TriAxis SYSEX Definition – Firmware version 2.0

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TriAxis SYSEX Map			
Byte # (HEX)	**Byte # (Dec)**	**Value**	**Description**
00	0	F0	Begin Sysex
01	1	00	Manufacturer ID
02	2	00	Manufacturer ID
03	3	4A	Manufacturer ID
04	4	02	TriAxis firmware version number
05 – 3E2	5 – 994	Varies	All Preset Data. See Preset Data table.
3E3 – 462	995 – 1122	00 – 59 (Hex) 0 – 89 (Dec)	Midi Program Change to Preset mappings. For a midi program change P in the range 1-128, the byte that holds the preset to be recalled is as follows: (P – 1) + 995 For example, for midi program change 8, the byte that holds the preset to be recalled is: (8 – 1) + 995 = 1002. Values for presets must be stored in the range 0 – 89, representing presets 1 – 90.
463	1123	00 – 0F (Hex) 0 – 15 (Dec)	Midi Channel. Set as 0-15 representing midi channels 1 – 16.
464	1124	00 – 7F (Hex) 0 – 127 (Dec)	Last edited program (recalled on unit startup.) Value is 0 – 127, representing programs 1 – 128.
465 – 78E	1125 – 1934	00 – 78 (Hex) 0 – 120 (Dec)	Midi Continuous Controller Numbers for each parameter on each preset. See Continuous Controller Number table.
78F – AB8	1935 – 2744	Varies	Midi Continuous Controller Delta values (stored as change from preset setting) for each parameter on each preset. See Continuous Controller Change table.
AB9	2745	F7	End SYSEX.

TriAxis Preset Data			
Byte # (For preset P from 1 – 90)	**Parameter**	**Values**	**Comments**
(P - 1) * 11 + 5	Dynamic Voice	00 – 0F (Hex) 0 -15 (Dec)	See Parameter Value Table
(P - 1) * 11 + 6	Presence	00 – 0F (Hex) 0 -15 (Dec)	See Parameter Va lue Table
(P - 1) * 11 + 7	Master	00 – 0F (Hex) 0 -15 (Dec)	See Parameter Value Table
(P - 1) * 11 + 8	Lead 2 Drive	00 – 0F (Hex) 0 -15 (Dec)	See Parameter Value Table
(P - 1) * 11 + 9	Lead 1 Drive	00 – 0F (Hex) 0 -15 (Dec)	See Parameter Value Table
(P - 1) * 11 + 10	Bass	00 – 0F (Hex) 0 -15 (Dec)	See Parameter Value Table
(P - 1) * 11 + 11	Middle	00 – 0F (Hex) 0 -15 (Dec)	See Parameter Value Table
(P - 1) * 11 + 12	Treble	00 – 0F (Hex) 0 -15 (Dec)	See Parameter Value Table
(P - 1) * 11 + 13	Gain	00 – 0F (Hex) 0 -15 (Dec)	See Parameter Value Table
(P - 1) * 11 + 14	Mode	Special	See Mode Value Table
(P - 1) * 11 + 15	Loop/Switch	Bitmask	See Loop/Switch Value Table

Loop / Switch Value Table	
Bit Number	**Parameter**
1	FX Loop
2	Switch 1
3	Switch 2
4	Switch 3
5	Switch 4

Mode Value Table		
Internal Value Hex	**Internal Value Decimal**	**Preset Mode Value**
7E	126	Rhythm Green
7D	125	Rhythm Yellow
7B	123	Lead 1 Green
77	119	Lead 1 Yellow
6F	111	Lead 1 Red
5F	95	Lead 2 Green
3F	63	Lead 2 Yellow
7F	127	Lead 2 Red

Parameter Value Table		
Internal Value Hex	**Internal Value Decimal**	**Visible Parameter Value**
00	0	0.0
01	1	1.0
02	2	2.0
03	3	3.0
04	4	3.5
05	5	4.0
06	6	4.5
07	7	5.0
08	8	5.5
09	9	6.0
0A	10	6.5
0B	11	7.0
0C	12	7.5
0D	13	8.0
0E	14	9.0
0F	15	10.0

Continuous Controller Number Table			
Byte # (For preset P from 1 – 90)	**Parameter**	**Values**	**Comments**
(P - 1) * 9 + 1125	Dynamic Voice	00 – 78 (Hex) 0 –120 (Dec)	
(P - 1) * 9 + 1126	Presence	00 – 78 (Hex) 0 –120 (Dec)	
(P - 1) * 9 + 1127	Master	00 – 78 (Hex) 0 –120 (Dec)	
(P - 1) * 9 + 1128	Lead 2 Drive	00 – 78 (Hex) 0 –120 (Dec)	
(P - 1) * 9 + 1129	Lead 1 Drive	00 – 78 (Hex) 0 –120 (Dec)	
(P - 1) * 9 + 1130	Bass	00 – 78 (Hex) 0 –120 (Dec)	
(P - 1) * 9 + 1131	Middle	00 – 78 (Hex) 0 –120 (Dec)	
(P - 1) * 9 + 1132	Treble	00 – 78 (Hex) 0 –120 (Dec)	
(P - 1) * 9 + 1133	Gain	00 – 78 (Hex) 0 –120 (Dec)	

Continuous Controller Change Table			
Byte # (For preset P from 1 – 90)	**Parameter**	**Values**	**Comments**
(P - 1) * 9 + 1935	Dynamic Voice	00 – 0F (Hex) or 64 – 73 (Hex) 0 –15 (Dec) or 100 – 115 (Dec)	Stored as a change from the Preset value. 0 – 15 is for a change up from the preset value. 100 – 115 for a change down from the preset value.
(P - 1) * 9 + 1936	Presence	00 – 0F (Hex) or 64 – 73 (Hex) 0 –15 (Dec) or 100 – 115 (Dec)	Stored as a change from the Preset value. 0 – 15 is for a change up from the preset value. 100 – 115 for a change down from the preset value.
(P - 1) * 9 + 1937	Master	00 – 0F (Hex) or 64 – 73 (Hex) 0 –15 (Dec) or 100 – 115 (Dec)	Stored as a change from the Preset value. 0 – 15 is for a change up from the preset value. 100 – 115 for a change down from the preset value.
(P - 1) * 9 + 1938	Lead 2 Drive	00 – 0F (Hex) or 64 – 73 (Hex) 0 –15 (Dec) or 100 – 115 (Dec)	Stored as a change from the Preset value. 0 – 15 is for a change up from the preset value. 100 – 115 for a change down from the preset value.
(P - 1) * 9 + 1939	Lead 1 Drive	00 – 0F (Hex) or 64 – 73 (Hex) 0 –15 (Dec) or 100 – 115 (Dec)	Stored as a change from the Preset value. 0 – 15 is for a change up from the preset value. 100 – 115 for a change down from the preset value.
(P - 1) * 9 + 1940	Bass	00 – 0F (Hex) or 64 – 73 (Hex) 0 –15 (Dec) or 100 – 115 (Dec)	Stored as a change from the Preset value. 0 – 15 is for a change up from the preset value. 100 – 115 for a change down from the preset value.
(P - 1) * 9 + 1941	Middle	00 – 0F (Hex) or 64 – 73 (Hex) 0 –15 (Dec) or 100 – 115 (Dec)	Stored as a change from the Preset value. 0 – 15 is for a change up from the preset value. 100 – 115 for a change down from the preset value.
(P - 1) * 9 + 1942	Treble	00 – 0F (Hex) or 64 – 73 (Hex) 0 –15 (Dec) or 100 – 115 (Dec)	Stored as a change from the Preset value. 0 – 15 is for a change up from the preset value. 100 – 115 for a change down from the preset value.
(P - 1) * 9 + 1943	Gain	00 – 0F (Hex) or 64 – 73 (Hex) 0 –15 (Dec) or 100 – 115 (Dec)	Stored as a change from the Preset value. 0 – 15 is for a change up from the preset value. 100 – 115 for a change down from the preset value.

Example: The internal preset value for a parameter is 08 (5.5 visible value), and the delta value is 106. Therefore, when the Midi CC transmits its maximum value, the parameter value will be 08 – 06 = 02, which translates to a visible value of 2.0.

Similarly, suppose again that the internal preset value for a parameter is 08 (5.5 visible value), and the delta value is 07. When the Midi CC transmits its maximum value, the parameter value will be 08 + 07 = 0F (15) which translates to a visible value of 10.0.