*Supply*MASTER®

Fused Spur Time Switch

Model No. FST24 – 24 Hour Timer
Model No. FST77 – 7 Day Timer

TIME GUARD
LIMITED

1. General Information

Illuminated screen

Sets programmes — PROG

Sets time and date — TIME

Reset button — RESET

Power LED — POWER

Output LED — OUTPUT

Double pole switch

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

Boosts for 1 or 2 hours and decrements displayed value during time and programme setting — BOOST

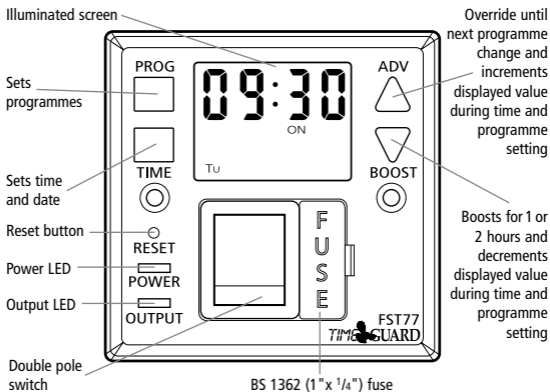FST77 TIMEGUARD

BS 1362 (1"x 1/4") fuse

1

Fig. 1
FST24/FST77 Front Panel

Contents:

1x FST programmer
Bag containing: 2x 3.5mm screws, 2x cable clamp set.
1x Instruction leaflet

The FST24 (24 hour) and FST77 (7 day) are units which mount onto a BS4662 flush mount single box, or a BS5733 surface mount single box, (25mm deep in either case). There is provision for a single front exit output cable, with built in 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. There is a loop terminal for earth continuity. The unit has the option of 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 have elapsed (to give a working battery charge), Reset must be pressed, and times/programmes re-entered.

Before programming for the first time, connect the unit to the mains for at least 15 minutes prior to pressing the Reset button and programming the unit.
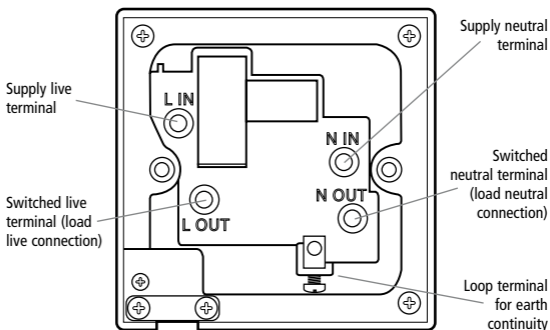If the display is not visible or very faint, charge for 4 hours prior to pressing Reset and programming.

Fig. 2
FST24/FST77 Rear Connections

3. Applications

Energy consuming appliances such as immersion heaters and storage heaters up to 13A total loading can be supplied by the FST24/77 enabling users to make use of economy 7.

If the user has other appliances which do not have push button start, such as washing machines, dishwashers and tumble dryers, these may also be controlled in the same way. It can also be sued to control lighting, if a neutral is made available. Lighting loads can be found in the specification section of this leaflet.

4. Features

4 On/OFF switching programmes per day. Which for the FST77 can be made to operate over all 7 days (24 hour operation), 5 weekdays 2 weekend days, or any individual day (7 day operation). For FST24, 5+2 and individual day programming are not available, all 7 days are the same.

Advance feature, which can advance to next programmed operation, turn output permanently on, turn output permanently off, or return to programmed times.

Boost feature provides 1 or 2 hour boost.

Option of automatic summer time update (ASCO).

Shortest switching time of 1 minute.

Programme review.

5. Installation

Important: Switch off mains electricity before commencing work.

The unit is designed to replace an existing single gang connection unit or fixed appliance outlet giving timed mains output, protected by a BS1362 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 cables during installation to avoid entrapment and cable damage.

Use the loop terminal, or 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 the front cable exit is required, for instance to connect to a washing machine, use one of the cable clamps provided to secure the outgoing cable.
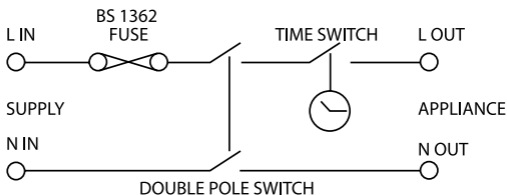
Fig. 3
Internal Schematic of FST24/77

Fuse:

Use the appropriate BS1362 fuse for the load. This unit is supplied with a 13A fuse.

6. First Supply Connection and Reset

The unit must be reset before programming for the first time, or after subsequent
discharge for more than 5 days, and following a 4 hour period of charging.
Press Reset using a pointed object, eg: a pencil. The display will show
all the segments, and then clear to show:

Use the Adv button to change between on and off for the automatic
summer time adjustment.

7. Setting the Clock

Press and hold down the Time button for 3 seconds. The word hold will show on the screen.

After 3 seconds, the screen will show a year.

```
        Year
20:1 0
```

Use the Adv or Boost buttons to change the year to the correct year.
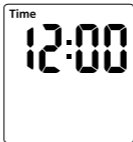
Press Time to set the year, and then the month will show.

```
  Month
01
```

Use the Adv or boost button to adjust the month to the correct month.

Press Time to set the month, and then the day will show.

```
 Day
01
```

Use the Adv or boost button to adjust the day to the correct day.

Press Time to set the day, and then the time will show, hours first.

```
Time
12:00
```

Use the Adv or boost button to adjust the hour to the correct hour.

Press Time to set the hour, and then the time will show the minutes. The hour is a 24 hour clock.

Use the Adv or boost button to adjust the minutes to the correct minutes.

Press Time to exit the Time/date entry mode. The display should now show the correct time/day of the week.

Note: during time/date setting, when the Adv or Boost buttons are held down, the setting under adjustment will advance or decrease more rapidly.

8. 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 3 seconds, during which hold will show on the display.

After 3 seconds the display will show the year:

Press Time repeatedly until the minutes are shown. Use Adv or Boost to change the minutes to the correct value. Press Time to return to operating mode.
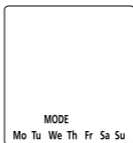
Other changes can be made the same way, but the Time button must be pressed to return to operating mode after any changes. There is no automatic exit from Time/date entry mode.

9. Programming On/Off times

The FST77 has 4 independent On/Off periods available for programming each day. There is a choice of programming options, including 7 days the same (24 hours), 5 + 2 days (where the weekdays are the same, and the two weekend days are the same), and 7 individual days. For the FST24, only the 24 hour option is available, with 4 ON/OFF periods.

Press and hold the Prog button for 3 seconds. Whilst holding, the word Hold should show on the display.

After 3 seconds, the mode screen will show.

```
        MODE
   Mo Tu We Th Fr Sa Su
```
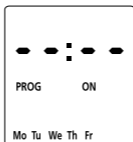
Use Adv or Boost to change the day grouping mode. This will step through the following options:

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.
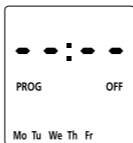
Once the desired day grouping is selected, press Prog to move onto programming On / Off times. the display will show Prog 1, with dashes for the hours and minutes.

```
   ─   ─ ┊ ─   ─

   PROG       ON

   Mo Tu We Th Fr
```

Example shown is for 5 + 2 programme.

Use Adv or Boost to set the hour for the first on period. Press Prog to change to setting the minutes. Use Adv or Boost to set the minutes.

Press Prog to change to programme 1 off time.

```
- - : - -

PROG        OFF

Mo Tu We Th Fr
```

Press Prog to scroll through programme 2 on, programme 2 off, programme 3 on, programme 3 off, programme 4 on and programme 4 off, adding in times as required.

If times are not required, just leave the dashes in place, and scroll past that programme.

After programme 4 has been entered, the day will index to the next day to be programmed, or in the case of 5 + 2 it will change to Sa Su. Programme the On/Off times as before.

After the last off time for programme 4 has been set, press Prog to exit programme mode.

At any stage in programming, if the Prog button is pressed and held for 3 seconds, the timer will return to operating mode.

The display will now show:

```
23:07
       OFF

Tu
```

Where the day and time are correct, 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 On/Off times for that day or group of days. Alternatively, leaving the programme entry mode before filling in all the On/Off times will leave the remaining times blank.

The only way to re-enter a blank time is to reset the unit.

9.2. Programming Across Midnight

Enter the programme on time as above.

Enter the programme off time as 00:00

Enter the first programme on time for the next day as 00:00

Enter the required programme off time.

Note: for 24 hour the on period for programme 1 must start 00:00.

10. Modifying or Adding Programmes

Press Prog and hold for 3 seconds. Whilst holding, the word hold will appear on the display.

After 3 seconds the display will show the programming mode screen. This will be in the mode in which it was last programmed. For instance if it was programmed in 5 + 2, then it will show Mo Tu We Th Fr. Either accept this, press Prog, and review the times programmed for this mode by pressing Prog, or press Adv or Boost to change the mode, and then press Prog to review the times. In this case, either to Sa Su, or to 7 day or to individual days.

Note: If the unit was programmed as a 5 + 2 then changing the mode to any other mode other than Sa Su may blank any previous programming.

The same applies for changing from any other mode, changing from the mode it was last programmed in may blank the previous programme.

Review times and adjust as necessary as described in section 8.

11. Advance

In operating mode Adv advances the programme to the next change. If the output is off, it will change the output to on, until the next programmed off time. If the output is on, it will change the output to off, until the next programmed on time.

A second push of the Adv button selects a permanently on mode, where the output is on, irrespective of the programming.

A third push of the Adv button selects a permanently off mode, where the output is off, irrespective of the programming.

A fourth push of the Adv button returns the unit to operating mode, where the output will conform to the programming.

12. Boost

One press of the boost button will provide a 1 hour boost, after which the output will turn off. Two presses will give 2 hours boost. A third press of the boost button will cancel any boost period.

13. Specifications

Operating temperature:	0°C to 40°C
Operating voltage:	230V 50Hz
Switch rating:	13A resistive, 750W incandescent, 750W halogen, 500W fluorescent, 100W compact fluorescent.
Minimum depth of wall box:	25mm
Contact type:	Normally open
Power on light:	Yes
Output Light:	Yes
Time period:	7 day

Note: Product not suitable for discharge lighting.

14. 5 Year Guarantee

In the unlikely event of this product becoming faulty due to defective material or manufacture, within 5 years purchase, please return it to your supplier in the first year with proof of purchase and it will be replaced free of charge. In year 2 onwards or for any difficulty in the first year please contact our help line on 020 8450 0515.

For assistance with the product please contact:

HELPLINE
020 8450 0515

or email helpline@timeguard.com

For a product brochure please contact:

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