

Appendix J: Setting a Static IP and Configuring the ATC-1000

Introduction

- This instruction manual gives a step by step procedure for setting up the Grid Connect ATC-1000 (ED2150). The procedure will walk you through how to set a static IP address for the Serial to Ethernet adaptor and on Windows XP and Windows 7.
 - A Crossover cable is the ATC-1000. If you did not receive a crossover cable with your display/ATC-1000, you can use a regular patch cable and connect it to a switch/router that is on the same network as your computer
 - Follow the instructions below for your operating system to configuring the IP Address, Gateway, and Subnet Mask of the ATC-1000. You may require administrative privileges for your computer.
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Windows XP

1. The device requires a dedicated static IP Address that will only be used for the display. No other device can share the same IP address on the network.
2. Disconnect your PC from the network by unplugging the Ethernet connection on the PC.
3. Plug in the crossover cable supplied to your computer and the ATC-1000. Turn on the ATC-1000
4. Set your computer so it is within the same subnet and gateway as the display:
 - Open "Control Panel" window
 - Open "Network and Internet Connection window"
 - Open "Network Connection"
 - Right click on the LAN icon (See Figure 1)

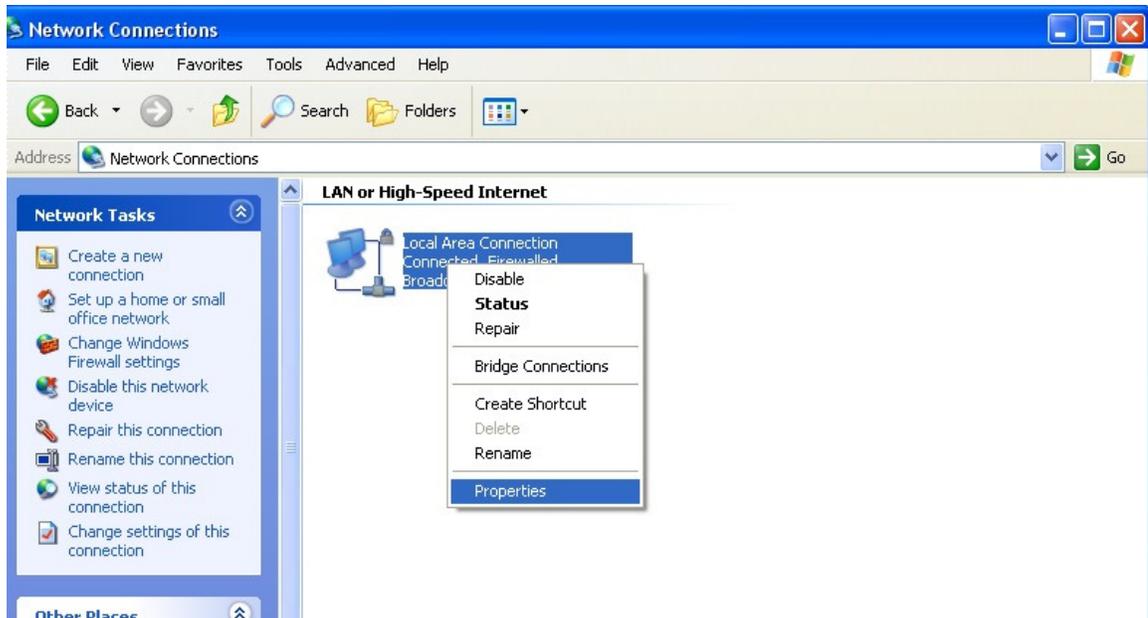


Figure 1

- Select “Properties”
- Highlight the “Internet Protocol (TCP/IP)” and click the “Properties” button. (See Figure 2)

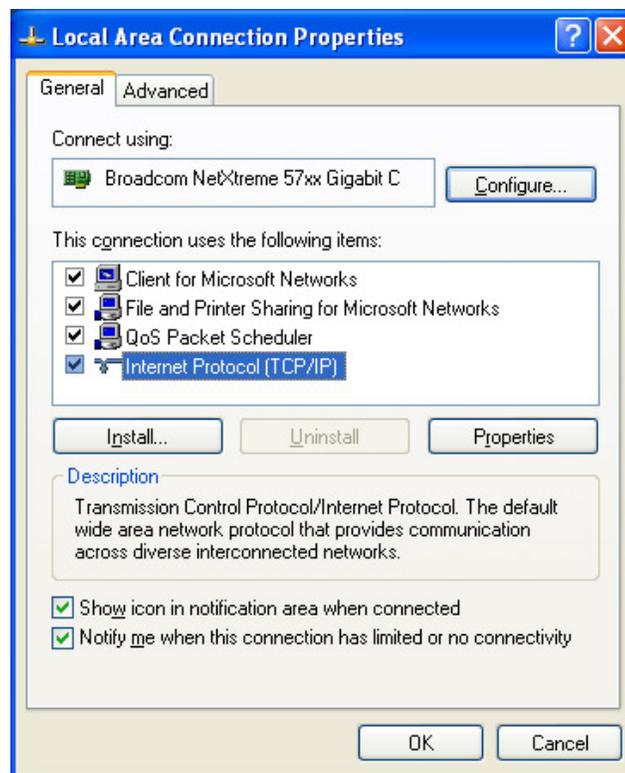


Figure 2

- If you already have a specific IP address, Subnet, Gateway and DNS set, be sure to save this information.
- Input the following information:

| | |
|-----------------|---------------|
| IP Address | 192.168.2.100 |
| Subnet Mask | 255.255.255.0 |
| Default Gateway | 192.168.2.254 |

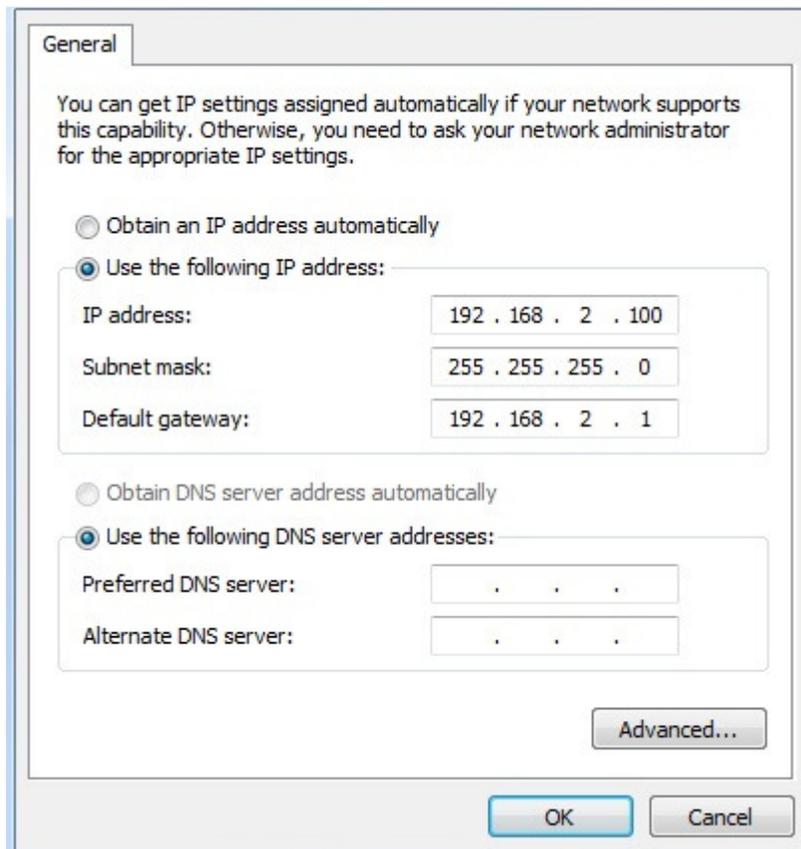


Figure 3

- Click OK to close the window
5. Open a web browser and type **192.168.2.1** into the address bar.
 6. You will be prompted for a username and password. Use the following login:
Username: admin
Password: system
 7. A configuration page will load similar that of a router.
 - On the left side, click **UART**

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UART Control

| Item | Setting |
|---------------------------------------|---|
| Mode | RS422 ▾ |
| Baudrate | 1200 ▾ |
| Character Bits | 8 ▾ |
| Parity Type | none ▾ |
| Stop Bit | 1 ▾ |
| Hardware Flow Control | none ▾ |
| Delimiter | <input type="checkbox"/> Character 1: 00 , <input type="checkbox"/> Character 2: FF <input type="checkbox"/> Silent time: 5 (1~255)*200ms <input type="checkbox"/> Drop Character |
| <input type="button" value="Update"/> | |

- Read the user manual for the display to determine what Serial **mode** (RS232, RS422, RS485) and the **baud rate** for your display. Set the mode and baud rate so it is the same as the display and click **Update**.
- Click **Administrator Setting** on the left.
 - Set the desired **IP address**, **Subnet Mask**, and **Gateway**. If your company has an IT department, ask them for this information to ensure there is no other device on the network that has the same IP address (Below is an example of a generic IP address, Subnet and Gateway).

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Administrator Setting

| | |
|---------------------------------------|--|
| Kernel Version | V1.43 2010/01/21 |
| MAC Address | 00:11:22:4E:63:CD |
| Nickname | NetUART |
| IP Setting | |
| IP Address | 192 . 168 . 1 . 204 |
| Subnet Mask | 255 . 255 . 255 . 0 |
| Gateway | 192 . 168 . 1 . 1 |
| IP Configure | <input checked="" type="radio"/> Static <input type="radio"/> DHCP |
| Password Setting | |
| Username | admin max:15 |
| Password | max:15 |
| Confirm | |
| <input type="button" value="Update"/> | |
| Load Default Setting to EEPROM | <input type="button" value="Load"/> |

- Once you input the desire IP address, Gateway, and Subnet mask, click **Update**. Disconnect the power from the ATC-1000. Wait 30 seconds and reconnect power.
8. The ATC-1000 is configured. Now you have to set the IP address for your computer back to what it was (Do Step 4 again. Set the IP address to what it previously was. If there was no static IP address set, have the Ethernet adaptor Obtain an IP address and DNS server address automatically).
 9. Disconnect the crossover cable from the ATC-1000 and the computer. Reconnect the computer back to your previous network.
 10. Connect the ATC-1000 to your network and connect the display.
 - If the mode for the display is RS232, you have to use a serial/DB9 cable supplied with the display.
 - If the mode for the display is RS422/RS485, you will have to wire the terminal on the display to the ATC-1000.
 11. Set the IP address that you set for the ATC-1000 in the Communication settings of the software for you display.
 - If the software requires a TCP port, the ATC-1000 it set to 23 by default.
 12. You are able to send messages to the display.
-

Windows 7

1. The device requires a dedicated static IP Address that will only be used for the display. No other device can share the same IP address on the network.
2. Disconnect your PC from the network by unplugging the Ethernet connection on the PC.
3. Plug in the crossover cable supplied to your computer and the ATC-1000. Turn on the ATC-1000
4. Click the windows logo at the bottom left of the desktop on **My Computer** and go to **Properties**
5. Click **Control Panel Home** on the left side
6. Click **Network and Sharing Center**
7. Click **Change adapter settings** on the left side
8. Right click on your Local Area Connection and select **Properties**

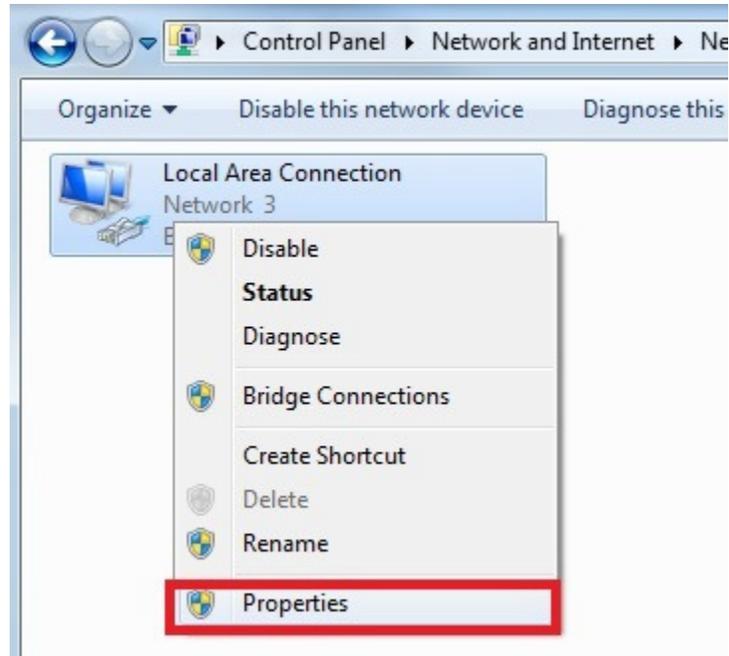


Figure 4

- Highlight the “Internet Protocol (TCP/IP)” and click the “Properties” button. (See Figure 2)

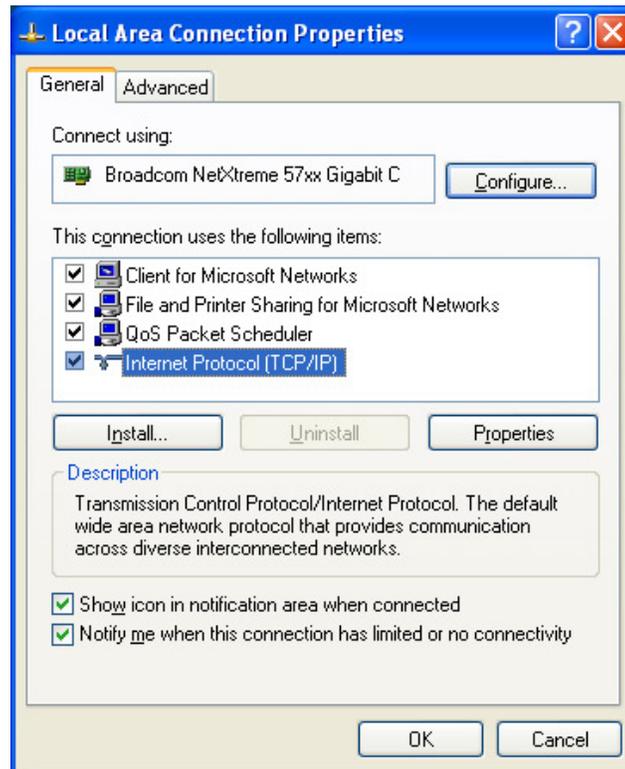


Figure 5

- If you already have a specific IP address, Subnet, Gateway and DNS set, be sure to save this information.
- Input the following information:

| | |
|-----------------|---------------|
| IP Address | 192.168.2.100 |
| Subnet Mask | 255.255.255.0 |
| Default Gateway | 192.168.2.1 |

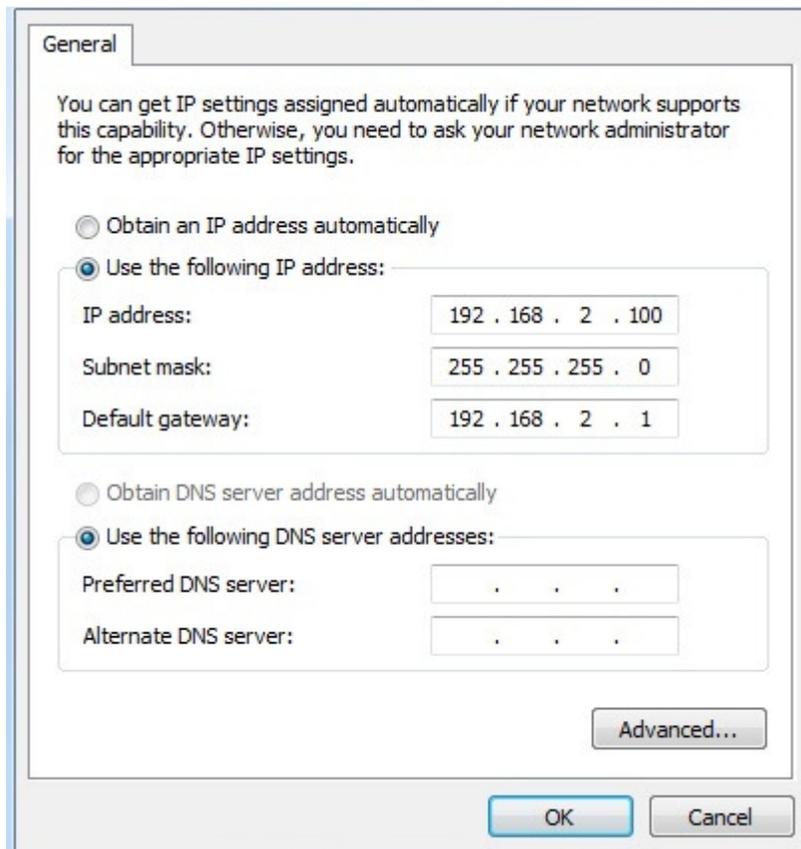


Figure 6

- Click OK to close the window

13. Open a web browser and type **192.168.2.1** into the address bar.
14. You will be prompted for a username and password. Use the following login:
Username: admin
Password: system
15. A configuration page will load similar that of a router.
 - On the left side, click **UART**

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| Baudrate | 1200 ▾ |
| Character Bits | 8 ▾ |
| Parity Type | none ▾ |
| Stop Bit | 1 ▾ |
| Hardware Flow Control | none ▾ |
| Delimiter | <input type="checkbox"/> Character 1: 00 , <input type="checkbox"/> Character 2: FF <input type="checkbox"/> Silent time: 5 (1~255)*200ms <input type="checkbox"/> Drop Character |
| <input type="button" value="Update"/> | |

- Read the user manual for the display to determine what Serial **mode** (RS232, RS422, RS485) and the **baud rate** for your display. Set the mode and baud rate so it is the same as the display and click **Update**.
- Click **Administrator Setting** on the left.
 - Set the desired **IP address**, **Subnet Mask**, and **Gateway**. If your company has an IT department, ask them for this information to ensure there is no other device on the network that has the same IP address (Below is an example of a generic IP address, Subnet and Gateway).

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Administrator Setting

| | |
|---------------------------------------|--|
| Kernel Version | V1.43 2010/01/21 |
| MAC Address | 00:11:22:4E:63:CD |
| Nickname | NetUART |
| IP Setting | |
| IP Address | 192 . 168 . 1 . 204 |
| Subnet Mask | 255 . 255 . 255 . 0 |
| Gateway | 192 . 168 . 1 . 1 |
| IP Configure | <input checked="" type="radio"/> Static <input type="radio"/> DHCP |
| Password Setting | |
| Username | admin max:15 |
| Password | max:15 |
| Confirm | |
| <input type="button" value="Update"/> | |
| Load Default Setting to EEPROM | <input type="button" value="Load"/> |

- Once you input the desire IP address, Gateway, and Subnet mask, click **Update**. Disconnect the power from the ATC-1000. Wait 30 seconds and reconnect power.
16. The ATC-1000 is configured. Now you have to set the IP address for your computer back to what it was (Do Step 4 again. Set the IP address to what it previously was. If there was no static IP address set, have the Ethernet adaptor Obtain an IP address and DNS server address automatically).
 17. Disconnect the crossover cable from the ATC-1000 and the computer. Reconnect the computer back to your previous network.
 18. Connect the ATC-1000 to your network and connect the display.
 - If the mode for the display is RS232, you have to use a serial/DB9 cable supplied with the display.
 - If the mode for the display is RS422/RS485, you will have to wire the terminal on the display to the ATC-1000.
 19. Set the IP address that you set for the ATC-1000 in the Communication settings of the software for you display.
 - If the software requires a TCP port, the ATC-1000 it set to 23 by default.
 20. You are able to send messages to the display.

Frequently asked questions

1. **My company cannot use the generic 192.168.xx.xx IP address. Can I use I different IP address?**

The IP address, Subnet mask and Gateway can all be changed to any specific static IP address you need (As long as it is within the accepted range for the subnet mask)

2. **I don't want to use a Static IP. Can I use DHCP?**

Yes you can use DHCP; however, we do not recommend using DHCP. If you use DHCP, the IP address for the ATC-1000 will not always be the same; therefore, you need to change the communication settings of the display software each time the IP address of the ATC-1000 changes.

3. **The ATC-1000 came with software. Is it able to change the IP address?**

Yes you can use the software to change the IP address; however, you still have to set your computer to a static IP address in order to change IP address of the ATC-1000.

To set a static IP address on Windows XP, follow Step 4 in the Windows XP section.

To set a static IP address on Windows 7, follow Step 8 in the Windows 7 section

- Once you set a static IP address, install the VCOM software that is supplied with the ATC-1000.
- Connect the ATC-1000 to the network, or to your computer with a crossover cable

- Start VCOM and search for the ATC-1000 (make sure it is powered on)
- Highlight the Device (By default the device will have a static IP of 192.168.2.1) and select Configure
 - **Username:** admin
 - **Password:** system
- Set the device to the IP address you want
- Set the mode (RS232, RS422 or RS485) and baud rate so it matches your display.
- Scroll down and save the settings
- Set your computer back to the original Static IP or to obtain an IP address and DNS address directly.
- Set the IP address in the communication settings of your display software

4. **I previously configured the ATC-1000, but now I have to change the IP address again. Can I change the IP address again? Do I have to set a static IP again?**

Yes you can change the IP address of the ATC-1000 as many times as you would like.

If you are on the same subnet mask as the ATC-1000, then you don't need to set a static IP address for your computer again. The easiest way to check if you are on the same subnet is to open a web browser and input the IP address that the ATC-1000 is set to. If you are unable to load the configuration page, then you need to set a static IP again.

Be sure to power cycle the device (turn the ATC-1000 Off/On) once you update the IP address.

5. **My display already came with an IP address set, but I need to set it to another address.**

If your display came with a pre-configured ATC-1000, then follow the instruction based on your operating system above and when you enter you are in the Internet Protocol settings use the settings below:

IP Address: 192.168.1.222 (Or any IP that is not used by a device on your network)

Subnet Mask: 255.255.255.0

Gateway: 192.168.1.1

6. **I changed the IP address for the ATC-1000, but now I can't send a message or update my display.**

- Power cycle the ATC-1000 (Turn it off and on), and try updating the display
- Make sure that you are on the same subnet mask and gateway as the ATC-1000
- Double check that the communication settings are set to the IP address for the ATC-1000

- Access the ATC-1000 settings through the IP address in the web browser and make sure that the baud rate and Mode match the displays (Check the User manual for your display)
- If you tried everything above, contact technical support. Your ATC-1000 may be damage/defective or the display's serial chip may be damaged and needs to be replaced.