

NA 09.38C

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Bus  
V3000 configuration functions  
Commissioning

# V3000 control timer



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## GENERAL INFORMATION

- The timer enables a series of V3000 controllers available on a KNX line to be controlled in Comfort/Economy Mode, up to a maximum of 60 controllers.
- This timer allows 8 distinct zones to be defined, tagged C1 to C8 (the 60 V3000 controllers must be distributed throughout these 8 zones).

## KNX BUS

The bus to be used between the controllers must meet the specifications of a KNX bus and must be supplied by a KNX standardised supply (see manual N08.51 for the precise definition of this bus)

## OPERATING PRINCIPLE

- Each V3000 is controlled by the timer for Comfort or Economy Mode depending on the defined time schedule.
- In local mode, the user has complete control over the running of the comfort unit via the wall-mounted control terminal.

### a) V3000 in Comfort Mode according to the time schedule:

- The user can stop his comfort unit by using the local terminal: Stop button corresponding to a frost protection mode (configurable\*)
- the comfort unit will restart in Comfort Mode the next time it receives the Comfort command signal from the timer or if the local terminal is activated.

### b) V3000 in Economy Mode according to the time schedule (e.g. Night-time operation):

- The user can restart his comfort unit by using the local terminal
- The comfort unit stops either when the wall-mounted terminal is activated or automatically if local action is set to a timer (configuration of standby button on the local terminal \*)

\* Configuration: see manual V3000 N08-35:

P47: operating mode activated by standby button on P48 terminal: Comfort override time delay

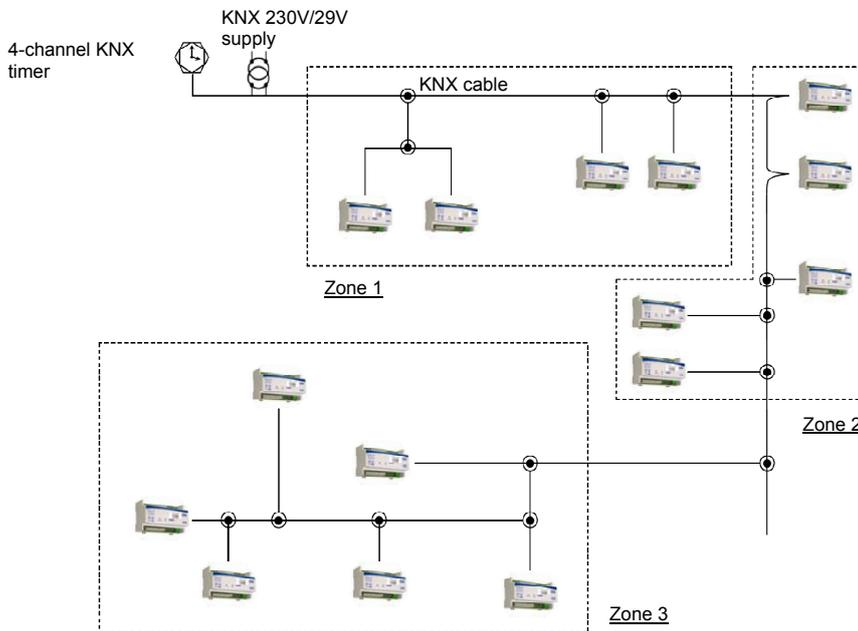
These settings are accessed using a CIAT display terminal. Procedure according to manual N08-35A.

- it is necessary to configure the devices operating as Master/Slave; refer to the procedure described in system start-up manual N08-35A.

The timer is configured in the factory and already has an address on the bus.

## Schematic diagram:

Example of an installation with 3 zones



### Note:

- The timer is supplied automatically by the bus
- Max 60 V3000 on the line
- KNX 320mA supply

## PRELIMINARY CHECKS AND CONFIGURATION OF THE V3000 ON THE BUS

Before configuring the timer on the bus, it is important:

- to check that all of the controllers are correctly connected to the bus and that it is supplied by the KNX supply.
- to configure the V3000 to define which zones they belong to by setting the P01 on each V3000 with:

P01=1 for all V3000 in zone 1  
 P01=2 for all V3000 in zone 2  
 P01=3 for all V3000 in zone 3  
 P01=4 for all V3000 in zone 4  
 P01=5 for all V3000 in zone 5  
 P01=6 for all V3000 in zone 6  
 P01=7 for all V3000 in zone 7  
 P01=8 for all V3000 in zone 8

## BASIC SAFETY INSTRUCTIONS



### WARNING

**Danger of death by electrocution or fire.**

- Only specialist electricians are authorised to carry out installation.

- The unit is designed for installation on a DIN rail (as per EN 60715), and corresponds to the type 1 STU as per IEC/EN60730-2-7 resp. 60730-1
- To correctly install bus cables and start up the equipment, comply with the instructions in standard EN50428 relating to switches and associated devices for use in home and building electronic systems. Any work or other modifications carried out on the device will result in the loss of all warranty rights.

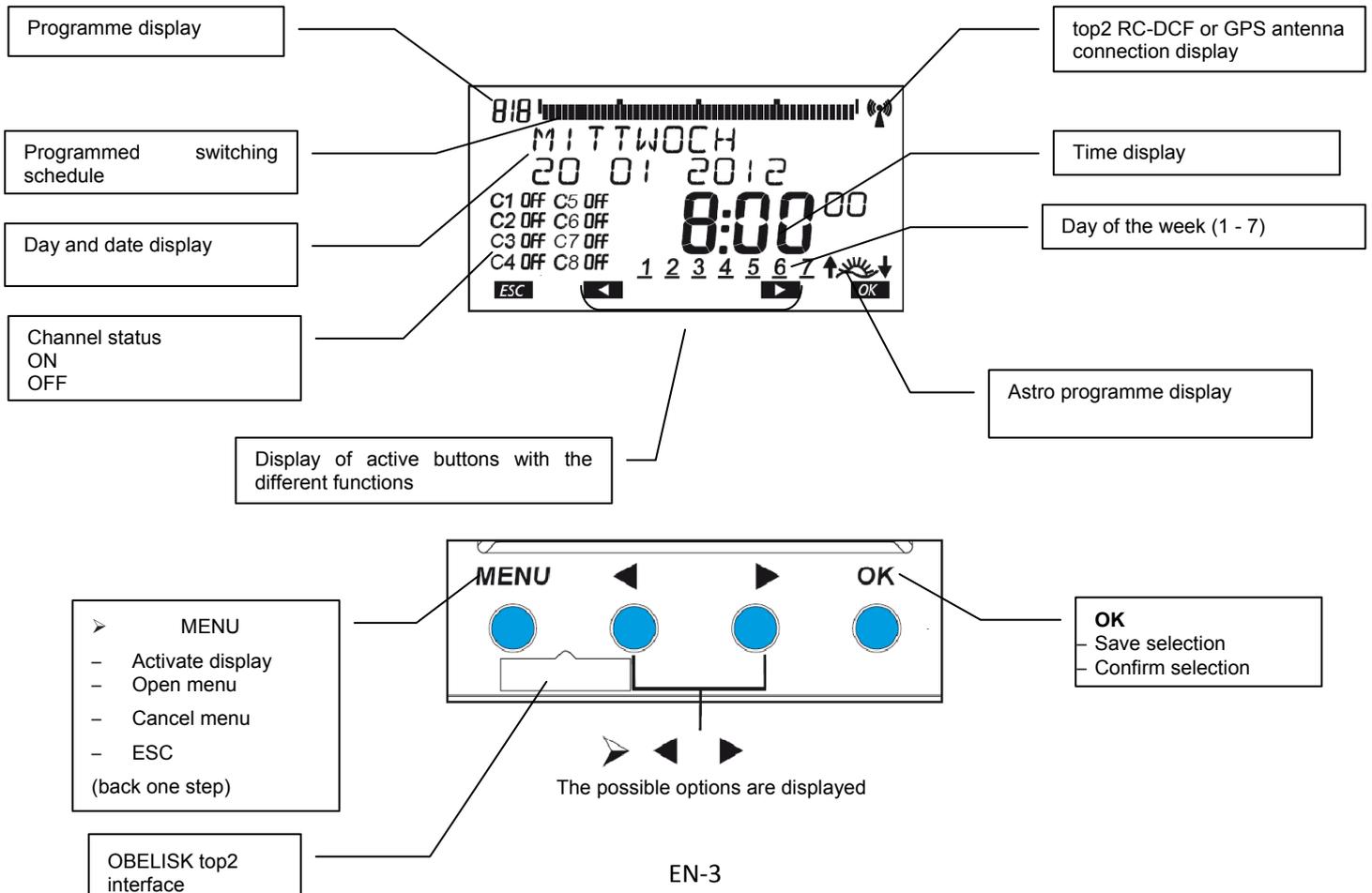
### Intended use

- The device is only designed for use in enclosed, dry locations; the sensor is installed outside

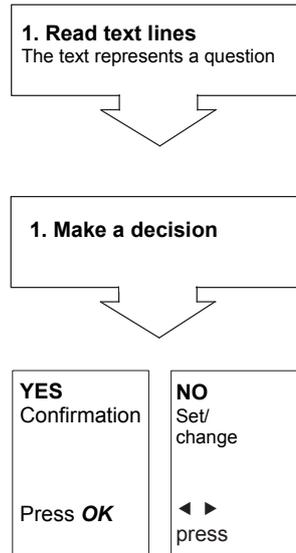
### Disposal

- Dispose of the device and its batteries separately, as per environmental protection directives.

## SCREEN AND BUTTONS



## OPERATING PRINCIPLE



## KNX TIMER

### Main functions

- 8-channel yearly timer switch (corresponding to the 8 zones defined above)
- Daily/weekly/yearly/holiday programme
- Timer backup using lithium battery (supplied).

**N.B.** as the timer has a battery backup, when the installation is subjected to a power cut, it will resume control of the V3000 no more than 3 min after the power supply is restored.

## CONNECTION/INSTALLATION

 Warning



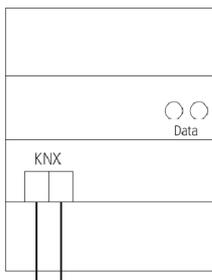
### Danger of death, risk of electrocution

- Only specialist electricians are authorised to carry out installation
- Switch off the power
- Cover or protect live parts in the vicinity.
- Take measures to prevent unwanted startups
- Check that the power is off
- Ground and short circuit
- Comply with SELV on the data bus

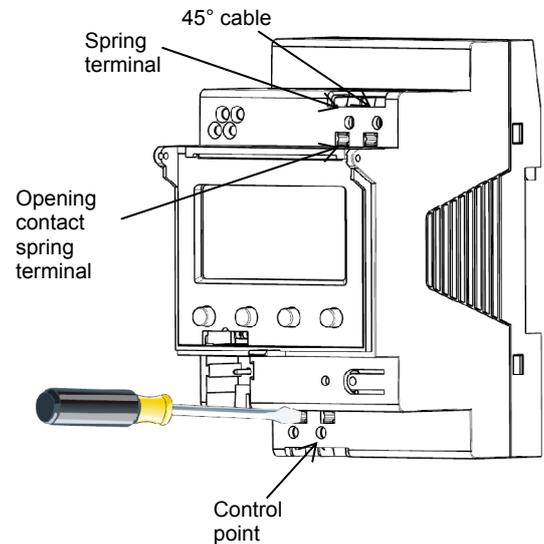
### CONNECTION

TR648 top2 RC KNX

- Supply from KNX bus



Note: observe the polarity of the KNX bus



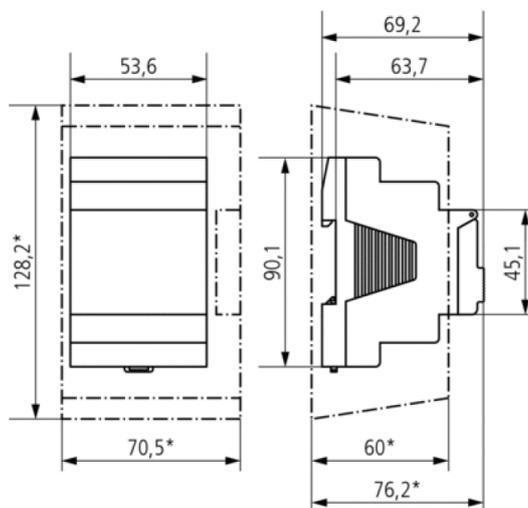
## TECHNICAL CHARACTERISTICS

Operating voltage	Self-powered on the KNX bus
Operating consumption	typ. 1 W
Standby consumption	0.8 W min.
Data output	SELV (Safety Extra-Low Voltage)
Connection type	Terminal block for KNX bus
Authorised ambient temperature	-5°C...+45°C
Protection class	II as per EN 60 730-1 in case of correct installation
Degree of protection	IP 20 as per EN60529
Operating accuracy	≤ ± 0.5 s/day at 25°C
Power reserve	8 years (lithium battery) at +20°C
Pollution degree	2
Rated impulse withstand voltage	4kV
Maximum cable cross-section	2.5mm <sup>2</sup>
KNX operating voltage	Bus voltage
Bus	≤10 mA
Bus cable length	See KNX specifications

## LANGUAGES AVAILABLE ON THE TIMER

- French
- English
- German
- Italian
- Spanish
- Portuguese
- Dutch
- Polish
- Norwegian
- Swedish
- Danish

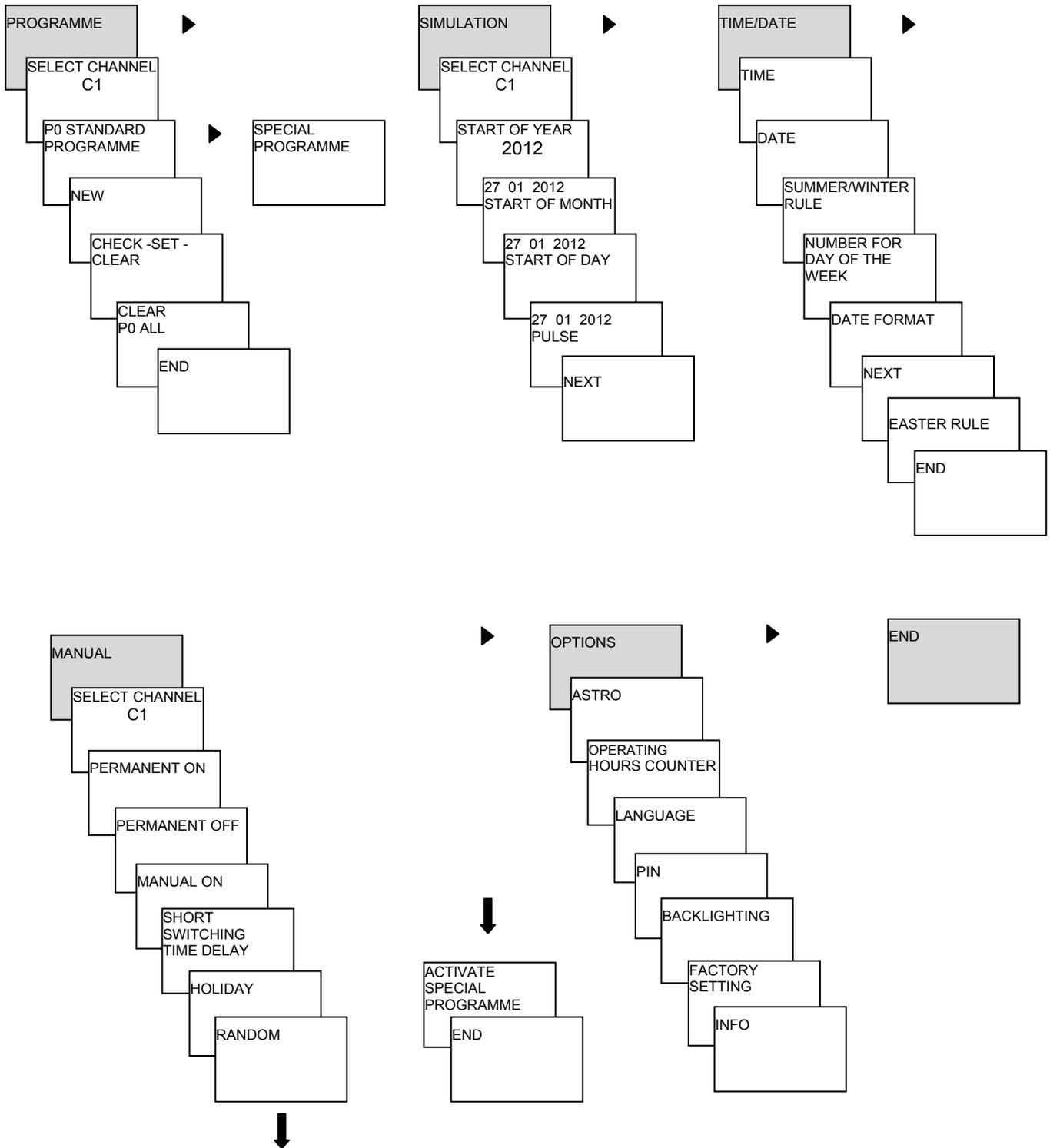
## DIMENSIONAL DRAWING



## SPARE MEMORY

If there is a power cut, the memory reserve ensures that the current time is saved (for approx. 1.5 years). Even with no current and a drained battery, the switching times will still be memorised.

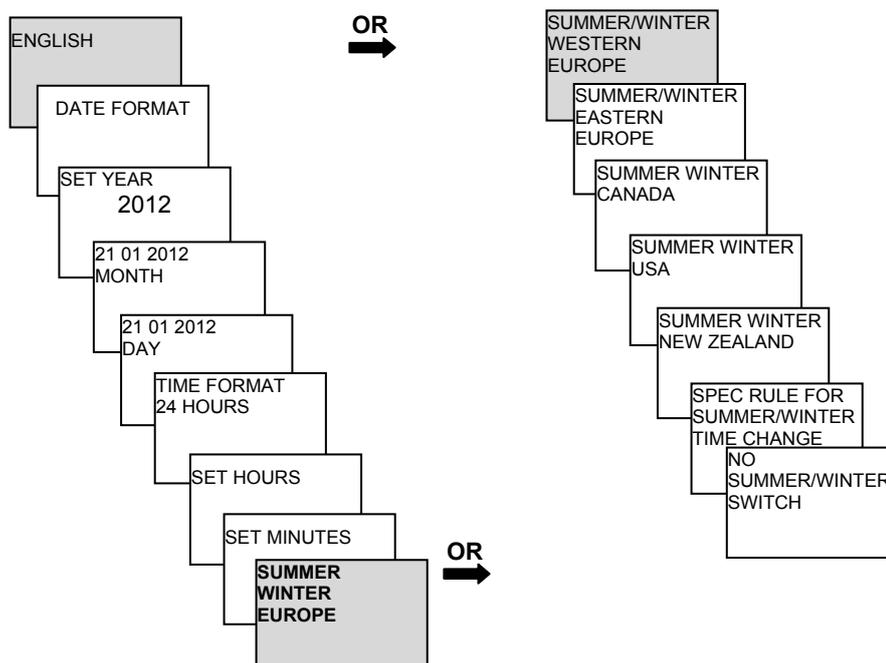
## MENU OVERVIEW



## FIRST SYSTEM START-UP

### Set the date, time and rule applicable to the summer/winter time

- Press any button and follow the instructions displayed on the screen



## SWITCHING TIMES SCHEDULE

A switching schedule can be programmed and switched for each channel as required

### Switching schedule function

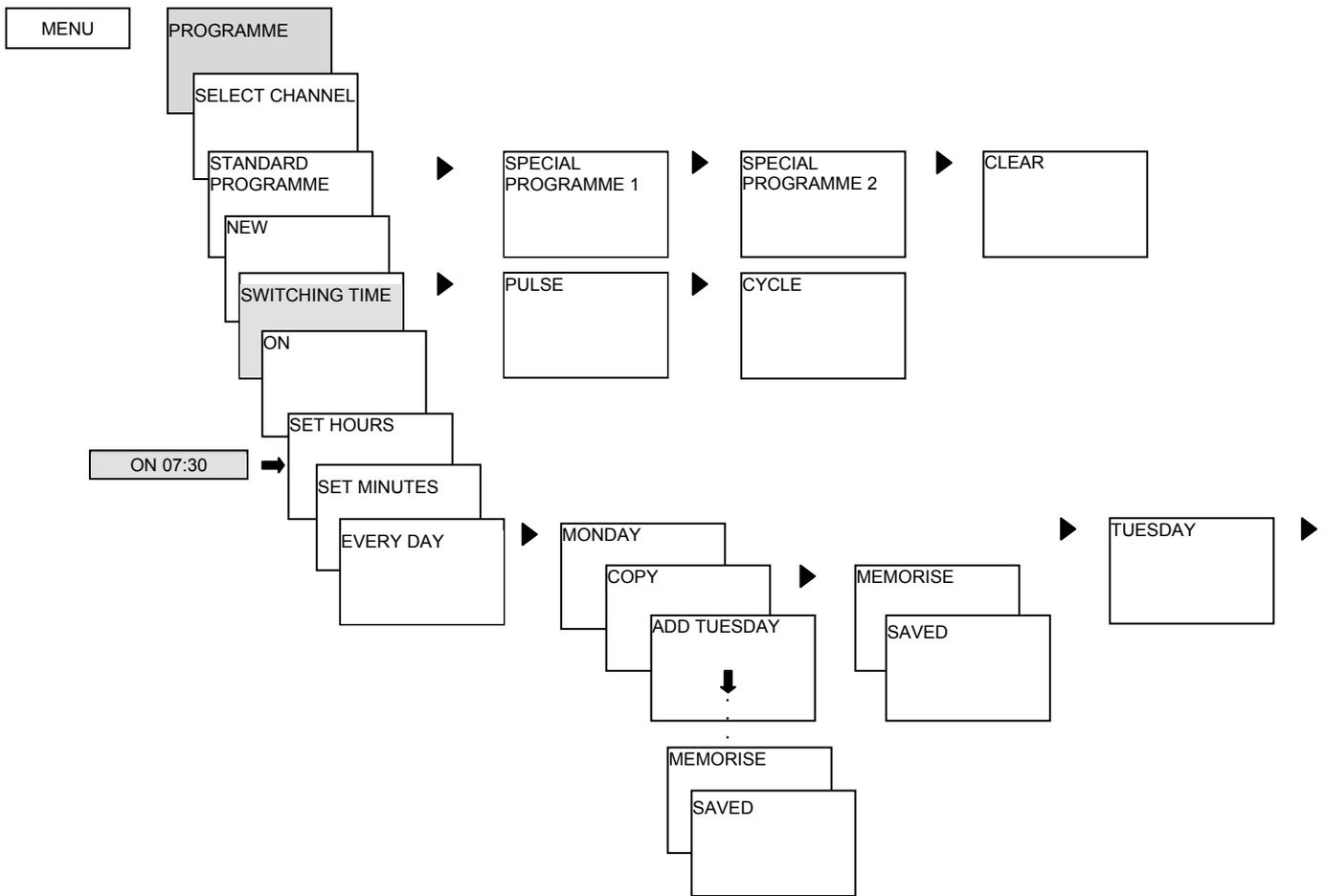
- **1 Default programme P0** (Weekly programme with switching schedule, pulse and cycle lengths)
- **16 Special programme** not used here

14 special programmes (P1 to P14) (weekly programme with switching schedules, pulse and cycle lengths) with different adjustable date ranges (fixed date range, date depending on Easter, etc.), with P15 special programme (fixed ON) and P16 special programme (fixed OFF) (with adjustable date ranges) (see manufacturer's specific manuals).

## REPROGRAMMING THE SWITCHING SCHEDULE IN THE P0 DEFAULT PROGRAMME

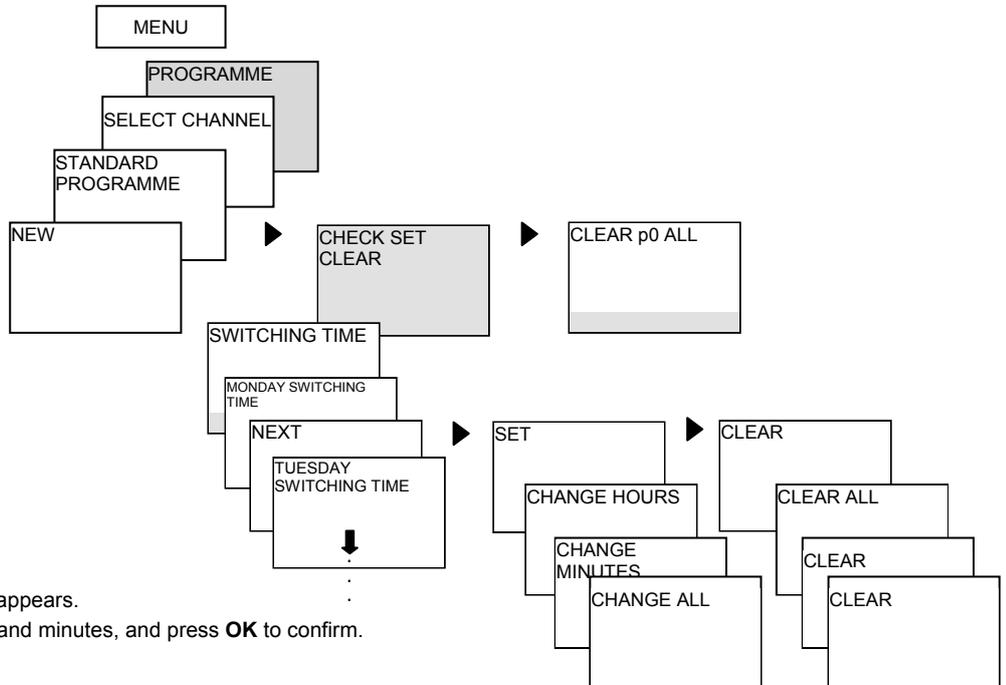
Example: Comfort units operating in Comfort/Eco mode from Monday to Friday, from 07:30 to 18:00

- Press **MENU**. **PROGRAMME** appears.
- Press **OK** to confirm. **SELECT CHANNEL** appears.
- Confirm **CHANNEL 1** by pressing **OK**. **P0 STANDARD PROGRAMME** appears.
- Press **OK** to confirm. **NEW** appears.
- Press **OK** to confirm. **SWITCHING TIME** appears.
- Press **OK** to confirm. Select **ON** (for startup durations).
- Press **OK** to confirm. **SET TIME** appears.
- Use the + and – buttons to enter the hours and minutes, (07:30) and press **OK** to confirm.
- EVERY DAY** appears. Use **▶** to select **MONDAY**.
- Press **OK** to confirm. **COPY** appears.
- Confirm with **OK**. **ADD TUESDAY** appears.
- Press **OK** to confirm and **OK** again to set the days (Wednesday, Thursday, Friday).
- Continue with **▶** until **MEMORISE** appears. Press **OK** to confirm.
- Repeat all the steps for the deactivation schedule, but press **▶** to select **OFF** instead of **ON**, and enter 18:00 for the hours and minutes.



## DISPLAY/SET/DELETE SWITCHING TIMES

- Press **MENU**. **PROGRAMME** appears.
- Press **OK** to confirm.
- Confirm **CHANNEL 1** by pressing **OK**.
- Confirm **P0 STANDARD PROGRAMME** by pressing **OK**.
- Select using **▶CHECK -SET -CLEAR**
- Press **OK** to confirm.
- Confirm **SWITCHING TIME** by pressing **OK**. The first switching schedule entered is displayed.
- Press **OK** to confirm. **NEXT** appears.

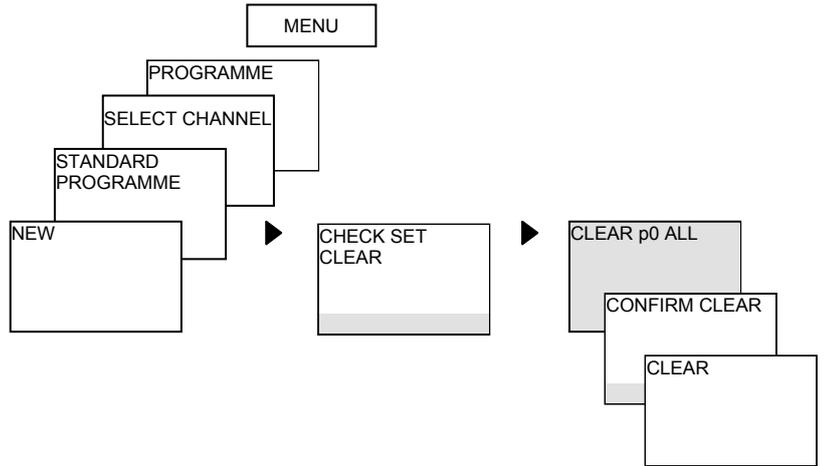


### Setting or deleting certain switching schedules

- Use **▶** to select **SET** (or **CLEAR**).
- Press **OK** to confirm. **CHANGE HOURS** appears.
- Use the **+** and **-** buttons to set the hours and minutes, and press **OK** to confirm.

## CLEAR ALL SWITCHING TIMES FROM THE DEFAULT PROGRAMME

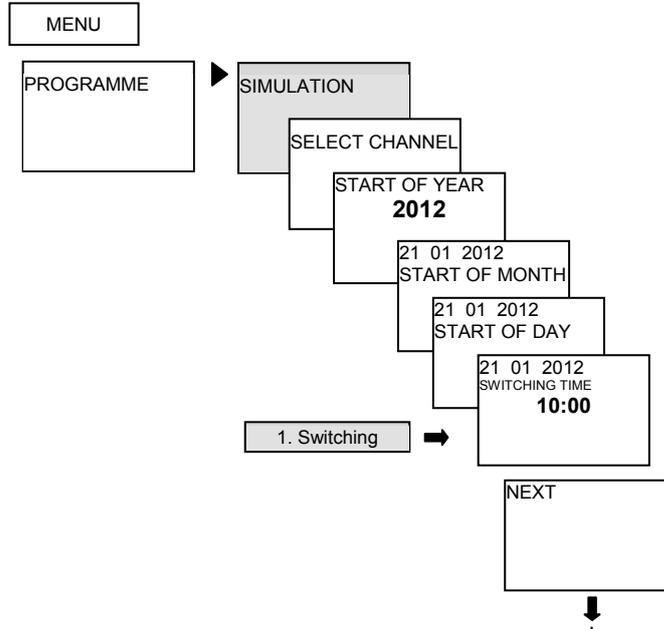
- Press **MENU**. **PROGRAMME** appears.
- Press **OK** to confirm.
- Confirm **CHANNEL 1** by pressing **OK**. **P0 STANDARD PROGRAMME** appears.
- Press **OK** to confirm.
- Use **▶** to select **CLEAR P0 ALL**.
- Press **OK** to confirm. **CONFIRM CLEAR** appears.
- Press **OK** to confirm. **CLEAR** appears.



## SIMULATION

The simulation is a complete, channel-specific check. All switching operations entered in a channel (default and special programmes, switching schedule, pulse and cycle programme) are displayed in chronological order of execution.

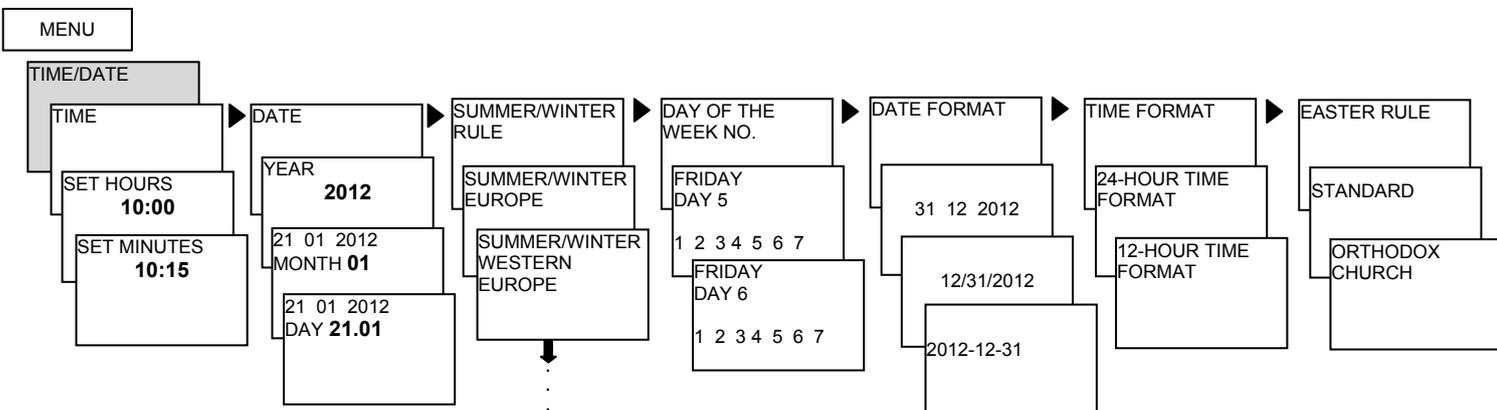
- Press **MENU**, then use **▶** to select **SIMULATION** and follow the instructions on the screen to open all the executed switching operations.



## TIME/DATE

In the TIME/DATE menu, the TIME, DATE, SUMMER/WINTER RULE, DAY OF WEEK NUMBER, EASTER RULE, etc. can be entered/set in the sub-menus.

- Press **MENU** then use **▶** to select **DATE/TIME** and follow the instructions on the screen.



## MANUAL AND PERMANENT SWITCHING

Manual and permanent switching may be set in the menu during operation

### MANUAL.

#### Manual switching

Reversal of the channel status until the next automatic or programmed switching operation.

#### Permanent switching

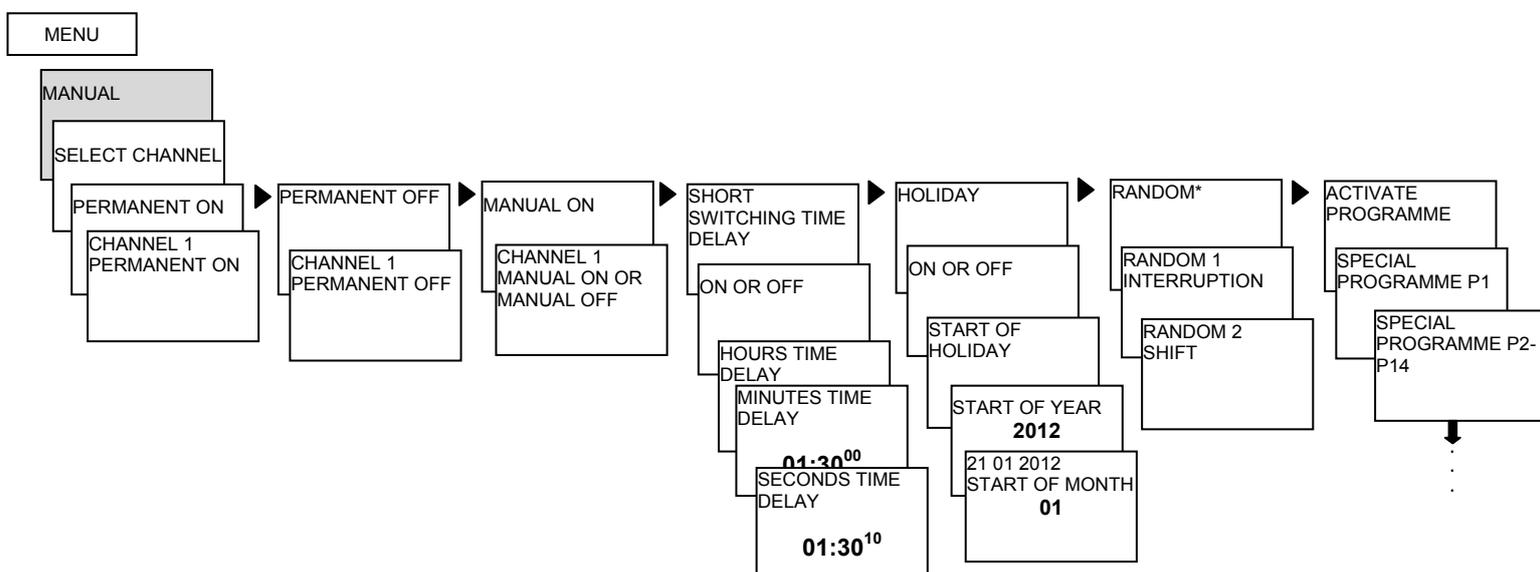
If permanent switching (on or off) is active, the programmed switching schedules will not apply.

## MANUAL

The manual switching functions are executed in the **MANUAL** menu. In the **MANUAL, PERMANENT ON/OFF, TPS SHORT SWITCHING TIME DELAY, HOLIDAY, RANDOM** and **ACTIVATE SPECIAL PROGRAMME** sub-menus, manual switching operations can be activated/programmed.

➤ Press **MENU** then use **▶** to select **MANUAL** and follow the instructions on the screen.

MENU



## ADDITIONAL POSSIBILITIES

The timer has other advanced functions such as the annual programme, the special programme for bank holidays, management of different weekly programmes according to the season, etc.

If you wish to use these functions, refer to the Theben manual supplied with the timer.