Using the WebTouch Remote™ VersaTenn V Web Server

Introduction

The VersaTenn V can be monitored and controlled over the Internet using Microsoft's Internet Explorer web browser. Each controller has a built-in web server that uses Tidal Engineering's Web Touch™ Remote technology (Pat. Pending). This technology provides a web browser user interface that is identical to the local touch screen interface on the environmental chamber. Operators can use this feature to remotely monitor chamber settings and readings and technicians can use it for remote troubleshooting. This section describes how to setup the chamber and your web browser for remote control over the World Wide Web.
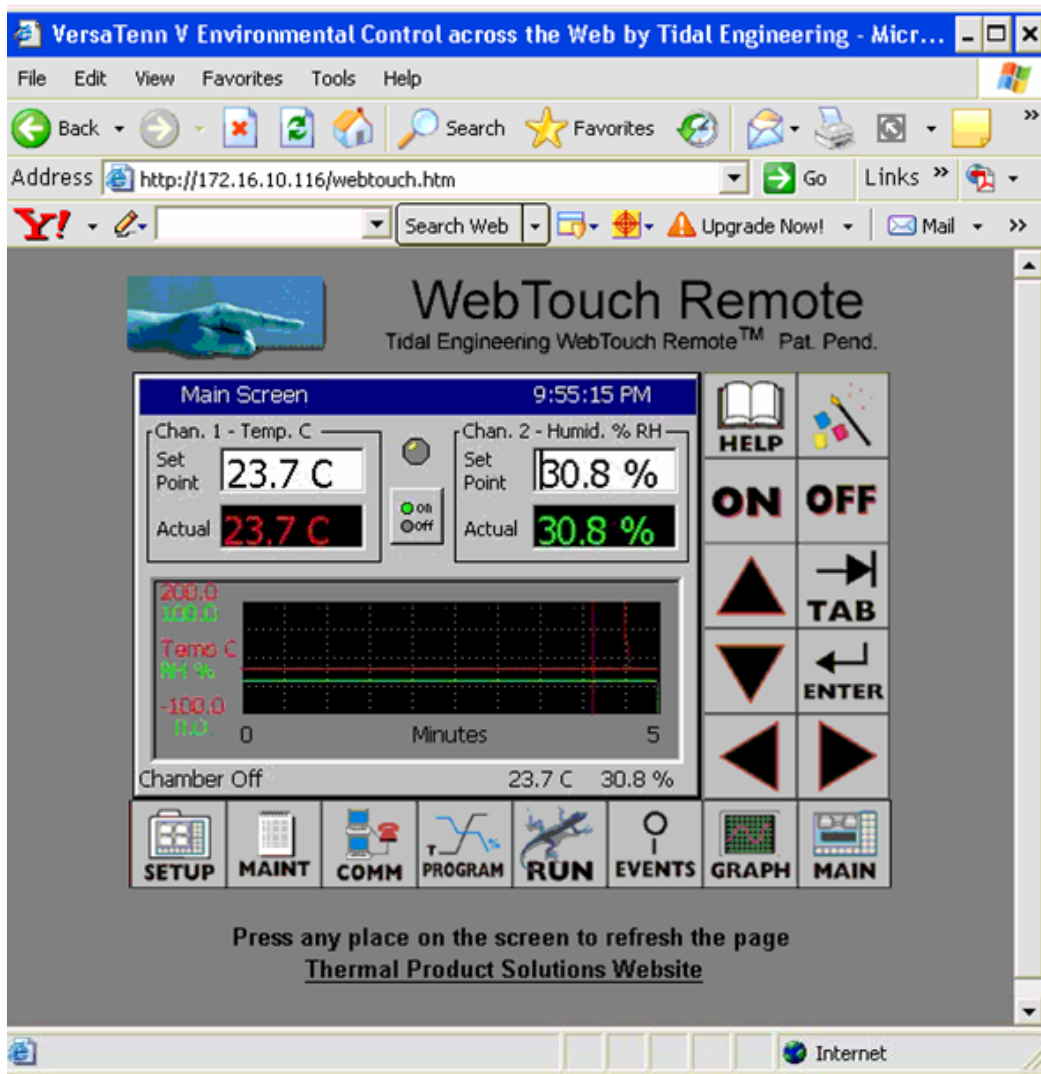

Figure 1 VersaTenn V WebTouch Remote ™ web page

Configuring the VersaTenn V Web Server

To use the web server, you must perform a one-time set up. This setup includes registering the server, enabling the server, providing a user name and password for the server and establishing a TCP/IP connection using the VersaTenn V's 10/100 BaseT Ethernet port.

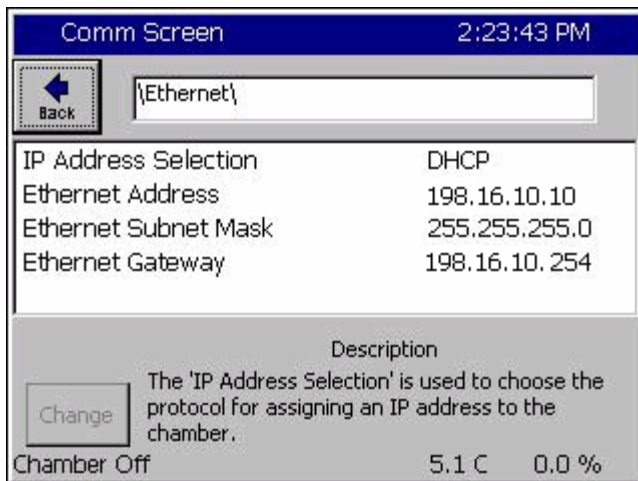To enable the server you must first enter a Registration Key.

Contact Tenney Environmental (www.ThermalProductSolutions.com) to obtain your Registration Key.

Establishing a TCP/IP connection

The VersaTenn V Web Server can be used on an office or factory network to provide remote access and control. The VersaTenn V can also be accessed through the internet provided your network is configured for remote access. Check with your Network Administrator to see if this is possible on your network via VPN, etc.. In addition, several VersaTenn V's can be setup with a small router to connect directly to a PC.

TCP/IP
To communicate over TCP/IP, connect your PC and your chamber controller to your LAN. Like any network device, the VersaTenn V must be configured with an IP address and a net mask. Dynamic Host Configuration Protocol (DHCP) can do this configuration automatically. Alternatively, the VersaTenn V can be assigned a Static address. See your network administrator about available Static IP Addresses.

Comm Screen	2:23:43 PM
\Ethernet\	
IP Address Selection	DHCP
Ethernet Address	198.16.10.10
Ethernet Subnet Mask	255.255.255.0
Ethernet Gateway	198.16.10.254
Description	
The 'IP Address Selection' is used to choose the protocol for assigning an IP address to the chamber.	
Chamber Off	5.1 C 0.0 %

Once assigned the IP Address will appear in the Ethernet folder of the VersaTenn V.

Note: The Ethernet Network Parameters shown in the figure at the left are examples. Your setting will probably be different.
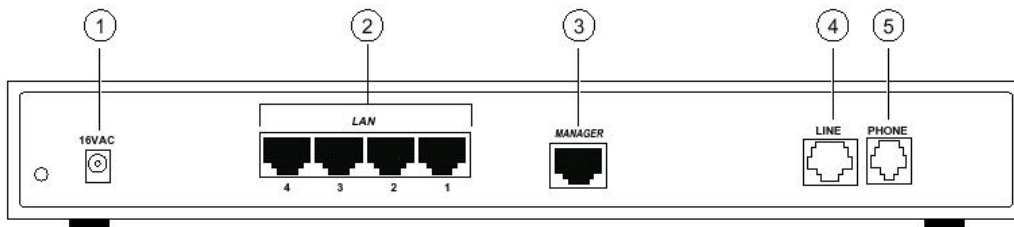
IP Configuration by DHCP

A server or router on the network may act as a Dynamic Host Configuration Protocol (DHCP) server. A DHCP server stores a list or pool of IP addresses, along with other information (such as gateway and DNS addresses) that it may assign to the other devices on the network including your VersaTenn V controller.

DHCP servers are available on most office and factory network servers. Contact your network administrator to verify that a DHCP server is available and enabled. The VersaTenn V will display the address it was assigned in the Com/Ethernet screen. If the address is not 0.0.0.0 than it has been assigned an address by the DHCP server.

IP Configuration by DHCP using the Netgear RM356 Modem Router

The Model RM356 Modem Router has the capacity to act as a DHCP server.

1. Connect the VersaTenn V to a LAN port (balloon 2 in the figure below).
2. Connect the PC to a LAN port.
3. Setup the PC to acquire an IP address automatically.
4. Power on the RM356 router.
5. Power on the PC and the VersaTenn V.
6. Confirm the VersaTenn V has obtained an IP address in the Com/Ethernet Screen.

Key:
1 = AC adapter outlet for connecting the AC adapter to the router
2 = LAN ports for connecting the router to workstations using UTP cable

Registering the Web Server

Press the **COMM** navigation button on the bottom of the controller to open the Communications screen and then select the **Web Server** folder (Figure 2). The VTV will request a registration key if it hasn't already been registered. Note the serial number on this screen and contact Thermal Product Solutions to order your registration key.
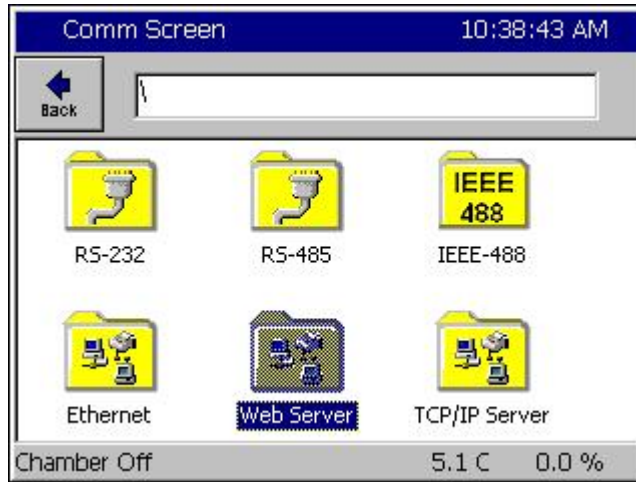
Figure 2 COMM Screen

Figure 3 Registration window

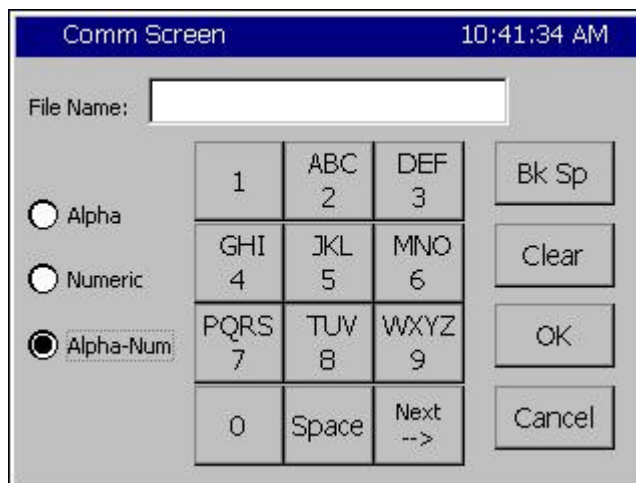Click on the Registration Key text box to display the keypad.

Figure 4 Keypad

Input the registration code you received from Tenney Environmental using the keypad. .

Figure 5 Registration Key box

When you have entered the registration key press **Accept**. Then press **Register** to continue.

Figure 6

The VersaTenn V will display a message box indicating that the web server key was successfully registered.

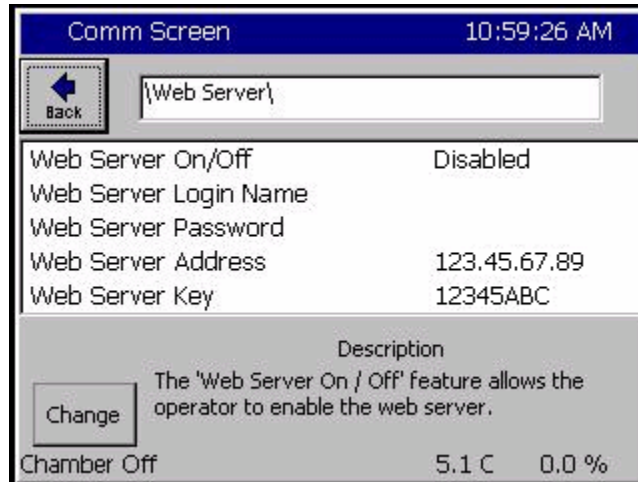Press **OK** to proceed to the Web Server Settings page (Figure 7).

Figure 7 Web Server Settings

After you have successfully registered the web server, you must now enable the Web Server, set a Login Name, and set a Password before you can connect to the VersaTenn V.

To change the Web Server On/Off value to Enabled, first press the line in the Web server settings screen to highlight it and then press the **Change** button. From the Web Server On/Off screen, highlight Enabled and press Accept (Figure 8).
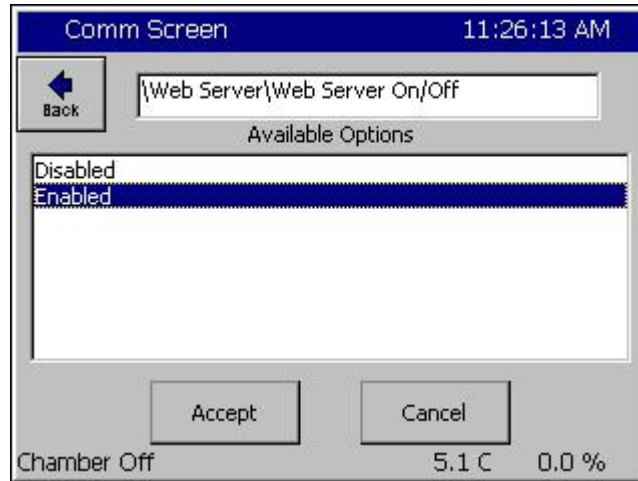

Figure 8 Web Server On/Off Screen

Press the Back button to return to the settings page.

Network Security

In today's Internet environment, network security is often a concern. The VT V web server requires a username and password that is managed from the touch screen. To set the user name and password, select Web Server Login Name and press the Change button. Enter your desired Login Name on the keypad. Press OK to return to the settings page. Repeat the process for the Web Server Password. You will use this name and password when you access the VersaTenn V remotely via your web browser (Figure 9).
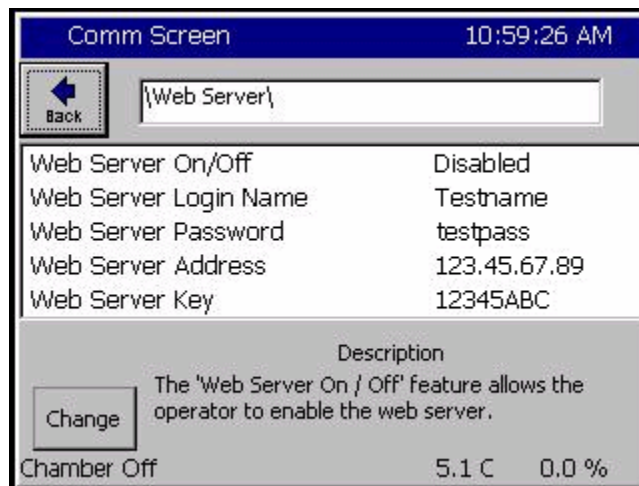

Figure 9 Web Server Settings

The unit's web server is now ready for use.

Configuring Internet Explorer

The web server works seamlessly with Microsoft Internet Explorer version 5.0 and higher. You must, however, adjust the default settings in Internet Explorer. Open Internet Explorer and select Internet Options from the Tools menu. (Figure 10).
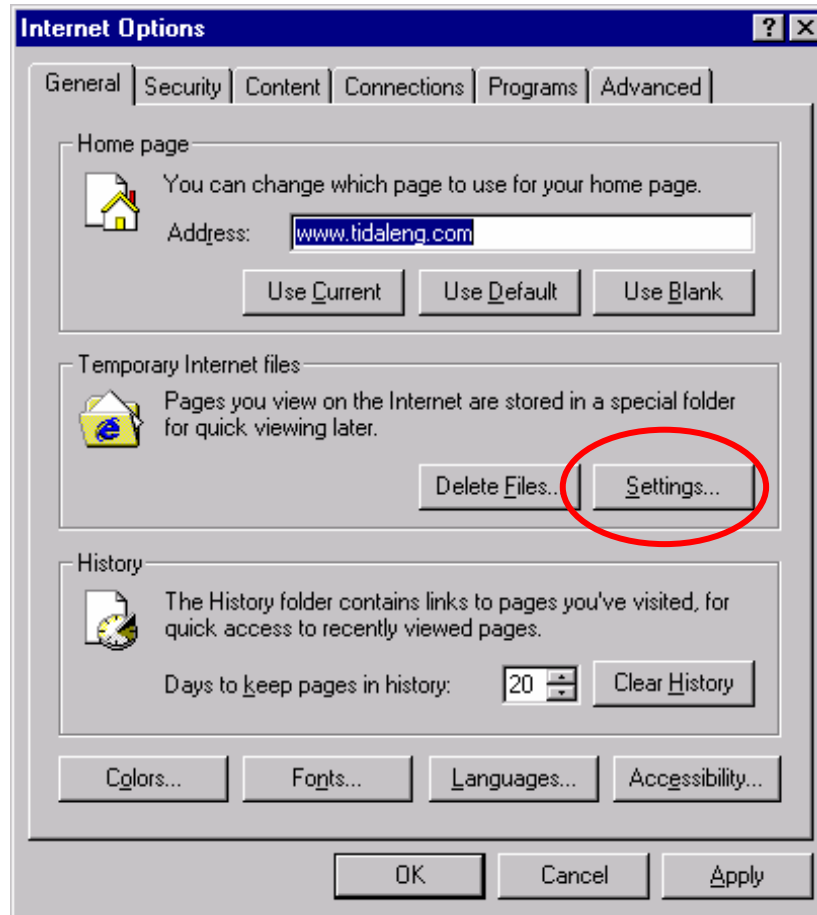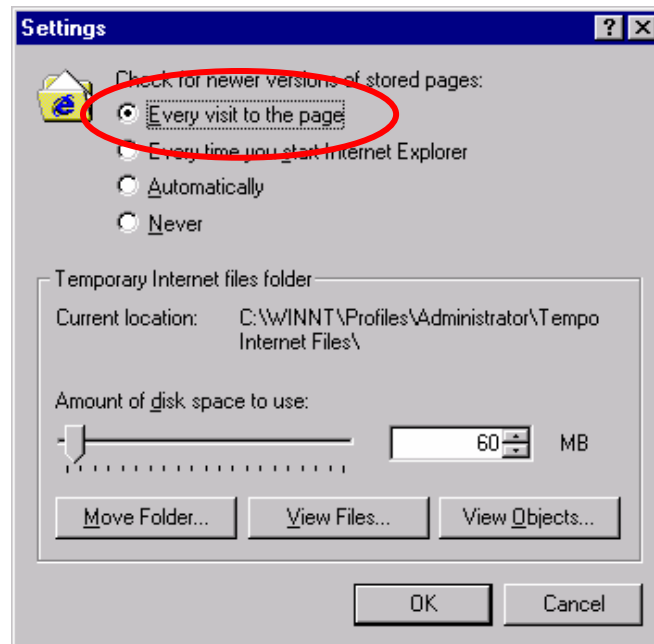
Figure 10 Internet Explorer Internet Options

Click the **Settings..** button under Temporary Internet Files.

In the Settings screen, select the "Every visit to the page" option (Figure 11). Press OK to save the configuration.

Caution: The VersaTenn V may work unpredictably if this setting is not changed. Mouse clicks on the Browser window will be sent to the controller but the screen images will not update. Buttons and functions may, therefore, be pressed unintentionally.

Accessing the VersaTenn V via the Web

To access the controller via the web, open Internet Explorer and type your controller's IP address in the address bar. You can find the controller's IP address in the Web Server folder under the COMM button (Figure 9).

For example, if the Web Server Address on the controller is 170.23.10.10 then type http://170.23.10.10 in Internet Explorer's address bar.

After entering the address, press Enter to navigate to your controller. The next screen you will see is the Internet Explorer Network Password screen (Figure 12).
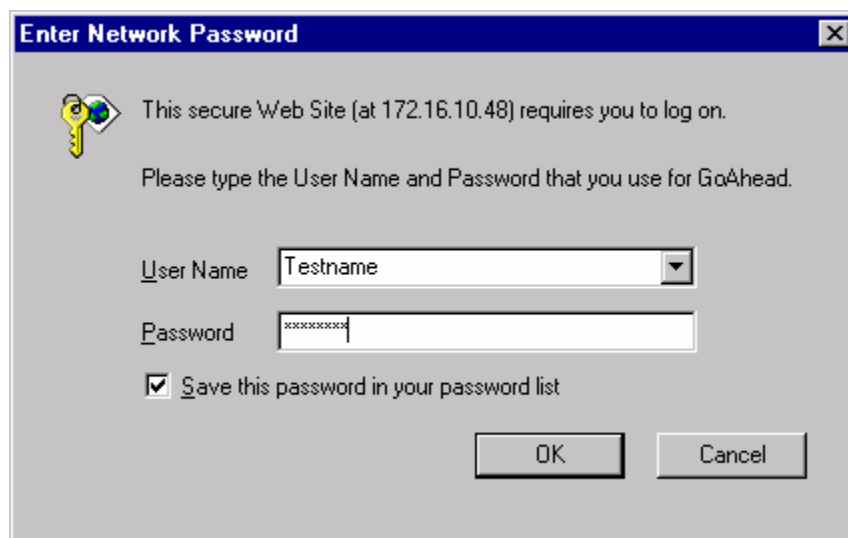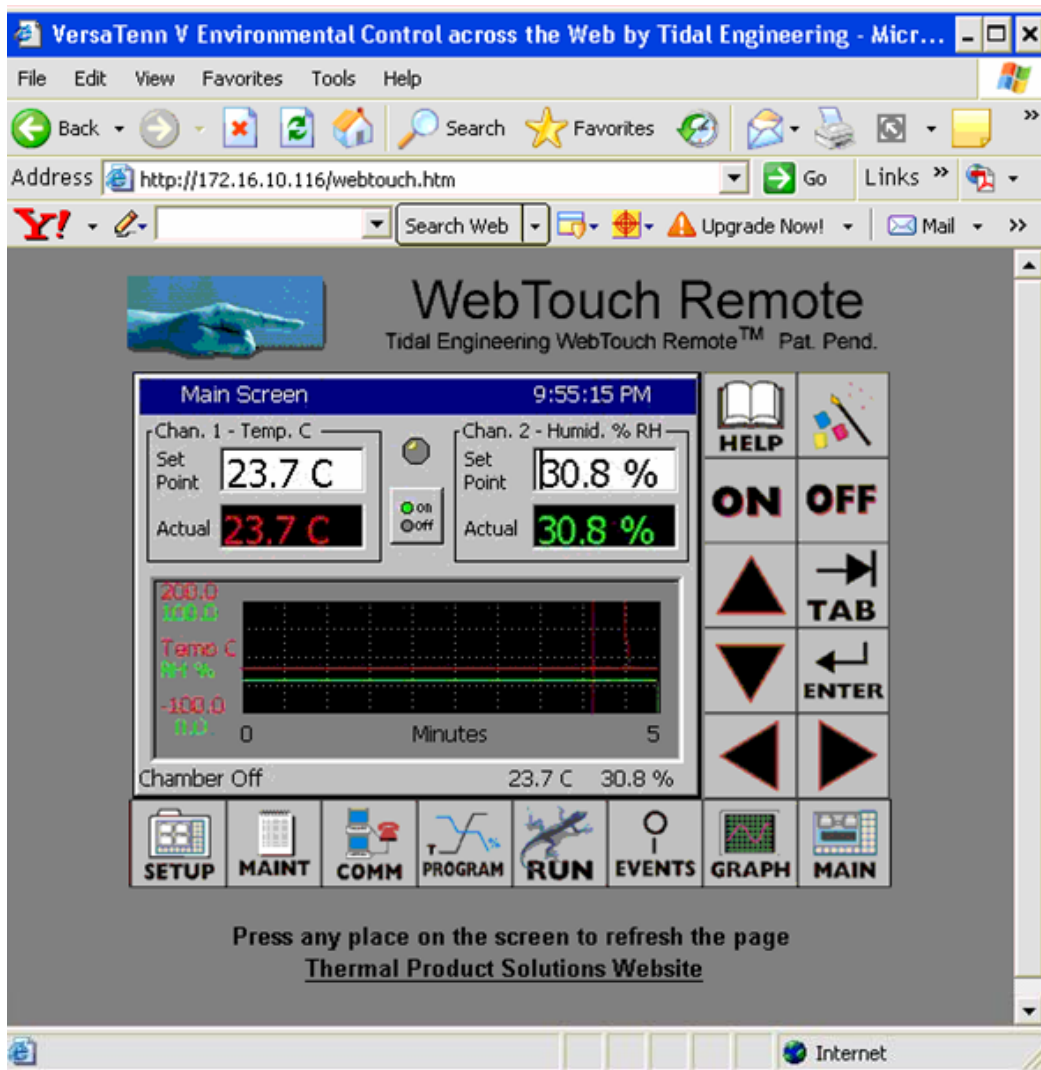

Figure 12 Internet Explorer Network Password screen

Enter the user name and password you specified in the Web Server Folder on the controller (Figure 9). You may want to check the Save Box to save the name and password in your computers password list. If you don't you will be prompted for a password each time you start a new session. After you have successfully logged in, you will see the web interface as it appears on the controller.

Note: If you enter the incorrect password, shutdown the Internet Explorer window and re-start it. Otherwise, Internet Explorer will not ask for the password again.

Using the Web Interface

The VersaTenn V Web Interface virtually identical to the VersaTenn V Touch Screen interface. It displays all of the same buttons and the control screen is identical to the one on the unit. Use the mouse pointer as you would use your finger on the touch screen. At each click, the screen accepts your command and automatically refreshes. If you want to refresh the screen, without initiating any action, click on the blue title bar, which is neutral area and will have no effect on the operation of the chamber.

About Tidal Engineering
Headquartered in Randolph, NJ, Tidal Engineering Corporation has been designing and building award-winning embedded hardware and software for test and measurement and data acquisition applications since 1992. The company further provides product development services together with engineering support, and is recognized for technical expertise in such areas as Embedded IEEE 488, and turnkey SCADA (Supervisory Control and Data Acquisition) systems. Tidal's products are available exclusively through ADI American Distributors Inc., an ISO-9002 certified distributor of electronic and electromechanical components and assemblies.

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