

Roland®

E-80 ***MUSIC WORKSTATION***



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E-80 Music Workstation
Drum Sets | Parameter Reference

	PC: 1 [CC32: 4] STANDARD 1	PC: 2 [CC32: 4] STANDARD 2	PC: 3 [CC32: 4] STANDARD L/R	PC: 7 [CC32: 4] V-Pop1	PC: 5 [CC32: 4] V-R&B	PC: 6 [CC32: 4] V-Fiesta	PC: 9 [CC32: 4] ROOM	PC: 10 [CC32: 4] HIP HOP	PC: 11 [CC32: 4] JUNGLE	PC: 12 [CC32: 4] TECHNO
(C7)	96	82Rm Snare1	---	85St BsDrum2	CajonHi	CajonHi	85St Snare1	Dance Snare1	Rap Snare	Rap Snare
	97	Std.1 Snare1	Std.1 Snare1	Crash Cym.1	CajonHiFim	CajonHiFim	Std.1 Snare1	Techno Hit	Techno Hit	Techno Hit
	98	Std.1 Snare2	Std.1 Snare2	85St Snare2	CajonLo	CajonLo	Std.1 Snare2	Philly Hit	Philly Hit	Philly Hit
	99	Std.2 Snare1	Std.2 Snare1	Ride Cymbal	CajonLoFim	CajonLoFim	Std.2 Snare1	Shock Wave	Shock Wave	Shock Wave
	100	Std.2 Snare2	Std.2 Snare2	85St Snare1	FimncoHClp1	FimncoHClp1	Std.2 Snare2	Lo Fi Rave	Lo Fi Rave	Lo Fi Rave
	101	Tight Snare	Tight Snare	Real Tom 6	FimncoHClp1	FimncoHClp1	Tight Snare	Bam Hit	Bam Hit	Bam Hit
	102	Standard SN1	Standard SN1	Close HiHat2	BongoCowBell	BongoCowBell	Standard SN1	Bim Hit	Bim Hit	Bim Hit
	103	LD Snare M	LD Snare M	Real Tom 4	AfHey	AfHey	LD Snare M	TapeRewind	TapeRewind	TapeRewind
	104	LD Snare C	LD Snare C	Ride Bell	MamboCowBell	MamboCowBell	LD Snare C	Phono Noise	Phono Noise	Phono Noise
	105	Jazz Snare 1	Jazz Snare 1	Real Tom 1	MexFVox2	MexFVox2	Jazz Snare 1	Dance Snare1	Dance Snare1	Dance Snare1
	106	Jazz Snare 2	Jazz Snare 2	Open HiHat2	AfFoots	AfFoots	Jazz Snare 2	Power Snare2	Power Snare2	Power Snare2
	107	Room Snare 1	Room Snare 1	825IBSDrum1P	MexFVox1	MexFVox1	Room Snare 1	Elec Snare 1	Elec Snare 1	Elec Snare 1
	108	Room Snare 2	Room Snare 2	825IBSDrum2P	MexMVox1	MexMVox1	Room Snare 2	Dance Snare2	Dance Snare2	Dance Snare2
	109	Dance Snare1	Dance Snare1	82JzCrsCym1P	YodelFVox1	YodelFVox1	Dance Snare1	Elec Snare 2	Elec Snare 2	Elec Snare 2
	110	Power Snare1	Power Snare1	825ISnare2P	MexMVox2	MexMVox2	Power Snare1	Elec. Snare	Elec. Snare	Elec. Snare
	111	Rev.Snare	Rev.Snare	Ride_c P	YodelMVox1	YodelMVox1	Rev.Snare	Elec Snare 3	Elec Snare 3	Elec Snare 3
	112	Power Snare2	Power Snare2	825t Snare1P	MexMVox3	MexMVox3	Power Snare2	66sn260	66sn260	66sn260
	113	Elec Snare 1	Elec Snare 1	Real6_t P	FimncoFVox1	FimncoFVox1	Elec Snare 1	TR-707 SD	TR-707 SD	TR-707 SD
	114	Dance Snare2	Dance Snare2	825t ClsHatP	YodelFVox2	YodelFVox2	Dance Snare2	808 Snare 1	808 Snare 1	808 Snare 1
	115	Elec Snare 2	Elec Snare 2	Real4_t P	FimncoFVox2	FimncoFVox2	Elec Snare 2	808 Snare 2	808 Snare 2	808 Snare 2
	116	Elec. Snare	Elec. Snare	Ridbl_c P	NewWhistle1	NewWhistle1	Elec. Snare	TR-808 SD2	TR-808 SD2	TR-808 SD2
	117	Elec Snare 3	Elec Snare 3	Real1_t P	FimncoFVox3	FimncoFVox3	Elec Snare 3	909 Snare 1	909 Snare 1	909 Snare 1
	118	TR-707 SD	TR-707 SD	8251OpenHatP	NewWhistle2	NewWhistle2	TR-707 SD	909 Snare 2	909 Snare 2	909 Snare 2
	119	808 Snare 1	808 Snare 1	---	FimncoMVox1	FimncoMVox1	808 Snare 1	909 SD 1	909 SD 1	909 SD 1
	120	808 Snare 2	808 Snare 2	---	FimncoMVox2	FimncoMVox2	808 Snare 2	TR-909 SD2	TR-909 SD2	TR-909 SD2
	121	909 Snare 1	909 Snare 1	---	BrazilVox1	BrazilVox1	909 Snare 1	Rap Snare	Rap Snare	Rap Snare
	122	909 Snare 2	909 Snare 2	---	FimncoMVox3	FimncoMVox3	909 Snare 2	JungleSD1	JungleSD1	JungleSD1
	123	Rap Snare	Rap Snare	---	BrazilVox2	BrazilVox2	Rap Snare	House SD	House SD	House SD
	124	JungleSD1	JungleSD1	---	BrazilVox3	BrazilVox3	JungleSD1	House Snare	House Snare	House Snare
	125	House SD	House SD	---	AfAahhh	AfAahhh	House SD	House SD	House SD	House SD
	126	House Snare	House Snare	---	p33137v	p33137v	House Snare	Voice Tah	Voice Tah	Voice Tah
G9	127	House SD	House SD	---	p33168v	p33168v	House SD	Noise Slap	Noise Slap	Noise Slap

	PC: 13 [CC32: 4] ROOM L/R	PC: 14 [CC32: 4] HOUSE	PC: 17 [CC32: 4] POWER	PC: 20 [CC32: 4] V-Rock1	PC: 19 [CC32: 4] V-Rock2	PC: 25 [CC32: 4] ELECTRONIC	PC: 26 [CC32: 4] TR-808	PC: 27 [CC32: 4] DANCE	PC: 28 [CC32: 4] CR-78	PC: 29 [CC32: 4] TR-606
(C7)	96	85Rm BsDrum2	House SD	---	CajonHi	CajonHi	---	Rap Snare	---	---
	97	Crash Cym.1	Techno Hit	Std.1 Snare1	CajonHiFim	CajonHiFim	Techno Hit	Techno Hit	Techno Hit	Techno Hit
	98	82Rm Snare2	Philly Hit	Std.1 Snare2	CajonLo	Philly Hit	Philly Hit	Philly Hit	Philly Hit	Philly Hit
	99	Ride Cymbal	Shock Wave	Std.2 Snare1	CajonLoFim	Shock Wave	Shock Wave	Shock Wave	Shock Wave	Shock Wave
	100	82Rm Snare1	Lo Fi Rave	Std.2 Snare2	FimncoHClp1	Lo Fi Rave	Lo Fi Rave	Lo Fi Rave	Lo Fi Rave	Lo Fi Rave
	101	Room Tom 5	Bam Hit	Tight Snare	FimncoHClp1	Bam Hit	Bam Hit	Bam Hit	Bam Hit	Bam Hit
	102	Room Chh	Bim Hit	Standard SN1	BongoCowBell	Bim Hit	Bim Hit	Bim Hit	Bim Hit	Bim Hit
	103	Room Tom 2	TapeRewind	LD Snare M	AfHey	TapeRewind	TapeRewind	TapeRewind	TapeRewind	TapeRewind
	104	Ride Bell	Phono Noise	LD Snare C	MamboCowBell	Phono Noise	Phono Noise	Phono Noise	Phono Noise	Phono Noise
	105	Room Tom 2	Dance Snare1	Jazz Snare 1	MexFVox2	Dance Snare1	Dance Snare1	Dance Snare1	Dance Snare1	Dance Snare1
	106	R8 Ohh2	Power Snare2	Jazz Snare 2	AfFoots	Power Snare2	Power Snare2	Power Snare2	Power Snare2	Power Snare2
	107	82RmBsDrum1P	Elec Snare 1	Room Snare 1	MexFVox1	Elec Snare 1	Elec Snare 1	Elec Snare 1	Elec Snare 1	Elec Snare 1
	108	82RmBsDrum2P	Dance Snare2	Room Snare 2	MexMVox1	Dance Snare2	Dance Snare2	Dance Snare2	Dance Snare2	Dance Snare2
	109	82JzCrsCym1P	Elec Snare 2	Dance Snare1	YodelFVox1	Elec Snare 2	Elec Snare 2	Elec Snare 2	Elec Snare 2	Elec Snare 2
	110	82RmSnare2 P	Elec. Snare	Power Snare1	MexMVox2	Elec. Snare	Elec. Snare	Elec. Snare	Elec. Snare	Elec. Snare
	111	Ride_c P	Elec Snare 3	Rev.Snare	YodelMVox1	Elec Snare 3	Elec Snare 3	Elec Snare 3	Elec Snare 3	Elec Snare 3
	112	82RmSnare1P	66sn260	Power Snare2	MexMVox3	66sn260	66sn260	66sn260	66sn260	66sn260
	113	Room Tom 5 P	TR-707 SD	Elec Snare 1	FimncoFVox1	TR-707 SD	TR-707 SD	TR-707 SD	TR-707 SD	TR-707 SD
	114	82Rm ClsHatP	808 Snare 1	Dance Snare2	YodelFVox2	808 Snare 1	808 Snare 1	808 Snare 1	808 Snare 1	808 Snare 1
	115	Room Tom 2 P	808 Snare 2	Elec Snare 2	FimncoFVox2	808 Snare 2	808 Snare 2	808 Snare 2	808 Snare 2	808 Snare 2
	116	Ridbl_c P	TR-808 SD2	Elec. Snare	NewWhistle1	TR-808 SD2	TR-808 SD2	TR-808 SD2	TR-808 SD2	TR-808 SD2
	117	Room Tom 2 P	909 Snare 1	Elec Snare 3	FimncoFVox3	909 Snare 1	909 Snare 1	909 Snare 1	909 Snare 1	909 Snare 1
	118	82RmOpenHatP	909 Snare 2	TR-707 SD	NewWhistle2	909 Snare 2	909 Snare 2	909 Snare 2	909 Snare 2	909 Snare 2
	119	---	909 SD 1	808 Snare 1	FimncoMVox1	909 SD 1	909 SD 1	909 SD 1	909 SD 1	909 SD 1
	120	---	TR-909 SD2	808 Snare 2	FimncoMVox2	TR-909 SD2	TR-909 SD2	TR-909 SD2	TR-909 SD2	TR-909 SD2
	121	---	Rap Snare	909 Snare 1	BrazilVox1	Rap Snare	Rap Snare	Rap Snare	Rap Snare	Rap Snare
	122	---	JungleSD1	909 Snare 2	FimncoMVox3	JungleSD1	JungleSD1	JungleSD1	JungleSD1	JungleSD1
	123	---	House SD	Rap Snare	BrazilVox2	House SD	House SD	House SD	House SD	House SD
	124	---	House Snare	JungleSD1	BrazilVox3	House Snare	House Snare	House Snare	House Snare	House Snare
	125	---	House SD	House SD	AfAahhh	House SD	House SD	House SD	House SD	House SD
	126	---	Voice Tah	House Snare	p33137v	Voice Tah	Voice Tah	Voice Tah	Voice Tah	Voice Tah
G9	127	---	Noise Slap	House SD	p33168v	Noise Slap	Noise Slap	Noise Slap	Noise Slap	Noise Slap

	PC: 30 [CC32: 4]	PC: 31 [CC32: 4]	PC: 33 [CC32: 4]	PC: 34 [CC32: 4]	PC: 41 [CC32: 4]	PC: 42 [CC32: 4]	PC: 43 [CC32: 4]	PC: 44 [CC32: 4]	PC: 49 [CC32: 4]	PC: 50 [CC32: 4]
	TR-707	TR-909	JAZZ	JAZZ L/R	BRUSH	BRUSH 2	BRUSH 2 L/R	V-JazzBrush	ORCHESTRA	ETHNIC
C-1	0	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66	67	68	69	70
	71	72	73	74	75	76	77	78	79	80
	81	82	83	84	85	86	87	88	89	90
	91	92	93	94	95	96				
C1										
C2										
C3										
C4										
C5										
C6										
C7										

	PC: 30 [CC32: 4] TR-707	PC: 31 [CC32: 4] TR-909	PC: 33 [CC32: 4] JAZZ	PC: 34 [CC32: 4] JAZZ L/R	PC: 41 [CC32: 4] BRUSH	PC: 42 [CC32: 4] BRUSH 2	PC: 43 [CC32: 4] BRUSH 2 L/R	PC: 44 [CC32: 4] V-JazzBrush	PC: 49 [CC32: 4] ORCHESTRA	PC: 50 [CC32: 4] ETHNIC
(C7)	(96) ---	---	---	82Jz BsDrum2	---	---	82Br BsDrum2	CajonHi	---	Cabasa Down
	97 Techno Hit	Techno Hit	---	Crash Cym.1	---	---	Brush Crash	CajonHiFlm	Applause 2	Claves
	98 Philly Hit	Philly Hit	82Br Snare1	82Jz Snare1	---	82Jz Snare1	82Br Snare1	CajonLo	Small Club	Woodblock
	99 Shock Wave	Shock Wave	82Br Snare2	Ride Cym IN	---	82Jz Snare2	Ride Cym IN	CajonLoFlm	Timpani	Woodblock
	100 Lo Fi Rave	Lo Fi Rave	Brush Swirl	82Jz Snare2	Brush Swirl	Brush Swirl	82Br Snare2	FimncoHClp1	Timpani	---
	101 Bam Hit	Bam Hit	Brush Tap	Real Tom 6	Brush Tap	Brush Tap	Lite Tom 4	FimncoHClp1	Timpani	---
	102 Bim Hit	Bim Hit	Brush Slap1	Jazz Clsd.HH	Brush Slap1	Brush Slap1	Brs Chh	BongoCowBell	Timpani	---
	103 TapeRewind	TapeRewind	Brush Slap2	Real Tom 4	Brush Slap2	Brush Slap2	Lite Tom 4	AfHey	Timpani	---
	104 Phono Noise	Phono Noise	Brush Slap	Ride Bell	Brush Slap	Brush Slap	Brush RideBL	MamboCowBell	Timpani	---
	105 Dance Snare1	Dance Snare1	Brush Swirl	Real Tom 1	Brush Swirl	Brush Swirl	Lite Tom 4	MexFVox2	Timpani	---
	106 Power Snare2	Power Snare2	Brush Swirl	Jazz Open HH	Brush Swirl	Brush Swirl	Brush Ohh	AfFoots	Timpani	---
	107 Elec Snare 1	Elec Snare 1	Long Swirl	82JzBsDrum1P	Long Swirl	Long Swirl	82BrBsDrum1P	MexFVox1	Timpani	---
C8	108 Dance Snare2	Dance Snare2	Jazz Snare 1	82JzBsDrum2P	Jazz Snare 1	Jazz Snare 1	82BrBsDrum2P	MexMVox1	Timpani	---
	109 Elec Snare 2	Elec Snare 2	Jazz Snare 2	82JzCrscym1P	Jazz Snare 2	Jazz Snare 2	82BrCrscym1P	YodelFVox1	Timpani	---
	110 Elec. Snare	Elec. Snare	Std.1 Snare1	82Jz Snare1P	Std.1 Snare1	Std.1 Snare1	82Br Snare1P	MexMVox2	Timpani	---
	111 Elec Snare 3	Elec Snare 3	Std.1 Snare2	Ride_i P	Std.1 Snare2	Std.1 Snare2	82Br RdCym P	YodelMVox1	Timpani	---
	112 66sn260	66sn260	Std.2 Snare1	82Jz Snare2P	Std.2 Snare1	Std.2 Snare1	82Br Snare2P	MexMVox3	Timpani	---
	113 TR-707 SD	TR-707 SD	Std.2 Snare2	Real6_t P	Std.2 Snare2	Std.2 Snare2	Lite4_t P	FimncoFVox1	Timpani	---
	114 808 Snare 1	808 Snare 1	Tight Snare	82Jz ClsHatP	Tight Snare	Tight Snare	82BrClsHat P	YodelFVox2	---	---
	115 808 Snare 2	808 Snare 2	Standard SN1	Real4_t P	Standard SN1	Standard SN1	Lite4_t P	FimncoFVox2	---	---
	116 TR-808 SD2	TR-808 SD2	LD Snare M	Ridbl_c P	LD Snare M	LD Snare M	82Br RdBellP	NewWhistle1	---	---
	117 909 Snare 1	909 Snare 1	LD Snare C	Real1_t P	LD Snare C	LD Snare C	Lite4_t P	FimncoFVox3	---	---
	118 909 Snare 2	909 Snare 2	Room Snare 1	82JzOpenHatP	Room Snare 1	Room Snare 1	82BrOpenHatP	NewWhistle2	---	---
	119 909 SD 1	909 SD 1	Room Snare 2	---	Room Snare 2	Room Snare 2	---	FimncoMVox1	---	---
C9	120 TR-909 SD2	TR-909 SD2	Dance Snare1	---	Dance Snare1	Dance Snare1	---	FimncoMVox2	---	---
	121 Rap Snare	Rap Snare	Power Snare1	---	Power Snare1	Power Snare1	---	BrazilVox1	---	---
	122 JungleSD1	JungleSD1	Rev.Snare	---	Rev.Snare	Rev.Snare	---	FimncoMVox3	---	---
	123 House SD	House SD	Power Snare2	---	Power Snare2	Power Snare2	---	BrazilVox2	---	---
	124 House Snare	House Snare	Elec Snare 1	---	Elec Snare 1	Elec Snare 1	---	BrazilVox3	---	---
	125 House SD	House SD	Dance Snare2	---	Dance Snare2	Dance Snare2	---	AFAahhh	---	---
	126 Voice Tah	Voice Tah	Elec Snare 2	---	Elec Snare 2	Elec Snare 2	---	p33137v	---	---
G9	127 Noise Slap	Noise Slap	Elec Snare 3	---	Elec Snare 3	Elec Snare 3	---	p33168v	---	---

	PC: 51 [CC32: 4] KICK & SNARE	PC: 52 [CC32: 4] KICK & SNARE 2	PC: 53 [CC32: 4] ASIA	PC: 54 [CC32: 4] CYMBAL&CLAPS	PC: 55 [CC32: 4] GAMELAN 1	PC: 56 [CC32: 4] GAMELAN 2	PC: 57 [CC32: 4] SFX	PC: 58 [CC32: 4] RHYTHM FX	PC: 59 [CC32: 4] RHYTHM FX 2	PC: 60 [CC32: 4] RHYTHM FX 3
(C7)	(96) HipHop SD2	HipHop SD2	---	707 Claps	---	---	Perc. Bang	---	---	R Boeeeen
	97 JungleSD1	JungleSD1	---	---	---	---	---	---	---	R Bounce
	98 Jungle SD2	Jungle SD2	---	---	---	---	---	---	---	R CD Tray
	99 Slap	Slap	---	---	---	---	---	---	---	R Drill
	100 MG_Blip	MG_Blip	---	---	---	---	---	---	---	R Glass Stir
	101 House SD	House SD	---	---	---	---	---	---	---	R Ice Ring
	102 CR78 SD 1	CR78 SD 1	---	---	---	---	---	---	---	R Kinzapcm
	103 CR78 SD 2	CR78 SD 2	---	---	---	---	---	---	---	R Scratch 4
	104 66sn160	66sn160	---	---	---	---	---	---	---	R Scratch 5
	105 66sn260	66sn260	---	---	---	---	---	---	---	R Scratch 6
	106 TR-707 SD	TR-707 SD	---	---	---	---	---	---	---	R Scratch 7
	107 TR-707 SD 2	TR-707 SD 2	---	---	---	---	---	---	---	R Seal
C8	108 TR-707 SD 3	TR-707 SD 3	---	---	---	---	---	---	---	R Stabl 1
	109 TR-808 SD2	TR-808 SD2	---	---	---	---	---	---	---	R Stabl 2
	110 909 SD 1	909 SD 1	---	---	---	---	---	---	---	R Swrd Boom!
	111 TR-909 SD2	TR-909 SD2	---	---	---	---	---	---	---	R Swrd Cross
	112 ---	---	---	---	---	---	---	---	---	R Thrill Hit
	113 ---	---	---	---	---	---	---	---	---	R Audio Sw
	114 ---	---	---	---	---	---	---	---	---	R Typing 1
	115 ---	---	---	---	---	---	---	---	---	R Typing 2
	116 ---	---	---	---	---	---	---	---	---	R Typing 3
	117 ---	---	---	---	---	---	---	---	---	R Typing 4
	118 ---	---	---	---	---	---	---	---	---	R Typing 5
	119 ---	---	---	---	---	---	---	---	---	R Typing 6
C9	120 ---	---	---	---	---	---	---	---	---	---
	121 ---	---	---	---	---	---	---	---	---	---
	122 ---	---	---	---	---	---	---	---	---	---
	123 ---	---	---	---	---	---	---	---	---	---
	124 ---	---	---	---	---	---	---	---	---	---
	125 ---	---	---	---	---	---	---	---	---	---
	126 ---	---	---	---	---	---	---	---	---	---
G9	127 ---	---	---	---	---	---	---	---	---	---

	PC: 61 [CC32: 4] SFX 2	PC: 63 [CC32: 4] CYM&CLAPS 2	PC: 64 [CC32: 4] V-VoxDrum	PC: 117 [CC32: 3] Oriental 3	PC: 32 [CC32: 4] MultiDrum	PC: 65 [CC32: 4] Or. R&B	PC: 66 [CC32: 4] Or. Techno	PC: 117 [CC32: 4] Oriental 4	
C7	96	---	707 Claps	CajonHi	Mazhar Dom	808 Tom 2	Mazhar Dom	Mazhar Dom	Hand Clap 1
	97	---	---	CajonHiFim	Mazhar Tak	808 Tom 2	Mazhar Tak	Mazhar Tak	---
	98	---	---	CajonLo	Mazhar Sak	808 Tom 2	Mazhar Sak	Mazhar Sak	---
	99	---	---	CajonLoFim	Mazhar Brass	808 Tom 2	Mazhar Brass	Mazhar Brass	---
	100	---	---	FimncoHClip1	Sagat Mid	808 Tom 2	Sagat Mid	Sagat Mid	---
	101	---	---	FimncoHClip1	Sagat Hi	808cowbe	Sagat Hi	Sagat Hi	---
	102	---	---	BongoCowBell	Sagat Closed	808 Conga	Sagat Closed	Sagat Closed	---
	103	---	---	AfHey	Sagat Sak	808 Conga	Sagat Sak	Sagat Sak	---
	104	---	---	MamboCowBell	Dofs Tak	808 Conga	Dofs Tak	Dofs Tak	---
	105	---	---	MexFVox2	Dofs Dom	Synth Drum 2	Dofs Dom	Dofs Dom	---
	106	---	---	Affoots	Dofs Sak	Synth Drum 2	Dofs Sak	Dofs Sak	---
	107	---	---	MexFVox1	Dofs Rim 1	Synth Drum 2	Dofs Rim 1	Dofs Rim 1	---
	108	---	---	MexMVox1	Dofs Rim 2	Synth Drum 2	Dofs Rim 2	Dofs Rim 2	---
	109	---	---	YodelFVox1	Dofs Dom st.	Synth Drum 2	Dofs Dom st.	Dofs Dom st.	---
	110	---	---	MexMVox2	TablaNurDom	Synth Drum 2	TablaNurDom	TablaNurDom	---
	111	---	---	YodelMVox1	Dofs Sak st.	R&B OHHsh	Dofs Sak st.	Dofs Sak st.	---
	112	---	---	BexMVox3	TablaNurRim	R&B OHH	TablaNurRim	TablaNurRim	---
	113	---	---	FimncoFVox1	TablaNurTak	R&B CHH	TablaNurTak	TablaNurTak	---
114	---	---	YodelFVox2	TablaNurSak	R&B OHH	TablaNurSak	TablaNurSak	---	
115	---	---	FimncoFVox2	BassSlideFX	TR-909 CHH	BassSlideFX	BassSlideFX	---	
116	---	---	NewWhistle1	BassSlapFX	TR-909 OHH	BassSlapFX	BassSlapFX	---	
117	---	---	FimncoFVox3	Zaghroua5m2	909 Crash	Zaghroua5m2	Zaghroua5m2	---	
118	---	---	NewWhistle2	Zir 1	IPopKik36	Zir 1	Zir 1	---	
119	---	---	FimncoMVox1	ZaghrouaEd2	IPopCstk37st	ZaghrouaEd2	ZaghrouaEd2	---	
C9	120	---	FimncoMVox2	NewHiBongo	IPopSn38st	NewHiBongo	NewHiBongo	---	
	121	---	BrazilVox1	NewLoBongo	IPopSn40st	NewLoBongo	NewLoBongo	---	
	122	---	FimncoMVox3	NewCongaSlp	IPopHat1_42	NewCongaSlp	NewCongaSlp	---	
	123	---	BrazilVox2	NewCongaOp	IPopHat2_44	NewCongaOp	NewCongaOp	---	
	124	---	BrazilVox3	NewLoConga	IPopHat3_46	NewLoConga	NewLoConga	---	
	125	---	AfAahhh	NewTmbLHi	IPopTomL43	NewTmbLHi	NewTmbLHi	---	
G9	126	---	p33137v	NewTmbLlo	IPopTomM47	NewTmbLlo	NewTmbLlo	---	
	127	---	p33168v	Hager 1	IPopTomH50	Hager 1	Hager 1	---	

E-80 Music Workstation
Drum Sets | Parameter Reference

	PC: 4 [CC32: 4] New Pop	PC: 8 [CC32: 4] New Folk	PC: 45 [CC32: 4] New BrushPop	PC: 46 [CC32: 4] NewPopBrush_Perc.	PC: 47 [CC32: 4] NewPop_Percussion	PC: 18 [CC32: 4] New Rock	
C-1	0	HipHop Kick1	Brasil Tamburin	HipHop Kick1	Mambo_SW	CowBellSide	HipHop Kick1
	1	Jazz Kick 1	Marches Tamburin	Jazz Kick 1	SeaShells	SeaShells	Jazz Kick 1
	2	Mex Kick	Tamorra 1	Mex Kick	Equat-nutshells	Equat-nutshells	Mex Kick
	3	Rm Kick 1	Tamorra 2	Rm Kick 1	Cascade_Ending	Cascade_Ending	Rm Kick 1
	4	Rm Kick 2	Tamorra 3	Rm Kick 2	Chimes-Ending	Chimes-Ending	Rm Kick 2
	5	HipHop Kick2	Tamorra 4	HipHop Kick2	Goathooves	Goathooves	HipHop Kick2
	6	TechnoKick1	Tamorra 6	TechnoKick1	GoathoovesShot	GoathoovesShot	TechnoKick1
	7	BassDrumSet	Tamorra 7	BassDrumSet	Bongo1_SW1	Bongo1_SW1	BassDrumSet
	8	HipHop Kick1	Tamorra 8	HipHop Kick1	Bongo1_SW2	Bongo1_SW2	HipHop Kick1
	9	909Comp Kick	Tamorra Ending	909Comp Kick	Bongo1_SW3	Bongo1_SW3	909Comp Kick
	10	St Kick 1	Pandeiro 1	St Kick 1	Bongo2_SW1	Bongo2_SW1	St Kick 1
	11	JazzKick	Pandeiro 2	JazzKick	Bongo2_SW2	Bongo2_SW2	JazzKick
C0	12	NewRockKik	Pandeiro 3	RockKik	Bongo2_3	Bongo2_3	Rock Kick
	13	Cymbal Roll	Pandeiro 4	Cymbal Roll	Congas_SW1	Congas_SW1	Cymbal Roll
	14	Rock Stick 2	Pandeiro 5	Rock Stick 2	Congas_SW2	Congas_SW2	Rock Stick 2
	15	Rm Snare 1	Pandeiro 6	Rm Snare 1	Congas_SW3	Congas_SW3	Rm Snare 1
	16	Rm Snare 2	BeguineLoop3	Rm Snare 2	Congas_SW4	Congas_SW4	Rm Snare 2
	17	St Snare1	BeguineLoop2	St Snare1	Tamorra 1	Tamorra 1	St Snare1
	18	St Snare2	BeguineLoop1	St Snare2	Tamorra 2	Tamorra 2	St Snare2
	19	NewJzSn2	JazzSnare2	JazzSnare2	Tamorra 3	Tamorra 3	JazzSnare2
	20	NewJzSn1	JazzSnare1	JazzSnare1	Tamorra 4	Tamorra 4	JazzSnare1
	21	R&B Snare	R&B Snare	R&B Snare	Tamorra 6	Tamorra 6	R&B Snare
	22	RockSnare2_2	RockSnare2_2	RockSnare2_2	Tamorra 7	Tamorra 7	RockSnare2_2
	23	RockSnare1_2	RockSnare1_2	RockSnare1_2	Tamorra 8	Tamorra 8	RockSnare1_2
C1	24	PopSnare38 2	PopSnare38 2	PopSnare38 2	Tamorra Ending	Tamorra Ending	PopSnare38 2
	25	Snare Ghost1	Snare Ghost1	Snare Ghost1	Pandeiro_SW1	Pandeiro_SW1	Snare Ghost1
	26	PopSnare38 2	PopSnare38 2	PopSnare38 2	Pandeiro_SW2	Pandeiro_SW2	PopSnare38 2
	27	FingerSnaps2	FingerSnaps2	FingerSnaps2	Pandeiro_SW3	Pandeiro_SW3	FingerSnaps2
	28	909 HandClap	RockSnare2_3	909 HandClap	Pandeiro 5	Pandeiro 5	909 HandClap
	29	808 Clap	Roll Snare	808 Clap	Brazilian_Tamburin	Brazilian_Tamburin	808 Clap
	30	Hand clap2	Hand clap2	Hand clap2	Chimes&Seeds_1	Chimes&Seeds_1	Hand clap2
	31	909 HandClap	909 HandClap	909 HandClap	Chimes&Seeds_2	Chimes&Seeds_2	909 HandClap
	32	Pedal Hi Hat	Pedal Hi Hat	Pedal Hi Hat	PopHiHatFoot	PopHiHatFoot	Pedal Hi Hat
	33	GospelHClp1	FolkSnareTango2	GospelHClp1	VibratoneSlow-Fast	VibratoneSlow-Fast	GospelHClp1
	34	Snare Roll 1	FolkSnareRoll	Snare Roll 1	AfricanCowBell	AfricanCowBell	Snare Roll 1
	35	Pop Kick 35	Pop Kick 35	Pop Kick 35	Kick_Plastic	Kick_Plastic	Pop Kick 35
C2	36	Pop Kick 36	Pop Kick 36	Pop Kick 36	Kick_Plastic	Kick_Plastic	Pop Kick 36
	37	Pop Stick1	Pop Stick1	Pop Stick1	Phrase4	Phrase4	Pop Stick1
	38	PopSnare38 1	PopSnare38 1	PopSnare38 1	Snare	Snare	PopSnare38 1
	39	Snare Ghost1	Snare Ghost1	Snare Ghost1	SnareFlam	SnareFlam	Snare Ghost1
	40	PopSnare40 1	PopSnare40 1	PopSnare40 1	Snare	Snare	PopSnare40 1
	41	Flam Tom 41	Flam Tom 41	Flam Tom 41	FloorTomFlam	FloorTomFlam	Flam Tom 41
	42	Pop Hi Hat1	Pop Hi Hat1	Pop Hi Hat1	Jazz Hat1	Jazz Hat1	Pop Hi Hat1
	43	Tom 43	Tom 43	Tom 43	FloorTom	FloorTom	Tom 43
	44	Pop Hi Hat2	Pop Hi Hat2	Pop Hi Hat2	Jazz Hat2	Jazz Hat2	Pop Hi Hat2
	45	Flam Tom 45	Flam Tom 45	Flam Tom 45	Tom2Flam	Tom2Flam	Flam Tom 45
	46	Pop Hi Hat3	Pop Hi Hat3	Pop Hi Hat3	Jazz Hat3	Jazz Hat3	Pop Hi Hat3
	47	Tom 47	Tom 47	Tom 47	Tom2	Tom2	Tom 47
C3	48	Flam Tom 50	Flam Tom 50	Flam Tom 50	Tom1Flam	Tom1Flam	Flam Tom 50
	49	Pop Cymbal2	Pop Cymbal2	Pop Cymbal2	JazzCrCym1	JazzCrCym1	Pop Cymbal2
	50	Tom 50	Tom 50	Tom 50	PopBrushTom1	PopBrushTom1	Tom 50
	51	Pop Ride1	Pop Ride1	Pop Ride1	NewJzRide1	NewJzRide1	Pop Ride1
	52	Pop Cymbal	Pop Cymbal	Pop Cymbal	BrushCrash2	BrushCrash2	Pop Cymbal
	53	Pop Ride2	Pop Ride2	Pop Ride2	Jazz Ride2	Jazz Ride2	Pop Ride2
	54	Tambourine	Tambourine	Tambourine	CembaloFree	CembaloFree	Tambourine
	55	Splash Cym.	Splash Cym.	Splash Cym.	BrushCrash1	BrushCrash1	Splash Cym.
	56	ChaChaCowb	ChaChaCowb	ChaChaCowb	CowBell	CowBell	ChaChaCowb
	57	CrashCymbal2	CrashCymbal2	CrashCymbal2	JzCrashCym1	JzCrashCym1	CrashCymbal2
	58	Vibraslap	Vibraslap	Vibraslap	vibraslp	vibraslp	Vibraslap
	59	RockRideCym1	RockRideCym1	RockRideCym1	RockRide1	RockRide1	RockRideCym1
C4	60	NewHiBongo	HiBongo	HiBongo	Bongo_SW	Bongo_SW	HiBongo
	61	NewLoBongo	LoBongo	LoBongo	Bongo1_4	Bongo1_4	LoBongo
	62	NewCongaSlp	CongaSlap	Conga Slap	Congas_SW	Congas_SW	CongaSlap
	63	NewCongaOp	CongaOp	Conga Op	Congas_7	Congas_7	CongaOp
	64	NewLoConga	LoConga	Lo Conga	Congas_8	Congas_8	LoConga
	65	Timbal Hi	Timbal Hi	Timbal Hi	Timbal Hi	Timbal Hi	Timbal Hi
	66	Timbal Lo	Timbal Lo	Timbal Lo	Timbal Lo	Timbal Lo	Timbal Lo
	67	Agogo	Agogo	Agogo	Agogo	Agogo	Agogo
	68	Agogo	Agogo	Agogo	Agogo	Agogo	Agogo
	69	NewShaker2	Shaker2	Shaker2	Shaker2	Shaker2	Shaker2
	70	NewShaker1	Shaker1	Shaker1	Shaker1	Shaker1	Shaker1
	71	ShrtWhistle	ShrtWhistle	ShrtWhistle	ShrtWhistle	ShrtWhistle	ShrtWhistle
C5	72	LongWhistle	LongWhistle	LongWhistle	LongWhistle	LongWhistle	LongWhistle
	73	Quide1	Quide1	Quide1	Quide1	Quide1	Quide1
	74	Quide2	Quide2	Quide2	Quide2	Quide2	Quide2
	75	Claves	Claves	Claves	Claves	Claves	Claves
	76	Woodblock	Woodblock	Woodblock	Woodblock1	Woodblock1	Woodblock
	77	Woodblock	Woodblock	Woodblock	Woodblock2	Woodblock2	Woodblock
	78	Mute Cuica	Mute Cuica	Mute Cuica	Mute Cuica	Mute Cuica	Mute Cuica
	79	Open Cuica	Open Cuica	Open Cuica	Open Cuica	Open Cuica	Open Cuica
	80	MuteTriangl	MuteTriangl	MuteTriangl	MuteTriangl	MuteTriangl	MuteTriangl
	81	OpenTriangl	OpenTriangl	OpenTriangl	OpenTriangl	OpenTriangl	OpenTriangl
	82	Shaker	Shaker	Shaker	Shaker	Shaker	Shaker
	83	Jingle Bell	Jingle Bell	Jingle Bell	Jingle Bell	Jingle Bell	Jingle Bell
C6	84	Bell Tree	Bell Tree	Bell Tree	Belltrees	Belltrees	Bell Tree
	85	Castanets	Castanets	Castanets	Castanets	Castanets	Castanets
	86	Mute Surdo	Mute Surdo	Mute Surdo	Surdo_mute	Surdo_mute	Mute Surdo
	87	Open Surdo	Open Surdo	Open Surdo	Surdo_open	Surdo_open	Open Surdo
	88	Cana	Cana	Cana	Cana	Cana	Cana
	89	Timbal HiFlm	Timbal HiFlm	Timbal HiFlm	TimbalHiFlm	TimbalHiFlm	Timbal HiFlm
	90	Timbal LoFlm	Timbal LoFlm	Timbal LoFlm	TimbalLoFlm	TimbalLoFlm	Timbal LoFlm
	91	NewTmbPHS	Timbal PHS	Timbal PHS	TimbalPHS	TimbalPHS	Timbal PHS
	92	NewShekere1	Shekere1	Shekere1	Shekere1	Shekere1	Shekere1
	93	NewShekere2	Shekere2	Shekere2	Shekere2	Shekere2	Shekere2
	94	NHBngoMute	Bongo Mute	Bongo Mute	Bongo Mute	Bongo Mute	Bongo Mute
	95	L BongoMute	L BongoMute	L BongoMute	LBongoMute	LBongoMute	L BongoMute
C7	96	CajonHi	CajonHi	CajonHi	CajonHi	CajonHi	CajonHi

	PC: 4 [CC32: 4] New Pop	PC: 8 [CC32: 4] New Folk	PC: 45 [CC32: 4] New BrushPop	PC: 46 [CC32: 4] NewPopBrush_Perc.	PC: 47 [CC32: 4] NewPop_Percussion	PC: 18 [CC32: 4] New Rock
(C7) 96	CajonHi	CajonHi	CajonHi	CajonHi	CajonHi	CajonHi
97	CajonHiFlm	CajonHiFlm	CajonHiFlm	CajonHiFlm	CajonHiFlm	CajonHiFlm
98	Cajon Low	Cajon Low	Cajon Low	CajonLo	CajonLo	Cajon Low
99	CajonLoFlm	CajonLoFlm	CajonLoFlm	CajonLoFlm	CajonLoFlm	CajonLoFlm
100	FimncoHClap1	Fimnco Clap1	FimncoHClap1	FimncoHClp1	FimncoHClp1	FimncoHClap1
101	FimncoHClap1	Fimnco Clap1	FimncoHClap1	FimncoHClp1	FimncoHClp1	FimncoHClap1
102	BongoCowBell	BongoCowBell	BongoCowBell	BongoCowBell	BongoCowBell	BongoCowBell
103	PopSnareFl	PopSnareFl_L	BrushSnare Shot	Crotals	Crotals	RockSnareFl_H
104	MamboCowBell	MamboCowBell	MamboCowBell	MamboCowBell	MamboCowBell	MamboCowBell
105	PopSnareDrag	SnareDrag	Phrase3	CrashPhrase4	CrashPhrase4	Snare Ghost
106	HiHatPhrase3	HiHatPhrase3	Phrase1	CrashPhrase5	CrashPhrase5	HiHatPhrase3
107	CrashPhrase1	CrashPhrase1	RidePhrase1	RidePhrase1	RidePhrase1	Crash2Phrase4
(C8) 108	CrashPhrase2	CrashPhrase2	RidePhrase2	RidePhrase2	RidePhrase2	Crash1Phrase3
109	CrashPhrase3	CrashPhrase3	RidePhrase4	RidePhrase4	RidePhrase4	Crash1Phrase4
110	CrashPhrase4	CrashPhrase4	CrashPhrase4	Egg_M3	Egg_M3	CrashPhrase4
111	CrashPhrase5	CrashPhrase5	CrashPhrase5	Egg_MEndOff	Egg_MEndOff	CrashPhrase5
112	Crash_Stop	Crash_Stop	SnareBrushFlam	Egg_M_SW1	Egg_M_SW1	RidePhrase1
113	RidePhrase1	RidePhrase1	RidePhrase1	Egg_L4	Egg_L4	RidePhrase2
114	RidePhrase2	RidePhrase2	RidePhrase2	Egg_LEndOff	Egg_LEndOff	RidePhrase3
115	RidePhrase3	RidePhrase3	RidePhrase3	Egg_L_SW1	Egg_L_SW1	RidePhrase4
116	RidePhrase4	RidePhrase4	RidePhrase4	Egg_TuttiEndOff	Egg_TuttiEndOff	RidePhrase5
117	RidePhrase5	RidePhrase5	RidePhrase5	Egg_S4	Egg_S4	BrushRidePhrase4
118	RidePhrase1	RidePhrase1	Cascade_Ending	Egg_SEndOff	Egg_SEndOff	Crash1Phrase1
119	RidePhrase2	RidePhrase2	Chimes&Seeds	Egg_S_SW1	Egg_S_SW1	Crash1Stopped
(C9) 120	RidePhrase4	RidePhrase4	Chimes	Chimes	Chimes	Crash2Stopped
121	ChinaRoll	AAhhh	Crotals	DoorKeys	DoorKeys	ChinaStopped
122	ChinaStopped	Uaahh	DoorKeys	Pinchimes	Pinchimes	Crash1StopLong
123	Egg S4	Egg S4	Egg S4	Harness-bell1	Harness-bell1	Crash2StopLong
124	Egg S1	Egg S1	Egg S1	Harness-bell2	Harness-bell2	ChinaRoll
125	Egg AllEndOff	Egg EndOff	Egg EndOff	Harness-bell3	Harness-bell3	Egg EndOff
126	Tambour Ending	CembaloEnding	CembaloEnding	CembaloEnding	CembaloEnding	CembaloEnding
(G9) 127	Tambour Free	CembaloFree	CembaloFree	CembaloFree	CembaloFree	CembaloFree

Jazz&Blues	CC00	CC32	BPM	TS
P1 Breezy Swing	14	25	120	4/4
Big Apple Band	14	26	110	4/4
Biggest Band	14	24	130	4/4
Bennys Big Band	14	23	198	4/4
Midnight SlSwing	12	35	56	4/4
Jimmys Groove	44	31	177	4/4
Mustang Blues	44	32	116	4/4
Cool Soul	44	30	115	4/4
Fast Blues	44	17	126	4/4
Blues	44	14	60	4/4
P2 Big Band Slow	14	18	61	4/4
Big Band Medium	14	19	125	4/4
Big Band Fast	14	20	170	4/4
Swing Medium	12	31	130	4/4
Modern Med Swing	12	33	113	4/4
R&B	44	18	106	4/4
Orchestra Swing	12	36	124	4/4
Strings Swing	12	34	155	4/4
Classic Big Band	14	21	136	4/4
Jazz Big Band	14	22	164	4/4
P3 Swing Fast	12	32	243	4/4
Jz Guitar Swing	12	37	232	4/4
Gipsy Swing	12	38	208	4/4
Unplug Shuffle	15	11	124	4/4
Midnight Blues	44	25	62	4/4
Soft Ballad	13	14	55	4/4
Jazz Club	13	15	86	4/4
Medium Jazz	13	16	100	4/4
Smooth Med Swing	13	17	110	4/4
Scat Swing	12	23	125	4/4
P4 Cool Swing	12	24	135	4/4
Bigger Band	14	13	140	4/4
Ensemble Swing	12	25	180	4/4
Combo Fast Swing	12	26	220	4/4
Piano Night	13	18	60	4/4
Piano Jazz	12	27	150	4/4
50's & 60's	CC00	CC32	BPM	TS
P1 UK Rock'N	5	51	176	4/4
Baby Rock'N	10	39	118	4/4
Go! Rock'N	5	36	160	4/4
60's Rock'N	5	37	180	4/4
Good Rock'N	10	24	168	4/4
Blue Boogie	5	38	155	4/4
Fast Surf	5	34	170	4/4
Smooth Rock'N	10	22	122	4/4
Clock Rock'N	10	23	176	4/4
Brass Rock'N	10	25	181	4/4
P2 Easy Slow Rock	5	39	83	6/8
50's Slow Rock	5	16	80	4/4
Oldies	5	33	130	4/4
Dream Slow Rock	5	32	71	4/4
Rock'N Slow	5	35	125	4/4
Go! Twist	10	30	160	4/4
Twist	10	20	158	4/4
50's Pop	39	13	140	4/4
Beach Surf	10	21	154	4/4
Romantic 6_8	5	52	100	6/8
P3 Schlager 6_8	5	53	104	6/8
GermanOldie	5	49	115	4/4
Cool Slow Rock	5	22	96	6/8
Dixie	11	7	140	4/4
Combo boogie	9	7	150	4/4
Big Band Boogie	9	9	186	4/4
Charleston	11	6	193	4/4
Piano Rock'N	10	31	150	4/4
Piano Shuffle	15	9	150	4/4
Piano Ragtime	43	2	170	4/4

Bossa&Samba	CC00	CC32	BPM	TS
P1 Orchestral Bossa	70	2	98	4/4
Jazz Bossa	62	128	120	4/4
Sunshine Bossa	70	1	136	4/4
Sweet Bossa	22	15	106	4/4
Club Bossa	22	16	125	4/4
Orchestral Samba	27	24	116	4/4
Acoustic Samba	27	23	108	4/4
Brazilian Samba	27	9	102	4/4
Sambalegre	27	10	130	4/4
Guitar Samba	27	12	100	4/4
P2 Night Bossa	22	17	150	4/4
Fast Bossa	22	18	173	4/4
Guitar Bossa	22	28	100	4/4
Latin Fusion	22	26	140	4/4
Piano Latin	22	27	100	4/4
Jazz Latin	22	19	102	4/4
Latin	CC00	CC32	BPM	TS
P1 Orchestral Chacha	24	16	122	4/4
That's Mambo	38	13	92	4/4
Bachata	22	40	126	4/4
Go!Salsa	22	43	94	4/4
Cuba Salsa	22	42	107	4/4
Cool Merengue	22	41	126	4/4
Medium Gipsy	61	0	93	2/4
Fast Gipsy	61	1	120	2/4
Big Mambo	38	6	89	4/4
Mambo	38	9	91	4/4
P2 Tradit Cha Cha	24	7	120	4/4
Dream Cha cha	24	9	168	4/4
Merengue	59	6	106	4/4
Fast Merengue	59	4	155	4/4
Oye Son	45	1	126	4/4
Son	45	2	152	4/4
Bomba	25	9	90	4/4
Tradit Rhumba	23	6	98	4/4
Acoustic Rhumba	23	12	130	4/4
Arg Tango	26	6	120	4/4
P3 Salsa	25	7	98	4/4
Plena	38	10	110	4/4
Mariachi	17	27	112	3/4
Tradit Cumbia	46	2	98	4/4
Calypto	35	4	165	4/4
Limborock	35	3	86	4/4
World	CC00	CC32	BPM	TS
P1 Western Movie	4	38	150	4/4
Epic Movie	4	37	124	4/4
Holiday 1	19	30	110	4/4
Holiday 2	5	50	100	3/4
Holiday 3	12	39	120	4/4
French Java	17	52	160	3/4
Irish	67	3	120	4/4
Southern Twang	19	32	177	4/4
SteamtrainCountr	16	25	144	2/4
Posaunenpolka	19	31	132	4/4
P2 German Polka	19	29	106	4/4
Schlagerwalzer	17	51	90	3/4
Posaunenwalzer	17	50	206	3/4
Orchestr Sl Fox	50	84	78	4/4
Pop Fox	50	86	85	4/4
Nice Fox	50	83	114	4/4
Fox Band	50	87	176	4/4
Slow Country	16	20	76	4/4
Country Ballad	16	19	116	4/4
Country Rock	16	15	135	4/4
P3 Country Beat	16	16	130	4/4
Easy Country	16	17	170	4/4
Country Fox	50	82	178	4/4
Country Pop	50	85	188	4/4
Slow Polka	19	28	100	4/4
Austrian Polka	19	27	142	4/4
Austrian Waltz	17	47	185	3/4
Simple Sl Waltz	18	10	85	3/4
Orch Sl Waltz	18	11	90	3/4
Slow Jz Waltz	17	28	106	3/4

P4 Medium Jz Waltz	17	23	120	3/4
Classic W'Waltz	17	24	185	6/4
Classic	5	40	95	4/4
6_8 March	20	11	120	4/4
US March	20	10	120	4/4
Orchestral Polka	19	9	128	4/4
Foxtrot	34	7	185	4/4
Beguine	39	16	105	4/4
Reggae	8	8	96	4/4
Island	8	10	105	4/4
P5 Piano Waltz	18	12	90	3/4
Guitar Waltz	18	13	110	3/4
Country Swing	16	18	190	4/4
Orchestral Waltz	17	48	200	3/4

Program Change numbers

Style Division Program Changes

Previous Arranger-Series Division	E-80 Division	PC Dec	PC Hex
Original Basic	Main Variation 1	1	00
Original Advanced	Main Variation 2	2	01
Variation Basic	Main Variation 3	9	08
Variation Advanced	Main Variation 4	10	09
Fill in To Original Basic	Fill Variation Down 1	89	58
Fill in To Original Advanced	Fill Variation Down 3	90	59
Fill in To Variation Basic	Fill Variation UP 1	97	60
Fill in To Variation Advanced	Fill Variation UP 3	98	61
----	Fill Variation UP 2	99	62
----	Fill Variation Down 2	100	63
Break Mute	Break Mute	113	70
Intro Basic	Intro Variation 3	65	40
Intro Advanced	Intro Variation 4	66	41
----	Intro Variation 1	67	42
----	Intro Variation 2	68	43
Ending Basic	Ending Variation 3	73	48
Ending Variation	Ending Variation 4	74	49
----	Ending Variation 1	75	4A
----	Ending Variation 2	76	4B

E-Series Compatibility

Division	PC Dec	PC Hex
Fill in To Variation	81	50
Fill in To Original	82	51
Intro	83	52
Endind	84	53
Break Mute	85	54

User Program Program Changes

P1~P16 8 per page 1~128
 Dec CC00/122 CC32/00 PG. 01~128
 Hex CC00/7AH CC20/00H PG. 00~7FH

P17~P18 8 per page 129~144
 Dec CC00/123 CC32/00 PG. 01~16
 Hex CC00/7BH CC20/00H PG. 00~10H

USER PROGRAM 00
 Dec CC00/127 CC32/00 PG. 01
 Hex CC00/7FH CC20/00H PG. 00H

Style Custom Program Changes

10 x 12 families = 120
 CC00/122 CC32/0~119 PG. XX

4. Parameters memorized in User Programs

Keyboard Parts

Upper 1

Parameter	Setting range	Default
Tone	CC 00 0~127	0
(CC00= 120 Drum Part)	CC 32 0~127	4
	PC 1~128	1
Volume	CC 07 0~127	127
Panpot	CC 10 L63~0~R63	0
Reverb	CC 91 0~127	80
Chorus	CC 93 0~127	0
Octave	-4~0~4	0
Part On/Off	On, Off	On
Tone Edit:		
Cutoff	CC 74 -64~0~63	0
Resonance	CC 71 -64~0~63	0
Attack Time	CC 73 -64~0~63	0
Decay Time	CC 75 -64~0~63	0
Release Time	CC 72 -64~0~63	0
Vibrato Rate	CC 76 -64~0~63	0
Vibrato Depth	CC 77 -64~0~63	0
Vibrato Delay	CC 78 -64~0~63	0
C 1	CC 16 0~127	0
Key Touch:		
Curve	High, Medium, Low, Fixed	Medium
Value Min	1~127	1
Value Max	1~127	127
Value Fixed	1~127	100
Aftertouch	Off, Filter Up, Filter Down, Modulation, Pitch Up, Pitch Down, Volume Up, Volume Down	Off
Portamento Time	0~127	0
Portamento Mode	Poly, Mono	Poly
Dynamic Split	Off, High, Low	Off
Pitch Bender:		
Assign	Auto, On, Off	Auto
Pitch	0~24	2
Modulation	Auto, On, Off	Auto
Hold FootSwitch:	Assign Auto, On, Off	Auto
Foot Pedal:		
Assign	Off, Expression	Expression
Up	0~127	0
Down	0~127	127

Upper 1 Harmonic Bars

Parameter	Setting range	Default
Percussion	On, Off	On
(Preset 1)	Slow, Fast	Slow
	2-2/3', 4	'4'
	Soft, Hard	Soft
16	0~8	8
5 1/3	0~8	8
8	0~8	0
4	0~8	8
2 2/3	0~8	7
2	0~8	0
1 3/5	0~8	3
1 1/3	0~8	4
1	0~8	6

Upper 2

Parameter	Setting range	Default
Tone	CC 00 0~127	81
(CC00= 120 Drum Part)	CC 32 0~127	4
	PC 1~128	5
Volume	CC 07 0~127	127
Panpot	CC 10 L63~0~R63	0
Reverb	CC 91 0~127	90
Chorus	CC 93 0~127	40
Octave	- 4~0~4	0
Part On/Off	On, Off	Off

Tone Edit:

Cutoff	CC 74 -64~0~63	0
Resonance	CC 71 -64~0~63	0
Attack Time	CC 73 -64~0~63	0
Decay Time	CC 75 -64~0~63	0
Release Time	CC 72 -64~0~63	0
Vibrato Rate	CC 76 -64~0~63	0
Vibrato Depth	CC 77 -64~0~63	0
Vibrato Delay	CC 78 -64~0~63	0
C 1	CC 16 0~127	0

Key Touch:

Curve	High, Medium, Low, Fixed	Medium
Value Min	1~127	1
Value Max	1~127	127
Value Fixed	1~127	100

Aftertouch Off, Filter Up, Filter Down, Modulation, Pitch Up, Pitch Down, Volume Up, Volume Down

Portamento Time	0~127	0
Portamento Mode	Poly, Mono	Poly
Coarse Tune	- 24~0~24	0
Fine Tune	- 99~0~99	1

Pitch Bender:

Assign	Auto, On, Off	Auto
Pitch	0~24	2

Modulation Auto, On, Off
Hold FootSwitch: Assign Auto, On, Off

Foot Pedal:		
Assign	Off, Expression	Expression
Up	0~127	0
Down	0~127	127

Upper 3

Parameter	Setting range	Default
Tone	CC 00 0~127	6
(CC00= 120 Drum Part)	CC 32 0~127	4
	PC 1~128	54
Volume	CC 07 0~127	127
Panpot	CC 10 L63~0~R63	0
Reverb	CC 91 0~127	100
Chorus	CC 93 0~127	0
Octave	- 4~0~4	0
Part On/Off	On, Off	Off
Tone Edit:		
Cutoff	CC 74 -64~0~63	0
Resonance	CC 71 -64~0~63	0
Attack Time	CC 73 -64~0~63	0
Decay Time	CC 75 -64~0~63	0
Release Time	CC 72 -64~0~63	0
Vibrato Rate	CC 76 -64~0~63	0
Vibrato Depth	CC 77 -64~0~63	0
Vibrato Delay	CC 78 -64~0~63	0
C 1	CC 16 0~127	0

Key Touch:

Curve	High, Medium, Low, Fixed	Medium
Value Min	1~127	1
Value Max	1~127	127
Value Fixed	1~127	100

Aftertouch Off, Filter Up, Filter Down, Modulation, Pitch Up, Pitch Down, Volume Up, Volume Down

Pitch Bender:		
Assign	Auto, On, Off	Auto
Pitch	0~24	2
Modulation	Auto, On, Off	Auto
Hold FootSwitch:	Assign Auto, On, Off	Auto

Foot Pedal:		
Assign	Off, Expression	Expression
Up	0~127	0
Down	0~127	127

Lower 1

Parameter	Setting range	Default
Tone	CC 00 0~127	10
(CC00= 120 Drum Part)	CC 32 0~127	4
	PC 1~128	50
Volume	CC 07 0~127	100
Panpot	CC 10 L63~0~R63	0
Reverb	CC 91 0~127	100

Chorus	CC 93	0~127	0
Octave		- 4~0~4	0
Part On/Off		On, Off	Off
Tone Edit:			
Cutoff	CC 74	-64~0~63	0
Resonance	CC 71	-64~0~63	0
Attack Time	CC 73	-64~0~63	0
Decay Time	CC 75	-64~0~63	0
Release Time	CC 72	-64~0~63	0
Vibrato Rate	CC 76	-64~0~63	0
Vibrato Depth	CC 77	-64~0~63	0
Vibrato Delay	CC 78	-64~0~63	0
C 1	CC 16	0~127	0
Key Touch:			
Curve		High, Medium, Low, Fixed	Medium
Value Min		1~127	1
Value Max		1~127	127
Value Fixed		1~127	100
Lower 1 Hold		On, Off	Off
Aftertouch		Off, Filter Up, Filter Down, Modulation, Pitch Up, Pitch Down, Volume Up, Volume Down	Off
Pitch Bender:			
Assign		Auto, On, Off	Auto
Pitch		0~24	2
Modulation		Auto, On, Off	Auto
Hold FootSwitch:	Assign	Auto, On, Off	Auto
Foot Pedal:			
Assign		Off, Expression	Exp
Up		0~127	0
Down		0~127	127

Lower 1 Harmonic Bars

Parameter	Setting range	Default
16	(Preset 1) 0~8	8
5 1/3	0~8	0
8	0~8	8
4	0~8	0
2 2/3	0~8	0
2	0~8	0
1 3/5	0~8	0
1 1/3	0~8	0
1	0~8	0

Lower 2

Parameter	Setting range	Default
Tone	CC 00 0~127	81
(CC00= 120 Drum Part)	CC 32 0~127	4
	PC 1~128	90
Volume	CC 07 0~127	95
Panpot	CC 10 L63~0~R63	0
Reverb	CC 91 0~127	90
Chorus	CC 93 0~127	0
Octave	- 4~0~4	0
Part On/Off	On, Off	Off
Tone Edit:		
Cutoff	CC 74 -64~0~63	0
Resonance	CC 71 -64~0~63	0
Attack Time	CC 73 -64~0~63	0
Decay Time	CC 75 -64~0~63	0
Release Time	CC 72 -64~0~63	0
Vibrato Rate	CC 76 -64~0~63	0
Vibrato Depth	CC 77 -64~0~63	0
Vibrato Delay	CC 78 -64~0~63	0
C 1	CC 16 0~127	0
Key Touch:		
Curve	High, Medium, Low, Fixed	Medium
Value Min	1~127	1
Value Max	1~127	127
Value Fixed	1~127	100
Lower 2 Hold	On, Off	Off
Aftertouch	Off, Filter Up, Filter Down, Modulation, Pitch Up, Pitch Down, Volume Up, Volume Down	Off
Pitch Bender:		
Assign	Auto, On, Off	Auto
Pitch	0~24	2
Modulation	Auto, On, Off	Auto
Hold FootSwitch:	Assign Auto, On, Off	Auto
Foot Pedal:		
Assign	Off, Expression	Expression
Up	0~127	0
Down	0~127	127

M.Bass

Parameter	Setting range	Default
Tone		
CC 00	0~127	80
CC 32	0~127	4
PC	1~128	33
Volume		
CC 07	0~127	100
Panpot		
CC 10	L63~0~R63	0
Reverb		
CC 91	0~127	50
Chorus		
CC 93	0~127	0
Octave	- 4~0~4	0
Part On/Off	On, Off	Off
Tone Edit:		
Cutoff	CC 74 -64~0~63	0
Resonance	CC 71 -64~0~63	0
Attack Time	CC 73 -64~0~63	0
Decay Time	CC 75 -64~0~63	0
Release Time	CC 72 -64~0~63	0
Vibrato Rate	CC 76 -64~0~63	0
Vibrato Depth	CC 77 -64~0~63	0
Vibrato Delay	CC 78 -64~0~63	0
C 1	CC 16 0~127	0
Key Touch:		
Curve	High, Medium, Low, Fixed	Medium
Value Min	1~127	1
Value Max	1~127	127
Value Fixed	1~127	100
Pitch Bender:		
Assign	Auto, On, Off	Auto
Pitch	0~24	2
Modulation	Auto, On, Off	Auto
Hold FootSwitch:	Assign Auto, On, Off	Auto
Foot Pedal:		
Assign	Off, Expression	Expression
Up	0~127	0
Down	0~127	127

M.Bass Harmonic Bars

Parameter	Setting range	Default
16	0~8	8
8	0~8	2

Harmonic Bar Effects

Parameter	Setting range	Default
Overdrive	On, Off	Off
Overdrive Level	0~127	0
Leakage	0~127	0
Vibrato&Chorus	On, Off	Off
Vibr&Chor Type	V1,C1,V2,C2,V3,C3	C-1
Rotary Sound	Slow, Fast	Slow

Harmonic Bar Level

Parameter	Setting range	Default
Harmonic Bar Level	0~127	127

Keyboard Mode

Parameter	Setting range	Default
Split	On, Off	Off
Whole	On, Off	On

Split Point

Parameter	Setting range	Default
Main Split	C#2~C4~B6	C4
Upper 3 Split	D2~C5~C6	G5
Upper3 Split On/Off	On, Off	Off

Easy Setting

Parameter	Setting range	Default
Arr	On, Off	Off
Organ	On, Off	Off
Piano	On, Off	On
Guitar	On, Off	Off

Guitar Mode

Parameter	Setting range	Default
Guitar Type	Electric, Acoustic	Acoustic
(Electric Patches)	01 Jazz Man, 02 OpenHard 1, 03 Dist FX, 04 OpenHard 2, 05 Overd FX, 06 Strat Clean, 07 CleanHalf, 08 Distortion, 09 Warm Drv, 10 Power, 11 Dist Guitar	
(Acoustic Patches)	01 Nylon, 02 Steel 2, 03 Steel 3, 04 Steel 4, 05 Steel 5, 06 12 Strings, 07 Nyl + Steel, 08 Nyl + Steel 2	
Retrigger	On, Off	On
V Noises	On, Off	On
Auto Sustain	On, Off	On
Adapt Chord	On, Off	Off
Hold Pedal	On, Off	Off
Chord Off Mutes	On, Off	Off
Doubling	On, Off	Off
Stereo Width	0-50	25

Arranger Setting – Arranger Chord

Parameter	Setting range	Default
Zone	Left, Right, Whole, Off	Whole
Type	Standard, Piano Style, Intelligent, Easy	Piano Style
Arranger Hold	On, Off	On
Intro Ending Alter	On, Off	On
Dynamic Arranger	On, Off	Off

Arranger Setting – Dynamic Edit

Parameter	Setting range	Default
ADrums	- 127-0-127	20
ABass	- 127-0-127	30
Accomp 1	- 127-0-127	40
Accomp 2	- 127-0-127	40
Accomp 3	- 127-0-127	40
Accomp 4	- 127-0-127	40
Accomp 5	- 127-0-127	40
Accomp 6	- 127-0-127	40

Arranger Setting – Arranger Options

Parameter	Setting range	Default
Accell/Ritard	5%-92%	20%
CPT	15-3825	480
Half Bar	On, Off	Off
Fill Rit	On, Off	Off
Fill Ritardando	5%-92%	8%

Arranger Part – Foot Pedal

Parameter	Setting range	Default
ADrums	Assign	Off, Expression
	Up	0-127
	Down	0-127
ABass	Assign	Off, Expression
	Up	0-127
	Down	0-127
Accomp 1	Assign	Off, Expression
	Up	0-127
	Down	0-127
Accomp 2	Assign	Off, Expression
	Up	0-127
	Down	0-127
Accomp 3	Assign	Off, Expression
	Up	0-127
	Down	0-127
Accomp 4	Assign	Off, Expression
	Up	0-127
	Down	0-127
Accomp 5	Assign	Off, Expression
	Up	0-127
	Down	0-127
Accomp 6	Assign	Off, Expression
	Up	0-127
	Down	0-127

User Program Style Volume

Parameter	Setting range	Default
ADrums	0-127	100
ABass	0-127	100
Acc 1	0-127	100
Acc 2	0-127	100
Acc 3	0-127	100
Acc 4	0-127	100
Acc 5	0-127	100
Acc 6	0-127	100

Style Control

Parameter	Setting range	Default
Intro/Ending	Intro, Ending, Off	Off
Variation	1-4	2
Auto Fill In	On, Off	On
Bass Inversion	On, Off	On
Sync Start	On, Off	Off
Sync Stop	On, Off	Off

Split&Touch

Parameter	Setting range	Default
Aftertouch Arranger	Off, Fill Up, Fill, Fill Down, Variation Up, Variation Down, Intro, Ending	Off

Arranger Setting – Melody Intelligent

Parameter	Setting range	Default
Melody Intell On/Off	On, Off	Off
Intelligence Threshold	Off, 1-127	Off
Type	1-18	Traditional
2nd Tone	(user-definable)	(dep. on Type)
Volume	CC 07 0-127	100
Panpot	CC 10 L63-0-R63	0
Reverb	CC 91 0-127	80
Chorus	CC 93 0-127	0
Pitch Bender:		
Assign Pitch	Auto, On, Off	Auto
Hold FootSwitch	Assign	Auto, On, Off
Foot Pedal:		
Assign Up	Off, Expression	Expression
Down	0-127	0
	0-127	127

Tuning – Transpose

Parameter	Setting range	Default
Value	-6-0-5	0
Mode Keyboard	On, Off	On
Mode Song	On, Off	On

D Beam

Parameter	Setting range	Default
Volume	CC 07 0-127	115
Panpot	CC 10 L63-0-R63	0
Reverb	CC 91 0-127	90
Chorus	CC 93 0-127	0
DJ Gear	On, Off	Off
DJ Gear Type	Vinyl RPM, Cutting, TT Motor Style, TT Motor Song, Scratch, Tape Rewind	Cutting
Sound EFX	On, Off	Off
Sound EFX Type	Chimes, Boeeeen, Bubble, Stream, Pour Bottle, Finger Snaps, Voice One, Voice Aou, Explosion, Gun Shot, Car Engine, Applause, Laughing, Train Horn, Bird, Dog	Chimes
Instrument	On, Off	Off
Instrument Type	Harp, Marimba, Mandolin, Guitar1, Guitar2, Jazz Scat, Bell Bass Drum, LoFi Rave, Sweep, Beep	Harp
Controls	On, Off	Off
Controls Type	Start/Stop Stl, Start/Stop Sng, Fade OUT, Auto Fill, Fill Up, Fill Down, ADrum On/Off, ABass On/Off, Acc On/Off, ABs ADr On/Off, ABs Acc On/Off, ADr Acc On/Off, Tempo Up, Tempo Down, Pitch Up, Pitch Down, D Modulation, Cut Reso Up, Cut Reso Down, Arpeg 1 Octv, Arpeg 2 Octv, Arpeg 3 Octv, Chord 1 Octv, Chord 2 Octv, Chord 3 Octv, Minus One, Rotary S/F	Chord 2 Octv
Foot Pedal		
Assign Up	Off, Expression	Expression
Down	0-127	0
	0-127	127

Assign Switch

Parameter	Setting range	Default
Switch 1	Off, Rotary HB Slow/Fast, Rotary HB On/Off, Fade IN, Fade OUT, Scale Upper, Scale Lower, Half Bar on Fill In, Arr Hold, Dynamic Arr, Arr Chord Off, Arr RIT Tempo, Arr ACC Tempo, Reset/Start Tempo, Kbd Exchange UP2/1, Kbd Exchange LW2/1, MBass/Kbd Arr, Piano/Standard, Break Mute	Fade IN
Switch 2	Off, Rotary HB Slow/Fast, Rotary HB On/Off, Fade IN, Fade OUT, Scale Upper, Scale Lower, Half Bar on Fill In, Arr Hold, Dynamic Arr, Arr Chord Off, Arr RIT Tempo, Arr ACC Tempo, Reset/Start Tempo, Kbd Exchange UP2/1, Kbd Exchange LW2/1, MBass/Kbd Arr, Piano/Standard, Break Mute	Fade OUT

Multi FX Switch

Parameter	Setting range	Default
Multi FX Switch	On, Off	On

General settings

Parameter	Setting range	Default
Style Tempo	20-250	92
Style	1-357	Strummlin' Pop
Song Link	Off, Link Song	Off
MIDI Link	Off, 1-8	Off
Master Reverb Level	0-127	70
Master Chorus Level	0-127	127

Vocal Harmonist – Voice

Parameter	Setting Range	Default
Singer		
Gender Voice Input	Male, Female	Male
Vibrato	On, Off	Off
Singer Edit		
Vibrato Rate	0-127	93
Vibrato Rise Time	0-5	0
Vibrato Depth	0-127	32
Vibrato Delay Time	0-127	3
Vibrato	On, Off	Off
Singer EQ		
Frequency Hz	112-6850	6850
Gain dB	-12-12	0
Equalizer	On, Off	Off

Vocal Harmonist – Voice-FX

Parameter	Setting Range	Default
Macro Type	DJ Talk, Woman Talk, Alien, Tenor, Robot, Radio, Sailor Man, DJ Sing, Soprano, Child, Ogre Sing, Mouse	Ogre Sing
Vibrato	On, Off	Off
Voice-FX Edit		
Gender	-64-63	-50
Pitch Coarse	-24-24	-12
Pitch Fine	-99-99	0
Vibrato Rate	0-127	93
Vibrato Rise Time	0-5	0
Vibrato Depth	0-127	32
Vibrato Delay Time	0-127	3
Voice-FX EQ		
Frequency Hz	112-6850	6850
Gain dB	-12-12	0
Equalizer	On, Off	Off

Vocal Harmonist – Auto Pitch

Parameter	Setting Range	Default
Octave	-2-0-2	0
Vibrato	On, Off	Off
Assign Track	1-16, Off	4
Assign	Left, Right, Left+Right, Off	Off
Auto Pitch Edit		
Gender	-64-63	0
Portamento Time	0-127	50
Portamento	On, Off	On
Pitch Bender	On, Off	Off
Vibrato Rate	0-127	93
Vibrato Rise Time	0-5	0
Vibrato Depth	0-127	32
Vibrato Delay Time	0-127	3
Auto Pitch EQ		

Frequency Hz	112-6850	6850
Gain dB	-12-12	0
Equalizer	On, Off	Off

Vocal Harmonist – Harmony – Vocoder

Parameter	Default	
Gender		
Male	Closed Vintage, 2 Men, Radio, Normal, Closed Pad, Out of Tune, Mountn, EFX	
Female	Open Vintage, Light, Brdway, Angel Pad, Special Vox, 2 Women, Girls, Church	
Mix	Opera, My Voice, Celest, Children, Dirty Vox, Vintage, Classic, Amen	My Voice
Assign Track	1-16, Auto, Off	Auto
Assign	Left, Right, Left+Right, Off	Left+Right
Vocoder Edit		
Part 1	Gender	-64-63
	Panpot	L64-0-R63
	Volume	0-127
Part 2	Gender	-64-63
	Panpot	L64-0-R63
	Volume	0-127
Part 3	Gender	-64-63
	Panpot	L64-0-R63
	Volume	0-127
Part 4	Gender	-64-63
	Panpot	L64-0-R63
	Volume	0-127
Common	Portamento Time	0-127
	Random Tuning	Off, Low, Mid, High
	Portamento	On, Off
	Pitch Bender:	On, Off
	Note Wrap	On, Off
	Octave	-2-0-2
Vocoder EQ		
Part 1	Frequency Hz	112-6850
	Gain dB	-12-12
Part 2	Frequency Hz	112-6850
	Gain dB	-12-12
Part 3	Frequency Hz	112-6850
	Gain dB	-12-12
Part 4	Frequency Hz	112-6850
	Gain dB	-12-12
ALL Parts	Frequency Hz	116-7000
	Gain dB	-12-12
Equalizer	On, Off	Off

Vocal Harmonist – Harmony – Small

Parameter	Default	
Gender		
Male	Gospel Duet, Country Duet, 2 Voices, 1Vox Down, Abbey Road, Falsetto, Jazz Duet, Special EQ, 2Voices Down, Octave Down	
Female	40'-50'S, 3rd Up, Soul Duet, Bahia Girls, Pop Duet, Pop 8ve Up, Unison, Rock Duet, 5th Up, Solo	
Mix	Simple Duet, Romant, Walkin'Vox, Rio Duet, Down 'n Up, Pop's, 3M 'n 8F, M 'n UnisonF, Unison 'n F, Dance EQ	
H. Assign	Auto, Keyboard, Keyboard Left, Keyboard Right, Song	Auto
Octave	-1-0-1	0
Small Edit		
Part 1	Gender	-64-63
	Panpot	L64-0-R63
	Volume	0-127
Part 2	Gender	-64-63
	Panpot	L64-0-R63
	Volume	0-127
Common	Portamento Time	0-127
	Random Tuning	Off, Low, Mid, High
	Portamento	On, Off
	Pitch Bender:	On, Off
	Chord Intell	On, Off
Small EQ		
Part 1	Frequency Hz	112-6850
	Gain dB	-12-12
Part 2	Frequency Hz	112-6850
	Gain dB	-12-12
ALL Parts	Frequency Hz	116-7000
	Gain dB	-12-12
Equalizer	On, Off	On

Vocal Harmonist – Harmony – Ensemble

Parameter		Setting Range	Default
Gender			
Male		MetallicTrio, GeesFalsetto, 50's Quartet, JazzTrio, Pop, Soft Trio, Cow Boys, 4Alpines, Elvis Trio, Unison EQ	
Female		A Cappella, Strange EQ, Latin Girls, Pop Trio, Church Quartet, Sweet Quartet, Trio 'n 8ve Up, Gospel Trio, Jazz 'n Unison, Duet 'n 8ve Up	
Mix		*Soul, Gospel Quartet, Manhat, Musical, Improv, Blues, 1M+1F+Solo, W4, Luis 'n Girls, Children	Manhat
H. Assign		Auto, Keyboard, Keyboard Left, Keyboard Right, Song	Auto
Octave		-1-0-1	0
Ensemble Edit			
Part 1	Gender	-64-63	3
	Panpot	L64-0-R63	L60
	Volume	0-127	100
Part 2	Gender	-64-63	5
	Panpot	L64-0-R63	R60
	Volume	0-127	115
Part 3	Gender	-64-63	10
	Panpot	L64-0-R63	9
	Volume	0-127	122
Part 4	Gender	-64-63	11
	Panpot	L64-0-R63	R60
	Volume	0-127	127
Common	Portamento Time	0-127	48
	Random Tuning	Off, Low, Mid, High	Low
	Portamento	On, Off	On
	Pitch Bender:	On, Off	Off
	Chord Intell	On, Off	On
Ensemble EQ			
Part 1	Frequency Hz	112-6850	1450
	Gain dB	-12-12	-4
Part 2	Frequency Hz	112-6850	1450
	Gain dB	-12-12	-4
Part 3	Frequency Hz	112-6850	1450
	Gain dB	-12-12	-4
Part 4	Frequency Hz	112-6850	1450
	Gain dB	-12-12	-4
ALL Parts	Frequency Hz	116-7000	3700
	Gain dB	-12-12	4
	Equalizer	On, Off	Off

Vocal Harmonist Effect – Voice

	Parameter	Setting Range	Default
Talk	Reverb Send	0-127	64
	Delay Send	0-127	0
Singer	Reverb Send	0-127	75
	Delay Send	0-127	16
Voice-FX	Reverb Send	0-127	64
	Delay Send	0-127	0
Auto Pitch	Reverb Send	0-127	75
	Delay Send	0-127	16

Vocal Harmonist Effect – Harmony

	Parameter	Setting Range	Default
Vocoder	Reverb Send	0-127	70
	Chorus Send	0-127	70
	Delay Send	0-127	0
Small	Reverb Send	0-127	70
	Chorus Send	0-127	70
	Delay Send	0-127	0
Ensemble	Reverb Send	0-127	70
	Chorus Send	0-127	70
	Delay Send	0-127	0

Harmonist Effect Type – Voice

	Parameter	Setting Range	Default
Talk	Reverb Macro	Studio, Talk, Room, Hall, Large Hall, Concert, Live, Reflect, Church	Talk
	Wall Type	Carpet, Wood, Brick, Concrete, Marble	Brick
	Reverb Send	0-127	64
	Reverb Time	0-19	7
	Delay Macro	Slow, Medium, Fast, Short Echo, One Echo, Bubble, PanDelay 1, PanDelay2, Space	Medium
	Wall Type	Carpet, Wood, Brick, Concrete, Marble	Brick
	Delay Send	0-127	0
	Delay Time	0-100	55
	Delay > Rev Send	0-127	51
	Delay Feedback	0-127	51
Singer	Reverb Macro	Studio, Talk, Room, Hall, Large Hall, Concert, Live, Reflections, Church	Concert
	Wall Type	Carpet, Wood, Brick, Concrete, Marble	Brick
	Reverb Send	0-127	75
	Reverb Time	0-19	10
	Delay Macro	Slow, Medium, Fast, Short Echo, One Echo, Bubble, PanDelay 1, PanDelay2, Space	Medium
	Wall Type	Carpet, Wood, Brick, Concrete, Marble	Brick
	Delay Send	0-127	16
	Delay Time	0-100	55
	Delay > Rev Send	0-127	51
	Delay Feedback	0-127	51
Voice-FX	Reverb Macro	Studio, Talk, Room, Hall, Large Hall, Concert, Live, Reflections, Church	Concert
	Wall Type	Carpet, Wood, Brick, Concrete, Marble	Brick
	Reverb Send	0-127	64
	Reverb Time	0-19	10
	Delay Macro	Slow, Medium, Fast, Short Echo, One Echo, Bubble, PanDelay 1, PanDelay2, Space	Medium
	Wall Type	Carpet, Wood, Brick, Concrete, Marble	Brick
	Delay Send	0-127	0
	Delay Time	0-100	55
	Delay > Rev Send	0-127	51
	Delay Feedback	0-127	51
Auto Pitch	Reverb Macro	Studio, Talk, Room, Hall, Large Hall, Concert, Live, Reflections, Church	Large Hall
	Wall Type	Carpet, Wood, Brick, Concrete, Marble	Concrete
	Reverb Send	0-127	75
	Reverb Time	0-19	9
	Delay Macro	Slow, Medium, Fast, Short Echo, One Echo, Bubble, PanDelay 1, PanDelay2, Space	Medium
	Wall Type	Carpet, Wood, Brick, Concrete, Marble	Brick
	Delay Send	0-127	16
	Delay Time	0-100	55
	Delay > Rev Send	0-127	51
	Delay Feedback	0-127	51

Harmonist Effect Type – Harmony

	Parameter	Setting Range	Default
Vocoder	Reverb Macro	Studio, Garage, Box, Room, Hall, JazzClub, Arena, Theater, Church	Theater
	Wall Type	Carpet, Wood, Brick, Concrete, Marble	Wood
	Reverb Send	0-127	70
	Reverb Time	0-19	6
	Chorus Macro	Smooth, Light, Medium, Detuned, Space, Reflect1, Reflect2, Reflect3, Celeste	Reflect3
	Low Pass Filter	Thru, 8 KHz, 5 KHz, 2.5 KHz, 1 KHz, 800 Hz, 630 Hz, 500 Hz	Thru
	Chorus Send	0-127	70
	Chorus > Rev Send	0-19	0
	Delay Macro	Mono1, Mono2, Mono3, Stereo Pan1, Stereo Pan2, Stereo Pan3, Mono Echo, Stereo Echo, Space	Mono Echo
	Wall Type	Carpet, Wood, Brick, Concrete, Marble	Brick
	Delay Send	0-127	0
	Delay Time	0-100	55
	Delay > Rev Send	0-127	20
	Delay > Cho Send	0-127	0
	Delay Feedback	0-127	0
Small	Reverb Macro	Studio, Garage, Box, Room, Hall, Jazz Club, Arena, Theater, Church	JazzClub
	Wall Type	Carpet, Wood, Brick, Concrete, Marble	Wood
	Reverb Send	0-127	70
	Reverb Time	0-19	9
	Chorus Macro	Smooth, Light, Medium, Detuned, Space, Reflect1, Reflect2, Reflect3, Celeste	Reflect1
	Low Pass Filter	Thru, 8 KHz, 5 KHz, 2.5 KHz, 1 KHz, 800 Hz, 630 Hz, 500 Hz	1 kHz
	Chorus Send	0-127	70
	Chorus > Rev Send	0-19	0
	Delay Macro	Mono1, Mono2, Mono3, Stereo Pan1, Stereo Pan2, Stereo Pan3, Mono Echo, Stereo Echo, Space	Mono Echo
	Wall Type	Carpet, Wood, Brick, Concrete, Marble	Brick
	Delay Send	0-127	0
	Delay Time	0-100	55
	Delay > Rev Send	0-127	20
	Delay > Cho Send	0-127	0
	Delay Feedback	0-127	0
Ensemble	Reverb Macro	Studio, Garage, Box, Room, Hall, Jazz Club, Arena, Theater, Church	Hall
	Wall Type	Carpet, Wood, Brick, Concrete, Marble	Brick
	Reverb Send	0-127	70
	Reverb Time	0-19	7
	Chorus Macro	Smooth, Light, Medium, Detuned, Space, Reflect1, Reflect2, Reflect3, Celeste	Reflect2
	Low Pass Filter	Thru, 8 KHz, 5 KHz, 2.5 KHz, 1 KHz, 800 Hz, 630 Hz, 500 Hz	Thru
	Chorus Send	0-127	70
	Chorus > Rev Send	0-19	0
	Delay Macro	Mono1, Mono2, Mono3, Stereo Pan1, Stereo Pan2, Stereo Pan3, Mono Echo, Stereo Echo, Space	Mono Echo
	Wall Type	Carpet, Wood, Brick, Concrete, Marble	Brick
	Delay Send	0-127	0
	Delay Time	0-100	55
	Delay > Rev Send	0-127	20
	Delay > Cho Send	0-127	0
	Delay Feedback	0-127	0

Effects

Keyboard Part effects – Reverb

Parameter	Setting Range	Default
Reverb Level	0-127	64
Master Switch	Off, On	On
SRV Room		
Pre Delay	0.0-100.0 ms	1.0 ms
Time	0-127	64
Size	1-8	7

High Cut	160, 200, 250, 320, 400, 500, 640, 800, 1000, 1250, 1600, 2000, 2500, 3200, 4000, 5000, 6400, 8000, 10000, 12500, Bypass [Hz]	12500 Hz
Density	0-127	127
Diffusion	0-127	127
LF Damp Freq	50, 64, 80, 100, 125, 160, 200, 250, 320, 400, 500, 640, 800, 1000, 1250, 1600, 2000, 2500, 3200, 4000 [Hz]	4000 Hz
LF Damp Gain	-36-0 [dB]	0 dB
HF Damp Freq	4000, 5000, 6400, 8000, 10000, 12500 [Hz]	4000 Hz
HF Damp Gain	-36-0 [dB]	0 dB
SRV Hall (default)		
Pre Delay	0.0-100.0 ms	1.0 ms
Time	0-127	70
Size	1-8	7
High Cut Freq	160, 200, 250, 320, 400, 500, 640, 800, 1000, 1250, 1600, 2000, 2500, 3200, 4000, 5000, 6400, 8000, 10000, 12500, Bypass [Hz]	12500 Hz
Density	0-127	127
Diffusion	0-127	127
LF Damp Freq	50, 64, 80, 100, 125, 160, 200, 250, 320, 400, 500, 640, 800, 1000, 1250, 1600, 2000, 2500, 3200, 4000 [Hz]	4000 Hz
LF Damp Gain	-36-0 [dB]	0 dB
HF Damp Freq	4000, 5000, 6400, 8000, 10000, 12500 [Hz]	4000 Hz
HF Damp Gain	-36-0 [dB]	0 dB
SRV Plate		
Pre Delay	0.0-100.0 ms	1.0 ms
Time	0-127	64
Size	1-8	7
High Cut Freq	160, 200, 250, 320, 400, 500, 640, 800, 1000, 1250, 1600, 2000, 2500, 3200, 4000, 5000, 6400, 8000, 10000, 12500, Bypass [Hz]	12500 Hz
Density	0-127	127
Diffusion	0-127	127
LF Damp Freq	50, 64, 80, 100, 125, 160, 200, 250, 320, 400, 500, 640, 800, 1000, 1250, 1600, 2000, 2500, 3200, 4000 [Hz]	4000 Hz
LF Damp Gain	-36-0 [dB]	0 dB
HF Damp Freq	4000, 5000, 6400, 8000, 10000, 12500 [Hz]	4000 Hz
HF Damp Gain	-36-0 [dB]	0 dB
GM2 Reverb		
Character	Room1, Room2, Room3, Hall1, Hall2, Plate, Delay, Pan Delay	Hall2
Pre LPF	0-7	0
Level	0-127	64
Time	0-127	64
Feedback	0-127	0
Room 1		
Time	0-127	84
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass [Hz]	8000 Hz
Feedback	0-127	0
Room 2		
Time	0-127	84
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass [Hz]	8000 Hz
Feedback	0-127	0
Stage 1		
Time	0-127	84
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass [Hz]	8000 Hz
Feedback	0-127	0
Stage 2		
Time	0-127	84
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass [Hz]	8000 Hz
Feedback	0-127	0
Hall 1		
Time	0-127	84
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass [Hz]	8000 Hz
Feedback	0-127	0
Hall 2		
Time	0-127	84
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass [Hz]	8000 Hz

Feedback	0~127	0
Delay		
Time	0~127	91
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass [Hz]	8000 Hz
Feedback	0~127	26
Pan Delay		
Time	0~127	80
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass [Hz]	8000 Hz
Feedback	0~127	26

Keyboard Part effects - Chorus

Parameter	Setting Range	Default
Chorus Level	0~127	64
Master Switch	Off, On	On
Output	Main, Rev, Main+Rev	Main

Chorus 1		
Filter Type	Off, LPF, HPF	Off
Cutoff Freq	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	1000 Hz
Pre Delay	0.0~100.0 ms	10.0 ms
Rate Sync	Hz, NOTE	Hz
Rate Hz	0.05~10.00 [Hz], step 0.05 [Hz]	0.20 Hz
Rate Note	1/64 T, 1/64, 1/32 T, 1/32, 1/16 T, 1/32., 1/16, 1/8 T, 1/16., 1/8, 1/4 T, 1/8., 1/4, 1/2 T, 1/4., 1/2, 1/1 T, 1/2., 1/1, 2/1 T, 1/1., 2/1	1/1
Depth	0~127	44
Phase	0~180 [deg], step 2 [deg]	180 deg
Feedback	0~127	0

Chorus 2 (default)		
Filter Type	Off, LPF, HPF	Off
Cutoff Freq	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	1000 Hz
Pre Delay	0.0~100.0 ms	10.0 ms
Rate Sync	Hz, NOTE	Hz
Rate Hz	0.05~10.00 [Hz], step 0.05 [Hz]	0.60 Hz
Rate Note	1/64 T, 1/64, 1/32 T, 1/32, 1/16 T, 1/32., 1/16, 1/8 T, 1/16., 1/8, 1/4 T, 1/8., 1/4, 1/2 T, 1/4., 1/2, 1/1 T, 1/2., 1/1, 2/1 T, 1/1., 2/1	1/1
Depth	0~127	50
Phase	0~180 [deg], step 2 [deg]	180 deg
Feedback	0~127	8

Chorus 3		
Filter Type	Off, LPF, HPF	Off
Cutoff Freq	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	1000 Hz
Pre Delay	0.0~100.0 ms	10.0 ms
Rate Sync	Hz, NOTE	Hz
Rate Hz	0.05~10.00 [Hz], step 0.05 [Hz]	1.00 Hz
Rate Note	1/64 T, 1/64, 1/32 T, 1/32, 1/16 T, 1/32., 1/16, 1/8 T, 1/16., 1/8, 1/4 T, 1/8., 1/4, 1/2 T, 1/4., 1/2, 1/1 T, 1/2., 1/1, 2/1 T, 1/1., 2/1	1/1
Depth	0~127	52
Phase	0~180 [deg], step 2 [deg]	180 deg
Feedback	0~127	10

Flanger		
Filter Type	Off, LPF, HPF	Off
Cutoff Freq	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	1000 Hz
Pre Delay	0.0~100.0 ms	20.0 ms
Rate Sync	Hz, NOTE	Hz
Rate Hz	0.05~10.00 [Hz], step 0.05 [Hz]	0.10 Hz
Rate Note	1/64 T, 1/64, 1/32 T, 1/32, 1/16 T, 1/32., 1/16, 1/8 T, 1/16., 1/8, 1/4 T, 1/8., 1/4, 1/2 T, 1/4., 1/2, 1/1 T, 1/2., 1/1, 2/1 T, 1/1., 2/1	1/1
Depth	0~127	52
Phase	0~180 [deg], step 2 [deg]	180 deg
Feedback	0~127	60

GM2 Chorus		
Pre LPF	0~7	0
Level	0~127	64
Feedback	0~127	8
Delay	0~127	80
Rate	0~127	3
Depth	0~127	19
Reverb Send	0~127	0

Delay		
L Delay Sync	MSEC, NOTE	NOTE
L Delay msec	0~1000 [msec]	200 msec
L Delay Note	1/64 T, 1/64, 1/32 T, 1/32, 1/16 T, 1/32., 1/16, 1/8 T, 1/16., 1/8, 1/4 T, 1/8., 1/4, 1/2 T, 1/4., 1/2, 1/1 T, 1/2., 1/1, 2/1 T, 1/1., 2/1	1/4
L Level	0~127	32
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass [Hz]	Bypass
C Delay Sync	MSEC, NOTE	NOTE
C Delay msec	0~1000 [msec]	600 msec
C Delay Note	1/64 T, 1/64, 1/32 T, 1/32, 1/16 T, 1/32., 1/16, 1/8 T, 1/16., 1/8, 1/4 T, 1/8., 1/4, 1/2 T, 1/4., 1/2, 1/1 T, 1/2., 1/1, 2/1 T, 1/1., 2/1	1/4
C Level	0~127	32
C Feedback	-98~+98 [%], step 2[%], 0[%] = 49	26%
R Delay Sync	MSEC, NOTE	NOTE
R Delay msec	0~1000 [msec]	400 msec
R Delay Note	1/64 T, 1/64, 1/32 T, 1/32, 1/16 T, 1/32., 1/16, 1/8 T, 1/16., 1/8, 1/4 T, 1/8., 1/4, 1/2 T, 1/4., 1/2, 1/1 T, 1/2., 1/1, 2/1 T, 1/1., 2/1	1/4
R Level	0~127	32

Multi-FX

01 - Thru		
02 - Stereo EQ		
EQ Low Freq	200, 400 Hz	200 Hz
EQ Low Gain	-15dB~0-15dB	7 dB
EQ High Freq	2000, 4000, 8000 Hz	4000 Hz
EQ High Gain	-15dB~0-15dB	4 dB
EQ Mid 1 Freq	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000	1000 Hz
EQ Mid 1 Q	0.5, 1.0, 2.0, 4.0, 8.0	0.5
EQ Mid 1 Gain	-15dB~0-15dB	2 dB
EQ Mid 2 Freq	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000	8000 Hz
EQ Mid 2 Q	0.5, 1.0, 2.0, 4.0, 8.0	0.5
EQ Mid 2 Gain	-15dB~0-15dB	1 dB
Level	0~127	127

03 - Overdrive		
Drive	0~127	127
Panpot	L64~0~63R	0
Amp Type	Small, Built-In, 2-Stack, 3-Stack	Small
EQ Low Gain	-15dB~0-15dB	0 dB
EQ High Gain	-15dB~0-15dB	0 dB
Level	0~127	127

04 - Distortion		
Drive	0~127	127
Panpot	L64~0~63R	0
Amp Type	Small, Built-In, 2-Stack, 3-Stack	3-Stack
EQ Low Gain	-15dB~0-15dB	0 dB
EQ High Gain	-15dB~0-15dB	0 dB
Level	0~127	127

05 - Phaser		
Phaser Manual	100~8000 Hz	500 Hz
Phaser Rate	0.05~10.0Hz	1.00 Hz
Phaser Depth	0~127	64
Phaser Resonance	0~127	0
Mix Level	0~127	127
Panpot	L64~0~63R	0
Level	0~127	127

06 - Spectrum		
250Hz Gain	-15dB~0-15dB	0 dB
500Hz Gain	-15dB~0-15dB	0 dB
1000Hz Gain	-15dB~0-15dB	0 dB
1250Hz Gain	-15dB~0-15dB	0 dB
2000Hz Gain	-15dB~0-15dB	0 dB
3150Hz Gain	-15dB~0-15dB	0 dB
4000Hz Gain	-15dB~0-15dB	0 dB
8000Hz Gain	-15dB~0-15dB	0 dB
Band Width Q	0.5, 1.0, 2.0, 4.0, 8.0	0.5
Panpot	L64~0~63R	0
Level	0~127	127

07 - Enhancer		
Sens	0~127	127
Mix	0~127	64
EQ Low Gain	-15dB~0-15dB	3 dB
EQ High Gain	-15dB~0-15dB	6 dB
Level	0~127	127

08 - Auto Wah		
Filter Type	LPF, BPF	LPF
Rate	0.05~10.0Hz	1.00 Hz
Depth	0~127	64
Sens	0~127	0
Manual	0~127	64
Peak	0~127	100
Level	0~127	127

09 - Rotary		
Tweeter Slow Rate	0.05~10.0Hz	2.00 Hz
Woofer Slow Rate	0.05~10.0Hz	2.00 Hz
Tweeter Fast Rate	0.05~10.0Hz	8.00 Hz
Woofer Fast Rate	0.05~10.0Hz	8.00 Hz
Rotary Speed	Slow, Fast	Slow
Tweeter Acceleration	0~15	10
Woofer Acceleration	0~15	10
Tweeter Level	0~127	127
Woofer Level	0~127	127
Separation	0~127	127
Level	0~127	127

10 - Compressor		
Sustain	0~127	127
Attack	0~127	64
Panpot	L64~0~63R	0
Post Gain	0, +6, +12, +18 dB	6 dB
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Level	0~127	127

11 - Limiter		
Threshold	0~127	64
Release	0~127	32
Ratio	1.5:1, 2:1, 4:1, 100:1	4.0:1
Panpot	L64~0~63R	0 dB
Post Gain	0, +6, +12, +18 dB	6 dB
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Level	0~127	127

12 - Hexa-Chorus		
Chorus Pre Delay	0.0~100.0 ms	0.5 ms
Chorus Rate	0.05~10.0Hz	0.50 Hz
Chorus Depth	0~127	20
Pre Delay Deviation	0~20	0
Depth Deviation	-20~0~20	0
Pan Deviation	0~20	20
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

13 - Trem Chorus		
Chorus Pre Delay	0.0~100.0 ms	0.0 ms
Chorus Rate	0.05~10.0Hz	0.50 Hz
Chorus Depth	0~127	50
Tremolo Rate	0.05~10.0Hz	2.00 Hz
Tremolo Separation	0~127	127
Tremolo Phase	0~180 deg	180 deg
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

14 - Space-D		
Chorus Pre Delay	0.0~100.0 ms	1.0 ms
Chorus Rate	0.05~10.0Hz	0.50 Hz
Chorus Depth	0~127	20
Chorus Phase	0~180 deg	180 deg
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

15 - St.Chorus		
Filter Type	OFF, LPF, HPF	HPF
Filter Cutoff	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000	1000 Hz
Chorus Pre Delay	0.0~100.0 ms	1.0 ms
Chorus Rate	0.05~10.0Hz	0.50 Hz
Chorus Depth	0~127	20
Chorus Phase	0~180 deg	180 deg
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

16 - St.Flanger		
Filter Type	OFF, LPF, HPF	HPF
Filter Cutoff	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000	1000 Hz

Flanger Pre Delay	0.0~100.0 ms	1.0 ms
Flanger Rate	0.05~10.0Hz	0.50 Hz
Flanger Depth	0~127	50
Flanger Phase	0~180 deg	180 deg
Flanger Feedback	-98%~0~98%	80 %
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

17 - Step Flanger		
Flanger Pre Delay	0.0~100.0 ms	0.5 ms
Flanger Rate	0.05~10.0Hz	0.50 Hz
Flanger Depth	0~127	50
Flanger Feedback	-98%~0~98%	80 %
Step Rate	0.10~20.0Hz - note	5.00 Hz
Flanger Phase	0~180 deg	180 deg
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

18 - St.Delay		
Feedback Mode	Normal, Cross	Normal
Delay Left	0.0~500.0 ms	250.0 ms
Delay Right	0.0~500.0 ms	260.0 ms
Phase Left	Normal, Invert	Normal
Phase Right	Normal, Invert	Normal
Delay Feedback	-98%~0~98%	20 %
Delay HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

19 - Mod Delay		
Feedback Mode	Normal, Cross	Normal
Delay Left	0.0~500.0 ms	500.0 ms
Delay Right	0.0~500.0 ms	500.0 ms
Delay Feedback	-98%~0~98%	20 %
Delay HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Modulation Rate	0.05~10.0Hz	1.00 Hz
Modulation Depth	0~127	20
Modulation Phase	0~180 deg	180 deg
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

20 - 3 Tap Delay		
Delay Left	200~1000 ms - 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2	250 ms
Delay Right	200~1000 ms - 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2	500 ms
Delay Center	200~1000 ms - 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2	1000 ms
Delay Feedback	-98%~0~98%	20 %
Delay HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Dly Level Left	0~127	127
Dly Level Right	0~127	127
Dly Level Center	0~127	127
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

21 - 4 Tap Delay		
Delay 1	200~1000 ms - 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2	1000 ms
Delay 2	200~1000 ms - 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2	750 ms
Delay 3	200~1000 ms - 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2	500 ms
Delay 4	200~1000 ms - 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2	250 ms
Delay Level 1	0~127	127
Delay Level 2	0~127	127
Delay Level 3	0~127	127
Delay Level 4	0~127	127
Delay Feedback	-98%~0~98%	20 %

Delay HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
22 - Time Delay		
Delay Time	200~1000 ms - 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2	250 ms
Delay Feedback	-98%~0~98%	20 %
Delay Acceleration	0~15	10
Delay HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Panpot	L64~0~63R	0
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
23 - 2Pitch Shift		
Pitch Shift Mode	1~5	5
Pitch A Coarse	-24 semi~0~+12 semi	0 semi
Pitch B Coarse	-24~0~+12 semitone	0 semi
Pitch A Fine	-100~0~+100 cent	26 cent
Pitch B Fine	-100~0~+100 cent	-12 cent
Pitch A Pre Delay	0.0~500.0 ms	0.0 ms
Pitch B Pre Delay	0.0~500.0 ms	0.0 ms
Pitch A Panpot	L64~0~63R	0
Pitch B Panpot	L64~0~63R	0
Level Balance	A100:0B, A50:50B, A0:100B	A50:50B
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
24 - FBK Pitch		
Pitch Shift Mode	1~5	3
Pitch Coarse	-24~0~+12 semitone	1 semi
Pitch Fine	-100~0~+100 cent	0 cent
Pitch Pre Delay	0.0~500.0 ms	500.0 ms
Pitch Feedback	-98%~0~98%	40 %
Panpot	L64~0~63R	0
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
25 - Reverb		
Reverb Type	Room 1, Room 2, Stage 1, Stage 2, Hall 1, Hall 2	Hall 2
Reverb Pre Delay	0.0~100.0 ms	1.0 ms
Reverb Time	0~127	100
Reverb HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
26 - Gate Reverb		
Reverb Type	Normal, Reverse, Sweep 1, Sweep 2	Normal
Reverb Pre Delay	0.0~100.0 ms	1.0 ms
Reverb Time	5~500 ms	55 ms
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
27 - OD→ Chorus		
Overdrive Drive	0~127	64
Overdrive Panpot	L64~0~63R	0
Chorus Pre Delay	0.0~100.0 ms	1.0 ms
Chorus Rate	0.05~10.0Hz	0.50 Hz
Chorus Depth	0~127	20
Chorus Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
28 - OD→ Flanger		
Overdrive Drive	0~127	64
Overdrive Panpot	L64~0~63R	0
Flanger Pre Delay	0.0~100.0 ms	1.0 ms
Flanger Rate	0.05~10.0Hz	0.50 Hz
Flanger Depth	0~127	40
Flanger Feedback	-98%~0~98%	80 %
Flanger Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	80

29 - OD→ Delay		
Overdrive Drive	0~127	64
Overdrive Panpot	L64~0~63R	0
Delay Time	0.0~500.0 ms	200.0 ms
Delay Feedback	-98%~0~98%	40 %
Delay HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Delay Balance	D100:0W, D50:50W, D0:100W	D80:20W
Level	0~127	80
30 - DST→ Chorus		
Distortion Drive	0~127	127
Distortion Panpot	L64~0~63R	0
Chorus Pre Delay	0.0~100.0 ms	1.0 ms
Chorus Rate	0.05~10.0Hz	0.50 Hz
Chorus Depth	0~127	20
Chorus Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	80
31 - DST→ Flanger		
Distortion Drive	0~127	127
Distortion Panpot	L64~0~63R	0
Flanger Pre Delay	0.0~100.0 ms	1.0 ms
Flanger Rate	0.05~10.0Hz	0.50 Hz
Flanger Depth	0~127	40
Flanger Feedback	-98%~0~98%	80 %
Flanger Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	80
32 - DST→ Delay		
Distortion Drive	0~127	127
Distortion Panpot	L64~0~63R	0
Delay Time	0.0~500.0 ms	200.0 ms
Delay Feedback	-98%~0~98%	40 %
Delay HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Delay Balance	D100:0W, D50:50W, D0:100W	D80:20W
Level	0~127	80
33 - EH→ Chorus		
Enhancer Sens	0~127	127
Enhancer Mix Level	0~127	64
Chorus Pre Delay	0.0~100.0 ms	1.0 ms
Chorus Rate	0.05~10.0Hz	0.50 Hz
Chorus Depth	0~127	20
Chorus Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
34 - EH→ Flanger		
Enhancer Sens	0~127	127
Enhancer Mix Level	0~127	64
Flanger Pre Delay	0.0~100.0 ms	1.0 ms
Flanger Rate	0.05~10.0Hz	0.50 Hz
Flanger Depth	0~127	40
Flanger Feedback	-98%~0~98%	80 %
Flanger Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
35 - EH→ Delay		
Enhancer Sens	0~127	127
Enhancer Mix Level	0~127	64
Delay Time	0.0~500.0 ms	200.0 ms
Delay Feedback	-98%~0~98%	40 %
Delay HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Delay Balance	D100:0W, D50:50W, D0:100W	D80:20W
Level	0~127	127
36 - Chorus→ Dly		
Chorus Pre Delay	0.0~100.0 ms	1.0 ms
Chorus Rate	0.05~10.0Hz	0.50 Hz
Chorus Depth	0~127	20
Chorus Balance	D100:0W, D50:50W, D0:100W	D50:50W
Delay Time	0.0~500.0 ms	200.0 ms
Delay Feedback	-98%~0~98%	40 %
Delay HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Delay Balance	D100:0W, D50:50W, D0:100W	D80:20W
Level	0~127	127
37 - Flanger→ Dly		
Flanger Pre Delay	0.0~100.0 ms	1.0 ms
Flanger Rate	0.05~10.0Hz	0.50 Hz
Flanger Depth	0~127	40
Flanger Feedback	-98%~0~98%	80 %

Flanger Balance	D100:0W, D50:50W, D0:100W	D50:50W
Delay Time	0.0~500.0 ms	200.0 ms
Delay Feedback	-98%~0~98%	40 %
Delay HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Delay Balance	D100:0W, D50:50W, D0:100W	D80:20W
Level	0~127	127
38 - Cho → Flanger		
Chorus Pre Delay	0.0~100.0 ms	1.0 ms
Chorus Rate	0.05~10.0Hz	0.50 Hz
Chorus Depth	0~127	20
Chorus Balance	D100:0W, D50:50W, D0:100W	D50:50W
Flanger Pre Delay	0.0~100.0 ms	1.0 ms
Flanger Rate	0.05~10.0Hz	0.50 Hz
Flanger Depth	0~127	40
Flanger Feedback	-98%~0~98%	80 %
Flanger Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
39 - Cho / Dly		
Chorus Pre Delay	0.0~100.0 ms	1.0 ms
Chorus Rate	0.05~10.0Hz	0.50 Hz
Chorus Depth	0~127	20
Chorus Balance	D100:0W, D50:50W, D0:100W	D50:50W
Delay Time	0.0~500.0 ms	200.0 ms
Delay Feedback	-98%~0~98%	40 %
Delay HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Delay Balance	D100:0W, D50:50W, D0:100W	D80:20W
Level	0~127	127
40 - Flanger / Dly		
Flanger Pre Delay	0.0~100.0 ms	1.0 ms
Flanger Rate	0.05~10.0Hz	0.50 Hz
Flanger Depth	0~127	40
Flanger Feedback	-98%~0~98%	80 %
Flanger Balance	D100:0W, D50:50W, D0:100W	D50:50W
Delay Time	0.0~500.0 ms	200.0 ms
Delay Feedback	-98%~0~98%	40 %
Delay HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Delay Balance	D100:0W, D50:50W, D0:100W	D80:20W
Level	0~127	127
41 - Cho / Flanger		
Chorus Pre Delay	0.0~100.0 ms	1.0 ms
Chorus Rate	0.05~10.0Hz	0.50 Hz
Chorus Depth	0~127	20
Chorus Balance	D100:0W, D50:50W, D0:100W	D50:50W
Flanger Pre Delay	0.0~100.0 ms	1.0 ms
Flanger Rate	0.05~10.0Hz	0.50 Hz
Flanger Depth	0~127	40
Flanger Feedback	-98%~0~98%	80 %
Flanger Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
42 - Isolator		
Boost/Cut Low Level	-60~0~4 [dB]	4 dB
Boost/Cut Mid Level	-60~0~4 [dB]	-3 dB
Boost/Cut High Level	-60~0~4 [dB]	4 dB
Anti Phase Low Sw	OFF, ON	OFF
Anti Phase Low Level	0~127	127
Anti Phase Mid Sw	OFF, ON	OFF
Anti Phase Mid Level	0~127	127
Low Boost Sw	OFF, ON	OFF
Low Boost Level	0~127	64
Level	0~127	110
43 - Low Boost		
Boost Frequency	50, 56, 63, 71, 80, 90, 100, 112, 125 [Hz]	80 Hz
Boost Gain	0~12 [dB]	12 dB
Boost Width	Wide, Mid, Narrow	Wide
EQ Low Gain	-15dB~0~15dB	9 dB
EQ High Gain	-15dB~0~15dB	0 dB
Level	0~127	70
44 - Super Filter		
Filter Type	LPF, BPF, HPF, NOTCH	HPF
Filter Slope	-12, -24, -36 [dB]	-36 dB
Filter Cutoff	0~127	30
Filter Resonance	0~127	40
Filter Gain	0~12 [dB]	0
Modulation Sw	OFF, ON	ON
Modulation Wave	TRI, SQR, SIN, SAW1, SAW2	TRI

Rate (sync)	Hz, Note	Note
Rate (Hz)	0.05~10.00 [Hz]	0.50 Hz
Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/1
Depth	0~127	40
Attack	0~127	50
Level	0~127	127
45 - Step Filter		
Step 1	0~127	60
Step 2	0~127	30
Step 3	0~127	60
Step 4	0~127	30
Step 5	0~127	60
Step 6	0~127	30
Step 7	0~127	60
Step 8	0~127	30
Step 9	0~127	60
Step 10	0~127	60
Step 11	0~127	30
Step 12	0~127	60
Step 13	0~127	60
Step 14	0~127	30
Step 15	0~127	60
Step 16	0~127	30
Rate (sync)	Hz, Note	Note
Rate (Hz)	0.05~10.00 [Hz]	0.50 Hz
Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/1
Attack	0~127	50
Filter Type	LPF, BPF, HPF, NOTCH	HPF
Filter Slope	-12, -24, -36 [dB]	-36 dB
Filter Resonance	0~127	40
Filter Gain	0~12 [dB]	0 dB
Level	0~127	127
46 - Humanizer		
Drive Sw	OFF, ON	ON
Drive	0~127	5
Vowel 1	A, E, I, O, U	U
Vowel 2	A, E, I, O, U	A
Rate (sync)	Hz, Note	Hz
Rate (Hz)	0.05~10.00 [Hz]	2.00 Hz
Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/1
Depth	0~127	127
Input Sync Sw	OFF, ON	OFF
Input Sync Threshold	0~127	60
Manual	0~100	50
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Panpot	L64~0~63R	0
Level	0~127	127
47 - Speaker Sim		
Speaker Type	Small 1, Small 2, Middle, JC~120, Built-In 1, Built-In 2, Built-In 3, Built-In 4, Built-In 5, BG Stack 1, BG Stack 2, MS Stack 1, MS Stack 2, Metal Stack, 2-Stack, 3-Stack	Built-In 3
Mic Setting	1, 2, 3	2
Mic Level	0~127	127
Direct Level	0~127	0
Level	0~127	127
48 - Step Phaser		
Phaser Mode	4-Stage, 8-Stage, 12-Stage	12-Stage
Phaser Manual	0~127	34
Step Rate (sync)	Hz, Note	Note
Step Rate (Hz)	0.05~10.00 [Hz]	1.50 Hz
Step Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/2T
Depth	0~127	40
Polarity	Inverse, Synchro	Synchro
Resonance	0~127	40
Cross Feedback	-98%~0~+98 %	0 %
Rate (sync)	Hz, Note	Note
Rate (Hz)	0.10~20.00 [Hz]	8.00 Hz
Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/16
Mix Level	0~127	127
EQ Low Gain	-15dB~0~15dB	0 dB

EQ High Gain	-15dB~0~15dB	0 dB
Level	0~127	127
49 - Mlt Phaser		
Phaser Mode	4-Stage, 8-Stage, 12-Stage, 16-Stage, 20-Stage, 24-Stage	
Phaser Manual	0~127	60
Rate (sync)	Hz, Note	Note
Rate (Hz)	0.05~10.00 [Hz]	0.50 Hz
Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/1
Depth	0~127	40
Resonance	0~127	40
Mix Level	0~127	127
Panpot	L64~0~63R	0
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Level	0~127	127
50 - Inf Phaser		
Mode	1, 2, 3, 4	4
Speed	-100~100	40
Resonance	0~127	80
Mix Level	0~127	127
Panpot	L64~0~63R	0
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Level	0~127	127
51 - Ring Modul		
Frequency	0~127	60
Sens	0~127	0
Polarity	UP, DOWN	UP
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
52 - Step Ring		
Step 1	0~127	120
Step 2	0~127	60
Step 3	0~127	120
Step 4	0~127	60
Step 5	0~127	90
Step 6	0~127	90
Step 7	0~127	60
Step 8	0~127	90
Step 9	0~127	60
Step 10	0~127	90
Step 11	0~127	60
Step 12	0~127	90
Step 13	0~127	60
Step 14	0~127	60
Step 15	0~127	90
Step 16	0~127	60
Rate (sync)	Hz, Note	Note
Rate (Hz)	0.05~10.00 [Hz]	0.50 Hz
Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/1
Attack	0~127	50
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
53 - Tremolo		
Modulation Wave	TRI, SQR, SIN, SAW1, SAW2	TRI
Rate (sync)	Hz, Note	Note
Rate (Hz)	0.05~10.00 [Hz]	4.00 Hz
Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/8
Depth	0~127	96
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Level	0~127	127
54 - Auto Pan		
Modulation Wave	TRI, SQR, SIN, SAW1, SAW2	TRI
Rate (sync)	Hz, Note	Note
Rate (Hz)	0.05~10.00 [Hz]	4.00 Hz
Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/8
Depth	0~127	96

EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Level	0~127	127
55 - Step Pan		
Step 1	L64~0~63R	0
Step 2	L64~0~63R	L64
Step 3	L64~0~63R	0
Step 4	L64~0~63R	L64
Step 5	L64~0~63R	0
Step 6	L64~0~63R	63R
Step 7	L64~0~63R	0
Step 8	L64~0~63R	63R
Step 9	L64~0~63R	0
Step 10	L64~0~63R	L64
Step 11	L64~0~63R	63R
Step 12	L64~0~63R	L64
Step 13	L64~0~63R	0
Step 14	L64~0~63R	63R
Step 15	L64~0~63R	L64
Step 16	L64~0~63R	63R
Rate (sync)	Hz, Note	Note
Rate (Hz)	0.05~10.00 [Hz]	0.25 Hz
Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	2/1
Attack	0~127	50
Input Sync Sw	OFF, ON	OFF
Input Sync Threshold	0~127	60
Level	0~127	127
56 - Slicer		
Step 1	0~127	127
Step 2	0~127	0
Step 3	0~127	0
Step 4	0~127	0
Step 5	0~127	0
Step 6	0~127	0
Step 7	0~127	127
Step 8	0~127	0
Step 9	0~127	0
Step 10	0~127	0
Step 11	0~127	127
Step 12	0~127	0
Step 13	0~127	0
Step 14	0~127	127
Step 15	0~127	0
Step 16	0~127	0
Rate (sync)	Hz, Note	Hz
Rate (Hz)	0.05~10.00 [Hz]	2.00 Hz
Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/1
Attack	0~127	50
Input Sync Sw	OFF, ON	OFF
Input Sync Threshold	0~127	60
Mode	Legato, Slash	Legato
Shuffle	0~127	0
Level	0~127	127
57 - VK Rotary		
Speed	Slow, Fast	Slow
Brake	OFF, ON	OFF
Woofer Slow Speed	0.05~10.0Hz	2.00 Hz
Woofer Fast Speed	0.05~10.0Hz	8.00 Hz
Woofer Trans Up	0~127	64
Woofer Trans Down	0~127	64
Woofer Level	0~127	127
Tweeter Slow Speed	0.05~10.0Hz	2.00 Hz
Tweeter Fast Speed	0.05~10.0Hz	8.00 Hz
Tweeter Trans Up	0~127	64
Tweeter Trans Down	0~127	64
Tweeter Level	0~127	127
Spread	0~10	10
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Level	0~127	127
58 - 3D Chorus		
Filter Type	OFF, LPF, HPF	HPF
Cutoff Frequency	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000[Hz]	800 Hz
Chorus Pre Delay	0.0~100.0 ms	2.0 ms
Rate (sync)	Hz, Note	Hz

Rate (Hz)	0.05~10.00 [Hz]	0.50 Hz
Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/1
Depth	0~127	20
Phase	0~180 deg	180 deg
Output Mode	Speaker, Phones	Speaker
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

59 - 3D Flanger		
Filter Type	OFF, LPF, HPF	HPF
Cutoff Frequency	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000[Hz]	800 Hz
Pre Delay	0.0~100.0 ms	2.0 ms
Rate (sync)	Hz, Note	Note
Rate (Hz)	0.05~10.00 [Hz]	0.50 Hz
Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/1
Depth	0~127	40
Phase	0~180 deg	180 deg
Feedback	-98%~0~+98 %	60 %
Output Mode	Speaker, Phones	Speaker
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

60 - 3D Step Flgr		
Filter Type	OFF, LPF, HPF	HPF
Cutoff Frequency	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000[Hz]	800 Hz
Pre Delay	0.0~100.0 ms	2.0 ms
Rate (sync)	Hz, Note	Note
Rate (Hz)	0.05~10.00 [Hz]	1.50 Hz
Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/2T
Depth	0~127	40
Phase	0~180 deg	180 deg
Feedback	-98%~0~+98 %	60 %
Step Rate (sync)	Hz, Note	Note
Step Rate (Hz)	0.10~20.00 [Hz]	8.00 Hz
Step Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/16
Output Mode	Speaker, Phones	Speaker
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

61 - Band Chorus		
Split Frequency	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000[Hz]	800 Hz
Low Pre Delay	0.0~100.0 ms	4.0 ms
Low Rate (sync)	Hz, Note	Hz
Low Rate (Hz)	0.05~10.00 [Hz]	0.25 Hz
Low Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	2/1
Low Depth	0~127	20
Low Phase	0~180 deg	180 deg
High Pre Delay	0.0~100.0 ms	1.0 ms
High Rate (sync)	Hz, Note	Hz
High Rate (Hz)	0.05~10.00 [Hz]	0.50 Hz
High Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/1
High Depth	0~127	20
High Phase	0~180 deg	180 deg
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

62 - Band Flanger		
Split Frequency	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000[Hz]	800 Hz
Low Pre Delay	0.0~100.0 ms	4.0 ms
Low Rate (sync)	Hz, Note	Note

Low Rate (Hz)	0.05~10.00 [Hz]	0.25 Hz
Low Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	2/1
Low Depth	0~127	40
Low Phase	0~180 deg	180 deg
Low Feedback	-98%~0~+98 %	60 %
High Pre Delay	0.0~100.0 ms	1.0 ms
High Rate (sync)	Hz, Note	Note
High Rate (Hz)	0.05~10.00 [Hz]	0.50 Hz
High Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/1
High Depth	0~127	40
High Phase	0~180 deg	180 deg
High Feedback	-98%~0~+98 %	40 %
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

63 - Band Step Flg		
Split Frequency	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000[Hz]	800 Hz
Low Pre Delay	0.0~100.0 ms	4.0 ms
Low Rate (sync)	Hz, Note	Note
Low Rate (Hz)	0.05~10.00 [Hz]	3.00 Hz
Low Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/4T
Low Depth	0~127	40
Low Phase	0~180 deg	180 deg
Low Feedback	-98%~0~+98 %	60 %
Low Step Rate (sync)	Hz, Note	Note
Low Step Rate (Hz)	0.10~20.00 [Hz]	4.00 Hz
Low Step Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/8
High Pre Delay	0.0~100.0 ms	1.0 ms
High Rate (sync)	Hz, Note	Note
High Rate (Hz)	0.10~20.00 [Hz]	1.50 Hz
High Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/2T
High Depth	0~127	40
High Phase	0~180 deg	180 deg
High Feedback	-98%~0~+98 %	40 %
High Step Rate (sync)	Hz, Note	Note
High Step Rate (Hz)	0.05~10.00 [Hz]	8.00 Hz
High Step Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/16
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127

64 - VS Overdrive		
Drive	0~127	127
Tone	0~127	50
Amplifier Sw	OFF, ON	ON
Amplifier Type	Small, Built-In, 2-Stack, 3-Stack	Small
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Panpot	L64~0~63R	0
Level	0~127	127

65 - VS Distortion		
Drive	0~127	127
Tone	0~127	50
Amp Sw	OFF, ON	ON
Amplifier Type	Small, Built-In, 2-Stack, 3-Stack	3-Stack
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Panpot	L64~0~63R	0
Level	0~127	127

66 - Gt Amp Simul		
Pre Amp Sw	OFF, ON	ON
Pre Amp Type	JC~120, Clean Twin, Match Drive, BG Lead, MS1959I, MS1959II, MS1959I+II, Sldn Lead, Metal 5150, Metal Lead, OD~1, OD~2 Turbo, Distortion, Fuzz	Clean Twin
Pre Amp Volume	0~127	80
Pre Amp Master	0~127	100
Pre Amp Gain	Low, Middle, High	Middle
Pre Amp Bass	0~127	64
Pre Amp Middle	0~127	64
Pre Amp Treble	0~127	64

Pre Amp Presence	0~127 (Match Drive -127~0)	0
Pre Amp Bright	OFF, ON	OFF
Speaker Sw	OFF, ON	ON
Speaker Type	Small 1, Small 2, Middle, JC-120, Built-In 1, Built-In 2, Built-In 3, Built-In 4, Built-In 5, BG Stack 1, BG Stack 2, MS Stack 1, MS Stack 2, Metal Stack, 2-Stack, 3-Stack	Built-In 1
Mic Setting	1, 2, 3	2
Mic Level	0~127	127
Direct Level	0~127	0
Panpot	L64~0~63R	0
Level	0~127	127
67 - Gate		
Threshold	0~127	70
Mode	Gate, Duck	Gate
Attack	0~127	8
Hold	0~127	0
Release	0~127	16
Balance	D100:0W, D50:50W, D0:100W	D0:100W
Level	0~127	127
68 - Long Delay		
Delay Time (sync)	msec, note	note
Delay Time (msec)	0~2600 [msec]	2600 msec
Delay Time (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/2
Phase	Normal, Inverse	Normal
Feedback	-98%~0~+98 %	20 %
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Panpot	L64~0~63R	0
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
69 - Serial Delay		
Delay 1 Time (sync)	msec, note	note
Delay 1 Time (msec)	0~1300 [msec]	150 msec
Delay 1 Time (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/16
Delay 1 Feedback	-98%~0~+98 %	40 %
Delay 1 HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Delay 2 Time (sync)	msec, note	note
Delay 2 Time (msec)	0~1300 [msec]	600 msec
Delay 2 Time (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/4
Delay 2 Feedback	-98%~0~+98 %	40 %
Delay 2 HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Panpot	L64~0~63R	0
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
70 - Mlt Tap Dly		
Delay 1 Time (sync)	msec, note	note
Delay 1 Time (msec)	0~2600 [msec]	1200 msec
Delay 1 Time (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/4
Delay 2 Time (sync)	msec, note	note
Delay 2 Time (msec)	0~2600 [msec]	900 msec
Delay 2 Time (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/8
Delay 3 Time (sync)	msec, note	note
Delay 3 Time (msec)	0~2600 [msec]	600 msec
Delay 3 Time (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/2
Delay 4 Time (sync)	msec, note	note
Delay 4 Time (msec)	0~2600 [msec]	300 msec
Delay 4 Time (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/8
Delay 1 Feedback	-98%~0~+98 %	20 %

HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Delay 1 Panpot	L64~0~63R	L64
Delay 2 Panpot	L64~0~63R	63R
Delay 3 Panpot	L64~0~63R	L53
Delay 4 Panpot	L64~0~63R	53R
Delay 1 Level	0~127	127
Delay 2 Level	0~127	127
Delay 3 Level	0~127	127
Delay 4 Level	0~127	127
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D75:25W
Level	0~127	
71 - Reverse Dly		
Threshold	0~127	30
Rev Delay Time (sync)	msec, note	note
Rev Delay Time (msec)	0~1300 [msec]	600 ms
Rev Delay Time (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/4
Rev Delay Feedback	-98%~0~+98 %	0 %
Rev Delay HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Rev Delay Panpot	L64~0~63R	0
Rev Delay Level	0~127	127
Delay 1 Time (sync)	msec, note	note
Delay 1 Time (msec)	0~1300 [msec]	300 ms
Delay 1 Time (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/8
Delay 2 Time (sync)	msec, note	note
Delay 2 Time (msec)	0~1300 [msec]	600 ms
Delay 2 Time (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/4
Delay 3 Time (sync)	msec, note	note
Delay 3 Time (msec)	0~1300 [msec]	600 ms
Delay 3 Time (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/4
Delay 3 Feedback	-98%~0~+98 %	0 %
Delay HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Delay 1 Panpot	L64~0~63R	L64
Delay 2 Panpot	L64~0~63R	63R
Delay 1 Level	0~127	0
Delay 2 Level	0~127	0
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
72 - Shuffle Dly		
Delay Time (sync)	msec, note	note
Delay Time (msec)	0~2600 [msec]	600 ms
Delay Time (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/4
Shuffle Rate	0~100 %	67 %
Acceleration	0~15	10
Feedback	-98%~0~+98 %	20 %
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Panpot A	L64~0~63R	L64
Panpot B	L64~0~63R	63R
Level A	0~127	127
Level B	0~127	127
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
73 - 3D Delay		
Delay Left (sync)	msec, note	note
Delay Left (msec)	0~2600 [msec]	400 ms
Delay Left (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/4T
Delay Right (sync)	msec, note	note
Delay Right (msec)	0~2600 [msec]	800 ms

Delay Right (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/2T
Delay Center (sync)	msec, note	note
Delay Center (msec)	0~2600 [msec]	1200 ms
Delay Center (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/2
Center Feedback	-98%~0~+98 %	20 %
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Left Level	0~127	64
Right Level	0~127	64
Center Level	0~127	40
Output Mode	Speaker, Phones	Speaker
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
74 - Long Time Dly		
Delay Time (sync)	msec, note	note
Delay Time (msec)	0~2600 [msec]	2600 ms
Delay Time (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/2
Acceleration	0~15	10
Feedback	-98%~0~+98 %	20 %
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	Bypass
Panpot	L64~0~63R	0
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D50:50W
Level	0~127	127
75 - Tape Echo		
Mode	S, M, L, S+M, S+L, M+L, S+M+L	S+M+L
Repeat Rate	0~127	64
Intensity	0~127	64
Bass	-15dB~0~15dB	0 dB
Treble	-15dB~0~15dB	0 dB
Head S Pan	L64~0~63R	0
Head M Pan	L64~0~63R	0
Head L Pan	L64~0~63R	0
Tape Distortion	0~5	0
Wow/Flutter Rate	0~127	20
Wow/Flutter Depth	0~127	20
Echo Level	0~127	64
Direct Level	0~127	127
Level	0~127	127
76 - LoFi Noise		
LoFi Type	1, 2, 3, 4, 5, 6, 7, 8, 9	5
Post Filter Type	OFF, LPF, HPF	LPF
Post Filter Cutoff	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	4000 Hz
W/P Noise Type	White, Pink	White
W/P Noise LPF	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	2000 Hz
W/P Noise Level	0~127	5
Disc Noise Type	LP, EP, SP, RND	RND
Disc Noise LPF	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	2000 Hz
Disc Noise Level	0~127	5
Hum Noise Type	50, 60 [Hz]	50 Hz
Hum Noise LPF	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	2000 Hz
Hum Noise Level	0~127	5
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D0:100W
Level	0~127	127
77 - LoFi Comp		
Pre Filter Type	1, 2, 3, 4, 5, 6	2
LoFi Type	1, 2, 3, 4, 5, 6, 7, 8, 9	5
Post Filter Type	OFF, LPF, HPF	LPF

Post Filter Cutoff	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	4000 Hz
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D0:100W
Level	0~127	70
78 - LoFi Radio		
LoFi Type	1, 2, 3, 4, 5, 6, 7, 8, 9	5
Post Filter Type	OFF, LPF, HPF	LPF
Post Filter Cutoff	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	4000 Hz
Radio Detune	0~127	1
Radio Noise Level	0~127	64
EQ Low Gain	-15dB~0~15dB	0 dB
EQ High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D0:100W
Level	0~127	127
79 - Telephone		
Voice Quality	0~15	3
Treble	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D0:100W
Level	0~127	127
80 - Phonograph		
Signal Distortion	0~127	10
Frequency Range	0~127	30
Disc Type	LP, EP, SP	LP
Scratch Noise Level	0~127	64
Dust Noise Level	0~127	64
Hiss Noise Level	0~127	64
Total Noise Level	0~127	6
Wow	0~127	80
Flutter	0~127	80
Random	0~127	80
Total Wow/Flutter	0~127	64
Balance	D100:0W, D50:50W, D0:100W	D0:100W
Level	0~127	127
81 - Step Pitch		
Step 1	-24~0~12 [semi]	2 semi
Step 2	-24~0~12 [semi]	0 semi
Step 3	-24~0~12 [semi]	0 semi
Step 4	-24~0~12 [semi]	0 semi
Step 5	-24~0~12 [semi]	3 semi
Step 6	-24~0~12 [semi]	0 semi
Step 7	-24~0~12 [semi]	0 semi
Step 8	-24~0~12 [semi]	3 semi
Step 9	-24~0~12 [semi]	0 semi
Step 10	-24~0~12 [semi]	3 semi
Step 11	-24~0~12 [semi]	0 semi
Step 12	-24~0~12 [semi]	3 semi
Step 13	-24~0~12 [semi]	0 semi
Step 14	-24~0~12 [semi]	0 semi
Step 15	-24~0~12 [semi]	2 semi
Step 16	-24~0~12 [semi]	0 semi
Rate (sync)	Hz, Note	Note
Rate (Hz)	0.05~10.00 [Hz]	0.50 Hz
Rate (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/1
Attack	0~127	100
Gate Time	0~127	100
Fine	-100~100	0 cent
Delay Time (sync)	msec, note	msec
Delay Time (msec)	0~1300 [msec]	0 ms
Delay Time (note)	1/64T, 1/64, 1/32T, 1/32, 1/16T, 1/32., 1/16, 1/8T, 1/16., 1/8, 1/4T, 1/8., 1/4, 1/2T, 1/4., 1/2, 1/1T, 1/2., 1/1, 2/1T, 1/1., 2/1	1/1
Feedback	-98%~0~+98 %	0 %
EQ Low Gain	-15dB~0~15dB	0 dB
EQ C1834High Gain	-15dB~0~15dB	0 dB
Balance	D100:0W, D50:50W, D0:100W	D0:100W
Level	0~127	127
82 - Sympa Reso		
Depth	0~127	80
Damper	0~127	0
Pre LPF	16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10000, 12500, 15000, Bypass	5000 Hz

Pre HPF	Bypass, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10000, 12500, 15000 [Hz]	Bypass
Peaking Freq	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, Bypass	250 Hz
Peaking Gain	-15dB~0~15dB	6 dB
Peaking Q	0.5, 1.0, 2.0, 4.0, 8.0	0.5
HF Damp	16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10000, 12500, 15000, Bypass[Hz]	3150 Hz
LF Damp	Bypass, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10000, 12500, 15000 [Hz]	200 Hz
Lid	6, 5, 4, 3, 2, 1	1
EQ Low Freq	200, 400 [Hz]	200 Hz
EQ Low Gain	-15dB~0~15dB	6 dB
EQ Mid Freq	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000	1000 Hz
EQ Mid Gain	-15dB~0~15dB	0 dB
EQ Mid Q	0.5, 1.0, 2.0, 4.0, 8.0	0.5
EQ High Freq	2000, 4000, 8000 [Hz]	4000 Hz
EQ High Gain	-15dB~0~15dB	0 dB
Level	0~127	127
83 - Vib OD Rotary		
Vibrato Cho Switch	OFF, ON	
Vibrato Cho Type	V-1, V-2, V-3, C-1, C-2, C-3	C-3
Vibrato Cho Vintage	50, '60, '70	'60
Vibrato Cho Level	0~127	127
Overdrive Switch	OFF, ON	OFF
Overdrive Drive	0~127	64
Overdrive Level	0~127	127
Rotary Switch	OFF, ON	ON
Rotary Speed	Slow, Fast	Slow
Woofers Slow Speed	0.05~10.00 [Hz]	2.00 Hz
Woofers Fast Speed	0.05~10.00 [Hz]	8.00 Hz
Woofers Acceleration	0~15	10
Woofers Level	0~127	127
Tweeters Slow Speed	0.05~10.00 [Hz]	2.00 Hz
Tweeters Fast Speed	0.05~10.00 [Hz]	8.00 Hz
Tweeters Acceleration	0~15	10
Tweeters Level	0~127	127
Rotary Separation	0~127	100
Rotary Level	0~127	127
84 - Center Canc		
L-R Balance	-50~0~50	0
Range Low	16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10000, 12500, 15000 [Hz]	200 Hz
Range High	16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10000, 12500, 15000 [Hz]	3150 Hz

Multi-FX Part Assign

Upper 1	Off, On	On
Upper 2	Off, On	Off
Upper 3	Off, On	Off
Lower 1	Off, On	Off
Lower 2	Off, On	Off
MBass	Off, On	Off
M.Intelligent	Off, On	Off
D Beam	Off, On	Off

Realtime EQ Part edit

Parameter	Default
Same parameters for all Keyboard parts (Upper 1, Upper 2, Upper 3, Lower 1, Lower 2, MBass)	
Hi Freq Hz	1500, 2000, 3000, 4000, 6000, 8000, 12000 [Hz]
Hi Gain dB	-15 ~ +15 [dB], step1[dB]
Mid Freq Hz	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]
Mid Q	0.5, 1.0, 2.0, 4.0, 8.0
Mid Gain dB	-15 ~ +15 [dB], step1[dB]
Lo Freq Hz	90, 150, 180, 300, 360, 600 [Hz]
Lo Gain dB	-15 ~ +15 [dB], step1[dB]

I-FX Audio Input

Effects See pages 25-33 for the effect algorithms.

Style/Song effect

Reverb effects: see "Keyboard Part effects - Reverb" on p. 24

Chorus effect: see "Keyboard Part effects - Chorus" on p. 25

5. Global parameters

Note: These settings are saved and loaded along with User Program Sets.

Tuning

Master Tune	427.4~440.0~452.6	440,0
Singer Key	High Note C2 (36)~C6 (96)	
	Low Note C2 (36)~C6 (96)	
	Preset Original, Male, Female, 1~4	Original
Scale Tune	Tune Note C, C#, D, Eb, E, F, F#, G, Ab, A, Bb, B	
	Tune Value -64~0~63 for each note	
	Status On, Off for each note	
	Memory 1~3	

Harmonic Bars

Registration	Memory	1~8
Harmonic Bar Effects		
Overdrive	On, Off	
Overdrive Level	0~127	
Leakage	0~127	
Vibrato&Chorus	On, Off	
Vibr&Chor Type	V1,C1,V2,C2,V3,C3	
Rotary Sound	Slow, Fast	

Hold One Touch

Parameter	Setting Range	Default
Tempo	On, Off	On
KBD Part	On, Off	Off
Intro/End	On, Off	On
Main/Var	On, Off	Off

Functions

Parameter	Setting Range	Default
Fade IN/OUT		
Time IN	0~20 seconds	8 sec
Time OUT	0~20 seconds	14 sec
Time Hold	0~10 seconds	2 sec
Metronome		
Volume	Low, Medium, High	Medium
Count-IN	Off, 1Bar, 2Bar	Off
Mode	Always, Play, Rec	Always
Metro Internal	On, Off	On
Minus One		
Preset	Melody, Accomp, Drum&Bass, User	Melody
Melody	Part: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 On/Off for each part	4 On
Accomp	Part: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 On/Off for each part	1, 3~9, 11~16 On
Drum&Bass	Part: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 On/Off for each part	2, 10 On
User Programmable	Part: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 On/Off for each part	4 On

Hold Setting User Program

Param	Type	Range Value	Default
Style	Status	On, Off	Off
Song	Status	On, Off	Off
MIDI Set	Status	On, Off	Off
Tempo	Status	On, Off	Off
Tone	Status	On, Off	Off
Harmonist	Status	On, Off	Off
Transpose	Status	On, Off	Off
KBD Mode	Status	On, Off	Off
Bass Inversion	Status	On, Off	Off

Foot Controllers

Foot Switch		
Assign	Start/Stop, Play/Stop, Intro, Ending, Variat 1, Variat 2, Variat 3, Variat 4, Bass Inversion, Arr-MBass, Piano Stand, Half Bar OnFillIn, Arran Hold, Dynamic Arran, Rotary HB S/F, Rotary HB On/Off, Scale Upper, Scale Lower, Arr Chord Off, User PrgUp, User PrgDown, Punch In-Out, Portamento, Soft, Sostenuto, Hold, Hold Lower 1, Hold Lower 2, Hold Lower 1~2, Talk, Harm On-Off, Minus One, Kbd Ex UP 2~1, Kbd Ex LW 2~1, Break Mute	Start/Stop

FC-7 Parameters

Switch	1~7	
Assign	Start/Stop, Intro, Variat 1, Variat 2, Variat 3, Variat 4, Ending, MBass /KBD Arranger, Piano/Standard, Half Bar on Fill In, Arr Chord Off, Arranger Hold, Dynamic Arranger, Arranger RIT Tempo, Arranger ACC Tempo, Arranger Default Tempo, Reset/Start Tempo, Tap Tempo, Bass Inversion, Melody Intelligent, Scale Upper, Scale Lower, Keyboard Exchange UP 2/1, Keyboard Exchange LW 2/1, Punch In/Out, Portamento, Soft, Sostenuto, Hold, Hold Lower 1, Hold Lower 2, Hold Lower 1~2, Rotary Slow/Fast, Rotary On/Off, User Program Up, User Program Down, Play/Stop Song, Talk, Harmony On/Off, Minus One [for each switch], Break Mute, Viewer Page Up, Viewer Page Down	1 Start/Stop, 2 Intro, 3 Variat 1, 4 Variat 2, 5 Variat 3, 6 Variat 4, 7 Ending

Utility

Startup		
User Program	P1~P18, 1~8, name	
Recall	On, Off	Off
MIDI Set	1~8	
Recall	On, Off	Off
Sound Set Mode	Best Selection, Extended	Best Selection
Global Player		
Quick Start from 2nd bar	On, Off	Off
Quick Start from 1st note	On, Off	On
BWD/FWD/Jump Data Update	On, Off	Off
Song/Arranger Start Priority	On, Off	On
Global Feedback		
Touch Screen Beep	On, Off	On
Flashing EXIT	On, Off	On
Flashing Metronome	On, Off	On
Global Keyboard		
Upper 1 M-FX Link	On, Off	On
Harmonist FX Link	On, Off	On
Fill In On User Program Change	On, Off	On
Style Melody Intell Link	On, Off	On

V-Link

Parameter	Range	Default	Remarks
Clip (Keyboard)	1~8	None	PC
Clip (Touch Screen)	1~32	1	PC
Palette	1~20	1	CC 0 = 0~19 CC 32 fixed 0
Dissolve Time	00~40	20	CC 22= 0~127
Speed Playbk	50~198	100	CC 27= 0~127
VFX	None, Color, Sepia, Lumin, Post	None	CC22= 0 none, CC24= 64, CC25=64, CC 22= 17 color, CC22= 51 sepia, CC22= 85 lumin, CC22=102 post
Brightness	-64~0~63	0	CC28= 0~127
Color CB	-64~0~63	0	CC25= 0~127
Color CR	-64~0~63	0	CC24= 0~127

Lyrics & score

Lyrics		
Zoom	Small, BigSmall	
Lyrics Colour:	Red	0~255
	Green	0~255
	Blue	0~255

Background Colour:	Red	0~255	255
	Green	0~255	255
	Blue	0~255	255
Video Output Standard	PAL, NTSC		PAL
Colour Preset	1~6		6
Score			
Zoom	Small, Big		Small
Pitch	Off, C-D-E, Do-Re-Mi		Off
Drum Range	Filter, Full		Full
Staff 1	Track	1~16	4
	Key	C, C#, D, Eb, E, F, F#, G, Ab, A, Bb, B	C
	Clef	G Clef, F Clef	G Clef
Staff 2:	Track	1~16	3
	Key	C, C#, D, Eb, E, F, F#, G, Ab, A, Bb, B	C
	Clef	G Clef, F Clef	F Clef
Viewer			
Text Colour			
Red	0 ~ 255		0
Green	0 ~ 255		0
Blue	0 ~ 255		0
Background Colour			
Red	0 ~ 255		255
Green	0 ~ 255		255
Blue	0 ~ 255		255
Video Output Standard	PAL, NTSC		PAL*
Video Out Source	LYRICS, VIEWER		LYRICS*
Page Turner	Off, 60~600		Off
Colour Preset	1 ~ 8		1

* Same for Lyrics and Viewer

Vocal Harmonist

MIC Input			
Sustain Level	0~15		7
Threshold	0~15		15
Output Level	0~96		75
Compressor	On, Off		On
Gate	On, Off		On
Voice Talk			
Music Mute	-99~0		-60

Speaker Modeling

Param	Range		
Speaker Modeling	01-Thru, 02-Super Flat, 03-Powered Generic, 04-Powered E-Bass, 05-Powered Mack, 06-Small Cube, 07-White Cone, 08-White Cone+T, 09-Small Radio, 10-Small TV, 11-Boom Box, 12-Boom Box Low		Thru
Internal Speaker	Off, Low, High		Low

Mastering Tools Keyboard Equalizer

EQ Switch	Off, On		On
EQ Level	0~127		127
EQ Gain	-15~+15 [dB], step1[dB]		0 dB
01 - Flat			
Hi Freq Hz	2000, 4000, 8000 [Hz]		4000 Hz
Hi Gain dB	-15~+15 [dB], step1[dB]		0 dB
Mid Freq Hz	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]		1000 Hz
Mid Q	0.5, 1.0, 2.0, 4.0, 8.0		0.5
Mid Gain dB	-15~+15 [dB], step1[dB]		0 dB
Lo Freq Hz	50, 80, 100, 150, 200, 250, 300, 400 [Hz]		200 Hz
Lo Gain dB	-15~+15 [dB], step1[dB]		0 dB
02 - Rock			
Hi Freq Hz	2000, 4000, 8000 [Hz]		4000 Hz
Hi Gain dB	-15~+15 [dB], step1[dB]		+6 dB
Mid Freq Hz	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]		1000 Hz
Mid Q	0.5, 1.0, 2.0, 4.0, 8.0		0.5
Mid Gain dB	-15~+15 [dB], step1[dB]		0 dB
Lo Freq Hz	200, 400 [Hz]		400 Hz
Lo Gain dB	-15~+15 [dB], step1[dB]		+3 dB
03 - Pop			
Hi Freq Hz	2000, 4000, 8000 [Hz]		4000 Hz
Hi Gain dB	-15~+15 [dB], step1[dB]		+9 dB
Mid Freq Hz	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]		1000 Hz
Mid Q	0.5, 1.0, 2.0, 4.0, 8.0		0.5

Mid Gain dB	-15~+15 [dB], step1[dB]		0 dB
Lo Freq Hz	200, 400 [Hz]		400 Hz
Lo Gain dB	-15~+15 [dB], step1[dB]		+9 dB
4 - Jazz			
Hi Freq Hz	2000, 4000, 8000 [Hz]		4000 Hz
Hi Gain dB	-15~+15 [dB], step1[dB]		+3 dB
Mid Freq Hz	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]		1000 Hz
Mid Q	0.5, 1.0, 2.0, 4.0, 8.0		0.5
Mid Gain dB	-15~+15 [dB], step1[dB]		0 dB
Lo Freq Hz	200, 400 [Hz]		400 Hz
Lo Gain dB	-15~+15 [dB], step1[dB]		+6 dB
05 - Classic			
Hi Freq Hz	2000, 4000, 8000 [Hz]		4000 Hz
Hi Gain dB	-15~+15 [dB], step1[dB]		-3 dB
Mid Freq Hz	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]		1000 Hz
Mid Q	0.5, 1.0, 2.0, 4.0, 8.0		0.5
Mid Gain dB	-15~+15 [dB], step1[dB]		0 dB
Lo Freq Hz	200, 400 [Hz]		400 Hz
Lo Gain dB	-15~+15 [dB], step1[dB]		-3 dB
06 - Standard (Default)			
Hi Freq Hz	2000, 4000, 8000 [Hz]		8000 Hz
Hi Gain dB	-15~+15 [dB], step1[dB]		+2 dB
Mid Freq Hz	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]		2500 Hz
Mid Q	0.5, 1.0, 2.0, 4.0, 8.0		4.0
Mid Gain dB	-15~+15 [dB], step1[dB]		-2 dB
Lo Freq Hz	200, 400 [Hz]		200 Hz
Lo Gain dB	-15~+15 [dB], step1[dB]		+2 dB
07 - User			
Hi Freq Hz	2000, 4000, 8000 [Hz]		4000 Hz
Hi Gain dB	-15~+15 [dB], step1[dB]		0 dB
Mid Freq Hz	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]		1000 Hz
Mid Q	0.5, 1.0, 2.0, 4.0, 8.0		0.5
Mid Gain dB	-15~+15 [dB], step1[dB]		0 dB
Lo Freq Hz	200, 400 [Hz]		400 Hz
Lo Gain dB	-15~+15 [dB], step1[dB]		0 dB

Compressor

BC Switch	Off, On		On
BC Level	0~127		120
BC Gain dB	-24~+24[dB], step 1[dB]		0 dB
01 - Hard Comp			
Split 1	200, 250, 315, 400, 500, 630, 800 [Hz]		250 Hz
Split 2	2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]		8000 Hz
Lo Attack	0~100 ms		53 ms
Lo Release	50~5000 ms		199 ms
Lo Thrshld	-36~0 [dB], step 1[dB]		-20 dB
Lo Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF		1:INF
Lo Level A	-24~+24[dB], step 1[dB]		+4 dB
Mid Attack	0~100 ms		30 ms
Mid Release	50~5000 ms		151 ms
Mid Thrshld	-36~0 [dB], step 1[dB]		-22 dB
Mid Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF		1:16
Mid Level B	-24~+24[dB], step 1[dB]		+4 dB
Hi Attack	0~100 ms		20 ms
Hi Release	50~5000 ms		50 ms
Hi Thrshld	-36~0 [dB], step 1[dB]		-36 dB
Hi Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF		1:16
Hi Level C	-24~+24[dB], step 1[dB]		+3 dB
02 - Soft Comp			
Split 1	200, 250, 315, 400, 500, 630, 800 [Hz]		250 Hz
Split 2	2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]		5000 Hz
Lo Attack	0~100 ms		90 ms
Lo Release	50~5000 ms		301 ms
Lo Thrshld	-36~0 [dB], step 1[dB]		-30 dB
Lo Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF		1:4.0
Lo Level A	-24~+24[dB], step 1[dB]		+5 dB
Mid Attack	0~100 ms		50 ms
Mid Release	50~5000 ms		130 ms
Mid Thrshld	-36~0 [dB], step 1[dB]		-20 dB
Mid Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF		1:2.0
Mid Level B	-24~+24[dB], step 1[dB]		+2 dB
Hi Attack	0~100 ms		20 ms

Hi Release	50-5000 ms	50 ms
Hi Thrshld	-36-0 [dB], step 1[dB]	-36 dB
Hi Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:16
Hi Level C	-24~+24[dB], step 1[dB]	+2 dB
03 - Low Boost		
Split 1	200, 250, 315, 400, 500, 630, 800 [Hz]	400 Hz
Split 2	2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	5000 Hz
Lo Attack	0-100 ms	60 ms
Lo Release	50-5000 ms	151 ms
Lo Thrshld	-36-0 [dB], step 1[dB]	-20 dB
Lo Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:16
Lo Level A	-24~+24[dB], step 1[dB]	+8 dB
Mid Attack	0-100 ms	30 ms
Mid Release	50-5000 ms	151 ms
Mid Thrshld	-36-0 [dB], step 1[dB]	-22 dB
Mid Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:16
Mid Level B	-24~+24[dB], step 1[dB]	+3 dB
Hi Attack	0-100 ms	20 ms
Hi Release	50-5000 ms	50 ms
Hi Thrshld	-36-0 [dB], step 1[dB]	-36 dB
Hi Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:8.0
Hi Level C	-24~+24[dB], step 1[dB]	+4 dB
04 - Mid Boost		
Split 1	200, 250, 315, 400, 500, 630, 800 [Hz]	250 Hz
Split 2	2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	8000 Hz
Lo Attack	0-100 ms	53 ms
Lo Release	50-5000 ms	199 ms
Lo Thrshld	-36-0 [dB], step 1[dB]	-20 dB
Lo Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:INF
Lo Level A	-24~+24[dB], step 1[dB]	+4 dB
Mid Attack	0-100 ms	30 ms
Mid Release	50-5000 ms	151 ms
Mid Thrshld	-36-0 [dB], step 1[dB]	-22 dB
Mid Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:16
Mid Level B	-24~+24[dB], step 1[dB]	+8 dB
Hi Attack	0-100 ms	20 ms
Hi Release	50-5000 ms	50 ms
Hi Thrshld	-36-0 [dB], step 1[dB]	-36 dB
Hi Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:16
Hi Level C	-24~+24[dB], step 1[dB]	+3 dB
05 - High Boost		
Split 1	200, 250, 315, 400, 500, 630, 800 [Hz]	400 Hz
Split 2	2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	3150 Hz
Lo Attack	0-100 ms	60 ms
Lo Release	50-5000 ms	151 ms
Lo Thrshld	-36-0 [dB], step 1[dB]	-20 dB
Lo Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:16
Lo Level A	-24~+24[dB], step 1[dB]	+4 dB
Mid Attack	0-100 ms	30 ms
Mid Release	50-5000 ms	151 ms
Mid Thrshld	-36-0 [dB], step 1[dB]	-22 dB
Mid Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:16
Mid Level B	-24~+24[dB], step 1[dB]	+3 dB
Hi Attack	0-100 ms	30 ms
Hi Release	50-5000 ms	50 ms
Hi Thrshld	-36-0 [dB], step 1[dB]	-36 dB
Hi Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:16
Hi Level C	-24~+24[dB], step 1[dB]	+10 dB
06 - Standard (Default)		
Split 1	200, 250, 315, 400, 500, 630, 800 [Hz]	315 Hz
Split 2	2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	6300 Hz
Lo Attack	0-100 ms	51 ms
Lo Release	50-5000 ms	151 ms
Lo Thrshld	-36-0 [dB], step 1[dB]	-11 dB
Lo Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:8.0
Lo Level A	-24~+24[dB], step 1[dB]	+6 dB
Mid Attack	0-100 ms	32 ms
Mid Release	50-5000 ms	151 ms
Mid Thrshld	-36-0 [dB], step 1[dB]	-22 dB
Mid Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:8.0

Mid Level B	-24~+24[dB], step 1[dB]	-2 dB
Hi Attack	0-100 ms	30 ms
Hi Release	50-5000 ms	151 ms
Hi Thrshld	-36-0 [dB], step 1[dB]	-36 dB
Hi Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:8.0
Hi Level C	-24~+24[dB], step 1[dB]	+6 dB
07 - User		
Split 1	200, 250, 315, 400, 500, 630, 800 [Hz]	250 Hz
Split 2	2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	5000 Hz
Lo Attack	0-100 ms	90 ms
Lo Release	50-5000 ms	301 ms
Lo Thrshld	-36-0 [dB], step 1[dB]	-30 dB
Lo Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:4.0
Lo Level A	-24~+24[dB], step 1[dB]	+5 dB
Mid Attack	0-100 ms	50 ms
Mid Release	50-5000 ms	190 ms
Mid Thrshld	-36-0 [dB], step 1[dB]	-20 dB
Mid Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:2.0
Mid Level B	-24~+24[dB], step 1[dB]	+2 dB
Hi Attack	0-100 ms	20 ms
Hi Release	50-5000 ms	50 ms
Hi Thrshld	-36-0 [dB], step 1[dB]	-36 dB
Hi Ratio	1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	1:16
Hi Level C	-24~+24[dB], step 1[dB]	+2 dB

Mastering Tools Style/Song
See "Equalizer" and "Compressor" on p. 35.

6. MIDI parameters

Easy Setting

Parameter			Default
Select	Keyboard & Style Parts	On, Off	On
	Song Parts	On, Off	Off
Output	MIDI	On, Off	On
	USB	On, Off	Off
Mode	Local On	On, Off	On
	Local Off	On, Off	Off
MIDI Set	MIDI Set	1-8	None

Keyboard Part Edit (same parameters for all Keyboard parts)

Parameter	Setting range	Default
Channel TX	1-16	Upper1= 4, Upper2= 6 Upper3= 13, Lower1= 11 Lower2= 14, MBass= 12 Mel Int= 15
Shift TX	-48-0-48	0
Local	On, Off	On
Channel RX	1-16	Upper1= 4, Upper2= 6 Upper3= 13, Lower1= 11 Lower2= 14, MBass= 12 Mel Int= 15
Shift RX	-48-0-48	0
Limit Low RX	C--G9	C-
Limit High RX	C--G9	G9
Part TX	On, Off	On
Part RX	On, Off	On

TX Event			
Program Change	CC 00,32 &PC	On, Off	On
Pitch Bender		On, Off	On
Modulation	CC 01	On, Off	On
Volume	CC 07	On, Off	On
Panpot	CC 10	On, Off	On
Expression	CC 11	On, Off	On
Hold	CC 64	On, Off	On
Sostenuto	CC 66	On, Off	On
Soft	CC 67	On, Off	On
Reverb send	CC 91	On, Off	On
Chorus send	CC 93	On, Off	On
Channel Aftertouch		On, Off	On
RPN	CC 101-100-06	On, Off	On
NRPN	CC 99-98-06	On, Off	On
System Exclusive		On, Off	On
CC 16	CC 16	On, Off	On

RX Event			
Program Change	CC 00,32 &PC	On, Off	On
Pitch Bender		On, Off	On
Modulation	CC 01	On, Off	On
Volume	CC 07	On, Off	On
Panpot	CC 10	On, Off	On
Expression	CC 11	On, Off	On
Hold	CC 64	On, Off	On
Sostenuto	CC 66	On, Off	On
Soft	CC 67	On, Off	On
Reverb send	CC 91	On, Off	On
Chorus send	CC 93	On, Off	On
Channel Aftertouch		On, Off	On
RPN	CC 101-100-06	On, Off	On
NRPN	CC 99-98-06	On, Off	On
System Exclusive		On, Off	On
CC 16	CC 16	On, Off	On

Style Part Edit (same parameters for all Style parts)

Parameter	Setting range	Default
Channel TX	1-16	ADrums= 10, ABass= 2 Acc1= 1, Acc2= 3, Acc3= 5 Acc4= 7, Acc5= 8, Acc6= 9
Shift TX	-48-0-48	0
Local	On, Off	On
Channel RX	1-16	ADrums= 10, ABass= 2 Acc1= 1, Acc2= 3, Acc3= 5 Acc4= 7, Acc5= 8, Acc6= 9
Shift RX	-48-0-48	0
Limit Low RX	C--G9	C-
Limit High RX	C--G9	G9
Part TX	On, Off	On
Part RX	On, Off	On

TX Event			
Program Change	CC 00,32 &PC	On, Off	On
Pitch Bender		On, Off	On
Modulation	CC 01	On, Off	On
Volume	CC 07	On, Off	On
Panpot	CC 10	On, Off	On
Expression	CC 11	On, Off	On
Reverb send	CC 91	On, Off	On
Chorus send	CC 93	On, Off	On

RX Event			
Program Change	CC 00,32 &PC	On, Off	On
Pitch Bender		On, Off	On
Modulation	CC 01	On, Off	On
Volume	CC 07	On, Off	On
Panpot	CC 10	On, Off	On
Expression	CC 11	On, Off	On
Hold	CC 64	On, Off	On
Sostenuto	CC 66	On, Off	On
Soft	CC 67	On, Off	On
Reverb send	CC 91	On, Off	On
Chorus send	CC 93	On, Off	On
Channel Aftertouch		On, Off	On
RPN	CC 100-101-06	On, Off	On
NRPN	CC 98-99-06	On, Off	On
System Exclusive		On, Off	On
CC 16	CC 16	On, Off	On

Song Part Edit (same parameters for all Song parts)

Parameter	Setting range	Default
Channel TX	1-16	Part number= MIDI channel number
Shift TX	-48-0-48	0
Local	On, Off	On
Channel RX	1-16	Part number= MIDI channel number
Shift RX	-48-0-48	0
Limit Low RX	C--G9	C-
Limit High RX	C--G9	G9
Part TX	On, Off	Off
Part RX	On, Off	Off

TX Event			
Program Change	CC 00,32 &PC	On, Off	On
Pitch Bender		On, Off	On
Modulation	CC 01	On, Off	On
Volume	CC 07	On, Off	On
Panpot	CC 10	On, Off	On
Expression	CC 11	On, Off	On
Hold	CC 64	On, Off	On
Sostenuto	CC 66	On, Off	On
Soft	CC 67	On, Off	On
Reverb send	CC 91	On, Off	On
Chorus send	CC 93	On, Off	On
Channel Aftertouch		On, Off	On
RPN	CC 100-101-06	On, Off	On
NRPN	CC 98-99-06	On, Off	On
System Exclusive		On, Off	On
CC 16	CC 16	On, Off	On

RX Event			
Program Change	CC 00,32 &PC	On, Off	On
Pitch Bender		On, Off	On
Modulation	CC 01	On, Off	On
Volume	CC 07	On, Off	On
Panpot	CC 10	On, Off	On
Expression	CC 11	On, Off	On
Hold	CC 64	On, Off	On
Sostenuto	CC 66	On, Off	On
Soft	CC 67	On, Off	On
Reverb send	CC 91	On, Off	On
Chorus send	CC 93	On, Off	On
Channel Aftertouch		On, Off	On
RPN	CC 100-101-06	On, Off	On
NRPN	CC 98-99-06	On, Off	On
System Exclusive		On, Off	On
CC 16	CC 16	On, Off	On

MIDI System parameters

Sync			Default
Style	Start/Stop TX	On, Off	On
	Clock TX	On, Off	On
	Mode RX	Auto, Internal, MIDI, Remote	Auto
	Sync Style RX	On, Off	On
Song	Start/Stop TX	On, Off	Off
	Clock TX	On, Off	Off
	Song Position Pointer TX	On, Off	Off
	Mode RX	Auto, Internal, MIDI, Remote	Auto
	Sync Song RX	On, Off	Off
Basic			
Basic	Channel TX	1-16	13
	Part Switch TX	On, Off	Off
	User Program PC TX	On, Off	Off
	Channel RX	1-16	13
	Part Switch RX	On, Off	On
	User Program PC RX	On, Off	On
	Master Volume RX	On, Off	On
	Part TX	On, Off	On
	Part RX	On, Off	Off
Style			
Style	Channel TX	1-16	10
	Channel RX	1-16	10
	Style PC RX	On, Off	On
	Style Volume RX	On, Off	Off
	Part TX	On, Off	On
	Part RX	On, Off	On
NTA			
NTA	1st Channel RX	1-16	14
	2nd Channel RX	1-16	15
	Shift RX	-48-0-48	0
	1st Ch Limit Low RX	C--G9	C-
	1st Ch Limit High RX	C--G9	G9
	2nd Ch Limit Low RX	C--G9	C-
	2nd Ch Limit High RX	C--G9	G9
	1st Channel RX	On, Off	Off
	2nd Channel RX	On, Off	Off
	V-LINK		
V-LINK	Clip Control TX	1-16	16
	Color Control TX	1-16	16
	Clip Part TX	On, Off	On
	Color Part TX	On, Off	On
Param			
Param	TX Octave	Relative, Absolute	Relative
	Part Switch	Int, Int+MIDI	Int+MIDI
	Transpose RX	On, Off	Off
	Velocity TX	On, 1-127	On
	Velocity RX	On, 1-127	On
	Sys Ex TX	On, Off	On
	Sys Ex RX	On, Off	On
	Data Changes	On, Off	Off
V-Harm			
V-Harm	Channel TX	1-16	16
	Part Switch TX	On, Off	Off
	Channel RX	1-16	16
	Part Switch RX	On, Off	Off

