



Quick Start Guide **REX300**

Version

3_{en}

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Note: this Quick Start Guide applies to REX 300 systems with order numbers ending in 02 (e. g. 700-872-UMT02). There could be differences in functionality in REX 300 devices with order numbers ending in 01.

Cabling and PC Settings

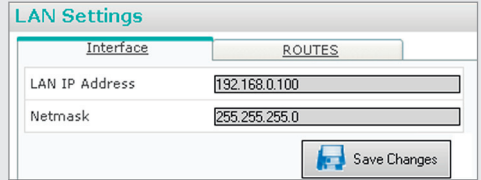
1. First, wire up the REX 300 with a supply voltage of 10-30 VDC.

Note: if you wish to use the myREX24, continue on page 6.



2. By default the REX 300 uses a static IP address (IP: 192.168.0.100, subnet mask: 255.255.255.0).

Note: when the REX 300 is to be connected into your company network, first check with your network administrator that this address is compatible with your network and that it is available for use.



3. If you must first change the address of your PC in order to reach the web interface of the REX 300, carry out steps A to C next. These steps are not necessary when you want to load an existing configuration from USB. Further information about loading is available on page 7.

A) The REX 300 is delivered with the IP address set to 192.168.0.100. Therefore, you must assign your computer an address in the same subnet.

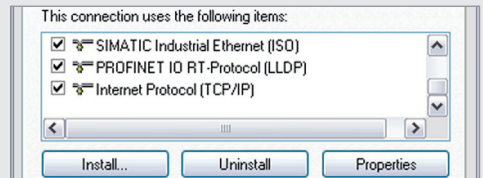
This applies not only to the IP address but also to the subnet mask.

To make the necessary changes, open the properties of your LAN connection.

Windows XP: Start -> Control Panel -> Network Connections.

Windows 7: Start -> Control Panel -> Network and Sharing Centre -> Change adapter settings

B) Open the properties of the network connection that is to be used for establishing a connection to the REX 300. Under "Properties" of the "Internet Protocol (TCP/IP)", modify the IP address of your computer.

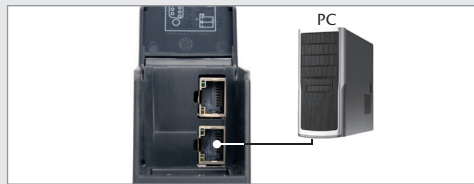


C) The IP address must be in the "192.168.0.x" address range (subnet). The subnet mask must be identical to that of the REX 300 (255.255.255.0).



Accessing the Web Interface

1. Connect the LAN interface of your computer to the LAN interface of the REX 300.
Use the cross-over cable supplied for a direct connection between your PC and the REX 300.



2. Start a browser (Internet Explorer, Opera, Firefox, ...) and enter the IP address of the router in the address field.



3. In order to register with the REX 300, enter the following data:

User name: helmholz
Password: router

Note: for security reasons, the password of the router should be changed as soon as the router is configured; this also applies to the "root" user.

A screenshot of the login form for the REX300 Administration interface. It has a "User name:" label with a dropdown menu showing "helmholz". Below it is a "Password:" label with a text box containing six dots. There is a checkbox labeled "Remember my password" which is currently unchecked. At the bottom are "OK" and "Cancel" buttons.

4. Using the menu item "System" -> "User", usernames for logging in at the REX 300 can be created, edited or deleted.
The user rights can also be assigned here.

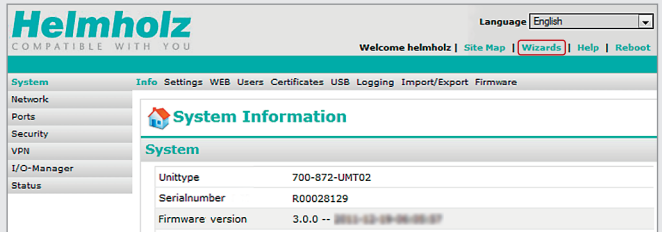
Usermanagement					
Usermanagement					
Username	Password	Fullname	Administration	Modem Dialin	VPN Dialin
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
helmholz	*****	Administrator	✓	✓	✓
root	*****	Root	✓	✓	✓

5. When necessary, the IP address (LAN address) and the subnet mask of the router can now be configured via the menu item "Network" -> "LAN". The router is accessible in the LAN network via this IP address.

Note: if the IP address is to be changed, it must correspond to the address range (subnet mask) of your computer. See steps A to C on page 3. After making the change, restart the REX 300.

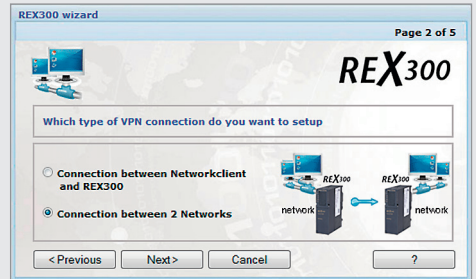
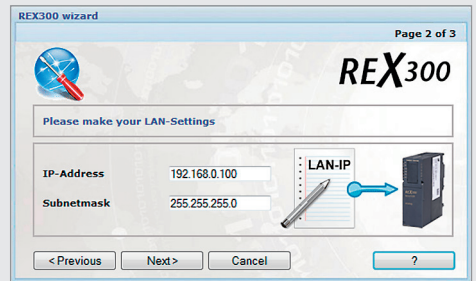
Configuration via Integrated Install Wizards

When you wish to use the REX 300 without our myREX24 mediation server, the device can also be set up using the install wizards integrated in the web interface. Access this in the web interface via the “Wizards” menu item in the upper right hand corner.

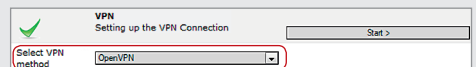


The following install wizards are integrated in the web interface:

- LAN Settings
(for configuring the LAN interface)
- Internet connection
(for configuring the Internet connection)
- VPN
(to set up a VPN tunnel)



Note: with a VPN, before starting the VPN install wizard, decide whether the OpenVPN or IPsec VPN install wizard should be started.



Configuration via myREX24

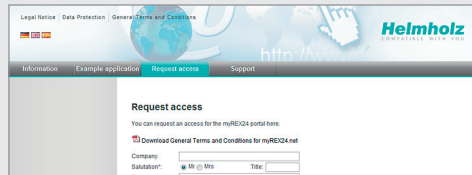
Logging in

In order to use myREX24, login under www.myREX24.net -> "Request access".

Fill out the fields required there.

After "Send"ing the form you will receive your access data by e-mail.

Under "www.myREX24.net" -> "Support" -> "Download" use this access data to download the necessary software (shDIALUP) and an application example.



Logging in at the Portal

As soon as the shDIALUP software has been installed and started, you can use your access data to log into myREX24.

Note: your login name must follow the layout "user name"@company name".

Example: `admin@helmholz`

After logging into the portal, additional users can be set up under "User".



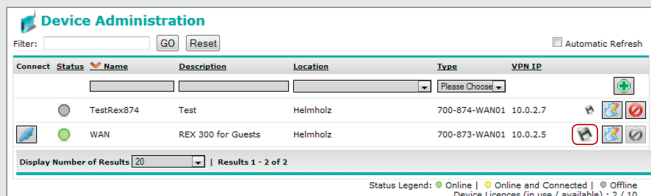
Creating a system configuration

Read the application example.

This is available at "www.myREX24.net" -> "Support" -> "Download".

Downloading a system configuration

After a configuration has been entered, this can be stored on your PC by pressing the Floppy Disc symbol.



Import a system configuration

Finally, import the system configuration into the REX 300. There are two ways of transferring a configuration into the REX 300. For further information, see page 7. After a system restart and, dependent on the configuration, the REX 300 registers with myREX24.

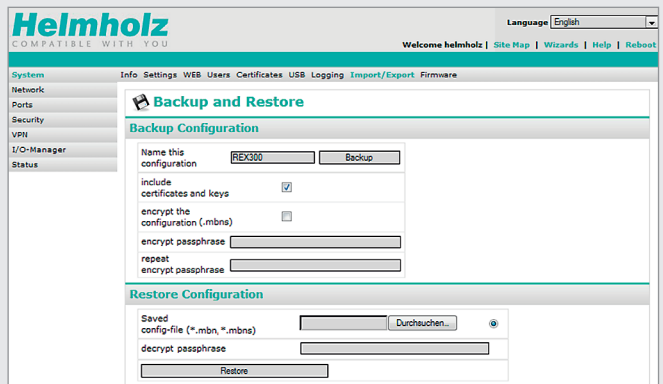
Establishing a connection

A connection to the system can only be established to the myREX24 web interface using shDIALUP. For more precise details see page 8 or the application example.

Importing Configurations via the Web Interface / USB

Web interface

1. Open the REX 300 web page - see the description “Accessing the Web Interface” on page 4.
2. Via the menu item “System” -> “Import/Export“, open the page where you can read in the REX 300 equipment configuration.
3. The option “Restore the Configuration” is on this page. Using “Search” select the appropriate file on your local disc.
4. Now press the “Restore” button. Next you will be asked which configuration category you wish to restore; press “Restore” again. After a short configuring delay, a system restart will activate the REX 300 configuration.



USB

1. Load the suitable configuration file onto a FAT formatted USB stick.
2. Plug the USB stick into the USB socket on the REX 300.
3. Follow the steps for loading the “Factory Settings“ described on page 9. If the USB stick contains a valid REX 300 configuration, this will be loaded from the stick.
4. As soon as the Rdy LED is ON continuously, the process is complete and the system configuration will have been activated.

Note: if a configuration is to be loaded from a USB stick, it must be located in the root directory of the stick and have either of the following names:

autoconfig.mbn
or
myREX24.mbn

Establishing a Connection via myREX24

1. Using the shDIALUP software and your access data, connect to the myREX24.

Login


Username

admin@helmholz

Password

•••••

☒ Remember me

 **Connect to myREX24**

2. Here you will see the REX 300 that you have configured. When a REX 300 is logged into the portal, this will be marked with a green circle.

QuickConnect

admin@guest

Administrator

WAN

Connect

Filter:

GO

Reset

☐ Automatic Refresh

Connect	Status	Name	Description	Location	VPN IP	
				Helmholz		
		cutter	new machine	Helmholz	10.0.2.7	
		WAN	REX 300 for Guests	Helmholz	10.0.2.5	

3. When you want to connect to one of your systems, you can use either the “Connect” button or the “QuickConnect” button to establish the connection.

QuickConnect

admin@guest

Administrator

WAN

Connect

Filter:

GO

Reset

☐ Automatic Refresh

Connect	Status	Name	Description	Location	VPN IP	
				Helmholz		
		cutter	new machine	Helmholz	10.0.2.7	
		WAN	REX 300 for Guests	Helmholz	10.0.2.5	

4. After the connection has been established, all IP packets that are valid for the local LAN network will be forwarded.

Connect	Status	Name	Description	Location	VPN IP	
				Helmholz		
		cutter	new machine	Helmholz	10.0.2.7	
		WAN	REX 300 for Guests	Helmholz	10.0.2.5	

5. When your maintenance work is complete, disconnect using the “Disconnect” or “QuickDisconnect” button.

Connect	Status	Name	Description	Location	VPN IP	
				Helmholz		
		cutter	new machine	Helmholz	10.0.2.7	
		WAN	REX 300 for Guests	Helmholz	10.0.2.5	

LED description

SF	Signals an error in the router (see Logging in web interface)	
Con VPN	continuously lit:	Internet connection active
	flashing:	VPN connection active
	flashing rapidly:	the router is trying to establish an Internet or a VPN connection
RxD	REX 300 is active on the MPI/PROFIBUS	
TxD	data is being transferred on the MPI/PROFIBUS interface	
Rdy	ready indicator (this LED must light continuously after 110 sec.)	
ON	indicator light for power supply	

Factory settings

Carry out the following steps to reset the REX 300 back to its factory settings:

- Switch on the device
- Wait until the Rdy LED flashes
- Press the dial-out button and keep it pressed until TxD lights up green
- Press the dial-out button again (RxD lights up)
- Press the dial-out button again (TxD lights up orange)
- Finally, press the dial-out button one last time

Note: if, during this process, a USB stick with configuration data is plugged in, this data will be loaded from the USB stick and activated.

The complete configuration details have now been deleted.
The REX 300 is now reset to its factory settings and can be configured anew.

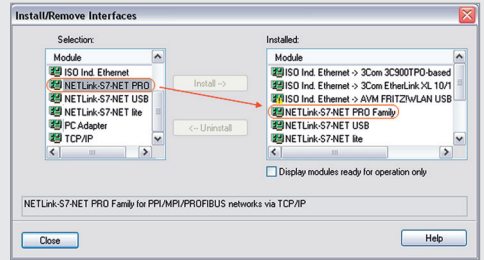
Important: the IP address of the REX 300 is set back to 192.168.0.100.

Remote Maintenance of an S7-MPI/PROFIBUS-PLC

In order to reach an S7-MPI/PROFIBUS-PLC with a REX 300, the following steps must be carried out.
(not for REX 300 eco)

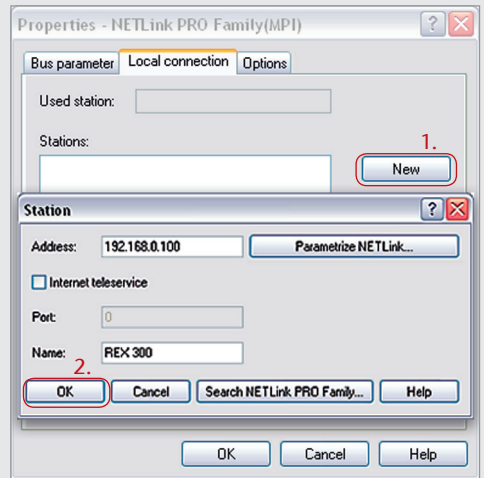
1. Install the NETLink®-S7-NET driver, either from the accompanying CD or download the latest version from the Internet at www.helmholz.com.

2. During installation of the driver, add the interface “NETLink®-S7-NET PRO Family“. After this, the REX 300 can be used from the PG/PC interface.



3. Next, open the PG/PC interface and select the properties of the NETLink® PRO Family. New routers can be added in the register “Local connection“ using the “New“ button. Enter the IP address and the name of the router. If either a VPN connection or myREX24 are to be used, also enter the LAN IP address of the REX 300 here.

Note: by default, in a REX 300, the ports required for communication are enabled by the driver. These settings are in the menu “Interfaces“ -> “MPI/PROFIBUS“ -> “unlock ports in the firewall“.

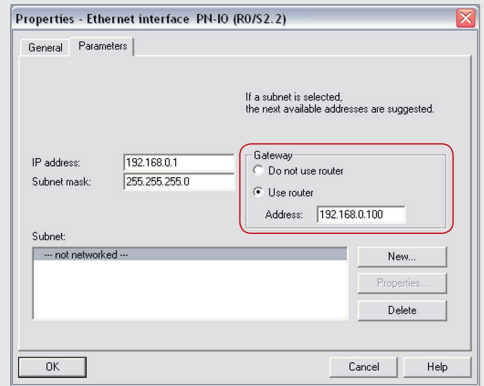


4. After this step, the system can be worked on from the S7 software.

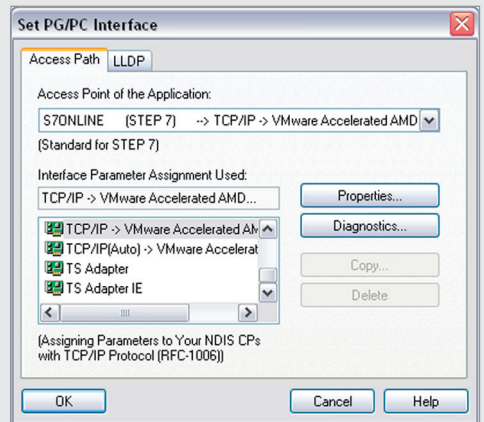
Teleservice of an Ethernet-PLC

1. In order to reach an Ethernet PLC via a VPN connection, activate and correctly complete the option “Use router” in the Ethernet interface of the PLC to be used for remote management. The IP address to be entered under “Address” must correspond to the LAN IP address of the REX300.

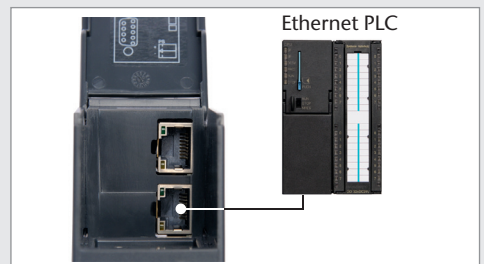
Note: the IP address of the PLC must be in the address range (subnet) of the REX 300 LAN interface. If it is not possible to activate the option “Use Router” in your project or you want to access an Ethernet device but cannot enter a gateway IP address, the SNAT function can be activated in the firewall using the “Security Settings” -> “General Firewall” in the REX 300 web interface. When this function has been activated, you can access devices in which no gateway IP address has been entered.



2. In order to reach the PLC via the VPN, simply select the corresponding interface. This should be chosen such that TCP/IP on the interface shows which serves as the Internet access; for laptops, for example, “TCP/IP -> Intel Wi-Fi Link”.



Note: if the PLC is to be connected directly to the REX 300, these must be inter-connected using the enclosed Ethernet cable (crossover). If the REX 300 is connected to an Ethernet switch or integrated in the CPU, then either a straight-through or crossover Ethernet cable can be used.



3. As soon as a VPN-connection to the REX 300 has been established, the project can be worked on (e.g. transfer hardware project, monitor variables etc.) from the PLC.

Note: the PN IO directory of an Ethernet PLC is not displayed via the reachable participants.

Technical data

Voltage V (DC)	10 – 30 V
Power consumption	max. 500 mA at 24 V
Protection Class	IP 20
Operating Range	Dry environment
Temperature (Operation)	0 ... +50 °C
Temperature (Storage)	-20 ... +60 °C
Weight	approx.: 300 g
Humidity	0 ... 95% non-condensing
Dimensions (max.)	(W x H x D) 40 x 125 x 128 mm
Interfaces	Device dependent RS232/RS485 Device dependent MPI/PROFIBUS up to 12 Mbps LAN 10/100 Mbps Device dependent WAN 10/100 Mbps
General Approvals	EN 61000-6-4:2001, Emitted Interference for Industrial Operation EN61000-6-2:2001, Noise Immunity for Industrial Operation

Note

The contents of this Quick Start Guide have been checked by us to ensure that they correspond with the hardware and software described. As deviations cannot be excluded, we cannot guarantee that manual and hardware/software correspond in all details. However, the information in this Quick Start Guide is updated regularly. We recommend that, when using the purchased product, the latest version of the Quick Start Guide be downloaded from or viewed on the www.helmholz.de website.

Our customers are very important to us. We look forward to receiving suggestions for improvement and other feedback.