

REFERENCE SECTION

PROCUSSION FACTORY KITS

ROM KITS

■ The ROM kits listed on this page are permanently located in kits 0-63.

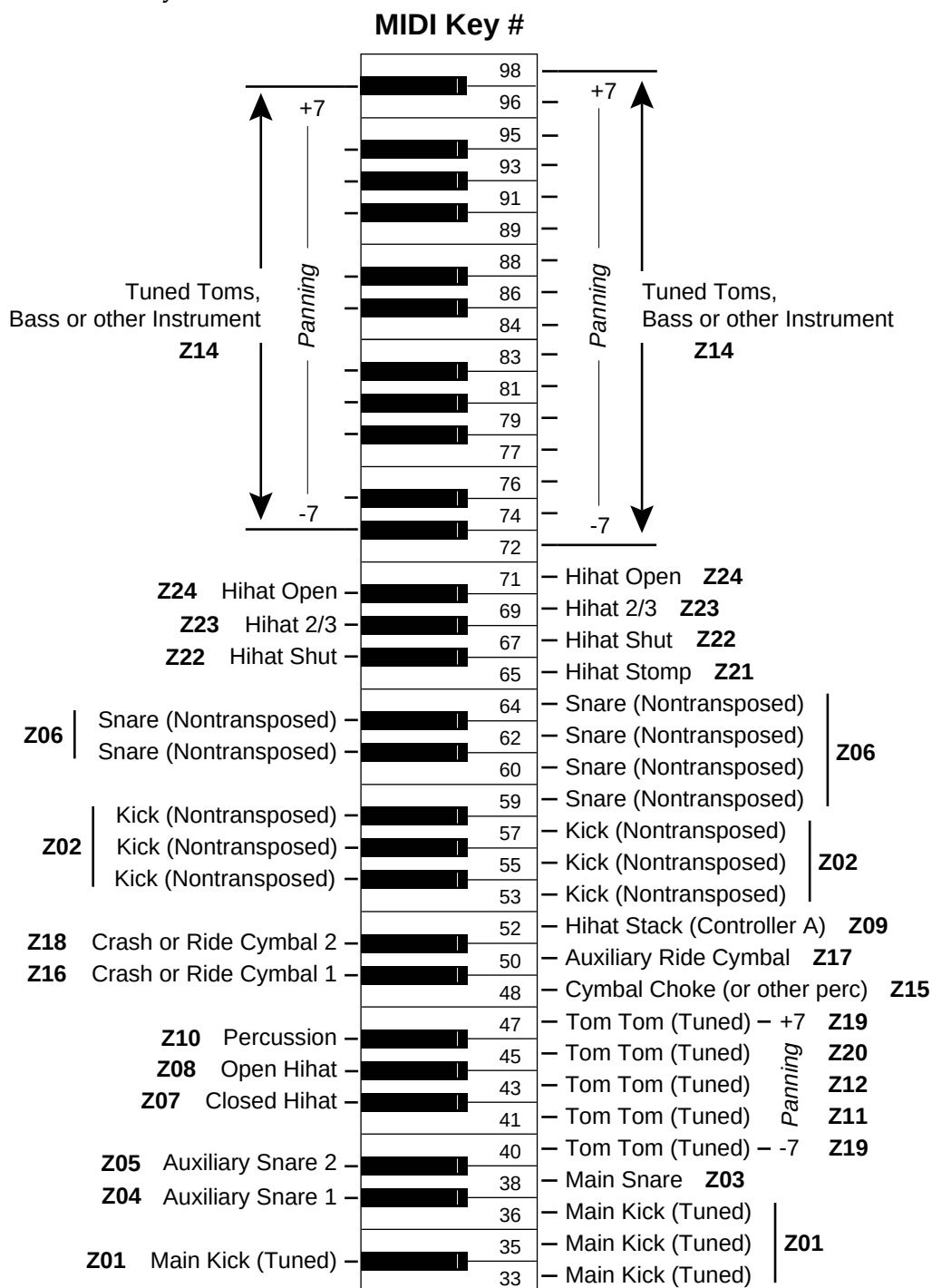
The User Kits 64-127, are listed on a separate insert page which allows them to be easily updated.

■ Kits marked with an asterisk (*), follow the standard kit layout shown on the following page.

- | | |
|---------------------|---------------------|
| 0. Ampitheater * | 32. Rocket Drums |
| 1. Mega Drums * | 33. Huge Room * |
| 2. Rock n Roll * | 34. Churchyard |
| 3. Palladium * | 35. Drum Dance * |
| 4. Jazz Drums * | 36. Percussion 3 |
| 5. Metal Drums * | 37. Mallet Bells |
| 6. Rap Session * | 38. Hip House |
| 7. Latin Drums | 39. Latin Layers |
| 8. Percussion 1 | 40. Big Band |
| 9. Tool Kit | 41. Multi FX |
| 10. Ambient Rock * | 42. Heavyosity * |
| 11. Acoustic Kit * | 43. Ritual Night |
| 12. Thundadome | 44. Dance Club * |
| 13. Disco Ball | 45. Indo Steel |
| 14. Vibrations | 46. Orch Perc |
| 15. Rock Drums * | 47. Country Kit * |
| 16. House Machine * | 48. Killer Synth |
| 17. Fusion Stix * | 49. Heavy Handed |
| 18. Found Sound | 50. Percussives |
| 19. Marimba | 51. Mystic Land |
| 20. Space Drums * | 52. Beach Party |
| 21. Hard Rock * | 53. Intervallix |
| 22. Stadium Rox * | 54. Jazzy Traps |
| 23. Dance 2000 * | 55. Clavarimba |
| 24. Industry | 56. Rockabilly * |
| 25. Heavy Metal * | 57. Control Snares |
| 26. Hip Hop * | 58. Lotsa Kicks |
| 27. Rosewood Tine | 59. All Snares |
| 28. Percussion 2 | 60. More Toms |
| 29. Sound FX | 61. More Cymbals |
| 30. Sluggo Drums * | 62. More Percussion |
| 31. Beat Box | 63. More Basses |

STANDARD FACTORY KIT LAYOUT

This diagram shows the layout of the standard trap kits in Procussion. Special kits, such as Latin Percussion or Sound Effects, will not follow the standard layout.



PROCUSSION FACTORY STACKS

- | | |
|------------------|-------------------|
| 9. Dry Kick 1 | 49. Cymbal Kick |
| 10. Dry Kick 2 | 50. Floor Kick |
| 11. Dry Kick 3 | 51. Janz Kick |
| 12. Dry Kick 4 | 52. Mambo Kick |
| 13. Dry Kick 5 | 53. Rapper Kick |
| 14. Dry Kick 6 | 54. Kick In |
| 15. Room Kick 1 | 55. SuprSinKik |
| 16. Room Kick 2 | 56. Butt Kicker |
| 17. Gated Kick | 57. Space Kick |
| 18. Round Kick | 58. Growth Kick |
| 19. The Kicker | 59. Tam Kick 1 |
| 20. Fat Kick | 60. Tam Kick 2 |
| 21. Mansion Kick | 61. Tam Kick 3 |
| 22. Big Foot | 62. Kick Shake 1 |
| 23. Bonzo Kick | 63. Kick Shake 2 |
| 24. Good Kick | 64. Tik Kick |
| 25. Wet Kick 1 | 65. Kidz Kick |
| 26. Wet Kick 2 | 66. Trash Kick |
| 27. Wet Kick 3 | 67. Orch Bass |
| 28. Wet Kick 4 | 68. Earth Kick |
| 29. Wet Kick 5 | 69. Big Bass Drum |
| 30. Thick Kick | 70. Stereo BD |
| 31. Kick Punch | 71. Timpani |
| 32. Reek Keek | 72. Kettle Drum |
| 33. ModSnapKik | 73. Kettle Drum 2 |
| 34. Kahnbo Kick | 74. Jazz Kick |
| 35. Metal Kick | 75. Dry Snare |
| 36. Havok Kick | 76. Dry Rim |
| 37. Cave Kick | 77. Dry Click 1 |
| 38. Boom Bass | 78. Dry Click 2 |
| 39. Bellow Kik | 79. Arid Snare |
| 40. Kooky Kick | 80. Brush Snare A |
| 41. Kick Space | 81. Brush Snare B |
| 42. DrkK-Space | 82. Brush Snare C |
| 43. House Kick 1 | 83. Snap Snare 1 |
| 44. House Kick 2 | 84. Snap Snare 2 |
| 45. House Kick 3 | 85. Snap Snare 3 |
| 46. Dance Kick | 86. Snap Snare 4 |
| 47. Rap Kick | 87. Snap Snare 5 |
| 48. ModToneRap | 88. Snap Snare 6 |

PROCUSSION FACTORY STACKS

- | | | | |
|------|----------------|------|------------------|
| 89. | Brush Sweep | 129. | HerboSnare |
| 90. | Room Snare 1 | 130. | Kooky Snare |
| 91. | Room Snare 2 | 131. | Tough Snare |
| 92. | Stereo Snare | 132. | Snare Smash |
| 93. | Big Snare | 133. | Pipe Snare |
| 94. | Body Snare | 134. | Sewer Snare |
| 95. | God's Snare | 135. | Ringer |
| 96. | Tight Snare | 136. | Ratt Dance |
| 97. | Big Whack | 137. | Canon Snare 1 |
| 98. | Smack Snare | 138. | Canon Snare 2 |
| 99. | Modern Snare | 139. | Canon Snare 3 |
| 100. | Tonal Snare | 140. | Dance Snare |
| 101. | Bonzo Snare | 141. | Analog Snare |
| 102. | Dan's Snare | 142. | Synth Snare |
| 103. | Tite Snare | 143. | House Snare 1 |
| 104. | Slap Snare | 144. | House Snare 2 |
| 105. | Modern Twin | 145. | House Snare 3 |
| 106. | Snare Center | 146. | House Snare 4 |
| 107. | Space Snare | 147. | House Snare 5 |
| 108. | Aerobic Snare | 148. | House Snare 6 |
| 109. | Big Fat Snare | 149. | PW Snarey |
| 110. | Wet Snare 1 | 150. | Rapper Snare |
| 111. | Wet Snare 2 | 151. | Tambo Snare |
| 112. | Wet Snare 3 | 152. | Deep Tam Snare |
| 113. | Wet Snare 4 | 153. | Garbage Boy |
| 114. | Ambient Snare | 154. | Trash Snare 1 |
| 115. | Ambi-Snare 1 | 155. | Trash Snare 2 |
| 116. | Ambi-Snare 2 | 156. | Trash Snare 3 |
| 117. | Krakatoa! | 157. | Trash Snare 4 |
| 118. | Mod Verb Snare | 158. | Bullet Snare |
| 119. | Mod Verb Rim | 159. | Brush Dance |
| 120. | Mod Pan Snare | 160. | Rim Tin Tin |
| 121. | ReverbaRim | 161. | Vel-XSnare |
| 122. | Rim Snare | 162. | Tam Snare 1 |
| 123. | Metal Snare | 163. | Tam Snare 2 |
| 124. | Prairie Snare | 164. | Clave Snare |
| 125. | SNARE 1157 | 165. | Clap Snare |
| 126. | SNARE AMB! | 166. | Backward Snare 1 |
| 127. | Noisy SNR | 167. | Backward Snare 2 |
| 128. | BigOSnare | 168. | Backward Snare 3 |

PROCUSSION FACTORY STACKS

- | | | | |
|------|------------------|------|------------------|
| 169. | Backward Snare 4 | 209. | Tuned Tomz |
| 170. | Rev Snare 1 | 210. | Analog Toms |
| 171. | Rev Snare 2 | 211. | Roto Dance |
| 172. | Rev Snare 3 | 212. | Roto 2 |
| 173. | Center Reverse | 213. | Minor Tom |
| 174. | Bband Snare | 214. | Apache |
| 175. | Bband Rim | 215. | Tacky Bang |
| 176. | Bband Click | 216. | Pots & Pans |
| 177. | Psyko Snare | 217. | Stereo Tom |
| 178. | Swept Snare | 218. | Bband Tom |
| 179. | Dry 12" Tom | 219. | Wunder Tom |
| 180. | Dry 16" Tom | 220. | Echo Tom |
| 181. | Brushed Tom | 221. | Pitch Toms |
| 182. | Punch Tom | 222. | Syn-Tom |
| 183. | Sloppy Toms | 223. | AcousRoto 1 |
| 184. | 2 Head Tom | 224. | ElecTomic |
| 185. | Tim & Tom | 225. | Echo Tom X |
| 186. | Tuned Tom | 226. | Falling Tom |
| 187. | Rock Tom X | 227. | Backward Tom |
| 188. | Room Tom 1 | 228. | Mod Tom Fall |
| 189. | Room Tom 2 | 229. | Mod Wund Tom |
| 190. | Electro Tom | 230. | Mod Brush Tom |
| 191. | SubaTomic | 231. | Mod Echo Tom |
| 192. | Ambi Tom 1 | 232. | Hihat A shut |
| 193. | Ambi Tom 2 | 233. | Hihat A 1/3 |
| 194. | Power Toms | 234. | Hihat A 2/3 |
| 195. | Power Tom 1 | 235. | Hihat A open |
| 196. | Power Tom 2 | 236. | Hihat A stomp |
| 197. | Power Tom 3 | 237. | Hihat B shut |
| 198. | Power Tom 4 | 238. | Hihat B 1/3 |
| 199. | Real Tom | 239. | Hihat B 2/3 |
| 200. | Epic Tom | 240. | Hihat B open |
| 201. | ResonanTom | 241. | Hihat B stomp |
| 202. | EleckTom | 242. | Mod Hihat 1 |
| 203. | Tom Stack X | 243. | Mod Hihat 2 |
| 204. | dB Toms | 244. | Closed Tip Hat A |
| 205. | Tom Hall | 245. | Open Hihat A |
| 206. | Tommy Toon | 246. | Open Hihat B |
| 207. | Homie Tom | 247. | Closed Tip Hat B |
| 208. | House Toms | 248. | 1/2 Open Hat B |

PROCUSSION FACTORY STACKS

249.	Pedal Hat B	289.	19" Pang
250.	Metal Hat 1	290.	Ride Ping
251.	Metal Hat 2	291.	Ride Bell
252.	Metal Hat 3	292.	Mallet Cymbal
253.	Syn Hat 1	293.	China Gong
254.	Syn Hat 2	294.	Mallet Roll
255.	Synth Hat A	295.	Combo Crash
256.	Synth Hat B	296.	Dubl Crash
257.	Elec Hat 1	297.	Cymbal Decay
258.	Elec Hat 2	298.	HypeRidCym
259.	Elec Hat 3	299.	Pang Cymbal
260.	Elec Hat 4	300.	Big Crash
261.	Dance Hat 1	301.	Velocity Ride
262.	Dance Hat 2	302.	Dark Cymbal 1
263.	House Hat 1	303.	Dark Cymbal 2
264.	House Hat 2	304.	House Cymbal
265.	House Hat 3	305.	Crash Dance
266.	House Hat 4	306.	Splash Dance
267.	House Hat 5	307.	SoChokeMe
268.	House Hat 6	308.	Finger Cymbal
269.	Tam Hat	309.	Gongo'Doom
270.	Beasty Hat	310.	Cymbal Six
271.	Beasty Open	311.	SFX 1
272.	Horny Hat	312.	SFX 2
273.	Blasty Hat	313.	SFX 3
274.	Noise Hat A	314.	Smash Cymbal
275.	Noise Hat B	315.	Brash Cymbal
276.	Noise Hat C	316.	SteroCrash
277.	Hatsoff	317.	Stereo Malt
278.	Hats Off 2U	318.	Hypereal
279.	Bband Hat Cl	319.	Backward Cymbal
280.	Bband Hat Op	320.	Backward Cym
281.	Bband Hat St	321.	Noise Burst
282.	Servo Hat #1	322.	Big Thwack
283.	Servo Hat #2	323.	White Noise
284.	Servo Hat #3	324.	Big Rasp
285.	Backward Hat	325.	Big Hammer
286.	16" Crash 1	326.	Metal Stack
287.	16" Choke 1	327.	Stilleteo
288.	16" Crash 2	328.	Stilleteo Flange

PROCUSSION FACTORY STACKS

- | | |
|-----------------------|-------------------------|
| 329. Pipe | 369. Cowbell |
| 330. Clank | 370. Cow Block |
| 331. Lazer Hit | 371. Ambi-Stick |
| 332. Sonic Crack | 372. Bband Cowbell |
| 333. Rap Scratch | 373. Cowntombell |
| 334. Doubl Scratch 1 | 374. Stereo Marimba |
| 335. Double Scratch 2 | 375. Syn Celesta |
| 336. Syn Scratch | 376. Carillon |
| 337. ErsatScrch | 377. Log Drum |
| 338. BASScratch | 378. Vibrations |
| 339. Squea... | 379. Shakatam |
| 340. Finger Snap | 380. Synclaves |
| 341. RevSnapper | 381. Plastic Cow |
| 342. Reverb Snaps | 382. Octarimba |
| 343. Hand Claps | 383. Mambo Open |
| 344. Fat Claps | 384. Mambo Closed |
| 345. Odd Claps | 385. Campana Open |
| 346. Wack Claps | 386. Campana Heel |
| 347. Klapz | 387. ChaCha Open |
| 348. RapClav | 388. ChaCha Closed |
| 349. Vox Eek!! | 389. Cabasa Front |
| 350. Backward Sweep | 390. Cabasa Back |
| 351. Hand Drum | 391. Cabasa Roll |
| 352. Analog Tick | 392. Guiro Down |
| 353. Kick Cymbal | 393. Guiro Up |
| 354. Choke-Pipe | 394. Shekere Net |
| 355. Choke Clank | 395. Shekere Snap |
| 356. Castapan | 396. Shaker Back |
| 357. Tick Tock | 397. Shaker Front |
| 358. Thwack Echo | 398. Timbale 1a |
| 359. Raspiness | 399. Timbale 1b |
| 360. Temple Block | 400. Timbale 1c |
| 361. Agogo Bell | 401. Timbale 2a |
| 362. Triangle | 402. Timbale 2b |
| 363. Triangle Mute | 403. Timbale 2c |
| 364. Hi Triangle | 404. Tumba Tone |
| 365. Clave | 405. Tumba Rim |
| 366. Castanet | 406. Quinto Tone |
| 367. Wood Block | 407. Quinto Slap Open |
| 368. Tamborine | 408. Quinto Slap Closed |

PROCUSSION FACTORY STACKS

- | | |
|----------------------|---------------------|
| 409. Quinto Tip | 449. Vox Freak 1 |
| 410. Quinto Heel | 450. Vox Freak 2 |
| 411. Hembra Tone | 451. Synth Lead |
| 412. Hembra Slap | 452. Metalimba |
| 413. Macho Tip Left | 453. Red Sky |
| 414. Macho Tip Right | 454. Jungle Night |
| 415. Macho Rim | 455. Kalimdrum |
| 416. Macho Tone | 456. Pit o Doom |
| 417. Macho Slap | 457. Shaker Drum 2 |
| 418. Slide Conga | 458. Silvoon |
| 419. Shake It | 459. Big Al |
| 420. Conga Set | 460. Woodpecker |
| 421. Indo Steel | 461. Ganga Log |
| 422. Bongo! Boy! | 462. Pipeline |
| 423. Tone Drum | 463. Springz |
| 424. Velocity Guiro | 464. Melodic Bel |
| 425. Bass 1 | 465. Shaker Bell 1 |
| 426. Balzy Bass | 466. Shaker Bell 2 |
| 427. Synth Bass | 467. Mutant Mal 1 |
| 428. Lazer Bass | 468. Mutant Mal 2 |
| 429. Bass Stack | 469. Backward Agogo |
| 430. Mod Bass Tone | 470. Big Pipe |
| 431. Mod Woof Tone | 471. Marimboid |
| 432. Mod Saw Tone | 472. House Pipe |
| 433. Mod Pipe Tone | 473. Weird O Slap |
| 434. Monsta Bass | 474. Tinkle Tine |
| 435. Hip Moog | 475. Bellhause |
| 436. Rap Moog | 476. Golden Gate |
| 437. Warm Bass | 477. Mod Shots |
| 438. Stone Bone | 478. Surfin' USA |
| 439. Amazon | 479. Velocity Sweep |
| 440. Hallowell | 480. Metl Ketl |
| 441. Star Tree | 481. Klincker |
| 442. Thundadome | 482. Crackssss! |
| 443. ShakerDrum | 483. Space Stone |
| 444. Drumborine | 484. Fantasy 99 |
| 445. Gutt Bust | 485. Zapster |
| 446. Dust Pang | 486. Cymbaline |
| 447. Warble Wave | 487. Mega Garbo |
| 448. Temple Bell | 488. BAM BAM |

PROCUSSION FACTORY STACKS

- | | | | |
|------|------------------|------|---------------|
| 489. | Super Spring | 529. | Pipegg Right |
| 490. | Tone Drum 2 | 530. | Rocket #1 |
| 491. | Industry | 531. | Rocket #2 |
| 492. | Master Blast | 532. | Tweek |
| 493. | Ice Missile | 533. | Ear Splitter |
| 494. | Fire Biter | 534. | Space Block |
| 495. | DUNK | 535. | Cool FX |
| 496. | Klinkle | 536. | Qool KlanQ |
| 497. | Pipertam | 537. | Stick/Tamb |
| 498. | Bellism | 538. | The Shaker |
| 499. | Jangler | 539. | The Stick |
| 500. | Double Drum | 540. | Twank |
| 501. | Mystic Land | 541. | Mega Planks |
| 502. | Macho Cow | 542. | Temple O Doom |
| 503. | Inner Val | 543. | Glong |
| 504. | Fibersnap | 544. | Giant Ratchet |
| 505. | Whole Tone 1 | 545. | Echo Thud |
| 506. | Whole Tone 2 | 546. | Awk Bosk |
| 507. | Gong Pow | 547. | Gymnasium |
| 508. | Ritual Drum | 548. | Klicker |
| 509. | Cymbal Drum | 549. | Der Aufish |
| 510. | Springy | 550. | Bubl Trubl |
| 511. | Baby Breath | 551. | FunkinNoys |
| 512. | Bent China | 552. | Lazer Stew |
| 513. | Ant Itch | 553. | Kloggers |
| 514. | Water Pin | 554. | Rasparity |
| 515. | Sigh... | 555. | Drum Tree |
| 516. | Indian Man | 556. | They're Here |
| 517. | Hat Thang | | |
| 518. | Thwack | | |
| 519. | Crack | | |
| 520. | CirckeNoys | | |
| 521. | Gong Attack | | |
| 522. | UFOs | | |
| 523. | Cheering | | |
| 524. | Generator X | | |
| 525. | Noise FX | | |
| 526. | Snare Pegg Left | | |
| 527. | Snare Pegg Right | | |
| 528. | Pipegg Left | | |

PROCUSSION INSTRUMENTS

SAMPLED SOUNDS

- | | |
|-------------------|--------------------|
| 1. Dry Kick 1 | 36. Brush Snare B |
| 2. Dry Kick 2 | 37. Brush Snare C |
| 3. Dry Kick 3 | 38. Brush Sweep |
| 4. Room Kick 1 | 39. Dry 12" Tom |
| 5. Room Kick 2 | 40. Dry 16" Tom |
| 6. Wet Kick 1 | 41. Room Tom 1 |
| 7. Wet Kick 2 | 42. Room Tom 2 |
| 8. Wet Kick 3 | 43. Brushed Tom |
| 9. Machine K1 | 44. Electro Tom |
| 10. Machine K2 | 45. Hi-Hat A shut |
| 11. Rap Kick | 46. Hi-Hat A 1/3 |
| 12. Orch Bass | 47. Hi-Hat A 2/3 |
| 13. Dry Snare 1 | 48. Hi-Hat A open |
| 14. Dry Snare 2 | 49. Hi-Hat A stomp |
| 15. Dry Snare 3 | 50. Hi-Hat B shut |
| 16. Dry Rim 3 | 51. Hi-Hat B 1/3 |
| 17. Dry Click 3 | 52. Hi-Hat B 2/3 |
| 18. Dry Click 4 | 53. Hi-Hat B open |
| 19. Dry Snare 5 | 54. Hi-Hat B stomp |
| 20. Dry Snare 6 | 55. Mallet Roll |
| 21. Dry Snare 7 | 56. 16" Crash 1 |
| 22. Dry Snare 8a | 57. 16" Choke 1 |
| 23. Dry Snare 8b | 58. 16" Crash 2 |
| 24. Dry Snare 8c | 59. 19" Pang |
| 25. Wet Snare 1 | 60. Ride Ping |
| 26. Wet Snare 2 | 61. Ride Bell |
| 27. Wet Snare 3 | 62. Springy |
| 28. Wet Snare 4 | 63. Cowbell |
| 29. Wet Snare 5 | 64. Side Stick |
| 30. Wet Snare 6 | 65. Tambourine |
| 31. Snap'n Snare | 66. Finger Snap |
| 32. Dance Snare | 67. Hand Claps |
| 33. Analog Snare | 68. Noise Hat A |
| 34. Synth Snare | 69. Noise Hat B |
| 35. Brush Snare A | 70. Noise Hat C |

PROCUSSION INSTRUMENTS

- | | |
|--------------------|-------------------------|
| 71. Noise Burst | 106. Shekere Net |
| 72. Big Thwack | 107. Shekere Snap |
| 73. White Noise | 108. Shaker Back |
| 74. Big Rasp | 109. Shaker Front |
| 75. Big Hammer | 110. Timbale 1a |
| 76. Metal Stack | 111. Timbale 1b |
| 77. Stiletto | 112. Timbale 1c |
| 78. Pipe | 113. Timbale 2a |
| 79. Clank | 114. Timbale 2b |
| 80. Lazer Hit | 115. Timbale 2c |
| 81. Sonic Crack | 116. Tumba Tone |
| 82. Rap Scratch 1 | 117. Tumba Rim |
| 83. Rap Scratch 2 | 118. Quinto Tone |
| 84. Syn Scratch | 119. Quinto Slap Open |
| 85. Hand Drum | 120. Quinto Slap Closed |
| 86. Analog Tick | 121. Quinto Tip |
| 87. Vox Eek ! | 122. Quinto Heel |
| 88. HypeRideCym | 123. Hembra Tone |
| 89. Temple Block | 124. Hembra Slap |
| 90. Agogo Bell | 125. Macho Tip L |
| 91. Triangle | 126. Macho Tip R |
| 92. Triangle Mute | 127. Macho Rim |
| 93. Mambo Open | 128. Macho Tone |
| 94. Mambo Closed | 129. Macho Slap |
| 95. Campana Open | 130. Marimba |
| 96. Campana Heel | 131. Celeste |
| 97. Cha Cha Open | 132. Kick Space |
| 98. Cha Cha Closed | 133. DarkK-Space |
| 99. Cabasa Front | 134. Snare Space |
| 100. Cabasa Back | 135. DarkSnSpace |
| 101. Cabasa Roll | 136. Synth Bass |
| 102. Wood Block | 137. SE Bass |
| 103. Claves | 138. Filter Bass |
| 104. Guiro Down | 139. Saw Bass |
| 105. Guiro Up | 140. Woofer Pulse |

PROCUSSION INSTRUMENTS**DIGITAL WAVEFORMS**

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|---------------------|---------------------|
| 167. Pulse 33% | 194. Wind Cycle 3 |
| 168. Pulse 25% | 195. Wind Cycle 4 |
| 169. Pulse 10% | 196. Organ Cycle |
| 170. Saw Odd Gone | 197. Soft Bell |
| 171. Ramp | 198. Swirly |
| 172. Ramp Even Only | 199. Tack Attack |
| 173. Buzzoon | 200. Shimmer Wave |
| 174. Brassy Wave | 201. B3 SE |
| 175. Reedy Buzz | 202. Mild Tone |
| 176. Growl Wave | 203. Piper |
| 177. Harpsiwave | 204. Ah Wave |
| 178. Fuzzy Gruzz | 205. Vocal Wave |
| 179. Power 5ths | 206. Fuzzy Clav |
| 180. Filter Saw | 207. Electrhode |
| 181. Moog Lead | 208. Whine 1 |
| 182. Synth Cycle 1 | 209. Whine 2 |
| 183. Synth Cycle 2 | 210. Metal Drone |
| 184. Synth Cycle 3 | 211. Silver Race |
| 185. Bite Cycle | 212. Metal Attack |
| 186. Buzzy Wave | 213. Ice Bell |
| 187. Metalphone 1 | 214. Bronze Age |
| 188. Metalphone 2 | 215. Iron Plate |
| 189. Metalphone 3 | 216. Aluminum |
| 190. Duck Cycle 1 | 217. Lead Beam |
| 191. Duck Cycle 2 | 218. Steel Extract |
| 192. Wind Cycle 1 | 219. Winter Glass |
| 193. Wind Cycle 2 | 220. Town Bell Wash |

LFO, DELAY and ENVELOPE TIMES

ATTACK

Knob	Time (sec)
0	0
3	.032
5	.11
10	.26
15	.47
20	.7
30	1.76
40	2.75
50	4.5
63	10

DELAY

Knob	Time (sec)
0	0
3	.015
5	.02
10	.07
20	.17
30	.31
40	.53
50	.85
63	1.46

HOLD

Knob	Time (sec)
0	0
3	.015
5	.07
10	.17
15	.31
20	.53
30	1.34
40	3.14
50	7.17
63	20.63

LFO RATES

Knob	Rate (Hz)
0	.089
3	.13
5	.42
10	.85
15	1.34
20	2
25	2.6
30	3.4
40	5.43
50	8.22
63	13.45

DECAY

Knob	Time (sec)
0	0
3	.015
5	.07
10	.17
15	.31
20	.53
30	1.34
40	3.14
50	7.17
63	20.63

PITCH ENV. DECAY

Knob	Time (sec)
0	0
3	.03
5	.1
10	.23
15	.42
20	.72
30	2
40	6.2
50	17.8
63	63.2

PITCH MODULATION INTERVAL CHARTS

■ These charts may prove helpful when modulating pitch. Setting the amounts as shown, will produce the indicated intervals.

Positive Stack Modulation

Amount	Interval
+8	minor 2nd
+16	major 2nd
+24	minor 3rd
+32	major 3rd
+40	perfect 4th
+49	minor 5th
+57	perfect 5th
+65	minor 6th
+73	major 6th
+81	minor 7th
+89	minor 9th
+97	major 9th
+105	octave
+113	minor 10th
+121	major 10th

When Pitch Wheel is used as the controller, **Double** the Modulation Amounts shown.

Negative Stack Modulation

Amount	Interval
-8	minor 2nd
-16	major 2nd
-24	minor 3rd
-32	major 3rd
-40	perfect 4th
-48	minor 5th
-56	perfect 5th
-64	minor 6th
-72	major 6th
-80	minor 7th
-88	minor 9th
-96	major 9th
-104	octave
-113	minor 10th
-121	major 10th

Positive LFO

Amount	Interval
+16	minor 2nd
+33	major 2nd
+49	minor 3rd
+65	major 3rd
+81	perfect 4th
+97	minor 5th
+113	perfect 5th

Negative LFO

Amount	Interval
-16	minor 2nd
-32	major 2nd
-48	minor 3rd
-64	major 3rd
-80	perfect 4th
-96	minor 5th
-112	perfect 5th
-128	minor 6th

Pitch Envelope

Amount	Interval
±8	minor 2nd
±16	major 2nd
±24	minor 3rd
±32	major 3rd
±40	perfect 4th
±48	minor 5th
±56	perfect 5th
±64	minor 6th
±72	major 6th
±80	minor 7th
±88	minor 9th
±96	major 9th
±104	octave
±112	minor 10th
±120	major 10th
Etc. up to ±256	

ZONE MAP CHART

There are four different factory zone maps resident in ROM. The chart below shows how the Zone Maps translate MIDI key numbers to Zones.

Alesis.....	Standard
drumKat	Standard
E-mu SP-12	SP-12
Aphex Impulse.....	Standard
Roland Octapad I.....	Roland
Roland Octapad II	Roland
Roland Pad 80	Roland
Roland SPD8.....	Roland
Roland R5 / R8	Roland

▼ Always check the Zone Map if zones seem to disappear or are not being correctly assigned.

ZONE MAP CHART

Sound	Zone	Standard Key #	Roland Key #	SP-12 Key #	Default Key #
Kick	1	36	35	36	36
Kick	2	52	36	38	38
Snare	3	38	38	40,41	40
Snare	4	53	40	39	41
Snare	5	57	60	43	43
Snare	6	74	65	45	45
Hi-Hat	7	42	42	42	47
Hi-Hat	8	44	44	44	48
Hi-Hat	9	54	46	46	50
Hi-Hat	10	56	75	37	52
Tom	11	40, 41	41	47	53
Tom	12	43	43	48	55
Tom	13	45	45	50	57
Tom	14	47, 48	47,48	52	59
Cymbal	15	49	49	56	60
Cymbal	16	50	50	58	62
Cymbal	17	51	51	54	64
Cymbal	18	65	53	60-67	65
Claps	19	37	39	49	67
Misc. Perc.	20	39	54	59	69
Misc. Perc.	21	46	56	57	71
Misc. Perc.	22	58	68	53	72
Misc. Perc.	23	59	69	55	74
Misc. Perc.	24	60	71	51	76

▼ Do not confuse the Standard Zone Map with the Standard Factory Kit Layout.

■ In the Default Zone Map, the 24 zones fall on consecutive white keys starting at key number 36.

TECHNICAL SPECIFICATIONS

Audio Channels: 32

Audio Outputs: 6

Submix Inputs: 4

Max. Output Level: +4 dB into 600 Ω

Output Impedance: 100 Ω

MIDI: In, Out, Thru

Data Encoding: 16 bit Linear

Sample Playback Rate: 39kHz

Signal to Noise: >90 dB

Dynamic Range: >90 dB

Frequency Response: 20Hz-18kHz

THD +N: <.05%

IMD: <.05%

Power Requirements: 25 Watts

Operating Temperature: 110° F Max.

Dimensions: H: 1.75" W: 19" L: 8.5"

Weight: 4 lb, 7 oz (2 Kg)

MIDI SPECIFICATIONS

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 On	9n kk vv	velocity 0 = note off
Program Change	Cn pp	
Channel Pressure	Dn pp	
Pitch Wheel	En ll mm	l = lsb, m = msb
Realtime Controller	Bn cc vv	cc = 00-31
Footswitch	Bn cc vv	cc = 64-79, vv ≥ 64 = on
Volume	Bn 07 vv	
Pan	Bn 0A vv	0 = hard left, 127 = hard right
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

MIDI SPECIFICATIONS

■ 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.

RECEIVED SYSTEM COMMANDS

For system exclusive commands, the following format is used:

F0	system exclusive status byte
18	E-mu ID byte
06	product ID byte
dd	device ID byte
cc	command byte
...	data bytes
F7	EOX

Command	Message	Comments
Kit Data Request	F0 18 06 dd 00 ll mm F7 1024 = bank 0 (0-63) 1025 = bank 1 (64-127) 1026 = bank 2, .. thru max bank	ll = kit # lsb, mm = msb
Kit Data	F0 18 06 dd 01 ll mm ... cs F7 cs = checksum = sum of all data bytes	
Parameter Value Req.	F0 18 06 dd 02 pl pm F7 pl = parameter # lsb, pm = msb	
Parameter Value	F0 18 06 dd 03 pl pm vl vm F7 vl = value lsb, vm = msb	
User Zone Map Request	F0 18 06 dd 04 zz F7	zz = map #
User Zone Map Data	F0 18 06 dd 05 zz ... F7	
Program Map Request	F0 18 06 dd 06 F7	
Program Map Data	F0 18 06 dd 07 ... F7	
Master Settings Request	F0 18 06 dd 08 F7	
Master Settings Data	F0 18 06 dd 09 ... F7	
Configuration Request	F0 18 06 dd 0A F7	
List Request	F0 18 06 dd 0C ll F7 ll: 0 = kits, 1 = stacks, 2 = instruments	

MIDI SPECIFICATIONS

PARAMETER EDITING

Parameters may be edited individually using system exclusive commands. The kit being edited is the current kit. 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 command.

Kit data may also be transmitted or received in a single block (one complete kit) using system exclusive commands. A **kit data request** may be issued by a host computer, to which the machine will respond by sending the data block for the requested kit. Conversely, the computer may send new kit data which will replace the specified kit currently in the machine.

DATA DUMPS

The user can send kits and global data via MIDI for backup onto a sequencer or other device. The options are:

- Master settings
- MIDI program/kit map
- User zone maps
- Factory kits
- All user kits
- One kit

PROGRAM/KIT MAP

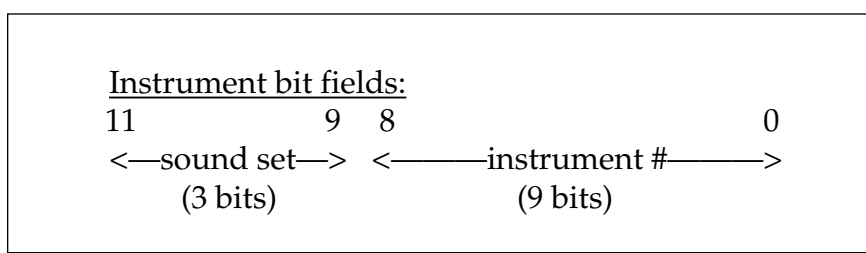
MIDI program changes will normally correspond to internal kit numbers 0 to 127. However, the user may 're-map' any MIDI program number, assigning it to an arbitrary internal kit. This feature allows any of the internal kits to be selected from a MIDI keyboard controller.

SOUND SETS

A **sound set** consists of 4 Megabytes of sample data (sound ROMs), plus additional instrument data in the program ROMs. Procussion may contain one or two complete sound sets. Each sound set has a unique ID number.

MIDI SPECIFICATIONS

In order to achieve compatibility between different configurations, it is necessary to include the sound set number as part of the instrument number when exchanging data. The instrument number (as expressed over MIDI) contains two fields: bits 9-11 specify the sound set (0-7) and bits 0-8 specify the instrument within the sound set (0-511).



Within any given sound set, the first instrument is #1, and #0 selects “None”. The first version of Procussion will contain sound set #0.

CONFIGURATION MESSAGE

External software may request the machine’s configuration. The **configuration message** consists of the following information:

- version
- software revision string
- number of kits
- number of stacks
- number of instruments in each sound set
- sound set ID numbers

LIST REQUEST

The **list request** allows external software to upload the names of kits, instruments, and stacks as an array of ASCII strings. This allows editor/librarian programs to automatically configure to any future versions of Procussion. Each element in the array is a 13-byte string consisting of 12 ASCII name bytes followed by a null (zero) terminator.

MIDI SPECIFICATIONS

DATA FORMATS

Parameter Changes: All individual parameter changes use signed 14-bit values to represent the parameter number and value. 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.

Kits: Kit data is transmitted and received using the following format: The standard system exclusive header (described below) is followed by the kit number (lsb, msb), 1 or 2 bytes for each parameter value (see parameter list), 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 kit number and before the checksum.

The kit is transferred in the following sequence:

- general kit parameters
- zone parameters for zone #0, 1, 2 ... 23
- stack parameters for stack #0, 1, 2, ... 7

Within each stack, the sequence is:

- general stack parameters
- layer parameters for layer #0,1,2,3

Refer to the parameter list for the actual ordering within each group.

Master Settings: The master settings are transferred in a group using 1 or 2 bytes for each parameter value. The sequence is as follows:

- global parameters
- MIDI channel parameters for channel #0, 1, 2, ... 15

Program/Kit Map: Each entry in the program/kit map is a 14-bit word in lsb, msb format as described above for parameter changes.

User Zone Map: The user zone map is transmitted as a 7-bit low key and high key for each zone, for a total of 48 MIDI bytes (excluding the sys ex header and EOX).

MIDI SPECIFICATIONS**PARAMETERS****Parameter Number Encoding**

Because of the large number and different types of parameters in Procussion, the parameter number is actually a code made up of several “bit fields” which contain different information. Within the 14-bit parameter number, the two most-significant bits (the “T” field) determine the parameter type, and the meaning of the other bits is dependent on the type, as follows:

MSB							LSB						
13	12	11	10	9	8	7	6	5	4	3	2	1	0
0	0	X					P						

Kit parameter: T = 0
 P = parameter #
 X = don't care

13	12	11	10	9	8	7	6	5	4	3	2	1	0
0	1	Z					P						

Zone parameter: T = 1
 Z = zone # (0-23)
 P = parameter #

13	12	11	10	9	8	7	6	5	4	3	2	1	0
1	0	S			L		P						

Stack/layer parameter: T = 2
 S = stack # (0-7)
 L = layer # (0-3) if applicable, else don't care
 P = parameter #

13	12	11	10	9	8	7	6	5	4	3	2	1	0
1	1	X	C				P						

Master parameter: T = 3
 C = MIDI ch. (0-15) if applicable, else don't care
 P = parameter #
 X = don't care

MIDI SPECIFICATIONS

Please note: In the following tables, the “size” specification refers to the number of MIDI bytes used when transferring kit data or master settings as a whole; when sending or reading individual parameter values, two MIDI bytes are always used.

KIT PARAMETERS (T=0)

Parameter #	Parameter Name	Size	Range
P= 0-11	kit name (12 ascii chars)	12	32-127
12	mod source 1	1	0-9
13	mod dest 1	1	0-57
14	mod amount 1	2	-128 to +127
15	mod source 2	1	0-9
16	mod dest 2	1	0-57
17	mod amount 2	2	-128 to +127
18	footswitch dest 1	1	0-39
19	footswitch dest 2	1	0-39
20	trigger tempo	2	0-240
21	velocity curve	1	0-9

ZONE PARAMETERS (T=1)

Parameter #	Parameter Name	Size	Range
P= 0	stack select	2	0- # of stacks
1	low key	1	0-127
2	high key	1	0-127
3	coarse tune	1	-48 to +48
4	fine tune	1	-64 to +63
5	volume	1	0-127
6	pan	1	-8 to +7
7	output	1	0-15
8	assign mode	1	0-13
9	nontranspose	1	0-1
10	enable patch 1	1	0-1
11	enable patch 2	1	0-1
12	enable footswitch 1	1	0-1
13	enable footswitch 2	1	0-1

MIDI SPECIFICATIONS**STACK PARAMETERS****(T=2)**

Parameter #	Parameter Name	Size	Range
P= 0-9	stack name (10 chars)	10	32-127
10	mod source 3	1	0-9
11	mod dest 3	1	0-57
12	mod amount 3	2	-128 to +127
13	mod source 4	1	0-9
14	mod dest 4	1	0-57
15	mod amount 4	2	-128 to +127
16	mod source 5	1	0-9
17	mod dest 5	1	0-57
18	mod amount 5	2	-128 to +127
19	mod source 6	1	0-9
20	mod dest 6	1	0-57
21	mod amount 6	2	-128 to +127
22	footswitch dest 3	1	0-15
23	footswitch dest 4	1	0-15
24	LFO amount	2	-128 to +127
25	LFO shape	1	0-3
26	LFO rate	1	0-63
27	LFO dest	1	0-10
28	switch mode	1	0-7
29	switch group	1	0-1
30	switch source	1	0-10
31	switch point 1	1	0-127
32	switch point 2	1	0-127
33	switch point 3	1	0-127

MIDI SPECIFICATIONS**LAYER PARAMETERS**

Parameter #	Parameter Name	Size	Range
P= 64	layer instrument	2	0- # of insts
65	coarse tune	1	-48 to +48
66	fine tune	1	-64 to +63
67	volume	1	0-127
68	pan	1	-7 to +7
69	reverse	1	0-1
70	delay	1	0-63
71	start offset	2	0-255
72	alt env on/off	1	0-1
73	alt env attack	1	0-63
74	alt env hold	1	0-63
75	alt env decay	1	0-63
76	pitch env on/off	1	0-1
77	pitch env decay	1	0-63
78	pitch env amount	2	-256 to +255

MASTER PARAMETERS**(T=3)**

Parameter #	Parameter Name	Size	Range
P= 0	MIDI basic channel	1	0-15
1	master tune	1	-64 to +63
2	transpose	1	-12 to +12
3	MIDI mode	1	0-2
4	device id number	1	0-15
5	mode change enable	1	0-1
6	volume controller #	1	0-95
7	pan controller #	1	0-95
8-11	controller A-D numbers	4	0-95
12-15	footswitch 1-4 numbers	4	0-95
16	global trigger tempo	2	0-242
17	auto-select	1	0-1
18	remote edit	1	0-1
19	audition layer	*	0-4
32-47	submix output	16	0-8

* This parameter is not included in the "master settings" message.

MIDI SPECIFICATIONS**PER MIDI CHANNEL**

Parameter #	Parameter Name	Size	Range
P= 64	kit select	2	0- max kit #
65	MIDI volume	1	0-127
66	MIDI pan	1	-8 to +7
67	global velocity curve	1	0-10
68	envelope mode	1	0-1
69	MIDI channel enable	1	0-1
70	MIDI prog change enable	1	0-1
71	zone map	1	0-10

SysEx MESSAGE SIZES**Kit Data**

F0 18 06 dd 01 ll mm (1273 data bytes) cs F7 = **1282 bytes total**

User Zone Map

F0 18 06 dd 05 zz (48 data bytes) F7 = **55 bytes total**

Program Map

F0 18 06 dd 07 (256 data bytes) F7 = **262 bytes total**

Master Settings

F0 18 06 dd 09 (180 data bytes) F7 = **186 bytes total**

List Data

F0 18 06 dd 0D ll (13 bytes x # of entries) F7

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