MAG-2
Digital
Recorder

OPERATION MANUAL

Version: Feb. 2013

© TS-Market

Contents

Introduction

This User Manual covers the MAG-2 digital audio recorder.

Precautions:

- Do not let water, dew or dust on the recorder.
- Do not leave the recorder under direct sun light.
- Do not open the recorder housing. The recorder cannot be repaired by the user.
- Avoid strong electromagnetic fields.
- Before use fully and attentively read this Manual.

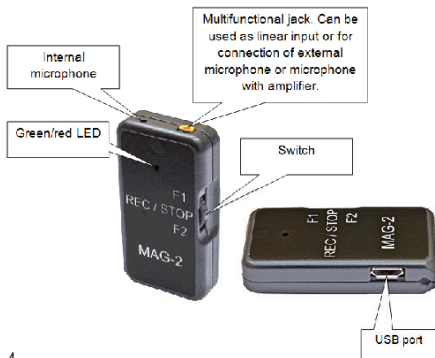# Description and specifications

Overlook

The MAG-2 digital recorder is designed for recording high quality audio to the built-in flash memory. Recorded files can be downloaded to a PC for further processing. The recorder has small dimensions, long recording time and sensitive microphone with wide dynamic range. Solid metal case protects from mechanical damage and reduces effect of electromagnetic noise.

The MAG-2 can record from:
- Built-in microphone
- External microphone
- Microphone with amplifier
- Linear input

Voice Activation System (VAS) allows saving significantly internal memory. The recorder also has real time clock and calendar. USB interface allows changing recorder settings and saving recorded audio as .wav files to a PC. The recorder has control buttons and LED indication of operation modes.

Recorder's appearance

Multifunctional jack. Can be used as linear input or for connection of external microphone or microphone with amplifier.

Internal microphone

Green/red LED

Switch

USB port

Technical Characteristics

Memory size, Gb	1
Sampling rate, kHz	12/24
Bit rate, bit	16
Recording time, hours:	
- sampling rate – 12 kHz	12
- sampling rate – 24 kHz	6
Dynamic range, dB	80
Current consumption:	
- Recording mode, no more than, mA	6
- stand-by mode, no more than, mA	200
Battery, mAh	Li-Po, 105
Dimensions, mm	49x26x9
Weight, g	20

Design and operation

Recorder settings

Switch the recorder on by moving the switch to position.
The recorder settings are made with the NOVO PC SUIT MAG-2 software. The software must be installed and the recorder must be connected to USB port of your PC with the supplied cable. The software allows:

- Saving recorded files to a PC
- Turning on and setting VAS
- Adjusting quality of recording
- Selecting source of recording: internal or external microphone, linear input
- Synchronizing time and date of the recorder and PC

Operation

Please note! Every time before use fully charge the battery and synchronize time and date between PC and the recorder (or check Automatic synchronization mode).

To record audio using internal microphone, press and hold REC/STOP switch button till the red LED lights up for a short time and goes out. After that recording starts. During recording the red LED blinks with 5 sec. intervals. To stop recording press and hold REC/STOP button till the green LED lights up. After that, recording stops.

Recorded audio files can be deleted without connecting the recorder to a PC. To do it, in stand-by mode move and hold REC/STOP switch in F2 position till the red LED starts blinking. Then immediately move REC/STOP switch to F1 position.
The red LED is on continuously, recorded audio is being deleted. When the process is over, the red LED goes out and the recorder is in stand-by mode.

To find out current status of the recorder move the REC/STOP switch to F2 position (don't hold):

• The LED is on for several seconds – the recorder is in stand-by mode (at that color of the LED indicates battery charge level: green – battery is charged more than 50%; red – battery is charged less than 50%).

• The LED blinks shortly – the recorder is recording (at that color of the LED indicates battery charge level: green – battery is charged more than 50%; red – battery is charged less than 50%).

ATTENTION!

If during recording the recorder memory is filled or battery is fully discharged, the recorder automatically switches off.

Operation with external microphone

1. Using NOVO PC SUIT MAG-2 program, select external microphone as a source of recording.
2. Connect external microphone to corresponding jack on the recorder.
3. To start recording press and hold REC/STOP switch button till the red LED lights up. When

it will go out, recording will start. Recording is indicated by the red LED blinking with 5 sec. intervals.

4. To stop recording press and hold REC/STOP switch till the green LED lights up. When the green LED lights up the recording stops.

Using telephone adapter

1. Using NOVO PC SUIT MAG-2 program, select linear input as a source of recording. Set required VAS threshold, time of recording start (time of reaction on sound in ms) and time of recording end (time of recording after sound ends in s).
2. Using supplied telephone cable to connect the adapter to a telephone line.
3. Second jack of the adapter is used for connection to a telephone set. Connection is in parallel, without taking into account the polarity.
4. Connect male plug of the adapter to the recorder jack.
5. Recording start/stop procedure is the same as described in section Operation.

Voice Activation System

Voice Activation System allows saving memory and energy consumption. VAS can be set only through NOVO PC SUIT MAG-2 program. When the recording starts the recorder tracks signal level from the microphone or linear input. When the signal level is below specified, the recording isn't carried out. When the signal level is above specified, the information records into flash-memory. In case the signal level diminishes, the record stops. VAS must be adjusted every time before use taking into account specific conditions of premises. To set VAS see section Using telephone adapter.

Charging battery

Connect the recorder to USB port of a PC with supplied USB cable. At that the LED starts blinking. LED color indicates battery charge level (green – battery is charged more than 50%; red – battery is charged less than 50%). When the battery is fully charged, the green LED is on continuously.

Attention!
In case of deep discharge the recorder does not react on buttons pressing, but if connected to a PC the battery will charge.

Storage

Storage conditions:
- Temperature: -10 ~ +50 ºC
- Relative humidity: 80% at +30°C
- Air pressure: from 630 to 800 millimeters of mercury
- Absence of acid, alkali or other aggressive liquids vapors in storage facility.

Transportation

The units can be transported by any mode of transportation according to general requirements to electronic goods transportation. When transporting prevent the device from falling and punching.

In box

- MAG-2 digital recorder
- USB cable
- Telephone adapter (optional)
- External microphone
- Software CD

Warranty

The manufacturer guarantees no-failure operation and all operating characteristics during 1 (one) year after the date of shipment by the producer provided the customer follows all the rules, stipulated in the documentation. Mechanical damage deprives the user of the warranty.

In case the manufacturer is responsible for malfunction or failure of the device, it is guaranteed to be fixed or exchanged for free during 30 days after the date of receiving faulty item.

Warranty does not cover batteries.

Repairs or replacement of the device in the post-warranty period is to be made according to the additional greement.

TS-Market Ltd.

Building 10/1 Sosnovaya Alleya, Zelenograd, Moscow, The Russian Federation, 124489

Tel:	+7 (495) 638-88-00
	+7 (499) 940-95-75
Cell:	+7 (903) 530-10-01
	+7 (909) 638-88-00
Fax:	+7 (499) 735-04-91
E-mail:	support@ts-market.com

www.ts-market.com