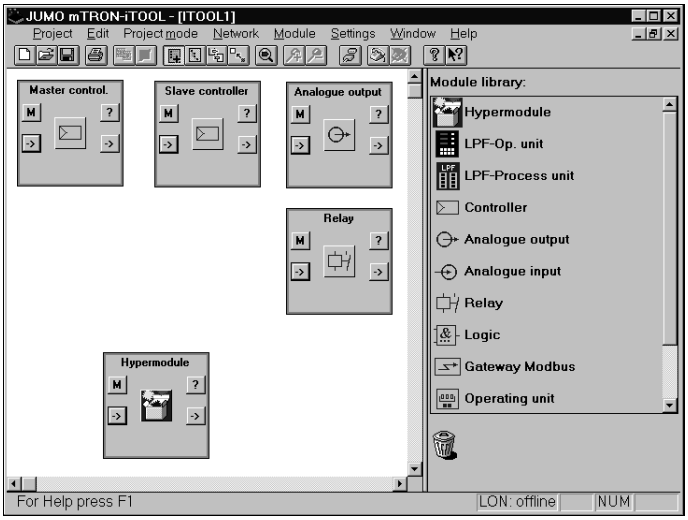

JUMO mTRON

iTOOL

Project design via modem connection

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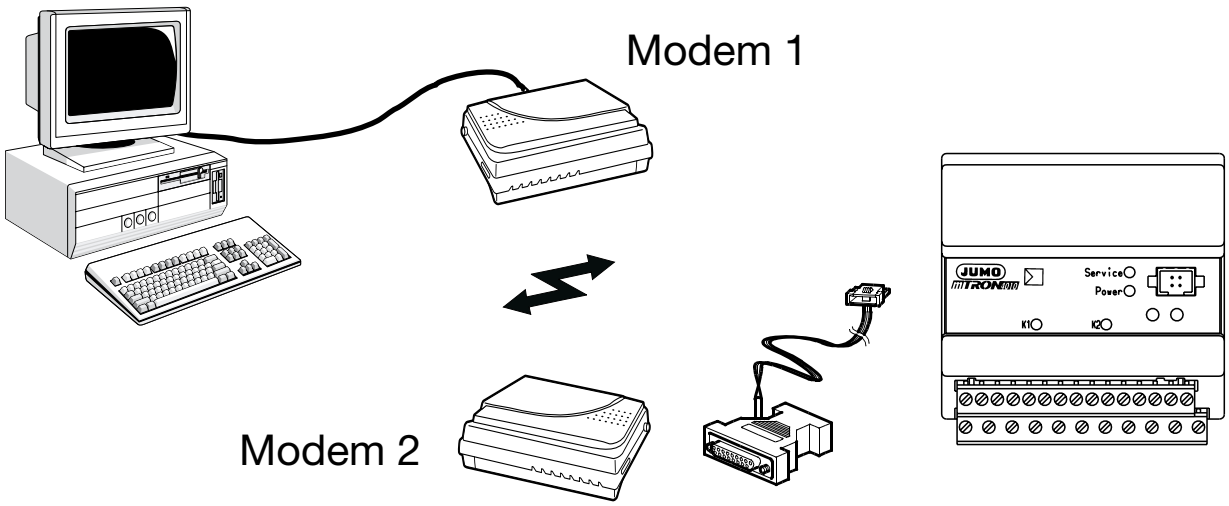

The following components are required for setting up a modem connection between a PC and a JUMO mTRON automation system:

- IBM-compatible PC with Windows 3.11 or Windows 95 operating system
- One modem[1] for connection to a PC
- The second modem[1] is connected to any mTRON module of the JUMO mTRON automation system via the interface cable[2] that is available as an accessory.

1. Modems are available through JUMO for rail mounting, or in external version.
2. PC interface Part No. 00353766

2 Configuring the modem

The modems have to be configured before starting up the modem connection for project design.

Non-volatile memory

The modem configurations are stored inside the modem in a non-volatile memory. If one of the modems is switched on, the configuration that was stored will be loaded automatically.

Terminal program

Both modems are configured via a terminal program for PC. A terminal program is generally included in the modem delivery. As an option, the terminal program within Windows can also be used.
Comprehensive information on connection and modem operation from a PC can be found in the Operating Instructions for the modem, as well as in the Windows online help.

Marking the modems

The two modems have different configurations. To avoid confusion, the modems should be marked on the housing.

AT commands

The modem is configured via the usual AT commands (AT = attention). After switching on, the modem is in command mode. The modem recognises commands by the character sequence “AT”.

All the characters that follow will be interpreted as a command.

AT commands can be entered via a terminal program, for example.

Example of AT commands

“ATZ”
AT = attention
Z = modem reset

Serial interface

The serial interface provides the link between the PC and the modem.
For configuration and project design, the parameters of the serial interface have to be set in the terminal program as follows:

Baud rate	4800
Data bits	8
Parity	No (no parity)
Stop bits	1

2 Configuring the modem

2.1 Configuration of the modem on the mTRON side

Connection

In order to configure the modem, it is necessary to connect it to the PC, as described in the Operating Instructions for the modem.

Entering commands

Commands are entered via the terminal program. Every individual command is terminated with Return and sent to the modem.

Commands

For the modem on the mTRON side, the following commands must be carried out in the sequence indicated:

Command	Description
AT&F0	Load factory setting
AT&K0	Data flow check switched off
AT&D0	DTR evaluation switched off
ATS0=1	Modem answers after first ring
ATQ1	Modem messages off
AT&W0	Store current configuration as user profile 0
AT&Y0	User profile 0 is loaded after switching on the modem
ATZ	Modem reset

Connection to the mTRON module

After the modem has been configured, it can be connected to any mTRON module of the JUMO mTRON automation system via the PC interface cable that is included in the delivery.

2.2 Configuration of the modem on the PC side

There are two alternatives for configuring the modem on the PC side:

a. Configure modem permanently for the JUMO mTRON-iTOOL project design software

b. Configure modem for the JUMO mTRON-iTOOL project design software only when required

Commands for alternative a.

Command	Description
AT&F0	Load factory setting
AT&K0	Data flow check switched off
AT&D2	Modem hangs up on loss of DTR signal
ATX3	Define modem messages
ATQ0	Switch on modem messages
AT&W0	Store current configuration as user profile 0
AT&Y0	After the modem has been switched on, the user profile 0 is loaded
ATZ	Modem reset

Connection to a PC

After the modem has been configured, it must be connected to the PC from which the project design of the remote JUMO mTRON automation system is to be performed (see Operating Instructions for modem).

Alternative b.

The configuration of the project design software and setting up a connection via a modem is fully described in Chapter “Modem connection” of the System Manual Part 2 “JUMO mTRON-iTOOL project design software”.

3 Connection

In order to carry out project design for a remote JUMO mTRON automation system via a modem connection, the individual components must be connected as shown in the picture below.