General MIDI numbers

General MIDI patch numbers

0	Acoustic Grand	**32**	Acoustic Bass	**64**	Soprano Sax	**96**	FX 1 (rain)
1	Bright Acoustic	**33**	Electric Bass(finger)	**65**	Alto Sax	**97**	FX 2 (soundtrack)
2	Electric Grand	**34**	Electric Bass(pick)	**66**	Tenor Sax	**98**	FX 3 (crystal)
3	Honky-Tonk	**35**	Fretless Bass	**67**	Baritone Sax	**99**	FX 4 (atmosphere)
4	Electric Piano 1	**36**	Slap Bass 1	**68**	Oboe	**100**	FX 5 (brightness)
5	Electric Piano 2	**37**	Slap Bass 2	**69**	English Horn	**101**	FX 6 (goblins)
6	Harpsichord	**38**	Synth Bass 1	**70**	Bassoon	**102**	FX 7 (echoes)
7	Clav	**39**	Synth Bass 2	**71**	Clarinet	**103**	FX 8 (sci-fi)
8	Celesta	**40**	Violin	**72**	Piccolo	**104**	Sitar
9	Glockenspiel	**41**	Viola	**73**	Flute	**105**	Banjo
10	Music Box	**42**	Cello	**74**	Recorder	**106**	Shamisen
11	Vibraphone	**43**	Contrabass	**75**	Pan Flute	**107**	Koto
12	Marimba	**44**	Tremolo Strings	**76**	Blown Bottle	**108**	Kalimba
13	Xylophone	**45**	Pizzicato Strings	**77**	Shakuhachi	**109**	Bagpipe
14	Tubular Bells	**46**	Orchestral Harp	**78**	Whistle	**110**	Fiddle
15	Dulcimer	**47**	Timpani	**79**	Ocarina	**111**	Shanai
16	Drawbar Organ	**48**	String Ensemble 1	**80**	Lead 1 (square)	**112**	Tinkle Bell
17	Percussive Organ	**49**	String Ensemble 2	**81**	Lead 2 (sawtooth)	**113**	Agogo
18	Rock Organ	**50**	SynthStrings 1	**82**	Lead 3 (calliope)	**114**	Steel Drums
19	Church Organ	**51**	SynthStrings 2	**83**	Lead 4 (chiff)	**115**	Woodblock
20	Reed Organ	**52**	Choir Aahs	**84**	Lead 5 (charang)	**116**	Taiko Drum
21	Accordion	**53**	Voice Oohs	**85**	Lead 6 (voice)	**117**	Melodic Tom
22	Harmonica	**54**	Synth Voice	**86**	Lead 7 (fifths)	**118**	Synth Drum
23	Tango Accordion	**55**	Orchestra Hit	**87**	Lead 8 (bass+lead)	**119**	Reverse Cymbal
24	Acoustic Guitar(nylon)	**56**	Trumpet	**88**	Pad 1 (new age)	**120**	Guitar Fret Noise
25	Acoustic Guitar(steel)	**57**	Trombone	**89**	Pad 2 (warm)	**121**	Breath Noise

26	Electric Guitar(jazz)	**58**	Tuba	**90**	Pad 3 (polysynth)	**122**	Seashore
27	Electric Guitar(clean)	**59**	Muted Trumpet	**91**	Pad 4 (choir)	**123**	Bird Tweet
28	Electric Guitar(muted)	**60**	French Horn	**92**	Pad 5 (bowed)	**124**	Telephone Ring
29	Overdriven Guitar	**61**	Brass Section	**93**	Pad 6 (metallic)	**125**	Helicopter
30	Distortion Guitar	**62**	SynthBrass 1	**94**	Pad 7 (halo)	**126**	Applause
31	Guitar Harmonics	**63**	SynthBrass 2	**95**	Pad 8 (sweep)	**127**	Gunshot

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General MIDI Percussion (on Channel 9)

Bass	KeyNum	Sound	Treble	KeyNum	Sound
A_	33	Metronome Click			
B_b	34	Metronome Bell			
B_	35	Acoustic Bass Drum			
C	36	Bass Drum 1	C	60	Hi Bongo
C#	37	Side Stick	C#	61	Low Bongo
D	38	Acoustic Snare	D	62	Mute Hi Conga
Eb	39	Hand Clap	D#	63	Open Hi Conga
E	40	Electric Snare	E	64	Low Conga
F	41	Low Floor Tom	F	65	High Timbale
F#	42	Closed Hi-Hat	F#	66	Low Timbale
G	43	High Floor Tom	G	67	High Agogo
G#	44	Pedal Hi-Hat	G#	68	Low Agogo
A	45	Low Tom	A	69	Cabasa
Bb	46	Open Hi-Hat	Bb	70	Maracas
Bn	47	Low-Mid Tom	Bn	71	Short Whistle
c	48	Hi-Mid Tom	c	72	Long Whistle
c#	49	Crash Cymbal 1	c#	73	Short Guiro
d	50	High Tom	d	74	Long Guiro
eb	51	Ride Cymbal 1	d#	75	Claves
e	52	Chinese Cymbal	e	76	Hi Wood Block
f	53	Ride Bell	f	77	Low Wood Block
f#	54	Tambourine	f#	78	Mute Cuica
g	55	Splash Cymbal	g	79	Open Cuica
g#	56	Cowbell	g#	80	Mute Triangle
a	57	Crash Cymbal 2	a	81	Open Triangle
bb	58	Vibraslap		82	
bn	59	Ride Cymbal 2		83	

MIDI Controller numbers

0	Bank Select (MSB)	**32**	Bank Select (LSB)	**64**	Sustain Pedal	**96**	Data Increment
1	Modulation (MSB)	**33**	Modulation (LSB)	**65**	Portamento on/off	**97**	Data Decrement
2	Breath Control (MSB)	**34**	Breath Control (LSB)	**66**	Sostenuto Pedal	**98**	non-reg param lsb
				67	Soft Pedal	**99**	non-reg param msb
4	Foot Control (MSB)	**36**	Foot Control (LSB)	**68**	Legato Pedal	**100**	Reg-Param (LSB)
5	Portamento Time MSB	**37**	Portamento Time LSB	**69**	Hold 2	**101**	Reg-Param (MSB)
6	Data Entry (MSB)	**38**	Data Entry (LSB)	**70**	Sound Variation		
7	Channel Volume MSB	**39**	Channel Volume LSB	**71**	Resonance		
8	Balance (MSB)	**40**	Balance (LSB)	**72**	Release Time		
				73	Attack Time		
10	Pan (MSB)	**42**	Pan (LSB)	**74**	Cut-off Frequency		
11	Expression (MSB)	**43**	Expression (LSB)	**75**	Decay Time		
12	Effects Controller 1			**76**	Vibrato Rate		
13	Effects Controller 2			**77**	Vibrato Depth		
				78	Vibrato Delay		
16	Gen Purpose 1 (MSB)	**48**	Gen Purpose 1 (LSB)	**80**	Gen Purpose 5		
17	Gen Purpose 2 (MSB)	**49**	Gen Purpose 2 (LSB)	**81**	Gen Purpose 6		
18	Gen Purpose 3 (MSB)	**50**	Gen Purpose 3 (LSB)	**82**	Gen Purpose 7		
19	Gen Purpose 4 (MSB)	**51**	Gen Purpose 4 (LSB)	**83**	Gen Purpose 8		
				84	Portamento Control		
						120	All Sound Off
						121	Reset All Controllers
						122	Local Control
				91	Reverb Depth	**123**	All Notes Off
				92	Tremolo Depth	**124**	Omni Off
				93	Chorus Depth	**125**	Omni On
				94	Celeste (De-tune)	**126**	Mono On (Poly Off)
				95	Phaser Depth	**127**	Poly On (Mono Off)

Controller numbers 64 to 69 are ON/OFF; if the 3rd byte is 64 or greater that means ON.

To set a Registered Parameter, first send controllers 101 and 100 with the required Number, then send controllers 6 and 38 with the two bytes of data, then send controllers 101 and 100 with the numbers 127.

Some useful Registered Parameters are:
Pitch Bend Sensitivity: cc101=0, cc100=0, cc6=0..24 semitones, cc38=0, cc101=127, cc100=127
Modulation Depth Range: cc101=0, cc100=5, cc6=0..6, cc38=0..127, cc101=127, cc100=127

The patches and percussion lists came from the MIDI-Perl module (you need to install MIDI-Perl anyway, to get muscript's MIDI output working) using a little Perl script such as the following . . .

```
#! /usr/bin/perl
use MIDI;
print "\nGeneral MIDI patch numbers:\n";
foreach (sort {$a<=>$b} keys %MIDI::number2patch) {
   print "$_ $MIDI::number2patch{$_}\n";
}
print "\nGeneral MIDI Percussion (on Channel 9):\n";
foreach (sort {$a<=>$b} keys %MIDI::notenum2percussion) {
   print "$_ $MIDI::notenum2percussion{$_}\n";
}
```

See also: *www.pjb.com.au* *www.pjb.com.au/midi* *www.pjb.com.au/muscript*