

OB-MIDIControl

[decal version]

cc#/MIDI channel  
Min-Max

114/16  
1-3

115/16  
127-127

push encoder to force  
DEVICE CHANGE

108/1  
VOICE 1 DETUNE

108/2  
VOICE 2 DETUNE

108/3  
VOICE 3 DETUNE

108/4  
VOICE 4 DETUNE

108/5  
VOICE 5 DETUNE

108/6  
VOICE 6 DETUNE

108/7  
ALL OSC TUNE

108/8  
1-6  
VOICE DEFEAT 1-6

90/16  
0-16

79/16  
0-1

77/16

89/16  
1-8

MIDI CHANNELKBD-MODEMOD-WHEEL AMTVOICES 1-8

ENCODER GROUP 4  
SYSTEM parameter

24  
OSC 1 FREQ

25/3  
SAW/PULSE

26/5  
SYNC

23  
OSC 2 FREQ

25/4  
SAW/PULSE

26/6  
X-MOD  
F-ENV

11  
DETUNE

26/7  
UNISON

26/4  
OSC 2 FULL/HALF

13  
PORTAMENTO

25/7  
LFO S&H

26/3  
KBD-TRACK

20  
PULSE WIDTH

27/8  
NOISE-HI

27/7  
NOISE-LO  
4-POLE

22  
PULSE MOD

26/1  
OSC 1 PWM

26/2  
OSC 2 PWM

21  
MODULATION

25/6  
OSC 1 MOD

25/1  
OSC 2 MOD

12  
LFO RATE

25/5  
LFO SIN/PULSE

25/2  
VCF MOD

OSCILLATORS

PWM

MODULATION

10  
VCF FREQ

18  
RESONANCE  
(reverse value)

19  
VCF ADSR

FILTER

6  
ATTACK

8  
DECAY

15  
SUSTAIN

17  
RELEASE

FILTER ENVELOPE

7  
ATTACK

14  
DECAY

16  
SUSTAIN

9  
RELEASE

LOUDNESS ENVELOPE

85  
1-56

86  
1-56

PRESET 1..56

Modulation

Pitch

Portamento

ProgramChange

MEMORY 1..56

ENCODER GROUP 1  
MAIN parameter

ENCODER GROUPS

MAIN

1

SERVICE

3

2

SYSTEM

4

mLab  
OB-MIDIcontrol

MEMORY CONTROL

PGM change

NEXT PROGRAM

87

LOAD

107

Sys-Ex DUMP

88

SAVE

## *mLab OB-magicBox II controller number and MIDI channel assignment*

<i>Channel messages</i>	<i>These messages depend on the selected RX channel (1...16 or OMNI)</i>
• ProgramChange	0...111 (0...55 = PRESET, 56...111 = USER MEMORY)
• ChannelPressure	0...127 (same as Modulation)
• NoteOn	24...84
• NoteOff	24...84
• Pitch	±2 semitones
• cc 01 Modulation	0...127
• cc 05 Portamento	0...127
• cc 123 AllNotesOff	0

<i>Global controllers on channel 16</i>	<i>These messages must be sent on MIDI channel 16</i>
• cc 77 Amount of Modulation	0...127
• cc 79 Keyboard Mode	0...1
• cc 89 Number of Voices	1...6 OB-Sx, 1...8 OB-X/OB-Xa
• cc 90 RX channel	1...16, 0 = OMNI
• cc 114 DEVICE SELECT	1 = OB-SX, 2 = OB-X, 3 = OB-Xa
• cc 115 DEVICE CHANGE	127

*Note! Save your data before performing a DEVICE CHANGE.*

A DEVICE CHANGE overwrites the magicBox's internal USER MEMORY with the factory presets.

<i>Global controllers channel independent</i>	<i>These messages are accepted on all MIDI channels</i>
• cc 78 Parameter Feedback Request	(used by OSC e.g. TouchOSC)
• cc 85 preset select	(value = 1...56) read only
• cc 86 USER MEMORY select	(value = 1...56) read/write
• cc 87 LOAD SWITCH	
• cc 88 SAVE SWITCH	
• cc 107 DUMP SWITCH	(USER MEMORY SysEx MIDI DUMP)

<i>Test and service functions</i>	
• cc 108/chn 1...6	Voice 1...6 individual OSC 2 DETUNE (UNISON DETUNE) [disables AUTOTUNE]
• cc 108/chn 7	Oscillator Tune Control (synthesizer calibration purpose) [disables AUTOTUNE]
• cc 108/chn 8	Defeat voices 1...6 [only affects notes played on the Oberheim keyboard]

### Oberheim Parameter

- cc 06 = VCF\_ATK 0...127
- cc 07 = VCA\_ATK 0...127
- cc 08 = VCF\_DCY 0...127
- cc 09 = VCA\_REL 0...127
- cc 10 = VCF\_FREQ 0...127
- cc 11 = OSC2\_DET 0...127
- cc 12 = LFO\_FREQ 0...127
- cc 13 = PORTAMENTO 0...127
- cc 14 = VCA\_DCY 0...127
- cc 15 = VCF\_SUS 0...127
- cc 16 = VCA\_SUS 0...127
- cc 17 = VCF\_REL 0...127
- cc 18 = RESONANCE 127...0
- cc 19 = VCF\_ADSR 0...127
- cc 20 = PLSE\_WIDTH 0...127
- cc 21 = MODULATION 0...127
- cc 22 = PW\_MOD 0...127
- cc 23 = OSC\_2\_FRQ 0...127
- cc 24 = OSC\_1\_FRQ 0...127

### SWITCH GROUP 1...2

- cc 25/chn1...6 = SW\_GRP1 <64/>63
- cc 26/chn1...7 = SW\_GRP2 <64/>63
- cc 27/chn7...8 = SW\_GRP3 <64/>63

CC#/Channel	8	7	6	5	4	3	2	1
• cc 25			OSC1_MOD	LFO_WAVE	OSC2_WAVE	OSC1_WAVE	VCF_MOD	OSC2_MOD
• cc 26		UNISON	X-MOD/F-ENV	SYNC	OSC2_HALF	KBD-TRK	OSC2_PWM	OSC1-PWM
• cc 27	NOISE	4-POLE						

cc# points to the switch group, MIDI channel points to the corresponding switch.

*System Exclusive format*

OB-SX	Prog#		[v]	[v]	Pot																[Switch]								
SysEx	O	B	S	X	00	01	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	END		
F0	10	4F	42	53	58	30	31	1C	12	11	19	00	29	2F	00	09	1E	3B	2D	33	2B	1E	01	3B	00	00	00	00	F7

OB-X	Prog#		[v]	[v]	Pot																[_Switch_]									
SysEx	O	B	-	X	00	01	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	END		
F0	10	4F	42	2D	58	30	31	1C	12	11	19	00	29	2F	00	09	1E	3B	2D	33	2B	1E	01	3B	22	00	00	00	00	F7

[illegible]

## SysEx DUMP

A magicBox SysEx DUMP transfers the entire user memory in a chain of 56 programs. Individual program packages are also accepted on the receiver side.

Since the respective program number is also transferred within a SysEx dump, it is possible to organize the SysEx data offline.  
E.g. Combine multiple SysEx files to get the most out of it.

You can split a SysEx dump into individual programs, renumber them and send them back to the magicBox. The order of the incoming programs is irrelevant for the magicBox. Only the program number matters to place it in the right place.

For example, if you send different SysEx programs with the same program number, the last SysEx data then overwrites the previously received ones.

PUSH ENCODER Rotary Turn Function							
1	2	3	4	5	6	7	8
MIDI Data Type	MIDI TX Channel	Parameter	Value 1	Value 2	Controller MODE	Controller Option	Display Value
PROGRAM CHANGE	1-16	Off, Bank Select MSB	Off, Bank Select LSB	x	x		Value indication: On/Off
CC (Control Change)	1-16	CC-0-127	Min. value: 0-127/16383	Max. value: 0-127/16383	Absolute Absolute (14-Bit) Relative 1 Relative 2 Relative 3 Relative 1 (14-Bit) Relative 2 (14-Bit) Relative 3 (14-Bit)		Value indication: On/Off
NRPN (Non Registered Parameter Number)	1-16	NRPN Parameter Number	Min. value: 0-127/16383	Max. value: 0-127/16383	Absolute Absolute (14-Bit) Relative 1 Relative 2 Relative 3 Relative 1 (14-Bit) Relative 2 (14-Bit) Relative 3 (14-Bit) Inc/Dec		Value indication: On/Off
PITCH BEND	1-16	x	Range 0-127	x	x		Value indication: On/Off
AFTER TOUCH	1-16	Key number 0-127, ALL (All = Channel Aftertouch)	Min. value: 0-127	Max. value: 0-127	x		Value indication: On/Off
GS/XG	1-16	Select GS/XG-Main Control-parameter with clear text indication	Min. value: 0-127	Max. value: 0-127	x		Value indication: On/Off

CONTROLLER OPTION Push Encoder, LED Display :

- Off
- The LED circle remains off.
- 1d
- (1 digit): Only one LED lights up at a time (standard setting).
- 1d-
- The LED circle operates similar to “1d”, but when the value is 0, no LED lights up.
- 2d
- Turning the encoder clockwise, at first only one LED lights up, and then the next LED lights up while the previous LED goes out.
- 2d-
- Just like “2d”, but when the value is 0, no LED lights up.
- Bar
- Bar display: when the value is changed, all LEDs light up successively (for volume etc.).
- Bar-
- Just like bar display, but when the value is 0, no LED lights up.
- Sprd
- Spread: When the value is 0, the upper middle LED lights up; when the value is increased, the LED circle gradually lights up in both directions (left and right).
- Pan
- In center position only one LED is on. When increasing the value then the LED bar grows up and vice versa.
- Qual
- (Quality Q) has the opposite effect from spread: the LED circle lights up gradually when you decrease the value. This setting is used for parametric equalizers ‘Q’.
- Cut
- Controlling the cutoff frequency of a low-pass filter. When the value is 0, all LEDs light up.The LEDs go out successively as you increase the value.
- Damp
- When the value is 0, the outer right LED lights up. If the values are increased, the LED circle fans out from right to left until all LEDs light up

GLOBAL SETUP	press EDIT & STORE together		mLab.midisoft.de
Encoder	Function	Select	OB magicBox
1	Operating Mode	U-1 ... U-4, S-1 ... S-4	Operating Mode S-3
2	Global RX Channel	Off,1...16	Global RX-channel Off
3	Foot switch	Auto / Normal / Inverted	
4	Start-Preset	1 ... 32, Last	
5	Device ID	1 ... 16	Device ID 1
6	SysEx Dump	Single/AI	
7	x	x	
8	MIDI Data Interval	(ms)	

- How to load a SysEx file into your BCR2000.
1. Check that your BCR2000 has the correct SysEx ID  
Hold down the EDIT BUTTON and press STORE.  
Use the 5th encoder on the top row to set the ID to number 1  
Press EXIT to leave this menu.
  2. Send the SysEx file to your BCR2000.  
After that the BCR2000 keeps the SysEx file in a buffer.  
Before you can use it you must store this buffer in one of the 32 memory locations of the BCR2000.
  3. Press the STORE BUTTON once.  
The STORE LED flashes continuously.
  4. Now use the cursor keys to select the desired PRESET of the BCR2000.
  5. Then press STORE again.