TELES.ONLINE PowerPack

Version 6.0i

TELES AG Berlin

FCC INFORMATION

The Federal Communications Commission Radio Frequency Interference Statement includes the following warning:

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 commercial 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 residential installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

The user should not modify or change this equipment without written approval from the manufacturer. Modification could void authority to use this equipment.

TELES AG reserves the right to revise this manual and to make changes to the product referred to herein without obligation to notify any person or entity of such revisions or changes.

Contents

1 PREFACE

Dear TELES Customer,

Congratulations on your purchase of a **TELES ISDN Adapter** and the OnlinePowerPack all-in-one ISDN/multimedia applications package. This user manual applies to the following products:

TELES.BRI/PnP Board, TELES.VISION-B5 Board, TELES.BRI/PCI Board, TELES.BRI/PCMCIA Card, TELES.BRI/16.3 Board, and **TELES.BRI Box.**

A TELES ISDN adapter connects your PC to the ISDN basic rate interface and gives you access to the fastest communications network for the integrated transfer of voice, data and video.

TELES.OnlinePowerPack contains a suite of applications providing you with the combined advantages of basic and advanced ISDN services. In addition, it features the most common interfaces and protocols for accessing online services, running multimedia communications and network connectivity over ISDN.

The TELES team and I trust that your ISDN adapter and TELES.OnlinePowerPack will meet your expectations, maximize your productivity and be a pleasure to use.

Prof. Sigram Schindler
Founder and CEO, TELES AG

Where to find the information you need

The first part of this manual gives an overview of the TELES.OnlinePowerPack features and describes technical requirements, while the second part provides step-by-step instructions about how to

1. install your application software
2. install the ISDN adapter and driver software
3. run tests and troubleshoot problems
4. use and reconfigure your ISDN adapter

For detailed information on all applications and procedures, you can take advantage of the context-sensitive online help.

1.1 Introducing TELES.OnlinePowerPack

TELES.OnlinePowerPack includes many ISDN/multimedia applications, drivers and interfaces in one suite: Classic data communications services + online services + multimedia communications + computer-integrated telephony.

Multimedia

MCC:
The Multimedia Control Center combines voice, video and data transmission in a common interface:

- **PC-integrated telephony** using your soundcard, telephone or hands-free device. MCC provides an easy-to-use interface, telephone directory and speed dial functions. The memo function eliminates the need for handwritten notes scattered around your desk. With **automatic callback** you can save costs on long distance calls. PC-supported telephony is especially convenient thanks to the **TELES.Family concept**. One member of this family is the TELES.FON ISDN telephone which is optimally supported by MCC. The various TELES.FON functions can be easily programmed from the PC with the TELES.ISDN Device Manager.
- **High-quality videoconferencing.** Software-based coding/decoding allows you to use a simple ISDN adapter – together with an optional framegrabber and soundcard – to videoconference with any **H.320**-compliant system or videophone. With the TELES.VISION-B5 system, an ISDN adapter, PCI framegrabber and soundcard are integrated on one adapter.
- **Audio/video answering machine** with remote query, callback list, monitoring over the speaker, and playback via soundcard or telephone. Record your own audio or video messages for playback when you are unavailable.
- **Group 3bis Fax** directly from Windows applications. Transmission speeds of up to 14,400 bps. With **Speedfax** even 64 kbps! Simultaneous sending and receiving. Optional cover sheet. QuickFax templates for brief messages. Fax polling and forwarding.
- **Application Sharing WYSIWIS** (= **W**hat **Y**ou **S**ee **I**s **W**hat **I S**ee): Application sharing and desktop collaboration. Remote parties can work together on Windows applications while on the telephone or while videoconferencing. Integrated file transfer feature allows you to exchange the revised files with your partner via mouseclick.

TELES.Secretary

When you are out of the office, your Electronic Secretary manages telephone calls, messages and faxes. The “follow-me” service forwards calls and faxes to any location automatically or plays them back via remote query. Remote query and remote control are possible via touch-tone dialing or speech control.

TELES.ISDN Device Manager

You may extend your PC communications center at any time. For example by setting up a small PBX with a TELES.iTA/2TR or TELES.iPBX/4TR Box. With the TELES.ISDN Device Manager you can easily program and handle each device. The basic TELES.Family concept ensures uniform operation of all devices.

Classic Communications Applications

TELES.FIX

High-speed **Fi**le e**x**change enables data transmission at speeds up to 128 kbps. Data compression and channel bundling can provide throughput up to 400 kbps. Send and receive files simultaneously and use password protection to prevent unauthorized access.

Customer service via TELES.SUPPORT Server

Customer support via ISDN. Use the TELES.SUPPORT program to download new software versions, Tips & Tricks, manuals and other useful information.

Networks and Online services

Online Programs

The **Microsoft Internet Explorer 3.0** Web browser for Windows 95 is included on the CD.

Internet and communication interfaces

- **TELES.NDIS-WAN-Miniport and Microsoft's ISDN Accelerator Pack 1.1** for Windows 95 to get the best of Microsoft's Dial-up Network, paving the way to the Internet, to LANs, remote computers, servers and routers via TCP/IP. Provides even **Multilink-PPP** for **128 kbps** Internet access.
- **VCOMM** – creates Windows 95 virtual COM port devices supporting popular protocols such as **V.34, X.75, V.110, V.120, HDLC**. For the use of modem-based programs with all the advantages of ISDN. Supports AT commands.
- **TELES.NDIS3** – connect PCs and networks via ISDN. Included for WfW PCs. Windows NT network connectivity with TELES.NT/RAS Online.
- **TELES.WinCOM** – modem emulation for Windows 3.x supporting AT commands and all ISDN protocols.

Advanced ISDN Driver and Tools

Driver for your ISDN adapter: **32-bit VxD CAPI,** providing standard and proprietary protocols.

ISDN diagnostics and statistics

- **ISDN Monitor** – Icon on Windows 95 taskbar that lets you easily monitor the status of your ISDN adapter and your ISDN Basic Rate Interface
- **ISDN Line Test** – Utility for performing loopback tests between the B channels
- **Trace/protocol analyzer** – Trace utility with comprehensive protocol decoding
- **BRI Statistics** – Displays data activity on the BRI
- **Hardware Test** – Test the functionality of your ISDN adapter

2 Technical Requirements

2.1 System Requirements

Before installing your TELES ISDN adapter and TELES.OnlinePowerPack, check that your computer meets the following requirements which will enable the programs to perform correctly:

- A personal computer equipped with at least a **90 MHz Pentium** and **16 MB** of RAM.
- For MCC: VGA card set to screen resolution of 800 x 600. **256** colors (minimum) (65535 colors better).
- Windows 95 or Windows 3.*x*
- An empty ISA, PCMCIA or PCI slot, depending on your specific adapter. Not required for boxes, which simply connect to the PC's parallel port.
- Free interrupt
- I/O address / memory address (depending on adapter type)
- Hard disk space: 50 MB for product installation
- The use of a TELES.VISION-B5 Board requires Microsoft's Video for Windows interface. (Is automatically installed with Windows 95. For Windows 3.x it can be installed from the TELES CD.)

2.2 Use with a Telephone

TELES ISDN applications and adapters work well with either *ISDN* or *analog* telephones. Depending on your specific adapter, you may attach either an ISDN telephone or an analog model, or both.

- An ISDN telephone such as the TELES.FON easily integrates with the software, providing many additional features over conventional phones. Simply connect the ISDN telephone to your BRI bus.
- To use an analog telephone, your ISDN adapter must be equipped with a TR interface (Tip&Ring) which is integrated on TELES.iTA/2TR and TELES.iPBX/4TR Boxes. Simply connect the analog phone to the RJ-11 port on the ISDN adapter. Analog telephones must be capable of DTMF (touchtone) dialing.

2.3 Configuring your ISDN Line

Currently, ISDN services offered by telephone companies in various countries can be quite different in protocols and procedures. However, TELES ISDN adapters are designed to support a great variety of ISDN switches and D channel protocols.

Contact your local telephone company to obtain the basic rate interface configuration best suited to meet your individual needs.

D channel protocol

- The D channel protocol for your basic rate interface is determined by your local telephone company. When installing your software, you will be asked to enter the D channel protocol for which your ISDN line is configured.

  TELES ISDN drivers support the most common D channel protocols such as ETSI (DSS1 or Euro-ISDN), 1TR6 (Germany only), VN-3 (France) and CT-1 (Belgium).

MSN (Multiple Subscriber Numbers)

- The DSS1 protocol identifies terminal equipment by MSN. MSNs provide a set of several telephone numbers that can be assigned to different ISDN services. This allows you to use several ISDN applications or devices on a single ISDN line.

ISDN Services

- Depending on the applications you want to use with your ISDN adapter, subscribe for *telephony, data service, fax G3,* etc. (if not included in the standard package offered by your telephone company).
- If available from your local telephone company, subscribe for *advice of charges* (aoc). This is useful, as many ISDN applications are capable of indicating charges.

2.4 Package contents

- **TELES.OnlinePowerPack Installation Manual**
- **ISDN adapter** which comes as one of the following types:

Model	PC Interface	RJ-45 cable	RJ-11 cable	Printer cable	Power supply
TELES.BRI/PnP Board	ISA bus	1	–	–	–
TELES.VISION-B5 Board	PCI bus	1	1	–	–
TELES.BRI/PCI Board	PCI bus	1	–	–	–
TELES.BRI/PCMCIA Card	PCMCIA bus	1	–	–	–
TELES.BRI/16.3 Board	ISA bus	1	–	–	–
TELES.BRI Box	Printer port	1	–	1	1

(Each of the above adapters is suitable for use with both Windows 95 and Windows 3.x.)

- **CD with driver and applications software**
  TELES.ISDN Device Manager, MCC, TELES.FIX, TELES.FAX, TELES.Secretary, TELES.ISDN Monitor, TELES.WYSIWIS, TELES.SUPPORT, TELES.IntraSTAR for Windows 95, Microsoft's Internet Explorer (version 3.0 for WfW, 3.02 & 4.0 for Windows 95), TELES.NDIS3 for WfW, TELES.WAN-NDIS Miniport & TELES.VCOMM for Windows 95.

  Installation and test software for all the components.

2.5 Technical Specifications

2.5.1 General Technical Specifications

Software interfaces	• **ISDN driver**, providing **CAPI 1.1 and 2.0** interfaces (Profile A). Comes in a 32-bit **VxD** version. • **WAN-NDIS Miniport, VCOMM, TAPI** (Win95) • **NDIS3** (WfW) • Audio and video drivers support Microsoft's **Video for Windows** interface
Transmission rate	• **64 kbps or 56 kbps** using 1 B channel. • **128 kbps** using **Multilink-PPP**. • Data compression compliant with EURO Filetransfer standard ETS 30075/79 and V.42bis standard. Data compression is enabled by software. • Concurrent use of channel bundling and data compression can increase the transmission rate to as much as **400 kbps**.
B channel protocols	• IS0 8208, X.25, T 70NL, T.90 App.II, T.30, Bit rate adaptation according to V.110, V.120, V.34, X.75, SDLC, HDLC-transparent, (HDLC-Framing) H.221, H.223
Videoconferencing standards	• **H.320**: ITU-T framing recommendation. Worldwide dominant series of standards for videoconferencing over ISDN. • **H.323**: Defines multimedia communications between LAN-based videoconferencing systems and ISDN. • **H. 324**: Defines videoconferencing over PSTN (POTS). • **H.221**: ITU-T framing recommendation which is part of the H.320 standard series for videoconferencing. Protocol that governs audio-visual services. Mainly specifies encoding/decoding procedures. Enables transmission rates from 64 kbps to 1.932 kbps. However, with two B channels, a maximum of 128 kpbs can be achieved.

2.5.2 Specific Features of TELES ISDN Adapters

Model	Specific Features
TELES.BRI/PnP Board	Plug&Play compliance (automat. set up by Windows 95)
TELES.BRI/PCI Board	Plug&Play compliance (automat. set up by PCI BIOS)
TELES.BRI/PCMCIA Card	Plug&Play compliance. For laptops, notebooks
TELES.BRI/16.3 Board	Software-configured IRQ, I/O address set by DIP switch
TELES.BRI Box	External device. Connects to the printer port, eliminating the need for an empty slot. Suitable for PC, laptop, notebook.

2.5.3 Specific Features of TELES.VISION-B5 Board

TELES.VISION-B5 Board	Combination of *ISDN adapter, framegrabber* and *soundcard*. Ideally suited for videoconferencing and multimedia. • Connects to various types of video sources, such as cameras, videorecorders, camcorders (S-VHS and FBAS). The framegrabber supports the widely used Microsoft Video-for-Windows interface and is capable of a maximum CIF frame rate of 25 fps (PAL) and 30 fps (NTSC). This is an exciting extra feature which allows you to run not only TELES programs, but also any video software using this interface, such as video mixers or video editors. • Likewise, you can benefit from the board's audio features for using TELES.VISION-B5 as a soundcard. It is ideally suited for playing back *.WAV files via Microsoft's MediaPlayer, or recording them with your audio recorder. • Audio-in and out connectors allow the attachment of a handsfree device, or microphone and loudspeaker. An RJ-11 jack connects to headsets or handsets with 4-wire interfaces. • Plug&Play compliance (automat. set up by PCI-BIOS). • Supports DirectX • Frame rate (fps): 4-12 at CIF, 8-16 at QCIF, 10-25 at SQCIF • Resolution: CIF (352x288), QCIF (176x144), SQCIF (28x96) • Supports MMX processor for even better frame rates.

2.6 Registration

Before installing the hardware and software, please take time to read the user contract for TELES.OnlinePowerPack. The user contract and registration form are located in the Appendix. Please complete and return the application form (see Appendix).

Our TELES.SUPPORT customer service program gives you access to the SUPPORT server with the latest software versions, manuals, tips and tricks, etc. It is worth an occasional visit because the extensive product range is constantly brought up-to-date. Every three months, TELES.SUPPORT will automatically remind you to view the files available. At the start of any TELES.OnlinePowerPack program, a corresponding inquiry will appear. If you confirm this prompt, a connection to the Support server will be established. The number needed for the call is preset to +49 30 399 28 007. See the table below for the number of the TELES Support server nearest you. The connection lasts only about 12 seconds.

Country	SUPPORT/License Number
United Kingdom	+49 30 399 28 007
France	+33 1 418453 02
The Netherlands	+31 71 331 3909
Germany	+49 30 399 28 007

During the file update, licensing information for your ISDN application is simultaneously transmitted to the TELES license database. This information is needed to verify your registration and to protect against illegal copying. The data transmitted contains only the information you entered in the license dialog during the software installation. The license number is most important. Other data such as name, company or address is voluntary. This data *will not be given to third parties* and is not used or processed for any other purpose. This procedure is by no means compulsory, but considering the minimal costs, we recommend accepting an update of the files. The copy protection is intended to ensure that TELES can continue to provide affordable, quality products – a goal that is also in your interest as a customer. In addition, your participation in this procedure enables you to download the latest updates from the Support server at any time as a registered TELES customer.

In addition, the license number can be useful in tracing errors, for instance if you encounter difficulties such as interrupted connections or file transfers when using the Support server.

The license information is saved in the ACTIVATE.KEY file in the OnlinePowerPack installation directory.

3 Installing TELES.OnlinePowerPack under Windows 95

Installing TELES.OnlinePowerPack is simple. The default settings will suit most environments.

If, however, you wish to reconfigure your adapter's settings, follow the step by step instructions and figures provided in the Chapters "Hardware Installation" and "Using your ISDN Adapter with Windows 95". You will also find detailed information on how to connect various accessories, such as cameras and telephones.

3.1 Installing for the first time

3.1.1 Installation Summary

- Install applications software. Enter your license number for TELES.OnlinePowerPack. (See Chapter 3.1.3.)

- Turn off your computer. Install your adapter, connect it to the ISDN line and attach accessories. If required, check your computer for free interrupts and addresses. See Chapter 3.1.4 for quick installation and "Hardware Installation" for more technical information.

- Turn on your computer and install the driver software.

Plug&Play adapters	Chapter 3.1.5
Non-Plug&Play adapters and boxes	Chapter 3.1.6

- Run ISDN line test to check if your driver software and adapter hardware are working properly.

Contents of "TELES ISDN CD"

The CD contains various TELES ISDN applications, drivers, interfaces etc. in English and French. You can install the programs for which you have acquired a license as well as all of the free software.

Before you start, make sure you have your **license number** at hand (printed on the License Certificate).

3.1.2 General Installation Guidelines

What you need to install the software

- TELES ISDN CD
- TELES.OnlinePowerPack license number printed on the License Certificate
- Your Windows 95 CD (required for driver setup)

Where on the CD is the installation software?

TELES.OnlinePowerPack application software	\ENGLISH\WIN95\OPP
ISDN driver software (CAPI), Version 3.26 i	\ENGLISH\CAPI
Welcome screen	\CD_INST.EXE

Usually, you will not need to select these paths by hand. Manual selection is only necessary if the order of installation steps differs from the following description. (See Chapter 9.2.1)

What drivers and interfaces will be set up?

- **ISDN driver** for your TELES ISDN adapter, referred to as **CAPI** (Version 1.1/2.0).
- **TELES.VCOMM** driver to run modem programs over ISDN.
- Microsoft's ISDN Accelerator Pack 1.1 for Windows 95 Dial-Up Networking for access to the Internet, local area networks, remote hosts, servers and routers via TCP/IP. Setup follows the application software installation if you confirm the corresponding prompt. You may also choose to install the Accelerator Pack later (see Chapter 1.2).
- If you already have the ISDN Accelerator Pack installed, the **TELES.WAN-NDIS Miniport driver** will be set up as an ISDN interface for Dial-Up Networking. If the Accelerator Pack is not available, the installation program skips the Miniport driver setup. You may install it later if necessary (see Chapter 9.1.5).

What system files will be modified?

The **WIN.INI** and **SYSTEM.INI** files will be altered, as well as the **REGISTRY** database. The files associated with the REGISTRY are the SYSTEM.DAT and the USER.DAT found in your Windows 95 system directory.

CAPI.DLL files will be added to your Windows \SYSTEM folder:

1. CAPI.DLL – Version 1.1 as 16-bit DLL
2. CAPI20.DLL – Version 2.0 as 16-bit DLL
3. CAPI2032.DLL – Version 2.0 as 32-bit DLL

Installation directory:

Driver and application software should be located in different directories such as C:\TELES for the driver software and C:\TOPP for the applications.

3.1.3 Installing the Application Software

Start Windows 95. Insert the TELES ISDN CD in a CD-ROM drive. The CD supports the AutoPlay mode and starts running automatically. You can now select your language and the software package you want to install.

Click here to choose English as the language you want to install

Click here to choose the software package you would like to install

Click here to launch installation of TELES.OnlinePowerPack

1. The **Welcome** panel appears. Simply click **Next >**.

2. Carefully read the **License agreement** and click **Yes** to agree.

   Enter your **name** and **company** and type the **16-digit license number** (printed on your License Certificate). Click **Add** and **Next >**. The data is saved to the ACTIVATE.KEY file located in your installation directory.
   Your license will be validated when you first access the Support server.

3. Use the next dialog box to either accept the default installation directory C:\TOPP or click **Browse...** to choose another. Click **Next >** to proceed. A status window shows the progress of the installation.

4. The **TELES.OnlinePowerPack ISDN settings** dialog appears, allowing you to supply some basic information about your ISDN line and enter telephone numbers for your new applications. Tool tip messages help you to enter the correct information.

5. You will be prompted to install the ISDN Accelerator Pack. Click **Yes** to install the package. Once the installation is complete, click **Finish** to restart your computer.

6. You may now install your board or connect your box. Then install the driver software. The CD can be left in the drive.

3.1.4 Installing Adapter and Connecting to ISDN Line

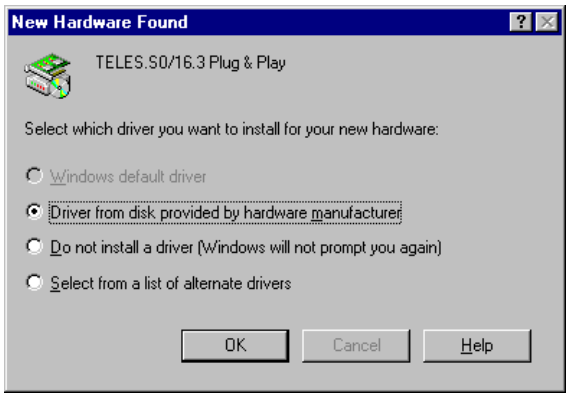
This section quickly guides you through the process of installing your adapter and getting connected to the ISDN line. For more detailed information on installing your hardware, see the “Hardware Installation” chapter.

1. Turn off your PC and unplug the power cable. (Not applicable for the PCMCIA card)
2. Insert your board into an empty slot or plug your box to your PC’s parallel port.
3. Connect one end of the RJ-45 cable to the RJ-45 jack on your board or box while plugging the other end into the ISDN wall outlet.
4. Depending on board or box type, attach the accessories.
5. Reconnect power plug.

3.1.5 Driver Installation using Plug&Play

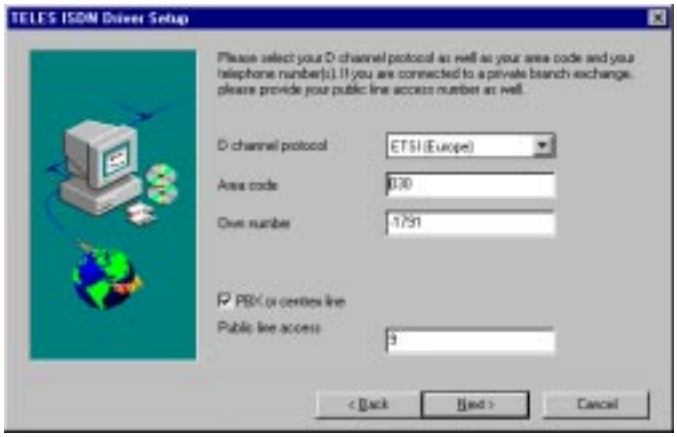
Applicable for: **TELES.BRI/PnP**, **TELES.VISION-B5** and **TELES.BRI/PCI Boards**, and **TELES.BRI/PCMCIA Cards**

1. Once your board is installed and connected to the ISDN line, start up **Windows 95**. Windows should recognize the new hardware and begin driver installation. Depending on your Windows 95 version, either the **New Hardware Found** dialog box will display (click **OK**), or you will be led directly to step 2.



2. The **TELES ISDN Driver** welcome panel appears. Simply click **Next >**. Then, either accept the default driver installation directory C:\TELES or click **Browse...** to choose another. Click **Next >**.

3. In the **TELES ISDN Driver Setup** dialog, specify these settings:



   - **D channel protocol**: From the listbox, select the D channel protocol for which your ISDN line is configured. For Euro-ISDN, choose ETSI (Europe).
   - **Area Code**: Type your area code here.
   - **Own number**: Call number to enable *ISDN Line Test*. If connected to a PBX, only type your extension number, preceded by a hyphen ("-"). This way, the test will be run internally within the PBX, avoiding charges.
   - **PBX or Centrex line**: If you are connected to a company switchboard, mark this option and enter the digit required to dial an outside line under **public line access.**

   Click **Next >**.

4. The ISDN drivers are installed, followed by the **TELES.VCOMM driver** setup. Various preconfigured modem setups are created. This may take a while, especially if you are installing for the first time.

5. If the installation routine detects Microsoft's ISDN Accelerator Pack 1.1 on your computer, the **TELES.WAN-NDIS Miniport Driver** will be set up now. Otherwise, this item is skipped.

6. A message appears confirming the successful completion of the driver installation. Press **Finish** to quit the driver setup.

7. To allow the changes to take effect, click **Yes** in the following dialog to **restart your computer**.

3.1.6 Driver Installation without Plug&Play

Applicable for: **TELES.BRI/16.3 Board** and **TELES.BRI Box**

After you have installed your ISDN adapter and connected it to the ISDN line, start Windows 95. You should still have the TELES ISDN CD in the drive and your Windows 95 CD at hand.

1. If you are installing for the first time, the **Add New Hardware Wizard** displays a welcome panel. Simply click **Next >**.

2. In the next dialog box, select the **No** option to skip the hardware search. Then click **Next >**.

3. Select **TELES ISDN Adapter** from the list of hardware types to be installed. Click **Next >**.

4. The Hardware Wizard displays a list of TELES ISDN adapters. Choose the one you have installed and press **Next >**.

5. Now the Add New Hardware Wizard displays your board's **Settings**. At this moment, Windows 95 does not adopt any changes. If the default settings do not apply, you can use the Windows 95 *Device Manager* to select other values after you have completed the installation (see Chapter "Changing your ISDN Adapter's Settings"). Therefore, simply click **Next >** now.

6. The **TELES ISDN Driver Installation** dialog appears. Click **Next >**. Then either adopt the default **target directory C:\TELES** or click **Browse...** to choose another one, though be certain not to install your driver software into the same directory as your application software. Click **Next >** again.

7. In the **TELES ISDN Driver Setup** dialog, specify these settings:

   - **D channel protocol**: From the listbox, select the D channel protocol for which your ISDN line is configured. For Euro-ISDN, choose ETSI (Europe).
   - **Area Code**: Type your area code here.
   - **Own number**: Call number to enable *ISDN Line Test*. If connected to a PBX, only type your extension number, preceded by a hyphen ("-"). This way, the test will be run internally within the PBX, avoiding charges.
   - **PBX or Centrex line**: If you are connected to a company switchboard, mark this option and enter the digit required to dial an outside line under **public line access.**

   Click **Next >**.

8. The ISDN drivers are installed, followed by the **TELES.VCOMM driver** setup. Various preconfigured modem setups are created. This may take a while, especially if you are installing for the first time.

9. If the installation routine detects Microsoft's ISDN Accelerator Pack 1.1 on your computer, the **TELES.WAN-NDIS Miniport Driver** will be set up now. Otherwise, this item is skipped.

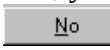
10. This takes you to the **Add New Hardware Wizard** again. Click **Next >** and select **Yes** to **restart** your computer now.

3.1.6.1 Driver Update for all Adapters

To update an earlier ISDN driver to a more recent version simply start the driver installation program (see previous two sections 3.1.5 and 3.1.6). The setup will recognize any older driver versions on your system and inform you that an update will be done. Generally no older files need to be removed or settings changed by the user.

Note: In case the setup was interrupted, use the CLEANREG.EXE utility described in Chapter 6.1.2 to remove any remaining references to the old driver from the Registry. If the drivers installed were older than version 3.20, the following steps listed below should be taken to be sure the system is ready for a renewed installation:

Applicable for: TELES.BRI/PnP, **TELES.VISION-B5**, **TELES.BRI/PCI** and **TELES.BRI/PCMCIA Boards**

1. Use the Windows 95 Device Manager to *uninstall* the earlier ISDN driver. Click **Start | Settings | Control Panel | System | Device Manager | TELES ISDN Adapter | Remove**
2. This is followed by the message: *To finish removing your hardware, you must restart your computer. Do you want to restart your computer now?* Press 

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3. Delete the **TLSISDN.INF** and **TELES.INF** files from the WINDOWS INF subdirectory (e.g. **\windows\inf**). When using the Explorer, be sure to display all file types using the **View | Options... | Show all files** option.
4. Restart Windows 95, while leaving the board in your computer. Now follow the steps listed in the preceding chapter.

3.1.7 Testing the Installation

To check that your ISDN adapter is working properly, you can set up an **ISDN Line Test** between the two B channels of your ISDN line, using the telephone numbers you entered during installation. Right-click the ISDN Monitor icon in the Windows 95 taskbar. Select **Properties** from the resulting context menu and press the **Test ISDN Line** button. For details, see the section 6.2.2 in the Chapter “Testing and Troubleshooting in Windows 95”.

The first telephone number will automatically be used for the *ISDN Line Test*. If connected to a PBX, only type your extension number. This way, the test will be run internally within the PBX, avoiding charges.

3.2 Reinstalling Applications or Installing an Update

Before installing a newer version of the software, please be certain to consider the following:

- Make a copy of the **ACTIVATE.KEY** file, which contains the information required for the validation of your application software. This file is found in the directory into which your application software was installed (with TELES.OnlinePowerPack, for example, C:\TOPP). After reinstallation, you can simply copy this file from your backup into the newly created directory. More detailed instructions can be found in the chapter entitled "Validating your TELES.OnlinePowerPack License".
- For safety's sake, you may also choose to backup the **REGISTRY** database. To do so, choose **Export Registry File…** from the **Registry** menu of the **Registry Editor**, or manually backup the two files which comprise the database, SYSTEM.DAT and USER.DAT, both of which are found in the Windows installation directory.
- Install the application software *first* and then the driver software. Your ISDN adapter may remain unaltered in (or attached to) your PC.

If you own a TELES.ISDN application package version earlier than 3.20

- Close all ISDN applications. Install the new application software into the same directory as the existing version. Maintain the original directory name, such as C:\TELESCOM or C:\ONLINE.
- Install the driver software into a *separate directory* as described in "Installing TELES.OnlinePowerPack".
- References to the driver software in the WIN.INI and SYSTEM.INI files are replaced by new entries.
- Please note that the phonebook entries of a TELES.COM version are not compatible with the entries of TELES.OnlinePowerPack versions, but can be imported using MCC.

If you own TELES.OnlinePowerPack version 4.0 or later

- Install the new application software into the same directory as the existing version. Phonebook entries and Answering machine/Recorder messages remain intact.
- Install the new driver software into the directory of your existing drivers. NOTE: If you remove the existing drivers (using the Windows 95 Device Manager as explained in the chapter entitled "Uninstalling your ISDN Adapter's Drivers"), you should nonetheless use the same directory path for the new driver software, such as C:\TELES.
- If you have a Plug&Play adapter, also see the instructions in the section on "Driver Update for all Adapters".

4 Installing TELES.OnlinePowerPack under Windows 3.x

Installing TELES.OnlinePowerPack is simple. The default settings will be appropriate for most environments.

If, however, you wish to reconfigure your adapter's settings, follow the step by step instructions and figures provided in the Chapters "Hardware Installation" and "Using your ISDN Adapter with Windows 3.x". You will also find detailed information on how to connect various accessories, such as cameras and telephones.

4.1 Installing for the first time

4.1.1 Installation Summary

- Turn off your computer. Install your adapter, connect it to the ISDN line and, if applicable, attach accessories. If required check your computer for free interrupts and addresses.
- Turn on your computer and install applications software. Enter your license number for TELES.OnlinePowerPack.
- Install ISDN driver software.
- Run ISDN line test to check if your driver software and adapter hardware are working properly.

Contents of "TELES ISDN CD"

The CD contains various TELES ISDN applications, drivers, interfaces etc. in English and French. You can install the programs for which you have acquired a license as well as all of the free software.

Before you start, make sure you have your **license number** at hand (printed on the License Certificate).

4.1.2 General Installation Guidelines

What you need to install the software

- TELES ISDN CD
- TELES.OnlinePowerPack license number printed on the License Certificate
- **NOTE**: If you use the **W32S 32-bit extension manager**, first follow the steps provided in Section 1.1.7 *before installing the software*.

What drivers and interfaces will be set up?

- **ISDN driver** for your TELES ISDN adapter, referred to as **CAPI**
- **TELES.WinCOM** driver to run modem programs across ISDN

What files will be modified or created?

- **WIN.INI**, **SYSTEM.INI**
- **CAPI.INI** to manage ISDN driver information

Installation directory:

Driver and application software should be located in different directories such as C:\TELES for the driver software and C:\TOPP for the applications.

4.1.3 Installing Adapter and Connecting to ISDN Line

This section quickly guides you through the process of installing your adapter and getting connected to the ISDN line. For more detailed information on installing your hardware, see the “Hardware Installation” chapter.

1. Turn off your PC and unplug the power cable. (Not applicable for the PCMCIA card)
2. Insert your board into an empty slot, or plug your box to your PC’s parallel port.
3. Connect one end of the RJ-45 cable to the RJ-45 jack on your board or box, while plugging the other end into the ISDN wall outlet.
4. Depending on board or box type, attach the accessories.
5. Reconnect power plug.

4.1.4 Installing Application Software

Insert the TELES ISDN CD in a CD-ROM drive. Run the **CD_INST.EXE** file from the CD root directory. To do so, simply go to the File Manager and double-click the file name or select the **Run** command from the Program Manager. Then select your language and the software package you want to install.

Click here to choose English as the language you want to install

Click here to launch installation of TELES.OnlinePowerPack

Click here to choose the software package you would like to install

1. The **Welcome** panel appears. Simply click **Next >**.

2. Carefully read the **License agreement** and click **Yes** to agree.

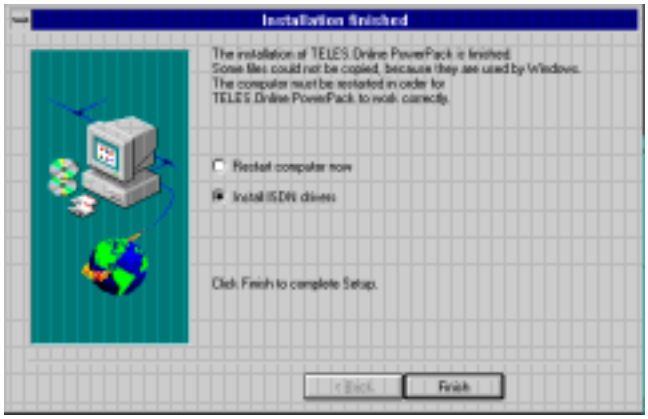
   Enter your **name** and **company address** and type the **16-digit license number** (printed on your License Certificate). Click **Add** and **Next >**.

   In the resulting dialog box, click **Yes** to register your license information. The license server validates your license number along with your name, company address and phone number – if entered. On your own computer, the data is saved to the ACTIVATE.KEY file located in your TELES.OnlinePowerPack directory.

   Validation will be effected when you first access the Support server.

3. Use the next dialog box to either accept the default directory C:\TOPP or click **Browse...** to choose another. Click **Next >** to proceed.

4. The installation is now complete. Click **Finish**.

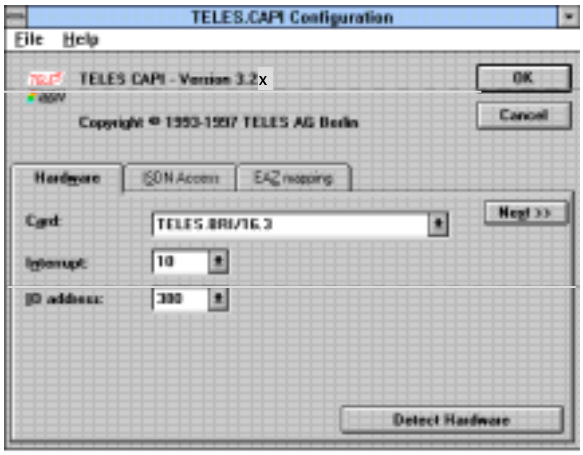


The installation program will automatically take you to the **CAPI driver** setup step described below.

4.1.5 Setting up Drivers

1. Driver setup starts running *automatically*, first displaying the **TELES ISDN Driver Setup** welcome panel. Click **Next >**. Use the resulting dialog box to either accept the default directory **C:\TELES** or click **Browse…** to choose another one. Click **Next >** to proceed.

2. **Hardware** sheet: The **Card** list displays a selection of TELES ISDN adapters. Choose the one you have installed.

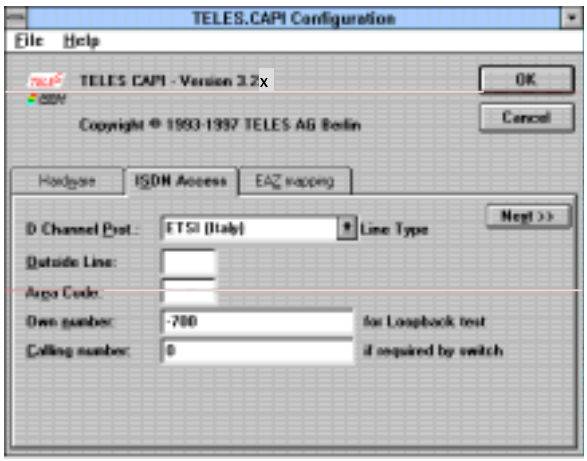


   - Depending on your adapter type, select the appropriate **interrupt** and **address settings**. The installation utility adopts only matching values for the selected board. For details, see the table below.
   - **Detect Hardware:** Helps you verify the selected settings. Alerts you of conflicts with other hardware components and then shuts down your computer. If so, refer to the Chapter “Hardware Installation” for reconfiguring your adapter.

   Click **Next >** to jump to the next sheet.

PCI and Plug&Play boards	Displayed in listbox. No action from your part since board is automatically configured.
Boxes	Specify parallel port your box is connected to.
TELES.BRI/16 **TELES.BRI/16.3**	Be sure not to confuse TELES.BRI/16 and TELES.BRI/16.3. Scroll through drop-down listbox and select right board.
TELES.BRI/PCMCIA	Check **Use Card Service** option (See chapter “Hardware Installation”, section “TELES.BRI/PCMCIA Card” for details)

3. Use the **ISDN Access** sheet to specify these settings:



   - **D Channel protocol**: From the listbox, select the D channel protocol for which your ISDN line is configured. For Euro-ISDN, choose ETSI (Europe).
   - **Outside line**: This entry is only necessary if your PC is connected to a PBX and you must dial a digit such as “0” or “9” to get an outside dial tone. Enter that digit here. It will then be automatically prefixed to all outgoing calls.
   - **Area code:** Enter your area code here, so that the software will be able to remove these digits from outgoing local calls, and from incoming calls from within your area code.
   - **Own number**: Call number to enable *ISDN line test*. If connected to a PBX, only type your extension number. This way, the test will be run internally within the PBX, avoiding charges.
   - **Calling number:** *Required only if your system is connected to a PBX type that needs specific numbers for outgoing calls*. As a rule, these are the call numbers assigned to each TELES.OnlinePowerPack application in the ISDN Settings dialog. Since there is no such dialog for the ISDN line test, type this number here, if actually needed. Ask your PBX operator to make sure. In most cases, leave the box blank.

   Click **Next** >>.

4. **EAZ mapping**: Opens a sheet to assign call numbers to ISDN applications you run on top of the CAPI 1.1. For details see Chapter 7.1.3 “Reconfiguring Resources”.

5. After completing all entries, click **OK**. A status bar shows the progress of the installation. When the percentage bar reaches the 100 % level, the windows will close and the CAPI program group will be created.

6. Once the installation has been completed, shut down Windows to make the changes take effect.

4.1.6 Testing the Installation

To **check** that the ISDN drivers work properly, you can set up a **test connection** to your own ISDN line, using the number you have entered during the installation. For details, see the Chapter “Testing the ISDN Line (Call Back Test)”.

To **modify** any installation parameters, run the **CAPI Setup** utility and simply enter the correct values in the appropriate dialog boxes (refer to the chapter “Reconfiguring Hardware and Software”).

4.1.7 Installation with the W32s 32-bit extension

Before installing TELES.OnlinePowerPack, deactivate the W32s management. To do so, comment out the following entry (e.g. by typing a semicolon or REM at the beginning of the line). Then restart Windows.

SYSTEM.INI file
[386Enh] section
;device=c:\windows\system\win32s\w32s.386.

After the installation has been completed, simply remove the semicolon or remark. Then restart Windows.

4.2 Reinstalling Applications or Installing an Update

1. Back up your ACTIVATE.KEY file before reinstalling TELES.OnlinePowerPack or installing an update.
2. Disable the TELES.WYSIWIS driver (closing TELES.WYSIWIS is not sufficient yet).
3. Close all TELES ISDN applications.
4. Remove ISDN drivers. For details, see the chapter on “Uninstalling Your ISDN Adapter’s Drivers”.
5. Run installation program. See section 4.1.4 in this chapter for more information.

5 Hardware Installation

This chapter guides you through the process of

- **configuring and installing** your ISDN adapter,
- **connecting the adapter to the ISDN line**,
- **attaching various accessories**,
- **reconfiguring or uninstalling** your ISDN adapter,

As an extra chapter is allocated to each adapter, you may skip the pages that do not apply to your own model.

5.1 Interrupt and Address Settings

Please note the following differences depending on the adapter type:

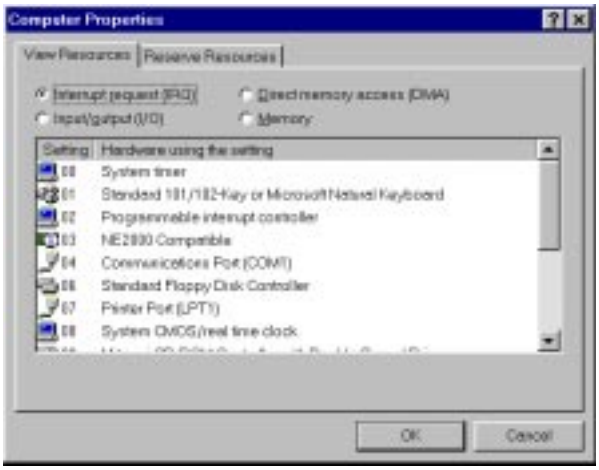
TELES Plug&Play boards	Automatically configured on system boot-up. Only in rare cases will you need to manually reconfigure interrupts or addresses.
TELES non-Plug&Play boards	While interrupts are configured by software, I/O addresses must be configured by jumpers or DIP switches.
TELES boxes	Use standard printer port interrupts and I/O addresses.

Before installing your adapter, check your computer for free **interrupts** and **addresses**. Make sure that the selected interrupts and address ranges do not conflict with those assigned to other components installed in your PC. Otherwise, your BRI adapter may not function properly. The conflicting card(s) may also not operate correctly. If you appear to have a resource conflict, check the following:

To verify free interrupts and addresses

- Refer to the **manuals** of your motherboard and all existing adapters.
- Use the **Windows 95 Device Manager** to view your computer's resource settings.
- Under **Windows 3.x**, use the Microsoft System Diagnostics application (**MSD.EXE**) accessible in your Windows directory.

To get an overview of your computer's current resources, right-click the **My Computer** icon on the desktop and select **Properties** from the resulting context menu, or choose **Settings | Control Panel | System** from the **Start** menu. Then highlight **Computer** in the Device Manager list, and select **Properties**.



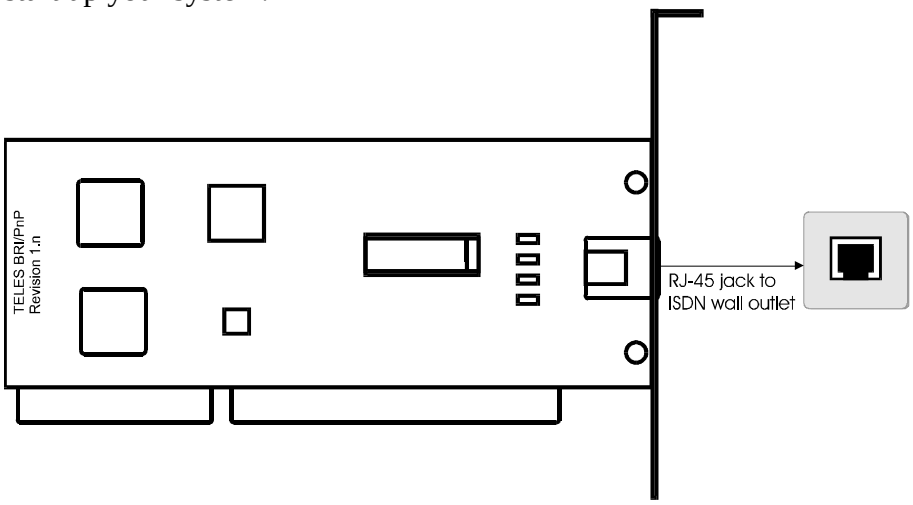
5.2 Overview: Installation Parameters for TELES ISDN Adapters

Model	Slot	Automatic configuration	Interrupts	I/O Address	Main Memory
TELES.BRI/PnP Board	ISA, 16-bit	Yes	3, 4, 5, 9, 10, 11, 12, 15	(Automatically configured)	
TELES.VISION-B5 Board	PCI	Yes	(any available)	-	4 kbyte (Automatically configured)
TELES.BRI/PCI Board	PCI	Yes	(any available)		4 kbyte (Automatically configured)
TELES.BRI/PCMCIA Card	PCMCIA	Yes	2, 3, 4, 5, 7, 10, 11, 12, 15	96 bytes (any address)	-
TELES.BRI/16.3 Board	ISA, 16-bit		2, 5, 9, 10, 12, 15	32 bytes at 180h, 280h or 380h	-
TELES.BRI Box	-		5, 7	3 bytes at 378, 278 or 3BC	-

NOTE: The TELES.BRI Box uses standard printer port interrupts and I/O addresses.

5.3 TELES.BRI/PnP Board

The TELES.BRI/PnP Board is very easy to install. All necessary resources are allocated by Windows 95 when you start up your system.



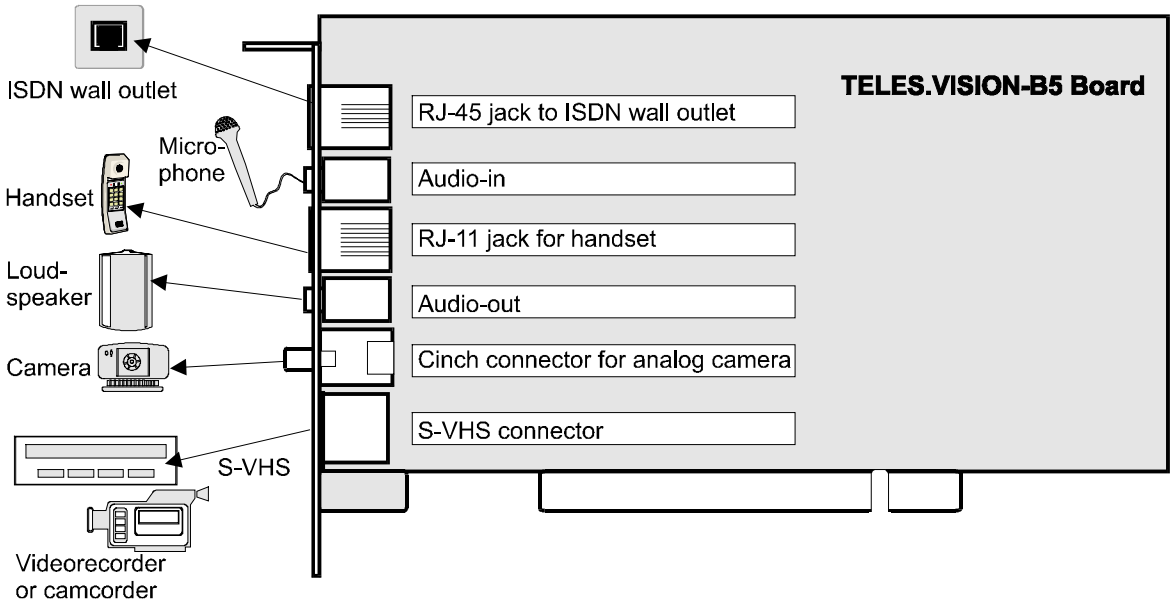
1. Turn off your PC. Unplug the power cable. Remove the cover of your PC.
2. Insert the board into an **ISA** slot.
3. Use the RJ-45 cable to plug the board into an **ISDN wall outlet**.
4. Replace the cover of your PC and reconnect the power plug.

When you boot up your computer, Windows 95 automatically detects your board and launches the installation program to set up the drivers. In Windows 3.x, manually start the installation program. Interrupt and memory addresses will be automatically set up.

See section 6 through 6.1.3.1 for details on how to *manually reconfigure* your board. For Windows 3.x, see “Reconfiguring Resources” in Chapter 7.

5.4 TELES.VISION-B5 Board

The TELES.VISION-B5 Board is designed for PCI-bus systems and is easy to install. All necessary resources will be allocated by the PCI BIOS when you boot up your system.



Simply insert the board, then plug in the ISDN cable and attach the accessories you want to use with the board.

1. Turn off your PC. Unplug the power cable. Remove the cover of your PC.
2. Insert your board into an empty **PCI** slot and secure it to the chassis.
3. Plug the **RJ-45 cable** into the **RJ-45 jack** on the board and into an **ISDN wall outlet**.
4. Use the **RJ-11 cable** to connect a **handset** to the **4-wire RJ-11 jack** on the board. If you want to connect a **hands-free device** you will need an adapter.
5. Optionally, connect a **microphone** and a **loudspeaker**, or a **hands-free device** to the audio-in and audio-out connectors on the board.
6. Connect your analog **NTSC or PAL camera** to the **cinch connector** (RCA) on the board. Alternately, you can connect an FBAS-capable VCR or camcorder.
7. Use the **S-VHS** connector on the board if you want to connect a VCR or camcorder.
8. Replace the cover of your PC and reconnect the power plug.

When you start your computer, Windows 95 automatically detects your board and launches the installation program to set up the drivers. In Windows 3.x, manually start the installation program. Interrupt and memory addresses will be automatically set up.

See Chapter 6 through 6.1.3.1 for details on how to *manually reconfigure* your board in Windows 95. For Windows 3.x, see “Reconfiguring Resources” in Chapter 7.

5.4.1 Using the TELES.VISION-B5 Board as a Soundcard

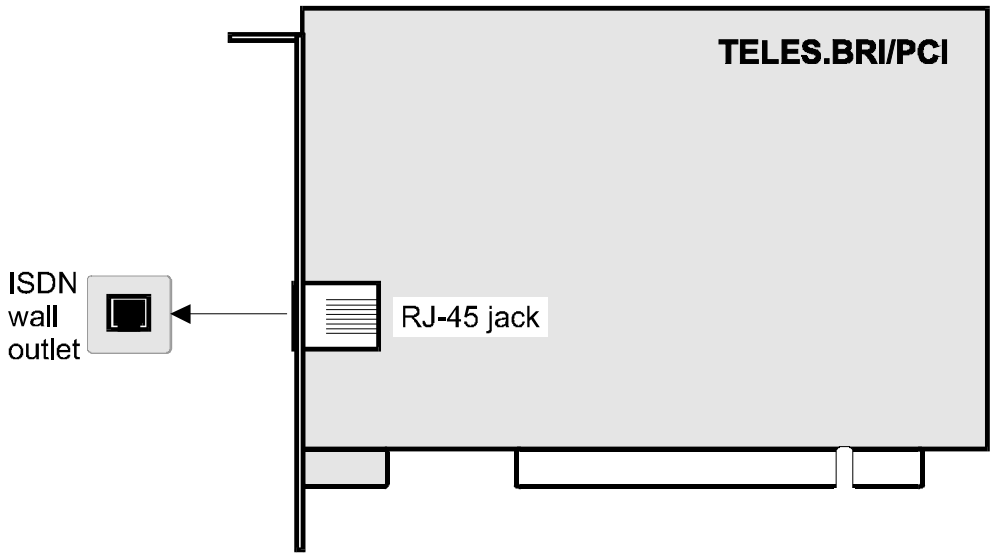
The TELES.VISION-B5 Board supports standard Windows drivers and can thus be used as a soundcard under Windows 95. The soundcard features can be activated as follows:

- Select **Settings | Control Panel | Multimedia** from the **Start** menu.
- Press the **Audio** tab and select the **TELES S0AB WaveOut Driver** from the Preferred Device list in the Playback box, and the **WaveIn Driver** from the list in the Recording box.
- Press the **Advanced** tab and select **Audio for TELES AG TLSWAVE** from the list of Audio Devices. For instructions on attaching accessories, see section 5.4.

NOTE: The stand-alone soundcard features of the TELES.VISION-B5 Board are not supported under Windows 3.x.

5.5 TELES.BRI/PCI Board

All necessary resources will be allocated by the PCI BIOS when you start up your system, so there is no need to manually configure your board.



1. Turn off your PC. Unplug the power cable. Remove the cover of your PC.
2. Insert the board into an **PCI** expansion slot.
3. Use the RJ-45 cable to connect the board to an **ISDN wall outlet**.
4. Replace the cover of your PC and reconnect the power plug.

When you boot up your computer, Windows automatically detects your board and launches the installation program to set up the drivers.

See Chapter 6 through 6.1.3.1 for details on how to *manually reconfigure* your board in Windows 95. For Windows 3.x, see “Reconfiguring Resources” in Chapter 7.

5.6 TELES.BRI/PCMCIA Card

The TELES.BRI/PCMCIA Card is a Type II card (0.2 inches or 5 mm thick). The use of your laptop's card service is a prerequisite for the installation of this card. When installing newer software versions, please be sure to follow the guidelines described earlier in the sections on "Reinstalling Applications or Installing an Update" under Windows 95 or Windows 3.x.

5.6.1 Inserting and Connecting the TELES.BRI/PCMCIA Card

1. Start up your laptop and insert your card into the PCMCIA slot.
2. Plug the RJ-45 end of the ISDN cable into an **ISDN wall outlet**, and attach the flat connector to the card.
3. The card service will recognize the card and automatically assign necessary resources.

5.6.2 Driver Setup under Windows 95

- You may use the card service provided by your laptop manufacturer or a Windows 95 Card Service. When using older models, be certain that the card service drivers are **Windows 95 compatible** (if so, the **PCMCIA socket** entry will be displayed in the Device Manager).
- When you insert the card, the card service detects the device and **automatically sets up all resources**. The values assigned are available under TELES ISDN adapter in the Device Manager, but cannot be changed there. If necessary, manual changes can be made using the Card Service.
- The **PC Card (PCMCIA)** | **Socket Status** sheet shows which sockets are occupied.

5.6.3 Driver Setup in Windows 3.x

- When installing the ISDN driver software, use the **Card Service** option and the card service provided by your laptop manufacturer. (This is the default setting in the Hardware installation window.)
- The card is configured automatically by the card service. To avoid conflicts with other components, you can *exclude* interrupts or addresses. Refer to your laptop's manual for more specific instructions.
- If your card cannot be properly configured using your laptop's Card Service, you can try deactivating the **Card Service** option. This activates the card service included with the ISDN driver (CAPI), allowing you to enter I/O address and interrupt values manually.

5.6.4 Freeing up slot for other cards

A major advantage that is you can **easily activate or deactivate** your TELES.BRI/PCMCIA Card. This is useful if you want to free the slot to insert another card. As a rule, you can simply pull out the card during operation. Some card service types, however, might prompt you to deactivate the slot beforehand.

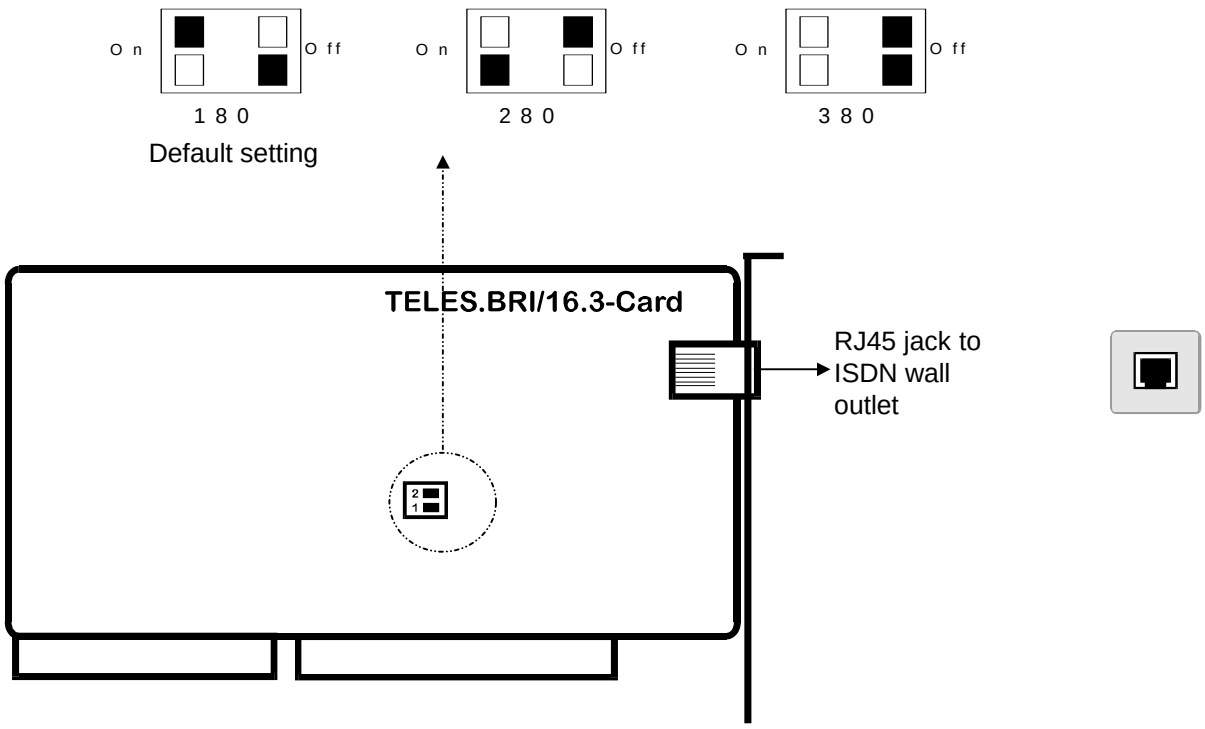
5.7 TELES.BRI/16.3 Board

When shipped from the factory, the **I/O** address of the TELES.BRI/16.3 Board is set at **180**. During the software installation, this value will be listed by default. If you want to change it, use the **DIP switch S1** on the board to select one of the options shown below. Then set up the same value using the software. The **interrupt** will be configured **by software**. The TELES.BRI/16.3 Board uses one of the following interrupts: **2** (same as 9), **5, 10, 12** or **15**.

Windows 95: During the installation, Windows 95 does not allow for settings changes. To enter the new values after installation, open the **Device Manager** and highlight your TELES.BRI/16.3 Board. From the **Properties** sheet, select the I/O address and interrupt.

Windows 3.x: Select the preset I/O address and an appropriate interrupt from the **Hardware** dialog. Changes can be made later using the CAPI Setup program.

DIP switch for configuring I/O address



1. Turn off your PC. Unplug the power cable. Remove the cover of your PC.
2. Plug the board into an empty **ISA** slot in your PC.
3. Use the **RJ-45** cable to plug the board into an **ISDN wall outlet**.
4. Replace the cover of your PC and reconnect the power plug.
5. Restart your computer.

ATTENTION: When installing the software, be sure to select the **TELES.BRI/16.3 Board** from the hardware list box. If mixed up with the TELES.BRI/16 Board, the driver will fail to address your TELES.BRI/16.3 Board. See Chapter 6 through 6.1.3.1 for details on how to *manually reconfigure* your board in Windows 95. For Windows 3.x, see "Reconfiguring Resources" in Chapter 7.

5.8 TELES.BRI Box

Unlike the TELES.BRI Boards, the TELES.BRI Box is an external unit that connects your PC to the ISDN line. Simply connect the box to your parallel port and it is ready to go. You do not have to worry about setting interrupts and addresses. It is ideally suited for laptops, notebooks and PCs without any free slots.

You install the TELES.BRI Box in four easy steps:

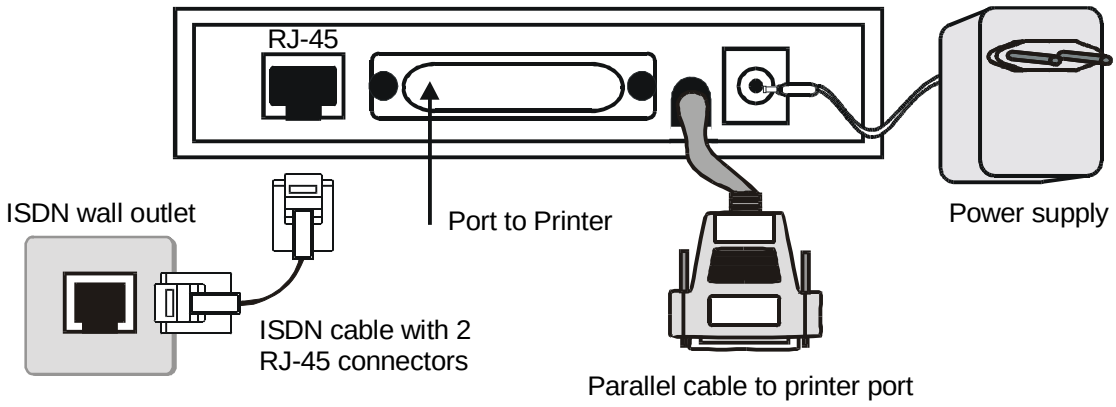
1. The TELES.BRI Box's parallel cable *must* be plugged to your PC's **LPT1** printer port.
2. Connect one end of the RJ-45 cable to the RJ-45 jack on the TELES.BRI Box, while plugging the other end into an **ISDN wall outlet**.
3. Connect the power supply cable to the TELES.BRI Box and plug the power supply into a power outlet.
4. If desired, connect your printer to the TELES.BRI Box.
5. Finally, start up your computer and run the **TELES Setup** installation program from the CD.

The TELES.BRI Box uses the standard parallel port I/O address and interrupt. The following values are usually pre-configured in your PC's **BIOS:**

Parallel Port	I/O Address	IRQ
LPT1	378 (3BC in some computers)	7
LPT2	278	5

If you encounter problems when printing, see Chapter 5.9.

TELES.BRI Box (Back view)



5.9 Other Devices on the Parallel Port

The TELES.BRI Box is intended for **unidirectional printer ports**. For printers attached to the parallel port beyond the box, this may present problems in the transfer of commands, control signals, etc.

In most cases, it is sufficient to switch the **parallel port** or the **printer driver** from bidirectional communication to **unidirectional operation**. Settings can be made in the BIOS or – in some cases – in the printer driver itself.

Sample BIOS Settings

The settings vary according to the type of BIOS. For bidirectional operation, you frequently find the "**ECP**", "**EPP**" or "**Bidirectional communication – compatible**" options. Simply deactivate the appropriate option. For unidirectional operation, the "**Normal**" option is frequently used.

6 Using your ISDN Adapter with Windows 95

6.1 Reconfiguring Hardware and Software

6.1.1 Removing Application Software

To remove the TELES.OnlinePowerPack application software, use the Windows 95 uninstaller.

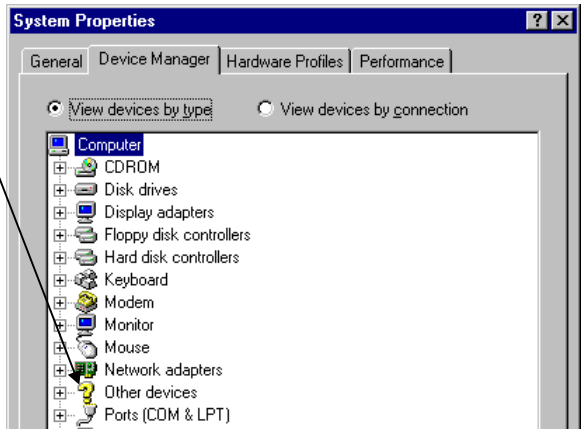
1. Select **Settings | Control Panel** from the **Start** menu and double-click the **Add/Remove Programs** icon.
2. Choose TELES.OnlinePowerPack from the resulting dialog.
3. Press **Add/Remove** and confirm the resulting prompt with **Yes** to delete the software.

All files that have remained unchanged since installation will be removed automatically. Phonebook entries, licensing information, received files, etc. are not affected by this process. If certain files are being used by Windows, you must confirm before deleting them.

6.1.2 Uninstalling Your ISDN Adapter's Drivers

To remove your TELES ISDN adapter along with the CAPI, TELES.WAN-NDIS Miniport and TELES.VCOMM drivers from your system configuration:

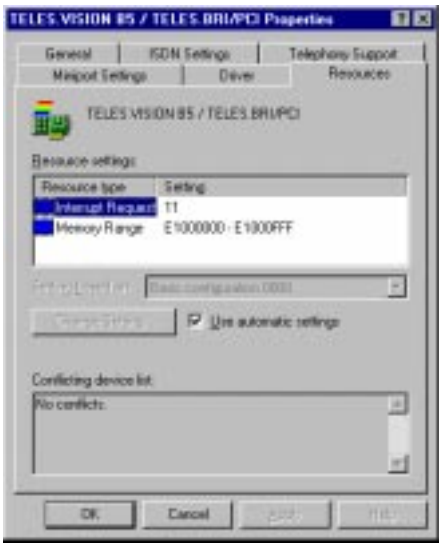
1. Click the **Start** button, point to **Settings**, select **Control Panel**, double-click **System**.
2. Click the **Device Manager** tab.
3. From the list of devices, choose **TELES ISDN adapter** and select your own model.
4. Click **Remove** and confirm the resulting message by pressing **OK**.
5. Shut down Windows 95 and restart your computer.



NOTE: An incomplete or faulty installation may leave a device entry with a question mark in the **Other Devices** category of the Device Manager. You can reconfigure the board using the **Properties** dialog. Otherwise you can **Remove** the driver and then reinstall it.

The **CLEANREG.EXE** program is a helpful tool which removes all TELES ISDN driver software entries from the Registry. The program can be found on the TELES CD in the Win95 subdirectory. Start the program by double-clicking the file in the Explorer. CLEANREG.EXE can be used on older CAPI drivers version 3.20 or later.

6.1.3 Changing your ISDN Adapter's Settings



Using the Windows 95 Device Manager, you can alter the settings for your ISDN adapter at any time.

1. Click the **Start** button, point to **Settings**, select **Control Panel**, double-click **System** (or simply right-click the **My Computer** icon on the Desktop and select **Properties** from the resulting popup).
2. Click the **Device Manager** tab.
3. From the list of devices, choose **TELES ISDN adapter**, select your model and press **Properties**.
4. Click the tab corresponding to the device settings you would like to alter. If you reconfigure your hardware resources, the Device Manager will detect any conflicting settings and alert you automatically. To change your adapter's hardware settings, click the **Resources** tab and proceed as follows:

Non Plug&Play adapters

Select one of the **Basic configurations,** highlight the **Resource type** you want to change, press **Change Setting...** and select another value from the resulting dialog box. Note that basic configuration **0** does not allow the I/O address to be changed.

Plug&Play adapters in ISA systems

- Uncheck the **Use Automatic Settings** option.
- Select one of the **Basic configurations** to assign a *preconfigured setup*. There are usually four typical configurations available, each with *one interrupt* and *two I/O address ranges*. Within the basic configurations, you can change the following settings:

Basic configuration 0	Alternative settings are disabled
Basic configuration 1	Interrupt and I/O address range can be changed.
Basic configuration 2	Interrupt can be changed.
Basic configuration 3	Interrupt and I/O address range can be changed.

- To *manually* reconfigure the board's settings, uncheck **Use automatic settings**. Then highlight the resource type you want to change. Click the **Change Setting...** button and choose the appropriate values.

Plug&Play adapters in PCI systems

Since the PCI BIOS automatically assigns suitable resources to your board, it is not recommended to disable the automatic setup mode. The board relies on the basic configuration 0, which optimizes all settings.

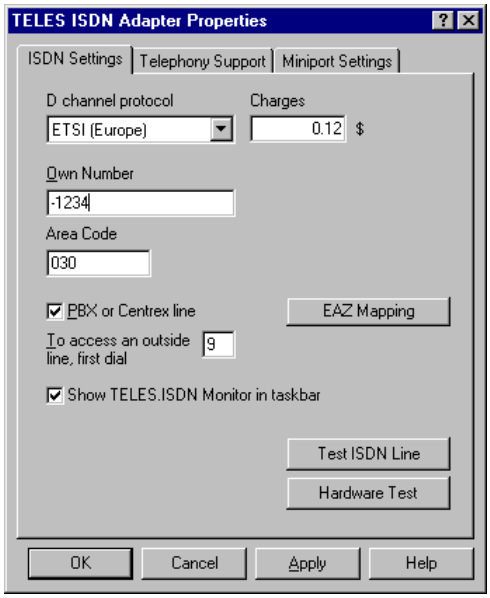
PCMCIA Cards: Settings should be altered using the Card Service. See Chapter 5.6.

6.1.3.1 ISDN Settings sheet

Click this tab if you want to change general settings. The resulting sheet is similar to the **TELES ISDN Adapter Properties** installation sheet (see the chapters on Driver Installation, 3.1.5 and 3.1.6). This sheet is accessible from the **ISDN Monitor** by selecting **Properties** from the **Options** menu, and from the Windows 95 taskbar by right-clicking the **ISDN Monitor icon**.

You can modify these settings:

- *D channel protocol* (*Switch/Line type)*
- *Charge per tariff unit*
- *Telephone number and Area Code*
- *Outside line access options*



Also, you can use the ISDN Settings sheet to

- specify *EAZ Mapping* options
- display or hide *ISDN Monitor in the taskbar*
- run the *ISDN Line Test*
- run the *Hardware Test*

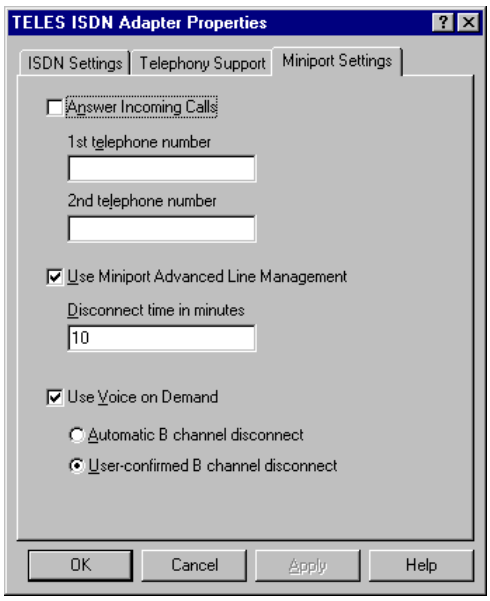
6.1.3.2 Telephony Support sheet

This sheet applies to

- ISDN devices attached to the same BRI as your ISDN adapter such as a TELES.FON ISDN telephone or boxes with analog devices attached. The settings for these devices can be accessed by pressing the **Advanced...** button.
- Telephony software that you would like to use with your ISDN adapter. This applies to programs that use Microsoft's TAPI software such as the Windows 95 Phone Dialer Accessory. The **Answer calls** option allows all applications that make use of the TAPI software to respond to incoming calls at the number specified in the **Number** field. The "*" symbol signifies that all incoming calls on your ISDN line can be answered by telephony applications. If you would like only certain numbers to be answered by such applications, specify one of the telephone numbers on your ISDN line.

Further explanation can be found in the online Help.

6.1.3.3 Miniport Settings sheet



The Miniport driver installed with your ISDN driver software allows you to use your ISDN adapter to establish PPP connections (for example to the Internet).

This sheet allows you to adjust Miniport driver settings to meet your specific needs. You can configure your computer as a Dial-Up Server by marking the **Answer Incoming Calls** option and entering the desired telephone number(s).

The **Miniport Advanced Line Management** and **Voice On Demand** options offer convenient and automated assistance to help you make the best use of your B channels.

Further explanation can be found in the online Help.

6.2 Testing and Troubleshooting in Windows 95

This chapter provides information on *monitoring*, *testing* and *troubleshooting* the ISDN driver and your ISDN board, explains the status information and error messages provided by the software and describes the various tests to run if you should encounter problems.

6.2.1 ISDN Monitor Status Display

All features for monitoring and testing your ISDN adapter are accessible via the **ISDN Monitor**.

The ISDN Monitor window displays information on ISDN line activity, including

- B channel usage
- Connection status
- Error messages

The ISDN Monitor offers the following test utilities:

- ISDN Line Test
- Analog Line Test (if applicable)
- Hardware Test
- Trace program
- BRI Statistics

It is recommended to run the ISDN Line Test after you have completed the installation. If no error is reported, you need not run any other test. Trace and statistics utilities are recommended for fixing problems.

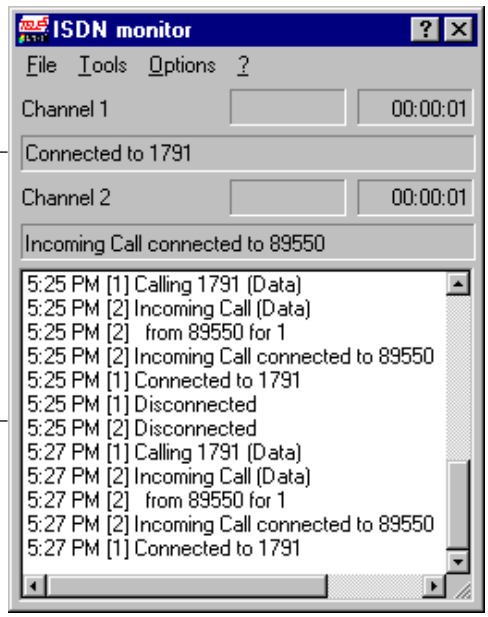
6.2.1.1 The ISDN Monitor User Interface

By default, the ISDN Monitor icon is always visible on the Windows 95 taskbar. To open the ISDN Monitor dialog box, simply **double-click** the icon.

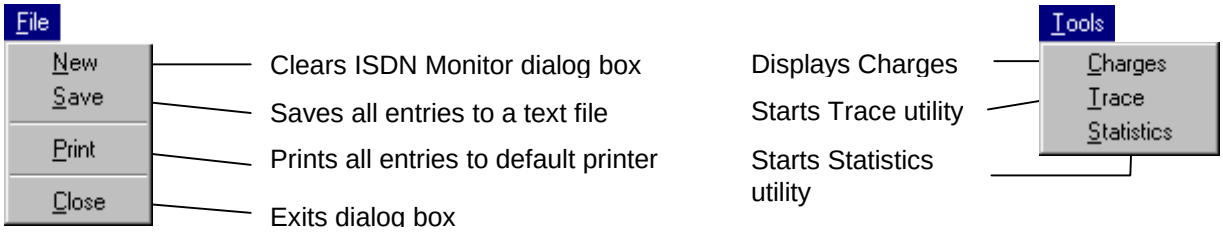
If you do not want the icon to appear on the taskbar, use the **ISDN Adapter Properties** sheet accessible from the context menu which appears when you right-click the taskbar icon. Then uncheck the **Show ISDN Monitor in taskbar** option.

If there is a call in progress on either B channel, the call status information fields appear.

Listbox displaying the activities of your ISDN board:
Registers up to 300 entries. All entries exceeding this number will overwrite previous entries.

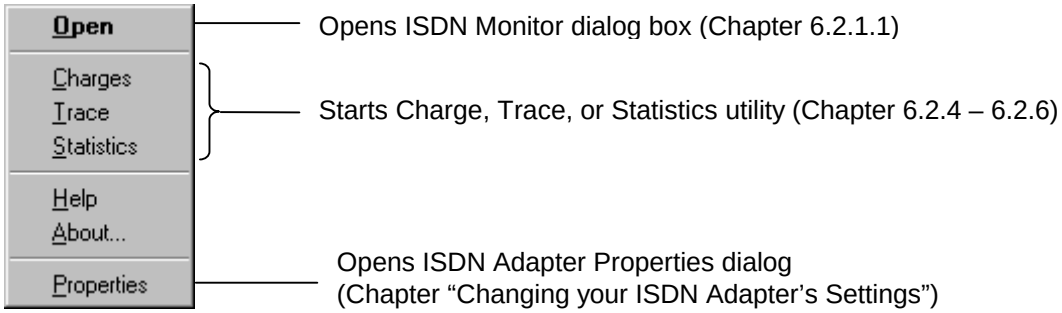


6.2.1.2 The ISDN Monitor Menu Bar



6.2.1.3 ISDN Monitor Context Menu

To open this menu, point to the ISDN Monitor icon on the taskbar, while clicking the right mouse button.



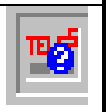
6.2.1.4 ISDN Monitor Messages

The **Monitor icon** displays basic information about your ISDN line.

Icon	Description
	**2 green lights:** Drivers active. No connection in progress on either B channel (both free).
	**1 yellow, 1 green light:** Call is being set up on one B channel, the other is free.
	**1 red, 1 green light:** Connection in progress on one B channel, the other is free.
	**2 red lights:** Both B channels are busy.
	**2 grey lights:** Operating system is configuring the ISDN drivers.
	**Exclamation mark in a yellow circle:** Failure to activate ISDN adapter, no hardware found, drivers not operational or drivers stopped. There is a hardware or setup problem.
	**Question mark in a blue circle:** Failure to activate ISDN line. **Possible error:** ISDN adapter not properly connected to ISDN line.

Tool Tip Messages

While the mouse pointer is positioned over the ISDN Monitor icon, a tool tip text appears, reflecting the status of your ISDN adapter and the progress of connections set up on either B channel.

Tool Tip Message	ISDN Adapter Status	Icon
ISDN Monitor	ISDN adapter OK.	
Hardware not configured	Drivers have been loaded and are now waiting for the hardware to be configured by Windows 95.	
ISDN drivers are being set up...	Drivers have been assigned an appropriate configuration by Windows 95. They are being set up now.	
Hardware error	Failure to find or initialize hardware.	
Unable to configure ISDN driver	Configuration of at least one driver module has failed. Drivers are not operational.	
Hardware not accessible	Temporary problem occured, e.g. board has been removed from PC.	
ISDN line deactivated	Failure to initialize ISDN line.	
ISDN drivers stopped	ISDN driver deactivated (e.g. when running Hardware test).	

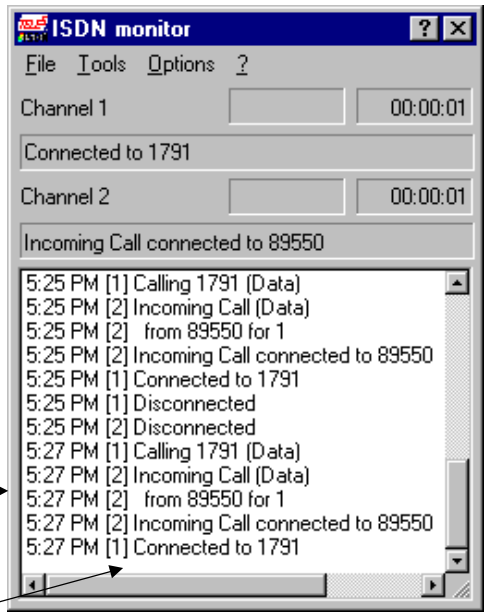
Understanding the messages displayed

Each line displayed in the ISDN Monitor dialog contains information in the following order:

`hh:mm [B channel] Message Phone number (Service feature)`

Below you will find a short description of each component.

Information	Description
`hh:mm`	Time of each action
`[B channel]`	Used B channel
`Message`	Message reported, e.g. about call setup, disconnection, error, etc.
`Phone number`	Destination number or caller's number
`(Service feature)`	Service that governs the connection: Telephony, voice, FAX G2, FAX G3, Modem Data, FAX G4, VTX, Data service, Video



ISDN Monitor status messages

Message	Description
Waiting for hardware configuration...	Drivers have been loaded and are now waiting for the hardware to be configured by Windows 95.
ISDN drivers are being set up now.	Drivers have been assigned an appropriate configuration by Windows 95. They are being set up now.
ISDN drivers are operational.	All driver modules have been configured. Hardware is operational.
ISDN drivers stopped.	Drivers are stopped, e.g. during hardware test.
ISDN drivers not operational	Drivers not operational. There is a hardware or setup problem.
Self test failed.	Failure to find or initialize hardware.
Self test OK.	Hardware has been found, tested and initialized.
ISDN line activated.	
ISDN line deactivated.	
ISDN line not connected.	ISDN adapter not connected to ISDN line.
SPID registered.	SPID has been successfully registered with the ISDN switch.
SPID rejected.	SPID format or D channel protocol is incorrect.

Example

The date logged by the ISDN Monitor can be saved to a file similar to the one shown on the right by selecting **Save** from the **File** menu.

The example shown here displays the following information/activities:

1. ISDN driver version
2. Date and time
3. Hardware configuration
4. ISDN driver configuration
5. A telephone connection
6. An ISDN Line Test

```
ISDN Monitor Log, CAPI 1.1 / 2.0, Release 3.23
6/5/97, 5:35 PM

5:16 PM Waiting for configuration
5:16 PM ISDN line activated
5:16 PM ISDN driver ready
5:17 PM [1] Incoming Call (Voice)
5:17 PM [1]   from 1712 for 1
5:17 PM [1] Disconnected
5:21 PM [1] Calling 1791 (Data)
5:21 PM [2] Incoming Call (Data)
5:21 PM [2]   from 89550 for 1
5:21 PM [2] Incoming Call connected to 89550
5:21 PM [1] Connected to 1791
5:21 PM [1] Disconnected
5:21 PM [2] Disconnected
```

6.2.2 Testing the ISDN Line

To check that the ISDN device drivers work properly with your ISDN adapter, you can set up a test connection **to your own ISDN line**, using the number(s) you have entered on the Properties sheet.

1. Point to the **ISDN Monitor icon** on the Windows 95 taskbar, while clicking the right mouse button.
2. Select **Properties**, then click **Test ISDN Line** from the resulting Properties sheet.
   Alternatively, you can open the Properties sheet from the Windows 95 Device Manager.

The test takes a few seconds. If connected to a **PBX**, use the **extension** to avoid charges. The Trace program running in the background automatically records the test. Start up **Trace** to view, save or print the detailed trace messages. Additionally, you may view brief messages in the **ISDN Monitor list box**.

If the test is successfully completed, your hardware and drivers are working properly.

If the test fails, several things may happen:

- **Message box appears when test is complete**, e.g.:
  "ISDN Adapter not operational. Do you want to reconfigure your device?"
  or
  "Your ISDN adapter cannot communicate over the ISDN line. Check that the cable is properly attached."

- **ISDN Monitor listbox** reports brief error messages, e.g.:
  "The ISDN adapter is not connected to the ISDN line."

- **Trace dialog box** appears prompting you to either view, print or save the trace automatically created during the test.

- **Question mark appears** in ISDN Monitor icon

  Explanation: Hardware OK, but ISDN line is not properly set up.
  Remedy: Check that your ISDN adapter is properly connected to the ISDN wall outlet. Make sure you selected the right D channel protocol (see Chapter "Reconfiguring Hardware and Software")

6.2.3 Testing Hardware

This test is intended to check that your board's hardware components are operational (in contrast with the ISDN line test described above, which checks to make sure the *driver software* works properly with your adapter.)

1. Point to the **ISDN Monitor icon** on the Windows 95 taskbar, while clicking the right mouse button.
2. Select **Properties**, then click **Test Hardware**.

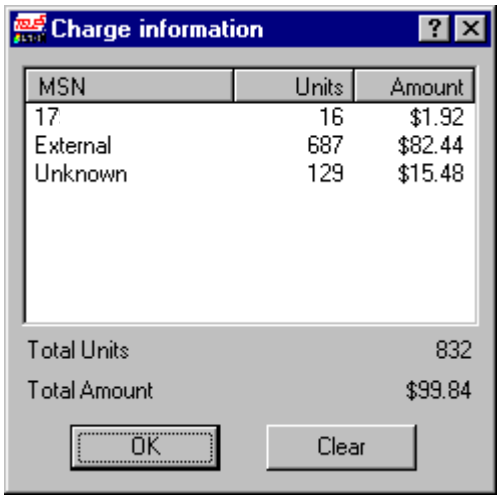
A status window shows the condition of various chips on your board. (The window displayed may differ depending on your specific adapter.)

Should an error occur, one of the following messages appears:

Message / Explanation	Remedy
Your ISDN adapter is not working properly. No hardware resources were assigned to your adapter (IRQ, I/O address).	Use the Windows 95 Device Manager to assign IRQ and/or I/O address.
Your ISDN adapter is not working properly. One reason may be wrong or missing ISDN settings (Switch type, SPIDs).	Use the TELES ISDN Adapter Properties sheet to select the appropriate D channel protocol / ISDN switch type. For US switch types, also check SPIDs.
The SPID negotiation failed.	Message only on US ISDN lines.Use the TELES ISDN Adapter Properties sheet to specify correct SPIDs.

An **exclamation mark** in the **ISDN Monitor icon** also alerts you of faulty hardware settings.

6.2.4 Charge Display



This dialog provides an overview of the costs incurred on your ISDN line for each MSN.

Each number (MSN) on your ISDN line is listed along with the number and cost of the charge units accumulated by the device or application corresponding to this MSN. If you have assigned MSNs to other devices connected to the BRI bus, these will be listed as *External*. All applications which incur costs, but do not provide an MSN will be listed as *Unknown* (such as those applications for which no number has been entered in the ISDN Settings).

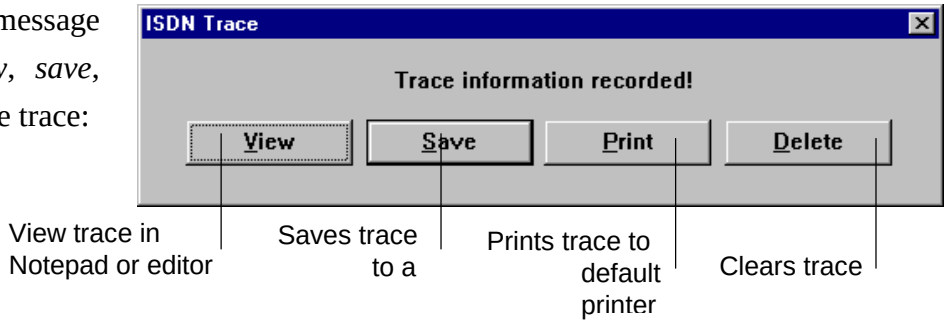
6.2.5 Using the Trace Utility

To keep track of all communications running over your basic rate interface, the driver software provides you with an easy-to-use trace utility. It is recommended to run traces if you encounter problems. You should send the recordings to your technical administrator or to the TELES hotline for troubleshooting.

Be sure to start up the trace utility *before* running the program to be monitored. Running in the background, the trace program will record all status messages reported by the ISDN driver. The ISDN line test will always be automatically traced.

1. Point to the **ISDN Monitor icon** on the taskbar, clicking the right mouse button. Select **Trace.**
2. Start up the ISDN application to be monitored.
3. To end recording, click **Stop** in the Trace window.

1. Use the final message window to *view*, *save*, *print* or *delete* the trace:



6.2.6 Statistics Utility

Like the Trace program, the Statistics utility records information on the status of all communications and lists errors that may have occured during operation. This is useful for troubleshooting problems.

Point to the **ISDN Monitor icon** in the taskbar, clicking the right mouse button. Select **Statistics.**

The resulting **CAPI BRI Statistics** sheet indicates *technical information* about your ISDN adapter, *currently active protocols* and *drivers* and lists all *transferred data packets*.
The program records statistics messages separately for each channel, updated every second. Use the **Clear statistics** button to reset the counter to 0.

Item	Description
Tx packets	Number of data packets sent without error.
Rx packets	Number of data packets received without error.
Tx abort	Number of aborted data packets sent.
Rx abort	Number of aborted data packets received.
Rx overrun	Number of times the collection of data from the ISDN adapter was delayed, thus causing overloaded buffers on the board.
Rx CRC	Number of data packets received with wrong checksum.
Rx Full	Number of data packets not received due to lack of buffer in the driver. This may be caused by the inability of the PC to process incoming data in time.
Tx empty	Number of times the send buffer was empty (PC was unable to reload the buffer.)

7 Using Your ISDN Adapter with Windows 3.x

7.1 Reconfiguring Hardware and Software

This section provides step-by-step instructions *for uninstalling* and *reconfiguring* your ISDN adapter and software in Windows 3.x.

7.1.1 Uninstalling Your ISDN Adapter's Drivers

Simply double-click the **Uninstaller** icon located in the **CAPI** program group. Acknowlegde the resulting screen message by clicking **Yes**.

7.1.2 Manually Reconfiguring a PCI ISDN Board

Since the PCI-BIOS automatically assigns suitable ressources to your board, it is not recommended to disable the *automatic setup mode.*

Nevertheless, you may want to manually reconfigure your board if you encounter persisting problems. Then run the *BIOS Setup* and select the *PnP and PCI Setup* to explicitly assign an interrupt to the PCI slot you are using for your board. The options to be selected depend on the type of BIOS. Therefore, please refer to your motherboard manual for instructions.

7.1.3 Reconfiguring Resources

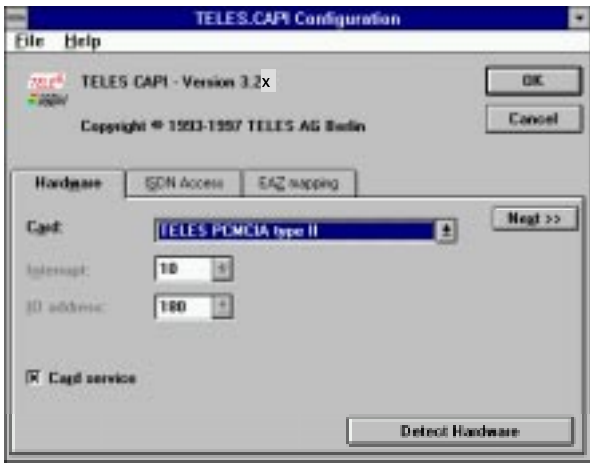
Click the **CAPI Setup** icon placed in the program manager. This will bring up a tabbed window which looks like the installation windows. Use the tabs to navigate and view your current configuration. To make changes, simply type new values into the text boxes, or select them from listboxes**. Restart Windows to make the changes take effect**. All parameters are stored in the **CAPI.INI file** located in the ISDN driver directory, typically C:\TELES.

Settings fall into the following categories: **Hardware, ISDN access, EAZ mapping**.

1. Hardware dialog box

The Hardware window displays the type of adapter installed. Plug&Play and PCI adapters require no action on your part, while non-Plug&Play adapters allow the modification of interrupts and addresses.

Example: Settings for TELES.BRI Box



Example: Settings for TELES.BRI/PCMCIA Card

2. ISDN access dialog box

You can modify these settings:

- *D channel protocol* of your ISDN switch or line type
- *Outside line:* Enter number to access outside line if connected to PBX
- *Area code*
- *Own number for Callback* test
- *Calling number* is required only *if your system is connected to a PBX type which needs specific numbers for outgoing calls*. Ask your PBX operator if these numbers are needed. In general, you can leave the box blank.

3. EAZ mapping dialog box

Complete this dialog **only** if you run **non-TELES applications** on *CAPI 1.1* and on a Basic Rate Access configured to Euro-ISDN. If so, allocate a full call number to each EAZ[1] number. When the first digits of all your call numbers are identical, you do not need to enter these. Type only the remaining numbers.

Example: Suppose your Basic Rate Access provides the following three numbers:

399-2807
399-2808
399-2809

Then enter the digits that differ as illustrated in the figure.

1) EAZ = an index number required to identify distinct ISDN applications using the CAPI.

7.2 Testing and Troubleshooting in Windows 3.x

This section briefly describes the various tests to run if you should encounter problems while using your ISDN adapter with Windows 3.x.

- **Call back test,**
- **Hardware test (HWTEST),**
- **Trace program,**
- **Statistics program.**

It is recommended to run the Call back test after you have completed the installation. Trace and statistics utilities are recommended for specific troubleshooting. See online help for step-by-step instructions for using both programs.

7.2.1 Testing the ISDN Line (Call Back Test)

To check that your ISDN driver works properly with your ISDN adapter, you can set up a test connection **to your own ISDN line**, using the **number** you have entered into the ISDN Access dialog box.

- Start up the test by clicking  the icon.

- From the resulting dialog box, select the **Call** button. This causes the program to send out data on one B channel, while returning them on the second B channel.

  The communication takes a few seconds, incurring one tariff unit. If connected to a **PBX**, use the **extension** to avoid charges.

If the test fails, refer to the appendix for detailed error messages, probable causes and steps to overcome problems. You may run the call back test along with an integrated *trace program*. To do so, select the appropriate button from the call back test dialog.

7.2.2 Testing Hardware

This test is intended to check that your board's hardware components are operational (in contrast with the ISDN line test described above, which checks to make sure the *driver software* works properly with your adapter.)

Double-click the **Hardware Test** icon in the CAPI program group.

A status window shows the condition of various chips on your board. (The window displayed may differ depending on your specific adapter.)

Should an error occur, one of the following messages appears:

Message / Explanation	Remedy
Your ISDN adapter is not working properly. No hardware resources were assigned to your adapter (IRQ, I/O address).	Use the CAPI configuration dialog to assign a new IRQ and/or I/O address.
Your ISDN adapter is not working properly. One reason may be wrong or missing ISDN settings (D channel protocol, etc).	Use the CAPI configuration dialog to select the appropriate D channel protocol / ISDN switch type.

7.2.3 Trace Program

The Trace program operates under Windows 3.x in the same fashion as under Windows 95. See Chapter 6.2.5.

To begin using the trace utility, double-click the **CAPI Trace** icon in the TELES.CAPI program group.

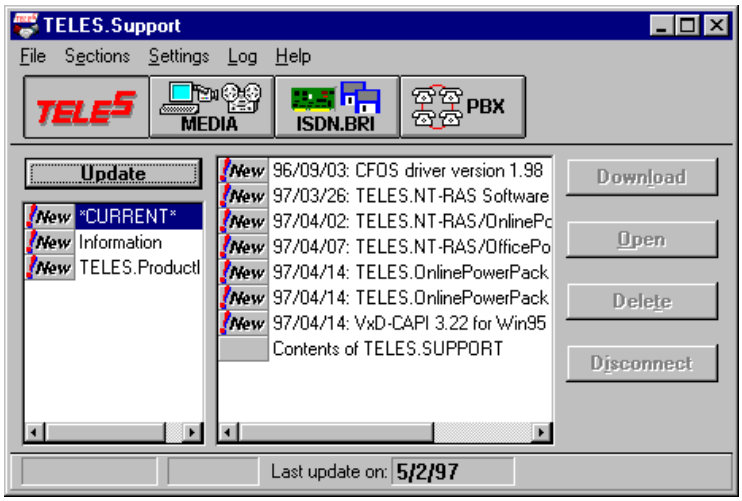
Further information on using the trace program can be found in the online help.

8 TELES.SUPPORT

TELES.SUPPORT is an ISDN service system that gives you direct access to the TELES service computer. Twenty-four hours a day and 7 days a week you can benefit from the following services:

- **Downloading ready-to-install updates of all programs**
- **Retrieving a great variety of latest product information**
- **Downloading manuals**
- **Retrieving tips & tricks**.

The system is also used to validate your ISDN applications package license. Technically, TELES.SUPPORT uses the TELES.FIX file transfer program but employs a completely different user interface which automatically sets up an ISDN connection to the TELES server.



To start up the program, double-click the TELES.SUPPORT icon.

This brings the main dialog box into view.

8.1 Calling the SUPPORT Server

Press the **Update** button to let TELES.SUPPORT **automatically establish the connection to the SUPPORT server**. A status window keeps you informed of the connection setup. In a moment, lists of the files available on the service computer will be copied into the SUPPORT directory on your PC and indicated in the TELES.SUPPORT Main dialog box. Now you can make your choice.

The ISDN connection remains active until the timeout you have specified in the TELES.SUPPORT **Settings** dialog box automatically logs you off, or until you press the **Disconnect** button in the main dialog box.

NOTE: The SUPPORT number is factory set and, as a rule, need not be changed. If there is any need to enter another call number use the **Settings** menu (see Chapter 8.3).

8.2 Downloading Files

To make your choice, follow the **three steps** described below:

1. Choose the product range you are interested in, either by using the **Sections** menu or clicking the appropriate button in the tool bar.
2. Select the type of files you are interested in, e.g. **software, manuals, information, demo programs** etc.
3. The list box in the center of the dialog box now displays the entries of all files offered in the selected category.

Charges are indicated at the bottom of the main dialog box.

Next, **highlight** the desired files and click **Download**. TELES.SUPPORT starts to **reset the connection**. Again, a status window reflects the progress of downloading.

Depending on the category you have chosen, you can proceed either by viewing **documents** or installing software (e.g. an **update**):

Documents

To view downloaded documents, either **double-click** on the highlighted entry, press the **Open** button, or open the file from your **SUPPORT directory**. Documents are displayed in their native application: *Word for Windows, Write,* an *editor*, *Corel Draw* or *online help*, etc. – provided these programs are present on your PC.

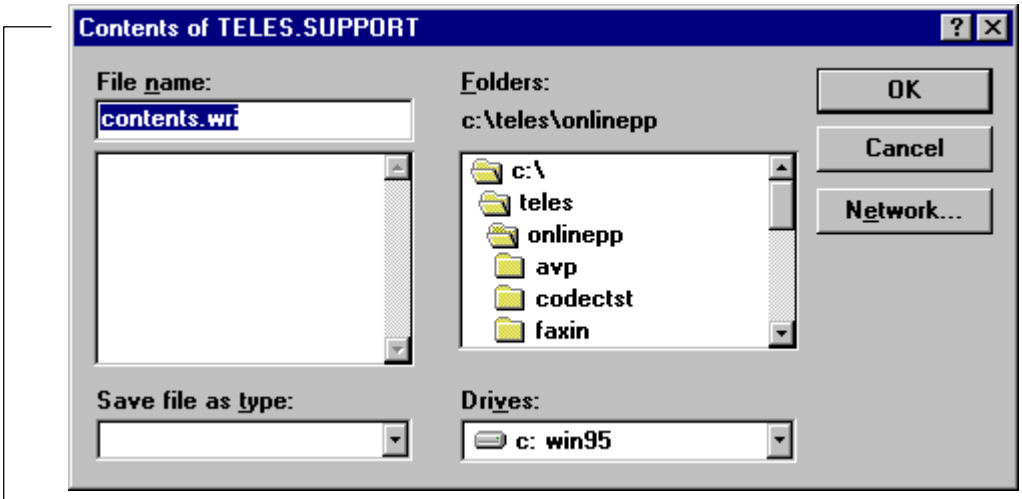
Software

The downloaded **installation files** will be stored to the **SUPPORT directory** or a **subdirectory** thereof. Change to this directory and simply run the INSTALL.EXE file from your program or file manager or explorer. When installing an *update*, remember these instructions:

1. Make sure the desired software is compatible with other TELES programs currently installed. Be sure you have the right license number. Please read the readme files before you start to download any software.
2. **Close any TELES ISDN application** (e.g. TELES.SUPPORT which might still be active).
3. **Save** your **ACTIVATE.KEY** file before running the installation.
4. Deactivate the TELES.WYSIWIS driver (closing TELES.WYSIWIS is not sufficient).

Saving downloaded files

You may now want to **save** downloaded files **to another directory**. To do so, select the desired entry and choose **Save as...** from the **File** menu of the main dialog box. The resulting dialog box presents the name of the selected file. Choose a directory and press **OK**. Click **Network...** if you want to save the file to another network drive.



The title bar indicates the name of the file selected for saving.

Context Menu for Files

Click the right mouse button over a highlighted file name to access a context menu. It helps you handle downloaded files and displays file properties such as category of associated product, title, file name and status.

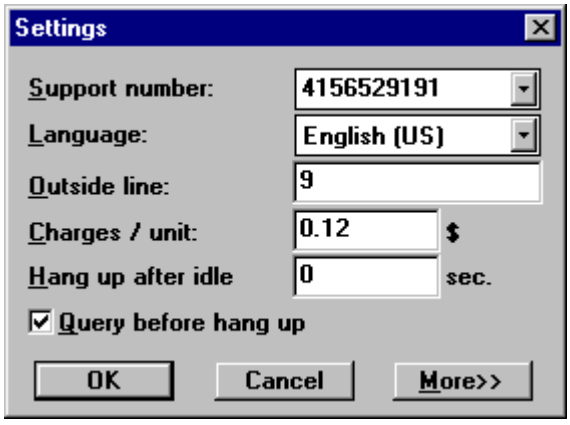
File tags

The status bar always displays the date of your most recent connection to the SUPPORT server.

New	File on server is newer than your local version.
Loc	File has been downloaded to your PC.
	You have either viewed, opened, printed or saved the file.
	File not completely downloaded. Please download remaining portion.
old	File no longer available on SUPPORT server.

TELES.SUPPORT compares the versions detected on your computer with those on the server.

8.3 Configuring TELES.SUPPORT



Support number

The call number of the service computer is preset and indicated in the dialog box. If necessary, type another number into the text field. The default value is +49 30 399 28 007.

Language

The server offers documents, software, manuals and information in several languages. From the list box, select the language in which your TELES.SUPPORT files should appear.

Outside line

Applies only if your system is connected to a PABX. If so, enter the number required to get the exchange line. Otherwise leave the text box blank.

Charges / unit

Enter the tariff unit to be used for counting and indicating the charges for each connection set up through TELES.SUPPORT.

Hang up after idle

Set a timeout to log off connections if no entry is made before the end of the specified time. By default, the timer is set to 0. This immediately disconnects any inactive connection.

Query before hang up

Check this option if you want a screen message to appear indicating the time left until the connection is terminated.

More>>

Clicking the **More>>** button opens a dialog in which you can enter additional information:

Calling Number: Enter your own number here. This is necessary for PBXs that only support file transfer for particular call numbers.

ACTIVATE KEY: Enter the path for your **ACTIVATE.KEY** file or select the directory using the **Browse...** button. This is only necessary if the file is located in a different directory than the main installation directory.

FIX Server: If your FIX Server is located in a directory other than your main installation directory, enter that path here.

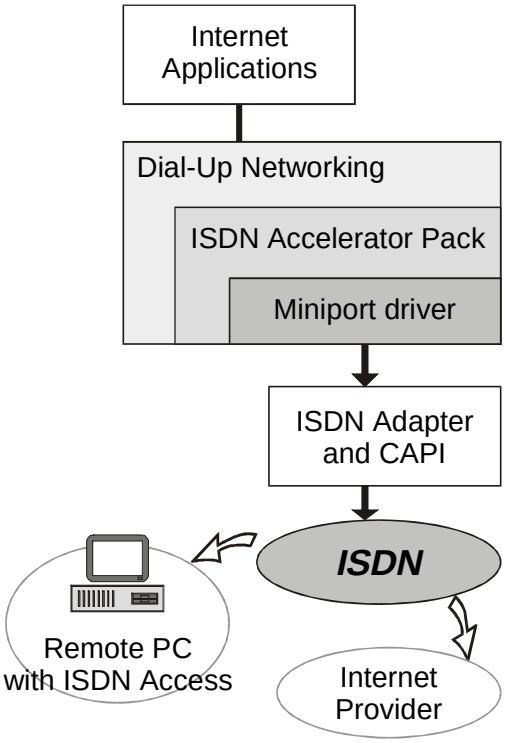
Module Name: If you have renamed the FIX Server application for some reason, enter the new name in the field so that it can be accessed properly.

9 APPENDIX

9.1 Miniport & Internet Information

In order to use your ISDN adapter to connect to the Internet, several software components included with the Windows 95 operating system are necessary, along with additional software drivers included with TELES.OnlinePowerPack.

The Windows 95 **Dial-Up Networking** system serves as a link to remote computers. With the appropriate protocols, this software enables you to establish a connection to a router at your Internet Service Provider (ISP), which in turn connects you with the Internet. The **TCP/IP protocol** is the common "language" of all computers connected to the Internet. With this protocol installed, your PC can communicate with any computer – or "host" – on the Internet as if it were connected directly.



As the Dial-Up Networking software was originally conceived to communicate using modems and standard analog telephone lines, Microsoft's **ISDN Accelerator Pack** is required to use this component with ISDN. The **TELES.WAN-NDIS Miniport driver** allows these software systems to communicate with your TELES ISDN adapter.

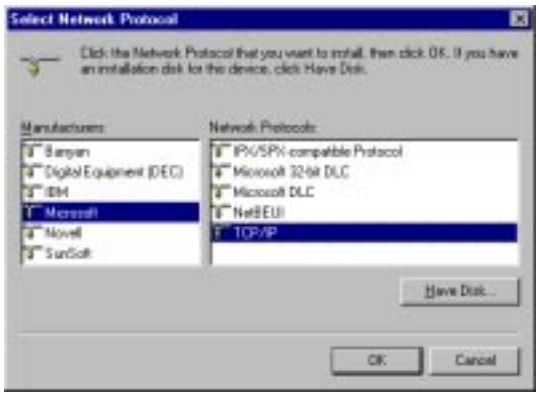
9.1.1 Installing Dial-Up Networking and the TCP/IP Protocol

If you have not used your computer for Internet connections before, you may need to install one or both of these components.

Dial-Up Networking

1. Click the **Start** button, select **Settings**, click **Control Panel**, double-click **Add/Remove Programs**, and click the **Windows Setup** tab.
2. Highlight **Communications** in the list box, and click the **Details** button. Check the box marked **Dial-Up Networking** and click **OK**.

TCP/IP Protocol



1. Click the **Start** button, select **Settings**, click **Control Panel**, double-click **Network**, and click the **Add…** button.
2. Double-click **Protocol**, click **Microsoft** (under Manufacturers), **TCP/IP** (under Network Protocols), and press **OK**.

   NOTE: You may need to have your Windows 95 CD available.

9.1.2 Creating a New Dial-Up Networking Connection

Once you have Dial-Up Networking and TCP/IP installed and you have installed your ISDN adapter and driver software, you can create a new connection for accessing the Internet via your ISP.

1. Double-click **My Computer**, double-click the **Dial-Up Networking** folder and double-click **Make New Connection**.
2. Type a name for the connection, select **TELES MINIPORT – 1st B channel** as the modem, and click **Next >**.
3. Enter your service provider's access number in the **Area code** and **Telephone number** fields, select the appropriate **Country code** from the list and click **Next >**. Click Finish. The connection should now appear in the Dial-Up Networking folder.

9.1.3 Adjusting Connection Properties

Before you can use the new Dial-Up Networking connection, you will need to modify the connection settings. These settings can be accessed by right-clicking the connection icon and selecting **Properties** from the resulting popup.

General property sheet

1. Click the **Configure** button if you need to switch from 64 kbps connections to 56 kbps. Choose the desired speed from the **Speed preference** list, and mark the corresponding option if you would like to establish connections exclusively at the specified speed.

   NOTE: If you are unable to make a connection at the standard rate of 64 kbps, contact your local and long distance telephone companies to be certain that your line supports this connection speed. In some cases, you may need to set the speed preference to 56 kbps, as some lines may not support higher transmission rates.

2. Press the **Settings…** button if you would like to add a second device, which uses your second B channel to take advantage of **Multilink PPP**, increasing the connection speed to **128 kbps**. In the resulting dialog, select **Use additional devices** and click the **Add…** button. Select **TELES MINIPORT – 2nd B channel** from the list of devices and click **OK** to return to the **Set Additional Devices** dialog. Click **OK** again.

Server Types property sheet

These following settings are supported by most ISPs:

1. Under Type of **Dial-Up Server**, select **PPP, Windows 95, Windows NT 3.5, Internet**.
2. Under Advanced options, check only the **Enable software compression** option. Leave the other boxes unchecked.
3. Under **Allowed network protocols**, select only **TCP/IP**. Leave the other boxes unchecked.
4. Press the **TCP/IP Settings…** button to select the options and enter the values provided by your ISP.

If you are unable to establish a connection using the above configuration, contact your ISP for the appropriate settings.

9.1.4 Setting up Your Computer as a Dial-Up Server

With Windows 95 **Dial-Up Networking** and the **TELES.WAN-NDIS Miniport driver**, you can configure your own computer to operate as a Dial-Up Server. In this manner, others can access the resources you have shared, or copy files to your computer via ISDN.

1. Double-click **My Computer**, and double-click the **Dial-Up Networking** folder.
2. From the **Connections** menu, choose **Dial-Up Server…**.
3. Select **Allow caller access**.
4. Set the **Password** and **Server Type** as desired, and click **OK**.

The Dial-Up Server icon appears in the Windows 95 taskbar. This displays the fact that your PC is now ready to accept incoming calls at the number specified on the Miniport Settings sheet (See Chapter 6.1.3.3 for details).

9.1.5 Installing ISDN Accelerator Pack and Miniport separately

If you didn't install Microsoft's ISDN Accelerator Pack (IAP) and the TELES.WAN-NDIS Miniport driver along with the TELES.OnlinePowerPack driver and application software, you can install both separately later on. (The Microsoft ISDN Accelerator Pack must be present before you can install the TELES.WAN-NDIS Miniport driver, which in turn is required to operate the Microsoft Internet Explorer.)

Installing Microsoft ISDN Accelerator Pack separately:

- Start the **IAP** installation by double-clicking ***Select*** on the TELES.ISDN CD welcome screen. Select the **Microsoft ISDN Accelerator Pack 1.1** from the list. The Microsoft License Agreement and a brief message regarding the IAP configuration follow. Confirm the License Agreement with **Yes**.
- Alternatively, you may also begin the **IAP** installation by running the **MSISDN11.EXE** application from the TELES.ISDN CD or after the ISDN driver installation from the directory into which you installed your driver software, for example **C:\TELES**.

Installing TELES.WAN-NDIS Miniport separately:

All files necessary for the Miniport installation are present on your system after the ISDN driver software installation. The Miniport driver can easily be configured by following the steps listed below:

- Choose **Start | Settings | Control Panel | Network |** and press the **Add...** button.
- Choose **Adapter** from the list and press the **Add...** button again. Select **TELES AG** from the list of manufacturers and then choose the Miniport driver. Click **OK**. Follow the instructions found in Chapters 3.1.5 and 3.1.7 and **restart your computer**.

9.2 Tips & Tricks

9.2.1 Irregular Order of Plug&Play Installation

Installing in a different order may be necessary under one of the following conditions:

- Contrary to the procedure suggested in the previous installation instructions, you have installed the adapter *first*, before installing the application software.
- You have tried to start the installation by manually selecting a setup file.

Even in these cases, the installation should not present problems, though the following guidelines will need to be observed:

- It is necessary to specify the source directory of the installation software:

  In *Windows 95a*, the **New Hardware Found** dialog appears when you start up your computer. Select the **Driver from disk provided by hardware manufacturer** option. Click **OK**. Select the CD installation path for the driver software, typically: \ENGLISH\CAPI.

  In *Windows 95B*, the **Update Device Driver Wizard** appears. Click **Next>**, then click **Other Locations...** and select the CD installation path for the driver software, typically: \ENGLISH\CAPI. Click **OK** and enter the path again.
  NOTE: Should you skip the **Other Locations...** option, your board is installed as a non-Plug&Play board and won't be set up properly.

- The **TELES.INF** file may not be found at the beginning of the driver installation (following the **New Hardware found** message). In this case, the **Have disk...** and **Open** dialogs will appear. Select the **TELES.INF** file manually from the CD's root directory.

This leads to the TELES ISDN Driver Setup dialog described in Chapter 1.1.5.

9.2.2 ISDN driver files

Your ISDN adapter is operational only after the ISDN driver, referred to as CAPI, has been loaded into memory. CAPI.DLL files (Dynamic Link Libraries) are required as a link between the ISDN application and the driver software under Windows. When you set up the driver software, these files will be added to the **WINDOWS\SYSTEM** folder:

CAPI.DLL	Version 1.1 as 16-bit DLL
CAPI20.DLL	Version 2.0 as 16-bit DLL
CAPI2032.DLL	Version 2.0 as 32-bit DLL

- To avoid conflicts, be sure not to use another manufacturer's CAPI.DLL files.
- Before installing a new CAPI version, it can be advisable to remove the old one. For details, see Section 6.1.2 for Windows 95 or Section 7.1.1 for Windows 3.x

9.2.3 Info Windows

Info windows accessible from the Help menus of most TELES.OnlinePowerPack applications display the amount of DOS memory currently used. As the VxD CAPI does not need any DOS memory, the indicator applies only to the amount used by ISDN applications.

9.2.4 Using ISA Boards in PCI Bus Systems

A bus system such as PCI cannot automatically detect and manage software-configured ISA adapters. To run a TELES ISDN adapter in a PCI machine, its interrupt must be explicitly made known to the system. Typically, this can be accomplished by editing the BIOS or CMOS setup. Appropriate options are often available as listed below:

ISA-IRQ
IRQ [Used by ISA Card]

Below you will find two examples for configuring ISA slots in a PCI machine to run a TELES ISDN board:

Example 1	Example 2
Advanced CMOS SETUP menu Enhanced ISA Timing: [Enabled] ISA IRQ n : [Used]	*Plug & Play menu* IRQ 5/9/10/11: [Used by ISA Card] *Advanced Chipset Configuration menu* ISA Bus Speed [Enhanced]

9.2.5 How to Run Your TELES ISDN Adapter on a PBX

Switch Type

To operate TELES ISDN adapters in a PBX or Centrex environment, you must be aware of your central office switch type. This is essential to assign the right information to each ISDN application, such as call numbers, SPIDs (US only), extensions.

ISDN services

You will get the most efficient service if all call numbers are subscribed to *telephony* and *data service* (telephony is also essential for fax G3).

PBX type

If your ISDN adapter connects to a PBX configured for **point-to-multipoint operation**, standard settings can be used.

If your ISDN adapter connects to a PBX configured for **point-to-point operation**, you will need specific settings. Contact the TELES hotline for technical details.

9.3 Error Messages

9.3.1 Error Messages Reported by Applications in Windows 95

Error 3301 ***Adapter not connected to the S/T bus.***

Explanation: Several sources of error are possible:
1. BRI adapter not connected to S/T bus.
2. Wires mixed up or cut off.
3. Incorrect interrupt.

Remedy: For 1-3: Check that adapter is correctly configured and properly connected.

Error 3306 ***Error on D channel, layer 2***

Explanation: Several sources of error are possible:
1. Wires mixed up or cut off.
2. Invalid interrupt.
3. Invalid address.
4. Insufficient memory to run program from DOS.
5. Wrong D channel protocol specified.
6. For PBXs: Wrong type of configuration, e.g. point-to-point instead of point-to-multipoint.

Remedy: For 1-3: Check that adapter is correctly configured and properly connected.
For 5: Choose the right D channel protocol corresponding to your central office switch type.

Error 3307 ***Error on D channel, layer 3***

Explanation: Several sources of error are possible:
1. Wires mixed up or cut off.
2. Invalid interrupt.
3. Wrong or no terminating resistor at ISDN outlet.
4. Insufficient memory to run program from DOS.
5. Wrong D channel protocol specified.
6. For PBXs: Invalid call number (e.g. own call number either wrong or not specified).
7. For PBXs: Service not available (e.g. not subscribed)

Remedy: For 1-3: Check that adapter is correctly configured and properly connected.
For 5: Choose the right D channel protocol corresponding to your central office switch type.

Error 3308 ***Abort B channel layer 1***

Explanation: Error reported if remote station uses another B channel protocol.

Remedy: Select another protocol and relaunch transmission.
Note: Use the TELES.FIX Settings dialog to set protocol options.

Error 330A ***Abort B channel, layer 3.***

Explanation: This message appears when you dial an invalid call number or choose a B channel protocol not used at the remote site.

Example: You run a file transfer program such as TELES.FIX, but tried to call a phone number, a mailbox, or a TELES.NDIS3 station.
You chose a protocol not used at the remote site.

Remedy: Check call number. Ensure the B channel protocol you select is identical with the one operating on the remote site.

Error 3400 ***Call setup failed. Source of error not reported by central office.***

Explanation: Source of error not transmitted to ISDN adapter. Several sources of error are possible, e.g.: *Disconnected by remote device.*

Remedy: Since error is not reported by central office, no useful instructions can be given.

Error 3401 ***Unable to set up connection.***

Explanation: Several sources of error are possible:
1. Invalid D channel protocol.
2. Only one B channel available.

Remedy: For 1: Choose the right D channel protocol corresponding to your central office switch type.

Error 3483 ***Service not available or not subscribed.***

Explanation: Several sources of error are possible:
1. Service not provided by your central office or not available within your ISDN network.
2. Invalid call number
3. For PBXs: Invalid call number allocated to service or application.
4. For PBXs: Outside line code not specified.
5. Desired service not subscribed.

Remedy:
For 1: Check configuration of ISDN line.
For 2: See Error 330A.
For 3: Use Call Settings dialog box to assign correct call number to application.
For 4: Use Call Settings dialog box to specify your PBX's outside line code.

Error 348A ***No free B channel available at local ISDN access!***

Explanation: Currently no free voice/data channel available at subscriber's line (only locally relevant).

Error 34A0 ***Failure of call request due to call barring!***

Explanation: This message appears in a trace protocol you may have run for the D channel.

Remedy: It is recommended that you send trace files to the Hotline, or your technical coordinator for troubleshooting.

Error 34B5 ***Unable to set up connection due to invalid destination number, invalid service or service feature.***

Explanation: Several sources of error are possible:
1. Telephony or data service not available at host.
2. Call number not assigned to service.
3. Invalid call number.
4. For PBXs: Outside line code not specified.

Remedy: For 1: If necessary subscribe to the service of your phone company.
For 2: Check configuration of ISDN line.
For 3 and 4: Check call number. Check that outside line code is specified.

Error 34B7 ***Abort D channel, layer 2.***

Explanation: Several sources of error are possible:
1. Invalid interrupt.
2. Invalid address.
3. Insufficient memory to run program from DOS.
4. Only one B channel available.

Remedy: For 3: Check and modify the configuration of your memory manager, i.e edit the *Exclude* option in your CONFIG.SYS file (only BRI/16).

Error 34BA ***Remote site does not respond.***

Explanation: Several sources of error are possible:
1. No terminal accepts the incoming call.
2. Call request aborted. Absence of called party assumed (dialing timer expired).

Remedy: At remote site: Option "**Answer incoming calls"** must be selected (check box in Configuration dialogs of TELES ISDN applications).
Check call number.

Error 34BB ***Remote site busy.***

Explanation: Called party is busy.

Error 34BD ***Barring to incoming calls, or service not released on remote site.***

Explanation: Several sources of error are possible:
1. Called party has activated call barring service to all incoming calls.
2. Desired service not subscribed at remote site.

Error 34BE ***Call request denied by remote site.***

Explanation: Called party explicitly rejected your call request.

Error 34D9 ***Network congestion.***

Explanation: All trunks busy (i.e. no free B channel).

Error 34DA ***Remote site has disconnected or denied connection.***
Explanation: Called party or remote central office cut off or denied the connection.

Error 34F0 ***Protocol error between local station and central office.***
Explanation: Message reported after a communication was disconnected due to protocol error.
Remedy:
1. Check call number assigned to desired service or application.
2. Check call number for illegal characters or blanks.
3. See description of Error 330A.

Error 34F1 ***Protocol error between remote station and central office.***
Explanation: Connection is cut off due to error at remote site.
Remedy: See description of Error 330A.

Error: ***Unable to change B channel protocol. or***
Fax G3 not supported by CAPI.
Explanation: Applies only to TELES.FAX and CAPI releases prior to 3.20. Error may be due to a CAPI.DLL residing in your WINDOWS\SYSTEM directory (either from an old release or from another manufacturer)
Remedy: Delete or rename any older CAPI.DLL files (including those from other manufacturers) in WINDOWS\SYSTEM directory.

Error: ***Undefined DynaLink***
Explanation: This is a problem you might encounter when starting up TELES.WYSIWIS. The error is caused by *older versions* of the TLSGDI1.EXE and GDI.EXE files. (Note: When you installed a new release, these files were not correctly updated because the WYSIWIS driver was active at the time.)
Remedy:
1. Delete the following entry from the [Boot] section in your SYSTEM.INI file:
   GDI.EXE=TLSGDI1.EXE
   (or TLSGDI2.EXE, ...3.EXE etc. if you installed several releases)
2. Copy the **GDI.EXE** file in the .\WINDOWS\SYSTEM directory to **GDX.EXE**.
3. Activate the WYSIWIS driver. This is necessary to create a new GDI.EXE=TLSGDI1.EXE entry.
4. Shut down and restart Windows to make the changes take effect.

Error: ***Illegal DynaLink call in a .DLL***
Explanation: Error reported only in Windows 95. You might encounter the error when typing TrueType fonts while the TELES.WYSIWIS driver is active. The name of the .DLL depends on what printer you are using.
Remedy: Either print TrueType fonts as graphics or deactivate TELES.WYSIWIS driver.

9.3.2 Error Messages Reported When Starting Windows 3.x

Error: ***Specified controller is illegal.***
Specified IRQ is illegal
No controller specified.
No D channel protocol specified.
No IRQ specified.
No I/O address specified.
No memory address specified.

Explanation: Your CAPI.INI file is not correct.

Remedy: Use the CAPI-SETUP utility to reconfigure ISDN drivers and update CAPI.INI file. For details refer to online help.

Error ***Unable to open WIN.INI file and find an entry of CAPI.INI.***

Explanation The CAPI.INI file is not referred to in your WINI.INI file.

Remedy: Edit your WIN.INI file. Ensure the [ISDN Applications] section includes a line that points to the CAPI.INI, typically CAPI=C:\TELES\CAPI.INI. If this does not help, reinstall the software.

Error: ***Unable to map memory.***

Explanation: The I/O address assigned to your board is not identical with the address specified in CAPI.INI.

Remedy: Check your boards' address settings and use the CAPI-SETUP utility to reconfigure software.

Error: ***Failure to virtualize interrupt.***

Explanation: The interrupt specified in CAPI.INI is not available in your system.

Remedy: Check your board's interrupt settings and use the CAPI-SETUP utility to reconfigure the software. Ensure your board uses a unique IRQ to avoid conflicts with other boards installed in your machine.

Error: ***Failure to initialize ISDN adapter***

Explanation: Failure to address hardware.

Remedy: Run hardware test as described earlier in this manual. If the test utilities do not report any error check that your board's *memory address*, *I/O address* and *interrupt* match the configuration setup parameters.

Error: ***There is already an active CAPI that cannot be removed. Windows will close.***

Explanation: Windows recognizes a running DOS-CAPI.

Remedy: Remove conflicting driver prior to Windows startup (`Stops0` command in older releases).

NOTE: Never try to run **VxD CAPI** and the older **DOS CAPI** simultaneously. You can only use **one** CAPI at a time. Otherwise, you encounter the error message described above.

Error: ***No TELES.BRI adapter found!***
Explanation: TELES.BRI adapter not detected at specified address.
Remedy:
1. Check address settings of TELES.BRI adapter and run CAPI Setup utility to reconfigure ISDN driver.
2. Check for conflicts with memory manager.
3. Disable Shadow Memory in BIOS Setup.

ISA boards in PCI bus systems: Disable Shadow Memory in BIOS Setup [IRQ = used by ISA, ISA Timing = Enhanced]. For details refer to the chapter called "Interrupt and Address Settings."

Error: ***The specified interrupt is not correct! or***
The specified memory address is not correct!
Explanation: Driver software is set to values that do not match with hardware settings.
Remedy: Check settings of your TELES.BRI adapter and run CAPI setup utility command to reconfigure software.

9.3.3 Error Messages Reported by Call Back Test in Windows 3.x

Error: ***CallBack test aborted. Dialing timer expired.***
Explanation: Transmitted data not received by ISDN adapter.
Remedy: Check number for Call Back test.

Error: ***Temporary network congestion (Repeat test).***
Explanation: Central office or PBX currently not able to set up a connection.
Remedy: Repeat test later on.

Error: ***No number available for Call Back test***
Remedy: Run CAPI Setup utility, open **ISDN Access** dialog box. Type number into **Own number** box.

Error: ***Invalid target number or S/T bus busy!***
Explanation:
1. Central office or PBX identifies dialed number as wrong.
2. Conflict with other devices connected to your S/T bus. ISDN adapter cannot use both B channels for sending and receiving data.

Remedy: for 1) Check call number.
for 2) Disable conflicting devices while running the ISDN line test.

Error: ***S/T bus busy!***
Explanation: See above.

Error ***Target number has changed!***
Explanation: Changed call number detected by Central Office.
Remedy*:* Check call number.

Error: ***Not enough memory***
Explanation: Not enough memory to run ISDN line test.
Remedy: Close applications you currently do not need.

Error ***Failure to register CAPI!***
Explanation: Old CAPI.DLL or CAPI20.DLL versions have been loaded.
Remedy*:* Delete all CAPI*.DLL files *not* located in your \WINDOWS\SYSTEM file.

Error: ***Connection to S/T bus disconnected!***
or: ***TELES.BRI adapter not connected to S/T bus!***
or: ***TELES.BRI adapter disconnected from S/T bus.***
Explanation: Connection to S/T bus cut while test in progress.
Remedy: Check connection between ISDN adapter and S/T bus. Run test again.

Error ***Adapter not connected to S/T bus***
Explanation: See error 3301.

Error ***ISDN controller not supported.***
Explanation: The software does not support the installed ISDN adapter.
Remedy*:* Reinstall software.

Error: ***Data transfer not subscribed!***
or: ***Call barring to outgoing calls!***
or: ***Call barring to incoming calls!***
Explanation: Configuration problem in central office or PBX. Restricted functionality of your S/T bus causes failure of call back test.
Remedy: Reconfigure your S/T bus.

Error: ***Call denied!***
Explanation: 1. You dialed a wrong number.
2. Another device connected to your S/T bus has rejected the call before your TELES.BRI adapter was able to accept.
Remedy:
- Check call number.
- While running the test, disable or temporarily cut off all devices connected to the same S/T bus.

Error: ***Call number contains invalid characters!***
Remedy: Check call number for illegal characters or blanks.

Error: ***Connection setup on D channel: Failure to find address of BRI adapter.***
Explanation See error 3301.

9.4 User Contract / Registration Form

9.4.1 Copyright

The diskettes or CDs labeled TELES.OnlinePowerPack contain computer programs that are protected by copyright law. Illegal use of these programs may result in civil and criminal penalties. The accompanying user manual and the hardware supplied with the program are also protected by copyright law. As sole owner of these products, TELES reserves all proprietary rights of use.

Having purchased the diskettes/CD, hardware and manual, the owner of the TELES.BRI adapter and TELES.OnlinePowerPack shall not yet have gained possession of these programs, but only hold the tangible property inclusive of the legally effective, transferable option of accepting the following irrevocable offer submitted by TELES for concluding a

license agreement.

Only by way of acceptance of this offer the purchaser or his legal successor shall be authorized to the contractual use of the programs protected by copyright. The authorization is subject to the written confirmation from TELES after having received the user's note of acceptance (see Registration Card at the end of this chapter).

9.4.2 License Agreement

Offer

TELES shall submit to the legitimate owner of TELES.OnlinePowerPack the offer of a user contract (License Agreement). The subject of the License Agreement shall be the use of the TELES.OnlinePowerPack software including any programs from other manufacturers and the accompanying manual. The use of other manufacturers' products is subject to the license agreements of these manufacturers. The licensed use of TELES products is as follows:

Licensing

By virtue of this agreement TELES shall grant to the owner (Licensee) the non-exclusive right, unlimited in time and location, to use this program package and its update versions. The licensed use is subject to the following restrictions:

1. The Licensee shall agree to releasing his TELES.OnlinePowerPack copy as set forth by TELES and pay the low postal charges possibly incurred.

2. The Licensee may **not** sell, lease, lend to a third party, or circulate in any other way the manual, programs and the diskettes/CDs thereof. The program may **not** be sold to a third party without prior written consent of TELES. If the Licensee develops and/or distributes programs based on or adapted to TELES.OnlinePowerPack he shall explicitly declare this conjunction in the program identifiers (headers), the manual and in advertisements for these programs, and refer to a license from TELES as being required for using the programs.

3. No part of the program may be duplicated in any form. However, the Licensee is authorized to copy the programs from the diskettes to the hard disk of his computer as required for their intended use. Also, the Licensee is authorized to make, on suitable diskettes, backup copies of the programs. These diskettes shall be labeled with the TELES.OnlinePowerPack program name including the clearly legible copyright notice "Copyright by TELES". The use of the backup copies and the update versions is subject to the same restrictions as that of the original.

4. Approval of the TELES.OnlinePowerPack License Agreement implies approving license provisions of all other manufacturers' products involved.

Warranty and Limited Liability

Please contact your retailer for warranty information.

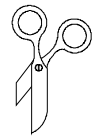
Jurisdiction and Final Provisions

1. The Licensee shall be lawfully entitled to avail of the rights and claims set out above only after having completed and returned to TELES the Registration Card attached to this offer and after receipt of the return coupon (appended to this Registration Card) confirming his registration at TELES.

2. Legal venue for all obligations and liabilities arising out of this agreement shall be Berlin.

Please copy or cut out at the marked line, complete and return to TELES!

TELES AG, Dovestr. 2-4, D-10587 Berlin, Fax: +49 30 399 28 01



Acceptance/Registration/Confirmation Card
***for TELES.Online*PowerPack**

The undersigned herewith confirms to have acquired a legal copy of TELES.OnlinePowerPack. He/she declares that he/she has taken notice of TELES' offer to conclude a License/User Agreement and understood all particulars thereof.

He/she declares to accept this offer.

NAME:

FIRST NAME:

COMPANY:

STREET:

CITY/STATE/ZIP:

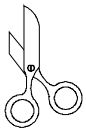
PHONE NO.:

DATE:

SIGNATURE:

To be returned by TELES to undersigned addressee:

TELES acknowledges receipt of above Acceptance Note.



.....Name.....Signature.....

9.5 Customer Service

The TELES Hotline Service is available Monday through Friday from 8.30 a.m. to 6 p.m.

TELES AG Dovestrasse 2–4 10587 Berlin GERMANY	Phone: Fax: Support Server: World Wide Web:	+49 (30) 399 28 033 +49 (30) 399 28 01 +49 30 399 28 007 http://www.teles.de
TELES France SARL Continental Square 4 Place de Londres F-95727 Roissy FRANCE	Phone: Fax: Support Server:	+33 (1) 418453 00 +33 (1) 418453 01 01 418453 02
TELES Italia SRL Via die Platani 6 I-20020 Arese (MI) ITALY	Phone: Fax: Support Server:	+39 (2) 93777 100 +39 (2) 93777 101 02 93777 777
TELES Benelux BV De Lasso 70 NL-2371 GZ Roelofarendsveen THE NETHERLANDS	International Sales Phone: Local Support Phone: Fax: Support Server: World Wide Web:	+31 (71) 332 0900 +31 (71) 332 0902 +31 (71) 331 7174 +31 (71) 331 3909 http://www.teles.nl

Round-the-clock service is available from your national TELES Support Server (see number listed above), allowing you to download updates, product information, hints and manuals. Refer to the “TELES.SUPPORT” Chapter for instructions on how to set up a connection to the SUPPORT server and to take advantage of this customer service program.

NOTE: The SUPPORT Server cannot be accessed on Friday from 8:30 a.m. to 9:30 a.m. due to maintenance.

Return Material Authorization (RMA)

Resent goods are accepted only if a RMA (=Return Material Authorization) number is attached to these. TELES assigns such a number on (written) request after evaluation of the validity of the return. Goods must be packed appropriately.

Cost compensation option for hardware checking

TELES may ask for compensation of hardware checks, if e.g. a hardware check has been ordered but no error could be found. In this case, TELES may bill for the costs (labor etc.) that occur while checking the hardware.

9.5.1 Checklist for Hotline Contacts

If problems occur during operation check the items listed below. Then contact the TELES Hotline for assistance.

Hardware Configuration

Bus System

❑ ISA	❑ EISA	❑ VESA Local Bus
❑ PCI	❑ MCA	❑ other bus system

Type of Processor

❑ 486	❑ Pentium	❑ MMX

For laptops:

❑ PCMCIA type II	❑ PCMCIA type III	Type of Card-Service driver:
		Name, version _____

TELES.BRI adapter

❑ TELES.BRI/PnP	❑ TELES.BRI Box	❑ TELES.BRI/16 Board
❑ TELES.BRI/16.3 Board	❑ TELES.BRI/TR Board	❑ TELES.BRI/PCMCIA
❑ TELES.BRI/PCI Board	❑ TELES.VISION-B5	❑ TELES.BRI/2TR Box
❑ TELES.BRI/U-PnP	❑ TELES.BRI/U Board	❑

Configuration of your TELES.BRI adapter

IRQ _____ Memory address_____ I/O address _____

To check your computer's hardware settings, use the Windows 95 Device Manager. For Windows 3.x users it is recommended to use the MSD.EXE diagnostics utility (simply run the command from DOS the prompt).

Software Configuration

Operating system: Name _____, version _____

❑ MS-Windows, version _____ ❑ WfW, version ____ ❑ Windows 95 ____

Applications:

❑ TELES.COM, version _____
Licence No. _____

❑ TELES.Online-I, version _____
Licence No. _____

❑ TELES.Online*PowerPack*,
version __ Licence No. _____

❑ VxD CAPI version _____

WIN.INI

Print out your and keep ready your WIN.INI system file, especially the section [TELES.Online*PowerPack*] and other entries of TELES programs.

ISDN Line Configuration

❑ Euro-ISDN (DSS1) ❑ VN-3 ❑ CT-1

❑ other D channel protocol
Name _____ ❑ connected to PBX

Only if connected to PBX:

❑ Euro-ISDN (DSS1) ❑ VN-3 ❑ CT-1

❑ Point-to-multipoint ❑ Point-to-point ❑ How to get outside line _____

✓ Number of devices concurrently used on BRI _____

✓ Can the two B channels simultaneously be assigned to the same service / to different services _____
(To check this feature: Use TELES.FIX to set up a communication to your own access).

10 INDEX

