

NET Control

Manual

V2000/V1.01

DIALOG4

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Getting Started

Introduction

Description The **NETControl** software is a 32 bit version for WINDOWS 95/98/NT intended for the remote control of the MusicTAXI VP-PRO TCP/UDP/IP using a PC. The parameter settings are the same as for the MusicTAXI.

ISDN and Net 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 NETCONTROL, 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.

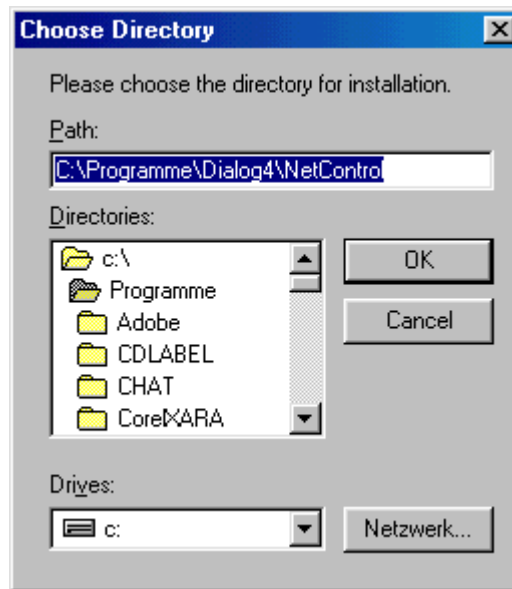
Due to the further development for product improvement of the present series units and alterations of certain industrial parts, it cannot be avoided that some parts may not be fully compatible.

Getting Started Software Installation

Installation of NETControl Software



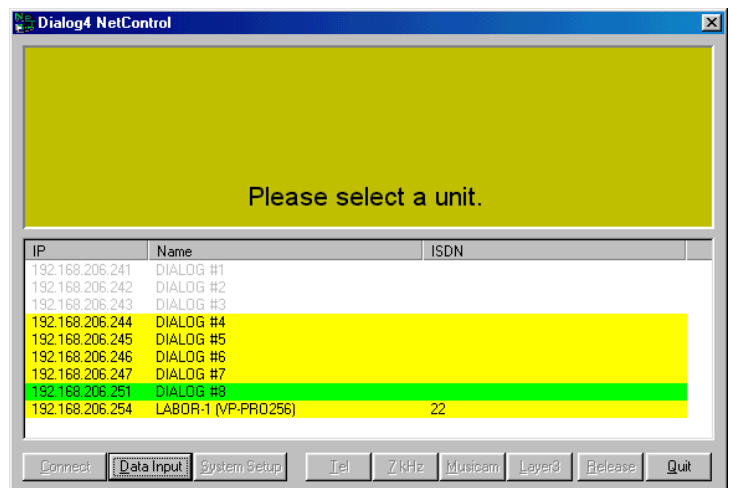
Start the setup program of the current application from the delivered floppy disk with double click on the setup icon.. Follow the installation instructions on the PC monitor.



The software NETControl will now be installed on your PC.



With double click on the icon you start the application. After a short initializing sequence the basic configuration menu of NETControl-Software appears.



Getting Started

Program Configuration

Program Screen

The screenshot shows the Dialog4 NetControl interface. Labels point to various parts of the screen:

- System Menu**: Points to the top-left menu bar.
- Title Border**: Points to the window title bar.
- MusicTAXI Display/Status Display**: Points to the top-right area showing 'HEADROOM: 5 dB' and signal levels.
- Units List**: Points to the table listing various units.
- Scroll Border**: Points to the border of the units list table.
- Direct Dial Buttons**: Points to buttons like 'Tel', 'Z kHz', 'Musicam', 'Layer3', 'Release', and 'Quit' at the bottom.
- Release Unit**: Points to the 'Release' button.
- Exit Program**: Points to the 'Quit' button.
- Connect/Disconnect Call Acceptance**: Points to the 'Disconnect' button.
- Units Configuration**: Points to the 'System Setup' button.
- ISDN Directory/Configuration of Connection Partner**: Points to the 'Data Input' button.

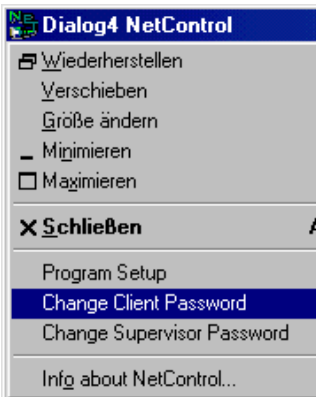
IP	Name	ISDN	Boot	Sys	Hw	DSP	ISDN	Net	SerNo
192.168.206.241	DIALOG #1		V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2895
192.168.206.242	DIALOG #2		V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2876
192.168.206.243	DIALOG #3		V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2913
192.168.206.244	DIALOG #4		V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2930
192.168.206.245	DIALOG #5	206	V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2931
192.168.206.246	DIALOG #6		V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2907
192.168.206.247	DIALOG #7		V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2073
192.168.206.251	DIALOG #8	0071	V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2903
192.168.206.253	LABOR-2		V1.18	V4.15	V1.04	V1.11	V4.40 [2x]	V1.03	2032

Program Configuration

A mouse click on the NETControl icon (System Menu) opens a pulldown menu.

Password

Your password is now requested. The program generally has two passwords:



A client Password d4
and a supervisor Password Dialog4

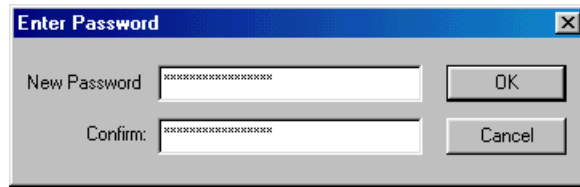
Please ensure that these are written correctly as access to certain menus will otherwise be denied.

These passwords can be changed by activating the function "change client password" or "change supervisor password".

Getting Started

Program Configuration

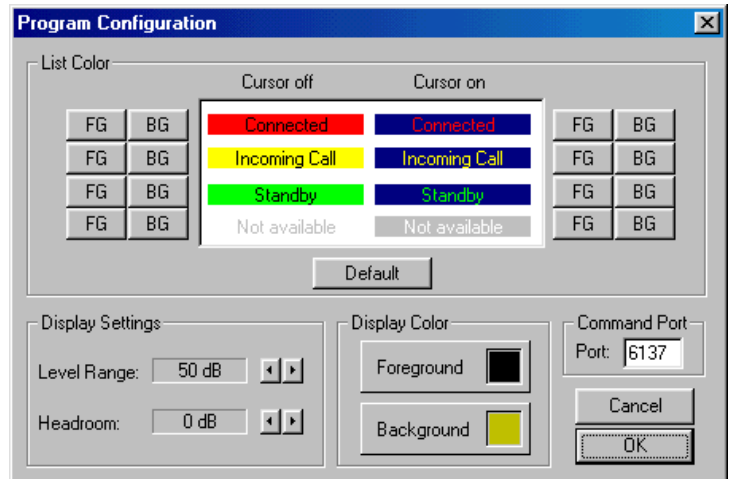
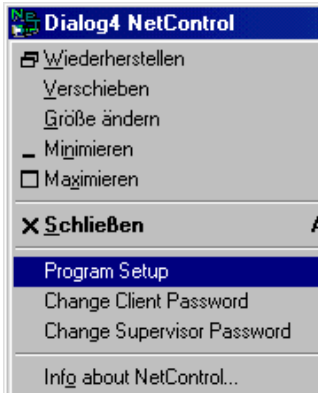
First enter the administrator password.



Should you not wish to enter a client password, simply leave this field empty. Confirm the new settings with the OK button.

Program Setup

Changes in the level display, the scale display and the port addresses can be made in this menu item and here the display color setting can also be altered to your personal taste.



List Color Display Color

For easier tracing and monitoring of the ISDN connection, the writing (FG) and background (BG) color setting can be activated here.

Default

A mouse click on the default button deactivates all changes and returns to the settings ex-factory. A list of the standard settings can be found on page 11.

Display Settings Level Range

Adjustment of the level range: 50 or 80 dB.

Headroom

Setting of the desired headroom. The scale display in the online menu is moved. You can select between 0 and 20 dB in 1 dB steps. Ex factory the setting is 0 dB.

Getting Started

Program Configuration

Attention Clipping limit at 0 dB + selected headroom!

Command Port In the TCP/IP network, each computer or unit has its own IP address. When two computers/units want to communicate with each other, they can be contacted via this IP address. To ensure that the computer / unit acknowledges what is actually required by the partner unit, the port number indicates which service is desired.

A comparison between TCP/IP and ISDN:

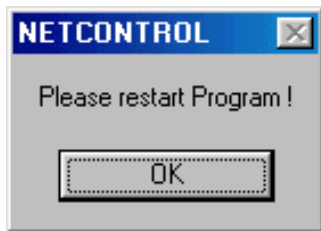
TCP/IP	ISDN
IP Address	ISDN Number
Port	Service Acknowledgement (for e.g. Telephone / Data Transmission)

There are two different categories of ports:

The so-called "defined" or "well-known ports", which are assigned by the IANA (Internet Assigned Number Authority) and which are contained in a number range from 0 to 1023; and then there are the "dynamic ports".

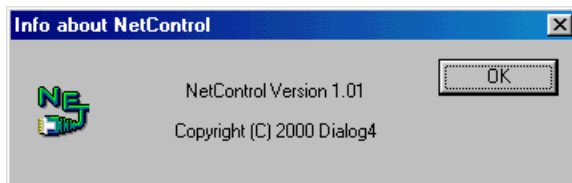
This is the reason why only port numbers from 1024 to 65525 may be entered here.

Only as an administrator do you have access to amend the port numbers. After such an alteration, the program has to be newly started. Please ensure that the correct port number has been dialled.



Info over NETControl

Interrogation of the current version



Getting Started

Program Pre-settings

Program Pre-settings after Installation

PASSWORD

Client Password	d4
-----------------	----

Supervisor Password	Dialog4
---------------------	---------

Please ensure that the password is correct!

PROGRAM CONFIGURATION

List Color

	cursor off	cursor on
CONNECTED FG.	black	red
CONNECTED BG.	red	blue
INCOMING CALL FG.	black	yellow
INCOMING CALL BG.	yellow	blue
STANDBY FG.	black	green
STANDBY BG.	green	blue
NOT AVAILABLE FG.	gray	white
NOT AVAILABLE BG.	white	blue

FG=Foreground, BG=Background

Display Settings

LEVEL RANGE	50 dB
-------------	-------

HEADROOM	0 dB
----------	------

Display Color

Foreground	black
------------	-------

Background	RGB 192/192/0 (dark yellow)
------------	--------------------------------

Command Port

Port Number	6137
-------------	------

DATA INPUT

ISDN DIRECTORY	no entry
----------------	----------

Edit Entry	no entry
------------	----------

Change/Configuration

ISDN SYNC	n. e./ MusicTAXI*
-----------	-------------------

Algorithm	Layer 3
-----------	---------

Bitrate	128 kbps
---------	----------

Samplingrate	48.000 Hz
--------------	-----------

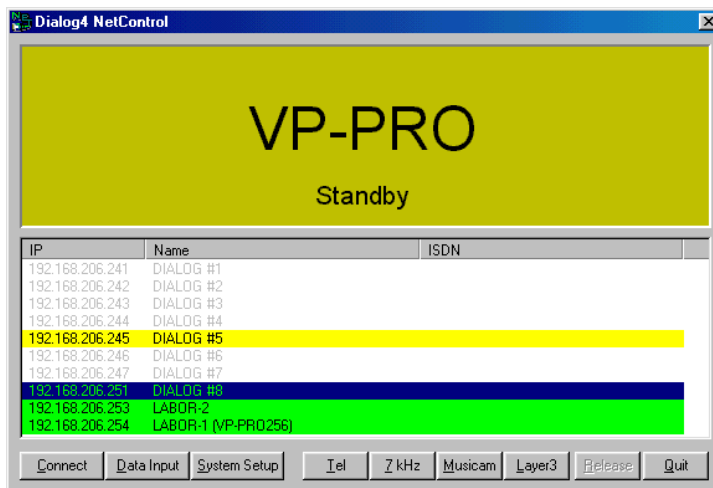
Audio Mode	Joint Stereo
------------	--------------

Audio Input	Analog
-------------	--------

User Data	1200 baud
-----------	-----------

*when an ISDN number has been entered.

Configuration of the connected MusicTAXI in SYSTEM SETUP



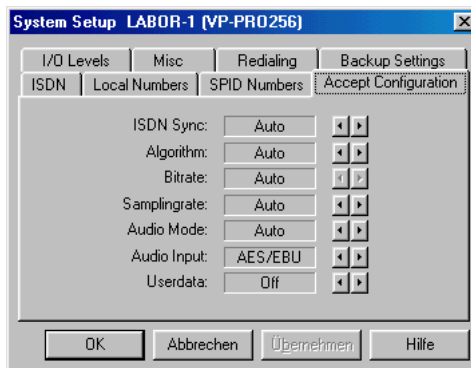
Select the unit to be configured from the list and open the SYSTEM SETUP menu with a mouse click. Your password is requested. Should simply the user password be entered, then only one page of the basic configuration menu will be accessible and only changes in ACCEPT CONFIGURATION are permitted. By entering the administrator password, the 8 page basic menu appears.

System Setup

The SYSTEM SETUP function is only selectable when:

- an unit from the list is selected
- the unit isn't connected with another network partner
- no other network partner undertakes changes in the unit configuration.

Accept Configuration



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 Unit Detection). 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 Audio 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.: Left channel - original sound, right 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 **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.

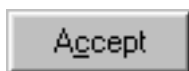
Accept Telephone Calls

This menu item serves for defining the MusicTAXI behavior when operated at a S_0 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:



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. Various units can then be operated at one ISDN connection.

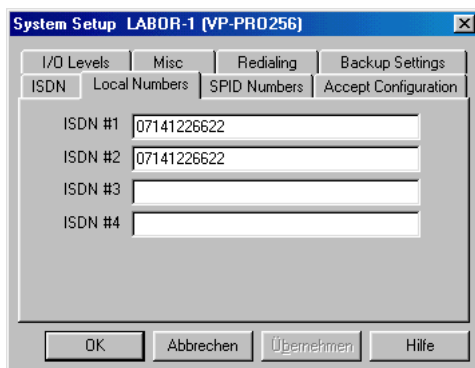
In case of EURO ISDN, the MSN is usually the ISDN number of your connection without the area code, in case of private exchanges the number of your extension.

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.

Please note

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

Local Numbers



I/O Levels	Misc	Redialing	Backup Settings
ISDN	Local Numbers	SPID Numbers	Accept Configuration
ISDN #1	07141226622		
ISDN #2	07141226622		
ISDN #3			
ISDN #4			

OK Abbrechen Übernehmen Hilfe

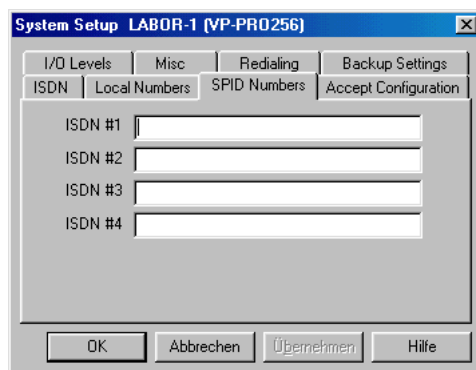
Using LOCAL NUMBERS and MSN Check, different units can be operated on one ISDN line.

The ISDN numbers, which are entered here, are sent to the ISDN network when the connection is established. This is not always necessary when operating on an ISDN connection. Here a number has to be entered when the partner unit should not see the first MSN number but rather the second or third. When operating the MusicTAXI on certain ISDN networks the extension number has to be entered.

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.

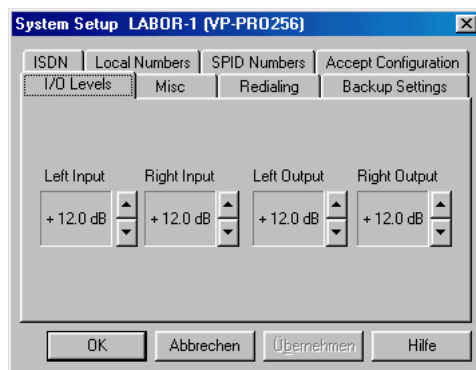
Confirm with OK.

SPID Numbers



The SPID numbers, you enter here, are also sent when the connection is established. This is only necessary when operating on US or Canadian networks. (NATIONAL1 und DMS100). This entry field otherwise remains empty.

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

Should the signal be switched on OFF, the enclosed switching information on the MusicTAXI input is then transferred to the partner unit. 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. On this setting, the MusicTAXI from software version 4.15 can utilise the respective input (pin 6) to discontinue connection. The input on this setting is then, however, no longer available for the transmission of a switching signal.

CON+DIS Both signals are set.

BACKUP pls. see BACKUP SETTINGS.

Level Range

Adjustment of the level range.
Selectable over PROGRAM CONFIGURATION (pls s. p. 9).

Headroom

Setting of the desired headroom. Selectable over PROGRAM CONFIGURATION (pls s. p. 9).

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

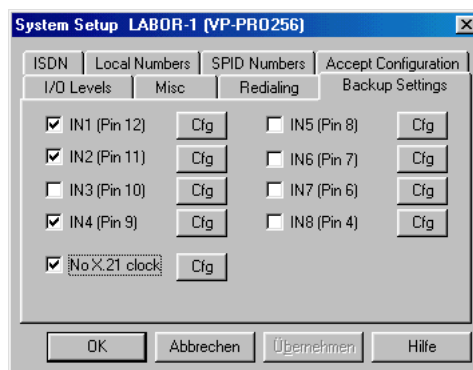
After switching on when 'Auto X.21 after power up' is activated, the unit starts automatically in the X.21 mode. Adjust the configuration with the 'Cfg' button

Backup Settings

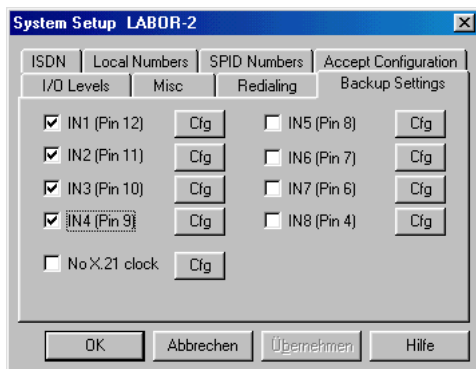
This function is only available, if the mode BACKUP in ALARM SIGNALS is selected.



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.

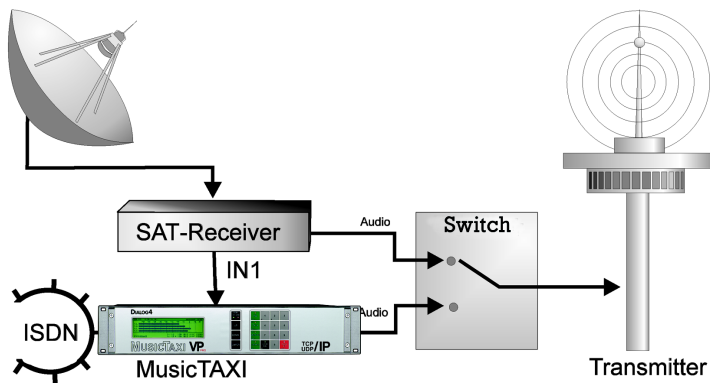


In the following example the alarm/control ports IN1 to IN4 are used for the backup.

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

Example of Applications by Using Backup Settings

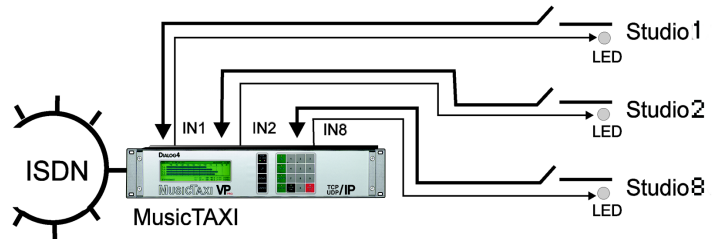
SAT-ISDN Redundancy



Assuming the satellite receiver can indicate an opto-coupled 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.



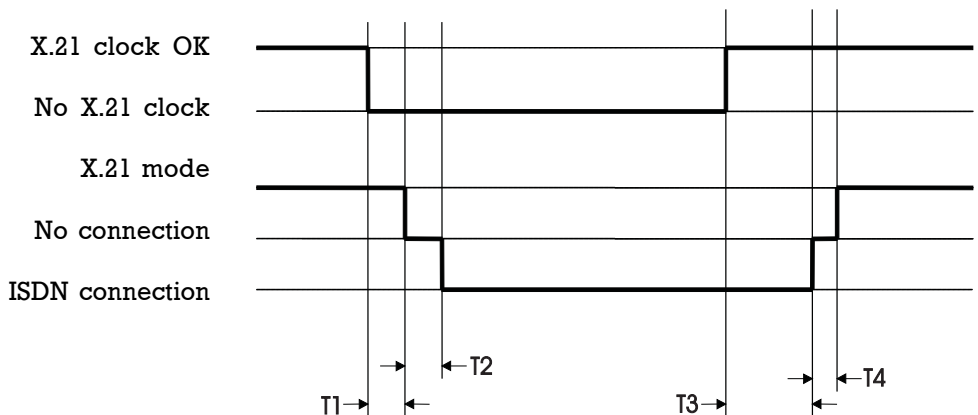
If the switch is opened, the ISDN connection will be disconnected.

X.21 Clock Monitoring

An additional new feature is the monitoring of the X21 clock. To do this the 'No x.21 clock' must be activated. Enter with the corresponding Cfg button, 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.

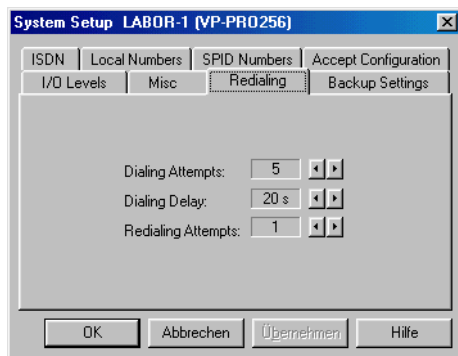
- T2: Length of time for ISDN connection to be established.
- T3: Time, how long the X.21 clock must again be active before the ISDN connection is again disconnected.
- T4: Length of time for ISDN connection and change into X.21 mode.

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

When using NETcontrol with a VP-PRO TCP/UDP/IP, 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



Dialing Attempts

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

Dialing Delay

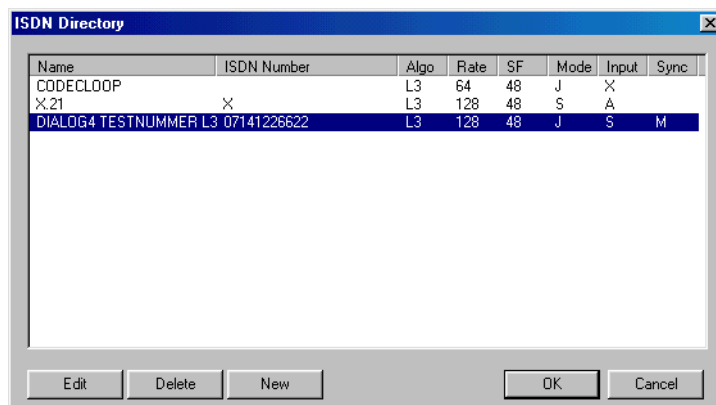
This menu item serves for setting the desired time between the dialing attempts. You can select between 10 ... 60 seconds.

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.

DATA INPUT

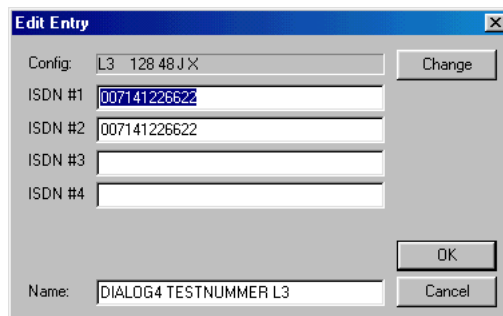
Select DATA INPUT from the MAIN MENU.



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

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.

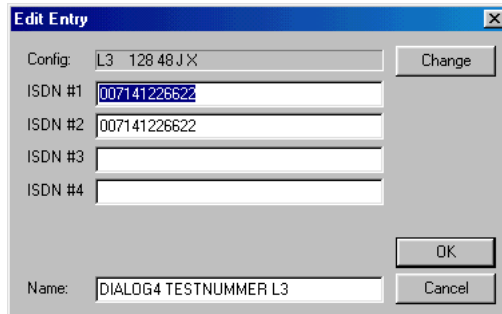


Depending on the number of ISDN modules, the possible input fields are displayed white. Click onto the field to activate the entry. The positioning marker of the cursor flashes, when you can start to enter the number. Change over to other ISDN input field by pressing the tab key.

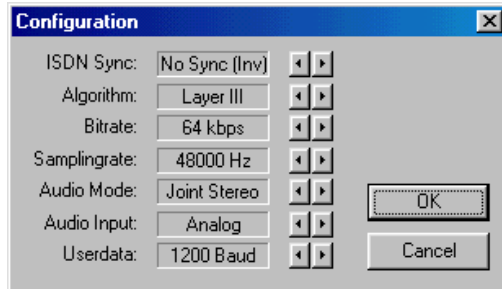
As soon as the ISDN numbers have been entered, you can assign a name to the recipient with as many letters as you like.

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 preset audio configuration, press CHANGE.

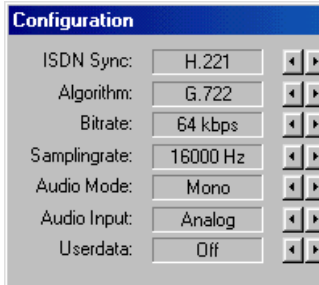


The configuration menu appears with the audio parameters, which are assigned to the present entry. By moving the arrows (left-right) you can alter the entries, similar to the ACCEPT CONFIGURATION.

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 Audio Codec Detection.

Confirm with OK.

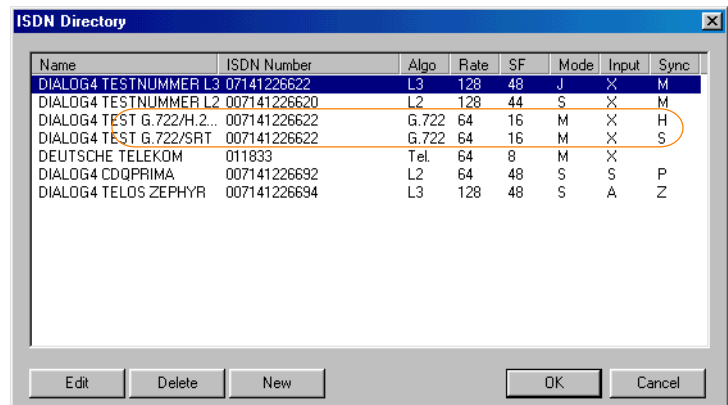
G.722 with H.221 or SRT SYNC



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.

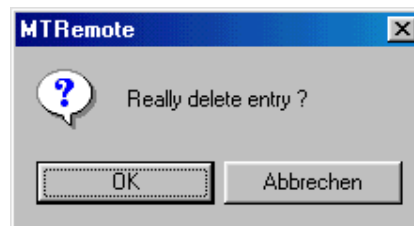
Press OK to leave the menu. Now H=H.221 or S=SRT is displayed in the directory for the selected SYNChronisation procedure.



Delete Recipient

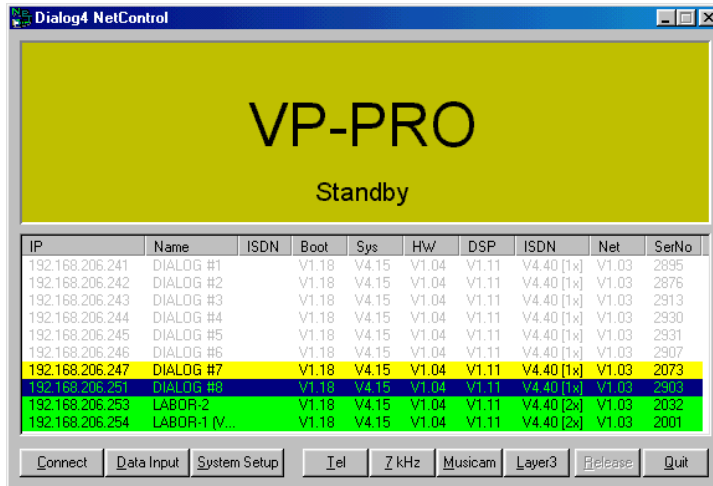
Click with the left mouse button onto the entry in the ISDN directory which you would like to delete. The entry is displayed invertedly.

Deletion takes place after confirming with the OK button.



Connect Connection Establishment

CONNECT The respective ISDN connection can be established quickly and easily.

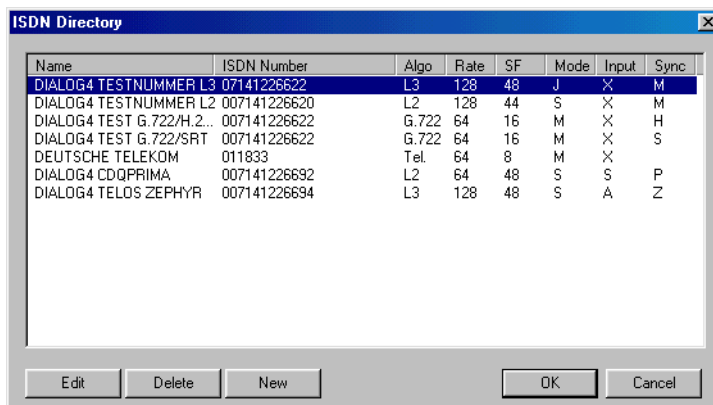


Connection Establishing by Using the Telephone Book (ISDN Directory)



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

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.

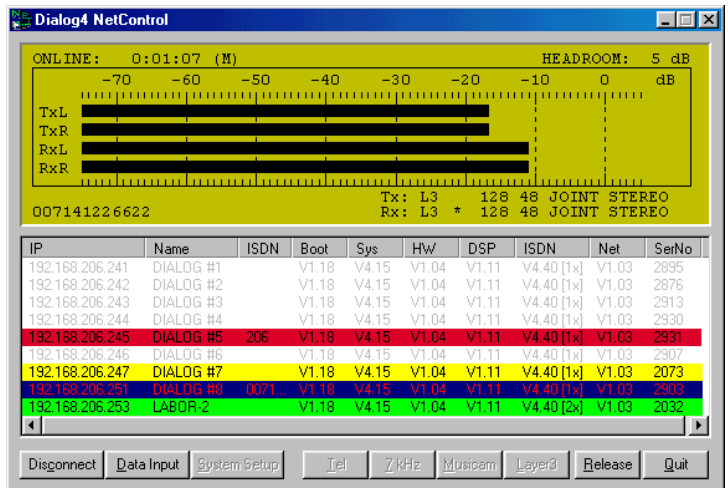
Select your desired partner from the list with the left mouse button. The selected connection partner is displayed invertedly. Confirm the connection establishment with OK.



The connection will be now established.

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 'CALL REJECTED' and describes in the display the reason for the failure. (pages 31-33).

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.

Scrolling Border

By simultaneously pressing the buttons STRG+ALT+V it is possible to interrogate the software versions and serial numbers of the connected units.

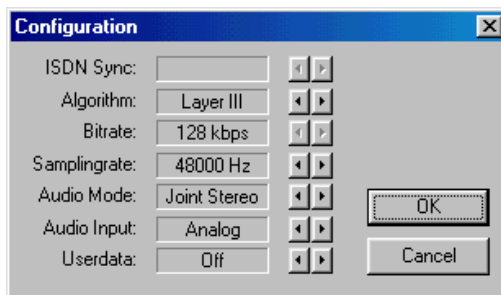
Connection Establishment

✦ SYNC Symbol

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

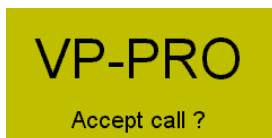
The SYNC display only appears, if the connection is established between MusicTAXIs, not if it is established to competitor's codecs.

If the DATA INPUT key is pressed during a connection, the configuration menu is displayed without line disconnection. It provides the following possibilities:



Call Acceptance in Standby Mode

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 ensures audio transmission.



Release

An existing connection can be put on hold for another network partner by pressing the RELEASE button. The following is displayed:



IP	Name	ISDN	Boot	Sys	Hw	DSP	ISDN	Net	SerNo
192.168.206.241	DIALOG #1		V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2895
192.168.206.242	DIALOG #2		V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2876
192.168.206.243	DIALOG #3		V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2913
192.168.206.244	DIALOG #4		V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2930
192.168.206.245	DIALOG #5		V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2931
192.168.206.246	DIALOG #6		V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2907
192.168.206.247	DIALOG #7		V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2073
192.168.206.251	DIALOG #8	0071412...	V1.18	V4.15	V1.04	V1.11	V4.40 [1x]	V1.03	2903
192.168.206.253	LABOR-2		V1.18	V4.15	V1.04	V1.11	V4.40 [2x]	V1.03	2032

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

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 (pls. s page 11).

To activate the X.21 interface, edit a new entry in the ISDN DIRECTORY and select an 'X' for the ISDN number.

CODEC LOOP

The operation mode CODEC LOOP serves as a test for the coded audio signal (without ISDN connection). Here the incoming audio signal is first coded and then transmitted via decoder to the output.

The connection in CODEC LOOP mode is established either via TELEPHONE DIRECTORY, although the selected entry is empty, with no ISDN number.

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.

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 Disconnection

Connection Establishment by Using the Direct Dial Keys



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.

A dialog box titled 'Enter ISDN Number' with a close button (X) in the top right corner. It contains four input fields labeled 'ISDN #1', 'ISDN #2', 'ISDN #3', and 'ISDN #4'. The 'ISDN #1' field contains the number '33'. To the right of the input fields are two buttons: 'OK' and 'Cancel'.

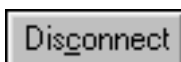
The input menu asks for the ISDN number to be entered using the numeric keypad as usual. Dialing is initiated by pressing the ENTER key.

Attention

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.
When entering three or four ISDN numbers, the same parameters are applied. The data rate is then 192 or 256 kbps.
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.

Disconnection

An existing connection is ended by pressing the DISCONNECT button. After disconnection the message



'REMOTE DISCONNECT'

appears on the display your connection partner.

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

Error Codes	Possible Cause	Test/Correction Point
<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/Correction Point
<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/Correction Point
<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"> • 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.

Scope of Delivery Software NETControl Version 1.01
1 x 3.5-Floppy-Disk

Manual for NetControl V1.01

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.

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

DIALOG4