

R-88 MIDI Implementation

Model: R-88
 Date: May. 31, 2013
 Version: 1.10

How pitch bend values are related to fader values (levels)

1. Data Reception

Channel Voice Messages

Note Off

Status 2nd byte 3rd byte
 9nH kkH 00H

n = MIDI channel number: 0H - FH (ch.1 - 16)
 kk = note number: 00H - 7FH (0 - 127)

When a note-off is received, the result will be the same as when a finger is released from a switch or button.

Note On

Status 2nd byte 3rd byte
 9nH kkH vvH

n = MIDI channel number: 0H - FH (ch.1 - 16)
 kk = note number: 00H - 7FH (0 - 127)
 vv = note on velocity: 7FH (127)

When a note-on (vv=7FH) is received, the result will be the same as when a switch or button is held down.

The mute switches and transport buttons of the R-88 can be controlled by sending a note-on (vv=7FH) or note-off from an external MIDI controller.

n	kk	Explanation
0H	10H	CH 1 MUTE
0H	11H	CH 2 MUTE
0H	12H	CH 3 MUTE
0H	13H	CH 4 MUTE
0H	14H	CH 5 MUTE
0H	15H	CH 6 MUTE
0H	16H	CH 7 MUTE
0H	17H	CH 8 MUTE

n	kk	Explanation
0H	5BH	REWIND
0H	5CH	FAST FORWARD
0H	5DH	STOP
0H	5EH	PLAY
0H	5FH	RECORD

Pitch Bend Change

Status 2nd byte 3rd byte
 EnH IIH mmH

n = MIDI channel number: 0H - FH (ch.1 - 16)
 mm, II = Pitch Bend value: 00 00H - 40 00H - 7F 7FH
 (-8192 - 0 - +8191)

The parameters that are controlled will depend on the R-88's UM-ONE CONTROL setting.

INPUT: Input levels and master volume
MIXER: Mixer channel faders and master volume

n	INPUT	MIXER
0H	INPUT 1 LEVEL	CH 1 FADER
1H	INPUT 2 LEVEL	CH 2 FADER
2H	INPUT 3 LEVEL	CH 3 FADER
3H	INPUT 4 LEVEL	CH 4 FADER

n	INPUT	MIXER
4H	INPUT 5 LEVEL	CH 5 FADER
5H	INPUT 6 LEVEL	CH 6 FADER
6H	INPUT 7 LEVEL	CH 7 FADER
7H	INPUT 8 LEVEL	CH 8 FADER
8H	MASTER	

mm (MSB)	II (LSB)	Level (dB)	mm (MSB)	II (LSB)	Level (dB)	mm (MSB)	II (LSB)	Level (dB)
0H	0H	-INF	2BH	0H	-27.0	56H	0H	-5.5
1H	0H	-66.0	2CH	0H	-26.5	57H	0H	-5.0
2H	0H	-65.0	2DH	0H	-26.0	58H	0H	-4.5
3H	0H	-64.0	2EH	0H	-25.5	59H	0H	-4.0
4H	0H	-63.0	2FH	0H	-25.0	5AH	0H	-3.5
5H	0H	-62.0	30H	0H	-24.5	5BH	0H	-3.0
6H	0H	-61.0	31H	0H	-24.0	5CH	0H	-2.5
7H	0H	-60.0	32H	0H	-23.5	5DH	0H	-2.0
8H	0H	-59.0	33H	0H	-23.0	5EH	0H	-1.5
9H	0H	-58.0	34H	0H	-22.5	5FH	0H	-1.0
0AH	0H	-57.0	35H	0H	-22.0	60H	0H	-0.5
0BH	0H	-56.0	36H	0H	-21.5	61H	0H	0.0
0CH	0H	-55.0	37H	0H	-21.0	62H	0H	0.5
0DH	0H	-54.0	38H	0H	-20.5	63H	0H	1.0
0EH	0H	-53.0	39H	0H	-20.0	64H	0H	1.0
0FH	0H	-52.0	3AH	0H	-19.5	65H	0H	1.5
10H	0H	-51.0	3BH	0H	-19.0	66H	0H	1.5
11H	0H	-50.0	3CH	0H	-18.5	67H	0H	2.0
12H	0H	-49.0	3DH	0H	-18.0	68H	0H	2.0
13H	0H	-48.0	3EH	0H	-17.5	69H	0H	2.5
14H	0H	-47.0	3FH	0H	-17.0	6AH	0H	2.5
15H	0H	-46.0	40H	0H	-16.5	6BH	0H	3.0
16H	0H	-45.0	41H	0H	-16.0	6CH	0H	3.0
17H	0H	-44.0	42H	0H	-15.5	6DH	0H	3.5
18H	0H	-43.0	43H	0H	-15.0	6EH	0H	3.5
19H	0H	-42.0	44H	0H	-14.5	6FH	0H	4.0
1AH	0H	-41.0	45H	0H	-14.0	70H	0H	4.0
1BH	0H	-40.0	46H	0H	-13.5	71H	0H	4.5
1CH	0H	-39.0	47H	0H	-13.0	72H	0H	4.5
1DH	0H	-38.0	48H	0H	-12.5	73H	0H	5.0
1EH	0H	-37.0	49H	0H	-12.0	74H	0H	5.0
1FH	0H	-36.0	4AH	0H	-11.5	75H	0H	5.5
20H	0H	-35.0	4BH	0H	-11.0	76H	0H	5.5
21H	0H	-34.0	4CH	0H	-10.5	77H	0H	6.0
22H	0H	-33.0	4DH	0H	-10.0	78H	0H	6.0
23H	0H	-32.0	4EH	0H	-9.5	79H	0H	6.5
24H	0H	-31.0	4FH	0H	-9.0	7AH	0H	6.5
25H	0H	-30.0	50H	0H	-8.5	7BH	0H	7.0
26H	0H	-29.5	51H	0H	-8.0	7CH	0H	7.0
27H	0H	-29.0	52H	0H	-7.5	7DH	0H	7.5
28H	0H	-28.5	53H	0H	-7.0	7EH	0H	7.5
29H	0H	-28.0	54H	0H	-6.5	7FH	0H	8.0
2AH	0H	-27.5	55H	0H	-6.0			

2. Data Transmission

■ Channel Voice Messages

● Note Off

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
9nH	kkH	00H

n = MIDI channel number: 0H - FH (ch.1 - 16)
kk = note number: 00H - 7FH (0 - 127)

Note-off messages will be transmitted when the R-88's [PLAY/PAUSE] or [REC] button LEDs turn off.

● Note On

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
9nH	kkH	vvH

n = MIDI channel number: 0H - FH (ch.1 - 16)
kk = note number: 00H - 7FH (0 - 127)
vv = note on velocity: 7FH (127)

Note-on messages (vv=7FH) will be transmitted when the R-88's [PLAY/PAUSE] or [REC] button LEDs turn on.

n	kk	Explanation
0H	5E	PLAY/PAUSE

n	kk	Explanation
0H	5F	RECORD

