

This is a basic guide to quickly set up the Sea-Hub to wirelessly re-broadcast a remote WiFi/Internet signal locally to multiple wireless-enabled devices by plugging the Scout WiFi antenna model KS-60 2.0 into its USB port.

Other configurations (DSL Router, 3G Router) and advanced features are beyond the scope of this guide, users should refer to the full instruction manual for a description of its full capabilities. The full instruction manual can be downloaded from the website [www.scoutantenne.com](http://www.scoutantenne.com) (page Support or page Sea-Hub).

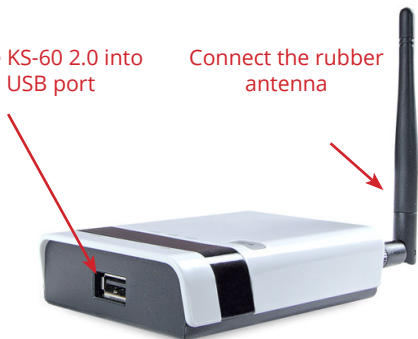
## 1 Connection

Ensure the KS-60 2.0 WiFi antenna is plugged in the USB port and the Sea-Hub has its black rubber antenna attached before switching power on.

Plug the KS-60 2.0 into the USB port

Connect the rubber antenna

Plug the 12V power adapter to the DC power socket to switch the power on



## 2 Login

There are two possible ways to login and configure the Sea-Hub:

**1. Wireless configuration:** use your wireless device to login and configure the Sea-Hub. Be sure that the WiFi connection of your device is enabled, then proceed as follows:

Go to WiFi connections and scan for available networks.



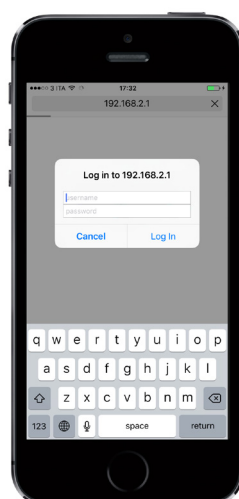
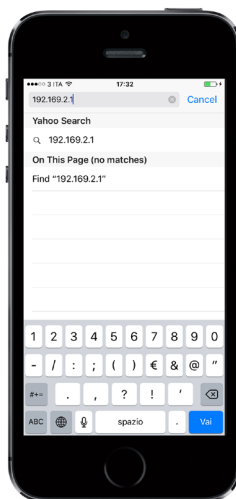
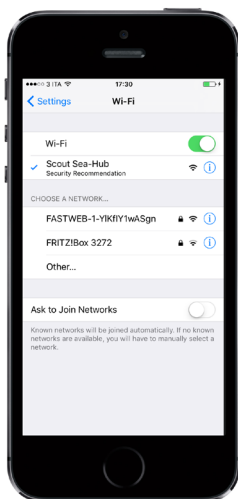
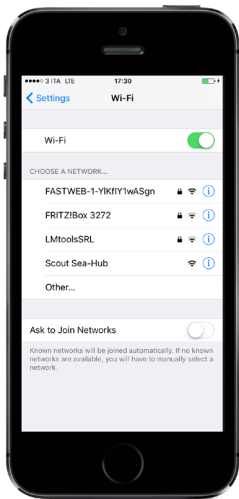
Select Scout Sea-Hub and wait to be connected.



Open your Internet browser and type the following IP address:  
**192.168.2.1**



Type in username (**admin**) and password (**admin**).



Once you have logged in you should be greeted by the screen below, notice the flashing **Connected Status**. Click on **Easy Setup** to continue.

**SCOUT**  
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**Sea-Hub**  
WiFi/3G/USB Mobile Router

Status **Easy Setup** Advanced Language English

**Internet Configuration**

<b>Connected Type</b>	DHCP	<b>Connected Status</b>	Disconnected/Connecting...
<b>WAN IP Address</b>		<b>Subnet Mask</b>	
<b>Default Gateway</b>		<b>Primary Domain Name Server</b>	
<b>Secondary Domain Name Server</b>		<b>MAC Address</b>	00:C0:CA:8A:9A:D9
<b>LAN Configuration</b>			
<b>LAN IP Address</b>	192.168.2.1	<b>LAN Netmask</b>	255.255.255.0
<b>MAC Address</b>	00:C0:CA:8A:9A:D8		
<b>System Info</b>			
<b>Firmware Version</b>	v1.2.1.8(Jun 26 2015)	<b>System Time</b>	Sat, 01 Jan 2011 00:02:06
<b>Operation Mode</b>	Router Mode		

Select the **USB Wireless adapter** button to begin the wizard to connect to a remote WiFi signal.

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WiFi/3G/USB Mobile Router

Status **Easy Setup** Advanced Language English

**Please select a connection type**

- USB Wireless adapter**
- 3G dongle
- ADSL modem
- Bridge(AP)

On the following screen we configure the USB WiFi network. Leave Connection Mode set as Cable/Dynamic IP (DHCP) and select Site Survey to see the wireless networks available to connect to.

**System Configuration**

Connection Mode

**DHCP Mode**

Hostname

Primary DNS Server

Secondary DNS Server

**USB Wireless adapter Configuration**

SSID

BSSID(optional)

Network Type

**Security Policy**

Security Mode

Take a note of the **Authentication** and **Encryption** information for the network you are trying to connect to, this will be required later - unless security is disabled.

Click on the button for the network you wish to connect to and press **Select**.

	SSID	BSSID	Bit Rates	Signal	Channel	Authentication	Encryption	Network Type
<input type="radio"/>	BT00962269	EB:F4:E6:85:80:01	144 Mb/s	89/100 (-55)	1	WPA-Personal	TKIP/AES	Infrastructure
<input type="radio"/>	11N 3G Router_AP	00:10:0C:8A:8A:0A	72 Mb/s	100/100 (-47)	1	None	None	Infrastructure
<input type="radio"/>	101	00:23:46:33:04:D0	54 Mb/s	37/100 (-75)	6	WPA-Personal	TKIP	Infrastructure
<input checked="" type="radio"/>	FASTWEB-1-YIKFIY1wASgn	64:87:07:8B:33:48	54 Mb/s	100/100 (-29)	11	WPA-Personal	TKIP	Infrastructure
<input type="radio"/>	ap01	00:25:86:CA:88:89	54 Mb/s	18/100 (-83)	11	WPA-Personal	TKIP	Infrastructure
<input type="radio"/>	Applifer	00:15:40:9E:03:ED	54 Mb/s	26/100 (-79)	6	WPA-Personal	TKIP	Infrastructure

In the next screen you will now see that the details for the connection you selected have been added.

If the **Network Type** reads **802.11Ad Hoc**, change to **Infrastructure** using the dropdown arrow.

If the WiFi network you are connecting to has security enabled you will need to enter the Mode (Authentication and Encryption information you took a note earlier) and passphrase on this screen before selecting **Next**.

The screenshot displays the configuration page for a SCOUT Sea-Hub router. The interface includes a navigation bar with 'Status', 'Easy Setup', 'Advanced', and 'Language' (set to English). The 'System Configuration' section is active, showing the following settings:

- Connection Mode:** Cable/Dynamic IP (DHCP)
- DHCP Mode:** (empty)
- Hostname:** Scout Sea-Hub
- Primary DNS Server:** (empty)
- Secondary DNS Server:** (empty)
- USB Wireless adapter Configuration:**
  - SSID:** FASTWEB-1-YIKf1Y1wASgn
  - BSSID (optional):** 64 9F 07 00 12 48
  - Network Type:** Infrastructure (highlighted with a red box), with a 'Site Survey' button next to it.
- Security Policy:**
  - Security Mode:** WPA-Personal
  - WPA Algorithms:** TKIP
  - Pass Phrase:** (masked with dots, highlighted with a red box)

A 'Next' button is located at the bottom right of the configuration area.

The next screen shows the settings for the wireless LAN - this is what you will be connecting your wireless device to locally in order to access the Internet.

The **SSID** is the name you will see when scanning for available WiFi networks: the default name is Scout Sea-Hub, you can change it to something more meaningful if you wish.

We strongly advise adding some security to this connection in order to stop unauthorized connections, next screen shows example settings. Once you're happy with your settings press **Done**.

Status

Easy Setup

Advanced

Language English

### Wireless Security and Encryption Settings

The Wireless Security and Encryption Settings page allows you to make detailed security configurations to prevent unauthorized access and monitoring.

Select

"Scout Sea-Hub"

SSID Choice

Scout Sea-Hub

Security Mode

WPA-PSK

WPA

WPA Algorithms

TKIP  AES  AUTO (TKIP/AES)

Pass Phrase

\*\*\*\*\*

8~63 ASCII or 64 Hexadecimal

Key Renewal Interval

3600

seconds

Create your password and type it in there

Access Policy

Policy

Disable

Add a station MAC

Previous

Done

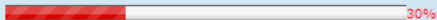
At this point you will be disconnected from the Sea-Hub as it reconfigures. Give it a few moments to sort itself out.



Saving ...

Please wait a moment ...

System is rebooting, please wait a moment!



The screen should now look like the following one, Connected Status is now **Connected**.

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**Sea-Hub**  
WiFi/3G/USB Mobile Router

**Status**    **Easy Setup**    **Advanced**    **Language** English ▾

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**Internet Configuration**

<b>Connected Type</b>	USB-WLAN(DHCP)	<b>Connected Status</b>	<b>Connected</b>
<b>WAN IP Address</b>	192.168.1.132	<b>Subnet Mask</b>	255.255.255.0
<b>Default Gateway</b>	192.168.1.254	<b>Primary Domain Name Server</b>	62.101.93.101
<b>Secondary Domain Name Server</b>	83.103.25.250	<b>MAC Address</b>	98:09:54:94:34:34

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**USB Wireless Adapter Information**

<b>Network Mode</b>	Infrastructure	<b>Wifi Link Status</b>	Ralink STA
<b>Network Name (SSID)</b>	FASTWEB-1-YIKfIY1wASgn	<b>Unique ID (BSSID)</b>	64:87:D7:BB:32:48
<b>Link Quality</b>	100%	<b>Connection Speed</b>	54 Mb/s
<b>Signal Strength</b>	-36 dBm		

[Change Profile](#)

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**Security Settings**

<b>Authentication</b>	WPA-Personal	<b>Encryption</b>	TKIP
<b>Passphrase</b>	*****		

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**LAN Configuration**

<b>LAN IP Address</b>	192.168.2.1	<b>LAN Netmask</b>	255.255.255.0
<b>MAC Address</b>	98:09:54:94:34:34		

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**System Info**

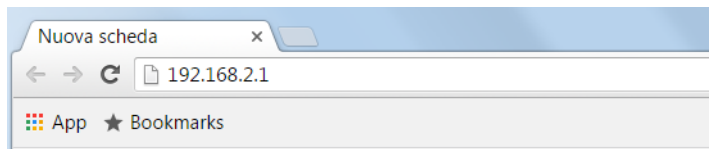
<b>Firmware Version</b>	v1.2.2.1(Oct 19 2016)	<b>System Time</b>	Sat, 01 Jan 2011 00:00:37
<b>Operation Mode</b>	Router Mode		

**Congratulations!** You now have access to the remote network.

Scan for available networks with your WiFi devices and connect to the your own new network, type in the passphrase you chose before and enjoy!

**2. Configuration through Ethernet cable:** you can easily use your laptop to login and configure the Sea-Hub. Just plug the Ethernet cable you'll find inside the Sea-Hub box (or another standard Ethernet cable if you wish) into the Ethernet port of your laptop and, on the other side, into the LAN port of the Sea-Hub.

Open your Internet browser and type the following IP address: **192.168.2.1**



Type in username (**admin**) and password (**admin**), then follows the steps illustrated from page 3.





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# Advanced User Manual

## Sea-Hub

WiFi/3G/USB Mobile Router

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## INTRODUCTION

The Sea-Hub is a WiFi/3G/USB mobile router that supports routing from an Internet Service Provider (ISP) connection (DSL or cable modem) to a local network. It is simple to configure and can be up and running in few minutes.

## KEY HARDWARE FEATURES

The following table describes the main hardware features of the Sea-Hub.

Description

WAN Port: One 100BASE-TX RJ-45 port for connecting to the Internet.

LAN Port: One 100BASE-TX RJ-45 port for local network connections.

USB Port: One USB slot for a 3G or 3.5G modem and USB Wireless Card

WPS Button: To set up a secure connection to a wireless device.

Reset Button: For resetting the unit and restoring factory defaults.

LEDs: Provides LED indicators for Power, WAN port, LAN port, and WLAN status.

Mounting Options: Can be mounted on any horizontal surface such as a desktop or shelf, or on a wall using two screws.

## DESCRIPTION OF CAPABILITIES

- Internet connection through an RJ-45 WAN port.
- Local network connection through one 10/100 Mbps Ethernet port.
- DHCP for dynamic IP configuration.
- Firewall with Stateful Packet Inspection, client privileges, and NAT.
- NAT also enables multi-user Internet access via a single user account, and virtual server functionality (providing protected access to Internet services such as Web, FTP, e-mail, and Telnet).
- VPN passthrough (IPsec, PPTP, or L2TP).
- User-definable application sensing tunnel supports applications requiring multiple connections.
- Easy setup and management through an easy-to-use web browser interface on any operating system that supports TCP/IP.
- Compatible with all popular Internet applications.

**APPLICATIONS** Many advanced networking features are provided by the Sea-Hub:

- **Wired LAN** — The Sea-Hub provides connectivity to wired Ethernet devices, making it easy to create a network in small offices or homes.
- **Internet Access** — The Sea-Hub supports Internet access through a WAN connection. Since many DSL providers use PPPoE, PPTP, or L2TP to establish communications with end users, the Sea-Hub includes built-in clients for these protocols, eliminating the need to install these services on your computer.
- **Shared IP Address** — The Sea-Hub provides Internet access for up to 253 users using a single shared IP address account.
- **Virtual Server** — If you have a fixed IP address, you can set the Sea-Hub to act as a virtual host for network address translation. Remote users access various services at your site using a static IP address. Then, depending on the requested service (or port number), the Sea-Hub can route the request to the appropriate server (at another internal IP address). This secures your network from direct attack by hackers, and provides more flexible management by allowing you to change internal IP addresses without affecting outside access to your network.
- **DMZ Host Support** — Allows a networked computer to be fully exposed to the Internet. This function is used when NAT and fire-wall security prevent an Internet application from functioning correctly.
- **Security** — The Sea-Hub supports security features that deny Internet access to specified users, or filter all requests for specific services. WPA (Wi-Fi Protected Access) and MAC filtering provide security over the wireless network.
- **Virtual Private Network (VPN) Passthrough** — The Sea-Hub supports the passthrough of three of the most commonly used VPN protocols – IPsec, PPTP, and L2TP. These protocols allow remote users to establish a secure connection to another network. If your service provider supports VPNs, then these protocols can be used to create an authenticated and encrypted tunnel for passing secure data over the Internet (that is, a traditionally shared data network).

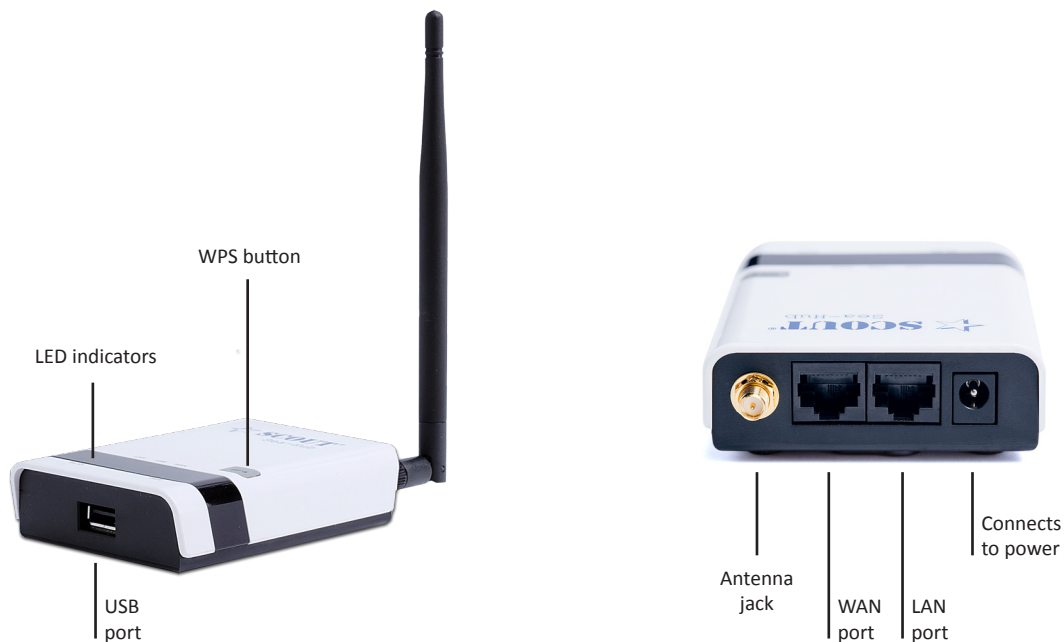
**IPsec (Internet Protocol Security)** — Encrypts and authenticates entire IP packets and encapsulates them into new IP packets for secure communications between networks.

**PPTP (Point-to-Point Tunneling Protocol)** — Provides a secure tunnel for remote client access to a PPTP security gateway. PPTP includes provisions for call origination and flow control required by ISPs.

**L2TP (Layer 2 Tunneling Protocol)** — Merges the best features of PPTP and the Layer 2 Forwarding (L2F) protocol. Like PPTP, L2TP requires that the ISP's routers support the protocol.

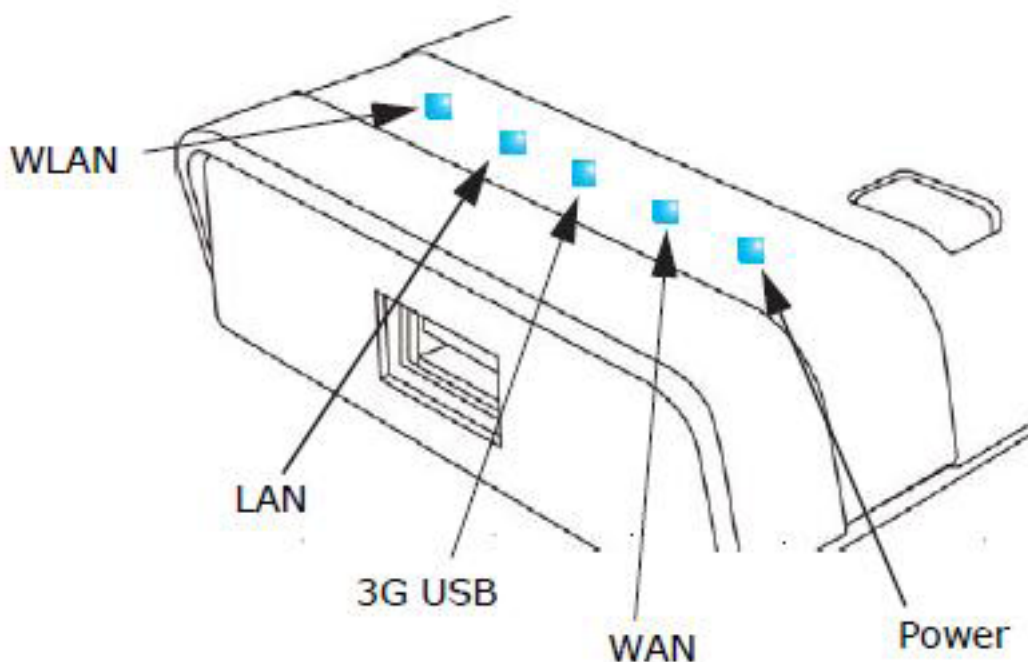
### HARDWARE DESCRIPTION

The Sea-Hub connects to the Internet through its RJ-45 WAN port. It connects directly to your PC or to a local area network using its RJ-45 Fast Ethernet LAN port. The 3G Mobile Wireless Router includes an LED display on the front panel for system power and port indications that simplifies installation and network troubleshooting



### LED INDICATORS

The Sea-Hub includes four status LED indicators, as described in the following figure and table.



LED	Status	Description
Power	On Blue	The unit is receiving power and is operating normally.
	Off	There is no power currently being supplied to the unit.
WLAN	On/Blinking Blue	The 802.11n radio is enabled and transmitting or receiving data through wireless links.
	Off	The 802.11n radio is disabled.
WAN	On Blue	The Ethernet WAN port is acquiring an IP address.
	Blinking	The Ethernet WAN port is connected and is transmitting/receiving data.
	Off	The Ethernet WAN port is disconnected or has malfunctioned.
LAN	On Blue	The Ethernet LAN port is connected to a PC or server.
	Blinking	The Ethernet port is connected and is transmitting or receiving data.
	Off	The Ethernet port is disconnected or has malfunctioned.
3G USB	On Blue	A 3G connection has been established.
	Slow Blinking	A 3G connection is in progress.
	Fast Blinking	The wrong 3G PIN code has been entered, or the 3G budget limit has been reached.
	5 Blinks Cycle	The 3G pre-limit budget has been reached.
	Off	There is no modem connected to the 3G USB port, or the device has failed.

**ETHERNET WAN PORT** A 100BASE-TX RJ-45 port that can be attached to an Internet access device, such as a DSL or Cable modem.

**ETHERNET LAN PORT** The Sea-Hub has one 100BASE-TX RJ-45 port that can be attached directly to a PC or 10BASE-T/100BASE-TX LAN segments.

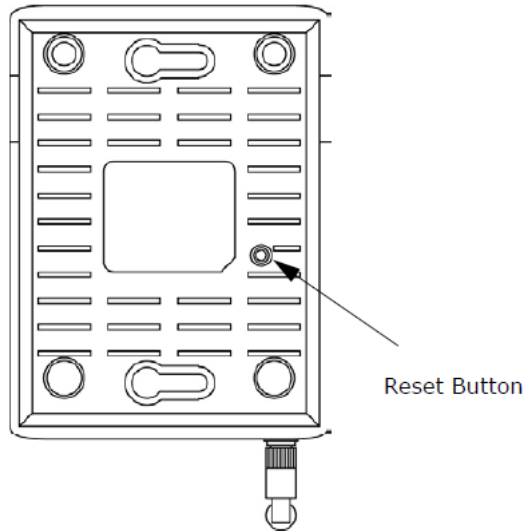
This port supports automatic MDI/MDI-X operation, so you can use straight-through cables for all network connections to PCs, switches, or hubs.

**3G & USB Wireless Card USB PORT** Supports connection to a wireless cellular 3G or USB Wireless Card for broadband Internet access.

**POWER CONNECTOR** The Sea-Hub must be powered with its supplied power adapter. Failure to do so results in voiding of any warranty supplied with the product. The power adapter automatically adjusts to any voltage between 100~240 volts at 50 or 60 Hz, and supplies 12 volts DC power to the unit. No voltage range settings are required.

**WPS BUTTON** Press the WPS button to automatically configure the Sea-Hub with other WPS devices in the WLAN.

**RESET BUTTON** The Reset button is used to restore the factory default configuration. If you hold down the button for 5 seconds or more, any configuration changes you may have made are removed, and the factory default configuration is restored to the Sea-Hub.



## INITIAL CONFIGURATION

The Sea-Hub offers a user-friendly web-based management interface for the configuration of all the unit's features. Any PC directly attached to the unit can access the management interface using a web browser, such as Internet Explorer (version 6.0 or above).

### CONNECTING TO THE LOGIN PAGE

It is recommended to make initial configuration changes by connecting a PC directly to the Sea-Hub's LAN port. The Sea-Hub has a default IP address of **192.168.2.1** and a subnet mask of 255.255.255.0. You must set your PC IP address to be on the same subnet as the Sea-Hub (that is, the PC and the Sea-Hub addresses must both start 192.168.2.x). To access the Sea-Hub's management interface, follow these steps:

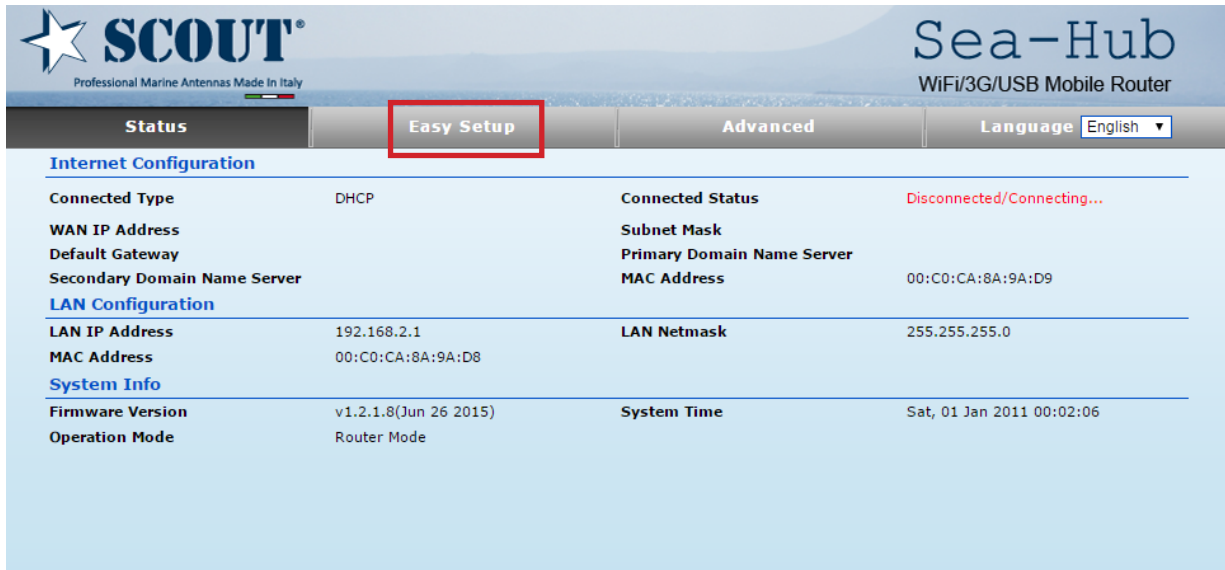
1. Use your web browser to connect to the management interface using the default IP address of 192.168.2.1.
2. Log into the interface by entering the default username "**admin**" and password "**admin**" then click OK.



The Sea-Hub can be also easily configured with a wireless device such as smartphones or tablets (or through the WiFi connectivity of your laptop). You just need to scan for available networks, select Scout Sea-Hub from the list, open your browser and type the IP address 192.168.2.1.

### HOME PAGE AND MAIN MENU

After logging in to the web interface, the Status page displays. The Home page shows the main menu and the method to access the Setup Wizard.



### SETUP WIZARD

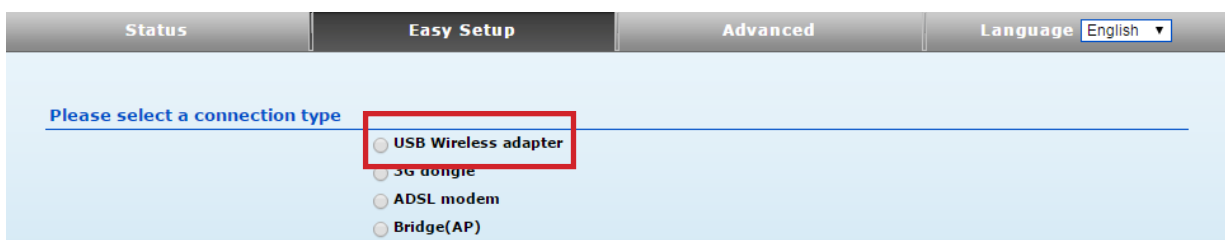
The Wizard is designed to help you configure the basic settings required to get the Sea-Hub up and running. There are only a few basic steps you need to set up the Sea-Hub and provide a connection.

Click on Easy Setup to bring up the wizard



### 1 Connection type: USB Wireless adapter

By selecting the connection type "USB Wireless adapter" you'll set up the Sea-Hub to wirelessly re-broadcast a remote WiFi/ Internet signal locally to multiple wireless-enabled devices. To connect to the remote WiFi Internet signal you need to plug the Scout WiFi antenna model **KS-60 2.0** into the USB port of the Sea-Hub.



On the following screen we configure the USB WiFi network. Leave Connection Mode set as **Cable/Dynamic IP (DHCP)** and select Site Survey to see the wireless networks available to connect to.

The screenshot shows the 'System Configuration' page. The 'Connection Mode' dropdown is set to 'Cable/Dynamic IP (DHCP)'. Under 'DHCP Mode', the 'Hostname' is 'Scout Sea-Hub'. The 'Primary DNS Server' and 'Secondary DNS Server' fields are empty. Under 'USB Wireless adapter Configuration', the 'Network Type' dropdown is set to 'Site Survey'. Under 'Security Policy', the 'Security Mode' dropdown is set to 'Disable'. A 'Next' button is at the bottom right.

Take a note of the **Authentication** and **Encryption** information for the network you are trying to connect to, this will be required later - unless security is disabled.

Click on the button for the network you wish to connect to and press **Select**.

	SSID	BSSID	Bit Rates	Signal	Channel	Authentication	Encryption	Network Type
<input type="radio"/>	BT00962269	EB:74E6E5:40D1	144 Mb/s	89/100 (-55)	1	WPA-Personal	TKIP/AES	Infrastructure
<input type="radio"/>	11N 3G Router_AP	00:0C:CA:9A:9A:DA	72 Mb/s	100/100 (-47)	1	None	None	Infrastructure
<input type="radio"/>	101	00:23:46:33:84:D0	54 Mb/s	37/100 (-75)	6	WPA-Personal	TKIP	Infrastructure
<input checked="" type="radio"/>	FASTWEB-1-YIKfiY1wASgn	64:87:87:88:32:48	54 Mb/s	100/100 (-29)	11	WPA-Personal	TKIP	Infrastructure
<input type="radio"/>	ap01	00:25:86:CA:88:89	54 Mb/s	18/100 (-83)	11	WPA-Personal	TKIP	Infrastructure
<input type="radio"/>	Applifer	00:15:40:9E:83:ED	54 Mb/s	26/100 (-79)	6	WPA-Personal	TKIP	Infrastructure

At the bottom right of the table area, there are three buttons: 'Select', 'Rescan', and 'Close'. The 'Select' button is highlighted with a red box.

In the next screen you will now see that the details for the connection you selected have been added.

If the **Network Type** reads **802.11Ad Hoc**, change to **Infrastructure** using the dropdown arrow.

If the WiFi network you are connecting to has security enabled you will need to enter the Mode (Authentication and Encryption information you took a note earlier) and passphrase on this screen before selecting **Next**.

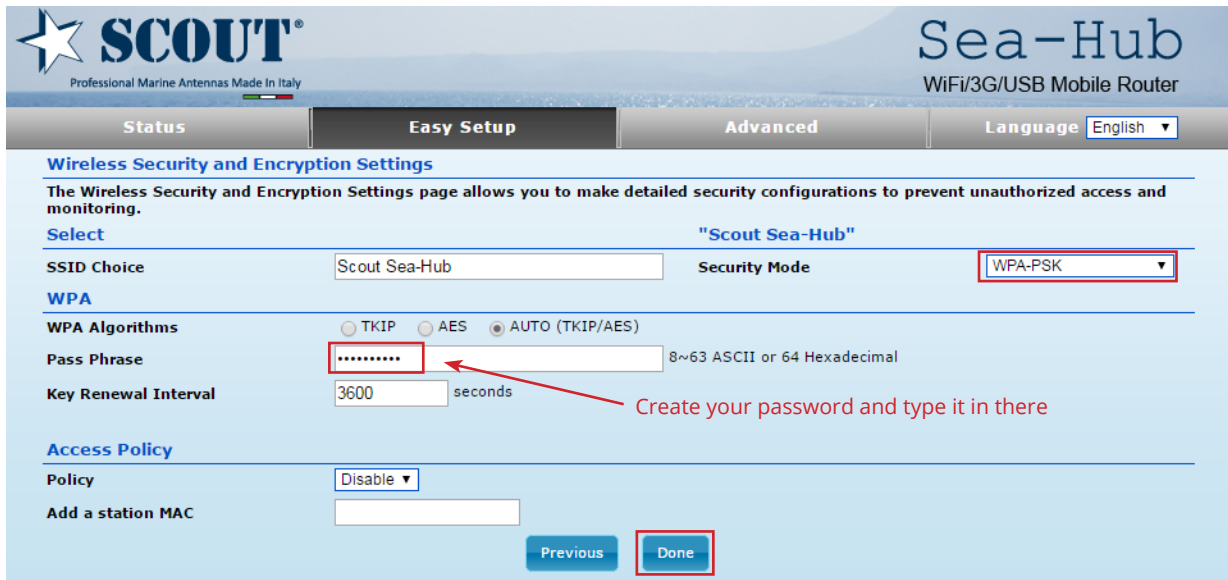
The screenshot shows the 'System Configuration' page with the details for the selected network. 'Connection Mode' is 'Cable/Dynamic IP (DHCP)'. 'SSID' is 'FASTWEB-1-YIKfiY1wASgn' and 'BSSID(optional)' is '64:87:87:88:32:48'. 'Network Type' is 'Infrastructure'. 'Security Mode' is 'WPA-Personal'. Under 'WPA', 'WPA Algorithms' is 'TKIP' and 'Pass Phrase' is masked with dots. A 'Next' button is at the bottom right.



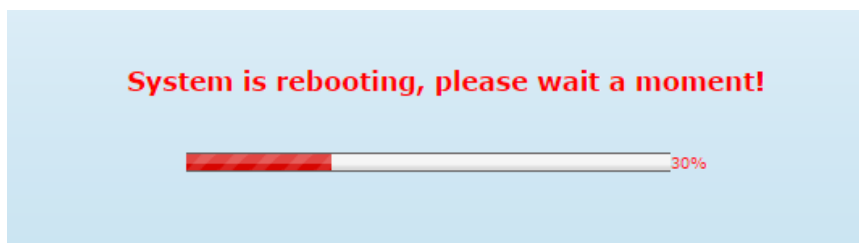
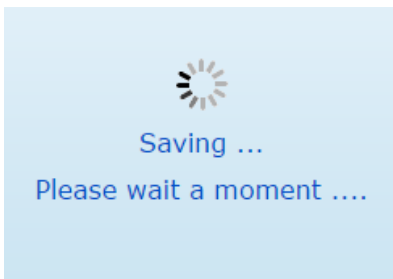
The next screen shows the settings for the wireless LAN - this is what you will be connecting your wireless device to locally in order to access the Internet.

The **SSID** is the name you will see when scanning for available WiFi networks: the default name is Scout Sea-Hub, you can change it to something more meaningful if you wish.

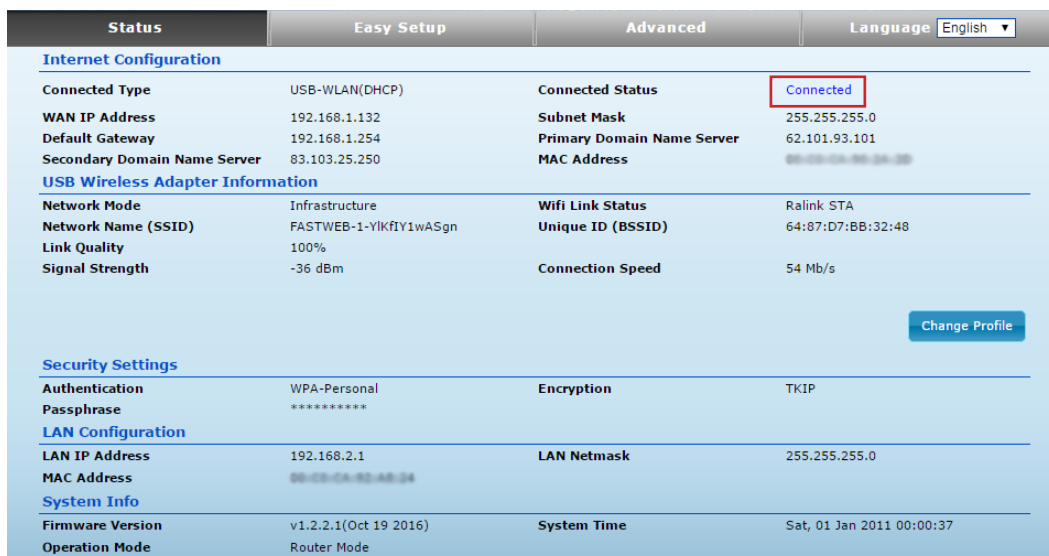
We strongly advise adding some security to this connection in order to stop unauthorized connections, next screen shows example settings. Once you're happy with your settings press **Done**.



At this point you will be disconnected from the Sea-Hub as it reconfigures. Give it a few moments to sort itself out.



The screen should now look like the following one, Connected Status is now **Connected**.



**Congratulations!** You now have access to the remote network.

Scan for available networks with your WiFi devices and connect to your own new network, type in the passphrase you chose before and enjoy!

## 2 Connection type: 3G dongle

By selecting the connection type "3G dongle" you'll set up the Sea-Hub to wirelessly re-broadcast the Internet connection from a USB 3G Dongle locally to multiple wireless-enabled devices. The list of the 3G USB dongles that are compatible with the Sea-Hub is printed at the end of this manual.

The screenshot shows the 'Easy Setup' tab of the Sea-Hub configuration interface. The 'Language' dropdown is set to 'English'. Under the heading 'Please select a connection type', there are four radio button options: 'USB Wireless adapter', '3G dongle', 'ADSL modem', and 'Bridge(AP)'. The '3G dongle' option is selected and highlighted with a red rectangular box.

**Note:** ensure the USB 3G Dongle is plugged into the USB port (see datasheet on our website for a list of compatible devices) and the Sea-Hub has its antenna attached before switching power on.

Select the "3G dongle" button to begin the wizard to connect to a 3G Broadband source.

On the following screen we configure the settings for your 3G Dongle. These vary between each service provider so you may need to consult the documentation which came with your device, or your service provider.

Below is an example of a particular device from 3 networks.

The screenshot shows the '3G Modem Connection Setting' screen. The 'WAN Connections' are set to '3G Only'. The '3G' section contains the following fields and options:

- Pin Code Protect:** A checkbox labeled 'Enable' is unchecked, followed by an empty text input field.
- Dial Code:** A text input field containing '\*99#'
- User Name:** An empty text input field.
- Budget Control:** A checkbox labeled 'Enable (default: disabled)' is unchecked.
- APN Service:** A text input field containing 'three.co.uk'
- Password:** An empty text input field.

A blue 'Next' button is located at the bottom right of the form.

- **Pin Code Protect** - Enables the use of a PIN code (personal identification number) to encrypt access to the 3G modem connection. Some service providers do not require PIN code authentication. If a PIN code is not required just disable this function. (Default: Disabled)

- **Dial Code** - A dialled access code that connects the USB device to the service provider.

- **APN Service** - The access point name (APN) that uniquely identifies the 3G service provider.

- **User Name** - The user name of the account registered with the 3G service provider.

- **Password** - The password of the account registered with the 3G service provider.

There is a check box on screen marked **Budget Control**, this is a useful feature which helps prevent you from exceeding your data allowance if you have a limit on your tariff. The next screen shows some example settings.

Status	Easy Setup	Advanced	Language English
<b>3G Modem Connection Setting</b>			
<b>WAN Connections</b>		3G Only	
<b>3G</b>			
Pin Code Protect	<input type="checkbox"/> Enable <input type="text"/>		
Dial Code	<input type="text" value="*99#"/>	APN Service	<input type="text" value="three.co.uk"/>
User Name	<input type="text"/>	Password	<input type="text"/>
Budget Control	<input checked="" type="checkbox"/> Enable (default:disabled)		
<b>Budget Criterion</b>			
	<input type="checkbox"/> Time Budget(1~999)	<input type="text" value="1"/> hour(s) per month	
	<input checked="" type="checkbox"/> Data Budget(3~4000)	<input type="text" value="3000"/> MByte(s) per month	<input type="text" value="Download"/>
<b>Budget Policy</b>			
<b>Actions if Over Budget</b>		<input checked="" type="checkbox"/> Drop Current Connection	<input checked="" type="checkbox"/> Disallow New Connection
<b>Trigger by Limit Budget</b>		<input type="text" value="90"/> % of the time budget	<input type="text" value="90"/> % of the data budget
	<input type="checkbox"/> E-mail Alert	Will recur every <input type="text" value="10"/> minutes	
<b>Budget Counter</b>			
	Reset on	<input type="text" value="14th day per month"/>	If not over budget !
<input type="button" value="Next"/>			

Press **Next** to complete this page.

The screen below shows settings for the wireless LAN - this is what you will be connecting your wireless device to in order to access the Internet.

Status	Easy Setup	Advanced	Language English
<b>Wireless Security and Encryption Settings</b>			
The Wireless Security and Encryption Settings page allows you to make detailed security configurations to prevent unauthorized access and monitoring.			
<b>Select</b>		<b>"Scout Sea-Hub"</b>	
SSID Choice	<input type="text" value="Scout Sea-Hub"/>	Security Mode	<input type="text" value="Disable"/>
<b>Access Policy</b>			
Policy	<input type="text" value="Disable"/>		
Add a station MAC	<input type="text"/>		
<input type="button" value="Previous"/> <input type="button" value="Done"/>			

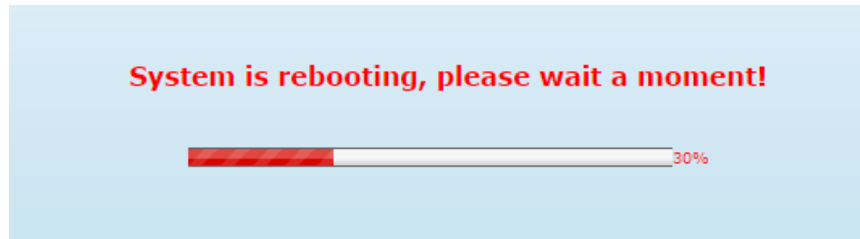
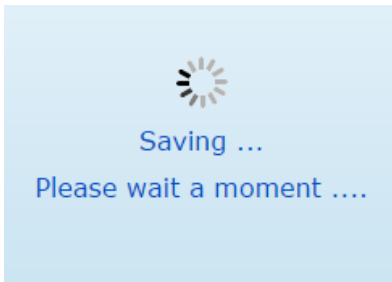
The **SSID Choice** is the name you will see when scanning for available WiFi networks: the default name is Scout Sea-Hub, you can change it to something more meaningful if you wish.

We strongly advise adding some security to this connection in order to stop unauthorized connections, next screen shows example settings.

Status	Easy Setup	Advanced	Language English
<b>Wireless Security and Encryption Settings</b>			
The Wireless Security and Encryption Settings page allows you to make detailed security configurations to prevent unauthorized access and monitoring.			
<b>Select</b>		<b>"Scout Sea-Hub"</b>	
SSID Choice	<input type="text" value="Scout Sea-Hub"/>	Security Mode	<input type="text" value="WPA-PSK"/>
<b>WPA</b>			
WPA Algorithms	<input type="radio"/> TKIP <input type="radio"/> AES <input checked="" type="radio"/> AUTO (TKIP/AES)		
Pass Phrase	<input type="text" value="*****"/>	8~63 ASCII or 64 Hexadecimal	
Key Renewal Interval	<input type="text" value="3600"/> seconds		
<b>Access Policy</b>			
Policy	<input type="text" value="Disable"/>		
Add a station MAC	<input type="text"/>		
<input type="button" value="Previous"/> <input type="button" value="Done"/>			

Once you're happy with your settings press **Done**.

At this point you will be disconnected from the Sea-Hub as it reconfigures. Give it a few moments to sort itself out.



The screen should now look like the following one, Connected Status is now **Connected**.

Internet Configuration			
Connected Type	3G	Connected Status	Connected
WAN IP Address	111.82.243.227	Subnet Mask	255.255.255.255
Default Gateway	10.112.112.112	Primary Domain Name Server	168.95.1.1
Secondary Domain Name Server	168.95.192.1	MAC Address	00:00:00:00:00:00
LAN Configuration			
LAN IP Address	192.168.2.1	LAN Netmask	255.255.255.0
MAC Address	00:C0:CA:36:A2:14		
System Info			
Firmware Version	0.2.0.2-1 (Oct 11 2010)	System Time	Thu, 02 Dec 2010 08:03:18
Operation Mode	Router Mode		

**Congratulations!** You now have access to the Internet.

Scan for available networks with your WiFi devices and connect to your own new network, type in the passphrase you chose before and enjoy!

### 3 Connection type: ADSL modem

#### Mode: Single WAN (ADSL only)

Select ADSL Modem to enable the Sea-Hub IP address to be assigned automatically from an Internet service provider (ISP) through a DSL modem using Point-to-Point Protocol over Ethernet (PPPoE).

On the following screen we configure the settings for connecting the Sea-Hub to the DSL modem.

- **WAN Connection** - Select **Single WAN (ADSL only)** for the WAN port connection from the drop-down list.
- **Enable MAC Clone** - Some ISPs limit Internet connections to a specified MAC address. This setting allows you to manually change the MAC address of the Sea-Hub's WAN interface to match the PC's MAC address provided to your ISP for registration. You can enter the registered MAC address manually by typing it in the boxes provided. Otherwise, connect only the PC with the registered MAC address to the Sea-Hub, then click the Clone your PC's MAC Address (default: Disable).
- **User Name** - Sets the PPPoE user name for the WAN port (default: pppoe\_user; Range: 1~32 characters).
- **Password** - Sets a PPPoE password for the WAN port (default: pppoe\_password; Range: 1~32 characters).
- **Verify Password** - Prompts you to re-enter your chosen password.
- **Operation Mode** - Enables and configures the keep alive time and configures the on-demand idle time.

**Note:** If static IP is required for your DSL modem then you need to click Advanced tag followed by WAN to bring up Static IP Configuration

### Mode: Dual WAN (ADSL + 3G)

You may enable 3G USB as backup WAN connection when DSL is not functioning.

**Wide Area Network (WAN) Settings**

This section allows you to configure the connection type and other related WAN parameters suitable to your environment. When Dual WAN has been selected, only Keep Alive mode will be supported. If a 3G USB Modem is selected as the WAN Connection Type, an extended amount of time is required for driver location and the dial up process.

**ADSL Modem Connection Setting**

WAN Connections: Dual Wan(ADSL+3G)  MAC Clone

**Dual WAN Mode**

Fallback of dual wan:  Enable  Disable

Detect IP address of Master WAN: 199.7.83.42 Detect IP address of Backup WAN: 199.7.83.42

Detect Timeout: 3 (1 ~ 5 seconds, default: 3)

**PPPoE Mode**

User Name: pppoe\_user Password: ..... Verify Password: .....

Address Mode: Dynamic

Operation Mode: Keep Alive Keep Alive Mode: Redial Period: 60 Seconds On Demand Mode: Idle Time: 5 Minutes

**3G**

Pin Code Protect:  Enable

Dial Code: \*99# APN Service: internet

User Name: 3G\_USERNAME Password: .....

Budget Control:  Enable (default:disabled)

Next

Please refer to Connection wan type: 3G dongle for setup detail on 3G modem.

**Note:** you may reverse the primary & backup WAN connection by click Advanced tag followed by WAN (see screen below).

**Status** **Easy Setup** **Advanced** Language: English

**Wide Area Network (WAN) Settings**

This section allows you to configure the connection type and other related WAN parameters suitable to your environment. When Dual WAN has been selected, only Keep Alive mode will be supported. If a 3G USB Modem is selected as the WAN Connection Type, an extended amount of time is required for driver location and the dial up process.

**WAN Connections**

Ethernet Port: PPPoE (ADSL)  MAC Clone

USB Port: 3G  Master WAN  Backup WAN

**Dual WAN Mode**

Fallback of dual wan:  Enable  Disable

Detect IP address of Master WAN: 199.7.83.42 Detect IP address of Backup WAN: 199.7.83.42

Detect Timeout: 3 (1 ~ 5 seconds, default: 3)

**PPPoE Mode**

User Name: pppoe\_user



In case you want to set the WAN port to work linked to the Scout **Rocket** and use the 3G USB connection as a backup (that activates automatically when the internet signal provided by the Rocket is no longer available) please follow these steps:

Click Advanced tag followed by WAN (see screen below).

Select 3G from the drop-down list.

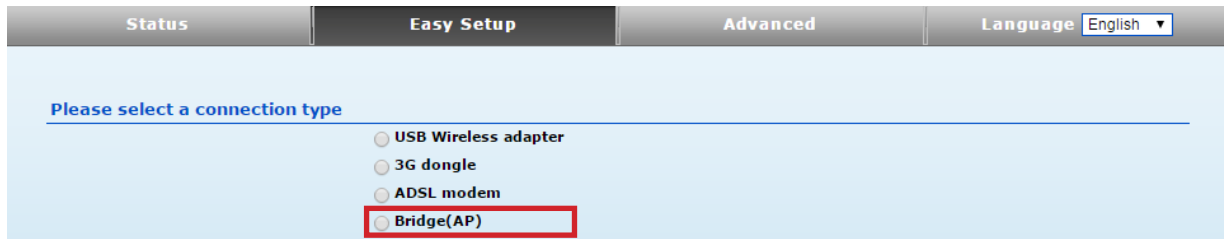
Select Cable/Dynamic IP (DHCP) from the drop-down list and flag Master WAN, then refer to Connection type: 3G dongle for setup detail on 3G modem.

Click Apply and let the system restart. You're now ready to use Rocket as primary WAN connection and 3G dongle as backup.

## 4 Connection type: Bridge (AP)

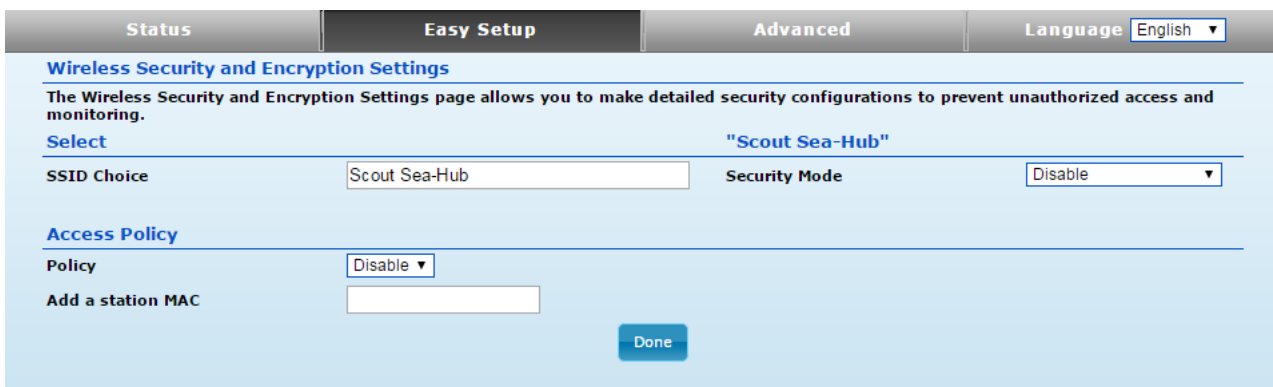
Can the Sea-Hub be used as a wireless router? Yes it can - in Bridge mode. Bridge mode works just like a wireless Ethernet link between an existing ADSL modem and wireless devices (such as smartphones and tablets) that wants to connect.

**Note:** this is the connection type you need to activate when you want to couple the Scout **Rocket** (that acts as a modem) to the Sea-Hub.



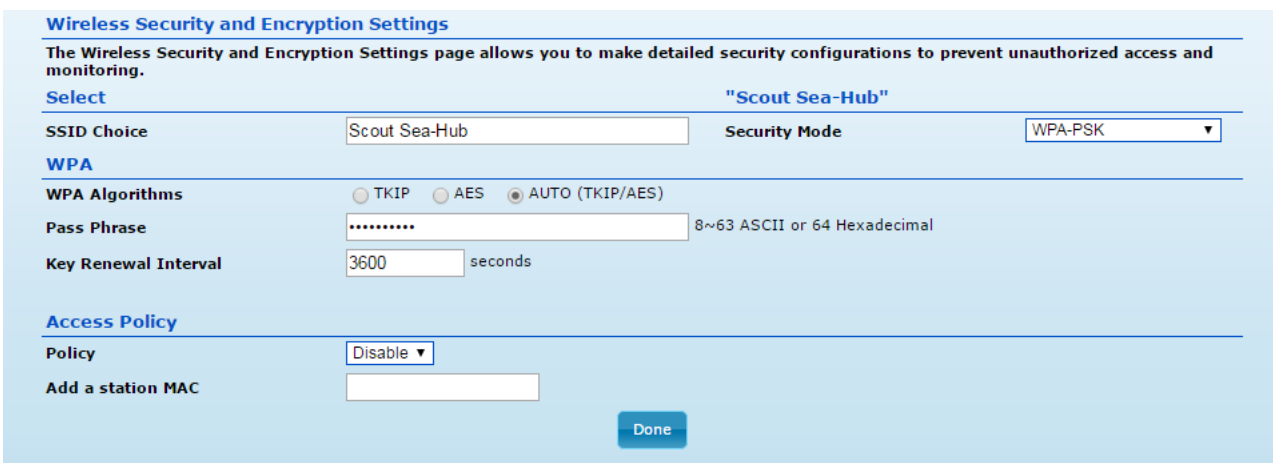
The screenshot shows the 'Easy Setup' tab in the configuration interface. Under the heading 'Please select a connection type', there are four radio button options: 'USB Wireless adapter', '3G dongle', 'ADSL modem', and 'Bridge(AP)'. The 'Bridge(AP)' option is selected and highlighted with a red rectangular box.

The **SSID Choice** is the name you will see when scanning for available WiFi networks: the default name is Scout Sea-Hub, you can change it to something more meaningful if you wish.



The screenshot shows the 'Wireless Security and Encryption Settings' page. It includes a description: 'The Wireless Security and Encryption Settings page allows you to make detailed security configurations to prevent unauthorized access and monitoring.' Below this, there are two main sections: 'Select' and 'Access Policy'. In the 'Select' section, the 'SSID Choice' is set to 'Scout Sea-Hub' and the 'Security Mode' is set to 'Disable'. In the 'Access Policy' section, the 'Policy' is set to 'Disable'. There is an empty text field for 'Add a station MAC' and a 'Done' button at the bottom right.

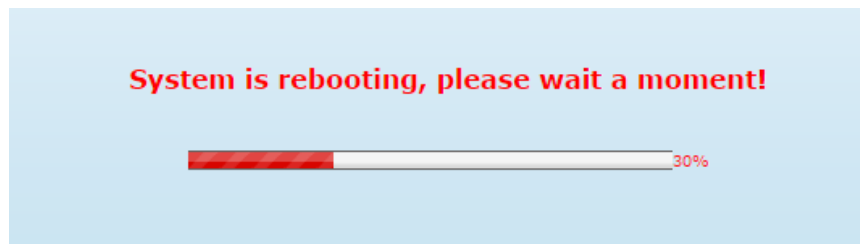
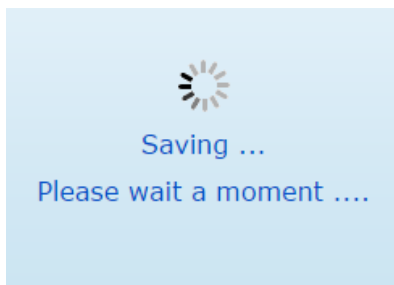
We strongly advise adding some security to this connection in order to stop unauthorized connections, next screen shows example settings.



This screenshot shows the 'Wireless Security and Encryption Settings' page with security settings enabled. The 'Security Mode' is now set to 'WPA-PSK'. Under the 'WPA' section, 'WPA Algorithms' has 'AUTO (TKIP/AES)' selected. The 'Pass Phrase' field contains a masked password (8~63 ASCII or 64 Hexadecimal). The 'Key Renewal Interval' is set to '3600 seconds'. The 'Access Policy' section remains the same as in the previous screenshot, with 'Policy' set to 'Disable' and an empty 'Add a station MAC' field. A 'Done' button is at the bottom right.

Once you're happy with your settings press **Done**.

At this point you will be disconnected from the Sea-Hub as it reconfigures. Give it a few moments to sort itself out.



Connect an Ethernet cable from one of your DSL modem's Ethernet ports to the Sea-Hub WAN port. The Sea-Hub LAN and USB ports will now have nothing connected to them.

**Congratulations!** The Sea-Hub is now ready to use in Bridge mode.

Scan for available networks with your WiFi devices and connect to your own new network, type in the passphrase you chose before and enjoy!

**Note:** In this mode you can no longer access the Sea-Hub status page via browser. You cannot even access the Sea-Hub status page through Ethernet to the Sea-Hub LAN port! The only way you can now access the Sea-Hub is by activating the reset button on the bottom of the Sea-Hub and then doing the setup all over again.

## TECHNICAL SPECIFICATIONS

Operating Frequency	FCC: 2412~2462MHz (Ch1~Ch11) ETSI: 2412~2472MHz (Ch1~Ch13) Japan: 2412~2484MHz (Ch1~Ch14)
Wireless Mode	WISP Bridge Router
Data Rate	802.11n ( 40MHz ): up to 150Mbps 802.11n ( 20MHz ): up to 72Mbps 802.11g: 54,48,36,24,18,12,9,6Mbps 802.11b: 11,5.5,2,1Mbps
Standards	Wired: IEEE 802.3 (10Base-T) IEEE 802.3u (100Base-TX) Wireless: IEEE 802.11, IEEE 802.11g, IEEE 802.11n
Physical	1 x 10/100Mbps WAN Port 1 x 10/100Mbps LAN Port 1 x detachable external 5dBi antenna 1 x Reset button 1 x WPS Security Key 1 x USB Port
Output power	802.11b: 27dBm ± 2dBm 802.11g: 25dBm ± 2dBm 802.11n: 25dBm ± 2dBm
Security	SSID Broadcast disable MAC filter WEP Encryption WPA-/W PA2-PSK (Pre-shared Key) WPA/W PA2 Enterprise mode (802.1x) WiFi Protected Setup (WPS)
Router functions	Static Routing VPN Pass through NAT 802.11e WMM IGMP Proxy Dual SSIDs
Power Input	12V/1A
Size	93 x 70 x 26mm
Weight	74 g



## COMPATIBLE 3G USB MODEM

ALFA Onyx3G  
ALFA Fly3G  
Huawei E220  
Huawei  
E169/169G/169U  
Huawei E219  
Huawei D02  
Huawei D21  
Huawei D22  
Huawei D23  
Huawei D31  
Huawei ET128  
Huawei D12HW  
Huawei D12LC  
Huawei D21LC  
Huawei E1762  
Huawei E1552  
Huawei E1782  
Huawei E1552  
Huawei E1782  
Huawei E156G  
Huawei E177  
Huawei E353  
Asus T500  
SonyEricsson MD300  
Qisda H21(single)  
ZTE MF626  
ZTE MF627  
ZTE MF628  
ZTE AC2726  
ZTE MF636  
ZTE MF637  
ZTE AC2736  
ZTE MF631  
ZTE MF180  
PROLINK PHS100  
PROLINK PHS300  
PROLINK PHS101  
DoCoMo A2502  
SoftBank C01LC  
Sierra 598U  
C-MOTECH U300  
Qisda H21(dual)  
EpiValley 8089  
i-mobile U3300  
BandLuxe C180  
Option Icon 225  
Dlink DWM-156  
NOKIA CS-15  
Royaltek Q110  
CSL U1-TF