Classic Keys REFERENCE SECTION

RAM Presets Bank 0

Organ	0. org:Panner1%
	1. org:Rocky B3
	2. org:PercGrt%
	3. org:LoMidPr%
	4. org:LoHiPrc%
	5. org:HiPerc %
	6. org:StopsOut
	7. org:Lo Dark
	8. org:Airgan %
	9. org:Sticky %
	10. org:Bell Atk
	11. org:Rococo
	12. org:GrandM12
	13. org:Funeral
	14. org:Dynorg1
	15. org:w/Vibes
Electric Piano	16. epo:DXThang%
	17. epo:Dyno'd %
	18. epo:3 Dogs %
	19. epo:BasicEl.
	20. epo:Wurltzr%
	21. epo:WurlBel%
	22. epo:Clav Whl
	23. epo:DblHonr%
	24. epo:DoubleCP
	25. epo:Bright70
	26. epo:TakPiano
	27. epo:WideCP70
	28. epo:TronFade
	29. epo:Vox Fade
	30. epo:DX-70 %
	31. epo:CP-B3-70
String Synth	32. str:P5ala'99
	33. str:Solina
	34. str:SuperMel
	35. str:ThikMoog
	36. str:Moog Too
	37. str:OBXStrng
	38. str:ARPcomb1
	39. str:ARPcomb2
Airy Synth	40. air:WindKeys
	41. air:GasDyno
	42. air:PanninOz
	43. air:PanPiper
	44. air:Siku
	45. air:ARPreedz
	46. air:M12Quack
	47. air:DeepHeat
Buzzy Synth	48. buz:M12 Pad
	49. buz:BigBob55
	50. buz:ARP Pad
	51. buz:MoogPad3
	52. buz:MoogPad5
	53. buz:Rezo SEM
	54. buz:EMU/Moog
	55. buz:Wheel Op
Resonant Synth	56. rez:MoogPad1
	57. rez:MoogPad4
	58. rez:MoogPad6
	59. rez:OB Pad
	60. rez:P5Syncer
	61. rez:MoogPad2
	62. rez:ManyMoog
	63. rez:Cartoon
Bells	64. bel:StikBell
	65. bel:4OctBell
	66. bel:Gamalan
	67. bel:Metlimba
	68. bel:PanBells
	69. bel:Tubular
	70. bel:Led Xtal
	71. bel:WndChime
Warm Synth	72. wrm:Harmonia
	73. wrm:SineWave
	74. wrm:FlutWave
	75. wrm:Bendolin
	76. wrm:Beautifl
	77. wrm:Bend 4>5
	78. wrm:StrngGld
	79. wrm:WineGlas
Bass Synth	80. bas:Punchy
	81. bas:Hunted %
	82. bas:Moog5th%
	83. bas:SyncBtm%
	84. bas:TwoMoogs
	85. bas:B3 Pedal
	86. bas:PerkPedl
	87. bas:UduSynth
Synth Leads	88. led:MoogSqrs
	89. led:MoogSaws
	90. led:MoogRect
	91. led:OB Saws
	92. led:ARPpulse
	93. led:M12 Sync
	94. led:Pro5Sync
	95. led:Sweepy
Mellotron	96. trn:M&F Vox
	97. trn:Vln&FVox
	98. trn:Vln&MVox
	99. trn:Vln&Flut
	100. trn:FVx&Flut
	101. trn:Vx/Flut&
	102. trn:SwoopVox
	103. trn:HuluGurl
Brass	104. brs:Orson55%
	105. brs:Memories
	106. brs:MemMg5th
	107. brs:BigSect%
	108. brs:Section%
	109. brs:MiniWarm
	110. brs:BrassyMg
	111. brs:Taurs5th
Sound FX	112. sfx:Psycotic
	113. sfx:Who Me ?
	114. sfx:Ahh-Ahh
	115. sfx:Crazy
	116. sfx:Triffids
	117. sfx:Outer %
	118. sfx:Limits
	119. sfx:Huuuuge%
Plucked	120. plk:Kotolith
	121. plk:Hawaiian
	122. plk:SurfBird
	123. plk:Twangly%
	124. plk:Bass&Gtr
	125. plk:JazzBass
	126. plk:FunkBass
	127. plk:Bright %

% Indicates that the preset contains a Layered Link to one or more presets.

& Indicates that the preset contains a Split Link to one or more presets.

RAM Presets Bank 1

Organ	0. org:Panner2%
	1. org:Solo 1 &
	2. org:Solo 2 &
	3. org:Solo 3 &
	4. org:Solo 4 &
	5. org:Solo 5 %
	6. org:Solo 6 &
	7. org:Solo 7 &
	8. org:AirPower
	9. org:GameShow
	10. org:Cathedrl
	11. org:Liteness
	12. org:Morgan %
	13. org:RockPls&
	14. org:Dynorg2
	15. org:Clav Atk
Electric Piano	16. epo:Suitcs &
	17. epo:DynoRhd&
	18. epo:Hyper D&
	19. epo:Mark I &
	20. epo:HevyDyno
	21. epo:DynoDlay
	22. epo:TufWurli
	23. epo:WurlBs1&
	24. epo:WurlBs2&
	25. epo:WurliPan
	26. epo:ClavPanr
	27. epo:BuzzClav
	28. epo:SyncClav
	29. epo:CP/M12
	30. epo:CP/MemMg
	31. epo:Eko CP70
String Synth	32. str:LikeNife
	33. str:Bob&Toms
	34. str:M12 5ths
	35. str:OBcanyon
	36. str:GreatBig
	37. str:RotorTrn
	38. str:RotorARP
	39. str:RotorM12
Airy Synth	40. air:Omatic
	41. air:PanProV
	42. air:PanGtrz
	43. air:Subteran
	44. air:Escaping
	45. air:Flutgong
	46. air:Creepy
	47. air:Hu-Hu-Hu
Buzzy Synth	48. buz:ARPinet
	49. buz:Brazzzzz
	50. buz:DuckRock
	51. buz:ClavLike
	52. buz:Britely
	53. buz:Zophone
	54. buz:Buzync
	55. buz:Qwaack
Resonant Synth	56. rez:HotPile
	57. rez:Scary
	58. rez:ARPbssn
	59. rez:Harpspad
	60. rez:Fuzzywuz
	61. rez:FuzGrowl
	62. rez:GrowlWav
	63. rez:Rev Moog
Bells	64. bel:Vibalong
	65. bel:Malltbel
	66. bel:OohBells
	67. bel:Magic
	68. bel:Popsikl%
	69. bel:Disobel%
	70. bel:DigiMoog
	71. bel:Ironbel%
Warm Synth	72. wrm:Accordia
	73. wrm:RoadTone
	74. wrm:Clavsine
	75. wrm:DarkPipe
	76. wrm:PercPad
	77. wrm:Generatr
	78. wrm:Swirly
	79. wrm:PipeBndr
Bass Synth	80. bas:ARP Rez2
	81. bas:2 Micros
	82. bas:EkoMini%
	83. bas:Solidar%
	84. bas:ClavSyn
	85. bas:Watery %
	86. bas:B3 Bass
	87. bas:M12 Bass
Synth Leads	88. led:Interval
	89. led:Jumper
	90. led:55 Moogs
	91. led:2 OBies
	92. led:2 Moogz
	93. led:ISawMoog
	94. led:RezoMoog
	95. led:Moonman
Mellotron	96. trn:FemSwell
	97. trn:SwellGyz
	98. trn:SwlStrng
	99. trn:5thStrng
	100. trn:Strg&Vio
	101. trn:Vox &Vio
	102. trn:DualBend
	103. trn:Hulalins
Brass	104. brs:SoloAlto
	105. brs:SoloTenr
	106. brs:SoloBari
	107. brs:TwoSaxes
	108. brs:&Reeds %
	109. brs:Moog&Tpt
	110. brs:BrassPan
	111. brs:Sforzan%
Sound FX	112. sfx:TheOcean
	113. sfx:Nostromo
	114. sfx:Desent
	115. sfx:BronzAge
	116. sfx:Lifetime
	117. sfx:DripDrum
	118. sfx:VanDgraf
	119. sfx:Scanline
Plucked	120. plk:AsiaEns%
	121. plk:SlideHrm
	122. plk:LesliGtr
	123. plk:Spageti%
	124. plk:BassChr1
	125. plk:BassChr2
	126. plk:Bas/Harm
	127. plk:BasicBas

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& Indicates that the preset contains a Split Link to one or more presets.

ROM Presets Bank 2

Organ	0. org:B3 Fast
	1. org:Lo&Mid %
	2. org:Lo&Hi %
	3. org:MostHi %
	4. org:Mid&Hi %
	5. org:LoPerc %
	6. org:FulPerc%
	7. org:DrkPerc%
	8. org:Airy B3
	9. org:FulBars%
	10. org:Topper %
	11. org:Bostone%
	12. org:Chappel%
	13. org:SimpleLo
	14. org:SimpleHi
	15. org:SmplFull
Electric Piano	16. epo:MkI Chrs
	17. epo:LA Dyno%
	18. epo:DynoWhl%
	19. epo:SpltRoad
	20. epo:RuffDyno
	21. epo:Suitcase
	22. epo:HypDyno%
	23. epo:DoorBas%
	24. epo:Stereo
	25. epo:Xpresive
	26. epo:GrandOrg
	27. epo:Pianofla
	28. epo:CP/M12
	29. epo:CP/ARP
	30. epo:Out West
	31. epo:Gospel
String Synth	32. str:For Film
	33. str:Early80s
	34. str:Matrix12
	35. str:MeloMoog
	36. str:ARPtron
	37. str:NoyzTron
	38. str:Tron #1
	39. str:Tron #2
Airy Synth	40. air:Enchantd
	41. air:Asiatic
	42. air:Delicate
	43. air:D50ish 1
	44. air:WindPowr
	45. air:Digital
	46. air:Kaliopad
	47. air:Jacinto
Buzzy Synth	48. buz:ARPwave1
	49. buz:OBXwave1
	50. buz:EMUwave1
	51. buz:MoogPuls
	52. buz:OBXwave2
	53. buz:P5Gitarz
	54. buz:EMUHarps
	55. buz:P5 Harps
Resonant Synth	56. rez:ARP Poly
	57. rez:MoogFilt
	58. rez:KtchSynk
	59. rez:ARPenatr
	60. rez:Moogles
	61. rez:Al & Bob
	62. rez:OBXJump
	63. rez:Growl %
Bells	64. bel:Patina
	65. bel:Mystery
	66. bel:Ringer
	67. bel:Vibrafon
	68. bel:Carillon
	69. bel:Xtal 1 %
	70. bel:MusicBox
	71. bel:ToyPiano
Warm Synth	72. wrm:Sub Dude
	73. wrm:Flautish
	74. wrm:BrassPad
	75. wrm:Pluto
	76. wrm:Carousel
	77. wrm:Matrix
	78. wrm:AirMen
	79. wrm:Infinity
Bass Synth	80. bas:MinMog1%
	81. bas:MinMog2%
	82. bas:ARPrezo%
	83. bas:MicroMg%
	84. bas:MinMog3
	85. bas:MinMog4%
	86. bas:MinMog5%
	87. bas:Rez Body
Synth Leads	88. led:Emu Saws
	89. led:Emu Sqrs
	90. led:Emu Tri
	91. led:EchoMoog
	92. led:MicroMem
	93. led:P5 Sync
	94. led:Dual SEM
	95. led:Winter
Mellotron	96. trn:Flute
	97. trn:FlutMoog
	98. trn:VerbFlut
	99. trn:FlutePan
	100. trn:FemChoir
	101. trn:MenChoir
	102. trn:MixChoir
	103. trn:Noys2Men
Brass	104. brs:MemMoog
	105. brs:FatBrass
	106. brs:Regality
	107. brs:3 Piece
	108. brs:With Sax
	109. brs:SoloMood
	110. brs:Scoop
	111. brs:TronBrs%
Special FX	112. sfx:Peckerz
	113. sfx:Vynlator
	114. sfx:Dicer
	115. sfx:Landing
	116. sfx:Yes Sir
	117. sfx:Microbs
	118. sfx:DigiSlic
	119. sfx:MagiFlut
Plucked	120. plk:TheGitar
	121. plk:Ricki 12
	122. plk:Hrmonics
	123. plk:AcGuitar
	124. plk:PickBass
	125. plk:Fretless
	126. plk:WithTop%
	127. plk:Fingerz

% Indicates that the preset contains a Layered Link to one or more presets.

& Indicates that the preset contains a Split Link to one or more presets.

ROM Presets Bank 3

Organ	0. org:HmndGrit
	1. org:ChrchLdy
	2. org:KeyClick
	3. org:AirSatz%
	4. org:Cussive%
	5. org:Chopper
	6. org:EchoHall
	7. org:Meddle
	8. org:Vox Cont
	9. org:Farfisa
	10. org:Voxfisa
	11. org:Jaguar 1
	12. org:Jag Sub5
	13. org:Jag Sub8
	14. org:FarfClik
	15. org:FarfPerc
Electric Piano	16. epo:DryWurli
	17. epo:Back Jak
	18. epo:WurliChr
	19. epo:Clavinet
	20. epo:DblClav%
	21. epo:Sweetbel
	22. epo:Faux DX%
	23. epo:Zircon %
	24. epo:Pianet
	25. epo:CP Wheel
	26. epo:&MoogStr
	27. epo:CPChorus
	28. epo:CP/Tron
	29. epo:PlusDXep
	30. epo:SlapEcho
	31. epo:Mono Pan
String Synth	32. str:SmalHall
	33. str:ThickSyn
	34. str:ARPStrng
	35. str:M12Strng
	36. str:LargHall
	37. str:Tron/M12
	38. str:StopTron
	39. str:Trn+Brs%
Airy Synth	40. air:AngelVox
	41. air:Fairlite
	42. air:BeloVox
	43. air:MoogPipe
	44. air:Breath
	45. air:OzonLayr
	46. air:P5 Echo
	47. air:D50ish 2
Buzzy Synth	48. buz:BizzARP
	49. buz:Tamboras
	50. buz:Air Gtrs
	51. buz:ARP 2600
	52. buz:ARPreedz
	53. buz:OB SEM3
	54. buz:Elecroad
	55. buz:ARPwave2
Resonant Synth	56. rez:DualSync
	57. rez:Moog 55
	58. rez:EchoSync
	59. rez:Sitarz %
	60. rez:Reztyne%
	61. rez:AbleCmp%
	62. rez:Rippoff
	63. rez:DublM12%
	64. bel:BelPiper
Bells	65. bel:ToyPno 2
	66. bel:DxAngels
	67. bel:ViboMoog
	68. bel:Xtal 2 %
	69. bel:PerKlavr
	70. bel:Xylosyn
	71. bel:Dreamy %
Warm Synth	72. wrm:Monk Vox
	73. wrm:Moogoid
	74. wrm:Ancients
	75. wrm:Pan Comp
	76. wrm:Submerge
	77. wrm:Tangerin
	78. wrm:Alaska
	79. wrm:Steam
Bass Synth	80. bas:LowMoog%
	81. bas:Garggle%
	82. bas:MoogRip%
	83. bas:WetMoog%
	84. bas:MoogPerc
	85. bas:MoogRez%
	86. bas:DeepBas9
	87. bas:Taurus I
Drums	88. drm:JimerWhl
	89. drm:BoomKick
	90. drm:Lo Toms
	91. drm:SnareTom
	92. drm:ElCowBel
	93. drm:El Snare
	94. drm:El Stick
	95. drm:BasicKit
Links	96. lnk:1 4Split
	97. lnk:2 4Split
	98. lnk:3 4Split
	99. lnk:4 4split
	100. lnk:5 4Split
	101. lnk:FullPan%
	102. lnk:EpoBoost
	103. lnk:Organ 1
	104. lnk:Organ 2
	105. lnk:Organ 3
	106. lnk:Organ 4
	107. lnk:Organ 5
	108. lnk:Organ 6
	109. lnk:Organ 7
	110. lnk:Organ 8
	111. lnk:Organ 9
	112. lnk:Organ10%
	113. lnk:Organ 11
	114. lnk:Organ 12
	115. lnk:Booster1
	116. lnk:Booster2
	117. lnk:Booster3
	118. lnk:DXBoost1
	119. lnk:DXBoost2
	120. lnk:Organ 13
	121. lnk:Organ 14
	122. lnk:Organ 15
	123. lnk:Sfrz 2
	124. lnk:0>11
	125. lnk:Clavlink
	126. lnk:MeatBotm
	127. – default –

% Indicates that the preset contains a Layered Link to one or more presets.

& Indicates that the preset contains a Split Link to one or more presets.

Classic Instruments

SAMPLED SOUNDS

1. B3DistLwSlw ..... Distorted B3 Organ, Low Drawbars, Slow Rotor
2. B3 Dist Fast ..... Distorted B3 Organ, Fast Rotor
3. B3 Hi Slow ..... B3 Organ, High Drawbars, Slow Rotor
4. B3 Hi Fast ..... B3 Organ, High Drawbars, Fast Rotor
5. B3 Full Slow ..... B3 Organ, Full Drawbars, Slow Rotor
6. B3 Full Fast ..... B3 Organ, Full Drawbars, Fast Rotor
7. B3 Perc 3rd ..... B3 Organ 3rd Harmonic Percussion
8. Male Choir ..... Mellotron - Male Choir
9. Femme Choir ..... Mellotron - Female Choir
10. Males to Mix ..... Mellotron - Male Choir (to mix with Inst. 11)
11. Femmes to Mix ..... Mellotron - Female Choir (to mix with Inst. 10)
12. Violin Trio ..... Mellotron - Violins
13. Flute ..... Mellotron - Flute
14. Bari Sax ..... Baritone Saxophone
15. Tenor Sax ..... Tenor Saxophone
16. Alto Sax ..... Alto Saxophone
17. Trumpet Sft ..... Soft-blown Trumpet
18. Trumpet Hrd ..... Hard-blown Trumpet
19. Trombone ..... Trombone
20. Trom/STpt ..... Trombone/Soft Trumpet Split
21. Trom/HTpt ..... Trombone/Hard Trumpet Split
22. Trom/Sax ..... Trombone/Sax Split
23. Farfisa ..... Farfisa Organ
24. CP-70 ..... CP-70 Piano
25. CP-70 Mellow ..... CP-70 Piano with Mellow Tone
26. CP-70 Brite ..... CP-70 Piano with Bright Tone
27. Piano Bass ..... CP-70 Piano Bass - Transposed
28. Wurlitzer1 ..... Wurlitzer Electric Piano 1
29. Wurlitzer2 ..... Wurlitzer Electric Piano 2
30. Dyno Rhodes1 ..... Dyno-My-Rhodes Electric Piano 1
31. Dyno Rhodes2 ..... Dyno-My-Rhodes Electric Piano 2
32. FendrRhodes ..... Fender Rhodes Electric Piano
33. Clavinet ..... Hohner Clavinet
34. Brite Clavinet ..... Bright Hohner Clavinet
35. Mini Moog 1 ..... Mini Moog w/Low Resonance
36. Mini Moog 2 ..... Mini Moog w/ Med Resonance
37. Mini Moog 3 ..... Mini Moog w/High Resonance
38. Mini Moog 4 ..... Mini Moog w/Lower Cutoff
39. Mini Moog 5 ..... Mini Moog Horn Sound
40. Mini Moog 6 ..... Mini Moog w/Osc->Filter Modulation
41. Micro Moog ..... Micro Moog w/ Osc->Filter Modulation
42. Taurus Pedal ..... Moog Taurus Bass Pedal

Classic Instruments

43. Jaco Bass ..... DX-7 Bass Sound
44. M12 Lead 1 ..... Oberheim Matrix-12 Sync Patch 1
45. M12 Lead 2 ..... Matrix-12 Sync Patch 2
46. ARP 2600 ..... ARP 2600 Synth w/ Osc->Filter Modulation
47. Rock DXman ..... DX-7 played through Rockman
48. P5 Sync Lead ..... Prophet-5 Sync Patch
49. Moog 55 Rez ..... Moog Model 55 w/ Filter Resonance
50. Memory Moog ..... Memory Moog - Horn Patch
51. OBX Saws ..... Oberheim OBX - Sawtooth Patch
52. P5 Guitar Pad ..... Prophet-5 - Guitar-like Patch
53. Matrix Pad ..... Matrix-12 - Hollow Patch
54. P5 Piper ..... Prophet-5 - Overblown Pipe Patch
55. P5 Strings ..... Prophet-5 - String Patch
56. M12 Strings ..... Matrix-12 - String Patch
57. ARP Strings ..... ARP String Ensemble
58. AHHHs ..... Fairlight Vocals
59. Picked Bass ..... Picked Bass Guitar
60. Finger Bass ..... Fingerpicked Bass Guitar
61. Finger Tre ..... Fingerpicked Bass Guitar
62 Pickd 8 Top ..... 8-String Bass Guitar
63. Finger 8 Top ..... 8-String Bass Guitar
64. Finger 8 Tre ..... 8-String Bass Guitar
65. The Guitar ..... Clean Electric Guitar
66. Twelve Top 1 ..... 12-String Guitar
67. Twelve Top 2 ..... 12-String Guitar
68. Twelve Top 3 ..... 12-String Guitar
69. Drum Kit 1 .....
70. Drum Kit 2 .....
71. Drum Kit 3 .....
72. Drum Kit 4 .....
73. Drum Kit 5 .....
74. Drum Kit 6 .....
75. Drum Kit 7 .....

See the Percussion Instrument Location Diagrams on pages 101-103.

76. Large Hall .....
77. Medium Room .....
78. Tiled Room .....
79. Gated Short .....
80. Gated Long 1 .....
81. Gated Long 2 .....
82. Lush Reverb .....
83. Blush Reverb .....
84. Full On Reverb .....

Reverb Spaces to combine with Drum Kits 1-7.

See the Reverb Space Diagram on page 103.

* The names of the above-mentioned instruments may be trademarks of third parties. In order to create the instrument sounds, E-mu records such sound from the respective instrument and the recording is converted into a digital signal which is then modified as necessary to be stored in a read only memory (ROM) device.

Waveforms

85. Dry Kick ..... Dry Kick Drum over the full keyboard range
86. Kick Verb ..... Kick Drum Reverb over the full keyboard range
87. Dry Snare ..... Dry Snare Drum over the full keyboard range
88. Snare Verb ..... Snare Drum Reverb over the full keyboard range
89. Dry Tom ..... Dry Tom Tom over the full keyboard range
90. Wet Tom ..... Ambient Tom Tom over the full keyboard range
91. High Hat 1 ..... Closed Hi-Hat over the full keyboard range
92. High Hat 2 ..... Half Closed Hi-Hat over the full keyboard range
93. High Hat 3 ..... Open Hi-Hat over the full keyboard range
94. Ride Ping ..... Ride Cymbal Ping over the full keyboard range
95. Ride Bell ..... Ride Cymbal Bell over the full keyboard range
96. Crash ..... Crash Cymbal over the full keyboard range
97. Cowbell ..... Cowbell over the full keyboard range
98. Tambourine ..... Tambourine over the full keyboard range
99. Side Stick ..... Snare Side Stick over the full keyboard range
100. Clave ..... Rosewood Clave over the full keyboard range

SYNTHESIZER & ORGAN WAVEFORMS

The single cycle waveforms are sampled waves from various synthesizers and organs. The Moog, ARP & OB waves have been sampled with various filter settings characteristic of each unit.

The B3 waves are various harmonic drawbar settings designed to be used alone or layered together with the multi-cycle organ samples (instruments 1-7). The various drawbar settings were selected to produce an extremely wide degree of variation. See the B3 Wave Drawbar Setting Diagrams on pages 98-100.

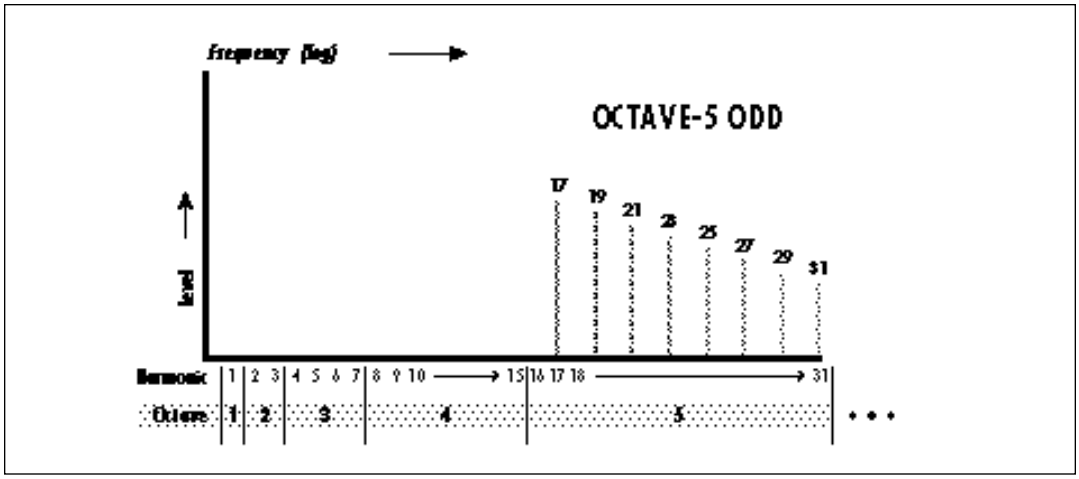
101. Square
102. Sawtooth
103. Triangle
104. Moog Saw 1
105. Moog Saw 2
106. Moog Saw 3
107. Moog Saw 4
108. Moog Square 1
109. Moog Square 2
110. Moog Square 3
111. Moog Square 4
112. Moog Square 5
113. Moog Square 6
114. Moog Rectangle 1
115. Moog Rectangle 2
116. Moog Rectangle 3
117. Moog Rectangle 4
118. Moog Rectangle 5
119. Moog Pulse 1
120. Moog Pulse 2
121. Moog Pulse 3
122. Moog Pulse 4
123. Moog Pulse 5
124. OB Wave 1
125. OB Wave 2
126. OB Wave 3
127. OB Wave 4
128. OB Wave 5
129. ARP 2600 1
130. ARP 2600 2
131. ARP 2600 3

Waveforms

132. B3 Wave 1
133. B3 Wave 2
134. B3 Wave 3
135. B3 Wave 4
136. B3 Wave 5
137. B3 Wave 6
138. B3 Wave 7
139. B3 Wave 8
140. B3 Wave 9
141. B3 Wave 10
142. B3 Wave 11
143. B3 Wave 12
144. B3 Wave 13
145. B3 Wave 14
146. B3 Wave 15
147. B3 Wave 16
148. B3 Wave 17
149. B3 Wave 18
150. ARP Clarinet
151. ARP Bassoon
152. P5 No-Tone
153. Noise Non-X

HARMONIC WAVEFORMS

154. Oct 1 (Sine)
155. Oct 2 All
156. Oct 3 All
157. Oct 4 All
158. Oct 5 All
159. Oct 6 All
160. Oct 7 All
161. Oct 2 Odd
162. Oct 3 Odd
163. Oct 4 Odd
164. Oct 5 Odd
165. Oct 6 Odd
166. Oct 7 Odd
167. Oct 2 Even
168. Oct 3 Even
169. Oct 4 Even
170. Oct 5 Even
171. Oct 6 Even
172. Oct 7 Even
173. Low Odds
174. Low Evens
175. Four Octaves



As an example, this chart shows the harmonics present in the Octave 5 Odd waveform.

Starting from the first octave (fundamental), the harmonic waveforms contain the harmonics (odd, even, or all) present in each octave. In each successive octave the number of harmonics doubles.

By combining (pri/sec or link) the harmonic waveforms in various amounts (volume), and transposing them (coarse/fine tuning), a wide range of timbres may be produced.

Waveforms

SINGLE CYCLE WAVEFORMS

These single cycle waveforms were either synthesized or taken from actual sampled sounds. Each wave has a unique tonal quality.

176. Synth Cycle 1
177. Synth Cycle 2
178. Synth Cycle 3
179. Synth Cycle 4
180. Fundamental Gone 1
181. Fundamental Gone 2
182. Bite Cycle
183. Buzzy Cycle
184. Metalphone 1
185. Metalphone 2
186. Metalphone 3
187. Metalphone 4
188. Duck Cycle 1
189. Duck Cycle 2
190. Duck Cycle 3
191. Wind Cycle 1
192. Wind Cycle 2
193. Wind Cycle 3
194. Wind Cycle 4
195. Organ Cycle 1
196. Organ Cycle 2
197. Violin Essence
198. Buzzoon
199. Brassy Wave
200. Reedy Buzz
201. Growl Wave
202. HarpsiWave
203. Fuzzy Gruzz
204. Power 5ths
205. Filter Saw
206. Ramp
207. Evens Only
208. Odds Gone
209. Ice Bell
210. Bronze Age
211. Iron Plate
212. Aluminum
213. Lead beam
214. Steel Xtract
215. Winter Glass
216. Town bell
217. Orch Bells
218. Tubular SE
219. Soft Bell
220. Swirly
221. Tack Attack
222. Shimmer Wave
223. Mild Tone
224. Ah Wave
225. Vocal Wave
226. Fuzzy Clav
227. Electrhode
228. Whine 1

MULTI-CYCLE WAVEFORMS

The multi-cycle waveforms are short sections of sampled sounds.

229. Filter Bass
230. Harmonics
231. ElecPiano
232. Marimba Attack
233. Vibe Attack
234. Xposed Noise

Waveforms

LOOPS AND PILES

Loops are single samples continuously looped.

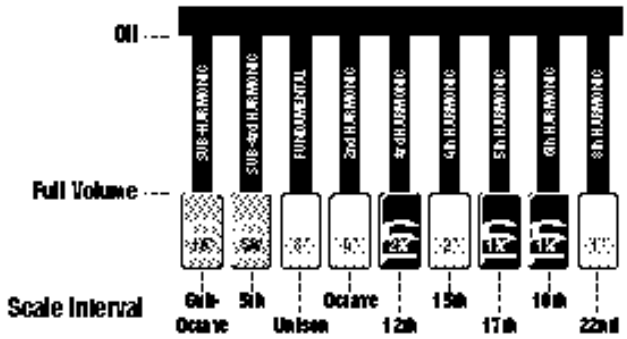
Piles are continuous loops containing multiple samples.

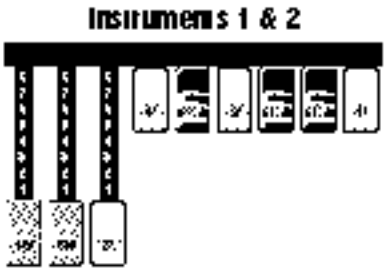
Loops and Piles are useful for special effects and can provide rhythmic accompaniment when chords are played. Extreme transpositions may also yield unusual effects.

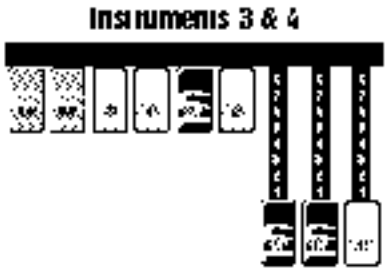
235. Marimba Loop
236. Vibes Loop
237. Stick Loop
238. Cowbell Loop
239. Clave Loop
240. Hi Hat Loop
241. Drum Pile
242. CP-70 Pile
243. Pick Bass Pile
244. Guitar Pile
245. Finger Bass Pile
246. Moog Loop
247. OB Loop
248. Frost Loop
249. Memory Loop

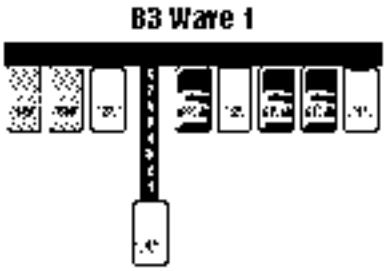
Drawbar Diagrams

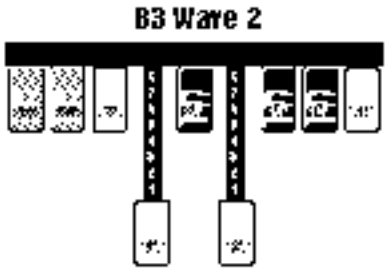
Each drawbar controls the volume of its associated harmonic or overtone. The 8" drawbar is the fundamental pitch of the sound. Note that instruments 1-7 are full length samples, while waves 1-18 are single cycle loops.

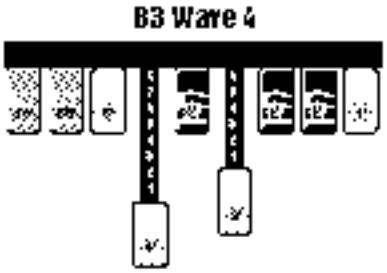


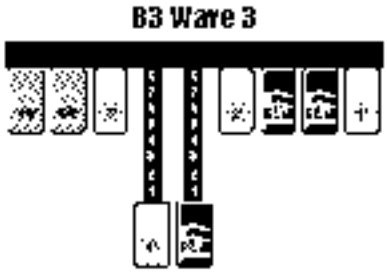






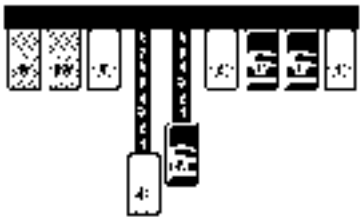




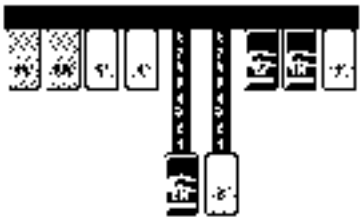


Drawbar Diagrams

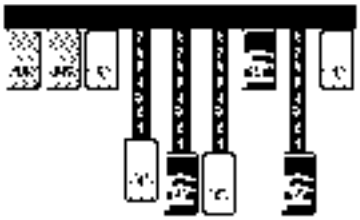
B3 Wave 5



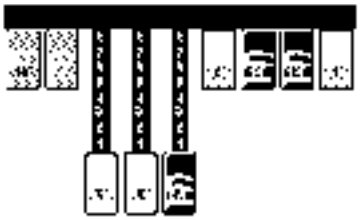
B3 Wave 6



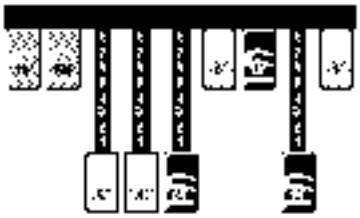
B3 Wave 7



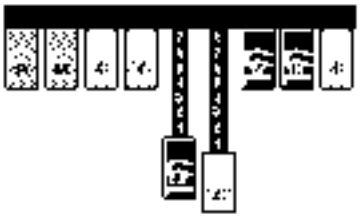
B3 Wave 8



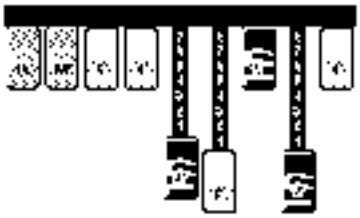
B3 Wave 9



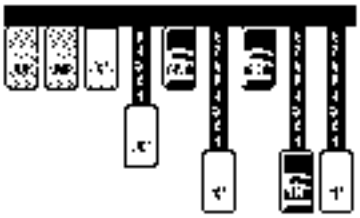
B3 Wave 10



B3 Wave 11



B3 Wave 12

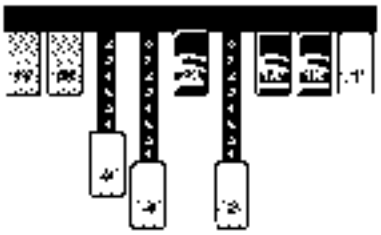


Drawbar Diagrams

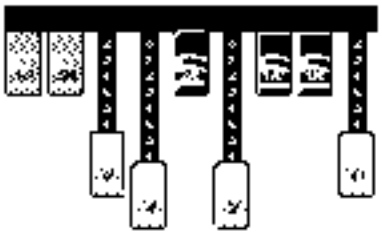
B3 Wave 13

B3 Wave 14

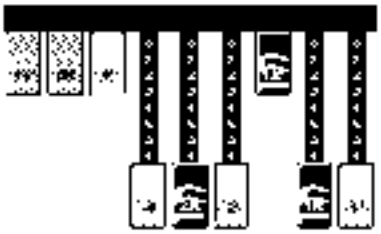
B3 Wave 15



B3 Wave 16



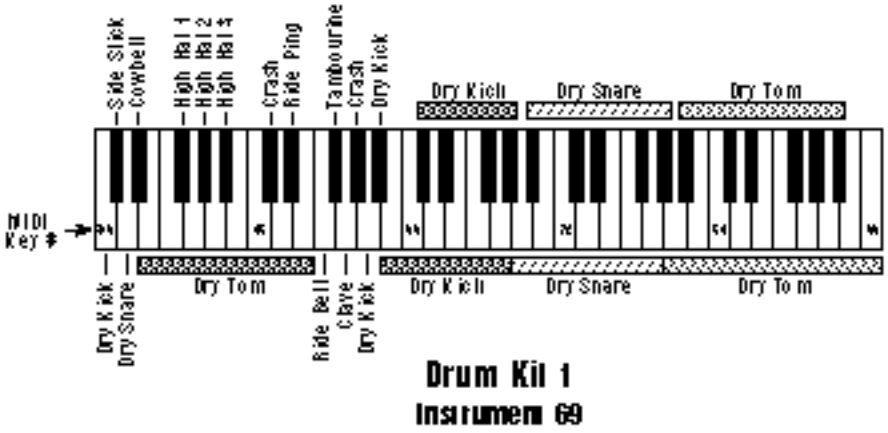
B3 Wave 17



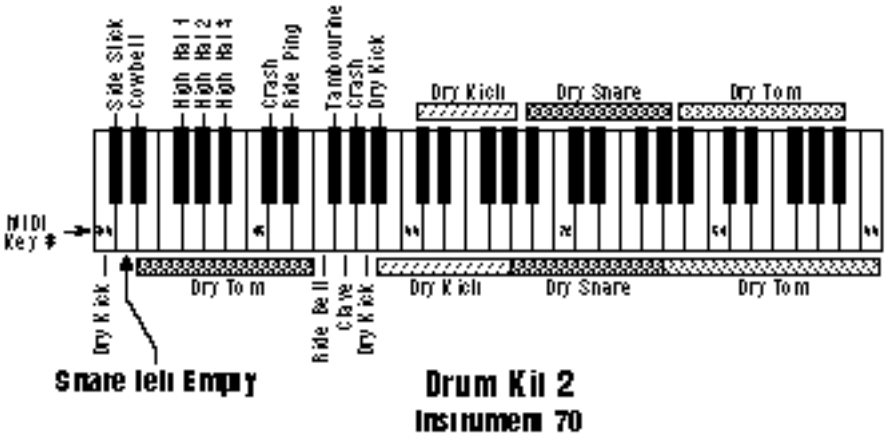
B3 Wave 18

Percussion Instrument Locations

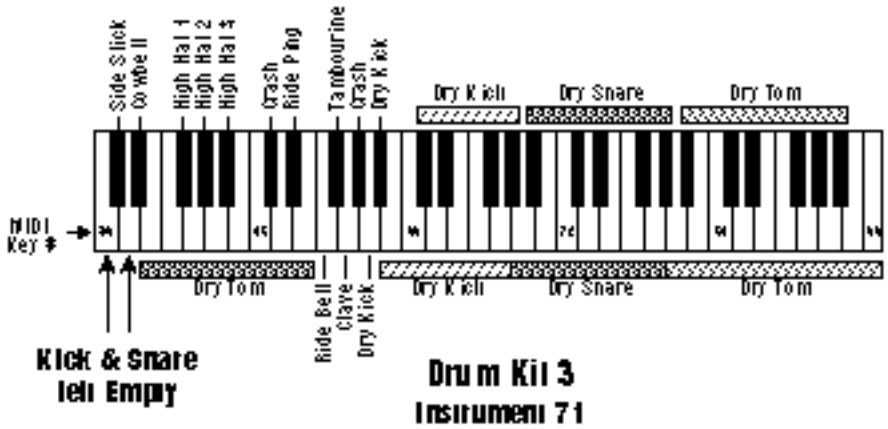
ALL DRUMS



SNARE EMPTY
Allows you to place a tuned snare (inst. #87) in this location using the secondary layer.

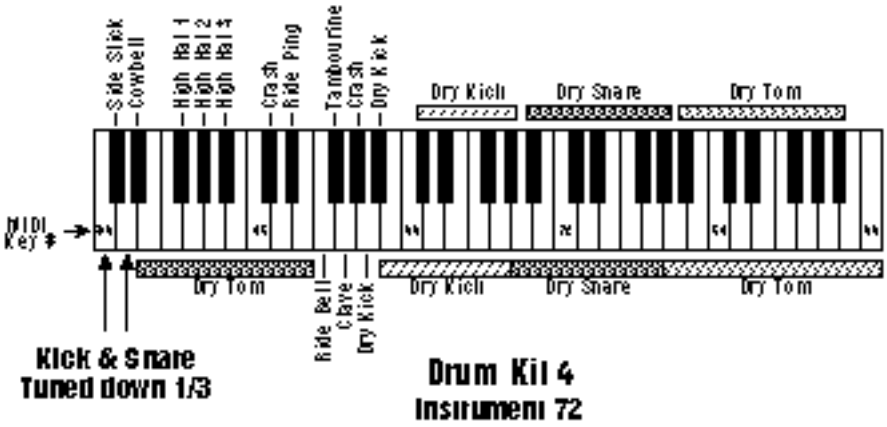


KICK & SNARE EMPTY
Allows you to place tuned kick & snares (inst. 85 & 87) in these locations using the secondary layer or links.

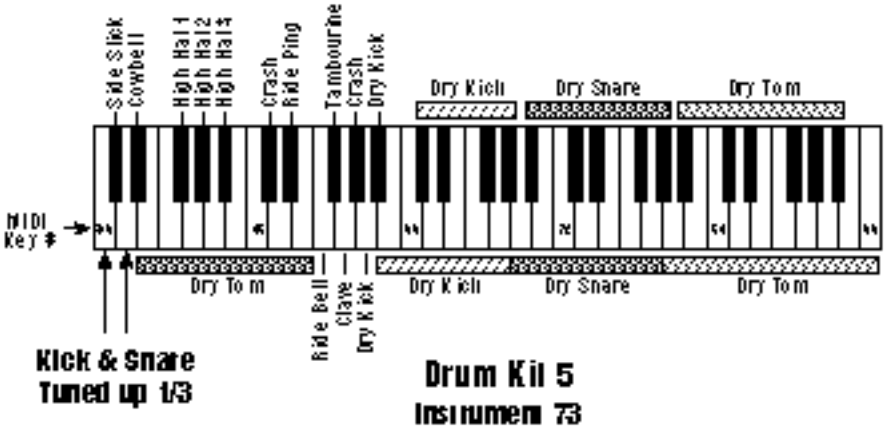


Percussion Instrument Locations

KICK & SNARE TUNED DOWN

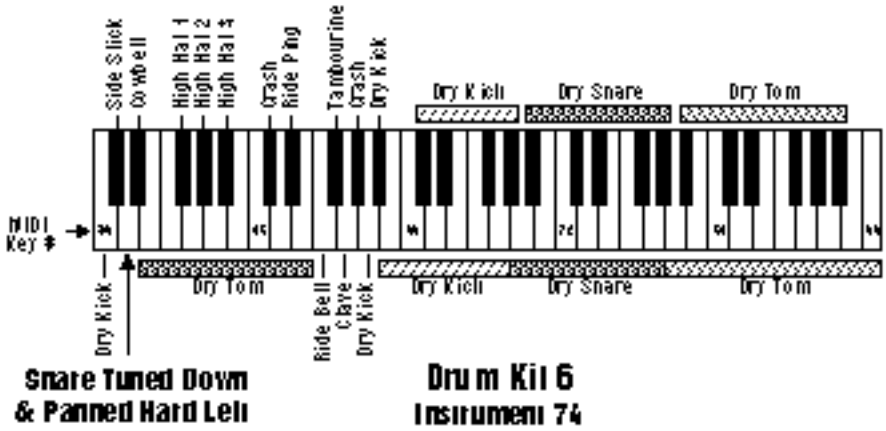


KICK & SNARE TUNED UP



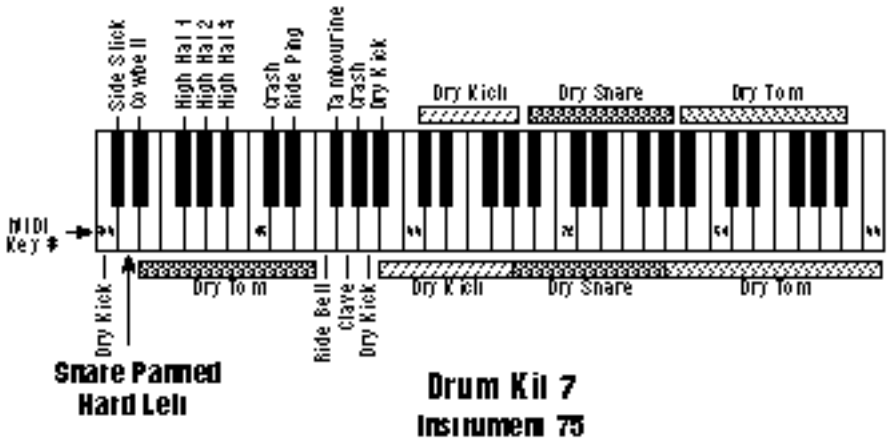
SNARE TUNED DOWN, PANNED LEFT

Allows you to create a stereo snare by panning the secondary snare hard right. (Hint: use delay, tuning, sound start.)

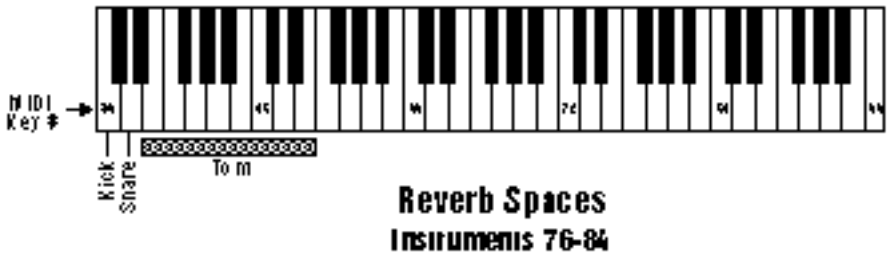


Percussion Instrument Locations

SNARE PANNED LEFT
Allows you to create a stereo snare by panning the secondary snare hard right. (Hint: use delay, tuning, sound start.)



REVERB SPACES
Allows you to add reverb by layering with Drum Kits 1-7.



For more information on the Reverb Spaces, see page 84 of this manual.

Technical Specifications

Audio Channels 32

Max. Output Level ..... +4 dB into 600Ω

Output Impedance 100Ω

MIDI ..... In, Out, Thru

Data Encoding ..... 16 bit linear

Sample Playback Rate ..... 39 kHz

Signal to Noise: ..... >90 dB

Dynamic Range ..... >90 dB

Frequency Response ..... 20 Hz - 18 kHz

THD + N ..... <.05%

IMD ..... <.05%

Power Requirements ..... 25 Watts

Operating Temperature ..... 100° F Max.

Dimensions ..... H: 1.75" W: 19" L: 6"
(H: 4.4cm W: 48.3cm L: 15.2cm)

Weight ..... 4 lb, 9 oz (2 Kg)

MIDI Implementaion Chart

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	No No	1 1-16	Memorized
Mode	Default Messages	Yes	Mode 1, 3, 4 MONO, POLY OMNI, ON/OFF	Memorized
Note Number	 True Voice	No No	0-127 0-127	
Velocity	Note ON Note OFF	No No	Yes v=1-127 No	
After Touch	Keys Channels	No No	Yes Yes	
Pitch Bender		No	Yes	
Control Change		No	Yes	0-31 64-79
Program Change	 True Number	No No	Yes 0-127 Yes 0-127	
All Sound Off		No	Yes	
All Notes Off		No	Yes	
Reset All Controllers		No	Yes	
System Exclusive		Yes	Yes	
System Common	Song Pos Song Sel :Tune	No No No	No No No	
System Real Time	:Clock :Commands	No No	No No	
Aux Messages	:Local On/Off :Active Sense :Reset	No No No	No No No	

Notes: Pan 0=hard left 127=hard right

Mode 1: OMNI ON, POLY Mode 2: OMNI ON, MONO
Mode 3: OMNI OFF, POLY Mode 4: OMNI OFF, MONO

GENERAL INFORMATION FOR CLASSIC KEYS

- Product ID is 04.
- Device ID is [00-0F] (0-15 decimal).
- Since MIDI data bytes cannot be greater than [7F] (127 decimal), the data values are “nibble-ized” to a 14-bit signed 2's complement format.
- There is only one edit buffer which is for the current preset (the preset shown in the display). Only one preset at a time can be edited via SysEx commands and changing the current preset erases the edit buffer.

MIDI Specification

RECEIVED CHANNEL COMMANDS

Channels number (n) = 0-15. Message bytes are represented in hex. All other numbers are decimal.

Command	Message	Comments
Note Off	8n kk vv	release velocity is ignored
Note Off	9n kk vv	velocity 0 = note off
Key Pressure	An kk pp	
Program Change	Cn pp	
Channel Pressure	Dn pp	
Pitch Wheel	En ll mm	l = lsb, m = msb
Realtime Controller	Bn cc vv	cc = 01-31
Footswitch	Bn cc vv	cc = 64-79, vv ≥ 64 = on
Volume	Bn 07 vv	
Pan	Bn 0A vv	0 = hard left, 127 = hard right
Effect Control A	Bn 0C vv	See • Note below
Effect Control B	Bn 0D vv	See • Note below
Effect A Mix	Bn 5B vv	
B->A Feed	Bn 5C vv	
Effect B Mix	Bn 5D vv	
Reset All Controllers	Bn 79 00	ignored in omni mode
All Notes Off	Bn 7B 00	ignored in omni mode
Omni Mode	Bn 7D 00	forces all notes & controls off
Mono Mode	Bn 7E 00	forces all notes & controls off
Poly Mode	Bn 7F 00	forces all notes & controls off
Bank Select	Bn 00 00 20 bb Cn pp	bb = bank #, pp = prog. in bank

Bank 0 = 000-127 - bb=00
Bank 1 = 128-255 - bb=01
Bank 2 = 256-383 - bb=02
Bank 3 = 384-511 - bb=03

• Note: These controls adjust the currently selected parameter of the currently selected effect. The “currently selected” parameter is either the 1st one in an effect's parameter list (as initialized after power up) or the parameter selected either by hand or by SysEx parameter edits.

MIDI Specification

RECEIVED SYSTEM COMMANDS

For system exclusive commands the following format is used:

F0	system exclusive status byte
18	E-mu ID byte
04	product ID byte
dd	device ID byte
cc	command byte
...	data bytes (256 bytes/preset)
F7	EOX

Two MIDI bytes (lsb, msb) are required for each 14 bit data word. Bits 0-6 are sent first, followed by bits 7-13 in the next MIDI byte. All data words are signed 2's complement values with sign-extension out to the most significant bit (bit 13). This convention applies to all data words, regardless of the parameter's value range.

Command	***Message***	***Comments***
Preset Data Request	F0 18 04 dd 00 ll mm F7	ll = preset # lsb, mm =preset # msb see note 6
Preset Data	F0 18 04 dd 01 ll mm ... ... cs F7 cs = checksum = sum of all data bytes	
Parameter Value Request	F0 18 04 dd 02 pl pm F7 pl = parameter # lsb	pm = msb
Parameter Value	F0 18 04 dd 03 pl pm vl vm F7 vl = value lsb	vm = msb
Tuning Table Request	F0 18 04 dd 04 F7	
Tuning Table	F0 18 04 dd 05 ... ... F7	
Program Map Request	F0 18 04 dd 06 F7	see note 1
Program Map Data	F0 18 04 dd 07 ... ... F7	
Version Request	F0 18 04 dd 0A F7	see note 3
Configuration Request	F0 18 04 dd 0C F7	see note 4
MMA Tuning Dump	F0 7E dd 08 01 tt <name (16 ascii)>…F7	see note 5

MIDI Specification

TRANSMITTED SYSTEM COMMANDS

Command	Message	Comments
Preset Data	F0 18 04 dd 01 ll mm ... ... cs F7	cs = checksum = sum of all data bytes
Parameter Value	F0 18 04 dd 03 pl pm vl vm F7	pl = parameter # lsb pm = msb vl = value lsb vm = msb
Tuning Table	F0 18 04 dd 05 ... ... F7	TT data = 256 bytes
Program Map Data	F0 18 04 dd 07 ... ... F7	see note 1

PARAMETER EDITING

Preset and setup parameters may be edited individually using system exclusive commands. The preset being edited is the active preset (the preset which is assigned to the received channel). The value of a given parameter may be changed by sending a parameter value command. The value of a parameter may be read by sending a parameter value request, to which the machine will respond by sending back the parameter value.

Preset data may also be transmitted or received in a single block (one complete preset) using system exclusive commands. A preset data request may be issued by a host computer, to which the machine will respond sending the data block for the requested preset. Conversely, the computer may send new preset data which will replace the specified preset currently in the machine. Additionally, a front panel command will transmit one or all user presets for backup onto an external sequencer. These presets may be restored by simply playing back the sequence into the machine.

ALTERNATE TUNING

The “user tuning table” allows any key to be tuned to an arbitrary pitch over an 8 octave range. If selected in the preset, an alternate tuning may be achieved by modifying the tuning values from the front panel or downloading a new table into the machine. The table consists of 128 words corresponding to the MIDI key range, kept in non-volatile memory. Each word is a pitch value expressed in 1/64 semitones, offset from key number 0 (c-2). Therefore, for equal temperament, each entry in the table would be equal to its key number times 64.

PRESET DATA FORMAT

Preset data is transmitted and received using the following format: The standard system exclusive header (described below) is followed by the preset number (lsb, msb), a 14 bit word for each preset parameter (lsb, msb) starting at parameter #0 and continuing upward, a one-byte checksum, and the end-of-exclusive byte (F7). The checksum is the modulo 128 sum of all the parameter value bytes; that is, all of the data bytes following the preset number and before the checksum.

MIDI Specification

PRESET PARAMETERS

Parameter Number	Parameter Name
0-11	preset name (12 ascii chars)
12-14	link 1-3
15-18	low key 0-3
19-22	high key 0-3
23	pri instrument
24	pri sample start offset
25	pri tuning (coarse)
26	pri tuning (fine)
27	pri volume
28	pri pan
29	pri delay
30	pri low key
31	pri high key
32	pri alt attack
33	pri alt hold
34	pri alt decay
35	pri alt sustain
36	pri alt release
37	pri alt envelope on
38	pri solo mode
39	pri chorus
40	pri reverse sound
41	sec instrument
42	sec sample start offset
43	sec tuning (coarse)
44	sec tuning (fine)
45	sec volume

Parameter Number	Parameter Name
46	sec pan
47	sec delay
48	sec low key
49	sec high key
50	sec alt attack
51	sec alt hold
52	sec alt decay
53	sec alt sustain
54	sec alt release
55	sec alt envelope on
56	sec solo mode
57	sec chorus
58	sec reverse sound
59	crossfade mode
60	crossfade direction
61	crossfade balance
62	crossfade amount
63	switch point
64	LFO 1 shape
65	LFO 1 frequency
66	LFO 1 delay
67	LFO 1 variation
68	LFO 1 amount
69	LFO 2 shape
70	LFO 2 frequency
71	LFO 2 delay
72	LFO 2 variation

MIDI Specification

PRESET PARAMETERS

Parameter Number	Parameter Name
73	LFO 2 amount
74	aux delay
75	aux attack
76	aux hold
77	aux decay
78	aux sustain
79	aux release
80	aux amount
81-86	key/vel source 1-6
87-92	key/vel dest 1-6
93-98	key/vel amount 1-6
99-106	realtime source 1-8
107-114	realtime dest 1-8
115-117	footswitch dest 1-3
118-121	controller amount A-D
122	pressure amount
123	pitch bend range
124	velocity curve
125	keyboard center
126 *	preset submix
127	keyboard tuning

GLOBAL / SETUP PARAMETERS

Parameter Number	Parameter Name
256	MIDI basic channel
257	MIDI volume
258	MIDI pan
259	current preset
260	master tune
261	transpose
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* See note 7

** See note 8

† See note 9

†† See note 10

MIDI Specification

NOTE 1 - PROGRAM MAPPING

MIDI program changes will normally correspond to internal preset numbers 0-127. However, the user may “re-map” any MIDI program number, assigning it to an arbitrary internal preset. This feature allows any of the internal presets to be selected from a MIDI keyboard controller.

NOTE 2 - SOUND SETS

A Classic Keys sound set consists of sample data (sound ROMs), plus additional instrument data in the program ROMs. Each sound set has a unique ID number.

The sound set for Classic Keys is 6.

It is necessary to include the sound set number as part of the instrument number when exchanging data. The complete instrument number contains two fields: bits 8-12 specify the sound set (0-31) and bits 0-7 specify the instrument within the sound set (0-255).

Instrument Bit Fields:

12	8	7	0
<— sound set —>		<—instrument # —>	
(5 bits)		(8 bits)	

Within any given sound set, the first instrument is #1 and #0 selects “None”.

The “magic number” 1536 represents the start number for the Classic Keys instruments. To calculate the complete instrument number follow the instructions below.

SysEx Instr. No. = 1536 + Instr. No.

Next you must convert the SysEx instrument number to a 14-bit MIDI number. See the information on 14-bit 2's complement numbers.

Example:
Suppose we want to change the instrument to I002 B3 Dist Fast.

1) 1536 + 2 = 1538
2) 1538 ÷ 128 = 12 r-2 = 12 (ignore remainder)
3) 12 in Hex = 0C = msb
4) remainder 2 in Hex = 02 = lsb
5) SysEx Instrument Number =

lsb	msb
02	0C

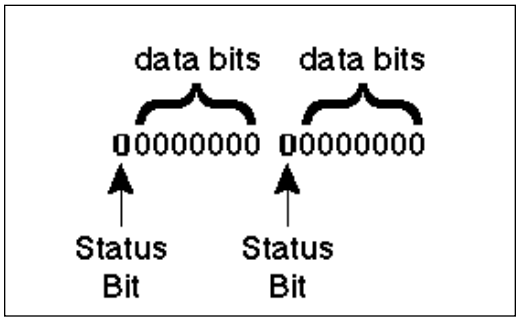
The complete message to change the primary instrument to #002:

F0 18 04 dd 03 17 00 02 0C F7

14-bit Signed 2’s Complement Numbers

If the data value is negative, you must first take the 2’s complement of the number: In the case of a 14-bit number this is equivalent to adding 16384 to the original negative value.

To fit the 7-bit MIDI protocol, numbers must be “nibble-ized”.



• To get the 14-bit nibble-ized value (of a positive value or a 2’s complemented negative value):

msb = value DIV 128 (divide and ignore the remainder)

lsb = value MOD 128 (divide and use only the remainder)

MIDI Specification

• To go the other way (convert 14-bit signed 2's complement to a signed real number)

raw Value = (msb*128) + lsb (gives you the unsigned raw value)

if raw Value ≥ 8192 (8192 = 2^13)

then signed Value = raw value - 16384 (16384 = 2^14)

Example: To find the "nibble-ized" Hex value of -127:

1) -127 + 16384 = 16257
2) 16257 ÷ 128 = 127 r-1
3) 127 in Hex = 7F = msb
4) 01 in Hex = 01 = lsb
5) Parameter value would be transmitted as 01 7F

Example: To find the "nibble-ized" Hex value of parameter number 257:

1) 257 ÷ 128 = 2 r-1
2) 2 in Hex = 02 = msb
3) 1 in Hex = 01 = lsb
4) Parameter number would be transmitted as 01 02

NOTE 3 - VERSION REQUEST

This command allows identification of machine type and software revision. Classic Keys will respond to the request with the version data:

F0 18 04 dd OB 01 r1 r2 r3 F7
r1, r2, r3 = software revision number in ascii (decimal point between r1 & r2).

NOTE 4 -CONFIGURATION REQUEST

This MIDI command is used to identify the sound sets in a given Classic Keys. The configuration request command is:

F0 18 04 dd OC F7

Classic Keys will respond to this command with the configuration message:

F0 18 0A dd 0D pl pm s1 l1 m1 s2 l2 m2 F7

where pl and pm are the lsb and msb are the total number of presets, s1 and s2 are the ID numbers of the sound sets contained in this unit, and n1 = l1, m1 and m2 = l2, m2 represent the lsb and msb of the number of instruments in each sound set.

NOTE 5 - BULK TUNING DUMP

Classic Keys can receive MIDI Tuning Standard dumps in addition to its own SysEx tuning table dumps. Classic Keys will only transmit in it's own SysEx tuning format. The MIDI Tuning Standard is as follows:

F0 7E dd 08 01 tt <tuning name (16 ascii)> … F7

dd= device ID tt= tuning prog # (ignored) tuning name = (ignored)

… = data (xx yy zz) frequency data for one note repeated 128x

xx yy zz = 0xxxxxxx 0abcdefg 0hijklmn

xxxxxxx = semitone, abcdefghijklmn = fraction of semitone in .0061 cent units.

Examples: Middle C = 3C 00 00
A-440 = 45 00 00

MIDI Specification

NOTE 6 - PRESET DATA REQUEST

Classic Keys presets are organized into groups of 64 presets for the purpose of bulk preset dumps. There are 8 groups of 64 presets (0-511). Each group may be requested using the preset request command and the appropriate preset code listed below.

Group	Preset Range	Preset Code	MIDI Message
0	0-63	1024	F0 18 04 dd 00 00 08 F7
1	64-127	1025	F0 18 04 dd 00 01 08 F7
2	128-191	1026	F0 18 04 dd 00 02 08 F7
3	192-255	1027	F0 18 04 dd 00 03 08 F7
4	256-319	1028	F0 18 04 dd 00 04 08 F7
5	320-383	1029	F0 18 04 dd 00 05 08 F7
6	384-447	1030	F0 18 04 dd 00 06 08 F7
7	448-511	1031	F0 18 04 dd 00 07 08 F7
1	64-127	-1	F0 18 04 dd 00 7F 7F F7
0	0-63	-2	F0 18 04 dd 00 7E 7F F7
0-3	0-255	-3	F0 18 04 dd 00 7D 7F F7
4-5	256-511	-4	F0 18 04 dd 00 7C 7F F7

NOTE 7 - PER PRESET BUS ASSIGNMENTS

(Preset Parameter 126)

0 - Main
1 - FxA
2 - FxB

NOTE 8 - PER CHANNEL PROGRAM/BANK ENABLE

(Global Parameters 400-415)

Respond to:		Bank Select	Program Change
-1	Enabled, Use Program Map	No	Yes
0	Disabled	No	No
1	Enabled, initially Bank 1	Yes	Yes
2	Enabled, initially Bank 2	Yes	Yes
3	Enabled, initially Bank 3	Yes	Yes
4	Enabled, initially Bank 4	Yes	Yes

MIDI Specification

NOTE 9 - PER CHANNEL BUS ASSIGNMENTS

(Global Parameters 416-431)

0 - Main
1 - FxA
2 - FxB
3 - From Preset

NOTE 10 - SYSEX EFFECTS CONTROL

Parameter values transmitted via MIDI SysEx can be used to control all aspects of the Classic Keys effects processors. This SysEx protocol overlaps somewhat the channel-based MIDI controller numbers already assigned to effects; the MIDI controllers are designed for realtime performance control, or from a sequencer during mixdown, whereas the SysEx protocol is oriented towards setup at the start of the sequence, or use by editor and librarian programs.

Parameter 2381, 2392
FxA, FxB ID numbers

These parameters select which A and B effect to execute. Sending the parameter value will trigger loading a new A or B effect, using the effect's default settings. The parameter values are unique ID numbers which "name" the effect, and are given in the table on the following page. To cause "No effect" (a straight-through signal path) to be loaded, send ID #0 for FxA or ID #128 for FxB. Sending ID numbers not found in the table, or an FxA ID number for the FxB parameter or vice versa, will also cause "No effect" to be loaded.

Parameter 2382-2391, 2393-2402
FxA, FxB effects parameter values

Both FxA and FxB each have 10 SysEx parameter numbers assigned to them to control up to 10 parameter values per effects program (most programs have far fewer.) Editing parameters which are not active can have unpredictable results (usually, the value of the first of or last valid parameter will be inadvertantly changed.). The order of the parameters is the same order as they appear in the Classic Keys display. The allowed range of SysEx parameter values is also the same as for the values displayed on the screen, and may be both positive and negative, depending on the parameter; out of range values are clipped. (Note that this differs from the way that MIDI channel effects controllers 12 and 13 work - their entire range of 0-127 is mapped to cover exactly the range of the effects parameter.)

Parameter 2403, 2404, 2405
FxA Mix %, FxB Mix %, B->A Feed %

These parameters are used to control the relative Wet/Dry mix, from 0 (dry) to 100 (wet, ie all effect.) These duplicate the function of realtime MIDI channel continuous controller numbers 91 (FxA Mix), 92 (B->A Feed) and 93 (FxB Mix).

In addition, parameter 2405 (B->A Feed %) uses the value 101 to set "ONLY" (100% wet) FxB output into FxA input and "Off" (no B output); this special value is not available from the continuous controller 92.

HOW TO EDIT AN EFFECT VIA SYSEX

Use the SysEx format shown on page 107 for parameter value:

F0 18 04 00 03 pl pm vl vm F7

Example: Change Effect A to Flange.

1) FxA = 2381(paragraph at left)
2) 2381÷128 = 18 remainder 77
3) 18 in Hex = 12 = msb
4) 77 in Hex = 4D = lsb
5) Flanger = 11 (chart on next page)
6) 11÷ 128 = 0 remainder 11
7) 00 in Hex = 00 = msb
8) 11 in Hex = 0B = lsb
9) Send - F0 18 04 00 03 4D 12 0B 00 F7

MIDI Specification

EFFECTS CONTROLLER MESSAGES

The following standard MIDI controllers will be mapped to effects parameters. The MIDI channel on which these controllers are transmitted must be enabled in the Classic Keys Master Menu, but is otherwise ignored.

0x0C (12) Effect Control 1
This adjusts the currently selected parameter of the currently selected "A" effect.

0x0D (13) Effect Control 2
This adjusts the currently selected parameter of the currently selected "B" effect

The Effect Control controllers will map 0-127 onto the whole range of the selected effect parameter. The "currently selected" parameter is either the first one in an effect's parameter list, (as initialized after power up) or the parameter selected either by hand or by SysEx parameter edits.

0x5B (91) FxA Mix %
Adjusts the A mix amount

0x5C (92) B->A Feed %
Adjusts the B->A mix amount

0x5D (93) FxB Mix %
Adjusts the B mix amount

These controllers, defined in the MIDI spec as "Effects Depth Controllers", map controller values from 0-100 directly onto their corresponding mix percentages (to 101 in the case of B->A feed.) Note that these parameters may not respond as quickly as incoming controller data can be received by the unit, so you may hear the mix values jump in large steps in order to "catch up".

FxA Programs	Parameter Value
Room	1
WarmRoom	2
Plate 1	3
Plate 2	4
Chamber 1	5
Chamber 2	6
Hall 1	7
Hall 2	8
Delay	9
Cross Delay	10
Flange	11
Phaser	13
Chorus	12
Echo	15
Small Room 1	16
Small Room 2	17
Hall 3	18
Early Refl 1	19
Early Refl 2	20
Early Refl 3	21
Early Refl 4	22
Rain	23
Reverse ER	24
Shimmer	25

FxB Programs	Parameter Value
Ring Modulate	29
Flange	130
Chorus	31
Fuzz	132
Phaser	133
Delay	134
Cross Delay	135
Fuzz Lite	138

MIDI Specification

CHANNEL BANK SELECT MESSAGES

The following standard MIDI controllers will be mapped to MIDI Bank Select:

0x00 (0)	Bank Select MSB
0x20 (32)	Bank Select LSB

After a valid Bank Select message has been received, any subsequent program changes on that channel will occur within the selected bank. Partial or invalid bank select messages on a channel will not affect the bank selected for that channel. The BANK/ PRST CHANGE screen will be updated if necessary to reflect the newly selected bank.

The possible range of controller values are:	
0x0000	- Classic Keys Bank 0
0x0001	- Classic Keys Bank 1
0x0002	- Classic Keys Bank 2
0x0003-0xffff	- Classic Keys Bank 3

(Note that controller values specifying bank numbers greater than Bank 3 are clipped. Note also that, because of a difference in naming conventions, Proteus Bank 0 corresponds to MIDI Bank 1 as defined in the MMA spec.)

As per the MIDI spec, these messages must be sent in MSB/LSB order without intervening messages; response to these messages in any other order or format is undefined, but Classic Keys will generally not respond to anything but the MSB followed directly by the LSB on the same channel.

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