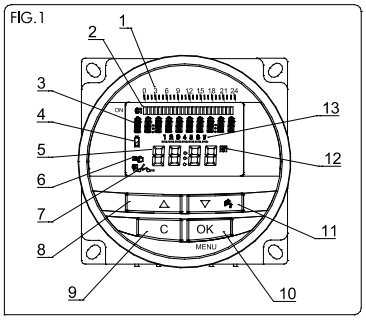
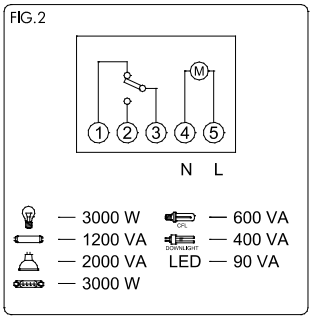
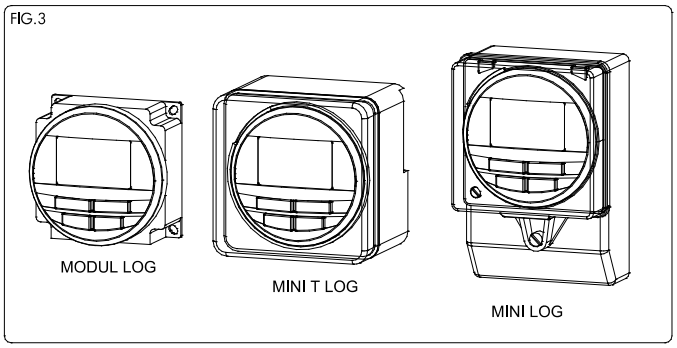
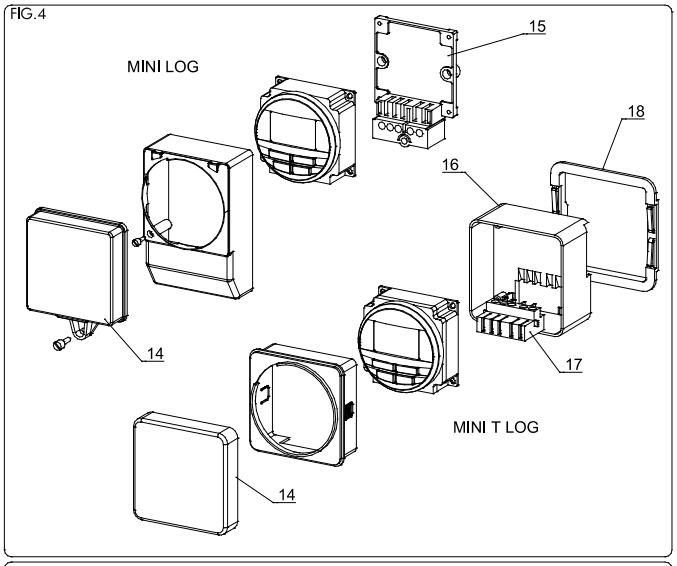
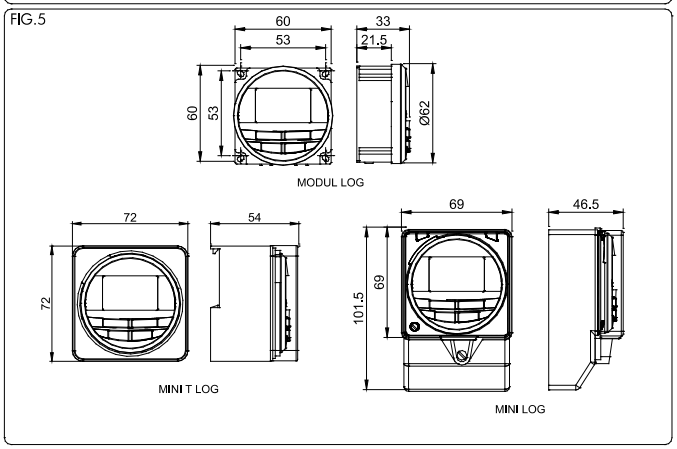
MODUL LOG / MINI LOG / MINI T LOG











01/07.2018 A016.36.57761

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ENG

TIME SWITCH

FIG.1 y FIG.4

1. Time scale
2. Schedules
3. Text line
4. Low battery symbol
5. Hour / Date
6. C1 manual operation (blinking) / C1 permanent manual (fixed)
7. C1 relay status symbol
8. Go up
9. Cancel option / Go back
10. Accept option / Enter the menu / Switch on the device without power
11. Scroll down / C1 manual operation
12. 12 H / 24 H
13. Days of the week
14. Transparent cover
15. Connection base with terminal MINI LOG
16. Connection base MINI T LOG
17. Removable terminal block MINI T LOG
18. Flush mounting accessory

INSTRUCTIONS FOR USE

MODUL LOG, MINI LOG or MINI T LOG 2 is a digital time switch designed to control any electrical installation.
It offers the possibility of performing different types of operations: ON and OFF at a set time, short-term operations or pulses (1 to 59 seconds), and repetitive cycles (1 to 59 seconds or 1 minute to 23 hours and 59 minutes).
Furthermore, it includes a series of additional functions such as: automatic DST changes, 4 holiday periods
Menus can be displayed in several languages and they show the schedule for the current day on screen.
With 1 independent and voltage-free circuit switched, which allows the programming of up to 40 operations.

INSTALLATION

WARNING: Installation and mounting of electrical devices must be carried out by an authorised fitter.
BEFORE PROCEEDING TO THE INSTALLATION, REMOVE POWER SUPPLY.
The device is internally protected against interference by a security circuit. However, some particularly strong electromagnetic fields may alter its functioning. Interference can be avoided if the following installation rules are taken into account:
- The device must not be installed near inductive loads (engines, transformers, contactors, etc.)
- It is advisable to devise a separate line for supply (provided with a network filter if necessary).
- Inductive loads must be provided with interference suppressors (varistor, RC filter).

If the time switch is used in combination with other devices in an installation, it should be made sure that the constituted unit does not generate extraneous disturbances.
RESTORE SUPPLY ONCE THE DEVICE IS FULLY INSTALLED.

MOUNTING

Electronic control device of independent mounting in:

- **MODUL LOG_** Surface.
- **MINI LOG_** Surface or 35 mm DIN rail according to EN 60715 (enable the two lateral pre-cut slots).
- **MINI T LOG_** Surface, 35 mm DIN rail according to EN 60715, or flush mounting 72x72.

CONNECTION

- **MODUL LOG_** FASTON 6,3x0,8 mm.
- **MINI LOG_** Terminal or FASTON 6,3x0,8 mm.
- **MINI T LOG_** Terminal or FASTON 6,3x0,8 mm.

Connect power supply according to the diagram in **FIG. 2.**
Phase and Neutral positions must be respected, checking the connections made. A wrong connection may destroy the device.

START-UP

THE DEVICE MUST BE POWERED to be able to execute the installation control. When this happens, the display will light up and the MAIN screen will appear.
When the device is not powered the display remains off, storing all the date and time programming during the power-reserve period (4 years) thanks to the incorporated lithium battery. If installed without battery, the device has a security power-reserve of approx. 48 hours.
With the device unpowered, when pressing the **OK** key, the display temporarily lights up to allow programming. If after 5 seconds no key is pressed, the display will be turned off again.
These devices have four keys for their setting and programming.
The display shows the following information:

- Schedule with the day's operations (except on holidays). A schedule for each channel with 24 divisions in which each segment represents 1 hour ON.
- The display has a text line that will show the following information alternatively:
  Current date → PERMANENT operation → Active HOLIDAY period
- Complete time.
- Manual operation symbol . It blinks when a manual switching is activated and if the switching is PERMANENT the symbol is fixed.
- State of C1 circuit: ON , OFF

SETTINGS

MODUL LOG, MINI LOG o MINI T LOG are factory programmed with the current date and time, and configured as follows:

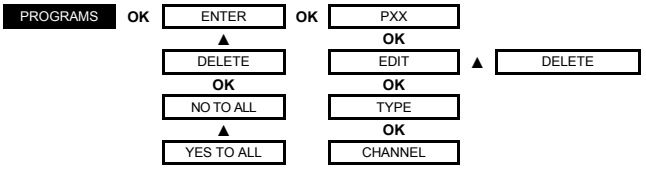
- Time Mode: 24 h
- Standard to DST change: Automatic (last Sunday of March)
- DST to Standard change: Automatic (last Sunday of October)
- Holidays: NO (all 4 periods disabled)
- Programs: None

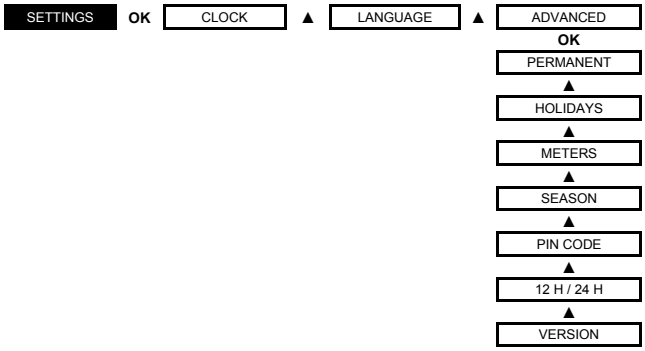
MANUAL OPERATION

Activated or disabled, temporarily reversing the state of the circuits manually from the main screen, by pressing the ▼ C1.
The symbol will appear blinking on screen over the handled channel until we press ▼ C1, returning to the previous state.

PROGRAMMING

Programming is based on menus and submenus through which we can move to program operations or adjust the device. The main menu can be accessed from the standby screen by pressing **OK**. With keys ▼ and ▲ we will move through the different menus and by pressing **OK** we will access them. To go back to the previous menu, we press **C**.
The details to be programmed always appear blinking on screen.
The structure of the menus is the following:





PROGRAMS. This is the menu where the different operations are programmed. There are 40 memory spaces (P-01 to P-40).

- **ENTER.** We enter by pressing **OK**, and with the ▼ and ▲ keys we move through the different programs stored in the memory.
  When entering this menu, if any programs have already been stored, the first program that was stored appears in the display text line: "P-01", and with the ▲ key we can go up the different stored programs until we reach the first empty program, in which the display text line will show "P-XX EMPTY" alternating with the number of programs available left in the memory of the device.
  When entering this menu, if no other programs have been created, the display text line will show: "P-01 EMPTY" alternating with "40 LEFT" referring to the memory spaces available.
  If we wish to modify or create a program, we move to it with the ▼ and ▲ keys and press **OK**. Next, with the ▼ and ▲ keys we select one of the following options:
  - EDIT. This option allows us to choose the type of operation that will be performed in the selected program. By pressing **OK**, "ON TYPE" will be displayed and with the ▼ and ▲ keys we can choose the type of operation. The operations can be:
    - ON TYPE. Switch-on of the connected circuit at a fixed time.
    - OFF TYPE. Switch-off of the connected circuit at a fixed time.
    - CYCLE TYPE. ON and OFF operations performed repeatedly from beginning to end. To program the beginning of the cycle we must indicate the hour, minutes, and days of the week when this cycle will begin. Next, we need to specify the respective ON and OFF duration (in hours, minutes or in seconds). To finish, we must indicate the hour, minutes, and days of the week when this cycle will stop operating.
    - PULSE TYPE. Switch-on of the circuit in a pulse of a set duration at a fixed time of the day.

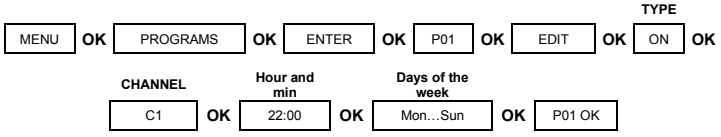
    Once the type of operation has been chosen, we must select the channel C1.
    Next, we enter the operation starting hours and the rest of the necessary times according to the selected operation.

  HOLIDAY PERIODS program
  If when validating the last day of the week with the **OK** key we keep it pressed, we select this operation as holiday. The word HOLIDAY is displayed and with the ▼ and ▲ keys we select one of the 4 holiday periods.

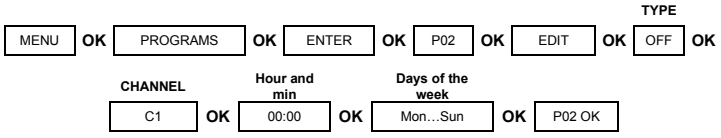
  - DELETE. By pressing **OK**, the selected program is deleted. Since all programs are stored consecutively, deleting one program can change the number assigned to each one of them.

- **DELETE.** This option allows for deleting all the operations of the last 40 programs in just one step.

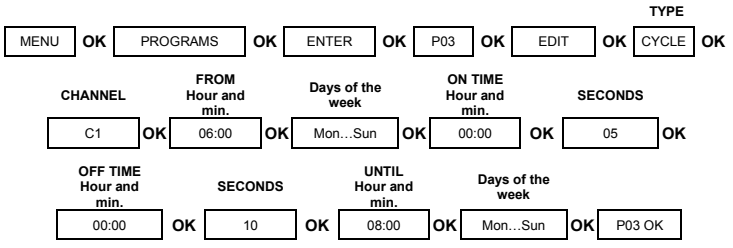
We choose to perform the switch-on program at 10 pm



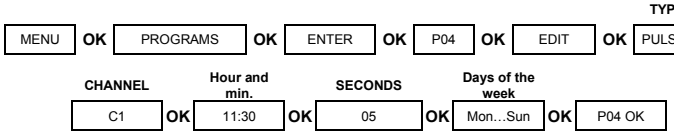
We choose to perform the switch-off program at 12 am



We choose to perform the cycle program, with a 5-second ON and a 10-second OFF period, which will start at 6:00 and will finish at 8:00 during the entire week



We choose to perform the pulse program, which will perform a 5-second ON period starting at 11:30 during the entire week



SETTINGS. This is the menu where we configure the device.

- **CLOCK.** Sets the time of the device. The variables to configure are (in this order): Year, month, day, hour and minute. The day of the week is calculated automatically.
- **LANGUAGE.** This is the menu where the language of the device is selected.
- **ADVANCED.** This is the menu where most of the device configuration can be done.
  - PERMANENT. The menu where we can set a permanent operation (ON or OFF) of channel C1. With the ▼ and ▲keys we move through the different options: C1: YES → C1: NO. We validate with **OK** our desired option. The device will not take notice of the operation programming for the selected channel if we choose the YES OPTION.
  - The contact position can be changed manually (see *MANUAL OPERATION*)
  - HOLIDAYS. It has 4 PERIODS that can be programmed to perform the operations selected in the programming of HOLIDAY PERIODS. If no operation is programmed in a period, the channels will remain OFF during said period. PERIOD 1 …4
    - EDIT. The month, day, hour and minute of the beginning of the period and the month, day, hour and minute of the end of the period are programmed. This period will be repeated year after year.
    - DELETE. The selected period is deleted.
  - METERS. Menu where the switch-on time of each circuit is indicated (in hours). Accessing the meter of each channel with **OK**, they can be set to zero. Select DELETE YES and validate.
  - SEASON. Allows for adjusting the time change from daylight saving to standard time and vice versa.
    - ACTIVE. Automatically makes the time change from daylight saving to standard time or vice versa, in accordance with each country's legislation. (EU the last Sunday of March and the last Sunday of October)
    - INACTIVE. Does not make the time change.
  - PIN CODE. Menu to activate or disable the keyboard lock to prevent unwanted access to the device settings.
    - INACTIVE. Keyboard lock disabled.
    - ACTIVE. Keyboard lock activated. And we are required to program a four-figure PIN CODE. This protection will be activated 30 seconds after we come out of the settings and return to the display in standby mode. From that moment on when any key is pressed the message "PIN CODE" will appear on screen. To unblock the access to the device, we will need to enter the PIN CODE programmed in its activation. The device will be unblocked for 10 seconds. During this time, we will be able to access the settings menu by pressing **OK**. After 30 seconds without handling the device, it will get locked again.
  - 12H – 24H. With the ▼ and ▲keys we select the mode in which we wish to see the time. We validate the selection with **OK**
  - VERSION. Menu where the software version of the device is shown.

If simultaneous operations are programmed, we have to take into account that some have priority over the others. The priority order is as follows:
PERMANENT MODE → MANUAL → PROG_01 → PROG_02 → …. → PROG_40

RESET. SET TO ZERO.
Starting on standby mode (main screen), press the **C** key and while keeping it pressed press the ▼ and ▲ keys simultaneously for more than 3 seconds. The display gets turned off; all programming is deleted. The device must be powered.
We can also perform a quick deletion that does not affect the programming by pressing the four keys simultaneously. The device must be powered.

POWER RESERVE
The equipment has a power reserve of 4 years, using a lithium battery. When the battery is exhausted and the device is powered up, the on-screen battery symbol appears. For replacement, send to Technical Service.

TECHNICAL FEATURES

Rated voltage and frequency	as indicated in the device ird
Resistance	± 10%
Breaking capacity:	μ 16 (4) A / 230 V~
Maximum recommended loads (N.A):	**FIG.2**
Own consumption	11 VA (0.9 W) maximum
Contact	$AgSnO_2$ switched.
Display screen	Back-light LCD
Running accuracy	± 1 s / day at 23 ºC
Accuracy variation with temperature	± 0.15 s / ºC / 24 h
Power reserve	4 years (with lithium battery and without supply)
Type of action	1S, 1T, 1U
Software class and structure	Class A
Memory spaces	40
No. of channels	1
Types of operations	ON/OFF, PULSE (1 to 59 sec.) and CYCLES (1 to 59 sec. or 1 min to 23h and 59 min).
Operating accuracy	± 1 s
Operating temperature	-10 ºC at +45 ºC
Transport and storage temperature	-20 ºC at +60 ºC
Pollution situation	2
Protection level	IP20 according to EN60529 (IP51 for **MINI LOG**)
Protection class	II under correct mounting conditions
Transient impulse voltage	2.5 kV
Temperature for the ball test	+ 80 ºC for 21.2.5
Keyboard access cover	Sealable (only **MINI LOG**)
Connection	FASTON 6,3x0,8 or screw terminal for section conductors of 4mm² maximum section (**MINI LOG** and **MINI T LOG**)
Battery	CR2032 – 3 V – 220 mAh
Wrapping size	2 DIN modules (35 mm) **FIG. 5**

Subject to technical changes – for further information: www.orbis.es