

# Designated use

The LAN module EM LAN top2 links the Ethernet LAN network with the DATA bus interface of the 365 day time switch, i. e. the TR top2 365 day time switches are addressed by a PC via an there LAN network (direct remote control); can be operated in local network and via VPN tunnel.

The LAN module enables status information, switching programs and device settings to be transmitted to/from the connected time switches. LAN top2 software is required to operate the EM LAN top2 LAN module. This is available for downloaded at www.theben.de.

# Safety advice

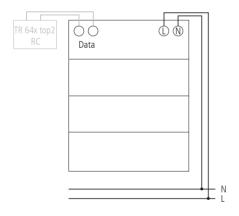


# **⚠** WARNING

Danger of death through electric shock or fire!

Installation should only be carried out by a qualified electrician!

### Connecting the EM LAN top2 LAN module



#### Connect cable

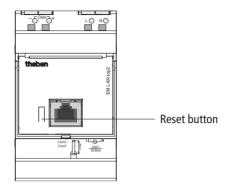
- > Strip cable by 8 mm (max. 9 mm).
- ➤ Insert cable at 45° in the open terminal (2 cables per terminal position possible).
- ➤ Only with flexible wires: To open the spring screwless terminal, press screwdriver downwards.

# Installing the EM LAN top2 LAN module

- The EM LAN top2 LAN module is designed to be installed on DIN hat rails (in accordance with EN 60715).
- Strong interference fields can cause faults.



- ➤ Do not install EM LAN top2 LAN module near inductive consumers.
- ➤ Lay separate mains connection.
- ➤ Shield inductive consumer.



➤ Press reset > key for 3 secs
The current IP address is deleted.
The EM LAN top2 LAN module is set to "automatically obtain address" (DHCP).

# EM LAN top2 and LAN top2 software

**Precondition**: EM LAN top2 LAN module, LAN top2 software, LAN network and DHCP server must be available.

- ➤ Only use 1 EM LAN top2 LAN module per DATA bus.
- ➤ Up to 4 timers can be connected to 1 EM LAN top2 LAN module via DATA bus.
- > DATA bus cable length max.100 m.

# Setting up the EM LAN top2 LAN module

The EM LAN top2 LAN module is supplied without a fixed IP address and is configured as a DHCP client.

#### 1. In network with DHCP server

➤ Use LAN top2 software to let the EM LAN top2 module search and select.

#### 2. Without DHCP server

- ➤ Use a LAN cable to connect the EM LAN top2 module with the PC.
- ➤ Set PC to "Automatically acquire address" (PC does not have IP address).
  - PC and EM LAN top2 module automatically receive an address from a set sub-network.
- ➤ Use LAN top2 software to select the EM LAN top2 module and allocate fixed IP address.
- > Reset network settings on PC.

# 3. If you have allocated a fixed IP address and want to set the EM LAN top2 module to DHCP ...

➤ Press reset > button for 3 secs (green LEDs go out). The EM LAN top2 module is reset to factory setting, no longer has an IP address and acts as a DHCP client.

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#### Technical data

• Operating voltage: 230 V~, +10 %/-15 %

Frequency: 50-60 Hz
Power consumption: typically 7.5 VA

• DATA bus: Bus voltage: 15 V DC, low

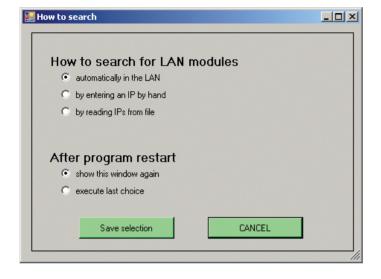
voltage in protection class III (SELV)

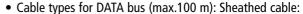
• Permissible ambient temperature: -30 °C ... +50 °C

• Protection class: II in accordance with EN 60730-1 with

designated installation

• Protection rating: IP 20 in accordance with EN 60529





NYM (3 x 1.5 mm<sup>2</sup>); MSR cable: PYCYM, YCY (2 x 2 x 0.8 mm<sup>2</sup>)

telephone cable: J-Y(St)Y (2 x 2 x 0.8 mm<sup>2</sup>)

Bell wire: YR

• Power supply at DATA bus: 50 mA

(maximum current at DATA bus:

500 mA)

• Mode of operation: Type 2 in accordance with EN 60730-1

• Pollution degree: 2

# LAN top2 software

The LAN top2 software is available for download to www.theben.de/produkt/6490900. In addition to functional description, technical details, the software is available under

- ▶ Downloads.
- > Starting LAN top2 software.

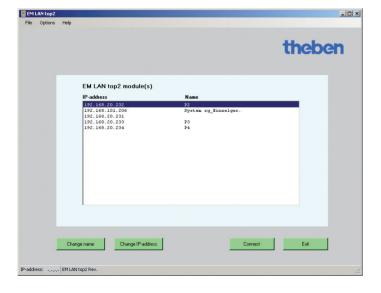
The home page opens with the following window:

#### 1. How can you find LAN modules?

- automatically in the LAN: The LAN top2 software searches for the connected LAN modules and lists them.
- by entering an IP by hand: The IP address of a LAN module can be entered directly in a separate window.
- by reading IPs from a file: A file in text format is selected that lists the IP addresses.

#### 2. Response at restart

- show this window again
- execute last choice
- Make selection.



A list of IP addresses then appears (see fig.).

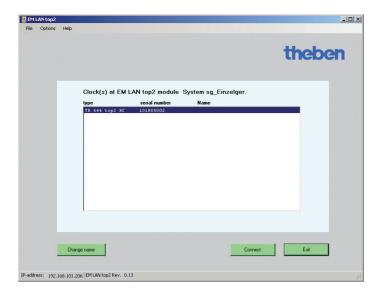
> Select IP address.

You can change the IP addresses and the name of the EM LAN top2 module.

Press Change IP address/name enter new IP address/ new name and press OK.



> Press Connect.



The connected time switches appear (e.g. TR 644 top2 RC) (see fig.).

> Select desired time switch.

You can also change the name of the time switch here. The new name is only stored in the LAN software on the PC and not and not in the EM LAN top2 module.

- > Press **Change name**, enter new name and press **OK**.
- > Press Connect.

The operator interface appears with remote access to selected time switches. It is operated via 3 registers:

1. Monitor – Status information from the time switch

2. Direct commands – Access to the time switch
 3. Communication – Program and settings

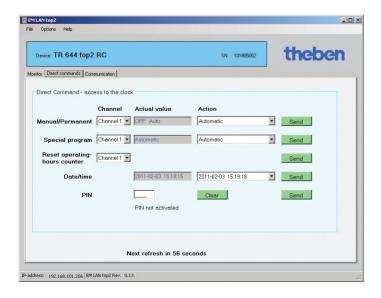


The status information from the connected time switches appears in the **Monitor** register; e.g. Date/time, upgrade module, channel, PIN, On switching times etc. (see fig.).

Press **Refresh**. The data is requested from the time switch.

#### Changing update time

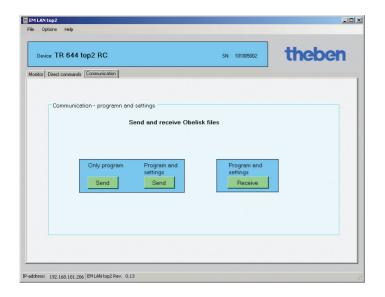
You can change the upgrade time (2 s to 10 min) in the **Options** menu under ⇒ **Refresh time**.



The **Direct commands** register allows you to directly perform actions for each channel (continuous ON, continuous OFF, manual ON, manual OFF, start timer, activate special programmes and reset the operating hours counter).

You can also change the date/time and enter or delete PIN (see fig.).

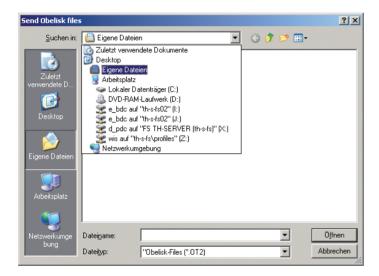
Select action and press Send.



You can send and receive .ot2 files for the OBELISK top2 software in the **Communication** register (see fig.).

#### Options:

- only send program
- send program and settings
- receive program and settings
- > Select action and press **Send** or **Receive**.



A file selection list appears, allowing you to select or enter the desired file (.ot2).

You can input, display and change the received .ot2 file using the OBELISK top2 software.

# File Options Help

The following points are accessed via the Menu bar:

#### • File

#### - Restart program

The program is restarted and the EM LAN top2 modules are – depending on the search setting – displayed again.

#### - Search clock(s)

You can select another timer here if several time switches are connected to an EM LAN top2 module.

#### - Exit

The program ends.

## Options

#### - Language

You can select the program language here. This language is retained even after a restart.

# Refresh time

The length of time the data is read from the time switch can be set between 10 secs and 5 mins.

#### - How to search

The way EM LAN top2 modules are searched for can be set. If the setting is changed, the program restarts to accept the change and start a new search.

#### Help

## About ...

Here you can find out about the program (version number etc.).

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