Operation manual for EDIC-mini Tiny Digital voice recorders

Contents

Specifications

Main technical characteristics

Model	Power supply	Dimensions (mm); Case	Weight (g)	Autonomy (hours)*	Signal-to-noise, dB	Sensitivity	Sampling rates (kHz)	Frequency band (kHz)	Recording mode
A60-300h	Li-Pol 130mA/h rechargeable battery	40x35x9 wooden	10	25	64	up to 15	up to 12	0,1-10	stereo
A62-300h	Li-Pol 130mA/h rechargeable battery	49x19x14 plastic	12	25	64	up to 15	up to 12	0,1-10	stereo
A65-2400h	Li-Pol 750mA/h rechargeable battery	54x37x11 wooden	27	170	64	up to 15	up to 22	0,1-10	mono
B47-300h	G13-A battery/ Zinc-air battery	50x15 metal	19	40/160	64	up to 9	up to 22	0,1-10	mono
A45-150h	Li-Pol 150mA/h rechargeable battery	79x9 metal	13	30	64	up to 9	up to 22	0,1-10	mono

Main Features

- Audio data record in WAV format
- Built-in real time clock with calendar
- 2 timers to start recording at the preset time (daily or once)
- Voice Activation System (VAS)
- Circular recording mode
- Built-in markers to determine records' authenticity
- Password protection of the access to the Recorder's contents
- Status indication with one LED
- Operating lifetime 3 years
- Permissible temperature of operation and storage 0-40C

Recording duration depending on the model modification

Table 1

Model modification	Recording time in hours	Built-in memory
150h	150 hours	1 Gb
300h	300 hours	2 Gb
600h	600 hours	4 Gb
1200h	1200 hours	8 Gb
2400h	2400 hours	16 Gb

* for record mode 8kHz, 2-bit ADPCM compression.

Recording duration in different modes

The model modification 150h/300h/2400h means the recording time in hours in 2-bit ADPCM at a sampling rate 8 kHz.

Various settings of the recorder allow you to optimally choose the ratio of quality and duration of recording to your requirements. At the same time, you should consider that the sampling frequency determines the band of recorded frequencies, and the compression method determines the quality and memory consumption during recording.

The best recording quality (but the largest memory consumption) is achieved in the non-compression, then according to the degree of deterioration of the recording quality (and reduction of memory consumption), the modes follow: logarithmic (u-Law), 4-bit ADPCM, 2-bit ADPCM.

Appendix 1 Recording time

in hours at different settings in mono mode with built-in memory 1 GB:

kHz/ compression	Without compression	Compression uLaw	4-bit ADPCM	2-bit ADPCM
5.5 kHz	41.5	52	103.5	206.5
8 kHz	28.5	36	71	142.5
11 kHz	20.5	26	51.5	103.5
16 kHz	14.5	18	35.5	71
22 kHz	10.5	13	25	51.5

*The time is specified approximately when recording in mono mode. For stereo mode, the recording time will be halved. To calculate the recording time on your model, use the formula: recording time in the selected mode * the memory capacity of your recorder in GB.*

Additionally, it should be noted that recording modes with a high sampling rate increase the current consumption of the recorder and, as a result, reduce battery life (charged battery).

Operating the Recorder

Battery Charging
(for models with rechargeable batteries)

Before using the Recorder, make sure the rechargeable battery is fully charged. If there is a necessity, charge the internal battery of the Recorder. To do this use interface cable from the delivery set to connect the device to the PC or power supply with regular USB output.

Charging process is accompanied by smooth lightening and attenuation of LED with an interval of 1 to 4 seconds, depending on the current battery charge level. The shorter the interval, the fuller battery charge level is. With battery fully charged, this interval decreases to zero. Full charging takes about 3-5 hours.
When charging is completed, disconnect the cable from the computer or charger.

Attention! *Even if you don't use a voice recorder, you need to recharge the battery at least once a month. Otherwise, the battery may fail, which is not a warranty case.*

Recording

To start recording, turn the recording switch to the "ON" ("REC") position. The LED flashes 5 times, and recording starts.

During recording, the LED is flashing in two series of flashes, the number of flashes in the first series indicating battery charge level and in the second series - free memory capacity, as shown in the following Table:

Number of flashes	Battery charge level (1st series)	Free memory capacity (2nd series)
1	70-100%	75-100%
2	30-60%	50-75%
3	0-30%	25-50%
4		1-25%

The interval between the first and second series of flashes is approximately 7 seconds, and between the second and first is approximately 14 seconds.

To stop recording, turn the switch to the "OFF" ("STOP") position.

Recording also automatically stops when the battery is completely discharged or when the memory is full.

For the **A62 model**, when recording in stereo format, you must connect the second microphone included in the package. The voice recorder is designed to provide full-fledged stereo recording (sound wave length = approximately 30 cm).

Operating the Records

To playback, copy or delete records made, connect the Recorder to the PC using interface cable (the recorder must not be in recording mode when connected).

A new removable media will appear in the system. Launch from it "RecMenager.exe". The contents of your voice recorder will be displayed in the left part of the program window. Select the recording, right-click and select "Copy to PC" in the context menu. The recording will be converted to "WAV" format and will be visible in the right part of the program window. To playback a recording, double-click it with the left button. To disconnect the recorder from the PC, be sure to safely remove the device, then disconnect the USB cable from the PC, then from the recorder

Operating system requirements: Windows XP, Windows Vista, Windows 7, Windows 8, Windows 10.

Circular Recoding

Circular recording makes it possible to continue recording by deleting older record files after the Recorder's memory is full. Thus, the memory will always contain the most recent data that stopped being recorded when the recording was turned off. The user can take both the entire and only part of the recorder's memory for circular recording. The amount of allocated memory determines the duration of the received circular recording.

Note! *Circular recording is not available when recording in "stereo mode with sampling frequencies of 11kHz, 16kHz and 22kHz" (for voice recorders that have the ability to work in stereo recording).*

Timer Recording

The Recorder provides the option to automatically start and stop recording at the preset time using Timer. The Timer has two modes of operation: Daily and Once. Daily Timer automatically starts and stops recording every day at the same preset time. Once Timer enables it to specify particular time and date to start and stop recording.

1. When setting up Once Timer, you need to set the start date and time of recording and the end date and time of recording. For example, "start 31.12.2011 23:00 stop 03.01.2012 10:00" - with these settings, your voice recorder will record from 23 hours on December 31, 2011 to 10 hours on January

3, 2012. But when setting up, you should take into account the capabilities of your voice recorder, whether there is enough memory for such a recording time, this can be viewed in the RecManager "min. continuous recording time" and whether the power source of your voice recorder (battery or accumulator) will be enough for this time, and this can be found out from **Appendix 1**.

2. When setting up the Daily Timer, you need to set the recording start time and the recording end time. For example, "start 09:20 stop 13:05" - with such settings, the recorder will turn on daily at 9:20 and turn off at 13:05, and this will happen until the entire memory is filled or the power supply runs out or you remove the mark on the use of the daily timer.

3. You can use both timers at once, but when setting it, keep in mind that the timers should not overlap or touch.

Recordings will be made as long as there is free memory in the recorder and the battery (battery) is sufficient for operation.

Timer recording can be stopped by pressing the recorder button for 2-3 seconds or by switching the button to the "REC" position and back to the "STOP" position.

If you have set the recorder to work on a timer, then you do not need to turn on the recorder for recording, as it will turn on automatically when the internal clock of the recorder coincides with the time set for the timer.

Voice Activation System (VAS)

Voice Activation System (VAS) properly configured can significantly (up to 100 times) reduce both memory consumption and energy consumption from the power source.

If the signal level is less than the one set in the settings (VAS level), then not the sound from the microphone is recorded in memory, but only the amount of time during which the threshold was not exceeded (the duration of silence). When the signal level exceeds the set threshold, sound will record in memory. Then, when the signal from the microphone again becomes less than the set threshold, then after a while (set during setup) the recorder will stop recording sound into memory again, it only remembers how long the silence lasted. This continues until the recording is turned off.

The indication during recording with VAS looks like during general recording (two series of flashes) when the signal has exceeded the set threshold and a constant weak LED glow when the signal is below the threshold (silence).

When uploading a recording to a PC, you can specify what needs to be done with pauses (with silence): save them in the uploaded file, or not. If the pauses are saved, the duration of the received recording will correspond to the time during which the recording took place, and the moments when the signal was below the set threshold will be listened to as complete silence. The duration of silence corresponds to the time when the signal was below the configured threshold. If pauses are not saved, then the

resulting recording will consist only of the recorded parts (when the signal exceeded the threshold) without taking into account pauses. These parts will be played one after the other without interruption.

Configuring VAS

1. To configure the voice activation system (VAS), there are two parameters - the VAS level and the VAS time.

2. The VAS level is adjusted from 0 to -55 dB, while it should be taken into account that at 0 dB, in order for the recorder to turn on for recording, you should practically shout into the microphone of the recorder, and at -55 dB, the slightest rustle is enough and the recorder will start recording.

3. The VAS time is adjustable from 1 to 15 seconds. If you set the VAS time to 1 second, then the recording inside the file will break into many pieces when pauses in the conversation for more than 1 second. If you set 15 seconds, then after any knock, the recorder will continue recording for 15 seconds, including silence, which is also not very good in some cases. Therefore, we recommend setting the VAS time to 7 seconds.

4. It is more difficult with the recommendations of the VAS level, since the recording conditions can be completely different (in an empty room, in an apartment with carpets, on the street or in a car). The correctness of choosing the VAS level will come with experience, but for now we recommend doing this — set the VAS level to, say, 20 dB (do not forget to press the button in the RecManager "apply settings to the recorder" after changing the parameters) after disconnecting the recorder from the PC, turn on the recorder for recording and place it in the place where the recorder will be located during recording. With silence that does not need to be recorded, after turning on the recorder for recording, the recording will last for a few more seconds (this is the VAS time that you set in the settings), after which the recorder will switch to standby mode for a useful signal (the sound that you need to record) what will be evidenced by the dim glow of the LED. If the VAS level is set correctly, after you start talking, the recorder will switch to recording mode, which will be indicated by the flashing of the LED. After the end of the speech and the VAS time, the recorder should switch to the standby mode of a useful signal.

5. If the voice recorder does not enter the standby mode of a useful signal during silence, then the VAS level must be changed closer to zero (if it was -20 dB, then -17 dB must be set).

6. If, when a useful signal appears, the recorder does not switch to recording mode, then the VAS level should be changed closer to -55 dB (if it was - 20 dB, then it should be set to -25 dB).

In recorders, it is possible to use the VAS system with timers at the same time, while it should be taken into account that in this case it is not necessary to turn on the recorder for recording, but it will turn on for recording itself when the time that you set on the timer is reached, taking into account that you have synchronized the clock a voice recorder with time on a PC.

Setting the Recorder's Parameters

Attention! After any changes, do not forget to click the button "Apply settings to the recorder".

The voice recorder is configured using the program "RecManage.exe ". This program provides the adjustment of all possible parameters of the recorder:

- Enabling and configuring Timers
- Enabling and configuring VAS
- Enabling and configuring Circular Recording
- Setting the recording quality
- Setting up the control method (depends on the recorder model)
- Password protection of access to the voice recorder
- Sync the time and date of the recorder with a PC
- Moving records (and files) both from the recorder to the PC and back. To set up the recorder, you need to connect the recorder using the supplied cable, run the program "RecManager.exe " located in the internal memory of the recorder and configure the parameters you need. The "RecManager manual for Edic Tiny" is located in the internal memory of the recorder.

Connecting to PC

First, connect the USB cable to the recorder, then to the USB port of the computer. A removable media will appear in the system. Open it and run the file "RecManager.exe". After launching the program, the voice recorder will be detected by the computer, and its contents will be displayed in the program window. Perform the operations you need. Close the "RecManager" program. Disconnect the cable from the USB port of the PC, then from the recorder.

Notes
- Do not turn off the recorder when performing any operations in the program "RecManager.exe". This can lead to data corruption (during such operations, the voice recorder LED flashes).
- When the recorder is connected to a PC, recording is not possible. If the recorder is in recording mode, then after connecting to the PC, recording stops and the recorder connects to the PC.

Firmware Update

1. Download from the website the new firmware ET_FW_Updater and the image recording program ImgWriter.zip (unpack it).

2. Turn on the voice recorder (applies to voice recorders that have a power switch).

3. Connect the voice recorder to the computer.

4. Run the program:

– for voice recorders with a battery: ET_FW_Updater_XX_X_Acc.exe

– for voice recorders with a battery: ET_FW_Updater_XX_X_Bat.exe where XX_X is the index and firmware number.

5. Follow the instructions of the program.

6. When the firmware update is complete, run the program: ET_ImgWriter.exe, which will record the program "Recmanager" into the recorder's memory. If you have Windows Vista or Windows7 operating system installed, this program must be run "as administrator".

7. Follow the instructions of the program.

8. When recording is complete, *disconnect the recorder from the computer and reconnect it*. A new removable media will appear in the system, on which the program "RecManager" will be located.

Multilingual support

The program "RecManager" allows you to use, at your choice, Russian or English. Optionally, you can translate the names of buttons, program messages, etc. into another language. To do this, you will need to download an image recording program from the website. Unzip the folder and in the ImageFiles folder, edit the RecManager_rus.lng (or RecManager_eng.lng) files as follows:

- in the first line of the file, change the code page number to the code page number of your language;

- translate titles and messages from Russian or English into the user's language and replace the text in the file with this translation;

- rename the files to EdicTiny _xxx.lng and RecManager_xxx.lng, where xxx is the abbreviated name of the user's language (in Latin letters). After that, run the image recording program. After the next launch of the RecManager program, the user's language selection will be available in the "Language" menu.

In order for the support of this language to be included in the program installer, the user can send to support@ts-market.com the file corrected by him. The installer with support for the new language will be posted on the site for general use.

Technical Support

Technical support is available by e-mail:
support@ts-market.com

We are constantly working to improve the software and documentation. You can always download the latest version of the software for free and get information on products on our website:
https://www.ts-market.com

Warranty

The manufacturer undertakes warranty repair liabilities for 1 year from the date of purchase, but no longer than 2 years from the date of manufacture of the product (warranty does not cover batteries), other rules are regulated by the Law "On Protection of Consumers' Rights".

Further there is usually a long list of cases when the user loses warranty. We have a different approach. We make use of every warranty case as an opportunity to find out the causes and make our products better. Therefore, we are always grateful for any comments and proposals regarding our products, as well as the detailed description of the conditions and causes that led to failure. We appreciate time and skills of our customers, and if the problem is not that complicated, we do not mind if you try to solve the problem yourself. If the attempt to repair was fairly neat, you do not lose your warranty. In case of major breakdowns, chemical exposure or mechanical damage to the Recorder, the manufacturer will not be able to continue the warranty service of this device. Our products have no seals.

If you are experiencing problems with the use of our products, we recommend the following:

1. Go to www.ts-market.com and see a list of common problems (FAQ section) and their solutions. Perhaps there is a solution to your problem.

2. If the problem persists, contact technical support at support@ts-market.com with the detailed description of your problem, the conditions it appeared, the exact product name according to the passport, firmware, software, operating system, and other relevant information. Remember, the better you describe the problem, the sooner it is resolved. Calls and mails like "It doesn't work at all!" are least effective. E-mail correspondence is most effective because it preserves history and minimizes misunderstanding. You will receive a response to your request by e-mail within 24 hours (excluding weekends and holidays).