receiver.

Appendix 1.3 - Table of MIDI Note Numbers

This table lists all MIDI Note Numbers by octave.

The absolute octave number designations are based on Middle C = C4, which is an arbitrary but widely used assignment.

| Octave # | Note Numbers | | | | | | | | | | | |
|----------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|-----|
| | C | C# | D | D# | E | F | F# | G | G# | A | A # | В |
| -1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 0 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 1 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 |
| 2 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 |
| 3 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 |
| 4 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 |
| 5 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 |
| 6 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 |
| 7 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 |
| 8 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 |
| 9 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | | | | |

Appendix 1.4 - General MIDI Instrument Patch Map

- The names of the instruments indicate what sort of sound will be heard when that instrument number (MIDI Program Change or "PC#") is selected on the GM synthesizer.
- These sounds are the same for all MIDI Channels except Channel 10, which has only percussion sounds and some sound "effects". (See Appendix 1.5 General MIDI Percussion Key Map)

GM Instrument Families

The General MIDI instrument sounds are grouped by families. In each family are 8 specific instruments.

| PC# | Family | PC# | Family |
|-------|----------------------|---------|---------------|
| 1-8 | Piano | 65-72 | Reed |
| 9-16 | Chromatic Percussion | 73-80 | Pipe |
| 17-24 | Organ | 81-88 | Synth Lead |
| 25-32 | Guitar | 89-96 | Synth Pad |
| 33-40 | Bass | 97-104 | Synth Effects |
| 41-48 | Strings | 105-112 | Ethnic |

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