

**Quickstart-guide
BNC2 - BACnet Gateway**

**Extension for the
SNMP / WEB / MODBUS
Manager
CS121/CS141**



Installation of the gateway and configuration of CS121/CS141

Configuration of the CS121 / CS141

Connect the SNMP / WEB / MODBUS Manager or BACS Webmanager with the monitored system. Configure via WEB interface all the necessary parameters, such as the network settings, the device connected to COM 1 UPS model, etc. All information required for this purpose, see the user manual of the CS121 / CS141. **Please make sure that at least the firmware FW is used 5:29 or 5:30.**

Connect CS121 / CS141 to the network and have the SNMP adapter to a fixed IP address. Also, make sure that the option "Modbus over IP" is activated.

NOTE: It is not possible that an IP address is assigned by the DHCP server. The IP address of the SNMP adapter must be taken in configuring the BNC2 and cannot be adjusted dynamically

The following settings must be checked or adapted for the BACnet link:

CS121:

- Menu "Network & Security":
- Enable Modbus over IP: Enable
- Modbus Slave Address:
- After all the settings have been made, they must be saved by clicking on "Save Configuration"
- Restart the CS121.

CS141:

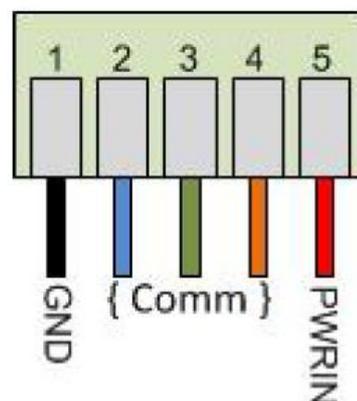
- Modbus/IP is enabled by default. No further actions are required

Powering the Gateway

The following steps will allow you to properly and safely power the gateway.

Warning improper wiring will cause unit failure Use the Barrel Connector OR the Screw Terminals power connection, NOT both

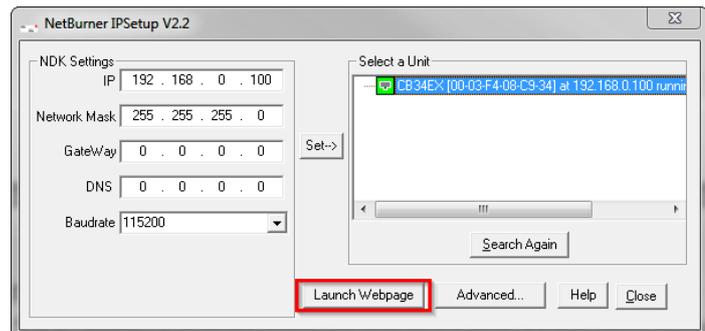
- Connect a 24VDC power source to the gateway.
- The unit draws 125 mA at 24VDC
- The gateway has a voltage operating range from 8-30VDC, 24VDC is recommended.



Configuration of the BNC2:

Initial setup of the gateway

- Make sure you are in the correct subnet. The default setting are:
- Default IP address: 192.168.0.100.
- Default Subnet. 255.255.255.0.
- Connect the Gateway using the supplied crossover cable to the PC
- Insert the supplied CD-ROM.
- Start the program IPSETUP.EXE. If the connection was successful, the gateway should be detected and displayed in the window.



- Please click on the „Launch Webpage“- Button. You should get the following screen:



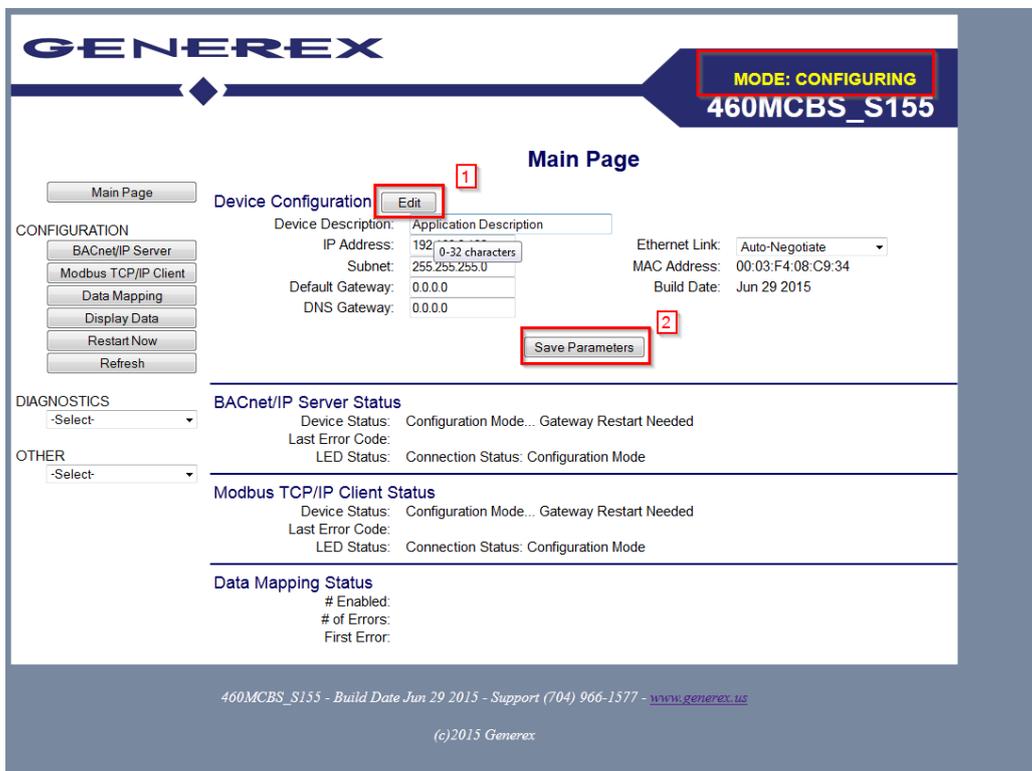
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Configuration of the IP-Address

- Switch to the "Configuration Mode" and confirm, then the two notes with OK



- Ensure that you are in Configuration Mode. The current operating mode is displayed at the top right
- To change the IP address, select "Edit" (1). It is now possible to enter the data. Click to Abschließen the operation on "Save Parameters" (2)



- Then, restart the gateway by clicking the button "Restart"

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Configuration of the Modbus TCP/IP Client

- If you are not already in the configuration mode, switch into it by pressing the button "Configuration Mode" there.
- Click the left button on the Modbus TCP / IP Client
- Please ask first at the top of the following values:
- Delay Between Messages: 10ms
- Response Timeout: 20000ms
- Delay Between Attempts Connect: 1000ms
- Dependency Protocol: None
- Close the entry by clicking "Save Parameters" button.

Modbus TCP/IP Client Configuration

Help

Delay Between Messages: 10-60000 ms
Response Timeout: 50-60000 ms
Delay Between Connect Attempts: 1000-60000 ms
Dependency Protocol:

Save Parameters

IP Address is not in the Subnet range. Change IP Address or configure a Default Gateway

<input checked="" type="checkbox"/> Enable	Modbus TCP/IP Server 1	Copy From <input type="text" value="Modbus TCP/IP 1"/> <input type="button" value="Go"/>
Device Label <input type="text" value="MC01"/>	IP Address <input type="text" value="192.168.222.91"/>	
TCP Port <input type="text" value="502"/> 1-65535 (Default: 502)		
Force Function Code 15/16 for Single Writes <input type="checkbox"/>	Enable 0-Base Addressing <input checked="" type="checkbox"/>	
Bit Pack <input type="text" value="1 Bit"/> <input type="text" value="Coil / Input Status Only"/>	Swap Indicator <input type="text" value="None"/>	
# of Read Scan Lines <input type="text" value="679"/> 0-800	# of Write Scan Lines <input type="text" value="0"/> 0-100	
<input type="button" value="Generate Scan Lines"/>		

View Read Scan Lines

View Write Scan Lines

- Set in the "IP Address", the IP address of the CS121 / CS141 a. In this example it is the 192.168.222.91.
- The TCP Port 502 (default).
- Make sure that the checkbox "Enable 0-Base Addressing" is activated safely.
- Should not the CS121 are the default subnet and you are connected via the default IP is an error message, which can ignore
- Please scroll down and close the input by clicking Save Parameters from.

Configuration of the BACnet IP Server

- Please adjust these settings according to the specifications of the BACnet infrastructure.
- If the BACnet / IP client in a Andren subnet there is the possibility the BACnet IP Server in the other subnet involve:
- Foreign Device Registration (recommended). As time To_Live time time specifies how often data should have been sent to the client.
- Static Device Binding: Only if supported by the client).

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BACnet/IP Server Configuration

Help

Device Label:

UDP Port: 1-65535 (Recommend 47808-47823)

Instance: 0-4194302

Inactivity Timeout: 0-Disable; 1000-65000 ms

Name:

Description:

Location:

Bit Pack: Binary Input / Output Only

Restart after the configuration

- Click on the configuration on the button "Restart Now"
- After about 10 seconds the gateway should be restarted. Press F5 to refresh the website
- The gateway is then in "Running mode"

Backing up and restoring a configuration

Backing up a configuration

- First, select the drop down menu "Other" and then "Export / Import Config" from. [1]
- In order to save the configuration, click on the button "Save Configuration to File" [2]. The file will then be downloaded via the Download Manager of the browser as * .rtax file. This may take some time to complete, depending on the size of the configuration.

The screenshot displays the GENEREX web interface for a 460MCBS_S155 system. The interface is divided into several sections:

- Configuration Mode:** A button labeled "Export Configuration" is highlighted.
- Main Page:** A button labeled "Main Page" is visible.
- CONFIGURATION:** A section with buttons for "BACnet/IP Server", "Modbus TCP/IP Client", "Data Mapping", and "Display Data".
- Import Configuration:** A section with a "Load Configuration" button and a search field labeled "Durchsuchen_ Keine Datei ausgewählt".
- DIAGNOSTICS:** A dropdown menu currently set to "-Select-".
- OTHER:** A dropdown menu with the following options: "-Select-", "-Select-", "Setup LED's", "Export / Import Config", "Utilities", "Time Configuration", "Email Configuration", "Security Configuration", "Alarm Configuration", and "COS Configuration". The "Export / Import Config" option is highlighted with a red box and a red number "1".

At the bottom of the interface, there is a footer with the text: "460MCBS_S155 - Build Date Jun 29 2015 - Support (704) 966-1577 - www.generex.us (c)2015 Generex".

Restoring a Configuration

- First switch to the configuration mode [1]
- From the drop-down menu "Other" and then "Export / Import Config". Choose [2]
- Select the file that contains the desired configuration. [3]
- Load the configuration by clicking the button "Load Configuration" [4] high. This process can also take some time Anpruch. The progress bar of the browser in this case indicates the current status. When the upload is complete, restart the gateway by clicking on the button "Restart now". The desired configuration is after the restart.

The screenshot displays the GENEREX web interface for the 460MCBS_S155 device, which is currently in "MODE: RUNNING". The interface is divided into several sections: "Export Configuration", "Import Configuration", "CONFIGURATION", "DIAGNOSTICS", and "OTHER".

Key elements and steps are highlighted with red boxes and numbered:

- 1:** The "Configuration Mode" button is highlighted.
- 2:** The "Export / Import Config" option in the "OTHER" dropdown menu is highlighted.
- 3:** The "Durchsuchen" (Search) button in the file selection area is highlighted.
- 4:** The "Load Configuration" button is highlighted.

The "Import Configuration" section shows a file selection area with the text "Keine Datei ausgewählt" (No file selected) and a "Load Configuration" button. The "CONFIGURATION" section includes buttons for "BACnet/IP Server", "Modbus TCP/IP Client", "Data Mapping", and "Display Data". The "DIAGNOSTICS" section has a "-Select-" dropdown menu. The "OTHER" section has a dropdown menu with options: "-Select-", "-Select-", "Setup LED's", "Export / Import Config", "Utilities", "Time Configuration", "Email Configuration", "Security Configuration", "Alarm Configuration", and "COS Configuration".

At the bottom of the interface, the text reads: "460MCBS_S155 - Build Date Jun 29 2015 - Support (704) 966-1577 - www.generex.us" and "(c)2015 Generex".