MIDI Channel Mode Messages

For all MIDI Channel Mode Messages, the message channel '*n*' *must* be the Basic Channel of the MIDI device, or the message will be ignored.

MIDI Channel Mode Messages

Status Byte	Data Bytes		Message		Description	
B*n*	78	00	 All Sound Off		Turn off all sound, including envelopes of notes still sounding, and reverb-effects (if applicable).	
			Value	**Range**	**Description**	
			n	`0-F`	MIDI Channel	`0` = Ch 1
Status Byte	**Data Bytes**		**Message**		**Description**	
B*n*	79	00	 Reset All Controllers		Reset all controllers to their 'default' positions, including all continuous and switch controllers, pitch-bend, and aftertouch effects. Each controller should be returned to a suitable initial condition for that controller. For example, pitch-bend should be returned to it 'center' position. This message must be ignored if Omni is On (Modes 1 and 2).	
			Value	**Range**	**Description**	
			n	`0-F`	MIDI Channel	`0` = Ch 1
Status Byte	**Data Bytes**		**Message**		**Description**	
B*n*	7A	*xx*	Local Control		Disconnect (or reconnect) the keyboard and the sound generator in a MIDI synthesizer. The keyboard should continue to send messages via the MIDI-out port, and the sound-generation circuitry should continue to respond to message received via the MIDI-in port, regardless of this switch.	
			Value	**Range**	**Description**	
			n	`0-F`	MIDI Channel	`0` = Ch 1
			xx	`00, 7F`	If 00, disconnect the local keyboard from the sound generating functions of a synthesizer. If 7F, reconnect the local keyboard to the sound-generator.	`00`=Off `7F`=On (default)
Status Byte	**Data Bytes**		**Message**		**Description**	
B*n*	7B	00	 All Notes Off		Turn off all notes which for which a note-on MIDI message has been received. (note 1) This *only* applies to notes turned on via MIDI, and *not* to notes turned on via pressing keys on a local keyboard.	

				This message must be ignored if Omni is On (Modes 1 and 2). In Mode 4 (as well as Mode 3), this message must only affect the MIDI Channel on which it is received. If a hold-pedal is 'on' (controller 0x40), then this message should not be acted on until the hold-pedal is released.	
			Value	**Range**	**Description**
			n	`0-F`	MIDI Channel	`0` = Ch 1
Status Byte	**Data Bytes**		**Message**		**Description**
B*n*	7C	00	Omni Mode Off		The receiver should respond only to Channel Voice messages which is receives on it's Basic Channel. (note 2) This puts the receiving MIDI device into Channel Mode 3 or 4, depending on the current state of the Mono/Poly switch. (note 3)
			Value	**Range**	**Description**
			n	`0-F`	MIDI Channel	`0` = Ch 1
Status Byte	**Data Bytes**		**Message**		**Description**
B*n*	7D	00	Omni Mode On		The receiver should respond to Channel Voice messages which is receives on *any* MIDI channel. (note 2) This puts the receiving MIDI device into Channel Mode 1 or 2, depending on the current state of the Mono/Poly switch. (note 3)
			Value	**Range**	**Description**
			n	`0-F`	MIDI Channel	`0` = Ch 1
Status Byte	**Data Bytes**		**Message**		**Description**
B*n*	7E	*m*	 Mono Mode On		Puts the receiver into monophonic mode. (note 2) This puts the receiving MIDI device into Channel Mode 2 or 4, depending on the state of the Omni switch. (note 3) While Omni is on, the *m*=1 is used. If *n*+*m*-1 > Ch.16 there is *no* wrap-around to Ch.1. Only channels *n*...16 are used
			Value	**Range**	**Description**
			n	`0-F`	MIDI Channel	`0` = Ch 1
			m	`00-10`	Number of MIDI Channels to use when in Mode 4. This parameter has no effect in Mode 2.	`00` = use *n*...16 `01` = use 1 channel `0x10` = use 16 channels (provided *n*=0)
Status	**Data**		**Message**		**Description**

Byte	Bytes				
B*n*	7F	00	Poly Mode On		Puts the receiver into polyphonic mode. (note 2) This puts the receiving MIDI device into Channel Mode 1 or 3, depending on the state of the Omni switch. (note 3)
			Value	**Range**	**Description**
			n	0-F	MIDI Channel `0` = Ch 1

Footnotes

Note 1

There no requirement that a MIDI device support the All-Notes-Off message. A MIDI transmitter must still send individual note-off messages for each note which has been turned on, regardless of the fact that it has sent an All-Notes-Off message.

Note 2

There is an implicit 'All-Notes-Off' function associated with a change of the Channel Mode. That is, when changing Channel Mode, the receiver should turn off all notes turned on *via MIDI messages* while in the old mode. This excludes notes turned on via the 'local' keyboard (if applicable).

Although it is not stated explicitly in the specification, I think this:

- includes notes on all channels *n*...*n*+*m*-1 while in Mode 4.
- applies even if the Omni was or is 'On' (unlike the All-Notes-Off message).

To quote the specification (section 2, p20):
"*Messages 123* [7B] *to 127* [7F] *... will turn off all voices controlled by the assigned Basic Channel*".
and (section 2, A-4):
"*When a receiver is switching between Omni On/Off and Poly or Mono modes, all notes should be turned off. This is to avoid any unexpected behavior when the instrument's mode is switched*."

Note 3

There is no requirement on a MIDI device to support all 4 possible Channel Modes.
If a Mode Change message is ignored (due to a particular mode being absent), there is no requirement to perform the All-Notes-Off function.

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