
SX-EA 1 REFERENCE GUIDE

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DISPLAY CHARACTERS

character	display	character	display	character	display	character	display
0	0	C	C	L	L	S	S
1	1	c	c	l			
2	2	D	d	M	n	T	t
3	3	d					
4	4	E	E	N	n	U	u
5	5	e					
6	6	F	F	O	O	V	U
7	7	f					
8	8	G	G	P	P	Y	y
9	9	g					
A	A	H	H	Q	q		
a		h		q			
B	b	l	l	R	r		
b		i		r			

EASY SETTING (Press and hold)

TECHNI-CHORD

o → TECHNI-CHORD TYPE

SET

→ PANEL MEMORY MODE

DIGITAL REVERB



→ REVERB DEPTH SETTING

TREMOLO SLOW/FAST



→ TREMOLO SPEED SETTING

(UPPER)

ORGAN



→ UPPER ORGAN SOUND PRESET

BASS PEDALS



→ BASS OCTAVE SHIFT

(LOWER)

ORGAN



→ LOWER ORGAN SOUND PRESET

MUSIC STYLE ARRANGER

1 2 3
o o o



→ MUSIC STYLE ARRANGER MODE

SOUND VARIATIONS

SOUND VARIATIONS		MIDI PROGRAM CHANGE DATA		SOUND VARIATIONS		MIDI PROGRAM CHANGE DATA	
		NORM	TECH			NORM	TECH
PIANO				OTHERS			
1	Grand Piano	5 (0)	0 (0)	1	Upright Piano	4 (0)	2 (32)
2	Piano 1 Oct.	5 (1)	0 (16)	2	Mellow Piano	4 (1)	2 (0)
E PIANO				3	Bright Piano	4 (2)	1 (0)
1	E.Piano 1	6 (0)	5 (0)	4	Honky Tonk	4 (3)	1 (16)
2	Modern E.Piano 1	6 (1)	6 (0)	5	Midi Grand	4 (4)	0 (32)
GUITAR				6	Modern E.Piano2	4 (5)	4 (0)
1	Classical Guitar	7 (0)	20 (0)	7	Cembalo	4 (6)	18 (0)
2	Hawaiian Guitar	7 (1)	31 (0)	8	Glockenspiel	4 (7)	9 (0)
E GUITAR				9	Xylophone	4 (8)	11 (0)
1	Jazz Guitar	8 (0)	25 (0)	10	Folk Guitar	4 (9)	22 (0)
2	Bright Solid	8 (1)	26 (0)	11	12 String Guitar	4 (10)	23 (0)
BRASS				12	Mute Guitar	4 (11)	29 (0)
1	Brass	9 (0)	56 (0)	13	DistortionGuitar	4 (12)	30 (0)
2	Trumpet	9 (1)	48 (0)	14	Country Guitar	4 (13)	31 (16)
HARPSI/VIBES				15	Banjo	4 (14)	33 (0)
1	Harpsichord	0 (0)	16 (0)	16	Mandolin	4 (15)	35 (0)
2	Vibraphone	0 (1)	8 (0)	17	Harp	4 (16)	32 (0)
STRINGS/VOCAL				18	Timpani	4 (17)	126 (0)
1	Strings 1	1 (0)	101 (32)	19	Strings 2	4 (18)	100 (0)
2	Vocal Ooh	1 (1)	104 (32)	20	OctaveStrings	4 (19)	102 (0)
REED				21	Pizzicato	4 (20)	99 (0)
1	Jazz Clarinet	2 (0)	68 (0)	22	Violin	4 (21)	96 (0)
2	Accordion	2 (1)	80 (0)	23	Octave Brass	4 (22)	56 (16)
SAX/FLUTE				24	Mute Trumpet	4 (23)	50 (0)
1	Tenor Sax	3 (0)	78 (48)	25	Trombone	4 (24)	52 (0)
2	Flute	3 (1)	65 (0)	26	French Horn	4 (25)	54 (0)
				27	Soprano Sax	4 (26)	76 (0)
				28	Alto Sax	4 (27)	77 (0)
				29	Mellow Alto	4 (28)	77 (16)
				30	Breathy Tenor	4 (29)	78 (16)
				31	Oboe	4 (30)	66 (0)
				32	Dream	4 (31)	108 (32)

•The numbers in parentheses () are bank data.

Program change number = Program change data+1 / Bank number = Bank data+1

UPPER/LOWER ORGAN SOUNDS PRESET

ORGAN SOUNDS PRESET NAME				MIDI PROGRAM CHANGE DATA NORM=TECH
No.	UPPER	No.	LOWER	
ELECTRONIC TABS				
1	WARM SOLO	1	TYPICAL 8' & 4'	0 (0)
2	CONTINENTAL	2	RICH FLUTES	1 (0)
3	WARM & BRIGHT	3	MANY PITCHES	2 (0)
4	MAIN THEME	4	SHARP 8'	3 (0)
5	LIGHT FLUTES	5	WIDE FLUTES	4 (0)
6	FULL THEATRE	6	FULL LOWER	5 (0)
DRAWBARS				
7	BOSSA DRAWBAR	7	JAZZ ACCOMP	0 (4)
8	SMOKIN' 'B'	8	EIGHT TO ONE	1 (4)
9	POP DRAWBARS	9	8'+4' CLICK	2 (4)
10	16'+1' COMBO	10	POP ACCOMP	3 (4)
11	LUSCIOUS SND.	11	MELLOW MIX	4 (4)
12	FULL DRAWBARS	12	FULL FOOTAGE	5 (4)
CLASSICAL PIPE ORGAN				
13	BASIC 16'+8'	13	FLUTE & DIAP.	0 (12)
14	HYMN	14	BASIC 8'+8'	1 (12)
15	FULL ORGAN	15	SOFT MIXTURE	2 (12)
16	TUTTI	16	FULL ORGAN	3 (12)

•The numbers in parentheses () are bank data.

Program change number = Program change data+1 / Bank number = Bank data+1

BASS PEDALS

SOUND VARIATIONS	MIDI PROGRAM CHANGE DATA		SOUND VARIATIONS	MIDI PROGRAM CHANGE DATA			
	NORM	TECH		NORM	TECH		
ORGAN			ELECTRIC				
1	8'	0 (0)	94 (16)	1	Electric Bass	3 (0)	40 (0)
2	16'+8'	0 (1)	95 (0)	2	Slap Bass	3 (1)	41 (0)
CLASSICAL ORGAN			ORCHESTRAL				
1	PipeCoupler	1 (0)	84 (16)	1	Tuba	4 (0)	55 (0)
2	Basic Pipes	1 (1)	85 (48)	2	Timpani	4 (1)	126 (0)
ACOUSTIC							
1	Acoustic Bass	2 (0)	43 (0)				
2	OctaveStrings	2 (1)	102 (0)				

•The numbers in parentheses () are bank data.

Program change number = Program change data+1 / Bank number = Bank data+1

RHYTHM VARIATIONS

RHYTHM VARIATIONS		MIDI PROGRAM CHANGE DATA		RHYTHM VARIATIONS		MIDI PROGRAM CHANGE DATA	
		NORM	TECH			NORM	TECH
8BEAT				ROCK/DISCO			
1	8Beat Standard	6 (0)	90 (96)	1	Disco 70's	0 (0)	121 (16)
2	8Beat Ballad	6 (1)	91 (32)	2	Disco Pop	0 (1)	123 (48)
3	8Beat Pop	6 (2)	84 (48)	3	Funk	0 (2)	110 (48)
4	Country Rock	6 (3)	85 (32)	4	Samba Rock	0 (3)	117 (16)
16BEAT				ROCK (OTHERS)			
1	16Beat Standard	7 (0)	96 (64)	1	Rock'n'Roll	1 (0)	80 (64)
2	16Beat Ballad	7 (1)	99 (96)	2	Shuffle Boogie	1 (1)	77 (32)
3	16Beat Rock	7 (2)	99 (112)	3	Rock Ballad	1 (2)	74 (80)
4	16Beat Pop	7 (3)	107 (48)	4	Swing Rock	1 (3)	73 (16)
BIG BAND/SWING				COUNTRY			
1	Standard Swing	8 (0)	32 (48)	1	Country 2step	2 (0)	17 (112)
2	Big Band Fast	8 (1)	36 (48)	2	Country Folk	2 (1)	16 (16)
3	Big Band Ballad	8 (2)	39 (16)	3	Bluegrass	2 (2)	20 (48)
4	Dixie	8 (3)	24 (32)	4	Hawaiian	2 (3)	22 (16)
JAZZ COMBO				TRAD/SHOW			
1	Jazz Combo	9 (0)	34 (16)	1	Foxtrot	3 (0)	29 (96)
2	Jazz Ballad	9 (1)	44 (16)	2	Organ Quickstep	3 (1)	28 (16)
3	Organ Jazz	9 (2)	34 (48)	3	Polka 2/4	3 (2)	4 (48)
4	Jazz Waltz	9 (3)	46 (48)	4	Broadway Show	3 (3)	15 (32)
LATIN1				MARCH/WALTZ			
1	Rhumba	10 (0)	58 (32)	1	U.S.March 2/4	4 (0)	0 (32)
2	Mambo	10 (1)	56 (32)	2	U.S.March 6/8	4 (1)	2 (16)
3	Cha Cha	10 (2)	57 (48)	3	Simple Waltz	4 (2)	13 (0)
4	Tango Continental	10 (3)	53 (64)	4	Standard Waltz	4 (3)	11 (16)
LATIN2				ETHNIC			
1	Simple Bossa	11 (0)	48 (48)	1	Dangdut	5 (0)	60 (64)
2	Organ Bossa	11 (1)	48 (80)	2	Keroncong	5 (1)	60 (80)
3	Samba	11 (2)	51 (48)	3	Talempong	5 (2)	60 (96)
4	Organ Samba	11 (3)	51 (64)	4	Degung Sunda	5 (3)	60 (112)

•The numbers in parentheses () are bank data.

Program change number = Program change data + 1 / Bank number = Bank data + 1

ONE TOUCH REGISTRATION

SOUND NAME	ONE TOUCH REGISTRATION	SOUND NAME	ONE TOUCH REGISTRATION
PIANO	PIANO COMBO PIANO&STRINGS SHEARING SOUND SOCIETY PIANO DIXIELAND PIANO	HARPSI/VIBES	GOOD VIBES COOL JAZZ E.P. VIBES BAROQUE TIMES* BAROQUE ORCHESTRA*
E PIANO	DREAMY E.P. ORCHESTRAL E.P. FUNKY E.P. ROMANTIC MODERN E.P. LATIN E.P.	STRINGS/VOCAL	ORGAN&STRINGS STRING ORCHESTRA SWEET ROMANCE ITALIAN MOOD SHOW TIME STRINGS
GUITAR	LATIN GUITAR LATIN COMBO SAXY GUITAR HAWAIIAN FANTASY CARNIVAL GUITAR	REED	MILLER TIME POLKA REEDS ORCHESTRAL OBOE BALLAD ACCORDION TANGO BAND
E GUITAR	MODERN JAZZ GUITAR ROCK&ROLL GUITAR DISTORTION GUITAR COUNTRY GUITAR GUITAR SYNTHESIZER	SAX/FLUTE	BALLAD SAX DANCE COMBO LATIN FLUTE ROCK&ROLL SAX BIGBAND SAXES
BRASS	WARM BIG BAND BRASS HOT MUTES DIXIE TROMBONE MARCHING BRASS MOVIE HORNS	ORGAN	EVEN FOOTAGES JAZZ ORGAN POP ORGAN CHAPEL ORGAN CHURCH ORGAN

*ACCOMP volume=0

KEYBOARD PERCUSSION

	PERCUSSION NAME	MIDI NOTE NUMBER	
		NORM	TECH
	Bass Drum	36	38
	Rim Shot	37	47
	Snare Drum 1	38	38
	Special Snare Drum	39	31
	Snare Drum 2	40	32
	Floor Tom	41	95
	Splash Cymbal	42	24
	Tom Low	43	41
	Crash Cymbal Low	44	51
	Tom Mid	45	43
	Crash Cymbal High	46	25
	Tom High	47	45
	Hi Hat Close 1	48	48
	Hi Hat Close 2	49	49
	Hi Hat Open	50	50
	Ride Bell	51	28
	Ride Cymbal	52	52
	Conga Low	53	53
	Small Conga Low	54	54
	Conga High	55	55
	Small Conga High	56	56
	Conga Crash	57	57
	Metal Cabasa	58	58
	Timbales Low	59	99
	Timbales High	60	100
	Cowbell Low	61	66
	Cowbell High	62	62
	Agogo Low	63	102
	Agogo High	64	101
	Samba Whistle Low	65	65
	Samba Whistle High	66	66
	Claves	67	67
	Slap	68	68
	Hand Clap	69	69
	Tambourine	70	74
	Shaker	71	96
	Triangle	72	108

TECHNI-CHORD TYPE

<Example: C major chord>

CLOSE [c]



OPEN1 [O 1]



OPEN2 [O 2]



DUET [d]



♩ : Played note (right-hand melody)

○ : Added notes

MIDI Implementation Chart

Organ [SX-EA1]

(Transmitted)

Function	UPPER ORGAN,SOUND,SOLO	LOWER ORGAN,SOUND,SOLO (KBP)	BASS	ACCOMP 1,2,3	DRUMS	CONTROL	Remarks	
Basic Default	1	2	3	8 (1),9 (2),10 (3)	16	15		
Channel Changed	X	X	X	X	X	X		
Mode Default	3	3	3	3	3	3	OMNI OFF,POLY MODE	
Mode Messages	X	X	X	X	X	X		
Mode Altered	-	-	-	-	-	-		
Note Number True voice	48-102	36-90	0-127	0-127	0-127	-	Changes depending on the position of the transpose control	
Velocity Note ON	X	X	O*	O*	O*	-		
Velocity Note OFF	X (9nH:v=0)	X (9nH:v=0)	X (9nH:v=0)	X (9nH:v=0)	X (9nH:v=0)	-		
After Key's	X	X	X	X	X	X		
Touch Ch's	X	X	X	X	X	X		
Pitch Bend	X	X	O*	O*	X	X		
Control Change	0.32	O	O	O	O	X	bank select MSB,LSB	
	1	X	X	O*	O*	X	modulation	
	7	O	O	O	O	X	volume (part)	
	11	X	X	X	X	O	expression pedal	
	64	O	O	O	X	X	sustain	
	80	X	O	X	X	X	auto play chord	
	82	X	X	X	X	O	intro, fill in, ending	
	91	-	-	-	-	-	O	reverb
	92	O**	O**	X	X	X	X	tremolo
93	O***	O***	O	O	X	X	digital effect	
Prog Change True #	O	O	O	O	O	X	Changes depending on program change mode.	
System exclusive			X					
System common			O					
Song Pos			X					
Song Sel			X					
Tune			X					
System Clock			O					
Real Time Commands			O X				start/stop,continue	
Aux Local ON/OFF	X	X	X	X	X	-		
Aux All notes OFF	X	X	X	X	X	-		
Messages Active Sense			O					
Reset			X					
Notes	O*.....AUTO PLAY CHORD pattern only O**.....ORGAN part only O***.....SOUND, SOLO part only OX*.....Whether or not the data for each of these items is transmitted can be set.							

Mode 1: OMNI ON, POLY

Mode 2: OMNI ON, MONO

O:Yes

Mode 3: OMNI OFF, POLY

Mode 4: OMNI OFF, MONO

X:No

MIDI Implementation Chart

Organ [SX-EA1]

(Recognized)

Function	UPPER SOUND	LOWER SOUND	BASS	UPPER SOLO	LOWER SOLO	UPPER ORGAN	LOWER ORGAN	CONTROL	DRUMS (KBP)	Remarks	
Basic Default	1	2	3	4	5	13	14	15	16		
Channel Changed	×	×	×	×	×	×	×	×	×		
Mode Default	3	3	3	3	3	3	3	3	3	OMNI OFF, POLY MODE	
Mode Messages	×	×	×	×	×	×	×	×	×		
Mode Altered	—	—	—	—	—	—	—	—	—		
Note Number	0-127	0-127	0-127	0-127	0-127	0-127	0-127	—	0-127	Changes depending on the position of the transpose control and drums type	
Velocity Note ON	○	○	○	○	○	×	×	—	○		
Velocity Note OFF	×	×	×	×	×	×	×	—	×		
After Touch Key's	×	×	×	×	×	×	×	—	×		
After Touch Ch's	×	×	×	×	×	×	×	—	×		
Pitch Bend	○	○	○	○	○	×	×	×	×		
Control Change 0.32	○	○	○	○	○	○	○	×	○	bank select MSB, LSB	
Control Change 1	○	○	○	○	○	×	×	×	×	modulation	
Control Change 7	○	○	○	○	○	○	○	×	○	volume(part)	
Control Change 11	×	×	×	×	×	×	×	○	×	expression pedal	
Control Change 64	○	○	○	○	○	○	○	×	×	sustain	
Control Change 80	×	○	×	×	×	×	×	×	×	auto play chord	
Control Change 82	×	×	×	×	×	×	×	×	○	intro, fill in, ending	
Control Change 91	×	×	×	×	×	×	×	○	×	reverb	
Control Change 92	×	×	×	×	×	○	○	×	×	tremolo	
Control Change 93	○	○	○	○	○	×	×	×	×	digital effect	
Prog Change True #	○	○	○	○	○	○	○	×	○	Changes depending on program change mode	
System exclusive						×					
System common Song Pos						○					
System common Song Sel						×					
System common Tune						×					
System Real Time Commands Clock						○					
System Real Time Commands						○	×				start/stop,continue
Aux Local ON/OFF	×	×	×	×	×	×	×	×	—	×	
Aux All notes OFF	○	○	○	○	○	○	○	○	—	○	
Messages Active Sense						○					
Messages Reset						×					
Notes	○×*.....Whether or not the data for each of these items is transmitted can be set.										

Mode 1: OMNI ON, POLY

Mode 2: OMNI ON, MONO

○:Yes

Mode 3: OMNI OFF, POLY

Mode 4: OMNI OFF, MONO

×:No

MIDI DATA FORMAT

Message format

■ Channel voice message

Note off

8nH	Note off status
kk	Note number
vv	Velocity

n: 0-F Basic channel

kk: 00H-7FH Note number

vv: 00H-7FH Velocity

• This status is not used during transmission; rather, velocity=0 is transmitted with the note on status.

Note on

9nH	Note on status
kk	Note number
vv	Velocity

n: 0-F Basic channel

kk: 00H-7FH Note number

vv: 01H-7FH Velocity

00H Note off

Control Change

Bank select

BnH	Control change status
00H	Bank select (MSB)
mm	Bank select value (MSB)
(BnH)	Control change status
20H	Bank select (LSB)
ll	Bank select value (LSB)

n: 0-F Basic channel

mm,ll: 00H-7FH

• Indicates program change bank. Used when program change mode is set to Normal mode or Technics mode.

Modulation

BnH	Control change status
01H	Modulation
vv	Modulation depth value

n: 0-F Basic channel

vv: 00H-7FH

Volume

BnH	Control change status
07H	Part volume
vv	Part volume value

n: 0-F Basic channel

vv: 00H-7FH

Expression

BnH	Control change status
0BH	Expression
vv	Expression value

n: 0-F Basic channel

vv: 00H-7FH

Sustain

BnH	Control change status
40H	Sustain
vv	Sustain on/off

n: 0-F Basic channel

vv: 00H-3FH (00H) Off

40H-7FH (7FH) On

Auto play Chord

BnH	Control change status
50H	APC message
vv	APC message value

n: 0-F Basic channel

vv: 00H = Off

01H = Fingered

02H = One-Finger

03H = PIANIST

• Transmitted / received on the basic channel for the LOWER SOUND 1 part.

Rhythm Control

BnH	Control change status
52H	Rhythm control message
vv	Rhythm control data

n: 0-F Basic channel

vv: 00H = off

01H = FILL IN 1

02H = ENDING

03H = INTRO

05H = FILL IN 2

07H = COUNT INTRO

• Transmitted / received on the basic channel for the DRUMS part.

Reverb

BnH	Control change status
5BH	Reverb
vv	Reverb on/off

n: 0-F Basic channel

vv: 00H-3FH (00H) Off

40H-7FH (7FH) On

• Transmitted data is indicated by parentheses().

• The reverb for the CONTROL part is the total reverb.

• The reverb on/off data for the U.Organ and L.Organ is transmitted / received on the basic channel for the U.Organ part.

Tremolo

BnH	Control change status
5cH	Tremolo
vv	Tremolo on/off

n: 0-F Basic channel
vv: 00H-3FH (00H) Off
40H-7FH (7FH) On

• Transmitted / received on the basic channel for the Upper / Lower Organ part.

Digital effect

BnH	Control change status
5DH	Digital effect
vv	Digital effect on/off

n: 0-F Basic channel
vv: 00H-3FH (00H) Off
40H-7FH (7FH) On

• Transmitted data is indicated by parentheses().

Program Change

CnH	Program change status
pp	Program change value

Normal mode: Numbers are correspond to the SW of the SOUND GROUP(the variation is indicated by the Bank Select).

Technics mode: Numbers are standardized among Technics modes(Bank Select also used).

All note off

BnH	Channel mode status
7BH	All note off
00H	Dummy data

n: 0-F Basic channel
Receive only

OMNI off

BnH	Channel mode status
7CH	OMNI off
00H	Dummy data

n: 0-F Basic channel
• Processed in same manner as when All note off is received.

OMNI on

BnH	Channel mode status
7DH	OMNI on
00H	Dummy data

n: 0-F Basic channel
• Processed in same manner as when All note off is received. Does not change to OMNI on.

MONO

BnH	Channel mode status
7EH	MONO
00H	Dummy data

n: 0-F Basic channel
• Processed in same manner as when All note off is received. Does not change to MONO.

POLY

BnH	Channel mode status
7FH	POLY
00H	Dummy data

n: 0-F Basic channel
• Processed in same manner as when All note off is received.

■ System common message

Song position pointer

F2H	Song position pointer
ll	Least significant
mm	Most significant

ll,mm: 00H - 7FH

Song select

F3H	Song select
ss	Song number

ss: 0-19

■ System real time message

Timing Clock

F8H	Timing clock
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Start

FAH	Start
-----	-------

Continue

FBH	Continue
-----	----------

Stop

FCH	Stop
-----	------

Active Sence

FEH	Active sence
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