

# 7 DAY DIGITAL LIGHTSWITCH WITH OPTIONAL DUSK START

Cat No. ZV700

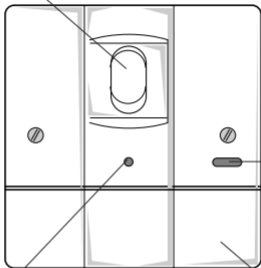


**SMITHS**  
**TIMEGUARD**

INSTALLATION & OPERATING  
INSTRUCTIONS

## ZV700 - Lower Flap Closed

Rocker switch - used in manual operation



Auto  
LED

Photocell window

Lower flap hinges  
open - see page 2

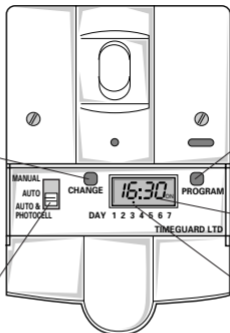
### 1. General

The ZV700 combines the function of a manual lightswitch with automatic timed control of lighting on a weekly basis available at the slide of a switch. There is a further option of starting an automatic lighting period at dusk but ending it in the usual way with a timed "OFF".

## ZV700 - Lower Flap Open

Override button - also used in conjunction with the programme button to set the clock and ON/OFF times and days

Guarded tamper resistant button used to programme clock and times/days for ON periods



24 hour display

Day marker

Three position slide switch giving MANUAL operation, AUTO operation with timed ONs and OFFs or AUTO and PHOTOCCELL operation giving dusk start and timed OFF with additional timed ONs and OFFs if required

The ZV700 is easily programmed using the two buttons and the digital display. Either automatic mode is shown to be in operation with an illuminated LED and in manual mode the lamp is turned ON and OFF as normal using the rocker switch.

The ZV700 has two enhanced features, the first is battery back-up of clock time and programme memory and the second is the ability to switch low energy, fluorescent and low voltage lighting.

## ***2. Commissioning***

After having installed the ZV700 in accordance with the installation and wiring instructions on the back of the blister card, switch on the supply to the unit and if the display is not already showing clearly allow the factory fitted rechargeable battery to charge up by moving the slide switch to MANUAL and turning the rocker switch to the OFF position (lamp OFF). Thirty minutes is the minimum time which should be allowed for charging after which the ZV700 will be ready for a check of operation in AUTO mode. This can be carried out by moving the slide switch to the AUTO position and then pressing the <Change> and <Program> buttons together for around three seconds until the display disappears and then clears to show 0:00 (system reset). If the rocker switch is turned to the ON position and the <Change> button is pressed the ON symbol will be shown on the display (flashing to indicate an override) and the lamp will be turned ON. The ZV700 is now ready for programming (see Programming Instructions).

## ***3. Operation in MANUAL Mode (as an ordinary lightswitch)***

Move the slide switch to the MANUAL position. The lamp can now be switched ON and OFF using the rocker switch and AUTOMATIC operations are inhibited.

## ***4. Operation in AUTO Mode***

Move the slide switch to the AUTO position and turn the rocker switch ON. The LED will illuminate to show that the ZV700 is in AUTO mode and will execute any switching programmes in its memory (see Programming Instructions). In this mode the rocker switch can be used manually to turn the lamp OFF once a programmed ON period has started, but not to turn it ON during a programmed OFF period.

## 5. Operation in AUTO & PHOTOCCELL Mode

Move the slide switch to the AUTO & PHOTOCCELL position and turn the rocker switch ON. In this mode the ZV700 will turn ON at dusk and OFF at a time programmed by the user. To do this it needs an ON time prior to dusk to be programmed by the user along with the above OFF time (see Programming Instructions). A safe ON time to cover the whole year anywhere in the U.K. is 1400 hours. A additional ON period can be programmed for the early morning if required. This will only operate if the ON time occurs in darkness and will last until the programmed OFF time. In this mode the rocker switch can be used manually to turn the lamp OFF once a programmed ON period has started, but not to turn it ON during a programmed OFF period.

## ZV700 - Programming Instructions



Override button (also used in conjunction with programme button to set the clock and ON/OFF times/days)

Day marker

24 hour display

Guarded tamper resistant programme button used to select the clock time and the 6 "ON/OFF" times/days and to review them once set

## 6 Battery

This product has a factory fitted rechargeable battery. If the ZV700 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 9 before programming.

## 7. Programming Overview

This is a seven day (weekly) timeswitch which has six programmes, each of which can be block programmed to work on all of the five weekdays, both weekend days, or all 7 days (24 hour operation). Programmes can also be designated to operate on individual days.

Only two setting buttons are required, <Change> and <Program>. The <Program> button is guarded to minimise inadvertent programme change. In normal operating mode the <Change> button is used to switch ON or OFF, overriding the timeswitch until the next programmed OFF or ON time. During programming the <Change> button is used to set the hours, minutes and days. The <Program> button is used to select the clock time and day or the 6 programmed ON/OFF times and days and to review them once they have been set. Each time the <Program> button is pressed in programme mode the display will flash either the days, hours or minutes in turn, starting with the clock time and day then the first ON time and day(s), first OFF time, second ON time and day(s) etc. Wherever the days, hours or minutes are flashing they may be set using the <Change> button. Once set the <Program> button is pressed again to proceed to the next stage. Programming can be carried out with the slide switch in any position and with the lamp ON or OFF.

## 8. Normal Operating Mode

In normal operation the ZV700 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.



## 9. To Reset Before Programming

(To alter clock time or modify programmes - see section 12)

To clear programmes from memory and reset the ZV700 press and hold down both 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. This procedure is essential with a new ZV700 and is recommended if major reprogramming is required subsequently.



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

## Programming sequence

Setting clock	.....→	Programme 4 ON
Programme 1 ON	.....	Programme 4 OFF
Programme 1 OFF	.....	Programme 5 ON
Programme 2 ON	.....	Programme 5 OFF
Programme 2 OFF	.....	Programme 6 ON
Programme 3 ON	.....	Programme 6 OFF
Programme 3 OFF	.....	Operation Mode

Note: Pauses between button presses greater than 1 minute during programming will result in automatic return to the operating mode.

### 10. 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 briefly to select the hours - display shows clock symbol and the hours digits flashing.



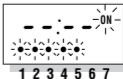
Press the <Change> button to advance the hour setting. For rapid hours selection press and hold down <Change> button. (Note: Monday shown as example of day set.)

- iii **Minute Setting** - Press the <Program> button briefly to select the minutes - display shows clock symbol and minute digits flashing. Press the <Change> button to advance the minutes setting. For rapid minute selection press and hold down <Change> button.



(Note: 16 hours shown as example of hours set)

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



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

It must be remembered that the ZV700 has a total of six programmes.

- i The user is now able to set the day(s) that the first programme will operate on. The alternatives are:

1	2	3	4	5	6	7	
•	•	•	•	•			= 5 days (Weekdays) Mo Tu We Th Fr
					•	•	= 2 days (Weekend) Sa Su
•	•	•	•	•	•	•	= 7 days (Everyday) Mo Tu We Th Fr Sa Su
•							= Individual days starting with Mo through to Su

Initially dots 1 to 5 flash indicating that if this option were selected, the programme times about to be entered would operate over the five weekdays. If another option is required, the <change> button should be pressed until the correct day(s) flash.

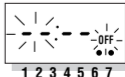
- ii Once the day option has been selected press <Program> button briefly to select hour time - display shows hour digits and ON flashing. Press <Change> button to advance hour setting. (Note: 2 days (Sat & Sun) shown as examples of days set.)



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



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



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



- vi Repeat steps i to v to set the remainder of the 5 programme ON/OFF times and day(s) as required. Note: Any unused ON/OFF programmes must be left blank and should be skipped by pressing the <Programme> button 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. Press the <Change> button to switch the ZV700 ON. After this the unit will operate normally to the programmes set.

## ***12 Programme Review***

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

Normal review can be carried out by pressing the <Program> button briefly which reviews the clock time and day with the whole display flashing. Further brief pressing of this button reviews the programme ON and OFF times and day(s) in sequence again with the whole display flashing.

## ***13 Making Changes to Clock Time and Programmes (Initiating Programme Mode)***

This is required when making changes to the clock time/day or programme times/days and can be initiated any time during the normal operating mode. Press the <Program> button briefly and the clock symbol, day flag, hrs and minutes symbols on the display will flash - this is programme review mode. Further brief pressing of the <Program> button will display the ON and OFF programmes in sequence. Having reached the clock time/day or programme time/day(s) requiring change, press the <Change> button briefly to initiate programme mode and then follow steps 10 and 11 as required. Having completed the change press and hold down the <Program> button until normal operating mode is reached and then release.

## ***14. Cancelling Programmes***

Any ON/OFF programme can be cancelled by clearing its ON and OFF time. Follow step 13 and when into the ON and OFF programme to be cancelled press the <Change> button briefly and the day dot(s) will flash, press the <Program> button briefly to select the hours and press the <Change> button until the hour digits show --:--: then press the <Program> button briefly to clear the programme time. The display will show the hour and minute dashes and ON or OFF flashing.

## ***15. Programming Across Midnight***

This can be achieved by programming the required ON time in the initial day and the required OFF time in the subsequent day. The unused times in these two programmes can either be left blank (--:--) or used for an OFF time during the initial day and an ON time during the subsequent day.

## ***16. Self Cancelling Override***

To change the output status from ON to OFF or vice versa press the <Change> button. The output status will change and indicate override is in operation by flashing either the ON or OFF symbol on the display. The override will end at the next programmed change, or sooner, if the <Change> button is pressed again.