

ROLAND MULTI-TIMBRE SOUND MODULE
MODEL: MT-32
DATE: SEP. 19. 1987
VERSION: 1.01

MIDI IMPLEMENTATION

1. TRANSMITTED DATA

>BYPASSED MESSAGE

In overflow mode, the following midi in messages are sent to the midi outs:

- >Channel Voices messages except voice on.
- >System Exclusive messages whose manufacture ID# is 41H
- >Odd Note On(s) left unassigned any voice because all assignable voices are engaged.

>CREATED MESSAGE

System exclusive

Status

F0H : System Exclusive
F7H : EOX (end sysex)

See: "3. EXCLUSIVE COMMUNICATIONS" FOR DETAILS.

2. RECOGNISED DATA

>NOTE EVENT

>NOTE OFF

Status	Second	Third
-----	-----	-----
8nH	kkH	vvH
9nH	kkH	00H

>Note On

Status	Second	Third
-----	-----	-----
9nH	kkH	vvH

kkH : Note number 0CH-6CH (12-108)
vvH : Velocity 1H-7FH (1-127)

>Control Change

Continuous Controller (14 bits)

Status	Second	Third
-----	-----	-----

```
BnH      mmH      vvH

Mod      mmH=01H  vvh=0H-7FH (0-127)
Volume   mmh=07H  vvh=0H-7FH (0-127)
Panpot   mmH=0AH  vvh=0H-7FH (0-127)
Express  mmh=0BH  vvh=0H-7FH (0-127)
```

>CONTROL CHANGE

Continuous Contoller (7 bits)

```
Status   Second   Third
-----   -
BnH      mmH      vvH

Hold 1   mmH=40H  vvH=0H-3FH (1-63 ) OFF
          vvH=40H-7FH (64-127) ON

Resets all controllers
          mmH=79H  vvH=0
```

>PROGRAM CHANGE

```
Status   Second
-----   -
CnH      ppH

ppH : program number 0H-7FH (0-127)
Program Change changes patch.
```

>PITCH BENDER

```
Status   Second   Third
-----   -
EnH      llH      mmH

llH 0H-7fh (0-127) least significant bit
mmH 0H-7fh (0-127) most significant bit
```

>CHANNEL MODE MESSAGE

```
Status   Second   Third
-----   -
BnH      mmH      00H

mmH: All Notes Off: 7BH (123)
     Omni Off: 7CH (124)
     Omni On: 7DH (124)
     Mono On: 7EH (124)
     Poly On: 7FH (128)
```

Recognised as only all Notes Off.
MT-32 does not change mode, but remains in Mode 3 (Omni off--poly).

>ACTIVE SENSING

```
Status
-----
```

FEH

>SYSTEM EXCLUSIVE

Status

F0H : System Exclusive

F7H : EOX (end of Sysex)

3. EXCLUSIVE COMMUNICATIONS.

Model ID# of MT-32 is 16H

MT-32 can send/recieve some or the EXCLUSIVE MESSAGEs in the D-50
(Roland synthesiser) format.

Model ID# of the D-50 is: 14H.

Device ID is the basic channel # of each part or Unit# of the Mt-32.

Unit# can be changed in "UNIT# SETUP MODE"

Device ID numbers, 0-31, are displayed on the LCD as 1-32 respectively.

>ONE WAY COMMUNICATIONS

REQUEST RQ 11H

When the RQ1 contains a start address listed in parameter base
address, and the size is 1 or more, Mt-32 sends data.

In Overflow Assign Mode, MT-32 does not recognise RQ1, but passes
the mesage to the midi out.

MT-32 won't transmit RQ1 in default mode.

Byte	Description
----	-----
F0H	Exclusive Data
41H	Roland--ID
DEV	Device ID
16H(14H}	Model ID (MT-32) (D-50)
11H	Command-ID (RQI)
aaH	Address MSB
aaH	Address
aaH	Addrress LSB
ssH	Size MSB
ssH	Size
ssH	Size LSB
sum	checksum
F7H	EOX (END OF SYSEX)

DATA SET

When the DT1 contains a start address as defined in RQ1 above.
MT-32 sends this message upon receiving RQI in default mode.

Additional functions in Overflow Assign Mode:

Mt-32 retransmits DT1, while it processes the DT1 as necessary.

Byte	Description
----	-----
F0H	Exclusive Status
41H	Roland ID
DEV	Device ID
16H (14H)	Model ID
12H	Command ID (DTI)
aaH	Address MSB
aaH	Address
aaH	Address LSB
ddH	DATA
:	
sum	Checksum
F7H	EOX

4. Address Mapping of Parameters

Address	MSB		LSB
-----	-----		-----
Binary	0aaa aaaa	Obbb bbbb	0ccc cccc
7 Bit Hex	AA	BB	CC

The actual address of a parameter in a block is the sum of the start address of each block and one or more offset addresses. That is addresses marked by *4-1, *4-2, and the other in the rhythm setup table or in the partial parameter table.

Parameter Base Address

Temporary area (accessible on each basic channel)

Start Address	Description
-----	-----
00 00 00	Patch Temp Area (parts 1-8)
01 00 00	Set Up Temp Area (rhythm part) *4-1
02 00 00	Timbre Temp Area (parts 1-8) *4-2

Whole Part (accessible on unit#)

Start Address	Description
-----	-----
03 00 00	Patch Temp Area (part 1)
03 00 10	Patch Temp Area (part 2)
:	
03 00 60	Patch Temp Area (part 7)
03 00 70	Patch Temp Area (part 8)
03 01 10	Set up Temp Area (rhythm part)
04 00 00	Timbre Temp Area (part 1) *4-2
04 01 76	Timbre Temp Area (part 2) *4-2
:	
04 0b 44	Timbre Temp Area (part 7) *4-2
04 0d 3a	Timbre Temp Area (part 8) *4-2
04 00 00	Timbre Temp Area (part 1)
05 00 00	Patch Memory #1
05 00 08	Patch Memory #2
:	
05 07 70	Patch Memory #127
05 07 78	Patch Memory #128

```

08 00 00      Timbre Memory #1    *4-2
08 00 00      Timbre Memory #2    *4-2
:
08 00 00      Timbre Memory #63   *4-2
08 00 00      Timbre Memory #64   *4-2
10 00 00      System Area
20 00 00      Display              *4-3
7F xx xx      All Parameters reset *4-4

```

Notes:

*4-1 Structure of Setup Temp area is as follows:

Offset Address	Description
00 00 00	Rhythm setup for key #24
00 00 04	Rhythm setup for key #25
00 00 08	Rhythm setup for key #26
00 00 0C	Rhythm setup for key #27
:	
00 01 78	Rhythm setup for key #86
00 01 7C	Rhythm setup for key #87

*4-2 Structure of Timbre Temp area is as follows:

Offset Address	Description
00 00 00	Common Parameter
00 00 0E	Partial Parameter for partial #1
00 00 48	Partial Parameter for partial #2
00 01 02	Partial Parameter for partial #3
00 01 3C	Partial Parameter for partial #4

*4-3 The data sent to this address are recognised as a string of ASCII characters and displayed on the MT-32 LCD. It cannot be called on RQD or RQ1.

*4-4 All Parameters will be initialised by sending data in this address. It cannot be called on RQD or RQ1.

Common Parameter 4-5

Offset Address	Description
00H	0aaa aaaa Tone Name #1 32-127 (ASCII)
:	
09H	0aaa aaaa Tone Name #10 32-127 (ASCII)
0AH	0aaa aaaa Structures of Partials #1&2 0-12 (1-13)
0BH	0aaa aaaa Structures of Partials #3&4 0-12 (1-13)
0CH	0aaa aaaa Partial Mute 0-15 (0000-1111)
0DH	0aaa aaaa Env. Mode 0-1(Normal, No sustain)
Total Size	00 00 0EH

Partial Parameters *4-5

Offset Address	Description
00 00H	0aaa aaaa WG PITCH COARSE 0-96 (C1,C#1-C9)
00 01H	0aaa aaaa WG PITCH FINE 0-100 (-50 - +50)
00 02H	0000 aaaa WG PITCH KEYFOLLOW 0-16 (-1,-1/2,

```

0,1,1/8,1/4,3/8,1/2,5/8,3/4,7/8,
1,5/4,3/2,2.s1,s2)
00 03H      0000 000a      WG PITCH BENDER SWITCH 0,1 (ON/OFF)
00 04H      0000 000A      WG WAVE FORM 0-1 (SQU/SAW)
00 05H      0aaa aaaa      WG PITCH PCM WAVE# 0-127 (1-128)
00 06H      0aaa aaaa      WG PITCH PULSE WIDTH 0-100
00 07H      0000 aaaa      WG PITCH PW VELO SENS 0-14 (-7 - +7)
00 08H      0000 aaaa      P-ENV DEPTH 0-10
00 09H      0aaaaaaa      P-ENV VELO SENSITIVITY 1-100
00 0AH      0000 aaaa      P-ENV TIME KEY FOLLOW 0-4
00 0BH      0aaa aaaa      P-ENV TIME 1 1-100
00 0CH      0aaa aaaa      P-ENV TIME 2 1-100
00 0DH      0aaa aaaa      P-ENV TIME 3 1-100
00 0EH      0aaa aaaa      P-ENV TIME 4 1-100
00 0FH      0aaa aaaa      P-ENV Level 0 1-100 (-50 - +50)
00 10H      0aaa aaaa      P-ENV LEVEL 1 1-100 (-50 - +50)
00 11H      0aaa aaaa      P-ENV LEVEL 2 1-100 (-50 - +50)
00 12H      0aaa aaaa      P-ENV SUSTAIN LEVEL 1-100 (-50 - +50)
00 13H      0aaa aaaa      P-ENV END LEVEL 1-100 (-50 - +50)
00 14H      0aaa aaaa      P-LFO RATE 0-100
00 15H      0aaa aaaa      P-LFO DEPTH 0-100
00 16H      0aaa aaaa      P-LFO MOD SENSITIVITY 0-100
00 17H      0aaa aaaa      TVF CUT-OFF FREQ 0-100
00 18H      0aaa aaaa      TVF RESONANCE 0-30
00 19H      0aaa aaaa      TVF KEY FOLLOW 0-16 (-1,-1/2,1/4,0,1,
1/8,1/4,3/8,1/2,5/8,3/2,7/8,1
5/4,3/2,2,s1,s2)
00 1AH      0aaa aaaa      TVF BIAS POINT/DIR 0-127
(<1A-<7C >1A-7C)
00 1BH      0aaa aaaa      TVF BIAS LEVEL 0-14 (-7 - +7)
00 1CH      0aaa aaaa      TVF ENV DEPTH 0-100
00 1DH      0aaa aaaa      TVF ENV VELO SENSITIVITY 0-100
00 1EH      0aaa aaaa      TVF ENV DEPTH KEY FOLLOW 0-4
00 1FH      0aaa aaaa      TVF ENV TIME KEY FOLLOW 0-4
00 20H      0aaa aaaa      TVF ENV TIME 1 1-100
00 21H      0aaa aaaa      TVF ENV TIME 2 1-100
00 22H      0aaa aaaa      TVF ENV TIME 3 1-100
00 23H      0aaa aaaa      TVF ENV TIME 4 1-100
00 24H      0aaa aaaa      TVF ENV TIME 5 1-100
00 25H      0aaa aaaa      TVF ENV LEVEL 1 1-100
00 26H      0aaa aaaa      TVF ENV LEVEL 2 1-100
00 27H      0aaa aaaa      TVF ENV LEVEL 3 1-100
00 28H      0aaa aaaa      TVF ENV SUSTAIN LEVEL 0-100
00 29H      0aaa aaaa      TVA LEVEL 0-100
00 2AH      0aaa aaaa      TVA VELO SENS 0-100
00 2BH      0aaa aaaa      TVA BIAS POINT 1 0-127
(<1A-<7C >1A-7C)
00 2CH      0aaa aaaa      TVA BIAS LEVEL 1 0-12 (-12 - 0)
00 2DH      0aaa aaaa      TVA BIAS POINT 2 0-127
(<1A-<7C >1A-7C)
00 2EH      0aaa aaaa      TVA BIAS LEVEL 1 0-12 (12 - 0)
00 2FH      0aaa aaaa      TVA ENV TIME KEY FOLLOW 0-4
00 30H      0aaa aaaa      TVA ENV TIME V FOLLOW 0-4
00 31H      0aaa aaaa      TVA ENV TIME 1 0-100
00 32H      0aaa aaaa      TVA ENV TIME 2 0-100
00 33H      0aaa aaaa      TVA ENV TIME 3 0-100
00 34H      0aaa aaaa      TVA ENV TIME 4 0-100

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00 35H	0aaa aaaa	TVA ENV TIME 5 0-100
00 36H	0aaa aaaa	TVA ENV LEVEL 0-100
00 37H	0aaa aaaa	TVA ENV LEVEL 2 0-100
00 38H	0aaa aaaa	TVA ENV LEVEL 3 0-100
00 39H	0aaa aaaa	TVA ENV SUSTAIN LEVEL 0-100
TOTAL SIZE	00 3AH	

System Area

Offset Address	Description	Description
-----	-----	-----
00 00H	0aaa aaaa	MASTER TUNE 0-127 432.1-457.6Hz
00 01H	0000 00aa	REVERB MODE 0-3 (room, hall, plate, tap delay)
00 02H	0000 00aa	REVERB TIME 0-7 (1-8)
00 03H	0000 0aaa	REVERB LEVEL 0-7 (1-8)
00 04H	00aa aaaa	PARTIAL RESERVE (PART 1) 0-32
00 05H	00aa aaaa	PARTIAL RESERVE (PART 2) 0-32
00 06H	00aa aaaa	PARTIAL RESERVE (PART 3) 0-32
00 07H	00aa aaaa	PARTIAL RESERVE (PART 4) 0-32
00 08H	00aa aaaa	PARTIAL RESERVE (PART 5) 0-32
00 09H	00aa aaaa	PARTIAL RESERVE (PART 6) 0-32
00 0AH	00aa aaaa	PARTIAL RESERVE (PART 7) 0-32
00 0BH	00aa aaaa	PARTIAL RESERVE (PART 8) 0-32
00 0CH	00aa aaaa	PARTIAL RESERVE (PART R) 0-32
00 0DH	000a aaaa	MIDI CHANNEL (PART1) 0-16 (1-16,OFF)
00 0EH	000a aaaa	MIDI CHANNEL (PART2) 0-16 (1-16,OFF)
00 0FH	000a aaaa	MIDI CHANNEL (PART3) 0-16 (1-16,OFF)
00 10H	000a aaaa	MIDI CHANNEL (PART4) 0-16 (1-16,OFF)
00 11H	0aaa aaaa	MIDI CHANNEL (PART5) 0-16 (1-16,OFF)
00 12H	000a aaaa	MIDI CHANNEL (PART6) 0-16 (1-16,OFF)
00 13H	000a aaaa	MIDI CHANNEL (PART7) 0-16 (1-16,OFF)
00 14H	000a aaaa	MIDI CHANNEL (PART8) 0-16 (1-16,OFF)
00 15H	000a aaaa	MIDI CHANNEL (PARTR) 0-16 (1-16,OFF)
00 16H	000a aaaa	MASTER VOLUME 0-100
TOTAL SIZE	00 00 17H	

Rhythm Set Up

Offset Address	Description	Description
-----	-----	-----
00 00H	0aaa aaaa	TIMBRE 0-94 (M1-M64,R1-30,OFF)
00 01H	0aaa aaaa	OUTPUT LEVEL 0-100
00 02H	0000 aaaa	PANPOT 0-14 (R-L)
00 03H	0000 000a	REVERB SWITCH 0-1 (OFF,ON)
TOTAL SIZE	00 00 04H	

Patch Temp

Offset Address	Description	Description
-----	-----	-----
00 00H	0000 00aa	TIMBRE GROUP 0-3 (group A, group B, Memory, Rhythm)
00 01H	0000 00aa	TIMBRE NUMBER 0-63
00 02H	00aa aaaa	KEY SHIFT 0-48 (-24 - +24)
00 03H	00aa aaaa	FINE TUNE 0-100 (-50 - +50)
00 04H	0aaa aaaa	BENDER RANGE 0-24
00 05H	000a aaaa	ASSIGN MODE 0-3

		(POLY1, POLY2, POLY3, POLY4)
00 06H	0000 00aa	REVERB SWITCH 0-1 (OFF,ON)
00 07H	0xxx xxxx	(DUMMY)
00 08H	0aaa aaaa	OUTPUT LEVEL 0-100
00 09H	0000 00aa	PANPOT 0-14 (R-L)
00 0AH	0000 aaaa	(DUMMY)
:		
00 0FH	0000 00aa	
TOTAL SIZE	00 00 10H	

Patch Memory

Offset Address	Description	
-----	-----	
00 00H	0000 00aa	TIMBRE GROUP 0-3 (group A, group B, Memory, Rhythm)
00 01H	00aa aaaa	TIMBRE NUMBER 0-63
00 02H	00aa aaaa	KEY SHIFT 0-48 (-24 - +24)
00 03H	0aaa aaaa	FINE TUNE 0-100 (-50 - +50)
00 04H	000a aaaa	BENDER RANGE 0-24
00 05H	0000 00aa	ASSIGN MODE 0-3 (POLY1, POLY2, POLY3, POLY4)
00 06H	0000 000a	REVERB SWITCH 0-1 (OFF,ON)
00 07H	0xxx xxxx	(DUMMY)
TOTAL SIZE	00 00 8H	

Display

Offset Address	Description	
-----	-----	
00H	0aaa aaaa	DISPLAYED CHARACTER 32-127 (ASCII)
:		
13H	0aaa aaaa	DISPLAYED CHARACTER 32-127 (ASCII)
TOTALSIZE	14H	

NOTES:

*4-5 This parameter can be modified from D-50 (PG-1000) and results in accessing the address "02-00-00 (Timbre Temp Area" of MT-32.

5. Address Mapping of Parameters (Compatible with D-50 (PG-1000))

Parameter Base Address

Start Address	Description	
-----	-----	
00 00 00	PARTIAL 3	(0-53)
00 00 40	PARTIAL 4	(64-117)
00 01 0A	UPPER COMMON	(138-175)
00 01 40	PARTIAL 1	(192-245)
00 02 00	PARTIAL 2	(256-309)
00 02 4A	LOWER COMMON	(330-367)

Partial Parameters

Offset Address	Description
-----	-----

00 00H	0aaa aaaa	WG PITCH COARSE 0-72 (C1,C#1-C7)
00 01H	0aaa aaaa	WG PITCH FINE 0-100 (-50 - +50)
00 02H	0000 aaaa	WG PITCH KEYFOLLOW 0-16 (-1,-1/2,1/4,0, 1,1/8,1/4,3/8,1/2,5/8,3/4,7/8,1,5/4, 3/2,2,s1,s2)
00 03H	0xxx xxxx	(DUMMY)
00 04H	0xxx xxxx	(DUMMY)
00 05H	0000 000a	WG PITCH BENDER SWITCH 0-1 (ON/OFF)
00 06H	0000 000a	WG PITCH WAVEFORM 0-1 (SQUARE/SAW)
00 07H	0aaa aaaa	WG PITCH PCM WAVE# 0-127 (1-128)
00 08H	0aaa aaaa	WG PITCH PULSE WIDTH 0-100
00 09H	0000 aaaa	WG PITCH PW VELO SENS 0-14 (-7 - +7)
00 0AH	0xxx xxxx	(DUMMY)
00 0BH	0xx xxxx	(DUMMY)
00 0CH	0xxx xxxx	(DUMMY)
00 0DH	0aaa aaaa	TVF CUT-OFF FREQ 0-100
00 0EH	0aaa aaaa	TVF RESONANCE 0-30
00 0FH	0aaa aaaa	TVF KEY FOLLOW 0-16 (-1,-1/2,1/4,0,1, 1/8,1/4,3/8,1/2,5/8,3/4,7/8,1,5/4,3/2, 2,s1,s2)
00 10H	0aaa aaaa	TVF BIAS POINT/DIR 0-127 (<1A-<7C >1A-7C)
00 11H	0aaa aaaa	TVF BIAS LEVEL 0-14 (-7 - +7)
00 12H	0aaa aaaa	TVF ENV DEPTH 0-100
00 13H	0aaa aaaa	TVF ENV VELO SENSITIVITY 0-100
00 14H	0aaa aaaa	TVF ENV DEPTH KEY FOLLOW 0-4
00 15H	0aaa aaaa	TVF ENV TIME KEY FOLLOW 0-4
00 16H	0aaa aaaa	TVF ENV TIME 1 1-100
00 17H	0aaa aaaa	TVF ENV TIME 2 1-100
00 18H	0aaa aaaa	TVF ENV TIME 3 1-100
00 19H	0aaa aaaa	TVF ENV TIME 4 1-100
00 1AH	0aaa aaaa	TVF ENV TIME 5 1-100
00 1BH	0aaa aaaa	TVF ENV LEVEL 1 1-100
00 1CH	0aaa aaaa	TVF ENV LEVEL 2 1-100
00 1DH	0aaa aaaa	TVF ENV LEVEL 3 1-100
00 1EH	0aaa aaaa	TVF ENV SUSTAIN LEVEL 0-100
00 1FH	0xxx xxxx	(DUMMY)
:		
00 22H	0xxx xxxx	(DUMMY)
00 23H	0aaa aaaa	TVA LEVEL 0-100
00 24H	0aaa aaaa	TVA VELO SENSITIVITY 0-100
00 25H	0aaa aaaa	TVA BIAS POINT 1 0-127 (<1A-<7C >1A-7C)
00 26H	0aaa aaaa	TVA BIAS LEVEL 1 0-12 (-12 - 0)
00 27H	0aaa aaaa	TVA ENV TIME 1 0-100
00 28H	0aaa aaaa	TVA ENV TIME 2 0-100
00 29H	0aaa aaaa	TVA ENV TIME 3 0-100
00 2AH	0aaa aaaa	TVA ENV TIME 4 0-100
00 2BH	0aaa aaaa	TVA ENV TIME 5 0-100
00 2CH	0aaa aaaa	TVA ENV LEVEL 1 0-100
00 2DH	0aaa aaaa	TVA ENV LEVEL 2 0-100
00 2EH	0aaa aaaa	TVA ENV LEVEL 3 0-100
00 2FH	0aaa aaaa	TVA ENV SUSTAIN LEVEL 0-100
00 30H	0xxx xxxx	(DUMMY)
00 31H	0aaa aaaa	TVA ENV TIME KEY FOLLOW 0-4
00 32H	0aaa aaaa	TVA ENV TIME V FOLLOW 0-4
00 33H	0xxx xxxx	(DUMMY)
00 34H	0xxx xxxx	(DUMMY)


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00 AH          0aaa aaaa      SUS LEVEL (PARTIAL 3) 1-100
                                   (-50 - +50)
00 0BH        0aaa aaaa      P-ENV END LEVEL (P#3) 1-100
                                   (-50 - +50)
00 0CH        0xxx xxxx      (DUMMY)
00 0DH        0aaa aaaa      P-LFO MOD SENS (PARTIAL 3) 0-100
00 0EH        0aaa aaaa      P-LFO MOD SENS (PARTIAL 4) 0-100
00 0FH        0xxx xxxx      (DUMMY)
00 10H        0aaa aaaa      P-LFO RATE (PARTIAL 1) 0-100
00 11H        0000 aaaa      P-ENV DEPTH (P#1) 0-10
00 12H        0xxx xxxx      (DUMMY)
00 13H        0xxx xxxx      (DUMMY)
00 14H        0aaa aaaa      P-LFO RATE (PARTIAL 4) 0-100
00 15H        0000 aaaa      P-ENV DEPTH (PARTIAL4) 0-100
00 16H        0xxx xxxx      (DUMMY)
:
00 23H        0xxx xxxx      (DUMMY)
00 24H        0000 00AA      PARTIAL MUTE (P#3&4) 0-3 (00-11)
00 25H        0xxx xxxx      (DUMMY)
TOTAL SIZE    00 00 26H

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MIDI IMPLEMENTATION CHART

```

-----
FUNCTION          : TRANSMITTED : RECOGNIZED : REMARKS
-----
BASIC   Default:  :           : 2-10      :
CHANNEL Changed:  :           : 1-16      :
-----
MODE     Default:  :           : Mode 3    :
        Messages:  :           :           :
        Altered:   :*****:           :
-----
NOTE     * 0-127   : 0-127    :
NUMBER  True Voice:*****: 12-108   :
-----
VELOCITY Note on  :*           : 0 v=1-127 :
        Note off  :*           : X         :
-----
AFTER    Keys     :*           : X         :
TOUCH    Channels :*           : X         :
-----
PITCH BENDER  :*           : 0 0-24 semi :
-----
          1 :*           : 0         : Modulation
          7 :*           : 0         : Part Volume
         10 :*           : 0         : Panpot
         11 :*           : 0         : Expression
         12 :*           :           :
CONTROL    :           : X         :
CHANGES   63 :           :           :
          64 :*           : 0         : Hold 1
          65 :           :           :
           : :*           : X         :
         120 :           :           :
         121 :*           : 0         : Reset all controllers
-----
PROG      :*           : 0 0-127   :

```

```

CHANGE True #      :           : 0-127 :
-----
SYSTEM EXCLUSIVE  : 0*       : 0     :
-----
SYSTEM Song Pos   : X         : X     :
COMMON Song Sel   : X         : X     :
          Tune     : X         : X     :
-----
SYSTEM Clock      : X         : X     :
REAL TIME Commands: X         : X     :
-----
          Local on/off : X         : X     :
AUX All notes off: X         : 0 (123-127) :
MESS. Active sense : X         : 0     :
          Reset       : X         : X     :
-----
NOTES:             : * in OVERFLOW MODE, received messages go through
                  : the MIDI OUT.
-----
Mode 1: OMNI ON. POLY      Mode 2: OMNI ON, MONO
Mode 3: OMNI OFF. POLY    Mode 4: OMNI OFF, MONO
-----

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ROLAND MT-32 MULTI-TIMBRE SOUND MODULE
TIMBRE MAP

Group	Prog Numb	Timbre Name	Used Partial
Piano	001	Acou Piano 1	4
	002	Acou Piano 2	2
	003	Acou Piano 3	1
	004	Elec Piano 1	3
	005	Elec Piano 2	2
	006	Elec Piano 3	2
	007	Elec Piano 4	4
	008	Honkytonk	3
Organ	009	Elec Org 1	3
	010	Elec Org 2	3
	011	Elec Org 3	2
	012	Elec Org 4	2
	013	Pipe Org 1	3
	014	Pipe Org 2	3
	015	Pipe Org 3	2
	016	Accordion	2
Keybrd	017	Harpsi 1	4
	018	Harpsi 2	2
	019	Harpsi 3	1
	020	Clavi 1	3
	021	Clavi 2	2
	022	Clavi 3	1
	023	Celesta 1	4
S-Brass	024	Celesta 2	2
	025	Syn Brass 1	2
	026	Syn Brass 2	3
	027	Syn Brass 3	2

	028	Syn Brass 4	2
Synbass	029	Syn Bass 1	2
	030	Syn Bass 2	2
	031	Syn Bass 3	2
	032	Syn Bass 4	1
Synth 1	033	Fantasy	3
	034	Harmo Pan	3
	035	Chorale	3
	036	Glasses	2
	037	Soundtrack	4
	038	Atmosphere	4
	039	Warm Bell	4
	040	Funny Vox	1
Synth 2	041	Echo Bell	3
	042	Ice Rain	3
	043	Oboe 2001	2
	044	Echo Pan	2
	045	Doctor Solo	2
	046	Schooldaze	2
	047	Bellsinger	1
	048	Square Wave	2
Strings	049	Str Sect 1	4
	050	Str Sect 2	3
	051	Str Sect 3	2
	052	Pizzicato	3
	053	Violin 1	3
	054	Violin 2	2
	055	Cello 1	3
	056	Cello 2	2
	057	Contrabass	2
	058	Harp 1	3
	059	Harp 2	2
Guitar	060	Guitar 1	2
	061	Guitar 2	2
	062	Elec Gtr 1	4
	063	Elec Gtr 2	3
	064	Sitar	4
Bass	065	Acou Bass 1	2
	066	Acou Bass 2	1
	067	Elec Bass 1	2
	068	Elec Bass 2	1
	069	Slap Bass 1	3
	070	Slap Bass 2	2
	071	Fretless 1	4
	072	Fretless 2	2
Wind 1	073	Flute 1	4
	074	Flute 2	2
	075	Piccolo 1	3
	076	Piccolo 2	2
	077	Recorder	2
	078	Pan Pipes	3
Wind 2	079	Sax 1	4
	080	Sax 2	3
	081	Sax 3	2
	082	Sax 4	1
	083	Clarinet 1	3
	084	Clarinet 2	2
	085	Oboe	2

	086	Engl Horn	2
	087	Bassoon	2
	088	Harmonica	2
Brass	089	Trumpet 1	3
	090	Trumpet 2	2
	091	Trombone 1	3
	092	Trombone 2	2
	093	Fr Horn 1	3
	094	Fr Horn 2	2
	095	Tuba	2
	096	Brs Sect 1	4
	097	Brs Sect 2	3
Mallet	098	Vibe 1	3
	099	Vibe 2	2
	100	Syn Mallet	1
	101	Windbell	3
	102	Glock	2
	103	Tube Bell	4
	104	Xylophone	1
	105	Marimba	3
Special	106	Koto	2
	107	Sho	4
	108	Shakuhachi	4
	109	Whistle 1	2
	110	Whistle 2	1
	111	Bottleblow	4
	112	Breathpipe	3
Percusn	113	Timpani	2
	114	Melodic Tom	1
	115	Deep Snare	2
	116	Elec Perc 1	2
	117	Elec Perc 2	2
	118	Taiko	3
	119	Taiko Rim	1
	120	Cymbal	2
	121	Castanets	2
	122	Triangle	2
Effects	123	Orche Hit	4
	124	Telephone	1
	125	Bird Tweet	1
	126	One Note Jam	4
	127	Water Bells	3
	128	Jungle Tune	4