

MIDI Implementation

B4000+

authentic organ modeller

Version 1.1

FERROFISH
advanced audio applications

Introduction



The **B4000+** can receive MIDI either with the implemented MIDI connectors or receive and transmit MIDI via the USB connector.

The MIDI channel for controllers are set in the **SETTINGS** menu (for the MIDI A and B separately) and it is always channel 0 for the USB. It corresponds to the upper manual channel. All received MIDI data on port A and B is converted to channels 0/1/2 (according to the manuals) and forwarded to the USB port for recording on the sequencer.

For special functions (update, logo upload, preset management) the **B4000+** also uses Sysex messages only on USB. The format of these messages are available on request.

When changing a preset the **B4000+** sends the appropriate program/bank change together with the new controller values. It also reacts on program/bank change.

controller messages

There are two groups of controllers:

dark gray: controllers stored in preset (eg.drawbar positions)

light gray: controllers stored globally (eg.volume)

<i>CC</i>	<i>CC</i>	<i>group</i>	<i>function</i>
0	\$00	internal	bank MSB
1	\$01	internal	modulation wheel
2	\$02	---	---
3	\$03	---	---
4	\$04	ROTOR-1	slow/fast
5	\$05	---	---
6	\$06	---	---
7	\$07	PLAY-1	volume
8	\$08	---	---
9	\$09	---	---
10	\$0A	---	---
11	\$0B	PLAY-1	swell
12	\$0C	PLAY-1	drawbar pedal 1
13	\$0D	PLAY-1	drawbar pedal 2
14	\$0E	PLAY-1	drawbar pedal 3
15	\$0F	PLAY-1	drawbar pedal 4
16	\$10	PLAY-1	drawbar pedal 5
17	\$11	PLAY-1	drawbar pedal 6

controller messages

CC	CC	group	function
18	\$12	PLAY-1	drawbar lower 1
19	\$13	PLAY-1	drawbar lower 2
20	\$14	PLAY-1	drawbar lower 3
21	\$15	PLAY-1	drawbar lower 4
22	\$16	PLAY-1	drawbar lower 5
23	\$17	PLAY-1	drawbar lower 6
24	\$18	PLAY-1	drawbar lower 7
25	\$19	PLAY-1	drawbar lower 8
26	\$1A	PLAY-1	drawbar lower 9
27	\$1B	PLAY-1	drawbar upper 1
28	\$1C	PLAY-1	drawbar upper 2
29	\$1D	PLAY-1	drawbar upper 3
30	\$1E	PLAY-1	drawbar upper 4
31	\$1F	PLAY-1	drawbar upper 5
32	\$20	internal	bank LSB
33	\$21	PLAY-1	drawbar upper 6
34	\$22	PLAY-1	drawbar upper 7
35	\$23	PLAY-1	drawbar upper 8
36	\$24	PLAY-1	drawbar upper 9
37	\$25	PERC	harmonic
38	\$26	PERC	level
39	\$27	PERC	decay
40	\$28	PERC	on/off
41	\$29	SOUND	click

controller messages

CC	CC	group	function
42	\$2A	SOUND	condition
43	\$2B	SOUND	tuning
44	\$2C	SOUND	leakage
45	\$2D	SOUND	crunch
46	\$2E	---	---
47	\$2F	---	---
48	\$30	UPPER	velocity upper on/off
49	\$31	FX-1	vibrato lower on/off
50	\$32	FX-1	vibrato upper on/off
51	\$33	FX-1	vibrato type
52	\$34	SOUND	drive
53	\$35	---	---
54	\$36	TONE-1	treble
55	\$37	TONE-1	bass
56	\$38	TONE-1	volume upper
57	\$39	TONE-1	volume lower
58	\$3A	TONE-1	volume pedal
59	\$3B	---	---
60	\$3C	---	---
61	\$3D	---	---
62	\$3E	ROTOR-1	distance
63	\$3F	---	---
64	\$40	internal	sustain
65	\$41	LOWER	velocity lower on/off

controller messages

CC	CC	group	function
66	\$42	PEDAL	velocity pedal on/off
67	\$43	UPPER	transient delay upper on/off
68	\$44	LOWER	transient delay lower on/off
69	\$45	PEDAL	transient delay pedal on/off
70	\$46	ROTOR-2	horn slow speed
71	\$47	ROTOR-2	horn fast speed
72	\$48	ROTOR-2	horn accel
73	\$49	ROTOR-2	horn brake
74	\$4A	ROTOR-2	horn tone
75	\$4B	ROTOR-3	bass slow speed
76	\$4C	ROTOR-3	bass fast speed
77	\$4D	ROTOR-3	bass accel
78	\$4E	ROTOR-3	bass brake
79	\$4F	ROTOR-3	bass tone
80	\$50	ROTOR-1	mic spread
81	\$51	ROTOR-1	mic balance
82	\$52	---	---
83	\$53	ROTOR-1	bypass
84	\$54	ROTOR-1	MW/AT enable
85	\$55	SYSTEM-7	threshold AT
86	\$56	TONE-1	volume external
87	\$57	---	---
88	\$58	SYSTEM-7	threshold MW
89	\$59	FX-3	compressor bypass

controller messages

CC	CC	group	function
90	\$5A	FX-3	compressor gain
91	\$5B	FX-3	compressor amp
92	\$5C	--	---
93	\$5D	---	---
94	\$5E	---	---
95	\$5F	---	---
96	\$60	---	---
97	\$61	---	---
98	\$62	---	---
99	\$63	---	---
100	\$64	---	---
101	\$65	---	---
102	\$66	PEDAL	attack pedal
103	\$67	PEDAL	release pedal
104	\$68	LOWER	attack lower
105	\$69	LOWER	release lower
106	\$6A	UPPER	attack upper
107	\$6B	UPPER	release upper
108	\$6C	PERC	percussion attack
109	\$6D	---	---
110	\$6E	FX-2	reverb dry/wet
111	\$6F	FX-2	reverb time
112	\$70	FX-2	reverb size
113	\$71	FX-2	reverb damp

controller messages

CC	CC	group	function
114	\$72	FX-2	reverb bypass
115	\$73	TONE-2	external vol 1
116	\$74	TONE-2	external vol 2
117	\$75	TONE-2	external vol 3
118	\$76	TONE-2	external vol 4
119	\$77	---	---
120	\$78	---	---
121	\$79	---	---
122	\$7A	---	---
123	\$7B	internal	all notes off
124	\$7C	---	---
125	\$7D	---	---
126	\$7E	---	---
127	\$7F	---	---

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