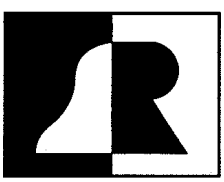
BELAR

WizWin Software Setup & Firmware Updates

Guide to Operations



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WARRANTY AND FACTORY SERVICE

For Assistance, Contact Your **BELAR** Sales Representative or Customer Service at the **BELAR** Factory.

Immediately upon receiving your equipment, please make a careful inspection for any shipping damage. If damage is found or suspected, please notify the carrier at once and then contact your dealer or the **BELAR** factory. We strongly encourage you to save the shipping carton and packing materials supplied with your equipment. They are specially designed to properly protect your equipment, and in the event that you need to return it for service, only these OEM shipping materials can ensure its safe return to our factory.

All **BELAR** products are warranted against defects in materials and workmanship. This warranty applies for one year from the date of delivery, FOB factory or, in the case of certain major components listed in the instruction manual, for the specified period. **BELAR** will repair or replace products which prove to be defective during the warranty period provided that they are returned to **BELAR** pre-paid. No other warranty is expressed or implied. **BELAR** is not liable for consequential damages.

A RETURN AUTHORIZATION NUMBER MUST BE OBTAINED FROM BELAR IN ADVANCE OF RETURN.

- Please call (610-687-5550) or email (sales@belar.com) to request an RA number to display on the outside of your shipping carton and all paperwork.
- A written statement with the name, address, telephone number & email address together with a brief description of the work requested, must accompany all returns.
- The customer shall be responsible for all costs of transportation and insurance to and from the **BELAR** factory, and all such costs must be prepaid.

Please Visit: **WWW.BELAR.COM** to Register Your Product So We May Keep You Informed of the Latest Hardware and Software Updates.

Contents

I. Initial Software Installation

1) **DOWNLOAD** the **BELAR WizWin** software from the **BELAR** website at: http://www.**BELAR**.com/update/index.html

2) Locate and **RUN** the **setup.exe** file. Follow the screen prompts.

3) If connecting to the unit using the RJ-45 network connector, download the Lantronix Device installer using the link on our webpage. Also available from Lantronix at: http://ltxfaq.custhelp.com/cgi-bin/ltxfaq.cfg/php/enduser/std_adp.php?p_faqid=644

4) Install the Device Installer software.

II. Connecting the Unit to your computer

1) Network Connection

   a) DHCP: If connecting to a network with a DHCP server in place (the Unit is shipped with DHCP enabled) connect the Unit to your network, on the same subnet as the computer you loaded the **WizWin** software, then power cycle the unit.

   b) APIPA: If your network does not have a DHCP server the Unit will select an APIPA (Automatic Private IP Address) address in the 169.254.xxx.xxx range with a subnet of 255.255.0.0 You can then use an isolated (non DHCP) switch or a crossover cable to connect the **FMHD-1** to your computer.

   c) You must set the computer IP to the same 169.254.xxx.xxx range with the 255.255.0.0 subnet. (Most computers set to DHCP enabled will default to an APIPA address if no DHCP server is present when they are booted up)

   d) Static IP: Currently static IP's must be set using the Lantronix Device Installer software. Please see Section VII Setting a Static IP section below.

2) RS-232 Connection

   a) Connect a 9 pin Female to Female D connector cable. The unit uses pins # 2, #3, and # 5.
   The cable pinout is: Pin #2 to Pin#3, Pin #3 to Pin #2, and Pin #5 to Pin #5

   Note: FMHD-1 units running software version less than 4.00 require an onboard jumper to be set to enable the RS-232 port.

III. Configuring Software

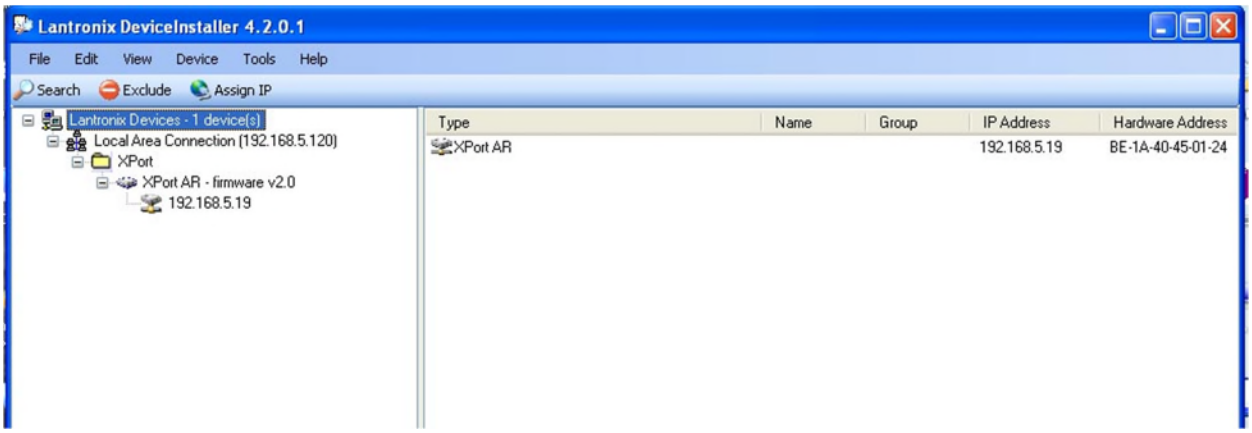
1) Finding the Unit's IP address

a) To Obtain the Units IP address, activate the Unit's popup menus and go to the "Settings" > "Network" submenu to display the current network information. In order for the unit to correctly assign a DHCP or APIPA address the unit must be power cycled after the RJ-45 cable is connected to the unit.

b) Alternatively, if the **FMHD-1** is running a software version less than **4.0** the network settings are not available from the unit. Please follow the steps below.

i. **OPEN** the Lantronix Device Installer program.

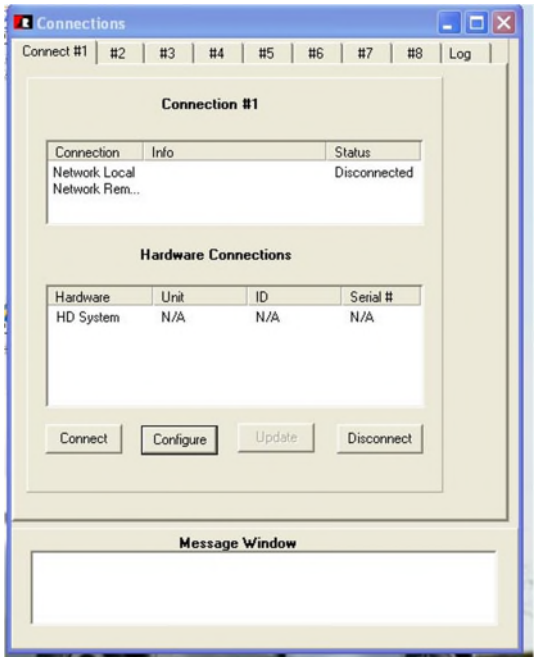
ii. In the left hand column you will see the IP address assigned to the **XPORT-AR**. If you already have the Device installer program running **CLICK** the "**search**" function at the top left. Note the IP address assigned to the **XPORT-AR** device (this is the **FMHD-1** embedded network device) Write the address down, in the example it is 192.168.5.19



2) **RUN** the **WizWin** software:

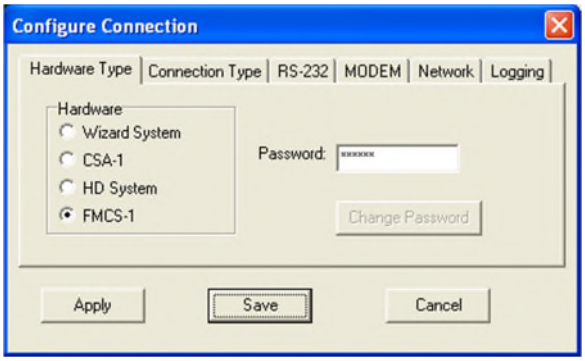
a) **SELECT** "**Connections**" from the window:

b) A pop-up dialog box will appear. **SELECT Connection #1** and **CLICK** the "**Configure**" Button.

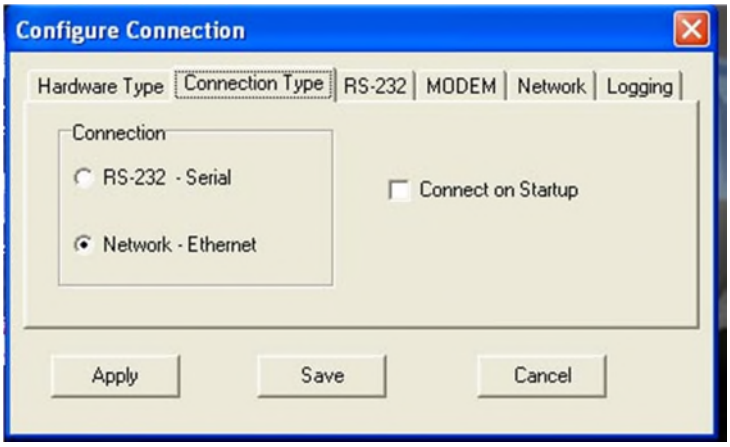


c) Under the individual Tabs in the Configure Dialog Box enter the following information.

i. **Hardware Type:** **SELECT HD System** for **FMHD-1** or **FMCS-1**.

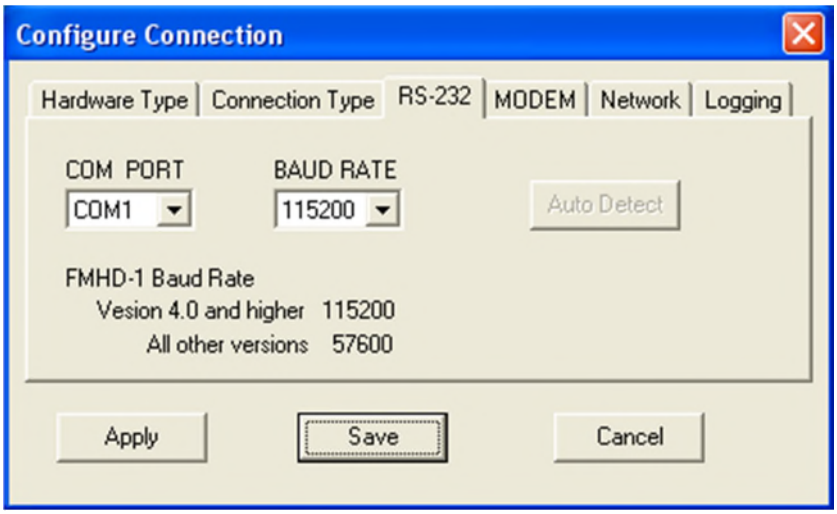


ii. **Connection Type**: Network – Ethernet or RS-232 – Serial



iii. RS-232 Connection

If using the serial connection on the **FMCS-1 CHECK** the appropriate option, then **SELECT** the **RS-232** tab, **SELECT** the appropriate "Com Port" and **SET** the "Baud Rate to 115200". Note **FMHD-1** units running software versions less 4.0; use a Baud Rate of 57600. **CLICK** "**Save**" to save and close the "Configure Connection" dialog box.



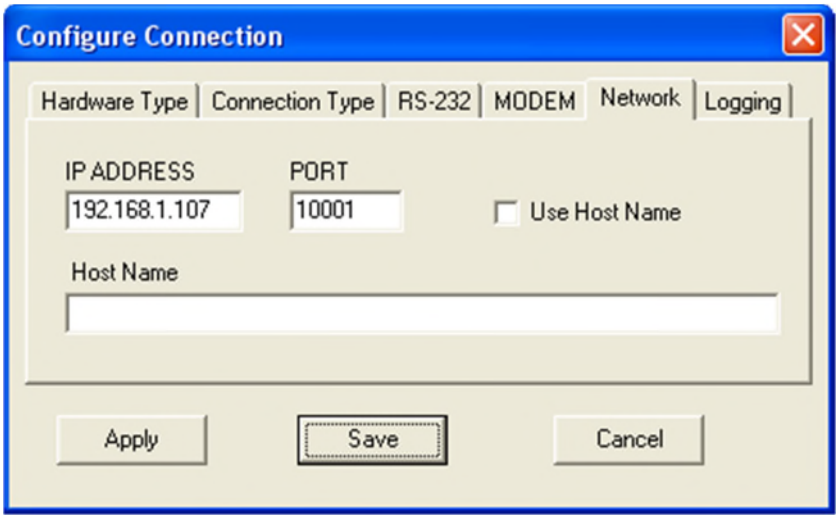
iv. Network Connection

Enter the IP Address of the Unit obtained from the Network Settings menu of the **FMHD-1/FMCS-1** or from the Lantronix Device Installer program.

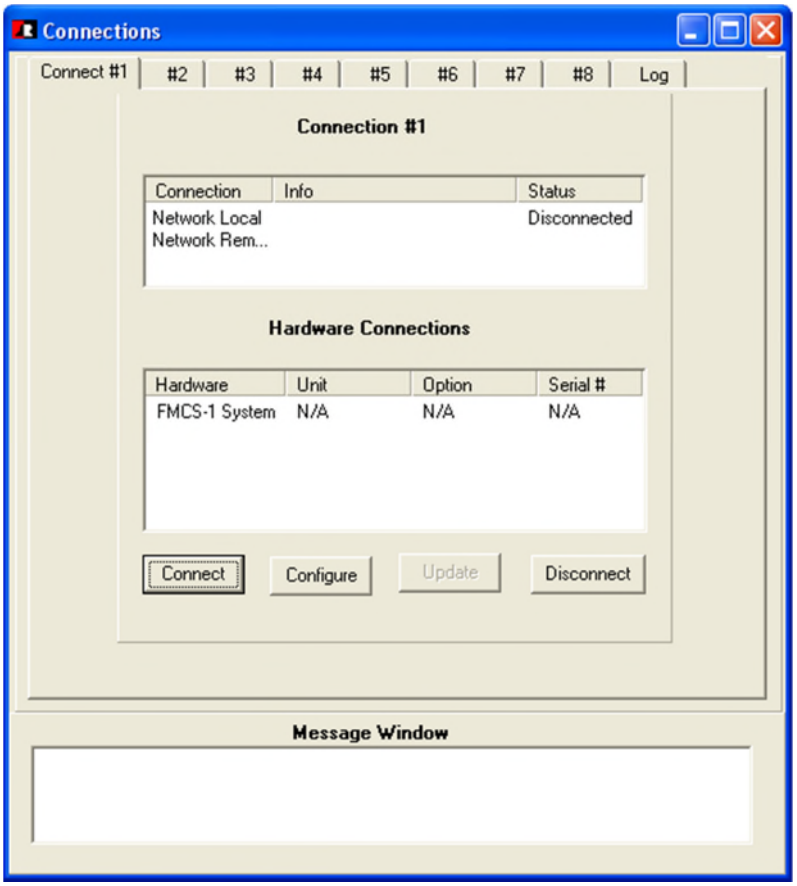
For a direct connection to the unit using **WizWin** the port number should be set to 10001. If connecting to the **BELAR** Server Program the IP address will be the address of the hosting computer and the port will be set between 81 and 88 to correspond with the listening port set in the Server Program.

Alternatively, a Host name can be substituted for the IP address. Please check use Host box if a Host name is being used.

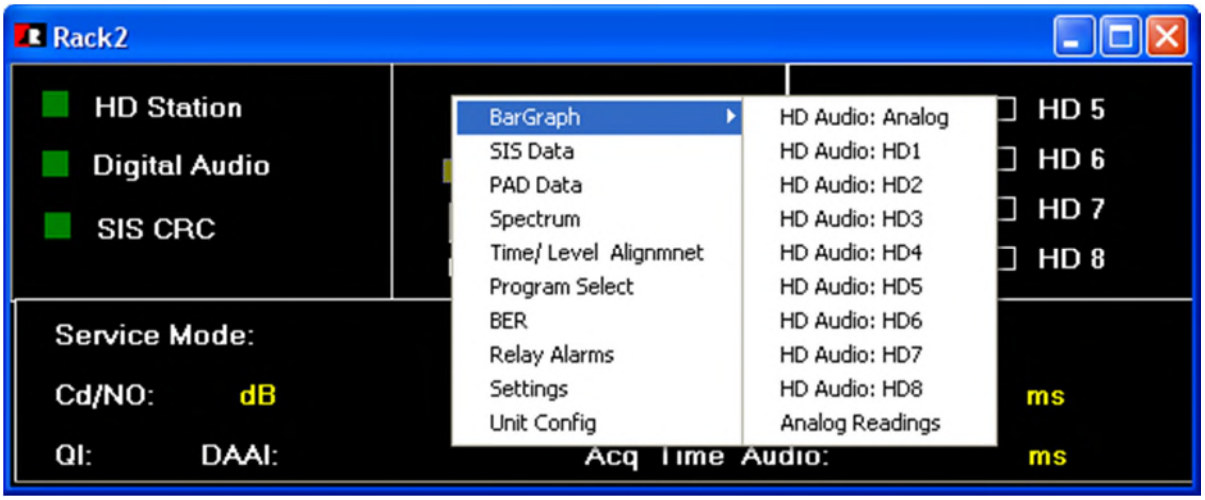
CLICK "**Save**" to save and close the "Configure Connection" dialog box



3) **CLICK** on the "**Connect**" button in the Connections Window. The Unit should connect and bring up a virtual front panel of the Unit.



4) You can navigate around the unit controls by right clicking on the unit and selecting screens and functions from the drop down menus that appear.

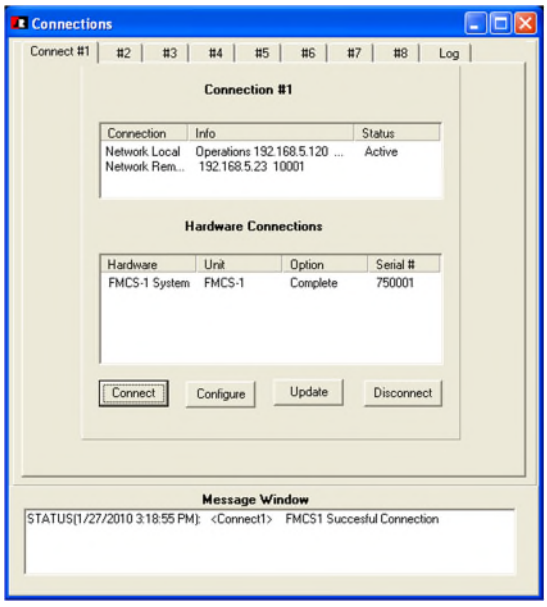


IV. Updating the FMCS1 and FMHD1 Version 4.X Firmware

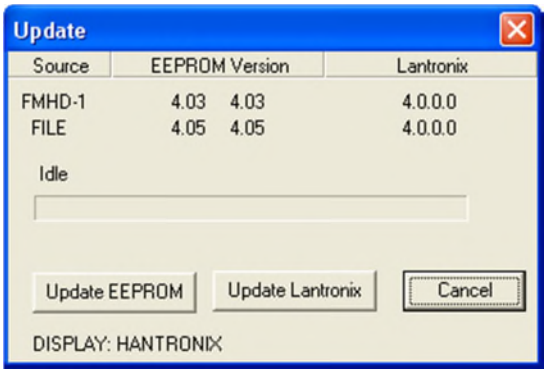
If updating a **FMHD-1** firmware version **2.15** thru **3.xx** please go to section V.

The update file is embedded in the **WizWin** software. In order to update the unit a connection much first be established using the **WizWin** software, see section III.

1) In the Connections Window **SELECT** the "**Update**" button.



2) An Update Dialog Box will pop-up. **CLICK** the "**Update EEPROM**" button to start the update process.

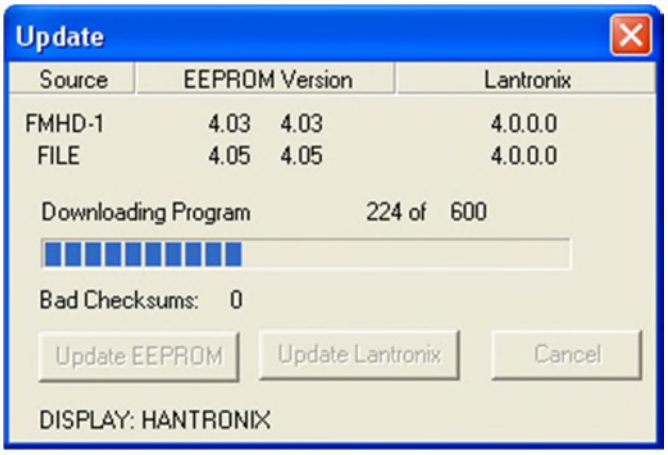


Notes: FMHD-1 firmware versions below 2.15 cannot be upgraded in the field and must be returned to BELAR for updating.

If you are attempting to install a firmware version older than or equal to your current version a warning box will appear. Select the "**Confirm**" button if you want to continue.

The front panel of the Unit will show the updating progress which takes about 10-20 minutes to complete. Afterwards the unit should reboot automatically.

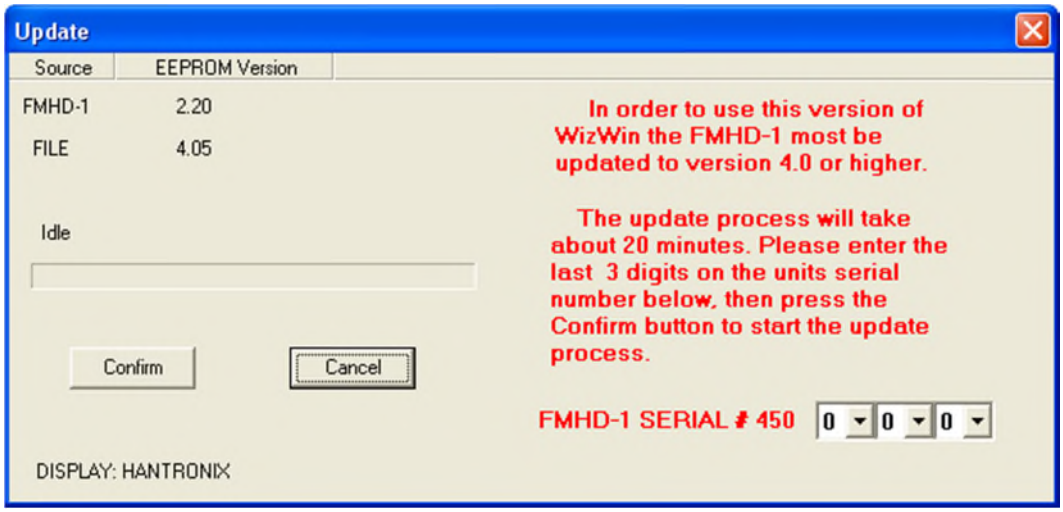
DO NOT INTERUPT THE UPDATE PROCESS AFTER IT HAS STARTED



V. Updating FMHD-1 Version's 2.15 thru 3.XX to 4.XX Firmware

The update file is embedded in the **WizWin** software. In order to update the unit a connection much first be established using the **WizWin** software, see section III.

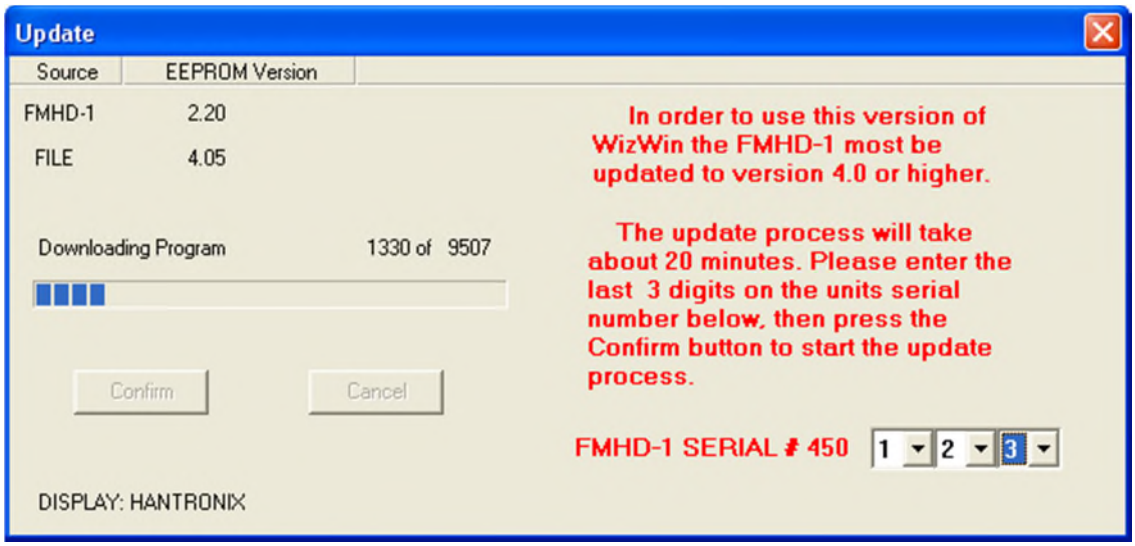
The update window will automatically popup when connecting to a **FMHD-1** running firmware version's **2.15** thru **3.XX**. Enter the last three digits of the unit's serial number which are located on the rear panel serial tag. **CLICK** the "**Confirm**" button to start the update process.



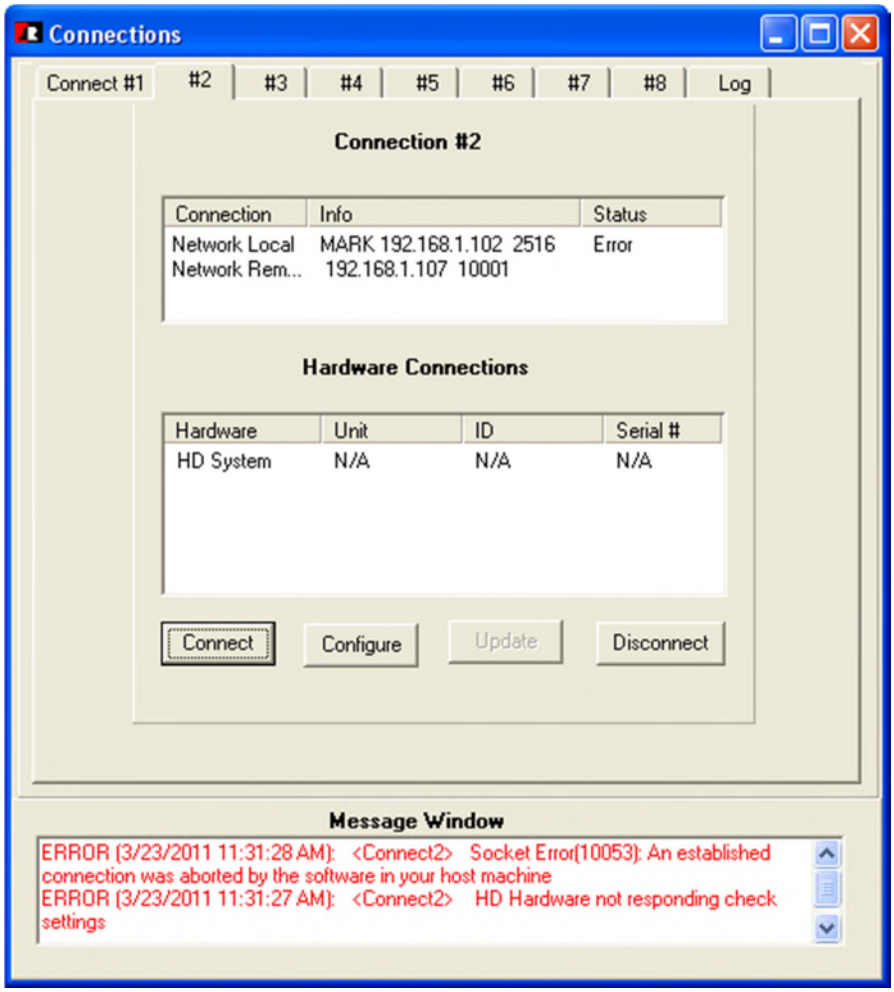
Notes: FMHD-1 firmware versions below 2.15 cannot be upgraded in the field and must be returned to BELAR for updating.

The front panel of the Unit will show the updating progress which takes about 20 minutes to complete. Afterwards the unit should reboot automatically.

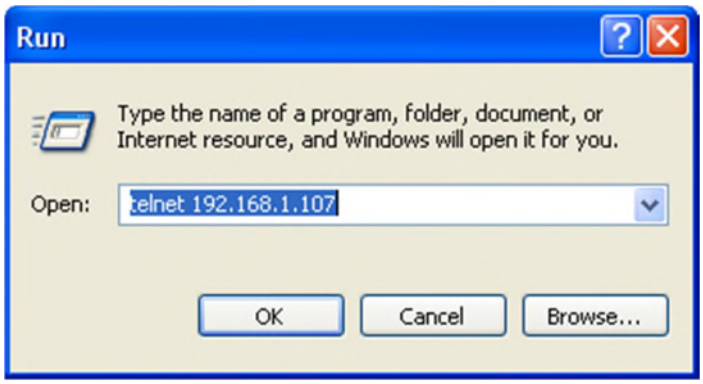
DO NOT INTERUPT THE UPDATE PROCESS AFTER IT HAS STARTED



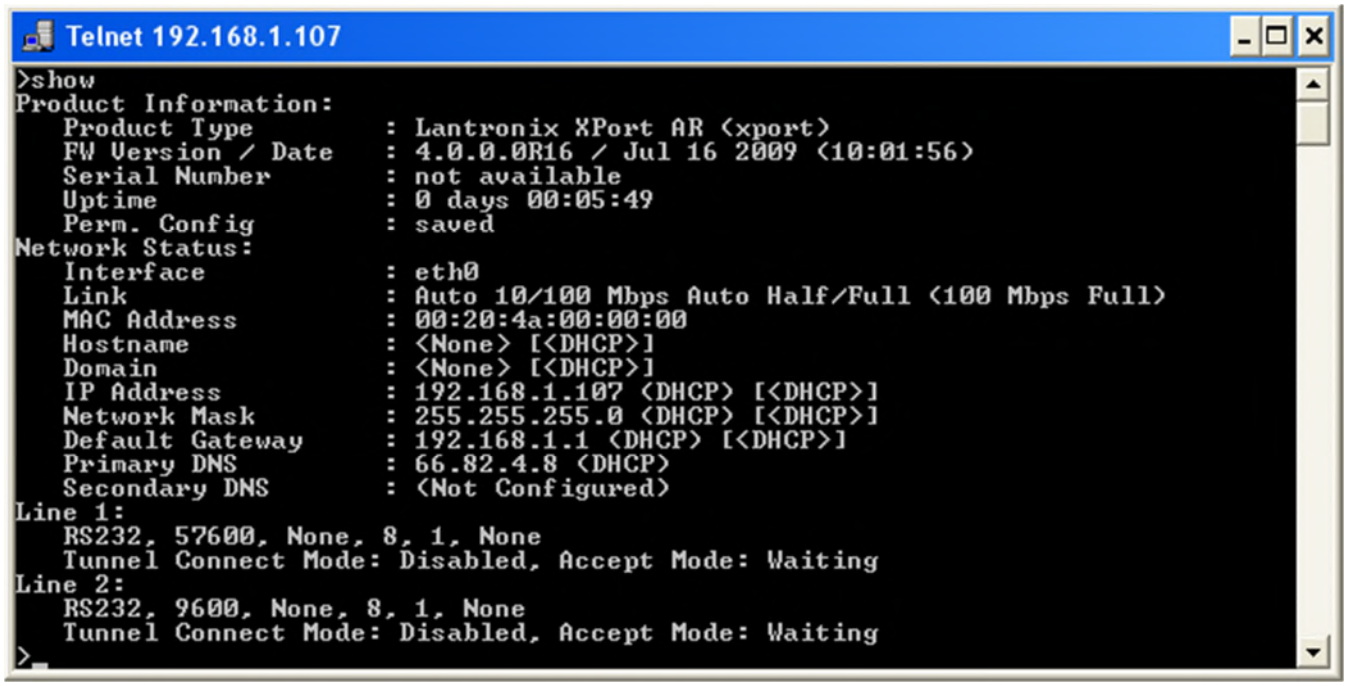
During the update process changes are made to the embedded Lantronix Network interface. If after the update, the **WizWin Software** displays the following error message the Lantronix may not have been re-configured correctly. Please follow the steps below.



Older Lantronix firmware version's (V2.0.0.0) do not have a web interface, the easiest way to check and configure the Lantronix is using Telnet commands. To access the Lantronix from the Windows Start Menu, select the Run command to establish a telnet connection. In the example below the IP address of the **FMHD-1** is 192.168.1.107, please substitute your units IP address.



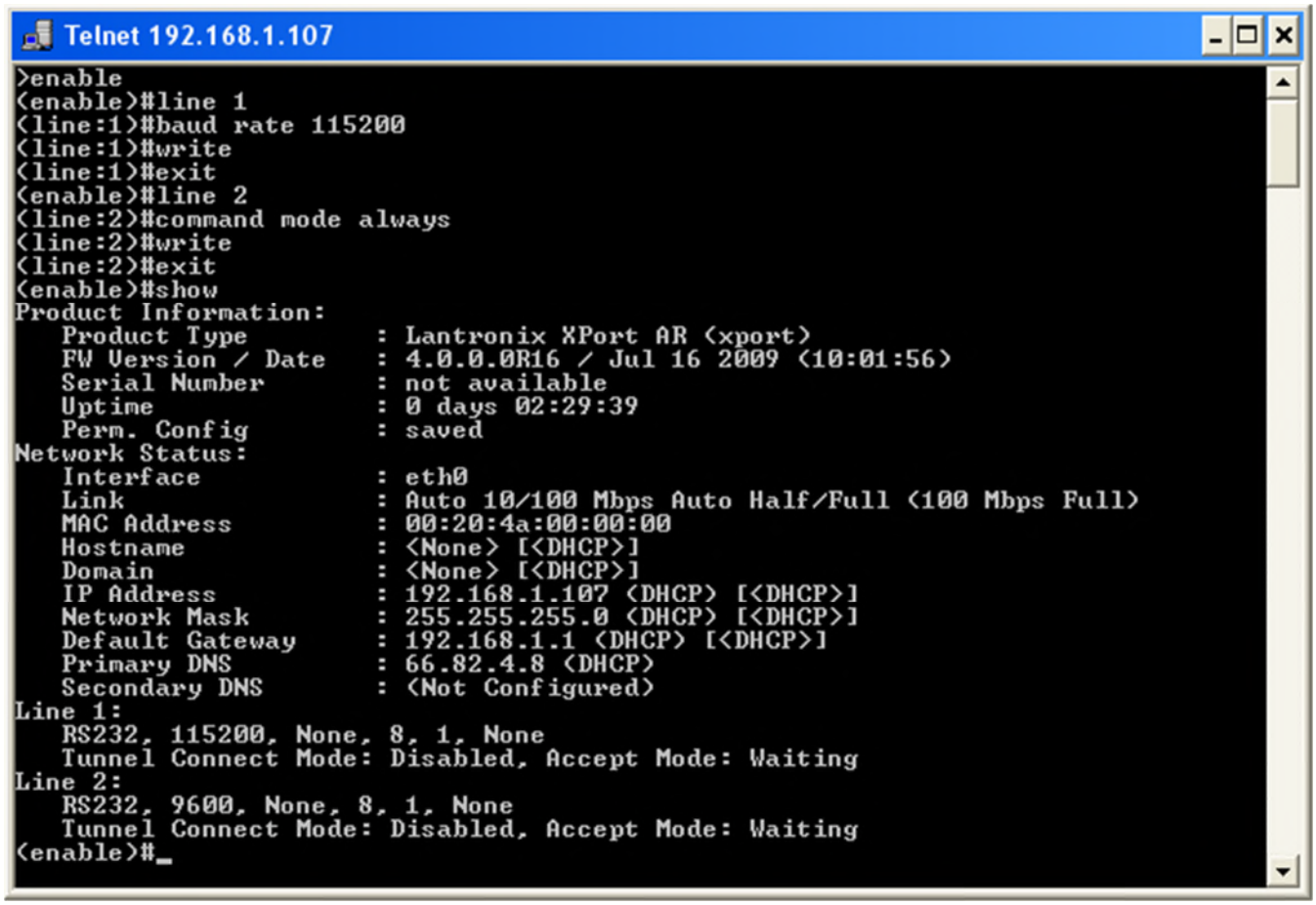
A popup window will appear with a ">" prompt, please type "**show**" and hit **enter** to display the following screen. The problem which has caused the **WizWin** error message is the Line 1: RS232, 57600, etc. In this line the baud rate needs to be set to 115200 to work with the new firmware. To set the new baud rate and enable the Line 2 command mode, follow the steps below.



Type the following commands, hitting **enter** after each one.

Type "**enable**"
Type "**line 1**"
Type "**speed 115200**" for version 2.0.0.0 Lantronix or if you receive a "Syntax error" message Type "**baud rate 115200**"
Type "**write**"
Type "**exit**"
Type "**line 2**"
Type "**command mode always**"
Type "**write**"
Type "**exit**"
Type "**show**" to verify the baud rate has changed to 115200.

The Lantronix should now be configured correctly to communicate with the **WizWin** software. Please use the **WizWin** software to update the Lantronix to version 4.0.0.0, see section VI.

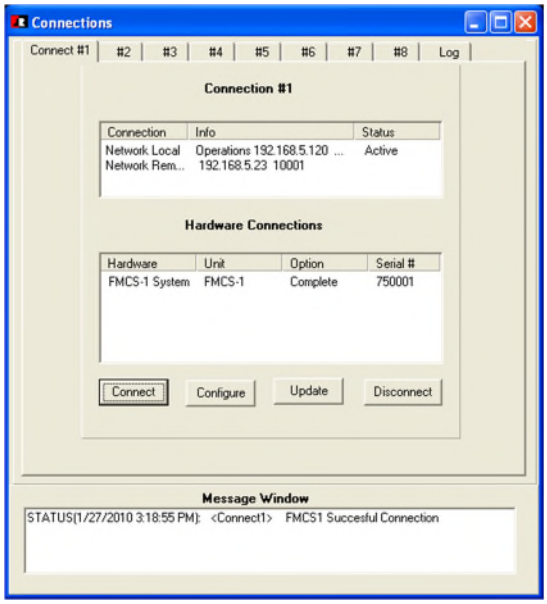


VI. Updating Lantronix Network Interface Controller.

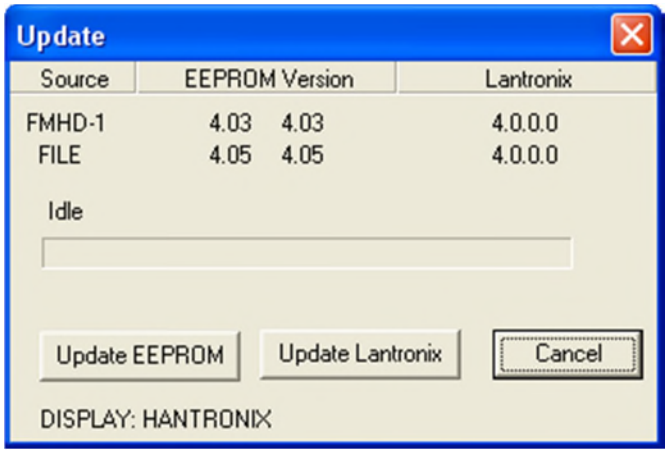
Some older units have Lantronix firmware below version 4.0.0.0. We recommend updating these Lantronix to Version 4.0.0.0. In order to update the Lantronix using **WizWin** the **FMHD-1** firmware must be version **4.05** or higher, the **FMCS-1** must be version **1.18** or higher. Please update the unit's firmware first, if necessary, see sections VI and V.

The update file is embedded in the **WizWin** software. In order to update the unit a connection much first be established using the **WizWin** software, see section III.

1) In the Connections Window **SELECT** the "**Update**" button.

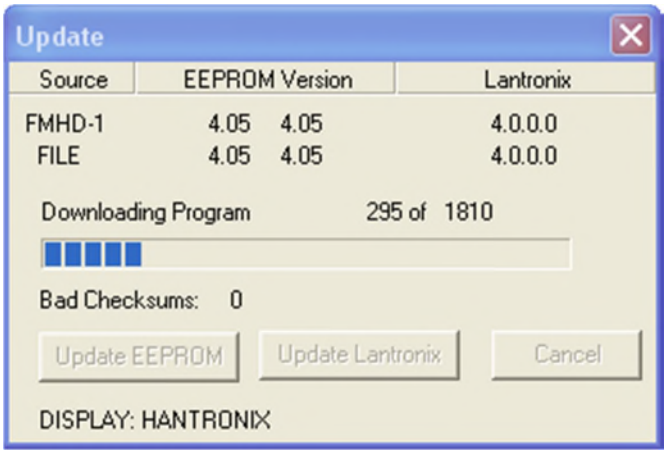


2) An Update Dialog Box will pop-up. The **FMHD-1**'s Lantronix version is displayed on the first line, the update version is display on the second line. **CLICK** the "**Update Lantronix**" Button to start the update process.



The front panel of the Unit will show the updating progress which takes about 20 minutes to complete. Afterwards the unit should reboot automatically.

DO NOT INTERUPT THE UPDATE PROCESS AFTER IT HAS STARTED

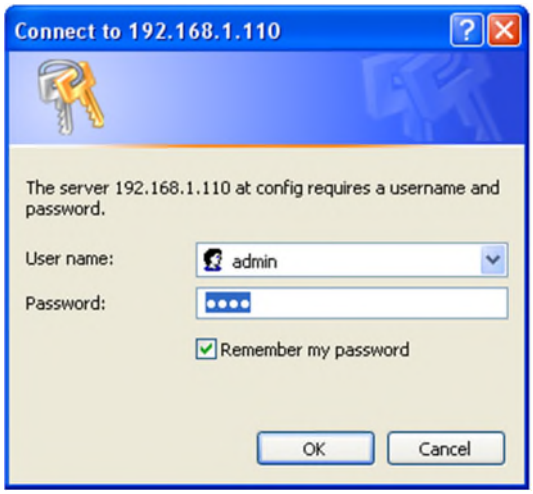


The Lantronix update will save the IP settings present before the update and reconfigure the Lantronix after the update, then reboot the device. During the update process the Network connection will be closed and after the unit reboots a new connection will be established. If the Lantronix was configured for DHCP this may result in the unit's IP address changing. If this occurs use the Lantronix Device installer or the unit's Network Settings menu to determine the new IP address. The **WizWin Software** will have to be reconfigured using this new IP address before the software can connect to the unit. See section III for details.

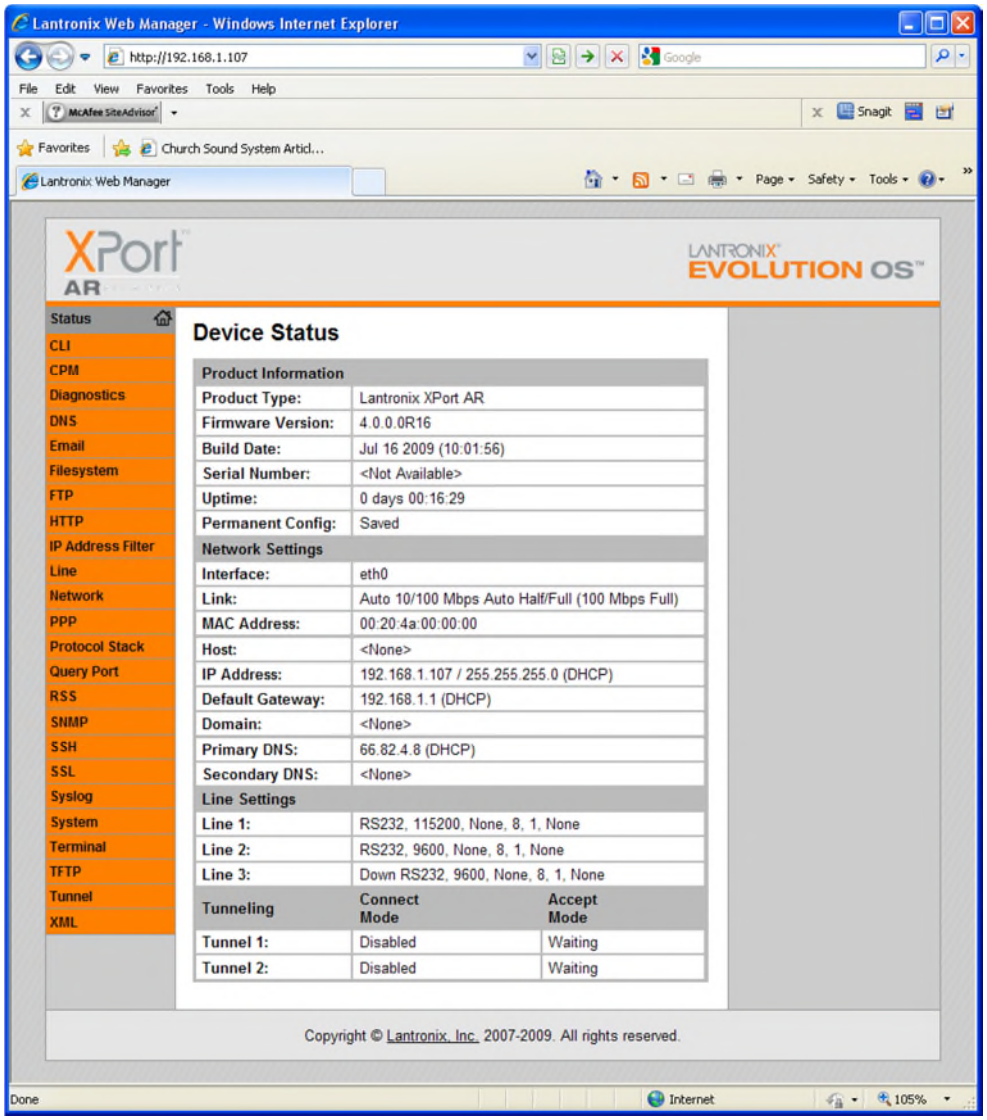
VII. Setting a Static IP address using the Lantronix Device Installer Web Interface.

In order to use the Lantronix Device Installer Web interface the Lantronix must be running firmware version 4.0.0.0 or higher. Please update the Lantronix firmware before continuing if required. See Section VI. The Lantronix web interface may be accessed from the device installer, or from a standard web browser. The default user name and password are:

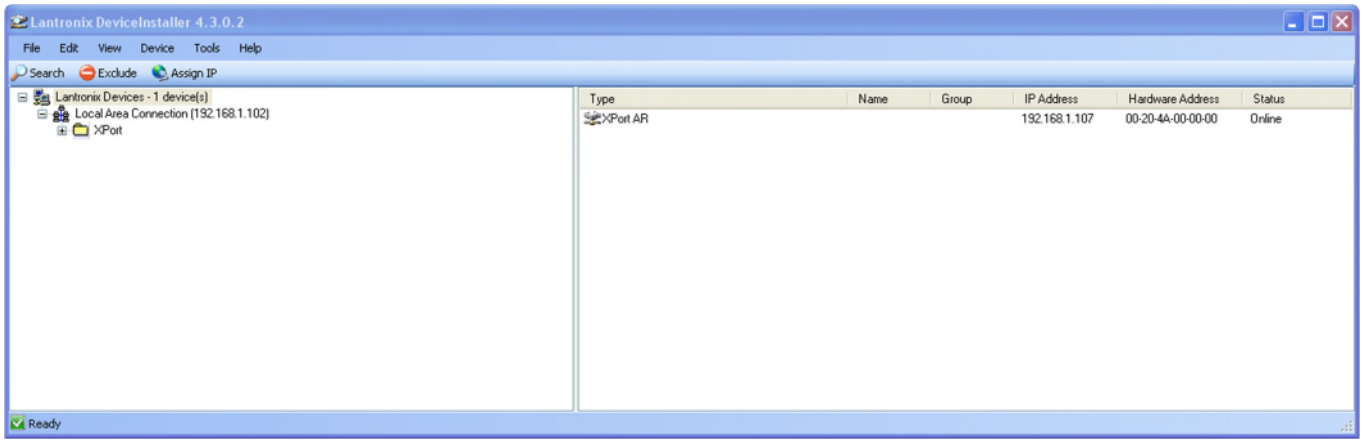
User name: **admin**
Password: **PASS**



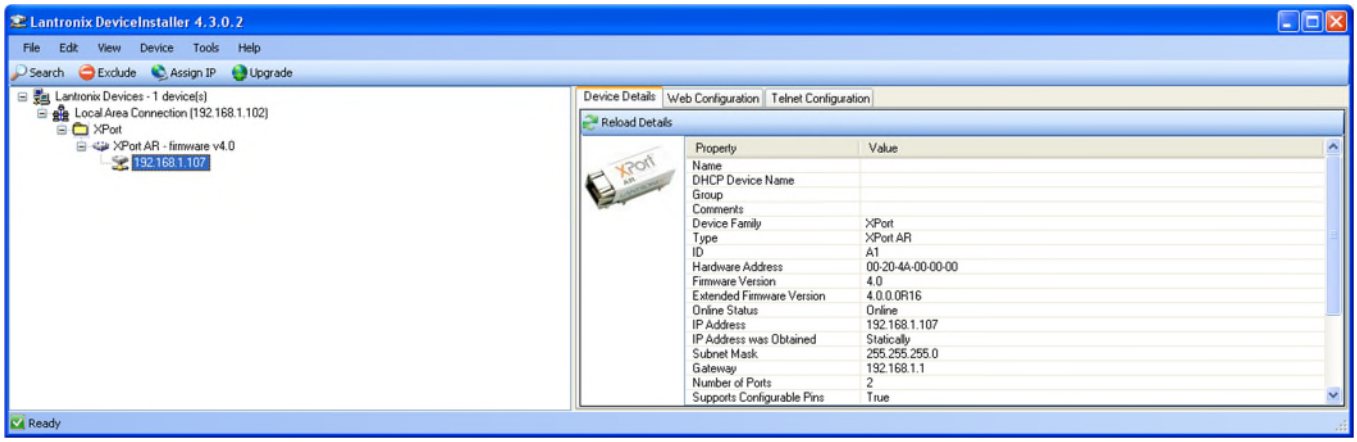
To access the Web interface using a web browser just enter the unit's IP address in the address bar, in the example below the IP address is 192.168.1.107. The browser will then prompt for a username and password as mentioned above.



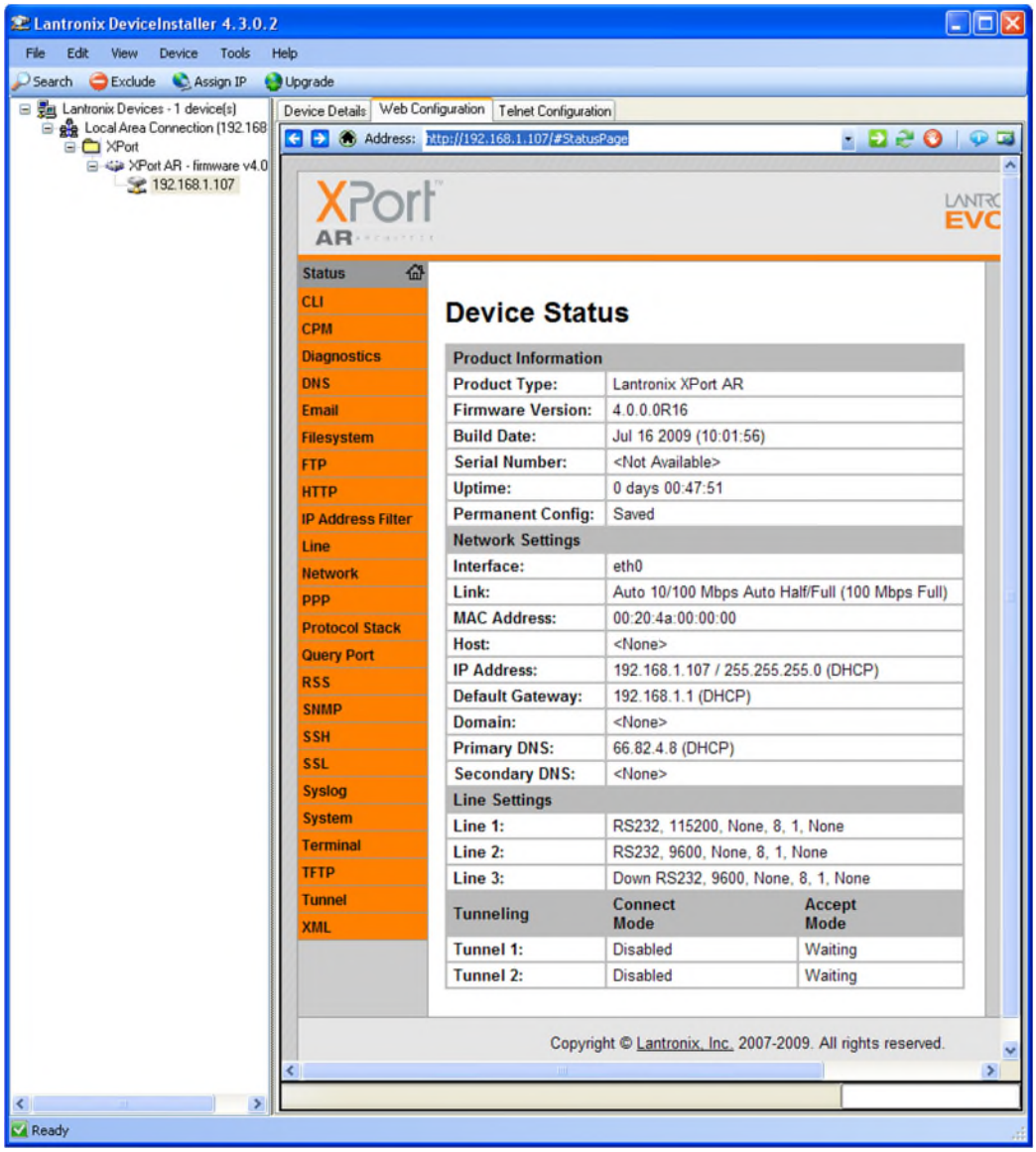
To use the Lantronix Device Installer software. Install and Run the software, the Lantronix will appear as **XPort** on the left and **XPort AR** on the right side. Double Click on the right hand side **XPort AR** symbol.



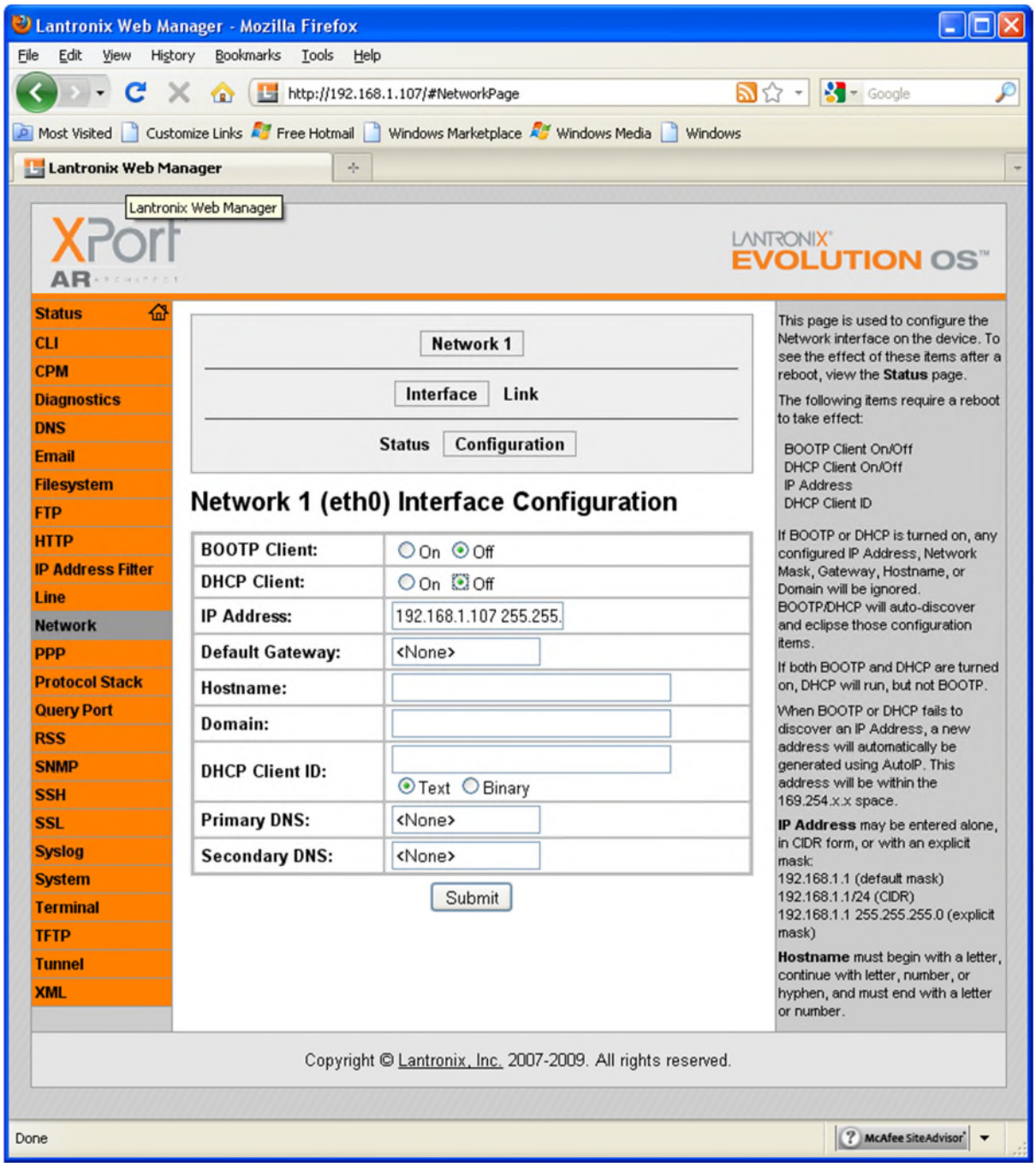
Click on the **Web Configuration Tab**, and then click the green right hand arrow on the tool bar. A username/password box will pop-up as displayed above. Enter the default username and password



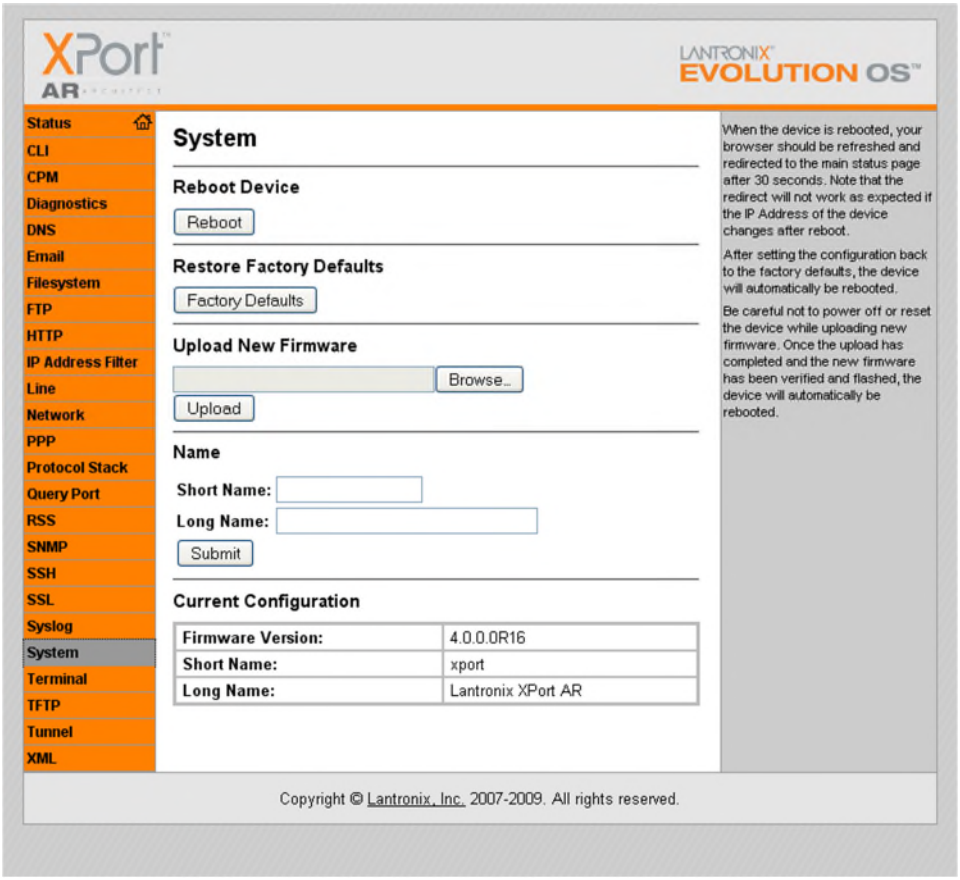
Both the Web browser and Device Installer display the same information in the same format. The Web Browser is quicker if you already know the Unit's IP address.



To set the Static IP click on the "**Network**" button on the left hand side. Next select the "**Configuration**" box in the center. From this screen enter the static IP address and subnet mask in the "IP Address" box using the format xxx.xxx.xxx.xxx xxx.xxx.xxx.xxx. In the example below, I have entered "192.168.1.107 255.255.255.0". Make sure the BOOTP and DHCP Client are both in the "Off" position. A Default Gateway, Hostname, or Primary DNS can also be set at this time. After all the settings are correct hit the "**Submit**" button at the bottom of the screen. The changes will take effect on the next reboot.



To reboot the Lantronix, either power cycle the unit or click on the "System" button on the left. Click the "**Reboot**" button under the system menu. After a prompt the Web Interface will close and then re-open showing the Device Status. Check to make sure the settings are correct. The unit should now be set to this Static IP address.


XPort AR
LANTRONIX EVOLUTION OS
Status
CLI
CPM
Diagnostics
DNS
Email
Filesystem
FTP
HTTP
IP Address Filter
Line
Network
PPP
Protocol Stack
Query Port
RSS
SNMP
SSH
SSL
Syslog
System
Terminal
TFTP
Tunnel
XML
System
Reboot Device
Reboot
Restore Factory Defaults
Factory Defaults
Upload New Firmware
Browse...
Upload
Name
Short Name:
Long Name:
Submit
Current Configuration
Firmware Version: 4.0.0.0R16
Short Name: xport
Long Name: Lantronix XPort AR
When the device is rebooted, your browser should be refreshed and redirected to the main status page after 30 seconds. Note that the redirect will not work as expected if the IP Address of the device changes after reboot.
After setting the configuration back to the factory defaults, the device will automatically be rebooted.
Be careful not to power off or reset the device while uploading new firmware. Once the upload has completed and the new firmware has been verified and flashed, the device will automatically be rebooted.
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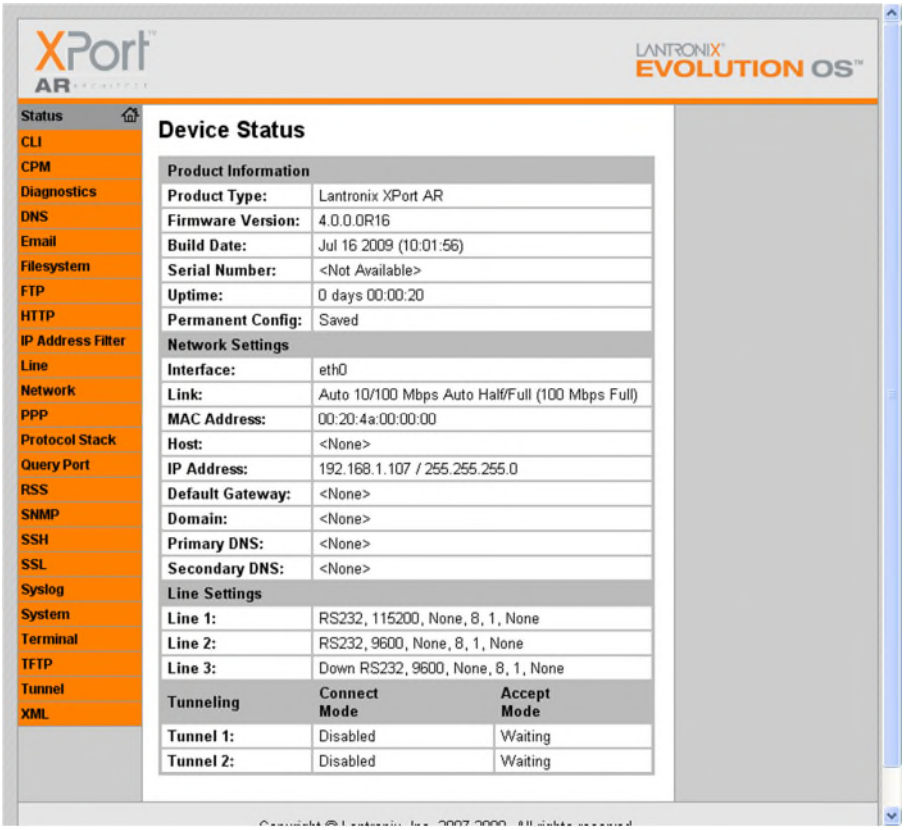
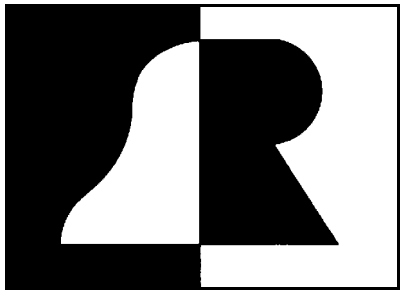

XPort AR
LANTRONIX EVOLUTION OS
Status
CLI
CPM
Diagnostics
DNS
Email
Filesystem
FTP
HTTP
IP Address Filter
Line
Network
PPP
Protocol Stack
Query Port
RSS
SNMP
SSH
SSL
Syslog
System
Terminal
TFTP
Tunnel
XML
Device Status
Product Information
Product Type: Lantronix XPort AR
Firmware Version: 4.0.0.0R16
Build Date: Jul 16 2009 (10:01:56)
Serial Number: <Not Available>
Uptime: 0 days 00:00:20
Permanent Config: Saved
Network Settings
Interface: eth0
Link: Auto 10/100 Mbps Auto Half/Full (100 Mbps Full)
MAC Address: 00:20:4a:00:00:00
Host: <None>
IP Address: 192.168.1.107 / 255.255.255.0
Default Gateway: <None>
Domain: <None>
Primary DNS: <None>
Secondary DNS: <None>
Line Settings
Line 1: RS232, 115200, None, 8, 1, None
Line 2: RS232, 9600, None, 8, 1, None
Line 3: Down RS232, 9600, None, 8, 1, None
Tunneling Connect Mode Accept Mode
Tunnel 1: Disabled Waiting
Tunnel 2: Disabled Waiting



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