⊛YAMAHA

Voice Editor for MOTIF-RACK Owner's Manual

Contents

This owner's manual assumes that you are already familiar with basic Windows/Macintosh operations. If you are not, please refer to the owner's manual which came with your Windows/Mac OS software before using Voice Editor.

For information about hardware requirements, the interconnection of devices and the installation of the Voice Editor software, refer to the separate "Installation Manual" as well as the Owner's Manual for the respective MIDI device.

The screen illustrations in this manual are mainly taken from Windows. Differences that exist in the Macintosh version are duly shown and explained.

What is the Voice Editor?

With the Voice Editor, you can edit your tone generator's voices and effects via your computer. Thanks to the easy-to-understand graphical interface, you can edit virtually all of the voice parameters of MOTIF-RACK right from your computer — using the mouse to adjust the virtual knobs, sliders, and buttons and entering values from the computer keyboard. Finally, all the changes you have made to your voices can be saved to your computer.

Library Window

Save the Library file

Library file

Voice

Import a voice

Edit Window

Element dialog

Set the effects parameters

Transmit / Receive bulk data

Your tone generator (MOTIF-RACK)
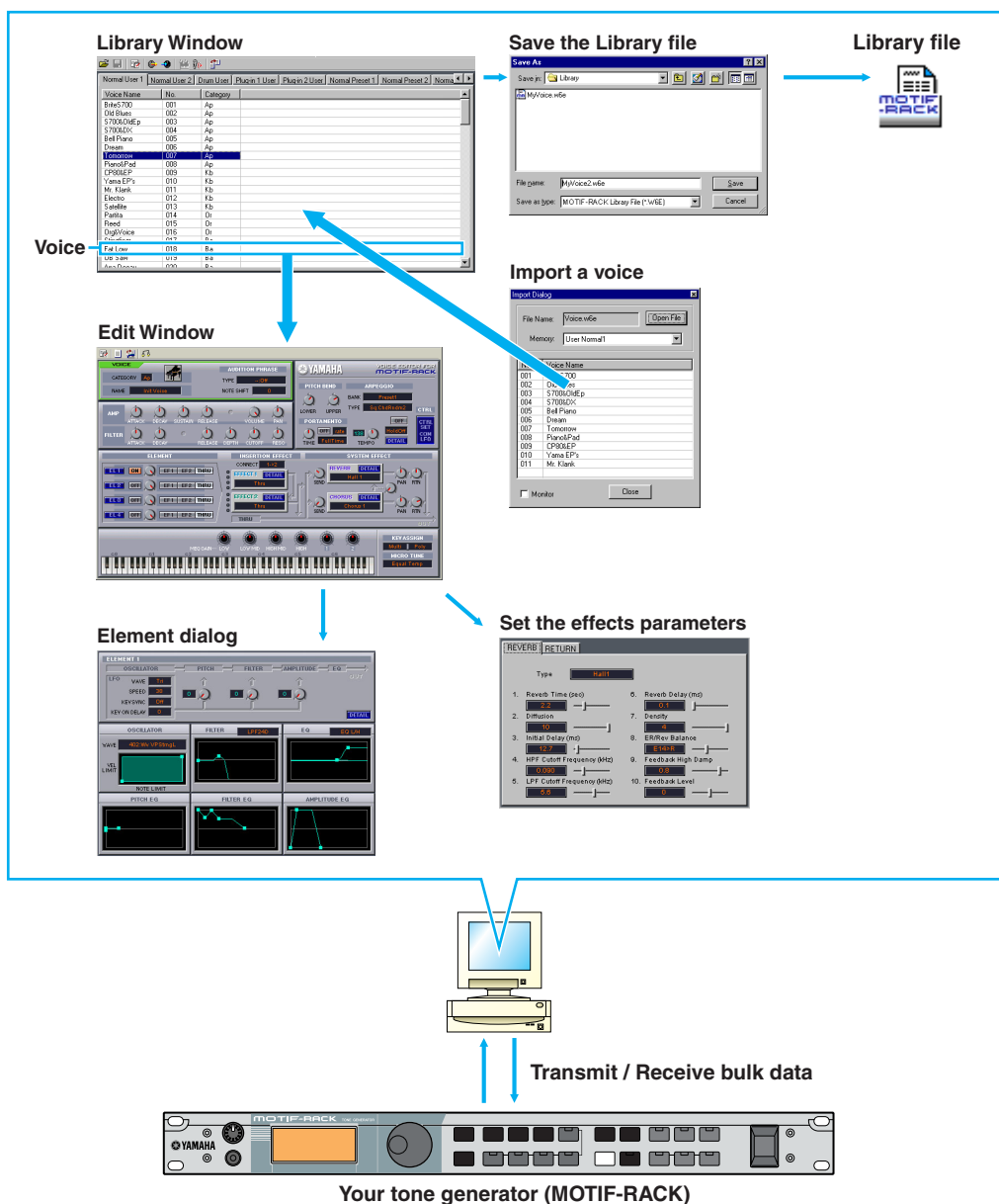
Starting the Voice Editor

After installing the Voice Editor and making the required connection, follow the instructions below to start the Voice Editor.

Windows

NOTE In order to use the Voice Editor with your tone generator, you'll need to install the USB MIDI driver (page 12).

- **Starting the Voice Editor as a stand-alone application**
  1   From the [Start] menu, select [Programs] → [YAMAHA OPT Tools] → [Voice Editor for MOTIF-RACK] → [Voice Editor for MOTIF-RACK].
  2   Click the [MIDI SETUP] button called up in step #1 above, then set the appropriate MIDI port.

- **Starting the Voice Editor in the host application as a plug-in software.**
  The Plug-in Board Editor can be used as a plug-in software in any host application compatible with Open Plug-in Technology (OPT). Refer to the owner's manual of the host application (sequencer, etc.) for details on using plug-in software.

About Open Plug-in Technology

Open Plug-in Technology (OPT) is a newly developed software format that allows control over MIDI devices from a music software program. For example, this allows you to start up and operate various parts of your music system, such as plug-in board editors, and mixing control editors – directly from an OPT-compatible sequencer, without having to use each separately. This also makes it unnecessary to set MIDI drivers for each application, streamlining your music production system and making all operations more convenient and seamless.

About the OPT Levels
The client application and its compatibility with OPT can be divided into three levels, as shown below.

Level 1 – OPT Panels provides basic support for opening and displaying OPT control panels that can transmit data via the clients' external MIDI ports. Typically this will allow basic hardware editor control panels to operate properly.

Level 2 – OPT Processors provides support for real-time MIDI processors and panel automation. Typically this will allow both real-time and offline MIDI effects to operate properly and supply automation to OPT panels.

Level 3 – OPT Views provides support for edit views and MIDI processors/panels that require direct access to client program storage structures. Typically this will allow sophisticated MIDI edit views to be supported.

OPT Level Implementation for the Voice Editor

This chart shows the OPT-compatibility of the Voice Editor.

OPT levels of the client application		Voice Editor for operation	
		Operation support	Operation limits
VIEWS (Level3)	VIEWS	Yes	None
PROCESSORS (Level2)	PROCESSORS	Yes	None
PANELS (Level1)	PANELS	Yes	Bulk reception

🎵 NOTE Certain operations may not work as expected if there is no corresponding function in the client application (sequencer, etc.). The highest level of implementation for the client application is indicated in the OPT logo (which appears along with the version information in the application).

Macintosh

🎵 NOTE If you are using Voice Editor on a Macintosh computer, open "Chooser" from the Apple menu and turn off "AppleTalk."

Open the "YAMAHA Tools" folder and double-click "VoiceEditorForMOTIF-RACK" icon in the "Voice Editor for MOTIF-RACK" folder.

Receiving the Preset voices

The first time the Voice Editor is launched after installation, the Preset Voice Receive dialog window shown below appears. In order to edit Preset Voices for creating User Voices, the Preset Voice data must first be loaded from the MOTIF-RACK.

🎵 NOTE If you don't intend to edit Preset Voices, this operation is not needed.
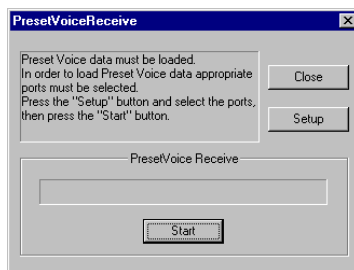
1. Click "Setup" and set the ports as required in the dialog window that appears ().

2. Click "Start" to begin loading the preset voice data.
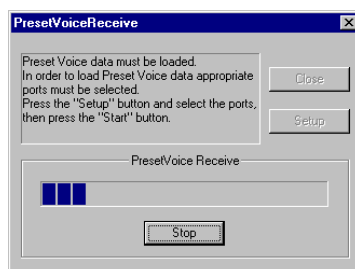
3. A dialog window appears when the load operation has finished. Click "OK" to continue.

The Preset Voice Receive dialog will not appear when the application is launched again after the preset voices have been loaded for the first time. If you press "Stop" during the load process, the data received up until that point will be considered invalid and the Preset Voice Receive dialog will appear the next time the application is launched. Similarly, if you click "Close" before loading, the preset voice data the Preset Voice Receive dialog will appear the next time the application is launched.

♪ NOTE If you want to reload the preset voice data, delete the program's "Preset.ini" file and then re-launch the Voice Editor. The default location for the "Preset.ini" file is:
(Windows) C:\Program Files\YAMAHA\OPT Tools\Voice Editor for MOTIF-RACK\ Module\VEditor\MOTIF-RACK,
(Macintosh) YAMAHA Tools\Voice Editor for MOTIF-RACK\VEditor\MOTIF-RACK.

Menu Bar

The Menu Bar contains various editing and setup functions/commands. Click the desired menu name to open the appropriate pull-down menu, and choose the function/command you wish to apply. Those functions/commands which are unavailable are grayed out.

♪ NOTE The most commonly-used menus in the Menu Bar are available as buttons in Voice Editor's toolbar.

File

Windows

File	Edit	S
New	Ctrl+N	
Open Library...	Ctrl+O	
Save Library	Ctrl+S	
Save Library As...		
Exit		

Macintosh

File	Edit	MIDI
New	⌘N	
Open...	⌘O	
Close	⌘W	
Save	⌘S	
Save As...		
Quit	⌘Q	

New
Creates and opens a new Library file.

Open Library... (Open...)
This is the same as the "Open" button in the toolbar ().

Save Library (Save)
This is the same as the "Save" button in the toolbar ().

Save Library As... (Save As...)
Lets you save the Library file under a new or different name.

Close (Macintosh only)
Close the window. This is the same as the "Close" box in the Title bar.

Exit (Quit)
Exits from the Voice Editor. This menu is not available when the Voice Editor is used as a plug-in of the host application.

Edit

Windows

Macintosh

Copy
Copies the selected voice to the clipboard. If nothing is selected, this item is grayed out.

Paste
Copies the voice from the clipboard to the Voice Editor.

Initialize
Resets the selected voice parameters to the default values. If nothing is selected, this item is grayed out.

Edit
This is the same as the "Edit Window" button in the toolbar (page 15).

Library
This is the same as the "Library Window" button in the toolbar (page 17).

Store...
This is the same as the "Store" button in the toolbar (page 30).

Import...
This is the same as the "Import" button in the toolbar (page 15).

Compare
This is the same as the "Compare" button in the toolbar (page 31).

Setup (Windows) / MIDI (Macintosh)

Windows

Setup	Window
Setup...	
Transmit Bulk...	Ctrl+T
Receive Bulk...	Ctrl+R
Monitor	

Macintosh

MIDI	Windows	Help
Editor Setup...		
OMS Port Setup...		
OMS MIDI Setup...		
OMS Studio Setup...		
Transmit...	⌘T	
Receive...	⌘R	
Monitor		

Setup... (Editor Setup...)
This is the same as the "Editor Setup" button in the toolbar (page 12).

Transmit Bulk... (Transmit...)
This is the same as the "Transmit Bulk" button in the toolbar (page 13).

Receive Bulk... (Receive...)
This is the same as the "Receive Bulk" button in the toolbar (page 14).

Monitor
This is the same as the "Monitor" button in the toolbar (page 15).

OMS Port Setup... (Macintosh only)
Opens the OMS Port Setup window for the Voice Editor. Refer to the section "OMS Port Setup" (page 34) for further details.

OMS MIDI Setup... (Macintosh only)
Opens the OMS MIDI Setup window. Refer to the documentation that came with OMS for further details.

OMS Studio Setup... (Macintosh only)
Opens the OMS Studio Setup window. Refer to the documentation that came with OMS for further details.

Library Window

When you start Voice Editor, you will first see the Library window, which consists of tabs, each representing a Memory in the tone generation block. Each tab lists all the names, numbers and categories of voices in the selected Memory. Double-clicking on a voice name in the Library window opens the Edit window for a voice, letting you edit the voice.

♪ NOTE You can save your settings as a Library file (*.W6E).
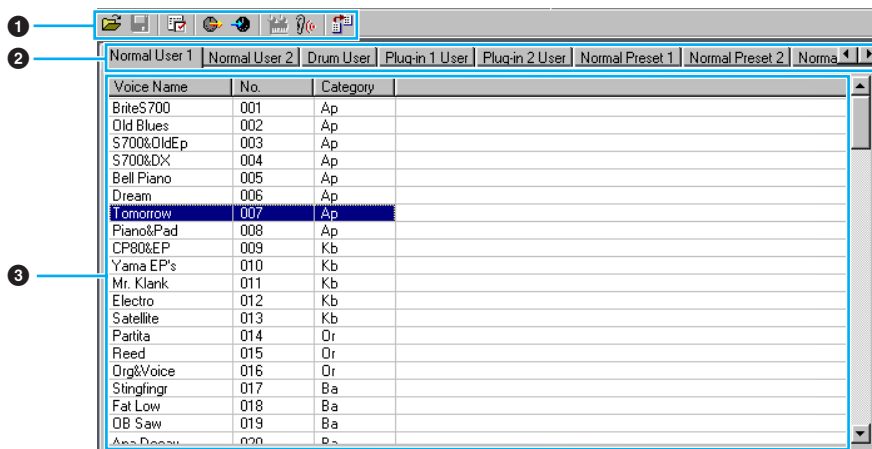
❶ Toolbar
This area contains the buttons controlling the Voice Editor (page 10).

❷ Tabs
Click any of these to view the voice list for the corresponding Memory Bank.

❸ Voice list
This area shows all the voices in the selected Memory as a scrollable list. The name, number and Category of each voice are shown. You can rearrange the voices by dragging-and-dropping their voice numbers to a new location. You can rename a voice in Windows by selecting the voice name, then clicking on it again to enter a new name. On the Macintosh, you click on the voice name while holding down [control], choose "Edit Voice Name" from the pull-down menu, and enter the new name in the dialog.

♪ NOTE To select a continuous block of voices, click the number of the first voice, hold down the [Shift] key, then click the last number.

♪ NOTE Voice names can consist of up to 10 characters.

Split Bar (Windows only)

If you place the mouse pointer over the line (Split Bar) that divides the Track Parameter Section from the Block Section, the pointer will change shape into the split tool. With this tool, you can drag the Split Bar back and forth and change the widths of the two sections.

📝 NOTE You can change the size of any of the windows by placing the mouse pointer on the top, bottom, left, or right border lines of the window, then dragging the line until the window is as big or small as you like.

Viewing Just the Voice Names (Windows only)

You can view just the names of all voices in the Memory without their "Number" and "Category" information. To do this, right-click on any part of the voice list and choose "List." This may be useful when choosing voices quickly, since you will have less scrolling to do.
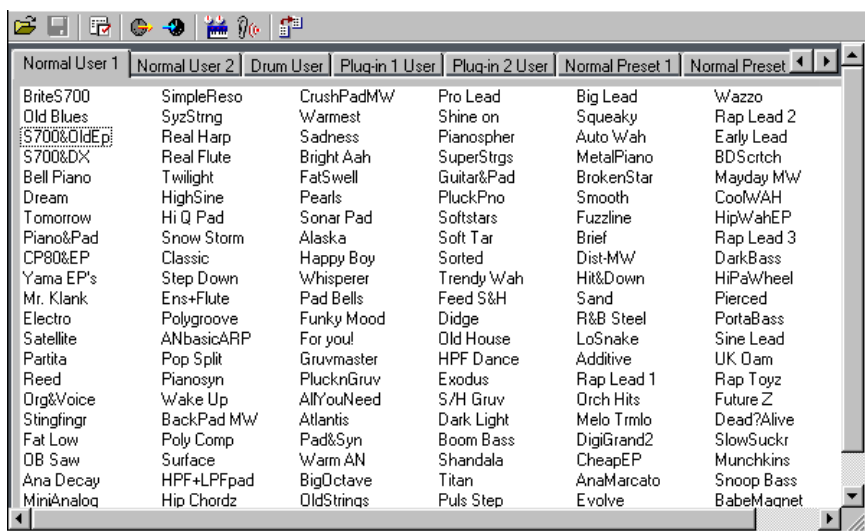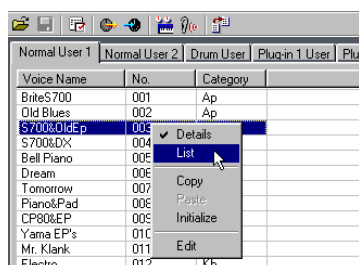
📝 NOTE To switch back to the full Voice Name/Number/Category list, right-click on any part of the voice list and choose "Details."

Library Window Toolbar
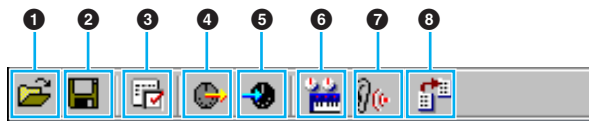
❶ **"Open" button**
Click this to open the "Open" dialog and select a Library file to open.

"Open" Dialog

Select the desired Library file (extension: .W6E) and click [Open]. The contents of the selected file is indicated on the Library Window.
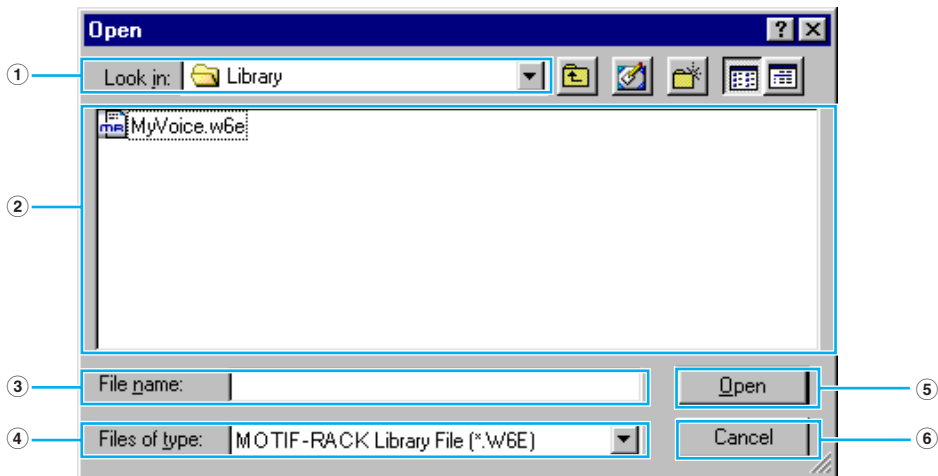
NOTE If you are using a Macintosh, the typical Macintosh "Open" dialog will appear.

① **Look in:**..................Click this and choose the folder containing the Voice Editor files.
② **List box**...................Shows the contents of the current folder.
③ **File name:**..............Shows the name of the files selected from the List.
④ **Files of type:** ....Click this and choose the file type. If you select *.W6E here, the Library Files of the MOTIF-RACK will be displayed. If you select *.W2E, the Library Files of the MOTIF6/MOTIF7/MOTIF8 will be displayed.

NOTE If you select a "*.W2E" file here, the Plugin 3 (Plug-in data) of the selected Library File will not be opened.

NOTE Library Files of the MOTIF6/MOTIF7/MOTIF8 can be selected and opened, however the resulting sounds may not be the same as on the original instrument.

⑤ **[Open] button**.........Click this to open the file selected from the List.
⑥ **[Cancel] button** ......Click this to cancel the operation.

❷ **"Save" button**

Click this to save the existing Library file with your new settings. If you are working on a new file, this button will open the "Save As" dialog, where you can name and save your settings as a new Library file (*.W6E).

"Save As" Dialog

🎵 NOTE Library file names can consist of up to 8 characters plus a 3-character extension.
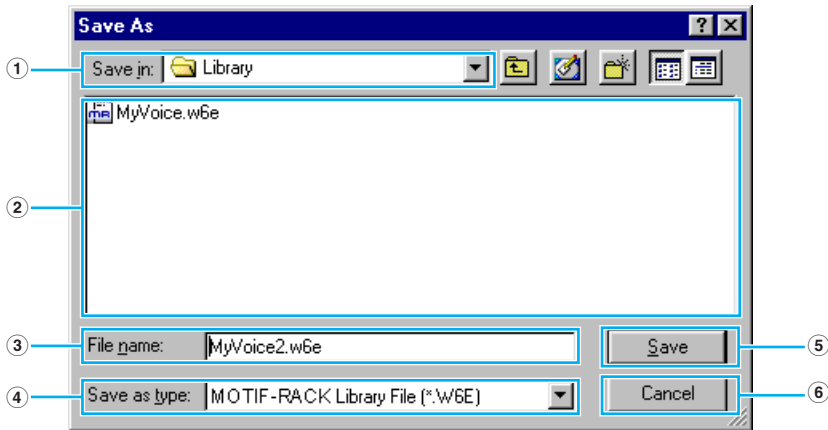
🎵 NOTE If you are using a Macintosh, the typical Macintosh "Save As" dialog will appear.

① **Save in:**....................Click this and choose the folder in which to save the Library file.

② **List box**....................Shows the contents of the folder you wish to save to.

③ **File name:**...............Specify the name of the Library file to be saved here.

④ **Save as type:**..........Click this and choose the file type.

⑤ **[Save] button**..........Click this to save the Library file with the name specified in the "File name" field.

⑥ **[Cancel] button** ......Click this to quit the dialog without storing.

🎵 NOTE If you save a file to a Macintosh computer, the extension ".W6E" is not added automatically.

❸ "Editor Setup" button
Click this to open the "Setup" dialog and specify the MIDI Out port settings.

"Setup" Dialog

This is where you set up the Voice Editor to allow the transmission/reception of voice data to/from your tone generator. Click the [OK] button to apply the settings and quit the dialog. Click the [Cancel] button to quit without applying the settings.

Windows   **Macintosh**

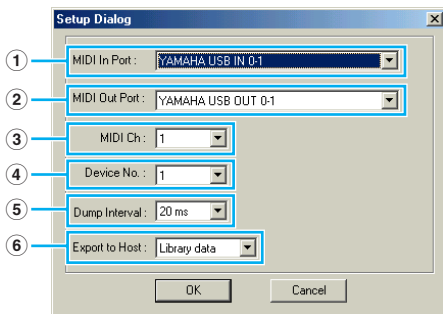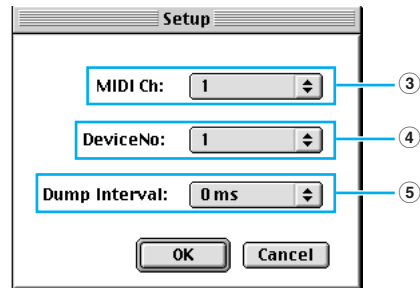① **MIDI In Port:** ....Click this and choose the MIDI In port. You can use the Voice Editor to receive data sent from the device connected to this port.

② **MIDI Out Port:** ....Click this and choose the MIDI Out port. You can use the Voice Editor to control and edit the device connected to this port.

> **NOTE** If you are using a Macintosh, the MIDI Out Port setting is assigned in the OMS Port Setup. For further details, see the section "OMS Settings" (page 33).

③ **MIDI Ch:** ....Click this and choose the MIDI Out channel. This is used when monitoring sounds using the on-screen keyboard in the Edit Windows.

④ **Device No.:** ....Click this and choose the MIDI device number of your tone generator.

⑤ **Dump Interval:** ....Click this and choose the interval between successive MIDI dumps.

> **NOTE** Setting this to too short of an interval may result in errors when transmitting MIDI data.

⑥ **Export to Host:** ......Click this and select the data to be exported to the SQ01 (when the SQ01 is used as the client application). If "Library data" is selected, all voice data edited in the Voice Editor is stored in the song file (*.yws) when you save the song file on the SQ01. If "None" is selected, no voice data in the Voice Editor can be exported to the client application.

> **NOTE** When the song that contains the Library File data is opened in SQ01, the exported voice data is also opened with the Voice Editor.

> **NOTE** This operation may not be available depending on the client application you use.

❹ **"Transmit" button**

Click this to open the "Transmit" dialog to transmit all settings to your tone generator.

"Transmit" Dialog

Voice data can be transmitted in bulk to your tone generator. Click the [Start] button to begin transmitting the data. The progress bar shows how much of the data has been transmitted. Finally, click the [Close] button to quit the dialog.
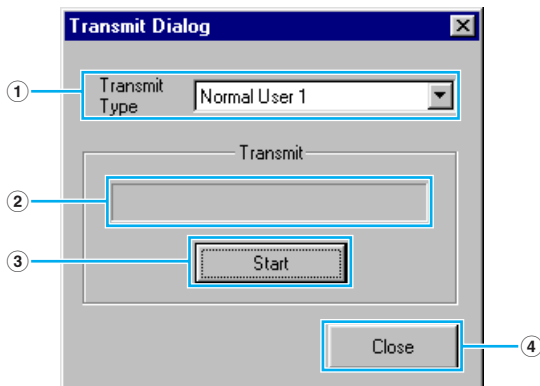
① **Transmit Type** ....Indicates the voice data to be transmitted.

Normal User 1........................ All Normal User 1 Voices
Normal User 2........................ All Normal User 2 Voices
Normal User 1+2 .... All Normal User Voices
Drum User............................. All Drum User Voices
Normal User 1+2 + Drum ...... All Normal User Voices and Drum User Voices
Plug-in 1 User .... All Plug-in 1 User Voices
Plug-in 2 User .... All Plug-in 2 User Voices
Plug-in 1+2 User.................... All Plug-in User Voices
All .... All User Voices (Normal, Drum, and Plug-in)

② **Progress bar** ....Indicates how much of the data has been transmitted.

③ **[Start] button**..........Click this to transmit the data.

④ **[Close] button** ....Click this to close this dialog.

🎵 NOTE The MIDI Device Number has to be set correctly in order to transmit bulk data. For further details, see page 12.

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❺ **"Receive" button**

Click this to open the "Receive" dialog to receive all settings from your tone generator.

"Receive" Dialog

Voice data can be received in bulk from your tone generator. Select the bulk voice data you wish to receive, then click the [Start] button. The progress bar shows how much of the data has been received. Finally, click the [Close] button to quit the dialog.
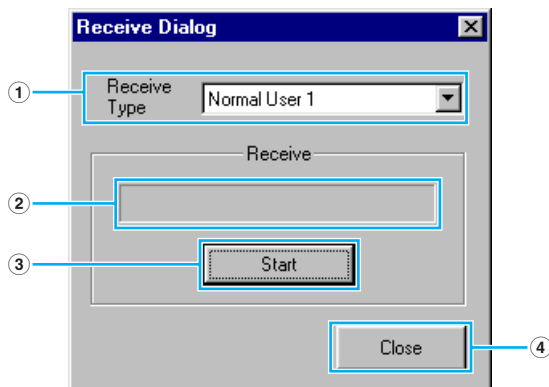
① **"Receive Type"** ......Click this and choose the Voice data (internal/external/all) to receive.

Normal User 1........................ All Normal User 1 Voices
Normal User 2........................ All Normal User 2 Voices
Normal User 1+2 .... All Normal User Voices
Drum User.............................. All Drum User Voices
Normal User 1+2 + Drum ...... All Normal User Voices and Drum User Voices
Plug-in 1 User .... All Plug-in 1 User Voices
Plug-in 2 User .... All Plug-in 2 User Voices
Plug-in 1+2 User.................... All Plug-in User Voices
All .... All User Voices (Normal, Drum, and Plug-in)

② **Progress bar** ....Indicates how much of the data has been received.

③ **[Start] button**..........Click this to receive the data.

④ **[Close] button** ....Click this to close this dialog.

NOTE The MIDI Device Number has to be set correctly in order to receive bulk data. For further details, see page 12.

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6 **"Edit Window" button**
Click this to open the Edit Window (Common) for the selected voice in the list. For further details, see page 17.

7 **"Monitor" button**
If you click this, bulk voice data will be sent for monitoring on your tone generator each time you select a voice. Click it again to disable monitoring.

🎵 NOTE To monitor the voice, you need to play the keyboard connected to your tone generator.

8 **"Import" button**
Click this to open the "Import" dialog and import voices from an existing Library file. You can drag-and-drop voices to the Library Window.

"Import" Dialog

🎵 NOTE More than one of these dialogs can be opened simultaneously.
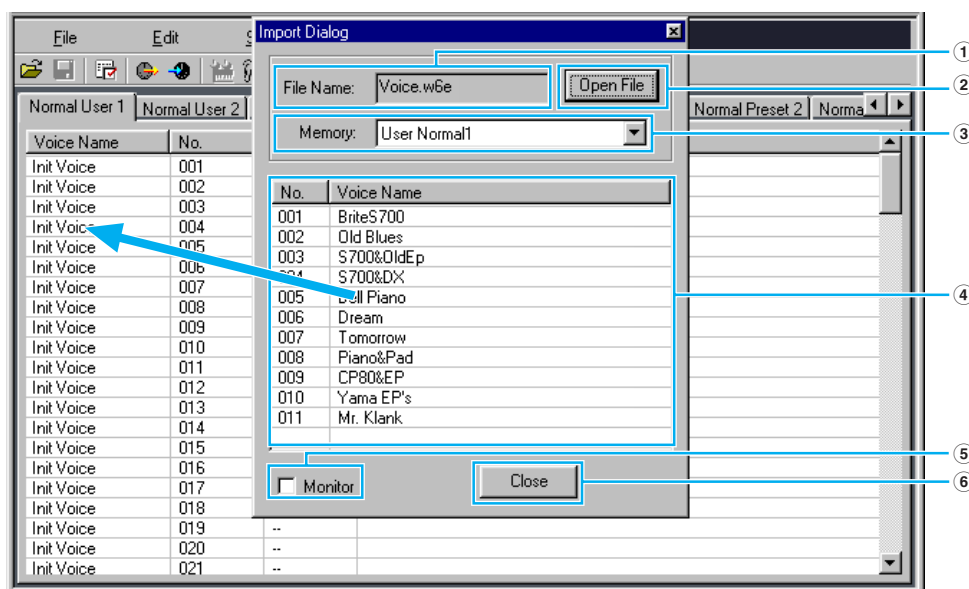
① **File Name:** ....Indicates the name of the Library file from which you will import voice data.

② **[Open File] button** . Click this to open the "Open File" dialog and select a Library file to open.

③ **Memory:** ....Click this and choose the Memory Bank from which you will import voice data.

④ **Voice list** .... This area shows all the voices in the selected Memory as a scrollable list, in order of voice number. You can select a voice here and import it directly to the voice list in the Library Window by drag-and-drop. (Multiple voices can also be imported this way.) In Windows, you can alternatively copy the voice by selecting it and pressing [Ctrl]+[C] on the computer keyboard, and then switch to the Library Window and press [Ctrl]+[V] at the new location to paste (import) it.

🎵 **NOTE** The selected voice cannot be imported to the list in the Preset Voice tab.

🎵 **NOTE** To select a block of voices, click the number of the first voice, hold down the [Shift] key, then click the last voice.

🎵 **NOTE** A normal voice cannot be imported to a Drum voice or a Plug-in voice. Similarly, a Drum voice cannot be imported to a Normal voice or a Plug-in voice.

🎵 **NOTE** Plug-in Board preset voices can be imported from the "Data" folder. By default, the "Data" folder is located in the following folder.
(Windows) C:\Program Files\YAMAHA\OPT Tools\Voice Editor\Voice Editor for MOTIF-RACK\Library
(Macintosh) YAMAHA Tools\Voice Editor for MOTIF-RACK\Library

⑤ **Monitor** .... If you check this box, the bulk data for each voice you select from the list will be transferred to your tone generator for monitoring. To monitor the voice, use the keyboard connected to your tone generator.

🎵 **NOTE** Monitoring will not be possible if the MIDI Out port and other parameters in the Editor Setup are not set correctly. For further details, see .

⑥ **[Close] button** ....Click this to close the Import dialog.

Edit Window

There are three types of voices you can edit using Voice Editor: Normal voices, Drum voices, and Plug-in voices. In the Library window, click the tab containing the Normal voice/Drum voice/Plug-in voice that you wish to edit. Then double-click the voice (or select it and click the "Edit Window" button) to open the Edit window.

- Settings in the Edit window are transmitted via MIDI from your computer to your tone generator in realtime.
- Settings in the Edit window can be stored to a Library file.
- For details about each parameter, refer to the MOTIF-RACK Owner's Manual and Data List.

Voice Edit Window

When editing a voice, you will see the following screen:
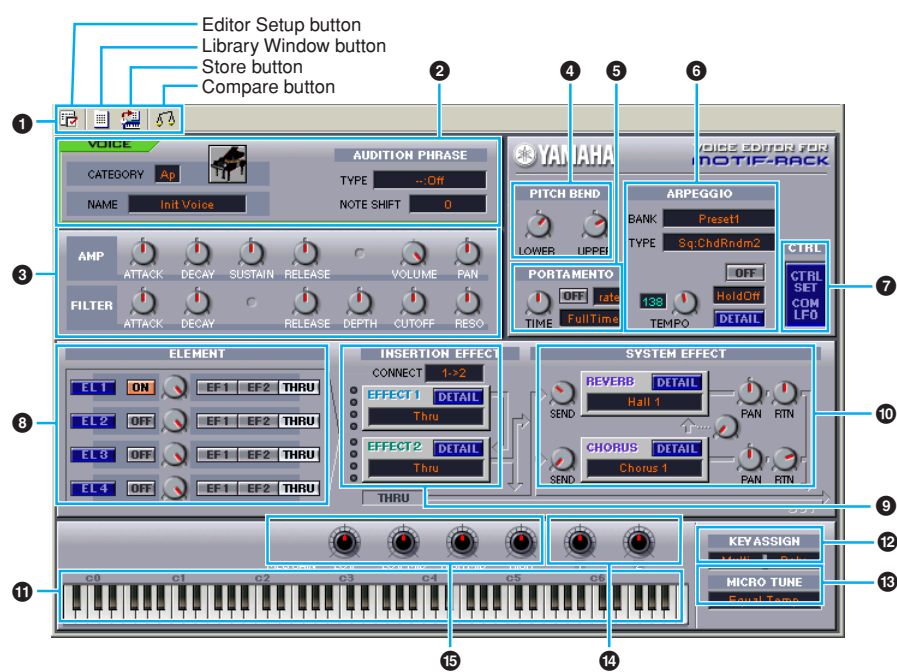
❶ Toolbar

This contains buttons for executing various basic functions in the program. The following four buttons are available:

- Editor Setup button ....See page 12.
- Library Window button ....Click this to bring the Library Window back into view.
- Store button......................................Click this to open the "Store" dialog, where you can name your edited voice and select a location in which to store it.
- Compare button ....If you click this, bulk data for the original voice (prior to editing) will be sent to on your connected instrument. Click it again to send the bulk data for the edited voice. This button is useful for making A/B comparisons between the original and edited voices.

❷ VOICE panel

This shows the name, instrument category and audition phrase of the voice. You can also rename your edited voice and change the instrument category and audition phrase from the pull-down menu.

🎵 NOTE Voice names can consist of up to 10 characters.

❸ COMMON EDIT panel (Quick Edit)

This lets you quickly change the volume and tonal characteristics of the Voice by editing the amplitude and filter parameters.

🎵 NOTE The parameters available for editing differ depending on the selected Voice (Normal, Drum or Plug-in). Available parameters appear as virtual knobs in the window.

Parameter Knob Operation

You can change the operation of the parameter knobs. Right click on any knob, and select "Rotate" or "Up/down or left/right."
When "Rotate" is selected, the parameter values (of the panel "knobs") are changed by clicking and dragging the mouse in a circular direction.
When "Up/down or left/right" is selected, the parameter values (of the panel "knobs") are changed by clicking and dragging the mouse vertically or horizontally.

🎵 NOTE The setting made here affects all knobs.

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❹ PITCH BEND settings

Use the "LOWER" knob to set the lowest point in the pitch bend wheel's range and the "UPPER" knob to set the highest point.

❺ PORTAMENTO block

Use the switch to enable/disable portamento and the "TIME" knob to specify the portamento time. Click on the text box and select the portamento mode.
The "PORTAMENTO" block is not available for Drum Voices.

❻ ARPEGGIO block

Use the switch to enable/disable the arpeggiator and the "TEMPO" knob to specify the arpeggiator speed. Click on the text box below the switch to select the arpeggiator mode. Click on the text box to the left of the switch to select the arpeggio type. The specific parameters for the arpeggiator can be found in the "ARPEGGIO" dialog, opened by clicking the [DETAIL] button.

❼ [CTRL SET/COM LFO] button

Click this to open the "CONTROLLER SET /COMMON LFO" dialog. In the top panel, you can specify the parameters for all controllers such as the pitch bend and modulation wheels. The bottom panel lets you specify the parameters for the Common LFO.
The "COMMON LFO" panel is available only for Normal Voices.

"CONTROLLER SET/COMMON LFO" Dialog
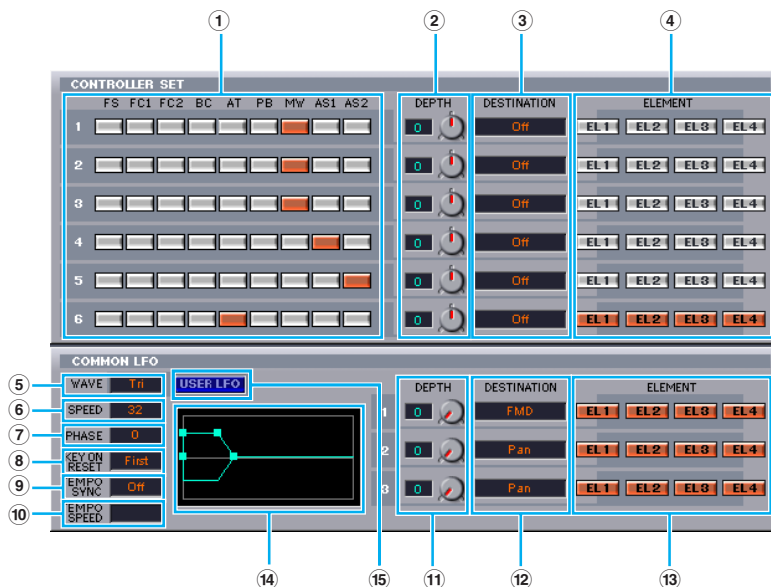
CONTROLLER SET Panel

You can assign your synthesizer's controllers such as the modulation wheel or keyboard aftertouch to various parameters to allow them to be modified in real-time. For instance, you could assign the modulation wheel to the filter's Resonance parameter when the Normal Voice is selected. In all, up to six controllers can be assigned.

① **SOURCE** ....Select the controller from "FS" (footswitch), "FC1" (foot controller 1), "FC2" (foot controller 2), "BC" (breath controller), "AT" (aftertouch), "PB" (pitch bend wheel), "MW" (modulation wheel), "AS1/2" (assignable 1/2).

② **DEPTH settings**.....................Sets the degree to which the selected controller will affect the parameter assigned to it.

③ **DESTINATION settings**.........Click on the text box and choose the parameter you wish to control.

④ **ELEMENT switches** ....Click these to enable/disable the Elements which will be effected by the controller assignments.

COMMON LFO Panel (Normal Voice only)

⑤ **LFO WAVE setting**.................Click on the text box and select the LFO waveform.

⑥ **LFO SPEED setting** ....Click on the text box and set the LFO speed.

⑦ **LFO PHASE setting** ....Click on the text box and select the LFO phase.

⑧ **LFO KEY ON RESET setting**.....Click on the text box and select the method of restarting the LFO when a note is played.

⑨ **TEMPO SYNC setting** ....Click on the text box and set TEMPO SYNC to on or off.

⑩ **TEMPO SPEED setting** ....Click on the text box and select determine how the LFO pulses in sync with the Arpeggio or sequencer.

⑪ **DEPTH setting**.......................Set the degree to which the selected controller will affect the parameter assigned to it.

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⑫ **DESTINATION settings**.........Click on the text box and choose the parameter you wish to control.

⑬ **ELEMENT switches** ....Click these to enable/disable the Elements which will be effected by the controller assignments.

⑭ **Editor graph** ....Click and drag the "handles" (square marks) to set the time-dependent behavior of the Common LFO. The first handle (furthest to the left) controls the "LFO Delay Time." The second controls the "LFO Fade In Time." The third controls the "LFO Control Time." The last square mark (furthest to the right) controls the "LFO Fade Out Time." Drag the handles horizontally to adjust the transition times.

⑮ **USER LFO button** ....Click this to open the USER LFO dialog.

User LFO Panel (Normal Voice only)
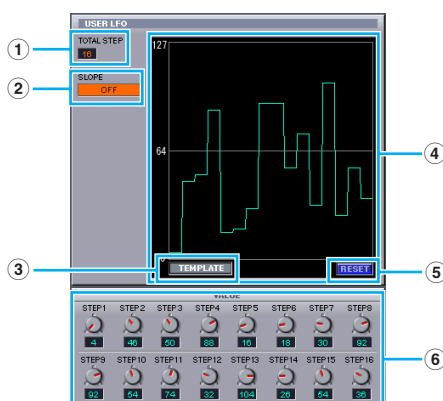
① **TOTAL STEP** ....Determines the number of steps for the currently edited LFO wave, up to a maximum of sixteen.

② **SLOPE** ....Determines the slope or ramp characteristics of the LFO wave.
   • OFF ....No slope; the LFO instantly jumps to the level of each step.
   • UP ....The LFO ramps up to the next step, when that step is higher in value. No slope for lower steps.
   • DOWN.........................The LFO ramps down to the next step, when that step is lower in value. No slope for higher steps.
   • UP & DOWN................The LFO ramps both up and down to the level of each step.

③ **TEMPLATE**......................You can select a pre-programmed template for the LFO wave. The selected template's wave graph appears in the dialog.
   • random........................Randomly generates step values, creating each time a different random LFO wave.
   • all0 ....Values of all the steps are set to 0.
   • all64 ....Values of all the steps are set to 64.
   • all127 ....Values of all the steps are set to 127.
   • saw up ....Creates a saw shaped upward wave.
   • saw down....................Creates a saw shaped downward wave.
   • even step ....Values of all even steps are set to 127, and values of all odd steps are set to 0.
   • odd step......................Values of all odd steps are set to 127, and values of all even steps are set to 0.

④ **Wave graph**......................Click on the text box and select the method of restarting the LFO when a note is played.

⑤ **RESET**............................Values of all the steps are reset to 0.

⑥ **VALUE**.............................Edit the value for each step by using the corresponding knob.

CONTROLLER (Plug-in Voice only)

This determines the depth of pitch, cutoff, pitch modulation, cutoff modulation, and amplitude modulation.

❽ ELEMENT unit

This section is explained in more detail in "Element Unit" ().

❾ INSERTION EFFECT units

This section is explained in more detail in "Insertion Effect" ().

❿ SYSTEM EFFECT settings

This section is explained in more detail in "System Effects" ().

⓫ Keyboard

Click any key on the keyboard to monitor your edited voice in that key.

⓬ KEY ASSIGN settings

Click on the left text box to select a Key Assign setting. Click on the right text box to select Monophonic or Polyphonic. The "KEY ASSIGN" settings are not available for Drum Voices.

⓭ MICRO TUNE settings

Click on the text box to select a Micro Tuning preset.
The "MICRO TUNE" settings are not available for Drum Voices.

⓮ ASSIGNABLE 1/2 settings

Use the knobs to set the value of the parameter assigned to each of the assignable 1/2 controllers.

⓯ MEQ GAIN CONTROL settings

Use the knobs to set the gain for each frequency band of the five-band EQ.

ELEMENT Unit
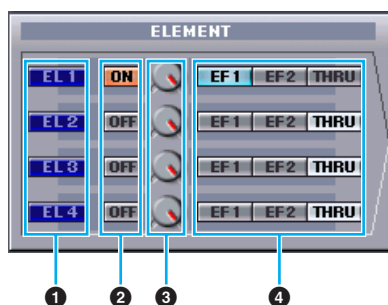
❶ EL (Element) 1 to 4 buttons

Click these to open the corresponding "ELEMENT" dialogs.

> **🎵 NOTE** For Drum voices, you will see the following panel. Click [KEY C0...C6] to open the "Drum Key" dialog ().
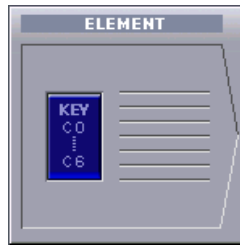
> **🎵 NOTE** For Plug-in voices, you will see the following panel. Click [DETAIL] to open the "Plug-in Voice Detail" dialog.

① **VOICE BANK** .... Determines the Plug-in voice bank.

② **VOICE NUMBER** .. Determines the Plug-in voice number.

③ **LFO** .... Determines the Speed of LFO, Pitch Modulation, and Delay.

④ **NOTE SHIFT** .... Determines the amount of Note Shift (key transpose).

Click [NATIVE PARAM] to open the "NATIVE Parameter" dialog. Select the Plug-in board to be edited at the top left of the keyboard illustration on the window.
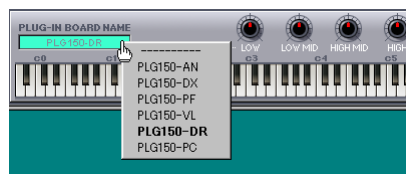
❷ ON/OFF switches

Click these to switch each Element on or off.

❸ Element Level knobs

Use these to set the level of each Element.

❹ EF (Effect) 1 / EF (Effect) 2 / THRU switches

Click these to assign each Element to Insertion Effect 1 or Insertion Effect 2, or to bypass the Insertion Effect units.

● ELEMENT Dialog
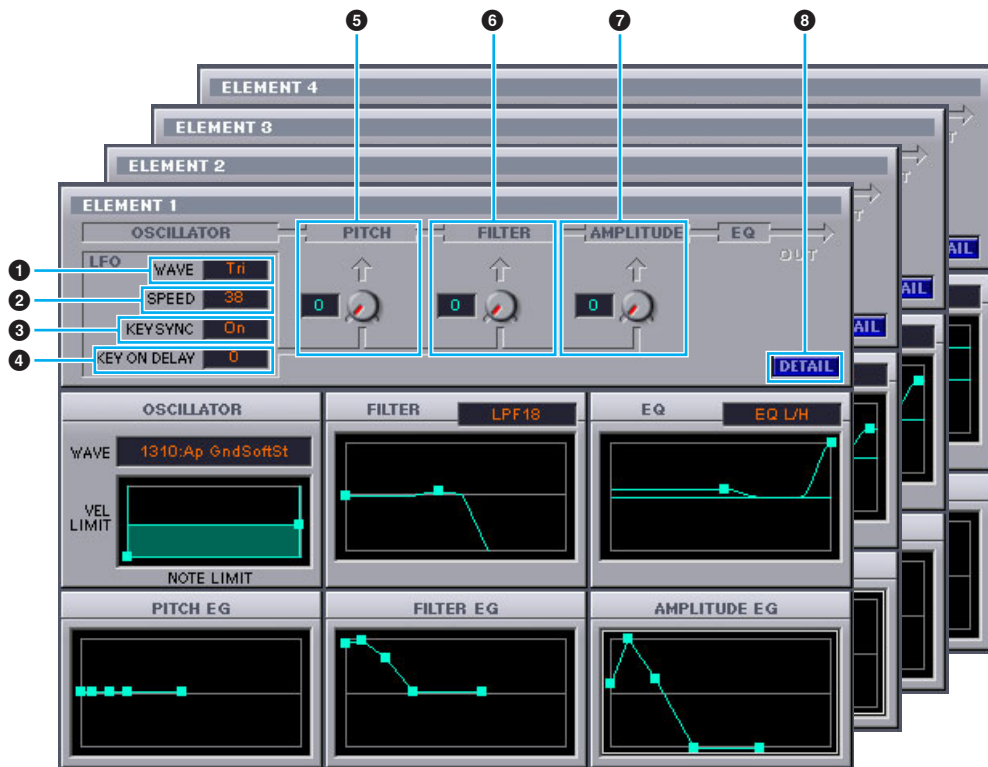
❶ LFO WAVE
Click on the "WAVE" text box and select the LFO's waveform.

❷ LFO SPEED
Click on the "SPEED" text box and specify its speed.

❸ KEY SYNC
Click on the "KEY SYNC" text box to switch LFO key sync on or off. (If switched on, the LFO waveform is restarted each time you play a note.)

❹ KEY ON DELAY
Determines the time (delay) between the moment a Note On message is received and the point at which the LFO comes into effect.

❺ LFO PITCH knob
Use this to set the pitch modulation depth of the LFO. You can also enter a value directly in the text box to the left of the knob.

❻ LFO FILTER knob
Use this to set the filter modulation depth of the LFO. You can also enter a value directly in the text box to the left of the knob.

❼ LFO AMPLITUDE knob
Use this to set the amplitude modulation depth of the LFO. You can also enter a value directly in the text box to the left of the knob.

23

❽ [DETAIL] button

Click this to open the "EL DETAIL" dialog and enter the parameters for each Element. You have wider and more accurate control over the parameters than with the editor graphs.

Editor graphs

Within these graphs, click and drag the "handles" (square marks) to visually adjust the parameters for each Element.

♪ NOTE Sometimes, not all the handles are visible as they may be layered on top of each other at the same position. If this is the case, click the visible handle and drag it away temporarily to reveal the next handle.

OSCILLATOR Settings

Click on the "WAVE" text box and choose the source waveform. One of the square marks is used to set "VEL LIMIT LOW" and "NOTE LIMIT LOW." Set the lowest note velocity response by dragging this the handle horizontally. Set the lowest note in the key range by dragging it vertically. Similarly, set the highest note velocity ("VEL LIMIT HIGH") and key range note ("NOTE LIMIT HIGH") using the other handle.

♪ NOTE When dragging the handles, values are given as (X,Y) coordinates, where X is the NOTE LIMIT (given as a MIDI note number) and Y is the VEL LIMIT. To view the note name instead of the note number, select the "OSCILLATOR" tab of the "EL DETAIL" dialog.

FILTER Settings

Click on the text box and choose the filter type. The graph shows pre-defined settings initially, but you can edit these. Using the LPF type as an example, drag the left handle vertically to set the Filter Gain. Drag the right handle horizontally to set the Filter Cutoff frequency.

🎵 NOTE Parameter values are shown when dragging the handles. To set these values directly, select the "FILTER EG" tab of the "EL DETAIL" dialog.

EQ Settings

Click on the text box and choose the equalizer type. Using the EQ/LH type as an example, the left handle controls the bass frequencies and the right handle controls the treble frequencies. Drag the handles vertically to adjust gain, and horizontally to adjust the frequency.

🎵 NOTE To set these values directly, select the "OSCILLATOR" tab of the "EL DETAIL" dialog.

PITCH EG Settings

The PITCH EG (Envelope Generator) determines the transition in pitch while the key is being held down. There are five handles, each controlling a different stage in the envelope.
The first square mark (furthest to the left) controls the "Hold Time/Level." The second controls the "Attack Time/Level." The third controls the "Decay 1 Time/Level." The fourth controls the "Decay 2 Time/Sustain Level." The last handle (furthest to the right) controls the "Release Time/Level." Drag the handles vertically to adjust levels, and horizontally to adjust the transition times.

🎵 NOTE To set these values directly, select the "PITCH" tab of the "EL DETAIL" dialog.

FILTER EG Settings

The FILTER EG (Envelope Generator) determines the transition in timbre while the key is being held down. There are five handles, each controlling a different stage in the envelope. The first handle (furthest to the left) controls the "Hold Time/Level." The second controls the "Attack Time/Level." The third controls the "Decay 1 Time/Level." The fourth controls the "Decay 2 Time/Sustain Level." The last square mark (furthest to the right) controls the "Release Time/Level." Drag the handles vertically to adjust levels, and horizontally to adjust the transition times.

🎵 NOTE To set these values directly, select the "FILTER EG" tab of the "EL DETAIL" dialog.

AMPLITUDE EG Settings

The AMPLITUDE EG (Envelope Generator) determines the transition in amplitude over time. There are five handles, each controlling a different stage in the envelope. The first handle (furthest to the left) controls the "Init Level." The second controls the "EG Attack Time." The third controls the "EG Decay 1 Time/Level." The fourth controls the "Decay 2 Time/Sustain Level." The last handle (furthest to the right) controls the "EG Release Time." Drag the handles vertically to adjust levels, and horizontally to adjust the transition times.

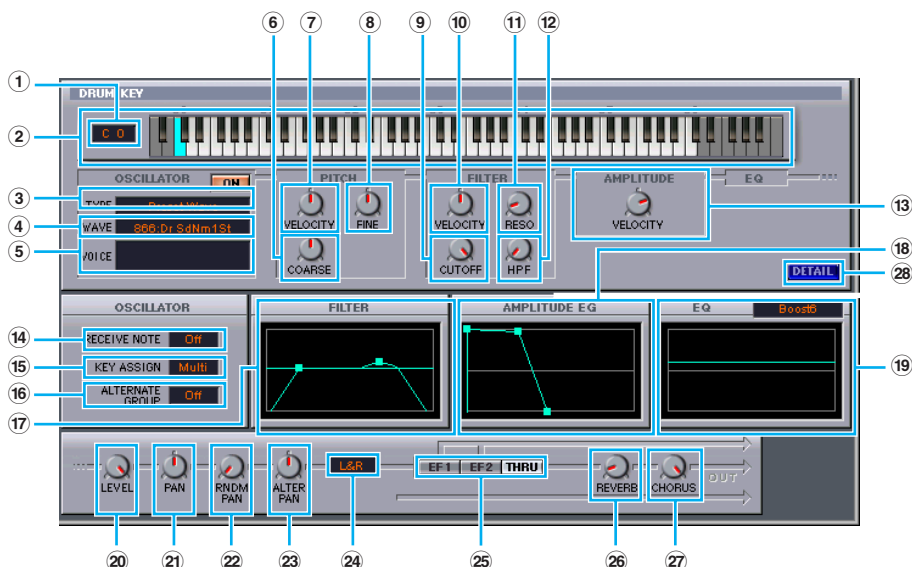🎵 NOTE To set these values directly, select the "AMP EG" tab of the "EL DETAIL" dialog.

"DRUM KEY" Dialog

① **Key** ....Indicates the note name to be edited.

② **Keyboard** ....Click on the keyboard to specify note assigned to the Element or Voice you are editing. The text box to the left shows the note name.

③ **TYPE** ....Determines the bank of the sound source: Preset wave or Voice.

④ **WAVE**.......................To select a waveform as the source, click this and then the text box next to it to select the waveform.

⑤ **VOICE**......................To select a voice as the source, click this and then the text box next to it to open the "Voice List" dialog.

⑥ **COARSE** ....Use the "COARSE" knob to tune the Element's pitch in coarse increments (semitones).

⑦ **VELOCITY**...............Use the "VELOCITY" knob to define how the Element's pitch varies with note velocity.

⑧ **FINE** ....Use the "FINE" knob to further fine-tune it.

⑨ **CUTOFF** ....Use the "CUTOFF" knob to set its LPF Cutoff Frequency.

⑩ **VELOCITY**...............Use the "VELOCITY" knob to define how the Element's filter opens/ closes in response to note velocity.

⑪ **RESO** ....Use the "RESO" knob to set the LPF Resonance level.

⑫ **HPF** ....Use the "HPF" knob to set the HPF Frequency.

⑬ **AMPLITUDE VELOCITY**.Use the "VELOCITY" knob to define how the Element's output level varies with note velocity.

⑭ **RECEIVE NOTE** ......Click on the text box and select whether or not to receive notes.

⑮ **KEY ASSIGN** ....Click on the text box and select Single key assignment or Multi key assignment.

⑯ **ALTERNATE GROUP** ....Click on the text box and select an alternate group number. This is used to prevent a pair of drum sounds from sounding simultaneously (for example, an open and closed hi-hat).

⑰ **FILTER** ....Drag one of the handles horizontally to adjust the Element's "HPF Cutoff Frequency." Drag the other handle vertically to adjust its "LPF Resonance," and horizontally to adjust its "LPF Cutoff Frequency."

♪ NOTE To set these values directly, select the "OSCILLATOR" tab of the DRUM KEY DETAIL Dialog.

⑱ **AMPLITUDE EG** .....Drag the first handle (furthest to the left) horizontally to adjust the Element's "Attack Time." Drag the second horizontally to adjust its "Decay 1 Time," and vertically to adjust its "Decay 1 Level." Drag the last handle (furthest to the right) horizontally to adjust its "Decay 2 Time."

♪ NOTE To set these values directly, select the "PARAMETER" tab of the DRUM KEY DETAIL Dialog.

⑲ **EQ** ....Click on the text box and select the EQ type. With the "EQ L/H" and "P.EQ" types, you can adjust some EQ parameters using the handles in the graphs. Drag one of the handles horizontally to adjust the Element's "EQ Low Frequency," and vertically to adjust its "EQ Low Gain." Drag the other handle horizontally to adjust the Element's "EQ High Frequency" (or "EQ Resonance" if the P.EQ type has been chosen) and vertically to adjust its "EQ High Gain."

♪ NOTE To set these values directly, select the "OSCILLATOR" tab of the DRUM KEY DETAIL Dialog.

⑳ **LEVEL** ....Use this knob to set the level of the Element.
㉑ **PAN** ....Use this knob to set the stereo position of the Element.
㉒ **RNDM PAN**.............Use this knob to set the Element's "Random Pan" depth.
㉓ **ALTER PAN**............Use this knob to set the "Alternate Pan" depth.
㉔ **Output Assignment selector** ....Click on the text box and select the output(s) to which the Element will be sent.
㉕ **EF1/EF2/THRU** ....Click the [EF 1] switch to pass the signal through Insertion Effect 1. Click [EF 2] to pass it through Insertion Effect 2. Click [THRU] to bypass the Insertion Effects.
㉖ **REVERB**..................Use the "REVERB" knob to set the level of the signal from Insertion Effect 1/2 (or the by-passed signal) sent to the Reverb unit.
㉗ **CHORUS** ....Use the "CHORUS" knob to set the level of the signal from Insertion Effect 1/2 (or by-passed signal) sent to the CHORUS unit.
㉘ **DETAIL** ....Click this to open the "DRUM KEY DETAIL" dialog and input all Element values directly (except the Keyboard note assignment).

♪ NOTE The signal output from EQ is sent to LEVEL at the left bottom of the Drum Key Dialog.

♪ NOTE If the OSCILLATOR TYPE is set to "Voice," parameters 7, 9 -14, 16 -19, 22, and 23 described above are not available.

Insertion Effect 1 Unit

❶ CONNECT selector
Click on the text box and choose the order in which signals are passed from one insertion effect unit to the other.

❷ Indicator lamps
These show which of the Elements are assigned to the respective Insertion Effect unit. The Indicator lamps are not available for Drum Voices.

❸ [DETAIL] button
Click this to open the Insertion Effect dialog and set the detailed parameters.

❹ Effect Type selector
Click on the text box and choose the type of Insertion Effect.

Insertion Effect 2 Unit
Same as Insertion Effect 1 Unit. See above.

System Effects

● Reverb Unit

❶ Reverb Send
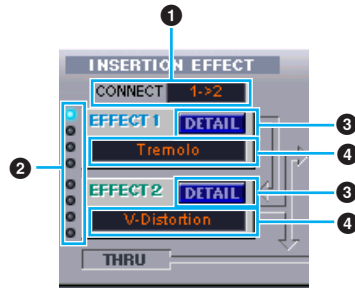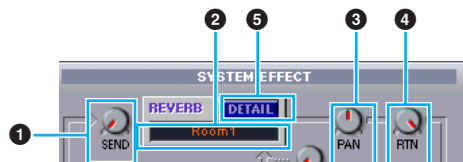Use this knob to set the level of the signal of Insertion Effect 1/2 (or the by-passed signal) sent to the Reverb Effect.

❷ Reverb Effect Type selector
Click on the text box and choose the type of Reverb Effect.

❸ Reverb Pan controls
Use these knobs to set the stereo positioning of the Reverb Effect.

❹ Reverb Return controls
Use these knobs to set the amount of Reverb Effect that is used in the output signal.

❺ [DETAIL] button
Click this to open the Reverb dialog and set the detailed parameters.

● Chorus Unit

❶ Chorus Send
Use this knob to set the level of the signal of Insertion Effect 1/2 (or the by-passed signal) sent to the Chorus effect.

❷ Chorus Effect Type selector
Click on the text box and choose the type of Chorus Effect.

❸ Chorus Pan control
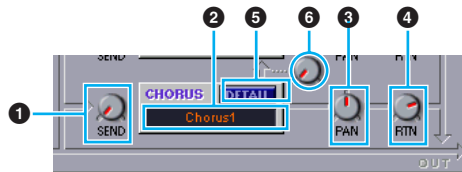Use this knob to set the stereo positioning of the Chorus Effect.

❹ Chorus Return control
Use this knob to set the amount of Chorus Effect that is used in the output signal.

❺ [DETAIL] button
Click this to open the Chorus dialog and set the detailed parameters.

❻ CHORUS REVERB control
Use this knob to set the level of the signal of sent from the Chorus unit to the Reverb unit.

The Toolbar
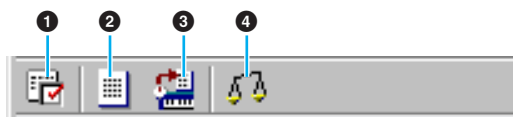
❶ **"Editor Setup" button**
Click this to open the "Setup" dialog. See page 12 for details.

❷ **"Library Window" button**
Click this to bring the Library Window back into view. See page 8 for details.

❸ **"Store" button**
Click this to open the "Store" dialog. See below for details.

"Store" Dialog

You can store the edited voice to any of the Library file.
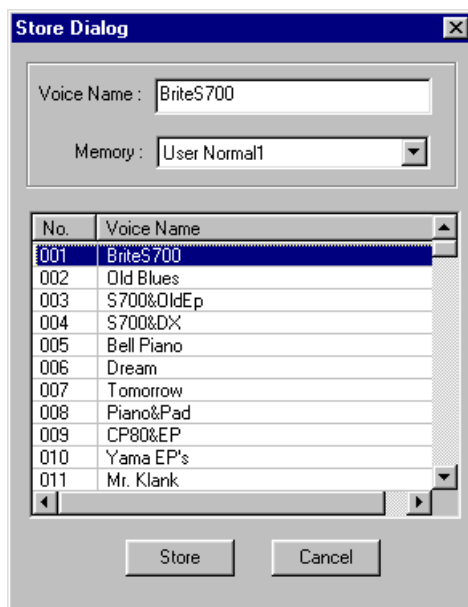
1 Click the Voice Name box at the top of the dialog. The cursor is highlighted and you can enter characters for the name.

2 Enter the Voice name via the keyboard of your computer.

D NOTE Voice names can consist of up to 10 characters.

3 Click the Memory box and choose the Memory in which to store your edited voice.

4 In the Voice Name list, click the voice in which your edited voice will be stored.

⚠ CAUTION

After storing to a Library file, the data for the original voice will be overwritten when you save the Library file. It is recommended that you back up important data.

5 Click the [Store] button to store your edited voice in the location specified in step #4.

⚠ CAUTION

The "Store" dialog is used to temporarily store your Library file. After storing, save your Library file. If you do not save your Library file after storing, your edits will not be saved.

❹ "Compare" button
If you click this, bulk data for the original voice (prior to editing) will be sent to your tone generator. Click it again to send the bulk data for your edited voice. This button is useful for making A/B comparisons between the original and edited voices.

An Example of Voice Editor in Use

There is no single way to use the many components in the Voice Editor. Your editing needs and preferences may differ; however, the following example gives you a simple step-by-step guide in how to use the Voice Editor.
The Library window is the first window to open, so that's where the explanation begins.

🎵 NOTE   In the Library window, you can open existing Library files containing the Voices you wish to edit, and specific voices can be imported to the Library window.

1 Click the "Editor Setup" button in the toolbar of the Library window to open the "Setup" dialog. Then select the appropriate MIDI In/Out Port and Device No. settings for your tone generator (See the section "Setup" Dialog).

🎵 NOTE   If you are using Macintosh, you will also need to make settings in OMS (page 33).

🎵 NOTE   If you are using Windows, you will also need to make settings in the MIDI Setup Toolbar or the host application's MIDI port.

2 Receive the User voice data from your tone generator.

① Select [Receive Bulk...(Receive...)] (page 7) from the [Setup (MIDI)] menu.

② Select "All" from "Receive Type," then click the [Start] button (page 14). Close the dialog box after reception. The received voice is shown.

3 In the Voice List of the Library window, double-click the voice you wish to edit. The Edit Window will open for the voice.

4 Various blocks are arranged in the Edit window. First, let's set the parameters for Elements 1 to 4 on the Element block which make up the voice. Open the dialogs for Elements 1 to 4, select the waveforms, and adjust the tonal characteristics of the voice using the filters and equalizers. You can use the graph editors in each dialog to visually edit the parameters.

> **NOTE** You can edit the Element parameters in much finer detail within the "EL DETAIL" dialogs. The Element dialogs are linked to the "EL DETAIL" dialogs, so changes in one dialog are immediately reflected in the other. You can simultaneously view the graphs and the "EL DETAIL" dialogs side-by-side while editing.

> **NOTE** Also within the Element Unit, you can set the output level for each Element and the route their outputs through Insertion Effects 1/2.

5 Select the Insertion Effect Type in the Insertion 1/2 Unit and set the remaining parameters.

6 Select the System Effect Type in the Reverb/Chorus Unit and set the remaining parameters.

7 Set the Arpeggio and Portamento parameters if necessary.

8 Click the "Store" button in the toolbar of the Edit Window to open the "Store" dialog. This will store the edits for the current voice in the Library file.

> **NOTE** The edits for the voice are only stored in the Library file temporarily. Beware that if you proceed further without saving the Library file itself, you will lose all your edits.

9 Switch back to the Library Window and click the "Save" button in the toolbar to save (overwrite) the Library file. The edits for your voice will be saved with the voice itself in the designated voice list location.

> **NOTE** The Library file you have saved can be opened in the Library Window at any time. Voices in the Library Window can be transmitted to your synthesizer.

> **NOTE** You can create a variety of different Library files, each tailored for separate applications, such as live performances, recording, etc. Thus, you can conveniently modify voices to suit different situations and needs.

10 Click the "Transmit" button in the toolbar of the Library window to transmit the edited voice from the computer to the MOTIF-RACK. After the operation is completed, you can select the edited voice on the MOTIF-RACK's panel.

OMS Settings (Macintosh)

The Voice Editor software uses OMS (Open Music System) for MIDI input/output. To use the Voice Editor software, OMS must be installed beforehand.

♪ NOTE For information about installing OMS, refer to the separate Installation Manual.

About OMS

Voice Editor uses the OMS (Open Music System) to transfer MIDI data to an external MIDI device. OMS is a system extension that goes in the Mac OS System folder, designed to manage the MIDI data stream (input & output) in a computer, to enable MIDI data transfer between MIDI software and hardware attached to the computer. OMS is a de facto standard of the MIDI environment under the Mac OS, and various music software manufacturers have released OMS-compatible sequencer and other software.
OMS has the following merits:

- As OMS-compatible MIDI applications communicate with various MIDI devices via OMS, it is no longer necessary for you to set up multiple MIDI drivers for those applications. Thus, you can avoid conflicts between different drivers with the same purpose (MIDI control).

- Once a Studio Setup is read in OMS, any OMS-compatible application will be aware of it, even if you need to reconfigure the routing of the MIDI data stream or change the current Studio Setup. OMS-compatible applications will commonly recognize the new configuration.

- You can have different Studio Setups to choose from, letting you instantly switch to a different MIDI routing (patches between MIDI devices and software).

- Every time the OMS Setup application is opened, any MIDI device connected to the computer is automatically detected, and its icon appears with a current MIDI status (channel number, port number, patches, etc.). Once devices are properly configured with OMS Setup, you don't need to worry about the status.

- OMS can drive various MIDI interfaces, including the standard type (16 channels) and the multi-port type (16 channels per port). If you use a multi-port type, you can control over 16 channels simultaneously via OMS.

  ♪ NOTE For more information about OMS features, see the READ ME file included with OMS.
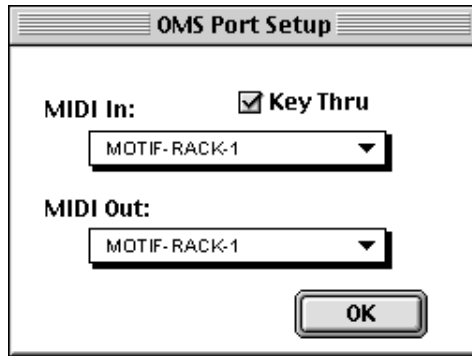
OMS Port Setup

Having set up OMS, you now need to start up Voice Editor and set the OMS ports.

1 Start up Voice Editor by double-clicking its icon.

> **▶ NOTE** If AppleTalk is enabled, you will get an alert message. Click "OFF." It will take some time for AppleTalk to be disabled.

2 Choose "OMS Port Setup" from Voice Editor's "MIDI" menu, then select the port settings.
In the following example, the tone generator is an MOTIF-RACK and its settings are applied to OMS.

```
┌══════════ OMS Port Setup ══════════┐
│                                     │
│  MIDI In:        ☑ Key Thru         │
│    ┌─────────────────────────┐      │
│    │ MOTIF-RACK-1        ▼ │      │
│    └─────────────────────────┘      │
│                                     │
│  MIDI Out:                          │
│    ┌─────────────────────────┐      │
│    │ MOTIF-RACK-1        ▼ │      │
│    └─────────────────────────┘      │
│                    ┌──────────┐     │
│                    │    OK    │     │
│                    └──────────┘     │
└─────────────────────────────────────┘
```

Key Thru ....Check this if you are monitoring a sound generator module using an external keyboard.
MIDI In: ....Select "MOTIF-RACK-1."
MIDI Out: ....Select "MOTIF-RACK-1."

3 Click [OK] to close OMS Port Setup.

Troubleshooting

If you encounter problems such as no sound output or abnormal behavior, verify the connections before checking the following.

<Windows / Macintosh>
Sound does not change when using knobs or sliders.
- Are the MIDI Out port and Device Number set correctly in the Editor Setup? (pages 12, 34)

Bulk data is not transmitted.
- Are the MIDI Out port and Device Number set correctly in the Editor Setup? (pages 12, 34)
- Is the Dump Interval in the Editor Setup too short? Make sure the Dump Interval is at least 20 ms.

No sound heard when clicking on-screen keyboard in Edit Window.
- Is the MIDI channel set correctly in the Editor Setup? (page 12)

Sound does not change when Monitor button is pressed.
- Are the MIDI Out port and Device Number set correctly in the Editor Setup (OMS Port Setup)? (pages 12, 34)

<Windows>
Bulk data is not received.
- Open the Setup Dialog and check that the Device Number has been properly assigned (page 12).
- Is the MIDI Thru port set to off in the client application?

MIDI In/Out port is not available in Editor Setup.
- The MIDI In/Out port in Editor Setup is selected from the MIDI In/Out ports in the MIDI Setup. Check the MIDI In/Out settings in the MIDI Setup Toolbar or in the host application.

<Macintosh>
The USB port is not recognized.
- Check whether the USB driver has been installed to your computer correctly. See the installation manual for details.

The modem/printer port is not recognized.
- Check the connection and settings of the MIDI interface.
- On some Macintosh models such as the Performa series, the modem port cannot be used and only the printer port is available.
- The modem/printer port will not be recognized if AppleTalk is ON. Note that with some Macintosh models, AppleTalk is automatically enabled when starting up.
- Verify that the "Modem" or "Printer" checkbox has been checked in the OMS MIDI Setup window.

No MIDI In/Out data
- Check whether the MIDI IN/OUT setting in the Utility mode corresponds to the actually used cable (USB or MIDI).
- In the OMS Port Setup, is MIDI In/Out set to "unknown"? If you change the OMS ports or setup, the OMS output ports have to be set accordingly in Voice Editor's OMS Port Setup window. Choose the appropriate receiving device.
- If the port and setup assignments are frequently altered, OMS may be unable to easily recognize the port. Reboot the Macintosh, set up OMS correctly, then start up the Voice Editor.

Bulk data is not received.
- Open the OMS Port Setup window and check that the MIDI In has been properly assigned (page 34).
- Open the Setup Dialog and check that the Device Number has been properly assigned (page 12).

Voice Editor does not start up when Library File (extension .W6E) is double-clicked.
- Change the Type/Creator settings for Library Files as follows, then try double-clicking the file again.
  Type: W6E_
  Creator: YMTR