

MIDI Implementation

Model: GT-8
Date: Jan. 7, 2005
Version: 1.00

1. RECOGNIZED RECEIVE DATA

■CHANNEL VOICE MESSAGE

●Control Change

Status	Second	Third
BnH	ccH	vvH

n = MIDI Channel Number: 0H - FH (ch.1 - ch.16)
00H, 20H (0, 32)
cc = Controller Number: 01H - 1FH (1 - 31)
40H - 5FH (64 - 95)
vv = Value: 00H - 7FH (0 - 127)

- * Control numbers 00H and 20H are recognized as Bank Select messages.

00H: For values of 03H or lower, the Program Change Map will be switched according to the value. For values of 04H or higher, the received data will be ignored.
20H: The received data will be ignored, regardless of the value.

- * By specifying this as a Source for "Assign Variable" (owner's manual p. 57) you can use these messages to control a Target.

●Program Change

Status	Second
CnH	ppH

n = MIDI Channel Number: 0H - FH (ch.1 - ch.16)
pp = Program Number: 00H - 7FH (No.1 - No.128)

- * Patches will be selected according to the program number that is received.
- * There are three Program Change Maps which are referenced when selecting programs, and these are switched by Bank Select messages.

■SYSTEM REALTIME MESSAGE

●Timing Clock

Status
F8H

●Active Sensing

Status
FEH

- * When an Active Sensing message is received, the interval of all subsequent messages will begin to be monitored. If an interval greater than 400 msec. between messages, the display will indicate "MIDI Off Line!"

■SYSTEM EXCLUSIVE MESSAGE

Status	Data Byte	Status
F0H	iiH ddH ... eeH	F7H

F0H = System Exclusive
ii = Manufacturer ID: 41H (Roland)
dd ... ee = Data: 00H - 7FH (0 - 127)
F7H = EOX (End of Exclusive/System common)

- * For more details, please refer to "Roland Exclusive Message."

2. TRANSMITTED DATA

■CHANNEL VOICE MESSAGE

●Control Change

Status	Second	Third
BnH	ccH	vvH

n = MIDI Channel Number: 0H - FH (ch.1 - ch.16)
00H, 20H (0, 32)
cc = Controller Number: 01H - 1FH (1 - 31)
21H - 5FH (33 - 95)
vv = Value: 00H - 7FH (0 - 127)

- * If you set up a system parameter "MIDI PC OUT" for "On," Bank Select (00H, 20H) is transmitted when switching patch.

- * If you set up a control change number at a system parameter "MIDI EXP OUT," "MIDI EXP SW OUT," "MIDI CTL OUT," "MIDI SubCTL1 OUT," and "MIDI SubCTL2 OUT" control change information is transmitted when operating the EXP pedal, EXP pedal switch, CTL pedal, and external EXP pedal/Foot switch.

●Program Change

Status	Second
CnH	ppH

n = MIDI Channel Number: 0H - FH (ch.1 - ch.16)
pp = Program Number: 00H - 7FH (No.1 - No.128)

- * If you set up a system parameter "MIDI PC Out" for "On," program change information is transmitted when switching patch.

■SYSTEM REALTIME MESSAGE

●Start

Status
FAH

●Stop

Status
FCH

■SYSTEM EXCLUSIVE MESSAGE

Status	Data Byte	Status
F0H	iiH ddH ... eeH	F7H

F0H = System Exclusive
ii = Manufacturer ID: 41H (Roland)
dd ... ee = Data: 00H - 7FH (0 - 127)
F7H = EOX (End of Exclusive/System common)

- * For more details, please refer to "Roland Exclusive Message."

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●MIDI Machine Control (MMC)

F0H 7FH 7FH 06H com F7H

F0H = System Exclusive
 7FH = ID Number (Universal Realtime Message)
 7FH = Device ID (Broadcast)
 06H = Sub ID#1 (Machine Control Command)
 com = Sub ID#2 (MMC Command)
 F7H = EOX (End of Exclusive/System common)

* "com" (MMC Command) that I transmit with GT-8 is following.

01H Stop
 02H Play

3. EXCLUSIVE COMMUNICATION

On the GT-8, exclusive messages can be used as follows. - Transmit/receive GT-8 system/patch data.

The model ID for GT-8 exclusive messages is 00H 00H 06H, and you can set up the device ID at 00H-1FH.

■ONE WAY COMMUNICATION

●Request Data 1 RQ1(11H)

F0H 41H dev 00H 00H 06H 11H aaH bbH ccH ddH ssH ttH uuH vvH sum F7H

F0H = Exclusive Status
 41H = Manufacturer ID (Roland)
 dev = Device ID (Dev=00H-1FH)
 00H = Model ID MSB (GT-8)
 00H = Model ID (GT-8)
 06H = Model ID LSB (GT-8)
 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 System Exclusive)

- * This message can only be received, and is not transmitted from the GT-8.
- * When transmitting large Size values spanning fragmented addresses, the data can be transmitted only to those addresses that are contiguous.

●Data Set 1 DT1(12H)

F0H 41H dev 00H 00H 06H 12H aaH bbH ccH ddH eeH ... ffH sum F7H

F0H = Exclusive Status
 41H = Manufacturer ID (Roland)
 dev = Device ID (dev = 00H-1FH)
 00H = Model ID MSB (GT-8)
 00H = Model ID (GT-8)
 06H = Model ID LSB (GT-8)
 12H = Command ID (DT1)
 aaH = Address MSB
 bbH = Address :
 ccH = Address :
 ddH = Address LSB
 eeH = Data
 : = :
 ffH = Data
 sum = Checksum
 F7H = EOX (End of System Exclusive)

- * When transmitting large amounts of data spanning fragmented addresses, the data can be transmitted only to those addresses that are contiguous.

●Inquiry Message

○Identity Request

F0H 7EH 10H 06H 01H F7H

F0H = Exclusive Status
 7EH = ID Number
 dev = Device ID (Dev=00H-1FH)
 06H = Sub ID#1
 01H = Sub ID#2
 F7H = EOX (End of System Exclusive)

- * The 7FH (Broadcast) device ID is also supported.
- * When an Identity Request is received, the GT-8 will transmitted the following Identity Reply.

○Identity Reply

F0H 7EH 10H 06H 02H 41H 06H 02H 00H 00H 00H 00H 00H 00H F7H

F0H = Exclusive Status
 7EH = ID Number (Universal Non-realtime Message)
 dev = Device ID (Dev=00H-1FH)
 06H = Sub ID#1
 02H = Sub ID#2
 41H = ID Number (Roland)
 06H 02H = Device Family Code
 00H 00H = Device Family Number Code
 00H 00H 00H = Software Revision Level
 F7H = EOX (End of System Exclusive)

- * When an Identity Request is received, the GT-8 will transmitted the following Identity Reply.

4. PARAMETER ADDRESS MAP

The address and size are displayed under 7-bit hexadecimal notation.

Address	MSB			LSB
Binary	0aaa aaaa	0bbb bbbb	0ccc cccc	0ddd dddd
7-bit Hexadecimal	AA	BB	CC	DD
Size	MSB			LSB
Binary	0sss ssss	0ttt tttt	0uuu uuuu	0vvv vvvv
7-bit Hexadecimal	SS	TT	UU	VV

Address Block Map

Address	Block	Sub Block	Note	
00 00 00 00	SYSTEM	TUNER/BYPASS	... Individual *Refer to "Table TUNER/BYPASS"	
01 00 00 00		OUTPUT SELECT	... Individual *Refer to "Table OUTPUT SELECT"	
01 03 00 00		SYSTEM	... Individual *Refer to "Table SYSTEM"	
01 04 00 00		MIDI	... Individual *Refer to "Table MIDI"	
01 04 10 00		MIDI Program Map	... Individual *Refer to "Table MIDI Program Map"	
01 05 00 00		METER	... Individual *Refer to "Table METER"	
01 10 00 00		System Preamp	... Individual *Refer to "Table System Preamp"	
02 00 00 00		Manual	... Individual *Refer to "Table Manual"	
03 00 00 00		HARMONIST SCALE	... Individual *Refer to "Table HARMONIST SCALE"	
03 01 00 00		AUTO RIFF PHRASE	... Individual *Refer to "Table AUTO RIFF PHRASE"	
03 02 00 00		AMP Customize	... Individual *Refer to "Table AMP Customize"	
03 03 00 00		SPEAKER Customize	... Individual *Refer to "Table SPEAKER Customize"	
03 04 00 00		OD/DS Customize	... Individual *Refer to "Table OD/DS Customize"	
03 05 00 00		WAH Customize	... Individual *Refer to "Table WAH Customize"	
04 00 00 00		Quick Fx	USER Area (Data)	... Individual *Refer to "Table Quick Fx"
05 00 00 00			ROM Area (Data)	
06 00 00 00		Quick Fx Name	USER Area (Name)	... Individual *Refer to "Table Quick Fx Name"
07 00 00 00			ROM Area (Name)	
08 00 00 00		User Patch	Bank 01-1	... Individual *Refer to "Table Patch"
08 01 00 00		Bank 02-1		
:		:		
:		:		
09 0A 00 00		Bank 35-3		
09 0B 00 00		Bank 35-4		
0A 00 00 00	ROM Patch	Bank 36-1	... Read Only, Individual *Refer to "Table Patch"	
0A 01 00 00		Bank 36-2		
:		:		
:		:		
0B 00 00 00		Bank 85-3		
0B 47 00 00		Bank 85-4		
0C 00 00 00	Temporary Buffer		...Bulk *Refer to "Table Patch"	
0D 00 00 00	Temporary Buffer		...Individual *Refer to "Table Patch"	

- * The GT-8 can use two methods of communication; Individual Parameter and Bulk Dump.
- * Bulk data can be received when the Bulk Load Ready function is accessed in "MIDI: Bulk Load" screen (System mode).
- * Although individual data can be received at any time, be sure to appropriately describe the value for one parameter in one packet [F0...F7].
- * Do not use an address appended with "#" as the first address.
- * Do not specify an odd-number address for Quick Fx Data, SYSTEM:MIDI Program Map.
- * Parameters for which Size is 2 or higher should not be separated; make sure these are sent in the same packet.
- * Parameters with Size of 2 or higher transmitted from the specified addresses in sequence, from MSB to LSB.
- * Output of Quick Fx Name is fixed as 12 bytes and Fx CHAIN is fixed as 14 bytes.

Table TUNER/BYPASS

Address (H)	Size (H)	Data (H)	Parameter	Description
00 00 00 00	00 00 00 01	00 - 0A	Tuner Pitch	00 : 435Hz 01 : 436Hz :
00 00 00 01	00 00 00 01	00 - 01	Tuner Out	0A : 445Hz 00 : Mute 01 : Bypass

Table OUTPUT SELECT

Address (H)	Size (H)	Data (H)	Parameter	Description
01 00 00 00	00 00 00 01	00 - 07	Output Select	00 : JC-120 01 : SMALL AMP 02 : COMBO AMP 03 : STACK AMP 04 : JC-120 RTN 05 : COMBO RTN 06 : STACK RTN 07 : LINE/PHONES

Table Global

Address (H)	Size (H)	Data (H)	Parameter	Description
01 00 00 01	00 00 00 01	00 - 28	GLOBAL EQ LOW	00 : -20dB 01 : -19dB : 28 : +20dB
01 00 00 02	00 00 00 01	00 - 28	GLOBAL EQ MID	-20dB - +20dB
01 00 00 03	00 00 00 01	00 - 1B	GLOBAL EQ MID Frequency	*Refer to "Table Middle Frequency"
01 00 00 04	00 00 00 01	00 - 28	GLOBAL EQ HIGH	-20dB - +20dB
01 00 00 05	00 00 00 01	00 - 28	TOTAL NS THRESHOLD	-20dB - +20dB
01 00 00 06	00 00 00 01	00 - 64	TOTAL REVERB LEVEL	00 : 0% 01 : 2% 02 : 4% : 32 : 100% : 64 : 200%

Table SYSTEM

Address (H)	Size (H)	Data (H)	Parameter	Description
01 03 00 00	00 00 00 01	00 - 0F	LCD Contrast	1 - 16
01 03 00 01	00 00 00 01	00 - 28	INPUT LEVEL	-20dB - +20dB
01 03 00 02	00 00 00 01	00 - 28	INPUT PRESENCE	-20dB - +20dB
01 03 00 03	00 00 00 01	00 - 01	P.Chnge Mode	00 : Fast 01 : Smooth
01 03 00 04	00 00 00 01	00 - 01	Preamp Mode	00 : Patch 01 : System
01 03 00 05	00 00 00 01	00 - 54	BANK Extent	00 : 1 01 : 2 : 54 : 85
01 03 00 06	--	--		
01 03 00 07	00 00 00 01	00 - 01	Bnk Chg Mode	00 : Immediate 01 : Wait for a Number
01 03 00 08	00 00 00 01	00 - 01	EXP Pdl Hold	00 : Off 01 : On
01 03 00 09	00 00 00 01	00 - 01	Dial Func	00 : Patch No.& VALUE 01 : VALUE Only
01 03 00 0A	00 00 00 01	00 - 01	Knob Mode	00 : Immediate 01 : Current Setting
01 03 00 0B	00 00 00 01	00 - 03	NUM. Pdl SW	00 : Off 01 : Tuner 02 : SOLO 03 : AMP ch
01 03 00 0C	00 00 00 01	00 - 64	DIGITAL OUT LEVEL	00 : 0% 01 : 2% 02 : 4% : 32 : 100% : 64 : 200%
01 03 00 0D	00 00 00 01	00 - 1E	CTL PDL Func	*Refer to "Table System CTL Function"
01 03 00 0E	00 00 00 01	00 - 1E	EXP SW Func	*Refer to "Table System CTL Function"
01 03 00 0F	00 00 00 01	00 - 05	EXP PDL Func	00 : Auto 01 : Assignable 02 : Foot Volume 03 : Pedal Wah 04 : Pedal Bend 05 : Patch Level
01 03 00 10	00 00 00 01	01 - 05	SUB EXP Func	01 : Assignable 02 : Foot Volume 03 : Pedal Wah 04 : Pedal Bend 05 : Patch Level
01 03 00 11	00 00 00 01	00 - 1E	SUB CTL1 Func	*Refer to "Table System CTL Function"
01 03 00 12	00 00 00 01	00 - 1E	SUB CTL2 Func	*Refer to "Table System CTL Function"

Table MIDI

Address (H)	Size (H)	Data (H)	Parameter	Description
01 04 00 00	00 00 00 01	00 - 0F	MIDI RX Channel	1 - 16
01 04 00 01	00 00 00 01	00 - 01	MIDI Omni Mode	00 : Omni Off 01 : Omni On
01 04 00 02	00 00 00 01	00 - 10	MIDI TX Channel	00 : 1 01 : 2 : 0F : 16 10 : RX Channel
01 04 00 03	00 00 00 01	00 - 1F	MIDI Device ID	00 : 1 01 : 2 : 1F : 32
01 04 00 04	00 00 00 01	00 - 01	MIDI Sync Clock	00 : Auto 01 : Internal
01 04 00 05	00 00 00 01	00 - 01	MIDI PC Out	00 : Off 01 : On
01 04 00 06	00 00 00 01	00 - 5E	MIDI EXP Out	00 : Off 01 : 1 02 : 2 : 1F : 31 20 : 33 : 5E : 95
01 04 00 07	00 00 00 01	00 - 5E	MIDI EXP SW Out	Off , 1 - 31, 33 - 95
01 04 00 08	00 00 00 01	00 - 5E	MIDI CTL Out	Off , 1 - 31, 33 - 95
01 04 00 09	00 00 00 01	00 - 5E	MIDI SubCTL1 Out	Off , 1 - 31, 33 - 95
01 04 00 0A	00 00 00 01	00 - 5E	MIDI SubCTL2 Out	Off , 1 - 31, 33 - 95
01 04 00 0B	00 00 00 01	00 - 01	MIDI Map Select	00 : Fix 01 : Prog

Table MIDI Program Map

Address (H)	Size (H)	Data (H)	Parameter	Description
01 04 10 00 01 04 10 01#	00 00 00 02	00 00 - 02 53	MIDI Program Map " CC#0=0, PC=1"	MIDI Map Select = Prog 00 00 : #01-1(User) : 00 7F : #32-4(User) 01 00 : #33-1(User) : 01 7F : #64-4(Preset) 02 00 : #65-1(Preset) : 02 53 : #85-4(Preset)
01 04 10 02 01 04 10 03#	00 00 00 02	00 00 - 02 53	MIDI Program Map " CC#0=0, PC=2"	
01 04 11 7E 01 04 11 7F#	00 00 00 02	00 00 - 02 53	MIDI Program Map " CC#0=0, PC=128"	
01 04 12 00 01 04 12 01#	00 00 00 02	00 00 - 02 53	MIDI Program Map " CC#0=1, PC=1"	
01 04 14 00 01 04 14 01#	00 00 00 02	00 00 - 02 53	MIDI Program Map " CC#0=2, PC=1"	
01 04 16 00 01 04 16 01#	00 00 00 02	00 00 - 02 53	MIDI Program Map " CC#0=3, PC=1"	
01 04 17 7E 01 04 17 7F#	00 00 00 02	00 00 - 02 53	MIDI Program Map " CC#0=3, PC=128"	

Table METER

Address (H)	Size (H)	Data (H)	Parameter	Description
01 05 00 00	00 00 00 01	00 - 0F	Meter Point	00 : Input 01 : 'ON' Effects : 0F : Output

Table System Preamp

Address (H)	Size (H)	Data (H)	Parameter	Description
01 10 00 00	00 00 00 01	00 - 01	On/Off	00 : Off 01 : On
01 10 00 01		(Reserved)		
01 10 00 02	00 00 00 01	00 - 03	Channel Mode	00 : Single 01 : Dual Mono 02 : Dual L/R 03 : Dynamic
01 10 00 03	00 00 00 01	00 - 01	Channel Select	00 : Ch.A 01 : Ch.B
01 10 00 04	00 00 00 01	00 - 64	Dynamic Sens	0-100
01 10 00 05	00 00 00 01	00 - 32	Channel Delay Time	0ms - 50ms
01 10 00 06	00 00 00 01	00 - 30	Ch.A Type	*Refer to "Table Preamp Type"
01 10 00 07	00 00 00 01	00 - 78	Ch.A Gain	0 - 120
01 10 00 08	00 00 00 01	00 - 64	Ch.A Bass	0 - 100
01 10 00 09	00 00 00 01	00 - 64	Ch.A Middle	0 - 100
01 10 00 0A	00 00 00 01	00 - 64	Ch.A Treble	0 - 100
01 10 00 0B	00 00 00 01	00 - 64	Ch.A Presence	0 - 100
01 10 00 0C	00 00 00 01	00 - 64	Ch.A Level	0 - 100
01 10 00 0D	00 00 00 01	00 - 01	Ch.A Bright	00 : Off 01 : On
01 10 00 0E	00 00 00 01	00 - 02	Ch.A Gain SW	00 : Low 01 : Middle 02 : High
01 10 00 0F	00 00 00 01	00 - 01	Ch.A Solo SW	00 : Off 01 : On
01 10 00 10	00 00 00 01	00 - 64	Ch.A Solo Level	0 - 100
01 10 00 11	00 00 00 01	00 - 0A	Ch.A SP Type	00 : Off 01 : ORIGINAL 02 : 1x8" 03 : 1x10" 04 : 1x12" 05 : 2x12" 06 : 4x10" 07 : 4x12" 08 : 8x12" 09 : Custom1 0A : Custom2
01 10 00 12	00 00 00 01	00 - 04	Ch.A Mic Type	00 : DYN57 01 : DYN421 02 : CND451 03 : CND87 04 : FLAT
01 10 00 13	00 00 00 01	00 - 01	Ch.A Mic Dis.	00 : Off Mic 01 : On Mic
01 10 00 14	00 00 00 01	00 - 0A	Ch.A Mic Pos.	00 : Center 01 : 1 02 : 2 : 0A : 10
01 10 00 15	00 00 00 01	00 - 64	Ch.A Mic Level	0 - 100
01 10 00 16	00 00 00 01	00 - 64	Ch.A Direct Level	0 - 100
01 10 00 17	00 00 00 01	00 - 30	Ch.B Type	*Refer to "Table Preamp Type"
01 10 00 18	00 00 00 01	00 - 78	Ch.B Gain	0 - 120
01 10 00 19	00 00 00 01	00 - 64	Ch.B Bass	0 - 100
01 10 00 1A	00 00 00 01	00 - 64	Ch.B Middle	0 - 100
01 10 00 1B	00 00 00 01	00 - 64	Ch.B Treble	0 - 100
01 10 00 1C	00 00 00 01	00 - 64	Ch.B Presence	0 - 100
01 10 00 1D	00 00 00 01	00 - 64	Ch.B Level	0 - 100
01 10 00 1E	00 00 00 01	00 - 01	Ch.B Bright	00 : Off 01 : On
01 10 00 1F	00 00 00 01	00 - 02	Ch.B Gain SW	00 : Low 01 : Middle

01 10 00 20	00 00 00 01	00 - 01	Ch.B Solo SW	02 : High
				00 : Off
				01 : On
01 10 00 21	00 00 00 01	00 - 64	Ch.B Solo Level	0 - 100
01 10 00 22	00 00 00 01	00 - 0A	Ch.B SP Type	00 : Off
				01 : ORIGINAL
				02 : 1x8"
				03 : 1x10"
				04 : 1x12"
				05 : 2x12"
				06 : 4x10"
				07 : 4x12"
				08 : 8x12"
				09 : Custom1
				0A : Custom2
01 10 00 23	00 00 00 01	00 - 04	Ch.B Mic Type	00 : DYN57
				01 : DYN421
				02 : CND451
				03 : CND87
				04 : FLAT
01 10 00 24	00 00 00 01	00 - 01	Ch.B Mic Dis.	00 : Off Mic
01 10 00 25	00 00 00 01	00 - 0A	Ch.B Mic Pos.	01 : On Mic
				00 : Center
				01 : 1
				02 : 2
				:
				0A : 10
01 10 00 26	00 00 00 01	00 - 64	Ch.B Mic Level	0 - 100
01 10 00 27	00 00 00 01	00 - 64	Ch.B Direct Level	0 - 100

Table MANUAL

Address (H)	Size (H)	Data (H)	Parameter	Description
02 00 00 00	00 00 00 01	00 - 11	Pedal 1	00 : Amp Ch A/B 01 : Solo On/Off 02 : FX1 03 : COMP 04 : WAH 05 : LOOP 06 : OD/DS 07 : PREAMP 08 : EQ 09 : FX2 0A : DD 0B : CE 0C : RV 0D : NS 0E : AMP CONTROL 0F : TUNER 10 : Patch Inc 11 : Patch Dec
02 00 00 01	00 00 00 01	00 - 11	Pedal 2	
02 00 00 02	00 00 00 01	00 - 11	Pedal 3	
02 00 00 03	00 00 00 01	00 - 11	Pedal 4	
02 00 00 04	00 00 00 01	00 - 11	Bank Down	
02 00 00 05	00 00 00 01	00 - 11	Bank Up	

Table HARMONIST SCALE

Address (H)	Size (H)	Data (H)	Parameter	Description
03 00 00 00	00 00 00 01	00 - 30	Scale 1 C	*Refer to "Table HR Harmony Note"
03 00 00 01	00 00 00 01	00 - 30	Scale 1 Db	
03 00 00 02	00 00 00 01	00 - 30	Scale 1 D	
03 00 00 03	00 00 00 01	00 - 30	Scale 1 Eb	
03 00 00 04	00 00 00 01	00 - 30	Scale 1 E	
03 00 00 05	00 00 00 01	00 - 30	Scale 1 F	
03 00 00 06	00 00 00 01	00 - 30	Scale 1 F#	
03 00 00 07	00 00 00 01	00 - 30	Scale 1 G	
03 00 00 08	00 00 00 01	00 - 30	Scale 1 Ab	
03 00 00 09	00 00 00 01	00 - 30	Scale 1 A	
03 00 00 0A	00 00 00 01	00 - 30	Scale 1 Bb	
03 00 00 0B	00 00 00 01	00 - 30	Scale 1 B	
03 00 01 00	00 00 00 01	00 - 30	Scale 2 C	
03 00 01 01	00 00 00 01	00 - 30	Scale 2 Db	
03 00 01 02	00 00 00 01	00 - 30	Scale 2 D	
03 00 01 03	00 00 00 01	00 - 30	Scale 2 Eb	
03 00 01 04	00 00 00 01	00 - 30	Scale 2 E	
03 00 01 05	00 00 00 01	00 - 30	Scale 2 F	
03 00 01 06	00 00 00 01	00 - 30	Scale 2 F#	
03 00 01 07	00 00 00 01	00 - 30	Scale 2 G	
03 00 01 08	00 00 00 01	00 - 30	Scale 2 Ab	
03 00 01 09	00 00 00 01	00 - 30	Scale 2 A	
03 00 01 0A	00 00 00 01	00 - 30	Scale 2 Bb	
03 00 01 0B	00 00 00 01	00 - 30	Scale 2 B	
03 00 02 00	00 00 00 01	00 - 30	Scale 3 C	
03 00 02 01	00 00 00 01	00 - 30	Scale 3 Db	
03 00 02 02	00 00 00 01	00 - 30	Scale 3 D	
03 00 02 03	00 00 00 01	00 - 30	Scale 3 Eb	
03 00 02 04	00 00 00 01	00 - 30	Scale 3 E	
03 00 02 05	00 00 00 01	00 - 30	Scale 3 F	
03 00 02 06	00 00 00 01	00 - 30	Scale 3 F#	
03 00 02 07	00 00 00 01	00 - 30	Scale 3 G	
03 00 02 08	00 00 00 01	00 - 30	Scale 3 Ab	
03 00 02 09	00 00 00 01	00 - 30	Scale 3 A	
03 00 02 0A	00 00 00 01	00 - 30	Scale 3 Bb	
03 00 02 0B	00 00 00 01	00 - 30	Scale 3 B	
03 00 03 00	00 00 00 01	00 - 30	Scale 4 C	
03 00 03 01	00 00 00 01	00 - 30	Scale 4 Db	
03 00 03 02	00 00 00 01	00 - 30	Scale 4 D	
03 00 03 03	00 00 00 01	00 - 30	Scale 4 Eb	
03 00 03 04	00 00 00 01	00 - 30	Scale 4 E	
03 00 03 05	00 00 00 01	00 - 30	Scale 4 F	
03 00 03 06	00 00 00 01	00 - 30	Scale 4 F#	
03 00 03 07	00 00 00 01	00 - 30	Scale 4 G	
03 00 03 08	00 00 00 01	00 - 30	Scale 4 Ab	
03 00 03 09	00 00 00 01	00 - 30	Scale 4 A	
03 00 03 0A	00 00 00 01	00 - 30	Scale 4 Bb	
03 00 03 0B	00 00 00 01	00 - 30	Scale 4 B	
03 00 04 00	00 00 00 01	00 - 30	Scale 5 C	
03 00 04 01	00 00 00 01	00 - 30	Scale 5 Db	
03 00 04 02	00 00 00 01	00 - 30	Scale 5 D	
03 00 04 03	00 00 00 01	00 - 30	Scale 5 Eb	
03 00 04 04	00 00 00 01	00 - 30	Scale 5 E	
03 00 04 05	00 00 00 01	00 - 30	Scale 5 F	
03 00 04 06	00 00 00 01	00 - 30	Scale 5 F#	
03 00 04 07	00 00 00 01	00 - 30	Scale 5 G	
03 00 04 08	00 00 00 01	00 - 30	Scale 5 Ab	
03 00 04 09	00 00 00 01	00 - 30	Scale 5 A	
03 00 04 0A	00 00 00 01	00 - 30	Scale 5 Bb	
03 00 04 0B	00 00 00 01	00 - 30	Scale 5 B	
03 00 05 00	00 00 00 01	00 - 30	Scale 6 C	
03 00 05 01	00 00 00 01	00 - 30	Scale 6 Db	
03 00 05 02	00 00 00 01	00 - 30	Scale 6 D	
03 00 05 03	00 00 00 01	00 - 30	Scale 6 Eb	
03 00 05 04	00 00 00 01	00 - 30	Scale 6 E	
03 00 05 05	00 00 00 01	00 - 30	Scale 6 F	
03 00 05 06	00 00 00 01	00 - 30	Scale 6 F#	
03 00 05 07	00 00 00 01	00 - 30	Scale 6 G	
03 00 05 08	00 00 00 01	00 - 30	Scale 6 Ab	
03 00 05 09	00 00 00 01	00 - 30	Scale 6 A	
03 00 05 0A	00 00 00 01	00 - 30	Scale 6 Bb	
03 00 05 0B	00 00 00 01	00 - 30	Scale 6 B	
03 00 06 00	00 00 00 01	00 - 30	Scale 7 C	
03 00 06 01	00 00 00 01	00 - 30	Scale 7 Db	
03 00 06 02	00 00 00 01	00 - 30	Scale 7 D	
03 00 06 03	00 00 00 01	00 - 30	Scale 7 Eb	
03 00 06 04	00 00 00 01	00 - 30	Scale 7 E	
03 00 06 05	00 00 00 01	00 - 30	Scale 7 F	
03 00 06 06	00 00 00 01	00 - 30	Scale 7 F#	
03 00 06 07	00 00 00 01	00 - 30	Scale 7 G	
03 00 06 08	00 00 00 01	00 - 30	Scale 7 Ab	
03 00 06 09	00 00 00 01	00 - 30	Scale 7 A	
03 00 06 0A	00 00 00 01	00 - 30	Scale 7 Bb	
03 00 06 0B	00 00 00 01	00 - 30	Scale 7 B	
03 00 07 00	00 00 00 01	00 - 30	Scale 8 C	
03 00 07 01	00 00 00 01	00 - 30	Scale 8 Db	
03 00 07 02	00 00 00 01	00 - 30	Scale 8 D	
03 00 07 03	00 00 00 01	00 - 30	Scale 8 Eb	
03 00 07 04	00 00 00 01	00 - 30	Scale 8 E	
03 00 07 05	00 00 00 01	00 - 30	Scale 8 F	
03 00 07 06	00 00 00 01	00 - 30	Scale 8 F#	
03 00 07 07	00 00 00 01	00 - 30	Scale 8 G	
03 00 07 08	00 00 00 01	00 - 30	Scale 8 Ab	
03 00 07 09	00 00 00 01	00 - 30	Scale 8 A	
03 00 07 0A	00 00 00 01	00 - 30	Scale 8 Bb	
03 00 07 0B	00 00 00 01	00 - 30	Scale 8 B	
03 00 08 00	00 00 00 01	00 - 30	Scale 9 C	
03 00 08 01	00 00 00 01	00 - 30	Scale 9 Db	
03 00 08 02	00 00 00 01	00 - 30	Scale 9 D	
03 00 08 03	00 00 00 01	00 - 30	Scale 9 Eb	
03 00 08 04	00 00 00 01	00 - 30	Scale 9 E	
03 00 08 05	00 00 00 01	00 - 30	Scale 9 F	
03 00 08 06	00 00 00 01	00 - 30	Scale 9 F#	
03 00 08 07	00 00 00 01	00 - 30	Scale 9 G	
03 00 08 08	00 00 00 01	00 - 30	Scale 9 Ab	
03 00 08 09	00 00 00 01	00 - 30	Scale 9 A	
03 00 08 0A	00 00 00 01	00 - 30	Scale 9 Bb	
03 00 08 0B	00 00 00 01	00 - 30	Scale 9 B	
03 00 09 00	00 00 00 01	00 - 30	Scale 10 C	
03 00 09 01	00 00 00 01	00 - 30	Scale 10 Db	


```

03 00 1C 04      00 00 00 01      00 - 30      Scale 29 E
03 00 1C 05      00 00 00 01      00 - 30      Scale 29 F
03 00 1C 06      00 00 00 01      00 - 30      Scale 29 F#
03 00 1C 07      00 00 00 01      00 - 30      Scale 29 G
03 00 1C 08      00 00 00 01      00 - 30      Scale 29 Ab
03 00 1C 09      00 00 00 01      00 - 30      Scale 29 A
03 00 1C 0A      00 00 00 01      00 - 30      Scale 29 Bb
03 00 1C 0B      00 00 00 01      00 - 30      Scale 29 B

```

Table HR Harmony Note <HARMONIST User Scale>

Data(H) Description

Below is an explanation of the Description value when IN is C.
Replace each of the values when IN is something other than C.

```

00      Pitch = -C ↓↓
01      Pitch = -Db ↓
02      Pitch = -D ↓
03      Pitch = -Eb ↓
04      Pitch = -E ↓
05      Pitch = -F ↓
06      Pitch = -F# ↓
07      Pitch = -G ↓
08      Pitch = -Ab ↓
09      Pitch = -A ↓
0A      Pitch = -Bb ↓
0B      Pitch = -B ↓
0C      Pitch = -C ↓
0D      Pitch = -Db
0E      Pitch = -D
0F      Pitch = -Eb
10      Pitch = -E
11      Pitch = -F
12      Pitch = -F#
13      Pitch = -G
14      Pitch = -Ab
15      Pitch = -A
16      Pitch = -Bb
17      Pitch = -B
18      Pitch = C
19      Pitch = +Db
1A      Pitch = +D
1B      Pitch = +Eb
1C      Pitch = +E
1D      Pitch = +F
1E      Pitch = +F#
1F      Pitch = +G
20      Pitch = +Ab
21      Pitch = +A
22      Pitch = +Bb
23      Pitch = +B
24      Pitch = +C ↑
25      Pitch = +Db ↑
26      Pitch = +D ↑
27      Pitch = +Eb ↑
28      Pitch = +E ↑
29      Pitch = +F ↑
2A      Pitch = +F# ↑
2B      Pitch = +G ↑
2C      Pitch = +Ab ↑
2D      Pitch = +A ↑
2E      Pitch = +Bb ↑
2F      Pitch = +B ↑
30      Pitch = +C ↑↑

```


Table AR Step Note <AUTO RIFF User Phrase>

Data (H)	Description
Below is an explanation of the Description value when IN is C. Replace each of the values when IN is something other than C.	
00	Pitch = -C ↓↓
01	Pitch = -Db ↓
02	Pitch = -D ↓
03	Pitch = -Eb ↓
04	Pitch = -E ↓
05	Pitch = -F ↓
06	Pitch = -F# ↓
07	Pitch = -G ↓
08	Pitch = -Ab ↓
09	Pitch = -A ↓
0A	Pitch = -Bb ↓
0B	Pitch = -B ↓
0C	Pitch = -C ↓
0D	Pitch = -Db ↓
0E	Pitch = -D ↓
0F	Pitch = -Eb ↓
10	Pitch = -E ↓
11	Pitch = -F ↓
12	Pitch = -F# ↓
13	Pitch = -G ↓
14	Pitch = -Ab ↓
15	Pitch = -A ↓
16	Pitch = -Bb ↓
17	Pitch = -B ↓
18	Pitch = C
19	Pitch = +Db ↑
1A	Pitch = +D ↑
1B	Pitch = +Eb ↑
1C	Pitch = +E ↑
1D	Pitch = +F ↑
1E	Pitch = +F# ↑
1F	Pitch = +G ↑
20	Pitch = +Ab ↑
21	Pitch = +A ↑
22	Pitch = +Bb ↑
23	Pitch = +B ↑
24	Pitch = +C ↑
25	Pitch = +Db ↑
26	Pitch = +D ↑
27	Pitch = +Eb ↑
28	Pitch = +E ↑
29	Pitch = +F ↑
2A	Pitch = +F# ↑
2B	Pitch = +G ↑
2C	Pitch = +Ab ↑
2D	Pitch = +A ↑
2E	Pitch = +Bb ↑
2F	Pitch = +B ↑
30	Pitch = +C ↑↑
31	Pitch = -
32	Pitch = end

Table AMP Customize

Address (H)	Size (H)	Data (H)	Parameter	Description
03 02 00 00	00 00 00 01	00 - 06	Custom1 Type	00 : JC Clean 01 : TW Clean 02 : Crunch 03 : VO Drive 04 : BG Lead 05 : MS HiGain 06 : Modern Stk
03 02 00 01	00 00 00 01	00 - 0A	Custom1 Bottom	00 : -50 01 : -40 02 : -30 : 05 : 0 : 09 : +40 0A : +50
03 02 00 02	00 00 00 01	00 - 0A	Custom1 Edge	-50,-40,-30,-20,-10,0,10,20,30,40,50
03 02 00 03	00 00 00 01	00 - 0A	Custom1 Bass Frequency	-50,-40,-30,-20,-10,0,10,20,30,40,50
03 02 00 04	00 00 00 01	00 - 0A	Custom1 Treble Frequency	-50,-40,-30,-20,-10,0,10,20,30,40,50
03 02 00 05	00 00 00 01	00 - 0A	Custom1 Preamp Low	-50,-40,-30,-20,-10,0,10,20,30,40,50
03 02 00 06	00 00 00 01	00 - 0A	Custom1 Preamp High	-50,-40,-30,-20,-10,0,10,20,30,40,50
03 02 01 00	00 00 00 01	00 - 06	Custom2 Type	
03 02 01 01	00 00 00 01	00 - 0A	Custom2 Bottom	
03 02 01 02	00 00 00 01	00 - 0A	Custom2 Edge	
03 02 01 03	00 00 00 01	00 - 0A	Custom2 Bass Frequency	
03 02 01 04	00 00 00 01	00 - 0A	Custom2 Treble Frequency	
03 02 01 05	00 00 00 01	00 - 0A	Custom2 Preamp Low	
03 02 01 06	00 00 00 01	00 - 0A	Custom2 Preamp High	
03 02 02 00	00 00 00 01	00 - 06	Custom3 Type	
03 02 02 01	00 00 00 01	00 - 0A	Custom3 Bottom	
03 02 02 02	00 00 00 01	00 - 0A	Custom3 Edge	
03 02 02 03	00 00 00 01	00 - 0A	Custom3 Bass Frequency	
03 02 02 04	00 00 00 01	00 - 0A	Custom3 Treble Frequency	
03 02 02 05	00 00 00 01	00 - 0A	Custom3 Preamp Low	
03 02 02 06	00 00 00 01	00 - 0A	Custom3 Preamp High	

Table SPEAKER Customize

Address (H)	Size (H)	Data (H)	Parameter	Description
03 03 00 00	00 00 00 01	00 - 0A	Custom1 Speaker Type	00 : 5 01 : 6 02 : 7 : 09 : 14 0A : 15 00 : -10 01 : -9 02 : -8 : 0A : 0 : 13 : +9 14 : +10
03 03 00 01	00 00 00 01	00 - 14	Custom1 Color Low	-10 - +10 00 : x1 01 : x2 02 : x4 03 : x8 00 : Open 01 : Close
03 03 00 02	00 00 00 01	00 - 14	Custom1 Color High	
03 03 00 03	00 00 00 01	00 - 03	Custom1 Number	
03 03 00 04	00 00 00 01	00 - 01	Custom1 Cabinet Type	
03 03 01 00	00 00 00 01	00 - 0A	Custom2 Speaker Type	
03 03 01 01	00 00 00 01	00 - 14	Custom2 Color Low	
03 03 01 02	00 00 00 01	00 - 14	Custom2 Color High	
03 03 01 03	00 00 00 01	00 - 03	Custom2 Number	
03 03 01 04	00 00 00 01	00 - 01	Custom2 Cabinet Type	

Table OD/DS Customize

Address (H)	Size (H)	Data (H)	Parameter	Description
03 04 00 00	00 00 00 01	00 - 07	Custom1 Type	00 : OD1 01 : OD2 02 : CRUNCH 03 : DS1 04 : DS2 05 : METAL1 06 : METAL2 07 : FUZZ
03 04 00 01	00 00 00 01	00 - 0A	Custom1 Bottom	00 : -50 01 : -40 02 : -30 : 05 : 0 : 09 : +40 0A : +50
03 04 00 02	00 00 00 01	00 - 0A	Custom1 Top	-50,-40,-30,-20,-10,0,10,20,30,40,50
03 04 00 03	00 00 00 01	00 - 0A	Custom1 Low	-50,-40,-30,-20,-10,0,10,20,30,40,50
03 04 00 04	00 00 00 01	00 - 0A	Custom1 High	-50,-40,-30,-20,-10,0,10,20,30,40,50
03 04 01 00	00 00 00 01	00 - 07	Custom2 Type	
03 04 01 01	00 00 00 01	00 - 0A	Custom2 Bottom	
03 04 01 02	00 00 00 01	00 - 0A	Custom2 Top	
03 04 01 03	00 00 00 01	00 - 0A	Custom2 Low	
03 04 01 04	00 00 00 01	00 - 0A	Custom2 High	
03 04 02 00	00 00 00 01	00 - 07	Custom3 Type	
03 04 02 01	00 00 00 01	00 - 0A	Custom3 Bottom	
03 04 02 02	00 00 00 01	00 - 0A	Custom3 Top	
03 04 02 03	00 00 00 01	00 - 0A	Custom3 Low	
03 04 02 04	00 00 00 01	00 - 0A	Custom3 High	

Table WAH Customize

Address (H)	Size (H)	Data (H)	Parameter	Description
03 05 00 00	00 00 00 01	00 - 04	Custom1 Type	00 : CRY WAH 01 : VO WAH 02 : Fat WAH 03 : Light WAH 04 : 7String WAH
03 05 00 01	00 00 00 01	00 - 0A	Custom1 Q	00 : -50 01 : -40 02 : -30 : 05 : 0 : 09 : +40 0A : +50
03 05 00 02	00 00 00 01	00 - 0A	Custom1 Range Low	-50,-40,-30,-20,-10,0,10,20,30,40,50
03 05 00 03	00 00 00 01	00 - 0A	Custom1 Range High	-50,-40,-30,-20,-10,0,10,20,30,40,50
03 05 00 04	00 00 00 01	00 - 0A	Custom1 Presence	-50,-40,-30,-20,-10,0,10,20,30,40,50
03 05 01 00	00 00 00 01	00 - 04	Custom2 Type	
03 05 01 01	00 00 00 01	00 - 0A	Custom2 Q	
03 05 01 02	00 00 00 01	00 - 0A	Custom2 Range Low	
03 05 01 03	00 00 00 01	00 - 0A	Custom2 Range High	
03 05 01 04	00 00 00 01	00 - 0A	Custom2 Presence	
03 05 02 00	00 00 00 01	00 - 04	Custom3 Type	
03 05 02 01	00 00 00 01	00 - 0A	Custom3 Q	
03 05 02 02	00 00 00 01	00 - 0A	Custom3 Range Low	
03 05 02 03	00 00 00 01	00 - 0A	Custom3 Range High	
03 05 02 04	00 00 00 01	00 - 0A	Custom3 Presence	

Table Quick Fx

Address (H)	Size (H)	Data (H)	Parameter	Description
04 ** ** **				Quick User
05 ** ** **				Quick ROM
↑				
↑ 00 ** **				P1
↑ 01 ** **				P2
↑ 02 ** **				P3
↑ 03 ** **				P4
↑ ** ** **				
↑↑				
↑↑				
↑↑				
↑↑				
↑↑				
↑↑				
			Separate the upper four and lower four bits, assigning them to different bytes, and process them in sequence, beginning with the upper bits.	
			↓ Example) Processing 64H	
			↓ 06H: Odd address	
			↓ 04H: Even address	
FX Adv.Comp				
** ** 01 00#	00 00 00 02	00 - 07	ACS:Type	
** ** 00 02#	00 00 00 02	00 - 64	ACS:Sustain	
** ** 00 04#	00 00 00 02	00 - 64	ACS:Attack	
** ** 00 06#	00 00 00 02	00 - 64	ACS:Tone	
** ** 00 08#	00 00 00 02	00 - 64	ACS:Level	
FX Limiter				
** ** 01 00#	00 00 00 02	00 - 02	LM :Type	
** ** 01 02#	00 00 00 02	00 - 64	LM :Attack	
** ** 01 04#	00 00 00 02	00 - 64	LM :Threshold	
** ** 01 06#	00 00 00 02	00 - 11	LM :Ratio	
** ** 01 08#	00 00 00 02	00 - 64	LM :Release	
** ** 01 0A#	00 00 00 02	00 - 64	LM :Level	
FX T.Wah				
** ** 02 00#	00 00 00 02	00 - 01	TW :Mode	
** ** 02 02#	00 00 00 02	00 - 01	TW :Polarity	
** ** 02 04#	00 00 00 02	00 - 64	TW :Sens	
** ** 02 06#	00 00 00 02	00 - 64	TW :Frequency	
** ** 02 08#	00 00 00 02	00 - 64	TW :Peak	
** ** 02 0A#	00 00 00 02	00 - 64	TW :Direct Level	
** ** 02 0C#	00 00 00 02	00 - 64	TW :Level	
FX AutoWah				
** ** 03 00#	00 00 00 02	00 - 01	AW :Mode	
** ** 03 02#	00 00 00 02	00 - 64	AW :Frequency	
** ** 03 04#	00 00 00 02	00 - 64	AW :Peak	
** ** 03 06#	00 00 00 02	00 - 71	AW :Rate	
** ** 03 08#	00 00 00 02	00 - 64	AW :Depth	
** ** 03 0A#	00 00 00 02	00 - 64	AW :Direct Level	
** ** 03 0C#	00 00 00 02	00 - 64	AW :Level	
FX ToneModify				
** ** 04 00#	00 00 00 02	00 - 07	TM :Type	
** ** 04 02#	00 00 00 02	00 - 64	TM :Low	
** ** 04 04#	00 00 00 02	00 - 64	TM :High	
** ** 04 06#	00 00 00 02	00 - 64	TM :Resonance	
** ** 04 08#	00 00 00 02	00 - 64	TM :Level	
FX GuitarSim.				
** ** 05 00#	00 00 00 02	00 - 07	GS :Type	
** ** 05 02#	00 00 00 02	00 - 64	GS :Low	
** ** 05 04#	00 00 00 02	00 - 64	GS :High	
** ** 05 06#	00 00 00 02	00 - 64	GS :Body	
** ** 05 08#	00 00 00 02	00 - 64	GS :Level	
FX Tremolo				
** ** 06 00#	00 00 00 02	00 - 64	TR :Wave Shape	
** ** 06 02#	00 00 00 02	00 - 71	TR :Rate	
** ** 06 04#	00 00 00 02	00 - 64	TR :Depth	
FX Phaser				
** ** 07 00#	00 00 00 02	00 - 03	PH :Type	
** ** 07 02#	00 00 00 02	00 - 71	PH :Rate	
** ** 07 04#	00 00 00 02	00 - 64	PH :Depth	
** ** 07 06#	00 00 00 02	00 - 64	PH :Manual	
** ** 07 08#	00 00 00 02	00 - 64	PH :Resonance	
** ** 07 0A#	00 00 00 02	00 - 72	PH :Step Rate	
** ** 07 0C#	00 00 00 02	00 - 64	PH :Effect Level	
** ** 07 0E#	00 00 00 02	00 - 64	PH :Direct Level	
FX Flanger				
** ** 08 00#	00 00 00 02	00 - 71	FL :Rate	
** ** 08 02#	00 00 00 02	00 - 64	FL :Depth	
** ** 08 04#	00 00 00 02	00 - 64	FL :Manual	
** ** 08 06#	00 00 00 02	00 - 64	FL :Resonance	
** ** 08 08#	00 00 00 02	00 - 64	FL :Separation	
** ** 08 0A#	00 00 00 02	00 - 0A	FL :Low Cut	
** ** 08 0C#	00 00 00 02	00 - 64	FL :Effect Level	
** ** 08 0E#	00 00 00 02	00 - 64	FL :Direct Level	
FX Pan				
** ** 09 00#	00 00 00 02	00 - 64	PAN:Wave Shape	
** ** 09 02#	00 00 00 02	00 - 71	PAN:Rate	
** ** 09 04#	00 00 00 02	00 - 64	PAN:Depth	
FX Vibrato				
** ** 0A 00#	00 00 00 02	00 - 71	VB :Rate	
** ** 0A 02#	00 00 00 02	00 - 64	VB :Depth	
** ** 0A 04#	00 00 00 02	00 - 01	VB :Trigger	
** ** 0A 06#	00 00 00 02	00 - 64	VB :Rise Time	
FX Uni-V				
** ** 0B 00#	00 00 00 02	00 - 71	UV :Rate	
** ** 0B 02#	00 00 00 02	00 - 64	UV :Depth	
** ** 0B 04#	00 00 00 02	00 - 64	UV :Level	
FX RingMod.				
** ** 0C 00#	00 00 00 02	00 - 01	RM :Mode	
** ** 0C 02#	00 00 00 02	00 - 64	RM :Frequency	
** ** 0C 04#	00 00 00 02	00 - 64	RM :Effect Level	
** ** 0C 06#	00 00 00 02	00 - 64	RM :Direct Level	

```

FX SlowGear
** ** 0D 00# 00 00 00 02 00 - 64 SG :Sens
** ** 0D 02# 00 00 00 02 00 - 64 SG :Rise Time

FX Defretter
** ** 0E 00# 00 00 00 02 00 - 64 DF :Tone
** ** 0E 02# 00 00 00 02 00 - 64 DF :Sens
** ** 0E 04# 00 00 00 02 00 - 64 DF :Attack
** ** 0E 06# 00 00 00 02 00 - 64 DF :Depth
** ** 0E 08# 00 00 00 02 00 - 64 DF :Resonance
** ** 0E 0A# 00 00 00 02 00 - 64 DF :Effect Level
** ** 0E 0C# 00 00 00 02 00 - 64 DF :Direct Level

FX SitarSim.
** ** 0F 00# 00 00 00 02 00 - 64 STR:Tone
** ** 0F 02# 00 00 00 02 00 - 64 STR:Sens
** ** 0F 04# 00 00 00 02 00 - 64 STR:Depth
** ** 0F 06# 00 00 00 02 00 - 64 STR:Resonance
** ** 0F 08# 00 00 00 02 00 - 64 STR:Buzz
** ** 0F 0A# 00 00 00 02 00 - 64 STR:Effect Level
** ** 0F 0C# 00 00 00 02 00 - 64 STR:Direct Level

FX Feedbacker
** ** 10 00# 00 00 00 02 00 - 01 FB :Mode
** ** 10 02# 00 00 00 02 00 - 64 FB :Rise Time
** ** 10 04# 00 00 00 02 00 - 64 FB :Rise Time(Af)
** ** 10 06# 00 00 00 02 00 - 64 FB :F.B.Level
** ** 10 08# 00 00 00 02 00 - 64 FB :F.B.Level(Af)
** ** 10 0A# 00 00 00 02 00 - 71 FB :Vibrato Rate
** ** 10 0C# 00 00 00 02 00 - 64 FB :Vibrato Depth

FX AntiFeedbck
** ** 11 00# 00 00 00 02 00 - 64 AFB:FREQ 1
** ** 11 02# 00 00 00 02 00 - 64 AFB:DEPTH 1
** ** 11 04# 00 00 00 02 00 - 64 AFB:FREQ 2
** ** 11 06# 00 00 00 02 00 - 64 AFB:DEPTH 2
** ** 11 08# 00 00 00 02 00 - 64 AFB:FREQ 3
** ** 11 0A# 00 00 00 02 00 - 64 AFB:DEPTH 3

FX Humanizer
** ** 12 00# 00 00 00 02 00 - 02 HU :Mode
** ** 12 02# 00 00 00 02 00 - 04 HU :Vowel1
** ** 12 04# 00 00 00 02 00 - 04 HU :Vowel2
** ** 12 06# 00 00 00 02 00 - 64 HU :Sens
** ** 12 08# 00 00 00 02 00 - 71 HU :Rate
** ** 12 0A# 00 00 00 02 00 - 64 HU :Depth
** ** 12 0C# 00 00 00 02 00 - 64 HU :Manual
** ** 12 0E# 00 00 00 02 00 - 64 HU :Level

FX Slicer
** ** 13 00# 00 00 00 02 00 - 13 SL :Pattern
** ** 13 02# 00 00 00 02 00 - 71 SL :Rate
** ** 13 04# 00 00 00 02 00 - 64 SL :Triggr Sens

FX WaveSynth
** ** 14 00# 00 00 00 02 00 - 01 WSY:Wave
** ** 14 02# 00 00 00 02 00 - 64 WSY:Cutoff Freq
** ** 14 04# 00 00 00 02 00 - 64 WSY:Resonance
** ** 14 06# 00 00 00 02 00 - 64 WSY:FLT.Sens
** ** 14 08# 00 00 00 02 00 - 64 WSY:FLT.Decay
** ** 14 0A# 00 00 00 02 00 - 64 WSY:FLT.Depth
** ** 14 0C# 00 00 00 02 00 - 64 WSY:Synth Level
** ** 14 0E# 00 00 00 02 00 - 64 WSY:Direct Level

FX SubEQ
** ** 15 00# 00 00 00 02 00 - 0A SEQ:Low Cut
** ** 15 02# 00 00 00 02 00 - 28 SEQ:Low EQ
** ** 15 04# 00 00 00 02 00 - 1B SEQ:Low-Middle Frequency
** ** 15 06# 00 00 00 02 00 - 05 SEQ:Low-Middle Q
** ** 15 08# 00 00 00 02 00 - 28 SEQ:Low-Middle EQ
** ** 15 0A# 00 00 00 02 00 - 1B SEQ:High-Middle Frequency
** ** 15 0C# 00 00 00 02 00 - 05 SEQ:High-Middle Q
** ** 15 0E# 00 00 00 02 00 - 28 SEQ:High-Middle EQ
** ** 15 10# 00 00 00 02 00 - 28 SEQ:High EQ
** ** 15 12# 00 00 00 02 00 - 09 SEQ:High Cut
** ** 15 14# 00 00 00 02 00 - 28 SEQ:Level

FX Harmonist
** ** 16 00# 00 00 00 02 00 - 02 HR :Voice
** ** 16 02# 00 00 00 02 00 - 39 HR :Voice1:Harmony
** ** 16 04# 00 00 00 04 0000 - 0133 HR :Voice1:Pre Delay
** ** 16 06# 00 00 00 02 00 - 64 HR :Voice1:Pre Delay(LSB)
** ** 16 08# 00 00 00 02 00 - 64 HR :Voice1:Feedback
** ** 16 0A# 00 00 00 02 00 - 64 HR :Voice1:Level
** ** 16 0C# 00 00 00 02 00 - 39 HR :Voice2:Harmony
** ** 16 0E# 00 00 00 04 0000 - 0133 HR :Voice2:Pre Delay
** ** 16 10# 00 00 00 02 00 - 64 HR :Voice2:Pre Delay(LSB)
** ** 16 12# 00 00 00 02 00 - 64 HR :Voice2:Level
** ** 16 14# 00 00 00 02 00 - 0B HR :Key
** ** 16 16# 00 00 00 02 00 - 64 HR :Direct Level

FX PitchShift
** ** 17 00# 00 00 00 02 00 - 02 PS :Voice
** ** 17 02# 00 00 00 02 00 - 03 PS :Voice1:Mode
** ** 17 04# 00 00 00 02 00 - 30 PS :Voice1:Pitch
** ** 17 06# 00 00 00 02 00 - 64 PS :Voice1:Fine
** ** 17 08# 00 00 00 04 0000 - 0133 PS :Voice1:Pre Delay
** ** 17 0A# 00 00 00 02 00 - 64 PS :Voice1:Pre Delay(LSB)
** ** 17 0C# 00 00 00 02 00 - 64 PS :Voice1:Feedback
** ** 17 0E# 00 00 00 02 00 - 64 PS :Voice1:Level
** ** 17 10# 00 00 00 02 00 - 03 PS :Voice2:Mode
** ** 17 12# 00 00 00 02 00 - 30 PS :Voice2:Pitch
** ** 17 14# 00 00 00 02 00 - 64 PS :Voice2:Fine
** ** 17 16# 00 00 00 04 0000 - 0133 PS :Voice2:Pre Delay
** ** 17 18# 00 00 00 02 00 - 64 PS :Voice2:Pre Delay(LSB)
** ** 17 1A# 00 00 00 02 00 - 64 PS :Voice2:Level
** ** 17 1C# 00 00 00 02 00 - 64 PS :Direct Level

FX PedalBend
** ** 18 00# 00 00 00 02 00 - 30 PB :Pitch Min
** ** 18 02# 00 00 00 02 00 - 30 PB :Pitch Max
** ** 18 04# 00 00 00 02 00 - 64 PB :Pdl Position
** ** 18 06# 00 00 00 02 00 - 64 PB :Effect Level
** ** 18 08# 00 00 00 02 00 - 64 PB :Direct Level

```



```

FX Octave
** ** 19 00# 00 00 00 02 00 - 03 OC :Range
** ** 19 02# 00 00 00 02 00 - 64 OC :Octave Level
** ** 19 04# 00 00 00 02 00 - 64 OC :Direct Level

FX Rotary
** ** 1A 00# 00 00 00 02 00 - 01 RT :Speed Select
** ** 1A 02# 00 00 00 02 00 - 71 RT :Rate(Slow)
** ** 1A 04# 00 00 00 02 00 - 71 RT :Rate(Past)
** ** 1A 06# 00 00 00 02 00 - 64 RT :Rise Time
** ** 1A 08# 00 00 00 02 00 - 64 RT :Fall Time
** ** 1A 0A# 00 00 00 02 00 - 64 RT :Depth

FX 2x2Chorus
** ** 1B 00# 00 00 00 02 00 - 10 2CE:Xover f
** ** 1B 02# 00 00 00 02 00 - 71 2CE:Low Rate
** ** 1B 04# 00 00 00 02 00 - 64 2CE:Low Depth
** ** 1B 06# 00 00 00 02 00 - 50 2CE:Low Pre Delay
** ** 1B 08# 00 00 00 02 00 - 64 2CE:Low Level
** ** 1B 0A# 00 00 00 02 00 - 71 2CE:High Rate
** ** 1B 0C# 00 00 00 02 00 - 64 2CE:High Depth
** ** 1B 0E# 00 00 00 02 00 - 50 2CE:High Pre Delay
** ** 1B 10# 00 00 00 02 00 - 64 2CE:High Level

FX AutoRiff
** ** 1C 00# 00 00 00 02 00 - 27 AR :Phrase
** ** 1C 02# 00 00 00 02 00 - 01 AR :Loop
** ** 1C 04# 00 00 00 02 00 - 71 AR :Tempo
** ** 1C 06# 00 00 00 02 00 - 64 AR :Sens
** ** 1C 08# 00 00 00 02 00 - 0B AR :Key
** ** 1C 0A# 00 00 00 02 00 - 64 AR :Attack
** ** 1C 0C# 00 00 00 02 00 - 01 AR :Hold
** ** 1C 0E# 00 00 00 02 00 - 64 AR :Effect Level
** ** 1C 10# 00 00 00 02 00 - 64 AR :Direct Level

FX GuitarSynth
** ** 1D 00# 00 00 00 02 00 - 64 SYN:Sens
** ** 1D 02# 00 00 00 02 00 - 03 SYN:Wave
** ** 1D 04# 00 00 00 02 00 - 01 SYN:Chromatic
** ** 1D 06# 00 00 00 02 00 - 02 SYN:Octave Shift
** ** 1D 08# 00 00 00 02 00 - 64 SYN:PWM Rate
** ** 1D 0A# 00 00 00 02 00 - 64 SYN:PWM Depth
** ** 1D 0C# 00 00 00 02 00 - 64 SYN:Cutoff Frequency
** ** 1D 0E# 00 00 00 02 00 - 64 SYN:Resonance
** ** 1D 10# 00 00 00 02 00 - 64 SYN:Filter Sens
** ** 1D 12# 00 00 00 02 00 - 64 SYN:Filter Decay
** ** 1D 14# 00 00 00 02 00 - 64 SYN:Filter Depth
** ** 1D 16# 00 00 00 02 00 - 65 SYN:Attack
** ** 1D 18# 00 00 00 02 00 - 64 SYN:Release
** ** 1D 1A# 00 00 00 02 00 - 64 SYN:Velocity
** ** 1D 1C# 00 00 00 02 00 - 01 SYN:Hold
** ** 1D 1E# 00 00 00 02 00 - 64 SYN:Synth Level
** ** 1D 20# 00 00 00 02 00 - 64 SYN:Direct Level

FX Ac.Processor
** ** 1E 00# 00 00 00 02 00 - 03 AC :Type
** ** 1E 02# 00 00 00 02 00 - 64 AC :Bass
** ** 1E 04# 00 00 00 02 00 - 64 AC :Middle
** ** 1E 06# 00 00 00 02 00 - 1B AC :Middle Freq
** ** 1E 08# 00 00 00 02 00 - 64 AC :Treble
** ** 1E 0A# 00 00 00 02 00 - 64 AC :Presence
** ** 1E 0C# 00 00 00 02 00 - 64 AC :Level

FX SoundHold
** ** 1F 00# 00 00 00 02 00 - 01 SH :Hold
** ** 1F 02# 00 00 00 02 00 - 64 SH :Rise Time
** ** 1F 04# 00 00 00 02 00 - 78 SH :Effect Level

FX SubDelay
** ** 20 00# 00 00 00 04 0000 - 0197 SDD:Delay Time
** ** 20 02# 00 00 00 02 00 - 64 SDD:Delay Time(LSB)
** ** 20 04# 00 00 00 02 00 - 64 SDD:Feedback
** ** 20 06# 00 00 00 02 00 - 78 SDD:Effect Level

Compressor
** ** 40 00# 00 00 00 02 00 - 01 CS :Type
** ** 40 02# 00 00 00 02 00 - 64 CS :Sustain
** ** 40 04# 00 00 00 02 00 - 64 CS :Attack
** ** 40 06# 00 00 00 02 00 - 64 CS :Threshold
** ** 40 08# 00 00 00 02 00 - 64 CS :Release
** ** 40 0A# 00 00 00 02 00 - 64 CS :Tone
** ** 40 0C# 00 00 00 02 00 - 64 CS :Level

Wah
** ** 42 00# 00 00 00 02 00 - 08 WAH:Type
** ** 42 02# 00 00 00 02 00 - 64 WAH:Ped Position
** ** 42 04# 00 00 00 02 00 - 64 WAH:Level

Loop FX
** ** 44 00# 00 00 00 02 00 - 02 LP :Mode
** ** 44 02# 00 00 00 02 00 - 64 LP :Send Level
** ** 44 04# 00 00 00 02 00 - 64 LP :Return Level

Overdrive/Distortion
** ** 46 00# 00 00 00 02 00 - 20 OD :Type
** ** 46 02# 00 00 00 02 00 - 78 OD :Drive
** ** 46 04# 00 00 00 02 00 - 64 OD :Bottom
** ** 46 06# 00 00 00 02 00 - 64 OD :Tone
** ** 46 08# 00 00 00 02 00 - 64 OD :Level
** ** 46 0A# 00 00 00 02 00 - 64 OD :Direct Level

Preamp Channel
** ** 48 00# 00 00 00 02 00 - 30 PRE:Type
** ** 48 02# 00 00 00 02 00 - 78 PRE:Gain
** ** 48 04# 00 00 00 02 00 - 64 PRE:Bass
** ** 48 06# 00 00 00 02 00 - 64 PRE:Middle
** ** 48 08# 00 00 00 02 00 - 64 PRE:Treble
** ** 48 0A# 00 00 00 02 00 - 64 PRE:Presence
** ** 48 0C# 00 00 00 02 00 - 64 PRE:Level
** ** 48 0E# 00 00 00 02 00 - 01 PRE:Bright
** ** 48 10# 00 00 00 02 00 - 02 PRE:Gain SW
** ** 48 12# 00 00 00 02 00 - 01 PRE:Solo SW
** ** 48 14# 00 00 00 02 00 - 64 PRE:Solo Level
** ** 48 16# 00 00 00 02 00 - 0A PRE:SP Type
** ** 48 18# 00 00 00 02 00 - 04 PRE:Mic Type

```

```

** ** 48 1A# 00 00 00 02 00 - 01 PRE: Mic Dis.
** ** 48 1C# 00 00 00 02 00 - 0A PRE: Mic Pos.
** ** 48 1E# 00 00 00 02 00 - 64 PRE: Mic Level

Equalizer
** ** 4A 00# 00 00 00 02 00 - 0A EQ : Low Cut
** ** 4A 02# 00 00 00 02 00 - 28 EQ : Low EQ
** ** 4A 04# 00 00 00 02 00 - 1B EQ : Low-Middle Frequency
** ** 4A 06# 00 00 00 02 00 - 05 EQ : Low-Middle Q
** ** 4A 08# 00 00 00 02 00 - 28 EQ : Low-Middle Q
** ** 4A 0A# 00 00 00 02 00 - 1B EQ : High-Middle Frequency
** ** 4A 0C# 00 00 00 02 00 - 05 EQ : High-Middle Q
** ** 4A 0E# 00 00 00 02 00 - 28 EQ : High-Middle EQ
** ** 4A 10# 00 00 00 02 00 - 28 EQ : High EQ
** ** 4A 12# 00 00 00 02 00 - 09 EQ : High Cut
** ** 4A 14# 00 00 00 02 00 - 28 EQ : Level

Delay
** ** 4C 00# 00 00 00 02 00 - 0B DELAY : Type
** ** 4C 02# 00 00 00 02 0000 - 0715 DELAY : Delay Time
** ** 4C 04# 00 00 00 02 DELAY : Delay Time (LSB)
** ** 4C 06# 00 00 00 02 00 - 64 DELAY : Tap Time
** ** 4C 08# 00 00 00 02 00 - 64 DELAY : Feedback
** ** 4C 0A# 00 00 00 02 00 - 09 DELAY : High Cut
** ** 4C 0C# 00 00 00 02 0000 - 0391 DELAY : Delay1 Time
** ** 4C 0E# 00 00 00 02 DELAY : Delay1 Time (LSB)
** ** 4C 10# 00 00 00 02 00 - 64 DELAY : Delay1 Feedback
** ** 4C 12# 00 00 00 02 00 - 09 DELAY : Delay1 High Cut
** ** 4C 14# 00 00 00 02 00 - 78 DELAY : Delay1 Level
** ** 4C 16# 00 00 00 02 0000 - 0391 DELAY : Delay2 Time
** ** 4C 18# 00 00 00 02 DELAY : Delay2 Time (LSB)
** ** 4C 1A# 00 00 00 02 00 - 64 DELAY : Delay2 Feedback
** ** 4C 1C# 00 00 00 02 00 - 09 DELAY : Delay2 High Cut
** ** 4C 1E# 00 00 00 02 00 - 78 DELAY : Delay2 Level
** ** 4C 20# 00 00 00 02 00 - 64 DELAY : MOD Rate
** ** 4C 22# 00 00 00 02 00 - 64 DELAY : MOD Depth
** ** 4C 24# 00 00 00 02 00 - 01 DELAY : Warp Sw
** ** 4C 26# 00 00 00 02 00 - 64 DELAY : Warp Rise Time
** ** 4C 28# 00 00 00 02 00 - 64 DELAY : Warp Feedback Depth
** ** 4C 2A# 00 00 00 02 00 - 64 DELAY : Warp E.Level Depth
** ** 4C 2C# 00 00 00 02 00 - 78 DELAY : Effect Level
** ** 4C 2E# 00 00 00 02 00 - 64 DELAY : Direct Level

Chorus
** ** 4E 00# 00 00 00 02 00 - 02 CHORUS : Mode
** ** 4E 02# 00 00 00 02 00 - 71 CHORUS : Rate
** ** 4E 04# 00 00 00 02 00 - 64 CHORUS : Depth
** ** 4E 06# 00 00 00 02 00 - 50 CHORUS : Pre Delay
** ** 4E 08# 00 00 00 02 00 - 0A CHORUS : Low Cut
** ** 4E 0A# 00 00 00 02 00 - 09 CHORUS : High Cut
** ** 4E 0C# 00 00 00 02 00 - 64 CHORUS : Effect Level

Reverb
** ** 50 00# 00 00 00 02 00 - 06 REVERB : Type
** ** 50 02# 00 00 00 02 00 - 63 REVERB : Reverb Time
** ** 50 04# 00 00 00 02 00 - 64 REVERB : Pre Delay
** ** 50 06# 00 00 00 02 00 - 0A REVERB : Low Cut
** ** 50 08# 00 00 00 02 00 - 09 REVERB : High Cut
** ** 50 0A# 00 00 00 02 00 - 0A REVERB : Density
** ** 50 0C# 00 00 00 02 00 - 64 REVERB : Effect Level
** ** 50 0E# 00 00 00 02 00 - 64 REVERB : Direct Level

Assign Variable
** ** 52 00# 00 00 00 02 0360 - 01E0 ASSIGN : Target *Refer to "Table Quick Assign Target"
** ** 52 02# 00 00 00 02 ASSIGN : Target (LSB)
** ** 52 04# 00 00 00 02 0000 - $$$ $ ASSIGN : Target Min
** ** 52 06# 00 00 00 02 ASSIGN : Target Min (LSB)
** ** 52 08# 00 00 00 02 0000 - $$$ $ ASSIGN : Target Max
** ** 52 0A# 00 00 00 02 ASSIGN : Target Max (LSB)
** ** 52 0C# 00 00 00 02 00 - 47 ASSIGN : Source
** ** 52 0E# 00 00 00 02 00 - 01 ASSIGN : Source Mode
** ** 52 10# 00 00 00 02 00 - 7F ASSIGN : Source Act. Range Lo
** ** 52 12# 00 00 00 02 01 - 7F ASSIGN : Source Act. Range Hi
** ** 52 14# 00 00 00 02 00 - 47 ASSIGN : Trigger
** ** 52 16# 00 00 00 02 00 - 64 ASSIGN : Time
** ** 52 18# 00 00 00 02 00 - 02 ASSIGN : Curve
** ** 52 1A# 00 00 00 02 00 - 64 ASSIGN : Rate
** ** 52 1C# 00 00 00 02 00 - 02 ASSIGN : Waveform

```

Table Quick Fx Name

Address (H)	Size (H)	Data (H)	Parameter	Description
04 ** ** *				Quick User
05 ** ** *				Quick ROM
↑				
↑ 00 ** **				P1
↑ 01 ** **				P2
↑ 02 ** **				P3
↑ 03 ** **				P4
↑ ** ** *				:
↑ ↑				:
FX Adv. Comp				
** ** 00 00	00 00 00 01	20 - 7F	Name 1	*Refer to "Table Name"
** ** 00 01#	00 00 00 01	20 - 7F	Name 2	
** ** : :	:	:	:	
** ** 00 0B#	00 00 00 01	20 - 7F	Name 12	
FX Limiter				
** ** 01 00	00 00 00 01	20 - 7F	Name 1	*Refer to "Table Name"
** ** 01 01#	00 00 00 01	20 - 7F	Name 2	
** ** : :	:	:	:	
** ** 01 0B#	00 00 00 01	20 - 7F	Name 12	
FX T.Wah				
** ** 02 00	00 00 00 01	20 - 7F	Name 1	*Refer to "Table Name"
** ** 02 01#	00 00 00 01	20 - 7F	Name 2	
** ** : :	:	:	:	
** ** 02 0B#	00 00 00 01	20 - 7F	Name 12	

FX AutoWah					
** ** 03 00	00 00 00 01	20 - 7F	Name 1		
** ** 03 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 03 0B#	00 00 00 01	20 - 7F	Name 12		
FX ToneModify					
** ** 04 00	00 00 00 01	20 - 7F	Name 1		
** ** 04 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 04 0B#	00 00 00 01	20 - 7F	Name 12		
FX GuitarSim.					
** ** 05 00	00 00 00 01	20 - 7F	Name 1		
** ** 05 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 05 0B#	00 00 00 01	20 - 7F	Name 12		
FX Tremolo					
** ** 06 00	00 00 00 01	20 - 7F	Name 1		
** ** 06 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 06 0B#	00 00 00 01	20 - 7F	Name 12		
FX Phaser					
** ** 07 00	00 00 00 01	20 - 7F	Name 1		
** ** 07 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 07 0B#	00 00 00 01	20 - 7F	Name 12		
FX Flanger					
** ** 08 00	00 00 00 01	20 - 7F	Name 1		
** ** 08 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 08 0B#	00 00 00 01	20 - 7F	Name 12		
FX Pan					
** ** 09 00	00 00 00 01	20 - 7F	Name 1		
** ** 09 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 09 0B#	00 00 00 01	20 - 7F	Name 12		
FX Vibrato					
** ** 0A 00	00 00 00 01	20 - 7F	Name 1		
** ** 0A 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 0A 0B#	00 00 00 01	20 - 7F	Name 12		
FX Uni-V					
** ** 0B 00	00 00 00 01	20 - 7F	Name 1		
** ** 0B 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 0B 0B#	00 00 00 01	20 - 7F	Name 12		
FX RingMod.					
** ** 0C 00	00 00 00 01	20 - 7F	Name 1		
** ** 0C 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 0C 0B#	00 00 00 01	20 - 7F	Name 12		
FX SlowGear					
** ** 0D 00	00 00 00 01	20 - 7F	Name 1		
** ** 0D 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 0D 0B#	00 00 00 01	20 - 7F	Name 12		
FX Defretter					
** ** 0E 00	00 00 00 01	20 - 7F	Name 1		
** ** 0E 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 0E 0B#	00 00 00 01	20 - 7F	Name 12		
FX SitarSim.					
** ** 0F 00	00 00 00 01	20 - 7F	Name 1		
** ** 0F 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 0F 0B#	00 00 00 01	20 - 7F	Name 12		
FX Feedbacker					
** ** 10 00	00 00 00 01	20 - 7F	Name 1		
** ** 10 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 10 0B#	00 00 00 01	20 - 7F	Name 12		
FX AntiFeedbck					
** ** 11 00	00 00 00 01	20 - 7F	Name 1		
** ** 11 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 11 0B#	00 00 00 01	20 - 7F	Name 12		
FX Humanizer					
** ** 12 00	00 00 00 01	20 - 7F	Name 1		
** ** 12 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 12 0B#	00 00 00 01	20 - 7F	Name 12		
FX Slicer					
** ** 13 00	00 00 00 01	20 - 7F	Name 1		
** ** 13 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 13 0B#	00 00 00 01	20 - 7F	Name 12		
FX WaveSynth					
** ** 14 00	00 00 00 01	20 - 7F	Name 1		
** ** 14 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 14 0B#	00 00 00 01	20 - 7F	Name 12		
FX SubEQ					
** ** 15 00	00 00 00 01	20 - 7F	Name 1		
** ** 15 01#	00 00 00 01	20 - 7F	Name 2		*Refer to "Table Name"
** ** :	:	:	:		
** ** 15 0B#	00 00 00 01	20 - 7F	Name 12		

```

FX Harmonist
** ** 16 00      00 00 00 01      20 - 7F      Name 1
** ** 16 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 16 0B#   00 00 00 01      20 - 7F      Name 12

FX PitchShift
** ** 17 00      00 00 00 01      20 - 7F      Name 1
** ** 17 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 17 0B#   00 00 00 01      20 - 7F      Name 12

FX PedalBend
** ** 18 00      00 00 00 01      20 - 7F      Name 1
** ** 18 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 18 0B#   00 00 00 01      20 - 7F      Name 12

FX Octave
** ** 19 00      00 00 00 01      20 - 7F      Name 1
** ** 19 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 19 0B#   00 00 00 01      20 - 7F      Name 12

FX Rotary
** ** 1A 00      00 00 00 01      20 - 7F      Name 1
** ** 1A 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 1A 0B#   00 00 00 01      20 - 7F      Name 12

FX 2x2Chorus
** ** 1B 00      00 00 00 01      20 - 7F      Name 1
** ** 1B 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 1B 0B#   00 00 00 01      20 - 7F      Name 12

FX AutoRiff
** ** 1C 00      00 00 00 01      20 - 7F      Name 1
** ** 1C 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 1C 0B#   00 00 00 01      20 - 7F      Name 12

FX GuitarSynth
** ** 1D 00      00 00 00 01      20 - 7F      Name 1
** ** 1D 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 1D 0B#   00 00 00 01      20 - 7F      Name 12

FX Ac.Processor
** ** 1E 00      00 00 00 01      20 - 7F      Name 1
** ** 1E 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 1E 0B#   00 00 00 01      20 - 7F      Name 12

FX SoundHold
** ** 1F 00      00 00 00 01      20 - 7F      Name 1
** ** 1F 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 1F 0B#   00 00 00 01      20 - 7F      Name 12

FX SubDelay
** ** 20 00      00 00 00 01      20 - 7F      Name 1
** ** 20 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 20 0B#   00 00 00 01      20 - 7F      Name 12

Compressor
** ** 40 00      00 00 00 01      20 - 7F      Name 1
** ** 40 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 40 0B#   00 00 00 01      20 - 7F      Name 12

Wah
** ** 42 00      00 00 00 01      20 - 7F      Name 1
** ** 42 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 42 0B#   00 00 00 01      20 - 7F      Name 12

Loop FX
** ** 44 00      00 00 00 01      20 - 7F      Name 1
** ** 44 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 44 0B#   00 00 00 01      20 - 7F      Name 12

Overdrive/Distortion
** ** 46 00      00 00 00 01      20 - 7F      Name 1
** ** 46 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 46 0B#   00 00 00 01      20 - 7F      Name 12

Preamp Channel
** ** 48 00      00 00 00 01      20 - 7F      Name 1
** ** 48 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 48 0B#   00 00 00 01      20 - 7F      Name 12

Equalizer
** ** 4A 00      00 00 00 01      20 - 7F      Name 1
** ** 4A 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 4A 0B#   00 00 00 01      20 - 7F      Name 12

Delay
** ** 4C 00      00 00 00 01      20 - 7F      Name 1
** ** 4C 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 4C 0B#   00 00 00 01      20 - 7F      Name 12

Chorus
** ** 4E 00      00 00 00 01      20 - 7F      Name 1
** ** 4E 01#    00 00 00 01      20 - 7F      Name 2
** ** : : : :      : : : :      : : : :
** ** 4E 0B#   00 00 00 01      20 - 7F      Name 12

```

```

Reverb
** ** 50 00      00 00 00 01    20 - 7F      Name 1
** ** 50 01#    00 00 00 01    20 - 7F      Name 2
** ** : : : : : : : : : : : : : : : :
** ** 50 0B#    00 00 00 01    20 - 7F      Name 12

Assign Variable
** ** 52 00      00 00 00 01    20 - 7F      Name 1
** ** 52 01#    00 00 00 01    20 - 7F      Name 2
** ** : : : : : : : : : : : : : : : :
** ** 52 0B#    00 00 00 01    20 - 7F      Name 12
    
```

Table PATCH

Address (H)	Size (H)	Data (H)	Parameter	Description
08 00 ** **				Patch U 1-1
08 01 ** **				Patch U 1-2
: :				:
09 0B ** **				Patch U35-4
0A 00 ** **				Patch P36-1
: :				:
0B 47 ** **				Patch P85-4
0C ** ** **				Temporary Buffer (Bulk)
0D ** ** **				Temporary Buffer (Individual)
↑ ↑				
↑ ↑				
↑ ↑				
↑ ↑				
FX-1				
** ** 00 00	00 00 00 01	00 - 01	FX1:On/Off	00 : Off 01 : On
** ** 00 01			(Reserved)	
** ** 00 02	00 00 00 01	00 - 15	FX1:FX Select	00 : ACS 01 : LM 02 : TW 03 : AW 04 : TM 05 : GS 06 : TR 07 : PH 08 : FL 09 : PN 0A : VB 0B : UV 0C : RM 0D : SG 0E : DF 0F : STR 10 : FB 11 : AFB 12 : HU 13 : SL 14 : WSY 15 : SEQ
** ** 00 03	00 00 00 01	00 - 07	ACS:Type	00 : BOSS Comp 01 : Hi-BAND 02 : Light 03 : D-Comp 04 : Orange 05 : Fat 06 : Mild 07 : Stereo Comp
** ** 00 04	00 00 00 01	00 - 64	ACS:Sustain	0 - 100
** ** 00 05	00 00 00 01	00 - 64	ACS:Attack	0 - 100
** ** 00 06	00 00 00 01	00 - 64	ACS:Tone	-50 - +50
** ** 00 07	00 00 00 01	00 - 64	ACS:Level	0 - 100
** ** 00 08	00 00 00 01	00 - 02	LM :Type	00 : BOSS Limiter 01 : Rack,160D 02 : Vtg Rack U
** ** 00 09	00 00 00 01	00 - 64	LM :Attack	0 - 100
** ** 00 0A	00 00 00 01	00 - 64	LM :Threshold	0 - 100
** ** 00 0B	00 00 00 01	00 - 11	LM :Ratio	*Refer to "Table Ratio"
** ** 00 0C	00 00 00 01	00 - 64	LM :Release	0 - 100
** ** 00 0D	00 00 00 01	00 - 64	LM :Level	0 - 100
** ** 00 0E	00 00 00 01	00 - 01	TW :Mode	00 : LPF 01 : BPF
** ** 00 0F	00 00 00 01	00 - 01	TW :Polarity	00 : Down 01 : Up
** ** 00 10	00 00 00 01	00 - 64	TW :Sens	0 - 100
** ** 00 11	00 00 00 01	00 - 64	TW :Frequency	0 - 100
** ** 00 12	00 00 00 01	00 - 64	TW :Peak	0 - 100
** ** 00 13	00 00 00 01	00 - 64	TW :Direct Level	0 - 100
** ** 00 14	00 00 00 01	00 - 64	TW :Level	0 - 100
** ** 00 15	00 00 00 01	00 - 01	AW :Mode	00 : LPF 01 : BPF
** ** 00 16	00 00 00 01	00 - 64	AW :Frequency	0 - 100
** ** 00 17	00 00 00 01	00 - 64	AW :Peak	0 - 100
** ** 00 18	00 00 00 01	00 - 71	AW :Rate	*Refer to "Table Rate"
** ** 00 19	00 00 00 01	00 - 64	AW :Depth	0 - 100
** ** 00 1A	00 00 00 01	00 - 64	AW :Direct Level	0 - 100
** ** 00 1B	00 00 00 01	00 - 64	AW :Level	0 - 100
** ** 00 1C	00 00 00 01	00 - 07	TM :Type	00 : Fat 01 : Presence 02 : Mild 03 : Tight 04 : Enhance 05 : Resonator1 06 : Resonator2 07 : Resonator3
** ** 00 1D	00 00 00 01	00 - 64	TM :Low	-50 - +50
** ** 00 1E	00 00 00 01	00 - 64	TM :High	-50 - +50
** ** 00 1F	00 00 00 01	00 - 64	TM :Resonance	0 - 100
** ** 00 20	00 00 00 01	00 - 64	TM :Level	0 - 100
** ** 00 21	00 00 00 01	00 - 07	GS :Type	00 : S->H 01 : H->S 02 : H->HF 03 : S->Hollow 04 : H->Hollow

MIDI Implementation

```

05 : S->AC
06 : H->AC
07 : P->AC
** ** 00 22 00 00 00 01 00 - 64 GS :Low -50 - +50
** ** 00 23 00 00 00 01 00 - 64 GS :High -50 - +50
** ** 00 24 00 00 00 01 00 - 64 GS :Body 0 - 100
** ** 00 25 00 00 00 01 00 - 64 GS :Level 0 - 100
** ** 00 26 00 00 00 01 00 - 64 TR :Wave Shape 0 - 100
** ** 00 27 00 00 00 01 00 - 71 TR :Rate *Refer to "Table Rate"
** ** 00 28 00 00 00 01 00 - 64 TR :Depth 0 - 100
** ** 00 29 00 00 00 01 00 - 03 PH :Type 00 : 4stage
01 : 8stage
02 : 12stage
03 : Bi-Phase
** ** 00 2A 00 00 00 01 00 - 71 PH :Rate *Refer to "Table Rate"
** ** 00 2B 00 00 00 01 00 - 64 PH :Depth 0 - 100
** ** 00 2C 00 00 00 01 00 - 64 PH :Manual 0 - 100
** ** 00 2D 00 00 00 01 00 - 64 PH :Resonance 0 - 100
** ** 00 2E 00 00 00 01 00 - 72 PH :Step Rate *Refer to "Table Step Rate"
** ** 00 2F 00 00 00 01 00 - 64 PH :Effect Level 0 - 100
** ** 00 30 00 00 00 01 00 - 64 PH :Direct Level 0 - 100
** ** 00 31 00 00 00 01 00 - 71 FL :Rate *Refer to "Table Rate"
** ** 00 32 00 00 00 01 00 - 64 FL :Depth 0 - 100
** ** 00 33 00 00 00 01 00 - 64 FL :Manual 0 - 100
** ** 00 34 00 00 00 01 00 - 64 FL :Resonance 0 - 100
** ** 00 35 00 00 00 01 00 - 64 FL :Separation 0 - 100
** ** 00 36 00 00 00 01 00 - 0A FL :Low Cut *Refer to "Table Low Cut"
** ** 00 37 00 00 00 01 00 - 64 FL :Effect Level 0 - 100
** ** 00 38 00 00 00 01 00 - 64 FL :Direct Level 0 - 100
** ** 00 39 00 00 00 01 00 - 64 PAN:Wave Shape 0 - 100
** ** 00 3A 00 00 00 01 00 - 71 PAN:Rate *Refer to "Table Rate"
** ** 00 3B 00 00 00 01 00 - 64 PAN:Depth 0 - 100
** ** 00 3C 00 00 00 01 00 - 71 VB :Rate *Refer to "Table Rate"
** ** 00 3D 00 00 00 01 00 - 64 VB :Depth 0 - 100
** ** 00 3E 00 00 00 01 00 - 01 VB :Trigger 00 : Off
01 : On
** ** 00 3F 00 00 00 01 00 - 64 VB :Rise Time 0 - 100
** ** 00 40 00 00 00 01 00 - 71 UV :Rate *Refer to "Table Rate"
** ** 00 41 00 00 00 01 00 - 64 UV :Depth 0 - 100
** ** 00 42 00 00 00 01 00 - 64 UV :Level 0 - 100
** ** 00 43 00 00 00 01 00 - 01 RM :Mode 00 : Normal
01 : Intelligent
** ** 00 44 00 00 00 01 00 - 64 RM :Frequency 0 - 100
** ** 00 45 00 00 00 01 00 - 64 RM :Effect Level 0 - 100
** ** 00 46 00 00 00 01 00 - 64 RM :Direct Level 0 - 100
** ** 00 47 00 00 00 01 00 - 64 SG :Sens 0 - 100
** ** 00 48 00 00 00 01 00 - 64 SG :Rise Time 0 - 100
** ** 00 49 00 00 00 01 00 - 64 DF :Tone -50 - +50
** ** 00 4A 00 00 00 01 00 - 64 DF :Sens 0 - 100
** ** 00 4B 00 00 00 01 00 - 64 DF :Attack 0 - 100
** ** 00 4C 00 00 00 01 00 - 64 DF :Depth 0 - 100
** ** 00 4D 00 00 00 01 00 - 64 DF :Resonance 0 - 100
** ** 00 4E 00 00 00 01 00 - 64 DF :Effect Level 0 - 100
** ** 00 4F 00 00 00 01 00 - 64 DF :Direct Level 0 - 100
** ** 00 50 00 00 00 01 00 - 64 STR:Tone -50 - +50
** ** 00 51 00 00 00 01 00 - 64 STR:Sens 0 - 100
** ** 00 52 00 00 00 01 00 - 64 STR:Depth 0 - 100
** ** 00 53 00 00 00 01 00 - 64 STR:Resonance 0 - 100
** ** 00 54 00 00 00 01 00 - 64 STR:Buzz 0 - 100
** ** 00 55 00 00 00 01 00 - 64 STR:Effect Level 0 - 100
** ** 00 56 00 00 00 01 00 - 64 STR:Direct Level 0 - 100
** ** 00 57 00 00 00 01 00 - 01 FB :Mode 00 : OSC
01 : Natural
** ** 00 58 00 00 00 01 00 - 64 FB :Rise Time 0 - 100
** ** 00 59 00 00 00 01 00 - 64 FB :Rise Time(▲) 0 - 100
** ** 00 5A 00 00 00 01 00 - 64 FB :F.B.Level 0 - 100
** ** 00 5B 00 00 00 01 00 - 64 FB :F.B.Level(▲) 0 - 100
** ** 00 5C 00 00 00 01 00 - 71 FB :Vibrato Rate *Refer to "Table Rate"
** ** 00 5D 00 00 00 01 00 - 64 FB :Vibrato Depth 0 - 100
** ** 00 5E 00 00 00 01 00 - 64 AFB:FREQ 1 0 - 100
** ** 00 5F 00 00 00 01 00 - 64 AFB:DEPTH 1 0 - 100
** ** 00 60 00 00 00 01 00 - 64 AFB:FREQ 2 0 - 100
** ** 00 61 00 00 00 01 00 - 64 AFB:DEPTH 2 0 - 100
** ** 00 62 00 00 00 01 00 - 64 AFB:FREQ 3 0 - 100
** ** 00 63 00 00 00 01 00 - 64 AFB:DEPTH 3 0 - 100
** ** 00 64 00 00 00 01 00 - 02 HU :Mode 00 : Picking
01 : Auto
02 : Random
** ** 00 65 00 00 00 01 00 - 04 HU :Vowel1 00 : a
01 : e
02 : i
03 : o
04 : u
** ** 00 66 00 00 00 01 00 - 04 HU :Vowel2 00 : a
01 : e
02 : i
03 : o
04 : u
** ** 00 67 00 00 00 01 00 - 64 HU :Sens 0 - 100
** ** 00 68 00 00 00 01 00 - 71 HU :Rate *Refer to "Table Rate"
** ** 00 69 00 00 00 01 00 - 64 HU :Depth 0 - 100
** ** 00 6A 00 00 00 01 00 - 64 HU :Manual 0 - 100
** ** 00 6B 00 00 00 01 00 - 64 HU :Level 0 - 100
** ** 00 6C 00 00 00 01 00 - 13 SL :Pattern 00 : P1
01 : P2
:
13 : P20
** ** 00 6D 00 00 00 01 00 - 71 SL :Rate *Refer to "Table Rate"
** ** 00 6E 00 00 00 01 00 - 64 SL :Triggr Sens 0 - 100
** ** 00 6F 00 00 00 01 00 - 01 WSY:Wave 00 : SAW
01 : SQUARE
** ** 00 70 00 00 00 01 00 - 64 WSY:Cutoff Freq 0 - 100
** ** 00 71 00 00 00 01 00 - 64 WSY:Resonance 0 - 100
** ** 00 72 00 00 00 01 00 - 64 WSY:FLT.Sens 0 - 100
** ** 00 73 00 00 00 01 00 - 64 WSY:FLT.Decay 0 - 100
** ** 00 74 00 00 00 01 00 - 64 WSY:FLT.Depth 0 - 100
** ** 00 75 00 00 00 01 00 - 64 WSY:Synth Level 0 - 100
** ** 00 76 00 00 00 01 00 - 64 WSY:Direct Level 0 - 100
** ** 00 77 00 00 00 01 00 - 0A SEQ:Low Cut *Refer to "Table Low Cut"
** ** 00 78 00 00 00 01 00 - 28 SEQ:Low EQ 00 : -20dB
01 : -19dB
:
28 : +20dB
** ** 00 79 00 00 00 01 00 - 1B SEQ:Low-Middle Frequency *Refer to "Table Middle Frequency"
** ** 00 7A 00 00 00 01 00 - 05 SEQ:Low-Middle Q *Refer to "Table Middle Q"

```

```

** ** 00 7B 00 00 00 01 00 - 28 SEQ:Low-Middle EQ 00 : -20dB
: 01 : -19dB
: 28 : +20dB
** ** 00 7C 00 00 00 01 00 - 1B SEQ:High-Middle Frequency *Refer to "Table Middle Frequency"
** ** 00 7D 00 00 00 01 00 - 05 SEQ:High-Middle Q *Refer to "Table Middle Q"
** ** 00 7E 00 00 00 01 00 - 28 SEQ:High-Middle EQ 00 : -20dB
: 01 : -19dB
: 28 : +20dB
** ** 00 7F 00 00 00 01 00 - 28 SEQ:High EQ 00 : -20dB
: 01 : -19dB
: 28 : +20dB
** ** 01 00 00 00 00 01 00 - 09 SEQ:High Cut *Refer to "Table High Cut"
** ** 01 01 00 00 00 01 00 - 28 SEQ:Level 00 : -20dB
: 01 : -19dB
: 28 : +20dB

COMPRESSOR
** ** 02 00 00 00 00 01 00 - 01 On/Off 00 : Off
: 01 : On
** ** 02 01 (Reserved)
** ** 02 02 00 00 00 01 00 - 01 Type 00 : Comp
: 01 : Limiter
** ** 02 03 00 00 00 01 00 - 64 Sustain 0 - 100
** ** 02 04 00 00 00 01 00 - 64 Attack 0 - 100
** ** 02 05 00 00 00 01 00 - 64 Threshold 0 - 100
** ** 02 06 00 00 00 01 00 - 64 Release 0 - 100
** ** 02 07 00 00 00 01 00 - 64 Tone -50 - +50
** ** 02 08 00 00 00 01 00 - 64 Level 0 - 100

WAH
** ** 03 00 00 00 00 01 00 - 01 On/Off 00 : Off
: 01 : On
** ** 03 01 (Reserved)
** ** 03 02 00 00 00 01 00 - 08 Type 00 : CRY WAH
: 01 : VO WAH
: 02 : Fat WAH
: 03 : Light WAH
: 04 : 7String WAH
: 05 : Resonance WAH
: 06 : Custom1
: 07 : Custom2
: 08 : Custom3
** ** 03 03 00 00 00 01 00 - 64 Pdl Position 0 - 100
** ** 03 04 00 00 00 01 00 - 64 Level 0 - 100

LOOP FX
** ** 04 00 00 00 00 01 00 - 01 On/Off 00 : Off
: 01 : On
** ** 04 01 (Reserved)
** ** 04 02 00 00 00 01 00 - 02 Mode 00 : Normal
: 01 : Direct Mix
: 02 : Branch Out
** ** 04 03 00 00 00 01 00 - 64 Send Level 00 : 0
: 01 : 2
: 64 : 200
** ** 04 04 00 00 00 01 00 - 64 Return Level 0 - 200

OVERDRIVE/DISTORTION
** ** 06 00 00 00 00 01 00 - 01 On/Off 00 : Off
: 01 : On
** ** 06 01 (Reserved)
** ** 06 02 00 00 00 01 00 - 20 Type *Refer to "Table OD/DS Type"
** ** 06 03 00 00 00 01 00 - 78 Drive 0 - 120
** ** 06 04 00 00 00 01 00 - 64 Bottom -50 - +50
** ** 06 05 00 00 00 01 00 - 64 Tone -50 - +50
** ** 06 06 00 00 00 01 00 - 64 Level 0 - 100
** ** 06 07 00 00 00 01 00 - 64 Direct Level 0 - 100

PREAMP/SPEAKER
** ** 07 00 00 00 00 01 00 - 01 On/Off 00 : Off
: 01 : On
** ** 07 01 (Reserved)
** ** 07 02 00 00 00 01 00 - 03 Channel Mode 00 : Single
: 01 : Dual Mono
: 02 : Dual L/R
: 03 : Dynamic
** ** 07 03 00 00 00 01 00 - 01 Channel Select 00 : Ch.A
: 01 : Ch.B
** ** 07 04 00 00 00 01 00 - 64 Dynamic Sens 0 - 100
** ** 07 05 00 00 00 01 00 - 32 Channel Delay Time 0ms - 50ms
** ** 07 06 00 00 00 01 00 - 30 Ch A Type *Refer to "Table Preamp Type"
** ** 07 07 00 00 00 01 00 - 78 Ch A Gain 0 - 120
** ** 07 08 00 00 00 01 00 - 64 Ch A Bass 0 - 100
** ** 07 09 00 00 00 01 00 - 64 Ch A Middle 0 - 100
** ** 07 0A 00 00 00 01 00 - 64 Ch A Treble 0 - 100
** ** 07 0B 00 00 00 01 00 - 64 Ch A Presence 0 - 100
** ** 07 0C 00 00 00 01 00 - 64 Ch A Level 0 - 100
** ** 07 0D 00 00 00 01 00 - 01 Ch A Bright 00 : Off
: 01 : On
** ** 07 0E 00 00 00 01 00 - 02 Ch A Gain SW 00 : Low
: 01 : Middle
: 02 : High
** ** 07 0F 00 00 00 01 00 - 01 Ch A Solo SW 00 : Off
: 01 : On
** ** 07 10 00 00 00 01 00 - 64 Ch A Solo Level 0 - 100
** ** 07 11 00 00 00 01 00 - 0A Ch A SP Type 00 : Off
: 01 : ORIGINAL
: 02 : 1x8"
: 03 : 1x10"
: 04 : 1x12"
: 05 : 2x12"
: 06 : 4x10"
: 07 : 4x12"
: 08 : 8x12"
: 09 : Custom1
: 0A : Custom2
** ** 07 12 00 00 00 01 00 - 04 Ch A Mic Type 00 : DYN57
: 01 : DYN421
: 02 : CND451
: 03 : CND87

```

```

** ** 07 13 00 00 00 01 00 - 01 Ch A Mic Dis. 04 : FLAT
** ** 07 14 00 00 00 01 00 - 0A Ch A Mic Pos. 00 : Off Mic
01 : On Mic
00 : Center
01 : 1
02 : 2
:
:
0A : 10
0 - 100
0 - 100
** ** 07 15 00 00 00 01 00 - 64 Ch A Mic Level 0 - 100
** ** 07 16 00 00 00 01 00 - 64 Ch A Direct Level 0 - 100
** ** 07 17 00 00 00 01 00 - 30 Ch B Type *Refer to "Table Preamp Type"
** ** 07 18 00 00 00 01 00 - 78 Ch B Gain 0 - 120
** ** 07 19 00 00 00 01 00 - 64 Ch B Bass 0 - 100
** ** 07 1A 00 00 00 01 00 - 64 Ch B Middle 0 - 100
** ** 07 1B 00 00 00 01 00 - 64 Ch B Treble 0 - 100
** ** 07 1C 00 00 00 01 00 - 64 Ch B Presence 0 - 100
** ** 07 1D 00 00 00 01 00 - 64 Ch B Level 0 - 100
** ** 07 1E 00 00 00 01 00 - 01 Ch B Bright 00 : Off
01 : On
** ** 07 1F 00 00 00 01 00 - 02 Ch B Gain SW 00 : Low
01 : Middle
02 : High
00 : Off
01 : On
0 - 100
** ** 07 21 00 00 00 01 00 - 64 Ch B Solo Level
** ** 07 22 00 00 00 01 00 - 0A Ch B SP Type 00 : Off
01 : ORIGINAL
02 : 1x8
03 : 1x10"
04 : 1x12"
05 : 2x12"
06 : 4x10"
07 : 4x12"
08 : 8x12"
09 : Custom1
0A : Custom2
00 : DYN57
01 : DYN421
02 : CND451
03 : CND87
04 : FLAT
** ** 07 23 00 00 00 01 00 - 03 Ch B Mic Type 00 : Off Mic
01 : On Mic
00 : Center
01 : 1
02 : 2
:
:
0A : 10
0 - 100
0 - 100
** ** 07 24 00 00 00 01 00 - 01 Ch B Mic Dis.
** ** 07 25 00 00 00 01 00 - 0A Ch B Mic Pos.
** ** 07 26 00 00 00 01 00 - 64 Ch B Mic Level
** ** 07 27 00 00 00 01 00 - 64 Ch B Direct Level
EQUALIZER
** ** 08 00 00 00 00 01 00 - 01 On/Off 00 : Off
01 : On
** ** 08 01 (Reserved)
** ** 08 02 00 00 00 01 00 - 0A Low Cut *Refer to "Table Low Cut"
** ** 08 03 00 00 00 01 00 - 28 Low EQ 00 : -20dB
01 : -19dB
:
28 : +20dB
** ** 08 04 00 00 00 01 00 - 1B Low-Middle Frequency *Refer to "Table Middle Frequency"
** ** 08 05 00 00 00 01 00 - 05 Low-Middle Q *Refer to "Table Middle Q"
** ** 08 06 00 00 00 01 00 - 28 Low-Middle EQ 00 : -20dB
01 : -19dB
:
28 : +20dB
** ** 08 07 00 00 00 01 00 - 1B High-Middle Frequency *Refer to "Table Middle Frequency"
** ** 08 08 00 00 00 01 00 - 05 High-Middle Q *Refer to "Table Middle Q"
** ** 08 09 00 00 00 01 00 - 28 High-Middle EQ 00 : -20dB
01 : -19dB
:
28 : +20dB
** ** 08 0A 00 00 00 01 00 - 28 High EQ 00 : -20dB
01 : -19dB
:
28 : +20dB
** ** 08 0B 00 00 00 01 00 - 09 High Cut *Refer to "Table High Cut"
** ** 08 0C 00 00 00 01 00 - 28 Level 00 : -20dB
01 : -19dB
:
28 : +20dB
FX-2
** ** 09 00 00 00 00 01 00 - 01 FX2:On/Off 00 : Off
01 : On
** ** 09 01 (Reserved)
** ** 09 02 00 00 00 01 00 - 20 FX2:FX Select 00 : ACS
01 : LM
02 : TW
03 : AW
04 : TM
05 : GS
06 : TR
07 : PH
08 : FL
09 : FN
0A : VB
0B : UV
0C : RM
0D : SG
0E : DF
0F : STR
10 : FB
11 : AFB
12 : HU
13 : SL
14 : WSY
15 : SEQ
16 : HR
17 : PS
18 : PB
19 : OC
1A : RT
1B : 2CE
1C : AR

```



```

1D : SYN
1E : AC
1F : SH
20 : SDD
00 : BOSS Comp
01 : Hi-BAND
02 : Light
03 : D-Comp
04 : Orange
05 : Fat
06 : Mild
07 : Stereo Comp
0 - 100
0 - 100
0 - 100
-50 - +50
0 - 100
00 : BOSS Limiter
01 : Rack 160D
02 : Vcg Rack U
0 - 100
0 - 100
*Refer to "Table Ratio"
0 - 100
0 - 100
00 : LPF
01 : BPF
00 : Down
01 : Up
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
00 : LPF
01 : BPF
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
00 : LPF
01 : BPF
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
00 : Fat
01 : Presence
02 : Mild
03 : Tight
04 : Enhance
05 : Resonator1
06 : Resonator2
07 : Resonator3
-50 - +50
-50 - +50
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
00 : S->H
01 : H->S
02 : H->HF
03 : S->Hollow
04 : H->Hollow
05 : S->AC
06 : H->AC
07 : P->AC
-50 - +50
-50 - +50
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
*Refer to "Table Rate"
0 - 100
00 : 4stage
01 : 8stage
02 : 12stage
03 : Bi-Phase
*Refer to "Table Rate"
0 - 100
0 - 100
0 - 100
0 - 100
*Refer to "Table Step Rate"
0 - 100
0 - 100
*Refer to "Table Rate"
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
*Refer to "Table Low Cut"
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
*Refer to "Table Rate"
0 - 100
0 - 100
*Refer to "Table Rate"
0 - 100
0 - 100
00 : Off
01 : On
0 - 100
*Refer to "Table Rate"
0 - 100
0 - 100
0 - 100
0 - 100
00 : Normal
01 : Intelligent
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
-50 - +50
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
0 - 100
-50 - +50
0 - 100
0 - 100
0 - 100

```

MIDI Implementation

```

** ** 09 53 00 00 00 01 00 - 64 STR:Resonance 0 - 100
** ** 09 54 00 00 00 01 00 - 64 STR:Buzz 0 - 100
** ** 09 55 00 00 00 01 00 - 64 STR:Effect Level 0 - 100
** ** 09 56 00 00 00 01 00 - 64 STR:Direct Level 0 - 100
** ** 09 57 00 00 00 01 00 - 01 FB :Mode 00 : OSC
01 : Natural
** ** 09 58 00 00 00 01 00 - 64 FB :Rise Time 0 - 100
** ** 09 59 00 00 00 01 00 - 64 FB :Rise Time(▲) 0 - 100
** ** 09 5A 00 00 00 01 00 - 64 FB :F.B.Level 0 - 100
** ** 09 5B 00 00 00 01 00 - 64 FB :F.B.Level(▲) 0 - 100
** ** 09 5C 00 00 00 01 00 - 71 FB :Vibrato Rate *Refer to "Table Rate"
** ** 09 5D 00 00 00 01 00 - 64 FB :Vibrato Depth 0 - 100
** ** 09 5E 00 00 00 01 00 - 64 AFB:FREQ 1 0 - 100
** ** 09 5F 00 00 00 01 00 - 64 AFB:DEPTH 1 0 - 100
** ** 09 60 00 00 00 01 00 - 64 AFB:FREQ 2 0 - 100
** ** 09 61 00 00 00 01 00 - 64 AFB:DEPTH 2 0 - 100
** ** 09 62 00 00 00 01 00 - 64 AFB:FREQ 3 0 - 100
** ** 09 63 00 00 00 01 00 - 64 AFB:DEPTH 3 0 - 100
** ** 09 64 00 00 00 01 00 - 02 HU :Mode 00 : Picking
01 : Auto
02 : Random
** ** 09 65 00 00 00 01 00 - 04 HU :Vowel1 00 : a
01 : e
02 : i
03 : o
04 : u
** ** 09 66 00 00 00 01 00 - 04 HU :Vowel2 00 : a
01 : e
02 : i
03 : o
04 : u
** ** 09 67 00 00 00 01 00 - 64 HU :Sens 0 - 100
** ** 09 68 00 00 00 01 00 - 71 HU :Rate *Refer to "Table Rate"
** ** 09 69 00 00 00 01 00 - 64 HU :Depth 0 - 100
** ** 09 6A 00 00 00 01 00 - 64 HU :Manual 0 - 100
** ** 09 6B 00 00 00 01 00 - 64 HU :Level 0 - 100
** ** 09 6C 00 00 00 01 00 - 13 SL :Pattern 00 : P1
01 : P2
:
13 : P20
** ** 09 6D 00 00 00 01 00 - 71 SL :Rate *Refer to "Table Rate"
** ** 09 6E 00 00 00 01 00 - 64 SL :Triggr Sens 0 - 100
** ** 09 6F 00 00 00 01 00 - 01 WSY:Wave 00 : SAW
01 : SQUARE
** ** 09 70 00 00 00 01 00 - 64 WSY:Cutoff Freq 0 - 100
** ** 09 71 00 00 00 01 00 - 64 WSY:Resonance 0 - 100
** ** 09 72 00 00 00 01 00 - 64 WSY:FLT.Sens 0 - 100
** ** 09 73 00 00 00 01 00 - 64 WSY:FLT.Decay 0 - 100
** ** 09 74 00 00 00 01 00 - 64 WSY:FLT.Depth 0 - 100
** ** 09 75 00 00 00 01 00 - 64 WSY:Synth Level 0 - 100
** ** 09 76 00 00 00 01 00 - 64 WSY:Direct Level 0 - 100
** ** 09 77 00 00 00 01 00 - 0A SEQ:Low Cut *Refer to "Table Low Cut"
** ** 09 78 00 00 00 01 00 - 28 SEQ:Low EQ 00 : -20dB
01 : -19dB
:
28 : +20dB
** ** 09 79 00 00 00 01 00 - 1B SEQ:Low-Middle Frequency *Refer to "Table Middle Frequency"
** ** 09 7A 00 00 00 01 00 - 05 SEQ:Low-Middle Q *Refer to "Table Middle Q"
** ** 09 7B 00 00 00 01 00 - 28 SEQ:Low-Middle EQ 00 : -20dB
01 : -19dB
:
28 : +20dB
** ** 09 7C 00 00 00 01 00 - 1B SEQ:High-Middle Frequency *Refer to "Table Middle Frequency"
** ** 09 7D 00 00 00 01 00 - 05 SEQ:High-Middle Q *Refer to "Table Middle Q"
** ** 09 7E 00 00 00 01 00 - 28 SEQ:High-Middle EQ 00 : -20dB
01 : -19dB
:
28 : +20dB
** ** 09 7F 00 00 00 01 00 - 28 SEQ:High EQ 00 : -20dB
01 : -19dB
:
28 : +20dB
** ** 0A 00 00 00 00 01 00 - 09 SEQ:High Cut *Refer to "Table High Cut"
** ** 0A 01 00 00 00 01 00 - 28 SEQ:Level 00 : -20dB
01 : -19dB
:
28 : +20dB
** ** 0A 02 00 00 00 01 00 - 02 HR :Voice 00 : 1-Voice
01 : 2-Mono
02 : 2-Stereo
** ** 0A 03 00 00 00 01 00 - 39 HR :Voice1:Harmony *Refer to "Table HR Harmony"
** ** 0A 04 00 00 00 02 00 00 - 02 33 HR :Voice1:Pre Delay *Refer to "Table Pre Delay"
** ** 0A 05# 00 00 00 01 00 - 64 HR :Voice1:Pre Delay(LSB)
** ** 0A 06 00 00 00 01 00 - 64 HR :Voice1:Feedback 0 - 100
** ** 0A 07 00 00 00 01 00 - 64 HR :Voice1:Level 0 - 100
** ** 0A 08 00 00 00 01 00 - 39 HR :Voice2:Harmony *Refer to "Table HR Harmony"
** ** 0A 09 00 00 00 02 00 00 - 02 33 HR :Voice2:Pre Delay *Refer to "Table Pre Delay"
** ** 0A 0A# 00 00 00 01 00 - 64 HR :Voice2:Pre Delay(LSB)
** ** 0A 0B 00 00 00 01 00 - 64 HR :Voice2:Level 0 - 100
** ** 0A 0C 00 00 00 01 00 - 0B HR :Key 00 : C(A#m)
01 : C#(A#m)
:
0B : B(G#m)
** ** 0A 0D 00 00 00 01 00 - 64 HR :Direct Level 0 - 100
** ** 0A 0E 00 00 00 01 00 - 02 PS :Voice 00 : 1-Voice
01 : 2-Mono
02 : 2-Stereo
** ** 0A 0F 00 00 00 01 00 - 03 PS :Voice1:Mode 00 : Fast
01 : Medium
02 : Slow
03 : Mono
-24 : +24
-50 : +50
** ** 0A 10 00 00 00 01 00 - 30 PS :Voice1:Pitch *Refer to "Table Pre Delay"
** ** 0A 11 00 00 00 01 00 - 64 PS :Voice1:Fine
** ** 0A 12 00 00 00 02 00 00 - 02 33 PS :Voice1:Pre Delay
** ** 0A 13# 00 00 00 01 00 - 64 PS :Voice1:Pre Delay(LSB)
** ** 0A 14 00 00 00 01 00 - 64 PS :Voice1:Feedback 0 - 100
** ** 0A 15 00 00 00 01 00 - 64 PS :Voice1:Level 0 - 100
** ** 0A 16 00 00 00 01 00 - 03 PS :Voice2:Mode 00 : Fast
01 : Medium
02 : Slow
03 : Mono
** ** 0A 17 00 00 00 01 00 - 30 PS :Voice2:Pitch 0 - 100
** ** 0A 18 00 00 00 01 00 - 64 PS :Voice2:Fine 0 - 100
** ** 0A 19 00 00 00 02 00 00 - 02 33 PS :Voice2:Pre Delay *Refer to "Table Pre Delay"
** ** 0A 1A# 00 00 00 01 00 - 64 PS :Voice2:Pre Delay(LSB)

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MIDI Implementation

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** ** OA 1B 00 00 00 01 00 - 64 PS :Voice2:Level 0 - 100
** ** OA 1C 00 00 00 01 00 - 64 PS :Direct Level 0 - 100
** ** OA 1D 00 00 00 01 00 - 30 PB :Pitch Min -24 - +24
** ** OA 1E 00 00 00 01 00 - 30 PB :Pitch Max -24 - +24
** ** OA 1F 00 00 00 01 00 - 64 PB :Pd1 Position 0 - 100
** ** OA 20 00 00 00 01 00 - 64 PB :Effect Level 0 - 100
** ** OA 21 00 00 00 01 00 - 64 PB :Direct Level 0 - 100
** ** OA 22 00 00 00 01 00 - 03 OC :Range 1, 2, 3, 4, Refer to "Table OC Range"
** ** OA 23 00 00 00 01 00 - 64 OC :Octave Level 0 - 100
** ** OA 24 00 00 00 01 00 - 64 OC :Direct Level 0 - 100
** ** OA 25 00 00 00 01 00 - 01 RT :Speed Select 00 : Slow
01 : Fast
** ** OA 26 00 00 00 01 00 - 71 RT :Rate(Slow) *Refer to "Table Rate"
** ** OA 27 00 00 00 01 00 - 71 RT :Rate(Fast) *Refer to "Table Rate"
** ** OA 28 00 00 00 01 00 - 64 RT :Rise Time 0 - 100
** ** OA 29 00 00 00 01 00 - 64 RT :Fall Time 0 - 100
** ** OA 2A 00 00 00 01 00 - 64 RT :Depth 0 - 100
** ** OA 2B 00 00 00 01 00 - 10 2CE:Xover f *Refer to "Table Xover Frequency"
** ** OA 2C 00 00 00 01 00 - 71 2CE:Low Rate *Refer to "Table Rate"
** ** OA 2D 00 00 00 01 00 - 64 2CE:Low Depth 0 - 100
** ** OA 2E 00 00 00 01 00 - 50 2CE:Low Pre Delay *Refer to "Table CE Pre Delay"
** ** OA 2F 00 00 00 01 00 - 64 2CE:Low Level 0 - 100
** ** OA 30 00 00 00 01 00 - 71 2CE:High Rate *Refer to "Table Rate"
** ** OA 31 00 00 00 01 00 - 64 2CE:High Depth 0 - 100
** ** OA 32 00 00 00 01 00 - 50 2CE:High Pre Delay *Refer to "Table CE Pre Delay"
** ** OA 33 00 00 00 01 00 - 64 2CE:High Level 0 - 100
** ** OA 34 00 00 00 01 00 - 27 AR :Phrase 00 : Preset1
01 : Preset2
:
:
13 : Preset30
14 : User1
:
:
ID : User10
00 : Off
01 : On
** ** OA 35 00 00 00 01 00 - 01 AR :Loop *Refer to "Table Rate"
0 - 100
00 : C(Am)
01 : C#(A#m)
:
:
0B : B(G#m)
0 - 100
00 : Off
01 : On
** ** OA 36 00 00 00 01 00 - 71 AR :Tempo *Refer to "Table Rate"
** ** OA 37 00 00 00 01 00 - 64 AR :Sens 0 - 100
** ** OA 38 00 00 00 01 00 - 0B AR :Key 00 : C(Am)
01 : C#(A#m)
:
:
0B : B(G#m)
0 - 100
00 : Off
01 : On
** ** OA 39 00 00 00 01 00 - 64 AR :Attack 0 - 100
** ** OA 3A 00 00 00 01 00 - 01 AR :Hold 00 : Off
01 : On
** ** OA 3B 00 00 00 01 00 - 64 AR :Effect Level 0 - 100
** ** OA 3C 00 00 00 01 00 - 64 AR :Direct Level 0 - 100
** ** OA 3D 00 00 00 01 00 - 64 SYN:Sens 0 - 100
** ** OA 3E 00 00 00 01 00 - 03 SYN:Wave 00 : Square
01 : Saw
02 : Brass
03 : Bcw
00 : Off
01 : On
** ** OA 3F 00 00 00 01 00 - 01 SYN:Chromatic 0, -1, -2
** ** OA 40 00 00 00 01 00 - 02 SYN:Octave Shift 0 - 100
** ** OA 41 00 00 00 01 00 - 64 SYN:PWM Rate 0 - 100
** ** OA 42 00 00 00 01 00 - 64 SYN:PWM Depth 0 - 100
** ** OA 43 00 00 00 01 00 - 64 SYN:Cutoff Frequency 0 - 100
** ** OA 44 00 00 00 01 00 - 64 SYN:Resonance 0 - 100
** ** OA 45 00 00 00 01 00 - 64 SYN:Filter Sens 0 - 100
** ** OA 46 00 00 00 01 00 - 64 SYN:Filter Decay 0 - 100
** ** OA 47 00 00 00 01 00 - 64 SYN:Filter Depth 00 : -100
01 : -98
:
:
32 : 0
:
:
64 : +100
00 : Decay
01 : 0
02 : 1
:
:
65 : 100
** ** OA 48 00 00 00 01 00 - 65 SYN:Attack 0 - 100
00 : Off
01 : On
** ** OA 49 00 00 00 01 00 - 64 SYN:Release 0 - 100
** ** OA 4A 00 00 00 01 00 - 64 SYN:Velocity 0 - 100
** ** OA 4B 00 00 00 01 00 - 01 SYN:Hold 00 : Off
01 : On
** ** OA 4C 00 00 00 01 00 - 64 SYN:Synth Level 0 - 100
** ** OA 4D 00 00 00 01 00 - 64 SYN:Direct Level 0 - 100
** ** OA 4E 00 00 00 01 00 - 03 AC :Type 00 : Small
01 : Medium
02 : Bright
03 : Power
** ** OA 4F 00 00 00 01 00 - 64 AC :Bass -50 - +50
** ** OA 50 00 00 00 01 00 - 64 AC :Middle -50 - +50
** ** OA 51 00 00 00 01 00 - 1B AC :Middle Freq *Refer to "Table Middle Frequency"
** ** OA 52 00 00 00 01 00 - 64 AC :Treble -50 - +50
** ** OA 53 00 00 00 01 00 - 64 AC :Presence -50 - +50
** ** OA 54 00 00 00 01 00 - 64 AC :Level 0 - 100
** ** OA 55 00 00 00 01 00 - 01 SH :Hold 00 : Off
01 : On
** ** OA 56 00 00 00 01 00 - 64 SH :Rise Time 0 - 100
** ** OA 57 00 00 00 01 00 - 78 SH :Effect Level 0 - 120
** ** OA 58 00 00 00 02 00 00 - 03 17 SDD:Delay Time *Refer to "Table SDD Delay Time"
** ** OA 59# 00 00 00 01 00 - 64 SDD:Delay Time(LSB)
** ** OA 5A 00 00 00 01 00 - 64 SDD:Feedback 0 - 100
** ** OA 5B 00 00 00 01 00 - 78 SDD:Effect Level 0 - 120
DELAY
** ** OB 00 00 00 00 01 00 - 01 On/Off 00 : Off
01 : On
** ** OB 01 (Reserved)
** ** OB 02 00 00 00 01 00 - 0B Type 00 : Single
01 : Pan
02 : Stereo
03 : Dualseries
04 : Dualparallel
05 : Duall/R
06 : Reverse
07 : Analog
08 : Tape
09 : Warp
0A : Modulate
0B : Hold
** ** OB 03 00 00 00 02 00 00 - 0E 15 Delay Time *Refer to "Table DD Delay Time"
** ** OB 04# Delay Time(LSB)
** ** OB 05 00 00 00 01 00 - 64 Tap Time 0% - 100%

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** ** OB 06 00 00 00 01 00 - 64 Feedback 0 - 100
** ** OB 07 00 00 00 01 00 - 09 High Cut *Refer to "Table High Cut"
** ** OB 08 00 00 00 02 00 00 - 07 11 Delay1 Time *Refer to "Table DD Dual Delay Time"
** ** OB 09# Delay1 Time(LSB)
** ** OB 0A 00 00 00 01 00 - 64 Delay1 Feedback 0 - 100
** ** OB 0B 00 00 00 01 00 - 09 Delay1 High Cut *Refer to "Table High Cut"
** ** OB 0C 00 00 00 01 00 - 78 Delay1 Level 0 - 120
** ** OB 0D 00 00 00 02 00 00 - 07 11 Delay2 Time *Refer to "Table DD Dual Delay Time"
** ** OB 0E# Delay2 Time(LSB)
** ** OB 0F 00 00 00 01 00 - 64 Delay2 Feedback 0 - 100
** ** OB 10 00 00 00 01 00 - 09 Delay2 High Cut *Refer to "Table High Cut"
** ** OB 11 00 00 00 01 00 - 78 Delay2 Level 0 - 120
** ** OB 12 00 00 00 01 00 - 64 MOD Rate 0 - 100
** ** OB 13 00 00 00 01 00 - 64 MOD Depth 0 - 100
** ** OB 14 00 00 00 01 00 - 01 Warp Sw 00 : Off
01 : On
** ** OB 15 00 00 00 01 00 - 64 Warp Rise Time 0 - 100
** ** OB 16 00 00 00 01 00 - 64 Warp Feedback Depth 0 - 100
** ** OB 17 00 00 00 01 00 - 64 Warp E.Level Depth 0 - 100
** ** OB 18 00 00 00 01 00 - 78 Effect Level 0 - 120
** ** OB 19 00 00 00 01 00 - 64 Direct Level 0 - 100

CHORUS
** ** OC 00 00 00 00 01 00 - 01 On/Off 00 : Off
01 : On
** ** OC 01 (Reserved)
** ** OC 02 00 00 00 01 00 - 02 Mode 00 : Mono
01 : Stereo1
02 : Stereo2
** ** OC 03 00 00 00 01 00 - 71 Rate *Refer to Table Rate
** ** OC 04 00 00 00 01 00 - 64 Depth 0 - 100
** ** OC 05 00 00 00 01 00 - 50 Pre Delay *Refer to "Table CE Pre Delay"
** ** OC 06 00 00 00 01 00 - 0A Low Cut *Refer to "Table Low Cut"
** ** OC 07 00 00 00 01 00 - 09 High Cut *Refer to "Table High Cut"
** ** OC 08 00 00 00 01 00 - 64 Effect Level 0 - 100

REVERB
** ** OD 00 00 00 00 01 00 - 01 On/Off 00 : Off
01 : On
** ** OD 01 (Reserved)
** ** OD 02 00 00 00 01 00 - 06 Type 00 : Ambience
01 : Room
02 : Hall1
03 : Hall2
04 : Plate
05 : Spring
06 : Mod
** ** OD 03 00 00 00 01 00 - 63 Reverb Time 00 : 0.1s
01 : 0.2s
:
63 : 10.0s
** ** OD 04 00 00 00 01 00 - 64 Pre Delay 0msec - 100msec
** ** OD 05 00 00 00 01 00 - 0A Low Cut *Refer to "Table Low Cut"
** ** OD 06 00 00 00 01 00 - 09 High Cut *Refer to "Table High Cut"
** ** OD 07 00 00 00 01 00 - 0A Density 0 - 10
** ** OD 08 00 00 00 01 00 - 64 Effect Level 0 - 100
** ** OD 09 00 00 00 01 00 - 64 Direct Level 0 - 100

MASTER
** ** OE 00 00 00 00 01 00 - 01 NS :Effect 00 : Off
01 : On
** ** OE 01 00 00 00 01 00 - 64 NS :Threshold 0 - 100
** ** OE 02 00 00 00 01 00 - 64 NS :Release 0 - 100
** ** OE 03 00 00 00 01 00 - 02 NS :Detect 00 : Input
01 : Ns Input
02 : FV Out
** ** OE 04 00 00 00 01 00 - 64 Patch Level 00 : 0
01 : 2
:
64 : 200
** ** OE 05 00 00 00 02 00 00 - 01 52 Master BPM 00 00 : 40
00 01 : 41
:
01 52 : 250
** ** OE 06# Master BPM(LSB)
** ** OE 07 00 00 00 01 00 - 64 FV :Level 0 - 100
** ** OE 08 00 00 00 01 00 - 03 FV :Vol.Curve 00 : SLOW1
01 : SLOW2
02 : NORMAL
03 : FAST
** ** OE 09 00 00 00 01 00 - 02 Output 00 : Main
01 : Sub
02 : Main+Sub

AMP CTL SW
** ** OF 00 00 00 00 01 00 - 01 On/Off 00 : Off
01 : On

FX CHAIN
** ** 11 00 00 00 00 01 00 - 0D Chain1 00 : FX1
01 : CS
02 : WAH
03 : LP
04 : OD
05 : PRE
06 : EQ
07 : FX2
08 : DD
09 : CE
0A : RV
0B : NS
0C : FV
0D : DGT
** ** 11 01# Chain2
** ** 11 02# Chain3
** ** 11 03# Chain4
** ** 11 04# Chain5
** ** 11 05# Chain6
** ** 11 06# Chain7
** ** 11 07# Chain8
** ** 11 08# Chain9
** ** 11 09# Chain10
** ** 11 0A# Chain11
** ** 11 0B# Chain12
** ** 11 0C# Chain13

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** ** 11 0D#  00 00 00 01  00 - 0D  Chain14

* Rules for exchanging effect positions
  The same effect cannot be used more than once.

NAME
** ** 12 00  00 00 00 01  20 - 7F  Name1
** ** 12 01  00 00 00 01  20 - 7F  Name2
** ** 12 02  00 00 00 01  20 - 7F  Name3
** ** 12 03  00 00 00 01  20 - 7F  Name4
** ** 12 04  00 00 00 01  20 - 7F  Name5
** ** 12 05  00 00 00 01  20 - 7F  Name6
** ** 12 06  00 00 00 01  20 - 7F  Name7
** ** 12 07  00 00 00 01  20 - 7F  Name8
** ** 12 08  00 00 00 01  20 - 7F  Name9
** ** 12 09  00 00 00 01  20 - 7F  Name10
** ** 12 0A  00 00 00 01  20 - 7F  Name11
** ** 12 0B  00 00 00 01  20 - 7F  Name12
** ** 12 0C  00 00 00 01  20 - 7F  Name13
** ** 12 0D  00 00 00 01  20 - 7F  Name14
** ** 12 0E  00 00 00 01  20 - 7F  Name15
** ** 12 0F  00 00 00 01  20 - 7F  Name16

CTL PEDAL
** ** 13 00  00 00 00 01  00 - 01  On/Off
** ** 13 01  00 00 00 01  00 - 1D  Function

EXP PEDAL SW
** ** 14 00  00 00 00 01  00 - 01  On/Off
** ** 14 01  00 00 00 01  00 - 1D  Function

EXP PEDAL
** ** 15 00  00 00 00 01  00 - 01  On/Off
** ** 15 01  00 00 00 01  00 - 64  Foot Volume Min
** ** 15 02  00 00 00 01  00 - 64  Foot Volume Max

ASSIGN 1
** ** 16 00  00 00 00 01  00 - 01  On/Off
** ** 16 01  00 00 00 01  00 - 01  (Reserved)
** ** 16 02  00 00 00 02  00 00 - 03 60 Target
** ** 16 03#  00 00 00 02  00 00 - $$ $$ Target (LSB)
** ** 16 04  00 00 00 02  00 00 - $$ $$ Target Min
** ** 16 05#  00 00 00 02  00 00 - $$ $$ Target Min (LSB)
** ** 16 06  00 00 00 02  00 00 - $$ $$ Target Max
** ** 16 07#  00 00 00 02  00 00 - $$ $$ Target Max (LSB)
** ** 16 08  00 00 00 01  00 - 47 Source
** ** 16 09  00 00 00 01  00 - 01 Source Mode
** ** 16 0A  00 00 00 01  00 - 7E Source Act.Range Lo
** ** 16 0B  00 00 00 01  01 - 7F Source Act.Range Hi
** ** 16 0C  00 00 00 01  00 - 47 Trigger

** ** 16 0D  00 00 00 01  00 - 64 Time
** ** 16 0E  00 00 00 01  00 - 02 Curve

** ** 16 0F  00 00 00 01  00 - 64 Rate
** ** 16 10  00 00 00 01  00 - 02 Waveform

ASSIGN 2
** ** 17 00  00 00 00 01  00 - 01  On/Off
** ** 17 01  00 00 00 01  00 - 01  (Reserved)
** ** 17 02  00 00 00 02  00 00 - 03 60 Target
** ** 17 03#  00 00 00 02  00 00 - $$ $$ Target (LSB)
** ** 17 04  00 00 00 02  00 00 - $$ $$ Target Min
** ** 17 05#  00 00 00 02  00 00 - $$ $$ Target Min (LSB)
** ** 17 06  00 00 00 02  00 00 - $$ $$ Target Max
** ** 17 07#  00 00 00 02  00 00 - $$ $$ Target Max (LSB)
** ** 17 08  00 00 00 01  00 - 47 Source
** ** 17 09  00 00 00 01  00 - 01 Source Mode
** ** 17 0A  00 00 00 01  00 - 7E Source Act.Range Lo
** ** 17 0B  00 00 00 01  01 - 7F Source Act.Range Hi
** ** 17 0C  00 00 00 01  00 - 47 Trigger
** ** 17 0D  00 00 00 01  00 - 64 Time
** ** 17 0E  00 00 00 01  00 - 02 Curve
** ** 17 0F  00 00 00 01  00 - 64 Rate
** ** 17 10  00 00 00 01  00 - 02 Waveform

ASSIGN 3
** ** 18 00  00 00 00 01  00 - 01  On/Off
** ** 18 01  00 00 00 01  00 - 01  (Reserved)
** ** 18 02  00 00 00 02  00 00 - 03 60 Target
** ** 18 03#  00 00 00 02  00 00 - $$ $$ Target (LSB)
** ** 18 04  00 00 00 02  00 00 - $$ $$ Target Min
** ** 18 05#  00 00 00 02  00 00 - $$ $$ Target Min (LSB)
** ** 18 06  00 00 00 02  00 00 - $$ $$ Target Max
** ** 18 07#  00 00 00 02  00 00 - $$ $$ Target Max (LSB)
** ** 18 08  00 00 00 01  00 - 47 Source
** ** 18 09  00 00 00 01  00 - 01 Source Mode
** ** 18 0A  00 00 00 01  00 - 7E Source Act.Range Lo
** ** 18 0B  00 00 00 01  01 - 7F Source Act.Range Hi
** ** 18 0C  00 00 00 01  00 - 47 Trigger
** ** 18 0D  00 00 00 01  00 - 64 Time
** ** 18 0E  00 00 00 01  00 - 02 Curve
** ** 18 0F  00 00 00 01  00 - 64 Rate
** ** 18 10  00 00 00 01  00 - 02 Waveform

```

```

ASSIGN 4
** ** 19 00    00 00 00 01    00 - 01    On/Off
** ** 19 01    (Reserved)
** ** 19 02    00 00 00 02    00 00 - 03 60    Target
** ** 19 03#   Target (LSB)
** ** 19 04    00 00 00 02    00 00 - $$ $$    Target Min
** ** 19 05#   Target Min(LSB)
** ** 19 06    00 00 00 02    00 00 - $$ $$    Target Max
** ** 19 07#   Target Max(LSB)
** ** 19 08    00 00 00 01    00 - 47    Source
** ** 19 09    00 00 00 01    00 - 01    Source Mode
** ** 19 0A    00 00 00 01    00 - 7E    Source Act.Range Lo
** ** 19 0B    00 00 00 01    01 - 7F    Source Act.Range Hi
** ** 19 0C    00 00 00 01    00 - 47    Trigger
** ** 19 0D    00 00 00 01    00 - 64    Time
** ** 19 0E    00 00 00 01    00 - 02    Curve
** ** 19 0F    00 00 00 01    00 - 64    Rate
** ** 19 10    00 00 00 01    00 - 02    Waveform

ASSIGN 5
** ** 1A 00    00 00 00 01    00 - 01    On/Off
** ** 1A 01    (Reserved)
** ** 1A 02    00 00 00 02    00 00 - 03 60    Target
** ** 1A 03#   Target (LSB)
** ** 1A 04    00 00 00 02    00 00 - $$ $$    Target Min
** ** 1A 05#   Target Min(LSB)
** ** 1A 06    00 00 00 02    00 00 - $$ $$    Target Max
** ** 1A 07#   Target Max(LSB)
** ** 1A 08    00 00 00 01    00 - 47    Source
** ** 1A 09    00 00 00 01    00 - 01    Source Mode
** ** 1A 0A    00 00 00 01    00 - 7E    Source Act.Range Lo
** ** 1A 0B    00 00 00 01    01 - 7F    Source Act.Range Hi
** ** 1A 0C    00 00 00 01    00 - 47    Trigger
** ** 1A 0D    00 00 00 01    00 - 64    Time
** ** 1A 0E    00 00 00 01    00 - 02    Curve
** ** 1A 0F    00 00 00 01    00 - 64    Rate
** ** 1A 10    00 00 00 01    00 - 02    Waveform

ASSIGN 6
** ** 1B 00    00 00 00 01    00 - 01    On/Off
** ** 1B 01    (Reserved)
** ** 1B 02    00 00 00 02    00 00 - 03 60    Target
** ** 1B 03#   Target (LSB)
** ** 1B 04    00 00 00 02    00 00 - $$ $$    Target Min
** ** 1B 05#   Target Min(LSB)
** ** 1B 06    00 00 00 02    00 00 - $$ $$    Target Max
** ** 1B 07#   Target Max(LSB)
** ** 1B 08    00 00 00 01    00 - 47    Source
** ** 1B 09    00 00 00 01    00 - 01    Source Mode
** ** 1B 0A    00 00 00 01    00 - 7E    Source Act.Range Lo
** ** 1B 0B    00 00 00 01    01 - 7F    Source Act.Range Hi
** ** 1B 0C    00 00 00 01    00 - 47    Trigger
** ** 1B 0D    00 00 00 01    00 - 64    Time
** ** 1B 0E    00 00 00 01    00 - 02    Curve
** ** 1B 0F    00 00 00 01    00 - 64    Rate
** ** 1B 10    00 00 00 01    00 - 02    Waveform

ASSIGN 7
** ** 1C 00    00 00 00 01    00 - 01    On/Off
** ** 1C 01    (Reserved)
** ** 1C 02    00 00 00 02    00 00 - 03 60    Target
** ** 1C 03#   Target (LSB)
** ** 1C 04    00 00 00 02    00 00 - $$ $$    Target Min
** ** 1C 05#   Target Min(LSB)
** ** 1C 06    00 00 00 02    00 00 - $$ $$    Target Max
** ** 1C 07#   Target Max(LSB)
** ** 1C 08    00 00 00 01    00 - 47    Source
** ** 1C 09    00 00 00 01    00 - 01    Source Mode
** ** 1C 0A    00 00 00 01    00 - 7E    Source Act.Range Lo
** ** 1C 0B    00 00 00 01    01 - 7F    Source Act.Range Hi
** ** 1C 0C    00 00 00 01    00 - 47    Trigger
** ** 1C 0D    00 00 00 01    00 - 64    Time
** ** 1C 0E    00 00 00 01    00 - 02    Curve
** ** 1C 0F    00 00 00 01    00 - 64    Rate
** ** 1C 10    00 00 00 01    00 - 02    Waveform

ASSIGN 8
** ** 1D 00    00 00 00 01    00 - 01    On/Off
** ** 1D 01    (Reserved)
** ** 1D 02    00 00 00 02    00 00 - 03 60    Target
** ** 1D 03#   Target (LSB)
** ** 1D 04    00 00 00 02    00 00 - $$ $$    Target Min
** ** 1D 05#   Target Min(LSB)
** ** 1D 06    00 00 00 02    00 00 - $$ $$    Target Max
** ** 1D 07#   Target Max(LSB)
** ** 1D 08    00 00 00 01    00 - 47    Source
** ** 1D 09    00 00 00 01    00 - 01    Source Mode
** ** 1D 0A    00 00 00 01    00 - 7E    Source Act.Range Lo
** ** 1D 0B    00 00 00 01    01 - 7F    Source Act.Range Hi
** ** 1D 0C    00 00 00 01    00 - 47    Trigger
** ** 1D 0D    00 00 00 01    00 - 64    Time
** ** 1D 0E    00 00 00 01    00 - 02    Curve
** ** 1D 0F    00 00 00 01    00 - 64    Rate
** ** 1D 10    00 00 00 01    00 - 02    Waveform

ASSIGN INPUT SENS
** ** 1E 00    00 00 00 01    00 - 64    Assign Input Sens    0 - 100

```

Table Quick Assign Target <Quick ASSIGN:Target>

Data(H)	Description	00 00 06 0E	00 00 06 0F	00 00 07 00	00 00 07 01	00 00 07 02	00 00 07 03	00 00 07 04	00 00 07 05	00 00 07 06	00 00 07 07	00 00 07 08	00 00 07 09	00 00 07 0A	00 00 07 0B	00 00 07 0C	00 00 07 0D	00 00 07 0E	00 00 07 0F	00 00 08 00	00 00 08 01	00 00 08 02	00 00 08 03	00 00 08 04	00 00 08 05	00 00 08 06	00 00 08 07	00 00 08 08	00 00 08 09	00 00 08 0A	00 00 08 0B	00 00 08 0C	00 00 08 0D	00 00 08 0E	00 00 08 0F	00 00 09 00	00 00 09 01	00 00 09 02	00 00 09 03	00 00 09 04	00 00 09 05	00 00 09 06	00 00 09 07	00 00 09 08	00 00 09 09	00 00 09 0A	00 00 09 0B	00 00 09 0C	00 00 09 0D	00 00 09 0E	00 00 09 0F	00 00 0A 00	00 00 0A 01	00 00 0A 02	00 00 0A 03	00 00 0A 04	00 00 0A 05	00 00 0A 06	00 00 0A 07	00 00 0A 08	00 00 0A 09	00 00 0A 0A	00 00 0A 0B	00 00 0A 0C	00 00 0A 0D	00 00 0A 0E	00 00 0A 0F	00 00 0B 00	00 00 0B 01	00 00 0B 02	00 00 0B 03	00 00 0B 04	00 00 0B 05	00 00 0B 06	00 00 0B 07	00 00 0B 08	00 00 0B 09	00 00 0B 0A	00 00 0B 0B	00 00 0B 0C	00 00 0B 0D	00 00 0B 0E	00 00 0B 0F	00 00 0C 00	00 00 0C 01	00 00 0C 02	00 00 0C 03	00 00 0C 04	00 00 0C 05	00 00 0C 06	00 00 0C 07	00 00 0C 08	00 00 0C 09	00 00 0C 0A	00 00 0C 0B	00 00 0C 0C	00 00 0C 0D	00 00 0C 0E	00 00 0C 0F	00 00 0D 00	00 00 0D 01	00 00 0D 02	00 00 0D 03	00 00 0D 04	00 00 0D 05	00 00 0D 06	00 00 0D 07	00 00 0D 08	00 00 0D 09	00 00 0D 0A	00 00 0D 0B	00 00 0D 0C	00 00 0D 0D	00 00 0D 0E	00 00 0D 0F	00 00 0E 00
00 00 00 00	FX1:On/Off	FX1:WSY:Wave																																																																																																																		
00 00 00 01	FX1:FX Select	FX1:WSY:Cutoff Freq																																																																																																																		
00 00 00 02	FX1:ACS:Type	FX1:WSY:Resonance																																																																																																																		
00 00 00 03	FX1:ACS:Sustain	FX1:WSY:FLT_Sens																																																																																																																		
00 00 00 04	FX1:ACS:Attack	FX1:WSY:FLT_Decay																																																																																																																		
00 00 00 05	FX1:ACS:Tone	FX1:WSY:FLT_Depth																																																																																																																		
00 00 00 06	FX1:ACS:Level	FX1:WSY:Synth Level																																																																																																																		
00 00 00 07	FX1:LM :Type	FX1:WSY:Direct Level																																																																																																																		
00 00 00 08	FX1:LM :Attack	FX1:SEQ:Low Cut																																																																																																																		
00 00 00 09	FX1:LM :Threshold	FX1:SEQ:Low EQ																																																																																																																		
00 00 00 0A	FX1:LM :Ratio	FX1:SEQ:Low-Middle Frequency																																																																																																																		
00 00 00 0B	FX1:LM :Release	FX1:SEQ:Low-Middle Q																																																																																																																		
00 00 00 0C	FX1:LM :Level	FX1:SEQ:Low-Middle EQ																																																																																																																		
00 00 00 0D	FX1:TW :Mode	FX1:SEQ:High-Middle Frequency																																																																																																																		
00 00 00 0E	FX1:TW :Polarity	FX1:SEQ:High-Middle Q																																																																																																																		
00 00 00 0F	FX1:TW :Sens	FX1:SEQ:High-Middle EQ																																																																																																																		
00 00 01 00	FX1:TW :Frequency	FX1:SEQ:High EQ																																																																																																																		
00 00 01 01	FX1:TW :Peak	FX1:SEQ:High Cut																																																																																																																		
00 00 01 02	FX1:TW :Direct Level	FX1:SEQ:Level																																																																																																																		
00 00 01 03	FX1:TW :Level	CS :On/Off																																																																																																																		
00 00 01 04	FX1:AW :Mode	CS :Type																																																																																																																		
00 00 01 05	FX1:AW :Frequency	CS :Sustain																																																																																																																		
00 00 01 06	FX1:AW :Peak	CS :Attack																																																																																																																		
00 00 01 07	FX1:AW :Rate	CS :Threshold																																																																																																																		
00 00 01 08	FX1:AW :Depth	CS :Release																																																																																																																		
00 00 01 09	FX1:AW :Direct Level	CS :Tone																																																																																																																		
00 00 01 0A	FX1:AW :Level	CS :Level																																																																																																																		
00 00 01 0B	FX1:TM :Type	WAH:On/Off																																																																																																																		
00 00 01 0C	FX1:TM :Low	WAH:Type																																																																																																																		
00 00 01 0D	FX1:TM :High	WAH:Pdl Position																																																																																																																		
00 00 01 0E	FX1:TM :Resonance	WAH:Level																																																																																																																		
00 00 01 0F	FX1:TM :Level	LP :On/Off																																																																																																																		
00 00 02 00	FX1:GS :Type	LP :Mode																																																																																																																		
00 00 02 01	FX1:GS :Low	LP :Send Level																																																																																																																		
00 00 02 02	FX1:GS :High	LP :Return Level																																																																																																																		
00 00 02 03	FX1:GS :Body	OD :On/Off																																																																																																																		
00 00 02 04	FX1:GS :Level	OD :Type																																																																																																																		
00 00 02 05	FX1:TR :Wave Shape	OD :Drive																																																																																																																		
00 00 02 06	FX1:TR :Rate	OD :Bottom																																																																																																																		
00 00 02 07	FX1:TR :Depth	OD :Tone																																																																																																																		
00 00 02 08	FX1:PH :Type	OD :Level																																																																																																																		
00 00 02 09	FX1:PH :Rate	OD :Direct Level																																																																																																																		
00 00 02 0A	FX1:PH :Depth	PRE:On/Off																																																																																																																		
00 00 02 0B	FX1:PH :Manual	PRE:Channel Mode																																																																																																																		
00 00 02 0C	FX1:PH :Resonance	PRE:Channel Select																																																																																																																		
00 00 02 0D	FX1:PH :Step Rate	PRE:Dynamic Sens																																																																																																																		
00 00 02 0E	FX1:PH :Effect Level	PRE:Channel Delay Time																																																																																																																		
00 00 02 0F	FX1:FL :Rate	PRE:Ch A Type																																																																																																																		
00 00 03 00	FX1:FL :Depth	PRE:Ch A Gain																																																																																																																		
00 00 03 01	FX1:FL :Manual	PRE:Ch A Bass																																																																																																																		
00 00 03 02	FX1:FL :Resonance	PRE:Ch A Middle																																																																																																																		
00 00 03 03	FX1:FL :Separation	PRE:Ch A Treble																																																																																																																		
00 00 03 04	FX1:FL :Low Cut	PRE:Ch A Presence																																																																																																																		
00 00 03 05	FX1:FL :Effect Level	PRE:Ch A Level																																																																																																																		
00 00 03 06	FX1:FL :Direct Level	PRE:Ch A Bright																																																																																																																		
00 00 03 07	FX1:PAN:Wave Shape	PRE:Ch A Gain SW																																																																																																																		
00 00 03 08	FX1:PAN:Rate	PRE:Ch A Solo SW																																																																																																																		
00 00 03 09	FX1:PAN:Depth	PRE:Ch A Solo Level																																																																																																																		
00 00 03 0A	FX1:VB :Rate	PRE:Ch A SP Type																																																																																																																		
00 00 03 0B	FX1:VB :Depth	PRE:Ch A Mic Type																																																																																																																		
00 00 03 0C	FX1:VB :Trigger	PRE:Ch A Mic Dis.																																																																																																																		
00 00 03 0D	FX1:VB :Rise Time	PRE:Ch A Mic Pos.																																																																																																																		
00 00 03 0E	FX1:UV :Rate	PRE:Ch A Direct Level																																																																																																																		
00 00 03 0F	FX1:UV :Depth	PRE:Ch B Type																																																																																																																		
00 00 04 00	FX1:UV :Level	PRE:Ch B Gain																																																																																																																		
00 00 04 01	FX1:RM :Mode	PRE:Ch B Bass																																																																																																																		
00 00 04 02	FX1:RM :Frequency	PRE:Ch B Middle																																																																																																																		
00 00 04 03	FX1:RM :Effect Level	PRE:Ch B Treble																																																																																																																		
00 00 04 04	FX1:RM :Direct Level	PRE:Ch B Presence																																																																																																																		
00 00 04 05	FX1:SG :Sens	PRE:Ch B Level																																																																																																																		
00 00 04 06	FX1:SG :Rise Time	PRE:Ch B Bright																																																																																																																		
00 00 04 07	FX1:DF :Tone	PRE:Ch B Gain SW																																																																																																																		
00 00 04 08	FX1:DF :Sens	PRE:Ch B Solo Level																																																																																																																		
00 00 04 09	FX1:DF :Attack	PRE:Ch B SP Type																																																																																																																		
00 00 04 0A	FX1:DF :Depth	PRE:Ch B Mic Type																																																																																																																		
00 00 04 0B	FX1:DF :Resonance	PRE:Ch B Mic Dis.																																																																																																																		
00 00 04 0C	FX1:DF :Effect Level	PRE:Ch B Mic Pos.																																																																																																																		
00 00 04 0D	FX1:DF :Direct Level	PRE:Ch B Mic Level																																																																																																																		
00 00 04 0E	FX1:STR:Tone	PRE:Ch B Direct Level																																																																																																																		
00 00 04 0F	FX1:STR:Sens	EQ :On/Off																																																																																																																		
00 00 05 00	FX1:STR:Depth	EQ :Low Cut																																																																																																																		
00 00 05 01	FX1:STR:Resonance	EQ :Low EQ																																																																																																																		
00 00 05 02	FX1:STR:Buzz	EQ :Low-Middle Frequency																																																																																																																		
00 00 05 03	FX1:STR:Effect Level	EQ :Low-Middle Q																																																																																																																		
00 00 05 04	FX1:STR:Direct Level	EQ :Low-Middle EQ																																																																																																																		
00 00 05 05	FX1:FB :Mode	EQ :High-Middle Frequency																																																																																																																		
00 00 05 06	FX1:FB :Rise Time	EQ :High-Middle Q																																																																																																																		
00 00 05 07	FX1:FB :Rise Time(▲)	EQ :High-Middle EQ																																																																																																																		
00 00 05 08	FX1:FB :F.B.Level	EQ :High EQ																																																																																																																		
00 00 05 09	FX1:FB :F.B.Level(▲)	EQ :High Cut																																																																																																																		
00 00 05 0A	FX1:FB :Vibrato Rate	EQ :Level																																																																																																																		
00 00 05 0B	FX1:FB :Vibrato Depth	FX2:On/Off																																																																																																																		
00 00 05 0C	FX1:AFB:FREQ 1	FX2:FX Select																																																																																																																		
00 00 05 0D	FX1:AFB:DEPTH 1	FX2:ACS:Type																																																																																																																		
00 00 05 0E	FX1:AFB:FREQ 2	FX2:ACS:Sustain																																																																																																																		
00 00 05 0F	FX1:AFB:DEPTH 2	FX2:ACS:Attack																																																																																																																		
00 00 06 00	FX1:AFB:FREQ 3	FX2:ACS:Tone																																																																																																																		
00 00 06 01	FX1:AFB:DEPTH 3	FX2:ACS:Level																																																																																																																		
00 00 06 02	FX1:HU :Mode	FX2:LM :Type																																																																																																																		
00 00 06 03	FX1:HU :Vowel1	FX2:LM :Attack																																																																																																																		
00 00 06 04	FX1:HU :Vowel2	FX2:LM :Threshold																																																																																																																		
00 00 06 05	FX1:HU :Sens	FX2:LM :Ratio																																																																																																																		
00 00 06 06	FX1:HU :Rate	FX2:LM :Release																																																																																																																		
00 00 06 07	FX1:HU :Depth	FX2:LM :Level																																																																																																																		
00 00 06 08	FX1:HU :Manual	FX2:TW :Mode																																																																																																																		
00 00 06 09	FX1:HU :Level	FX2:TW :Polarity																																																																																																																		
00 00 06 0A	FX1:SL :Pattern	FX2:TW :Sens																																																																																																																		
00 00 06 0B	FX1:SL :Rate	FX2:TW :Frequency																																																																																																																		
00 00 06 0C	FX1:SL :Triggr Sens	FX2:TW :Peak																																																																																																																		
00 00 06 0D		FX2:TW :Direct Level																																																																																																																		
		FX2:TW :Level																																																																																																																		
		FX2:AW :Mode																																																																																																																		
		FX2:AW :Frequency																																																																																																																		

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00 00 0E 01 FX2:AW :Peak 00 01 05 04 FX2:HR :Key
00 00 0E 02 FX2:AW :Rate 00 01 05 05 FX2:HR :Direct Level
00 00 0E 03 FX2:AW :Depth 00 01 05 06 FX2:PS :Voice
00 00 0E 04 FX2:AW :Direct Level 00 01 05 07 FX2:PS :Voice:Mode
00 00 0E 05 FX2:AW :Level 00 01 05 08 FX2:PS :Voice:Pitch
00 00 0E 06 FX2:TM :Type 00 01 05 09 FX2:PS :Voice:Fine
00 00 0E 07 FX2:TM :Low 00 01 05 0A FX2:PS :Voice:Pre Delay
00 00 0E 08 FX2:TM :High 00 01 05 0B FX2:PS :Voice:Feedback
00 00 0E 09 FX2:TM :Resonance 00 01 05 0C FX2:PS :Voice:Level
00 00 0E 0A FX2:TM :Level 00 01 05 0D FX2:PS :Voice2:Mode
00 00 0E 0B FX2:GS :Type 00 01 05 0E FX2:PS :Voice2:Pitch
00 00 0E 0C FX2:GS :Low 00 01 05 0F FX2:PS :Voice2:Fine
00 00 0E 0D FX2:GS :High 00 01 06 00 FX2:PS :Voice2:Pre Delay
00 00 0E 0E FX2:GS :Body 00 01 06 01 FX2:PS :Voice2:Level
00 00 0E 0F FX2:GS :Level 00 01 06 02 FX2:PS :Direct Level
00 00 0F 00 FX2:TR :Wave Shape 00 01 06 03 FX2:PB :Pitch Min
00 00 0F 01 FX2:TR :Rate 00 01 06 04 FX2:PB :Pitch Max
00 00 0F 02 FX2:TR :Depth 00 01 06 05 FX2:PB :Pdl Position
00 00 0F 03 FX2:PH :Type 00 01 06 06 FX2:PB :Effect Level
00 00 0F 04 FX2:PH :Rate 00 01 06 07 FX2:PB :Direct Level
00 00 0F 05 FX2:PH :Depth 00 01 06 08 FX2:OC :Range
00 00 0F 06 FX2:PH :Manual 00 01 06 09 FX2:OC :Octave Level
00 00 0F 07 FX2:PH :Resonance 00 01 06 0A FX2:OC :Direct Level
00 00 0F 08 FX2:PH :Step Rate 00 01 06 0B FX2:RT :Speed Select
00 00 0F 09 FX2:PH :Effect Level 00 01 06 0C FX2:RT :Rate(Slow)
00 00 0F 0A FX2:PH :Direct Level 00 01 06 0D FX2:RT :Rate(Fast)
00 00 0F 0B FX2:FL :Rate 00 01 06 0E FX2:RT :Rise Time
00 00 0F 0C FX2:FL :Depth 00 01 06 0F FX2:RT :Fall Time
00 00 0F 0D FX2:FL :Manual 00 01 07 00 FX2:RT :Depth
00 00 0F 0E FX2:FL :Resonance 00 01 07 01 FX2:2CE:Xover f
00 00 0F 0F FX2:FL :Separation 00 01 07 02 FX2:2CE:Low Rate
00 01 00 00 FX2:FL :Low Cut 00 01 07 03 FX2:2CE:Low Depth
00 01 00 01 FX2:FL :Effect Level 00 01 07 04 FX2:2CE:Low Pre Delay
00 01 00 02 FX2:FL :Direct Level 00 01 07 05 FX2:2CE:Low Level
00 01 00 03 FX2:PAN:Wave Shape 00 01 07 06 FX2:2CE:High Rate
00 01 00 04 FX2:PAN:Rate 00 01 07 07 FX2:2CE:High Depth
00 01 00 05 FX2:PAN:Depth 00 01 07 08 FX2:2CE:High Pre Delay
00 01 00 06 FX2:VB :Rate 00 01 07 09 FX2:2CE:High Level
00 01 00 07 FX2:VB :Depth 00 01 07 0A FX2:AR :Phrase
00 01 00 08 FX2:VB :Trigger 00 01 07 0B FX2:AR :Loop
00 01 00 09 FX2:UV :Rise Time 00 01 07 0C FX2:AR :Tempo
00 01 00 0A FX2:UV :Rate 00 01 07 0D FX2:AR :Sens
00 01 00 0B FX2:UV :Depth 00 01 07 0E FX2:AR :Key
00 01 00 0C FX2:UV :Level 00 01 07 0F FX2:AR :Attack
00 01 00 0D FX2:RM :Mode 00 01 08 00 FX2:AR :Hold
00 01 00 0E FX2:RM :Frequency 00 01 08 01 FX2:AR :Effect Level
00 01 00 0F FX2:RM :Effect Level 00 01 08 02 FX2:AR :Direct Level
00 01 01 00 FX2:RM :Direct Level 00 01 08 03 FX2:SYN:Sens
00 01 01 01 FX2:SG :Sens 00 01 08 04 FX2:SYN:Wave
00 01 01 02 FX2:SG :Rise Time 00 01 08 05 FX2:SYN:Chromatic
00 01 01 03 FX2:DF :Tone 00 01 08 06 FX2:SYN:Octave Shift
00 01 01 04 FX2:DF :Sens 00 01 08 07 FX2:SYN:PWM Rate
00 01 01 05 FX2:DF :Attack 00 01 08 08 FX2:SYN:PWM Depth
00 01 01 06 FX2:DF :Depth 00 01 08 09 FX2:SYN:Cutoff Frequency
00 01 01 07 FX2:DF :Resonance 00 01 08 0A FX2:SYN:Resonance
00 01 01 08 FX2:DF :Effect Level 00 01 08 0B FX2:SYN:Filter Sens
00 01 01 09 FX2:DF :Direct Level 00 01 08 0C FX2:SYN:Filter Decay
00 01 01 0A FX2:STR:Tone 00 01 08 0D FX2:SYN:Filter Depth
00 01 01 0B FX2:STR:Sens 00 01 08 0E FX2:SYN:Attack
00 01 01 0C FX2:STR:Depth 00 01 08 0F FX2:SYN:Release
00 01 01 0D FX2:STR:Resonance 00 01 09 00 FX2:SYN:Velocity
00 01 01 0E FX2:STR:Buzz 00 01 09 01 FX2:SYN:Hold
00 01 01 0F FX2:STR:Effect Level 00 01 09 02 FX2:SYN:Synth Level
00 01 02 00 FX2:STR:Direct Level 00 01 09 03 FX2:SYN:Direct Level
00 01 02 01 FX2:FB :Mode 00 01 09 04 FX2:AC :Type
00 01 02 02 FX2:FB :Rise Time 00 01 09 05 FX2:AC :Bass
00 01 02 03 FX2:FB :Rise Time(▲) 00 01 09 06 FX2:AC :Middle
00 01 02 04 FX2:FB :F.B.Level 00 01 09 07 FX2:AC :Middle Freq
00 01 02 05 FX2:FB :F.B.Level(▲) 00 01 09 08 FX2:AC :Treble
00 01 02 06 FX2:FB :Vibrato Rate 00 01 09 09 FX2:AC :Presence
00 01 02 07 FX2:FB :Vibrato Depth 00 01 09 0A FX2:AC :Level
00 01 02 08 FX2:AFB:FREQ 1 00 01 09 0B FX2:SH :Hold
00 01 02 09 FX2:AFB:DEPTH 1 00 01 09 0C FX2:SH :Rise Time
00 01 02 0A FX2:AFB:FREQ 2 00 01 09 0D FX2:SH :Effect Level
00 01 02 0B FX2:AFB:DEPTH 2 00 01 09 0E FX2:SDD:Delay Time
00 01 02 0C FX2:AFB:FREQ 3 00 01 0A 00 FX2:SDD:Feedback
00 01 02 0D FX2:AFB:DEPTH 3 00 01 0A 01 FX2:SDD:Effect Level
00 01 02 0E FX2:HU :Mode 00 01 0A 02 DD :On/Off
00 01 02 0F FX2:HU :Vowel1 00 01 0A 03 DD :Type
00 01 03 00 FX2:HU :Vowel2 00 01 0A 04 DD :Delay Time
00 01 03 01 FX2:HU :Sens 00 01 0A 05 DD :Tap Time
00 01 03 02 FX2:HU :Rate 00 01 0A 06 DD :Feedback
00 01 03 03 FX2:HU :Depth 00 01 0A 07 DD :High Cut
00 01 03 04 FX2:HU :Manual 00 01 0A 08 DD :Delay1 Time
00 01 03 05 FX2:HU :Level 00 01 0A 09 DD :Delay1 Feedback
00 01 03 06 FX2:SL :Pattern 00 01 0A 0A DD :Delay1 High Cut
00 01 03 07 FX2:SL :Rate 00 01 0A 0B DD :Delay1 Level
00 01 03 08 FX2:SL :Triggr Sens 00 01 0A 0C DD :Delay2 Time
00 01 03 09 FX2:WSY:Wave 00 01 0A 0D DD :Delay2 Feedback
00 01 03 0A FX2:WSY:Cutoff Freq 00 01 0A 0E DD :Delay2 High Cut
00 01 03 0B FX2:WSY:Resonance 00 01 0A 0F DD :Delay2 Level
00 01 03 0C FX2:WSY:FLT.Sens 00 01 0B 00 DD :MOD Rate
00 01 03 0D FX2:WSY:FLT.Decay 00 01 0B 01 DD :MOD Depth
00 01 03 0E FX2:WSY:FLT.Depth 00 01 0B 02 DD :Warp Sw
00 01 03 0F FX2:WSY:Synth Level 00 01 0B 03 DD :Warp Rise Time
00 01 04 00 FX2:WSY:Direct Level 00 01 0B 04 DD :Warp Feedback Depth
00 01 04 01 FX2:SEQ:Low Cut 00 01 0B 05 DD :Warp E.Level Depth
00 01 04 02 FX2:SEQ:Low EQ 00 01 0B 06 DD :Effect Level
00 01 04 03 FX2:SEQ:Low-Middle Frequency 00 01 0B 07 DD :Direct Level
00 01 04 04 FX2:SEQ:Low-Middle EQ 00 01 0B 08 CE :On/Off
00 01 04 05 FX2:SEQ:High-Middle Frequency 00 01 0B 09 CE :Mode
00 01 04 06 FX2:SEQ:High-Middle EQ 00 01 0B 0A CE :Rate
00 01 04 07 FX2:SEQ:High-Middle Q 00 01 0B 0B CE :Depth
00 01 04 08 FX2:SEQ:High-Middle EQ 00 01 0B 0C CE :Pre Delay
00 01 04 09 FX2:SEQ:High EQ 00 01 0B 0D CE :Low Cut
00 01 04 0A FX2:SEQ:High Cut 00 01 0B 0E CE :High Cut
00 01 04 0B FX2:SEQ:Level 00 01 0B 0F CE :Effect Level
00 01 04 0C FX2:HR :Voice 00 01 0C 00 RV:On/Off
00 01 04 0D FX2:HR :Voice1:Harmony 00 01 0C 01 RV:Type
00 01 04 0E FX2:HR :Voice1:Pre Delay 00 01 0C 02 RV:Reverb Time
00 01 04 0F FX2:HR :Voice1:Feedback 00 01 0C 03 RV:Pre Delay
00 01 05 00 FX2:HR :Voice1:Level 00 01 0C 04 RV:Low Cut
00 01 05 01 FX2:HR :Voice2:Harmony 00 01 0C 05 RV:High Cut
00 01 05 02 FX2:HR :Voice2:Pre Delay 00 01 0C 06 RV:Density
00 01 05 03 FX2:HR :Voice2:Level 00 01 0C 07 RV:Effect Level

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00	01	0C	07	RV:Direct Level
00	01	0C	08	NS :On/Off
00	01	0C	09	NS :Threshold
00	01	0C	0A	NS :Release
00	01	0C	0B	NS :Detect
00	01	0C	0C	MST:Patch Level
00	01	0C	0D	MST:Master BPM
00	01	0C	0E	FV :Level
00	01	0C	0F	FV :Vol.Curve
00	01	0D	00	Amp Ctl On/Off
00	01	0D	01	MANUAL On/Off
00	01	0D	02	TUNER On/Off
00	01	0D	03	Master BPM(Tap)
00	01	0D	04	Delay Time(Tap)
00	01	0D	05	MIDI Start/Stop
00	01	0D	06	MMC Play/Stop
00	01	0D	07	Patch Level Inc1
00	01	0D	08	Patch Level Inc2
00	01	0D	09	Patch Level Decl
00	01	0D	0A	Patch Level Dec2
00	01	0D	0B	Hold Delay Stop
00	01	0D	0C	Solo A&B On/Off
00	01	0D	0D	Patch Num. Inc
00	01	0D	0E	Patch Num. Dec
00	01	0D	0F	Patch Bank Inc
00	01	0E	00	Patch Bank Dec

Table Rate

<Rate>

Data (H)	Description
00	0
:	:
64	100
65	whole note
66	dotted half note
67	whole note triplet
68	half note
69	dotted quarter note
6A	half note triplet
6B	quarter note
6C	dotted eighth note
6D	quarter note triplet
6E	eighth note
6F	dotted sixteenth note
70	eighth note triplet
71	sixteenth note

Table High Cut

<High Cut>

Data (H)	Description
00	700Hz
01	1.00kHz
02	1.40kHz
03	2.00kHz
04	3.00kHz
05	4.00kHz
06	6.00kHz
07	8.00kHz
08	11.0kHz
09	Flat

Table Low Cut

<Low Cut>

Data (H)	Description
00	FLAT
01	55.0Hz
02	110Hz
03	165Hz
04	200Hz
05	280Hz
06	340Hz
07	400Hz
08	500Hz
09	630Hz
0A	800Hz

Table Ratio

<Quick Fx, Patch>

Data (H)	Description
00	1:1
01	1.2:1
02	1.4:1
03	1.6:1
04	1.8:1
05	2:1
06	2.3:1
07	2.6:1
08	3:1
09	3.5:1
0A	4:1
0B	5:1
0C	6:1
0D	8:1
0E	10:1
0F	12:1
10	20:1
11	oo:1

Table OD/DS Type <OD:Type>

Data (H)	Description
00	Booster
01	Blues OD
02	Crunch
03	Natural OD
04	Turbo OD
05	Fat OD
06	OD-1
07	T-Scream
08	Warm OD
09	Distortion
0A	Mild DS
0B	Drive DS
0C	RAF
0D	GUV DS
0E	DST+
0F	Solid DS
10	Mid DS
11	Stack
12	Modern DS
13	Power DS
14	R-MAN
15	Metal Zone
16	Heavy Metal
17	Lead
18	Loud
19	Sharp
1A	Mechanical
1B	'60s FUZZ
1C	Oct FUZZ
1D	MUFF FUZZ
1E	Custom1
1F	Custom2
20	Custom3

Table Preamp Type

<PRE:Ch A/Ch B Type>

Data (H)	Description
00	JC-120
01	Warm Clean
02	Jazz Combo
03	Full Range
04	Bright Clean
05	Clean TWIN
06	Pro Crunch
07	Tweed
08	Warm Crunch
09	Crunch
0A	Blues
0B	Wild Crunch
0C	StackCrunch
0D	VO Drive
0E	VO Lead
0F	VO Clean
10	MATCH Drive
11	Fat MATCH
12	MATCH Lead
13	BG Lead
14	BG Drive
15	BG Rhythm
16	Smooth Drive
17	Mild Drive
18	MS1959 (I)
19	MS1959 (II)
1A	MS1959 (I+II)
1B	MS HiGain
1C	Power Stack
1D	R-FIER Cln
1E	R-FIER Raw
1F	R-FIER Vnt1
20	R-FIER Mdn1
21	R-FIER Vnt2
22	R-FIER Mdn2
23	T-AMP Clean
24	T-AMP Crunch
25	T-AMP Lead
26	Edge Lead
27	SLDN
28	Drive Stack
29	Lead Stack
2A	Heavy Lead
2B	5150 Drive
2C	Metal Stack
2D	Metal Lead
2E	Custom1
2F	Custom2
30	Custom3

Table Middle Frequency <EQ/SEQ: Lo(Hi)-Mid f, AC: Middlef>

Data (H)	Description
00	20.0Hz
01	25.0Hz
02	31.5Hz
03	40.0Hz
04	50.0Hz
05	63.0Hz
06	80.0Hz
07	100Hz
08	125Hz
09	160Hz
0A	200Hz
0B	250Hz
0C	315Hz
0D	400Hz
0E	500Hz
0F	630Hz
10	800Hz
11	1.00kHz
12	1.25kHz
13	1.60kHz
14	2.00kHz
15	2.50kHz
16	3.15kHz
17	4.00kHz
18	5.00kHz
19	6.30kHz
1A	8.00kHz
1B	10.0kHz

Table HR Harmony <HR : HR1(HR2) Harm>

Data (H)	Description
00	-2oct
01	-14th
02	-13th
03	-12th
04	-11th
05	-10th
06	-9th
07	-1oct
08	-7th
09	-6th
0A	-5th
0B	-4th
0C	-3rd
0D	-2nd
0E	Unison
0F	+2nd
10	+3rd
11	+4th
12	+5th
13	+6th
14	+7th
15	+1oct
16	+9th
17	+10th
18	+11th
19	+12th
1A	+13th
1B	+14th
1C	+2oct
1D	Scale 1
1E	Scale 2
1F	Scale 3
20	Scale 4
21	Scale 5
22	Scale 6
23	Scale 7
24	Scale 8
25	Scale 9
26	Scale 10
27	Scale 11
28	Scale 12
29	Scale 13
2A	Scale 14
2B	Scale 15
2C	Scale 16
2D	Scale 17
2E	Scale 18
2F	Scale 19
30	Scale 20
31	Scale 21
32	Scale 22
33	Scale 23
34	Scale 24
35	Scale 25
36	Scale 26
37	Scale 27
38	Scale 28
39	Scale 29

*Refer to "Table HR Scale"

Table Middle Q <EQ/SEQ : Lo(Hi)-Mid Q>

Data (H)	Description
00	0.5
01	1
02	2
03	4
04	8
05	16

Table Pre Delay <HR/PS Pre Delay>

Data (H)	Description
00 00	0ms
00 01	1ms
:	:
00 7F	127ms
01 00	128ms
:	:
01 7F	255ms
02 00	256ms
:	:
02 2C	300ms
02 2D	sixteenth note
02 2E	eighteenth note triplet
02 2F	dotted sixteenth note
02 30	eight note
02 31	quarter note triplet
02 32	dotted eighth note
02 33	quarter note

Table Step Rate <PH : Step Rate>

Data (H)	Description
00	OFF
01	0
:	:
65	100
66	whole note
67	dotted half note
68	whole note triplet
69	half note
6A	dotted quarter note
6B	half note triplet
6C	quarter note
6D	dotted eighth note
6E	quarter note triplet
6F	eighth note
70	dotted sixteenth note
71	eighth note triplet
72	sixteenth note

Table HR Scale <Harmony Scale>

Harmony		Input note											
	User Scale	C	C#	D	D#	E	F	F#	G	G#	A	A#	B
		Harmony note (Default)											
-2oct	Scale 1	-C↓	-C#↓	-D↓	-D#↓	-E↓	-F↓	-F#↓	-G↓	-G#↓	-A↓	-A#↓	-B↓
-14th	Scale 2	-D↓	-D#↓	-E↓	-F↓	-F↓	-G↓	-G#↓	-A↓	-A#↓	-B↓	-C↓	-C↓
-13th	Scale 3	-E↓	-E↓	-F↓	-F#↓	-G↓	-A↓	-A#↓	-B↓	-B↓	-C↓	-C#↓	-D↓
-12th	Scale 4	-F↓	-F#↓	-G↓	-G#↓	-A↓	-B↓	-B↓	-C↓	-C#↓	-D↓	-D#↓	-E↓
-11th	Scale 5	-G↓	-G↓	-A↓	-A↓	-B↓	-C↓	-C↓	-D↓	-D↓	-E↓	-E↓	-F↓
-10th	Scale 6	-A↓	-A#↓	-B↓	-B↓	-C↓	-D↓	-D↓	-E↓	-E↓	-F↓	-F↓	-G↓
-9th	Scale 7	-B↓	-B↓	-C↓	-C↓	-D↓	-E↓	-E↓	-F↓	-F↓	-G↓	-G↓	-A↓
-1oct	Scale 8	-C↓	-C#↓	-D↓	-D#↓	-E↓	-F↓	-F#↓	-G↓	-G#↓	-A↓	-A#↓	-B↓
-7th	Scale 9	-D	-D#	-E	-F	-F	-G	-G#	-A	-A#	-B	-B	-C
-6th	Scale 10	-E	-E	-F	-F#	-G	-A	-A#	-B	-B	-C	-C#	-D
-5th	Scale 11	-F	-F#	-G	-G#	-A	-B	-B	-C	-C#	-D	-D#	-E
-4th	Scale 12	-G	-G	-A	-A	-B	-C	-C	-D	-D	-E	-E	-F
-3rd	Scale 13	-A	-A#	-B	-B	-C	-D	-D	-E	-E	-F	-F#	-G
-2nd	Scale 14	-B	-B	-C	-C	-D	-E	-E	-F	-F	-G	-G	-A
Unison	Scale 15	C	C#	D	D#	E	F	F#	G	G#	A	A#	B
+2nd	Scale 16	+D	+D#	+E	+F	+F	+G	+G#	+A	+A#	+B	+C	+C
+3rd	Scale 17	+E	+E	+F	+F#	+G	+A	+A#	+B	+B	+C	+C#	+D
+4th	Scale 18	+F	+F#	+G	+G#	+A	+B	+B	+C	+C#	+D	+D#	+E
+5th	Scale 19	+G	+G	+A	+A	+B	+C	+C	+D	+D	+E	+E	+F
+6th	Scale 20	+A	+A#	+B	+B	+C	+D	+D	+E	+E	+F	+F#	+G
+7th	Scale 21	+B	+B	+C	+C	+D	+E	+E	+F	+F	+G	+G	+A
+1oct	Scale 22	+C↑	+C#↑	+D↑	+D#↑	+E↑	+F↑	+F#↑	+G↑	+G#↑	+A↑	+A#↑	+B↑
+9th	Scale 23	+D↑	+D#↑	+E↑	+F↑	+F↑	+G↑	+G#↑	+A↑	+A#↑	+B↑	+C↑	+C↑
+10th	Scale 24	+E↑	+E↑	+F↑	+F#↑	+G↑	+A↑	+A#↑	+B↑	+B↑	+C↑	+C#↑	+D↑
+11th	Scale 25	+F↑	+F#↑	+G↑	+G#↑	+A↑	+B↑	+B↑	+C↑	+C#↑	+D↑	+D#↑	+E↑
+12th	Scale 26	+G↑	+G↑	+A↑	+A↑	+B↑	+C↑	+C↑	+D↑	+D↑	+E↑	+E↑	+F↑
+13th	Scale 27	+A↑	+A#↑	+B↑	+B↑	+C↑	+D↑	+D↑	+E↑	+E↑	+F↑	+F#↑	+G↑
+14th	Scale 28	+B↑	+B↑	+C↑	+C↑	+D↑	+E↑	+E↑	+F↑	+F↑	+G↑	+G↑	+A↑
+2oct	Scale 29	+C↑↑	+C#↑↑	+D↑↑	+D#↑↑	+E↑↑	+F↑↑	+F#↑↑	+G↑↑	+G#↑↑	+A↑↑	+A#↑↑	+B↑↑

Table OC Range <OC: Range>

Data (H)	Description
00	1 (7th string, open to 1st string, 24th fret)
01	2 (7th string, open to 1st string, 12th fret)
02	3 (7th string, open to 1st string, open)
03	4 (7th string, open to 4th string, 2nd fret)

Table Xover Frequency <2CE : Xover f>

Data (H)	Description
00	100Hz
01	125Hz
02	160Hz
03	200Hz
04	250Hz
05	315Hz
06	400Hz
07	500Hz
08	630Hz
09	800Hz
0A	1.00kHz
0B	1.25kHz
0C	1.60kHz
0D	2.00kHz
0E	2.50kHz
0F	3.15kHz
10	4.00kHz

Table SDD Delay Time <SDD : DlyTime>

Data (H)	Description
00 00	0ms
00 01	1ms
:	:
00 7F	127ms
01 00	128ms
:	:
01 7F	255ms
02 00	256ms
:	:
02 7F	383ms
03 00	384ms
:	:
03 10	400ms
03 11	sixteenth note
03 12	eighth note triplet
03 13	dotted sixteenth note
03 14	eighth note
03 15	quarter note triplet
03 16	dotted eighth note
03 17	quarter note

Table DD Delay Time <DD : Delay Time>

Data (H)	Description
00 00	0ms
00 01	1ms
:	:
00 7F	127ms
01 00	128ms
:	:
01 7F	255ms
02 00	256ms
:	:
0E 08	1800ms
0E 09	sixteenth note
0E 0A	eighth note triplet
0E 0B	dotted sixteenth note
0E 0C	eighth note
0E 0D	quarter note triplet
0E 0E	dotted eighth note
0E 0F	quarter note
0E 10	half note triplet
0E 11	dotted quarter note
0E 12	half note
0E 13	whole note triplet
0E 14	dotted half note
0E 15	whole note

Table Name	<Name Edit>	Table Assign Target	<Patch : Assign Target>
Data (H)	Description	Data (H)	Description
20		00 00	FX1:On/Off
21	!	00 01	FX1:Fx Select
22	"	00 02	FX1:ACS:Type
23	#	00 03	FX1:ACS:Sustain
24	\$	00 04	FX1:ACS:Attack
25	%	00 05	FX1:ACS:Tone
26	&	00 06	FX1:ACS:Level
27	'	00 07	FX1:LM :Type
28	(00 08	FX1:LM :Attack
29)	00 09	FX1:LM :Threshold
2A	*	00 0A	FX1:LM :Ratio
2B	+	00 0B	FX1:LM :Release
2C	,	00 0C	FX1:LM :Level
2D	-	00 0D	FX1:TW :Mode
2E	.	00 0E	FX1:TW :Polarity
2F	/	00 0F	FX1:TW :Sens
30	0	00 10	FX1:TW :Frequency
31	1	00 11	FX1:TW :Peak
32	2	00 12	FX1:TW :Direct Level
33	3	00 13	FX1:TW :Level
34	4	00 14	FX1:AW :Mode
35	5	00 15	FX1:AW :Frequency
36	6	00 16	FX1:AW :Peak
37	7	00 17	FX1:AW :Rate
38	8	00 18	FX1:AW :Depth
39	9	00 19	FX1:AW :Direct Level
3A	:	00 1A	FX1:AW :Level
3B	;	00 1B	FX1:TM :Type
3C	<	00 1C	FX1:TM :Low
3D	=	00 1D	FX1:TM :High
3E	>	00 1E	FX1:TM :Resonance
3F	?	00 1F	FX1:TM :Level
40	@	00 20	FX1:GS :Type
41	A	00 21	FX1:GS :Low
42	B	00 22	FX1:GS :High
43	C	00 23	FX1:GS :Body
44	D	00 24	FX1:GS :Level
45	E	00 25	FX1:TR :Wave Shape
46	F	00 26	FX1:TR :Rate
47	G	00 27	FX1:TR :Depth
48	H	00 28	FX1:PH :Type
49	I	00 29	FX1:PH :Rate
4A	J	00 2A	FX1:PH :Depth
4B	K	00 2B	FX1:PH :Manual
4C	L	00 2C	FX1:PH :Resonance
4D	M	00 2D	FX1:PH :Step Rate
4E	N	00 2E	FX1:PH :Effect Level
4F	O	00 2F	FX1:PH :Direct Level
50	P	00 30	FX1:FL :Rate
51	Q	00 31	FX1:FL :Depth
52	R	00 32	FX1:FL :Manual
53	S	00 33	FX1:FL :Resonance
54	T	00 34	FX1:FL :Separation
55	U	00 35	FX1:FL :Low Cut
56	V	00 36	FX1:FL :Effect Level
57	W	00 37	FX1:FL :Direct Level
58	X	00 38	FX1:PAN:Wave Shape
59	Y	00 39	FX1:PAN:Rate
5A	Z	00 3A	FX1:PAN:Depth
5B	[00 3B	FX1:VB :Rate
5C	\	00 3C	FX1:VB :Depth
5D]	00 3D	FX1:VB :Trigger
5E	^	00 3E	FX1:VB :Rise Time
5F	~	00 3F	FX1:UV :Rate
60		00 40	FX1:UV :Depth
61	a	00 41	FX1:UV :Level
62	b	00 42	FX1:RM :Mode
63	c	00 43	FX1:RM :Frequency
64	d	00 44	FX1:RM :Effect Level
65	e	00 45	FX1:RM :Direct Level
66	f	00 46	FX1:SG :Sens
67	g	00 47	FX1:SG :Rise Time
68	h	00 48	FX1:DF :Tone
69	i	00 49	FX1:DF :Sens
6A	j	00 4A	FX1:DF :Attack
6B	k	00 4B	FX1:DF :Depth
6C	l	00 4C	FX1:DF :Resonance
6D	m	00 4D	FX1:DF :Effect Level
6E	n	00 4E	FX1:DF :Direct Level
6F	o	00 4F	FX1:STR:Tone
70	p	00 50	FX1:STR:Sens
71	q	00 51	FX1:STR:Depth
72	r	00 52	FX1:STR:Resonance
73	s	00 53	FX1:STR:Buzz
74	t	00 54	FX1:STR:Effect Level
75	u	00 55	FX1:STR:Direct Level
76	v	00 56	FX1:FB :Mode
77	w	00 57	FX1:FB :Rise Time
78	x	00 58	FX1:FB :Rise Time(▲)
79	y	00 59	FX1:FB :F. B. Level
7A	z	00 5A	FX1:FB :F. B. Level(▲)
7B	{	00 5B	FX1:FB :Vibrato Rate
7C		00 5C	FX1:FB :Vibrato Depth
7D	}	00 5D	FX1:AFB:FREQ 1
7E	→	00 5E	FX1:AFB:DEPTH 1
7F	←	00 5F	FX1:AFB:FREQ 2
		00 60	FX1:AFB:DEPTH 2
		00 61	FX1:AFB:FREQ 3
		00 62	FX1:AFB:DEPTH 3
		00 63	FX1:HU :Mode
		00 64	FX1:HU :Vowel1
		00 65	FX1:HU :Vowel2
		00 66	FX1:HU :Sens
		00 67	FX1:HU :Rate
		00 68	FX1:HU :Depth
		00 69	FX1:HU :Manual
		00 6A	FX1:HU :Level
		00 6B	FX1:SL :Pattern
		00 6C	FX1:SL :Rate
		00 6D	FX1:SL :Triggr Sens

00 6E	FX1:WSY:Wave	01 61	FX2:AW :Peak
00 6F	FX1:WSY:Cutoff Freq	01 62	FX2:AW :Rate
00 70	FX1:WSY:Resonance	01 63	FX2:AW :Depth
00 71	FX1:WSY:FLT.Sens	01 64	FX2:AW :Direct Level
00 72	FX1:WSY:FLT.Decay	01 65	FX2:AW :Level
00 73	FX1:WSY:FLT.Depth	01 66	FX2:TM :Type
00 74	FX1:WSY:Synth Level	01 67	FX2:TM :Low
00 75	FX1:WSY:Direct Level	01 68	FX2:TM :High
00 76	FX1:SEQ:Low Cut	01 69	FX2:TM :Resonance
00 77	FX1:SEQ:Low EQ	01 6A	FX2:TM :Level
00 78	FX1:SEQ:Low-Middle Frequency	01 6B	FX2:GS :Type
00 79	FX1:SEQ:Low-Middle Q	01 6C	FX2:GS :Low
00 7A	FX1:SEQ:Low-Middle EQ	01 6D	FX2:GS :High
00 7B	FX1:SEQ:High-Middle Frequency	01 6E	FX2:GS :Body
00 7C	FX1:SEQ:High-Middle Q	01 6F	FX2:GS :Level
00 7D	FX1:SEQ:High-Middle EQ	01 70	FX2:TR :Wave Shape
00 7E	FX1:SEQ:High EQ	01 71	FX2:TR :Rate
00 7F	FX1:SEQ:High Cut	01 72	FX2:TR :Depth
01 00	FX1:SEQ:Level	01 73	FX2:PH :Type
01 01	CS :On/Off	01 74	FX2:PH :Rate
01 02	CS :Type	01 75	FX2:PH :Depth
01 03	CS :Sustain	01 76	FX2:PH :Manual
01 04	CS :Attack	01 77	FX2:PH :Resonance
01 05	CS :Threshold	01 78	FX2:PH :Step Rate
01 06	CS :Release	01 79	FX2:PH :Effect Level
01 07	CS :Tone	01 7A	FX2:PH :Direct Level
01 08	CS :Level	01 7B	FX2:FL :Rate
01 09	WAH:On/Off	01 7C	FX2:FL :Depth
01 0A	WAH:Type	01 7D	FX2:FL :Manual
01 0B	WAH:Pal Position	01 7E	FX2:FL :Resonance
01 0C	WAH:Level	01 7F	FX2:FL :Separation
01 0D	LP :On/Off	02 00	FX2:FL :Low Cut
01 0E	LP :Mode	02 01	FX2:FL :Effect Level
01 0F	LP :Send Level	02 02	FX2:FL :Direct Level
01 10	LP :Return Level	02 03	FX2:PAN:Wave Shape
01 11	OD :On/Off	02 04	FX2:PAN:Rate
01 12	OD :Type	02 05	FX2:PAN:Depth
01 13	OD :Drive	02 06	FX2:VB :Rate
01 14	OD :Bottom	02 07	FX2:VB :Depth
01 15	OD :Tone	02 08	FX2:VB :Trigger
01 16	OD :Level	02 09	FX2:VB :Rise Time
01 17	OD :Direct Level	02 0A	FX2:UV :Rate
01 18	PRE:On/Off	02 0B	FX2:UV :Depth
01 19	PRE:Channel Mode	02 0C	FX2:UV :Level
01 1A	PRE:Channel Select	02 0D	FX2:RM :Mode
01 1B	PRE:Dynamic Sens	02 0E	FX2:RM :Frequency
01 1C	PRE:Channel Delay Time	02 0F	FX2:RM :Effect Level
01 1D	PRE:Ch A Type	02 10	FX2:RM :Direct Level
01 1E	PRE:Ch A Gain	02 11	FX2:SG :Sens
01 1F	PRE:Ch A Bass	02 12	FX2:SG :Rise Time
01 20	PRE:Ch A Middle	02 13	FX2:DF :Tone
01 21	PRE:Ch A Treble	02 14	FX2:DF :Sens
01 22	PRE:Ch A Presence	02 15	FX2:DF :Attack
01 23	PRE:Ch A Level	02 16	FX2:DF :Depth
01 24	PRE:Ch A Bright	02 17	FX2:DF :Resonance
01 25	PRE:Ch A Gain SW	02 18	FX2:DF :Effect Level
01 26	PRE:Ch A Solo SW	02 19	FX2:DF :Direct Level
01 27	PRE:Ch A Solo Level	02 1A	FX2:STR:Tone
01 28	PRE:Ch A SP Type	02 1B	FX2:STR:Sens
01 29	PRE:Ch A Mic Type	02 1C	FX2:STR:Depth
01 2A	PRE:Ch A Mic Dis.	02 1D	FX2:STR:Resonance
01 2B	PRE:Ch A Mic Pos.	02 1E	FX2:STR:Buzz
01 2C	PRE:Ch A Mic Level	02 1F	FX2:STR:Effect Level
01 2D	PRE:Ch A Direct Level	02 20	FX2:STR:Direct Level
01 2E	PRE:Ch B Type	02 21	FX2:FB :Mode
01 2F	PRE:Ch B Gain	02 22	FX2:FB :Rise Time
01 30	PRE:Ch B Bass	02 23	FX2:FB :Rise Time(Af)
01 31	PRE:Ch B Middle	02 24	FX2:FB :F.B.Level
01 32	PRE:Ch B Treble	02 25	FX2:FB :F.B.Level(Af)
01 33	PRE:Ch B Presence	02 26	FX2:FB :Vibrato Rate
01 34	PRE:Ch B Level	02 27	FX2:FB :Vibrato Depth
01 35	PRE:Ch B Bright	02 28	FX2:AFB:FRQ 1
01 36	PRE:Ch B Gain SW	02 29	FX2:AFB:DEPTH 1
01 37	PRE:Ch B Solo SW	02 2A	FX2:AFB:FRQ 2
01 38	PRE:Ch B Solo Level	02 2B	FX2:AFB:DEPTH 2
01 39	PRE:Ch B SP Type	02 2C	FX2:AFB:FRQ 3
01 3A	PRE:Ch B Mic Type	02 2D	FX2:AFB:DEPTH 3
01 3B	PRE:Ch B Mic Dis.	02 2E	FX2:HU :Mode
01 3C	PRE:Ch B Mic Pos.	02 2F	FX2:HU :Vowel1
01 3D	PRE:Ch B Mic Level	02 30	FX2:HU :Vowel2
01 3E	PRE:Ch B Direct Level	02 31	FX2:HU :Sens
01 3F	EQ :On/Off	02 32	FX2:HU :Rate
01 40	EQ :Low Cut	02 33	FX2:HU :Depth
01 41	EQ :Low EQ	02 34	FX2:HU :Manual
01 42	EQ :Low-Middle Frequency	02 35	FX2:HU :Level
01 43	EQ :Low-Middle Q	02 36	FX2:SL :Pattern
01 44	EQ :Low-Middle EQ	02 37	FX2:SL :Rate
01 45	EQ :High-Middle Frequency	02 38	FX2:SL :Triggr Sens
01 46	EQ :High-Middle Q	02 39	FX2:WSY:Wave
01 47	EQ :High-Middle EQ	02 3A	FX2:WSY:Cutoff Freq
01 48	EQ :High EQ	02 3B	FX2:WSY:Resonance
01 49	EQ :High Cut	02 3C	FX2:WSY:FLT.Sens
01 4A	EQ :Level	02 3D	FX2:WSY:FLT.Decay
01 4B	FX2:On/Off	02 3E	FX2:WSY:FLT.Depth
01 4C	FX2:Fx Select	02 3F	FX2:WSY:Synth Level
01 4D	FX2:ACS:Type	02 40	FX2:WSY:Direct Level
01 4E	FX2:ACS:Sustain	02 41	FX2:SEQ:Low Cut
01 4F	FX2:ACS:Attack	02 42	FX2:SEQ:Low EQ
01 50	FX2:ACS:Tone	02 43	FX2:SEQ:Low-Middle Frequency
01 51	FX2:ACS:Level	02 44	FX2:SEQ:Low-Middle Q
01 52	FX2:LM :Type	02 45	FX2:SEQ:Low-Middle EQ
01 53	FX2:LM :Attack	02 46	FX2:SEQ:High-Middle Frequency
01 54	FX2:LM :Threshold	02 47	FX2:SEQ:High-Middle Q
01 55	FX2:LM :Ratio	02 48	FX2:SEQ:High-Middle EQ
01 56	FX2:LM :Release	02 49	FX2:SEQ:High EQ
01 57	FX2:LM :Level	02 4A	FX2:SEQ:High Cut
01 58	FX2:TW :Mode	02 4B	FX2:SEQ:Level
01 59	FX2:TW :Polarity	02 4C	FX2:HR :Voice
01 5A	FX2:TW :Sens	02 4D	FX2:HR :Voice1:Harmony
01 5B	FX2:TW :Frequency	02 4E	FX2:HR :Voice1:Pre Delay
01 5C	FX2:TW :Peak	02 4F	FX2:HR :Voice1:Feedback
01 5D	FX2:TW :Direct Level	02 50	FX2:HR :Voice1:Level
01 5E	FX2:TW :Level	02 51	FX2:HR :Voice2:Harmony
01 5F	FX2:AW :Mode	02 52	FX2:HR :Voice2:Pre Delay
01 60	FX2:AW :Frequency	02 53	FX2:HR :Voice2:Level

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