RaMaLoop

Radio Magnetic Loop

"WIRELESS *LIQUIDATION OF MICRO-ORGANISMS* "

„With love to technology …“

User Manual

Contents

Thanks (acknowledgement)

Thank you for buying RaMaLoop device. We appreciate your confidence and will be pleased if you will share with us your experience and observation during RaMaLoop device usage.

www.Ramaloop.cz

Important instructions

Pease, read this device manual carefully.

- Never use the LightLoop antenna as a handle for manipulation with the device. Magnetic holder has not been constructed to keep whole device weight.
- Do not use the device while driving a car.
- RaMaLoop may affect the function of peacemakers and others implanted devices – consult with your doctor about its use.
- Do not use the device in airplane.
- Do not use RaMaLoop near gas station, always turn it off near flamable material.
- Use only original batteries provided by manufacturer. There is a danger of the device being destroyed or even an explosion.
- Do not through of the battery in a fire or expose it to temperatures above + 60 ° C as there is a risk of explosion or fire.
- Handle the device and accessories with care, protect it from falling, mechanical damage, dirt and excessive temperatures. Never disassemble it!
- Do not expose this device to rain or moisture.

Introduction

RaMaLoop has been designed for contactless and convenient disposal of microorganisms (viruses, fungi, bacteria).

RaMaLoop is a revolutionary innovative device that is freely usable as a frequency generator. If necessary, it can be also connected to other frequency generators. RaMaLoop significantly increasing the utility value of these devices by expanding the possibility of contactless disposal of microorganisms (viruses, fungi, bacteria) on the basis of the frequency method. RaMaLoop creates a pulsed alternating magnetic field around its frame coil ("antenna") in the order of several meters.

The frequency range of the RaMaLoop is from 1 Hz to 999 kHz.

Use of magnetic impulses

The magnetic field penetrates in all directions, even there where the impulse direct current does not reach, for example in a non-conductive environment.
This opens wide scope for future use in many advanced industries like food, agriculture. In case of medical certification can be used in low and high frequency magneto-therapy or in veterinary practice.
It also has the potential to become an exciting tool for students interested in science studies.

Package contents

- RaMaLoop – 1pcs
- LightLoop antenna – 1pcs
- Cable RCA-RCA black/silver – 1pcs
- Cable 3.5mm Jack-Jack black or silver – 1pcs
- Cable USB A-microUSB B black – 1pcs
- Power adapter 5V/1A with USB connector – 1pcs

Optional accessories

- Power adapter 12V/2A with DC Jack 5.5/2.1mm connector
- Application coil
- Large frame antenna
- Cable USB A-microUSB B with moving light

Examples of use of contactless disposal of microorganisms

- in fabrics (seat covers, car seats, carpets, clothing)
- in public areas (schools, kindergartens, clinics)
- in households with pets
- in foods and other products where micro-organisms can be expected
- in feed mixtures and in silage pits (selective disposal of fungi and toxins) - using a larger antenna
- in hives (bee mite, bee plague)
- in building industry (wormwood, mushrooms and mold)

Warning: Some applications need to more test and respect the hygienic and legal standards of the industry.

For these reasons mentioned above, the RaMaLoop has the potential to become a laboratory aid in science and research.

Currently, RaMaLoop is most likely to appreciate existing owners of zapper and F-Scan generators, who have only been till now able to use their device in a contacting manner.

Our practical findings from the long-term testing of the first series indicate that generating of alternate magnetic field has similar effect to that of the plasma generator. The main effect and benefits of RaMaLoop, compared to the conventional Zapper and F-Scan generators, is that the magnetic field penetrates to a greater depth than where the impulse direct current can penetrate.

On top of that, the influence of conductivity of the environment, such as the use of metal or rubber electrodes, does not play a role here.

Commissioning

When the device is delivered by the manufacturer, it must be connected to the power adapter or USB before use for the first time so that the device is automatically turned on and ready for use.

Description of connectors connection

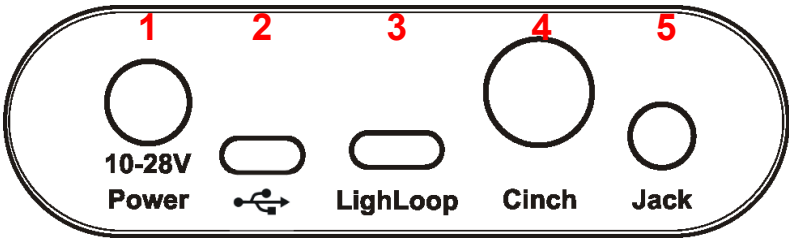


Figure 1: Connectors connection.

1. Power supply input – Adaptor (10 – 28V DC, 24W max.,)
2. Power supply input – microUSB (5V DC, 2,5W max.)
3. Frame antenna output
4. Signal input 0-1MHz (recommended for Zapper)
5. Signal input 0-1MHz (recommended for F-Scan) / Audio signal input 0-20kHz

Description of indicators on LCD

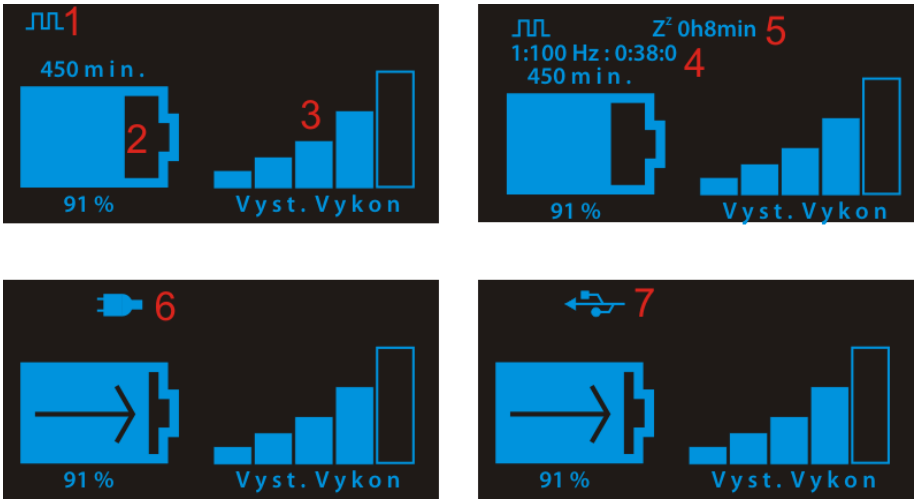


Figure 2: Description of indicators on LCD.

1. Pulse Output Indication - Pulse flashing frequency is for illustration only, it is used as an indication of active output.
2. Battery charge status indicator - With charge status in percent and remaining time in minutes to discharge. Discharging time is not displayed in case the device is powered from an external power source.
3. Output power indication.
4. Number of triggered generator (1-5), currently generated frequencies and remaining calculated duration.
5. Remaining time to shut down, only displayed when the automatic shutdown timer is active.
6. Power / charging indication from the power adapter.
7. Power / charging indication from USB.

Device menu description

1 Frequencies generator - Frequencies generator settings

1. Program 1 – selection of preset program number 1.
    1.1. Hz => kHz> - List of preset frequencies in Hz.
    1.2. kHz => Hz> - List of preset frequencies in kHz.
2. Start - Initial Frequency of Program nr. 1.
3. Start unit - The order of the set start frequency of program number 1 in Hz or kHz.
4. Stop – the final frequency of the program 1, if it is identical with the first frequency, a constant frequency will be generated.
5. Stop unit - The order of the set final frequency of program number 1 in Hz or kHz.
6. Length - Duration of generating the set frequency of program number 1 or the time of tuning of the entire set frequency range.
7. Launch generator - Starts the program generator number 1 and then continues to other programs (number 2,3,4,5) if they have set frequencies.
8. Program 2 - Selection of preset program number 2.
    8.1. Hz => kHz> - List of preset frequencies in Hz.
    8.2. kHz => Hz> - List of preset frequencies in kHz.
9. Start - Initial Frequency of Program nr. 2.
10. Start unit - The order of the set start frequency of program number 2 in Hz or kHz.
11. Stop – the final frequency of the program 2, if it is identical with the first frequency, a constant frequency will be generated.
12. Stop unit - The order of the set final frequency of program number 2 in Hz or kHz.
13. Duration – Duration of generating the set frequency of program number 2 or the time of tuning of the entire set frequency range.

14. Start generator – Starts the program generator number 2 and then continues to other programs (number 3,4,5) if they have set frequencies.
15. Program 3 - Selection of preset program number 3.
    15.1. Hz => kHz> - List of preset frequencies in Hz.
    15.2. kHz => Hz> - List of preset frequencies in kHz.
16. Start - Initial Frequency of Program Number 3.
17. Start unit - The order of the set start frequency of program number 3 in Hz or kHz.
18. Stop – the final frequency of the program 3, if it is identical with the first frequency, a constant frequency will be generated.
19. Stop unit - The order of the set final frequency of program number 3 in Hz or kHz.
20. Duration - Duration of generating the set frequency of program number 3 or the time of tuning of the entire set frequency range.
21. Start generator - Starts the program generator number 3 and then continues to other programs (number 4,5) if they have set frequencies..
22. Program 4 – selection of preset program number 4.
    22.1. Hz => kHz> - List of preset frequencies in Hz.
    22.2. kHz => Hz> - List of preset frequencies in kHz.
23. Start - Initial Frequency of Program nr. 4.
24. Start unit - The order of the set start frequency of program number 4 in Hz or kHz.
25. Stop – the final frequency of the program 4, if it is identical with the first frequency, a constant frequency will be generated.
26. Stop unit - The order of the set final frequency of program number 4 in Hz or kHz.
27. Duration - Duration of generating the set frequency of program number 4 or the time of tuning of the entire set frequency range.
28. Start generator - Starts the program generator number 4 and then continues to other programs (number 5) if they have set frequencies.
29. Program 5 – selection of preset program number 5.

29.1. Hz => kHz> - List of preset frequencies in Hz.

29.2. kHz => Hz> - List of preset frequencies in kHz.

30. Start - Initial Frequency of Program nr. 5.

31. Start unit - The order of the set start frequency of program number 5 in Hz or kHz.

32. Stop – the final frequency of the program 5, if it is identical with the first frequency, a constant frequency will be generated.

33. Stop unit - The order of the set final frequency of program number 5 in Hz or kHz.

34. Duration - Duration of generating the set frequency of program number 5 or the time of tuning of the entire set frequency range.

35. Start generator - Starts the program generator number 5 and then ends.

36. Direction - "Ascending" - Frequencies move from START to the frequency set at STOP, "Descending" - Frequencies are generated from the upper frequency value set for "STOP" to the lower frequency for "START" (for all START and STOP frequencies).

37. Repeat - if "YES" is selected, the programs are repeated over and over again.

38. Sleep timer - timer setting for automatic shutdown. When setting 0h0min, automatic shutdown is inactive.

39. Application Coil - activation of awakening for application coil. Do not turn on this option unless you have a special application coil attached.

40. PowerBoost - Activates higher performance, this option is forbidden to use in EU territory due to regulatory standards.

41. Back - return to the previous menu without saving the parameters.

2 LightLoop - antenna lighting settings

1. Off - turns off the lights
2. RGB - Lighting with automatic light color change
    1. Change speed - Speed of color change
    2. Modulation - light flashes according to the output frequency (over 50Hz is permanently lit)

    3. Back - Save the settings and return to the previous menu
3. Optional color - Lighting with user-adjustable light color
    1. Red level - setting the intensity of the red color
    2. Green level - setting the intensity of the green color
    3. Blue level - setting the intensity of the blue color
    4. Modulation - light flashes according to the output frequency (over 50Hz is permanently lit)
    5. Back - Save the settings and return to the previous menu
4. Back - return to the previous menu

3 Language - User Interface Language selection

1. English
2. Cestina
3. Deutch
4. Espanol
5. Polski
6. Back - return to the previous menu

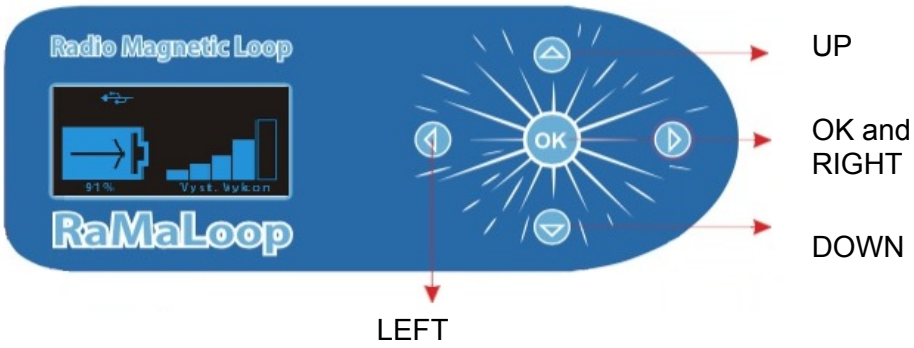
4 Info - Listing of Diagnostic Data

1. SW version
2. Serial number
3. Charging cycles number
4. Battery condition
5. Battery temperature
6. Diagnostic information for service needs

5 Return - return from the menu

Control description

Device is controlled by 5 buttons.



Buttons functions

Button functions differ according to the current LCD display.

1 Button function when displaying indicators on LCD

- UP - increase output power.
- DOWN - decrease output power.
- LEFT - decrease LCD brightness.
- RIGHT - Increase LCD brightness.
- OK - displays the menu, while pressing OK for 5 seconds, the machine is switched off / on.
- LEFT + RIGHT - stop of the generating.
- UP + DOWN - Pause of the generating.
- DOWN + OK - when you press both buttons for 5 seconds, the device will reset and restart (used in case of nonstandard behavior or jamming).

2 Button function in menu

- UP - move up / increase the value of the selected item.
- DOWN - Move down / decrease the value of the selected item.
- LEFT - returns, returns to the previous menu / main view of the indicators.
- RIGHT - no function.
- OK - confirms the current selection / switches between changing the value of the item and selecting it.

Basic controls

In the main view (the LCD shows the indicators), the power setting device can be adjusted in five steps using the up / down arrows and seven-level LCD brightness control, using the left / right arrows. At the lowest level, only a dash appears in the display, the individual indicators are gradually displayed up to full brightness. At the very highest level, the frame itself (Lightloop) lights up if it is set in the menu.

When you press the OK buttons in the main view, the Configuration menu appears. Here you can set the frequency generator, LightLoop, language and display service device information.

The device has an auto-off function. If it is not operated by the keypad, generating is not running, or if there is no signal from the external generator, it is automatically switched off after 15 minutes.

If you need to reset the factory settings or if the device is behaving contrary to the instructions, you can reset it by holding the OK + Down arrow buttons until the RaMaLoop logo appears on the display.

LightLoop settings

LighLoop has three basic settings: Off, RGB, and Optional Color.

The "Off" setting switches off the lights.

The "RGB" setting starts the automatic color change. The rate of change can be set using the "Change Speed" item in the RGB setting. The "Modulation" option allows you to set the flashing of the illumination in the rhythm of the input pulses, the blinking is only visible up to 50Hz, it is permanently lit at higher frequencies.

The "Optional Color" setting starts the user-adjustable color illumination. The resulting color is given by "Red Level", "Green Level", and "Blue Level".

Setting the LighLoop antenna lighting has no effect on electromagnetic field generating. When the generator is switched on or an external generator is connected, the electromagnetic field is emitted by the antenna without being switched on or off by LighLoop lighting.

Frequency generator settings

RaMaLoop includes a frequency generator function that allows you to generate frequencies in the range 0 - 5kHz, higher frequencies are generated as higher harmonics of this range. At the same time, this menu also contains a timer to turn off the device after the selected time.

After activating the generator or the shutdown timer, the time and frequency information are displayed continuously on the main screen. The remaining time information is updated whenever the displayed frequency is updated, not every second. Frequencies up to 1000Hz are displayed in Hz, higher frequencies are displayed in kHz, rounding of higher frequencies is only for imaging, generating takes place in 1Hz.

You can set up successively up to 5 consecutive programs. Individual programs allow you to select from preset frequencies in the order of Hz and kHz. For each selected program, you can manually adjust the desired initial / final frequency with the START and STOP values, where START is the initial frequency and the STOP is the final frequency. If the values are the same it is so-called fixed frequency. Each program also allows you to set the duration.

In addition, the generator allows you to change the direction of startup of the set programs, turn them on again and set the time for automatic shutdown of the device.

The preset programs are selected by pressing the OK button on "Program 1" and gradually down to "Program 5". Use the UP, DOWN, and RIGHT arrows to select the desired program and confirm with OK. If you have multiple programs set up, they will automatically start running consecutively from the program that was first.

1 How to run one program:

1. Enter the "Generator Frequency"
2. Select "Program 1", press OK and select the desired program, the other items "Program 2-5" set the same way to program number 0
3. If no program meets your requirements, set the desired initial and final frequency manually using the "Start" and "Stop"
4. Set "Unit start" and "Unit stop" to order, Hz, or kHz, according to your request for initial and final frequency.
5. Set the length of the program using "Length".

6. Set the frequency generation direction (descending or ascending)
7. Set the repeat or shutdown timer to suit your needs.
8. Start the generator by confirming "Spust generator" on the same screen as "Program 1"

2 How to run 5 programs:

1. Enter the "Generator Frequency"
2. Select "Program 1" and select the desired program.
3. If no program meets your requirements, set the desired initial and final frequency manually using the "Start" and "Stop"
4. Set "Unit start" and "Unit stop" to order, Hz, or kHz, according to your request for initial and final frequency.
5. Set the length of the program using "Length".
6. Repeat steps 2 through 5 for other programs.
7. Set the frequency generation direction (descending or ascending)
8. Set the repeat or shutdown timer to suit your needs.
9. Start the generator by confirming "Spust generator" on the same screen as "Program 1"

3 Generator settings for use with application coil

The application coil is a coil designed to apply a locally homogeneous magnetic field for stimulation. This is not the standard antenna supplied with the device. For more information on this accessory, please contact your distributor.

Activating of the generator for the application coil is to switch the "Application Cylinder" item in the frequency generator menu to YES. Do not turn this option on if you are not using the application coil.

For application coil, the frequencies are primarily 0 - 100Hz.

Language setting

The "Language" item in the configuration menu allows you to select the language of the labels in the main view and menu items.

Service information

Item "Info" allows you to view service information about the device: program version, serial number, number of battery charging cycles, battery status / condition, battery temperature and other service information.

Charging

You can use any microUSB charger (5V and at least 0.5A) to charge, or you can use a second input for a standard adapter with a DC jack 5.5 / 2.1mm (12-28V and at least 1.5A) to charge.

When the adapter is connected, the device is identified and, if it meets the requirements, charging is started and the charging indicator appears on the display. Once the charging is complete, the indicator disappears and the device goes into power mode from the adapter.

Recharging the battery is triggered when the charge level falls below 90%. For example, when the battery is fully discharged after 95%, it cannot be charged again at 100%. This feature prevents frequent cycling of the battery and thus significantly increases its service life.

Technical specifications

Power supply	
Supply voltage – microUSB	5 V DC
Supply voltage – Adaptér	10-28 V DC
Supply power - microUSB	2.5W
Supply power - Adaptér	24W
Compatible battery	A606164 2500mAh/3.6V LP655165 2400mAh/3.7V LP654365 2300mAh/3.7V
General	
Device type	Portable enclosure with removable frame antenna
Dimensions without antenna	12 x 8 x 3 cm
Dimensions with antenna	25 x 8 x 20 cm
Weight	400g
Operation temperature	0 – 40 ºC
Maximal operation humidity	90% non-condensating
Length of any connected cable is not larger than 3m.	
Input signals	
Digital input (Cinch/Jack tip)	4 – 15V DC
Audio input (Jack ring)	150mV PP (4Hz - 20kHz)

Safety and Ecology

1 Applied electrical equipment

RaMaLoop is an electrical appliance. This means that it cannot be treated as normal household waste. Never dispose of RaMaLoop in normal municipal waste! Once used, it must be handed over to the appropriate collection point where it will be recycled or disposed of in an environmentally friendly manner. Failure to follow these guidelines is illegal. This product may contain substances dangerous to the environment - proper handling is important for its protection. For more detailed information on how to handle the product, contact your dealer or local authority.

2 Disposing of the battery

Retired batteries and accumulators do not belong to ordinary municipal waste!!! They may contain substances harmful to the environment. Place the battery at the appropriate collection point to ensure it is disposed of ecologically. Check with your local reseller or local authority where such a place is located. For example, you can take the battery directly to the retailer.

Do not dispose of the battery in a fire or expose it to temperatures above +60 ° C as there is a risk of explosion or fire.

Notes