MIDI Implementation

Model: GX-100
Date: March 3rd, 2022
Version: ver1.10

1. Recognized data
If "MENU:MIDI:MIDI SETTING:MIDI IN THRU" and "MENU:MIDI:MIDI SETTING:USB IN THRU" are set to anything other than "OFF," the received message will be transmitted as it is.

[*]Channel Voice Message
These messages are received if the "MENU:MIDI:MIDI SETTING:RX CHANNEL" setting matches the MIDI channel number of the incoming message.

(*)Control Change

(-)Bank Select
Status	2nd Byte	3rd Byte
BnH	00H	mmH
BnH	20H	00H

n = MIDI Channel Number: 0H - FH (0 - 15) 0=ch.1 15=ch.16
mm = Bank Number (MSB) : 00H - 02H (0 - 2)

* After this unit starts up, it operates with 00H as the bank number until a bank select message is received.

(-)Control Change Number #1 - #31 (MSB), #33 - #63 (LSB), #64 - #95
Status	2nd Byte	3rd Byte
BnH	ccH	vvH

n = MIDI Channel Number: 0H - FH (0 - 15) 0=ch.1 15=ch.16
cc = Control Change Number: 01H - 1FH (MSB), 20H - 3FH (LSB), 40H - 5FH (1 - 31, 32 - 63, 64-95)
vv = Value : 00H - 7FH (0 - 127)

* Recognized if the "MENU:ASSIGN SETTING:SOURCE" setting is CC#1 - #31 or CC#64 - #95.
Target value = (parameter min) + ((((cc value) - (ACT LOW)) * (parameter range)) / ((ACT HIGH) - (ACT LOW)))

(*)Program Change
Status	2nd Byte
CnH	ppH

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1, 15 = ch.16
pp = Program Number : 00H - 7FH (0 - 127)

* This message switches to the memory that is specified by "MENU:MIDI:PROGRAM MAP."

[*]System Realtime Messages

(*)Timing Clock
Status
F8H

* Recognized if the "MENU:MIDI:MIDI SETTING:SYNC CLOCK" setting is other than INTERNAL.

(*)Active Sensing
Status
FEH

* When an Active Sensing message is received, the interval of all subsequent messages will begin to be monitored.
When the message interval is being monitored, and the interval exceeds 400 ms, the display indicates "MIDI OFFLINE" and the unit returns to a state in which message interval
is not monitored.

[*]System Exclusive Messages
Status	Data Byte	Status
F0H,	iiH, dev, ddH, ..., eeH,	F7H

Byte	Explanation
F0H:	System Exclusive Message status
iiH:	ID number
41H:	Roland's manufacturer ID
7EH:	Universal Non-realtime message
dev:	Device ID (dev: 10H, 7FH) * 7FH = Broadcast
dd,...,ee = data:	00H-7FH(0-127)
F7H:	EOX (End of Exclusive)

(*)Universal Non-Realtime System Exclusive Messages

(-)Identity Request Message (Device Inquiry)
Status	Data Byte	Status
F0H,	7EH, dev, 06H, 01H, F7H	

Byte	Explanation
F0H:	System Exclusive Message status
7EH:	Universal Non-realtime Message
dev:	Device ID (dev: 10H, 7FH) * 7FH = Broadcast
06H:	Sub ID # 1 (General Information)
01H:	Sub ID # 2 (Identity Request)
F7H:	EOX (End of Exclusive)

When this message is received, this unit transmits the prescribed identity reply message (see transmitted data).

(*)One Way Communication

(-)Request Data 1 RQ1 (11H)
Status	Data Byte	Status
F0H,	41H, dev, 00H, 00H, 00H, 00H, 0BH, 11H, aaH, bbH, ccH, ddH, ssH, ttH, uuH, vvH, sum, F7H	

Byte	Explanation
F0H:	System Exclusive Message status
41H:	Manufacturer ID (Roland)
dev:	Device ID (dev: 10H, 7FH) * 7FH = Broadcast
00H:	Model ID # 1 (GX-100)
00H:	Model ID # 2 (GX-100)
00H:	Model ID # 3 (GX-100)
00H:	Model ID # 4 (GX-100)
0BH:	Model ID # 5 (GX-100)
11H:	Command ID (RQ1)
aaH:	Address MSB
bbH:	Address
ccH:	Address
ddH:	Address LSB
ssH:	Size MSB
ttH:	Size
uuH:	Size
vvH:	Size LSB
sum:	Checksum
F7H:	EOX (End of Exclusive)

(-)Data Set 1 DT1 (12H)
Status	Data Byte	
F0H,	41H, dev, 00H, 00H, 00H, 00H, 0BH, 12H, aaH, bbH, ccH, ddH, eeH, ... hhH, sum,	F7H

Byte	Explanation
F0H:	System Exclusive Message status
41H:	Manufacturer ID (Roland)
dev:	Device ID (dev: 10H, 7FH) * 7FH = Broadcast
00H:	Model ID # 1 (GX-100)
00H:	Model ID # 2 (GX-100)
00H:	Model ID # 3 (GX-100)
00H:	Model ID # 4 (GX-100)
0BH:	Model ID # 5 (GX-100)
12H:	Command ID (DT1)
aaH:	Address MSB
bbH:	Address
ccH:	Address
ddH:	Address LSB
eeH:	Data
:	
ffH:	Data
sum:	Checksum
F7H:	EOX (End of Exclusive)

2. Transmitted data

[*]Channel Voice Messages
* Set the channel voice message transmit MIDI channel number to "MENU:MIDI:MIDI SETTING:TX CHANNEL."

(*)Control Change

(-)Bank Select
Status	2nd Byte	3rd Byte
BnH	00H	mmH
BnH	20H	llH

n = MIDI Channel Number: 0H - FH (0 - 15) 0=ch.1 15=ch.16
mm = Bank Number (MSB): 00H - 7FH (0 - 127)
ll = Bank Number (LSB): 00H - 7FH (0 - 127)

(-)Control Change Number #0 - #127
Status	2nd Byte	3rd Byte
BnH	ccH	vvH

n = MIDI Channel Number: 0H - FH (0 - 15) 0=ch.1 15=ch.16
cc = Control Change Number: 01H - 7FH (0 - 127)
vv = Value : 00H - 7FH (0 - 127)

* When you operate a controller, the CC# specified by "MENU:MIDI:MIDI SETTING:NUM1 CC# - EXP2 CC#" is transmitted.
* You can send the CC# messages by setting ASSIGN.

(*)Program Change
Status	2nd Byte
CnH	ppH

n = MIDI Channel Number: 0H - FH (0 - 15) 0 = ch.1 15 = ch.16
pp = Program Number: 00H - 7FH (0 - 127)

* Depending on the setting of the "MENU:CONTROL/ASSIGN:MEMORY MIDI," this message is transmitted when you switch memories.

[*]System Realtime Message

(*)Timing Clock
Status
F8H

* If both "MENU:MIDI:MIDI SETTING:SYNC CLOCK" = INTERNAL and "MENU:MIDI:MIDI SETTING:CLOCK OUT" = ON, this message is transmitted at intervals corresponding to the tempo.
* If the "MENU:MIDI:SYNC LOCK" setting is other than INTERNAL, this message is transmitted when timing clock messages corresponding to the setting are received.

(*)Start
Status
FAH

* This is transmitted at the time of controller operation when "MENU:CONTROL ASSIGN:CONTROL FUNCTION:***" is set to "MIDI START."

(*)Stop
Status
FCH

* This is transmitted at the time of controller operation when "MENU:CONTROL ASSIGN:CONTROL FUNCTION:***" is set to "MIDI START."

(*)Active Sensing
Status
FEH

* This message is always transmitted at intervals of approximately 250 ms.

[*]System Exclusive Message
Status Data Byte   Status
F0H,   41H, ddH, ..., eeH, F7H

Byte   Explanation
F0H: System Exclusive Message status
41H: Roland's manufacturer ID
dd,...,ee = data: 00H-7FH(0-127)
F7H: EOX (End of Exclusive)

(*)Universal Non-realtime System Exclusive Message

(-)Identity Reply Message
Status Data Byte
Status
F0H,   7EH, dev, 06H, 02H, 41H, 0BH, 04H, 00H, 00H, nnH, 00H, vvH, 00H,   F7

Byte   Explanation
F0H: System Exclusive Message status
7EH: ID Number (Universal Non-realtime Message)
dev: Device ID (dev: 10H)
06H: Sub ID # 1 (General Information)
02H: Sub ID # 2 (Identity Reply)
41H: Roland's manufacturer ID
0BH,04H: Device family code (GX-100)
00H,00H: Device family number code LSB, MSB
nnH: Software revision level # 1
00H: Software revision level # 2
vvH: Software revision level # 3
00H: Software revision level # 4
F7H: EOX (End of Exclusive)

* This message is transmitted when an identity request message is received.

(*)MIDI Machine Control Command STOP (MCS)
Status Data Byte   Status
F0H,   7FH, Dev, 06H, 01H, F7H

Byte   Explanation
F0H: Exclusive status
7FH: Universal System Exclusive Realtime Header
Dev: Device ID (7FH)
06H: MMC command message
01H: STOP (MCS)
F7H: EOX (End of Exclusive)

* This is transmitted at the time of controller operation when "MENU:CONTROL ASSIGN:CONTROL FUNCTION:***" is set to "MMC PLAY."

(*)MIDI Machine Control Command PLAY (MCS)
Status Data Byte   Status
F0H,   7FH, Dev, 06H, 03H, F7H

Byte   Explanation
F0H: Exclusive status
7FH: Universal System Exclusive Realtime Header
Dev: Device ID (7FH)
06H: MMC command message
02H: PLAY (MCS)
F7H: EOX (End of Exclusive)

* This is transmitted at the time of controller operation when "MENU:CONTROL ASSIGN:CONTROL FUNCTION:***" is set to "MMC PLAY."

(*)One Way Communication

(-)Data Set 1 DT1 (12H)
Status Data Byte
Status
F0H,   41H, dev, 00H, 00H, 00H, 00H, 0BH, 12H, aaH, bbH, ccH, ddH, eeH, ... hhH, sum,   F7H

Byte   Explanation
F0H: System Exclusive Message status
41H: Roland's manufacturer ID
dev: Device ID (10H)
00H: Model ID # 1 (GX-100)
00H: Model ID # 2 (GX-100)
00H: Model ID # 3 (GX-100)
00H: Model ID # 4 (GX-100)
0BH: Model ID # 5 (GX-100)
12H: Command ID (DT1)
aaH: Address MSB
bbH: Address
ccH: Address
ddH: Address LSB
eeH: Data
:
ffH: Data
sum: Checksum
F7H: EOX (End of Exclusive)

(*)How to calculate the checksum

(hexadecimal numbers are indicated by "H")

The checksum is a value derived by adding the address, size, and checksum itself and inverting the lower 7 bits.
Here's an example of how the checksum is calculated.
We will assume that in the Exclusive message we are transmitting, the address is aa bb cc ddH and the data or size is ee FFH.

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aa + bb + cc + dd + ee + ff = sum
sum ÷ 128 = quotient ... remainder
checksum = 128 - remainder
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3. System Exclusive Address Map

GX-100 (Model ID : 00H 00H 00H 00H 0BH)

Start Address	Description	
00 00 00 00	common	[SystemCommon]
00 00 10 00	control	[SystemControl]
00 00 30 00	midi	[SystemMidi]
00 00 40 00	inout	[SystemInOut]
00 00 50 00	efct	[SystemEfct]
00 00 60 00	pitch	[SystemPitch]
00 00 61 00	inputSetting 1	[SysteminputSetting]
00 00 62 00	inputSetting 2	[SysteminputSetting]
:		
00 00 6A 00	inputSetting 10	[SysteminputSetting]
00 00 6B 00	globalEq	[SystemGlobalEq]
00 10 00 00	bank1	[PcmapPc]
00 10 04 00	bank2	[PcmapPc]
00 10 08 00	bank3	[PcmapPc]
00 20 00 00	temp	[SetupTemp]
00 20 00 40	temp2	[SetupTemp2]
00 20 01 40	temp3	[SetupTemp3]
00 20 03 40	efct	[SetupEfct]
00 20 04 40	comm	[SetupComm]
10 00 00 00	memory (temporary memory)	[Memory]
20 00 00 00	memory 1 (user memory)	[Memory]
20 06 00 00	memory 2	[Memory]
:		
29 2A 00 00	memory 200	[Memory]

* [Memory]

Offset Address	Description	
00 00 00	common	[MemoryCommon]
00 01 40	led	[MemoryLed]
00 02 00	assign 1	[Assign]
00 02 40	assign 2	[Assign]
:		
00 0B 40	assign 20	[Assign]
00 0F 00	efct	[MemoryEfct]
00 11 00	Fx Item 1	[MemoryFxItem]
00 13 00	Fx Item 2	[MemoryFxItem]
:		
00 37 00	Fx Item 20	[MemoryFxItem]

* [SystemCommon]

Offset Address		Description	
# 00 00	0000 aaaa		
00 01	0000 bbbb		
00 02	0000 cccc		
00 03	0000 dddd	Memory Number	(0 - 299)
		U01-1 .. U50-4 - P01-1 .. P50-4	
00 04	0000 00aa	PLAYPAGE MODE	(0 - 3)
		LARGE NUMBER, LARGE NAME, CONTROL, CHAIN	
00 05	0000 000a	CTLVIEW EIDT SW	(0 - 1)
			OFF, ON
00 06	0000 000a	TUNER MODE	(0 - 1)
			NORMAL, STREAM
00 07	0000 00aa	TUNER TYPE	(0 - 2)
			MONO+POLY, MONO, POLY
00 08	0000 00aa	BANK CHANGE MODE	(0 - 2)
			WAIT1, WAIT2, IMMEDIATE
00 09	0aaa aaaa	BANK EXTENT MIN	(0 - 74)
			U01 - U50, P01 - P25
00 0A	0aaa aaaa	BANK EXTENT MAX	(0 - 74)
			U01 - U50, P01 - P25
		"BANK EXTENT MIN" and "BANK EXTENT MAX" are pair parameters. The DT1 to each parameter is temporarily suspended, and the DT1 to the pair parameter final address automatically checks the pending parameters, and if there is no problem, the value is set. If the value is incomplete it will not be set. Parameters before set are read out for the RQ1 to pending parameters. Pending values can not be read.	
00 0B	0000 00aa	AMP CTL1	(0 - 2)
			LATCH, PULSE, INVERT
00 0C	0000 00aa	AMP CTL2	(0 - 2)
			LATCH, PULSE, INVERT
00 0D	0000 000a	EXP1 HOLD	(0 - 1)
			OFF, ON
00 0E	0000 000a	EXP2 HOLD	(0 - 1)
			OFF, ON
00 0F	0000 000a	AUTO OFF	(0 - 1)
			OFF, ON
00 10	0000 000a	N/A(fixed value)	(1)
00 11	0000 000a	LOCK STATUS	(0 - 1)
			OFF, ON
00 12	0000 000a	KNOB	(0 - 1)
			OFF, ON
00 13	0000 000a	TOUCH SCREEN	(0 - 1)
			OFF, ON
00 14	0000 000a	BUTTON	(0 - 1)
			OFF, ON
00 15	0000 000a	OUTPUT LEVELWnLOCK	(0 - 1)
			OFF, ON
00 16	0000 000a	DELETEWnWARNING	(0 - 1)
			OFF, ON
00 17	0000 000a	OVERWRITEWnWARNING	(0 - 1)
			OFF, ON
00 18	0000 000a	FX ORDER	(0 - 1)
			BY TYPE, BY NAME
00 19	000a aaaa	N/A(fixed value)	(0)
00 1A	000a aaaa	N/A(fixed value)	(0)
00 1B	000a aaaa	N/A(fixed value)	(0)
00 1C	000a aaaa	N/A(fixed value)	(0)
# 00 1D	0000 aaaa		
00 1E	0000 bbbb		
00 1F	0000 cccc		
00 20	0000 dddd	N/A(fixed value)	(0)
# 00 21	0000 aaaa		
00 22	0000 bbbb		
00 23	0000 cccc		
00 24	0000 dddd	N/A(fixed value)	(0)
# 00 25	0000 aaaa		
00 26	0000 bbbb		
00 27	0000 cccc		
00 28	0000 dddd	N/A(fixed value)	(0)
# 00 29	0000 aaaa		
00 2A	0000 bbbb		
00 2B	0000 cccc		
00 2C	0000 dddd	N/A(fixed value)	(0)
00 00 00 2D	Total Size		

*1 KNOB SETTING TABLE

INDEX	CATEGORY	TARGET
0	----	----
1	EFFECT(RENAMED WITH TYPE)	ON/OFF
2	AC GUITAR SIM	BODY
3	AC GUITAR SIM	LOW
4	AC GUITAR SIM	HIGH
5	AC GUITAR SIM	LEVEL
6	AC RESONANCE	TYPE
7	AC RESONANCE	RESONANCE
8	AC RESONANCE	TONE
9	AC RESONANCE	LEVEL
10	SLOW GEAR	SENS
11	SLOW GEAR	RISE TIME
12	SLOW GEAR	LEVEL
13	BASS SLOW GEAR	SENS
14	BASS SLOW GEAR	RISE TIME
15	BASS SLOW GEAR	LEVEL
16	DEFRETTER	SENS
17	DEFRETTER	DEPTH
18	DEFRETTER	TONE
19	DEFRETTER	EFFECT LEVEL
20	DEFRETTER	ATTACK
21	DEFRETTER	RESONANCE
22	DEFRETTER	DIRECT MIX
23	BASS DEFRETTER	SENS
24	BASS DEFRETTER	ATTACK
25	BASS DEFRETTER	TONE
26	BASS DEFRETTER	EFFECT LEVEL
27	BASS DEFRETTER	DIRECT MIX
28	WAH	WAH TYPE
29	WAH	PEDAL POSITION
30	WAH	PEDAL MIN
31	WAH	PEDAL MAX
32	WAH	EFFECT LEVEL
33	WAH	DIRECT MIX
34	BASS WAH	PEDAL POS
35	BASS WAH	PEDAL MIN
36	BASS WAH	PEDAL MAX
37	BASS WAH	EFFECT LEVEL
38	BASS WAH	DIRECT MIX
39	TOUCH WAH	FILTER MODE
40	TOUCH WAH	POLARITY
41	TOUCH WAH	SENS
42	TOUCH WAH	FREQUENCY
43	TOUCH WAH	RESONANCE
44	TOUCH WAH	DECAY
45	TOUCH WAH	EFFECT LEVEL
46	TOUCH WAH	DIRECT MIX
47	BASS TOUCH WAH	FILTER MODE
48	BASS TOUCH WAH	POLARITY
49	BASS TOUCH WAH	SENS
50	BASS TOUCH WAH	FREQUENCY
51	BASS TOUCH WAH	RESONANCE
52	BASS TOUCH WAH	DECAY
53	BASS TOUCH WAH	EFFECT LEVEL
54	BASS TOUCH WAH	DIRECT MIX
55	COMPRESSOR	TYPE
56	COMPRESSOR	SUSTAIN
57	COMPRESSOR	ATTACK
58	COMPRESSOR	LEVEL
59	COMPRESSOR	TONE
60	COMPRESSOR	DIRECT MIX
61	X COMP	ATTACK
62	X COMP	LEVEL
63	X COMP	TONE
64	X COMP	RATIO
65	X COMP	DIRECT MIX
66	X COMP	SUSTAIN
67	BASS X COMP	ATTACK
68	BASS X COMP	LEVEL
69	BASS X COMP	TONE
70	BASS X COMP	RATIO
71	BASS X COMP	DIRECT MIX
72	BASS X COMP	THRESHOLD
73	BOOSTER	TYPE
74	BOOSTER	BOOST
75	BOOSTER	TONE
76	BOOSTER	EFFECT LEVEL
77	BOOSTER	BOTTOM
78	BOOSTER	DIRECT MIX
79	BOOSTER	SOLO SW
80	BOOSTER	SOLO LEVEL
81	OVERDRIVE	TYPE
82	OVERDRIVE	DRIVE
83	OVERDRIVE	TONE
84	OVERDRIVE	EFFECT LEVEL
85	OVERDRIVE	BOTTOM
86	OVERDRIVE	DIRECT MIX
87	OVERDRIVE	SOLO SW
88	OVERDRIVE	SOLO LEVEL
89	BASS OVERDRIVE	DRIVE
90	BASS OVERDRIVE	TONE
91	BASS OVERDRIVE	EFFECT LEVEL
92	BASS OVERDRIVE	BOTTOM
93	BASS OVERDRIVE	DIRECT MIX
94	BASS OVERDRIVE	SOLO SW
95	BASS OVERDRIVE	SOLO LEVEL
96	X OVERDRIVE	DRIVE
97	X OVERDRIVE	TONE
98	X OVERDRIVE	EFFECT LEVEL
99	X OVERDRIVE	BOTTOM
100	X OVERDRIVE	DIRECT MIX
101	X OVERDRIVE	SOLO SW
102	X OVERDRIVE	SOLO LEVEL
103	X BASS OVERDRIVE	DRIVE
104	X BASS OVERDRIVE	TONE
105	X BASS OVERDRIVE	EFFECT LEVEL
106	X BASS OVERDRIVE	BOTTOM
107	X BASS OVERDRIVE	DIRECT MIX
108	X BASS OVERDRIVE	SOLO SW
109	X BASS OVERDRIVE	SOLO LEVEL
110	X DISTORTION	DRIVE
111	X DISTORTION	TONE
112	X DISTORTION	EFFECT LEVEL
113	X DISTORTION	BOTTOM
114	X DISTORTION	DIRECT MIX
115	X DISTORTION	SOLO SW
116	X DISTORTION	SOLO LEVEL
117	METAL DIST	TYPE
118	METAL DIST	DIST
119	METAL DIST	TONE
120	METAL DIST	EFFECT LEVEL
121	METAL DIST	BOTTOM
122	METAL DIST	DIRECT MIX
123	METAL DIST	SOLO SW
124	METAL DIST	SOLO LEVEL
125	BASS METAL DIST	DIST
126	BASS METAL DIST	TONE
127	BASS METAL DIST	EFFECT LEVEL
128	BASS METAL DIST	BOTTOM
129	BASS METAL DIST	DIRECT MIX
130	BASS METAL DIST	SOLO SW
131	BASS METAL DIST	SOLO LEVEL
132	DISTORTION	TYPE
133	DISTORTION	DIST
134	DISTORTION	TONE
135	DISTORTION	EFFECT LEVEL
136	DISTORTION	BOTTOM
137	DISTORTION	DIRECT MIX
138	DISTORTION	SOLO SW
139	DISTORTION	SOLO LEVEL
140	BASS DISTORTION	TYPE
141	BASS DISTORTION	DRIVE
142	BASS DISTORTION	TONE
143	BASS DISTORTION	EFFECT LEVEL
144	BASS DISTORTION	BOTTOM
145	BASS DISTORTION	DIRECT MIX
146	BASS DISTORTION	SOLO SW
147	BASS DISTORTION	SOLO LEVEL
148	FUZZ	TYPE
149	FUZZ	FUZZ
150	FUZZ	TONE
151	FUZZ	EFFECT LEVEL
152	FUZZ	BOTTOM
153	FUZZ	DIRECT MIX
154	FUZZ	SOLO SW
155	FUZZ	SOLO LEVEL
156	BASS FUZZ	FUZZ
157	BASS FUZZ	TONE
158	BASS FUZZ	EFFECT LEVEL
159	BASS FUZZ	BOTTOM
160	BASS FUZZ	DIRECT MIX
161	BASS FUZZ	SOLO SW
162	BASS FUZZ	SOLO LEVEL
163	PREAMP	TYPE
164	PREAMP	GAIN
165	PREAMP	LEVEL
166	PREAMP	BASS
167	PREAMP	MIDDLE
168	PREAMP	TREBLE
169	PREAMP	PRESENCE
170	PREAMP	GAIN SW
171	PREAMP	SOLO SW
172	PREAMP	SOLO LEVEL
173	PREAMP	BRIGHT SW
174	PREAMP	SAG
175	PREAMP	RESONANCE
176	PREAMP	DIRECT MIX
177	PREAMP	SP TYPE
178	PREAMP	MIC TYPE
179	PREAMP	MIC DISTANCE
180	PREAMP	MIC POSITION
181	PREAMP	MIC LEVEL
182	BASS PREAMP	TYPE
183	BASS PREAMP	GAIN
184	BASS PREAMP	LEVEL
185	BASS PREAMP	BASS
186	BASS PREAMP	MIDDLE
187	BASS PREAMP	TREBLE
188	BASS PREAMP	PRESENCE
189	BASS PREAMP	GAIN SW
190	BASS PREAMP	SOLO SW
191	BASS PREAMP	SOLO LEVEL
192	BASS PREAMP	BRIGHT SW
193	BASS PREAMP	SAG
194	BASS PREAMP	RESONANCE
195	BASS PREAMP	DIRECT MIX
196	BASS PREAMP	SP TYPE
197	BASS PREAMP	MIC TYPE
198	BASS PREAMP	MIC DISTANCE
199	BASS PREAMP	MIC POSITION
200	BASS PREAMP	MIC LEVEL
201	NOISE SUPRESS	THRESHOLD
202	NOISE SUPRESS	RELEASE
203	NOISE SUPRESS	DETECT
204	DIVIDER	MODE
205	DIVIDER	CH SELECT
206	DIVIDER	MIX MODE
207	DIVIDER	A:DYNAMIC
208	DIVIDER	A:DYNAMIC SENS
209	DIVIDER	A:FILTER
210	DIVIDER	A:CUTOFF FREQ
211	DIVIDER	B:DYNAMIC

INDEX	CATEGORY	TARGET
212	DIVIDER	B:DYNAMIC SENS
213	DIVIDER	B:FILTER
214	DIVIDER	B:CUTOFF FREQ
215	MIXER	MODE
216	MIXER	A LEVEL
217	MIXER	B LEVEL
218	MIXER	A/B BALANCE
219	MIXER	SPREAD
220	PARAMET EQ	LOW GAIN
221	PARAMET EQ	HIGH GAIN
222	PARAMET EQ	LEVEL
223	PARAMET EQ	LOW-MID FREQ
224	PARAMET EQ	LOW-MID Q
225	PARAMET EQ	LOW-MID GAIN
226	PARAMET EQ	HIGH-MID FREQ
227	PARAMET EQ	HIGH-MID Q
228	PARAMET EQ	HIGH-MID GAIN
229	PARAMET EQ	LOW CUT
230	PARAMET EQ	HIGH CUT
231	GRAPHIC EQ	31.5Hz
232	GRAPHIC EQ	63Hz
233	GRAPHIC EQ	125Hz
234	GRAPHIC EQ	250Hz
235	GRAPHIC EQ	500Hz
236	GRAPHIC EQ	1kHz
237	GRAPHIC EQ	2kHz
238	GRAPHIC EQ	4kHz
239	GRAPHIC EQ	8kHz
240	GRAPHIC EQ	16kHz
241	GRAPHIC EQ	LEVEL
242	CHORUS	TYPE
243	CHORUS	DIRECT LEVEL
244	CHORUS	RATE
245	CHORUS	DEPTH
246	CHORUS	EFFECT LEVEL
247	CHORUS	LOW CUT
248	CHORUS	HIGH CUT
249	CHORUS	PRE-DELAY
250	CHORUS	WAVEFORM
251	CHORUS	1:RATE
252	CHORUS	1:DEPTH
253	CHORUS	1:EFFECT LEVEL
254	CHORUS	1:PRE-DELAY
255	CHORUS	1:WAVEFORM
256	CHORUS	1:LOW CUT
257	CHORUS	1:HIGH CUT
258	CHORUS	2:RATE
259	CHORUS	2:DEPTH
260	CHORUS	2:EFFECT LEVEL
261	CHORUS	2:PRE-DELAY
262	CHORUS	2:WAVEFORM
263	CHORUS	2:LOW CUT
264	CHORUS	2:HIGH CUT
265	CHORUS	OUTPUT MODE
266	BASS CHORUS	TYPE
267	BASS CHORUS	RATE
268	BASS CHORUS	DEPTH
269	BASS CHORUS	EFFECT LEVEL
270	BASS CHORUS	LOW CUT
271	BASS CHORUS	HIGH CUT
272	BASS CHORUS	DIRECT LEVEL
273	PRIME CHORUS	RATE
274	PRIME CHORUS	DEPTH
275	PRIME CHORUS	EFFECT LEVEL
276	PRIME CHORUS	PRE-DELAY
277	PRIME CHORUS	WAVEFORM
278	PRIME CHORUS	LOW CUT
279	PRIME CHORUS	HIGH CUT
280	PRIME CHORUS	SWEETNESS
281	PRIME CHORUS	BELL
282	PRIME CHORUS	OUTPUT MODE
283	OVERTONE	LOWER LEVEL
284	OVERTONE	UPPER LEVEL
285	OVERTONE	UNISON LEVEL
286	OVERTONE	DIRECT LEVEL
287	OVERTONE	DETUNE
288	OVERTONE	OUTPUT MODE
289	OVERTONE	LOW
290	OVERTONE	HIGH
291	DELAY	TIME
292	DELAY	FEEDBACK
293	DELAY	EFFECT LEVEL
294	DELAY	DIRECT LEVEL
295	DELAY	HIGH CUT
296	DELAY	CARRYOVER
297	DELAY PLUS	TYPE
298	DELAY PLUS	DIRECT LEVEL
299	DELAY PLUS	MOD RATE
300	DELAY PLUS	MOD DEPTH
301	DELAY PLUS	DUCK SENS
302	DELAY PLUS	DUCK PRE DPT
303	DELAY PLUS	DUCK POST DPT
304	DELAY PLUS	CARRYOVER
305	DELAY PLUS	TIME
306	DELAY PLUS	FEEDBACK
307	DELAY PLUS	EFFECT LEVEL
308	DELAY PLUS	HIGH CUT
309	DELAY PLUS	TAP TIME
310	DELAY PLUS	AUTO TRIGGER
311	DELAY PLUS	MODE
312	DELAY PLUS	1:TYPE
313	DELAY PLUS	1:TIME
314	DELAY PLUS	1:FEEDBACK
315	DELAY PLUS	1:EFFECT LEVEL
316	DELAY PLUS	1:HIGH CUT
317	DELAY PLUS	2:HIGH CUT
318	DELAY PLUS	2:TYPE
319	DELAY PLUS	2:TIME
320	DELAY PLUS	2:FEEDBACK
321	DELAY PLUS	2:EFFECT LEVEL
322	ANALOG DELAY	TYPE
323	ANALOG DELAY	TIME
324	ANALOG DELAY	FEEDBACK
325	ANALOG DELAY	EFFECT LEVEL
326	ANALOG DELAY	DIRECT LEVEL
327	ANALOG DELAY	HIGH CUT
328	ANALOG DELAY	MOD RATE
329	ANALOG DELAY	MOD DEPTH
330	ANALOG DELAY	DUCK SENS
331	ANALOG DELAY	DUCK PRE DPT
332	ANALOG DELAY	DUCK POST DPT
333	ANALOG DELAY	CARRYOVER
334	SPACE ECHO	TIME
335	SPACE ECHO	FEEDBACK
336	SPACE ECHO	EFFECT LEVEL
337	SPACE ECHO	DIRECT LEVEL
338	SPACE ECHO	HIGH CUT
339	SPACE ECHO	MOD RATE
340	SPACE ECHO	MOD DEPTH
341	SPACE ECHO	DUCK SENS
342	SPACE ECHO	DUCK PRE DPT
343	SPACE ECHO	DUCK POST DPT
344	SPACE ECHO	HEAD
345	SPACE ECHO	WOW FLUTTER
346	SPACE ECHO	CARRYOVER
347	SHIMMER DLY	TIME
348	SHIMMER DLY	FEEDBACK
349	SHIMMER DLY	EFFECT LEVEL
350	SHIMMER DLY	DIRECT LEVEL
351	SHIMMER DLY	HIGH CUT
352	SHIMMER DLY	MOD RATE
353	SHIMMER DLY	MOD DEPTH
354	SHIMMER DLY	DUCK SENS
355	SHIMMER DLY	DUCK PRE DPT
356	SHIMMER DLY	DUCK POST DPT
357	SHIMMER DLY	PITCH
358	SHIMMER DLY	PITCH BALANCE
359	SHIMMER DLY	PITCH FEEDBACK
360	SHIMMER DLY	CARRYOVER
361	TWIST	MODE
362	TWIST	TRIGGER
363	TWIST	LEVEL
364	TWIST	RISE TIME
365	TWIST	FALL TIME
366	TWIST	FADE TIME
367	TWIST	CARRYOVER
368	WARP	TIME
369	WARP	TRIGGER
370	WARP	LEVEL
371	WARP	CARRYOVER
372	REVERB	TYPE
373	REVERB	TIME
374	REVERB	PRE-DELAY
375	REVERB	EFFECT LEVEL
376	REVERB	DENSITY
377	REVERB	LOW CUT
378	REVERB	HIGH CUT
379	REVERB	DIRECT LEVEL
380	REVERB	CARRYOVER
381	REVERB PLUS	TYPE
382	REVERB PLUS	TIME
383	REVERB PLUS	TONE
384	REVERB PLUS	EFFECT LEVEL
385	REVERB PLUS	DENSITY
386	REVERB PLUS	PRE-DELAY
387	REVERB PLUS	LOW CUT
388	REVERB PLUS	HIGH CUT
389	REVERB PLUS	LOW DAMP
390	REVERB PLUS	HIGH DAMP
391	REVERB PLUS	MOD RATE
392	REVERB PLUS	MOD DEPTH
393	REVERB PLUS	DUCK SENS
394	REVERB PLUS	DUCK PRE DPT
395	REVERB PLUS	DUCK POST DPT
396	REVERB PLUS	DIRECT LEVEL
397	REVERB PLUS	CARRYOVER
398	SHIMMER REV	TIME
399	SHIMMER REV	TONE
400	SHIMMER REV	EFFECT LEVEL
401	SHIMMER REV	DENSITY
402	SHIMMER REV	PRE-DELAY
403	SHIMMER REV	LOW CUT
404	SHIMMER REV	HIGH CUT
405	SHIMMER REV	LOW DAMP
406	SHIMMER REV	HIGH DAMP
407	SHIMMER REV	MOD RATE
408	SHIMMER REV	MOD DEPTH
409	SHIMMER REV	DUCK SENS
410	SHIMMER REV	DUCK PRE DPT
411	SHIMMER REV	DUCK POST DPT
412	SHIMMER REV	DIRECT LEVEL
413	SHIMMER REV	1:PITCH
414	SHIMMER REV	2:PITCH
415	SHIMMER REV	1:LEVEL
416	SHIMMER REV	2:LEVEL
417	SHIMMER REV	CARRYOVER
418	TERA ECHO	MODE
419	TERA ECHO	SPREAD TIME
420	TERA ECHO	FEEDBACK
421	TERA ECHO	EFFECT LEVEL
422	TERA ECHO	TONE
423	TERA ECHO	DIRECT LEVEL
424	TERA ECHO	TRIGGER
425	TERA ECHO	CARRYOVER
426	FLANGER	RATE
427	FLANGER	DEPTH

INDEX	CATEGORY	TARGET
428	FLANGER	RESONANCE
429	FLANGER	MANUAL
430	FLANGER	STEP RATE
431	FLANGER	LOW CUT
432	FLANGER	EFFECT LEVEL
433	FLANGER	DIRECT MIX
434	BASS FLANGER	RATE
435	BASS FLANGER	DEPTH
436	BASS FLANGER	RESONANCE
437	BASS FLANGER	MANUAL
438	BASS FLANGER	STEP RATE
439	BASS FLANGER	LOW CUT
440	BASS FLANGER	EFFECT LEVEL
441	BASS FLANGER	DIRECT MIX
442	PRIME FLANGER	RATE
443	PRIME FLANGER	DEPTH
444	PRIME FLANGER	RESONANCE
445	PRIME FLANGER	MANUAL
446	PRIME FLANGER	TURBO
447	PRIME FLANGER	WAVEFORM
448	PRIME FLANGER	STEP RATE
449	PRIME FLANGER	SEPARATION
450	PRIME FLANGER	EFFECT LEVEL
451	PRIME FLANGER	LOW DAMP
452	PRIME FLANGER	HIGH DAMP
453	PRIME FLANGER	DIRECT MIX
454	PRIME FLANGER	LOW CUT
455	PRIME FLANGER	HIGH CUT
456	BASS PRIME FL	RATE
457	BASS PRIME FL	DEPTH
458	BASS PRIME FL	RESONANCE
459	BASS PRIME FL	MANUAL
460	BASS PRIME FL	TURBO
461	BASS PRIME FL	WAVEFORM
462	BASS PRIME FL	STEP RATE
463	BASS PRIME FL	SEPARATION
464	BASS PRIME FL	EFFECT LEVEL
465	BASS PRIME FL	LOW DAMP
466	BASS PRIME FL	HIGH DAMP
467	BASS PRIME FL	DIRECT MIX
468	BASS PRIME FL	LOW CUT
469	BASS PRIME FL	HIGH CUT
470	PAN	RATE
471	PAN	DEPTH
472	PAN	WAVEFORM
473	PAN	EFFECT LEVEL
474	PAN	DIRECT MIX
475	PEDAL BEND	PITCH MIN
476	PEDAL BEND	PITCH MAX
477	PEDAL BEND	PEDAL POSITION
478	PEDAL BEND	EFFECT LEVEL
479	PEDAL BEND	DIRECT MIX
480	BASS PEDAL BEND	PITCH MIN
481	BASS PEDAL BEND	PITCH MAX
482	BASS PEDAL BEND	PEDAL POSITION
483	BASS PEDAL BEND	EFFECT LEVEL
484	BASS PEDAL BEND	DIRECT MIX
485	FOOT VOLUME	PEDAL POSITION
486	FOOT VOLUME	VOLUME MIN
487	FOOT VOLUME	VOLUME MAX
488	FOOT VOLUME	CURVE
489	HARMONIST	VOICE
490	HARMONIST	1:HARMONY
491	HARMONIST	1:LEVEL
492	HARMONIST	1:PRE-DELAY
493	HARMONIST	1:FEEDBACK
494	HARMONIST	2:HARMONY
495	HARMONIST	2:LEVEL
496	HARMONIST	2:PRE-DELAY
497	HARMONIST	DIRECT LEVEL
498	HARMONIST	1:C
499	HARMONIST	1:Db
500	HARMONIST	1:D
501	HARMONIST	1:Eb
502	HARMONIST	1:E
503	HARMONIST	1:F
504	HARMONIST	1:F#
505	HARMONIST	1:G
506	HARMONIST	1:Ab
507	HARMONIST	1:A
508	HARMONIST	1:Bb
509	HARMONIST	1:B
510	HARMONIST	2:C
511	HARMONIST	2:Db
512	HARMONIST	2:D
513	HARMONIST	2:Eb
514	HARMONIST	2:E
515	HARMONIST	2:F
516	HARMONIST	2:F#
517	HARMONIST	2:G
518	HARMONIST	2:Ab
519	HARMONIST	2:A
520	HARMONIST	2:Bb
521	HARMONIST	2:B
522	BASS HARMONIST	VOICE
523	BASS HARMONIST	1:HARMONY
524	BASS HARMONIST	1:LEVEL
525	BASS HARMONIST	1:PRE-DELAY
526	BASS HARMONIST	1:FEEDBACK
527	BASS HARMONIST	2:HARMONY
528	BASS HARMONIST	2:LEVEL
529	BASS HARMONIST	2:PRE-DELAY
530	BASS HARMONIST	DIRECT LEVEL
531	BASS HARMONIST	1:C
532	BASS HARMONIST	1:Db
533	BASS HARMONIST	1:D
534	BASS HARMONIST	1:Eb
535	BASS HARMONIST	1:E

INDEX	CATEGORY	TARGET
536	BASS HARMONIST	1:F
537	BASS HARMONIST	1:F#
538	BASS HARMONIST	1:G
539	BASS HARMONIST	1:Ab
540	BASS HARMONIST	1:A
541	BASS HARMONIST	1:Bb
542	BASS HARMONIST	1:B
543	BASS HARMONIST	2:C
544	BASS HARMONIST	2:Db
545	BASS HARMONIST	2:D
546	BASS HARMONIST	2:Eb
547	BASS HARMONIST	2:E
548	BASS HARMONIST	2:F
549	BASS HARMONIST	2:F#
550	BASS HARMONIST	2:G
551	BASS HARMONIST	2:Ab
552	BASS HARMONIST	2:A
553	BASS HARMONIST	2:Bb
554	BASS HARMONIST	2:B
555	OCTAVE	-2 OCT
556	OCTAVE	-1 OCT
557	OCTAVE	DIRECT LEVEL
558	POLY OCTAVE	RANGE
559	POLY OCTAVE	OCTAVE LEVEL
560	POLY OCTAVE	DIRECT LEVEL
561	BASS OCTAVE	-2 OCT
562	BASS OCTAVE	-1 OCT
563	BASS OCTAVE	DIRECT LEVEL
564	CLASSIC VIBE	MODE
565	CLASSIC VIBE	RATE
566	CLASSIC VIBE	DEPTH
567	CLASSIC VIBE	EFFECT LEVEL
568	PHASER	STAGE
569	PHASER	RATE
570	PHASER	DEPTH
571	PHASER	RESONANCE
572	PHASER	MANUAL
573	PHASER	STEP RATE
574	PHASER	EFFECT LEVEL
575	PHASER	DIRECT MIX
576	BASS PHASER	STAGE
577	BASS PHASER	RATE
578	BASS PHASER	DEPTH
579	BASS PHASER	RESONANCE
580	BASS PHASER	MANUAL
581	BASS PHASER	STEP RATE
582	BASS PHASER	EFFECT LEVEL
583	BASS PHASER	DIRECT MIX
584	PRIME PHASER	STAGE
585	PRIME PHASER	RATE
586	PRIME PHASER	DEPTH
587	PRIME PHASER	RESONANCE
588	PRIME PHASER	MANUAL
589	PRIME PHASER	WAVEFORM
590	PRIME PHASER	STEP RATE
591	PRIME PHASER	BI-PHASE
592	PRIME PHASER	SEPARATION
593	PRIME PHASER	LOW DAMP
594	PRIME PHASER	HIGH DAMP
595	PRIME PHASER	LOW CUT
596	PRIME PHASER	HIGH CUT
597	PRIME PHASER	EFFECT LEVEL
598	PRIME PHASER	DIRECT MIX
599	BASS PRIME PH	STAGE
600	BASS PRIME PH	RATE
601	BASS PRIME PH	DEPTH
602	BASS PRIME PH	RESONANCE
603	BASS PRIME PH	MANUAL
604	BASS PRIME PH	WAVEFORM
605	BASS PRIME PH	STEP RATE
606	BASS PRIME PH	BI-PHASE
607	BASS PRIME PH	SEPARATION
608	BASS PRIME PH	LOW DAMP
609	BASS PRIME PH	HIGH DAMP
610	BASS PRIME PH	LOW CUT
611	BASS PRIME PH	HIGH CUT
612	BASS PRIME PH	EFFECT LEVEL
613	BASS PRIME PH	DIRECT MIX
614	SCRIPT PH	RATE
615	SCRIPT PH	DEPTH
616	SCRIPT PH	EFFECT LEVEL
617	SCRIPT PH	DIRECT MIX
618	PITCH SHIFTER	VOICE
619	PITCH SHIFTER	DIRECT LEVEL
620	PITCH SHIFTER	1:PITCH
621	PITCH SHIFTER	1:MODE
622	PITCH SHIFTER	1:FINE
623	PITCH SHIFTER	1:PRE-DELAY
624	PITCH SHIFTER	1:LEVEL
625	PITCH SHIFTER	1:FEEDBACK
626	PITCH SHIFTER	2:PITCH
627	PITCH SHIFTER	2:MODE
628	PITCH SHIFTER	2:FINE
629	PITCH SHIFTER	2:PRE-DELAY
630	PITCH SHIFTER	2:LEVEL
631	BASS PITCH SHIFT	VOICE
632	BASS PITCH SHIFT	DIRECT LEVEL
633	BASS PITCH SHIFT	1:PITCH
634	BASS PITCH SHIFT	1:MODE
635	BASS PITCH SHIFT	1:FINE
636	BASS PITCH SHIFT	1:PRE-DELAY
637	BASS PITCH SHIFT	1:LEVEL
638	BASS PITCH SHIFT	1:FEEDBACK
639	BASS PITCH SHIFT	2:PITCH
640	BASS PITCH SHIFT	2:MODE
641	BASS PITCH SHIFT	2:FINE
642	BASS PITCH SHIFT	2:PRE-DELAY
643	BASS PITCH SHIFT	2:LEVEL

INDEX	CATEGORY	TARGET
644	RING MOD	INTELLIGENT
645	RING MOD	FREQUENCY
646	RING MOD	MOD RATE
647	RING MOD	MOD DEPTH
648	RING MOD	EFFECT LEVEL
649	RING MOD	DIRECT MIX
650	ROTARY	SPEED SELECT
651	ROTARY	SLOW RATE
652	ROTARY	FAST RATE
653	ROTARY	EFFECT LEVEL
654	ROTARY	RISE TIME
655	ROTARY	FALL TIME
656	ROTARY	MIC DISTANCE
657	ROTARY	ROTOR/HORN
658	ROTARY	DRIVE
659	ROTARY	DIRECT MIX
660	TREMOLO	RATE
661	TREMOLO	DEPTH
662	TREMOLO	WAVEFORM
663	TREMOLO	EFFECT LEVEL
664	TREMOLO	TRIGGER
665	TREMOLO	RISE TIME
666	TREMOLO	DIRECT MIX
667	VIBRATO	RATE
668	VIBRATO	DEPTH
669	VIBRATO	TRIGGER
670	VIBRATO	RISE TIME
671	VIBRATO	EFFECT LEVEL
672	PRIME VIB	RATE
673	PRIME VIB	DEPTH
674	PRIME VIB	COLOR
675	PRIME VIB	EFFECT LEVEL
676	PRIME VIB	TRIGGER
677	PRIME VIB	RISE TIME
678	PRIME VIB	DIRECT MIX
679	S-BEND	TRIGGER
680	S-BEND	PITCH
681	S-BEND	RISE TIME
682	S-BEND	FALL TIME
683	BASS S-BEND	TRIGGER
684	BASS S-BEND	PITCH
685	BASS S-BEND	RISE TIME
686	BASS S-BEND	FALL TIME
687	PHRASE LOOP	LOOP LEVEL
688	SEND/RETURN	MODE
689	SEND/RETURN	SEND LEVEL
690	SEND/RETURN	RET LEVEL
691	SEND/RETURN	ADJUST
692	SEND/RETURN	INVERT
693	MASTER	MEMORY LEVEL
694	MASTER	BPM
695	MASTER	KEY
696	MASTER	INPUT SETTING
697	MASTER	AMP CTL1
698	MASTER	AMP CTL2
699	TUNER	ON/OFF

* [SystemControl]

Offset Address		Description
00 00	0000 000a	Num1 Preference (0 - 1) MEMORY, SYSTEM
00 01	0000 000a	Num2 Preference (0 - 1) MEMORY, SYSTEM
00 02	0000 000a	Num3 Preference (0 - 1) MEMORY, SYSTEM
00 03	0000 000a	Num4 Preference (0 - 1) MEMORY, SYSTEM
00 04	0000 000a	BankDown Preference (0 - 1) MEMORY, SYSTEM
00 05	0000 000a	BankUp Preference (0 - 1) MEMORY, SYSTEM
00 06	0000 000a	CNum Preference (0 - 1) MEMORY, SYSTEM
00 07	0000 000a	Manual Num1 Preference (0 - 1) MEMORY, SYSTEM
00 08	0000 000a	Manual Num2 Preference (0 - 1) MEMORY, SYSTEM
00 09	0000 000a	Manual Num3 Preference (0 - 1) MEMORY, SYSTEM
00 0A	0000 000a	Manual Num4 Preference (0 - 1) MEMORY, SYSTEM
00 0B	0000 000a	Ctl1 Preference (0 - 1) MEMORY, SYSTEM
00 0C	0000 000a	Ctl2 Preference (0 - 1) MEMORY, SYSTEM
00 0D	0000 000a	Ctl3 Preference (0 - 1) MEMORY, SYSTEM
00 0E	0000 000a	Ctl4 Preference (0 - 1) MEMORY, SYSTEM
00 0F	0000 000a	Exp1Sw Preference (0 - 1) MEMORY, SYSTEM
00 10	0000 000a	Exp1 Preference (0 - 1) MEMORY, SYSTEM
00 11	0000 000a	Exp2 Preference (0 - 1) MEMORY, SYSTEM
00 12	000a aaaa	Num1 Function (0 - 17) OFF, 1, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 13	000a aaaa	Num2 Function (0 - 17) OFF, 2, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 14	000a aaaa	Num3 Function (0 - 17) OFF, 3, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 15	000a aaaa	Num4 Function (0 - 17) OFF, 4, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 16	000a aaaa	BankDown Function (0 - 17) OFF, BANK Wx1b, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 17	000a aaaa	BankUp Function (0 - 17) OFF, BANK Wx1a, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 18	0000 aaaa	CNum Function (0 - 14) OFF, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 19	0000 aaaa	Manual Num1 Function (0 - 14) OFF, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 1A	0000 aaaa	Manual Num2 Function (0 - 14) OFF, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 1B	0000 aaaa	Manual Num3 Function (0 - 14) OFF, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 1C	0000 aaaa	Manual Num4 Function (0 - 14) OFF, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 1D	000a aaaa	Ctl1 Function (0 - 18) OFF, BANK Wx1b, BANK Wx1a, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 1E	000a aaaa	Ctl2 Function (0 - 18) OFF, BANK Wx1b, BANK Wx1a, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START

Offset Address		Description
00 1F	000a aaaa	Ctl3 Function (0 - 18) OFF, BANK Wx1b, BANK Wx1a, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 20	000a aaaa	Ctl4 Function (0 - 18) OFF, BANK Wx1b, BANK Wx1a, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 21	000a aaaa	Exp1Sw Function (0 - 18) OFF, BANK Wx1b, BANK Wx1a, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 22	0000 0aaa	Exp1 Function (0 - 5) OFF, FOOT VOL, PEDAL FX, FV/PEDAL FX, FV+TUNER, FV+TUNE/PFX
00 23	0000 0aaa	Exp2 Function (0 - 5) OFF, FOOT VOL, PEDAL FX, FV/PEDAL FX, FV+TUNER, FV+TUNE/PFX
00 24	0000 000a	Num1 Mode (0 - 1) TOGGLE, MOMENT
00 25	0000 000a	Num2 Mode (0 - 1) TOGGLE, MOMENT
00 26	0000 000a	Num3 Mode (0 - 1) TOGGLE, MOMENT
00 27	0000 000a	Num4 Mode (0 - 1) TOGGLE, MOMENT
00 28	0000 000a	BankDown Mode (0 - 1) TOGGLE, MOMENT
00 29	0000 000a	BankUp Mode (0 - 1) TOGGLE, MOMENT
00 2A	0000 000a	CNum Mode (0 - 1) TOGGLE, MOMENT
00 2B	0000 000a	Manual Num1 Mode (0 - 1) TOGGLE, MOMENT
00 2C	0000 000a	Manual Num2 Mode (0 - 1) TOGGLE, MOMENT
00 2D	0000 000a	Manual Num3 Mode (0 - 1) TOGGLE, MOMENT
00 2E	0000 000a	Manual Num4 Mode (0 - 1) TOGGLE, MOMENT
00 2F	0000 000a	Ctl1 Mode (0 - 1) TOGGLE, MOMENT
00 30	0000 000a	Ctl2 Mode (0 - 1) TOGGLE, MOMENT
00 31	0000 000a	Ctl3 Mode (0 - 1) TOGGLE, MOMENT
00 32	0000 000a	Ctl4 Mode (0 - 1) TOGGLE, MOMENT
00 33	0000 000a	Exp1Sw Mode (0 - 1) TOGGLE, MOMENT
00 34	0000 000a	CONTROL MODE (0 - 1) MEMORY, MANUAL
# 00 35	0000 aaaa	
00 36	0000 bbbb	
00 37	0000 cccc	
00 38	0000 dddd	N/A(fixed value) (0)
# 00 39	0000 aaaa	
00 3A	0000 bbbb	
00 3B	0000 cccc	
00 3C	0000 dddd	N/A(fixed value) (0)
# 00 3D	0000 aaaa	
00 3E	0000 bbbb	
00 3F	0000 cccc	
00 40	0000 dddd	N/A(fixed value) (0)
# 00 41	0000 aaaa	
00 42	0000 bbbb	
00 43	0000 cccc	
00 44	0000 dddd	N/A(fixed value) (0)
# 00 45	0000 aaaa	
00 46	0000 bbbb	
00 47	0000 cccc	
00 48	0000 dddd	N/A(fixed value) (0)
# 00 49	0000 aaaa	
00 4A	0000 bbbb	
00 4B	0000 cccc	
00 4C	0000 dddd	N/A(fixed value) (0)
# 00 4D	0000 aaaa	
00 4E	0000 bbbb	
00 4F	0000 cccc	
00 50	0000 dddd	N/A(fixed value) (0)
# 00 51	0000 aaaa	
00 52	0000 bbbb	
00 53	0000 cccc	
00 54	0000 dddd	N/A(fixed value) (0)
# 00 55	0000 aaaa	
00 56	0000 bbbb	
00 57	0000 cccc	
00 58	0000 dddd	N/A(fixed value) (0)
# 00 59	0000 aaaa	
00 5A	0000 bbbb	
00 5B	0000 cccc	
00 5C	0000 dddd	N/A(fixed value) (0)
# 00 5D	0000 aaaa	
00 5E	0000 bbbb	
00 5F	0000 cccc	
00 60	0000 dddd	N/A(fixed value) (0)
00 61	0000 aaaa	INPUT SETTING (0 - 9) 1 - 10
00 62	0000 aaaa	N/A(fixed value) (0)
00 63	0000 000a	GLOBAL EQ SW (0 - 1) OFF, ON
00 00 00 64	Total Size	

* [SystemMidi]

Offset Address		Description
00 00	0000 aaaa	RX CHANNEL (0 - 15) CH 1 - CH16
00 01	0000 000a	N/A(fixed value) (0)
00 02	000a aaaa	TX CHANNEL (0 - 16) CH 1 - CH16, RX CH
00 03	0000 00aa	SYNC CLOCK (0 - 3) AUTO, INTERNAL, MIDI(AUTO), USB(AUTO)
00 04	0000 00aa	MIDI IN THRU (0 - 3) OFF, MIDI OUT, USB OUT, USB & MIDI
00 05	0000 00aa	USB IN THRU (0 - 3) OFF, MIDI OUT, USB OUT, USB & MIDI
00 06	0000 000a	CLOCK OUT (0 - 1) OFF, ON
00 07	0000 000a	MAP SELECT (0 - 1) FIX, PROG
00 08	00aa aaaa	NUM1 CC# (0 - 63) OFF, CC# 1 - CC#31, CC# 64 - CC#95
00 09	00aa aaaa	NUM2 CC# (0 - 63) OFF, CC# 1 - CC#31, CC# 64 - CC#95
00 0A	00aa aaaa	NUM3 CC# (0 - 63) OFF, CC# 1 - CC#31, CC# 64 - CC#95
00 0B	00aa aaaa	NUM4 CC# (0 - 63) OFF, CC# 1 - CC#31, CC# 64 - CC#95
00 0C	00aa aaaa	BANKWx1B CC# (0 - 63) OFF, CC# 1 - CC#31, CC# 64 - CC#95
00 0D	00aa aaaa	BANKWx1A CC# (0 - 63) OFF, CC# 1 - CC#31, CC# 64 - CC#95
00 0E	00aa aaaa	CTL1 CC# (0 - 63) OFF, CC# 1 - CC#31, CC# 64 - CC#95
00 0F	00aa aaaa	CTL2 CC# (0 - 63) OFF, CC# 1 - CC#31, CC# 64 - CC#95
00 10	00aa aaaa	CTL3 CC# (0 - 63) OFF, CC# 1 - CC#31, CC# 64 - CC#95
00 11	00aa aaaa	CTL4 CC# (0 - 63) OFF, CC# 1 - CC#31, CC# 64 - CC#95
00 12	00aa aaaa	EXP1 SW CC# (0 - 63) OFF, CC# 1 - CC#31, CC# 64 - CC#95
00 13	00aa aaaa	EXP1 CC# (0 - 63) OFF, CC# 1 - CC#31, CC# 64 - CC#95
00 14	00aa aaaa	EXP2 CC# (0 - 63) OFF, CC# 1 - CC#31, CC# 64 - CC#95
00 00 00 15	Total Size	

* [PcmapPc]

Offset Address		Description
# 00 00	0000 aaaa	
00 01	0000 bbbb	
00 02	0000 cccc	
00 03	0000 dddd	Program Change#1 (0 - 299) U01-1 .. U50-4 - P01-1 .. P50-4
# 00 04	0000 aaaa	
00 05	0000 bbbb	
00 06	0000 cccc	
00 07	0000 dddd	Program Change#2 (0 - 299) U01-1 .. U50-4 - P01-1 .. P50-4
:		
:		
# 00 7C	0000 aaaa	
00 7D	0000 bbbb	
00 7E	0000 cccc	
00 7F	0000 dddd	Program Change#32 (0 - 299) U01-1 .. U50-4 - P01-1 .. P50-4
# 01 00	0000 aaaa	
01 01	0000 bbbb	
01 02	0000 cccc	
01 03	0000 dddd	Program Change#33 (0 - 299) U01-1 .. U50-4 - P01-1 .. P50-4
:		
:		
# 03 7C	0000 aaaa	
03 7D	0000 bbbb	
03 7E	0000 cccc	
03 7F	0000 dddd	Program Change#128 (0 - 299) U01-1 .. U50-4 - P01-1 .. P50-4
00 00 04 00	Total Size	

* [SysteminputSetting]

Offset Address	Description	
00 00	0aaa aaaa	NAME (32 - 126)
00 01	0aaa aaaa	NAME (32 - 126)
00 02	0aaa aaaa	NAME (32 - 126)
00 03	0aaa aaaa	NAME (32 - 126)
00 04	0aaa aaaa	NAME (32 - 126)
00 05	0aaa aaaa	NAME (32 - 126)
00 06	0aaa aaaa	NAME (32 - 126)
00 07	0aaa aaaa	NAME (32 - 126)
00 08	0aaa aaaa	NAME (32 - 126)
00 09	0aaa aaaa	NAME (32 - 126)
00 0A	0aaa aaaa	NAME (32 - 126)
00 0B	0aaa aaaa	NAME (32 - 126)
00 0C	0aaa aaaa	NAME (32 - 126)
00 0D	0aaa aaaa	NAME (32 - 126)
00 0E	0aaa aaaa	NAME (32 - 126)
00 0F	0aaa aaaa	NAME (32 - 126)
00 10	0000 000a	INST TYPE (0 - 1)
		GUITAR, BASS
00 11	00aa aaaa	INPUT LEVEL (12 - 52)
		[dB]
00 00 00 12	Total Size	

* [SystemGlobalEq]

Offset Address	Description	
00 00	0aaa aaaa	N/A(fixed value) (32)
00 01	0aaa aaaa	N/A(fixed value) (32)
00 02	0aaa aaaa	N/A(fixed value) (32)
00 03	0aaa aaaa	N/A(fixed value) (32)
00 04	0aaa aaaa	N/A(fixed value) (32)
00 05	0aaa aaaa	N/A(fixed value) (32)
00 06	0aaa aaaa	N/A(fixed value) (32)
00 07	0aaa aaaa	N/A(fixed value) (32)
00 08	0aaa aaaa	N/A(fixed value) (32)
00 09	0aaa aaaa	N/A(fixed value) (32)
00 0A	0aaa aaaa	N/A(fixed value) (32)
00 0B	0aaa aaaa	N/A(fixed value) (32)
00 0C	0aaa aaaa	N/A(fixed value) (32)
00 0D	0aaa aaaa	N/A(fixed value) (32)
00 0E	0aaa aaaa	N/A(fixed value) (32)
00 0F	0aaa aaaa	N/A(fixed value) (32)
00 10	00aa aaaa	MAIN:LOW GAIN (12 - 52)
		[dB]
00 11	00aa aaaa	MAIN:LOW MID GAIN (12 - 52)
		[dB]
00 12	000a aaaa	MAIN:LOW MID FREQ (0 - 28)
		20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.0kHz, 12.5kHz
00 13	0000 0aaa	MAIN:LOW MID Q (0 - 5)
		0.5, 1, 2, 4, 8, 16
00 14	00aa aaaa	MAIN:HIGH MID GAIN (12 - 52)
		[dB]
00 15	000a aaaa	MAIN:HIGH MID FREQ (0 - 28)
		20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.0kHz, 12.5kHz
00 16	0000 0aaa	MAIN:HIGH MID Q (0 - 5)
		0.5, 1, 2, 4, 8, 16
00 17	00aa aaaa	MAIN:HIGH GAIN (12 - 52)
		[dB]
00 18	000a aaaa	MAIN:LOW CUT (0 - 29)
		FLAT, 20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.0kHz, 12.5kHz
00 19	000a aaaa	MAIN:HIGH CUT (0 - 29)
		20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.0kHz, 12.5kHz, FLAT
00 1A	00aa aaaa	MAIN:LEVEL (12 - 52)
		[dB]
00 00 00 1B	Total Size	

* [SetupTemp]

Offset Address	Description	
00 00	0aaa aaaa	N/A(fixed value) (0)
00 01	0aaa aaaa	N/A(fixed value) (0)
00 02	0000 00aa	SYNC_CLOCK (0 - 2)
		INTERNAL, MIDI, USB
00 03	0000 000a	ChainEditTrigger (0 - 1)
00 04	0000 000a	BTSPreviewTrigger (0 - 1)
00 00 00 05	Total Size	

* [SetupTemp2]

Offset Address	Description	
00 00	0000 000a	FxItemResource 1 (0 - 1)
00 01	0000 000a	FxItemResource 2 (0 - 1)
00 02	0000 000a	FxItemResource 3 (0 - 1)
00 03	0000 000a	FxItemResource 4 (0 - 1)
00 04	0000 000a	FxItemResource 5 (0 - 1)
00 05	0000 000a	FxItemResource 6 (0 - 1)
00 06	0000 000a	FxItemResource 7 (0 - 1)
00 07	0000 000a	FxItemResource 8 (0 - 1)
00 08	0000 000a	FxItemResource 9 (0 - 1)
00 09	0000 000a	FxItemResource 10 (0 - 1)
00 0A	0000 000a	FxItemResource 11 (0 - 1)
00 0B	0000 000a	FxItemResource 12 (0 - 1)
00 0C	0000 000a	FxItemResource 13 (0 - 1)
00 0D	0000 000a	FxItemResource 14 (0 - 1)
00 0E	0000 000a	FxItemResource 15 (0 - 1)
00 0F	0000 000a	FxItemResource 16 (0 - 1)
00 10	0000 000a	FxItemResource 17 (0 - 1)
00 11	0000 000a	FxItemResource 18 (0 - 1)
00 12	0000 000a	FxItemResource 19 (0 - 1)
00 13	0000 000a	FxItemResource 20 (0 - 1)
00 14	0000 000a	FxItemResource 21 (0 - 1)
00 15	0000 000a	FxItemResource 22 (0 - 1)
00 16	0000 000a	FxItemResource 23 (0 - 1)
00 17	0000 000a	FxItemResource 24 (0 - 1)
00 18	0000 000a	FxItemResource 25 (0 - 1)
00 19	0000 000a	FxItemResource 26 (0 - 1)
00 1A	0000 000a	FxItemResource 27 (0 - 1)
00 1B	0000 000a	FxItemResource 28 (0 - 1)
00 1C	0000 000a	FxItemResource 29 (0 - 1)
00 1D	0000 000a	FxItemResource 30 (0 - 1)
00 1E	0000 000a	FxItemResource 31 (0 - 1)
00 1F	0000 000a	FxItemResource 32 (0 - 1)
00 20	0000 000a	FxItemResource 33 (0 - 1)
00 21	0000 000a	FxItemResource 34 (0 - 1)
00 22	0000 000a	FxItemResource 35 (0 - 1)
00 23	0000 000a	FxItemResource 36 (0 - 1)
00 24	0000 000a	FxItemResource 37 (0 - 1)
00 25	0000 000a	FxItemResource 38 (0 - 1)
00 26	0000 000a	FxItemResource 39 (0 - 1)
00 27	0000 000a	FxItemResource 40 (0 - 1)
00 28	0000 000a	FxItemResource 41 (0 - 1)
00 29	0000 000a	FxItemResource 42 (0 - 1)
00 2A	0000 000a	FxItemResource 43 (0 - 1)
00 2B	0000 000a	FxItemResource 44 (0 - 1)
00 2C	0000 000a	FxItemResource 45 (0 - 1)
00 2D	0000 000a	FxItemResource 46 (0 - 1)
00 2E	0000 000a	FxItemResource 47 (0 - 1)
00 2F	0000 000a	FxItemResource 48 (0 - 1)
00 30	0000 000a	FxItemResource 49 (0 - 1)
00 31	0000 000a	FxItemResource 50 (0 - 1)
00 32	0000 000a	FxItemResource 51 (0 - 1)
00 33	0000 000a	FxItemResource 52 (0 - 1)
00 34	0000 000a	FxItemResource 53 (0 - 1)
00 35	0000 000a	FxItemResource 54 (0 - 1)
00 36	0000 000a	FxItemResource 55 (0 - 1)
00 37	0000 000a	FxItemResource 56 (0 - 1)
00 38	0000 000a	FxItemResource 57 (0 - 1)
00 39	0000 000a	FxItemResource 58 (0 - 1)
00 3A	0000 000a	FxItemResource 59 (0 - 1)
00 3B	0000 000a	FxItemResource 60 (0 - 1)
00 3C	0000 000a	FxItemResource 61 (0 - 1)
00 3D	0000 000a	FxItemResource 62 (0 - 1)
00 3E	0000 000a	FxItemResource 63 (0 - 1)
00 3F	0000 000a	FxItemResource 64 (0 - 1)
00 40	0000 000a	FxItemResource 65 (0 - 1)
00 41	0000 000a	FxItemResource 66 (0 - 1)
00 42	0000 000a	FxItemResource 67 (0 - 1)
00 43	0000 000a	FxItemResource 68 (0 - 1)
00 44	0000 000a	FxItemResource 69 (0 - 1)
00 45	0000 000a	FxItemResource 70 (0 - 1)
00 46	0000 000a	FxItemResource 71 (0 - 1)
00 47	0000 000a	FxItemResource 72 (0 - 1)
00 48	0000 000a	FxItemResource 73 (0 - 1)
00 49	0000 000a	FxItemResource 74 (0 - 1)
00 4A	0000 000a	FxItemResource 75 (0 - 1)
00 4B	0000 000a	FxItemResource 76 (0 - 1)
00 4C	0000 000a	FxItemResource 77 (0 - 1)
00 4D	0000 000a	FxItemResource 78 (0 - 1)
00 00 00 4E	Total Size	

* [SetupTemp3]

Offset Address	Description		
00 00	0aaa aaaa	FxItemResourceA 1	(0 - 127)
00 01	0aaa aaaa	FxItemResourceA 2	(0 - 127)
00 02	0aaa aaaa	FxItemResourceA 3	(0 - 127)
00 03	0aaa aaaa	FxItemResourceA 4	(0 - 127)
00 04	0aaa aaaa	FxItemResourceA 5	(0 - 127)
00 05	0aaa aaaa	FxItemResourceA 6	(0 - 127)
00 06	0aaa aaaa	FxItemResourceA 7	(0 - 127)
00 07	0aaa aaaa	FxItemResourceA 8	(0 - 127)
00 08	0aaa aaaa	FxItemResourceA 9	(0 - 127)
00 09	0aaa aaaa	FxItemResourceA 10	(0 - 127)
00 0A	0aaa aaaa	FxItemResourceA 11	(0 - 127)
00 0B	0aaa aaaa	FxItemResourceA 12	(0 - 127)
00 0C	0aaa aaaa	FxItemResourceA 13	(0 - 127)
00 0D	0aaa aaaa	FxItemResourceA 14	(0 - 127)
00 0E	0aaa aaaa	FxItemResourceA 15	(0 - 127)
00 0F	0aaa aaaa	FxItemResourceA 16	(0 - 127)
00 10	0aaa aaaa	FxItemResourceA 17	(0 - 127)
00 11	0aaa aaaa	FxItemResourceA 18	(0 - 127)
00 12	0aaa aaaa	FxItemResourceA 19	(0 - 127)
00 13	0aaa aaaa	FxItemResourceA 20	(0 - 127)
00 14	0aaa aaaa	FxItemResourceA 21	(0 - 127)
00 15	0aaa aaaa	FxItemResourceA 22	(0 - 127)
00 16	0aaa aaaa	FxItemResourceA 23	(0 - 127)
00 17	0aaa aaaa	FxItemResourceA 24	(0 - 127)
00 18	0aaa aaaa	FxItemResourceA 25	(0 - 127)
00 19	0aaa aaaa	FxItemResourceA 26	(0 - 127)
00 1A	0aaa aaaa	FxItemResourceA 27	(0 - 127)
00 1B	0aaa aaaa	FxItemResourceA 28	(0 - 127)
00 1C	0aaa aaaa	FxItemResourceA 29	(0 - 127)
00 1D	0aaa aaaa	FxItemResourceA 30	(0 - 127)
00 1E	0aaa aaaa	FxItemResourceA 31	(0 - 127)
00 1F	0aaa aaaa	FxItemResourceA 32	(0 - 127)
00 20	0aaa aaaa	FxItemResourceA 33	(0 - 127)
00 21	0aaa aaaa	FxItemResourceA 34	(0 - 127)
00 22	0aaa aaaa	FxItemResourceA 35	(0 - 127)
00 23	0aaa aaaa	FxItemResourceA 36	(0 - 127)
00 24	0aaa aaaa	FxItemResourceA 37	(0 - 127)
00 25	0aaa aaaa	FxItemResourceA 38	(0 - 127)
00 26	0aaa aaaa	FxItemResourceA 39	(0 - 127)
00 27	0aaa aaaa	FxItemResourceA 40	(0 - 127)
00 28	0aaa aaaa	FxItemResourceA 41	(0 - 127)
00 29	0aaa aaaa	FxItemResourceA 42	(0 - 127)
00 2A	0aaa aaaa	FxItemResourceA 43	(0 - 127)
00 2B	0aaa aaaa	FxItemResourceA 44	(0 - 127)
00 2C	0aaa aaaa	FxItemResourceA 45	(0 - 127)
00 2D	0aaa aaaa	FxItemResourceA 46	(0 - 127)
00 2E	0aaa aaaa	FxItemResourceA 47	(0 - 127)
00 2F	0aaa aaaa	FxItemResourceA 48	(0 - 127)
00 30	0aaa aaaa	FxItemResourceA 49	(0 - 127)
00 31	0aaa aaaa	FxItemResourceA 50	(0 - 127)
00 32	0aaa aaaa	FxItemResourceA 51	(0 - 127)
00 33	0aaa aaaa	FxItemResourceA 52	(0 - 127)
00 34	0aaa aaaa	FxItemResourceA 53	(0 - 127)
00 35	0aaa aaaa	FxItemResourceA 54	(0 - 127)
00 36	0aaa aaaa	FxItemResourceA 55	(0 - 127)
00 37	0aaa aaaa	FxItemResourceA 56	(0 - 127)
00 38	0aaa aaaa	FxItemResourceA 57	(0 - 127)
00 39	0aaa aaaa	FxItemResourceA 58	(0 - 127)
00 3A	0aaa aaaa	FxItemResourceA 59	(0 - 127)
00 3B	0aaa aaaa	FxItemResourceA 60	(0 - 127)
00 3C	0aaa aaaa	FxItemResourceA 61	(0 - 127)
00 3D	0aaa aaaa	FxItemResourceA 62	(0 - 127)
00 3E	0aaa aaaa	FxItemResourceA 63	(0 - 127)
00 3F	0aaa aaaa	FxItemResourceA 64	(0 - 127)
00 40	0aaa aaaa	FxItemResourceA 65	(0 - 127)
00 41	0aaa aaaa	FxItemResourceA 66	(0 - 127)
00 42	0aaa aaaa	FxItemResourceA 67	(0 - 127)
00 43	0aaa aaaa	FxItemResourceA 68	(0 - 127)
00 44	0aaa aaaa	FxItemResourceA 69	(0 - 127)
00 45	0aaa aaaa	FxItemResourceA 70	(0 - 127)
00 46	0aaa aaaa	FxItemResourceA 71	(0 - 127)
00 47	0aaa aaaa	FxItemResourceA 72	(0 - 127)
00 48	0aaa aaaa	FxItemResourceA 73	(0 - 127)
00 49	0aaa aaaa	FxItemResourceA 74	(0 - 127)
00 4A	0aaa aaaa	FxItemResourceA 75	(0 - 127)
00 4B	0aaa aaaa	FxItemResourceA 76	(0 - 127)
00 4C	0aaa aaaa	FxItemResourceA 77	(0 - 127)
00 4D	0aaa aaaa	FxItemResourceA 78	(0 - 127)
00 4E	0aaa aaaa	FxItemResourceB 1	(0 - 127)
00 4F	0aaa aaaa	FxItemResourceB 2	(0 - 127)
00 50	0aaa aaaa	FxItemResourceB 3	(0 - 127)
00 51	0aaa aaaa	FxItemResourceB 4	(0 - 127)
00 52	0aaa aaaa	FxItemResourceB 5	(0 - 127)
00 53	0aaa aaaa	FxItemResourceB 6	(0 - 127)
00 54	0aaa aaaa	FxItemResourceB 7	(0 - 127)
00 55	0aaa aaaa	FxItemResourceB 8	(0 - 127)
00 56	0aaa aaaa	FxItemResourceB 9	(0 - 127)
00 57	0aaa aaaa	FxItemResourceB 10	(0 - 127)
00 58	0aaa aaaa	FxItemResourceB 11	(0 - 127)
00 59	0aaa aaaa	FxItemResourceB 12	(0 - 127)
00 5A	0aaa aaaa	FxItemResourceB 13	(0 - 127)
00 5B	0aaa aaaa	FxItemResourceB 14	(0 - 127)
00 5C	0aaa aaaa	FxItemResourceB 15	(0 - 127)
00 5D	0aaa aaaa	FxItemResourceB 16	(0 - 127)
00 5E	0aaa aaaa	FxItemResourceB 17	(0 - 127)
00 5F	0aaa aaaa	FxItemResourceB 18	(0 - 127)
00 60	0aaa aaaa	FxItemResourceB 19	(0 - 127)
00 61	0aaa aaaa	FxItemResourceB 20	(0 - 127)
00 62	0aaa aaaa	FxItemResourceB 21	(0 - 127)
00 63	0aaa aaaa	FxItemResourceB 22	(0 - 127)
00 64	0aaa aaaa	FxItemResourceB 23	(0 - 127)
00 65	0aaa aaaa	FxItemResourceB 24	(0 - 127)
00 66	0aaa aaaa	FxItemResourceB 25	(0 - 127)
00 67	0aaa aaaa	FxItemResourceB 26	(0 - 127)
00 68	0aaa aaaa	FxItemResourceB 27	(0 - 127)
00 69	0aaa aaaa	FxItemResourceB 28	(0 - 127)
00 6A	0aaa aaaa	FxItemResourceB 29	(0 - 127)
00 6B	0aaa aaaa	FxItemResourceB 30	(0 - 127)
00 6C	0aaa aaaa	FxItemResourceB 31	(0 - 127)
00 6D	0aaa aaaa	FxItemResourceB 32	(0 - 127)
00 6E	0aaa aaaa	FxItemResourceB 33	(0 - 127)
00 6F	0aaa aaaa	FxItemResourceB 34	(0 - 127)
00 70	0aaa aaaa	FxItemResourceB 35	(0 - 127)
00 71	0aaa aaaa	FxItemResourceB 36	(0 - 127)
00 72	0aaa aaaa	FxItemResourceB 37	(0 - 127)
00 73	0aaa aaaa	FxItemResourceB 38	(0 - 127)
00 74	0aaa aaaa	FxItemResourceB 39	(0 - 127)
00 75	0aaa aaaa	FxItemResourceB 40	(0 - 127)
00 76	0aaa aaaa	FxItemResourceB 41	(0 - 127)
00 77	0aaa aaaa	FxItemResourceB 42	(0 - 127)
00 78	0aaa aaaa	FxItemResourceB 43	(0 - 127)
00 79	0aaa aaaa	FxItemResourceB 44	(0 - 127)
00 7A	0aaa aaaa	FxItemResourceB 45	(0 - 127)
00 7B	0aaa aaaa	FxItemResourceB 46	(0 - 127)
00 7C	0aaa aaaa	FxItemResourceB 47	(0 - 127)
00 7D	0aaa aaaa	FxItemResourceB 48	(0 - 127)
00 7E	0aaa aaaa	FxItemResourceB 49	(0 - 127)
00 7F	0aaa aaaa	FxItemResourceB 50	(0 - 127)
01 00	0aaa aaaa	FxItemResourceB 51	(0 - 127)
01 01	0aaa aaaa	FxItemResourceB 52	(0 - 127)
01 02	0aaa aaaa	FxItemResourceB 53	(0 - 127)
01 03	0aaa aaaa	FxItemResourceB 54	(0 - 127)
01 04	0aaa aaaa	FxItemResourceB 55	(0 - 127)
01 05	0aaa aaaa	FxItemResourceB 56	(0 - 127)
01 06	0aaa aaaa	FxItemResourceB 57	(0 - 127)
01 07	0aaa aaaa	FxItemResourceB 58	(0 - 127)
01 08	0aaa aaaa	FxItemResourceB 59	(0 - 127)
01 09	0aaa aaaa	FxItemResourceB 60	(0 - 127)
01 0A	0aaa aaaa	FxItemResourceB 61	(0 - 127)
01 0B	0aaa aaaa	FxItemResourceB 62	(0 - 127)
01 0C	0aaa aaaa	FxItemResourceB 63	(0 - 127)
01 0D	0aaa aaaa	FxItemResourceB 64	(0 - 127)
01 0E	0aaa aaaa	FxItemResourceB 65	(0 - 127)
01 0F	0aaa aaaa	FxItemResourceB 66	(0 - 127)
01 10	0aaa aaaa	FxItemResourceB 67	(0 - 127)
01 11	0aaa aaaa	FxItemResourceB 68	(0 - 127)
01 12	0aaa aaaa	FxItemResourceB 69	(0 - 127)
01 13	0aaa aaaa	FxItemResourceB 70	(0 - 127)
01 14	0aaa aaaa	FxItemResourceB 71	(0 - 127)
01 15	0aaa aaaa	FxItemResourceB 72	(0 - 127)
01 16	0aaa aaaa	FxItemResourceB 73	(0 - 127)
01 17	0aaa aaaa	FxItemResourceB 74	(0 - 127)
01 18	0aaa aaaa	FxItemResourceB 75	(0 - 127)
01 19	0aaa aaaa	FxItemResourceB 76	(0 - 127)
01 1A	0aaa aaaa	FxItemResourceB 77	(0 - 127)
01 1B	0aaa aaaa	FxItemResourceB 78	(0 - 127)
01 1C	0aaa aaaa	FxItemResourceC 1	(0 - 127)
01 1D	0aaa aaaa	FxItemResourceC 2	(0 - 127)
01 1E	0aaa aaaa	FxItemResourceC 3	(0 - 127)
01 1F	0aaa aaaa	FxItemResourceC 4	(0 - 127)
01 20	0aaa aaaa	FxItemResourceC 5	(0 - 127)
01 21	0aaa aaaa	FxItemResourceC 6	(0 - 127)
01 22	0aaa aaaa	FxItemResourceC 7	(0 - 127)
01 23	0aaa aaaa	FxItemResourceC 8	(0 - 127)
01 24	0aaa aaaa	FxItemResourceC 9	(0 - 127)
01 25	0aaa aaaa	FxItemResourceC 10	(0 - 127)
01 26	0aaa aaaa	FxItemResourceC 11	(0 - 127)
01 27	0aaa aaaa	FxItemResourceC 12	(0 - 127)
01 28	0aaa aaaa	FxItemResourceC 13	(0 - 127)
01 29	0aaa aaaa	FxItemResourceC 14	(0 - 127)
01 2A	0aaa aaaa	FxItemResourceC 15	(0 - 127)
01 2B	0aaa aaaa	FxItemResourceC 16	(0 - 127)
01 2C	0aaa aaaa	FxItemResourceC 17	(0 - 127)
01 2D	0aaa aaaa	FxItemResourceC 18	(0 - 127)
01 2E	0aaa aaaa	FxItemResourceC 19	(0 - 127)
01 2F	0aaa aaaa	FxItemResourceC 20	(0 - 127)
01 30	0aaa aaaa	FxItemResourceC 21	(0 - 127)
01 31	0aaa aaaa	FxItemResourceC 22	(0 - 127)
01 32	0aaa aaaa	FxItemResourceC 23	(0 - 127)
01 33	0aaa aaaa	FxItemResourceC 24	(0 - 127)
01 34	0aaa aaaa	FxItemResourceC 25	(0 - 127)
01 35	0aaa aaaa	FxItemResourceC 26	(0 - 127)
01 36	0aaa aaaa	FxItemResourceC 27	(0 - 127)
01 37	0aaa aaaa	FxItemResourceC 28	(0 - 127)
01 38	0aaa aaaa	FxItemResourceC 29	(0 - 127)
01 39	0aaa aaaa	FxItemResourceC 30	(0 - 127)
01 3A	0aaa aaaa	FxItemResourceC 31	(0 - 127)
01 3B	0aaa aaaa	FxItemResourceC 32	(0 - 127)
01 3C	0aaa aaaa	FxItemResourceC 33	(0 - 127)
01 3D	0aaa aaaa	FxItemResourceC 34	(0 - 127)
01 3E	0aaa aaaa	FxItemResourceC 35	(0 - 127)
01 3F	0aaa aaaa	FxItemResourceC 36	(0 - 127)
01 40	0aaa aaaa	FxItemResourceC 37	(0 - 127)
01 41	0aaa aaaa	FxItemResourceC 38	(0 - 127)
01 42	0aaa aaaa	FxItemResourceC 39	(0 - 127)
01 43	0aaa aaaa	FxItemResourceC 40	(0 - 127)
01 44	0aaa aaaa	FxItemResourceC 41	(0 - 127)
01 45	0aaa aaaa	FxItemResourceC 42	(0 - 127)
01 46	0aaa aaaa	FxItemResourceC 43	(0 - 127)
01 47	0aaa aaaa	FxItemResourceC 44	(0 - 127)
01 48	0aaa aaaa	FxItemResourceC 45	(0 - 127)
01 49	0aaa aaaa	FxItemResourceC 46	(0 - 127)
01 4A	0aaa aaaa	FxItemResourceC 47	(0 - 127)
01 4B	0aaa aaaa	FxItemResourceC 48	(0 - 127)
01 4C	0aaa aaaa	FxItemResourceC 49	(0 - 127)
01 4D	0aaa aaaa	FxItemResourceC 50	(0 - 127)
01 4E	0aaa aaaa	FxItemResourceC 51	(0 - 127)
01 4F	0aaa aaaa	FxItemResourceC 52	(0 - 127)
01 50	0aaa aaaa	FxItemResourceC 53	(0 - 127)
01 51	0aaa aaaa	FxItemResourceC 54	(0 - 127)

Offset Address	Description	
01 52	0aaa aaaa	FxItemResourceC 55 (0 - 127)
01 53	0aaa aaaa	FxItemResourceC 56 (0 - 127)
01 54	0aaa aaaa	FxItemResourceC 57 (0 - 127)
01 55	0aaa aaaa	FxItemResourceC 58 (0 - 127)
01 56	0aaa aaaa	FxItemResourceC 59 (0 - 127)
01 57	0aaa aaaa	FxItemResourceC 60 (0 - 127)
01 58	0aaa aaaa	FxItemResourceC 61 (0 - 127)
01 59	0aaa aaaa	FxItemResourceC 62 (0 - 127)
01 5A	0aaa aaaa	FxItemResourceC 63 (0 - 127)
01 5B	0aaa aaaa	FxItemResourceC 64 (0 - 127)
01 5C	0aaa aaaa	FxItemResourceC 65 (0 - 127)
01 5D	0aaa aaaa	FxItemResourceC 66 (0 - 127)
01 5E	0aaa aaaa	FxItemResourceC 67 (0 - 127)
01 5F	0aaa aaaa	FxItemResourceC 68 (0 - 127)
01 60	0aaa aaaa	FxItemResourceC 69 (0 - 127)
01 61	0aaa aaaa	FxItemResourceC 70 (0 - 127)
01 62	0aaa aaaa	FxItemResourceC 71 (0 - 127)
01 63	0aaa aaaa	FxItemResourceC 72 (0 - 127)
01 64	0aaa aaaa	FxItemResourceC 73 (0 - 127)
01 65	0aaa aaaa	FxItemResourceC 74 (0 - 127)
01 66	0aaa aaaa	FxItemResourceC 75 (0 - 127)
01 67	0aaa aaaa	FxItemResourceC 76 (0 - 127)
01 68	0aaa aaaa	FxItemResourceC 77 (0 - 127)
01 69	0aaa aaaa	FxItemResourceC 78 (0 - 127)
00 00 01 6A	Total Size	

* [MemoryCommon]

Offset Address	Description	
00 00	0aaa aaaa	Memory Name1 (32 - 126)
00 01	0aaa aaaa	Memory Name2 (32 - 126)
00 02	0aaa aaaa	Memory Name3 (32 - 126)
00 03	0aaa aaaa	Memory Name4 (32 - 126)
00 04	0aaa aaaa	Memory Name5 (32 - 126)
00 05	0aaa aaaa	Memory Name6 (32 - 126)
00 06	0aaa aaaa	Memory Name7 (32 - 126)
00 07	0aaa aaaa	Memory Name8 (32 - 126)
00 08	0aaa aaaa	Memory Name9 (32 - 126)
00 09	0aaa aaaa	Memory Name10 (32 - 126)
00 0A	0aaa aaaa	Memory Name11 (32 - 126)
00 0B	0aaa aaaa	Memory Name12 (32 - 126)
00 0C	0aaa aaaa	Memory Name13 (32 - 126)
00 0D	0aaa aaaa	Memory Name14 (32 - 126)
00 0E	0aaa aaaa	Memory Name15 (32 - 126)
00 0F	0aaa aaaa	Memory Name16 (32 - 126)
00 10	000a aaaa	Num1 Function (0 - 17) OFF, 1, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 11	000a aaaa	Num2 Function (0 - 17) OFF, 2, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 12	000a aaaa	Num3 Function (0 - 17) OFF, 3, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 13	000a aaaa	Num4 Function (0 - 17) OFF, 4, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 14	000a aaaa	BankDown Function (0 - 17) OFF, BANK Wx1b, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 15	000a aaaa	BankUp Function (0 - 17) OFF, BANK Wx1a, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 16	0000 aaaa	CNum Function (0 - 14) OFF, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 17	0000 aaaa	Manual Num1 Function (0 - 14) OFF, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 18	0000 aaaa	Manual Num2 Function (0 - 14) OFF, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 19	0000 aaaa	Manual Num3 Function (0 - 14) OFF, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 1A	0000 aaaa	Manual Num4 Function (0 - 14) OFF, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 1B	000a aaaa	Ctl1 Function (0 - 18) OFF, BANK Wx1b, BANK Wx1a, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 1C	000a aaaa	Ctl2 Function (0 - 18) OFF, BANK Wx1b, BANK Wx1a, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 1D	000a aaaa	Ctl3 Function (0 - 18) OFF, BANK Wx1b, BANK Wx1a, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 1E	000a aaaa	Ctl4 Function (0 - 18) OFF, BANK Wx1b, BANK Wx1a, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 1F	000a aaaa	Exp1Sw Function (0 - 18) OFF, BANK Wx1b, BANK Wx1a, MEMORY -1, MEMORY +1, BPM TAP, TUNER, MEMORY/MAN, TUNER/MAN, MAN/TUNER, AMP CTL 1, AMP CTL 2, PFX, DIV CH.SEL, SEND/RETURN, LOOP CTL, LOOP STOP, LOOP CLEAR, MIDI START
00 20	0000 0aaa	Exp1 Function (0 - 5) OFF, FOOT VOL, PEDAL FX, FV/PEDAL FX, FV+TUNER, FV+TUNE/PFX
00 21	0000 0aaa	Exp2 Function (0 - 5) OFF, FOOT VOL, PEDAL FX, FV/PEDAL FX, FV+TUNER, FV+TUNE/PFX
00 22	0000 000a	Num1 Mode (0 - 1) TOGGLE, MOMENT
00 23	0000 000a	Num2 Mode (0 - 1) TOGGLE, MOMENT
00 24	0000 000a	Num3 Mode (0 - 1) TOGGLE, MOMENT
00 25	0000 000a	Num4 Mode (0 - 1) TOGGLE, MOMENT
00 26	0000 000a	BankDown Mode (0 - 1) TOGGLE, MOMENT
00 27	0000 000a	BankUp Mode (0 - 1) TOGGLE, MOMENT
00 28	0000 000a	CNum Mode (0 - 1) TOGGLE, MOMENT
00 29	0000 000a	Manual Num1 Mode (0 - 1) TOGGLE, MOMENT
00 2A	0000 000a	Manual Num2 Mode (0 - 1) TOGGLE, MOMENT
00 2B	0000 000a	Manual Num3 Mode (0 - 1) TOGGLE, MOMENT
00 2C	0000 000a	Manual Num4 Mode (0 - 1) TOGGLE, MOMENT
00 2D	0000 000a	Ctl1 Mode (0 - 1) TOGGLE, MOMENT
00 2E	0000 000a	Ctl2 Mode (0 - 1) TOGGLE, MOMENT
00 2F	0000 000a	Ctl3 Mode (0 - 1) TOGGLE, MOMENT
00 30	0000 000a	Ctl4 Mode (0 - 1) TOGGLE, MOMENT
00 31	0000 000a	Exp1Sw Mode (0 - 1) TOGGLE, MOMENT
00 32	0000 aaaa	INPUT SETTING (0 - 10) SYSTEM, 1 - 10
00 33	0000 aaaa	N/A(fixed value) (0)
00 34	0000 000a	N/A(fixed value) (0)
00 35	000a aaaa	MEMORY MIDI 1:CH (0 - 16) OFF, 1 - 16
# 00 36	0000 aaaa	
00 37	0000 bbbb	MEMORY MIDI 1:BANK MSB (0 - 128) OFF, 1 - 128
# 00 38	0000 aaaa	
00 39	0000 bbbb	MEMORY MIDI 1:BANK LSB (0 - 128) OFF, 1 - 128
# 00 3A	0000 aaaa	
00 3B	0000 bbbb	MEMORY MIDI 1:PC# (0 - 128) OFF, 1 - 128
# 00 3C	0000 aaaa	
00 3D	0000 bbbb	MEMORY MIDI 1:CC1# (0 - 128) OFF, 0 - 127
00 3E	0aaa aaaa	MEMORY MIDI 1:CC1 VALUE (0 - 127)
# 00 3F	0000 aaaa	
00 40	0000 bbbb	MEMORY MIDI 1:CC2# (0 - 128) OFF, 0 - 127
00 41	0aaa aaaa	MEMORY MIDI 1:CC2 VALUE (0 - 127)
00 42	000a aaaa	MEMORY MIDI 2:CH (0 - 16) OFF, 1 - 16
# 00 43	0000 aaaa	
00 44	0000 bbbb	MEMORY MIDI 2:BANK MSB (0 - 128) OFF, 1 - 128
# 00 45	0000 aaaa	
00 46	0000 bbbb	MEMORY MIDI 2:BANK LSB (0 - 128) OFF, 1 - 128
# 00 47	0000 aaaa	
00 48	0000 bbbb	MEMORY MIDI 2:PC# (0 - 128) OFF, 1 - 128
# 00 49	0000 aaaa	
00 4A	0000 bbbb	MEMORY MIDI 2:CC1# (0 - 128) OFF, 0 - 127

Offset Address	Description		
00 4B	0aaa aaaa	MEMORY MIDI 2:CC1 VALUE	(0 - 127)
00 4C	0000 aaaa		
00 4D	0000 bbbb	MEMORY MIDI 2:CC2#	(0 - 128) OFF, 0 - 127
00 4E	0aaa aaaa	MEMORY MIDI 2:CC2 VALUE	(0 - 127)
00 4F	000a aaaa	MEMORY MIDI 3:CH	(0 - 16) OFF, 1 - 16
00 50	0000 aaaa		
00 51	0000 bbbb	MEMORY MIDI 3:BANK MSB	(0 - 128) OFF, 1 - 128
00 52	0000 aaaa		
00 53	0000 bbbb	MEMORY MIDI 3:BANK LSB	(0 - 128) OFF, 1 - 128
00 54	0000 aaaa		
00 55	0000 bbbb	MEMORY MIDI 3:PC#	(0 - 128) OFF, 1 - 128
00 56	0000 aaaa		
00 57	0000 bbbb	MEMORY MIDI 3:CC1#	(0 - 128) OFF, 0 - 127
00 58	0aaa aaaa	MEMORY MIDI 3:CC1 VALUE	(0 - 127)
00 59	0000 aaaa		
00 5A	0000 bbbb	MEMORY MIDI 3:CC2#	(0 - 128) OFF, 0 - 127
00 5B	0aaa aaaa	MEMORY MIDI 3:CC2 VALUE	(0 - 127)
00 5C	000a aaaa	MEMORY MIDI 4:CH	(0 - 16) OFF, 1 - 16
00 5D	0000 aaaa		
00 5E	0000 bbbb	MEMORY MIDI 4:BANK MSB	(0 - 128) OFF, 1 - 128
00 5F	0000 aaaa		
00 60	0000 bbbb	MEMORY MIDI 4:BANK LSB	(0 - 128) OFF, 1 - 128
00 61	0000 aaaa		
00 62	0000 bbbb	MEMORY MIDI 4:PC#	(0 - 128) OFF, 1 - 128
00 63	0000 aaaa		
00 64	0000 bbbb	MEMORY MIDI 4:CC1#	(0 - 128) OFF, 0 - 127
00 65	0aaa aaaa	MEMORY MIDI 4:CC1 VALUE	(0 - 127)
00 66	0000 aaaa		
00 67	0000 bbbb	MEMORY MIDI 4:CC2#	(0 - 128) OFF, 0 - 127
00 68	0aaa aaaa	MEMORY MIDI 4:CC2 VALUE	(0 - 127)
00 69	000a aaaa	Knob1SettingFxItem	(0 - 19)
00 6A	000a aaaa	Knob2SettingFxItem	(0 - 19)
00 6B	000a aaaa	Knob3SettingFxItem	(0 - 19)
00 6C	000a aaaa	Knob4SettingFxItem	(0 - 19)
00 6D	0000 aaaa		
00 6E	0000 bbbb		
00 6F	0000 cccc		
00 70	0000 dddd	KNOB1 SETTING	(0 - 701)
00 71	0000 aaaa		
00 72	0000 bbbb		
00 73	0000 cccc		
00 74	0000 dddd	KNOB2 SETTING	(0 - 701)
00 75	0000 aaaa		
00 76	0000 bbbb		
00 77	0000 cccc		
00 78	0000 dddd	KNOB3 SETTING	(0 - 701)
00 79	0000 aaaa		
00 7A	0000 bbbb		
00 7B	0000 cccc		
00 7C	0000 dddd	KNOB4 SETTING	(0 - 701)
00 7D	0000 000a	N/A(fixed value)	(0)
00 7E	0000 000a	N/A(fixed value)	(0)
00 7F	0000 000a	N/A(fixed value)	(0)
01 00	0000 000a	N/A(fixed value)	(0)
00 00 01 01	Total Size		

* [MemoryLed]

Offset Address	Description		
00 00	0000 aaaa	N/A(fixed value)	(0)
00 01	000a aaaa	N/A(fixed value)	(0)
00 02	0000 aaaa	N/A(fixed value)	(0)
00 03	000a aaaa	N/A(fixed value)	(0)
00 04	0000 aaaa	N/A(fixed value)	(0)
00 05	000a aaaa	N/A(fixed value)	(0)
00 06	0000 aaaa	N/A(fixed value)	(0)
00 07	000a aaaa	N/A(fixed value)	(0)
00 08	0000 aaaa	N/A(fixed value)	(0)
00 09	000a aaaa	N/A(fixed value)	(0)
00 0A	0000 aaaa	N/A(fixed value)	(0)
00 0B	000a aaaa	N/A(fixed value)	(0)
00 0C	0000 aaaa	N/A(fixed value)	(0)
00 0D	000a aaaa	N/A(fixed value)	(0)
00 0E	0000 aaaa	N/A(fixed value)	(0)
00 0F	000a aaaa	N/A(fixed value)	(0)
00 10	0000 aaaa	N/A(fixed value)	(0)
00 11	000a aaaa	N/A(fixed value)	(0)
00 12	0000 aaaa	N/A(fixed value)	(0)
00 13	000a aaaa	N/A(fixed value)	(0)
00 14	0000 aaaa		
00 15	0000 bbbb		
00 16	0000 cccc		
00 17	0000 dddd		
00 18	0000 eeee		
00 19	0000 ffff		
00 1A	0000 gggg		
00 1B	0000 hhhh	ON OFF STATE	(0 - 2147483647) *3
00 00 00 1C	Total Size		

*3 ON OFF STATE TABLE

BIT	PEDAL
0	(NIU)
1	NUM1
2	NUM2
3	NUM3
4	NUM4
5	BANK DOWN
6	BANK UP
7	CTL1
8	CTL2
9	CTL3
10	CTL4
11	CUR NUM
12	EXP SW
13	(NIU)
14	(NIU)
15	(NIU)
16	(NIU)
17	(NIU)
18	(NIU)
19	(NIU)
20	(NIU)
21	(NIU)
22	(NIU)
23	(NIU)
24	(NIU)
25	(NIU)
26	(NIU)
27	(NIU)
28	(NIU)
29	(NIU)
30	(NIU)
31	(NIU)
32	(NIU)

* [Assign]

Offset Address		Description	
00 00	0000 000a	SW	(0 - 1) OFF, ON
00 01	000a aaaa	TARGET_FX_ITEM	(0 - 19) *2
# 00 02	0000 aaaa		
00 03	0000 bbbb		
00 04	0000 cccc		
00 05	0000 dddd	TARGET	(0 - 701) *2
# 00 06	0000 aaaa		
00 07	0000 bbbb		
00 08	0000 cccc		
00 09	0000 dddd	TARGET MIN	(0 - 65535) (0 - 127) x 127
# 00 0A	0000 aaaa		
00 0B	0000 bbbb		
00 0C	0000 cccc		
00 0D	0000 dddd	TARGET MAX	(0 - 65535) (0 - 127) x 127
00 0E	0aaa aaaa	SOURCE NUM 1, NUM 2, NUM 3, NUM 4, MAN 1, MAN 2, MAN 3, MAN 4, CUR NUM, BANK Wx1b, BANK Wx1a, CTL 1, CTL 2, CTL 3, CTL 4, EXP 1 SW, EXP 1, EXP 2, INT PDL, WAVE PDL, INPUT, CC# 1 - CC#31, CC# 64 - CC#95	(0 - 83)
00 0F	0000 000a	MODE	(0 - 1) TOGGLE, MOMENT
00 10	0aaa aaaa	WAVE RATE 0 - 100, DoubleWholeNote, DottedWholeNote, WholeNote, DottedHalfNote, TripletWholeNote, HalfNote, DottedQuarterNote, TripletHalfNote, QuarterNote, Dotted8thNote, TripletQuarterNote, 8thNote, Dotted16thNote, Triplet8thNote, 16thNote, Dotted32ndNote, Triplet16thNote, 32ndNote	(0 - 118)
00 11	0000 00aa	WAVEFORM	(0 - 2) SAW, TRI, SINE
00 12	0aaa aaaa	INT PDL TRIGGER MEM CHANGE, NUM 1, NUM 2, NUM 3, NUM 4, MAN 1, MAN 2, MAN 3, MAN 4, CUR NUM, BANK Wx1b, BANK Wx1a, CTL 1, CTL 2, CTL 3, CTL 4, EXP 1 SW, EXP 1 PDL-LO, EXP 1 PDL-MID, EXP 1 PDL-HI, EXP 2, CC# 1 - CC#31, CC# 64 - CC#95	(0 - 83)
00 13	0aaa aaaa	INT PDL TIME	(0 - 100)
00 14	0000 00aa	INT PDL CURVE LINEAR, SLOW RISE, FAST RISE	(0 - 2)
# 00 15	0000 aaaa		
00 16	0000 bbbb		
00 17	0000 cccc		
00 18	0000 dddd	ACT RANGE LO	(0 - 16382) (0 - 126) x 127
# 00 19	0000 aaaa		
00 1A	0000 bbbb		
00 1B	0000 cccc		
00 1C	0000 dddd	ACT RANGE HI	(1 - 16383) (1 - 127) x 127
00 1D	000a aaaa	MIDI CH	(0 - 16) SYSTEM, 1 - 16
00 1E	0aaa aaaa	MIDI CC#	(0 - 127)
# 00 1F	0000 aaaa		
00 20	0000 bbbb		
00 21	0000 cccc		
00 22	0000 dddd	MIDI CC VALUE MIN	(0 - 16383) (0 - 127) x 127
# 00 23	0000 aaaa		
00 24	0000 bbbb		
00 25	0000 cccc		
00 26	0000 dddd	MIDI CC VALUE MAX	(0 - 16383) (0 - 127) x 127
00 27	0000 0000	N/A(fixed value)	(0)
00 28	0aaa aaaa	MIDI PC#	(0 - 127) 1 - 128

Offset Address		Description	
# 00 29	0000 aaaa		
00 2A	0000 bbbb	MIDI BANK MSB	(0 - 128) OFF, 1 - 128
# 00 2B	0000 aaaa		
00 2C	0000 bbbb	MIDI BANK LSB	(0 - 128) OFF, 1 - 128
		From "SW" to "MIDI BANK LSB" are group parameters. The DT1 to each parameter is temporarily suspended, and the DT1 to the group parameter final address automatically checks the pending parameters, and if there is no problem, the value is set. If the value is incomplete it will not be set. Parameters before set are read out for the RQ1 to pending parameters. Pending values can not be read. The values of all parameters must be set in the above range. If it is out of range, no value will be written. The TARGET MIN and the TARGET MAX must be in the range from the lower limit to the upper limit to the parameter specified by the TARGET. If the TARGET is set to the MIDI CC#, the TARGET MIN and the TARGET MAX must be set from -32768 to 32767. If the TARGET is set to the MIDI PC#, the TARGET MIN and the TARGET MAX must be set from 0 to 1. These are the special rule. In addition, you need to add 32768 to the value set for the TARGET MIN or the TARGET MAX. For example, it the TARGET is set to COMP:SUSTAIN and you set the TARGET MIN to 0 and the TARGET MAX to 100, you must set (0 + 32768) = 32768 for the TARGET MIN and (100 + 32768) = 32868 for the TARGET MAX. The ACT RANGE HI must be set to a value equal to or greater than the ACT RANGE LO. The MIDI BANK LSB must be set to OFF, if the MIDI BANK MSB is set to OFF.	
00 00 00 2D	Total Size		

*2 ASSIGN TARGET TABLE

INDEX	CATEGORY	TARGET
0	----	----
1	EFFECT(RENAMED WITH TYPE)	ON/OFF
2	AC GUITAR SIM	BODY
3	AC GUITAR SIM	LOW
4	AC GUITAR SIM	HIGH
5	AC GUITAR SIM	LEVEL
6	AC RESONANCE	TYPE
7	AC RESONANCE	RESONANCE
8	AC RESONANCE	TONE
9	AC RESONANCE	LEVEL
10	SLOW GEAR	SENS
11	SLOW GEAR	RISE TIME
12	SLOW GEAR	LEVEL
13	BASS SLOW GEAR	SENS
14	BASS SLOW GEAR	RISE TIME
15	BASS SLOW GEAR	LEVEL
16	DEFRETTER	SENS
17	DEFRETTER	DEPTH
18	DEFRETTER	TONE
19	DEFRETTER	EFFECT LEVEL
20	DEFRETTER	ATTACK
21	DEFRETTER	RESONANCE
22	DEFRETTER	DIRECT MIX
23	BASS DEFRETTER	SENS
24	BASS DEFRETTER	ATTACK
25	BASS DEFRETTER	TONE
26	BASS DEFRETTER	EFFECT LEVEL
27	BASS DEFRETTER	DIRECT MIX
28	WAH	WAH TYPE
29	WAH	PEDAL POSITION
30	WAH	PEDAL MIN
31	WAH	PEDAL MAX
32	WAH	EFFECT LEVEL
33	WAH	DIRECT MIX
34	BASS WAH	PEDAL POSITION
35	BASS WAH	PEDAL MIN
36	BASS WAH	PEDAL MAX
37	BASS WAH	EFFECT LEVEL
38	BASS WAH	DIRECT MIX
39	TOUCH WAH	FILTER MODE
40	TOUCH WAH	POLARITY
41	TOUCH WAH	SENS
42	TOUCH WAH	FREQUENCY
43	TOUCH WAH	RESONANCE
44	TOUCH WAH	DECAY
45	TOUCH WAH	EFFECT LEVEL
46	TOUCH WAH	DIRECT MIX
47	BASS TOUCH WAH	FILTER MODE
48	BASS TOUCH WAH	POLARITY
49	BASS TOUCH WAH	SENS
50	BASS TOUCH WAH	FREQUENCY
51	BASS TOUCH WAH	RESONANCE
52	BASS TOUCH WAH	DECAY
53	BASS TOUCH WAH	EFFECT LEVEL
54	BASS TOUCH WAH	DIRECT MIX
55	COMPRESSOR	TYPE
56	COMPRESSOR	SUSTAIN
57	COMPRESSOR	ATTACK
58	COMPRESSOR	LEVEL
59	COMPRESSOR	TONE
60	COMPRESSOR	DIRECT MIX
61	X COMPRESSOR	ATTACK
62	X COMPRESSOR	LEVEL
63	X COMPRESSOR	TONE
64	X COMPRESSOR	RATIO
65	X COMPRESSOR	DIRECT MIX
66	X COMPRESSOR	SUSTAIN
67	BASS X COMP	ATTACK
68	BASS X COMP	LEVEL
69	BASS X COMP	TONE
70	BASS X COMP	RATIO
71	BASS X COMP	DIRECT MIX
72	BASS X COMP	THRESHOLD
73	BOOSTER	TYPE
74	BOOSTER	BOOST
75	BOOSTER	TONE
76	BOOSTER	EFFECT LEVEL
77	BOOSTER	BOTTOM
78	BOOSTER	DIRECT MIX
79	BOOSTER	SOLO SW
80	BOOSTER	SOLO LEVEL
81	OVERDRIVE	TYPE
82	OVERDRIVE	DRIVE
83	OVERDRIVE	TONE
84	OVERDRIVE	EFFECT LEVEL
85	OVERDRIVE	BOTTOM
86	OVERDRIVE	DIRECT MIX
87	OVERDRIVE	SOLO SW
88	OVERDRIVE	SOLO LEVEL
89	BASS OVERDRIVE	DRIVE
90	BASS OVERDRIVE	TONE
91	BASS OVERDRIVE	EFFECT LEVEL
92	BASS OVERDRIVE	BOTTOM
93	BASS OVERDRIVE	DIRECT MIX
94	BASS OVERDRIVE	SOLO SW
95	BASS OVERDRIVE	SOLO LEVEL
96	X OVERDRIVE	DRIVE
97	X OVERDRIVE	TONE
98	X OVERDRIVE	EFFECT LEVEL
99	X OVERDRIVE	BOTTOM
100	X OVERDRIVE	DIRECT MIX
101	X OVERDRIVE	SOLO SW
102	X OVERDRIVE	SOLO LEVEL
103	X BASS OVERDRIVE	DRIVE
104	X BASS OVERDRIVE	TONE
105	X BASS OVERDRIVE	EFFECT LEVEL
106	X BASS OVERDRIVE	BOTTOM
107	X BASS OVERDRIVE	DIRECT MIX
108	X BASS OVERDRIVE	SOLO SW
109	X BASS OVERDRIVE	SOLO LEVEL
110	X DISTORTION	DRIVE
111	X DISTORTION	TONE
112	X DISTORTION	EFFECT LEVEL
113	X DISTORTION	BOTTOM
114	X DISTORTION	DIRECT MIX
115	X DISTORTION	SOLO SW
116	X DISTORTION	SOLO LEVEL
117	METAL DISTORTION	TYPE
118	METAL DISTORTION	DIST
119	METAL DISTORTION	TONE
120	METAL DISTORTION	EFFECT LEVEL
121	METAL DISTORTION	BOTTOM
122	METAL DISTORTION	DIRECT MIX
123	METAL DISTORTION	SOLO SW
124	METAL DISTORTION	SOLO LEVEL
125	BASS METAL DIST	DIST
126	BASS METAL DIST	TONE
127	BASS METAL DIST	EFFECT LEVEL
128	BASS METAL DIST	BOTTOM
129	BASS METAL DIST	DIRECT MIX
130	BASS METAL DIST	SOLO SW
131	BASS METAL DIST	SOLO LEVEL
132	DISTORTION	TYPE
133	DISTORTION	DIST
134	DISTORTION	TONE
135	DISTORTION	EFFECT LEVEL
136	DISTORTION	BOTTOM
137	DISTORTION	DIRECT MIX
138	DISTORTION	SOLO SW
139	DISTORTION	SOLO LEVEL
140	BASS DISTORTION	TYPE
141	BASS DISTORTION	DRIVE
142	BASS DISTORTION	TONE
143	BASS DISTORTION	EFFECT LEVEL
144	BASS DISTORTION	BOTTOM
145	BASS DISTORTION	DIRECT MIX
146	BASS DISTORTION	SOLO SW
147	BASS DISTORTION	SOLO LEVEL
148	FUZZ	TYPE
149	FUZZ	FUZZ
150	FUZZ	TONE
151	FUZZ	EFFECT LEVEL
152	FUZZ	BOTTOM
153	FUZZ	DIRECT MIX
154	FUZZ	SOLO SW
155	FUZZ	SOLO LEVEL
156	BASS FUZZ	FUZZ
157	BASS FUZZ	TONE
158	BASS FUZZ	EFFECT LEVEL
159	BASS FUZZ	BOTTOM
160	BASS FUZZ	DIRECT MIX
161	BASS FUZZ	SOLO SW
162	BASS FUZZ	SOLO LEVEL
163	PREAMP	TYPE
164	PREAMP	GAIN
165	PREAMP	LEVEL
166	PREAMP	BASS
167	PREAMP	MIDDLE
168	PREAMP	TREBLE
169	PREAMP	PRESENCE
170	PREAMP	GAIN SW
171	PREAMP	SOLO SW
172	PREAMP	SOLO LEVEL
173	PREAMP	BRIGHT SW
174	PREAMP	SAG
175	PREAMP	RESONANCE
176	PREAMP	DIRECT MIX
177	PREAMP	SP TYPE
178	PREAMP	MIC TYPE
179	PREAMP	MIC DISTANCE
180	PREAMP	MIC POSITION
181	PREAMP	MIC LEVEL
182	BASS PREAMP	TYPE
183	BASS PREAMP	GAIN
184	BASS PREAMP	LEVEL
185	BASS PREAMP	BASS
186	BASS PREAMP	MIDDLE
187	BASS PREAMP	TREBLE
188	BASS PREAMP	PRESENCE
189	BASS PREAMP	GAIN SW
190	BASS PREAMP	SOLO SW
191	BASS PREAMP	SOLO LEVEL
192	BASS PREAMP	BRIGHT SW
193	BASS PREAMP	SAG
194	BASS PREAMP	RESONANCE
195	BASS PREAMP	DIRECT MIX
196	BASS PREAMP	SP TYPE
197	BASS PREAMP	MIC TYPE
198	BASS PREAMP	MIC DISTANCE
199	BASS PREAMP	MIC POSITION
200	BASS PREAMP	MIC LEVEL
201	NOISE SUPPRESSOR	THRESHOLD
202	NOISE SUPPRESSOR	RELEASE
203	NOISE SUPPRESSOR	DETECT
204	DIVIDER	MODE
205	DIVIDER	CH SELECT
206	DIVIDER	MIX MODE
207	DIVIDER	A:DYNAMIC
208	DIVIDER	A:DYNAMIC SENS
209	DIVIDER	A:FILTER
210	DIVIDER	A:CUTOFF FREQ
211	DIVIDER	B:DYNAMIC
212	DIVIDER	B:DYNAMIC SENS
213	DIVIDER	B:FILTER

INDEX	CATEGORY	TARGET
214	DIVIDER	B:CUTOFF FREQ
215	MIXER	MODE
216	MIXER	A LEVEL
217	MIXER	B LEVEL
218	MIXER	A/B BALANCE
219	MIXER	SPREAD
220	PARAMETRIC EQ	LOW GAIN
221	PARAMETRIC EQ	HIGH GAIN
222	PARAMETRIC EQ	LEVEL
223	PARAMETRIC EQ	LOW-MID FREQ
224	PARAMETRIC EQ	LOW-MID Q
225	PARAMETRIC EQ	LOW-MID GAIN
226	PARAMETRIC EQ	HIGH-MID FREQ
227	PARAMETRIC EQ	HIGH-MID Q
228	PARAMETRIC EQ	HIGH-MID GAIN
229	PARAMETRIC EQ	LOW CUT
230	PARAMETRIC EQ	HIGH CUT
231	GRAPHIC EQ	31.5Hz
232	GRAPHIC EQ	63Hz
233	GRAPHIC EQ	125Hz
234	GRAPHIC EQ	250Hz
235	GRAPHIC EQ	500Hz
236	GRAPHIC EQ	1kHz
237	GRAPHIC EQ	2kHz
238	GRAPHIC EQ	4kHz
239	GRAPHIC EQ	8kHz
240	GRAPHIC EQ	16kHz
241	GRAPHIC EQ	LEVEL
242	CHORUS	TYPE
243	CHORUS	DIRECT LEVEL
244	CHORUS	RATE
245	CHORUS	DEPTH
246	CHORUS	EFFECT LEVEL
247	CHORUS	LOW CUT
248	CHORUS	HIGH CUT
249	CHORUS	PRE-DELAY
250	CHORUS	WAVEFORM
251	CHORUS	1:RATE
252	CHORUS	1:DEPTH
253	CHORUS	1:EFFECT LEVEL
254	CHORUS	1:PRE-DELAY
255	CHORUS	1:WAVEFORM
256	CHORUS	1:LOW CUT
257	CHORUS	1:HIGH CUT
258	CHORUS	2:RATE
259	CHORUS	2:DEPTH
260	CHORUS	2:EFFECT LEVEL
261	CHORUS	2:PRE-DELAY
262	CHORUS	2:WAVEFORM
263	CHORUS	2:LOW CUT
264	CHORUS	2:HIGH CUT
265	CHORUS	OUTPUT MODE
266	BASS CHORUS	TYPE
267	BASS CHORUS	RATE
268	BASS CHORUS	DEPTH
269	BASS CHORUS	EFFECT LEVEL
270	BASS CHORUS	LOW CUT
271	BASS CHORUS	HIGH CUT
272	BASS CHORUS	DIRECT LEVEL
273	PRIME CHORUS	RATE
274	PRIME CHORUS	DEPTH
275	PRIME CHORUS	EFFECT LEVEL
276	PRIME CHORUS	PRE-DELAY
277	PRIME CHORUS	WAVEFORM
278	PRIME CHORUS	LOW CUT
279	PRIME CHORUS	HIGH CUT
280	PRIME CHORUS	SWEETNESS
281	PRIME CHORUS	BELL
282	PRIME CHORUS	OUTPUT MODE
283	OVERTONE	LOWER LEVEL
284	OVERTONE	UPPER LEVEL
285	OVERTONE	UNISON LEVEL
286	OVERTONE	DIRECT LEVEL
287	OVERTONE	DETUNE
288	OVERTONE	OUTPUT MODE
289	OVERTONE	LOW
290	OVERTONE	HIGH
291	DELAY	TIME
292	DELAY	FEEDBACK
293	DELAY	EFFECT LEVEL
294	DELAY	DIRECT LEVEL
295	DELAY	HIGH CUT
296	DELAY	CARRYOVER
297	DELAY PLUS	TYPE
298	DELAY PLUS	DIRECT LEVEL
299	DELAY PLUS	MOD RATE
300	DELAY PLUS	MOD DEPTH
301	DELAY PLUS	DUCK SENS
302	DELAY PLUS	DUCK PRE
303	DELAY PLUS	DUCK POST
304	DELAY PLUS	CARRYOVER
305	DELAY PLUS	TIME
306	DELAY PLUS	FEEDBACK
307	DELAY PLUS	EFFECT LEVEL
308	DELAY PLUS	HIGH CUT
309	DELAY PLUS	TAP TIME
310	DELAY PLUS	AUTO TRIGGER
311	DELAY PLUS	MODE
312	DELAY PLUS	1:TYPE
313	DELAY PLUS	1:TIME
314	DELAY PLUS	1:FEEDBACK
315	DELAY PLUS	1:EFFECT LEVEL
316	DELAY PLUS	1:HIGH CUT
317	DELAY PLUS	2:HIGH CUT
318	DELAY PLUS	2:TYPE
319	DELAY PLUS	2:TIME
320	DELAY PLUS	2:FEEDBACK
321	DELAY PLUS	2:EFFECT LEVEL
322	ANALOG DELAY	TYPE
323	ANALOG DELAY	TIME
324	ANALOG DELAY	FEEDBACK
325	ANALOG DELAY	EFFECT LEVEL
326	ANALOG DELAY	DIRECT LEVEL
327	ANALOG DELAY	HIGH CUT
328	ANALOG DELAY	MOD RATE
329	ANALOG DELAY	MOD DEPTH
330	ANALOG DELAY	DUCK SENS
331	ANALOG DELAY	DUCK PRE
332	ANALOG DELAY	DUCK POST
333	ANALOG DELAY	CARRYOVER
334	SPACE ECHO	TIME
335	SPACE ECHO	FEEDBACK
336	SPACE ECHO	EFFECT LEVEL
337	SPACE ECHO	DIRECT LEVEL
338	SPACE ECHO	HIGH CUT
339	SPACE ECHO	MOD RATE
340	SPACE ECHO	MOD DEPTH
341	SPACE ECHO	DUCK SENS
342	SPACE ECHO	DUCK PRE
343	SPACE ECHO	DUCK POST
344	SPACE ECHO	HEAD
345	SPACE ECHO	WOW FLUTTER
346	SPACE ECHO	CARRYOVER
347	SHIMMER DELAY	TIME
348	SHIMMER DELAY	FEEDBACK
349	SHIMMER DELAY	EFFECT LEVEL
350	SHIMMER DELAY	DIRECT LEVEL
351	SHIMMER DELAY	HIGH CUT
352	SHIMMER DELAY	MOD RATE
353	SHIMMER DELAY	MOD DEPTH
354	SHIMMER DELAY	DUCK SENS
355	SHIMMER DELAY	DUCK PRE
356	SHIMMER DELAY	DUCK POST
357	SHIMMER DELAY	PITCH
358	SHIMMER DELAY	PITCH BALANCE
359	SHIMMER DELAY	PITCH FEEDBACK
360	SHIMMER DELAY	CARRYOVER
361	TWIST	MODE
362	TWIST	TRIGGER
363	TWIST	LEVEL
364	TWIST	RISE TIME
365	TWIST	FALL TIME
366	TWIST	FADE TIME
367	TWIST	CARRYOVER
368	WARP	TIME
369	WARP	TRIGGER
370	WARP	LEVEL
371	WARP	CARRYOVER
372	REVERB	TYPE
373	REVERB	TIME
374	REVERB	PRE-DELAY
375	REVERB	EFFECT LEVEL
376	REVERB	DENSITY
377	REVERB	LOW CUT
378	REVERB	HIGH CUT
379	REVERB	DIRECT LEVEL
380	REVERB	CARRYOVER
381	REVERB PLUS	TYPE
382	REVERB PLUS	TIME
383	REVERB PLUS	TONE
384	REVERB PLUS	EFFECT LEVEL
385	REVERB PLUS	DENSITY
386	REVERB PLUS	PRE-DELAY
387	REVERB PLUS	LOW CUT
388	REVERB PLUS	HIGH CUT
389	REVERB PLUS	LOW DAMP
390	REVERB PLUS	HIGH DAMP
391	REVERB PLUS	MOD RATE
392	REVERB PLUS	MOD DEPTH
393	REVERB PLUS	DUCK SENS
394	REVERB PLUS	DUCK PRE
395	REVERB PLUS	DUCK POST
396	REVERB PLUS	DIRECT LEVEL
397	REVERB PLUS	CARRYOVER
398	SHIMMER REVERB	TIME
399	SHIMMER REVERB	TONE
400	SHIMMER REVERB	EFFECT LEVEL
401	SHIMMER REVERB	DENSITY
402	SHIMMER REVERB	PRE-DELAY
403	SHIMMER REVERB	LOW CUT
404	SHIMMER REVERB	HIGH CUT
405	SHIMMER REVERB	LOW DAMP
406	SHIMMER REVERB	HIGH DAMP
407	SHIMMER REVERB	MOD RATE
408	SHIMMER REVERB	MOD DEPTH
409	SHIMMER REVERB	DUCK SENS
410	SHIMMER REVERB	DUCK PRE
411	SHIMMER REVERB	DUCK POST
412	SHIMMER REVERB	DIRECT LEVEL
413	SHIMMER REVERB	1:PITCH
414	SHIMMER REVERB	2:PITCH
415	SHIMMER REVERB	1:LEVEL
416	SHIMMER REVERB	2:LEVEL
417	SHIMMER REVERB	CARRYOVER
418	TERA ECHO	MODE
419	TERA ECHO	SPREAD TIME
420	TERA ECHO	FEEDBACK
421	TERA ECHO	EFFECT LEVEL
422	TERA ECHO	TONE
423	TERA ECHO	DIRECT LEVEL
424	TERA ECHO	TRIGGER
425	TERA ECHO	CARRYOVER
426	FLANGER	RATE
427	FLANGER	DEPTH
428	FLANGER	RESONANCE
429	FLANGER	MANUAL

INDEX	CATEGORY	TARGET
430	FLANGER	STEP RATE
431	FLANGER	LOW CUT
432	FLANGER	EFFECT LEVEL
433	FLANGER	DIRECT MIX
434	BASS FLANGER	RATE
435	BASS FLANGER	DEPTH
436	BASS FLANGER	RESONANCE
437	BASS FLANGER	MANUAL
438	BASS FLANGER	STEP RATE
439	BASS FLANGER	LOW CUT
440	BASS FLANGER	EFFECT LEVEL
441	BASS FLANGER	DIRECT MIX
442	PRIME FLANGER	RATE
443	PRIME FLANGER	DEPTH
444	PRIME FLANGER	RESONANCE
445	PRIME FLANGER	MANUAL
446	PRIME FLANGER	TURBO
447	PRIME FLANGER	WAVEFORM
448	PRIME FLANGER	STEP RATE
449	PRIME FLANGER	SEPARATION
450	PRIME FLANGER	EFFECT LEVEL
451	PRIME FLANGER	LOW DAMP
452	PRIME FLANGER	HIGH DAMP
453	PRIME FLANGER	DIRECT MIX
454	PRIME FLANGER	LOW CUT
455	PRIME FLANGER	HIGH CUT
456	BASS PRIME FLANGER	RATE
457	BASS PRIME FLANGER	DEPTH
458	BASS PRIME FLANGER	RESONANCE
459	BASS PRIME FLANGER	MANUAL
460	BASS PRIME FLANGER	TURBO
461	BASS PRIME FLANGER	WAVEFORM
462	BASS PRIME FLANGER	STEP RATE
463	BASS PRIME FLANGER	SEPARATION
464	BASS PRIME FLANGER	EFFECT LEVEL
465	BASS PRIME FLANGER	LOW DAMP
466	BASS PRIME FLANGER	HIGH DAMP
467	BASS PRIME FLANGER	DIRECT MIX
468	BASS PRIME FLANGER	LOW CUT
469	BASS PRIME FLANGER	HIGH CUT
470	PAN	RATE
471	PAN	DEPTH
472	PAN	WAVEFORM
473	PAN	EFFECT LEVEL
474	PAN	DIRECT MIX
475	PEDAL BEND	PITCH MIN
476	PEDAL BEND	PITCH MAX
477	PEDAL BEND	PEDAL POSITION
478	PEDAL BEND	EFFECT LEVEL
479	PEDAL BEND	DIRECT MIX
480	BASS PEDAL BEND	PITCH MIN
481	BASS PEDAL BEND	PITCH MAX
482	BASS PEDAL BEND	PEDAL POSITION
483	BASS PEDAL BEND	EFFECT LEVEL
484	BASS PEDAL BEND	DIRECT MIX
485	FOOT VOLUME	PEDAL POSITION
486	FOOT VOLUME	VOLUME MIN
487	FOOT VOLUME	VOLUME MAX
488	FOOT VOLUME	CURVE
489	HARMONIST	VOICE
490	HARMONIST	1:HARMONY
491	HARMONIST	1:LEVEL
492	HARMONIST	1:PRE-DELAY
493	HARMONIST	1:FEEDBACK
494	HARMONIST	2:HARMONY
495	HARMONIST	2:LEVEL
496	HARMONIST	2:PRE-DELAY
497	HARMONIST	DIRECT LEVEL
498	HARMONIST	1:C
499	HARMONIST	1:Db
500	HARMONIST	1:D
501	HARMONIST	1:Eb
502	HARMONIST	1:E
503	HARMONIST	1:F
504	HARMONIST	1:F#
505	HARMONIST	1:G
506	HARMONIST	1:Ab
507	HARMONIST	1:A
508	HARMONIST	1:Bb
509	HARMONIST	1:B
510	HARMONIST	2:C
511	HARMONIST	2:Db
512	HARMONIST	2:D
513	HARMONIST	2:Eb
514	HARMONIST	2:E
515	HARMONIST	2:F
516	HARMONIST	2:F#
517	HARMONIST	2:G
518	HARMONIST	2:Ab
519	HARMONIST	2:A
520	HARMONIST	2:Bb
521	HARMONIST	2:B
522	BASS HARMONIST	VOICE
523	BASS HARMONIST	1:HARMONY
524	BASS HARMONIST	1:LEVEL
525	BASS HARMONIST	1:PRE-DELAY
526	BASS HARMONIST	1:FEEDBACK
527	BASS HARMONIST	2:HARMONY
528	BASS HARMONIST	2:LEVEL
529	BASS HARMONIST	2:PRE-DELAY
530	BASS HARMONIST	DIRECT LEVEL
531	BASS HARMONIST	1:C
532	BASS HARMONIST	1:Db
533	BASS HARMONIST	1:D
534	BASS HARMONIST	1:Eb
535	BASS HARMONIST	1:E
536	BASS HARMONIST	1:F
537	BASS HARMONIST	1:F#
538	BASS HARMONIST	1:G
539	BASS HARMONIST	1:Ab
540	BASS HARMONIST	1:A
541	BASS HARMONIST	1:Bb
542	BASS HARMONIST	1:B
543	BASS HARMONIST	2:C
544	BASS HARMONIST	2:Db
545	BASS HARMONIST	2:D
546	BASS HARMONIST	2:Eb
547	BASS HARMONIST	2:E
548	BASS HARMONIST	2:F
549	BASS HARMONIST	2:F#
550	BASS HARMONIST	2:G
551	BASS HARMONIST	2:Ab
552	BASS HARMONIST	2:A
553	BASS HARMONIST	2:Bb
554	BASS HARMONIST	2:B
555	OCTAVE	-2 OCT
556	OCTAVE	-1 OCT
557	OCTAVE	DIRECT LEVEL
558	POLY OCTAVE	RANGE
559	POLY OCTAVE	OCTAVE LEVEL
560	POLY OCTAVE	DIRECT LEVEL
561	BASS OCTAVE	-2 OCT
562	BASS OCTAVE	-1 OCT
563	BASS OCTAVE	DIRECT LEVEL
564	CLASSIC VIBE	MODE
565	CLASSIC VIBE	RATE
566	CLASSIC VIBE	DEPTH
567	CLASSIC VIBE	EFFECT LEVEL
568	PHASER	STAGE
569	PHASER	RATE
570	PHASER	DEPTH
571	PHASER	RESONANCE
572	PHASER	MANUAL
573	PHASER	STEP RATE
574	PHASER	EFFECT LEVEL
575	PHASER	DIRECT MIX
576	BASS PHASER	STAGE
577	BASS PHASER	RATE
578	BASS PHASER	DEPTH
579	BASS PHASER	RESONANCE
580	BASS PHASER	MANUAL
581	BASS PHASER	STEP RATE
582	BASS PHASER	EFFECT LEVEL
583	BASS PHASER	DIRECT MIX
584	PRIME PHASER	STAGE
585	PRIME PHASER	RATE
586	PRIME PHASER	DEPTH
587	PRIME PHASER	RESONANCE
588	PRIME PHASER	MANUAL
589	PRIME PHASER	WAVEFORM
590	PRIME PHASER	STEP RATE
591	PRIME PHASER	BI-PHASE
592	PRIME PHASER	SEPARATION
593	PRIME PHASER	LOW DAMP
594	PRIME PHASER	HIGH DAMP
595	PRIME PHASER	LOW CUT
596	PRIME PHASER	HIGH CUT
597	PRIME PHASER	EFFECT LEVEL
598	PRIME PHASER	DIRECT MIX
599	BASS PRIME PHASER	STAGE
600	BASS PRIME PHASER	RATE
601	BASS PRIME PHASER	DEPTH
602	BASS PRIME PHASER	RESONANCE
603	BASS PRIME PHASER	MANUAL
604	BASS PRIME PHASER	WAVEFORM
605	BASS PRIME PHASER	STEP RATE
606	BASS PRIME PHASER	BI-PHASE
607	BASS PRIME PHASER	SEPARATION
608	BASS PRIME PHASER	LOW DAMP
609	BASS PRIME PHASER	HIGH DAMP
610	BASS PRIME PHASER	LOW CUT
611	BASS PRIME PHASER	HIGH CUT
612	BASS PRIME PHASER	EFFECT LEVEL
613	BASS PRIME PHASER	DIRECT MIX
614	SCRIPT PHASER	RATE
615	SCRIPT PHASER	DEPTH
616	SCRIPT PHASER	EFFECT LEVEL
617	SCRIPT PHASER	DIRECT MIX
618	PITCH SHIFTER	VOICE
619	PITCH SHIFTER	DIRECT LEVEL
620	PITCH SHIFTER	1:PITCH
621	PITCH SHIFTER	1:MODE
622	PITCH SHIFTER	1:FINE
623	PITCH SHIFTER	1:PRE-DELAY
624	PITCH SHIFTER	1:LEVEL
625	PITCH SHIFTER	1:FEEDBACK
626	PITCH SHIFTER	2:PITCH
627	PITCH SHIFTER	2:MODE
628	PITCH SHIFTER	2:FINE
629	PITCH SHIFTER	2:PRE-DELAY
630	PITCH SHIFTER	2:LEVEL
631	BASS PITCH SHIFTER	VOICE
632	BASS PITCH SHIFTER	DIRECT LEVEL
633	BASS PITCH SHIFTER	1:PITCH
634	BASS PITCH SHIFTER	1:MODE
635	BASS PITCH SHIFTER	1:FINE
636	BASS PITCH SHIFTER	1:PRE-DELAY
637	BASS PITCH SHIFTER	1:LEVEL
638	BASS PITCH SHIFTER	1:FEEDBACK
639	BASS PITCH SHIFTER	2:PITCH
640	BASS PITCH SHIFTER	2:MODE
641	BASS PITCH SHIFTER	2:FINE
642	BASS PITCH SHIFTER	2:PRE-DELAY
643	BASS PITCH SHIFTER	2:LEVEL
644	RING MODULATOR	INTELLIGENT
645	RING MODULATOR	FREQUENCY

INDEX	CATEGORY	TARGET
646	RING MODULATOR	MOD RATE
647	RING MODULATOR	MOD DEPTH
648	RING MODULATOR	EFFECT LEVEL
649	RING MODULATOR	DIRECT MIX
650	ROTARY	SPEED SELECT
651	ROTARY	SLOW RATE
652	ROTARY	FAST RATE
653	ROTARY	EFFECT LEVEL
654	ROTARY	RISE TIME
655	ROTARY	FALL TIME
656	ROTARY	MIC DISTANCE
657	ROTARY	ROTOR/HORN
658	ROTARY	DRIVE
659	ROTARY	DIRECT MIX
660	TREMOLO	RATE
661	TREMOLO	DEPTH
662	TREMOLO	WAVEFORM
663	TREMOLO	EFFECT LEVEL
664	TREMOLO	TRIGGER
665	TREMOLO	RISE TIME
666	TREMOLO	DIRECT MIX
667	VIBRATO	RATE
668	VIBRATO	DEPTH
669	VIBRATO	TRIGGER
670	VIBRATO	RISE TIME
671	VIBRATO	EFFECT LEVEL
672	PRIME VIBARTO	RATE
673	PRIME VIBARTO	DEPTH
674	PRIME VIBARTO	COLOR
675	PRIME VIBARTO	EFFECT LEVEL
676	PRIME VIBARTO	TRIGGER
677	PRIME VIBARTO	RISE TIME
678	PRIME VIBARTO	DIRECT MIX
679	S-BEND	TRIGGER
680	S-BEND	PITCH
681	S-BEND	RISE TIME
682	S-BEND	FALL TIME
683	BASS S-BEND	TRIGGER
684	BASS S-BEND	PITCH
685	BASS S-BEND	RISE TIME
686	BASS S-BEND	FALL TIME
687	PHRASE LOOP	LOOP LEVEL
688	SEND/RETURN	MODE
689	SEND/RETURN	SEND LEVEL
690	SEND/RETURN	RETURN LEVEL
691	SEND/RETURN	ADJUST
692	SEND/RETURN	INVERT
693	MASTER	MEMORY LEVEL
694	MASTER	BPM
695	MASTER	KEY
696	MASTER	INPUT SETTING
697	MASTER	AMP CTL1
698	MASTER	AMP CTL2
699	TUNER	ON/OFF
700	MIDI	MIDI CC#
701	MIDI	MIDI PC#

* [SystemEfct]

Offset Address		Description	
00 00	0000 000a	PHRASE LOOP:MODE	(0 - 1) MONO, STEREO
00 01	0000 000a	PHRASE LOOP:REC ACTION	(0 - 1) REC>PLAY>DUB, REC>DUB>PLAY
00 00 00 02	Total Size		

* [SystemInOut]

Offset Address		Description	
00 00	0000 000a	MAIN:LEVEL SELECT	(0 - 1) -10dBu, +4dBu
00 01	0000 000a	N/A(fixed value)	(0)
00 02	0000 000a	N/A(fixed value)	(0)
# 00 03	0000 aaaa		
00 04	0000 bbbb	USB MAIN:EFX OUT	(0 - 200) 0 - 200 [%]
# 00 05	0000 aaaa		
00 06	0000 bbbb	USB MAIN:MIX LEVEL	(0 - 200) 0 - 200 [%]
# 00 07	0000 aaaa		
00 08	0000 bbbb	USB DRY:OUT	(0 - 200) 0 - 200 [%]
# 00 09	0000 aaaa		
00 0A	0000 bbbb	USB DRY:TO EFX	(0 - 200) 0 - 200 [%]
00 0B	0000 000a	USB LOOPBACK	(0 - 1) OFF, ON
00 0C	0000 aaaa	AIRD OUTPUT SELECT	(0 - 14) LINE/PHONES (RECORDING), JC-120 RETURN, JC-120 INPUT, KATANA-100/212 RETURN, KATANA-100/212 INPUT, KATANA-100 RETURN, KATANA-100 INPUT, TUBE COMBO 212 RETURN, TUBE COMBO 212 INPUT, TUBE COMBO 112 RETURN, TUBE COMBO 112 INPUT, TUBE STACK 412 RETURN, TUBE STACK 412 INPUT, BASS AMP WITH TWEETER, BASS AMP NO TWEETER
00 00 00 0D	Total Size		

* [SetupEfct]

Offset Address		Description	
00 00	0000 000a	DIRECT MONITOR	(0 - 1) OFF, ON
00 01	0000 000a	INPUT	(0 - 1) GUITAR, BASS
00 02	00aa aaaa	INPUT SENS	(12 - 52) [dB]
00 03	00aa aaaa	LOW GAIN	(12 - 52) [dB]
00 04	00aa aaaa	LOW MID GAIN	(12 - 52) [dB]
00 05	000a aaaa	LOW MID FREQ	(0 - 28) 20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.0kHz, 12.5kHz
00 06	0000 0aaa	LOW MID Q	(0 - 5) 0.5, 1, 2, 4, 8, 16
00 07	00aa aaaa	HIGH MID GAIN	(12 - 52) [dB]
00 08	000a aaaa	HIGH MID FREQ	(0 - 28) 20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.0kHz, 12.5kHz
00 09	0000 0aaa	HIGH MID Q	(0 - 5) 0.5, 1, 2, 4, 8, 16
00 0A	00aa aaaa	HIGH GAIN	(12 - 52) [dB]
00 0B	000a aaaa	LOW CUT	(0 - 29) FLAT, 20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.0kHz, 12.5kHz
00 0C	000a aaaa	HIGH CUT	(0 - 29) 20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.0kHz, 12.5kHz, FLAT
00 0D	00aa aaaa	LEVEL	(12 - 52) [dB]
# 00 0E	0000 aaaa		
00 0F	0000 bbbb		
00 10	0000 cccc		
00 11	0000 dddd	BPM	(400 - 2500)
00 00 00 12	Total Size		

* [SystemPitch]

Offset Address		Description	
# 00 00	0000 aaaa		
00 01	0000 bbbb		
00 02	0000 cccc		
00 03	0000 dddd	REF. PITCH	(435 - 445) [Hz]
00 04	0000 0aaa	POLY TUNER TYPE	(0 - 5) 6-REG, 6-DROP D, 7-REG, 7-DROP A, 4-B REG, 5-B REG
00 05	000a aaaa	POLY TUNER OFFSET	(11 - 16) -5, -4, -3, -2, -1, ----
00 06	0000 00aa	TUNER OUTPUT	(0 - 2) MUTE, BYPASS, THRU
00 00 00 07	Total Size		

* [MemoryEfct]

Offset Address		Description	
# 00 00	0000 aaaa		
00 01	0000 bbbb	MEMORY LEVEL	(0 - 200)
# 00 02	0000 aaaa		
00 03	0000 bbbb		
00 04	0000 cccc		
00 05	0000 dddd	BPM	(400 - 2500)
00 06	0000 aaaa	KEY	(0 - 11) C(Am), DWxOF(BWxOFm), D(Bm), EWxOF(Cm), E(CWxOEm), F(Dm), FWxOE(DWxOEm), G(Em), AWxOF(Fm), A(FWxOEm), BWxOF(Gm), B(GWxOEm)
00 07	0000 000a	AMP CTL1	(0 - 1) OFF, ON
00 08	0000 000a	AMP CTL2	(0 - 1) OFF, ON
00 09	0000 000a	CARRYOVER	(0 - 1) OFF, ON
00 0A	0000 000a	TEMPO HOLD	(0 - 1) OFF, ON
00 0B	0aaa aaaa	INPUT SENS	(0 - 100)
00 0C	00aa aaaa	CHAIN TOP ITEM	(0 - 49) -1 - 48
00 0D	00aa aaaa	CHAIN NEXT ITEM0	(0 - 49) -1 - 48
00 0E	00aa aaaa	CHAIN NEXT ITEM1	(0 - 49) -1 - 48
00 0F	00aa aaaa	CHAIN NEXT ITEM2	(0 - 49) -1 - 48
00 10	00aa aaaa	CHAIN NEXT ITEM3	(0 - 49) -1 - 48
00 11	00aa aaaa	CHAIN NEXT ITEM4	(0 - 49) -1 - 48
00 12	00aa aaaa	CHAIN NEXT ITEM5	(0 - 49) -1 - 48
00 13	00aa aaaa	CHAIN NEXT ITEM6	(0 - 49) -1 - 48
00 14	00aa aaaa	CHAIN NEXT ITEM7	(0 - 49) -1 - 48
00 15	00aa aaaa	CHAIN NEXT ITEM8	(0 - 49) -1 - 48
00 16	00aa aaaa	CHAIN NEXT ITEM9	(0 - 49) -1 - 48
00 17	00aa aaaa	CHAIN NEXT ITEM10	(0 - 49) -1 - 48
00 18	00aa aaaa	CHAIN NEXT ITEM11	(0 - 49) -1 - 48
00 19	00aa aaaa	CHAIN NEXT ITEM12	(0 - 49) -1 - 48
00 1A	00aa aaaa	CHAIN NEXT ITEM13	(0 - 49) -1 - 48
00 1B	00aa aaaa	CHAIN NEXT ITEM14	(0 - 49) -1 - 48
00 1C	00aa aaaa	CHAIN NEXT ITEM15	(0 - 49) -1 - 48
00 1D	00aa aaaa	CHAIN NEXT ITEM16	(0 - 49) -1 - 48
00 1E	00aa aaaa	CHAIN NEXT ITEM17	(0 - 49) -1 - 48
00 1F	00aa aaaa	CHAIN NEXT ITEM18	(0 - 49) -1 - 48
00 20	00aa aaaa	CHAIN NEXT ITEM19	(0 - 49) -1 - 48
00 21	00aa aaaa	CHAIN NEXT ITEM20	(0 - 49) -1 - 48
00 22	00aa aaaa	CHAIN NEXT ITEM21	(0 - 49) -1 - 48
00 23	00aa aaaa	CHAIN NEXT ITEM22	(0 - 49) -1 - 48
00 24	00aa aaaa	CHAIN NEXT ITEM23	(0 - 49) -1 - 48
00 25	00aa aaaa	CHAIN NEXT ITEM24	(0 - 49) -1 - 48
00 26	00aa aaaa	CHAIN NEXT ITEM25	(0 - 49) -1 - 48
00 27	00aa aaaa	CHAIN NEXT ITEM26	(0 - 49) -1 - 48
00 28	00aa aaaa	CHAIN NEXT ITEM27	(0 - 49) -1 - 48
00 29	00aa aaaa	CHAIN NEXT ITEM28	(0 - 49) -1 - 48
00 2A	00aa aaaa	CHAIN NEXT ITEM29	(0 - 49) -1 - 48
00 2B	00aa aaaa	CHAIN NEXT ITEM30	(0 - 49) -1 - 48
00 2C	00aa aaaa	CHAIN NEXT ITEM31	(0 - 49) -1 - 48
00 2D	00aa aaaa	CHAIN NEXT ITEM32	(0 - 49) -1 - 48
00 2E	00aa aaaa	CHAIN NEXT ITEM33	(0 - 49) -1 - 48
00 2F	00aa aaaa	CHAIN NEXT ITEM34	(0 - 49) -1 - 48
00 30	00aa aaaa	CHAIN NEXT ITEM35	(0 - 49) -1 - 48
00 31	00aa aaaa	CHAIN NEXT ITEM36	(0 - 49) -1 - 48
00 32	00aa aaaa	CHAIN NEXT ITEM37	(0 - 49) -1 - 48
00 33	00aa aaaa	CHAIN NEXT ITEM38	(0 - 49) -1 - 48
00 34	00aa aaaa	CHAIN NEXT ITEM39	(0 - 49) -1 - 48
00 35	00aa aaaa	CHAIN NEXT ITEM40	(0 - 49) -1 - 48
00 36	00aa aaaa	CHAIN NEXT ITEM41	(0 - 49) -1 - 48

Offset Address		Description	
00 37	00aa aaaa	CHAIN NEXT ITEM42	(0 - 49) -1 - 48
00 38	00aa aaaa	CHAIN NEXT ITEM43	(0 - 49) -1 - 48
00 39	00aa aaaa	CHAIN NEXT ITEM44	(0 - 49) -1 - 48
00 3A	00aa aaaa	CHAIN NEXT ITEM45	(0 - 49) -1 - 48
00 3B	00aa aaaa	CHAIN NEXT ITEM46	(0 - 49) -1 - 48
00 3C	00aa aaaa	CHAIN NEXT ITEM47	(0 - 49) -1 - 48
00 3D	00aa aaaa	CHAIN NEXT ITEM48	(0 - 49) -1 - 48
00 00 00 3E	Total Size		

* [MemoryFxItem]

Offset Address		Description	
00 00	0aaa aaaa	TYPE	(0 - 77) AC GUITAR SIMULATOR, AC RESONANCE, AIRD PREAMP, AIRD BASS PREAMP, CHORUS, BASS CHORUS, PRIME CHORUS, CLASSIC-VIBE, COMPRESSOR, X-COMP, X-BASS COMP, DEFRETTER, BASS DEFRETTER, DELAY, DELAY PLUS, ANALOG DELAY, SPACE ECHO, SHIMMER DELAY, TWIST, WARP, PARAMETRIC EQUALIZER, GRAPHIC EQUALIZER, FLANGER, BASS FLANGER, FLANGER PRIME, BASS FLANGER PRIME, HARMONIST, BASS HARMONIST, PHRASE LOOP, DIVIDER, SPLITTER, MIXER, NOISE SUPPRESSOR, OCTAVE, OCTAVE POLY, OCTAVE BASS, BOOSTER, OVERDRIVE, BASS OVERDRIVE, DISTORTION, BASS DISTORTION, FUZZ, BASS FUZZ, X-OD, X-BASS OD, X-DS, METAL, BASS METAL, OVERTONE, PAN, FOOT VOLUME, PEDAL BEND, BASS PEDAL BEND, WAH, BASS_WAH, PHASER, BASS PHASER, PRIME PHASER, PRIME BASS PHASER, SCRIPT PHASER, PITCH SHIFTER, BASS PITCH SHIFTER, REVERB, REVERB PLUS, SHIMMER REVERB, TERA ECHO, RING MODULATOR, ROTARY, S-BEND, BASS S-BEND, SLOW GEAR, BASS SLOW GEAR, TOUCH WAH, BASS TOUCH WAH, TREMOLO, VIBRATO, VIBRATO PRIME, SEND/RETURN
00 01	0000 000a	OFF/ON	(0 - 1) OFF, ON
00 02	0000 aaaa	DuplicationNumber	(0 - 9)
# 00 03	0000 aaaa		
00 04	0000 bbbb		
00 05	0000 cccc		
00 06	0000 dddd	FX Parameter 1	(12768 - 52768) -20000 - 20000
# 00 07	0000 aaaa		
00 08	0000 bbbb		
00 09	0000 cccc		
00 0A	0000 dddd	FX Parameter 2	(12768 - 52768) -20000 - 20000
# 00 0B	0000 aaaa		
00 0C	0000 bbbb		
00 0D	0000 cccc		
00 0E	0000 dddd	FX Parameter 3	(12768 - 52768) -20000 - 20000
# 00 0F	0000 aaaa		
00 10	0000 bbbb		
00 11	0000 cccc		
00 12	0000 dddd	FX Parameter 4	(12768 - 52768) -20000 - 20000
# 00 13	0000 aaaa		
00 14	0000 bbbb		
00 15	0000 cccc		
00 16	0000 dddd	FX Parameter 5	(12768 - 52768) -20000 - 20000
# 00 17	0000 aaaa		
00 18	0000 bbbb		
00 19	0000 cccc		
00 1A	0000 dddd	FX Parameter 6	(12768 - 52768) -20000 - 20000
# 00 1B	0000 aaaa		
00 1C	0000 bbbb		
00 1D	0000 cccc		
00 1E	0000 dddd	FX Parameter 7	(12768 - 52768) -20000 - 20000
# 00 1F	0000 aaaa		
00 20	0000 bbbb		
00 21	0000 cccc		
00 22	0000 dddd	FX Parameter 8	(12768 - 52768) -20000 - 20000
# 00 23	0000 aaaa		
00 24	0000 bbbb		
00 25	0000 cccc		
00 26	0000 dddd	FX Parameter 9	(12768 - 52768) -20000 - 20000
# 00 27	0000 aaaa		
00 28	0000 bbbb		
00 29	0000 cccc		
00 2A	0000 dddd	FX Parameter 10	(12768 - 52768) -20000 - 20000
# 00 2B	0000 aaaa		
00 2C	0000 bbbb		
00 2D	0000 cccc		
00 2E	0000 dddd	FX Parameter 11	(12768 - 52768) -20000 - 20000
# 00 2F	0000 aaaa		
00 30	0000 bbbb		
00 31	0000 cccc		
00 32	0000 dddd	FX Parameter 12	(12768 - 52768) -20000 - 20000
# 00 33	0000 aaaa		
00 34	0000 bbbb		
00 35	0000 cccc		
00 36	0000 dddd	FX Parameter 13	(12768 - 52768) -20000 - 20000
# 00 37	0000 aaaa		
00 38	0000 bbbb		
00 39	0000 cccc		
00 3A	0000 dddd	FX Parameter 14	(12768 - 52768) -20000 - 20000
# 00 3B	0000 aaaa		
00 3C	0000 bbbb		
00 3D	0000 cccc		
00 3E	0000 dddd	FX Parameter 15	(12768 - 52768) -20000 - 20000
# 00 3F	0000 aaaa		
00 40	0000 bbbb		
00 41	0000 cccc		
00 42	0000 dddd	FX Parameter 16	(12768 - 52768) -20000 - 20000

Offset Address		Description	
# 00 43	0000 aaaa		
00 44	0000 bbbb		
00 45	0000 cccc		
00 46	0000 dddd	FX Parameter 17	(12768 - 52768) -20000 - 20000
# 00 47	0000 aaaa		
00 48	0000 bbbb		
00 49	0000 cccc		
00 4A	0000 dddd	FX Parameter 18	(12768 - 52768) -20000 - 20000
# 00 4B	0000 aaaa		
00 4C	0000 bbbb		
00 4D	0000 cccc		
00 4E	0000 dddd	FX Parameter 19	(12768 - 52768) -20000 - 20000
# 00 4F	0000 aaaa		
00 50	0000 bbbb		
00 51	0000 cccc		
00 52	0000 dddd	FX Parameter 20	(12768 - 52768) -20000 - 20000
# 00 53	0000 aaaa		
00 54	0000 bbbb		
00 55	0000 cccc		
00 56	0000 dddd	FX Parameter 21	(12768 - 52768) -20000 - 20000
# 00 57	0000 aaaa		
00 58	0000 bbbb		
00 59	0000 cccc		
00 5A	0000 dddd	FX Parameter 22	(12768 - 52768) -20000 - 20000
# 00 5B	0000 aaaa		
00 5C	0000 bbbb		
00 5D	0000 cccc		
00 5E	0000 dddd	FX Parameter 23	(12768 - 52768) -20000 - 20000
# 00 5F	0000 aaaa		
00 60	0000 bbbb		
00 61	0000 cccc		
00 62	0000 dddd	FX Parameter 24	(12768 - 52768) -20000 - 20000
# 00 63	0000 aaaa		
00 64	0000 bbbb		
00 65	0000 cccc		
00 66	0000 dddd	FX Parameter 25	(12768 - 52768) -20000 - 20000
# 00 67	0000 aaaa		
00 68	0000 bbbb		
00 69	0000 cccc		
00 6A	0000 dddd	FX Parameter 26	(12768 - 52768) -20000 - 20000
# 00 6B	0000 aaaa		
00 6C	0000 bbbb		
00 6D	0000 cccc		
00 6E	0000 dddd	FX Parameter 27	(12768 - 52768) -20000 - 20000
# 00 6F	0000 aaaa		
00 70	0000 bbbb		
00 71	0000 cccc		
00 72	0000 dddd	FX Parameter 28	(12768 - 52768) -20000 - 20000
# 00 73	0000 aaaa		
00 74	0000 bbbb		
00 75	0000 cccc		
00 76	0000 dddd	FX Parameter 29	(12768 - 52768) -20000 - 20000
# 00 77	0000 aaaa		
00 78	0000 bbbb		
00 79	0000 cccc		
00 7A	0000 dddd	FX Parameter 30	(12768 - 52768) -20000 - 20000
# 00 7B	0000 aaaa		
00 7C	0000 bbbb		
00 7D	0000 cccc		
00 7E	0000 dddd	FX Parameter 31	(12768 - 52768) -20000 - 20000
# 00 7F	0000 aaaa		
01 00	0000 bbbb		
01 01	0000 cccc		
01 02	0000 dddd	FX Parameter 32	(12768 - 52768) -20000 - 20000
# 01 03	0000 aaaa		
01 04	0000 bbbb		
01 05	0000 cccc		
01 06	0000 dddd	FX Parameter 33	(12768 - 52768) -20000 - 20000
# 01 07	0000 aaaa		
01 08	0000 bbbb		
01 09	0000 cccc		
01 0A	0000 dddd	FX Parameter 34	(12768 - 52768) -20000 - 20000
# 01 0B	0000 aaaa		
01 0C	0000 bbbb		
01 0D	0000 cccc		
01 0E	0000 dddd	FX Parameter 35	(12768 - 52768) -20000 - 20000
# 01 0F	0000 aaaa		
01 10	0000 bbbb		
01 11	0000 cccc		
01 12	0000 dddd	FX Parameter 36	(12768 - 52768) -20000 - 20000
# 01 13	0000 aaaa		
01 14	0000 bbbb		
01 15	0000 cccc		
01 16	0000 dddd	FX Parameter 37	(12768 - 52768) -20000 - 20000
# 01 17	0000 aaaa		
01 18	0000 bbbb		
01 19	0000 cccc		
01 1A	0000 dddd	FX Parameter 38	(12768 - 52768) -20000 - 20000
# 01 1B	0000 aaaa		
01 1C	0000 bbbb		
01 1D	0000 cccc		
01 1E	0000 dddd	FX Parameter 39	(12768 - 52768) -20000 - 20000
# 01 1F	0000 aaaa		
01 20	0000 bbbb		
01 21	0000 cccc		
01 22	0000 dddd	FX Parameter 40	(12768 - 52768) -20000 - 20000
# 01 23	0000 aaaa		
01 24	0000 bbbb		
01 25	0000 cccc		
01 26	0000 dddd	FX Parameter 41	(12768 - 52768) -20000 - 20000
# 01 27	0000 aaaa		
01 28	0000 bbbb		
01 29	0000 cccc		
01 2A	0000 dddd	FX Parameter 42	(12768 - 52768) -20000 - 20000
# 01 2B	0000 aaaa		
01 2C	0000 bbbb		
01 2D	0000 cccc		
01 2E	0000 dddd	FX Parameter 43	(12768 - 52768) -20000 - 20000
# 01 2F	0000 aaaa		
01 30	0000 bbbb		
01 31	0000 cccc		
01 32	0000 dddd	FX Parameter 44	(12768 - 52768) -20000 - 20000
00 00 01 33	Total Size		

[GUITAR EFFECTS PROCESSOR] Date: March 3rd, 2022
Model GX-100 MIDI Implementation Chart Version: 1.10

Function...		Transmitted	Recognized	Remarks
Basic	Default	1-16, OFF	1-16, OFF	Memorized
Channel	Changed	1-16, OFF	1-16, OFF	
Mode	Default	Mode 3	Mode 3	
	Messages	x	x	
	Altered	**********	x	
Note Number:	True Voice	x **********	x **********	
Velocity	Note On	x	x	
	Note Off	x	x	
After Key's touch Ch's		x x	x x	
Pitch Bend		x	x	
Control Change		o 0-127	o 0-95	
Prog Change:	True Number	o 0-127 **********	o 0-127 0-127	Program Number 1-128
System Exclusive		o	o	
System: Common:	Song Pos	x	x	
	Song Sel	x	x	
:	Tune	x	x	
System Realtime:	: Clock	o	o	
	: Start	o	x	
	: Continue	x	x	
	: Stop	o	x	
Aux Message:	: All sound off	x	x	
	: Reset All controllers	x	x	
	: Local On/Off	x	x	
	: All notes Off	x	x	
	: Active Sense	o	o	
	: 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