

SSCMA3

Users' Manual

Ver. 1.2

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YAMAHA CORPORATION

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• **About SSCMA3**

The SSCMA3 is an application designed for converting SMF file, known as standard MIDI file, to SMAF, the YAMAHA-defined Synthetic Music Mobile Application Format, as well as for editing management information of SMAF data.

• **System Requirements**

Below are minimum system requirements for running SSCMA3:

- . Personal computer : NEC-PC98 series, IBM PC/AT compatible computer
- . CPU : Pentium® -75MHz or higher (Pentium® -166MHz or higher is recommended)
- . OS : Windows®98 (Includes Second Edition), Windows®Me, Windows®2000
Windows®XP

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<Revision history>

Manual Ver.	Date	Contents	SscMA3 Ver.
1.0	Apr.01, 2002	Newly creation.	1.0
1.0.1	Apr.16, 2002	The figure numbers of the whole manual were corrected. Image Fig.2-1 was changed. Image Fig.3-3 was changed.	1.0.1
1.1	May.10, 2002	Image Fig.2-1 was changed. Image Fig.3-3 was changed. 7. Information The explanation of display contents (P19) was added. Image Fig. 7-1 was changed.	1.1
1.2	Jul.31, 2002	Image Fig.2-1 was changed. Image Fig.3-3 was changed. 8.Error message was added newly.	1.2

1. General Description

The SSCMA3 is a software converter that helps converting SMF composing data to SMAF data. It also has an edit function that allows users to edit information such as song title and the composer's name of SMAF files.

The SSCMA3, which produces maximum 2 sounds at one time, can read up to 10 sound files of AIFF and WAVE and convert them as Stream PCM to SMAF data of.

[NOTE]: Editing the sound of a SMAF file is not supported by the SSCMA3.

Only SMF files saved using "FORMAT0" are convertible.

Refer to the "Guidelines for SMF Creation" for the details of how to create SMF data.

[CAUTIONS about LED synchronous setup]

1. If you load MIDI file to a tool, LED synchronous information on SMAF will be added to "The first channel containing Note event".

Unless a maker means and LED synchronous setup is removed, SMAF contents generated with a tool are set up so that LED of a cellular phone may surely light up synchronizing with Note event of some Channel.

2. When you register SMAF without LED synchronous setup into the ring melody of the mobile phone, at a part of the mobile phone, even if a telephone becomes, LED may not light up.

It is careful.

3. If LED of a mobile phone does not light up, it may be mistaken with failure of a terminal, and if a setup of volume is made into the silence, it is hard to notice even if it gets a telephone call.

In consideration of a contents user's convenience, it recommends not removing LED synchronous setup of SMAF if possible.

2. Installation

This section describes how to install SSCMA3.

1. Double clicking the "Setup.exe" in the SSCMA3 folder to start the installation.



Fig. 2-1 Preparing the Setup Wizard

The "Setup Wizard" dialog as below will be shown.

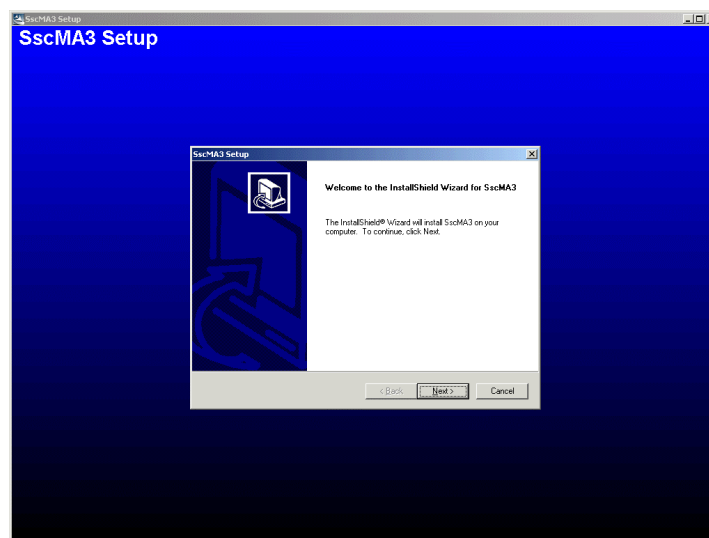


Fig. 2-2 The "Setup Wizard" dialog

2. To proceed, click "NEXT" on the Setup Wizard dialog box.

A dialog box as below will be shown which allows you to choose a destination folder for the files to be installed.

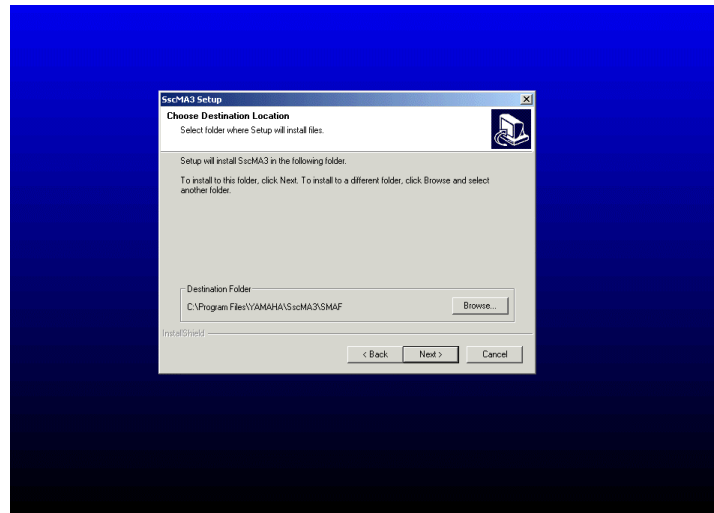


Fig. 2-4 Choose destination location for installing the files

3. To proceed, click "NEXT" on the destination location dialog box.

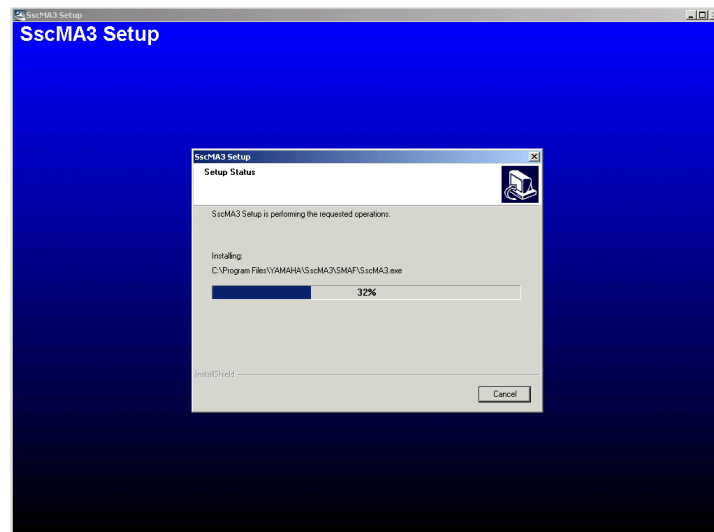


Fig. 2-5 Setup Status

When the installation is complete, a dialog box that indicates the completion of the installation as below will be shown.

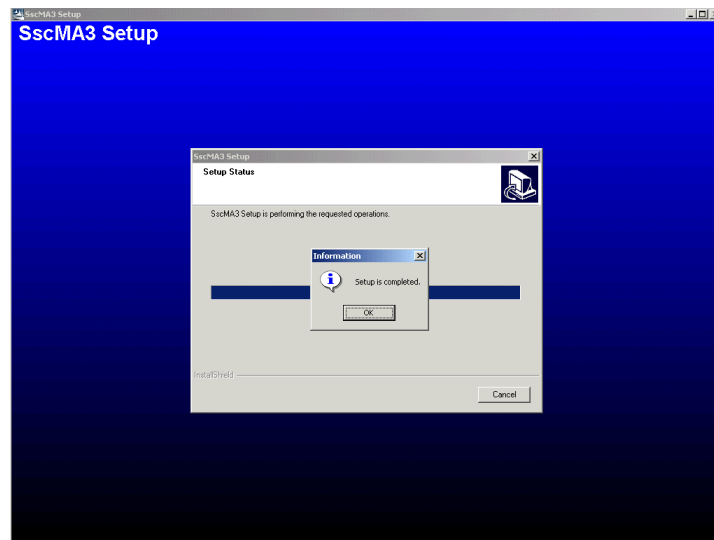


Fig. 2-6 Installation is complete

4. Click "OK" to finish the installation.

A shortcut to the application will be created on the desktop.



Fig 2-7 Shortcut Icon

3. Operations

3.1 Start the Application

Double-clicking on the "SscMA3" icon on the desktop to start the application.



Fig. 3-1 Application Window

[NOTE]: SscMA3.exe must reside in the same folder with the DLL files that perform file conversion. There are 2 DLL files. CnvMA3SMAF.dll is for converting SMAF/MA-3 files and CnvMA3SMF.dll for MIDI file conversion.

3.2 SscMA3 Window Description

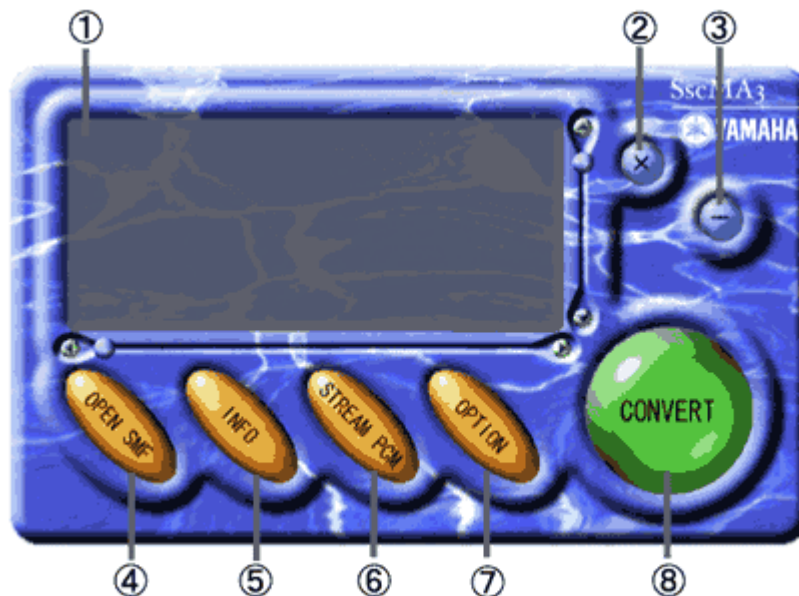


Fig. 3-2 SSCMA3 Windows

- | | |
|---|---|
| <p>1. Window for showing conversion details
Display conversion details.</p> <p>2. Quit (Exit) button
Exit the application.</p> <p>3. Close (Minimization) button
Minimize the application window to the task bar.</p> <p>4. Open SMF button
Load SMF to SSCMA3.</p> | <p>5. Information button
Display sound information</p> <p>6. Stream PCM button
Show the Stream PCM Assign Map.</p> <p>7. Option button
Show the Option Menu.</p> <p>8. Convert button
Convert the loaded SMF to SMAF.</p> |
|---|---|

[NOTE]: You can right click on top of the SSCMA3 window to display the version information (AboutSSCMA3) and the list of error messages (Help).



Fig3-3 About SscMA3

3.3 Opening SMF (Loading SMF)

1. A file open dialog box will be shown after you press the “OPEN SMF” button.

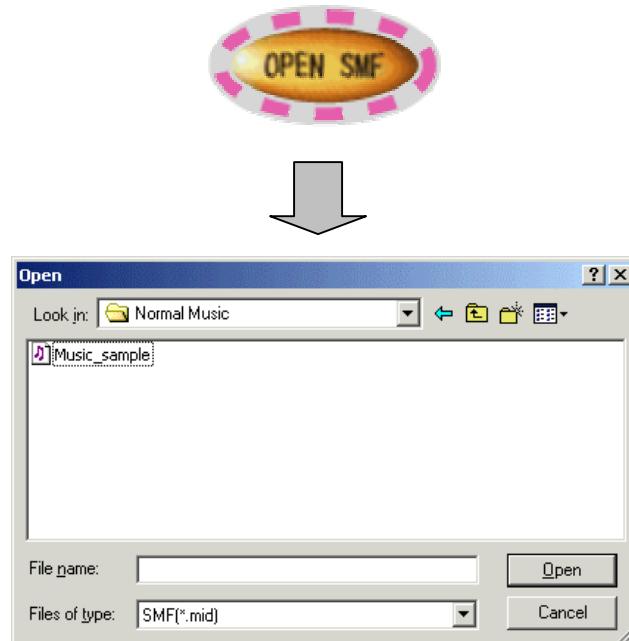


Fig. 3-4 File Open dialog box

2. Select the SMF (xxx.mid) file you want to convert and click “Open”. (You can also open the target SMF file by dragging and dropping it to the application.)



Fig. 3-5 Open SMF

3. The filename and the path of the opened SMF file will be shown on the window.
[NOTE]: In SscMA3, when SMF is used with other applications, the SMF cannot be opened.

3.4 Converting to SMAF

1. After SMF file is loaded to the SscMA3, click the "Convert" button for conversion.

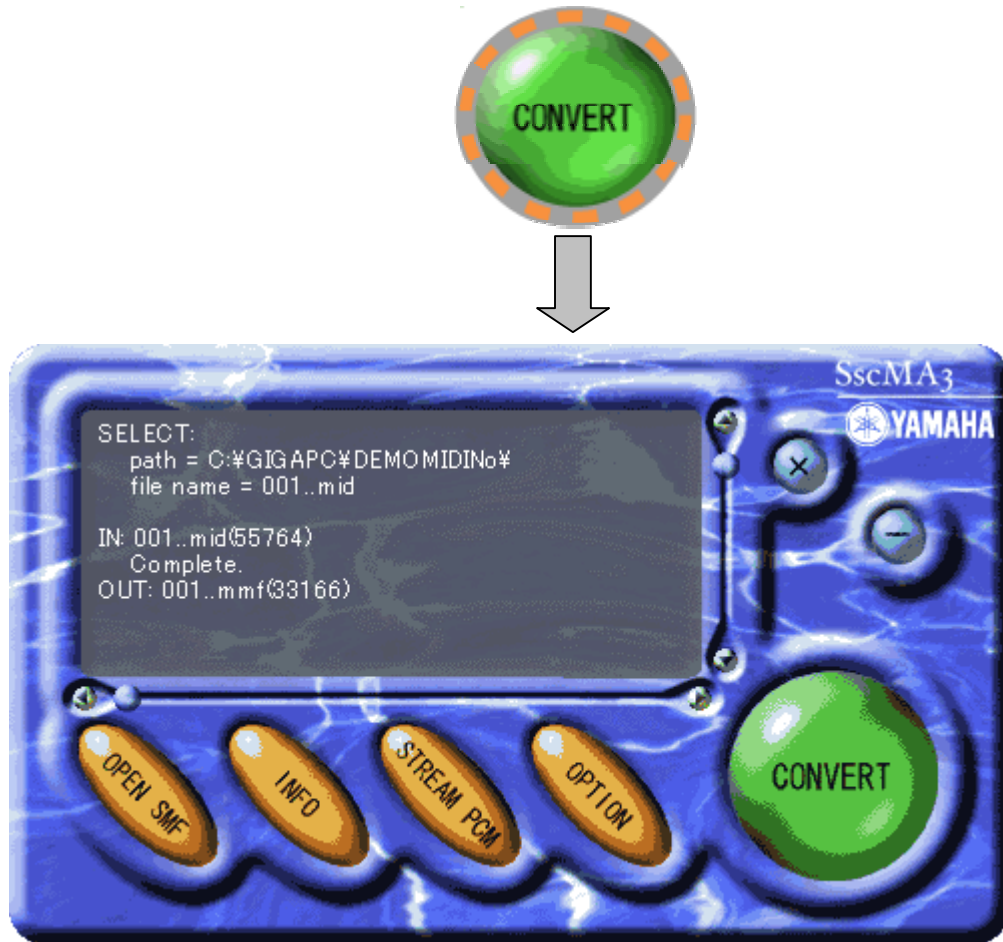


Fig. 3-6 Convert File

2. The conversion result will be shown on the window.
IN : Shows the filename and data size(bytes) of the SMF file before conversion.
result : Shows "Complete" when conversion succeeded and "Error" when error occurred.
OUT : Shows the filename and data size(bytes) of the SMAF file after conversion
 3. Save the SMAF (xxx.mmf) file in the same folder where you opened the SMF (xxx.mid) file. It cannot convert, when there is already SMAF of the name same in the folder. It converts, after moving past SMAF to another folder or saving by the alias.
- [NOTE]: Before you perform file conversion, go to the Option menu and make sure the proper FM mode is selected. For converting multiple files, check "Auto Convert" from the Option menu and then drag and drop the multiple files to the application and convert.

4. Conversion using Stream PCM

It is capable of importing to SMAF, using sound files as Stream PCM, herein SPCM, which converted out encoding processing (compression). In order to be able to play simultaneously a channel sequence and the sound file (AIFF/WAVE) on SMAF.

SscMa3 can register a maximum of ten PCMs, and can pronounce to two sounds simultaneously by the maximum.

In order to use Stream PCM, it is required to set up bank select and note number in the SMF file in advance. For data creation, refer to "Guidelines for SMF Creation".

4.1 Stream PCM

In SscMa3, to import each sound file as SPCM, It is necessary to save a sound file by setup which be base on the specification of SMAF beforehand.

<Restriction of the Stream PCM sample rate to register>

The sound file to register uses the sound file saved by 8 bits or 16 bits. A sound file carries out encoding processing (compression), and Stream PCM chosen when importing is registered.

[Note] SscMa3 cannot set a 8-bit sound file to 4bitADPCMs, and cannot carry out encoding processing. In case it registers, it registers as 8bitPCMs.

Either 4bitADPCMs or 8bitPCMs can carry out encoding processing of the 16-bit sound file.

When using a sound file as Stream PCM data by the specification of SMAF, it is necessary to restrict the number of maximum Stream PCM unit bytes per second. A sound file is used so that the sample frequency of a sound file may be converted into the number of bytes of $1\text{Hz}=1\text{byte/sec}$, and it may fit in restriction.

<Restriction of the SPCM sample frequency to register>

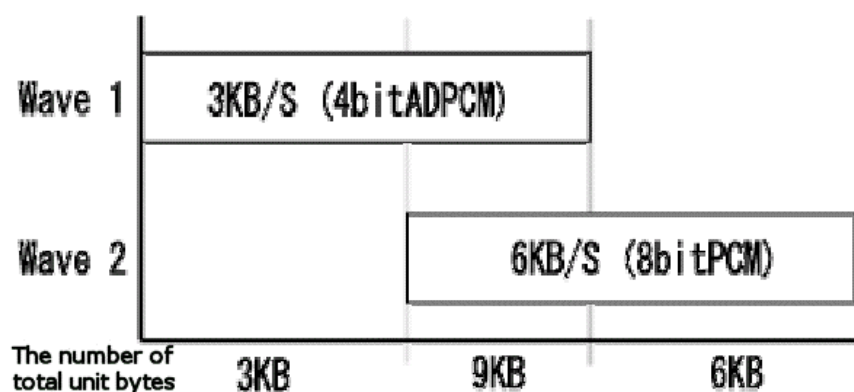
When the number of maximum Stream PCM unit bytes when registering carries out encoding processing at 4BitADPCM, Stream PCM to 16 K bytes/sec is registered. Similarly, it is made to be set to 8BitPCMs by 8 K bytes/sec.

<Restriction of the SPCM sample frequency to pronounce>

It is not a time of registering, the sum total of the number of maximum SPCM unit bytes when pronouncing is made to become on 8 bit standard by 8 bytes/sec.

[Note] Since the sum total of pronunciation restrictions is 8 bit standard, Stream PCM registered by 4bitADPCMs is totaled in the half of the actual number of maximum Stream PCM unit bytes.

[Example] Using 4bitADPCM of FS=6KHz and 8bitPCM of FS=6KHz



In SscMA3, when pronouncing and the number of maximum Stream PCM unit bytes exceeds restriction, it can't be converted, unless the sample frequency of registered Stream PCM is changed.

4.2 Paste Stream PCM

1. Paste Stream PCM and open Stream PCM to convert. Click "Stream PCM" button to open the SPCM Assign Map.



Fig. 4-1 SPCM Assign Map

[Wave ID]

Shows Wave IDs. The note number is supported. (Up to 10 waves can be registered.)

[Fs]

Shows the frequency of the registered wave. (*Hz)

[Type]

Changes display of the wave type. (4-bit ADPCM/8-bit PCM)

[Pan]

Changes display of the Stream Wave Panpot. (0-127)

[File Name]

Display filename of the registered waveform. (*.Wav/*.aif)

2. Click "Open" to open dialog box.

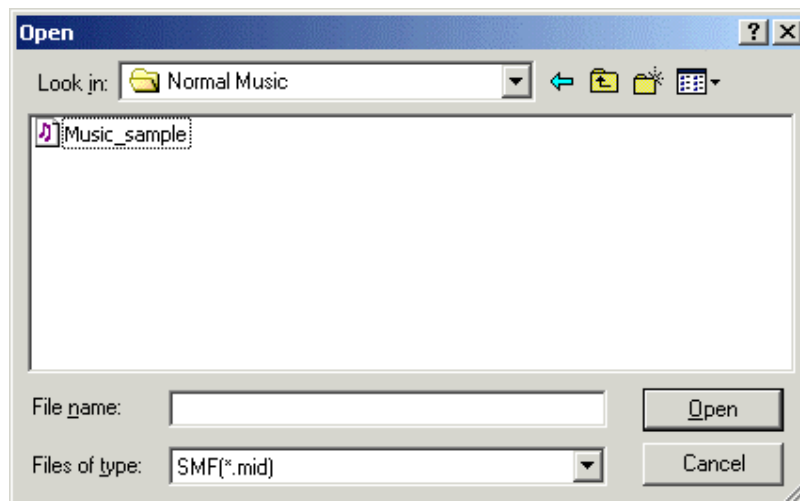


Fig. 4-2 "File Open" dialog 2

3. Select the desired file type from Wave(*.Wav) and AIFF(*.aif) which matches the waveform of the WAVE ID you want to register. Then, check the format type (4-bit ADPCM or 8-bit PCM) you want to convert and click "Open".

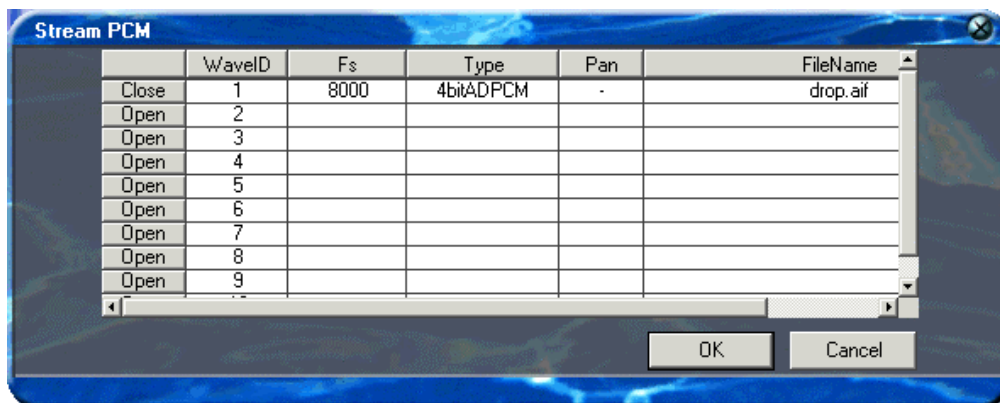


Fig.4-3 SPCM Assign Map2

4. To register multiple wave data, repeat steps 2 and 3. You can also drag and drop the wave files directly to the window for registration. To cancel, press "Close" to delete the data.
5. After all wave data are registered, close the window and execute "Convert". The Stream PCM-assigned SMAF will be converted.

5. Option menu

Click "Option" button to open the Option dialog box.

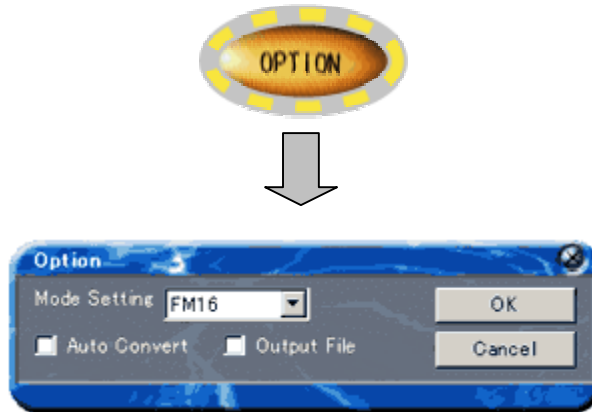


Fig.5-1 Option dialog box

[Mode Setting]

You can select which SMAF mode to convert. (FM16/FM32)

2 FM modes are supported.

FM16/4OP: maximum 16 voices

FM32/2OP: maximum 32 voices

[Auto Convert]

If "Auto Convert" is checked, SMF files are automatically converted to SMAF when the files are opened.

If this option is not checked, manually run "Convert" to convert each file.

[NOTE]: The conversion using Stream PCM cannot be used when "Auto Convert" is selected.

For multiple conversions, the "Auto Convert" must be checked before you drag & drop the files for conversion.

[Output File]

When this option is checked, the information of file conversion will be output to a text file.

[NOTE]: SSCMA3 appends the conversion information to the end of the text file every time the conversion is executed. To keep track of conversion information in different file each time, move or rename the file "SSCMA3_result.txt" in the SSCMA3 folder.

6. Contents of the Text

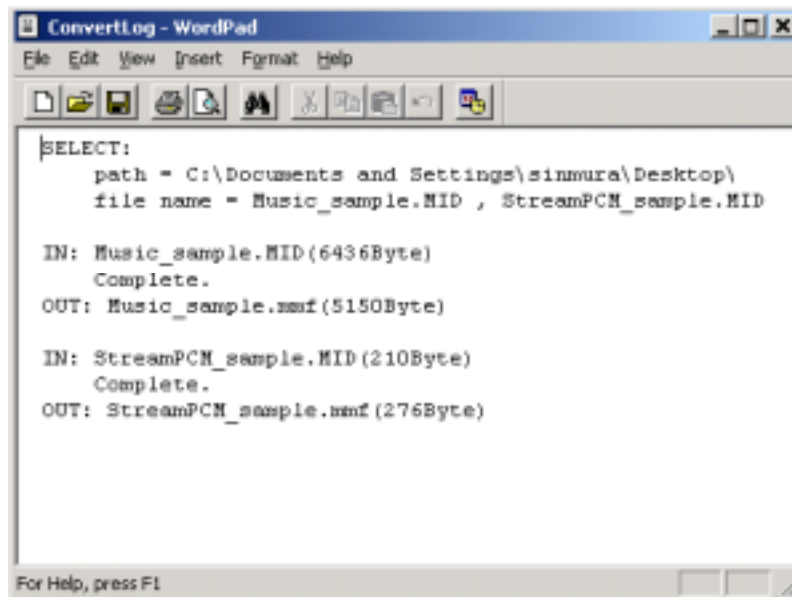


Fig. 6-1 Display the contents of the text

(Path)

Path of the SMF file to convert

(file Name)

The filename of the SMF file for conversion

(IN)

The filename and data size (byte) of the SMF file before conversion

(result)

Complete (conversion succeeded)

Error (showing error message)

(OUT)

The filename and data size (bytes) of the converted SMAF file

[Note]: When multiple files are converted, the conversion results are displayed continuously.

7. Information

The 'Information' window contains the following fields and controls:

- Code Type:** A dropdown menu currently showing 'Shift-JIS'.
- Text Input Fields:** Vendor's name, Carrier's name, Category name, Song Title, Artist's name, Words by, Composed by, Arranged by, Copyright(C), Copyright managed by, Management Information, Data Created, and Data Revised.
- VS and LED Controls:** A table of checkboxes for 16 channels (Ch1 to Ch16) under the headers 'VS' and 'LED'.
- Buttons:** 'OK' and 'Cancel' buttons located at the top right.
- Master Volume:** A slider control at the bottom right, currently set to 0.

Fig.7-1 Information Window

<Code Type>

Select code type of character

<Vendor's name>

Input vendor's name

<Carrier's name>

Input carrier's name

<Category name>

Input category name

<Song Title>

Input song title

<Artist's name>

Input artist's name

<Words by>

Input writer's name

<Composed by>

Input composer's name

<Arranged by>

Input arranger's name

<Copyright(C)>

Input copyright information

<Copyright managed by>

Input the name of the person who manages copyright

<Management Information>

Input management information

<Date Created>

Input creation date

<Date Revised>

Input revision date

<VS>

Check the channel as which vibration is operated

<LED>

Check the channel as which LED is operated

<Master volume>

Set the initial setting value of Master Volume

8. Error Messages

- Error messages shown when error occurred in SscMA3.exe

Error Message	Description
ERROR/EXE:Illegal file.	Illegal SMF file is opened
ERROR/EXE:Can not convert sound file. -> Unexpected problem occurred.	Illegal WAV or AIFF file is opened
ERROR/EXE:Can not open sound file. -> No support stereo sound file.	Opened stereo format of WAV or AIFF file
ERROR/EXE:File write error.	Write error
ERROR/EXE:Can not convert SMAF file. -> Over total size(8k Byte/s)of SPCM	Over total size(8k Byte/s)of SPCM
ERROR/EXE:File write error. -> already existed file same file.	Already existed file same file.
ERROR/EXE:Can not save file. -> Mono mode is used and the maximum number of simultaneous notes is exceeded.	Over the maximum number of voices by using Mono mode.
Warning/EXE:Please check actual playing sound. 8 bit PCM stream audio exist.	PCM 8 bit StreamPCM existed.
ERROR/EXE:Can not assure of contents -> Max.Dens over 1000(Byte/s).	The momentary maximum event density exceeds 1000(Byte/s).
ERROR/EXE:Can not assure of contents -> Ave.Dens over 500(Byte/s).	Average event density exceeds 500(Byte/s).

- Error messages shown when conversion error occurred in CnvMA3SMF.dll

Error Message	Description	DLL conversion code
ERROR/DLL(IN):CnvMA3SMF.dll:Can not create file.	Can't generate file due to error.	0x80000000
ERROR/DLL(IN):CnvMA3SMF.dll:Output buffer overflow.	Can't load the converted file into buffer	0x80000001
ERROR/DLL(IN):CnvMA3SMF.dll:Illegal format type.	Illegal format identifier	0x80000002
ERROR/DLL(IN):CnvMA3SMF.dll:Illegal parameter of function.	Illegal value for function parameter	0x80000004
ERROR/DLL(IN):CnvMA3SMF.dll:Illegal event.	Un-defined event	0x80000008
ERROR/DLL(IN):CnvMA3SMF.dll:Temporary buffer overflow.	Temporary buffer overflow	0x80000010
ERROR/DLL(IN):CnvMA3SMF.dll:RAM overflow.	RAM overflow	0x80000020
ERROR/DLL(IN):CnvMA3SMF.dll:Nonsupport header information.	Invalid header information	0x80000040

- Error messages shown when conversion error occurred in CnvMA3SMAF.dll, CnvMA3SMAFPhrase.DLL, and CnvMA3MFi_N.

Error Message	Description	DLL conversion code
ERROR/DLL(OUT):CnvMA3SMAF.dll:Can not create file.	Can't generate file due to error.	0x80000000
ERROR/DLL(OUT):CnvMA3SMAF.dll:Output buffer overflow.	Can't load the converted file into buffer	0x80000001
ERROR/DLL(OUT):CnvMA3SMAF.dll:Illegal format type.	Illegal format identifier	0x80000002
ERROR/DLL(OUT):CnvMA3SMAF.dll:Illegal parameter of function.	Illegal value for function parameter	0x80000004
ERROR/DLL(OUT):CnvMA3SMAF.dll:Illegal event.	Un-defined event	0x80000008
ERROR/DLL(OUT):CnvMA3SMAF.dll:Temporary buffer overflow.	Temporary buffer overflow	0x80000010
ERROR/DLL(OUT):CnvMA3SMAF.dll:RAM overflow.	RAM overflow	0x80000020
ERROR/DLL(OUT):CnvMA3SMAF.dll:Nonsupport header information.	Invalid header information	0x80000040

[NOTE]: You can right-click on top of the SSCMA3 window to display "Help" that shows the list of error messages.

9. Voice List

9.1 MA3 Native Normal Voice MAP(FM16 mode)

Bank MSB	124	
Bank LSB	0-9	
Preset		
Pch#	Inst	Typ
0	GrandPno	F4
1	BritePno	F4
2	E. GrandP	F4
3	HnkyTonk	F4
4	E. Piano1	F4
5	E. Piano2	F4
6	Harps i.	F4
7	Clavi.	F4
8	Celesta	F4
9	Glocken	F4
10	MusicBox	F4
11	Vibes	F4
12	Marimba	F4
13	Xylophon	F4
14	TubulBel	F4
15	Dulcimar	F4
16	DrawOrgn	F4
17	PercOrgn	F4
18	RockOrgn	F4
19	ChrchOrg	F4
20	ReedOrgn	F4
21	Acordion	F4
22	Harmonica	F4
23	TangoAcid	F4
24	NylonGtr	F4
25	SteelGtr	F4
26	Jazz Gtr	F4
27	CleanGtr	F4
28	Mute. Gtr	F4
29	Ovrdrive	F4
30	Dist. Gtr	F4
31	GtrHarmo	F4
32	Aco. Bass	F4
33	FngrBass	F4
34	PickBass	F4
35	Fretless	F4
36	SlapBas1	F4
37	SlapBas2	F4
38	SynBass1	F4
39	SynBass2	F4
40	Violin	F4
41	Viola	F4
42	Cello	F4
43	ContraBs	F4
44	Trem. Str	F4
45	Pizz. Str	F4
46	Harp	F4
47	Timpani	F4
48	Strings1	F4
49	Strings2	F4
50	Syn. Str1	F4
51	Syn. Str2	F4
52	ChoirAah	F4
53	VoiceOoh	F4
54	SynVoice	F4
55	Orch. Hit	F4
56	Trumpet	F4
57	Trombone	F4
58	Tuba	F4
59	Mute. Trp	F4
60	Fr. Horn	F4
61	BrasSect	F4
62	SynBras1	F4
63	SynBras2	F4

Bank MSB	124	
Bank LSB	0-9	
Preset		
Pch#	Inst	Typ
64	SprnoSax	F4
65	Alto Sax	F4
66	TenorSax	F4
67	Bari. Sax	F4
68	Oboe	F4
69	Eng. Horn	F4
70	Bassoon	F4
71	Clarinet	F4
72	Piccolo	F4
73	Flute	F4
74	Recorder	F4
75	PanFlute	F4
76	Bottle	F4
77	Shakachi	F4
78	Whistle	F4
79	Ocarina	F4
80	SquareLd	F4
81	Saw. Lead	F4
82	CallioLd	F4
83	ChiffLd	F4
84	CharanLd	F4
85	Voice Ld	F4
86	Fifth Ld	F4
87	Bass &Ld	F4
88	NewAgePd	F4
89	Warm Pad	F4
90	PolySyPd	F4
91	ChoirPad	F4
92	BowedPad	F4
93	MetaIPad	F4
94	Halo Pad	F4
95	SweepPad	F4
96	Rain	F4
97	SoundTrk	F4
98	Crystal	F4
99	Atmosphr	F4
100	Bright	F4
101	Goblins	F4
102	Echoes	F4
103	Sci-Fi	F4
104	Sitar	F4
105	Banjo	F4
106	Shamisen	F4
107	Koto	F4
108	Kalimba	F4
109	Bagpipe	F4
110	Fiddle	F4
111	Shanai	F4
112	TnkIBell	F4
113	Agogo	F4
114	SteelDrum	F4
*1 115	WoodBlok	F4
*2 116	TaikoDrum	F4
*3 117	MelodTom	F4
*4 118	Syn. Drum	F4
*4 119	RevCymb	F4
120	FretNoiz	F4
121	BrthNoiz	F4
*5 122	Seashore	F4
*6 123	Tweet	F4
*7 124	Telephone	F4
*7 125	Heliopt	F4
*6 126	Applause	F4
*5 127	Gunshot	F4

*1 : 50cent/Seminote, #69 = F #4
 *2 : 50cent/Seminote, #69 = A2
 *3 : 50cent/Seminote, #69 = C #4
 *4 : 50cent/Seminote
 *5 : 20cent/Seminote
 *6 : 5cent/Seminote
 *7 : 10cent/Seminote
 * This tone is treated as DRUM instrument by KEY control judgment.

(*)Type F2: FM 2 Operator, F4: FM 4 Operator, P: PCM, A: F2/F4/P Assignable

9.2 MA3 Native Normal Voice MAP(FM32 mode)

Bank MSB	124	
Bank LSB	0-9	
Preset		
Pch#	Inst	Typ
0	GrandPno	F2
1	BritePno	F2
2	E. GrandP	F2
3	HnkyTonk	F2
4	E. Piano1	F2
5	E. Piano2	F2
6	Harpsi.	F2
7	Clavi.	F2
8	Celesta	F2
9	Glocken	F2
10	MusicBox	F2
11	Vibes	F2
12	Marimba	F2
13	Xylophon	F2
14	TubulBel	F2
15	Dulcimar	F2
16	DrawOrgn	F2
17	PercOrgn	F2
18	RockOrgn	F2
19	ChrchOrg	F2
20	ReedOrgn	F2
21	Acordion	F2
22	Harmnica	F2
23	TangoAcid	F2
24	NylonGtr	F2
25	SteelGtr	F2
26	Jazz Gtr	F2
27	CleanGtr	F2
28	Mute. Gtr	F2
29	Ovrdrive	F2
30	Dist. Gtr	F2
31	GtrHarmo	F2
32	Acc. Bass	F2
33	Fngr Bass	F2
34	PickBass	F2
35	Fretless	F2
36	SlapBass1	F2
37	SlapBass2	F2
38	SynBass1	F2
39	SynBass2	F2
40	Violin	F2
41	Viola	F2
42	Cello	F2
43	ContraBs	F2
44	Trem. Str	F2
45	Pizz. Str	F2
46	Harp	F2
47	Timpani	F2
48	Strings1	F2
49	Strings2	F2
50	Syn. Str 1	F2
51	Syn. Str 2	F2
52	ChoirAah	F2
53	VoiceOoh	F2
54	SynVoice	F2
55	Orch. Hit	F2
56	Trumpet	F2
57	Trombone	F2
58	Tuba	F2
59	Mute. Trp	F2
60	Fr. Horn	F2
61	BrasSect	F2
62	SynBras1	F2
63	SynBras2	F2

Bank MSB	124	
Bank LSB	0-9	
	Preset	
Pch#	Inst	Typ
64	SprnoSax	F2
65	Alto Sax	F2
66	TenorSax	F2
67	Bar i. Sax	F2
68	Oboe	F2
69	Eng. Horn	F2
70	Bassoon	F2
71	Clar inet	F2
72	Piccolo	F2
73	Flute	F2
74	Recorder	F2
75	PanF lute	F2
76	Bottle	F2
77	Shakhochi	F2
78	Whistle	F2
79	Ocar ina	F2
80	SquareLd	F2
81	Saw. Lead	F2
82	CallioPLd	F2
83	ChiffLd	F2
84	Char anLd	F2
85	Voice Ld	F2
86	Fifth Ld	F2
87	Bass &Ld	F2
88	NewAgePd	F2
89	Warm Pad	F2
90	PolySyPd	F2
91	ChoirPad	F2
92	BowedPad	F2
93	Meta lPad	F2
94	Halo Pad	F2
95	SweepPad	F2
96	Rain	F2
97	SoundTrk	F2
98	Crystal	F2
99	Rtmosphr	F2
100	Bright	F2
101	Goblins	F2
102	Echoes	F2
103	Sci-Fi	F2
104	Sitar	F2
105	Banjo	F2
106	Shamisen	F2
107	Koto	F2
108	Kalimba	F2
109	Bagpipe	F2
110	Fiddle	F2
111	Shanai	F2
112	Tnk lBell	F2
113	Agogo	F2
114	SteelDrum	F2
*1 115	WoodBlok	F2
*2 116	TaikoDrum	F2
*3 117	MelodTom	F2
*4 118	Syn. Drum	F2
*4 119	RevCymb l	F2
120	FretNoiz	F2
121	BrthNoiz	F2
*5 122	Seashore	F2
*6 123	Tweet	F2
*7 124	Telephone	F2
*7 125	Heliopt r	F2
*6 126	Applause	F2
*5 127	Gunshot	F2

*1 : 50cent/Seminote, #69 = F #4
 *2 : 50cent/Seminote, #69 = A2
 *3 : 50cent/Seminote, #69 = C#4
 *4 : 50cent/Seminote
 *5 : 20cent/Seminote
 *6 : 5cent/Seminote
 *7 : 10cent/Seminote
 * This tone is treated as DRUM instrument by KEY control judgment.

9.3 MA3 Native Drum Instrument MAP(FM16/32 mode)

FMMode	16	FMMode	32		
Bank MSB	125	Bank MSB	125		
Pch#	0-9	Pch#	0-9		
	Preset		Preset		
Note#	Inst	Typ	Note#	Inst	Typ
24	Seq Click H	F4	24	Seq Click H	F2
25	Brush Tap	F4	25	Brush Tap	F2
@ 26	Brush Swirl	F4	@ 26	Brush Swirl	F2
27	Brush Slap	F4	27	Brush Slap	F2
@ 28	Brush Tap Swirl	F4	@ 28	Brush Tap Swirl	F2
@ 29	Snare Roll	F4	@ 29	Snare Roll	F2
30	Castanet	F4	30	Castanet	F2
31	Snare L	P	31	Snare L	P
32	Sticks	F4	32	Sticks	F2
33	Bass Drum L	P	33	Bass Drum L	P
34	Open Rim Shot	F4	34	Open Rim Shot	F2
35	Bass Drum M	P	35	Bass Drum M	P
36	Bass Drum H	P	36	Bass Drum H	P
37	Closed Rim Shot	F4	37	Closed Rim Shot	F2
38	Snare M	P	38	Snare M	P
39	Hand Clap	F4	39	Hand Clap	F2
40	Snare H	P	40	Snare H	P
41	Floor Tom L	P	41	Floor Tom L	P
42	Hi-Hat Closed	P	42	Hi-Hat Closed	P
43	Floor Tom H	P	43	Floor Tom H	P
44	Hi-Hat Pedal	P	44	Hi-Hat Pedal	P
45	Low Tom	P	45	Low Tom	P
46	Hi-Hat Open	P	46	Hi-Hat Open	P
47	Mid Tom L	P	47	Mid Tom L	P
48	Mid Tom H	P	48	Mid Tom H	P
49	Crash Cymbal 1	P	49	Crash Cymbal 1	P
50	High Tom	P	50	High Tom	P
51	Ride Cymbal 1	P	51	Ride Cymbal 1	P
52	Chinese Cymbal	P	52	Chinese Cymbal	P
53	Ride Cymbal Cup	F4	53	Ride Cymbal Cup	F2
54	Tambourine	F4	54	Tambourine	F2
55	Splash Cymbal	P	55	Splash Cymbal	P
56	Cowbell	F4	56	Cowbell	F2
57	Crash Cymbal 2	P	57	Crash Cymbal 2	P
58	Vibraslap	F4	58	Vibraslap	F2
59	Ride Cymbal 2	P	59	Ride Cymbal 2	P
60	Bongo H	F4	60	Bongo H	F2
61	Bongo L	F4	61	Bongo L	F2
62	Conga H Mute	F4	62	Conga H Mute	F2
63	Conga H Open	F4	63	Conga H Open	F2
64	Conga L	F4	64	Conga L	F2
65	Timbale H	F4	65	Timbale H	F2
66	Timbale L	F4	66	Timbale L	F2
67	Agogo H	F4	67	Agogo H	F2
68	Agogo L	F4	68	Agogo L	F2
69	Cabasa	F4	69	Cabasa	F2
70	Maracas	F4	70	Maracas	F2
@ 71	Samba Whistle H	F4	@ 71	Samba Whistle H	F2
@ 72	Samba Whistle L	F4	@ 72	Samba Whistle L	F2
73	Guiro Short	F4	73	Guiro Short	F2
74	Guiro Long	F4	74	Guiro Long	F2
75	Claves	F4	75	Claves	F2
76	Wood Block H	F4	76	Wood Block H	F2
77	Wood Block L	F4	77	Wood Block L	F2
78	Cuica Mute	F4	78	Cuica Mute	F2
79	Cuica Open	F4	79	Cuica Open	F2
80	Triangle Mute	F4	80	Triangle Mute	F2
81	Triangle Open	F4	81	Triangle Open	F2
82	Shaker	F4	82	Shaker	F2
83	Jingle Bells	F4	83	Jingle Bells	F2
84	Bell Tree	F4	84	Bell Tree	F2

•@: Only this VOICE reacts to KeyOff.
 •Exclusion allotment of three Hi-Hat voice.
 (Key #42 / #44 / #46)
 •Key #71 / #72 Exclusion allotment
 •Key #73 / #74 Exclusion allotment
 •Key #78 / #79 Exclusion allotment
 •Key #80 / #81 Exclusion allotment

(*)Type F2: FM 2 Operator, F4: FM 4 Operator, P: PCM, A: F2/F4/P Assignable

9.4 MA3 GM Level1 Normal Voice MAP

Bank MSB	0	0	Bank MSB	0	0
Bank LSB	0	1-127	Bank LSB	0	1-127
Preset			Preset		
Pch#	Inst	Typ	Pch#	Inst	Typ
0	GrandPno	F2 ←	64	SprnoSax	F2 ←
1	BritePno	F2 ←	65	Alto Sax	F2 ←
2	E. GrandP	F2 ←	66	Tenor Sax	F2 ←
3	HnkyTonk	F2 ←	67	Bari. Sax	F2 ←
4	E. Piano1	F2 ←	68	Oboe	F2 ←
5	E. Piano2	F2 ←	69	Eng. Horn	F2 ←
6	Harpsi.	F2 ←	70	Bassoon	F2 ←
7	Clavi.	F2 ←	71	Clarinet	F2 ←
8	Celesta	F2 ←	72	Piccolo	F2 ←
9	Glocken	F2 ←	73	Flute	F2 ←
10	MusicBox	F2 ←	74	Recorder	F2 ←
11	Vibes	F2 ←	75	PanFlute	F2 ←
12	Marimba	F2 ←	76	Bottle	F2 ←
13	Xylophon	F2 ←	77	Shakhchi	F2 ←
14	Tubu lBel	F2 ←	78	Whistle	F2 ←
15	Dulcimar	F2 ←	79	Ocarina	F2 ←
16	DrawOrgn	F2 ←	80	SquareLd	F2 ←
17	PercOrgn	F2 ←	81	Saw Lead	F2 ←
18	RockOrgn	F2 ←	82	CalliopLd	F2 ←
19	ChrchOrg	F2 ←	83	ChiffLd	F2 ←
20	ReedOrgn	F2 ←	84	CharanLd	F2 ←
21	Acordion	F2 ←	85	Voice Ld	F2 ←
22	Harmonica	F2 ←	86	Fifth Ld	F2 ←
23	TangoAcid	F2 ←	87	Bass &Ld	F2 ←
24	NylonGtr	F2 ←	88	NewAgePd	F2 ←
25	SteelGtr	F2 ←	89	Warm Pad	F2 ←
26	Jazz Gtr	F2 ←	90	PolySyPd	F2 ←
27	CleanGtr	F2 ←	91	Choir Pad	F2 ←
28	Mute. Gtr	F2 ←	92	BowedPad	F2 ←
29	Ovrdrive	F2 ←	93	Metal Pad	F2 ←
30	Dist. Gtr	F2 ←	94	Halo Pad	F2 ←
31	GtrHarmo	F2 ←	95	SweepPad	F2 ←
32	Acc. Bass	F2 ←	96	Rain	F2 ←
33	Fngr Bass	F2 ←	97	SoundTrk	F2 ←
34	PickBass	F2 ←	98	Crystal	F2 ←
35	Fretless	F2 ←	99	Atmosphr	F2 ←
36	SlapBas1	F2 ←	100	Bright	F2 ←
37	SlapBas2	F2 ←	101	Goblins	F2 ←
38	SynBass1	F2 ←	102	Echoes	F2 ←
39	SynBass2	F2 ←	103	Sci-Fi	F2 ←
40	Violin	F2 ←	104	Sitar	F2 ←
41	Viola	F2 ←	105	Banjo	F2 ←
42	Cello	F2 ←	106	Shamisen	F2 ←
43	ContraBs	F2 ←	107	Koto	F2 ←
44	Trem. Str	F2 ←	108	Kalimba	F2 ←
45	Pizz. Str	F2 ←	109	Bagpipe	F2 ←
46	Harp	F2 ←	110	Fiddle	F2 ←
47	Timpani	F2 ←	111	Shani	F2 ←
48	Strings1	F2 ←	112	Tnk lBell	F2 ←
49	Strings2	F2 ←	113	Agogo	F2 ←
50	Syn. Str1	F2 ←	114	SteelDrum	F2 ←
51	Syn. Str2	F2 ←	*1 115	WoodBlock	F2 ←
52	ChoirAah	F2 ←	*2 116	TaikoDrum	F2 ←
53	VoiceOoh	F2 ←	*3 117	MelodTom	F2 ←
54	SynVoice	F2 ←	*4 118	Syn. Drum	F2 ←
55	Orch. Hit	F2 ←	*4 119	RevCymb	F2 ←
56	Trumpet	F2 ←	120	FretNoiz	F2 ←
57	Trombone	F2 ←	121	Br thNoiz	F2 ←
58	Tuba	F2 ←	*5 122	Seashore	F2 ←
59	Mute. Trp	F2 ←	*6 123	Tweet	F2 ←
60	Fr. Horn	F2 ←	*7 124	Telephone	F2 ←
61	BrasSect	F2 ←	*7 125	Helicptr	F2 ←
62	SynBras1	F2 ←	*6 126	Applause	F2 ←
63	SynBras2	F2 ←	*5 127	Gunshot	F2 ←

*1 : 50cent/Seminote, #69 = F #4
 *2 : 50cent/Seminote, #69 = A2
 *3 : 50cent/Seminote, #69 = C #4
 *4 : 50cent/Seminote
 *5 : 20cent/Seminote
 *6 : 5cent/Seminote
 *7 : 10cent/Seminote
 * This tone is treated as DRUM instrument by KEY control judgment.

(*)Type F2: FM 2 Operator, F4: FM 4 Operator, P: PCM, A: F2/F4/P Assignable

9.5 MA3 GM Level1 Drum Instrument MAP

Bank MSB	0	0		
Pch#	0	1-127		
Note#	Inst	Typ	Inst	Typ
24	Seq Click H	F2	←	
25	Brush Tap	F2	←	
@ 26	Brush Swirl	F2	←	
27	Brush Slap	F2	←	
@ 28	Brush Tap Swirl	F2	←	
@ 29	Snare Roll	F2	←	
30	Castanet	F2	←	
31	Snare L	P	←	
32	Sticks	F2	←	
33	Bass Drum L	P	←	
34	Open Rim Shot	F2	←	
35	Bass Drum M	P	←	
36	Bass Drum H	P	←	
37	Closed Rim Shot	F2	←	
38	Snare M	P	←	
39	Hand Clap	F2	←	
40	Snare H	P	←	
41	Floor Tom L	P	←	
42	Hi-Hat Closed	P	←	
43	Floor Tom H	P	←	
44	Hi-Hat Pedal	P	←	
45	Low Tom	P	←	
46	Hi-Hat Open	P	←	
47	Mid Tom L	P	←	
48	Mid Tom H	P	←	
49	Crash Cymbal 1	P	←	
50	High Tom	P	←	
51	Ride Cymbal 1	P	←	
52	Chinese Cymbal	F2	←	
53	Ride Cymbal Cup	F2	←	
54	Tambourine	F2	←	
55	Splash Cymbal	P	←	
56	Cowbell	F2	←	
57	Crash Cymbal 2	P	←	
58	Vibraslap	F2	←	
59	Ride Cymbal 2	P	←	
60	Bongo H	F2	←	
61	Bongo L	F2	←	
62	Conga H Mute	F2	←	
63	Conga H Open	F2	←	
64	Conga L	F2	←	
65	Timbale H	F2	←	
66	Timbale L	F2	←	
67	Agogo H	F2	←	
68	Agogo L	F2	←	
69	Cabasa	F2	←	
70	Maracas	F2	←	
@ 71	Samba Whistle H	F2	←	
@ 72	Samba Whistle L	F2	←	
73	Guiro Short	F2	←	
74	Guiro Long	F2	←	
75	Claves	F2	←	
76	Wood Block H	F2	←	
77	Wood Block L	F2	←	
78	Cuica Mute	F2	←	
79	Cuica Open	F2	←	
80	Triangle Mute	F2	←	
81	Triangle Open	F2	←	
82	Shaker	F2	←	
83	Jingle Bells	F2	←	
84	Bell Tree	F2	←	

- @: Only this VOICE reacts to KeyOff.
- Exclusion allotment of three Hi-Hat voice.
(Key #42 / #44 / #46)
- Key #71 / #72 Exclusion allotment
- Key #73 / #74 Exclusion allotment
- Key #78 / #79 Exclusion allotment
- Key #80 / #81 Exclusion allotment

(*)Type F2: FM 2 Operator, F4: FM 4 Operator, P: PCM, A: F2/F4/P Assignable