



Music TAXI PC Remote

Manual

V2000/V4.14

DIALOG4

System Engineering GmbH
Businesspark Monrepos
D-71634 Ludwigsburg
Telephone +49-7141-2266-0
Telefax +49-71412266-7
Internet www.dialog4.com

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Getting Started

Introduction

Description The MT PC Remote software is a 32 bit version for WIN95/98/NT intended for the remote control of the MusicTAXI SL-PRO and VP-PRO using a PC. The parameter settings are the same as for the MusicTAXI.

ISDN Cabelling Correct operation of the MusicTAXI is only ensured when RJ45 cables type CAT5 are used.

ISDN Connection Correct operation of the MusicTAXI is only ensured when the MusicTAXI is connected to an approved Telecom access. When operating the unit on other telephone networks (private exchange), several adjustments are necessary. Please see chapter "System Setup". Adaptation to certain networks other than herewith specified can not be guaranteed.

Please note WHEN INSTALLING THE SOFTWARE PROGRAM MT PC REMOTE, PLEASE DECLARE ACKNOWLEDGEMENT OF THE TERMS OF THE LICENSE AGREEMENT.

This software program is for the use of the owners and their staff only and may only be installed on a computer. The licensee may not copy the software or the included original documentation or own any such copies. All included information, text and diagrams are confidential, the content of which remains the unpublicised property of DIALOG4. Furthermore, the licensee may not change, adapt, translate, duplicate, loan, lease or any other form supply the availability of the software or service instructions as a whole or any part thereof. It is strictly forbidden to reengineer or disassemble the software, or in any other way and means attempt to trace the source code. Hereby the right to register utility models or patent applications is reserved explicitly. In the case of violation or non-compliance resulting on consequential losses, DIALOG4 may be entitled to claim damages according to the German BGB, HGB as well as Competition Law and Patents Act.

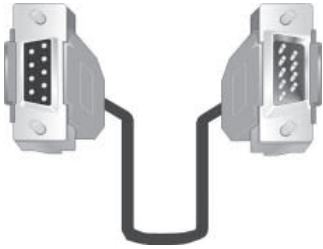
Due to the further development for product improvement of the present series units and alterations of certain industrial parts, it cannot be avoided that some parts may not be fully compatible.

Getting Started

PC Connection

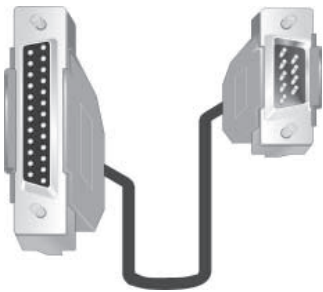
Serial Cable (KB003) to PC

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



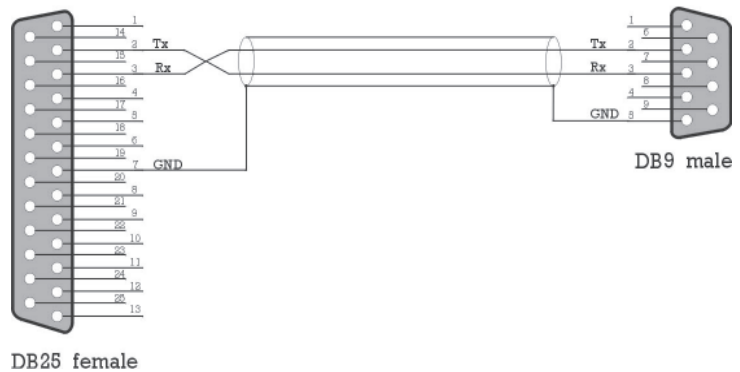
PC connection

MusicTAXI connection



PC connection

MusicTAXI connection



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>

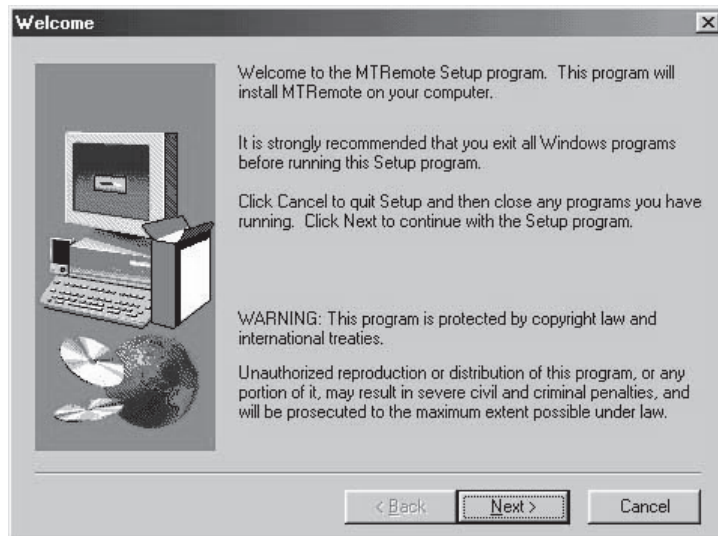
You can, of course, request information and updates from DIALOG4 on disk.

Getting Started

Software Installation

MT Remote Software Installation

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:



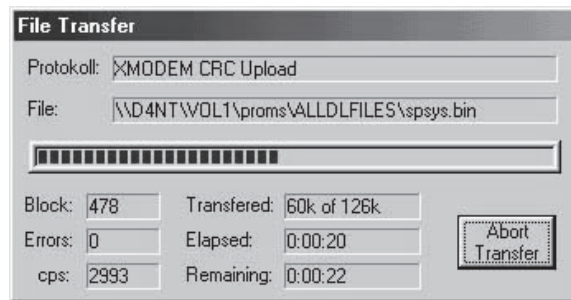
Consequently the main menu appears in standby mode.

Software Update



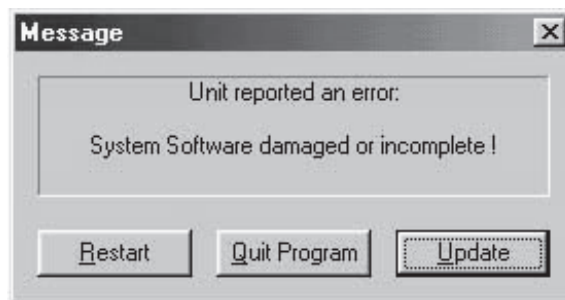
As described on the page 26, you can decide which software parts you want to update in the MusicTAXI (system, DSP, or boot software and hardware configuration) Select the new version with the left mouse button and confirm the update function with the OK button.

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 message is displayed.



Software Update

MusicTAXI 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.

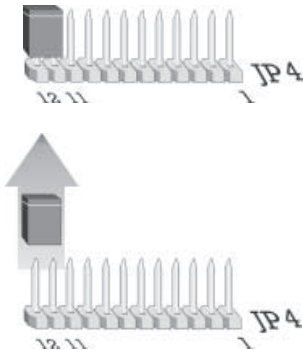
DSP Software

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

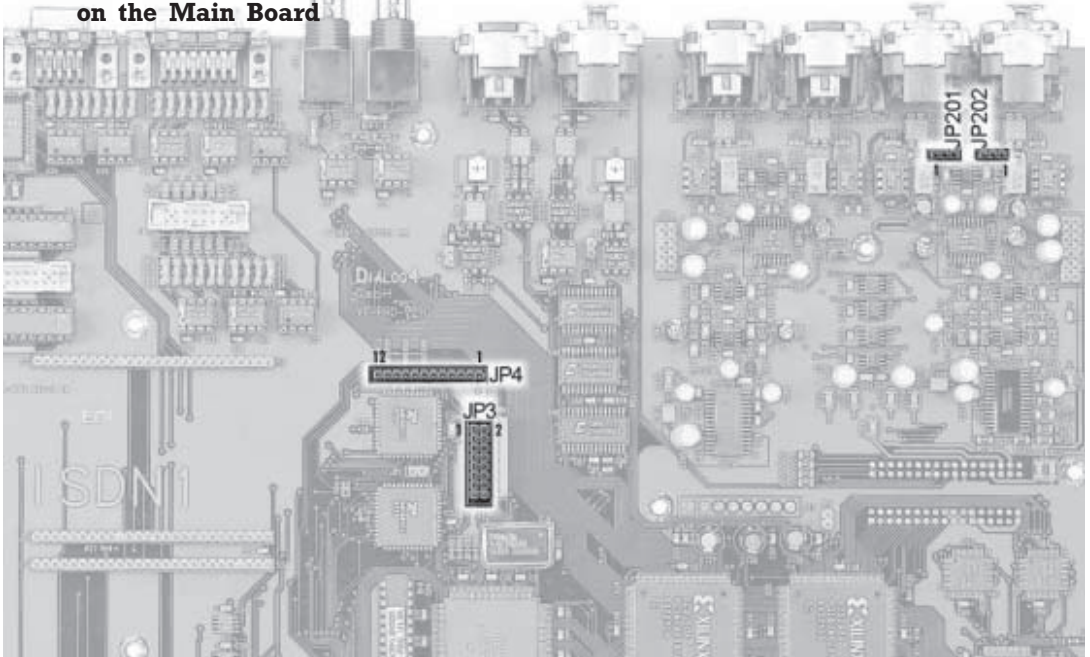
The update of the boot software is realized in two phases. In the first phase the software is downloaded from the PC to the unit. If the update is interrupted during the first phase, the unit only has to be started again.

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

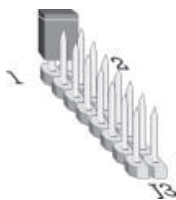
Switch over of the input impedance ANALOG INPUT



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

Switch over RS232/RS422

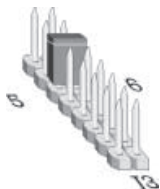
Switch over from RS232 to RS422



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

X.21 Operation

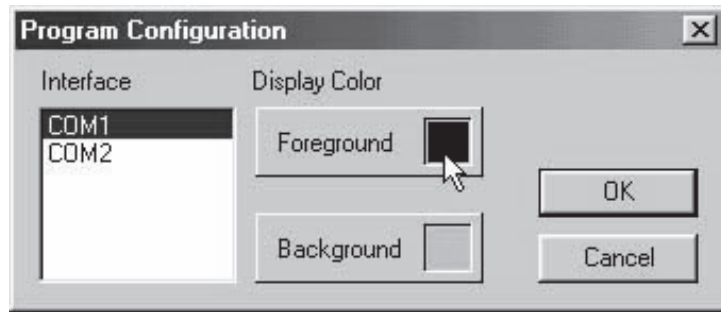
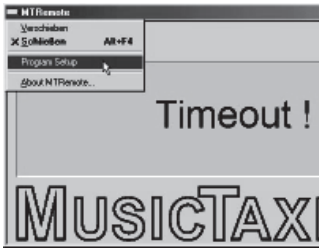
(only for units without ISDN module)



Jumper J3 5 - 6 set: units operates in X.21 mode only

System Setup

Program Configuration



A left mouse click of the MTRemote icon (top left) opens a pulldown menu. This configuration is only necessary if TIMEOUT! is displayed and not STANDBY or if you want to change colors. With the menu item PROGRAM SETUP you can adapt the interface from the MusicTAXI to the PC and adjust the display colors. Confirm with OK..

Select SETUP from the main menu. The 8 pages of the basic configuration menu of the connected MusicTAXI appear.

Configuration of the connected MusicTAXI in SYSTEM SETUP



For units without ISDN the menu is only 2 pages long.

ACCEPT CONFIGURATION

(available only for units with ISDN)

This sets up the call accept mode of the MusicTAXI. You can either set the accept mode more or less specific for the unit and transmission permanently. Then the MusicTAXI only accepts calls in the respective configuration. Or you can select the operation mode AUTO(matic 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.

ISDN Sync The ISDN SYNC menu serves for setting the desired synchronization procedure. You can select between:

MusicTAXI (DIALOG4 Sync for 1 to 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 note By selecting PRIMA or ZEPHYR accept mode, a G.722 call cannot be received.

Algorithm The ALGORITHM menu item serves for setting the desired data reduction procedure. You can select between:

Layer 2
Layer 3
AUTO (G.711/G.722 calls are also accepted).

Bitrate The transmission BITRATE cannot be set. According to the number of incoming B-channels, the transmission rate is determined and set accordingly (AUTO is always set).

Samplingrate 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 channel mode, 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

System Setup

Audio Mode	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 USER DATA serves for setting the desired ancillary data, when calls are coming in. You can select between:

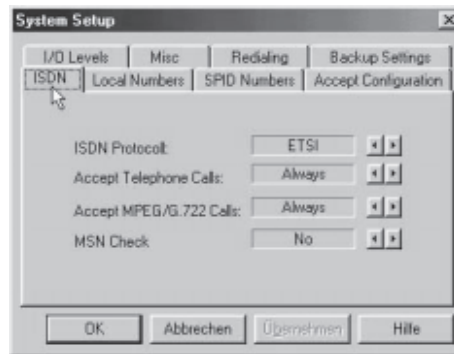
OFF (no ancillary data are transmitted)
1200, 2400, 4800 baud in Layer 2
1200, 2400, 4800, 9600 baud in Layer 3

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

From MusicTAXI to MusicTAXI, the lowest preset baud rate of the ancillary data is agreed within the unit handshake.

Press OK (left mouse click) to take over the presetting of the call acceptance. Press CANCEL and the presetting is not taken over.

ISDN CONFIGURATION



ISDN Protocol

The MusicTAXI has 12 different ISDN D-channel protocols. Please make sure that you have selected the correct protocol. Decisive is the ISDN protocol of your connection, not the one of the partner unit! Alter the settings by pressing the LEFT and RIGHT buttons.

Accept Telephone Calls

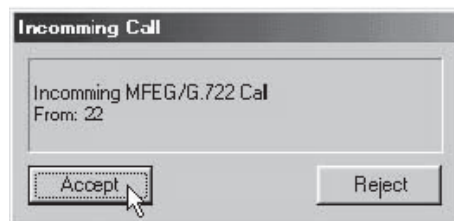
This menu item serves for defining the MusicTAXI behavior when operated at a S₀ connection together with other units. You can select between:

ALWAYS	every telephone call is accepted
NEVER	every telephone call is rejected
ASK	the acceptance of a telephone call has to be confirmed

Accept MPEG/G.722 Calls

In this menu item the call acceptance for MPEG and G.722 calls is defined. The settings are the same as the above menu item (ACCEPT TELEPHONE CALLS).

With ASK the call is only accepted after confirmation. The following is displayed:



System Setup

MSN Check

In the case of a passive call, the interrogation of the MSN number can be activated or switched off. If YES is entered for MSN check, the called number is compared to the one, which had been entered in LOCAL NUMBERS. The call is only accepted, if both numbers are identical. Due to this, various units can be operated at one ISDN connection.

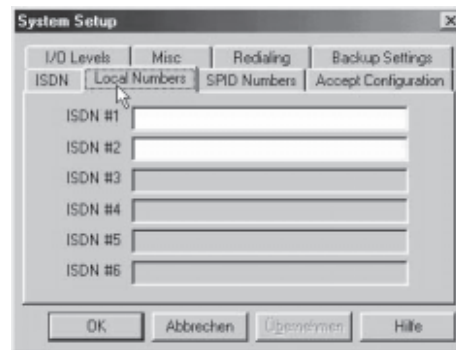
In case of EURO ISDN, the MSN is usually the ISDN number of your connection without the area code, in case of private exchanges the number of your extension.

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.

LOCAL NUMBERS



(available only for units with ISDN)

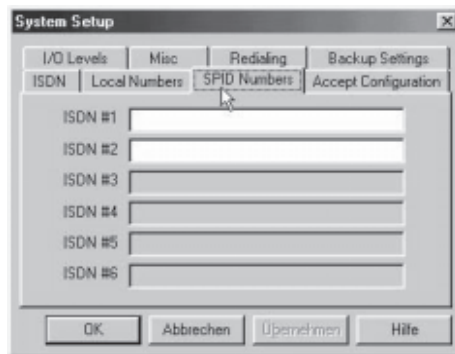
Using LOCAL NUMBERS and MSN Check, different units can be operated on one ISDN line.

The ISDN numbers, which are entered here, are sent when the connection is established; not necessary if the unit is operated at a S₀ connection, however, useful when operated at a private exchange.

With the right mouse button click onto the ISDN input field and enter the desired telephone number. To change to another field, you can either use the tab key or click onto your desired field.

Confirm with OK.

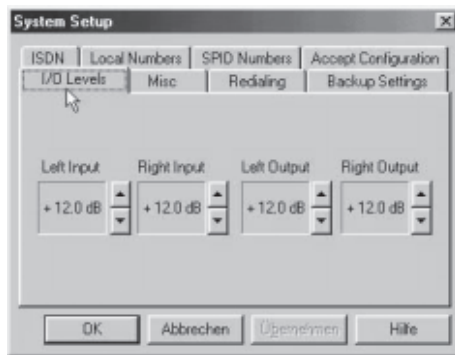
SPID NUMBERS



(available only for units with ISDN)

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.

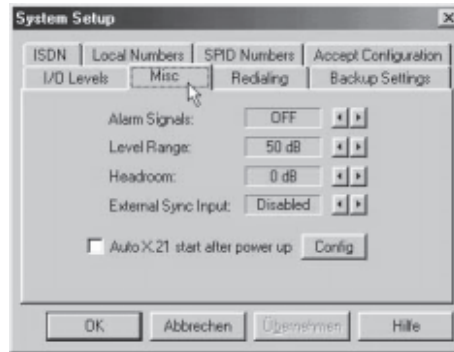
I/O LEVELS



This menu item serves for setting the analog INPUT- and OUTPUT-level for the left and right channel. Ex factory the setting is +12 dBu, the headroom is 0 dB. This means: input level = output level = 12 dBu. With a mouse click on the UP and DOWN buttons the level value can be altered.

Confirm with OK.

MISC



Alarm Signals

If the signals are switched OFF; the ALARM CONTROL INTERFACE behaves as described on page 12. 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)

Confirm with OK.

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 in 1 dB steps. Ex factory the setting is 0 dB.

The scale display in the online menu is moved.

Attention

Clipping limit at 0 dB + selected headroom!

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:

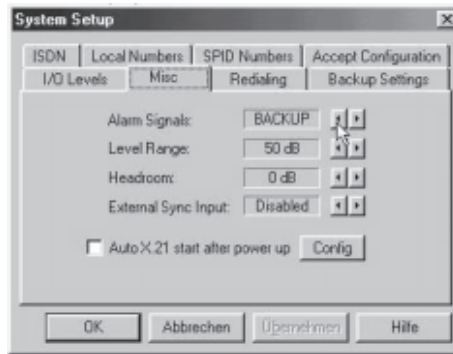
- DISABLED Word clock is generated from the ISDN transmission clock
- DIGITAL IN Word clock is generated from the AES/SPDIF input signal
- SYNC IN Word clock is taken over from the SYNC IN

Automatic X.21 Start

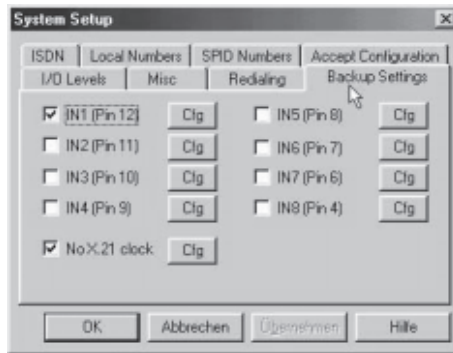
After switching on when 'Auto X.21 after power up' is activated, the unit starts automatically in the X.21 mode. Adjust the configuration with the 'Cfg' button

BACKUP Settings

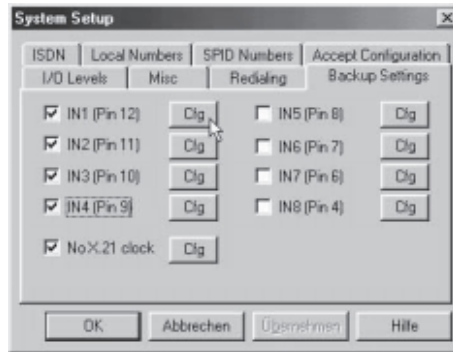
This function is only available, if the mode BACKUP in ALARM SIGNALS is chosen.



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. Press the 'Cfg' button to allocate an ISDN number to this input port. This ISDN number complies in all parameters to the respective entry in the ISDN directory.



In the following example the alarm/control ports IN1 to IN4 are used for the backup.

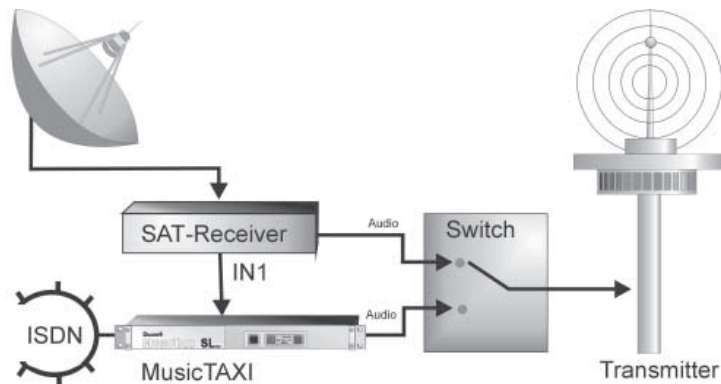
The ports IN5 to IN8 are configured with 00 and can be used for transparent switching informations.

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

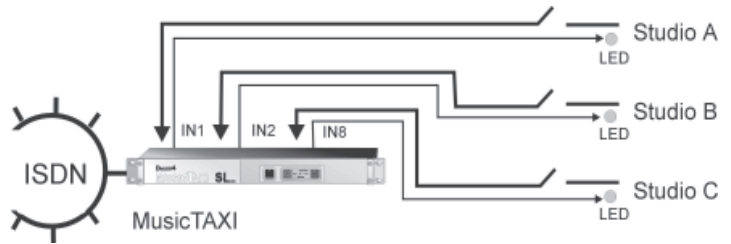
SATELLITE - ISDN REDUNDANCY



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. 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.



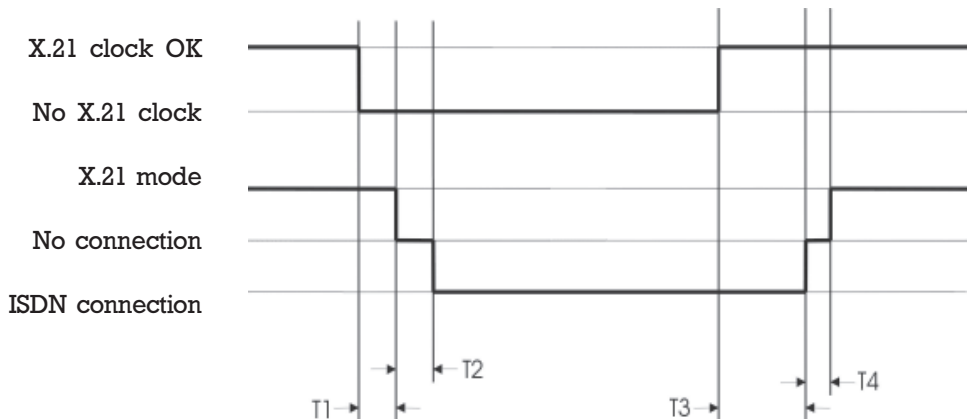
If the switch is opened, the ISDN connection will be disconnected.

X.21 Clock Monitoring

An additional new feature is the monitoring of the X21 clock. To do this the idem 'No x.21 clock' must be activated. Enter with the corresponding Cfg button in the ISDN number of the partner unit which should be dialed in case of error. The desired configuration is also entered.

When the unit is in the X.21 mode and the X.21 clock fails, the unit returns to the main menu, the ISDN connection is then established.

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



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

System Setup

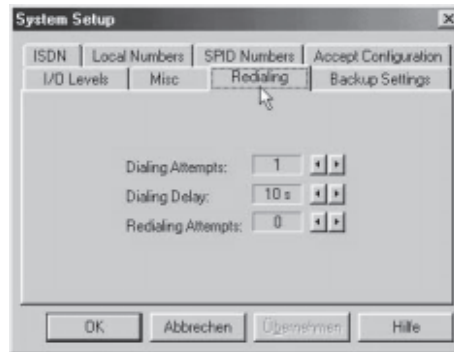
- T2: Length of time for ISDN connection to be established.
- T3: Time, how long the X.21 clock must again be active before the ISDN connection is again disconnected.
- T4: Length of time for ISDN connection and change into X.21 mode.

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

REDIALING



(available only for units with ISDN)

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 10 ... 60 seconds.

Redialing Attempts

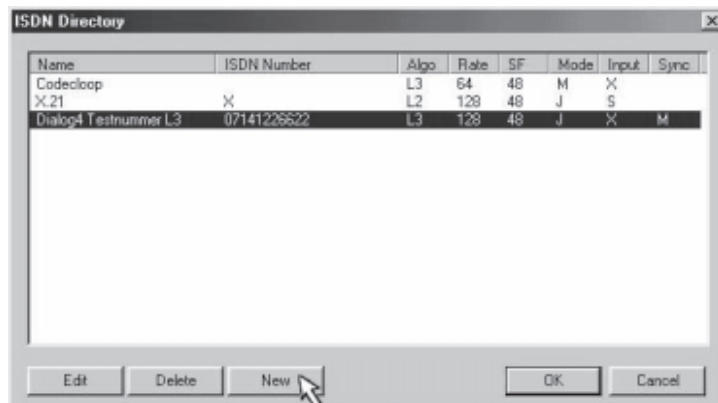
This menu item serves for setting the desired redialing attempts, if a connection had not been disconnected by the calling MusicTAXI. You can select between 0 and 5. Confirm with OK.

**Main Menu
DATA INPUT**

Select DATA INPUT from the MAIN MENU.



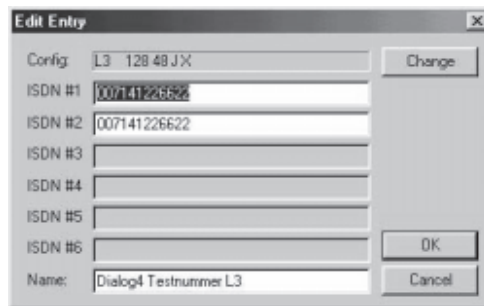
The Directory for ISDN number, name and audio parameters appears:



Attention The field sizes are variable and can be altered with the mouse.

Enter New Recipient

With the left mouse button click onto the function NEW. The input mask for the ISDN number, name and audio configuration appears.



Depending on the number of ISDN modules, the possible input fields are displayed white. Click onto the field to

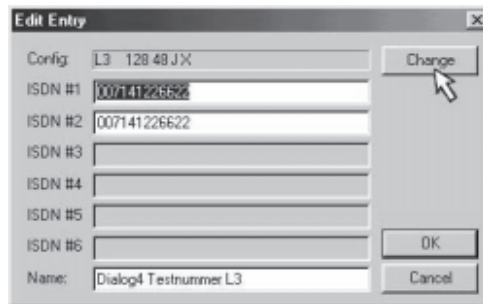
Data Input

activate the entry. The positioning marker of the cursor flashes, when you can start to enter the number. Change over to other ISDN input field by pressing the tab key.

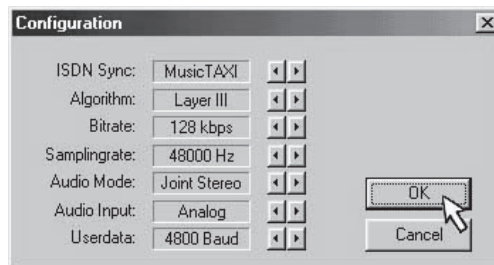
As soon as the ISDN numbers have been entered, you can assign a name to the recipient with as many letters as you like.

Edit Recipient

Click with the left mouse button onto the recipient which you would like to edit. The entry is displayed invertedly.



To alter the presetted audio configuration, press CHANGE.

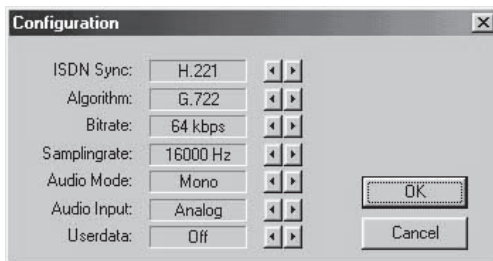


The configuration menu appears with the audio parameters, which are assigned to the present entry. By moving the arrows (left-right) you can alter the entries, similar to the ACCEPT CONFIGURATION. Confirm with OK. The recipient is included in the ISDN directory. The AUTO mode is now available to the ISDN Sync.

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 ALGORITHM
3. Determine the SYNC modes in ISDN SYNC.



Name	ISDN Number	Algo	Rate	SF	Mode	Input	Sync
Dialog4 Testnummer L3	007141226622	L3	128	48	J	X	M
Dialog4 Testnummer L2	007141226620	L2	128	44	S	X	M
Dialog4 Test G.722/H.221	007141226622	G.722	64	16	M	X	H
Dialog4 Test G.722/SRT	007141226622	G.722	64	16	M	X	S
Dialog4 Test G.711/TEL	007141226622	TEL	64	8	M	X	X
Dialog4 - 384	007141226622	L2	64	8	M	A	M
Dialog4 - CDQPRIMA	07141226626	L2	128	48	J	X	P
Dialog4-Telex Zephyr	07141226627	L3	128	48	D	S	Z
Deutsche TELEKOM	11833	TEL	64	8	M	X	X
The UK Office	00441456746	L3	128	48	J	X	M

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

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).

Data Input

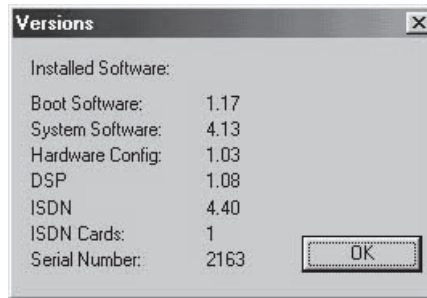
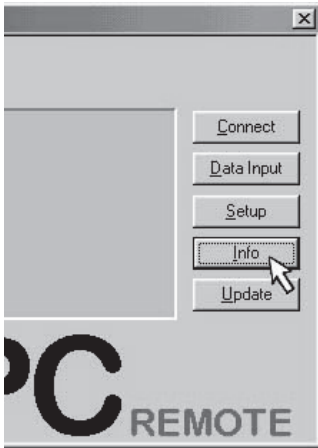
Delete Recipient

Click with the left mouse button onto the entry in the ISDN directory which you would like to delete. The entry is displayed invertedly. Deletion takes place after confirming with the OK button.



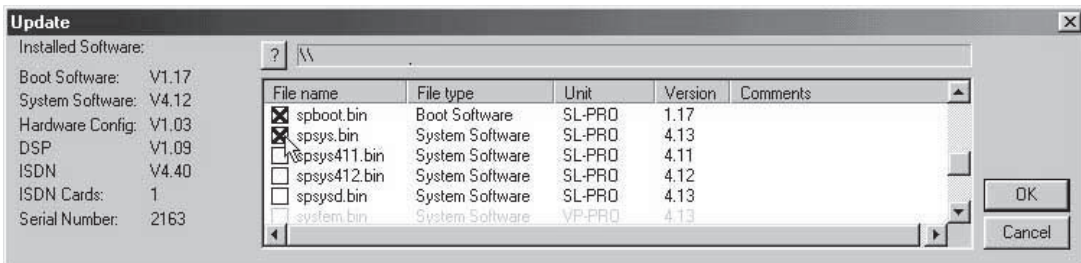
INFO

The info function serves for checking the present software version of the connected MusicTAXI. All software parts including versions are displayed. You can also interrogate the serial number of your MusicTAXI.



UPDATE

Contrary to the info function, not only the present software version is interrogated and displayed, but also the latest software versions (downloaded from the internet server, etc.) stored in the respective directory of the PC. You can now decide which software parts you would like to update in the MusicTAXI. Select the version with the left mouse button and confirm the update function with OK.



Main Menu CONNECT

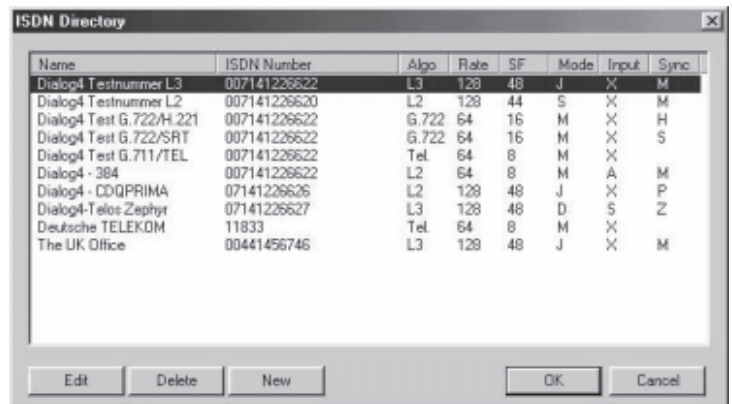
The respective ISDN connection can be established quickly and easily because the built-in telephone directory permits 96 entries, each of which can be individually configured. For establishing the connection you can choose between dialing via telephone directory, abbreviated entry and entry number or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



Establishing a Connection by Using the Telephone Directory

A pre-requisite for the connection establishment is the correct initializing of the MT REMOTE software with the connected MusicTAXI. This is confirmed with the STANDBY display menu (as).

After pressing the CONNECT button, the present telephone directory 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.

Select your desired partner from the list with the left mouse button. The selected connection partner is displayed invertedly. Confirm the connection establishment with OK.



After successful synchronisation the MusicTAXI displays 'SYNC OK' and moves into the online menu. If the requested connection is rejected the MusicTAXI displays in the STATUS field 'REJ' and describes in the display the reason for the failure. (Pages 31-33).



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 (when using a remote panel).

Call Acceptance

If the MusicTAXI is called, it automatically adjusts to the audio configuration of the calling codec. It make no difference whether the call is from a cellphone, a telephone booth or from a studio: the MusicTAXI reacts automatically and secures the audio transmission.

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.

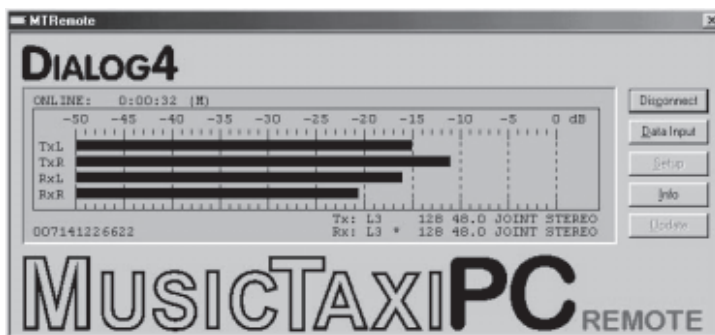
X.21 Operation

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.

Connention Monitoring Disconnection

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.

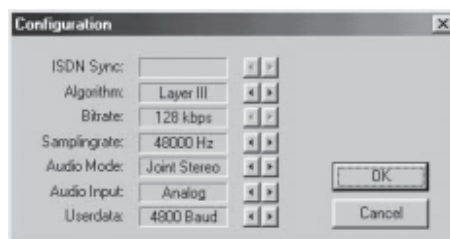


SYNC Display

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.

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



The BITRATE and ISDN SYNC, however, cannot be modified during ISDN connection.

Disconnection

An existing connection is ended by pressing the DISCONNECT button. After disconnection the message 'LOCAL DISCONNECT' appears on the display. Your connection partner sees the message 'REMOTE DISCONNECT'.

The MusicTAXI goes into standby mode and waits for further connection requests.

Error Codes	Possible Cause	Test Point/Correction
<ul style="list-style-type: none"> • S BUS NOT RESPONDING 	<p>The MusicTAXI could not establish a communication to the ISDN connection:</p> <ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Check ISDN cable and connection and try again.
<ul style="list-style-type: none"> • CHANNEL UNACCEPTABLE • CALL IN AN ESTABLISHED CHANNEL • USER BUSY • NON-SELECTED USER CLEARING • RESPONSE TO STATUS INQUIRY 	<p>The MusicTAXI could not establish a connection to the entered number:</p> <ul style="list-style-type: none"> • Partner has already established a connection (busy) • The ISDN number is wrong. 	<ul style="list-style-type: none"> • Check entered ISDN number and/or try again later.
<ul style="list-style-type: none"> • UNALLOCATED NUMBER • NO ROUTE TO SPECIFIED NETWORK • NO ROUTE TO DESTINATION • NUMBER CHANGED • DESTINATION OUT OF ORDER • INVALID NUMBER FORMAT • FACILITY REJECTED 	<p>The MusicTAXI could not establish a connection to the entered ISDN number:</p> <ul style="list-style-type: none"> • the ISDN number is wrong and does not exist. 	<ul style="list-style-type: none"> • Check entered ISDN number and/or try again later.
<ul style="list-style-type: none"> • NORMAL CALL CLEARING • NO USER RESPONDING • NO ANSWER FROM USER • CALL REJECTED • NORMAL, UNSPECIFIED 	<p>The MusicTAXI could not establish a connection to the entered ISDN number:</p> <ul style="list-style-type: none"> • The ISDN number is wrong or does not exist • The called unit is not switched on or connected. 	<ul style="list-style-type: none"> • Check ISDN number and try again later. • Check status of the partner unit and, if necessary, correct it.

ISDN Error Codes

Error Codes	Possible Cause	Test Point/Correction
<ul style="list-style-type: none"> • NO CHANNEL AVAILABLE • NETWORK OUT OF ORDER • TEMPORARY FAILURE • SWITCHING EQUIPMENT CONGESTION • ACCESS INFORMATION DISCARDED • CHANNEL NOT AVAILABLE • RESOURCES UNAVAILABLE 	<p>The ISDN network causes these error codes, i.e. the connection cannot be established due to the ISDN net. Possible causes could be:</p> <ul style="list-style-type: none"> • No B-channel available, all channels used by another unit at the moment • ISDN net overloaded. 	<ul style="list-style-type: none"> • Try again later
<ul style="list-style-type: none"> • INTER. NETWORKING, UNSPECIFIED 	<p>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.</p>	<ul style="list-style-type: none"> • Try again later
<ul style="list-style-type: none"> • INTERNAL TIMEOUT 	<p>During the connection establishment a time out occurred.</p>	<ul style="list-style-type: none"> • Check ISDN number and protocol and try again later.
<ul style="list-style-type: none"> • 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 RESTRICTED DIG. INFO AVAILABLE • SERVICE OR OPTION NOT IMPLEMENTED 	<p>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.</p> <ul style="list-style-type: none"> • Set ISDN protocol is wrong 	<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • 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 	<p>Generally a wrongly set ISDN protocol is the cause for the error code.</p>	<ul style="list-style-type: none"> • Check set ISDN protocol and try again.
<p>• " --- "</p> <p>ONLY BY US-PROTOCOLS</p>	<p>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.</p>	<ul style="list-style-type: none"> • Check entered ISDN number and try again.
<ul style="list-style-type: none"> • SPID REQUEST PENDING 	<p>The request for the SPID numbers has not yet been answered.</p>	<ul style="list-style-type: none"> • Check SPID number and connection.
<ul style="list-style-type: none"> • SPID FAILED 	<p>SPID was rejected by the ISDN.</p>	<ul style="list-style-type: none"> • Check SPID number and try again.
<ul style="list-style-type: none"> • ILLEGAL SPID 	<p>The entered SPID number is too short.</p>	<ul style="list-style-type: none"> • Check SPID number and try again.
<ul style="list-style-type: none"> • SPID MISSING 	<p>An US protocol has been selected, however, no SPID number entered.</p>	<ul style="list-style-type: none"> • Enter SPID number and try again.

Audio Compatibility

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
DATA RATE:	128 kbps	Rate: 64 kbps	Bit rate: 128 or AUTO
DATA CHANNEL:	OFF		Decoder: Line FMT: CCS2 LN
			Indep: Yes
			Algorithm: MPEG L2
			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.

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.

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.

DIALOG4