STERE OPING

SYNTH PROGRAMMER FOR PROPHET VS

OWNER'S HANDBOOK

\bigcirc	OSCILLATOR GROU	Р		LFO GROU	IP		2ND L	ARP	PEEK	2ND R	FILTER		FILTER EN	v			
		Wave		Ra	te	Glide					Cutoff	2 Reso	Name	1-4 Rat	te _		
		Freq									Voic	e Pan O		5-8 Lev	rel	4	
	$- \bigcirc - \bigcirc$		-			; (1)		_			T)			$ \bigcirc$ $-$	$ \bigcirc$ $-$	$ \bigcirc$ $-$	
	A B	C	D	1	2	Unison Detune	PR)GRAMM Nouet	ER FOF	8 66	Env Amnt	4					
				Syn	th Progra	mmer for			10 11	00	CHORUS		AMP ENV				
			ERECOPIN		rophe	et VS					O ₅	₆ U		\odot	\odot		
	PREFS PROGRAM	MOD AMOUN	τ ΙΙ								Rate	Depth		2 Rat	te 3	4	
	Mix Rate 1											ň					
		++						V			O,	8	O	\odot			
	Velocity Pressure	Keyboard	Filter Env	Lfo 1	Lfo 2	Double Delay / Detune				El	NVs Loop / Rep	eat			Link Program	Volume Keymode	

General features of the Synth Programmer	4
Features of the Edition for Prophet VS	4
Bugs of the Prophet VS	4
Technical handling	4
1.Connections and integration into your setup	5
Power supply	5
Midi connections	5
2.Settings and workflow	6
Settings on the Prophet VS	6
Synchronisation	6
Saving	6
3.Overview	7
Function keys	7
PLAY Mode	7
Button 'PREFS'	7
Button 'PROGRAM'	7
Button 'MOD'	7
Buttons '2ND L'	7
Button 'ARP'	7
Button 'PEEK'	7
Button '2ND R'	8
4.PLAY Mode	9
Exception OSCILLATOR FREQ FINE & COARSE	9
Exception DOUBLE DELAY & DETUNE	9
Exception ENV RATE 4/4A	9
Exception CHORUS L/R ON/OFF	9
The example to the right shows: the original Program had both Chorus L and R to off. Currently the left Chorus is ON	; 9
Exception ENVELOPE LOOP & REPEAT	10
Exception VOLUME / KEYMODE	10
Special 'SELECT ONLY' parameters	10
Making changes on the VS itself	10
Rounding errors	10
5.2ND L&R and WAVE ENVELOPE LEVELS	11
Suggested workflow and VS-quirk regarding WAVE ENV LEVELS (OS V 1.2r)	11
6.MODULATION Mode	12
7.ARPEGGIATOR Mode	13
VS-quirk regarding ARPEGGIATOR RATE (OS V 1.2r)	13
8 PROGRAM Mode	14
0 DEEE and MIDI PVDASS MODE	
Midi Bungs Mode	13 15
Setting the VS MIDI OPTIONS PARAMETERS to TRANSMIT +RECEIVE	15
10.CC to SysEx translator.	16
11.Updating Firmware	17
12 Imprint	18
·	13

General features of the Synth Programmer

The Stereoping Programmer offers 45 control knobs, 4 endless encoders and a 16x2 characters OLED display for convenient and intuitive sound shaping of your Prophet VS. At the moment you turn a knob, the programmer sends the suitable command into your synthesizer which immediately changes it's sound.

- Highly specialized hardware midicontroller for Prophet VS
- Convertable from 19" rackmount to desktop usage and back
- 45 dials, 4 encoders, 2x16 character OLED display
- Firmwareupdate over SysEx-Dump
- Current draw 100 mA
- Weight 2.650g
- Size without rackmount brackets, incl. knobs and rubber feet ca. 430 x 130 x 85 mm

Bugs of the Prophet VS

The Prophet VS in OS Version 1.2r does not seem to react to changes of SPLITPOINT. Unfortunately you have to set it on the VS directly.

Technical handling

The Synth Programmer was built to be used in a comfortable music studio environement. 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.

Your programmer has got a neat OLED display. The OLED technology is quite young. As none really can guarantee how long it will keep it's perfect function after displaying the same content for hours or even days, we integrated a screensaver to mutiply the lifetime of the display. If the programmer is not touched for longer than 23 minutes it will fall into screensaver mode and switch the OLED display off – the LEDs in the buttons above the display will start to blink slowly. The programmer awakes immediately if a knob is moved or notes are being sent through it.

Some 'No-need-to-worry' information: the datasheet of the display claims 50.000 hours until it has lost 50 % of it's brightness. If you would use your programmer 5 hours on each day of the year this will take over 27 years – even with deactivated screensaver.

1. Connections and integration into your setup

Power supply

You can use any ordinary 9 Volt <u>DC</u> powersupply to operate your controller. The connector should have **Plus on it's center pin** and Ground - sometime labeled as 'Minus' - on the outside. The Synth Programmer has a protection diode for not doing any harm if the polarity of the power supply is wrong, it just won't work. The current of the PSU should at least offer about 200 mA (=0.2 A). If it supplies more current (e.g. 500mA) this is fine and won't cause problems.

Please do NEVER use a powersupply which has an 'AC'-Output. AC means alternate current. AC-PSUs have the letter combination AC/AC or a sinewave symbol besides the word 'output'.

Midi connections

The Stereoping Programmer has 3 Midi jacks which should be cabled like that:

- MIDI 1 OUT -> MIDI IN of your VS
- MIDI 1 IN -> MIDI OUT of the VS
- MIDI 2 IN -> MIDI OUT of your Midi interface/sequencer/keyboards



Both jacks of Midi 1 connect the Programmer with your synth in a loop. This seems unconventional but it is necessary: the Synth Programmer must hold the same patch data in it's memory as your VS. This data exchange runs through **MIDI 1 IN / OUT**.

A Synthesizer would not make any sense if it could not receive midinotes, modulation wheel changes etc. These are coming into the programmer over the **MIDI 2 IN** jack from your keyboard/DAW/sequencer. They will be merged with your parameter changes and sent together to the synthesizer.

2. Settings and workflow

Settings on the Prophet VS

There are some requirements for the Programmer to work with the VS flawlessly:

- MIDI OPTION SELECT parameter 'RECEIVE MODE' of the VS should be set to 1 or 3
- If 'RECEIVE MODE' is set to 3, the RECEIVE CHANNEL RIGHT of the VS has to match the Programmer's midi channel (can be changed in PREFS).
- MIDI OPTION SELECT parameter 'MIDI PROGRAMS' should read 'TRANSMIT+RECEIVE'. This is the default setting after powering up the VS. If it is set to 'TRANSMIT ONLY' the Programmer's PROGRAM Mode will not work as expected anymore. If it is set to 'RECEIVE ONLY' the Programmer will not recognize Program selections made on the VS and will not sychronize automaticaly.
- MIDI OPTION SELECT parameter 'MIDI PARAMETERS' should read 'TRANSMIT+RECEIVE'. After powering
 up the VS this setting sais 'DISABLED'. To avoid you have to dig into the MIDI OPTIONS menu for each
 studio session, the Programmer offers a little shortcut: simply entering PREFS sends a little Midi
 command to the VS to change it's parameter 'MIDI PARAMATERS' to 'TRANSMIT+RECEIVE'. This feature
 can be disabled in the PREFS.

Synchronisation

Directly after powerup the Programmer is 'empty', it should be feeded with the parameter data of the currently selected VS program. As the Programmer has no idea about all the original values of the program, the display shows questionmarks instead of the original values.

Synchronisation is easy, there are even 2 possible ways:

1. select the program of choice on the VS itself – that's it. The Programmer syncs itself automatically, it's display shows a message like:

"RQ success #67 MELLOPAD"

2. use the Programmer's PROGRAM Mode which will be described in detail later.

Saving

Saving your program must be accomplished on the VS itself, the Programmer does not offer any possibility to save your patch or ask the Prophet to do so.

3. Overview

Let's take a quick look on the user interface first. Details for the different modes and buttons are following in behind – if necessary at all.

The 45 turn dials are – you guess it already – for direct changing of the parameters of the VS.

The 4 endless encoders are for finetuning values on features tweaked best in fine steps and with a display. There are 4 lines, each starting on an encoder and ending in a corner of the display. This should help finding the right encoder of the parameter you want to change.

The 7 buttons change the main modes. The 4 buttons above the display sometimes have a secondary function:

Function keys

In modes like MODULATION or PROGRAM the 4 buttons above the display act as special keys to execute different menu functions. A button acting as function key has it's LED shining and a command printed in capitals in the 1st line of the display.

PLAY Mode

After powerup or if no other mode is selected you are directly in **PLAY MODE**. This is the main mode you will spend most time in: here you change the parameters of the Prophet VS with the knobs. Details to PLAY Mode follow in *Chapter 4. Play Mode*

Button 'PREFS'

Press **PREFS** to enter the Programmer's menu with it's preferences. Any changes you make here will automatically be saved on exiting. The settings are also preserved after powering the Programmer down of course. Holding the PREFS button for longer than 2 secs. activates **MIDI BYPASS MODE**. Details on all PREFS parameters and the MIDI BYPASS MODE will follow in Chapter 8. PREFS and MIDI BYPASS MODE. The third task of the PREFS button is to automatically set the VS MIDI OPTIONS to 'Parameter Transmit&Receive'. More about the PREFS in *Chapter 9.*

Button 'PROGRAM'

This button allows entering and exiting the PROGRAM Mode where to remotely select Programs on the VS. All about this mode in *Chapter 8. PROGRAM Mode*.

Button 'MOD'

This is the place to edit the modulation switches for the destinations – much easier now than on the VS itself. All about this mode in *Chapter 6. Modulation Mode.*

Buttons '2ND L'

After pressing this button it's LED starts shining and the parameters in grey on the <u>left</u> side of the Programmer get active, the WAVE ENVELOPE parameters. Press the button again to return to the 'normal' parameters. There is also a little chapter about the 2ND layers.

Button 'ARP'

This mode allows setting the parameters of the Arpeggiator. All about this mode in *Chapter 7. Arpeggiator Mode*.

Button 'PEEK'

Press **PEEK** to toggle **PEEK** mode on and off. While PEEK is active any knob fiddling brings the parameter to display without changing the value or sending anything to the VS.

Hint: If you just need to PEEK one or two parameters only and want to avoid clicking ON/OFF, ON/OFF, ON/OFF there is a shortcut: keep PEEK pressed. If you hold the PEEK button longer than ½ a second on activating, it will be immediately disabled again as soon as you lift it again. This saves half of the 'Clicks'. As long as PEEK is down you can peek as many parameters as you like of course.

Note: PEEK is not available in Modulation mode as the values can only be changed by encoders there.

Button '2ND R'

The same as with '2ND L' but now the grey parameters to the <u>right</u> side will become active; PAN, NAME and LINKED PROGRAM.

4. PLAY Mode

This is the active mode right after powerup.

When turning the knobs the display shows the following information:

- to the upper left the parameter's name
- lower left the original Program's value for this parameter in brackets
- to the lower right the new value as you are currently tuning it in

The new value can also be finetuned using the 3rd encoder. (Why encoder 3? Because the line printed on the faceplate leads from encoder 3 to the lower right corner of the display).

Now there are some exceptions to optimize workflow and handling

Exception OSCILLATOR FREQ FINE & COARSE

The values for OSC FREQ COARSE and FINE will be – like on the VS itself – displayed together. The picture to the right shows an example: the original values of the VS Program were COARSE: 08 and FINE:73. Currently they are tuned in to COARSE:12 and FINE:48.

FINE will be changed by the knob and can be adjusted with encoder 4 additionally.

COARSE FREQUENCY (0-24) will be set with encoder 3.

While your VS is in EDIT WAVEFORM mode you can perfectly use the Programmer's FINE and COARSE controls to edit the HARMONIC.

Exception DOUBLE DELAY & DETUNE

DOUBLE DELAY and DETUNE appear together on display. DELAY will be changed by the knob and can be finetuned with encoder 4. DETUNE (0-31) is changed with encoder 3. The value display for DOUBLE DELAY is in milliseconds as on the VS's display as well (0-508 in steps of 4).

Exception ENV RATE 4/4A

The envelope rates 4 and 4A of the three envelopes will be shown together on the display. RATE 4 will be changed by the knob and can be finetuned with encoder 4. RATE 4A (0-99) is changed with encoder 3.

Exception CHORUS L/R ON/OFF

ON and OFF for Chorus L and R is found on both display pages for CHORUS RATE and DEPTH. In both screens you can change the combination for ON, OFF, L and R with encoder 2 or 3. A little tickmark means ON, a short dash means OFF.

The example to the right shows: the original Program had both Chorus L and R to off. Currently the left Chorus is ON.







Exception ENVELOPE LOOP & REPEAT

The knob with the label 'ENVs Loop/Repeat' does not change anything, it only gets LOOP and REPEAT on display for the currently selected envelope:

- Encoder 1 selects one of the 3 Envelopes for Filter, Amplifier or Mix. Accordingy you will see 'A ENV', 'F ENV' or 'M ENV' in the upper left of the display.
- Encoder 3 sets the value for LOOP
- Encoder 4 changes REPEAT (if LOOP is not set to OFF)

Exception VOLUME / KEYMODE

PROGRAM VOLUME will be changed by the knob and can be finetuned with encoder 4. The KEYMODE (Normal, Split or Double) can be changed with encoder 3.

Special 'SELECT ONLY' parameters

There are some parameters on the VS where immediate changes when turning a knob would be not that helpful due to drastical changes in sound, e.g. the Wave number. For such parameters the Programmer offers the option just getting them on display without making any changes. The value itself is changed by encoder afterwards. Other candidates for this feature are LINKED PROGRAM and WAVE ENV LEVEL. This feature can be disabled in PREFS.

Making changes on the VS itself

During your Program edit session you can safely make changes on the VS itself. The Programmer updates it's values accordingly and displays your changes.

Rounding errors

Due to some technical reasons you might in rare cases encounter slightly different values on the displays of the VS and the Programmer. This is a result of inevitable rounding errors.

5. 2ND L&R and WAVE ENVELOPE LEVELS

45 knobs are not sufficient for mapping all Prophet VS parameters directly. Some of them had to be banned onto a second layer. You can easily identify them as they are printed in grey.

The WAVE ENVELOPE is found in the left half of the faceplate – the appropriate knobs get active after engaging the 2nd layer of the left side by pressing the button labeld '2ND L'.

If you like to change VOICE PANNING , NAME or the number of the LINKED PROGRAM you should press the button '2ND R'.

The second layers for left and right can be activated/deactivated independently. This allows changing RATES and LEVELS of the 3 envelopes alltogether.

Suggested workflow and VS-quirk regarding WAVE ENV LEVELS (OS V 1.2r)

As you surely know the WAVE Levels set the volume relation for the 4 Oscillators. Technically spoken each of the 5 points holds 2 values: one for X (Mix between OSC A and C), the other for Y (Mix between OSC B and D). The valuespan ranges -63 to +63. E.g. for the joystick to be set to the center, both values are zero and all oscillators are equal in volume.

By now it was quite tedious adjusting the wave envelope with it's different points, the Programmer makes things much easier. Now it would be quite abstract, setting these 'doublelevels' with X/Y knobs on the Programmer. Although this is possible for technical reasons it's much more intuitive using the joystick. This is where the suggested workflow comes into play:

The WAVE LEVELS are members of the group of SELECT ONLY parametern we already talked about in the chapter PLAY Mode: turning the knob only gets the parameter on display without changing values. The display always shows X and Y values of a point together. The current point is shown to the left side, as usual original values appear in brackets. The values can be changed with encoders 3 and 4.



Now on the important part: right after touching one of the 10

WAVE ENV LEVEL knobs, the VS itself also jumps to the suitable WAVE ENV LEVEL display. You would like to set the levels with the joystick now, but ... in dependance of the parameter being active BEFORE touching one of the WAVE ENV LEVEL knobs, the joystick might refuse to set the WAVE LEVELS. Instead it does what it normally does – set the OSC mix for the currently held note.

The Joystick will set WAVE ENV LEVELS only if one of the following parameters was active before touching one of the WAVE ENV LEVEL knobs:

- Wave, Filter or Amp Envelope Rate or Level. As long as you are moving between the 3 envelopes rates and Levels the Joystick will work on WAVE ENV LEVELS pages immediately.
- Wave Number

In all other cases (e.g. Cutoff, LFO1 Rate...) the joystick does NOT change LEVELS when jumping to the WAVE ENV LEVELS page.

<u>But wait, there is a trick!</u> Just press LEVELS on the VS section ENVELOPE GROUP, afterwards the joystick will be functional for setting the selected point's Levels. As mentioned above: as long as you move inside the 3 envelopes there is no need to press LEVELS each time.

6. MODULATION Mode

Modulation depth for 6 of the 7 Modulations-Slots (MODWHEEL does not offer a modulation depth setting) can be tuned directly with the blue-capped knops. To edit the switches of all slot's destinations the Programmer offers the MODULATION MODE.

Press the blue button, it's LED gets bright and the display's 1st line shows up to 4 modulation destinations. Behind each destination's abbreviation there is either a tickmark (meaning 'destination set') or a short dash ('not set'). Active destinations are also indicated by a lighted LED in the button above the display position.

If there are more destinations in the currently selected slot, you will see small arrows pointing to the left or right to the beginning or the end of display line 2. Use encoder 1 or

4 to scroll in the arrows direction until you reached the last 'page' of destinations and the arrow disappears.

The example to the right tells us the following:

- the destinations FILTER and MIX B-D are set
- the destinations MIX A-C and AMP are not set
- we are in modulation slot VELOCITY
- original modulation depth was 0
- current modulation depth is -27
- there are more destination switches to the 'right' (reachable with encoder 1 or 4)

You can use the 4 buttons now to activate/deactivate the dedicated modulation destinations.



Line 2 also indicates the slotname (LFO1, PRESSURE) as well as the current modulation depth; as usual the program's original value in brackets and the currently set/edited value afterwards.

Encoder 2 can be used to scroll through the 7 modulation slots.

Encoder 3 offers finetuning of modulation depth. You can as well use the knobs themselves for faster changes and to hop between the modulation slots.

All other pots are also still active in MODULATION MODE and will be reflected on display. The screen jumps back to the modulation destinations after 1.5 seconds of inactivity.

Display abbreviations for modulation destinations and their meaning:

- FqA = Frequency OSC A (appropriate for B, C, D)
- Flt = Filter / Cutoff
- FEd = Filter Envelope Depth (used by VELOCITY only)
- A-C = Mix of Oscillator A and C (appropriate for B-D)
- L1r = LFO 1 Rate (appropriate for LFO 2)
- L1a = LFO 1 Amount (appropriate for LFO 2)
- Amp = Amplifier / Volume
- AEd = Amp Envelope Depth (used by VELOCITY only)
- Pan = Voice Paning
- CHr = Chorus Rate
- Chd = Chorus Depth
- FRQ = All Oscillators Frequency (used by FILTER ENV only)

7. ARPEGGIATOR Mode

The VS's arpeggiator with it's 10 parameters is quite versatile. The Programmer tries best to make things easier not having to press the ARP OPTION SELECT button over and over. Push the Programmer's ARP button to enter the ARPEGGIATOR Mode. You will get direct access to all 10 parameters distributed on 4 pages. Encoder 1 scrols through the 4 pages while the other 3 encoders can be used to change up to 3 parameters per page.

Example screen to the right.

You might ask where to find the parameters ARPEGGIATOR ON/OFF, CHANNEL and CLCKS/STEP?

 ARPEGGIATOR ON/OFF, CHANNEL as well as CLOCKS/STEP are not part of a Program and can not be changed over Midi. They are unfortunately unreachable for the Programmer.



VS-quirk regarding ARPEGGIATOR RATE (OS V 1.2r)

Trying to change ARPEGGIATOR RATE over NRPN like all other VS parameters does not work, we suspect this is a bug of the VS's firmware (V1.2r). By chance we found a technical trick to change it nevertheless. For this to work the Arpeggiator must be running, means set to ON.

If the Arpeggiator is OFF and the Programmer tries to change the RATE, the VS ignores the command to jump into RATE and interprets the value changes for the currently selected parameter.

8. PROGRAM Mode

PROGRAM Mode allows selecting Programs directly from the Programmer.

When entering Program Mode (with emoty memory after powerup) reads: 'Use Encoders to select Program'.

Try encoder 3 to set the desired Program number, encoder 2 changes the desired number in steps of 10. You will see something as shown on the picture to the right. The upper left corner of the display normally shows the number of the last requested program number. As long as the Programmer did not receive any data there will be a questionmark instead.

Pressing the button above the display position saying 'YES' calls the desired Program on the VS and automatically requests the corresponding parameter values. Now you are ready to go.



You can of coarse also press 'XIT' to exit PROGRAM Mode without calling any program.

After at least one program was requests, the display should look like the second picture to the right:

- The upper left shows the Program number of the last requested Program
- Use the buttons labeled PRV and NEXT to step . programs up or down
- Pressing XIT leaves PROGRAM Mode •
- this screen also allows jumping to numbers using encoder 3 (single steps) and encoder 2 (steps of 10)

You can leave PROGRAM Mode any time by pressing the PROGRAM button again.



14

9. PREFS and MIDI BYPASS MODE

PREFS menu offers 5 pages. The currently selected page will be displayed in the upper left corner in format '2/5' e.g. You can swap pages with encoder 1 and 4. Values can be changed with encoder 2 and 3.

- **'1/5 Midichannel'** this is where to set the Programmer's Midichannel. It should fit the current midichannel of your VS.
- '2/5 Send MidiAll' this is an abbreviation for "ENTERING PREFS SETS THE VS MIDI OPTIONS PARAMETER 'MIDI PARAMETERS' TO 'TRANSMIT+RECEIVE'". As described in the technical requirements this VS parameter must be set appropriately for the communication to work. Setting this to YES will cause the Programmer to set it automatically right on the VS when entering PREFS.
- **'3/5 XtCC Display'** means 'External CC Display'. This let's you decide if the Programmer's display should show incoming CC-messages. When using a lot of modulation curves in a DAW automating the VS, it might be disturbing having lot's of display messages. You can deactivate the display of incoming CC messages then with this parameter.
- '4/5 ParSelctOnly' another abbreviation. This time for "PARAMETER SELECT ONLY". You remember about this group of parameters which only get their value on display when turning the knob, without changing the value (WAVE NUMBER, LINKED PROGRAM, WAVE ENV LEVELS)? When this PREFS parameter is set to YES, the formerly mentioned parameters <u>are not changed by the pot movement</u> and need to be adjusted with the encoders.
- '3/3 Screensaver' YES means the display falls asleep after 23 minutes of inactivity. This can increase lifetime of OLED displays. As soon as you move a knob or some mididata is detected on the programmers Midi In the display wakes up.

You can leave this mode by pressing the PREFS button again. If you changed any of the values, your new settings are saved automatically.

Midi Bypass Mode

The PREFS button got a secondary function. By holding it for 2 seconds the Programmer jumps into **MIDI BYPASS MODE**. Being in MIDI BYPASS MODE most of the routines of the Programmer are skipped and any midi data coming in on **MIDI IN 2** will be forwarded unprocessed and unfiltered to your Prophet on **MIDI OUT 1** - as if your Programmer would not be in between at all. This mode is quite useful if you want to dump some soundbanks into the VS. You can leave MIDI BYPASS MODE at any time pressing PREFS again.

Setting the VS MIDI OPTIONS PARAMETERS to TRANSMIT +RECEIVE

We now mentioned that numerous times: the PREFS Mode got a 3rd task besides setting the PREFS and MIDI BYPASS Mode. If the PREFS parameter '2/5 Send MidiAll' is set to YES, entering PREFS sends a little midi command to the VS to change it's MIDI OPTIONS parameter called 'MIDI PARAMETERS' to 'TRANSMIT+RECEIVE'. This way you do not have to dive into the VS interface for setting it right after powerup – just press PREFS of the Programmer 2 times (entering and exit again) to get going.

10. CC to SysEx translator

Maybe you like to automate cutoff, LFO rates or Chorus depth in your song? This is where the CC-translator comes into play, it converts ordinary Midi Control Change messages into the complex NRPN-Strings your Prophet needs to see for parameter changes.

Setup a 'mixermap' or 'Dashboard' (or whatever it is called) in your DAW with sliders or turn dials sending Midi-Controller-Change messages (CC). You just need to assign the CC number associated to your desired parameter to such a control (according to the table). By moving or automating this control inside your DAW or sequencer the Programmer translates the DAW's CC-output into NRPNcommands and sends them to the VS which immediately changes it's sound.

For avoiding intersecting with Standard-CCs like Volume (#7) or panning (#10) some CC-numbers are left out. The CC data must be sent on the same midichannel as your Programmer and VS is set to.

Technical information: depending on your midi setup the automation of many parameters while playing notes at the same time might lead to timing issues.

The valuespan for CC-Data is 0-127, therefore some roudning errors might occur when automating modulation amounts ranging from -99 to +99.

20	FREQ Fine 1
21	FREQ Fine 2
22	FREQ Fine 3
23	FREQ Fine 4
24	Cutoff
25	Resonance
26	Filter Env Amnt
27	Lfo1 Rate
28	Lfo2 Rate
29	Unison Detune
30	Chorus Rate
31	Chorus Depth
32	Mod LFO1 Amnt
33	Mod LFO2 Amnt
34	Mod PRS Amnt
35	Mod VEL Amnt
36	Mod Key Amnt
37	Mod Flt Env Amnt

11. Updating Firmware

The day may come you want to update your edition or try out another. Your Synth Programmer offers a firmware update mode for this. After entering this mode you just send a firmware-file into the controllers MIDIIN 2 jack. The firmwares in SysEx-format are all compatible with your Programmer and freely available on our website. You can dump them with any standard SysEx dump tool of which several are available as freeware for different operating systems. An exmaple for PC is 'MidiOX', for the Mac you could use 'SysEx Librarian'.

The technical part:

- Switch off the Stereoping Programmer
- Connect **MIDI OUT** of your Midi-Interface directly to the jack **MIDI 2 IN** of the Programmers using a short cable of good quality
- There are some preferences in most SysEx-Dump Programs like 'Delay between Buffers' or 'Delay after F7'. Please choose something around 100mS (Milliseconds) here.
- Hold the button '2ND L' down and power up your Programmer. The Display should read 'BOOTLOADER'
- Load the new Firmware into your SysEx-Dump Program and send it out
- The display shows OS-Version and progress. After about 2 minutes the Programmer restarts
- If you see the message 'WRONG FILE' and you are sure you got the right file stop your firmware transmission, press the '2ND L' button again and restart the firmware sending. Sometimes there is a byte stuck in buffer somewhere.
- If you will get an error on the screen please try another cable or increase the delay mentioned above.

Note: the firmware update erases all PREFS settings.

12. Imprint

Stereoping is a registered trademark of Gregor Zoll, Germany.

- Adress Gregor Zoll Musikelektronik Hermann-Voss-Str. 21 59872 Meschede Germany
- *E-Mail* <u>hello@stereoping.com</u>
- Homepage <u>http://www.stereoping.com</u>

	• •	
Im	nrint	
	ριπι	_

STERE OPING



SYNTH PROGRAMMER

