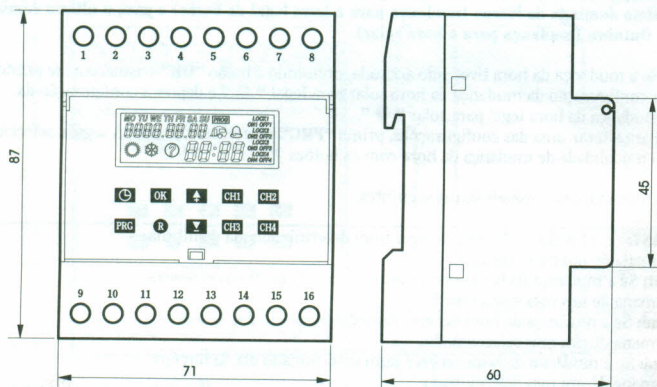


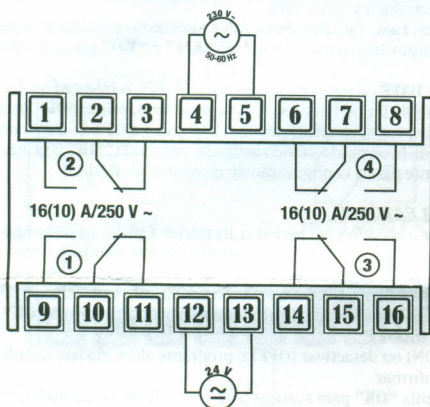
DATA MULTI ANUAL

691-010

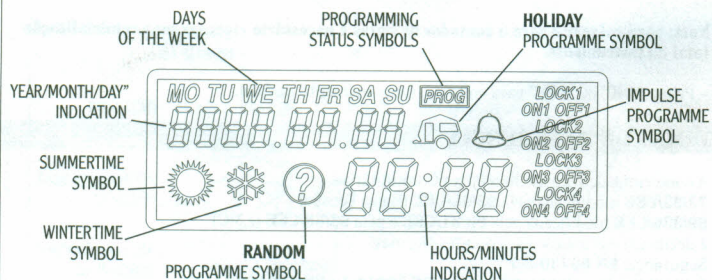
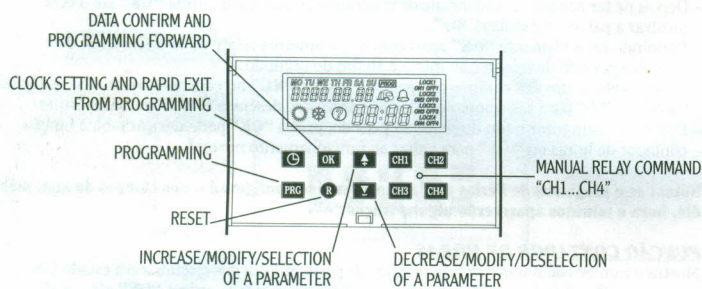
Dimensions



Wiring diagrams



Device description



ORBIS TECNOLOGÍA ELÉCTRICA, S.A.
 Lérida, 61 E-28020 MADRID
 Teléfono: +34 91 5672277; Fax: +34 91 5714006
 E-mail: info@orbis.es
 http://www.orbis.es

Manual User DIGITAL TIME SWITCH Read all the instructions carefully

- **DATA MULTI ANUAL** is a digital time switch with 4 independent and not live command circuits, designed for the control of every kind of electrical installation. It allows a daily, weekly, monthly and yearly planning or in a prefixed time (day, month, year).
 Pulse Program: from 1 to 59 seconds, Random Program, Automatic switch to summer/winter time, holiday program and hour counter

SAFETY WARNINGS

- To guarantee the safety levels built into the device, proceed as follows:*
- 1) **The appliance has to be installed by a specialist operator**
 - 2) **The appliance has to be installed in such a way that the terminals are inaccessible after installation**
 - 3) **When installing the appliance, follow the wiring diagrams carefully**
 - 4) **Before touching the terminals, make sure the connectors to be attached to the appliance are not live**
 - 5) **Do not power or connect the instrument if any part of it is damaged.**

TECHNICAL SPECIFICATIONS

- Power supply: 230 VAC (-15%/+10%)
24 VAC/DC (-15%/+10%)
- Frequency: 50/60 Hz
- Switching power: 16(10)A 250V~
- Contact capacity: incandescent lights max 1500 W per channel
Fluorescent lights max 600 W per channel
- Type action: 1B, 1S, 1T and 1U
- Absorption: max 22VA at 230V 50Hz
max 3W at 230V 50Hz
- Outputs: 4 mono-stable relays (channels) in exchange in format YYYY.MM.DD (calendar from 01.01.1999 to 31.12.2172)
- Annual clock: ±1s per day (10ppm)
- Clock precision: with 5 year charge reserve 20 °C
- Lithium battery: max 100 (ON + OFF + impulse)
- Number of programmes: 1 minute
- Programming resolution: 0 °C ÷ +50 °C
- Operating temperature: IP20 (IP41 after installation)
- Protection level: II according to EN 60335 in conditions of correct assembly
- Insulation class: normal pollution
- User conditions:

INSTRUMENT RESET

- For the **PARTIAL RESET** of the instrument, press the "R" key. In this way, the date is set to the default value 2001.01.01 and the RANDOM is set to OFF if active. The clock is zeroed and the display will show a flashing 00:00.
- For the **TOTAL RESET** of the instrument, press key "R" followed by "PRG" three seconds later. In this way, in addition to the partial reset operations, all the programmes are cancelled and the timer is zeroed. In the centre of the display, the **CLEAR** message will appear followed by a flashing 00:00.

Note: after installation, carry out the total reset of the instrument before any other operation.

SETTING THE TIME AND DATE

- To set the time and date, press the "☉" key. The hour and minutes will be displayed, and the seconds will start to flash. Press the "▲/+" key to synchronise these to the next minute or the "▼/-" key to synchronise them to the previous minute.
- Press "OK" to go to the regulation of the minutes (the seconds will disappear and the date will be displayed). Press the "▲/+" or "▼/-" keys to increase/decrease the minutes..
- Press "OK" to go to the regulation of the hours, year, month and day (set with the keys "▲/+" and "▼/-").
- If "OK" is pressed after the day is set, the system returns to the setting of the seconds.
- If the "☉" key is pressed at any time, the system returns to the normal display mode, with the exception of the modifications made.
- If no key is pressed for at least 30 seconds, the system automatically returns to normal display mode, with the exception of the modifications made.

PROGRAMMING

- The programming function can be used to set the times for the ON, OFF and impulse operation "☉" events. Up to 100 events can be programmed in the 4 channels.
- To enter programming mode, press "PRG". The "PRG" message appears and the channel indication "CH1" will flash. Select the channel required with the "CH1" ... "CH4" keys and press "OK". The instrument will now display the message "PROG", the date and time fields (empty) and the ON and OFF symbols for the channel and "☉" will flash.
- If events are already programmed for the channel selected, the first of these will appear. Press "OK" to display all the programmes already memorised for the channel in sequence, followed by the screen display for a new programming operation.

Note: if the maximum number of programmes that can be set has been reached, the "FULL" message will appear.

- Press "OK" again to leave programming mode and see the number of programmes still available for the channel in question.
- To select the type of event to be set (ON, OFF or IMPULSE) use keys "▲/+" and "▼/-" until the event required begins to flash, and confirm with "OK"

- Go to the time and date programming. Use the "▲/+" and "▼/-" keys to set the minutes until the figure required is reached. Confirm with "OK" to move on to the next field.
- Use the "▲/+" and "▼/-" keys to set the time, and confirm with "OK".
- Various types of programming are now possible:

DAILY/WEEKLY PROGRAMMING

The events are repeated on every day selected every week.

- The system automatically goes to the selection of the days of the week.
- Use the "▲/+" key to confirm the day that is flashing (starting from Monday), and use the "▼/-" key to go directly to the next day.
- Press "OK" to go to the programming of another event or return to normal operating mode with "⊙".

Note: slow flashing means that the day is selected, and fast flashing means that the day has been rejected.

MONTHLY PROGRAMMING

The events are repeated every month on the same day.

- Press "OK" after setting the time to go directly to the selection of the date without confirming the days of the week.
- Press "OK" twice to go to the day without modifying the year or month.
- Use the "▲/+" and "▼/-" keys to set the day required and confirm with "OK".
- Press "OK" to go to the programming of another event and press "⊙" to return to normal operating mode.

ANNUAL PROGRAMMING

The events are repeated every year on the same day of the same month.

- Press "OK" after setting the time to go directly to the selection of the date without confirming the days of the week.
- Press "OK" to go to the month without modifying the year.
- Use the "▲/+" and "▼/-" keys to set the month required and confirm with "OK".
- Use the "▲/+" and "▼/-" keys to set the day required and confirm with "OK".
- Press "OK" to go to the programming of another event and press "⊙" to return to normal operating mode.

PROGRAMMING TO A PRESET DATE

The events take place on a precise date (day, month, year).

- Press "OK" after setting the time to go directly to the selection of the date without confirming the days of the week.
- Set the year, month and day using the "▲/+" and "▼/-" keys and confirm each time with "OK".
- Press "OK" to go to the programming of another event and press "⊙" to return to normal operating mode.

IMPULSE PROGRAMMING

The instrument comes on for a time set between 1 and 59 seconds.

- If the impulse "⊙" is selected as the event, the flashing figure "--" will appear after pressing "OK".
- Set the required duration of the impulse (1 to 59 seconds) with the "▲/+" and "▼/-" keys and confirm with "OK".
- Set the time and date in the same way as in the previous programming operation.
- Press "OK" to go to the programming of another event and press "⊙" to return to normal operating mode.

Note: impulse programming may be weekly, monthly or annual, but not to a set date.

DISPLAY AND MODIFICATION OF THE PROGRAMMES

- To enter display/modify, press the "PRG" key. The PROG message appears and the channel indication "CH1" flashes. Select the channel required with the "CH1" ... "CH4" keys and press "OK".
- The first programme memorised for the channel selected will appear (if no programmes are memorised, the screen display for a new programming operation will be displayed).
- Press "OK" to scroll through all the programmes memorised.
- After the last programme, the screen display for a new programming operation will appear if possible, or the message "FULL" if the maximum number of programming operations has been reached.
- Press "PRG" to modify an existing programme. The parameter setting modes are the same as those for the programming. When all the programme fields have been taken into consideration, press "OK" again to go to the next programme (if present) or to a new programming operation.
- To return to normal operation, press "⊙" (the data set up to this time will be saved).

Note: it is possible to change the type of programming for a programme (from daily to annual, for example), but it is not possible to change the type of associated event (for example, it is not possible to transform an ON event to an OFF event).

CANCELLING THE PROGRAMMES

- Go to the programme required using the same procedures as those for display and modification.
- To cancel the programme, hold down the "PRG" key for approximately 3 seconds.
- The CLEAR message will appear to confirm the cancellation, and the instrument will then go to the next programme or the screen display for a new programming operation.
- Press "⊙" to return to normal operating mode.

FORCING THE RELAYS

- The forcing of the relay makes it possible to modify the status of a relay manually (provided the holiday programme is not active).
- Press the "CH .." key for the relay whose status is to be modified until the status required is obtained.
- The possible states are as follows, in order:
 - ON: relay on until the next programmed operation
 - ON LOCK: relay on until the next manual operation
 - OFF LOCK: relay off until the next manual operation
 - OFF: relay off until the next programmed operation

ADVANCED PROGRAMMING

- Hold the "PRG" key down for 5 seconds approximately to activate advanced programming. In this mode, it is possible to gain access to the following functions:

SUMMERTIME "☼" / WINTER TIME "❄": this function is used to set the dates for the automatic changeover from summertime to winter time and vice versa.

- After entering advanced programming mode, the display shows the message HOUR, the symbols "☼" and "❄" and the flashing ON (OFF) message to indicate whether the automatic time change is enabled or (disabled).
- Use the "▲/+" and "▼/-" keys to switch from the ON to the OFF status.

Note: the time change dates are automatically set by default to the last Sunday in March (start of summertime) and the last Sunday in October (start of winter time).

- If the time change is active, press "OK" to display first the settings for the changeover from winter time to summertime "☼", then the time change from summertime to winter time "❄".
- To modify one of the two settings press "PRG" from the relevant screen display, then select the time change mode with the "▲/+" and "▼/-" keys.

The possible modes are:

LAST if the time change takes place on a determined day in the last week of a previously selected month

1st if the time change takes place on a determined day in the first week of a previously selected month

2nd if the time change takes place on a determined day in the second week of a previously selected month

3rd if the time change takes place on a determined day in the third week of a previously selected month

4th if the time change takes place on a determined day in the fourth week of a previously selected month

DATE if the time change takes place on a determined date (month, day).

- After selecting the mode, press "OK" to confirm and go to the setting of the date. For Last, 1st, 2nd, 3rd and 4th modes, set the month, day (MO, ..., SU), time and minutes (using the "▲/+" and "▼/-" keys) to select and "OK" to confirm).
- For DATE mode, set the month, number of the day, time and minutes.
- After setting the time changes, press "OK" to go to the setting of the RANDOM programme or "⊙" to return to normal operating mode.
- If the time change is not active, when "OK" is pressed the system goes automatically to the setting of the random programme.

RANDOM PROGRAMME

This is used to activate the instrument with casual ON/OFF times varying from 5 to 68 minutes. The programme operates with independent switching operations in all the channels in ON operation, with the exception of the channels which are manually locked (LOCK). If the programme is active, the display shows the symbol "⊙".

- After entering advanced programming mode, press "OK" until the display shows the message "rnd= ON/OFF".
- To activate (ON) or deactivate (OFF) the random programme, use the "▲/+" and "▼/-" keys and "OK" to confirm.
- Press "OK" again to go to the holiday programme, or "⊙" to return to normal operating mode.

HOLIDAY PROGRAMME

This is used to stop the instrument for two periods in the course of the year. In these periods, the relays that are not in LOCK status are set to OFF.

At the end of the period, the relays will return to the status laid down by the normal programming.

- After entering advanced programming mode, press "OK" until the display shows the message "Holiday1 Str".
- Press "OK" repeatedly to display the parameters for the start and end of the first period and the start and end of the second.
- To modify one of the parameters, press the "PRG" key in the relevant screen display. Use the "▲/+" and "▼/-" keys to select the value of the parameter required and "OK" to confirm.
- After setting the end of the second period, press "OK" to go to the timer function or "⊙" to return to normal operating mode.

Note: if the holiday programme has not yet been set, dashes "--" will appear in the year, month, day, hour and minute fields.

TIMER FUNCTION

this displays the number of hours (max. 99999) for which the relay will remain in ON status.

- After entering advanced programming mode, press "OK" until the display shows the number of hours ("----H") and the message "CH1".
- Use the "OK" key to display the relay operating hours in ON status.

Note: to zero the timer, the instrument has to be totally reset.

- Press "OK" or "⊙" to return to normal operating mode.

REFERENCE STANDARDS

- Conformity with EU directives:
 - 73/23/ECC, modified by 93/68/ECC (low voltage)
 - 89/336/ECC, modified by 92/31/ECC and 93/68/ECC (E.M.C.) is declared with reference to the following standards:
- Safety: EN 60730-2-7
- Electromagnetic compatibility: EN 55014-1 / EN 55014-2