

SINGLE/TWO CHANNEL 24HR/7 DAY TIMER

Cat No. TR671/TR672TOP



INSTALLATION & OPERATING
INSTRUCTIONS



TR671/TR672TOP 24Hr/7 Day 1/2 Channel Digital 'TOP' Module (without Power Supply)

Please read the instructions before using the product and retain for future use.

The TR671/TR672TOP are electronic timer modules for OEM applications featuring 'Text Oriented Programming'. Requires a 3V DC power supply.

Please refer to www.theben.de/downloads/manuals/TERMINA/TR-671-672-top_GB.pdf for further information.

Overview per day of the programmed switching times
5 = Friday

Display of special functions:
Hand ON/OFF 
Permanent ON/OFF 

Channel statuses
C1 or C2 are displayed alternatively
ON/OFF

Displayed only when summer/winter time changeover is activated
Summer time *
Winter time *

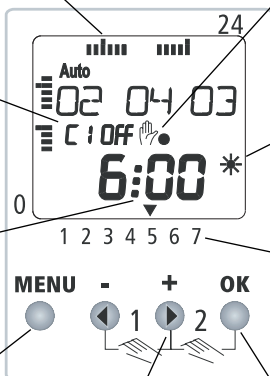
Service voltage OK:
Two flashing dots

Power reserve mode:
Three flashing dots

Selection
e.g.: Auto, Prog, ⊖,
Man, Abort

Decision No means continue

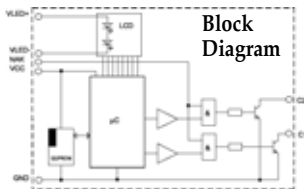
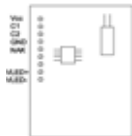
The decision Yes confirms the selection or programming



Description

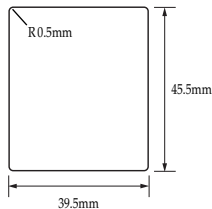
- 1 or 2-channel digital time switch
- 42/28 memory locations with free formation of day blocks for both channels and separate programming of On and Off times.
- 32/21 memory locations with free formation of day blocks for both channels and separate programming of On and Off pulse switching times. Pulse length adjustable from 1 - 59 seconds. Or
- 16/10 memory locations for programming cyclic switching times on channel 1 or 2. Pulse and pause times can be adjusted from 1 second up to 99 minutes and 59 seconds
- Combination of cyclic switching, pulse switching and switching times possible
- Simple operation by means of integrated text line in the LCD display with only 4 keys
- Switching mode preselection for manual On and Off functions without influencing the automatic program sequence
- Switching status correction by subsequent review of inputs or changing the clock or switching time
- Continuous ON/OFF switching separate for each channel (maximum priority)
- Fully automatic summer/winter time changeover according to MEZ, GB, USA or freely programmable changeover regulation, can alternatively be disabled
- Power failure monitor to switch off switching outputs in case of a power failure. This is indicated by three flashing dots in the display
- Date-related vacation switching mode (OFF) to interrupt the automatic program separately for each channel
- Random function separately for each channel
- Backlighting

Terminal Diagram



Panel Cutout

(Panel thickness 3mm Max.)



First Contact

1. Activate with 3V DC: Select your National language and then enter the actual date and time.

2. Activate the clock, select the national language: By pressing the \oplus or \ominus key select your national language. Store your selection by pressing the **OK** key.

3. For programming, viewing or deleting:

First of all read the text display.

Menu selection: Select by pressing the **MENU** Prog key.

Confirm by pressing **OK**.

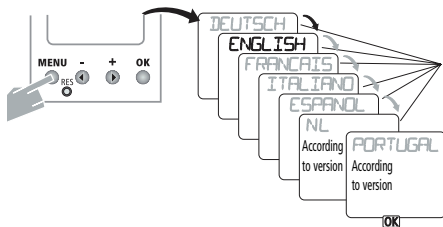
By pressing the \oplus key select the desired menu e.g.

New, View or Delete. Confirm your selection by pressing **OK**.

Set or change: by pressing \oplus or \ominus . Store by pressing **OK**.

To display the switching times: In the menu View, press the **OK** key several times.

Selection of National Language Initial operation



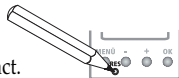
OK The decision Yes, confirms the selection or programming.

+ The decision No, means continue.

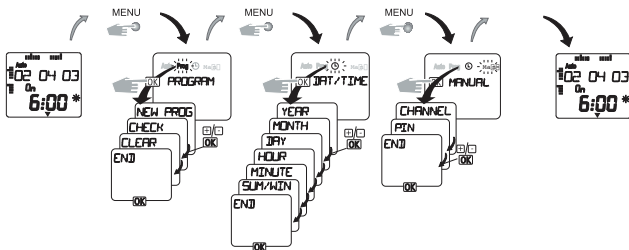
+ Set or amend by pressing the \oplus or \ominus keys.

RESET (only in case of emergency): If you perform a RESET of the timer, the individual settings will be deleted. The programmes switching times remain intact.

Press the **RES** key with a pointed object for approx. 1 second.



Specifications



Operating voltage	VCC	3.0VDC $\pm 10\%$	
	NAK	3.0VDC $\pm 10\%$	
Current consumption	IVCC	During operating processes	appr. 700 μ A
		Automatic return to Auto mode after	appr. 90 secs
		Auto-Mode appr.	25 μ A
		Additionally per actuated channel	appr. 30 μ A
		Additionally with NAK=1	appr. 350 μ A
	INAK		appr. 50 μ A
Time basis		Quartz 32768 Hz	
Accuracy		< 1 Sec. per day at 20°C	
Shortest switching time		1 minute	
Switching precision		accurate to the second	
Language group		D - F - GB - I - E - NL	
Preset summer/winter time		EU	
Configuration		1F 7D 40 2F	
Operating temperature		-10°C ... 65°C	
Switching output C1,C2	Open collector	Off	max. 55VDC at 0mA per channel
		On	0.2VDC at max. 4mA per channel
		ICmax	4mA
		Pmax	160mW at 20°C
Connection		5-pole flexible lead, length appr. 125mm, without plug	
Backlighting:	VLED+; VLED-	IF	appr. 14mA (max. 20mA at 25°C)
		UF	appr. 8V
			(e.g. using series resistor)
Connection		2-pole flexible lead, length appr. 90mm, without plug	
Switching mat		Colour blue PANTONE 286C, Imprint black RAL 7035	

Programming the Switching Time

Switching times for lighting systems, machines, ventilation systems, alarm systems etc.

Formation of day groups: If the same switching times are active on several days of the week, they occupy just one memory location **42** memory locations are available, e.g. Monday - Friday 7.30 hrs ON .

Group formation: In answer to the text question **Copy**, decide by pressing the **OK** key that the day program should be copied to another day of the week.

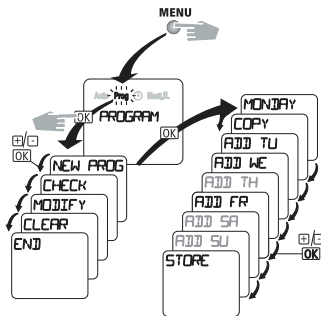
When programming an ON and OFF switching time, e.g. 9 AM, a switch-off at 9 AM always has priority.

Program review: Following programming the timer makes a program review back to midnight and then sets the correct switching status.

Example: Example: Switching on the lighting of a sports hall on Mon., Tues., Thurs., Fri. from 7.30h until 12h.

Programming example:

Select **PROG** by pressing the **MENU** key. Store your selection by pressing the **OK** key. Select **NEW** by pressing the **+** or **-**. Store your selection by pressing the **OK** key. Select channel C1 or C2 by pressing **+** or **-**. Store your selection by pressing **OK**. Select ON or OFF by pressing **+** or **-**. Set the hours and minutes by pressing the **+** or **-** key. Store selection by pressing **OK**.



To store one day of the week only:

Select weekday by pressing **+** or **-**. Select store by pressing **+**. Store by pressing **OK**.


To copy to other days of the week:

Store **COPY** by pressing **OK**. Select weekday by pressing **+** or **-**. Store by pressing **OK**. To leave out a day of the week, skip by pressing the **+** key. Finally select the **STORE** display by pressing **+**. Store your selection by pressing **OK**.


Permanent ON or OFF Random or Holiday program

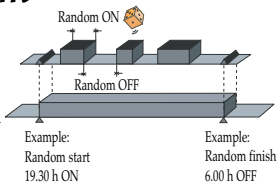
Effect of the random program:

The random program causes the timer to switch between programmed pairs of switches (ON and OFF). The random on an off times range between approx. 10 mins. and 120 min. The random time always begins with OFF.

Symbol  flashes when the random program is effective.

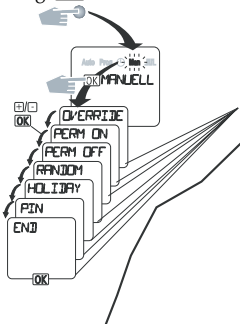
Effect of the holiday program: The holiday program has the effect that the timer does **not** switch on the connected consumer unit between the programmed start and finish (stipulation of year, month, day). **Start** and **finish** of the program is always **midnight** on the day that is programmed. Example: 25.3. national holiday. Programming: start 25.3. finish 25.3.

If the holiday program is active, the corresponding channel and holiday symbol  are displayed flashing on the automatic menu.



Read the text display first of all

In the menu **Man**, select by pressing the **+** or **-** key the function manual, permanent, random or holiday. Confirm your selection by pressing the **OK** key. To cancel a function: Select the function clear. Store your selection by pressing **OK**.




Via the automatic menu Auto only

Press the two keys for approx. 1 s.





Manual preselection:

Press keys simultaneously.

Channel C1 or **C2** switches alternately ON or OFF. Symbol  appears.

Manual preselection is corrected again by the stored program.

Press both keys for approx. 2 s.

Permanent ON  •
OFF  •

Cancellation of manual


preselection/ permanent switching: Briefly press the keys shown above.

Pulse program

e. g.: for breaktime signals, ventilation systems, flushing systems, bell controls etc.

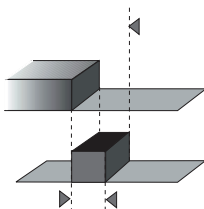
Effect of the pulse program:

The pulse time can be set within the range 1 to 59 seconds.

Symbol  flashes as long as the pulse program is active.

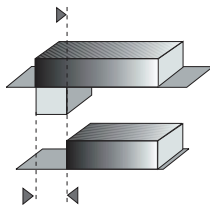
Switch-off delay

Example: Switch off at 17.30 h 15 s



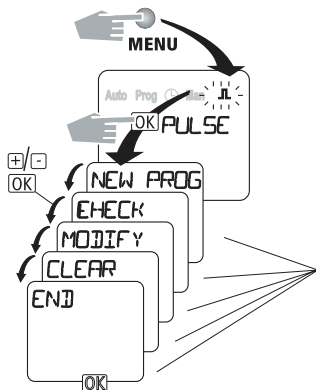
Switch-on delay

Example: Switch-on at 7.00 h 15 s



Program: 7.00 until 17.30 h
and
pulse at 17.30 h
pulse ON, duration 15 s

Program: To switch on from
7.00 until 17.30 h
and
pulse, OFF at 7.00 h
pulse duration 15 s



Day group formation

If the same pulse switching times are effective on several days of the week, they occupy one pulse memory location only, e.g.: Mon., Tues., Wed., Fri., pulse time 7.30 h. 32 memory locations are available for pulse programming.

Viewing the pulse times


Only possible in the menu PULSE.

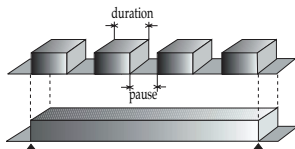
Always read the text display first of all. You will be provided with programming help. Confirm your selection by pressing the **OK** key.

Cycle program

Cyclically recurring time functions within the scope of a timer, e.g. slow flashing indicator, water treatment, advertisement lighting

Effect of the cycle program:

The clocking and pause times can be set separately. The settable times are max. 99 minutes and 59 seconds. The cycle program has the effect that between two programmed times, day of week start and day of week finish, the cycle program is active. The cycle program always begins with a switch on. 16 memory locations are available to you. The symbol  flashes when the cycle program is active.



Example cycle start:
Monday 7.30 h ON

Example cycle finish:
Friday 16.30 h OFF

Brightness variations at lighting installations may arise in the cycling mode. In this case actions to reduce these effects have to be taken (for example reduction of the load or extension of the cycle time). More than five switching operations per minute are not admissible without additional EMC interference measures.

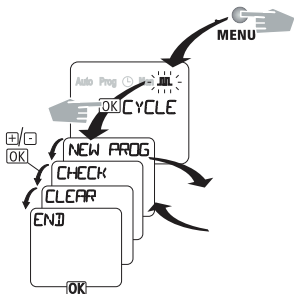
Viewing the cycle times:

Possible in the menu Cycle only!

N.B.: If two cycle times are programmed in which the start and finish times overlap, it is always the cycle time that starts first that is executed.

Example: Cycle time 1, programmed from: Mo to Thu

Cycle time 2, programmed from: Tue to Fri. Only cycle time 1 is effective, cycle time 2 is **not** accepted.



Select by pressing the **MENU** key **Cycle**.

Store your selection by pressing the **OK** key.

Set cycle **start** by pressing the keys **+** or **-**.

Store your selection by pressing the **OK** key.

Set cycle **duration** (Min./sec.) by pressing the keys **+** or **-**.

Store your selection by pressing the **OK** key.

Set cycle **pause** (Min./sec.) by pressing the keys **+** or **-**.

Store your selection by pressing the **OK** key.

Set cycle **finish** by pressing the keys **+** or **-**.

Store your selection by pressing the **OK** key.

Setting/correcting the date and time summer/winter time

Automatic summer/winter time correction

According to version the timer is preprogrammed ex-works complete with the change-over. Should you switch off the automatic facility or wish to alter it, first of all read the text display.

Select by pressing **+** or **-**.

Store by pressing **OK**.

Summer/winter time setting freely programmable.

By entry of month and week

e.g. Month 3 = March

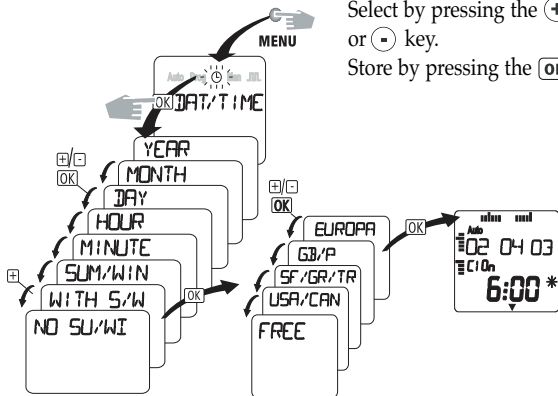
Week 4 = last week in the month

Note: In sum/win free Prog the time change is set automatically at Sunday 2 AM. Time change is not available.

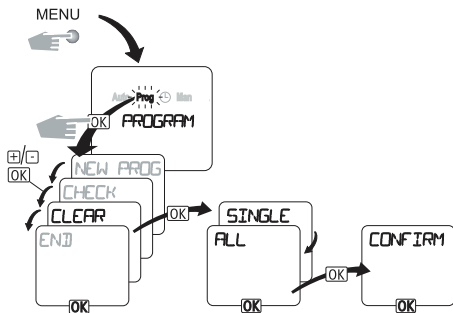
Read the text display first of all.

Select by pressing the **+** key or **-** key.

Store by pressing the **OK** key.



Individual deletions

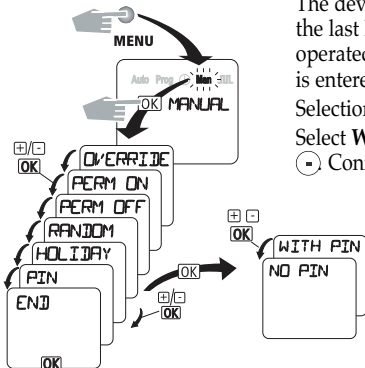


Pin code

The device can be locked against unauthorized use with a 4 digit code number.

Select the **Manual** menu using \oplus or \ominus . Confirm with the OK button. Selection **WITH PIN**

Select **WITH PIN** using \oplus or \ominus . Confirm with the OK button. Make note of any desired 4- digits number. Select the first digit of your 4 digit code using \oplus or \ominus . Confirm the entered digit with OK . Select further digits as described using \oplus or \ominus . Confirm each selected digit with the OK button.



The device is locked 90 sec. after the last keystroke and can only be operated after the correct PIN code is entered.

Selection **WITHOUT PIN**

Select **WITHOUT PIN** using \oplus or \ominus . Confirm with the OK button.

If a PIN code has been activated, the timer can no longer be activated without a valid PIN code after a RESET. **The device must be sent in!**

3 Year Guarantee

In the unlikely event of this product becoming faulty due to defective material or manufacture within 3 years of the date of purchase, please return it to your supplier in the first year with proof of purchase and it will be replaced free of charge.

For the second and third years or any difficulty in the first year telephone the helpline on **020 8450 0515**.



HELPLINE
020-8450-0515



For a product brochure please contact:

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London NW2 6ND

020-8452-1112

or email csc@timeguard.com