
GIPRCNX CONFIGURATION FOR WINDOWS 2000 or WINDOWS NT

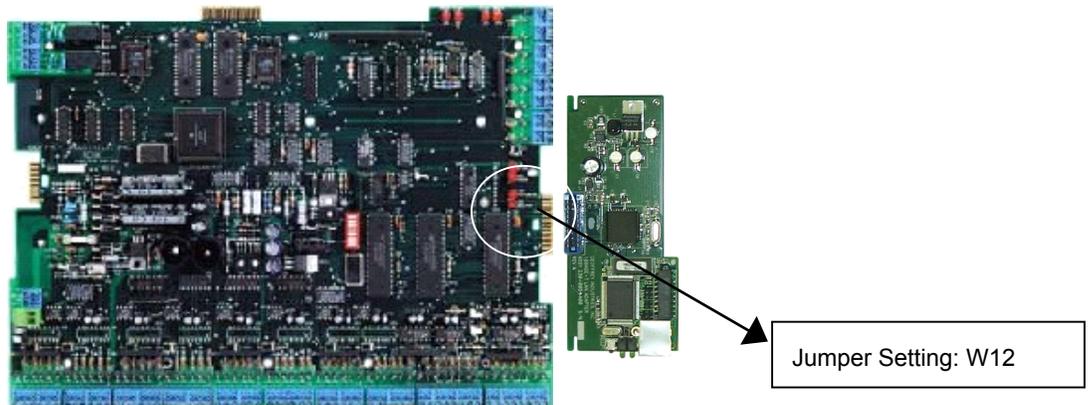
Documentation Conventions

Convention	Description
<i>Italic</i>	Indicates emphasized text like notes and warnings.
Angle brackets	Buttons seen on the screen. E.G: <Enter>.
Bold	Terms that are used for the first time.
Quotes “ ”	Text entered by the user. Angle brackets are used to indicate that it is not the exact text to type.

Introduction

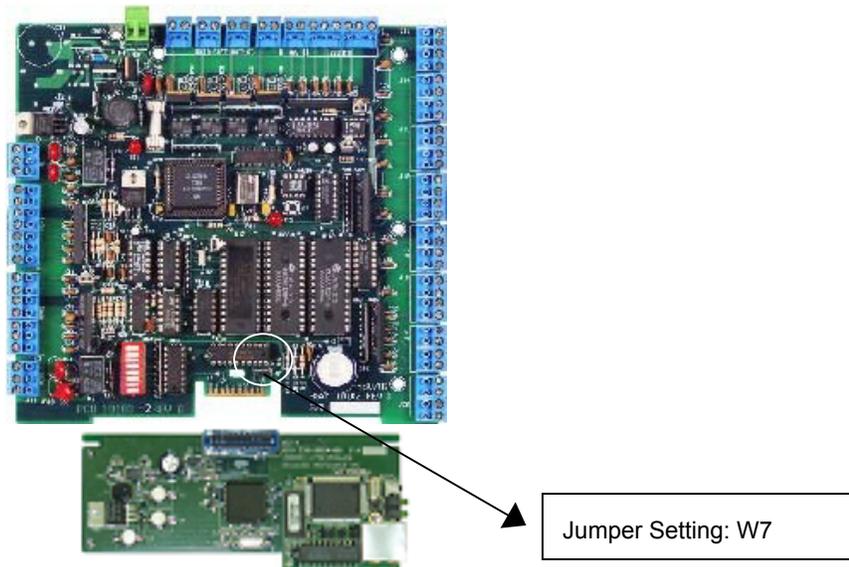
The **GIPRCNX** device provides 10 Base T Ethernet connectivity for the RCNX line of reader controllers. This device will operate with both RCNX – 8 and RCNX – 16 board Revision “G” or higher with firmware versions 5.22 or higher and RCNX 2 revision “A” or higher with firmware version 5.23 or higher.

If you orient your RCNX board as shown in the diagram below, the GIPRCNX device can only be installed on the right hand side of the board (RCNX Rev. G). The jumper setting (W12) must be on 1 and 2 (LAN).



GIPRCNX Configuration

If you orient your RCNX 2 board as shown in the diagram below, the GIPRCNX device is installed on the bottom side. The jumper settings for the GIPRCNX (W7) must be on 1 and 2.



WARNING: Failure in following these directions will lead to malfunctioning of the devices and also void the warranty.

WARNING: Do not remove jumper settings or devices with the board powered on. The board must be powered off before any changes or swapping of components.

Before You Begin

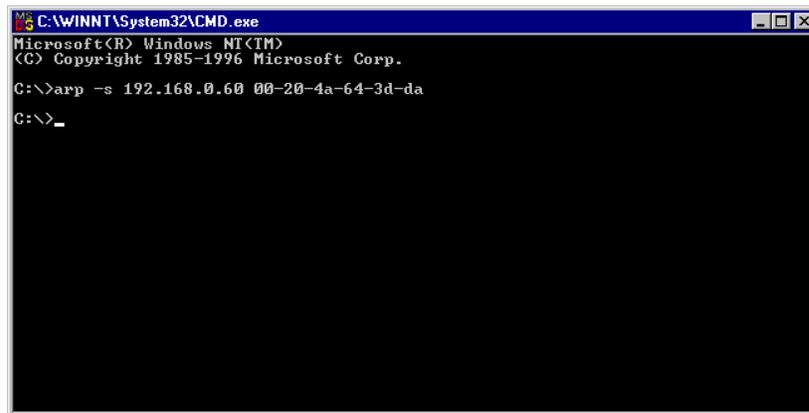
Before you begin the configuration you must find out the following things.

1. The network IP address that will be assigned to the GIPRCNX module. See your network administrator for this IP address.
2. The network IP address of the default gateway used by the GIPRCNX to reach the CIM if applicable.
3. The net mask for the connection.
4. The node address / MAC address of the IP module.
5. The format for the node address / MAC address is displayed as: **00-20-4a-64-45-b3**. This is located on the white sticker on the IP module itself.
6. The IP address of the **CIM workstation** that will be communicating to the GIPRCNX.

Configuration

1. Click on the **Start** button and click **Run** from the start menu. Type "CMD" into the **Open** field on the window. This brings the DOS prompt. Press **<Enter>**.
2. Type "ARP -s <IP Address for RCNX> <Node Address of card on RCNX>". (*Please note that there are spaces between characters*) Press **<Enter>**.

Example: C:arp -s 192.168.0.60 00-20-4a-64-3d-da

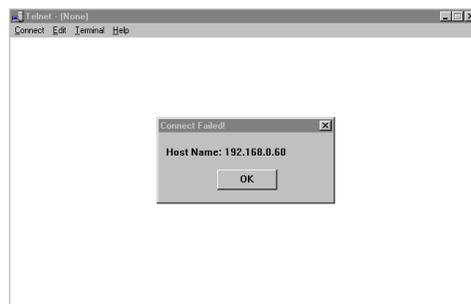


3. Click on the **Start** button and click **Run** from the start menu. Type, "telnet <IP Address for RCNX> 1" into the **Open** field. (*Please note that there are spaces between characters*). Click **<OK>**

Example: telnet 192.168.0.60 1



If the operating system on your machine is **Windows NT**, the Telnet window will open and the connection will **FAIL**, as shown in the example below.



Leave the window open and continue with the following instructions.

If you are using Windows 2000, the Telnet window will open, and pause for a few moments and then will be cleared from your screen. Continue with the following instructions.

4. Click on the **Start** button on your windows status bar. Click **Run**. Type, "telnet <IP Address for RCNX> 9999" into the window. (*Please note that there are spaces between characters*)

Example: telnet 192.168.0.60 9999



- You will establish a connection to the IP module.
- You will be instructed to press <Enter> to connect.

NOTE: Press <Enter> quickly or the connection will time out.

5. This brings you to the Telnet session (C:\Winnt\System32\Telnet.exe).

```

C:\WINNT\System32\telnet.exe
Serial Number 6417843  MAC address 00:20:40:64:45:B3
Software version 04.5 (011025)

Press Enter to go into Setup Mode

*** basic parameters
Hardware: Ethernet Autodetect
IP addr 172.16.30.21, no gateway set,netmask 255.255.000.000

***** Security *****
SNMP is          enabled
SNMP Community Name:
Telnet Setup is  enabled
TFTP Download is enabled
Port 77FEh is   enabled
Web Server is   enabled
Enhanced Password is disabled

***** Channel 1 *****
Baudrate 9600, I/F Mode 4C, Flow 00
Port 10001
Remote IP Adr: --- none ---, Port 00000
Connect Mode : C0  Disconn Mode: 00
Flush  Mode : 00

***** Expert *****
TCP Keepalive : 45s

Change Setup : 0 Server configuration
               1 Channel 1 configuration
               5 Expert settings
               6 Security
               7 Factory defaults
               8 Exit without save
               9 Save and exit

Your choice ?

```

- Press 0 (zero) for server configuration then press **<Enter>**.

NOTE: For the following instructions, pressing enter will confirm the listed option value. To change the value listed, type in the correct value.

- IP Address:

Enter each Octet of the IP address, or press **<Enter>** to confirm the Octet as it appears.

Example:

```
Change Setup : 0 Server configuration
               1 Channel 1 configuration
               7 Factory defaults
               8 Exit without save
               9 Save and exit
IP Address : <172> 192.<016> .<030> .<030> 021
Set Gateway IP Address <N>
```

The above example shows the original Octet of the IP address as (172). To make a change we typed 192 and pressed **<Enter>** key to accept this value. Now the next Octet of the IP address is displayed. Value was (016). To accept the value we pressed the **<Enter>** key. The next value was (030). Again we accepted the value by pressing the **<Enter>** key. The last Octet value was (030). We typed in 021 and pressed the **<Enter>** key to accept the change.

- Set Gateway IP Address "N". Press **<Enter>**. If you have a gateway press "Y". If you do not, press **<Enter>** or type "N" to continue.

NOTE: This is the gateway of the **IP module**, not the CIM.

- Net mask: Number of Bits for host part = 8. Local net mask 8 will be displayed. To accept the value press **<Enter>**. To change the value type in the number and press **<Enter>**.

A Brief Description About Subnet Mask

A net mask defines the number of bits taken from the IP address that are assigned for the host section.

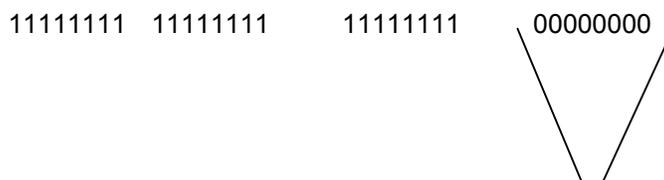
Note: Class A: 24 bits; Class B: 16 bits; Class C: 8 bits.

The Device Server prompts for the number of host bits to be entered, then calculates the net mask, which is displayed in standard decimal-dot notation when the saved parameters are displayed (for example, 255.255.255.0).

Example

Just count the number of zero's in the subnet mask to get the number of host bits.

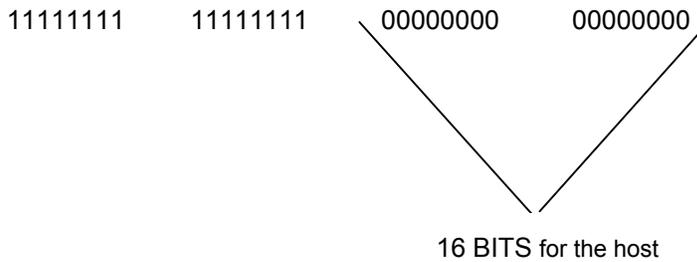
255.255.255.0 would equate in binary to:



8 BITS for the host

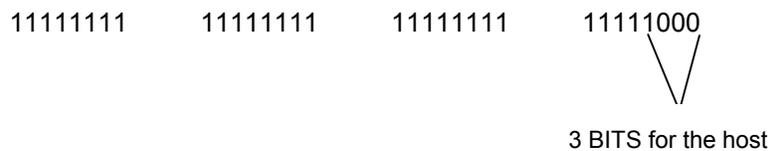
GIPRCNX Configuration

255.255.0.0 would equate in binary to:



If you were to have a “non standard” subnet mask like:

255.255.255.248



This is how you determine the host bits for the GIPRCNX IP module subnet mask.

After entering the net mask continue with step 10.

10. Change Telnet config password <N>. Press <Enter>.
11. Press “1” for Channel 1 configuration. Press <Enter>.

Enter Channel Information

NOTE: *The following items should use the values listed. If the values you see during this setup is different, change the values to match this document. Start with 38400 as the baud rate, this may have to be adjusted later if there are communication problems.*

1. Baud Rate= 38400 Press <Enter>.
2. I/F Mode= <4C> Press <Enter>.
3. Flow= <00> Press <Enter>
4. Port No. <10001> Press <Enter>
5. Connect Mode= 05 Press <Enter>
6. Remote IP Address= IP Address for the **CIM**. Press <Enter>
7. This is the IP address of the computer, which the CIM resides on. Press <Enter>.
8. Remote Port= 3001 Press <Enter>.

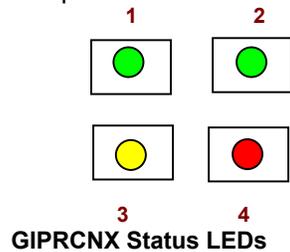
Note: *The value entered here must be the same value entered to the controller definition IP Port Number edit control.*

9. DisConn Mode <00> Press <Enter>.
10. Flush Mode <00> Press <Enter>.
11. Disconn Time <00:00> Press <Enter> twice.
12. SendChar1 <00> Press <Enter>.
13. SendChar2 <00> Press <Enter>.
14. Press 9 to save & exit. Press <Enter>.

Diagnostic LED Explanation



The GIPRCNX has four status LEDs: serial port (Channel) 1 status, serial port (Channel) 2 status, diagnostics, and network link status. See the following table for a complete description of status LED pin out location and function.



LED	DESCRIPTION	LOCATION	LED FUNTIONS
1	Serial Port (Channel 1) Status	Con 4, Pin 4	Lights solid green to indicate Channel 1 is <i>idle</i> . Blinks green to indicate Channel 1 is connected to the network and <i>active</i> .
2	Serial Port (Channel 2) Status	CON 4, Pin 7	Lights solid yellow to indicate Channel 2 is <i>idle</i> . Blinks yellow to indicate Channel 2 is connected to the network and <i>active</i> .
3	Diagnostics	CON 4, Pin 3	Blinks or lights solid red in combination with the green (Channel1) LED to indicate diagnostics and error detection. Red solid, green (Channel 1) blinking: 1x: EPROM checksum error 2x: RAM error 3x: Network controller error 4x: EEPROM checksum error 5x: Duplicated IP address on the network* 6x: Software does not match hardware* Red blinking, green (Channel 1) blinking: 4x: Faulty network connection* 5x: No DHCP response received*
4	Network Link Status	CON 4, Pin 8	Lights solid green to indicate network port is connected to the network.

*Non-fatal error