

# TC-Helicon VoiceLive Touch MIDI SysEx Manual

1.2.00

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## Hexadecimal Notation

Many values in this document are presented in hexadecimal notation. Hexadecimal numbers will be prefixed with "0x".

## SYSEX Template

Every SYSEX message conforms to the following template:

Bytes	Description
0xF0	MIDI System exclusive message start
0x00	3 byte manufacturers ID for TC-Helicon
0x01	...
0x38	...
<Sysex ID>	User parameter from MIDI setup menu
0x5B	Model ID
<Message ID>	Message identifier
<Data>	Start of data
<...>	Variable number of data bytes based on message type
0xF7	MIDI System exclusive message terminator

## Data Packing

The standard MIDI specification requires that SYSEX data be 7 bits wide with the most significant bit set to 0. The idea of data packing is to take 14-bit or 28-bit values and split them into 7-bit segments so that they can be sent as valid SYSEX data.

Below is an example of how 14-bit and 28-bit signed integers can be converted into SYSEX strings using Visual Basic for Applications:

```
' VBScript source code
Function create_hex(val As Integer) As String
    ' Creates a nicely formatted hex string from a value
    create_hex = Hex(val)
    If Len(create_hex) = 1 Then create_hex = "0" & create_hex
End Function

Function create_14_compliment(ByVal val As Long) As String
    Dim msb As Integer
    Dim lsb As Integer
    Dim msb_s As String
    Dim lsb_s As String
    Dim temp As Long

    temp = val

    ' deal with negative numbers
    If val < 0 Then
        temp = 16384 + val
    End If

    msb = Int(temp / 128)
    lsb = temp - (msb * 128)

    ' create hex string from values
    msb_s = create_hex(msb)
```

```

lsb_s = create_hex(lsb)

' and return the sysex data portion
create_14_compliment = msb_s & " " & lsb_s
End Function
Function create_28_compliment(ByVal val As Long) As String
Dim msb As Integer
Dim msb2 As Integer
Dim msb3 As Integer
Dim lsb As Integer
Dim msb_s As String
Dim msb2_s As String
Dim msb3_s As String
Dim lsb_s As String
Dim temp As Long

temp = val

' deal with negative numbers
If val < 0 Then
temp = 16384 * 16384 + val
End If

msb = Int(temp / 128)
msb2 = Int(temp / 16384)
msb3 = Int(temp / 2097152)
lsb = temp - ((msb * 128) + (msb2 * 16384) + (msb3 * 2097152))

' create hex string from values
msb_s = create_hex(msb)
msb2_s = create_hex(msb2)
msb3_s = create_hex(msb3)
lsb_s = create_hex(lsb)

' and return the sysex data portion
create_28_compliment = msb3_s & " " & msb2_s & " " & msb_s & " " & lsb_s
End Function

```

## Preset Numbers and Names

Preset numbers are represented using 14-bit data packing. Requesting a user preset that does not exist will return an "empty preset" SYSEX notification message. Preset numbering begins at 1.

Preset names are up to 15 ASCII characters in length. Shorter strings will be NULL/zero terminated with possibly invalid data following the NULL termination.

## Checksums

Checksums are used to ensure secure data transfers. They are 1 byte, holding the 7 least significant bits of the sum of all bytes contributing to the checksum.

Example: If the bytes used in a checksum calculation were the series 1,2,3 through 126, their sum total would be 8001. Dividing 8001 by 128 leaves a remainder of 65, which becomes the checksum byte.

## Message References

The format of the data of each SYSEX message type varies. Below are descriptions for each message type, explaining their specific data formatting requirements.

## Request Messages

### Request Preset ID:0x45

<Data> is 2 bytes (packed 14-bit integer) representing the number of the preset requested. See above for a description of preset number representation. The data transmitted upon receiving this message will be formatted as **Preset Header + Preset Data**.

If preset number = 0, the product will respond by sending a preset numbered 0 with only 1 step representing the possibly edited step that is currently activated on the product.

### Request Preset Header ID:0x46

<Data> is 2 bytes (packed 14-bit integer) representing the number of the preset requested. See above for a description of preset number representation. The data transmitted upon receiving this message will be formatted as **Preset Header Data**.

### Request Parameter ID:0x47

<Data> is 2 bytes (packed 14-bit integer) representing the SYSEX Parameter Identifier. See the SYSEX parameter reference table for a list of accessible parameters and their Ids. The data transmitted by upon receiving this message will be formatted as **Parameter Data**.

### Request Setup ID:0x15

<Data> is 1 byte. The value of this byte is ignored. The data transmitted upon receiving this message will be formatted as **Setup Data**.

## Data Messages

### Preset Header ID:0x20

The parameters of all steps of a preset are transferred over a series of SYSEX messages. Multiple SYSEX messages are used to enhance compatibility with MIDI devices that cannot handle large SYSEX data messages.

Preset information (name, number, and tags) is sent in a **Preset Header** message (0x20). The parameter data then follows over several **Preset Data** messages (0x21). **Preset Header** and **Preset Data** messages are always sent together and meaningless on their own.

Header <Data> is organized as follows

2 bytes	Preset Number (14-bit packed)
2 bytes	Preset Version (14-bit packed)
15 bytes	Preset Name (unpacked - ASCII characters)
4 bytes	Tags (28-bit packed)
1 byte	Step Count

### Preset Data ID:0x21

A series of **Preset Data** messages always directly follow a **Preset Header** message.

<Data> is organized as follows

1 byte	Message Index (0 based)
100 bytes( <b>cs</b> )	25 x 28-bit preset parameters
1 byte	Checksum

Refer to the **preset table** to see how the preset parameters fit into each message.

Note: The checksum is calculated using data marked with (**cs**) above.

### **Parameter Data ID:0x22**

<Data> is 6 bytes. The first two bytes identify the SYSEX Parameter ID. The last four bytes determine the value of the parameter represented as a 28-bit 2's complement signed value. If a value exceeds the limits of the parameter, the value will be automatically limited.

### **Setup Data ID:0x13**

Like presets, setup data messages are also sent as a series of SYSEX messages, but no header is used.

<Data> is organized as follows

2 bytes	Setup Version (14-bit packed)
1 byte	Message Number
100 bytes( <b>cs</b> )	25 x 28-bit setup parameters
1 byte	Checksum

Refer to the **setup table** to see how the preset parameters fit into each message.

All messages will be sent sequentially after receiving a valid setup request.

All messages must be sequentially received to successfully overwrite setup data via SYSEX.

## **Misc Messages**

### **Notification Message ID:0x34**

<Data> is 1 byte.

#### **Data=1: Preset Data Received.**

Sometimes the unit needs to reorganize its internal preset bank after receiving a SYSEX preset. While this is happening, incoming preset SYSEX messages must be ignored. If this happens while you are dumping several presets to the unit, you might lose a preset in transmission without realizing it. This situation can be avoided by waiting for this message, indicating that the preset was successfully stored, before attempting to send the next.

If an entire user bank needs to be loaded and waiting for this message is programmatically impossible, restore the factory preset bank (deleting any user presets) with the **Preset Utility** message immediately before transferring all user presets. This will ensure no internal reorganization occurs.

**Data=2:** The last requested preset does not exist, or the last received preset was numbered out of range.

**Data=3:** Memory full. There is not enough room in memory to store 10 steps for all 400 presets. If this message is received, you must make room by deleting unused presets or steps.

**Data=4:** The last received preset had an incompatible version number and was rejected.

**Data=6:** The last received preset failed its checksum calculation.

**Data=7:** The last received preset had too many steps specified.

**Data=8:** Preset SYSEX packages got out of sync, probably due to lost data. Try reducing data transmission rate on host computer.

### **Presets Delete ID:0x50**

<Data> is 2 bytes (packed 14-bit integer) representing the number of the preset to be deleted. See above for a description of preset number representation.

### **Editor Mode ID:0x53**

<Data> is 1 byte.

**Data=0:** Editor Mode off.

**Data=1:** Editor Mode on. All parameter edits will be echoed via Sysex.

**Data=2:** Restore all factory presets. All user presets will be lost!

**Data=3:** Request information on the currently activated preset.

### **Activated Preset Info ID:0x23**

Requested from Editor Mode SYX command, read only.

<Data> is organized as follows

2 bytes                    Active Preset Number (14-bit packed)

1 byte                    Active Step Number

## Preset Package

Parameter Set Version: 0.26					
SYSEX Offset	ID	Parameter Name	Min	Max	Centre
0	41	ParEq Low_Gain Harm	-12	12	0
1	44	ParEq Low_Freq Harm	0	240	140
2	47	ParEq Par1_Gain Harm	-12	12	0
3	50	ParEq Par1_Freq Harm	0	240	140
4	53	ParEq Par1_BW Harm	0	16	8
5	56	ParEq Hi_Gain Harm	-12	12	0
6	59	ParEq Hi_Freq Harm	0	240	140
7	64	AutoGateT ManualThreshold	-61	0	-60
8	65	AutoGateGain GroupStyle	0	1	0
9	78	Harmony GroupStyle_NP	0	14	0
10	79	Harmony GroupStyle_NOTES	0	3	0
11	80	Harmony GroupStyle_NOTES4CH	0	3	0
12	81	Harmony GroupStyle_SHIFT	0	3	0
13	82	Harmony HumanStyle	0	6	0
14	83	Harmony VibratoStyle	0	7	0
15	84	Harmony HumanAmount	0	100	50
16	85	Harmony VibratoAmount	0	100	50
17	88	Choir Style	0	14	0
18	89	Choir Mix	0	100	50
19	106	Harmony NaturalPlay	0	7	3
20	107	Harmony Key	0	11	6
21	108	Harmony Scale	0	6	3
22	111	Harmony Tuning	0	2	0
23	112	Harmony Int_NP V1	0	6	2
24	113	Harmony Int_NP V2	0	6	2
25	114	Harmony Int_NP V3	0	6	2
26	115	Harmony Int_NP V4	0	6	2
27	116	Harmony Int_scale V1	0	28	14
28	117	Harmony Int_scale V2	0	28	14
29	118	Harmony Int_scale V3	0	28	14
30	119	Harmony Int_scale V4	0	28	14
31	120	Harmony Int_shift V1	-24	24	0
32	121	Harmony Int_shift V2	-24	24	0
33	122	Harmony Int_shift V3	-24	24	0
34	123	Harmony Int_shift V4	-24	24	0
35	128	Harmony Smoothing V1	0	100	50
36	129	Harmony Smoothing V2	0	100	50
37	130	Harmony Smoothing V3	0	100	50
38	131	Harmony Smoothing V4	0	100	50
39	132	Harmony Latch	0	1	0
40	133	Harmony ChordStyle	0	1	0
41	134	Harmony Attack	0	1000	500
42	136	Harmony Release	0	2000	1000
43	139	Harmony Hold_Release	0	100	0
44	142	Harmony NotesExtSwitch	0	1	0
45	143	Harmony Gender V1	-50	50	0

46	144	Harmony Gender V2	-50	50	0
47	145	Harmony Gender V3	-50	50	0
48	146	Harmony Gender V4	-50	50	0
49	147	Harmony Portamento V1	0	200	25
50	148	Harmony Portamento V2	0	200	25
51	149	Harmony Portamento V3	0	200	25
52	150	Harmony Portamento V4	0	200	25
53	157	Harmony Notes_Pan	0	2	0
54	158	Harmony Notes_Smoothing	0	100	50
55	159	Harmony Notes_Gender	-50	50	0
56	160	Harmony Notes_Portamento	0	200	25
57	161	Doubling GroupStyle	0	5	0
58	162	Doubling HumanStyle	0	6	0
59	163	Doubling HumanAmount	0	100	50
60	164	Doubling Smoothing V1	0	100	50
61	165	Doubling Smoothing V2	0	100	50
62	166	Doubling Smoothing V3	0	100	50
63	167	Doubling Smoothing V4	0	100	50
64	168	Doubling Portamento V1	0	200	25
65	169	Doubling Portamento V2	0	200	25
66	170	Doubling Portamento V3	0	200	25
67	171	Doubling Portamento V4	0	200	25
68	172	Harmony Doubling	0	1	0
69	177	Mixer_L Level Dry2uMod	-61	0	-60
70	178	Mixer_L Level Harm2uMod	-61	0	-60
71	179	Mixer_L Level Dry2Delay	-61	0	-60
72	180	Mixer_L Level Harm2Delay	-61	0	-60
73	181	Mixer_L Level uMod2Delay	-61	0	-60
74	183	Mixer_L Level Dry2Reverb	-61	0	-60
75	184	Mixer_L Level Harm2Reverb	-61	0	-60
76	185	Mixer_L Level Delay2Reverb	-61	0	-60
77	193	Mixer_L Level Harmony	-61	0	-60
78	194	Mixer_L Level HarmonyDoubling	-61	0	-60
79	195	Mixer_L Level Doubling	-61	0	-60
80	201	Mixer_LP Level Lead	-61	0	-60
81	202	Mixer_LP Level H1	-61	0	-60
82	203	Mixer_LP Level H2	-61	0	-60
83	204	Mixer_LP Level H3	-61	0	-60
84	205	Mixer_LP Level H4	-61	0	-60
85	210	Mixer_LP Level D1	-61	0	-60
86	211	Mixer_LP Level D2	-61	0	-60
87	212	Mixer_LP Level D3	-61	0	-60
88	213	Mixer_LP Level D4	-61	0	-60
89	215	Mixer_LP Pan Lead	-100	100	0
90	216	Mixer_LP Pan H1	-100	100	0
91	217	Mixer_LP Pan H2	-100	100	0
92	218	Mixer_LP Pan H3	-100	100	0
93	219	Mixer_LP Pan H4	-100	100	0
94	224	Mixer_LP Pan D1	-100	100	0
95	225	Mixer_LP Pan D2	-100	100	0

96	226	Mixer_LP Pan D3	-100	100	0
97	227	Mixer_LP Pan D4	-100	100	0
98	229	Mixer_LW Level Voc_uMod	-61	0	-60
99	230	Mixer_LW Level Voc_Delay	-61	0	-60
100	231	Mixer_LW Level Voc_Reverb	-61	0	-60
101	234	Mixer_LW Width Voc_uMod	0	100	0
102	235	Mixer_LW Width Voc_Delay	0	100	0
103	236	Mixer_LW Width Voc_Reverb	0	100	0
104	239	MicroMod Style Voice	0	23	0
105	241	MicroMod Detune_L Voice	-25	25	0
106	243	MicroMod Detune_R Voice	-25	25	0
107	245	MicroMod Mod_Depth_L Voice	0	100	0
108	247	MicroMod Mod_Depth_R Voice	0	100	0
109	249	MicroMod Mod_Speed Voice	5	1000	0
110	251	MicroMod Mod_LR_Phase Voice	0	180	0
111	253	MicroMod Mod_Wave Voice	0	2	0
112	255	MicroMod Delay_L Voice	0	230	200
113	257	MicroMod Delay_R Voice	0	230	200
114	259	MicroMod FB_L Voice	-100	100	0
115	261	MicroMod FB_R Voice	-100	100	0
116	263	MicroMod XFB_L Voice	-100	100	0
117	265	MicroMod XFB_R Voice	-100	100	0
118	267	MicroMod LoCut_L Voice	0	240	0
119	269	MicroMod LoCut_R Voice	0	240	0
120	271	MicroMod HiCut_L Voice	0	240	0
121	273	MicroMod HiCut_R Voice	0	240	0
122	275	MicroMod OutPhase Voice	0	3	1
123	277	Delay Style	0	17	0
124	278	Delay Source	0	2	0
125	279	Delay Tempo	25	300	0
126	280	Delay DelayTime_L	0	2500	0
127	281	Delay DelayTime_R	0	2500	0
128	282	Delay Division_L	0	19	9
129	283	Delay Division_R	0	19	9
130	284	Delay FB_L	0	100	50
131	285	Delay FB_R	0	100	50
132	286	Delay XFB_L_R	0	100	50
133	287	Delay XFB_R_L	0	100	50
134	288	Delay LoCut_L	0	240	0
135	289	Delay LoCut_R	0	240	0
136	290	Delay HiCut_L	0	240	0
137	291	Delay HiCut_R	0	240	0
138	292	Reverb StyleVoice	0	29	0
139	297	Reverb Decay Voice	1	290	1
140	299	Reverb PreDelay Voice	0	100	0
141	301	Reverb Diffuse Voice	-50	50	0
142	303	Reverb LoColor Voice	-50	50	0
143	305	Reverb HiColor Voice	-50	50	0
144	307	Reverb HiFactor Voice	-25	25	0
145	309	Reverb ModSpeed Voice	-25	25	0



146	311	Reverb ModDepth Voice	-25	25	0
147	313	Reverb EarlyLevel Voice	-25	0	0
148	315	Reverb ReverbLevel Voice	-25	0	0
149	317	Reverb DryLevel Voice	-25	0	0
150	803	Transducer Style	0	16	0
151	804	Transducer Routing	0	5	1
152	805	Transducer DistortionAmount	0	100	50
153	806	Transducer BandLimitHP	50	240	120
154	807	Transducer BandLimitLP	75	238	120
155	808	Transducer PreGain	-20	20	0
156	809	Transducer PostGain	-20	20	0
157	810	Transducer DistortionType	0	14	0
158	825	Transducer PresenceGain	-20	20	0
159	826	Transducer PresenceFC	100	195	140
160	827	Transducer PresenceBW	0	16	8
161	828	Hardtune Style	0	12	0
162	829	Correct KeySource	0	1	0
163	830	Correct Amount	0	100	50
164	831	Correct Window	0	60	30
165	832	Correct Rate	0	100	50
166	833	Correct Shift	-12	12	0
167	837	Correct Scale	0	5	0
168	839	Correct Lead_Gender	-50	50	0
169	840	Ducking Enable Delay	0	1	0
170	841	Ducking Enable Reverb	0	1	0
171	842	Ducking Level Delay	-61	0	-60
172	843	Ducking Level Reverb	-61	0	-60
173	844	Ducking Attack Delay	0	45	0
174	845	Ducking Attack Reverb	0	45	0
175	846	Ducking Release Delay	0	45	0
176	847	Ducking Release Reverb	0	45	0
177	876	Utility Dry_Level uMod	-61	0	-60
178	877	Utility Dry_Level Delay	-61	0	-60
179	878	Utility Dry_Level Reverb	-61	0	-60
180	879	Utility Dry_Level Harmony	-61	0	-60
181	880	Utility Dry_Level Double	-61	0	-60
182	881	Utility Dry_Level Preset	-61	0	-60
183	897	Preset PrePost	0	1	0
184	898	Preset Shortcut	1	20	0
185	902	Block MicroMod	0	1	0
186	903	Block Delay	0	1	0
187	904	Block Reverb	0	1	0
188	905	Block Harmony	0	1	0
189	906	Block Double	0	1	0
190	907	Block FX	0	1	0
191	908	Block Transducer	0	1	0
192	909	Block Choir	0	1	0
193	910	Block Correct	0	1	0
194	936	HarmonyMapCus V12_Root	0	4095	0
195	937	HarmonyMapCus V12_Minor2	0	4095	0

196	938	HarmonyMapCus V12_Major2	0	4095	0
197	939	HarmonyMapCus V12_Minor3	0	4095	0
198	940	HarmonyMapCus V12_Major3	0	4095	0
199	941	HarmonyMapCus V12_Perfect4	0	4095	0
200	942	HarmonyMapCus V12_Augmented4	0	4095	0
201	943	HarmonyMapCus V12_Pepect5	0	4095	0
202	944	HarmonyMapCus V12_Minor6	0	4095	0
203	945	HarmonyMapCus V12_Major6	0	4095	0
204	946	HarmonyMapCus V12_Minor7	0	4095	0
205	947	HarmonyMapCus V12_Major7	0	4095	0
206	948	HarmonyMapCus V34_Root	0	4095	0
207	949	HarmonyMapCus V34_Minor2	0	4095	0
208	950	HarmonyMapCus V34_Major2	0	4095	0
209	951	HarmonyMapCus V34_Minor3	0	4095	0
210	952	HarmonyMapCus V34_Major3	0	4095	0
211	953	HarmonyMapCus V34_Perfect4	0	4095	0
212	954	HarmonyMapCus V34_Augmented4	0	4095	0
213	955	HarmonyMapCus V34_Pepect5	0	4095	0
214	956	HarmonyMapCus V34_Minor6	0	4095	0
215	957	HarmonyMapCus V34_Major6	0	4095	0
216	958	HarmonyMapCus V34_Minor7	0	4095	0
217	959	HarmonyMapCus V34_Major7	0	4095	0
218	960	CorrectionMapCus Bitfield	0	4095	0
219	962	Preset Exp_Func	0	17	0
220	963	Correct Key_Storage	0	11	0
221	964	Preset Source	0	65535	0
222	979	Doubling Gender V1	-50	50	0
223	980	Doubling Gender V2	-50	50	0
224	981	Doubling Gender V3	-50	50	0
225	982	Doubling Gender V4	-50	50	0

## System Package

Parameter Set Version:		0.26			
SYSEX Offset	ID	Parameter Name	Min	Max	Centre
0	0	Utility Tone_Style	0	8	0
1	3	PreFX CompThresh	-60	0	0
2	4	PreFX CompRatio	0	14	0
3	40	ParEq Low_Gain Voice	-12	12	0
4	42	ParEq Low_Gain Guitar	-12	12	0
5	43	ParEq Low_Freq Voice	0	240	140
6	45	ParEq Low_Freq Guitar	0	240	140
7	46	ParEq Par1_Gain Voice	-12	12	0
8	48	ParEq Par1_Gain Guitar	-12	12	0
9	49	ParEq Par1_Freq Voice	0	240	140
10	51	ParEq Par1_Freq Guitar	0	240	140
11	52	ParEq Par1_BW Voice	0	16	8
12	54	ParEq Par1_BW Guitar	0	16	8
13	55	ParEq Hi_Gain Voice	-12	12	0
14	57	ParEq Hi_Gain Guitar	-12	12	0
15	58	ParEq Hi_Freq Voice	0	240	140
16	60	ParEq Hi_Freq Guitar	0	240	140
17	61	AutoGate Mode	0	2	0
18	62	AutoGate ManualThreshold	-61	0	-60
19	69	AutoGateGain Level Lead	-61	0	-60
20	70	AutoGateGain Level Harm	-61	0	-60
21	71	AutoGateGain Attack Lead	0	4	0
22	72	AutoGateGain Attack Harm	0	4	0
23	73	AutoGateGain Release Lead	0	4	0
24	74	AutoGateGain Release Harm	0	4	0
25	87	Harmony VibratoControl	0	1	0
26	190	Mixer_L Level AuxLevel	-61	0	-60
27	191	Mixer_L Level GtrFxLevel	-61	0	-60
28	192	Mixer_L Level OverallOutput	-61	0	-60
29	197	Mixer_L Level UsbStereoOut	-61	0	-60
		Mixer_L_6dB Level			
30	199	DlyRevLevel	-61	6	-60
		Mixer_L_6dB Level			
31	200	VoicesLevel	-61	6	-60
32	232	Mixer_LW Level Gtr_uMod	-61	0	-60
33	233	Mixer_LW Level Gtr_Reverb	-61	0	-60
34	237	Mixer_LW Width Gtr_uMod	0	100	0
35	238	Mixer_LW Width Gtr_Reverb	0	100	0
36	240	MicroMod Style Guitar	0	23	0
37	242	MicroMod Detune_L Guitar	-25	25	0
38	244	MicroMod Detune_R Guitar	-25	25	0
39	246	MicroMod Mod_Depth_L Guitar	0	100	0
40	248	MicroMod Mod_Depth_R Guitar	0	100	0
41	250	MicroMod Mod_Speed Guitar	5	1000	0
		MicroMod Mod_LR_Phase			
42	252	Guitar	0	180	0
43	254	MicroMod Mod_Wave Guitar	0	2	0

44	256	MicroMod Delay_L Guitar	0	230	200
45	258	MicroMod Delay_R Guitar	0	230	200
46	260	MicroMod FB_L Guitar	-100	100	0
47	262	MicroMod FB_R Guitar	-100	100	0
48	264	MicroMod XFB_L Guitar	-100	100	0
49	266	MicroMod XFB_R Guitar	-100	100	0
50	268	MicroMod LoCut_L Guitar	0	240	0
51	270	MicroMod LoCut_R Guitar	0	240	0
52	272	MicroMod HiCut_L Guitar	0	240	0
53	274	MicroMod HiCut_R Guitar	0	240	0
54	276	MicroMod OutPhase Guitar	0	3	1
55	298	Reverb Decay Guitar	1	290	1
56	300	Reverb PreDelay Guitar	0	100	0
57	302	Reverb Diffuse Guitar	-50	50	0
58	304	Reverb LoColor Guitar	-50	50	0
59	306	Reverb HiColor Guitar	-50	50	0
60	308	Reverb HiFactor Guitar	-25	25	0
61	310	Reverb ModSpeed Guitar	-25	25	0
62	312	Reverb ModDepth Guitar	-25	25	0
63	314	Reverb EarlyLevel Guitar	-25	0	0
64	316	Reverb ReverbLevel Guitar	-25	0	0
65	318	Reverb DryLevel Guitar	-25	0	0
66	838	Correct Pitch_Amount	0	100	50
67	848	Utility Mic_GainSetMode	0	1	0
68	849	Utility Mic_Phantom	0	2	0
69	851	Utility Input_DynamicGain	0	66	30
70	852	Utility Input_CondenserGain	0	66	30
71	853	Utility AutoTargetGain	-20	0	-6
72	854	Utility MonoStereo	0	2	0
73	855	Utility MIDI_Channel	0	16	0
74	856	Utility CCChan	0	16	0
75	857	Utility Filter	0	3	0
76	858	Utility SysEx_ID	0	127	0
77	859	Utility PB_Range	0	12	2
78	860	Utility Trans	-4	4	0
79	861	Utility KBSplit_AB	0	1	0
80	862	Utility KBSplit	0	127	64
81	863	Utility Tune	840	920	0
82	865	Utility GuitarInputGain	-31	24	0
83	866	Utility GuitarMute	0	1	0
84	868	Utility Natplay_Global	0	8	0
85	869	Utility KeyScale_Global	0	1	0
86	870	Utility Tap_Global	0	1	0
87	871	Utility Dry_Delay	0	2	0
88	872	Utility USB_ROUTING	0	2	1
89	873	Utility Midi_Control	0	2	0
90	874	Utility Output_Level_Range	0	5	0
91	875	Utility Dry_Mute	0	1	0
92	891	Utility DemoMode	0	1	0
93	892	Utility GuitarFxStyle	0	7	0

94	899	Block Tone	0	1	0
95	901	Block GuitarFX	0	1	0
96	961	Utility Last_Preset	0	65535	0
97	978	Utility GuitarPhase	0	1	0
98	983	Utility Favorite	0	4	0
99	984	Utility Scene	0	4	0
100	985	Utility Advanced_Looping	0	1	0
101	986	Utility Undo_Enabled	0	1	0
102	987	Utility Pedal_Mode	0	10	0
103	988	Utility Scroll_Speed	10	50	25
104	989	Utility Loop_Rec_Decay	0	100	50
105	990	Utility MicButton	0	4194304	0
106	1000	Utility LoopGain	-61	0	0
107	1001	Utility HarmButtonMode	0	2	0