

i30 MIDI IMPLEMENTATION

1.Transmitted Data

1-1.Channel Messages

Status [Bin(Hex)]	Second [Bin(Hex,Dec)]	Third [Bin(Hex)]	Description [i30]	
1000 nnnn (8n)	0kkk kkkk (kk, kkk)	0100 0000 (40)	Note Off (*1) k=001~127 [61Keys+Octave+Transpose] (Seq:000~127)	A
1001 nnnn (9n)	0kkk kkkk (kk, kkk)	0VVV VVVV (VV)	Note On (*1) k=001~127 [61Keys+Octave+Transpose] (Seq:000~127) V=001~127 [Velocity] (Seq:002~126 even number)	A
1010 nnnn (An)	0kkk kkkk (kk, kkk)	0vvv vvvv (vv)	Poly Key Pressure[Recorded Sequence Data]	T, Q
1011 nnnn (Bn)	0000 0000 (00, 000)	0MMM MMMM (MM)	Bank Selecet MSB [Program Bank Key, etc] (*2)	B
1011 nnnn (Bn)	0010 0000 (20, 032)	0LLL LLLL (LL)	Bank Selecet LSB [Program Bank Key, etc] (*2)	B
1011 nnnn (Bn)	0000 0001 (01, 001)	0vvv vvvv (vv)	Modulation 1 [Joystick (+Y)]	C
1011 nnnn (Bn)	0000 0010 (02, 002)	0vvv vvvv (vv)	Modulation 2 [Joystick (-Y)]	C
1011 nnnn (Bn)	0000 0100 (04, 004)	0111 1111 (7F)	Foot Controller [KBD(Special)Scale On]	C
		0000 0000 (00)	Foot Controller [KBD(Special)Scale Off=Normal Scale]	C
1011 nnnn (Bn)	0000 0111 (07, 007)	0vvv vvvv (vv)	Volume [Volume]	C
1011 nnnn (Bn)	0000 1010 (0A, 010)	0vvv vvvv (vv)	Panpot [Pan]	C
1011 nnnn (Bn)	0000 1011 (0B, 011)	0vvv vvvv (vv)	Expression [Assignable Pedal:KBD Expression]	C
1011 nnnn (Bn)	0000 1100 (0C, 012)	0vvv vvvv (vv)	Effect Control 1 [Assign:FX Control 1(CC#12)]	C
1011 nnnn (Bn)	0000 1101 (0D, 013)	0vvv vvvv (vv)	Effect Control 2 [Assign:FX Control 2(CC#13)]	C
1011 nnnn (Bn)	0100 0000 (40, 064)	0111 1111 (7F)	Damper Pedal On [Damper Pedal]	C
		0000 0000 (00)	Damper Pedal Off [Damper Pedal]	C
1011 nnnn (Bn)	0100 1010 (4A, 074)	0vvv vvvv (vv)	Brightness [Assignable Pedal:VDF Cutoff]	C
1011 nnnn (Bn)	0101 1011 (5B, 091)	0vvv vvvv (vv)	Effect 1 Depth [C Send Level]	C
1011 nnnn (Bn)	0101 1101 (5D, 093)	0vvv vvvv (vv)	Effect 3 Depth [D Send Level]	C
1011 nnnn (Bn)	0ccc cccc (cc, ccc)	0vvv vvvv (vv)	Control Change [Recorded Sequence Data]ccc=000~127	C, Q
1100 nnnn (Cn)	0ppp pppp (pp, ppp)	----	Program Change [Program Number]	P
1101 nnnn (Dn)	0vvv vvvv (vv, vvv)	----	Channel Pressure [Aftertouch]	T
1110 nnnn (En)	0bbb bbbb (bb, bbb)	0bbb bbbb (bb)	Pitch Bend [Joystcik (X)]	C

nnnn:MIDI Channel Number 0~15 [1~16], Program Mode - Global Channel

VVVV:Velocity

vvvv:Value (000~127)

A :Always Enabled

C :Enabled when "Enable Control Change" in Global Mode is Checked

P :Enabled when "Enable Program Change" in Global Mode is Checked

B :Enabled when "Enable Bank Change" in Global Mode is Checked

T :Enabled when "Enable Aftertouch" in Global Mode is Checked
Q :Enabled when Sequencer is Playing(Transmit),Recording(Receive)

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(*1)-----+
| Key=[Hex,Dec] |
|-----|
| G 9 = 7F,127 | Oct.+2 Transpose+7 |
| C 9 = 78,120 | Octave +2 |
| C 8 = 6C,108 | Octave +1 |
| C 7 = 60,096 | 61Key |
| C 6 = 54,084 | |
| C 5 = 48,072 | |
| C 4 = 3C,060 | |
| C 3 = 30,048 | |
| C 2 = 24,036 | 61Key |
| C 1 = 18,024 | Octave -1 |
| C 0 = 0C,012 | Octave -2 |
| C#-1= 01,001 | Oct.-2 Transpose-11 |
| C-1 = 00,000 | Seq. Recorded Data |
+-----+
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(*2)-----+
|i30      :          MIDI Out[Hex(Dec)] |
|-----|
| A11~A88: MM , LL , pp =38(056),00(000),00~3F(000~063) |
| (When Discard KORG GM)=00(000),00(000),00~3F(000~063) |
| B11~B88: MM , LL , pp =38(056),00(000),40~7F(064~127) |
| (When Discard KORG GM)=00(000),00(000),40~7F(064~127) |
| C11~C88: MM , LL , pp =00(000),01(001),00~3F(000~063) |
| D11~D88: MM , LL , pp =00(000),01(001),40~7F(064~127) |
| E11~E88: MM , LL , pp =00(000),02(002),00~3F(000~063) |
| F11~F88: MM , LL , pp =00(000),03(002),00~3F(000~063) |
| G11~G88: MM , LL , pp =00(000),03(002),40~7F(064~127) |
| R Bank : MM , LL , pp =3E(062),00(000),pp |
| (When Discard KORG GM)=00(000),04(004),pp |
| R11      :          ,00(000) || R35      :          ,64(100) |
| R12      :          ,01(001) || R36      :          ,65(101) |
| R13      :          ,08(008) || R37      :          ,66(102) |
| R14      :          ,10(016) || R38      :          ,67(103) |
| R15      :          ,18(024) || R41      :          ,68(104) |
| R16      :          ,19(025) || R42      :          ,69(105) |
| R17      :          ,1A(026) || R43      :          ,6A(106) |
+-----+
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R18	:	,20(032)	R44	:	,6B(107)	
R21	:	,28(040)	R45	:	,6C(108)	
R22	:	,30(048)	R46	:	,6D(109)	
R23	:	,40(064)	R47	:	,6E(110)	
R24	:	,41(065)	R48	:	,6F(111)	
R25	:	,74(116)	R51	:	,48(072)	
R26	:	,38(056)	R52	:	,49(073)	
R27	:	,5E(094)	R53	:	,4A(074)	
R28	:	,5F(095)	R54	:	,4B(075)	
R31	:	,60(096)	R55	:	,4C(076)	
R32	:	,61(097)	R56	:	,4D(077)	
R33	:	,62(098)	R57	:	,4E(078)	
R34	:	,63(099)	R58	:	,4F(079)	
+-----+-----+						

1-2.System Common Messages

+-----+			
Status	Second	Third	Description
[Bin(Hex)]	[Bin(Hex)]	[Bin(Hex)]	
+-----+			
1111 0010 (F2)	0sss ssss (ss)	0ttt tttt (tt)	Song Position Pointer
			sss ssss : Least significant (LSB)
			ttt tttt : Most significant (MSB)
1111 0011 (F3)	0000 0000 (00)	0000 ssss (ss)	Song Select
			ssss:Song Number = 0~9
+-----+			
Transmitted when in Song mode (Internal Clock)			

1-3.System Realtime Messages

+-----+	
Status	Description
[Bin(Hex)]	
+-----+	
1111 1000 (F8)	Timing Clock
1111 1010 (FA)	Start
1111 1011 (FB)	Continue
1111 1100 (FC)	Stop
1111 1110 (FE)	Active Sensing
+-----+	

Transmitted when in ARR PLAY/BSEQ/SONG/SONG PLAY/E.STYLE mode when "Clock Source" is Internal.

1-4.Universal System Exclusive Messages (Device Inquiry Reply)

Byte	Description
[Bin(Hex)]	
1111 0000 (F0)	Exclusive Status
0111 1110 (7E)	Non Realtime Message
0000 gggg (0g)	Global MIDI Channel
0000 0110 (06)	Inquiry Message
0000 0010 (02)	Identity Reply
0100 0010 (42)	KORG ID
0100 1001 (49)	i30 (Family Code LSB)
0000 0000 (00)	i30 (Family Code MSB)
0000 0000 (00)	MemberCode (LSB)
0000 0000 (00)	MemberCode (MSB)
0??? ???? (??)	Minor Version (LSB)
0??? ???? (??)	Minor Version (MSB)
0??? ???? (??)	Major Version (LSB)
0??? ???? (??)	Major Version (MSB)
1111 0111 (F7)	End of Exclusive

1-5.Structure of KORG System Exclusive Messages

1st Byte = 1111 0000 (F0) : Exclusive Status

2nd Byte = 0100 0010 (42) : KORG

3rd Byte = 0011 gggg (3g) : g:Global Ch.

4th Byte = 0100 1001 (49) : i30

5th Byte = 0fff ffff (ff) : Function Code

6th Byte = 0ddd dddd (dd) : Data

|
LastByte = 1111 0111 (F7) : End of Exclusive

1-6.KORG System Exclusive Message Transmitted Function Code List

5th Byte	Description	
[Bin(Hex)]		
0100 0010 (42)	Mode Data	R
0100 1110 (4E)	Mode Change	C
0100 0000 (40)	Current Program Parameter Dump	R

0101 0010 (52)	Current Drum Program Parameter Dump	R
0110 0100 (64)	ARR(All Arrangement) Dump	R,D
0110 1000 (68)	ARG(Arrangement Global) Dump	R,D
0110 1001 (69)	ARK(All KBD Set) Dump	R,D
0100 1100 (4C)	PRG(All Program) Dump	R,D
0101 0001 (51)	GBL(Global) Dump	R,D
0110 0101 (65)	STY(Style Block) Dump	R,D
0110 0110 (66)	BSQ(All Backing Sequence) Dump	R,D
0100 1000 (48)	SNG(All Song) Dump	R,D
0010 0101 (26)	Received Message Format Error	R,E
0010 0001 (21)	Write Completed	E
0010 0010 (22)	Write Error	E
0010 0011 (23)	Data Load Completed(ACK)	E
0010 0100 (24)	Data Load Error(NAK)	E
0110 0111 (67)	Chord	
+-----+		

Transmitted when

- R : Request message is received
- C : Mode is Changed by switch
- D : Data dump from Global mode
- E : Exclusive message is received

2.Recognized Receive Data

2-1.Channel Messages

+-----+				
Status	Second	Third	Description [i30]	
[Bin (Hex)]	[Bin (Hex,Dec)]	[Bin (Hex)]		
+-----+				
1000 nnnn (8n)	0kkk kkkk (kk, kkk)	0100 0000 (40)	Note Off (*1)	A
1001 nnnn (9n)	0kkk kkkk (kk, kkk)	0000 0000 (00)	Note Off (*1)	A
1001 nnnn (9n)	0kkk kkkk (kk, kkk)	0VVV VVVV (VV)	Note On (*1)	A
			[Velocity]v=001~127 (Seq.:002~126 even number)	
1010 nnnn (An)	0kkk kkkk (kk, kkk)	0vvv vvvv (vv)	Poly Key Pressure[Recorded Sequence Data]	T,Q
1011 nnnn (Bn)	0000 0000 (00,000)	0MMM MMMM (MM)	Bank Selecet MSB [for Program/Arrangement Change] (*2)	B
1011 nnnn (Bn)	0010 0000 (20,032)	0LLL LLLL (LL)	Bank Selecet LSB [for Program/Arrangement Change] (*2)	B
1011 nnnn (Bn)	0000 0001 (01,001)	0vvv vvvv (vv)	Modulation 1 [Joystick (+Y)]	C
1011 nnnn (Bn)	0000 0010 (02,002)	0vvv vvvv (vv)	Modulation 2 [Joystick (-Y)]	C
1011 nnnn (Bn)	0000 0100 (04,004)	01xx xxxx (xx)	Foot Controller [KBD(Special)Scale On] xx=40~7F	C
		00xx xxxx (xx)	Foot Controller [KBD(Special)Scale Off=Normal Scale]	C

1011	nnnn	(Bn)	0000	0110	(06,006)	0vvv	vvvv	(vv)	Data Entry MSB	[for RPN Parameter Edit](*3)	C	
1011	nnnn	(Bn)	0010	0110	(26,038)	0vvv	vvvv	(vv)	Data Entry LSB	[for RPN Parameter Edit](*3)	C	
1011	nnnn	(Bn)	0000	0111	(07,007)	0vvv	vvvv	(vv)	Volume	[Volume]	C	
1011	nnnn	(Bn)	0000	1010	(0A,010)	0vvv	vvvv	(vv)	Panpot	[Pan]	C	
1011	nnnn	(Bn)	0000	1011	(0B,011)	0vvv	vvvv	(vv)	Expression	[Expression (invisible)]	C	
1011	gggg	(Bg)	0000	1100	(0C,012)	0vvv	vvvv	(vv)	Effect Control 1	[Dynamic Modulation Source=CC#12]	C	
1011	gggg	(Bg)	0000	1101	(0D,013)	0vvv	vvvv	(vv)	Effect Control 2	[Dynamic Modulation Source=CC#13]	C	
1011	nnnn	(Bn)	0100	0000	(40,064)	01xx	xxxx	(xx)	Damper Pedal On	[Damper Pedal] xx=40~7F	C	
						00xx	xxxx	(xx)	Damper Pedal Off	[Damper Pedal] xx=00~3F	C	
1011	nnnn	(Bn)	0100	1000	(48,072)	0vvv	vvvv	(vv)	Release Time	[Release time (invisible)] (*4)	C	
1011	nnnn	(Bn)	0100	1001	(49,073)	0vvv	vvvv	(vv)	Attack Time	[Attack time (invisible)] (*4)	C	
1011	nnnn	(Bn)	0100	1010	(4A,074)	0vvv	vvvv	(vv)	Brightness	[Brightness (invisible)] (*4)	C	
1011	nnnn	(Bn)	0101	1011	(5B,091)	0vvv	vvvv	(vv)	Effect 1 Depth	[C Send Level]	C	
1011	nnnn	(Bg)	0101	1100	(5C,092)	0xxx	xxxx	(xx)	Effect 2 Depth	[FX 1 (ACC FX 1)On] xx=01~7F	C	
						0000	0000	(00)	Effect 2 Depth	[FX 1 (ACC FX 1)Off]	C	
1011	nnnn	(Bn)	0101	1101	(5D,093)	0vvv	vvvv	(vv)	Effect 3 Depth	[D Send Level]	C	
1011	nnnn	(Bg)	0101	1110	(5E,094)	0xxx	xxxx	(xx)	Effect 4 Depth	[FX 2 (ACC FX 2)On] xx=01~7F	C	
						0000	0000	(00)	Effect 4 Depth	[FX 2 (ACC FX 2)Off]	C	
1011	nnnn	(Bn)	0110	0100	(64,100)	0000	00rr	(rr)	RPN Parameter Number(LSB) (*3)		C	
1011	nnnn	(Bn)	0110	0101	(65,101)	0000	0000	(00)	RPN Parameter Number(MSB) (*3)		C	
1011	nnnn	(Bn)	0111	1000	(78,120)	0000	0000	(00)	All Sound Off		C	
1011	nnnn	(Bn)	0111	1001	(79,121)	0000	0000	(00)	Reset All Controllers		C	
1011	nnnn	(Bn)	0ccc	cccc	(cc,ccc)	0vvv	vvvv	(vv)	Control Data [for Seq.Recording]	ccc=000~127	C	
1011	nnnn	(Bg)	0111	1010	(7A,122)	0111	1111	(7F)	Local Control On		A	
						0000	0000	(00)	Local Control Off			
1011	nnnn	(Bn)	0111	1011	(7B,123)	0000	0000	(00)	All Notes Off		A	
1011	nnnn	(Bn)	0111	1100	(7C,124)	0000	0000	(00)	Omni Mode Off	[All Notes Off]	A	
1011	nnnn	(Bn)	0111	1101	(7D,125)	0000	0000	(00)	Omni Mode On	[All Notes Off]	A	
1011	nnnn	(Bn)	0111	1110	(7E,126)	000m	mmmm	(mm)	Mono Mode On	[All Notes Off] mm=00~10	A	
1011	nnnn	(Bn)	0111	1111	(7F,127)	0000	0000	(00)	Poly Mode On	[All Notes Off]	A	
1100	nnnn	(Cn)	0ppp	pppp	(pp,ppp)	----	----		Program Change	[Program/Arrangement Number] (*2)	P	
1101	nnnn	(Dn)	0vvv	vvvv	(vv,vvv)	----	----		Channel Pressure	[Aftertouch]	T	
1110	nnnn	(En)	0bbb	bbbb	(bb,bbb)	0bbb	bbbb	(bb)	Pitch Bend	[Joystick (X)]	C	

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nnnn:MIDI Channel Number 0-15 [1~16],Program Mode - Global Channel

gggg:Always Global Channel

vvvv:Value x:Don't care

A :Always Enabled

C :Enabled when "Enable Control Change" in Global Mode is Checked

P :Enabled when "Enable Program Chanbe" in Global Mode is Checked

B :Enabled when "Enable Bank Chanbe" in Global Mode is Checked

T :Enabled when "Enable Aftertouch" in Global Mode is Checked

Q :Enabled when Sequencer is Playing(Transmit),Recording(Receive)

(*1)-----+	(*2)-----+
Key=[Hex,Dec]	MIDI IN [Dec(Hex)] :i30
-----	-----
G 9 = 7F,127	MM , LL , pp =000(00),000(00),000~063(00~3F) : A11~A88
C 9 = 78,120	=056(38),000(00),000~063(00~3F)
C 8 = 6C,108	MM , LL , pp =000(00),000(00),064~127(40~7F) : B11~B88
C 7 = 60,096	=056(38),000(00),064~127(40~7F)
C 6 = 54,084	MM , LL , pp =000(00),001(01),000~063(00~3F) : C11~C88
C 5 = 48,072	MM , LL , pp =000(00),001(01),064~127(40~7F) : D11~D88
C 4 = 3C,060	MM , LL , pp =000(00),002(02),000~063(00~3F) : E11~E88
C 3 = 30,048	MM , LL , pp =000(00),003(03),000~063(00~3F) : F11~F88
C 2 = 24,036	MM , LL , pp =000(00),003(03),064~127(40~7F) : G11~G88
C 1 = 18,024	MM , LL , pp =000(00),004(04),ppp(pp) : R Bank
C 0 = 0C,012	=062(3E),000(00),ppp(pp)
C#-1= 01,001	(GM Kit 1) ,000 (00) : R11
C-1 = 00,000	(GM Kit 2) ,001 (01) : R12
+-----+	,002~007(02~07) : R11
(*3)-----+	(Room Kit) ,008~015(08~0F) : R13
RPN	(Power Kit) ,016~023(10~17) : R14
-----	(Electronic Kit) ,024 (18) : R15
PitchBend Sens. [PitchBend Range]	(Analog Kit) ,025 (19) : R16
CC#101=000 (Bn 65 00)	(Dance Kit) ,026 (1A) : R17
CC#100=000 (Bn 64 00)	,027~031(1B~1F) : R15
CC#006=000~127 (Bn 06 00~7F)	(Jazz Kit) ,032~039(20~27) : R18
(*net=000~012 : +00~+12)	(Brush Kit) ,040~047(28~2F) : R21
CC#038=ignore	(Orchestra Kit) ,048~055(30~37) : R22
-----	(SFX Kit) ,056~063(38~3F) : R26
Fine Tune [Detune]	(Percussion Kit) ,064 (40) : R23
CC#101=000 (Bn 65 00)	(Latin Perc. Kit) ,065 (41) : R24
CC#100=001 (Bn 64 01)	,066~071(42~47) : R23
CC#006=000~127 (Bn 06 00~7F)	(User Kit 1) ,072 (48) : R51
CC#038=000~127 (Bn 26 00~7F)	(User Kit 2) ,073 (49) : R52
(*net=032,081~064,000~096,000	(User Kit 3) ,074 (4A) : R53
: -50 ~ +00 ~ +50)	(User Kit 4) ,075 (4B) : R54
ARR PLAY/B.SEQ/SONG/SONG PLAY/E.STYLE	(User Kit 5) ,076 (4C) : R55
act as Chennel's Transpose.	,077 (4D) : R56
GLOBAL (User Kit 6)	(User Kit 7) ,078 (4E) : R57
When received Global MIDI Channel,	(User Kit 8) ,079 (4F) : R58
act as "Master Tune"(Global Mode)	,080~093(50~5D) : R11~R26

-----		(Techno Kit)	,094	(5E)	: R27	
Coarse Tune [Transpose]		(Rock Kit)	,095	(5F)	: R28	
CC#101=000 (Bn 65 00)		(i30 Perc. Kit)	,096	(60)	: R31	
CC#100=002 (Bn 64 02)		(i30 Latin Perc.)	,097	(61)	: R32	
CC#006=000~127 (Bn 06 00~7F)		(GM Kit 3)	,098	(62)	: R33	
(*net=040~064~088		(Ballad Kit)	,099	(63)	: R34	
: +24~+00~+24)		(Jazz Kit 2)	,100	(64)	: R35	
CC#038=ignore		(R & B Kit)	,101	(65)	: R36	
at every Note On		(Techno Kit2)	,102	(66)	: R37	
+-----+	+	(Brush Kit 2)	,103	(67)	: R38	
		(Lo-Fi Kit)	,104	(68)	: R41	
		(Pop Kit)	,105	(69)	: R42	
		(i30 Rock Kit)	,106	(6A)	: R43	
		(Defness Kit)	,107	(6B)	: R44	
(*4)-----+	+	(Drum'n'Bass Kit)	,108	(6C)	: R45	
vv=000~063(00~3F) : Fast or Dark		(Analog Kit 2)	,109	(6D)	: R46	
vv=064(40) : No Change		(Kicks & Snare)	,110	(6E)	: R47	
vv=065~127(41~7F) : Slow or Bright		(Tom & HH & Sym)	,111	(6F)	: R48	
+-----+	+		,112~115(70~73)		: R11	
		(Arabian Kit)	,116	(74)	: R25	
			,117~127(75~7F)		: R11	
			+-----+			

2-2.System Common Messages

+-----+			
Status	Second	Third	Description
[Bin(Hex)]	[Bin(Hex)]	[Bin(Hex)]	
+-----+			
1111 0010 (F2)	0sss ssss (ss)	0ttt tttt (tt)	Song Position Pointer
			sss ssss : Least significant (LSB)
			ttt tttt : Most significant (MSB)
1111 0011 (F3)	0000 0000 (00)	0000 ssss (ss)	Song Select
			ssss:Song Number = 0~9
+-----+			

These messages are received when "Clock Source" is External and Sequencer stop.

(ex.)If all measure's "Meter" are 4/4.

F2 ss tt : Measure.Beat.Tick

F2 00 00 : 001.1.00

F2 01 00 : 001.1.24 (6 MIDI Clock)

F2 10 00 : 002.1.00 (96 MIDI Clock)

F2 20 00 : 003.1.00


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      |
F2 00 01 : 009.1.00
      |
F2 60 7C : 999.1.00

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2-3.System Realtime Messages

Status	Description
[Bin(Hex)]	
1111 1000 (F8)	Timing Clock
1111 1010 (FA)	Start
1111 1011 (FB)	Continue
1111 1100 (FC)	Stop
1111 1110 (FE)	Active Sensing

Received in ARR PLAY/BSEQ/SONG/E.STYLE mode when "Clock Source" is External.

2-4.Universal System Exclusive Message (Non Realtime) Inquiry Message Request

Byte	Description
[Bin(Hex)]	
1111 0000 (F0)	Exclusive Status
0111 1110 (7E)	Non Realtime Message
0ggg gggg (gg)	Global MIDI Channel
0000 0110 (06)	General Information (Sub ID 1)
0000 0001 (01)	Identity Request (Sub ID 2)
1111 0111 (F7)	End of Exclusive (EOX)

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

General MIDI Mode ON

Byte	Description
[Bin(Hex)]	
1111 0000 (F0)	Exclusive Status

0111 1110 (7E)	Non Realtime Message	
0ggg gggg (gg)	Global MIDI Channel	
0000 1001 (09)	General MIDI Message (Sub ID 1)	
0000 0001 (01)	General MIDI On (Sub ID 2)	
1111 0111 (F7)	End of Exclusive (EOX)	

Received in SONG PLAY mode except when Sequencer playing.

2-5.Universal System Exclusive Message (Realtime)

Master Volume

Byte	Description
[Bin(Hex)]	
1111 0000 (F0)	Exclusive Status
0111 1111 (7F)	Realtime Message
0ggg gggg (gg)	Global MIDI Channel
0000 0100 (04)	Device Control (Sub ID 1)
0000 0001 (01)	Master Volume (Sub ID 2)
0vvv vvvv (vv)	Value(LSB)
0mmm mmmm (mm)	Value(MSB)
1111 0111 (F7)	End of Exclusive (EOX)

mm,vv=00,00 ~ 7F,7F : Min ~ Max

Master Balance

Byte	Description
[Bin(Hex)]	
1111 0000 (F0)	Exclusive Status
0111 1111 (7F)	Realtime Message
0ggg gggg (gg)	Global MIDI Channel
0000 0100 (04)	Device Control (Sub ID 1)
0000 0010 (02)	Master Balance (Sub ID 2)
0vvv vvvv (vv)	Value(LSB)
0mmm mmmm (mm)	Value(MSB)
1111 0111 (F7)	End of Exclusive (EOX)

mm,vv=00,00 ~ 40,00 ~ 7F,7F : Left ~ Center ~ Right

2-6.KORG System Exclusive Message Received Function Code List

5th Byte [Bin(Hex)]	Description	
0100 0010 (12)	Mode Request	A,r-42
0100 1110 (4E)	Mode Change	A,r-23
0001 0000 (10)	Program Parameter Dump Request	P,r-40
0000 1101 (0D)	Drum Program Parameter Dump Request	P,r-52
0011 0000 (30)	ARR(All Arrangement) Dump Request	M,r-64
0011 0011 (33)	ARG(Arrangement Global) Dump Request	M,r-68
0011 0100 (34)	ARK(All KBD Set) Dump Request	M,r-69
0001 1100 (1C)	PRG(All Program) Dump Request	M,r-4C
0000 1110 (0E)	GBL(Global) Dump Request	M,r-51
0011 0001 (31)	STY(Style Block) Dump Request	M,r-65
0011 0010 (32)	BSQ(All Backinh Sequence) Dump Request	M,r-66
0001 1000 (18)	SNG(All Song) Dump Request	M,r-48
0100 0000 (40)	Current Program Parameter Dump	P,r-23
0101 0010 (52)	Current Drum Program Parameter Dump	P,r-23
0110 0100 (64)	ARR(All Arrangement) Dump	G,r-23
0110 1000 (68)	ARG(Arrangement Global) Dump	G,r-23
0110 1001 (69)	ARK(All KBD Set) Dump	G,r-23
0100 1100 (4C)	PRG(All Program) Dump	G,r-23
0101 0001 (51)	GBL(Global) Dump	G,r-23
0110 0101 (65)	STY(Style Block) Dump	G,r-23
0110 0110 (66)	BSQ(All Backing Sequence) Dump	G,r-23
0100 1000 (48)	SNG(All Song) Dump	G,r-23
0100 0001 (41)	Program Parameter Change	P,r-23
0101 0011 (53)	Drum Program Parameter Change	P,r-23
0001 0001 (11)	Program & Drum Program Write Request	P,r-21
0110 0111 (67)	Chord	A

Received when

G : "Receive Dumped Data" dialog is opened.
 M : "Filter,MIDI" page is opened.
 P : in Program mode.
 A : in All mode.
 r-XX : Reply Function Number
 (Transmitted after the message has been received.)

3.MIDI Exclusive Format (R:Receive, T:Transmit)
Please see 1-5 "Structure of KORG System Exclusive Messages"

(1) Mode Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0001 0010 (12)	MODE REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits MODE DATA(42) message.

(2) Mode Data -,T

Byte	Description	
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]	0m=0A :ARR PLAY
0100 0010 (42)	MODE DATA	=0B :BACKING SEQ
0000 mmmm (0m)	Mode	=06 :SONG
0000 0000 (00)		=05 :SONG PLAY
1111 0111 (F7)	End of Exclusive (EOX)	=02 :PROGRAM
		=09 :E.STYLE
		=04 :GLOBAL
		=08 :DISK

Receives MODE REQUEST(12) message, and transmits this message and data.

(3) Mode Change R,T

Byte	Description	
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]	0m=0A :ARR PLAY
0100 1110 (4E)	MODE CHANGE	=0B :BACKING SEQ
0000 mmmm (0m)	Mode	=06 :SONG
1111 0111 (F7)	End of Exclusive (EOX)	=05 :SONG PLAY
		=02 :PROGRAM
		=09 :E.STYLE
		=04 :GLOBAL
		=08 :DISK

Receives this message and data, changes the Mode. When the mode is changed by switch, this message and data is transmitted. At the same time "i-series" ID(39) is transmitted for "ih".

(4) ARR(All Arrangement) Dump Request R,-

Byte	Description
------	-------------

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0011 0000 (30)	ARR DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits ARR DUMP(64) message.

(5) ARG(Arrangement Global) Dump Request	R,-
Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0011 0011 (33)	ARG DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits ARG DUMP(64) message.

(6) ARK(All KBD Set) Dump Request	R,-
Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0011 0100 (34)	ARK DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits ARK DUMP(69) message.

(7) PRG(All Program) Dump Request	R,-
Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0001 1100 (1C)	PRG DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits PRG DUMP(4C) message.

(8) GBL(Global) Dump Request	R,-
Byte	Description

F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0000 1110 (0E)	GBL DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits GBL DUMP(51) message.

(9) STY(Style Block) Dump Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0011 0001 (31)	STY DUMP REQUEST
0000 bbbb (0b)	Style Block Number : 1~12 0b:00~0B
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits STY DUMP(65) message.

(10) BSQ(All Backing Sequence) Dump Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0011 0010 (32)	BSQ DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits BSQ DUMP(66) message.

(11) SNG(All Song) Dump Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0001 1000 (18)	SNG DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits SNG DUMP(48) message.

(12) Program Parameter Dump Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]

```
| 0001 0000 (10) | PROGRAM PARAMETER DUMP REQUEST
| 1111 0111 (F7) | End of Exclusive (EOX)
```

Receives this message, and transmits CURRENT PROGRAM PARAMETER(40).

(13) Drum Program Parameter Dump Request R, -

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0000 1101 (0D)	DRUM PROGRAM PARAMETER DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits CURRENT DRUM PROGRAM PARAMETER(52).

(14) ARR (All Arrangement) Dump R, T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0110 0100 (64)	ARR DUMP
0ddd dddd (dd)	Data
1111 0111 (F7)	End of Exclusive (EOX)

Receives ARR DUMP REQUEST(30) message, and transmits this message & data.

Transmits this message & data when "Dump Arrangements" is executed.

NOTE 1:DUMP DATA CONVERT

Data <-> MIDI Data

```
*** Data (1set = 8bit x 7Byte) ****
```

* b7 b0 b7 b0 b7 b0 b7 b0 *

$$* \quad |Y|X|X|X|X|X|X|X| \quad |Y|X|X|X|X|X|X|X| \quad |Y|X|X| \dots |X|X|X| \quad |Y|X|X|X|X|X|X|X| \quad *$$
$$\begin{array}{ccccccc} * & & 7n+0 & & 7n+1 & & 7n+2 \dots 7n+5 & & 7n+6 & & * \end{array}$$

```
*** MIDI Data (1 Set = 7bit x 8Byte) ****
```

* b7b7b7b7b7b7b7 b6 b0 b6 b0 b6 b0 *

$$* \quad |0|Y|Y|Y|Y|Y|Y|Y| \quad |0|X|X|X|X|X|X|X| \quad |0|X|X|\dots|X|X|X| \quad |0|X|X|X|X|X|X|X| \quad *$$
$$* \quad 7n+6, 5, 4, 3, 2, 1, 0 \quad 7n+0 \quad 7n+1 \quad \dots \quad 7n+5 \quad 7n+6 \quad *$$

NOTE 2:ARR DUMP FORMAT

[Arrangement C11], ..., [Arrangement D88]

Data: 164 x 128 = 20992[Byte]

MIDI: $7 \times 2998 + 6 = 20992 \rightarrow 8 * 2998 + (1 + 6) = 23991$ [Byte]

(15) ARG(Arrangement Global) Dump R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0110 1000 (68)	ARG DUMP
0ddd dddd (dd)	Data
1111 0111 (F7)	End of Exclusive (EOX)

Receives ARG DUMP REQUEST(33) message, and transmits this message & data.

Transmits this message & data when "Dump Arrangement Global" is executed.

NOTE 3:ARG DUMP FORMAT

Data: 48[Byte]

MIDI: $7 \times 6 + 6 = 48 \rightarrow 8 \times 6 + (1 + 6) = 55$ [Byte]

(16) ARK(All KBD Set) Dump R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0110 1001 (69)	ARK DUMP
0ddd dddd (dd)	Data
1111 0111 (F7)	End of Exclusive (EOX)

Receives ARK DUMP REQUEST(34) message, and transmits this message & data.

Transmits this message & data when "Dump KBD Sets" is executed.

NOTE 4:ARK DUMP FORMAT

[KBD SET 11], ..., [KBD SET 88]

Data: $56 \times 64 = 3584$ [Byte]

MIDI: $7 \times 512 = 3584 \rightarrow 8 \times 512 = 4096$ [Byte]

(17) PRG(All Program) Dump R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0100 1100 (4C)	PRG DUMP
0ddd dddd (dd)	Data
1111 0111 (F7)	End of Exclusive (EOX)

Receives PRG DUMP REQUEST(1C) message, and transmits this message & data.

Transmits this message & data when "Dump Programs" is executed.

NOTE 5:PRG DUMP FORMAT

[Program F11],..., [Program G88]
,[Program R51],..., [Program R58]
,[Drum Kit R51],..., [Drum Kit R58]
Data: $172 \times 128 + 172 \times 8 + 880 \times 8 = 30432$ [Byte]
MIDI: $7 \times 4347 + 3 = 30432 \rightarrow 8 \times 4347 + (1+3) = 34780$

(18) GBL(Global) Dump R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0101 0001 (51)	GBL DUMP
0ddd dddd (dd)	Data
1111 0111 (F7)	End of Exclusive (EOX)

Receives GBL DUMP REQUEST(0E) message, and transmits this message & data.

Transmits this message & data when "Dump Global Setting" is executed.

NOTE 6:GBL DUMP FORMAT

Data: 416 [Byte]
MIDI: $7 \times 59 + 3 = 416 \rightarrow 8 \times 59 + (1+3) = 476$

(19) STY(Style Block) Dump R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0110 0101 (65)	STY DUMP
0000 bbbb (0b)	Style Block Number : 1~12 0b:00~0B
0ddd dddd (dd)	Data
1111 0111 (F7)	End of Exclusive (EOX)

Receives STY DUMP REQUEST(31) message, and transmits this message & data.

Transmits this message & data when "Dump Styles" is executed.

NOTE 7:STY DUMP FORMAT

[Style C11],..., [Style C68]
Style Header (Block 1:C11~14...32 [Byte])
Style Data (Block 1:C11~14...1176 x 4 + Seq.Data [Byte])
Min Data: $32 + 1176 \times 4 + \text{Seq.Data} = 4704$ [Byte]
MIDI: $7 \times 672 = 4704 \rightarrow 8 \times 672 = 5376$
Max Data: $32 + 1176 \times 4 + \text{Seq.Data} = 65504$ [Byte]

MIDI: $7 \times 9357 + 5 = 65504 \rightarrow 8 \times 9357 + (1+5) = 74862$
 Style Header (Block 2:C15~18...32[Byte])
 Style Data (Block 2:C15~18...1176 x 4 + Seq.Data[Byte])
 |
 Style Header (Block12:C65~68...32[Byte])
 Style Data (Block12:C65~68...1176 x 4 + Seq.Data[Byte])

(20) BSQ(All Backing Sequence) Dump R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0110 0110 (66)	BSQ DUMP
0sss ssss (ss)	Backing Sequence Data Size(LSB:bit 6~0)
0sss ssss (ss)	Backing Sequence Data Size(MSB:bit13~7)
0ddd dddd (dd)	Control Data
0ddd dddd (dd)	Backing Sequence Data
1111 0111 (F7)	End of Exclusive (EOX)

Receives BSQ DUMP REQUEST(32) message, and transmits this message & data.
 Transmits this message & data when "Dump Backing Sequences" is executed.

NOTE 8:BSQ DUMP FORMAT

[Backing SEQ 0],..., [Backing SEQ 9]
 Backing Sequence Data Size
 4 step = 16 Byte = 1 size
 Backing Sequence Control Data (2642[Byte])
 Backing Sequence Data
 [BSEQ 1st Data(4 Byte)],..., [BSEQ nth Data]
 n:BSEQ Data Step = 0~65536
 Data: $2642 + 4 \times [\text{BSEQ Data Step}]$
 MIDI: $= 7 \times A + B \rightarrow B = 1 \sim 7 \dots 8 \times A + (1+B), B = 0 \dots 8 \times A$

(21) SNG(All Song) Dump R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0100 1000 (48)	SNG DUMP
0sss ssss (ss)	Song Data Size
0ddd dddd (dd)	Control Data
0ddd dddd (dd)	Song Data
1111 0111 (F7)	End of Exclusive (EOX)

```

+-----+
  Receives SNG DUMP REQUEST(18) message, and transmits this message & data.
  Transmits this message & data when "Dump Songs" is executed.

```

NOTE 9:SNG DUMP FORMAT

```

  [Song 0],..., [Song 9]
  Song Data Size
    4 step = 16 Byte = 1 size
  Song Control Data  (3922[Byte])
  Song Data
    [Song 1st Data(4 Byte)],..., [Song nth Data]
    n:BSEQ Data Step = 0~65536
    Data: 3922+4x[Song Data Step]
    MIDI: =7xA+B -> B=1~7...8xA+(1+B), B=0...8xA

```

(22) Current Program Parameter Dump R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0100 0000 (40)	CURRENT PROGRAM PARAMETER DUMP
0ddd dddd (dd)	Data
1111 0111 (F7)	End of Exclusive (EOX)

```

+-----+
  Receives PROGRAM PARAMETER DUMP REQUEST(10) message,
  and transmits this message & data.

```

NOTE 10:Current Program Parameter DUMP FORMAT

```

  [Parameter No.000],..., [Parameter No.171]
  Data: 172[Byte]
  MIDI: =7x24+4=172 -> 8x24+(1+4)=197

```

(23) Current Drum Program Parameter Dump R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0101 0010 (52)	CURRENT DRUM PROGRAM PARAMETER DUMP
0ddd dddd (dd)	Data
1111 0111 (F7)	End of Exclusive (EOX)

```

+-----+
  Receives DRUM PROGRAM PARAMETER DUMP REQUEST(0D) message,
  and transmits this message & data.

```

NOTE 11:Current Drum Program Parameter DUMP FORMAT

[Prog.Parameter No.000],..., [Prog.Parameter No.171]
 [Drum Kit Parameter No.000],..., [Drum Kit Parameter No.879]
 Data: 172+880=1052[Byte]
 MIDI: =7x150+2=1052 -> 8x150+(1+2)=1203

(24) Program Parameter Change R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0100 0001 (41)	PROGRAM PARAMETER CHANGE
0000 0000 (00)	Reserve
0ppp pppp (pp)	Parameter Number (LSB bit 6~0)
0ppp pppp (pp)	Parameter Number (MSB bit13~7)
0vvv vvvv (vv)	Value (LSB bit 6~0)
0vvv vvvv (vv)	Value (MSB bit13~7)
1111 0111 (F7)	End of Exclusive (EOX)

See "PROGRAM PARAMETERS" (except "FX PARAMETERS") .

NOTE 12:Parameter Number and Value Data Format

Parameter Number,Parameter Value

MSB LSB
 |M5|M5|M5|M4|M3|M2|M1|M0| |L7|L6|L5|L4|L3|L2|L1|L0|

MIDI Data

MSB LSB
 | 0|M5|M4|M3|M2|M1|M0|L7| | 0|L6|L5|L4|L3|L2|L1|L0|

(Ex) " OSC 1 Multisample=298 "

Param No.=020 (14 Hex), Value=298 (012A Hex)

MIDI Data=F0,42,3g,49,41,00,14,00,2A,02,F7

(25) Drum Program Parameter Change R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0101 0011 (53)	DRUM PROGRAM PARAMETER CHANGE
0000 0000 (00)	Reserve
0ppp pppp (pp)	Parameter Number (LSB bit 6~0)
0ppp pppp (pp)	Parameter Number (MSB bit13~7)
0vvv vvvv (vv)	Value (LSB bit 6~0)
0vvv vvvv (vv)	Value (MSB bit13~7)
1111 0111 (F7)	End of Exclusive (EOX)

```

+-----+
See "PROGRAM PARAMETERS""DRUM KIT PARAMETERS" (except"FX PARAMETERS") .
NOTE 13:[Prog.Parameter No.000]=[Prog.Parameter No.000]
      ,..., [Prog.Parameter No.171]=[Prog.Parameter No.171]
      , [Drum Kit Parameter No.000]=[Prog.Parameter No.172]
      ,..., [Drum Kit Parameter No.879]=[Prog.Parameter No.1051]
(Ex) " Bb0 Drumsample=126 "
      Param No.=182 (B6 Hex), Value=126 (007F Hex)
      MIDI Data=F0,42,3g,49,53,00,36,01,7E,00,F7

```

(26) Program & Drum Program Write Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0001 0001 (11)	PROGRAM & DRUM PROGRAM WRITE REQUEST
0000 0bbb (0b)	Bank Number (03:FG, 04:DRUM)
0ppp pppp (pp)	Program Number (FG:00~7F, R:20~27)
1111 0111 (F7)	End of Exclusive (EOX)

(27) Write Completed -,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0010 0001 (21)	WRITE COMPLETED
1111 0111 (F7)	End of Exclusive (EOX)

(28) Write Error -,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0010 0010 (22)	WRITE ERROR
1111 0111 (F7)	End of Exclusive (EOX)

(29) Received Message Format Error -,T

Byte	Description
------	-------------

F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0010 0101 (26)	RECEIVED MESSAGE FORMAT ERROR
1111 0111 (F7)	End of Exclusive (EOX)

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

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0010 0011 (23)	DATA LOAD COMPLETED (ACK)
1111 0111 (F7)	End of Exclusive (EOX)

(31) Data Load ERROR (NAK) -,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0010 0011 (23)	DATA LOAD ERROR (NAK)
1111 0111 (F7)	End of Exclusive (EOX)

(32) Chord -,T

Byte	Description
F0,42,3g,39	i30 Exclusive Header g;Global Channel [Hex]
0110 0111 (67)	CHORD
0000 rrrr (0r)	Root (C:00 ~ B:0B)
0000 bbbb (0b)	Bass (C:00 ~ B:0B)
0ccc cccc (0c)	Chord Type (LSB)
000c cccc (0c)	Chord Type (MSB)
0ttt tttt (0t)	Tension note(s) (LSB)
000t tttt (0t)	Tension note(s) (MSB)
1111 0111 (F7)	End of Exclusive (EOX)

Note 14:CHORD Type

Chord Type	MSB	LSB
	B -A-G	-FE -D-C

	No Chord		0000 0000 (00)		0000 0000 (00)
	dim		0000 0000 (00)		0100 1001 (49)
	sus2		0000 0001 (01)		0000 0101 (05)
	m		0000 0001 (01)		0000 1001 (09)
	major		0000 0001 (01)		0001 0001 (11)
	sus4		0000 0001 (01)		0010 0001 (21)
	aug		0000 0010 (02)		0001 0001 (11)
	m6		0000 0101 (05)		0000 1001 (09)
	6		0000 0101 (05)		0001 0001 (11)
	m7b5		0000 1000 (08)		0100 1001 (49)
	7b5		0000 1000 (08)		0101 0001 (51)
	m7		0000 1001 (09)		0000 1001 (09)
	7sus4		0000 1001 (09)		0010 0001 (21)
	aug7		0000 1010 (0A)		0001 0001 (11)
	dimM7		0001 0000 (10)		0100 1001 (49)
	M7b5		0001 0000 (10)		0101 0001 (51)
	mM7		0001 0001 (11)		0000 1001 (09)
	M7		0001 0001 (11)		0001 0001 (11)
	M7sus4		0001 0001 (11)		0010 0001 (21)
	augM7		0001 0010 (12)		0001 0001 (11)
+-----+					

Note 15:Tension Note(s)

+-----+					
	Tension		MSB		LSB

	b9		0000 0000 (00)		0000 0010 (00)
	9		0000 0000 (00)		0000 0100 (04)
	#9		0000 0000 (00)		0000 1000 (08)
	11		0000 0000 (00)		0010 0000 (20)
	#11		0000 0000 (00)		0100 0000 (40)
	b13		0000 0010 (02)		0000 0000 (00)
	13		0000 0100 (04)		0000 0000 (00)
+-----+					

4.Parameter Tables

ARRANGEMENT PARAMETERS

+-----+			
No.	Parameter	Data (h)	Value

Arrangement C11 Parameters				

000	Arrangement Name (1/16)	20~7E	" " ~ "~"	
001	Arrangement Name (2/16)		(ASCII Code)	
002	Arrangement Name (3/16)			
003	Arrangement Name (4/16)			
004	Arrangement Name (5/16)			
005	Arrangement Name (6/16)			
006	Arrangement Name (7/16)			
007	Arrangement Name (8/16)			
008	Arrangement Name (9/16)			
009	Arrangement Name (10/16)			
010	Arrangement Name (11/16)			
011	Arrangement Name (12/16)			
012	Arrangement Name (13/16)			
013	Arrangement Name (14/16)			
014	Arrangement Name (15/16)			
015	Arrangement Name (16/16)			
016	Arrangement Category	00~0F	8 Beat~User 4	
017	Style No.	00~7F		[Style No.] [Style Bank]
018	Style Bank	00,01		Bank=00, No.=00~7F : A11~A88~B88
019	Initial Variation (1/2)	00~03	Var.1~4	Bank=01, No.=00~2F : C11~C68
020	Initial Variation (2/2)		00:->Var.1~4	
	(b3) Fill	0,1	04: Intro 1	
	(b2) Intro	0,1	05: Intro 2	
	(b1) ...Reserve	-----	08: Fill 1	
	(b0) 1 or 2	0,1	09: Fill 2	
021	Initial Tempo	0A~D2	40~240	
022	FULL KBD PLAY	00,01	Off, On	
023	Split Point	24~60	C2~C7	
024	Ensemble Type	00~09	Duet~Brass Ens.	
025	Transpose	F5~0B	-11~+11	
026	...Reserve	-----	-----	
027	...Reserve	-----	-----	
028	Chord Scan Parameters			
	(b7) ...Reserve	-----	-----	
	(b6) ...Reserve	-----	-----	
	(b5) ... (Lower Type)	(0,1)	(Normal, Easy)	"Lower type" is effective
	(b4) ...Reserve	-----	-----	at first released system.
	(b3) ...Reserve	-----	-----	
	(b2) ...Reserve	-----	-----	[Chord Scanning]

		(b1)Chord Scan Upper	0,1	Off,On	00:Off 02:Upper
		(b0)Chord Scan Lower	0,1	Off,On	01:Lower 03:FULL
029		Var.1 Default Drum Map	00~07	Map 1~8	
030		Var.2 Default Drum Map	00~07	Map 1~8	
031		Var.3 Default Drum Map	00~07	Map 1~8	
032		Var.4 Default Drum Map	00~07	Map 1~8	
033		Kick Designation	00~03	A~D	
034		Snare Designation	00~03	A~D	[Fill 1][Fill 2]
035		...Reserve	-----	-----	00:Off 07:1<->4
036		...Reserve	-----	-----	01:->1 08:2<->3
037		Fill 1(Var.Change)	00~0C	Off~Down	02:->2 09:2<->4
038		Fill 2(Var.Change)	00~0C	Off~Down	03:->3 0A:3<->4
-----					04:->4 0B:Up
DRUMS PARAMETERS					05:1<->2 0C:Down
-----					06:1<->3
039		Program No.	00~7F		
040		Program Bank	00~04		[Program No.][Program Bank]
041		Volume	00~7F	000~127	Bank=00,No.=00~7F : A11~A88~B88
042		Pan	FF~1F	Off~Prog	Bank=01,No.=00~7F : C11~C88~D88
043		(b7~b4)C Send Level	0~A	0~9,Prog	Bank=02,No.=00~3F : E11~E88
		(b3~b0)D Send Level	0~A	0~9,Prog	Bank=03,No.=00~7F : F11~F88~G88
044		...Reserve	-----	-----	Bank=04,No.=00~27 : R11~R58
045		Out Status			[Pan]
		(b7)...Reserve	-----	-----	FF : OFF
		(b6)...Reserve	-----	-----	00 : L15
		(b5)...Reserve	-----	-----	
		(b4)Synchro Backing	0,1	Off,On	0F : CNT
		(b3)...Reserve	-----	-----	
		(b2)Mute/Play	0,1	Play,Mute	1E : R15
		(b1)External Out	0,1	Off,On	1F : PROG
		(b0)Internal Out	0,1	Off,On	
046		...Reserve	-----	-----	

PERC PARAMETERS					

047		Program No.	00~7F		
048		Program Bank	00~04		
049		Volume	00~7F	000~127	
050		Pan	FF~1F	Off~Prog	
051		(b7~b4)C Send Level	0~A	0~9,Prog	
		(b3~b0)D Send Level	0~A	0~9,Prog	
052		...Reserve	-----	-----	

053	Out Status		-----		-----	
	(b7)...Reserve		-----		-----	
	(b6)...Reserve		-----		-----	
	(b5)...Reserve		-----		-----	
	(b4)Synchro Backing		0,1		Off,On	
	(b3)...Reserve		-----		-----	
	(b2)Mute/Play		0,1		Play,Mute	
	(b1)External Out		0,1		Off,On	
	(b0)Internal Out		0,1		Off,On	
054	...Reserve		-----		-----	

BASS PARAMETERS						

055	Program No.		00~7F			
056	Program Bank		00~04			
057	Volume		00~7F		000~127	
058	Pan		FF~1F		Off~Prog	
059	(b7~b4)C Send Level		0~A		0~9,Prog	
	(b3~b0)D Send Level		0~A		0~9,Prog	
060	Octave		FE~02		-2~+2	
061	Out Status					
	(b7)...Reserve		-----		-----	
	(b6)...Reserve		-----		-----	
	(b5)...Reserve		-----		-----	
	(b4)Synchro Backing		0,1		Off,On	
	(b3)...Reserve		-----		-----	
	(b2)Mute/Play		0,1		Play,Mute	
	(b1)External Out		0,1		Off,On	
	(b0)Internal Out		0,1		Off,On	
062	Wrap-Around Point		FF~0B		Style~12	

ACC1 PARAMETERS						

063	Program No.		00~7F			
064	Program Bank		00~04			
065	Volume		00~7F		000~127	
066	Pan		FF~1F		Off~Prog	
067	(b7~b4)C Send Level		0~A		0~9,Prog	
	(b3~b0)D Send Level		0~A		0~9,Prog	
068	Octave		FE~02		-2~+2	
069	Out Status					
	(b7)...Reserve		-----		-----	

		(b6)...Reserve		-----		-----	
		(b5)...Reserve		-----		-----	
		(b4)Synchro Backing		0,1		Off,On	
		(b3)...Reserve		-----		-----	
		(b2)Mute/Play		0,1		Play,Mute	
		(b1)External Out		0,1		Off,On	
		(b0)Internal Out		0,1		Off,On	
070		Wrap-Around Point		FF~0B		Style~12	

ACC2 PARAMETERS

071		Program No.		00~7F			
072		Program Bank		00~04			
073		Volume		00~7F		000~127	
074		Pan		FF~1F		Off~Prog	
075		(b7~b4)C Send Level		0~A		0~9,Prog	
		(b3~b0)D Send Level		0~A		0~9,Prog	
076		Octave		FE~02		-2~+2	
077		Out Status					
		(b7)...Reserve		-----		-----	
		(b6)...Reserve		-----		-----	
		(b5)...Reserve		-----		-----	
		(b4)Synchro Backing		0,1		Off,On	
		(b3)...Reserve		-----		-----	
		(b2)Mute/Play		0,1		Play,Mute	
		(b1)External Out		0,1		Off,On	
		(b0)Internal Out		0,1		Off,On	
078		Wrap-Around Point		FF~0B		Style~12	

ACC3 PARAMETERS

079		Program No.		00~7F			
080		Program Bank		00~04			
081		Volume		00~7F		000~127	
082		Pan		FF~1F		Off~Prog	
083		(b7~b4)C Send Level		0~A		0~9,Prog	
		(b3~b0)D Send Level		0~A		0~9,Prog	
084		Octave		FE~02		-2~+2	
085		Out Status					
		(b7)...Reserve		-----		-----	
		(b6)...Reserve		-----		-----	
		(b5)...Reserve		-----		-----	

	(b4)Synchro Backing	0,1	Off,On
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play,Mute
	(b1)External Out	0,1	Off,On
	(b0)Internal Out	0,1	Off,On
086	Wrap-Around Point	FF~0B	Style~12

MainKBD PARAMETERS			

087	Program No.	00~7F	
088	Program Bank	00~04	
089	Volume	00~7F	000~127
090	Pan	FF~1F	Off~Prog
091	(b7~b4)C Send Level	0~A	0~9,Prog
	(b3~b0)D Send Level	0~A	0~9,Prog
092	Octave	FE~02	-2~+2
093	Out Status		
	(b7)...Reserve	-----	-----
	(b6)Enable Damper Pedal	0,1	Off,On
	(b5)Enable Joystick X	0,1	Off,On
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play,Mute
	(b1)External Out	0,1	Off,On
	(b0)Internal Out	0,1	Off,On
094	...Reserve	-----	-----

SubKBD PARAMETERS			

095	Program No.	00~7F	
096	Program Bank	00~04	
097	Volume	00~7F	000~127
098	Pan	FF~1F	Off~Prog
099	(b7~b4)C Send Level	0~A	0~9,Prog
	(b3~b0)D Send Level	0~A	0~9,Prog
100	Octave	FE~02	-2~+2
101	Out Status		
	(b7)...Reserve	-----	-----
	(b6)Enable Damper Pedal	0,1	Off,On
	(b5)Enable Joystick X	0,1	Off,On
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----

	(b2)Mute/Play	0,1	Play,Mute
	(b1)External Out	0,1	Off,On
	(b0)Internal Out	0,1	Off,On
102	...Reserve	-----	-----

LowerKBD PARAMETERS			

103	Program No.	00~7F	
104	Program Bank	00~04	
105	Volume	00~7F	000~127
106	Pan	FF~1F	Off~Prog
107	(b7~b4)C Send Level	0~A	0~9,Prog
	(b3~b0)D Send Level	0~A	0~9,Prog
108	Octave	FE~02	-2~+2
109	Out Status		
	(b7)...Reserve	-----	-----
	(b6)Enable Damper Pedal	0,1	Off,On
	(b5)Enable Joystick X	0,1	Off,On
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play,Mute
	(b1)External Out	0,1	Off,On
	(b0)Internal Out	0,1	Off,On
110	...Reserve	-----	-----

Harmony PARAMETERS			

111	Program No.	00~7F	
112	Program Bank	00~04	
113	Volume	00~7F	000~127
114	Pan	FF~1F	Off~Prog
115	(b7~b4)C Send Level	0~A	0~9,Prog
	(b3~b0)D Send Level	0~A	0~9,Prog
116	...Reserve	-----	-----
117	Out Status		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)...Reserve	-----	-----
	(b1)External Out	0,1	Off,On

	(b0) Internal Out	0,1	Off,On	
118	...Reserve	-----	-----	

K.Bass PARAMETERS				

119	Program No.	00~7F		
120	Program Bank	00~04		
121	Volume	00~7F	000~127	
122	Pan	FF~1F	Off~Prog	
123	(b7~b4)C Send Level	0~A	0~9,Prog	
	(b3~b0)D Send Level	0~A	0~9,Prog	
124	...Reserve	-----	-----	
125	Out Status			
	(b7)...Reserve	-----	-----	
	(b6)...Reserve	-----	-----	
	(b5)...Reserve	-----	-----	
	(b4)...Reserve	-----	-----	
	(b3)...Reserve	-----	-----	
	(b2)...Reserve	-----	-----	
	(b1)External Out	0,1	Off,On	
	(b0)Internal Out	0,1	Off,On	
126	...Reserve	-----	-----	

127	Main Vel. Win. Top	01~7F	001~127	
128	Main Vel. Win. Bottom	01~7F	001~127	
129	Sub Vel. Win. Top	01~7F	001~127	
130	Sub Vel. Win. Bottom	01~7F	001~127	
131	Lower Vel. Win. Top	01~7F	001~127	
132	Lower Vel. Win. Bottom	01~7F	001~127	
133	KBD Scale Type	00~29		[Scale Type]
134	KBD Scale Key	00~0B	C,C#~Bb,B	00:Equal Temperament

~29:User Scale 32				
ACC FX PARAMETERS				

135	FX 1 Type	00~2F		[FX 1/2 Type]
136	FX 2 Type	00~2F		0:NoEffect
137	FX 1 Dry/Wet Balance(L)	00~64	Dry~Wet	~2F:Delay/RotarySpeaker
138	FX 1 Dry/Wet Balance(R)	00~64	Dry~Wet	
139	FX 2 Dry/Wet Balance(L)	00~64	Dry~Wet	
140	FX 2 Dry/Wet Balance(R)	00~64	Dry~Wet	[Effect Output C/D Pan]
141	Effect Output C Pan	00~65	Off,R,01:99~L	When Placement is Parallel3
142	Effect Output D Pan	00~65	Off,R,01:99~L	No.141(bit7~4) FX 1 Return L : 0~9

143	Effect I/O			No.141(bit3~0) FX 1 Return R : 0~9
	(b7)...Reserve	-----	-----	No.142(bit7~4) FX 2 Return L : 0~9
	(b6)Placement (1/3)	0~5		No.142(bit3~0) FX 2 Return R : 0~9
	(b5)Placement (2/3)			
	(b4)Placement (3/3)			[Placement]
	(b3)Effect 2 (R) On/Off	0,1	Off,On	0:Serial
	(b2)Effect 2 (L) On/Off	0,1	Off,On	1:Parallel 1
	(b1)Effect 1 (R) On/Off	0,1	Off,On	2:Parallel 2
	(b0)Effect 1 (L) On/Off	0,1	Off,On	3:Parallel 3
144	FX 1 Parameter (1/8)			4:Serial Sub
145	FX 1 Parameter (2/8)			5:Parallel Sub
146	FX 1 Parameter (3/8)			
147	FX 1 Parameter (4/8)			
148	FX 1 Parameter (5/8)			
149	FX 1 Parameter (6/8)			
150	FX 1 Parameter (7/8)			
151	FX 1 Parameter (8/8)			
152	FX 1 D-Mod.Source	00~06	None~VDA EG	
153	FX 1 D-Mod.Amount	F1~OF	-15~+15	
154	FX 2 Parameter (1/8)			
155	FX 2 Parameter (2/8)			
156	FX 2 Parameter (3/8)			
157	FX 2 Parameter (4/8)			
158	FX 2 Parameter (5/8)			
159	FX 2 Parameter (6/8)			
160	FX 2 Parameter (7/8)			
161	FX 2 Parameter (8/8)			
162	FX 2 D-Mod.Source	00~06	None~VDA EG	
163	FX 2 D-Mod.Amount	F1~OF	-15~+15	
+-----+				
164~20991	Arrangement C12~C88,D11~D88 (Same as C11)			
+-----+				

ARRANGEMENT GLOBAL PARAMETERS

+-----+				
No.	Parameter	Data (h)	Value	
+-----+				
00	" Main " MIDI Channel	00~0F	1~16	
01	" Sub " MIDI Channel	00~0F	1~16	
02	" Lower " MIDI Channel	00~0F	1~16	

03	" Drum " MIDI Channel	00~0F	1~16	
04	" Perc " MIDI Channel	00~0F	1~16	
05	" Bass " MIDI Channel	00~0F	1~16	
06	" ACC1 " MIDI Channel	00~0F	1~16	
07	" ACC2 " MIDI Channel	00~0F	1~16	
08	" ACC3 " MIDI Channel	00~0F	1~16	
09	" Harmo " MIDI Channel	00~0F	1~16	
10	" K.Bas " MIDI Channel	00~0F	1~16	
11	" Chord " MIDI Channel	FF~0F	Off,1~16	
12	" Chrd2 " MIDI Channel	FF~0F	Off,1~16	
13	" Chrd3 " MIDI Channel	FF~0F	Off,1~16	
14	" ArrChg " MIDI Channel	FF~0F	Off,1~16	
15	" KBD " MIDI Channel	00~0F	1~16	
16	Chord Memory On/Off	00,01	Off,On	
17	Chord Sound			
	(b4)Chord Sound Type	0,1	Auto,Actual	
	(b0)Chord Sound SW	0,1	Off,On	
18	Bass Inversion On/Off	00,01	Off,On	
19	...Reserve	-----	-----	
20	Tempo Lock On/Off	00,01	Off,On	
21	KBD Lock On/Off	00,01	Off,On	
22	Ensemble SW On/Off	00,01	Off,On	
23	...Reserve	-----	-----	
24	Synchro Start/Stop			
	(b1)Stop	0,1	Off,On	
	(b0)Start	0,1	Off,On	
25	Dynamic Backing	00,01	Off,On	[Velocity Control]
26	Velocity Control	00~03	Off~Fill2	1:Break,2:Fill1,3:Fill2
27	Split Point Lock	00,01	Off,On	
28	...Reserve	-----	-----	
29	...Reserve	-----	-----	
30	...Reserve	-----	-----	
31	...Reserve	-----	-----	
32	ChordSound Sync on/off	0,1	Off,On	
33	...Reserve	-----	-----	
34	...Reserve	-----	-----	
35	...Reserve	-----	-----	
36	Lower Chord Recog. Mode	00~02	Easy~One Finger	[Lower Chord Scan Mode]
37	...Reserve	-----	-----	00:Easy,
38	...Reserve	-----	-----	01:Normal,
39	...Reserve	-----	-----	02:One Finger
40	...Reserve	-----	-----	

41	...Reserve	-----	-----	"Lower Chord Scan Mode"
42	...Reserve	-----	-----	is not effective
43	...Reserve	-----	-----	at first released system.
44	...Reserve	-----	-----	
45	...Reserve	-----	-----	
46	...Reserve	-----	-----	
47	...Reserve	-----	-----	
+-----+				

KBD SET PARAMETERS

+-----+				
No.	Parameter	Data (h)	Value	
+-----+				
KBD SET 11 Parameters				
+-----+				
00	FULL KBD PLAY	00,01	Off,On	
01	Split Point	24~60	C2~C7	
02	Chord Scan Parameters			
	(b7)...Reserve	-----	-----	
	(b6)...Reserve	-----	-----	"Lower type" is effective
	(b5)...(Lower Type)	(0,1)	(Normal,Easy)	at first released system.
	(b4)...Reserve	-----	-----	
	(b3)...Reserve	-----	-----	
	(b2)...Reserve	-----	-----	[Chord Scanning]
	(b1)Chord Scan Upper	0,1	Off,On	00:Off 02:Upper
	(b0)Chord Scan Lower	0,1	Off,On	01:Lower 03:FULL
03	...Reserve	-----	-----	
04	...Reserve	-----	-----	
05	...Reserve	-----	-----	
06	...Reserve	-----	-----	
07	...Reserve	-----	-----	
+-----+				
08	Main Vel. Win. Top	01~7F	001~127	
09	Main Vel. Win. Bottom	01~7F	001~127	
10	Sub Vel. Win. Top	01~7F	001~127	
11	Sub Vel. Win. Bottom	01~7F	001~127	
12	Lower Vel. Win. Top	01~7F	001~127	
13	Lower Vel. Win. Bottom	01~7F	001~127	
14	KBD Scale Type	00~29		[Scale Type]
15	KBD Scale Key	00~0B	C,C#~Bb,B	00:Equal Temperament

-----				~29:User Scale 32
MainKBD PARAMETERS				

16	Program No.	00~7F		
17	Program Bank	00~04		[Program No.][Program Bank]
18	Volume	00~7F	000~127	Bank=00,No.=00~7F : A11~A88~B88
19	Pan	FF~1F	Off~Prog	Bank=01,No.=00~7F : C11~C88~D88
20	(b7~b4)C Send Level	0~A	0~9,Prog	Bank=02,No.=00~3F : E11~E88
	(b3~b0)D Send Level	0~A	0~9,Prog	Bank=03,No.=00~7F : F11~F88~G88
21	Octave	FE~02	-2~+2	Bank=04,No.=00~27 : R11~R58
22	Out Status			[Pan]
	(b7)...Reserve	-----	-----	FF : OFF
	(b6)Enable Damper Pedal	0,1	Off,On	00 : L15
	(b5)Enable Joystick X	0,1	Off,On	
	(b4)...Reserve	-----	-----	0F : CNT
	(b3)...Reserve	-----	-----	
	(b2)Mute/Play	0,1	Play,Mute	1E : R15
	(b1)External Out	0,1	Off,On	1F : PROG
	(b0)Internal Out	0,1	Off,On	
23	...Reserve	-----	-----	

SubKBD PARAMETERS				

24	Program No.	00~7F		
25	Program Bank	00~04		
26	Volume	00~7F	000~127	
27	Pan	FF~1F	Off~Prog	
28	(b7~b4)C Send Level	0~A	0~9,Prog	
	(b3~b0)D Send Level	0~A	0~9,Prog	
29	Octave	FE~02	-2~+2	
30	Out Status			
	(b7)...Reserve	-----	-----	
	(b6)Enable Damper Pedal	0,1	Off,On	
	(b5)Enable Joystick X	0,1	Off,On	
	(b4)...Reserve	-----	-----	
	(b3)...Reserve	-----	-----	
	(b2)Mute/Play	0,1	Play,Mute	
	(b1)External Out	0,1	Off,On	
	(b0)Internal Out	0,1	Off,On	
31	...Reserve	-----	-----	

LowerKBD PARAMETERS				

32	Program No.	00~7F	
33	Program Bank	00~04	
34	Volume	00~7F	000~127
35	Pan	FF~1F	Off~Prog
36	(b7~b4)C Send Level	0~A	0~9,Prog
	(b3~b0)D Send Level	0~A	0~9,Prog
37	Octave	FE~02	-2~+2
38	Out Status		
	(b7)...Reserve	-----	-----
	(b6)Enable Damper Pedal	0,1	Off,On
	(b5)Enable Joystick X	0,1	Off,On
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play,Mute
	(b1)External Out	0,1	Off,On
	(b0)Internal Out	0,1	Off,On
39	...Reserve	-----	-----

Harmony PARAMETERS

40	Program No.	00~7F	
41	Program Bank	00~04	
42	Volume	00~7F	000~127
43	Pan	FF~1F	Off~Prog
44	(b7~b4)C Send Level	0~A	0~9,Prog
	(b3~b0)D Send Level	0~A	0~9,Prog
45	...Reserve	-----	-----
46	Out Status		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)...Reserve	-----	-----
	(b1)External Out	0,1	Off,On
	(b0)Internal Out	0,1	Off,On
47	...Reserve	-----	-----

K.Bass PARAMETERS

48	Program No.	00~7F	
----	-------------	-------	--

49	Program Bank	00~04	
50	Volume	00~7F	000~127
51	Pan	FF~1F	Off~Prog
52	(b7~b4)C Send Level	0~A	0~9, Prog
	(b3~b0)D Send Level	0~A	0~9, Prog
53	...Reserve	-----	-----
54	Out Status		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)...Reserve	-----	-----
	(b1)External Out	0,1	Off,On
	(b0)Internal Out	0,1	Off,On
55	...Reserve	-----	-----

56~3583	KBD SET 12~88 (Same as 11)		

PROGRAM PARAMETERS

+-----+				
No.	Parameter	Data (h)	Value	
+-----+				
Program F11 Parameters				
+-----+				
000	Program Name (1/16)	20~7E	" " ~ " ~"	
001	Program Name (2/16)		(ASCII Code)	
002	Program Name (3/16)			
003	Program Name (4/16)			
004	Program Name (5/16)			
005	Program Name (6/16)			
006	Program Name (7/16)			
007	Program Name (8/16)			
008	Program Name (9/16)			
009	Program Name (10/16)			
010	Program Name (11/16)			
011	Program Name (12/16)			
012	Program Name (13/16)			
013	Program Name (14/16)			
014	Program Name (15/16)			

015	Program Name(16/16)			
016	Program Category	00~0F	Keyboard~User	
017	...Reserve	-----	-----	

	Oscillator			

018	Oscillator Mode	00~02		[Oscillator Mode]
019	Mono/Hold			When F11~F88~G88 Programs
	(b1)Hold	0,1	Poly/Mono	00:Single,01:Double
	(b0)Mono	0,1	Off/On	When R51~58 Programs
020	OSC1 Multisample(LSB)	0000	0~522	02:Drum
021	OSC1 Multisample(MSB)	~020A	16bit data	
022	OSC2 Multisample(LSB)	0000	0~522	[Multi Sample]
023	OSC2 Multisample(MSB)	~020A	16bit data	When F11~F88~G88 Programs
024	OSC1 Octave	FE~01	32'/16'/8'/4'	000:A.Piano 1
025	OSC2 Octave	FE~01	32'/16'/8'/4'	~522:Tb & Tp 3
026	OSC2 Transpose(Interval)	F4~0C	-12 ~+12	When R51~58 Programs
027	OSC2 Detune	CE~32	-50~+50	Reserve
028	OSC2 Delay	00~63	00~99	

	Pitch EG			[OSC Octave]
				When R51~58 Programs
				8' (Fixed)

029	Start Level	9D~63	-99~+99	
030	Attack Time	00~63	00~99	
031	Attack Level	9D~63	-99~+99	
032	Decay Time	00~63	00~99	
033	Release Time	00~63	00~99	
034	Release Level	9D~63	-99~+99	
035	Time Mod.Velocity	9D~63	-99~+99	
036	Level Velocity Sense	9D~63	-99~+99	

	VDF MG			

037	Waveform/Enable/Sync			
	(b7)Key Sync	0,1	Off,On	
	(b6)OSC2 MG Enable	0,1	Off,On	
	(b5)OSC1 MG Enable	0,1	Off,On	
	(b4)...Reserve	-----	-----	
	(b3)...Reserve	-----	-----	[LFO Waveform]
	(b2)LFO Waveform(1/3)	0~5		xxxxxx000:Triangle
	(b1)LFO Waveform(2/3)			xxxxxx001:Up Saw
	(b0)LFO Waveform(3/3)			xxxxxx010:Down Saw

038	Frequency	00~63 00~99	xxxxx011:Square 1
039	Delay	00~63 00~99	xxxxx100:Random
040	Intensity	00~63 00~99	xxxxx101:Square 2

	Aftertouch		

041	Pitch Bend Range	F4~0C -12~+12	
042	Cutoff Frequency	9D~63 -99~+99	
043	VDF MG Intensity	00~63 00~99	
044	OSC Level	9D~63 -99~+99	

	Joystick		

045	Pitch Bend Range(JS X)	F4~0C -12~+12	
046	Cutoff Frequency(JS X)	9D~63 -99~+99	
047	VDF MG Intensity(JS-Y)	00~63 00~99	

	OSC 1 Parameters		

	OSC 1 Pitch EG		

048	Pitch EG Intensity	9D~63 -99~+99	

	OSC 1 Pitch MG		

049	Waveform/Enable/Sync		
	(b7)Key Sync	0,1 Off,On	
	(b6)...Reserve	----- -----	
	(b5)...Reserve	----- -----	
	(b4)...Reserve	----- -----	
	(b3)...Reserve	----- -----	
	(b2)LFO Waveform(1/3)	0~5	[LFO Waveform]
	(b1)LFO Waveform(2/3)		xxxxx000:Triangle
	(b0)LFO Waveform(3/3)		xxxxx001:Up Saw
			xxxxx010:Down Saw
050	Frequency	00~63 00~99	xxxxx011:Square 1
051	Delay	00~63 00~99	xxxxx100:Random
052	Fade In	00~63 00~99	xxxxx101:Square 2
053	Intensity	00~63 00~99	
054	KBD Tracking(Freq.Mod.)	9D~63 -99~+99	
055	Int.Mod. by Aftertouch	00~63 00~99	
056	Inr.Mod. by Joystick +Y	00~63 00~99	
057	Freq.Control by JS & AT	00~09 0~9	

OSC 1 VDF			

058	Cutoff Frequency	00~63	00~99
059	KBD Track Pivot Key	00~7F	C-1~G9
060	KBD Track Int.(Cutoff)	9D~63	-99~+99
061	EG Intensity	00~63	00~99
062	EGTime Mod. by KBDTrack	00~63	00~99
063	EGTime Mod. by Velocity	00~63	00~99
064	Velocity Sens.to EG Int.	9D~63	-99~+99

VDF EG 1			

065	Attack Time	00~63	00~99
066	Attack Level	9D~63	-99~+99
067	Decay Time	00~63	00~99
068	Break Point	9D~63	-99~+99
069	Slope Time	00~63	00~99
070	Sustain Level	9D~63	-99~+99
071	Release Time	00~63	00~99
072	Release Level	9D~63	-99~+99

OSC 1 VDA			

073	OSC Level	00~63	00~99
074	KBD Track Pivot Key	00~7F	C-1~G9
075	KBD Track Int.(Level)	9D~63	-99~+99
076	Velocity Sens.to Level	9D~63	-99~+99
077	EGTime Mod. by KBDTrack	00~63	00~99
078	EGTime Mod. by Velocity	00~63	00~99

VDA EG 1			

079	Attack Time	00~63	00~99
080	Attack Level	00~63	00~99
081	Decay Time	00~63	00~99
082	Break Point	00~63	00~99
083	Slope Time	00~63	00~99
084	Sustain Level	00~63	00~99
085	Release Time	00~63	00~99

OSC 1 EG Time Mod. by KBD Track & Velocity			

and Mod. SW & Polarity			

086	VDF EG 1 KBD Track		
	(b7)Release Time Pol.	0,1	+,-
	(b6)Slope Time Pol.	0,1	+,-
	(b5)Decay Time Pol.	0,1	+,-
	(b4)Attack Time Pol.	0,1	+,-
	(b3)Release Time SW	0,1	"0" , "+"or"-"
	(b2)Slope Time SW	0,1	"0" , "+"or"-"
	(b1)Decay Time SW	0,1	"0" , "+"or"-"
	(b0)Attack Time SW	0,1	"0" , "+"or"-"
087	VDF EG 1 Velocity		
	(b7)Release Time Pol.	0,1	+,-
	(b6)Slope Time Pol.	0,1	+,-
	(b5)Decay Time Pol.	0,1	+,-
	(b4)Attack Time Pol.	0,1	+,-
	(b3)Release Time SW	0,1	"0" , "+"or"-"
	(b2)Slope Time SW	0,1	"0" , "+"or"-"
	(b1)Decay Time SW	0,1	"0" , "+"or"-"
	(b0)Attack Time SW	0,1	"0" , "+"or"-"
088	VDA EG 1 KBD Track		
	(b7)Release Time Pol.	0,1	+,-
	(b6)Slope Time Pol.	0,1	+,-
	(b5)Decay Time Pol.	0,1	+,-
	(b4)Attack Time Pol.	0,1	+,-
	(b3)Release Time SW	0,1	"0" , "+"or"-"
	(b2)Slope Time SW	0,1	"0" , "+"or"-"
	(b1)Decay Time SW	0,1	"0" , "+"or"-"
	(b0)Attack Time SW	0,1	"0" , "+"or"-"
089	VDA EG 1 Velocity		
	(b7)Release Time Pol.	0,1	+,-
	(b6)Slope Time Pol.	0,1	+,-
	(b5)Decay Time Pol.	0,1	+,-
	(b4)Attack Time Pol.	0,1	+,-
	(b3)Release Time SW	0,1	"0" , "+"or"-"
	(b2)Slope Time SW	0,1	"0" , "+"or"-"
	(b1)Decay Time SW	0,1	"0" , "+"or"-"
	(b0)Attack Time SW	0,1	"0" , "+"or"-"

OSC 1 Send Level			

090	(b7~b4)C Send Level	0~9	0~9

	(b3~b0)D Send Level	0~9	0~9	

OSC 1 VDF Color				

091	Color (Intensity)	00~63	00~99	
092	Velocity Sens.to Color	9D~63	-99~+99	

VDF 1/VDA 1 KBD Track Mode				

093	KBD Track Mode			
	(b7~b6)...Reserve	-----	-----	
	(b5~b4)VDA 1	0~3	Off,Low,Hi,All	
	(b3~b2)...Reserve	-----	-----	
	(b1~b0)VDF 1	0~3	Off,Low,Hi,All	

OSC 1 Pan				[Pan]
-----				FF : OFF
094	Pan	FF~1E		00 : L15

OSC 2 Parameters (same as OSC 1)				0F : CNT

095	OSC 2 Pitch EG	same as "048 OSC 1 Pitch EG"		1E : R15
*	*			
*	*			
*	*			
141	OSC 2 Pan	same as "094 OSC 1 Pan"		

142	...Reserve	-----	-----	

FX PARAMETERS				

143	FX 1 Type	00~2F		[FX 1/2 Type]
144	FX 2 Type	00~2F		0:NoEffect
145	FX 1 Dry/Wet Balance(L)	00~64	Dry~Wet	~2F:Delay/RotarySpeaker
146	FX 1 Dry/Wet Balance(R)	00~64	Dry~Wet	
147	FX 2 Dry/Wet Balance(L)	00~64	Dry~Wet	
148	FX 2 Dry/Wet Balance(R)	00~64	Dry~Wet	[Effect Output C/D Pan]
149	Effect Output C Pan	00~65	Off,R,01:99~L	When Placement is Parallel3
150	Effect Output D Pan	00~65	Off,R,01:99~L	No.141(bit7~4) FX 1 Return L : 0~9
151	Effect I/O			No.141(bit3~0) FX 1 Return R : 0~9
	(b7)...Reserve	-----	-----	No.142(bit7~4) FX 2 Return L : 0~9
	(b6)Placement(1/3)	0~5		No.142(bit3~0) FX 2 Return R : 0~9

		(b5) Placement (2/3)			
		(b4) Placement (3/3)			[Placement]
		(b3) Effect 2 (R) On/Off	0,1	Off, On	0: Serial
		(b2) Effect 2 (L) On/Off	0,1	Off, On	1: Parallel 1
		(b1) Effect 1 (R) On/Off	0,1	Off, On	2: Parallel 2
		(b0) Effect 1 (L) On/Off	0,1	Off, On	3: Parallel 3
152		FX 1 Parameter (1/8)			4: Serial Sub
153		FX 1 Parameter (2/8)			
154		FX 1 Parameter (3/8)			
155		FX 1 Parameter (4/8)			
156		FX 1 Parameter (5/8)			
157		FX 1 Parameter (6/8)			
158		FX 1 Parameter (7/8)			
159		FX 1 Parameter (8/8)			
160		FX 1 D-Mod.Source	00~06	None~VDA EG	
161		FX 1 D-Mod.Amount	F1~OF	-15~+15	
162		FX 2 Parameter (1/8)			
163		FX 2 Parameter (2/8)			
164		FX 2 Parameter (3/8)			
165		FX 2 Parameter (4/8)			
166		FX 2 Parameter (5/8)			
167		FX 2 Parameter (6/8)			
168		FX 2 Parameter (7/8)			
169		FX 2 Parameter (8/8)			
170		FX 2 D-Mod.Source	00~06	None~VDA EG	
171		FX 2 D-Mod.Amount	F1~OF	-15~+15	

172~23391		Program F12~F88,G11~G88,R51~58 (Same as F11)			
+-----+					

DRUM KIT PARAMETERS (R BANK)

+-----+					
No.		Parameter	Data (h)	Value	

User Kit R51 A0 Key's Parameters					

0		Drumsample (LSB)	0000	0~405	
1		Drumsample (MSB)	~0195	16bit data	[Exclusive Group]
2		Exclusive Group	0~11		00 :None
3		Pan	FF~1E	Off,L15~R15	01~16:1~16
4		Detune	CE~32	-50~+50	17 :Self
5		Transpose	E8~18	-24~+24	

6	Adjust Level	9D~63	-99~+99	
7	...Reserve (Fc)	-----	-----	
8	Adjust Decay Time	9D~63	99~+99	
9	(b7~b4)C Send Level	0~9	0~9	
	(b3~b0)D Send Level	0~9	0~9	
+-----+				
010~879	A#0~C8 Key's Parameters			
+-----+				
880~7039	R52~R58 User Kit Parameters			
	(same as User Kit R51)			
+-----+				

GLOBAL PARAMETERS

+-----+				
No.	Parameter	Data (h)	Value	
+-----+				
00	Master Tune	CE~32	-50~+50	
01	...Reserve	-----	-----	
02	Damper Porality	00,01	Reverse,Korg	
03	Assignable Pedal 1	00~40	Off~Data Entry	
04	Assignable Pedal 2	00~40	Off~Data Entry	
05	...Reserve	-----	-----	
06	Global MIDI Channel	00~0F	1~16	
07	...Reserve	-----	-----	
08	Status	-----	-----	
	(b7) ...Reserve	-----	-----	
	(b6)MIDI EXT Clock	0,1	MIDI IN,To Host	
	(b5)Host Baud Rate	0,1	38.4k,31.25k	
	(b4) ...Reserve	-----	-----	
	(b3)XposePosition(1/2)	00~02	[Transpose Position]	
	(b2)XposePosition(2/2)		2:PreOSC & MIDI 0:Post-KBD	
	(b1)MIDI Clock Int/Ext	0,1	Internal,EXT	1:Pre-Oscillator
	(b0)Local Control	0,1	Off,On	2:Pre-Oscillator & MIDI OUT
09	MIDI Filter			
	(b7)Discard KORG GM	0,1	No,Yes	[Assign. Pedal 1,2][EC5 A~E][SW 1,2]
	(b6)Note No.Filter(1/2)	1		00:Off 20:SYNCHRO STOP
	(b5)Note No.Filter(2/2)	0		01:DRUMS PLAY/MUTE 21:RIT.
	(b4)Exclusive	0,1	Dis,Ena	02:PERC PLAY/MUTE 22:ACCEL.
	(b3)Control Change	0,1	Dis,Ena	03:BASS PLAY/MUTE 23:TRANSCOPE(b)
	(b2)Aftertouch	0,1	Dis,Ena	04:ACC1 PLAY/MUTE 24:TRANSCOPE(#)

		(b1)ProgBank Change		0,1	Dis,Ena	05:ACC2 PLAY/MUTE	25:OCTAVE DOWN
		(b0)Program Change		0,1	Dis,Ena	06:ACC3 PLAY/MUTE	26:OCTAVE UP
	10	EC5 Pedal "A"		00~28	Off~C.L.+Damper	07:LOWER KBD PLAY/MUTE	27:RESET
	11	EC5 Pedal "B"		00~28	Off~C.L.+Damper	08:SUB KBD PLAY/MUTE	28:TAP TEMPO
	12	EC5 Pedal "C"		00~28	Off~C.L.+Damper	09:MAIN KBD PLAY/MUTE	29:Arrange/Style Up
	13	EC5 Pedal "D"		00~28	Off~C.L.+Damper	0A:CHORD MEMORY	2A:Arrange/Style Down
	14	EC5 Pedal "E"		00~28	Off~C.L.+Damper	0B:CHORD SOUND	2B:Program Up
	15	SW 1		00~28	Off~C.L.+Damper	0C:BASS INVERSION	2C:Program Down
	16	SW 2		00~28	Off~C.L.+Damper	0D:ENSEMBLE	2D:KBD Set Up
	17	Velocity Curve		00~08	1~9	OE:TEMPO LOCK	2E:KBD Set Down
	18	Aftertouch Curve		00~07	1~8	0F:KBD LOCK	2F:Variation Up
	19	rit.type		00~06	1~7	10:FULL KBD PLAY	30:Variation Down
	20	rit.beat		00~1F	1~32	11:VARIATION 1	31:Scale Change
	21	accel.type		00~06	1~7	12:VARIATION 2	32:FX 1 On/Off
	22	accel.beat		00~1F	1~32	13:VARIATION 3	33:FX 2 On/Off
	23	...Reserve		-----	-----	14:VARIATION 4	34:Damper
	24	...Reserve		-----	-----	15:FILL 1	35:Chord Latch
	25	...Reserve		-----	-----	16:FILL 2	36:Chord Latch+Damper
	26	...Reserve		-----	-----	17:INTRO/ENDING 1	37:Master Volume
	27	...Reserve		-----	-----	18:INTRO/ENDING 2	38:KBD Expression
	28	Special Scale Type		00~29		19:Intro 1	39:VDF Cutoff
	29	Special Scale Key		00~0B	C,C#~Bb,B	1A:Intro 2	3A:Joystick +X(BSEND)
	30	Normal Scale Type		00~29		1B:Break	3B:Joystick -X(BSEND)
	31	Normal Scale Key		00~0B	C,C#~Bb,B	1C:START/STOP	3C:Joystick +Y(CC#1)
	32	Userscale 1 [C]		CE~32	-50~+50	1D:REC/WRITE	3D:Joystick -Y(CC#2)
	33	[C#]		CE~32	-50~+50	1E:FADE IN/OUT	3E:Effect Control 1(CC#12)
	34	[D]		CE~32	-50~+50	1F:SYNCHRO START	3F:Effect Control 2(CC#13)
	35	[Eb]		CE~32	-50~+50		4F:Data Entry
	36	[E]		CE~32	-50~+50	[Scale Type]	
	37	[F]		CE~32	-50~+50	00:Equal Temperament	
	38	[F#]		CE~32	-50~+50	~29>User Scale 32	
	39	[G]		CE~32	-50~+50		
	40	[Ab]		CE~32	-50~+50		
	41	[A]		CE~32	-50~+50		
	42	[Bb]		CE~32	-50~+50		
	43	[B]		CE~32	-50~+50		

	44~55	Userscale 2 [C]~[B]					

	56~67	Userscale 3 [C]~[B]					

	68~79	Userscale 4 [C]~[B]					

80~91	Userscale 5	[C]~[B]
92~103	Userscale 6	[C]~[B]
104~115	Userscale 7	[C]~[B]
116~127	Userscale 8	[C]~[B]
128~139	Userscale 9	[C]~[B]
140~151	Userscale 10	[C]~[B]
152~163	Userscale 11	[C]~[B]
164~175	Userscale 12	[C]~[B]
176~187	Userscale 13	[C]~[B]
188~199	Userscale 14	[C]~[B]
200~211	Userscale 15	[C]~[B]
212~223	Userscale 16	[C]~[B]
224~235	Userscale 17	[C]~[B]
236~247	Userscale 18	[C]~[B]
248~259	Userscale 19	[C]~[B]
260~271	Userscale 20	[C]~[B]
272~283	Userscale 21	[C]~[B]
284~295	Userscale 22	[C]~[B]
296~307	Userscale 23	[C]~[B]
308~319	Userscale 24	[C]~[B]
320~331	Userscale 25	[C]~[B]

332~343	Userscale 26 [C]~[B]
344~355	Userscale 27 [C]~[B]
356~367	Userscale 28 [C]~[B]
368~379	Userscale 29 [C]~[B]
380~391	Userscale 30 [C]~[B]
392~403	Userscale 31 [C]~[B]
404~415	Userscale 32 [C]~[B]

STYLE PARAMETERS

STYLE HEADER

No.	Parameter	Data (h)	Value
Style C*1 or C*5			
00	Data Address LSB		
01	Data Address MSB		
02	...Reserve (Segment LSB)	00	
03	...Reserve (Segment MSB)	00	
04	Size LSB		
05	Size MSB		
Style C*2 or C*6			
06	Data Address LSB		
07	Data Address MSB		
08	...Reserve (Segment LSB)	00	
09	...Reserve (Segment MSB)	00	
10	Size LSB		
11	Size MSB		
Style C*3 or C*7			

12	Data Address LSB		
13	Data Address MSB		
14	...Reserve (Segment LSB)	00	
15	...Reserve (Segment MSB)	00	
16	Size LSB		
17	Size MSB		

	Style C*4 or C*8		

18	Data Address LSB		
19	Data Address MSB		
20	...Reserve (Segment LSB)	00	
21	...Reserve (Segment MSB)	00	
22	Size LSB		
23	Size MSB		

24~31	Reserve		

STYLE CONTROL DATA

No.	Parameter	Data (h)	Value

000	Style Name (1/16)	20~7E	" " ~ "~"
001	Style Name (2/16)		(ASCII Code)
002	Style Name (3/16)		
003	Style Name (4/16)		
004	Style Name (5/16)		
005	Style Name (6/16)		
006	Style Name (7/16)		
007	Style Name (8/16)		
008	Style Name (9/16)		
009	Style Name (10/16)		
010	Style Name (11/16)		
011	Style Name (12/16)		
012	Style Name (13/16)		
013	Style Name (14/16)		
014	Style Name (15/16)		
015	Style Name (16/16)		
016	Style Category	00~0F	8 Beat~User 4
017	...Reserve	-----	-----

018	...Reserve (Type)	0	User Created	
019	Tempo	0A~D2	40~240	[Meter]
020	Meter	10~3F		10~14:1/4~5/4
-----				20~29:1/8~10/8
021	Note Retrigger Switch			30~3F:1/16~16/16
	(b7) ...Reserve	-----	-----	
	(b6) ...Reserve	-----	-----	
	(b5) ACC3	0,1	Off, On	
	(b4) ACC2	0,1	Off, On	
	(b3) ACC1	0,1	Off, On	
	(b2) Bass	0,1	Off, On	
	(b1) ...Reserve	-----	-----	
	(b0) ...Reserve	-----	-----	

Wrap-Around Point (Note Shift Up Range)				

022	Bass	00~0B	1~12	
023	ACC1	00~0B	1~12	
024	ACC2	00~0B	1~12	
025	ACC3	00~0B	1~12	

026	Tension Available			
	(b7) ...Reserve	-----	-----	
	(b6) ...Reserve	-----	-----	
	(b5) ACC3	0,1	Off, On	
	(b4) ACC2	0,1	Off, On	
	(b3) ACC1	0,1	Off, On	
	(b2) ...Reserve	-----	-----	
	(b1) ...Reserve	-----	-----	
	(b0) ...Reserve	-----	-----	

027	...Reserve	-----	-----	
028	...Reserve	-----	-----	
029	...Reserve	-----	-----	
030	...Reserve	-----	-----	
031	...Reserve	-----	-----	
032	...Reserve	-----	-----	
033	...Reserve	-----	-----	
034	...Reserve	-----	-----	
035	...Reserve	-----	-----	
036	...Reserve	-----	-----	
037	...Reserve	-----	-----	

038	...Reserve		-----		-----	
039	...Reserve		-----		-----	
040	...Reserve		-----		-----	
041	...Reserve		-----		-----	
042	...Reserve		-----		-----	
043	...Reserve		-----		-----	
044	...Reserve		-----		-----	
045	...Reserve		-----		-----	

DRUMS PARAMETERS						

046	Program No.		00~7F			[Program No.] [Program Bank]
047	Program Bank		00~04			Bank=00, No.=00~7F : A11~A88~B88
048	Volume		00~7F		000~127	Bank=01, No.=00~7F : C11~C88~D88
049	Pan		FF~1F		Off~Prog	Bank=02, No.=00~3F : E11~E88

PERC PARAMETERS						

050	Program No.		00~7F			FF : OFF
051	Program Bank		00~04			00 : L15
052	Volume		00~7F		000~127	
053	Pan		FF~1F		Off~Prog	0F : CNT

BASS PARAMETERS						

054	Program No.		00~7F			
055	Program Bank		00~04			
056	Volume		00~7F		000~127	
057	Pan		FF~1F		Off~Prog	

ACC1 PARAMETERS						

058	Program No.		00~7F			
059	Program Bank		00~04			
060	Volume		00~7F		000~127	
061	Pan		FF~1F		Off~Prog	

ACC2 PARAMETERS						

062	Program No.		00~7F			
063	Program Bank		00~04			
064	Volume		00~7F		000~127	

065	Pan	FF~1F	Off~Prog	

	ACC3 PARAMETERS			

066	Program No.	00~7F		
067	Program Bank	00~04		
068	Volume	00~7F	000~127	
069	Pan	FF~1F	Off~Prog	

	Variation 1,CV 1 Parameters			

070	Key	00~17	Cmaj~Bmin	[Key]
071	Length	01~10	1~16	0:Cmaj,1:Cmin
	-----			~22:Bmaj,23:Bmin
	Variation 1,CV 2 Parameters			

072	Key	00~17	Cmaj~Bmin	
073	Length	01~10	1~16	

	Variation 1,CV 3 Parameters			

074	Key	00~17	Cmaj~Bmin	
075	Length	01~10	1~16	

	Variation 1,CV 4 Parameters			

076	Key	00~17	Cmaj~Bmin	
077	Length	01~10	1~16	

	Variation 1,CV 5 Parameters			

078	Key	00~17	Cmaj~Bmin	
079	Length	01~10	1~16	

	Variation 1,CV 6 Parameters			

080	Key	00~17	Cmaj~Bmin	
081	Length	01~10	1~16	

	Variation 2,CV 1 Parameters			

082	Key	00~17	Cmaj~Bmin	

083	Length	01~10 1~16	
	Variation 2,CV 2 Parameters		
084	Key	00~17 Cmaj~Bmin	
085	Length	01~10 1~16	
	Variation 2,CV 3 Parameters		
086	Key	00~17 Cmaj~Bmin	
087	Length	01~10 1~16	
	Variation 2,CV 4 Parameters		
088	Key	00~17 Cmaj~Bmin	
089	Length	01~10 1~16	
	Variation 2,CV 5 Parameters		
090	Key	00~17 Cmaj~Bmin	
091	Length	01~10 1~16	
	Variation 2,CV 6 Parameters		
092	Key	00~17 Cmaj~Bmin	
093	Length	01~10 1~16	
	Variation 3,CV 1 Parameters		
094	Key	00~17 Cmaj~Bmin	
095	Length	01~10 1~16	
	Variation 3,CV 2 Parameters		
096	Key	00~17 Cmaj~Bmin	
097	Length	01~10 1~16	
	Variation 3,CV 3 Parameters		
098	Key	00~17 Cmaj~Bmin	
099	Length	01~10 1~16	

Variation 3,CV 4 Parameters			
100	Key	00~17	Cmaj~Bmin
101	Length	01~10	1~16
Variation 3,CV 5 Parameters			
102	Key	00~17	Cmaj~Bmin
103	Length	01~10	1~16
Variation 3,CV 6 Parameters			
104	Key	00~17	Cmaj~Bmin
105	Length	01~10	1~16
Variation 4,CV 1 Parameters			
106	Key	00~17	Cmaj~Bmin
107	Length	01~10	1~16
Variation 4,CV 2 Parameters			
108	Key	00~17	Cmaj~Bmin
109	Length	01~10	1~16
Variation 4,CV 3 Parameters			
110	Key	00~17	Cmaj~Bmin
111	Length	01~10	1~16
Variation 4,CV 4 Parameters			
112	Key	00~17	Cmaj~Bmin
113	Length	01~10	1~16
Variation 4,CV 5 Parameters			
114	Key	00~17	Cmaj~Bmin
115	Length	01~10	1~16
Variation 4,CV 6 Parameters			

116	Key	00~17	Cmaj~Bmin	
117	Length	01~10	1~16	

Intro 1,CV 1 Parameters				

118	Key	00~17	Cmaj~Bmin	
119	Length	01~10	1~16	

Intro 1,CV 2 Parameters				

120	Key	00~17	Cmaj~Bmin	
121	Length	01~10	1~16	

Intro 2,CV 1 Parameters				

122	Key	00~17	Cmaj~Bmin	
123	Length	01~10	1~16	

Intro 2,CV 2 Parameters				

124	Key	00~17	Cmaj~Bmin	
125	Length	01~10	1~16	

Ending 1,CV 1 Parameters				

126	Key	00~17	Cmaj~Bmin	
127	Length	01~10	1~16	

Ending 1,CV 2 Parameters				

128	Key	00~17	Cmaj~Bmin	
129	Length	01~10	1~16	

Ending 2,CV 1 Parameters				

130	Key	00~17	Cmaj~Bmin	
131	Length	01~10	1~16	

Ending 2,CV 2 Parameters				

132	Key	00~17	Cmaj~Bmin	
133	Length	01~10	1~16	

Fill 1,CV 1 Parameters			

134	Key	00~17	Cmaj~Bmin
135	Length	01~10	1~16

Fill 1,CV 2 Parameters			

136	Key	00~17	Cmaj~Bmin
137	Length	01~10	1~16

Fill 2,CV 1 Parameters			

138	Key	00~17	Cmaj~Bmin
139	Length	01~10	1~16

Fill 2,CV 2 Parameters			

140	Key	00~17	Cmaj~Bmin
141	Length	01~10	1~16

Variation 1 Chord Variation Table			

142	Major	0~5	CV1~CV6
143	6	0~5	CV1~CV6
144	M7	0~5	CV1~CV6
145	M7b5	0~5	CV1~CV6
146	sus4	0~5	CV1~CV6
147	sus2	0~5	CV1~CV6
148	M7sus4	0~5	CV1~CV6
149	m	0~5	CV1~CV6
150	m6	0~5	CV1~CV6
151	m7	0~5	CV1~CV6
152	m7b5	0~5	CV1~CV6
153	mM7	0~5	CV1~CV6
154	7	0~5	CV1~CV6
155	7b5	0~5	CV1~CV6
156	7sus4	0~5	CV1~CV6
157	dim	0~5	CV1~CV6
158	dimM7	0~5	CV1~CV6
159	aug	0~5	CV1~CV6
160	aug7	0~5	CV1~CV6

161	augM7	0~5	CV1~CV6	

Variation 2 Chord Variation Table				

162	Major	0~5	CV1~CV6	
163	6	0~5	CV1~CV6	
164	M7	0~5	CV1~CV6	
165	M7b5	0~5	CV1~CV6	
166	sus4	0~5	CV1~CV6	
167	sus2	0~5	CV1~CV6	
168	M7sus4	0~5	CV1~CV6	
169	m	0~5	CV1~CV6	
170	m6	0~5	CV1~CV6	
171	m7	0~5	CV1~CV6	
172	m7b5	0~5	CV1~CV6	
173	mM7	0~5	CV1~CV6	
174	7	0~5	CV1~CV6	
175	7b5	0~5	CV1~CV6	
176	7sus4	0~5	CV1~CV6	
177	dim	0~5	CV1~CV6	
178	dimM7	0~5	CV1~CV6	
179	aug	0~5	CV1~CV6	
180	aug7	0~5	CV1~CV6	
181	augM7	0~5	CV1~CV6	

Variation 3 Chord Variation Table				

182	Major	0~5	CV1~CV6	
183	6	0~5	CV1~CV6	
184	M7	0~5	CV1~CV6	
185	M7b5	0~5	CV1~CV6	
186	sus4	0~5	CV1~CV6	
187	sus2	0~5	CV1~CV6	
188	M7sus4	0~5	CV1~CV6	
189	m	0~5	CV1~CV6	
190	m6	0~5	CV1~CV6	
191	m7	0~5	CV1~CV6	
192	m7b5	0~5	CV1~CV6	
193	mM7	0~5	CV1~CV6	
194	7	0~5	CV1~CV6	
195	7b5	0~5	CV1~CV6	
196	7sus4	0~5	CV1~CV6	

197	dim	0~5	CV1~CV6	
198	dimM7	0~5	CV1~CV6	
199	aug	0~5	CV1~CV6	
200	aug7	0~5	CV1~CV6	
201	augM7	0~5	CV1~CV6	

Variation 4 Chord Variation Table

202	Major	0~5	CV1~CV6	
203	6	0~5	CV1~CV6	
204	M7	0~5	CV1~CV6	
205	M7b5	0~5	CV1~CV6	
206	sus4	0~5	CV1~CV6	
207	sus2	0~5	CV1~CV6	
208	M7sus4	0~5	CV1~CV6	
209	m	0~5	CV1~CV6	
210	m6	0~5	CV1~CV6	
211	m7	0~5	CV1~CV6	
212	m7b5	0~5	CV1~CV6	
213	mM7	0~5	CV1~CV6	
214	7	0~5	CV1~CV6	
215	7b5	0~5	CV1~CV6	
216	7sus4	0~5	CV1~CV6	
217	dim	0~5	CV1~CV6	
218	dimM7	0~5	CV1~CV6	
219	aug	0~5	CV1~CV6	
220	aug7	0~5	CV1~CV6	
221	augM7	0~5	CV1~CV6	

Intro 1 Chord Variation Table

222	Major	0~1	CV1~CV2	
223	6	0~1	CV1~CV2	
224	M7	0~1	CV1~CV2	
225	M7b5	0~1	CV1~CV2	
226	sus4	0~1	CV1~CV2	
227	sus2	0~1	CV1~CV2	
228	M7sus4	0~1	CV1~CV2	
229	m	0~1	CV1~CV2	
230	m6	0~1	CV1~CV2	
231	m7	0~1	CV1~CV2	
232	m7b5	0~1	CV1~CV2	

233	mM7	0~1	CV1~CV2	
234	7	0~1	CV1~CV2	
235	7b5	0~1	CV1~CV2	
236	7sus4	0~1	CV1~CV2	
237	dim	0~1	CV1~CV2	
238	dimM7	0~1	CV1~CV2	
239	aug	0~1	CV1~CV2	
240	aug7	0~1	CV1~CV2	
241	augM7	0~1	CV1~CV2	

-----|
Intro 2 Chord Variation Table
|-----|

242	Major	0~1	CV1~CV2	
243	6	0~1	CV1~CV2	
244	M7	0~1	CV1~CV2	
245	M7b5	0~1	CV1~CV2	
246	sus4	0~1	CV1~CV2	
247	sus2	0~1	CV1~CV2	
248	M7sus4	0~1	CV1~CV2	
249	m	0~1	CV1~CV2	
250	m6	0~1	CV1~CV2	
251	m7	0~1	CV1~CV2	
252	m7b5	0~1	CV1~CV2	
253	mM7	0~1	CV1~CV2	
254	7	0~1	CV1~CV2	
255	7b5	0~1	CV1~CV2	
256	7sus4	0~1	CV1~CV2	
257	dim	0~1	CV1~CV2	
258	dimM7	0~1	CV1~CV2	
259	aug	0~1	CV1~CV2	
260	aug7	0~1	CV1~CV2	
261	augM7	0~1	CV1~CV2	

-----|
Ending 1 Chord Variation Table
|-----|

262	Major	0~1	CV1~CV2	
263	6	0~1	CV1~CV2	
264	M7	0~1	CV1~CV2	
265	M7b5	0~1	CV1~CV2	
266	sus4	0~1	CV1~CV2	
267	sus2	0~1	CV1~CV2	
268	M7sus4	0~1	CV1~CV2	

269	m	0~1	CV1~CV2	
270	m6	0~1	CV1~CV2	
271	m7	0~1	CV1~CV2	
272	m7b5	0~1	CV1~CV2	
273	mM7	0~1	CV1~CV2	
274	7	0~1	CV1~CV2	
275	7b5	0~1	CV1~CV2	
276	7sus4	0~1	CV1~CV2	
277	dim	0~1	CV1~CV2	
278	dimM7	0~1	CV1~CV2	
279	aug	0~1	CV1~CV2	
280	aug7	0~1	CV1~CV2	
281	augM7	0~1	CV1~CV2	

Ending 2 Chord Variation Table

282	Major	0~1	CV1~CV2	
283	6	0~1	CV1~CV2	
284	M7	0~1	CV1~CV2	
285	M7b5	0~1	CV1~CV2	
286	sus4	0~1	CV1~CV2	
287	sus2	0~1	CV1~CV2	
288	M7sus4	0~1	CV1~CV2	
289	m	0~1	CV1~CV2	
290	m6	0~1	CV1~CV2	
291	m7	0~1	CV1~CV2	
292	m7b5	0~1	CV1~CV2	
293	mM7	0~1	CV1~CV2	
294	7	0~1	CV1~CV2	
295	7b5	0~1	CV1~CV2	
296	7sus4	0~1	CV1~CV2	
297	dim	0~1	CV1~CV2	
298	dimM7	0~1	CV1~CV2	
299	aug	0~1	CV1~CV2	
300	aug7	0~1	CV1~CV2	
301	augM7	0~1	CV1~CV2	

Fill 1 Chord Variation Table

302	Major	0~1	CV1~CV2	
303	6	0~1	CV1~CV2	
304	M7	0~1	CV1~CV2	

305	M7b5	0~1	CV1~CV2	
306	sus4	0~1	CV1~CV2	
307	sus2	0~1	CV1~CV2	
308	M7sus4	0~1	CV1~CV2	
309	m	0~1	CV1~CV2	
310	m6	0~1	CV1~CV2	
311	m7	0~1	CV1~CV2	
312	m7b5	0~1	CV1~CV2	
313	mM7	0~1	CV1~CV2	
314	7	0~1	CV1~CV2	
315	7b5	0~1	CV1~CV2	
316	7sus4	0~1	CV1~CV2	
317	dim	0~1	CV1~CV2	
318	dimM7	0~1	CV1~CV2	
319	aug	0~1	CV1~CV2	
320	aug7	0~1	CV1~CV2	
321	augM7	0~1	CV1~CV2	

Fill 2 Chord Variation Table

322	Major	0~1	CV1~CV2	
323	6	0~1	CV1~CV2	
324	M7	0~1	CV1~CV2	
325	M7b5	0~1	CV1~CV2	
326	sus4	0~1	CV1~CV2	
327	sus2	0~1	CV1~CV2	
328	M7sus4	0~1	CV1~CV2	
329	m	0~1	CV1~CV2	
330	m6	0~1	CV1~CV2	
331	m7	0~1	CV1~CV2	
332	m7b5	0~1	CV1~CV2	
333	mM7	0~1	CV1~CV2	
334	7	0~1	CV1~CV2	
335	7b5	0~1	CV1~CV2	
336	7sus4	0~1	CV1~CV2	
337	dim	0~1	CV1~CV2	
338	dimM7	0~1	CV1~CV2	
339	aug	0~1	CV1~CV2	
340	aug7	0~1	CV1~CV2	
341	augM7	0~1	CV1~CV2	

Pattern 00, Control Data

-----				[Meter]
342	Meter	10~3F		10~14:1/4~5/4
343	Length	01~10 1~16		20~29:1/8~10/8
-----				30~3F:1/16~16/16
344~541	Pattern 01~99, Control Data (Same as 00)			

Variation 1,CV1, DRUMS Data Address				

542	LSB			
543	MSB			

Variation 1,CV1, PERC Data Address				

544	LSB			
545	MSB			

Variation 1,CV1, BASS Data Address				

546	LSB			
547	MSB			

Variation 1,CV1, ACC1 Data Address				

548	LSB			
549	MSB			

Variation 1,CV1, ACC2 Data Address				

550	LSB			
551	MSB			

Variation 1,CV1, ACC3 Data Address				

552	LSB			
553	MSB			

Variation 1,CV2, DRUMS Data Address				

554	LSB			
555	MSB			

Variation 1,CV2, PERC Data Address				

556	LSB		
557	MSB		

Variation 1,CV2, BASS Data Address			

558	LSB		
559	MSB		

Variation 1,CV2, ACC1 Data Address			

560	LSB		
561	MSB		

Variation 1,CV2, ACC2 Data Address			

562	LSB		
563	MSB		

Variation 1,CV2, ACC3 Data Address			

564	LSB		
565	MSB		

Variation 1,CV3, DRUMS Data Address			

566	LSB		
567	MSB		

Variation 1,CV3, PERC Data Address			

568	LSB		
569	MSB		

Variation 1,CV3, BASS Data Address			

570	LSB		
571	MSB		

Variation 1,CV3, ACC1 Data Address			

572	LSB		

573	MSB			

	Variation 1,CV3, ACC2 Data Address			

574	LSB			
575	MSB			

	Variation 1,CV3, ACC3 Data Address			

576	LSB			
577	MSB			

	Variation 1,CV4, DRUMS Data Address			

578	LSB			
579	MSB			

	Variation 1,CV4, PERC Data Address			

580	LSB			
581	MSB			

	Variation 1,CV4, BASS Data Address			

582	LSB			
583	MSB			

	Variation 1,CV4, ACC1 Data Address			

584	LSB			
585	MSB			

	Variation 1,CV4, ACC2 Data Address			

586	LSB			
587	MSB			

	Variation 1,CV4, ACC3 Data Address			

588	LSB			
589	MSB			

Variation 1,CV5, DRUMS Data Address			
590	LSB		
591	MSB		
Variation 1,CV5, PERC Data Address			
592	LSB		
593	MSB		
Variation 1,CV5, BASS Data Address			
594	LSB		
595	MSB		
Variation 1,CV5, ACC1 Data Address			
596	LSB		
597	MSB		
Variation 1,CV5, ACC2 Data Address			
598	LSB		
599	MSB		
Variation 1,CV5, ACC3 Data Address			
600	LSB		
601	MSB		
Variation 1,CV6, DRUMS Data Address			
602	LSB		
603	MSB		
Variation 1,CV6, PERC Data Address			
604	LSB		
605	MSB		
Variation 1,CV6, BASS Data Address			

606	LSB			
607	MSB			

Variation 1,CV6, ACC1 Data Address				

608	LSB			
609	MSB			

Variation 1,CV6, ACC2 Data Address				

610	LSB			
611	MSB			

Variation 1,CV6, ACC3 Data Address				

612	LSB			
613	MSB			

614~829 Variation 2~4 Data Addresses				
(Same as Var.1)				

Intro 1,CV1, DRUMS Data Address				

830	LSB			
831	MSB			

Intro 1,CV1, PERC Data Address				

832	LSB			
833	MSB			

Intro 1,CV1, BASS Data Address				

834	LSB			
835	MSB			

Intro 1,CV1, ACC1 Data Address				

836	LSB			
837	MSB			

Intro 1,CV1, ACC2 Data Address				

838	LSB		
839	MSB		

Intro 1,CV1, ACC3 Data Address			

840	LSB		
841	MSB		

Intro 1,CV2, DRUMS Data Address			

842	LSB		
843	MSB		

Intro 1,CV2, PERC Data Address			

844	LSB		
845	MSB		

Intro 1,CV2, BASS Data Address			

846	LSB		
847	MSB		

Intro 1,CV2, ACC1 Data Address			

848	LSB		
849	MSB		

Intro 1,CV2, ACC2 Data Address			

850	LSB		
851	MSB		

Intro 1,CV2, ACC3 Data Address			

852	LSB		
853	MSB		

854~877	Intro 2,CV1~2, Data Addresses		
(Same as Intro 1)			

878~901	Ending 1, CV1~2, Data Addresses	
	(Same as Intro 1)	

902~925	Ending 2, CV1~2, Data Addresses	
	(Same as Intro 1)	

926~949	Fill 1, CV1~2, Data Addresses	
	(Same as Intro 1)	

950~973	Fill 2, CV1~2, Data Addresses	
	(Same as Intro 1)	

	Pattern 00, Data Address	

974	LSB	
975	MSB	

976~1173	Pattern 01~99, Data Addressseses	
	(Same as 00)	

	End Pattern Address	

1174	LSB	
1175	MSB	

STYLE SEQUENCE DATA

No.	Parameter	Data (h) Value

	Event 1	

0	1st Data	
1	2nd Data	
2	3rd Data	
3	4th Data	

4~	Event 2~ (same as Event 1)	

BACKING SEQ PARAMETERS

+-----+-----+-----+-----+				
No.	Parameter	Data (h)	Value	
+-----+-----+-----+-----+				
	BSEQ 0 Control Data			
000	BSEQ Name (1/16)	20~7E	" " ~ ""	
001	BSEQ Name (2/16)		(ASCII Code)	
002	BSEQ Name (3/16)			
003	BSEQ Name (4/16)			
004	BSEQ Name (5/16)			
005	BSEQ Name (6/16)			
006	BSEQ Name (7/16)			
007	BSEQ Name (8/16)			
008	BSEQ Name (9/16)			
009	BSEQ Name (10/16)			
010	BSEQ Name (11/16)			
011	BSEQ Name (12/16)			
012	BSEQ Name (13/16)			
013	BSEQ Name (14/16)			
014	BSEQ Name (15/16)			
015	BSEQ Name (16/16)			
016	Arrangement No.	0~7F	8 Beat~User 4	
017	Arrangement Bank	0,1	AB,CD	
018	Style No.	00~7F		[Style No.][Style Bank]
019	Style Bank	00,01		Bank=00,No.=00~7F : A11~A88~B88
020	Initial Variation (1/2)	00~03	Var.1~4	Bank=01,No.=00~2F : C11~C68
021	Initial Variation (2/2)		00:->Var.1~4	
	(b3) Fill	0,1	04: Intro 1	
	(b2) Intro	0,1	05: Intro 2	
	(b1) ... Reserve	-----	08: Fill 1	
	(b0) 1 or 2	0,1	09: Fill 2	
022	Tempo	0A~D2	40~240	
023	FULL KBD PLAY	00,01	Off, On	
024	Chord Scan Parameters			
	(b7) ... Reserve	-----	-----	
	(b6) ... Reserve	-----	-----	"Lower type" is effective
	(b5) ... (Lower Type)	(0,1)	(Normal, Easy)	at first released system.
	(b4) ... Reserve	-----	-----	
	(b3) ... Reserve	-----	-----	
	(b2) ... Reserve	-----	-----	[Chord Scanning]
	(b1) Chord Scan Upper	0,1	Off, On	00: Off 02: Upper

		(b0)Chord Scan Lower	0,1	Off,On	01:Lower 03:FULL
025		...Reserve	-----	-----	
026		...Reserve	-----	-----	
027		...Reserve	-----	-----	[ACC FX]
028		...Reserve	-----	-----	0:Arrangement
029		ACC FX	0,1		1:Backing SEQ

	MainKBD PARAMETERS				

030		Program No.	00~7F		[Program No.][Program Bank]
031		Program Bank	00~04		Bank=00,No.=00~7F : A11~A88~B88
032		...Reserve	-----	-----	Bank=01,No.=00~7F : C11~C88~D88
033		...Reserve	-----	-----	Bank=02,No.=00~3F : E11~E88
034		...Reserve	-----	-----	Bank=03,No.=00~7F : F11~F88~G88
035		Octave	FE~02	-2~+2	Bank=04,No.=00~27 : R11~R58
036		Out Status			
		(b7)...Reserve	-----	-----	
		(b6)...Reserve	-----	-----	
		(b5)...Reserve	-----	-----	
		(b4)...Reserve	-----	-----	
		(b3)...Reserve	-----	-----	
		(b2)Mute/Play	0,1	Play,Mute	
		(b1)...Reserve	-----	-----	
		(b0)...Reserve	-----	-----	
037		...Reserve	-----	-----	

	SubKBD PARAMETERS				

038		Program No.	00~7F		
039		Program Bank	00~04		
040		...Reserve	-----	-----	
041		...Reserve	-----	-----	
042		...Reserve	-----	-----	
043		Octave	FE~02	-2~+2	
044		Out Status			
		(b7)...Reserve	-----	-----	
		(b6)...Reserve	-----	-----	
		(b5)...Reserve	-----	-----	
		(b4)...Reserve	-----	-----	
		(b3)...Reserve	-----	-----	
		(b2)Mute/Play	0,1	Play,Mute	
		(b1)...Reserve	-----	-----	

	(b0) ...Reserve		-----		-----	
045	...Reserve		-----		-----	

LowerKBD PARAMETERS						

046	Program No.		00~7F			
047	Program Bank		00~04			
048	...Reserve		-----		-----	
049	...Reserve		-----		-----	
050	...Reserve		-----		-----	
051	Octave		FE~02		-2~+2	
052	Out Status					
	(b7) ...Reserve		-----		-----	
	(b6) ...Reserve		-----		-----	
	(b5) ...Reserve		-----		-----	
	(b4) ...Reserve		-----		-----	
	(b3) ...Reserve		-----		-----	
	(b2) Mute/Play		0,1		Play, Mute	
	(b1) ...Reserve		-----		-----	
	(b0) ...Reserve		-----		-----	
053	...Reserve		-----		-----	

Arrangement Track Activity						

054	KBD Track Status		0,1		Mute, Play	
055	Control Track Status		0,1		Mute, Play	
056	Chord Track Status		0,1		Mute, Play	

057	Tempo Track		0,1		Manual, Auto	[Meter]
058	Meter		10~3F			10~14:1/4~5/4
059	Split Point		24~60		C2~C7	20~29:1/8~10/8
060	Transpose		F5~0B		-11~+11	30~3F:1/16~16/16

Switches						

061	...Reserve		-----		-----	
062	Chord Memory On/Off		00,01		Off, On	
063	Chord Sound On/Off		00,01		Off, On	
064	Bass Inversion On/Off		00,01		Off, On	
065	...Reserve		-----		-----	
066	KBD Lock On/Off		00,01		Off, On	
067	Ensemble SW On/Off		00,01		Off, On	

068	...Reserve		-----		-----	
069	Drums Play/Mute		0,1		Play,Mute	
070	Perc Play/Mute		0,1		Play,Mute	
071	Bass Play/Mute		0,1		Play,Mute	
072	ACC1 Play/Mute		0,1		Play,Mute	
073	ACC2 Play/Mute		0,1		Play,Mute	
074	ACC3 Play/Mute		0,1		Play,Mute	
075	...Reserve		-----		-----	
076	...Reserve		-----		-----	
077	...Reserve		-----		-----	
078	...Reserve		-----		-----	
079	Next BSEQ Number		0~9		BSEQ 0~BSEQ 9	
080	Next BSEQ Chain/A-Start					
	(b1)Chain		0,1		Off,On	
	(b0)Auto Start		0,1		Off,On	

ExtraKBD Track 4 PARAMETERS						

081	Program No.		00~7F			
082	Program Bank		00~04		[Program No.][Program Bank]	
083	Volume		00~7F		000~127	Bank=00,No.=00~7F : A11~A88~B88
084	Pan		FF~1F		Off~Prog	Bank=01,No.=00~7F : C11~C88~D88
085	(b7~b4)C Send Level		0~A		0~9,Prog	Bank=02,No.=00~3F : E11~E88
	(b3~b0)D Send Level		0~A		0~9,Prog	Bank=03,No.=00~7F : F11~F88~G88
086	Out Status					Bank=04,No.=00~27 : R11~R58
	(b7)...Reserve		-----		-----	[Pan]
	(b6)...Reserve		-----		-----	FF : OFF
	(b5)...Reserve		-----		-----	00 : L15
	(b4)...Reserve		-----		-----	
	(b3)...Reserve		-----		-----	0F : CNT
	(b2)Mute/Play		0,1		Play,Mute	
	(b1)External Out		0,1		Off,On	1E : R15
	(b0)Internal Out		0,1		Off,On	1F : PROG
087	PitchBend Range		F4~0D		-12~+12,Prog	
088	Transpose		E8~18		-24~+24	
089	Detune		CE~32		-50~+50	
090	...Reserve(Protect)		0		-----	
091	MIDI Channel		00~0F		1~16	
092	Velocity Window Top		01~7F		001~127	
093	Vel Window Bottom		01~7F		001~127	
094	Key Window Top		00~7F		C-1~G9	
095	Key Window Bottom		00~7F		C-1~G9	

ExtraKBD Track 5 PARAMETERS			

096	Program No.	00~7F	
097	Program Bank	00~04	
098	Volume	00~7F	000~127
099	Pan	FF~1F	Off~Prog
100	(b7~b4)C Send Level	0~A	0~9, Prog
	(b3~b0)D Send Level	0~A	0~9, Prog
101	Out Status		
	(b7) ...Reserve	-----	-----
	(b6) ...Reserve	-----	-----
	(b5) ...Reserve	-----	-----
	(b4) ...Reserve	-----	-----
	(b3) ...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play,Mute
	(b1)External Out	0,1	Off,On
	(b0)Internal Out	0,1	Off,On
102	PitchBend Range	F4~0D	-12~+12, Prog
103	Transpose	E8~18	-24~+24
104	Detune	CE~32	-50~+50
105	...Reserve(Protect)	0	-----
106	MIDI Channel	00~0F	1~16
107	Velocity Window Top	01~7F	001~127
108	Vel Window Bottom	01~7F	001~127
109	Key Window Top	00~7F	C-1~G9
110	Key Window Bottom	00~7F	C-1~G9

ExtraKBD Track 6 PARAMETERS			

111	Program No.	00~7F	
112	Program Bank	00~04	
113	Volume	00~7F	000~127
114	Pan	FF~1F	Off~Prog
115	(b7~b4)C Send Level	0~A	0~9, Prog
	(b3~b0)D Send Level	0~A	0~9, Prog
116	Out Status		
	(b7) ...Reserve	-----	-----
	(b6) ...Reserve	-----	-----
	(b5) ...Reserve	-----	-----
	(b4) ...Reserve	-----	-----
	(b3) ...Reserve	-----	-----

		(b2)Mute/Play	0,1	Play,Mute	
		(b1)External Out	0,1	Off,On	
		(b0)Internal Out	0,1	Off,On	
117		PitchBend Range	F4~0D	-12~+12, Prog	
118		Transpose	E8~18	-24~+24	
119		Detune	CE~32	-50~+50	
120		...Reserve(Protect)	0	-----	
121		MIDI Channel	00~0F	1~16	
122		Velocity Window Top	01~7F	001~127	
123		Vel Window Bottom	01~7F	001~127	
124		Key Window Top	00~7F	C-1~G9	
125		Key Window Bottom	00~7F	C-1~G9	

ExtraKBD Track 7 PARAMETERS

126		Program No.	00~7F		
127		Program Bank	00~04		
128		Volume	00~7F	000~127	
129		Pan	FF~1F	Off~Prog	
130		(b7~b4)C Send Level	0~A	0~9, Prog	
		(b3~b0)D Send Level	0~A	0~9, Prog	
131		Out Status			
		(b7)...Reserve	-----	-----	
		(b6)...Reserve	-----	-----	
		(b5)...Reserve	-----	-----	
		(b4)...Reserve	-----	-----	
		(b3)...Reserve	-----	-----	
		(b2)Mute/Play	0,1	Play,Mute	
		(b1)External Out	0,1	Off,On	
		(b0)Internal Out	0,1	Off,On	
132		PitchBend Range	F4~0D	-12~+12, Prog	
133		Transpose	E8~18	-24~+24	
134		Detune	CE~32	-50~+50	
135		...Reserve(Protect)	0	-----	
136		MIDI Channel	00~0F	1~16	
137		Velocity Window Top	01~7F	001~127	
138		Vel Window Bottom	01~7F	001~127	
139		Key Window Top	00~7F	C-1~G9	
140		Key Window Bottom	00~7F	C-1~G9	

ExtraKBD Track 8 PARAMETERS

141	Program No.	00~7F	
142	Program Bank	00~04	
143	Volume	00~7F	000~127
144	Pan	FF~1F	Off~Prog
145	(b7~b4)C Send Level	0~A	0~9, Prog
	(b3~b0)D Send Level	0~A	0~9, Prog
146	Out Status		
	(b7)...Reserve	----	----
	(b6)...Reserve	----	----
	(b5)...Reserve	----	----
	(b4)...Reserve	----	----
	(b3)...Reserve	----	----
	(b2)Mute/Play	0,1	Play,Mute
	(b1)External Out	0,1	Off,On
	(b0)Internal Out	0,1	Off,On
147	PitchBend Range	F4~0D	-12~+12, Prog
148	Transpose	E8~18	-24~+24
149	Detune	CE~32	-50~+50
150	...Reserve(Protect)	0	----
151	MIDI Channel	00~0F	1~16
152	Velocity Window Top	01~7F	001~127
153	Vel Window Bottom	01~7F	001~127
154	Key Window Top	00~7F	C-1~G9
155	Key Window Bottom	00~7F	C-1~G9

156~200	Reserve		

	ACC FX PARAMETERS when No.29 ACC FX=Backing SEQ		

201	FX 1 Type	00~2F	[FX 1/2 Type]
202	FX 2 Type	00~2F	0:NoEffect
203	FX 1 Dry/Wet Balance(L)	00~64	Dry~Wet
204	FX 1 Dry/Wet Balance(R)	00~64	Dry~Wet
205	FX 2 Dry/Wet Balance(L)	00~64	Dry~Wet
206	FX 2 Dry/Wet Balance(R)	00~64	Dry~Wet
207	Effect Output C Pan	00~65	Off,R,01:99~L
208	Effect Output D Pan	00~65	Off,R,01:99~L
209	Effect I/O		
	(b7)...Reserve	----	----
	(b6)Placement (1/3)	0~5	
	(b5)Placement (2/3)		
	(b4)Placement (3/3)		

[FX 1/2 Type]
 0:NoEffect
 ~2F:Delay/RotarySpeaker
 [Effect Output C/D Pan]
 When Placement is Parallel3
 No.141(bit7~4) FX 1 Return L : 0~9
 No.141(bit3~0) FX 1 Return R : 0~9
 No.142(bit7~4) FX 2 Return L : 0~9
 No.142(bit3~0) FX 2 Return R : 0~9
 [Placement]

		(b3)Effect 2 (R) On/Off	0,1	Off,On	0:Serial
		(b2)Effect 2 (L) On/Off	0,1	Off,On	1:Parallel 1
		(b1)Effect 1 (R) On/Off	0,1	Off,On	2:Parallel 2
		(b0)Effect 1 (L) On/Off	0,1	Off,On	3:Parallel 3
210	FX 1	Parameter (1/8)			4:Serial Sub
211	FX 1	Parameter (2/8)			5:Parallel Sub
212	FX 1	Parameter (3/8)			
213	FX 1	Parameter (4/8)			
214	FX 1	Parameter (5/8)			
215	FX 1	Parameter (6/8)			
216	FX 1	Parameter (7/8)			
217	FX 1	Parameter (8/8)			
218	FX 1	D-Mod.Source	00~06	None~VDA EG	
219	FX 1	D-Mod.Amount	F1~OF	-15~+15	
220	FX 2	Parameter (1/8)			
221	FX 2	Parameter (2/8)			
222	FX 2	Parameter (3/8)			
223	FX 2	Parameter (4/8)			
224	FX 2	Parameter (5/8)			
225	FX 2	Parameter (6/8)			
226	FX 2	Parameter (7/8)			
227	FX 2	Parameter (8/8)			
228	FX 2	D-Mod.Source	00~06	None~VDA EG	
229	FX 2	D-Mod.Amount	F1~OF	-15~+15	

230~459	BSEQ 1 Control Data (Same as BSEQ 0)				

460~689	BSEQ 2 Control Data (Same as BSEQ 0)				

690~919	BSEQ 3 Control Data (Same as BSEQ 0)				

920~1149	BSEQ 4 Control Data (Same as BSEQ 0)				

1150~1379	BSEQ 5 Control Data (Same as BSEQ 0)				

1380~1609	BSEQ 6 Control Data (Same as BSEQ 0)				

1610~1839	BSEQ 7 Control Data (Same as BSEQ 0)				

1840~2069	BSEQ 8 Control Data (Same as BSEQ 0)				

2070~2299	BSEQ 9 Control Data (Same as BSEQ 0)				

BSEQ 0 Track 1 (KBD Tr) Data Address			

2300	LSB		
2301	MSB		

BSEQ 0 Track 2 (Control Tr) Data Address			

2302	LSB		
2303	MSB		

BSEQ 0 Track 3 (Chord Tr) Data Address			

2304	LSB		
2305	MSB		

BSEQ 0 Track 4 (Dummy Tr) Data Address			

2306	LSB		
2307	MSB		

BSEQ 0 Track 5 (Dummy Tr) Data Address			

2308	LSB		
2309	MSB		

BSEQ 0 Track 6 (Dummy Tr) Data Address			

2310	LSB		
2311	MSB		

BSEQ 0 Track 7 (Dummy Tr) Data Address			

2312	LSB		
2313	MSB		

BSEQ 0 Track 8 (Dummy Tr) Data Address			

2314	LSB		
2315	MSB		

BSEQ 0 Track 9 (Dummy Tr) Data Address			

2316	LSB		
2317	MSB		

BSEQ 0 Track 10 (Dummy Tr) Data Address			

2318	LSB		
2319	MSB		

BSEQ 0 Track 11 (Dummy Tr) Data Address			

2320	LSB		
2321	MSB		

BSEQ 0 Track 12 (E.KBD4 Tr) Data Address			

2322	LSB		
2323	MSB		

BSEQ 0 Track 13 (E.KBD5 Tr) Data Address			

2324	LSB		
2325	MSB		

BSEQ 0 Track 14 (E.KBD6 Tr) Data Address			

2326	LSB		
2327	MSB		

BSEQ 0 Track 15 (E.KBD7 Tr) Data Address			

2328	LSB		
2329	MSB		

BSEQ 0 Track 16 (E.KBD8 Tr) Data Address			

2330	LSB		
2331	MSB		

BSEQ 0 Tempo Track Data Address			

2332	LSB		

2333	MSB			
2334~2367	BSEQ 1 Data Addresses (same as BSEQ 0)			
2368~2401	BSEQ 2 Data Addresses (same as BSEQ 0)			
2402~2435	BSEQ 3 Data Addresses (same as BSEQ 0)			
2436~2469	BSEQ 4 Data Addresses (same as BSEQ 0)			
2470~2503	BSEQ 5 Data Addresses (same as BSEQ 0)			
2504~2537	BSEQ 6 Data Addresses (same as BSEQ 0)			
2538~2571	BSEQ 7 Data Addresses (same as BSEQ 0)			
2572~2605	BSEQ 8 Data Addresses (same as BSEQ 0)			
2606~2639	BSEQ 9 Data Addresses (same as BSEQ 0)			
	End Address			
2640	LSB			
2641	MSB			
+-----+				

BACKING SEQ SEQUENCE DATA

No.	Parameter	Data (h)	Value	
	Event 1			
0	1st Data			
1	2nd Data			
2	3rd Data			
3	4th Data			
4~	Event 2~ (same as Event 1)			
+-----+				

SONG PARAMETERS

No.	Parameter	Data (h)	Value
Song 0 Control Data			
MIDI Chnannel			
000	Track 1	0~0F	1~16
001	Track 2	0~0F	1~16
002	Track 3	0~0F	1~16
003	Track 4	0~0F	1~16
004	Track 5	0~0F	1~16
005	Track 6	0~0F	1~16
006	Track 7	0~0F	1~16
007	Track 8	0~0F	1~16
008	Track 9	0~0F	1~16
009	Track 10	0~0F	1~16
010	Track 11	0~0F	1~16
011	Track 12	0~0F	1~16
012	Track 13	0~0F	1~16
013	Track 14	0~0F	1~16
014	Track 15	0~0F	1~16
015	Track 16	0~0F	1~16
Out Status			
016	Track 1		
	(b7) ...Reserve	-----	-----
	(b6) ...Reserve	-----	-----
	(b5) ...Reserve	-----	-----
	(b4) ...Reserve	-----	-----
	(b3) ...Reserve	-----	-----
	(b2) Mute/Play	0,1	Play,Mute
	(b1) External Out	0,1	Off,On
	(b0) Internal Out	0,1	Off,On
017	Track 2 (same as Track 1)		
018	Track 3 (same as Track 1)		
019	Track 4 (same as Track 1)		
020	Track 5 (same as Track 1)		
021	Track 6 (same as Track 1)		
022	Track 7 (same as Track 1)		

023	Track 8 (same as Track 1)			
024	Track 9 (same as Track 1)			
025	Track 10 (same as Track 1)			
026	Track 11 (same as Track 1)			
027	Track 12 (same as Track 1)			
028	Track 13 (same as Track 1)			
029	Track 14 (same as Track 1)			
030	Track 15 (same as Track 1)			
031	Track 16 (same as Track 1)			

	Pitch Bend Range			

032	Track 1	F4~0D	-12~+12, Prog	
033	Track 2	F4~0D	-12~+12, Prog	
034	Track 3	F4~0D	-12~+12, Prog	
035	Track 4	F4~0D	-12~+12, Prog	
036	Track 5	F4~0D	-12~+12, Prog	
037	Track 6	F4~0D	-12~+12, Prog	
038	Track 7	F4~0D	-12~+12, Prog	
039	Track 8	F4~0D	-12~+12, Prog	
040	Track 9	F4~0D	-12~+12, Prog	
041	Track 10	F4~0D	-12~+12, Prog	
042	Track 11	F4~0D	-12~+12, Prog	
043	Track 12	F4~0D	-12~+12, Prog	
044	Track 13	F4~0D	-12~+12, Prog	
045	Track 14	F4~0D	-12~+12, Prog	
046	Track 15	F4~0D	-12~+12, Prog	
047	Track 16	F4~0D	-12~+12, Prog	

048	Meter	10~3F		[Meter]
049	Tempo	0A~D2	40~240	10~14:1/4~5/4
050	...Reserve(Protect 1~8)	0	-----	20~29:1/8~10/8
051	...Reserve(Protect 9~16)	0	-----	30~3F:1/16~16/16
052	Next Song Number	00~09	Song 0~Song 9	
053	Next Song Chain/A-Start			
	(b1)Chain	0,1	Off,On	
	(b0)Auto Start	0,1	Off,On	
054	Song Name (1/16)	20~7E	" " ~ " "	
055	Song Name (2/16)		(ASCII Code)	
056	Song Name (3/16)			
057	Song Name (4/16)			
058	Song Name (5/16)			

059	Song Name (6/16)			
060	Song Name (7/16)			
061	Song Name (8/16)			
062	Song Name (9/16)			
063	Song Name (10/16)			
064	Song Name (11/16)			
065	Song Name (12/16)			
066	Song Name (13/16)			
067	Song Name (14/16)			
068	Song Name (15/16)			
069	Song Name (16/16)			
070	...Reserve		-----	

	FX PARAMETERS			

071	FX 1 Type		00~2F	[FX 1/2 Type]
072	FX 2 Type		00~2F	0:NoEffect
073	FX 1 Dry/Wet Balance (L)		00~64	Dry~Wet ~2F:Delay/RotarySpeaker
074	FX 1 Dry/Wet Balance (R)		00~64	Dry~Wet
075	FX 2 Dry/Wet Balance (L)		00~64	Dry~Wet
076	FX 2 Dry/Wet Balance (R)		00~64	Dry~Wet [Effect Output C/D Pan]
077	Effect Output C Pan		00~65	Off,R,01:99~L When Placement is Parallel3
078	Effect Output D Pan		00~65	Off,R,01:99~L No.141(bit7~4) FX 1 Return L : 0~9
079	Effect I/O			No.141(bit3~0) FX 1 Return R : 0~9
	(b7)...Reserve		-----	No.142(bit7~4) FX 2 Return L : 0~9
	(b6)Placement (1/3)		0~5	No.142(bit3~0) FX 2 Return R : 0~9
	(b5)Placement (2/3)			
	(b4)Placement (3/3)			[Placement]
	(b3)Effect 2 (R) On/Off		0,1	Off,On 0:Serial
	(b2)Effect 2 (L) On/Off		0,1	Off,On 1:Parallel 1
	(b1)Effect 1 (R) On/Off		0,1	Off,On 2:Parallel 2
	(b0)Effect 1 (L) On/Off		0,1	Off,On 3:Parallel 3
080	FX 1 Parameter (1/8)			4:Serial Sub
081	FX 1 Parameter (2/8)			5:Parallel Sub
082	FX 1 Parameter (3/8)			
083	FX 1 Parameter (4/8)			
084	FX 1 Parameter (5/8)			
085	FX 1 Parameter (6/8)			
086	FX 1 Parameter (7/8)			
087	FX 1 Parameter (8/8)			
088	FX 1 D-Mod.Source		00~06	None~VDA EG
089	FX 1 D-Mod.Amount		F1~OF	-15~+15

090	FX 2 Parameter(1/8)			
091	FX 2 Parameter(2/8)			
092	FX 2 Parameter(3/8)			
093	FX 2 Parameter(4/8)			
094	FX 2 Parameter(5/8)			
095	FX 2 Parameter(6/8)			
096	FX 2 Parameter(7/8)			
097	FX 2 Parameter(8/8)			
098	FX 2 D-Mod.Source	00~06	None~VDA EG	
099	FX 2 D-Mod.Amount	F1~0F	-15~+15	

	Track 1 PARAMETERS			

100	Program No.	00~7F		
101	Program Bank	00~04		[Program No.][Program Bank]
102	Volume	00~7F	000~127	Bank=00,No.=00~7F : A11~A88~B88
103	Transpose	E8~18	-24~+24	Bank=01,No.=00~7F : C11~C88~D88
104	Detune	CE~32	-50~+50	Bank=02,No.=00~3F : E11~E88
105	Pan	FF~1F	Off~Prog	Bank=03,No.=00~7F : F11~F88~G88
106	(b7~b4)C Send Level	0~A	0~9,Prog	Bank=04,No.=00~27 : R11~R58
	(b3~b0)D Send Level	0~A	0~9,Prog	[Pan]
107	Key Window Top	00~7F	C-1~G9	FF : OFF
108	Key Window Bottom	00~7F	C-1~G9	00 : L15
109	Velocity Window Top	01~7F	001~127	
110	Vel Window Bottom	01~7F	001~127	0F : CNT
111	...Reserve(Ctrl Filter)			
	(b7)...Reserve	-----	-----	1E : R15
	(b6)...Reserve	-----	-----	1F : PROG
	(b5)...Reserve	-----	-----	
	(b4)...Reserve	-----	-----	
	(b3)ControlChange	1	Enable	
	(b2)Aftertouch 0,1	1	Enable	
	(b1)Damper 0,1	1	Enable	
	(b0)Prog.Change	1	Enable	
112	MIDI Channel	00~0F	1~16	

113~125	Track 2 PARAMETERS (same as Track 1)			

126~138	Track 3 PARAMETERS (same as Track 1)			

139~151	Track 4 PARAMETERS (same as Track 1)			

152~164	Track 5 PARAMETERS (same as Track 1)	

165~177	Track 6 PARAMETERS (same as Track 1)	

178~190	Track 7 PARAMETERS (same as Track 1)	

191~203	Track 8 PARAMETERS (same as Track 1)	

204~216	Track 9 PARAMETERS (same as Track 1)	

217~229	Track 10 PARAMETERS (same as Track 1)	

230~242	Track 11 PARAMETERS (same as Track 1)	

243~255	Track 12 PARAMETERS (same as Track 1)	

256~268	Track 13 PARAMETERS (same as Track 1)	

269~281	Track 14 PARAMETERS (same as Track 1)	

282~294	Track 15 PARAMETERS (same as Track 1)	

295~307	Track 16 PARAMETERS (same as Track 1)	

308	...Reserve	---- ----
309	...Reserve	---- ----
310	...Reserve	---- ----
311	...Reserve	---- ----
312	...Reserve	---- ----
313	...Reserve	---- ----
314	...Reserve	---- ----
315	...Reserve	---- ----
316	...Reserve	---- ----
317	...Reserve	---- ----

318~635	Song 1 Control Data (same as Song 0)	

636~953	Song 2 Control Data (same as Song 0)	

954~1271	Song 3 Control Data (same as Song 0)	

1272~1589	Song 4 Control Data (same as Song 0)	

1590~1907 Song 5 Control Data (same as Song 0)			

1908~2225 Song 6 Control Data (same as Song 0)			

2226~2543 Song 7 Control Data (same as Song 0)			

2544~2861 Song 8 Control Data (same as Song 0)			

2862~3179 Song 9 Control Data (same as Song 0)			

Pattern 00, Control Data			

3180 Meter 10~3F			
3181 Length 01~63 1~99			

3182~3379 Pattern 01~99, Control Data(same as 00)			

Song 0 Track 1 Data Address			

3380 LSB			
3381 MSB			

Song 0 Track 2 Data Address (same as Track 1)			

3382 LSB			
3383 MSB			

Song 0 Track 3 Data Address			

3384 LSB			
3385 MSB			

Song 0 Track 4 Data Address			

3386 LSB			
3387 MSB			

Song 0 Track 5 Data Address			

3388 LSB			
3389 MSB			

[Meter]

10~14:1/4~5/4

20~29:1/8~10/8

30~3F:1/16~16/16

Song 0 Track 6 Data Address			
3390	LSB		
3391	MSB		
Song 0 Track 7 Data Address			
3392	LSB		
3393	MSB		
Song 0 Track 8 Data Address			
3394	LSB		
3395	MSB		
Song 0 Track 9 Data Address			
3396	LSB		
3397	MSB		
Song 0 Track 10 Data Address			
3398	LSB		
3399	MSB		
Song 0 Track 11 Data Address			
3400	LSB		
3401	MSB		
Song 0 Track 12 Data Address			
3402	LSB		
3403	MSB		
Song 0 Track 13 Data Address			
3404	LSB		
3405	MSB		
Song 0 Track 14 Data Address			

3406	LSB		
3407	MSB		

Song 0 Track 15 Data Address			

3408	LSB		
3409	MSB		

Song 0 Track 16 Data Address			

3410	LSB		
3411	MSB		

Song 0 Tempo Track Data Address			

3412	LSB		
3413	MSB		

3414~3447	Song 1 Data Addresses		

3448~3481	Song 2 Data Addresses		

3482~3515	Song 3 Data Addresses		

3516~3549	Song 4 Data Addresses		

3550~3583	Song 5 Data Addresses		

3584~3617	Song 6 Data Addresses		

3618~3651	Song 7 Data Addresses		

3652~3685	Song 8 Data Addresses		

3686~3719	Song 9 Data Addresses		

Pattern 00, Data Address			

3720	LSB		
3721	MSB		

3722~3919	Pattern 01~99, Data Addresses			
	(same as 00)			

	End Pattern Address			

3920	LSB			
3921	MSB			

SONG SEQUENCE DATA

No.	Parameter	Data(h)	Value	

	Event 1			

0	1st Data			
1	2nd Data			
2	3rd Data			
3	4th Data			

4~	Event 2~ (same as Event 1)			

EFFECT PARAMETERS (8Byte) 47 Types

Offset	Parameter	Data(h)	Value	

	1~6:Reverb (Hall,Room)			

(00)	Reverb Time	00~61	0.2~9.9 (~4.9) s	
(01)	(NUL)	00		
(02)	High Damp	00~63	0~99%	
(03)	Pre Delay	00~C8	00~200ms	
(04)	E.R. Level	00~63	0~99	
(05)	(NUL)	00		
(06)	EQ High	F4~0C	-12~+12	
(07)	EQ Low	F4~0C	-12~+12	

NUL not listed from here on, Value must be 00

7~9:Reverb (Plate, Spring)

+-----+				
(00)	Pre Delay	00~C8	0~200ms	
(02)	E.R. Level	01~0A	1~10	
(03)	Reverb Time	00~63	0~99	
(04)	High Damp	00~63	0~99%	
(06)	EQ High	F4~0C	-12~+12	
(07)	EQ Low	F4~0C	-12~+12	
+-----+				

10~12:Early Reflections 1,2,3

+-----+				
(00)	E.R. Time	00~46	100~800ms	
(01)	Pre Delay	00~C8	0~200ms	
(06)	EQ High	F4~0C	-12~+12	
(07)	EQ Low	F4~0C	-12~+12	
+-----+				

13:Stereo Delay, 14:Cross Delay

+-----+				
(00)	Delay Time L (LSB)	0000	0~500ms	
(01)	Deray Time L (MSB)	~01F4		
(02)	Feedback	9D~63	-99~+99%	
(03)	High Damp	00~63	0~99%	
(04)	Delay Time R (LSB)	0000	0~500ms	
(05)	Delay Time R (MSB)	~01F4		
(06)	EQ High	F4~0C	-12~+12	
(07)	EQ Low	F4~0C	-12~+12	
+-----+				

15: Dual Mono Delay

+-----+				
(00)	Delay Time L (LSB)	0000	0~500ms	
(01)	Deray Time L (MSB)	~01F4		
(02)	Feedback L	9D~63	-99~+99%	
(03)	High Damp L	00~63	0~99%	
(04)	Delay Time R (LSB)	0000	0~500ms	
(05)	Delay Time R (MSB)	~01F4		
(06)	Feedback R	9D~63	-99~+99%	
(07)	High Damp R	00~63	0~99%	
+-----+				

16~18:St. Multitap Delay 1,2,3

+-----+				
(00)	Delay Time A (LSB)	0000	0~500ms	
(01)	Delay Time A (MSB)	~01F4		
(02)	Delay Time B (LSB)	0000	0~500ms	
(03)	Delay Time B (MSB)	~01F4		
(04)	Feedback	9D~63	-99~+99%	
(06)	EQ High	F4~0C	-12~+12	
(07)	EQ Low	F4~0C	-12~+12	
+-----+				

19,20:Stereo Chorus 1,2

+-----+				
(00)	Mod Depth	00~63	0~99	[Mod Speed]
(01)	Mod Speed	00~D8		00~63: 0.0~3.00Hz (0.03step)
(02)	MG Status			34~C7: 3.1~13.0Hz (0.1 step)
	(b2)Wave Shape	0	Normal	C8~D8: 14 ~30Hz (1 step)
	(b1)Phase	1	180deg	
	(b0)LFO Waveform	0,1	Sin,Triangle	
(04)	Delay Time	00~C8	0~200ms	
(06)	EQ High	F4~0C	-12~+12	
(07)	EQ Low	F4~0C	-12~+12	
+-----+				

21,22:St. Quadrature Chorus,St. Crossover Chorus

+-----+				
(00)	Delay Time L	00~FA	0~250ms	
(01)	Delay Time R	00~FA	0~250ms	
(02)	Mod Speed	01~63	1~99	
(03)	Mod Depth	00~63	0~99	[Mod Waveform]
(04)	Mod Waveform	EB~14		EB~FF: Tri+10~Tri-10
(06)	EQ High	F4~0C	-12~+12	00~14: Sin-10~Sin+10
(07)	EQ Low	F4~0C	-12~+12	
+-----+				

23:Harmonic Chorus

+-----+				
(00)	Delay Time A (LSB)	0000	0~500ms	
(01)	Delay Time A (MSB)	~01F4		
(02)	Delay Time B (LSB)	0000	0~500ms	
(03)	Delay Time B (MSB)	~01F4		

(04) Mod Speed	01~63 1~99	
(05) Mod Depth	00~63 0~99	
(06) Filter Split Point	00~12 160Hz~10.0kHz	

+-----+

24:Symphonic Ensemble

(00) Mod Depth	01~63 1~99	
(06) EQ High	F4~0C -12~+12	
(07) EQ Low	F4~0C -12~+12	

+-----+

25~27:Stereo Flanger1,2, St. Crossover Flanger

(00) Delay Time	00~C8 0~200	
(01) Mod Depth	00~63 0~99	
(02) Mod Speed	01~63 1~99	
(03) Feedback	9D~63 -99~+99%	
(06) EQ High	F4~0C -12~+12	
(07) EQ Low	F4~0C -12~+12	

+-----+

28:Stereo Exciter

(00) Harmonic density	9D~63 -99~+99	
(01) Hot Spot	00~09 1~10	
(06) EQ High	F4~0C -12~+12	
(07) EQ Low	F4~0C -12~+12	

+-----+

29:Enhancer

(00) Harmonic Density	01~63 1~99	
(01) Hot Spot	01~14 1~20	
(02) Stereo Width	00~63 0~99	
(03) Delay Time	01~63 1~99	
(06) EQ High	F4~0C -12~+12	
(07) EQ Low	F4~0C -12~+12	

+-----+

30:Distortion, 31:Over Drive

+-----+

(00) Drive	01~6F	1~111	
(01) Hot Spot	00~63	0~99	
(02) Resonance	00~63	0~99	
(03) Distortion Level	00~63	0~99	
(06) EQ High	F4~0C	-12~+12	
(07) EQ Low	F4~0C	-12~+12	
+-----+			

32,33:Stereo Phaser 1, (2)

(00) Mod Depth	00~63	0~99	[Mod Speed]
(01) Mod Speed	00~D8		00~63: 0.0~3.00Hz (0.03step)
(02) MG Status			34~C7: 3.1~13.0Hz (0.1 step)
(b2) Wave Shape	0	Normal	C8~D8: 14 ~30Hz (1 step)
(b1) Phase	1, (0)	180deg, (0deg)	
(b0) LFO Waveform	0, 1	Sin, Triangle	
(03) Feedback	9D~63	-99~+99%	
(04) Hot Spot	00~63	0~99	
+-----+			

34:Rotary Speaker

(00) Vibrato Depth	00~0F	0~15	
(01) Acceleration	01~0F	1~15	
(02) Slow Speed	01~63	1~99	
(03) Fast Speed	01~63	1~99	
+-----+			

35~36:Auto Pan, (Tremolo)

(00) Mod Depth	00~63	0~99	[Mod Speed]
(01) Mod Speed	00~D8		00~63: 0.0~3.00Hz (0.03step)
(02) MG Status			34~C7: 3.1~13.0Hz (0.1 step)
(b2) Wave Shape	0	Normal	C8~D8: 14 ~30Hz (1 step)
(b1) Phase	1, (0)	180deg, (0deg)	
(b0) LFO Waveform	0, 1	Sin, Triangle	
(03) LFO Shape	9D~63	-99~+99	
(06) EQ High	F4~0C	-12~+12	
(07) EQ Low	F4~0C	-12~+12	
+-----+			

37:Parametric EQ

+-----+			
(00)	Low Frequency	00~1D	0~29
(01)	Low Gain	F4~0C	-12~+12dB
(02)	Mid Frequency	00~63	0~99
(03)	Mid Gain	F4~0C	-12~+12dB
(04)	Mid Width	00~63	0~99
(05)	High Frequency	00~1D	0~29
(06)	High Gain	F4~0C	-12~+12dB
+-----+			

38:Chorus-Delay

+-----+			
(00)	Chorus Delay Time	00~32	0~50ms
(01)	Mod Speed	01~63	1~99
(02)	Mod Depth	00~63	0~99
(03)	Chorus Feedback	9D~63	-99~+99%
(04)	Delay Time	00~E1	0~450ms
(05)	Delay Feedback	9D~63	-99~+99%
+-----+			

39:Flanger-Delay

+-----+			
(00)	Flanger Delay Time	00~32	0~50ms
(01)	Mod Speed	01~63	1~99
(02)	Mod Depth	00~63	0~99
(03)	Flanger Feedback	9D~63	-99~+99%
(04)	Delay Time	00~E1	0~450ms
(05)	Delay Feedback	9D~63	-99~+99%
+-----+			

40:Delay/Hall Reverb

+-----+			
(00)	Delay Time (LSB)	0000	0~500ms
(01)	Delay Time (MSB)	~01F4	
(02)	Delay Feedback	9D~63	-99~+99%
(03)	Delay High Damp	00~63	0~99
(04)	Reverb Time	00~61	0.2~9.9s
(06)	Reverb High Damp	00~63	0~99
(07)	Reverb Pre Delay	00~96	0~150ms
+-----+			

41:Delay/Room Reverb

+-----+-----+-----+-----+-----+				
(00)	Delay Time (LSB)	0000	0~500ms	
(01)	Delay Time (MSB)	~01F4		
(02)	Delay Feedback	9D~63	-99~+99%	
(03)	Delay High Damp	00~63	0~99	
(04)	Reverb Time	00~2F	0.2~4.9s	
(06)	Reverb High Damp	00~63	0~99	
(07)	Reverb Pre Delay	00~96	0~150ms	
+-----+-----+-----+-----+-----+				

42:Delay/Chorus

+-----+-----+-----+-----+-----+				
(00)	Delay Time (LSB)	0000	0~500ms	
(01)	Delay Time (MSB)	~01F4		
(02)	Delay Feedback	9D~63	-99~+99%	
(03)	Delay High Damp	00~63	0~99	
(04)	Mod Depth	00~63	0~99	[Mod Speed]
(05)	Mod Speed	00~D8		00~63: 0.0~3.00Hz (0.03step)
(06)	MG Status			34~C7: 3.1~13.0Hz (0.1 step)
	(b2)Wave Shape	0	Normal	C8~D8: 14 ~30Hz (1 step)
	(b1)Phase	0	0deg	
	(b0)LFO Waveform	0,1	Sin,Triangle	
+-----+-----+-----+-----+-----+				

43:Delay/Flanger

+-----+-----+-----+-----+-----+				
(00)	Delay Time (LSB)	0000	0~500ms	
(01)	Delay Time (MSB)	~01F4		
(02)	Delay Feedback	9D~63	-99~+99%	
(03)	Delay High Damp	00~63	0~99	
(04)	Mod Depth	00~63	0~99	[Mod Speed]
(05)	Mod Speed	00~D8		00~63: 0.0~3.00Hz (0.03step)
(06)	MG Status			34~C7: 3.1~13.0Hz (0.1 step)
	(b2)Wave Shape	1	for Flanger	C8~D8: 14 ~30Hz (1 step)
	(b1)Phase	0	0deg	
	(b0)LFO Waveform	0	Sin	
(07)	Flanger Feedback	9D~63	-99~+99%	
+-----+-----+-----+-----+-----+				

44~45:Delay/Distortion, Delay/Over Drive

+-----+-----+-----+-----+-----+				
(00)	Delay Time (LSB)	0000	0~500ms	

(01)	Delay Time (MSB)	~01F4	
(02)	Delay Feedback	9D~63	-99~+99%
(03)	Drive	01~6F	1~111
(04)	Hot Spot	01~63	1~99
(05)	Resonance	00~63	0~99
(06)	Distortion Level	01~63	1~99
+-----+			

46:Delay / Phaser

(00)	Delay Time (LSB)	0000	0~500ms	
(01)	Delay Time (MSB)	~01F4		
(02)	Delay Feedback	9D~63	-99~+99%	
(03)	Delay High Damp	00~63	0~99	[Mod Speed]
(04)	Mod Depth	00~63	0~99	00~63: 0.0~3.00Hz (0.03step)
(05)	Mod Speed	00~D8		34~C7: 3.1~13.0Hz (0.1 step)
(06)	Phaser Feedback	9D~63	-99~+99	C8~D8: 14 ~30Hz (1 step)
+-----+				

47:Delay / Rotary Speaker

(00)	Delay Time (LSB)	0000	0~500ms	
(01)	Delay Time (MSB)	~01F4		
(02)	Delay Feedback	9D~63	-99~+99%	
(03)	Acceleration	01~0F	1~15	
(04)	Slow Speed	01~63	1~99	
(05)	Fast Speed	01~63	1~99	
+-----+				

SEQUENCE DATA FORMAT

STYLE SEQUENCE DATA

BACKING SEQ SEQUENCE DATA (except "Control Track","Chord Track","Tempo Track")

SONG SEQUENCE DATA (except "Tempo Track")

*1 NOTE ON/OFF

DATA(1st)	DATA(2nd)	DATA(3rd)	DATA(4th)
+-----+			
1vvv vvv t	tttt tttt	kkkk kkk g	gggg gggg
+-----+			
Velocity	Location	Key No.	Length

t :1/96th quater note unit, t = 1FE(h) : Tie from previous bar
g :1/96th quater note unit, g = 1FE(h) : Tie to next bar

*2 PITCH BEND

DATA(1st)	DATA(2nd)	DATA(3rd)	DATA(4th)
0001 000 t	tttt tttt	0 vvv vvvv	0 vvv vvvv
Location		Value (H)	Value (L)

*3 AFTER TOUCH

DATA(1st)	DATA(2nd)	DATA(3rd)	DATA(4th)
0010 000 t	tttt tttt	0000 0000	0 vvv vvvv
Location		Value	

*4 PROGRAM CHANGE

DATA(1st)	DATA(2nd)	DATA(3rd)	DATA(4th)
0011 000 t	tttt tttt	0000 00 bb	0 ppp pppp
Location		Bank	Program No.
b = 00~04			
p = 00~7F			

*5 CONTROL CHANGE

DATA(1st)	DATA(2nd)	DATA(3rd)	DATA(4th)
0100 000 t	tttt tttt	0 vvv vvvv	0 ccc cccc
Location		Value	Control No.

*6 POLY KEY PRESSURE

DATA(1st)	DATA(2nd)	DATA(3rd)	DATA(4th)
0101 000 t	tttt tttt	0 vvv vvvv	0 kkk kkkk
Location		Value	Key No.

*7 BAR

DATA(1st)	DATA(2nd)	DATA(3rd)	DATA(4th)
0110 00 bb	bbbb bbbb	xx ss ssss	0ppp pppp

Bar No.	Type	Beat	Pattern No.
x = 00	:	Pattern not used	
= 10	:	Pattern continued	
= 11	:	Pattern start	
s = 10~14	:	1/4~5/4	
= 20~29	:	1/8~10/8	
= 30~3F	:	1/16~16/16	

*8 END OF TRACK

DATA(1st)	DATA(2nd)	DATA(3rd)	DATA(4th)
0111 000 t	tttt tttt	0000 00bb	bbbb bbbb

Location	Last Bar No.
----------	--------------

BACKING SEQ SEQUENCE DATA ("Control Track")

*9 BACKING CONTROL EVENT

DATA(1st)	DATA(2nd)	DATA(3rd)	DATA(4th)
10ii iii t	tttt tttt	vvvv vvvv	vvvv vvvv

Event ID	Location	Value L	Value H
----------	----------	---------	---------

No.	Event ID	3rd Byte	4th Byte	Value	
0	Arrangement	00~7F	00,01	A11~D88	
1	Style	00~7F	00,01	A11~C68	[Style]
2	Style Element	FF~0A	00		-3rd- -4th-
3	Full KBD Play	00,01	00	Off,On	00~7F 00 :A11~B88
4	Chord Scanning	00~03	00		00~2F 01 :C11~C68
5	Chord Memory	00,01	00	Off,On	
6	Bass Inversion	00,01	00	Off,On	[Style Element]
7	Transepose	F5~0B	00	-12~+12	FF :Off
8	Drums Mute	00,01	00	Play,Mute	00~03:Variation 1~4
9	Perc Mute	00,01	00	Play,Mute	04,05:Intro 1,2

10	ACC1 Mute	00,01	00	Play,Mute	06,07:Ending 1,2
11	ACC2 Mute	00,01	00	Play,Mute	08,09:Fill 1,2
12	ACC3 Mute	00,01	00	Play,Mute	0A :Break
13	Main KBD Mute	00,01	00	Play,Mute	
14	Sub KBD Mute	00,01	00	Play,Mute	[Chord Scanning]
15	Lower KBD Mute	00,01	00	Play,Mute	00:Off 02:Upper
16	Main KBD Program	00~7F	00~04	A11~R58	01:Lower 03:FULL
17	Sub KBD Program	00~7F	00~04	A11~R58	
18	Lower KBD Program	00~7F	00~04	A11~R58	[Program]
19	Main KBD Octave	FE~02	00	-2,~+2	-3rd- -4th-
20	Sub KBD Octave	FE~02	00	-2,~+2	00~7F 00 :A11~B88
21	Lower KBD Octave	FE~02	00	-2,~+2	00~7F 01 :C11~D88
22	KBD Set	00~3F	00	11~88	00~3F 02 :E11~E88
23	Chord Sound	00,01	00	Off,On	00~7F 03 :F11~G88
24	Ensemble	00,01	00	Off,On	00~27 04 :R11~R58
25	KBD Lock	00,01	00	Off,On	
26	Split Point	24~60	00	C2~C7	

+-----+

BACKING SEQ SEQUENCE DATA ("Chord Track")

```

*10 CHORD EVENT
DATA(1st) DATA(2nd) DATA(3rd) DATA(4th)
+-----+-----+-----+-----+
|11ii iii t|tttt tttt |nnnn nnnn |bbbb rrrr |
+-----+-----+-----+-----+
Chord ID Location Tension Note Bass Root
i = 00:No Chord n = 0000 0001 :b9
01:Major 0000 0010 :9
02:M6 0000 0100 :#9
03:M7 0000 1000 :11
04:M7b5 0001 0000 :#11
05:sus4 0010 0000 :b13
06:sus2 0100 0000 :13
07:M7sus4
08:m
09:m6 b = 0x~Bx :C~B
0A:m7 r = x0~xB :C~B
0B:m7b5
0C:mM7
0D:7

```


0E:7b5
0F:7sus4
10:dim
11:dimM7
12:aug
13:aug7
14:augM7