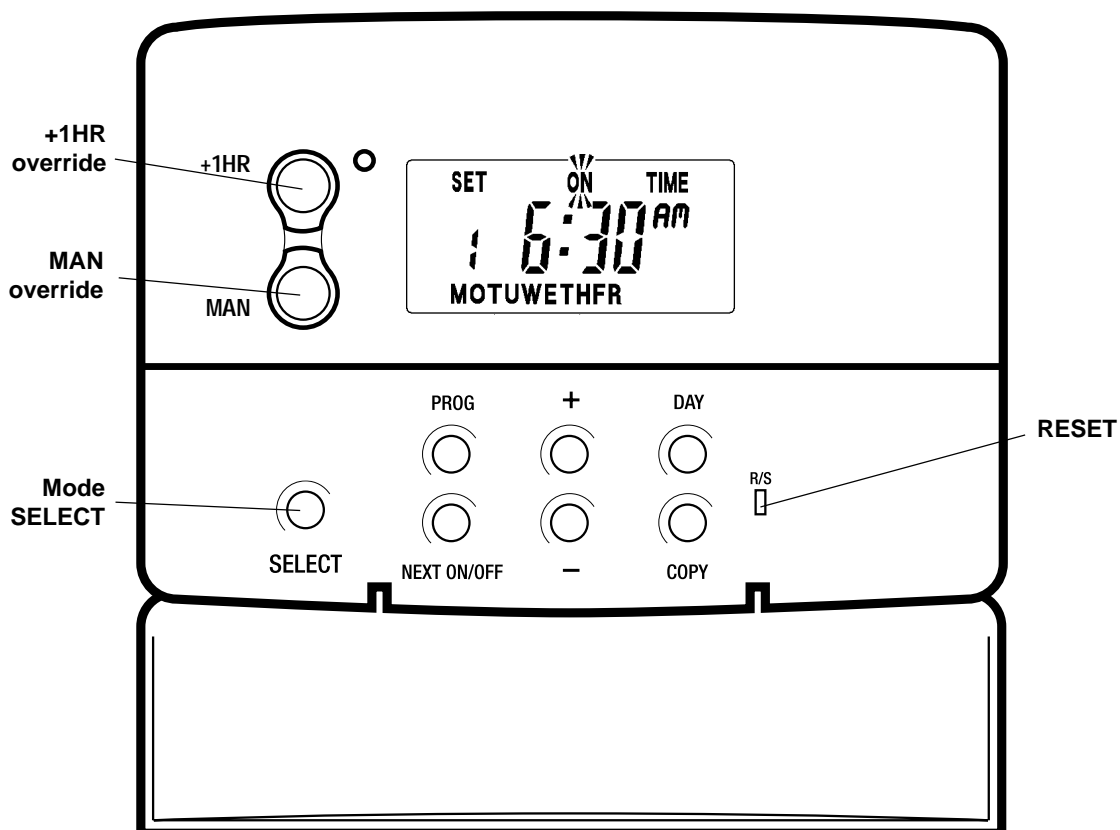
Danfoss

User Instructions

Before beginning programming, you should reset the unit. Open the flap on the front of the clock. Press the **RESET** button using a non-metallic object (e.g. a pencil or end of a bic biro pen top). This will clear all previous pre-set programmes **(Fig.1)**
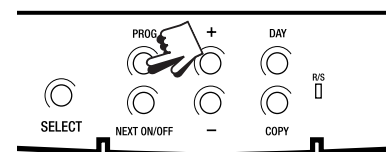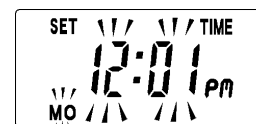
A. Setting the correct Time and Day

TIME - Press **PROG** once **(Fig.2)**. The words **SET TIME** will appear at the top of the display. The time will flash on and off **(Fig.3)**. Use the **+ and -** buttons to set the correct time **(Fig.4)**
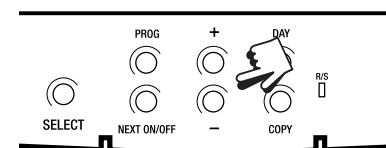
DAY - Press **DAY** repeatedly until the correct day of the week is displayed **(Fig.5)**. MO is Monday, TU is Tuesday etc

B. Accepting the Factory Pre-settings

The TS715 comes ready programmed with a set of time and temperatures to suit the average household (see **Factory Presettings** page 4).

To accept these settings press the **PROG** button until the time appears and colon in the display begins to flash - the unit is now in RUN mode **(Fig.6)**.

If you wish to alter these settings follow the instructions below.
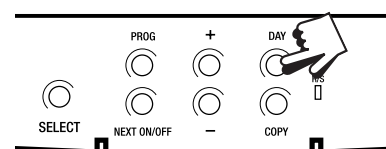
Your installer will have set your unit to operate in one of the following modes:
  5/2 day - one set of programmes for weekdays and another for weekends **(Section C)**
  7 day - different settings for each day of the week **(Section D)**
  24 hour - one set of programmes for the whole week **(Section E)**
See INSTALLER SETTING tick box on inside flap label to ascertain which mode your unit is set and follow relevant instructions below.

INSTALLER SETTING	
24 Hour	
5+2 Day	
7 Day	

C. Programming the system - 5/2 day mode

1. Press **PROG** until **SET ON TIME** appears at the top of the display and **MOTUWETHFR** appears at the bottom of the display **(Fig.7)**. Use the **+ and -** buttons **(Fig.4)** 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 **(Fig.8)**. Use the **+ and -** buttons **(Fig.4)** 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.

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

4. Press the **DAY** button once **(Fig.5)** and **SASU** will appear at the bottom of the display **(Fig.9)**. Either press **COPY (Fig.10)** 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 **(Fig.8)** to move to the next setting and using the **+ and -** buttons **(Fig.4)** to set the time you want.

5. Press the **PROG** button **(Fig.2)** to return the unit to **RUN** mode
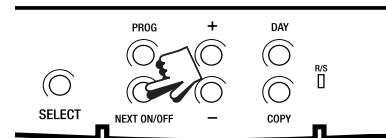
6. **Proceed to Section F**

D. Programming the system - 7 day mode

1. Press **PROG** until **SET ON TIME** appears at the top of the display and **MO** appears at the bottom of the display **(Fig.11)**. Use the **+ and -** buttons **(Fig.4)** to set the time you want your heating to first come on in the morning **(Event 1)**.

2. Press **NEXT ON/OFF (Fig.8)** 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 and **(Fig.4 & 8)**.

3. Press **DAY** button once only **(Fig.5)**. **TU** will appear at the bottom of the display. Either press **COPY (Fig.10)** to keep the same settings as the day before or continue programming for the rest of the week by pressing the **NEXT ON/OFF** button to move to the next setting, using the **+ and -** buttons to amend the time, and by pressing **DAY** to advance to the next day.

4. Press the **PROG** button **(Fig.2)** to return the unit to **RUN** mode
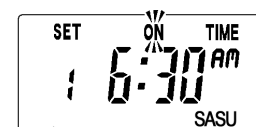
5. **Proceed to Section F**

Fig.1

Fig.2

Fig.3

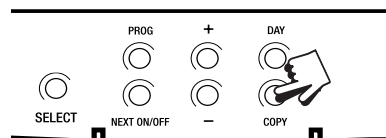**Fig.4**
To alter clock & ON/OFF times

Fig.5
To move to next day or to weekend

Fig.6
OFF 10:30

Fig.7
SET ON TIME
1 6:30 AM
MOTUWETHFR

Fig.8
To move to next event

Fig.9
SET ON TIME
1 6:30 AM
SASU

Fig.10

E. Programming the system - 24 hour mode

1. Press **PROG (Fig.2)** until **SET ON TIME** appears at the top of the display. Use the **+ and -** buttons **(Fig.4)** to set the time you want your heating to first come on in the morning **(Event 1)**.

2. Press **NEXT ON/OFF (Fig.8)** 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 and pressing the **NEXT ON/OFF** button to move to the next setting **(Figs.4 & 8)**.

3. Press the **PROG** button **(Fig.2)** to return the unit to **RUN** mode

4. **Proceed to Section F**

Fig.11

N.B. Depending how your installer has set the clock you will be able 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.

Fig.12

F. Running your Programme

To run the central heating programme press the **SELECT** button **(Fig.12)**.

As you press the **SELECT** button the display will change between **ON, OFF, ALLDAY** and **AUTO**. Select the option you require depending on your circumstances, time of year, etc **(Fig.13)**.

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

Fig.13

G. Temporary over-ride buttons

+1HR = the heating will remain on for an extra hour. If it is pressed whilst the heating programme is off the heating will come on immediately for 1 hour then go off **(Fig.14)**.

MAN = if this button is pressed when the heating is on, the heating will go OFF until the next programmed ON. If this button is pressed when the heating is OFF the heating will come ON until the next programmed OFF **(Fig.14)**.

NB. These over-rides are only temporary and do not affect the preset programmes.

Fig.14

H. Winter Time / Summer Time Clock

To change from Summer to Winter (clocks back) - **press and hold - button (Fig.15)**

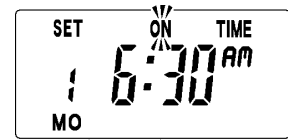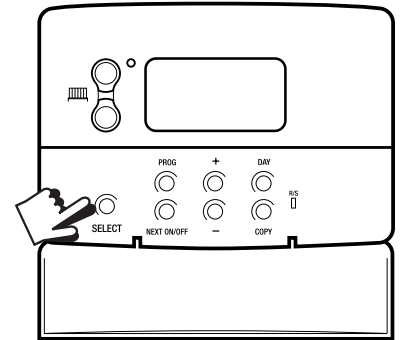To change from Winter to Summer (clocks forward) - **press and hold + button (Fig.15)**
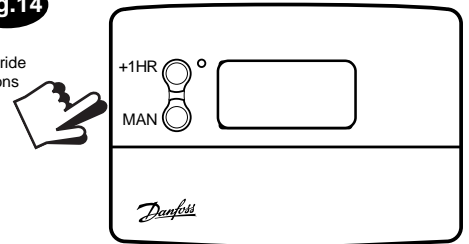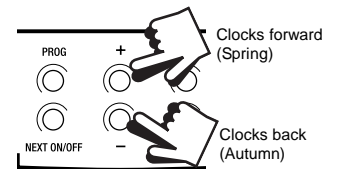

Fig.15

Installation Instructions

Product overview

The TS715 is an electronic single channel timeswitch with voltage free contacts making it ideal for combination boiler applications. It can be set at time of installation for 7 day, 5/2 day or 24 hour operation. In addition the installer can select between 2 or 3 sets of On/Off events each day. All models in the range incorporate a permanently lit back light.

Installation

1.   The product should only be installed by a qualified electrician or competent heating installer. The installation must be in accordance with the current edition of the IEEE wiring regulations

2.   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.

3.   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.

4.   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.

5.   For wiring connections refer to diagram below. TS715 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.

6.   Prior to mounting the plug-on module, DIL switches on the rear of the plug-on module must be set. See table below for available options.

7.   Mark the INSTALLER SETTING tick box on the inside flap label to notify user in which mode their unit is set (24hr, 5/2 day or 7 day).

8.   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.
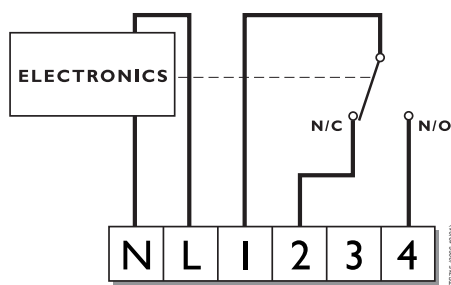
Diagram 1. - Wiring

Diagram 2. - DIL Switch Settings

SW.1	3 ON/OFFs		2 ON/OFFs
SW.2	3 ON/OFFs		2 ON/OFFs
SW.3	5/2 DAY		7 DAY or 24 HOUR
SW.4	7 DAY		24 HOUR

Product specification

Power supply	230 V ac, ±10%, 50/60 Hz
Switching action	2 x SPDT internally linked
Switch rating	230 V ac, 3(1)A
Battery back-up	24 hours minimum
Max. temperature	45°C
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

Factory Presettings

Event	ON/OFF	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

Each day if set in 24 hour mode

Fault Check List

No Hot Water

Check TS715 programmer. Make sure selector is set to ON.

Is the red light 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
— Yes — Water should be hot in 20 mins.

Telephone your local Heating Engineer

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

No Heating

Check TS715 programmer. Make sure selector is set to ON.

Is the red light 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
— Yes — 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.

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)

CE