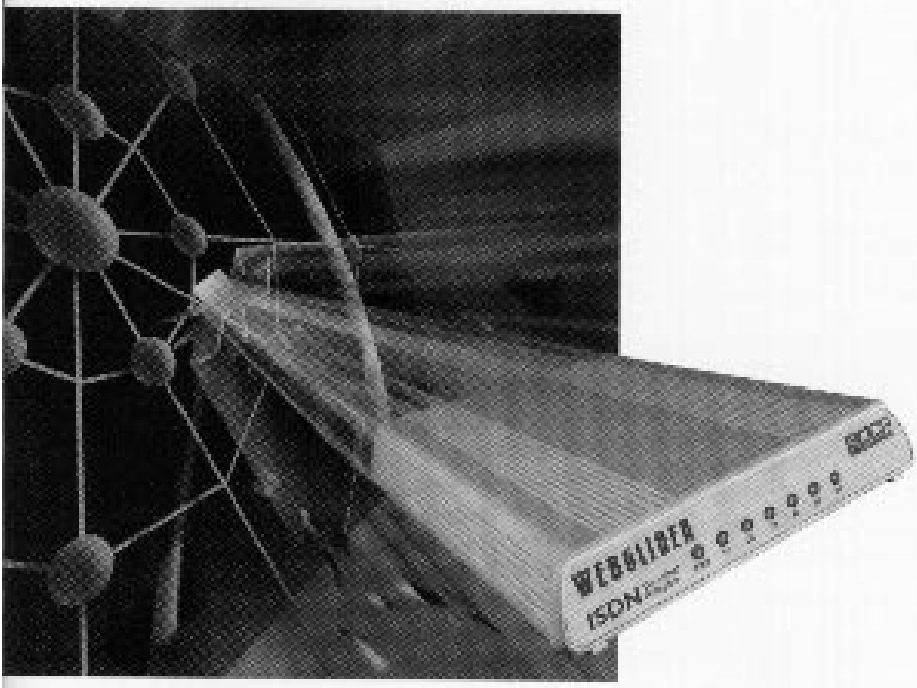
WEBGLIDER
ISDN Terminal Adapter



Quick Tour...

Installation Guide: From Setup to the Internet

Product Code: TU120AE

Contents

What is ISDN?

ISDN (Integrated Services Digital Network) is an evolution of the digital telephony network, allowing users to communicate (voice, fax, video, data, music, etc.) over fully digital lines, virtually error-free, using a single set of interface standards.

Telephone networks around the world have been moving towards digital transmission and switching for some time. Not only has this made ISDN possible, but the size of the world-wide telephone network means that ISDN is widely available.

ISDN was designed to work in conjunction with traditional, analog telephone service. Users who subscribe to ISDN services can make voice calls to, and receive voice calls from users of traditional services.

The WEBGLIDER may be thought of as a “digital modem” and can be used to communicate with other digital modems (TAs) through an ISDN connection.

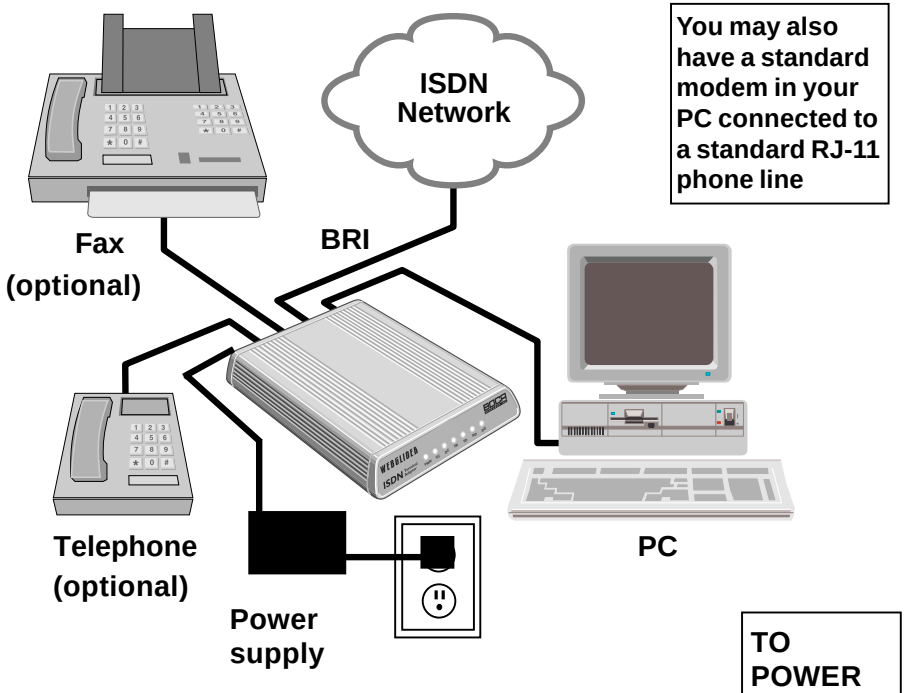
Some major benefits of ISDN include its ability to provide:

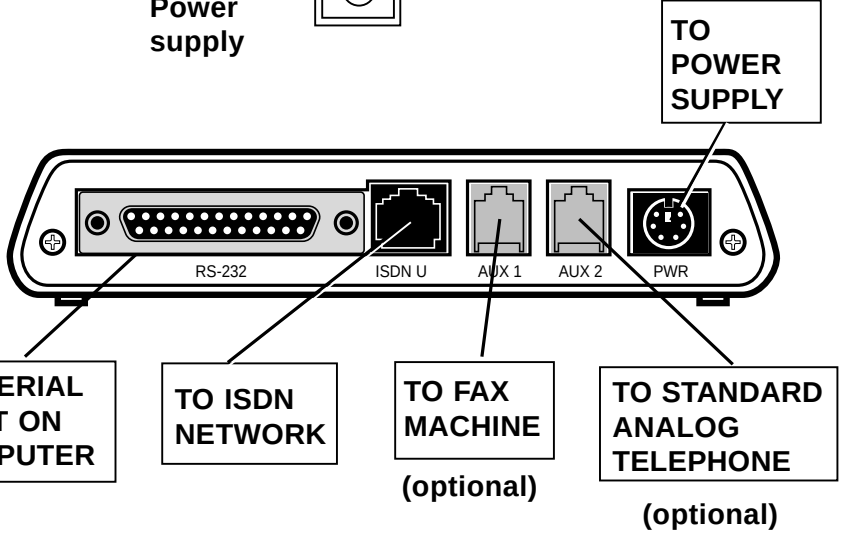
- **up to two simultaneous voice conversations over one physical line.**
- **voice, circuit-switched data and packet data services.**
- **flexibility in arrangements between services, telephone numbers, and telephone sets.**
- **new applications to the home and office.**
- **noise-free operation over existing lines.**
- **digital connection.**

How Does the Webglider Compare to a Standard V.34 Modem?

Function	Boca WEBGLIDER	Standard V.34 (28.8) Modem
Software Configurable	Yes	No (non PnP modem)
Dial from Computer	Yes (using WEB-GLIDER or device on AUX1 or AUX2)	Yes (only to other analog devices)
Dial from Keypad	Yes (to any analog device)	Yes (to any analog device)
Transmit/ Receive data (digital)	Yes	No
Transmit/ Receive data (analog)	Yes (using analog device on AUX1 or AUX2 port)	Yes
Maximum Speed	128Kbps	28.8Kbps
Avg. time to download a 1MB file @ 64Kbps (1 B-channel)	2.7 minutes	6.1 minutes

Summary of Connections



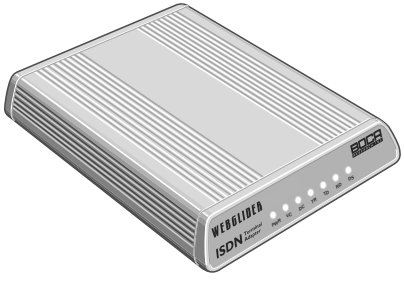


General Setup

Introduction

The WEBGLIDER is a Basic Rate Interface (BRI) Integrated Services Digital Network (ISDN) terminal adapter that allows connection of a PC (or other data terminal equipment) and up to two telephone devices (such as telephones, modems or faxes) to ISDN. This product was designed specifically for North American ISDN.

The WEBGLIDER allows you to connect your PC to the Internet, telecommute to a central site, connect to other remote PCs, or computer systems. At the same time your existing telephone equipment can be used to make calls to other equipment on the Public Switched Telephone Network (PSTN).



The WEBGLIDER

The on-board high speed processor handles all ISDN processing, channel aggregation and data compression giving the WEBGLIDER very fast connect times and very high throughput allowing connections to data terminal equipment at up to speeds of 128Kbps.

The WEBGLIDER connects to the U-interface of the ISDN allowing direct connection to the ISDN without the need for an NT1 (network termination) device. **NOTE: Do not attach the WEBGLIDER to an NT1 device.**

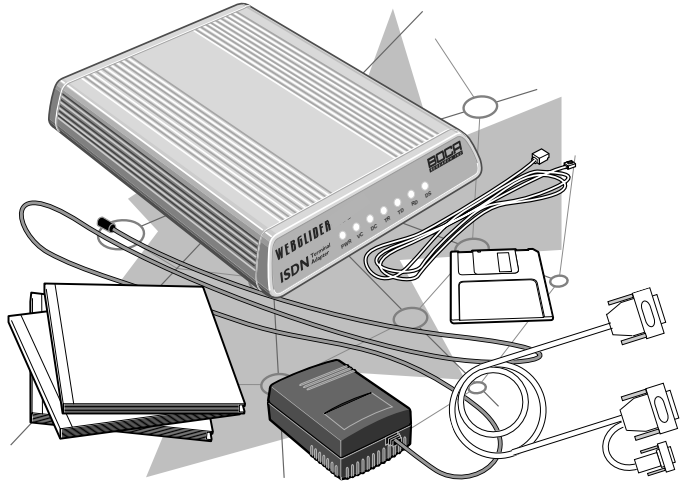
Package Contents

The WEBGLIDER package contents are listed below. The package contains:

Other software, CDs, documentation, and special introductory offers may also be included.

- WEBGLIDER
- power supply
- ISDN cable
- this Quick Tour Installation Guide
- Reference Guide
- Complimentary Software Services Guide
- Ordering ISDN Services Guide
- software diskette(s).

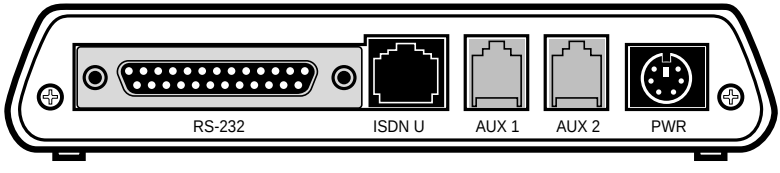
Examine the contents of your WEBGLIDER package and check for damage. Contact your supplier or distributor if any of the items listed above are missing or physically damaged. Do not install damaged equipment.



The WEBGLIDER Package Contents

WEBGLIDER Interfaces

The WEBGLIDER is a Basic Rate Interface (BRI) Integrated Services Digital Network (ISDN) terminal adapter that allows connection of a PC (or other data terminal equipment) and up to two telephone devices (such as telephones, modems or faxes) to ISDN. The interface connectors are located on the back panel of the unit as shown below and on page 6.



WEBGLIDER Back Panel

ISDN Connection

The WEBGLIDER connects directly to the ISDN network at the U-interface. An ISDN network terminator device (NT1) is not required. This port is labelled 'ISDN-U' and we have supplied a cable for connecting to the ISDN network.

Serial Connection

The WEBGLIDER has a serial port for connecting to your PC or other Data Terminal Equipment (DTE). This port is labelled 'RS-232' and is located on the back panel. The port appears as a DCE (modem-like) connection and can be directly connected to terminal equipment using standard RS-232 cables.

Telephone Connections

Two “voice” or POTS (Plain Old Telephone Service) ports are provided for connecting telephone equipment such as telephones, answering machines, faxes, or modems to the WEBGLIDER. These ports are labelled ‘AUX 1’ and ‘AUX 2’. Each port supports multiple telephone-type devices up to a Ringer Equivalence Number (REN) of two. The WEBGLIDER allows both lines to be used at the same time for two simultaneous “voice” calls, if no data call is present. If a data call is present, you can only use one AUX line.

Power Connection

Power for the WEBGLIDER is provided by an external power supply. The power supply is attached to the connector (marked ‘PWR’) on the back panel. The WEBGLIDER does not draw power from the ISDN network. So, if there is no power to the WEBGLIDER, then the telephone ports will not work.

Typical Configuration

The illustration on page 6 shows a typical WEBGLIDER configuration with a PC, a telephone, and a fax machine connected to an ISDN line. **If you have an analog modem**, assign DN 2 to the AUX1 port, exclusively for that modem. This will allow you to establish either an analog modem call, or a voice call, using a handset plugged into the modem. You can then:

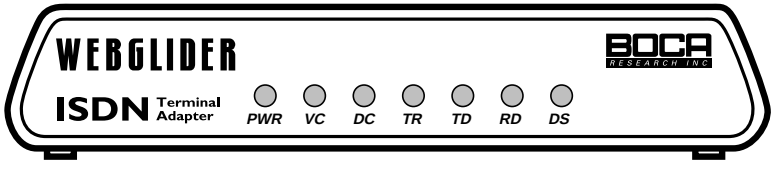
- make a voice call on AUX1 while using the RS-232 port (DN1) for a data connection to collaborate (with document conferencing software) on the same document, or

- engage in two-player remote game playing with simultaneous voice (on AUX1) and data (on RS-232), or

- do an analog data download (on AUX1) simultaneously with an ISDN digital download (on RS-232), using DN1.

WEBGLIDER Indicators

The WEBGLIDER's status indicators are located on the front panel.



The WEBGLIDER front panel.

There are six status indicators on the front panel:

Indicator	Meaning
PWR	**Power:** The WEBGLIDER is powered on.
VC	**Voice Call:** A call is established on AUX 1 or AUX 2.
DC	**Data Call:** A data call is established for the RS-232 port.
TR	**Data Terminal Ready.** The DTE has DTR asserted.
TD	**Transmit Data:** Data is being sent by the DTE.
RD	**Receive Data:** Data is being received by the DTE.
DS	**D-Channel Status:** The indicator is **OFF** when the WEBGLIDER is not connected to the ISDN network. The indicator **flashes** when the ISDN network is detected and connection to the central office is starting up. The indicator is **ON solid** when the WEBGLIDER is ready for use (to make or receive calls from either the RS-232 port, or one of the AUX ports.)

The WEBGLIDER status indicators

The status indicators sequence back and forth during the Power On Self Test (POST).

Installation

1. Connect the output from the power supply lead to the socket marked 'PWR' on the back panel of the WEBGLIDER. **Do not plug the power adapter into the AC outlet yet.**

Safety Statement

Use only the power supply shipped with the product.

2. Use the supplied serial cable to connect the port marked ‘RS-232’ to your PC or other terminal device. The WEBGLIDER is wired as a DCE allowing modem cables to be used; information on types of cables and their pin-out assignments required is provided in **Appendix B: Cable Connections** in the *WEBGLIDER Reference Guide*.

3. Connect the socket marked ‘ISDN U’ on the back panel to the ISDN network using the supplied phone-type cable. The ISDN network normally terminates with an eight-way RJ-45 socket. This socket is similar to a standard telephone (RJ-11) cable, but it is wider, with 8-10 wires instead of four.

Note: WEBGLIDER will not work if connected to an NT1 or any other device providing an S-interface to ISDN.

Safety Statement

Do not install telephone wiring or connect/disconnect ISDN equipment during an electrical storm.

4. You may now connect your telephone equipment to the AUX port(s) or, you may choose to do this after the unit has been configured. Use the cables provided with your telephone equipment to connect to AUX 1 or AUX 2.

5. Connect the power supply to the AC outlet to power up the unit.

CAUTION: Telecommunications voltages and currents can exceed the limits of safety extra low voltage (SELV), resulting in personal injury. Do not touch any components on the modem's printed circuit board when power is applied, or the telephone cable is plugged in.

Avoid installing, handling the telephone cable, or changing the jumper settings on the modem during any weather activity where lightning strikes may occur.

This unit is intended for installation in computing devices that are non-operator accessible. Installation is to be performed by qualified service personnel only.

Software Installation and Programming

Software Installation

This section describes how to install the WEBGLIDER software, and also how to configure it, once the software is installed. The following operating systems are covered, in this order: Windows 95 (p. 14), Windows 3.x (p. 18), and Windows NT (p. 18). If you do not use one of these Operating systems, please see 'Command Line Configuration' in the *Reference Guide*. Start your operating system as you normally would, and insert the WEBGLIDER Driver and Configuration Utility diskette into your diskette drive.

Windows 95

1. Select **START**, then **RUN**, then type **A:SETUP or B:SETUP**, and select OK.

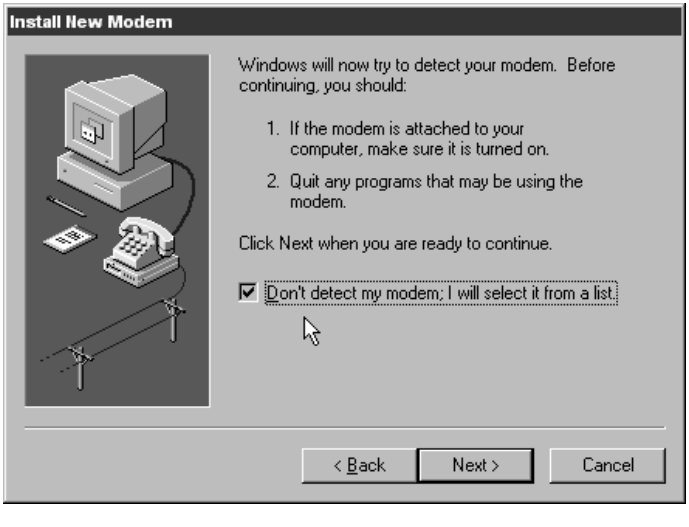
2. Follow ALL on-screen instructions closely while the files are copied to your system. A WEBGLIDER program group will be created on the desktop. You may want to create a shortcut to the WEBGLIDER configuration program on your desktop. To do so, put the mouse pointer on the WEBGLIDER Configuration icon in this group, click your Right Mouse Button, and scroll down to Create Shortcut, and click this selection with the Left Mouse Button. Once the shortcut is created, click it with the Left Mouse Button, and drag it onto your desktop. Remove the diskette from your diskette drive.

3. Now, make the following command choices in the **EXACT** order presented. Select **START** then **SETTINGS** then **CONTROL PANEL**. Then double click **ADD NEW HARDWARE**.

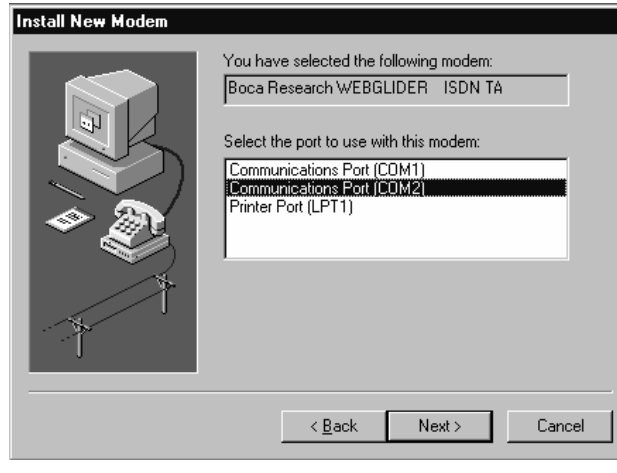
4. Select **NEXT** when Windows displays “Select Next to begin installing your new hardware”. Windows now asks “Do you want Windows to search for your new hardware?”; select **NO**, then **NEXT**.

5. Highlight **MODEM** on the list, then select Next.

6. On the next screen place a check mark in the box to specify “**DON’T DETECT MY MODEM; I WILL SELECT IT FROM A LIST**”. Then select **NEXT**.

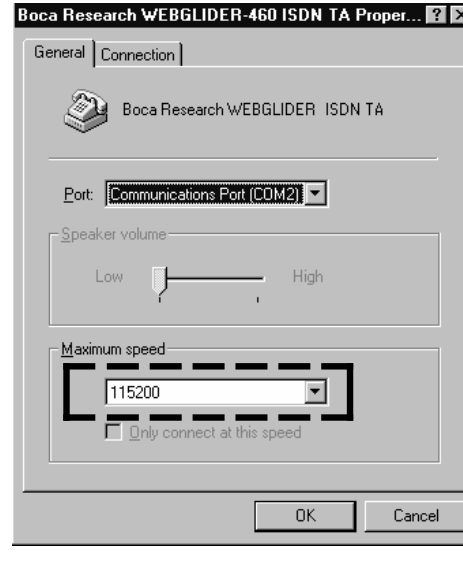


7. Select Boca Research from the **MANUFACTURERS LIST**, then the **WEBGLIDER** from the **MODELS** list. Then select **NEXT**.



8. Select the COM port to which the WEBGLIDER is attached; usually, your mouse is assigned to COM1, so choose COM2 and then **NEXT**. Select **FINISH** when Windows 95 reports that your Modem has been set up successfully.

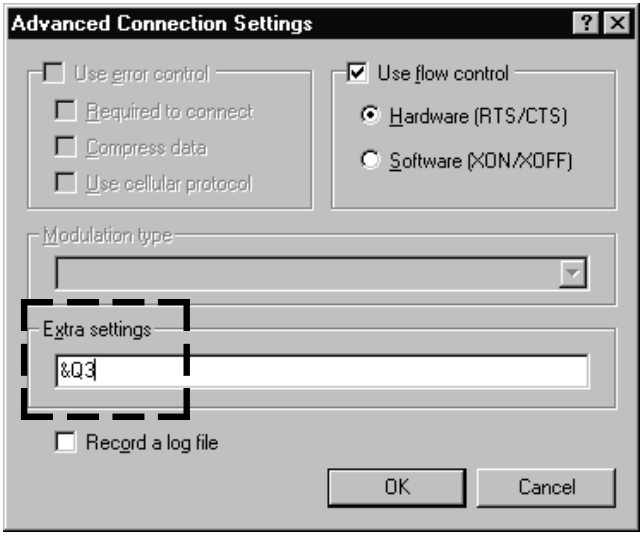
9. To change the settings for the WEBGLIDER, double-click **MODEMS**, then highlight the WEBGLIDER and select **PROPERTIES**. Here, in the General tab, you can change the baud rate and COM port for the WEBGLIDER. Set the baud rate at 115200.



10. To set the Initialization String and word length, select the **CONNECTION TAB**, then select the **ADVANCED** button and set the **EXTRA SETTINGS** (the initialization string) to:

- **&Q3&C1&D2** for PPP (required for most ISDN internet service providers such as PSINet), **OR**

- **&Q0&C1&D2** for V.120 (required for ISDN services such as CompuServe).



11. Click **OK** twice then click **CLOSE** to close Modem Properties. Close Control Panel.

12. Please refer to the WEBGLIDER Programming section for additional information.

Windows 3.x

1. Insert the WEBGLIDER Driver and Installation diskette into your A: or B: drive.

2. From Program Manager select **FILE** then **RUN**. In the command line field, type **A:SETUP** (or **B:SETUP**) then press **ENTER**.

3. Follow all on-screen instructions, to complete the installation.

4. Proceed to WEBGLIDER programming on page 19.

Windows NT 3.51

1. Insert the WEBGLIDER Driver and Installation diskette into your A: or B: drive.

2. From Program Manager select **FILE** then **RUN**. In the command line field, type **A:SETUP** (or **B:SETUP**) then press **ENTER**.

3. Follow all on-screen instructions, to complete the installation.

4. Proceed to WEBGLIDER programming on page 19.

WEBGLIDER Programming

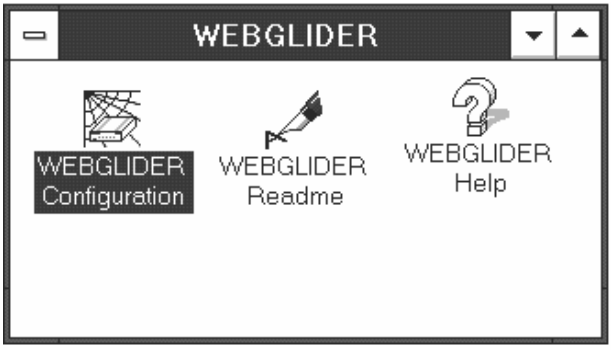
Before starting the WEBGLIDER programming, please familiarize yourself with the following terms.

ANALOG PHONE DEVICE: Regular phone handset, fax machine, etc.
AUX1/AUX2: Phone (POTS) ports on the back of your WEBGLIDER.
BRI: Basic Rate Interface.
DN: Directory Numbers given to you by your phone company when you get ISDN service.
NETWORK (ISDN): Type of switching equipment the phone company uses to connect your ISDN line to their CO (central office).
POTS port: (Plain Old Telephone Service), i.e., standard phone-type jack into which you can plug analog phone devices like fax machines or telephone handsets.
SPID: Service Profile ID (supplied by your phone company).
TA: Terminal Adapter (ISDN device).

In the example that follows, the information below is used.

OPTION	SETTING
Network	NI1
DN1	555-1111
SPID1	61755511110100
DN2	555-2222
SPID2	61755522220100
RS232#	5551111
AUX1#	5552222
AUX2#	5551111

1. Double-click the WEBGLIDER configuration icon to start programming.



The utility will automatically detect the port to which the WEBGLIDER is attached. (If the WEBGLIDER is not found, ensure that it is powered on, and that the serial cable is attached).

2. Once the WEBGLIDER is found, click the **Configure WEBGLIDER** button. Type in a name (any name) for a new configuration file. Then click **OK**.

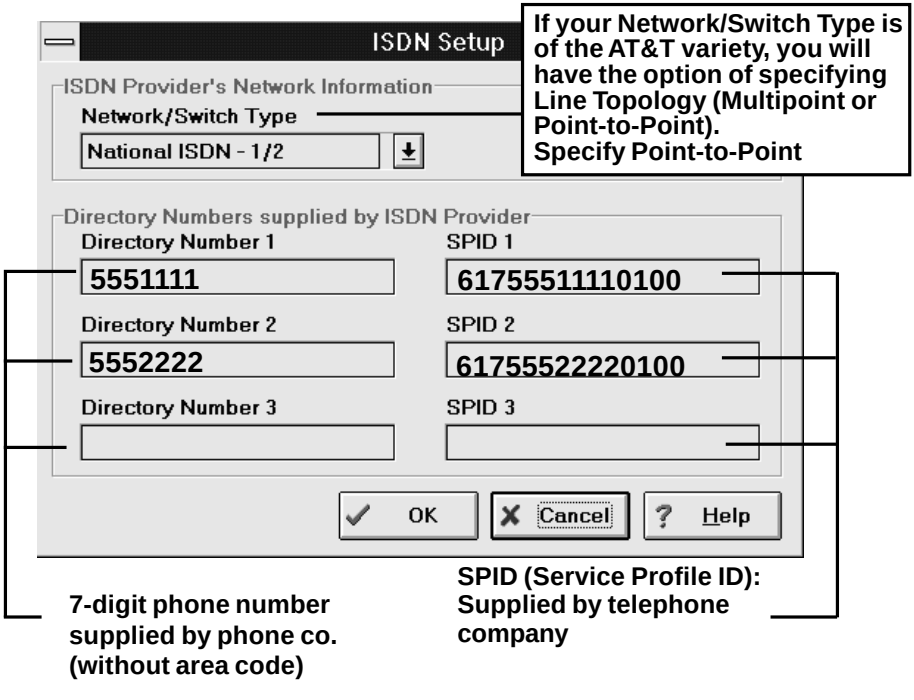
3. You are next presented with the main WEBGLIDER Configuration screen. **Complete each and every option, in the order presented, starting with the ISDN Setup, and ending with Register Product**.

ISDN Setup

1. Click on the ISDN SETUP button to get to this section. ISDN SETUP allows you to enter information provided to you by your ISDN service provider (phone company). This allows you to assign ISDN network numbers to WEBGLIDER ports.

2. For **Network/Switch Type**, choose one of the following:
   - National ISDN 1/2 (NI1 or NI2)
   - DMS - 100 (Northern Telecom)
   - AT&T 5E5
   - AT&T 5E9 (Generic)

3. Enter the Directory Numbers (DNs) and Service Profile ID (SPIDs) numbers provided by your phone company. You may enter up to three DNs and SPID numbers. **Note: Enter ALL numbers without spaces.** Click **OK** to close.



Port Settings

1. Click on the Port Settings button to enter this section. Port Settings allow you to assign ISDN network numbers to the WEBGLIDER ports.

2. Assign DN 1 to the RS-232 port.

3. Assign DN 2 to the AUX1 port.

4. Assign DN 1 to the AUX2 port.

The above assignments will allow you to do the following:

If you have an analog modem, assigning DN 2 to the AUX1 port exclusively for that modem will allow you to establish either an analog modem call, or a voice call, using a handset plugged into the modem. You can then:

• make a voice call on AUX1 (DN 2) while using the RS-232 (DN 1) port for a data connection to collaborate (with document conferencing software) on the same document, or

• engage in two-player remote game playing with simultaneous voice on AUX1 (DN 2) and data on RS-232 (DN 1), or

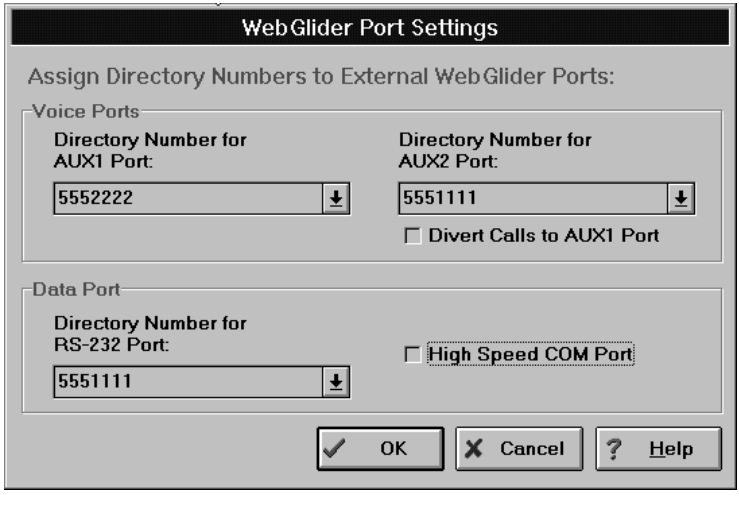
• do an analog data download on AUX1 (DN 2) simultaneously with an ISDN digital download on RS-232 (DN 1).

If you do NOT have an analog modem, just assign DN 2 to the AUX1 port exclusively for a handset.

To assign directory numbers to AUX ports, via command line, refer to the *WEBGLIDER Reference Guide* (Section Four, p. 23).

5. Check the "High Speed Com Port" box **ONLY** if you have a serial port with a 16C650 UART.

6. Check the "Divert Calls to AUX1 Port" box. By doing this, an incoming call can be diverted to the other AUX port by using the Divert Calls feature. If you check the "Divert Calls to AUX1 Port" box while you are using DN 1 for a data call, an incoming call on DN 1 will ring on the device plugged into the AUX1 port.

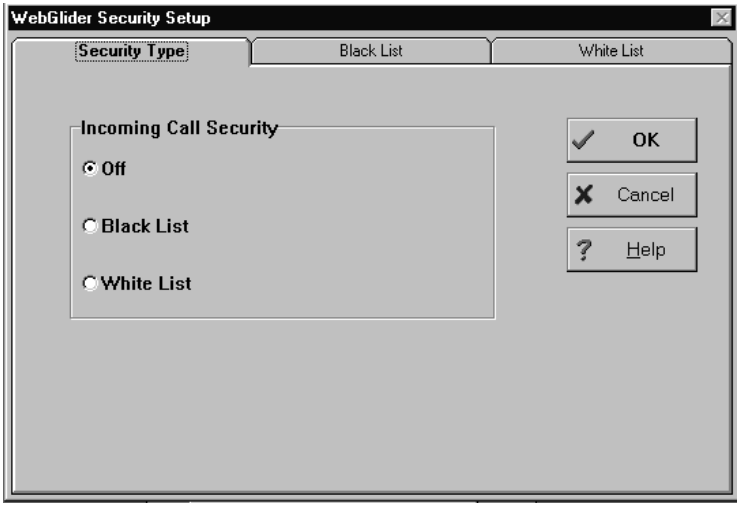


- Click **OK** to finish.

Security Setup

1. Select the Security Setup button to set WEBGLIDER's security features. This feature is not necessary for normal operation of the WEBGLIDER and may be left in the OFF setting.

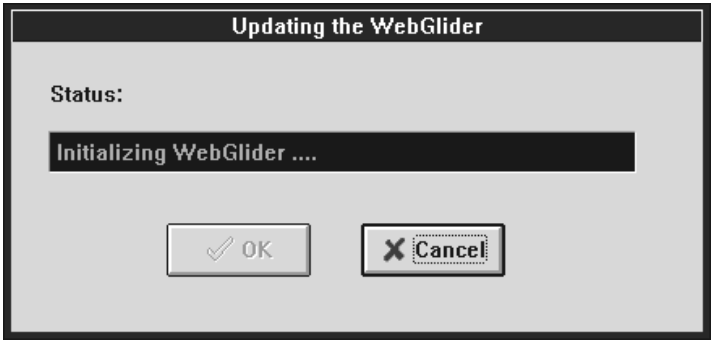
2. Click OK to continue.



NOTE:
Security Type allows you to turn security ON or OFF for incoming calls. If security is turned on, indicate which numbers (up to a maximum of 32) are "blacklisted" (calls from these numbers will not be accepted) and which calls are "whitelisted" (calls from these numbers only will be accepted). You have the option of using either but not both. This gives you the flexibility of establishing your call list based on numbers you wish to allow (whitelist), or numbers you wish to exclude (blacklist). The security feature requires Caller ID service to be present on your ISDN line.

Update WEBGLIDER

1. Select the Update WEBGLIDER button to save the changes you have made.



2. Once the WEBGLIDER is successfully updated, click OK.

You have now set up your WEBGLIDER for basic operation. You should now be able to make and receive calls from all three ports.

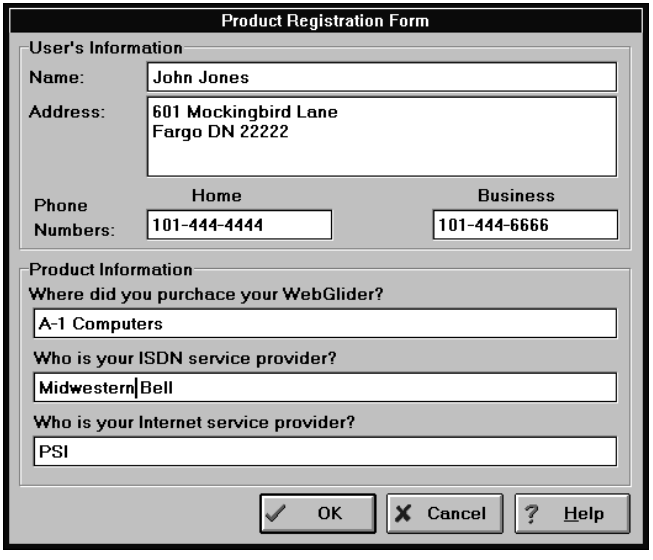
REMEMBER: The DS light must be on solid before the WEBGLIDER is ready to dial out. If the DS light blinks continuously, you have made an error in programming the WEBGLIDER. See page 19.

Register Product

1. Select the Register Product button option to test and verify operation of your WEBGLIDER. This test procedure will also transmit the registration data file to Boca Research. **NOTE: Toll charges may apply.**

2. You will then be prompted for the following information:

- Name
- Address
- Home and Business telephone number
- Place of Purchase
- ISDN Provider
- Internet Provider



3. After transmission, you will be notified that registration was successful.

4. Click **OK** to continue. **Remove your driver diskette.**

5. CONGRATULATIONS! Installation and configuration of the WEBGLIDER is now complete. Proceed to the *Complimentary Software Services Installation Guide*.

REMEMBER: The DS light must be on solid before the WEBGLIDER is ready to dial out.

Publication Date: May, 1996
Printed in the U.S.A. TU120AEI.PM5

Part No. 9399
Rev. 1.0