MusicTAXI VP PRO

Manual V00/V4.14

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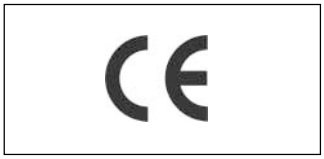
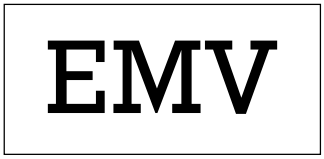
The certification Body of the TÜV Management Service GmbH certifies that DIALOG4 System Engineering GmbH, Ludwigsburg, has established and applies a quality system for Research & Development of MPEG related hard- and software products for the professional and consumer market, production management, quality control, sales and after-sales service. An audit was performed, report no. QM-F-98/1461. Proof has been furnished that the requirements according to DIN EN ISO 9001:1994 are fulfilled.

The MusicTAXI VP-PRO is designed according to protection class 1 (EN 60950/VDE 0805/IEC 950). It is manufactured according to the electrotechnical regulations and fulfils the regulations for preventions of accidents 'Electrical Systems and Materials' (VBG4, §5 paragraph 4).



A Declaration of Conformity constitutes that the MusicTAXI VP-PRO corresponds to the EC directive: EMV 89/336/ EWG as well as the 'low voltage regulation' 73/23/EWG with applied harmonised standards.



The MusicTAXI VP-PRO is designed according to the EMC directive (or regulations for the electromagnetic compatibility) with the harmonized standards DIN EN 55103-1 (June 97) interference radiation, ambiance E1 and DIN EN 55103-2 (June 97) resistance to jamming, ambiance E5.

Taking into consideration the demand on resistance to jamming, for the quality and impairment the intensity degree 4 of the 5-stage scale of the ITU/R recommendation 500-4 applies.

The MusicTAXI is a telecommunications unit and has with the 'CE 168 X' labeled ISDN module an EC approval and a national approval for EURO ISDN with the number: A 120371F.

Note on EMC Measures

According to the requirements of the EMC directive, the regulations for the electromagnetic compatibility, it is necessary that the following measures have to be observed when using/manufacturing the connection cables:

- For all connections shielded cables should be used (with respect to the audio cables the well-known EMT 211 has proven its worth).
- The shields should be soldered to the GND connections and additionally to the connector shell directly.
- For the 3-pole audio sockets/plugs (type XLR) the respective counter sockets/plugs, manufactured by NEUTRIK, should be used.
- The connection of pin 4 housing are to be connected to pin 1 ground, shield.

Installation

The MusicTAXI VP-PRO is designed for installation into 19" racks. Installation with additional mounting rails is recommended because of the depth of the unit.
No ventilation or internal cooling for the MusicTAXI VP-PRO is necessary nor active cooling of multiple units in 19" racks. No additional distance to other apparatus has to be observed.

Climate

Operating temperature: -10 to +45 degrees Celsius
Relative Humidity: 30-90%.

ISDN Cabling

Correct operation of the MusicTAXI VP-PRO is only guaranteed when the ISDN cables, which are included in the scope of delivery, are used.

ISDN Connection

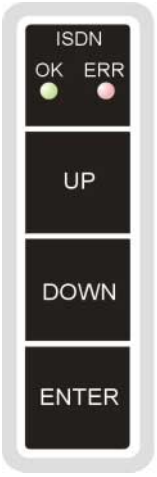
Correct operation of the MusicTAXI VP-PRO is only guaranteed when the MusicTAXI is connected to an approved Telecom access. When connecting the unit to a private exchange, several adjustments are necessary. Please see chapter SYSTEM SETUP for further tips and instructions. It is possible, that adaptation to a special private exchange may prove impossible.

Please note

This manual is for the use of the owners and their staff only. The information in the manual, including all texts and drawings, are to be treated as confidential, and are not to be reproduced, translated or published.
The original documentation, its contents or any parts of it are not be passed on to third parties or copied in any form. Hereby the right to registered utility models or patent application is reserved explicitly. In the case of violation or non-compliance resulting in consequential loses, DIALOG4 may be entitled to claim damages according to the German BGB, HGB as well as the competition law and Patents Act.

Due to the further development for product improvement of the present series units and alterations of certain industrial parts, it cannot be avoided that some parts might not be fully compatible.
All technical alterations may be subject to change without notice.

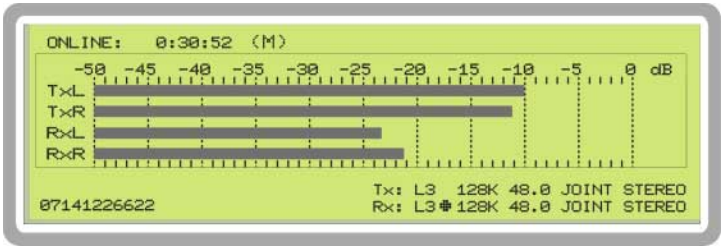
Explanation of Keypad Symbols



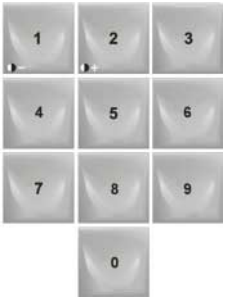
ISDN OK ERR	indicates a correct or rejected connection of the MusicTAXI. Release by pressing HANG UP.
UP	cursor moves upwards
DOWN	cursor moves downwards
ENTER	selected function is confirmed

TEL	activates the G.711 algorithm
COPY	copies a telephone number
⇐	cursor jumps to the left
7 kHz	activates G.722 algorithm
PgUp	cursor jumps upwards to next page
⇒	cursors jumps to the right
MUSICAM	activates Layer II
PgDn	cursor jumps downwards to next page
LAYER 3	activates Layer 3
DEL	deletes marked number or letter

Graphical Diplay Modul



with integrated LCD controller, 128 CG-ROM and display
W x H x D: 180.0 x 65.0 x 12 mm
Visible Range: 132.0 x 39.0 mm
Display RAM: 8 kByte
240 (horizontal) x 64 (vertical) dots
40 letters x 8 lines, 64 columns
Letter: 6 x 8 dots
Letter size: 0.49 x 0.49 mm
Thermal limit values between 0° and +50°C

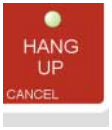


◑– ◑+ contrast adjustment of display

0,1,2...9 number entry from 0 ... 9

QUICK DIAL connection establishment via quick dial

* X for X.21 connections and possibly required for entry of sub-address



HANG UP disconnection
CANCEL cancels the last action

Balanced Audio Input

Level Range: adjustable via SYSTEM SETUP from
-4 dBu to +21 dBu
(+12 dBu ex factory)
Input Imped.: ≥10 kohms (switchable over to 600 ohms)
jumper JP 201/202 (pls. see page 22)
Connector: XLR (female)

Pin	1	2	3
Assignment	GND	IN (+)	IN (-)

Balanced Audio Output

Level Range: adjustable via SYSTEM SETUP from
-4 dBu ... +21 dBu
(+12 dBu ex factory)
Output Impedance: ‹ 50 ohms
Connector: XLR (male)

Pin	1	2	3
Assignment	GND	OUT (+)	OUT (-)

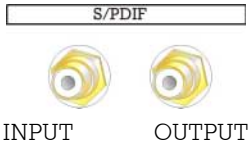
Digital In-/Output (AES/EBU standard)

Level Range: according to IEC 958, prof. format

Connector: XLR (female/male)

Pin	1	2	3
Assignment	GND	IN/OUT(a)	IN/OUT(b)

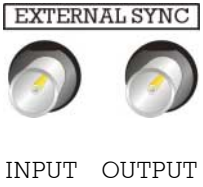
Digital In-/Output (S/PDIF standard)



Connector: RCA (female/female)

Pin	Center Pin	Ring
Assignment	IN/OUT	GND

External Synchronisation

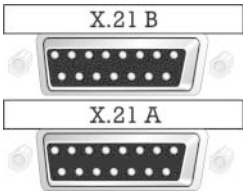


adjustable via SYSTEM SETUP

Connector: BNC (male/male)
Signal Level: TTL

Pin	Center Pin	Ring
Assignment	IN/OUT	GND

Serial Synchronous Interface



for the transmission of coded audio data to an external data transmission unit, e.g. terminal adapter or satellite modem.

Transmission Rate: 8 kbps to 384 kbps
Connector: 15-pole Sub-D

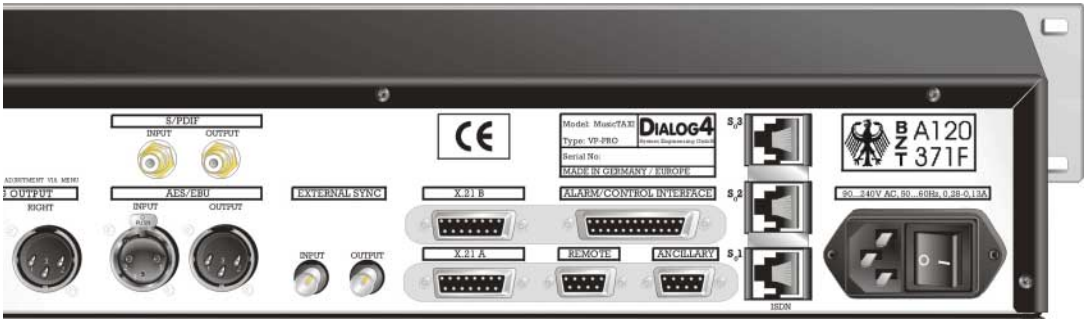
Pin	1	2	3	4	5
Assignment	NC	Tx (a)	CTR (a)	Rx (a)	IND (a)
Function*		O	O	I	I

Pin	6	7	8	9	10
Assignment	CLK (a)	NC	GND	Tx (b)	CTR (b)
Function*	I			O	O

Pin	11	12	13	14	15
Assignment	Rx (b)	IND (b)	CLK (b)	NC	NC
Function*	I	I	I		

* relating to MusicTAXI **O**=Output **I**=Input

Please note Only use X.21A! To X.21B no function is assigned.



RS232/RS422 Serial Asynchronous Interface

to control the MusicTAXI using an external PC (pls. see also chapter PC Connection, page 17).
Switch over from RS232 to RS422: Jumper J3 to 1+2 (pls. see also chapter Jumper Settings, page 22).
Format RS232/RS422: 9600 baud
8 data bits
1 stop bit
no parity

Connector: 9-pin Sub-D

Pin	1	2	3	4	5
Assignment	**Tx+**	**RC_Tx**	**RC_Rx**	**Rx-**	**GND**
RS232		■	■		■
RS422	■			■	■
Function*	**O**	**O**	**I**	**I**	

Pin	6	7	8	9
Assignment	**Tx-**	**NC**	**NC**	**Rx+**
RS232		■	■	
RS422	■			■
Function*	**O**	**I**	**O**	**I**

* relating to MusicTAXI
■ =not to be used! ■ =assigned **O**=Output **I**=Input

Attention

For RS232 internal signals are assigned to pins 2, 3 and 5, for RS422 to pins 1, 4, 5, 6 and 9!
A fully assigned 1:1 cable to the PC might result in the damage of the PC and/or MusicTAXI!
Please use only cables as described above.

RS232/RS422 Serial Asynchronous Interface

to transmit user data via MusicTAXI.

Format: 0 ... 9600 baud (pls. see table)
8 data bits
1 stop bit
no parity

Table of the implemented ancillary data from software V4.10 on

Data rate: (kbps)	8	16	24	32	48	56	≥64	≥128
Layer 2: (baud)	0	1200	1200	2400	2400	2400	4800	4800
Layer 3: (baud)	0	1200	1200	2400	2400	4800	4800	9600

Please note

If the software version of both MusicTAXIs is ›V4.10, the calling unit determines the data rate. If the software version of one of the MusicTAXIs is ‹V4.10, this unit determines the data rate, irrespective of which unit had established the connection.

Connector: 9-pin Sub-D

Pin	1	2	3	4	5
Assignment	NC	R_Tx	R_Rx	NC	GND
Function*		O	I		

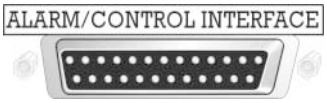
Pin	6	7	8	9	
Assignment	NC	RTS	CTS	NC	
Function*		■	■		

* relating to MusicTAXI **O**=Output **I**=Input
■ =not to be assigned!

Attention

Internal signals are assigned to pins 7 and 8.
These pins should not be connected!

Alarm/Control Interface



The switching commands of the MusicTAXIs input are transmitted and made available as open collector signals at the partner unit. The in- and outputs (same as GND connections 13, 25) are electrically isolated via optoelectronic coupler.

Connector: 25-pin Sub-D

Pin	1	2	3	4	5
Assignment	NC	NC	NC	IN8	GND
Function*				Red-Light IN	

Pin	6	7	8	9	10
Assignment	IN7	IN6	IN5	IN4	IN3
Function*	Reset	(Index)	FF	Rew	Stop

Pin	11	12	13	14	15
Assignment	IN2	IN1	IN GND	NC	NC
Function*	Record	Play	**		

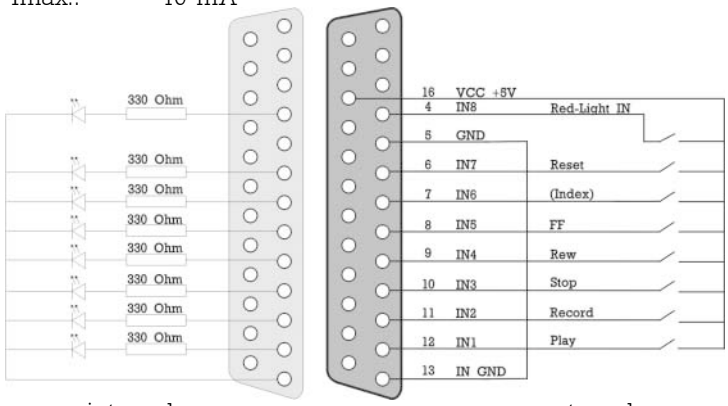
Pin	16	17	18	19	20
Assignment	VCC	OUT8	OUT7	OUT6	OUT5
Function*	+5V	Red-Light	Reset	(Index)	FF
System Setup***			DIS	CON	

Pin	21	22	23	24	25
Assignment	IN2	IN1	IN GND	NC	NC
Function*	Rew	Stop	Record	Play	****

* relating to MusicTAXI
** common earth for all inputs
*** pls. see ALARM SIGNALS (page 32)
**** common earth for all outputs

Input Wiring

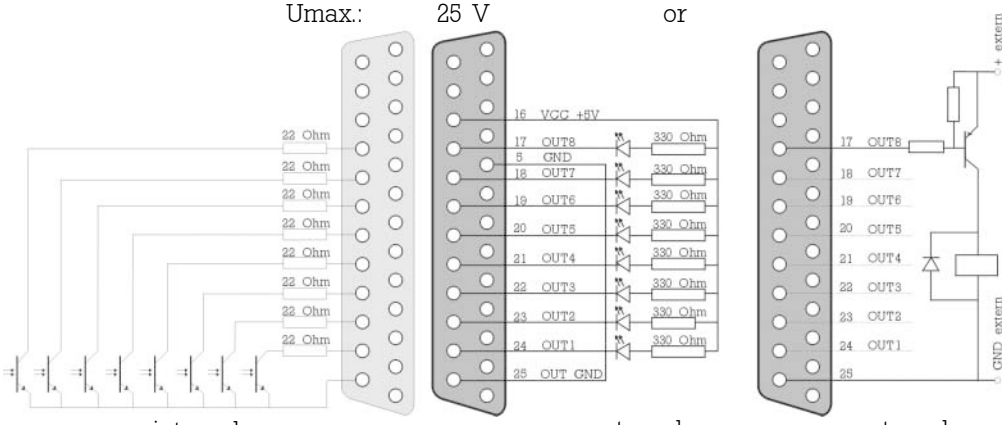
Imax.: 10 mA



internal external

Output Wiring

Imax.: 10 mA
Umax.: 25 V or



internal external external

Please note

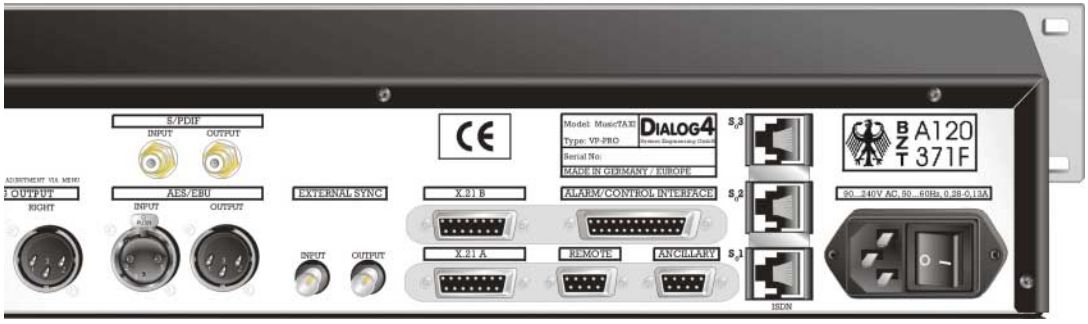
The recommended functions for the in- and outputs correspond to the assignment of various MusicTAXI users. In order to remotely control external equipment connected to MusicTAXIs without any problems, this assignment should be taken over.

Attention

When manufacturing a connection cable for the interfaces ALARM CONTROL INTERFACE and ANCILLARY, the respective connector shells (width: ≤ 15 mm) have to be used:

* e.g.: Farnell Electronic Components GmbH, D-82041 Deisenhofen FAX: 089 / 613 5901

Type/Pol	Sub-D Shell	Order No*
9-pole	**DTZK-9-K**	**463-012**
25-pole	**DTZK-25-K**	**463-036**

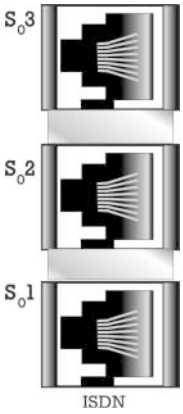


Standardized Connectors to ISDN Network

Transmission Rate: 2 x B + D channel per S_0

Connector: RJ45

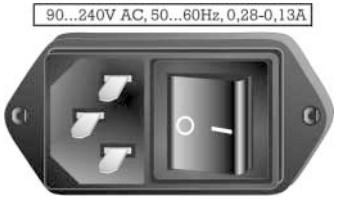
(ISDN network cable included).



Pin	3	4	5	6
Assignment	T+	R+	R-	T-

Please note The ISDN interfaces have to be used in incremental sequence.

Power Supply 90 - 240 V AC, 50 - 60 Hz, 0.28 - 0.13 A, max. 25 VA



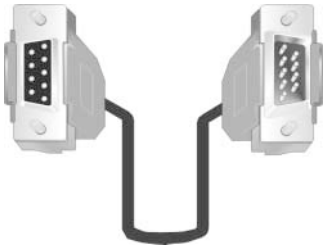
The MusicTAXI VP-PRO has a switching power supply unit. Therefore a voltage selector switch is not necessary.

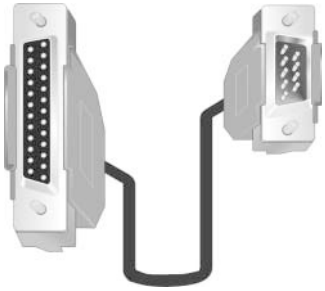
Power Supply Fuse: 3.15 A in power supply.
Type Schurter MXT 315.

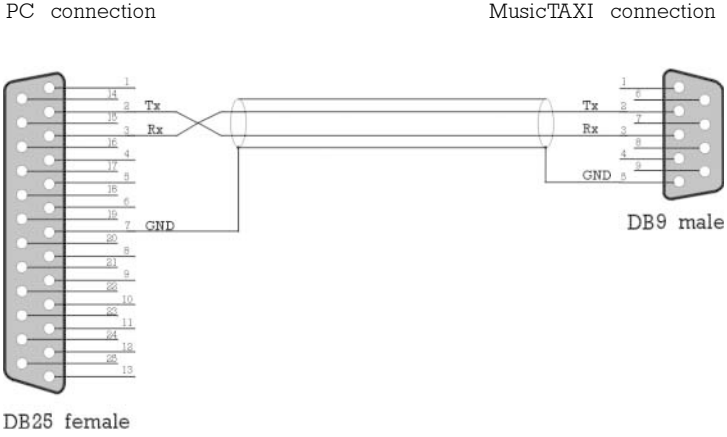
Connection 3-pole socket
(power supply cable included)

Serial Cable (KB003) to PC

The MusicTAXI is connected to your PC using the delivered serial 9-pole or a 25-pole cable (male/female).







Attention

For RS232 internal signals are assigned to pins 2, 3 and 5, for RS422 to pins 1, 4, 5, 6 and 9!
A fully assigned 1:1 cable to the PC might result in the damage of the PC and/or MusicTAXI!
Please use only cables as described above.

System Requirements

Windows 3.x/95/98/NT
a free serial interface (COM1 ...COM4).

Note

Nearly all function components are software-based and stored in Flash EPROMs. The latest software updates, manuals and technical information can be downloaded from our internet server:

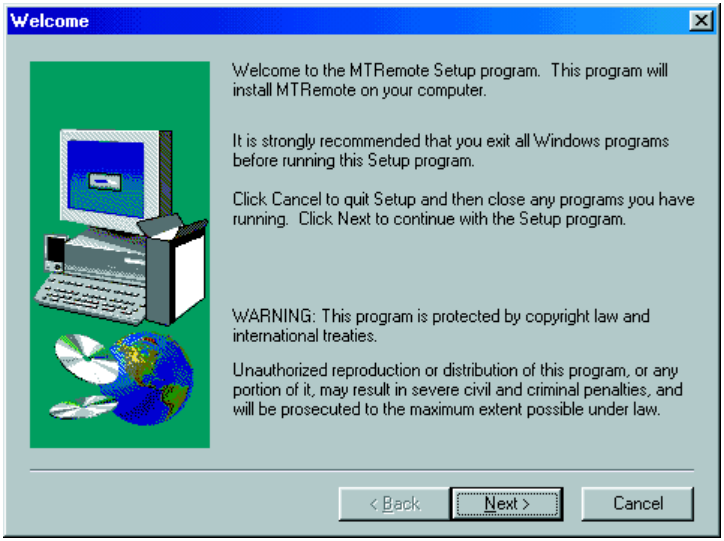
http://www.dialog4.com

You can, of course, request information and updates from DIALOG4 on disk.

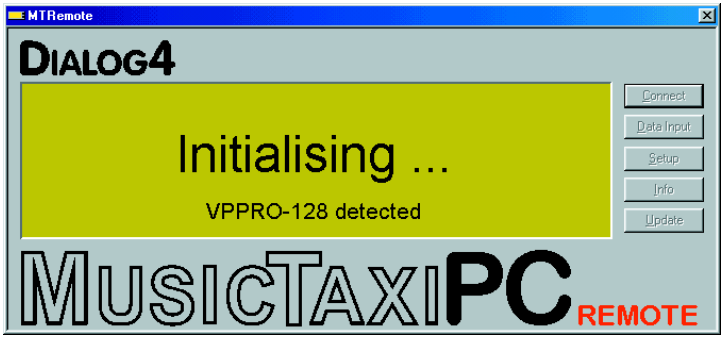
There are two possibilities to update the MusicTAXI VP-PRO software: over MT PC Remote or over the VP-PRO Download Programm.

MT Remote Software Download

1. Start the setup program.
2. Follow the installation instructions on the PC monitor.
3. The MTRemote software will be installed on your PC.



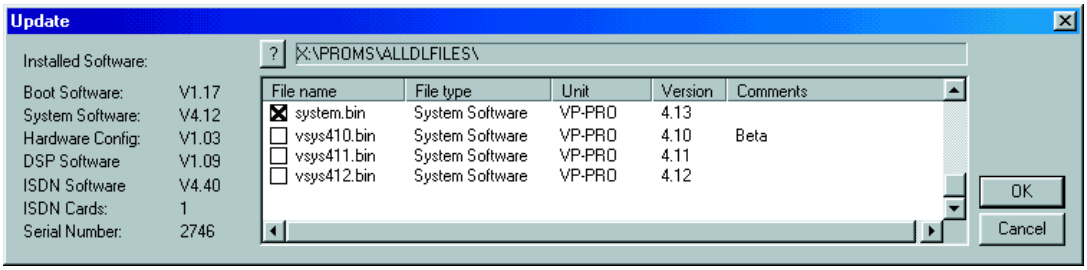
After the initial start of the MusicTAXI remote control software (with double click on the application icon) during the initialising the unit configuration and type of unit is requested and displayed. There is a display of for e.g. the following information:



Consequently the main menu appears in standby mode.

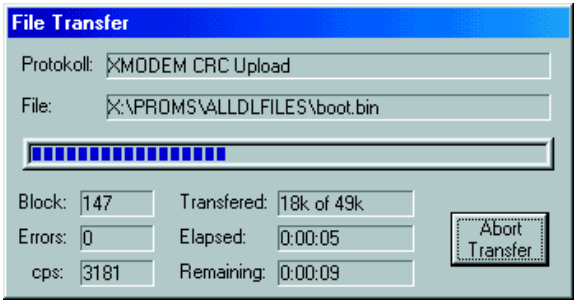
Update over MT PC REMOTE

The MT PC Remote Programm automatically recognises the connected MusicTAXI and which software parts are to be updated. You can additionally decide which software parts you would like to update in the MusicTAXI (System, DSP or Boot Software and hardware configurations). Select the new versions with the left mouse button and confirm the update function with the OK key



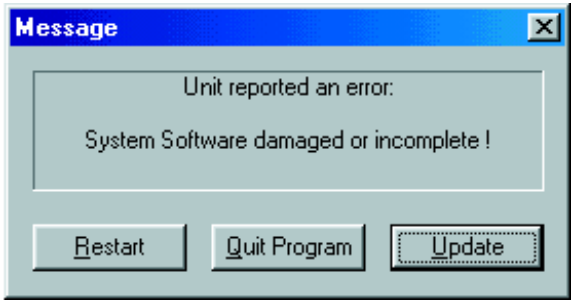
Dialogbox by Update

A dialogbox accompanies you throughout the update and informs you about the current process.



Attention

Do not switch off your PC or MusicTAXI during the update process. After an unsuccessful update, an error mesage is displayed.



VP Download

1. Start the setup programm for the current applications from internet or disk
2. Follow the installation instructions on the PC monitor.
3. The update software will be installed on your PC

Update over VP Download

Before pressing the 'START DOWNLOAD' button, to install the select update software, please observe the following:

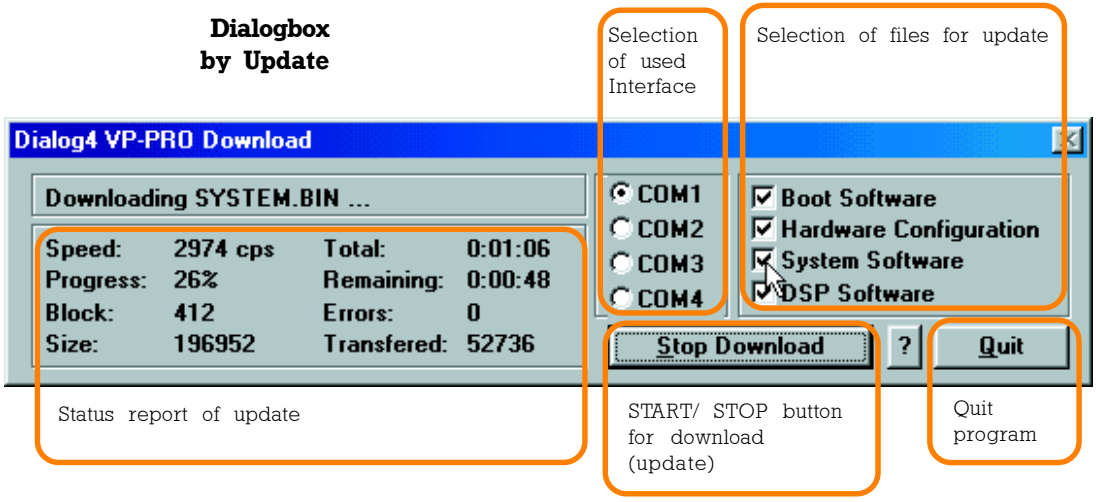
1. Switch on the MusicTAXI VP-PRO.
2. Start the update software with double click on application icon.
3. Choose a free serial interface (COM1... COM4).
4. Choose an application to update (z. B. DSP-Software).
5. Press the 'START DOWNLOAD'

```
! WARNING ! Don't switch off ! WARNING !

        DOWNLOAD DSP SOFTWARE !

! WARNING ! Don't switch off ! WARNING !
```

Attention

Do not switch off your PC or MusicTAXI during the update process. After an unsuccessful update, an error mesage is displayed.

Dialogbox by Update



VP-PRO Update Interrupted

If the software update was interrupted, e.g. due to user or computer error, please observe the following:

Switch the unit OFF and ON again. In most cases the unit displays an error message about that part of the software which had not been loaded completely and a reload is requested.

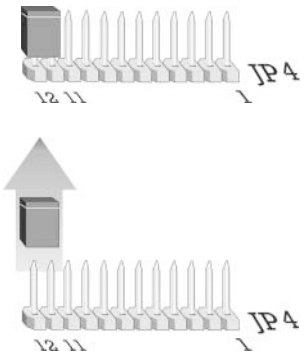
DSP Software

In the case of the DSP software an error message might not be displayed after switching the unit on and the main menu is displayed. The error message is only shown after another algorithm has been selected, e.g. G.711.

System Software

If the software is damaged or not completely loaded, an error message is always displayed.

Hardware Configuration



An interruption during the update of the hardware configuration might have the effect that the unit cannot be started again, the display is blank. In this case the unit has to be opened and a jumper has to be set.

Connect the pins 11 and 12 on JP4 with a jumper. When the unit is switched on again, a boot menu is shown. In this setting every file can be re-loaded with the external download software.

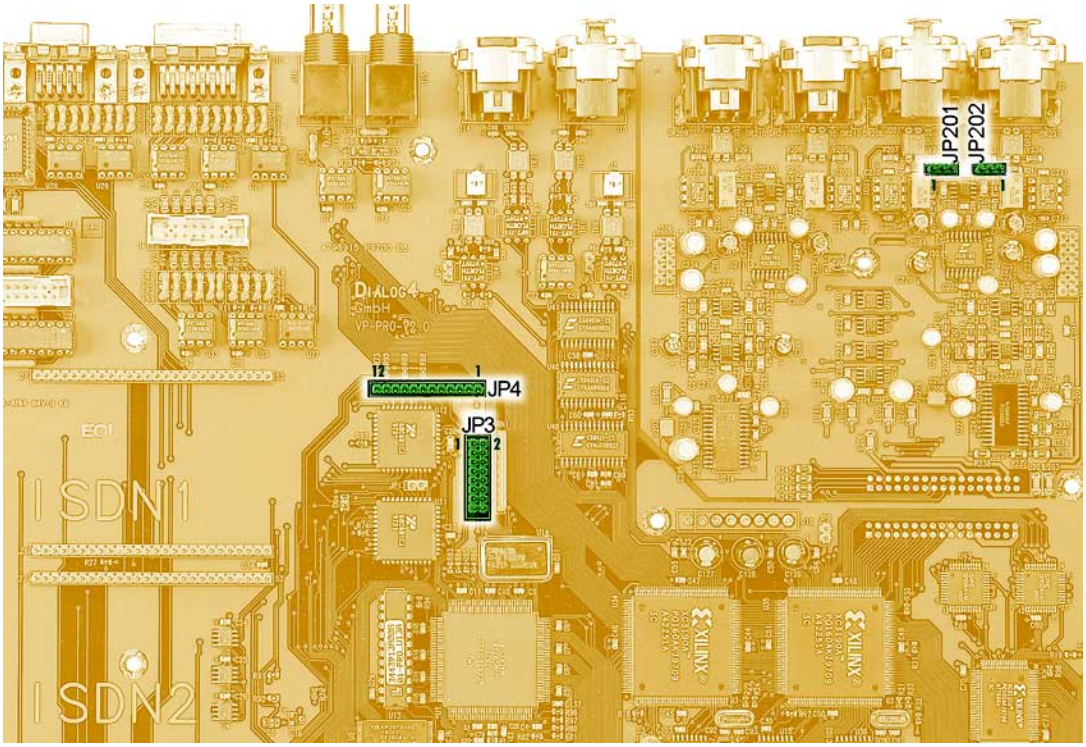
Attention The jumper has to be removed after the download!

Boot Software

The update of the boot software is realized in two phases. In the first phase the software is downloaded from the PC to the unit. If the update is interrupted during the first phase, the unit only has to be started again.
The software is programmed into the unit during the second phase. This takes about 5 seconds. This process can only be interrupted by switching the unit off or by a power supply failure. After this interruption the unit cannot be started again, not even by the above described emergency start. It can only be reloaded by DIALOG4.

Important Jumper Settings on the Main Board

Attention
Unplug power supply cable before opening the unit!

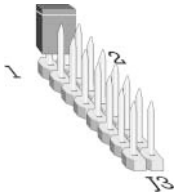


Input Impedance

Switch over of the input impedance ANALOG INPUT (pls. see page 10)

Jumper JP 201/202 1 - 2 set: 600 ohms
2 - 3 set: ≥10 kohms

Switch over RS232/RS422



Switch over from RS232 to RS422 (pls. see page 12)

Jumper J3 1 - 2 set: REMOTE-Port operates in RS422
1 - 2 open: REMOTE-Port operates in RS232

Main Menu SYSTEM SETUP

After switching the unit on and a short initializing sequence the 3 pages of the basic configuration menu of the MusicTAXI VP-PRO appears (pls. see also STATUS MESSAGES, page 45)


```
MAIN MENU

CONNECT
DATA INPUT
SYSTEM SETUP
```

Select **SYSTEM SETUP** from the main menu with the UP/ DOWN keys and confirm with ENTER.

```
SYSTEM SETUP

ACCEPT CONFIGURATION
ISDN CONFIGURATION
AUDIO LEVEL
INTERFACES
DELETE DATABASE
EXIT / STORE
```

ACCEPT CONFIGURATION

This sets up the call accept mode of the MusicTAXI. First you can set the accept mode **AUDIO DATA ENCODER** for the unit and transmission more or less specific and permanently. Then the MusicTAXI only accepts calls in the respective configuration. Or you can select the operation mode AUTO (Automatic Codec Detection). Then the MusicTAXI serves as a SLAVE and takes over the parameters of the calling unit automatically.

The AUTO mode is not available for AUDIO INPUT and USER DATA.

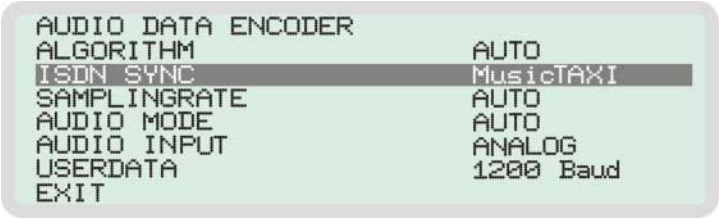
Algorithm

The **ALGORITHM** menu item serves for setting the desired data reduction procedure when calls are coming in. You can select between: LAYER 2, LAYER 3 and AUTO (G.711/G.722 calls are also accepted).

```
AUDIO DATA ENCODER
ALGORITHM                AUTO
ISDN SYNC                MusicTAXI
SAMPLINGRATE             AUTO
AUDIO MODE               AUTO
AUDIO INPUT              ANALOG
USERDATA                 1200 Baud
EXIT
```

ISDN Sync

The **ISDN SYNC** menu serves for setting the desired synchronization procedure.



You can select between:

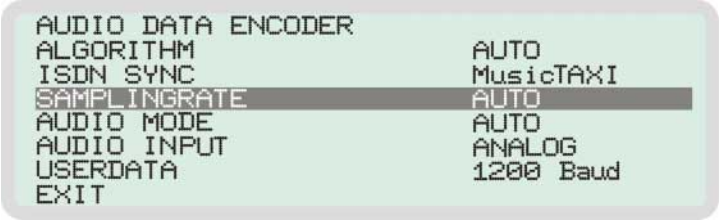
MusicTAXI (DIALOG4 SYNC for 1 ... 6 B-channels)
PRIMA (CCS SYNC for 2 B-channels)
ZEPHYR (Telos SYNC for 2 B-channels)
NO SYNC when using 1 B-channel
NO SYNC (INV) when using 1 B-channel
AUTO - Automatic Codec Detection

Attention

By selecting PRIMA or ZEPHYR accept mode, a G.722 call cannot be received.

Sampling Rate

The SAMPLINGRATE menu item serves for setting the desired sampling frequency when calls are coming in.

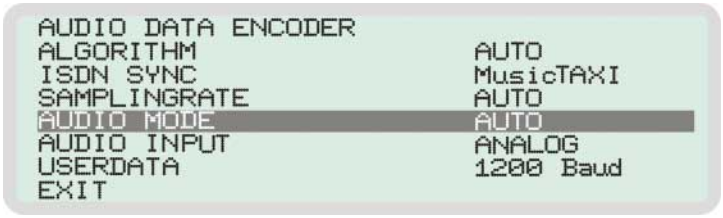


You can select between:

16, 22.05, 24, 32, 44.1, 48 kHz
AUTO (the sampling frequency of the calling unit is taken over).

Audio Mode

The menu item AUDIO MODE serves for setting the desired audio behavior, when calls are coming in.



You can select between:

MONO	Mono signal. The left input is used
DUAL MONO	Two different signals which do not interfere with each other, e.g. One channel - O sound One channel - translation
STEREO	In the same way as for DUAL MONO, each channel is coded separately, however, if on one channel less or no audio is transmitted, these bits are assigned to the other channel (i.e. bit assignment according to demand).
JOINT STEREO	Comparable to MS stereophony (middle/side signal). It codes the sum of left and right and the difference between left and right; these are coded and transmitted separately (subjectively better quality at lower data rates).
AUTO	The audio mode of the calling unit is taken over.

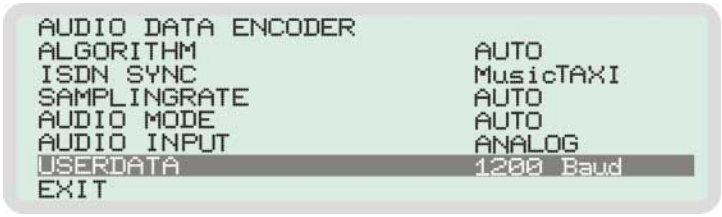
Audio Input

The menu item **AUDIO INPUT** serves for setting the desired audio input, when calls are coming in.
You can select between:

Analog
AES/EBU
S/PDIF

User Data

The menu item **USERDATA** serves for setting the desired ancillary data, when calls are coming in.



You can select between:
OFF (no ancillary data are transmitted)
1200, 2400, 4800 baud by Layer 2
1200, 2400, 4800, 9600 baud by Layer 3.

Attention If the transmission of ancillary data is switched off (OFF), the remote control signals are not transmitted either.

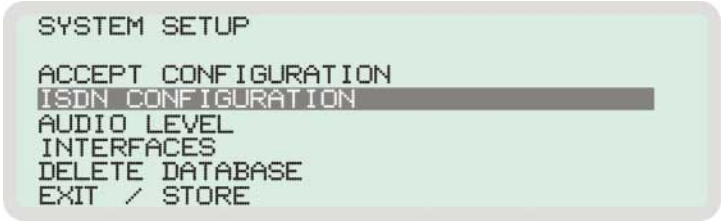
The lowest preset baud rate of the ancillary data is transmitted within the unit handshake framework.

Press ENTER to take over the presetting of the call acceptance. Press CANCEL and the presetting is not taken over.

Exit

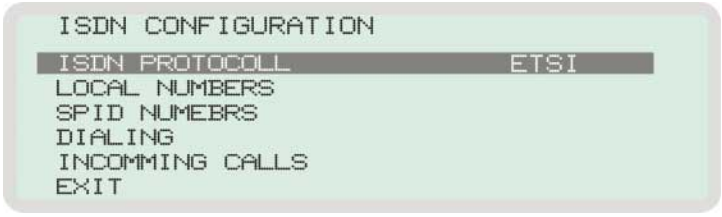
Select EXIT to leave the menu item AUDIO DATA ENCODER and to get back to SYSTEM SETUP. Confirm with ENTER..

ISDN CONFIGURATION



The MusicTAXI has 12 different ISDN D-channel protocols. Please make sure that you have selected the correct protocol.

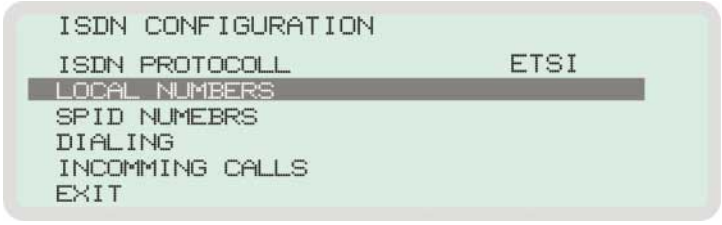
ISDN Protocol

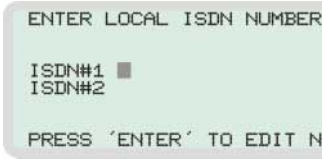


Decisive is the ISDN protocol of your connection, not the one of the partner unit! Alter the settings by pressing the ENTER button.

Local Numbers

If your local ISDN numbers are entered here they will be sent when establishing a connection. This is not necessary when the unit is operated at a S_0 connection, however, when the VP-PRO is connected to a private exchange it might be helpful (pls. see page 30).



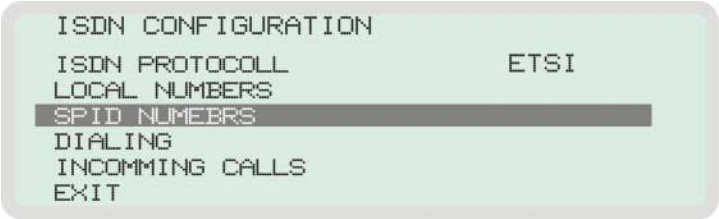


Press ENTER and type in the wanted telephone number using the numeric keypad. To change to another input field and/or finalize your entry, press ENTER.

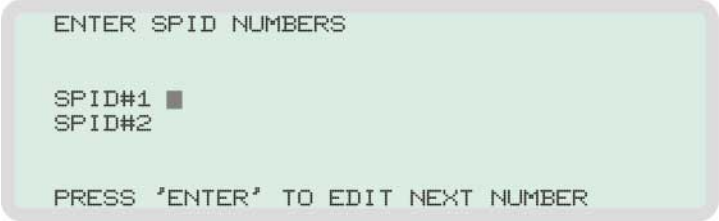
The entered telephone number can be altered, copied or deleted by pressing the respective keys.

SPID Numbers

The SPID numbers, you enter here, are also sent when the connection is established. This is only necessary when operated on US or Canadian networks.

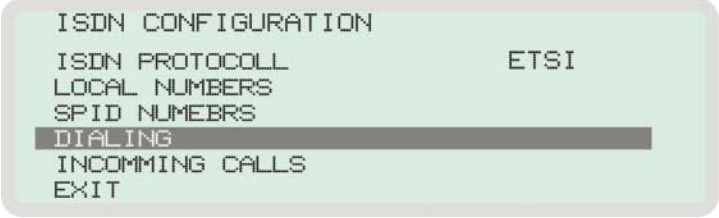


Enter the SPID number as described above for LOCAL NUMBERS.



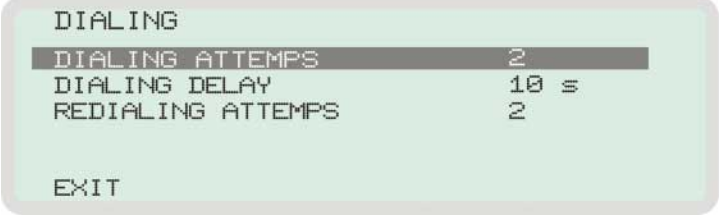
Press ENTER to finalize your entry.

Dialing



DIALING ATTEMPTS

This menu item serves for setting the desired dialing attempts. You can select between 1 and 5.



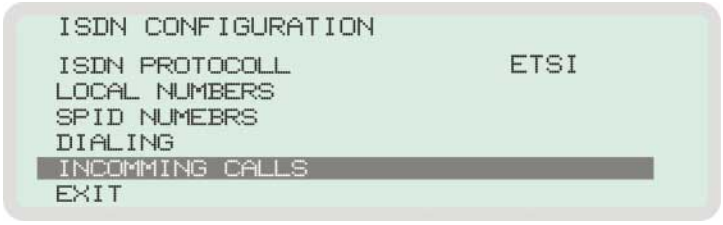
DIALING DELAY
This menu item serves for setting the desired time between the dialing attempts. You can select between 0 ... 60 seconds.

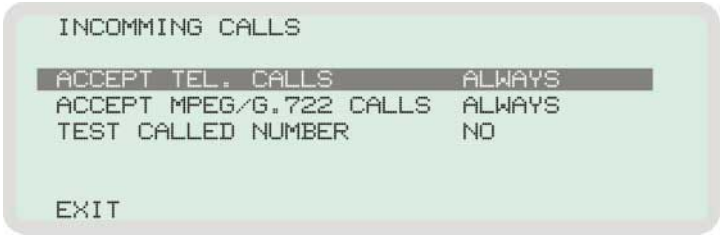
REDIALING ATTEMPTS
This menu item serves for setting the desired redialing attempts, if a connection had not been interrupted by the calling MusicTAXI. You can select between 1 and 5.

EXIT
Press EXIT to confirm your basic settings or alterations.

Incoming Calls

The last menu item **INCOMING CALLS** defines the behavior of the MusicTAXI when it is operated at a S_0 connection together with other units.





First set **ACCEPT TELEPHONE CALL** to:

ALWAYS	every telephone call is accepted
NEVER	all telephone calls are rejected
ASK	manual confirmation of each call is requested by the unit.

With the menu item **ACCEPT MPEG/G.722 CALLS** the behavior for incoming MPEG/G.722 calls is determined. The setting options are described above:

ALWAYS, NEVER and ASK

The menu item **TEST CALLED NUMBER** activates the interrogation of the MSN number when calls are coming in. You have to enter the correct MSNs of your connection in the menu item LOCAL NUMBERS (pls. see page 24).

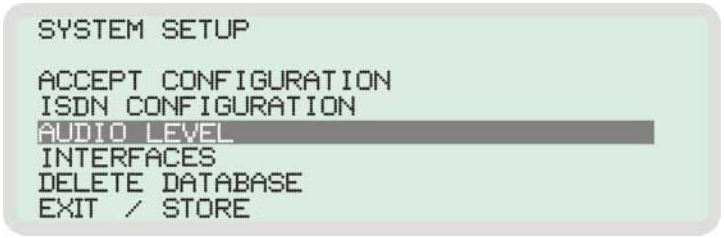
In case of EURO ISDN, the MSN is usually the ISDN number of your connection without the area code, in case of private exchanges the number of your extension.

Only activate this function (YES), if you operate other units (e.g. a telephone, telefax or PC card) at the same ISDN connection in addition to the MusicTAXI.

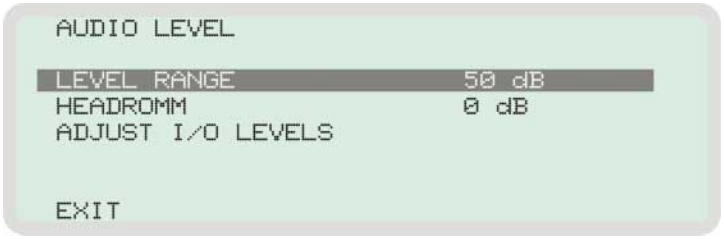
Attention The incorrect configuration of only one unit might result in the rejection of all calls.

EXIT
Press EXIT to take over the presetting and to get back to the SYSTEM SETUP, confirm with ENTER.

AUDIO LEVEL



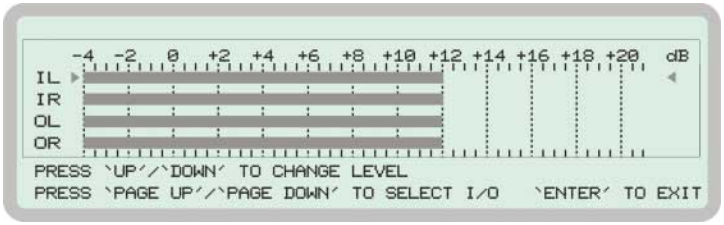
Level Range This menu item allows the adjustment at the level range: 50 or 80 dB.



Headroom This menu item serves for setting the desired headroom. You can select between 0 and 20 dB steps. Ex factory the setting is 0 dB. The scale display in the online menu is moved.

Attention Clipping limit is at 0 dB + selected headroom!

Adjust I/O Levels This menu item serves for setting the analog INPUT and OUTPUT level for the left and right channel. Ex factory the levels are set at +12 dBu, the headroom is 0 dB.

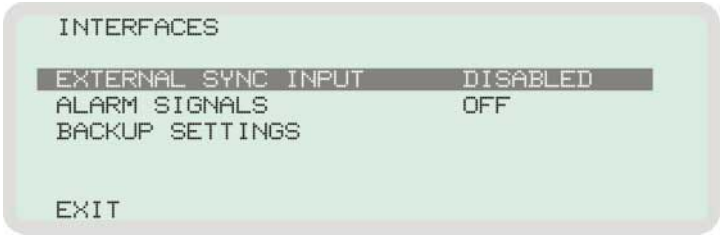


This means: input level = output level = 12 dBu.

PgUp and PgDn selects the respective channels. With the UP and DOWN keys the respective level values are adjusted in 0.5 dB steps.

INTERFACES

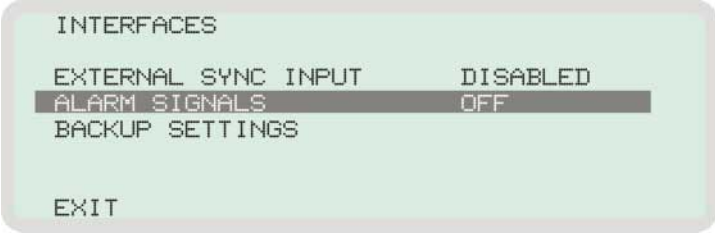
External Sync Input The MusicTAXI has a sample rate converter at the audio INPUT and OUTPUT.



For the external SYNChronization of the digital output you can select between:

DISABLED	Word clock is generated from the transmission clock
DIGITAL IN	Word clock is generated from the AES/ SPDIF input signal
SYNC IN	Word clock is taken from the SYNC IN

Alarm Signals

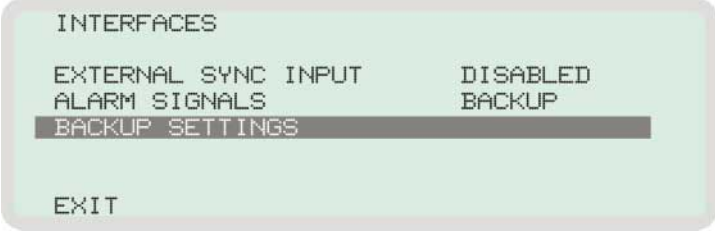


If the signals are switched OFF, please see the behavior ALARM CONTROL INTERFACE. Otherwise you can select between:

CON	The signal is set at Pin 19, as soon as the decoder is SYNChronized – i.e. when the connection is OK.
DIS	The signal is set at pin 18, if the line had been disconnected from the partner unit or due to an ISDN failure
CON+DIS	Both signals are set.
BACKUP	(pls. see 'BACKUP SETTINGS')

Backup Settings

This function is only available, if the mode BACKUP in ALARM SIGNALS is chosen.

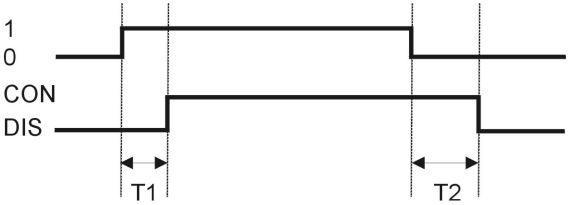


In the BACKUP SETTING mode you can delegate to every input port of the ALARM/CONTROL INTERFACE an entry of the ISDN directory. To do this, you must select the requested input port and confirm by pressing ENTER.

The cursor now flashes and you can program a number by using the decimal keypad.
This number is directly corresponding in all parameters with the entry in the ISDN directory. After entering the number you have to confirm your setting by pressing the ENTER button. If you enter only one digit for the number, the MusicTAXI will automatically add a 0 before the digit.

Entering '00' means, you can only use this port for transparent contact closure information (on/off), not for ISDN calls.

Timing diagram:



T1=300 ms T2=500 ms

If the length of the switching signal is less than T1 or T2, the signal is ignored.

In the following example the alarm/control ports IN1 to IN4 correspond to the entries 90 to 93 of the ISDN directory.

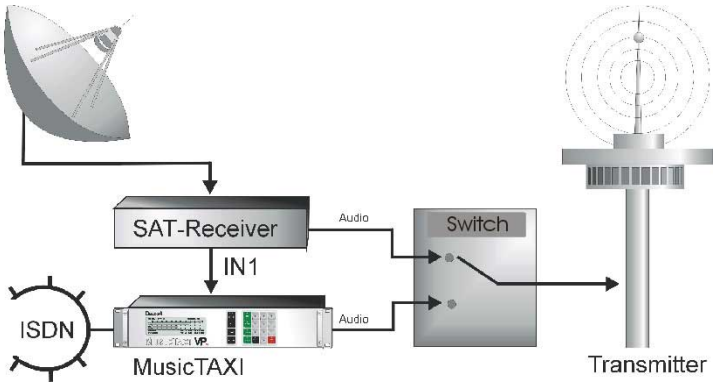
```
BACKUP SETTINGS

IN1  (PIN 12) 90    IN5 (PIN 8)  00
IN2  (PIN 11) 91    IN6 (PIN 7)  00
IN3  (PIN 10) 92    IN7 (PIN 6)  00
IN4  (PIN 9)  93    IN8 (PIN 4)  00

EXIT
```

The ports IN5 to IN8 are configured with 00 and can be used for transparent switching informations.
The confirming signal, as soon as the ISDN line is established or the switching information is done, is indicated on the relating outputs of the ALARM/CONTROL INTERFACE.

By using IN2 for establishing a connection, OUT2 will confirm the connection when the decoder sync is OK.

Examples of Applications by Using BACKUP SETTINGS

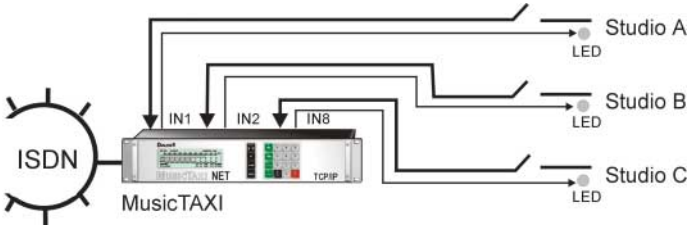
SATELLITE ISDN REDUNDANCY



Assuming the satellite receiver can indicate an opto-decoupled error message, you can connect this information to the alarm/control interface. If the error message is ON, the MusicTAXI will automatically establish an ISDN connection to the relevant entry number. If the error message signal is OFF, the MusicTAXI will disconnect an existing ISDN connection.

PANIC DIAL

Up to 8 individually configured connection partners can be called by using switches. The audio parameters and connection relevant information are programmed in the DATA INPUT menu. As soon as the ISDN connection is established and the decoder is in SYNC, you can indicate this by using a LED connected to the corresponding OUTPUT of the alarm/control interface.



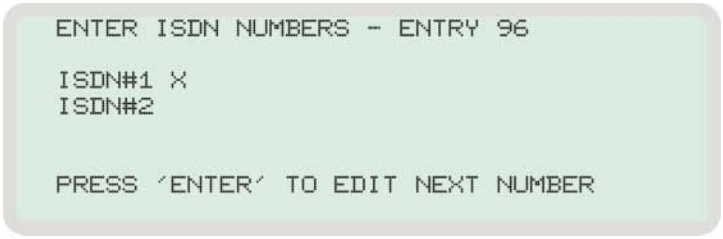
If the switch is opened, the ISDN connection will be disconnected.

X.21 Clock Monitoring

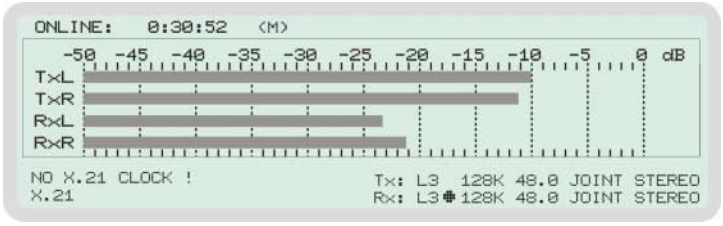
New is additionally the monitoring of the X.21 clock. When operating the MusicTAXI on a satellite modem or a leased line, you can configure the MusicTAXI so that the unit establishes an ISDN connection as soon as the X.21 clock fails. When switching on the unit or, for example, after a power failure, the MusicTAXI goes automatically into the X.21 mode on condition that the entries in the ISDN telephone directory number 96 corresponds.

Select DATA INPUT from the main menu. After confirming with the ENTER key the input mask for the ISDN directory is displayed. The proceeding for the input is described in the chapter DATA INPUT (from page 38).

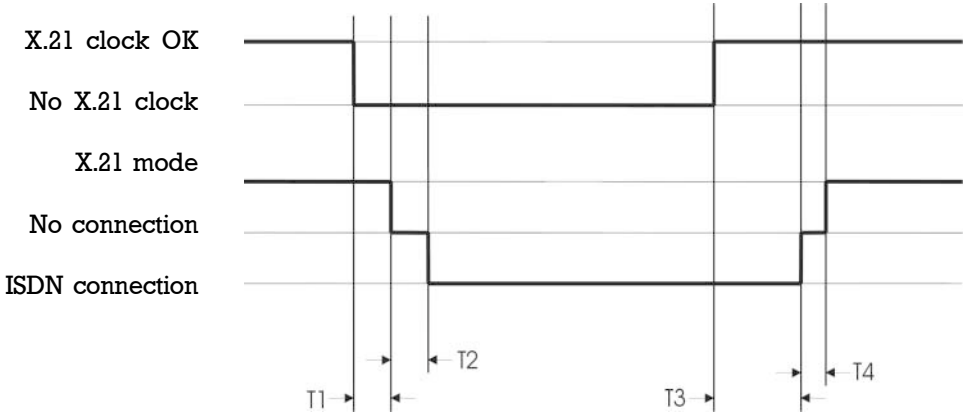
For the entry 96 "X" is to be entered as number (ISDN NUMBERS) and "AUTOX21" is to be entered as name (SHORT NAME).



Additionally, in the line for BITRATE adjust with "AUTO". Confirm your entry with EXIT/STORE with the EXIT key.



As soon as the X.21 clock is active again the ISDN connection is disconnected and unit returns to the X.21 mode.



T1: Time, how long the X.21 mode must fail before the ISDN connection is established.

T2: Length of time for ISDN connection to be established.

T3: Time, how long the X.21 clock must again be active before the ISDN connection is again disconnected.

T4: Length of time for ISDN connection and change into X.21 mode.

Times:	T1	T2	T3	T4
	2 sec.	5-30 sec.	5 sec.	1-2 sec.

When using MT Remote with a VP-PRO, please observe the following:

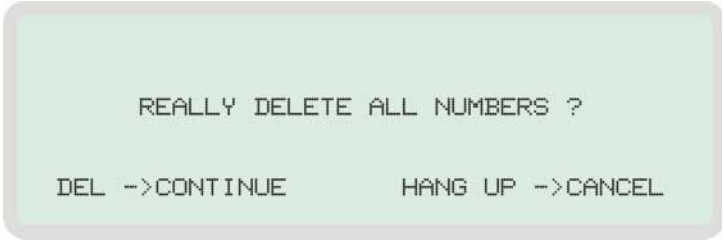
Backup IN1 replaces entry	87 in the no. list.
Backup IN2	88
Backup IN3	89
Backup IN4	90
Backup IN5	91
Backup IN6	92
Backup IN7	93
Backup IN8	94
No X.21 clock	95
X.21 autostart	96

Default Presettings in SYSTEM SETUP ex factory

ACCEPT CONFIGURATION
- AUDIO DATA ENCODER
  - ALGORITHM: Auto
  - ISDN SYNC: Auto
  - SAMPLINGRATE: Auto
  - AUDIO MODE: Auto
  - AUDIO INPUT: Analog
  - USERDATA: Off

ISDN CONFIGURATION
- ISDN PROTOCOLL: ETSI
- SPID NUMBERS: no entry
- LOCAL NUMBERS: no entry
- DIALING
  - DIALING ATTEMPTS: 1
  - DIALING DELAY: 10
  - REDIALING ATTEMPTS: 0
- INCOMMING CALLS
  - ACCEPT TEL. CALLS: Always
  - ACCEPT MPEG/G.722 CALLS: Always
  - TEST CALLED NUMBER: No
- AUDIO LEVEL
  - LEVEL RANGE: 50 dB
  - HEADROOM: 0 dB
  - ADJUST I/O LEVELS: all levels +12 dBu
- INTERFACES
  - EXTERN. SYNC INPUT: Disabled
  - ALARM SIGNALS: Off
  - BACKUP SETTINGS: all 00

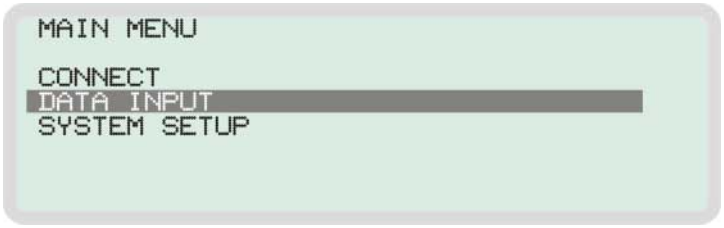
Delete Database



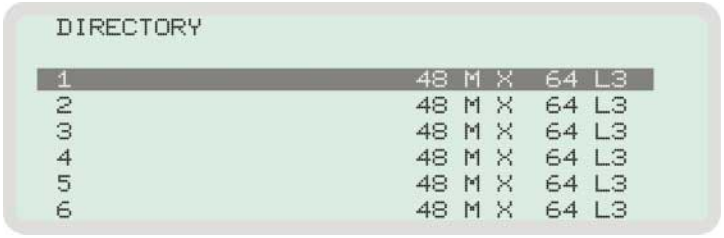
Attention Deletes all entries from the ISDN telephone directory. You will be asked to confirm the deletion by pressing DEL or cancel by pressing HANG UP.

Main Menu
DATA INPUT

Select **DATA INPUT** from the MAIN menu.



The ISDN directory is displayed with 96 entries, name and audio configuration:



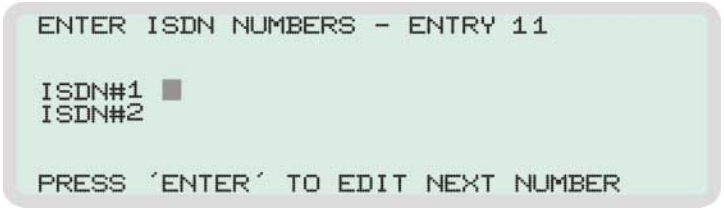
Edit New Recipient

Choose a free entry to input a new connection partner or select an existing entry to edit. Confirm by pressing the ENTER key.

Further input menus are displayed in which you can determine the audio parameters, telephone number as well as ISDN SYNC procedure.

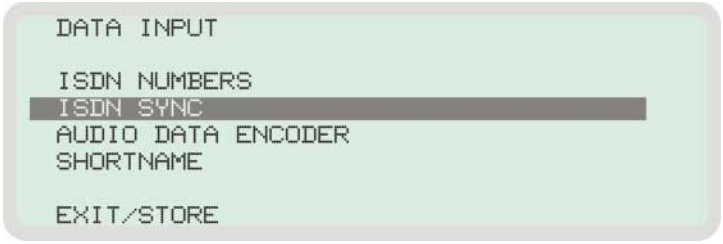
ISDN Numbers

In conjunction with the numbers of ISDN modules the available input field for ISDN#1 to ISDN#6 is displayed.



The cursor flashes when you can start the input of the ISDN numbers. You can change between the ISDN input fields by using the ENTER button.

Please note The ISDN SYNC can only be selected after you have entered the ISDN number.



ISDN SYNC

The **ISDN SYNC** menu serves for selecting the codec of your connection partner. The possible SYNC modes are:

MusicTAXI (DIALOG4 SYNC for 1 ... 6 B-channels)
PRIMA (CCS SYNC for 2 B-channels)
ZEPHYR (Telos SYNC for 2 B-channels)
NO SYNC when using 1 B-channel)
NO SYNC (INV) when using 1 B-channel
AUTO - Automatic Codec Detection

Please see chapter Audio Compatibility for the presettings for ZEPHYR and PRIMA (pages 46/47).

Audio Data Encoder

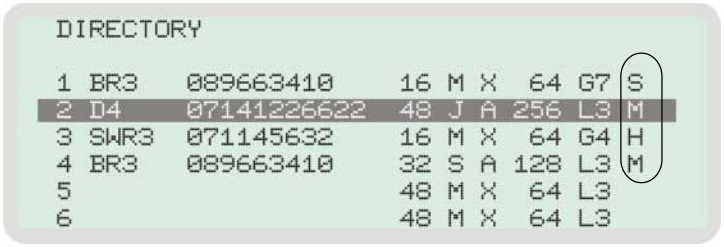
In this menu you can determine all audio parameters for the planned connection.

The menu leads you from **ALGORITHM** (Layer 2, Layer 3, G.711, G.722), BITRATE to USERDATA. Please do not forget to define the audio input correctly. AES/EBU for digital units with professional format, S/PDIF for digital units with consumer format, ANALOG for analog units.
Press EXIT to leave the menu.

G.722 with H.221 or SRT SYNC

If you enter a G.722 partner in the DATA INPUT menu, please observe the following order:

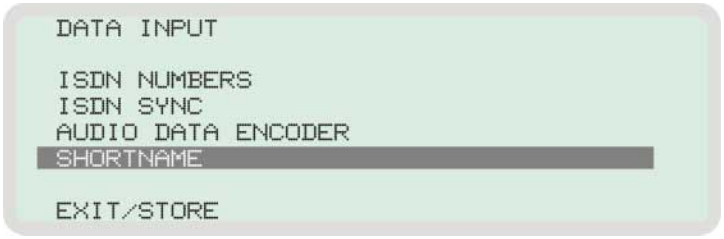
1. Enter the ISDN number.
2. Enter G.722 in ENCODER DATA
3. Determine the SYNC modes in ISDN SYNC.

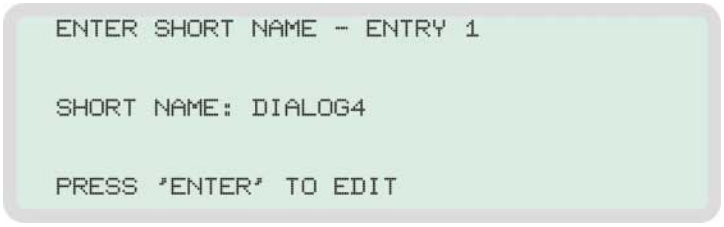


Press EXIT/STORE to leave the menu. Now H = H.221 or S = SRT is displayed in the directory for the selected SYNChronisation procedure.

Short Name

As soon as you have entered the ISDN number, you can enter up to 7 letters and numbers as an abbreviated name of your connection partner.





With UP and DOWN the alphabet is displayed, via numeric keypad all numbers are available. By pressing the ENTER key you leave the menu.

Exit/Store

Press EXIT/STORE to finalize your entry. The entered data is stored and you can select them using the cursor for your connection establishment.

X.21 Mode

To activate the X.21 interface, enter a X in field ISDN #1.

CODEC LOOP

If the input field ISDN#1 is empty, the MusicTAXI starts the CODEC LOOP. This serves as test for the coded audio signal (without ISDN).

Explanations

Call Acceptance with ISDN SYNC AUTO

The function AUTO (Automatic Detection of the calling Unit) is entered in the SYSTEM SETUP/ACCEPT CONFIGURATION. The function ISDN SYNC AUTO has priority over all other entries. This means, if AUTO is set and the MusicTAXI is called by any competitor's codec (Telos ZEPHYR, CCS CDQPRIMA, GSM telephone, analog telephone, etc.) the MusicTAXI sets itself to the audio parameters incl. SYNC modes of the calling unit automatically. This might last up to 30 seconds.

However, the set parameters of the SYSTEM SETUP/ACCEPT CONFIGURATION are taken over, if the MusicTAXI is called by a MusicTAXI.

Connection Establishment with ISDN SYNC AUTO

When a connection partner is entered into the telephone directory, ISDN SYNC and audio parameters can be preset in the configuration. However, if ISDN SYNC AUTO had been entered, it has priority over all other setting, i.e. if a connection is established to competitor units (Telos ZEPHYR, CCS CDQPRIMA, GSM telephone, analog telephone, etc.) the MusicTAXI sets itself to the audio parameters incl. SYNC modes of the remote unit automatically. This might last up to 30 seconds.

Connection Establishment with CODEC LOOP

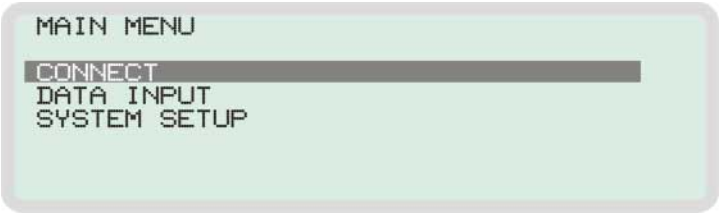
In the operation mode CODEC LOOP, the incoming audio signal is coded first and then transmitted via the decoder to the output.

X.21 Operation

In the operation mode X.21, MPEG data is transmitted and received via the X.21 interface. The network clock has to be identical to the bit rate, which had been entered in the configuration menu.

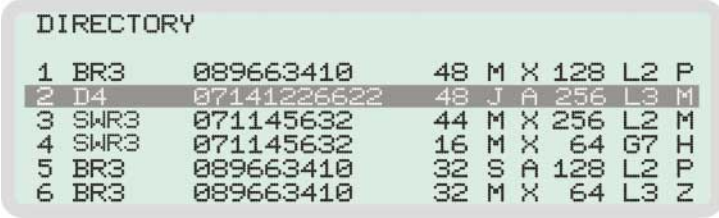
Main Menu CONNECT

The respective ISDN connection can be established quickly and easily because the built-in telephone directory permits 96 entries, each of which can be individually configured. For establishing the connection you can choose between dialing via telephone directory, abbreviated entry and entry number or manual input using the numeric keypad



Establishing a Connection by Using the Telephone Directory

Select CONNECT from the main menu and press ENTER to confirm. The ISDN telephone directory with 96 entries appears.



The abbreviated name of your connection partner, the ISDN number, the selected audio parameters as well as the name of the partner codec, which are assigned to each entry, are displayed. Press ENTER to confirm and start.

The MusicTAXI informs you permanently on the present transactions.

After successful synchronization your MusicTAXI displays the message 'ISDN OK' and goes to the on-line menu.
If the connection is rejected the MusicTAXI displays ERR(OR) and the reason for the rejection.

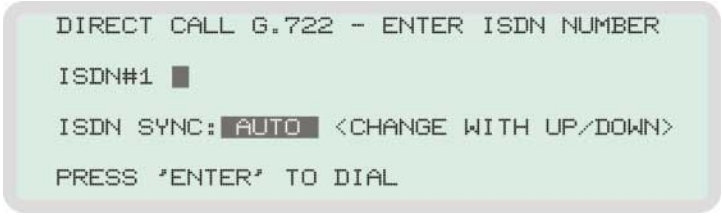
Quick Dial Connection Establisment

The 96 entries can be selected via quick dial assignments. Press the key QUICK DIAL.

The menu interrogates the entry number of your connection partner (from 01 to 96).
Dialing takes place automatically with your previously adjusted parameters.

Establishing a Connection Using the Numeric Keypad

First you have to determine the transmission mode. Via keypad you select between TELephone (3.1 kHz), 7kHz (G.722/H.221, G.722/SRT), MUSICAM or LAYER 3.



The input menu asks for the ISDN number to be entered using the numeric keypad as usual. Dialing is initiated by pressing the ENTER key.

Please note

The connection parameters are determined as follows:
When entering only one ISDN number: 64 kbps, 48 kHz, mono, user data 1200 baud.
When entering two ISDN numbers: 128 kbps, 48 kHz, Joint Stereo, user data 1200 baud.
The audio input is taken from the ACCEPT CONFIGURATION. The used ISDN SYNC is always AUTO. You can select between AUTO, H.221 and SRT for the G.722 mode.

X.21 Connection Establishment

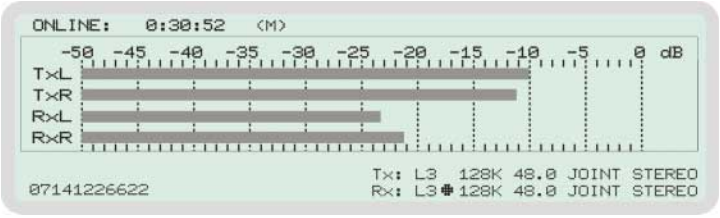
Select an entry with 'X' as the first number of the ISDN number from the telephone directory.

CODEC LOOP Connection Establishment

Select an entry without an ISDN number from the telephone directory. The connection is established either via telephone directory or quick dial.

Connection Monitoring

You can easily monitor your audio transmission. After the connection is established and the audio parameters are exchanged, the on-line transmission menu is displayed. It informs you on the send and receive levels, connection time as well as set headroom and ISDN SYNC. In addition to the send (Tx) and receive configuration (Rx) the ISDN number of your connection partner is displayed.



SYNC Display

The SYNC display in the Rx path confirms that the decoder of your connection partner receives correct data.

The SYNC display only appears, if the connection is established between MusicTAXIs, not if it is established to competitor's codecs.

Connect Menu

If the ENTER key is pressed during a connection, the CONNECT MENU is displayed without line disconnection. It provides the following possibilities:

PREVIOUS MENU	return to former display
AUDIO DATA ENCODER	alteration of audio parameters and audio inputs
ADJUST I/O LEVEL	alteration of INPUT/OUTPUT level actuator
DISCONNECT	disconnection

Disconnection

A connection is ended by pressing the HANG UP key twice within 10 seconds (during the flashing of the HANG UP LED). Otherwise the disconnection is ignored. After the disconnection there appears the message:

```
LOCAL DISCONNECT
```

After the disconnection the MusicTAXI VP-PRO changes to the standby mode, awaiting the next connection command or incoming calls. If the VP-PRO is called, it is configured to the calling codec automatically irrespective of whether the unit is called by a telephone, telephone booth or studio: The MusicTAXI VP-PRO reacts fully automatically and guarantees the audio transmission.

Status Messages

In the online menu the following messages can be displayed:

Status Messages	Possible Cause
• NO X.21 CLOCK	No X.21 clock was determined.
• ILLEGAL X.21 CLK	The measured X.21 clock does not correspond to a ISO data rate. The measured clock frequency is displayed.
• NO INPUT SIGNAL	The AES or SPDIF input has been set and there is no signal at the selected input.
• DSP TIMEOUT	On access to the DSPs there is no confirmation message.
• ISDN PIPELINE OVERFLOW	ISDN operation is not possible.
• REMOTE PIPELINE OVERFLOW	The remote port does not respond.
• INITIALIZING... (RS232) or (RS422)	No MusicTAXI is connected or switched on.

In order to establish a connection between a MusicTAXI, ZEPHYR and PRIMA the following configurations have to be set:

LAYER 2 with 64 kbps

MusicTAXI		ZEPHYR		CDQPRIMA		
ISDN SYNC:	NO SYNC	Compat:	ZEPHYR	Encoder:	Line FMT:	1LN
ALGORITHM:	LAYER 2	Xmt:	L2 Mono		Algorithm:	MPEG L2
AUDIO MODE:	MONO	Rcv:	L2		Algo mode:	Mono
DATA RATE:	64 kbps	Rate:	64 kbps		Bit rate:	64 or AUTO
DATA CHANNEL:	OFF			Decoder:	Line FMT:	1LN
					Indep:	Yes
					Algorithm:	MPEG L2
					Bit rate:	64 or AUTO
				or:	Speed dial:	Nr. 25

LAYER 2 with 128 kbps

MusicTAXI		ZEPHYR		CDQPRIMA		
ISDN SYNC:	PRIMA	Compat:	ZEPHYR	Encoder:	Line FMT:	CCS2 LN
ALGORITHM:	LAYER 2	Xmt:	L2 M/DM/JS		Algorithm:	MPEG L2
AUDIO MODE:	MONO/ D. MONO/ STEREO/ J. STEREO	Rcv:	L2		Algo mode:	M/DM/S/JS
		Rate:	64 kbps		Bit rate:	128 or AUTO
				Decoder:	Line FMT:	CCS2 LN
					Indep:	Yes
DATA RATE:	128 kbps				Algorithm:	MPEG L2
DATA CHANNEL:	OFF				Bit rate:	128 or AUTO
				or:	Speed dial:	Nr. 27

LAYER 3 with 64 kbps

MusicTAXI		ZEPHYR	
ISDN SYNC:	NO SYNC (INV)	Compat:	ZEPHYR
ALGORITHM:	LAYER 3	Xmt:	L3 Dual
AUDIO MODE:	MONO	Rcv:	L3 Mono
DATA RATE:	64 kbps	Rate:	64 kbps
DATA CHANNEL:	OFF		

LAYER 3 with 128 kbps

MusicTAXI		ZEPHYR	
ISDN SYNC:	ZEPHYR	Compat:	ZEPHYR
ALGORITHM:	LAYER 3	Xmt:	L3 Stereo/ Joint Stereo
AUDIO MODE:	DM/S/JS	Rcv:	L3 Stereo
DATA RATE:	128 kbps	Rate:	64 kbps
DATA CHANNEL:	OFF		

G.722 with 64 kbps

MusicTAXI		ZEPHYR		CDQPRIMA		
ISDN SYNC:	SRT	Compat:	ZEPHYR	Encoder:	Line FMT:	ILN
ALGORITHM:	G.722	Xmt:	G.722		Algorithm:	G.722
AUDIO MODE:	MONO	Rcv:	G.722		Algo mode:	M1
DATA RATE:	64 kbps	Rate:	64 kbps		Bit rate:	64 kbps
DATA CHANNEL:	OFF			Decoder:	Line FMT:	ILN
					Algorithm:	G.722
					Bit rate:	64 kbps

In Layer 2 and 3, you can only select the sampling rates 32 kHz or 48 kHz. The settings for both units have to be identical.

Number Codes

When the MusicTAXI is in standby mode, you can select from the main menu the following functions by entering certain number codes:

Audio Test (88888)

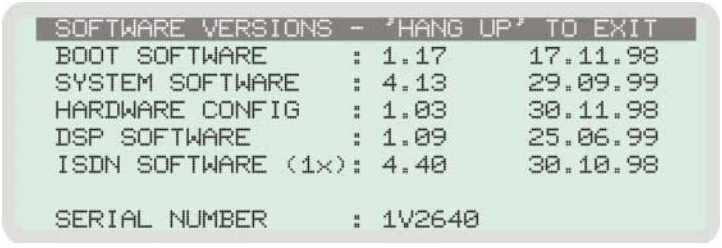
Audio loop without encoder/decoder.
By pressing the ENTER key you can change the audio input to AES/EBU or S/PDIF. By pressing 1, 2, 3 you can change the sampling frequency.
By pressing HANG up you leave the AUDIO TEST.

LED Test (1+2+3)

By simultaneous operation of the keys 1+2+3 all LEDs on the keypad light up.

99999

Interrogation of the VP-PRO software versions.



Reset (3+6+9)

By pressing 3+6+9 simultaneously, reset will be started.

Error Codes	Possible Cause	Test Point/Correction
• S BUS NOT RESPONDING	The MusicTAXI could not establish a communication to the ISDN connection: • ISDN cable not plugged in • ISDN cable damaged • ISDN connection not in operation • Both B-channels of this connection are already used by another unit.	• Check ISDN cable and connection and try again.
• CHANNEL UNACCEPTABLE • CALL IN AN ESTABLISHED CHANNEL • USER BUSY • NON-SELECTED USER CLEARING • RESPONSE TO STATUS INQUIRY	The MusicTAXI could not establish a connection to the entered number: • Partner has already established a connection (busy) • The ISDN number is wrong.	• Check entered ISDN number and/or try again later.
• UNALLOCATED NUMBER • NO ROUTE TO SPECIFIED NETWORK • NO ROUTE TO DESTINATION • NUMBER CHANGED • DESTINATION OUT OF ORDER • INVALID NUMBER FORMAT • FACILITY REJECTED	The MusicTAXI could not establish a connection to the entered ISDN number: • the ISDN number is wrong and does not exist.	• Check entered ISDN number and/or try again later.
• NORMAL CALL CLEARING • NO USER RESPONDING • NO ANSWER FROM USER • CALL REJECTED • NORMAL, UNSPECIFIED	The MusicTAXI could not establish a connection to the entered ISDN number: • The ISDN number is wrong or does not exist • The called unit is not switched on or connected.	• Check ISDN number and try again later. • Check status of the partner unit and, if necessary, correct it.

Error Codes	Possible Cause	Test Point/Correction
• NO CHANNEL AVAILABLE • NETWORK OUT OF ORDER • TEMPORARY FAILURE • SWITCHING EQUIPMENT CONGESTION • ACCESS INFORMATION DISCARDED • CHANNEL NOT AVAILABLE • RESOURCES UNAVAILABLE	The ISDN network causes these error codes, i.e. the connection cannot be established due to the ISDN net. Possible causes could be: • No B-channel available, all channels used by another unit at the moment • ISDN net overloaded.	• Try again later
• INTER. NETWORKING, UNSPECIFIED	The cause for this error code is the change over between different ISDN nets of different providers, e.g. from a private one to the Telecom or foreign connections.	• Try again later
• INTERNAL TIMEOUT	During the connection establishment a time out occurred.	• Check ISDN number and protocol and try again later.
• QUALITY OF SERVICE UNAVAILABLE • REQUESTED FACILITY NOT SUBSCRIBED • BEARER CAPABILITY NOT AUTHORIZED • BEARER CAPABILITY NOT AVAILABLE • SERVICE OR OPTION NOT AVAILABLE • BEARER CAPABILITY NOT IMPLEMENTED • CHANNEL TYPE NOT IMPLEMENTED • REQUESTED FACILITY NOT IMPLEMENTED • ONLY RESTICTED DIG. INFO AVAILABLE • SERVICE OR OPTION NOT IMPLEMENTED	The cause for this error code is that one function is not supported by the ISDN net, which the MusicTAXI, however, needs. Further call attempts will result in the same error code. • Set ISDN protocol is wrong .	• Check ISDN protocol. If the protocol is correct, establish a test connection in the telephone mode to check the cleared services. If the connection can be established, the service 'Data transfer' is not cleared for the ISDN connection of the calling MusicTAXI. The service has to be cleared by the provider.

Error Codes	Possible Cause	Test Point/Correction
• INVALID CALL REFERENCE VALUE • IDENTIFIED CHANNEL DOES NOT EXIST • CALL IDENTITY IN USE • INCOMPATIBLE DESTINATION • DEST. ADDRESS MISSING/ INCOMPLETE • INVALID TRANSIT NETWORK SELECTION • INVALID MESSAGE, UNSPECIFIED • MANDATORY ELEMENT MISSING • MESSAGE TYPE NOT IMPLEMENTED • ILLEGAL MESSAGE • INFORM. ELEMENT NOT IMPLEMENTED • INVALID INFORMATION ELEMENT • MESSAGE INCOMPATIBLE TO CALL STATE • RECOVERY ON TIMER EXPIRY • PROTOCOL ERROR, UNSPECIFIED	Generally a wrongly set ISDN protocol is the cause for the error code.	• Check set ISDN protocol and try again.
• " --- " **ONLY BY US-PROTOCOLS**	There is no error code from the ISDN net. It could be that the B-channel was disconnected by the MusicTAXI itself or the partner unit.	• Check entered ISDN number and try again.
• SPID REQUEST PENDING	The request for the SPID numbers has not yet been answered.	• Check SPID number and connection.
• SPID FAILED	SPID was rejected by the ISDN.	• Check SPID number and try again.
• ILLEGAL SPID	The entered SPID number is too short.	
• SPID MISSING	An US protocol has been selected, however, no SPID number entered.	• Enter SPID number and try again.

MusicTAXI VP-PRO	Size: 19", 2U, depth: 380 mm, temper.: -10 °C ... +45 °C, no fan necessary, relative humidity: 30 ... 90 %, Line voltage: 90 ... 240 V AC, 50/60 Hz, 0.28 ... 0.13 A, max. 25 VA, weight approx. 6 kg.
Algorithms	ISO/MPEG 11172-3 Layer 2 (Musicam), ISO/MPEG 11172-3 Layer 3, G.722 with H.221 and SRT, G.711.
Audio Modes	Mono, Dual Mono, Stereo, Joint Stereo.
Transmission Rates	ISDN: n x 64 kbps (n= 1 ... 6), X.21: 8 ... 384 kbps
Sampling Frequencies	16, 22.05, 24, 32, 44.1, 48 kHz.
Ancillary Data	0, 1200 - 9600 baud.
PC Remote Control	RS232/RS422 with 9600 baud, all functions can be operated remotely. Software download
X.21 Interface	Rx and Tx for 8 to 384 kbps
SYNC Modes	Bonding for MusicTAXI, channel splitting with 2 ISDN B-channels for Zephyr, CCS Sync with 2 ISDN B-channels for CDQPRIMA and CDQ2000, G.722/H.221 for AVT 7 kHz telephone, G.722/SRT for 7 kHz Glensound and 7 kHz CCS and 7 kHz Zephyr, J.52 (in progress).
Audio Interfaces	**Digital:** AES/EBU according to IEC 958 professional format, S/PDIF according to IEC 958 consumer format, external clocking, sample rate converter at input and output. **Analog input:** 18 bit, adjustable level range from -4 to +21 dBu, impedance ≥10 kohms / 600 ohms, asymmetric attenuation (CMR) ≥66 dB **Analog output:** 0 bit, adjustable level range from -4 to +21 dBu, impedance ≤50 ohms, asymmetric voltage attenuation ≥40 dB according to IEC 268-2.
Frequency Response	20 Hz - 20 kHz, +0.5/-1 dB.
Signal to Noise Ratio	weighted: ≥80 dB, unweighted: ≥85 dB.
Distortion (THD+N)	(with a 20 kHz Filter, to 5 kHz) at maximum level ≤0.06%
Crosstalk Attenuation	(ratio) at 1 kHz ›100 dB.
Phase Error	≤1,5 degrees.

All technical alternations may be subject to change without notice.

Scope of Delivery

MusicTAXI VP-PRO
Power supply cable, length: 2 m
ISDN cable; length: 2 m
Manual for MusicTAXI VP-PRO

Versions

Order No	Model	Description
9 121 001	VP-PRO 128	Full duplex audio codec with 1 x S_0
9 121 002	VP-PRO 256	Full duplex audio codec with 2 x S_0
9 121 003	VP-PRO 384	Full duplex audio codec with 3 x S_0
7 000 132	MIDAS 2	ISDN extension for 2nd S_0 connection
7 000 133	MIDAS 3	ISDN extension for 3rd S_0 connection

The ISDN extensions are delivered with a complete cable set and work plug&play without additional software modifications.

Optional Accessories

MusicTAXI PAN-PRO (PAN-PRO is an external desk-top unit which can handle a distance to the MusicTAXI of up to 500 meters. The graphical display shows peak meters, telephone directory, configuration of MusicTAXI, etc. and offers together with the numeric keypad similar control as the MusicTAXI VP-PRO).

Guarantee

Unless otherwise stipulated, standard guarantee regulations are valid and applicable. Damages resulting from changes or improper repairs by the orderer or a third party are not covered by the guarantee.

MusicTAXI Test Number

Call the DIALOG4 test number +49 7141 22 66 22.
Audio is permanently connected.

Maintenance and Hotline

The MusicTAXI VP-PRO has no user-serviceable parts. In the case of possible technical problems, please contact our hotline:

DIALOG4 Hotline: 0180-5257428
CET: 9:00 to 18:00 hours

DIALOG4