

1. TRANSMITTED DATA

1-1 CHANNEL MESSAGES [H]:Hex, [D]:Decimal

Status [Hex]	Second [H] [D]	Third [H] [D]	Description	(Transmitted by)	ENA	
Bn	cc (cc)	vv (vv)	Control Change	cc=00~5F(00~95)	(Pedal Control)	C
Cn	pp (pp)	-- --	Program Change	pp=00~5F(00~95)	(Program Change)	P

n : MIDI Channel (0~F)
vv : Value

ENA = C : Enabled when "CCHG I/O" Global Parameter is "On".
P : Enabled when "PCHG OUT" Global Parameter is "On".

1-2 UNIVERSAL SYSTEM EXCLUSIVE MESSAGE

DEVICE INQUIRY REPLY

Byte [Hex]	Description
F0	Exclusive Status
7E	Non Realtime Message
0n	Device ID (MIDI Channel)
06	Inquiry Message
02	Identity reply
42	KORG ID (Manufacturers ID)
6D	VOX Digital Products ID (Family ID (LSB))
00	(Family ID (MSB))
08	ToneLabSE ID (Member ID (LSB))
00	(Member ID (MSB))
vv	00~ (Minor Ver. (LSB))
00	(Minor Ver. (MSB))
vv	01~ (Major Ver. (LSB))
00	(Major Ver. (MSB))
F7	End of Exclusive

This message is transmitted whenever a INQUIRY MESSAGE REQUEST is received.

1-3 KORG SYSTEM EXCLUSIVE MESSAGE

Byte [Hex]	Description
F0	Exclusive Status
42	KORG ID
3n	Format ID (n: MIDI Channel)
6D	VOX Digital Products ID
08	ToneLabSE ID
ff	Function Code
(dd)	Data
F7	End of Exclusive

See 3.KORG SYSTEM EXCLUSIVE MESSAGE FORMAT for more info.

2. RECOGNIZED RECEIVE DATA

2-1 CHANNEL MESSAGES [H]:Hex, [D]:Decimal

Status [Hex]	Second [H] [D]	Third [H] [D]	Description	(Used	ENA	
Bn	cc (cc)	vv (vv)	Control Change	cc=00~5F(00~95)	(as the same as PdC)	C
Cn	pp (pp)	-- --	Program Change	pp=00~5F(00~95)	(for Prog Change)	P

n : MIDI Channel (0~F)
vv : Value

PdC : Pedal Control

ENA = C : Enabled when "CCHG I/O" Global Parameter is "On".
P : Enabled when Program Select Mode.

2-2 UNIVERSAL SYSTEM EXCLUSIVE MESSAGE

DEVICE INQUIRY MESSAGE REQUEST

Byte [Hex]	Description
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F0	Exclusive Status
7E	Non Realtime Message
nn	Device ID
06	Inquiry Message
01	Inquiry Request
F7	End of Exclusive

nn = 00 ~ 0F :MIDI Channel
= 7F :Any Channel

2-3 KORG SYSTEM EXCLUSIVE MESSAGE

Byte [Hex]	Description
F0	Exclusive Status
42	KORG ID
3n	Format ID (n: MIDI Channel)
6D	VOX Digital Products ID
08	ToneLabSE ID
ff	Function Code
(dd)	Data
F7	End of Exclusive

See 3.KORG SYSTEM EXCLUSIVE MESSAGE FORMAT for more info.

3.KORG SYSTEM EXCLUSIVE MESSAGE FORMAT

Function Code List (R:Receive, T:Transmit)

Func [Hex]	Description	R	T (*1)	T (*2)
12	MODE REQUEST	o		
10	CURRENT PROGRAM PARAMETER DUMP REQUEST	o		
1C	PROGRAM PARAMETER DUMP REQUEST	o		
0E	GLOBAL DATA DUMP REQUEST	o		
0F	ALL DATA (PROGRAM,GLOBAL) DUMP REQUEST	o		
11	PROGRAM WRITE REQUEST	o		
40	CURRENT PROGRAM PARAMETER DUMP	o	r,D	
4C	PROGRAM PARAMETER DUMP	o	r	
51	GLOBAL DATA DUMP	o	r	
50	ALL DATA (PROGRAM,GLOBAL) DUMP	o	r,D	
4E	MODE CHANGE	o		M
41	PARAMETER CHANGE	o		C
42	MODE DATA		r	
26	DATA FORMAT ERROR		E	
23	DATA LOAD COMPLETED		E	
24	DATA LOAD ERROR		E	
21	WRITE COMPLETED		E	W
22	WRITE ERROR		E	

*1 : Transmitted when
r : Request message is received.
E : Exclusive message is received.
D : DATA DUMP is executed by Switch.

*2 : Transmitted when "SYEX OUT" Global Parameter is "On" and
M : Mode or Program is changed by Switch.
C : Parameter is changed by Switch or Knob.
W : DATA WRITE by Switch is completed.

(1) MODE REQUEST

R

Byte	Description
F0,42,3n,6D,08	Exclusive Header
12	Function Code
F7	End of Exclusive

Receives this message, and transmits Func=42 message.

(2) CURRENT PROGRAM PARAMETER DUMP REQUEST

R

Byte	Description
F0,42,3n,6D,08	Exclusive Header
10	Function Code
F7	End of Exclusive

Receives this message, and transmits Func=40 or Func=24 message.

(3) PROGRAM PARAMETER DUMP REQUEST

R

Byte	Description
F0,42,3n,6D,08	Exclusive Header
1C	Function Code
00k0 0000	Kind (NOTE 7)
0ppp pppp	Program No.
F7	End of Exclusive

Receives this message, and transmits Func=4C or Func=24 message.

(4) GLOBAL DATA DUMP REQUEST

R

Byte	Description
F0,42,3n,6D,08	Exclusive Header
0E	Function Code
F7	End of Exclusive

Receives this message, and transmits Func=51 or Func=24 message.

(5) ALL DATA (PROGRAM,GLOBAL) DUMP REQUEST

R

Byte	Description
F0,42,3n,6D,08	Exclusive Header
0F	Function Code
F7	End of Exclusive

Receives this message, and transmits Func=50 or Func=24 message.

(6) PROGRAM WRITE REQUEST

R

Byte	Description
F0,42,3n,6D,08	Exclusive Header
11	Function Code
00	(Reserved)
0ppp pppp	Destination Program No.
F7	End of Exclusive

Receives this message, write the data and transmits Func=21 or Func=22 message.

(7) CURRENT PROGRAM PARAMETER DUMP

R , T

Byte	Description
F0,42,3n,6D,08	Exclusive Header
40	Function Code
0ddd dddd	Data (NOTE 1)
:	:
F7	End of Exclusive

Receives this message & data, saves them to Current Buffer and transmits Func=23 or Func=24 message.
Receives Func=10 message, and transmits this message & data.
Transmits this message & data when DATA DUMP is executed.

(8) PROGRAM PARAMETER DUMP

R , T

Byte	Description
F0,42,3n,6D,08	Exclusive Header
4C	Function Code
00k0 0000	Kind (NOTE 7)
0ppp pppp	Program No.
0ddd dddd	Data (NOTE 2,3)
:	:
F7	End of Exclusive

Receives this message & data, saves them to Internal Memory and transmits Func=23 or Func=24 message.
Receives Func=1C message, and transmits this message & data.

(9) GLOBAL DATA DUMP

R , T

Byte	Description
F0,42,3n,6D,08	Exclusive Header
51	Function Code
0ddd dddd	Data (NOTE 4)
:	:
F7	End of Exclusive

Receives this message & data, saves them to Internal Memory and transmits Func=23 or Func=24 message.
Receives Func=0E message, and transmits this message & data.

(10) ALL DATA (PROGRAM,GLOBAL) DUMP R , T

Byte	Description
F0,42,3n,6D,08	Exclusive Header
50	Function Code
0ddd dddd	Data (NOTE 5)
:	:
F7	End of Exclusive

Receives this message & data, saves them to Internal Memory and transmits Func=23 or Func=24 message.
Receives Func=0F message, and transmits this message & data.
Transmits this message & data when DATA DUMP is executed.

(11) MODE CHANGE R , T

Byte	Description
F0,42,3n,6D,08	Exclusive Header
4E	Function Code
0moo 0000	Mode and Option (NOTE 6)
0ppp pppp	Program No.
F7	End of Exclusive

Receives this message & data, changes the Mode and transmits Func=23 or Func=24.
When the Mode or Program is changed by Switch, transmits this message & data.

(12) PARAMETER CHANGE R , T

Byte	Description
F0,42,3n,6D,08	Exclusive Header
41	Function Code
0ppp ppp	Parameter ID (TABLE 1)
0sss sss	Parameter SUB ID (TABLE 1)
0vvv vvv	Value (MSB bit13~7)
0vvv vvv	Value (LSB bit 6~0)
F7	End of Exclusive

Receives this message & data, changes a Parameter and transmits Func=23 or Func=24 message.
When the Parameter is changed by Switch & Knob, transmits this message & data.

(13) MODE DATA T

Byte	Description
F0,42,3n,6D,08	Exclusive Header
42	Function Code
0m00 0000	Mode (NOTE 6)
0ppp pppp	Program No.
F7	End of Exclusive

Receives Func=12 message, and transmits this message & data.

(14) DATA FORMAT ERROR T

Byte	Description
F0,42,3n,6D,08	Exclusive Header
26	Function Code
F7	End of Exclusive

Transmits this message when there is an error in the MIDI IN message.

(15) DATA LOAD COMPLETED (ACK) T

Byte	Description
F0,42,3n,6D,08	Exclusive Header
23	Function Code
F7	End of Exclusive

Transmits this message when DATA LOAD, PROCESSING have been completed.

(16) DATA LOAD ERROR (NAK) T

Byte	Description
F0,42,3n,6D,08	Exclusive Header
24	Function Code
F7	End of Exclusive

Transmits this message when DATA LOAD, PROCESSING have not been completed.

(17) WRITE COMPLETED

T

Byte	Description
F0,42,3n,6D,08	Exclusive Header
21	Function Code
00	(Reserved)
0ppp pppp	Destination Program No.
F7	End of Exclusive

Transmits this message when DATA WRITE has been completed.

(18) WRITE ERROR

T

Byte	Description
F0,42,3n,6D,08	Exclusive Header
22	Function Code
00	(Reserved)
0ppp pppp	Destination Program No.
F7	End of Exclusive

Transmits this message when DATA WRITE MIDI has not been completed.

NOTE 1: CURRENT PROGRAM PARAMETER (in Current Buffer) DUMP FORMAT
92Bytes = 7*13+1 -> 8*13+(1+1) => 106Bytes
(TABLE 1)

NOTE 2: PROGRAM PARAMETER (in Internal Memory) DUMP FORMAT (1 Program)
Same as CURRENT PROGRAM PARAMETER DUMP FORMAT.

NOTE 3: PROGRAM PARAMETER (in Internal Memory) DUMP FORMAT (All Program)
[Prog 1-1(92Bytes)],..., [Prog 24-4(92Bytes)]
92*96Bytes = 7*1261+5 -> 8*1261+(1+5) => 10094Bytes

NOTE 4: GLOBAL DATA (in Internal Memory) DUMP FORMAT
16Bytes = 7*2+2 -> 8*2+(1+2) => 19Bytes
(TABLE 2)

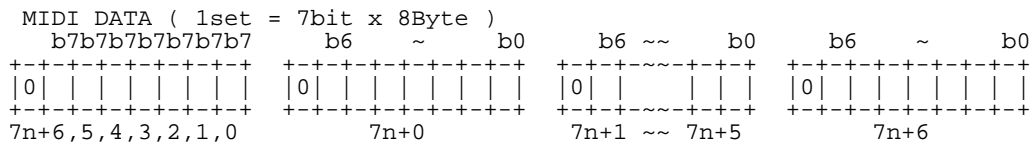
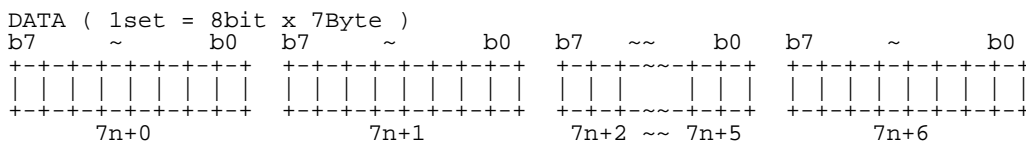
NOTE 5: ALL DATA (in Internal Memory) DUMP FORMAT
[Prog 1-1(92Bytes)],..., [Prog 24-4(92Bytes)], [dummy(92bytes)], [Global Data].
92*97+16Bytes = 7*1277+1 -> 8*1277+(1+1) => 10218Bytes

NOTE 6: oo = 00 : Mode and Program Change (Use m,p)
01 : Mode Change Only (Use m)
10 : Program Change Only (Use p)

m = 0 : Program Select Mode
1 : Fx On/Off Mode

NOTE 7: k = 0 : All Program
1 : 1 Program (Use p)

NOTE 8: DUMP DATA CONVERSION



[TABLE 1] PROGRAM PARAMETERS

No. : Address in the PROGRAM DUMP DATA.
PARA No. : Parameter ID, SUB ID for PARAMETER CHANGE.

No. [Dec]	PARAMETER	DATA [Hex]	VALUE	PARA No. [Hex]
00 : 07	PROGRAM NAME (1st) : PROGRAM NAME (8th)	20~5F	ASCII code ' ' ~ '_'	00,00 : 00,07
08 : 09	(Reserved)			
EFFECT STATUS				
10	b0 PEDAL	00,01	Off,On	02,00

b1	MODULATION	00,01	Off,On	02,01	
b2	DELAY	00,01	Off,On	02,02	
b3	REVERB	00,01	Off,On	02,03	
b4	AMP (A ch)	00,01	Off,On	02,04	
b5	CABINET (A ch)	00,01	Off,On	02,05	
b6	AMP (B ch)	00,01	Off,On	02,06	
b7	CABINET (B ch)	00,01	Off,On	02,07	
11	b0	INSERT	00,01	Off,On	02,08
	b1	A/B ch	00,01	A,B	02,09
	b2 : b7	(Reserved)			
12	CHAIN	00~05	M-D-R ~ R-D-M	02,10	
PEDAL EFFECT PARAMETERS					
13	Effect Type	00~0F	COMP ~ (TABLE 1-1)	03,00	
14 : 21	Parameter Structure (TABLE 1-1)			04,?? : 04,??	
MODULATION EFFECT PARAMETERS					
22	Effect Type	00~0A	CLASSIC CHORUS ~ (TABLE 1-2)	03,01	
23 : 30	Parameter Structure (TABLE 1-2)			05,?? : 05,??	
DELAY EFFECT PARAMETERS					
31	Effect Type	00~0A	ECHO PLUS ~ (TABLE 1-3)	03,02	
32 : 39	Parameter Structure (TABLE 1-3)			06,?? : 06,??	
REVERB EFFECT PARAMETERS					
40	Effect Type	00~0A	SPRING1 ~ (TABLE 1-4)	03,03	
41 : 48	Parameter Structure (TABLE 1-4)			07,?? : 07,??	
AMP PARAMETERS (A ch)					
49	AMP Type	00~0F	AC15 ~ (TABLE 1-5)	03,04	
50	GAIN	00~64	0.0~10.0	08,00	
51	VR GAIN	00~64	0.0~10.0	08,01	
52	TREBLE	00~64	0.0~10.0	08,02	
53	MIDDLE	00~64	0.0~10.0	08,03	
54	BASS	00~64	0.0~10.0	08,04	
55	CH VOLUME	00~64	0.0~10.0	08,05	
PRESENCE, NR SENS (A ch)					
56	PRESENCE	00~64	0.0~10.0	08,06	
57	NR SENS	0,1~32	OFF,0.2~10.0	08,07	
CABINET PARAMETERS (A ch)					
58	CABINET Type	00~0A	TWEED 1x8 ~ (TABLE 1-6)	03,05	
59 : 62	(Reserved)				
AMP PARAMETERS (B ch)					
63	AMP Type	00~0F	AC15 ~ (TABLE 1-5)	03,06	
64	GAIN	00~64	0.0~10.0	0A,00	

65	VR GAIN	00~64	0.0~10.0	0A,01
66	TREBLE	00~64	0.0~10.0	0A,02
67	MIDDLE	00~64	0.0~10.0	0A,03
68	BASS	00~64	0.0~10.0	0A,04
69	CH VOLUME	00~64	0.0~10.0	0A,05
PRESENCE, NR SENS (B ch)				
70	PRESENCE	00~64	0.0~10.0	0A,06
71	NR SENS	0,1~32	OFF,0.2~10.0	0A,07
CABINET PARAMETERS (B ch)				
72	CABINET Type	00~0A	TWEED 1x8 ~ (TABLE 1-6)	03,07
73 : 76	(Reserved)			
EXPRESSION PEDAL 1				
77	b0~5 Target		(TABLE 1-1~1-4,1-7)	0C,00
	b6,7 (Reserved)			
78~79	Target Range (MIN)		(TABLE 1-1~1-4,1-7)	0C,01
80~81	Target Range (MAX)		(TABLE 1-1~1-4,1-7)	0C,02
EXPRESSION PEDAL 2				
82	b0~5 Target		(TABLE 1-1~1-4,1-7)	0D,00
	b6,7 (Reserved)			
83~84	Target Range (MIN)		(TABLE 1-1~1-4,1-7)	0D,01
85~86	Target Range (MAX)		(TABLE 1-1~1-4,1-7)	0D,02
CONTROL PEDAL				
87	b0~5 Target	00~0B	(TABLE 1-8)	0E,00
	b6,7 (Reserved)			
88	FACTOR	00~0B	1/6~4 (*3)	0E,01
89~91	(Reserved)			

[TABLE 1-1] PEDAL EFFECT Parameter Structure

Offset [Dec]	PARAMETER	DATA [Hex]	VALUE	PARA No. [Hex]	Expression Target	
					DATA [BIN]	VALUE
Effect Type = 00 : COMP						
00	SENS	00~5A	1.0~10.0	04,00	001000	P/SENS
01	LEVEL	00~64	0.0~10.0	04,01	001001	P/LEVEL
02	ATTACK	00~5A	1.0~10.0	04,02	001010	P/ATTACK
Effect Type = 01 : ACOUSTIC						
00	BODY	00~5A	1.0~10.0	04,00	001000	P/BODY
01	BASS	00~64	0.0~10.0	04,01	001001	P/BASS
02	TREBLE	00~64	0.0~10.0	04,02	001010	P/TREBLE
Effect Type = 02 : VOX WAH						
01	CLOSE	00~5A	1.0~10.0	04,01	001000	P/MANUAL
02	OPEN	00~5A	1.0~10.0	04,02		
03	MANUAL	00~5A	1.0~10.0	04,03		
04	TYPE	00,01	V847,V848	04,04		
05	ORDER	00,01	PRE,POST	04,05		
Effect Type = 03 : AUTO WAH						
00	SENS	00~64	0.0~10.0	04,00	001000	P/SENS
01	POLARITY	00,01	UP,DOWN	04,01	001001	P/ATTACK
02	ATTACK	00~5A	1.0~10.0	04,02		

04	TYPE	00,01	V847,V848	04,04		
05	ORDER	00,01	PRE,POST	04,05		
Effect Type = 04 : U-VIBE						
00	SPEED	32~64	1.0~10.0 [Hz] (*4)	04,00	001000	P/SPEED
01	DEPTH	00~64	0.0~10.0	04,01	001001	P/DEPTH
02	MIX	00~64	0.0~10.0	04,02		
Effect Type = 05 : BLK/ORG PHASE						
00	SPEED	00~64	0.1~10.0 [Hz] (*4)	04,00	001000	P/SPEED
01	DEPTH	00~64	0.0~10.0	04,01	001001	P/DEPTH
02	RESONANCE	00~64	0.0~10.0	04,02	001010	P/RESO
03	MANUAL	00~5A	1.0~10.0	04,03	001011	P/MANUAL
04	TYPE	00~02	BLK,ORG1,ORG2	04,04		
05	ORDER	00,01	PRE,POST	04,05		
Effect Type = 06 : OCTAVE						
00	DIRECT	00~64	0.0~10.0	04,00	001000	P/DIRECT
01	1 OCTAVE	00~64	0.0~10.0	04,01	001001	P/1OCT
02	2 OCTAVE	00~64	0.0~10.0	04,02	001010	P/2OCT
Effect Type = 07 : RING MODULATOR						
00	DIRECT	00~64	0.0~10.0	04,00	001000	P/DIRECT
01	EFFECT	00~64	0.0~10.0	04,01	001001	P/EFFECT
02	FILTER	00~5A	1.0~10.0	04,02	001010	P/FILTER
03	MANUAL	00~64	0.0~10.0	04,03	001011	P/MANUAL
Effect Type = 08 : TREBLE BOOST						
Effect Type = 09 : TUBE OD						
Effect Type = 0A : SUPER OD						
Effect Type = 0B : BOUTIQUE						
Effect Type = 0C : FAT DIST						
Effect Type = 0D : ORANGE DIST						
Effect Type = 0E : FUZZ						
Effect Type = 0F : OCTAFUZZ						
00	DRIVE	00~5A	1.0~10.0	04,00	001000	P/DRIVE
01	LEVEL	00~64	0.0~10.0	04,01	001001	P/LEVEL
02	TONE	00~5A	1.0~10.0	04,02	001010	P/TONE

[TABLE 1-2] MODULATION EFFECT Parameter Structure

						Expression Target	
Offset [Dec]	PARAMETER	DATA [Hex]	VALUE	PARA No. [Hex]		DATA [BIN]	VALUE
Effect Type = 00 : CLASSIC CHORUS							
00	SPEED	00~64	0.1~10.0 [Hz] (*4)	05,00		010000	M/SPEED
01	DEPTH	00~64	0.0~10.0	05,01		010001	M/DEPTH
03	MANUAL	00~5A	1.0~10.0	05,03		010010	M/MANUAL
04	MODE	00~02	1,2,3	05,04			
Effect Type = 01 : STEREO CHORUS							
00	SPEED	00~64	0.1~10.0 [Hz] (*4)	05,00		010000	M/SPEED
01	DEPTH	00~64	0.0~10.0	05,01		010001	M/DEPTH
03	MANUAL	00~5A	1.0~10.0	05,03		010010	M/MANUAL
05	MIX	00~64	0.0~10.0	05,05		010011	M/MIX
Effect Type = 02 : CLASSIC FLANGER							
00	SPEED	00~64	0.1~10.0 [Hz] (*4)	05,00		010000	M/SPEED
01	DEPTH	00~64	0.0~10.0	05,01		010001	M/DEPTH
02	RESONANCE	00~64	0.0~10.0	05,02		010010	M/RESO
03	MANUAL	00~5A	1.0~10.0	05,03		010011	M/MANUAL
04	OFFSET	00~64	0.0~10.0	05,04			
05	MIX	00~64	0.0~10.0	05,05		010100	M/MIX
Effect Type = 03 : BI CHORUS							
00	SPEED1	00~64	0.1~10.0 [Hz] (*4)	05,00		010000	M/SPEED1
01	DEPTH	00~64	0.0~10.0	05,01		010001	M/DEPTH
02	RESONANCE	00~64	0.0~10.0	05,02		010010	M/RESO

03	SPEED2	00~64	0.1~10.0 [Hz]	(*4)	05,03	010011	M/SPEED2
04	MODE	00~03	S,P1,P2,P3		05,04		
05	MIX	00~64	0.0~10.0		05,05	010100	M/MIX
Effect Type = 04 : DUO PHASE							
00	SPEED1	00~64	0.1~10.0 [Hz]	(*4)	05,00	010000	M/SPEED1
01	DEPTH	00~64	0.0~10.0		05,01	010001	M/DEPTH
02	RESONANCE	00~64	0.0~10.0		05,02	010010	M/RESO
03	SPEED2	00~64	0.1~10.0 [Hz]	(*4)	05,03	010011	M/SPEED2
04	MODE	00~04	S1,S2,P1,P2,P3		05,04		
Effect Type = 05 : TEXTREM							
00	SPEED	32~64	1.0~10.0 [Hz]	(*4)	05,00	001000	M/SPEED
01	DEPTH	00~64	0.0~10.0		05,01	010001	M/DEPTH
04	SPREAD	00~64	0.0~10.0		05,04		
Effect Type = 06 : ROTARY							
00	SPEED1	2D~64	0.8~10.0 [Hz]	(*4)	05,00	010000	M/SPEED1
01	DEPTH	00~64	0.0~10.0		05,01	010001	M/DEPTH
03	SPEED2	2D~64	0.8~10.0 [Hz]	(*4)	05,03	010010	M/SPEED2
04	ACCEL	00~5A	1.0~10.0		05,04	010011	M/ACCEL
Effect Type = 07 : PITCH SHIFTER							
00	PITCH	00~30	-24~24 [x100cent]		05,00	010000	M/PITCH
01	FINE	00~64	-50~50 [cent]		05,01	010001	M/FINE
03	TRACKING	05~4B	10~150 [ms] (2ms step)		05,03		
04	DIRECT	00~64	0.0~10.0		05,04	010010	M/DIRECT
05	EFFECT	00~64	0.0~10.0		05,05	010011	M/EFFECT
Effect Type = 08 : MOD DELAY							
00	SPEED	00~64	0.1~10.0 [Hz]	(*4)	05,00	010000	M/SPEED
01	DEPTH	00~64	0.0~10.0		05,01	010001	M/DEPTH
02	FEEDBACK	00~64	0.0~10.0		05,02	010010	M/FBACK
03	TIME	00~5A	1.0~10.0		05,03	010011	M/TIME
04	MODE	00~02	1,2,3		05,04		
05	MIX	00~64	0.0~10.0		05,05	010100	M/MIX
Effect Type = 09 : FILTRON							
00	ATTACK	00~5A	1.0~10.0		05,00	010000	M/ATTACK
01	DEPTH	00~64	0.0~10.0		05,01	010001	M/DEPTH
02	RESONANCE	00~64	0.0~10.0		05,02	010010	M/RESO
03	MANUAL	00~5A	1.0~10.0		05,03	010011	M/MANUAL
04	POLARITY	00,01	UP,DOWN		05,04		
05	SENS	00~64	0.0~10.0		05,05	010100	M/SENS
Effect Type = 0A : TALK MOD							
00	ATTACK	00~5A	1.0~10.0		05,00	010000	M/ATTACK
01	DEPTH	00~64	0.0~10.0		05,01	010001	M/DEPTH
02	TYPE	00~09	A-E-O-U		05,02		
03	MANUAL	00~5A	1.0~10.0		05,03	010010	M/MANUAL
04	POLARITY	00,01	UP,DOWN		05,04		
05	SENS	00~64	0.0~10.0		05,05	010011	M/SENS

[TABLE 1-3] DELAY EFFECT Parameter Structure

						Expression Target	
Offset [Dec]	PARAMETER	DATA [Hex]	VALUE	PARA No. [Hex]	DATA [BIN]	VALUE	
Effect Type = 00 : ECHO PLUS							
00~01	TIME	1A~7D0	26~2000 [ms]	06,00	011001	D/TIME	
02	FEEDBACK	00~64	0.0~10.0	06,01	011010	D/FBACK	
03	TOPE	00~5A	1.0~10.0	06,02	011011	D/TONE	
05	LO DAMP	00~64	0.0~10.0	06,04	011100	D/LODAMP	
06	MIX	00~64	0.0~10.0	06,05	011101	D/MIX	
Effect Type = 01 : MULTI HEAD							
00~01	TIME	01~7D0	1~2000 [ms]	06,00			

02	FEEDBACK	00~64	0.0~10.0	06,01	011001	D/FBACK
03	TONE	00~5A	1.0~10.0	06,02	011010	D/TONE
05	MODE	00~04	1,2,3,4,5	06,04		
06	MIX	00~64	0.0~10.0	06,05	011011	D/MIX

Effect Type = 02 : ANALOG DELAY						
00~01	TIME	01~7D0	1~2000 [ms]	06,00	011001	D/TIME
02	FEEDBACK	00~64	0.0~10.0	06,01	011010	D/FBACK
03	TONE	00~5A	1.0~10.0	06,02	011011	D/TONE
06	MIX	00~64	0.0~10.0	06,05	011100	D/MIX

Effect Type = 03 : MOD DELAY						
00~01	TIME	03~7D0	3~2000 [ms]	06,00	011001	D/TIME
02	FEEDBACK	00~64	0.0~10.0	06,01	011010	D/FBACK
03	TONE	00~5A	1.0~10.0	06,02	011011	D/TONE
05	SPEED	00~64	0.1~10.0 [Hz] (*4)	06,04	011100	D/SPEED
06	MIX	00~64	0.0~10.0	06,05	011101	D/MIX

Effect Type = 04 : SWEEP DELAY						
00~01	TIME	1A~7D0	26~2000 [ms]	06,00	011001	D/TIME
02	FEEDBACK	00~64	0.0~10.0	06,01	011010	D/FBACK
03	TONE	00~5A	1.0~10.0	06,02	011011	D/TONE
05	SENS	00~64	0.0~10.0	06,04	011100	D/SENS
06	MIX	00~64	0.0~10.0	06,05	011101	D/MIX

Effect Type = 05 : STEREO DELAY						
Effect Type = 06 : CROSS DELAY						
Effect Type = 07 : 2TAP DELAY						
00~01	TIME	01~FA0	1~4000 [ms]	06,00		
02	FEEDBACK	00~64	0.0~10.0	06,01	011001	D/FBACK
03	TONE	00~5A	1.0~10.0	06,02	011010	D/TONE
04	DUCKING	00~64	0.0~10.0	06,03	011011	D/DUCK
06	MIX	00~64	0.0~10.0	06,05	011100	D/MIX

Effect Type = 08 : RHYTHM DELAY						
00~01	TIME	01~FA0	1~4000 [ms]	06,00		
02	FEEDBACK	00~64	0.0~10.0	06,01	011001	D/FBACK
03	TONE	00~5A	1.0~10.0	06,02	011010	D/TONE
04	DUCKING	00~64	0.0~10.0	06,03	011011	D/DUCK
05	RHYTHM	00~0A	1~11	06,04		
06	MIX	00~64	0.0~10.0	06,05	011100	D/MIX

Effect Type = 09 : HOLD DELAY						
00~01	TIME	01~1F40	1~8000 [ms]	06,00		
02	FEEDBACK	00~64	0.0~10.0	06,01	011001	D/FBACK
03	TONE	00~5A	1.0~10.0	06,02	011010	D/TONE
06	MIX	00~64	0.0~10.0	06,05	011011	D/MIX

Effect Type = 0A : REVERSE DELAY						
00~01	TIME	1A~FA0	26~4000 [ms]	06,00		
02	FEEDBACK	00~64	0.0~10.0	06,01	011001	D/FBACK
03	TONE	00~5A	1.0~10.0	06,02	011010	D/TONE
06	MIX	00~64	0.0~10.0	06,05		

[TABLE 1-4] REVERB EFFECT Parameter Structure

Offset [Dec]	PARAMETER	DATA [Hex]	VALUE	PARA No. [Hex]	Expression Target	DATA [BIN]	VALUE
	Effect Type = 00		SPRING 1				
	Effect Type = 01		SPRING 2				
	Effect Type = 02		PLATE 1				
	Effect Type = 03		PLATE 2				
	Effect Type = 04		CHAMBER 1				
	Effect Type = 05		CHAMBER 2				
	Effect Type = 06		ROOM 1				
	Effect Type = 07		ROOM 2				

Effect Type = 08 : HALL 1						
Effect Type = 09 : HALL 2						
00	TIME	00~5A	1.0~10.0	07,00	100001	R/TIME
01	LO DAMP	00~64	0.0~10.0	07,01	100010	R/LODAMP
02	HI DAMP	00~64	0.0~10.0	07,02	100011	R/HIDAMP
03	PRE DLY	00~64	0~100 [ms]	07,03		
05	MIX	00~64	0.0~10.0	07,05	100100	R/MIX
Effect Type = 0A : GATE						
00	TIME	01~64	5~500 [ms] (5ms step)	07,00		
01	LO DAMP	00~64	0.0~10.0	07,01	100001	R/LODAMP
02	HI DAMP	00~64	0.0~10.0	07,02	100010	R/HIDAMP
03	PRE DLY	00~64	0~100 [ms]	07,03		
04	SHAPE	00,01	1,2	07,04		
05	MIX	00~64	0.0~10.0	07,05		

[TABLE 1-5] AMP Type List

DATA [Hex]	AMP Type
00	AC15
01	AC15TB
02	AC30
03	AC30TB
04	UK BLUES
05	UK 68P
06	UK '80S
07	UK '90S
08	UK MODERN
09	RECTO
0A	US HIGAIN
0B	BOUTIQUE OD
0C	BOUTIQUE CL
0D	BLACK 2x12
0E	TWEED 1x12
0F	TWEED 4x10

[TABLE 1-6] CABINET Type List

DATA [Hex]	CABINET Type
00	TWEED 1x8
01	TWEED 1x12
02	TWEED 4x10
03	BLACK 2x10
04	BLACK 2x12
05	VOX AC15
06	VOX AC30
07	VOX AD412
08	UK H30 4x12
09	UK T75 4x12
0A	US V30 4x12

[TABLE 1-7] EXPRESSION PEDAL Target List

DATA [Bin]	Target	TARGET RANGE DATA[Hex] : VALUE
000000	--OFF--	No Target
000001	VOLUME	Volume Pedal 00~64 : 0.0~10.0
001nnn	P/???????	PEDAL Parameter (TABLE 1-1) Same as Parameter Value Range
010nnn	M/???????	MODULATION Parameter (TABLE 1-2) Same as Parameter Value Range
011000	D/INPUT	DELAY Input Level 00~64 : 0.0~10.0
011nnn	D/???????	DELAY Parameter (TABLE 1-3) Same as Parameter Value Range
100000	R/INPUT	REVERB Input Level 00~64 : 0.0~10.0
100nnn	R/???????	REVERB Parameter (TABLE 1-4) Same as Parameter Value Range
101000	A/GAIN A	AMP GAIN (A ch) 00~64 : 0.0~10.0

101001	A/VRGN A	AMP VR GAIN (A ch)	00~64 : 0.0~10.0
110000	A/GAIN B	AMP GAIN (B ch)	00~64 : 0.0~10.0
110001	A/VRGN B	AMP VR GAIN (B ch)	00~64 : 0.0~10.0

[TABLE 1-8] CONTROL PEDAL Target List

DATA [Hex]	Target
00	I/ON OFF INSERT On/Off
01	P/ON OFF PEDAL On/Off
02	A/ON OFF AMP On/Off
03	C/ON OFF CABINET On/Off
04	M/ON OFF MODULATION On/Off
05	D/ON OFF DELAY On/Off
06	R/ON OFF REVERB On/Off
07	MOD TAP MODULATION TAP (SPEED)
08	DLY TAP DELAY TAP (TIME)
09	FLN TRIG FLANGER (TRIGGER)
0A	ROT SPD ROTARY (SPEED SW)
0B	HOLD DLY HOLD DELAY (HOLD)

*3 : DATA[Hex] VALUE

00	1/6
01	1/4
02	1/3
03	1/2
04	2/3
05	3/4
06	1
07	4/3
08	3/2
09	2
0A	3
0B	4

*4 : DATA[Hex] VALUE[Hz]

00~09	0.100 ~ 0.145 (0.005 step)
0A~18	0.15 ~ 0.29 (0.01 step)
19~27	0.30 ~ 0.58 (0.02 step)
28~31	0.60 ~ 0.96 (0.04 step)
32~3B	1.00 ~ 1.45 (0.05 step)
3C~4A	1.5 ~ 2.9 (0.1 step)
4B~59	3.0 ~ 5.8 (0.2 step)
5A~63	6.0 ~ 9.6 (0.4 step)
64	10.0

[TABLE 2] GLOBAL PARAMETERS

No. : Address in the GLOBAL DUMP DATA.
 PARA No. : Parameter ID, SUB ID for PARAMETER CHANGE.

No. [Dec]	PARAMETER	DATA [Hex]	VALUE	PARA No. [Hex]
00	b0~3 MIDI Channel	0~F	1~16	40,00
	b4~7 (Reserved)			
01	b0 MIDI ProgChg Output	00,01	Off, On	41,00
	b1 MIDI CtrlChg In/Out	00,01	Off, On	41,01
	b2 MIDI SysEx Output	00,01	Off, On	41,02
	b3 (Reserved)			
	b4 Channel A/B Hold	00,01	Off, On	41,04
	b5 EXP 1 Pedal Ctrl Init	00,01	Off, On	41,05
	b6 EXP 2 Pedal Ctrl Init	00,01	Off, On	41,06
	b7 (Reserved)			
02	CC# for EXP 1 Pedal	00,1~60	Off, CC00~CC95	42,00
03	CC# for EXP 2 Pedal	00,1~60	Off, CC00~CC95	42,01
04	CC# for CONTROL Pedal	00,1~60	Off, CC00~CC95	42,02
05	CC# for PEDAL On/Off	00,1~60	Off, CC00~CC95	42,03

06	CC# for MOD On/Off	00,1~60	Off, CC00~CC95	42,04
07	CC# for DELAY On/Off	00,1~60	Off, CC00~CC95	42,05
08	CC# for REVERB On/Off	00,1~60	Off, CC00~CC95	42,06
09	CC# for INSERT On/Off	00,1~60	Off, CC00~CC95	42,07
10	CC# for A/B ch Select	00,1~60	Off, CC00~CC95	42,08
11~14	(Reserved)			
15	Output Select	00,01	Amp, Line	43,01