

## DATA LOG BT / DATA LOG 2 BT

FIG.1

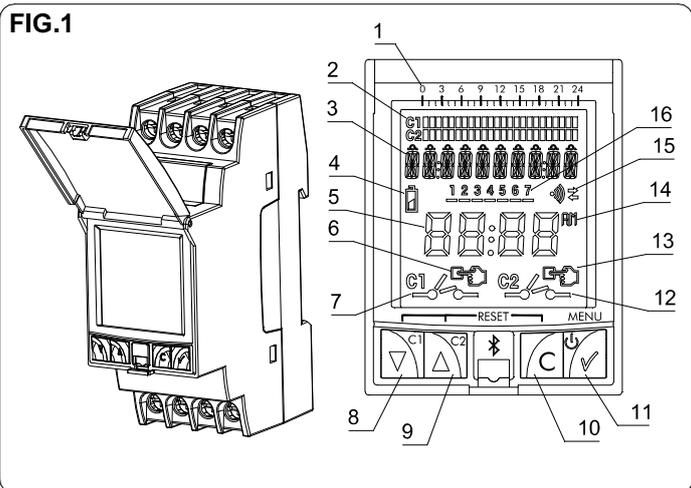


FIG.2

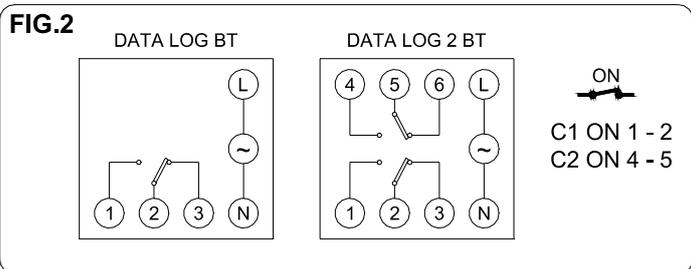


FIG.3

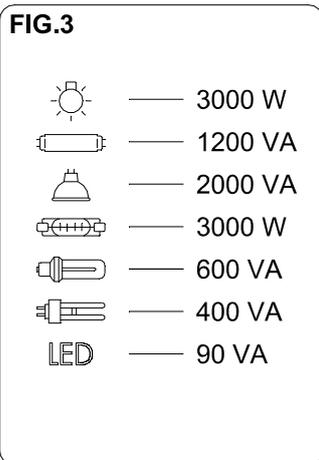


FIG.4

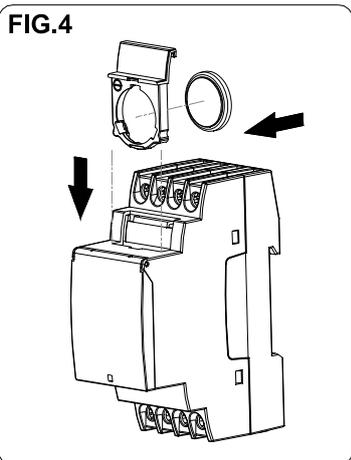


FIG.5

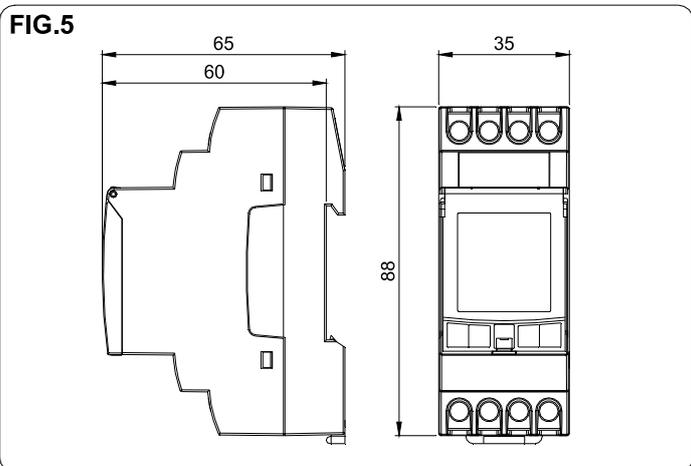


FIG.1

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. Scroll down / C1 manual operation
9. Go up / C2 manual operation
10. Cancel option / Go back
11. Accept option / Enter the menu / Switch on the device without power
12. C2 relay status symbol
13. C2 manual operation (blinking) / C2 permanent manual (fixed)
14. 12 H / 24 H
15. Transfer symbol
16. Days of the week

### OPERATING INSTRUCTIONS

DATA LOG BT / DATA LOG 2 BT 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). All of them can be applied to channels C1 and C2 with DATA LOG 2 BT. Furthermore, it includes a series of additional functions such as: automatic DST changes, 4 holiday periods, adjustable screen brightness and programming from Smartphone / Tablet. Menu can be displayed in several languages and they show the schedule for the current day on screen. With 1 (DATA LOG BT) or 2 (DATA LOG 2 BT) independent and voltage-free circuits switched, which allows the programming of up to 40 operations between channel 1 and / or channel 2.

### 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 fuse box, with 35 mm. symmetrical profile, according to EN 60715 standard (DIN Rail).

### CONNECTION

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 MENU 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 / C2 circuits: ON , OFF

### SETTINGS

DATA LOG BT / DATA LOG 2 BT 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 or C2 keys.

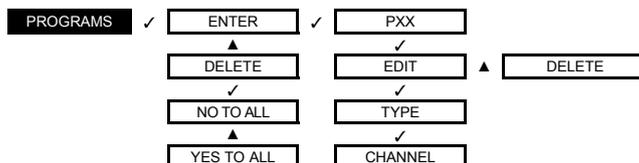
The symbol will appear blinking on screen over the handled channel until we press C1 or C2 again, returning to the previous state.

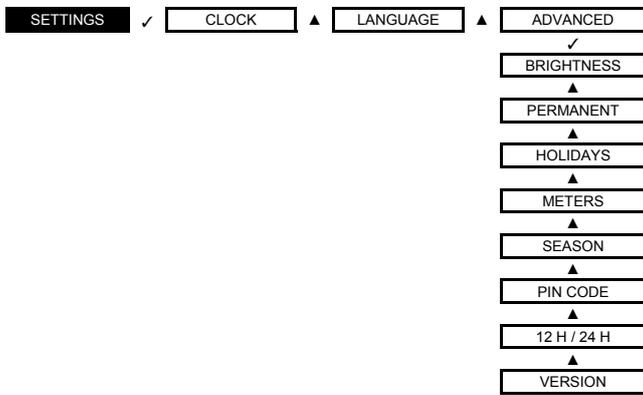
### PROGRAMMING

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 . With keys and we will move through the different menus and by pressing 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:





**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.
  - BRIGHTNESS. Menu where we can select the brightness of the display. MINIMUM, LOW, MEDIUM, HIGH, or MAXIMUM. The brightness on screen will be adjusted if we validate the visualised level.
  - PERMANENT. The menu where we can set a permanent operation (ON or OFF) of channel C1 and channel C2. With the ▼ and ▲ keys we move through the different options: C1: YES → C1: NO → C2: YES → C2: NO. We validate with 3 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 ✓, 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 3. 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 ✓
  - VERSION. Menu where the software version of the device is shown.

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

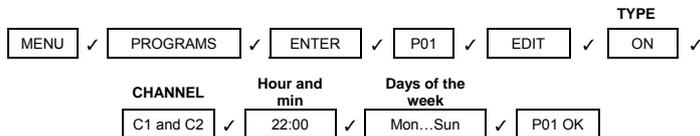
- **ENTER.** We enter by pressing ✓, and with the ▼ and ▲ keys we move through the different programs stored in the memory. When entering this menu, if any programs have already been stored, the first program that was stored appears in the display text line: "P-01", and with the ▲ key we can go up the 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 ✓. 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 ✓, "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 have to 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 have to select the channel or channels it affects (C1, C2 or C1 + C2).
- Next, we enter the operation starting hours and the rest of the necessary times according to the selected operation.

**HOLIDAY PERIODS program**

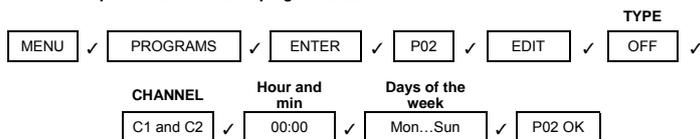
If when validating the last day of the week with the ✓ key we keep it pressed, we select this operation as holiday. The word HOLIDAY is displayed and with the ▼ and ▲ keys we select one of the 4 holiday periods.

- DELETE. By pressing ✓, 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.

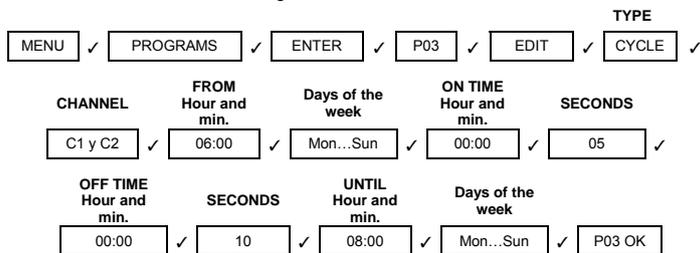
*We choose to perform the switch-on program at 10 pm*



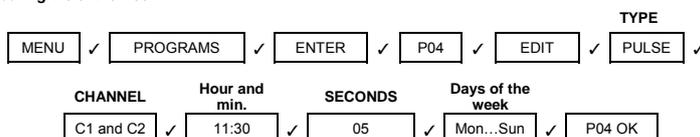
*We choose to perform the switch-off program at 12 am*



*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*



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.

**BATTERY CHANGE. FIG. 4**

The device has a power-reserve of 4 years, by means of a replaceable CR2032 lithium battery. Battery replacement is made by removing the battery holder placed on the front of the device through a flat-head screwdriver. Observe the battery polarity as marked on the battery holder. When the battery is dead and the device is powered the battery symbol appears on screen.

NOTE: When changing the battery the device's programming is not lost, and neither is the current time.

**TURN OFF THE POWER SUPPLY TO REPLACE THE BATTERY**

**PROGRAMMING VIA SMARTPHONE/TABLET**

It incorporates a bluetooth system 4.0 LE for the communication with an application installed on a portable smart device (Apple or Android) Bluetooth Smart Ready compatible.
 

- Apple (iPhone 4S or higher, iPad 3 or higher)
- Android (version 4.3 or higher and device compatible with Bluetooth 4.0 LE)

To communicate with Data Log or Data Log 2 is needed to have the application ORBIS DATA LOG installed.

This App allows the following functions:

- To read the data of a device to store them or to send them to another device
- To create different profiles (configurations) from beginning or from an already existing profile of other device
- To send a profile to one or several device
- To see performance statistics (monthly and yearly number of ON-hours).

To start using the App follows the next steps:

1. Download the App from AppStore or PlayStore, making sure your device is compatible with technology Bluetooth Smart Ready.
2. Start the App and select the option "Connect with the device" to read the data (configuration) of the device.
3. Check and/or modify the received data and store the profile for a future use and/or send again the modified profile to the device.
4. Close the App and disconnect the bluetooth from device for a normal function of the device.

**TECHNICAL FEATURES**

Rated voltage and frequency	As indicated in the device
Resistance	± 10%
Breaking capacity:	DATA LOG BT: μ 16 (10) A / 250 V~ DATA LOG 2 BT: μ 2x16 (10) A / 250 V~
Maximum recommended loads (N.A):	<b>FIG.3</b>
Own consumption	16 VA (1,3 W) maximum
Contact	AgSnO <sub>2</sub> switched.
Display screen	Back-lit LCD
Running accuracy	± 1 s / day at 23 °C
Accuracy variation with temperature	± 0.15 s / °C / 24 h
Power reserve	4 years (with battery and no network connection) 48 h (no battery and no network connection)
Type of action	1S, 1T, 1U
Software class and structure	Class A
Memory spaces	40
No. of channels	1 channel DATA LOG BT; 2 channels DATA LOG 2 BT
Types of operations	ON/OFF, PULSE (1 to 59 sec.) and CYCLES (1 to 59 sec. or 1 min to 23h and 59 min).
Astronomical adjustments	± 1 second
Operating temperature	-10 °C at +45 °C
Transport and storage temperature	-20 °C at +60 °C
Pollution situation	2
Protection level	IP20 according to EN60529
Protection class	II under correct mounting conditions
Transient impulse voltage	2,5 kV
Temperature for the ball test	+ 80 °C for 21,2,5
Keyboard access cover	Sealable
Connection	With screw terminal for wire cross section of up to 4mm <sup>2</sup>
Battery	CR2032 – 3 V – 220 mAh
Wrapping size	2 DIN modules (35 mm) <b>FIG.5</b>

**WARNING:**

This time switch includes a battery whose contents may be damaging to the environment. Do not get rid of the product without taking the precaution of dismantling the battery and placing it in an appropriate recycling container, or sending the product back to the factory.

Hereby, ORBIS TECNOLOGÍA ELÉCTRICA, S.A. declares that the radio equipment type DATA LOG BT / DATA LOG 2 BT is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: <http://www.orbis.es/downloads/declarations-of-conformity>

Subject to technical changes – for further information: [www.orbis.es](http://www.orbis.es)