Dear Gechologist,

Thank you for supporting our project, we could not have done it without you! You now own one of the very few "version 2" units built. This is a fresh new revision of a previously well received pocket synthesizer that has further evolved after we heard a lot of feedback from early adopters. Hardware-wise, pretty much all of it was incorporated into the new model, however the software may take a few more months to fully utilize all new interfaces. We did not want to further delay shipping so the line had to be drawn at some point – the rest will follow in firmware updates. Meanwhile, we are sure you will have a lot of fun exploring what is there now!

<u>Warnings:</u>

This is not a toy! The device **contains many small parts** – screws, silicone pads and buttons that can be removed if force is applied sideways. Also, the wooden box contains small magnets that may be **fatal if swallowed**. The inner enclosure has sharp corners. It is made of fiberglass and may still contain residues of fine dust which is irritant if inhaled (the same applies to the PCB board in "acrylic sandwich" version).

Respect your ears, don't set the volume too loud. It often happens that a combination of inputs creates a sound much louder than average. To make it safer, there is a dynamic limiter (often configured differently in every channel, mainly in those that use 3rd party code). At a certain combination of volumes and signal you can hear it in action; if this represents a limitation, you can reconfigure it (at your own risk).

The distance sensors don't work very well outdoors, especially on a sunny day, unless you're in complete shadow - they are easily saturated by sunlight. Switching to accelerometer control helps here. Surprisingly the **microphones are sensitive to light as well**, in models without a complete enclosure this affects sound, depending on what way a certain channel uses the signal.

Use caution: prolonged exposure may lead to significant loss of time, auditory hallucinations and elevated mood for no apparent reason :)

Selecting a channel

Every channel's code consists of one or more numbers between 1 and 4, so they can be typed on the four-buttons keyboard. For example, to select channel 12, press buttons 1 – 2 – SET. To stop playing, press RST. All buttons have alternative function depending on whether you just press them shortly or hold them for a second or longer (this is all explained in the "settings" leaflet and also in a detailed description of each channel where some buttons perform a specific function). For a button combination such as RST+1, hold RST then press button 1 shortly, then release RST.

A few interesting channels to try for starters

1-4: Demo songs that also support binaural beats (press SET during play to start/stop this feature). Playable by MIDI (polyphonic).

11: The "channel 1" from the early prototype, it does not use controls only microphones. You can boost the sensitivity by button 4 if needed.

12: Non-interactive, slowly evolving "Song of Wind and Ice" created using low-pass filters, with isochronic tones feature (press SET).

14: Bytebeat, a chiptune-like mathematically generated songs. Try buttons 1 (next song), 2 (panning), RST+1, RST+2 (speed control).

31: Granular sampler. Use S2 to sample a new sound, S1 to detune, S3 to change chord, S4 to increase voices. Playable by MIDI (polyphonic).

32: Decaying reverb. Try buttons 1 & 2 to control decay direction and speed, S1 for delay, S3 for low-pass filter, S4 for reverb buffer length.

33: Dekrispator (by Xavier Halgand). Buttons 1 & 2 browse patches, 3 sets filter/delay/env. RST+1/2 generate new patch & effects part separately.

34: MI Clouds (by Émilie Gillet). Buttons 1 & 2 browse patches. S3 freezes the sound, then you can use MIDI to play it (monophonic).

41: DCO Synth with 24 oscillators. Press 1 repeatedly for parameters drift / randomize, 2 to set waveform, RST+1/2 for oversample control.

123: Pass-through, useful for recording. You can choose inputs using button 4, as in any other channel. To play recorded files use channel 2222.

3333: Use accelerometer instead of IR sensors, 4444: use IR sensors again. This can also be changed using main menu (see the "settings" leaflet).

4321: Should something not sound right and you are not sure what caused it, reset all settings to default (volumes, delays, inputs).

A detailed manual is being created at **gechologic.com/manual** – if your unit is a DIY kit, please follow tutorials at **gechologic.com/tutorials** Technical questions are welcome at **gechologic.com/support** – any problems or queries, contact us at **gechologic@gmail.com**

<u>Warranty:</u> 2 years. Malfunctioning units are replaced free of charge. We are happy to repair units / replace DIY kit elements damaged by user as agreed on individual basis. This product is provided as is without guarantees or warranty of any kind, either expressed or implied, including, but not limited to warranties of merchantability, fitness for a particular purpose, of title, or of non-infringement of 3rd party rights. Use of the product by a user is at the user's risk.

<u>Credits:</u> The firmware uses 3rd party code/data provided under GNU, MIT, CC or Public Domain license, more info at **phonicbloom.com/licenses**

Made in EU. Board assembled in Poland. Most components manufactured in China. Wooden case hand-made in Slovakia. Completed in Ireland.

This product complies with the following standards: EN 55032: 2012 and FCC CFR 47 Part 15, Class B $C \in FC$