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MISCELLEOUS KITS AND ACCESSORIES

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ETHERNET CONVERTER KIT (For L Connection Network)

INSTALLATION INSTRUCTIONS FOR ETHERNET CONVERTER KIT (76M77)

(Used with the L Connection Network)

**THIS MANUAL MUST BE LEFT WITH THE OWNER
FOR FUTURE REFERENCE**

! WARNING

Installation and service must be performed by a licensed professional HVAC installer (or equivalent) or a service agency.

Shipping and Packing List

Package 1 of 1 contains:

- 1 - Ethernet converter
- 1 - Ethernet cable
- 1 - RS-232 serial cable
- 1 - Power transformer

Application

The Ethernet Converter Kit is required to interface between the *L Connection*® network and an Ethernet local area network (LAN). This allows *L Connection* software to access L Connection products through an Ethernet port instead of connecting directly or through a modem. See figure 1.

The *L Connection* network provides direct digital communication to a single or network of *L Connection*

products such as *IMC (M1-x)*, *M2* and *M3 Prodigy*®, *NTC* rooftop unit controllers, *BC* building controllers and *NCP* network manager.

NOTE: Unit controller and network control panel software are ordered separately.

There are two available options (Option 1 or 2) for setting up this device that are discussed further on in this instruction.

LED Indicators

Table 1. LEDs

LED Label	Function
POWER	Indicates unit has power.
WORK	When blinking on and off in a steady manner, this indicates the Ethernet Converter is working properly. If LED is on or off for a long period, then there is an error and it is recommended to power off the Ethernet Converter and then power it up to resolve the communication error.
232TX	Blinking LED indicates that the Ethernet Converter is sending RS232 data.
232RX	Blinking LED indicates that the Ethernet Converter is receiving RS232 data.
485TX	Blinking LED indicates that the Ethernet Converter is sending RS485 data.
485RX	Blinking LED indicates that the Ethernet Converter is receiving RS485 data.

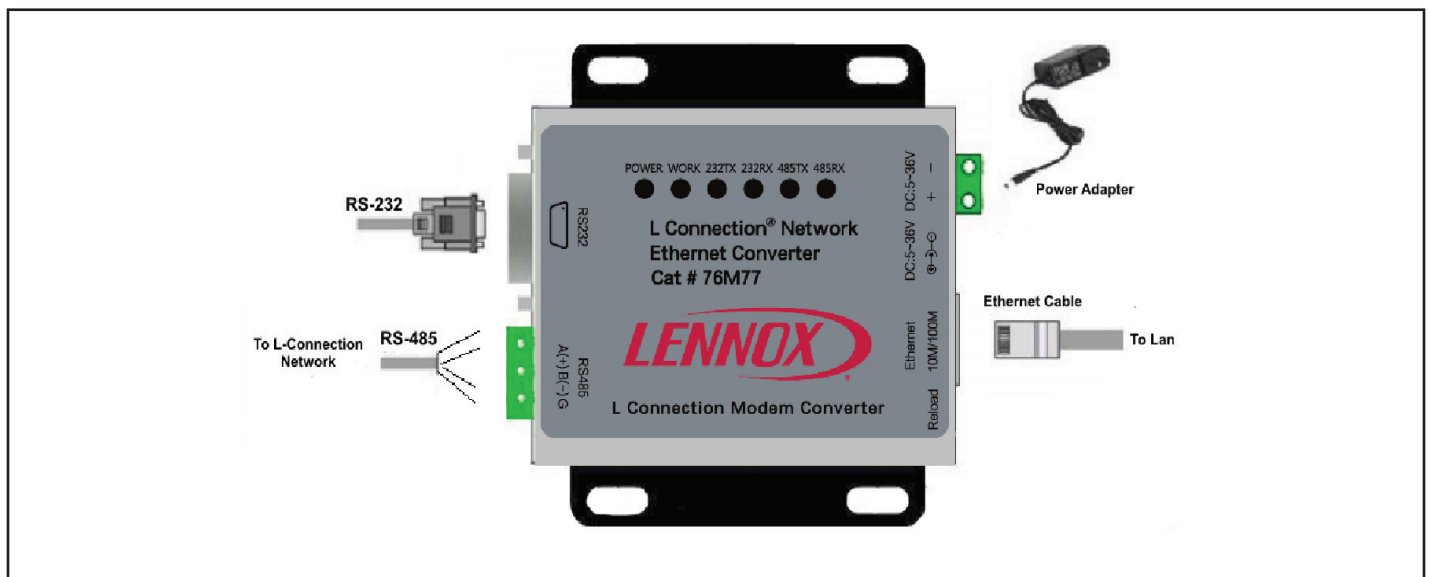


Figure 1. Ethernet Converter Kit

Configure Ethernet Converter

Default Settings

Table 2. Default Settings

User Name	admin
Password	admin
IP Address	192.168.0.7
Subnet Mast	255.255.255.0
Default Gateway	192.168.0.1
Default Work Mode	TCP Server
Default Local Port	23
Baud Rate	115200
Parity Bit/Data Bit/Stop Bit	None / 8 / 1

OPTION 1

The following procedure is for Windows 7. Procedures for later Windows versions may differ.

1. Connect the provided Ethernet cable between your computer and Ethernet Converter.
2. Connect the provided AC adapter to the Ethernet converter and plug AC adapter into wall outlet.
3. From the computer being used, click **Start > Control Panel** and double-click on **Networking and Sharing Center**.
4. Double-click on **Change adapter settings**.
5. Double-click on **Local Area Connection**.
6. Under **Local Area Connection Status** click on **Properties**.
7. Double-click on **Internet Protocol Version 4 (TCP/IPv4)**.

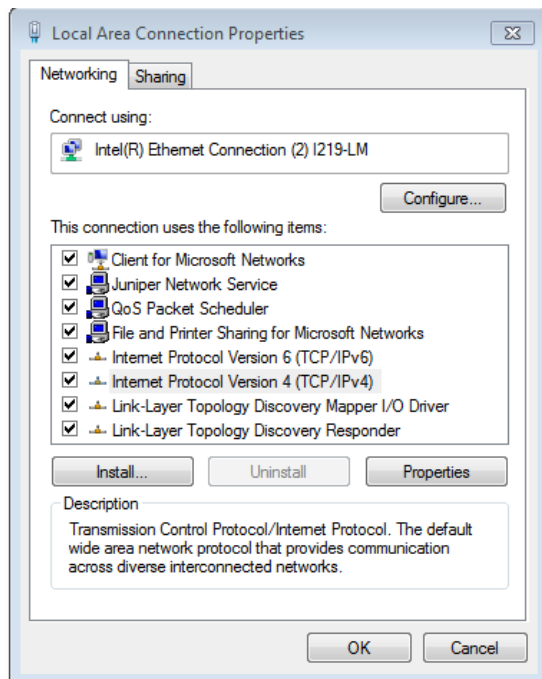


Figure 2. Local Area Connection Properties

8. Select **Use the following IP address**. Enter the information as shown in figure 3.

NOTE: Write down your original settings so you can restore them back to their original configuration once you are done with this procedure.

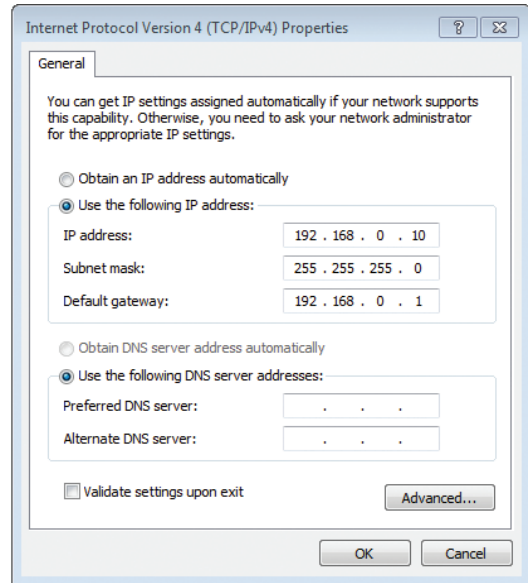


Figure 3. Internet Protocol Version 4 Properties

9. Click **OK** to continue.
10. Go to your Internet browser and type **http://192.168.0.7** to access the device's home web page. Type in the **User Name** and **Password** (admin and admin).

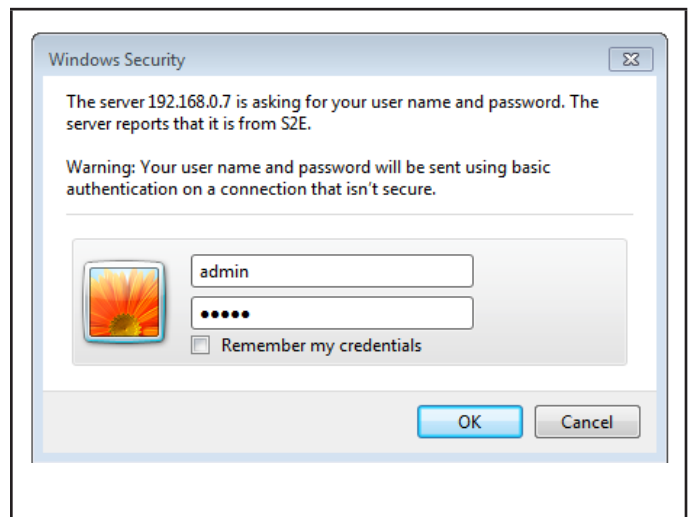


Figure 4. Login Screen

WARNING

This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

11. From the main screen, select **Local IP Config**.

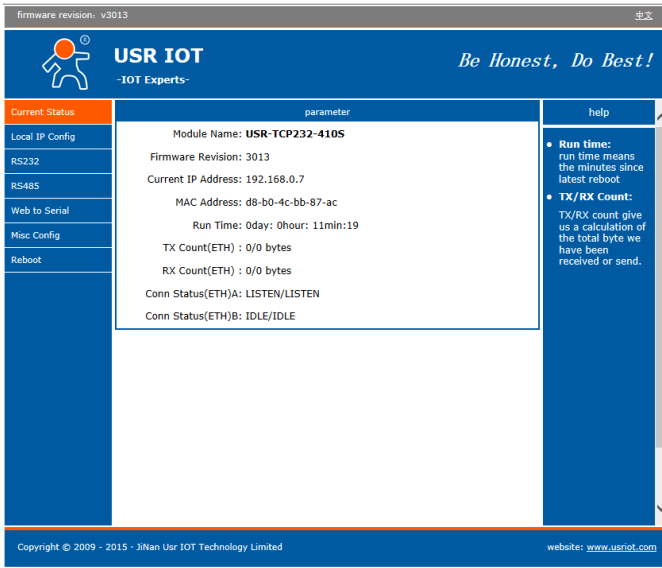


Figure 5. Main Screen

12. Change the **Static IP, Subnet Mask** and **Gateway** to match your local network settings.

NOTE: Since we are using a static IP address here, make sure no other device on your network is using that IP address.

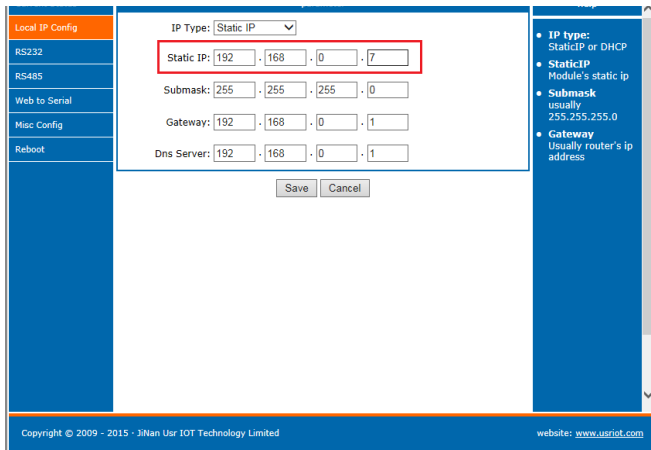


Figure 6. Local Network Settings

13. Select **Save** to continue.

14. From the main screen perform the following:

- Select **RS485**.
- Change **Baud Rate** to **9600**.
- Change **Work Mode** to **TCP Server**.
- Set both **Local** and **Remote Port** numbers to **1001**.

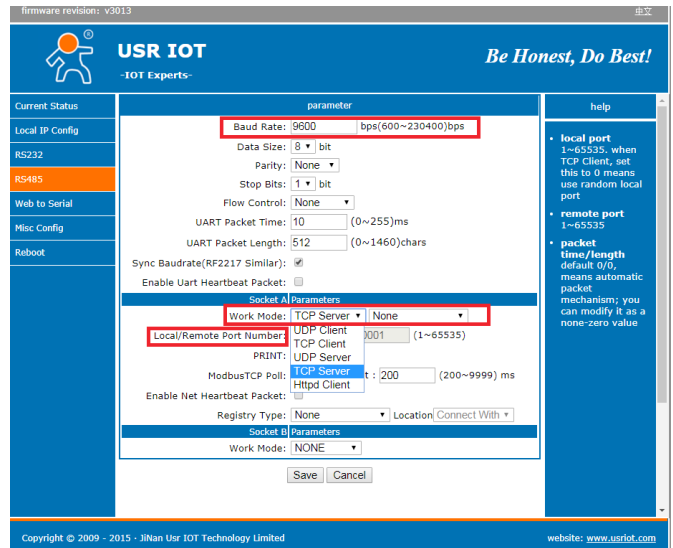


Figure 7. RS-485 Settings

15. Select **Save** to continue. Once saved, you can disconnect the Ethernet cable from your PC and connect the Ethernet Converter directly to your router.

16. Restore your computer's Internet Protocol Version 4 (TCP/IPv4) settings back to their original configuration.

NOTE: Remember when attempting to browse to the Ethernet Converter's web page, you have to use the IP address set in figure 6.

OPTION 2

- Download the following file from the following location: <http://www.usriot.com/usr-tcp232-m4e45-setup-v2-3-0-78/>
- Connect the provided Ethernet cable between your computer and Ethernet Converter.
- Connect the provided AC adapter to the Ethernet converter and plug AC adapter into wall outlet.
- Execute the file that you downloaded in step 1. USR-TCP232-M4_E45 V2.3.0.78.EXE
- The following Search Device screen will appear. Select **Search Device** to find the Ethernet Converter.

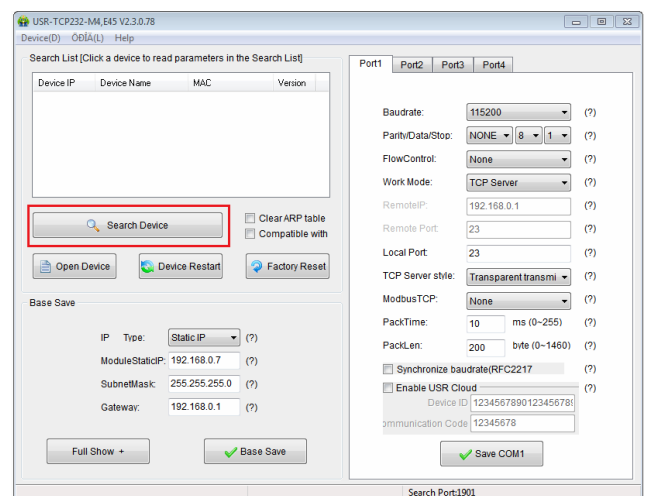


Figure 8. Search Device Screen

6. Next, the device should appear under the **Search List** box.

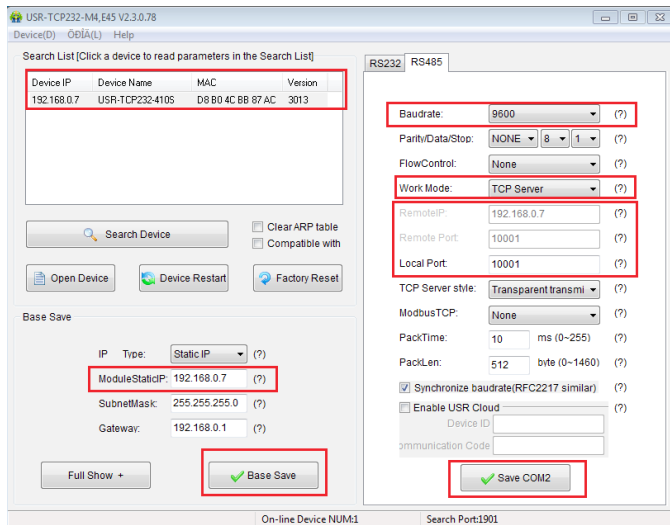


Figure 9. Select Device

7. Select the **Device IP** and perform the following:
 - a. Change the **Module Static IP**, **Subnet Mask** and **Gateway** to match your local network settings.
 - b. Select RS485 tab (note, default tab selection is RS232).
 - c. Change default **Baud Rate** to **9600**.
 - d. Change **Work Mode** to **TCP Server**.
 - e. Set both **Remote** and **Local Port** numbers to **10001**.
- NOTE:** Since we are using a static IP address here, make sure no other device on your network is using that IP address.
8. Press **Base Save** and **Save COM2** to finish.
 9. Once saved, you can disconnect the Ethernet cable from your PC and connect the Ethernet Converter directly to your router.