

ElZapp

Frequency generator

User guide

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Acknowledgment

Thank you for buying EIZapp generator. We appreciate your trust in our product and we will be glad if you can send us your feedback and experiences.

Important instructions

Please read this guide carefully before device usage.

- Don't operate device during driving.
- Power off device in airplane.
- Don't use device at petrol stations, turn device off when you are close to explosives.
- Replace batteries only with original parts otherwise device damage or explosion can occur.
- Don't throw battery to fire and don't expose it to temperature above +60°C because of fire and explosion risk.
- Handle device and accessories with care, avoid free fall, mechanical damage, dirt and excess temperatures. Never disassembly device.
- Don't expose device to rain or moisture.

Package contents

- EIZapp – 1pcs
- Connection cable USB A-microUSB B – 1pcs
- Power supply 5V/2A with USB connector – 1pcs

Commissioning

To turn device ON press button with power symbol on top panel shortly. For turning device OFF press and hold this button until display turn off and device will beep (approx. 6 seconds).

If battery is discharged deeply, and device don't react to power button, it is necessary to connect charger to charge battery and turn device ON.

Device panels description



Fig. 1: Top panel.



Fig. 2: Bottom panel.

1. ON/OFF button.
 - Short press - power ON and display sleep.
 - Long press for at least 3 seconds - power OFF. Powering OFF is indicated by vibration and beep tone.
2. microSD card slot.
3. Generator output - 3,5mm jack.
4. microUSB connector for charging and PC communication.

Control description



Fig. 3: Main screen.

1. Battery indicator, during charging is show animation of symbol >>>.
2. "global duration" icon is present when global time function is active.
3. Pulse symbol is flashing when program is running.
4. Read/write to SD card indicator.
5. When turned on this icon shows detection of PC USB port, in off state it show USB charging.
6. Database select button to select database from SD card.
7. Program select button to select program from specified databse.
8. Subprogram select button to select subprogram (step) from specified program.
9. Start frequency button to enter start frequency, see Fig. 4.
10. Stop frequency button to enter stop frequency, see Fig. 4.
11. Output waveform indicator - square wave.
12. Setup of actual subprogram duration.
13. Setup of actual subprogram output amplitude.
14. Button to stop generator.
15. Button to enter main menu.
16. Button to generator start/pause.

Menu structure

1 Main menu

- Preferences - menu for device setup.
- Service - service menu.
- Language - menu for language selection.
- Info - diagnostic information.
- Back - return to main screen.

2 Preferences

- External device - set to YES when using with RaMaLoop or PlasmaLoop device. This option will optimise amplitude and load detection for optimal use with external device.
- Global duration - program duration in database is ignored and user duration set in main screen is forced to all programs when set to YES.
- Global amplitude - program amplitude in database is ignored and user amplitude set in main screen is forced to all programs when set to YES.
- Run all programs - next program in database is automatically started when actual program ends and all programs will run in sequence till end of database when set to YES.
- Load detection - enable output load and short detection.
- Touch feedback - enable feedback when key is pressed.
- Sound - sound intensity setup, 0 = no sound.
- Vibration - vibration intensity setup, 0 = no vibration.
- Brightness - LCD brightness setup.
- Edit Database - buttons for subprogram add/del and write changes to SD card are shown on main screen when enabled. This allows basic database modification without PC.
- Save and back - save changes and return to main menu.
- Back - return to main menu.

3 Service

- Calibration - run touch panel calibration.
- Default settings - load factory setting to device.
- Firmware Upgrade - run firmware upgrade from file on SD card.
- Back - return to main menu.

4 Language

User can select preferred language of user interface. Available languages are:

- English
- Čeština
- Deutch
- Espanol
- Polski
- Back - return to main menu.

5 Info

Show serial number, SW and HW version and diagnostic information.

Database creation

Database is in plain text file saved on SD card. Thanks to this open format is possible to edit database in any text editor, copy and backup it. For fast and comfortable work we recommend to use PC software ElZapp or FQ Tool. ElZapp device is able to read both database formats from PC programs. To download installation files please contact your distributor.

Adjust subprogram duration and output amplitude

To adjust subprogram duration or amplitude, press desired button which will make it highlighted. Bottom buttons will change to - OK +. You can adjust value by pressing - or +, to confirm value press OK.

Start and stop frequency adjust

To adjust start or stop frequency press desired button. Screen on Fig. 4 is show where is possible to enter frequency with 3 digit precision. To confirm value press Hz or kHz button according to which units you want to enter. To delete value use <- button , to cancel operation press X button in upper corner.



Fig 4: Frequency enter screen.

Language setting

Item "Language" in main menu allows to set user interface language.

Service information

Item "Info" shows service information about device like serial number, SW version, HW version, battery health, temperature and other for service purposes.

Charging

For charging is possible to use any microUSB charger with voltage 5V and power rating at least 2.5W.

Device have auto detection of connected charger, if charger meets specifications then battery is charged. Charging is indicated by battery animation. When battery is full, animation disappears and device is switched to "power from adapter" mode.

Firmware Upgrade

To upgrade firmware in device follow these steps:

1. Fully charge EIZapp and leave charger connected.
2. Delete all files on microSD card.
3. Save FW file on card, for example „EIZapp 0.5.5.bin“.
4. In your pc select "safe remove of removable drive".
5. If you used card reader for steps 2. and 3. put now card into EIZapp.
6. In menu choose Service and Firmware Upgrade.
7. Device will reboot and green EIZapp Bootloader title will shown.
8. If FW file on card is OK then upgrade will start and progress is shown on display. If some error is detected then error message is shown. Note error message and try to repeat process from step 2 or contact distributor with information about error message during update.
9. When update is done, device is restarted and ready to use.

Technical specifications

Power supply	
Input voltage – microUSB	5 V DC
Power rating - microUSB	10W
Compatible battery	LP8040100 4000mAh/3.6V
General	
Device format	Portable handheld box
Dimensions	115 x 70 x 20 mm
Weight	210g
Operation temperature	0 – 40 °C
Max. operation humidity	90% non-condensing
Length of all connected cables is not more than 1,5m.	
Output signal	
Digital output (Jack 3.5mm)	5 – 17Vpp
Frequency range	0.001Hz - 2MHz (step 0.001Hz)

Safety and ecology

1 Used electronic devices



EIZapp is electronic device, this means it cannot be disposed as common materials. Don't dispose it to common waste. For disposal use special place or return it to your distributor.

2 Battery disposal



Used batteries needs to be disposed on special places. Please use special containers or return it to your distributor.

Don't throw battery to fire and don't expose it to temperature above +60°C because of fire and explosion risk.

Manufacturer

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Distributor

