

1.Transmitted Data -----

1-4 Universal System Exclusive Messages ( Non Realtime )

(1) Device Inquiry Reply

Byte[H]	Description
F0	Exclusive Status
7E	Non Realtime Message
0g	Global MIDI Channel ( Device ID )
06	General Information
02	Identity Reply
42	KORG ID ( Manufacturers ID )
6E	Software Project ( Family ID (LSB))
00	( Family ID (MSB))
08	padKONTROL ( Member ID (LSB))
00	( Member ID (MSB))
xx	( Minor Ver. (LSB))
xx	( Minor Ver. (MSB))
xx	( Major Ver. (LSB))
xx	( Major Ver. (MSB))
F7	End Of Exclusive

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

1-6 padKONTROL System Exclusive Message Transmitted Command List  
 Structure of padKONTROL System Exclusive Messages

1st Byte = F0 : Exclusive Status  
 2nd Byte = 42 : KORG  
 3rd Byte = 4g : g : Global MIDI Channel  
 4th Byte = 6E : Software Project  
 5th Byte = 08 : padKONTROL (SubID)  
 6th Byte = cd : 0dvmmmm d (1:Controller->Host)  
                                 v (0:2Bytes Data Format, 1:Variable)  
                                 mmmm (Command Number)  
 7th Byte = nn : 2Bytes Format: Operation Number, Variable: Num of Data  
 8th Byte = dd : Data  
 |  
 LastByte = F7 : End of Exclusive

16th Byte command# [Bin (Hex)]	Description/Command
010 00000 (40)	Native KORG mode In/Out
010 00011 (43)	Encoder Output *3
010 00101 (45)	Pad Output *3
010 00111 (47)	Pedal Output *3
010 01000 (48)	SW Output *3
010 01001 (49)	Knob Output *3
010 01011 (4B)	Joystick (X-Y Pad) Output *3
011 11110 (7E)	Port Detect
010 11111 (5F)	Packet Communication *4
011 11111 (7F)	Data Dump *4

\*3 :Transmitted when in native KORG mode.

\*4 :Function ID Code List

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Function ID [Hex]	Description/Function		
40	Current Scene Data Dump	R	
51	Global Data Dump	R	
4F	Scene Change	R,C	
26	Data Format Error	E	
23	Data Load Completed	E	
24	Data Load Error	E	
21	Write Completed	E	
22	Write Error	E	
00~03	Native KORG mode Dump Data Reply	S	

Transmitted when

- R : Request Message is received.
- C : Change Scene.
- E : Exclusive Message is received.
- S : Native KORG mode Messages is received.

## 2. Recognized Receive Data -----

### 2-1 Universal System Exclusive Message (Non Realtime)

Inquiry Message Request

Byte[H]	Description
F0	Exclusive Status
7E	Non Realtime Message
gg	Global MIDI Channel
06	General Information
01	Identity Request
F7	End Of Exclusive

gg = 00~0F : Received if Global Channel  
7F : Received on any Channel

### 2-2 padKONTROL System Exclusive Message Received Command List

Structure of padKONTROL System Exclusive Messages

- 1st Byte = F0 : Exclusive Status
- 2nd Byte = 42 : KORG
- 3rd Byte = 4g : g : Global MIDI Channel
- 4th Byte = 6E : Software Project
- 5th Byte = 08 : padKONTROL (SubID)
- 6th Byte = cd : 0dvmmmm d (0:Host->Controller)  
v (0:2Bytes Data Format, 1:Variable)  
mmmm (Command Number)
- 7th Byte = nn : 2Bytes Format: Operation Number, Variable: Num of Data
- 8th Byte = dd : Data
- |
- LastByte = F7 : End of Exclusive

16th Byte command# [Bin (Hex)]	Description/Command	
000 00000 (00)	Native KORG mode In/Out Req	
000 00001 (01)	Display LED	*5
001 00010 (22)	Display LCD (7Seg LED)	*5
000 11110 (1E)	Port Detect Req	
000 11111 (1F)	Data Dump Req	*6
001 11111 (3F)	Packet Communication	*6
011 11111 (7F)	Data Dump	*6

\*5 :Received when in native KORG mode.

\*6 :Function ID Code List

Function ID [Hex]	Description/Function		
14	Scene Change Request	A	
10	Current Scene Data Dump Request	A	
0E	Global Data Dump Request	A	
40	Current Scene Data Dump	A	
51	Global Data Dump	A	
11	Scene Write Request	A	
00~03	Native KORG mode Dump Data	S	

Received when

A : Always.

S : in native KORG mode.

### 3.MIDI Exclusive Format (R:Receive, T:Transmit) -----

#### 3-1 Standard Messages

(1) Current Scene Data Dump Request R,-

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0001 1111 (1F)	Data Dump Command (Host->Controller, 2Bytes Format)
0001 0000 (10)	Current Scene Data Dump Request
0000 0000 (00)	
1111 0111 (F7)	End of Exclusive (EOX)

Receive this message, and transmits Func=40 or Func=24,26 message.

(2) Global Data Dump Request R,-

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0001 1111 (1F)	Data Dump Command (Host->Controller, 2Bytes Format)
0000 1110 (0E)	Global Data Dump Request
0000 0000 (00)	
1111 0111 (F7)	End of Exclusive (EOX)

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

(3) Scene Write Request R,-

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0001 1111 (1F)	Data Dump Command (Host->Controller, 2Bytes Format)
0001 0001 (11)	Scene Write Request
0sss ssss (ss)	Destination Scene No.(0~15)
1111 0111 (F7)	End of Exclusive (EOX)

Receive this message, and transmits Func=4F & Func=21 or Func=22 message.

(4) Scene Change Request R,-

Byte	Description
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+-----+
| F0,42,4g,6E,08 | padKONTR0L Exclusive Header g;Global Channel [Hex] |
| 0001 1111 (1F) | Data Dump Command (Host->Controller, 2Bytes Format) |
| 0001 0100 (14) | Scene Change Request |
| 0sss ssss (ss) | Destination Scene No.(0~15) |
| 1111 0111 (F7) | End of Exclusive (EOX) |
+-----+

```

Receive this message, and transmits Func=4F & Func=23 or Func=24 message.

(5) Current Scene Data Dump R,T

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+-----+
| Byte | Description |
+-----+
| F0,42,4g,6E,08 | padKONTR0L Exclusive Header g;Global Channel [Hex] |
| 0111 1111 (7F) | Data Dump Command (Host->Controller, Variable Format) |
| 0111 1111 (7F) | Over 0x7F Data |
| 0000 0010 (02) | 2Bytes structure |
| 0000 1010 (0A) | Num of Data (8*17+1+1Bytes : B'10001010) |
| 0000 0010 (02) | |
| 0100 0000 (40) | Current Scene Data Dump |
| 0ddd dddd (dd) | Data (NOTE 1,7) |
| : | : |
| 1111 0111 (F7) | End of Exclusive (EOX) |
+-----+

```

Receive this message & data, save them to Edit Buffer and transmits Func=23 or Func=24 message.  
Receive Func=10 message, and transmits this message & data from Edit Buffer.

(6) Global Data Dump R,T

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+-----+
| Byte | Description |
+-----+
| F0,42,4g,6E,08 | padKONTR0L Exclusive Header g;Global Channel [Hex] |
| 0111 1111 (7F) | Data Dump Command (Host->Controller, Variable Format) |
| 0110 0101 (65) | Num of Data (8*12+4+1Bytes : B'1100101) |
| 0101 0001 (51) | Global Data Dump |
| 0ddd dddd (dd) | Data (NOTE 2,7) |
| : | : |
| 1111 0111 (F7) | End of Exclusive (EOX) |
+-----+

```

Receive this message & data, save them to Internal Memory and transmits Func=23 or Func=24 message.

Receive Func=0E message, and transmits this message & data from Edit Buffer.

When DATA DUMP is executed, transmit this message & data from Edit Buffer.

(7) Receive Data Format Error -,T

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+-----+
| Byte | Description |
+-----+
| F0,42,4g,6E,08 | padKONTR0L Exclusive Header g;Global Channel [Hex] |
| 0101 1111 (5F) | Data Dump Command (Host-<-Controller, 2Bytes Format) |
| 0010 0110 (26) | Data Format Error |
| 0000 0000 (00) | |
| 1111 0111 (F7) | End of Exclusive (EOX) |
+-----+

```

When found an error in the received message (ex.data length), transmits this message.

(8) Data Load Completed (ACK) -,T

```

+-----+
| Byte | Description |
+-----+
| F0,42,4g,6E,08 | padKONTR0L Exclusive Header g;Global Channel [Hex] |
| 0101 1111 (5F) | Data Dump Command (Host-<-Controller, 2Bytes Format) |
| 0010 0011 (23) | Data Load Completed |
| 0000 0000 (00) | |
| 1111 0111 (F7) | End of Exclusive (EOX) |
+-----+

```

-----  
When Data Load have been completed, transmits this message.

(9) Data Load Error (NAK) -,T

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0101 1111 (5F)	Data Dump Command (Host<-Controller, 2Bytes Format)
0010 0100 (24)	Data Load Error
0000 0000 (00)	
1111 0111 (F7)	End of Exclusive (EOX)

-----  
When Data Load have not been completed, transmits this message.

(10) Write Completed -,T

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0101 1111 (5F)	Data Dump Command (Host<-Controller, 2Bytes Format)
0010 0001 (21)	Write Completed
0000 0000 (00)	
1111 0111 (F7)	End of Exclusive (EOX)

-----  
When "Complete" has been completed, transmits this message.

(11) Write Error -,T

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0101 1111 (5F)	Data Dump Command (Host<-Controller, 2Bytes Format)
0010 0010 (22)	Write Error
0000 0000 (00)	
1111 0111 (F7)	End of Exclusive (EOX)

-----  
When "Complete" has not been completed, transmits this message.

(12) Scene Change -,T

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0101 1111 (5F)	Data Dump Command (Host<-Controller, 2Bytes Format)
0100 1111 (4F)	Scene Change
0sss ssss (ss)	Destination Scene No.(0~15)
1111 0111 (F7)	End of Exclusive (EOX)

-----  
When Scene Change have been completed, transmits this message.

(13) Port Detect Request R,-

Byte	Description
F0,42,4x,6E	padKONTROL Exclusive Header x;every MIDI Channel [Hex]
0ttt tttt (tt)	Device Sub ID
0001 1110 (1E)	Port Detect Command (Host->Controller, 2Bytes Format)
0000 0000 (00)	
0ppp pppp (pp)	Host Port Number
1111 0111 (F7)	End of Exclusive (EOX)

-----  
tt : 08=padKONTROL, 7F=All-Call

pp : 01~7F

Receive this message, and transmits Command=7E message.

(14) Port Detect - ,T

Byte	Description
F0,42,4x,6E,08	padKONTROL Exclusive Header x;Request MIDI Channel [Hex]
0111 1110 (7E)	Port Detect Command (Host<-Controller, Variable Format)
0000 0101 (05)	Num of Data (5Bytes)
0ppp pppp (pp)	Host Port Number
0000 0011 (03)	Num of IN-Port
0000 0010 (02)	Dedicated IN-Port Number
0000 0010 (02)	Num of OUT-Port
0000 0010 (02)	Dedicated OUT-Port Number
1111 0111 (F7)	End of Exclusive (EOX)

Receive Command=1E message, and transmits this message.

(15) Native KORGMODE In/Out Request R,-

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0000 0000 (00)	Native KORGMODE In/Out Command (Host->Controller, 2Bytes Format)
0000 0000 (00)	
0qqq qqqq (qq)	Native KORGMODE In/Out Request (qq = 00:Out Req,01:In Req)
1111 0111 (F7)	End of Exclusive (EOX)

Receive this message, and transmits Command=40 message.

(16) Native KORGMODE In/Out - ,T

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0100 0000 (40)	Native KORGMODE In/Out Command (Host<-Controller, 2Bytes Format)
0000 0000 (00)	
0rrr rrrr (rr)	Native KORGMODE In/Out (rr = 02:Out,03:In)
1111 0111 (F7)	End of Exclusive (EOX)

Receive Command=00 message, and transmits this message.

(17) Native KORGMODE Packet Communication 1 R,-

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0011 1111 (3F)	Packet Communication Command (Host->Controller, Variable Format)
0010 1010 (2A)	Num of Data (1+41Bytes)
0000 0000 (00)	1st Packet Data
0ddd dddd (dd)	Data (include Global MIDI Channel) (NOTE 3)
:	:
1111 0111 (F7)	End of Exclusive (EOX)

Receive this message, and transmits Command=5F(1st) OK/NG message.

(18) Native KORGMODE Packet Communication 1 Reply - ,T

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0101 1111 (5F)	Packet Communication Command (Host<-Controller, 2Bytes Format)
0000 0000 (00)	1st Packet Data
0rrr rrrr (rr)	Packet Data Received (rr = 00:Complete,01:Error)
1111 0111 (F7)	End of Exclusive (EOX)

Receive Command=3F(1st) message, and transmits this message.  
 4g : g:Received Global MIDI Channel

(19) Native KORGM mode Packet Communication 2 R,-

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0011 1111 (3F)	Packet Communication Command (Host->Controller, Variable Format)
0000 1010 (0A)	Num of Data (1+9Bytes)
0000 0001 (01)	2nd Packet Data
0ddd dddd (dd)	Data (NOTE 4)
:	:
1111 0111 (F7)	End of Exclusive (EOX)

Receive this message, and transmits Command=5F(2nd) OK/NG message.

(20) Native KORGM mode Packet Communication 2 Reply -,T

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0101 1111 (5F)	Packet Communication Command (Host<-Controller, 2Bytes Format)
0000 0001 (01)	2nd Packet Data
0rrr rrrr (rr)	Packet Data Received (rr = 00:Complete,01:Error)
1111 0111 (F7)	End of Exclusive (EOX)

Receive Command=3F(2nd) message, and transmits this message.

3-2 Native KORGM mode Messages

(1) Native KORGM mode Display LEDs R,-

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0000 0001 (01)	Display LED Command (Host->Controller, 2Bytes Format)
0nnn nnnn (nn)	LED's Number of Data
0eet tttt (et)	Display Information
1111 0111 (F7)	End of Exclusive (EOX)

nn : LED Number 00~0F, 10~22, 30~47 = PAD1~16, SW LED, 7Seg.LED  
 et : ee (0:Off, 1:On, 2:OneShot, 3:Blink), tttt (OneShot Timer(9msec.))

(2) Native KORGM mode Display LCDs (7Seg.LED) R,-

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0010 0010 (22)	Display LCD Command (Host->Controller, Variable Format)
0000 0100 (04)	Num of Data (4Bytes)
0000 000e (0e)	Display Information
0ccc cccc (cc)	7Seg.1st (Left) Character ASCII code (20~7F)
0ccc cccc (cc)	7Seg.2nd (Center) Character ASCII code (20~7F)
0ccc cccc (cc)	7Seg.3rd (Right) Character ASCII code (20~7F)
1111 0111 (F7)	End of Exclusive (EOX)

e : Blink Off/On (0:Off, 1:On)

(3) Native KORGM mode Encoder Output -,T

Byte	Description
F0,42,4g,6E,08	padKONTROL Exclusive Header g;Global Channel [Hex]
0100 0011 (43)	Encoder Output Command (Host<-Controller, 2Bytes Format)

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| 0000 0000 (00) | |
| 0ddd dddd (dd) | Encoder Inc/Dec Data (40~7F,00~3F : -64~0~63) |
| 1111 0111 (F7) | End of Exclusive (EOX) |
+-----+

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(4) Native KORNG mode Pad Output -,T

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+-----+
| Byte | Description |
+-----+
| F0,42,4g,6E,08 | padKONTR0L Exclusive Header g;Global Channel [Hex] |
| 0100 0101 (45) | Pad Output Command (Host<-Controller, 2Bytes Format) |
| 0c00 nnnn (cn) | Pad Information |
| 0VVV VVVV (VV) | Velocity (0n:1~127, Off:64) |
| 1111 0111 (F7) | End of Exclusive (EOX) |
+-----+

```

cn : c PAD Condition (0:Off, 1:0n), nnnn PAD Number (00~0F = 1~16)

(5) Native KORNG mode Pedal Output -,T

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+-----+
| Byte | Description |
+-----+
| F0,42,4g,6E,08 | padKONTR0L Exclusive Header g;Global Channel [Hex] |
| 0100 0111 (47) | Pedal Output Command (Host<-Controller, 2Bytes Format) |
| 0000 0000 (00) | |
| 0ddd dddd (dd) | Pedal Data (0~127) |
| 1111 0111 (F7) | End of Exclusive (EOX) |
+-----+

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(6) Native KORNG mode SW Output -,T

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+-----+
| Byte | Description |
+-----+
| F0,42,4g,6E,08 | padKONTR0L Exclusive Header g;Global Channel [Hex] |
| 0100 1000 (48) | SW Output Command (Host<-Controller, 2Bytes Format) |
| 0nnn nnnn (nn) | SW Number |
| 0ddd dddd (dd) | SW Data (Off:0, 0n:127) |
| 1111 0111 (F7) | End of Exclusive (EOX) |
+-----+

```

nn : SW Number (00~12 = SW, 20 = X-Y Pad SW)

(7) Native KORNG mode Knob Output -,T

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+-----+
| Byte | Description |
+-----+
| F0,42,4g,6E,02 | KONTR0L49 Exclusive Header g;Global Channel [Hex] |
| 0100 1001 (49) | Knob Output Command (Host<-Controller, 2Bytes Format) |
| 0000 000n (0n) | Knob Type (0:Knob1, 1:Knob2) |
| 0ddd dddd (dd) | Knob Data (0~127) |
| 1111 0111 (F7) | End of Exclusive (EOX) |
+-----+

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(8) Native KORNG mode X-Y Pad Output -,T

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+-----+
| Byte | Description |
+-----+
| F0,42,4g,6E,08 | padKONTR0L Exclusive Header g;Global Channel [Hex] |
| 0100 1011 (4B) | X-Y Pad Output Command (Host<-Controller, 2Bytes Format) |
| 0xxx xxxx (xx) | X-direction Data (0~127) |
| 0yyy yyyy (yy) | Y-direction Data (0~127) |
| 1111 0111 (F7) | End of Exclusive (EOX) |
+-----+

```

NOTE 1: Current Scene Data Dump Format  
(TABLE 1)



NOTE 2: Global Data Dump Format  
(TABLE 2)

NOTE 3: Native KORGM mode Packet Communication 1st Data Dump Format  
38Bytes  
(TABLE 3)

NOTE 4: Native KORGM mode Packet Communication 2nd Data Dump Format  
17Bytes  
(TABLE 4)

TABLE 1 : Scene Parameter

No. (bit)	PARAMETER	VALUE	DESCRIPTION
PAD setting			
0	PAD01 mode		
B6,7	not use	(0,0)	
B5	SW Type	0,1=Momentary,Toggle	
B4	SW	0,1=Dis,Ena	
B0~3	MIDI Ch.	0~15= 1~16	
1~15	PAD02~16 mode	same as PAD01 mode	
16	B0~7   PAD01 assign	0 ~127=Note#C-1~G9 128~255=CC#00~127	
17~31	PAD02~16 assign	same as PAD01 assign	
32	B0~7   PAD01 velocity	129~255=ConstValue 1~127	
33~47	PAD02~16 velocity	same as PAD01 velocity	
48	PAD01 CC Rel Val		
B7	not use	(0)	
B0~6	CC value	0~127=0~127	
49~63	PAD02~16 CC offval	same as PAD01 CC offval	
64	PAD01 CC on val		
B7	not use	(0)	
B0~6	CC value	0~127=0~127	
65~79	PAD02~16 CC on val	same as PAD01 CC on val	
80	Fixed Velocity val	1~127=1~127	
81	PEDAL mode		
B7	not use	(0)	
B6	PdL Roll/Flam SW	0,1=Dis,Ena	
B5	SW Type	0,1=Momentary,Toggle	
B4	SW	0,1=Dis,Ena	

	B0~3	MIDI Ch.	0~15= 1~16
82	B0~7	PEDAL assign	0 ~127=Note#C-1~G9 128~255=CC#00~127
83	B7	not use	(0)
	B0~6	PEDAL velocity	1~127=1~127
84	B7	PEDAL CC Rel Val not use	(0)
	B0~6	CC value	0~127=0~127
85	B7	PEDAL CC on val not use	(0)
	B0~6	CC value	0~127=0~127
86		Roll/Flam SW(1)	
	B7	PAD08	0,1=Dis,Ena
	B6	PAD07	0,1=Dis,Ena
	B5	PAD06	0,1=Dis,Ena
	B4	PAD05	0,1=Dis,Ena
	B3	PAD04	0,1=Dis,Ena
	B2	PAD03	0,1=Dis,Ena
	B1	PAD02	0,1=Dis,Ena
	B0	PAD01	0,1=Dis,Ena
87		Roll/Flam SW(2)	
	B7	PAD16	0,1=Dis,Ena
	B6	PAD15	0,1=Dis,Ena
	B5	PAD14	0,1=Dis,Ena
	B4	PAD13	0,1=Dis,Ena
	B3	PAD12	0,1=Dis,Ena
	B2	PAD11	0,1=Dis,Ena
	B1	PAD10	0,1=Dis,Ena
	B0	PAD09	0,1=Dis,Ena
KNOB1 setting			
88	B4~7	assign	0~3=Off,Bend,AfterTouch,ControlChg
	B2,3	not use	(0,0)
	B1	polarity	0,1=normal,revers
	B0	Pedal Ch. SW	0,1=Dis,Ena
89	B7	not use	(0)
	B0~6	CC# assign	0~127=0~127
90		Pad Ch. SW(1)	
	B7	PAD08	0,1=Dis,Ena
	B6	PAD07	0,1=Dis,Ena
	B5	PAD06	0,1=Dis,Ena
	B4	PAD05	0,1=Dis,Ena
	B3	PAD04	0,1=Dis,Ena
	B2	PAD03	0,1=Dis,Ena
	B1	PAD02	0,1=Dis,Ena
	B0	PAD01	0,1=Dis,Ena

91	Pad Ch. SW(2)	
B7	PAD16	0,1=Dis,Ena
B6	PAD15	0,1=Dis,Ena
B5	PAD14	0,1=Dis,Ena
B4	PAD13	0,1=Dis,Ena
B3	PAD12	0,1=Dis,Ena
B2	PAD11	0,1=Dis,Ena
B1	PAD10	0,1=Dis,Ena
B0	PAD09	0,1=Dis,Ena
KNOB2 setting		
92~95	KNOB2	same as KNOB1 setting
X-PAD setting		
96~99	X-PAD	same as KNOB1 setting
100	X-PAD Rel Val	0~255=left~center~right
Y-PAD setting		
101~104	Y-PAD	same as KNOB1 setting
105	Y-PAD ret position	0~255=Lower~center~upper
ROLL/FLAM setting		
106	ROLL speed left	40~240=40~240
107	ROLL speed right	40~240=40~240
108	FLAM intvl left	0~255=min~max
109	FLAM intvl right	0~255=min~max
110	B7   not use	(0)
	B0~6   FLAM vol lower	1~127=1~127
111	B7   not use	(0)
	B0~6   FLAM vol upper	1~127=1~127
112	B7   not use	(0)
	B0~6   ROLL exp lower	1~127=1~127
113	B7   not use	(0)
	B0~6   ROLL exp upper	1~127=1~127
PORT setting		
114	B7   PAD08	0,1=PORT1,2
	B6   PAD07	0,1=PORT1,2
	B5   PAD06	0,1=PORT1,2
	B4   PAD05	0,1=PORT1,2
	B3   PAD04	0,1=PORT1,2
	B2   PAD03	0,1=PORT1,2
	B1   PAD02	0,1=PORT1,2
	B0   PAD01	0,1=PORT1,2

115	B7	PAD16	0,1=PORT1,2
	B6	PAD15	0,1=PORT1,2
	B5	PAD14	0,1=PORT1,2
	B4	PAD13	0,1=PORT1,2
	B3	PAD12	0,1=PORT1,2
	B2	PAD11	0,1=PORT1,2
	B1	PAD10	0,1=PORT1,2
	B0	PAD09	0,1=PORT1,2
-----			
116	B7	message	0,1=PORT1,2
	B1~6	not use	(0,0,0,0,0,0)
	B0	PEDAL	0,1=PORT1,2
-----			
117~119	(dummy byte)		
-----			

TABLE 2 : Global Parameter

No. (bit)	PARAMETER	VALUE	DESCRIPTION
0	not use	(0,0,0,0,0,0,0,0)	
1	B4~7	not use	(0)
	B0~3	Global MIDI Ch.	0~15=1~16
2	not use	(0,0,0,0,0,0,0,0)	
USER1 Message setting			
3~18	[1]~[16]:1st~16th	0~255=MIDI data	
19	B6,7	PORT select	00/01/10(/11)=PORT A/B/A+B(/A+B)
	B5	not use	(0)
	B0~4	Message Length	0,1~16=none,1~16
USER2~5 Message setting			
20~36	USER2 message	same as USER1 Message setting	
37~53	USER3 message	same as USER1 Message setting	
54~70	USER4 message	same as USER1 Message setting	
71~87	USER5 message	same as USER1 Message setting	

TABLE 3 : Native KORG mode Packet Communication 1st Data

0	B4~7	not use	(0,0,0,0)
	B0~3	Global MIDI Ch.	0~15=1~16
1	B4~7	not use	(0,0,0,0)
	B2,3	Pad-Y MesgTransmit	0/1/2=Disable/CC/PitchBend
	B0,1	Pad-X MesgTransmit	0/1/2=Disable/CC/PitchBend

2	B4~7	not use	(0,0,0,0)	
	B0~3	Pad-X MIDI Ch.	0~15=1~16	
3	B4~7	not use	(0,0,0,0)	
	B0~3	Pad-Y MIDI Ch.	0~15=1~16	
4	B7	not use	(0)	
	B0~6	Pad-X CC Number	0~127	
5	B7	not use	(0)	
	B0~6	Pad-Y CC Number	0~127	
6	B7	not use	(0)	
	B6	Pad7 Note Transmit	0/1=Disable/Enable	
	B5	Pad6 Note Transmit	0/1=Disable/Enable	
	B4	Pad5 Note Transmit	0/1=Disable/Enable	
	B3	Pad4 Note Transmit	0/1=Disable/Enable	
	B2	Pad3 Note Transmit	0/1=Disable/Enable	
	B1	Pad2 Note Transmit	0/1=Disable/Enable	
	B0	Pad1 Note Transmit	0/1=Disable/Enable	
7	B7	not use	(0)	
	B6	Pad14 NoteTransmit	0/1=Disable/Enable	
	B5	Pad13 NoteTransmit	0/1=Disable/Enable	
	B4	Pad12 NoteTransmit	0/1=Disable/Enable	
	B3	Pad11 NoteTransmit	0/1=Disable/Enable	
	B2	Pad10 NoteTransmit	0/1=Disable/Enable	
	B1	Pad9 Note Transmit	0/1=Disable/Enable	
	B0	Pad8 Note Transmit	0/1=Disable/Enable	
8	B2~7	not use	(0,0,0,0)	
	B1	Pad16 NoteTransmit	0/1=Disable/Enable	
	B0	Pad15 NoteTransmit	0/1=Disable/Enable	
9	B4~7	not use	(0,0,0,0)	
	B0~3	Pad1 MIDI Ch.	0~15=1~16	
10		Pad2 MIDI Ch.	(same as Pad1 MIDI Ch.)	
11		Pad3 MIDI Ch.	(same as Pad1 MIDI Ch.)	
12		Pad4 MIDI Ch.	(same as Pad1 MIDI Ch.)	
13		Pad5 MIDI Ch.	(same as Pad1 MIDI Ch.)	

14	Pad6 MIDI Ch.	(same as Pad1 MIDI Ch.)	
15	Pad7 MIDI Ch.	(same as Pad1 MIDI Ch.)	
16	Pad8 MIDI Ch.	(same as Pad1 MIDI Ch.)	
17	Pad9 MIDI Ch.	(same as Pad1 MIDI Ch.)	
18	Pad10 MIDI Ch.	(same as Pad1 MIDI Ch.)	
19	Pad11 MIDI Ch.	(same as Pad1 MIDI Ch.)	
20	Pad12 MIDI Ch.	(same as Pad1 MIDI Ch.)	
21	Pad13 MIDI Ch.	(same as Pad1 MIDI Ch.)	
22	Pad14 MIDI Ch.	(same as Pad1 MIDI Ch.)	
23	Pad15 MIDI Ch.	(same as Pad1 MIDI Ch.)	
24	Pad16 MIDI Ch.	(same as Pad1 MIDI Ch.)	
25 B7	not use	(0)	
B0~6	Pad1 Note Number	0~127	
26	Pad2 Note Number	(same as Pad1 Note Number)	
27	Pad3 Note Number	(same as Pad1 Note Number)	
28	Pad4 Note Number	(same as Pad1 Note Number)	
29	Pad5 Note Number	(same as Pad1 Note Number)	
30	Pad6 Note Number	(same as Pad1 Note Number)	
31	Pad7 Note Number	(same as Pad1 Note Number)	
32	Pad8 Note Number	(same as Pad1 Note Number)	
33	Pad9 Note Number	(same as Pad1 Note Number)	
34	Pad10 Note Number	(same as Pad1 Note Number)	
35	Pad11 Note Number	(same as Pad1 Note Number)	
36	Pad12 Note Number	(same as Pad1 Note Number)	
37	Pad13 Note Number	(same as Pad1 Note Number)	
38	Pad14 Note Number	(same as Pad1 Note Number)	
39	Pad15 Note Number	(same as Pad1 Note Number)	
40	Pad16 Note Number	(same as Pad1 Note Number)	

TABLE 4 : Native KORGE mode Packet Communication 2nd Data

0 B7	not use	(0)	
B6	Pad7 LED	0/1=Off/On	

	B5	Pad6 LED	0/1=Off/On	
	B4	Pad5 LED	0/1=Off/On	
	B3	Pad4 LED	0/1=Off/On	
	B2	Pad3 LED	0/1=Off/On	
	B1	Pad2 LED	0/1=Off/On	
	B0	Pad1 LED	0/1=Off/On	
1	B7	not use	(0)	
	B6	Pad14 LED	0/1=Off/On	
	B5	Pad13 LED	0/1=Off/On	
	B4	Pad12 LED	0/1=Off/On	
	B3	Pad11 LED	0/1=Off/On	
	B2	Pad10 LED	0/1=Off/On	
	B1	Pad9 LED	0/1=Off/On	
	B0	Pad8 LED	0/1=Off/On	
2	B7	not use	(0)	
	B6	SW LED (MIDI)	0/1=Off/On	
	B5	SW LED (NOTE)	0/1=Off/On	
	B4	SW LED (SETTING)	0/1=Off/On	
	B3	SW LED (EXIT)	0/1=Off/On	
	B2	SW LED (SCENE)	0/1=Off/On	
	B1	Pad16 LED	0/1=Off/On	
	B0	Pad15 LED	0/1=Off/On	
3	B7	not use	(0)	
	B6	SW LED (X-Pad)	0/1=Off/On	
	B5	SW LED (SWAP)	0/1=Off/On	
	B4	SW LED (FIX.VEL)	0/1=Off/On	
	B3	SW LED (PORT)	0/1=Off/On	
	B2	SW LED (VELOCITY)	0/1=Off/On	
	B1	SW LED (OFF VAL)	0/1=Off/On	
	B0	SW LED (TYPE)	0/1=Off/On	
4	B7	not use	(0)	
	B6	SW LED (HOLD)	0/1=Off/On	
	B5	SW LED (FLAM)	0/1=Off/On	

	B4	SW LED (ROLL)	0/1=Off/On	
	B3	SW LED (PEDAL)	0/1=Off/On	
	B2	SW LED (KNOB2)	0/1=Off/On	
	B1	SW LED (KNOB1)	0/1=Off/On	
	B0	SW LED (Y-Pad)	0/1=Off/On	
5	B3~7	not use	(0,0,0,0,0)	
	B2	7Seg.3rd(Right) DP	0/1=Off/On	
	B1	7Seg.2nd(Center)DP	0/1=Off/On	
	B0	7Seg.1st(Left) DP	0/1=Off/On	
6	B7	not use	(0)	
	B0~6	Disp 7Seg.1st	ASCII code (20~7F)	
7		Disp 7Seg.2nd	(same as Disp 7Seg.1st)	
8		Disp 7Seg.3rd	(same as Disp 7Seg.1st)	