söma
N E T W O R K S

SOMAport™ 400

User Guide

söma
N E T W O R K S

SOMAPORT USER GUIDE

Part S1AH6P1P0006-- revision A

CONTENTS

Troubleshooting 47

Specifications 75

Index 77

SOMA NETWORKS INC. ENDUSER PRODUCT LICENSE AGREEMENT

THE SOMAPORT™ SUBSCRIBER STATION AND PROVIDED SOFTWARE CONTAIN CERTAIN COMPUTER PROGRAMS AND OTHER PROPRIETARY MATERIAL OF SOMA NETWORKS, INC. OR LICENSED TO SOMA NETWORKS, INC., THE USE OF WHICH IS SUBJECT TO THIS AGREEMENT. BY: (A) SIGNING AN AGREEMENT FOR SERVICE WITH YOUR SERVICE PROVIDER; (B) OPENING THE SEALED ENVELOPE CONTAINING THE SOMAPORT; OR (C) USING THE SOMAPORT, YOU ASSENT TO AND ACCEPT THIS ENDUSER PRODUCT LICENSE AGREEMENT. IF YOU DO NOT AGREE WITH ALL THE TERMS OF THIS AGREEMENT YOU MUST RETURN THIS PRODUCT (WITH THE ENVELOPE STILL SEALED), ALL MANUALS AND DOCUMENTATION, ANY SOFTWARE PACK-AGES PROVIDED WITH THE SOMAPORT AND PROOF OF PAYMENT TO THE PLACE YOU OBTAINED THEM FOR A FULL REFUND WITHIN THIRTY (30) DAYS OF FIRST ACQUIRING THE SOMAPORT, OTHERWISE YOU ARE DEEMED TO HAVE ACCEPTED AND AGREED TO THESE TERMS AND CONDITIONS. UNAUTHORIZED REPRODUCTION, DISTRIBUTION, DECOMPILATION OR OTHER REVERSE ENGINEERING OF THIS PRODUCT INCLUDING ITS HARDWARE AND/OR SOFTWARE, OR ANY PORTION OF IT, IS PROHIBITED AND MAY RESULT IN SEVERE CIVIL AND CRIMINAL PENALTIES, AND WILL BE PROSECUTED TO THE MAXIMUM EXTENT POSSIBLE UNDER THE LAW.

1. GRANT OF LICENSE: Subject to the terms of this Enduser Product License Agreement (the "Agreement"), SOMA Networks, Inc. ("SOMA") grants you (the "Licensee") a non-sub-licensable, non-exclusive right ("License") to use the Product. "Product" means, collectively, the Software and the provided hardware, and specifically the SOMAport™ subscriber station and its accessories, if any, together with documentation provided to you by SOMA or your service provider. "Software" means, collectively, the version of the SOMA software program in object code format and all updates to that program distributed to you by SOMA, directly or indirectly, by any means and includes any firmware provided to you with the Product. You have no right, unless otherwise explic-itly permitted, to receive any source code or design documentation relating to the Product. SOMA retains ownership of all Software copies. The Software and this License is only provided to you to be used in conjunction with the SOMAport provided to you by SOMA or your service provider when you subscribed to services that utilize the SOMA wireless air interface technology and is not licensed to you to be used for any other purpose.

2. RESTRICTIONS: Except as reasonably required to use the Product strictly in accordance with the License and this Agreement, you may not copy any Software. Licensee shall not (and shall not allow any third party to): (I) decompile, disassemble, or otherwise reverse engineer or attempt to reconstruct or discover any source code or underlying ideas or algorithms or file formats or pro-gramming or interoperability interfaces of the Product by any means whatsoever; (II) remove any Product identification, copyright or other notices; (III) modify, incorporate into or with other software or create a derivative work of any part of the Software or Product; or (IV) modify or otherwise alter the operation of the Product. Various components, functions, routines and/or portions of the Prod-uct may be protected by Intellectual Property Rights ("IPR") including, but not limited to, designs, copyrights, trade secrets and one or more patents or pending patent applications. Licensee is licensed under such IPR, if any, only to the extent that such a license is required by the licensee to operate the Product in the manner intended by SOMA. No other rights are granted under such IPR

and no right to repair or replace the Product is intended or provided and specifically, no right of reconstruction, substitution or repair is provided.

3. TERMINATION: This License is effective until terminated. This License will terminate automatically if you fail to cure any material breach, as determined at the sole discretion of SOMA, of this Agreement within thirty (30) days after such breach first occurs (or immediately in the case of a breach of §2). Upon termination, you shall immediately cease all use of the Product and return all of the Product including Software, hardware, manuals, documentation of any kind accompanying Product to the place where you first obtained such Product or such other location as may be designated from time to time. Except for this License and except as otherwise expressly provided herein, the terms of the Agreement shall survive termination.

4. WARRANTY DISCLAIMER: THE SOFTWARE IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT. FURTHER, SOMA DOES NOT WARRANT, GUARANTEE OR MAKE ANY REPRESENTATIONS REGARDING THE USE, OR THE RESULTS OF THE USE, OF THE PRODUCT OR WRITTEN MATERIALS IN TERMS OF CORRECTNESS, ACCURACY, RELIABILITY, OR OTHERWISE. YOUR SERVICE PROVIDER MAY PROVIDE FURTHER WARRANTY COVERAGE FOR YOU.

5. LIMITATION ON REMEDIES AND DAMAGES: SOMA SHALL NOT BE RESPONSIBLE OR LIABLE UNDER ANY CIRCUMSTANCE WITH RESPECT TO ANY SUBJECT MATTER OF THIS ENDUSER PRODUCT LICENSE AGREEMENT UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER THEORY: (A) FOR LOSS OR INACCURACY OF RECORDS OR DATA OR (EXCEPT FOR RETURN OF AMOUNTS PAID TO SOMA THEREFOR) COST OF PROCUREMENT OF SUBSTITUTE GOODS, SERVICES OR TECHNOLOGY, (B) FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, LOSS OF SAVINGS, (C) THIRD-PARTY CLAIMS AGAINST YOU FOR DAMAGES, OR (D) FOR ANY MATTER BEYOND THE REASONABLE CONTROL OF SOMA EVEN IF SOMA AND / OR ITS SUPPLIERS IS/ ARE INFORMED OF THEIR RESPONSIBILITY. SOME JURISDICTIONS DO NOT ALLOW FOR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

6. UPDATES TO SOFTWARE and TRANSMISSION OF PERSONAL DATA: You consent to receive and employ updates to Software, without requiring further notice to you, that may occur from time to time, as may be necessary, as determined at the sole discretion of SOMA and/or your service provider, for the use of Product by you and for the efficient utilization of services as may be purchased or subscribed to by you from your service provider. You also agree to the application of the terms of this Agreement to any and all such updates. You accept and acknowledge that Software shall be able to transmit such data as is authorized by your service provider in order to allow for the utilization of services subscribed or purchased by you in order to allow for the billing of such services or as may be necessary by law.

7. MISCELLANEOUS: This Agreement and the License provided by this Agreement are not assignable or transferable by you without the prior written consent of SOMA. Any attempt by you to do so

shall be void and void this License. Any notice, report, approval or consent required or permitted hereunder shall be in writing. If any provision of this Agreement shall be adjudged by any court of competent jurisdiction to be unenforceable or invalid, that provision shall be limited or eliminated to the minimum extent necessary so this Agreement shall otherwise remain in full force and effect and enforceable. This Agreement shall be construed pursuant to the laws of the United States of America and the State of California and without regard to conflicts of laws principles thereof. If successful in any action to enforce this Agreement, SOMA shall be entitled to recover costs and expenses including, without limitation, attorney's fees. The parties agree that a material breach of this Agreement would cause irreparable injury to SOMA, or its suppliers, for which monetary damages would be an adequate equitable relief and SOMA shall be entitled to any other remedies it may have available hereunder or at law. Both parties agree that this Agreement is the complete and exclusive statement of mutual understanding of the parties and supersedes and cancels all previous written and oral agreements and communications relating to the subject matter of this Agreement. BOTH YOU AND SOMA AGREE AND ACKNOWLEDGE THAT SOMA RESERVES THE RIGHT TO AMEND THE TERMS AND CONDITIONS OF THIS AGREEMENT WITHOUT FURTHER NOTICE TO YOU OTHER THAN PROVIDING TO YOU THE AMENDED TERMS AND CONDITIONS OF THIS AGREEMENT. IF YOU DO NOT ACCEPT THE AMENDED TERMS AND CONDITIONS AS PROVIDED TO YOU BY SOMA, THIS LICENSE SHALL TERMINATE IMMEDIATELY. ALL USE OF THE SOFTWARE AND ANY SERVICES SUPPORTED BY THE PRODUCT AND SOFTWARE MAY CEASE OR BE CAUSED TO BE CEASED WITHOUT ANY LIABILITY TO YOU BY SOMA AND YOU SHALL RETURN ALL PRODUCT HARDWARE, MANUALS, DOCUMENTATION OF ANY KIND ACCOMPANYING SOFTWARE TO THE PLACE WHERE YOU FIRST OBTAINED SUCH HARDWARE, MANUALS, DOCUMENTATION AND SOFTWARE

PREFACE

Conventions

This section describes the conventions used in this guide.

Measurement Conventions

Measurements in this guide are expressed according to the Systéme International d'Unites standards for metric units and abbreviation. Equivalent Imperial measurements (used in the United States) are provided in parentheses, except when Imperial is the international standard.

Bits and bytes are not abbreviated, though their prefixes are; for example, "kbits" for kilobits, "Gbytes" for gigabytes.

Trademark Identification

The SOMAport™ subscriber device, a trademark of SOMA Networks Inc., is referred to without notation in the rest of this document.

Alerts Used in This Guide

⚠ **WARNING:** Where you see this symbol and the WARNING heading, strictly follow the instructions to avoid personal injury or damage to the product.

⚠ **WARNING:** Where you see this symbol and the WARNING heading, strictly follow the instructions to avoid electric shock.

IMPORTANT SAFETY INSTRUCTIONS

For your safety and protection, read this entire guide before you attempt to install the SOMAport. In particular, read this safety section carefully. Keep this safety information where you can refer to it if necessary.

> **WARNING:** One milliampere of current flowing through your body can kill you. Voltage as low as 15 volts can kill under the right conditions. Treat energized equipment with respect.

Installation

Read Instructions
Read and follow all of the safety and operating instructions before operating the SOMAport.

Retain Instructions
Retain the safety and operating instructions for future reference.

Follow Instructions
Follow all operating instructions.

Heed Warnings
Adhere to all warnings on the SOMAport and in the operating instructions.

Ventilation
Slots and openings in the SOMAport housing provide ventilation, ensure its reliable operation, and protect it from overheating.

⚠ **WARNING:** Do not block or cover these openings. The openings prevent the SOMAport from overheating.

⚠ **WARNING:** The air from the top openings (holes) may be hot. Do not touch the heated air as it may cause burning.

Do not place the SOMAport in a closed-off location such as a bookcase or rack unless there is proper ventilation.

Setup Orientation
Keep the SOMAport in an upright, vertical position. Placing the SOMAport on its side or in other positions may interrupt its cooling and cause the unit to overheat.

Operating Environment
Avoid placing the SOMAport in an environment of high temperature and high humidity. In case of condensation found on the SOMAport, immediately unplug the power cord from the power outlet.
Once the condensation disappears, re-insert the power plug into a power outlet.

Power Sources
Use only the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your product dealer or local power company.

Power Supply Cord
The power supply cord is the disconnect device. Ensure that the socket outlet is installed near the equipment and can be easily accessed.

Telephone Line Cord
To reduce the risk of fire, use only No. 26 AWG or larger telephone line cord.

Grounding or Polarization

The plug for the power cord on the SOMAport fits into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your electrician to replace your outlet. To prevent electric shock, do not use this plug with an extension cord or outlet unless you can fully insert the blades without blade exposure. Do not defeat the safety purpose of this plug.

Power Cord Protection

Route power-supply cords so that they are not likely to be walked on or pinched by items placed upon or against them. Watch for wear in the cord at the plug and socket.

Accessories

To avoid personal injury or damage to the SOMAport, do not place it on an unstable cart, stand, tripod, bracket, or table.

Attachments

Do not use attachments with the SOMAport that have not been recommended in this guide as they may cause hazards.

Water and Moisture

Do not use the SOMAport near water or moisture.

Maintenance and Servicing

Cleaning
Unplug the SOMAport from the wall outlet before cleaning. Use a dry cloth for cleaning. Do not use liquid or aerosol cleaners.

Servicing
Do not attempt to service the SOMAport yourself. Opening or removing covers may expose you to dangerous voltage or other hazards and may void the warranty. There are no user-serviceable parts inside. Refer all servicing to qualified service personnel.

Conditions Requiring Service
Unplug the SOMAport from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- The power supply or cord is damaged.

- Liquid has been spilled on the SOMAport or it has been exposed to water.

- An object has fallen into the SOMAport.

- The SOMAport does not function normally even though you have adhered to the operating instructions and have made adjustments to only those controls covered by the operating instructions.

- The SOMAport has been dropped and a change in performance has occurred.

- The SOMAport exhibits a distinct change in performance.

REGULATORY NOTICES

FCC Part 15 Notice (Applicable to Use Within the U.S.A)

This equipment complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

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, you can try to correct the interference by:

- Relocating the SOMAport

- Increasing the distance between the SOMAport and the device experiencing the interference

- Connecting the equipment to an outlet on a circuit different from that to which the SOMAport is connected

ATTENTION: Changes or modifications not expressly approved by SOMA Networks for compliance could void the user's authority to operate the equipment.

FCC Radio-Frequency Exposure Notice

This equipment should be used in such a manner that the potential for human contact during normal operation is minimized. To avoid the possibility of exceeding the FCC radio frequency exposure limits, this equipment has to be installed and operated while maintaining a minimum body to antenna distance of 20 cm.

Industry Canada Notice (Applicable to Use Within Canada)

This equipment complies with the limits for a Class B digital device and conforms to Industry Canada standard ICES-003.

Avis de Conformité à la Réglementation d'Industrie Canada

Cet appareil numérique de la classe B est conform à la norme ICES-003 du Canada.

Notice for European Community

Marking by the symbol

$C\epsilon$ 0336 !

The SOMAport complies with the R&TTE Directive 1999/5/EC. Such marking is indicative that this equipment meets or exceeds the following technical standards:

Radio

- ETSI EN 301 753 - Fixed Radio Systems; Multipoint equipment and antennas; Generic harmonized standard for multipoint digital fixed radio systems and antennas covering the essential requirements under article 3.2 of the Directive 1999/5/EC

- ETSI EN 301 489-1 - Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

- ETSI EN 301 489-4 - Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 4: Specific conditions for fixed radio links and ancillary equipment and services

EMC

- EN 300 386 - Electromagnetic compatibility and Radio spectrum Matters (ERM); Telecommunication network equipment; ElectroMagnetic Compatibility (EMC) requirements

   ■ ETSI EN 55022:1998+A1:2000+A2:2003 (Class B) -
Information technology equipment. Radio disturbance
characteristics. Limits and methods of measurement

Safety

   ■ ETSI EN 60950-1:2001 - Information technology equipment-
Safety-Part1: General requirements

WEEE (Directive 2002/96/EC) Compliance

Your product is designed and manufactured with high quality materials
and components which can be recycled and reused.

This symbol means that electrical and electronic equipment, at their
end-of-life, should be disposed of separately from your household
waste. Please dispose of this equipment at your local community waste
collection/recycling centre. In the European Union there are separate
collection systems for used electrical and electronic products.

Please help us to conserve the environment we live in!

EU Declaration of Conformity

<div style="border:1px solid #000;">

DECLARATION OF CONFORMITY

SOMA Networks, Inc.,
185 Berry Street, Suite 4600
San Francisco, CA 94107 U.S.A.
(415) 882-6500

declares, that the product SOMAport complies with the
requirements of the R&TTE Directive 1999/5/EC and
carries the CE marking accordingly.

</div>

Safety Compliance Notice

This equipment has been tested and certified according to the
following safety standards:

- MET (Complies with UL 60950-1, CSA C22.2 No. 60950-1)

- IEC 60950-1

- EN 60950-1

INTRODUCTION

This chapter provides an introduction to the SOMAport subscriber terminal. Please read this chapter to familiarize yourself with the features and operation of the device.

Contents

OVERVIEW

The SOMAport™ subscriber terminal provides high-speed Internet access and telephone service. The SOMAport works like a cell phone, in that it communicates with your service provider's network over the air and does not require a special wire connection.

Installation is easy. You simply plug-in the SOMAport and connect it to your computer using the provided Ethernet or USB (optional) cable. The SOMAport will automatically connect to your service provider and you can set up your account using a Web browser.

If you are using your SOMAport to provide telephone service, you can connect ordinary telephones to it.

Internet Access

The SOMAport provides a high-speed, "always on" Internet connection, which means you can be connected to the Internet and still use your telephone. The SOMAport is designed to be left on – you do not need to turn it off when it is not in use.

Telephone Service

The telephone service provided by the SOMAport is independent and separate from your phone service. Wireless services may differ from your traditional wired services. Consult your wireless service provider for details.

THE FRONT PANEL

There are two lights on the front panel that indicate the state of the SOMAport: status and network.

STATUS ○ ──────────── **Status Light**

○ ──────────── **Network Light**
NETWORK
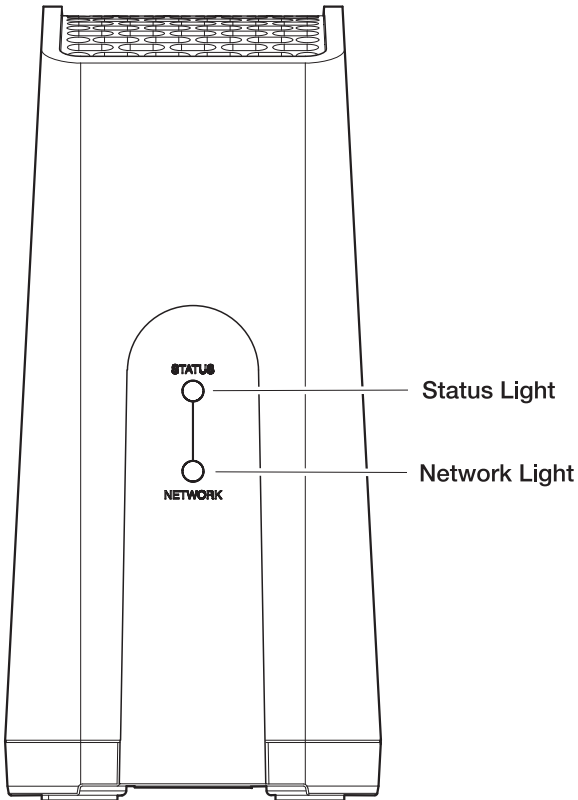
NOTE: DO NOT unplug the SOMAport when the status light is flashing amber. The status light flashes amber during sensitive firmware upgrades only. Disconnecting or powering off the SOMAport during a firmware upgrade may damage the unit and render it nonfunctional.

Status Light

The status light indicates whether or not the SOMAport is powered on and operating normally.

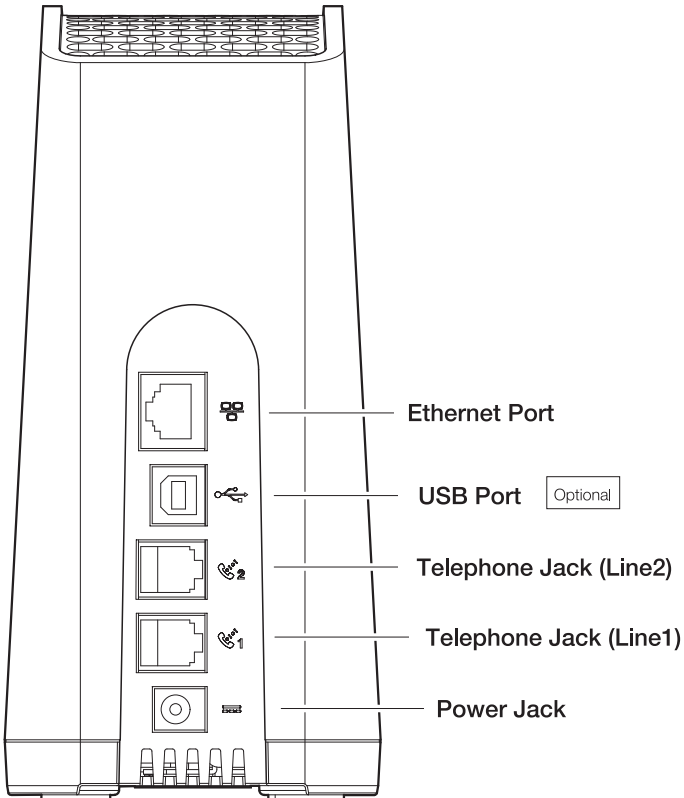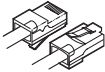| State	Description
Off	The SOMAport is not receiving power.
Amber	The SOMAport is booting and running its internal diagnostics.
Flashing Amber	The SOMAport is upgrading its firmware. DO NOT unplug the SOMAport when this light is flashing. Disconnecting or powering off the SOMAport during a firmware upgrade may damage the unit and render it nonfunctional.
Green	The SOMAport is powered and operating normally.
Red	An error occurred. The SOMAport is not currently functional. See page 54 "There is a fault condition" in the section of "Troubleshooting".

Network Light

The network light indicates if the SOMAport has located a base station.

Status	Description
Off	The SOMAport is not receiving power.
Amber	The SOMAport is attempting to locate a base station.
Flashing Amber	The SOMAport cannot locate a base station.
Flashing Green	The SOMAport has located a base station and is attempting to establish a connection.
Green	The SOMAport has located a base station and has established a connection.
Red	An error occurred. The SOMAport is not currently functional. See page 54 "There is a fault condition" in the section of "Troubleshooting".

THE BACK PANEL
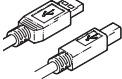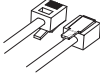
The jacks and ports for connecting other devices to the SOMAport are on the back panel, as shown below:

Ethernet Port

USB Port Optional

Telephone Jack (Line2)

Telephone Jack (Line1)

Power Jack

Part	Description	
Ethernet port	Use this port with the supplied Ethernet cable to connect the SOMAport to a computer or hub.	
USB port (optional)	Use this port with the USB cable to connect the SOMAport to a computer. This type of connection is intended for use with computers that do not have an Ethernet port.	
Telephone jacks	Use these jacks to connect telephones to the SOMAport. The SOMAport can provide up to two independent telephone lines, depending on your service provider.	
Power jack	Use this jack to connect the power supply.	

WARNING: To reduce the risk of fire, use only No. 26 AWG or larger telephone line cord to connect to the telephone jacks on the SOMAport.

THE INTERNAL ANTENNA

The SOMAport communicates with a cellular tower operated by your wireless service provider. The SOMAport contains an antenna that automatically steers itself toward the best signal when you plug in the SOMAport. It also periodically checks to see if the current antenna direction is optimal and adjusts automatically if required. So, if you move the SOMAport without unplugging it, and the antenna direction is no longer optional, the SOMAport automatically steers the antenna to improve performance.

⚠️ **WARNING:** While this device is in operation, a separation distance of at least 20 centimeters (8 inches) must be maintained between the radiating antenna and any person exposed to the transmitter in order to meet the FCC RF exposure guidelines. No change to the antenna or device is permitted. Doing so may result in the installed system exceeding RF exposure requirements. This device must not be co-located or operating in conjunction with any other antenna or radio transmitter. Installers and end users must follow the installation instructions provided in this guide.

INSTALLING THE **SOMA**PORT

This chapter describes how to install the SOMAport and activate service.
After following the procedures described in this chapter, your SOMAport should
be fully functional.

Contents

UNPACKING THE SOMAPORT

Unpack the SOMAport and make sure you have all the pieces shown below. Find the SOMAport serial number on the bottom of the unit and write it down. You may need this number if you call for technical support.

SOMAport Serial Number:

_____

Ethernet Cable
(straight-through)

Power Supply

SOMAport

SOMAport
Quick Setup Guide

SOMAport
User Guide
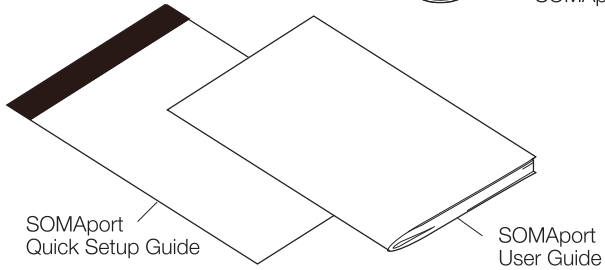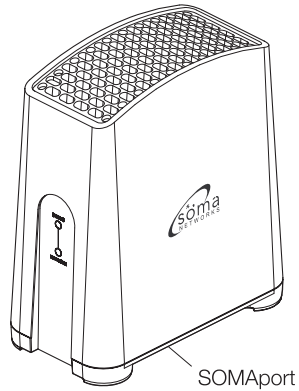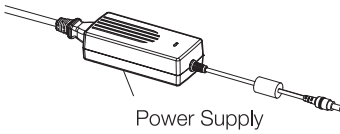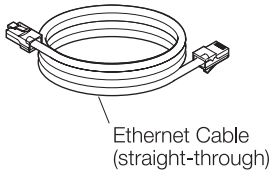
CHOOSE THE BEST LOCATION

Although the SOMAport's internal antenna is self-steering, you can optimize signal reception by following these recommendations when choosing a location:

- Allow at least 46 centimeters (18 inches) of space around the SOMAport.

- If your home or office has multiple floors, place the SOMAport on one of the upper floors, if possible. Avoid putting it in the basement.

- Place the SOMAport higher up in a room. For example, putting it on a desk or shelf will give you a stronger signal than if you place it on the floor.

- Place the SOMAport near a window.

- Avoid placing the SOMAport close to certain electronic devices, such as microwave ovens and computer monitors, as they can cause interference.

CONNECTING THE POWER SUPPLY AND POWERING ON THE SOMAPORT

The SOMAport does not have a power switch. You turn on the SOMAport by plugging it into a power outlet, and turn it off by unplugging it. When you plug in the SOMAport, it starts, connects to your service provider's network, and establishes a connection.

⚠ **WARNING:** Use only the power supply and power cord that come with the SOMAport. Using another power supply may damage your equipment and poses the risk of shock or electrocution.

▶ **To connect the power supply and power on the SOMAport**

1 Insert the DC plug on the power supply cord into the power jack on the back of the SOMAport.
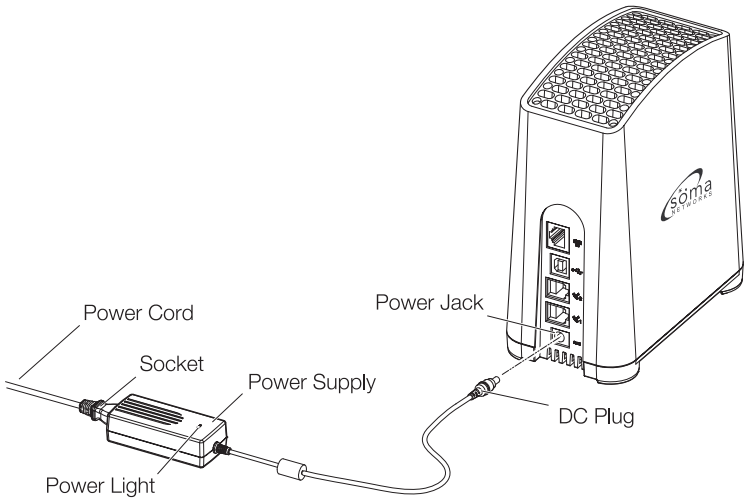
2   Insert the socket end of the power cord into the power supply's receptacle.

3   Insert the plug end of the power cord into a three-prong grounded power outlet.

There is no power button. The light on the power supply turns on when it is receiving power.

4   The SOMAport takes up to five minutes to start, acquire a radio signal, and connect to the network. Wait for the network light on the front panel to turn green before you attempt to use the SOMAport.

NOTE: If you ever need to disconnect the SOMAport, unplug the power cord from the wall power outlet first and then unplug the connector from the back of the SOMAport.

WARNING: The power supply cord is the disconnect device. Ensure that the socket outlet is installed near the equipment and can be easily accessed.

CONNECTING A COMPUTER VIA ETHERNET

If your computer has an Ethernet port, use the supplied Ethernet cable to connect your computer to the SOMAport.

NOTE: If your computer does not have an Ethernet port, you can use a USB cable, if supported by your SOMAport. Otherwise, you will need to purchase an Ethernet card or an USB-to-Ethernet adapter. Contact your service provider for information about supported hardware.

▶ **To connect a computer via Ethernet**

1   Insert one end of the supplied Ethernet cable into the Ethernet port on the back of the SOMAport.

2   Insert the other end of the cable into the Ethernet port on your computer.
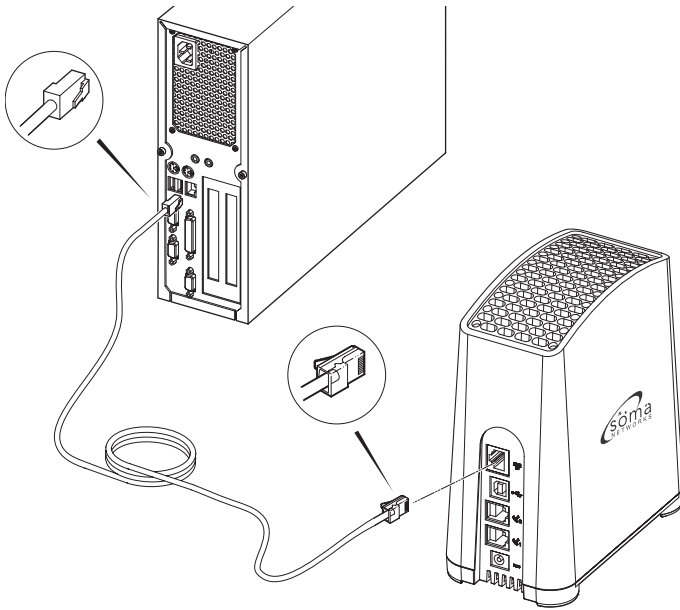
CONNECTING A COMPUTER VIA USB (OPTIONAL)

If your computer does not have an Ethernet port and it is running Windows 98SE, ME, 2000, or XP, you can use the supplied USB cable to connect your computer to the SOMAport.

> **NOTE:** Ethernet is the preferred type of connection. The USB connection should only be used in computers that do not support Ethernet.

▶ To connect a computer via USB

1. Insert the SOMAport USB Drivers CD into the CD-ROM drive on the computer.

2. Plug the square connector on the USB cable into the USB port on the back of the SOMAport.

3. Plug the flat connector into the USB port on your computer.
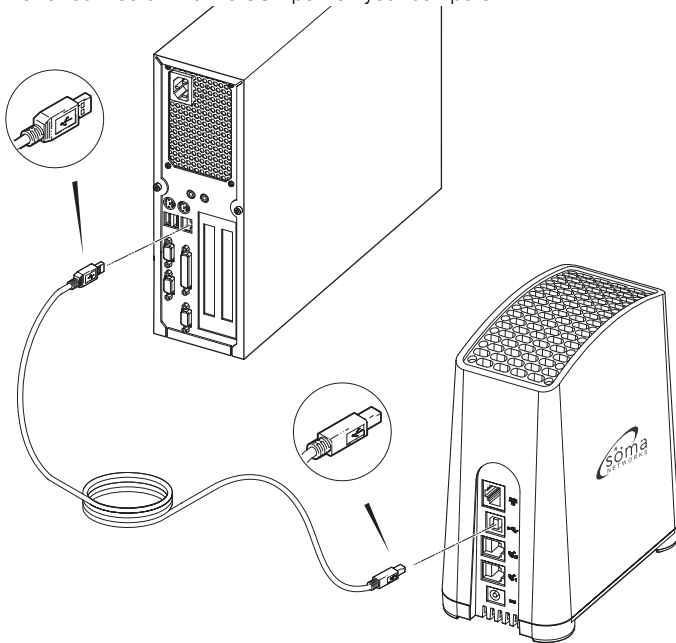
A hardware wizard window opens.

You will see the following message at the beginning of the installation:

```
The software you are installing for this hardware:
SOMAport USB (SOMAport.SYS) has not passed Windows Logo
testing to verify its compatibility with Windows.
```

Click **Continue Anyway**. The drivers have passed stringent internal testing by SOMA Networks, Inc.

4 Follow the on-screen instructions in the wizard, making sure you select the values indicated in the following table for your version of Windows.

Version	Selections
Windows 98	■ When prompted for the type of search, select Search for the best driver for your device.
	■ When prompted for a location, select CD-ROM drive.
	■ Insert the Windows 98 Second Edition CD if prompted.
Windows 2000	■ When prompted for the type of search, select Search for a suitable driver for your device.
	■ When prompted for a location, select CD-ROM drives.
Windows ME	■ When prompted for the type of search, select Specify a location.
	■ When prompted for a location, select Removable Media.
Windows XP	■ When prompted for the type of search, select Install the software automatically.

5 Close the wizard windows and remove the CD from the drive. If prompted to do so, reboot your computer.

CONNECTING TELEPHONES TO SOMAPORT

In order to use a telephone with your SOMAport, you will need to subscribe to your service provider's telephone service during service activation.

If telephone service is not available in your area or if you do not want to use telephones with your SOMAport, skip to "Activating Service" on page 42.

Telephone Jacks

There are two telephone jacks on the back of the SOMAport, one for line 1 (lower one) and the other for line 2 (upper one).

How you connect telephones to the SOMAport depends on three things:

- The number of lines you subscribe to (one or two)

- The number of telephones you connect to the SOMAport

- The type of telephones you connect (one-line or two-line telephones)

Lines	Connecting One Telephone	Connecting Two Telephones
One	Use the line 1 (lower one) jack. See "To connect a single telephone" on page 38.	Insert a duplex adapter into the line 1 (lower one) jack and then connect both telephones to the adapter. See "To connect two telephones (when you have one line)" on page 40.
Two	Use the line 1 (lower one) jack. See "To connect a single telephone" on page 38.	Connect telephones to both jacks. See "To connect two telephones (when you have two lines)" on page 39.

▶ To connect a single telephone to the SOMAport

1 Insert the free end of the telephone cable into the line 1 (bottom) jack on the SOMAport.

NOTE: To connect a two-line telephone, you need to subscribe to two lines.
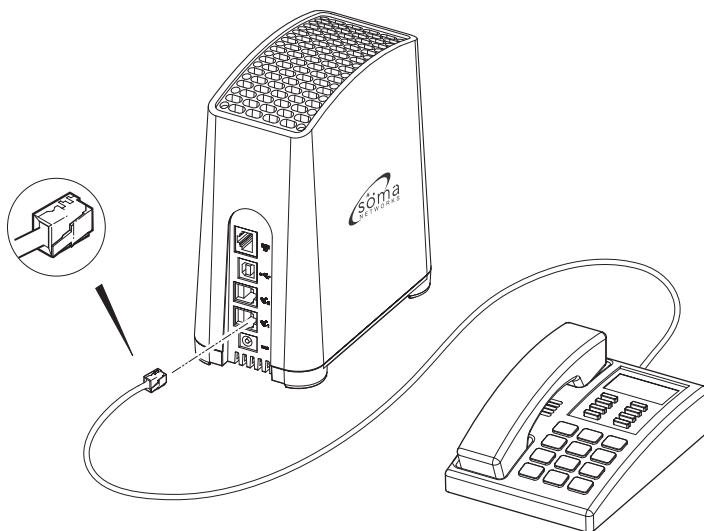
▶ To connect two telephones (when you have two lines)

1   Connect the cable of the telephone you want serviced by line 1 to the line 1 (bottom) jack on the SOMAport.

2   Connect the cable of the telephone you want serviced by line 2 to line 2 (top) jack on the SOMAport.

NOTE: If you have a two-line telephone, connect it to the line 1 (bottom) jack.
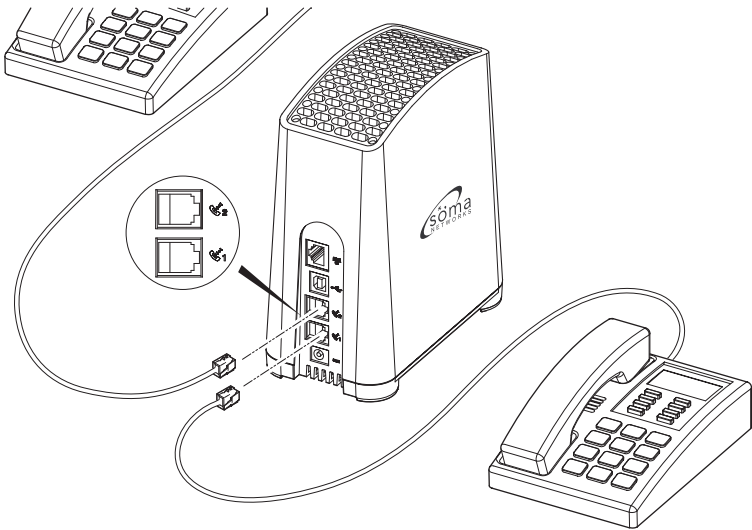
▸ To connect two telephones (when you have one line)

1 Insert a dual-jack extension cord or adapter into the line 1 (bottom) jack of the SOMAport.

2 Insert the free end of one telephone cable into one of the jacks on the adapter.

3 Insert the free end of the second telephone cable into the other jack on the adapter.
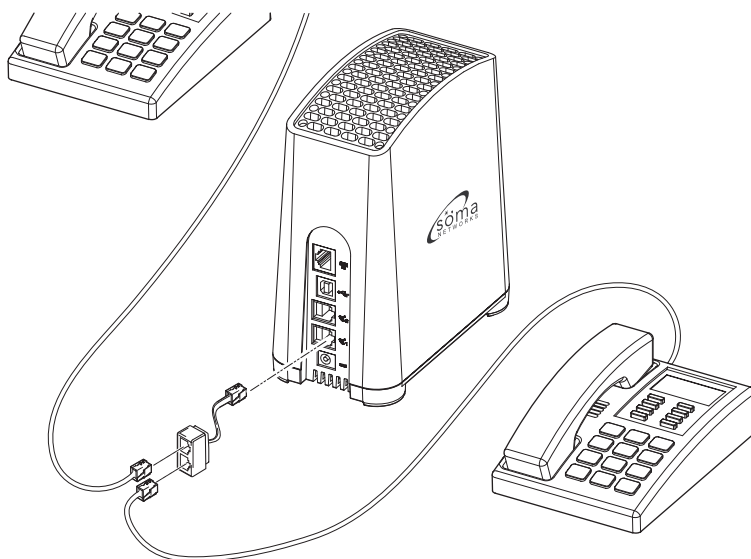
▶ To test your SOMAport telephone service

Pick up the receiver and listen for dial tone.

■ If you hear a standard dial tone, the SOMAport is connected to your service provider's network. You may have to activate full service if your service provider has not done so already. See "Activating Service" on page 42.

■ If you hear a series of tones, the SOMAport is still starting. Hang up, and listen again in a few minutes.

■ If you hear silence, see "Finding Causes of Telephone Problems" on page 50.

ACTIVATING SERVICE

After the SOMAport powers on, it will be in one of two service modes:

- **Restricted access:** Your SOMAport remains in this mode until your account is activated by your service provider. You can use the SOMAport only to contact your service provider to activate full service, either by telephone or through the service provider's Web site. You cannot receive telephone calls in this mode, although you can place a call to an emergency service (for example, 911 in North America).

- **Full-service access:** You can browse any site on the Internet, receive telephone calls, and place calls to any telephone number.

▶ To activate full service

1   Restart your computer while it is connected to the powered-on SOMAport.

2   Launch a Web browser.

3   Direct your browser to a known valid Internet address
    (such as www.google.com).

   - If the page opens, full service has already been activated and you can begin using your SOMAport for Internet service.

   - If you are redirected to your service provider's Web page, complete the sign-up procedure on the Web site to activate full service.

   - If you can not open any Web pages at all, see "Finding Causes of Computer Problems" on page 48.

   NOTE: If you subscribe only to telephone service, activate full service by calling your service provider's assistance center.

CONNECTING MULTIPLE COMPUTERS

This chapter explains how to install the SOMAport as an Internet gateway for a local area network. Follow the procedures in this chapter if you want to connect multiple computers.

Contents

OVERVIEW

A hub, switch, or router is required in order to share the Internet connection with multiple computers. The SOMAport functions as a DHCP server (it automatically assigns IP addresses to devices attached to it) and will work with most consumer home network devices.

The connection procedure differs slightly depending on the type of your home network device.

■ When using a hub or switch, see "Using an Ethernet Hub" on page 45.

■ When using an Internet router see "Using an Internet Router" on page 46.

USING AN ETHERNET HUB

An Ethernet hub or switch (referred to generically in this section as a "hub") can be used to have multiple computers share an Internet connection from a single SOMAport.

NOTE: Each computer connected to the hub requires an IP address assigned to it by your service provider. Contact your service provider for information about provisioning an account that can use several IP addresses.

▶ **To use an Ethernet hub with the SOMAport**

1 Choose a location and power on the SOMAport, as described in chapter "Connecting the Power Supply and Powering on the SOMAport" on page 32.

2 Wait for the SOMAport to find a base station.

3 Connect the SOMAport to the hub:

i Insert one end of a straight-through Ethernet cable into the Ethernet port on the back of the SOMAport.

ii Insert the other end of the cable into an uplink port (sometimes labeled as a WAN or Internet port) on the hub.

NOTE: If the hub does not have an uplink port, you may connect to the SOMAport using an Ethernet port (which may be labeled as a switched, LAN, or numbered port) on the hub. However, you must obtain and use a crossover Ethernet cable (not shipped with the SOMAport) to make this connection.

---

4 Power on the hub.

5 Connect each computer to an Ethernet port on the hub.

6 Reboot each computer.

USING AN INTERNET ROUTER

An Internet router, supporting either Ethernet or WiFi (802.11) connections, can be used to have multiple computers share an Internet connection from a single SOMAport.

▶ To use an Internet router with the SOMAport

1 Choose a location and power on the SOMAport, as described in chapter "Connecting the Power Supply and Powering on the SOMAport" on page 32.

2 Wait for the SOMAport to find a base station.

3 Power on the router.

4 If necessary, configure the router to use DHCP when obtaining an external IP address. See the documentation for your router for specific configuration Information.

5 Connect the SOMAport to the router:

   i Insert one end of a straight-through Ethernet cable into the Ethernet port on the SOMAport.

   ii Insert the other end of the cable into an uplink port (sometimes labeled as a WAN or Internet port) on the router.

6 Connect each computer to the Internet router. See the documentation for your router for information.

TROUBLESHOOTING

This chapter describes the problems the SOMAport may exhibit, the possible causes of those problems, and the actions you should take to fix them.

Contents

FINDING CAUSES OF COMPUTER PROBLEMS

Look up the problem you are experiencing and follow the suggested actions. If the recommended actions do not fix the problem, contact your service provider.

Problem	Possible causes	Action
You cannot connect to the Internet	Network settings for an Ethernet connection are incorrect.	See "Ethernet Network settings are Incorrect" on page 62.
	Signal has been dropped.	Unplug the SOMAport and plug it back in again.
	The SOMAport is not receiving power.	See "The SOMAport is Not Receiving Power" on page 55.
	The SOMAport experienced a fault condition during startup.	See "There is a Fault Condition" on page 54.
	No connection between the computer and the SOMAport.	See "There is a Problem with the Ethernet Cabling" on page 56.
	You are using Internet Explorer and the LAN settings are not properly configured.	See "Internet Explorer LAN Settings are Incorrect" on page 61.
	Signal is weak.	See "The Signal is Weak" on page 52

Problem	Possible causes	Action
It takes a long time to open a Web page	Internet congestion.	Try again.
	Signal is weak.	See "The Signal is Weak" on page 52.
	Cable connecting the computer to the SOMAport is damaged.	Replace the cable.
It takes a long time to open a Web page	Your Ethernet interface is in full-duplex mode. (This applies only if your SOMAport is directly connected to the Ethernet port on your computer, rather than through a hub.)	Use the appropriate system control to change the duplex setting of your Ethernet port to half-duplex. Refer to the documentation for your operating system.
Making a wireless Internet connection is prevented by old dial-up default	Computer is set up to connect to the Internet via dial-up by default.	See "The Computer Uses an Old Dial-UP Connection" on page 59.
You cannot send Email	SMTP server associated with your existing email account is not accessible.	Use a Web account, such as Yahoo, for sending and receiving messages.

FINDING CAUSES OF TELEPHONE PROBLEMS

Look up the problem you are experiencing and follow the suggested actions. If the recommended actions do not fix the problem, call your service provider.

Problem	Possible causes	Action
Irregular dial tone	If you hear a series of tones (not a regular dial tone) before you attempt a call, the SOMAport has not yet acquired a signal.	Wait a few minutes and try again.
No dial tone	If you hear a "fast busy" tone after you attempt to dial a number, you have not yet acquired a signal.	Activate full service as described in "Activating Service" on page 42.
	If your telephone is connected to line 2 and you hear silence before dialing a call, you are in restricted mode.	Activate full service as described in "Activate Service" on page 42.
	Cable connections are not secure.	Make sure the telephone cable is securely connected to the SOMAport and the telephone.
	Telephone cable is inserted into the SOMAport's Ethernet port	Make sure that the telephone is connected to a telephone jack.
	Telephone is broken.	Try a telephone that is known to work. If you were using a cordless telephone, try using a corded one.
	SOMAport experienced a fault condition during startup.	See "There is a Fault Condition" on page 54.
	SOMAport is not receiving power.	See "The SOMAport is not Receiving Power" on page 55.

Problem	Possible causes	Action
No dial tone	Signal is weak.	See "The Signal is Weak" on page 52.
Voice quality is poor	Signal is weak.	See "The Signal is Weak" on page 52.
	Telephone is broken.	Try a telephone that is known to work. If you were using a cordless telephone, try using a corded one.
Calls are dropped	Signal is weak.	See "The Signal is Weak" on page 52.

THE SIGNAL IS WEAK

The signal to your SOMAport may be weak if you are having any of the following problems:

■ Telephone voice quality is poor or calls are dropped.

■ It takes a long time to open a Web page.

■ You cannot browse the Internet at all.

▶ **To improve reception quality**

If you are experiencing an outgoing performance problem, try the following steps:

1 Make sure you have located the SOMAport according to the guidelines listed in "Choose the Best Location" on page 31.

2 See if a nearby appliance is disrupting the signal. Do the following for each appliance, testing one appliance at a time:

i Turn off the appliance.

ii While the appliance is off, check if the network performance improves.

■ If there is an improvement, reposition either the appliance or the SOMAport so that they are further apart.

■ If there is no improvement, turn the appliance back on and try another appliance.

3 If you cannot improve reception in the SOMAport's current location, try moving it to another location that meets the guideline on page 31.

Persistent Reception Difficulties

Reception can be temporarily affected by severe weather conditions such as heavy storms, ice, or strong winds. Problems may persist in the absence of these conditions if:

- There are obstructions – tall buildings, trees, or mountains – between your SOMAport and the nearest communications tower.

- Your SOMAport is located at the outer limit of the coverage area.

Contact your service provider if you experience persistent signal reception difficulties.

THERE IS A FAULT CONDITION

This section describes how to restart the SOMAport. If the status light is red, the SOMAport has detected a fault. In this situation, restart the SOMAport. Also, if you cannot solve a problem with any of the procedures above, try restarting.

▶ **To restart SOMAport**

1   Unplug the SOMAport from the wall power outlet and leave it off for at least 10 seconds.

2   Plug the SOMAport back in.

Wait until the status light on the front panel is green, which indicates that the SOMAport is receiving a radio signal.

If the problem is not solved, please call your service provider.

THE SOMAPORT IS NOT RECEIVING POWER

If the light on the power supply and the status light on the SOMAport are off, the SOMAport is not receiving power. Try each of the actions in the following procedure until you locate the source of the problem.

▶ **To check the power**

1 Make sure the power cord which connects the power supply to the wall outlet is securely connected to the power supply and the wall outlet.

2 Make sure the power cord which connects the power supply to the SOMAport is securely connected to the power jack on the back of the SOMAport.

3 Make sure the wall receptacle is working by plugging in an appliance which you know works.

4 Check the circuit breaker.

5 If you cannot find the source of the problem, call your service provider.

THERE IS A PROBLEM WITH THE ETHERNET OR USB CABLING

If there is a problem with the physical connection between the SOMAport and your computer or hub, you will not be able to browse the Internet.

Ethernet connection

There are two lights on the Ethernet port that indicate the status of the Ethernet connection: link (green), and data transmit (amber).

If the link light is off, the connection between the SOMAport and the Ethernet device is not working or does not exist.

The data transmit light flashes when data is being transmitted across the link. It is normal for this light to be off much of the time.

▶ To check Ethernet cabling

1 Make sure the cable connectors are firmly inserted in the appropriate Ethernet ports on the SOMAport and computer or hub.

2 Make sure you are using the correct type of cable:

Configuration	Cable Type	Provided
Ethernet port of a computer	Straight-through	Yes
Uplink port of a hub	Straight-through	Yes
Ethernet port of a hub	Crossover	No

3 Make sure the length of the cable does not exceed 50 meters (167 feet).

4 If none of the previous steps solves the problem, replace the cable.

NOTE: You can replace the cable while the SOMAport is on.

USB connection

There is no link light on the USB port. If you are using USB to connect your computer to the SOMAport and you suspect there is a problem with the physical connection, check the USB cabling.

▶ **To check USB cabling**

1 Make sure the cable connectors are firmly inserted in the appropriate USB ports on the SOMAport and the computer or hub.

2 Make sure the length of the cable does not exceed 5 meters (15 feet).

3 If you are using a USB extension cable, check to see if it is faulty by removing the USB extension and using a single USB cable between the SOMAport and the computer.

You may have to reposition the SOMAport to do this.

4 Replace the USB cable.

You can replace the cable while the SOMAport is on.

THERE IS A PROBLEM WITH THE USB PORT SETTINGS

If you are having problems getting the USB connection to work, ensure that your computer's USB port is enabled and properly set up.

▶ To check your PC's USB port settings

1 Open the Control Panel:

- In Windows 98 and 2000 and ME, choose **Start → Settings → Control Panel**.

- In Windows XP, choose **Start → Control Panel**.

2 Double-click the System icon.

3 Open the Device Manager:

- In Windows 98 and ME, click the Device Manager tab.

- In Windows 2000 or XP, click the Hardware tab and then click the Device Manager button.

4 Display devices by type:

- In Windows 95 and 98 and ME, make sure the View devices by type radio button is enabled.

- In Windows 2000 and XP, select **View → Devices by type**.

5 Click the plus (+) icon next the Universal Serial Bus controller option. If the following drives are listed, USB is enabled and you can use the USB port:

- USB Host Controller

- USB Root Hub

If these drives are not listed, there are two possible reasons:

- You have a USB Host Controller installed in your PC, but the USB port is not enabled. See your computer's documentation for instructions on how to run your computer's BIOS Setup program to enable the USB port.

- You do not have a valid USB Host Controller installed in your PC. You cannot use USB until you install a valid USB Host Controller.

THE COMPUTER USES AN OLD DIAL-UP CONNECTIONS

If you have switched from a dial-up Internet service when you subscribed to wireless SOMAport Internet service, you may still be prompted to connect to the Internet using the old dial-up connection. If this is the case, follow this procedure to ensure that your dial-up connection is not automatically activated whenever you attempt the Internet connection.

▶ To disable the automatic dial-up connection in Windows

1 Open the Control Panel.

- In Windows XP – Choose **Start → Control Panel**.

- In all other versions of Windows – **Choose Start → Settings → Control Panel**.

2 Double-click the Internet Options icon.

The Internet Properties window opens.

3 Click the Connections tab.

4 Enable the **Never dial a connection** checkbox.

5 Click **OK**.

NOTE: If you are still unable to display a Web page, check your browser to make sure it is in online mode.

▶ **To disable the automatic dial-up connection in Mac OS 8 and 9**

1   Click the Apple icon and choose Control Panels.

2   Click **Remote Access**.

3   Click **Options**.

4   Click the Protocol tab.

5   Make sure the **Connect automatically when starting TCP/IP applications** box is disabled.

6   Click **OK**.

7   Choose **File → Quit**.

8   Click **Save** when prompted to save the current configuration.

▶ **To disable the automatic dial-up connection in Mac OS X**

1   Click the Apple icon and choose System Preferences.

2   Click the Network icon.

3   Click **Show**.

4   Select **Network Port Configurations** from the pull-down list.

5   Disable the **On** checkbox for the dial-up modem.

6   Click **Apply Now**.

INTERNET EXPLORER LAN SETTINGS ARE INCORRECT

If you are using Internet Explorer as your Web browser, make sure it is configured to automatically detect LAN settings. If this default setting has been disabled, you will not be able to connect to the Internet.

▶ **To check Internet Explorer settings**

1 Open Internet Explorer.

2 Choose **Tools → Internet Options**.

The Internet Options window opens.

3 Click the Connections tab.

4 Click **LAN Settings**.

The Local Area Network (LAN) Settings window opens.

5 Make sure the **Automatically detect settings** checkbox is enabled.

6 Click **OK**.

7 Click **OK** on the Internet Options window.

8 Close Internet Explorer.

ETHERNET NETWORK SETTINGS ARE INCORRECT

If you could not establish an Internet connection after connecting your computer to the SOMAport via Ethernet, but your physical connection seems to be intact, your computer's Ethernet network settings may need to be changed.

Use the procedure in this section appropriate to your operating system to reconfigure Ethernet network settings. You may be prompted to insert the installation CD for your operating system, and you may need to reboot your computer after changing the settings before you can successfully connect to the Internet.

▶ To change network settings in Windows 95

1 Choose **Start → Settings → Control Panel**.

2 Double-click the Network icon.

The Network window opens to the Configuration tab.

3 Select **TCP/IP**.

- If multiple TCP/IP connections are listed, select the one that contains "Ethernet", "NIC", or "10/100 MB" in its name, go to step 5.

- If TCP/IP is not listed, go to step 4.

4 Install TCP/IP:

i Click **Add**.

The Select Network Component Type window opens.

ii Select **Protocol** from the list.

iii Click **Add**.

The Select Network Protocol window opens.

iv Select **Microsoft** from the Manufactures list.

v Select **TCP/IP** from the Network Protocols list.

vi Click **OK**.

vii Insert the Windows 95 CD or reboot the computer if prompted to do so.

viii If the PC reboots, repeat steps 1 to 3, then go to step 5.

5 Check the TCP/IP properties:

i Click **Properties**.

The TCP/IP Properties window opens to the IP Address tab.

ii Make sure the **Obtain an IP address automatically** radio button is enabled.

iii Click the DNS Configuration tab.

iv Enable the **Disable DNS** radio button.

v Click **OK** on the TCP/IP Properties window.

vi Click **OK** on the Network window.

vii Restart the computer if prompted to do so.

6 Check your Internet connection by launching a Web browser on the computer connected to the SOMAport.

■ If your browser automatically opens to your service provider's Web site, activate full service by following the sign-up procedure that is provided on the Web site.

■ If your browser does not automatically open to your service provider's Web site, go to step 7.

7 Enter a valid Internet address (such as www.google.com) in the **Address** field.

■ If the Web page opens, full service has already been activated and you can begin using your SOMAport for Internet service.

■ If your service provider's Web page opens, activate full service by following the sign-up procedure that is provided on the Web site.

■ If your computer attempts to connect to the Internet using an old dial-up connection, see "The Computer Uses an Old Dial-Up Connection" on page 59.

■ If you do not get an Internet connection, see "Finding Causes of Computer Problems" on page 48.

▶ **To change network settings in Window 98 and ME**

1 Choose **Start** → **Settings** → **Control Panel**.

2 Click the Network icon.

The Network window opens to the Configuration tab.

3 Select **TCP/IP**.

- If multiple TCP/IP connections are listed, select the one that contains "Ethernet", "NIC", or "10/100 MB" in its name, go to step 4.

- If TCP/IP is not listed, install it:

i Click **Add**.

The Select Network Component Type window opens.

ii Select **Protocol** from the list.

iii Click **Add**.

The Select Network Protocol window opens.

iv Select **Microsoft** from the Manufacturers list.

v Select **TCP/IP** from the Network Protocols list.

vi Click **OK**.

vii Insert the Windows 98 or ME CD or reboot the computer if prompted to do so.

viii If the PC reboots, repeat steps 1 to 3.

4 Check TCP/IP properties:

i Click **Properties** with the correct TCP/IP connection selected.

The TCP/IP Properties window opens to the IP Address tab.

ii Make sure the **Obtain an IP address automatically** radio button is enabled.

iii Click the DNS Configuration tab.

iv Make sure the **Disable DNS** radio button is enabled.

v Click **OK** on the TCP/IP Properties window.

vi Click **OK** on the Network window.

vii Restart the computer if prompted to do so.

5 Check your Internet connection by launching a Web browser on the computer connected to the SOMAport.

■ If your browser automatically opens to your service provider's Web site, full service has already been activated and you can begin using your SOMAport for Internet service.

■ If your browser does not automatically open to your service provider's Web site, go to step 6.

6 Enter a valid Internet address (such as www.google.com) in the **Address** field and press Enter.

■ If the Web page opens, full service has already been activated and you can begin using your SOMAport for Internet service.

■ If your service provider's Web page opens, activate full service by following the sign-up procedure that is provided on the Web site.

■ If your computer attempts an Internet connection using an old dial-up connection, see "The Computer Uses an Old Dial-Up Connection" on page 59.

■ If you do not establish an Internet connection, see "Finding Causes of Computer Problems" on page 48.

▶ To change network settings in Windows 2000

1 Right-click the My Network Places icon and choose Properties from the pull-down menu.

The Network and Dial-up Connections window opens.

2 Select the Local Area Connection icon.

- ■ If there are multiple local area connections, read the device name beside each icon and double-click the one that is associated with the Ethernet card.

- ■ If there is no icon, the Ethernet card has not been properly installed. Install the Ethernet card by following the manufacturer's instructions, then return to this procedure.

The Local Area Connection Status window opens.

3 Click **Properties**.

The Local Area Connection Properties window opens.

4 Select **Internet Protocol (TCP/IP)**.

If **Internet Protocol (TCP/IP)** is not listed, install it as follows:

i Click **Install.**

The Select Network Component Type window opens.

ii Select **Protocol** from the list.

iii Click **Add**.

The Select Network Protocol window opens.

iv Select **Internet Protocol (TCP/IP)**.

v Click **OK**.

vi Insert the Windows 2000 CD or reboot the computer if prompted to do so.

vii If the PC reboots, repeat steps 1 to 4.

5 Check TCP/IP properties:

i Click **Properties**.

ii The Internet Protocol (TCP/IP) Properties window opens to the General tab.

iii Make sure the **Obtain an IP address automatically** radio button is enabled.

iv Make sure the **Obtain DNS server address automatically** radio button is enabled.

v Click **OK** on the Internet Protocol (TCP/IP) Properties window.

vi Click **OK** on the Local Area Connection Properties window.

vii Click **Close** on the Local Area Connection Status window.

viii Restart the computer if prompted to do so.

6 Check your Internet connection by launching a Web browser on the computer connected to the SOMAport.

- If your browser automatically opens to your service provider's Web site, full service has already been activated and you can begin using your SOMAport for Internet service.

- If your browser does not automatically open to your service provider's Web site, go to step 7.

7 Enter a valid Internet address (such as www.google.com) in the **Address** field and press Enter.

- If the Web page opens, full service has already been activated and you can begin using your SOMAport for Internet service.

- If your service provider's Web page opens, activate full service by following the sign-up procedure that is provided on the Web site.

- If your computer attempts to connect to the Internet using an old dial-up connection, see "The Computer Uses an Old Dial-Up Connection" on page 59.

- If you do not get an Internet connection, see "Finding Causes of Computer Problems" on page 48.

▶ To change network settings in Windows XP

1 Choose **Start** → **Settings** → **Network Connections**.

The Network Connections window opens.

2 Select the Local Area Connection icon.

■ If there are one or more Local Area Connection icons, double-click the Local Area Connection icon that is associated with the Ethernet card.

■ If there is no icon, the Ethernet card has not been properly installed. Install the Ethernet card by following the manufacturer's instructions, then return to this procedure.

The Local Area Connection Status window opens.

3 Click **Properties**.

The Local Area Connection Properties window opens.

4 Select **Internet Protocol (TCP/IP)**.

If **Internet Protocol (TCP/IP)** is not listed, install it as follows:

i Click **Install**.

The Select Network Component Type window opens.

ii Select **Protocol** from the list.

iii Click **Add**.

The Select Network Protocol window opens.

iv Select **Internet Protocol (TCP/IP)**.

v Click **OK**.

vi Insert the Windows XP CD or reboot the computer if prompted to do so.

vii Once TCP/IP has been installed, repeat steps 1 to 4.

5 Check TCP/IP properties:

i Click **Properties**.

The Internet Protocol (TCP/IP) Properties window opens to the General tab.

ii Make sure the **Obtain an IP address automatically** radio button is enabled.

iii Make sure the **Obtain DNS server address automatically** radio button is enabled.

iv Click **OK** on the Internet Protocol (TCP/IP) Properties window.

    v   Click **OK** on the Local Area Connection Properties window.

    vi   Click **Close** on the Local Area Connection Status window.

    vii Restart the computer if prompted to do so.

6   Check your Internet connection by launching a Web browser on the computer connected to the SOMAport.

- If your browser automatically opens to your service provider's Web site, full service has been activated.

- If your browser does not automatically open to your service provider's Web site, go to step 6.

7   Enter a valid Internet address (such as www.google.com) in the **Address** field and press Enter.

- If the Web page opens, full service has already been activated and you can begin using your SOMAport for Internet service.

- If your service provider's Web page opens, activate full service by following the sign-up procedure that is provided on the Web site.

- If your computer attempts an Internet connection using an old dial-up connection, see "The Computer Uses an Old Dial-Up Connection" on page 59.

- If you do not get an Internet connection, see "Finding Causes of Computer Problems" on page 48.

▶ To change network settings in Mac OS 8 and 9

> **NOTE:** Your computer must have an Ethernet card and Open Transport networking software to connect to the Internet.

1 Click the Apple icon and choose **Control Panels** > **TCP/IP**.

The TCP/IP window opens.

2 Select **Ethernet** from the **Connect via** pop-up menu.

3 Select **Using DHCP Server** from the **Configure** pop-up menu.

4 Close the TCP/IP control panel.

If you made any changes, save them when prompted.

5 Restart your computer.

6 Check your Internet connection by launching a Web browser on the computer connected to the SOMAport.

- If your browser automatically opens to your service provider's Web site, full service has already been activated.

- If your browser does not automatically open to your service provider's Web site, go to step 7.

7 Enter a valid Internet address (such as www. google.com) in the **Address** field and press enter.

- If the Web page opens, full service has already been activated and you can begin using your SOMAport for Internet service.

- If your service provider's Web page opens, activate full service by following the sign-up procedure that is provided on the Web site.

- If you do not establish an Internet connection, see "Finding Causes of Computer Problems" on page 48.

▶ To change network settings in Mac OS X

1 Click the Apple icon and choose **System Preferences**.

2 Choose **View** → **Network**.

3 Choose **Built-in Ethernet** from the **Show** pop-up menu.

4 Click the TCP/IP tab, if necessary.

5 Choose **Using DHCP** from the **Configure** pop-up menu.

6 Click **Apply Now**.

7 Restart your computer.

8 Check your Internet connection by launching a Web browser on the computer connected to the SOMAport.

   ■ If your browser automatically opens to your service provider's Web site, full service has already been activated.

   ■ If your browser does not automatically open to your service provider's Web site, go to step 6.

9 Enter a valid Internet address (such as www.google.com) in the **Address** field and press Enter.

   ■ If the Web page opens, full service has already been activated and you can begin using your SOMAport for Internet service.

   ■ If your service provider's Web page opens, activate full service by following the sign-up procedure that is provided on the Web site.

   ■ If you do not establish an Internet connection, see "Finding Causes of Computer Problems" on page 48.

IP ADDRESS NEEDS TO BE RENEWED

If you cannot connect to the Internet even after you have checked all cabling and network settings and have rebooted the computer, follow the appropriate procedure in this section to manually obtain a new IP address.

▸ **To obtain a new IP address (Windows 95 only)**

1 Choose **Start → Run**.

2 Enter `winipcfg` in the **Open** field and click **OK**.

The IP Configuration window opens.

3 Select the network interface that has a default gateway of 192.168.1.1 from the pull-down list.

4 Click **Release All**.

5 Force your computer to obtain a new IP address by clicking **Renew All**.

Wait until the fields in the IP Configuration window have values in them or an error message appears. If you close this program before it has completed its task, you will have to reboot your computer before you can use your Internet service.

6 Close the IP Configuration window.

▶ To obtain a new IP address (all other versions of Windows)

1 Open a command window using one of the following methods:

- In Windows 2000 or XP, choose

  Start → Programs → Accessories → Command Prompt.

- In Windows 98 or ME, choose **Start → Programs → MS-DOS Prompt**.

The command window opens.

2 Force your computer to obtain a new IP address by typing the appropriate command from the following table:

Operating System	Command
Windows 98 or ME	`ipconfig /renew_all ↵`
Windows 2000 or XP	`ipconfig /renew ↵`

The Windows IP configuration is displayed.

3 Look for the output section related to the network interface for the SOMAport.

Example:

```
Ethernet adapter:
IP address . . . . . . . . . . . . . : 65.94.64.233
Subnet Mask . . . . . . . . . . . . : 255.255.255.0
Default Gateway . . . . . . . . : 192.168.1.1
```

4 Close the MS-DOS Prompt or Command Prompt window.

SPECIFICATIONS

Release	SOMAport 400
Internal antenna	Type: internal passive-steered array antenna Internal antenna gain: 3.0 dBi Receiver noise figure: 6.0 dB Transmitted EIRP: 30 dBm RF output power: 27 dBm
Device ports and Interfaces	**Ethernet:** 100BASE-T (RJ-45) **USB:** USB 1.1 (optional) **Telephone:** Telephone terminal interface (RJ-11 jacks)　(2) **AC Adapter:** Coaxial DC Power Jack, 12V/30W
Lights	Status, Network
Power Requirements	**Power Supply:** Type: U.S./International 100/240V AC-DC external power supply Cable: Power cord with non-wall-mounted AC-to-DC transformer
Environmental Specifications	**Temperature:** Operating: 5°C to 40°C (+46°F to +104°F) Storage:　–20 °C to 60 °C (–4°F to 140°F) **Humidity:** Operating: 20% to 95%, non-condensing Storage:　5% to 95%, non-condensing
Packaging	**Dimensions** Height: 172 mm (6.8 inches) Width: 150 mm (5.9 inches) Depth: 82 mm (3.2 inches) Weight: 1.0 kg (2.2 pounds) Volume: 2100 cc
Regulatory Certifications	**Radio/EMC** ETSI EN 301 753　　　　ETSI EN 301 489-1 ETSI EN 300 386　　　　ETSI EN 301 489-4 EN 55022:1998+A1:2000+A2:2003 (Class B) FCC Part 15B, Part 24 (PCS only), Part 27 (700MHz and WCS only) **Safety** MET (Complies with UL 60950-1, CSA C22.2 No. 60950-1) IEC/EN60950-1

INDEX