

4-Pole System Exclusive data format

8.1 Program Dump

Byte #	Value	Description
0	F0	Start of System Exclusive
1	3E	Waldorf Electronics GmbH Manufacturer ID
2	04	MiniWorks 4-Pole Machine ID
3	DEV	Global parameter Device ID, see manual 5.6
4	00	Dump Type, here Program Dump
5	PRG	Program Number 0-39 for P.1 to P.40
6	0-127	VCF Envelope Attack
7	0-127	VCF Envelope Decay
8	0-127	VCF Envelope Sustain
9	0-127	VCF Envelope Release
10	0-127	VCA Envelope Attack
11	0-127	VCA Envelope Decay
12	0-127	VCA Envelope Sustain
13	0-127	VCA Envelope Release
14	0-127	VCF Envelope Cutoff Amount -64...+63
15	0-127	VCA Envelope Volume Amount -64...+63
16	0-127	LFO Speed
17	0-127	LFO Speed Mod. Amount -64...+63
18	0-4	LFO Shape 0:sin 1:tri 2:saw 3:pls 4:S-H
19	0-15	LFO Speed Modulation Source
20	0-127	Cutoff Modulation Amount -64...+63
21	0-127	Resonance Modulation Amount -64...+63
22	0-127	Volume Modulation Amount -64...+63
23	0-127	Panning Modulation Amount -64...+63
24	0-15	Cutoff Modulation Source
25	0-15	Resonance Modulation Source
26	0-15	Volume Modulation Source
27	0-15	Panning Modulation Source
28	0-127	Cutoff
29	0-127	Resonance
30	0-127	Volume
31	0-127	Panning
32	0-127	Gate Time 0.000 to 1.02 s
33	0-2	Trigger Source 0:Audio 1:MIDI 2:All
34	0-1	Trigger Mode 0:Multi 1:Single
35	CHK	Checksum over bytes 5 to 34, bit 7 deleted
36	F7	End of System Exclusive

8.2 Program Bulk Dump

Byte #	Value	Description
0	F0	Start of System Exclusive
1	3E	Waldorf Electronics GmbH Manufacturer ID
2	04	MiniWorks 4-Pole Machine ID
3	DEV	Global parameter Device ID, see manual 5.6
4	01	Dump Type, here Program Bulk Dump
5	PRG	Program Number 0-39 for P.1 to P.40
6	0-127	VCF Envelope Attack
7	0-127	VCF Envelope Decay
8	0-127	VCF Envelope Sustain
9	0-127	VCF Envelope Release

10	0-127	VCA Envelope Attack
11	0-127	VCA Envelope Decay
12	0-127	VCA Envelope Sustain
13	0-127	VCA Envelope Release
14	0-127	VCF Envlope Cutoff Amount -64...+63
15	0-127	VCA Envlope Volume Amount -64...+63
16	0-127	LFO Speed
17	0-127	LFO Speed Mod. Amount -64...+63
18	0-4	LFO Shape 0:sin 1:tri 2:saw 3:pls 4:S-H
19	0-15	LFO Speed Modulation Source
20	0-127	Cutoff Modulation Amount -64...+63
21	0-127	Resonance Modulation Amount -64...+63
22	0-127	Volume Modulation Amount -64...+63
23	0-127	Panning Modulation Amount -64...+63
24	0-15	Cutoff Modulation Source
25	0-15	Resonance Modulation Source
26	0-15	Volume Modulation Source
27	0-15	Panning Modulation Source
28	0-127	Cutoff
29	0-127	Resonance
30	0-127	Volume
31	0-127	Panning
32	0-127	Gate Time 0.000 to 1.02 s
33	0-2	Trigger Source 0:Audio 1:MIDI 2:All
34	0-1	Trigger Mode 0:Multi 1:Single
35	CHK	Checksum over bytes 5 to 34, bit 7 deleted
36	F7	End of System Exclusive

8.3 All Dump

Byte #	Value	Description
0	F0	Start of System Exclusive
1	3E	Waldorf Electronics GmbH Manufacturer ID
2	04	MiniWorks 4-Pole Machine ID
3	DEV	Global parameter Device ID, see manual 5.6
4	08	Dump Type, here All Dump
5	0-127	Program 1, VCF Envelope Attack
6	0-127	Program 1, VCF Envelope Decay
7	0-127	Program 1, VCF Envelope Sustain
8	0-127	Program 1, VCF Envelope Release
9	0-127	Program 1, VCA Envelope Attack
10	0-127	Program 1, VCA Envelope Decay
11	0-127	Program 1, VCA Envelope Sustain
12	0-127	Program 1, VCA Envelope Release
13	0-127	Program 1, VCF Envlope Cutoff Amount -64...+63
14	0-127	Program 1, VCA Envlope Volume Amount -64...+63
15	0-127	Program 1, LFO Speed
16	0-127	Program 1, LFO Speed Mod. Amount -64...+63
17	0-4	Program 1, LFO Shape 0:sin 1:tri 2:saw 3:pls 4:S-H
18	0-15	Program 1, LFO Speed Modulation Source
19	0-127	Program 1, Cutoff Modulation Amount -64...+63
20	0-127	Program 1, Resonance Modulation Amount -64...+63
21	0-127	Program 1, Volume Modulation Amount -64...+63
22	0-127	Program 1, Panning Modulation Amount -64...+63
23	0-15	Program 1, Cutoff Modulation Source
24	0-15	Program 1, Resonance Modulation Source
25	0-15	Program 1, Volume Modulation Source
26	0-15	Program 1, Panning Modulation Source

27	0-127	Program 1, Cutoff
28	0-127	Program 1, Resonance
29	0-127	Program 1, Volume
30	0-127	Program 1, Panning
31	0-127	Program 1, Gate Time 0.000 to 1.02 s
32	0-2	Program 1, Trigger Source 0:Audio 1:MIDI 2:All
33	0-1	Program 1, Trigger Mode 0:Multi 1:Single
34-62	Program 2, Parameters like Program 1	
63-584	Program 3-20	
585	0-16	Global MIDI Channel, 0:omni 1-16:channel 1-16
586	0-2	Global MIDI Control, 0:off 1:Ctr 2:CtS
587	0-126	Global Device ID
588	0-39	Startup Program 1-40
589	0-127	Global Note Number
590	0-1	Global Knob Mode 0:jump 1: relative
591	CHK	Checksum over bytes 5-591, bit 7 deleted
592	F7	End of System Exclusive

8.4 Program Dump Request

Byte #	Value	Description
0	F0	Start of System Exclusive
1	3E	Waldorf Electronics GmbH Manufacturer ID
2	04	MiniWorks 4-Pole Machine ID
3	DEV	Global parameter Device ID, see manual 5.6
4	40h	Dump Type, here Program Dump Request
5	PRG	Program Number 0-39 for P.1 to P.40
6	F7h	End of System Exclusive

8.5 Program Bulk Dump Request

Byte #	Value	Description
0	F0	Start of System Exclusive
1	3E	Waldorf Electronics GmbH Manufacturer ID
2	04	MiniWorks 4-Pole Machine ID
3	DEV	Global parameter Device ID, see manual 5.6
4	41h	Dump Type, here Program Bulk Dump Request
5	PRG	Program Number 0-39 for P.1 to P.40
6	F7h	End of System Exclusive

8.6 All Dump Request

Byte #	Value	Description
0	F0	Start of System Exclusive
1	3E	Waldorf Electronics GmbH Manufacturer ID
2	04	MiniWorks 4-Pole Machine ID
3	DEV	Global parameter Device ID, see manual 5.6
4	48h	Dump Type, here All Dump Request
5	F7h	End of System Exclusive

9.0 Controller Nummern

Hex	Dec	Description
01	1	Modulation Wheel

02	2	Breath Controller (Signal Env.)
09	9	Volume Parameter
0A	10	Panning Parameter -64...+63
0E	14	VCF Envelope Attack
0F	15	VCF Envelope Decay
10	16	VCF Envelope Sustain
11	17	VFC Envelope Release
12	18	VCA Envelope Attack
13	19	VCA Envelope Decay
14	20	VCA Envelope Sustain
15	21	VFA Envelope Release
16	22	VCF Envlope Cutoff Amount -64...+63
17	23	VCA Envlope Volume Amount -64...+63
18	24	LFO Speed
19	25	LFO Shape 0:sin 1:tri 2:saw 3:pls 4:S-H
1A	26	LFO Speed Modulation Amount -64...+63
1B	27	LFO Speed Modulation Source 0-15
40	64	Sustain Switch
46	70	Cutoff Modulation Amount -64...+63
47	71	Cutoff Modulation Source 0-15
48	72	Resonance Modulation Amount -64...+63
49	73	Resonance Modulation Source 0-15
4A	74	Volume Modulation Amount -64...+63
2B	75	Volume Modulatin Source 0-15
4C	76	Panning Modulation Amount -64...+63
4D	77	Panning Modulation Source 0-15
4E	78	Cutoff Frequency
4F	79	Resonance
50	80	Gate time 0.000 to 1.02 s
51	81	Trigger Source 0:Audio 1:MIDI 2:All
52	82	Trigger Mode 0:Multi 1:Single
79	121	Reset All Controllers
7B	123	All Notes off