MIDI Implementation

Model : GP-10
Date : Dec. 26th, 2014
Version : 1.01

1.Recognized Receive data

Channel Voice Messages

Received when the "SYSTEM: MIDI: String Ch" matches the number of the MIDI channel on which they arrive.

Control Change

Bank Select

Status	2nd Byte	3rd Byte
BnH	00H	mmH

n = MIDI Channel Number : 0H (ch.1 only)
mm = Bank Number (MSB) : 00H

* Recognized MIDI Channel Number is ch.1 only.
* Also, Bank Number is 00H only.
* CC#32 (Bank Number (LSB)) will be ignored.

Control Change Number 1 - 31, 64 - 95

Status	2nd Byte	3rd Byte
BnH	ccH	vvH

n = MIDI Channel Number : 0H - AH (0 - 10) 0=ch.1 10=ch.11
cc = Control Change Number : 01H - 1FH (1 - 31)
40H - 5FH (64 - 95)
vv = Value : 00H - 7FH (0 - 127)

You can use control change messages from an USB (computer) to control functions that would be difficult to control using the GP-10's own controllers.
In "Assign Settings (Asgn 1-8:)" of Owner's Manual, set "Source" to "CC#1-#31, CC#64-#95" and set "Target" to specify the parameter that will be controlled.

Program Change

Status	2nd Byte
CnH	ppH

n = MIDI Channel Number : 0H (ch.1 only)
pp = Program Number : 00H - 62H (0 - 98) 0 = patch number 1, 98 = patch number 99

The GP-10 can receive Program Change messages numbered 1 through 99 (00H - 62H), corresponding to the 99 individual patch number 1-99.
* Recognized MIDI Channel Number is ch.1 only.
* Program Change messages 100 - 128 (63H - 7FH) cannot be received.

System Exclusive Message

Status	Data Byte	Status
F0H	41H, ddH, ..., eeH	F7H

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

Universal Non-Realtime System Exclusive Messages

Identity Request Message (Device Inquiry)

Status	Data Byte	Status
F0H	7EH, ddH, 06H, 01H,	F7H

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

When this message is received, Identity Reply message will be transmitted. (please see "Transmitted data")

ONE WAY COMMUNICATION

Request Data 1 RQ1 (11H)

Status	Data Byte	Status
F0H,	41H, ddH, 00H, 00H, 00H, 05H, 11H, aaH, bbH, ccH, ddH, ssH, ttH, uuH, vvH, csH,	F7H

Byte	Explanation
F0H	Exclusive status
41H	Manufacturer ID (Roland)
ddH	Device ID (10H, 7FH) * 7FH = Broad Cast
00H	Model ID # 1 (GP-10)
00H	Model ID # 2 (GP-10)
00H	Model ID # 3 (GP-10)
05H	Model ID # 4 (GP-10)
11H	Command ID (Data Request)
aaH	Address MSB
bbH	Address
ccH	Address
ddH	Address LSB
ssH	Size MSB
ttH	Size
uuH	Size
vvH	Size LSB
csH	Check Sum
F7H	EOX (End Of Exclusive)

Data Set1 DT1 (12H)

Status	Data Byte	Status
F0H,	41H, ddH, 00H, 00H, 00H, 05H, 12H, aaH, bbH, ccH, ddH, eeH, ... ffH, csH,	F7H

Byte	Explanation
F0H	Exclusive status
41H	Manufacturer ID (Roland)
ddH	Device ID (10H, 7FH) * 7FH = Broad Cast
00H	Model ID # 1 (GP-10)
00H	Model ID # 2 (GP-10)
00H	Model ID # 3 (GP-10)
05H	Model ID # 4 (GP-10)
12H	Command ID (Data Set)
aaH	Address MSB
bbH	Address
ccH	Address
ddH	Address LSB
eeH	Data
:	
ffH	Data
csH	Check Sum
F7H	EOX (End Of Exclusive)

2.Transmitted data

Channel Voice Messages

For the MIDI transmit channel number for Channel Voice Message, set “SYSTEM: MIDI: String Ch.”
When SYSTEM: MIDI: Mode is set “MONO,” one channel per string is used, thus using a total of six channels.

Note Off

Status	2nd Byte	3rd Byte
8nH	kkH	40H

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

Note On

Status	2nd Byte	3rd Byte
9nH	kkH	vvH

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16
kk = Note Number : 00H - 7FH (0 - 127)
vv = Velocity : 01H - 7FH (1 - 127)

Control Change
  Bank Select

Status	2nd Byte	3rd Byte

```
        BnH         00H         mmH
        BnH         20H         llH

        n  = MIDI Channel Number   : 0H - AH (0 - 10)    0=ch.1  10=ch.11
        mm = Bank Number (MSB)     : 00H
        ll = Bank Number (LSB)     : 00H

        * Bank Number (MSB) is 00H only.
        * Bank Number (LSB) is 00H only.
```

Control Change Number 1 - 31, 64 - 95

```
        Status      2nd Byte    3rd Byte
        ------      --------    --------
        BnH         ccH         vvH

        n  = MIDI Channel Number   : 0H - FH (0 - 15)    0=ch.1  15=ch.16
        cc = Control Change Number : 0BH (11)
        vv = Value                 : 00H - 7FH (0 - 127)
```

RPN MSB/LSB

```
        Status      2nd Byte    3rd Byte
        ------      --------    --------
        BnH         65H         mmH
        BnH         64H         llH

        n  = MIDI Channel Number   : 0H - FH (0 - 15)    0=ch.1  15=ch.16
        mm = upper byte (MSB) of parameter number specified by RPN
        ll = lower byte (LSB) of parameter number specified by RPN

        <<< RPN >>>
        Control Changes include RPN (Registered Parameter Numbers), which are extended.
        Pitch bend sensitivity (RPN#0) is the only RPN transmitted by the GP-10.

        RPN               Data entry
        MSB LSB           MSB LSB           Notes
        -------           -------           -----
        00H 00H           mmH 00H           Pitch Bend Sensitivity
                                            The least significant byte is always transmitted as 00H.

        * This is transmitted when “SYSTEM: MIDI: Mode” or “SYSTEM: MIDI: Bend Range” is changed.
```

Program Change

```
        Status      2nd Byte
        ------      --------
        CnH         ppH

        n  = MIDI Channel Number             : 0H - AH (0 - 10)    0 = ch.1  10 = ch.11
        pp = Program Number                  : 00H - 62H (0 - 98) 0 = patch number 1, 98 = patch number 99

        When patch number are changed on the GP-10, a MIDI Program Change message is
        transmitted to the USB (computer). You can transmit Program Change messages
        numbered 1 through 99 (00H - 62H), corresponding to the 99 individual patch number 1-99.

        * Program Change messages 100 - 128 (63H - 7FH) cannot be transmitted.
```

Pitch Bend Change

```
        Status      2nd Byte    3rd Byte
        ------      --------    --------
        EnH         llH         mmH

        n  = MIDI Channel Number             : 0H - FH (0 - 15)    0 = ch.1  15 = ch.16
        mm, ll = Value                       : 00 00H - 40 00H - 7F 7FH (-8192 .. 0 .. +8191)
```

System Exclusive Message

```
Status  Data Byte               Status
------  ---------               ------
F0H     41H, ddH, ..., eeH      F7H


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

Universal Non-Realtime System Exclusive Messages

Identity Reply Message (Device Inquiry)

```
        Status  Data Byte                                                Status
        ------  ---------                                                ------
        F0H,    7EH, ddH, 06H, 02H, 41H, 05H, 03H, x1H, x2H, x3H, x4H,   F7
```

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
ddH	Device ID (10H)
06H	Sub ID # 1 (General Information)
02H	Sub ID # 2 (Identity Reply)
41H	Manufacturer ID (Roland)
05H	Device family code # 1 (GP-10)
03H	Device family code # 2 (GP-10)
x1H	Software revision level # 1
x2H	Software revision level # 2
x3H	Software revision level # 3
x4H	Software revision level # 4
F7H	EOX (End of Exclusive)

Receiving Identity Request Message , the GP-10 send this message.

ONE WAY COMMUNICATION

Data Set1 DT1 (12H)

Status	Data Byte	Status
F0H,	41H, ddH, 00H, 00H, 00H, 05H, 12H, aaH, bbH, ccH, ddH, eeH, ... ffH, csH,	F7H

Byte	Explanation
F0H	Exclusive status
41H	Manufacturer ID (Roland)
ddH	Device ID (10H, 7FH) * 7FH = Broad Cast
00H	Model ID # 1 (GP-10)
00H	Model ID # 2 (GP-10)
00H	Model ID # 3 (GP-10)
05H	Model ID # 4 (GP-10)
12H	Command ID (Data Set)
aaH	Address MSB
bbH	Address
ccH	Address
ddH	Address LSB
eeH	Data
:	
ffH	Data
csH	Check Sum
F7H	EOX (End Of Exclusive)

3. System Exclusive Address Map

Start Address	Description
00 00 00 00	Setup
10 00 00 00	System
20 00 00 00	Patch (Temporary)
20 04 00 00	Patch (User 1)
:	:
23 0C 00 00	Patch (User 99)

* Setup

Offset Address	Description
00 00 00	Setup Common

* System

Offset Address	Description
00 00 00	System Common
00 08 00	System Controller Function
00 10 00	System Guitar to MIDI
00 18 00	System GK Setting (1)
00 20 00	System GK Setting (2)
00 28 00	System GK Setting (3)

* Patch

Offset Address	Description

	00 00 00	Patch Name
	00 08 00	Patch Common
	00 10 00	Patch Modeling
	00 18 00	Patch E.GTR
	00 20 00	Patch AC
	00 28 00	Patch E.BASS
	00 30 00	Patch SYNTH
	00 38 00	Patch Poly Fx
	00 40 00	Patch TUNE
	00 48 00	Patch Effects Chain
	00 50 00	Patch Amp
	00 58 00	Patch FX
	00 60 00	Patch FX/Overdrive, Distortion
	00 68 00	Patch FX/Phaser
	00 70 00	Patch FX/Flanger
	00 78 00	Patch FX/Tremolo
	01 00 00	Patch FX/Auto Pan
	01 08 00	Patch FX/Rotary
	01 10 00	Patch FX/Uni-V
	01 18 00	Patch FX/Compressor
	01 20 00	Patch FX/Limiter
	01 28 00	Patch FX/Equalize
	01 30 00	Patch FX/Chorus
	01 38 00	Patch FX/Pitch Shifter
	01 40 00	Patch FX/Harmonist
	01 48 00	Patch FX/Delay
	01 50 00	Patch FX/T.Wah
	01 58 00	Patch FX/Pedal Bend
	01 60 00	Patch Wah
	01 68 00	Patch Chorus
	01 70 00	Patch Delay
	01 78 00	Patch Reverb
	02 00 00	Patch Equalizer
	02 08 00	Patch Foot Volume
	02 10 00	Patch NS
	02 18 00	Patch Controller Function
	02 20 00	Patch Controller Assign

* Setup Common Parameters Offset Address

Offset Address		Description	
00 00	0ddd dddd	Current Patch Number	(0 - 98) 1 - 99

* System Common Parameters Offset Address

Offset Address		Description	
00 00	0000 0ddd	Output Select	(0 - 7) LINE/PHONES, JC-120, SMALL AMP, COMBO AMP, STACK AMP, JC-120 RETURN, COMBO RETURN, STACK RETURN
00 01	0000 dddd	Tuner Pitch	(0 - 10) 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445 [Hz]
00 02	0000 00dd	Tuner Sound	(0 - 2) MUTE, BYPASS, EFFECT
00 03	0000 000d	Tuner Function	(0 - 1) ENABLE, DISABLE
00 04	0ddd dddd	USB Audio In Level	(0 - 100) 0 - 200
00 05	0ddd dddd	USB Audio Out Level	(0 - 100) 0 - 200
00 06	0000 00dd	GK Connect	(0 - 2) AUTO, OFF, ON
00 07	0000 00dd	GK Setting Select	(0 - 3) PATCH SETTING, 1 - 3
00 08	0000 000d	Patch Extent Switch	(0 - 1) OFF, ON
00 09	0ddd dddd	Patch Extent Start	(0 - 98) 1 - 99
00 0A	0ddd dddd	Patch Extent End	(0 - 98) 1 - 99
00 0B	0000 000d	Auto Off	(0 - 1) OFF, ON

* System Controller Function Parameters Offset Address

Offset Address		Description	
00 00	000d dddd	CTL Function 1	(0 - 20) OFF, PATCH SETTING, PATCH UP, PATCH DOWN, PATCH SEL, TUNER ON/OFF, PU SEL UP, PU SEL DOWN, 12-STRING ON/OFF, ALT TUNE ON/OFF, MODELING ON/OFF, NORMAL PU ON/OFF, AMP SOLO SW, FX ON/OFF, EQ ON/OFF,

			WAH ON/OFF, CHORUS ON/OFF, DELAY ON/OFF,
			REVERB ON/OFF, HOLD, TAP TEMPO
00 01	000d dddd	CTL Function 2	(0 - 20)
			OFF, PATCH SETTING, PATCH UP, PATCH DOWN, PATCH SEL,
			TUNER ON/OFF, PU SEL UP, PU SEL DOWN,
			12-STRING ON/OFF, ALT TUNE ON/OFF, MODELING ON/OFF,
			NORMAL PU ON/OFF, AMP SOLO SW, FX ON/OFF, EQ ON/OFF,
			WAH ON/OFF, CHORUS ON/OFF, DELAY ON/OFF,
			REVERB ON/OFF, HOLD, TAP TEMPO
00 02	000d dddd	CTL Function 3	(0 - 20)
			OFF, PATCH SETTING, PATCH UP, PATCH DOWN, PATCH SEL,
			TUNER ON/OFF, PU SEL UP, PU SEL DOWN,
			12-STRING ON/OFF, ALT TUNE ON/OFF, MODELING ON/OFF,
			NORMAL PU ON/OFF, AMP SOLO SW, FX ON/OFF, EQ ON/OFF,
			WAH ON/OFF, CHORUS ON/OFF, DELAY ON/OFF,
			REVERB ON/OFF, HOLD, TAP TEMPO
00 03	000d dddd	CTL Function 4	(0 - 20)
			OFF, PATCH SETTING, PATCH UP, PATCH DOWN, PATCH SEL,
			TUNER ON/OFF, PU SEL UP, PU SEL DOWN,
			12-STRING ON/OFF, ALT TUNE ON/OFF, MODELING ON/OFF,
			NORMAL PU ON/OFF, AMP SOLO SW, FX ON/OFF, EQ ON/OFF,
			WAH ON/OFF, CHORUS ON/OFF, DELAY ON/OFF,
			REVERB ON/OFF, HOLD, TAP TEMPO
00 04	0000 000d	CTL Mode 1	(0 - 1)
			MOMENTARY, TOGGLE
00 05	0000 000d	CTL Mode 2	(0 - 1)
			MOMENTARY, TOGGLE
00 06	0000 000d	CTL Mode 3	(0 - 1)
			MOMENTARY, TOGGLE
00 07	0000 000d	CTL Mode 4	(0 - 1)
			MOMENTARY, TOGGLE
00 08	0000 dddd	Patch Up Interval 1	(1 - 10)
			1 - 10
00 09	0000 dddd	Patch Up Interval 2	(1 - 10)
			1 - 10
00 0A	0000 dddd	Patch Up Interval 3	(1 - 10)
			1 - 10
00 0B	0000 dddd	Patch Up Interval 4	(1 - 10)
			1 - 10
00 0C	0000 dddd	Patch Down Interval 1	(1 - 10)
			1 - 10
00 0D	0000 dddd	Patch Down Interval 2	(1 - 10)
			1 - 10
00 0E	0000 dddd	Patch Down Interval 3	(1 - 10)
			1 - 10
00 0F	0000 dddd	Patch Down Interval 4	(1 - 10)
			1 - 10
00 10	0ddd dddd	Patch Select Number 1	(0 - 98)
			1 - 99
00 11	0ddd dddd	Patch Select Number 2	(0 - 98)
			1 - 99
00 12	0ddd dddd	Patch Select Number 3	(0 - 98)
			1 - 99
00 13	0ddd dddd	Patch Select Number 4	(0 - 98)
			1 - 99
00 14	000d dddd	GK Switch Function 1	(0 - 20)
			OFF, PATCH SETTING, PATCH UP, PATCH DOWN, PATCH SEL,
			TUNER ON/OFF, PU SEL UP, PU SEL DOWN,
			12-STRING ON/OFF, ALT TUNE ON/OFF, MODELING ON/OFF,
			NORMAL PU ON/OFF, AMP SOLO SW, FX ON/OFF, EQ ON/OFF,
			WAH ON/OFF, CHORUS ON/OFF, DELAY ON/OFF,
			REVERB ON/OFF, HOLD, TAP TEMPO
00 15	000d dddd	GK Switch Function 2	(0 - 20)
			OFF, PATCH SETTING, PATCH UP, PATCH DOWN, PATCH SEL,
			TUNER ON/OFF, PU SEL UP, PU SEL DOWN,
			12-STRING ON/OFF, ALT TUNE ON/OFF, MODELING ON/OFF,
			NORMAL PU ON/OFF, AMP SOLO SW, FX ON/OFF, EQ ON/OFF,
			WAH ON/OFF, CHORUS ON/OFF, DELAY ON/OFF,
			REVERB ON/OFF, HOLD, TAP TEMPO
00 16	0000 000d	GK Switch Mode 1	(0 - 1)
			MOMENTARY, TOGGLE
00 17	0000 000d	GK Switch Mode 2	(0 - 1)
			MOMENTARY, TOGGLE
00 18	0000 dddd	Patch Up Interval 1	(1 - 10)
			1 - 10
00 19	0000 dddd	Patch Up Interval 2	(1 - 10)
			1 - 10
00 1A	0000 dddd	Patch Down Interval 1	(1 - 10)
			1 - 10
00 1B	0000 dddd	Patch Down Interval 2	(1 - 10)
			1 - 10
00 1C	0ddd dddd	Patch Select Number 1	(0 - 98)
			1 - 99
00 1D	0ddd dddd	Patch Select Number 2	(0 - 98)
			1 - 99
00 1E	0000 dddd	EXP SW Function	(0 - 13)
			OFF, PATCH SETTING, 12-STRING ON/OFF,
			ALT TUNE ON/OFF, MODELING ON/OFF, NORMAL PU ON/OFF,
			AMP SOLO SW, FX ON/OFF, EQ ON/OFF, WAH ON/OFF,
			CHORUS ON/OFF, DELAY ON/OFF, REVERB ON/OFF, HOLD
00 1F	0000 000d	EXP SW Mode	(0 - 1)

			MOMENTARY, TOGGLE
00 20	0000 dddd	EXP PEDAL OFF Function	(0 - 15)
			OFF, PATCH SETTING, FOOT VOL, PATCH LEVEL, MODELING VOL, NORMAL PU VOL, MIXER, STRING BEND, MODELING, FX, AMP, WAH, CHORUS, DELAY, REVERB, EQ
00 21	0000 dddd	EXP PEDAL ON Function	(0 - 15)
			OFF, PATCH SETTING, FOOT VOL, PATCH LEVEL, MODELING VOL, NORMAL PU VOL, MIXER, STRING BEND, MODELING, FX, AMP, WAH, CHORUS, DELAY, REVERB, EQ
00 22	0000 dddd	EXP2 PEDAL Function	(0 - 15)
			OFF, PATCH SETTING, FOOT VOL, PATCH LEVEL, MODELING VOL, NORMAL PU VOL, MIXER, STRING BEND, MODELING, FX, AMP, WAH, CHORUS, DELAY, REVERB, EQ
00 23	0000 dddd	GK VOL Function	(0 - 15)
			OFF, PATCH SETTING, FOOT VOL, PATCH LEVEL, MODELING VOL, NORMAL PU VOL, MIXER, STRING BEND, MODELING, FX, AMP, WAH, CHORUS, DELAY, REVERB, EQ
00 24	0000 000d	Assign Hold Switch	(0 - 1)
			OFF, ON

* System Guitar to MIDI Parameters Offset Address

Offset Address		Description	
00 00	0000 000d	Guitar to MIDI Switch	(0 - 1)
			OFF, ON
00 01	0000 000d	Guitar to MIDI Mode	(0 - 1)
			POLY, MONO
00 02	0000 000d	Guitar to MIDI Chromatic	(0 - 1)
			OFF, ON
00 03	0000 00dd	Guitar to MIDI Hold Pedal	(0 - 2)
			OFF, CTL1, CTL2
00 04	0000 00dd	Guitar to MIDI Pedal Bend	(0 - 2)
			OFF, DOWN, UP
00 05	000d dddd	Guitar to MIDI Bend Range	(0 - 24)
			0 - 24
00 06	0000 000d	Guitar to MIDI Data Thin	(0 - 1)
			OFF, ON
00 07	0000 dddd	Guitar to MIDI String CH	(0 - 10)
			1 - 11
00 08	0000 dddd	Guitar to MIDI Dynamics	(0 - 9)
			1 - 10
00 09	0000 0ddd	Guitar to MIDI Play Feel	(0 - 4)
			FEEL 1, FEEL 2, FEEL 3, FEEL 4, NO DYNA
00 0A	0000 dddd	Guitar to MIDI Low Velo Cut	(0 - 10)
			OFF, 1 - 10

* System GK Setting Parameters Offset Address

Offset Address		Description	
00 00	0000 0ddd	Pickup Type	(0 - 7)
			GK-3, GK-2A, GC-1, PIEZO, PIEZO F, PIEZO G, PIEZO L, PIEZO R
00 01	0000 aaaa	Scale	(0 - 162)
			500 - 660, ST, LP [mm]
	0000 bbbb		
00 03	0000 000d	Pickup Phase	(0 - 1)
			NORMAL, INVERSE
00 04	0000 000d	Pickup Direction	(0 - 1)
			NORMAL, REVERSE
00 05	0000 000d	S1/S2 Position	(0 - 1)
			NORMAL, REVERSE
00 06	00dd dddd	Normal PU Gain	(0 - 40)
			-20 - +20 [dB]
00 07	0ddd dddd	Pickup Sens1	(0 - 100)
			0 - 100
00 08	0ddd dddd	Pickup Sens2	(0 - 100)
			0 - 100
00 09	0ddd dddd	Pickup Sens3	(0 - 100)
			0 - 100
00 0A	0ddd dddd	Pickup Sens4	(0 - 100)
			0 - 100
00 0B	0ddd dddd	Pickup Sens5	(0 - 100)
			0 - 100
00 0C	0ddd dddd	Pickup Sens6	(0 - 100)
			0 - 100
00 0D	00dd dddd	Pickup Distance1	(0 - 40)
			10.0 - 30.0 [mm]
00 0E	00dd dddd	Pickup Distance2	(0 - 40)
			10.0 - 30.0 [mm]
00 0F	00dd dddd	Pickup Distance3	(0 - 40)
			10.0 - 30.0 [mm]
00 10	00dd dddd	Pickup Distance4	(0 - 40)
			10.0 - 30.0 [mm]
00 11	00dd dddd	Pickup Distance5	(0 - 40)
			10.0 - 30.0 [mm]

	00 12	00dd dddd	Pickup Distance6	(0 - 40) 10.0 - 30.0 [mm]
	00 13	0000 0ddd	Down Tune Shift	(0 - 5) 0, -1, -2, -3, -4, -5
	00 14	000d dddd	Piezo Tone Low	(0 - 20) -10 - +10 [dB]
	00 15	000d dddd	Piezo Tone High	(0 - 20) -10 - +10 [dB]

* Patch Name Parameters Offset Address

Offset Address		Description	
	00 00	0ddd dddd	Patch Name1	(32 - 126) 32 - 126 [ASCII]
	00 01	0ddd dddd	Patch Name2	(32 - 126) 32 - 126 [ASCII]
	00 02	0ddd dddd	Patch Name3	(32 - 126) 32 - 126 [ASCII]
	00 03	0ddd dddd	Patch Name4	(32 - 126) 32 - 126 [ASCII]
	00 04	0ddd dddd	Patch Name5	(32 - 126) 32 - 126 [ASCII]
	00 05	0ddd dddd	Patch Name6	(32 - 126) 32 - 126 [ASCII]
	00 06	0ddd dddd	Patch Name7	(32 - 126) 32 - 126 [ASCII]
	00 07	0ddd dddd	Patch Name8	(32 - 126) 32 - 126 [ASCII]
	00 08	0ddd dddd	Patch Name9	(32 - 126) 32 - 126 [ASCII]
	00 09	0ddd dddd	Patch Name10	(32 - 126) 32 - 126 [ASCII]
	00 0A	0ddd dddd	Patch Name11	(32 - 126) 32 - 126 [ASCII]
	00 0B	0ddd dddd	Patch Name12	(32 - 126) 32 - 126 [ASCII]

* Patch Common Parameters Offset Address

Offset Address		Description	
	00 00	0ddd dddd	Patch Level	(0 - 100) 0 - 200
	00 01	0000 aaaa	Patch Tempo	(40 - 250) 40 - 250
		0000 bbbb		
	00 03	0000 00dd	Patch GK Set Select	(0 - 2) 1 - 3
	00 04	0000 000d	Normal Pickup Switch	(0 - 1) OFF, ON
	00 05	0ddd dddd	Normal Pickup Level	(0 - 100) 0 - 100
	00 06	0000 0ddd	Normal Pickup Cable Simulation	(0 - 6) OFF, 1m/3ft, 3m/10ft, 5m/16ft, 7m/23ft, 9m/30ft, 12m/40ft
	00 07	0ddd dddd	Mixer Modeling Input Level	(0 - 100) 0 - 100
	00 08	0ddd dddd	Mixer Normal PU Input Level	(0 - 100) 0 - 100
	00 09	0ddd dddd	Mixer Balance	(0 - 100) M0:100N - M100:100N - M100:0N

* Patch Modeling Parameters Offset Address

Offset Address		Description	
	00 00	0000 000d	Modeling Tone Switch	(0 - 1) OFF, ON
	00 01	0000 0ddd	Modeling Type	(0 - 4) E.GTR, ACOUSTIC, E.BASS, SYNTH, POLY FX
	00 02	0000 000d	Modeling NS Switch	(0 - 1) OFF, ON
	00 03	0ddd dddd	Modeling NS Threshold	(0 - 100) 0 - 100
	00 04	0ddd dddd	Modeling NS Release	(0 - 100) 0 - 100
	00 05	0ddd dddd	String Level 1	(0 - 100) 0 - 100
	00 06	0ddd dddd	String Level 2	(0 - 100) 0 - 100
	00 07	0ddd dddd	String Level 3	(0 - 100) 0 - 100
	00 08	0ddd dddd	String Level 4	(0 - 100) 0 - 100

00 09	0ddd dddd	String Level 5	(0 - 100) 0 - 100
00 0A	0ddd dddd	String Level 6	(0 - 100) 0 - 100
00 0B	0ddd dddd	String Pan 1	(0 - 100) L100 - CENTER - R100
00 0C	0ddd dddd	String Pan 2	(0 - 100) L100 - CENTER - R100
00 0D	0ddd dddd	String Pan 3	(0 - 100) L100 - CENTER - R100
00 0E	0ddd dddd	String Pan 4	(0 - 100) L100 - CENTER - R100
00 0F	0ddd dddd	String Pan 5	(0 - 100) L100 - CENTER - R100
00 10	0ddd dddd	String Pan 6	(0 - 100) L100 - CENTER - R100

* Patch E.GTR Parameters Offset Address

Offset Address		Description	
00 00	0000 dddd	Type	(0 - 11) CLA ST, MOD ST, TE, LP, P90, 335, L4, RICK, LIPS, WIDE RANGE, BRIGHT HUM, FRETLESS
00 01	0ddd dddd	Volume	(0 - 100) 0 - 100
00 02	0ddd dddd	Tone	(0 - 100) 0 - 100
00 03	0000 00dd	Fretless Tone Type	(0 - 3) MILD, STANDARD, BRIGHT1, BRIGHT2
00 04	0ddd dddd	Fretless Sens	(0 - 100) 0 - 100
00 05	0ddd dddd	Fretless Depth	(0 - 100) 0 - 100
00 06	0ddd dddd	Fretless Attack	(0 - 100) 0 - 100
00 07	0ddd dddd	Fretless Resonance	(0 - 100) 0 - 100
00 08	0ddd dddd	Fretless Direct Level	(0 - 100) 0 - 100
00 09	0000 0ddd	CLA ST Pickup Select	(0 - 4) REAR, R+C, CENTER, C+F, FRONT
00 0A	0000 0ddd	MOD ST Pickup Select	(0 - 4) REAR, R+C, CENTER, C+F, FRONT
00 0B	0000 00dd	TE Pickup Select	(0 - 2) REAR, R+F, FRONT
00 0C	0000 00dd	LP Pickup Select	(0 - 2) REAR, R+F, FRONT
00 0D	0000 00dd	P90 Pickup Select	(0 - 2) REAR, R+F, FRONT
00 0E	0000 00dd	335 Pickup Select	(0 - 2) REAR, R+F, FRONT
00 0F	0000 00dd	L4 Pickup Select	(0 - 2) REAR, R+F, FRONT
00 10	0000 00dd	RICK Pickup Select	(0 - 2) REAR, R+F, FRONT
00 11	0000 0ddd	LIPS Pickup Select	(0 - 5) REAR, R+C, CENTER, C+F, FRONT, ALL
00 12	0000 00dd	ADV SINGLE Pickup Select	(0 - 2) REAR, R+F, FRONT
00 13	0000 00dd	ADV HUM Pickup Select	(0 - 2) REAR, R+F, FRONT
00 14	0ddd dddd	(Reserved)	(0 - 127) 0 - 127
00 15	0ddd dddd	(Reserved)	(0 - 127) 0 - 127
00 16	0ddd dddd	(Reserved)	(0 - 127) 0 - 127
00 17	0ddd dddd	(Reserved)	(0 - 127) 0 - 127

* Patch AC Parameters Offset Address

Offset Address		Description	
00 00	0000 dddd	Type	(0 - 8) MA28, TRP-0, GB45, GB SML, GLD40, NYLON, RESO, BANJO, SITAR
00 01	0ddd dddd	Volume	(0 - 100) 0 - 100
00 02	0ddd dddd	Tone	(0 - 100) 0 - 100
00 03	0ddd dddd	Body	(0 - 100) 0 - 100
00 04	0ddd dddd	Attack	(0 - 100) 0 - 100
00 05	0ddd dddd	Sitar Sens	(0 - 100)

			0 - 100
00 06	0ddd dddd	Sitar Color	(0 - 100)
			0 - 100
00 07	0ddd dddd	Sitar Decay	(0 - 100)
			0 - 100
00 08	0ddd dddd	Sitar Buzz	(0 - 100)
			0 - 100
00 09	0ddd dddd	Sitar Attack	(0 - 100)
			0 - 100
00 0A	0000 00dd	Sitar PU Select	(0 - 3)
			FRONT, R+F, REAR, PIEZO
00 0B	0ddd dddd	Banjo Resonance	(0 - 100)
			0 - 100
00 0C	0ddd dddd	Resonator Resonance	(0 - 100)
			0 - 100
00 0D	0ddd dddd	Resonator Sustain	(0 - 100)
			0 - 100

* Patch E.BASS Parameters Offset Address

Offset Address		Description	
00 00	0000 00dd	Type	(0 - 2)
			JB, PB, FRETLESS
00 01	0ddd dddd	Volume	(0 - 100)
			0 - 100
00 02	0ddd dddd	Tone	(0 - 100)
			0 - 100
00 03	0ddd dddd	Fretless Sens	(0 - 100)
			0 - 100
00 04	0ddd dddd	Fretless Attack	(0 - 100)
			0 - 100
00 05	0000 00dd	Fretless Tone Type	(0 - 3)
			JB(R), JB(R+F), JB(F), PB
00 06	0ddd dddd	Fretless Depth	(0 - 100)
			0 - 100
00 07	0ddd dddd	Fretless Resonance	(0 - 100)
			0 - 100
00 08	0ddd dddd	Fretless Direct Level	(0 - 100)
			0 - 100
00 09	0ddd dddd	JB Rear Volume	(0 - 100)
			0 - 100
00 0A	0ddd dddd	JB Front Volume	(0 - 100)
			0 - 100

* Patch SYNTH Parameters Offset Address

Offset Address		Description	
00 00	0000 00dd	SYNTH Type	(0 - 2)
			GR-300, OSC SYNTH, WAVE SYNTH
00 01	0000 00dd	GR-300 Mode	(0 - 2)
			VCO, V+D, DIST
00 02	0ddd dddd	GR-300 Volume	(0 - 100)
			0 - 100
00 03	0000 000d	GR-300 Comp Switch	(0 - 1)
			OFF, ON
00 04	0ddd dddd	GR-300 Cutoff	(0 - 100)
			0 - 100
00 05	0ddd dddd	GR-300 Resonace	(0 - 100)
			0 - 100
00 06	0000 00dd	GR-300 Env Mod Switch	(0 - 2)
			OFF, ON, INV
00 07	0ddd dddd	GR-300 Env Mod Sens	(0 - 100)
			0 - 100
00 08	0ddd dddd	GR-300 Env Mod Attack	(0 - 100)
			0 - 100
00 09	0000 00dd	GR-300 Pitch Switch	(0 - 2)
			OFF, A, B
00 0A	000d dddd	GR-300 Pitch A	(0 - 24)
			-12 - +12 [SIGNED]
00 0B	0ddd dddd	GR-300 Pitch Fine A	(0 - 100)
			-50 - +50 [SIGNED]
00 0C	000d dddd	GR-300 Pitch B	(0 - 24)
			-12 - +12 [SIGNED]
00 0D	0ddd dddd	GR-300 Pitch Fine B	(0 - 100)
			-50 - +50 [SIGNED]
00 0E	0000 000d	GR-300 Pitch Duet	(0 - 1)
			OFF, ON
00 0F	0000 000d	GR-300 Sweep Switch	(0 - 1)
			OFF, ON
00 10	0ddd dddd	GR-300 Sweep Rise	(0 - 100)
			0 - 100
00 11	0ddd dddd	GR-300 Sweep Fall	(0 - 100)
			0 - 100
00 12	0000 000d	GR-300 Vibrato Switch	(0 - 1)
			OFF, ON

	00 13	0ddd dddd	GR-300 Vibrato Rate	(0 - 100) 0 - 100
	00 14	0ddd dddd	GR-300 Vibrato Depth	(0 - 100) 0 - 100
	00 15	0ddd dddd	(Reserved)	(0 - 127)
	00 16	0ddd dddd	(Reserved)	(0 - 127)
	00 17	0ddd dddd	(Reserved)	(0 - 127)
	00 18	0ddd dddd	(Reserved)	(0 - 127)
	00 19	0000 00dd	OSC Synth OSC Mode	(0 - 3) SINGLE, DUAL, SYNC, RING
	00 1A	0ddd dddd	OSC Synth Volume	(0 - 100) 0 - 100
	00 1B	0000 0ddd	OSC Synth OSC1 Waveform	(0 - 5) SIN, SAW, TRI, SQR, PW, NOISE
	00 1C	00dd dddd	OSC Synth OSC1 Pitch	(0 - 48) -24 - +24 [SIGNED]
	00 1D	0ddd dddd	OSC Synth OSC1 Pitch Fine	(0 - 100) -50 - +50 [SIGNED]
	00 1E	0ddd dddd	OSC Synth OSC1 PW Width	(0 - 100) 0 - 100
	00 1F	0ddd dddd	OSC Synth OSC1 PW Mod Rate	(0 - 100) 0 - 100
	00 20	0ddd dddd	OSC Synth OSC1 Pitch Env Attack	(0 - 100) 0 - 100
	00 21	0ddd dddd	OSC Synth OSC1 Pitch Env Decay	(0 - 100) 0 - 100
	00 22	000d dddd	OSC Synth OSC1 Pitch Env Depth	(0 - 24) -12 - +12 [SIGNED]
	00 23	0ddd dddd	OSC Synth OSC1 Level	(0 - 100) 0 - 100
	00 24	0000 0ddd	OSC Synth OSC2 Waveform	(0 - 5) SIN, SAW, TRI, SQR, PW, NOISE
	00 25	00dd dddd	OSC Synth OSC2 Pitch	(0 - 48) -24 - +24 [SIGNED]
	00 26	0ddd dddd	OSC Synth OSC2 Pitch Fine	(0 - 100) -50 - +50 [SIGNED]
	00 27	0ddd dddd	OSC Synth OSC2 PW Width	(0 - 100) 0 - 100
	00 28	0ddd dddd	OSC Synth OSC2 PW Mod Rate	(0 - 100) 0 - 100
	00 29	0ddd dddd	OSC Synth OSC2 Pitch Env Attack	(0 - 100) 0 - 100
	00 2A	0ddd dddd	OSC Synth OSC2 Pitch Env Decay	(0 - 100) 0 - 100
	00 2B	000d dddd	OSC Synth OSC2 Pitch Env Depth	(0 - 24) -12 - +12 [SIGNED]
	00 2C	0ddd dddd	OSC Synth OSC2 Level	(0 - 100) 0 - 100
	00 2D	0000 0ddd	OSC Synth Filter Type	(0 - 4) BYPASS, LPF, HPF, BPF, PKG
	00 2E	0000 000d	OSC Synth Filter Slope	(0 - 1) -12dB, -24dB
	00 2F	0ddd dddd	OSC Synth Filter Cutoff	(0 - 100) 0 - 100
	00 30	0ddd dddd	OSC Synth Filter Cutoff Pitch Follow	(0 - 100) 0 - 100
	00 31	0ddd dddd	OSC Synth Filter Resonance	(0 - 100) 0 - 100
	00 32	0ddd dddd	OSC Synth Filter Velocity Sens	(0 - 100) -50 - +50 [SIGNED]
	00 33	0ddd dddd	OSC Synth Filter Env Attack	(0 - 100) 0 - 100
	00 34	0ddd dddd	OSC Synth Filter Env Decay	(0 - 100) 0 - 100
	00 35	0ddd dddd	OSC Synth Filter Env Sustain	(0 - 100) 0 - 100
	00 36	0ddd dddd	OSC Synth Filter Env Release	(0 - 100) 0 - 100
	00 37	0ddd dddd	OSC Synth Filter Env Depth	(0 - 100) -50 - +50 [SIGNED]
	00 38	0ddd dddd	OSC Synth Amp Velocity Sens	(0 - 100) 0 - 100
	00 39	0ddd dddd	OSC Synth Amp Env Attack	(0 - 100) 0 - 100
	00 3A	0ddd dddd	OSC Synth Amp Env Decay	(0 - 100) 0 - 100
	00 3B	0ddd dddd	OSC Synth Amp Env Sustain	(0 - 100) 0 - 100
	00 3C	0ddd dddd	OSC Synth Amp Env Release	(0 - 100) 0 - 100
	00 3D	0000 0ddd	OSC Synth LFO1 Shape	(0 - 6) SIN, SAW UP, SAW DOWN, TRI, SQR, RANDOM, S&H
	00 3E	0ddd dddd	OSC Synth LFO1 Rate	(0 - 113) 0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
	00 3F	0ddd dddd	OSC Synth LFO1 OSC1 Pitch Depth	(0 - 100) 0 - 100

00 40	0ddd dddd	OSC Synth LFO1 OSC2 Pitch Depth	(0 - 100) 0 - 100
00 41	0ddd dddd	OSC Synth LFO1 Filter Depth	(0 - 100) 0 - 100
00 42	0ddd dddd	OSC Synth LFO1 Amp Depth	(0 - 100) 0 - 100
00 43	0ddd dddd	OSC Synth LFO1 Delay Time	(0 - 100) 0 - 100
00 44	0ddd dddd	OSC Synth LFO1 Fade Time	(0 - 100) 0 - 100
00 45	0000 0ddd	OSC Synth LFO2 Shape	(0 - 6) SIN, SAW UP, SAW DOWN, TRI, SQR, RANDOM, S&H
00 46	0ddd dddd	OSC Synth LFO2 Rate	(0 - 113) 0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
00 47	0ddd dddd	OSC Synth LFO2 OSC1 Pitch Depth	(0 - 100) 0 - 100
00 48	0ddd dddd	OSC Synth LFO2 OSC2 Pitch Depth	(0 - 100) 0 - 100
00 49	0ddd dddd	OSC Synth LFO2 Filter Depth	(0 - 100) 0 - 100
00 4A	0ddd dddd	OSC Synth LFO2 Amp Depth	(0 - 100) 0 - 100
00 4B	0ddd dddd	OSC Synth LFO2 Delay Time	(0 - 100) 0 - 100
00 4C	0ddd dddd	OSC Synth LFO2 Fade Time	(0 - 100) 0 - 100
00 4D	0000 000d	OSC Synth Poly/Mono	(0 - 1) POLY, MONO
00 4E	0000 000d	OSC Synth Chromatic	(0 - 1) OFF, ON
00 4F	0000 000d	OSC Synth Portament Switch	(0 - 1) OFF, ON
00 50	0ddd dddd	OSC Synth Portament Rate	(0 - 100) 0 - 100
00 51	0000 000d	OSC Synth Portament Mode	(0 - 1) MODE1, MODE2
00 52	0000 00dd	OSC Synth Hold Mode	(0 - 2) MODE1, MODE2, MODE3
00 53	0000 dddd	OSC Synth Low Velo Cut	(0 - 10) OFF, 1 - 10
00 54	0ddd dddd	(Reserved)	(0 - 127)
00 55	0ddd dddd	(Reserved)	(0 - 127)
00 56	0ddd dddd	(Reserved)	(0 - 127)
00 57	0ddd dddd	(Reserved)	(0 - 127)
00 58	0000 000d	Wave Synth Type	(0 - 1) SAW, SQUARE
00 59	0ddd dddd	Wave Synth Volume	(0 - 100) 0 - 100
00 5A	0ddd dddd	Wave Synth Cutoff	(0 - 100) 0 - 100
00 5B	0ddd dddd	Wave Synth Resonance	(0 - 100) 0 - 100
00 5C	0000 000d	Wave Synth Octave	(0 - 1) OFF, ON
00 5D	0ddd dddd	(Reserved)	(0 - 127)
00 5E	0ddd dddd	(Reserved)	(0 - 127)
00 5F	0ddd dddd	(Reserved)	(0 - 127)
00 60	0ddd dddd	(Reserved)	(0 - 127)

* Patch Poly Fx Parameters Offset Address

Offset Address		Description	
00 00	0000 0ddd	Poly Fx Type	(0 - 4) DISTORTION, CRYSTAL, RICH MODULATION, SLOW PAD, TOUCH WAH
00 01	0ddd dddd	Poly Fx Guitar Volume	(0 - 100) 0 - 100
00 02	0ddd dddd	DIST Gain Balance	(0 - 100) 0 - 100
00 03	0ddd dddd	DIST Gain	(0 - 100) 0 - 100
00 04	0ddd dddd	DIST Color	(0 - 100) 0 - 100
00 05	0ddd dddd	DIST Tone	(0 - 100) 0 - 100
00 06	0ddd dddd	DIST Level	(0 - 100) 0 - 100
00 07	0ddd dddd	CRYSTAL Color	(0 - 100) 0 - 100

00 08	0ddd dddd	CRYSTAL Tone	(0 - 100) 0 - 100
00 09	0ddd dddd	CRYSTAL Level	(0 - 100) 0 - 100
00 0A	0ddd dddd	(reserved)	(0 - 100) 0 - 100
00 0B	0ddd dddd	RICH MODULATION Color	(0 - 100) 0 - 100
00 0C	0ddd dddd	RICH MODULATION Tone	(0 - 100) 0 - 100
00 0D	0ddd dddd	RICH MODULATION Level	(0 - 100) 0 - 100
00 0E	0ddd dddd	(reserved)	(0 - 100) 0 - 100
00 0F	0ddd dddd	SLOW PAD Color	(0 - 100) 0 - 100
00 10	0ddd dddd	SLOW PAD Tone	(0 - 100) 0 - 100
00 11	0ddd dddd	SLOW PAD Level	(0 - 100) 0 - 100
00 12	0ddd dddd	(reserved)	(0 - 100) 0 - 100
00 13	0000 000d	TOUCH WAH Mode	(0 - 1) LPF, BPF
00 14	0000 000d	TOUCH WAH Polar	(0 - 1) DOWN, UP
00 15	0ddd dddd	TOUCH WAH Sens	(0 - 100) 0 - 100
00 16	0ddd dddd	TOUCH WAH Frequency	(0 - 100) 0 - 100
00 17	0ddd dddd	TOUCH WAH Peak	(0 - 100) 0 - 100
00 18	0ddd dddd	TOUCH WAH Volume	(0 - 100) 0 - 100
00 19	0000 00dd	TOUCH WAH Tone Type	(0 - 2) MILD, STANDARD, BRIGHT
00 1A	0000 000d	TOUCH WAH Comp Sw	(0 - 1) OFF, ON
00 1B	0ddd dddd	TOUCH WAH Comp Sustain	(0 - 100) 0 - 100
00 1C	0ddd dddd	TOUCH WAH Comp Attack	(0 - 100) 0 - 100
00 1D	0000 dddd	TOUCH WAH Decay	(0 - 10) 0 - 10
00 1E	0ddd dddd	(Reserved)	(0 - 100) 0 - 100
00 1F	0ddd dddd	(Reserved)	(0 - 100) 0 - 100
00 20	0ddd dddd	(Reserved)	(0 - 100) 0 - 100
00 21	0ddd dddd	(Reserved)	(0 - 100) 0 - 100
00 22	0ddd dddd	(Reserved)	(0 - 100) 0 - 100
00 23	0ddd dddd	(Reserved)	(0 - 100) 0 - 100
00 24	0ddd dddd	(Reserved)	(0 - 100) 0 - 100
00 25	0ddd dddd	(Reserved)	(0 - 100) 0 - 100
00 26	0ddd dddd	(Reserved)	(0 - 100) 0 - 100
00 27	0ddd dddd	(Reserved)	(0 - 100) 0 - 100
00 28	0ddd dddd	(Reserved)	(0 - 100) 0 - 100
00 29	0ddd dddd	(Reserved)	(0 - 100) 0 - 100

* Patch TUNE Parameters Offset Address

Offset Address		Description	
00 00	0000 000d	Alternate Tuning Switch	(0 - 1) OFF, ON
00 01	00dd dddd	Alternate Tuning Select	(0 - 36) OPEN D, OPEN E, OPEN G, OPEN A, DROP D , DROP Db, DROP C , DROP B , DROP Bb, DROP A , D-MODAL, NASHVL, -12 STEP, -11 STEP, -10 STEP, -9 STEP, -8 STEP, -7 STEP, -6 STEP, -5 STEP, -4 STEP, -3 STEP, -2 STEP, -1 STEP, +1 STEP, +2 STEP, +3 STEP, +4 STEP, +5 STEP, +6 STEP, +7 STEP, +8 STEP, +9 STEP, +10 STEP, +11 STEP, +12 STEP, USER
00 02	00dd dddd	Alternate Tuning Shift 1	(0 - 48) -24 - +24 [SIGNED]
00 03	00dd dddd	Alternate Tuning Shift 2	(0 - 48) -24 - +24 [SIGNED]
00 04	00dd dddd	Alternate Tuning Shift 3	(0 - 48) -24 - +24 [SIGNED]

00 05	00dd dddd	Alternate Tuning Shift 4	(0 - 48)	
			-24 - +24 [SIGNED]	
00 06	00dd dddd	Alternate Tuning Shift 5	(0 - 48)	
			-24 - +24 [SIGNED]	
00 07	00dd dddd	Alternate Tuning Shift 6	(0 - 48)	
			-24 - +24 [SIGNED]	
00 08	0ddd dddd	Alternate Tuning Fine 1	(0 - 100)	
			-50 - +50 [SIGNED]	
00 09	0ddd dddd	Alternate Tuning Fine 2	(0 - 100)	
			-50 - +50 [SIGNED]	
00 0A	0ddd dddd	Alternate Tuning Fine 3	(0 - 100)	
			-50 - +50 [SIGNED]	
00 0B	0ddd dddd	Alternate Tuning Fine 4	(0 - 100)	
			-50 - +50 [SIGNED]	
00 0C	0ddd dddd	Alternate Tuning Fine 5	(0 - 100)	
			-50 - +50 [SIGNED]	
00 0D	0ddd dddd	Alternate Tuning Fine 6	(0 - 100)	
			-50 - +50 [SIGNED]	
00 0E	0000 000d	12-String Switch	(0 - 1)	
			OFF, ON	
00 0F	0000 000d	12-String Select	(0 - 1)	
			NORMAL, USER	
00 10	00dd dddd	12-String Tuning Shift 1	(0 - 48)	
			-24 - +24 [SIGNED]	
00 11	00dd dddd	12-String Tuning Shift 2	(0 - 48)	
			-24 - +24 [SIGNED]	
00 12	00dd dddd	12-String Tuning Shift 3	(0 - 48)	
			-24 - +24 [SIGNED]	
00 13	00dd dddd	12-String Tuning Shift 4	(0 - 48)	
			-24 - +24 [SIGNED]	
00 14	00dd dddd	12-String Tuning Shift 5	(0 - 48)	
			-24 - +24 [SIGNED]	
00 15	00dd dddd	12-String Tuning Shift 6	(0 - 48)	
			-24 - +24 [SIGNED]	
00 16	0ddd dddd	12-String Tuning Fine 1	(0 - 100)	
			-50 - +50 [SIGNED]	
00 17	0ddd dddd	12-String Tuning Fine 2	(0 - 100)	
			-50 - +50 [SIGNED]	
00 18	0ddd dddd	12-String Tuning Fine 3	(0 - 100)	
			-50 - +50 [SIGNED]	
00 19	0ddd dddd	12-String Tuning Fine 4	(0 - 100)	
			-50 - +50 [SIGNED]	
00 1A	0ddd dddd	12-String Tuning Fine 5	(0 - 100)	
			-50 - +50 [SIGNED]	
00 1B	0ddd dddd	12-String Tuning Fine 6	(0 - 100)	
			-50 - +50 [SIGNED]	
00 1C	0ddd dddd	12-String Tuning Level 1	(0 - 100)	
			0 - 100	
00 1D	0ddd dddd	12-String Tuning Level 2	(0 - 100)	
			0 - 100	
00 1E	0ddd dddd	12-String Tuning Level 3	(0 - 100)	
			0 - 100	
00 1F	0ddd dddd	12-String Tuning Level 4	(0 - 100)	
			0 - 100	
00 20	0ddd dddd	12-String Tuning Level 5	(0 - 100)	
			0 - 100	
00 21	0ddd dddd	12-String Tuning Level 6	(0 - 100)	
			0 - 100	
00 22	0ddd dddd	12-String Tuning Delay 1	(0 - 100)	
			0 - 100 [ms]	
00 23	0ddd dddd	12-String Tuning Delay 2	(0 - 100)	
			0 - 100 [ms]	
00 24	0ddd dddd	12-String Tuning Delay 3	(0 - 100)	
			0 - 100 [ms]	
00 25	0ddd dddd	12-String Tuning Delay 4	(0 - 100)	
			0 - 100 [ms]	
00 26	0ddd dddd	12-String Tuning Delay 5	(0 - 100)	
			0 - 100 [ms]	
00 27	0ddd dddd	12-String Tuning Delay 6	(0 - 100)	
			0 - 100 [ms]	
00 28	0000 000d	String Bend Switch	(0 - 1)	
			OFF, ON	
00 29	00dd dddd	String Bend Depth 1	(0 - 48)	
			-24 - +24 [SIGNED]	
00 2A	00dd dddd	String Bend Depth 2	(0 - 48)	
			-24 - +24 [SIGNED]	
00 2B	00dd dddd	String Bend Depth 3	(0 - 48)	
			-24 - +24 [SIGNED]	
00 2C	00dd dddd	String Bend Depth 4	(0 - 48)	
			-24 - +24 [SIGNED]	
00 2D	00dd dddd	String Bend Depth 5	(0 - 48)	
			-24 - +24 [SIGNED]	
00 2E	00dd dddd	String Bend Depth 6	(0 - 48)	
			-24 - +24 [SIGNED]	
00 2F	0ddd dddd	String Bend Control	(0 - 100)	
			0 - 100	

* Patch Effects Chain Parameters Offset Address

Offset

Address		Description	
00 00	0000 dddd	Effect Chain1	(0 - 9) AMP, FX, WAH, CHORUS, DELAY, REVERB, EQ, NS, FV, SPLIT_TO_MIXER
00 01	0000 dddd	Effect Chain2	(0 - 9) AMP, FX, WAH, CHORUS, DELAY, REVERB, EQ, NS, FV, SPLIT_TO_MIXER
00 02	0000 dddd	Effect Chain3	(0 - 9) AMP, FX, WAH, CHORUS, DELAY, REVERB, EQ, NS, FV, SPLIT_TO_MIXER
00 03	0000 dddd	Effect Chain4	(0 - 9) AMP, FX, WAH, CHORUS, DELAY, REVERB, EQ, NS, FV, SPLIT_TO_MIXER
00 04	0000 dddd	Effect Chain5	(0 - 9) AMP, FX, WAH, CHORUS, DELAY, REVERB, EQ, NS, FV, SPLIT_TO_MIXER
00 05	0000 dddd	Effect Chain6	(0 - 9) AMP, FX, WAH, CHORUS, DELAY, REVERB, EQ, NS, FV, SPLIT_TO_MIXER
00 06	0000 dddd	Effect Chain7	(0 - 9) AMP, FX, WAH, CHORUS, DELAY, REVERB, EQ, NS, FV, SPLIT_TO_MIXER
00 07	0000 dddd	Effect Chain8	(0 - 9) AMP, FX, WAH, CHORUS, DELAY, REVERB, EQ, NS, FV, SPLIT_TO_MIXER
00 08	0000 dddd	Effect Chain9	(0 - 9) AMP, FX, WAH, CHORUS, DELAY, REVERB, EQ, NS, FV, SPLIT_TO_MIXER
00 09	0000 dddd	Effect Chain10	(0 - 9) AMP, FX, WAH, CHORUS, DELAY, REVERB, EQ, NS, FV, SPLIT_TO_MIXER
00 0A	0000 dddd	Effect Chain11	(0 - 9) AMP, FX, WAH, CHORUS, DELAY, REVERB, EQ, NS, FV, SPLIT_TO_MIXER

* Patch Amp Parameters Offset Address

Offset Address		Description	
00 00	0000 000d	Amp Switch	(0 - 1) OFF, ON
00 01	000d dddd	Amp Type	(0 - 29) NATURAL CLEAN, FULL RANGE, COMBO CRUNCH, STACK CRUNCH, HiGAIN STACK, POWER DRIVE, EXTREME LEAD, CORE METAL, JC-120, CLEAN TWIN, PRO CRUNCH, TWEED, DELUXE CRUNCH, VO DRIVE, VO LEAD, MATCH DRIVE, BG LEAD, BG DRIVE, MS1959I, MS1959I+II, R-FIER VINTAGE, R-FIER MODERN, T-AMP LEAD, SLDN, 5150 DRIVE, BGNR UB METAL, ORNG ROCK REVERB, BASS CLEAN, BASS CRUNCH, BASS HiGAIN
00 02	0ddd dddd	Amp Gain	(0 - 120) 0 - 120
00 03	000d dddd	Amp T-Comp	(0 - 20) -10 - +10 [SIGNED]
00 04	0ddd dddd	Amp Level	(0 - 100) 0 - 100
00 05	0ddd dddd	Amp Bass	(0 - 100) 0 - 100
00 06	0ddd dddd	Amp Middle	(0 - 100) 0 - 100
00 07	0ddd dddd	Amp Treble	(0 - 100) 0 - 100
00 08	0ddd dddd	Amp Presence	(0 - 100) 0 - 100
00 09	0000 000d	Amp Bright	(0 - 1) OFF, ON
00 0A	0000 00dd	Amp Gain Switch	(0 - 2) LOW, MID, HIGH
00 0B	0000 000d	Amp Solo Switch	(0 - 1) OFF, ON
00 0C	0ddd dddd	Amp Solo Level	(0 - 100) 0 - 100
00 0D	0ddd dddd	Amp Direct Level	(0 - 100) 0 - 100
00 0E	0000 dddd	Amp Speaker Type	(0 - 8) OFF, ORIGINAL, 1x8, 1x10, 1x12, 2x12, 4x10, 4x12, 8x12
00 0F	0000 0ddd	Amp Mic Type	(0 - 4) DYN57, DYN421, CND451, CND87, FLAT
00 10	0000 000d	Amp Mic Distance	(0 - 1) OFF MIC, ON MIC
00 11	0000 dddd	Amp Mic Position	(0 - 10) CENTER, 1 - 10 [cm]
00 12	0ddd dddd	Amp Mic Level	(0 - 100) 0 - 100

* Patch FX Parameters Offset Address

Offset Address		Description	
00 00	0000 000d	Fx Switch	(0 - 1) OFF, ON
00 01	0000 dddd	Fx Select	(0 - 15) OD/DS, COMPRESSOR, LIMITER, EQ, T.WAH, PITCH SHIFTER, HARMONIST, PEDAL BEND, PHASER, FLANGER, TREMOLO, PAN, ROTARY, UNI-V, CHORUS, DELAY

* Patch FX/Overdrive, Distortion Parameters Offset Address

Offset Address		Description	
00 00	000d dddd	OD/OS Type	(0 - 20) MID BOOST, CLEAN BOOST, TREBLE BOOST, CRUNCH, NATURAL OD, WARM OD, FAT DS, LEAD DS, METAL DS, OCT FUZZ, BLUES OD, OD-1, T-SCREAM, TURBO OD, DISTORTION, RAT, GUV DS, DST+, METAL ZONE, '60S FUZZ, MUFF FUZZ
00 01	0ddd dddd	OD/OS Drive	(0 - 120) 0 - 120
00 02	0ddd dddd	OD/OS Tone	(0 - 100) -50 - +50 [SIGNED]
00 03	0ddd dddd	OD/OS Level	(0 - 100) 0 - 100
00 04	0ddd dddd	OD/DS Bottom	(0 - 100) -50 - +50 [SIGNED]
00 05	0ddd dddd	OD/DS Direct Level	(0 - 100) 0 - 100
00 06	0000 000d	OD/DS Solo Switch	(0 - 1) OFF, ON
00 07	0ddd dddd	OD/DS Solo Level	(0 - 100) 0 - 100

* Patch FX/Phaser Parameters Offset Address

Offset Address		Description	
00 00	0000 00dd	Phaser Type	(0 - 3) 4STAGE, 8STAGE, 12STAGE, BiPHASE
00 01	0ddd dddd	Phaser Rate	(0 - 113) 0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
00 02	0ddd dddd	Phaser Depth	(0 - 100) 0 - 100
00 03	0ddd dddd	Phaser Resonance	(0 - 100) 0 - 100
00 04	0ddd dddd	Phaser Manual	(0 - 100) 0 - 100
00 05	0ddd dddd	Phaser Step Rate	(0 - 114) OFF, 0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
00 06	0ddd dddd	Phaser E.Level	(0 - 100) 0 - 100
00 07	0ddd dddd	Phaser D.Level	(0 - 100) 0 - 100

* Patch FX/Flanger Parameters Offset Address

Offset Address		Description	
00 00	0ddd dddd	Flanger Rate	(0 - 113) 0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
00 01	0ddd dddd	Flanger Depth	(0 - 100) 0 - 100
00 02	0ddd dddd	Flanger Resonance	(0 - 100) 0 - 100
00 03	0ddd dddd	Flanger Manual	(0 - 100) 0 - 100
00 04	0ddd dddd	Flanger Separation	(0 - 100) 0 - 100
00 05	0000 dddd	Flanger Low Cut	(0 - 10) FLAT, 55Hz, 110Hz, 165Hz, 200Hz, 280Hz, 340Hz, 400Hz, 500Hz, 630Hz, 800Hz
00 06	0ddd dddd	Flanger E.Level	(0 - 100) 0 - 100
00 07	0ddd dddd	Flanger D.Level	(0 - 100) 0 - 100

* Patch FX/Tremolo Parameters Offset Address

Offset Address		Description	
00 00	0ddd dddd	Tremolo Rate	(0 - 113) 0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
00 01	0ddd dddd	Tremolo Depth	(0 - 100) 0 - 100
00 02	0ddd dddd	Tremolo Wave Shape	(0 - 100) 0 - 100
00 03	0ddd dddd	Tremolo E.Level	(0 - 100) 0 - 100

* Patch FX/Auto Pan Parameters Offset Address

Offset Address		Description	
00 00	0000 000d	Pan Type	(0 - 1) AUTO, MANUAL
00 01	0ddd dddd	Pan Rate	(0 - 113) 0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
00 02	0ddd dddd	Pan Depth	(0 - 100) 0 - 100
00 03	0ddd dddd	Pan Wave Shape	(0 - 100) 0 - 100
00 04	0000 aaaa 0000 bbbb	Pan Manual Position	(0 - 200) L100 - CENTER - R100
00 06	0ddd dddd	Pan E.Level	(0 - 100) 0 - 100

* Patch FX/Rotary Parameters Offset Address

Offset Address		Description	
00 00	0000 000d	Rotary Speed Select	(0 - 1) SLOW, FAST
00 01	0ddd dddd	Rotary Rate Slow	(0 - 113) 0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
00 02	0ddd dddd	Rotary Rate Fast	(0 - 113) 0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
00 03	0ddd dddd	Rotary Depth	(0 - 100) 0 - 100
00 04	0ddd dddd	Rotary Rise Time	(0 - 100) 0 - 100
00 05	0ddd dddd	Rotary Fall Time	(0 - 100) 0 - 100
00 06	0ddd dddd	Rotary E.Level	(0 - 100) 0 - 100

* Patch FX/Uni-V Parameters Offset Address

Offset Address		Description	
00 00	0ddd dddd	UNI-V Rate	(0 - 113) 0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
00 01	0ddd dddd	UNI-V Depth	(0 - 100) 0 - 100
00 02	0ddd dddd	UNI-V E.Level	(0 - 100) 0 - 100

* Patch FX/Compressor Parameters Offset Address

Offset Address		Description	
00 00	0000 0ddd	Comp Type	(0 - 7) BOSS COMP, Hi-BAND, LIGHT, D-COMP, ORANGE, FAT, MILD, STEREO COMP
00 01	0ddd dddd	Comp Sustain	(0 - 100) 0 - 100
00 02	0ddd dddd	Comp Attack	(0 - 100) 0 - 100
00 03	0ddd dddd	Comp Level	(0 - 100) 0 - 100
00 04	0ddd dddd	Comp Tone	(0 - 100) -50 - +50 [SIGNED]

* Patch FX/Limiter Parameters Offset Address

Offset Address		Description	
00 00	0000 00dd	Limiter Type	(0 - 2) BOSS LIMITER, RACK 160D, VTG RACK U
00 01	0ddd dddd	Limiter Threshold	(0 - 100) 0 - 100
00 02	000d dddd	Limiter Ration	(0 - 17) 1:1, 1.2:1, 1.4:1, 1.6:1, 1.8:1, 2:1, 2.3:1, 2.6:1, 3:1, 3.5:1, 4:1, 5:1, 6:1, 8:1, 10:1, 12:1, 20:1, INF:1
00 03	0ddd dddd	Limiter Attack	(0 - 100) 0 - 100
00 04	0ddd dddd	Limiter Release	(0 - 100) 0 - 100
00 05	0ddd dddd	Limiter Level	(0 - 100) 0 - 100

* Patch FX/Equalize Parameters Offset Address

Offset Address		Description	
00 00	000d dddd	EQ Low Cut	(0 - 17) FLAT, 20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz
00 01	00dd dddd	EQ Low Gain	(0 - 40) -20 - +20 [dB]
00 02	00dd dddd	EQ Low-Mid Gain	(0 - 40) -20 - +20 [dB]
00 03	000d dddd	EQ Low-Mid Freq	(0 - 27) 20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1.0kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.00kHz
00 04	0000 0ddd	EQ Low-Mid Q	(0 - 5) 0.5, 1, 2, 4, 8, 16
00 05	00dd dddd	EQ High-Mid Gain	(0 - 40) -20 - +20 [dB]
00 06	000d dddd	EQ High-Mid Freq	(0 - 27) 20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1.0kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.00kHz
00 07	0000 0ddd	EQ High-Mid Q	(0 - 5) 0.5, 1, 2, 4, 8, 16
00 08	00dd dddd	EQ High Gain	(0 - 40) -20 - +20 [dB]
00 09	0000 dddd	EQ High Cut	(0 - 14) 630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.00kHz, 12.5kHz, FLAT
00 0A	00dd dddd	EQ Level	(0 - 40) -20 - +20 [dB]

* Patch FX/Chorus Parameters Offset Address

Offset Address		Description	
00 00	0000 00dd	Chorus Mode	(0 - 2) MONO, STEREO 1, STEREO 2
00 01	0ddd dddd	Chorus Rate	(0 - 113) 0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
00 02	0ddd dddd	Chorus Depth	(0 - 100) 0 - 100
00 03	0ddd dddd	Chorus PreDelay	(0 - 80) 0.0 - 40.0 [ms]
00 04	000d dddd	Chorus Low Cut	(0 - 17) FLAT, 20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz,
00 05	0000 dddd	Delay High Cut	(0 - 14) 630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.0kHz, 12.5kHz, FLAT
00 06	0ddd dddd	Chorus E Level	(0 - 100) 0 - 100
00 07	0ddd dddd	Chorus D Level	(0 - 100) 0 - 100

* Patch FX/Pitch Shifter Parameters Offset Address

Offset Address		Description	
00 00	0000 00dd	Pitch Shifter Voice	(0 - 2) 1-VOICE, 2-MONO, 2-STEREO
00 01	0000 00dd	Pitch Shifter Mode1	(0 - 3) FAST, MEDIUM, SLOW, MONO
00 02	0000 00dd	Pitch Shifter Mode2	(0 - 3) FAST, MEDIUM, SLOW, MONO
00 03	00dd dddd	Pitch Shifter Pitch1	(0 - 48) -24 - +24 [SIGNED]
00 04	0ddd dddd	Pitch Shifter Pitch Fine1	(0 - 100) -50 - +50 [SIGNED]
00 05	00dd dddd	Pitch Shifter Pitch2	(0 - 48) -24 - +24 [SIGNED]
00 06	0ddd dddd	Pitch Shifter Pitch Fine2	(0 - 100) -50 - +50 [SIGNED]
00 07	0ddd dddd	Pitch Shifter Feedback1	(0 - 100) 0 - 100
00 08	0000 000a	Pitch Shifter Pre Delay1	(0 - 307) 0 - 300, 16TH, 8TH3, 16THd, 8TH, 4TH3, 8THd, 4TH [ms]
	0000 bbbb		
	0000 cccc		
00 0B	0000 000a	Pitch Shifter Pre Delay2	(0 - 307) 0 - 300, 16TH, 8TH3, 16THd, 8TH, 4TH3, 8THd, 4TH [ms]
	0000 bbbb		
	0000 cccc		
00 0E	0ddd dddd	Pitch Shifter E Level1	(0 - 100) 0 - 100
00 0F	0ddd dddd	Pitch Shifter E Level2	(0 - 100) 0 - 100
00 10	0ddd dddd	Pitch Shifter Direct Mix	(0 - 100) 0 - 100

* Patch FX/Harmonist Parameters Offset Address

Offset Address		Description	
00 00	0000 00dd	Harmonist Voice	(0 - 2) 1-VOICE, 2-MONO, 2-STEREO
00 01	0000 dddd	Harmonist Master Key	(0 - 11) C(Am), Db(Bbm), D(Bm), Eb(Cm), E(C#m), F(Dm), F#(D#m), G(Em), Ab(Fm), A(F#m), Bb(Gm), B(G#m)
00 02	000d dddd	Harmonist Pitch1	(0 - 28) -2oct, -14th, -13th, -12th, -11th, -10th, -9th, -1oct, -7th, -6th, -5th, -4th, -3rd, -2nd, UNISON, +2nd, +3rd, +4th, +5th, +6th, +7th, +1oct, +9th, +10th, +11th, +12th, +13th, +14th, +2oct
00 03	000d dddd	Harmonist Pitch2	(0 - 28) -2oct, -14th, -13th, -12th, -11th, -10th, -9th, -1oct, -7th, -6th, -5th, -4th, -3rd, -2nd, UNISON, +2nd, +3rd, +4th, +5th, +6th, +7th, +1oct, +9th, +10th, +11th, +12th, +13th, +14th, +2oct
00 04	0ddd dddd	Harmonist Feedback1	(0 - 100) 0 - 100
00 05	0000 000a	Harmonist Pre Delay1	(0 - 307) 0 - 300, 16TH, 8TH3, 16THd, 8TH, 4TH3, 8THd, 4TH [ms]
	0000 bbbb		
	0000 cccc		
00 08	0000 000a	Harmonist Pre Delay2	(0 - 307) 0 - 300, 16TH, 8TH3, 16THd, 8TH, 4TH3, 8THd, 4TH [ms]
	0000 bbbb		
	0000 cccc		
00 0B	0ddd dddd	Harmonist E Level1	(0 - 100) 0 - 100
00 0C	0ddd dddd	Harmonist E Level2	(0 - 100) 0 - 100
00 0D	0ddd dddd	Harmonist Direct Mix	(0 - 100) 0 - 100

* Patch FX/Delay Parameters Offset Address

Offset Address		Description	
00 00	0000 000d	Delay Type	(0 - 1) MONO, PAN
00 01	0000 00aa	Delay Time	(1 - 1007) 1 - 1000, 16TH, 8TH3, 16THd, 8TH, 4TH3, 8THd, 4TH [ms]
	0000 bbbb		
	0000 cccc		
00 04	0ddd dddd	Delay Feedback	(0 - 100) 0 - 100

00 05	0000 dddd	Delay High Cut	(0 - 14) 630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.0kHz, 12.5kHz, FLAT
00 06	0ddd dddd	Delay Pan Tap Time	(0 - 100) 0 - 100 [%]
00 07	0ddd dddd	Delay E Level	(0 - 120) 0 - 120
00 08	0ddd dddd	Delay D Level	(0 - 100) 0 - 100

* Patch FX/T.Wah Parameters Offset Address

Offset Address		Description	
00 00	0000 000d	T.Wah Mode	(0 - 1) LPF, BPF
00 01	0000 000d	T.Wah Polar	(0 - 1) DOWN, UP
00 02	0ddd dddd	T.Wah Sens	(0 - 100) 0 - 100
00 03	0ddd dddd	T.Wah Freq	(0 - 100) 0 - 100
00 04	0ddd dddd	T.Wah Peak	(0 - 100) 0 - 100
00 05	0ddd dddd	T.Wah Effect Level	(0 - 100) 0 - 100
00 06	0ddd dddd	T.Wah Direct Level	(0 - 100) 0 - 100

* Patch FX/Pedal Bend Parameters Offset Address

Offset Address		Description	
00 00	00dd dddd	Pedal Bend Pitch Depth	(0 - 48) -24 - +24 [SIGNED]
00 01	0ddd dddd	Pedal Bend Position	(0 - 100) 0 - 100
00 02	0ddd dddd	Pedal Bend Effect Level	(0 - 100) 0 - 100
00 03	0ddd dddd	Pedal Bend Direct Level	(0 - 100) 0 - 100

* Patch Wah Parameters Offset Address

Offset Address		Description	
00 00	0000 000d	Wah Switch	(0 - 1) OFF, ON
00 01	0000 0ddd	Wah Type	(0 - 5) CRY WAH, VO WAH, FAT WAH, LIGHT WAH, 7-STRING WAH, RESO WAH
00 02	0ddd dddd	Wah Pedal Position	(0 - 100) 0 - 100
00 03	0ddd dddd	Wah Pedal Min	(0 - 100) 0 - 100
00 04	0ddd dddd	Wah Pedal Max	(0 - 100) 0 - 100
00 05	0ddd dddd	Wah E Level	(0 - 100) 0 - 100
00 06	0ddd dddd	Wah D Level	(0 - 100) 0 - 100

* Patch Chorus Parameters Offset Address

Offset Address		Description	
00 00	0000 000d	Chorus Switch	(0 - 1) OFF, ON
00 01	0000 00dd	Chorus Mode	(0 - 2) MONO, STEREO 1, STEREO 2
00 02	0ddd dddd	Chorus Rate	(0 - 113) 0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
00 03	0ddd dddd	Chorus Depth	(0 - 100) 0 - 100
00 04	0ddd dddd	Chorus PreDelay	(0 - 80) 0.0 - 40.0 [ms]
00 05	000d dddd	Chorus Low Cut	(0 - 17) FLAT, 20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz,
00 06	0000 dddd	Delay High Cut	(0 - 14)

				630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz,
				2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz,
				10.0kHz, 12.5kHz, FLAT
	00 07	0ddd dddd	Chorus E Level	(0 - 100)
				0 - 100
	00 08	0ddd dddd	Chorus D Level	(0 - 100)
				0 - 100

* Patch Delay Parameters Offset Address

Offset Address		Description		
	00 00	0000 000d	Delay Switch	(0 - 1)
				OFF, ON
	00 01	0000 dddd	Delay Type	(0 - 9)
				SINGLE, PAN, STEREO, DUAL-S, DUAL-P, DUAL-L/R,
				REVERSE, ANALOG, TAPE, MODULATE
	00 02	0000 0aaa	Delay Time	(1 - 2013)
				1 - 2000, 16TH, 8TH3, 16THd, 8TH, 4TH3, 8THd, 4TH,
				2TH3, 4THd, 2TH, WHL3, 2THd, WHL [ms]
		0000 bbbb		
		0000 cccc		
	00 05	0ddd dddd	Delay Feedback	(0 - 100)
				0 - 100
	00 06	0000 dddd	Delay High Cut	(0 - 14)
				630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz,
				2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz,
				10.0kHz, 12.5kHz, FLAT
	00 07	0ddd dddd	Delay E Level	(0 - 120)
				0 - 120
	00 08	0ddd dddd	Delay D Level	(0 - 100)
				0 - 100
	00 09	0ddd dddd	Delay Pan Tap Time	(0 - 100)
				0 - 100 [%]
	00 0A	0000 00aa	Delay Dual Time 1	(1 - 1013)
				1 - 1000, 16TH, 8TH3, 16THd, 8TH, 4TH3, 8THd, 4TH,
				2TH3, 4THd, 2TH, WHL3, 2THd, WHL [ms]
		0000 bbbb		
		0000 cccc		
	00 0D	0000 00aa	Delay Dual Time 2	(1 - 1013)
				1 - 1000, 16TH, 8TH3, 16THd, 8TH, 4TH3, 8THd, 4TH,
				2TH3, 4THd, 2TH, WHL3, 2THd, WHL [ms]
		0000 bbbb		
		0000 cccc		
	00 10	0ddd dddd	Delay Dual Feedback1	(0 - 100)
				0 - 100
	00 11	0ddd dddd	Delay Dual Feedback2	(0 - 100)
				0 - 100
	00 12	0000 dddd	Delay Dual High Cut	(0 - 14)
				630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz,
				2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz,
				10.0kHz, 12.5kHz, FLAT
	00 13	0000 dddd	Delay Dual High Cut	(0 - 14)
				630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz,
				2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz,
				10.0kHz, 12.5kHz, FLAT
	00 14	0ddd dddd	Delay Dual E Level1	(0 - 120)
				0 - 120
	00 15	0ddd dddd	Delay Dual E Level2	(0 - 120)
				0 - 120
	00 16	0ddd dddd	Delay Mod Rate	(0 - 100)
				0 - 100
	00 17	0ddd dddd	Delay Mod Depth	(0 - 100)
				0 - 100

* Patch Reverb Parameters Offset Address

Offset Address		Description		
	00 00	0000 000d	Reverb Switch	(0 - 1)
				OFF, ON
	00 01	0000 0ddd	Reverb Type	(0 - 6)
				AMBIENCE, ROOM, HALL1, HALL2, PLATE, SPRING,
				MODULATE
	00 02	0ddd dddd	Reverb Time	(0 - 99)
				0.1 - 10.0 [s]
	00 03	0000 000a	Reverb Pre Delay	(0 - 500)
				0 - 500 [ms]
		0000 bbbb		
		0000 cccc		
	00 06	000d dddd	Reverb Low Cut	(0 - 17)
				FLAT, 20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz,
				80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz,
				400Hz, 500Hz, 630Hz, 800Hz
	00 07	0000 dddd	Reverb High Cut	(0 - 14)
				630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz,
				2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz,

			10.00kHz, 12.5kHz, FLAT
00 08	0000 dddd	Reverb Density	(0 - 10) 0 - 10
00 09	0ddd dddd	Reverb Spring Sens	(0 - 100) 0 - 100
00 0A	0ddd dddd	Reverb E Level	(0 - 100) 0 - 100
00 0B	0ddd dddd	Reverb D Level	(0 - 100) 0 - 100

* Patch Equalizer Parameters Offset Address

Offset Address		Description	
00 00	0000 000d	EQ Switch	(0 - 1) OFF, ON
00 01	000d dddd	EQ Low Cut	(0 - 17) FLAT, 20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz
00 02	00dd dddd	EQ Low Gain	(0 - 40) -20 - +20 [dB]
00 03	00dd dddd	EQ Low-Mid Gain	(0 - 40) -20 - +20 [dB]
00 04	000d dddd	EQ Low-Mid Freq	(0 - 27) 20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1.0kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.00kHz
00 05	0000 0ddd	EQ Low-Mid Q	(0 - 5) 0.5, 1, 2, 4, 8, 16
00 06	00dd dddd	EQ High-Mid Gain	(0 - 40) -20 - +20 [dB]
00 07	000d dddd	EQ High-Mid Freq	(0 - 27) 20.0Hz, 25.0Hz, 31.5Hz, 40.0Hz, 50.0Hz, 63.0Hz, 80.0Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1.0kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.00kHz
00 08	0000 0ddd	EQ High-Mid Q	(0 - 5) 0.5, 1, 2, 4, 8, 16
00 09	00dd dddd	EQ High Gain	(0 - 40) -20 - +20 [dB]
00 0A	0000 dddd	EQ High Cut	(0 - 14) 630Hz, 800Hz, 1.00kHz, 1.25kHz, 1.60kHz, 2.00kHz, 2.50kHz, 3.15kHz, 4.00kHz, 5.00kHz, 6.30kHz, 8.00kHz, 10.00kHz, 12.5kHz, FLAT
00 0B	00dd dddd	EQ Level	(0 - 40) -20 - +20 [dB]

* Patch Foot Volume Parameters Offset Address

Offset Address		Description	
00 00	0ddd dddd	Foot Volume Range Min	(0 - 100) 0 - 100
00 01	0ddd dddd	Foot Volume Range Max	(0 - 100) 0 - 100
00 02	0000 00dd	Foot Volume Curve	(0 - 3) SLOW1, SLOW2, NORMAL, FAST
00 03	0ddd dddd	Foot Volume Level	(0 - 100) 0 - 100

* Patch NS Parameters Offset Address

Offset Address		Description	
00 00	0000 000d	NS Switch	(0 - 1) OFF, ON
00 01	0ddd dddd	NS Threshold	(0 - 100) 0 - 100
00 02	0ddd dddd	NS Release	(0 - 100) 0 - 100

* Patch Controller Function Parameters Offset Address

Offset Address		Description	
00 00	000d dddd	CTL1 Function	(0 - 16) OFF, PU SEL UP, PU SEL DOWN, 12-STRING ON/OFF, ALT TUNE ON/OFF, MODELING ON/OFF, NORMAL PU ON/OFF, AMP SOLO SW, FX ON/OFF, EQ ON/OFF, WAH ON/OFF,

			CHORUS ON/OFF, DELAY ON/OFF, REVERB ON/OFF, HOLD, TAP TEMPO, LED ON/OFF
00 01	0000 000d	CTL1 Mode	(0 - 1) MOMENTARY, TOGGLE
00 02	000d dddd	CTL2 Function	(0 - 16) OFF, PU SEL UP, PU SEL DOWN, 12-STRING ON/OFF, ALT TUNE ON/OFF, MODELING ON/OFF, NORMAL PU ON/OFF, AMP SOLO SW, FX ON/OFF, EQ ON/OFF, WAH ON/OFF, CHORUS ON/OFF, DELAY ON/OFF, REVERB ON/OFF, HOLD, TAP TEMPO, LED ON/OFF
00 03	0000 000d	CTL2 Mode	(0 - 1) MOMENTARY, TOGGLE
00 04	0000 dddd	CTL3 Function	(0 - 15) OFF, PU SEL UP, PU SEL DOWN, 12-STRING ON/OFF, ALT TUNE ON/OFF, MODELING ON/OFF, NORMAL PU ON/OFF, AMP SOLO SW, FX ON/OFF, EQ ON/OFF, WAH ON/OFF, CHORUS ON/OFF, DELAY ON/OFF, REVERB ON/OFF, HOLD, TAP TEMPO
00 05	0000 000d	CTL3 Mode	(0 - 1) MOMENTARY, TOGGLE
00 06	0000 dddd	CTL4 Function	(0 - 15) OFF, PU SEL UP, PU SEL DOWN, 12-STRING ON/OFF, ALT TUNE ON/OFF, MODELING ON/OFF, NORMAL PU ON/OFF, AMP SOLO SW, FX ON/OFF, EQ ON/OFF, WAH ON/OFF, CHORUS ON/OFF, DELAY ON/OFF, REVERB ON/OFF, HOLD, TAP TEMPO
00 07	0000 000d	CTL4 Mode	(0 - 1) MOMENTARY, TOGGLE
00 08	0000 dddd	GK S1 Function	(0 - 15) OFF, PU SEL UP, PU SEL DOWN, 12-STRING ON/OFF, ALT TUNE ON/OFF, MODELING ON/OFF, NORMAL PU ON/OFF, AMP SOLO SW, FX ON/OFF, EQ ON/OFF, WAH ON/OFF, CHORUS ON/OFF, DELAY ON/OFF, REVERB ON/OFF, HOLD, TAP TEMPO
00 09	0000 000d	GK S1 Mode	(0 - 1) MOMENTARY, TOGGLE
00 0A	0000 dddd	GK S2 Function	(0 - 15) OFF, PU SEL UP, PU SEL DOWN, 12-STRING ON/OFF, ALT TUNE ON/OFF, MODELING ON/OFF, NORMAL PU ON/OFF, AMP SOLO SW, FX ON/OFF, EQ ON/OFF, WAH ON/OFF, CHORUS ON/OFF, DELAY ON/OFF, REVERB ON/OFF, HOLD, TAP TEMPO
00 0B	0000 000d	GK S2 Mode	(0 - 1) MOMENTARY, TOGGLE
00 0C	0000 dddd	EXP SW Function	(0 - 13) OFF, 12-STRING ON/OFF, ALT TUNE ON/OFF, MODELING ON/OFF, NORMAL PU ON/OFF, AMP SOLO SW, FX ON/OFF, EQ ON/OFF, WAH ON/OFF, CHORUS ON/OFF, DELAY ON/OFF, REVERB ON/OFF, HOLD, LED ON/OFF
00 0D	0000 000d	EXP SW Mode	(0 - 1) MOMENTARY, TOGGLE
00 0E	0000 dddd	EXP PEDAL OFF Function	(0 - 14) OFF, FOOT VOL, PATCH LEVEL, MODELING VOL, NORMAL PU VOL, MIXER, STRING BEND, MODELING, FX, AMP, WAH, CHORUS, DELAY, REVERB, EQ
00 0F	0000 dddd	EXP PEDAL ON Function	(0 - 14) OFF, FOOT VOL, PATCH LEVEL, MODELING VOL, NORMAL PU VOL, MIXER, STRING BEND, MODELING, FX, AMP, WAH, CHORUS, DELAY, REVERB, EQ
00 10	0000 dddd	EXP2 PEDAL Function	(0 - 14) OFF, FOOT VOL, PATCH LEVEL, MODELING VOL, NORMAL PU VOL, MIXER, STRING BEND, MODELING, FX, AMP, WAH, CHORUS, DELAY, REVERB, EQ
00 11	0000 dddd	GK VOL Function	(0 - 14) OFF, FOOT VOL, PATCH LEVEL, MODELING VOL, NORMAL PU VOL, MIXER, STRING BEND, MODELING, FX, AMP, WAH, CHORUS, DELAY, REVERB, EQ
00 12	0000 000d	EXP SW LED Status	(0 - 1) OFF, ON
00 13	0000 000d	CTL1 LED Status	(0 - 1) OFF, ON
00 14	0000 000d	CTL2 LED Status	(0 - 1) OFF, ON

* Patch Controller Assign Parameters Offset Address

Offset Address		Description	
00 00	0000 000d	Assign Switch 1	(0 - 1) OFF, ON
00 01	0000 000d	Assign Switch 2	(0 - 1) OFF, ON
00 02	0000 000d	Assign Switch 3	(0 - 1) OFF, ON
00 03	0000 000d	Assign Switch 4	(0 - 1) OFF, ON
00 04	0000 000d	Assign Switch 5	(0 - 1) OFF, ON
00 05	0000 000d	Assign Switch 6	(0 - 1)

			OFF, ON
00 06	0000 000d	Assign Switch 7	(0 - 1)
			OFF, ON
00 07	0000 000d	Assign Switch 8	(0 - 1)
			OFF, ON
00 08	0000 aaaa	Assign Target 1	(0 - 4095)
	0000 bbbb		
	0000 cccc		
00 0B	0000 aaaa	Assign Target 2	(0 - 4095)
	0000 bbbb		
	0000 cccc		
00 0E	0000 aaaa	Assign Target 3	(0 - 4095)
	0000 bbbb		
	0000 cccc		
00 11	0000 aaaa	Assign Target 4	(0 - 4095)
	0000 bbbb		
	0000 cccc		
00 14	0000 aaaa	Assign Target 5	(0 - 4095)
	0000 bbbb		
	0000 cccc		
00 17	0000 aaaa	Assign Target 6	(0 - 4095)
	0000 bbbb		
	0000 cccc		
00 1A	0000 aaaa	Assign Target 7	(0 - 4095)
	0000 bbbb		
	0000 cccc		
00 1D	0000 aaaa	Assign Target 8	(0 - 4095)
	0000 bbbb		
	0000 cccc		
00 20	0000 aaaa	Assign Target Min 1	(0 - 65535) offset:32768
			-32768 - 32767
	0000 bbbb		
	0000 cccc		
	0000 dddd		
00 24	0000 aaaa	Assign Target Min 2	(0 - 65535) offset:32768
			-32768 - 32767
	0000 bbbb		
	0000 cccc		
	0000 dddd		
00 28	0000 aaaa	Assign Target Min 3	(0 - 65535) offset:32768
			-32768 - 32767
	0000 bbbb		
	0000 cccc		
	0000 dddd		
00 2C	0000 aaaa	Assign Target Min 4	(0 - 65535) offset:32768
			-32768 - 32767
	0000 bbbb		
	0000 cccc		
	0000 dddd		
00 30	0000 aaaa	Assign Target Min 5	(0 - 65535) offset:32768
			-32768 - 32767
	0000 bbbb		
	0000 cccc		
	0000 dddd		
00 34	0000 aaaa	Assign Target Min 6	(0 - 65535) offset:32768
			-32768 - 32767
	0000 bbbb		
	0000 cccc		
	0000 dddd		
00 38	0000 aaaa	Assign Target Min 7	(0 - 65535) offset:32768
			-32768 - 32767
	0000 bbbb		
	0000 cccc		
	0000 dddd		
00 3C	0000 aaaa	Assign Target Min 8	(0 - 65535) offset:32768
			-32768 - 32767
	0000 bbbb		
	0000 cccc		
	0000 dddd		
00 40	0000 aaaa	Assign Target Max 1	(0 - 65535) offset:32768
			-32768 - 32767
	0000 bbbb		
	0000 cccc		
	0000 dddd		
00 44	0000 aaaa	Assign Target Max 2	(0 - 65535) offset:32768
			-32768 - 32767
	0000 bbbb		
	0000 cccc		
	0000 dddd		
00 48	0000 aaaa	Assign Target Max 3	(0 - 65535) offset:32768
			-32768 - 32767
	0000 bbbb		
	0000 cccc		

	0000 dddd			
00 4C	0000 aaaa	Assign Target Max 4	(0 - 65535) offset:32768	
			-32768 - 32767	
	0000 bbbb			
	0000 cccc			
	0000 dddd			
00 50	0000 aaaa	Assign Target Max 5	(0 - 65535) offset:32768	
			-32768 - 32767	
	0000 bbbb			
	0000 cccc			
	0000 dddd			
00 54	0000 aaaa	Assign Target Max 6	(0 - 65535) offset:32768	
			-32768 - 32767	
	0000 bbbb			
	0000 cccc			
	0000 dddd			
00 58	0000 aaaa	Assign Target Max 7	(0 - 65535) offset:32768	
			-32768 - 32767	
	0000 bbbb			
	0000 cccc			
	0000 dddd			
00 5C	0000 aaaa	Assign Target Max 8	(0 - 65535) offset:32768	
			-32768 - 32767	
	0000 bbbb			
	0000 cccc			
	0000 dddd			
00 60	0ddd dddd	Assign Source 1	(0 - 75)	
			CTL1, CTL2, CTL3, CTL4, GK S1, GK S2, GK VOL,	
			EXP1 SW, EXP1 ON, EXP1 OFF, EXP2, INT PDL, WAVE PDL,	
			1 - 31, 64 - 95 [CC#]	
00 61	0ddd dddd	Assign Source 2	(0 - 75)	
			CTL1, CTL2, CTL3, CTL4, GK S1, GK S2, GK VOL,	
			EXP1 SW, EXP1 ON, EXP1 OFF, EXP2, INT PDL, WAVE PDL,	
			1 - 31, 64 - 95 [CC#]	
00 62	0ddd dddd	Assign Source 3	(0 - 75)	
			CTL1, CTL2, CTL3, CTL4, GK S1, GK S2, GK VOL,	
			EXP1 SW, EXP1 ON, EXP1 OFF, EXP2, INT PDL, WAVE PDL,	
			1 - 31, 64 - 95 [CC#]	
00 63	0ddd dddd	Assign Source 4	(0 - 75)	
			CTL1, CTL2, CTL3, CTL4, GK S1, GK S2, GK VOL,	
			EXP1 SW, EXP1 ON, EXP1 OFF, EXP2, INT PDL, WAVE PDL,	
			1 - 31, 64 - 95 [CC#]	
00 64	0ddd dddd	Assign Source 5	(0 - 75)	
			CTL1, CTL2, CTL3, CTL4, GK S1, GK S2, GK VOL,	
			EXP1 SW, EXP1 ON, EXP1 OFF, EXP2, INT PDL, WAVE PDL,	
			1 - 31, 64 - 95 [CC#]	
00 65	0ddd dddd	Assign Source 6	(0 - 75)	
			CTL1, CTL2, CTL3, CTL4, GK S1, GK S2, GK VOL,	
			EXP1 SW, EXP1 ON, EXP1 OFF, EXP2, INT PDL, WAVE PDL,	
			1 - 31, 64 - 95 [CC#]	
00 66	0ddd dddd	Assign Source 7	(0 - 75)	
			CTL1, CTL2, CTL3, CTL4, GK S1, GK S2, GK VOL,	
			EXP1 SW, EXP1 ON, EXP1 OFF, EXP2, INT PDL, WAVE PDL,	
			1 - 31, 64 - 95 [CC#]	
00 67	0ddd dddd	Assign Source 8	(0 - 75)	
			CTL1, CTL2, CTL3, CTL4, GK S1, GK S2, GK VOL,	
			EXP1 SW, EXP1 ON, EXP1 OFF, EXP2, INT PDL, WAVE PDL,	
			1 - 31, 64 - 95 [CC#]	
00 68	0000 000d	Assign Source Mode 1	(0 - 1)	
			MOMENTARY, TOGGLE	
00 69	0000 000d	Assign Source Mode 2	(0 - 1)	
			MOMENTARY, TOGGLE	
00 6A	0000 000d	Assign Source Mode 3	(0 - 1)	
			MOMENTARY, TOGGLE	
00 6B	0000 000d	Assign Source Mode 4	(0 - 1)	
			MOMENTARY, TOGGLE	
00 6C	0000 000d	Assign Source Mode 5	(0 - 1)	
			MOMENTARY, TOGGLE	
00 6D	0000 000d	Assign Source Mode 6	(0 - 1)	
			MOMENTARY, TOGGLE	
00 6E	0000 000d	Assign Source Mode 7	(0 - 1)	
			MOMENTARY, TOGGLE	
00 6F	0000 000d	Assign Source Mode 8	(0 - 1)	
			MOMENTARY, TOGGLE	
00 70	0ddd dddd	Assign Source Range Low 1	(0 - 126)	
			0 - 126	
00 71	0ddd dddd	Assign Source Range Low 2	(0 - 126)	
			0 - 126	
00 72	0ddd dddd	Assign Source Range Low 3	(0 - 126)	
			0 - 126	
00 73	0ddd dddd	Assign Source Range Low 4	(0 - 126)	
			0 - 126	
00 74	0ddd dddd	Assign Source Range Low 5	(0 - 126)	
			0 - 126	
00 75	0ddd dddd	Assign Source Range Low 6	(0 - 126)	
			0 - 126	
00 76	0ddd dddd	Assign Source Range Low 7	(0 - 126)	
			0 - 126	
00 77	0ddd dddd	Assign Source Range Low 8	(0 - 126)	
			0 - 126	
00 78	0ddd dddd	Assign Source Range High 1	(1 - 127)	

			1 - 127
00 79	0ddd dddd	Assign Source Range High 2	(1 - 127)
			1 - 127
00 7A	0ddd dddd	Assign Source Range High 3	(1 - 127)
			1 - 127
00 7B	0ddd dddd	Assign Source Range High 4	(1 - 127)
			1 - 127
00 7C	0ddd dddd	Assign Source Range High 5	(1 - 127)
			1 - 127
00 7D	0ddd dddd	Assign Source Range High 6	(1 - 127)
			1 - 127
00 7E	0ddd dddd	Assign Source Range High 7	(1 - 127)
			1 - 127
00 7F	0ddd dddd	Assign Source Range High 8	(1 - 127)
			1 - 127
01 00	0000 dddd	INT PDL/Trig 1	(0 - 14)
			PATCH CHANGE, CTL1, CTL2, CTL3, CTL4, EXP1 SW, EXP1 OFF LOW, EXP1 OFF MID, EXP1 OFF HIGH, EXP1 ON LOW, EXP1 ON MID, EXP1 ON HIGH, EXP2, GK S1, GK S2
01 01	0000 dddd	INT PDL/Trig 2	(0 - 14)
			PATCH CHANGE, CTL1, CTL2, CTL3, CTL4, EXP1 SW, EXP1 OFF LOW, EXP1 OFF MID, EXP1 OFF HIGH, EXP1 ON LOW, EXP1 ON MID, EXP1 ON HIGH, EXP2, GK S1, GK S2
01 02	0000 dddd	INT PDL/Trig 3	(0 - 14)
			PATCH CHANGE, CTL1, CTL2, CTL3, CTL4, EXP1 SW, EXP1 OFF LOW, EXP1 OFF MID, EXP1 OFF HIGH, EXP1 ON LOW, EXP1 ON MID, EXP1 ON HIGH, EXP2, GK S1, GK S2
01 03	0000 dddd	INT PDL/Trig 4	(0 - 14)
			PATCH CHANGE, CTL1, CTL2, CTL3, CTL4, EXP1 SW, EXP1 OFF LOW, EXP1 OFF MID, EXP1 OFF HIGH, EXP1 ON LOW, EXP1 ON MID, EXP1 ON HIGH, EXP2, GK S1, GK S2
01 04	0000 dddd	INT PDL/Trig 5	(0 - 14)
			PATCH CHANGE, CTL1, CTL2, CTL3, CTL4, EXP1 SW, EXP1 OFF LOW, EXP1 OFF MID, EXP1 OFF HIGH, EXP1 ON LOW, EXP1 ON MID, EXP1 ON HIGH, EXP2, GK S1, GK S2
01 05	0000 dddd	INT PDL/Trig 6	(0 - 14)
			PATCH CHANGE, CTL1, CTL2, CTL3, CTL4, EXP1 SW, EXP1 OFF LOW, EXP1 OFF MID, EXP1 OFF HIGH, EXP1 ON LOW, EXP1 ON MID, EXP1 ON HIGH, EXP2, GK S1, GK S2
01 06	0000 dddd	INT PDL/Trig 7	(0 - 14)
			PATCH CHANGE, CTL1, CTL2, CTL3, CTL4, EXP1 SW, EXP1 OFF LOW, EXP1 OFF MID, EXP1 OFF HIGH, EXP1 ON LOW, EXP1 ON MID, EXP1 ON HIGH, EXP2, GK S1, GK S2
01 07	0000 dddd	INT PDL/Trig 8	(0 - 14)
			PATCH CHANGE, CTL1, CTL2, CTL3, CTL4, EXP1 SW, EXP1 OFF LOW, EXP1 OFF MID, EXP1 OFF HIGH, EXP1 ON LOW, EXP1 ON MID, EXP1 ON HIGH, EXP2, GK S1, GK S2
01 08	0ddd dddd	INT PDL/Time 1	(0 - 100)
			0 - 100
01 09	0ddd dddd	INT PDL/Time 2	(0 - 100)
			0 - 100
01 0A	0ddd dddd	INT PDL/Time 3	(0 - 100)
			0 - 100
01 0B	0ddd dddd	INT PDL/Time 4	(0 - 100)
			0 - 100
01 0C	0ddd dddd	INT PDL/Time 5	(0 - 100)
			0 - 100
01 0D	0ddd dddd	INT PDL/Time 6	(0 - 100)
			0 - 100
01 0E	0ddd dddd	INT PDL/Time 7	(0 - 100)
			0 - 100
01 0F	0ddd dddd	INT PDL/Time 8	(0 - 100)
			0 - 100
01 10	0000 00dd	INT PDL/Curve 1	(0 - 2)
			LINEAR, SLOW RISE, FAST RISE
01 11	0000 00dd	INT PDL/Curve 2	(0 - 2)
			LINEAR, SLOW RISE, FAST RISE
01 12	0000 00dd	INT PDL/Curve 3	(0 - 2)
			LINEAR, SLOW RISE, FAST RISE
01 13	0000 00dd	INT PDL/Curve 4	(0 - 2)
			LINEAR, SLOW RISE, FAST RISE
01 14	0000 00dd	INT PDL/Curve 5	(0 - 2)
			LINEAR, SLOW RISE, FAST RISE
01 15	0000 00dd	INT PDL/Curve 6	(0 - 2)
			LINEAR, SLOW RISE, FAST RISE
01 16	0000 00dd	INT PDL/Curve 7	(0 - 2)
			LINEAR, SLOW RISE, FAST RISE
01 17	0000 00dd	INT PDL/Curve 8	(0 - 2)
			LINEAR, SLOW RISE, FAST RISE
01 18	0ddd dddd	WAVE PDL/Rate 1	(0 - 113)
			0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
01 19	0ddd dddd	WAVE PDL/Rate 2	(0 - 113)

			0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
01 1A	0ddd dddd	WAVE PDL/Rate 3	(0 - 113)
			0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
01 1B	0ddd dddd	WAVE PDL/Rate 4	(0 - 113)
			0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
01 1C	0ddd dddd	WAVE PDL/Rate 5	(0 - 113)
			0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
01 1D	0ddd dddd	WAVE PDL/Rate 6	(0 - 113)
			0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
01 1E	0ddd dddd	WAVE PDL/Rate 7	(0 - 113)
			0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
01 1F	0ddd dddd	WAVE PDL/Rate 8	(0 - 113)
			0 - 100, WHL, 2THd, WHL3, 2TH, 4THd, 2TH3, 4TH, 8THd, 4TH3, 8TH, 16THd, 8TH3, 16TH
01 20	0000 00dd	WAVE PDL/Wave Form 1	(0 - 2)
			SAW, TRI, SIN
01 21	0000 00dd	WAVE PDL/Wave Form 2	(0 - 2)
			SAW, TRI, SIN
01 22	0000 00dd	WAVE PDL/Wave Form 3	(0 - 2)
			SAW, TRI, SIN
01 23	0000 00dd	WAVE PDL/Wave Form 4	(0 - 2)
			SAW, TRI, SIN
01 24	0000 00dd	WAVE PDL/Wave Form 5	(0 - 2)
			SAW, TRI, SIN
01 25	0000 00dd	WAVE PDL/Wave Form 6	(0 - 2)
			SAW, TRI, SIN
01 26	0000 00dd	WAVE PDL/Wave Form 7	(0 - 2)
			SAW, TRI, SIN
01 27	0000 00dd	WAVE PDL/Wave Form 8	(0 - 2)
			SAW, TRI, SIN

GUITAR PROCESSOR
Model GP-10

MIDI Implementation Chart

Date: Dec. 26, 2014
Version: 1.01

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default	1–11	1–11	Memorized *1
	Changed	1–11	1–11	*1
Mode	Default	Mode 3, 4	Mode 3	Memorized
	Messages	X	X	
	Altered	**********	X	
Note Number :	True Voice	0–127	X	
		**********	**********	
Velocity	Note On	O	X	
	Note Off	O (64 only)	X	
After Touch	Key's	X	X	
	Channel's	X	X	
Pitch Bend		O	X	
Control Change	0, 32	O (only 0)	O (0 only)	
	1–31	X	O *2 *3	
	64–95	X	O *2 *3	
	11	O *4	X	
Program Change	: True Number	O	O *5	
		0–98	0–98	Program Number 1–99
System Exclusive		O	O	
System Common	: Song Position	X	X	
	: Song Select	X	X	
	: Tune Request	X	X	
System Real Time	: Clock	X	X	
	: Commands	X	X	
Aux Messages	: All Sound Off	X	X	
	: Reset All Controllers	X	X	
	: Local On/Off	X	X	
	: All Notes Off	X	X	
	: Active Sensing	X	X	
	: System Reset	X	X	
Notes		*1 "MIDI:String Ch" parameter. *2 The settings are optional. *3 Can be received only through the Basic channel. *4 Transmit only when "MIDI:Pedal Bend" parameter is OFF. *5 Recognized MIDI Channel Number is ch.1 only.		

Mode 1 : OMNI ON, POLY
Mode 2 : OMNI ON, MONO
Mode 3 : OMNI OFF, POLY
Mode 4 : OMNI OFF, MONO

O : Yes
X : No