1.TRANSMITTED DATA

1-1 UNIVERSAL SYSTEM EXCLUSIVE MESSAGE

DEVICE INQUIRY REPLY

Byte [hex]	Description	
F0	Exclusive Status	
7E	Non Realtime Message	
00	Device ID (MIDI Channel)	
06	Inquiry Message	
02	Identity reply	
42	KORG ID	(Manufacturers ID)
34	VOX Valvetronix X ID	(Family ID (LSB))
01		(Family ID (MSB))
00		(Member ID (LSB))
00		(Member ID (MSB))
vv	00~	(Minor Ver. (LSB))
00		(Minor Ver. (MSB))
vv	01~	(Major Ver. (LSB))
00		(Major Ver. (MSB))
F7	End of Exclusive	

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

1-2 KORG SYSTEM EXCLUSIVE MESSAGE

Byte [hex]	Description
F0	Exclusive Status
42	KORG ID
30	Format ID
00	VOX Valvetronix X ID
01	
34	
ff	Function Code
(dd)	Data
F7	End of Exclusive

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

2. RECOGNIZED RECEIVE DATA

2-1 UNIVERSAL SYSTEM EXCLUSIVE MESSAGE

DEVICE INQUIRY MESSAGE REQUEST

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

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

2-2 KORG SYSTEM EXCLUSIVE MESSAGE

Byte [hex]	Description
F0	Exclusive Status
42	KORG ID
30	Format ID
00	VOX Valvetronix X ID
01	
34	
ff	Function Code
(dd)	Data
F7	End of Exclusive

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

3.KORG SYSTEM EXCLUSIVE MESSAGE FORMAT

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

Func [hex]	Description	R	T (*1)	T (*2)
12	MODE REQUEST	o		
10	CURRENT PROGRAM DATA DUMP REQUEST	o		
1C	PROGRAM DATA DUMP REQUEST	o		
31	CUSTOM AMP/FX DATA DUMP REQUEST	o		
11	PROGRAM WRITE REQUEST	o		
42	MODE DATA		r	

40	CURRENT PROGRAM DATA DUMP	o	r		
4C	PROGRAM DATA DUMP	o	r		
65	CUSTOM AMP/FX DATA DUMP	o	r		
4E	MODE CHANGE	o		P	
41	PARAMETER CHANGE	o		C	
26	DATA FORMAT ERROR		E		
23	DATA LOAD COMPLETED		E		
24	DATA LOAD ERROR		E		
21	WRITE COMPLETED		r	W	
22	WRITE ERROR		r		

*1 : Transmitted when
r : Request message is received.
E : Exclusive message is received.

*2 : Transmitted when
P : Program is changed by Switch or Knob.
C : Parameter is changed by Switch or Knob.
W : DATA WRITE by Switch is completed.

(1) MODE REQUEST R

Byte	Description
F0,42,30,00,01,34	Exclusive Header
12	Function Code
F7	End of Exclusive

Receives this message, and transmits Func=42 message.

(2) CURRENT PROGRAM DATA DUMP REQUEST R

Byte	Description
F0,42,30,00,01,34	Exclusive Header
10	Function Code
F7	End of Exclusive

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

(3) PROGRAM DATA DUMP REQUEST R

Byte	Description
F0,42,30,00,01,34	Exclusive Header
1C	Function Code
0000 000m	0:User/1:Preset
00pp pppp	Program No.
F7	End of Exclusive

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

(4) CUSTOM AMP/FX DATA DUMP REQUEST R

Byte	Description
F0,42,30,00,01,34	Exclusive Header
31	Function Code
00	(Reserved)
0000 00pp	Custom Data No.
F7	End of Exclusive

Receives this message, and transmits Func=65 or Func=24 message.

(5) PROGRAM WRITE REQUEST R

Byte	Description
F0,42,30,00,01,34	Exclusive Header
11	Function Code
00	(Reserved)
0000 0ppp	User Program No.
F7	End of Exclusive

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

(6) MODE DATA T

Byte	Description
F0,42,30,00,01,34	Exclusive Header
42	Function Code
0000 00mm	0:User/1:Preset/2:Manual
00pp pppp	Program No.
F7	End of Exclusive

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

(7) CURRENT PROGRAM DATA DUMP R , T

Byte	Description
F0,42,30,00,01,34	Exclusive Header
40	Function Code
0ddd dddd	Data (NOTE 1,4)
:	:
F7	End of Exclusive

Receives this message & data, saves them to Current Buffer and transmits Func=23 or Func=24 message.

Receives Func=10 message, and transmits this message & data.

(8) PROGRAM DATA DUMP R , T

Byte	Description	
F0,42,30,00,01,34	Exclusive Header	
4C	Function Code	
0000 000m	0:User(R,T)/1:Preset(T)	
00pp pppp	Program No.	
0ddd dddd	Data	(NOTE 2,4)
:	:	
F7	End of Exclusive	

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

(9) CUSTOM AMP/FX DATA DUMP R , T

Byte	Description	
F0,42,30,00,01,34	Exclusive Header	
65	Function Code	
00	(Reserved)	
0000 00pp	Custom Data No.	
0ddd dddd	Data	(NOTE 3,4)
:	:	
F7	End of Exclusive	

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

(10) MODE CHANGE R , T

Byte	Description	
F0,42,30,00,01,34	Exclusive Header	
4E	Function Code	
0000 00mm	0:User/1:Preset/2:Manual	
00pp pppp	Program No.	
F7	End of Exclusive	

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

(11) PARAMETER CHANGE R , T

Byte	Description	

F0,42,30,00,01,34	Exclusive Header	
41	Function Code	
0ppp ppp	Parameter ID	(TABLE 1)
0sss sss	Parameter SUB ID	(TABLE 1)
0vvv vvv	Value (LSB bit 6~0)	
0vvv vvv	Value (MSB bit13~7)	
F7	End of Exclusive	

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

(12) DATA FORMAT ERROR T

Byte	Description
F0,42,30,00,01,34	Exclusive Header
26	Function Code
F7	End of Exclusive

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

(13) DATA LOAD COMPLETED (ACK) T

Byte	Description
F0,42,30,00,01,34	Exclusive Header
23	Function Code
F7	End of Exclusive

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

(14) DATA LOAD ERROR (NAK) T

Byte	Description
F0,42,30,00,01,34	Exclusive Header
24	Function Code
F7	End of Exclusive

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

(15) WRITE COMPLETED T

Byte	Description
F0,42,30,00,01,34	Exclusive Header
21	Function Code
00	(Reserved)
0000 0ppp	User Program No.

F7	End of Exclusive

Transmits this message when DATA WRITE has been completed.

(16) WRITE ERROR T

Byte	Description
F0,42,30,00,01,34	Exclusive Header
22	Function Code
00	(Reserved)
0000 0ppp	User Program No.
F7	End of Exclusive

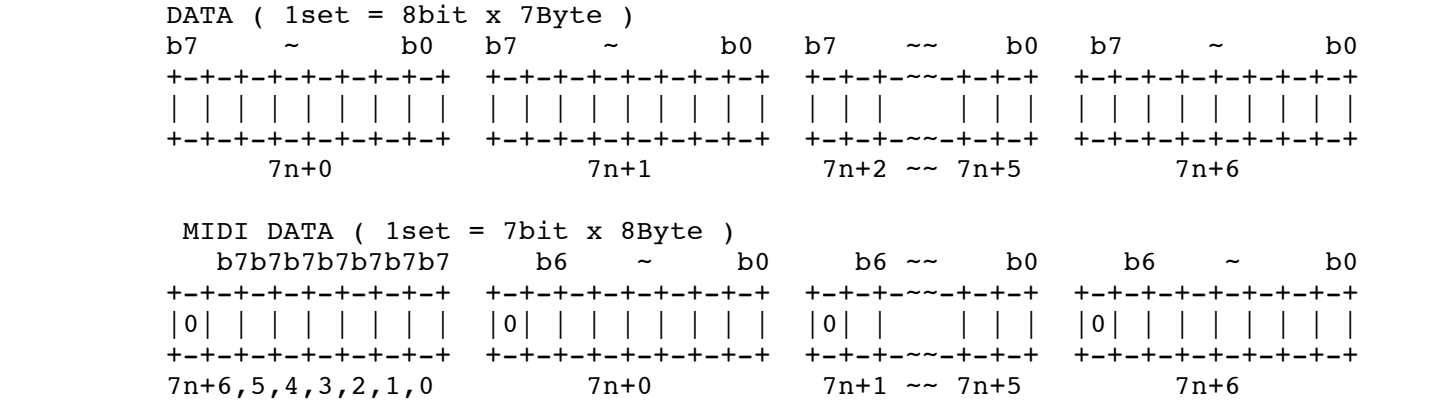
Transmits this message when DATA WRITE MIDI has not been completed.

NOTE 1: CURRENT PROGRAM DATA (in Current Buffer) DUMP FORMAT
62 bytes = 7*8+6 -> 8*8+(1+6) => 71 bytes
(TABLE 1)

NOTE 2: PROGRAM DATA (in Internal Memory) DUMP FORMAT
Same as CURRENT PROGRAM DATA DUMP FORMAT.

NOTE 3: CUSTOM AMP/FX DATA (in Internal Memory) DUMP FORMAT
62 bytes = 7*8+6 -> 8*8+(1+6) => 71 bytes
(TABLE 2)

NOTE 4: DUMP DATA CONVERSION



[TABLE 1] PROGRAM PARAMETERS

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

No.	ID		

No.	PARAMETER	DATA	VALUE	ID [hex] [hex]
00	PROGRAM NAME (1st)			00,00
:	:	20~7E	ASCII code ' ' ~ '~'	:
0F	PROGRAM NAME (16th)			00,0F
10	NR SENS	00~64	0.0~10.0	01,00
11	EFFECT STATUS			
	b0 (reserved)			
	b1 PEDAL 1	00,01	Off,On	02,01
	b2 PEDAL 2	00,01	Off,On	02,02
	b3 (reserved)			
	b4 REVERB	00,01	Off,On	02,04
	b5~7 (reserved)			
12	AMP Model	00~13	(TABLE 1-A)	03,00
13	GAIN	00~64	0.0~10.0	04,00
14	TREBLE	00~64	0.0~10.0	04,01
15	MIDDLE	00~64	0.0~10.0	04,02
16	BASS	00~64	0.0~10.0	04,03
17	VOLUME	00~64	0.0~10.0	04,04
18	PRESENCE/TONE	00~64	0.0~10.0 (TABLE 1-A)	04,05
19	RESONANCE	00~64	0.0~10.0	04,06
1A	BRIGHT CAP	00,01	Off,On (TABLE 1-A)	04,07

1B	LOW CUT	00,01	Off,On
04,08			
1C	MID BOOST	00,01	Off,On
04,09			
1D	BIAS SHIFT	00~02	Off,COLD,HOT
04,0A			
1E	CLASS A/AB	00,01	A,A/B
04,0B			
1F	PEDAL 1 Type/Model	00~09	(TABLE 1-1)
03,01			
20			
05,00			
:	PEDAL 1 Parameters	??~??	(TABLE 1-1)
:			
26			
05,??			
27	PEDAL 2 Type/Model	00~06	(TABLE 1-2)
03,02			
28			
06,00			
:	PEDAL 2 Parameters	??~??	(TABLE 1-2)
:			
2E			
06,??			
2F~36	(reserved)		
37	REVERB Type/Model	00~03	(TABLE 1-4)
03,04			
38			
08,00			
:	REVERB Parameters	??~??	(TABLE 1-4)
:			
3D			
08,??			

[TABLE 1-A] AMP Model List

DATA [hex]	Model Name	PRESENCE / TONE	BRIGHT CAP
00	DELUXE CL VIBRATO	PRESENCE	o
01	DELUXE CL NORMAL	PRESENCE	
02	TWEED 4x10 BRIGHT	PRESENCE	o
03	TWEED 4x10 NORMAL	PRESENCE	
04	BOUTIQUE CL	PRESENCE	o
05	BOUTIQUE OD	PRESENCE	o
06	VOX AC30	TONE	o
07	VOX AC30TB	TONE	o
08	BRIT 1959 TREBLE	PRESENCE	o
09	BRIT 1959 NORMAL	PRESENCE	
0A	BRIT 800	PRESENCE	o
0B	BRIT VM	PRESENCE	o
0C	SL-OD	PRESENCE	o
0D	DOUBLE REC	PRESENCE	o
0E	CALI ELATION	PRESENCE	o
0F	ERUPT III CH2	PRESENCE	
10	ERUPT III CH3	PRESENCE	o
11	BOUTIQUE METAL	PRESENCE	
12	BRIT OR MKII	PRESENCE	o
13	ORIGINAL CL	PRESENCE	o

[TABLE 1-1] PEDAL 1 Parameters

Offset ID [hex]	PARAMETER	DATA [hex]	VALUE
	COMP Type/Model No. = 00		
00~01 (*4)	SENS	00~64	0.0~10.0
02 05,01	LEVEL	00~64	0.0~10.0
03 05,02	ATTACK	00~64	0.0~10.0
04 05,03	VOICE	00~02	0~2

CHORUS Type/Model No. = 01			
00~01 (*4)	SPEED	64~2710	0.1~10.0 [hz]
02 05,01	DEPTH	00~64	0.0~10.0
03 05,02	MANUAL	00~64	0.0~10.0
04 05,03	MIX	00~64	0.0~10.0
05 05,04	LOW CUT	00,01	Off,On
06 05,05	HIGH CUT	00,01	Off,On
OVERDRIVE Type/Model No. = 02 : TUBE OD 03 : GOLD DRIVE 04 : TREBLE BOOST 05 : RC TURBO			
00~01 (*4)	DRIVE	00~64	0.0~10.0
02 05,01	TONE	00~64	0.0~10.0
03 05,02	LEVEL	00~64	0.0~10.0
04 05,03	TREBLE	00~64	0.0~10.0
05 05,04	MIDDLE	00~64	0.0~10.0
06 05,05	BASS	00~64	0.0~10.0

DISTORTION	Type/Model No. = 06	:	ORANGE DIST
		07	: FAT DIST
		08	: BRIT LEAD
		09	: FUZZ
00~01 (*4)	DRIVE	00~64	0.0~10.0
02	TONE	00~64	0.0~10.0
03	LEVEL	00~64	0.0~10.0
04	TREBLE	00~64	0.0~10.0
05	MIDDLE	00~64	0.0~10.0
06	BASS	00~64	0.0~10.0

[TABLE 1-2] PEDAL 2 Parameters

Offset ID [hex]	PARAMETER	DATA [hex]	VALUE
FLANGER	Type/Model No. = 00		

00~01	SPEED	64~1388	0.1~5.0 [hz] (*4)	06,00
02	DEPTH	00~64	0.0~10.0	06,01
03	MANUAL	00~64	0.0~10.0	06,02
04	LOW CUT	00,01	Off,On	06,03
05	HIGH CUT	00,01	Off,On	06,04
06	RESONANCE	00~64	0.0~10.0	06,05

PHASER Type/Model No. = 01 : BLACK

02 : ORANGE 1

03 : ORANGE 2

00~01	SPEED	64~2710	0.1~10.0 [hz] (*4)	06,00
02	RESONANCE	00~64	0.0~10.0	06,01
03	MANUAL	00~64	0.0~10.0	06,02
04	DEPTH	00~64	0.0~10.0	06,03

TREMOLO Type/Model No. = 04

00~01	SPEED	672~2710	1.65~10.0 [hz] (*4)	06,00
02	DEPTH	00~64	0.0~10.0	06,01
03	DUTY	00~64	0.0~10.0	06,02

04 06,03	SHAPE	00~64	0.0~10.0
05 06,04	LEVEL	00~64	0.0~10.0

DELAY	Type/Model No.	=	05	:	TAPE ECHO
			06	:	ANALOG DELAY

00~01 (*4) 06,00	TIME	1E~4B0	30~1200 [ms]
02 06,01	LEVEL	00~64	0.0~10.0
03 06,02	FEEDBACK	00~64	0.0~10.0
04 06,03	TONE	00~64	0.0~10.0
05 06,04	MOD SPEED	00~64	0.0~10.0
06 06,05	MOD DEPTH	00~64	0.0~10.0

[TABLE 1-4] REVERB Parameters

Offset ID [hex] [hex]	PARAMETER	DATA [hex]	VALUE

ROOM	Type/Model No.	=	00
SPRING	Type/Model No.	=	01
HALL	Type/Model No.	=	02

PLATE	Type/Model No. = 03		
00 08,00	MIX	00~64	0.0~10.0
01 08,01	TIME	00~64	0.0~10.0
02 08,02	PRE DELAY	00~46	0~70 [ms]
03 08,03	LOW DAMP	00~64	0.0~10.0
04 08,04	HIGH DAMP	00~64	0.0~10.0

*4 : Byte Order = little endian

[TABLE 2] CUSTOM AMP/FX PARAMETERS

No. : Address in the CUSTOM AMP/FX DATA DUMP.
CDN : Custom Data No. in func=31 and func=65 message.

No. [hex]	PARAMETER	DATA [hex]	VALUE
00~0F	(reserved)		
10	NR SENS	00~64	0.0~10.0
11	Data enable bits		
	b0 AMP, NR SENS	00,01	Disable/Enable
	b1 PEDAL 1	00,01	Disable/Enable
	b2 PEDAL 2	00,01	Disable/Enable

	b3 (reserved)			
	b4 REVERB	00,01	Disable/Enable	
	b5~7 (reserved)			
12	AMP Model			(TABLE 1-A)
		00~13	CDN = 0 : USER A	
		00~13	1 : USER B	
		00~13	2 : USER C	
13~17	(reserved)			
18	PRESENCE/TONE	00~64	0.0~10.0	(TABLE 1-A)
19	RESONANCE	00~64	0.0~10.0	
1A	BRIGHT CAP	00,01	Off,On	(TABLE 1-A)
1B	LOW CUT	00,01	Off,On	
1C	MID BOOST	00,01	Off,On	
1D	BIAS SHIFT	00~02	Off,COLD,HOT	
1E	CLASS A/AB	00,01	A,A/B	
1F	PEDAL 1 Type/Model			(TABLE 1-1)
		00	CDN = 0 : COMP	
		01	1 : CHORUS	
		02~05	2 : OVERDRIVE	
		06~09	3 : DISTORTION	
20				
:	PEDAL 1 Parameters	??~??		(TABLE 1-1)
26				

27	PEDAL 2 Type/Model			(TABLE 1-2)
		00	CDN = 0 : FLANGER	
		01~03	1 : PHASER	
		04	2 : TREMOLO	
		05~06	3 : DELAY	
28				
:	PEDAL 2 Parameters	??~??		(TABLE 1-2)
2E				
2F~36	(reserved)			
37	REVERB Type/Model			(TABLE 1-4)
		00	CDN = 0 : ROOM	
		01	= 1 : SPRING	
		02	= 2 : HALL	
		03	= 3 : PLATE	
38				
:	REVERB Parameters	??~??		(TABLE 1-4)
3D				