



Manual V2000/V4.24

DIALOG4

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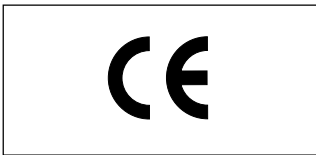
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The certification Body of the TÜV Management Service GmbH certifies that DIALOG4 System Engineering GmbH, Ludwigsburg, has established and applies a quality system for Research & Development of MPEG related hard- and software products for the professional 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 CTAXI is designed according to protection class I (EN 60950/ VDE 0805/IEC 950). It is manufactured according to the electro-technical regulations and fulfils the regulations for preventions of accidents 'Electrical Systems and Materials' (VBG4, §5 paragraph 4).



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



The CTAXI is designed according to the EMC directive, 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 CTAXI 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.

Description The CTAXI is a portable recording device, robust, with no movable parts. Is used for mobile sound recording with the possibility to edit the recording by using the wave form editor and to transmit the recording via ISDN to real-time codecs. Replaces tapes, DAT or tape recorders.

A special feature is the ability to do live transmission including returning channel.

Climate Reliable operating temperature: -10 to 45 degrees Celcius
Relative Humidity: 30 – 90%

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

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

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 parts there of are not to 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.

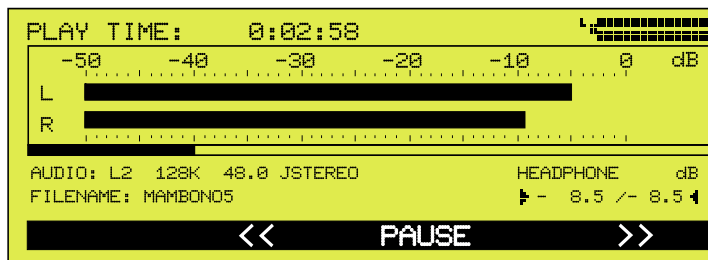
Due to the further development for product improvement of the present series units and alterations of certain industrial parts, it cannot be avoided that some parts may not be fully compatible.

Getting Started

Front Side / Graphical Display / Keypad

Graphical Display Module

with integrated LCD controller.
Display screen: 31 x 84 mm
192 (horizontal) x 64 (vertical) dots



Multifunctional Buttons



The functions appear on the display, for e.g. Play, Pause, Stop, Sort, Mark, Add, Remove, Cut, Save, Cancel, cursor movement (LEFT/RIGHT, UP/DOWN).

Multifunctional Shuttle Wheels



Multifunctional shuttle wheels with the possibility to:

- press and
- rotate.

- 1 Display and adjustment of the input level setting.
Start and end markers position adjustment in EDIT mode
- 2 Cursor movement (such as UP/DOWN)
Play, Pause, Enter
Positioning of play cursor
Display and adjustment of the SEND/RETURN level setting.
- 3 Display and adjustment of the headphone level setting.



- TIME changes the display of title lengths.
- TEL activates the G.711 algorithms.
- COPY copies or inserts a telephone number.

- ← moves the cursor to the left.
- PLAY opens the disk directory for playback.
- PGUP moves the cursor in the menu upwards.

- ⇒ moves the cursor to the right.
- SEND starts the transmission function.
- PGDN moves the cursor in the menu downwards.

- EDIT starts the editing function.
- DEL deletes the marked number or letter.



- ◐ ◑ contrast setting of display.
- A,B,C... enter letters of the alphabet and special characters.
- 0,1,2...9 enter a number from 0 ... 9.



- INDEX jumps to the next INDEX mark.
- PLAYLIST opens the play list editor.
- EDITOR *
- * to replace the "X" for X.21 connections and to enter the sub-address of an ISDN number.



- HANG UP disconnection.
- CANCEL cancels the last action.



- SHIFT to switch over the multifunctional buttons to the edit mode.
- REC prepares/starts recording.
- SET INDEX to set the INDEX markers in RECORD mode.



- ENTER to confirm the actions carried out and the menu items selected.
- STOP/EXIT to stop recording/playback or send, to exit the menu items.

Getting Started

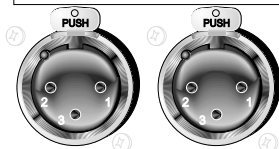
Right Side / Audio Interface Connections



Balanced Audio Input

NOTICE: INPUT LEVEL ADJUSTMENT VIA MENU

STEREO MIC/LINE INPUT



LEFT

RIGHT

Level Range: +12.0 dBu ex factory.
Adjustable from -4 to +18 dBu.

Input Impedance: ≥ 10 kohms

MIC Input: -32.0 dBu ex factory. When MIC Gain is switched ON: -52 dBu.
Attention: Do not use microphones with Phantom Power.

Input Impedance: ≥ 2 kohms

Connector: XLR (female)

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

Balanced Audio Output

NOTICE: OUTPUT LEVEL ADJUSTMENT VIA MENU

STEREO OUTPUT



LEFT

RIGHT

Level Range: +12.0 dBu ex factory.
Adjustable from -4 to +18 dBu

Output Impedance: < 50 ohms

Connector: XLR (male)

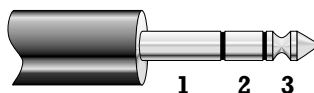
Pin	1	2	3
Assignment	GND	OUT (+)	OUT (-)

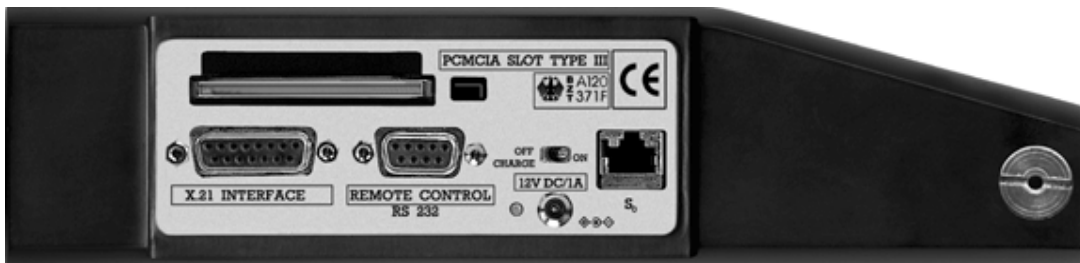
Headphone Output, Stereo



Connector: 6.3 mm stereo jack socket.

Ring	1	2	3
Assignment	GND	OUT R	OUT L

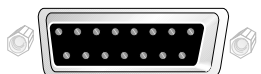




PCMCIA SLOT TYPE III

To be used for ATA FlashCards (from SanDisk)
type: 16, 32, 48, 64 and 85 MB

Serial Synchronous Interface



X.21 INTERFACE

For the transmission of encoded audio data to an external data transmission unit, e.g. terminal adapter or satellite MODEM.

Transmission Rate: 32 kbps to 128 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

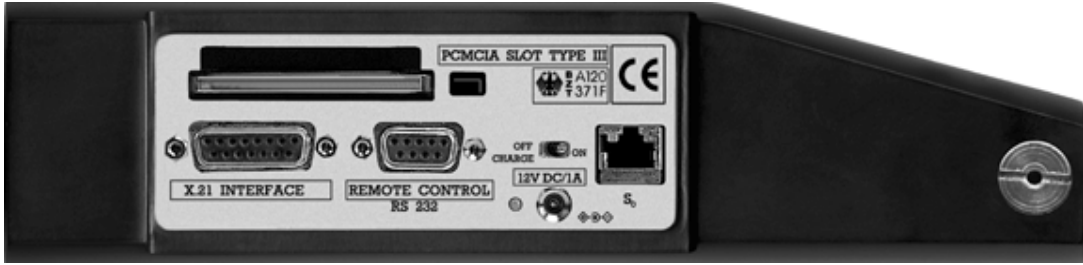
Pin	11	12	13	14	15
Assignment	Rx (b)	IND (b)	CLK (b)	NC	NC
Function*	I	I	I		

* relating to CTAXI

O=output **I**=input

Getting Started

Left Side / Data Interface Connections



Serial Asynchronous Interface RS232



For software update of the CTAXI from an external PC.

Format RS232: 9600 baud
8 data bits
1 stop bit
no parity

Connector: 9-pol Sub-D

Pin	1	2	3	4	5
Assignment		RC_Tx	RC_Rx		GND
RS232		■	■		■
Function*		O	I		

Pin	6	7	8	9
Assignment		CTS	RTS	
RS232		■	■	
Function*		I	O	

* relating to CTAXI

■ =do not assign! ■ =assigned O=output I=input

Standardised Connection to ISDN Network



Transmission Rate: 64 or 128 kbps
D-Channel Protocol: Selectable over CONFIGURATION

Connector: RJ45

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

Power Supply Connection



Voltage: 12 V DC, 1A

The CTAXI can be powered by an external MAINY power supply unit (NIEFS, type 003 90291)

Pin	Center Pin	Ring
Assignment	+	-

Power Supply Switch



Unit switched	Source	Connected/Inserted	LED lights
ON	MAINY	Yes	GREEN
	Battery	Yes/No	
OFF	MAINY	Yes	
	Battery (fully charged)	Yes/No	
OFF/CHARGE	MAINY	Yes	ORANGE
	Battery (discharged)	Yes	
ON/OFF	MAINY	No	NOT
	Battery	Yes	

Mains Power Supply

NIEFS with Euro Plug (included in scope of delivery)

Input Voltage: 230 V

Range of Capacity: 12 VA

Output Voltage: 12V

Frequency: 45 – 65 Hz

Protection Class: II

Protection Type: IP 54

Short Circuit: unlimited

Battery Box

Up to two Li-ion battery packs can be fitted into the battery shaft and these are additionally secured with a plastic clip. Please ensure that the batteries are correctly inserted taking note of the guide rails.

Please utilise only battery packs type BP-915 from Canon or identical battery models.

Attention!

Do not expose the battery pack to a temperature exceeding +60 °C. Before using the batteries we strongly recommend that you first read the battery pack instructions carefully.



The operating duration in mixed operation with two fully charged batteries is approx. 1.5 hours.

The CTAXI has an in-built loading station (pls. see explanation of the power switch position, above) so that an external loading station is not required.

Main Menu

Record Mode

Main Menu

After switching on the unit and after a brief initialising sequence the main menu of the CTAXI appears. The basic configuration is set ex-factory. The setting can be changed by opening the menu item CONFIGURATION on the main menu. Further information is found on page 33. Return to the basic configuration by operating the RESET CONFIG function as described on page 44.



By pressing the F3/F4 buttons select RECORD from the main menu and confirm with the ENTER button. You can do the same by operating the middle shuttle wheel: turn left or right to move UP/DOWN, press to confirm (ENTER function).

Record Mode

In this operating mode the CTAXI is used as a recording unit.



Additionally, INDEX markers can be set during recording to locate certain positions within a file during playback and for further processing at a later stage. Additional information on INDEX markers is found in the editing mode (please see page 21).

Please note

Beware of the display message !! NO CARD !! (top center). Should the following message also appear instead of the online menu for record:



Please ensure that the PCMCIA PC card has been correctly inserted and press F1 (allocated for CANCEL) multifunctional button.

Pre-Record Mode

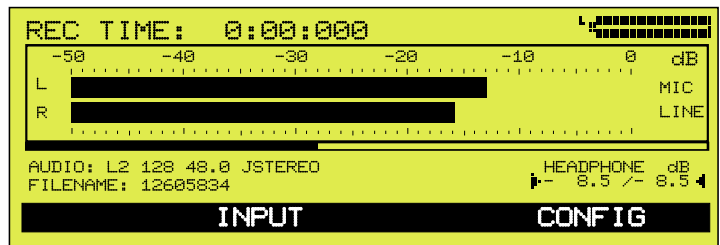
When pressing ENTER or respectively the REC button, the CTAXI goes into the pre-record mode.



The LED (red REC button) flashes. The set audio parameters (in the menu item CONFIGURATION) are shown on the display. If you wish to change the settings press the CONFIG button.

Further settings can be made with the multifunctional shuttle wheels.

Explanation of the Display Symbols in the Pre-Record Mode



REC TIME

Shows the recorded time.

REM TIME (Remaining Time)

Displays the remaining recording time on the PCMCIA card. (Can be selected with the TIME button.)

L
R

Audio input level for the left (L) or respectively right (R) channel.



The cursor beam indicates the remaining storage space on the PCMCIA card.

MIC
LINE

Displays the newly set audio inputs. Changes are made using the F2 button (INPUT).

AUDIO

Displays the newly set audio parameters. Can be changed with the F4 button (CONFIG).

FILENAME

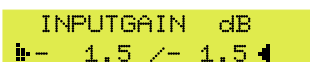
Allocated file name. Can be changed when saving the recording.

HEADPHONE

Headphone volume control is altered using the shuttle wheel #3.

INPUT GAIN

Input gain adjustment using the shuttle wheel #1.



Further information on level adjustment is found on page 36 (AUDIO INPUT).

Record Mode

Functions of the Shuttle Wheels



- 1** The left or right channel input sensitivity can be set (individually or globally) for optimal level control. The levels are adapted in the range from -50 dB to +12 dB (0 dB is the neutral value).

Press: To determine whether the level setting should take place on the left / right or both channels together (indicated by the arrows ►/◄).

Rotate: To set the desired level.

Please note For the inputs depending on the selected audio input LINE or MIC, a separate gain setting is possible.

- 2** No function to date.

- 3** To set the headphone volume.

Press: Define whether the level setting should take place on the left, right or both channels together (indicated by the arrows ►/◄).

Rotate: Setting of the desired levels. The level can be set between -25 and 0 dB.

Function CONFIG To change the current audio parameters. Please see page 33.

Function INPUT To change the currently selected audio input. Pls.s.pg. 36.

Start Recording You can now begin recording. Press the REC button. The red LED changes from blinking to being lighted.



Files stored onto FlashCards can be recorded in Layer 2 or Layer 3, however, in the editing program only Layer 2 files can be processed. When the editing program is called up, only Layer 2 files are displayed and can then be played back and edited. These can, of course, be processed using other professional editing systems (please see also the EDIT MODE/INDEX Markers, page 21).

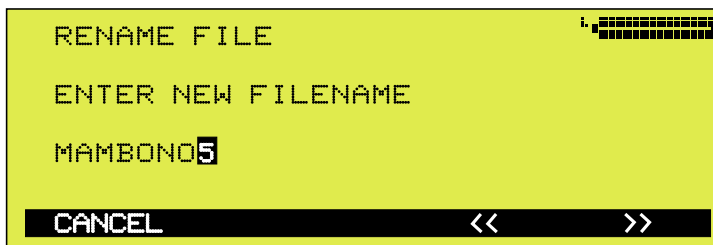
Files which are initially recorded onto FlashCards, processed and then transmitted via ISDN in realtime, may not be recorded at a data rate of more than 128 kbps.

Adjustments to the input gains and headphone volume can now also be carried out using the shuttle wheels.

Press the F3 button should the recording be temporarily stopped. When the PAUSE function has been activated, the active word PAUSE flashes continuously on the display.

To continue recording press F3 again, to save the recording press the F1 button.

Saving Recordings

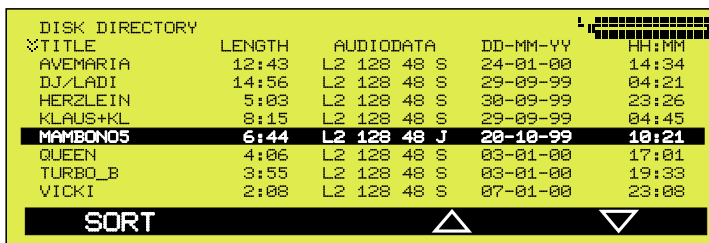


Firstly, a suggested name is displayed. This can be overwritten as desired (with up to 8 characters) using the 10 digit keypad. The active field is indicated by the cursor. Using the F3 and the F4 buttons, change the position of the cursor. Confirm the entry using the ENTER key. The title is saved and entered in the DISK DIRECTORY.

Should you not wish to save the new title, press the F1 button (CANCEL). The following warning is displayed:

RECORDED FILE WILL BE DELETED!
PRESS OK TO CONFIRM

Sort Recordings



This function is found in the PLAY mode, in the menu item UTILITIES / VIEW DIRECTORY (please see page 43). The title can be reorganized with the assistance of the F1 button (SORT). A double arrow (↔ or ⇄) points to the desired sort category which is either according to the name alphabetically or according to the recorded date, with ascending or descending values.

Here, the F3/F4 buttons move the cursor up and down.

Play Mode

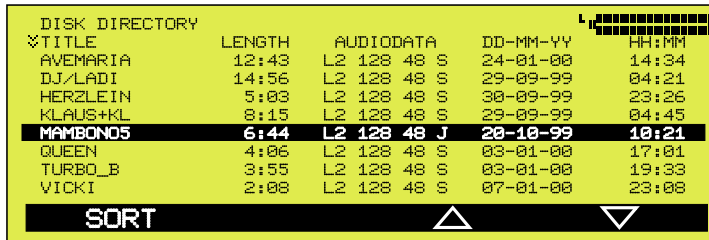
PLAY Mode



In this operational mode the CTAXI is used as a playback unit. Classical functions such as PLAY, PAUSE, FAST FORWARD or FAST REWIND can be carried out.



The previously saved recordings are listed in the DISK DIRECTORY with TITLE, LENGTH, AUDIODATA, DATE and REC time.



Explanation of Display Symbols



PLAY TIME

00:00:00 (playback not started). Otherwise the length of actual playtime is displayed.



The same display function is found in the cursor beam below.



By pressing the TIME button in the standby mode the total length of the title can be viewed. During playback the already played time and remaining play time can be alternatively interrogated.

AUDIO, FILENAME, HEADPHONE

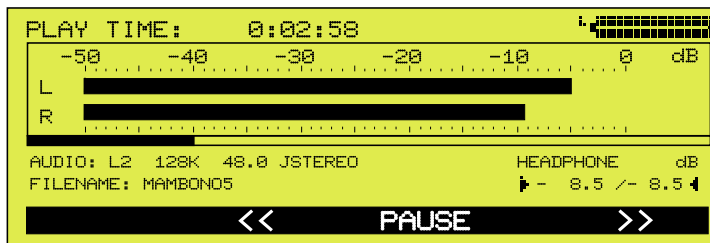
The same function as in the RECORD mode.

OPEN

F1: Return to the DISK DIRECTORY to select another title for playback.

PLAY

F3: Starts playback.



PAUSE

F3: When this function is active, the PAUSE characters flash continuously.

« and »

F2/F4: Backwards or forwards. With these buttons, the position of the playback is determined (in 10 second steps).



Stop the playback with STOP/EXIT and exit the PLAY menu item.

Functions of the Shuttle Wheels



- 1 No function to date.
- 2 Rotate: By turning the second shuttle wheel you can determine the desired start position of the playback (in 1 second steps).
Press: PLAY or PAUSE
- 3 Rotate: Headphone volume control.
Press: Switch over to the left or right side or both sides together (indicated by the arrows ►◄).

Editing Mode

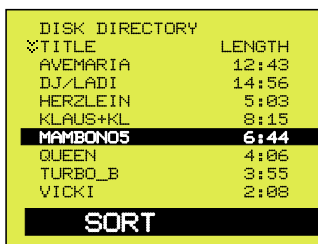


In this operating mode the Layer 2 recordings can be processed. Please note: Layer 3 recordings and playlists cannot be edited.



Beware of the display message !! NO CARD !! (top center). Otherwise the following error message will be displayed:

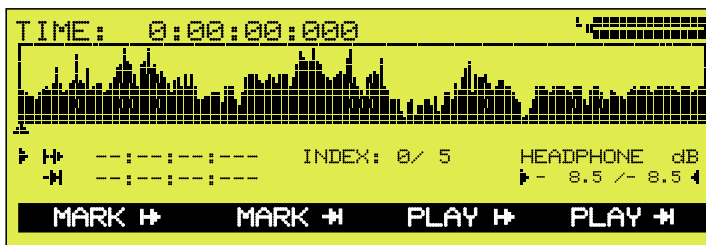
NO PCMCIA CARD AVAILABLE
NO PLAYABLE LAYER2 FILE FOUND!



Please ensure that the PCMCIA PC card has been correctly inserted into the hard disk drive and that the Layer 2 data is available.

Press the ENTER button to open the DISK DIRECTORY. By using the F3 (▲) and F4 (▼) buttons select the title to be edited. After confirming with the ENTER button the wave form display appears.

Explanation of Display Symbols



TIME

Displays the current position and played time. By pressing the TIME button the remaining time (REM) is displayed.

Play Cursor



Shows the current playback position.

MARK




F1: Positions the start marker (S) on the current position.

MARK



F2: Positions the end marker (E) on the current position.

PLAY  F3: Starts the playback from the start marker and stops after 3 seconds.

PLAY  F4: Starts the playback 3 seconds before the end marker and stops at the end marker.

Functions of the Shuttle Wheels





After the start and end markers have been positioned, the three shuttle wheels are again utilized.

- 1 Press: Select the start or end markers for precise positioning (an arrow shows which track piece should be reallocated)
Rotate: For precise positioning of the marker. The display is frame accurate.
- 2 Press: Play or Pause function
Rotate: Positioning of the play cursor
- 3 Press/ Rotate: Headphone volume control for each channel

With the INDEX button (playlist editor button) you can alternate between the display of the positioning markers and the title data (audio parameters and file name).

Removing the Editing Markers

When pressing simultaneously:

DEL + F1 (MARK ) removes the start marker or
DEL + F2 (MARK ) deletes the end marker.

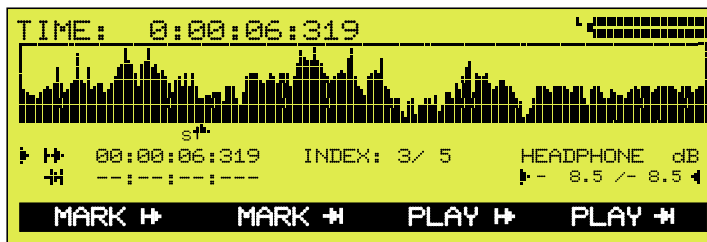
INDEX Markers

As described in record mode, this function is for the easier tracing of certain positions within a file, and for further processing at a later stage the CTAXI (the CUT function) or using other audio systems such as DigAS Digital Audio System from D.A.V.I.D. GmbH. These files, recorded in the BWF format, are fully DigAS compatible.

INDEX 3/5

In the following example, five INDEX markers are set during recording (by operating the SET INDEX button).

The INDEX function can be carried out during playback as well as in the PAUSE mode. The first digit (3) indicates the number of selected markers, the second digit (in this case 5) displays the total number of inserted markers.

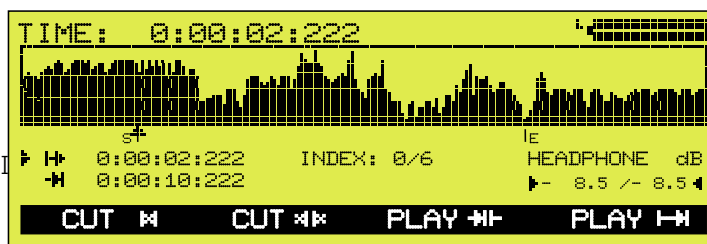


By pressing the INDEX button, the play cursor jumps continuously from one marker to the next. The position of the INDEX markers can be controlled by operating the 2nd shuttle wheel. The play cursor then jumps back to the selected marker. Playback (using the PLAY button) is then started from this marker. Should the 0 (zero) INDEX marker be selected, then the start position is set at the very beginning of the track.

The INDEX markers are also useful when setting the editing markers.

Cut OUT

Once the positioning markers have been inserted, editing can be started. Press the SHIFT button. A new operational border is displayed.



In this example a start marker after 2:222 seconds and an end marker after a further 8 seconds has been inserted.

PLAY ⇄

F3: This PLAY OUT button plays back a continuous sequence of 1.5 seconds before the start marker, and 1.5 seconds after the end marker.

PLAY ⇄⇄

F4: This PLAY IN button plays back the entire interval between the start and the end markers.

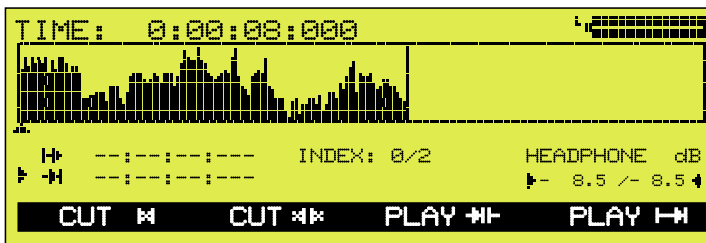


When pressing the F2 button the audio signal before the start marker and after the end marker is deleted and the

interval between the START and END markers is saved as new track.

Now you have to enter a new file name or cancel the editing action.

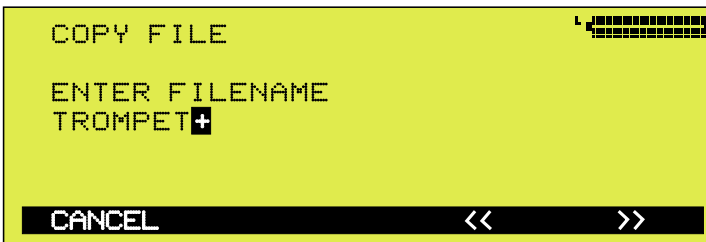
After confirming the new file name with the ENTER button, the newly edited track appears on the display.



Cut IN

Once the Start/End positions have been defined, press the F1 button to produce a new cut. The intervals before the START and after the END markers are included in the cut but this time the interval in between is deleted.

The remaining data is saved as a new track.



Confirm the new file name with the ENTER button.

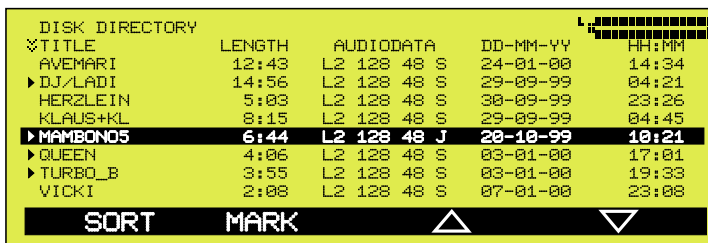


Similar to the CUT OUT operation, the INDEX markers between the CUT markers are kept.

Leave this menu item by pressing ENTER.

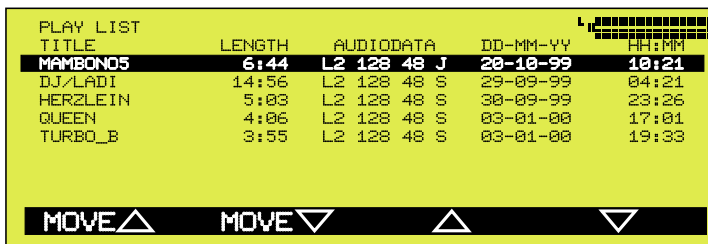


The function PLAYLIST EDITOR is accessed from the main menu or by pressing the PLAYLIST button. Next, the DISK DIRECTORY appears.



Select with the F2 (MARK) button the tracks which should be included in the playlist. By pressing this button again the selection is cancelled.

Once the tracks have been selected press the ENTER button. The new playlist appears. The sequence of titles is according to the order of selection.



Alternation of the Sequence

With the F3 (▲) and F4 (▼) buttons move the cursor beam to the desired title, with the F1/F2 (MOVE▲/▼) buttons you have the possibility to change the sequence of titles.

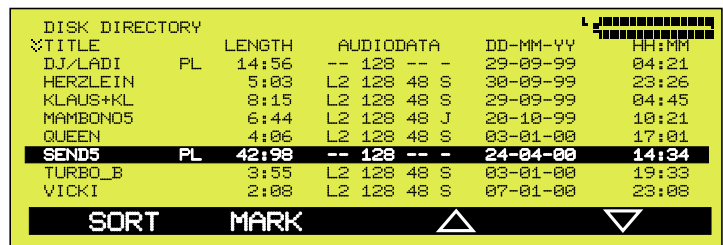


By pressing the SHIFT button ADD and REMOVE is now displayed on the border below instead. With ADD (F1) you can enter a desired title to the playlist and with REMOVE (F2) delete a title from the playlist.

To save the playlist, allocate a name to the list.



The playlist is displayed in the disk directory with the marker 'PL'.



It is essential that all titles in a playlist be identical according to algorithms, data rates and sampling frequencies.

Should certain titles be inserted or removed afterwards from the playlist, open the list in PLAYLIST EDITOR where the functions ADD and REMOVE are again displayed.

Send and Live Mode



In this operating mode, the completed cuts can be sent to a MusicTAXI or sent as a live transmission.



Connection Establishment

Once connection has been established, you have the possibility of cuts:

- from the FlashCard
- live using the microphone input
- from an external audio unit (such as CD player) using the Line input
- using all of the above mentioned areas to merge the audio and

to send.

The ISDN distribution can then be monitored using the headphones and recorded using the audio outputs.

Move into the TELEPHONE DIRECTORY by pressing the SEND button (please also see page 48).

NO.	NAME	ISDN	PARAMETER
1	DIALOG4	07141226622	L3 128 JS 48 M
2	VOXMARS	08888855555	L3 128 S 48 =
3	OFFICES	08362542542	L3 128 DM 48 -
4	BILLY_B	07777714141	TE 64 M 8
5	CELINNE	00406969699	L3 128 JS 48 M
6	CARD_EX	520	L3 128 JS 48 M

EXIT EDIT ▲ ▼

The abbreviated name of your connection partner, as well as the ISDN number and the pre-selected audio parameters (s. page 33) and the ISDN SYNC (s. page 41) of the partner codec assigned to each entry, are displayed.

Select the partner to whom you would like to send the track. By pressing the F2 button (EDIT) you can now enter the ISDN number of a new connection partner, or the set parameters can be changed.

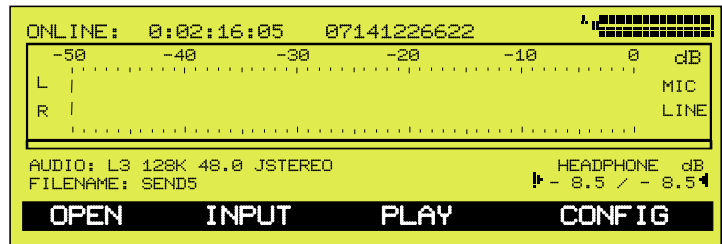


Press the ENTER button to dial.

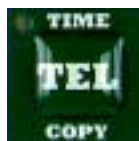
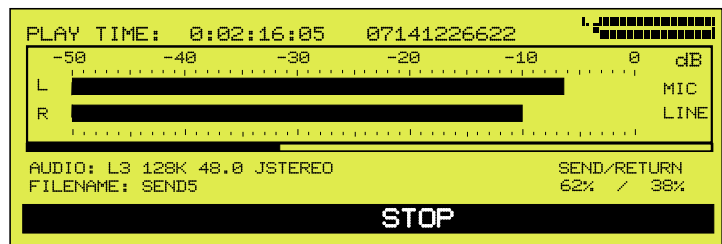
If the requested connection is rejected an error message will be displayed. A list of the ISDN error codes, as well as the possible cause and test/correction points can be found on pages 51-53.

After successful synchronization, the CTAXI moves into the online menu.

Press the F1 button to open a track or a playlist in the DISK DIRECTORY



Once the track has been opened the name is displayed in the line for the FILENAME. The PLAY function is now activate and you can begin ISDN transmission using the F3 button.



The entire ONLINE time, the transmission time (PLAY TIME) and the remaining transmission time (REM. TIME) can be displayed alternatively during ISDN transmission. Use the TIME button to change between displays.

Once the ISDN transmission has been completed you can begin to send other tracks from the DISK DIRECTORY without line disconnection.

Disconnection

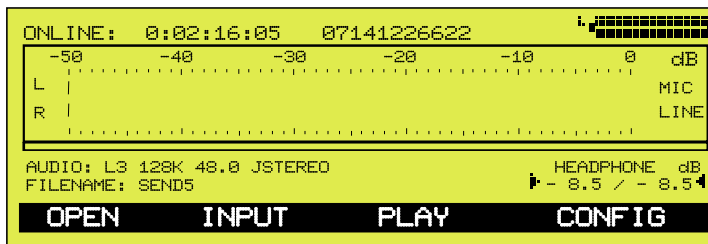
An existing connection is cancelled or disconnected by pressing the HANG UP button. After pressing the HANG UP button, the LED flashes continuously. To disconnect, the HANG UP button must be pressed again within 10 seconds.



After disconnection the message 'LOCAL DISCONNECT' is displayed. Your connection partner sees the message 'REMOTE DISCONNECT'.

The CTAXI ends the connection and returns to the main menu.

Explanation of Display Symbols



ONLINE

Display of the connection time. Once a connection has been established, the ONLINE time counter will automatically start.

07141226622

Here as an example, display of the dialled ISDN number.



The cursor beam displays (only active in the transmission mode) the already transmitted as well as the remaining transmission time per track or per playlist.

OPEN

F1: From the disk directory, select the playlist or the track to be transmitted. The title is then entered into the line allocated for FILENAME.

INPUT

F2: Open the menu item AUDIO INPUT (pls. see pages 35-36). Ensure that the function MONO SWITCH is set to INPUT+OUTPUT.

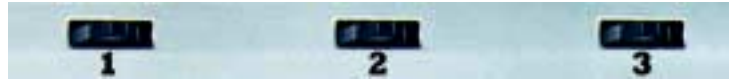
PLAY/STOP

F3: To start/stop the ISDN transmission.

CONFIG

F4: Open the menu item AUDIO DATA DECODER (pg. 33)

Functions of the Shuttle Wheels



- 1** The left or right channel input sensitivity can be set (individually or globally) for optimal level control. The levels can be adapted in the range from -50 dB to +12 dB (0 dB is the neutral value).

INPUTGAIN dB
 ▬ - 1.5 / - 1.5 ▬

Press: To determine whether the level setting should take place on the left, right or both channels (indicated by the arrows ▶/◀).

Rotate: To set the desired level.

Please note: For the inputs, depending on the selected audio input LINE or MIC, a separate level gain setting is possible.

- 2** To select the output signal level. The setting takes place on a percentage basis.

SEND/RETURN
 62% / 38%

Press: Selection of the SEND/RETURN volume setting.

Rotate: To set the desired level.
 100% SEND / 0% RETURN - only the sent signal can be heard.
 0% SEND / 100% RETURN - only the signal of the partner unit can be heard.
 50% SEND / 50% RETURN - both signals are merged and are heard proportionally equal.

- 3** To set the headphone volume

HEADPHONE dB
 ▬ - 8.5 / - 8.5 ▬

Press: To select the headphone volume. Determine whether the gain level setting should take place on the left, right or both channels together (indicated by the arrows ▶/◀).

Rotate: To set the desired level. A setting of between -25 dB and 0 dB is possible.

Settings for ISDN Transmission

Layer 3 is always used in the ISDN transmission mode. It does not play a role during mixed operation (for example live broadcasts together with playback files from a Flash Card) when files from a FlashCard in Layer 2 are utilised.

The CTAXI functions with a samplingrate of 32 kbps. This can not be altered.

For ISDN transmissions, please take note of the following settings pertaining to your own and partner codecs:

CTAXI to MusicTAXI	CTAXI to CDQPRIMA
Algorithm: Layer 3	Algorithm: Layer 3
Bitrate: 64 and 128 kbps	Bitrate: 64 kbps
Samplingrate: 32 kHz	Samplingrate: 32 kHz
Audio Mode: M, DM, S, JS	Audio Mode: Mono
ISDN Config.: MusicTAXI	ISDN Config.:
	No Sync invers
CTAXI to Telos Zephyr	
Algorithm: Layer 3	
Bitrate: 64 kbps	CTAXI to telephone
Samplingrate: 32 kHz	Algorithm: G.711
Audio Mode: Mono	Bitrate: 64 kbps
ISDN Config.:	Samplingrate: 32 kHz
No Sync invers	Audio Mode: Mono

X.21 Operation

In the operating mode X.21, MPEG data is transmitted and received via the X.21 interface. The network clock has to be identical to the bitrate, entered in the CONFIGURATION menu (pls. see page 34).



To activate the X.21 interface, edit a new entry in the TELEPHONE DIRECTORY and select an 'X' for the ISDN number using the STAR button (*).

CODEC LOOP

The operating 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. A connection in the CODEC LOOP mode is established either via the TELEPHONE DIRECTORY. Set the audio configuration as desired but with no ISDN number. You may allocate a name to the entry if desired. During the test, the name CODECLOOP is displayed.

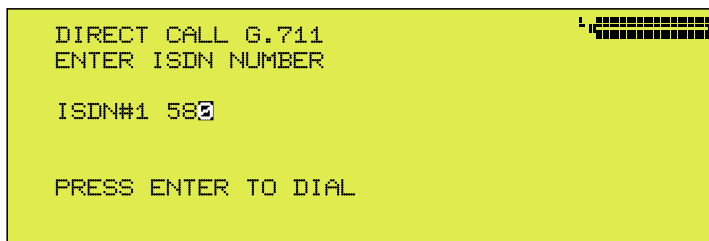
Status Messages

In the online menu the following messages can be displayed:

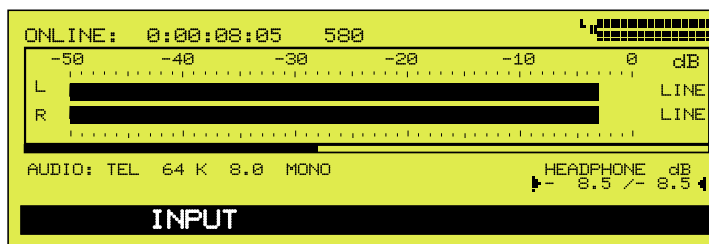
Status Messages	Possible Cause
• NO X.21 CLOCK	No X.21 clock was determined.
• ILLEGAL X.21 CLK	The measured X.21 clock does not correspond to a ISO data rate.
• DSP TIMEOUT	On access to the DSP there is no confirmation message.



In this operating mode, the CTAXI is used as a telephone apparatus. The G.711 connection can be established using the TEL DIRECTORY (by selecting an entry configured in TEL) or by operating the TEL button. Should this function be activated using the TEL button, the LED flashes continuously.



The entry menu queries the ISDN number which is then, as usual, entered using the numerical buttons.



The connection establishment is initialised by pressing the ENTER button. The connection parameters for the TEL algorithm are defined as follows: bitrate: 64 kbps, sampling rate: 8 kHz, audio mode: mono.

Using the F2 button (INPUT) go to the menu item AUDIO INPUT, where the desired audio input can be altered.

Disconnection



An existing connection can be cancelled or disconnected using the HANG UP button. When pressing the HANG UP button, the LED flashes continuously. To disconnect, the HANG UP button must be pressed again within 10 seconds.

After disconnection the message 'LOCAL DISCONNECT' is displayed. Your connection partner sees the message 'REMOTE DISCONNECT'.

System Configuration

Default Presettings in System Configuration Ex-factory

CONFIGURATION	
AUDIO DATA ENCODER	
ALGORITHM	Layer 3
BITRATE	128 kbps
SAMPLINGRATE	32.000 Hz
AUDIO MODE	Joint Stereo
AUDIO INPUT	
AUDIO INPUT	LINE L/R
MIC GAIN	OFF
LOW CUT	OFF
MONOSWITCH	OFF
FILE FORMAT	BWF
TIME/DATE	no entry
LED BACKLIGHT	ALWAYS ON
ISDN CONFIGURATION	
DIALING	
DIALING ATTEMPTS	1
DIALING DELAY	10 s
REDIALING ATTEMPTS	0
INCOMING CALLS	
ACCEPT CONFIGURATION	
ISDN SYNC	MusicTAXI Sync
ACCEPT TEL. CALLS	ALWAYS
ACCEPT MPEG CALLS	ALWAYS
TEST CALLED NUMBER	OFF
ISDN SETUP	
LOCAL NUMBERS	no entry
ISDN PROTOCOLL	ETSI
LINE I/O LEVEL ADJUSTMENT	
LEFT	+12.0 dBu
RIGHT	+12.0 dBu
HEADPHONE LEVEL ADJUSTMENT	
LEFT	-15.0 dB
RIGHT	-15.0 dB
INPUT GAIN LEVEL ADJUSTMENT	
LEFT	0 dB
RIGHT	0 dB
SEND/RETURN LEVEL ADJUSTMENT	
SEND	0 %
RETURN	100 %

Configuration

By pressing the F3/F4 buttons select CONFIGURATION from the main menu and confirm with the ENTER button.



You can do the same by operating the middle shuttle wheel: Turn left or right to move UP/DOWN, press to confirm (ENTER function).

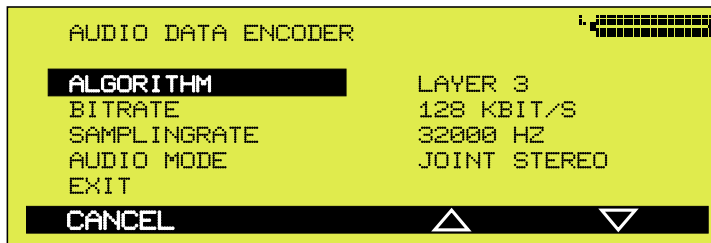
Encoder



The presettings used for RECORD and SEND are next defined.

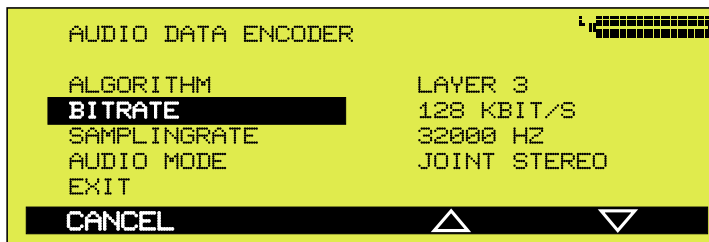
Algorithm

In the menu item ALGORITHM you can choose for the data reduction procedure between Layer 2 and Layer 3.



Please note Layer 3 files cannot be edited.

Bitrate The menu item BITRATE serves for setting the desired data rate.



By pressing the ENTER button, you can change the values between: 8, 16, 24, 32, 48, 56, 64, 80, 96, 112, 128, 144, 160, 192, 244 and 256 kbps.

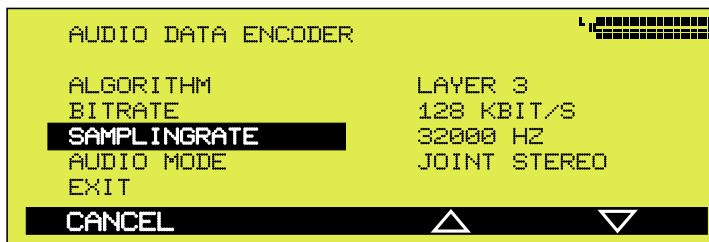
Please note For X.21 transmission the bitrate must correspond to the X.21 transmission clock (pls. s. page 30).

The following table displays the possible combinations of transmission rate and audio mode.

LAYER 3	Bitrate (kbps)	Audio Mode
	32	Mono
	40 ... 224	Mono + Stereo*
	> 224	Stereo*
LAYER 2	< 56	Mono
	56, 64	Mono + Stereo*
	80	Mono
	96 ... 192	Mono + Stereo*
	> 192	Stereo*

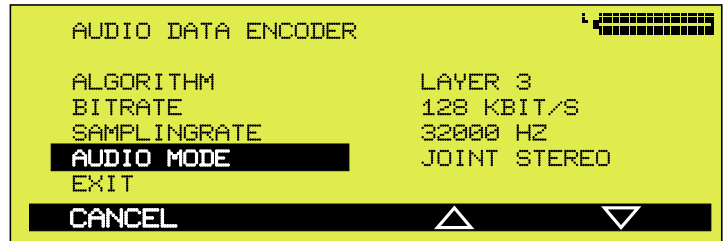
* Stereo Modes: Dual Mono, Stereo or Joint Stereo.

Samplingrate The CTAXI functions with a sampling frequency of 32 kHz. This can not be altered.



Audio Mode

The menu item AUDIO MODE serves for setting the desired recording parameters.



You can select between:

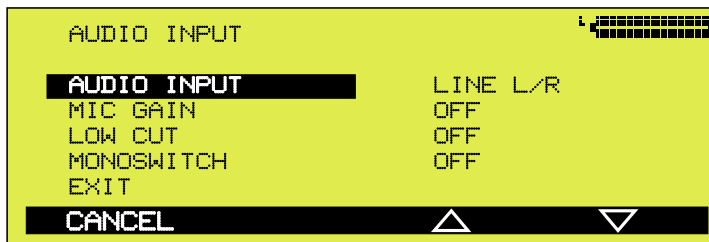
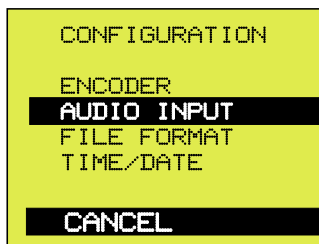
- | | |
|--------------|--|
| MONO | Mono signal. The left input is used |
| DUAL MONO | Two different signals which do not interfere with each other, e.g. one channel - O sound, one channel - translation |
| STEREO | In the same way as for DUAL MONO, each channel is coded separately. However, if on 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). |

Exit The new setting is confirmed with EXIT/STORE.

System Configuration

Audio Input

The menu item AUDIO INPUT serves to set the desired audio input.



By operating the ENTER button you can select between:
Line L / R Audio Input left + right,
MIC L / R Microphone left + right,
MIC L / LINE R Microphone left / Audio Input right,
LINE R / MIC L Audio Input left / Microphone right.

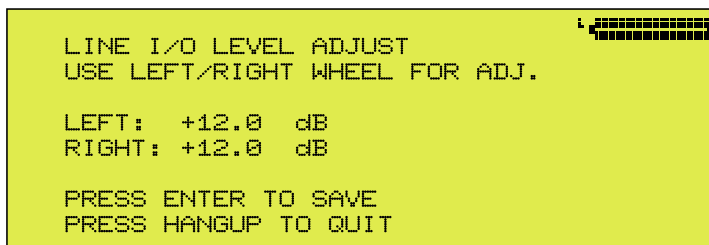
Attention

Do not use microphones with Phantom Power.

The presettings are described on page 10. For further information on additional levels in the RECORD mode, please see page 15.

I/O Level Adjustment

By simultaneously pressing the buttons 7 and 9, open the sub-menu (within the main menu) for entering the input and output levels. These can then adjusted with the shuttle wheels (1 and 3).



The following table displays the possible adjustment ranges:

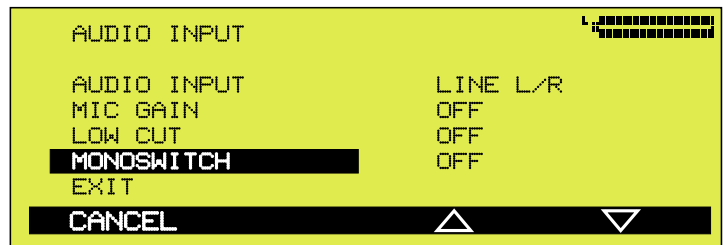
	INPUT	OUTPUT
LINE	-4 to +18 dBu	-4 to +18 dBu
MIC GAIN ON	-52 dBu	-4 to +18 dBu
MIC GAIN OFF	-32 dBu	-4 to +18 dBu

MIC Gain Here you can alter the amplification of the microphone input: LEFT, RIGHT, LEFT & RIGHT or OFF

When activated, the amplification of the corresponding channel is increased by 20 dB.

Low Cut High pass filter (-3 dB at 90 Hz), suitable as impact sound filter for microphone recordings. The setting is ON or OFF.

Monoswitch This function is only available in the SEND mode.



The settings are:

INPUT The left and right inputs are merged in equal proportions to create a mono signal. An example: Two microphones are connected, a stereo signal is played from the Flash-Card.

The monoswitch has to then be activated to ensure that the microphone is heard not only on the accompanying channel.

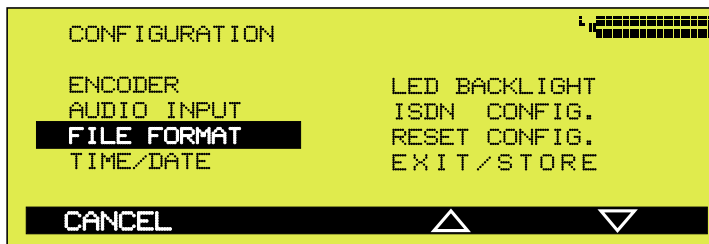
OUTPUT The left and right outputs are merged in equal proportions to create a mono signal. An example: Two headphones are connected on the left and right outputs, using an adapter. The monoswitch has to then be activated to ensure that both headphones receive the same signal.

INPUT+OUTPUT Both functions simultaneously.

OFF Not activated.

System Configuration

File Format



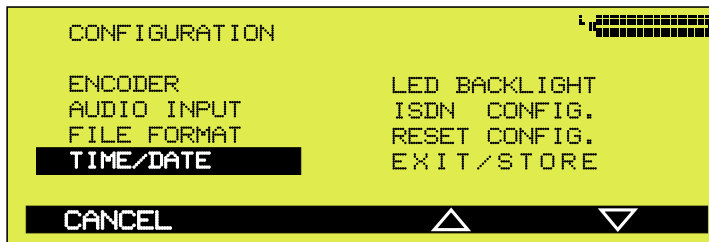
The menu item FILE FORMAT serves for setting the data format when saving the recorded tracks.

You can select between NORMAL (raw MPEG) and BWF (Broadcast Wave Format). (pls. see page 21).

Exit

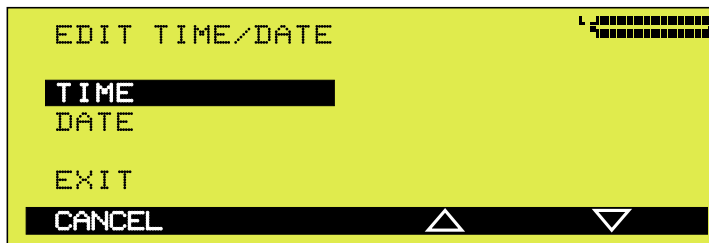
The new setting is confirmed with the EXIT function.

Time/Date



In the menu item TIME/DATE the time and date is set from an internal clock.

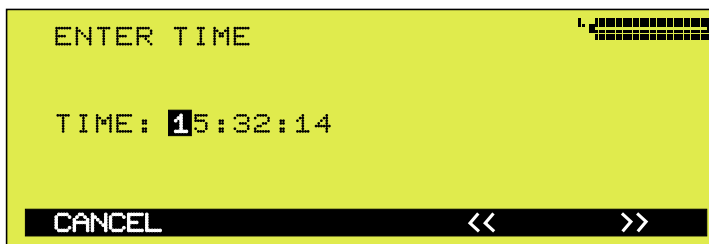
Edit Time/Date



The exact setting of the time takes place with the numerical buttons. To change between numerical blocks, operate the F3 or F4 multifunctional buttons.

Confirm the new setting with ENTER.

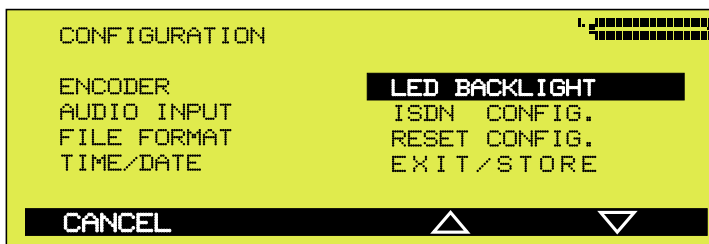
Set the current date (DD = Day, MM = Month, YY = Year) by operating the numerical buttons and the F3 or F4 buttons, as described in EDIT TIME.



Enter Date



LED Backlight



In this menu item press the ENTER button and set the display lighting:

ALWAYS ON	Lighting is always switched on
TEMP ON	When pressing down an optional button the lighting is temporarily switched on for approx. 30 seconds
OFF	The lighting is switched off

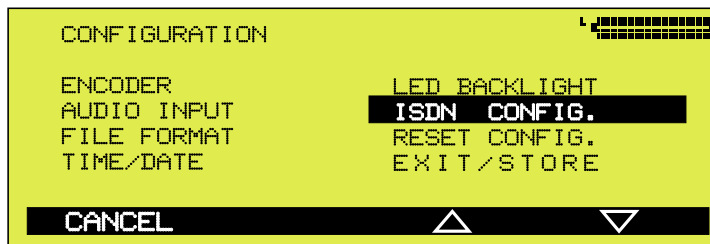
When the lighting is set to TEMP ON, the lighting can be switched on by pressing any button. The pressing of buttons is otherwise ignored, except for the REC button. When pressing the REC button, the command to record is always carried out.

Save your settings with EXIT/STORE. Return to the CONFIGURATION menu with ENTER.



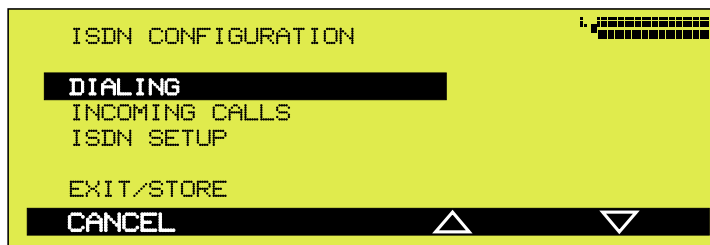
The display contrast can be generally set, except where letters of the alphabet or numbers need to be entered.

ISDN Configuration



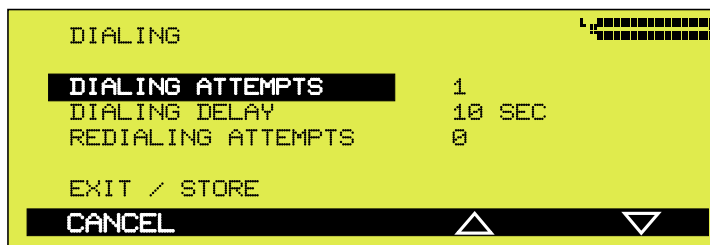
In this menu item the dialing attempts, the call accept configuration, local numbers as well as the ISDN protocol is defined.

Dialing



Dialing Attempts

Here the maximum dialing attempts are set to between 1 and 5.



Dialing Delay

Here the time between dialing attempts is selected: 10 ... 60 seconds

Redialing Attempts

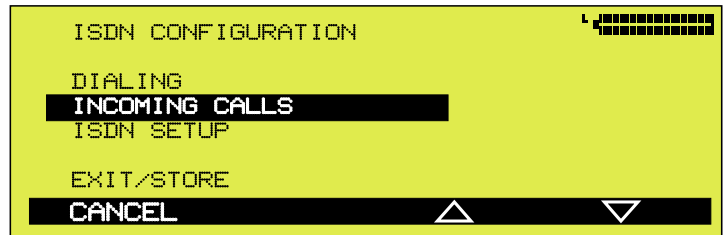
If a connection can not be established, the number of redialing attempts is defined to between 0 and 5.

Exit/Store

With this function the basic settings and actions carried out are confirmed.

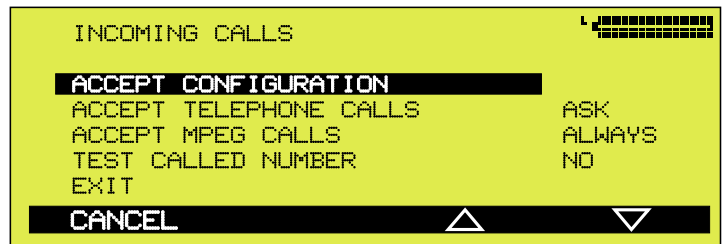
Incoming Calls

The menu item INCOMING CALLS defines the behaviour of the CTAXI when operated on a S₀ connection together with other units.



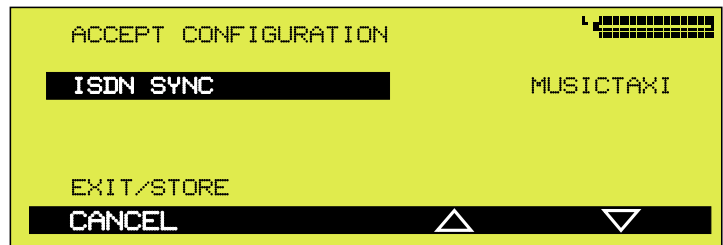
Accept Configuration

First set ACCEPT CONFIGURATION.



ISDN Sync

The menu item ISDN SYNC serves to set the desired synchronisation process.



You can select between:

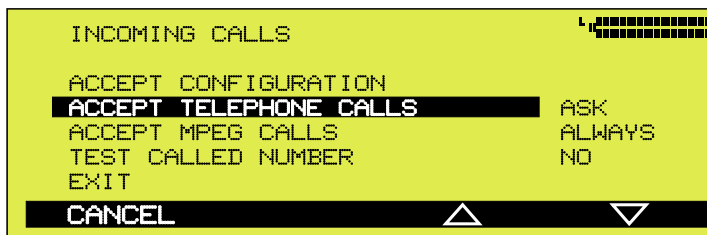
MusicTAXI	IALOG4 SYNC for 1 to 2 B-channels.
NO SYNC	when using 1 x B-channel, Layer 2
NO SYNC (INV)	when using 1 x B-channel, Layer 3.

Exit/Store

Press EXIT/STORE to finalize and store your entry.

Accept Telephone Calls

This menu item determines the behaviour of the CTAXI for incoming telephone calls.



ACCEPT TELEPHONE CALLS is next defined with:

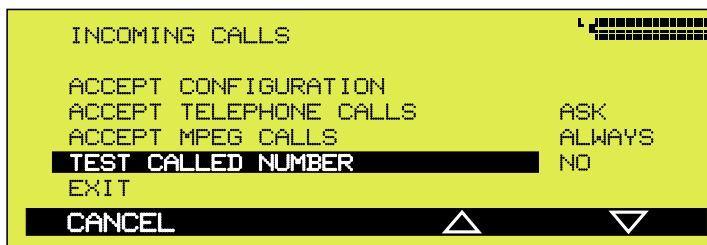
ALWAYS	every telephone call is accepted
NEVER	all telephone calls are rejected
ASK	manual confirmation of each call is requested by the unit.

Accept MPEG Calls

With the menu item ACCEPT MPEG CALLS the behaviour for MPEG (Layer 2 and 3) calls is determined. The setting options are described above.

Test Called Numbers

The menu item TEST CALLED NUMBER activates the MSN query for incoming calls.

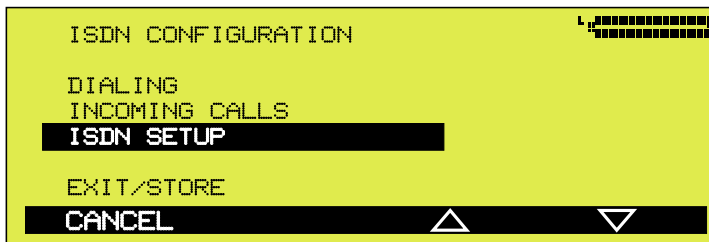


For this the correct ISDN number of your own connection must be entered in the menu LOCAL NUMBERS. The call is then only accepted when the calling partner has dialled the number entered by LOCAL NUMBERS.

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.

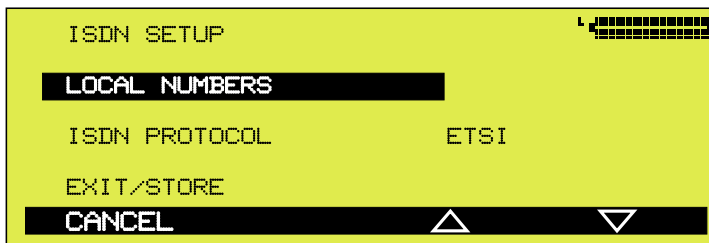
The function 'YES' should only be activated when other units (e.g. phone, fax machine, PC card) are to be operated on the same ISDN line.

ISDN Setup

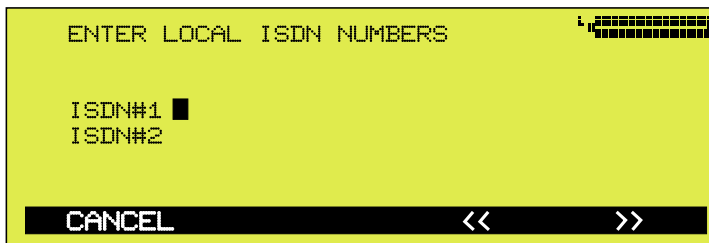


Local Numbers

When using LOCAL NUMBERS, different units can be operated on one ISDN line.



The ISDN connection numbers entered here are also sent when connection is being established. This is not a requirement on a S_0 (when only the CTAXI is operated on this connection), but necessary when operating the CTAXI on a private exchange.



You can enter your ISDN number with the numerical buttons, with the F3 and F4 buttons the cursor jumps to the desired position. For eventual corrections or to delete use the DEL button.

Press the ENTER/EXIT button to take over the presettings and to leave this menu item.

ISDN Protocol The CTAXI has 8 selectable ISDN D-channel protocols.

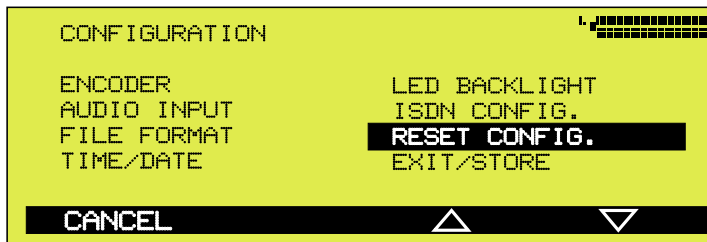


Ensure that the correct protocol has been selected: ETSI, TELECOM EIRE, ISRAEL, HOLLAND, NTT, AUSTRALIA, FRANCE VN3 or NEW ZEALAND.

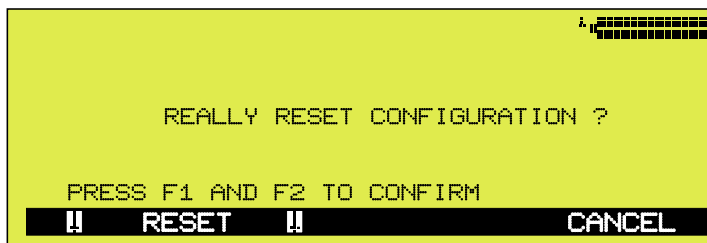
Decisive is the ISDN protocol of your connection, not the one of the partner unit!

Exit/Store Save your settings with the EXIT/STORE button (F1).

Reset Configuration



In this menu item all changes made in the CONFIGURATION menu are reversed to the basic settings ex-factory (please see page 32).

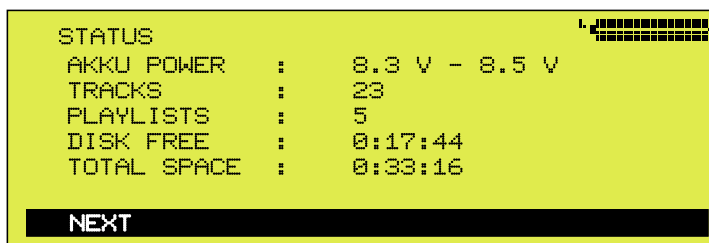


After the safety query, press the F4 (CANCEL) button to discontinue or simultaneously the F1 and F2 multifunctional buttons to activate the RESET function.

Status

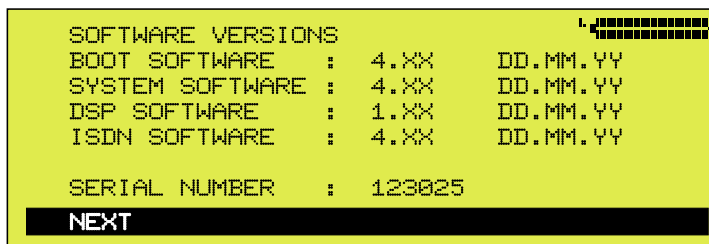


This menu item serves to request the status of the battery voltage as well as various information on recordings carried out and the available recording space (pls. s. page 55).



Software Versions

Press the F1 (allocated for NEXT) multifunctional button. A list of the installed software versions as well as the serial number of the CTAXI is displayed.



To exit this menu item press the ENTER button.

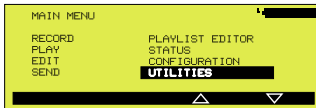
Software Update

The connection between PC and CTAXI takes place with a serial 9-pole cable (male/female, type KB003).

System requirements: Windows 95/98/NT,
a free PC interface (COM1 ... COM4).

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

<http://www.dialog4.com>



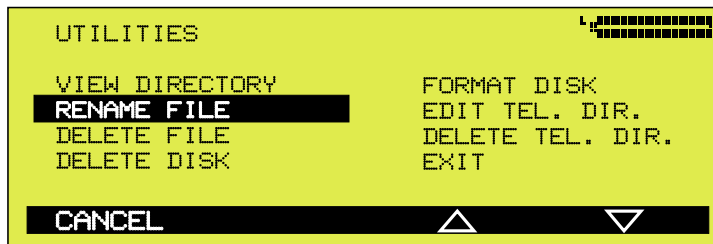
In this menu item the saved MPEG data in the DISK DIRECTORY as well as the calling numbers in the telephone book (DIRECTORY) are managed. These entries can be individually renamed or deleted. The FlashCard can be formatted if desired.

View Directory

Displays an overview of the DISK DIRECTORY. Please ensure that the PCMCIA PC card has been correctly inserted.

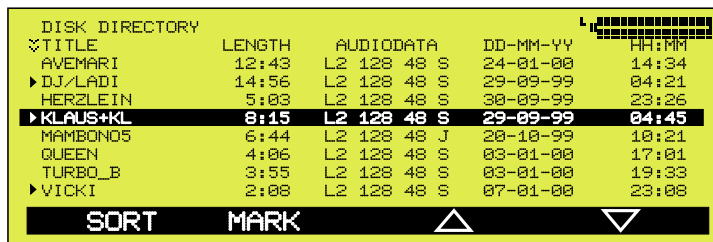


Rename File



Select a title from the DISK DIRECTORY. The renaming of a file takes place as in the record mode (please see page 25). Conclude this function with the ENTER button and exit this menu item.

Delete Files

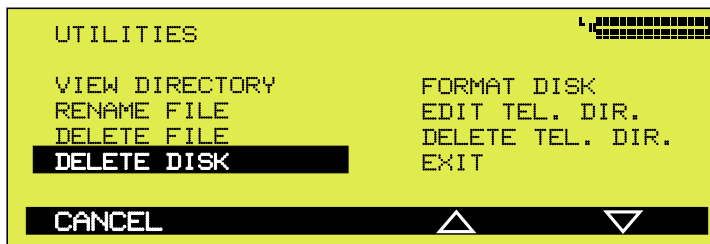


Select the title to be deleted with the F2 button. A marker points to the selected title. After confirming with the ENTER button, a safety query appears on the display:

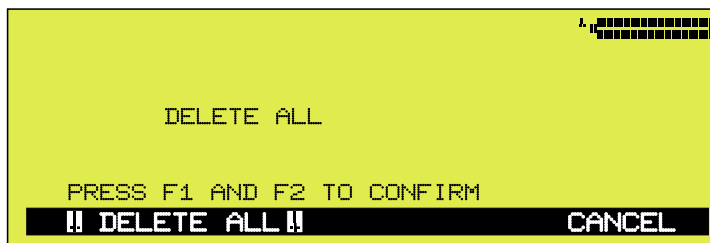
REALLY DELETE 3 FILES ?

If desired, the delete action can now be cancelled.

Delete Disk



In this menu item all saved titles are deleted from the DISK DIRECTORY.



After a safety query the delete process can be cancelled. Otherwise press the marked multifunctional buttons indicated in the display.

Format Disk

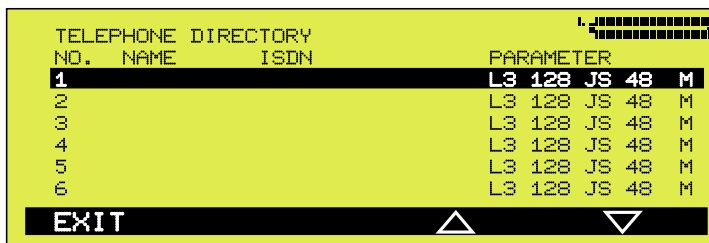


Here the PCMCIA card is formatted. The process for this function is identical as described in DELETE DISK.



Edit Telephone Directory

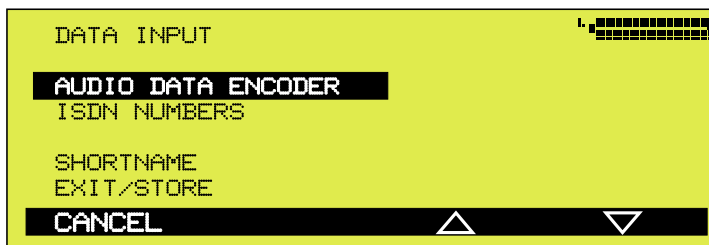
In this menu item the saved calling numbers in the telephone book (TELEPHONE DIRECTORY) are managed.



The entry mask for 60 ISDN numbers, names and audio configurations appears. Select a free position to add a new connection partner.

Data Input

Open the menu item DATA INPUT with the ENTER button.



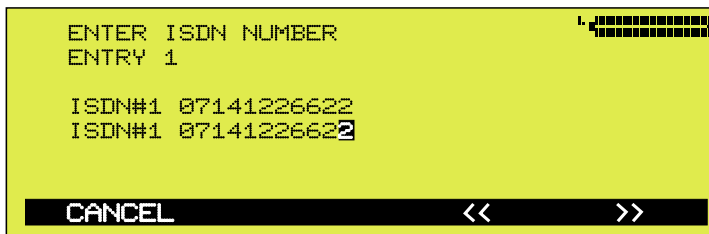
Audio Data Encoder

Open the menu item AUDIO DATA ENCODER by again pressing the ENTER button. The settings here are the same as described in the chapter CONFIGURATION (please see pages 14-16). The options LAYER 3 and TEL are selectable in the line allocated for ALGORITHMS.

ISDN Numbers

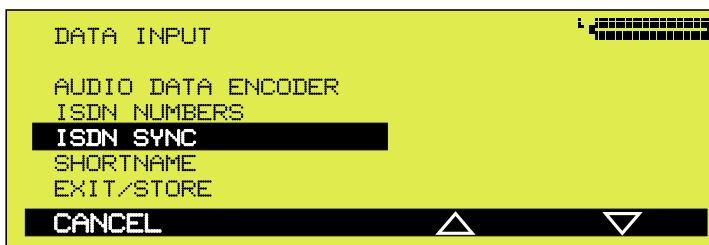
Open the entry mask for ISDN numbers by pressing the ENTER button again. The data is entered over the keypad as described in LOCAL NUMBERS.

Confirm with the ENTER button.



ISDN Sync

Once the audio parameters and the ISDN number have been selected, the line allocated for the ISDN sync function appears. This function is, however, only available for LAYER 3 and serves for setting the synchronisation process for incoming calls.



You can select between: MusicTAXI, NO SYNC and NO SYNC (INV). Pls s. also page 41.

Short Name

You can allocate a name to the receiver with up to 8 numbers and/or letters.

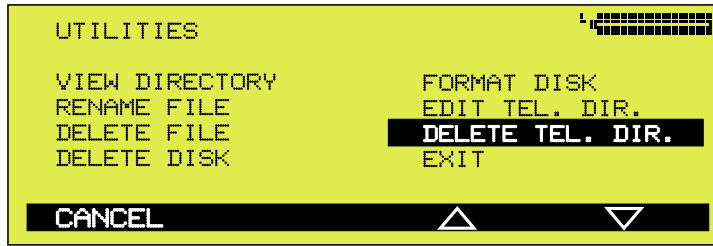


Explanation of Display Symbols

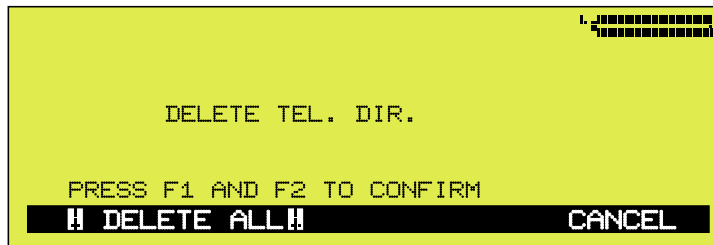
PARAMETER
L3 128 JS 48 M
L3 128 S 48 =
L3 128 IM 48 -
TE 64 M 8
L3 128 JS 48 M
L3 128 JS 48 M

Audio Parameter	ISDN Sync
L3 [LAYER 3] JS [Joint Stereo]	M [MusicTAXI]
S [Stereo]	- [NO SYNC]
DM [Dual Mono]	= [NO SYNC (INV)]
M [Mono]	
TE [G.711] M [Mono]	[not selectable]

Delete Telephone Directory



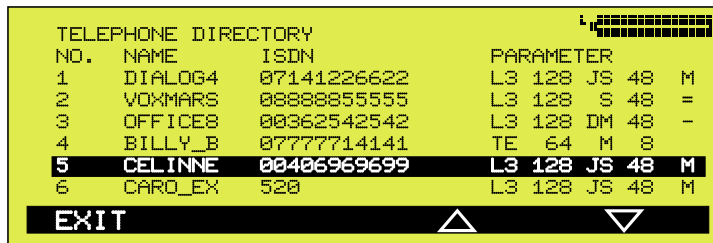
The entire telephone book is deleted here. After the safety query (as described in the previous delete functions) press both multifunctional buttons as requested in the display.



Delete Individual ISDN Numbers

Should you wish to delete only individual ISDN numbers, the process is as follows:

Open the entry mask of the telephone directory, select an entry and confirm with the ENTER button.



Open the entry mask of the ISDN numbers and delete the entered numbers by pressing the DEL button. Furthermore, delete the allocated name in SHORTNAME. Save with EXIT/STORE and exit this menu item with ENTER.

Error Codes	Possible Cause	Test/Correction Point
<ul style="list-style-type: none"> • S BUS NOT RESPONDING 	<p>The CTAXI 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 CTAXI 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 CTAXI 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 CTAXI 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 exchange 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 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 	<p>The cause for this error code is that one function is not supported by the ISDN net, which the CTAXI, 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 CTAXI. 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 an incorrectly set ISDN protocol is the cause for the error code.</p>	<ul style="list-style-type: none"> • Check set ISDN protocol and try again.
<ul style="list-style-type: none"> • " --- " 	<p>This error code is not caused by the ISDN network. It could be that the B-channel was disconnected by the CTAXI itself or the partner unit.</p>	<ul style="list-style-type: none"> • Check entered ISDN number and try again.

With the compression algorithm „ISO-MPEG Audio Layer-2 and -3“, developed by IRT (Institut für Rundfunktechnik) and the Fraunhofer Institute, audio signals (even massive amounts of data) can be reduced and transferred in real time without any loss of quality. The resulting digitalized signals are compressed (coded) to save transmission bandwidth, time and costs.

Codec is a new word coined from the verbs “enCOde” an “DECode” and stands for a brand new technology in data transfer by ISDN or satellite.

The principle of codec technology for the reduction and storage of audio data is based on the frequency-dependent sensitivity of the human ear. As part of its objective auditory properties and subjective habits, the ear ignores certain sounds and concentrates on the most essential: the message. This contrasts with purely electronic techniques which hear everything, even the non-essential.

The codec technology utilises the difference between ear and electronic measuring equipment when transferring data. By masking all meaningless noise, even the minutest, a reduction ratio is achieved for transparent audio quality, which is required to transfer vast amounts of data via networks such as ISDN. The data is instantly decompressed and subjected to A/B comparison and then the ear at the other end of the line hears only what it is intended to hear. No more and no less.

Some typical examples of data reduction with ISO-MPEG1:

Algorithm	Data Rate (kbps)	Audio Mode	Reduction Ratio
by Layer 1	384	stereo	1:4
by Layer 2	192...256	stereo	1:6...1:8
by Layer 3	112...128	stereo	1:10...1:12

Dimensions:	58 x 239 x 150 mm, weight: 1450 g with 2 batteries
Display:	Graphical LC display, 192 x 64 pixels, 84 x 31 mm
Keypad:	Keypad 16 + 6
Power Supply:	7.2 V Li-ion batteries, integrated loading station, external power supply (12V / 1A), 12 V car battery adaptor, loading station for two batteries.
Operating Time:	In mixed operation with two full batteries approx. 1.5 hours.
Recording capacity:	PCMCIA Type III slot for Flash Cards. For e.g. Flash Cards with: 48 MB at 128 kbps in Stereo – 48 minutes 48 MB at 64 kbps in Mono – 96 minutes
ISDN Interface:	RJ 45 with 8 selectable D-protocols
Remote Control:	RS232 for software download
Audio Input:	2 x XLR analog, MIC/LINE switchable (LINE: +12 dBu, adjustable from -4 dBu to +18 dBu; MIC: -52/-32 dBu). Use only dynamic microphones
Audio Output:	2 x XLR analog (Line Level). (LINE: +12 dBu, adjustable from -4 dBu to +18 dBu)
Headphone Output:	1 x 6.3 mm stereo jack socket
Algorithms:	MPEG1 Layer 2 and Layer 3 (Broadcast Wave Format) G.711
Audio Modes:	Mono, Dual Mono, Stereo, Joint Stereo
Telephone Book:	60 individual entries can be made: Name ISDN number ISDN SYNC mode (name of the partner codec)
Disk Directory:	BWF Format for: Name of the recording Length of the recording Audio parameters Recording date and time
Additional Features:	Integrated editing software with wave form display for Layer 2 files. Live transmission in Layer 3 mode
ISDN Real-Time Transm.:	64 and 128 kbps, Mono and Stereo to MusicTAXI
X.21 Transmission:	32 to 128 kbps Mono and Stereo to MODEMs.

All technical alterations may be subject to change.

Scope of Delivery

Art. No	Model
9 000 001	CTAXI Unit
4 000 108	MAINY Power Supply with Euro Plug
4 000 304	ISDN cable; length: 2 m
4 121 101	Manual for CTAXI (English + German)

Optional Accessories

Art. No	Model
4 000 320	Serial 9-pole cable KB003 (to PC), length: 5 m
9 900 0xx	FlashCard xx MB
9 900 915	7.2 V, 1500 mAh Li-ion battery pack
9 900 900	CTAXI Leather Bag

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/CTAXI Test Number

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

Maintenance and Hotline

The CTAXI 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