



**StarBand® Installation and User Guide
For the
SkyEdge Satellite Modem**

Version 1.0



Welcome

Thank you for purchasing StarBand high speed Internet service.

The *StarBand Installation & User Guide* includes step-by-step instructions for properly configuring your computer to work with your new StarBand satellite modem.

Although StarBand services and products are compatible with most operating systems that support the TCP/IP protocol (i.e. Windows[€], Macintosh[€], Linux[€], Unix[€], etc.), technical support is only provided for the following operating systems:

- Windows 2000 Professional
- WindowsXP Home and WindowsXP Professional
- Macintosh OS X

Other operating systems with TCP/IP components may work but will not be directly supported by StarBand.

Enjoy your StarBand Internet service!



Table of Contents

- 1. GETTING STARTED.....2**
 - 1.1 PACKAGE CONTENTS 2
 - 1.2 WHAT YOU WILL NEED 2
 - 1.3 PC REQUIREMENTS 3
 - 1.4 EQUIPMENT INSTALLATION & CONFIGURATION..... 3
 - 1.5 INITIAL SERVICE SETUP AND ACTIVATION 4

- 2. THE STARBAND SKYEDGE SATELLITE MODEM AND RELATED HARDWARE6**
 - 2.1 HARDWARE DESCRIPTION 6
 - 2.2 INSTALLATION NOTES FOR YOUR SATELLITE MODEM 8
 - 2.2.1 *Mounting the Modem* 8
 - 2.2.2 *Connecting the Modem*..... 8
 - 2.2.3 *General Precautions* 8
 - 2.3 MODEM OPERATION 9
 - 2.3.1 *Boot and Operational Modes* 9
 - 2.3.2 *Rebooting / Resetting the Modem*..... 10

- 3. CONFIGURING YOUR COMPUTER’S IP ADDRESS 12**
 - 3.1 WINDOWS[®] 2000 AND WINDOWS[®] XP:..... 13
 - 3.2 SETTING UP MAC OS X TO USE A STARBAND ASSIGNED DYNAMIC IP ADDRESS 16
 - 3.3 SETTING UP MAC OS X TO USE A STARBAND STATIC IP ADDRESS 17

- 4. TROUBLESHOOTING GUIDE 20**
 - 4.1 YOU WERE PREVIOUSLY ABLE TO BROWSE THE INTERNET BUT NOW YOU CANNOT 20
 - 4.2 FOR TROUBLESHOOTING INFORMATION ON OTHER ISSUES 23

1. Getting Started

This section provides an overview of the installation and set-up process for getting you up and running with your new system and broadband service.

1.1 Package Contents

After unpacking your StarBand modem, please verify that your SkyEdge satellite modem was shipped with the following items:

- One SkyEdge IP VSAT satellite modem
- One external power supply
- One power cord
- One RJ-45 cross-over Ethernet cable

Immediately inform your StarBand dealer if there are any incorrect, missing or damaged parts.

1.2 What You Will Need

To insure a smooth installation, please make sure you have the following information available:

- Your assigned static IP addresses (if applicable) along with the required Domain Name Server (DNS) and Gateway IP addresses
- Your commissioning confirmation number (which is provided to your installer by StarBand during installation of the system)

Note: If you did not receive an e-mail with this information, please ask your installer or contact Customer Support at 1-800-4STARBAND.

1.3 PC Requirements

Please be aware of the minimum system requirements for using the StarBand satellite modem. These requirements include:

- Operating systems supporting the TCP/IP protocol (StarBand support is limited to Windows 2000 Professional, Windows XP, and Macintosh OS 9 and OS X)
- Microsoft® Internet Explorer (V 5.5 or higher) and Firefox (V 1.0 or higher) web browsers are supported on Windows PCs
- CD-ROM drive
- Ethernet port

1.4 Equipment Installation & Configuration

The following steps outline the general process for the installation and configuration of your StarBand system.

1. The process begins with the installation of the satellite dish and outdoor components by your certified StarBand installer.
2. Your installer will configure the satellite modem and its communications parameters.
3. To establish a network link between your modem and StarBand, the installer will connect your indoor satellite modem to the dish and complete the modem configuration.
4. With your modem in online, your computer's IP address settings must also be configured to allow your computer to access the Internet (see *Configuring Your Computer*, page 12).
5. Now that your computer and new satellite modem are working, activation of your StarBand account is required to access the World Wide Web (which is discussed in the next section – see Activation, page 4).

1.5 Initial Service Setup and Activation

As a new StarBand customer, there are two things you must do before you can access the Internet for the first time. The first time you attempt to browse the web, you will be prompted by the system to:

1. Activate your account and set-up your StarBand.net member name and password.
2. Verify your acceptance of the StarBand Purchase Agreement. *(You must accept this agreement before you can use your StarBand Internet service.)*

To set-up and activate your service, follow these steps:

1. Start your web browser. If your browser does not automatically take you to the StarBand activation page, enter www.StarBand.net/registration into the address bar, and press **Enter**.
2. The system may prompt you to enter the “commissioning confirmation number”, which is provided to your installer by StarBand during installation of the system). If you do not have a commissioning confirmation number then you can close your browser and wait approximately 30 minutes and then restart your browser. After you restart your browser you will automatically be taken to the next step in the process.
3. With your modem commissioning complete, you will be prompted to accept the StarBand Purchase Agreement. After carefully reading the agreement, click the **Accept** button to move to the last step in the activation process.
4. Finally, you will be prompted to create a StarBand.net member name and password. Your StarBand.net member name gives you access to StarBand.net e-mail accounts,

personal Web hosting, a view of the network status, and the ability to pay your StarBand bill online. Once you've completed this step, your access to the Internet will be enabled within five minutes.

That's it! You're all set and ready to go!

If you wish to set StarBand.net as your home page: go to ***www.StarBand.net***, click on ***Tools***, and then ***Internet Options***. Near the top of the window that appears, you will see a box called *Home Page*. Click on ***Use Current***. Then, click on ***Apply*** and finally ***OK***.

Once you have successfully completed the installation of your StarBand modem and have verified that you can browse the Internet, StarBand recommends that you install a firewall on each computer connected to your StarBand modem. Due to the multitude of firewall products on the market, StarBand is unable to provide configuration instructions or technical support for specific firewalls. Should you require assistance, contact your firewall vendor.

2. The StarBand SkyEdge Satellite Modem and Related Hardware

2.1 Hardware Description

The front of your StarBand-provided SkyEdge satellite modem possesses the following LEDs:



PWR (Power indicator): When this green LED is on, the satellite modem is powered up. This light should always be on if the system is plugged in to a good power source.

Rx (Receive signal indicator): When this green LED is on, the satellite modem is properly locked-on and able to receive communication from the satellite. This light should always be on if the system is operating properly.

SYNC (Hub synchronization indicator): When this green LED is on, the satellite modem receiver and transmitter are properly synchronized with the StarBand satellite hub. This light should always be on if the system is operating properly.

ON-LINE (Network connection indicator): When this green LED is on, the satellite modem is properly connected to the StarBand network. This light should always be on if the system is operating properly.

Tx (Transmit signal indicator): When this green LED is flashing, the satellite modem is transmitting data to the satellite. This light is only on when the StarBand modem is sending communication to the satellite.

VPN (Virtual Private Network) – Not enabled for StarBand customers.

NOTE: A modem that has not been configured will have only the PWR LED illuminated.

The rear of your StarBand SkyEdge satellite modem has the following connections:



RF-IN (Female F-Type connector): The Rx coaxial cable from your satellite out-door unit connects to this port.

Serial (DB-9 serial port): Standard Serial Port. This connection is not enabled in StarBand-provided SkyEdge IP modems.

LAN (RJ-45 Ethernet port): Use the supplied Ethernet cross-over cable to connect the LAN port of your modem to your computer.
NOTE: If the included cable is lost or damaged you can use any high quality Crossover-type Category-5 Ethernet cable of similar length. Straight-Through or “Patch” type cables will not work with your SkyEdge IP.

RF-OUT (F-Type Connector): The Tx coaxial cable from your satellite out-door unit connects to this port.

POWER – (DIN connection for power supply cable, +24vdc/2.8A)

Connect the supplied external power adapter to this socket.

NOTE: There is no power switch. To power up or reset the IDU, it is necessary to unplug the DIN connector from the IDU.

2.2 Installation Notes for Your Satellite Modem

2.2.1 Mounting the Modem

Depending on your preference, the satellite modem can be mounted in three possible orientations: desktop horizontal, desktop vertical and wall-mounted. Regardless of which orientation you choose, do not block the ventilation openings of the VSAT.

2.2.2 Connecting the Modem

Steps to connect the modem to the other parts of your system:

- 1) Connect the RF-In and RF-Out cables from the outdoor equipment to the RF-In and RF-Out ports on the back of the StarBand modem.
- 2) Before powering on the modem, connect the included Ethernet cross-over cable between your computer and the satellite modem.
- 3) Connect the power adapter to the modem and your electrical outlet.

2.2.3 General Precautions

- Do not cover the modem; placing anything on top of or near the satellite modem may block the air vents and prevent the proper air circulation required for correct operation. Covering

the vents may result in substantial damage to your satellite modem, rendering your StarBand system inoperable.

- The modem does not require or have an internal fan. It may get warm to the touch during use, but should not be cause for concern.

2.3 Modem Operation

2.3.1 Boot and Operational Modes

Whenever the modem is powered on, the LEDs on the front of the modem will flash in accordance with Table 1.



Mode	LED	Status
Boot Mode	PWR	On
	Tx	Flash On and Off
	On-Line	Flash On and Off
	SYNC	Flash On and Off
	Rx	Flash On and Off
	Tx	Flashes On and Off for 5 seconds
	Rx	On
Operational Mode	Rx	Off
	Rx	On
	SYNC	On
	Tx	Flash On and Off
	On-Line	On
	SYNC	Off and On
	Tx	Flashes

Table 1: LED Boot Sequence

Upon completion of its boot sequence, the modem will be put into its Operational Mode. The status of the LEDs of a correctly functioning and online modem in operational mode will correspond to those as stated in Table 1 under operational mode.

Once the boot up sequence has completed, the modem should be operating normally and you may begin web browsing.

2.3.2 Rebooting / Resetting the Modem

To reset/reboot the StarBand SkyEdge modem, unplug the power cable from the rear of the modem and wait 60 seconds before reattaching it. The modem will be ready and operational after it has

completed its reboot sequence (as described in Table 1).

3. Configuring Your Computer's IP Address

Please note that the following instructions are only valid for computers directly connected to the StarBand satellite modem.

In order to connect to the Internet via the StarBand satellite modem, your computer must have its TCP/IP settings properly configured to use either a dynamic or a static IP address assigned to you by StarBand. The correct type of IP address for your computer will depend upon which StarBand service that you purchased (if you are unsure which you have, contact your local StarBand dealer for assistance). To properly configure your computer please read the section below which corresponds to the type of IP address you have.

Static IP Addresses

If the service package you purchased includes one or more static IP addresses (or if you purchased optional one(s)), please remember the following:

- Each static IP can be used only on a single computer. If you have purchased multiple static IP addresses, be careful to configure each computer with a different address.
- Once you have setup your StarBand member name, you can also find your IP address information by visiting www.StarBand.net and clicking on the **My Account** button.

Additionally, operating system-specific instructions on how to configure a static IP address for your computer may be found on the following pages:

- Windows 2000 & Windows XP13
- Macintosh OS X.....16

Dynamic IP Addresses

If a static IP address was not included with your service package and you did not purchase any, then your computer should be configured to use a dynamic IP address. Use the following operating system-specific instructions for configuring Dynamic IP addresses for your computer:

- Windows 2000 & Windows XP.....13
- Macintosh OS X.....15

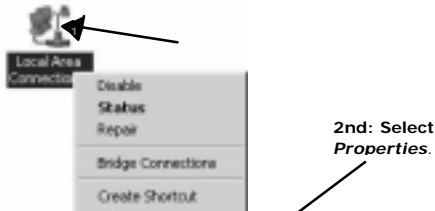
3.1 Windows[®] 2000 and Windows[®] XP:

1. On the desktop, right-click on **My Network Places**.

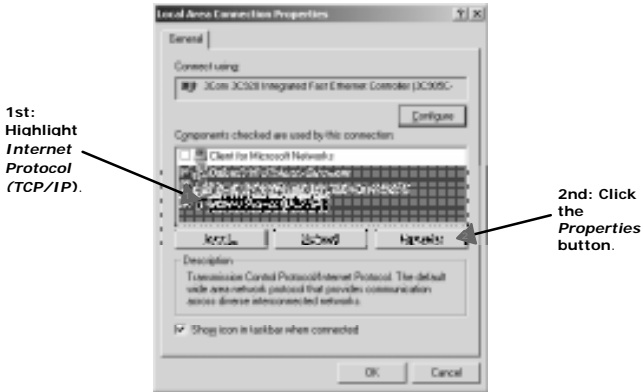


2. From the drop-down menu, select **Properties**.

3. Right-click the **Local Area Connection** icon for the Ethernet adapter to which the StarBand modem is connected and from the



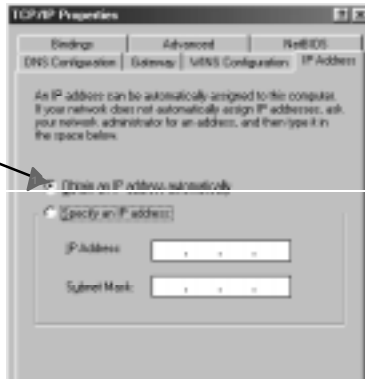
drop-down menu, select **Properties**.



4. Highlight Internet Protocol (TCP/IP). Click the **Properties**

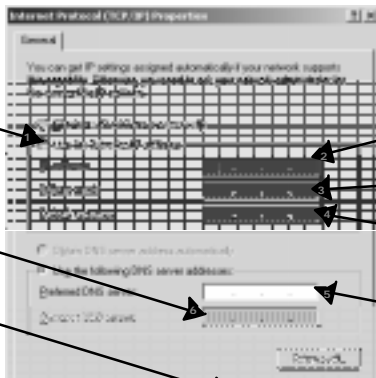
5. To setup a static IP address, continue with step 6. To setup a dynamic IP address, select *Obtain an IP address automatically*, then click **OK**. When the Local Area Connection Properties window appears again, click OK again, which will return you to your desktop. Continue with *Step 4: Configure Proxy Settings*.

Click on **Obtain an IP Address automatically.**



6. To setup your public static IP address, select *Use the following IP address*. Enter in your IP address, your Subnet mask, Default gateway, Preferred DNS server and *Alternate DNS server addresses* (these values were sent to you via e-mail; if you did not receive this e-mail, contact your Installer). Once you have finished, click **OK** twice to return to your desktop.

1st: Select **Use the following IP Address.**



2nd: Enter your **IP address.**

3rd: Enter **Subnet mask.**

4th: Enter **Default gateway.**

5th: Enter **Preferred DNS server.**

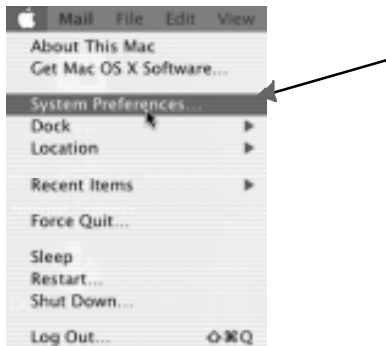
6th: Enter **Alternate DNS server.**

7th: Click **OK.**

7. Your Windows PC is now configured to utilize the StarBand provided static IP address.

3.2 Setting Up Mac OS X To Use A StarBand Assigned Dynamic IP Address

1. Click the **Apple icon** and select **System Preferences** from the drop-down menu.

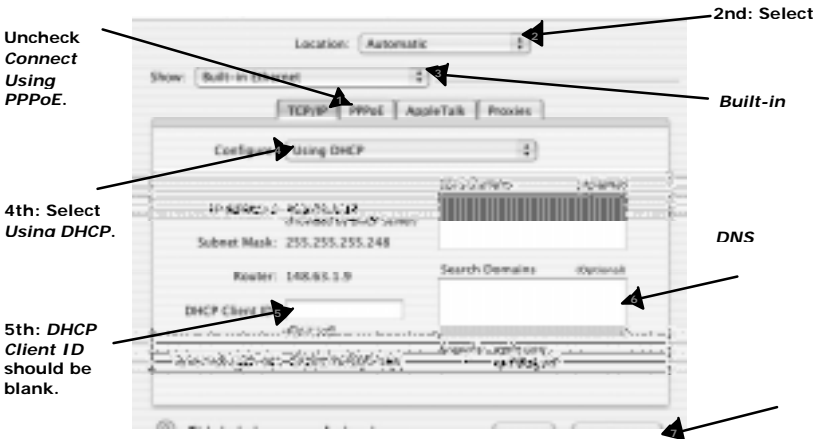


2. In *System Preferences* locate and click the **Network** icon.

3. At the *Network* setup screen, complete the following:

- Click the **PPPoE** tab and uncheck the Connect Using PPPoE box.
- Click the **TCP/IP** tab. Select **Automatic** from the *Location:* drop-down list.
- Select the **Built-in Ethernet** option from the *Show:* drop-down list.
- On the **Configure:** drop-down list, select **Using DHCP**.

- The *DHCP Client ID*: box should remain blank. If any data is there, delete it.
- In the *DNS Servers* window enter the **DNS Addresses** provided by StarBand.
- Click **Apply Now** and close the window.



4. Your OS X Macintosh is now configured to utilize the StarBand provided dynamic IP.

3.3 Setting Up Mac OS X To Use A StarBand Static IP Address

The setup information provided applies only to computers connected directly to the StarBand modem.

Note: Not all StarBand 481/484 service customers have static IP addresses as part of their account, so this section may **NOT** apply to

you.

1. Click the Apple icon and select System Preferences from the drop-down menu.



2. In *System Preferences* locate and click the **Network** icon. Click *Network*.

3. At the *Network* setup screen, complete the following:

- Click the **PPPoE** tab and verify that the the **Connect Using PPPoE** box is unchecked.
- Click the **TCP/IP** tab and select **Automatic** from the *Location:* item list.
- Select the **Built-in Ethernet** option from the *Show:* list.
- Select **Manually** from the *Configure:* list.
- In the *IP Address:* field enter the **IP Address** provided by StarBand.
- In the *Subnet Mask:* field enter the **Subnet Mask** provided by StarBand.
- In the *Router:* field enter the **Default Gateway IP address** provided by StarBand.

4. Troubleshooting Guide

This section may be helpful in working through some of the issues that can arise during use of your StarBand broadband service. If you experience a problem not listed in this guide or you are unable to resolve your problem, please visit the online Support Center at www.StarBand.net or call **StarBand Technical Support at 1-800-4STARBAND**.

4.1 You were previously able to browse the Internet but now you cannot.

If after previously using your StarBand service, you are now unable to browse the Internet, find the description below that best fits your situation and complete the steps that follow:

No lights on modem (including PWR)

- Make sure that power cable is securely plugged into the wall, the power adapter, and the back of the modem.
- Make sure that the power adapter is plugged into a working power outlet.

Only PWR light on Modem

- Reset the modem by removing the power cable from its rear (see the Modem Operation section for additional details).
- Make sure the RF cables in the rear of the modem are securely connected.
- If there is bad weather (heavy rain or dark clouds) locally or on the horizon, wait for the weather to pass.
- There may be bad weather at the StarBand hub. Such

conditions are infrequent and normally pass in approximately 10 minutes.

- If the problem persists, please contact your installer for assistance.

Only PWR, RX or PWR, RX & SYNC lights on the modem

- Reset the modem (see the Modem Operation section for additional details).
- Make sure RF cables in the rear of the modem are securely connected.
- If there is bad weather (heavy rain or dark clouds) locally or on the horizon, wait for weather to pass.
- There may be bad weather at the StarBand hub. Such conditions are infrequent and normally pass in approximately 10 minutes.
- If the problem persists, please contact your installer for assistance.

PWR, RX, SYNC and ON-line lights on modem, but can't access the internet from any PC

- Wait five minutes as the modem may appear to be online, but is actually in its start-up (boot) mode.
- Reset the satellite modem (see the Modem Operation section for details). After it has completed its boot process reboot your PC.
- Make sure that the cable connecting the PC to the modem is securely connected on both ends (remember that a cross-over Ethernet cable is required).

- If you are using any local networking devices (wireless router, etc) between the modem and the PC, reset them.
- If there are any local networking devices between the satellite modem and your PC, connect the PC directly to the satellite modem and reboot the PC.

Some PCs can access the internet, but others can't

- Reboot the PCs that do not work.
- If you are using any local networking devices (wireless router, etc) between the modem and the PC, reboot them.
- Reset the satellite modem. After it has completed its boot process, restart any attached PCs or networking devices.
- Make sure that you do not have more than 1 computer configured to use a particular static IP address. If necessary, reconfigure your systems so that there is only 1 computer using each static IP address.

Problems with the system connecting intermittently

If your system is only able to connect intermittently, or the modem seems to reset on its own periodically (every 5-10 minutes), please contact the StarBand Technical Support center at 1-800-4STARBAND:

Can browse the internet, but email doesn't work

- Make sure that you are using the correct password (you can reset your password by logging into your account on www.starBand.net)

- Check the configuration of your email application (many guides are available on <http://www.StarBand.net/email>)
- Wait awhile and try again. One or more StarBand mail server may be experiencing problems or delays.

If you are unable to resolve any of the above problems call StarBand Technical Support at: **1-800-4STARBAND**

4.2 For Troubleshooting Information on Other Issues

Go to www.StarBand.net, click on the *Support* tab, scroll down and click on **Ask a Question**. Select your PC s operating system from the pull-down menu. Enter in your keywords or questions. You will then be led to documents discussing the subject you entered.

Your StarBand Modem Parameters

Tech ID: _____

VSAT ID: _____

Static IP Address(es): _____

Subnet Mask: _____

Default Gateway: _____

DNS1: _____

DNS2: _____

FCC Compliance Notice of StarBand Equipment

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the (radio or TV) receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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