GSi

GEMINI

GSi GEMINI

USER'S MANUAL

www.GenuineSoundware.com

Congratulations on purchasing the GSi GEMINI, a high quality musical instrument entirely designed and built in Italy. This instrument is the result of years of research and development of DSP audio software and high quality audio hardware design. We are sure you will enjoy every moment you spend with it! Please read through this manual in order to have the best experience with your new purchase.

The GSi Team.

SAFETY INFORMATION

– Do not open the instrument. The instrument can be opened and repaired only by qualified personnel. Unauthorized opening voids the warranty.
– Do not expose the instrument to rain and moisture.
– Do not expose the instrument to direct sunlight.
– Be careful not to infiltrate powders and liquids inside the instrument.
– If liquids get inside the unit remove the power immediately and contact a service center.
– The ventilation holes must not be obstructed.
– Do not clean using abrasive cleaners as they may damage the surface.
– Please keep all packaging in case you need to transport the instrument to a service center.
– The supplied power adapter can be used in any country that has a mains voltage between 100 Vac and 240 Vac. Use only the original power supply.
– Do not touch the AC adapter with wet hands.

WARRANTY

– GSi GEMINI is subject to 12 months manufacturer's warranty.
– Warranty extensions are at the discretion of the retailer.
– Damages caused by misuse, improper maintenance or transportation are not covered by this warranty.
– During the warranty period, the customer is entitled to repair or replacement of any parts considered defective at no charge.
– The possible replacement of the entire product is at the manufacturer's discretion.

THE BASIC FACTS

THE CHANGE

GSi has been offering musical software since 2003. Our extensive experience in DSP programming has now been integrated into a new hardware product: Gemini.

A NEW CONCEPT

The GSi Gemini is a sound module dedicated to the keyboard player. It provides all the most used keyboard sounds in a form no other sound modules has ever done before. More than just sample playback: there are 15 different synthesis engines including physical modeling, virtual analog subtractive synthesis, virtual tonewheel organ and more. Everything is doubled thanks to the dual DSP, just like having two identical sound modules into one shell.

OUTSTANDING QUALITY

From software to hardware, everything in Gemini was conceived with the highest quality in mind. Sound synthesis with no compromises, audio hardware with no gimmicks. Gemini was developed by musicians for musicians. Our test lab is an extremely demanding sound stage.

TECHNOLOGY

The GSi Gemini is built around the latest innovations in mobile technology. Editing the module is easily achieved by connecting to it via Wi-Fi from any computer or mobile device, such as a smartphone or a tablet.

FEATURES AND SPECIFICATIONS

Gemini Features:
- 2 independent DSP Processors
- 15 Synthesis Engines
- 11 effect generators
- 128 Presets
- Custom MIDI map
- Internal Wi-Fi antenna allows client connection for editor web-app
- Balanced outputs
- Output level selection
- Headphone output
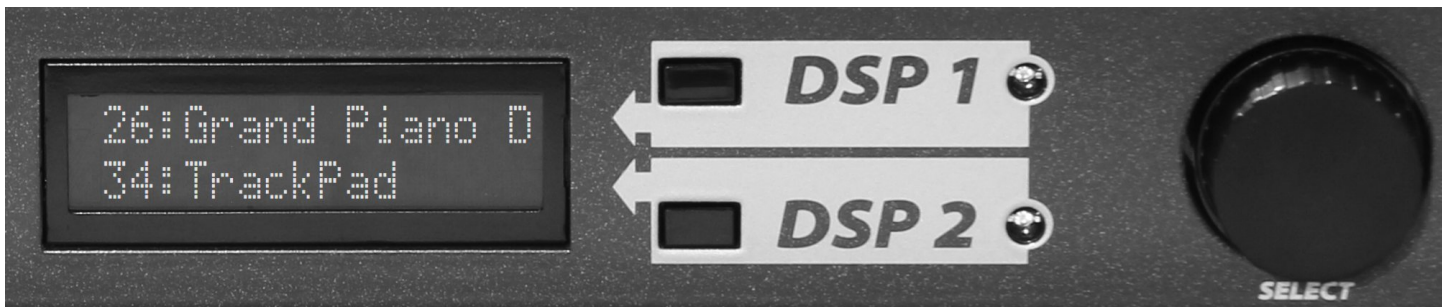- Wi-Fi password set and reset

15 Synthesis types:
1. VB3-II virtual tonewheel organ
2. Combo Organ Type F
3. Combo Organ Type V
4. String Machine
5. Pipe Organ
6. Orchestra
7. Tines electric piano
8. Reed electric piano
9. Electric baby grand piano
10. Clavi electric piano
11. PM electric piano
12. MKS electric piano
13. Physical modeling trumpet
14. GVA-1 Virtual Analog synth
15. GSP-01 Adaptive Sample Player

11 Effect processors per each DSP:
1. Wha-wha
2. Stereo Phaser
3. Stereo Chorus
4. Tremolo / Auto-panner / Ring modulator
5. Spring Reverb
6. Amp Simulator
7. Rotary effect simulator
8. Stereo Delay / Echo
9. Stereo Limiter
10. Digital reverb
11. Equalizer

FRONT PANEL CONTROLS

The stand-alone version of the GSi Gemini features a very basic and easy to use control panel which is only used to recall presets on each internal DSP. It consists on a 2x16 backlit LCD screen, two buttons with LEDs and a rotary encoder.

To recall a preset on DSP 1, make sure its LED is illuminated then turn the encoder to browse the preset list. At this point you'll notice that the LED starts flashing, this indicates that you're browsing presets but you still haven't confirmed which one you wish to recall. Once you have found the preset you like, press the corresponding DSP 1 button. If you wish to abort your research and stop the LED from flashing, press the other DSP button.

To recall a preset on DSP 2, make sure the DSP 2 LED is illuminated then turn the encoder to browse the preset list until the desired preset is reached, then press the DSP 2 button again to recall it. Use the other button to abort the selection.

A MIDI activity LED is located next to the encoder, this indicates the arrival of a note event whenever it matches one of the selected channels for either the DSP 1 or the DSP 2.

THE VOLUME KNOB

The front panel of the stand-alone Gemini also features a Volume potentiometer. This will affect the left and right analog output found at the back of the unit as well as the headphone output located at the front of the unit, but will have no effect on the S/PDIF digital output. Use this knob to attenuate the output level if you need to do so.

VB3-II virtual tonewheel organ

The VB3-II is the first of the 15 available synthesizers, it is the exact same software that powers the Crumar Mojo and presents the same parameter set. VB3-II is the result of 12 years of study, research, experimentation and development of the simulation of a vintage Hammond B3 organ. It is the evolution of the GSi VB3 1.4 which is still available as a plugin for digital audio workstations. In the last 5 or 6 years it has been considered the best simulation of a tonewheel organ by some of the most acclaimed jazz and rock organists and organ techs. The Crumar Mojo has been a best-seller in the "Clone Organ" market during 2013 and 2014 and now the GSi Gemini offers you the possibility to take advantage of one of the best clone organs ever without compromises.

NOTES ON THIS SYNTH ENGINE: VB3-II responds on 3 MIDI Channels for Upper, Lower and Pedalboard. The channel set for the DSP in use corresponds to the Upper manual, the following 2 channels are assigned to lower and pedalboard respectively.

Combo Organs

The GSi Gemini features two simulations of very famous Italian transistor organs of the seventies, the VOX Continental and the Farfisa Compact DeLuxe. Each of these organs is simulated in every detail, reproducing the essence and the exact color of that gritty organ sound that was the cornerstone of rock bands like the Doors, the Pink Floyd and similar. The polyphony is full (all 61 notes at the same time) and all controls behave exactly like in the original instrument.

String Machine

A simulation of a classic "string machine" is one of the 15 synth engines of the GSi Gemini. This particular instrument is not a reproduction of a specific existing model, rather it's inspired by some of the most famous string keyboards of the seventies, such as the ARP Solina, the Logan String Melody and the SIEL Orchestra. It offers 3 string registers plus one bass, features the classic attack-release envelope generator with break-point (which was mainly used to mimic the presence of a natural reverberation without using an additional reverberator), vibrato and a classic chorus/flanger effect that gives that distinguishable shimmer to the sound.

Pipe Organ

A pipe organ is not something you see every day, there are thousands of different pipe organs that differ by the number of stops, the number of manuals, the number and the type of pipes, their size, their position, etc. but we wanted to keep it simple and offer a pipe organ that would be easy to understand and inspiring to play, so we chose to offer a Baroque-style organ based on a single manual and 9 stops plus 3 couplers and the classic "tremulant" effect. This synth engine works as an hybrid synthesizer, uses additive synthesis and physical modeling, there are no samples involved. The expression pedal responds naturally and varies the amount of air that passes through the pipes. There is a total of 776 virtual pipes.

Orchestra

This is a sample-playback synthesizer based on a selection of high quality stereo samples with long loops, that helps reproducing the sound of a symphonic orchestra easily and quickly. It offers 9 sections including: bass brasses (tubas, trombones), cellos and contrabass, french horns, woodwinds (flutes, oboe, fagotto), treble brasses (trumpets and trombones), treble strings (violins, violas), choirs, glockenspiel and percussions (timpani and cymbals). Each section can be programmed independently to have a given response to velocity, expression pedal, aftertouch, keyboard zone and velocity level. The "aftertouch lag" parameter lets you adjust the response to the aftertouch messages in order to obtain smooth dynamic transitions.

Tines Electric Piano

There's no keyboardist without a good Rhodes electric piano sound. And the GSi Gemini offers what can be considered the best fusion between sound fidelity and playability. This synth engine is based on more than 10 years of experience on the physical modeling simulation of a Rhodes electric piano, everything in the "body" of each single note from the attack transient to the very last decay is purely simulated. Some minor elements are added from selected sampled sources, but the most important part of the sound is pure synthesis. Every element of the mechanical piano is virtually reconstructed in the Gemini, from the hammer, the hammer-tips, the tines, the tonebars, the pick-ups, the dampers, the output filter straight to the output jack, and they all behave exactly like in the real thing. Each of the 88 notes is simulated individually, and each note is a generator on its own, thus offering the full polyphony, no note stealing and a very natural and true to the original behavior. Plus, this new simulation features a very realistic sympathetic resonance that involves the whole "harp" that can vibrate and resonate every time a key is struck. It is really hard to tell the Gemini simulation from a real Rhodes piano, the level of realism and the number of details is very high.

Reed Electric Piano

Similarly to the previous instrument, the simulation of a Wurlitzer 200A electric piano is totally based on physical modeling with only a minor addition of sampled material. Same technique as before, every part of the mechanical piano is virtually reproduced in order to obtain the maximum level of realism and playability, including the sympathetic resonance. This piano has 64 notes and all of them can play at the same time.

Electric Baby Grand Piano

This is a simulation of a Yamaha CP-70, it offers full polyphony (73 notes) and is based partly on the physical modeling techniques with the use of sampled attack transients. While, in this case, realism is more of a compromise, playability is still a big plus. This instrument, being simulated, offers a wide dynamic range, sympathetic resonance, realistic noises and artifacts, and a rich frequency response.

Clavi Electric Piano

What's the funkiest keyboard ever? The Clavinet D6! And it's also one of the most sought-after vintage keyboards of the 2000's and probably one of the rarest to find on the used market. The GSi Gemini offers a simulation that will literally blow you away! This is pure physical modeling, no samples were used whatsoever and every single note is a generator on its own, just like the previous three instruments in this list. Every detail from the original stringed keyboard instrument is simulated and the polyphony, once again, is full (60 notes). This electric piano has no sustain pedal, but still it behaves like any other electro-acoustic instrument, has sympathetic resonances, can be slightly untuned when a key is over-stroke (uses MIDI aftertouch), reproduces the woollen yarn damper sound upon note release, and offers the exact same control set as a Clavinet D6: there are the four filters, the two pickup selectors and the damper lever. If you listen close enough, you'll also notice that the first 23 strings are round wound resulting in a fuller sound than the rest of the keyboard. No detail was left out in this simulation!

PM Electric Piano

One of the most used electric piano sounds during the eighties was the famous patch "E-PIANO 1" of the Yamaha DX7. The Gemini offers a reproduction of that very patch using the same "Phase Modulation" synthesis, thus the result is exactly the same as the original instrument, no compromise. This synthesizer has a 24-voice polyphony with our "Intelligent Note Stealing Algorithm" that steals only quieter notes and not those being still held, making the polyphony limit not a problem. There are variations to the original patch that offer different flavors of the same synthesis.

MKS Electric Piano

Another very common early simulation of a Rhodes piano was the E. Piano patch of a Roland RD-1000, this was far from being a realistic simulation but soon became a very distinguishable sound with its own personality, especially when paired with the built-in BBD-based 2-voice stereo chorus that could turn a boring digital sound into magic for our ears. The Gemini reproduces that sound using a very similar technique based on the fusion of several synthesis methods, resulting in a very dynamic response and a wide frequency range just like the original instrument. This EP sound is perfect for ballads and warm backgrounds.

Physical Modeling Trumpet

GSi explored the world of the physical modeling of brass instruments back in 2006 with the introduction of "Miles'Tone", a virtual instrument capable of simulating a trumpet without using any samples. GSi Gemini now offers the evolution of Miles'Tone with an improved sound and with two more variations: trombone and tuba. This instrument is totally synthesized, and of course it is monophonic. It was conceived to be easily played with a keyboard without having to use additional controllers, so it has a natural decay, can automatically add a natural vibrato effect and introduces some very realistic transitions between notes according to the intervals. But it also responds to the modulation wheel for manual vibrato, pitch wheel for extended pitch bending, and expression pedal for a wider dynamic control.

GVA-1 Virtual Analog Synthesizer

A virtual analog synthesizer could not miss from this large collection of high-quality real time synthesizers. The GVA-1 is a subtractive synth featuring two sync'able oscillators, two filters in series, feedback input, three envelopes, two LFOs and four modulation matrices. This is not a simulation of a specific existing synthesizer but we can easily say that it was inspired by two very famous synths of the early eighties, one is the Prophet 5 and the other one is the PolySix. We tried to mix these two fantastic machines together and get the best out of both. In fact, the oscillators in GVA-1 feature three waveforms each, triangle, square and saw, with the ability to play them all at the same time; plus, OSC1 offers a sub-oscillator and can be synchronized to OSC2. The VCF1 is a self-resonant 24 dB/Oct low-pass filter with overdrive in the feedback chain capable of screaming if the resonance is cranked up, and it is preceded by a 12 dB/Oct multi-mode resonant filter that resembles the gentle filtering of an early Obie. Some of the key points of GVA-1 are: 1) pulse width is applied on all waveforms, not only square; 2) portamento is applied in all modes including poly mode, not only in mono; 3) there are three modes: mono (uses only 1 voice), poly (up to 24 voices) and unison (uses 8 out of 24 available voices); when in mono or unison mode it uses the last-priority criteria. Another important feature of GVA-1 is the parameter "Analog Feel" that introduces an adjustable oscillator and filter pitch drifting just like an analog synth, resulting in a warmer sound and a pleasant intonation. The GVA-1 is perfect for any kind of analog sound ranging from the fat brass sounds to the cutting sync leads to the warm pad textures.

GSP-01 Sample Player

This is what we call "Adaptive Sample Player", it is a kind of "ROMpler" that doesn't limit itself to playing back samples in a cold and static manner. The GSP-01 can change its internal structure according to the kind of sample-set that is loaded, adding or eliminating some of its features accordingly. For example, there's a special "Physical Modeling Piano Harp Resonance Simulator" that is only activated when a piano sound is loaded and adds some surprising vitality to sampled piano sounds. GSP-01 also adapts itself to various sound styles by activating or deactivating the internal LFO, Pitch Bender, Expression pedal, or sustain re-pedaling features. The total polyphony is automatically pre-calculated according to the type of sound and is based on our Intelligent Note Stealing Algorithm. GSP-01 can only load custom GSi samplesets, and comes with a selection of multisamples covering a wide range of sounds, some of which are sampled from our own vintage synth collection. The sample library is expandable with future GSi releases that can be easily imported into the Gemini.

Wha-wha

This is a very important effect if you're after that funky rhythmic kind of keyboard comping. This effect is modeled after the famous JH CryBaby and sounds great with Clavinet, electric pianos, even the VB3-II organ, or any other kind of sound that is rich of overtones. It can work in different ways: auto-LFO (mimics the up/down movement of a pedal), dynamic (detects level peaks) and pedal (responds to MIDI CC#4).

Stereo Phaser

There are so many lovely phase shifters out there that it's hard to pick just one to imitate, so why not doing one that could sound like them all? This stereo phaser can have 2, 4, 6 or 8 stages, can be monaural or stereo (two individual phasers slightly shifted), and offers parameters such as LFO offset as well as feedback amount. Sounds great on the electric piano sounds and with the String Machine synth.

Stereo Chorus

We've been listening to a selection of chorus effects for keyboards and guitars, ranging from the early analog BBD choruses up to the modern digital ones, but one that works really great on a vast variety of sounds is the two-voice BBD-based stereo chorus that Roland included in the RD-1000 and in many other of their instruments of the eighties. This is a simulation of that very chorus and sounds really great with the MKS electric piano as well as with all other EP sounds and synth sounds, especially pads and strings.

Tremolo / Auto-panner / Ring modulator

The Gemini offers electric pianos and organs, so how could we miss such an important effect in the chain? It is a must in mono mode when combined with the Reed EP, sounds great in square stereo with the Tines EP, and is very useful if you're after that Jon Lord organ sound smashed by the Ring Modulator.

Spring Reverb

It's not a case if this effect is put in this position of the chain, just before the amp simulators and after the modulation effects. This is the exact same code as GSi Type4, which is an exact digital reproduction of the Type 4 spring reverb tank by Accutronics, a Company founded by Hammond organ inventor Laurens Hammond, and a kind of reverberator that is mostly used in guitar amplifiers. Turn it on if you want that boingy reverb effect on EP or Organ sounds.

Amp Simulator

And here comes the boutique amp collection. This processor simulates five among the most used guitar and bass amps of all times: the Fender Twin, the Marshall JCM-800, the Vox AC30, the Roland Jazz Chorus and the Fender BassMan. Each amp features a 3-way equalizer and an adjustable overdrive.

Rotary Effect Simulator

There's no VB3-II without a great rotary effect. This is the exact same rotary effect featured in the Crumar Mojo, offering the same control set and the same sound. Now imagine this: combined with the other 10 effects, that can be turned on all at the same time, the Gemini goes way beyond what a dedicated clonewheel organ can do.

Stereo Delay / Echo

After all these effects a bit of ambience is a necessity. This delay generator can work as a digital delay or as an analog echo machine, it offers a resonant low-pass filter and an overdrive in the feedback chain, can self-oscillate and can repeat infinitely; the "spread" parameter adjusts the distance between the left and the right channel, making it possible to simulate a stereo 2-tap echo as well as a ping-pong delay.

Stereo Limiter

And if the signal level goes crazy, a stereo limiter at this point of the chain comes in handy. This is nothing more and nothing less than... a stereo limiter! There's the threshold, the attack and release times, just like in any other limiter. And it really works.

Digital Reverb

We should call it "the supah dupah holy grail digital reverberator of all times" and charge a huge amount if we were selling this effect alone. But we call it simply "digital reverb" because we want you to use it for bringing light and air to your sound, but it's actually a great reverb effect. It sounds soft, smooth and deep, precise and alive, airy and so much realistic that when you hear it you won't even notice it is there! The best job a reverberator can do is to stay transparent and let the listener not notice that an artificial reverberation has been added to the sound. Well, unless it is used creatively.

Equalizer

This section contains a very simple equalizer that splits the frequency spectrum in two parts: the "mid. Freq" parameter adjusts the crossover point, and with the three levels you can adjust the response curve. It is easy and efficient, can be totally bypassed if necessary, and the last parameter (even though shown first in the list) is the overall output level.

CONNECTING TO THE WEB-APP EDITOR

The GSi Gemini features an internal wi-fi antenna that is used to accept a connection from any modern wi-fi device capable of browsing a web-site. With firmware version 1.15 (released in August 2016) it is possible to choose between two connection modes. The first time you use your Gemini, you must use Method 1.

METHOD 1: Direct connection to Gemini

This is the default method and is restored every time the RESET button is used. Any modern mobile device (tablets and smartphones) or any modern computer (desktop or laptop) can be used to access the Editor web-app. The execution speed of the Editor depends on the CPU power of your device. When the Gemini is on, use your device's network options to start scanning for existing Wi-Fi networks. The Gemini should cast an SSID that starts with "Gemini-xxxxxxxx" where the "x" are replaced by an hexadecimal serial number that is unique per each unit. Complete the connection using the following password: 00000000 (eight times zero). The password can be changed later from the "Wi-Fi Settings" page of the Editor app and can be restored to its default value at any time by pushing the RESET button found at the back of the unit.

Once connected, open your favorite browser (Chrome, Safari, Firefox, Edge, etc.) and type the URL "Gemini/" (the final slash is important, some browsers might not recognize this as a URL) or type the IP number 192.168.1.1 The Editor home page should load into your browser like a normal web site. This can be viewed either in portrait or landscape mode, the page should redraw itself accordingly.

METHOD 2: Connect to Wi-Fi Access Point.

Once you're connected to the Editor Web-App, you can click the "Wi-Fi Settings" button in the home page and configure the connection, in case you need to change the password (recommended!) or wish to use the connection Method 2. This is an alternate method that lets your Gemini connect to an existing Wi-Fi infrastructure, thus allowing it to be accessed from within your Local Area Network. If you prefer this method, first click the button Scan Wi-Fi Network to identify the SSID of your network. This will take a few seconds. A pop-up window will show all wireless networks and their respective signal strength in percentage. Make sure you select the correct network. The next step is to provide the access password, if required by the network. One last step deserves particular attention: you must provide a fixed LAN IP number. An IP number must be unique in the network and should be outside the range of a DHCP service. Double check you're providing the correct IP, if you're unsure, please contact your network administrator. If either the provided password or the IP is wrong, the Gemini won't be able to connect to your network and you can't have any feedback, so please wait up to 2 minutes after the configuration has been confirmed, and if you can't find your Gemini within your network (responding at the IP you've provided), reset the configuration by pushing the "Wi-Fi Reset" button found at the back of the unit and retry the configuration.
A few notes:

1. Pushing the Reset button will restart the system. Please allow up to 10 seconds before the system is up again.

2. Every time the Gemini is powered on, it will restore the network configuration. With method n.2 it might take up to 2 minutes before you can reach the Gemini within your network.

A very important thing: It is strongly advised to avoid any special characters when deciding the name of your wireless network and its password. If you don't want troubles, just use letters and numbers, avoid spaces, punctuation and any other symbol. Remember that the password is case-sensitive.

Notes about the Wi-Fi Password of Method 1:

The default password for connecting to the Gemini is "00000000", it can be changed to any word of a max. length of 8 characters. It's preferable to use only letters and numbers and avoid special characters. Setting a custom password prevents others to connect to the Gemini while we are performing on the stage. However, the Wi-Fi radio in the Gemini is powered enough to serve a connection in a range of max. 5 – 10 meters (30 feet) - even though this distance may vary according to possible interferences - and accepts only one connection at a time, so there's no risk that two people are commanding the Gemini at the same time.

USING THE WEB-APP EDITOR

The Gemini Editor is a Web-App, an interactive web site that can be used to control all Gemini functions. All parameters are presented under the form of horizontal slider for more convenience when using the app from a touch device. However, the app can also be used with the mouse from a conventional computer. An in-line help can be recalled by clicking/tapping on the (?) icon on the top right corner, or on the parameter names in the editing pages.

THE HOME PAGE

Here is where you can switch between the two DSP units by simply clicking / tapping on their icons. Switching is also available in title bar which is visible in all pages, so it's not necessary to get back to the home page every time switching to the other DSP is necessary. The Home page also shows some global options and functions.

MIDI CHANNELS

Each DSP responds to one MIDI Channel. By Default, channels are set to 1 for DSP 1 and 4 for DSP 2. Why not ch. 2 for the DSP 2? Because of the VB3-II organ: since it can respond to 3 distinct MIDI channels for upper, lower and pedalboard, if DSP 1 is set to ch. 1 and VB3-II is in use, channels 2 and 3 will respond respectively for its lower and pedalboard. Similarly, if VB3-II is loaded on DSP 2 while this is set to respond on ch. 4, channels 5 and 6 will respond respectively for its lower and pedalboard. If both DSPs are set to the same channel, they will play together.

PRESET VOLUME

This option lets you choose whether to recall the parameter "Volume" (found at the top of the effect page) when you switch to a new preset. When this option is set to "Load" (default setting), the Volume parameter is restored as a normal parameter; when this is set to "Ignore", the Volume parameter remains untouched when a new preset is recalled.

GLOBAL TUNING

This acts on all 15 synthesis engines and accept a range from A=430 Hz to A=450 Hz, with 440 Hz being the default value. Every time this setting is changed, a reboot is required in order for the new change to take effect.

VIEW MIDI CC MAP

This will open the MIDI CC Map page. See the paragraph "MIDI MAP" later in this manual.

FILES: EXPORT AND IMPORT PRESETS

The 128 presets are stored in a binary file that can be exported from or imported into the Gemini. To import a preset bank, make sure the file is on the root of a USB memory stick, connect it to the USB port of the Gemini and click IMPORT PRESETS. Similarly, if you want to export the current preset bank, insert the USB dongle into the USB port of the Gemini and click EXPORT PRESETS, this will copy the file into the root. If the file is already present, it will be overwritten.

THE PRESET LIST

This page shows the list of the 128 presets. Remember that whatever you save in a preset can be recalled independently on DSP 1 or DSP 2. When clicking/tapping on a preset name, this is recalled on the selected DSP (keep an eye at the top right corner of the title bar).

To save a preset, reach the top of this page, pick a preset from the list, give it a name, write down a brief description for it and click STORE. If you are making small changes to the current preset and want to quickly store them, just get back to this page and click STORE. Since the current preset is already selected in the drop-down list, you don't have to make the selection all the times.

In this page you also have options to import or export a single preset. Remember to select the preset number from the drop-down list before importing a new preset.

THE SOUND LIST

This is where you select one of the 15 synthesis engines. Please note that the engine is automatically selected when a preset is recalled according to what the preset was saved with.

The first 13 engines are simple selection buttons. An exception is done for the last two:

- GVA-1 Virtual Analog Synth: when clicking this engine, a drop down list opens with a selection of factory sub-presets. You can use one of these as a starting point for your own sound that you can later modify in the EDIT ENGINE page.

- GSP-01 Sample Player: similarly, when clicking this engine, a drop down list opens with a selection of factory sample-sets.

EDIT ENGINE

This page shows all parameters related to the selected synth engine. Each engine has its own parameter set. Every time you scroll a fader left or right, you can read the current value on top of it.

EDIT EFFECTS

Effects are organized in colored boxes. This page is very similar to the previous, except that here you can turn on or off the effects you desire and set their parameters. All effects can be turned on at the same time, and remember that each DSP has its own group of all 11 effects. The sound path is serial, from the synth engine through all effects and straight to the output jacks.

MIDI MAP

The MIDI Map page can be reached from the button in the home page or by clicking/tapping on the MIDI CC assigned to whatever parameter. It is possible to assign any of the 127 CC numbers to any parameter, and more than one parameter can be assigned to the same CC, if necessary, but this means that when that specific CC number is received, all parameters assigned to it will change accordingly. A CC is processed only if is sent to the MIDI Channel assigned to the desired DSP. Example: if DSP 1 is set on channel 1 and CC 7 is assigned to the EQ/Volume parameter, it is necessary to send MIDI CC #7 on Channel 1 in order to control the volume. If this CC is sent on another channel, it won't take any effect.

THE USB PORTS

The GSi Gemini includes a Type-A "host" USB 2.0 port. This is used for importing/exporting the preset bank or the single preset files, for updating the software in case a new release is available, and for importing extra samples when these are available.

Another interesting use for this port is to connect a "Class-compliant USB-MIDI device", i.e. one of the many MIDI devices that don't need special drivers when they are connected to a computer. The Gemini will recognize USB-MIDI devices and will use them along with any other MIDI equipment connected to either one or both the classic MIDI inputs located on the rear panel. This way you can connect up to 3 MIDI devices to the Gemini, for example two keyboards and a control surface.

Please avoid connecting unsupported devices to this port. Beware: this port can provide up to 500 mA of current. Don't use this port to charge your mobile device.

An additional Type-B USB 2.0 port is present at the back side of the Gemini that provides Class-compliant USB-MIDI IN/OUT connection to your computer. Use this port to connect the Gemini to your computer software. No drivers are needed for both Windows, OS X and Linux.

THE ANALOG LINE OUTPUTS

The GSi Gemini features a pair of balanced TRS jack outputs that also support unbalanced connections. Connect your amplification system to this stereo output and adjust the output level selector according to your needs.

Obtaining the best performance from the analog outputs

The Gemini features a 3-way switch that lets you select the preferred sound level.

1. L = Low = -10 dB. Use this selection if you are connecting the Gemini to other -10dB (consumer level) equipment such as a home hi-fi system using unbalanced cables; this level should also be used if you intend to connect the Gemini to a guitar or bass amp with a "HI" input (usually dedicated to a preamplified guitar or bass).

2. M = Middle = +4 dB. Use this selection when connecting the Gemini to a professional level equipment (mixers, powered amps or speakers, etc.) and preferably use only balanced cables, which will guarantee a cleaner signal as well an average of 6 dB gain over unbalanced cables. If you're connecting the Gemini to a professional mixer, adjust the gain knobs so that the +4 dB input level is well matched, in order to reduce the noise floor and obtain the highest S/N ratio possible.

3. H = High = about +10 dB. This selection should only be used when connecting the Gemini to some very old amplification system with a particularly low input impedance or weak preamplification. Beware: using this selection with normal professional or consumer level equipment might increase the sound level as well as the noise floor, resulting in a noisy or distorted sound.

THE DIGITAL AUDIO OUTPUT

The GSi Gemini stand-alone version features a coaxial S/PDIF format digital audio output. Connect this output using a standard RCA coaxial cable to your digital equipment and make sure that it is capable of locking the word-clock from an external S/PDIF device. The digital audio format used on this connection is Fs = 44100 Hz – 16 bit, no dithering.

INSTALLATION OF GEMINI EXPANDER INTO DMC-122

GSi Gemini is also available as a plug-in expander version for the DMC-122. It has no control panel and is connected directly to the DMC-122 expansion slot.

STEP 1:
Unscrew the expansion panel using a Phillips screwdriver.

STEP 2:
Gently remove the connection cable.

STEP 3:
Connect the cable to the Gemini expansion. The connector can't be reversed, don't push too hard, make sure it's sliding freely in place.

STEP 4:
Let the cable slide on the side or on the top of the metal casing, then insert the expansion into the DMC-122.

STEP 5:
Tighten the four screws.

On the GSi Gemini product page you'll find an how-to video that briefly shows how to complete the installation process.

TECHNICAL DATA

Specifications:
- – power rating: 9V – 1,6 A
- – output level: selectable -10 dBu, +4 dBu, High Gain (~ +10 dBu)
- – headphone output max load: 32 ohm
- – Gemini desktop dimensions: 26x7x19 cm
- – Gemini desktop weight: 1,5 Kg
- – Gemini rack dimensions: 48,5x4,5x19 cm
- – Gemini rack weight: 2 Kg