

CMUip-212

Ethernet Port Quick Start Manual

THIS MANUAL CONTAINS TECHNICAL INFORMATION FOR THE ETHERNET PORT OF THE CMUip-212 SERIES ITS CABINET MONITOR UNIT. DETAILS OF THE CMUip-212 MONITOR OPERATION ARE DESCRIBED IN THE *CMUip-212 OPERATIONS MANUAL*.

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Section 1 General

1.1 OVERVIEW

The Ethernet port of the EDI CMUip-212 is used to transfer status and event log information between a networked Personal Computer (PC) and the CMUip-212 unit. The PC is intended to operate with EDI *ECcom*TM Signal Monitor Communications software.

The EDI *ECcom* software is distributed free of charge and can be obtained from the EDI web site at www.EDIttraffic.com. The current production release of *ECcom* is 3.7.3.

The networking parameters of the CMUip-212 Ethernet port can be configured using two different methods; a standard internet browser (Section 2) or the EDI *ECcom*TM program (Section 4). Which method is used depends on the user preference. Some options may be affected by administrator issues on the PC.

Once the network parameters of the Ethernet port are set, the EDI *ECcom* program is then used to view CMUip-212 operational status and event logs. Note that a browser program will not provide access to the CMUip-212 status and logs.

1.2 PRODUCTION NOTES

Note: At this time the use of ECcom to configure the CMUip-212 Ethernet network parameters is not released to final production. ECcom version 3.7.3 does not yet support the CMUip-212 Ethernet network parameter configuration process. Thus the internet browser method (Section 2) must be used to configure the CMUip-212 network parameters.

Note: The Ethernet network parameters are programmed via the Ethernet interface and are not loaded from the Datakey of the CMUip-212. At this time support for network parameters stored in the Datakey has not been released to final production.

Section 2 Browser Method

The network parameters of the CMUip-212 Ethernet port can be viewed and configured using a standard internet browser program.

2.1 IP ADDRESS SERVER FUNCTION

The CMUip-212 Ethernet port can automatically provide the PC with an IP network address when the PC Ethernet Adaptor is configured for DHCP (“Obtain an IP address automatically”). This mode uses a direct connection network cross-over cable between the CMUip-212 and a PC. With the PC Ethernet Adaptor configured for DHCP, the PC will receive a temporary IP address directly from the CMUip-212 Ethernet port when the two devices are first connected.

The PC will receive an IP address matching the programmed IP address of the CMUip-212 minus 1. Once the PC has received an IP address, the browser can be opened to view the CMUip-212 configuration web page. Enter the CMUip-212 IP address (factory default=192.168.1.100) or the CMUip-212 Host Name (factory default= http://EDI-TCP) into the browser address bar. The CMUip-212 should respond with the *Overview* page (Section 3.1).

2.1.1 DETERMINING THE CMUIP-212 IP ADDRESS

The factory default CMUip-212 IP address is “192.168.1.100”. If the IP address has been changed during installation, and the programmed IP address of the CMUip-212 Ethernet port is not known, it can be determined by the following process:

1. Once the PC has received an IP address from the CMUip-212 address server (Section 2.1), use the Windows command line “*IPCONFIG /ALL*” to determine the resulting PC network adaptor IP address.
2. The programmed IP address of the CMUip-212 will then be the PC IP address +1, except:
 - a. If the PC receives an address with the last octet of “.2” then the CMUip-212 address lower octet was “.1”. Address xxx.xxx.xxx.000 is reserved.
 - b. If the PC receives an address with the last octet of “.3” then the CMUip-212 address lower octet was “.2”. Address xxx.xxx.xxx.001 is reserved.

For example, if the PC received an IP address of “192.168.1.99”, then the CMUip-212 IP address is currently programmed as “192.168.1.100”.

2.2 DIRECT CONNECT MODE

If DHCP mode is not set on the PC Ethernet Adaptor then the PC must be configured onto the same subnet as the CMUip-212 in order to connect with a browser. Once the PC is set to the CMUip-212 subnet range then enter the CMUip-212 IP address (factory default=192.168.1.100) or the CMUip-212 Host Name (factory default= http://EDI-TCP) into the browser address bar. The CMUip-212 should respond with the *Overview* page (Section 3.1).

Section 3 Browser Web Pages

Once a connection is made with the PC browser, the following web pages will be provided by the CMUip-212 Ethernet port. These pages can then be used to configure the CMUip-212 Ethernet port to the field application requirements.

3.1 OVERVIEW PAGE

The screenshot shows the 'EDI TCP/IP Connection' overview page. It features a navigation menu on the left with 'Overview' selected and 'Admin Setup' below it. The main content area displays the following configuration details:

Version:	0.4.2
MAC Address:	00:04:A3:22:A9:FA
Host Name:	EDI-TCP
DHCP:	Disabled
IP Address:	192.168.1.100
Subnet Mask:	255.255.255.0
Gateway:	0.0.0.0
Primary DNS:	0.0.0.0
Secondary DNS:	0.0.0.0
Command Port:	10000
Data Port:	10001
Baud Rate:	19200

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To configure the CMUip-212 network parameters select the *Admin Setup* menu item from the Navigation menu on the left side of the page.

The configuration settings of the CMUip-212 are password protected. The factory default User Name is “EDI” and factory default Password is “user”. The password is case sensitive. (Note: The User Name and Password can be changed using the *Authentication* page, Section 3.6.)

3.2 NETWORK SETTINGS PAGE

The screenshot shows the 'EDI Network Settings' page. It features a navigation menu on the left with 'Network Settings' selected. The main content area includes a description, a caution message, and a form for entering settings:

This page allows the configuration of the router's network settings.

CAUTION: Incorrect settings may cause loss of network connectivity.

Enter the new settings below:

Host Name:	EDI-TCP
<input type="checkbox"/> Enable DHCP	
IP Address:	192.168.1.100
Subnet Mask:	255.255.255.0
Gateway:	0.0.0.0
Primary DNS:	0.0.0.0
Secondary DNS:	0.0.0.0

Save Settings

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For a static IP address mode, only the IP ADDRESS and SUBNET MASK fields are required. A GATEWAY may also be supplied if needed. The DNS fields are typically only needed when the Time Server function is enabled (*Time Settings*). Enter the desired parameters and click the *Save Settings* button. If the parameters are valid the *Settings Saved* page will be displayed. For the network settings to take effect the TCP Port will need to be restarted. Click on the *Restart Now* button.

If the CMUip-212 is to obtain the IP address automatically from the network DHCP server instead of using a static IP address, click the *Enable DHCP* check box. Note that a DHCP server must be available on the local network.

3.3 TCP PORTS PAGE

The COMMAND PORT and DATA PORT settings should not be changed unless network requirements dictate other settings. The DATA PORT field (factory default=10001) must always match the IP PORT setting of the *ECcom* program.

The image shows two screenshots. The left screenshot is the 'EDI TCP/IP Connection' web interface, specifically the 'TCP Ports' configuration page. It features a sidebar with navigation links: Overview, Network Settings, TCP Ports, Comm Settings, Time Settings, and Authentication. The main content area is titled 'TCP Ports' and includes a 'CAUTION' box stating that settings should not be changed unless a known conflict exists. Below this, there are input fields for 'Command Port' (set to 10000) and 'Data Port' (set to 10001), with a 'Save Settings' button. The right screenshot is the 'Communications' dialog box. It has a 'Port Select' section with radio buttons for 'EIA-232' and 'LAN' (selected). The 'Rx Timeout' is set to 1 second. The 'EIA-232 Port' section includes 'Baud Rate' (1200, 2400, 4800, 9600), 'Parity' (None, Even, Odd), and 'COM Port Number' (set to 5). The 'Options' section has a 'DTR Enable' checkbox. The 'LAN Port' section includes 'IP Address' (192.168.1.100) and 'IP Port' (10001), with 'Search' and 'Test' buttons. 'OK', 'Cancel', and 'Default' buttons are at the bottom.

3.4 COMM SETTINGS PAGE

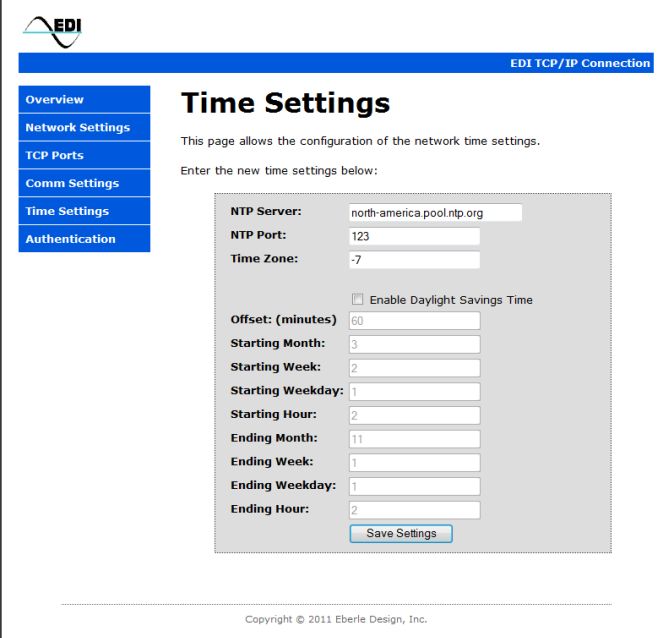
The BAUD RATE setting must not be changed from the factory default 19200 setting. This field is intended for other applications beyond the CMUip-212.

The image shows the 'EDI TCP/IP Connection' web interface, specifically the 'Comm Settings' configuration page. It features a sidebar with navigation links: Overview, Network Settings, TCP Ports, Comm Settings, Time Settings, and Authentication. The main content area is titled 'Comm Settings' and includes a 'CAUTION' box stating that the setting should not be changed unless the monitor configuration has also been changed. Below this, there is a 'Baud Rate' dropdown menu set to 19200 and a 'Save Settings' button. The footer contains the copyright notice: Copyright © 2011 Eberle Design, Inc.

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3.5 TIME SETTINGS PAGE

The *Time Settings* parameters are used to configure the Simple Network Time Protocol (SNTP) service. This service is not used by the CMUip-212 since the time and date are provided from the Controller Unit via Serial Bus #1. Consult the factory for details on this configuration.



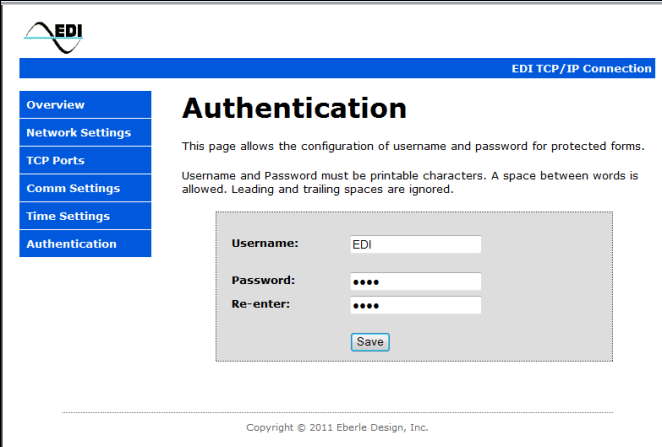
The screenshot shows the 'Time Settings' page in the EDI TCP/IP Connection web interface. The page title is 'Time Settings' and it includes a navigation menu on the left with options: Overview, Network Settings, TCP Ports, Comm Settings, Time Settings (selected), and Authentication. The main content area contains the following fields and options:

- NTP Server:** north-america.pool.ntp.org
- NTP Port:** 123
- Time Zone:** -7
- Enable Daylight Savings Time
- Offset: (minutes):** 60
- Starting Month:** 3
- Starting Week:** 2
- Starting Weekday:** 1
- Starting Hour:** 2
- Ending Month:** 11
- Ending Week:** 1
- Ending Weekday:** 1
- Ending Hour:** 2

A 'Save Settings' button is located at the bottom of the form. The footer of the page reads 'Copyright © 2011 Eberle Design, Inc.'

3.6 AUTHENTICATION PAGE

The *Authentication* parameters are used to configure the USER NAME and PASSWORD fields. The PASSWORD field is case sensitive.



The screenshot shows the 'Authentication' page in the EDI TCP/IP Connection web interface. The page title is 'Authentication' and it includes a navigation menu on the left with options: Overview, Network Settings, TCP Ports, Comm Settings, Time Settings, and Authentication (selected). The main content area contains the following fields and options:

- Username:** EDI
- Password:** ••••
- Re-enter:** ••••

A 'Save' button is located at the bottom of the form. The footer of the page reads 'Copyright © 2011 Eberle Design, Inc.'

**Section 4
EDI ECcom Method**

At this time the use of ECcom to configure the CMUip-212 Ethernet network parameters is not released to final production. ECcom version 3.7.3 does not yet support the CMUip-212 Ethernet network parameter configuration process. Thus the internet browser method (Section 2) must be used to configure the CMUip-212 Ethernet Port network configuration.

Section 5 Factory Defaults

5.1 DEFAULTS

The factory default parameters of the CMUip-212 Ethernet Port are as follows:

DHCP	Disabled
IP Address	192.168.1.100
Subnet Mask	255.255.255.0
Gateway.....	0.0.0.0
Data Port Number	10001
Host Name.....	EDI-TCP
Primary DNS.....	0.0.0.0
Secondary DNS	0.0.0.0

5.2 RESET TO FACTORY DEFAULT

The CMUip-212 Ethernet Port can be set back to the Factory Default values of Section 5.1 using the following method:

1. On the Ethernet daughter board of the CMUip-212 unit, locate the two-pin header labeled "REBOOT".
2. Short the two-pin header pins with a jumper and cycle power on the CMUip-212 (Off to On to Off).
3. Remove the jumper.