

NO	DESCRIPTION/NAME	MOD	NOISE	UNISON	DOUBLE	DETUNE	COMMENTS
1	Percussive						for short notes
2	Percussive						vibe like
3.	shimmering "wah"						velocity controls brightness mod up for weslie
4	Organ	up					
5	pianorgan						
6	piano like						
7	clav						
8	percussive noise		up				kybd changes filter
9	scratching DJ						hold key or play staccato
10	laser				D-8		doubling yields "simmons"
11	"flashdance" synth						
12	all around fun sound						
13	pulsating brass						
14	"Floyd" sound		up				holds keys down
15	silver shimmer						
16	in Hawaii						
17	solo Cello					(✓)	detune for string section
18	sci-fi sound						
19	magical mallets						
20	playable gong	(✓)	up				play 4 Or 5 spaced notes (add mod)
21	organ						
22	percussive organ	up					velocity controls "weslie" speed
23	touch sens low strings	up(½)				(✓)	
24	chorus strings	up(½)					
25	church organ w/reverb						
26	synth	(✓)					string like
27	buzzy	(✓)					(mod=singing) sustained character
28	resonant repeater						
29	doubled brass						
30	high brass						
31	synth brass						
32	chorus strings (w/touch)					(✓)	
33	clav						
34	church organ	(✓)					mod adds vibrato
35	Farfisa organ	(✓)					
36	bubbling singing organ						
51	singing harpsichord	up	(✓)				add noise to taste
53	vox continental organ	(✓)					mod adds vibrato
54	calliope	up 1/3					
55	Harpsichord						
56	bass syn			on			
57	piano (electric)						
58	mystical piano						
59	pulsar						
60	clarinet						flute like at top of keyboard
61	guitar	(✓)					mod is string bend (roll chords)
62	solo guitar	(✓)					for fast solo passage

(BIT ONE = FACTORY PROGRAM = VERSION I)

DIGITAL KEYBOARDS, INC.



BIT ONE

FACTORY
PROGRAMS
VERSION 2

105 FIFTH AVENUE, GARDEN CITY PARK, NY 11040 (516) 747-7890

OPERATION HINTS

1. Turn power on.
2. Lower switch must be lighted to advance presets. Advance by typing desired number or with ON & OFF switches above volume sliders to advance or reverse stepping of presets.
3. Mono operation requires LOWER VOL. slider to be fully up.
4. Be sure MOD wheel & NOISE slider are fully down. DETUNE near "0."
5. Most sounds are velocity sensitive. TO maximize effect, adjust DYNAMIC SENS on rear panel for personal control of touch.
6. Explore lightest to heaviest playing "touch" while trying each preset below.
7. Adjust detuning as desired for each sound.
8. Consult owner's manual for all features.

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|----------------------------|-----------------------------------|
| 1. ELECTRIC GRAND | 31. ACCOMPANIMENT SYNTH |
| 2. BRIGHT ELECTRIC GRAND | 32. SUSTAINED BRIGHT SYNTH |
| 3. DIGITAL KEYBOARD 1 | 33. CONSERVATIVE SWEEP |
| 4. MELLOW/TREMELO KYBD | 34. SYNTH BASS & COMP |
| 5. STAGE PIANO | 35. BUILD-UP SYNTH |
| 6. ELECTRIC HARPSICORD | 36. BALLAD SYNTH |
| 7. DIGITAL KEYBOARD 2 | 37. MUTED HARP |
| 8. ACCENTED OCTAVES | 38. CHORUS ELECTRIC PIANO |
| 9. PERCUSSIVE SYNTH | 39. MULTI PURPOSE SYNTH |
| 10. COMPING SYNTH | 40. TWO TIMBRE LEAD SYNTH |
| 11. GUITAR PIANO 2 TOUCH | 41. LONG RELEASE BY TOUCH |
| 12. VARISPEED GUITAR PIANO | 42. HOLLOW LEAD SYNTH |
| 13. VARITOUCH KYBD | 43. PAN FLUTE LEAD |
| 14. ALL PURPOSE SYNTH | 44. RESONANT FUNK |
| 15. "BOW" SYNTH | 45. "OBWAH" |
| 16. SWEEP SYNTH | 46. DIGITAL PUNCH |
| 17. DIGITAL BELLS | 47. DIGITAL OCTAVES |
| 18. DIGITAL BELLS 2 | 48. HIGH HARMONIC SYNTH |
| 19. BRASS 1 | 49. PERCUSSIVE WOOD |
| 20. SUSTAINED BRASS | 50. DIGITAL SUSTAINS |
| 21. OCTAVE BRASS | 51. ETHERIAL 1 |
| 22. BRASS 5THS | 52. ETHERIAL 2 |
| 23. LEAD LINE BRASS | 53. VARISPEED MODULATION |
| 24. STRINGS 1 (DETUNE) | 54. LAID BACK SYNTH |
| 25. BRIGHT STRINGS | 55. DIGITAL MALLETS |
| 26. VERSTILE STRINGS | 56. DIGITAL HARMONICS |
| 27. LOW STRINGS | 57. COMBOVOICE |
| 28. BOWED STRINGS 1 | 58. DIGITAL SQUARE BELL |
| 29. SYNTH STRINGS | 59. WARM ACCOMPANIMENT |
| 30. LEAD ENSEMBLE | 60. WARM ACCOMPANIMENT IN OCTAVES |
| | 61. TOY BELLS |
| | 62. GUITAR |
| | 63. NULL SET EVERYTHING AT "0" |

(not first set of factory sounds: see other side!)

OPERATION HINTS CONTINUED

9. Some sounds require no modulation settings to be effective, therefore MOD wheel will be non-functioning.
10. STRINGS WILL OFTEN BE ENHANCED WITH SLIGHT SETTING OF MOD WHEEL.
11. POSITION 63 is a "null" setting, allowing the building of sounds from a "0" or "all sliders down" position. It can be used as a preset sound number.

BIT ONE

FACTORY PROGRAMS
VERSION 3

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|------------------------------------|-------------------------------|
| 1. ELECTRIC GRAND | 33. HIGH VIOLINS |
| 2. ANALOG BRASS | 34. SQUARE TO PULSE FILL |
| 3. ROCK SYNTH | 35. VARISPEED WAH |
| 4. STRINGS WITH BOW | 36. VARISPEED ELECTRIC PIANO |
| 5. HISTRINGS WITH BOW | 37. VARISPEED SYNTH |
| 6. ULTRA SLOW SWEEP | 38. ALL PURPOSE FUNK |
| 7. HIGH ELECTRIC PIANO | 39. THIN RESONANCE |
| 8. DIGITAL PIANO 1 | 40. HALF & HALF ORGAN & SYNTH |
| 9. BASS & SYNTH | 41. UP SWING |
| 10. DIGISOUND | 42. THINNER FUNK |
| 11. FILL IN SYNTH | 43. WAVEFORM ENSEMBLE |
| 12. TOUCH RESONANCE | 44. WAVEFORM ENSEMBLE 2 |
| 13. BASS & PERCUSSIVE SYNTH | 45. BRASS IN OCTAVES |
| 14. SQUARE PIANO | 46. SWEELING MUTED BRASS |
| 15. TREMELO ELECTRIC GRAND | 47. ENSEMBLE ELECTRIC PIANO |
| 16. PLUCKED HARP | 48. SLOWLY CLOSING FILTER |
| 17. SUSTAINED BACKGROUND | 49. SYNTHEA ORGAN |
| 18. FADING SWEEP UP | 50. "WOW" |
| 19. SYNTH ORGAN IN 5THS (detune 0) | 51. "WOW" LEAD |
| 20. TOP 40 BRASS | 52. PERFORMER STRINGS |
| 21. SYNTHACLAV | 53. "OW" ENSEMBLE |
| 22. DOWN SWEEP | 54. PERCUSSIVE "OW" |
| 23. ROCK SYNTH 2 | 55. HAIRPIN LEAD |
| 24. DIGITAL KEYBOARD 2 | 56. CIRCUS SYNTH |
| 25. PULSE TO SQUARE TOUCH | 57. GUITAR |
| 26. PULSE TO SQUARE LEAD | 58. ETHERIAL SYNTH SUSTAINED |
| 27. DIGITAL KISS | 59. CRESCENDO BY TOUCH |
| 28. DIGITAL TOY PIANO | 60. SPEED BY TOUCH |
| 29. SLAP BASS & SYNTH | 61. CATHEDRAL SYNTH |
| 30. BABY STAGE PIANO | 62. FILTER PINNING KYBD. |
| 31. D3 ORGAN | 63. PERCUSSIVE & SUBDUED |
| 32. LONG DECAY BOWED STRINGS | |

APPENDIX: MIDI DETAILS AND MIDI EXCLUSIVE-CODES

This section is highly technical and intended only for computer freaks and other such fiends planning on writing their own MIDI software for controlling the BIT 01. Normal mortals, who become faint when confronted with esoteric codes and are frightened of being bitten by all these bytes, can cheerfully ignore the following, and get on with making music!!! Roll over Beethoven!

As for you freaks: before we get down to the dirty details, we'd like to point out that you will shortly be passing the limits of the "MEMORY PROTECT" switch. Program data manipulation via MIDI bypasses this safety device! You are therefore strongly advised to dump all your precious voice data onto cassette BEFORE exploring the weird and wonderful world of MIDI code sequences!

The BIT 01 can receive MIDI commands on any of the 16 MIDI channels. Executable commands are detailed below. The following are the power up defaults:

- MIDI Mode: OMNI ON (Parameter 72 = "1")
- MIDI Channel: 1 (Parameter 73 = "1")
- Pitch Bend: enabled (Parameter 68 = "1")
- Modulation: enabled (Parameter 69 = "1")
- Release Pedal: enabled (Parameter 70 = "1")
- Program Change: enabled (Parameter 71 = "1")

Power up generates an internal "All Notes Off" command. This command is also generated whenever Omni Mode (Parameter 72) changes status, and when Tape Mode is activated.

In the following text we use the binary representation of MIDI codes and data where appropriate. Other values are given in hexadecimal; these are identified by a trailing "H" (e.g. 29H).

MIDI SYSTEM EXCLUSIVE CODES

<u>STATUS</u>	<u>DATA BYTE(S)</u>	<u>DESCRIPTION</u>
1111 0000	001Q 0101 0iii nnnn 0ccc cccc 0www wwww	Manufacturer ID (BIT, 25H) iii = 001 = <u>BIT 01</u> nnnn = MIDI Channel No. Exclusive data until EOX cccc = Command wwww = Data Byte(s)
1111 0111		EOX (End System Excl.)

Depending on the command (cccc), a variable number of data bytes (wwww) follow.

cccc = 00H	Activate Split Mode; two data bytes follow. 1st byte wwww: Split Point 00H - 3CH 2nd byte wwww: Upper Transpose 00H - 3CH (00H - 3CH correspond to keys 1-61)
cccc = 01H	Inactivate Split Mode; no data bytes follow.
cccc = 02H	Activate Double Mode; no data bytes follow.
cccc = 03H	Inactivate Double Mode; no data bytes follow.
cccc = 05H	Lower Program Change (see Upper Program Change below).
cccc = 06H	Upper Program Change; one data byte follows. wwww = Program Number 00H - 7FH. 00H - 4AH correspond to programs 1-75 4BH - 7FH correspond to programs 1-53
cccc = 07H	Single Program Dump (transfer one program to the <u>BIT 01</u>). 1st byte: Program Number 00H - 62H (for 1-99) + 74 bytes wwww for program data <u>or</u> + 14 bytes wwww for Double/Split data (data format see "Bitmaps" below)
cccc = 08H	Full Memory Dump (transfer all programs and Splits/Doubles to the <u>BIT 01</u>). 74x75 + 14x24 = 5886 bytes wwww follow (data format see "Bitmaps" below)

GENERAL MIDI CODES

<u>STATUS</u>	<u>DATA BYTE(S)</u>	<u>DESCRIPTION</u>
1000 nnnn	Okkk kkkk 0vvv vvvv	Note Off
1001 nnnn	Okkk kkkk 0vvv vvvv	Note On
1011 nnnn	0ccc cccc 0xxx xxxx	Control Change
1100 nnnn	0ppp pppp	Program Change
1110 nnnn	0www wwww 0www wwww	Pitch Wheel Change

VALUES

nnnn = MIDI Channel Number 0-15

kkkk = MIDI Key Number (24H thru 60H, corresponding to key 1-61).
The BIT 01 automatically transposes values outside this range to the nearest octave within the range

vvvv = MIDI Velocity Value. A velocity of 0 in a "Note On" command is the equivalent of a "Note Off" command.

cccc = Control Value or MIDI Controller
01H = Modulation Wheel; value in xxxx
40H = Release Pedal; value in xxxx
7BH = All Notes Off
7CH = Omni Mode Off and All Notes Off
7DH = Omni Mode On and All Notes Off

xxxx = Controller Value
for Modulation Wheel: 00H - 7FH
for Release Pedal: 00H = off, 7FH = on

pppp = Program Number. 00H - 62H call programs 1-99.
63H - 7FH call programs 1-29.

www = Pitch Wheel Value; least significant byte (LSB) first, followed by most significant byte (MSB). The BIT 01 uses only the second (MSB) byte. To ensure future compatibility the LSB should be set to 00H.