

# SD 1000 SOUND LIST

## VOICE BANK A (Control Change 0, Value = 0)

P. Ch. Name	Remark	P. Ch. Name	Remark	P. Ch. Name	Remark			
1	Grand Piano	St	45	Tremolo	89	Fantasy	St	
2	Rock Piano	St	46	Pizzicato	90	Warm	St	
3	Electric	St	47	Harp	91	New Age		
4	Honky-tonk	St	48	Timpani	92	Space		
5	El.Piano1		49	Strings Ens.	St	93	Soft	
6	El.Piano2		50	SlowStrings	St	94	Metal	St
7	Harpsichord		51	SynStrings1		95	Halo	
8	Clavi		52	SynStrings2		96	Sweep	
9	Celesta		53	Choir Aah	St, M	97	Ice Rain	
10	Glockenspiel		54	Voice Ooh		98	Soundtrack	
11	MusicBox		55	Synth Voice		99	Crystal	
12	Vibraphone		56	Hits		100	Atmosphere	
13	Marimba		57	Trumpet		101	Brightness	
14	Xylophone		58	Trombone		102	Goblin	
15	Tubular bells		59	Tuba		103	Echodrops	
16	Dulcimer		60	Muted Tpt		104	Startheme	
17	Rotary		61	French Horn		105	Sitar	
18	Percussive		62	Brass Sect.		106	Banjo	
19	Rock Organ		63	SynBrass1		107	Shamisen	
20	Church		64	SynBrass2		108	Koto	
21	Theatre		65	Altosoft		109	Kalimba	
22	Musette		66	Contralto		110	Bagpipe	
23	Harmonica		67	Tenor Sax		111	Fiddle	
24	Bandoneon		68	Bariton Sax		112	Shanai	
25	Nylon		69	Oboe		113	Tinkle bell	
26	Steel	M	70	Engl.Horn		114	Agogo	
27	Jazz		71	Bassoon		115	Steeldrum	St
28	Clean		72	Clarinet		116	Woodblock	
29	Muted		73	Piccolo		117	Taiko	
30	Overdrive		74	Flute		118	Melotom	
31	Distorted		75	Recorder		119	Syntom	
32	Harmonics		76	Pan Flute		120	Reverse	
33	Acoustic		77	Bottle		121	Fret Noise	
34	Finger		78	Shakuhashi		122	Breath	
35	Picked		79	Whistle		123	Seashore	
36	Fretless		80	Ocarina		124	Bird	
37	Slap Bass1		81	Square		125	Telephone	
38	Slap Bass2		82	Sawtooth		126	Helicopter	
39	Synbas1		83	Calliope		127	Applause	
40	Synbas2		84	Chiff		128	Gunshot	
41	Violin		85	Charang				
42	Viola		86	Voice	St			
43	Cello		87	Fifth				
44	Contrabass		88	Bass&Lead				

**VOICE BANK B** (Control Change 0, Value = 1)

P. Ch. Name	Remark	P. Ch. Name	Remark	P. Ch. Name	Remark
1	Jingle	48	Slow Arcos	95	Lower 8' - 4'
2	Dark Grand	49	Bowed Strings	96	Jazzy
3	House	50	Dark Strings	97	Pop Strat
4	Suitcase	51	Dah	98	Telecast
5	Mark	52	Classic Choir	99	Strato
6	Funk Dx	53	Men_Doo	100	Texas
7	Fm Tine	54	Girl_Doo	101	Western
8	DX Piano	55	Laah	102	Fingerpick
9	ToyPad	56	Voices	103	5th Stops
10	Orch. Bell	57	Swing Tpt	104	Wha guitar
11	Mallet	58	Cornet	105	Hawaian
12	Short Vibe	59	Euphonium	106	Mandolin
13	Karimba	60	Miles Tpt	107	Django
14	Etnowood	61	Flughorn	108	ClassicFx
15	Metallophone	62	Stereo Brass	109	Pedalsteel
16	Windchimes	63	GrowBras	110	Rock&Roll
17	Rotor Fast	64	Octabrass	111	Reed 8'
18	Jazz Organ	65	Soprano	112	Fisa 8'
19	Drawbar	66	Circus Sax	113	Gategroup
20	Positive	67	Lounge Tenor	114	Amazing
21	French Musette	68	Growl Sax	115	Housesynth
22	Francaise	69	Melo Trumpet	116	Resonance
23	Cassotto	70	Horn Swell	117	Key Lead
24	Tango	71	Trumpets	118	Juno Synth
25	Classic	72	Soft Trombones	119	Obx Poly
26	Folk	73	Latin Flute	120	JX Brass
27	Funk Strat	74	Pop Flute	121	Alarm&Sirene
28	60' Stopped	75	Andes	122	Jet
29	Muted velo	76	Voice Flute	123	Pffif&Jew_Harp
30	Vintage	77	Analogs	124	Rain
31	12 Strings	78	Flanger	125	Vocals
32	Solidbody	79	Brightpad	126	Thunder
33	WarmBass	80	Wiring	127	Train
34	Folk Bass	81	Wow	128	Sweep
35	MuteBass	82	Polysynth		
36	Deep Bass	83	Trance		
37	Precision	84	Wave		
38	Reso Bass	85	Rave Bass		
39	Saw Bass	86	Modular Bass		
40	House Bass	87	Percussive Bass		
41	Philharmonic	88	Wild Bass		
42	Quartet	89	2nd Perc		
43	GlockString	90	3th Perc		
44	OctaStrings1	91	Power Fast		
45	OctaStrings2	92	Tonebar		
46	Marcato	93	Dark B3		
47	String&Fall	94	Jimmy Org.		

## VOICE BANK C (Control Change 0, Value = 10)

P. Ch. Name	Remark	P. Ch. Name	Remark	P. Ch. Name	Remark
1	Piano&Strings	St, M	48	Symphony	St, M
2	Grand&Pad	St, M	49	Full Ensemble	St, M
3	Octapiano	St	50	Digistring	
4	Electropad	M	51	Disco Strings	St, M
5	Msk		52	Country Violin	
6	StagePno		53	Tuuh	
7	Rodes		54	Ooh Girls	
8	Elopiano		55	Aah Girls	St
9	FM Layer		56	Choir	
10	Chinese Bell		57	Tbones&Cornet	St, M
11	Stereochrom		58	Slide Trombone	
12	Bright Vibes		59	Dixie Tpt	
13	Toy Box		60	Open Horn	St
14	Mbira		61	Brass Fall Off	
15	XMas Bell		62	Horn Pad	St, M
16	FM Marimba		63	Multi Brass	St, M
17	Pop Organ		64	Brass Cool	St, M
18	Gospel		65	Altosax	
19	Power Slow		66	Jazz Alto	
20	Principale		67	Alto Straight	
21	Dry Organ		68	Rock Sax	
22	Alpen		69	Superhorn	St, M
23	Bellow		70	Tpt Slide Up	St
24	Steirisch		71	Dry Trumpet	
25	DynaFolk		72	Trumpet Section	M
26	CountryFx		73	Open Trombones	St, M
27	Humbuck		74	Irish Flute	
28	StratoFx		75	Staccato Flute	
29	Ac. Stereo	St	76	Asian Flute	
30	Acid		77	Fife	
31	Plucked		78	Ethnic Flute	
32	Flamenco		79	Staccato Whistle	
33	Acoustic Bass		80	Pipe	
34	Bass&Guit1		81	Solo Dance	St
35	Oberbas1		82	Juicy	
36	RetroBass		83	Drama	
37	Fusion		84	Odissey	
38	Oberbas2		85	Minimug	M
39	Pedalbass		86	Attack	St, M
40	Bass&Guit 2		87	Phantom	M
41	Slow Violin		88	Soloist	St, M
42	Electric Violin		89	Warmness	
43	Chamber		90	Explorer	
44	Tzivago		91	Choral	M
45	Staccato	St, M	92	Cyber	St, M
46	String Fall	St	93	Magic	M
47	Harp&Orchestra	St, M	94	Glockpad	
			95	Stream	
			96	Digi Pro	
			97	UsPad	
			98	Bottled Air	
			99	Bellvox	
			100	DigiPad	St
			101	Syntax	St
			102	Bright Analog	St, M
			103	Aura Pad	M
			104	Acoustic Dream	St, M
			105	Tres	
			106	Banjo 5 String	
			107	Futozao	
			108	Hackbrett	
			109	Paraguayan Harp	
			110	Short Mandolin	
			111	Harp Glissando	
			112	Bouzuki	
			113	Tinkles	
			114	Triangle	
			115	Tambora	
			116	Claves	
			117	Ac.Tom	
			118	Brushtom	
			119	Snare	
			120	Crash	
			121	Scratch1	
			122	Scratch2	
			123	Scratch3	
			124	Scratch4	
			125	Scratch5	
			126	FxSlap	
			127	Laser	
			128	Wind	

# VOICE BANK D (Control Change 0, Value = 11)

P. Ch. Name	Remark				
1	Layered Piano	M	48	Vocal_Praise	M
2	Latin Piano	St, M	49	Cinema Strings	
3	Fm Thin		50	Score	M
4	Rdx Operator	M	51	AahMix	St
5	Twin Electro	M	52	Humming	
6	Stage Mix	M	53	Lah Choir	St, M
7	Huge FM	M	54	Lah Mello Choir	M
8	Digitine	St, M	55	Church Choir	M
9	Glasshouse	St, M	56	Night Vocals	
10	Fantasyland	St, M	57	Mmh	
11	Italian Positive		58	Boom&Uap	
12	Principale&Octave	M	59	Horn Crescendo	M
13	Full Organ	M	60	Emperor Brass	St, M
14	ChorusB3		61	Dry Tenor	
15	Hot Organ		62	Sax Club	
16	16-8-5		63	Swing Tenor	
17	Pipe Octave		64	Baritone	
18	Tonewheel	M	65	Glenn Sax	M
19	Movie Organ	M	66	Boogie Sax	M
20	Fast Drawbars	M	67	Octasax	M
21	Carousel Org	M	68	Countie Sax	M
22	Diatonic	M	69	Sax Section	M
23	Blues Harp		70	Saxes	M
24	Conservatory	M	71	Billy Sax	M
25	Classic Bright		72	Pop Sax	M
26	Thin Folk		73	Lute	
27	Jazz Octave	M	74	Mandola	
28	Muted Wha		75	Latin Harp	
29	Rock Strat		76	Portuguese	
30	Str Power		77	Fingered&Slide	
31	Valve Lead	M	78	Fingered Gtr	
32	Smooth Electro	M	79	Finger Slap	
33	Strat&Folk	M	80	Planet	
34	Open Country	St, M	81	Rock Synth	M
35	Golden Steel	M	82	Chuck	St, M
36	Cntry Detune		83	Smooth Lead	St, M
37	Acoust. Picking	M	84	Synth Plug	St, M
38	Twin Folk	M	85	Subbass	
39	Gipsy		86	Synvoice	
40	Brazilian		87	Deep Jazz	
41	Rockabilly		88	Memory Synth	
42	Funk Bass		89	Evolution	
43	Maxipick		90	Sideral	St, M
44	Ooh Mix	St	91	North Wire	St, M
45	Duh Group	M	92	Blowing	St, M
46	Dah Quartet	M	93	Aural	St, M
47	Lah Trio	M	94	Velvet	St, M
			95	Etnovox	St, M
			96	Whisper	M
			97	Evopad	St, M
			98	Plucking	St, M
			99	Mallet Area	St, M
			100	80's Pad	St, M
			101	Fluty Pad	St, M
			102	Nylon Theme	St, M
			103	BottledChoir	
			104	Brass Hits	St, M
			105	Southern Harp	M
			106	Ungarian Zither	M
			107	Alpen Choir	M
			108	Mallet World	M
			109	Country&WesternM	
			110	StereoFolk	St, M
			111	Alpen Musette	
			112	Jazz Accordion	
			113	Bright Musette	M
			114	335 Jazz	
			115	Smooth_Bass	
			116	Funky Muted	
			117	Country Gtr	
			118	Nylon_slide	
			119	Power Guit	
			120	Clean Chorus	FX
			121	Tremolo Mark	FX
			122	Phase Electro	FX
			123	Organ Overdrive	FX
			124	Metal	FX
			125	Distorted	FX
			126	Crunch	FX
			127	Jazz Combo	St, M, FX
			128	Echolead	St, FX

Remark:  
 ST = Stereo Voice  
 M = Multi Voice  
 FX = Fx Insert Voice

# SOUND FAMILY MAP

## PIANO

Bank	Prg.Ch	Sound
0	1	Grand Piano
0	3	Electric
1	2	Dark Grand
0	4	Honky-tonk
10	5	Msk
0	5	El.Piano1
0	6	El.Piano2
1	6	Funk Dx
1	5	Mark
0	8	Clavi
0	2	Rock Piano
10	3	Octapiano
1	1	Jingle
10	1	Piano&Strings
1	3	House
1	4	Suitcase
1	7	Fm Tine
1	8	DX Piano
10	4	Electropad
0	7	Harpsichord
10	2	Grand&Pad
11	1	Layered Piano
11	2	Latin Piano
10	6	StagePno
10	7	Rodes
10	8	Elopiano
11	3	Fm Thin
11	4	Rdx Operator
11	5	Twin Electro
11	6	Stage Mix
11	7	Huge FM
10	9	Fm_Layer
11	8	Digitine
11	121	Tremolo Mark
11	122	Phase Electro

## CHROMATIC

Bank	Prg.Ch	Sound
0	12	Vibraphone
0	13	Marimba
0	14	Xylophone
0	9	Celesta
0	10	Glockenspiel
0	11	MusicBox
0	15	TubularBells
1	13	Karimba
1	9	ToyPad
0	113	Tinkle bell
1	10	Orch. Bell
1	11	Mallet
1	12	Short Vibe
1	14	Etnowood
1	15	Metallophone
1	16	Windchimes
10	10	Chinese Bell
10	11	Stereochrom
10	12	Bright Vibes
10	13	Toy Box
10	14	Mbira
10	15	XMas Bell
10	16	FM Marimba
11	9	Glasshouse
11	10	Fantasyland

## ORGAN

Bank	Prg.Ch	Sound
10	19	Power Slow
0	18	Percussive
0	19	Rock Organ
0	21	Theatre
1	20	Positive
1	91	Power Fast
1	96	Jazzy
1	19	Drawbar
1	17	Rotor Fast
0	20	Church
1	92	Tonebar
1	93	Dark B3
1	94	Jimmy Org.
1	18	Jazz Organ
10	17	Pop Organ
10	18	Gospel
0	17	Rotary
10	20	Principale
10	21	Dry Organ
11	11	Italian Positive
11	12	Principale&Octave
11	13	Full Organ
11	14	ChorusB3
11	15	Hot Organ
11	16	16-8-5
11	17	Pipe Octave
11	18	Tonewheel
11	19	Movie Organ
11	20	Fast Drawbars
11	21	Carousel Org
1	95	Lower 8' - 4'
1	89	2nd Perc
1	90	3th Perc
11	87	Deep Jazz
11	123	Organ Overdrive

## ACCORDION

Bank	Prg.Ch	Sound
0	22	Musette
0	23	Harmonica
0	24	Bandoneon
1	21	French Musette
1	22	Francaise
1	23	Cassotto
1	24	Tango
10	22	Alpen
10	23	Bellow
10	24	Steirisch
11	22	Diatonic
11	23	Blues Harp
11	24	Conservatory
11	111	Alpen Musette
11	112	Jazz Accordion
11	113	Bright Musette
1	111	Reed 8'
1	112	Fisa 8

## GUITAR

Bank	Prg.Ch	Sound	Bank	Prg.Ch	Sound
0	25	Nylon	11	36	Cntry Detune
0	26	Steel	11	37	Acoust. Picking
0	27	Jazz	11	38	Twin Folk
0	28	Clean	11	39	Gipsy
0	30	Overdrive	11	40	Brazilian
1	27	Funk Strat	11	41	Rockabilly
1	26	Folk	11	114	335 Jazz
1	99	Strato	11	116	Funky Muted
1	30	Vintage	11	117	Country Gtr
1	32	Solidbody	11	118	Nylon_slide
1	25	Classic	11	119	Power Guit
10	29	Ac. Stereo	11	120	Clean Chorus
1	105	Hawaian	0	32	Harmonics
1	107	Django	11	110	StereoFolk
0	31	Distorted	11	124	Metal
11	26	Thin Folk	11	125	Distorted
11	30	Str Power	11	126	Crunch
1	110	Rock&Roll	11	127	Jazz Combo
1	102	Fingerpick	11	77	Fingered&Slide
0	29	Muted	11	78	Fingered Gtr
1	28	60' Stopped	11	76	Portuguese
1	29	Muted velo			
1	31	12Strings			
1	97	Pop Strat			
1	98	Telecast			
1	100	Texas			
1	101	Western			
1	103	5th Stops			
1	104	Wha guitar			
1	108	ClassicFx			
1	109	Pedalsteel			
10	25	DynaFolk			
10	26	CountryFx			
10	27	Humbuck			
10	28	StratoFx			
10	30	Acid			
10	31	Plucked			
10	32	Flamenco			
11	25	Classic Bright			
11	27	Jazz Octave			
11	28	Muted Wha			
11	29	Rock Strat			
11	31	Valve Lead			
11	32	Smooth Electro			
11	33	Strat&Folk			
11	34	Open Country			
11	35	Golden Steel			

## STRINGS / CHOIR

Bank	Prg.Ch	Sound	Bank	Prg.Ch	Sound
0	49	Strings Ens.	11	47	Lah Trio
1	49	Bowed Strings	10	43	Chamber
0	41	Violin	10	44	Tzivago
0	42	Viola	10	45	Staccato
0	47	Harp	10	46	String Fall
1	47	String&Fall	10	47	Harp&Orchestra
0	53	Choir Aah	10	48	Symphony
0	54	Voice Ooh	10	49	Full Ensemble
0	55	Synth Voice	10	50	Digistring
1	53	Men_Doo	10	51	Disco Strings
1	55	Laah	10	52	Country Violin
1	51	Dah	11	49	Cinema Strings
0	46	Pizzicato	11	48	Vocal_Praise
0	43	Cello	11	107	Alpen Choir
0	50	SlowStrings	11	58	Boom&Uap
10	41	Slow Violin	11	86	Synvoice
0	44	Contrabass	0	56	Hits
0	51	SynStrings1			
1	54	Girl_Doo			
1	52	Classic Choir			
1	56	Voices			
10	53	Tuuh			
10	54	Ooh Girls			
10	55	Aah Girls			
0	52	SynStrings2			
0	45	Tremolo			
0	48	Timpani			
1	41	Philharmonic			
1	42	Quartet			
1	43	GlockString			
10	56	Choir			
11	51	AahMix			
11	52	Humming			
11	53	Lah Choir			
11	54	Lah Mello Choir			
11	55	Church Choir			
1	44	OctaStrings1			
1	45	OctaStrings2			
1	46	Marcato			
1	48	Slow Arcos			
1	50	Dark Strings			
10	42	Electric Violin			
11	56	Night Vocals			
11	57	Mmh			
11	44	Ooh Mix			
11	45	Duh Group			
11	46	Dah Quartet			

## BRASS

Bank	Prg.Ch	Sound
0	62	Brass Sect.
0	57	Trumpet
0	58	Trombone
0	60	Muted Tpt
0	63	SynBrass1
1	62	Stereo Brass
1	57	Swing Tpt
10	60	Open Horn
1	60	Miles Tpt
10	59	Dixie Tpt
1	61	Flughorn
1	70	Horn Swell
1	71	Trumpets
1	72	Soft Trombones
0	64	SynBrass2
1	63	GrowBras
1	59	Euphonium
10	61	Brass Fall Off
10	70	Tpt Slide Up
10	63	Multi Brass
0	59	Tuba
0	61	French Horn
1	58	Cornet
1	64	Octabrass
1	69	Melo Trumpet
10	57	Tbones&Cornet
10	58	Slide Trombone
10	62	Horn Pad
10	64	Brass Cool
10	69	Superhorn
10	71	Dry Trumpet
10	72	Trumpet Section
10	73	Open Trombones
11	59	Horn Crescendo
11	60	Emperor Brass
11	104	Brass Hits

## SAX / FLUTE

Bank	Prg.Ch	Sound
1	67	Lounge Tenor
0	66	Contralto
0	68	Bariton Sax
0	65	Altosoft
10	66	Jazz Alto
0	72	Clarinet
0	74	Flute
0	76	Pan Flute
1	76	Voice Flute
0	79	Whistle
1	73	Latin Flute
1	74	Pop Flute
0	67	Tenor Sax
0	69	Oboe
10	65	Altosax
1	65	Soprano
1	66	Circus Sax
1	68	Growl Sax
1	75	Andes
10	74	Irish Flute
0	73	Piccolo
0	75	Recorder
0	77	Bottle
0	78	Shakuhashi
0	70	Engl.Horn
0	71	Bassoon
10	67	Alto Straight
10	68	Rock Sax
11	61	Dry Tenor
11	62	Sax Club
0	80	Ocarina
10	75	Staccato Flute
10	76	Asian Flute
10	77	Fife
10	78	Ethnic Flute
10	79	Staccato Whistle
11	63	Swing Tenor
11	64	Baritone
11	65	Glenn Sax
11	66	Boogie Sax
11	67	Octasax
11	68	Countie Sax
10	80	Pipe
11	73	Lute
11	69	Sax Section
11	70	Saxes
11	71	Billy Sax
11	72	Pop Sax

## PAD

Bank	Prg.Ch	Sound	Bank	Prg.Ch	Sound
0	89	Fantasy	11	102	Nylon Theme
0	90	Warm	11	103	BottledChoir
0	91	New Age	11	101	Fluty Pad
0	92	Space	10	102	Bright Analog
0	93	Soft	11	50	Score
0	94	Metal			
0	95	Halo			
0	96	Sweep			
0	97	Ice Rain			
0	98	Soundtrack			
0	99	Crystal			
0	100	Atmosphere			
0	101	Brightness			
0	102	Goblin			
0	103	Echodrops			
0	104	Startheme			
1	77	Analogs			
1	78	Flanger			
1	79	Brightpad			
10	89	Warmness			
10	90	Explorer			
10	91	Choral			
10	92	Cyber			
10	93	Magic			
10	94	Glockpad			
10	95	Stream			
10	96	Digi Pro			
10	97	UsPad			
10	98	Bottled Air			
10	99	Bellvox			
10	100	DigiPad			
10	101	Syntax			
10	103	Aura Pad			
10	104	Acoustic Dream			
11	80	Planet			
11	89	Evolution			
11	90	Sideral			
11	91	North Wire			
11	92	Blowing			
11	93	Aural			
11	94	Velvet			
11	95	Ethnovox			
11	96	Whisper			
11	97	Evopad			
11	98	Plucking			
11	99	Mallet Area			
11	100	80's Pad			



## SYNTH

### Bank Prg.Ch Sound

1	83	Trance
1	113	Gategroup
1	114	Amazing
1	115	Housesynth
1	117	Key Lead
1	118	Juno Synth
1	119	Obx Poly
10	81	Solo Dance
1	80	Wiring
1	81	Wow
1	82	Polysynth
1	116	Resonance
1	120	JX Brass
1	84	Wave
10	82	Juicy
0	85	Charang
10	84	Odissey
10	85	Minimug
10	86	Attack
11	84	Synth Plug
0	81	Square
0	82	Sawtooth
0	83	Calliope
0	84	Chiff
10	83	Drama
0	86	Voice
0	87	Fifth
0	88	Bass&Lead
10	87	Phantom
10	88	Soloist
11	81	Rock Synth
11	82	Chuck
11	83	Smooth Lead
11	88	Memory Synth
11	128	Echolead

## ETHNIC

### Bank Prg.Ch Sound

0	106	Banjo
0	111	Fiddle
0	110	Bagpipe
10	108	Hackbrett
0	105	Sitar
1	106	Mandolin
10	109	Paraguayan Harp
0	108	Koto
0	115	Steeldrum
10	107	Futozao
10	106	Banjo 5 String
10	110	Short Mandolin
0	109	Kalimba
0	107	Shamisen
0	112	Shanai
10	111	Harp Glissando
0	16	Dulcimer
10	105	Tres
10	112	Bouzuki
11	74	Mandola
11	105	Southern Harp
11	106	Ungarian Zither
11	108	Mallet World
11	109	Country&Western
11	75	Latin Harp
0	114	Agogo
0	116	Woodblock
0	117	Taiko
0	118	Melotom
0	119	Syntom
10	113	Tinkles
10	114	Triangle
10	115	Tambora
10	116	Claves
10	117	Ac.Tom
10	106	Brushtom
10	111	Snare
10	110	Crash
0	108	Reverse

## BASS / SFX

Bank	Prg.Ch	Sound	Bank	Prg.Ch	Sound
0	32	Acoustic	10	121	Scratch2
0	33	Finger	10	122	Scratch3
0	34	Picked	10	123	Scratch4
0	35	Fretless	10	124	Scratch5
0	36	Slap Bass1	10	125	FxSlap
0	38	Synbas1	10	126	Laser
1	35	Deep Bass	10	127	Wind
1	32	WarmBass	0	120	Fret Noise
1	86	Percussive Bas	0	121	Breath
1	39	House Bass			
10	32	Acoustic Bass			
10	33	Bass&Guit1			
10	34	Oberbas1			
1	37	Reso Bass			
1	38	Saw Bass			
0	37	Slap Bass2			
0	39	Synbas2			
1	33	Folk Bass			
1	34	MuteBass			
1	36	Precision			
1	84	Rave Bass			
1	85	Modular Bass			
1	87	Wild Bass			
10	35	RetroBass			
10	36	Fusion			
10	37	Oberbas2			
10	38	Pedalbass			
10	39	Bass&Guit 2			
11	41	Funk Bass			
11	42	Maxipick			
11	78	Slap			
11	84	Subbass			
11	114	Smooth_Bass			
1	120	Alarm&Sirene			
1	121	Jet			
1	122	Pfif&Jew_Harp			
1	123	Rain			
1	124	Vocals			
1	125	Thunder			
1	126	Train			
1	127	Sweep			
0	122	Seashore			
0	123	Bird			
0	124	Telephone			
0	125	Helicopter			
0	126	Applause			
0	127	Gunshot			
10	120	Scratch1			

## DRUM SETS

P. Ch.	Name	Remark	P. Ch.	Name	Remark
1	Standard 1 (SD)	LDM *	49	Orchestra	
2	Standard 2 (SD)	LDM *	50	Latin (SD)	LDM *
3	Standard 1	LDM	51	Light Pop	
4	Standard 2	LDM	52	Industrial	
8	Room	LDM	53	Dance 1	
9	Folk (SD)	LDM *	54	Dance 2	
10	Acoustic (SD)	LDM *	55	Street	
11	Jazz (SD)	LDM *	56	R&B	
12	Studio	LDM	58	Contemporary	
13	Folk	LDM	59	Analog 1	
14	Acoustic	LDM	60	Analog 2	
15	Jazz	LDM	61	New Soul	
17	Rock 1	LDM	62	Garage	
18	Rock 2	LDM	63	Vocal 1	LDM
23	Disco 1		64	Vocal 2	LDM
24	Disco 2				
25	House (SD)	*			
26	Techno (SD)	*			
27	Techno				
28	House 1				
29	House 2				
30	Rap (SD)	*			
31	Hip Hop 1				
33	Heavy_Pop (SD)	LDM *			
34	Heavy_Pop	LDM			
35	Electro				
36	Hip Hop 2				
41	Swing (SD)	*			
42	Brush 1 (SD)	LDM *			
43	Brush 2	LDM			
44	Swing				
45	Brush 1	LDM			

LDM = Live Drum Modeling  
 • = SD compatibility

## AUDIO DRUM LOOPS

#	CC=0 Value=4	#	CC=0 Value=4	#	CC=0 Value=4
1	Afro_1	48	Clap_6_8	95	Dance_kick4a
2	Afro_2	49	Clap_Dance	96	Dance_kick5a
3	Afro_3	50	Clap_Gipsy1	97	Dance_kick6a
4	Afro_4	51	Clap_Gipsy2	98	Dance_kick7a
5	Afro_5	52	Clap_Shuffle	99	Dance_kick8a
6	Bachata_a	53	Conga_1_t	100	Flamenco_a
7	Bachata_b	54	Conga_2_t	101	Flamenco_b
8	Bachata_c	55	Conga_3_t	102	Flamenco_c
9	Bachata_d	56	Conga_4_t	103	Flamenco_d
10	Batucada_a	57	Conga_5_t	104	Flamenco_e
11	Batucada_b	58	Conga_6_t	105	Flamenco_f
12	Bluegrass	59	Conga_7_t	106	Flamenco_g
13	Bolero_a	60	Conga_ballad	107	Gipsy_1
14	Bolero_b	61	Conga_bolero1	108	Gipsy_2
15	Bolero_c	62	Conga_bolero2	109	Guajira_a
16	Bongo_1_t	63	Conga_bossa	110	Guajira_b
17	Bongo_bachat1	64	Conga_cha1	111	Guira_1
18	Bongo_bachat2	65	Conga_cha2	112	Guira_2
19	Bongo_bolero1	66	Conga_mambo	113	Guira_bachat1
20	Bongo_bolero2	67	Conga_mereng1	114	Guira_bachat2
21	Bongo_cha	68	Conga_mereng2	115	Guira_mereng1
22	Bongo_salsa	69	Conga_rumba	116	Guira_mereng2
23	Bossa_a	70	Conga_salsa1	117	Guiro_cha
24	Bossa_b	71	Conga_salsa2	118	Guiro_cumbia
25	Bossa_c	72	Conga_salsa3	119	Guiro_mereng
26	Bossa_Cabasa	73	Conga_samba_1	120	Guiro_salsa
27	Bossa_Shaker	74	Conga_samba_2	121	Hihat 8_1
28	Brush_1_t	75	Cowbell_salsa1	122	Hihat 8_2
29	Brush_fast	76	Cowbell_salsa2	123	Hihat 16_1
30	Brush_medium	77	Cowbell_cha1	124	Hihat 16_2
31	Brush_slow1	78	Cowbell_cha2	125	Hihat swing1
32	Brush_slow2	79	Cumbia_a	126	Hihat swing2
33	Brush_slow3	80	Cumbia_b	127	Hihat swing3
34	Brush_slow4	81	Cumbia_c	128	Hihat_shuffle1
35	Cabaza_1	82	Cumbia_d	129	Hihat_shuffle2
36	Cabaza_2	83	Cumbia_e	130	Hiphop_1
37	Cabaza_3	84	Dance_1	131	Hiphop_2
38	Cabaza_4	85	Dance_2	132	House_1
39	Cajon	86	Dance_3	133	House_2
40	Chacha_a	87	Dance_4	134	House_3
41	Chacha_b	88	Dance_5	135	House_4
42	Chacha_c	89	Dance_6	136	House_5
43	Chacha_d	90	Dance_7	137	House_6
44	Chacha_e	91	Dance_8	138	House_7
45	Chacha_f	92	Dance_kick1a	139	House_8
46	Clap_2_4	93	Dance_kick2a	140	House_kick1a
47	Clap_4_4	94	Dance_kick3a	141	House_kick2a

## AUDIO DRUM LOOPS

#	CC=0 Value=4	#	CC=0 Value=4	#	CC=0 Value=4
142	House_kick3a	189	Popjazz_d	236	Tambourine_8_1
143	House_kick4a	190	Popjazz_e	237	Tambourine_8_2
144	House_kick5a	191	Popjazz_f	238	Tambourine_8_3
145	House_kick6a	192	R&blues_a	239	Tambourine_12_1
146	House_kick7a	193	R&blues_b	240	Tambourine_12_2
147	Jazzrock_a	194	R&blues_c	241	Tambourine_16_1
148	Jazzrock_b	195	Rap	242	Tambourine_16_2
149	Jigs	196	Reels	243	Tambourine_16_3
150	Latin_dance1	197	Ride_1_t	244	Tambourine_16t
151	Latin_dance2	198	Ride_fast1	245	Tambourine_24
152	Mambo_a	199	Ride_fast2	246	Tambourine_shuffle
153	Mambo_b	200	Ride_medium	247	Triplet
154	Mambo_c	201	Ride_shuffle	248	Urban
155	Marac_bolero1	202	Ride_slow		
156	Marac_bolero2	203	Rock_a		
157	Marac_bolero3	204	Rock_b		
158	Marac_bossa	205	Salsa_a		
159	Marac_cha	206	Salsa_b		
160	Marac_cumbia	207	Salsa_c		
161	Marac_mereng	208	Salsa_d		
162	Marac_salsa1	209	Salsa_e		
163	Marac_salsa2	210	Salsa_f		
164	Maracas_1	211	Salsa_g		
165	Maracas_1_t	212	Samba_a		
166	Maracas_2	213	Samba_b		
167	Maracas_2_t	214	Samba_c		
168	Maracas_3	215	Samba_Cabaza		
169	Maracas_4	216	Samba_d	1	Chorus 1
170	Maracas_5	217	Samba_Shaker	2	Chorus 2
171	Merengue_a	218	Shaker_1	3	Phaser 1
172	Merengue_b	219	Shaker_1_t	4	Phaser 2
173	Merengue_c	220	Shaker_2	5	Flanger 1
174	Merengue_d	221	Shaker_2_t	6	Flanger 2
175	Merengue_e	222	Shaker_3	7	Tremolo 1
176	Merengue_f	223	Shaker_4	8	Tremolo 2
177	Pandero_1	224	Shaker_5	9	Delay 1
178	Pandero_2	225	Shaker_6	10	Delay 2
179	Pandero_1_t	226	Shuffle_a	11	EchoPan
180	Pandero_2_t	227	Shuffle_b	12	Rotor Slow
181	Pasodoble	228	Shuffle_c	13	Rotor Fast
182	Popdown_a	229	Snap	14	Organ Overdrive
183	Popdown_b	230	Street_1	15	Valve Distortion
184	Popfunk_a	231	Street_2	16	Power Distortion
185	Popfunk_b	232	Swing_a	17	Metal Distortion
186	Popjazz_a	233	Swing_b	18	Tweed Amp Simulator
187	Popjazz_b	234	Swing_c	19	British Amp Simulator
188	Popjazz_c	235	Tambora	20	Jazz Amp Simulator

## EFX LIST

#	EFX NAME
1	Chorus 1
2	Chorus 2
3	Phaser 1
4	Phaser 2
5	Flanger 1
6	Flanger 2
7	Tremolo 1
8	Tremolo 2
9	Delay 1
10	Delay 2
11	EchoPan
12	Rotor Slow
13	Rotor Fast
14	Organ Overdrive
15	Valve Distortion
16	Power Distortion
17	Metal Distortion
18	Tweed Amp Simulator
19	British Amp Simulator
20	Jazz Amp Simulator

# SD1000 MIDI IMPLEMENTATION

## Detailed MIDI Implementation

### 1.1 EFX Insert Effects

NRPN High	NRPN Low	Description
<b>Insert MFX Mix Controls</b>		
3xh	21h	Input gain, 0 to 7Fh
3xh	22h	Lo-cut filter frequency: 0 = ~20Hz, till 7Fh = ~300Hz
3xh	23h	Hi-cut filter frequency: 0 = ~1.5KHz,...100=~6KHz, till 7Fh = OFF
3xh	2Bh	Output panning, 0 to 7Fh (main output left/right mix, 0=left, till 7Fh=right)
3xh	2Ch	Output Front/Rear Mix, 0 to 7Fh (0 = only Front, 40h = both, till 7Fh = only Rear)
3xh	2Dh	Send to Global Reverb: 0=~ -∞, 1=~ -42dB, 127=~ 0dB
3xh	2Eh	Send to Global Chorus: 0=~ -∞, 1=~ -42dB, 127=~ 0dB
<b>Insert MFX Compressor/Limiter Controls</b>		
3xh	40h	Compressor Preset (see below)
3xh	41h	Compressor ON/OFF: =0 OFF, else ON
3xh	42h	Attack time: 0=fast attack (0.1ms), ... 60=1ms, ...100=10ms, till 127=slow attack (100ms), exp. curve
3xh	43h	Release time: 0=fast release (10ms), ... 60=100ms, ... 100=1s, till 127=slow release (~5s), exp. curve
3xh	44h	Threshold: 0=-42.3, 1=-42dB, 2=-41.66dB, 7Eh=-0.33dB, 7Fh=0dB
3xh	45h	Ratio: 127=1:128, 126=2:128 (1:64), 125=3:128, ... 64=64:128 (1:2), ... 0=1:1
3xh	46h	Boost (applied on signal after compression): 127= x8 ... 64=x4 ... 32=x2 ... 0 = x1
3xh	47h	Knee: 0=Hard Knee else Soft Knee
<b>Insert MFX Distortion Controls</b>		
3xh	60h	Distortion Preset (see below)
3xh	61h	Distortion ON/OFF: =0 OFF, else ON
3xh	62h	Pre Gain: 0=OFF, 1 = -42dB till 127 = 0dB
3xh	63h	Type: 0=Tube, 1=asymmetric parabolic1, 2=asymmetric parabolic2
3xh	64h	Low Pass Filter frequency: 0 = closed 0Hz, till 127 = open 8KHz
3xh	65h	Low Pass Filter resonance: 0 = no resonance, till 127 = max resonance
3xh	66h	Post Gain: 0=OFF, 1 = -42dB till 127 = 0dB
3xh	67h	Drive: 0 till 7 (0 to +42dB)
3xh	68h	RC type low pass filter value: 0=closed 0Hz, till 127 = open 24kHz
<b>Insert MFX Parametric Equalizer Controls</b>		
3xh	70h	Equalizer Preset (see below)
3xh	71h	Parametric Equalizer: ON/OFF : 0=OFF, else ON
3xh	72h	Low band gain: 0=-12dB, 64=0dB, 127=+12dB
3xh	73h	Low-Mid band gain: 0=-12dB, 64=0dB, 127=+12dB
3xh	74h	High-Mid band gain: 0=-12dB, 64=0dB, 127=+12dB
3xh	75h	High band gain: 0=-12dB, 64=0dB, 127=+12dB
3xh	76h	Low band frequency: 0=40Hz, till 127=1.5KHz
3xh	77h	Low-Mid band frequency: 0=40Hz, till 127=2,5KHz
3xh	78h	High-Mid band frequency: 0=40Hz, till 127=10KHz
3xh	79h	High band frequency: 0=500Hz, till 127=2KHz
3xh	7Ah	Low-Mid band Q: 0=1.0 ... 64=2.0... 127=20.0
3xh	7Bh	High-Mid band Q: 0=1.0 ... 64=2.0... 127=20.0
<b>Insert MFX Chorus/Flanger/Phaser/Tremolo/Rotary Controls</b>		
3xh	30h	Chorus/Flanger/Phaser/Tremolo/Rotary Preset (see below)
3xh	31h	Effect level, 0 to 7Fh
3xh	32h	Chorus/Flanging delay time: 0 = 1ms, till 127 = 30ms

3xh	33h	Chorus/Flanging feedback, 0 to 7Fh	
3xh	34h	Chorus/Flanging/Short-Delay high pass filter on input: 0 = no filter to 1.2 kHz	
3xh	35h	HDAMP: high frequency filter on delay feedback, , 0 to 7Fh = 0 to 100 %	
3xh	36h	Modulation rate: 0 = ~0,023 Hz, ...64=~0,89Hz, till 127 = ~5,8 Hz (~1Hz to ~20Hz for Tremolo)	
3xh	37h	Modulation depth, 0 to 7Fh	
3xh	38h	Tremolo modulation shape: 0 = triangle, till 127 = square	
3xh	39h	Rotary speed: 0=slow, 1=fast (only for Rotary preset # 23)	
<b>Insert MFX Delay Controls</b>			
3xh	58h	Delay Preset, 0..4 (off, mono1, mono2, stereo1, stereo2)	
3xh	59h	Delay ON/OFF, 0 = OFF, else ON	
3xh	5Ah	Delay Mode, 0=mono, 1=stereo	
3xh	5Bh	Delay PreLP, 0 to 7Fh	
3xh	5Ch	Delay Level, 0 to 7Fh	
3xh	5Dh	Delay Time, 0 to 7Fh = 0 to 1365ms	
3xh	5Eh	Delay Feedback, 0 to 7Fh	
3xh	5Fh	HDAMP: high frequency filter on delay feedback, , 0 to 7Fh = 0 to 100 %	

Some presets have been predefined for each of the 5 Insert Effects blocks: Compressor, , Distortion, Mod-FX (Chorus etc) and Delay. Presets are selected through MIDI NRPN messages.

## 1.2 Compressor/Limiter Presets

Preset is selected by using MIDI NRPN 3x40h, with value = preset number, from 0 to 8

Nb	Name	Preset Default values				
		Attack	Release	Threshold	Ratio	Boost
0	NO COMPRESSION	64	0	127	0	0
COMPRESSOR						
1	COMPR 1: -18dB 2:1	64	0	73	64	24
2	COMPR 2: -15dB 3:1	64	0	82	84	32
3	COMPR 3: -18dB 5:1	64	0	73	100	48
4	COMPR 4: -21dB 7:1	64	0	64	110	48
5	COMPR 5: -24dB 12:1	64	0	55	117	64
LIMITER						
6	LIMITER 1: -6dB	64	0	109	127	0
7	LIMITER 2: -12dB	64	0	91	127	0
8	LIMITER 3: -18dB	64	0	73	127	0

### Notes:

Preset value for Compressor Knee value is always 0 (Hard Knee).

### 1.3 Distortion Presets

Preset is selected by using MIDI NRPN 3x60h, with value = preset number, from 0 to 13

Nb	Name	Preset Default values						
		Drive	Type	Hi-Cut Filter Frequency	Post Gain	Pre Gain	RC LP Filter	Low Lev Cut
OFF								
0	OFF	0	0	127	127	127	127	0
TUBE DISTORTION								
1	TUBE DIST Low 1	3	1	100	60	64	127	1
2	TUBE DIST Low 2	4	2	80	50	64	127	2
3	TUBE DIST Medium 1	5	1	70	40	64	127	2
4	TUBE DIST Medium 2	5	2	70	40	64	127	3
5	TUBE DIST High 1	6	1	60	40	64	127	3
6	TUBE DIST High 2	6	2	60	40	64	127	3
SPECIAL DISTORTION								
7	SMOOTH OD	6	6	50	30	64	80	3
8	DISTORTION	7	1	40	30	64	127	3
9	CRUNCH	5	5	60	40	64	80	3
10	FUZZ	6	7	80	40	64	127	3
11	GRUNGE	5	4	110	40	64	127	2
12	METAL	8	3	40	40	64	127	4
13	MESS	10	0	80	30	64	127	4

#### Notes:

Preset value for Hi-Cut Filter Q is always 0.

### 1.4 Parametric Equalizer Presets

Presets are selected by using MIDI 3x70h, with value = preset number, from 0 to 13

Nb	Name	Preset Default Values									
		Gain Low	Gain Low Mid	Gain High Mid	Gain High	Freq Low	Freq Low Mid	Freq High Mid	Freq High	Quality Low Mid	Quality High Mid
0	Flat	64	64	64	64	40	24	64	127	0	64
1	JC Clean	80	30	90	64	40	20	50	60	0	80
2	Acoustic	90	20	110	64	40	26	113	50	30	100
3	Black Panel	80	40	90	64	40	28	30	40	0	40
4	Brit Combo	60	80	80	64	100	64	7	127	0	30
5	Tweed	64	30	80	64	50	42	28	60	100	20
6	Stack Classic	64	20	85	64	80	40	30	40	20	40
7	Metal	64	50	100	64	80	50	35	127	0	70
8	R-Fier	64	20	70	64	80	30	30	80	30	50
9	Dyna Amp	64	20	75	64	40	32	25	127	64	50
10	Crunch	64	75	30	64	40	10	8	127	20	70
11	VO Drive	64	64	90	64	40	20	30	127	64	60
12	BG Lead	64	64	70	64	40	20	64	127	64	64
13	MS HiGain	64	80	50	64	40	10	6	127	80	70

## 1.5 Chorus/Flanger/Phaser/Tremolo/Rotary Presets

Preset is selected by using MIDI NRPN 3x30h, with value = preset number, from 0 to 23

Nb	Name	Preset Default Values					
		Volume	Delay	Feedback	Hdamp	Chorus Rate	Chorus Depth
0	OFF	0	/	/	/	/	/
1	Chorus Light 1	56	20	0	0	40	30
2	Chorus Light 2	56	40	0	0	30	30
3	Chorus Medium 1	64	26	0	0	45	40
4	Chorus Medium 2	64	60	0	0	35	50
5	Chorus Deep 1	64	64	0	0	40	70
6	Chorus Deep 2	64	80	0	0	45	90
7	Chorus Fast 1	64	30	0	0	70	10
8	Chorus Fast 2	64	60	0	0	60	20
9	Resonant Chorus	64	30	80	0	40	20
10	Long Time Chorus	64	100	0	0	20	20
11	Flange Light	64	8	32	0	30	30
12	Flange Medium	72	13	72	0	40	80
13	Flange Slow Deep	72	2	50	0	20	90
14	Flange Deep	72	6	100	0	50	100
15	Phaser Light	64	0	80	0	50	50
16	Phaser Medium	64	0	90	0	60	80
17	Phaser Slow Deep	64	0	100	0	20	110
18	Phaser Fast	64	0	40	0	120	60
19	Tremolo Slow	64	0	0	0	20	60
20	Tremolo Medium 1	64	0	0	20	40	70
21	Tremolo Medium 2	64	0	0	40	60	90
22	Tremolo Fast	64	0	0	60	100	110
23	Rotary Slow	90	30	0	0	50	20

### Note:

Preset value for Pre-High-pass-Filter is always 0 (off).



## 2.0 HQ Distortion

<b>HQ Distortion Top Level Controls</b>			
3Dh	00h	Distortion ON/OFF: =0 OFF, else ON	
3Dh	01h	Noise Reduction: 0..4	
3Dh	02h	Booster: 0..3	
3Dh	03h	Type (Preset): 0..7 = OFF, Warm-Drive, Overdrive, Cry, Distortion, Metal, Max-Saturation, Fuzz (using Preset parameter below)	
3Dh	04h	Drive: 0..127	
3Dh	05h	Tone: 0..127 (using PEQ parameters below)	
3Dh	06h	Level (Post-Gain): 0..127	
<b>HQ Distortion Preset Parameter Controls</b> (see note below)			
3Dh	10h	Input High Pass Cutoff): 0..127	
3Dh	11h	Input High Pass Mode: 0..2	
3Dh	12h	Bias Level): 0..127	
3Dh	13h	Input Low Pass Cutoff): 0..127	
3Dh	14h	Input Low Pass Mode: 0..7	
3Dh	15h	Type (internal): 0-22	
3Dh	16h	Pre-Gain: 0..127 (should be set normally to 127, Distortion drive amount should be set by "Drive" parameter, NRPN 3D04h)	
3Dh	17h	PEQ Freq low): 0..127	
3Dh	18h	PEQ Gain low): 0..64..127 = -12..0..+12dB	
3Dh	1Ah	PEQ Freq high): 0..127	
3Dh	1Bh	PEQ Gain high): 0..64..127 = -12..0..+12dB	
<b>HQ Distortion Routing Controls</b>			
3Dh	7Fh	Routing switch of Distortion block: 0 = default, else input on MIC2IN (DAAD4R)	0

Note: details about the HQ Distortion Preset Parameters Controls please see dedicated Distortion Library module documentation.

### 3. MIDI Implementation

2 ports of 16 channels are provided for a total of 32 channels. MIDI Message "F5 nn" is used to switch between the two ports (nn=1 or 2).

MIDI Message	HEX Code	Description
NOTE ON	9nH kk vv	Midi channel n(0-15) note ON #kk(1-127), velocity vv(1-127). vv=0 means NOTE OFF
NOTE OFF	8nH kk vv	Midi channel n(0-15) note OFF #kk(1-127), vv is don't care.
PITCH BEND	EnH bl bh	Pitch bend as specified by bh bl (14 bits) Maximum swing is +/- 1 tone (power-up). Can be changed using « pitch bend sensitivity ». Center position is 00H 40H.
PROGRAM CHANGE	CnH pp	Program (patch) change. Specific action on channel 10 (n=9) : select drumset. Refer to sounds / drumset list. Drumsets can be assigned to other channels (see SYSEX MIDI channel to part assign and part to rhythm allocation)
CHANNEL AFTERTOUCH	DnH vv	vv pressure value. Effect set using Sys. Ex. 40H 2pH 20H-26H
CTRL 00	BnH 00H cc	Bank select : Refer to sounds list. No action on drumset
CTRL 01	BnH 01H cc	Modulation wheel. Rate and maximum depth can be set using SYSEX
CTRL 05	BnH 05H cc	Portamento time.
CTRL 06	BnH 06H cc	Data entry : provides data to RPN and NRPN
CTRL 07	BnH 07H cc	Volume (default=100)
CTRL 10	BnH 0AH cc	Pan (default=64 center)
CTRL 11	BnH 0BH cc	Expression (default=127)
CTRL 64	BnH 40H cc	Sustain (damper) pedal
CTRL 65	BnH 41H cc	Portamento ON/OFF
CTRL 66	BnH 42H cc	Sostenuto pedal
CTRL 67	BnH 43H cc	Soft pedal
CTRL 71	BnH 47H cc	TVF Resonance modify (same as nrpn 0121h)
CTRL 72	BnH 48H cc	Env release time modify (same as nrpn 0166h)
CTRL 73	BnH 49H cc	Env attack time modify (same as nrpn 0163h)
CTRL 74	BnH 4AH cc	TVF cutoff freq modify (same as nrpn 0120h)
CTRL 75	BnH 4BH cc	Env decay time modify (same as nrpn 0164h)
CTRL 76	BnH 4CH cc	Vibrato rate modify (same as nrpn 0108h)
CTRL 77	BnH 4DH cc	Vibrato depth modify (same as nrpn 0109h)
CTRL 78	BnH 4EH cc	Vibrato delay modify (same as nrpn 010Ah)
CTRL 84	BnH 54H vv	Portamento control
CTRL 91	BnH 5BH vv	Reverb send level vv=00H to 7FH

CTRL 93	BnH 5DH vv	Chorus send level vv=00H to 7FH
CTRL 98	BnH 62H vv	NRPN low
CTRL 99	BnH 63H vv	NRPN high
CTRL 100	BnH 64H vv	RPN low
CTRL 101	BnH 65H vv	RPN high
CTRL 120	BnH 78H 00H	All sound off (abrupt stop of sound on channel n)
CTRL 121	BnH 79H 00H	Reset all controllers
CTRL 123	BnH 7BH 00H	All notes off
CTRL 126	BnH 7EH 00H	Mono on
CTRL 127	BnH 7FH 00H	Poly on (default power-up)
CTRL CC1	BnH ccH vvH	Assignable Controller 1. cc=Controller number (0-5Fh), vv=Control value (0-7Fh). Control number (ccH) can be set on CC1 CONTROLLER NUMBER (Sys. Ex 40 1x 1F). The resulting effect is determined by CC1 controller function (Sys.Ex. 40 2p 40-4A)
CTRL CC2	BnH ccH vvH	Assignable Controller 2. cc=Controller number (00h-5Fh), vv=control value (0-7Fh). Control number can be set on CC2 CONTROLLER NUMBER (Sys.Ex. 40 1x 20). The resulting effect is determined by CC2 controller function (Sys.Ex.40 2p 50-5A).
RPN 0000H	BnH 65H 00H 64H 00H 06H vv	Pitch bend sensitivity in semitones (default=2)
RPN 0001H	BnH 65H 00H 64H 01H 06H vv	Fine tuning in cents (vv=00 -100, vv=40H 0, vv=7FH +100)
RPN 0002H	BnH 65H 00H 64H 02H 06H vv	Coarse tuning in half-tones (vv=00 -64, vv=40H 0, vv=7FH +64)
NRPN 0108H	BnH 63H 01H 62H 08H 06H vv	Vibrate rate modify (vv=40H -> no modif)
NRPN 0109H	BnH 63H 01H 62H 09H 06H vv	Vibrate depth modify (vv=40H -> no modif)
NRPN 010AH	BnH 63H 01H 62H 0AH 06H vv	Vibrate delay modify (vv=40H -> no modif)
NRPN 0120H	BnH 63H 01H 62H 20H 06H vv	TVF cutoff freq modify(vv=40H -> no modif)
NRPN 0121H	BnH 63H 01H 62H 21H 06H vv	TVF resonance modify (vv=40H -> no modif)
NRPN 0163H	BnH 63H 01H 62H 63H 06H vv	Env. attack time modify(vv=40H ->no modif)
NRPN 0164H	BnH 63H 01H 62H 64H 06H vv	Env. decay time modify(vv=40H -> no modif)
NRPN 0166H	BnH 63H 01H 62H 66H 06H vv	Env. release time modif(vv=40H ->no modif)
Standard Sysex	F0H 7EH 7FH 09H 01H F7H	General MIDI reset (note 4)

Standard Sysex	F0H 7FH 7FH 04H 01H 00H 11 F7H	Master volume (11=0 to 127, default 127) (note 4). Not reset by GS reset
SYSEX	F0H 26H 7BH 0CH 00H 00H vv F7H	Master tune (default vv= 40H ) -100.vv=0 to +100. vv= 7FH.
SYSEX	F0H 41H 00H 42H 12H 40H 00H 04H vv xx F7H	Master volume (default vv=7FH) (note 4) Not reset by GS reset.
SYSEX	F0H 26H 7BH 07H 00H vv F7H	Master Transposer (default vv=40H, no transpose) (note 4)
SYSEX	F0H 26H 7BH 39H 00H vv F7H	Master pan (default vv=40H, center) (note 4)
SYSEX	F0H 26H 7BH 30H 00H vv F7H	MIDI Port vv=0H (Channels 00H - 0FH), 01H (Channels 10H -1FH)
SYSEX	F0H 26H 7BH 71H 1FH vv 00H F7H	Vv= Round Robin. 0= OFF , 1= On
SYSEX	F0H 26H 7BH 1AH 1pH vv efx F7H	Load EXF Channel , p= Channel ( 00H-0FH) , vv=(00H-13H) 00H : Chorus1                    01H : Chorus2 02H : Phaser1                    03H : Phaser2 04H : Flanger1                    05H : Flanger2 06H : Tremolo1                    07H : Tremolo2 08H : Delay1                    09H : Delay2 0AH : Echo Pan                    0BH : Rotor Slow 0CH : Rotor Fast                    0DH : Organ Overdrive* 0EH : Valve Distortion*    0FH : Power Distortion* 10H : Metal Distortion*    11H : Tweed Amp. Simulator 12H : British Amp.                13H : Jazz Amp. Simulator Simulator vv= 7FH ( off) efx= 3AH ( EFX 1) , 3BH ( EFX 2) *=available only on EFX 1
SYSEX	F0H 41H 00H 42H 12H 40H 00H 7FH 00H xx F7H	GS reset (note 4)
SYSEX	F0H 26H 7BH 0EH 00H 00H F7H	GM reset (note 4)
SYSEX	F0H 26H 7BH 00H 00H vv F7H	Reverb type (vv=0 to 7), default = 03H  10H : Room1                    11H : Room2 12H : Room3                    13H : Hall1 14H : Hall2                    15H : Plate 16H : Delay                    17H : Pan delay (note 5)
SYSEX	F0H 26H 7BH 02H 00H vv F7H	Reverb master level, default = 32 (note 5)
SYSEX	F0H 26H 7BH 01H 00H vv F7H	Chorus type (vv=0 to 7), default = 02H  10H : Chorus1                    11H : Chorus2 12H : Chorus3                    13H : Chorus4 14H : Feedback                    15H : Flanger 16H : Short delay                    17H : FB delay (note 5)
SYSEX	F0H 26H 7BH 03H 00H vv F7H	Chorus master level, default = 26 (note 5)

SYSEX	F0H 26H 7BH 0FH 00H 0pH vv F7H	Part to rhythm allocation, p is part (0 to 15), vv is 00 (sound part) or 01 (rhythm part). This SYSEX allows a part to play sound or drumset. There is no limitation of the number of parts playing drumset.
SYSEX	F0H 41H 00H 42H 12H 40H 1pH 40H v1 v2 ... v12 vx F7H	Scale tuning, p is part (0 to 15), v1 to v12 are 12 semi-tones tuning values (C, C#, D, ... A#, B), in the range -64 (00H) 0 (40H) +63(7FH) cents. This SYSEX allows non chromatic tuning of the musical scale on a given part. Default v1, v2, ... ,v12 = 40H, 40H,...,40H (chromatic tuning). Scale tuning has no effect if the part is assigned to a rhythm channel or if the sound played is not of chromatic type. (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 1pH 1FH vv xx F7H	CC1 Controller number (00-5FH) (default = 10H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 1pH 20H vv xx F7H	CC2 Controller number (00-5FH) (default = 11H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 00H vv xx F7H	Mod pitch control (-24,+24 semitone) (default = 40H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 01H vv xx F7H	Mod tvf cutoff control (default = 40H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 02H vv xx F7H	Mod Amplitude control (-100%+100%) (default=40H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 03H vv xx F7H	Mod lfo1 rate control (default = 40H). n is don't care. Rate is common on all channels
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 04H vv xx F7H	Mod lfo1 pitch depth (0-600 cents) (default=0AH) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 05H vv xx F7H	Mod lfo1 tvf depth (default = 0H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 06H vv xx F7H	Mod lfo1 tva depth (0-100%) (default = 0H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 10H vv xx F7H	Bend pitch control (-24,+24 semitone) (default = 42H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 11H vv xx F7H	Bend tvf cutoff control (default = 40H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 12H vv xx F7H	Bend Amplitude control (-100%+100%) (default=40H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 14H vv xx F7H	Bend lfo1 pitch depth (0-600 cents) (default=00H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 15H vv xx F7H	Bend lfo1 tvf depth (default = 0H) (note 3)

SYSEX	F0H 41H 00H 42H 12H 40H 2pH 16H vv xx F7H	Bend lfo1 tva depth (0-100%) (default = 0H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 20H vv xx F7H	CAF pitch control (-24,+24 semitone) (default = 40H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 21H vv xx F7H	CAF tvf cutoff control (default = 40H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 22H vv xx F7H	CAF Amplitude control (-100%+100%) (default=40H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 24H vv xx F7H	CAF lfo1 pitch depth (0-600 cents) (default=00H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 25H vv xx F7H	CAF lfo1 tvf depth (default = 0H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 26H vv xx F7H	CAF lfo1 tva depth (0-100%) (default = 0H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 40H vv xx F7H	CC1 pitch control (-24,+24 semitone) (default = 40H) (note 3)
- SYSEX	F0H 41H 00H 42H 12H 40H 2pH 41H vv xx F7H	CC1 tvf cutoff control (default = 40H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 42H vv xx F7H	CC1 Amplitude control (-100%+100%) (default=40H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 44H vv xx F7H	CC1 lfo1 pitch depth (0-600 cents) (default=00H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 45H vv xx F7H	CC1 lfo1 tvf depth (default = 0H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 46H vv xx F7H	CC1 lfo1 tva depth (0-100%) (default = 0H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 50H vv xx F7H	CC2 pitch control (-24,+24 semitone) (default = 40H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 51H vv xx F7H	CC2 tvf cutoff control (default = 40H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 52H vv xx F7H	CC2 Amplitude control (-100%+100%) (default=40H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 54H vv xx F7H	CC2 lfo1 pitch depth (0-600 cents) (default=00H) (note 3)
SYSEX	F0H 41H 00H 42H 12H 40H 2pH 55H vv xx F7H	CC2 lfo1 tvf depth (default = 0H) (note 3)

SYSEX	F0H 41H 00H 42H 12H 40H 2pH 56H vv xx F7H	CC2 lfo1 tva depth (0-100%) (default = 0H) (note 3)
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**Notes :**

1. NRPN sending method : CTRL#99=high byte, CTRL#98=low byte, CTRL#6=vv. Example : NRPN 0108h = 40h -> CTRL#99=1, CTRL#98=8, CTRL#6=64.
2. x or xx means « don't care »
3. Cross system exclusive :  
Address can be 040h xxh xxh or 050h xxh xxh  
If adresse=040h xxh xxh : system exclusive applies to midi port 1 (midi channels 0-Fh) if received on midi port1 , applies to midi port 2 (midi channels 10-1Fh) if received on midi port 2.  
If adresse=050h xxh xxh, cross system exclusive : applies to port 2 if received on port1, applies to port 1 if received on port2
4. Non cross system exclusive applying only on receiving port :  
System exclusive applies to midi port 1 (midi channels 0-Fh) if received on midi port1.  
System exclusive applied to midi port 2 (midi channels 10-1Fh) if received on midi port2.
5. Non cross system exclusive applying on both ports :  
System exclusive will be applied to all midi channels (0-1Fh). Can be received on port 1 or port 2 indifferently.  
This is the case for all system exclusive concerning reverb and chorus because reverb and chorus are the same for both ports 1 and 2.

**REMARKS:**

**(M): MULTIVOICE.** These sounds are obtained with two or more voices simultaneously.

**(ST): STEREO.** These sounds are really Stereo sounds because they are created with two samples for each note played.

**(LDM): LIVE DRUM MODELLING.** In these Drum Sets, some instruments (such as the Snare, Rim shot, Claps or other) play with different samples on the same timbre. These samples are addressed casually to reproduce the sound variables of a live rhythmical performance in the best way possible.

**(FXV): EFX INSERT VOICE.** The last 9 Voices listed on the Sound List of the SD1000 are obtained (just as an example) using effects in the EFX Insert mode (such as HQ Overdrive, Chorus and others). We suggest you use this feature to strengthen the sound quality of the musical productions with the SD1000.