

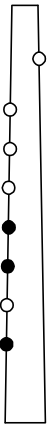
DEGERPIPES II

ELECTRONIC BAGPIPES

MIDI Specification

Activating the RAW-Mode

For special purposes, it is possible to activate an extended data output via the MIDI connection. When activated, all activities of the Chanter are sent on output via control change data. This information could be used for computer programs or additional external gear.



The RAW-Mode is activated by touching these sensors while switching on the Chanter. This mode is retained until a 'Reset' (holding + and – while switching on) is performed.

MIDI Data Format

When the RAW mode is activated, Control Change messages are used for transmitting the information. The Controller Numbers are 16, 17, 18 and 82. These Controller Numbers are reserved and should not interfere with other MIDI devices.

STATUS	1011nnnn (BnH)	n = 1 VOICE CHANNEL NUMBER
CONTROL NUMBER	0ccccccc	
CONTROL VALUE	0vvvvvvv	

* The CONTROL NUMBER to be transmitted.

c = 16	Sensors (lower hand)	; v = 0 - 16
c = 17	Sensors (upper hand)	; v = 0 - 16
c = 18	Push Buttons	; v = 0 - 63
c = 82	Low Battery	; v = 127

Sensor Data

The status of each 'hole' is transmitted via the Controller Numbers 16 and 17.

Lower Hand Sensors

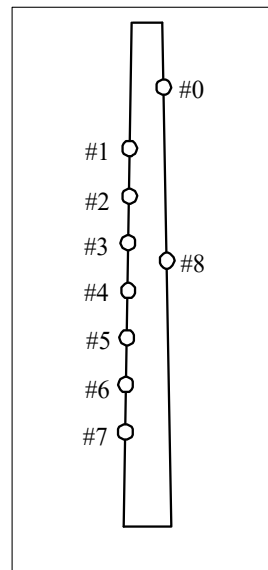
STATUS 10110000 (B0H)
CONTROL NUMBER 00010000 (10H)
CONTROL VALUE 0000vvvv

Value	Sensor
00001111	none
00001110	#1
00001101	#2
00001011	#3
00000111	#4

Upper Hand Sensors

STATUS 10110000 (B0H)
CONTROL NUMBER 00010001 (11H)
CONTROL VALUE 0000vvvv

Value	Sensor
00001111	none
00001110	#5
00001101	#6
00001011	#7
00000111	#8



Push Buttons

STATUS 10110000 (B0H)
CONTROL NUMBER 00010010 (12H)
CONTROL VALUE 00vvvvvv

Value	Button
00111111	none
00111110	'-'
00111101	'+'
00111011	DRONES
00110111	PITCH
00101111	MET
00011111	SOUND

DegerPipes [Electronic Bagpipe Chanter]
MIDI Implementation Chart

Date: 08-SEP-2008
Version : 1.0

Function ...		Transmitted	Recognized	Remarks
Basic	Default	1 - 4	x	
Channel	Changed	x	x	
Mode	Default	3	x	
	Messages	x	x	
	Altered	*****	x	
Note		0 - 127	x	
Number :	True voice	*****	x	
Velocity	Note ON	0 9nH, v=64	x	
	Note OFF	x 9nH, v=0	x	
After	Key's	x	x	
Touch	Ch's	x	x	
Pitch Bender		o	x	
	16	o	x	Sensors low
	17	o	x	Sensors high
	18	o	x	Pushbuttons
	82	o	x	Battery low
Control				
Change				
Prog		x	x	
Change :	True #	*****	x	
System Exclusive		x	x	
System :	Song Pos.	x	x	
	: Song Sel.	x	x	
Common :	Tune	x	x	
System	:Clock	x	x	
Real Time	:Commands	x	x	
Aux	:Local ON/OFF	x	x	
	:All Notes OFF	x	x	
Mes-	:Active Sense	x	x	
sages:	Reset	x	x	
Notes:				

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO o : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO x : No

DEGERPIPES

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