

STEREOPING

MATRIA GLOBALESSA / PREFS MISTRESS

Owner's Handbook



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1. Preface and features

Legals

Moog is registered in U.S. Patent and Trademark Office. Moog (stylized with design) is registered in U.S. Patent and Trademark Office. The Moog Icon is registered in U.S. Patent and Trademark Office. Matriarch is a trademark of Moog Music Inc. Stereoping is not associated to Moog in any way.

The Stereoping ‚MATRIA GLOBALESSA‘ is a DIY kit for private use to quickly change the global parameters of the Moog® Matriarch™. We can not be held responsible for any damage of equipment or living creatures. Use at your own risk.

The DIY kit is available in two color schemes which are technically identical:

- „Matria Globalessa“ for the Matriarch™ with the multicoloured design
- „Prefs Mistress“ for the black and red Matriarch™

General features of the Matria Globalessa / Prefs Mistress

The Stereoping ‚MATRIA GLOBALESSA‘ and her dark sister ‚PREFS MISTRESS‘ (in the following simply called ‚MG/PM‘) will help you to quickly edit the GLOBALS parameters of the Moog® Matriarch™ without the need of diving into the manual.

Unless you are a lover of dedicated little hardware devices you dont need a MG/PM. There already are some solutions to edit the globals ...

- free online globals editor from Mark Reid: <https://mark.reid.name/matriarch-editor/>
- a free Touch OSC template from Robe Music: https://www.youtube.com/watch?v=D_35qHxgAjl
- an iPad app by direstudio: <https://www.direstudio.com/mother-global-settings/>

The specs

- Highly specialized hardware midi sysEx editor for the Moog® Matriarch™
- quickly access all the Globals parameters with 2 endless encoders and an OLED display
- connect your Matriarch™ to the MG/PM through USB or DIN MIDI
- jump between function groups with a button
- dedicated pots for tweaking ARP GATE and SWING
- acoustic feedback, which can be deactivated by jumper if you like it silently
- runs on power supply or three AA Batteries
- power saving mode to extend battery life
- firmwareupdate over SysEx-Dump
- current draw 50 mA (2mA in powersave mode)
- weight (without batteries) 245 g
- size 142 x 96 x 66 mm

Technical handling

The MG/PM was built to be used in a comfortable music studio environment. You can operate it under free skies of course. But please keep in mind, it uses electricity for proper operation and therefore is quite sensitive to water, drinks or other fluids. Excessive heat or exposition to sunlight is also not advised.

Due to the 3D printing materials used, excessive heat or direct sunlight is not recommended.

2. Jumpers

On the PCB which will be accessible after removing the bottom plate, you find a configuration jumper, three vertical pins – two of them will be connected with a little bracket. The MG/PM checks if the jumper's configuration and allows to configure functionality.

„Beeping ON OFF“ Jumper for audio feedback

The MG/PM makes slight ticks and beeps to give audio feedback. If you are annoyed by this, you can flip over the jumper saying „SOUND“ from ON to OFF

3. Backside

Power supply system

The MG/PM accepts any ordinary 9 or 12 Volt DC powersupply. The polarity (positive or negative center of the jack) does not matter, both will work.

On the bottomside of the device you will find a battery compartment for holding three AA cells. The power from the DC jack overrides the batteries. If there is power coming from the DC jack, the MG/PM will run from DC power, otherwise it will run from batteries. It makes no difference if the DC barrel is plugged into the jack or not.

We recommend using regular alkaline batteries. Rechargeable batteries only supply less voltage and have fewer capacity. Below 3.83 V the MG/PM refuses to operate, and this condition is reached more quickly with rechargeable batteries.

Please note: for technical reasons, the MG/PM does not have reverse polarity protection for battery operation. The orientation of the batteries is clearly indicated by a battery symbol in the battery compartment. However, it is still possible to insert the batteries the wrong way round. If you have inserted new batteries and the MG/PM does not start immediately when switched on, please switch it off immediately and check the orientation of the batteries again. It will not break immediately if the polarity is reversed, but if you leave it running for a few minutes with the batteries inserted incorrectly, it will eventually burn out.

Running from DC

- the batteries will not be used in any way
- the power saving functionality is deactivated, the MG/PM is permanently on
- when plugging/unplugging DC you will hear a little ‚click‘ inside of the MG/PM, that is no reason for

- concerns, it's just the relais switching the power supply system.
- the LED of the JUMP button glows orange

Running on batteries

- after 5 seconds of inactivity the device falls into sleep saving >95% of power consumption. If you plan to keep it switched on or run extensive arpeggiator Gatetime/Swing sessions, please use a power supply.
- wake it up by pressing the JUMP button, other activity (encoder/pot movement) will be ignored
- holding the JUMP button while the MG/PM is not sleeping shows the current battery status. Below 3.83 V it will start to malfunction
- for battery voltage levels below 3.9 V the display shows a ‚Battery low‘ warning
- the LED of the JUMP button glows red

How long will fresh batteries hold?

- Permanent use: ca. 10 hours
- Battery saving mode: ca. 24 days

Midi connections

The MG/PM can be connected to the Matriarch™ by DIN MIDI or by USB. The detection which port is connected runs automatically. Whatever interface you are currently using for DAW or Sequencer integration, use the other interface to connect the Matriarch™ to the MG/PM. For USB it's only one cable. If you want to use DIN MIDI you need to connect both jacks in a loop:

- MIDI OUT of the MG/PM to MIDI IN of the Matriarch™**
- MIDI IN of the MG/PM to MIDI OUT of the Matriarch™**

4. Frontpanel controls

ON / OFF switch

This switch physically disconnects batteries and DC power supply from the device. **Make extensive use of this ON/OFF switch to extend your batteries life.** OFF is better than battery saving mode. If the unit is in battery saving mode and the power LED is shining, there still is some energy being sucked from the batteries. Only after switching it OFF you can be sure, the MG/PM is not consuming any power at all.

Pushbutton

The pushbutton has two main functions:

- jumps from group to group
- holding this button on powerup puts the MG/PM into bootloader mode awaiting a firmware update
-

When being operated with abtteries, the pushbutton has two more functions:

- hold the button and the display will show the current battery voltage
- if the MG/PM is sleeping, wake it up by pressing this button

Encoders for PARAMETER and VALUE

The endless encoder labeled PARAMETER allow to travel through all parameters whike the Encover labaled VALUE will change their values.

ARP potentiometers

ARP Swing and Gate can be controlled over Midi Continuous Controller messages with these pots.

Caution: ARP SWING is also is a regular global parameter which is stored on the Matriarch™ itself and will be

restored on powerup. If it was set to extreme values, the timing of the arpeggiator might appear quite broken. The most neutral value for Arp Swing is in the middle at 64.

5. Grouping of parameters

When looking at the Matriarch™'s global parameters we found their natural order a bit ... confusing. For easier orientation through the 67 parameters we thought it's good idea to rearrange them in 5 theme groups.

When cycling through the parameters with the PARA encoder, the current group is indicated by an LED.

With the jump button, you can quickly hop from one group to the next and automatically land on **the most important group parameter (shown in brackets behind it)**.

- **MIDI** - MIDI parameters for channels, ports, data filter, Arp/Sq Midi out, Midiclock **(In Channel)**
- **CLOCK GATE CV** - Voltage related parameters for Clock, Gate and CV ranges **(Arp/Sq Clock in)**
- **KEYBOARD ARP SQ** - parameters for Keyboard, Arpeggiator and Sequencer **(Local Cntr Keyboard)**
- **PITCHES GLIDE** – Pitches and Glide **(Pitchbend range)**
- **OTHERS** - parameters not falling in one of the above categories like e.g. Unit ID or Delay brightness **(Noise Cutoff)**

6. Troubleshooting

Parameters which are not working (but maybe will in the future)

We thoroughly followed the official SysEx implementation, compared it to the edits of Marc Reid's online editor and also tried to find out what can be found out on the Matriarch™ itself – but there are some parameters which simply do not seem to work when being changed, at least on our Matriarch™. We implemented them nevertheless. Maybe they will be fixed in another firmware update for the Matriarch™ in the future.

List of parameters not doing what they should:

- 42 LEGATO GLIDE – OFF / ON make no difference. This parameter can easily be changed on the Matriarch™ itself: hold SHIFT and move GLIDE knob above Noon for ON or before Noon for OFF
- 51 DELAYED OCTAVE SHIFT – GLOBAL GROUP 4 G#2 C#0 – OFF / ON make no difference, always on OFF

With firmware 1.3.0 the parameter MIDI VELOCITY CURVES was introduced. If your Matriarch is still running a firmware before 1.3 the display will show „**no answer/old FW**“ when trying to read or update this parameter.

Display is dark and red button is on?

Energy saving mode, press JUMP button

Arp is humbling or missing notes?

Swing set wrong, put pot in middle position and also check the globals parameter #40 Arp/Sq Swing. This should normally be set around center position (64) to avoid extensive swing which in fact will make 16th sound like humbling 8th notes.

7. Updating Firmware

Your MG/PM offers a firmware update mode. After entering this mode you just send a firmware-file into the DIN Midi IN jack, USB will not work! The firmware for the MG/PM in SysEx-format is available in the DOWNLOADS section of the shop under <https://www.stereoping-shop.com> The firmwares for MATRIA GLOBALESSA and PREFS MISTRESS are identical apart from the greeting text when powering up the device.

You can dump the firmware with any standard SysEx dump tool of which several are available as freeware for different operating systems. An example for PC is 'Midi sysex file transfer utility', for the Mac you could use 'SysEx Librarian'.

The technical part:

- Switch off the MG/PM, it's advised to use a power supply for the update.
- Connect **MIDI OUT** of your Midi-Interface directly to the jack **MIDI IN** on the backside of the MG/PM
- If the SysEx-Dump programs offers an option 'Delay between Buffers' or 'Delay after F7', please choose something around 100mS (Milliseconds) here.
- If there is an option for output buffers, dont set it higher than 128 bytes.
- Hold the JUMP pushbutton and flip the ON/OFF switch to ON. The Display should read **'MatriGlob Flash / OS→DIN MIDI IN'**. You can release the JUMP button now.
- Load the new Firmware into your SysEx-Dump Program and send it out
- In rare cases there is a data-chunk stuck somewhere and you will see the message „Wrong file“ on the MG/PM's display right at the beginning. Stop the firmware transmission, simply press the pushbutton again and restart the firmware transmitting. It should work on the 2nd or 3rd try.
- The display shows OS-Version and progress. After about 2 minutes the MG/PM restarts
- If you will get an error on the screen please try another cable or increase the delay mentioned above. Just try again, there's nothing you can brake.

8. Imprint

Stereoping is a registered trademark of Gregor Zoll, Germany.

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