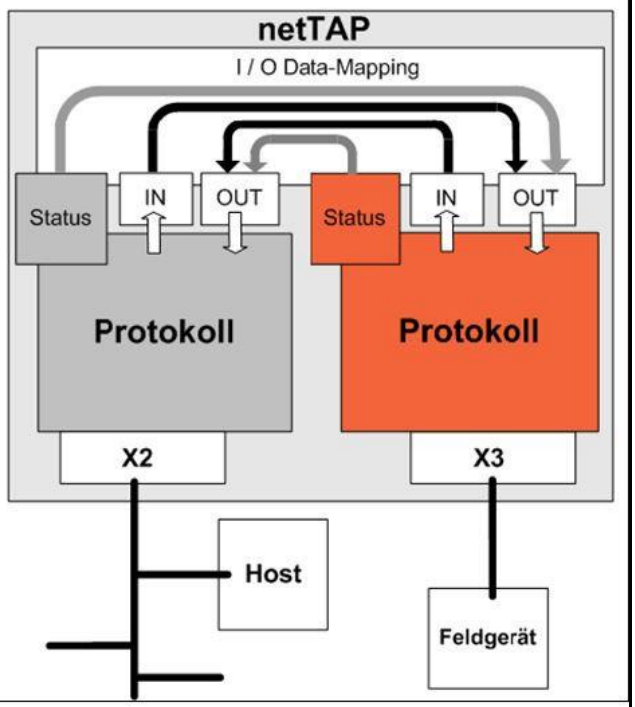
Component replacement instructions

Hilscher Gateway NT50 CO-EN



BW_netTAP50_Gateway_00_en

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1 Component replacement instructions

WARNING 	**Unauthorised start-up/operation of the device by a third party** may result in death or serious bodily injury. The device must be de-energized.

Cordon-off access routes during repair work (for example, red/white tape)!

Tools required:

- Screwdriver (5 mm blade width)
- Ethernet standard cable
- PC with Hilscher software
  - SYCON.NET
  - Ethernet Device Configuration

1.1 Unpacking the new gateway

Examine the device for visible damage or contamination.

	Only use devices that are technically and visually flawless.

1.2 Removing the old gateway

Disconnect the supply voltage to the NT50-gateway. (Black plug-in block terminal, 2-pin).

Prevent the device from being restarted.

Disconnect the electrical connections to the NT50-gateway (mostly plug connectors).

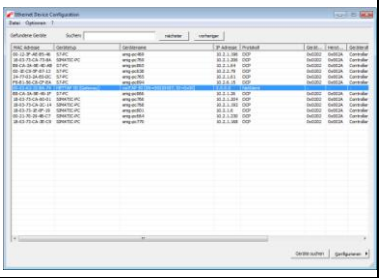
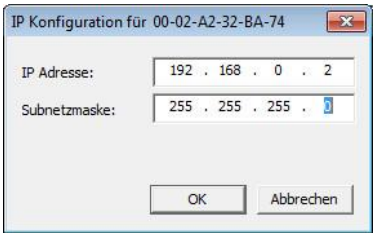
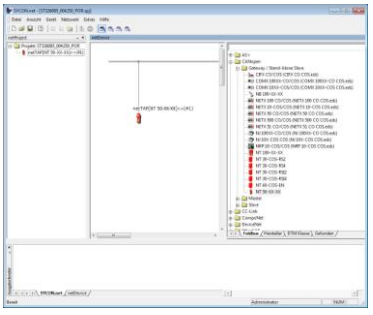
Disengage the NT50-gateway from the DIN rail.

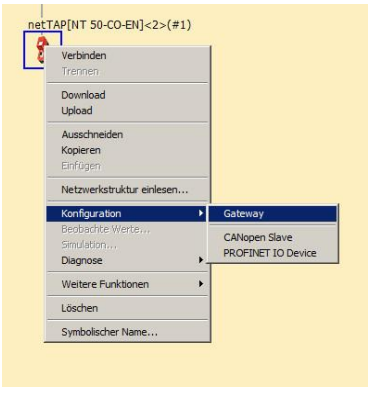
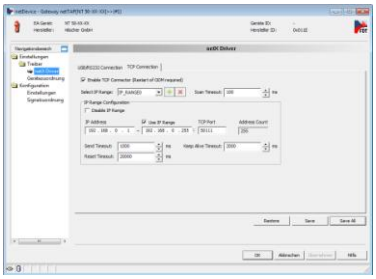
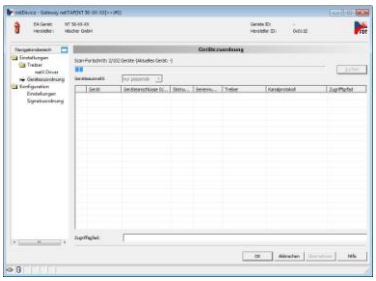
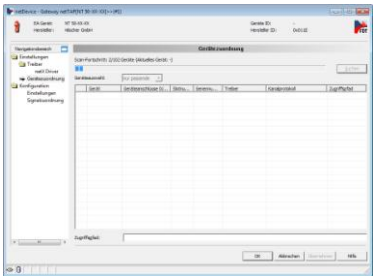
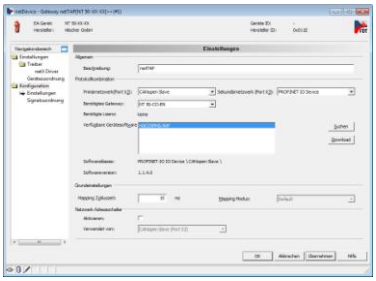
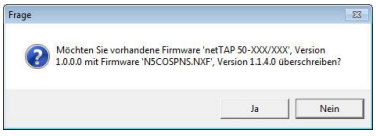
Note the DIL switch settings for the new NT50-gateway.

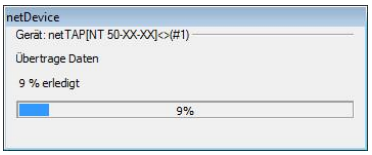
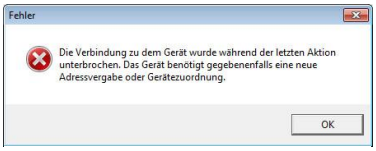
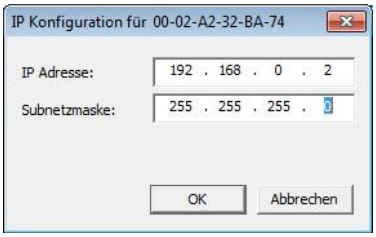
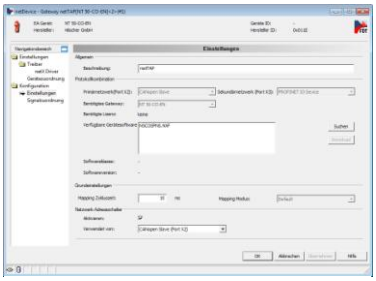
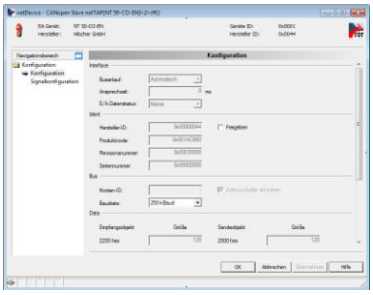
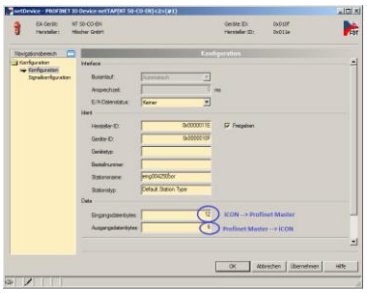
1.3 Installing the new gateway

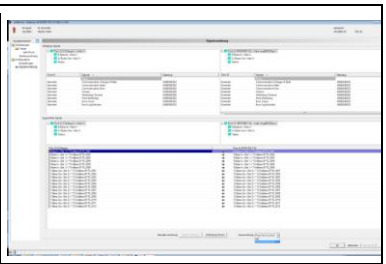
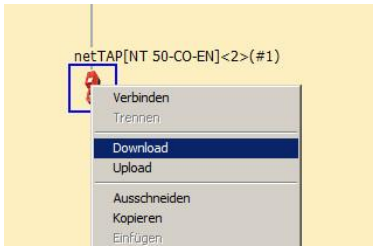
1. Transfer the DIL switch settings and other settings from the old NT50-gateway.
2. Insert the NT50-gateway into the vacant space.
3. Re-establish the electrical connections to the NT50-gateway (mostly plug connectors).
4. Switch on the supply voltage. (Black plug-in block terminal, 2-pin).

1.4 Configuring the new NT50-gateway

	The NT50-gateway transfers the I/O data in both directions, thereby enabling data exchange between two networks. The NT50-gateway is configured using the tool "SYCON.NET". (see: www.hilscher.com) This software can also be found on the CD in the control cabinet.	
1.	Before starting the software please connect the PC to the gateway via CAT5 cable (RJ45) and set the network interface card on the PC to IP address: 192.168.0.1.	
2.	Start the Ethernet Device Configuration programme.	
3.	Press the button labelled "Search devices". All Hilscher and Ethernet-IP enabled devices are now listed.	
4.	Highlight the desired device (right mouse button), e.g. "netTAP 50" and select the option "Set IP address".	
5.	Set the IP address and press OK to confirm the setting.	
	Create a SYCON.NET project.	
6.	Start SYCON.net and create a new project under File → New Project. Then select the corresponding device from the right-hand (device catalogue) window (here: NT 50-XX-XX, which corresponds to the device NT 50-CO-EN used in the example) and drag it to the bus string in the central window.	

7.	Basic configuration for the gateway Select the gateway with the right mouse button	
8.	Now search for the gateway for basic configuration, then apply the settings for the search process.	
9.	The gateway is searched for in the set IP address range.	
10.	When it has been located it will be displayed in the list.	
	Protocol-specific configuration	
11.	Now set up the required bus configuration in the dialogue window displayed (here: CANopen Slave on Ethernet-IP Slave) To provide the gateway with the set functionality, the proposed firmware must be loaded into the gateway (here: N5COSPNS.NXF). To do this, select the firmware and press the "Download" button:	
12.	Start the download process by pressing "Yes"; the download is then started.	

		
13.	The temporary IP address is deleted again after every download process (restart of the gateway). An error message is displayed. CAUTION The IP address will now need to be re-entered ("Ethernet Device Configuration" programme, see point 1 - 5), after which the device will need to be located again under SYCON.net. The configuration process can be continued after doing this.	 
	CANopen configuration	
14.	(9-pin plug X2) Apply the settings. These may need to be adapted to the project (with the exception of the baud rate).	 
	Profinet configuration	
15.	(RJ45 plug X3) Specific settings are to be entered here: **Station name:** — **emg004250por** The key here is: emg*ProgrammenumberType*. This name must be entered on the Profinet master side! **Input data bytes:** — Enter the number of bytes which are "**received by the master**" and "**sent**" by iCON **Output data bytes:** — Enter the number of bytes which are "**sent by the master**" and "**received**" by iCON	
	Signal assignment or mapping	

16.	The configured data must be ultimately connected (mapped) between X2 and X3. This can be implemented manually or automatically (recommended). To do this, select the entry "From Port3 to Port2" from the selection field underneath the list. The "Assigned signal" list is then populated.	
	Final download of the project	
17.	When all of the aforementioned settings have been entered, everything must then be loaded into the gateway. This is once again implemented via the context menu:	
	Connection diagnostics	
18.	The operating status etc. can then be checked via the diagnostic functions: