# 10:54 year 7d 24h A PC ±1h DCF77



TR 641 S



TR 644 S



TR 644 S DCF, radio controlled



Antenna for DCF77 radio signal, see page 28

### Dimension drawings DIN 43 880





Programming and simulation on the PC by means

• 10 standard week programs with ascending priority e.g.

 The software has a database available containing holidays that can be loadet as appropriate

Integrated calendar until 2070.

for the entire year for all channels

exactly to the minute for every channel

channel and date

keyboard or PC

permanent switching

from the front

TR 641 S TERMINA<sup>®</sup>

1 channel

adjustment

1 channel

adjustment

TR 642 S TERMINA®

TR 644 S TERMINA®

**Terminal cover** 

• Activatable random program

• With date correction for holidays in succeeding years.

• Permanent function ON/OFF programmable for each

• New simulation of the program on PC with an overview

• Overview by wiring diagram in the zoom window

Programming possible even without power supply

• Calendar controlled automatic summer/winter time

• Automatic time synchronisation and summer/winter time

Mains supply unit and Arial DCF77 required additionnally

TR 641 S DCF TERMINA<sup>®</sup>, radio controlled

• as TR 641 S, but with 2 channels

• as TR 641 S, but with 4 channels

TR 644 S DCF TERMINA<sup>®</sup>, radio controlled

• as TR 641 S DCF, but with 4 channels

TR 642 S DCF TERMINA<sup>®</sup>, radio controlled
 as TR 641 S DCF, but with 2 channels

• Manual switching is possible by means of override and

• High battery reserve with lithium cell, easily replaceable

Free block formation of channels and weekdays
Simple programming possible by means of ten key

for different programs (public holidays, holidays, seasons)

of the OBELISK programming set is possible as well as programming manually on the device by

keyboard.

Function:

### Common technical data:

Nominal voltage: 230–240 V~, + 10%/– 15% Special voltages: see appendix Frequency: 50–60 Hz Type of contact: changeover contact Contact: potential-free Opening width: < 3 mm ( $\mu$ ) Contact material: AgSnO<sub>2</sub> Switching capacity: 16 A, 250 V~, cos  $\phi = 1$ 

**Vitching capacity:** 16 A, 250 V~,  $\cos \varphi = 1$ 10 A, 250 V~,  $\cos \varphi = 0.6$ 

Power consumption: approx. 8 VA Time base:

# TR 641 S/642 S/644 S: Quartz

TR 641 S/642 S/644 S DCF: Quartz/DCF 77 time signals Accuracy:  $\leq \pm 1$  s/day at 20 °C or DCF77 synchronous Shortest switching time: 1 minute/1 second Switching precision: exact to the second Display: LCD-display

# Operating control elements: 15 touch keys

Power reserve:

1.5 years at full operation (temp. 20 °C) by means of an environmentally friendly lithium cell. Data security, when switched off, approx. 10 years by means of EEPROM.

### Admissible ambient temperature:

Time switch: -10 °C... +55 °C Antenna: -10 °C... +70 °C

Max. antenna distance: 200 m

Housing- and insulation material: self-extinguishing thermoplasts of high temperature resistance Protection class:

Il according to EN 60 730-1 subject to correct installation Degree of protection: IP 20 according to EN 60 529 Weight: time switch approx. 500 g Test approvals: (S) (TR 644 S/TR 644 S DCF)

#### PC programming kit OBELISK



# Design:

- Standard housing 45 x 105 x 60 mm
- Snap-on fixing for 35 mm top-hat-rail (EN 50022)
- Shock protection in accordance with accident prevention regulation BGV A3
- Surface mounting with additional terminal cover, tamper prooofing
- Panel mounting with installation kit No. 907 0 001
- Transparent cover, tamper proofing

\*with terminal cover

# Image: Weak state Total Total Total Total Image: Weak state Total Total Total Total

## Programming with OBELISK 2.1



### Easy programming

By choice, with both versions, the whole switching program can be effected at your desk with WINDOWS on the PC by using the additional OBELISK 2.1 program kit. The complete time program can be printed in tabular form.

## Programming with the mouse

Bring up on the screen with the mouse the required fields e.g. channel 2 and 3, ON, on Tuesday. By scrolling the hours and minutes, set the switching time to the exact minute and confirm with OK – ready.

### Standard week programs

In addition to the standard program, additional programs for public holidays, holidays, varying seasons or "Open Day" can be created. Each program is allotted a precedence rating. The higher precedence rating has priority. The priority program is filed in the memory and can be activated, when required, by entering the start and end date.

## **Public holidays**

Simple and individual programming with the help of the holiday data base. Also variable holidays only need to be programmed once, since the date adjustment for the subsequent years takes place automatically via the time switch. Integrated calendar until 2070.



#### Simulation of the time program

To obtain a quick overview, an entered switching program can be displayed in the form of a graph. You first receive an overview for the entire year for all channels. By clicking the desired day and channel, you receive an overview in the zoom window exactly to the minute.





# Easy installation:

- **1** Plug the interface of the OBELISK-plug adaptor into the serial part of your PC.
- 2 Push on the OBELISK memory card.
- 3 Install the OBELISK software on the PC.
- 4 Necessary PC 486 or PENTIUM with WINDOWS 95/98/2000/NT/XP. Available capacity on two hard discs about 4 MB.
- 5 Program can be read from PC into the memory card OBELISK and from there be transferred into the time switch. The OBELISK memory card may now serve as back-up or for program transfer from time switch to time switch.



Туре	Program	Memory locations	Power reserve	Programmable every	Special functions	Switching contacts	Nominal current at 250 V~	Order No.
TR 641 S 1 channel	24 h/7 d/year 1–59 s pulse	324	1.5 years	1 s	1x switching 17 days for holiday setting	1 changeover switch	16 (10) A	641 0 001
TR 641 S DCF 1 channel	radio controlled 24 h/7 d/year 1–59 s pulse	324	1.5 years	1 s	1x switching 17 days for holiday setting	1 changeover switch	16 (10) A	641 0 301 (without antenna + power unit)
<b>TR 642 S</b> 2 channels	24 h/7 d/year 1–59 s pulse	324	1.5 years	1 s holiday setting	1x switching 17 days for	2 changeover switches	16 (10) A	642 0 001
TR 642 S DCF 2 channels	radio controlled 24 h/7 d/year 1–59 s pulse	324	1.5 years	1 s	1x switching 17 days for holiday setting	2 changeover switches	16 (10) A	642 0 301 (without antenna + power unit)
TR 644 S 4 channels	24 h/7 d/year 1—59 s pulse	324	1.5 years	1 s	1x switching 17 days for holiday setting	4 changeover switches	16 (10) A	644 0 001
TR 644 S DCF 4 channels	radio controlled 24 h/7 d/year 1–59 s pulse	324	1.5 years	1 s	1x switching 17 days for holiday setting	4 changeover switches	16 (10) A	644 0 301 (without antenna + power unit)
Power unit for Antenna DCF77, standard housing 45 x 35 x 60 mm according to DIN 43880								907 0 182
Terminal cover TR 644 S for wall mounting, sealable								907 0 053
Programmierset OBELISK (memory card, intermediate plug for PC interface, software)								907 0 230
OBELISK memory card (single)								907 0 165
Antenna for DCF77 radio control, required for radio controlled devices. Max. 5 devices can be connected per antenna. No power supply required.								907 0 243