MIDI Implementation

B4000+

authentic organ modeller

Version 1.0

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 seperately) 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)

CC	group	function
$00	internal	bank MSB
$01	internal	modulation wheel
$02	---	---
$03	---	---
$04	ROTOR-1	slow/fast
$05	---	---
$06	---	---
$07	PLAY-1	volume
$08	---	---
$09	---	---
$0A	---	---
$0B	PLAY-1	swell
$0C	PLAY-1	drawbar pedal 1
$0D	PLAY-1	drawbar pedal 2
$0E	PLAY-1	drawbar pedal 3
$0F	PLAY-1	drawbar pedal 4
$10	PLAY-1	drawbar pedal 5
$11	PLAY-1	drawbar pedal 6

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

CC	group	function
$2A	SOUND	condition
$2B	SOUND	tuning
$2C	SOUND	leakage
$2D	SOUND	crunch
$2E	---	---
$2F	---	---
$30	UPPER	velocity upper on/off
$31	FX-1	vibrato lower on/off
$32	FX-1	vibrato upper on/off
$33	FX-1	vibrato type
$34	SOUND	drive
$35	---	---
$36	TONE-1	treble
$37	TONE-1	bass
$38	TONE-1	volume upper
$39	TONE-1	volume lower
$3A	TONE-1	volume pedal
$3B	---	---
$3C	---	---
$3D	---	---
$3E	ROTOR-1	distance
$3F	---	---
$40	internal	sustain
$41	LOWER	velocity lower on/off

CC	group	function
$42	PEDAL	velocity pedal on/off
$43	UPPER	transient delay upper on/off
$44	LOWER	transient delay lower on/off
$45	PEDAL	transient delay pedal on/off
$46	ROTOR-2	horn slow speed
$47	ROTOR-2	horn fast speed
$48	ROTOR-2	horn accel
$49	ROTOR-2	horn brake
$4A	ROTOR-2	horn tone
$4B	ROTOR-3	bass slow speed
$4C	ROTOR-3	bass fast speed
$4D	ROTOR-3	bass accel
$4E	ROTOR-3	bass brake
$4F	ROTOR-3	bass tone
$50	ROTOR-1	mic spread
$51	ROTOR-1	mic balance
$52	---	---
$53	ROTOR-1	bypass
$54	ROTOR-1	MW/AT enable
$55	SYSTEM-7	threshold AT
$56	TONE-1	volume external
$57	---	---
$58	SYSTEM-7	threshold MW
$59	FX-3	compressor bypass

CC	group	function
$5A	FX-3	compressor gain
$5B	FX-3	compressor amp
$5C	--	---
$5D	---	---
$5E	---	---
$5F	---	---
$60	---	---
$61	---	---
$62	---	---
$63	---	---
$64	---	---
$65	---	---
$66	PEDAL	attack pedal
$67	PEDAL	release pedal
$68	LOWER	attack lower
$69	LOWER	release lower
$6A	UPPER	attack upper
$6B	UPPER	release upper
$6C	PERC	percussion attack
$6D	---	---
$6E	FX-2	reverb dry/wet
$6F	FX-2	reverb time
$70	FX-2	reverb size
$71	FX-2	reverb damp

CC	group	function
$72	FX-2	reverb bypass
$73	TONE-2	external vol 1
$74	TONE-2	external vol 2
$75	TONE-2	external vol 3
$76	TONE-2	external vol 4
$77	---	---
$78	---	---
$79	---	---
$7A	---	---
$7B	internal	all notes off
$7C	---	---
$7D	---	---
$7E	---	---
$7F	---	---

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