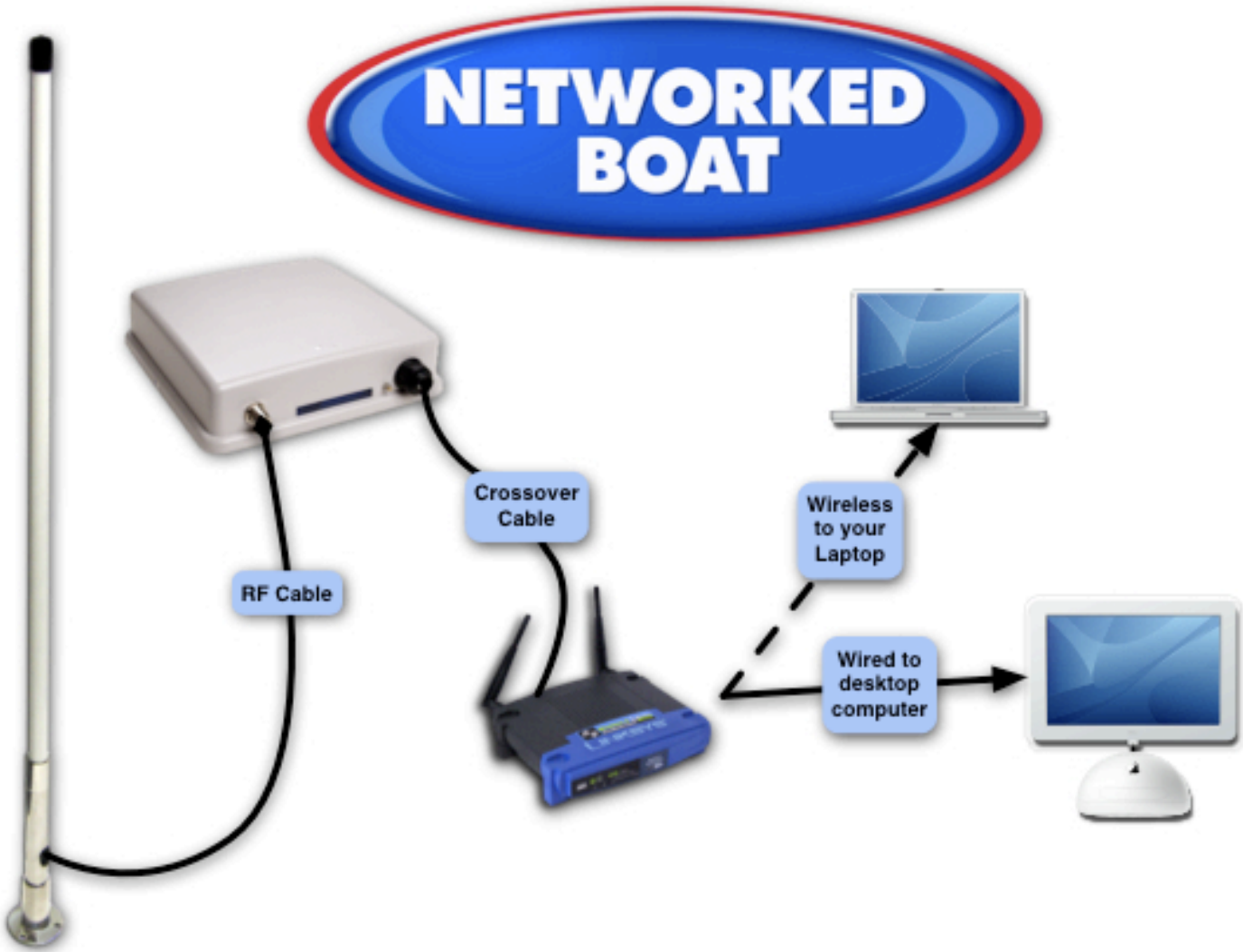


# BROADBAND X PRESS

*The Marine Communications Network*



**Xtreme Powered Networked Boat  
User Manual**

# TABLE OF CONTENTS

**Section 1: Physical connection & setup**

**Section 2: Initial Bridge/router configuration**

**Section 3: Scanning for networks**

**Section 4: Installing a wireless router**

## Section 1 - INITIAL EQUIPMENT SETUP

Confirm you have the following equipment included with your bridge:

1: Power over Ethernet kit consisting of the following:



Wall power plug  
Inverter  
Power over Ethernet adapter

2: High power Bridge/Router



Xtreme power bridge/router

4: Two (2) Ethernet CAT-5 cables

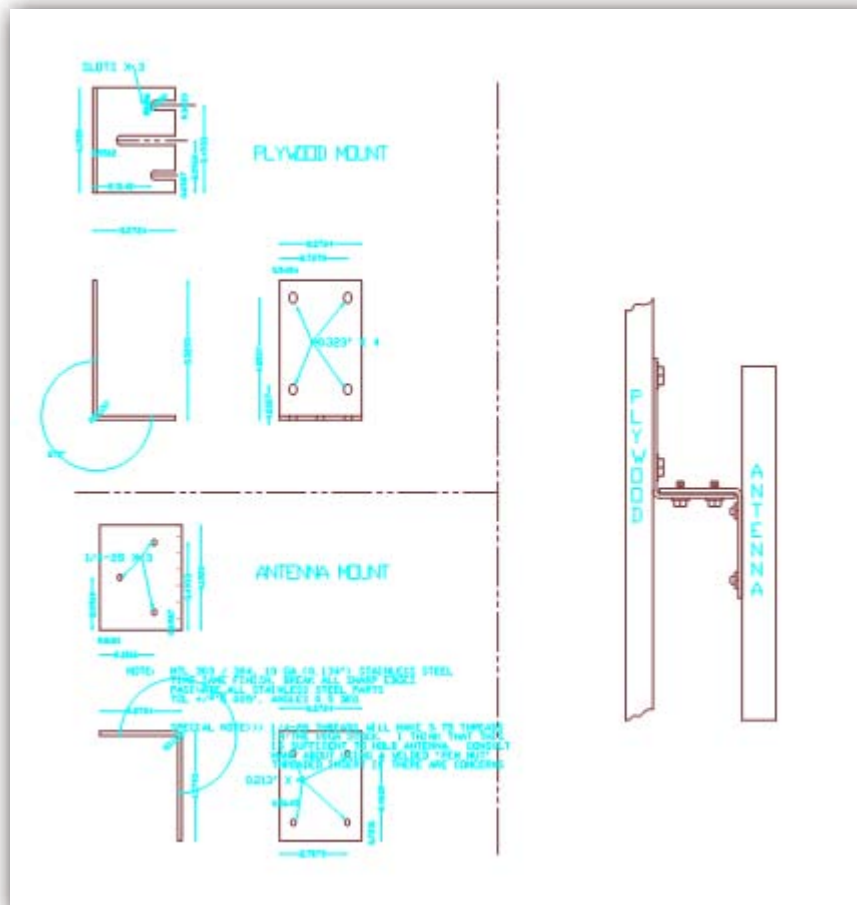
## INSTALLATION INSTRUCTIONS

**1:** Attach the bracket to the rear screws of the bridge/router below:



(rear of Xtreme power bridge)

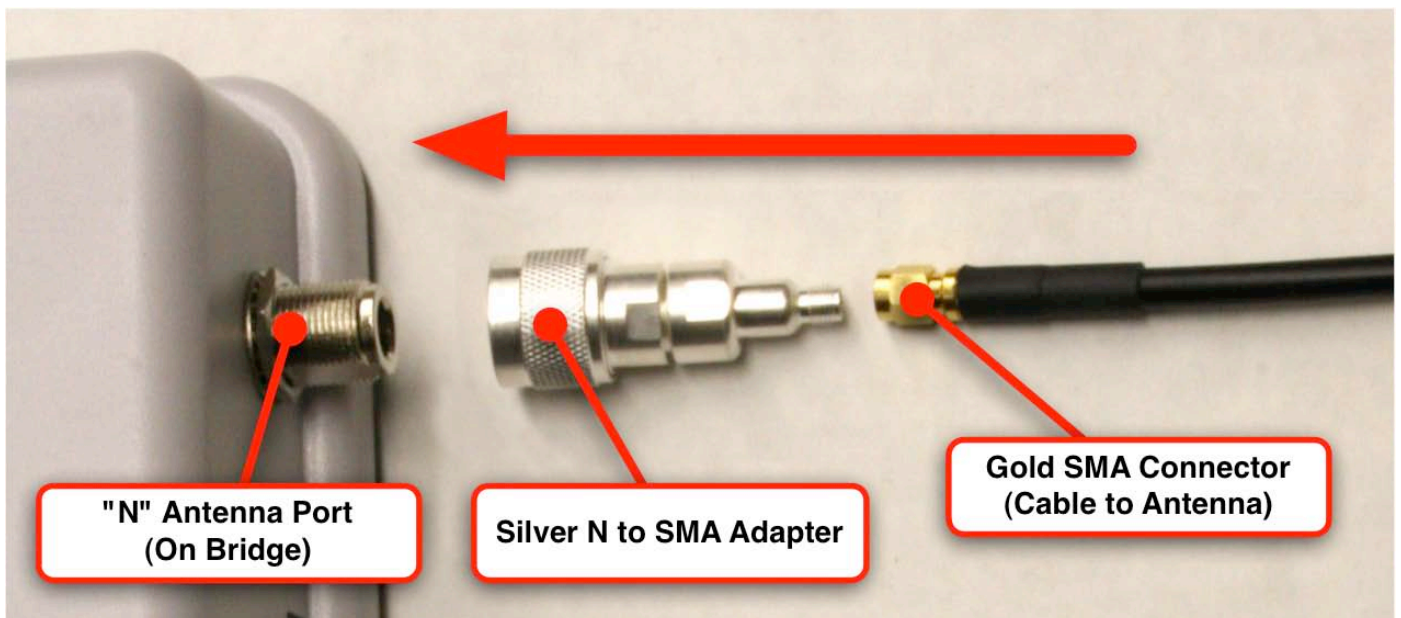
- 2:** Attach the bracket to the vertical surface of your boat in a convenient location. This device has a NEMA enclosure so it can withstand some water exposure.
- 3:** Connect the brackets together with the attached screws. The bridge/router should be installed so that the antenna and Ethernet connectors point down.



(mounting bracket from vertical surface to the bridge router)

## 2: Attaching the antenna cable to the bridge/router

The connector on the bridge/router is an N male type. We have included an adapter that connects to the bridge and will accept our standard SMA cable. Connect this adapter to the bridge/router as shown below:

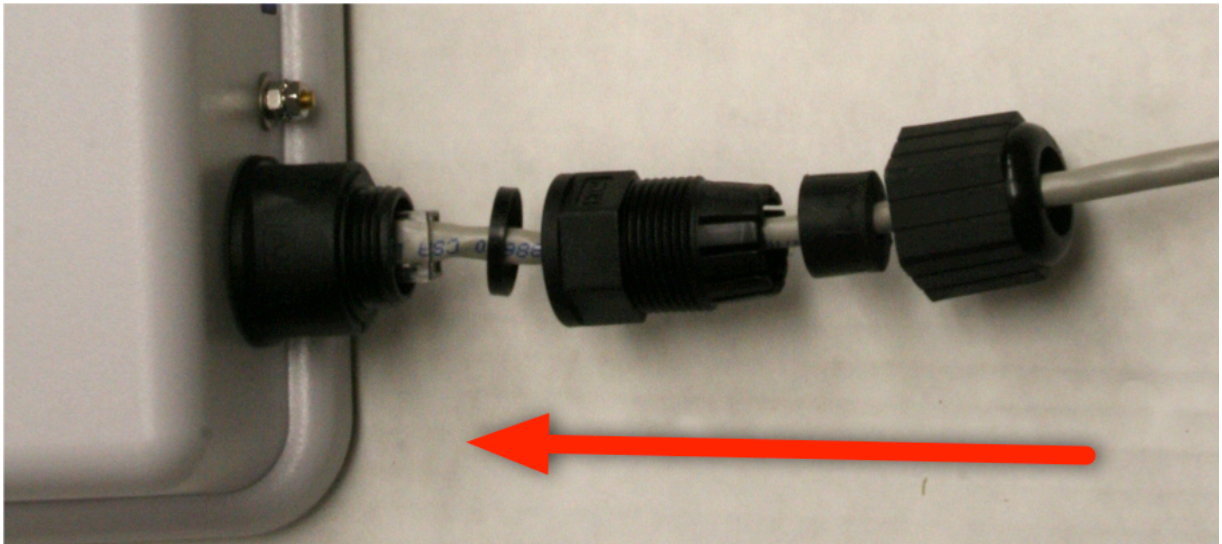




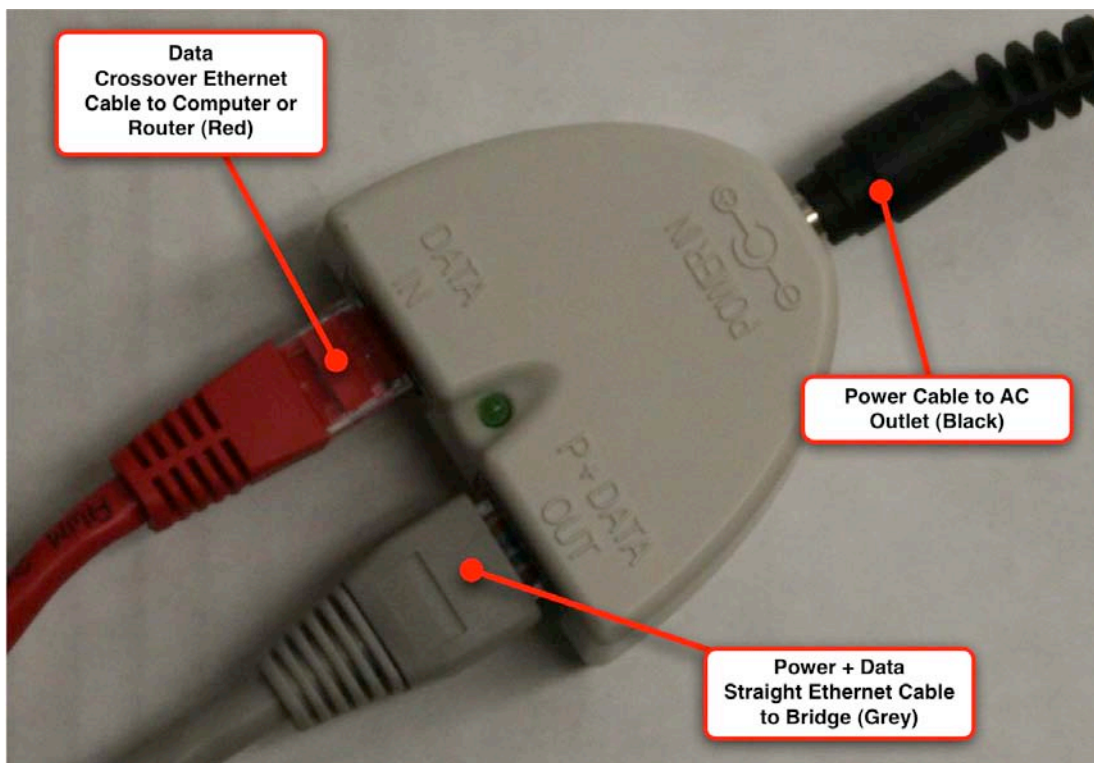
Attach SMA adapter from the long range antenna cable to the adapter on the bridge/router unit via the antenna connector on the rear of the unit. Hand tighten only. Attach the coaxial seal around all RF connectors and then seal with silicone or a superior grade of electrical tape.

### 3: Attaching the Ethernet Cable to the Bridge

Feed one end of the ethernet cable through each of the plastic and rubber grommets. Each grommet fits inside the next and should be closed completely as seen in the image below



- a) Plug Ethernet cables into the PoE adapter. Your Crossover cable (the cable with mismatched heads) should connect your computer to the PoE adapter, and the Straightthrough cable (the cable with matching heads) should connect the PoE adapter to the bridge.



**WARNING: make sure you are using the correct cable between the PoE adapter and your bridge hardware. USING THE CROSSOVER INSTEAD OF THE PASSTHROUGH WILL DAMAGE YOUR BRIDGE.**

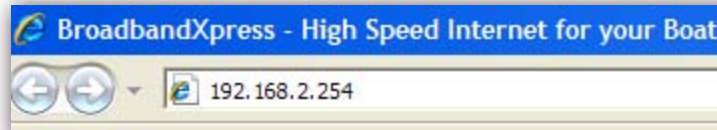
b) Assemble the power adapter and connect it to your PoE adapter.

The lights on the front of the unit should blink and after a few moments the Power and LAN lights should go solid.

Your bridge came Pre-configured it should automatically connect to BBX for you, simply open your web-browser and after a short delay you should be redirected to the BBX login screen.

## SECTION 2 - INITIAL BRIDGE SOFTWARE SETUP TO CONNECT TO BROADBANDXPRESS OR ANY PREFERRED WIRELESS INTERNET PROVIDER

1: Open up your browser. Type the following ip address into the address bar: 192.168.2.254



2: You will be prompted to enter the username and password assigned to your bridge. The default address username and password is as follows:

Username: admin

Password: admin



(security page prompt to access the bridge/router)

Once the correct username and password have been entered you will be taken to the setup wizard. Follow the progression of screens below to set the unit up via the wizard. If you want the unit to connect to BBX, simply match the information on your screen to the information shown below.

After entering the username and password you will get the setup wizard. For all customers of BroadbandXpress, we have preconfigured the units for your easy use. For all others follow the steps below:



**STEP 1: select next**

Begin by clicking “Next” on the initial wizard explanation screen.

**Setup Wizard**

The setup wizard will guide you to configure access point for first time. Please follow the setup wizard step by step.

---

**Welcome to Setup Wizard.**

**The Wizard will guide you the through following steps. Begin by clicking on Next.**

1. Setup Operation Mode
2. Choose your Time Zone
3. Setup LAN Interface
4. Setup WAN Interface
5. Wireless LAN Setting
6. Wireless Security Setting

**Next>>**

**STEP 2:**

select Wireless ISP

select next

**1. Operation Mode**

You can setup different modes to LAN and WLAN interface for NAT and bridging function.

**Router:** In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and PCs connected with WLAN share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or Static IP. 172.1.1.1 is the default Static IP address for WAN port

**Bridge:** In this mode, the ethernet port and wireless interface are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported.

**Wireless ISP:** In this mode, the wireless client will connect to ISP access point. The NAT is enabled and PCs connecting with the ethernet port share the same IP to ISP through wireless LAN. **You must set the wireless to client mode and connect to the ISP AP.** The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or Static IP.

WAN Interface : wlan1

Cancel <<Back **Next>>**

**WARNING:** If you select the “Bridge” option you will be unable to access these configuration screens again without hard-resetting the unit (via the button on the back).

**STEP 3:** select next:

**2. Time Zone Setting**

You can maintain the system time by synchronizing with a public time server over the Internet.

Time Zone Select : (GMT-08:00)Pacific Time (US & Canada); Tijuana

NTP server : 192.5.41.41 - North America

Cancel <<Back **Next>>**

**STEP 4:** select next

The LAN interface screen allows you to select the configuration IP assigned to your bridge. This info should NOT be changed.

**3. LAN Interface Setup**

This page is used to configure the parameters for local area network which connects to the device. Here you may change the setting for IP Address, Subnet Mask. The DHCP Server will be up and running, please make sure there is no another DHCP Server in your network when the device is in Bridge/Client Modes.

IP Address: 192.168.2.254

Subnet Mask: 255.255.255.0

Cancel <<Back **Next>>**

**STEP 5:**

**WAN ACCESS TYPE:** select DHCP Client

Select next

## 4. WAN Interface Setup

This page is used to configure the parameters for Internet network which connects to the WAN port of your Access Point. Here you may change the access method to Static IP, DHCP, PPPoE or PPTP by click the item value of WAN Access type.

WAN Access Type:

DHCP Client

Cancel

<<Back

Next>>

### STEP 6:

TO SELECT A NETWORK TO CONNECT WITH AS A DEFAULT

**Band:** select 2.4 GHz(B+G)

**Mode:** select Client

**Network Type:** select infrastructure

**SSID:** Select your desired network(we have set your network as bbx). It can be changed here or under scan mode below:

**IMPORTANT:** SSIDs are case-sensitive and must be entered EXACTLY as they are transmitted.

## 5. Wireless Basic Settings

This page is used to configure the parameters for wireless LAN clients which may connect to your Access Point. If you want to use Wireless ISP mode, please choose the Client Mode.

Band: 2.4 GHz (B+G)

Mode: Client

Network Type: Infrastructure

SSID: bbx

Channel Number: 11

Enable Mac Clone (Single Ethernet Client)

Cancel

<<Back

Next>>

### STEP 7:

select none

Select finished

The Wireless Security Page allows you to enter the appropriate pre-connection encryption key for the network you wish to join. Most commercial wireless networks do not use encryption.

**6. Wireless Security Setup**

This page allows you setup the wireless security. Turn on WEP or WPA by using Encryption Keys could prevent any unauthorized access to your wireless network.

---

Encryption:

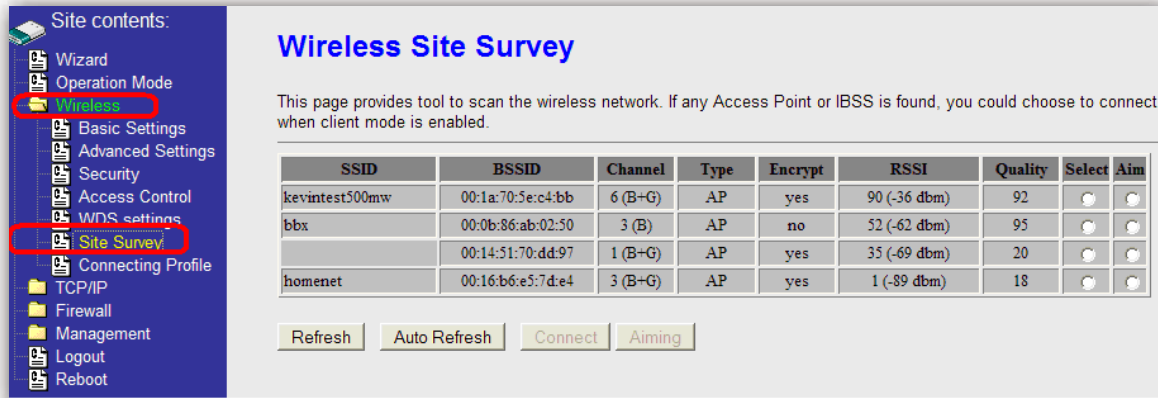
**YOUR BRIDGE IS NOW SET TO CONNECT TO THE BBX NETWORK OR ANY OTHER NETWORK OF YOUR CHOICE.**

## Section 3 - SCANNING FOR OTHER NETWORKS

**Step 1:** Open up your browser. Type 192.168.2.254 in your browser to access the web interface of the bridge

**Step 2:** Click on the labeled Wireless on the left sidebar.

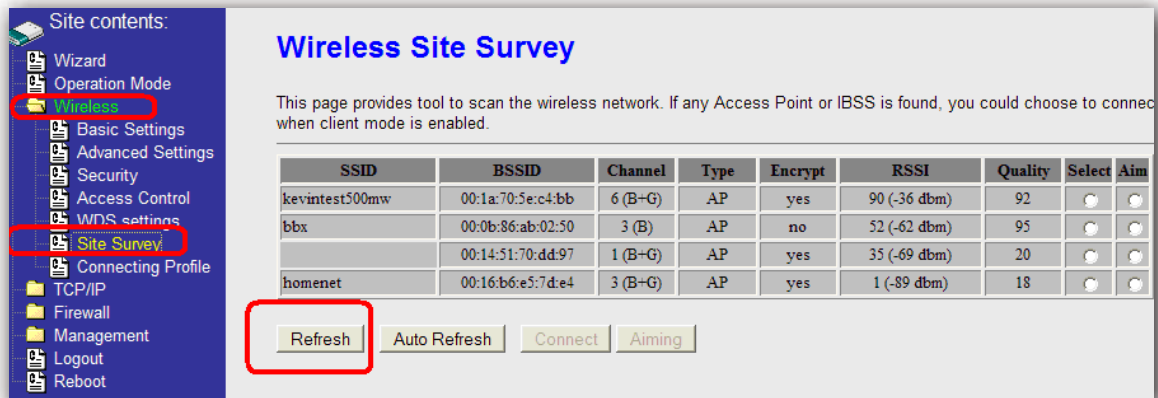
**Step 3:** Select Site Survey on the left sidebar



The screenshot shows the 'Wireless Site Survey' page. The left sidebar is titled 'Site contents:' and lists various configuration options. 'Wireless' and 'Site Survey' are highlighted with red circles. The main content area has the title 'Wireless Site Survey' and a description: 'This page provides tool to scan the wireless network. If any Access Point or IBSS is found, you could choose to connect when client mode is enabled.' Below this is a table with columns: SSID, BSSID, Channel, Type, Encrypt, RSSI, Quality, Select, and Aim. The table contains four rows of network data. At the bottom, there are buttons for 'Refresh', 'Auto Refresh', 'Connect', and 'Aiming'.

SSID	BSSID	Channel	Type	Encrypt	RSSI	Quality	Select	Aim
kevintest500mw	00:1a:70:5e:c4:bb	6 (B+G)	AP	yes	90 (-36 dbm)	92	<input type="radio"/>	<input type="radio"/>
bbx	00:0b:86:ab:02:50	3 (B)	AP	no	52 (-62 dbm)	95	<input type="radio"/>	<input type="radio"/>
	00:14:51:70:dd:97	1 (B+G)	AP	yes	35 (-69 dbm)	20	<input type="radio"/>	<input type="radio"/>
homenet	00:16:b6:e5:7d:e4	3 (B+G)	AP	yes	1 (-89 dbm)	18	<input type="radio"/>	<input type="radio"/>

**Step 4:** select refresh



This screenshot is identical to the previous one, but the 'Refresh' button at the bottom left is highlighted with a red box. The table and sidebar remain the same.

**Step 5:** you will now be able to view all the available networks:

Site contents:

- Wizard
- Operation Mode
- Wireless
  - Basic Settings
  - Advanced Settings
  - Security
  - Access Control
  - WDS settings
  - Site Survey
  - Connecting Profile
- TCP/IP
- Firewall
- Management
- Logout
- Reboot

## Wireless Site Survey

This page provides tool to scan the wireless network. If any Access Point or IBSS is found, you could choose to connect it manually when client mode is enabled.

SSID	BSSID	Channel	Type	Encrypt	RSSI	Quality	Select	Aim
kevintest500mw	00:1a:70:5e:c4:bb	6 (B+G)	AP	yes	89 (-36 dbm)	85	<input type="radio"/>	<input type="radio"/>
bbs	00:0b:86:ab:02:50	1 (B)	AP	no	61 (-57 dbm)	92	<input type="radio"/>	<input type="radio"/>
kktest	00:1c:10:42:4c:76	6 (B+G)	AP	yes	53 (-58 dbm)	85	<input type="radio"/>	<input type="radio"/>
ACTIONTEC	00:0f:b3:66:99:69	9 (B+G)	AP	yes	47 (-61 dbm)	79	<input type="radio"/>	<input type="radio"/>
	00:14:51:70:d4:97	1 (B+G)	AP	yes	46 (-62 dbm)	68	<input type="radio"/>	<input type="radio"/>
marina-wireless	00:60:b3:8d:87:7b	11 (B)	AP	no	43 (-68 dbm)	82	<input type="radio"/>	<input type="radio"/>
Summit	00:18:f8:70:74:95	9 (B+G)	AP	yes	41 (-65 dbm)	76	<input type="radio"/>	<input type="radio"/>
TROUT	00:11:50:ae:a4:d8	11 (B+G)	AP	no	38 (-67 dbm)	65	<input type="radio"/>	<input type="radio"/>
marina-wireless	00:02:6f:36:a9:f9	1 (B)	AP	no	36 (-72 dbm)	73	<input type="radio"/>	<input type="radio"/>
carus	00:18:f8:56:12:54	6 (B+G)	AP	yes	33 (-70 dbm)	64	<input type="radio"/>	<input type="radio"/>
EZNetwork	00:13:10:87:98:a2	11 (B+G)	AP	yes	32 (-70 dbm)	85	<input type="radio"/>	<input type="radio"/>
Alliance	00:0f:b3:58:7d:f3	9 (B+G)	AP	yes	32 (-70 dbm)	78	<input type="radio"/>	<input type="radio"/>
BRL	00:14:6c:a3:bf:7c	11 (B+G)	AP	yes	30 (-72 dbm)	75	<input type="radio"/>	<input type="radio"/>
CSI Seattle	00:0f:66:9e:21:ec	6 (B+G)	AP	yes	29 (-72 dbm)	45	<input type="radio"/>	<input type="radio"/>

Step 6: hit select on the desired network and scroll to the bottom and hit connect:

Site contents:

- Wizard
- Operation Mode
- Wireless
  - Basic Settings
  - Advanced Settings
  - Security
  - Access Control
  - WDS settings
  - Site Survey
  - Connecting Profile
- TCP/IP
- Firewall
- Management
- Logout
- Reboot

TROUT	00:11:50:ae:a4:d8	11 (B+G)	AP	no	38 (-67 dbm)	65	<input type="radio"/>	<input type="radio"/>
marina-wireless	00:02:6f:36:a9:f9	1 (B)	AP	no	36 (-72 dbm)	73	<input type="radio"/>	<input type="radio"/>
carus	00:18:f8:56:12:54	6 (B+G)	AP	yes	33 (-70 dbm)	64	<input type="radio"/>	<input type="radio"/>
EZNetwork	00:13:10:87:98:a2	11 (B+G)	AP	yes	32 (-70 dbm)	85	<input type="radio"/>	<input type="radio"/>
Alliance	00:0f:b3:58:7d:f3	9 (B+G)	AP	yes	32 (-70 dbm)	78	<input type="radio"/>	<input type="radio"/>
BRL	00:14:6c:a3:bf:7c	11 (B+G)	AP	yes	30 (-72 dbm)	75	<input type="radio"/>	<input type="radio"/>
CSI Seattle	00:0f:66:9e:21:ec	6 (B+G)	AP	yes	29 (-72 dbm)	45	<input type="radio"/>	<input type="radio"/>
JackieTreehomNet	00:0f:b5:26:0a:3c	11 (B+G)	AP	yes	27 (-73 dbm)	89	<input type="radio"/>	<input type="radio"/>
undefined_wireless	00:0f:3d:4af7:b8	6 (B+G)	AP	yes	27 (-73 dbm)	0	<input type="radio"/>	<input type="radio"/>
GS	00:16:b6:be:03:e3	1 (B+G)	AP	yes	24 (-75 dbm)	32	<input type="radio"/>	<input type="radio"/>
marina-wireless	00:02:6f:36:a9:fb	1 (B)	AP	no	24 (-79 dbm)	40	<input type="radio"/>	<input type="radio"/>
linksys	00:18:f8:55:6e:7a	6 (B+G)	AP	no	23 (-76 dbm)	12	<input type="radio"/>	<input type="radio"/>
kbnet	00:14:51:77:67:3d	1 (B+G)	AP	yes	21 (-77 dbm)	35	<input type="radio"/>	<input type="radio"/>
HOMEBOYS	00:09:5b:f6:3b:5c	6 (B+G)	AP	no	21 (-77 dbm)	0	<input type="radio"/>	<input type="radio"/>
cascadelink	00:05:9e:80:a0:35	8 (B)	AP	no	16 (-84 dbm)	60	<input type="radio"/>	<input type="radio"/>
Slidawg	00:17:9a:2d:9d:22	8 (B+G)	AP	no	16 (-80 dbm)	31	<input type="radio"/>	<input type="radio"/>
mimi	00:1a:92:ea:27:d6	11 (B+G)	AP	yes	10 (-84 dbm)	20	<input type="radio"/>	<input type="radio"/>
NETGEAR	00:18:4d:8b:7b:7c	11 (B+G)	AP	yes	9 (-84 dbm)	0	<input type="radio"/>	<input type="radio"/>

Refresh Auto Refresh **Connect** Aiming

Step 7: You will get notice that you have successfully connected to the network of choice.

Site contents:

- Wizard
- Operation Mode
- Wireless
  - Basic Settings
  - Advanced Settings
  - Security
  - Access Control

**Connect successfully!**

OK

Step 8: Logout from the bridge



Site contents:

- Wizard
- Operation Mode
- Wireless
  - Basic Settings
  - Advanced Settings
  - Security
  - Access Control
  - WDS settings
  - Site Survey
  - Connecting Profile
- TCP/IP
- Firewall
- Management
- Logout
- Reboot

## Logout

This page is used to logout.

**Do you want to logout ?**

Apply Change

## Section 4 - INSTALLING A WIRELESS ROUTER WITH THE NETWORKED BOAT

Any standard wireless router should work with the bridge router. We standardize using the Linksys products due to their universal availability. BroadbandXpress typically will ship a router with your bridge to provide a complete package. In the event that your router was not preconfigured by BBX ensure that wireless security is enabled.

### **Critical Warning:**

**It is paramount to secure your wireless router with wireless encryption. Failure to secure a router will allow outsiders to access your bridge router and may disrupt your service.**



**Back Panel**



**Step 1:** Plug the cross over ethernet cable from the Data In jack of the Power over Ethernet injector to the Internet jack of the router as shown above.

**Step 2:** Connect to your wireless router via your wireless adapter of choice.

**Step 3:** Open a browser and you will connect to the selected wireless provider that you have set in the bridge/router.

**Step 4:** To access the Bridge/router simply type 192.169.2.254 in your browser.

**CONGRATULATIONS, YOUR NETWORKED-BOAT SYSTEM IS NOW SET UP CORRECT TO WORK WITH THE BBX NETWORK.**