TELES.S0/2TR USB-Box

ISDN Adapter &
ISDN Terminal Adapter

USB
UNIVERSAL SERIAL BUS

User's Manual

TELE5 AG

RVS

The information in this publication has been compiled with great attention to detail.
Nonetheless, inaccuracies and typographical errors cannot be entirely avoided.
For this reason, TELES provides this information "as is", without warranty of any
kind, either expressed or implied.

The information and products described herein are subject to change without
notice.

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Contents

Pictograms

Pictogram	Meaning
	Replace receiver
	Lift receiver
	Key in call number or any series of numbers
0 .... **9**	Key in certain number series
	Key in 5-digit PIN
	OK tone
✳	Star key
⊞	Pound key
R	Flash button. Sometimes labeled differently.
	Call in progress
	Three-party conference in progress

For Your Safety

The TELES.S0/2TR USB box is intended for operation on a Basic Rate Interface. Please note that the ISDN driver (CAPI) is capable of different D channel protocols. The box's PBX features, however, are only suited to Euro ISDN (based on a D channel protocol referred to as DSS1 or ETSI).

The box may not be altered in its construction or its safety features without the explicit prior consent of the manufacturer. Any alterations exempt the manufacturer from liability for damages resulting thereby.

Please ensure that no liquids enter the box case. This could cause short circuits or electric shocks.

Keep smoke, dust, vibrations and moisture from the device. Avoid extreme temperatures, direct sunlight and powerful electromagnetic fields.

Place the box on an even and stable surface, or mount it securely to the wall.

1 Introduction

The TELES.S0/2TR USB Box is a combination of **ISDN adapter** for your PC and **terminal adapter** for your analog devices.

As terminal adapter...
... the TELES.S0/2TR USB Box provides you with two ports for analog devices. This means that you can take advantage of ISDN while still using your **traditional telephones**. This feature works whether you use your PC or not. Plus, you have access to **functions that are usually only available to full-featured PBXs**.

As ISDN adapter...
... the TELES.S0/2TR USB Box **connects your PC to ISDN**, providing you with the same performance as an internal TELES.BRI board. The TELES.RVS PowerPack software includes the programs and interface for PC-supported telephony, internet access, data transmission, etc. Simply connect the adapter to your computer's USB port.

As a member of the TELES.Family ...
... the TELES.S0/2TR USB Box can be combined with other TELES ISDN devices. All TELES BRI products exploit a patented technology that lets you profit from further possibilities with even more power and comfort: Though you need no additional wiring or extra charges, all TELES ISDN devices connected to the same BRI can communicate with each other. In contrast to other manufacturers' ISDN products, this technology allows you to *transfer calls to and from all your ISDN devices without paying charges*. This is also true for a TELES ISDN device you may have attached to the box's ISDN socket, e.g. the full-featured ISDN telephone TELES.FON.

1.1 TELES.S0/2TR USB Box Features at a Glance

General TELES.S0/2TR USB Box Features

- Provides you with the same performance as an internal BRI board. The TELES.RVS PowerPack software allows you to use all the advantages of PC supported telephony, internet, data transmission, faxing, etc.

- Plug&Play driver installation when first connected to the PC.

- Hotplugging lets you easily plug the box in and out while your PC is running.

- Features power management.

- Flash-ROM easily updates the firmware without having to replace any hardware components.

- Supports the DSS1 protocol.

- Connects to all analog terminal devices (telephones, fax machines, answering machine) supporting touchtone dialing (DTMF). Internal connections between the analog devices are free of charge.

- An additional ISDN device can be attached to one of the box's ISDN sockets. Calls between this device and the analog devices are external communications and are charged. However, thanks to the TELES.Family concept you can *transfer calls* to or from this device, thus avoiding charges. This is the result of a process designed and patented by TELES, which coordinates all TELES.ISDN terminal devices. Other brands allow call transfer on the same BRI bus only via parking (for details see Chapter 4.4, page 11).

- Two ISDN channels can be active at the same time. You can make a telephone call and receive a fax or surf the internet at the same time. Or you can make telephone calls on both analog ports at the same time.

- Several TELES.S0/2TR USB Boxes can be attached to one BRI bus.

- There are two ways to control the analog ports' functions: from your PC using the TELES.ISDN Device Manager, or by using the DTMF-capable telephones attached. If you have a TELES ISDN device connected to the same BRI please note that different key commands are applicable. Please refer to the manual delivered with the device or simply use the TELES ISDN Manager.

- 4 LEDs are provided to indicate operating status and analog port usage.

Features specific to the analog ports

*   Each analog port can be assigned a **number of its own (MSN)**. A third MSN can be programmed for **remote control**.

*   The flash button on the telephone allows you to set up a call (internal or external) while in the course of another one. One party is put **on hold** and you can **switch back and forth between both parties**. You can also **transfer** an external call to an extension on the other port without waiting for the called party to pick up the call. If supported by your ISDN line you can make use of **3 party conference** calls.

*   Calls can be **parked** to be picked up from another extension or from an ISDN line connected to the same ISDN line.

*   The TELES.S0/2TR USB Box allows two different approaches to configure **Call forwarding:** a) *Call forwarding unconditional via the box*. This is used to forward calls immediately to the box's other analog port or to an external line. b) *Call forwarding via ISDN switch*. This feature must be subscribed with your phone company. As a rule, you can take advantage of three types of Call forwarding: unconditional, no reply, call forwarding when busy.

*   **Statistics** on all connections and **charges** analysis are performed in a clear and simple manner by the **TELES ISDN Device Manager**.

*   The analog ports feature several types of **call blocking**: To control your telephone bill you can set up a charge account or configure various block types. Unwanted calls can be rejected.

*   When calling a busy phone, do not hang up, but use the **callback on busy** feature (CCBS = Completion of calls to busy subscriber).

*   **Direct Call** (or baby call) is the feature that allows a preset number be dialed automatically by simply lifting the receiver – useful for small children who are not able to dial numbers.

*   To prevent unauthorized use, a **PIN** is needed for all important functions.

*   Some functions can be **controlled from a remote location**, e.g. you can activate call forwarding by calling the box. This means that you can always be reached and therefore miss no important calls.

*   **Personal Callback:** You can allow certain persons to use your outside line. Use this feature if you want to pay the charges for an employee or a family member.

1.2   System Requirements

Before installing your TELES.S0/2TR USB Box, check that your computer meets the following requirements:

- PC equipped with at least a **166 MHz Pentium** and **16 MB** of RAM

- Windows 98 or Windows 95b OSR 2.1

- Graphics card with at least VGA resolution (800 x 600 pixels, 16 colors)

- Hard disk space: 40 MB

- Your PC must be equipped for **USB support**:
  - Windows support for USB devices must be active. Check for the **Universal serial bus controller** category in the Windows Device Manager. You should see the **USB Host Controller** and **USB Root Hub** entries when you click the plus sign ("+") for this category.
  - Windows 98 is fully USB-ready. Under Windows 95b OSR 2.1, you may need to install the **Microsoft USB Supplement** (usbsupp.exe). This supplement is currently included on Windows CDs marked "USB-support". The installation of this supplement requires you to restart your computer. After restarting, proceed with the TELES.S0/2TR USB Box installation.

- ISDN line: Point-to-multipoint access or internal BRI provided by a PBX
  - To display charges, the ISDN line must support advice of charges.

1.3   Package Contents

- TELES.S0/2TR USB Box
- Power supply unit
- ISDN connecting cable with an RJ-45 connector on either end
- USB cable
- User's manual "TELES.S0/2TR USB Box"
- User's manual " TELES ISDN Adapter + TELES.RVS PowerPack"
- CD ROM with ISDN driver and TELES.RVS PowerPack applications software

2   Installing the TELES.S0/2TR USB Box

2.1   Installation Overview

The following steps are necessary to install the TELES.S0/2TR USB Box:
1. Connect the box to the ISDN line and the power supply.
2. Connect the analog devices. If available, connect your ISDN device as well.

After these steps have been completed, you can make and receive calls on the analog devices attached. However, it is advisable to complete the following steps:

3. Connect the TELES.S0/2TR USB Box to the PC's USB port.
4. Install the ISDN driver software and, if required, the user software TELES.RVS PowerPack. For instructions refer to the installation manual "TELES.ISDN Adapter + TELES.RVS PowerPack".
5. Change the PIN required for configuring the analog ports.
6. Assign numbers (MSN).
7. Adjust flash time on your analog telephones.

2.2   Connecting the TELES.S0/2TR USB Box

•   Plug the **power supply** into the 220V/230V wall outlet. Connect the other end of the power supply cable to the socket marked **12V**. Connect the TELES.S0/2TR USB Box to the **ISDN line** with the RJ-45 connector cable supplied. The TELES.S0/2TR USB Box performs a **self-test**. Each of the LEDs lights up briefly. When the test is completed, the red LED lights up, indicating that the box is operational.

•   Connect the **analog devices** to the two analog ports on the back of the TELES.S0/2TR USB Box. These ports are in the form of 6-pin RJ-11 jacks, according to international standards. The letters **a** and **b** in the figure mark the pins assigned.
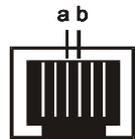
Left: RJ-11 connector cable typically used for analog equipment, such as telephones, modems, fax machines. *Right*: Analog jack on the back of the box. The letters **a** and **b** mark the pins assigned.

- An additional **ISDN device** can be attached to the remaining ISDN jack. Please note that this is not an extra ISDN port but only an "extension" passed through from your BRI, similar to a Y connector.

- Use the **USB cable** to connect the box **to your PC**. The box will automatically be displayed as a new hardware component. Insert your TELES.RVS PowerPack CD and follow the screen messages to **set up the ISDN driver** as described in the installation manual "TELES.ISDN Adapter + TELES.RVS PowerPack".

3   Setting up the TELES.S0/2TR USB Box

There are several ways to program the TELES.S0/2TR USB Box:

A) The easiest way is to program your TELES.S0/2TR USB Box from your PC, using the TELES.ISDN Device Manager. Please refer to Chapter 5, page 19ff, for details.

B) Alternatively, use the connected telephones.
 - To program the **two analog ports**, key in the commands listed in Chapter 8, page 27 ff. Be sure your analog telephones can generate DTMF tones. If your telephones are set to the pulse mode, check the manual supplied to see if you can switch from pulse to tone dialing. Pulse dial phones cannot be used to program the box. (However, you can use them to make calls). All commands begin with ✱ and end with ⊞. Be sure your telephones have these keys.
 If a function has been correctly set, you will hear the **OK tone** (short, regular tone).
 If a function could not be activated, you will hear the **error tone** (repetitive, piercing tone).
 - If you have an **ISDN device** connected, use the commands described in the manual supplied with it. If your ISDN device is a TELES product, you can take advantage of the TELES ISDN Device Manager as well.

C) For the two analog ports, you can also use your answering machine remote control.

3.1 Setting the PIN

To configure the **analog ports you have to set a PIN**. The PIN is a 5-digit number. When shipped from the factory, the PIN is set to 00000 which allows you to perform only one configuration command – changing the PIN. For instructions, please refer to Chapter 8, page 27 ff.

The PIN can **only** be set by using one of the connected analog **telephones**, not by the Device Manager. The new PIN must be entered **twice**, to avoid errors.

Note: Make careful note of the new PIN, because you cannot configure your box without it. If you lose the PIN, you will have to return the box to the manufacturer, who will delete the PIN. Costs will be billed to you.

This PIN is **not applicable to the ISDN device** you may have connected to your box. If you use a TELES ISDN product refer to the manual supplied with it.

3.2 Assigning Phone Numbers (MSN)

Your phone company will usually assign you 3 MSNs for a point-to-multipoint line configured for Euro-ISDN. MSN (Multiple Subscriber Number) is the complete phone number without the local prefix.

To assign phone numbers to the analog ports:
- Each analog port can be assigned a phone number of its own.
- If you do not assign phone numbers to either analog port, all connected analog telephones will ring simultaneously when one of your ISDN line's number is being called.
- If you set a phone number to one analog port only, the port without a number cannot accept incoming calls. Nevertheless, you can configure this port to ring as well. To activate this mode use the ✱69✱PIN✱1▣ command. This may be useful if you have not enough phone numbers left for all devices or applications you want to use over your ISDN line.
- To take advantage of the remote control and Personal CallBack features, one of your ISDN line's phone numbers should be reserved for this purpose.

Refer to Chapter 8, page 27 ff, for all key combinations needed.

To assign a phone number to the ISDN device:
Refer to the device's manual for instructions on how to set phone numbers. If you use a TELES product you can take advantage of the TELES.ISDN Device Manager.

3.3   Setting Device IDs for Each TELES ISDN Device

Device IDs are only necessary if you have **several TELES ISDN devices connected to one BRI line** and and if you want to take advantage of the functions offered by the TELES.Family patent, i.e.

- comfortable call transfer (see Chapter 4.4, page 11)
- programming devices with the TELES ISDN Device Manager (see Chapter 5.1, page 19ff).

If you only have one TELES ISDN device on the ISDN line and only want to program the box using the Device Manager, device IDs are of no relevance. You need not make any changes.

Each single TELES ISDN device should be assigned a device ID, whether it is attached directly to the ISDN network terminator or to the ISDN socket of your TELES.S0/2TR USB Box.

The device ID is a **one-digit** number between 1 and 8. The factory default setting for every TELES.ISDN device is **ID 1**.

Note: The device ID you allocate to the box will refer to port 1 only. Port 2 will automatically be assigned the next ID. As a result, this ID should be skipped when assigning IDs to other devices.

Like the PIN, the device ID can only be set by using one of the connected telephones, not by the TELES.ISDN Device Manager. The box's device ID is displayed in the title bar of the TELES.ISDN Device Manager. In contrast to that, you can neither view nor edit the second device ID.

Example: If you assign e.g. ID 3 to the box, port 2 is automatically addressable by ID 4. For a TELES.FON attached to the box, you may now use any other ID except 3 *and* 4.

4 TELES.S0/2TR USB Box as Full-featured PBX

This chapter describes the PBX features provided by the **two analog ports**. All key combinations for setting these features are summed up in Chapter 8, page 27ff. Functions requiring more explanation are detailed below.

Please be aware that the second ISDN socket of your TELES.S0/2TR USB Box is only an "extension" of your BRI. Therefore, the box's **PBX functionality will not cover any additional ISDN device** connected to your box or to your ISDN network terminator. However, thanks to the TELES Family concept you can profit from the Comfortable Call Transfer feature uniquely offered by TELES (see Chapter 4.4, page 11).

4.1 Setting Flash Time for Analog Telephones

The different hold and transfer functions are initiated via a signal that is transmitted to the system by pressing the flash button. The analog telephones connected must be equipped with this button. Throughout this manual, the flash button is referred to as the **®** key. It may be labeled differently on your own phones.

The TELES.S0/2TR USB Box flash time is set to **90 ms**. Be sure the connected analog telephones are configured to the same time.

To adjust the flash time, follow the operating instructions for your phone (there is no key combination provided by the box). If your phones are set to another mode, the hold and transfer functions will not be available to you.

4.2 Hold, Transfer and Alternate

Ask the first party to hold the line. Press the flash key to put the call on hold. Listen for the dial tone and call another internal or external party. Once the call is answered you will be connected with this party.

You now have the following options:
- To **transfer** the call on hold: This option can only be used for passing internal to external parties or vice versa. This means transferring calls between two internal parties or two external parties would not work.
- To **alternate** between the two parties: Press the flash button to switch back and forth. Each conversation is private and cannot be heard by the on-hold party.
- To **disconnect** the "active" call do not hang up but press 🔘🔘🔘. You can continue to talk to the party who was on hold at this moment.
- To **terminate** either call: Simply hang up.

4.3 Three-Party Conference Calls

Your TELES.S0/2TR USB Box allows you to hold a three-way conversation. This feature can only be used **if supported by your ISDN line**. Your two counterparts must be **external parties**.

To set up a conference:
Ask the first party to hold the line. Press the flash key to put the call on hold. Listen for the dial tone and dial the third party's phone number. Once the call is answered press 🔘🔘 to allow everybody to listen and speak to one another.

While the conference is in progress, you have the following options:
- You can easily switch back and forth between the two parties by pressing 🔘🔘. This is useful if you wish a private conversation with one of the them.
- To disconnect the third party, press 🔘🔘🔘. You are only connected with the party on hold.
- To disconnect both calls, simply hang up.

4.4   Comfortable Call Transfer

If you have other TELES.ISDN devices attached to your ISDN line, e.g. an ISDN telephone attached
- to the second ISDN port on the box,
- or to your ISDN network terminator,

you can take advantage of a transfer function specially developed by TELES: Transferring calls to other ISDN terminal devices on the same BRI line. This allows you to transfer calls between your analog telephones and your ISDN telephone without paying any charges.

This function is available to you if each TELES ISDN device has its own device ID.

To transfer calls from an analog phone (connected to the box) to a TELES ISDN device (connected to the same ISDN line / to the box):

📞   You have a call which you want to transfer.

✳✳   Press the star key twice.

🔢   Key in the ID of the TELES ISDN device to which you want to transfer the call.

When you hear the **OK tone**, you can **put the receiver down**. The ISDN device which you dialed has 60 seconds to take the call.

If you keyed in the **wrong device ID**, or the line is **busy**, you will hear the error tone. You are still connected to the original caller.

If the **device** you dialed **does not take the call**, you have 60 seconds to take the call back by lifting your receiver and keying in ✳🔳. Otherwise, the original caller will get the busy signal after 60 seconds have elapsed.

To transfer a call from the ISDN phone to the analog phones on the box:
The device manual will tell you how to activate this function. The TELES.FON, for example, comes with a special key for this purpose. To transfer a call to port 1 of the TELES.S0/2TR USB Box, just dial the box's ID. To transfer a call to port 2, dial the box's ID number **plus 1** (for details on device IDs see Chapter 3.3, page 8).

Example: Your box is set to device ID 3. To transfer calls from an ISDN telephone to port 1 of your box, dial device ID 3. To transfer calls to port 2, dial device ID 4.

4.5   Completion of Calls to Busy Subscriber (CCBS)

With your TELES.S0/2TR USB Box, you can profit from this feature no matter whether you have subscribed to CCBS with your phone company. If not subscribed, your box uses an automatic redial function.

To use CCBS with your analog telephones connected to the box:
The number you dial is busy. Do not hang up yet, but press ⊞ while you still hear the busy tone. Then put the receiver down. As soon as the called party is free again your telephone rings. All you have to do is lift the receiver and you are then connected to the called party.
To deactivate CCBS lift the receiver and press ®⊞.

To use CCBS with an ISDN phone connected to the box:
Your ISDN phone must by capable of CCBS. For instructions refer to the manual supplied. Most of the TELES ISDN Devices support CCBS. TELES.FON even has a special button that makes CCBS easy to use.

4.6   Call Forwarding

To set Call Forwarding you can either
- take advantage of the **functions integrated** into your TELES.S0/2TR USB Box (see Chapter 4.6.2, page 14)
- or use the **service provided by your central office**. This is usually based on two different approaches depending on the standards used by your phone company:
    - Euro-ISDN standard (see Chapter 4.6.1, page 13)
    - national standards (see Chapter 4.8, page 15)

Each option requires different codes to activate and deactivate call forwarding. Your TELES.S0/2TR USB Box complies with Euro-ISDN and supports a variety of national call forwarding standards, allowing you to benefit from either approach.

4.6.1   Call Forwarding via Central Office

In contrast to call forwarding by the box, this service needs to be activated for each of your ISDN line's call numbers. This gives you the flexibility to use it for any device connected to your BRI. Some phone companies offer voicebox services which can only be used in conjunction with call forwarding via the central office.

Having call forwardings switched through your central office keeps free your own B-channels. On the other hand, subscription costs and forwarding charges may be incurred. In contrast to call forwarding via the TELES.S0/2TR USB Box the service cannot be controlled from remote locations.

The type of call forwarding - if at all - supported by the ISDN line, depends on the services the carrier offers. Your box supports the following CF types:
- Unconditional call forwarding (CFU) – forwards calls immediately
- Call forwarding no reply (CFNR) – forwards calls if no one answers the phone after a certain number of rings
- Call forwarding when busy (CFB) – forwards calls if your line is busy.

For the Euro ISDN compliant type of call forwarding use the codes ranging from ✱31✱ to ✱36✱ as listed in Chapter 8, page 27. To avail of national variations, follow the instructions outlined in Chapter 4.8, page 15.

4.6.2   Call Forwarding via USB Box

You may want to forward calls even though you haven't subscribed to call forwarding with your phone company. To do so, simply use the call forwarding feature provided by your USB box. Note that the TELES.S0/2TR USB Box supports only the **unconditional type of call forwarding** (CFU), i.e. all calls are forwarded immediately to the other number.
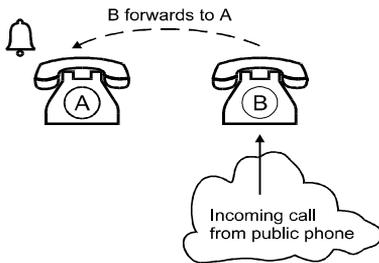
If you know that the phones on a port will not be attended for some time, you can have the calls forwarded immediately to another phone. The phones originally dialed do not ring. Note that both B-channels are used while a call is being forwarded. The connection set up to the CFU destination will be charged to your ISDN line.

The TELES.S0/2TR USB Box offers two ways to set CFU:

A) Enter **source** and **destination** number. This function requires you to key in the **complete phone numbers** and the box's **PIN**. Therefore, it is ideally suited for remote control from the public network. Key combination:

✱06✱PIN✱source✱destination#.

B) Only set the **destination** number. Applicable only to the port on which you set the function. Destination may be an external phone or just the other port's number. Key combinations:

✱07✱destination#
✱07✱✱port number#

To **delete the destination** enter the same command without entering a destination. (applies to A and B).

You also have the option of simply **activating** or **deactivating** call forwarding. After you have set the destination, use the ✱08✱1 or 0 key combination to activate/deactivate the function. This applies to both types of call forwarding.

4.7   Call Distribution

You can program your TELES.S0/2TR USB Box to have incoming calls ring on both analog ports, no matter which of the two ports is called. Set this function on the analog port whose calls are to be forwarded.

4.8   Sending Codes to a PBX or to the Central Office

Observe the following instructions only if you wish to

• set functions in a larger PBX to which your TELES.S0/2TR USB Box is connected

• avail of any central office service that may be controlled by national codes.

To quit the box's command level, lift the receiver and press the ⊞ button. You can now enter any command specific to your PBX or local central office. The table below lists some typical local switchboard commands widely used in many European countries.

Common national codes used in several European countries

✱21✱	CFU
✱61✱	CFNR
✱67✱	CFB

Netherlands

✱210✱	CFU
✱610✱	CFNR
✱670✱	CFB
✱670✱0842333	CFNR to voicebox

Contact your carrier to find out which other supplementary services are available and which codes are actually needed. For call forwarding, for example, ask whether you can use the steps listed above, or whether your carrier operates with the Euro ISDN procedures outlined in Chapter 4.6.1, page 13.

4.9 Blocking

The TELES.S0/2TR USB Box supports the following types of blocking, which can be set for the **analog ports**. Please refer to Chapter 8, page 27 ff, for key combinations, or go to Chapter 5, page 19 ff, for information on how to set functions using the TELES.ISDN Device Manager.

Blocks on outgoing calls	
Type	**Meaning**
Global block	When set, port 1 and 2 are blocked. The preset numbers, **110** and **112**, and **five other numbers of your choice** are exempt from this block and can still be dialed. Internal calls between the ports are not affected.
Partial Block	When set, port 1 and 2 are blocked. Used to block certain numbers: e.g. 0 for long-distance calls, 00 for international calls, or toll service numbers. A maximum of 5 numbers/series of numbers can be blocked. Internal calls between the ports are not affected.
Charge account	When set, port 1 and 2 are blocked. Allows calls up to a preset limit of units only. As soon as the limit is reached, both ports are totally blocked (except for 110 and 112). Your ISDN line must be able to transmit charge information (AOC = Advice of charges), if you want to use the charge account feature. Internal calls between the ports are not affected because they are free. To set up the account, simply determine the number of charge units you want to allow (max. 99999 units). If you set this at 0, the charge account is turned off.
Direct Call (sometimes referred to as Baby Call)	Can be set individually for each port. When you lift the receiver a preset number will be automatically dialed. A special dial tone is played for 3 seconds before the call is placed. To deactivate, enter the command within the 3 sec.
Blocks on incoming and outgoing calls	
Total block	Can be set individually for each port. Blocks all internal and external calls incl 110 and 112.
Blocks on incoming calls	
Protection against unwanted calls	Can be set individually for each port. Rejects calls made from certain, preset numbers. The caller hears the busy signal. This can only function if the calling number is transmitted. On each port, you can block calls from up to 5 unwanted numbers. This function is deactivated if **no** numbers are entered.

4.10 Remote Administration

You can control several features from a **remote** location. This applies only to the two **analog ports**.

To avail of this function you have to **reserve one of your ISDN line numbers (MSN) for remote access** (Chapter 3.2, page 7). This number has to be dialed before the key combinations necessary to set the functions. All functions that can be set by remote control are marked with an 'X' in the 'R' column of the "Overview of Analog Ports' Functions".

Example: To set Call Forwarding by remote control

☎	Lift the receiver. You will hear the dial tone.
▦	Dial the MSN reserved for remote access. You will hear a Ready tone (one short beep).
✱	Press the star key.
0 6	Key in 06.
✱	Press the star key.
🔑	Key in your PIN.
✱	Press the star key.
▦	Enter the complete number of the port whose calls are to be forwarded.
✱	Press the star key.
▦	Enter the destination number for the calls.
▣	Press the pound key.
✓	You will hear the OK tone.
☒	Hang up.

4.11   Personal Callback

The MSN reserved for remote administration is also used as the **dial-in number** for **Personal Callback.** The caller uses this number to dial into the TELES.S0/2TR USB Box. After hearing the Ready tone for remote access he/she keys in the ✴99✴ command followed by the **5-digit access code** and ⬛, and hangs up. The box calls the preset **callback number** associated with this specific access code, the caller hears a dial tone, and can now dial the number desired. Charges for both calls will be made to your line, not to the caller.

The remote access number (Chapter 3.2, page 7), the 5-digit access code and the callback number must be configured in advance. The callback number is the phone number of the caller's location.

If the person is travelling around the callback number needs to be modified. The number can be updated by remote control. Note that the ✴89✴ code will delete *all* callback numbers. To change only a specific callback number use ✴87✴.

The caller can set up several calls without hanging up. To do so, he/she ends a Personal CallBack call by pressing ✴⬛ and waits a few seconds until he/she hears the dial tone once again.

While a Personal CallBack call is in progress, both analog ports are used. As a result, you cannot make another call from one of the connected phones. When you lift the receiver you will not hear the dial tone, but the yellow LED lights up.

Note:　　　In this release of TELES.RVS PowerPack, the 5-digit access code is referred to as **Callback** in the TELES.ISDN Device Manager (see Chapter 5.1, page 19ff).

5   TELES.ISDN Device Manager

The TELES.ISDN Device Manager makes child's play of programming your TELES.S0/2TR USB Box. You can program almost every function using your PC instead of your phone's keypad. Furthermore, the TELES.ISDN Device Manager counts all incoming and outgoing calls on each port and registers charges for outgoing calls. This chapter includes a short description of the TELES.ISDN Device Manager. Further details can be found in the online help.

5.1   The TELES.ISDN Device Manager User Interface

The TELES.ISDN Device Manager is accessible from the **Accessories** icon in the TELES.RVS PowerPack program group.

If you are installing for the first time, select **File** | **Look for Devices**. A list of all TELES.ISDN devices connected to your ISDN line appears, showing device ID, device name, software version and serial number.
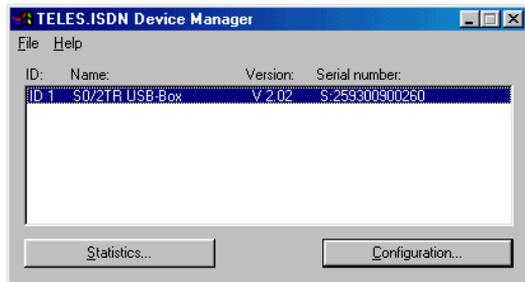
Note: If several devices are connected but no device IDs assigned, a message will appear on your screen. Set an ID for each device, using the phone connected to the device in question. See Chapter 3.3, page 8.

5.2   Getting Started

Mark the device that you want to configure. You will be prompted to enter a PIN. If the PIN is still set to the default 00000, you will not be able to make any configurations. Use your telephone to change the PIN. Key in:

     ✳90✳oldPIN✳newPIN✳newPIN⬛.

When the PIN has been entered correctly, data can be transmitted from the TELES.ISDN device to the configuration program. Click the **Device Settings** and/or **Statistics** buttons to enter the dialogs.

5.3   Settings for Analog Ports

The TELES.ISDN Device Manager consists of five properties pages. We will go through each one in this section.

General

- **Phone number port 1/2**: Use these two fields to assign an MSN to each port.
- **Service ID port 1/2**: Refers only to outgoing calls. Change this setting only if you encounter problems (e.g. errors when sending faxes). For more details see Chapter 5.3, page 20.
- **Signal Amplification**: Adjusts the volume of the devices plugged to this port.
- **Port rings even if no number is set**: This option is useful if one of the two ports has no phone number of its own. Check the box if you want this port to ring as well when a call comes in for the number assigned to the other port. If a phone number is configured for a each port, this option can be ignored.
- **Call Distribution**: If set for e.g. port 1, incoming calls for this port will ring at both ports.
- **Charge Account (units)**: The number of units that may be used.
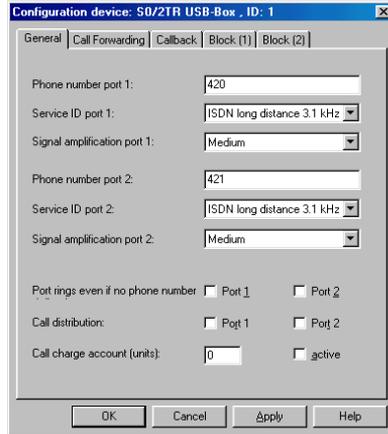
Call Forwarding

- **Call forwarding target port 1/2**: Destination to which you want to forward calls from this port.
- **Active**: Tick this to activate the call forwarding.
- **Internal Port**: If the call forwarding destination is one of the box's internal ports simply enter the number of the port rather than typing the entire phone number. To activate call forwarding tick the two check boxes labeled **active** and **internal**.
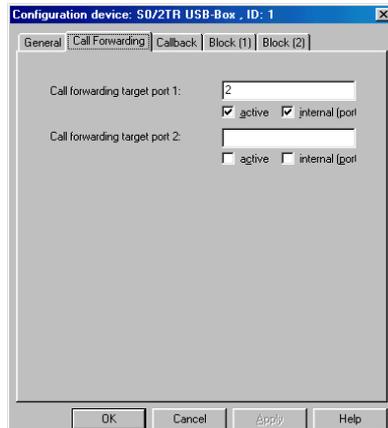
Block (1) - refers to outgoing calls

- **Port 1 or 2:**
  - **Port blocked**: Tick this box to activate a total block *on this port*.
    WARNING: No internal or external calls can be made. The numbers 110 and 112 are blocked as well.
  - **Number for child call:** Tick this box and enter the number to be dialed *directly from this port*. A connection will be made to this number when the receiver is lifted off the hook.
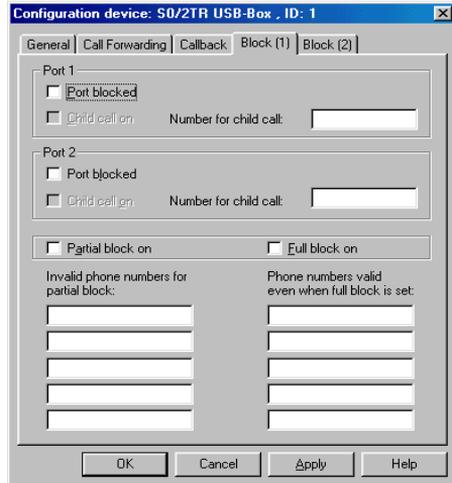
- **Both analog ports:**
  - **Partial Call Blocking**: Activates partial block on *both analog ports*. The numbers to be blocked are to be entered in the fields underneath.
  - **Global Call Blocking**: Activates global blocking *on both analog ports*. The two preset numbers 110 and 112 as well as five numbers of your choice are exempt from blocking. Enter these numbers in the fields underneath.

Block (2) - refers to incoming calls

- This is used as a protection against unwanted calls, i.e. calls made from particular numbers are rejected, or blocked. This feature can be set for each port separately.
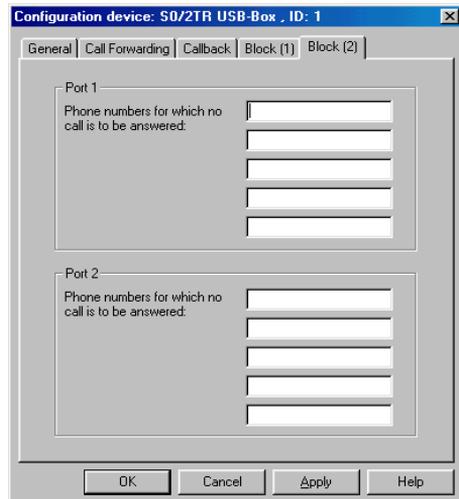
Personal CallBack

- **Dial-in number:** The number reserved for Remote Configuration and Personal Callback.
- **Callback**: 5-digit access code to identify authorized callers.
- **Callback number**: This is the number that will be called back by the box, i.e. the caller's number.
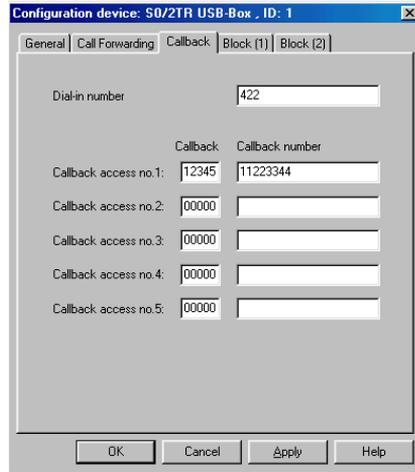
Viewing statistics

- **Counters for port 1/2**: The sum of all outgoing and incoming calls.
- **Total**: The total amount of charges incurred on the port.
- **Counters for Personal Callback**: Lists number of incoming calls made to the number, and number and cost of outgoing calls made to the numbers called.
- **Clear call counters**: Resets the counters to 0.
- **Clear charge counter**: Resets the total charge to 0.
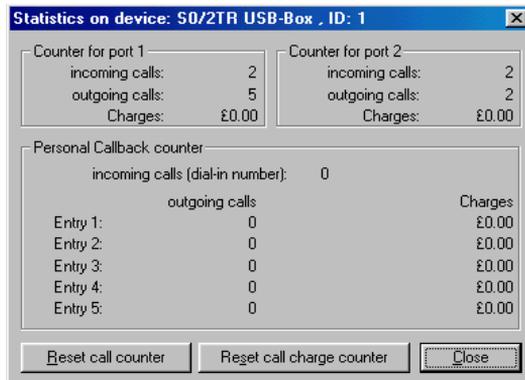
Note: Statistic display can only be done by the Device Manager. It cannot be called up by telephone.

6 Troubleshooting

You can often solve minor problems during operation of the TELES.S0/2TR USB Box by yourself. Before calling the hotline for assistance, try to fix the problem by going through the following steps:

You lift the receiver but you don't hear the dial tone. Does the green status LED light up?

Yes: Your phone is properly attached. Check the cable to the ISDN line.

No: a) Check that the RJ-11 cable is securely plugged into the TELES.S0/2TR USB Box and the telephone.

                b) Refer to RJ-11 plug figure in Chapter 2.2, page 5 and check that the pin assignment is correct.

When you lift the receiver, you do not hear a dial tone:

Cause: A Personal CallBack connection or Call Forwarding is in progress. The yellow LED is on.

Solution: Wait until the connection has been terminated and try again.

Telephone does not ring for incoming calls; outgoing calls are possible:

Cause: You've entered the incorrect number for your own number.

Solution: Re-enter the number from your local telephone company documents.

No connection can be set up when you press the flash button for hold, transfer or conference calls:

Cause: The connected phone is either set to "ground" or a wrong hook-flash time.

Solution: Set flash time to 90 ms. For instructions see the phone's manual.

6.1 Setting Service Indicators for Analog Ports

The table below lists the various services supported by the analog ports. By default, both ports are set to type 1 (ISDN telephony).

We recommend changing the default setting **ONLY** if you encounter problems with outgoing calls. This may happen when you try to reach fax machines that have not been correctly set for the type of fax being sent to them.

Indicator	Service	Meaning
1	ISDN telephony	**Default setting. Usually applicable**.
2	Analog telephony	Use this option only when you encounter problems with the ISDN telephony mode.
3	Group 2 fax	To call fax machines connected to PBXs capable of Group 2 fax only.
4	Group 3 fax	To call fax machines connected to PBXs capable of Group 3 fax only.
5	Option 1 telephony	Used to set up connections to PBXs that are not capable of ISDN or analog telephony.
6	Option 2 telephony	Used to set up connections to PBXs that are not capable of ISDN or analog telephony.

7   Customer Service

International Help Desk	
TELES Ireland Ltd. Unit 3, Distribution Centre, Shannon Airport Free Zone, Co. Clare IRELAND	Phone*) +353 (61) 716 716 E-Mail Support: support@teles.ie E-Mail Sales: sales@teles.ie World Wide Web: http://www.teles.ie

Local Help Desks	
TELES AG Dovestrasse 2–4 10587 Berlin GERMANY	Phone*) 0190/871101 (3.63 DM/min Germany only) Fax: +49 (30) 399 28 01 World Wide Web: http://www.teles.de
TELES Benelux BV De Lasso 70 NL-2371 GZ Roelofarendsveen THE NETHERLANDS	Phone*) 0900 2027777 (105 cpm) Fax: +31 (71) 331 7174 World Wide Web: http://www.teles.nl
TELES Italia SRL Via die Platani 6 I-20020 Arese (MI) ITALY	Phone*) +39 (02) 93777 100 Fax: +39 (02) 93777 101 World Wide Web: http://www.telesitalia.it
BCS Oslo NORWAY	Phone*) 820 70 240 (12 nok/min)

*) Available Monday through Friday from 9.00 a.m. to 5.30 p.m.

Return Material Authorization (RMA)
Returned goods are accepted only if an RMA number is attached. TELES assigns these numbers 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 for example 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.

7.1   Checklist for Hotline Contacts

If problems occur during operation, have the following information at hand when you contact the TELES Hotline for assistance.

Operating System: ❑ Windows 98   ❑ Windows 95

TELES.RVS PowerPack: Version _____

CAPI: Version _____

TELES.Firmware of box: Version _____
(on the bottom of the box)

Serial number of box: _____
(on the bottom of the box
beneath bar the code)

ISDN Line Configuration:

❑ Euro-ISDN (DSS1)   ❑ Point-to-multipoint line   ❑ Point-to-point line

❑ First number: ❑ Second number: ❑ Third number:

Only if your TELES.S0/2TR USB Box is connected to another PBX:

❑ Outside line:

Which terminal devices are attached to your TELES.S0/2TR USB Box?

❑ Analog telephone	Type:	Manufacturer:
❑ Fax	Type:	Manufacturer:
❑ Answering machine	Type:	Manufacturer:
❑ Modem	Type:	Manufacturer:

8 Overview of Analog Ports' Functions

Function	Keys	P	Explanation	R
Basic configuration				
To set *PIN*	⬆✱90✱▱(oldPIN)✱▱(newPIN)✱▱(newPIN)⊞⬇	7	5-digit code necessary to prevent unauthorized use. Default PIN is 00000. Set your own PIN when installing the box for the first time. Otherwise any attempts at programming the analog ports would be rejected.	-
To assign *MSN*	⬆✱01✱▱✱⌨(MSN)⊞⬇	7	The phone numbers provided by your phone company. Set the numbers *separately at each port* using the connected phone.	-
To assign *Remote access number (Dial-in number)*	⬆✱02✱▱✱⌨(MSN)⊞⬇	17	Necessary if you want to take advantage of *remote admistration* and *Personal Callback*. The remote access number must be one of the MSNs provided by your phone company.	-
Allow / do not allow port without MSN to accept incoming call	⬆✱69✱▱✱1⊞⬇ ⬆✱69✱▱✱0⊞⬇	7	Port that has no MSN of its own rings when a call comes in for the MSN assigned to other port. Only the port assigned an MSN rings if this MSN is dialed. The port without MSN does not ring at all.	-
To set *device ID* (1 - 8)	⬆✱92✱▱✱⌨(ID)⊞⬇	8 11	1-digit number. Only necessary if you have several TELES ISDN devices connected to your BRI. Identifying each device, IDs will allow you to transfer calls between different TELES ISDN devices and to configure each device by using the TELES Device Manager.	-
To set Service Indicator for outgoing calls	⬆✱04✱▱✱⌨(indicator no.)⊞⬇	24	This number is to identify the type of service to be sent on the port. Particularly important to reach fax machines connected to PBXs.	-
To set volume	⬆✱09✱Number⊞⬇	-	Determines the volume of the voice signal 1(low), 2 (medium) or 3 (high) - can be set for each port individually.	-

| Function	Keys	P	Explanation	R
Making Calls				
Call another port	(lift)(*)(keypad)(port)	-	Calls one of your extensions	-
Call external party	(lift)(keypad)(destination)	-	Calls external number	-
Pick up call	(lift)(*)(*)(handset)	-	Pick up call from another port (while phone is ringing or call is already in progress)	-
Completion of Calls to Busy Subscriber (CCBS): Activate	While you hear busy tone: (5)(down)	12	If the no. you dial is busy, your phone or ISDN switch will continue dialing until line is free.	-
CCBS: Deactivate	(lift)(R)(5)(down)	12	Stops CCBS mode.	-
Hold and Transfer Calls, Alternate, Conference Call				
Hold a call and alternate	(handset)(R)	10	Puts call on hold. You hear dial tone and can call third party. You can switch back and forth.	-
Hold one call and call another *internal* extension	(handset)(R)(*)(keypad)(port)(handset)	10	Put active call on hold and dial other extension	-
Hold one call and call an *external* party	(handset)(R)(keypad)(destination)(handset)	10	As above for external number	-
Disconnect active call during alternate call: during 3-way conference:	(handset)(4)(4)(R) (conf)(4)(4)(R)	10 10	Completely disconnects active call (third party) and returns to on-hold call	-
Transfer a call to another TELES ISDN device connected to same BRI as USB Box	(handset)(*)(*)(keypad)(deviceID)	11	**Only** if connected to same BRI as USB Box. Device ID must be set.	-
Three-party conference (if subscribed with your phone company)	After having set up call to 3rd party: (handset)(*)(4)(conf)	10	To connect all the 3 parties in a conference.	-

Function	Keys	P	Explanation	R
Call Forwarding (CF) via TELES.S0/2TR USB Box				
Set call forwarding unconditional (CFU) to another port	☎✴07✴✴1 or 2⊞⤓	14	Forwards calls immediately to another *internal* port. The phone dialed does not ring.	-
Set CFU to external party	☎✴07✴⌨(destination)⊞⤓	14	Forwards calls immediately to an *external* number. The phone dialed does not ring.	-
Delete the above CFU	☎✴07✴⊞⤓	14	Deletes the CFU set by ✴07 command.	-
Set CFU for another port to an external destination	☎✴06✴⌨✴⌨(source)✴⌨(desti-nation)⊞⤓	14	Used to set CFU for either port from remote location.	X
Delete this CFU	☎✴06✴⌨✴⌨(source)✴⊞⤓	14	Deletes CFU set by ✴06 command.	X
Deactivate CFU	☎✴08✴0⊞⤓	14	Deactivates CFU without deleting it.	X
Reactivate CFU	☎✴08✴1⊞⤓	14	Reactivates CFU after it was deactivated	X
Call distribution on/off (ACD = Automatic call distribution)	☎✴94✴1 or 0⊞⤓	15	1 = Both ports will ring when a call comes in. 0 = Call distribution off Set on port whose calls are to be forwarded.	-
Call Forwarding via exchange switch (if subscribed with phone company and commands are supported by switch)				
Call forwarding unconditional (CFU): Set destination	☎✴34✴⌨✴⌨(destination)⊞⤓	13	Forwards calls immediately to an external destination	-
Activate/deactivate CFU	☎✴31✴⌨✴1 or 0 ⊞⤓	-	1 = CFU on, 0 = CFU off	-
Delete CFU	☎✴34✴⌨✴⊞⤓	-		-
Call forwarding no reply (CFNR): Set destination	☎✴36✴⌨✴ ⌨(destination)⊞⤓	13	Forwards calls if the phone is not answered	-

| Function	Keys	P	Explanation	R
Activate/deactivate CFNR	☎✱33✱🔒✱1or 0⊞⚓	-	1 = CFNR on, 0 = CFNR off	-
Delete CFNR	☎✱36✱🔒✱⊞⚓	-		-
Call forwarding when busy (CFB): Set destination	☎✱35✱🔒✱ ⌨(destination)⊞⚓	13	Forwards calls if line is busy	-
Activate/deactivate CFB	☎✱32✱🔒✱1 or 0⊞⚓	-	1 = CFB on, 0 = CFB off	-
Delete CFB	☎✱35✱🔒✱✱⊞⚓	-		-
Blocking				
Partial block: Set numbers	☎✱51 ...55✱🔒✱⌨(number)⊞⚓	16	Blocks up to 5 numbers/number series.	X
Partial block: Activate/deactivate	☎✱96✱🔒✱1 or 0⊞⚓	-	1 = on, 0 = off	X
Global block: Set numbers	☎✱61...65✱🔒✱ ⌨(number)⊞⚓	16	To set up to 5 numbers which can be dialed while a global block is active	X
Global block: Activate/deactivate	☎✱96✱🔒✱2 or 0⊞⚓	-	2 = on, 0 = off	X
Total block: Activate/deactivate	☎✱97✱🔒✱1 or 0⊞⚓	16	1 = on (completely blocks both ports), 0 = off	
Block unwanted calls: Set numbers to be rejected (up to 5 numbers for each ports)	☎✱71...75✱🔒✱⌨(no. incl. prefix)⊞⚓	16	Rejects calls from the numbers set. Caller gets busy tone. Works only if caller's number is transmitted.	X
Deactivate unwanted call block	☎✱71...75✱🔒✱✱⊞⚓	-	You can deactivate the block on any number previously blocked.	X
Direct Call: Set destination	☎✱03✱🔒✱⌨(destination)⊞⚓	16	Must be set on the port itself. Activate with 93.	-
Direct Call: Activate	☎✱93✱🔒✱1⊞⚓	16	If activated: When you lift the receiver, a dial tone is played for 3 sec before the box automatically dials the preset number.	-

Function	Keys	P	Explanation	R
Direct Call: Deactivate	🔺⬜⊛93⊛⬛⊛0⊡⬇ (Key in during dial tone, otherwise call is set up)	16	Must be done on the port itself. You have 3 seconds to enter the command.	-
Charge Account: Set max. number of units allowed	🔺⊛95⊛⬛⊛▦(units)⊡⬇	16	Applies to port 1 and 2 together, not available for individual extensions. To check the remaining amount use the TELES Device Manager.	X
Charge Account: Activate/deactivate	🔺⊛98⊛⬛⊛1 or 0⊡⬇	16	1 = on, 0 = off (outgoing calls can be made again)	X
Personal Callback				
Personal Callback: Set access code and callback number.	🔺⊛81...85⊛⬛⊛▦(access code)⊛▦(callback number)⊡⬇ Access code = 5-digit personal code. Callback number = complete phone number of caller's location.	18	Allows up to 5 authorized persons to use your telephone line from a remote location. Callers must know the remote access number (set with ⊛02..). Furthermore, a specific access code and the callback number must be preset for each caller.	X
Delete access code	🔺⊛81...85⊛⬛⊛⊡⬇	18	Deletes access code.	X
Change callback number	🔺⊛87⊛▦(access code)⊛▦(callback number)⊡⬇	18	Changes only the callback number associated with this personal access code. Useful if caller wants to dial in from another place.	X
Delete callback numbers	🔺⊛89⊛⬛⊛⬛⊡⬇	18	Deletes *all* callback numbers.	X
To use Personal Callback (authorized persons only)	🔺▦(remote access number). Wait for Ready tone. ⊛99⊛▦(access code)⊡ Wait for OK tone from box. Put down receiver and wait for callback.	18	Use the remote access number to dial into the box, wait for Ready tone (long beep), dial ⊛99⊛, enter personal access code and quit with ⊡ which must be followed by OK tone. Put down receiver. After a moment, the box will call back. Lift the receiver now, listen for the dial tone and dial the desired number.	X

Function	Keys	P	Explanation	R
Set up next Personal Callback connection	🙂✱⊞ Wait for next dial tone.	18	Disconnects current call and gives you another line. Useful for subsequent calls.	
Reset				
Reset all analog port settings	☎✱00✱⌨✱⊞⤓	-	Returns to default settings: PIN = 00000; no MSNs; Device ID = 1; no CF via box; no call distribution, volume = 2.5 dB; Service indicator = 1; no blockings; no charge account; no settings for Personal Callback.	-
Other functions				
Enter commands of another system (keypads)	☎⊞	15	Quits the box's command level. Useful if box is attached to the BRI of a larger PBX or if you want to set services/functions provided by your central office (e.g. Call forwarding, Voice-box etc.). Commands to follow depend on PBX or exchange switchboard.	-
Park (applies to external calls only)	🙂✱▦(park ID)✱⤓ (Choose any park ID from 3...9)	-	"Parks" a call temporarily to your local exchange switchboard. In contrast to Hold you can put down the receiver. Useful for picking up the call from another phone (e.g. other port or ISDN device connected to same ISDN line).	-
Pick up a parked call	☎✱(park ID)✱🙂 (Same park ID as above)	-	To pick up the parked call dial the *same Park ID* as was used to put the call on hold. You will hear a brief OK tone before actually being connected with the caller.	-

TELES.S0/2TR USB Box - Rear View

Analog ports — 1 2 | ISDN — ISDN jacks | USB — USB cable | Power supply — 12V=
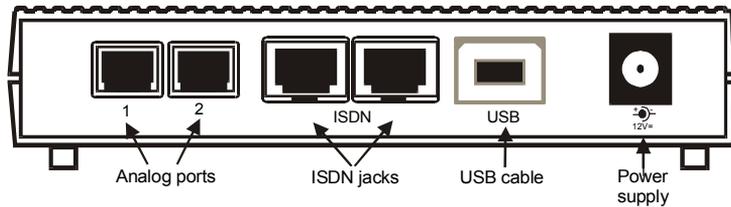
TELES.S0/2TR USB Box - Front View - LED Display

Power supply (red)
LED internal activity (yellow)
LED Port 2 (green)
LED Port 1 (green)

Wall mounting slots / feet: 118 mm
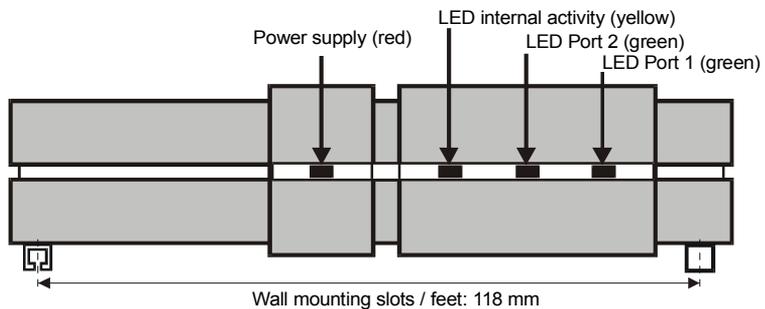
LED	Color	Display		Meaning
Power	red	on		Box properly attached to power source.
	red	blinking		Charge account active for Port 1 and 2
Internal activity	yellow	on		Both B channels busy (Call forwarding or Personal CallBack currently in use)
	yellow	blinking		Partial block active
	yellow	flashing		Global block active
Port 1 or Port 2	green	on		Receiver is off-hook, but no connection has been made.
	green	blinking		Connection made
	green	blinks briefly		Calls to this port will be forwarded.
	green	flashing		Direct call (baby call) on.
ALL LEDs		all blinking		Update failed. Please try again or load backup

Specifications

External power supply	12 Volts, 500mA
Dimensions	l x b x h:138 x 132 x 40 mm; Weight: 270g
D channel protocol	DSS1
ISDN line type	Point-to-multipoint
Terminal devices supported (Note that only two devices can be active at the same time)	*Analog devices:* telephone, fax, answering machine, modem. Max. 3 devices on each port. One of the analog ports can be used for an analog PBX.
Radio interference suppression	Complies with CE 0681X

Acoustic Signals

Tone	Meaning	Beeps
Dial tone	You are in the public network. You can dial now.	⊤
Ringing tone	The number you dialed is free and is being called.	⊤ ⊤
Busy signal	The line is busy or not reachable.	⊤⊤⊤⊤⊤⊤
On-hold tone	The line is on-hold	*either:* ⊤⊤ *or:* The party on hold hears an announcement from the exchange switchboard.
Error tone	Command rejected	Rapid, sharp tone
OK tone	Command is carried out	⊤ ⊤ ⊤
Ready tone (for remote access only)	You can now enter another command.	⊤
Dial tone for Direct call (Baby call)	Special tone you hear when you lift the receiver while Direct call is active. After 3 seconds, the box will automatically dial the preset destination. You can deactivate Direct call within these 3 seconds by pressing ✳ 93, PIN, 0 ⊞.	ca. 3 seconds ⊤