Bass POD Midi / Sysex Specification and Notes

Revision history:
- 9/29/00   Document Born
- 10/11/00   Patch Dump Description added

SYSTEM EXCLUSIVE FORMAT:

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Bass POD s System Exclusive message format is as follows:

F0                SysEx Status
00 01 0C          Line 6 (Fast Forward) Manufacturer ID
02                Bass POD Family ID
xx                Opcode
yy                Data
F7                EOX
```

UNIVERSAL DEVICE INQUIRY:

```
Bass POD will respond to the universal system inquiry command if the channel received
is the same as Bass POD s MIDI channel, the channel received is 7F (all channels), or
Bass POD is set to omni mode. The received message is in the following format:

F0 7E <chan> 06 01 F7 System inquiry message

If <chan> = 7F (Universal All Device Call) Bass POD will respond with the channel
also set to 7F.


Bass POD s reply to Universal Device Inquiry

F0 7E <chan> 06 02          Universal Device Inquiry Response
00 01 0C                    Line 6 (Fast Forward) Manufacturer ID
02 00                       0x0200 = Bass POD Product Family ID (LSB first)
00 00                       0x0000 = Bass POD Product Family Member (LSB first)
xx xx xx xx                 Software revision, ASCI (ex. 30 31 30 30  = '0100' = 1.00)
F7                          EOX
```

DATA DUMP FORMAT:

```
Bass POD sends and receives Program and Global dump data in High-Low Nibbilized
format. Data Locations in the dump are described later in this document with
reference to ONE Bass POD Byte.

ONE POD BYTE (8 bits):
0: A7 A6 A5 A4 A3 A2 A1 A0

TRANSMITTED and RECEIVED AS:
0: 00 00 00 00 A7 A6 A5 A4
1: 00 00 00 00 A3 A2 A1 A0
```

SYSTEM EXCLUSIVE OPCODES:

00   SYSEX DATA DUMP REQUEST:

```
Type:

00: Program Patch Dump Request
   0xF0 0x00 0x01 0x0C 0x02 0x00 0x00 <program #> 0xF7
   <program #> = 0x00 ~ 0x23 (1A ~ 9D internal programs)
   Bass POD responds with Program Dump (01 00)

01: Program Edit Buffer Dump Request
   0xF0 0x00 0x01 0x0C 0x02 0x00 0x01 0xF7
   Bass POD responds with Program Edit Buffer Dump (01 01)

02: All Programs Dump Request
   0xF0 0x00 0x01 0x0C 0x02 0x00 0x02 0xF7
   Bass POD responds by sending an All Program Dump (01 02)
```

01   SYSEX DATA DUMP:

```
Type:

00: Program Patch Dump
   0xF0 0x00 0x01 0x0C 0x02 0x01 0x00 <program #> <version> <data> 0xF7
   <program #>    = 0x00 ~ 0x23 (1A ~ 9D internal programs)
   <version>      = 0x00 ~ 0x7F
   <data>         = 160 bytes nibbilized (80 actual data bytes)

01: Program Edit Buffer Dump
   0xF0 0x00 0x01 0x0C 0x02 0x01 0x01 <<version> data> 0xF7
   <version>      = 0x00 ~ 0x7F
   <data>         = 1 Program = 160 bytes nibbilized (80 actual data bytes)

02: All Programs Dump
   0xF0 0x00 0x01 0x0C 0x02 0x01 0x02 <version> <data> 0xF7
   <version>      = 0x00 ~ 0x7F
   <data>         = All Programs = 5760 bytes nibbilized (2880 actual data bytes)
```

VERSION DATA:

Dump Version	1

Note: The data format version number of the data dump must match what the software of the Bass Pod expects. If there is a mismatch the Bass Pod will not update the patch. Also note that the dump version and the Bass Pod software version are NOT the same things.

PROGRAM DATA:

Bass Pod Parameters	Notes / Internal Bass Pod Value	Cntr lr #	Bass Pod Data Structure				Transmitted MIDI Range	Received MIDI Range
			Byte Addr.	Bits	Bit Field MSb	LSb		
Programs	1 A,B,C,D - 9 A, B, C, D	-					0=Manual, 1-36=Programs, Tuner=37	0=Manual, 1-36=Programs, Tuner=37
MIDI Channel	0-15	-					NO TRANSMIT	
Bright Enable	Fixed	-	1	1	0	0	NO TRANSMIT	Don't care – internal use only
Apply FX to D.I. Button	On/Off	64	2	1	0	0	0=Off; 127=On	0-63=OFF, 64-127=ON
Controls								
Amp Model	0-15	12	3	4	3	0	0-15	0=Tube Preamp, 1-15=Amps
Drive	0-63	13	4	6	5	0	0-127	0-127
Bass	0-63	14	6	6	5	0	0-127	0-127
Mid	0-63	15	7	6	5	0	0-127	0-127
Treble	0-63	16	8	6	5	0	0-127	0-127
Channel Volume	0-63	17	10	6	5	0	0-127	0-127
Compress (internally scales threshold and level)	0-63	18	11	6	5	0	0-127	0-127
Effect Select Knob	0-15	19	49	4	3	0	0-15	0 – 15
Effect Tweak	0-63	1	50	6	5	0	0-127	0-127
Alternate Controls								
Parametric Fc	30Hz – 8kHz / 0-63	25	13	6	5	0	0-127 (Turn Bass with Cabs & EQ on)	0-127
Parametric Q	0-63	26	14	6	5	0	0-127 (Turn Mid with Cabs & EQ on)	0-127

Parametric Gain	Infinite cut - +12dB / 0-63	27	15	6	5	0	0-127 (Turn Treble with Cabs & EQ on)	0-127
FX Lo-Cut	Off – 1kHz / 0-63	21	51	6	5	0	0-127 (Turn Chan Vol with Cabs & EQ on)	0-127
Noise Gate On/Off	On/Off	22	0	1	0	0	0-127 (Turn Compress with CABS & EQ on)	Rcv: 0-63=OFF, 64-127=ON
Amp Model Mid Sweep (select models)	0-63	28	12	6	5	0	0-127 (Turn Effect Tweak with CABS & EQ on)	0-127
Cabinet Type	0-15 (0 = no cab)	71	31	4	3	0	0-15 (Turn Effects with Cabs & EQ On)	0-15
Noise Gate Parameters								
Noise Gate Threshold	6dB-96dB / 0-96	23	16	7	6	0	NO TRANSMIT	0-127
Noise Gate Decay	8.1-159.2ms / 0-63	24	17	6	5	0	NO TRANSMIT	0-127
Compressor Parameters								
Compression Ratio	2:1. 3.3:1, 8:1, 12:1, Inf:1 / 0-127	42	25	7	6	0	NO TRANSMIT	0-24=2:1, 25-49=3.3:1, 50-74=8:1, 75-99=12:1, 100-127=Inf:1
Compressor Threshold	0-127	-	26	7	6	0	NO TRANSMIT	0-127
Compressor Decay	0-127	63	27	7	6	0	NO TRANSMIT	0-127
Compressor Attack	0-127	51	28	7	6	0	NO TRANSMIT	0-127
Compressor RMS	0-127	69	29	7	6	0	NO TRANSMIT	0-127
Cabinet Parameters								
AIR Level	0-63	72	32	6	5	0	NO TRANSMIT	0-127
Wah Pedal Parameters								
Wah Pedal	0-127	4	18	7	6	0	0-127	0-127
Wah Wah Pedal On/Off	On/Off	43					FB SWITCH ON=127/OFF=0	0-63=OFF, 64-127=ON
Wah Bottom Frequency	0-127	44	19	7	6	0	NO TRANSMIT	0-127
Wah Top Frequency	0-127	45	20	7	6	0	NO TRANSMIT	0-127
Volume Pedal Parameters								

Volume Pedal	0-127	7	22	7	6	0	0-127	0-63=OFF, 64-127=ON
Volume Pedal Minimum	0-127	46	23	7	6	0	0-127	0-127
Volume Pedal Location	Pre Tube Drive / Post Tube Drive	47	24	1	0	0	NO TRANSMIT	0-63=BEFORE TUBE, 64-127=AFTER TUBE
Effects								
Effect On/Off		60	52	1	0	0	FB SWITCH ON=127/OFF=0	0-63=OFF, 64-127=ON

The FX parameters occupy common space, usage is dependent upon Effects Select. The UNION size is the size of the largest FX (7 bytes). Unused bytes in the UNION are Don't Cares - always send a value.

Octave Down (Boss OC-2)								
Mix	0-63	29	53	6	5	0	NO TRANSMIT	0-127
Analog Chorus (Boss CE-1 from MM4)								
Speed	0-63	30	53	6	5	0	NO TRANSMIT	0-127
Depth	0-63	31	54	6	5	0	NO TRANSMIT	0-127
Danish Chorus (t.c. Stereo Chorus)								
Speed	0-63	32	54	6	5	0	NO TRANSMIT	0-127
Intensity	0-63	33	55	6	5	0	NO TRANSMIT	0-127
Width	0-63	34	53	6	5	0	NO TRANSMIT	0-127
Orange Phase (Phase 90)								
Speed	0-63	35	53	6	5	0	NO TRANSMIT	0-127
Gray Flanger (MXR Flanger)								
Width	0-63	36	55	6	5	0	NO TRANSMIT	0-127
Speed	0-63	37	53	6	5	0	NO TRANSMIT	0-127
Regen	0-63	38	54	6	5	0	NO TRANSMIT	0-127
Tron Down (Mu-Tron III)								
Peak	0-63	39	53	6	5	0	NO TRANSMIT	0-127
Tron Up (Mu-Tron III)								
Peak	0-63	40	53	6	5	0	NO TRANSMIT	0-127
S/H (Oberheim VCF)								

Speed	0-63	41	53	6	5	0	NO TRANSMIT	0-127
Bass Synth (Boss SYB-3)								
Dry Level	0-63	48	54	6	5	0	NO TRANSMIT	0-127
Low Pass Level	0-63	49	55	6	5	0	NO TRANSMIT	0-127
High Pass Level	0-63	50	56	6	5	0	NO TRANSMIT	0-127
Decay	0-63	52	53	6	5	0	NO TRANSMIT	0-127
Danish Driver (t.c. Line Driver)								
Distortion	0-127	55	53	7	6	0	NO TRANSMIT	0-127
Large Pie (Big Muff)								
Distortion	0-127	56	53	7	6	0	NO TRANSMIT	0-127
Pig Foot (hog's foot)								
Distortion	0-127	57	53	7	6	0	NO TRANSMIT	0-127
Rodent (Rat)								
Distortion	0-127	58	53	7	6	0	NO TRANSMIT	0-127
Filter	0-63	59	54	6	5	0	NO TRANSMIT	0-127
Patch Name								
Character 1			64	7	6	0	ASCII	ASCII
Character 2			65	7	6	0	ASCII	ASCII
Character 3			66	7	6	0	ASCII	ASCII
Character 4			67	7	6	0	ASCII	ASCII
Character 5			68	7	6	0	ASCII	ASCII
Character 6			69	7	6	0	ASCII	ASCII
Character 7			70	7	6	0	ASCII	ASCII
Character 8			71	7	6	0	ASCII	ASCII
Character 9			72	7	6	0	ASCII	ASCII
Character 10			73	7	6	0	ASCII	ASCII
Character 11			74	7	6	0	ASCII	ASCII
Character 12			75	7	6	0	ASCII	ASCII
Character 13			76	7	6	0	ASCII	ASCII
Character 14			77	7	6	0	ASCII	ASCII
Character 15			78	7	6	0	ASCII	ASCII
Character 16			79	7	6	0	ASCII	ASCII
Reserved Bytes								
			5					
			9					
			21					
			30					
			33					
			34					
			35					

			36					
			37					
			38					
			39					
			40					
			41					
			42					
			43					
			44					
			45					
			46					
			47					
			48					
			57					
			58					
			59					
			60					
			61					
			62					
			63					

EFFECT TYPE PARAMETER TABLE:

FX#	Effect	Bass Pod Internal Value
1	Octave Down	11
2	Analog Chorus	9
3	Danish Chorus	8
4	Orange Phase	0
5	Gray Flanger	1
6	Tron Down	3
7	Tron Up	2
8	Sample and Hold	6
9	S/H + Flanger	7
10	S/H + Driver	5
11	Bass Synth	4
12	Danish Driver	12
13	Large Pie	13
14	Pig Foot	15
15	Rodent	14
16	Bypass	10

AMP MODEL TYPE PARAMETER TABLE:

Amp#	Amp Model	Bass Pod Internal Value
1	Session	1
2	California	2
3	Jazz Tone	3
4	Adam & Eve	4
5	Eighties	5
6	Stadium	6
7	Amp 360	7

8	Rock Classic	8
9	Brit Major	9
10	Brit Super	10
11	Silver Panel	11
12	Brit Class A	12
13	Motor City	13
14	Flip Top	14
15	Sub Dub	15
16	Tube Preamp	0

CABINET TYPE PARAMETER TABLE:

Cab#	Cabinet Type	Bass Pod Internal Value
1	SWR Goliath 4x10	8
2	Mesa/Boogie 2x15 (front loaded and front ported)	5
3	Polytone 1x15 closed back combo	6
4	Eden David 4x10	9
5	Hartke 4x10	0
6	Sunn Coliseum 8028 1x18 + 1x12	14
7	Acoustic 360	15
8	1979 Ampeg SVT 8x10	11
9	1969 Marshall Major 4x15	12
10	1968 Marshall 4x12 with pre-Rola 25 s	3
11	Fender Bassman 2x15 with JBL s	4
12	Vox AC-100 2x15	7
13	60 s Versatone Pan-O-Flex 1x12	1
14	Ampeg B-15 1/15 closed back combo	2
15	SWR 1x18	13
16	No Cabinet	10