Connect the remote maintenance router mbNET to the controller

Contents

1. General

We must configure the remote maintenance router beforehand! Or you have received a remote maintenance router already configured by us in a service case.

1.1. Brief description

The **mbNET** industrial routers offer maximum flexibility with the greatest possible security.
The industrial routers **mbNET** are specially developed for industrial use. They enable a safe and reliable connection of machines and systems via the Internet. They support various security protocols and can be used universally. However, they develop their full potential when connected to the remote service platform **mbCONNECT24**.
The integrated firewall ensures optimal access protection by only allowing remote access to identified and authenticated users.
Thanks to a large number of interfaces and device drivers, the **mbNET** industrial routers offer enormous flexibility for remote maintenance of various control systems, drives, control panels, frequency converters and other assemblies.
The router is configured via the portal **mbconnect24** (mymbCONNECT24.mini, -.midi, -.maxi, -.hosted, -.virtual) or via the router's web interface.

1.2. Features

Fully configurable using Web interface via locally connected computer, or remotely via **mbconnect24**.
Deployable worldwide using different modem connections, (analog, mobile broadband) plus access via
LAN and Internet.
Secure connection using an integrated firewall with IP filter, NAT and port forwarding, VPN with AES, DES/3DES/DESX, Blowfish or RC2 encryption, and authentication via pre-shared key (PSK), static key or certificate (X.509).

1.3. Connection types

The modem can establish a connection with the cellular network or the company network.

Connection type	Benefits	Disadvantage
Cellular network:	- No network cable required at the machine - No settings on the company network necessary	- Stable cellular network required - slower - high data consumption
Company network:	- Fast - Secure connection without failure	- Settings on the company network required - Network connection required at the machine

2. Remote maintenance requirements

2.1. General

- Network connection with 3 open ports. These are port 80, port 443 and port 1194. This can be checked in advance with the program mbCHEK.

- Preconfigured **mbNET** router required on the machine

- The IP address, subnet and standard gateway on the machine side must be known before the modem is configured

- Network address is set automatically via DHCP.

- Further information / manuals can be found at the manufacturer at https://mbconnectline.com/de/mbnet-4/.

2.2. Data protection

- Stöger complies with data protection regulations and will monitor and control compliance appropriately.

- We assume for remote maintenance via mbNET router that no personal data is collected and processed after a direct connection to the machine is used for this purpose.

- Further information on data protection can be found at:
  https://www.stoeger.com/en/data-privacy-policy.html

3. Remote maintenance connection types

3.1.   Connection to cellular network

The modem can be equipped with a data SIM card on request. If the connection is to be made via this, it must be ensured that a 3G / 4G network (depending on the model) is available at the installation site.

Connect the antenna included in the scope of delivery to the modem and attach it with the magnetic base outside the control cabinet.

Carry out the further steps from LAN connection (see 3.3)

3.2.   Connection to company network

When connecting to the company network, the network administrator must do some preliminary work!

3.2.1. Ports

The ports must be released for outgoing data traffic. Both communication partners meet on the mbCONNECT24 server via VPN. Therefore, ports 80, 443 and 1194 must be open in the firewall. Please contact the network administrator for this.

This can be checked easily and clearly with a small program from a computer in the company network.

Please download the mbCheck program (760kB) and run the mbCHECK.exe.

Click on "Start Checkup", then the following should be displayed in the program:
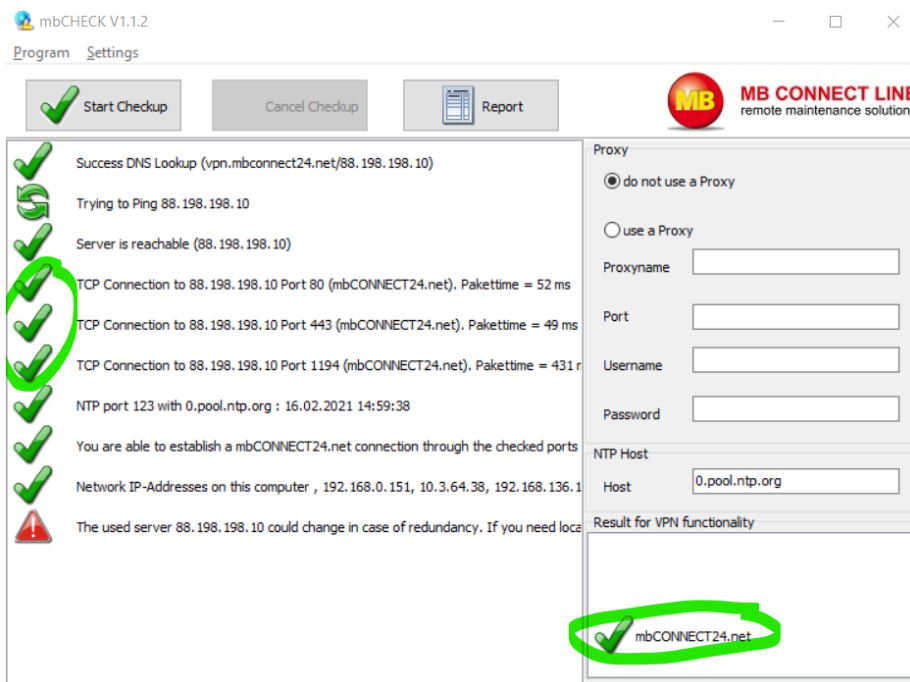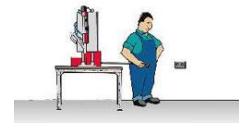
The 3 hooks on the left for port 80, port 443 and port 1194 are important. The result on the bottom right is decisive.

3.2.2. WAN connection

The WAN port is configured as DHCP, so it gets its IP automatically.

A fixed IP can also be configured at the customer's request. For control purposes, when a fixed IP is assigned, the switched-off remote maintenance module should first be pinged from any computer. There must be no answer. If so, then some other device with this IP is connected, this is not allowed and can lead to conflicts. This error has to be fixed first.

Connect the company network to the WAN port of the remote maintenance module

Then, if a fixed IP is assigned, ping the switched-on remote maintenance module for a crosscheck; 4 responses must be received.

3.3.   LAN connection

With the supplied cable from one of the 4 LAN ports on the remote maintenance module, establish a connection, preferably directly to the CPU.

- Use the Ethernet socket for Sigmatek or eControl controls. Do not use any existing Profinet socket!
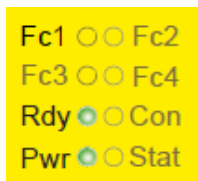- For Siemens PLC´s use the Profinet socket.

3.4.   Power supply

Connect the small plug from the supplied power supply unit on the top of the remote maintenance module to X1.
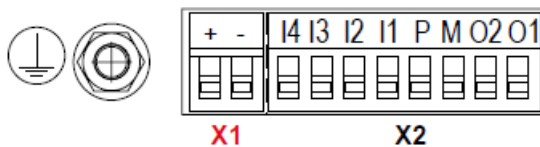
Plug the power supply into a 100-240V socket.

4. Functions- and status-LEDs

After switching on the supply voltage, the **Pwr**-LED lights continuously.
After approx. 90 - 120 seconds (depending on the device type) the **Rdy**-LED lights up continuously.

The **mbNET** is now ready for operation.

If the **mbNET** can establish the internet connection (e.g. network cable, SIM card, antenna installed), it logs on to our account. This is indicated by the flashing **Con**-LED.

If the LED Con flashes at 3 Hz, the device tries to log on to the portal. If it is logged on, the flashing frequency is reduced to 1.5 Hz.

Remote maintenance is now possible.