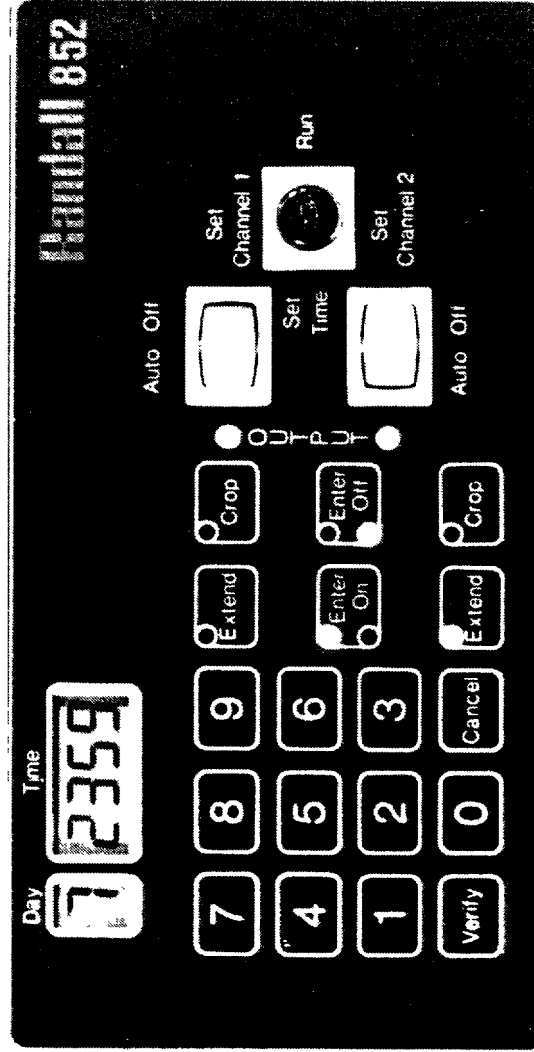


Randall

Seven Day 2 Channel Electronic Timeswitch

177- 484

MODEL 852



User Booklet

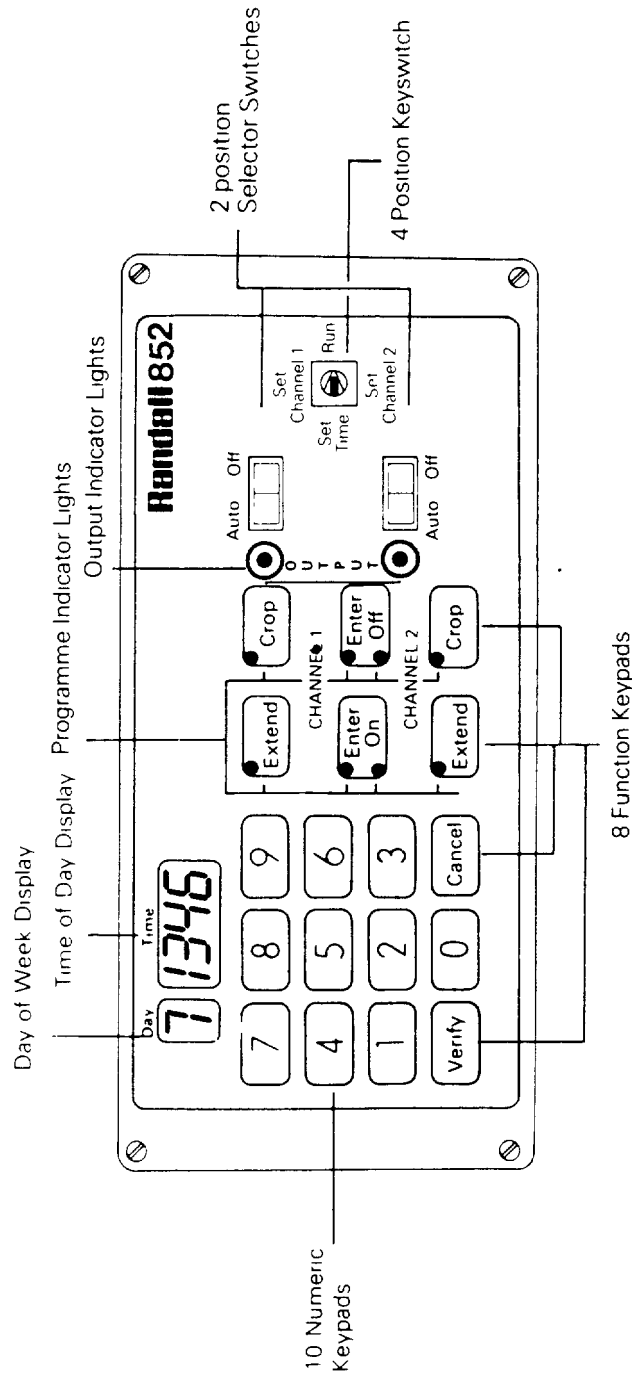
Farnell
COMPONENTS

[REDACTED]

Picture of unit and its controls page 3 (overleaf)

Setting Switching Times page 6 & 7

The Controls



CAUTION The unit operates at mains voltage and should only be opened by a qualified engineer after disconnection from the mains supply

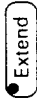
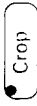
Description

The **Day** and **Time** are displayed as five digits on a liquid crystal display (L C D)

The first digit in its separate window marked **Day** will be a numeral from 1 to 7 which may be allocated in sequence to the days of the week at the user's discretion. The normal convention is Monday = 1, Tuesday = 2 Sunday = 7

The remaining four digits in the window marked **Time** will display the time to a resolution of one minute from 0000 to 2359

A short 'bleep' will be heard when a keypad is pressed. In addition when a numeric keypad is pressed the associated digit of the L C D will either blink or change

There are ten red indicator lights. Eight (4 per channel) are associated with the keypads     and two (1 per channel) labelled '**Output**'.

The 2 position selector switches may be set to **Off** to override the programmes or they may be set to **Auto** to follow the programme which has been set. On the respective channels the programme indicator lights will switch on and off to follow the set programme events in both the selector switch positions but the output status indicator lights will only be on if the selector switch is at **Auto** and either the **Enter On** or **Extend** indicator lights are on.

If the **Enter On** and **Crop** indicator lights for any one channel are on, the output status indicator light for that channel will be off.

It is recommended that the key be removed from the keyswitch to prevent unauthorised or accidental changes to the settings. The key can only be removed when in the **Run** position.

Time Of Day

The mains electricity supply must be ON, the key inserted and turned to the **Set Time** position before carrying out the operations detailed on this page
When the timeswitch is first connected, or when the battery has been allowed to discharge fully, and the mains electricity supply is switched ON a dash (—) will be displayed in each of the five digit positions

Decide which day of the week you wish to assign as Day 1

Press the number key representing the current day of the week (listen for the 'bleep')

The remaining days will be automatically numbered in sequence

Key in the time using four keypads e.g. 8 30 a.m. must be keyed as and 6 15 p.m. as

The unit will not allow the entry of a spurious day or time e.g. day 8 will not be accepted nor will a time entry of 3600. Depression of an out of range key will not register on the display, the L C D digit will blink but remain unchanged until an acceptable number is keyed

DO NOT PRESS ANY FUNCTION KEYPADS.

Returning the key to the **Run** position will enter the time shown on the display

Setting Switching Times

The mains electricity supply must be ON, the key inserted and turned to set **Channel 1** position before carrying out any of the operations detailed on this page. If the **Day** and **Time** are displayed as a series of dashes (----) then set TIME OF DAY as described on page 5 before proceeding to set any switching times, alternatively the display will show the current day and time.

Since the timeswitch is capable of automatically carrying out up to 200 switching operations it is recommended that the required programme be tabulated before setting is commenced, noting that the day number on display is the current day of the week. A table is provided on Page 9 for this purpose. In addition, facilities are provided to record the programmes entered on the enclosed card, which can then be located adjacent to the unit if required.

It is not essential to key in the programme in sequence since it will automatically be sorted into chronological order.

To set a programme event:

First press the number key representing the day of the week to be programmed.

Secondly, key in the time using four numeric keypads in the range 0000 to 2359.

Finally press either **Enter On** or **Enter Off** to enter the required event into the memory.

The unit will not allow the entry of a spurious day or time e.g. day 8 will not be accepted nor will a time entry of 3600.

Depression of an out of range key will not register on the display, the L C D digit will blink but remain unchanged until an acceptable number is keyed. Proceed with the programming of every event using the same entry sequence.

If an attempt is made to exceed 200 programme events then the display will show **F F F F** indicating that the memory is full.

If an incorrect key is pressed then press the **Cancel** key and re-commence the sequence.

Setting Switching Times

If a programme event is repeated at the same time on different days then the keying may be simplified as follows. Key in the first event using the normal entry sequence. Now simply key in the new day number and then **Enter On** or **Enter Off** as required. The appropriate indicator lights at the top left of the keypad will illuminate.

The complete programme may be checked by the use of the **Verify** key. Each press of this key will advance the programme by one event allowing a complete review in chronological sequence commencing from the day and time on display. If a particular day's programme is to be reviewed then key the day number followed by **0** **0** **0** **0** **0** and **Verify** when the first programmed event for that day will be displayed then proceed with repeated presses of the **Verify** key.

When re-programming one or more events, unwanted events must be cleared by advancing to the event in question using the **Verify** key as explained above and then clearing it by a single press on the **Cancel** key.

When programming of **Channel 1** is complete, turn the key to **Set Channel 2** and enter the programme required for this channel in the same manner. When pressing either of the **Enter** keypads the appropriate indicator light at the bottom left of the keypad will illuminate.

Note. The 200 switching operations are able to be freely spread over both channels. If a common event time is required on both channels this represents only one switching operation.

To clear the entire programme on both channels, press and hold down the **Cancel** key for approx. 3 seconds until the display shows **E E E E**. On completion of programming return the key to **Run** and both selector switches to **Auto**.

Extend Facility

The mains electricity supply must be ON and the keyswitch set to **Run** before carrying out the operations detailed on this page

At the time of installation the extend period can be set to provide 1, 2, 3 or 4 hours. (Note the unit leaves the factory with this set at 1 hour.)

Pressing the appropriate **Extend** key allows an additional period of operation (1, 2, 3 or 4 hours dependent upon setting) without disturbing the set programme on that channel.

If the key is pressed when the output is 'Off' it will switch the relative channel on immediately and will automatically switch off after the Extend period has elapsed. The associated red indicator light will be illuminated throughout the Extend period.

If the key is pressed when the output is 'On' the current 'On' period on the relative channel will be extended by the length of the Extend period.

The red indicator light will be illuminated until the output is switched off.

The Extend facility may be cancelled at any time by pressing the key again when the indicator light will go out and the unit will revert to the set programme.

Crop Facility

This facility enables a current 'On' period to be cancelled without having to disturb the set programme.

If the **Crop** key is pressed when the output light is illuminated it will switch the output off on the relative channel until the next programmed 'On' event. During the remainder of the present 'On' period the associated red light will be illuminated and the output light will be off. The programme event lights will remain unchanged.

Pressing the **Crop** key again will cancel the crop facility and restore the unit to the set programme.

(Note: Pressing the **Crop** key when the output is already programmed to be off will have no effect.)

Record of Programme

Example		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
Assigned Day No	Event/Time	1		2		3		4		5		6		7	
		ON OFF	0830 1342	ON OFF	0929 2317	ON OFF ON	0436 1129 1916	OFF ON OFF	0034 0708 1723	ON OFF	0929 2317	ON OFF	0853 1342		

Record	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Assigned Day No							
Event/Time							
Channel 1							
Channel 2							

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Battery Reserve

The unit does not rely on the internal battery in order to work satisfactorily providing the mains power supply is connected to the unit. The battery is fitted purely to memorise the Time of Day and selected Switching Times in the event of a power failure or disconnection of supply.

When the unit is first connected, it will require a minimum of 24 hours to become sufficiently charged in order to perform this memory function. Thereafter the battery is automatically recharged.

If the mains power supply is lost, for any reason, the display and lights on the unit will go out and the output will be switched off. The battery will maintain the memory for a period of up to 3 months during this condition. When the power supply is restored, the unit will automatically switch on again and resume the set programme without any resetting being necessary.

Subject to our conditions of sale, this unit is warranted against defective materials and workmanship. The date of warranty expiry is shown on a label affixed to the printed circuit board in the front half of the unit. The label is visible through the rear aperture before the unit is installed. Where service is required, it is recommended that you contact the engineer who installed the unit.

In cases of difficulty contact our Technical Sales Department.

In accordance with our policy of continuing development we reserve the right to alter the specification of our products without prior notice. All information, data and illustrations given in this booklet are subject to variation and are intended for general guidance only.

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