

- NOTES:
1. Bit 6 of the third Byte in the data stream is used as a "Controller Flag". This flag is always zero on data transmitted by the V8. The flag should be set on data sent to the V8 by a computer controller. This avoids conflicts when more than one V8.
 2. "MX" refers to the MIDI Miscellaneous panel function.

TRANSMIT DATA : (Sent by VOYETRA 8).

NEW STEP

Sent by V8 if NEW STEP is called from front panel and MX is on.

```

11110000  Status byte
0iiiiiii  ID Number : i = 3; Octave-plateau
0pcccccc  p = Controller flag : 0 for transmit data.
           c = Command number : 0.
0sssssss  s = Step number : 0 - 99.
11111110  End of System Exclusive.

```

BULK DATA FOR 1 PROGRAM

Sent by V8 when SYS.EX.command 6 is received and MX is on.

```

11110000  Status byte
0iiiiiii  ID Number : i = 3; Octave-plateau
0pcccccc  p = Controller flag : 0 for transmit data.
           c = Command number : 1.
0mmmmmmm  Machine ID : m = 0 for V8.
0ppppppp  Program number : p = 0 - 99.
0000dddd  Data : sent as 45 bytes in 90 nibbles;
           low nibble first.
11111110  End of System Exclusive.

```

BULK DATA FOR 1 STEP

Sent by V8 when SYS.EX.command 7 is received and MX is on.

```

11110000  Status byte
0iiiiiii  ID Number : i = 3; Octave-plateau
0pcccccc  p = Controller flag : 0 for transmit data.
           c = Command number : 2.
0mmmmmmm  Machine ID : m = 0 for V8.
0sssssss  Step number : s = 0 - 99.
0000dddd  Data : sent as 30 bytes in 60 nibbles;
           low nibble first.
11111110  End of System Exclusive.

```

NEW DATA AVAILABLE

Sent by V8 when MX is on and a new Step or Program is called via the front panel; or when the V8 leaves 'Edit Mode'.

11110000 Status byte
0iiiiiii ID Number : i = 3; Octave-plateau
0pcccccc p = Controller flag : 0 for transmit data.
 c = Command number : 8.
11111110 End of System Exclusive.

LOAD ACKNOWLEDGE

Sent by V8 when bulk program or step data is received. Allows data handshake between V8 and Computer controller.

11110000 Status byte
0iiiiiii ID Number : i = 3; Octave-plateau
0pcccccc p = Controller flag : 0 for transmit data.
 c = Command number : 12.
0nnnnnnn Program or Step number : n = 0 - 99.
11111110 End of System Exclusive.

RECEIVE DATA : Received by Voyetra 8.

NEW STEP

Causes specified STEP to be called if MX is on.

11110000 Status byte
0iiiiiii ID Number : i = 3; Octave-plateau
0pcccccc p = Controller flag : 0.
 c = Command number : 0.
0sssssss s = Step number : 0 - 99.
11111110 End of System Exclusive.

BULK DATA FOR 1 PROGRAM

Loaded into V8 Program memory if MX is on and byte 3 controller flag = 1, and Memory protect is off. Program scratch buffers may be loaded when Memory Protect is on.

11110000 Status byte
0iiiiiii ID Number : i = 3; Octave-plateau
0pcccccc p = Controller flag : 0 = ignore data
 1 = load data
 c = Command number : 1.
0mmmmmm Machine ID : m = 0 for V8.
0ppppppp Program number : p = 0 - 99.
 126 Right scratch buffer
 127 Left scratch buffer
0000dddd Data : received as 45 bytes in 90 nibbles;
 low nibble first.
11111110 End of System Exclusive.

Loaded into V8 Step memory if MX is on and byte 3 controller flag = 1, and Memory protect is off.

```
11110000  Status byte
01111111  ID Number : i = 3; Octave-plateau
0pcccccc  p = Controller flag : 0 = ignore data
                              1 = load data
                              c = Command number : 2.
0mmmmmmm  Machine ID : m = 0 for V8.
0sssssss  Step number : s = 0 - 99.
0000dddd  Data : received as 30 bytes in 60 nibbles;
           low nibble first.
11111110  End of System Exclusive.
```

KEYBOARD ON/OFF

Disables Keyboard and activates rear panel analog controller I/O only if controller flag = 1, and V8 KB 'interface panel' switch is on.

```
11110000  Status byte
01111111  ID Number : i = 3; Octave-plateau
0pcccccc  p = Controller flag : 0 = ignore command
                              1 = execute command
                              c = Command number : 3.
0ddddddd  d = 0 : keyboard ON
           1 : keyboard OFF
11111110  End of System Exclusive.
```

BULK DATA FOR USER VELOCITY TAPER

Loaded into V8 if MX is on.

```
11110000  Status byte
01111111  ID Number : i = 3; Octave-plateau
0pcccccc  p = Controller flag : 0 = ignore data
                              1 = load data
                              c = Command number : 5.
0000dddd  Data : received as 15 bytes in 30 nibbles;
           low nibble first.
11111110  End of System Exclusive.
```

REQUEST BULK DATA FOR 1 PROGRAM

V8 will send Program data if MX is on.

```
11110000  Status byte
01111111  ID Number : i = 3; Octave-plateau
0pcccccc  p = Controller flag : 0 = ignore data
                              1 = load data
                              c = Command number : 6.
0ppppppp  Program number : p = 0 - 99.
11111110  End of System Exclusive.
```

V8 will send Step data if MX is on.

```
11110000 Status byte
0iiiiiii ID Number : i = 3; Octave-plateau
0pcccccc p = Controller flag : 0 = ignore command
                                     1 = load command
                                     c = Command number : 7.
0sssssss Step number : s = 0 - 99.
11111110 End of System Exclusive.
```

RETURN TO NORMAL PAGE

Returns V8 to Normal front panel page if MX is on. Used in conjunction with Panel Button command.

```
11110000 Status byte
0iiiiiii ID Number : i = 3; Octave-plateau
0pcccccc p = Controller flag : 0 = ignore dcommand
                                     1 = load command
                                     c = Command number : 9.
11111110 End of System Exclusive.
```

PROGRAM PARAMETER BYTE CHANGE

Loads byte into V8 Program memory if MX is on and byte 3 controller flag = 1, and Memory protect is off. Program scratch buffers may be loaded when Memory Protect is on.

```
11110000 Status byte
0iiiiiii ID Number : i = 3; Octave-plateau
0pcccccc p = Controller flag : 0 = ignore data
                                     1 = load data
                                     c = Command number : 10.
0mmmmmmm Machine ID : m = 0 for V8.
0pppppppp Program number : p = 0 - 99.
0bbbbbbb Program byte number : b = 0 - 45.
0000dddd Data : received as 1 byte in 2 nibbles;
                                     low nibble first.
11111110 End of System Exclusive.
```

PANEL BUTTON

Simulates action of V8 front panel button if MX is on.

```
11110000 Status byte
0iiiiiii ID Number : i = 3; Octave-plateau
0pcccccc p = Controller flag : 0 = ignore data
                                     1 = load data
                                     c = Command number : 11.
0mmmmmmm Machine ID : m = 0 for V8.
0bbbbbbb Button number : b = 0 - 58.
11111110 End of System Exclusive.
```

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VOYETRA-8 PROGRAM FORMAT.

	7	6	5	4	3	2	1	0
00	: INVERT :		MODULATION BANK A		: MODULATION BANK A CONTROLLERS :			
	: SRC A :		SOURCE		: VELOC. : +X : -X : PRESS. :			
01	: INVERT :		MODULATION BANK B		: MODULATION BANK B CONTROLLERS :			
	: SRC B :		SOURCE		: VELOC. : +X : -X : PRESS. :			
02	: INVERT :		MODULATION BANK C		: MODULATION BANK C CONTROLLERS :			
	: SRC C :		SOURCE		: VELOC. : +X : -X : PRESS. :			
03	: INVERT :		MODULATION BANK D		: MODULATION BANK D CONTROLLERS :			
	: SRC D :		SOURCE		: VELOC. : +X : -X : PRESS. :			
04	: MODULATION BANK A DESTINATION :				: MODULATION BANK B DESTINATION :			
	: VCF Q :		: VCF Fc :		: VCO2 :		: VCO1 :	
05	: MODULATION BANK C DESTINATION :				: MODULATION BANK D DESTINATION :			
	: VCF Q :		: VCF Fc :		: VCO2 :		: VCO1 :	
06	: MODULATION BANK A :							
	: MODULATION DEPTH (8 bits : 0 - 255) :							
07	: MODULATION BANK B :							
	: MODULATION DEPTH (8 bits : 0 - 255) :							
08	: MODULATION BANK C :							
	: MODULATION DEPTH (8 bits : 0 - 255) :							
09	: MODULATION BANK D :							
	: MODULATION DEPTH (8 bits : 0 - 255) :							
0A	: VELOC. :		GLIDE TIME (7 bits : 0 - 127)				:	
	: ATTACK :							
0B	: VELOC. :		LFO1 RATE (7 bits : 0 - 127)				:	
	: ATT 1/2 :							
0C	: REL/DEC :		NOISE VOLUME (7 bits : 0 - 127)				:	
	: KBD TRK :							
0D	: REL/DEC :		VCO1 FREQUENCY (7 bits : 0 - 127)				:	
	: 1/2 KTR :							
0E	: VCO1 :		VCO2 FREQUENCY (7 bits : 0 - 127)				:	
	: KBD TRK :							
0F	: --- :		VCO1 INITIAL PULSE WIDTH (7 bits : 0 - 127)				:	
	: --- :							
10	: --- :		VCO1 VOLUME (7 bits : 0 - 127)				:	
	: --- :							
11	: VCO1 :		VCO2 VOLUME (7 bits : 0 - 127)				:	
	: PULSE :							
12	: VCO2 :		VCF Q (7 bits : 0 - 127)				:	
	: PULSE :							

13	VCF	VCF Fc (7 bits : 0 - 127)	
	KBD TRK		
14	VCO1	VCF Fc ADSR1 MODULATION DEPTH (7 bits : 0 - 127)	
	SUB OCT		
15	VCO1	ADSR2 ATTACK (7 bits : 0 - 127)	
	TRIANGL		
16	VCO1	ADSR2 DECAY (7 bits : 0 - 127)	
	SAW		
17	VCO	ADSR2 RELEASE (7 bits : 0 - 127)	
	SYNC		
18	VCO2	ADSR2 SUSTAIN (7 bits : 0 - 127)	
	SUB OCT		
19	VCO2	ADSR1 ATTACK (7 bits : 0 - 127)	
	TRIANGL		
1A	VCO2	ADSR1 DECAY (7 bits : 0 - 127)	
	SAW		
1B	VCO1	ADSR1 RELEASE (7 bits : 0 - 127)	
	BYPASS		
1C	VELOC.	ADSR1 SUSTAIN (7 bits : 0 - 127)	
	VCA		
1D	VCF 1/2	LFO1 ___ LFO1 DELAY	
	KBD TRK	WAVEFORM ___ (4 bits : 0 - 15)	
1E	MOD BANKS (REPLACE VELOCITY)	LFO2 ___ ___	
	A:ADSR1 B:ADSR1 C:NOISE D:PEDAL	WAVEFORM ___ ___	
1F	VELOC. LFO1 LFO2 SLIDE/ ADSR2 MODE ADSR1 MODE		
	TAPER KB TRIG KB TRIG GLISS. 2 bits : 0 - 3 2 bits : 0 - 3		
20	PWM1 RELEASE ___ VCO2 ___ VCO1		
	KBD TRK MODIFY ___ PWM SOURCE ___ PWM SOURCE		
21	PWM2	PROGRAM VOLUME (7 bits : 0 - 127)	
	KBD TRK		
22	LINEAR	VCO1 DETUNE (7 bits : 0 - 127)	
	FM		
23	MOD BNK	LFO2 RATE (7 bits : 0 - 127)	
	VEL/CV		
24	MOD BNK	LFO1 LFO2 LFO1 LFO2 ___ ___ ___	
	VEL INV KBD TRK KBD TRK 1/2 TRK 1/2 TRK		
25		VCO1 PWM DEPTH VCO2 PWM DEPTH	
		(4 bits : 0 - 15) (4 bits : 0 - 15)	
26	___	VCO2 INITIAL PULSE WIDTH (7 bits : 0 - 127)	

27	___ ___ ___	MOD/ATT VCA VELOCITY TAPER SELECT	

<u>MOD. BANK SOURCE:</u>	<u>LFO WAVEFORM:</u>	<u>PWM SOURCE:</u>
000 DC	00 SINE	00 LFO1
001 LFO2	01 TRIANGLE	01 LFO2
010 LFO1	10 SAWTOOTH	10 ADSR1
011 LFO1 SQUARE	11 SAMPLE/HOLD	11 ADSR2
100 VCO1		
101 VCO2	<u>GLIDE/GLISSANDO:</u>	<u>ADSR MODE:</u>
110 ADSR1	0 GLISSANDO	00 RESET TO ZERO
111 ADSR2	1 GLIDE	01 ADR
		10 UNCOND. RETRIGGER
<u>VELOCITY TAPER:</u>	<u>MOD BANK KBD VELOC/CV:</u>	11 NORMAL
0 USER TAPER	0 KEYBOARD CONT. VOLT	
1 FACTORY TAPER	1 KEYBOARD VELOCITY	
<u>VELOCITY TAPER SELECT:</u>	<u>RELEASE MODIFY:</u>	
00 FACTORY 3	0 RELEASE GETS DECAY	
01 FACTORY 2	1 RELEASE CUTOFF	
10 FACTORY 1		
11 USER		

NOTES: (1) All single bit parameters are active LOW.
(2) In byte 1E VELOCITY is replaced as the Controller in the corresponding MODULATION BANK.