

EDIC-Mini Tiny Voice Recorder

EDIC-Mini Tiny Voice Recorder Operation Manual



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Safe and Proper Usage

The EDIC-Mini Tiny voice recorder is used for professional voice recording on to a flash media following by copying to a computer. Along with extremely small size and weight, the recorder has low power consumption, long recording time (18-300 hours, depending on the models, sample rate, and methods of compression), and wide frequency and dynamic range. An internal clock and a calendar allow starting recording according to time setting. As a recorder does not have any moving parts, it can be used in challenging environment: at wide temperature range, shaking, and dustiness.

Using a provided USB cable, a voice recorder is connected to a computer USB socket. The supplied software, operated under OS Windows 2000/XP, allows recording messages as common audio files, programming recorder parameters, and using a flash media for store and copying files, which lengths vary from 128 Mbytes to 2 Gbytes, depending on the models.

The firmware can be upgraded using a USB interface.

Recorder voice activating system, VAS, allowing effective compressing pauses in messages, increases the length of a record while minimizing memory usage. Time intervals stay the same. If recording are copied to a PC, pause lengths can be restored or skipped according to program settings.

A light emitting diode, LED, signals according to one of the operating modes.

A recorder can function in the flash media mode, allowing using a recorder for data storage and exchange. If needed, a recorder can be used simultaneously as a flash media and as a voice recorder.

To prevent unauthorized access to a recorder and stored data, password protection can be used. In addition, along with its both time and date, every record has a digital audio watermark. It allows detecting which recorder made this record and what changes the record underwent.

The firmware provides multi language support.

Depending on modifications, the EDIC-Mini Tiny voice recorders differ by:

Control panel



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Power supply
Stereo mode availability
Space and type of memory

Specifications

Signal-to-Noise Ratio	-64dB
Recording mode	Mono, Stereo
Compression Algorithm	Without compression, u-Law, ADPCM 2-and 4-bytes
Sampling Rate	5.5, 8, 11, 16 or 22 kHz
Frequency range	Up to 100...10 kHz (depending on settings)
PC Interface	USB 1.1, exchange rate up to 5.5 Mbit

Recording Time

In this table, the indexes correspond to the models of the EDIC-Mini Tiny voice recorders. For each model the parameters recording time and internal flash memory are shown.

Index	Recording Time	Internal Flash Memory Size
1120	1120 min (18,6hours)	128 Mbytes
2240	2240 min (37,3 hours)	256 Mbytes
4480	4480 min (74,6 hours)	512 Mbytes
8960	8960 min (149,3 hours)	1 Gbytes
17920	17920min (298,6 hours)	2 Gbytes

To detect recording time, which is allowed by your recorder under different settings, divide the index of your voice recorder by a correspondent coefficient in the table below.

Compression method	Sampling Rate
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	5,5k Hz	8k Hz	11k Hz	16k Hz	22k Hz
Without Compression	3,4 (55 kbit/s)	5 (80 kbit/s)	6,9 (110 kbit/s)	10 (160 kbit/s)	13,8 (202 kbit/s)
Logarithmic Compression (u-Law)	2,8 (44 kbit/s)	4 (64 kbit/s)	5,6 (88 kbit/s)	8 (128 kbit/s)	11,2 (176 kbit/s)
ADPCM 4-bites	1,4 (22 kbit/s)	2 (32 kbit/s)	2,8 (44 kbit/s)	4 (64 kbit/s)	5,6 (88 kbit/s)
ADPCM 2-bytes	0,7 (11 kbit/s)	1 (16 kbit/s)	1,4 (22 kbit/s)	2 (32 kbit/s)	2,8 (44 kbit/s)

Notes:

In the parentheses, there is data density after a coefficient.

In a stereo mode, a coefficient has to be doubled. For instance, the recording time of the model 1120 (without compression, mono, sampling rate 8 k Hz) is $1120/5=224$ minutes, $1120/(5*2)=112$ minutes (stereo mode).

Different settings allow finding effective quality-length ratio according to your demands.

Sampling rates affect a band of audio frequencies and compression methods affect the space of memory used while recording.

The best quality is achieved without compression; however, it uses biggest amount of memory.

Every next mode in the sequence minimizes memory space and makes quality worse: (u-Law), 4-bites ADPCM, and 2-bytes ADPCM.

Note: The recording mode of high sampling rate increases current consumption, so it decreases a battery or accumulator life.

Recording

Although a recorder control panel has a different design for different models, it has to be described in a supplement of your recorder manual.

Turn on your recorder using a control panel, then turn on recording. After you turn on recording, a light emitting diode of your recorder performs five flashes, then recording starts. While recording, two blinking sequences indicate a rechargeable battery status and available memory. The first sequence indicates a rechargeable battery status: one flash – fully charged, two flashes – enough for work, and three



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flashes – should be charged. The second blinking sequence indicates the amount of memory available: one flash – 76-100%, two flashes -51-75%, three flashes – 25-50%, and 4 flashes – 1-25%.

To stop your recording, set the Stop switch in a stop position. While stopping, LED blinks one time. Duration of this flash can be some seconds and depends on the available recorder memory space. After stopping, the recorder is in a stand-by mode. In this mode, a recorder has low power consumption and does not demand battery exchange or rechargeable battery charging during a long period of time. If there is not enough memory size or a rechargeable battery is discharged while recording, the recorder turns into a stand-by mode automatically.

Playing Audio Recordings

To play your audio recordings, copy them to a PC using the supplied software: the RecManager program for Edic Tiny. Then play them using Windows Media Player.

The Voice Activating System (VAS)

VAS, the voice activating system, allows essentially minimizing (up to 100 times) memory usage and power consumption. After you turned on recording, your recorder starts getting audio signals from its microphones. If the signals' level is higher than a threshold, the audio signals are recorded into the recorder's memory. If the signals' level becomes lower than the threshold, after defined in settings period of time, the voice recorder stops recording the audio signals. Then the recorder registers the amount of this silence period of time. After the audio signals again exceed the threshold, the recording starts. This succession is in a progress before you turn off the recording.

The recorder's LED signals the same way as when recording without VAS: two consequences when audio signals exceed the threshold, continuous weak luminescence while silence.



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While copying to a PC, you can decide to leave or restore the pauses. If you decide to restore the pauses, the record's length is equal to the real period of recording time. If you decide not to keep the pauses, the recording consists of the recorded parts that follow each other without any intervals.

Timers

Using internal recorder timers, you can schedule a recording to begin at a specific time and even on a specific date automatically. A recorder has two timers: for daily repeated recordings, and for single recording.

To set a daily timer for daily repeated recordings, you have to schedule beginning and ending of a recording during a 24 hours period of time. For instance, beginning is at 12-50, ending is at 23-50.

To set a once timer for a single recording, you have to schedule a recording to begin and to end at a specific time of a specific date. For instance, the recording begins on 31 December at 23-00 and ends on 1 January at 2-00.

Recordings are accomplished while recorder memory space is available and recorder rechargeable battery is charged.

Loop Recording Mode

You can choose a loop recording mode if you don't want to stop your recording when recorder does not have free memory space. At this mode, a recorder writes over the oldest data. You can use



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recorder memory space for a loop recording partly or fully. The amount of memory space defines a length of a loop recording.

Software Installation

Open the supplied CD folder: /Edic-Mini Tiny/. To install the program, run RecManTinySetup.exe. Follow the program's suggestions. After the program is installed, restart the computer.

Connection to a PC

Connect your recorder to a computer using a supplied USB cable. The recorder LED lights up. If it is the first connection, OS Windows suggests installing drivers. In the Automatic Installation dialog windows of the Installation Wizard, follow the instructions. While installing, this message can appear: The installed software has not been tested for compatibility with Windows XP. Click on the Continue button. After the driver is installed, the LED is turned off.

Start the RecManager for Edic Tiny program. If the program is in demo mode, turn this mode off in the Recorder menu. The computer detects the recorder and the program shows the recorder flash media's content.

Voice Recorder Settings

After the installation of the RecManager for Edic Tiny program on your PC and connection a voice recorder to the computer using a supplied USB cable, the RecManager for Edic Tiny program provides voice recorder settings:

- Timers
- VAS



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- Loop recording mode
- Recording quality
- Control
- Password protection
- Synchronizing internal timers with a PC
- Recorder – computer data exchange

The software manual is on the supplied CD.

Notes: While exchanging data with the computer, the recorder LED is blinking. Don't turn off the recorder at this time because you can lose your data.

When the recorder is connected to a PC, audio recording is impossible. When audio recording is turned on, the connection to a PC is impossible.

The program manual has full information about the program.

To Renew Firmware

To renew the firmware of your voice recorder, go to the website <http://www.ts-market.com>. Make the next steps:

- Download the new firmware from the website to a PC: ET_FW_Updater_X_X.exe (X_X is the number of a version of the firmware)
- Connect the voice recorder to the PC
- Check that the RecManager for Edic Tiny program is closed.
- Run the new firmware
- Confirm that you want to renew the firmware
- When the firmware is fully renewed, the message appears
- After this message, run the RecManager for Edic Tiny program
- The RecManager for Edic Tiny program shows in its status line the information about the new firmware version

Multilingual Support

You can choose English or Russian language using the program settings. However, you can translate all buttons, messages, and dialogs to any other language:

- Find **EdicTiny_eng.lng** and **RecManager_eng.lng** (**EdicTiny_rus.lng** and **RecManager_rus.lng**) files in Program Files/RecManager/ folder



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- On the first page change the number of a code page according to your language
- Translate all signs and messages from English (Russian) into your language
- Rename files: **EdicTiny_XXX.lng** and **RecManager_XXX.lng** (XXX abbreviating of a new language expressed by the English alphabet)

After next running the RecManager for Edic Tiny program, the new language appears in the Language menu. If you like, you can send the corrected file to support@ts-market.com. The installation program that supports this new language would appear on our website <http://www.ts-market.com>.



Technical Support

If you need help or have any questions, please feel free to contact us:

E-mail: support@ts-market.com

Telephone: +7 (495) 638-88-00

Skype: ts-market

Our company's support engineers are ready to assist you in your development. They constantly work to improve our software and the documentation. You always can download a new version of our software and the documentation for free from our website: <http://www.ts-market.com>.

