60KNOBS MIDI chart

Bastl-Instruments 4/9/2017

SysEx KNOB SETTINGS

1	2	3		4	5	6		7		8
SysEx START	Bastl ID	TYPE	//	knob number	ctrl#	ctrl#	//	range	//	SysEx END
240	48	1	*CC*	n (0-59)	# (0-127)	/	*(0-127)*	/		247
		2	*NRPN bipolar*		LSB (0-127)	MSB (0-127)	*(0-16383)*	r (1-63)		
		3	*NRPN unipolar*		LSB (0-127)	MSB (0-127)	*(0-16383)*	r (1-127)		
		4	*DX7*		MSB (0-1)	LSB (0-127)	*(0-144)*	r (1-99)		
		15	*CC on MIDI CH#*		# (0-127)	/	*(0-127)*	MIDI CH# (1-16)		
		16	*disable knob*		/	/		/		
* 240	48	17	*invert direction (max→min)*		/	/		yes/no (1/0)		247
		18	*NRPN exponent*		LSB (0-127)	MSB (0-127)	*(0-16383)*	r (1-4)	*164/200/1600/2000*	

* this sysex has to be sent also for each knob.

SysEx GLOBAL SETTINGS (after each knob has been set)

1	2	3		4		5
SysEx START	Bastl ID	command	//	value	//	SysEx END
240	48	9	*GLOBAL*	CH# (1-16)	*MIDI channel*	247
* 240	48	19	*NRPN LSB data*	on/off (0-1)	*1 disables LSB*	247
240	48	5	*PRESET SAVE*	s (0-4)	*memory SLOT*	247

* this command enables NRPN data LSB on CC# 38 (optional according to MIDI standard).

PARAMETERS ARE SHOWN IN DECIMAL UNIT. According to which MIDI compiler you're using, conversion to HEXADECIMAL UNIT might be required.

example	knob parameters	knob direction
//		
1st knob CC #55	240 48 1 0 55 0 247	240 48 17 0 0 247
2nd knob NRPNb #127 range 11	240 48 2 1 127 0 11 247	240 48 17 1 0 247
3rd knob NRPNu #199 range 127	240 48 3 2 71 1 127 247	240 48 17 2 0 247
4th knob DX7 #39 range 31	240 48 4 3 0 39 31 247	240 48 17 3 0 247
5th knob CC #127 on MIDI CH 16	240 48 15 4 127 16 247	240 48 17 4 0 247
6th knob disabled	240 48 16 5 0 0 247	240 48 17 5 0 247
7th knob CC #21 range inverted	240 48 1 6 21 0 247	240 48 17 6 1 247
8th knob NRPNp #407 range 1600	240 48 18 7 23 3 247	240 48 17 7 0 247

example	
//	command line
Set GLOBAL MIDI CH to 1	240 48 9 1 247
Disable NRPN LSB data out	240 48 19 1 247
Save ALL settings on memory slot 1	240 48 5 0 247