

## FST11 SupplyMaster 24 Hour Fused Spur Time switch

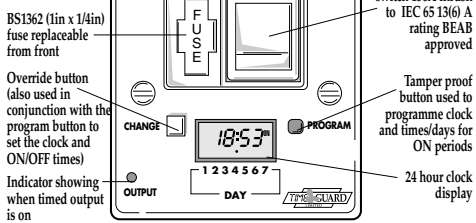


Farnell SKU – 987-037

24 hour fused spur time switch for controlling combination boilers, storage heaters, convector heaters, water heaters, washing machines and dishwashers.

- 13A (3kW) loading.
- Up to 4 ON/OFF programmes per day.
- Switched and switched/timed outputs.
- Simple two button programming.
- Manual override until next programme change.
- Integral double pole switch and BS1362 fuse.
- Shortest switching time 1 minute.
- 1000 hours rechargeable memory back up.
- Voltage free contacts.
- Fits on to a single gang wall box minimum 25mm deep.
- Part No. FST11

Figure 1



**Contents**

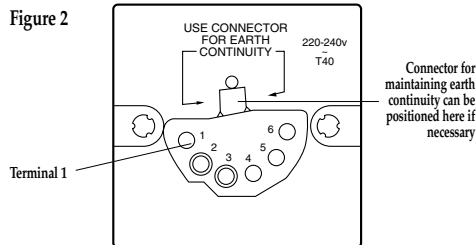
- 1 SupplyMaster FST11 (24 hour) or FST17 (7 day)
- 2 3.5mm screws 50mm long
- 2 3.5mm screws 65mm long
- 1 Flying lead adaptor plate
- 1 Earth continuity connector
- 2 No. 4 self-tapping screws 12mm long

**General**

The FST11 (24 hour) or FST17 (7 day) is a unit which mounts on a BS4662 plaster depth single box or alternatively on a BS5733 surface mount single box. It can be modified, if required, to have a flying lead output in which case the adaptor plate is fitted between the SupplyMaster unit and the plaster depth box using the longer screws supplied.

The unit combines the facilities of a double pole switched and fused connection unit capable of being wired directly into a ring main and a timeswitch. A normal switched output is available as well as the timeswitch output. The front and back of the unit is shown in figs 1 and 2 and the internal circuit in fig 3.

Figure 2



**Applications**

**Combination Boilers**

The SupplyMaster has six terminals primarily to provide a combined connection unit and timeswitch for combination boilers. It provides a timed output for heating control and a continuous output supplying the boiler system itself. In this instance terminals 2 and 3 can be used for connecting to a room thermostat or can be linked together. If the boiler works with extra low voltage controls then terminals 1 and 2 offer true voltage free contacts.

**Storage Heaters**

In this instance the timed output can be used for charging and the continuous output can be used in conjunction with a room temperature control to supply the fan. A link is required between terminals 2 and 3.

**Lighting**

The SupplyMaster can replace a normal light switch, provided a neutral is made available and lighting of up to 2.5kw filament or 500w fluorescent can be controlled.

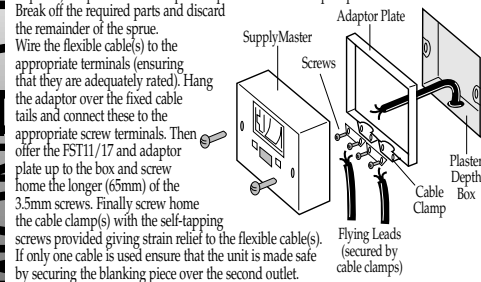
**Other Appliances**

Energy consuming appliances such as immersion heaters and washing machines, dishwashers and tumble driers up to 13A total loading can be supplied by the FST11/17 enabling the users to make use of Economy Seven electricity without the use of a plug and socket arrangement and its associated risk of overheating damage at 13A. In this instance a link is required between terminals 3 and 2.

**Installation**

The unit is designed to replace an existing single gang connection unit or fixed appliance outlet giving both switched mains and switched and timed mains outputs both protected by a BS1362 fuse. The unit is capable of forming part of a ring main (the terminals can accept 2 x 2.5mm<sup>2</sup> cables) or terminating a spur off a ring main. The unit requires a minimum of 25mm depth within the box to enable it to be fitted. Ensure that the wiring is adequate for the load to be carried. Cut the cable tails to length and strip sleeving and insulation as required, tighten the screw terminals on the cables and form the cables. Offer the unit up to the mounting box forming the cables as required finally tightening up the shorter (50mm) 3.5mm screws.

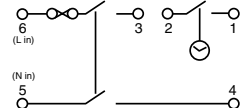
If you require a flying lead for controlling a washing machine or two for controlling a combination boiler then use the flying lead adaptor plate between the mounting base and the FST11/17. Two cable clamps and one blanking piece (if only one cable is required) are provided on the plastic sprue within the adaptor plate. Break off the required parts and discard the remainder of the sprue.



**Fuse**

Use the appropriate BS1362 fuse for the load to protect the cabling to the load and the FST11/17 itself. A 13A fuse is supplied with the unit.

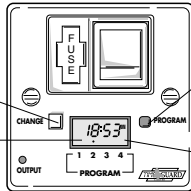
Figure 3



## FST 11 Programming Instructions

**Change Button** sets Hours and Minute times and self cancelling override

Easy view 24 hour digital clock/timer display



**Programme Button** used to select the clock time and the 4 ON/OFF programme times and to review them once set

**Output Status** showing unit either ON or OFF

### Battery

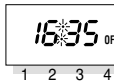
This product has a factory fitted rechargeable battery. If the time controller is left with its mains power switched off for more than 1 month the display may go blank. In this case switch mains on, wait 30 minutes, and apply reset - see 1 before programming.

### Programming

Only two setting buttons are provided <Change> and <Program>. The <Program> button is recessed to prevent inadvertent program change and requires a pen or other similar implement to operate it. During the programme mode the <Change> button is used to set the hour and minute times. Holding this button down achieves rapid selection of the hr and minute times. It is also used for changing the output status during normal operation. The <Program> button is used to select the clock time and 4 ON/OFF programmes and to review them once set. Holding this button down achieves rapid selection of the next programmes or can be used as a quick exit from programme mode or programme review.

### Normal Operating Mode

In normal operation the SupplyMaster will display the correct time with the colon flashing. The output status will be shown by either ON or OFF on the display.



#### 1 To Reset Display

To clear programmes from memory and reset the time controller press and hold down both setting buttons until the display goes blank. Release buttons and display will fill with its complete range of characters and then clear to show clock and hour symbol flashing.



You are now in the clock setting mode at the beginning of the programme sequence

## Programming sequence

Setting clock	.....	Programme 3 ON
Programme 1 ON	.....	Programme 3 OFF
Programme 1 OFF	.....	Programme 4 ON
Programme 2 ON	.....	Programme 4 OFF
Programme 2 OFF	.....	Operation Mode

Note: Button pauses greater than 1 minute during programming will result in automatic return to the operating mode.

### 2 Setting Clock (after reset)

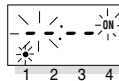
i **Hour Setting** - Press the <Change> button to advance the hour setting. Note: For rapid hour selections press and hold down <Change> button.



ii **Minute Setting** - Press the <Program> button once to select the minutes - display shows clock symbol and minute digits flashing. Press the <Change> button to advance the minutes setting. Note: For rapid minute selection press and hold down <Change> button. (Note: 16 hrs shown as example of hrs set)



iii Press <Program> button once - clock is now set and display shows ready for the first ON programme time with ON and Programme 1 flashing.



### 3. To Set Programme ON/OFF Times (after clock setting)

#### Programme 1 ON time

i Press <Change> button to advance the hour setting.

ii Press <Program> button once to select minute time - display shows minute digits and ON flashing. Press <Change> button to advance minute setting. (Note: 16 hrs shown as example of hours set).



iii Press <Program> button once - the first ON time is now set and display shows ready for the first OFF programme time.



iv Now set the hrs and minutes as before.

v Repeat steps i to iv to set the remainder of the 3 ON/OFF times as required. Note: Any unused ON/OFF programme should be skipped until the display shows normal operating mode. Do not programme '0's into unused programmes.

**IMPORTANT** After setting a clock time which falls within a programmed ON period, the unit will not switch ON. Use the override facility to switch unit ON. After this the unit will operate normally to the programmes set.

### 4. Programme Review

To fast review the set programmes or for quick exit to normal operating mode - press and hold the <Program> button.

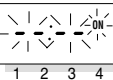
### 5. Initiating Programme Mode

This can be initiated any time during the normal operating mode. Press <Program> button and the Clock symbol, hrs and minutes symbols on the display will flash - this is review mode. If any change to programmes is required press <Change> button to initiate programme mode and then follow steps 2 and 3.

### 6. Cancelling Programmes

Any ON/OFF programme can be cancelled by clearing its ON and OFF time. Follow step 5 and when into the ON and OFF programme to be cancelled press the <Change> button until the hour digits show --:

then press the <Program> button to clear set programme. The display will show the hour and minute digits ON or OFF flashing.



### Self Cancelling Override

To change the output status from ON to OFF or vice versa during normal operation press the <Change> button. The output status will change and indicate override is in operation by flashing.

HELPLINE  
020-8450-0515



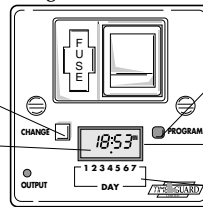
For a product brochure please contact:  
**Timeguard Ltd.**  
Victory Park, 400 Edgware Road,  
London NW2 6ND  
020-8452-1112  
or email [csc@timeguard.com](mailto:csc@timeguard.com)

Designed and manufactured in the U.K. 67-058-05 (1)

### FST 17 Programming Instructions

**Change Button**  
sets Day(s), Hours  
and Minute times  
and self cancelling  
override

Easy view 24  
hour digital  
clock/timer  
display



**Programme Button**  
used to select the  
clock time and the 6  
ON/OFF  
programme times  
and to review them  
once set

**Output Status**  
showing unit  
either ON or OFF

**Day indicator**  
1 = Monday  
7 = Sunday

### Battery

This product has a factory fitted rechargeable battery. If the time controller is left with its mains power switched off for more than 1 month the display may go blank. In this case switch mains on, wait 30 mins, and apply reset - see 1 before programming.

### Programming

Only two setting buttons are provided <Change> and <Program>. During the programme mode the <Change> button is used to set days and the hour and minute times. Holding this button down achieves rapid selection of the day and the hour and minute times. During normal operation it is used for changing the output status. The <Program> button is used to select the clock time and 6 ON/OFF programmes and to review them once set. Holding this button down achieves rapid selection of the next programmes or can be used as a quick exit from programme mode.

### Normal Operating Mode

In normal operation the SupplyMaster will display the correct day and its time with the colon flashing. The output status will be shown by either ON or OFF on the display.



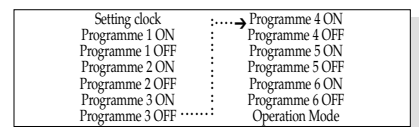
### 1 To Reset Display

To clear programmes from memory and reset the time controller press and hold down both setting buttons until the display goes blank. Release buttons and display will fill with its complete range of characters and then clear to show clock and day 1 symbol flashing.



*You are now in the clock setting mode  
at the beginning of the programme sequence*

### Programming sequence



Note: Button pauses greater than 1 minute during programming will result in automatic return to the operating mode.

### 2 Setting Clock (after reset)

i **Day Setting** - Press <Change> button to advance to the day required.  
Day 1 = Monday and Day 7 = Sunday.

ii **Hour Setting** - Press the <Program> button once to select the hour - display shows clock symbol and the hrs digit flashing.

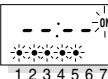


Press the <Change> button to advance the hour setting. Note: For rapid hour selections press and hold down <Change> button.

iii **Minute Setting** - Press the <Program> button once to select the minutes - display shows with clock symbol and minute digits flashing. Press the <Change> button to advance the minutes setting. Note: For rapid minute selection press and hold down <Change> button. (Note: 16 hrs shown as example of hrs set)



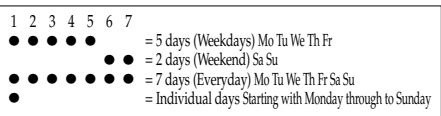
iv Press <Program> button once - clock is now set and display shows ready for the first ON programme time.



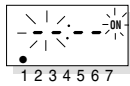
### 3. To Set Programme ON/OFF Times (after clock setting)

#### Programme 1 ON time

i Press <Change> button to advance the day flag to the required day(s) settings which are:



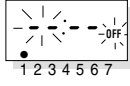
ii Once day option selected press <Program> button once to select hour time - display shows hour digits and ON flashing. Press <Change> button to advance hour setting. (Note: Monday shown as an example of days set).



iii Press <Program> button once to select minute time - display shows minute digits and ON flashing. Press <Change> button to advance minute setting. (Note: 16 hrs shown as example of hours set).



iv Press <Program> button once - the first ON time is now set and display shows ready for the first OFF programme time.



v Now set the hrs and minutes as before. The day(s) selected remains the same.

vi Repeat steps i to v to set the remainder of the 5 ON/OFF times as required. Note: Any unused ON/OFF programme should be skipped until the display shows normal operating mode. Do not programme '0's into unused programmes.

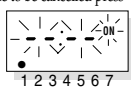
**IMPORTANT** After setting a clock time which falls within a programmed ON period, the unit will not switch ON. Use the override facility to switch unit ON. After this the unit will operate normally to the programmes set.

**4. Programme Review**  
To fast review the set programmes or for quick exit to normal operating mode - press and hold the <Program> button.

**5. Initiating Programme Mode**  
This can be initiated any time during the normal operating mode. Press <Program> button and the Clock symbol, day flag, hrs and minutes symbols on the display will flash - this is review mode. If any change to programmes is required press <Change> button to initiate programme mode and then follow steps 2 and 3.

**6. Cancelling Programmes**

Any ON/OFF programme can be cancelled by clearing its ON and OFF time. Follow step 5 and when into the ON and OFF programme to be cancelled press the <Change> button until the hour digits show --:-- then press the <Program> button to clear set programme. The hour and minute digits should display with ON or OFF also flashing. (Note: Monday shown as an example of days set).



**Self Cancelling Override**

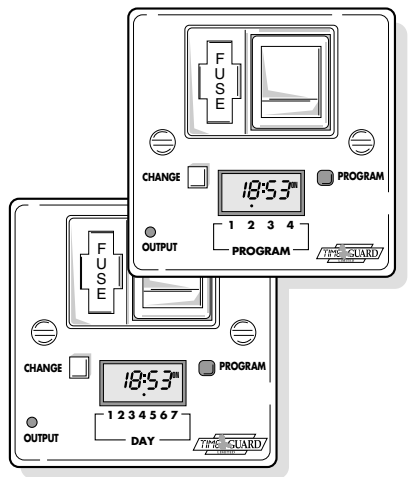
To change the output status from ON to OFF or vice versa during normal operation press the <Change> button. The output status will change and indicate override is in operation by flashing.

**Specifications**

- Conforms to directives 73/23/EEC, 89/336/EEC
- Complies with the applicable standards for EMC EN50081-1 for emission and EN50082-1 for immunity.
- Permissible Loads: 13A Resistive  
6A At 0.4 power factor inductive  
10A Filament lamps  
500W Fluorescent lighting with or without power factor correction capacitors (4µF per 65W tube).  
1hp motor

**For other loads refer to Technical Service on 020 8450 0515.**  
In applications such as use of Economy Seven electricity the full load will not usually be switched. In the cases of a washing machine and a dish washer the load switched on to will be water valves only and the load turned off will be negligible providing an appropriate time interval has been left to enable the machine to complete its programme.

- Fuse protection BS1362 as dictated by load.
- Switched output and switched timed output available to 13A resistive total load capability: **If in doubt refer to Technical Service on 020 8450 0515.**
- 1000 hrs battery back up in case of supply loss or FST11/17 fuse blow.
- Operating ambient temperature: -10°C to 40°C
- Operating voltage: 220 - 240V AC



**SupplyMASTER**

Models:  
FST11 (24 hour)  
FST17 (7 day)



INSTALLATION & OPERATING INSTRUCTIONS