SIEL Expander 80 (Suzuki SX-500)

Undocumented system exclusive messages and control change numbers remainder

Midimetric 2009

Numerical notation is per font : Decimal 0, 15 / **Hexa 00, 0F** / **Binary 0000, 1111**

	Patch Request / 5 bytes	
HEX	Purpose	Range
F0	Start of Exclusive	
21	SIEL Manufacturer ID	
00	Command 'Patch request'	
##	Patch number 0 to 49 (99 with RAM cartridge)	00-31(63)
F7	End of Exclusive	

	Patch Dump / 50 bytes	
HEX	Purpose	Range
F0	Start of Exclusive	
21	SIEL Manufacturer ID	
03	Command 'Patch dump'	
##	Patch number 0 to 49 (99 with RAM cartridge)	00-31(63)
00	Patch format EX80	
0X	Data : 44 nibbles (only uses 4 lower bits of each midi byte)	00-0F
F7	End of Exclusive	

	Patch data / 44 nibbles		CC message
Index	Parameter : Name (voice A yellow / B blue)	Range (default 00-0F)	B0 ... #
0	64 : Square 16" level		35
1	65 : Square 8" level		36
2	66 : Square 4" level		37
3	67 : Square 2" level		38
4	51 : LFO 1 Frequency		2E
5	41 : LFO 2 Frequency		28
6	4 : VCA-A Slope time		0F
7	6 : VCA-A Release time		11
8	1 : VCA-A Attack time		0C
9	2 : VCA-A Decay time		0D
10	14 : VCA-B Slope time		18
11	16 : VCA-B Release time		1A
12	11 : VCA-B Attack time		15
13	12 : VCA-B Decay time		16
14	34 : VCF Slope time		24
15	36 : VCF Release time		26
16	31 : VCF Attack time		21
17	32 : VCF Decay time		22
18	5 : VCA-A Sustain level		10
19	3 : VCA-A Break point level		0E
20	15 : VCA-B Sustain level		19
21	13 : VCA-B Break point level		17
22	35 : VCF Sustain level		25
23	33 : VCF Break point level		23
24	23 : Noise level		1F
25	75 : Filter enveloppe level		3D
26+27	21 : Interval LSB+MSB 0-61	0000-0D03	1D
28	72 : Resonance		3A
29	82 : Volume		3F
30	43 : LFO 2 Initial Level		2A
31	53 : LFO 1 Initial Level		30
32	42 : LFO 2 Final level		29
33	52 : LFO 1 Final level		2F
34	44 : LFO 2 Delay		2B
35	54 : LFO 1 Delay		31
36+37	71 : Cutoff LSB+MSB (*)	0000-060F	39
38-0	81 : Chorus ON / OFF = 0 / +1 !	xxx0 – xxx1	3E

38-1	unused		
38-2	24 : Noise enveloppe VCA/VCF = 0/+4	**x0xx – x1xx**	**20**
38-3	unused		
39	22 : Detune		**1E**
40-0&1	73 : Filter keybaord track none / 50% / 100% / ? = 0 / 1 / 2 / 3	**xx00 – xx1?**	**3B**
40-2&3	62 : DCO Waveform off / square / saw / ? = 0 / +4 / +8 / +12	**00xx – 1?xx**	**33**
41-0&1	63 : Saw octave 16" / 8" / 4" / ? = 0 / +1 / +2 / +3	**xx00 – xx1?**	**34**
41-2	74 : Filter mode single/multi = 0/+4	**x0xx – x1xx**	**3C**
41-3	46 : LFO 2 waveform sine/square = 0/+8	**0xxx – 1xxx**	**2D**
42-0	55 : LFO 1 mode manual/delayed = 0/+2	**xxx0 – xxx1**	**32**
42-1	45 : LFO 2 mode manual/delayed = 0/+2	**xx0x – xx1x**	**2C**
42-2	17 : VCA-B Velocity sensitivity off/on = 0/+4	**x0xx – x1xx**	**1B**
42-3	9 : Voice mode Whole/Double = 0/+8	**0xxx – 1xxx**	**14**
43-0	8 : VCA-A Damp pedal off/on = 0/+1	**xxx0 – xxx1**	**13**
43-1	18 : VCA-B Damp pedal off/on = 0/+2	**xx0x – xx1x**	**1C**
43-2	7 : VCA-A Velocity sensitivity off/on = 0/+4	**x0xx – x1xx**	**12**
43-3	37 : VCF Velocity sensitivity off/on = 0/+8	**0xxx – 1xxx**	**27**

(*) For cutoff values 0,1,2...75, data = 0,2,4...150 (steps of 2)
For values 76,77,78...99, data = 154,158,162...246 (steps of 4)

8 bits value
4 bits value
2 bits value
1 bit value