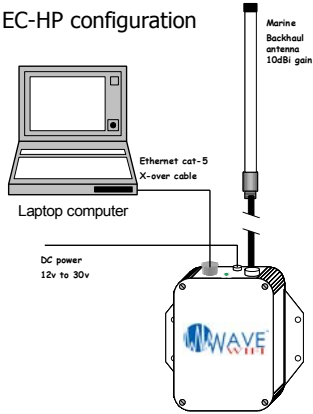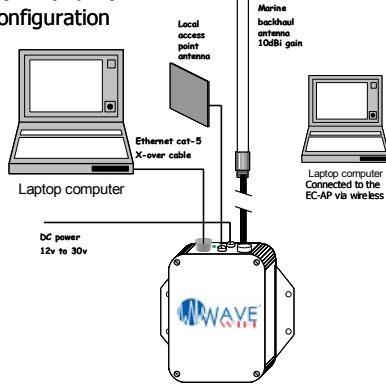The EC-HP is a ship to shore Ethernet bridge. Computers connected to the Ethernet network can scan for, and connect to, hot-spots that provide a pathway to the Internet. The EC-AP-HP has an additional access point so that the computers on the ship can access the Internet wirelessly. If you need more information than this Rapid Start Guide provides then please see the comprehensive manual available on CD shipped with this product.
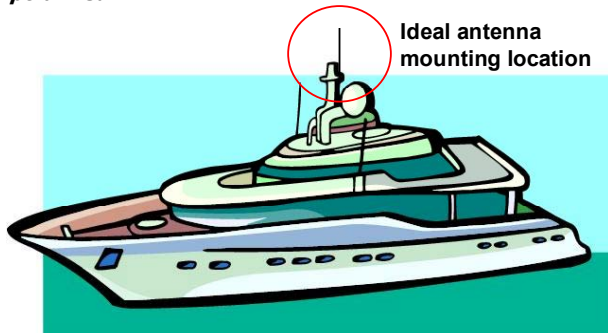

EC-HP configuration
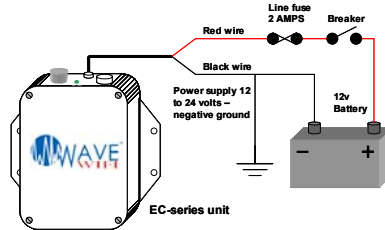
EC-AP and EC-AP-HP configuration

EC-series products are wired into the ship's low voltage supply: 12 volts or 24 volts. Include a line fuse and breaker, and take care with polarity of the DC wires. The EC unit can also be connected to a 110 volt supply using a switching power supply. Please call **Wave WiFi** for information.

A high gain omni-directional antenna is shipped with the EC unit for connection to the bridge radio. This is the N connector located on the lower side of the case. The antenna should be mounted in a high vertical position so that it is **vertically polarized**.

Ideal antenna mounting location

The EC-unit is supplied with an LMR-400 antenna cable 25-feet long. This cable should not be substituted with a different type or different length of cable. Substituting the cable supplied may reduce the transmission distance dramatically.

The EC-AP has a local access point antenna on top of the case, this is a low gain omni-directional antenna. This antenna can be replaced by a high gain directional antenna, such as a patch antenna. The antenna connector is an industry standard RP-TNC.
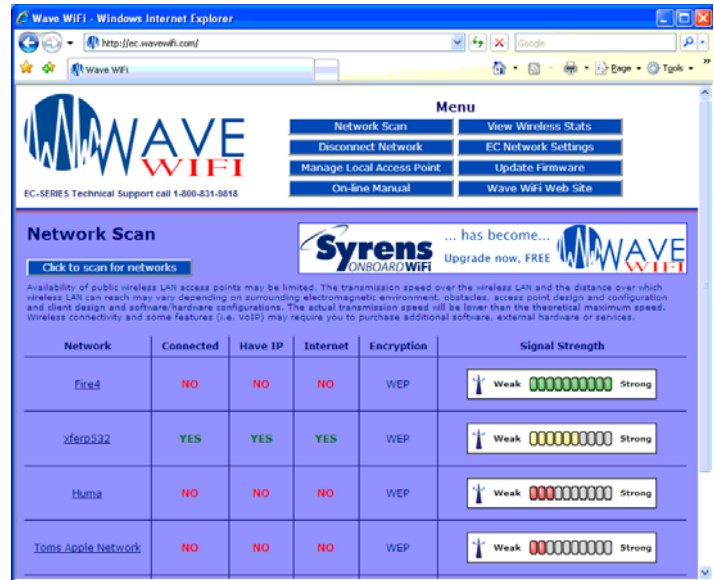
It is recommended that installation work be carried out by a qualified electronics technician. The EC-unit may be damaged by incorrect installation. The warranty does not cover damage through incorrect power wiring.

Logging-in to the EC Unit

Connect your computer Ethernet port to the EC-unit Ethernet cable. When the computer has obtained an IP address from the EC-unit, open the browser. You can check that your computer has an IP address by opening your computer's network icon, then see if it is 'connected'. The browser can be MS Internet Explorer, Firefox or Netscape.

Type in the URL: **http://Wave WiFi.com**

After a short delay, the network scan page will open. The web page will look like the one shown below.

If you are connecting wirelessly to an EC-AP unit then you should look for the wireless network with the name:

Wave WiFi EC Series

IF your computer is not already connected to this network then click on CONNECT. Once connected then open your browser with the URL above
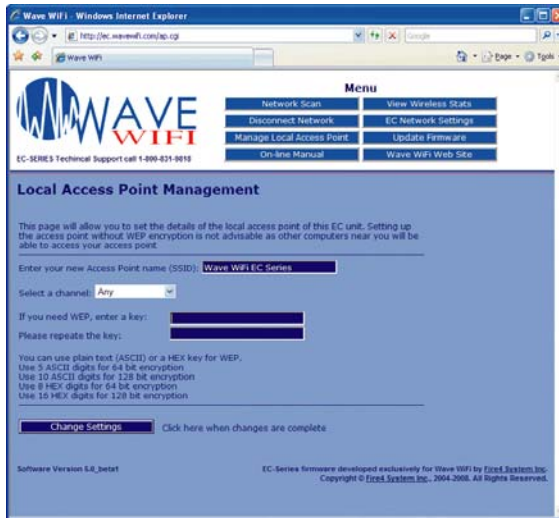
Now that you are able to connect your computer to the EC-unit then a few simple configuration steps are required. Please turn this page over to proceed.

Configuring the EC-AP-HP Local Access Point

The EC-HP should be ready to connect to remote networks. The EC-AP-HP however requires that the local access point be configured. Select MANAGE LOCAL ACCESS POINT, from the MENU. When this button is clicked, the page shown below appears.

First of all, enter the access point name, type in the **name of your boat** so that you can recognize the access point. The transmit channel can be left at default unless the network becomes slow due to conflicts with a nearby access point. If the local network is to be encrypted then enter the WEP key as shown.

The changes will only be saved if the CHANGE SETTINGS button is clicked. After this is clicked, the EC unit may take up to 2 minutes to restart.

If you had connected to the EC-AP-HP unit wirelessly then your computer wireless card will have disconnected from the EC-AP-HP. Go to the computer wireless configuration screen and look for the new wireless network name that you installed.
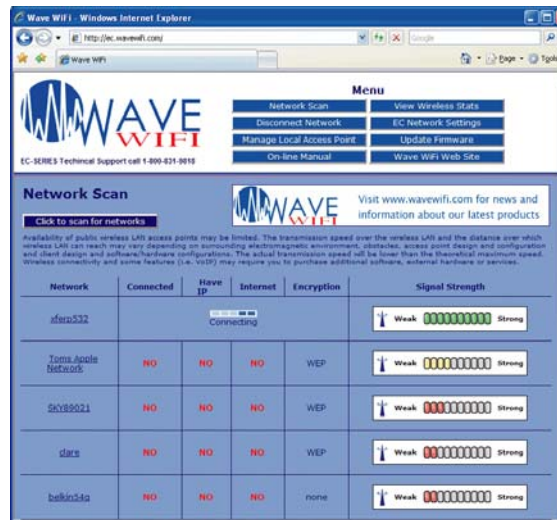
When the configuration is complete, click on the MENU button NETWORK SCAN at the top of the page.

Scanning for Hot-Spot Networks

Click on the button CLICK TO RESCAN FOR NETWORKS as shown on the screen below. A list will appear below the button showing the networks that have been found. Because the protocol handshake between the EC unit and a remote access point can take from 30 seconds to two minutes, wait two minutes and click the button again. It is likely that additional networks will be listed.

The list of HotSpot wireless networks is ordered by signal strength: the strongest signals are indicated by the color and length of the bar display. It is likely that with subsequent scans, the bottom of the list may change frequently due to the weak signal strength of the access points. All other functions of the EC unit are accessed through the menu at the top right of the screen
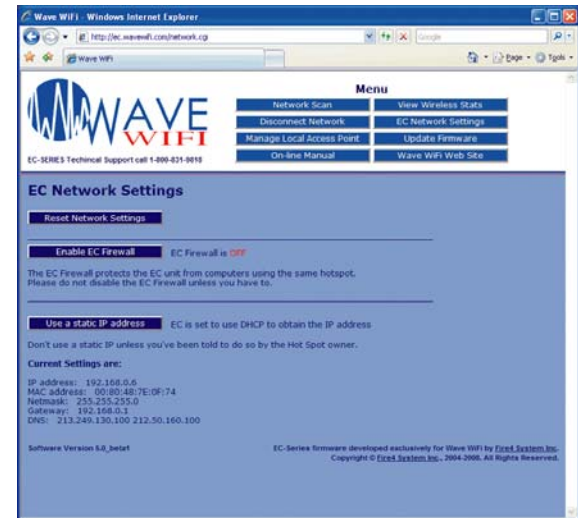
To select the HotSpot network with which you want to connect, click on the HotSpot name (SSID). This is shown in the left hand column. The EC-unit will negotiate a connection with the remote HotSpot. During this process the timer will be counting as shown on the screen below. Do not click on anything until this process is completed. If the HotSpot access point is able to provide an IP address to the EC unit then the red NO in the IP column will change to a green YES.

Configuring the EC Bridge Interface

In some cases it is not possible to log-in to the HotSpot access point because it has been configured in a non-standard way. In this case, the Bridge Interface configuration can be changed to gain HotSpot access.

Clicking on EC NETWORK SETTINGS on the scan page opens the screen below. DISABLE EC FIREWALL removes your protection from access by other network users. However, it may be necessary to disable this feature to access some HotSpots where the access point has been configured incorrectly. USE STATIC IP ADDRESS may be necessary for some HotSpots where access is billed and controlled by giving users IP addresses.

Reset Network Settings when Moving Between Networks

The function of the RESET NETWORK SETTINGS button is to clear HotSpot information from the EC unit's internal registers. As the EC scans for networks and connects to networks, information about the networks is stored in internal memory. Click on RESET NETWORK SETTINGS when moving to a different geographic area. This will facilitate the search for new networks.