User Guide

SW-10 Satellite Modem

Tech Support Number

Tech Support from 9:00 AM to 9:00PM Eastern Standard Time

Monday Thru Saturday

1-866-3SKYWAY 1-866-375-9929

skyway **USA**

DISCLAIMER

The information provided in this Installation Guide is given in good faith, and following this guidance should lessen the risks of injuring yourself and others. However, neither SkyWay USA, Inc. nor its affiliates, partners, third party companies, and individuals associated with the preparation of this information shall have any liability to any person or entity with respect to liability, loss, or damage caused or alleged to be caused directly or indirectly by the instructions contained within this booklet, to the full extent that such liabilities can be excluded at law.

A possibility exists that the Installation Guide could include inaccuracies or errors. Although we attempt to ensure the integrity and the accurateness of this information, we make no guarantees whatsoever as to the correctness or accuracy of the Installation guide. In the event that such an inaccuracy arises, please inform us at *support@skywayusa.com*, so that it can be corrected.

You are advised to hire a professional satellite dish installer to carry out the installation on your behalf. Your satellite service provider can refer you to a specialist installer if required. In the event that you decide to install it yourself then you should first carefully read the contents of this disclaimer notice, the information set out below on use of a ladder and the contents of the Installation Guide.

It is assumed and stressed that you are familiar with good, safe ladder practice and that you are familiar with all tools, components and terms used. If you have any doubt about your ability to carry out such work competently and safely, the work should be referred to a specialist installer from your Service Partner.

This is particularly important if you are elderly or not fit enough, or suffer from giddiness or aren't confident with heights - think about getting someone else to do it for you. Do not use a ladder if you tire easily, are pregnant, are subject to fainting spells or are using medications or alcohol that makes you dizzy or drowsy.

The performance of a dish is not affected by whether it is located higher up or lower down on a building, as long as the line of sight with the satellite is not affected. **You should always check the place to install the dish yourself in order not to over-estimate your abilities.**

When using a ladder, place the base of the ladder on a firm, level, and dry surface. If there is a time when this is not possible - working on grass, for instance - tie the feet of the ladder to stakes in the ground to stop it slipping, and place a large flat wooden board underneath to help prevent it sinking.

Remember that the overall length of a ladder is not the same as its usable length: allow one meter of ladder length above the highest rung you use. **Never stand on the top three rungs. Never put a ladder on top of boxes, bricks, barrels or any other unstable surface just to gain extra height.** If you plan to climb onto a roof or platform from your ladder, be sure the ladder extends above the edge at least three feet.

Don't reach too far forwards or sideways, or stand with one foot on the ladder and the other one on something else. Move the ladder to avoid overstretching, and re-secure it whenever necessary, however frustrating that might be! Wear strong, flat shoes or boots, with dry soles and a good grip (no sandals, slip-ons or bare feet). Make sure a door is locked, blocked or guarded by someone if you are up a ladder in front of it.

Any ladder can develop a problem, which can render it unsafe. Before using your ladder, inspect it. Stepladders should be fully opened with the spreaders locked. Straight ladders should be placed at a four-to-one ratio. This means the base of the ladder should be one foot away from the wall or other vertical surface for every four feet of height to the point of support. Always face the ladder and hold on with both hands. If you need tools, carry them in a tool belt or raise and lower them with a hand line.

Don't use a ladder in a strong wind and never near any power lines. Don't drill holes through walls with risk of hitting gas or water pipes, or electrical wires. In any case, never allow any child under 16 to use or play with your tools or a ladder. Keep infants and toddlers out of reach of small parts such as screws, bolts and plastic bags that may endanger their life.

REMEMBER: It is your responsibility to check if your local laws place home owners under an obligation to install a satellite dish in such a way that minimizes its impact on the external appearance of the building, and to remove it when it is no longer needed. Reasonable care should be taken to avoid damage to yourself or third parties.

If you fall from the ladder, calmly assess the situation and determine if you are hurt. Get up slowly, however, if you feel that your injury will prevent standing and walking call for assistance. If the injury is at all serious, call the emergency number in your area. If you are not injured, regain your composure before climbing again.

Contents

The SkyWay USA SW-10 Satellite Modem contains software, which is covered by the "GNU General Public License" (GPL). This software is distributed WITHOUT ANY GUARANTEES to an extent allowed by applicable law. The complete license text can be found http://www.gnu.org/copyleft/gpl.html. SkyWay USA, Inc. hereby offers to supply the GPL licensed source code for this software to those who have previously received the code for this software and those who have requested it. This offer is valid for three years from purchasing date. The GPL license does not cover all of the software contained within the SW-10 modem.

Installation Process

The installation of your **SW-10 Satellite Modem** can be broken down into the following stages:

1. Check the contents of the installation kit
2. Installing the modem
3. Checking the software version
4. Connect to the Internet
5. Disconnect from the Internet
6. Configuring external applications

The following sections will guide you through the above stages.

Additional sections provide information on:

- Modem Control pages
- Frequently Asked Questions (FAQ)
- Troubleshooting guide
- Glossary
- Technical specifications
- Contact Information

Before you start

For convenience, you should have the following information at hand before you start your installation:

SkyWay Username	
SkyWay Password	
SkyWay Satellite (PAS1R or Horizons1)	

Please be aware that the SkyWay username must include the fully qualified domain name for SkyWay USA. (i.e. **@skywayusa.net**). Failure to include the fully qualified domain will result in login errors with the dial-up provider.

Installation Kit

Static Electricity Warning

To prevent static damage to electronic components during installation, touch an anti-static or grounded surface such as a large metal object to discharge static before you remove the electronic components from their packaging.

When you unpack your installation kit it should contain the following items:

1 x SW-10 Satellite Modem with power supply unit and cable

Check the label on the base and confirm that it is the correct modem for your telephone connection – PSTN

1 x Ethernet cross-cable with 2x RJ45 connector

1 x PSTN Telephone cable 2x RJ11

This User Guide

If there are any items missing or damaged in your installation kit, please contact **SkyWay USA** at **1-866-3SKYWAY (866-375-9929**).

Modem Connections

Connect the **SW-10 Satellite Modem** cables as shown in the figure.

1. Shut down and turn off your computer before installation. you start the

2. Plug the phone cable into the socket marked *Line* and plug the other end of the cable into the phone outlet on the wall.

3. Plug the Ethernet network cable into the socket marked **Ethernet** and the other end of the cable into the computer's network socket.

The **SW-10 Satellite Modem** supports 10Mbps transfer speed only.

⚠️

📝 note! The **SW-10 Satellite Modem** does not have to be installed solely as a stand-alone device; it can also be installed to work through a Network HUB, Switch or Router device.

However, you must be aware of the different cabling required when working through these devices.

To connect the PC to the Hub/Switch/Router and then to the modem, you will need to replace the Ethernet cross-cable provided with your installation kit with two standard (straight through) Ethernet network cables and also ensure that your network hub or switch supports 10Mbps transfer speeds. Your dealer will be able to give some advice concerning the correct cable.

4. Connect the satellite antenna cable connection to the socket marked *LNB*.

5. Connect the power supply unit to the *12V/1.25A* power socket.

6. **Restart** your PC.

Modem Indicator Lights

There are three green diodes on the front of the modem. These indicate the following:

Diode	Power	Modem	Ethernet
Flashing green	Start is in progress		Data transmission from modem to computer in progress
Steady green	Normal operation	Dial-up modem connected	Connection between modem and computer is OK

Configuring the Modem

Open the Internet Browser, if it is not already open.

In the address bar of your Web browser, type http://skyway to open the **SW-10 Satellite Modem** screen. Then, hit return. (If this fails, please go to the *troubleshooting* section or contact **SkyWay USA**.)

You have now reached the connection page. Before you will be able to connect you need to enter some dial-up settings for your **SW-10 Satellite Modem**. (For some customers this has already been programmed in advance.) Click the **Satellite Modem Setup** link, located on the left of the screen. The following page will appear:

Dial-Up Settings

Username	@skywayusa.net
Password	*******
Confirm Password	*******
Area Code	502
Primary Number	- Enter Manual Number -
Secondary Number	- Enter Manual Number -

Disclaimer: It is the sole responsibility of the customer to verify that the chosen number for SkyWay's dial-up modem is a local call.

Manual Number	15025551212

Wait for dial tone ☑   Disable Call Waiting ☑   Use Dial-Up Only ☐

Satellite Settings

Satellite Selection	PAS 1R

[Save]   [Restore Default Settings]

1. On this page you shall fill in details for your connection set-up.

2. If you do not know your SkyWay password, please contact **SkyWay USA** at **1-8663SKYWAY (866-375-9929)** to obtain it.

3. If any of the details are incorrect you may change them at this point.

4. If all details are correct, click **Save**.

For further information, please go to *Modem Control* page.

Configuring the Connection

Double check that the antenna cable is firmly connected to the socket marked *LNB* on the modem.

Click the link to the *Connect Page* in the top menu.

At the Connect Page, check that the Satellite Signal Quality meter is green and click the **Connect to SkyWay USA** button.
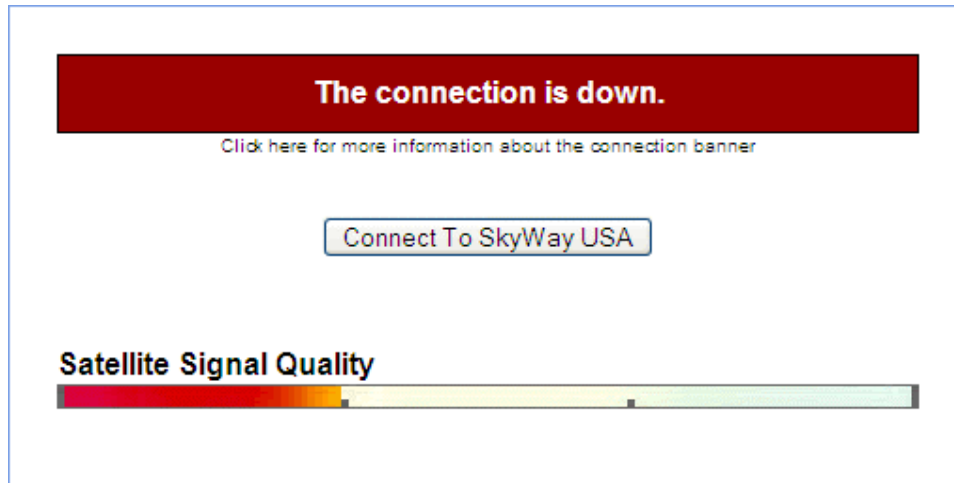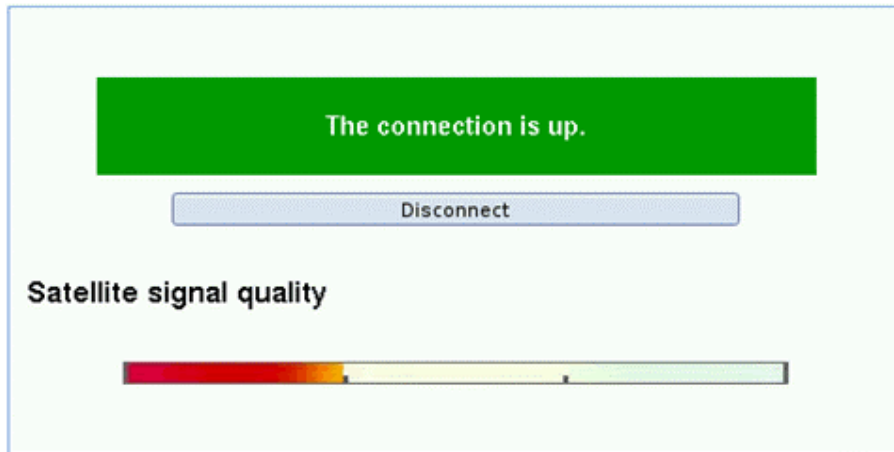
Connect to the Internet

The following is the standard process for connecting to the Internet.

Open the Internet Browser, if it is not already open.

Type http://skyway in the Address bar on your browser to open the **SW-10 Satellite Modem** set-up screen and hit return. (If this fails, please go to the *troubleshooting* section or contact **SkyWay USA**.)

Click the **Connect** button to connect to the Internet. It may take up to 20 seconds to obtain a connection. Once you have been connected, you should see a screen similar to the one shown below:

The modem is connected when the light in the middle of the front of the modem is shining with a green light.
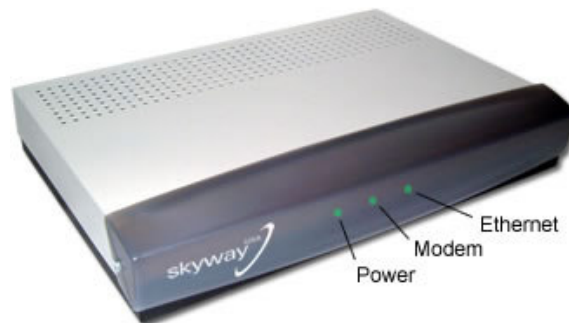
Every time you wish to start or end an Internet session you need to go to the Connect page and click the Connect button to start, or the Disconnect button to end your session. We recommend you set this page as your Internet 'Home Page', or add it to your Web browsers Favorites and/or Bookmark list.

Software Versions

When the modem is first connected to the Internet it will check to see what version of the software is loaded onto the modem and makes a search in order to discover whether there is a newer version available. The result will be shown on the screen shown on the right.
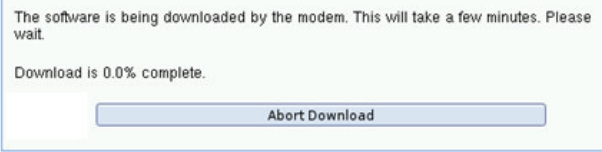
Software Version:	1.0	Available Version:	1.0

If there is a newer version of the software available you will be given the option to download a newer version. You will be advised to do this without delay. Click the link to download.

Downloading the new version will take a few minutes. As the download progresses, the percentage is shown. When the download is complete the new system software will be programmed into the modem.

While this is happening two diodes will flash in unison (together) on the modem and by the end of the download, the modem will restart. This could take a few minutes.

The software is being downloaded by the modem. This will take a few minutes. Please wait.

Download is 0.0% complete.

Abort Download

During this phase **DO NOT TURN OFF THE POWER** to the modem. Doing so may make the modem inoperative.

When the reprogramming is finished the result will be shown on the screen with a confirmation of the new version number.

The version numbers on the top of this page to the right are only examples!

Disconnect from the Internet

Unless SkyWay provides a free phone number for your Internet access you will have to pay connection charges every time you logon. To avoid unnecessary costs you should always disconnect from the Internet after having finished a session.

The following is the standard process for disconnecting from the Internet.

1. Open an Internet browser, if one is not already open.

2. Type http://skyway in the address bar on your browser to open the SW-10 Satellite Modem setup screen and hit return. (If this fails, please refer to the troubleshooting section or contact SkyWay).

3. Click the Disconnect button to shut down your connection to the Internet.
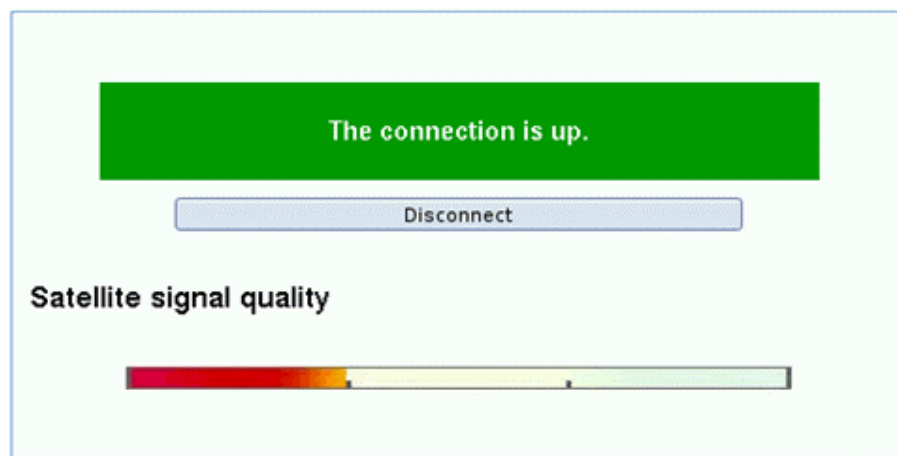
The modem is disconnected when the middle diode on the modem is no longer shining with a green light.

Every time you wish to start or end an Internet session you need to go to the Connect page and click the Connect button to start, or the Disconnect button to end your session. We recommend you set this page as your Internet 'Home Page', or add it to your Web browser's Bookmark menu.

Reference Section

⚠ **Tech Support 1-866-3skyway or 1-866-375-9929**

Tech support hours are 9:00AM to 9:00PM

Monday Thru Saturday. Tech support is also

Available at our website
http:www.support.skywayusa.com

At any time.

Modem Control Interface

The SW-10 Satellite Modem Web control interface contains all the setup and configuration required to configure your modem to connect to SkyWay and to the satellite.

To access these pages, open your Internet browser and enter the following URL in the Address field: http://skyway

All of the modem set-up pages are described in the next series of pages in this manual.

Connect Page

The **SW-10 Satellite Modem** Connect to SkyWay page is used for connecting to and disconnecting the modem from the Internet.

This page also shows the status of the satellite connection.

For further information, please go to the sections: Connect to the Internet and Disconnect from the Internet.
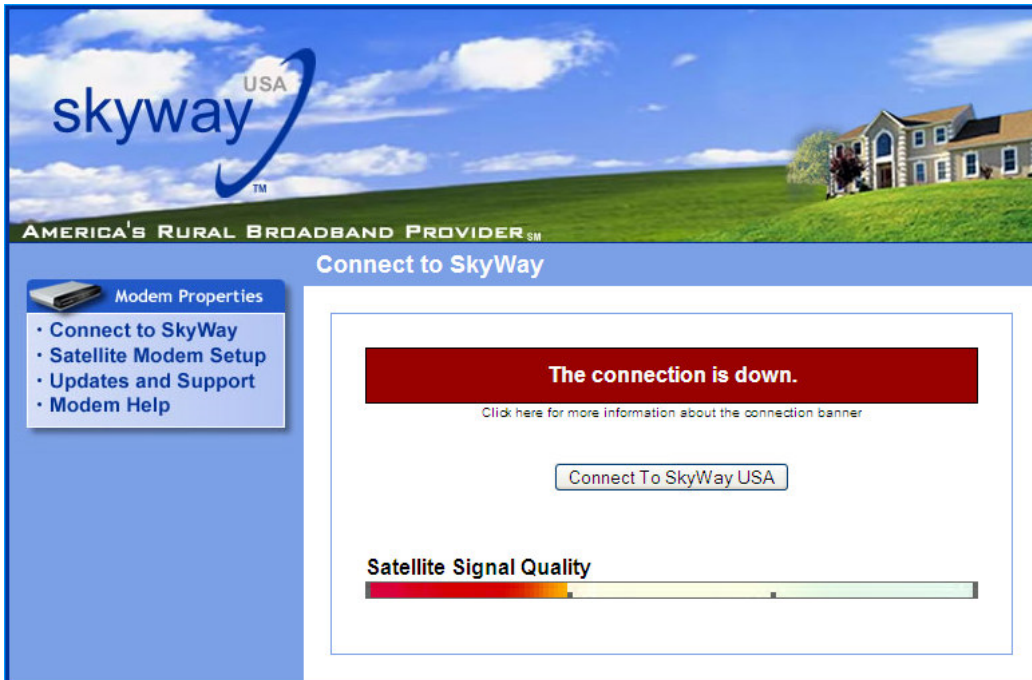
Satellite Modem Setup

The **Satellite Modem Setup** page is used to change the SkyWay settings without having to use the Dial-up Configuration Tool:

The table on the next page shows the procedure for connecting a PSTN modem.

Username	Your personal user name.
Password	Your personal password.
Confirm Password	Confirm your personal password. Note that passwords are case sensitive.
Area Code	This is for customers who use SkyWay USA's dial-up service. If you are using a third-party dial-up provider, such as MSN or AOL, you will need to skip this section and enter a phone number manually in the space provided. Only customers who use the SkyWay dial-up service are required to enter their area code in this field.
Primary Number	When you enter your area code, this list will populate automatically. You are required to choose a number from this field as a first choice dial-up option.
Secondary Number	When you enter your area code, this list will populate automatically. You are required to choose a number from this field that is different than your first choice dial-up number.
Manual Number	If you use the SkyWay broadband service, but use a third-party dial-up company such as MSN or AOL, you are required to enter a manual number here. This number is supplied by the third-party dial-up provider.
Wait for dial tone	If you have a phone service that doesn't immediately provide a dial tone when a line is picked up, then this option will need to be checked before making an attempt to connect to the dial-up provider.
Disable Call Waiting	If you have the call waiting service, selecting this option will disable the service.
Use Dial-Up Only	You may select this option if you need to *only* use the dial-up modem connection to surf the Internet. Internet traffic will stay on the dial-up connection, with no data coming down via the satellite broadband connection.
	This option is only recommended if you have technical issues with your satellite broadband connection. To resume using the satellite broadband connection, this option will need to be unchecked.
Satellite Selection	SkyWay USA currently uses two satellites to provide service to North American customers. Depending on the customer location in North America, a specific satellite must be selected. This information is provided to the customer by SkyWay or a qualified SkyWay agent.

Updates and Support

The **Updates and Support** page enables you to check for and download the latest software updates for your modem installation.

Frequently Asked Questions (FAQ)

The following list of frequently asked questions is updated online on a regular basis.

Q. Why do I also need a terrestrial dial-up Internet connection as well as my satellite connection?

A. Because the service is a one-way satellite connection, which only allows you to receive information (the downstream path), you also need a normal Internet connection for (upstream) activities such as transmitting requests for URLs, sending email, FTP, etc.

Q. Do I need any additional software, other than the one provided?

A. No. The installation includes all of the software needed to use the service.

Q. What is one-way satellite Internet?

A. One-way satellite Internet may be described as a satellite connection used for downstream (receive data) but not for upstream (transmit data). The service allows you to download web pages and files from the Internet at broadband speed.

Q. Is the broadband always on?

A. The satellite connection is always available. However, dial-up connection to the Internet is only available when the message, the connection is up, is showing on the screen.

Q. Can I run the service under LINUX, UNIX or Mac OS?

A. Yes. The service is completely platform independent, though certain settings might differ for each operating system.

Q. Can I use the service over a LAN (Local Area Network)?

A. Yes. Just connect the modem directly to a Hub, Switch, or Router. Use any PC to set-up the connection. Note that if there is more than one user, you should assign an administrator to carry out the set-up and to be responsible for checking for updates, etc.

Q. What is an IP address and how do I get one?

A. An IP address is a unique identifier assigned to computers communicating on a TCP/IP network. The IP number is a 32 bit numeric address written as four numbers separated by a period. Each number can be between 0 and 255, for example 107.0.0.1 and 128.32.100.98. Normally, when you log on to the Internet, the ISP assigns a temporary IP address to your computer, the IP address is automatically generated in the satellite modem by a built in DHCP server.

Q. What is a Proxy and why do I need it?

A. A proxy server is a server that is located between a client application (web browser) and the real server (in this case the whole Internet server network). The proxy is used to forward requests from the users. You need to have a proxy to route your requests through the dial-up modem and receive the downlink data by satellite.

Q. Do I have to set-up the proxy myself?

A. No. The proxy settings have been installed during the installation process. The only proxy settings you will need to change are those for your email (POP3) account.

Q. Can I take the equipment with me if I move?

A. Yes.

Q. Can I receive Internet (IP) radio stations over my connection?

A. Yes.

Q. Can I run firewall software?

A. Yes. There should be no problems with a firewall.

Troubleshooting

Problem	Solution
The modem does not dial the SkyWay number.	Check that the phone line is properly connected to the modem and the wall socket. If you are on an analog PSTN line, check that you have allowed for the pause in the dialing sequence. Check that you have entered the correct number(s) in the Set-up http://skyway/cgi-bin/config.cgi.
I can't get in contact with the satellite modem.	Check all the cable connections.
I can't update the satellite modem.	Go to the link on the support page. Check if there is a newer version of the software. Unplug the modem power supply, wait five seconds and re-insert the power cable to restart the modem.
I can't find the web page http://skyway	Try using the IP address: http://192.168.30.1/ instead. If you still have problems: 1. Check that your network card is configured for DHCP. 2. Check that your network card supports a speed of 10Mbps.
I can't remember my SkyWay username and password.	Contact **SkyWay USA** and ask them to reset your password and provide you with the details.

Glossary

The following are certain terms you may encounter either in this guide or at some other occasion in relation to Satellite broadband.

Alignment	The alignment of your satellite dish. This is represented by
	
	   - Azimuth or horizontal alignment (East/West)
	
	   - Elevation or vertical alignment.

Coaxial cable	Coaxial cable is used to bring the received signal from the dish to the modem.
Footprint	The area which the signal, transmitted from the satellite, is able to reach with an acceptable quality.
Geo-stationary	Satellites are in geo-stationary orbit. This means that the satellites stay in the same place and orbit relative to Earth.
Hard Reset	Turn the modem off and on by disconnect the power supply unit. Used to reset your satellite receiver.
Latency	In a network, this can be described as the amount of time it takes for a packet of data to travel from its source to a destination. In this case, it would be the delay between sending a request for a URL and the requested page appearing on your screen. Together, latency and bandwidth define the speed and capacity of a network.
LNB	Stands for Low Noise Block converter. This is the device that is attached to the front of the satellite dish. The front part of the LNB is the feed horn that catches the high frequency satellite signals reflected from the dish. The high frequency is then converted to a lower frequency and sent to the receiver/modem.
Parabolic Antenna	Another name for the satellite dish attached to your house.
Transponder	This is the equivalent to a satellite channel. The satellite receives, amplifies and transmits a signal back to Earth on various transponders.
URL	Uniform Resource Locator. The identifier for requesting web pages. Every web page has a unique URL. A typical URL usually (but not always) takes a form similar to: http://www.skywayusa.com

Technical Specifications

The following specifications are provided for your information:

Modem	V34 – PSTN / V56 - PSTN
Download speed	6 Mbps, maximum download speed
F-type 75W	
Receiving frequency	950 – 2150MHz
Symbol rate handling	1-45MS/s
LNB supply voltage	13 or 18V
Ethernet port	Data transmission up to 10Mbit/s (10Base –T)
External power supply	95-250V

Contact Information

You can contact SkyWay USA at one of the following numbers:

1-866-3SKYWAY (866-375-9929)

You can also e-mail us by visiting
http://support.skywayusa.com/

E-mail Server Settings

POP3 Server: **mail.skywayusa.com**
SMTP Server: **mail.skywayusa.com**

Other Helpful Satellite Dish Information

When setting LNB for the **PAS1R** satellite, face the front of the dish and turn the LNB clockwise so that the **coaxial connector** points to approximately the **7:00 o'clock** position or **lower left side** of the dish.

When setting LNB for the **Horizons1** satellite, face the front of the dish and turn the LNB counter clockwise so that the **coaxial connector** points to approximately the **5:00 o'clock** position or **lower right side** of the dish.
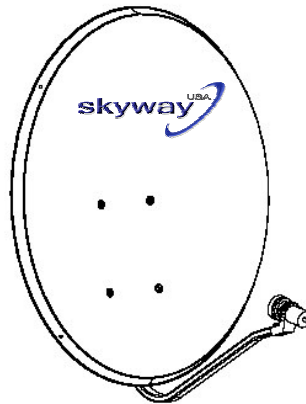
LNBF for SW10 Modem
On PAS1R and Horizons1
Also used on PAS1R with Internal PCI card

LNBF for Internal PCI Card
on Horizons1 only