*Supply*__MASTER__
FUSED SPUR TIMESWITCH

Cat No. FST11A – 24 Hour
Cat No. FST17A – 7 Day

Installation & Operating
Instructions

1. General Information

Status LED

Display (back lit for 30 seconds when any button is pressed)

Reset button (recessed)

Override until next programme change and increments displayed value during time and programme setting

Sets programmes

Sets date and time

Fixing hole

Double pole switch

Boost for 1 or 2 hours and decrements displayed value during time and programme setting
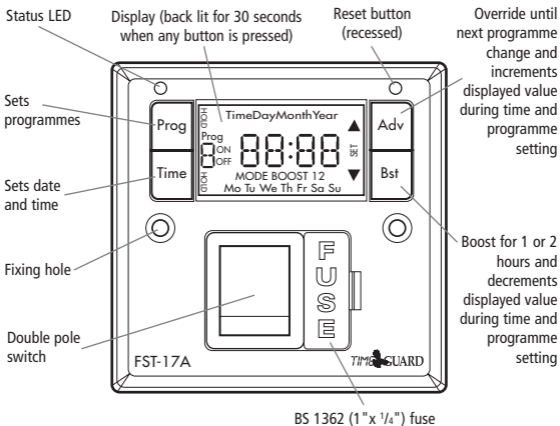
BS 1362 (1" x 1/4") fuse

Fig. 1
FST17A/FST11A Front Panel

Contents:

1   Supplymaster.
2   3.5mm screws.
1   Bag containing: 2 screws, cable blank and cable clamp.
1   Instruction leaflet.

The FST11A (24 hour) and FST17A (7 day) are units which mount onto a BS 4662 flush mount single box, or a BS 5733 surface mount single box (25mm deep in either case). There is provision for a single front exit output cable, with in-built cable clamp.

The unit combines the facilities of a time switch and a double pole switched, fused connection unit capable of being wired directly into a ring main. The contacts are not volt free, and there is no provision for a permanent ON, or for earth continuity (for which the back box termination can be used if required). The unit has automatic daylight saving pre-programmed in.

2. Battery

The unit has an in-built non-replaceable, rechargeable battery, which will keep the programmed times during power down situations for up to 4 weeks. If the screen goes blank, once power is restored and 4 hours elapsed (to give a working battery charge) reset must be pressed, and times/programmes re-entered.
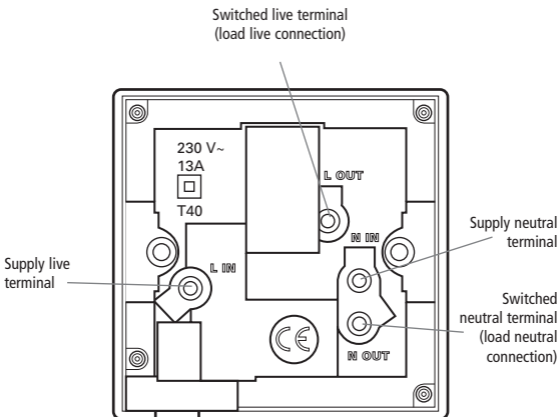
Switched live terminal
(load live connection)

230 V~
13A
□
T40

L OUT

L IN

N IN

N OUT

Supply live
terminal

Supply neutral
terminal

Switched
neutral terminal
(load neutral
connection)

Fig. 2
FST17A/FST11A Rear Connections

3. Applications

Energy consuming appliances such as immersion heaters and storage heaters up to 13A total loading can be supplied by the FST11A/FST17A enabling users to make use of Economy 7.

If the user has other appliances which do not have a push button start such as washing machines, dishwashers and tumble dryers these may also be controlled in the same way. It can also be used to control lighting, if a neutral is made available. Lighting up to 2.5kw filament can also be controlled.

4. Installation

The unit is designed to replace an existing single gang connection unit or fixed appliance outlet giving timed mains output, protected by a BS 1362 fuse. The unit is capable of forming part of a ring main (the terminals can accept 2 x 2.5mm sq. cables) or terminating a spur off the ring main. The unit requires a minimum depth of 25mm within the box. Ensure that the wiring is adequate for the load to be carried. Connect incoming and outgoing cables to the relevant terminals. Secure the unit to the back box with the 3.5mm screws provided forming the cables during installation to avoid entrapment and cable damage.

Use the earth terminal in the back box for earth continuity if required. If installed into a metal back box, earthing of the back box is required.

There is a removable cable blank to cover the front cable exit if this feature is not required. If front exiting cable is required, for instance to connect to a washing machine, use the cable clamp supplied to secure the outgoing cable.
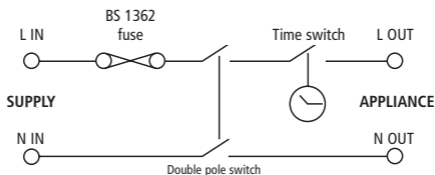

Fig. 3
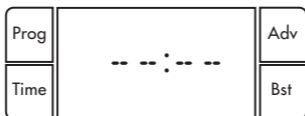**Internal Schematic of FST17A/FST11A**

5. Fuse

Use the appropriate BS 1362 fuse for the load. The unit is supplied with a suitable 13A fuse.

6. First Supply Connection and Reset

From first supply connection, press Reset with a pointed object.
The display will show the full character set, and then display:

The only button which is now active is the time button. Now proceed to setting the date/time and then programming the ON and OFF times.
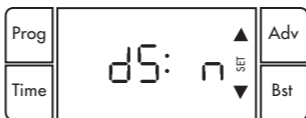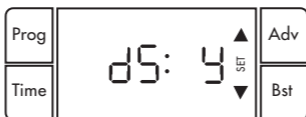
7. Setting the Date and Time of Day

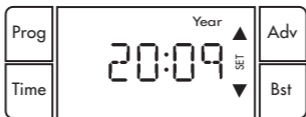## 7.1 Initially Setting the Date and Time of Day

Press the 'Time' button and hold for approx. 2 seconds. Whilst holding, the word 'HOLD' will show bottom left in the display.

After 2 seconds, there will be the option of automatic daylight saving (summer/ winter time).

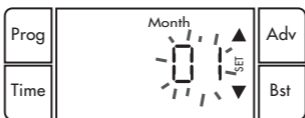Press 'Adv' or 'Bst' to change from yes to no.

Then press 'Time', the default year 2009 will be displayed.

Use 'Adv' (increment) or 'Bst' (decrement) to change the display to the correct year. The limit calendar year is 2050.
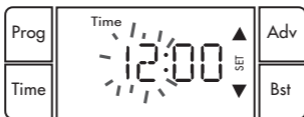
Press the 'Time' button and the month digits will flash:–

Use 'Adv' or 'Bst' to set the month.

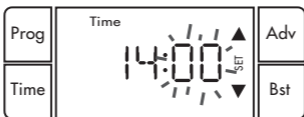Press the 'Time' button and the day digits will flash:–

Use 'Adv' or 'Bst' to set the day.

Press the 'Time' button and the hour digits will flash:–

Use 'Adv' or 'Bst' to set the hour (24 hour clock).

Press the 'Time' button and the minute digits will flash. (14 is shown as an example of the hours set in the previous step):–

Use 'Adv' or 'Bst' to set the minutes.

Press the 'Time' button briefly to exit date/time entry, and return to the operating mode.
The display will now read:–

Showing correct time/day of the week, with the colon between the hours and minutes flashing (30 is shown as an example of the minutes set in the previous step).

Note:

During time and date setting, when the 'Adv' or 'Bst' buttons are held down, the setting under adjustment will advance or decrease rapidly.

7.2 Modifying the Date and Time of Day

Normally the only change required will be to the time of day minutes, in which case press and hold 'Time' for 2 seconds, during which the word 'HOLD' will appear in the bottom left hand corner of the display.

Press 'Time' repeatedly until the minutes are shown flashing then use 'Adv' or 'Bst' to make the change.

Finally press 'Time' briefly to get back to operating mode.

Other changes can be made in the same way but the 'Time' button must be pressed to get back to operating mode. **There is no automatic exit from the date/time setting mode.**
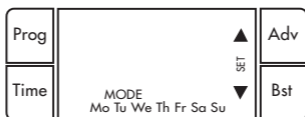
8. Programming the ON/OFF Times – FST17A only

8.1 Generating New Programmes

The FST17A has four independent ON/OFF periods available for programming each day.
The FST17A is a 7 day programmer, with options of 7 days the same (24 hrs),
5+2 days (where the weekdays are the same, and the 2 weekend days are the same) and 7 individual days.

Press 'Prog' and hold for approx. 2 seconds. Whilst holding, the word 'HOLD' will show in the top left hand corner of the display.

After 2 seconds the display will show:–

Prog		▲	Adv
Time	MODE Mo Tu We Th Fr Sa Su	SET ▼	Bst

Use 'Adv' or 'Bst' to change the day grouping (MODE) at the bottom of the display.
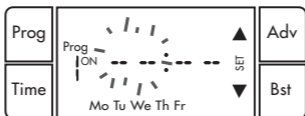This will step through the following programming options:–

24hr – Mo Tu We Th Fr Sa Su.

5 day – Mo Tu We Th Fr followed automatically in programming by 2 day – Sa Su.

Individual day – Mo followed automatically in programming by each of the other days.

Once the desired day grouping is selected, press 'Prog' to move onto programming ON/OFF times.
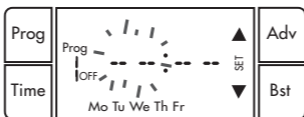
Display will show prog 1 ON, and the hour digits flashing.

(Example shown is for a 5 + 2 day program, as the display shows Mo Tu We Th Fr).

Use 'Adv' or 'Bst' to set the hours and then 'Prog' to change between hours and minutes. Followed by 'Adv' or 'Bst' again to set the minutes.
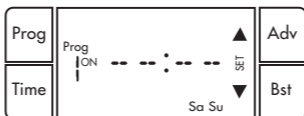
Press 'Prog' to change to program OFF time.

Use 'Adv' or 'Bst' to set the OFF time in the same way as for Prog 1 ON time.

Press 'Prog' to scroll through program 2 ON, program 2 OFF, program 3 ON, program 3 OFF, program 4 ON, program 4 OFF, adding in times as required.
If you wish to omit programmes just leave dashes in that ON/OFF location.

Press 'Prog' to move to the next linked day grouping (2 day grouping follows the 5 day group automatically).

Set ON/OFF times as before.

Once program 4 OFF has been set, press 'Prog' to exit program mode and return to operating mode.

If less than four programmes are required press 'Prog' for approx. 2 seconds after the last programme entry to return to operating mode.

The display will show the correct day and time **but the ON/OFF indicator may not reflect the current programme accurately in which case press the 'Adv' button to correct the indicator.**
In the same way as for individual programmes, days or groups of days can be omitted either by leaving dashes in all the locations for a day or a group of days or by leaving the programming mode before its completion where all further entries are to be dashes.

8.2 Programming across midnight:

This can only be programmed after a reset, and not as a modification to an existing programme, unless 3 or less ON/OFF times have been previously programmed.

To programme across midnight, enter the start time of the last period (say 20:00), and then leave the end time blank (—:—). Start the next days ON period at 00:00 and then enter the OFF time that you require (say 07:00).

Note: For FST11A the first ON period would be 00:00 for all 7 days.

Note: Programming the last OFF period at 00:00, and then programming the first ON period of the next day at 00:00 will not work. The FST will not come on for the last ON period if there is not a valid OFF time. 00:00 is not a valid OFF time.

If it is required to programme an OFF time at midnight, then it has to be 23.59, not 00:00.

8.3 Modifying or Adding Programmes

Press 'Prog' and hold for approx. 2 seconds. Whilst holding, the word 'HOLD' will appear in the top left hand corner of the display. After 2 seconds the display will show:–

Prog		▲	Adv
	SET		
Time	MODE Mo Tu We Th Fr Sa Su	▼	Bst

Note: If the unit was programmed as a 5+2, or a 24 hour then the mode will need to be set to this mode in order to review programmes. If previously entered times are reviewed in a different mode, programmed times may be lost.

Press 'Adv' or 'Bst' to select the day grouping which requires modifying or a new day grouping for an additional programme, in which case proceed as in section 8.1.

For modifications press 'Prog' repeatedly to arrive at the programme time (flashing) requiring modification then use 'Adv' or 'Bst' to make the change. Press 'Prog' again repeatedly to arrive at a further time requiring modification and use 'Adv' or 'Bst' to make the change.

Proceed as before for further changes then press 'Prog' for 2 seconds to return to operating mode unless you are at the end of the programme sequence, in which case press 'Prog' briefly.

There is no automatic exit to the operating mode.

The reset button can also be used whenever major changes of programmes are required.

9. Programming the ON/OFF Times – FST11A only

The FST11A is similar to the FST17A but only has one day group mode in programming – Mo Tu We Th Fr Sa Su giving 24 hour operation.
Up to 4 programmes can be entered (once only required) in the same way as for the FST17A (refer to section 8).
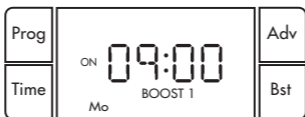
10. Operating Mode

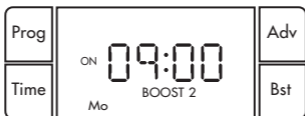### 10.1 Override until Next Program Change

In operating mode, 'Adv' advances the program to the next change. If the output is OFF, it will change the output to ON until the next programmed OFF period. If the output is ON, it will turn it OFF until the next programmed ON period.
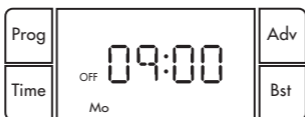
10.2 1 and 2 Hour Boost

In operating mode, pressing the 'Bst' (boost) button once will give an output for one hour. The display will show:–

Prog	ON **09:00**	Adv
Time	Mo BOOST 1	Bst

If pushed twice, then there will be a 2 hour output. The display will show:–

Prog	ON **09:00**	Adv
Time	Mo BOOST 2	Bst

If pushed 3 times, the boost will be cancelled, and output will return to the programmed state.

Prog	OFF **09:00**	Adv
Time	Mo	Bst

In operating mode, the main switch is used to change between permanent OFF, and timed. There is no permanent ON setting.

11. Specifications

This product complies with:	LVD Directive 72/23/EEC.
	EMC Directive 89/336/EEC.
and relevant clauses of the following standards:	BS EN 60730-7-2:1992; Particular requirements. Timers and time switches.
	BS1363-4:1995; Specification for 13A fused connection units.
	EN61000-6-3:2001; Emission Requirements for the RCLI Environment.
	EN61000-6-1:2001; Immunity Requirements for the RCLI Environment.
Permissible loads:	13A resistive.
	6A at 0.4 power factor inductive.
	10A filament lamps.
	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 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 it's program.

Fuse protection BS 1362 as dictated by load.

700 hours (4 weeks) battery back up in case of supply failure, double pole switch turned off, or 13A fuse blow.

Operating ambient temperature: -10 to +40ºC.

Operating voltage: 230VAC.

4 ON/OFF programmes per day (independent for each day except when in day groups).

For assistance with the product please contact:–

HELPLINE
020-8450-0515

or email helpline@timeguard.com

TIME GUARD
LIMITED

For a product brochure please contact:
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Victory Park, 400 Edgware Road,
London NW2 6ND Tel: 020-8452-1112
or email csc@timeguard.com

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