



841 & 842

Seven Day Pulsed Output Electronic Timeswitches

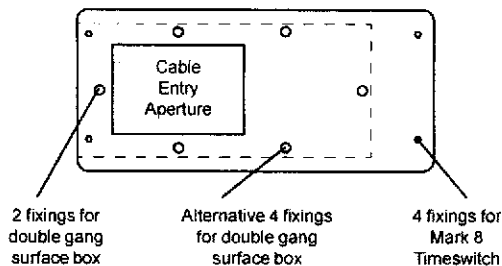
INSTALLATION INSTRUCTIONS

The Model 841 & 842 Timeswitches must be installed by a competent electrician and the installation should conform to IEE Wiring Regulations.

Installation & Wiring

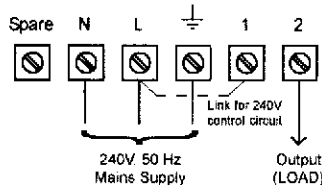
- Slacken the four fixing screws, one in each corner of the unit, and carefully separate the front and rear portions. Unplug the ribbon cable from the rear portion.
CAUTION: Do not allow either half of the unit to hang by the ribbon cable as damage could be caused.
- Remove the polystyrene packing piece from the top of the transformer. It is marked 'REMOVE'.
- Select the desired fixing position and observe the label 'THIS WAY UP' inside the rear portion. The two halves will only assemble correctly one way round.
- Four fixing holes are provided for attaching the rear portion to the wall or mounting surface.

Conduit box adaptors as shown below are available if required.
Part No.: 8/3223 Double Gang Surface Box Adaptor

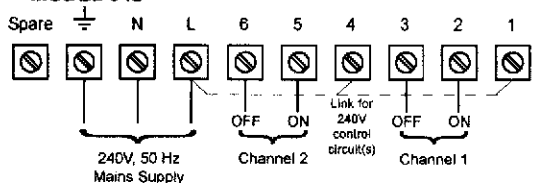


- Surface cable entries to the units can be made from above, below or from the left hand side. Conduit or recessed cable entry is through the aperture in the rear moulding.
- For surface cable entry remove the appropriate knock-out and ensure one of the two cable clamps is positioned correctly.
- Connections to the units should be made as shown below.

MODEL 841



MODEL 842



If the control circuit(s) are to operate at 240V then terminals L & 1 (Model 841) and terminals L, 1 and 4 (Model 842) must be linked, ensuring that the cable is sheathed and of a size to carry the required load current.

If, however, the control circuit(s) are operating at other than 240V then no link(s) shall be fitted and in the case of Model 841 both terminals 1 and 2 should be connected to the load.

In the case of Model 842 terminals 1, 2 and 3 (if required) should be connected to the load controlled by Channel 1 and terminals 4, 5 and 6 (if required) to the load controlled by Channel 2.

- The unit is supplied set for a 5 second single pulse output. If a multi pulse output is required, proceed as described in paragraph 10 (b). If a number of pulses or the pulse duration is required to be different from supplied, proceed as described in paragraph 11(b).
- Upon completion of wiring plug in the ribbon cable ensuring the polarised plug is fully inserted into the socket. Refit the front half of the timeswitch ensuring correct alignment and that no cables are trapped before re-tightening the screws.

10. TO CHANGE FROM SINGLE TO MULTI PULSE OUTPUT

- Remove the front portion of the unit as described in 'Installation and Wiring' paragraph 1.
- A push/pull switch is provided on the rear of the printed circuit board inside the front portion of the unit.

With the switch pulled out (as supplied) this provides a single pulse output (½ second on followed by ½ second off).

On Model 842 a push/pull switch is provided for each channel to enable different types of pulsed output if required. The switch relating to each channel is clearly marked.

11. RESETTING OF SWITCHING DURATION

- Remove the front portion of the unit as described in 'Installation and Wiring' paragraph 1.
- The bank of four miniature rocker switches is mounted on the printed circuit board inside the front portion of the unit.

When switch no. 1 is 'on' 1 second duration is set.
When switch no. 2 is 'on' 2 seconds duration is set.
When switch no. 3 is 'on' 4 seconds duration is set.
When switch no. 4 is 'on' 8 seconds duration is set.
When all 4 switches are 'on' the duration is
 $1 + 2 + 4 + 8 = 15$ seconds.

Any combination of the 4 switches may be selected to set from 1 to 15 seconds in increments of 1 second.

If all 4 switches were 'off' there would be no output and so this setting should be avoided.

(c) On Model 842, a bank of four miniature switches is provided for each channel to enable different switching durations.

EXAMPLES

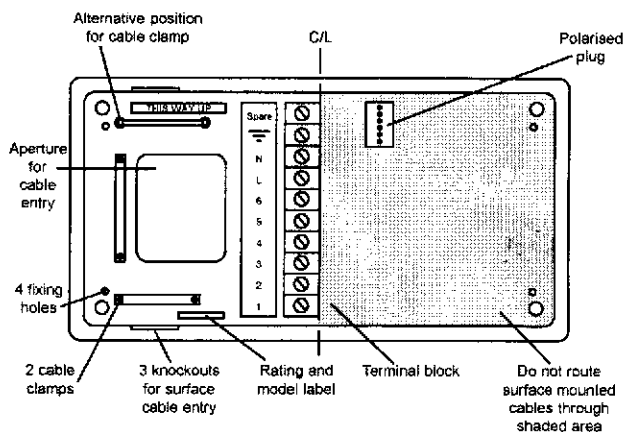
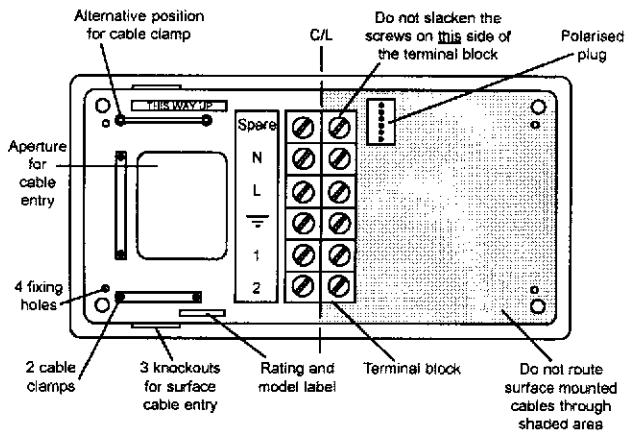
Slider Switch Positions	'ON' Duration
ON OFF OFF OFF	NONE Do Not Use
ON OFF OFF OFF	1 second
ON OFF OFF OFF	2 seconds
ON OFF OFF OFF	3 seconds
ON OFF OFF OFF	4 seconds
ON OFF OFF OFF	5 seconds (As supplied)
ON OFF OFF OFF	6 seconds
ON OFF OFF OFF	7 seconds

Slider Switch Positions	'ON' Duration
ON OFF OFF OFF	8 seconds
ON OFF OFF OFF	9 seconds
ON OFF OFF OFF	10 seconds
ON OFF OFF OFF	11 seconds
ON OFF OFF OFF	12 seconds
ON OFF OFF OFF	13 seconds
ON OFF OFF OFF	14 seconds
ON OFF OFF OFF	15 seconds

Technical Specification	Model 841	Model 842
Power Supply	220/240Vac, 50/60Hz	
Switch Action	1 x SPST, type 1 B (volt free)	2 x SPDT, type 1B (volt free)
Switch Rating	220/240Vac, 50/60Hz, 15(5)A	220/240Vac, 50/60Hz, 3(1) per channel
Setting and Running Accuracy	+/- 1 min and +/- 1 min/month	
Power Reserve	3 month on fully charged battery	
Max number of programmable operations	up to 200 ON or OFF operations per week NOTE: 842 can be set to provide pulsed output for bell ringing	
Enclosure Rating	IP30	
Max Ambient Temperature	45°C	
Overall Dimensions	210mm wide, 115mm high, 50mm deep	
Designed to meet BS EN60730-2-7		
Control Pollution Situation	Degree 2	
Software Classification	Class A	
Mode of operation	Provides either a continuous or interrupted pulse (½ second 'ON' followed by ½ second 'OFF') for a duration of between 1-15 seconds at each programmed event. The unit leaves the factory set for a single pulse of 5 seconds duration. This can be reset if required (see paragraphs 10 and 11 overleaf)	Provides either continuous or interrupted pulse (½ second 'ON' followed by ½ second 'OFF') on each channel for a duration of 1-15 seconds at each programmed event. The unit leaves the factory with both channels set for a single pulse of 5 seconds duration. Either or both of these can be reset independently of each other to give differing outputs (see paragraphs 10 and 11 overleaf). IP4X if cable entry is from the rear only and unit is directly mounted on to wall not allowing access.
Rated Impulse Voltage	2.5kV	
Ball Pressure Test	75°C	

MODEL 841

MODEL 842



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)



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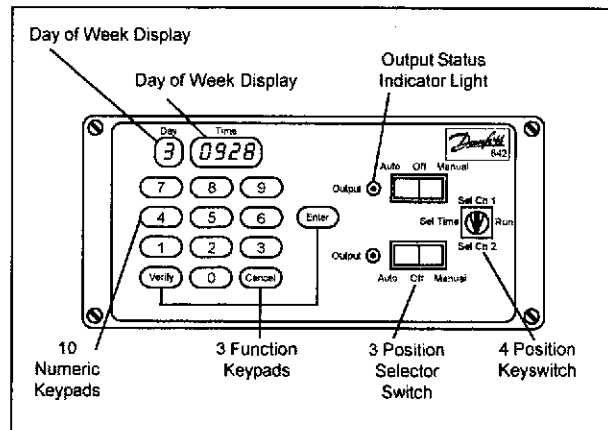
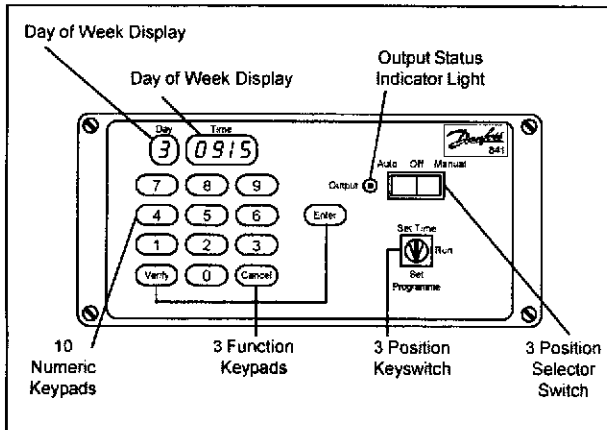
Seven Day Pulsed Electronic Timeswitch

Model 841 - Single Channel

Model 842 - Two Channel

User Instructions

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



DESCRIPTION

Model 841 is a single channel unit.

Model 842 is a two channel unit. The two channels operate totally independently of each other and can have different programmes set. Both the models have a number of common features as described below:

The Day and Time are displayed as five digits on the liquid crystal display (LCD)

The first digit in its separate window marked Day will be numerical 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 a keypad is pressed. In addition when a numeric keypad is pressed the associated digit on the LCD will either blink or change.

The 3 position selector switch (one for each channel on Model 842) may be set to **Off** to override the programmes or may be set to **Auto** to follow the programme which has been set, the third position marked **Manual** is a continuous ON but only as long as the switch is held down.

The output status indicator light will be illuminated when the selector switch is at **Auto** and a programme event occurs, or when the selector switch is held in the **Manual** position.

The unit can be set at time of installation to provide either an On duration from 1 to 15 seconds in half second pulses, or a continuous pulse from 1 to 15 seconds. (In the case of Model 842 each channel can be set to different pulse types but of the same duration).

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 **Run** position.

TIME OF DAY

The mains electricity supply must be ON, the key inserted and turned to **Set Time** position before carrying out the operations detailed below. 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').

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 LCD 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 either the **Set Programme** position (Model 841) or **Set Channel 1** position (Model 842) before carrying out any operations detailed below. Initially the display will show

E E E E E

indicating that the memory is empty.

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 for this purpose. In addition, facilities are provided to record the programme(s) entered on the enclosed card, which can 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 **(Enter)** 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 LCD 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 F

indicating that the memory is full.

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

If a programme event is repeated at the same time on different days then the keyring 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)**.

For Model 842 only: Having completed the programme setting for Channel 1, turn the key to Set Channel 2 and enter the programme required for this channel in the same manner.

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 on switching operation.

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 & 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.

In the case of Model 842 both the Verify and Cancel functions apply only to the channel selected by the keyswitch at that time.

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 E

On completion of programming return the key to Run and the selector switch(es) to Auto.

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 on the unit will go out. 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.

Example	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
Assigned Day No.	1		2		3		4		5		6		7	
Event Time	CH1 0845	CH2 0845	CH1 0845	CH2 0845	CH1 0845	CH2 0845	CH1 0845	CH2 etc.	CH1 etc.	CH2 etc.	CH1 etc.	CH2 etc.	CH1 etc.	CH2 etc.
	0910	0910	0900	0900	0900	0915	1230	1530						
	0925	0915	1300	1230	1330	1530								
	1300	1230	1530											

Example	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
Assigned Day No.														
Event Time	CH1	CH2	CH1	CH2	CH1	CH2	CH1	CH2	CH1	CH2	CH1	CH2	CH1	CH2

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