

# Installation Manual

**Digital time/astronomical switch  
with Bluetooth connectivity**



**VOLTEX**



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## USER MANUAL

These digital time switches series are electronic devices for the management of the electrical utilities over time. They allow the time based programming (periodicity: daily or weekly) or astronomical based programming.

TCBT1 is equipped with one relay (channel 1) while TCBT2 is equipped with two relays (2 independent channels).

Each channel can be associated with a different programming (time or astronomical).

TCBT time switches have a Bluetooth interface that allows it to be coupled with mobile devices (smartphone or tablet). Thanks to the free app that can be downloaded from the AppStore and Google Play stores, it is possible to program and make settings directly on your smartphone, and then transfer all the data to the time switch.

The reverse procedure is also possible, i.e. to copy the programming of a time switch on to your mobile device.

The backup battery allows you to keep the settings even in case of black-out and can be replaced through the cover on the back of the time switch.

The devices are of electronic type that performs actions of 1B type, intended to operate in environments with III overvoltage category and pollution degree 2 in accordance with EN 60730-1 standard.

<b>Model</b>	<b>Description</b>
TCBT1	Astronomical/time switch 1 channel with Bluetooth
TCBT2	Astronomical/time switch 2 channels with Bluetooth

## TECHNICAL FEATURES

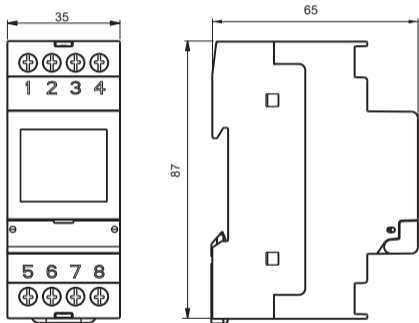
- Power supply: 240 Vac (-15% to +10%) 50/60 Hz
- Power consumption:
  - TCBT1: 1W (3.5 VA)
  - TCBT2: 1.5W (5.5 VA)
- Lithium backup battery: 3V, CR2032 type (replaceable)
- Output:
  - TCBT1: 1 monostable change-over relay with maximum switchable load of 16A / 250V
  - TCBT2: 2 monostable change-over relays with maximum switchable load of 16A / 250V
- Terminal block for cables with maximum cables section of 2.5 mm<sup>2</sup>
- Display LCD with backlighting (active with AC power supply)
- Bluetooth BLE 4.1 communication interface (active with mains power supply)
- Storable programs:
  - TCBT1: 120 events
  - TCBT2: 120 events (over the 2 channels)
- Operating temperature: -20 °C to +50°C
- Operating humidity: 20 to 90% non condensing
- Storage temperature: -25°C to +70°C
- Operating frequency band: 2400-2483.5 MHz
- Maximum transmitted radiofrequency power: 4 dBm
- Housing: 2 DIN modules
- Protection degree: IP20
- Insulation: reinforced between accessible parts (front) and all the other terminals

## SAFETY WARNINGS

■ ***During product installation and operation it is necessary to observe the following instructions:***

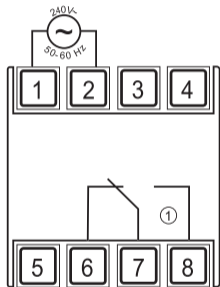
- 1) The instrument must be installed by a qualified person, strictly in observance of the connection diagrams shown in this manual.***
- 2) After installation inaccessibility to the terminals without using dedicated tools must be guaranteed.***
- 3) Before accessing the connection terminals, make sure that the leads are not live.***
- 4) Do not connect or feed the instrument if any part of it is damaged.***
- 5) The product must be installed and activated in compliance with current electric systems standards.***
- 6) Do not use the instrument for anything other than the indicated purpose.***
- 7) In the electrical system upstream of the device must be installed a protection device against the overcurrents***
- 8) The product can be used in environments with Measurement Category III and Pollution degree 2, according to the Standard EN 60730-1***

## DIMENSIONS

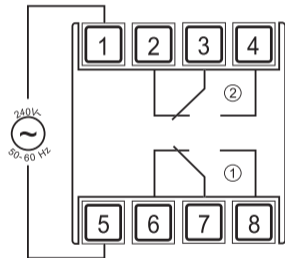


## WIRING DIAGRAMS

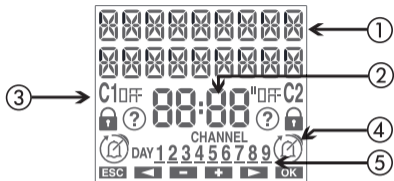
TCBT1



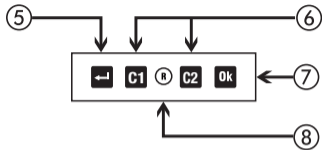
TCBT2



## DISPLAY AND KEYBOARD DESCRIPTION



- ① General indications
- ② Time indication
- ③ Channel 1/channel 2 status indication
  - <sub>n</sub> / OFF
  - 🔒 blocked switchings
  - ❓ active random switchings
  - active holiday program
  - 🔔 active pulse program
  - 🕒 active manual program
- ④ Day of the week (DAY) indication






- ⑤ Turn on the display  
Access the menu  
ESC (one level back)
- ⑥ Button "**C1**": decrease datum/previous menu/ switching channel 1/lock channel 1  
Button "**C2**": increase datum/next menu/ switching channel 2/ lock channel 2
- ⑦ Confirm selection
- ⑧ Hardware reset

Button "**OK**" + "**C1**" (3 sec): random switching channel 1  
 Button "**OK**" + "**C2**" (3 sec): random switching channel 2



## INITIAL OPERATION

- Once out of the package, the device is off: press the key  and wait a moment before activating the display
- The set language is English. To change it, press the key  for at least 3 seconds. Choose among: English or Italian and confirm with 
- Make connections following the diagrams on page 5 of this manual
- Power the device: the backlighting turns on permanently.
- The presence of the backup battery allows the device to have updated date and time.

To make the other settings follow the following steps:

---

Date	- format: DD/MM/YY - 1 <sup>st</sup> day of the week: Monday
------	---

---

Astronomical coordinates	- country: Australia - city: Sydney - latitude: South (33° 52' 12") - longitude: East (151° 12' 36")
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Daylight Saving time change: active	- Daylight saving time → Winter time First sunday of april at 03:00 - Winter time → Daylight saving time First sunday of october at 02:00
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Time correction:	- sunrise: +0:00 - sunset: +0:00
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Time zone:	+10:00 UTC
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Random switchings:	- minimum: 1 minute - maximum: 5 minutes
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PIN protection:	disabled (---)
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Bluetooth:	active
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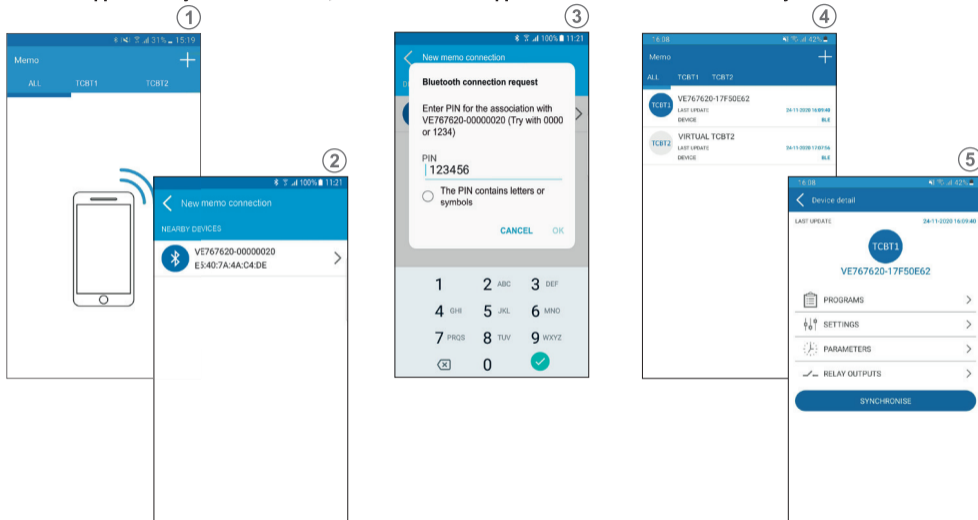
---

Bluetooth password:	123456
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Go to the App Store of your mobile device, search for the free App called 'Voltex TIC' and install it on your mobile device.



① At the start the app displays the list of the associated devices. To associate a new device, press the symbol “+” in the upper right corner.

② All the Bluetooth devices detected nearby are displayed: select the device to be associated from the list.

Note: each device is identified by the product code (for example TCBT2) and by the serial number (for example 00000020).

This information can be viewed from the main page of the device

Warning: make sure that the device is mains powered and that the display shows the main page (initial).

Otherwise the Bluetooth interface is not active and the device is not visible

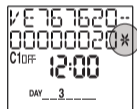
③ Enter the password to associate the device with your device (if not modified the password is 123456)

④ After successfully completing the procedure, the device is added in the list of the associated devices.

Select the device on which you want to act from the list of the associated devices

Note: communication between the app and the device is point-to-point. This means that, even in the presence of multiple device, the app can communicate with one only at a time.

The device currently connected to the app displays the symbol \* immediately after the serial number



⑤ The app displays the initial page of the selected device. From this page you can:

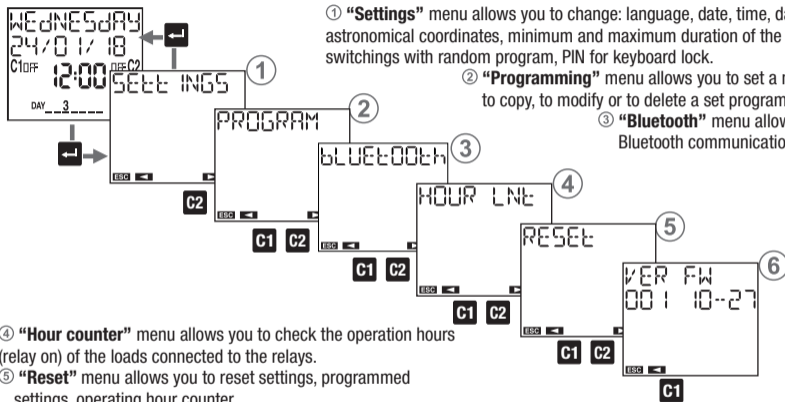
a. Create new programs that will then be copied to the device

b. Change the settings of the device

c. View the parameters and associate an alias (name that identifies the time switch, such as “TCBT1 Mr. Smith”) to the device

d. Manually control the relay output/s and activate the random switching function

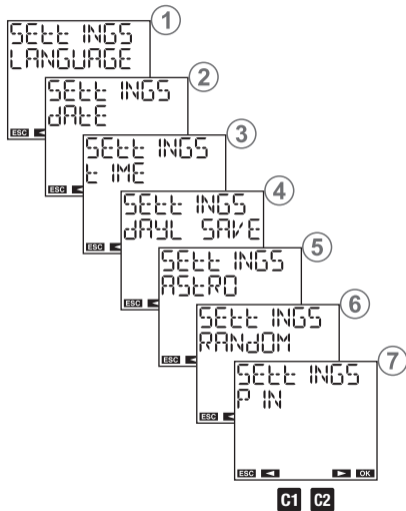
## MENU DESCRIPTION



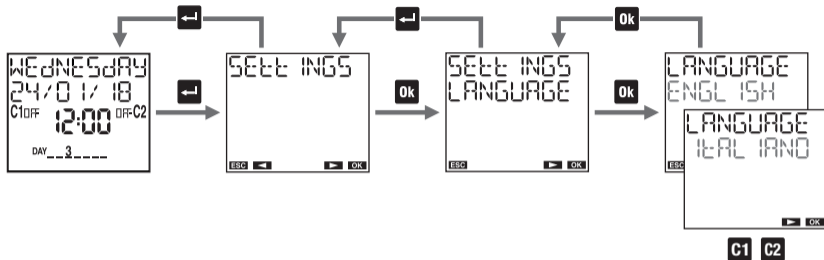
## SETTINGS MENU

“Settings” menu allows you to view and eventually to modify the general operation settings of device, such as:

- ① language
- ② date
- ③ time
- ④ automatic daylight saving time change
- ⑤ position (astronomical coordinates)
- ⑥ interval duration between two random switchings
- ⑦ Button protection by PIN



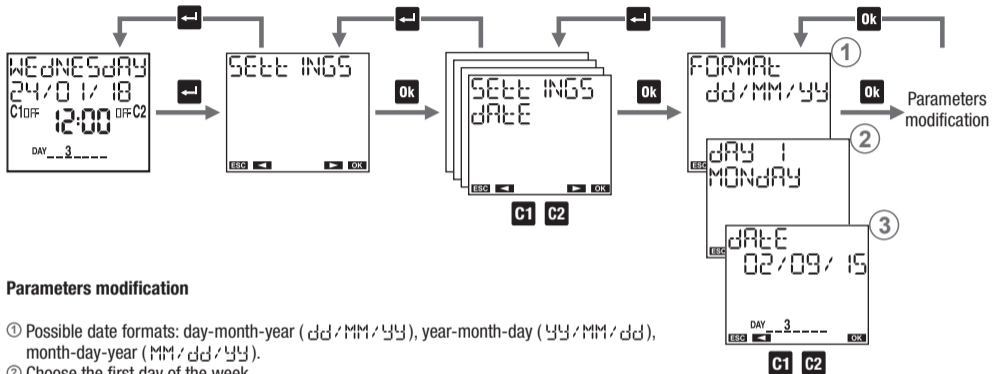
## Language setting menu



Available languages: English, Italian.

Quick access: from the main page it's possible to access the language setting by pressing the key **Left Arrow** for at least 3 seconds.

## Date setting menu

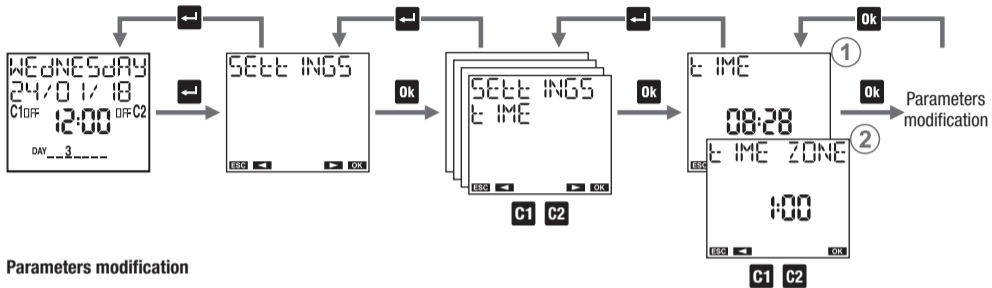


## Parameters modification

- ① Possible date formats: day-month-year (dd/MM/yy), year-month-day (yy/MM/dd), month-day-year (MM/dd/yy).
- ② Choose the first day of the week.
- ③ Enter the date: day, month, year.



## Time setting menu



## Parameters modification

- ① Set the time: hours, minutes.
- ② Set the time zone. Range: -14:00 to +14:00 at 15 minutes steps.

## Daylight saving time /winter time change setting menu

Daylight saving time /winter time change and vice versa can occur automatically. In this case, device:

- increases by an hour when changing from winter time to daylight saving time
- decreases by an hour when changing from daylight saving time to winter time

For every change it's necessary to specify:



the week of the month during which the time change occurs (first, second, third, fourth, last)



the day of the week (Monday: 1, Tuesday: 2, ...)

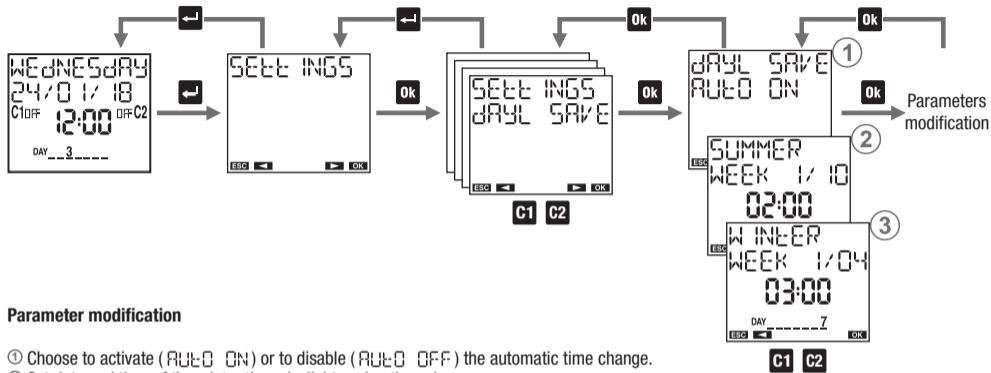


the month



the hour and the minutes

In Australia, for example, daylight saving time begins occurs the first ( F I R S T ) Sunday ( 7 ) of October ( 10 ) at 02:00 o'clock, and ends the first ( F I R S T ) Sunday ( 7 ) of April ( 04 ) at 03:00 o'clock.



### Parameter modification

- ① Choose to activate (AUTO ON) or to disable (AUTO OFF) the automatic time change.
- ② Set date and time of the winter time-daylight saving time change.
- ③ Set date and time of the daylight saving time-winter time change.

## Astronomical coordinates setting menu

The setting of the geographical coordinates of the installation location allows the device to calculate, for each day of the year, sunrise and sunset times.

To simplify the procedure, the device stores the coordinates of the locations listed below; if your location is among them you can select it from the menu ①, otherwise it's necessary to enter the coordinates of latitude and longitude (menu ② ③).

Note: the display on point ① shows “-----” if the coordinates have been entered.

Location stored in device:

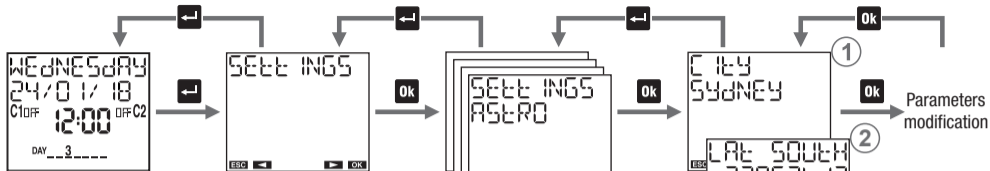
- Australia: Newcastle, Hobart, Canberra, Melbourne, Adelaide, Launceston, Townsville, Cairns, Perth, Darwin, Brisbane, Sydney
- New Zeland: Auckland, Christchurch, Wellington, Hamilton, Tauranga

The correction of sunrise and sunset times is useful for applications that require the turning on of lights in particular localities. It's possible, that the presence of disturbing elements, such as the mountains, can influence actual times of sunrise and sunset, making it necessary to advance or delay the calculated times a few minutes.

Twilight is the time just before sunrise, or just after sunset, when there is a soft glowing light caused by the reflection of the sun's rays from the atmosphere. During this time, it is possible to clearly distinguish objects and conduct outdoor activities without using additional lighting. Therefore, in some applications it is suitable to use twilight in place of sunrise and sunset.

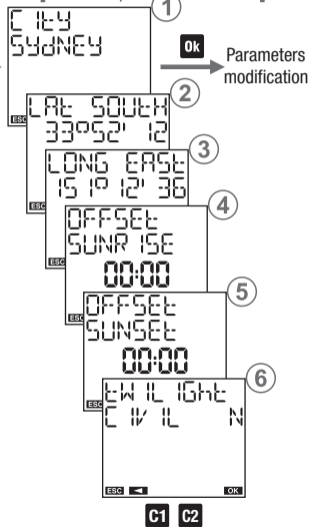
It is possible to turn loads on/off depending on the times of sunrise and sunset or twilight.

The calculated time correction also applies to twilight. To view the calculated switching on time (sunset) and switching off time (sunrise), from the main page press the button **Ok** (see page 8).

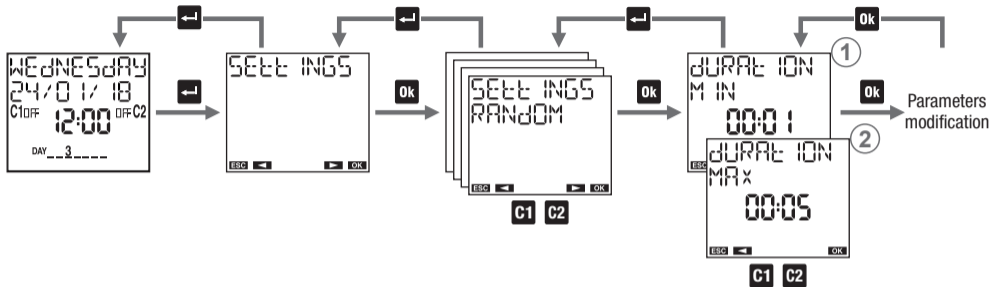


### Parameters modification

- ① Choose the installation location. If it's not present, proceed with steps ② and ③.
- ② Set the latitude of installation location.
- ③ Set the longitude of installation location.
- ④ Set a possible correction of the calculated sunrise time. Positive values to delay, negative values to bring forward.
- ⑤ Set a possible correction of the calculated sunset time. Positive values to delay, negative values to bring forward.
- ⑥ Choose switching times twilight (C1 C2) in place of sunrise and sunset (C1 C2 N) times.



## Random switchings setting menu



The “random switching ②” function (activated with the combination described on page 6) allows the channel on which it’s active to automatically switch at random time intervals.

In this menu it’s possible to define the minimum and maximum duration of the time interval between two random switching times. Default minimum duration is 1 minute, maximum duration is 5 minutes.

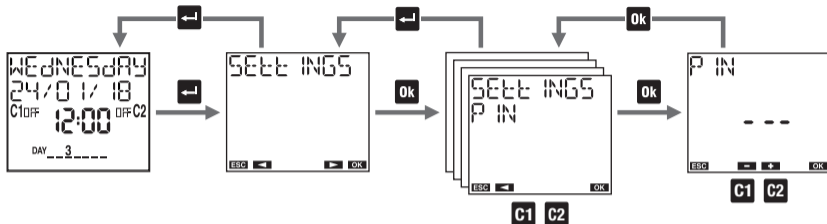
### Parameters modification

① Set the minimum duration. It’s possible to set values between 1 minute and the *maximum duration*.

② Set the maximum duration. It’s possible to set values between the *minimum duration* and 23:59 hours.

Note: setting the minimum duration equal to the maximum, the switchings will occur at fixed time intervals.

## Protection PIN setting menu



The protection code (PIN) is used to lock the keyboard and prevent changes by unauthorized persons. With active PIN protection, pressing any key, it's necessary to enter the PIN: if PIN is correct the keyboard unlocks; after 3 minutes without pressing a key, the keyboard will lock automatically.

### To activate PIN protection:

- set a value between 000 and 999

### To disable PIN protection:

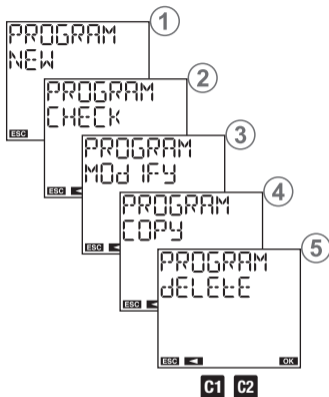
- set "---" (located before 000 or after 999)

Note: If you have forgotten your PIN code to unlock device it's necessary to carry out a hardware reset (see page 50).

## PROGRAM MENU

The menu “program” allows you to:

- ① create a new program
- ② check created programs
- ③ change or delete a created program
- ④ copy all created programs of channel 1 on the channel 2 and vice versa (only for TCBT2)
- ⑤ delete all programs of a channel

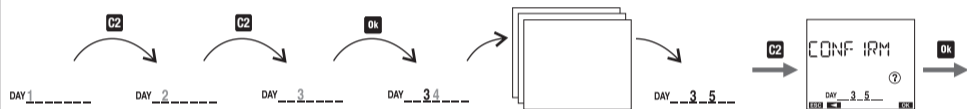




### Select days

scroll through the days of the week from 1 to 7:

- by pressing the key **C2** to move to the next day without selecting the current day
- by pressing the key **Ok** to select/deselect the current day and move to the next



## **Programs types**

- **ON/OFF:** Switching the relay ON and subsequently OFF.  
It can have a daily period (same events everyday) or a weekly period (same events every week)\*.
- **PULSE ON Program:** Switching the relay ON for a maximum duration of 59 seconds.  
It can have a daily period (same events everyday) or weekly period (same events every week)\*.
- **PULSE OFF program:** Switching the relay OFF for a maximum duration of 59 seconds.  
It can have a daily period (same events everyday) or weekly period (same events every week)\*.
- **HOLIDAY program:** A period of time defined by a start time and an end time during which all programmed switching events (of that channel) are disabled. The relay is in the OFF position (OFF holiday) or in ON position (ON holiday).

## **Channel types**

- **TIME channel:** carries out programs based on time: ON / OFF, ON pulse, OFF pulse, Holiday.
- **ASTRO channel:** carries out astronomical based programs, i.e. Sunrise and sunset\*: ON/OFF, ON pulse, OFF pulse, Holiday, Night programs (see pages 34-35). Switch ON events set before sunset are carried out at sunset, Switch OFF events set after sunrise are carried out at sunrise (except for some night programs that can have switching on or switching off during the day. See on page 34).

\* times of sunrise and sunset are automatically calculated by the device according to geographic coordinates set during installation. In place of sunrise and sunset times, it's possible to use the twilight times (see page 18).

⚠ **Important:** ON pulses and OFF can't coexist on the same channel (if an ON pulse is already present, it's not possible to save a holiday OFF program and vice versa).

⚠ **Important:** Holiday ON programs and Holiday OFF programs cannot coexist on the same channel (if a holiday ON program is already present, it is not possible to save a holiday OFF program and vice versa).

⚠ **Important:** A channel may be either time-based or astronomical-based, but it cannot be of both types simultaneously. It is not possible to save astronomical-based programs on a channel where time-based programs are stored (and vice versa). In this case to proceed it's necessary to delete the saved programs on that channel (see page 45).

### Programs priority

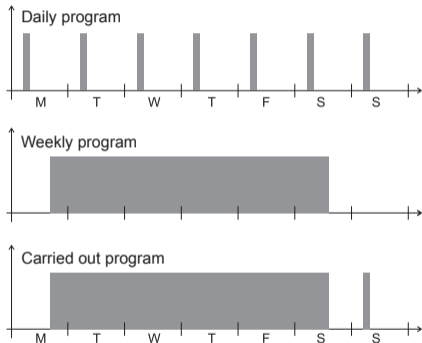
The priority programs defines how device manages the case in which programs with different period are running at the same time (1 indicates higher priority).

Program	Date*	Annual	Monthly	Weekly	Daily
Holiday	1				
Night	/			2	
Pulse	/			3	
On/Off	/			4	5

\* Date: select day, month, year (program carried "only once in the life of the product"). If the month is not specified, the program is carried out all days xx of all months of the specified year.

### Priority list on/off

When on the same channel, on/off programs are provided with different periods (daily or weekly) to carry out on the same day, only the program with the highest priority is executed.

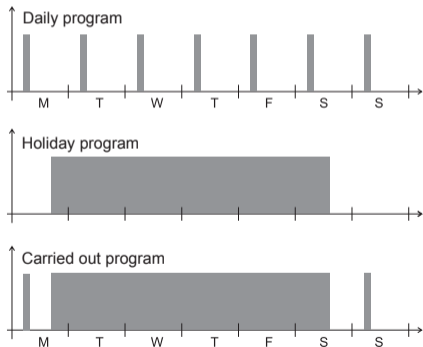


From this example it's possible to see that the daily event on Monday is not carried out because on the same day it is provided the beginning of the week program (even if the daily program

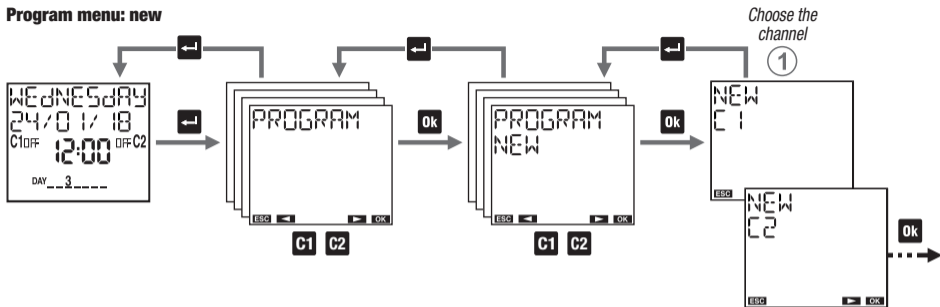
of Monday begins and ends before the beginning of the weekly program). Instead, the daily program of Sunday is carried out because it's the only one running for that day.

### Holiday program

The holiday program just begins and ends exactly at the specified times.

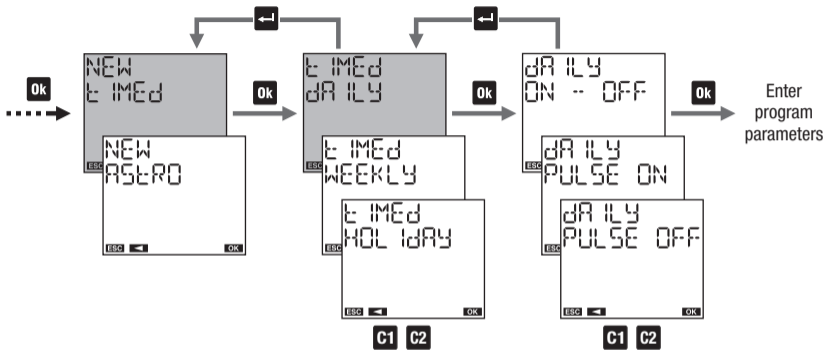


## Program menu: new



① Choose the channel to program (only for TCBT2)

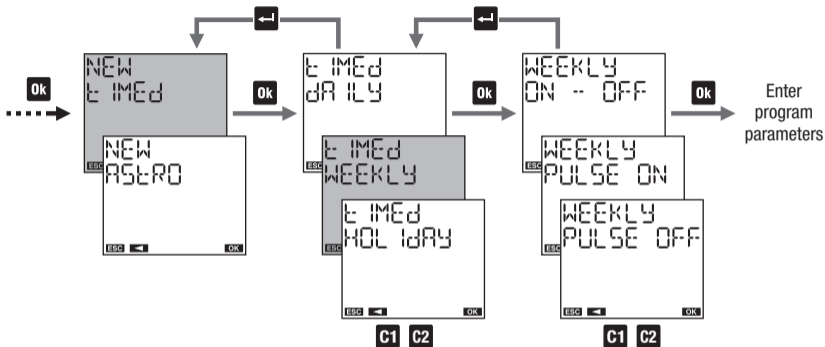
## Program menu: new daily timed



## Program parameters

- on/off: on time and off time
- on pulse: time and pulse duration (max 59 seconds)
- off pulse: time and pulse duration (max 59 seconds)

## Program menu: new weekly timed

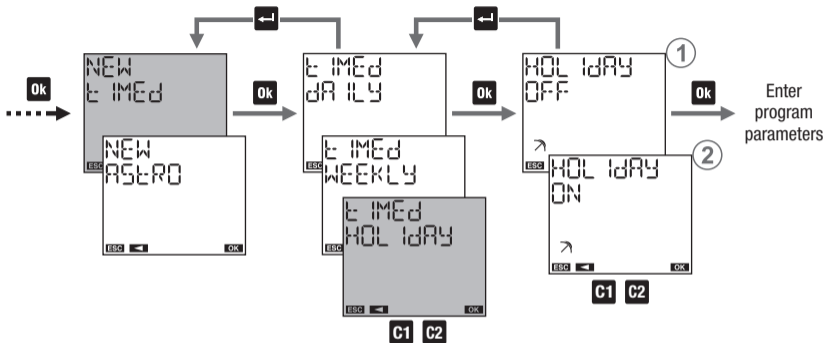


### Program parameters

- on/off: day (or days)\* and on time, day (or days) and off time
- on pulse: day (or days)\* and pulse time, pulse duration (max 59 seconds)
- off pulse: day (or days)\* and pulse time, pulse duration (max 59 seconds)

\* See "Days selection" on page 23

## Program menu: new holiday timed



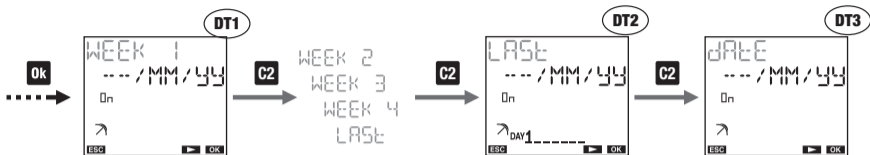
- ① HOLIDAY OFF: the relay is OFF from the beginning to the end of Holiday program
- ② HOLIDAY ON: the relay is ON from the beginning to the end of Holiday program

### Program parameters

- beginning of the program
- end of the program



## How to choose the start and end of the holiday program



To set the starting time, choose one of the 3 available “data-type”, between DT1, DT2 and DT3:

### DT1

Use this data-type to program the start of the program on the day (s) (Monday, Tuesday, ...) which falls within the first (WEEK 1), second (WEEK 2) ..., last (LAST) week of the specified month (MM = all months) of the specified year (YY = all years).

Note: in this case the holiday program must start and end on the same day. Otherwise, ERROR010 will be reported.

### DT2

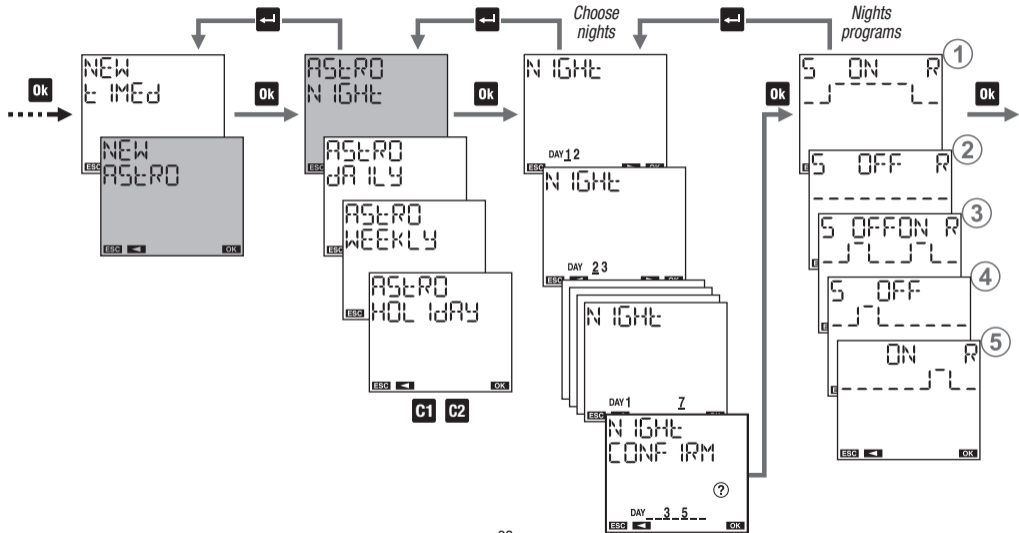
Use this data-type to program the start of the program on the last day of the specified month (MM = all months) of the specified year (YY = all years).

### DT3

Use this data-type to program the start of the program on the specified day (the first, the second, ..., the thirtieth) of the specified month (MM = all months) of the specified year (YY = all years).

Proceed in the same way to choose the end time of the program.

# Program menu: new astro night



## How to select nights

scroll through the nights of the week from the first (1-2) to the last (7-1):

- by pressing the key **C2** key to move to the next night without selecting the current night
- by pressing the key **OK** to select/deselect the current night and move to the next



## How to interpret the selection

If the night between the days of A and B is selected, the day A is on and underlined while B is on (not underlined).

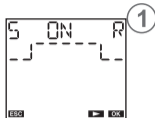
Examples of selection:

DAY 1 2 3 4 5    Selected nights: between day 1 and 2, between day 2 and 3, between day 3 and 4, between day 4 and 5

DAY 1 2 3 4 5    Selected nights: between day 1 and 2, between day 2 and 3, between day 4 and 5

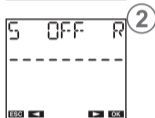
DAY 1 2 3 4    7    Selected nights: between day 1 and 2, between day 3 and 4, between day 7 and 1

## Night programs



1

Turning on at sunset, turning off at sunrise.  
No parameter required.



2

Off from sunset to sunrise.  
No parameter required.

\* If off time is before sunset, switching is not carried out. If on time is after sunrise, switching is not carried out.

\*\* Switching on continues for the entire set time interval (also if off time is after sunrise).

\*\*\* Switching on occurs before sunrise of the entire set time interval (also if on time is before sunset).



3

Turning on at sunset, turning off during the night. Turning on during the night, turning off at sunrise.

Choose one of the three following cases:

Ok



Turning on at sunset, turning off at a settable time.

Turning on at a settable time, turning off at sunrise. (\*)



Turning on at sunset, turning off after a settable time interval.

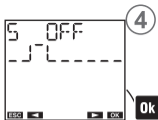
Turning on before sunrise of a settable time interval, turning off at sunrise.




Turning on at sunset for a settable short duration (pulse, max 59 seconds).

Turning on at sunrise for a short settable duration (pulse, max 59 seconds).


④ Turning on at sunset, turning off during the night.  
Choose one of the 3 following cases:




Turning on at sunset, turning off at a settable time. (\*)(\*\*)



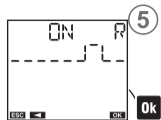
Turning on at sunset, turning off after a settable time interval. (\*\*)




Turning on at sunset for a settable short duration (pulse, max 59 seconds).




⑤ Turning on during the night, turning off at sunrise.  
Choose one of the three following cases:




Turning on at a settable time, turning off at sunrise. (\*)(\*\*\*)



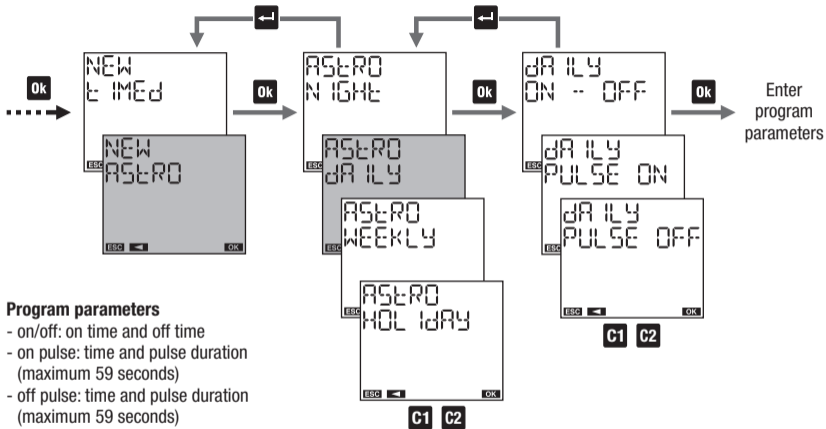
Turning on before sunrise of a settable time interval, turning off at sunrise. (\*\*\*)



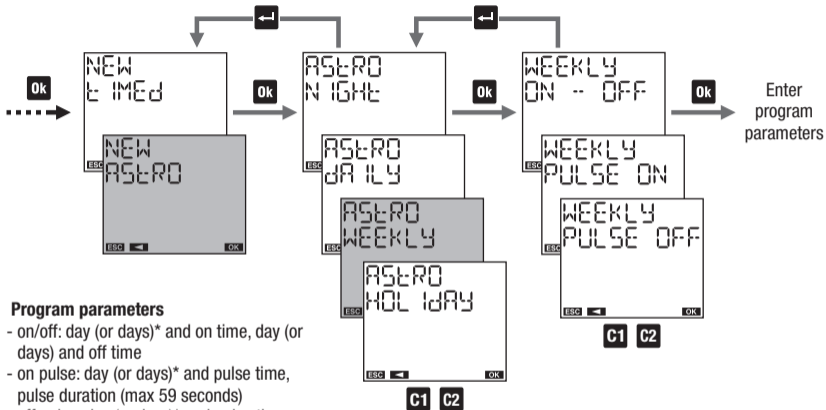
Turning on at sunrise for a settable short duration (pulse, max 59 seconds).



## Program menu: new astro daily



## Program menu: new astro weekly

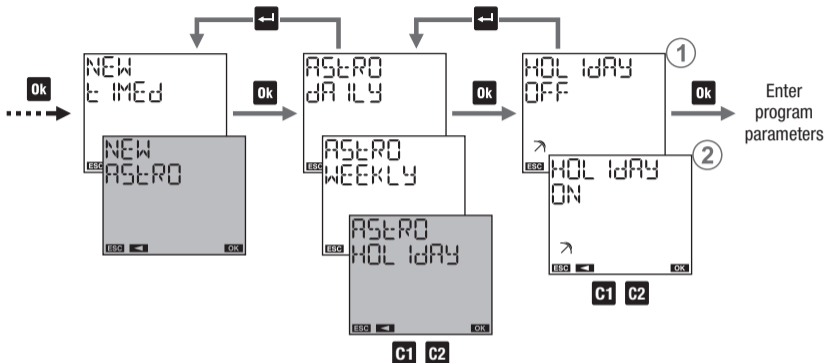


### Program parameters

- on/off: day (or days)\* and on time, day (or days) and off time
- on pulse: day (or days)\* and pulse time, pulse duration (max 59 seconds)
- off pulse: day (or days)\* and pulse time, pulse duration (max 59 seconds)

\* See "Days selection" on page 23

## Program menu: new astro holiday



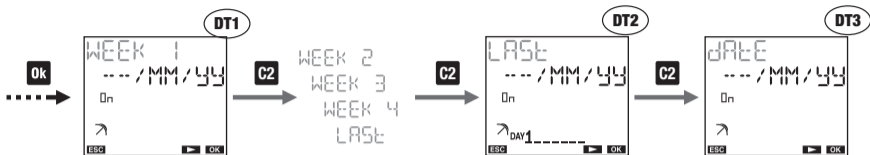
- ① HOLIDAY OFF: the relay is OFF from the beginning to the end of holiday program.
- ② HOLIDAY ON: the relay is ON from the beginning to the end of holiday program.

### Program parameters

- beginning of the program
- end of the program



## How to choose the start and end of the astro holiday program



To set the starting time, choose one of the 3 available “data-type”, between DT1, DT2 and DT3:

### DT1

Use this data-type to program the start of the program on the day (s) (Monday, Tuesday, ...) which falls within the first (WEEK 1), second (WEEK 2) ..., last (LAST) week of the specified month (MM = all months) of the specified year (YY = all years).

Note: in this case the holiday program must start and end on the same day. Otherwise, ERROR010 will be reported.

### DT2

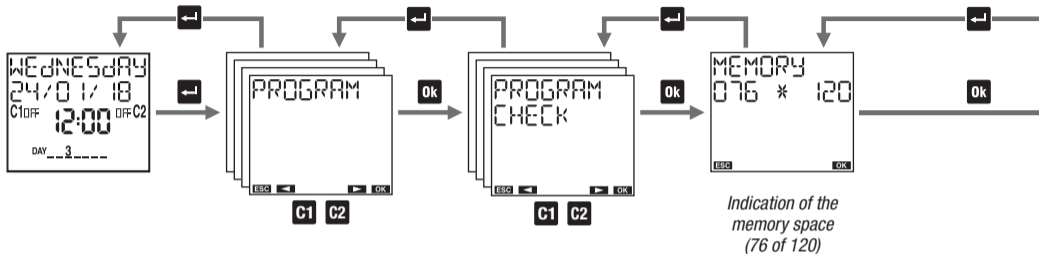
Use this data-type to program the start of the program on the last day of the specified month (MM = all months) of the specified year (YY = all years).

### DT3

Use this data-type to program the start of the program on the specified day (the first, the second, ..., the thirtieth) of the specified month (MM = all months) of the specified year (YY = all years).

Proceed in the same way to choose the end time of the program.

## Program menu: check

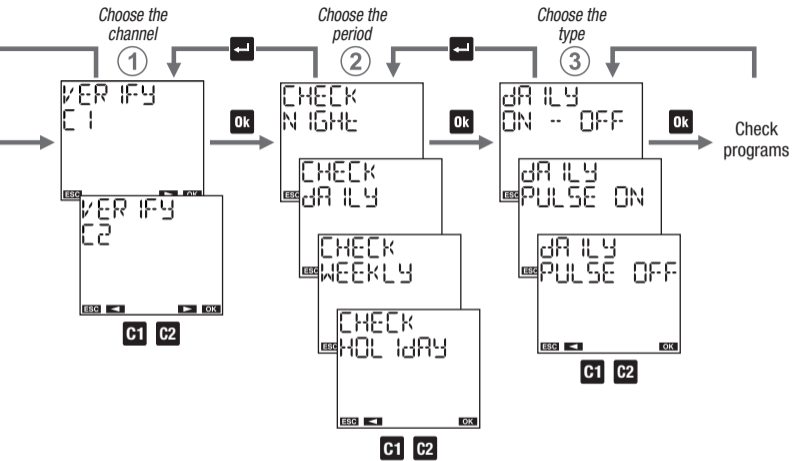


## How to check a program

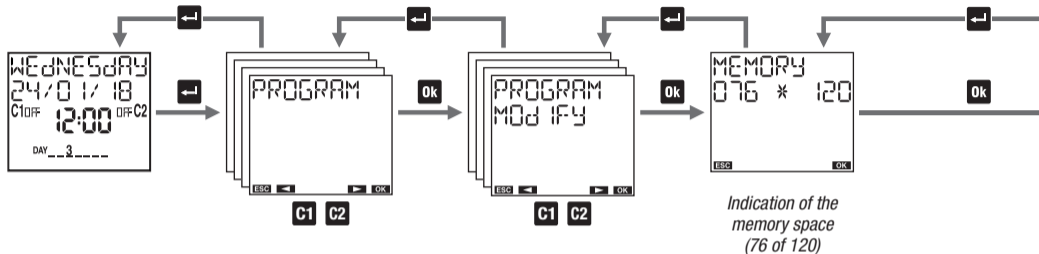
- ① choose the channel (only for TCBT2)
- ② choose the period: daily, weekly, annual, holiday or night (when it is a channel of astronomical type)
- ③ choose the type: on/off, on pulse, off pulse or a night program (only if it is a channel of astronomical type)

Note: a program requires more screens to be displayed:

- press the key **Ok** to move from the first to the second part of the same program
- press the keys **C1** and **C2** to switch from one program to another



## Program menu: modify



## How to modify or to delete a program

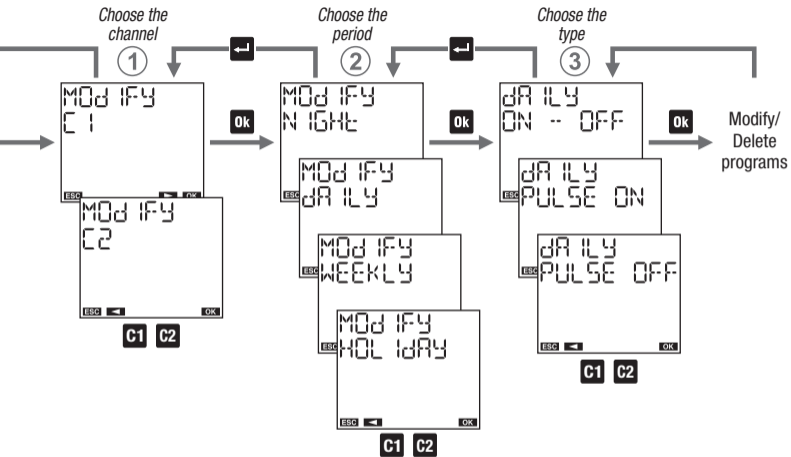
- ① choose the channel (only for TCBT2).
- ② choose the period: daily, weekly, holiday or night (only if it's an astronomical channel)
- ③ choose the type: on/off, on pulse, off pulse or a night program (only if it's an astronomical channel)

Note: a program requires more screens to be displayed:

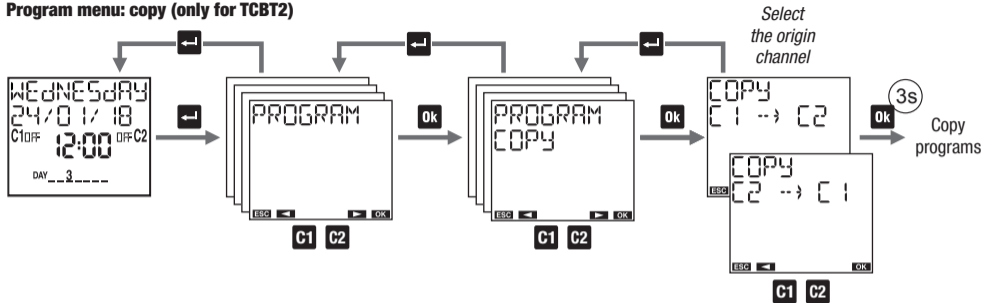
- press the key **Ok** to move from the first to the second part of the same program
- press the keys **C1** and **C2** key to switch from one program to another

**To modify:** press for a long time (at least 3 seconds) the key **Ok**

**To delete:** press for a long time and simultaneously the keys **Ok** and **←**

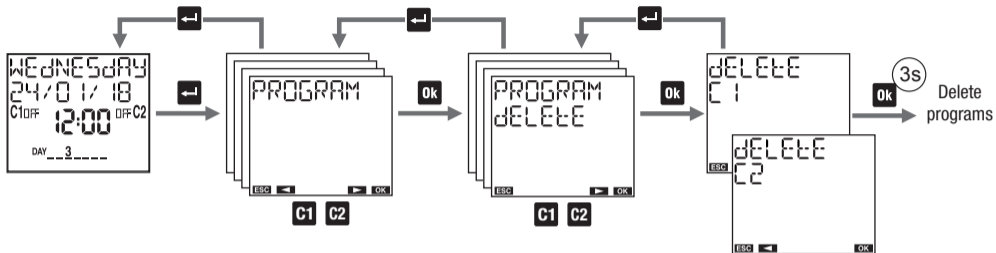


### Program menu: copy (only for TCBT2)



"Copy" menu allows copying the programs of a channel (origin channel) on the other channel (channels destination).  
Note: the programs previously stored on the channel destination will be deleted.

## Program menu: delete



"Delete" menu is used to delete all stored programs on the specified channel.  
Note: to delete one single program to see "modify" mode (see page 42).

## BLUETOOTH MENU

The Bluetooth menu allows you to enable or disable the Bluetooth interface and change the password used to associate your device (smartphone or tablet) to device.

### **To enable the Bluetooth interface:**

- ① set Bluetooth ON

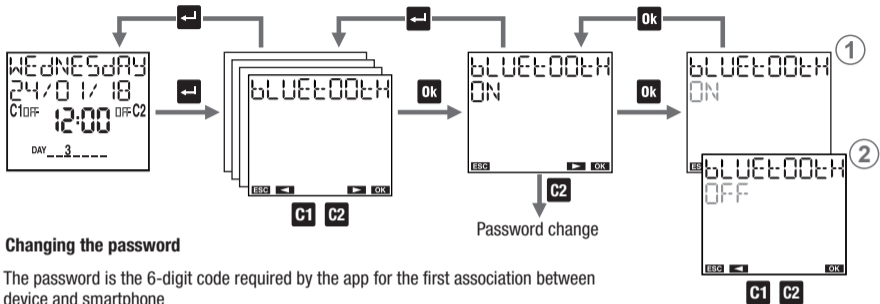
Warning: to make the Bluetooth interface active, the device must be mains powered and connected to the main page (see page 8). The Bluetooth interface is therefore not active when browsing through the device menus.

### **To disable the Bluetooth interface:**

- ② set Bluetooth OFF

In this way no communication can take place between your device and the time switch. The time switch works with the settings and programs already set; any changes or creation of new programs must be made by using the buttons on the time switch.





### Changing the password

The password is the 6-digit code required by the app for the first association between device and smartphone

The pre-set password is 123456 but can be changed.

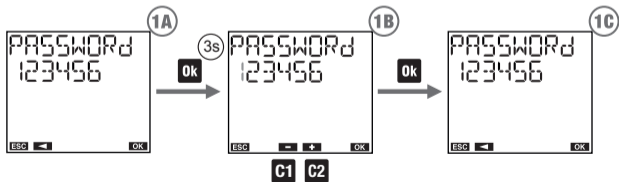
①A Press the key **Ok** for at least 3 seconds until the first digit of the password starts to flash.

①B Set the first digit with the keys **C1** and **C2** keys and press the key **Ok** to confirm and move to the next digit.

①C Repeat step ①B to set all 6 digits.

After confirming the last digit, the display shows the new password.

Press the key **↵** to exit the menu.



## HOUR COUNTER MENU

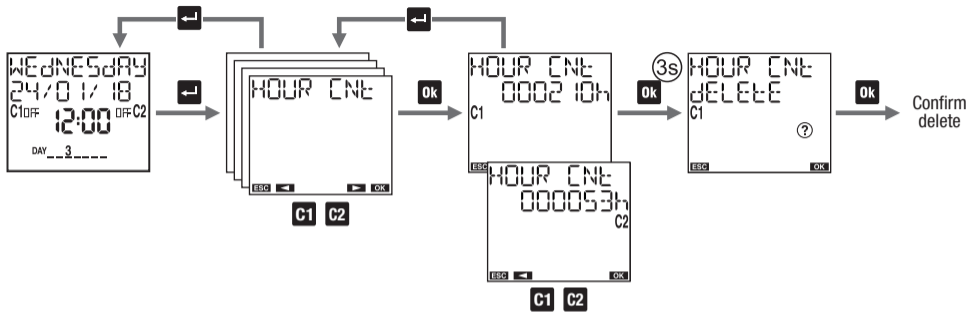
“Hour counter” menu allows you to display the hours of use (relay on) of connected loads.

The maximum value of the counter is 99999 hours (about 11 years); reached the maximum limit, the counter resets automatically.

### To reset a counter:

1. select the desired channel (only for TCBT2)
2. press the key **Ok** for 3 seconds until the display shows “HOUR CNE DELETE ?”
3. confirm by pressing **Ok** (press **↵** to exit without zeroing)

Note: it's possible to reset all counters contemporary from the “Reset” menu (see page 50).



## RESET MENU

“Reset” menu allows you to restore the initial state of the device.

### Available resets:

- ① Settings reset: deletes all the carried out settings (except the language and the PIN)
- ② Time programs reset: deletes all saved time programs
- ③ Holiday programs reset: deletes all saved holiday programs
- ④ Astro programs reset: deletes all saved astronomical programs
- ⑤ Counter reset: resets the counters of all channels
- ⑥ Reset all: carries out all the above described resets and deletes the language and PIN protection

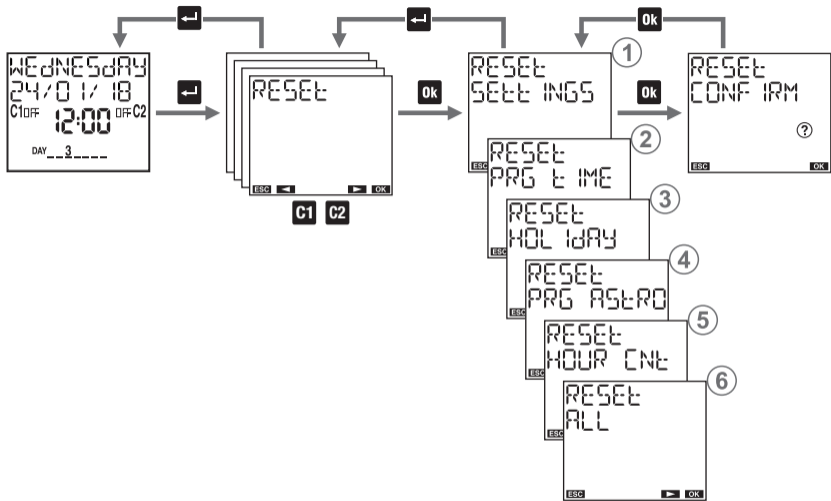
There is also another reset, of hardware type, which allows you to reset the device in case it responds to the pressing of the keys so unexpectedly, without losing the carried out settings/programs (only the date and the time are lost).

To carry out a hardware reset:

1. press the key “R” with a sharp object

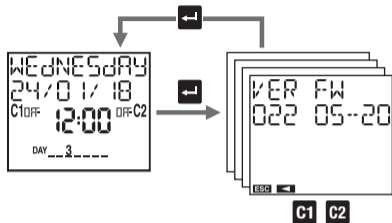


The hardware reset is also useful when you forget PIN protection. Reset, in fact, unlocks the keyboard for 3 minutes, the necessary time to access the appropriate menu and check/disable PIN.



## FIRMWARE MENU

This menu shows the firmware installed in the device, where:  
022 is the revision index  
05 is the month  
20 is the day



## ERROR SIGNALS

When setting up programs, in case of a discrepancy, the following error messages can occur:

- ERROR 001 on and off events with different frequency (each on event must have an off event)
- ERROR 002 on and off concomitant events of the same program
- ERROR 003 Two or more consecutive on events of the same program / Two or more consecutive off events of the same program
- ERROR 004 Invalid date
- ERROR 005 Insufficient memory
- ERROR 006 Attempt to set an on pulse on a channel where is already stored an off pulse (see page 25)
- ERROR 007 Attempt to set an off pulse on a channel where is already stored an on impulse (see page 25)
- ERROR 008 Attempt to set an on holiday program on a channel where is already stored an off holiday program (see page 25)
- ERROR 009 Attempt to set a holiday off program on a channel where a holiday on program is already stored (see page 25)

- ERROR 010 Attempt to set a holiday program of on and off events on different days of the week (see page 31)
- ERROR 011 Attempt to set an astro program on a channel of time (see page 25)
- ERROR 012 Attempt to set a time program on a channel of time type (see page 25)
- ERROR 030 Error accessing memory \*

\* In this case, carry out a hardware reset (see page 50).  
If the error persists, contact Voltex Technical Support.

## BATTERY MANAGEMENT

When the battery is close to empty, on the first line of the display appears 𐄂𐄂𐄂𐄂𐄂𐄂. In this case, the battery must be replaced as soon as possible. **Use only batteries of CR2032.**

To replace the battery:

- disconnect the mains
- remove the battery slot cover, turning it anti-clockwise
- replace the battery and remount the cover, turning it clockwise
- connect the power supply

**Warning:** do not use metal objects (such as screwdrivers) to remove the battery because this may cause the power reserve to be canceled, resulting in a loss of date and time.

**Warning:** in order not to lose the programming steps and carried out settings, it is necessary to ensure that the time for the battery replacement doesn't exceed 60 seconds (in absence of power by means).



Dispose of the used batteries observing the laws in force in relation to the disposal of hazardous waste.

## REFERENCE STANDARDS

### EU CONFORMITY DECLARATION

Voltex declares that the device complies with the EU directive 2014/53/EU (RED) with reference to the following standards:

- EN 60730-2-7
- ETSI EN 301 489-1
- ETSI EN 301 489-17
- ETSI EN 300 328

The complete text of EU conformity declaration is available at the Internet address [www.voltexelectrical.com.au](http://www.voltexelectrical.com.au)









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