YAMAHA

Electone® STAGEA®

ELS-01/01C

Owner's Manual

STAGEA

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

* Please keep this manual in a safe place for future reference.

⚠ *WARNING*

Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:

Power supply/Power cord

- Only use the voltage specified as correct for the instrument. The required voltage is printed on the name plate of the instrument.
- Check the electric plug periodically and remove any dirt or dust which may have accumulated on it.
- Do not place the power cord near heat sources such as heaters or radiators, and do not excessively bend or otherwise damage the cord, place heavy objects on it, or place it in a position where anyone could walk on, trip over, or roll anything over it.

Do not open

- Do not open the instrument or attempt to disassemble the internal parts or modify them in any way. The instrument contains no user-serviceable parts. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified Yamaha service personnel.

Water warning

- Do not expose the instrument to rain, use it near water or in damp or wet conditions, or place containers on it containing liquids which might spill into any openings.
- Never insert or remove an electric plug with wet hands.

Fire warning

- Do not put burning items, such as candles, on the unit.
  A burning item may fall over and cause a fire.

If you notice any abnormality

- If the power cord or plug becomes frayed or damaged, or if there is a sudden loss of sound during use of the instrument, or if any unusual smells or smoke should appear to be caused by it, immediately turn off the power switch, disconnect the electric plug from the outlet, and have the instrument inspected by qualified Yamaha service personnel.

⚠ *CAUTION*

Always follow the basic precautions listed below to avoid the possibility of physical injury to you or others, or damage to the instrument or other property. These precautions include, but are not limited to, the following:

Power supply/Power cord

- When removing the electric plug from the instrument or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.
- Remove the electric plug from the outlet when the instrument is not to be used for extended periods of time, or during electrical storms.
- Do not connect the instrument to an electrical outlet using a multiple-connector. Doing so can result in lower sound quality, or possibly cause overheating in the outlet.

Location

- Do not expose the instrument to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration or damage to the internal components.
- Do not use the instrument in the vicinity of a TV, radio, stereo equipment, mobile phone, or other electric devices. Otherwise, the instrument, TV, or radio may generate noise.
- Do not place the instrument in an unstable position where it might accidentally fall over.
- Before moving the instrument, remove all connected cables.
- Do not place the instrument against a wall (allow at least 3 cm/one-inch from the wall), since this can cause inadequate air circulation, and possibly result in the instrument overheating.

Connections

- Before connecting the instrument to other electronic components, turn off the power for all components. Before turning the power on or off for all components, set all volume levels to minimum. Also, be sure to set the volumes of all components at their minimum levels and gradually raise the volume controls while playing the instrument to set the desired listening level.

Maintenance

- When cleaning the instrument, use a soft, dry cloth. Do not use paint thinners, solvents, cleaning fluids, or chemical-impregnated wiping cloths.

Handling caution

- Take care that the key cover does not pinch your fingers, and do not insert a finger or hand in any gaps on the key cover or instrument.
- Never insert or drop paper, metallic, or other objects into the gaps on the key cover, panel or keyboard. If this happens, turn off the power immediately and unplug the power cord from the AC outlet. Then have the instrument inspected by qualified Yamaha service personnel.
- Do not place vinyl, plastic or rubber objects on the instrument, since this might discolor the panel or keyboard.
- Do not rest your weight on, or place heavy objects on the instrument, and do not use excessive force on the buttons, switches or connectors.
- Do not operate the instrument for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss. If you experience any hearing loss or ringing in the ears, consult a physician.

Using the bench

- Do not place the bench in an unstable position where it might accidentally fall over.
- Do not play carelessly with or stand on the bench. Using it as a tool or step-ladder or for any other purpose might result in accident or injury.
- Only one person should sit on the bench at a time, in order to prevent the possibility of accident or injury.
- If the bench screws become loose due to extensive long-term use, tighten them periodically using the included tool.

Saving data

Saving and backing up your data

- Always save data to a SmartMedia card, in order to help prevent the loss of important data due to a malfunction or user operating error.

Backing up the external media

- To protect against data loss through media damage, we recommend that you save your important data onto two external media.

Yamaha cannot be held responsible for damage caused by improper use or modifications to the instrument, or data that is lost or destroyed.

Always turn the power off when the instrument is not in use.

The serial number of this product may be found on the bottom of the unit. You should note this serial number in the space provided below and retain this manual as a permanent record of your purchase to aid identification in the event of theft.

Model No. ELS-01 / ELS-01C

Serial No.

(bottom)

(1)B-7 2/2

Congratulations!

You are the proud owner of a fine electronic organ, the Electone STAGEA ELS-01/01C.
The Yamaha Electone combines the most advanced tone generation technology with state-of-the-art digital electronics and features to give you stunning sound quality with maximum musical versatility.
In order to make the most of your Electone and its extensive performance potential, we urge you to read the manual thoroughly while trying out the various features described.
Keep the manual in a safe place for later reference.

Accessories

- Bench
- Owner's Manual
- Playing the ELS-01/01C — Tutorial Guidebook
- SmartMedia card

Main Features

Wide Variety of Registration Menus page 19

The Registration Menu buttons feature a total of 240 Registrations, allowing you to instantly set up the Electone for playing your favorite type of music. The ELS-01C contains even more — an additional 60 Registrations that utilize the expressive VA Voices and Organ Flute Voices. The Registrations in Registration Menu are divided into five basic categories for ease of selection. Moreover, you can edit any of the Registrations and customize them to fit your own performance needs.

Richly textured, four-layer AWM Voices and High Quality Digital Effects pages 22 and 50

The ELS-01 contains a huge amount of exceptionally high-quality Voices – 415 altogether – created with the AWM (Advanced Wave Memory) tone generation system. The ELS-01C adds to that 94 VA (Virtual Acoustic) Voices and a virtually limitless variety of Organ Flute Voices. The authentic touch response keyboard lets you play these Voices with all the expressiveness and control of an actual acoustic instrument. What's more, there are 183 different effect types in 15 categories that you can apply to each Voice section — letting you enhance and even completely change the character of the Voices, without having to use the Voice Edit features.

Dynamic, Contemporary Rhythms and Auto Accompaniment page 51

The exceptionally of wide selection of 274 rhythms lets you choose exactly the rhythm you need in your performance. Each rhythm contains 15 variations (sections) – such as Main, Fill In, Intro, Ending, and Break – that you can easily switch while you play, to make your performance even more dynamic and professional. Each rhythm has its own matching accompaniment divided into five instrument parts, providing basic backing as well as embellishments.

Large, 6.5-inch TFT-LCD with Intuitive Touch Panel Operation page 12

This large LCD display not only lets you clearly see a wide selection of settings and parameters at almost any angle, it also serves as a touch control panel — letting you intuitively make selections and adjust settings simply by touching the screen! Once you touch a setting, you can even adjust it in finer detail if necessary with the Data Control dial.

The ELS-01/01C is compatible with the following formats.

"GM (General MIDI)" is one of the most common Voice allocation formats. "GM System Level 2" is a standard specification that enhances the original "GM" and improves Song data compatibility. It provides for increased polyphony, greater Voice selection, expanded Voice parameters, and integrated effect processing.

XG is a major enhancement of the GM System Level 1 format, and was developed by Yamaha specifically to provide more Voices and variations, as well as greater expressive control over Voices and effects, and to ensure compatibility of data well into the future.

GS was developed by the Roland Corporation. In the same way as Yamaha XG, GS is a major enhancement of the GM specifically to provide more Voices and Drum kits and their variations, as well as greater expressive control over Voices and effects.

The Style File Format combines all of Yamaha's auto accompaniment know-how into a single unified format.

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This product utilizes NF, an embedded Internet browser from ACCESS Co., Ltd. NF is used with the patented LZW, licensed from Unisys Co., Ltd. NF may not be separated from this product, nor may it be sold, lent or transferred in any way. Also, NF may not be reverse-engineered, reverse-compiled, reverse-assembled or copied.
This software includes a module developed by the Independent JPEG Group.

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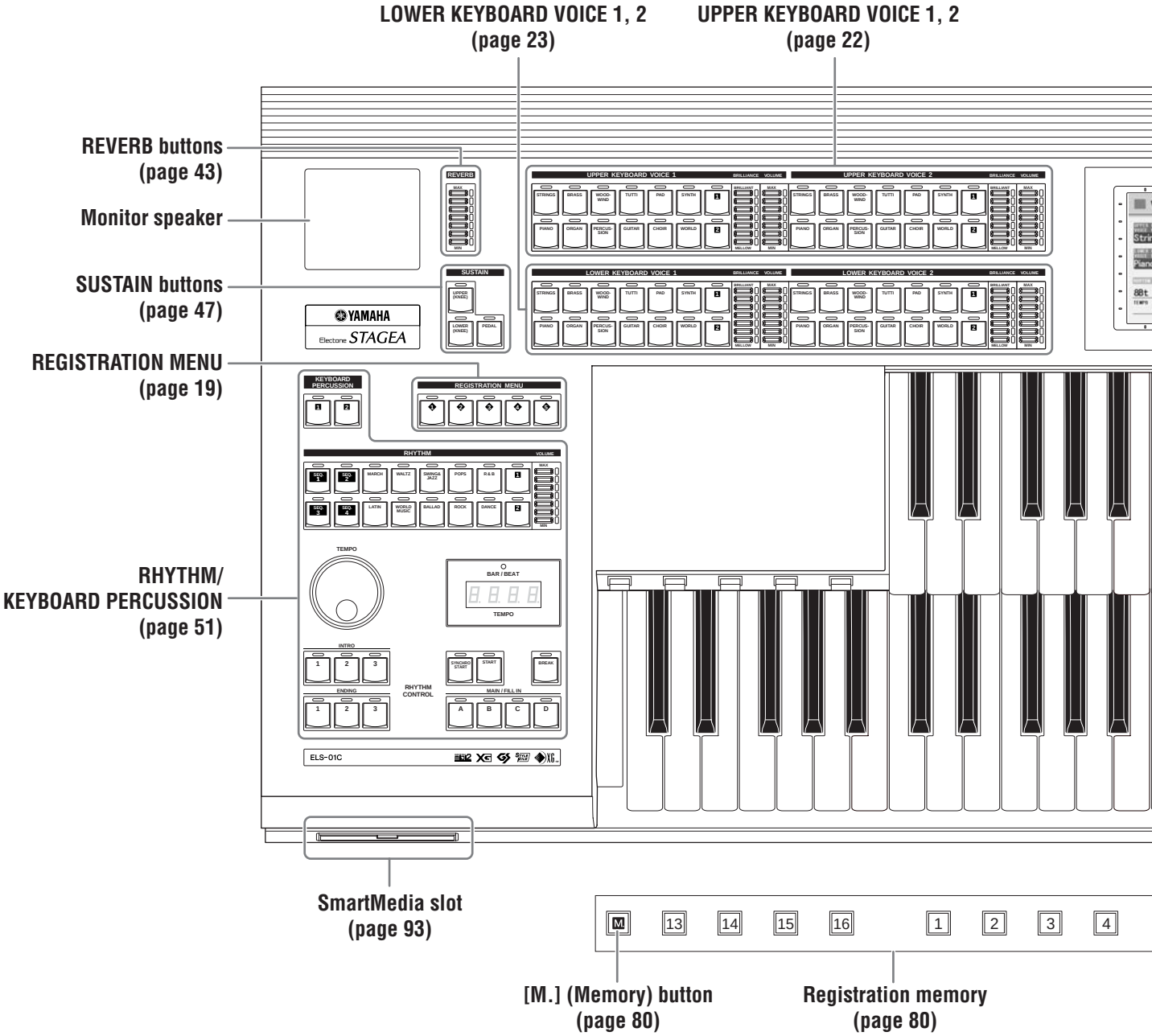
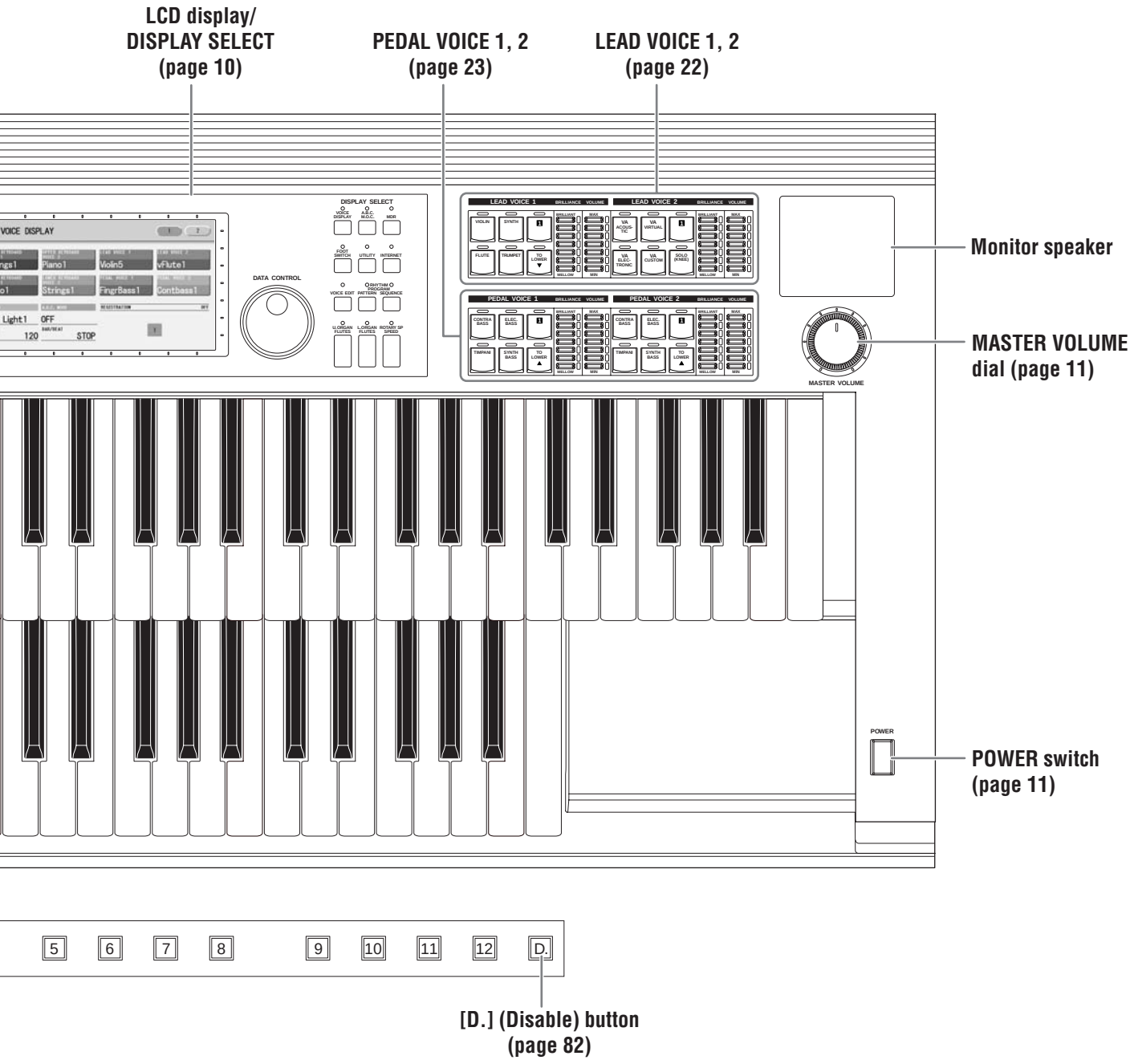
- Copying of the commercially available music sequence data and/or digital audio files is strictly prohibited except for your personal use.
- Electone and STAGEA are the trademarks of Yamaha Corporation.
- The company names and product names in this Owner's Manual are the trademarks or registered trademarks of their respective companies.
- The illustrations and LCD screens as shown in this owner's manual are for instructional purposes only, and may appear somewhat different from those on your instrument.
- The pan flute and sitar, shown in the displays of the ELS-01/01C, are on display at the Hamamatsu Museum of Musical Instruments.

Contents

Panel Layout

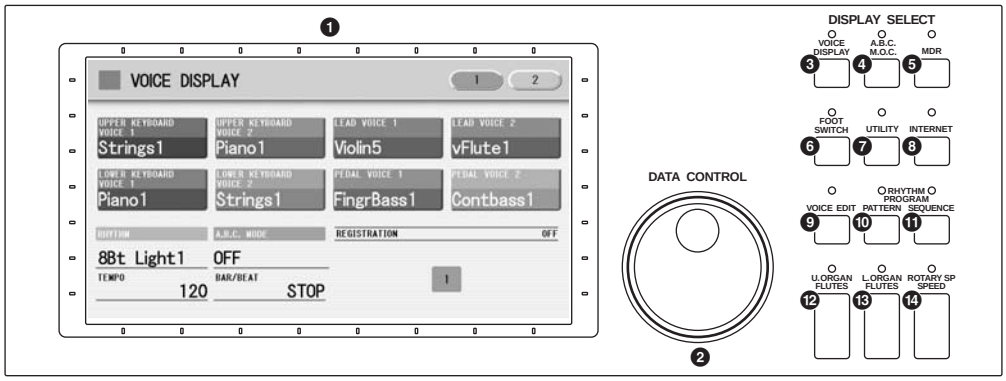
Front Panel





[D.] (Disable) button
(page 82)

LCD Display/Display Select



❶ LCD display (touch-panel) . . . . . page 12
❷ DATA CONTROL dial . . . . . page 14
❸ [VOICE DISPLAY] button . . . . . page 17
❹ [A.B.C./M.O.C.] button . . . . . .pages 62, 64
❺ [MDR] button. . . . . page 92
❻ [FOOT SWITCH] button . . . . . .pages 85, 179
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❾ [VOICE EDIT] button. . . . . page 129
❿ [PATTERN] button . . . . . page 140
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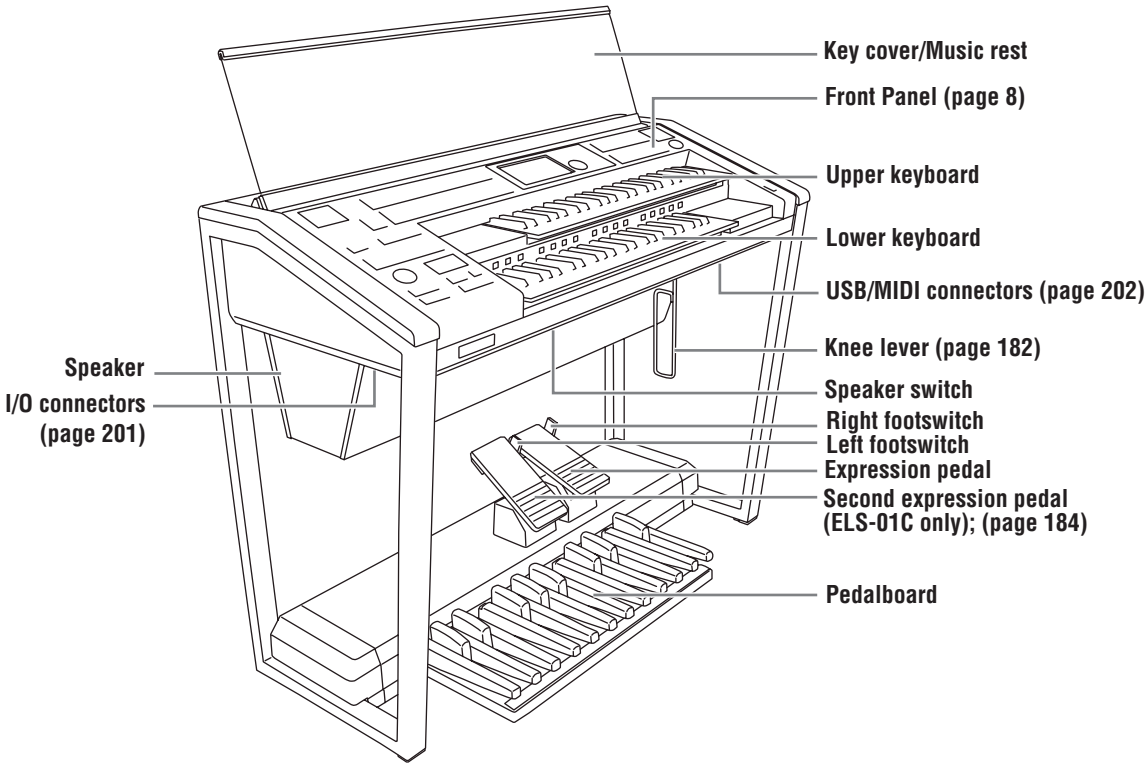
Overview



1 Quick Introductory Guide

Whether you are an advanced performer or have never touched an electronic keyboard in your life, we recommend that you take the time to go through this basic section. It shows you in the simplest possible manner how to start playing your Electone.

Contents

1 Getting Started

1 Plug the power cord into an appropriate electrical outlet.

Only use the voltage specified as correct for the Electone. The required voltage is printed on the name plate of the Electone. Yamaha products are manufactured specifically for the supply voltage in the area where they are to be sold. If you intend to use the instrument in another location, or if any doubt exists about the supply voltage, please consult with a qualified technician.

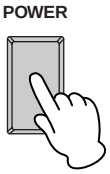
2 Make sure that the POWER switch of the speaker is set to on.

If you are using the ELS-01C, also set the REAR SPEAKER switch to on (not available on the ELS-01).

NOTE

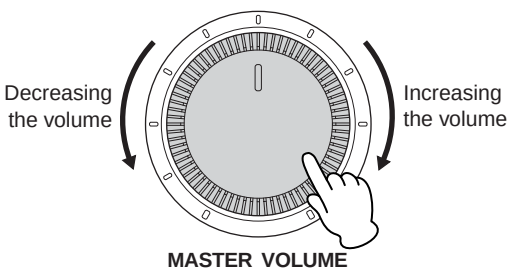
When using the rear speaker, place the Electone against a wall, allowing about 20 cm from the wall for optimum sound.

3 Turn on the Electone by pressing the POWER switch.



4 Set the MASTER VOLUME control.

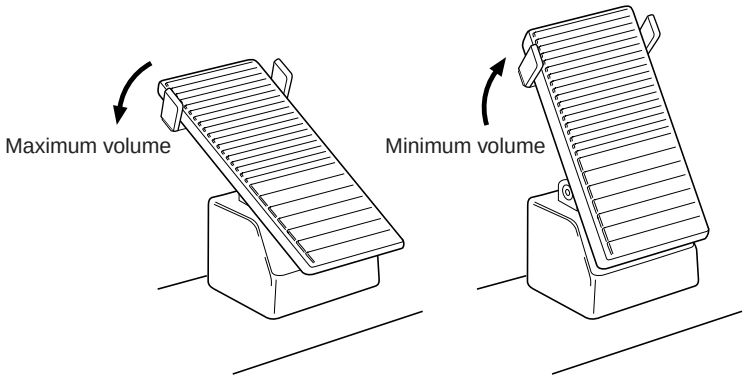
The MASTER VOLUME control is an overall control that affects the volume of the entire instrument.



NOTE

You do not need to switch the power of the speaker on/off whenever you use the instrument.
If you want, you can always keep it on and turn off the power by pressing the main POWER switch of the instrument.

5 **Press the Expression pedal down with your foot.**



2 Using the LCD Display

NOTE

When cleaning the display, use a soft, dry cloth.

Do not use any sharp or hard tools to operate the touch panel. Doing so may damage the display.

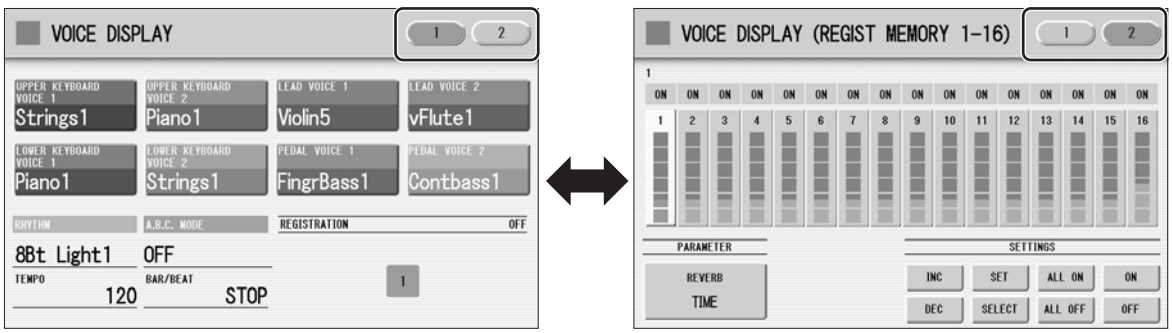
This instrument features a special touch panel that allows you to change the parameters by simply touching the 'virtual' buttons or sliders on the display. (Please note that two or more parameters cannot be operated simultaneously.)

You can also use the Data Control dial to make fine changes to the parameter value shown in the display.

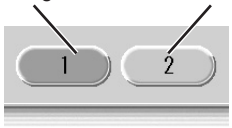
Changing the Display Page

There are some oval-shaped numbered buttons at the top right of the display. Pressing these buttons changes the "page" of the display. The selected page's button turns orange.

Page 1 **Page 2**



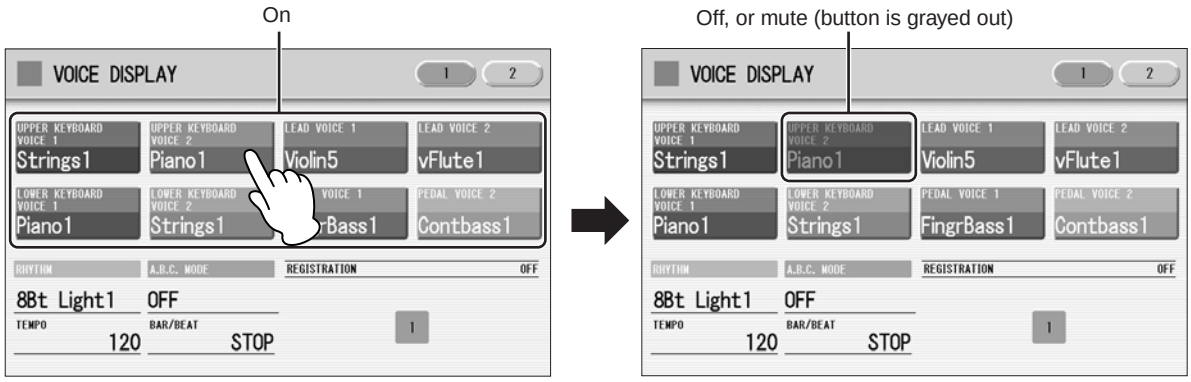
Press this button to select Page 1 Press this button to select Page 2



Pressing Buttons on the Display

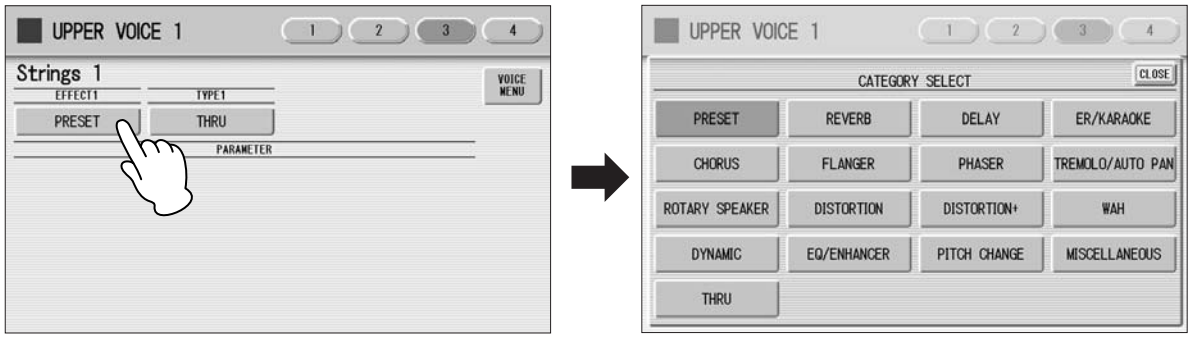
There are three types of buttons: those that select a function, those that switch a function on/off, and those that open a list or menu of parameters. To select the desired function, simply press the button in the display directly.
For switching on/off or opening a parameter list, see the instructions below.

To switch the function on or off:



You can independently mute each Voice section in the Voice Display, each accompaniment part in Rhythm Menu display, and each Element in the Voice Edit display.

To open the parameter list:



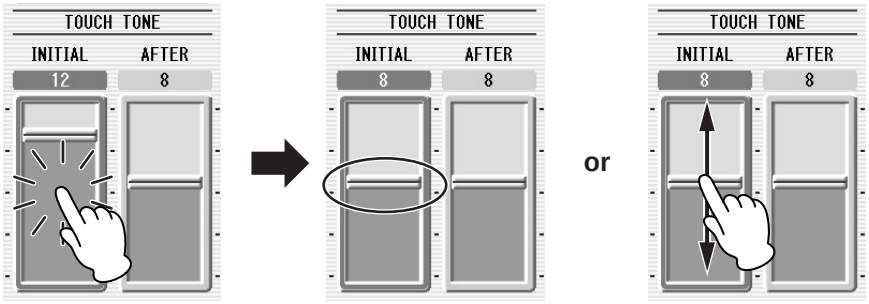
When you press the button, a parameter list will appear in which you can select the desired parameter. To close the list, press the [CLOSE] button at the top right of the list.

Adjusting Parameter Values by Using the Display Sliders

You can adjust some parameters such as Volume, Reverb, Pan and so on, by using the 'virtual' sliders in the display. There are two ways to move the slider in the display: touching it directly, and using the Data Control dial. We suggest that you touch the display slider when making coarse adjustments and use the Data Control dial for fine adjustment.

Touching the display slider directly:

Press a point in the slider to which you want to adjust the parameter value. The slider will move to the point you pressed. Also, by sliding your finger up or down while holding down the display slider, you can change the parameter value.

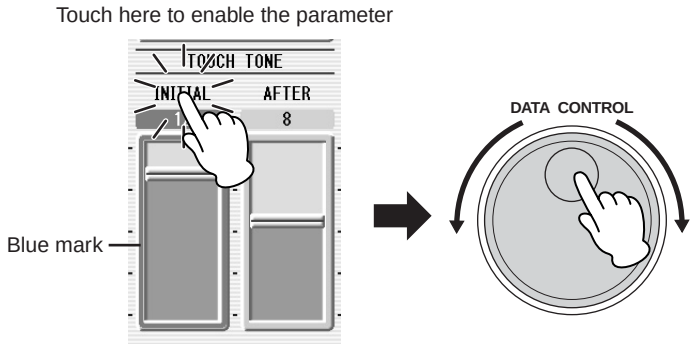


Slider will move to the point you touch

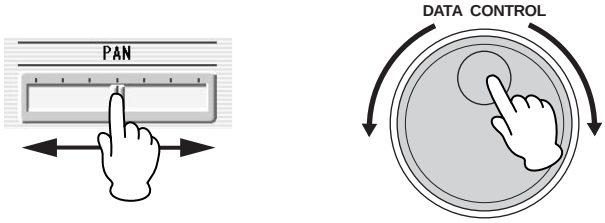
Slider will follow your finger

Using the Data Control dial:

Touch on/above the slider in the display to enable the parameter and set a rough value, then turn the Data Control dial.



To control Pan, you can move the horizontal slider in the same way as vertical sliders.



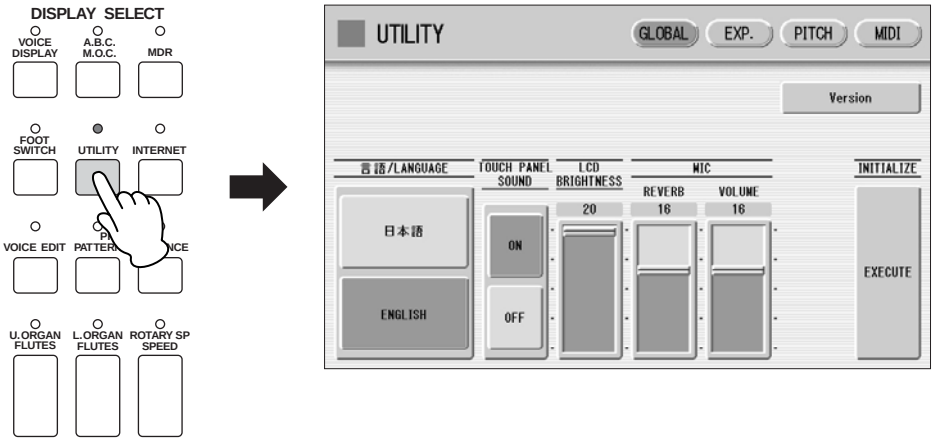
3 LCD Display Settings

Here you can change the display settings: displayed language (English or Japanese), touch panel sound, and display brightness.

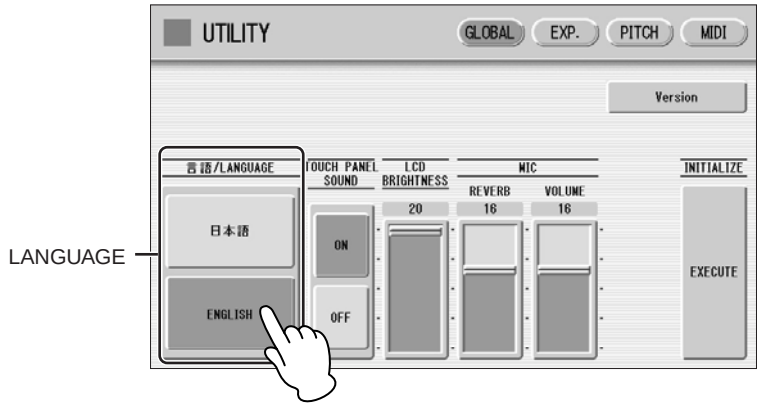
Selecting the Display Language

The LCD display can be shown in two languages, English and Japanese. The default setting is English.

1 Press the [UTILITY] button to call up the GLOBAL Page of the Utility Display.



2 Press the desired button, 日本語 (Japanese) or [English].

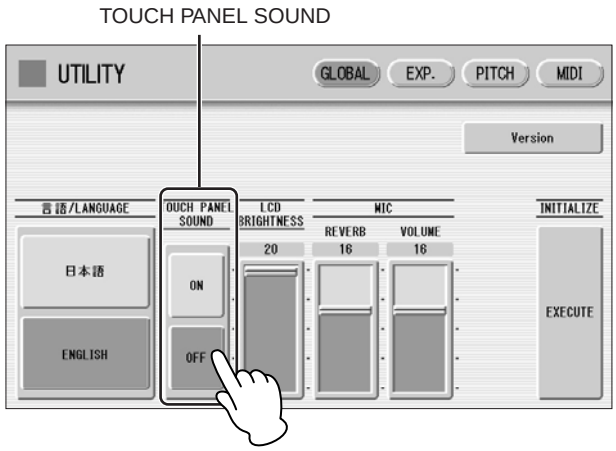


Muting the Touch Panel Sound

The Electone is set by default with the touch panel sound turned on, giving you audio feedback when you press a button or control. If you want to mute the touch panel sound, follow the procedure below.

1 **Press [UTILITY] button to call up GLOBAL Page of the Utility Display.**

2 **Press the [OFF] button of the TOUCH PANEL SOUND to mute the sound.**



To turn the sound on again, select [ON] in Step #2.

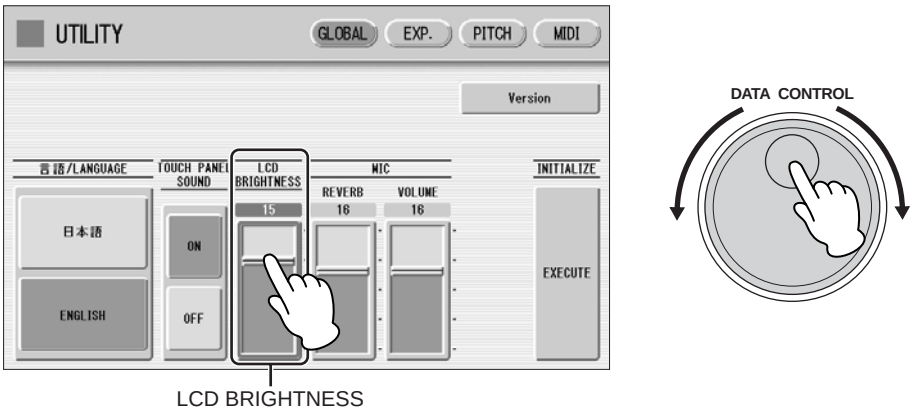
Adjusting the Display Brightness

You can adjust the display brightness to a comfortable, easy-to-read level.

1 **Press the [UTILITY] button to call up the GLOBAL Page of the Utility Display.**

2 **Move the LCD BRIGHTNESS slider by touching it directly or using the Data Control dial.**

Higher settings make the display brighter and lower settings make it darker.

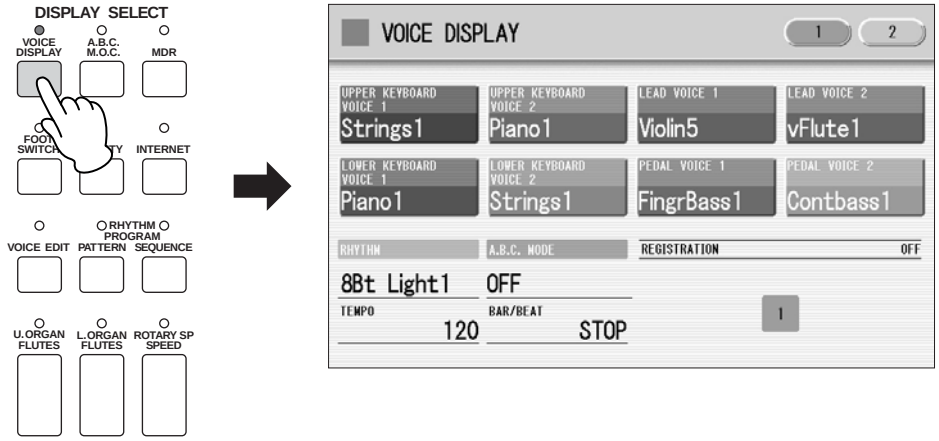


4 Voice Display

You can visually confirm the currently assigned Voices to each keyboard, currently selected rhythm, Registration Shift, and so on, in the Voice Display.

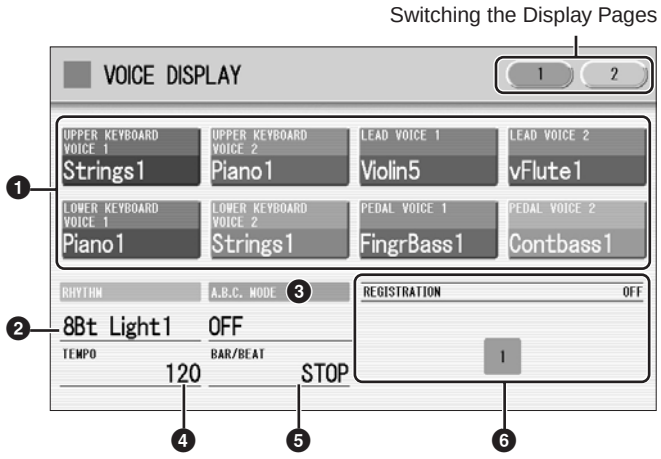
How to call up the Voice Display:

The Voice Display always appears when the Electone is turned on. To call up the Voice Display from any other display, press the [VOICE DISPLAY] button.



The Voice Display consists of two different pages that can be switched by pressing the [1] or [2] button at the top right of the display.

Voice Display [Page 1]



Reference Page
Selecting a Voice (page 23)

❶ Voice Sections

Shows the Voices currently assigned to each Voice section. You can also mute specific Voice section by pressing its button (the button is grayed-out).

Reference Page
Selecting a rhythm (page 51)

❷ RHYTHM

Shows the currently selected rhythm.

Reference Page
Auto Bass Chord (page 62)

❸ A.B.C. MODE

Shows the mode of the Auto Bass Chord.

Reference Page
Adjusting the tempo (page 56)

❹ TEMPO

Shows the current rhythm tempo.

❺ BAR/BEAT

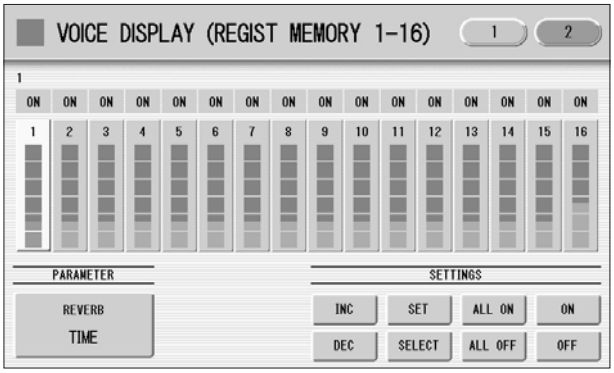
Shows the bar/beat when the rhythm is playing.

Reference Page
Registration Shift (page 84)

❻ REGISTRATION

Shows the current position of the Registration Shift.

Voice Display [Page 2]



You can confirm the parameter values (for example, Reverb, Volume, Pan) for each Registration Memory simultaneously. Moreover, you can unify a specific parameter used in various Registration Memories at one time. See page 89 for the details.

5 Registration Menu

A “Registration” consists of panel settings including the selected Upper Keyboard Voices, Lower Keyboard Voices, Pedal Voices, rhythm and so on. Each Registration Menu button (1 – 5) includes 48 Registrations (or 60 Registrations on the ELS-01C), each specially suited for playing in a different music style.

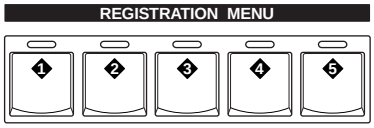
NOTE

Additional basic Registrations are preset on the Registration Memory locations from 1 to 16. See page 80 for details.

Selecting Registrations from the Registration Menu

1 Press one of the REGISTRATION MENU buttons.

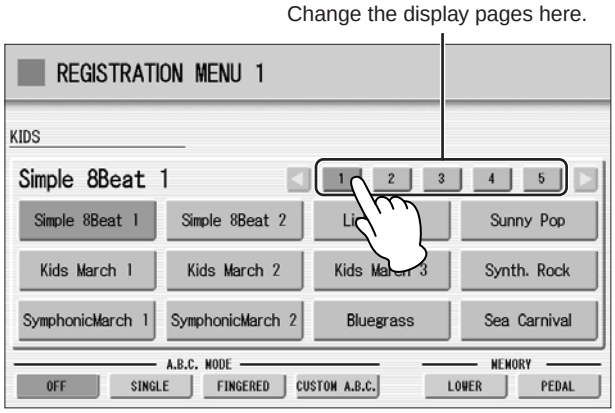
Each button has different Registrations for different music genres. For example, if you want to play Jazz, press the [4] button. For details on the Registration Menu, see page 20.



1	Kids
2	Pops & Rock
3	Dance & Ballad
4	Jazz & Latin
5	Symphony & World

2 Select the desired Registration by pressing the appropriate button on the display.

One display page contains 12 Registration buttons. Pressing the numbered buttons in the display changes the display pages, letting you select up to 48 Registrations from one Registration Menu button (or 60 Registrations, on the ELS-01C).



The color of the selected Registration name changes to orange, indicating that it has been selected, and the Auto Bass Chord mode is shown at the bottom of the display.

Reference Page

Auto Bass Chord (page 62)

3 Play your favorite song with the selected Registration.

Registration Menu List

Page	REGISTRATION MENU 1 KIDS	REGISTRATION MENU 2 POPS & ROCK	REGISTRATION MENU 3 DANCE & BALLAD	REGISTRATION MENU 4 JAZZ & LATIN	REGISTRATION MENU 5 SYMPHONY & WORLD
1	Simple 8 Beat 1	Dynamic 8 Beat	Organ Ballad	Blow On Sax	Fanfare
	Simple 8 Beat 2	NY Ballad	Dramatic Ballad	Sax Ensemble	String Orchestra
	Light Step	British Pop	Love Ballad	Moonlight	Romantic Violin
	Sunny Pop	8 Beat Modern	Smooth Lead	Big Band	Baroque
	Kids March 1	Rock Band	Pop Ballad	Clarinet Swing	Flute&Harp
	Kids March 2	Detroit Pop	Guitar Ballad	Jazz Combo	Serenade
	Kids March 3	Techno Pop	Acoustic Ballad	Medium Jazz	Fast March
	Synth. Rock	Sheriff Reggae	Healing Guitar	Organ Session	Wild West
	Symphonic March 1	Rock&Roll	Chillout	Guitar Combo	Vienna Waltz
	Symphonic March 2	Power Rock	Sweetheart 1	Tender Ballad	Polka
	Bluegrass	60's Guitar Rock	Sweetheart 2	Jazz Waltz	Chanson Club
	Sea Carnival	Unplugged	Slow & Easy	Five-Four	Theatre Organ
2	Basic Waltz	Motor City	Euro Trance	Big Band Samba	Flamenco
	Brass Ensemble	Lovely Shuffle	6/8 Trance	Mambo Brass	Pop Flamenco
	Pure Waltz	Gospel Shuffle	Cool Hip Hop	Mambo Tenor	Mexican Dance
	Rococo Ensemble	Joyful Gospel	Latin House	Montuno	Mariachi
	Pop Cha Cha	Frankly Soul	Dance Beat	Bossa Nova	Celtic Dance
	Comical Rumba	Soul	Euro Dance Pop	Pop Bossa	Folk Step
	Comical Samba	Gospel	UK Pop	Sweet Rumba	Italiano
	Toy Orchestra	6/8 Soul	Jive	Beguine	Musette
	Charleston	Hit Pop	Disco Queen	Cha Cha Cha	Country
	Winter Swing	New Country	Disco Soul	Mellow Groove	Hawaiian
	Snow Waltz 1	Eternal Pop	Pop Disco	Modern R&B	Chinese Nocturne
	Snow Waltz 2	Ground Beat	Hot Disco	Dixieland Jazz	Japanese Sound
3	Alpine Polka *A	Bounce Pop *A	Ibiza *A	Jungle Drum *A	Orchestra March*A
	Alpine Polka *B	Bounce Pop *B	Ibiza *B	Jungle Drum *B	Orchestra March*B
	Alpine Polka *C	Bounce Pop *C	Ibiza *C	Jungle Drum *C	Orchestra March*C
	Alpine Polka *D	Bounce Pop *D	Ibiza *D	Jungle Drum *D	Orchestra March*D
	Dream Ballad *A	Blues Jam *A	Power House *A	Jazz Club *A	Pasodoble *A
	Dream Ballad *B	Blues Jam *B	Power House *B	Jazz Club *B	Pasodoble *B
	Dream Ballad *C	Blues Jam *C	Power House *C	Jazz Club *C	Pasodoble *C
	Dream Ballad *D	Blues Jam *D	Power House *D	Jazz Club *D	Pasodoble *D
	Pops Orchestra*A	Evergreen Waltz*A	Dance Latino *A	Afro Session *A	Tango *A
	Pops Orchestra*B	Evergreen Waltz*B	Dance Latino *B	Afro Session *B	Tango *B
	Pops Orchestra*C	Evergreen Waltz*C	Dance Latino *C	Afro Session *C	Tango *C
	Pops Orchestra*D	Evergreen Waltz*D	Dance Latino *D	Afro Session *D	Tango *D
4	Kids On Stage *A	16 Beat Pop *A	Twilight Disco*A	ChaCha Grandee*A	Show Time *A
	Kids On Stage *B	16 Beat Pop *B	Twilight Disco*B	ChaCha Grandee*B	Show Time *B
	Kids On Stage *C	16 Beat Pop *C	Twilight Disco*C	ChaCha Grandee*C	Show Time *C
	Kids On Stage *D	16 Beat Pop *D	Twilight Disco*D	ChaCha Grandee*D	Show Time *D
	Galaxy March *A	Top Gear Rock *A	Love Song *A	3/4 Fast Jazz *A	Majestic Sound*A
	Galaxy March *B	Top Gear Rock *B	Love Song *B	3/4 Fast Jazz *B	Majestic Sound*B
	Galaxy March *C	Top Gear Rock *C	Love Song *C	3/4 Fast Jazz *C	Majestic Sound*C
	Galaxy March *D	Top Gear Rock *D	Love Song *D	3/4 Fast Jazz *D	Majestic Sound*D
	SE *A	Southern Pop *A	Movie Ballad *A	Twilight Sax *A	Orchestra Swing*A
	SE *B	Southern Pop *B	Movie Ballad *B	Twilight Sax *B	Orchestra Swing*B
	SE *C	Southern Pop *C	Movie Ballad *C	Twilight Sax *C	Orchestra Swing*C
	SE *D	Southern Pop *D	Movie Ballad *D	Twilight Sax *D	Orchestra Swing*D
5 (ELS-01C only)	Bright 16 Beat *A	Funk *A	Hip Hop Pop *A	Organ Bossa *A	Orchestra 3001*A
	Bright 16 Beat *B	Funk *B	Hip Hop Pop *B	Organ Bossa *B	Orchestra 3001*B
	Bright 16 Beat *C	Funk *C	Hip Hop Pop *C	Organ Bossa *C	Orchestra 3001*C
	Bright 16 Beat *D	Funk *D	Hip Hop Pop *D	Organ Bossa *D	Orchestra 3001*D
	Movie Panther *A	West Coast Rock*A	Fusion Shuffle*A	Afro Cuban *A	Wedding Song *A
	Movie Panther *B	West Coast Rock*B	Fusion Shuffle*B	Afro Cuban *B	Wedding Song *B
	Movie Panther *C	West Coast Rock*C	Fusion Shuffle*C	Afro Cuban *C	Wedding Song *C
	Movie Panther *D	West Coast Rock*D	Fusion Shuffle*D	Afro Cuban *D	Wedding Song *D
	Powerful Swing*A	6/8 Enka *A	Whole Ballad *A	Midnight Jazz *A	Fantasy *A
	Powerful Swing*B	6/8 Enka *B	Whole Ballad *B	Midnight Jazz *B	Fantasy *B
	Powerful Swing*C	6/8 Enka *C	Whole Ballad *C	Midnight Jazz *C	Fantasy *C
	Powerful Swing*D	6/8 Enka *D	Whole Ballad *D	Midnight Jazz *D	Fantasy *D

6 Confirming the Version of Your Electone

You can confirm the version of your Electone by the following procedure.

1 **Press the [UTILITY] button to call up the GLOBAL Page of the Utility Display.**

2 **Press the [Version] button in the display.**
The Version dialog appears in the display. Pressing [OK] closes the dialog.

7 Factory Set (Initializing the Electone)

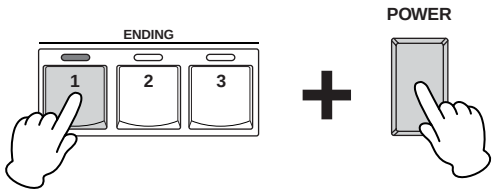
All current settings including Registration Memory, User Voices, User Rhythms, and LCD Display settings can be deleted at once by the following procedure. Be careful when executing Factory Set, since it erases all your existing data. Always save your important data to external media, such as a SmartMedia card.
Factory Set does not reset the Internet Direct Connection settings. If you want to reset the Internet Direct Connection settings, see page 199.

Reference Page
Saving Registrations (page 107)

Reference Page
Initializing Internet Settings (page 199)

1 **Turn off the power.**

2 **While holding down the ENDING [1] button, turn the power back on.**

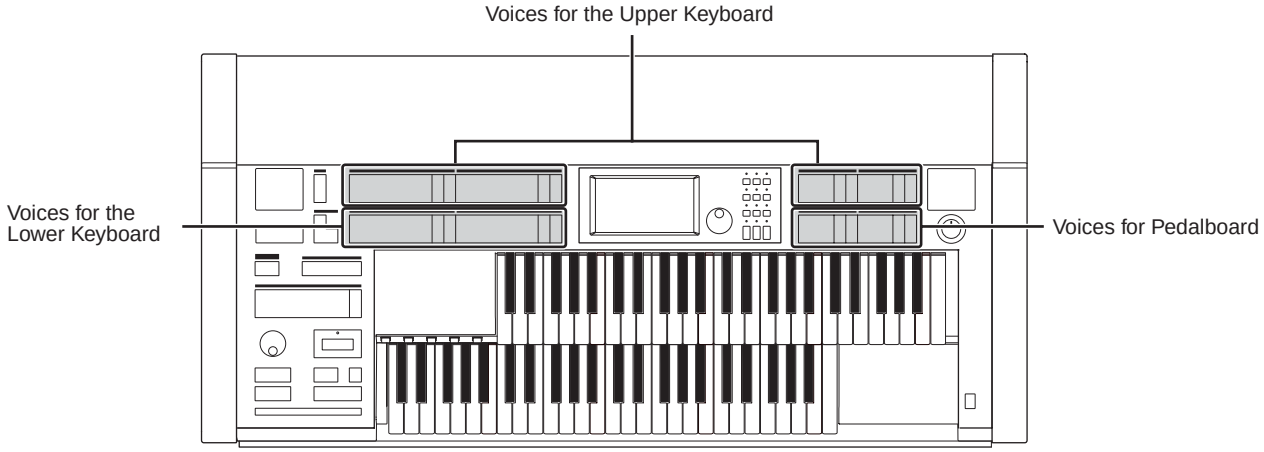


3 **Release the ENDING [1] button after Voice Display appears.**
If you don't want to reset the LCD Display settings, you can initialize only Registration settings. See page 84 for more information.

Reference Page
Initializing Registration Memory (page 84)

2 Voices

This Electone features hundreds of high quality Voices. Any of these Voices can be used on the Upper Keyboard, Lower Keyboard and Pedalboard. Up to four Voice sections are available on the Upper Keyboard for playing together in a layer, while the Lower Keyboard and Pedalboard each have two Voice sections.

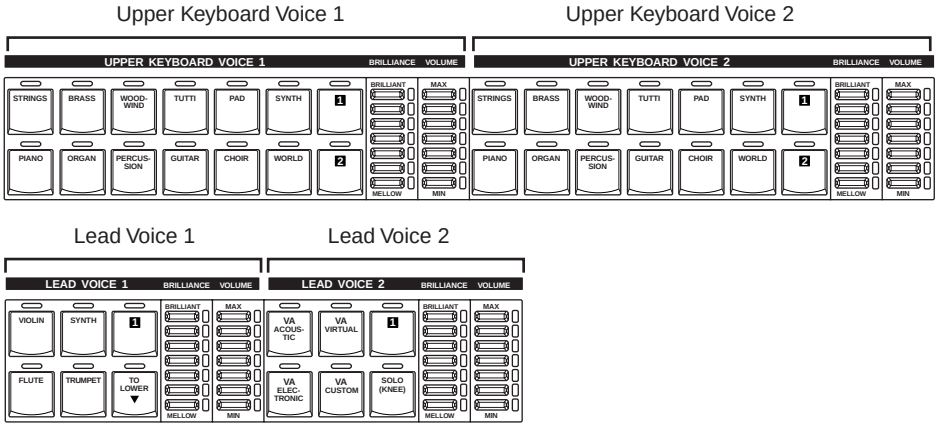


Contents

1 Voices for each keyboard

Voices for the Upper Keyboard

Up to four different Voice sections are available on the Upper Keyboard for playing together: Upper Keyboard Voice 1, Upper Keyboard Voice 2, Lead Voice 1, and Lead Voice 2. Voices for each section can be selected from the panel.

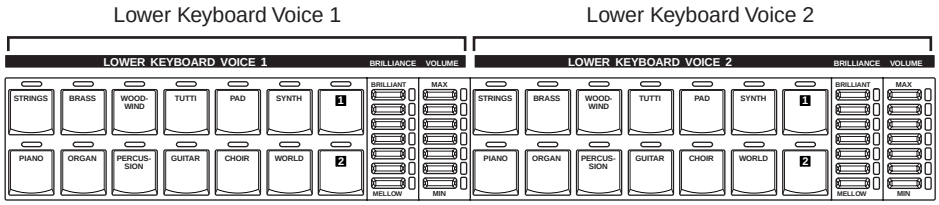


Lead Voice 1 and 2 sound only the highest note (or last note played) if two or more keys are played together. This makes the Lead Voices ideal for "lead" or solo instruments such as Trumpet and Saxophone. Lead Voice 2 includes additional, exclusive VA Voices which are not available in other Voice sections.

Reference Page
AWM Voices and VA Voices (page 34)

Voices for the Lower Keyboard

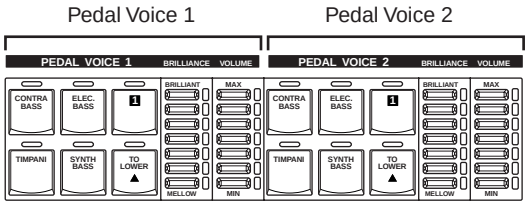
Up to two different Voice sections are available on the Lower Keyboard for playing together: Lower Keyboard Voice 1 and Lower Keyboard Voice 2. Voices for each section can be selected from the panel.



Voices for Pedalboard

Up to two different Voice sections are available on the Pedalboard for playing together: Pedal Voice 1 and Pedal Voice 2. Voices for each section can be selected from the panel. Pedal Voices 1 and 2 sound only the highest note if two or more pedals are played, by default.

Reference Page
POLY (page 40)

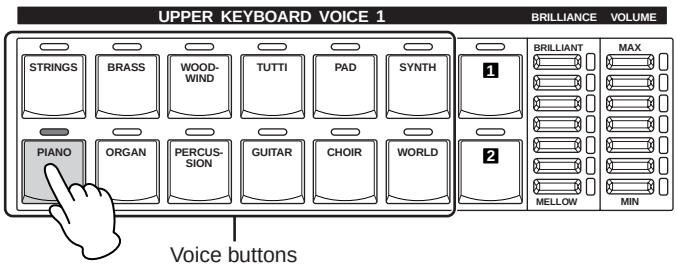


2 Selecting Voices with the Voice buttons

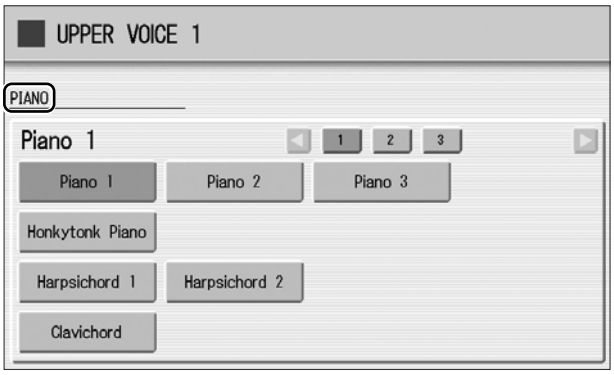
Since selection of Voices follows the same procedure throughout all Voice sections, instructions for only the Upper Keyboard Voice 1 are given here.

Selecting a Voice

1 **Press one of the Voice buttons in the Upper Keyboard Voice 1 section.**

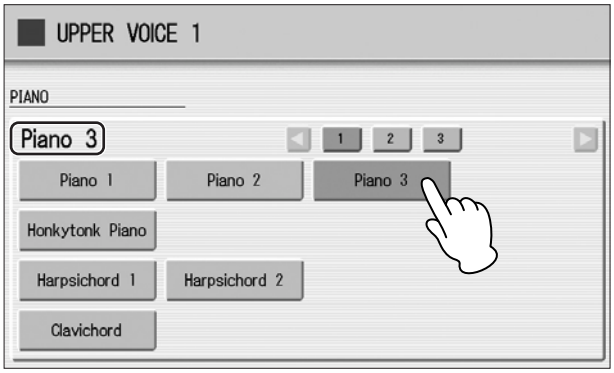


For example, if you have pressed the [PIANO] button, the following display (Voice Menu) will appear.



2 Select the desired Voice name from the Voice menu.

The Voice menu contains many Piano Voices, more than can fit on one display page. To change the display pages, press the appropriate number buttons in the display.



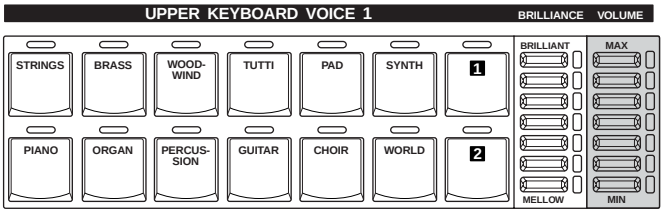
The color of the selected Voice name changes to orange, indicating that it has been selected.

Changing the Voice volume

There are two ways to set the Voice volume: using the VOLUME buttons on the panel and using the volume slider in the display. The VOLUME buttons let you make coarse adjustments to the volume while the slider gives you fine control.

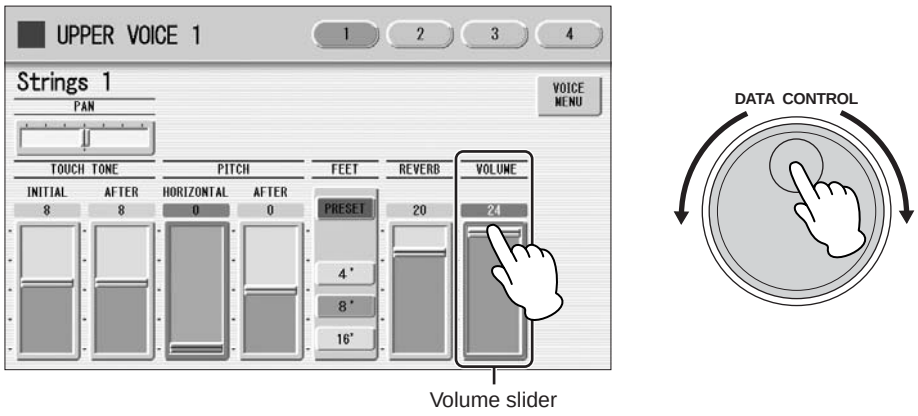
Using the VOLUME buttons on the panel (coarse)

Press one of the VOLUME buttons of each Voice section on the panel to set the desired level for each Voice.
The buttons have seven volume settings, from a minimum of 0, or no sound, to a maximum of full volume.

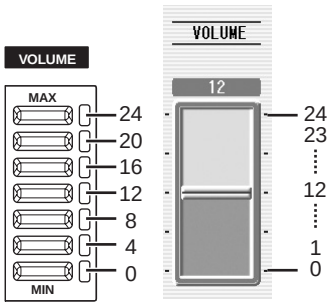


Using VOLUME slider in the display (fine)

Pressing the same Voice button on the panel again (or pressing the Voice name of the selected Voice in the display) calls up the Voice Condition Display.



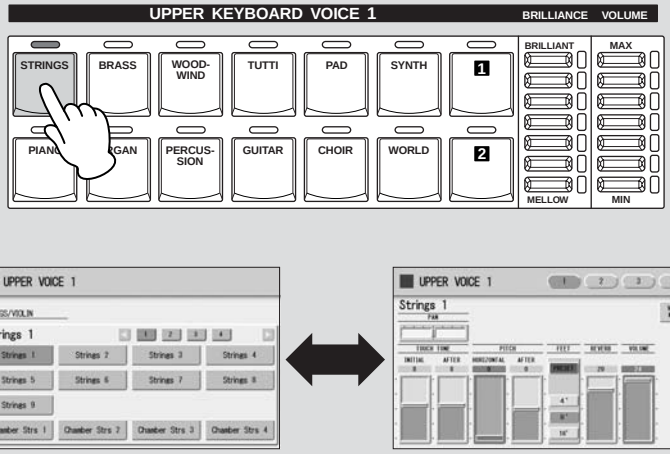
To set the volume, touch the VOLUME slider in the display or use the Data Control Dial. The control range is from 0 (no sound) to 24 (full volume).



NOTE

Depending on the volume value (set by the slider), two adjacent VOLUME button lamps may be lit at the same time, indicating an intermediate position.

Pressing a Voice button once calls up the Voice Menu display for the selected button. Pressing it a second time calls up the Voice Condition display. Successive presses alternate between the two displays.



When the Voice Condition display is shown, pressing [VOICE MENU] button on the display also calls up the Voice Menu.
From the Voice Condition display, you can control Voice-related parameters such as Pan, Effect, Volume, and so on. For more information on the Voice Condition display, see page 39.

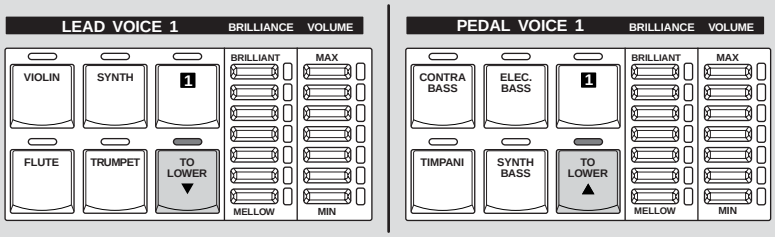
CAUTION

Turning the Electone off erases all panel settings you have made.

If you wish to keep the panel settings you have made, save them to a SmartMedia card before turning the Electone off (page 83).

About the To Lower function

Voices selected for the Lead Voice 1, Pedal Voice 1, and Pedal Voice 2 sections can also be played on the Lower Keyboard when the [TO LOWER] button in each section is on. When [TO LOWER] is on, the Lead Voice and Pedal Voice cannot be played on the Upper Keyboard and Pedalboard, respectively.
The To Lower function is not available in the Lead Voice 2 section.



About the Solo function

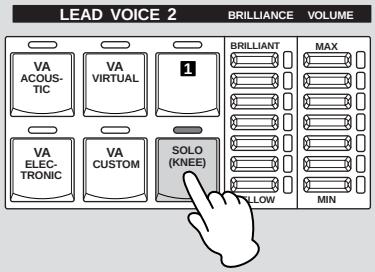
The Lead Voice 2 section features an exclusive Solo function. Solo lets you instantly switch to a solo Lead Voice in the middle of your performance, muting all other Upper Keyboard Voices.

1 Select the Voice that you wish to play solo in the Lead Voice 2 section.

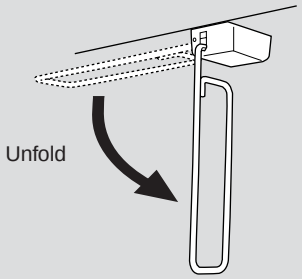
In this condition, all the Voices for Upper Keyboard (Upper Keyboard Voice 1 and 2, and Lead Voice 1 and 2) can be played.

2 Press the [SOLO (KNEE)] button in the Lead Voice 2 section.

This sets Solo to standby status.



3 To use Solo, unfold the knee lever. (Bring it down into position.)



In this condition (Solo on), only the Lead Voice 2 is playable on the Upper Keyboard. (All other Voices are muted.)

4 To temporarily turn Solo off as you play, press the Knee Lever to the right with your knee.

In this condition, all Voices set to the Upper Keyboard except for Lead Voice 2 are playable on the Upper Keyboard. (Only Lead Voice 2 is muted.) Each time you press the Knee Lever (Solo off) you can play all Voices except Lead Voice 2, and each time you release it (Solo on) you can play only Lead Voice 2 on the Upper Keyboard.

Notes on using Solo

- The knee lever can be used to control other functions, such as switching Sustain. When other functions are assigned to the knee lever, pressing knee lever turns these functions on at the same time.
- Pressing the knee lever while holding down a key will not turn Solo off for that key. Solo remains active until the next key is played after pressing the knee lever.
- Lead Voices 1 and 2 sound only the highest note if two or more keys are played. However, in the Solo mode, Lead Voice 2 sounds for the last key played.

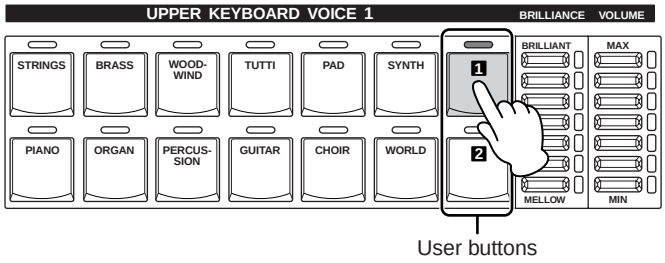
Reference Page
Knee Lever (page 182)

Reference Page
Voice Condition Display (page 39)

3 Selecting Voices from the User buttons

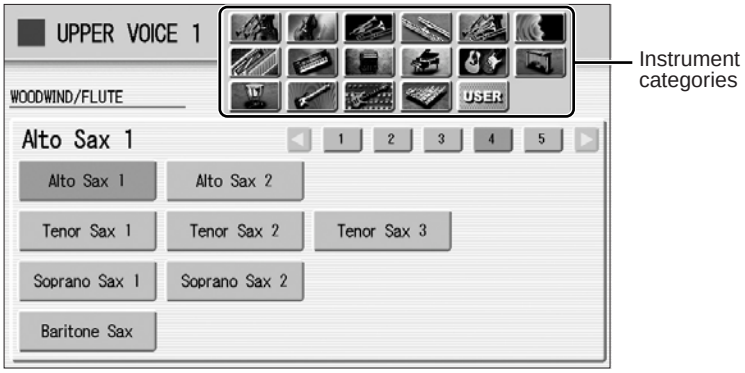
This Electone has a wide variety of Voices from which you can choose – far greater than what is immediately apparent from the Voice buttons on the panel. Each Voice section has one or two User buttons (numbered 1 or 2) which can be found at the right side of each Voice section. You can use the User buttons to select Voices that cannot be selected normally from the Voice buttons – such as Contrabass for the Upper Keyboard Voice.

1 Press one of the User buttons in any of the Voice sections.



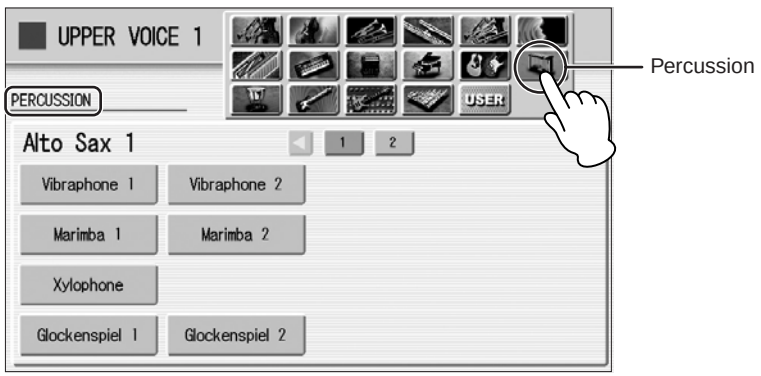
Reference Page
Voice Edit (page 127)

2 Select the desired instrument category with the category buttons in the display. You can also choose the "USER" category to select a User Voice you have created.



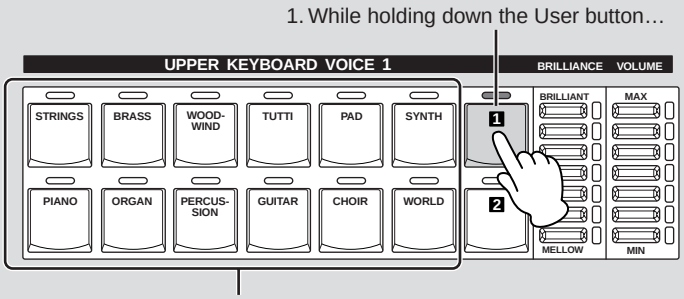
For example, to call up Marimba 1, select the percussion category.

Reference Page
Voice List (page 30)



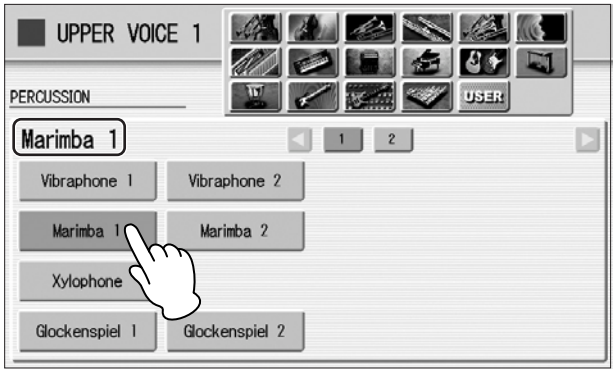
The name of the selected category (Percussion) is displayed on the upper left. The Voice name shown under the category name is that of the currently assigned Voice and is irrelevant to the Voice menu below.

To directly select the desired category, hold down one of the User buttons and simultaneously press the desired Voice button.



3 Select a Voice (Marimba 1, for example) from the displayed Voice Menu.

Pressing number buttons in the display calls up the other Voices in the category,



The Voice name of the selected Voice (Marimba 1) appears under the category name, indicating that the Voice has been selected.

4 Voice List

This list shows all available Voices on the Electone. Numbers written at the left side of each column in this list indicate the numbered buttons displayed in the Voice Menu.

ELS-01/01C

	STRINGS/VIOLIN
1	Strings 1
	Strings 2
	Strings 3
	Strings 4
	Strings 5
	Strings 6
	Strings 7
	Strings 8
	Strings 9
	Chamber Strs 1
	Chamber Strs 2
	Chamber Strs 3
	Chamber Strs 4
2	Pizzicato Strs 1
	Pizzicato Strs 2
	Pizzicato Strs 3
	Pizzicato Strs 4
	Tremolo Strings
3	Strings1&7
	Strings2&Viola
	Strings3&4
	Strings7&Violin5
	Violin5&Cello
	Octave Strings 1
	Octave Strings 2
4	Violin 1
	Violin 2
	Violin 3
	Violin 4
	Violin 5
	Violin 6
	Viola
	Cello 1
	Cello 2
	Pizzicato Violin

	CONTRABASS
1	Contrabass 1
	Contrabass 2
	Contrabass 3
	Contrabass 4
	Contrabass 5
	Acoustic Bass 1
	Acoustic Bass 2
	Pizzicato Bass 1
	Pizzicato Bass 2

	BRASS/TRUMPET
1	Brass Section 1
	Brass Section 2
	Brass Section 3
	Brass Section 4
	Brass Section 5
	Brass Section 6
1	Trombone Sec 1
	Trombone Sec 2
	Trombone Sec 3
	Trombone Sec 4
	Trombone Sec 5
2	Brass1&Trp6
	Brass2&Trp6
	Horn 1&4
	Octave Brass 1
	Octave Brass 2
	Octave Brass 3
	Octave Brass 4
	Octave Brass 5
	Octave Brass 6
	Octave Brass 7
3	Trumpet 1
	Trumpet 2
	Trumpet 3
	Trumpet 4
	Trumpet 5
	Trumpet 6
	Trumpet 7
	Muted Trumpet 1
	Muted Trumpet 2
	Muted Trumpet 3
	Flugel Horn 1
	Flugel Horn 2
4	Trombone 1
	Trombone 2
	Trombone 3
	Trombone 4
	Muted Trombone 1
	Muted Trombone 2
5	Horn 1
	Horn 2
	Horn 3
	Horn 4
	Horn 5
	Horn 6
	Muted Horn
6	Tuba 1
	Tuba 2
	Euphonium
	Brass Bass 1
	Brass Bass 2
	Brass Bass 3

	WOODWIND/FLUTE
1	Flute 1
	Flute 2
	Flute 3
	Flute 4
	Piccolo
	Recorder 1
	Recorder 2
1	Ocarina
	Whistle
2	Clarinet 1
	Clarinet 2
	Clarinet 3
	Clarinet 4
	Bass Clarinet
3	Oboe 1
	Oboe 2
	Oboe 3
	Oboe 4
	Oboe 5
	English Horn 1
	English Horn 2
	Bassoon 1
	Bassoon 2
	Bassoon 3
4	Alto Sax 1
	Alto Sax 2
	Tenor Sax 1
	Tenor Sax 2
	Tenor Sax 3
	Soprano Sax 1
	Soprano Sax 2
	Baritone Sax
5	Sax Ens 1
	Sax Ens 2
	Sax Ens 3
	Woodwind Ens 1
	Woodwind Ens 2
	Woodwind Ens 3
	Woodwind Ens 4

	TUTTI
1	Strings&Winds
	Strings&Brass 1
	Strings&Brass 2
	Strings&Horn
	Brass&Sax 1
	Brass&Sax 2
	Brass&Sax 3
	Brass&Winds
2	Orchestra Hit

	CHOIR
1	Choir 1
	Choir 2
	Choir 3
	Choir 4
	Choir 5
	Choir 6
	Choir 7
	Choir 8
	Choir 9
2	Vocal

	PAD
1	Smooth Pad 1
	Smooth Pad 2
	Smooth Pad 3
	Smooth Pad 4
	Smooth Pad 5
	Smooth Pad 6
	Smooth Pad 7
	Smooth Pad 8
2	Resonance Pad 1
	Resonance Pad 2
	Resonance Pad 3
	Resonance Pad 4
	Resonance Pad 5
	Resonance Pad 6
	Resonance Pad 7
	Resonance Pad 8
	Resonance Pad 9
	Resonance Pad 10
	Resonance Pad 11
3	Bell Pad 1
	Bell Pad 2
	Bell Pad 3
	Bell Pad 4
	Bell Pad 5
	Bell Pad 6
	Bell Pad 7
	Bell Pad 8
	Bell Pad 9
4	Space Pad 1
	Space Pad 2
	Space Pad 3
	Space Pad 4
	Space Pad 5
	Space Pad 6
5	Noisy Pad 1
	Noisy Pad 2
	Noisy Pad 3
	Noisy Pad 4
	Noisy Pad 5

	SYNTH
1	Synth Lead 1
	Synth Lead 2
	Synth Lead 3
	Synth Lead 4
	Synth Lead 5
	Synth Lead 6
	Synth Lead 7
	Synth Lead 8
2	Pop Lead 1
	Pop Lead 2
	Pop Lead 3

2	Pop Lead 4
	Pop Lead 5
	Pop Lead 6
	Pop Lead 7
3	Synth Cla 1
	Synth Cla 2
	Synth Cla 3
	Synth Cla 4
	Synth Cla 5
	Synth Cla 6
	Synth Sax
	Synth Trumpet
	Synth Violin
4	Synth Brass 1
	Synth Brass 2
	Synth Brass 3
	Synth Brass 4
	Synth Brass 5
	Synth Brass 6
	Synth Brass 7
	Synth Brass 8
	Synth Brass 9
	Synth Brass 10
	Synth Brass 11
	Synth Brass 12
	Synth Brass 13
5	Synth Strs 1
	Synth Strs 2
	Synth Strs 3
	Synth Strs 4
	Synth Strs 5
	Synth Strs 6
	Synth Strs 7
6	Synth Bell 1
	Synth Bell 2
	Synth Bell 3
	Synth Bell 4
	Synth Bell 5
	Synth Bell 6
	Synth Bell 7
	Synth Decay 1
	Synth Decay 2
	Synth Decay 3
	Synth Decay 4
ORGAN	
1	Pipe Organ 1
	Pipe Organ 2
	Pipe Organ 3
	Pipe Organ 4
	Pipe Organ 5
	Harmonica 1
	Harmonica 2
	Harmonica 3
2	Theatre Organ 1
	Theatre Organ 2
	Theatre Organ 3
	Theatre Organ 4
	Theatre Organ 5
	Theatre Organ 6
	Theatre Organ 7
2	Theatre Organ 8
	Accordion 1
	Accordion 2
	Accordion 3
	Accordion 4
	Bandoneon
	Reed Organ
3	Jazz Organ 1
	Jazz Organ 2
	Jazz Organ 3
	Jazz Organ 4
	Jazz Organ 5
	Jazz Organ 6
	Jazz Organ 7
	Jazz Organ 8
	Jazz Organ 9
4	Pop Organ 1
	Pop Organ 2
	Pop Organ 3
	Pop Organ 4
	Pop Organ 5
	Rock Organ 1
	Rock Organ 2
	Rock Organ 3
5	Organ Bass 1
	Organ Bass 2
	Organ Bass 3
	Organ Bass 4
PIANO	
1	Piano 1
	Piano 2
	Piano 3
	Honkytonk Piano
	Harpsichord 1
	Harpsichord 2
	Clavichord
2	DX E.Piano 1
	DX E.Piano 2
	DX E.Piano 3
	DX E.Piano 4
	Stage E.Piano 1
	Stage E.Piano 2
	Stage E.Piano 3
	Stage E.Piano 4
	Stage E.Piano 5
	Stage E.Piano 6
3	Stack E.Piano 1
	Stack E.Piano 2
	Clavi 1
	Clavi 2
GUITAR	
1	Nylon Guitar 1
	Nylon Guitar 2
	Steel Guitar 1
	Steel Guitar 2
	12Str Guitar
	Jazz Guitar 1
	Jazz Guitar 2
	Harp 1
	Harp 2
1	Harp 3
2	Elec Guitar 1
	Elec Guitar 2
	Elec Guitar 3
	Elec Guitar 4
	Elec Guitar 5
	Muted Guitar
	Distortion Gtr 1
	Distortion Gtr 2
	Distortion Gtr 3
3	Banjo
	Mandolin
	Pedal Steel Gtr
PERCUSSION	
1	Vibraphone 1
	Vibraphone 2
	Marimba 1
	Marimba 2
	Xylophone
	Glockenspiel 1
	Glockenspiel 2
2	Celesta 1
	Celesta 2
	Music Box 1
	Music Box 2
	Chime 1
	Chime 2
	Chime 3
TIMPANI	
1	Timpani 1
	Timpani 2
	Timpani Roll 1
	Timpani Roll 2
	Timpani Roll 3
ELECTRIC BASS	
1	Fingered Bass 1
	Fingered Bass 2
	Fingered Bass 3
	Fingered Bass 4
	Fingered Bass 5
	Slap Bass 1
	Slap Bass 2
	Slap Bass 3
	Slap Bass 4
2	Picked Bass 1
	Picked Bass 2
	Picked Bass 3
	Picked Bass 4
	Fretless Bass 1
	Fretless Bass 2
SYNTH BASS	
1	Funk Bass 1
	Funk Bass 2
	Funk Bass 3
	Funk Bass 4
	Funk Bass 5
	Funk Bass 6
	Funk Bass 7
	Funk Bass 8
	Funk Bass 9
1	Funk Bass 10
2	Dance Bass 1
	Dance Bass 2
	Dance Bass 3
	Dance Bass 4
	Dance Bass 5
	Dance Bass 6
	Dance Bass 7
	Dance Bass 8
3	Smooth Bass 1
	Smooth Bass 2
	Smooth Bass 3
	Smooth Bass 4
	Smooth Bass 5
	Smooth Bass 6
	Smooth Bass 7
WORLD	
1	Pan Flute 1
	Pan Flute 2
	Bagpipe
	Dulcimer
	Shakuhachi
	Yokobue
	Shamisen
	Koto
	Taishokoto
2	Erhu 1
	Erhu 2
	Sheng
	Zheng
	Pipa
	Nay
	Surnay
	Oud
	Sitar
	Kamanche
3	Steel Drum
	Log Drum
	Kalimba

ELS-01C only (VA)

	Voice Name	Range	Description
VA ACOUSTIC			
1	V-Flute 1	G2 – A6	Flute with breath and other noises, which may squeak in higher registers. Setting the Touch Tone (After) higher and applying keyboard pressure can recreate flutter tonguing.
	V-Flute 2	C2 – C6	Flute suited for legato playing. Setting the User Vibrato depth to higher values has a nice effect.
	V-Ocarina	C3 – C6	Soft ocarina.
	V-Oboe	C3 – F5	Wider dynamic range with the Touch Tone effect.
	V-Clarinet	D2 – F5	Playing pianissimo creates breath noises, while playing fortissimo creates a brighter sound with slightly lower pitch.
	V-Soprano Sax	A♯2 – D5	Rounder and softer soprano saxophone.
	V-Alto Sax 1	D♯2 – G4	A bright alto saxophone for contemporary music. You can make the sound 'break up' as if overblowing the instrument by setting After Touch to maximum and applying pressure to the key.
	V-Alto Sax 2	C2 – E4	Alto saxophone suited for fusion music. Playing legato creates squeaky attack sounds and high After Touch settings produce an overblowing effect.
	V-Tenor Sax 1	A♯2 – C4	Multi-purpose tenor saxophone. Soft in pianissimo and brighter in fortissimo.
	V-Tenor Sax 2	C1 – G4	Soft tenor saxophone suited for jazz. Playing Legato creates squeaky attack sounds.
	V-Breath Sax 1	A♯2 – C4	Soft, breathy tenor saxophone suited for slow tempo music.
	V-Breath Sax 2	C2 – E4	Brighter, breathy tenor saxophone suited for jazz.
2	V-Trumpet 1	A♯2 – A♯4	Soft trumpet. Slides and glissandos can be created with Horizontal Touch.
	V-Trumpet 2	C2 – C5	Trumpet with characteristic attack sound. Lip slurs can be created by changing the pitch.
	V-Trumpet 3	G2 – C5	Soft trumpet. Applying slight keyboard pressure produces breath noise.
	V-Muted Trumpet	A♯2 – A♯4	Cup-muted trumpet.
	V-Trombone	E1 – G3	Slides and glissandos can be created with Horizontal Touch. Also, high After Touch settings produce an overblowing effect.
	V-High Trombone	C2 – C5	Brighter trombone suited for high notes.
	V-Shakuhachi	---	Higher Touch Tone (After) setting increases breath noise and also squeaks the sound.
	V-Erhu	---	Playing with softer touch produces hoarse sounds.
	V-Sitar	---	Playing with harder touch squeaks the sounds.
VA VIRTUAL			
1	V-Pan Pipe 1	E2 – G5	Setting the Touch Tone (After) higher and applying keyboard pressure can result in flutter tonguing.
	V-Pan Pipe 2	C1 – C6	Panpipe flute sound. After and Initial Touch affect the pitch and timbre.
	V-Bamboo	C1 – C6	Bamboo panpipe sound with breath noise. After Touch changes the pitch dynamically.
	V-Bottle	C1 – C6	Sound of blowing a bottle. Playing trills over a wide interval range creates a squeaky attack sound.
	V-Floboe	F2 – C7	A hybrid sound combining oboe and saxophone.
	V-Alt Kwek	C3 – C7	A hybrid sound grafting an oboe reed onto a piccolo, with a distinctive pitch change in the low registers.
	V-Tin Whistle	C2 – C7	Sound of a small flute. Playing with softer touch produces breath noise.
	V-India	---	Percussive sitar sound.
	V-East	C1 – C5	Sitar with resonance and reverberation.
	V-Zag	---	Simulation of a bowed ethnic instrument. Playing legato brings out higher octave sounds.
2	V-Asian Pluck	C1 – G6	Plucked ethnic instrument. Using Initial Touch brings out higher octave sounds.
	V-Air Reed 1	A2 – C5	A hybrid sound grafting an oboe reed onto a saxophone. High After Touch settings produce an overblowing effect.
	V-Air Reed 2	E2 – C5	A hybrid sound combining a conventional flute with panpipes.
	V-Airphone	A2 – C5	A hybrid sound grafting an oboe reed onto a soprano saxophone.
	V-Thin Reed	E2 – G5	A hybrid sound grafting a clarinet mouthpiece onto a flute. High After Touch settings produce an overblowing effect.
	V-Harmophone	G1 – G5	A hybrid sound combining a harmonica and saxophone. Depending on use of Touch Tone, both breath noise and a bright clear sound can be produced.
	V-Saxonica	G2 – G5	Harmonica sound resembling an alto saxophone. Playing with soft touch results in a high-pitched sound.
	V-Grass Reed	E2 – G5	A hybrid sound grafting a bassoon reed onto a brass wind instrument. After Touch changes the pitch.
	V-Soft Reed 1	A2 – G5	A hybrid sound grafting a clarinet mouthpiece to a brass wind instrument.
	V-Soft Reed 2	C1 – C6	A hybrid sound grafting a bassoon reed onto a soprano saxophone; includes breath noise.
	V-Troppo	E1 – C6	Thick bassoon sound. After Touch changes the pitch dynamically, and applying keyboard pressure more produces wind noise.
3	V-Buzz String	A2 – F5	Simulation of a hybrid bowed-wind instrument.
	V-Bow String	E1 – E6	Artificial synthesized strings sound.
	V-String Bow	C1 – C6	Simulation of a slow-attacked violin bowed with something other than a violin bow. Playing trills over a wide interval range creates a squeaky attack sound.
	V-Cosmosis	C1 – G5	Bowed strings. Initial Touch affects the attack sound.

	Voice Name	Range	Description
3	V-E.Violin	C1 – C6	Synth violin.
	V-Bowe	C1 – C5	Simulation of a hybrid bowed-saxophone sound.
	V-Claviolin	G2 – G5	A hybrid sound combining a violin and wind instrument.
	V-Air Bow	C2 – G5	A bowed instrument sound with noise.
	V-Waspy Horn	C1 – G4	A hybrid sound grafting a brass wind instrument mouthpiece to a wind instrument. After Touch affects the muted condition. Lip-slide can be created with Horizontal Touch.
	V-Mizu Horn	C1 – C6	A hybrid sound combining a harmonica and trumpet.
	V-Cosmo Mute	C1 – C5	Simulation of a distorted brass wind instrument. After and Initial Touch affect the muted condition.
	V-Fago	F1 – C7	Simulated deep bassoon sound. Playing with soft touch produces breath noise with a high tone range.
VA ELECTRONIC			
1	V-Jazz Guitar	E1 – E5	Soft and warm jazz guitar sound.
	V-Picked Guitar	E1 – E5	Hard-attack guitar played with a pick.
	V-Simple Bass	---	Voice suited for bass phrases. After and Initial touch affect the resonance effect.*
	V-Bass Attack	---	Voice suited for bass phrases. Initial touch affects the muted condition.*
	V-Thumb Bass	C1 – E4	Bass sounds played with the thumb.*
	V-Fretless	C1 – C5	Fretless bass.*
	V-Saw Lead	C1 – C5	Multi-purpose lead sounds. After Touch affects the filter changes.
	V-Edge Lead	C1 – C4	Synth bass sound with a sharp attack portion. After Touch affects the filter changes.
	V-Dist Lead	G1 – C5	Distorted lead sounds. Setting the Touch Tone (After) higher and applying keyboard pressure raises the pitch.
	V-Woody Lead	C2 – G5	Lead sound with woody quality.
	V-Muted Lead	C2 – C5	Lead sound with wah-wah effect. After Touch heightens the wah-wah effect.
	V-Talken Lead	C1 – C5	Human voice-like lead sound. Setting the Touch Tone (After) higher and applying keyboard pressure allows creation of hum noise.
2	V-Mad Tube	---	Distorted synth lead with long release sound. High After Touch settings produce an overblowing effect.*
	V-Mob	---	Distorted lead sound played with pick. Setting the Touch Tone (After) higher and applying keyboard pressure raises the pitch by an octave.*
	V-Transylva	C1 – C6	Softly distorted lead sounds.*
	V-Destiny	---	Wah guitar with a sharp attack.
	V-Igneous	C1 – C4	Lead sound with full feedback effects. After Touch affects the degree of feedback.
	V-Wurli Lead	C1 – C5	Simple synth lead with a sharp attack. High After Touch settings produce an overblowing effect.
	V-Fifty Fifty	---	Analog synthesizer with simple square wave sound.
	V-Ana Wave	---	Analog synthesizer. Initial touch and the length of holding down a key changes the filter effect.
	V-Lyric Off	C1 – C6	Wind synth sound with square wave sound.
	V-Ossyncro	C1 – C6	Lead sound with dynamic pitch change.*
	V-Wahman	C1 – C5	Wah-wah lead voice with pitch change in the attack.
	V-Q. Klav	C1 – G5	Funky electric clav sound. Initial touch affects the timbre.*
3	V-SFX 1	---	Simulated hand-tapping of the open end of a pipe.
	V-SFX 2	---	Simulated scraping of a metallic plate. After Touch affects the degree of scraping.
	V-SFX 3	---	Simulated hitting of a metallic plate with a wood block. Initial Touch changes the apparent hardness of the wood block.
	V-SFX 4	---	Soft playing results in wind sounds. Applying keyboard pressure (After Touch) produces a distorted guitar sound.
	V-SFX 5	---	Jet noise. Applying keyboard pressure produces lead sound.
	V-SFX 6	---	Simulation of metallic plates colliding.
	V-SFX 7	---	Initial touch affects the resonance effect.
	V-SFX 8	---	Cry of a strange animal.
	V-SFX 9	---	Simulation of a thick and long hose.
	V-SFX 10	---	Trumpet with loop feedback sound.
	V-SFX 11	---	Initial touch produces the sound of hitting metal, and After Touch increase the noise.
	V-SFX 12	---	Initial touch produces the sounds of footsteps, and After Touch creates a windy sound.
	V-SFX 13	---	The sound of a soprano saxophone played in the distance. Playing with softer touch produces only breath noise.
	V-SFX 14	---	Lead sound with After Touch-produced pitch change.
	V-SFX 15	---	Initial touch produces the sound of metal being scraped, and After Touch creates noise.
	V-SFX 16	---	Cry/roar of an animal.

Each acoustic instrument has its own ideal note range. Keep in mind that playing outside of the range may create unexpected and unrealistic sounds.

Voices that do not have a specified ideal note range ("---" is shown in the chart above) can be played in any range and result in optimum sound with stable pitch.

* When the Feet parameter is set to 8', the resulting sound is actually 16'.

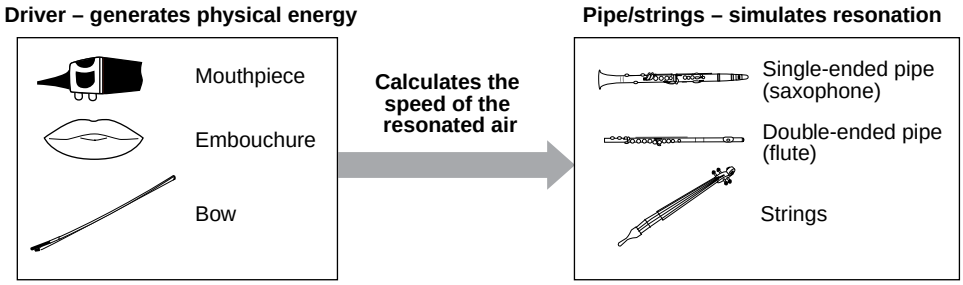
AWM Voices and VA Voices

The ELS-01C features two different types of Voices: AWM (Advanced Wave Memory) and VA (Virtual Acoustic).

VA Voices are available only on the Lead Voice 2 section while AWM Voices are available on all sections except Lead Voice 2.

AWM is a synthesis system based on sampled waves, or audio recordings of actual instruments. AWM Voices uses multiple samples, so that they sound like a real instrument.

On the other hand, VA synthesis applies sophisticated computer-based "physical modeling" technology to musical sound synthesis. VA Voices in this Electone offer many advantages in terms of musical performance, not just in terms of sound, but also in terms of the behavior that makes acoustic instruments so musical.



VA synthesis simulates the very complex vibrations, resonances, reflections and other acoustic phenomena that occur in an actual wind or string instrument.

Notes on VA Voices

Reference Page
Voice Edit (page 127)

Since the VA Voices have unique sonic characteristics and are closer in behavior to acoustic instruments than the AWM Voices, you should observe the following precautions when playing VA Voices.

- Some Voices may produce unexpected or unnatural sounds when played outside (higher or lower than) the recommended note range (pages 32 and 33).
- Pitch change may not be smooth on some Voices when Horizontal Touch is applied.
- Portamento (Lead Slide) effects may not be smooth on some Voices.
- Keep in mind that playing legato or trills may not produce any sound.

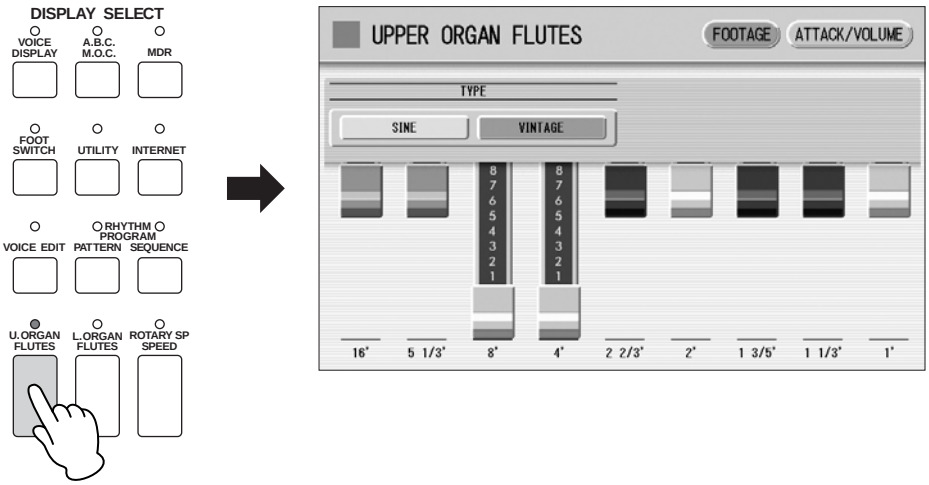
3 Organ Flutes (ELS-01C only)

The ELS-01C has an Organ Flutes feature that allows you to create your own organ Voices, giving you access to an unlimited combination of organ sounds. With this function, you can recreate all of the classic organ sounds by adjusting the flute footage levels and the percussive sounds, just like on conventional organs. There are nine flute footage settings, with three additional footage settings for the attack sound.

1 Press one of the Organ Flutes buttons (UPPER or LOWER).

The lamp above the button lights and the Flute Footage Levers appear on the display.
On the ELS-01, [U. ORGAN FLUTES] and [L. ORGAN FLUTES] buttons are not active (Organ Flutes does not function).

FOOTAGE Page



2 Select the wave type for the Organ Flute Voice.

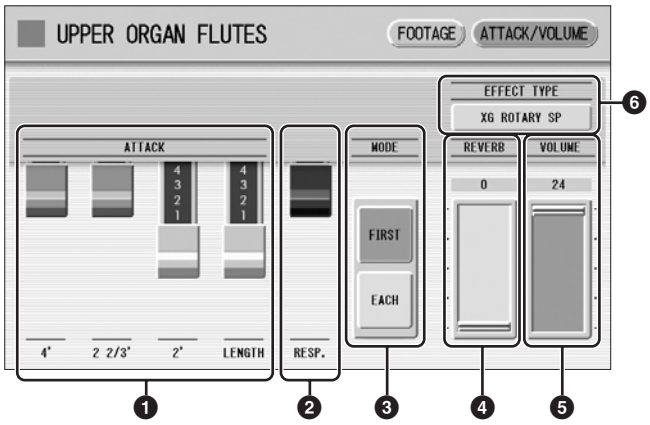
Selecting [SINE] button produces a clean, clear sound and selecting [VINTAGE] produces a gritty, slightly distorted sound.

3 Adjust flute footage settings (over a range of 0 – 8).

The Flute footage levers can be adjusted by directly touching the display. The Data Control dial cannot be used. Play the keyboard and listen to the changes in the sound as you adjust the footage levels.

4 Press the [ATTACK/VOLUME] button in the upper right on the display to adjust the volume and Rotary Speaker settings.

ATTACK/VOLUME Page



❶ ATTACK

Determines the level of each volume in the percussive portion of the Voice. Footage settings are 4', 2-2/3' and 2'. The LENGTH lever determines the duration of the attack sound.

❷ RESP. (Response)

Determines the overall speed of the keyboard response. Moving the lever downward makes the keyboard response slower, creating a pipe organ effect.

❸ MODE

Determines which notes in a held group of notes are given an attack sound.
This parameter is common to both Upper and Lower Organ Flute Voices.

FIRST: Only the first note played will have attack. All other notes played while the first is held have no attack.

EACH: All notes played have an attack sound.

❹ REVERB

Reference Page
Reverb (page 43)

Determines the amount of reverb applied to the Organ Flute Voice. When the panel REVERB control is set to the minimum, the setting here will have no effect.

❺ VOLUME

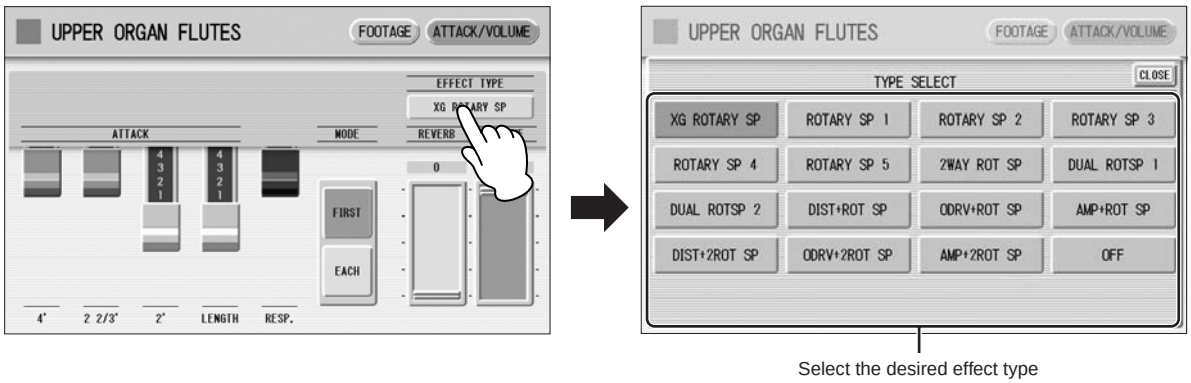
Determines the overall volume of the Organ Flute Voice. The volume balance of the individual footages is maintained. A minimum setting here produces no Organ Flute sound.

❻ EFFECT TYPE

Select the Rotary Speaker (tremolo) effect type. Pressing the button for which the effect type (or "OFF") is displayed calls up a list of the effect types. Select the desired type from among the list, then close the list by pressing [CLOSE] button on the display.

Reference Pages

Effect List (page 50)
Rotary Speaker (page 48)



Select the desired effect type

5 Pressing [U. ORGAN FLUTES] or [L. ORGAN FLUTES] button again turns the Organ Flute Voice off and the lamp above the button turns off.

4 Voice Controls and Effects

The Electone is equipped with two general kinds of functions that can be used to change the sound of the Voices: Voice Controls and Effects.
Each Voice has been given certain factory-preset effect settings to best enhance its sound. However, if you wish, you can change the sound to suit your preferences by using the controls and effects described in this section. All built-in effects are digital.
The chart below shows the various Voice controls and effects for the individual Voice sections. Available functions are indicated by circles. The controls and effects are applied differently according to the different types: independently for each Voice section, independently for each keyboard or globally for the entire system.

Controls and Effects		Reference page for changing the settings	Voice sections to which the controls/effects are applied					
			Upper Keyboard		Lead Voice	Lower Keyboard		Pedalboard
			Upper Keyboard Voice 1, 2	Organ Flute Voice	Lead Voice 1, 2	Lower Keyboard Voice 1, 2	Organ Flute Voice	Pedalboard Voice 1, 2
Selecting from the Voice Condition display	Pan	page 39	O	—	O	O	—	O
	Touch Tone	page 39	O	—	O	O	—	O
	Pitch	page 40	O	—	O	O	—	O
	Feet	page 40	O	—	O	O	—	O
	Reverb (send level)	page 40	O	O	O	O	O	O
	Volume	page 40	O	O	O	O	O	O
	Priority*	page 40	—	—	O*	—	—	—
	Poly (Pedal polyphonic mode)	page 40	—	—	—	—	—	O
	Vibrato	page 41	O	—	O	O	—	O
	Touch Vibrato	page 41	O	—	O	O	—	O
	Lead Slide	page 42	O	—	O	—	—	—
	Transpose	page 42	O	—	O	O	—	O
	Tune	page 42	O	—	O	O	—	O
	Effect (1, 2)	page 42	O	—	O	O	—	O
Selecting from the panel	Reverb	page 43	O					
	Sustain	page 47	O		—	O		O
	Brilliance	page 47	O	—	O	O	—	O
	Rotary Speaker	page 48	O					

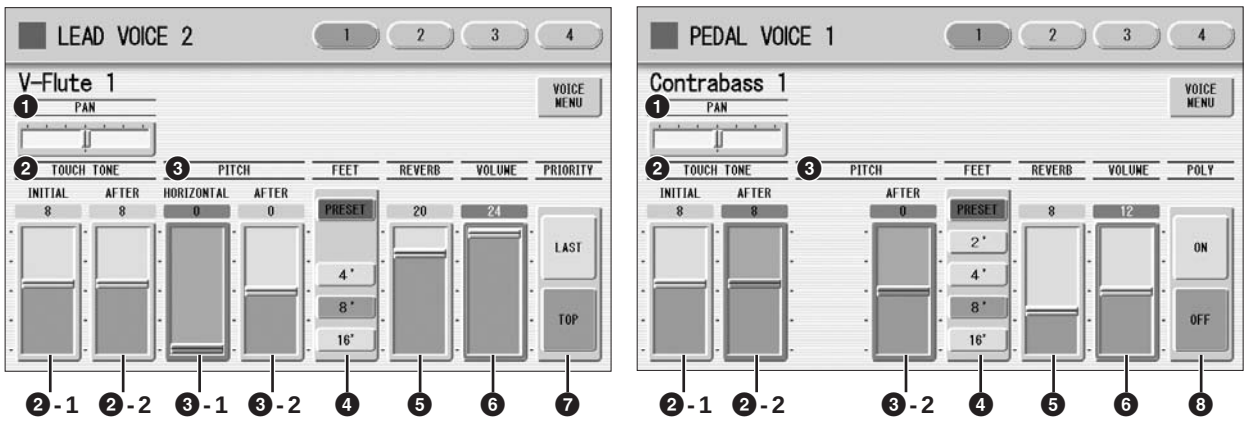
* Priority is applied only for Lead Voice 2.

Contents

1 Selecting from the Voice Condition display

Choose a Voice on the panel, then press the same button on the panel again (or press the name of the selected Voice in the display). The Voice Condition display appears. Voice Condition Display for each Voice has four pages that can be switched by pressing [1] – [4] buttons at the top right of the display.

Voice Condition [Page 1]



In this display, you can adjust the basic Voice controls, including panning, touch tone and volume. The displays of the various Voice sections have slight differences in their functions.

❶ PAN

Determines the position of the Voice in the stereo image. Seven pan positions are available.

❷ TOUCH TONE

The Touch Tone function gives you expressive control over the volume and timbre of a Voice. All Voices are provided with this expressive function, making it possible to perfectly reproduce the subtle dynamic and tonal changes of actual instruments. Two types of keyboard touch affect this function: Initial Touch and After Touch.

❷ -1 INITIAL touch

Controls volume and timbre according to the velocity at which you play the keys. The harder you play the keys, the greater the volume and the brighter the timbre will become.
Higher settings make the change wider. Minimum setting produces no effect.
Range: 0 – 14

NOTE

Initial Touch may not be effective on some organ Voices.

❷ -2 AFTER touch

Controls volume and timbre according to the pressure you apply to the keys after playing them.
The harder you press down on the keys, the greater the volume and the brighter the timbre will become.
Higher settings make the change wider. Minimum setting produces no effect.
Range: 0 – 14

NOTE

After Touch has no effect on percussive Voices (such as piano or vibraphone), percussion sounds, or some organ Voices.

❸ PITCH

Controls pitch according to the play style of Horizontal Touch or After Touch.
On some Voices in the Lead Voice 2 section, not only pitch but also timbre may be affected.

NOTE

Parameters that are available only on the ELS-01C are indicated by a dark frame and background in their display controls.

❸ -1 HORIZONTAL touch (ELS-01C only)

Controls the pitch by holding down the key and moving it laterally (wiggling your finger from side to side). The faster you move the key laterally, the faster and greater the pitch change becomes, within a range of +/- one octave. You can use this function in combination with Touch Tone described above to add expressiveness to your performance.
Higher settings result in a wider pitch change. The minimum setting produces no effect. This function is not available on the Pedalboard.
Range: 0 – 14

❸ -2 AFTER touch

Controls the pitch according to the pressure you apply to the keys after playing them.
The minimum setting produces no effect at all. Higher (positive) settings make the pitch higher according to the pressure and lower (negative) settings make the pitch lower. The setting of +14 or -14 results in the widest pitch change.
Range: -14 – +14

❹ FEET

Determines the octave setting of the Voice, letting you use the Voice over a wide register. There are three settings: 4', 8' and 16' (4' is highest and 16' is lowest). A 2' setting is added to the Pedal Voice sections. PRESET is the original (factory) setting.

❺ REVERB

Determines the amount of reverb applied to each Voice section. When the panel REVERB control is set to the minimum, the setting here will have no effect.
See page 43 for details.

❻ VOLUME

Fine adjustment of the Voice volume. See page 25 for more information.

❼ PRIORITY (only for the Lead Voice 2)

Determines the mode of Lead Voice 2, Last or Top.

LAST: Only the last played key is sounded when two or more keys are played simultaneously.

TOP: Only the highest note is sounded when two or more keys are played simultaneously. When the Solo mode is on, Lead Voice 2 sounds according to Last mode, regardless of the setting made here.

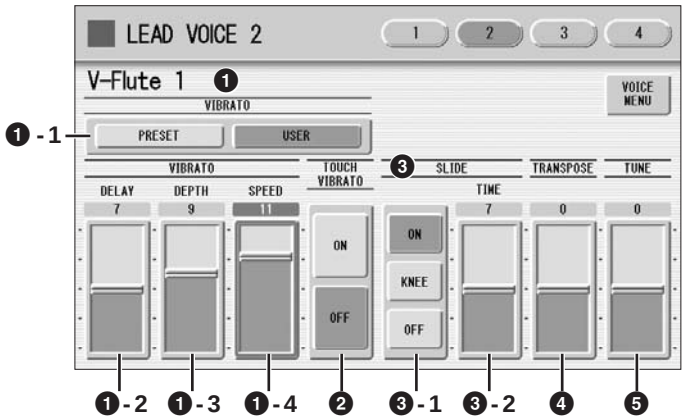
Reference Page

Solo function (page 27)

❽ POLY (only for Pedal Voices)

Allows you to switch the pedal polyphonic mode on or off. Setting POLY to on switches the normally monophonic pedal Voices to polyphonic play. This makes it possible to play the Pedalboard in various expressive ways, such as playing legato or playing intervals and chords.
Keep in mind that you cannot exceed the total maximum polyphony: 14 notes for all sections, Upper, Lower and Pedal.

Voice Condition [Page 2]



The items included in this page differ between the Lead Voice sections and the other sections. SLIDE (❸) only applies to Lead Voice 1 and 2.

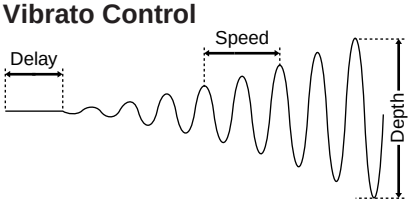
❶ VIBRATO

The Vibrato function wavers the level of the Voices, making them sound warmer and more animated. This effect is applied independently to each Voice section. For some Voices, vibrato may not be effective at all or the effect may not sound as expected.

❶ - 1 PRESET/USER

Selecting PRESET calls up the original (factory) vibrato settings for the Voice. When PRESET is selected, DELAY, DEPTH and SPEED parameters cannot be edited.
Selecting USER lets you adjust the vibrato settings for yourself.

Vibrato Control



❶ - 2 DELAY

Determines the amount of time that elapses between the playing of a key and the start of the vibrato effect. Higher settings increase the delay of the vibrato onset.
Range: 0 – 14

❶ - 3 DEPTH

Determines the intensity of the vibrato effect. Higher settings result in a more pronounced vibrato. The minimum setting cancels the vibrato effect.
Range: 0 – 14

❶ - 4 SPEED

Determines the speed of the vibrato effect. Higher settings increase the speed of the vibrato.
Range: 0 – 14

❷ TOUCH VIBRATO

Turns the Touch Vibrato function on or off. Setting Touch Vibrato to on lets you apply vibrato to individual notes as you play them by after touch. The harder you press down the key, the greater the vibrato will be. When Touch Vibrato is off, vibrato depth cannot be controlled, no matter how hard you press the keys.

NOTE

Touch Vibrato is not applied to the Pedal Voices of the ELS-01.

Reference Page
Controlling Lead Slide (with Knee Lever); (page 184)

❸ SLIDE (only for Lead Voices)

Applies a portamento effect to notes played in legato. The Slide function is effective within a one-octave range for Lead Voices. Slide has no effect when playing notes beyond a one-octave range.

❸ - 1 ON/KNEE/OFF

On/Off switch and knee lever selector for the Slide effect.

❸ - 2 TIME

Determines the speed of the slide or portamento effect. Higher settings makes the slide speed slower.
Range: 0 – 14

Reference Page
Transpose (for entire instrument); (page 187)

❹ TRANSPOSE

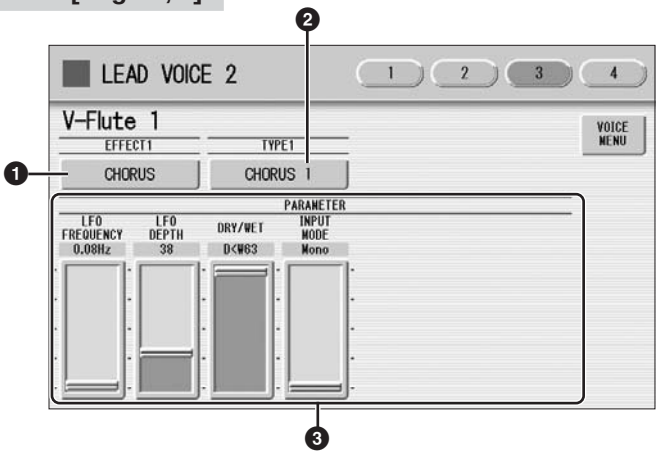
Changes the pitch in semitones for each Voice section. Range is from -6 to +6.

Reference Page
Pitch (for entire instrument); (page 187)

❺ TUNE

Determines the fine pitch settings (detune) for each Voice section, producing a richer sound. Each step represents a 1-cent change in pitch.
Range: -64 – +63

Voice Condition [Page 3, 4]

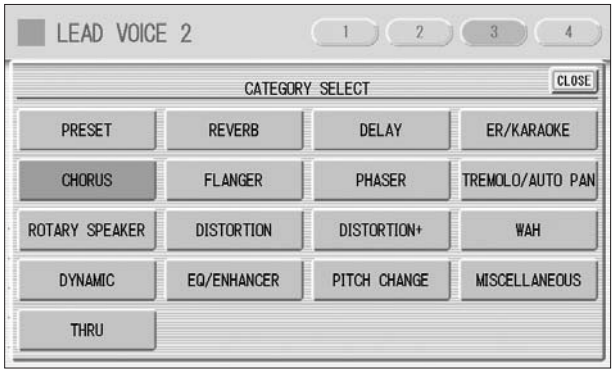


You can edit the effect parameters from these two displays. Both displays have the same contents. You can select two effects for each Voice section with these displays (Voice Condition Pages 3 and 4).

❶ EFFECT 1 (Page 3)/EFFECT 2 (Page 4)

Reference Page
Effect List (page 50)

Selects the effect category. Pressing the effect button on the display calls up the effect category list. Select the desired effect category in the list, then press [CLOSE] on the upper right in the display to close the list.



By selecting [PRESET] in the list, the original (factory) effect category for the selected Voice is automatically set. Selecting [THRU] bypasses the effect (no effect is added to the selected Voice).

❷ TYPE 1 (Page 3)/ TYPE 2 (Page 4)

Determines the type of the effect. Pressing the TYPE button on the display calls up the effect type list, corresponding to the selected effect category. Select the desired effect type in the list, then press [CLOSE] on the upper right in the display to close the list. If you have selected the [PRESET] category, the effect type cannot be edited.
After changing the effect type, the effect parameter below is automatically changed corresponding to the selected effect type.

❸ Effect Parameters

Effect parameters are displayed corresponding to the selected effect type.

2 Selecting from the panel

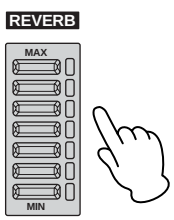
The Reverb, Sustain and Rotary Speaker displays are called up by pressing the respective buttons on the panel.

Reverb

Reverb adds an echo-like effect to the sound, giving the impression of a performance in a large room or concert hall. You can adjust the reverb volume for each Voice sections, or adjust the reverb volume for rhythm and accompaniment separately.

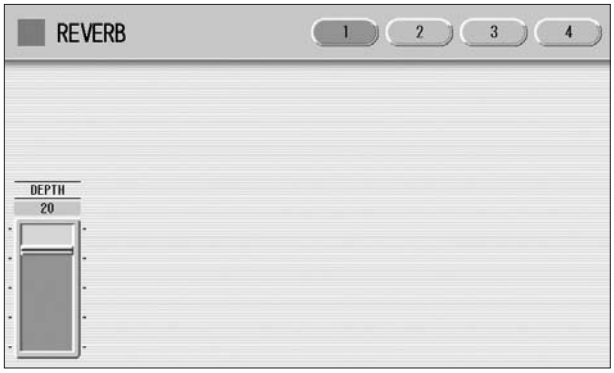
To adjust the reverb effect and call up the Reverb pages:

Press one of the REVERB buttons, located to the left of the panel, to set the Reverb effect. The Reverb display appears.



The Reverb display consists of four pages.

REVERB [Page 1]



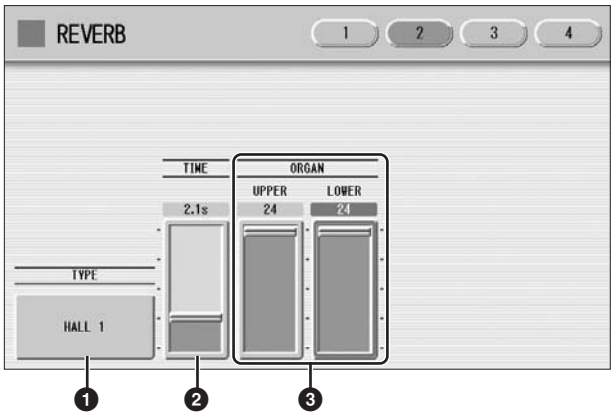
NOTE

Depending on the reverb depth value (set by the slider), two adjacent REVERB button lamps may be lit at the same time, indicating an intermediate position.

DEPTH:

Fine adjustment of the depth of reverberation or the level of the reflected sounds. Coarse reverb depth settings are made with the panel REVERB buttons. The REVERB buttons let you make coarse adjustment in seven settings to the reverb depth while the slider gives you fine control.
When this parameter or the panel REVERB control is set to the minimum, the settings in the pages that follow have no effect.
Range: 0 – 24

REVERB [Page 2]

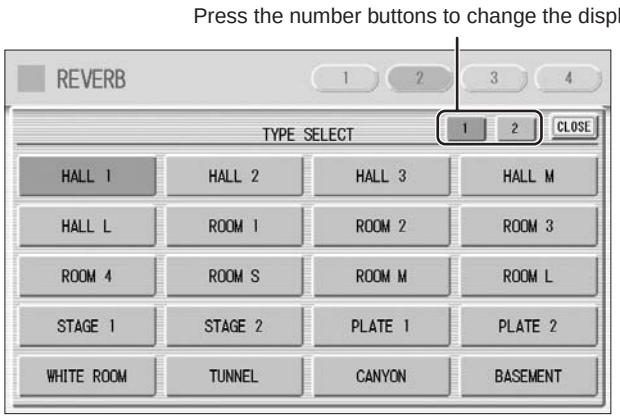


Reference Page

Effect List (page 50)

❶ TYPE

Determines the reverb type for each of the Voice sections and the Organ Flute Voice. Several types can be selected: Room, Hall, Stage, and so on.
Pressing the TYPE button on the display calls up the Reverb Type list.



The list contains many reverb types, more than can fit on one display page. To change the display pages, press the appropriate number buttons [1] or [2] in the display. Select the desired reverb type in the list, then press [CLOSE] on the upper right in the display to close the list. After changing the reverb type, the TIME parameter below is automatically changed corresponding to the selected reverb type.

❷ TIME

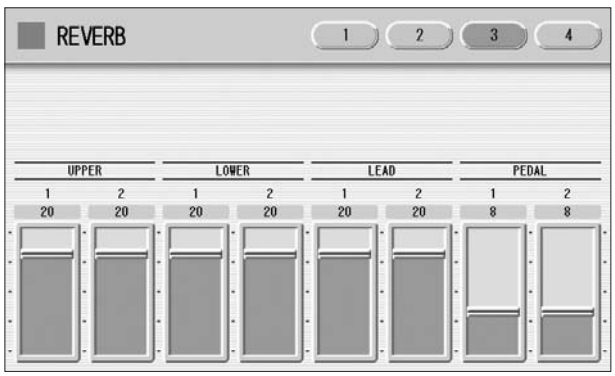
Determines the reverb length for each of the Voice sections and the Organ Flute Voice. Higher settings increase the reverberance.
Range: 0.3s – 30.0s

❸ ORGAN (only for the ELS-01C)

Determines the amount of reverb applied to the Organ Flute Voice. This parameter corresponds to the REVERB slider contained in the ATTACK/VOLUME Page of the Organ Flute display.
On the ELS-01, this slider is not displayed.
Range: 0 – 24

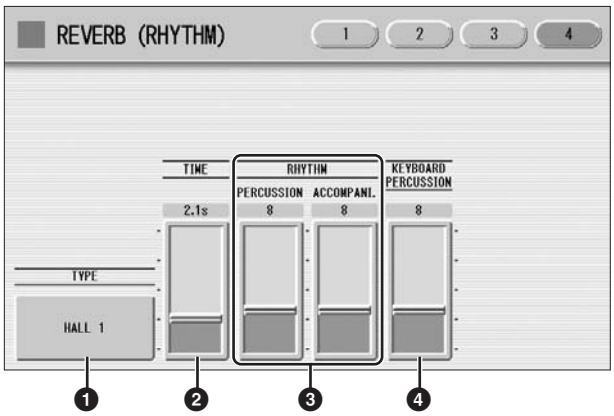
Reference Page
Organ Flutes (page 35)

REVERB [Page 3]



Determines the amount of reverb effect applied to each Voice section.
Each slider corresponds to the REVERB slider in Voice Condition Page 1 of the respective Voices.
Range: 0 – 24

REVERB [Page 4]



Reference Page

Connecting a Microphone or Guitar (page 205)

❶ TYPE

Determines the reverb type for rhythm, accompaniment, keyboard percussion, and microphone signal.

❷ TIME

Determines the length of reverb applied to the rhythm, accompaniment, keyboard percussion, and microphone signal.

Range: 0.3s – 30.0s

Reference Pages

Changing the rhythm reverb (page 57)

Keyboard Percussion (page 65)

❸ RHYTHM

Determines the amount of reverb applied to the rhythm (with PERCUSSION slider) and accompaniment (with ACCOMPANI. slider). Each slider corresponds to the REVERB slider in the Rhythm Condition display.

Range: 0 – 24

❹ KEYBOARD PERCUSSION

Determines the amount of reverb applied to the Keyboard Percussion.

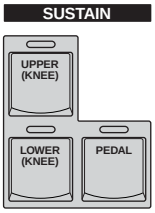
Range: 0 – 24

Sustain

The sustain effect, selectable for the Upper, Lower and Pedal Voices, causes Voices to gradually fade out when the keys are released. The sustain on/off and sustain length settings are independent for each keyboard, providing maximum expressive control. The Knee Lever can also be used to switch the sustain on/off. Sustain cannot be applied to the Lead Voices.

Reference Page
Knee Lever (page 182)

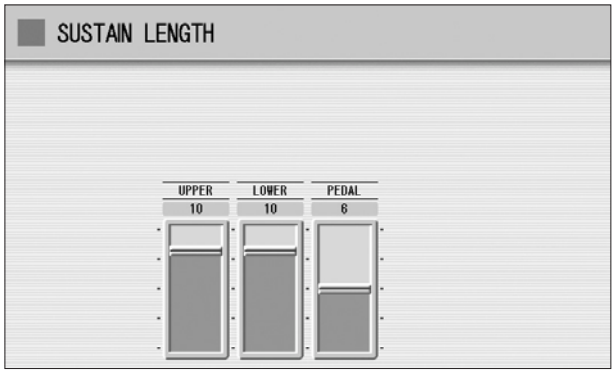
To add sustain to the Voices and call up the Sustain Length page:



Press one of the SUSTAIN buttons, located to the left of the panel, to set the sustain. The Sustain Length display appears.

The lamp of the button lights up to indicate that sustain is on. Press the button again to turn sustain off and the lamp turns off. When the lamp is off, sustain does not affect the corresponding keyboard. Remember to check whether the sustain button lamps are on or off before you start to play.

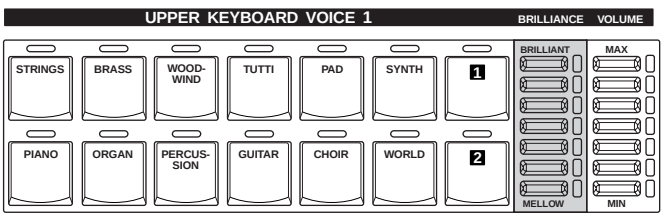
SUSTAIN LENGTH Display



The display shows the current sustain length values for each keyboard. The values here must be set high enough for the sustain effect to be noticeable.
Range: 0 – 12

Brilliance

Adjustment of the Voice tone, brighter or mellower.
Press the BRILLIANCE buttons of each Voice section on the panel to set the desired brilliance for each Voice.
The buttons have seven brilliance settings.



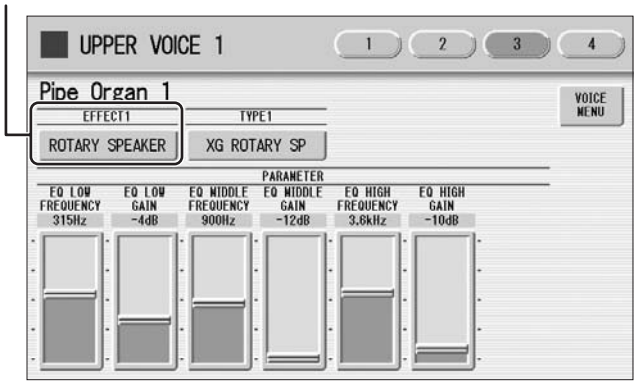
Rotary Speaker

Rotary Speaker recreates the rich, swirling sound of the popular rotating speaker effect. The Rotary Speaker effect can be switched in real time as you play, with either the front panel button or the Left Footswitch (when properly set for Footswitch operation). The Rotary Speaker effect CANNOT be turned on only by turning on the [ROTARY SP SPEED] button. The following procedure is needed to use the Rotary Speaker effect.

1 Select the Rotary Speaker effect from the desired Voice.

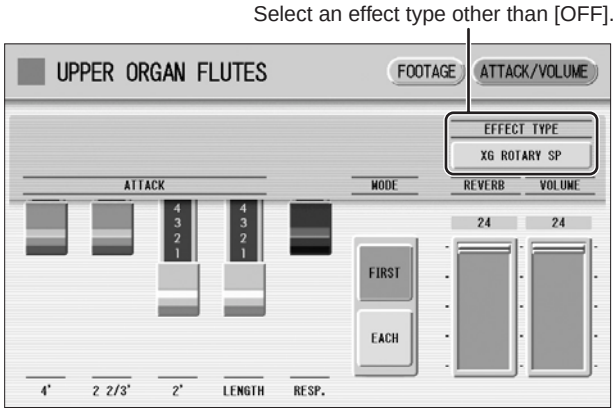
When you want to set Rotary Speaker to one of the Voice section, you can select the effect category of Rotary Speaker in the Voice Condition Display Page 3 or 4.
See page 42 for details.

Select “Rotary Speaker” here.



When you want to set Rotary Speaker for the Organ Flute Voice, select the effect type in the ATTACK/VOLUME Page.
See page 37 for details.

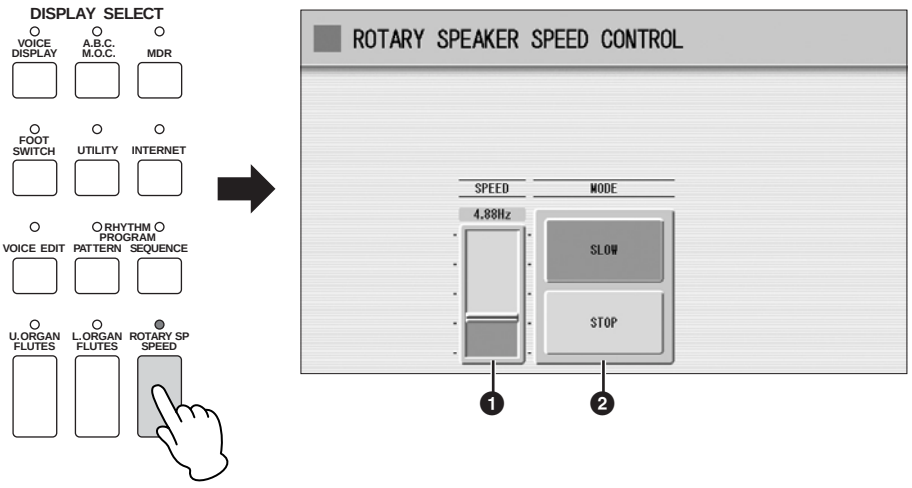
Select an effect type other than [OFF].



2 Adjust the rotating speed and mode of the Rotary Speaker.

Press the [ROTARY SP SPEED] button on the panel.
The ROTARY SPEAKER display appears. The settings in this display are common to all Voice sections.

ROTARY SPEAKER Display



❶ SPEED

Determines the speed of the speaker rotation.
Range: 2.69Hz – 39.7Hz

❷ MODE

Determines the slow/stop mode when [ROTARY SP SPEED] button is off. If [SLOW] is selected, a slow chorus effect is applied when you turn off the button on the panel. If [STOP] is selected, the Rotary Speaker effect turns off when you turn off the button on the panel.

Once the Rotary Speaker effect has been turned on and set, you can control the effect in real time from the panel or from the Left Footswitch.

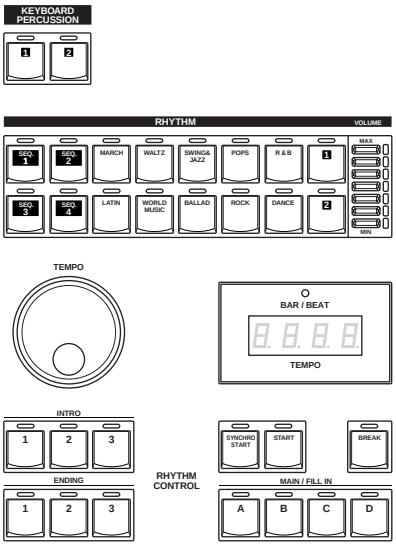
3 Control the Rotary Speaker effect from the panel or from the Left Footswitch.

You can control Rotary Speaker on/off not only from the panel but also the Left Footswitch, if the Footswitch has been properly assigned. See page 182 for details.

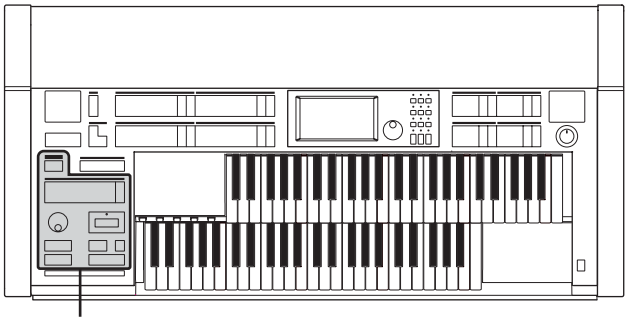
3 Effect List

REVERB	
1	HALL 1
	HALL 2
	HALL 3
	HALL M
	HALL L
	ROOM 1
	ROOM 2
	ROOM 3
	ROOM 4
	ROOM S
	ROOM M
	ROOM L
	STAGE 1
	STAGE 2
	PLATE 1
	PLATE 2
	WHITE ROOM
	TUNNEL
	CANYON
	BASEMENT
2	XG HALL 1
	XG HALL 2
	XG ROOM 1
	XG ROOM 2
	XG ROOM 3
	XG STAGE 1
	XG STAGE 2
	XG PLATE
	GM PLATE
DELAY	
	DELAY LCR
	XG DLY LCR
	DELAY LR
	ECHO
	CROSS DELAY
	TEMPO DELAY
	TEMPO ECHO
	TEMPO CROSS
ER/KARAOKE	
	ER 1
	ER 2
	GATE REVERB
	REVERS GATE
	KARAOKE 1
	KARAOKE 2
	KARAOKE 3
CHORUS	
	CHORUS 1
	CHORUS 2
	XG CHORUS 1
	XG CHORUS 2
	XG CHORUS 3
	XG CHORUS 4
	GM CHORUS 1
	GM CHORUS 2
	GM CHORUS 3
	GM CHORUS 4
	FB CHORUS
	CELESTE 1
	CELESTE 2
	CELESTE 3
	CELESTE 4
	SYMPHONIC
	XG SYMPHONIC
	ENS DETUNE
FLANGER	
	FLANGER 1
	FLANGER 2
	XG FLANGER 1
	XG FLANGER 2
	XG FLANGER 3
	GM FLANGER
	V_FLANGER
	TEMP FLANGER
	DYNA FLANGER
PHASER	
	PHASER 1
	PHASER 2
	EP PHASER 1
	EP PHASER 2
	EP PHASER 3
	TEMPO PHASER
	DYNA PHASER
TREMOLO/AUTO PAN	
	TREMOLO 1
	TREMOLO 2
	XG TREMOLO
	EP TREMOLO
	GT TREMOLO 1
	GT TREMOLO 2
	ORGAN TREMOLO
	AUTO PAN
	XG AT PAN 1
	XG AT PAN 2
	EP AUTO PAN
ROTARY SPEAKER	
	XG ROTARY SP
	ROTARY SP 1
	ROTARY SP 2
	ROTARY SP 3
	ROTARY SP 4
	ROTARY SP 5
	2WAY ROT SP
	DUAL ROTSP 1
	DUAL ROTSP 2
	DIST+ROT SP
	ODRV+ROT SP
	AMP+ROT SP
	DIST+2ROT SP
	ODRV+2ROT SP
	AMP+2ROT SP
DISTORTION	
	DIST HARD 1
	DIST HARD 2
	DIST SOFT 1
	DIST SOFT 2
	ST DIST HARD
	ST DIST SOFT
	OVERDRIVE
	ST OVERDRIVE
	XG DIST
	XG ST DIST
	V_DIST HARD
	V_DIST SOFT
	COMP+DIST
	XG CMP+DIST
	AMP SIM
	XG AMP SIM
	ST AMP SIM 1
	ST AMP SIM 2
	XG ST AMP
DISTORTION+	
	DIST+DELAY
	ODRV+DELAY
	XG DIST+DLY
	XG ODRV+DLY
	CMP+DIST+DLY
	CMP+ODRV+DLY
	XG CMP+DT+DL
	XG CMP+OD+DL
	V_DIST H+DLY
	V_DIST S+DLY
	DIST+T DLY
	ODRV+T DLY
	CMP+DST+TDLY
	CMP+OD+TDLY
	V_DST H+TDLY
	V_DST S+TDLY
WAH	
	AUTO WAH
	XG AUTO WAH
	TOUCH WAH 1
	TOUCH WAH 2
	AT WAH+DIST
	XG AT WH+DST
	AT WAH+ODRV
	XG AT WAH+OD
	TC WAH+DIST
	XG TC WH+DST
	TC WAH+ODRV
	XG TC WAH+OD
	CLAVI TC WAH
	EP TOUCH WAH
	WAH+DST+TDLY
	WAH+OD+T DLY
	WAH+DIST+DLY
	XG WH+DST+DL
	WAH+ODRV+DLY
	XG WH+OD+DLY
DYNAMIC	
	M BAND COMP
	COMPRESSOR
	NOISE GATE
EQ/ENHANCER	
	ST 2BAND EQ
	ST 3BAND EQ
	XG 3BAND EQ
	EQ DISCO
	EQ TEL
	HM ENHANCER
	XG HM ENHNCE
PITCH CHANGE	
	PITCH CHANGE
	XG PCH CHG 1
	XG PCH CHG 2
MISCELLANEOUS	
	AMBIENCE
	IMPULSE EXP
	RESONATOR
	VOICE CANCEL
	TALKING MOD
	LO-FI
	DYNA FILTER
	DYNA RINGMOD
	RING MOD
	ISOLATOR
THRU	
	THRU

5 Rhythm/Keyboard Percussion



This Electone features 274 different real rhythms featuring actual drum and percussion sampled sounds. Automatic Accompaniment functions are used with the rhythms, providing appropriate and completely automatic accompaniment to match the style of the selected rhythm. Moreover, the Electone has a Keyboard Percussion feature that allows you to play drum and percussion sounds from the Upper, Lower keyboard and Pedalboard.


Rhythm/Keyboard Percussion

Contents

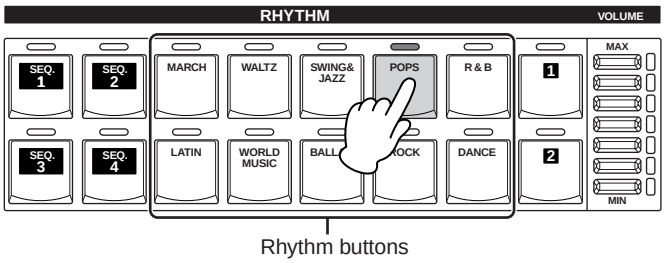
1 Selecting rhythms with the Rhythm buttons

A total of 274 rhythms can be instantly selected with the ten rhythm buttons on the front panel.

Selecting a rhythm

In the explanation below, 16Beat 1 in the POPS category is selected as an example.

1 Press one of the Rhythm buttons in the RHYTHM section on the front panel (for example, the [POPS] button).

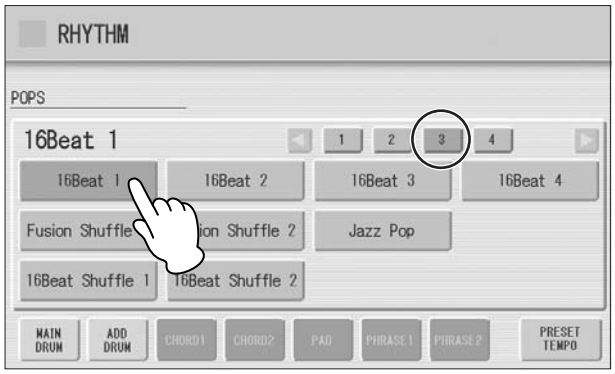


Rhythm buttons

The relevant Rhythm Menu is displayed.

2 Select the desired rhythm name from the Rhythm menu.

The Rhythm menu contains many Pops rhythms, more than can fit on the display page. To change the display pages, press the appropriate number buttons in the display.



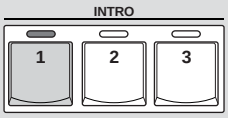
The color of the selected rhythm name changes to orange, indicating that it has been selected.

Rhythm Structure

Each rhythm is made up of "sections." Since each section is a rhythmic variation of the basic rhythm, you can use them to add "spice" to your performance and mix up the beats while you are playing. You can freely change the section while the rhythm is played back.

INTRO

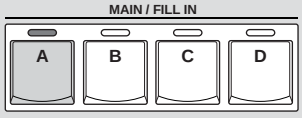
This is used for the beginning of the song. There are three Intro sections that can be selected with INTRO [1] – [3] buttons. When the Intro finishes playing, the rhythm automatically shifts to the Main section.



Selected Intro section's lamp is lit

MAIN

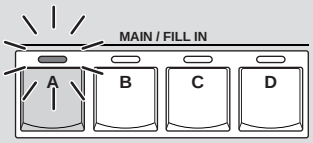
This is used for playing the main part of the song. There are four Main sections that can be selected with MAIN/FILL IN [A] – [D] buttons. The rhythm pattern of several measures repeats indefinitely.



Selected Main section's lamp is lit

FILL IN

This is designed for use as a temporary and regular rhythmic pattern to spice up a repeating rhythm. There are four Fill In sections that can be played by pressing the selected (lit) MAIN/FILL IN [A] – [D] buttons as desired. When one measure pattern of Fill In finishes playing, the rhythm is automatically shifts to the Main section.



Selected Fill In section's lamp flashes

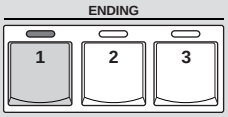
BREAK

This lets you add dynamic variations and breaks in the rhythm pattern. The Break section is selected by pressing the [BREAK] button. When the one-measure Break pattern finishes playing, the rhythm automatically shifts to the Main section.

The lamp is lit when the Break section is selected

ENDING

This is used for the ending of the song. There are three Ending sections that can be selected with the ENDING [1] – [3] buttons. When the ending is finished, the rhythm automatically stops.



Selected Ending section's lamp is lit

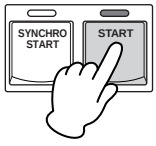
Operating the rhythm from the panel

You can turn the rhythm on/off and switch the sections as desired by pressing the buttons on the panel. Using the Fill Ins and Break patterns let you add dynamic interest and "spice" to your performance.

To start/stop the rhythm:

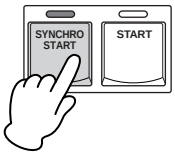
START

The rhythm begins as soon as the [START] button is pressed.
To stop the rhythm, press the button again.

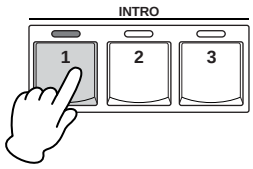


SYNCHRO START

The [SYNCHRO START] button puts the rhythm in "standby."
The rhythm starts when you press a note on the Lower keyboard or Pedalboard.
When you start the rhythm with the [SYNCHRO START] button, pressing this button again stops the rhythm.

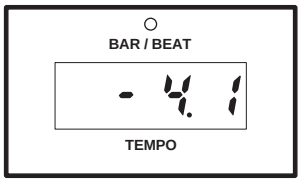


INTRO

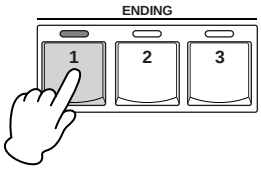


Pressing one of the INTRO [1] – [3] buttons automatically adds a short introduction before starting the actual (Main) rhythm. First press one of the INTRO [1] – [3] buttons, then press the [START] or [SYNCHRO START] button to actually start the rhythm.

While the introduction is playing, the BAR/BEAT display shows the countdown to the first measure of the pattern. For example, if there is a four-measure lead-in for a pattern in 4/4 time, the display at right appears:



ENDING



Pressing one of the ENDING [1] – [3] buttons automatically adds an ending phrase before stopping the rhythm.

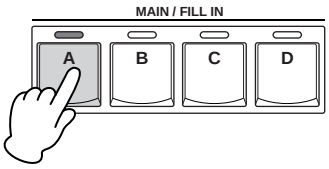
When you press the Ending button while rhythm is playing back, the rhythm will automatically stop after the ending phrase is played. You can have the ending gradually slow down (ritardando) by pressing the ENDING button once again, while the ending is playing.

NOTE

Pressing the ENDING [1] button during playback of the Main section will first call up the fill in pattern, then the Ending 1 pattern.

To switch the rhythm sections:

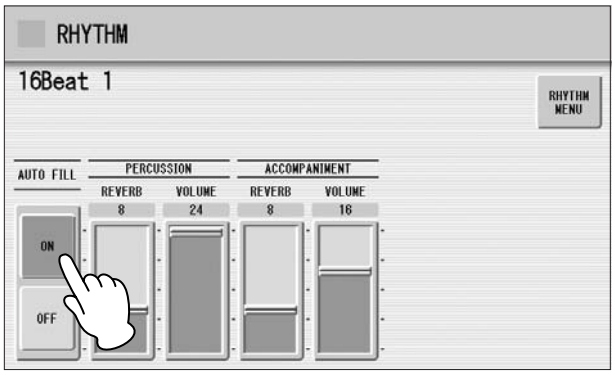
You can change the rhythm section of the Main phrase by pressing the desired MAIN/FILL IN [A] – [D] button. The selected section's lamp (above the button) is lit.



To use the Fill In patterns:

As you play the Electone along with the rhythm, occasionally press the selected MAIN/FILL button as desired. The Fill In pattern (one measure) will be played and the selected Fill In section's lamp (above the button) flashes.

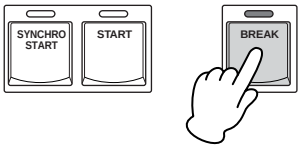
When you use the Auto Fill In function, Fill Ins will be played automatically. The Auto Fill In function is set in the Rhythm Condition display.
Pressing the selected Rhythm button on the panel again (or pressing the rhythm name of the selected rhythm in the display) calls up the Rhythm Condition Display.



When Auto Fill is set to ON in the left side of the display, the Fill In pattern is automatically played whenever you switch the Main sections.

To use the Break patterns:

As you play the Electone along with the rhythm, occasionally press the [BREAK] button.



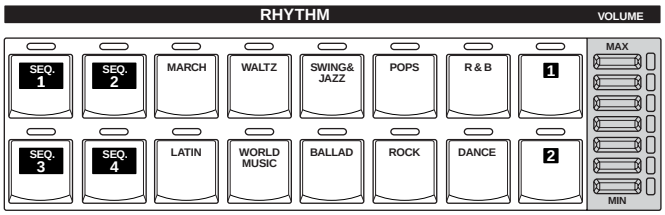
Moreover, you can start/stop the rhythm and switch the sections by using the Footswitch. See page 180 for details.

Changing the rhythm volume

There are two ways to set the rhythm volume: using the VOLUME buttons on the panel and using the volume slider in the display. The volume buttons let you make coarse adjustments to the volume while the slider gives you fine control.

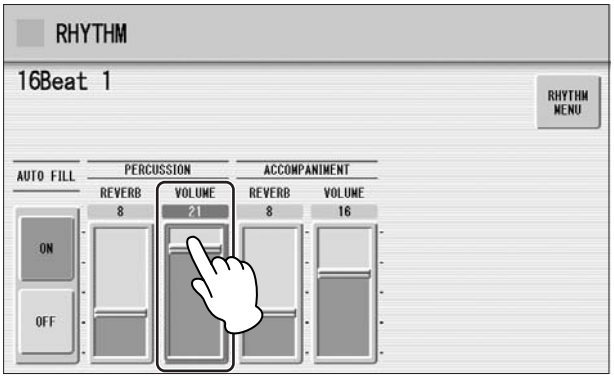
Using VOLUME buttons on the panel (coarse):

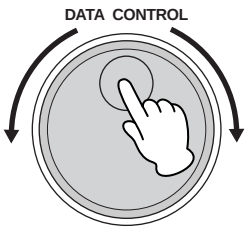
Press one of the VOLUME buttons of the rhythm on the panel to set the desired level. The buttons have seven volume settings, from a minimum of 0, or no sound, to a maximum of full volume.



Using VOLUME slider in the display (fine):

Pressing the same rhythm button on the panel again (or pressing the rhythm name of the selected rhythm in the display) calls up the Rhythm Condition Display.





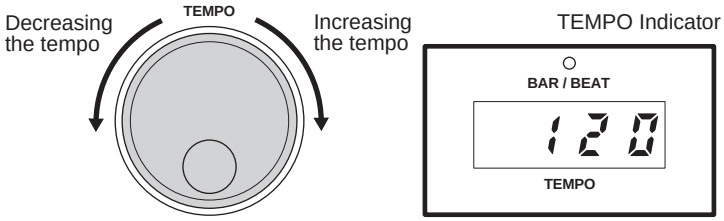
To set the volume, touch the PERCUSSION VOLUME slider in the display or use the Data Control Dial. The control range is from 0 (no sound) to 24 (full volume).

NOTE

Depending on the volume value (set by the slider), two adjacent VOLUME button lamps may be lit at the same time, indicating an intermediate position.

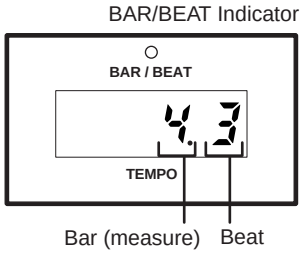
Adjusting the tempo

Turn the TEMPO dial clockwise to increase the tempo, and counter-clockwise to decrease it.



TEMPO display shows the current tempo. Displayed values are given in beats per minute.
The tempo range is 40 to 240 beats per minute.

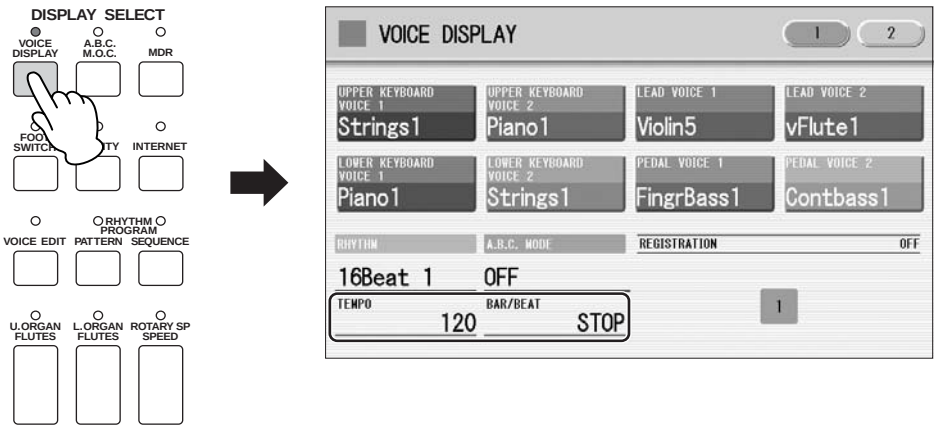
When the rhythm begins playing, the TEMPO indicator changes function to a BAR/BEAT indicator.



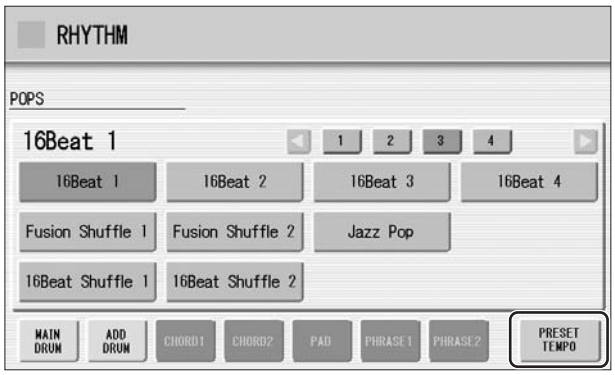
On the BAR/BEAT indicator, the number on the left indicates the current bar or measure and the one on the right indicates the number of the beat in each bar.

Reference Page
Voice Display (page 17)

You can also see the Tempo and Bar/Beat indications in the Voice Display. In the Voice Display, both Tempo and Bar/Beat can be seen in one display.



Each rhythm has its original (preset) tempo. Press [PRESET TEMPO] button in the display to restore the tempo to the original setting.

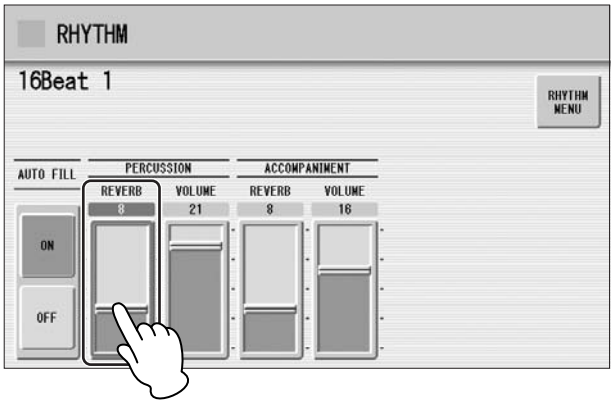


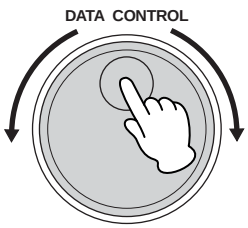
Changing the rhythm reverb

You can adjust the amount of reverb applied to the rhythms and the percussion sounds used in the rhythms in the Rhythm Condition display.

Reference Page

Reverb (page 43)





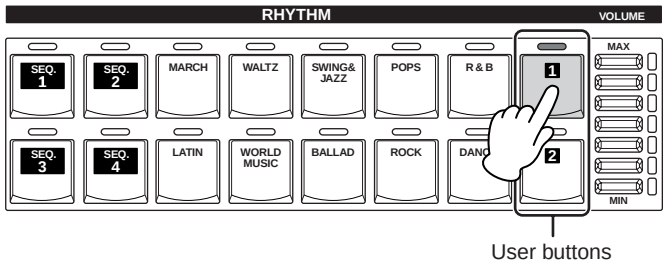
When the panel REVERB control is set to the minimum, the setting here will have no effect.

Range: 0 – 24

2 Selecting rhythms from the User buttons

As with the Voice sections, the Rhythm section also has User buttons (numbered 1 or 2) from which rhythms can be selected. You can select original User rhythms that you have created with the Rhythm Pattern Program function. This also allows you to assign two or three rhythms from the same category to be selected from different buttons; one from the original Rhythm button, and the others from the User buttons.

1 Press one of the User buttons at the right of the Rhythm buttons.



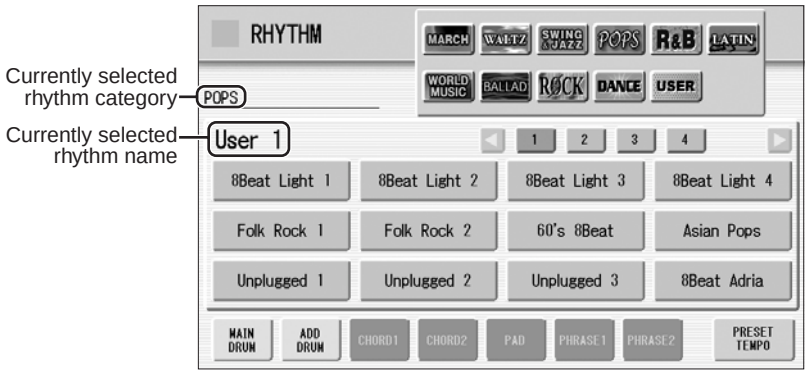
The Rhythm Menu appears in the display.

Reference Page
Rhythm Pattern Program (page 140)

2 Select the desired rhythm category with the category buttons in the display.

You can also choose the "User" category to select a User rhythm you have created.

The currently selected rhythm category appears at the top left of the display. The rhythm name shown below the category name is that of the currently assigned rhythm and is irrelevant to the rhythm category.



3 Select a rhythm from the displayed Rhythm Menu.

Pressing the number buttons in the display calls up the other rhythms in the category.

3 Rhythm List

This list shows all available rhythms on the Electone. Numbers written at the left side of each column in this list indicate the numbered buttons displayed in the Rhythm Menu.

MARCH	
1	Marching Band 1
	Marching Band 2
	Marching Band 3
	Alpine March
	6/8 March 1
	6/8 March 2
	6/8 Kids
	6/8 Organ March
	Broadway
	SF March
	Wild West
	Baroque
WALTZ	
1	Vienna Waltz
	Orchestra Waltz
	Simple Waltz
	Gentle Waltz
	Guitar Serenade
	Snow Waltz
	Classic Waltz
	Mariachi
	Alpine Waltz
	Musette
2	Jazz Waltz 1
	Jazz Waltz 2
	Jazz Waltz 3
	Jazz Waltz 4
	Modern Waltz
	Pop Waltz
	Country Waltz
SWING&JAZZ	
1	Big Band 1
	Big Band 2
	Big Band 3
	Big Band 4
	Big Band 5
	Big Band 6
	Big Band 7
	Big Band Bop
	Orch. Big Band
	Orchestra Swing
	Movie Panther
	Jungle Drum
2	Jazz Club
	Simple Swing
	Acoustic Jazz
	Medium Jazz

2	Fast Jazz
	Combo Swing
	Cool Combo
	Light Swing
	Afro Cuban 1
	Afro Cuban 2
	Bebop
	Five-Four
3	Jazz Ballad 1
	Jazz Ballad 2
	Movie Swing
	Piano Trio
	Midnight Swing
	Slow Jazz
	Moonlight 1
	Moonlight 2
	Winter Song 1
	Winter Song 2
4	Foxtrot
	Slowfox
	Quickstep
	Dixieland 1
	Dixieland 2
	Dixieland Jazz
	Ragtime
	Charleston
	Guitar Swing
POPS	
1	8Beat Light 1
	8Beat Light 2
	8Beat Light 3
	8Beat Light 4
	Folk Rock 1
	Folk Rock 2
	60's 8Beat
	Asian Pops
	Unplugged 1
	Unplugged 2
	Unplugged 3
	8Beat Adria
2	Bubblegum Pop
	70's 8Beat
	Tijuana
	SingerSongWriter
	Surfin' 8Beat
	Finger Pickin'
	Heart Beat
	Guitar Pop

2	British 16Beat
3	16Beat 1
	16Beat 2
	16Beat 3
	16Beat 4
	Fusion Shuffle 1
	Fusion Shuffle 2
	Jazz Pop
	16Beat Shuffle 1
	16Beat Shuffle 2
4	Pop Shuffle
	Eurovision Pop
	British Pop
	Sing Along
	Simple Shuffle 1
	Simple Shuffle 2
	Simple Shuffle 3
R&B	
1	Blues Rock
	Motor City
	Soul 1
	Soul 2
	16Beat Soul
	Frankly Soul
	Gospel Funk
	Jazz Funk
	Funk Beat 1
	Funk Beat 2
	Detroit Pop 1
	Detroit Pop 2
2	New R&B
	Modern R&B
	New Gospel
	Cool Blues
	Gospel Shuffle
	Gospel Sisters
	Amazing Gospel
	6/8 Blues
	Slow Blues
	6/8 Soul
	Blues Shuffle
LATIN	
1	Samba
	Big Band Samba
	Light Samba 1
	Light Samba 2
	Pop Samba 1
	Pop Samba 2

1	Bossa Nova 1
	Bossa Nova 2
	Bossa Nova 3
	Pop Bossa
2	Mambo 1
	Mambo 2
	Salsa 1
	Salsa 2
	Montuno
	Calypso
	Cha Cha Cha
	Big Band Cha Cha
	Pop Cha Cha
3	Rumba
	Pop Rumba
	Fast Rumba
	Guitar Rumba
	Beguine 1
	Beguine 2
	Cuban Bolero
	Tango 1
	Tango 2
	Tango Orchestra
	Tango Milonga
WORLD MUSIC	
1	Bolero
	Flamenco
	Pop Flamenco
	Pasodoble
	Polka 1
	Polka 2
	Banda Polka
	Irish Dance
	Tarantella
	Sirtaki
	Enka
2	Reggae
	Happy Reggae
	Sheriff Reggae
	Shuffle Reggae
	Bluegrass 1
	Bluegrass 2
	Hoedown
	Country 2/4
	Country Shuffle
	Country Band
	Hawaiian
	Mexican Dance

BALLAD	
1	Power Ballad
	Dramatic Ballad
	Movie Ballad 1
	Movie Ballad 2
	Secret Service
	Carpenters Pop
	Romantic Ballad
	Love Song
	16Beat Ballad 1
	16Beat Ballad 2
	16Beat Ballad 3
	Easy Ballad
2	Guitar Ballad 1
	Guitar Ballad 2
	Guitar Ballad 3
	Organ Ballad
	Chart Ballad
	Analog Ballad
	Pop Ballad
	8Beat Modern
	Chillout
	Slow&Easy
3	6/8 Slow Rock 1
	6/8 Slow Rock 2
	6/8 Orchestra 1
	6/8 Orchestra 2
	6/8 Ballad
	Acoustic Ballad

ROCK	
1	Power Rock
	Southern Rock
	60's Rock 1
	60's Rock 2
	Hard Rock 1
	Hard Rock 2
	Rock Shuffle 1
	Rock Shuffle 2
	Tears Rock 1
	Tears Rock 2
	Soft Rock
	British Rock
2	Country Rock 1
	Country Rock 2
	New Country
	Cowboy Rock
	Rock&Roll 1
	Rock&Roll 2
	Skiffle
	Caribbean Rock
	R&R Shuffle
	Jive
	Boogie Woogie

DANCE	
1	Ibiza 1
	Ibiza 2
	Euro Trance
	Disco Teens
	Techno Party
	Club Dance
	Dream Dance
	Club House
	UK Pop
	US Disco
	Swing House
2	US Pop
	US Hip Hop
	Classic Hip Hop
	Trip Hop
	Chart Pop
	Ground Beat
	Hip Hop Groove
	Hip Hop Pop
	Hip Hop Light
	Euro Hip Hop
3	Latin DJ's
	Club Latin
	Latin Disco 1
	Latin Disco 2
	Garage
	6/8 Trance
	80's Dance
	Pop Beat 1
	Pop Beat 2
	Funky Dance
4	Disco Philly 1
	Disco Philly 2
	70's Disco 1
	70's Disco 2
	Disco Funk
	Disco Chocolate
	Dance Pop

Certain rhythms created for use with slow, soft Songs or for Songs that do not use a bass part at the beginning, may not have drum sections. To use these rhythms, refer to the following information.

Some sections of the following nine rhythms are configured with accompaniment only; they do not contain any drum or percussion.

Category	Rhythm	Section
MARCH	6/8 Organ March	Main A, Main B
	Baroque	All sections except Intro 1
WALTZ	Simple Waltz	Ending 1
	Guitar Serenade	All sections except Intro 1
WORLD MUSIC	Banda Polka	Main A, Fill In A
	Hoedown	Ending 1
	Mexican Dance	Main A, Fill In A
BALLAD	Dramatic Ballad	Main A
ROCK	R&R Shuffle	Ending 1

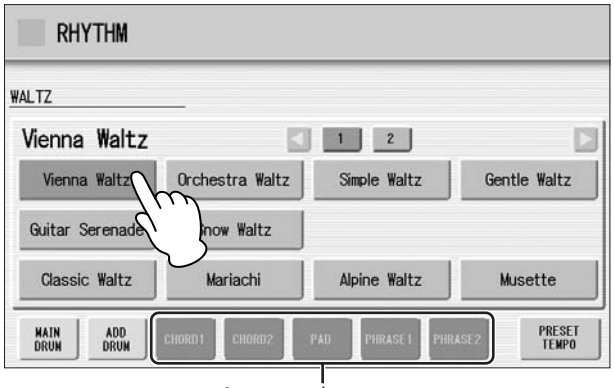
Some sections of the following five rhythms do not contain an Auto Bass part. This means that even though the Auto Bass Chord is turned on, the bass part will not sound.

- Guitar Serenade in the WALTZ category
- Folk Rock 1 in the POPS category
- Unplugged 1 in the POPS category
- Pop Flamenco in WORLD MUSIC category
- New Country in the ROCK category

4 Accompaniment

The Accompaniment function provides arpeggiated chords and other instrumental embellishments when rhythms are used.
Accompaniment controls are selected from the Rhythm Menu and Rhythm Condition display.

1 Press any one of the RHYTHM buttons once.



Accompaniment parts

At the bottom of the display, there are seven part buttons, such as Chord 1, Chord 2, Pad, and so on. These parts, with the exception of Main Drum and Add Drum, are Accompaniment parts.

2 Turn the desired parts on.

The Accompaniment consists of five parts, Chord 1, Chord 2, Pad, Phrase 1, and Phrase 2, and each of them can be set to on or off by pressing corresponding button in the display.
If you turn all the parts off, the Accompaniment does not sound.

CHORD 1/CHORD 2:
These are the rhythmic chord backing parts.

PAD:
This part features sustained chords and commonly uses lush sounds such as strings and organ.

PHRASE 1/PHRASE 2:
These parts are used for various embellishments and riffs that enhance the song, such as brass section accents and chord arpeggios.

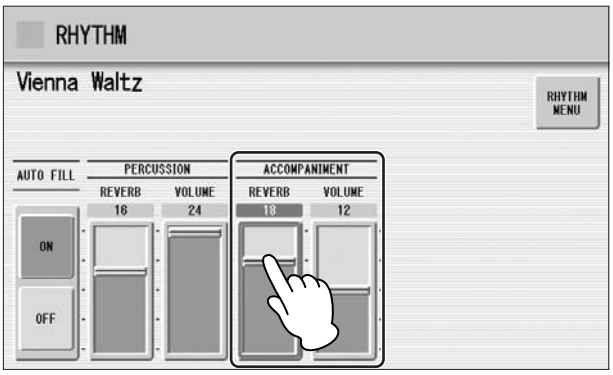
Not all parts contain accompaniment data. Some parts may be empty depending on the selected rhythm and rhythm section.

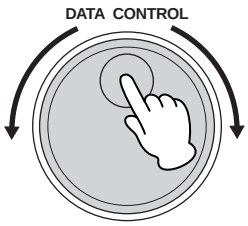
Main Drum and Add Drum contains the drum and percussion rhythm patterns. When you turn both Main Drum and Add Drum off, the drum and percussion do not sound. Generally, Main Drum contains the main part of the rhythm and Add drum has additional percussion sounds, such as tambourine.

3 Adjust the volume and amount of reverb applied to the Accompaniment.

Pressing the same rhythm button on the panel again calls up the Rhythm Condition display.

The two sliders at the right side of the display can control the Accompaniment volume and reverb. Touch the slider in the display or use the Data Control dial to adjust the volume/reverb.





5 Automatic Accompaniment – Auto Bass Chord (A.B.C.)

The Auto Bass Chord (A.B.C.) function works with the Rhythm section of the Electone to automatically produce bass accompaniment as you play. It adds an entirely new dimension to your performance by effectively putting a full backing band at your disposal. There are three modes used for producing Automatic Accompaniment patterns.

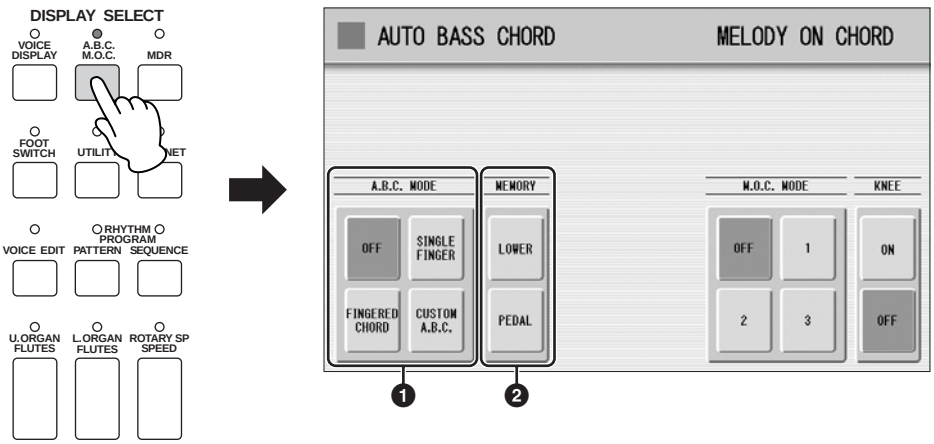
Before using the A.B.C. function, turn Pedal Poly off. If Pedal Poly is set to on, the bass pattern of the A.B.C. will not sound.

Reference Page
POLY (page 40)

To set the A.B.C. function:

Press the [A.B.C./M.O.C.] button.

A.B.C./M.O.C. Display



The A.B.C./M.O.C. display appears. The A.B.C. section is at the left half of this display.

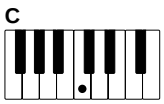
❶ A.B.C. MODE

OFF:

Cancels the Auto Bass Chord function.

SINGLE FINGER:

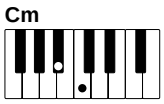
The Single Finger mode provides the fastest and easiest means to obtain many different chord/bass combinations. You can produce major, minor, 7th, and minor 7th chords by simply using one, or at most, two or three fingers to play the chords. The chord produced will sound in the same octave regardless of where it is played on the Lower keyboard.



Key of C

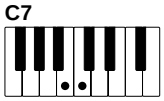
Major chords:

Press the root of the chord (the note that corresponds to the chord's name).



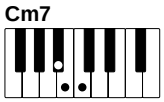
Minor chords:

Simultaneously press the root and any one black key to the left of it.



7th chords:

Simultaneously press the root and any one white key to the left of it.



Minor 7th chords:

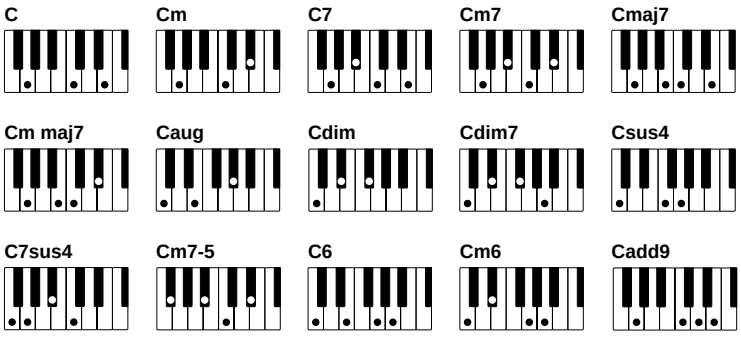
Simultaneously press the root as well as any black key and any white key to the left of it.

Playing single finger chords without the use of the rhythm lets you add full continuous chords to your performance.

FINGERED CHORD:

The Fingered Chord mode automatically produces bass accompaniment for chords played in the Lower keyboard. It allows you to use a wider range of chord types than in the Single Finger mode. In the Fingered Chord mode, you play full chords while the Auto Bass Chord function automatically selects the appropriate bass pattern. If you play only one or two notes in the Lower keyboard, the appropriate chord will sound on the basis of the previously played chord.

Key of C



Playing fingered chords without the use of the rhythm lets you add full continuous chords to your performance.

CUSTOM A.B.C.:

The Custom A.B.C. mode is a slight variation on the Fingered Chord mode. It allows you to determine what bass notes will be played in the accompaniment by playing a note on the Pedalboard along with the chords you play in the Lower keyboard.

NOTE

When playing certain chords (aug, dim, dim7, sus4, 6, and m6), make sure to play the root of the chord as the lowest note in that chord.

❷ MEMORY

LOWER:

When this is set to on, the Lower keyboard Voices and chord accompaniment keep playing even after you release your fingers from the Lower keyboard, while the rhythm plays.

PEDAL:

When this is set to on, the Pedalboard Voices and bass accompaniment keep playing even after you release your foot from the Pedalboard, while the rhythm plays.
(In the Single Finger and Fingered modes:) When this is set to on, the bass accompaniment of the Pedalboard Voices keeps playing even after you release your fingers from the Lower keyboard.

When you start the rhythm with [SYNCHRO START] button, set the Lower/Pedal Memory to on. When Memory is off, releasing your fingers from Lower keyboard stops the rhythm.

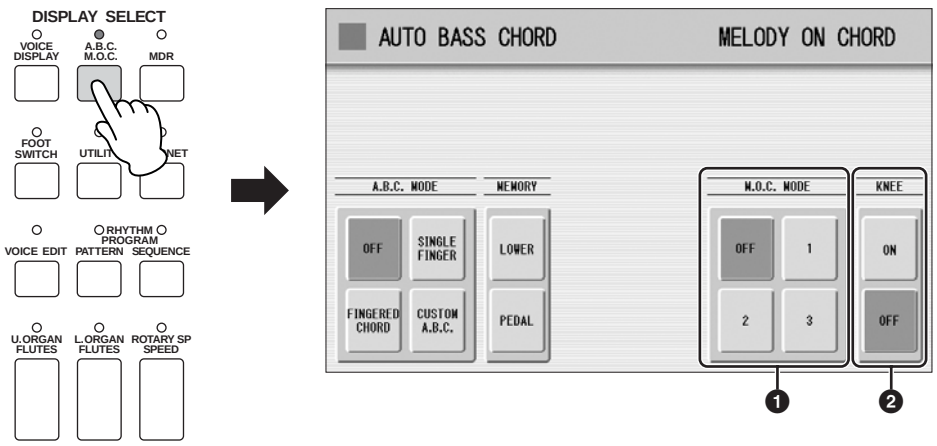
6 Melody On Chord (M.O.C.)

The Melody On Chord (M.O.C.) feature automatically adds a harmony part to the melodies you play on the Upper keyboard. The harmony is derived from the chords you play on the Lower keyboard – or from the chords that are played for you, if you use Automatic Accompaniment. Melody On Chord has three different modes, each providing a different set of harmonics to accompany the melody played. Melody On Chord can also be controlled with the Knee Lever.

To set the M.O.C. function:

Press the [A.B.C./M.O.C.] button.

A.B.C./M.O.C. Display



The A.B.C./M.O.C. display appears. The M.O.C. section is at the right half of this display.

❶ M.O.C. MODE

OFF:

Cancels the Melody On Chord function.

Mode 1:

Produces harmonies of up to two notes in a range close to the melody played.

Mode 2:
Produces harmonies of up to three notes in a range close to the melody played.

Mode 3:
Produces harmonies of up to four notes in a range relatively distant from the melody played.

❷ KNEE

On/off switch for Knee Lever control over Melody On Chord operation. To use the Melody On Chord function with Knee Lever control, first switch the Knee setting to ON, then select one of the three modes (described above). When the control is on, pressing the Knee Lever to the right activates the Melody On Chord function.

Reference Page
Controlling Melody On Chord (with Knee Lever); (page 183)

Melody On Chord can be heard only when the Upper Keyboard Voice section's volume is set to the appropriate value. Melody On Chord does not apply to the Lead Voices.

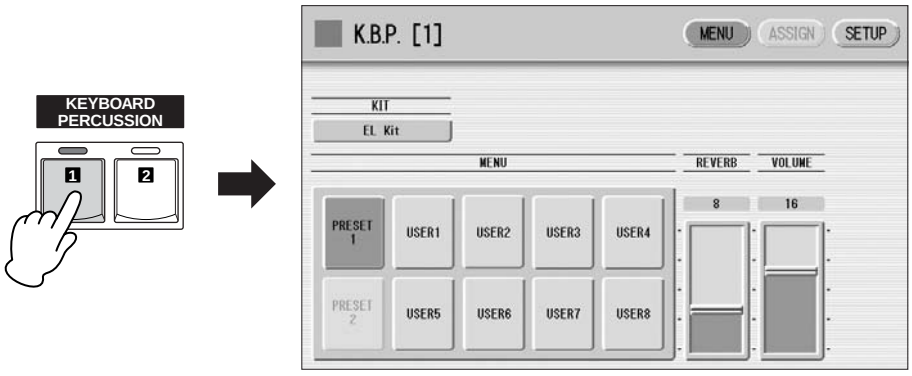
7 Keyboard Percussion

The Keyboard Percussion function features many types of drum and percussion sounds, playable from the keyboards and Pedalboard.
Keyboard Percussion has two different modes, Preset and User. Preset Keyboard Percussion lets you play the preset drum kit sounds from the keyboards (assigned beforehand to the keys), while the User Keyboard Percussion lets you freely assign the drum sounds to any key or pedal you wish.

Using the Preset Keyboard Percussion

1 Turn off the Upper, Lower and/or Pedal Voices by setting each Voice's volume to MIN.

2 Turn on the Keyboard Percussion function by pressing the KEYBOARD PERCUSSION [1] or [2] button.
The Keyboard Percussion (K.B.P.) Display appears.



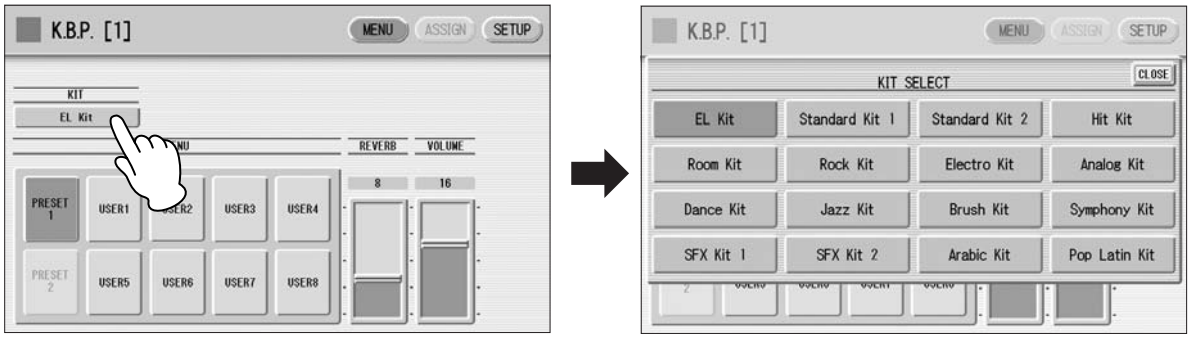
Pressing the KEYBOARD PERCUSSION [1] button calls up the Preset 1 kit on the Upper/Lower keyboards, and pressing [2] button calls up the Preset 2 kit on the Pedalboard.

NOTE
In the Voice Display, each Voice section can be muted (page 18).

NOTE
Two Keyboard Percussion sets, [1] and [2], can be played at the same time by setting both buttons to on.

3 Select the desired percussion kit.

As a default, EL Kit is assigned to the keyboards but you can change the kit from a total of 16 different kits. Pressing the Kit button on the display calls up the Percussion Kit List. Choose the desired Kit within the list, then press the [CLOSE] button at the top right of the display to close the list.

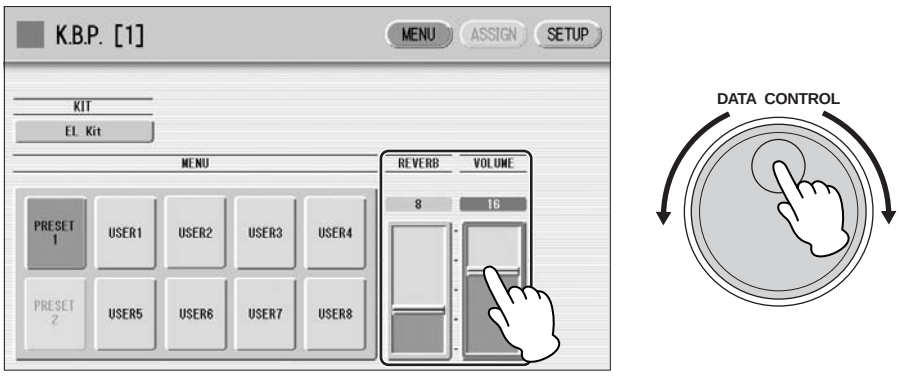


For details of percussion assignments for each kit, see the Preset Keyboard Percussion List on page 67.

The message "Are you sure you want to clear all assignments and setup data?" may appear when you change the kit. Select [CLEAR] to clear all assignments (made in the ASSIGN Page) and detailed settings (made in the SETUP Page) and call up the selected kit on the panel. Select [CANCEL] to call up the selected kit without erasing the assignments and detailed settings.

4 Adjust the volume and amount of reverb applied to the Keyboard Percussion.

Two sliders in the K.B.P. display determine the reverb and volume settings.



The settings here determine the reverb/volume for the entire Keyboard Percussion setup, not for each percussion instrument. You can, however, adjust each percussion instrument's reverb/volume (page 74).

5 Play some notes on the keyboards and/or Pedalboard.

Preset Keyboard Percussion List

	EL Kit			Standard Kit 1*		
	Preset 2 (PK)	Preset 1 (LK)	Preset 1 (UK)	Preset 2 (PK)	Preset 1 (LK)	Preset 1 (UK)
C1	Bass Drum Heavy	-		Kick	-	
C♯1	SD Brush Roll	-		Side Stick	Surdo Mute	
D1	Snare Drum Heavy	-		Snare	Surdo Open	
D♯1	SD Brush Shot 1	Claves		Hand Clap	Hi Q	
E1	SD Reverb 1	-		Snare Tight	Whip Slap	
F1	Snare Drum Light	-		Floor Tom L	Scratch H	
F♯1	Tom 3	Synth Tom 3		Hi-Hat Closed	Scratch L	
G1	Snare Drum Rim 1	Concert BD		Floor Tom H	Finger Snap	
G♯1	Tom 2	Synth Tom 2		Hi-Hat Pedal	Click Noise	
A1	Hi-Hat Close	Bass Drum Heavy		Low Tom	Metronome Click	
A♯1	Tom 1	Synth Tom 1		Hi-Hat Open	Metronome Bell	
B1	Hi-Hat Open	Bass Drum Light		Mid Tom L	Seq Click L	
C2	Ride Cymbal 1	Snare Drum Heavy	-	Mid Tom H	Seq Click H	-
C♯2	Synth Tom 3	SD Brush Roll	-	Crash Cymbal 1	Brush Tap	-
D2	Crash Cymbal 1	Snare Drum Heavy	-	High Tom	Brush Swirl	-
D♯2	Synth Tom 2	SD Brush Shot 1	-	Ride Cymbal 1	Brush Slap	-
E2	Orchestra Cymbal	SD Reverb 1	-	Chinese Cymbal	Brush Tap Swirl	-
F2	-	Snare Drum Light	-	Ride Cymbal Cup	Snare Roll	-
F♯2	Synth Tom 1	Tom 3	-	Tambourine	Castanet	-
G2	-	Snare Drum Rim 1	-	Splash Cymbal	Snare Soft	-
G♯2		Tom 2	-		Sticks	-
A2		Hi-Hat Close	-		Kick Soft	-
A♯2		Tom 1	-		Open Rim Shot	-
B2		Hi-Hat Open	-		Kick Tight	-
C3		Ride Cymbal 1	-		Kick	Bongo H
C♯3		Orch Snare Drum	-		Side Stick	Bongo L
D3		Crash Cymbal 1	-		Snare	Conga H Mute
D♯3		Snare Drum Roll	-		Hand Clap	Conga H Open
E3		Orchestra Cymbal	-		Snare Tight	Conga L
F3		Orch Cymbal Roll	-		Floor Tom L	Timbale H
F♯3		Triangle Mute	-		Hi-Hat Closed	Timbale L
G3		Tambourine	-		Floor Tom H	Agogo H
G♯3		Triangle Open	-		Hi-Hat Pedal	Agogo L
A3		Castanet	-		Low Tom	Cabasa
A♯3		Cowbell 1	-		Hi-Hat Open	Maracas
B3		Timbale 1 Low	-		Mid Tom L	Samba Whistle H
C4		Timbale 1 High	-		Mid Tom H	Samba Whistle L
C♯4		Wood Block Low	-		Crash Cymbal 1	Guiro Short
D4		Conga Low	-		High Tom	Guiro Long
D♯4		Wood Block High	-		Ride Cymbal 1	Claves
E4		Conga High	-		Chinese Cymbal	Wood Block H
F4		Bongo Low	-		Ride Cymbal Cup	Wood Block L
F♯4		Agogo Low	-		Tambourine	Cuica Mute
G4		Bongo High	-		Splash Cymbal	Cuica Open
G♯4		Agogo High	-		Cowbell	Triangle Mute
A4		Cuica Low	-		Crash Cymbal 2	Triangle Open
A♯4		Hand Claps	-		Vibraslap	Shaker
B4		Cuica High	-		Ride Cymbal 2	Jingle Bells
C5		Shaker	-		-	Bell Tree
C♯5			-			-
D5						-
D♯5						-
E5						-
F5						-
F♯5						-
G5						-
G♯5						-
A5						-
A♯5						-
B5						-
C6						-

: Indicates the keys of the keyboard.

*The 10 kits, Standard Kit 2 – Symphony Kit, have the same sound assignments as Standard Kit 1.

	SFX Kit 1			SFX Kit 2		
	Preset 2 (PK)	**Preset 1 (LK)**	**Preset 1 (UK)**	**Preset 2 (PK)**	**Preset 1 (LK)**	**Preset 1 (UK)**
C1	Cutting Noise 1	-		Phone Call	-	
C♯1	Cutting Noise 2	-		Door Squeak	-	
D1	-	-		Door Slam	-	
D♯1	String Slap	-		Scratch Cut	-	
E1	-	-		Scratch H 3	-	
F1	-	-		Wind Chime	-	
F♯1	-	-		Telephone Ring	-	
G1	-	-		-	-	
G♯1	-	-		-	-	
A1	-	-		-	-	
A♯1	-	-		-	-	
B1	-	-		-	-	
C2	-	-	-	-	-	-
C♯2	-	-	-	-	-	-
D2	-	-	-	-	-	-
D♯2	-	-	-	-	-	-
E2	Flute Key Click	-	-	CarEngnIgnition	-	-
F2	-	-	-	Car Tires Squeal	-	-
F♯2	-	-	-	Car Passing	-	-
G2	-	-	-	Car Crash	-	-
G♯2		-	-		-	-
A2		-	-		-	-
A♯2		-	-		-	-
B2		-	-		-	-
C3		Cutting Noise 1	-		Phone Call	Burst
C♯3		Cutting Noise 2	-		Door Squeak	Roller Coaster
D3		-	-		Door Slam	Submarine
D♯3		String Slap	-		Scratch Cut	-
E3		-	-		Scratch H 3	-
F3		-	-		Wind Chime	-
F♯3		-	-		Telephone Ring	-
G3		-	-		-	-
G♯3		-	Shower		-	Laugh
A3		-	Thunder		-	Scream
A♯3		-	Wind		-	Punch
B3		-	Stream		-	Heart Beat
C4		-	Bubble		-	Foot Steps
C♯4		-	Feed		-	-
D4		-	-		-	-
D♯4		-	-		-	-
E4		Flute Key Click	-		CarEngnIgnition	-
F4		-	-		Car Tires Squeal	-
F♯4		-	-		Car Passing	-
G4		-	-		Car Crash	-
G♯4		-	-		Siren	-
A4		-	-		Train	-
A♯4		-	-		Jet Plane	-
B4		-	-		Starship	-
C5		-	Dog		-	Machine Gun
C♯5			Horse			Laser Gun
D5			Bird Tweet			Explosion
D♯5			-			Firework
E5			-			-
F5			-			-
F♯5			Ghost			-
G5			Maou			-
G♯5			-			-
A5			-			-
A♯5			-			-
B5			-			-
C6			-			-

	Arabic Kit			Pop Latin Kit		
	Preset 2(PK)	**Preset 1 (LK)**	**Preset 1 (UK)**	**Preset 2 (PK)**	**Preset 1 (LK)**	**Preset 1 (UK)**
C1	Kick Soft	-		Bongo H Open 1 f	-	
C♯1	Side Stick	-		Bongo H Open 3 f	-	
D1	Snare Soft	-		Bongo H Rim	-	
D♯1	Arabic Hand Clap	-		Bongo H Tip	-	
E1	Snare Drum	-		Bongo H Heel	-	
F1	Floor Tom L	-		Bongo H Slap	-	
F♯1	Hi-Hat Closed	-		Bongo L Open 1 f	Hand Clap	
G1	Floor Tom H	-		Bongo L Open 3 f	-	
G♯1	Hi-Hat Pedal	-		Bongo L Rim	-	
A1	Low Tom	-		Bongo L Tip	-	
A♯1	Hi-Hat Open	-		Bongo L Heel	Conga H Tip	
B1	Mid Tom L	-		Bongo L Slap	Conga H Heel	
C2	Mid Tom H	Nakarazan Dom	-	Timbale L Open	Conga H Open	-
C♯2	Crash Cymbal 1	Cabasa	-	-	Conga H Mute	-
D2	High Tom	Nakarazan Edge	-	-	Conga H SlapOpen	-
D♯2	Ride Cymbal 1	Hager Dom	-	-	Conga H Slap	-
E2	Crash Cymbal 2	Hager Edge	-	-	Conga H SlapMute	-
F2	Duhulla Dom	Bongo H	-	Paila L	Conga L Tip	-
F♯2	Tambourine	Bongo L	-	Timbale H Open	Conga L Heel	-
G2	Duhulla Tak	Conga H Mute	-	-	Conga L Open	-
G♯2		Conga H Open	-		Conga L Mute	-
A2		Conga L	-		Conga L SlapOpen	-
A♯2		Zagrouda H	-		Conga L Slap	-
B2		Zagrouda L	-		Conga L Slide	-
C3		Kick Soft	Katem Dom		Bongo H Open 1 f	Cowbell Top
C♯3		Side Stick	Katem Tak		Bongo H Open 3 f	-
D3		Snare Soft	Katem Sak		Bongo H Rim	-
D♯3		Arabic Hand Clap	Katem Tak		Bongo H Tip	-
E3		Snare Drum	Doff Tak		Bongo H Heel	Guiro Short
F3		Floor Tom L	Tabla Dom		Bongo H Slap	Guiro Long
F♯3		Hi-Hat Closed	Tabla Tak 1		Bongo L Open 1 f	-
G3		Floor Tom H	Tabla Tik		Bongo L Open 3 f	-
G♯3		Hi-Hat Pedal	Tabla Tak 2		Bongo L Rim	Tambourine
A3		Low Tom	Tabla Sak		Bongo L Tip	-
A♯3		Hi-Hat Open	Tabla Roll Edge		Bongo L Heel	-
B3		Mid Tom L	Tabla Flam		Bongo L Slap	-
C4		Mid Tom H	Sagat 1		Timbale L Open	Maracas
C♯4		Crash Cymbal 1	Tabel Dom		-	Shaker
D4		High Tom	Sagat 3		-	Cabasa
D♯4		Ride Cymbal 1	Tabel Tak		-	Cuica Mute
E4		Crash Cymbal 2	Sagat 2		-	Cuica Open
F4		Duhulla Dom	Rik Dom		Paila L	-
F♯4		Tambourine	Rik Tak 2		Timbale H Open	-
G4		Duhulla Tak	Rik Finger 1		-	-
G♯4		Cowbell	Rik Tak 1		-	-
A4		Duhulla Sak	Rik Finger 2		-	Triangle Mute
A♯4		Claves	Rik BrassTremolo		-	Triangle Open
B4		Doff Dom	Rik Sak		Paila H	-
C5		-	Rik Tik		-	Wind Chime
C♯5			-			-
D5			-			-
D♯5			-			-
E5			-			-
F5			-			-
F♯5			-			-
G5			-			-
G♯5			-			-
A5			-			-
A♯5			-			-
B5			-			-
C6			-			-

Assigning sounds to the User Keyboard Percussion

You can assign any desired drum and percussion sound to any key or pedal, and your original setups can be saved to eight memory locations: User 1 through User 8. The User setting saved in User memory location can be called up by using the KEYBOARD PERCUSSION [1] or [2] buttons.
In the instructions below, drum sounds are assigned to User 1 and called up with KEYBOARD PERCUSSION [1] button.

1 **Turn on the Keyboard Percussion function by pressing the KEYBOARD PERCUSSION [1] button.**
The K.B.P. display appears.

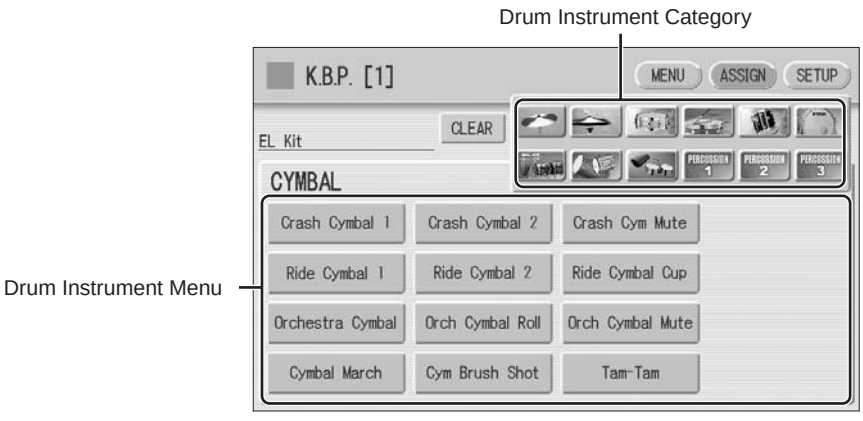
2 **Press [USER 1] on the display.**
This procedure assigns User 1 to the KEYBOARD PERCUSSION [1] button. You can call up the User 1 setting the next time you press the [1] button.

3 **Select the desired percussion kit.**
See page 66 for selecting the kit.

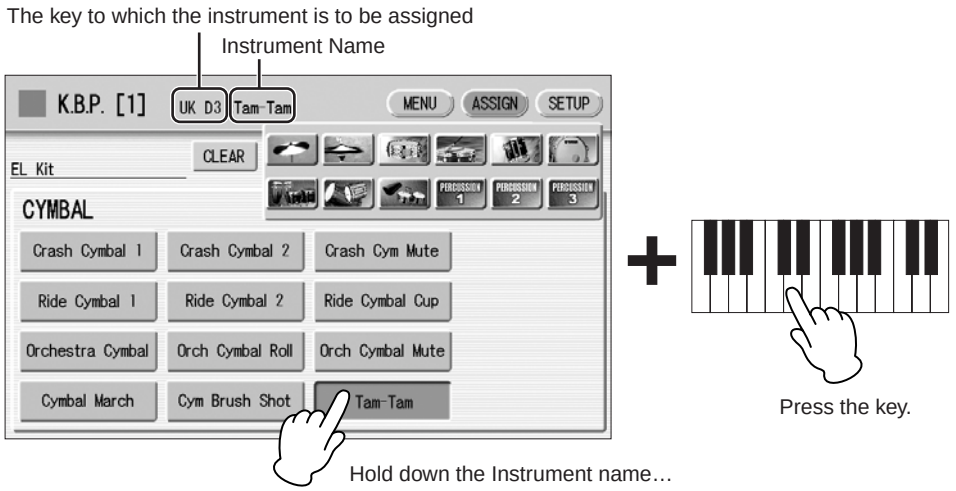
4 **Press the [ASSIGN] button at the top right of the display to call up the ASSIGN Page.**
In the ASSIGN Page, you can assign specific drum sounds to any of the keys.

5 **Select the desired drum instrument that you wish to assign to a key.**
Select the desired drum instrument category with the category buttons in the display. The drum instrument menu of the selected category appears.

Reference Page
Kit Assign List (page 76)



6 Assign an instrument to a particular key or pedal by simultaneously holding down the desired instrument name in the display and pressing the key (or pedal) to which the instrument is to be assigned.

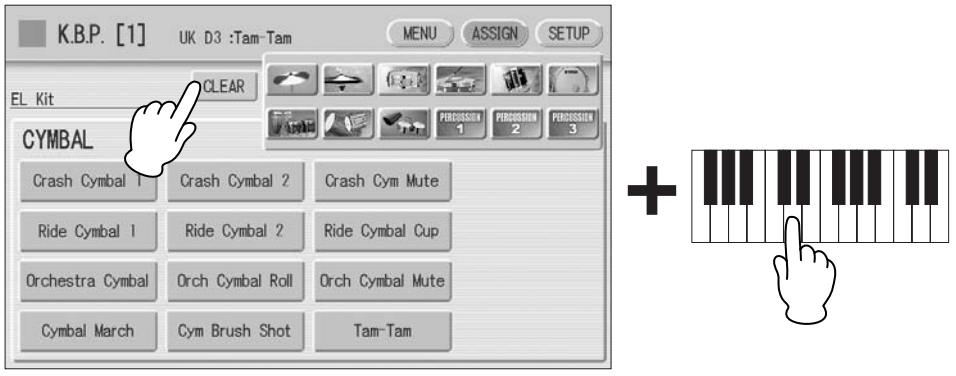


When the assignment is complete, the key name and instrument name is displayed at the top of the display. The assignments are saved to the User memory selected in Step 2 (in this example, User 1).

7 Repeat the operation steps above as necessary to construct your own User Keyboard Percussion set.

To erase one instrument:

Simultaneously hold down the [CLEAR] button in the display (ASSIGN Page) and press the key (or pedal) corresponding to the instrument you wish to erase.



NOTE

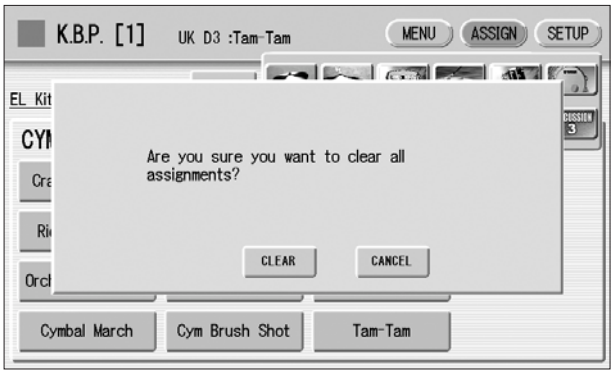
Though eight User Keyboard Percussion setups can be created, they cannot be memorized to Registration Memory. Only on/off data and the Keyboard Percussion Menu are memorized to Registration Memory.

The Keyboard Percussion setting you have created is automatically saved when you switch to another display. While data is being saved, the square at the top left of the display turns light blue for a few seconds. Do not turn the power off while the Keyboard Percussion settings are being saved.

To erase all instruments:

You can clear all assignments using the [CLEAR] button in the display (ASSIGN Page).

1 **Press, then release the [CLEAR] button. The following display appears, prompting confirmation of the operation.**



2 **Press [CLEAR] in the display to erase all data. When [CLEAR] is selected, a "Completed" message momentarily appears on the display.**

Press [CANCEL] in the display to abort the operation.

Copying the Keyboard Percussion settings

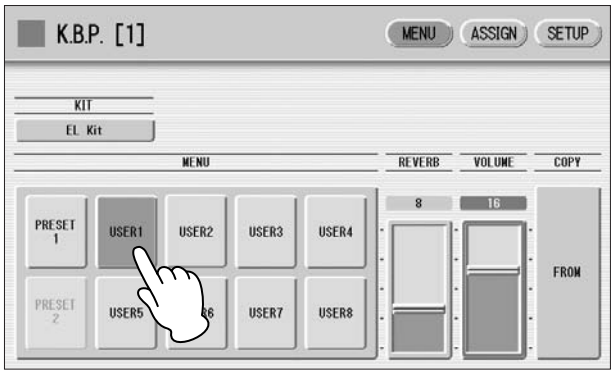
You can copy the Preset Keyboard Percussion to one of the User locations, or copy from one User location to another. In the instructions below, Preset 1 is copied to User 1.

1 **Press the KEYBOARD PERCUSSION [1] button to copy Preset 1.**

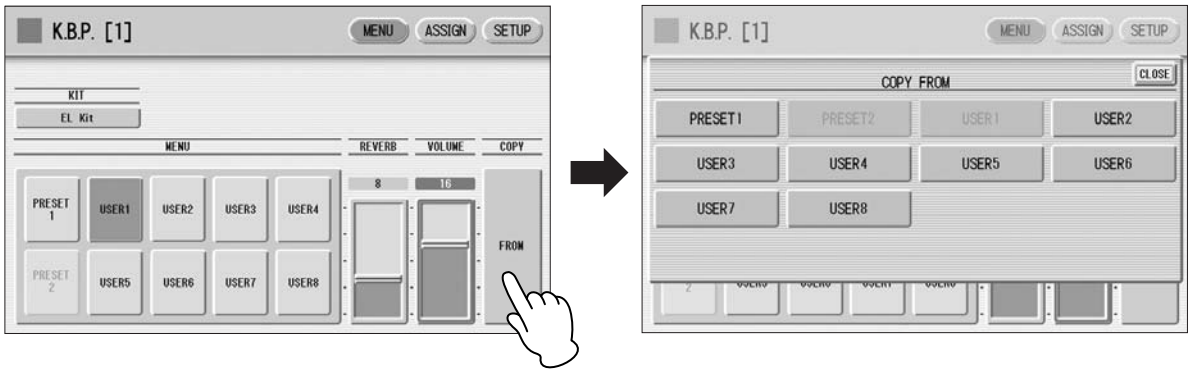
To copy Preset 1, select the [1] button; to copy Preset 2, select the [2] button. To copy either User location, select button [1] or [2].

2 **Press the [MENU] button at the top right of the display to call up the MENU Page.**

3 **Within the Menu buttons, select the User location as the destination — for example, User 1.**



4 **Press the COPY [FROM] button in the display. A list appears, letting you select the copy source location.**



5 **Select the copy source (Preset 1 here) from the list.**
A message appears, prompting confirmation of the operation.

6 **Press the [COPY] button in the display to copy Preset 1. When [COPY] is selected, a "Completed" message momentarily appears in the display.**
Press the [CANCEL] button in the display to abort the operation.

Detailed settings for each percussion instrument

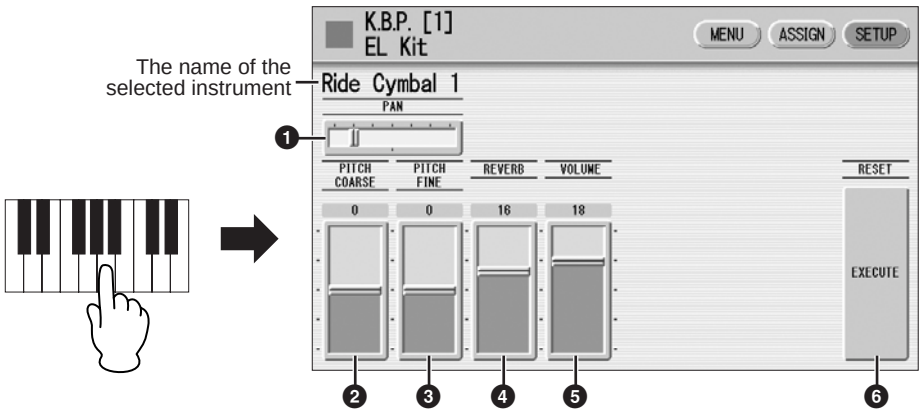
You can independently adjust the settings of pan, pitch, reverb and volume for each instrument. The settings here are system settings that cannot be memorized to Registration memory.

1 Turn off the volume of the relevant keyboard (the keyboard to which the instrument to be changed is assigned).

2 Press the [SETUP] button at the top right of the K.B.P. display to call up the SETUP Page.

3 Press the appropriate key (the key to which the instrument to be changed is assigned).

The selected instrument's name is shown on the display and you can change its settings.



❶ PAN

Determines the position of the currently selected instrument in the stereo image. Seven pan positions are available.

❷ PITCH COARSE

Adjusts the pitch of the currently selected instrument by 100 cents.
Range: -64 – +63

❸ PITCH FINE

Adjusts the pitch of the currently selected instrument by one cent, allowing more detailed tuning of the instrument than PITCH COARSE (❷).
Range: -64 – +63

❹ REVERB

Determines the amount of reverb applied to the currently selected instrument.
Range: 0 – 24

❺ VOLUME

Determines the volume of the currently selected instrument.
Range: 0 – 24

❻ RESET

Initializes settings such as pan, pitch, and reverb to their default values.
Pressing the [EXECUTE] button calls up the following display, prompting confirmation of the operation.

Press the [EXECUTE] button in the display to restore (initialize) the default settings.
When [EXECUTE] is selected, a “Complete” message momentarily appears on the display.
Press the [CANCEL] button in the display to abort the operation.

Kit Assign List

EL Kit
CYMBAL
Crash Cymbal 1
Crash Cymbal 2
Crash Cym Mute
Ride Cymbal 1
Ride Cymbal 2
Ride Cymbal Cup
Orchestra Cymbal
Orch Cymbal Roll
Orch Cymbal Mute
Cymbal March
Cym Brush Shot
Tam-Tam
HI-HAT
Hi-Hat Open
Hi-Hat Close
Hi-Hat Pedal 1
Hi-Hat Pedal 2
Analog HH Open
Analog HH Close
SNARE DRUM
Snare Drum Light
Snare Drum Heavy
Snare Drum Rim 1
Snare Drum Rim 2
SD Accent 1
SD Accent 2
SD Reverb 1
SD Reverb 2
Synth Snare Drum
Orch Snare Drum
Snare Drum Roll
Analog SD
SNARE BRUSH
SD Brush Shot 1
SD Brush Shot 2
SD Brush Roll
TOM
Tom 1
Tom 2
Tom 3
Tom 4
Tom Brush Shot 1
Tom Brush Shot 2
Tom Brush Shot 3
Tom Brush Shot 4
Synth Tom 1
Synth Tom 2
Synth Tom 3
BASS DRUM
Bass Drum Light
Bass Drum Heavy
Bass Drum Attack
Synth Bass Drum
Bass Drum March
Concert BD
Analog BD Short
Analog BD Long
CONGA/BONGO
Conga High
Conga Low
Conga Slap
Conga Muff
Conga Slide
Bongo High
Bongo Low
Bongo Slap
Bongo Mute
CUICA/SURDO
Cuica High
Cuica Middle
Cuica Low
Tamborim Open
Tamborim Mute
Surdo Open
Surdo Mute
Surdo Rim
Surdo Muff
TIMBALES/COWBELL
Timbale 1 High
Timbale 1 Low
Timbale 2 High
Timbale 2 Low
Timbale 3 High
Timbale 3 Low
Timbale 4 High
Timbale 4 Low
Cowbell 1
Cowbell 2
Cowbell 3
Cowbell 4
PERCUSSION 1
Cabasa
Shaker
Maracas High
Maracas Low
Guiro Short
Guiro Long
Woodblock High
Woodblock Mid
Woodblock Low
Claves
Castanet
Vibraslap
PERCUSSION 2
Agogo High
Agogo Low
Triangle Open
Triangle Mute
Windbell Down
Windbell Up
Tambourine
Pandeiro
Bells
Hand Claps
Finger Snap
Scratch
Noise Percussion
PERCUSSION 3
Kotsuzumi 1
Kotsuzumi 2
Kotsuzumi 3
Kotsuzumi 4
Ohtsuzumi 1
Ohtsuzumi 2
Taiko 1
Taiko 2
Ohdaiko 1
Ohdaiko 2
Kakegoe 1
Kakegoe 2
Kakegoe 3

Standard Kit 1
CYMBAL
Crash Cymbal 1
Crash Cymbal 2
Splash Cymbal
Chinese Cymbal
Ride Cymbal 1
Ride Cymbal 2
Ride Cymbal Cup
Hi-Hat Open
Hi-Hat Closed
Hi-Hat Pedal
SNARE DRUM
Snare
Snare Tight
Snare Soft
Snare Roll
Side Stick
Open Rim Shot
Brush Tap
Brush Slap
Brush Swirl
Brush Tap Swirl
TOM
Floor Tom L
Floor Tom H
Low Tom
Mid Tom L
Mid Tom H
High Tom
BASS DRUM
Kick
Kick Tight
Kick Soft
PERCUSSION 1
Conga H Open
Conga L
Conga H Mute
Bongo H
Bongo L
Timbale H
Timbale L
Cowbell
Claves
Guiro Long
Guiro Short
Maracas
Vibraslap
PERCUSSION 2
Surdo Mute
Surdo Open
Cuica Mute
Cuica Open
Cabasa
Shaker
Agogo H
Agogo L
Samba Whistle H
Samba Whistle L
PERCUSSION 3
Tambourine
Castanet
Jingle Bells
Bell Tree
Triangle Open
Triangle Mute
Wood Block H
Wood Block L
Sticks
Whip Slap
Finger Snap
Hand Clap
PERCUSSION 4
Hi Q
Click Noise
Scratch H
Scratch L
Seq Click L
Seq Click H
Metronome Click
Metronome Bell

Standard Kit 2
CYMBAL
Crash Cymbal 1
Crash Cymbal 2
Splash Cymbal
Chinese Cymbal
Ride Cymbal 1
Ride Cymbal 2
Ride Cymbal Cup
Hi-Hat Open
Hi-Hat Closed
Hi-Hat Pedal
SNARE DRUM
Snare Short
Snare Tight H
Snare Soft 2
Snare Roll
Side Stick Light
Open Rim Shot H
Brush Tap
Brush Slap
Brush Swirl
Brush Tap Swirl
TOM
Floor Tom L
Floor Tom H
Low Tom
Mid Tom L
Mid Tom H
High Tom
BASS DRUM
Kick Short
Kick Tight
Kick Soft
PERCUSSION 1
Conga H Open
Conga L
Conga H Mute
Bongo H
Bongo L
Timbale H
Timbale L
Cowbell
Claves
Guiro Long
Guiro Short
Maracas
Vibraslap
PERCUSSION 2
Surdo Mute
Surdo Open
Cuica Mute
Cuica Open
Cabasa
Shaker
Agogo H
Agogo L
Samba Whistle H
Samba Whistle L
PERCUSSION 3
Tambourine
Castanet
Jingle Bells
Bell Tree
Triangle Open
Triangle Mute
Wood Block H
Wood Block L
Sticks
Whip Slap
Finger Snap
Hand Clap
PERCUSSION 4
Hi Q
Click Noise
Scratch H
Scratch L
Seq Click L
Seq Click H
Metronome Click
Metronome Bell

Hit Kit
CYMBAL
Crash Cymbal 1
Crash Cymbal 2
Splash Cymbal
Chinese Cymbal
Ride Cymbal 1
Ride Cymbal 2
Ride Cymbal Cup
Hi-Hat Open 2
Hi-Hat Closed 2
Hi-Hat Pedal 2
SNARE DRUM
Snare Ambient
Snare Tight 2
Snare Electro
Snare Roll
Stick Ambient
Snare Pitched
Brush Tap
Brush Slap
Brush Swirl
Brush Tap Swirl
TOM
Hybrid Tom 1
Hybrid Tom 2

Hybrid Tom 3
Hybrid Tom 4
Hybrid Tom 5
Hybrid Tom 6
BASS DRUM
Kick Tight H
Kick Wet
Kick Tight L
PERCUSSION 1
Conga H Open
Conga L
Conga H Mute
Bongo H
Bongo L
Timbale H
Timbale L
Cowbell
Claves
Guiro Long
Guiro Short
Maracas
Vibraslap
PERCUSSION 2
Surdo Mute
Surdo Open
Cuica Mute
Cuica Open
Cabasa
Shaker
Agogo H
Agogo L
Samba Whistle H
Samba Whistle L
PERCUSSION 3
Tambourine Light
Castanet
Jingle Bells
Bell Tree
Triangle Open
Triangle Mute
Wood Block H
Wood Block L
Sticks
Whip Slap
Finger Snap
Hand Clap
PERCUSSION 4
Hi Q
Click Noise
Scratch H
Scratch L
Seq Click L
Seq Click H
Metronome Click
Metronome Bell

Room Kit
CYMBAL
Crash Cymbal 1
Crash Cymbal 2
Splash Cymbal
Chinese Cymbal
Ride Cymbal 1
Ride Cymbal 2
Ride Cymbal Cup
Hi-Hat Open
Hi-Hat Closed
Hi-Hat Pedal
SNARE DRUM
Snare Snappy
Snare Tight Snap
Snare Soft
Snare Roll
Side Stick
Open Rim Shot
Brush Tap
Brush Slap
Brush Swirl
Brush Tap Swirl
TOM
Tom Room 1
Tom Room 2
Tom Room 3
Tom Room 4
Tom Room 5

Tom Room 6
BASS DRUM
Kick
Kick Tight
Kick Soft
PERCUSSION 1
Conga H Open
Conga L
Conga H Mute
Bongo H
Bongo L
Timbale H
Timbale L
Cowbell
Claves
Guiro Long
Guiro Short
Maracas
Vibraslap
PERCUSSION 2
Surdo Mute
Surdo Open
Cuica Mute
Cuica Open
Cabasa
Shaker
Agogo H
Agogo L
Samba Whistle H
Samba Whistle L
PERCUSSION 3
Tambourine
Castanet
Jingle Bells
Bell Tree
Triangle Open
Triangle Mute
Wood Block H
Wood Block L
Sticks
Whip Slap
Finger Snap
Hand Clap
PERCUSSION 4
Hi Q
Click Noise
Scratch H
Scratch L
Seq Click L
Seq Click H
Metronome Click
Metronome Bell

Rock Kit
CYMBAL
Crash Cymbal 1
Crash Cymbal 2
Splash Cymbal
Chinese Cymbal
Ride Cymbal 1
Ride Cymbal 2
Ride Cymbal Cup
Hi-Hat Open
Hi-Hat Closed
Hi-Hat Pedal
SNARE DRUM
Snare Rock
Snare Rock Tight
Snare Noisy
Snare Roll
Side Stick
Open Rim Shot
Brush Tap
Brush Slap
Brush Swirl
Brush Tap Swirl
TOM
Tom Rock 1
Tom Rock 2
Tom Rock 3
Tom Rock 4
Tom Rock 5
Tom Rock 6
BASS DRUM
Kick Gate

Kick 2
Kick Soft
PERCUSSION 1
Conga H Open
Conga L
Conga H Mute
Bongo H
Bongo L
Timbale H
Timbale L
Cowbell
Claves
Guiro Long
Guiro Short
Maracas
Vibraslap
PERCUSSION 2
Surdo Mute
Surdo Open
Cuica Mute
Cuica Open
Cabasa
Shaker
Agogo H
Agogo L
Samba Whistle H
Samba Whistle L
PERCUSSION 3
Tambourine
Castanet
Jingle Bells
Bell Tree
Triangle Open
Triangle Mute
Wood Block H
Wood Block L
Sticks
Whip Slap
Finger Snap
Hand Clap
PERCUSSION 4
Hi Q
Click Noise
Scratch H
Scratch L
Seq Click L
Seq Click H
Metronome Click
Metronome Bell

Electro Kit
CYMBAL
Crash Cymbal 1
Crash Cymbal 2
Splash Cymbal
Chinese Cymbal
Ride Cymbal 1
Ride Cymbal 2
Ride Cymbal Cup
Hi-Hat Open
Hi-Hat Closed
Hi-Hat Pedal
SNARE DRUM
Snare Noisy 2
Snare Noisy 3
Snare Snap Elec
Snare Roll
Side Stick
Open Rim Shot
Brush Tap
Brush Slap
Brush Swirl
Reverse Cymbal
TOM
Tom Electro 1
Tom Electro 2
Tom Electro 3
Tom Electro 4
Tom Electro 5
Tom Electro 6
BASS DRUM
Kick Gate Heavy
Kick Gate
Kick 3

PERCUSSION 1
Conga H Open
Conga L
Conga H Mute
Bongo H
Bongo L
Timbale H
Timbale L
Cowbell
Claves
Guiro Long
Guiro Short
Maracas
Vibraslap
PERCUSSION 2
Surdo Mute
Surdo Open
Scratch H 2
Scratch L 2
Cabasa
Shaker
Agogo H
Agogo L
Samba Whistle H
Samba Whistle L
PERCUSSION 3
Tambourine
Hi Q 2
Jingle Bells
Bell Tree
Triangle Open
Triangle Mute
Wood Block H
Wood Block L
Sticks
Whip Slap
Finger Snap
Hand Clap
PERCUSSION 4
Hi Q
Click Noise
Scratch H
Scratch L
Seq Click L
Seq Click H
Metronome Click
Metronome Bell

Analog Kit
CYMBAL
Crash Analog
Crash Cymbal 2
Splash Cymbal
Chinese Cymbal
Ride Cymbal 1
Ride Cymbal 2
Ride Cymbal Cup
Hat Open Analog
Hat Close Analog
Hat Close Anlg 2
SNARE DRUM
Snare Analog
Snare Analog 2
Snare Noisy 4
Snare Roll
Side Stick Anlg
Open Rim Shot
Brush Tap
Brush Slap
Brush Swirl
Reverse Cymbal
TOM
Tom Analog 1
Tom Analog 2
Tom Analog 3
Tom Analog 4
Tom Analog 5
Tom Analog 6
BASS DRUM
Kick Analog
Kick Anlg Short
Kick 3
PERCUSSION 1
Conga Analog M
Conga Analog L

Conga Analog H
Bongo H
Bongo L
Timbale H
Timbale L
Cowbell Analog
Claves 2
Guiro Long
Guiro Short
Maracas 2
Vibraslap
PERCUSSION 2
Surdo Mute
Surdo Open
Scratch H 2
Scratch L 2
Cabasa
Shaker
Agogo H
Agogo L
Samba Whistle H
Samba Whistle L
PERCUSSION 3
Tambourine
Hi Q 2
Jingle Bells
Bell Tree
Triangle Open
Triangle Mute
Wood Block H
Wood Block L
Sticks
Whip Slap
Finger Snap
Hand Clap
PERCUSSION 4
Hi Q
Click Noise
Scratch H
Scratch L
Seq Click L
Seq Click H
Metronome Click
Metronome Bell

Dance Kit
CYMBAL
Crash Analog
Crash Cymbal 2
Splash Cymbal
Chinese Cymbal
Ride Cymbal 1
Ride Analog
Ride Cymbal Cup
Hi-Hat Open 3
Hi-Hat Closed 3
Hat Close Anlg 3
SNARE DRUM
Snare Clap
Snare Dry
Snare Techno
Reverse Dance 2
Side Stick Anlg
Rim Gate
Snare Analog 3
Snare Analog 4
Vinyl Noise
Reverse Cymbal
TOM
Tom Dance 1
Tom Dance 2
Tom Dance 3
Tom Dance 4
Tom Dance 5
Tom Dance 6
BASS DRUM
Kick Techno
Kick Techno L
Kick Techno Q
PERCUSSION 1
Conga Analog M
Conga Analog L
Conga Analog H
Bongo Analog H
Bongo Analog L

Timbale H
Timbale L
Cowbell Dance
Claves 2
Guiro Long
Guiro Short
Maracas 2
Vibraslap Analog
PERCUSSION 2
Kick Dance 1
Kick Dance 2
Dance Breath 1
Dance Breath 2
Cabasa
Shaker
Agogo H
Agogo L
Samba Whistle H
Samba Whistle L
PERCUSSION 3
Tambourine Anlg
Hi Q 2
Jingle Bells
Bell Tree
Triangle Open
Triangle Mute
Dance Perc 3
Dance Perc 4
Snare Dance 1
Whip Slap
Finger Snap
Dance Clap
PERCUSSION 4
Hi Q
Click Noise
Scratch Dance 1
Scratch Dance 2
Dance Perc 2
Hi Q Dance 1
Dance Perc 1
Reverse Dance 1

Jazz Kit
CYMBAL
Crash Cymbal 1
Crash Cymbal 2
Splash Cymbal
Chinese Cymbal
Ride Cymbal 1
Ride Cymbal 2
Ride Cymbal Cup
Hi-Hat Open
Hi-Hat Closed
Hi-Hat Pedal
SNARE DRUM
Snare Jazz L
Snare Jazz M
Snare Jazz H
Snare Roll
Side Stick Light
Open Rim Shot
Brush Tap
Brush Slap
Brush Swirl
Brush Tap Swirl
TOM
Floor Tom L
Floor Tom H
Low Tom
Mid Tom L
Mid Tom H
High Tom
BASS DRUM
Kick Jazz
Kick Tight
Kick Soft
PERCUSSION 1
Conga H Open
Conga L
Conga H Mute
Bongo H
Bongo L
Timbale H
Timbale L
Cowbell

Claves
Guiro Long
Guiro Short
Maracas
Vibraslap
PERCUSSION 2
Surdo Mute
Surdo Open
Cuica Mute
Cuica Open
Cabasa
Shaker
Agogo H
Agogo L
Samba Whistle H
Samba Whistle L
PERCUSSION 3
Tambourine
Castanet
Jingle Bells
Bell Tree
Triangle Open
Triangle Mute
Wood Block H
Wood Block L
Sticks
Whip Slap
Finger Snap
Hand Clap
PERCUSSION 4
Hi Q
Click Noise
Scratch H
Scratch L
Seq Click L
Seq Click H
Metronome Click
Metronome Bell

Brush Kit
CYMBAL
Crash Cymbal 1
Crash Cymbal 2
Splash Cymbal
Chinese Cymbal
Ride Cymbal 1
Ride Cymbal 2
Ride Cymbal Cup
Hi-Hat Open
Hi-Hat Closed
Hi-Hat Pedal
SNARE DRUM
Brush Slap 3
Brush Tap 2
Brush Slap 2
Snare Roll
Side Stick Light
Open Rim Shot
Brush Tap
Brush Slap
Brush Swirl
Brush Tap Swirl
TOM
Tom Brush 1
Tom Brush 2
Tom Brush 3
Tom Brush 4
Tom Brush 5
Tom Brush 6
BASS DRUM
Kick Jazz
Kick Tight
Kick Soft
PERCUSSION 1
Conga H Open
Conga L
Conga H Mute
Bongo H
Bongo L
Timbale H
Timbale L
Cowbell
Claves
Guiro Long
Guiro Short

Maracas
Vibraslap
PERCUSSION 2
Surdo Mute
Surdo Open
Cuica Mute
Cuica Open
Cabasa
Shaker
Agogo H
Agogo L
Samba Whistle H
Samba Whistle L
PERCUSSION 3
Tambourine
Castanet
Jingle Bells
Bell Tree
Triangle Open
Triangle Mute
Wood Block H
Wood Block L
Sticks
Whip Slap
Finger Snap
Hand Clap
PERCUSSION 4
Hi Q
Click Noise
Scratch H
Scratch L
Seq Click L
Seq Click H
Metronome Click
Metronome Bell

Symphony Kit
CYMBAL
Hand Cymbal
Hand Cymbal 2
Splash Cymbal
Chinese Cymbal
Hand Cymbal S
Hand Cymbal 2 S
Ride Cymbal Cup
Hi-Hat Open
Hi-Hat Closed
Hi-Hat Pedal
SNARE DRUM
Band Snare
Band Snare 2
Snare Soft
Snare Roll
Side Stick
Open Rim Shot
Brush Tap
Brush Slap
Brush Swirl
Brush Tap Swirl
TOM
Floor Tom L
Floor Tom H
Low Tom
Mid Tom L
Mid Tom H
High Tom
BASS DRUM
Gran Cassa Mute
Gran Cassa
Kick Soft 2
PERCUSSION 1
Conga H Open
Conga L
Conga H Mute
Bongo H
Bongo L
Timbale H
Timbale L
Cowbell
Claves
Guiro Long
Guiro Short
Maracas
Vibraslap

PERCUSSION 2
Surdo Mute
Surdo Open
Cuica Mute
Cuica Open
Cabasa
Shaker
Agogo H
Agogo L
Samba Whistle H
Samba Whistle L
PERCUSSION 3
Tambourine
Castanet
Jingle Bells
Bell Tree
Triangle Open
Triangle Mute
Wood Block H
Wood Block L
Sticks
Whip Slap
Finger Snap
Hand Clap
PERCUSSION 4
Hi Q
Click Noise
Scratch H
Scratch L
Seq Click L
Seq Click H
Metronome Click
Metronome Bell

SFX Kit 1
SFX
Cutting Noise 1
Cutting Noise 2
String Slap
Flute Key Click
Shower
Thunder
Wind
Stream
Bubble
Feed
Ghost
Maou
Dog
Horse
Bird Tweet

SFX Kit 2
SFX 1
Phone Call
Telephone Ring
Wind Chime
Door Squeak
Door Slam
Scratch Cut
Scratch H 3
Laugh
Scream
Punch
Heart Beat
Foot Steps
SFX 2
CarEngnIgnition
Car Tires Squeal
Car Passing
Car Crash
Siren
Train
Jet Plane
Starship
Burst
Roller Coaster
Submarine
Machine Gun
Laser Gun
Explosion
Firework

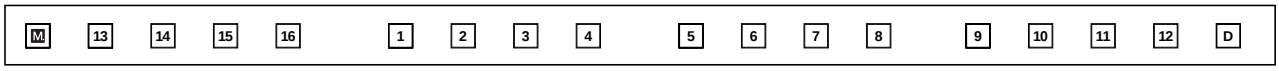
Arabic Kit
ARABIC 1
Nakarazan Dom
Nakarazan Edge
Hager Dom
Hager Edge
Zagrouda H
Zagrouda L
Arabic Hand Clap
Duhulla Dom
Duhulla Tak
Duhulla Sak
Doff Dom
Doff Tak
ARABIC 2
Katem Dom
Katem Tak
Katem Sak
Tabla Dom
Tabla Tak 1
Tabla Tak 2
Tabla Sak
Tabla Tik
Tabla Roll Edge
Tabla Flam
Tabel Dom
Tabel Tak
ARABIC 3
Sagat 1
Sagat 2
Sagat 3
Rik Dom
Rik Tak 1
Rik Tak 2
Rik Sak
Rik Tik
Rik Finger 1
Rik Finger 2
Rik BrassTremolo
CYMBAL/SNARE DRUM
Crash Cymbal 1
Crash Cymbal 2
Ride Cymbal 1
Hi-Hat Open
Hi-Hat Closed
Hi-Hat Pedal
Snare Drum
Snare Soft
Side Stick
TOM/BASS DRUM
Floor Tom L
Floor Tom H
Low Tom
Mid Tom L
Mid Tom H
High Tom
Kick Soft
PERCUSSION
Conga H Open
Conga L
Conga H Mute
Bongo H
Bongo L
Cowbell
Claves
Cabasa
Tambourine

Pop Latin Kit
CONGA
Conga H Tip
Conga H Heel
Conga H Open
Conga H Mute
Conga H SlapOpen
Conga H Slap
Conga H SlapMute
Conga L Tip
Conga L Heel
Conga L Open
Conga L Mute
Conga L SlapOpen
Conga L Slap
Conga L Slide

BONGO
Bongo H Open 1 f
Bongo H Open 3 f
Bongo H Rim
Bongo H Tip
Bongo H Heel
Bongo H Slap
Bongo L Open 1 f
Bongo L Open 3 f
Bongo L Rim
Bongo L Tip
Bongo L Heel
Bongo L Slap
PERCUSSION 1
Timbale H Open
Timbale L Open
Paila H
Paila L
Cowbell Top
Tambourine
Guiro Long
Guiro Short
Maracas
Cuica Open
Cuica Mute
Cabasa
Shaker
PERCUSSION 2
Triangle Open
Triangle Mute
Wind Chime
Hand Clap

6 Registration Memory

Registration Memory allows you to store virtually all the settings you make on the panel and LCD, providing a convenient way to instantly change all Voice settings and rhythms while you're playing, with the simple touch of a single button on the Registration Memory panel. The buttons are conveniently located between the Upper and Lower keyboards for easy access while playing. Moreover, you can also recall the settings using the right footswitch. All Registrations in Registration Memory can also be saved to a SmartMedia card.



Various types of basic Registrations have been programmed to the numbered Registration Memory buttons, 1 – 16. When you record your own Registration settings to a numbered button, the preset Registration for that button will be overwritten and erased as a result. When you initialize the Registration Memory (page 84), the preset settings will be recalled and your own Registration setting(s) will be erased and replaced with the factory defaults.

Contents

1 Storing Registrations

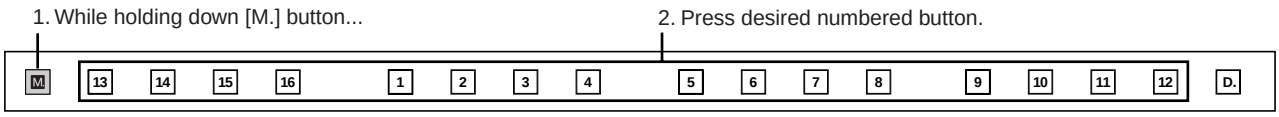
Newly created Registrations you make can be stored to the Registration Memory panel buttons. All Registrations in Registration Memory can also be saved to a SmartMedia card for future recall.

Reference Pages

Selecting a Voice (page 23)
Selecting a Rhythm (page 51)
Voice Controls and Effects (page 38)

1 Create your original Registration.

2 While holding down the [M.] (Memory) button in the Registration Memory section, press the numbered button to which you wish to save your Registration.



When the Registration is stored, the numbered button flashes momentarily.

When recording Registration settings, the square at the top left of the display turns light blue for a few seconds, indicating that the Registration is currently being saved. Do not turn the power off while the Registration is being saved.

Functions and settings that cannot be memorized:

The following settings cannot be stored to a Registration Memory number.
- Pitch (page 187)
- MIDI Control settings (page 213)
- Mic. Volume (page 206)
- Mic. Reverb (page 206)
- LCD related settings (page 15)
- Internet Direct Connection settings (page 196)

The following settings common to all Registration Memory numbers 1 – 16 and cannot be stored individually for each number.
- Transpose (page 187)
- Attack mode in Organ Flute Voices (page 36)
- Registration Shift (page 84)
- Auto Fill setting (page 54)
- Reverb type (page 44)
- User Voices (page 137)
- User rhythms (page 163)
- User Keyboard Percussion (page 70)
- Rhythm Sequences (page 170)
- Disable setting (page 82)

Reference Page

Saving Registrations as Registration Data (File) (page 107)

2 Selecting Registrations

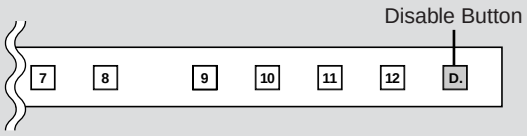
Simply press the numbered button that corresponds to the Registration you wish to select.

- You can also recall Registrations by using the right footswitch. This function is called "Registration Shift" (page 84).

- You can also program the Registrations to change automatically at specific points within the Rhythm Sequence. This function is called "Registration Sequence" (page 175).

Using the [D.] (Disable) button:

Rhythm and automatic accompaniment patterns also change when you select different Registration Memory buttons. Pressing the [D.] (Disable) button allows you to keep the same rhythm, accompaniment patterns, tempo, and so on throughout all your Registration changes, or make your own rhythm selections if you want to.



When the [D.] button is on, the following functions will not change, even when you change the Registration Memory number.

- Rhythm menu, Rhythm section, Rhythm tempo, Rhythm volume, Rhythm reverb
- Rhythm reverb time
- Accompaniment volume, Accompaniment reverb, On/Off status of Accompaniment parts
- A.B.C. mode, A.B.C. memory
- M.O.C. mode, Knee lever control for M.O.C.
- Second expression pedal control for rhythm tempo

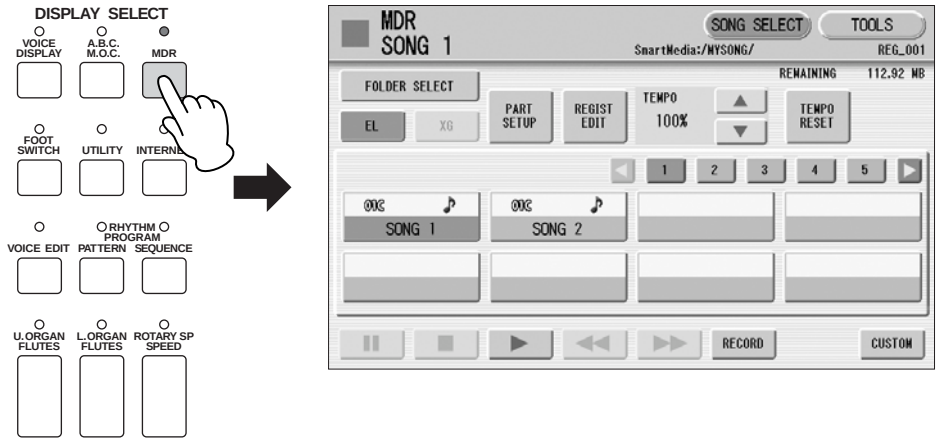
3 Saving the Registration data to SmartMedia card

You can save your Registration Memory settings to an external storage device, such as SmartMedia cards, with sixteen Registrations comprising a single file.
The instructions below explain how to save the Registration data to a SmartMedia card. For details about using other external storage devices, see chapter 7, Music Data Recorder (M.D.R.).

Reference Page
Saving Registrations as Registration Data (File); (page 107)

1 Insert a SmartMedia into the card slot on the left side of the Electone.

2 Press the [MDR] button on the panel to call up the M.D.R. display.



3 Select the song to which you want to save the Registration data (page 96).

4 Press [REGIST EDIT] button in the display to call up the Registration Edit display.

5 Press the [SAVE] button in the display.
A message appears, indicating the Registration data is currently being saved. When the operation is completed, the message closes.

Reference Page
Recalling Recorded Registrations (page 111)

Reference Page
Changing the Song Name (page 104)

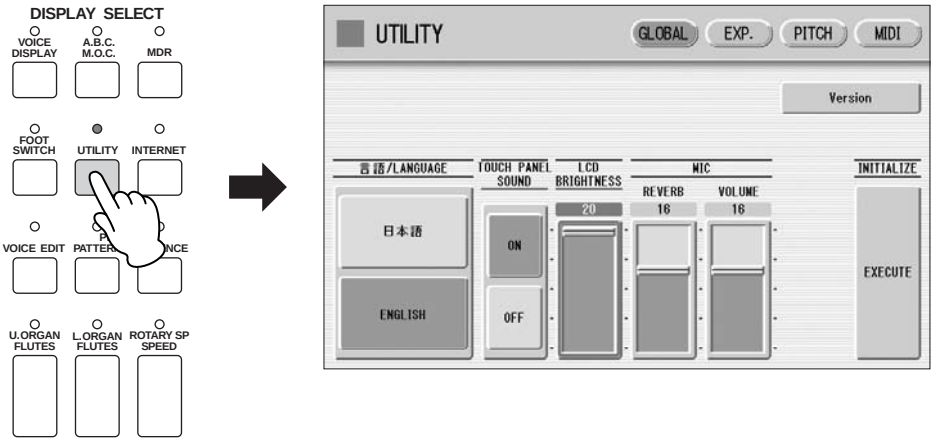
4 Initializing Registration Memory

Reference Page

Factory Set (Initializing the Electone); (page 21)

Deleting all Registration data in Registration Memory initializes the Registration Memory. Be careful when using this operation, since it erases all your existing data. In order to avoid inadvertently losing your important data, save it to an external storage device.

1 Press the [UTILITY] button on the panel to call up the GLOBAL Page in the Utility display.



2 Press the INITIALIZE [EXECUTE] button on the right side in the display.

The message “Are you sure you want to initialize Registration data?” appears. Press [INITIALIZE] to actually initialize the data. When the operation is complete, the Electone will be restarted.
Press [CANCEL] to cancel the operation.

5 Registration Shift

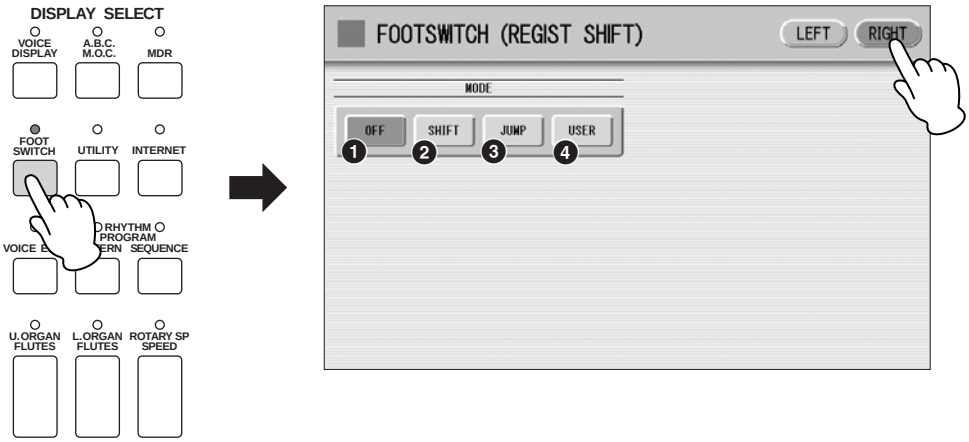
The Registration Shift function allows you to change Registrations without taking your hands from the keyboards. By using the Right Footswitch on the expression pedal, you can “jump” to a specified Registration or step through the panel Registrations in sequence, either in numeric order or in any order you specify.
Registration Shift has three modes: Shift, Jump and User. These are set in the Regist Shift display. You can also view and check the Registration Shift mode in the Voice Display.

Setting the Registration Shift mode in the Regist Shift display

1 **Press the [FOOT SWITCH] button on the panel.**

2 **Press the [RIGHT] button at the top right of the display to call up the RIGHT Page (Regist Shift display).**

REGIST SHIFT Display



❶ OFF

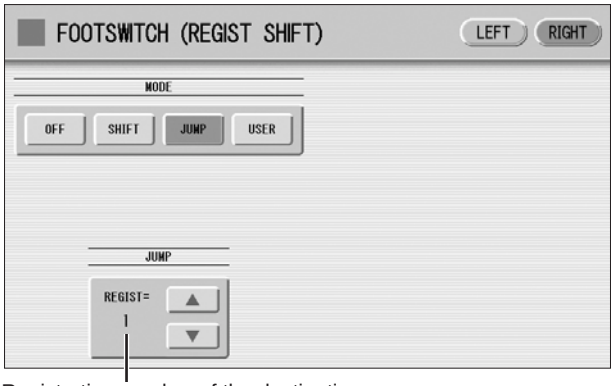
Turns off the Registration Shift assignment. When you select OFF, you cannot change Registrations by using the Right Footswitch.

❷ SHIFT

In the Shift mode, each press of the Right Footswitch selects the Registration Memory presets in their numerical order. After the last Registration is reached, the function 'wraps around' to select the first preset again. The numbered buttons light up as they are selected.

❸ JUMP

Pressing the Right Footswitch jumps to select the designated panel Registration. You can set the Jump "destination" with ▲ ▼ buttons in the display or the Data Control dial.



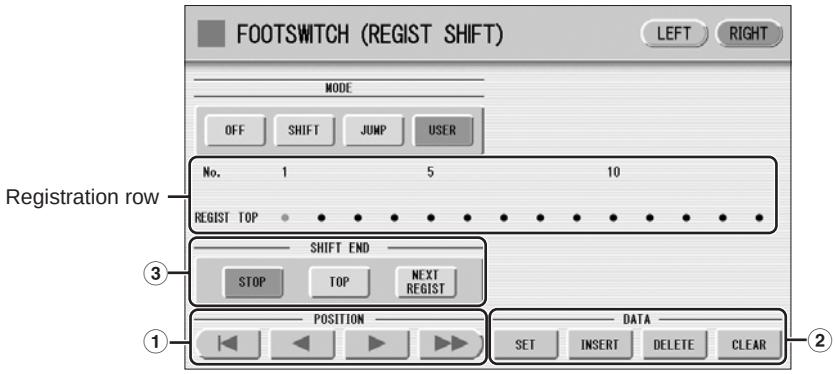
Registration number of the destination

❹ USER

In the User mode, each press of the Right Footswitch selects Registrations according to the order you've specified.

To set the User Registration order:

1. **Press the desired numbered button in the Registration Memory section.**
2. **Press the [SET] button in the display.**
   The Registration number appears in the display, indicating that the Registration is entered.
3. **Repeat the above procedure #1 through #2 to set the Registration order.**



① POSITION

These are cursor controls used to move the cursor (colored orange) along the Registration row in the display. Entered Registration numbers are shown in boxes, while the numbers in the row above indicate the position in the sequence (in other words, the number of successive presses of the Right Footswitch). Up to 80 steps (Registrations) can be memorized.

- Moves the cursor to the first position.
- Moves the cursor one step to the left.
- Moves the cursor one step to the right.
- Moves the cursor five steps to the right.

② DATA

These are data controls used to enter and delete Registration numbers in the Registration row.

SET: For initially entering a Registration number to a blank space in the Registration row, or for replacing a number at the current cursor position.
To enter a number, press the desired Registration Memory button (the selected button will light), then press [SET] in the display. The entered Registration number will appear in the Registration row. After using SET to enter Registrations, the cursor can be moved among the numbers.

INSERT: For inserting a Registration number just before the current cursor position.
To perform the operation, first move the cursor to a numbered position. Then, press the desired Registration Memory button (the selected button will light), and press [INSERT] in the display. The new Registration number is inserted at the cursor position and all other numbers to the right of the cursor are moved to accommodate the new numbers.
Registration numbers cannot be entered beyond the Registration Shift function's capacity of 80. If the insert operation exceeds this capacity, a "Data Full" message appears and the operation cannot be executed.

DELETE: For deleting a Registration number at the current cursor position. To delete the unnecessary number, move the cursor to a numbered position and press [DELETE] in the display.

CLEAR: For erasing all current user Registration Shift settings.
After selecting [CLEAR], a message appears prompting confirmation of the operation.

Select [CLEAR] to clear all data. The message "Clear all data" momentarily appears in the display and returns to the previous display.
Select [CANCEL] to abort the operation.

③ SHIFT END

Determines how to end the Registration shift function.

STOP: Selects the last Registration and quits the operation.

TOP: After the last preset is reached, the first preset is called up again, starting the sequence over again from the beginning.

NEXT REGIST: After the last preset is reached, the next Registration data in the Song is called up. This function is available only when two or more Registration data sets are saved in one Song. This function is handy when you need to play a song with more than sixteen Registrations.

The Shift End mark ( ) will automatically be put at the end of the Registrations you entered when Top or Next Regist is selected as the Shift End.

Reference Page

Saving Two or More Registration Banks to One Song (page 107)

NOTE

When you play the song using Next Regist. function, always press the [▶] (Play) button in the M.D.R. display to start the song and activate these functions.
The [CUSTOM] (Custom Play) button will not activate the Next Regist. function.

NOTE

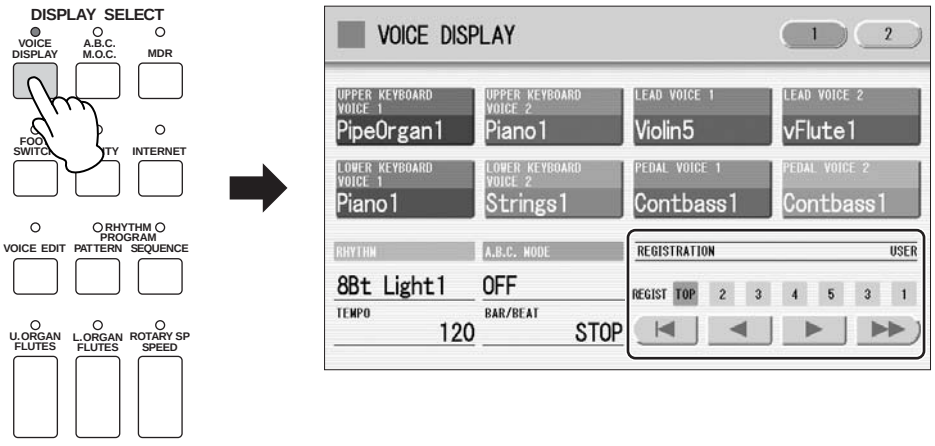
If the next Registration data contains User voices and/or VA custom voices, the Electone may produce no sound for a few seconds while loading the Registration.

Confirming the Registration Shift setting in the Voice Display

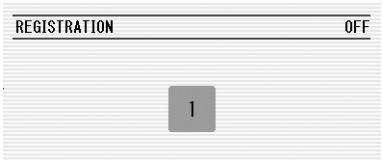
You can confirm the Registration Shift mode in the Voice Display, Page 1.

Press the [VOICE DISPLAY] button on the panel to call up the Voice Display.

The Registration Shift mode is shown at the bottom right of the display.

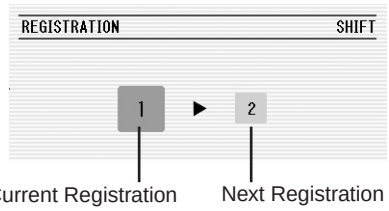


Registration Shift, OFF:



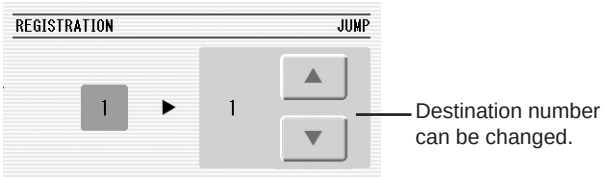
The current Registration number is displayed.

Registration Shift, in “SHIFT” mode:



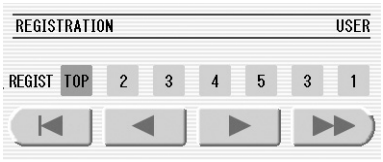
The current Registration number (left) and the next number (right) are displayed.

Registration Shift, in “JUMP” mode:



The current Registration number (left) and the destination number (right) will be displayed. You can change the destination number even in the middle of the performance by using the buttons in the display or the Data Control dial.

Registration Shift, in “USER” mode:



Indicates the current position of the Registration Shift. You can change the Registration by moving the cursor (in orange) right/left, using the displayed buttons or the Data Control dial. This is handy if you’ve inadvertently advanced the shift setting in the middle of your performance. The user Registration settings cannot be edited here.

- Moves the cursor to the first position.
- Moves the cursor one step to the left and selects the next Registration.
- Moves the cursor one step to the right and selects the previous Registration.
- Moves the cursor five step to the right and selects the Registration.

6 Unifying a specific parameter

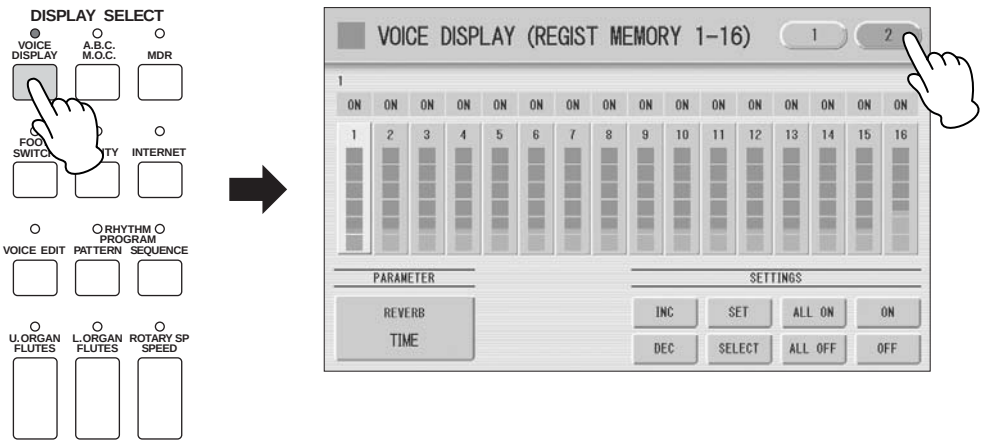
In the Voice Display, Page 2, you can conveniently "unify" a specific parameter used in different Voice groups at one time. This is useful when you are changing, for example, the Voice Brilliance setting for the Upper Keyboard and want the same setting to be applied to the entire instrument.

Available parameters

- Reverb
- Panning
- Rhythm Reverb
- Brilliance
- Volume
- Sustain

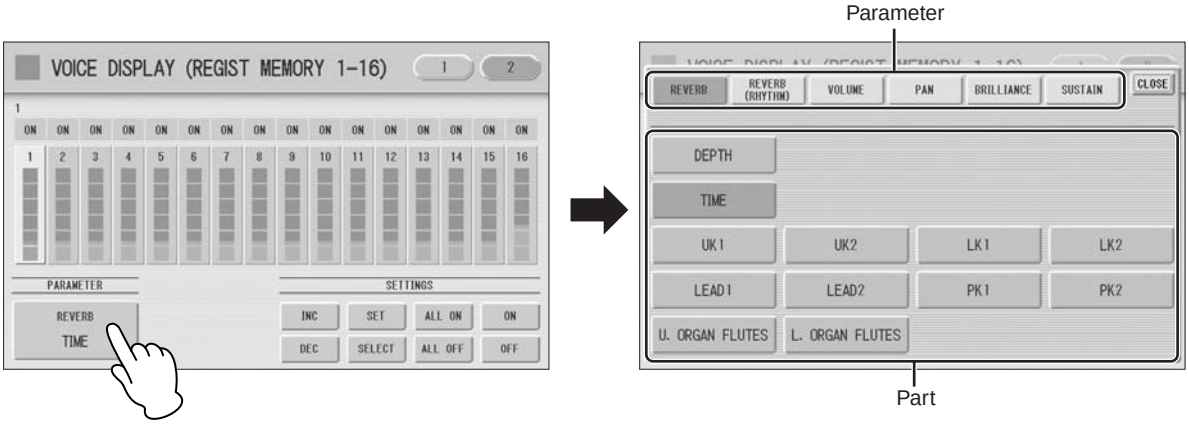
1 Press the [VOICE DISPLAY] button on the panel.

2 Press the [2] button at the top right of the display to select Page 2.



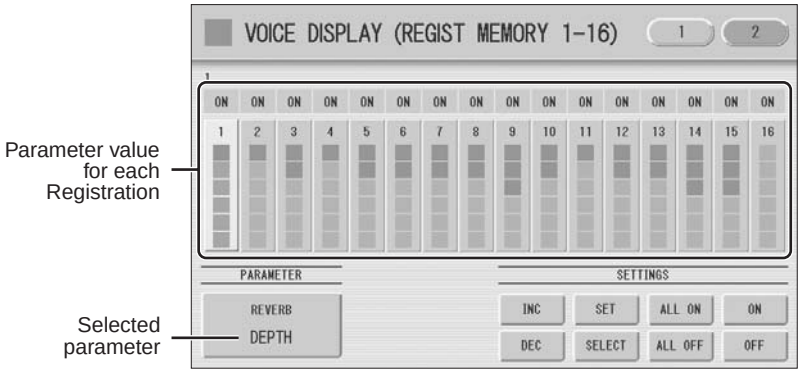
3 Press the PARAMETER button (indicates the currently selected parameter) in the display to select the desired parameter for changing.

The Parameter Select pop-up menu appears, letting you select the desired parameter.

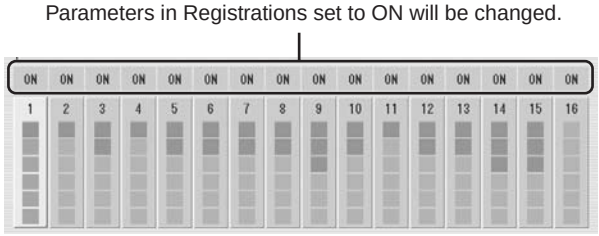


Select the parameter and part in the Parameter Select pop-up menu. After selecting the desired parameter, the pop-up menu automatically closes.

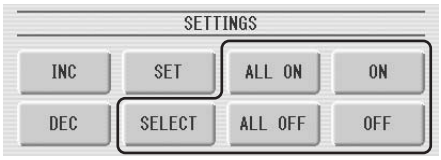
The amount of the selected parameter for each Registration is shown in the display.



4 Select the targeted Registration numbers and turn them on.



Press the targeted Registration in the display and turn it on with the SETTINGS buttons: ALL ON, ALL OFF, ON, OFF, and SELECT.



ALL ON: Selects all Registration memory numbers.

ALL OFF: Cancels all Registration memory numbers.

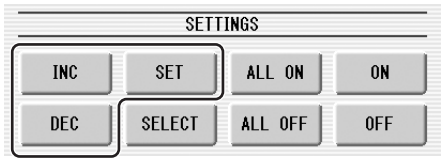
ON: Sets the currently selected Registration memory number to "ON."

OFF: Sets the currently selected Registration memory number to "OFF."

SELECT: Turns on the Registration memory numbers that contain the same Voice as the one which is currently set in the Registration at the cursor position. The targeted Registration numbers are underlined.

5 Unifies the currently turned-on parameter's values.

You unify the relevant parameter values in each Registration memory number or offset them. Keep in mind that you cannot restore the original data once you change the parameter's value.



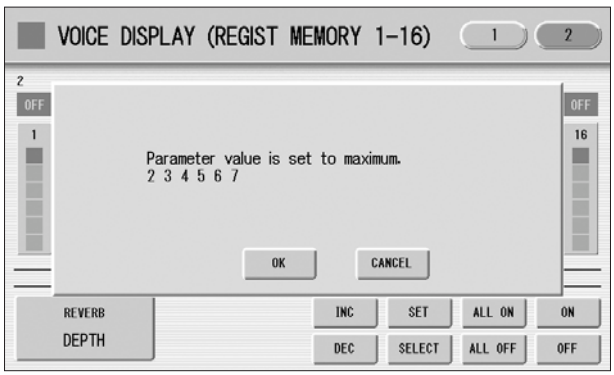
Unifying the currently turned-on parameter's value:

Pressing [SET] unifies the currently turned-on parameter's values to the one in the currently selected Registration (at the cursor position). A message appears prompting you to confirm the operation.

To continue the operation, select [UNIFY]. Select [CANCEL] to abort the operation.

Offsetting the currently turned-on parameter's value.

Pressing the [+]/[-] buttons in the display or using the Data Control dial offsets the currently turned-on parameter's value. If you select Pan as the parameter, [◄]/[►] buttons are shown instead of [+]/[-].
If you change the value, and if parameter values for some Registration memory number reach the maximum or minimum, the following message appears.



In this case, pressing [OK] continues the operation, ignoring those parameters at maximum or minimum value. Pressing [CANCEL] aborts the operation.

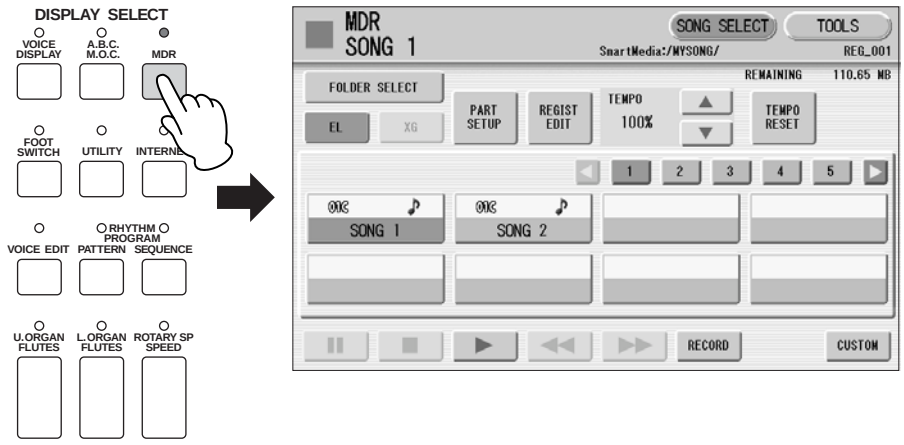
7 Music Data Recorder (MDR)

The Music Data Recorder (M.D.R.) is a sophisticated recording system built into the Electone that lets you record your performances and Registration settings to a SmartMedia card or other external media. If you install the optional floppy disk drive, the UD-FD01 to the ELS-01, you can record your performances/settings to floppy disks instead of SmartMedia cards. (The ELS-01C has a built-in floppy disk drive.)

Contents

1 Calling Up the M.D.R. Display

Press the [MDR] button in the panel to call up the M.D.R. display. All operations related to the M.D.R., such as recording and playing your performances, can be done in the M.D.R. display.



The M.D.R. display consists of two display pages: the SONG SELECT Page and the TOOLS Page. In the SONG SELECT Page, you can select the song that you want to playback, or to which you want to record your performance, then playback or record. The TOOLS Page has a variety of song utility operations, such as copy, delete, rename, etc.

Pressing any button other than the [MDR] button while the M.D.R. display is open exits from the M.D.R. display. If you exit from the function inadvertently, simply press the [MDR] button again to recall the M.D.R. display.

All the instructions in this chapter are related to the M.D.R. display. To call up the M.D.R. functions and the M.D.R. display, press the [MDR] button.

Handling SmartMedia™* memory cards

*SmartMedia is a trademark of Toshiba Corporation.

This instrument features a built-in SmartMedia card slot. It lets you save original data you've created on the instrument to a SmartMedia card, and allows you to load data from a card to the instrument. Be sure to handle SmartMedia cards with care. Follow the important precautions below.

■Compatible SmartMedia types

- 3.3V (3V) SmartMedia can be used. 5V type SmartMedia is not compatible with this instrument.
- SmartMedia cards of seven different memory capacities of (2MB, 4MB, 8MB, 16MB, 32MB, 64MB, and 128MB) can be used with the instrument. SmartMedia cards greater than 32MB can be used if they conform to the SSFDC Forum standard.

NOTE

SSFDC is an abbreviation for Solid State Floppy Disk Card (another name for SmartMedia cards). The SSFDC Forum is a voluntary organization established for the promotion of SmartMedia.

■Formatting SmartMedia cards

- If you find that you are unable to use new, blank SmartMedia cards or cards that have been used with other devices, you may need to format them. For details on how to format a SmartMedia card, see page 95. Keep in mind that all data on the card will be lost after formatting. Make sure to check beforehand whether or not the card contains important data.

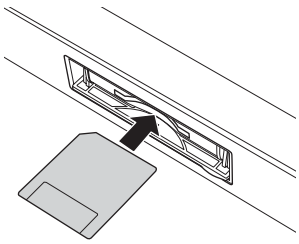
NOTE

SmartMedia cards formatted on this device may or may not be useable as is on other devices.

■Inserting/removing SmartMedia cards

●Inserting SmartMedia cards

- Insert the SmartMedia card with the terminal (gold-plated) side face down into the card slot, until it clicks into place.
- Do not insert the SmartMedia card in the wrong direction.
- Do not insert anything other than a SmartMedia card in the slot.



●Removing SmartMedia cards

- After making sure that the instrument is not accessing* the SmartMedia card, insert the card until it clicks into place and release it. When the SmartMedia card is ejected, pull it out of the drive. If the card cannot be removed because it is stuck, do not try to force it, but instead try re-inserting the card completely into the slot and attempt to eject it again.

* Accessing includes saving, loading, formatting, deleting and making directory. Also, be aware that the instrument will automatically access the SmartMedia to check the media type when it is inserted while the instrument is turned on.

Never attempt to remove the SmartMedia card or turn the power off during accessing. Doing so can damage the data on the instrument or card and possibly damage the SmartMedia card itself.

■About SmartMedia cards

●Handle SmartMedia cards with care, and follow these precautions:

- There are times when static electricity affects SmartMedia. Before you touch a SmartMedia card, touch something metallic such as a door knob and aluminum sash, to reduce the possibility of static electricity.
- Be sure to remove the SmartMedia card from the SmartMedia slot when it is not in use for a long time.
- Do not expose the SmartMedia to direct sunlight, extremely high or low temperatures, or excessive humidity, dust or liquids.
- Do not place heavy objects on a SmartMedia card or bend or apply pressure to the card in any way.
- Do not touch the gold-plated terminals of the SmartMedia card or put any metallic plate onto the terminals.
- Do not expose the SmartMedia card to magnetic fields, such as those produced by televisions, speakers, motors, etc., since magnetic fields can partially or completely erase data on the SmartMedia, rendering it unreadable.
- Do not attach anything other than the provided labels to a SmartMedia. Also make sure that labels are attached in the proper location.

●To protect your data (write-protect):

- To prevent inadvertent erasure of important data, affix the write-protect seal (provided in the SmartMedia package) onto the designated area (within the circle) of the SmartMedia card. Conversely, to save data on the SmartMedia card, make sure to remove the write-protect seal from the card.
- Do not reuse a seal that has been peeled off.

●Data Backup

- For maximum data security, Yamaha recommends that you keep two copies of important data on separate SmartMedia cards. This gives you a backup if one card is lost or damaged.

Handling the floppy disk drive (FDD) and floppy disks

If you have the ELS-01, install the optional UD-FD01 floppy disk drive to use floppy disks with the Electone. For information on how to install the UD-FD01, see page 216.

Be sure to handle floppy disks and treat the disk drive with care. Follow the important precautions below.

■Floppy disk compatibility

• 3.5" 2DD and 2HD type floppy disks can be used.

■Formatting a floppy disk

• If you find that you are unable to use new, blank disks or old disks that have been used with other devices, you may need to format them. For details on how to format a disk, see page 95. Keep in mind that all data on the disk will be lost after formatting. Make sure to check beforehand whether or not the disk contains important data.

NOTE

Floppy disks formatted on this device may or may not be useable as is on other devices.

■Inserting/removing Floppy Disks

●Inserting a floppy disk into the disk drive

• Hold the disk so that the label of the disk is facing upward and the sliding shutter is facing forward, towards the disk slot. Carefully insert the disk into the slot, slowly pushing it all the way in until it clicks into place and the eject button pops out.

NOTE

Never insert anything but floppy disks into the disk drive. Other objects may cause damage to the disk drive or floppy disks.

●Removing a floppy disk

• After checking that the instrument is not accessing* the floppy disk, firmly press the eject button at the upper right of the disk slot all the way in. When the floppy disk is ejected, pull it out of the drive. If the floppy disk cannot be removed because it is stuck, do not try to force it, but instead try pressing the eject button again, or try re-inserting the disk and attempt to eject it again.

* Access of the disk indicates an active operation, such as recording, playback, or deletion of data. If a floppy disk is inserted while the power is on, the disk is automatically accessed, since the instrument checks whether the disk has data.

Do not remove the floppy disk or turn off the instrument itself while the disk is being accessed. Doing so may result not only in loss of data on the disk but also damage to the floppy disk drive.

• Be sure to remove the floppy disk from the disk drive before turning off the power. A floppy disk left in the drive for extended periods can easily pick up dust and dirt that can cause data-read and -write errors.

■Cleaning the disk drive read/write head

• Clean the read/write head regularly. This instrument employs a precision magnetic read/write head which, after an extended period of use, will pick up a layer of magnetic particles from the disks used that will eventually cause read and write errors.

• To maintain the disk drive in optimum working order Yamaha recommends that you use a commercially-available dry-type head cleaning disk to clean the head about once a month. Ask your Yamaha dealer about the availability of proper headcleaning disks.

■About floppy disks

●Handle floppy disks with care, and follow these precautions:

• Do not place heavy objects on a disk or bend or apply pressure to the disk in any way. Always keep floppy disks in their protective cases when they are not in use.

• Do not expose the disk to direct sunlight, extremely high or low temperatures, or excessive humidity, dust or liquids.

• Do not open the sliding shutter and touch the exposed surface of the floppy disk inside.

• Do not expose the disk to magnetic fields, such as those produced by televisions, speakers, motors, etc., since magnetic fields can partially or completely erase data on the disk, rendering it unreadable.

• Never use a floppy disk with a deformed shutter or housing.

• Do not attach anything other than the provided labels to a floppy disk. Also make sure that labels are attached in the proper location.

●To protect your data (write-protect tab):

• To prevent accidental erasure of important data, slide the disk's write-protect tab to the “protect” position (tab open). When saving data, make sure that the disk's write-protect tab is set to the “overwrite” position (tab closed).

●Data backup

• For maximum data security Yamaha recommends that you keep two copies of important data on separate floppy disks. This gives you a backup if one disk is lost or damaged.

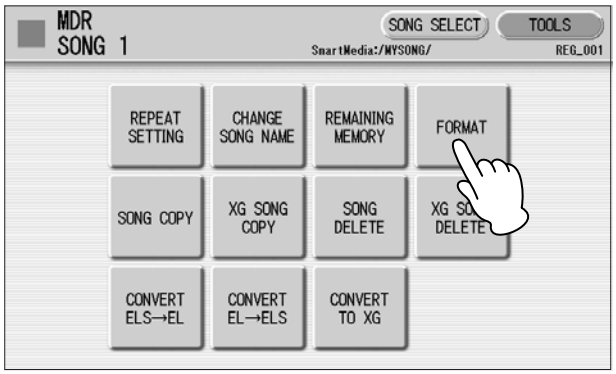
2 Formatting External Media

If you find that you are unable to use new, blank SmartMedia cards/floppy disks or old one that have been used with other devices, you may need to format them. Formatting erases all the data in the media and makes it ready to record. The data erased by formatting will be lost permanently. Check whether or not the media contains any important data you wish to keep before executing the operation.

1 Insert the media into the card slot/disk drive.

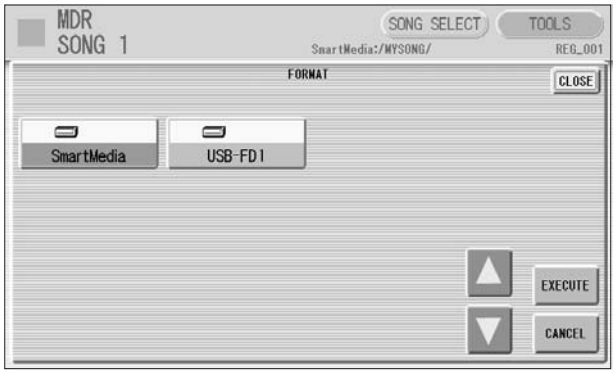
2 Press the [TOOLS] button at the top right of the display to call up the TOOLS Page.

3 Press the [FORMAT] button in the display.



4 Select the desired media you want to format.

To format a SmartMedia card, select [SmartMedia]. To format a floppy disk, select [USB-FD1].



NOTE

On the ELS-01, "USB-FD01" appears in the display only when a floppy disk drive (UD-FD01) has been installed to the Electone.

5 Press the [EXECUTE] button in the display.

A message appears, prompting confirmation of the operation. Select [OK] to format the media, or [CANCEL] to abort the operation.

Do not remove the media while formatting.

3 Selecting a Song

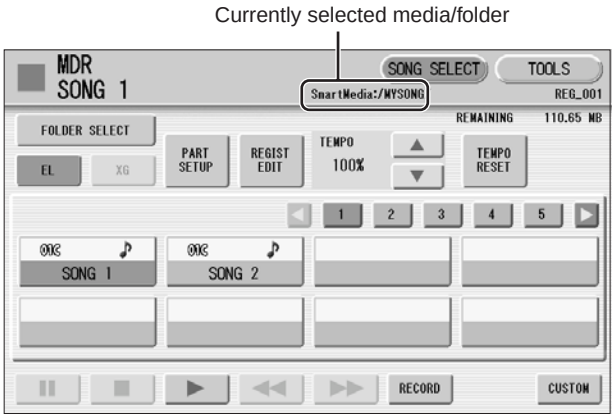
In the SONG SELECT Page, you can select a blank song to which you want to record your performance or save the Registration settings, or you can select a desired song for playback.

To select the desired song:

In the SONG SELECT Page, songs in the currently selected media are displayed. First call up the desired media (and folder, if necessary) in the display, then select the desired song.

1 Check the currently selected media at the top of the display.

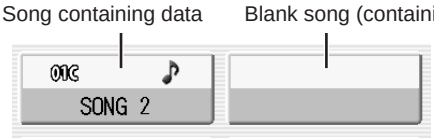
For example, if you want to select a song in the SmartMedia card, confirm that "SmartMedia:/" is displayed at the top of the display.



For information on selecting the desired media, see page 98.

2 Press desired song button in the display.

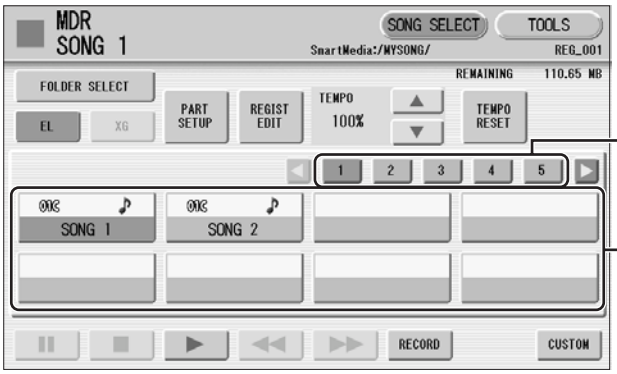
Referring to the song name and icons, select the desired song. The selected song button is highlighted in orange.



Reference Pages

Changing the Song Name (page 104)
Song Icons (page 99)

One display contains eight songs, Song 1 – Song 8. To change the display page and call up other songs, press the appropriate number buttons in the display. For example, pressing the [2] button calls up Song 9 –16, while the [3] button calls up Song 17 – 24, and so on.



When the [1] button is selected

1	2	3	4	5
Song 1	Song 2	Song 3	Song 4	
Song 5	Song 6	Song 7	Song 8	

When the [3] button is selected

1	2	3	4	5
Song 17	Song 18	Song 19	Song 20	
Song 21	Song 22	Song 23	Song 24	

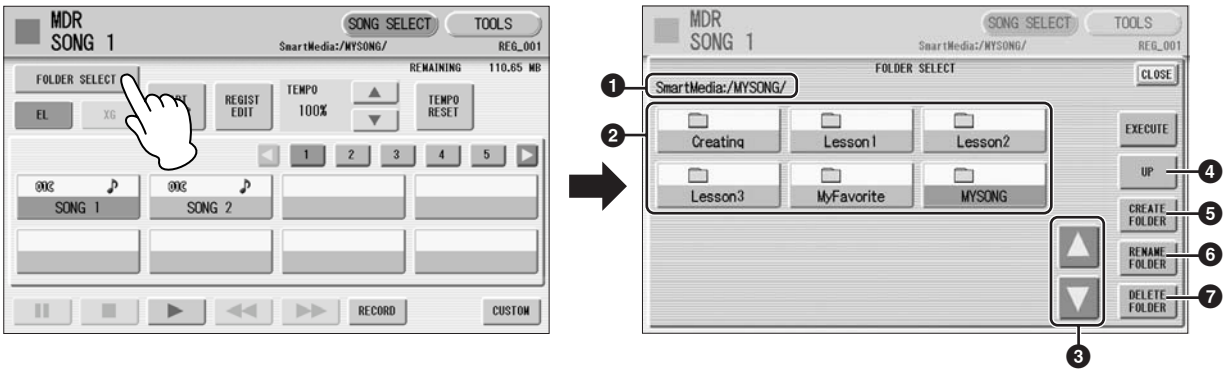
Song Part Information

Pressing the [PART SETUP] button calls up the Part Setup display of the currently selected song, letting you confirm which parts are played when playing the song.

When playing back the song (by pressing the [▶] button), only those parts that are set to "PLAY" in the Part Setup display actually play, while parts that are set to "OFF" are muted. (If the song contains no performance data, all parts are set to "OFF".) You can change the status for each part by changing the PLAY/OFF settings for each part and pressing the [SAVE] button in the display.

To change the media/folder:

1 Press the [FOLDER SELECT] button in the SONG SELECT Page to call up the Folder Select display.



❶ Current Media/Folder

Displays the currently selected media/folder. For example, if "SmartMedia:/Folder1/" is shown, the folder named "Folder1" in the SmartMedia card is selected.

❷ Media/Folder List

Displays the media or folders. Up to 120 folders can be displayed.

❸ Scroll Buttons

If the Media/Folder List contains many folders, more than can fit on the display, you can scroll the display with these buttons.

❹ UP

Selects the upper layer folder or media. For example, when "SmartMedia:/Folder1/" (Folder1 in the SmartMedia) is selected, pressing the [UP] button selects "SmartMedia:/".

❺ CREATE FOLDER

Creates a new folder in the Media/Folder List.
Up to 120 folders can exist in one media or within a single upper folder. Pressing this button calls up the New Folder display in which you can enter the desired name. Enter the name and press the [OK] button to create a new folder. The method for entering the folder name is the same as that of the song name. See page 104 for more information.

❻ RENAME FOLDER

Calls up the Rename Folder display. You can change the folder name of the currently selected folder in the Media/Folder List. See page 104 for more information.

❼ DELETE FOLDER

Deletes the folder that is selected in the Media/Folder List.

2 **Select the desired media and/or folder in the Media/Folder List.**
To call up the folder in the media in the display, press the selected media button in the Media/Folder List again.

3 **Press the [EXECUTE] button.**
To abort the operation, press the [CLOSE] button.

Song Icons

These icons are shown when you select a media, folder, and song.


Indicates media such as a SmartMedia card or floppy disk. This icon is displayed in the Media/Folder List.


Indicates a folder.


Indicates that write-protect or copy-protect is effective for the media.


Indicates a song that has been created with the ELS-01.


Indicates a song that has been created with the ELS-01C.


Indicates a song that has been created with an EL-series Electone, such as the EL-900.


Indicates that performance data is contained in the song.

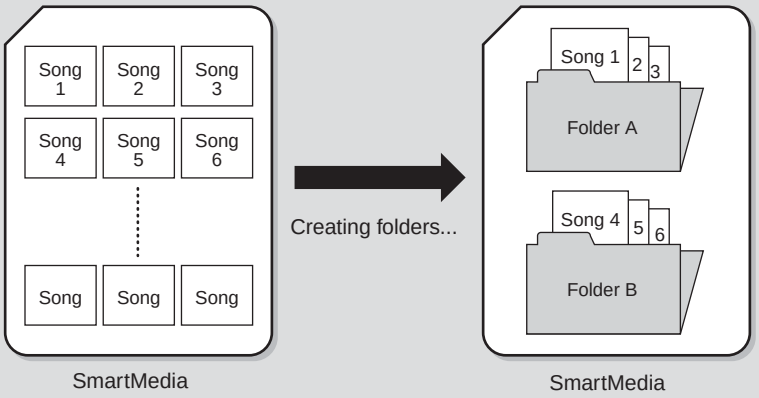

Indicates a Protected Original Song. See page 121 for more information.


Indicates a Protected Edit Song. See page 121 for more information.

Media Contents: Folders, Songs, and Files

Folders:

A folder is a storage location in the media, used to organize multiple songs in groups. If you've saved hundreds of songs to a SmartMedia card, it may be difficult to find the desired song quickly. Organizing your songs in folders, with similar songs grouped together (for example, according to genre or tempo), makes it easier to find the songs you want.



Songs:

A song is the Electone data for a piece of music, recorded to external media. A single song can contain a variety of data, including the recorded performance, Registrations, and so on.

Files:

A file is an element of data in a song. For example, a single song consists of various files, such as Registration files and performance files. The following files are created with the M.D.R. (The extension will not appear in the Electone display. They will, however, be displayed on a computer.)

Files in the song

File	Explanation	Extension
Performance data	This file contains performance data, played on the keyboards and pedals of the Electone.	.mid
Registration data	This file contains Registration settings, User Voices, User rhythms, and Rhythm Sequences.	.b00
XG-converted data	This file contains XG song data, for which Electone performance data is converted to XG-compatible format.	.mid

In addition, one file (extension: .nam) is automatically created in each folder for organization/maintenance of the folder contents. It does not appear on the Electone display.

4 Recording

Recording your performance

Set the desired Registrations on the Electone. Make all the Electone settings necessary for the song you will record. This means entering the all Registrations you will need for the entire performance in the Registration Memory. Make sure also to select the Registration that you will use at the beginning of the song.

Never attempt to eject the media or turn the power off during recording, reading and playing back.

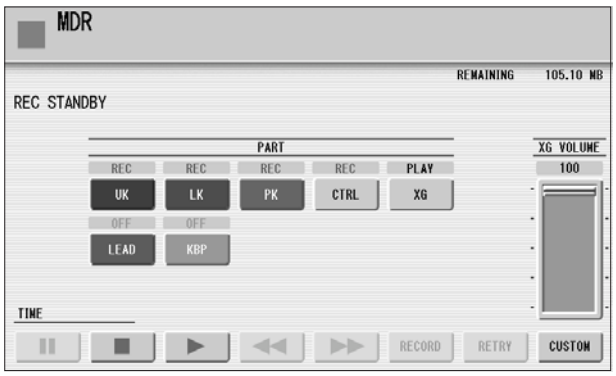
1 Insert a media to the media slot.

2 Select a blank song for recording your performance.

For details on selecting a song, see page 96.
If you want to overwrite an existing song already containing performance data, you will need to delete it beforehand.

3 Press the [RECORD] button in the display.

The following display appears, indicating that you can record your performance.



NOTE

You cannot record to a folder which contains songs for the EL-series Electone, such as EL-900.

4 Press the [▶] (Play) button.

An hourglass icon appears, indicating that Registration data is currently being read.

5 After the hourglass disappears, begin playing.

6 When you finish playing, press the [■] (Stop) button in the display.

The recording is finished and the LCD returns to the SONG SELECT Page. The song to which your performance is recorded is automatically named "SONG XX" (xx indicates song number). You can change the song name as desired. (For details, see page 104.)

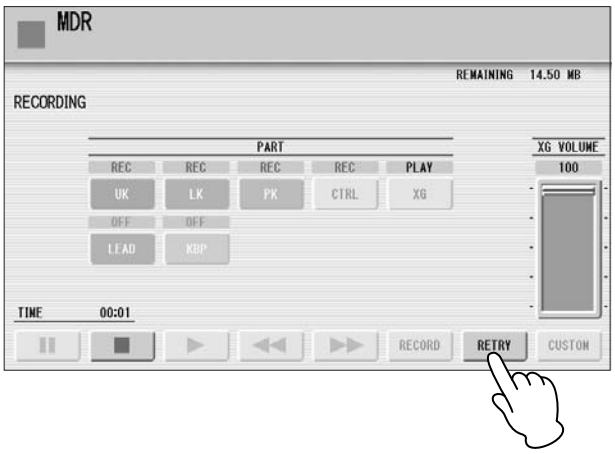
Do not remove the media from the instrument while data is being recorded (while the hourglass icon or other message is shown).

Re-recording (Retry)

If you make a mistake during recording, you can re-record the song from the beginning.

1 **Press the [RETRY] button while the song is still running.**

This automatically stops recording and returns you to the starting point of the song.



2 **Press the [▶] (Play) or [CUSTOM] button to begin re-recording the song.**

Re-recording starts from the beginning of the song and replaces the previously recorded performance with the newly recorded performance.

Recording each part separately

You can also record the parts of your performance independently. This function lets you record Keyboard Percussion and performance control data, such as Registration changes and expression pedal operation, separately from the other parts of the song. Even Keyboard Percussion and Lead Voice 1 Voices can be recorded separately, though, the Lead Voice 2 Voices will be included in the performance data of the Upper Keyboard. The following instruction is an example: First, record the chords and bass to the song using the Lower and Pedalboard, and then record the melody using the Upper Keyboard.

1 **Follow steps 1 – 3 on page 101 to call up the Rec Standby display.**

2 **Select the parts for recording.**

Each pressing of a part button switches the status: PLAY, OFF, and REC.

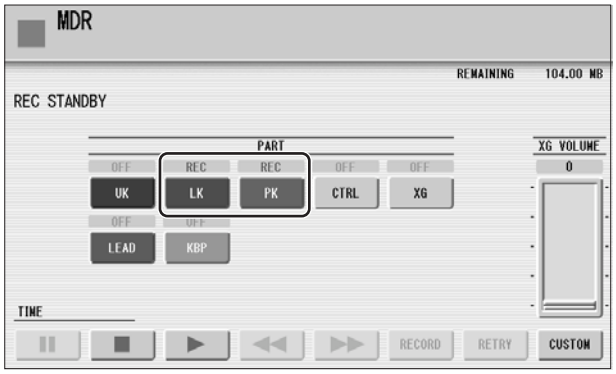
PLAY: Playback the parts that have been recorded.
OFF: Recording or playback is not active.
REC: Records the part.

If you set the Upper part to "REC," the performance on the Upper Keyboard (including Lead Voice 1 Voices) is recorded. Setting Lead to "REC," however, records only the Lead Voice 1 Voices. You cannot set both Upper and Lead to "REC" at the same time; neither can the Lower and Keyboard Percussion parts be recorded at the same time.

NOTE

When you record the Keyboard Percussion, make sure that the KEYBOARD PERCUSSION [1] and/or [2] button is set to on.

The following setting lets you record only Lower Keyboard and Pedalboard parts.



3 Press the [▶] (Play) button, and start playing after the hourglass icon disappears.

4 Press the [■] (Stop) button when you are finished with your performance to stop recording.

Now you've recorded the first parts of your performance.

5 Press the [RECORD] button to set up recording of the next part — Upper part in this case.

A message appears prompting confirmation of operation. Select [OK] to overwrite and the Rec Standby display appears.

6 Select the parts for recording.

Set the next parts you want to record (in this case, the Upper part) to "REC." Also set the part already recorded (in this case Lower and Pedal parts) to "PLAY," so you can hear the previously recorded parts as you record new ones.

7 Press the [CUSTOM] button to start recording of the new part or parts (Upper part).

Playback of the previously recorded parts starts immediately. The [CUSTOM] button is used here to record only the parts that have been selected for recording, and plays back only those parts that have been selected for playback. While you listen to the parts being played back, start playing the melody on the Upper keyboard.

When the end of the recorded performance is reached, playback is automatically stopped. The length of a subsequently recorded part cannot exceed the length of the previously recorded parts.

Punch-in Recording

This lets you re-record a specific phrase or section which you don't want to use, either that of a specific part(s) or all parts.

NOTE

This function is best used when the phrase to be re-recorded has definite beginning and end points, with slight pauses before and after.

1 **Select the song which contains the phrase you want to change.**
For details on selecting a song, see page 96.

2 **Press the [▶] (Play) button to start playback of the song.**

3 **Press the [❚❚] (Pause) button at the point you want to execute punch-in recording.**

4 **Press the [RECORD] button.**
The recording display appears, indicating that the Music Data Recorder is ready to record.

5 **Set the parts which you want to change to "REC" status and other parts to "PLAY."**

6 **Press the [▶] (Play) button to start punch-in recording. Play the new phrase, as you want it to be changed.**

7 **Press the [■] (Stop) button to quit the punch-in recording as soon as you reach the end of the phrase.**

5 Changing the Song Name

You can name the song, such as giving it a title or indicating the date on which it was recorded. However, song names of the EL-series Electone, such as the EL-900, cannot be changed.

NOTE

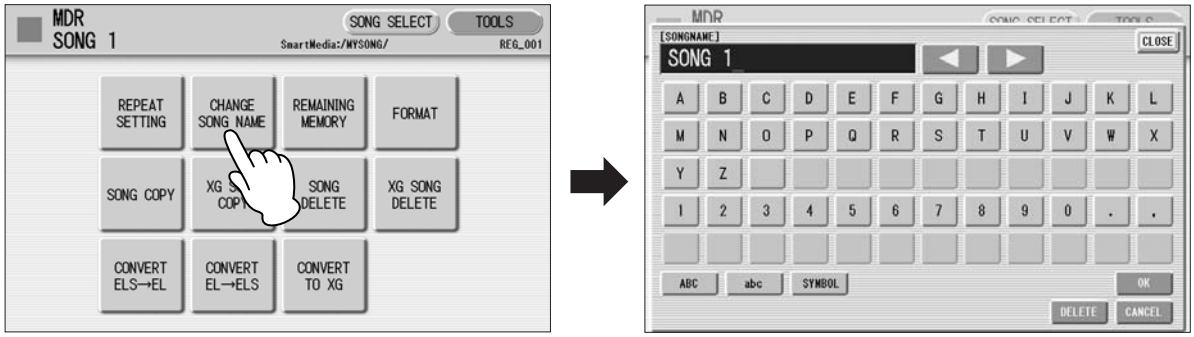
When you change the name of an XG song, the extension (.mid) cannot be changed.

1 **Select the song whose name you want to change.**
For details on selecting a song, see page 96.

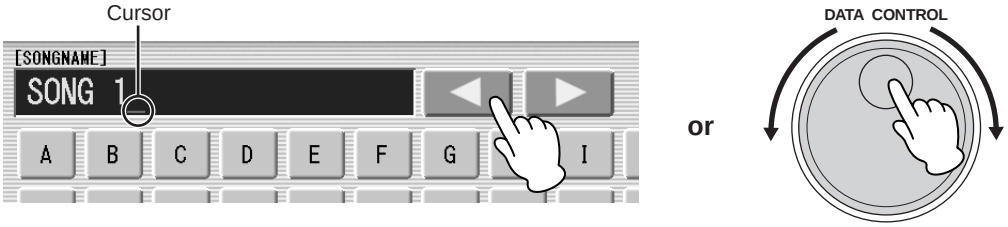
2 **Press the [TOOLS] button at the top right of the display to call up the TOOLS Page.**

3 Press the [CHANGE SONG NAME] button.

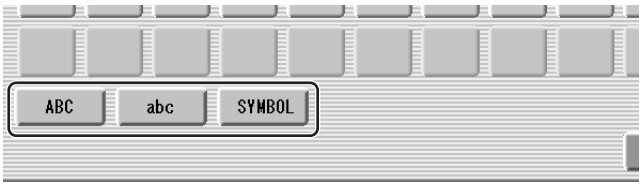
The following display appears.



4 Move the cursor to the desired point by using the [◄][►] buttons in the display or the Data Control dial.



5 Select the desired character type: alphabet, upper or lowercase, or symbol.



NOTE

If you select Japanese as the Language in the Utility display (page 15), you can also select Japanese language characters (hiragana and kanji, normal size katakana, half size katakana, full size alphabet, and full size symbols).

6 Select the desired character for entry.

A song name can contain up to 50 characters.

NOTE

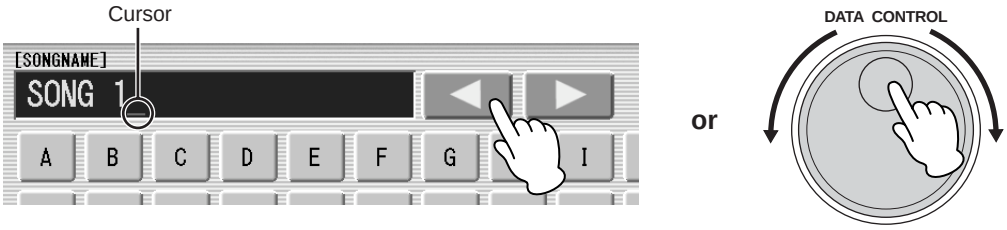
An XG song name can contain up to 46 characters.

7 After finished, select [OK] to actually enter the name.

The LCD will return to the TOOLS Page display.

To delete the entered character:

1 Move the cursor to the character you want to delete.



2 Press the [DELETE] button at the bottom right in the display.
The character is deleted.

To convert into kanji (Japanese language):

This applies only if you are using the かな漢 (Kana-Kan) button in Japanese.

1 When the input "Hiragana" characters are shown in the reverse display (highlighted), press the 漢字変換 (kanji-conversion) button one or several times to convert to the characters into the appropriate kanji.

- The reversed area can be changed by the [◀][▶] buttons in the display or the Data Control dial.
- The converted area can be cleared at once by pressing the キャンセル (cancel) button.

2 To actually enter the change, press the [OK] button or enter the next character. To enter the hiragana character itself (without converting it), press the 削除 (delete) button.

A "name is not available" message may appear when you press the [OK] button to finish entering the name. If this message appears, the name is invalid and you should enter another name.
The following names cannot be used. ("xx" indicates numbers.)

MDR_xx.EVT	ELS_SONG.NAM	MDR_xxx.TMP	TMP
MDR_xx.MID	MDR_xxx.MID	REG_xxx.TMP	TMP.E02
MDR_xx.Bxx	REG_xxx.B00	ELS_SONG.TMP	
MDR_xx.Vxx	SONG_xxx.C02		
SONG.NAM			

6 Saving Registrations as Registration Data (File)

You can also record Registrations by themselves, without recording a performance. Bulk data, including Registration Memory and Registration Shift settings, Rhythm Patterns (User rhythms) Rhythm Sequence data, and User Voices, are also saved in the operation.

1 **First create your original settings you want to save then select the destination (blank song).**

For details on selecting a song, see page 96.

2 **Press the [REGIST EDIT] button in the SONG SELECT Page to call up the Regist Edit display.**

3 **Press the [SAVE] button.**

A message appears, indicating that the Registration is being recorded. After the message disappears, exit from the Regist Edit display by pressing the [CLOSE] button and return to the SONG SELECT Page. The song to which the Registration is recorded is automatically named "SONG XX" (xx indicates song number).

Saving Two or More Registration Banks to One Song

When you want to use more than 16 Registration numbers, you can save additional Registration banks to a single song, with the following procedure.

Reference Page

Next Regist. (page 87)

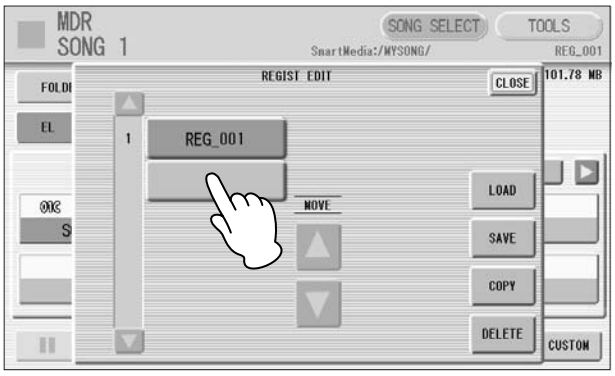
1 **First create the original settings you want to save, then select the destination song.**

For details on selecting a song, see page 96.

2 **Press the [REGIST EDIT] button in the SONG SELECT Page to call up the Regist Edit display.**

The Registration data which has previously been saved to the song is shown.

3 **Press the lowest blank (empty) Registration button.**



4 **Press the [SAVE] button.**

The Registration data will be added.
When you play back this song, the top Registration in this display will be loaded to the Electone. You can also change the order of the Registration data. See page 109.

Replacing Registrations

The M.D.R. also lets you change the Registrations of an existing song without changing the performance data. In advance, you need to create the original Registration that will replace the old one.

1 **Select the song for which you wish to replace the Registrations.**

For details on selecting a song, see page 96.

2 **Press the [REGIST EDIT] button in the SONG SELECT Page to call up the Regist Edit display.**

The Registration data which has been saved to the song is shown.

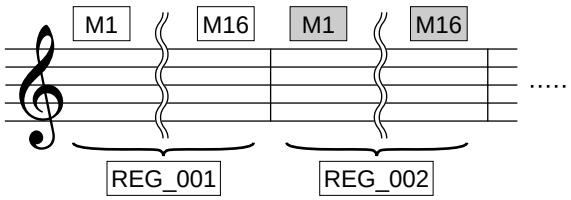
3 **Select the Registration data you wish to replace.**

4 **Press the [SAVE] button.**

A message appears, prompting confirmation of overwriting the Registration data. Select [OK] to overwrite (replace), or select [CANCEL] to abort the operation.

Next Regist Settings (Changing the order of the Registration data)

When playing back a song which uses more than 16 Registration numbers, you can use two or more Registration banks saved in a single song and recall them one by one as you play the song. This function is called Next Regist.



If you want to use the Next Regist function, set the Registration Shift mode to User, and select Next Regist as the Shift End, in advance. For more information, see page 84.

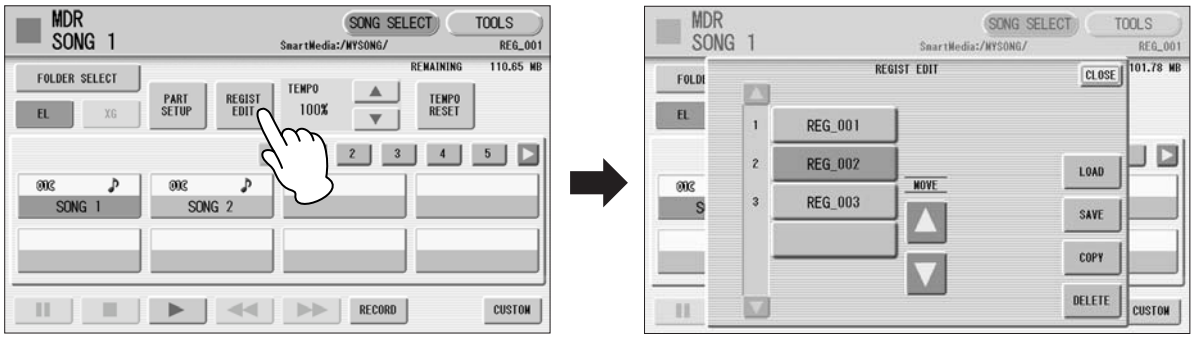
1 Save the desired Registrations to a song.

For instructions on saving two or more Registration banks to a song, see page 107.

2 Select the song containing the Registrations for which you want to change the order.

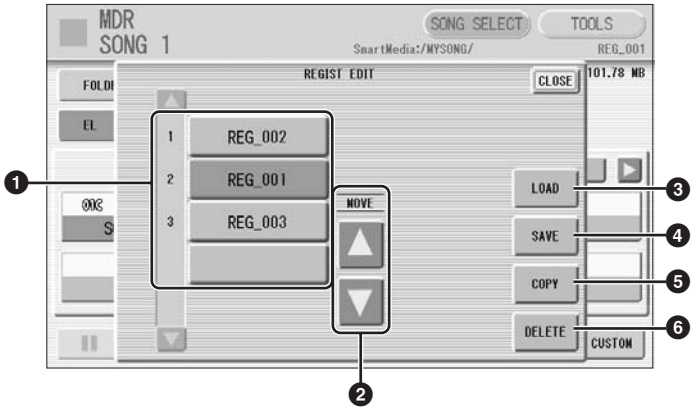
For details on selecting a song, see page 96.

3 Press the [REGIST EDIT] button in the SONG SELECT Page to call up the Regist Edit display.



4 Change the Registration order, in the order you want to recall.

First select the specific Registration bank you want to edit, then move, copy or delete the selected data as needed to change the order.



❶ Registration Data List

From this list, select the Registration you want to move, copy or delete. The selected Registration is highlighted in orange. When more than five Registration banks are saved in the song, a scroll button is available for scrolling through the Registration Data List.

❷ MOVE

Moves the selected Registration bank up or down.

❸ LOAD

Loads the selected Registration bank to the panel/keyboards. After loading, you can check the Registration by playing the keyboards.

❹ SAVE

Saves the current panel settings as a Registration bank in the song. The currently selected Registration in the Registration Data List (❶) will become the destination location.

❺ COPY

Copies the currently selected Registration to the lowest blank location in the Registration Data List.

❻ DELETE

Deletes the currently selected Registration bank in the Registration Data List.

5 Exit from the Regist Edit display by pressing the [CLOSE] button at the top right of the display.

7 Recalling Recorded Registrations

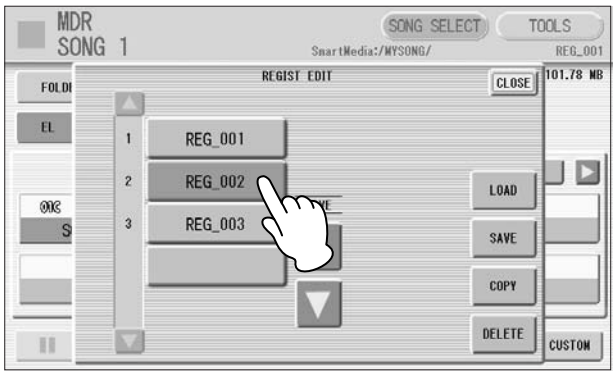
Registrations (and bulk data) recorded to song numbers can be easily loaded back to the Electone by the following procedure.

1 Insert the appropriate media and select the song you want to load back to the Electone.

For details on selecting a song, see page 96.

2 Press the [REGIST EDIT] button in the SONG SELECT Page to call up the Regist Edit display.

3 Select the Registration you want to load to the Electone.



4 Press the [LOAD] button to load the Registration data.

5 After loading the Registration, exit from the Regist Edit display by pressing the [CLOSE] button at the top right of the display.

NOTE

When loading a Registration while a rhythm is playing, User rhythms in the Registration data cannot be loaded.

8 Playing Back a Song

1 Select the song to be played back.

For details on selecting a song, see page 96.

2 Press the [▶] (Play) button in the display to load the Registration data.

Reference Page
Next Regist Settings (page 109)

An hourglass icon appears, indicating the Registration data is loading.
If the song contains more than two Registration banks, the first one will be loaded. You can check the Registration order in the Regist. Edit display.
If the song contains no performance data, after loading the Registration data, the LCD returns to the SONG SELECT Page.

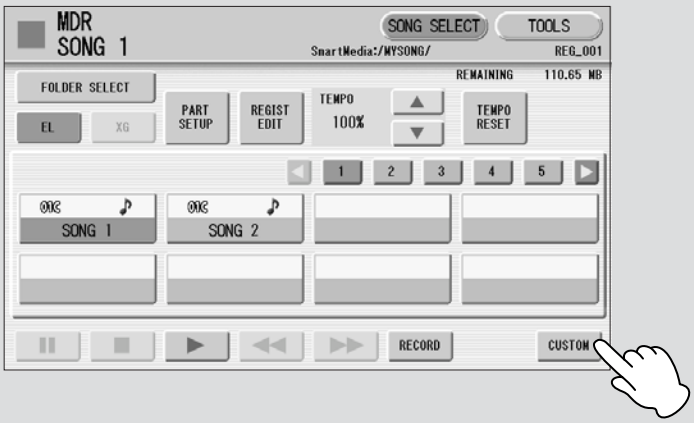
3 Playback starts automatically after reading the Registration data (the elapsed time is shown).

Reference Page
Song Part Information (page 97)

In general, all parts recorded to the song are played back; however, you can mute specific parts and playback only selected parts. For more information, see page 113.
When the end of the recorded performance is reached, playback automatically stops. You can, however, stop playback in the middle of the song by pressing the [■] (Stop) button in the display.

Custom Play

If you want to play back the song without resetting the Registrations, press the [CUSTOM] button instead of the [▶] (Play) button. This displays the song time and starts playback immediately.



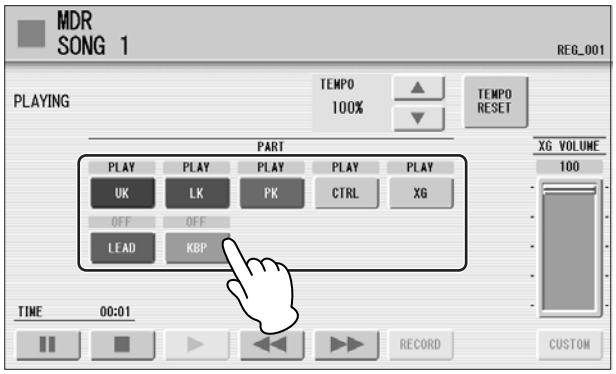
When you play the song using the Next Regist function, always press the [▶] (Play) button to start the song, not the [CUSTOM] button.

Playing Back the Selected Part(s)

You can also play back selected parts of your recorded performance, while other parts are temporarily turned off. This function is especially useful for playing a single part, such as the melody, over previously recorded accompaniment parts.

To play back the selected part(s):

During playback, press each part button to turn the part you want to playback to "PLAY" and the part you want to mute to "OFF."



Fast Forward, Rewind and Pause

Fast Forward and Rewind:

During playback, press the [▶▶] (Fast forward) button or [◀◀] (Rewind) button and hold it down until the time reaches the desired position.
Even when the button is released, playback is paused. To resume playback from the point you've advanced or reversed to, press the [▶] (Play) button or [CUSTOM] button.

Pause:

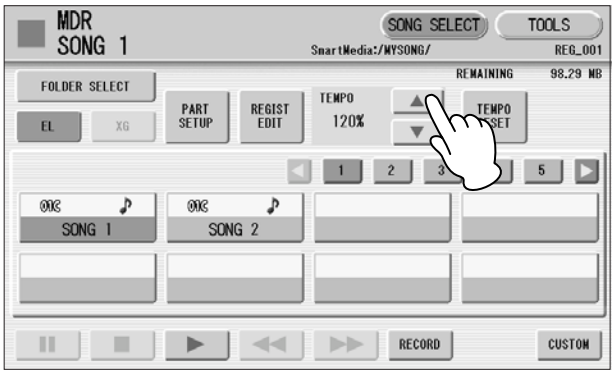
If you want to temporarily stop playback of the song or songs, press the [▮▮] (Pause) button.
To resume playback from the point at which the song was paused, press the [▮▮] (Pause) button again or press the [▶] (Play) or [CUSTOM] button.

Changing the Tempo

You can change the tempo of the song as the song is playing in the M.D.R. display, either while the song is stopped or while it is playing.

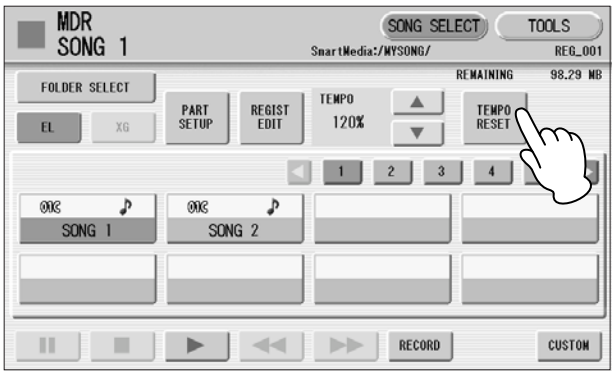
To Change the Tempo:

Use the TEMPO ▲ ▼ buttons in the display or Data Control dial to change the tempo. (The TEMPO dial on the panel cannot be used to change the tempo for the Music Data Recorder.) The range is 50 – 200%. The original recorded tempo is 100% and values less than 100% indicate slower tempo; values greater than 100% indicate faster tempo.



To reset the changed tempo:

Use the [TEMPO RESET] button in the display to reset the tempo to its original value (100%).



Repeat Playback

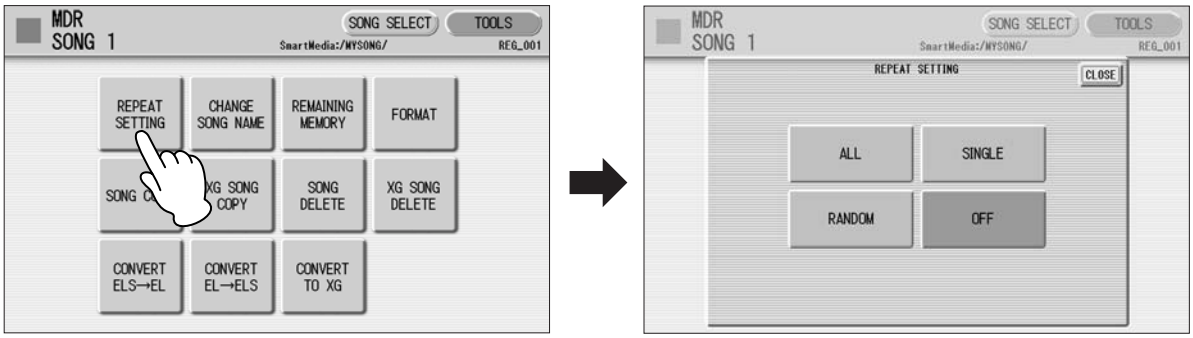
This feature allows you to repeatedly play back either all songs on a folder or only one specific song.

1 Select the song you wish to play back.

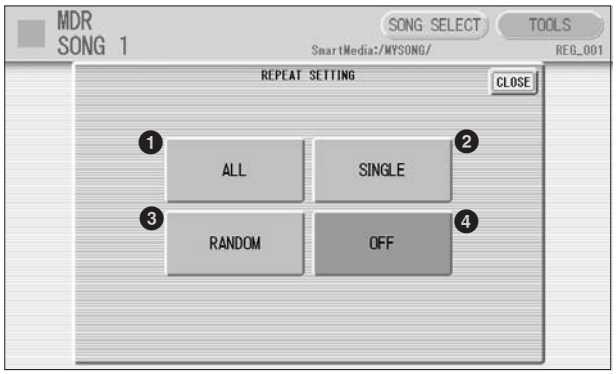
If you wish to play back all songs on a folder, select the first song that will be played back. For details on selecting a song, see page 96.

2 Press the [TOOLS] button at the top right of the display to call up the TOOLS Page.

3 Press the [REPEAT SETTING] button to call up the Repeat Setting display.



4 Select the repeat mode.



❶ ALL

Repeats all songs in the currently selected folder in order.

❷ SINGLE

Repeats the currently selected song again and again.

❸ RANDOM

Repeats all songs in the currently selected folder randomly.

❹ OFF

Cancels repeat playback.

5 **Exit from the Repeat Setting display by pressing the [CLOSE] button at the top right of the display.**

6 **Press the [▶] (Play) button in the SONG SELECT Page to begin playback.**

When you stop playback, the repeat setting is automatically cancelled.

Playing Back XG Songs

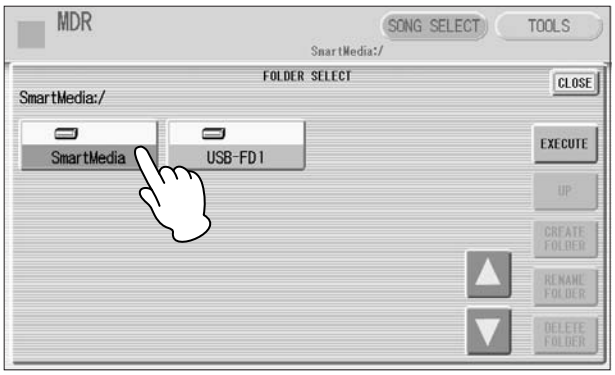
Reference Page
Converting to XG (page 122)

The Electone allows you to playback XG song data, created on the computer or converted from Electone song format to XG format. The fast forward, rewind and pause controls are available, just as with songs (performances) recorded on the Electone.

1 **Insert the media containing XG song data into the media slot.**

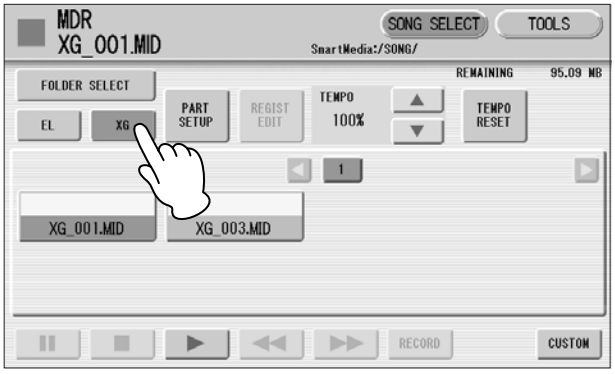
2 **Select the media that contains the desired XG song in the SONG SELECT Page.**

For details on selecting media, see page 98.



3 **Press the [XG] button in the SONG SELECT Page to call up the XG songs in the display.**

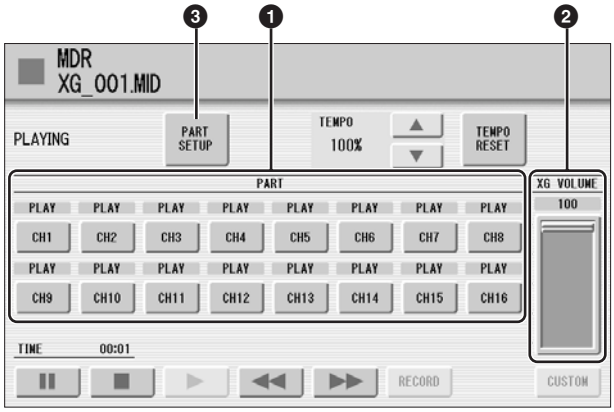
When the [EL] button is selected, the Electone songs are shown in the SONG SELECT Page; when the [XG] button is selected, the XG songs are shown.



4 Select the desired song for playback.

5 Press the [▶] (Play) button in the display to start song playback.

The following display appears, letting you set the volume or mute settings for each part.



❶ PART buttons

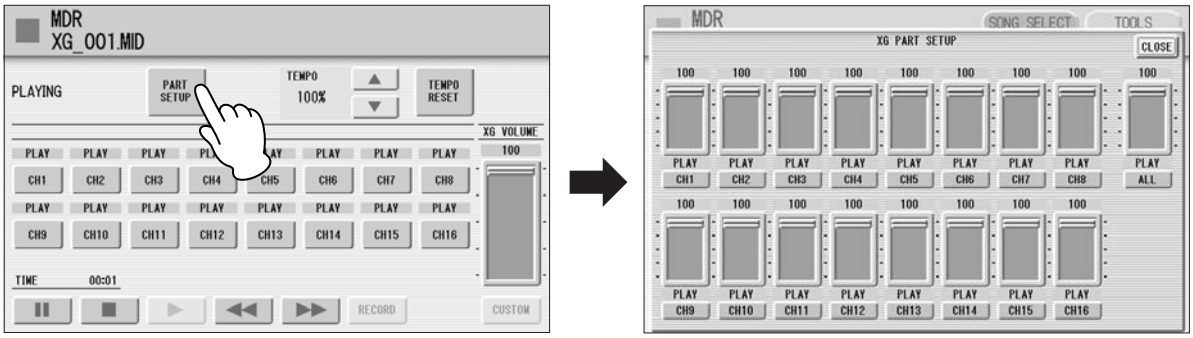
Sets the each part for playback or mute (off). Each press of the button toggles between PLAY and OFF.

❷ XG VOLUME

Adjusts the volume of the XG song within a range of 0 – 100. To set the volume, touch the slider in the display directly or use the Data Control dial.

❸ PART SETUP

Determines the volume balance of the parts. Pressing this button calls up the following display.



You can adjust the volume of each part within a range of 0 – 100. Use the ALL slider to adjust the volume of the XG song (the same function as XG VOLUME above).
Each channel button below each slider (for example, the [CH1] button) lets you set the part to mute or play (the same function as the PART buttons above).

9 Other Functions (Tools)

The TOOLS Page in the M.D.R. display has many functions, such as song copy, song delete, etc.

Song Copy

This function lets you copy data recorded in one song to another song. You can copy and exchange the data even between two different media. (Only songs created with the ELS-01/01C can be copied. Songs created with the EL-series, such as the EL-900, cannot be copied.) Make sure to check the remaining memory of the destination media in advance. If memory space is insufficient, or if the folder already contains 100 songs, Song Copy is not available. Copying of XG songs is done with a different method from Song Copy here. Refer to "XG Song Copy," page 123.

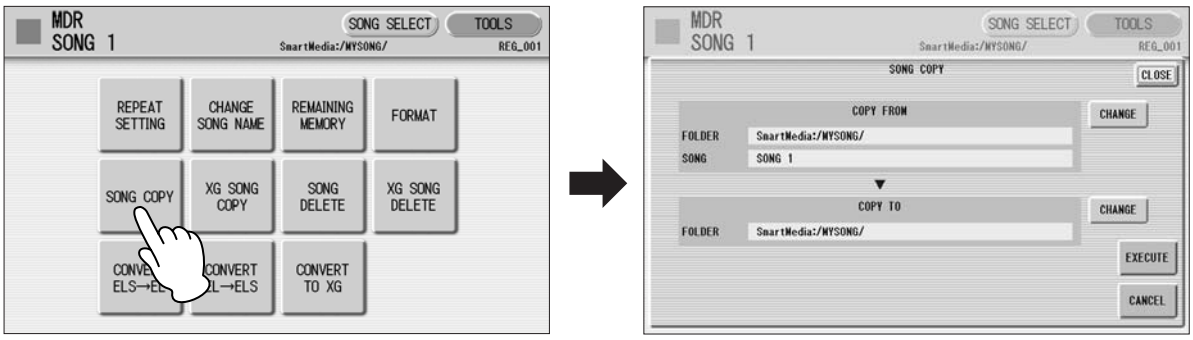
To copy within one media or between a SmartMedia card and floppy disk:

1 Select the song to be copied.

For details on selecting a song, see page 96.

2 Press the [TOOLS] button at the top right of the display to call up the TOOLS Page.

3 Press the [SONG COPY] button to call up the Song Copy display.



Confirm that the desired song to be copied is displayed in the upper half of the display. If you want to change the song, press the COPY FROM [CHANGE] button to call up the Song Select display and select another song.

4 Press the COPY TO [CHANGE] button to call up the Song Select display, then select the destination song.

5 **Press the [EXECUTE] button to execute Song Copy.**

If you have not selected a blank song, a message appears prompting confirmation whether to overwrite or not.
Select [OVERWRITE] to execute or [CANCEL] to abort the operation.

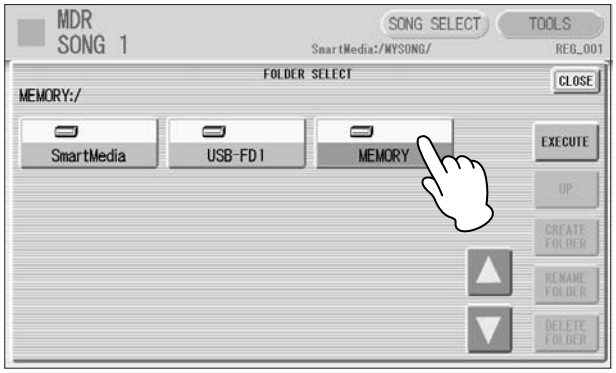
The song name of the destination is the same as the one of the source song, but "*" is attached at the beginning.
If you want to change the song name, see page 104.

To copy a song from one SmartMedia card to another:

1 **Follow the step #1 – #3 on page 118.**

2 **Press the COPY TO [CHANGE] button to call up the Song Select display.**

3 **Press the [FOLDER SELECT] button in the Song Select display and select "MEMORY" as the destination.**



4 **Press the [EXECUTE] button.**

Folder select display will close and "MEMORY:/" is selected as the COPY TO (destination).

5 **Press the [EXECUTE] button to execute the Song Copy.**

The song to be copied is copied to the internal memory of the Electone.
The message "Eject the source media" will appear on the display.

NOTE

If you want to abort the operation, press the [CANCEL] button.

6 **Eject the source media.**

After ejecting the source media, the message "Insert the destination media" will appear on the display.

7 **Insert the destination media to which you want to copy.**

The Song Copy display appears. "MEMORY:/" (the internal memory to which the song has been copied in step #5) is displayed in the SONG FROM.

8 Press the COPY TO [CHANGE] button to call up the Song Select display, then select the destination song.

Only a blank song can be selected here.

9 Press the [EXECUTE] button to execute the Song Copy. Select [CANCEL] or [CLOSE] to abort the operation.

The song name of the destination is the same as the one of the source song, but "*" is attached at the beginning.
If you want to change the song name, see page 104.

Song Delete

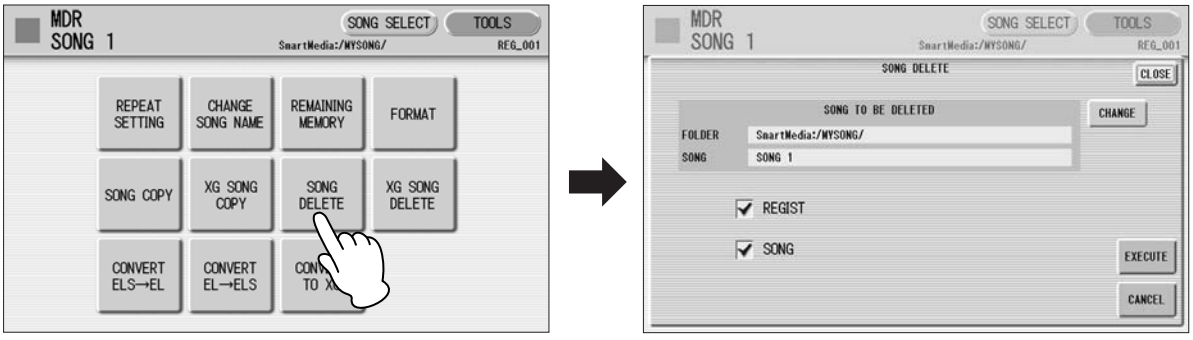
You can delete data in one song; only Registration data, only performance data, or both of them (entire song) can be deleted. Only the songs created with the ELS-01/01C can be deleted. The songs created with the EL series such as EL-900 cannot be deleted. To delete the XG song, the method is different from the song delete. Refer to "XG Song Delete," page 124.

1 Select the song to be deleted.

For details on selecting a song, see page 96.

2 Press the [TOOLS] button at the top right of the display to call up the TOOLS Page.

3 Press the [SONG DELETE] button to call up the Song Delete display.



Confirm that the desired song to be deleted is displayed in upper half of the display. If you want to change the song, press the [CHANGE] button to call up the song select display and select the desired song.

4 Select the desired data you want to delete, “REGIST” and/or “SONG.”

When you want to delete the entire song, select both REGIST and SONG.
If only “REGIST” is selected, the Registration data in the song will be deleted.
If only “SONG” is selected, the performance data in the song will be deleted.
If the song does not contain Registration (or performance) data, you cannot select “REGIST” (or “SONG”) in the display.

5 Press the [EXECUTE] button.

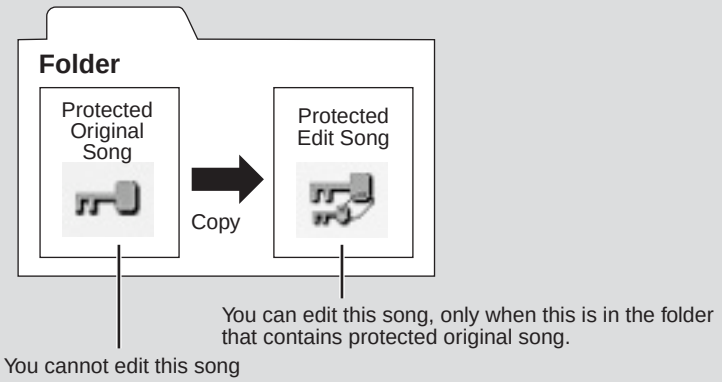
A message will appear prompting confirmation of the operation. Select [DELETE] to delete the song, or [CANCEL] to abort the operation.

About Protected Songs

If you buy or download the song data, it may be protected so that you cannot delete or copy, in order to prevent accidental erasure or protect copyright. This is “Protected Song.”

The protected song can be played back as same as the song you created, but it cannot be converted to XG format, or EL format. It is not possible to edit the Registration data in the protected song, nor to overwrite the performance data.

If you want to edit the protected song, first copy it within one media/folder, then edit the copy. (You cannot copy to another media/folder.) The copy song (called “protected edit song”) is available only when the original song (called “protected original song”) exists in the same folder. Be careful not to delete the protected original song.



To move the protected song in a SmartMedia card with a computer, you’ll need to use the Musicsoft Downloader application. If you move the song without Musicsoft Downloader, the song cannot be played back.
Musicsoft Downloader can be obtained at the following Internet address:
http://music.yamaha.com/download/

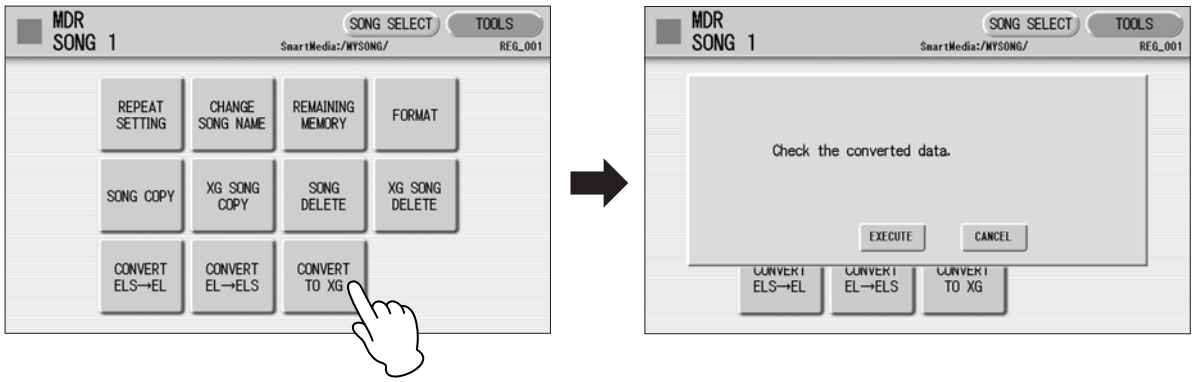
Converting to XG

This function allows you to convert the ELS-01/01C song data to XG format data. You can playback the data using XG devices. The converted XG song data may sound differently from the original data.
Confirm that the media should contain enough amount of available memory before the conversion. The protected songs cannot be converted to XG format.

1 **Selects a song to be converted to XG.**
For details on selecting a song, see page 96.

2 **Press the [TOOLS] button at the top right of the display to call up the TOOLS Page.**

3 **Press the [CONVERT TO XG] button.**
A message will appear, prompting confirmation of the converted data.



4 **Press the [EXECUTE] to convert.**
The M.D.R. starts playback of the selected song for you to decide whether you convert it to the XG data, or not. After finishing playback the following message appears.

5 **(If necessary) Press the [RENAME] to give a name to the converted XG song.**
For details of the method to edit the song name, see page 104.

6 Press the [CONVERT] button.

After the process of the conversion the LCD returns to the original display.

To call up the XG song in the display, press [XG] button in the SONG SELECT Page of the M.D.R. display. For more information, see page 116.

XG Song Copy

1 Select the XG song to be copied.

For details to select an XG song, see page 116.

2 Press the [TOOLS] button at the top right of the display to call up the TOOLS Page.

3 Press the [XG SONG COPY] button to call up the XG Song Copy display.

Confirm that the desired song to be copied is displayed in upper half of the display. If you want to change the song, press the COPY FROM [CHANGE] button to call up the Song Select display and select the desired song.

4 Press the COPY TO [CHANGE] button to call up the folder select display, then select the destination media.

5 Press the [EXECUTE] button to execute the XG Song Copy.

Select [CANCEL] or [CLOSE] to abort the operation.

If the remaining memory of the destination media is insufficient, XG Song Copy cannot be executed. (An error message will appear and the operation is cancelled.) Up to 120 XG songs can be saved in one folder.

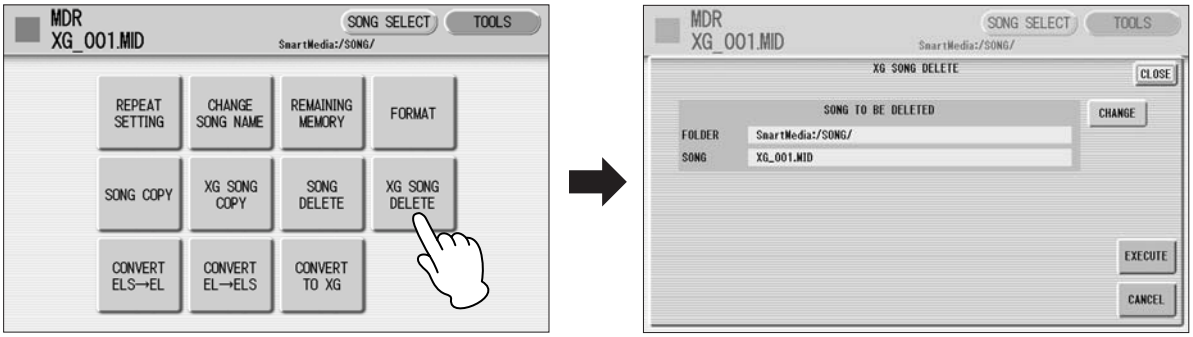
XG Song Delete

1 Select the XG song to be deleted.

For details on selecting an XG song, see page 116.

2 Press the [TOOLS] button at the top right of the display to call up the TOOLS Page, then select the [XG SONG DELETE] button.

The XG Song Delete display appears.



3 Confirm that the desired song to be deleted is shown in the upper half of the display, then press the [EXECUTE].

If you want to change the song, press the [CHANGE] button to call up the Song Select display and select the desired song. After pressing the [EXECUTE] button, a message appears prompting confirmation of the operation. Select [DELETE] to delete the selected XG song, or select [CANCEL] to abort the operation.

Converting ELS format to EL

Reference Pages

About Protected Songs (page 121)

Installing the Floppy Disk Drive (page 216)

NOTE

User rhythms cannot be converted to EL format.

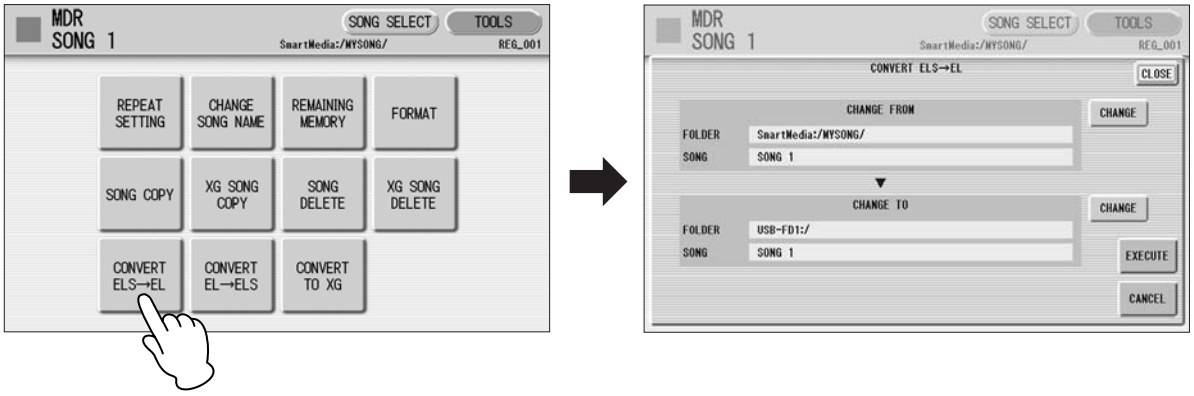
You can convert songs created on the ELS-01/01C to EL-series format, and save them to a floppy disk. The converted data can be used with EL-series Electones, such as the EL-900. This function is not available for protected songs.

If you are using the ELS-01, you'll need to install the optional UD-FD01 floppy disk drive.

1 Select the song to be converted to EL-series format.

For details on selecting a song, see page 96.

2 In the TOOLS Page, press the [CONVERT ELS → EL] button to call up the Convert display.



Confirm that the desired song to be converted is displayed in the upper half of the display. If you want to change the song, press the [CHANGE] button of the Change From section to call up the Song Select display and select the desired song.

NOTE

If the source song's name contains full size characters or Japanese characters, the converted song name will be shown with question marks (such as "????").

3 Press the [CHANGE] button of the Change To section in the display, then select the destination.

If the source song contains two or more Registration banks, you'll need to make ready the same number of destination songs to save the converted data.

4 Press the [EXECUTE] button in the display to start conversion.

A message appears, prompting confirmation of the operation. Select [CONVERT] to convert to EL format, or [CANCEL] to abort the operation. If the remaining memory of the floppy disk is insufficient, conversion cannot be executed. (An error message appears and the operation is cancelled.)

Converting EL format to ELS

You can convert the songs in the floppy disk created with an EL-series Electone, such as the EL-900, to the ELS-01/01C format, and save it to a SmartMedia card. If you are using the ELS-01, you'll need to install the optional UD-FD01 floppy disk drive. Depending on the original song, the sound or tempo of the converted song may differ from the original data, or the Next Song function of the original song may not be effective.

Reference Page

Installing the Floppy Disk Drive (page 216)

NOTE

When you convert the protected EL data to ELS format, set the write-protect tab of the EL disk to the "overwrite" position (tab closed).

1 Insert the floppy disk that contains the song you want to convert to ELS format, then select the source song.

For details on selecting a song, see page 96.

2 In the TOOLS Page, press the [CONVERT EL → ELS] button to call up the Convert display.

NOTE

When converting a protected EL song to ELS-01/01C format, make sure to use a SmartMedia card with ID.

3 Confirm that the desired song to be converted is shown in upper half of the display.

If you want to change the song, press the [CHANGE] button of the Change From section to call up the Song Select display and select the desired song.

4 Press the [CHANGE] button of the Change To section in the display, then select the destination.

The specified SmartMedia destination location must be within the range of Song 1 – 100. If a destination is not selected, an empty song is automatically set as the destination.

5 Press the [EXECUTE] button in the display to start conversion.

A message appears, prompting confirmation of the operation. Select [CONVERT] to convert to EL format, or [CANCEL] to abort the operation. If the remaining memory of the SmartMedia is insufficient, conversion cannot be executed. (An error message appears and the operation is cancelled.)

Checking the Remaining Memory

In the TOOLS Page, press the [REMAINING MEMORY] button. This allows you to check the remaining memory in the media and the song data capacity of the currently selected song.

8 Voice Edit

This Electone has a Voice Edit feature that allows you to create your own Voices. We suggest that you read through the Voice Structure below at first to get a firmer understanding of the Voices. Then go through the editing steps, reading Editing a Voice on page 130 for editing of an AWM Voice, or page 135 for editing of a VA Voice.

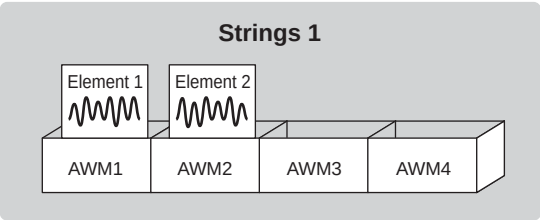
Contents

1 Voice Structure

The internal structure of the Voices of this Electone is explained below. Refer also to "AWM Voices and VA Voices" (page 34).

AWM Voice structure

AWM Voices consist of up to four recorded samples of a real instrument. Each waveform, referred to as an "Element," can be edited, by changing the level (volume), filter settings, and so on. A single Voice contains four boxes (AWM1 – AWM4) in which the Elements are put. If a Voice consists of less than three Elements, some boxes are empty. For example, Strings 1 consists of two Elements (as shown).



You can add Elements from other Voices – Brass, for example – if a box (AWM3 and/or AWM4) is empty. This allows you to create your own original ensemble sounds. In the Voice Edit function, you can edit not only each Element, but also assemble some Elements from other Voices.

VA Voice structure

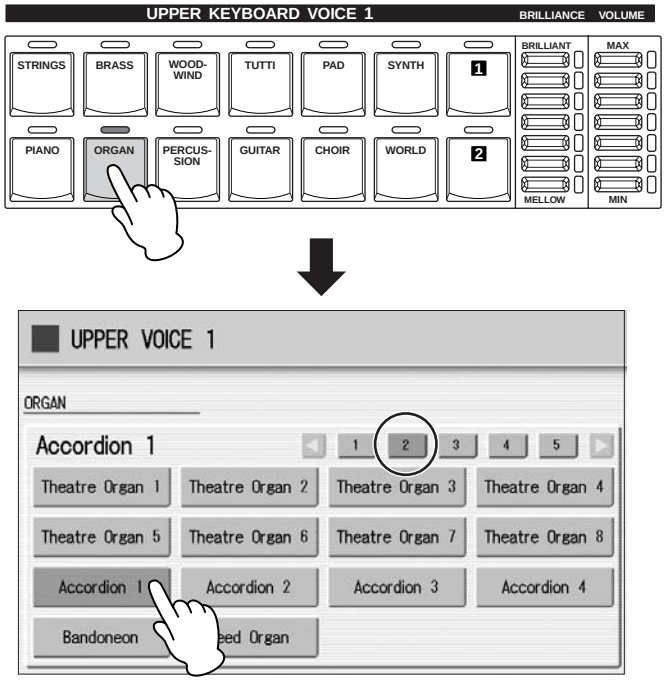
VA Voices are made by simulating the characteristic behavior of acoustic instruments. You can edit the Voice's volume and timbre. Moreover, you can also add AWM Elements to a VA Voice to create your own original Voice.
VA Voices are available only on the Lead Voice 2 section of the ELS-01C. All Voices in the other Voice sections are AWM Voices.

2 Editing a Voice

Selecting a Voice for editing

1 Select the Voice you want to edit from the Voice Menu.

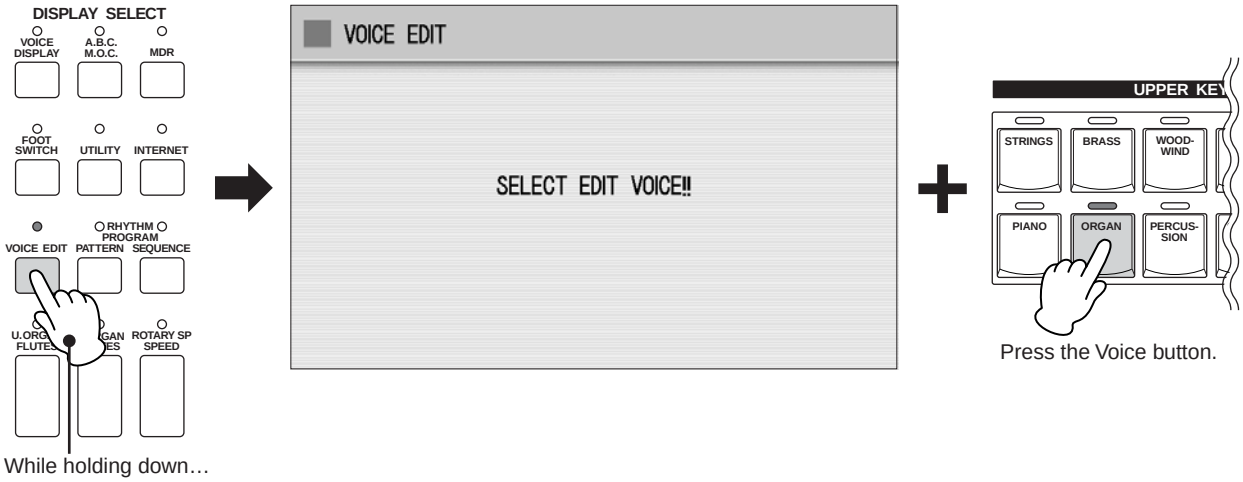
For example, if you want to edit Accordion 1, select [Accordion 1] in the Voice Menu of the [ORGAN] button in any Voice section.



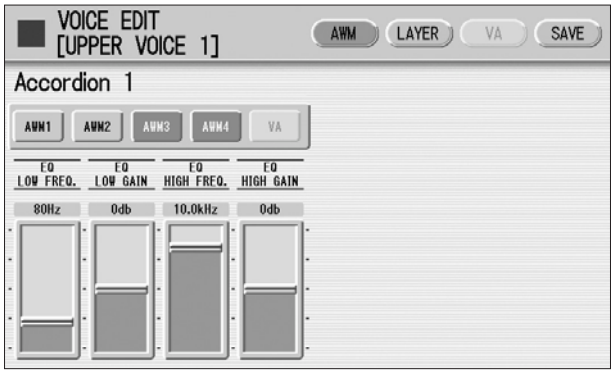
Mute all other Voice sections except for the targeted Voice section.

2 While holding down the [VOICE EDIT] button, press the Voice button corresponding to the Voice you wish to edit.

If you press [VOICE EDIT] without selecting a Voice, the following display will prompt you to complete the step. While this display appears, press the desired Voice button.



After you have selected the Voice button, the AWM Page (first page of the Voice Edit display) will appear if the selected Voice is an AWM Voice. If you have selected a VA Voice, the VA Page will appear.



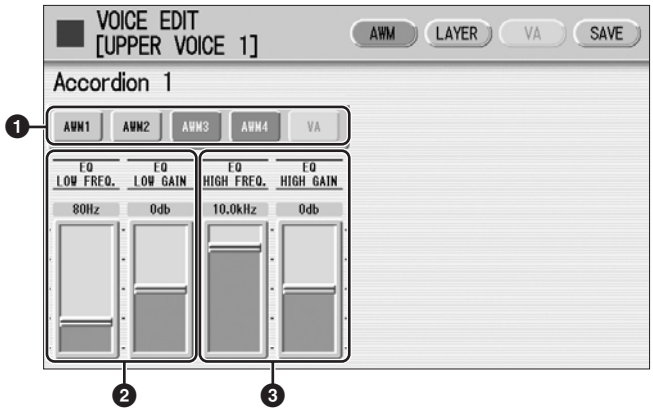
If you release the [VOICE EDIT] button before pressing a Voice button, the Voice Edit function will not be called up, and the normal Voice Display will appear.

> The message "Voice data is too large to edit" may appear when you press the Voice button while holding down the [VOICE EDIT]. If this message appears, select another Voice.

Editing an AWM Voice

You can edit an AWM Voice on the AWM Page and LAYER Page in the Voice Edit display. In the AWM Page, the tonal balance of the entire Voice can be corrected by some EQ parameters. In the LAYER Page, you can make detailed edits to each Element.

AWM Page



❶ Element On/Off switches

The [AWM1] – [AWM4] buttons indicate the Elements which make up the selected Voice, and the [VA] button indicates the VA tone generator (the VA button is grayed out when you are editing an AWM Voice). You can mute any of the Elements by simply pressing the corresponding button. Pressing the button again cancels the mute.

❷ EQ LOW FREQ./EQ LOW GAIN

Sets the frequency and gain (level) of the low frequency band. The EQ LOW FREQ. slider sets the desired frequency band over a range of 32 Hz – 2.0 kHz. The EQ LOW GAIN slider sets the level for the frequency band (specified by the EQ LOW FREQ. slider) over a range of -12 dB – +12 dB.

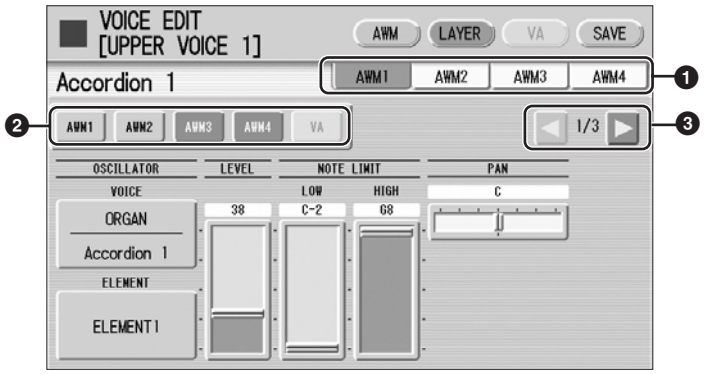
❸ EQ HIGH FREQ./EQ HIGH GAIN

Sets the frequency and gain (level) of the high frequency band. The EQ HIGH FREQ. slider sets the desired frequency band over a range of 500 Hz – 16.0 kHz. The EQ HIGH GAIN slider sets the level for the frequency band (specified by the EQ HIGH FREQ. slider) over a range of -12 dB – +12 dB.

EQ (Equalizer)

Usually an equalizer is used to correct the sound output from amps or speakers to match the special character of the room. The sound is divided into several frequency bands, then by raising or lowering the level for each band, the correction is made. This Electone has a two-band (high and low) digital equalizer that lets you adjust the overall sound according to the type of music you play — classical music being more refined and soft, pop music more crisp, and rock music more dynamic.

LAYER Page



❶ Element select buttons

Select the Element you wish to edit.

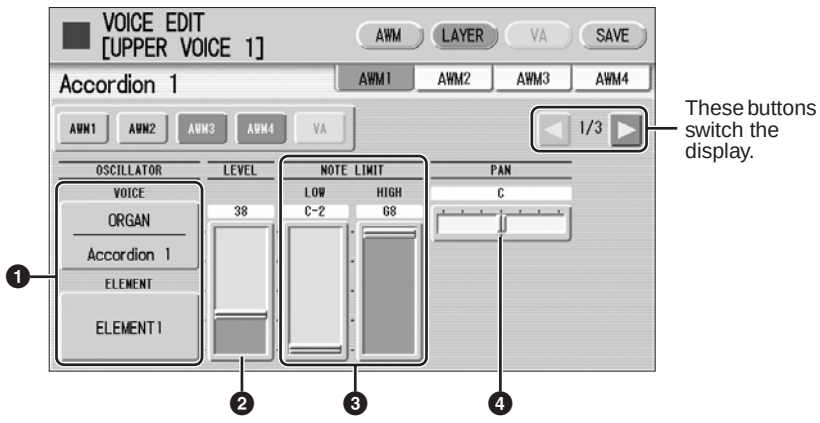
❷ Element On/Off switches

The [AWM1] – [AWM4] buttons indicate the Elements which make up the selected Voice, and the [VA] button indicates the VA tone generator (the [VA] button is grayed out when you are editing an AWM Voice). You can mute any of the Elements by simply pressing the corresponding button. Pressing the button again cancels the mute. Muting all other Elements except for the one you are editing lets you clearly hear that single Element for ease in editing. Note that when some Elements are muted, playing the keyboard in certain key areas or with certain velocities may result in no sound.

❸ Display switch buttons

The LAYER Page contains three pages. The ◀ ▶ buttons are used to switch among them.

LAYER Page 1



❶ VOICE/ELEMENT

Indicates the Voice/Element currently being edited. For example, the screen above shows that Element 1 of Accordion 1 is being edited.
You can also call up another Element from another Voice and replace the currently selected Element with it. Pressing the VOICE or ELEMENT button in the display calls up the Voice or Element menu, from which you can select the desired Voice/Element.

❷ LEVEL

Determines the output level of the Element.
Range: 0 – 127

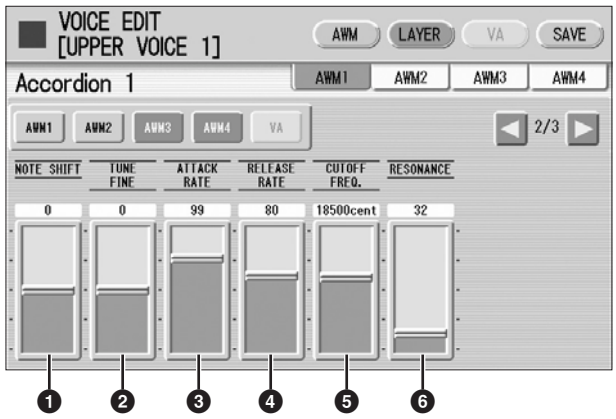
❸ NOTE LIMIT

Determines the lowest and highest notes in the range for which the Element sounds. The setting of the HIGH slider cannot be set lower than that of the LOW slider. Some Elements are not affected by this parameter.
Range: C-2 – G8

❹ PAN

Determines the position of the Element in the stereo image.
Range: L64 – R63

LAYER Page 2



❶ NOTE SHIFT

Determines the pitch settings in semitones.
Range: -64 – +63

❷ TUNE FINE

Determines the fine tuning.
Range: -64 – +63

❸ ATTACK RATE

Reference Page
Envelope Parameters (page 136)

Determines how quickly the Element will reach its maximum level after the key is played. Higher values produce a faster attack.
Range: 0 – 127

❹ RELEASE RATE

Determines how much time it takes for the level to reach 0 after the key is released. Higher values make the time shorter.
Range: 1 – 127

❺ CUTOFF FREQ.

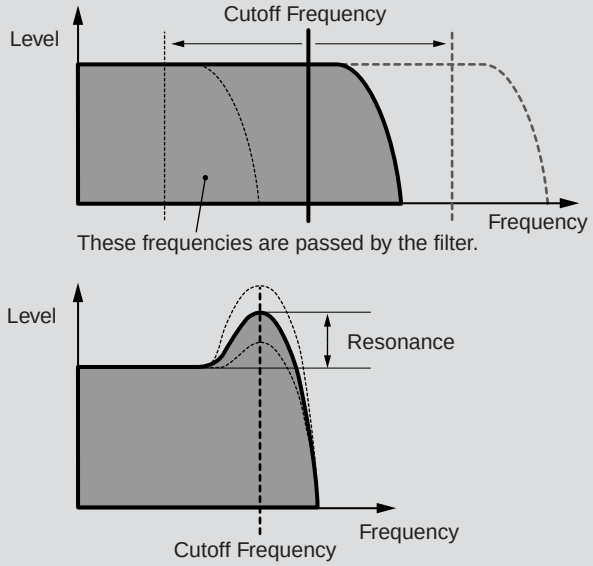
Determines the cutoff frequency of the filter.
Range: 9600 – 24000 cent

❻ RESONANCE

Determines the amount of resonance (harmonic emphasis) applied to the signal at the cutoff frequency. Some Elements are not affected by this parameter.
Range: 16 – 140

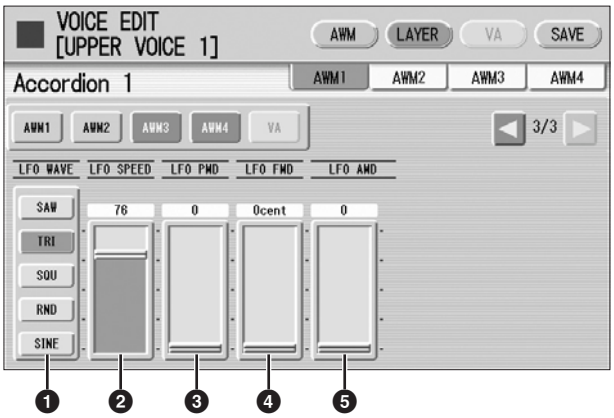
Filter — Cutoff frequency and Resonance

Filter modifies the tone by cutting the output of a specific frequency portion of the sound. This Electone is equipped with a low pass filter, which passes only those signals below the cutoff frequency and cuts signals above the cutoff frequency.



You can produce a relatively bright or darker sound by setting the cutoff frequency. Resonance is a parameter that boosts the level of the signal in the area of the cutoff frequency. By emphasizing the overtones in this area, this can produce a distinctive "peaky" tone.

LAYER Page 3



❶ LFO WAVE

Determines the LFO waveform used to vary the sound. For details, see page 135.

❷ LFO SPEED

Determines the speed of the LFO waveform. Higher values make the speed faster.
Range: 2 – 93

❸ LFO PMD (Pitch Modulation Depth)

Determines the amount by which the LFO waveform varies the pitch of the sound. Higher values result in a greater amount of pitch change. For the minimum setting, the pitch does not change.
Range: 0 – 400

❹ LFO FMD (Frequency Modulation Depth)

Determines the amount by which the LFO waveform varies the filter cutoff frequency. Higher values result in a greater amount of frequency change. For the minimum setting, the frequency does not change.
Range: 0 – 4800 cent

❺ LFO AMD (Amplitude Modulation Depth)

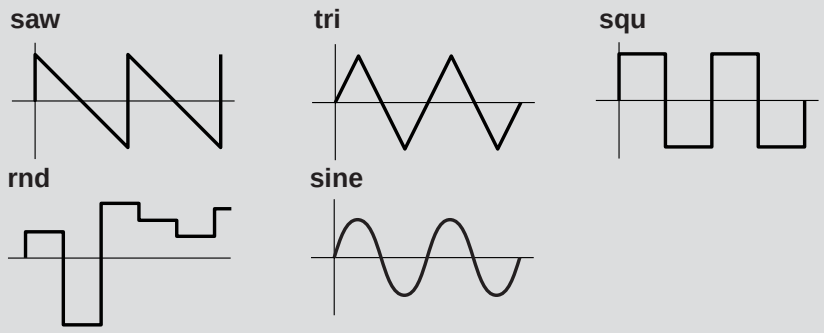
Determines the amount by which the LFO waveform varies the amplitude of the sound. Higher values result in a greater amount of amplitude change. For the minimum setting, the amplitude does not change.
Range: 0 – 128

Reference Page
Vibrato (page 41)

When playing a User Voice you have created using the LFO parameters (above), set the Vibrato setting in the Voice Condition display to “Preset,” not “User.” If Vibrato is set to “User” and the Vibrato parameters (depth and/or speed) are set fairly high, you may not be able to hear the effect of the LFO.

LFO (Low Frequency Oscillator)

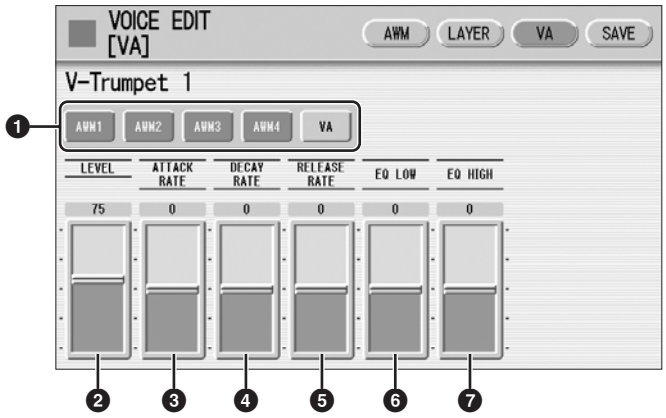
As its name suggests, the LFO creates waveforms of a low frequency.
These waveforms can be used to vary the pitch, filter or amplitude to create effects such as vibrato, wah and tremolo.
The following five waveforms are available.



Editing a VA Voice (only for ELS-01C)

You can edit a VA Voice in the VA Page of the Voice Edit display. If you are using the ELS-01, the VA Page cannot be selected.

VA Page



❶ Element On/Off switches

The [AWM1] – [AWM4] buttons indicate the Elements which make up the selected Voice, and the [VA] button indicates the VA tone generator. You can mute any of the Elements by simply pressing the corresponding button. Pressing the button again cancels the mute. AWM buttons are grayed out when you are editing a VA Voice since VA Voices do not contain Elements. However, you can add AWM Elements to a VA sound in the LAYER Page if you want. See page 131.

❷ LEVEL

Determines the level of the VA sound.
Range: 0 – 127

❸ ATTACK RATE

Determines how quickly the sound will reach its maximum level after the key is played. Lower values produce a slower attack.
Range: -64 – +63

❹ DECAY RATE

Determines how much time it takes to reach its second level from the first (maximum) level.
Range: -64 – +63

❺ RELEASE RATE

Determines how much time it takes for the level to reach 0 after the key is released. Positive value makes the time shorter and negative value makes it longer.
Range: -64 – +63

Reference Page
EQ (Equalizer); (page 130)

❻ EQ LOW

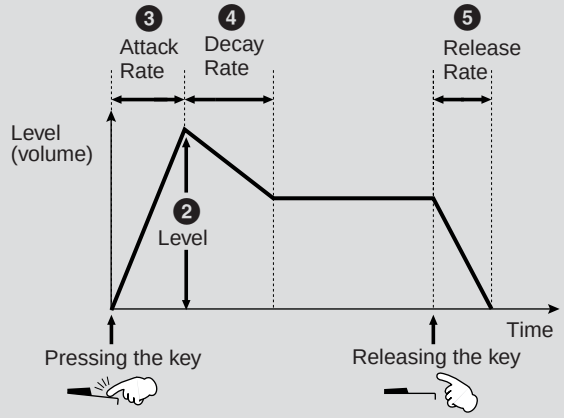
Determines the level (volume) of the low range frequencies. Positive values boost or increase the level, while negative values decrease or cut it.
Range: -64 – +63

❼ EQ HIGH

Determines the level (volume) of the high range frequencies. Positive values boost or increase the level, while negative values decrease or cut it.
Range: -64 – +63

Envelope Parameters

The level envelope lets you control the transition in volume from the moment a note is pressed on the keyboard to the moment the sound stops. The parameters ❷ – ❺ above are envelope-related parameters.

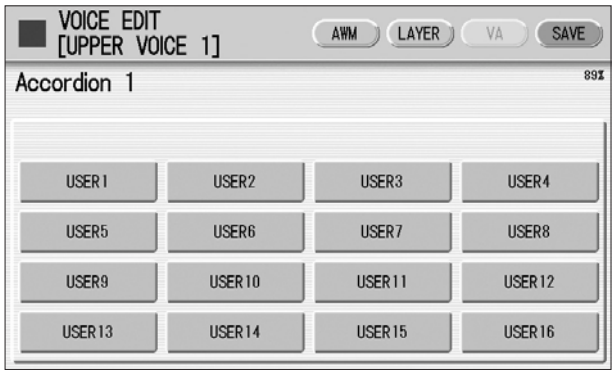


3 Saving the edited Voice

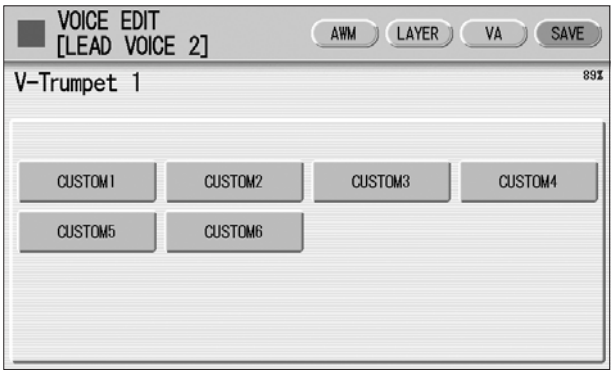
Edited AWM Voices can be saved as User Voices (up to sixteen), and edited VA Voices can be saved as VA Custom Voices (up to six).

1 Press the [SAVE] button at the top right of the display to call up the SAVE Page.

When saving User Voices (AWM)



When saving VA Custom Voices (VA)



2 Select the User Voice number or VA Custom Voice number you wish to save to.

The message appears to prompt confirmation of the operation. (Saving a new Voice automatically erases the Voice previously stored to the selected User number.)

3 (If necessary) Press the [RENAME] button to give a name to your original Voice.

The method for editing the name is the same as the one for the song name in the M.D.R. section. (See page 104 for more information.) Up to sixteen characters can be entered.

4 Press the [SAVE] button to save the Voice, or press [CANCEL] to abort the operation.

⚠ This operation automatically erases any Voice that had been previously saved to the selected User Voice number or VA Custom Voice number. Be careful not to erase any important data. Always save your important data in advance to a SmartMedia card using the M.D.R. function.

After saving the Voice, be sure to quit the Voice Edit function (page 138) before turning the power off. Turning off the Electone without quitting Voice Edit erases the User Voice you have edited.

4 Quitting Voice Edit

You can quit the Voice Edit function from any of its display pages.

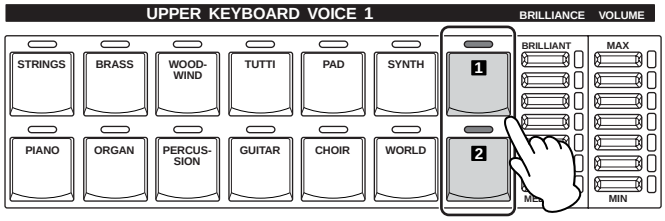
1 **Press the [VOICE EDIT] button on the panel.**
If your original Voice has already been saved, the Voice Edit function quits automatically. If the edited Voice has not been saved, a message appears prompting confirmation of the operation.

2 **Select [EXIT] to quit the Voice Edit function, or [CANCEL] to about the operation and return to the previous display.**

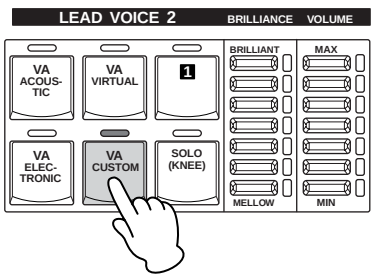
> ⚠ **When quitting Voice Edit, the square at the top left of the display turns light blue for a few seconds, indicating that the Voice you have created is currently being saved. Do not turn the power off while the Voice is being saved.**

5 Recalling an Edited Voice

Once your original AWM Voice has been saved, it can be selected from the User button in each Voice section. Refer to chapter 2, "Selecting Voices from the User buttons" (page 28).



Once your original VA Voice has been saved, it can be selected from the [VA CUSTOM] button in LEAD VOICE 2. Refer to chapter 2, "Selecting Voices with the Voice buttons" (page 23).



9 Rhythm Program

The Electone includes powerful rhythm programming functions: Rhythm Pattern Program and Rhythm Sequence Program. Rhythm Pattern Program allows you to record your own original rhythms and save them as user rhythms. Rhythm Sequence Program lets you connect the existing rhythms or your original rhythms to create complete rhythm tracks, which you can automatically play back during your performance. Moreover, Rhythm Sequence Program includes an automatic Registration Shift feature — called Registration Sequence.

Contents

1 Outline of the Rhythm Programming Operation

Rhythm Pattern Program (pages 140 – 164)

You can create your original rhythm patterns by entering percussion sounds or editing preset rhythm patterns.

Entering percussion sounds and/or editing them

↓

Creating the backing (Rhythmic Chord) patterns and/or editing them

↓

Effect settings and detailed settings for each percussion Voice (Panning, Tuning, and so on)

↓

Saving your rhythm patterns as User rhythms

↓

Rhythm Sequence Program (pages 170 – 176)

You can connect any of the rhythms together to make complete rhythm compositions. Moreover, you can also program Registration Shift events at any point in the composition so that the Registration Memory settings automatically change as the rhythm sequence plays back.

Selecting the destination of the sequence

↓

Entering a rhythm pattern one by one

↓

Programming the Registration Sequence

2 Rhythm Pattern Program

Rhythm Pattern Program lets you use any of the different instrument sounds (drum and percussion) assigned to each key on the Upper and Lower keyboards in creating your own rhythms. Up to 48 of your original rhythms can be saved as User Rhythms.

Entering the Rhythm Pattern Program

There are two ways to program a User pattern: copying a preset rhythm that is similar to the rhythm you want to create, and creating your own rhythm from scratch.

To copy a preset rhythm:

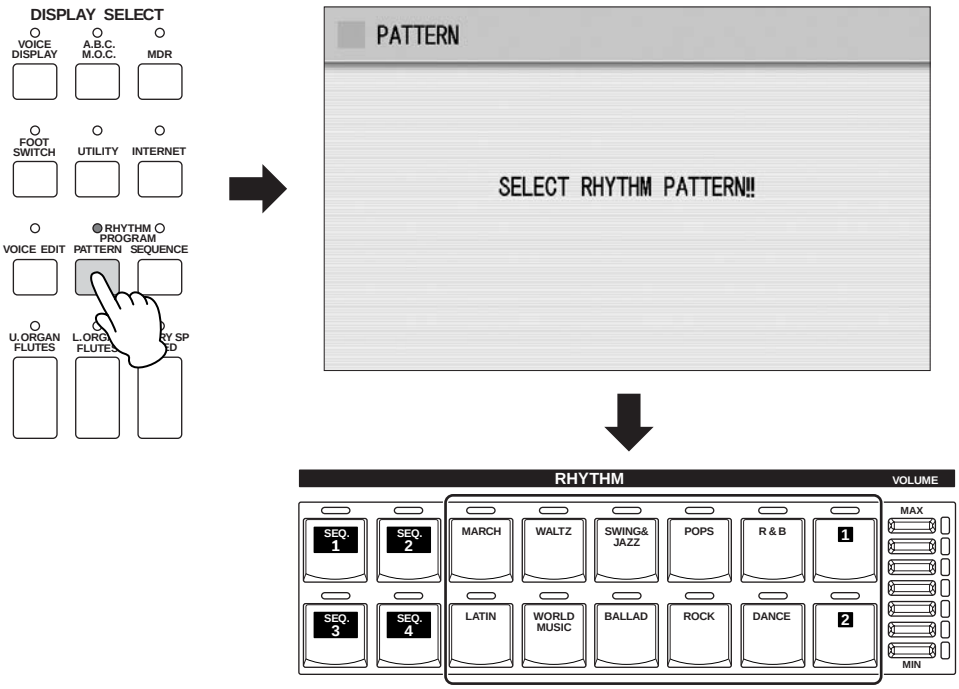
Copying a preset rhythm lets you make changes to an existing rhythm, saving you time if you want to program a rhythm that is similar to an existing preset pattern.

1 Select the rhythm you want to copy from the Rhythm Menu.

2 While holding down the [PATTERN] button in the panel (the display prompts you to select a rhythm), select the Rhythm button that contains the preset rhythm to be copied to the Rhythm Pattern Program.

NOTE

Pressing the [PATTERN] button while the rhythm is running automatically stops the rhythm.

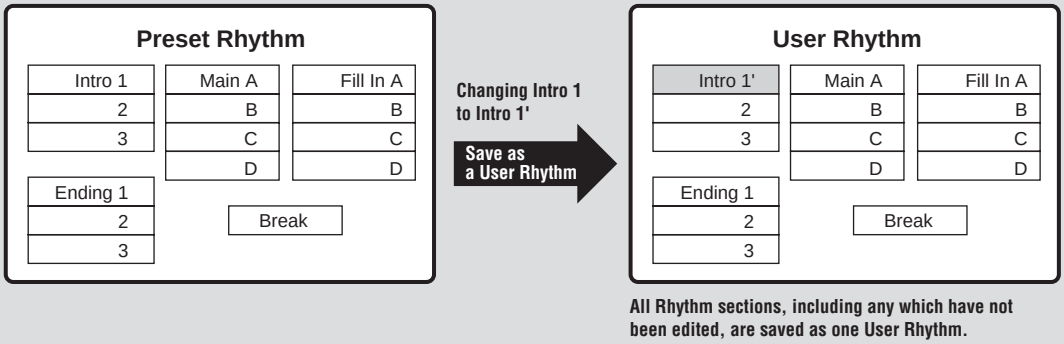


To create your own rhythm from scratch:

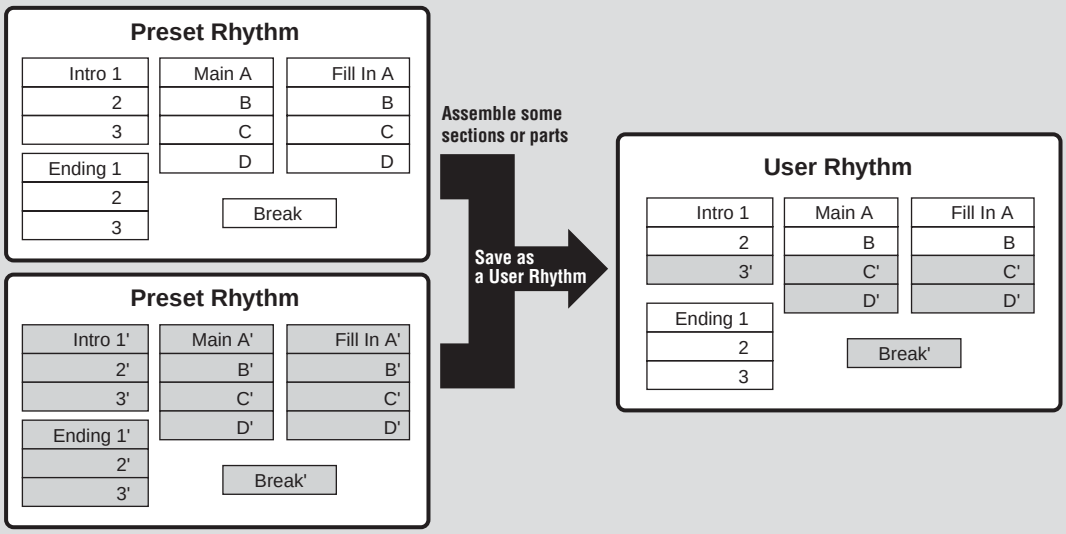
Press the [PATTERN] button and release it without selecting a Rhythm button.
A blank pattern is loaded to the Rhythm Pattern Program.

A Rhythm consists of 15 sections: Intro 1 – 3, Main A – D, Fill In A – D, Ending 1 – 3, and Break.
In Rhythm Pattern Program, you can enter or edit percussion notes one by one, or assemble each part from other different rhythms to create your own new User Rhythm.

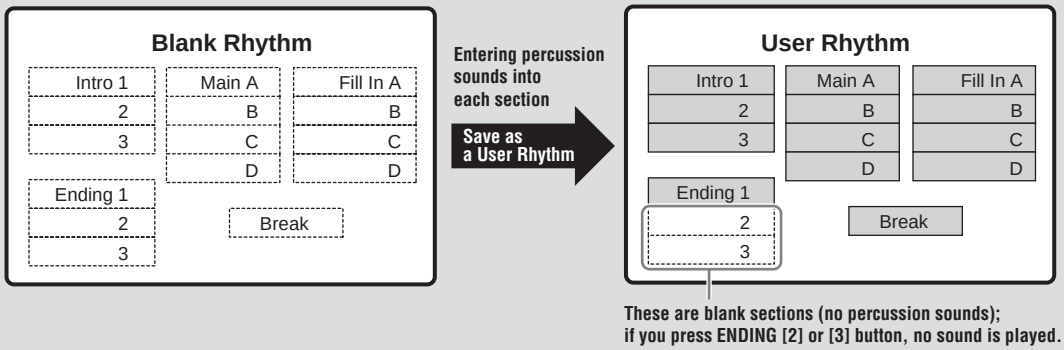
Case 1: Creating your own rhythm by changing a preset rhythm



Case 2: Creating your own rhythm by assembling parts from other different rhythms



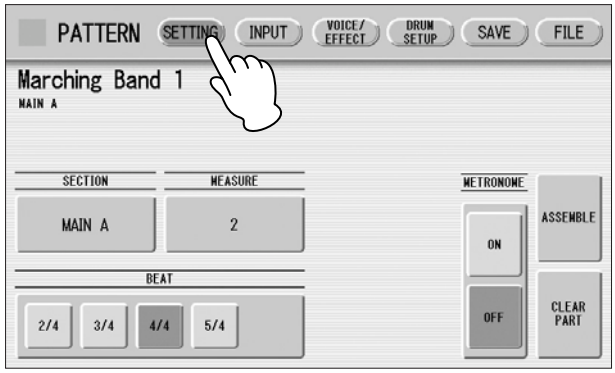
Case 3: Creating your own rhythm from scratch



Basic settings for the Rhythm Pattern

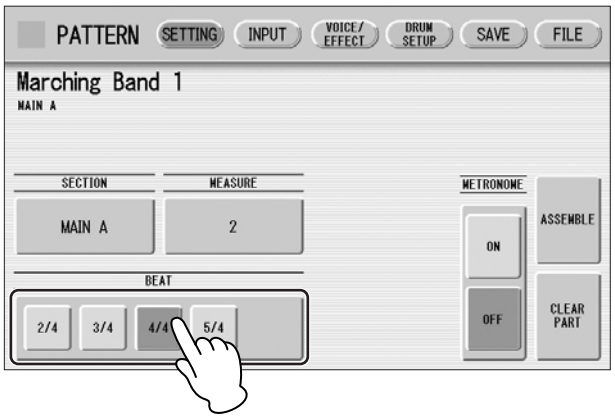
In the SETTING Page of the display, set the conditions of the rhythm, such as time signature, measure length, and so on. You can also customize the part settings in this SETTING Page — deleting any part or copying a part from another rhythm to the currently selected rhythm.

1 Press the [SETTING] button in the display to call up the SETTING Page.



2 Determines the time signature used for the rhythm.

You can select the time signature with the BEAT buttons.

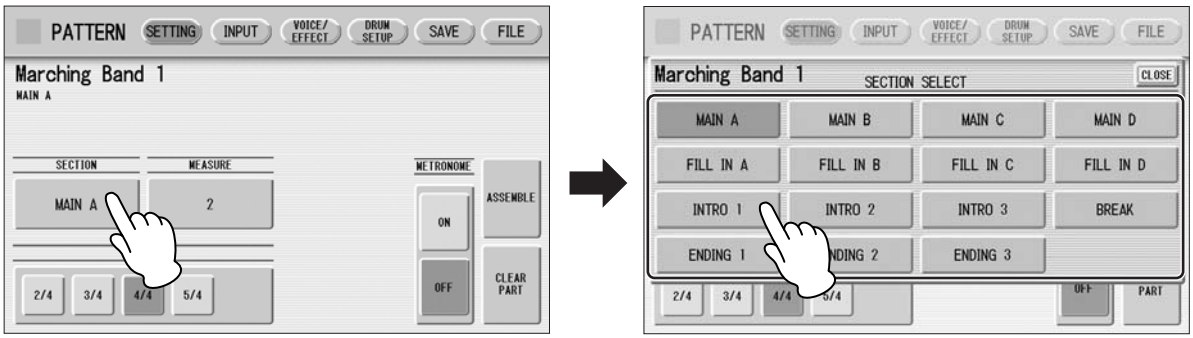


If you start the Rhythm Pattern Program from a preset rhythm, pressing a BEAT button that is not the same as the currently selected rhythm calls up the following message.

Selecting [CLEAR] deletes all data in the rhythm and changes the time signature.
Select [CANCEL] to abort the operation.

3 Select a section to which you want to enter or edit the rhythm pattern.

Pressing the SECTION button on the display calls up the Section Select pop-up menu. After selecting the desired section, the pop-up menu automatically closes.

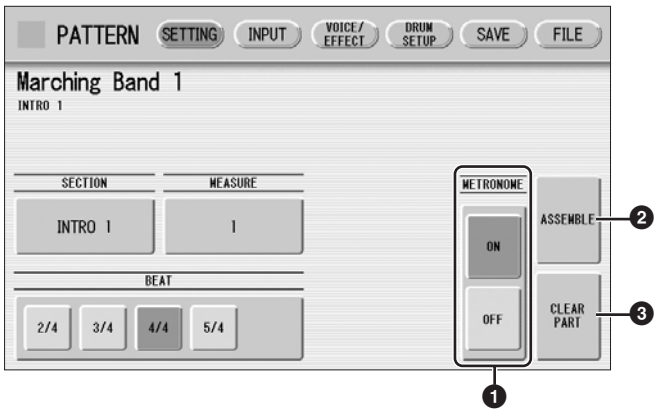


You can play the selected section by pressing the Rhythm [START] button on the panel. You can also change the section while the rhythm is playing. For details on muting the accompaniment part, refer to page 158.

4 Sets the measure length of the rhythm pattern.

Pressing the MEASURE button on the display calls up the Measure Select pop-up menu. Select the desired measure in the pop-up menu. If you select Break or Fill In as the section, the measure cannot be changed.

5 (If necessary) Set the Metronome, Part Assemble, and Part Clear parameters.



❶ METRONOME

Turns the metronome click on or off. When set to ON, the metronome sounds on each beat of the measure (for example, three times per measure in 3/4 time) to serve as a rhythmic guide when programming patterns. Set to On here with Real Time Write.

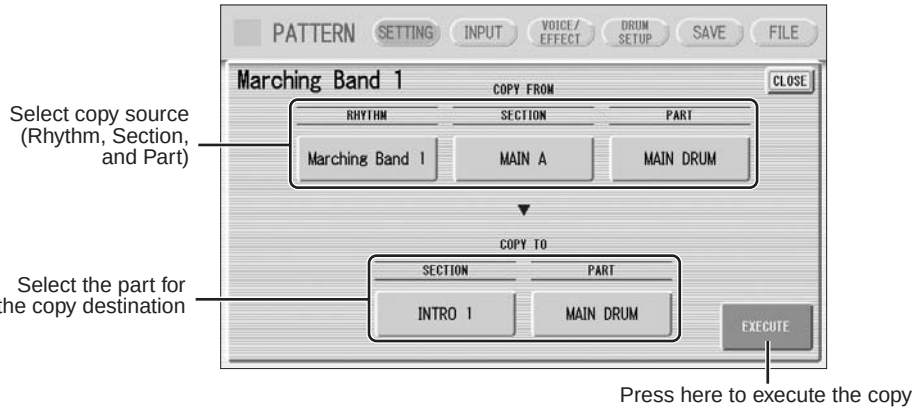
Reference Pages

Step Write and Real Time Write (page 145)

Entering Percussion Sounds to a Rhythm Pattern – Real Time Write (page 153)

❷ ASSEMBLE

Copies the part from another rhythm to the currently selected rhythm. You can assemble various sections from multiple rhythms to create your original rhythm. Pressing the [ASSEMBLE] button calls up the following display.

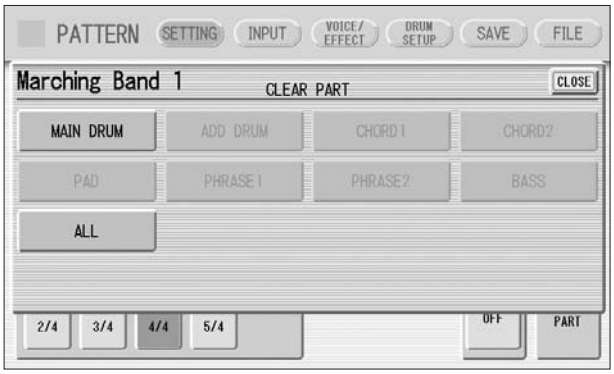


Select the copy source: Rhythm, Section and Part. Then select the destination. You can copy only one part, or all parts of a rhythm.

After setting the source and destination, press [EXECUTE]. Copy is executed and returning to the previous display.

❸ CLEAR PART

Clears a specific part or parts from the currently selected rhythm. Pressing this button calls up the following display.



Select the part you want to delete from the displayed parts. You cannot select a part that contains no data (the button is grayed out). If you select [ALL] here, the percussion and all accompaniment parts are cleared.

When selecting the desired part, a display prompting confirmation of the operation appears. Select [CLEAR] to execute the operation, or select [CANCEL] to abort the operation.

Reference Page
Accompaniment (page 61)

NOTE
If you select BASS here, the bass phrase in the A.B.C. will be cleared.

Step Write and Real Time Write

There are two different methods you can use to program rhythms: Step Write and Real Time Write.

Step Write allows you to enter percussion sounds as individual note values. As a method, it is very similar to writing down the notes on a sheet of music paper; each note is entered one at a time, and though you can hear each individual note entered, you cannot actually hear the pattern playing as you create it. Step Write is good for precision and for entering percussion sounds whose note placement and rhythmic value has been determined, such as a bass drum that plays every beat in a measure.

Real Time Write on the other hand, is similar to using a multi-track tape recorder; you can hear previously recorded parts of the pattern as you record new parts on top. Real Time Write is best for capturing the "feel" of a rhythm, because it allows you to actually play the pattern as you are creating it.

Each method has its own advantages and uses. Which method you use depends partly on the type of rhythm you intend to create and partly on your own personal preference. You can switch between the two methods in editing to create a single rhythm by the use of both methods. This would come handy, for example, in programming the basic beats of a rhythm with Step Write, then using Real Time Write to add percussion accents and embellishments.

Which mode of the operation is selected depends on the play status of the rhythm. If the rhythm is stopped, Step Write is automatically selected. If the rhythm is playing, Real Time Write is selected. See the instructions below for Step Write, and page 153 for Real Time Write.

Entering Percussion Sounds to a Rhythm Pattern – Step Write

You can enter percussion sounds in the INPUT Page of the display. Before entering percussion sounds, turn off the Upper and Lower keyboard Voices by setting each Voice's volume to MIN.

NOTE

The volume of the percussion and accompaniment sound during use of Rhythm Pattern Program can be controlled with the VOLUME button of the RHYTHM section. When you quit Rhythm Pattern Program, the VOLUME of the RHYTHM section will return to the previous selected level.

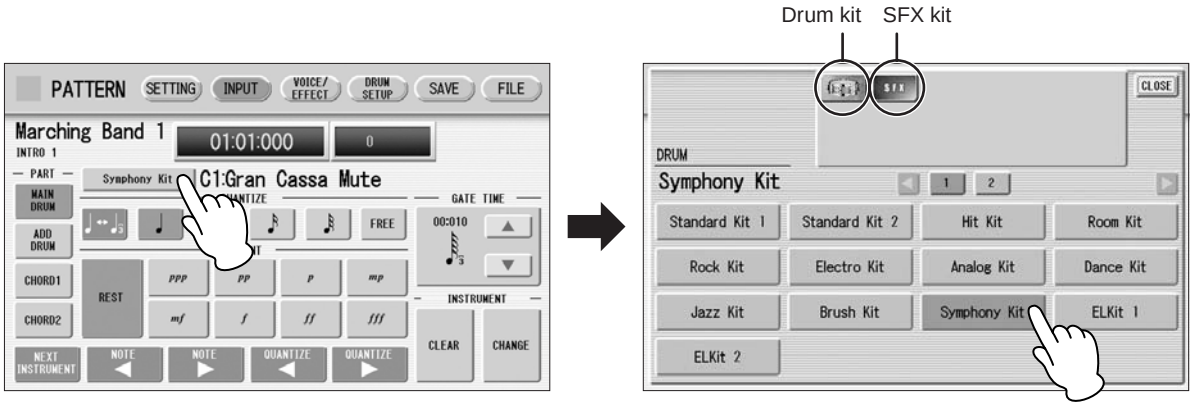
1 **Press the [INPUT] button at the top of the display to call up the INPUT Page.**

2 **Select the part, MAIN DRUM or ADD DRUM, to which you want to enter the percussion.**

In general, main (or basic) drum/percussion instruments (such as Bass Drum, Snare Drum, and so on) are entered in Main Drum part and others (such as Tambourine, Triangle) are entered in Add Drum part.

3 Select the desired Drum Kit.

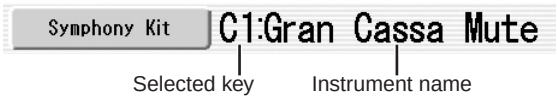
You can select a kit from 20 Drum kits and 5 SFX kits. For details on each kit, see page 167. Pressing the button indicating the currently selected kit calls up the kit Select the pop-up menu, then select the desired kit from the pop-up menu. The selected kit is called up on the Upper and Lower keyboards.



You can select only one kit for each part (Main Drum or Add Drum). When you want to create a rhythm pattern including two different drum kits, select one kit for Main Drum and another for Add Drum.

4 Select the percussion sound you wish to enter by pressing the key on the Upper or Lower keyboard that corresponds to the sound.

The selected instrument's name appears on the display.



NOTE

The Quantize setting can be changed in the middle of Step Write.

5 Set the appropriate Quantize value.

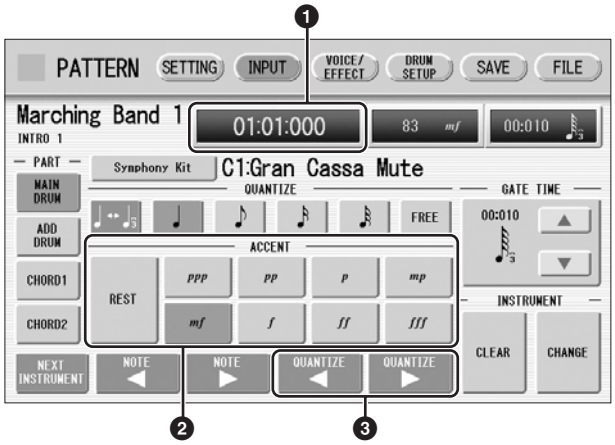
For details on Quantize, refer to page 152.

6 Set the Gate Time. (This is optional, and only necessary when you want to enter a sustaining sound, such as a whistle.)

For a list of instruments that require a Gate Time setting, refer to the Percussion Kit List on page 167. For details on Gate Time, refer to page 156.

7 Use the ACCENT buttons to enter the sound to the selected point. Press each ACCENT button to actually enter the percussion sounds.

You can change the rhythm clock to which the percussion sound is entered by pressing the QUANTIZE [◄][►] buttons.



❶ Rhythm Clock box

Displays the current position in the pattern according to measure, beat, and number of clicks.
A click is the smallest division of a pattern, and one beat is made up of 480 clicks. The rhythm clock advances up to the measures set in the SETTING Page and loops back to the beginning of the rhythm (01:01:000).

Reference Page
Basic settings for the Rhythm Pattern (page 142)

❷ ACCENT buttons

Records the instrument and determines its volume or Accent level. Press one of the ACCENT buttons you wish to set (“ppp” is softer and “fff” is louder; “REST” is no sound). The instrument is automatically inserted at the Accent level to the selected position in the pattern. Selection of an Accent level automatically advances the rhythm clock by one step, according to the current Quantize resolution value.

❸ QUANTIZE [◄][►] controls

Each press of the buttons advances or reverses the rhythm clock by one step. The size of a single step is determined by the Quantize value.

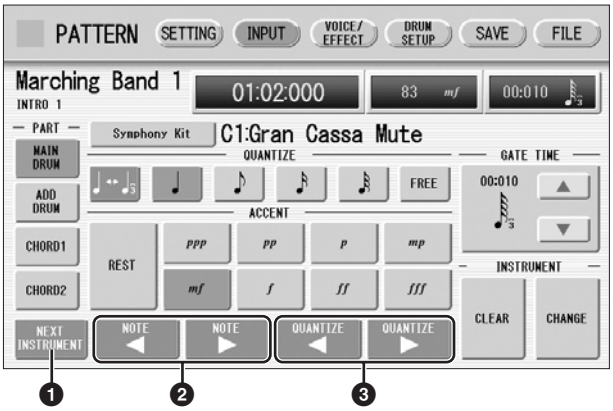
8 Repeat steps #4 through #7 above to layer each instrument and complete your own rhythm.

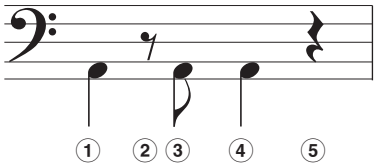
Editing Entered Percussion Notes

You can change the accent level, position, or gate time of the entered sound, or delete the entered sound.

To change the accent level of an entered note:

1 **Select the desired note for changing the accent level.**





❶ NEXT INSTRUMENT

Selects the entered instruments one by one, from left key to right.

❷ NOTE [◄][►] controls

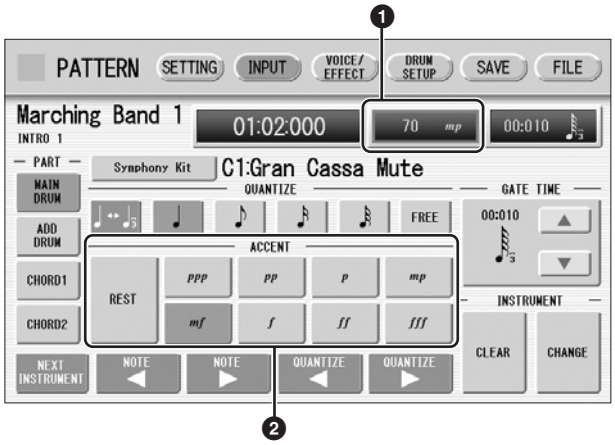
Selects the previous/next position's note of the currently selected instrument. In the above notes for example, you can select notes ①, ③ and ④ one by one. Rests (② and ⑤) are ignored.

❸ QUANTIZE [◄][►] controls

Advances or reverses the rhythm clock by one step. The size of a single step is determined by the Quantize value.

2 Change the accent level by using the ACCENT buttons or Accent box.

The Accent box allows for finer changes.



❶ Accent box

Touch on the box to enable the Accent box.
Turning the Data Control dial changes the accent level over a range of 0 – 127.
The minimum setting results in no sound.

❷ ACCENT buttons

Determines the coarse accent level. Eight accent levels (from "ppp" to "fff") are available.
Press the desired Accent button to change the currently selected note to the selected level.

To move an entered note:

1 Select the note you want to move (as in Step 1 on page 148).

2 Press the Rhythm Clock box to enable the box.

3 Turn the Data Control dial to change the position by one clock.

To change the length of an entered note:

The length of sustaining sounds such as Snare Roll and Whistle can be changed by adjusting the Gate Time. See page 157 for more information.

To erase an entered note:

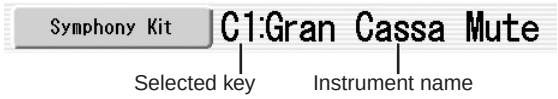
1 **Select the note you want to erase (as in Step 1 on page 148).**

2 **Press the [REST] button in the ACCENT section of the display.**
The selected note is deleted and replaced with a rest.

You can also erase all notes of a single instrument, or all notes entered.

To erase one instrument:

1 **Select the key to which the instrument that you want to erase is assigned.**
The key name you have selected and its instrument name are displayed.



2 **Press [CLEAR] in the display.**
The following display appears, prompting confirmation of the operation.

3 **Select [CLEAR] to erase the selected instrument.**
A bell sound indicates that the instrument has been erased.

The following method can also be used to erase one instrument.

While holding down the [CLEAR] button, press the key on the keyboard corresponding to the instrument you wish to erase.
A bell sound indicates that the instrument has been erased.

To erase all instruments:

1 **Press [CLEAR] in the display.**
The following display appears, prompting confirmation of the operation.

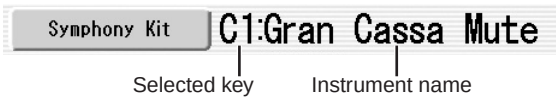
2 **Select [CLEAR ALL] to erase all instruments.**
All instruments are instantly erased.

When you want to replace the instrument you have already entered with another instrument, it's not necessary to delete and re-enter. You can quickly replace the sound with the following procedure.

To replace the instrument:

Before the operation, stop the rhythm.

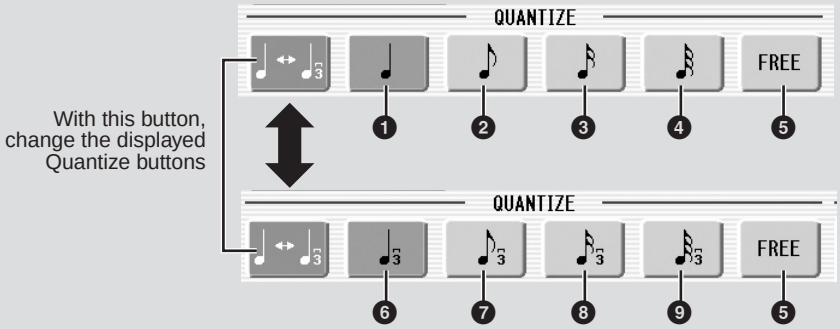
1 **Select the key to which the instrument you want to replace is assigned.**
The key name you have selected and its instrument name are displayed.



2 **Simultaneously hold down the [CHANGE] button in the display and press the key on the Upper or Lower keyboard that corresponds to the instrument you want to use.**
The instrument is instantly erased and replaced with the newly selected one.

About Quantize

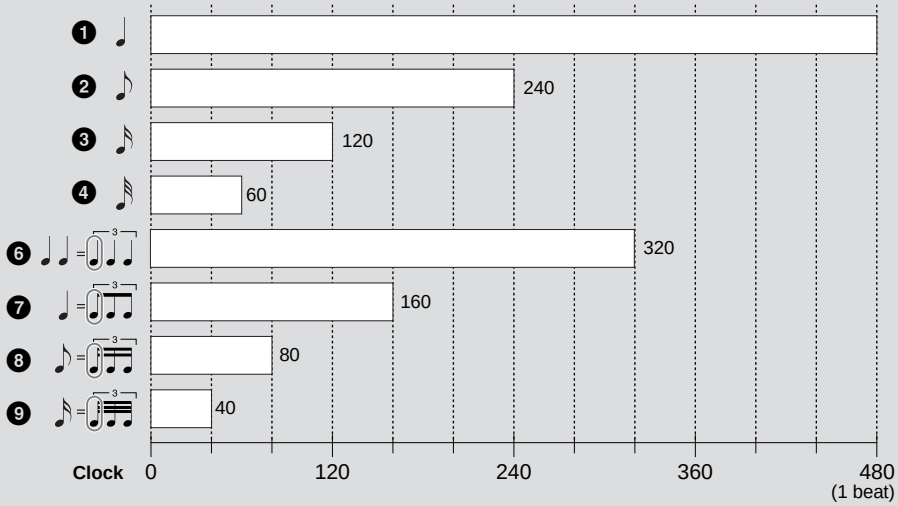
The Quantize function is a process of rounding off timing or duration values, so that each note plays with precise timing. You can select nine types of Quantize value.



With Step Write

It allows you to automatically correct the length (duration) and timing of each note you enter.

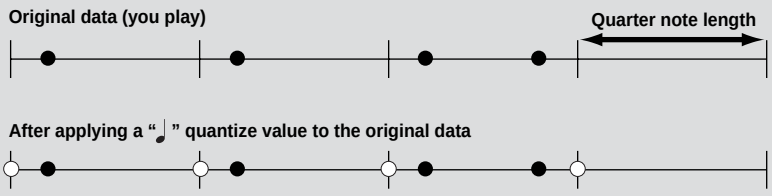
Steps Depending on the Quantize Values



Setting Quantize to FREE (❺) results in the finest, least amount of quantization (1/480 beat).

With Real Time Write

It allows you to automatically correct the timing of the notes you play, according to the specified Quantize resolution. No correction occurs when you select FREE. Generally, you should set Quantize to be the same as the shortest note you intend to play.



Entering Percussion Sounds to a Rhythm Pattern – Real Time Write

While you listen to the entered rhythm or metronome click, play the Upper/Lower keyboards to enter the desired percussion sounds.

1 **Select the desired part to which the percussion sounds are entered, and the desired drum kit, by following Steps 1 – 3 on page 145.**

2 **Set the appropriate Quantize value.**

The positions at which the sounds are input will be corrected according to the predetermined Quantize value in the Real Time Write operation. For details, refer to page 152.

3 **Press the rhythm [START] button in the panel.**

The rhythm (or Metronome) starts playing, enabling the Real Time Write operation.

4 **While the rhythm is running, play the percussion sounds from the Upper and/or Lower keyboards.**

If you have started the Rhythm Pattern Program by copying a preset rhythm, you can listen the selected rhythm as you play the sound. If you have started from scratch, set the Metronome to "on" in the SETTING Page and listen to the metronome click. The pattern will automatically repeat (or "loop") for a certain number of measures as set in the SETTING Page.

Reference Page
Metronome (page 143)

5 **Repeat steps #2 through #4 above to layer each instrument and complete your own rhythm.**

You can erase an instrument while rhythm is played.

To erase an instrument/key assignment:

While holding down the [CLEAR] button, press the key on the keyboard corresponding to the instrument you wish to erase. All instances of the selected instrument will be erased from the pattern.

When you want to erase all instruments, or edit entered percussion notes, you need to stop the rhythm then edit. See page 148, “Editing Entered Percussion Notes.”

Creating Backing Patterns (Rhythmic Chord Function)

The Rhythm Pattern Program allows you to use one of the Electone’s Accompaniment patterns with your original rhythm. You can select and save the Accompaniment pattern that best matches the rhythm that you have created. Moreover, Rhythm Pattern Program features a Rhythmic Chord function that lets you add your own backing patterns to the rhythms you create.

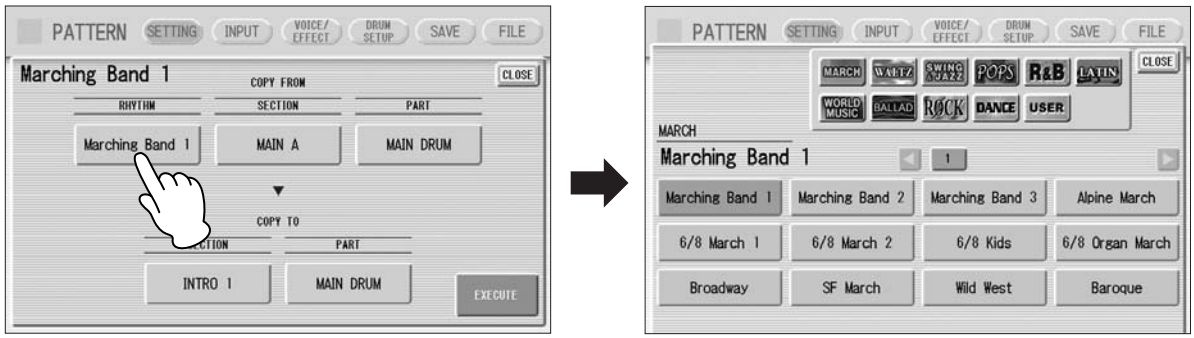
To select an appropriate Accompaniment pattern for your newly created rhythm:

1 **Press the [SETTING] button at the top of the display to call up the SETTING Page.**

2 **Press the [ASSEMBLE] button.**
A pop-up menu appears, letting you select the copy source and destination part.

Reference Page
Basic settings for the Rhythm Pattern (page 142)

3 **Using the COPY FROM [RHYTHM] and [SECTION] buttons, select the rhythm and the section which has the accompaniment you wish to use.**



4 **Using the COPY TO [PART] button, select the desired accompaniment part (CHORD 1 or CHORD 2) to be used for the Rhythmic Chord pattern.**

5 **Using the COPY FROM [PART] button, select the accompaniment part you want to copy.**

6 Press the [EXECUTE] button to execute the copy.

The desired accompaniment part (Rhythmic Chord pattern) has been copied.

To create your own backing patterns with the Rhythmic Chord function:

The Rhythmic Chord pattern can be entered by the same methods as the rhythm: Step Write and/or Real Time Write.

1 Press the [INPUT] button at the top of the display to call up the INPUT Page.

2 Select the part, CHORD 1 or CHORD 2, which you want to create for the Rhythmic Chord pattern.

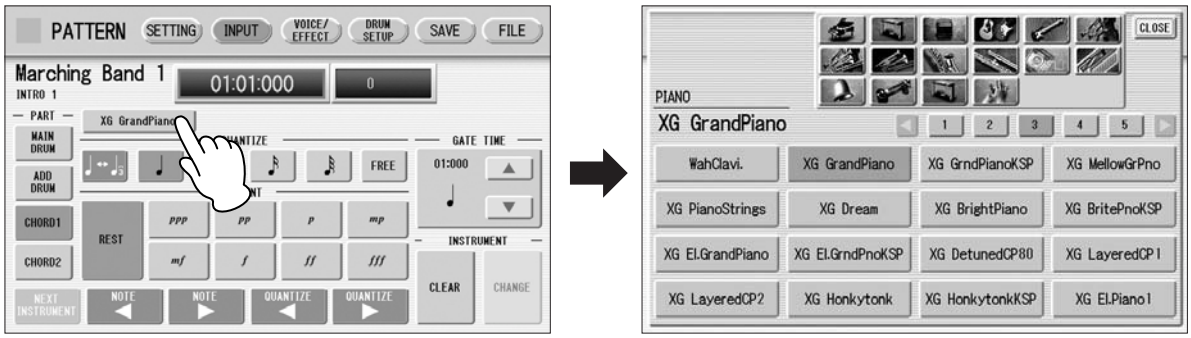
If the part you have select contains a preset accompaniment pattern, a message appears prompting you to confirm whether you want to clear the existing data or not. To create your own Rhythmic Chord pattern, select [CLEAR].

3 Select the desired Voice.

Pressing the button showing the Voice name calls up the relevant Voice Menu. Select the desired Voice category with the instrument icon buttons, then select the desired Voice from the Voice Menu. The selected Voice is called up for both the Upper and Lower keyboards.

NOTE

The Voice menu that appears here is not the same as the one for the Voice Sections.



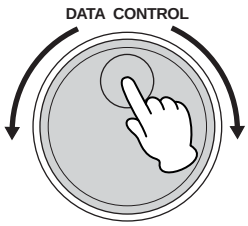
Voices can also be changed even after entering the Rhythmic Chord pattern. You can select only one Voice for one part (Chord 1 or Chord 2). When you want to create a Rhythmic Chord pattern including two different Voices, select one Voice for Chord 1 and another for Chord 2.

4 Set the appropriate Quantize value.

For details on the Quantize function, refer to page 152.

5 Set the Gate Time.

You can adjust the Gate Time setting by using GATE TIME ▲ ▼ buttons in the display, or Data Control dial.



Gate time determines the actual length of time a note sounds. For example, a quarter note is sometimes played as tenuto (long length) and sometimes played as staccato (short length).
Since 1 beat is made up of 480 clocks, a quarter note played tenuto may have a gate time between 450 – 470, and a staccato quarter note may be about 240.

6 Enter the Rhythmic Chord pattern.

The methods for entering the Rhythmic Chord pattern are the same as those for entering the rhythm pattern. Any key you press sounds a C major triad chord (C, E, and G). For information on Step Write, see page 147; for information on Real Time Write, see page 153.

You can also edit the entered Rhythmic Chord pattern using the same method as in "Editing Entered Percussion Notes" (page 148). To change the gate time of the notes of the Rhythmic Chord pattern, follow the instructions below.

To change the Gate Time:

1 **Select the note for which you want to change the gate time (see Step 1 on page 148).**

2 **Press the Gate Time box to enable the box.**

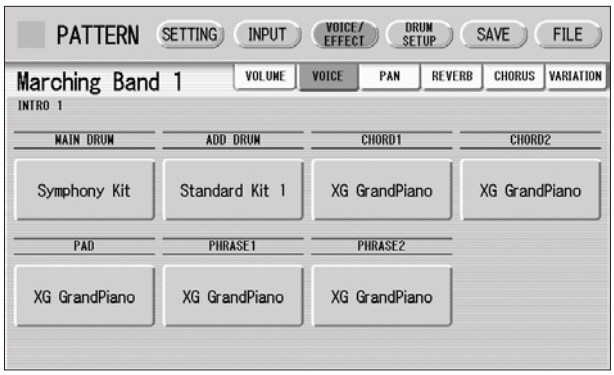
3 **Turn the Data Control dial to change the Gate Time.**

Changing the Voices for Accompaniment Parts

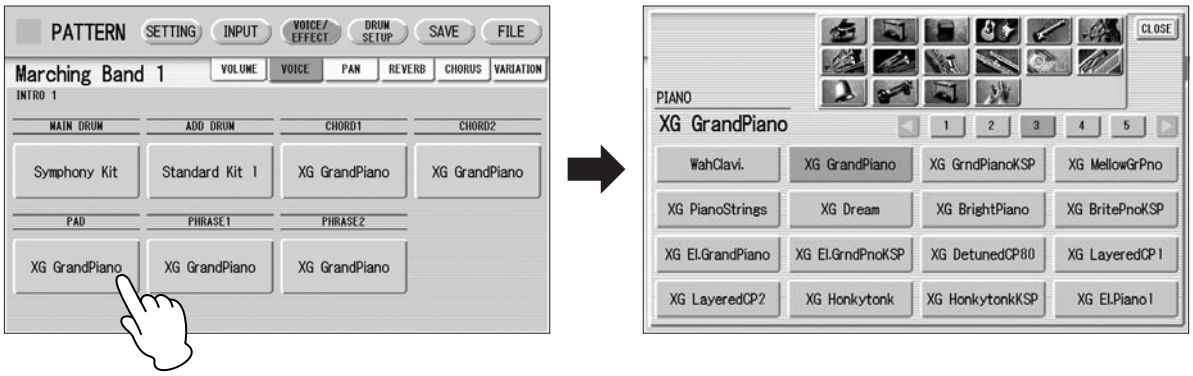
In Rhythm Pattern Program, you can create your original drum patterns using Main Drum and Add Drum, and original backing patterns using Chord 1 and Chord 2. Moreover, you can change the Voices for all accompaniment parts, including Pad, Phrase 1 and Phrase 2.
Voices can be changed in the VOICE/EFFECT Page.

1 **Press the [VOICE/EFFECT] button at the top of the display to call up the VOICE/EFFECT Page.**

2 **Press the [VOICE] button in the display.**
The following display will appear.



3 **Select the desired part for which you wish to change the Voice.**
The Voice menu appears.



NOTE
The Voice menu that appears here is not the same as the one for the Voice Sections.

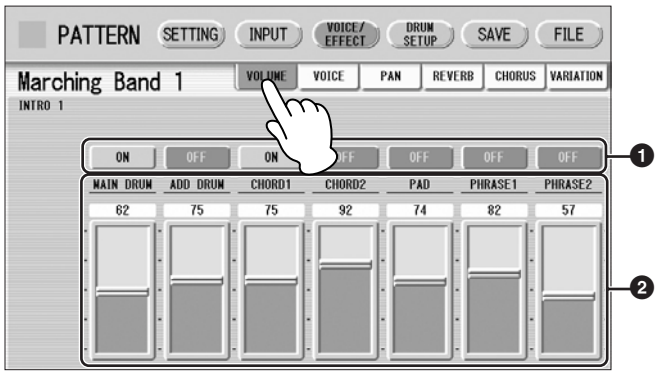
4 **Select the desired Voice, and the Voice menu automatically closes.**

After selecting the desired Voice, customize the accompaniment to your personal preference by adjusting the volume and pan, and setting the desired effects below.

Adjusting Volume and Panning

Volume and Pan are set in VOICE/EFFECT Page.

VOLUME Display



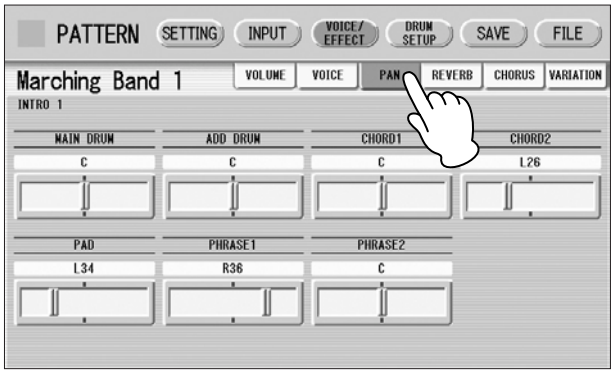
❶ ON/OFF

Determines the on/off status of each accompaniment part. When this is set to OFF, the part is muted.

❷ Volume sliders

Determines the volume of each accompaniment part.
Range: 0 – 127

PAN Display

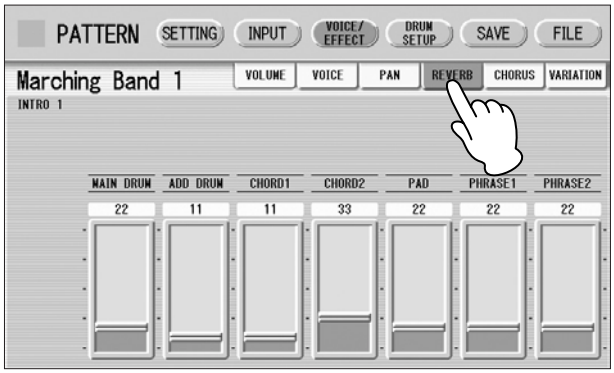


Determines the position of each accompaniment part in the stereo image.
Range: L64 – R63

Effect Settings

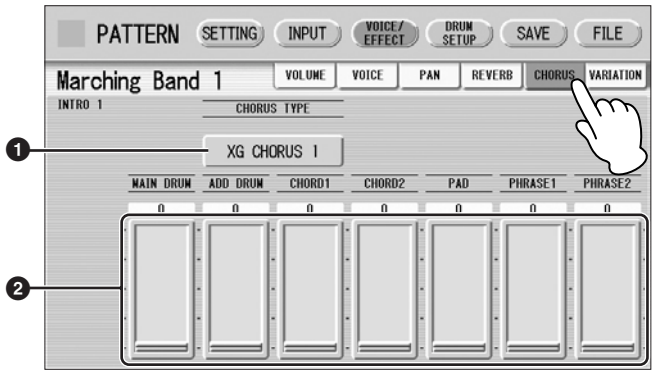
You can set Reverb, Chorus, and Variation effects as desired for your original rhythm. Reverb adds a warm ambience to the sound, simulating the complex reflections of actual performance spaces, such as a concert hall or a small club. Chorus provides a wide variety of sound transformations and enhancements. Variation includes many kinds of special effects for changing the sound, both subtly and radically. These effects are set in the VOICE/EFFECT Page.

REVERB Display



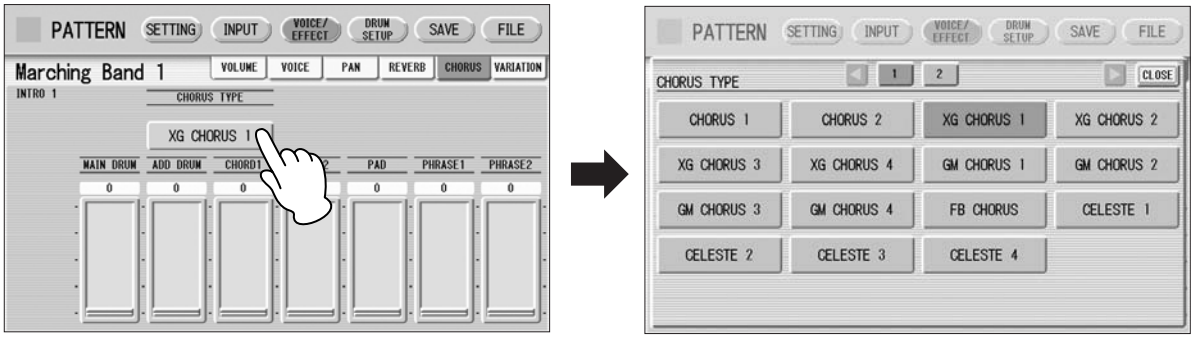
Determines the amount of reverb applied to each accompaniment part.
Range: 0 – 127

CHORUS Display



❶ CHORUS TYPE

Determines the type of the chorus effect. Pressing the CHORUS TYPE button calls up the chorus type list.

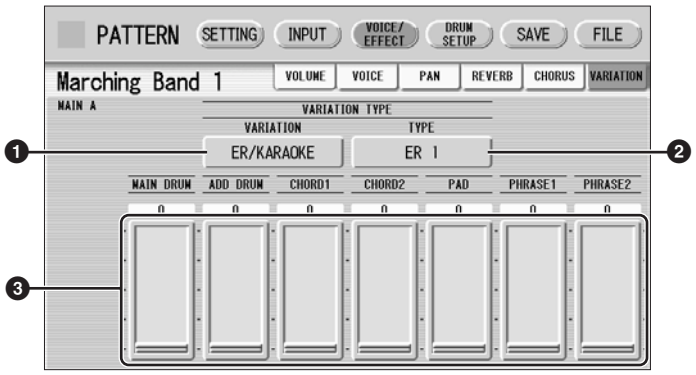


Select the desired chorus type, and the list automatically closes.

❷ Chorus sliders

Determines the amount of chorus effect applied to each accompaniment part.
Range: 0 – 127

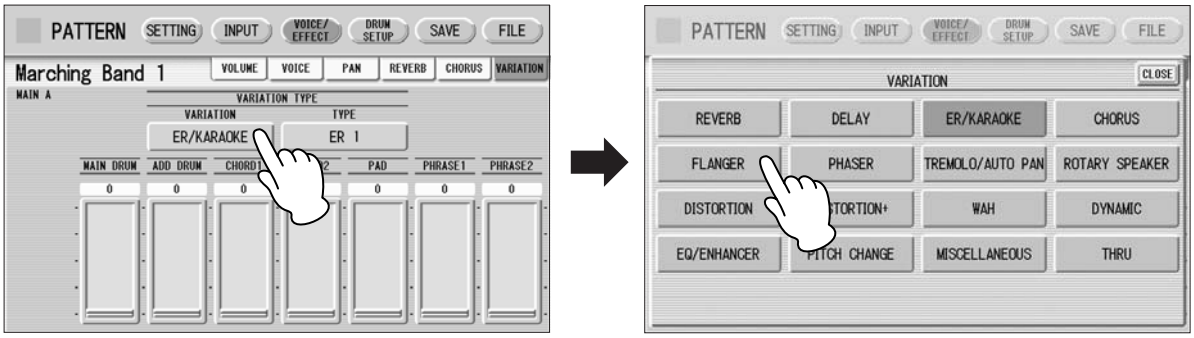
VARIATION Display



❶ VARIATION (Variation Effect Category)

Selects the effect category of the variation effect. Pressing the VARIATION button calls up the effect category list.

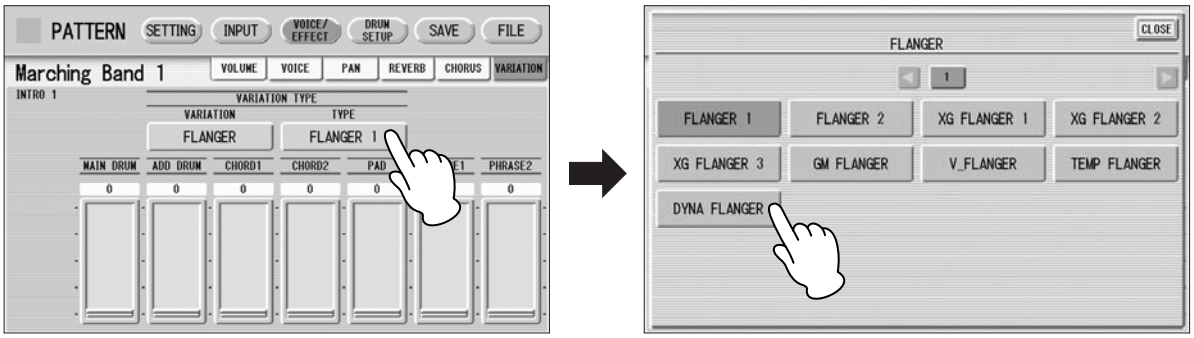
Reference Page
Effect List (page 50)



Select the desired effect category, and the list automatically closes.
After changing the category, the variation type below automatically changes corresponding to the selected category.

❷ TYPE (Variation Type)

Determines the type of the variation effect. Pressing the TYPE button calls up the effect type list.



Select the desired type, and the list automatically closes.

❸ Variation sliders

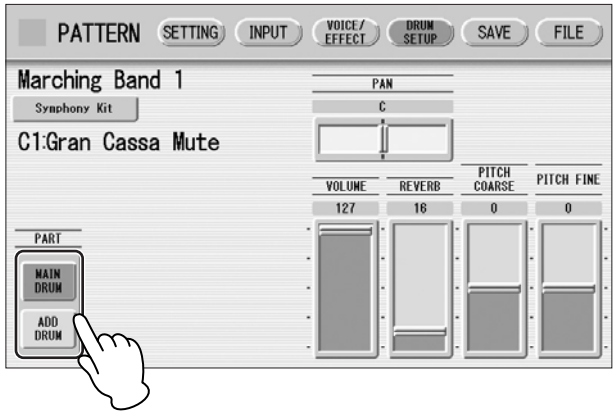
Determines the amount of Variation effect applied to each accompaniment part.
Range: 0 – 127

Detailed settings for each percussion instrument

You can independently adjust the settings of pan, pitch, reverb and volume for each instrument.

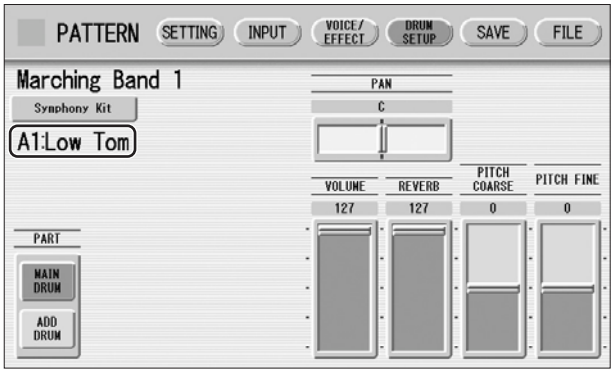
1 **Press the [DRUM SETUP] button at the top of the display to call up the DRUM SETUP Page.**

2 **Select the desired part, Main Drum or Add Drum.**

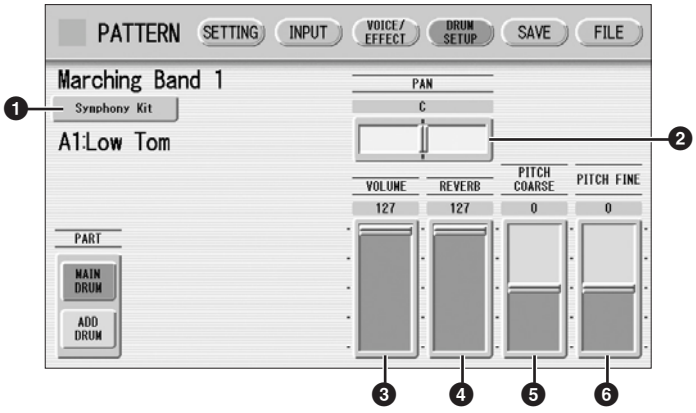


3 **Press the appropriate key (the key to which the instrument to be changed is assigned).**

The selected instrument's name is shown on the display and you can change its settings.



4 **Adjust the parameters: Pan, Volume, Reverb and Pitch.**



❶ Percussion Kit Name

Indicates the currently selected kit. Pressing this button calls up the Percussion Kit list, letting you select the desired kit. When you change the kit, the instruments you have already entered are replaced with the instruments of the newly selected kit.

Reference Page
Percussion Kit List
(page 167)

❷ PAN

Determines the position of the currently selected instrument in the stereo image.
Range: L63 – R63

❸ VOLUME

Determines the volume of the currently selected instrument.
Range: 0 – 127

❹ REVERB

Determines the amount of reverb applied to the currently selected instrument.
Range: 0 – 127

❺ PITCH COARSE

Determines the pitch of the currently selected instrument, adjustable in semitone (100-cent) steps.
Range: -64 – +63

❻ PITCH FINE

Determines the pitch of the currently selected instrument, adjustable in 1-cent steps, allowing more detailed tuning of the instrument than in PITCH COARSE (❺) above.
Range: -64 – +63

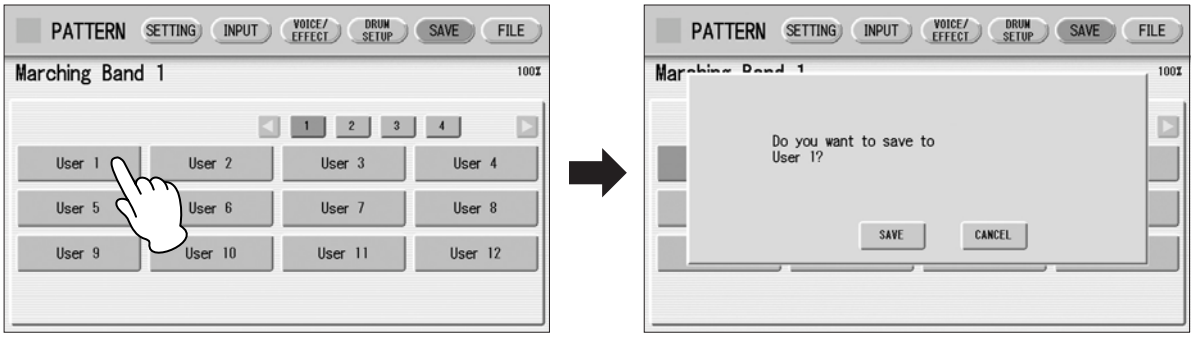
Saving Rhythm Patterns

You can save your newly created rhythm pattern as a User Rhythm, up to a maximum of 48 patterns.

1 **If necessary, confirm the contents of the rhythm you want to save.**
For details, see page 164.

2 **Press the [SAVE] button at the top right of the display to call up the SAVE Page.**
If the rhythm is playing, it will automatically be stopped.

3 **Select the User Rhythm number to which you wish to save.**
The following display appears, prompting confirmation of the operation.



4 Press the [SAVE] button to save the pattern, or press [CANCEL] to abort the operation.

Remaining Memory (amount of memory available for storing rhythms) is shown on the display as a percentage.

When the pattern cannot be saved because of lack of available memory space, a "Data full" message appears. Return to the previous page by pressing [OK] in this case.

You should periodically save your rhythm as you are creating it and check the amount of remaining memory. If the rhythm currently being edited cannot be saved because of a lack of memory space, erase some of the less necessary percussion sounds with the [CLEAR] button in the INPUT Page, and try saving the pattern again.

After saving the Rhythm, be sure to quit Rhythm Pattern Program (page 165) before turning the power off. Turning off the Electone without quitting Rhythm Pattern Program erases the User Rhythm you have created.

Confirming rhythm patterns before saving

The rhythm pattern you have created will be saved with 15 sections collectively into one rhythm. Before saving, we recommend that you confirm the contents of each section.

Example: When saving the Main A and Main B sections you have created into one user rhythm

First select "Main A" by using the [SECTION] button on the SETTING Page, then press the [START] button on the panel. This lets you hear the Main A pattern you have created. Confirm that the rhythm pattern is what you want to save as Main A. Next, select "Main B" by using the [SECTION] button, then play it back and confirm that this is what you want to save as Main B.
If the Main A and/or Main B patterns contain undesired data or no data, create the desired data by using the Assemble function (page 144).

After confirming the desired section (Main A and Main B here), we recommend that you confirm that all other sections contain no data. If unnecessary data is contained in some sections which you don't want to save, delete that unnecessary data. This can reduce the data size of the user rhythm.

Quitting the Rhythm Pattern Program

You can quit the Rhythm Pattern Program from any of its display pages.

1 **Press the [PATTERN] button.**

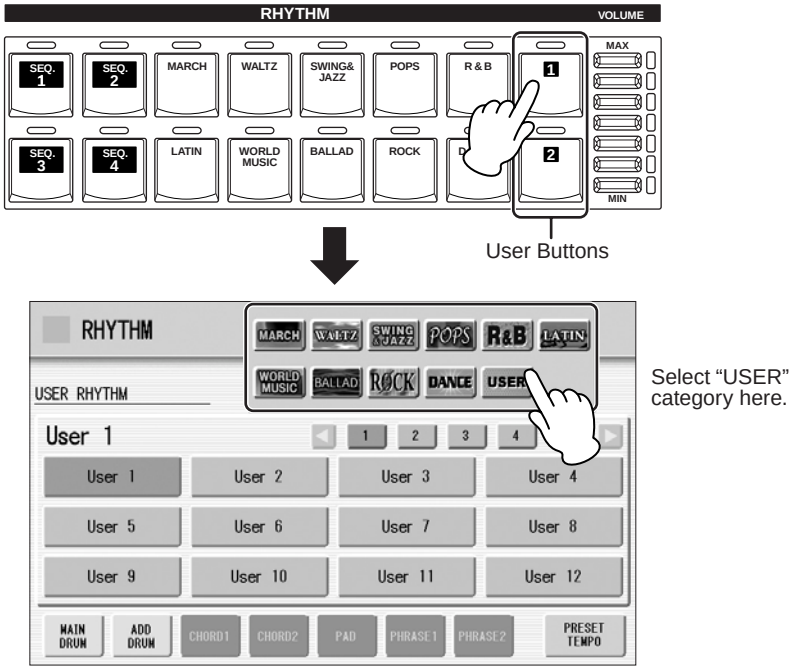
If a rhythm is playing, it will automatically be stopped.
If you leave Rhythm Pattern Program without having edited any patterns, this simply quits the Rhythm Pattern Program.
If you have not saved the edited pattern, a message appears, prompting confirmation of the operation.

2 **Select [EXIT] to leave Rhythm Pattern Program, or [CANCEL] to abort the operation and return to the previous display.**

> ⚠ **When you leave the Rhythm Pattern Program, the square at the top left in the display turns light blue for a few seconds, indicating that data is currently being saved. Do not turn the power off while the data is being saved.**

Recalling User Rhythm Patterns

The User rhythms you have created in the Rhythm Pattern Program can be selected and played from the User buttons in the panel Rhythm section. Refer to Chapter 5, “Selecting rhythms from the User buttons” (page 58).



Selecting Rhythm from an External Media

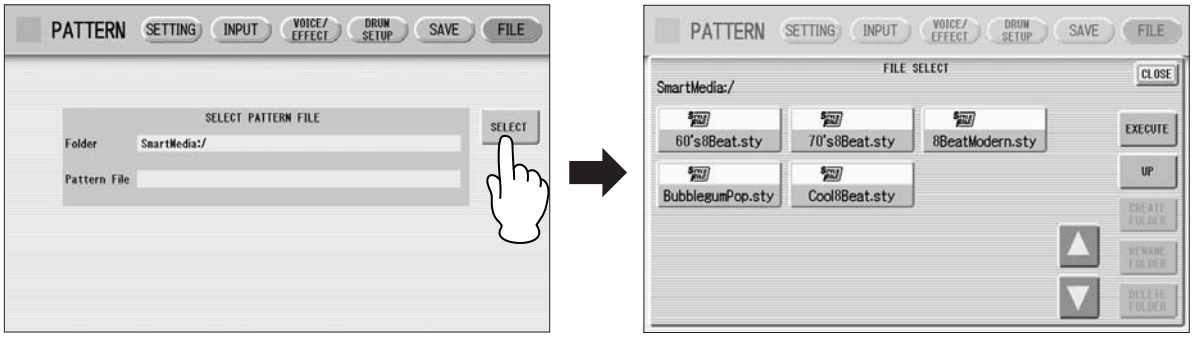
You can load rhythms from a SmartMedia card or floppy disk, and edit and save them as User Rhythms. Data that can be loaded includes not only that of the Electone, but also all Style File Format files.

1 **Insert the SmartMedia card or floppy disk which contains the desired pattern into the card slot/disk drive.**

2 **Press the [PATTERN] button on the panel.**

3 **Press [FILE] at the top right in the display.**
If you open the FILE Page while the rhythm is playing, the rhythm will automatically be stopped.

4 **Press the [SELECT] button to select the desired pattern file.**
The method for selecting a file is the same as that in the M.D.R. section. See page 96 for more information.



5 **Press [EXECUTE] or press the highlighted, selected button again to load the pattern.**
To edit the loaded pattern, go to the INPUT Page (page 148), then save your created pattern(s) as a User Rhythm (page 163).

About file types that can be loaded to the Electone

This Electone is compatible with Style File Format data. The Style File Format (SFF) is Yamaha's original style data format, which uses a unique conversion system to provide high-quality automatic accompaniment based on a wide range of chord types. In this format, each rhythm pattern (called a "style") is made up of fifteen sections (Intro 1 – 3, Main A – D, Fill In A – D, Break, Ending 1 – 3) as rhythm pattern variations. Each of these fifteen sections in turn has eight different parts, made up of MIDI sequence data.
You can load any patterns (styles) which have been created by an SFF-compatible instrument. Instruments compatible with SFF have the Style File Logo on the panel.

Percussion Kit List

		Standard Kit 1 Live!Std Kit Live!Std+P Kit	Standard Kit 2 Live!Funk Kit Live!Funk+P Kit	Hit Kit	Room Kit	Rock Kit	Electro Kit
C-1	C♯-1	Surdo Mute	Surdo Mute	Surdo Mute	Surdo Mute	Surdo Mute	Surdo Mute
D-1	D♯-1	Surdo Open	Surdo Open	Surdo Open	Surdo Open	Surdo Open	Surdo Open
E-1		Hi Q	Hi Q	Hi Q	Hi Q	Hi Q	Hi Q
F-1	F♯-1	Whip Slap	Whip Slap	Whip Slap	Whip Slap	Whip Slap	Whip Slap
G-1	G♯-1	Scratch H	Scratch H	Scratch H	Scratch H	Scratch H	Scratch H
A-1	A♯-1	Scratch L	Scratch L	Scratch L	Scratch L	Scratch L	Scratch L
B-1		Finger Snap	Finger Snap	Finger Snap	Finger Snap	Finger Snap	Finger Snap
C0	C♯0	Click Noise	Click Noise	Click Noise	Click Noise	Click Noise	Click Noise
D0	D♯0	Metronome Click	Metronome Click	Metronome Click	Metronome Click	Metronome Click	Metronome Click
E0		Metronome Bell	Metronome Bell	Metronome Bell	Metronome Bell	Metronome Bell	Metronome Bell
F0	F♯0	Seq Click L	Seq Click L	Seq Click L	Seq Click L	Seq Click L	Seq Click L
G0	G♯0	Seq Click H	Seq Click H	Seq Click H	Seq Click H	Seq Click H	Seq Click H
A0	A♯0	Brush Tap	Brush Tap	Brush Tap	Brush Tap	Brush Tap	Brush Tap
B0		Brush Swirl*	Brush Swirl*	Brush Swirl*	Brush Swirl*	Brush Swirl*	Brush Swirl*
C1	C♯1	Brush Slap	Brush Slap	Brush Slap	Brush Slap	Brush Slap	Brush Slap
D1	D♯1	Brush Tap Swirl*	Brush Tap Swirl*	Brush Tap Swirl*	Brush Tap Swirl*	Brush Tap Swirl*	Reverse Cymbal*
E1		Snare Roll*	Snare Roll*	Snare Roll*	Snare Roll*	Snare Roll*	Snare Roll*
F1	F♯1	Castanet	Castanet	Castanet	Castanet	Castanet	Hi Q 2
G1	G♯1	Snare Soft	Snare Soft 2	Snare Electro	Snare Soft	Snare Noisy	Snare Snap Elec
A1	A♯1	Sticks	Sticks	Sticks	Sticks	Sticks	Sticks
B1		Kick Soft	Kick Soft	Kick Tight L	Kick Soft	Kick Soft	Kick 3
C2	C♯2	Open Rim Shot	Open Rim Shot H	Snare Pitched	Open Rim Shot	Open Rim Shot	Open Rim Shot
D2	D♯2	Kick Tight	Kick Tight	Kick Wet	Kick Tight	Kick 2	Kick Gate
E2		Kick	Kick Short	Kick Tight H	Kick	Kick Gate	Kick Gate Heavy
F2	F♯2	Side Stick	Side Stick Light	Stick Ambient	Side Stick	Side Stick	Side Stick
G2	G♯2	Snare	Snare Short	Snare Ambient	Snare Snappy	Snare Rock	Snare Noisy 2
A2	A♯2	Hand Clap	Hand Clap	Hand Clap	Hand Clap	Hand Clap	Hand Clap
B2		Snare Tight	Snare Tight H	Snare Tight 2	Snare Tight Snap	Snare Rock Tight	Snare Noisy 3
C3	C♯3	Floor Tom L	Floor Tom L	Hybrid Tom 1	Tom Room 1	Tom Rock 1	Tom Electro 1
D3	D♯3	Hi-Hat Closed	Hi-Hat Closed	Hi-Hat Closed 2	Hi-Hat Closed	Hi-Hat Closed	Hi-Hat Closed
E3		Floor Tom H	Floor Tom H	Hybrid Tom 2	Tom Room 2	Tom Rock 2	Tom Electro 2
F3	F♯3	Hi-Hat Pedal	Hi-Hat Pedal	Hi-Hat Pedal 2	Hi-Hat Pedal	Hi-Hat Pedal	Hi-Hat Pedal
G3	G♯3	Low Tom	Low Tom	Hybrid Tom 3	Tom Room 3	Tom Rock 3	Tom Electro 3
A3	A♯3	Hi-Hat Open	Hi-Hat Open	Hi-Hat Open 2	Hi-Hat Open	Hi-Hat Open	Hi-Hat Open
B3		Mid Tom L	Mid Tom L	Hybrid Tom 4	Tom Room 4	Tom Rock 4	Tom Electro 4
C4	C♯4	Mid Tom H	Mid Tom H	Hybrid Tom 5	Tom Room 5	Tom Rock 5	Tom Electro 5
D4	D♯4	Crash Cymbal 1	Crash Cymbal 1	Crash Cymbal 1	Crash Cymbal 1	Crash Cymbal 1	Crash Cymbal 1
E4		High Tom	High Tom	Hybrid Tom 6	Tom Room 6	Tom Rock 6	Tom Electro 6
F4	F♯4	Ride Cymbal 1	Ride Cymbal 1	Ride Cymbal 1	Ride Cymbal 1	Ride Cymbal 1	Ride Cymbal 1
G4	G♯4	Chinese Cymbal	Chinese Cymbal	Chinese Cymbal	Chinese Cymbal	Chinese Cymbal	Chinese Cymbal
A4	A♯4	Ride Cymbal Cup	Ride Cymbal Cup	Ride Cymbal Cup	Ride Cymbal Cup	Ride Cymbal Cup	Ride Cymbal Cup
B4		Tambourine	Tambourine	Tambourine Light	Tambourine	Tambourine	Tambourine
C5	C♯5	Splash Cymbal	Splash Cymbal	Splash Cymbal	Splash Cymbal	Splash Cymbal	Splash Cymbal
D5	D♯5	Cowbell	Cowbell	Cowbell	Cowbell	Cowbell	Cowbell
E5		Crash Cymbal 2	Crash Cymbal 2	Crash Cymbal 2	Crash Cymbal 2	Crash Cymbal 2	Crash Cymbal 2
F5	F♯5	Vibraslap	Vibraslap	Vibraslap	Vibraslap	Vibraslap	Vibraslap
G5		Ride Cymbal 2	Ride Cymbal 2	Ride Cymbal 2	Ride Cymbal 2	Ride Cymbal 2	Ride Cymbal 2
		Bongo H	Bongo H	Bongo H	Bongo H	Bongo H	Bongo H
		Bongo L	Bongo L	Bongo L	Bongo L	Bongo L	Bongo L
		Conga H Mute	Conga H Mute	Conga H Mute	Conga H Mute	Conga H Mute	Conga H Mute
		Conga H Open	Conga H Open	Conga H Open	Conga H Open	Conga H Open	Conga H Open
		Conga L	Conga L	Conga L	Conga L	Conga L	Conga L
		Timbale H	Timbale H	Timbale H	Timbale H	Timbale H	Timbale H
		Timbale L	Timbale L	Timbale L	Timbale L	Timbale L	Timbale L
		Agogo H	Agogo H	Agogo H	Agogo H	Agogo H	Agogo H
		Agogo L	Agogo L	Agogo L	Agogo L	Agogo L	Agogo L
		Cabasa	Cabasa	Cabasa	Cabasa	Cabasa	Cabasa
		Maracas	Maracas	Maracas	Maracas	Maracas	Maracas
		Samba Whistle H*	Samba Whistle H*	Samba Whistle H*	Samba Whistle H*	Samba Whistle H*	Samba Whistle H*
		Samba Whistle L*	Samba Whistle L*	Samba Whistle L*	Samba Whistle L*	Samba Whistle L*	Samba Whistle L*
		Guiro Short	Guiro Short	Guiro Short	Guiro Short	Guiro Short	Guiro Short
		Guiro Long*	Guiro Long*	Guiro Long*	Guiro Long*	Guiro Long*	Guiro Long*
		Claves	Claves	Claves	Claves	Claves	Claves
		Wood Block H	Wood Block H	Wood Block H	Wood Block H	Wood Block H	Wood Block H
		Wood Block L	Wood Block L	Wood Block L	Wood Block L	Wood Block L	Wood Block L
		Cuica Mute	Cuica Mute	Cuica Mute	Cuica Mute	Cuica Mute	Scratch H 2
		Cuica Open	Cuica Open	Cuica Open	Cuica Open	Cuica Open	Scratch L 2
		Triangle Mute	Triangle Mute	Triangle Mute	Triangle Mute	Triangle Mute	Triangle Mute
		Triangle Open	Triangle Open	Triangle Open	Triangle Open	Triangle Open	Triangle Open
		Shaker	Shaker	Shaker	Shaker	Shaker	Shaker
		Jingle Bells	Jingle Bells	Jingle Bells	Jingle Bells	Jingle Bells	Jingle Bells
		Bell Tree	Bell Tree	Bell Tree	Bell Tree	Bell Tree	Bell Tree

Lower Keyboard

Upper Keyboard

*: Indicates an instrument which requires the Gate Time setting.

	Analog Kit	Dance Kit	Jazz Kit	Brush Kit Live!Brush Kit Live!Brush+P Kit	Symphony Kit	EL Kit 1
C-1						
C♯-1	Surdo Mute	Kick Dance 1	Surdo Mute	Surdo Mute	Surdo Mute	Scratch
D-1	Surdo Open	Kick Dance 2	Surdo Open	Surdo Open	Surdo Open	Concert BD
D♯-1	Hi Q	Hi Q	Hi Q	Hi Q	Hi Q	Noise Percussion
E-1	Whip Slap	Whip Slap*	Whip Slap	Whip Slap	Whip Slap	Bass Drum March
F-1	Scratch H	Scratch Dance 1*	Scratch H	Scratch H	Scratch H	Analog BD Short
F♯-1	Scratch L	Scratch Dance 2*	Scratch L	Scratch L	Scratch L	Synth Tom 3
G-1	Finger Snap	Finger Snap	Finger Snap	Finger Snap	Finger Snap	Analog BD Long
G♯-1	Click Noise	Click Noise	Click Noise	Click Noise	Click Noise	Synth Tom 2
A-1	Metronome Click	Dance Perc 1	Metronome Click	Metronome Click	Metronome Click	Synth Bass Drum
A♯-1	Metronome Bell	Reverse Dance 1	Metronome Bell	Metronome Bell	Metronome Bell	Synth Tom 1
B-1	Seq Click L	Dance Perc 2	Seq Click L	Seq Click L	Seq Click L	Bass Drum Attack
C0	Seq Click H	Hi Q Dance 1	Seq Click H	Seq Click H	Seq Click H	Bass Drum Heavy
C♯0	Brush Tap	Snare Analog 3	Brush Tap	Brush Tap	Brush Tap	Tom 4
D0	Brush Swirl*	Vinyl Noise*	Brush Swirl*	Brush Swirl*	Brush Swirl*	Bass Drum Light
D♯0	Brush Slap	Snare Analog 4	Brush Slap	Brush Slap	Brush Slap	Tom 3
E0	Reverse Cymbal*	Reverse Cymbal*	Brush Tap Swirl*	Brush Tap Swirl*	Brush Tap Swirl*	Orchestra Cymbal
F0	Snare Roll*	Reverse Dance 2*	Snare Roll*	Snare Roll*	Snare Roll*	Snare Drum Roll*
F♯0	Hi Q 2	Hi Q 2	Castanet	Castanet	Castanet	Tom 2
G0	Snare Noisy 4	Snare Techno	Snare Jazz H	Brush Slap 2	Snare Soft	SD Brush Roll
G♯0	Sticks	Snare Dance 1	Sticks	Sticks	Sticks	Tom 1
A0	Kick 3	Kick Techno Q	Kick Soft	Kick Soft	Kick Soft 2	SD Brush Shot 2
A♯0	Open Rim Shot	Rim Gate	Open Rim Shot	Open Rim Shot	Open Rim Shot	Tom Brush Shot 4
B0	Kick Anlg Short	Kick Techno L	Kick Tight	Kick Tight	Gran Cassa	SD Brush Shot 1
C1	Kick Analog	Kick Techno	Kick Jazz	Kick Jazz	Gran Cassa Mute	Snare Drum Heavy
C♯1	Side Stick Anlg	Side Stick Anlg	Side Stick Light	Side Stick Light	Side Stick	Tom Brush Shot 3
D1	Snare Analog	Snare Clap	Snare Jazz L	Brush Slap 3	Band Snare	Snare Drum Light
D♯1	Hand Clap	Dance Clap	Hand Clap	Hand Clap	Hand Clap	Tom Brush Shot 2
E1	Snare Analog 2	Snare Dry	Snare Jazz M	Brush Tap 2	Band Snare 2	SD Accent 2
F1	Tom Analog 1	Tom Dance 1	Floor Tom L	Tom Brush 1	Floor Tom L	SD Accent 1
F♯1	Hat Close Analog	Hi-Hat Closed 3	Hi-Hat Closed	Hi-Hat Closed	Hi-Hat Closed	Tom Brush Shot 1
G1	Tom Analog 2	Tom Dance 2	Floor Tom H	Tom Brush 2	Floor Tom H	SD Reverb 2
G♯1	Hat Close Anlg 2	Hat Close Anlg 3	Hi-Hat Pedal	Hi-Hat Pedal	Hi-Hat Pedal	Snare Drum Rim 2
A1	Tom Analog 3	Tom Dance 3	Low Tom	Tom Brush 3	Low Tom	SD Reverb 1
A♯1	Hat Open Analog	Hi-Hat Open 3	Hi-Hat Open	Hi-Hat Open	Hi-Hat Open	Snare Drum Rim 1
B1	Tom Analog 4	Tom Dance 4	Mid Tom L	Tom Brush 4	Mid Tom L	Synth Snare Drum
C2	Tom Analog 5	Tom Dance 5	Mid Tom H	Tom Brush 5	Mid Tom H	Analog SD
C♯2	Crash Analog	Crash Analog	Crash Cymbal 1	Crash Cymbal 1	Hand Cymbal	Triangle Mute
D2	Tom Analog 6	Tom Dance 6	High Tom	Tom Brush 6	High Tom	Tambourine
D♯2	Ride Cymbal 1	Ride Cymbal 1	Ride Cymbal 1	Ride Cymbal 1	Hand Cymbal S	Triangle Open
E2	Chinese Cymbal	Chinese Cymbal	Chinese Cymbal	Chinese Cymbal	Chinese Cymbal	Castanet
F2	Ride Cymbal Cup	Ride Cymbal Cup	Ride Cymbal Cup	Ride Cymbal Cup	Ride Cymbal Cup	Claves
F♯2	Tambourine	Tambourine Anlg	Tambourine	Tambourine	Tambourine	
G2	Splash Cymbal	Splash Cymbal	Splash Cymbal	Splash Cymbal	Splash Cymbal	Cabasa
G♯2	Cowbell Analog	Cowbell Dance	Cowbell	Cowbell	Cowbell	
A2	Crash Cymbal 2	Crash Cymbal 2	Crash Cymbal 2	Crash Cymbal 2	Hand Cymbal 2	Finger Snap
A♯2	Vibraslap	Vibraslap Analog	Vibraslap	Vibraslap	Vibraslap	
B2	Ride Cymbal 2	Ride Analog	Ride Cymbal 2	Ride Cymbal 2	Hand Cymbal 2 S	Hand Claps
C3	Bongo H	Bongo Analog H	Bongo H	Bongo H	Bongo H	Crash Cymbal 2
C♯3	Bongo L	Bongo Analog L	Bongo L	Bongo L	Bongo L	Hi-Hat Close
D3	Conga Analog H	Conga Analog H	Conga H Mute	Conga H Mute	Conga H Mute	Crash Cymbal 1
D♯3	Conga Analog M	Conga Analog M	Conga H Open	Conga H Open	Conga H Open	Hi-Hat Open
E3	Conga Analog L	Conga Analog L	Conga L	Conga L	Conga L	Crash Cym Mute
F3	Timbale H	Timbale H	Timbale H	Timbale H	Timbale H	Ride Cymbal 2
F♯3	Timbale L	Timbale L	Timbale L	Timbale L	Timbale L	Hi-Hat Pedal 2
G3	Agogo H	Agogo H	Agogo H	Agogo H	Agogo H	Ride Cymbal 1
G♯3	Agogo L	Agogo L	Agogo L	Agogo L	Agogo L	Hi-Hat Pedal 1
A3	Cabasa	Cabasa	Cabasa	Cabasa	Cabasa	Ride Cymbal Cup
A♯3	Maracas 2	Maracas 2	Maracas	Maracas	Maracas	
B3	Samba Whistle H*	Samba Whistle H*	Samba Whistle H*	Samba Whistle H*	Samba Whistle H*	Cym Brush Shot
C4	Samba Whistle L*	Samba Whistle L*	Samba Whistle L*	Samba Whistle L*	Samba Whistle L*	Cymbal March
C♯4	Guiro Short	Guiro Short	Guiro Short	Guiro Short	Guiro Short	Analog HH Close
D4	Guiro Long*	Guiro Long*	Guiro Long*	Guiro Long*	Guiro Long*	Orch Cymbal Roll
D♯4	Claves 2	Claves 2	Claves	Claves	Claves	Analog HH Open
E4	Wood Block H	Dance Perc 3	Wood Block H	Wood Block H	Wood Block H	Orch Cymbal
F4	Wood Block L	Dance Perc 4*	Wood Block L	Wood Block L	Wood Block L	Orch Cymbal Mute
F♯4	Scratch H 2	Dance Breath 1	Cuica Mute	Cuica Mute	Cuica Mute	
G4	Scratch L 2	Dance Breath 2*	Cuica Open	Cuica Open	Cuica Open	Tam-Tam
G♯4	Triangle Mute	Triangle Mute	Triangle Mute	Triangle Mute	Triangle Mute	
A4	Triangle Open	Triangle Open	Triangle Open	Triangle Open	Triangle Open	
A♯4	Shaker	Shaker	Shaker	Shaker	Shaker	
B4	Jingle Bells	Jingle Bells	Jingle Bells	Jingle Bells	Jingle Bells	
C5	Bell Tree	Bell Tree	Bell Tree	Bell Tree	Bell Tree	
C♯5						
D5						
D♯5						
E5						
F5						
F♯5						
G5						

Lower Keyboard

Upper Keyboard

*: Indicates an instrument which requires the Gate Time setting.

	EL Kit 2	Live!Studio Kit	SFX Kit 1	SFX Kit 2	Arabic Kit	Cuban Kit	Pop Latin Kit
C-1							
C♯-1	Maracas High	Surdo Mute					
D-1	Surdo Mute	Surdo Open					
D♯-1	Maracas Low	Hi Q					
E-1	Surdo Muff	Whip Slap					
F-1	Surdo Rim	Scratch H					
F♯-1	Cuica High	Scratch L					Hand Clap
G-1	Surdo Open	Finger Snap					
G♯-1	Cuica Middle	Click Noise					
A-1	Tamborim Mute	Metronome Click					
A♯-1	Cuica Low	Metronome Bell				Conga H Tip	Conga H Tip
B-1	Tamborim Open	Seq Click L				Conga H Heel	Conga H Heel
C0	Pandeiro	Seq Click H			Nakarazan Dom	Conga H Open	Conga H Open
C♯0	Bongo High	Brush Tap			Cabasa	Conga H Mute	Conga H Mute
D0	Conga Slide	Brush Swirl*			Nakarazan Edge	Conga H SlapOpen	Conga H SlapOpen
D♯0	Bongo Low	Brush Slap			Hager Dom	Conga H Slap	Conga H Slap
E0	Conga Slap	Brush Tap Swirl*			Hager Edge	Conga H SlapMute	Conga H SlapMute
F0	Conga Muff	Snare Roll*			Bongo H	Conga L Tip	Conga L Tip
F♯0	Bongo Mute	Castanet			Bongo L	Conga L Heel	Conga L Heel
G0	Conga High	Snare Studio L			Conga H Mute	Conga L Open	Conga L Open
G♯0	Bongo Slap	Sticks			Conga H Open	Conga L Mute	Conga L Mute
A0	Conga Low	Kick Ambience H			Conga L	Conga L SlapOpen	Conga L SlapOpen
A♯0		Open Rim Shot			Zagrouda H	Conga L Slap	Conga L Slap
B0	Timbale 1 High	Kick Ambience L			Zagrouda L*	Conga L Slide*	Conga L Slide*
C1	Timbale 1 Low	Kick Studio	Cutting Noise 1*	Phone Call*	Kick Soft	Bongo H Open 1 f	Bongo H Open 1 f
C♯1		Side Stick	Cutting Noise 2*	Door Squeak*	Side Stick	Bongo H Open 3 f	Bongo H Open 3 f
D1	Timbale 2 High	Snare Studio M		Door Slam*	Snare Soft	Bongo H Rim	Bongo H Rim
D♯1		Hand Clap	String Slap*	Scratch Cut*	Arabic Hand Clap	Bongo H Tip	Bongo H Tip
E1	Timbale 2 Low	Snare Studio L		Scratch H 3*	Snare Drum	Bongo H Heel	Bongo H Heel
F1	Timbale 3 High	Floor Tom L		Wind Chime*	Floor Tom L	Bongo H Slap	Bongo H Slap
F♯1	Woodblock High	Hi-Hat Closed		Telephone Ring*	Hi-Hat Closed	Bongo L Open 1 f	Bongo L Open 1 f
G1	Timbale 3 Low	Floor Tom H			Floor Tom H	Bongo L Open 3 f	Bongo L Open 3 f
G♯1	Woodblock Mid	Hi-Hat Pedal			Hi-Hat Pedal	Bongo L Rim	Bongo L Rim
A1	Timbale 4 High	Low Tom			Low Tom	Bongo L Tip	Bongo L Tip
A♯1	Woodblock Low	Hi-Hat Open			Hi-Hat Open	Bongo L Heel	Bongo L Heel
B1	Timbale 4 Low	Mid Tom L			Mid Tom L	Bongo L Slap	Bongo L Slap
C2	Vibraslap	Mid Tom H			Mid Tom H	Timbale L Open	Timbale L Open
C♯2	Triangle Mute	Crash Cymbal 1			Crash Cymbal 1		
D2	Tambourine	High Tom			High Tom		
D♯2	Triangle Open	Ride Cymbal 1			Ride Cymbal 1		
E2	Castanet	Chinese Cymbal	Flute Key Click*	CarEngnIgnition*	Crash Cymbal 2		
F2	Claves	Ride Cymbal Cup		Car Tires Squeal*	Duhulla Dom	Paila L	Paila L
F♯2		Tambourine		Car Passing*	Tambourine	Timbale H Open	Timbale H Open
G2	Cabasa	Splash Cymbal		Car Crash*	Duhulla Tak		
G♯2		Cowbell		Siren*	Cowbell		
A2	Finger Snap	Crash Cymbal 2		Train*	Duhulla Sak		
A♯2		Vibraslap		Jet Plane*	Claves		
B2		Ride Cymbal 2		Starship*	Doff Dom	Paila H	Paila H
C3	Wind Bell Down	Bongo H		Burst*	Katem Dom	Cowbell Top	Cowbell Top
C♯3	Agogo High	Bongo L		Roller Coaster*	Katem Tak		
D3	Wind Bell Up	Conga H Mute		Submarine*	Katem Sak		
D♯3	Agogo Low	Conga H Open			Katem Tak		
E3	Bells	Conga L			Doff Tak	Guiro Short	Guiro Short
F3	Cowbell 4	Timbale H			Tabla Dom	Guiro Long*	Guiro Long*
F♯3	Shaker	Timbale L			Tabla Tak 1		
G3	Cowbell 3	Agogo H			Tabla Tik		
G♯3	Guiro Short	Agogo L	Shower*	Laugh*	Tabla Tak 2	Tambourine	Tambourine
A3	Cowbell 2	Cabasa	Thunder*	Scream*	Tabla Sak		
A♯3	Guiro Long	Maracas	Wind*	Punch*	Tabla Roll Edge*		
B3	Cowbell 1	Samba Whistle H*	Stream*	Heart Beat*	Tabla Flam		
C4	Taiko 2	Samba Whistle L*	Bubble*	Foot Steps*	Sagat 1	Maracas	Maracas
C♯4	Ohdaiko 2	Guiro Short	Feed*		Tabel Dom	Shaker	Shaker
D4	Taiko 1	Guiro Long*			Sagat 3	Cabasa	Cabasa
D♯4	Ohdaiko 1	Claves			Tabel Tak		Cuica Mute
E4	Ohtsuzumi 2	Wood Block H			Sagat 2		Cuica Open
F4	Ohtsuzumi 1	Wood Block L			Rik Dom		
F♯4	Kakegoe 3	Cuica Mute			Rik Tak 2		
G4	Kotsuzumi 4	Cuica Open			Rik Finger 1		
G♯4	Kakegoe 2	Triangle Mute			Rik Tak 1		
A4	Kotsuzumi 3	Triangle Open			Rik Finger 2		Triangle Mute
A♯4	Kakegoe 1	Shaker			Rik BrassTremolo*		Triangle Open
B4	Kotsuzumi 2	Jingle Bells			Rik Sak		
C5	Kotsuzumi 1	Bell Tree	Dog*	Machine Gun*	Rik Tik		Wind Chime
C♯5			Horse*	Laser Gun*			
D5			Bird Tweet*	Explosion*			
D♯5				Firework*			
E5							
F5							
F♯5			Ghost*				
G5			Maou*				

Lower Keyboard

Upper Keyboard

*: Indicates an instrument which requires the Gate Time setting.

3 Rhythm Sequence Program

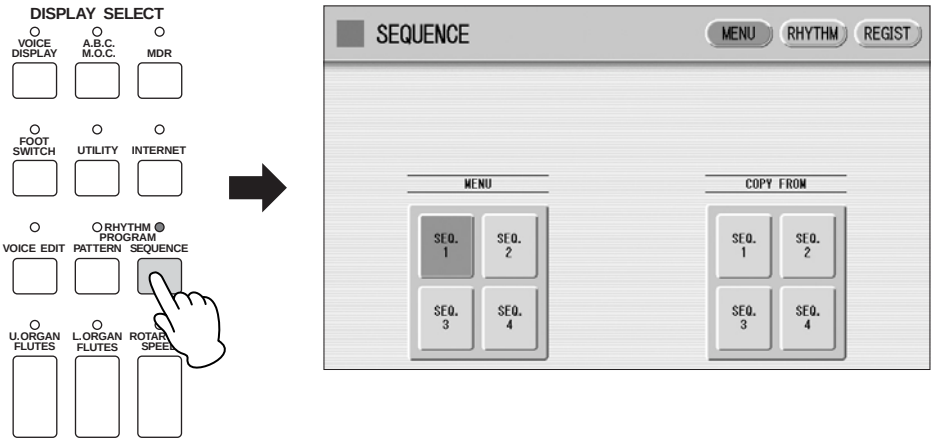
With the Rhythm Sequence Program function, you can string together any of the Electone's existing rhythms and the rhythms of your own creation together to make complete rhythm compositions.
You can save four rhythm compositions (each can contain up to 140 bars) to the Sequence buttons on the panel for future recall. Two or more rhythm compositions can be played back in succession, letting you divide a song into parts and play back the rhythm data as desired. Here are a couple of example applications:

- When you want to play more than two songs in a medley, save the rhythm composition for each song to a separate sequence button. You can then recall each desired song by simply pressing the corresponding sequence button to which the song is saved.
- When you want to practice a song in separate sections (for example, separately practicing the verse, chorus and bridge), divide the song into the relevant parts. For example, save the intro part to the [SEQ. 1] button, the main chorus part to the [SEQ. 2] button, the ending to the [SEQ. 3] button, and so on. Then, recall the desired part simply by pressing the appropriate sequence button. You can also play through a song by recalling all the parts in sequence.

Selecting a Sequence

There are two ways to program a rhythm sequence: copying an existing sequence that is similar to the sequence you want to create, or creating your own sequence from scratch.

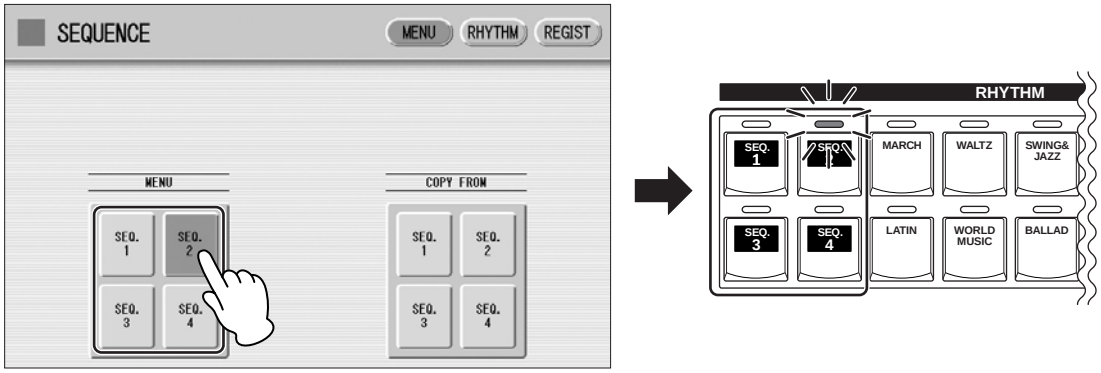
1 **Press the [SEQUENCE] button in the DISPLAY SELECT section.**
The MENU Page of the Sequence display appears.



Any rhythm currently playing will automatically be stopped when you call up the Rhythm Sequence Program function.

2 **Press one of the Sequence buttons ([SEQ. 1] – [SEQ. 4]) on the left half in the display to select the rhythm sequence number you want to edit.**

The lamp of the selected numbered sequence button in the Rhythm section lights.



Instead of pressing the Sequence button on the display, you can press one of the sequence buttons in the Rhythm section on the panel to select the sequence number.

This selects the Sequence number, to which a rhythm composition can be saved. If you want to copy a rhythm composition from another Sequence number, go on to the next step.

3 **Press the Sequence button ([SEQ. 1] – [SEQ. 4]) of the copy source on the right half in the display.**

A message appears, prompting confirmation of the operation.

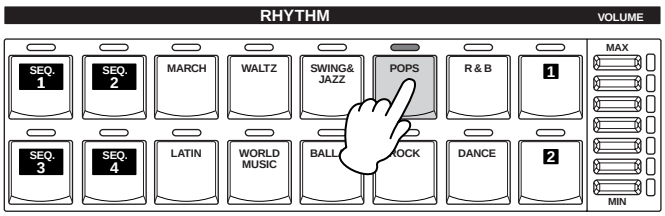
4 **Press [COPY] to execute the operation, or select [CANCEL] to abort the operation.**

Programming a Sequence

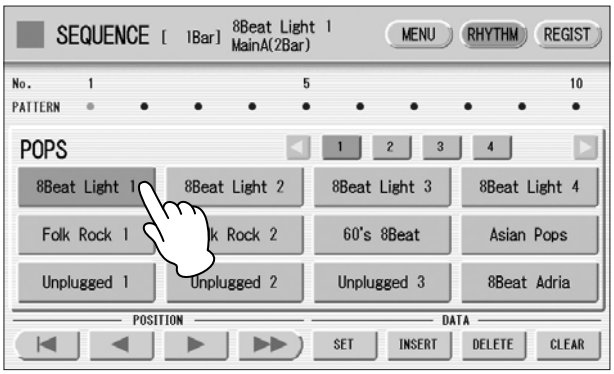
1 **Press the [RHYTHM] button at the top right of the display to call up the RHYTHM Page.**

2 **Press the rhythm button corresponding to the rhythm you want to enter to the sequence. If you press User button [1] or [2], you can select a rhythm of your own creation (User rhythm).**

The rhythm menu of the selected rhythm button is displayed.



3 Select the desired rhythm from the displayed rhythm menu.



NOTE

When entering an Intro section, check the number of bars at the top of the display.

4 Select a rhythm section (Main A – D, Fill in A – D, Intro 1 – 3, Ending 1 – 3, or Break) by pressing one of the rhythm control buttons on the panel.

The selected rhythm and section appears at the top of the display.

5 Press the [SET] button in the display.

One bar of the selected rhythm is entered and its name is displayed as a box in the rhythm row on the display. When the rhythm is entered, the cursor (colored orange) will automatically move to one step right. A maximum of 140 bars can be entered to a single sequence. When you select an ending pattern and press the [SET] button, an entire ending pattern (more than one bar) is entered.
You cannot enter a rhythm after an ending pattern.

6 Repeat steps #2 through #5 above to enter the rhythm and create your own rhythm composition.

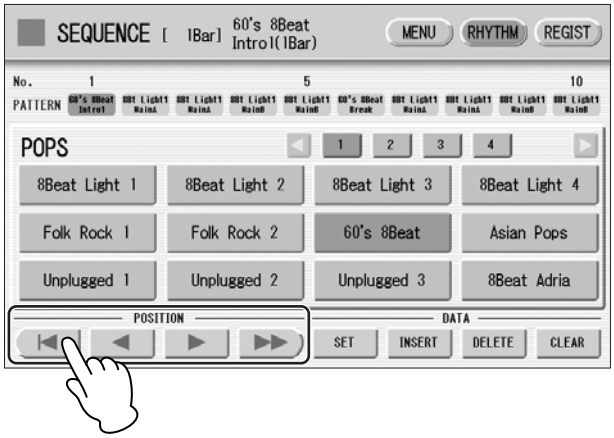
Turning the power off before quitting or closing the Rhythm Sequence Program erases any sequences you have made. Before turning the power off, quit the Rhythm Sequence Program (page 176).

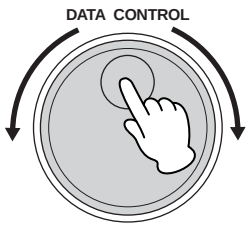
Auditioning a Sequence

You can play a sequence you are editing at any time to audition the changes.

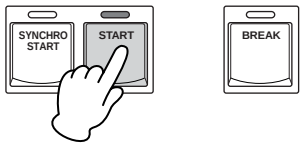
1 **Move the cursor to the desired position for playback.**

Move the cursor by using the Data Control dial, or the POSITION buttons on the display.





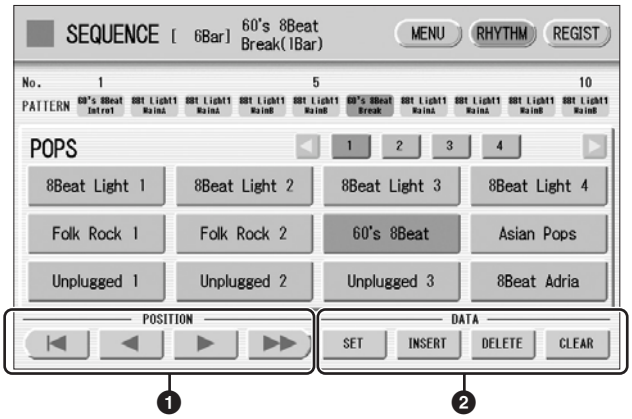
2 **Press the rhythm [START] button on the panel.**



The Sequence plays back. Pressing the [START] button again stops playback.

Editing an Existing Sequence

You can insert a new rhythm between the rhythms you have already entered, or delete the entered rhythm from the sequence.



❶ POSITION

These are cursor controls for moving the cursor (colored orange) along the rhythm row in the display.

 Moves the cursor to the first position.

 Moves the cursor one step to the left.

 Moves the cursor one step to the right.

 Moves the cursor five steps to the right.

❷ DATA

These are data controls for entering rhythms and deleting existing rhythms in the rhythm row.

When you insert an ending pattern into the editing sequence, any existing rhythm data that follows an Ending pattern is automatically deleted.

SET

For initially entering a rhythm to an empty position in the rhythm row, or for replacing a pattern at the cursor position. Pressing the [SET] button enters the rhythm selected from the rhythm menu to the cursor position.
This operation is not available between measures of an ending pattern.

INSERT

For inserting a rhythm before the current cursor position. The new rhythm is entered just before the cursor position and all other rhythms to the right of the cursor are moved to accommodate the new number. This operation is not available between measures of an ending pattern.
Additional rhythms cannot be entered beyond the Rhythm sequence function's capacity of 140. If the Insert operation results in the rhythm number going over the capacity, a "Data Full" message appears and the operation cannot be executed.

DELETE

For deleting a rhythm at the current cursor position. When the ending pattern is selected, pressing the [DELETE] button deletes the entire ending pattern (more than one bar).

CLEAR

For erasing all patterns entered to the selected sequence.
After selecting [CLEAR], a message appears prompting confirmation of the operation.
Select [CLEAR] to clear the currently selected rhythm sequence, or select [CANCEL] to abort the operation and return to the previous display.

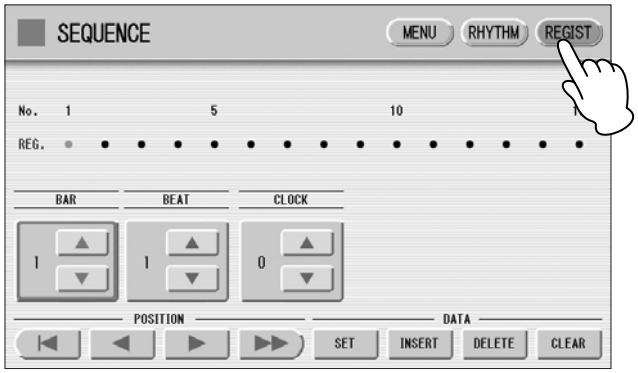
Programming a Registration Sequence

The Registration Sequence feature allows you to have desired Registrations automatically called up in sequence, when playing a Rhythm Sequence. It lets you program the timing (bar/beat/clock) at which the Registration is changed.
A Registration Sequence is saved as a part of the corresponding Rhythm Sequence. With this feature, you can have the sounds of the instrument change as desired automatically to match the Rhythm Sequence playback.

NOTE

You cannot program the Next Regist function in Registration Sequence Program.

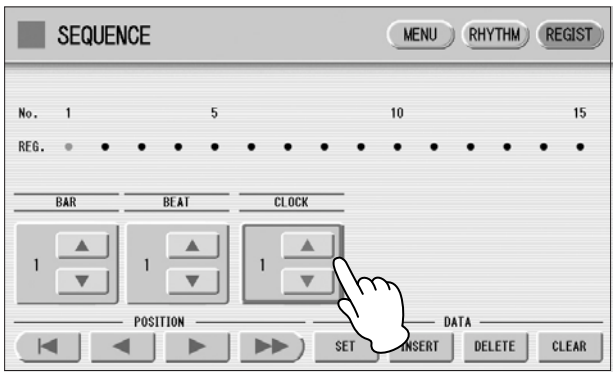
1 Press the [REGIST] button at the top right in the display to call up the Registration Sequence display.

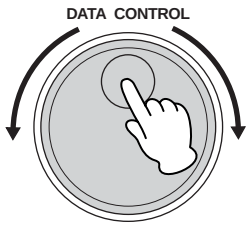


The Registration Sequence is programmed from this display. The entered Registration number is shown along the Registration row in the middle of the display.

2 Press the desired numbered button in the Registration Memory section.

3 Using the ▲ ▼ buttons in the display or the Data Control dial, set the Bar/Beat/Clock position at which you want to change the Registration (1 beat = 96 Clock).





When using the Data Control dial, first press the number you wish to change in the display, then turn the dial.

4 **Press the [SET] button in the display.**

The Registration number appears in the display (in the timing order), indicating that the Registration is entered. Up to 140 Registrations can be entered.
If some Registration numbers are entered to the same Bar/Beat/Clock, the last entered one takes priority.

5 **Repeat steps #2 through #4 above to set the Registration Sequence.**

Just as with the Rhythm Sequence function, you can also edit (insert, delete, all clear) the entered Registration Sequence. See page 173.

Quitting the Rhythm Sequence Program

You can quit the Rhythm Sequence Program from any of its display pages. When you quit, the sequence you have made will be automatically saved.

To quit the Rhythm Sequence Program:

Press the [SEQUENCE] button on the panel.

The Voice Display appears, indicating that the Rhythm Sequence Program is closed.

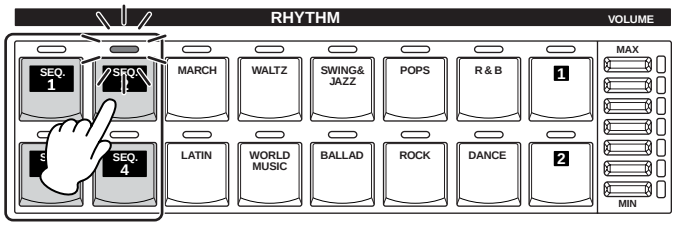
> ⚠ **When quitting the Rhythm Sequence Program, the square at the top left of the display turns light blue for a few seconds, indicating that the sequence is currently being saved. Do not turn the power off while the sequence is being saved.**

Playing Rhythm Sequences

To play any of the rhythm sequences you have created:

1 **Press the appropriate Sequence button ([SEQ. 1] – [SEQ. 4]) on the panel.**

The SEQ button's lamp lights.



2 **Press the rhythm [START] button.**

The rhythm in the selected sequence starts playback.
When one of the four rhythm sequences is playing, each programmed rhythm that plays is indicated by the lit LED of the Rhythm buttons.
The Registration Memory also changes with the Rhythm Sequence playback, if the sequence includes a Registration Sequence.

Rhythm playback automatically stops when the sequence reaches its end.
If you've stopped rhythm playback in the middle of the sequence, press the [START] button again to resume playback.

Playing All Sequences in Order

You can also have up to all four rhythm sequences automatically play in order, one after another.

1 **Press the desired Sequence buttons, making sure that all their LEDs are lit.**

2 **Press the rhythm [START] button.**

The rhythm sequences start from the lowest number and play in order automatically to the highest number. (For example, if you press Sequence buttons 4, 2 and 1 in that order, the sequences will be played back not in the order you pressed them, but in their numeric order: 1, 2, then 4.) This function effectively allows you to make a long rhythm sequence that exceeds the 140-pattern memory limit of a single sequence.

Pressing one of the SEQ. buttons while a Rhythm Sequence is playing back automatically cancels the pressed sequence, and its LED turns off. You cannot cancel a sequence that is currently playing. The SEQ. lamp goes out when the sequence assigned to it is finished playing.

To start a sequence using the Left Footswitch:

You can start or stop the Rhythm Sequence playback using the left footswitch.

1 **Press the desired Sequence buttons, making sure that all their LEDs are lit.**

2 **Press the [FOOT SWITCH] button on the panel to call up the Footswitch display, LEFT Page.**

3 **Set the control mode of the Footswitch to RHYTHM STOP.**
(See page 179 for information about the Footswitch settings.)

4 **Press the Left Footswitch with your right foot to turn the sequence on.**

Pressing the Left Footswitch again in the middle of the sequence playback cancels the Rhythm Sequence.

When you are playing a Rhythm Sequence that is made up of several sequences (SEQ. buttons), pressing the Left footswitch turns off the currently playing Rhythm Sequence, and pressing it again starts the next sequence.

4 Saving Rhythm Pattern and Rhythm Sequence Data to external media

You can save your own rhythm patterns (created in the Rhythm Pattern Program) and Rhythm Sequence (created in the Rhythm Sequence Program) to external media, such as SmartMedia cards. Refer to the section “Saving Registrations as Registration Data (File)” on page 107 for instructions.

When loading your original Rhythm data from external media back to the Electone, be sure to stop the rhythm if it is playing. Loading cannot be executed when a rhythm is running.

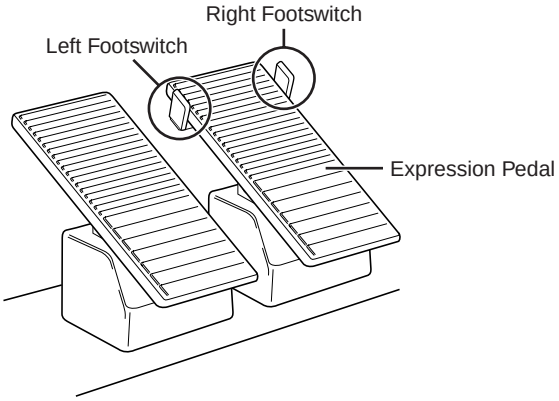
10 Footswitches, Knee Lever and Expression Pedals

These leg- and foot-operated controls allow you to execute various performance functions and switch the effect on/off, without taking your hands from the keyboard.

Contents

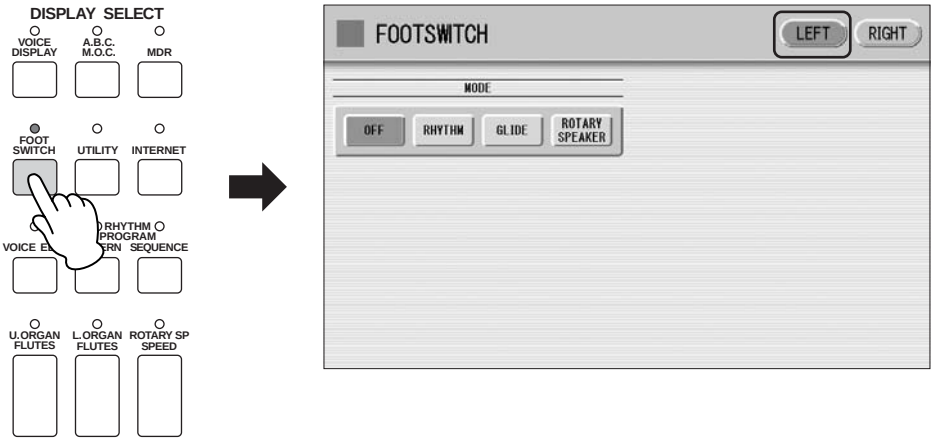
1 Footswitches

The Electone has two Footswitches on the main expression pedal. The Right Footswitch is used for the Registration Shift function. The Left Footswitch can be set to control one of the following functions: Rhythm, Glide, and Rotary speaker.
See page 84 for the details of the Registration Shift function or Right Footswitch.
The explanation on the Left Footswitch is given here.



1 Press the [FOOT SWITCH] button.

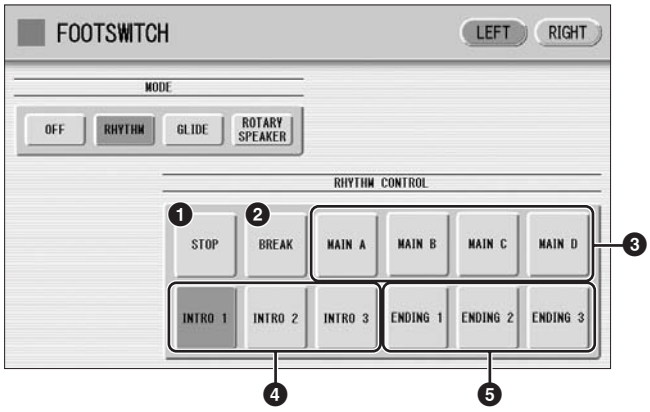
2 Press the [LEFT] button at the top right of the display to call up the LEFT Page.



In this display, you can assign the control function to the Left Footswitch: Rhythm, Glide, and Rotary Speaker.
If you choose OFF here, the Left Footswitch will not control any function.

Controlling the Rhythm

You can control the rhythm start/stop or switch the rhythm sections by using the Left Footswitch.



Reference Page
Rhythm Structure (page 52)

❶ STOP

Switches the rhythm on/off whenever you press the Footswitch.

❷ BREAK

When you press the Footswitch, the Break section turns on. This function corresponds to the [BREAK] button on the panel.

❸ MAIN A – MAIN D

These functions correspond to the MAIN/FILL IN [A] – [D] buttons on the panel. For example, when the [MAIN A] button is selected in this display and you press the Footswitch, the rhythm section is switched to Main A or Fill In A.

❹ INTRO 1 – INTRO 3

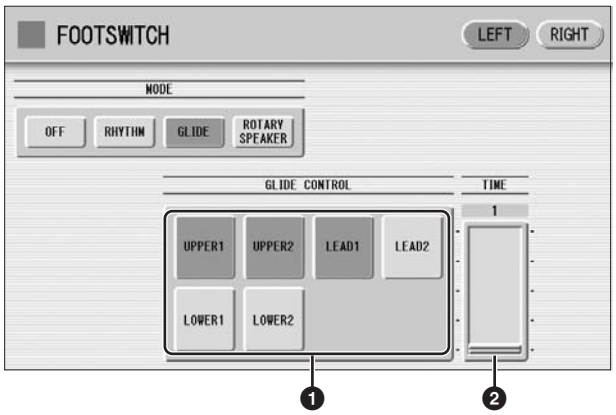
These functions correspond to the INTRO [1] – [3] buttons on the panel. For example, when the INTRO [1] button is selected in this display and you press the Footswitch, the rhythm section is switched to Intro 1.

❺ ENDING 1 – ENDING 3

These functions correspond to the ENDING [1] – [3] buttons on the panel. For example, when the ENDING [1] button is selected in this display and you press the Footswitch, the rhythm section is switched to Ending 1. After the ending pattern is played, the rhythm stops.

Controlling Glide

You can control the Glide effect by using the Left Footswitch.



Pressing the Footswitch immediately lowers the pitch of the selected Voice or Voices by a half-step and releasing it slowly returns the pitch to the original.

❶ Voice Selections (UPPER1/UPPER2/LEAD1/LEAD2/LOWER1/LOWER2)

Select the desired Voice section(s) to which the Glide function is to be applied.

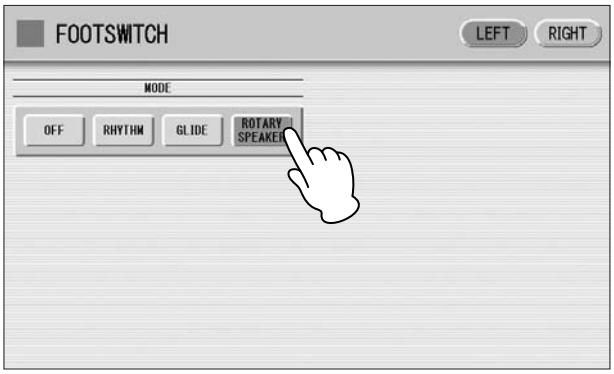
❷ TIME

Determines the speed of the Glide function, or in other words, how gradually the pitch returns when the Footswitch is released. Higher values make the speed slower.
Range: 1 – 5

Controlling Rotary Speaker

Reference Page
Rotary Speaker (page 48)

You can control the Rotary Speaker effect (on/off) by using the Left Footswitch.



When the [Rotary Speaker] button is selected in this display and you press the Footswitch, the Rotary Speaker effect is switched on or off. This function corresponds to the [ROTARY SP SPEED] button on the panel. To use this function, you'll need to make the appropriate Rotary Speaker settings for each Voice section or Organ Flute Voice. For details, see page 48.

2 Knee Lever

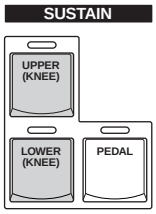
The Knee Lever, located on the underside of the keyboard panel, can be used to turn one of the following on and off: Sustain effect, Melody On Chord function, Lead Slide effect, or Solo function.

Controlling Sustain

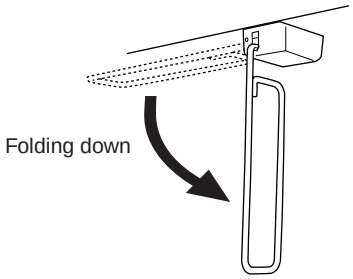
You can control on/off status of sustain for the Upper and Lower keyboards by using the Knee Lever. Sustain for the Pedalboard cannot be controlled.

Reference Page
Sustain (page 47)

1 Make sure that the Upper and/or Lower Sustain buttons have been turned on.



2 Fold the Knee Lever down.
Sustain is off when the Knee Lever is folded down.



3 **To apply sustain, press the Knee Lever to the right.**

Sustain is constantly applied as long as the Knee Lever is pressed. Releasing the Knee Lever turns sustain off.

❶ When the Knee Lever is folded up:

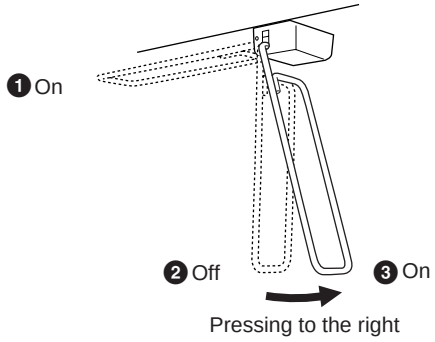
Sustain is applied constantly, as long as the front panel Sustain buttons are on.

❷ When the Knee Lever is vertical:

Sustain is cancelled.

❸ When the Knee Lever is continuously pressed to the right:

Sustain is on.

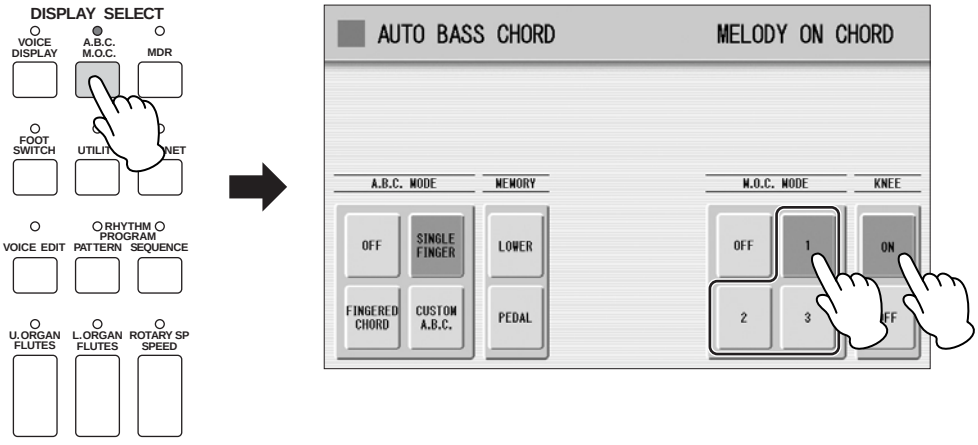


Controlling Melody On Chord

1 **Press the [A.B.C./M.O.C.] button on the front panel.**

The Melody On Chord section appears in the right half of the display.

2 **Set the KNEE control to "ON," and select one of the modes.**



Reference Page
Melody On Chord (page 64)

3 **Press the Knee Lever to the right with your knee when you want to apply the M.O.C. effect.**

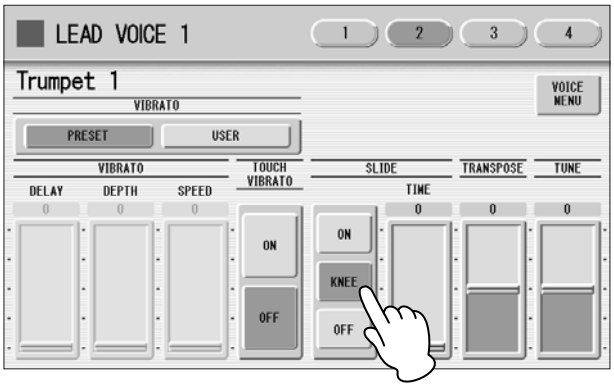
The M.O.C. effect is applied constantly, as long as the Knee Lever is pressed. When you release the Knee Lever, the M.O.C. effect is cancelled.

Controlling Lead Slide

Reference Page
Voice Condition Display (page 39)

1 **Call up the Voice Condition display Page 2 of the Lead Voice section to which you want to apply the Lead Slide effect.**

2 **Press the [KNEE] button of the Slide section on the display.**



3 **Press the Knee Lever to the right with your knee when you want to apply the Slide effect.**

The Slide effect is applied as long as the Knee Lever is pressed. Releasing the Knee Lever, cancels the Lead Slide effect.

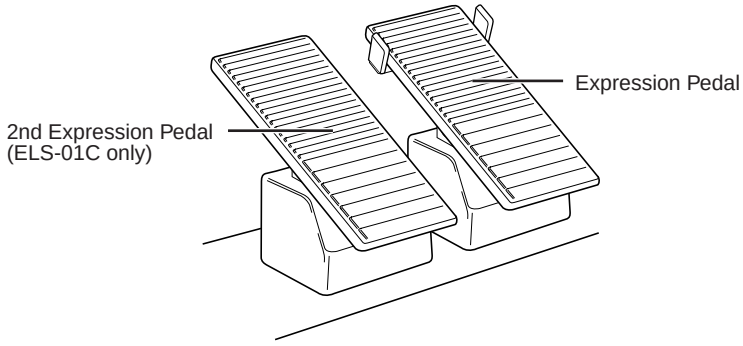
Controlling the Solo Function

You can turn the Solo function on/off by using the Knee Lever. See page 27 for more information.

3 Expression Pedals

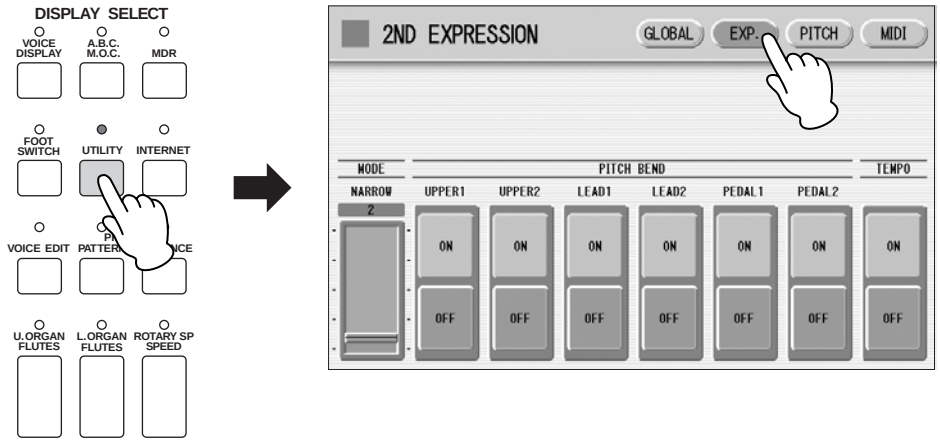
Reference Page
Getting Started (page 11)

The Expression pedal can be used to control the volume with your foot as you play. Moreover, the ELS-01C has another Expression Pedal, the 2nd Expression Pedal. The 2nd Expression Pedal can be used to control the Pitch Bend and the Tempo of the Rhythm. The explanation on the 2nd Expression Pedal is given here.



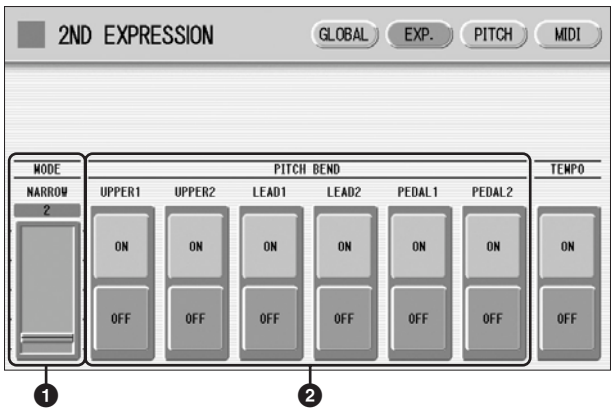
1 **Press the [UTILITY] button on the front panel.**
The Utility display appears.

2 **Press the [EXP.] button in the upper right of the display to call up the EXP. (Expression) Page.**



In this display, you can assign the Pitch Bend control or Tempo control to the 2nd Expression Pedal. If both Pitch Bend and Rhythm Tempo controls are set to ON, both functions are applied when you press the 2nd Expression Pedal. Generally one of them is assigned to the 2nd Expression Pedal.

Controlling Pitch Bend



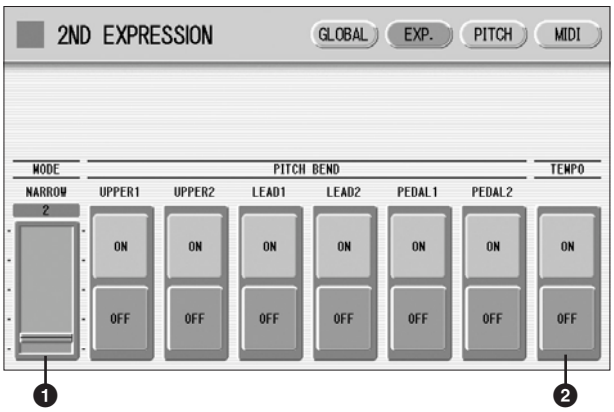
❶ MODE

Determines the range of the Pitch Bend control. Each step changes the pitch range by a semitone.
Range: 1 – 12
The setting 2 (NARROW) results in a small amount of pitch variation (over +/- two semitones); the setting 12 (WIDE) results in a large amount of pitch variation (over +/- one octave).

❷ Voice Sections (PITCH BEND)

Selects the Voice sections to which the Pitch Bend function will be applied, and turns the function ON. Pitch Bend can be selected independently or together for Upper Voices 1 and 2, Lead Voice 1 and 2, Pedal Voices 1 and 2.

Controlling the Rhythm Tempo



❶ MODE

Determines the range of tempo change.
Range: 1 – 12
The setting 2 (NARROW) results in a small amount of tempo change (70% – 140%); the setting 12 (WIDE) results in a large amount of tempo change (50% – 200%).

❷ TEMPO

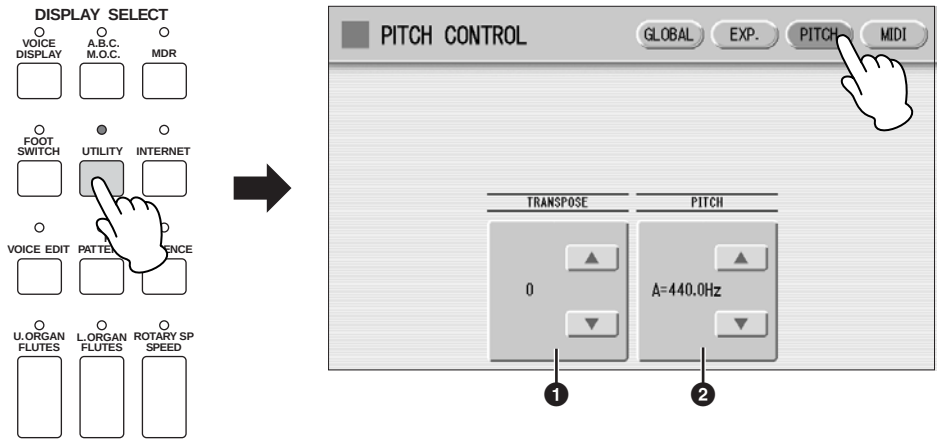
When you want to control the tempo with the 2nd Expression Pedal, set this to "ON." When set to on, pressing the pedal down with your toe speeds up the tempo and pressing it back with your heel slows it down.

11 Transpose and Pitch Controls

There are two pitch-related controls on the Electone: Transpose and Pitch. Transpose allows you to change the key of the instrument and Pitch lets you finely adjust the tuning. Transpose and Pitch can be adjusted in the Utility display. (The settings here cannot be recorded to the Music Data Recorder.)

1 **Press the [UTILITY] button.**
The Utility display appears.

2 **Press the [PITCH] button at the top right of the display to call up the PITCH Page.**



In this display, you can change the Transpose and Pitch settings by using the ▲ ▼ buttons on the display or the Data Control Dial.

❶ TRANSPOSE

Determines the coarse pitch setting of all the Voices, and is adjustable in half-steps (semitones).
Range: -6 – +6

❷ PITCH

Determines the fine pitch setting of all the Voices. Each step changes the pitch by 0.2 Hz. The default Pitch is 440.0 Hz (corresponding to key A3).
Range: 427.2 Hz – 452.6 Hz

You can also change the Transpose and Pitch for each Voice section, in the Voice Condition display. For more information, see page 41.

NOTE
The Transpose setting here is not applied to an XG Song (page 116).

12 Internet Direct Connection

This convenient, powerful feature lets you directly connect your Electone to the Internet. In this section, you may come across some unfamiliar terms and phrases related to computers and online communications. To look up the meaning of these terms, refer to the Internet Glossary (page 200).

Contents

NOTE

Depending on the Internet connection, you may not be able to connect to two or more devices (for example, a computer and the instrument), depending on the contract with the provider. This means you cannot connect with the Electone. If in doubt, check your contract or contact your provider.

Reference Page

Connecting USB storage devices or USB-LAN adapter (page 207)

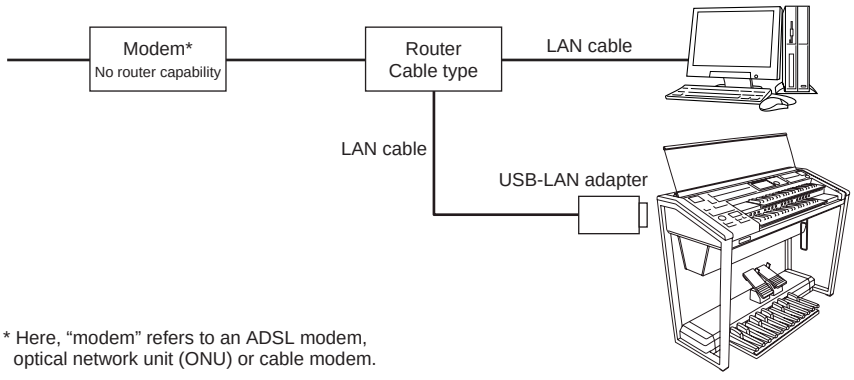
1 Connecting the Instrument to the Internet

You can connect the instrument to a full-time online connection (ADSL, optical fiber, cable Internet, etc.) via a router or a modem equipped with a router.

Use a computer to connect to the Internet and get online before connecting the instrument, since no modem or router settings can be made from the instrument itself.

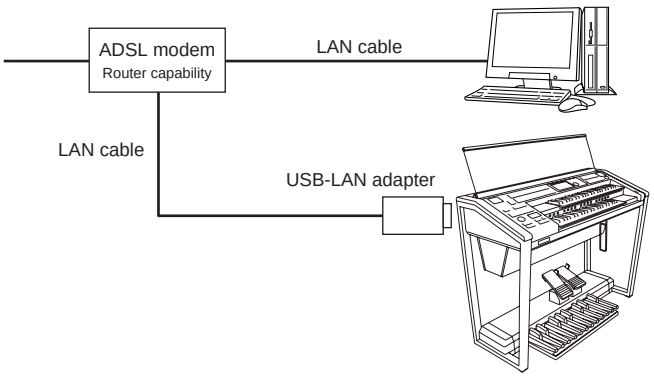
To use the Internet connection, you will first need to subscribe to an Internet service or provider.

Connection example 1:
Connecting by cable (using a modem without router)



* Here, "modem" refers to an ADSL modem, optical network unit (ONU) or cable modem.

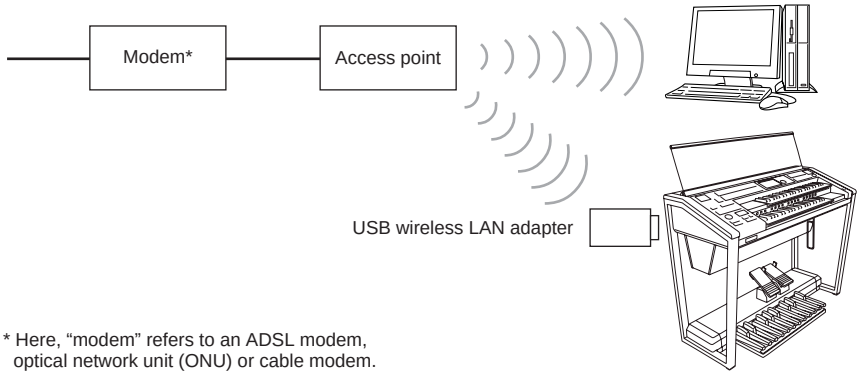
Connection example 2:
Connecting by cable (using a modem with router)



NOTE

Some types of modems require an optional hub network for simultaneously connecting to several devices (such as computer, musical instrument, etc.).

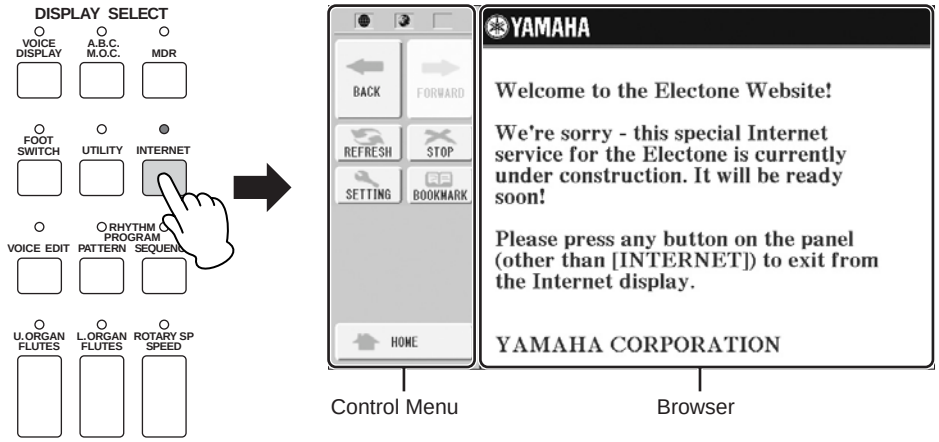
Connection example 3:
Wireless connection



* Here, “modem” refers to an ADSL modem, optical network unit (ONU) or cable modem.

2 Accessing the Website from the Electone

To access the website, press the [INTERNET] button while the instrument is connected to the Internet.



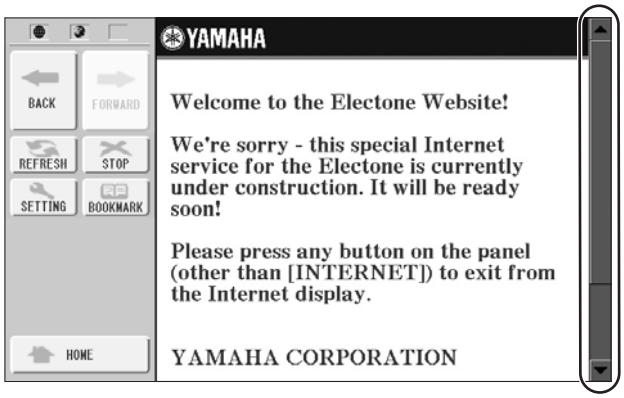
In the Control Menu located in the left part of the display, you can control the displayed website and set various settings. The browser display, to the right of the control menu, is the area in which the website is displayed.

Reference Page
Changing the Home Page (page 195)

The first page shown when opening a browser and connecting to the Internet is called the “home page.” If you want to return to the home page from another website, press the [HOME] button in the Control Menu.

Scrolling the Display

When the size of the web page is too large to be shown at one time in the browser display of the instrument, a scroll bar appears at the right side or bottom of the display. Touch and move the scroll bar to view those parts of the page that are not shown.



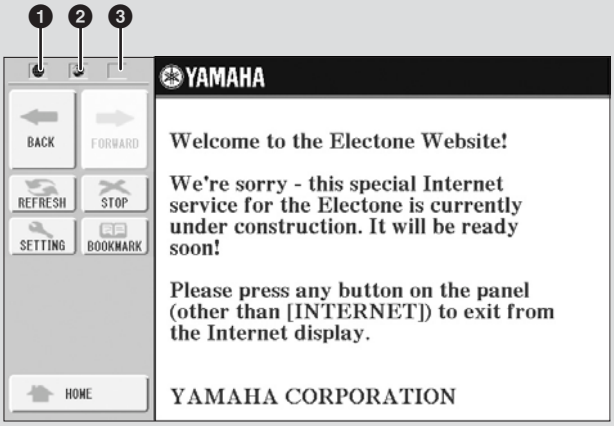
Following Links

When there is a link in the page, it is shown as a button or in colored text, etc. To select the link, press it (the button or text) directly on the display.

The touch panel will not sound when you press a link, even if the touch panel sound is set to ON in the Utility Display (page 16).

Monitoring the Internet Connection Status

The three icons at the top left of the Internet display indicate the current Internet connection status.



❶ Offline indicator ( )

This is shown when the instrument is not connected to the Internet. When this appears, you cannot view any web pages.

❷ Communication Status indicator ( )

This flashes when the web page is being loaded, indicating that communication with the site is in progress. The indicator lights continuously when loading is finished (communication is established).

❸ SSL indicator ( )

This is shown when the opened website uses SSL, and it indicates that data is encrypted before transmission.

NOTE

SSL (Secure Sockets Layer) is an industry-standard method for protecting web communications by using data encryption and other tools.

Refreshing a Web Page/Canceling Loading of a Web Page

To refresh a web page (to make sure you have the latest version of the page, or to try reloading), press the [REFRESH] button.

To cancel loading of a page (if the page is taking too long to open), press the [STOP] button.

Return to the Previous Web Page

To return to a previously selected web page, press the [BACK] button.

To return to the page selected before pressing the [BACK] button, press the [FORWARD] button.

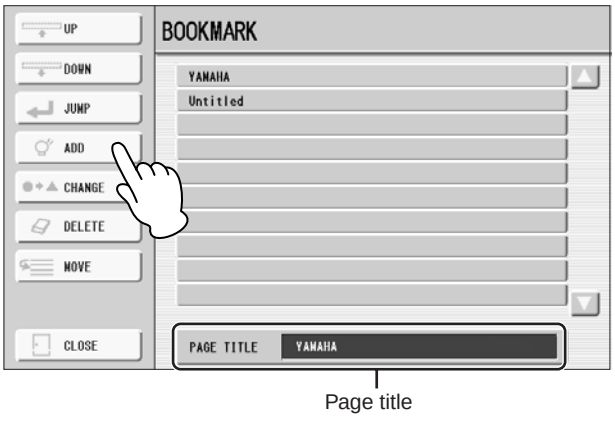
Saving Bookmarks of Your Favorite Pages

You can "bookmark" the page you're viewing, and set up a custom link so the page can be instantly called up in the future.

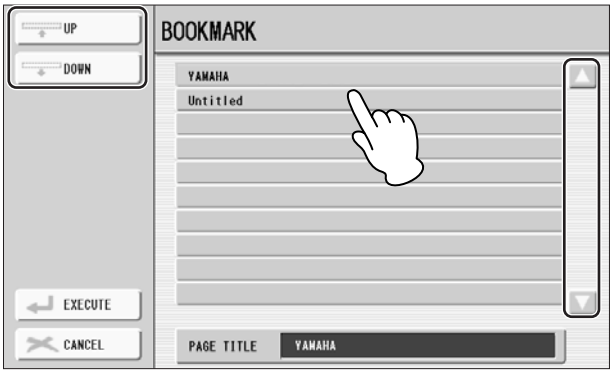
1 With the desired page currently selected, press the [BOOKMARK] button in the control menu.

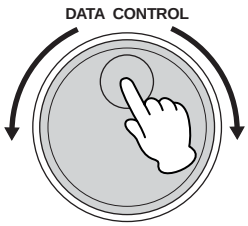
The Bookmark display appears, showing a list of the currently saved bookmarks. The title of the web page registered to the selected bookmark is shown below the list.

2 Call up the display for registering bookmarks by pressing the [ADD] button.



3 **Select the position of the new bookmark by pressing the desired position directly, or using the [UP]/[DOWN] button or the Data Control Dial.**





4 **To save the bookmark, press the [EXECUTE] button, or press the [CANCEL] button to cancel.**

5 **To return to the browser, press the [EXIT] button.**

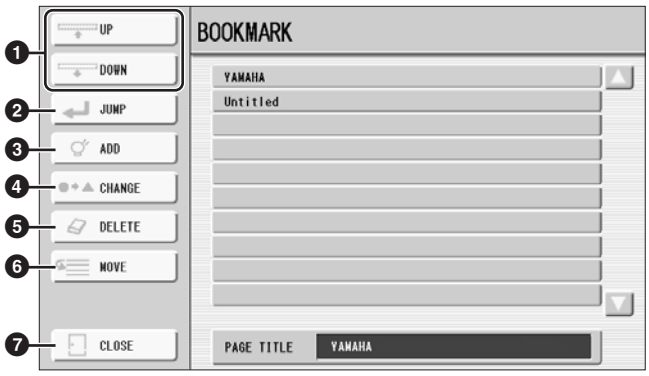
Opening a Bookmarked Page:

1 **Press the [BOOKMARK] button in the control menu to call up the Bookmark display, then select the desired bookmark.**

2 **Press the [JUMP] button to open the page of the selected bookmark.**

Editing Bookmarks

From the Bookmark display, you can change the names and rearrange the order of your bookmarks, as well as delete unnecessary bookmarks from the list.



❶ UP/DOWN

Moves the selection position in the Bookmark list.

❷ JUMP

Opens the web page of the selected bookmark.

❸ ADD

Used when saving a bookmark (page 192).

❹ CHANGE

Changes the name of the selected bookmark. Pressing this button calls up the display for entering characters. For details on entering characters, see page 104.

❺ DELETE

Deletes the selected bookmark from the Bookmark list.

❻ MOVE

Changes the order of the bookmarks.

1 Select the bookmark you wish to move, then press the [MOVE] button.

The left part of the display changes, letting you select the new position for the bookmark.

2 Select the intended position by pressing the desired position in the display, or by using the [UP]/[DOWN] buttons or Data Control dial.

3 Move the bookmark to the selected position by pressing the [EXECUTE] button.

❼ CLOSE

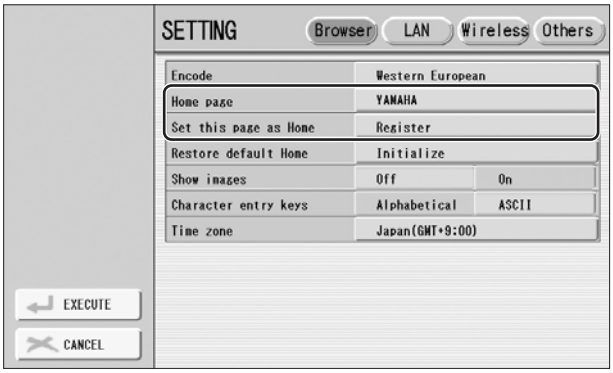
This closes the Bookmark display and returns to the browser display.

Changing the Home Page

You can specify any desired page on the site to be the home page. In advance, open the page you wish to set as your new home page.

1 Press the [SETTING] button in the control menu to call up the Internet Setting display.

2 Press the [Browser] button to call up the Browser Page.



3 Press the [Register] button of the "Set this page as Home."

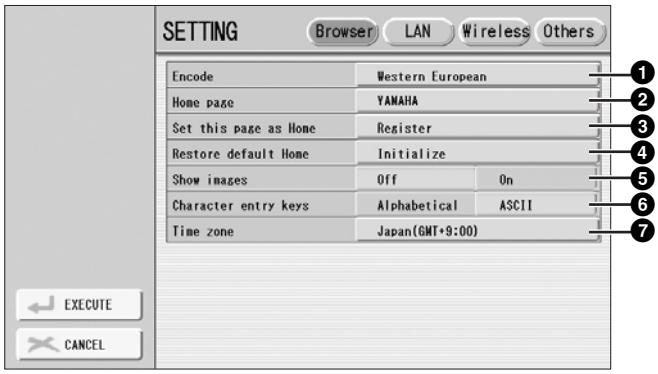
4 To return to the browser, press the [EXECUTE] button in the control menu.

A message appears, prompting confirmation of the operation. Select [YES] to return to the browser.

3 About the Internet Settings Display

From the Internet Settings display, you can make various settings related to the Internet connection, including preferences for the menus and displays. The Internet Settings display has four sub-displays: Browser, LAN, Wireless LAN, and Others.

Browser



❶ Encode

Selects the character code encoding for the browser.

❷ Home page

Shows and allows editing of the web page which is set as the home page.

❸ Set this page as Home

For details, refer to “Changing the Home Page” on page 195.

❹ Restore default Home

Restores the home page setting.

❺ Show images

Image data and pictures in the web page are shown in the browser when this is set to on. Image data is not shown when this is set to off.

❻ Character entry keys

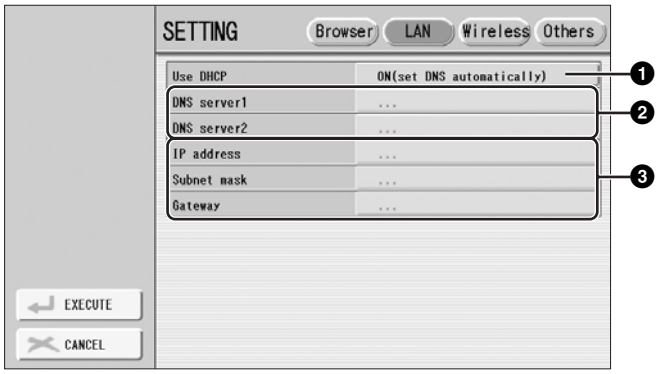
This setting lets you select the character order of the virtual keyboard for entering characters. When this is set to “Alphabetical,” the keys are in alphabetical order. When this is set to “ASCII,” the keys are arranged as a conventional “QWERTY” keyboard.

❼ Time zone

This determines the time setting for the browser.

LAN

In this display page, you can make settings for the LAN connection. These settings are needed for not only wired LAN connection but also wireless LAN connection.



Make a written note of these settings, in case you have to enter the settings again.

Use DHCP	
DNS server 1	
DNS server 2	
IP address	
Subnet mask	
Gateway	

❶ Use DHCP

Determines whether or not DHCP is used. If your router is compatible with DHCP, select "ON (set DNS automatically)" here.

❷ DNS server 1 / DNS server 2

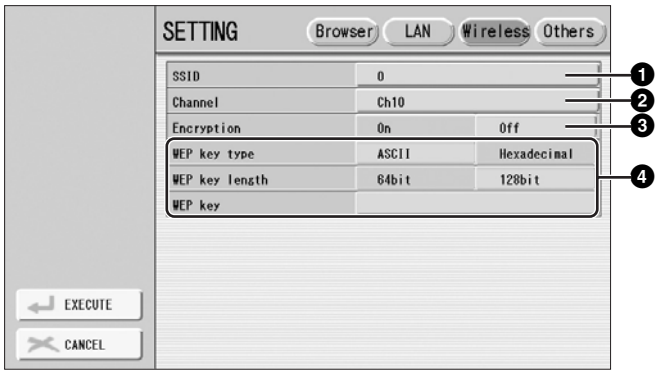
These determine the addresses of the primary and secondary DNS servers. These settings must be made when "Use DHCP" above is set to "ON (set DNS manually)" or "OFF."

❸ IP address / Subnet mask / Gateway

These settings are available only when DHCP is not used. The settings here are: IP address, subnet mask, and gateway server address. These settings must be made when "Use DHCP" above is set to "OFF."

Wireless LAN

In this display page, you can make settings for the wireless LAN connection. These settings must be the same as the settings on the Access Point.



Make a written note of these settings, in case you have to enter the settings again.

SSID		
Channel	Ch	
Encryption	On	Off
WEP key type	ASCII	Hexadecimal
WEP key length	64 bit	128 bit
WEP key		

❶ SSID

Determines the SSID setting.

❷ Channel

Determines the channel.

❸ Encryption

Determines whether or not the data is encrypted.

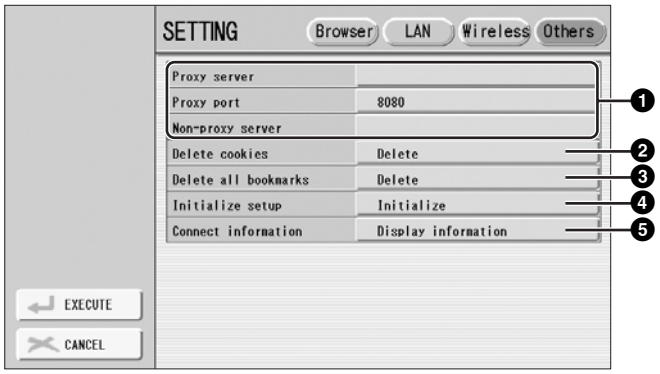
NOTE

After changing the Encryption and WEP key settings, turn the power off and on again to enable the new settings.

❹ WEP key type / WEP key length / WEP key

These settings are available only when Encryption above is enabled. These set the type and length of the encryption key.

Others



NOTE

When using two or more non-proxy servers, separate each server name with a comma.

❶ Proxy server / Proxy port / Non-proxy server

Determines the proxy server name, port number and the host name for a main, non-proxy server. The settings here are only necessary when using a proxy server.

❷ Delete cookies

Deletes the contents of all saved cookies.

❸ Delete all bookmarks

Deletes all saved bookmarks.

❹ Initialize setup

Restores all settings in the Internet Settings displays to their defaults. See “Initializing Internet Settings” on page 199.

❺ Connection information

Shows detailed information on the current connection.

4 Exiting from the Internet Display

Pressing any button other than [INTERNET] button quits the Internet Direct Connection and closes the website display. Pressing the [INTERNET] button again automatically opens the previously opened website.

5 Initializing Internet Settings

The settings of the Internet function are not initialized when using the Initialize operation of the Electone (page 21); Internet settings must be initialized separately, as explained here. Initializing will reset to the default values not only the settings of the browser, but also all settings you have made in the Internet Settings displays, including those related to Internet connection.

1 **Press the [SETTING] button in the control menu to call up the Internet Settings display.**

2 **Press the [Others] button at the top right of the display.**

3 **Press the [Initialize] button to initialize the Internet settings.**
A message appears, prompting confirmation of the operation.

4 **Select [YES] to initialize the Internet settings, or select [NO] to abort the operation.**

Glossary of Internet Terms

Broadband	An Internet connection technology/service (such as ADSL and optical fiber) that allows for high-speed, high-volume data communication.
Browser	The software used to search for, access, and view web pages. For this instrument, this refers to the display that shows the contents of the web pages.
Cookie	A system that records certain information that the user transfers when visiting a website and using the Internet. The function is similar to a preference file in a conventional computer program, in that it "remembers" certain information such as your user name and password, so you don't have to re-enter the information each time you visit the site.
DHCP	This is a standard or protocol by which IP addresses and other low-level network configuration information can be dynamically and automatically assigned each time connection is made to the Internet.
DNS	A system that translates names of computers connected to a network to their corresponding IP addresses.
Download	Transferring data over a network, from a larger "host" system to a smaller "client" system's hard drive or other local storage device — much like copying files from your hard disk drive to a floppy disk. For this instrument, this refers to the process of transferring Song and other data from a website to the instrument.
Gateway	A system which links different networks or systems, and makes possible data transfer and conversion despite differing communications standards.
Home page	The first page shown when opening a browser and connecting to the Internet. This phrase is also used to mean the "front screen" or top page of a website.
Internet	A huge network made up of networks, the Internet allows high-speed data transfer among computers, mobile phones and other devices.
IP address	A string of numbers assigned to each computer connected to a network, and indicating the device's location on the network.
LAN	Short for Local Area Network, this is a data-transfer network that connects a group of computers at a single location (such as an office or home) by means of a special cable.
Link	A highlighted word, button or icon within a web page that, when clicked, opens another web page.
Modem	A device which connects and allows data transfer between a conventional telephone line and a computer. It converts the digital signals from the computer to analog audio for sending over the phone line, and vice versa.
NTP	Short for Network Time Protocol, a standard for setting the internal system clock of the computer over a network. For this instrument, the internal clock of the computer is used to specify the valid time/date for cookies and SSL.
Provider	A communications business that offers Internet connection services. In order to connect to the Internet, it is necessary to contract to a provider.
Proxy	A proxy server is a server that all computers on a local network have to go through before accessing information on the Internet. It intercepts all or designated requests to the real server to see if it can fulfill the requests itself. If not, it forwards the request to the real server. Proxy servers are used to improve performance and speed, and to filter requests, usually for security and to prevent unauthorized access to an internal network.
Router	A device for connecting multiple computer networks. For example, a router is necessary when connecting several computers in a house or office, and allow them to all access the Internet and share data. A router is usually connected between a modem and a computer, although some modems have a built-in router.
Server	A hardware system or computer used as a central point for a network, providing access to files and services.
Site	Short for "website," this refers to the group of web pages that are opened together. For example, the collection of web pages whose addresses begin with "http://www.yamaha.co.jp/" is referred to as the Yamaha site.
SSID	This is an identification name for specifying a particular network over a wireless LAN connection. Communication is possible only between terminals with matching SSID names.
SSL	Short for Secure Sockets Layer, a standard for transmitting confidential data such as credit card numbers over the Internet.
Subnet mask	A setting used to divide a large-scale network into several smaller networks.
URL	Short for Uniform Resource Locator, a string of characters used to identify and link to specific websites and pages on the Internet. A complete URL usually starts with the characters "http://."
Web page	Refers to each individual page that makes up a website.
Wireless LAN	A LAN connection that allows data transfer through a wireless, cable-free connection.

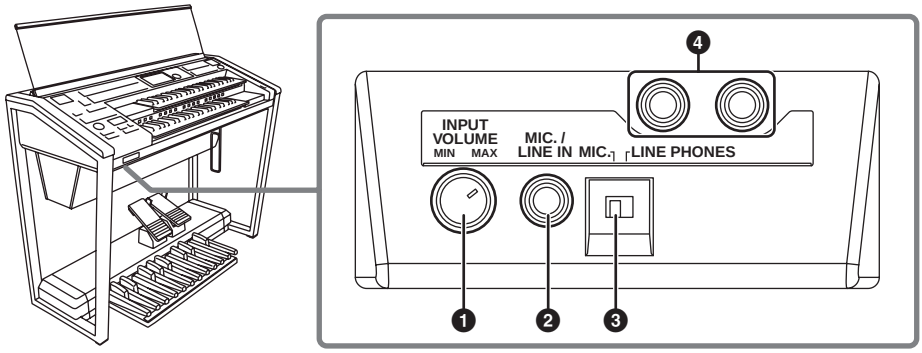
13 Connections

On the underside of the Electone keyboard is a separate panel equipped with various input/output terminals and miscellaneous controls, the functions of which are described below.

Contents

1 Accessory Jacks and Controls

This section provides brief explanations for each jack/control on the Electone.
For details on connecting to external devices, see page 203.



❶ INPUT VOLUME knob

For adjusting the level of input signal from the MIC./LINE IN jack.

Reference Page
Connecting a Microphone or Guitar (page 205)

❷ MIC./LINE IN jack

For connecting a mono input, such as microphone or guitar. The Electone outputs the microphone or guitar sounds, with reverb processing, through the built-in speaker system.

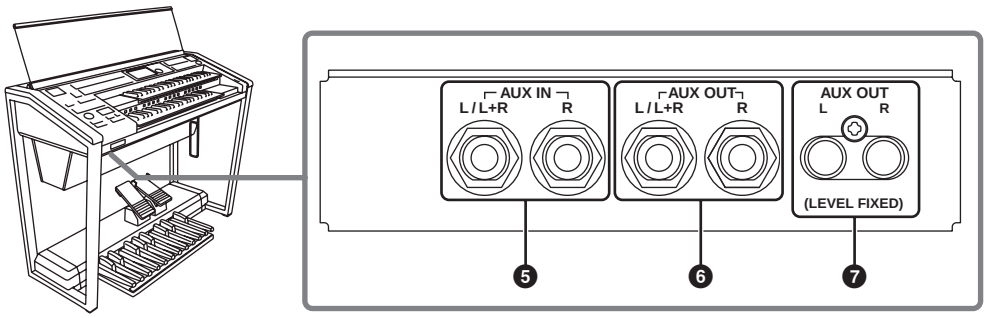
❸ MIC./LINE switch

When connecting a microphone or other electric/electronic instrument to the MIC./LINE IN jack, make sure to set this level gain switch appropriately, depending on the device you use.

❹ PHONES jacks

For connection of a stereo headphone set. When headphones are connected to this jack, sound to the Electone's built-in speaker system is automatically cut off, allowing you to play without disturbing others.

Reference Page
Using Headphones (page 203)



Reference Page

Outputting the Sound of an External Device Through the Built-in Speakers of the Electone (page 204)

❺ AUX IN (L/L+R, R) jacks

This pair of stereo phone jacks is for connection to an external device. The signal from the connected external device sounds from the Electone's built-in speakers.

❻ AUX OUT (L/L+R, R) jacks

This pair of stereo outputs is for connection to an external amplifier/speaker system. The output level can be controlled with the MASTER VOLUME Dial.

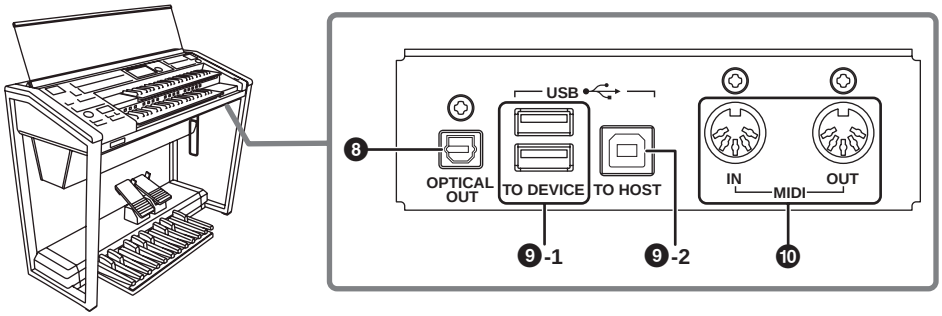
Reference Pages

Playing the Sounds of the Electone Through an External Audio System (page 203)

Recording the Sounds of the Electone to an External Recorder (page 204)

❼ AUX OUT (L/R) jacks (LEVEL FIXED)

This set of stereo outputs is for connection to an external amplifier/speaker. The output level is fixed and cannot be controlled.



Reference Page

Recording the Sounds of the Electone to an External Recorder (page 204)

❽ OPTICAL OUT terminal

For connection using an optical-fiber cable. This terminal outputs a digital signal of 44.1 kHz.

❾ USB terminals

❾ - 1 USB TO DEVICE terminal(s)

For connecting USB storage devices (such as floppy disk drive) or a USB-LAN adapter for connecting to the Internet.

❾ - 2 USB TO HOST terminal

For connecting to a computer with a USB cable.

Reference Pages

Internet Direct Connection (page 188)

Connecting USB storage devices or USB-LAN adapter (page 207)

Connection with Computer (page 208)

USB

USB is an abbreviation for Universal Serial Bus. It is a serial interface for connecting a computer with peripheral devices.

⑩ MIDI IN/OUT terminals

For connecting external MIDI devices such a synthesizer or sequencer. You can also use these to connect with a computer that has a MIDI Interface.

Reference Pages

Controlling External MIDI Devices from the Electone (page 206)

Controlling the Electone from an External Device (page 207)

Connection with Computer (page 208)

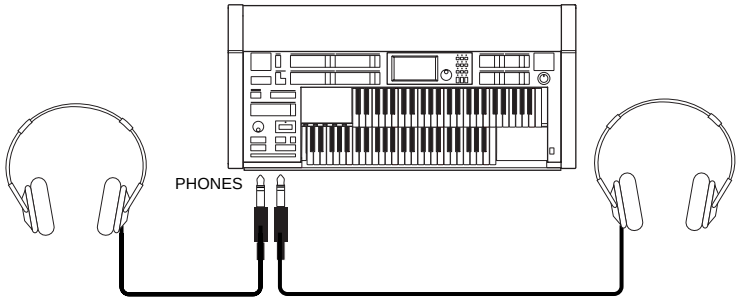
What is MIDI? (page 209)

2 Connection Examples – External Devices

Before connecting the Electone to other electronic components, turn off the power to all the components. Before turning the power of the components on or off, set all volume levels to minimum (0). Otherwise, electrical shock or damage to the components may occur.

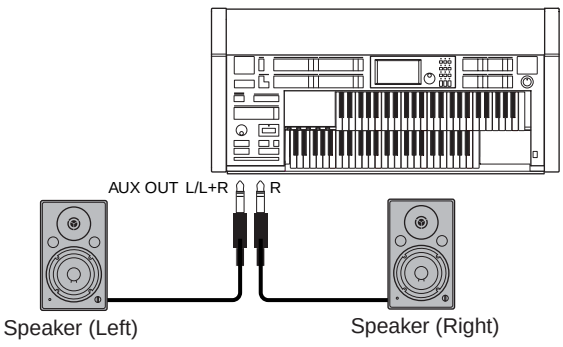
Using Headphones

To use headphones, connect them to one of the PHONES jacks (standard 1/4" phone jacks). Two people can enjoy listening to the Electone together by connecting two pairs of headphones to the two jacks.



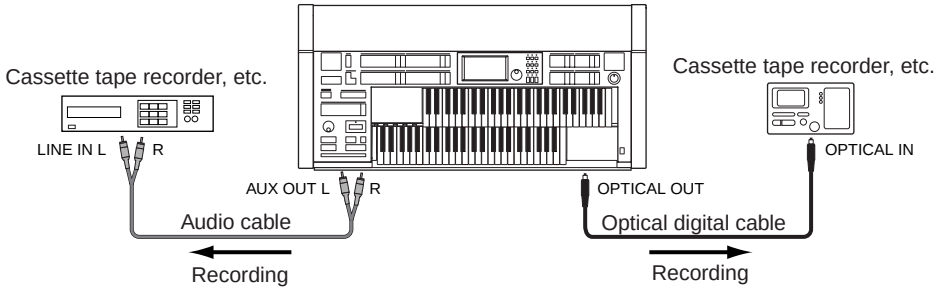
Playing the Sounds of the Electone Through an External Audio System

By using the AUX OUT jacks (standard phone), you can connect your Electone to external speakers. If you're connecting the Electone to a mono device, use only the AUX OUT L/L+R jack.



Recording the Sounds of the Electone to an External Recorder

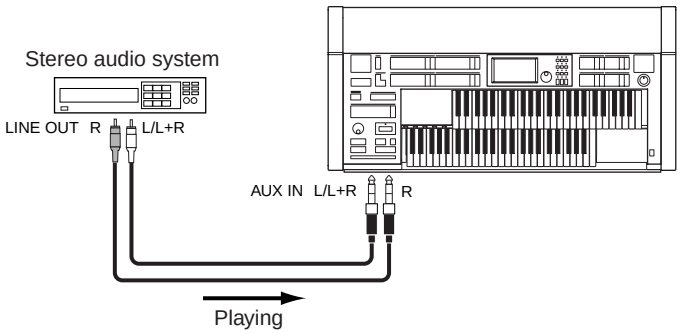
You can record your Electone performance to an external recorder, such as an MD recorder or cassette tape recorder, using the OPTICAL OUT terminal or AUX OUT jacks. Using the OPTICAL OUT terminal allows you to record to external media with exceptionally high-quality digital sound (providing the external recorder has an Optical In terminal). Or you can use the AUX OUT jacks (RCA or standard phone, depending on the connectors of your particular recorder). When you use the AUX OUT phone jacks, the output level can be controlled with the MASTER VOLUME dial.



Outputting the Sound of an External Device Through the Built-in Speakers of the Electone

Connect the AUX IN jacks of the Electone with the LINE OUT of an external device, such as a CD player. The sound from the CD player is output from Electone's built-in speakers.

First turn on the power of the external device, then that of the Electone. Reverse this order when you turn the power off.



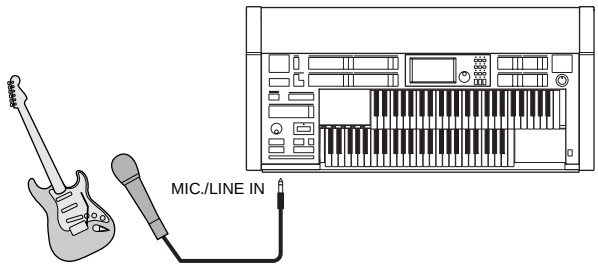
If you're connecting the Electone to a mono device, use only the AUX IN L/L+R jack.

Connecting a Microphone or Guitar

By connecting a microphone to the Electone, you can enjoy singing along with your own performance. The Electone outputs your vocals or guitar sounds through the built-in speakers.

1 Connect your microphone to the MIC./LINE IN jack (standard 1/4"phone jack).

A dynamic microphone is recommended.



2 Set the MIC./LINE switch to the MIC position when connecting a microphone, or the LINE position when connecting a guitar or other high-level output device.

NOTE

When you're not sure which position is the best, first set it to LINE. If the output level is too low, switch to the MIC position.

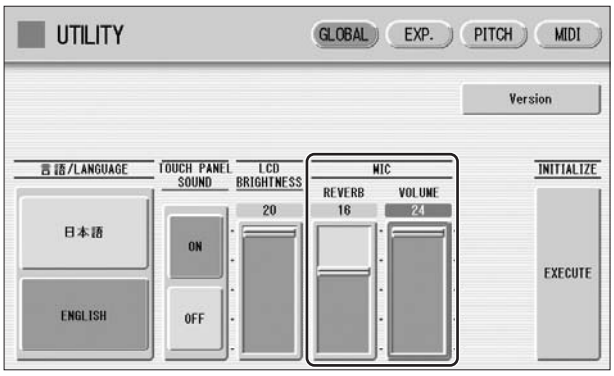
3 Use the INPUT VOLUME knob to set the microphone volume.

To adjust the volume/reverb:

1 **Press the [UTILITY] button on the panel to call up the Utility display.**

Reference Page
Reverb (page 46)

2 **Using the MIC. REVERB and VOLUME sliders in the GLOBAL Page, adjust the amount of the reverb applied to the microphone, and the volume.**



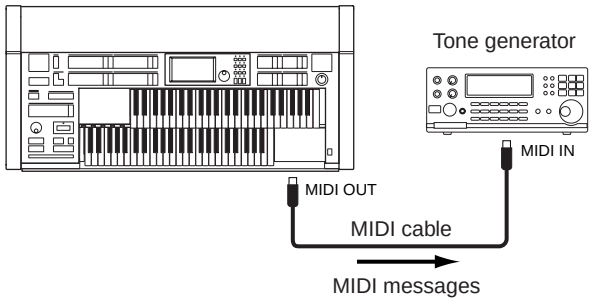
No sound from the microphone can be heard even though you raise the volume here, unless you turn the INPUT VOLUME knob to the right. Similarly, no reverb can be heard even though you raise the reverb level here, unless you raise the total reverb level with the panel REVERB button.

Controlling External MIDI Devices from the Electone

Reference Page
What is MIDI? (page 209)

You can use the Electone to remotely play the Voices of a MIDI keyboard (or tone generator), combining them with the Electone and letting you create even richer, more multi-layered sound textures. (The MIDI receive channels of the MIDI keyboard must match the transmit channels on your Electone.)
The Electone transmits as digital data a variety of performance messages along with note information, including values that indicate how far the expression pedal is pressed down and how hard you play the keyboard. How the connected external device responds to these messages depends on the particular device.

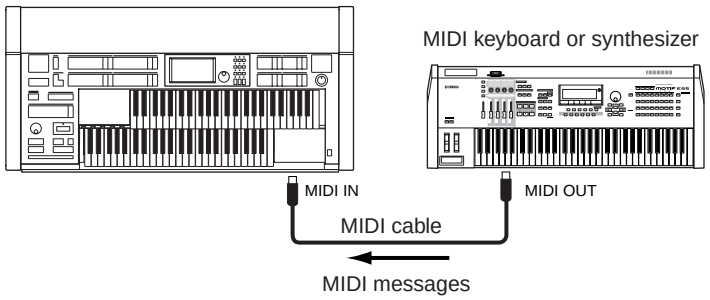
NOTE
When you are using the M.D.R., MIDI data cannot be transmitted.



MIDI terminals are automatically disabled when the USB TO HOST terminal is used.

Controlling the Electone from an External Device

You can use an external MIDI keyboard or sequencer to remotely play the sounds of your Electone and change its Registrations. (You will need to set the MIDI transmit channels of the MIDI keyboard to match the fixed receive channels on your Electone.)



MIDI terminals are automatically disabled when the USB TO HOST terminal is used.

NOTE

When you are using the M.D.R., MIDI data cannot be received.

Connecting USB storage devices or USB-LAN adapter

Using the USB TO DEVICE terminal(s), you can connect USB storage devices (such as the UD-FD01 floppy disk drive) for saving your Electone data, and/or a USB-LAN adapter for direct connection to the Internet.

Reference Pages

Installing the Floppy Disk Drive (page 216)

Internet Direct Connection (page 188)

Formatting External Media (page 95)

Compatible USB devices

You can connect a single USB-LAN adapter and up to two USB storage devices (such as floppy disk, hard disk, flash disk and other drives) to the USB TO DEVICE terminal(s). Before purchasing a USB-LAN adapter or USB storage devices, please consult your Yamaha dealer, or an authorized Yamaha distributor for advice, or see the Yamaha website (http://www.global.yamaha.com/).

NOTE

If necessary, use a USB hub. Only self-powered (battery or external power supply) types can be used. On the ELS-01, USB hubs of up to two levels can be used; on the ELS-01C, only one level can be used.

Precautions when using the USB TO DEVICE terminals

- Never turn the USB device's power on/off and never plug/unplug the USB cable when the connected USB storage device is of the self-powered type. Doing so may result in the operation of the Electone "freezing" or hanging up.
- While the instrument is accessing data (such as Save, Load, and Delete operations), do NOT unplug the USB cable, do NOT remove the media from the device, and do NOT turn the power off to either device. Doing so may corrupt the data on either or both devices.

3 Connection with Computer

By using the USB TO HOST terminal or MIDI IN/OUT terminals, you can connect your Electone to a computer and receive/transmit MIDI data (for more information about MIDI, see page 209).

Before you can actually transfer data between the Electone and a computer via the USB connection, you will need to install an appropriate MIDI driver. Download the latest MIDI driver software from the Yamaha web site at "http://music.yamaha.com/download/."

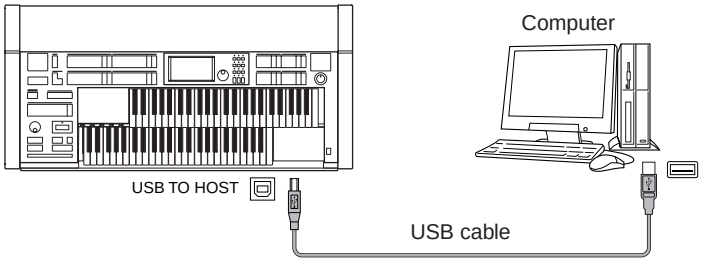
NOTE

When you are using the M.D.R., MIDI data cannot be transferred to/from the computer.

Connecting your Electone to a computer opens up a whole new world of musical possibilities. You can save your original songs to computer and create notation (score writing application or sequencing software is needed), and even upload your original Electone song data to your own website, to promote your talents or share songs with your friends. You can also control the Electone from the computer, for example, by playing a MIDI file on the computer to play back the sounds of your Electone.

Using the USB terminal

Using the Electone's USB TO HOST terminal and a standard USB cable, connect the Electone and the computer.



MIDI terminals are automatically disabled when the USB TO HOST terminal is used.

Precautions when using the USB TO HOST terminals

When connecting the computer to the USB TO HOST terminal, make sure to observe the following points. Failing to do so may result in freezing of the computer, corrupting data, and even losing data.

If the computer or the instrument freezes, turn the power to the instrument off or restart the computer.

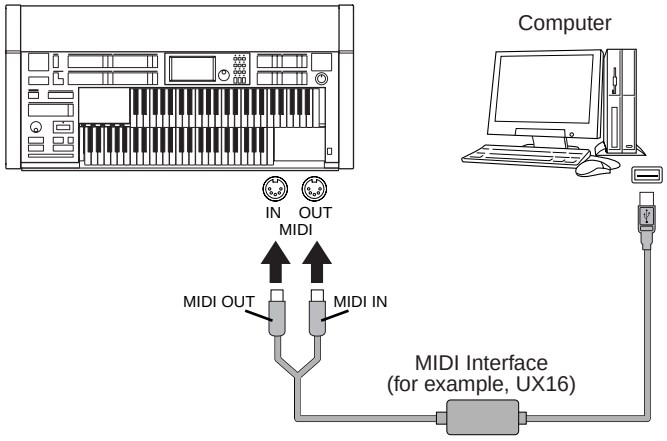
- Before connecting the computer to the USB TO HOST terminal, exit from any power-saving mode (such as suspended, sleep, standby) of the computer.
- Before turning on the power to the instrument, connect the computer to the USB TO HOST terminal.
- Execute the following before turning the power to the instrument on/off or plugging/unplugging the USB cable to/from the USB TO HOST terminal.
  - Quit any open applications.
  - Make sure that data is not being transmitted from the instrument. (Data is transmitted only by playing notes on the keyboard or playing back a Song.)
- While a USB device is connected to the instrument, you should wait for six seconds or more between these operations: When turning the power of the instrument off then on again, or when alternately connecting/disconnecting the USB cable.

Using the MIDI IN/OUT terminals

By using an optional MIDI interface such as the UX16, you can connect the Electone to the computer, with the MIDI IN/OUT terminals on the instrument. Connect the Electone and the MIDI Interface with two standard MIDI cables (one connecting the OUT terminal on the Electone to the MIDI IN terminal on the interface, and the other connecting the IN terminal on the Electone to the MIDI OUT terminal on the interface). Connect the MIDI interface to the computer with a USB cable.

NOTE

Depending on your particular MIDI interface, you may have to connect the MIDI Interface and the computer with a serial cable.



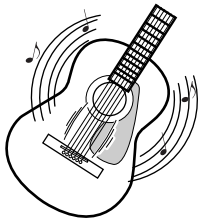
4 MIDI

This section explains what MIDI is, and what it can do, as well as how you can use MIDI on your Electone.

What is MIDI?

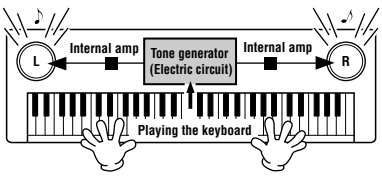
No doubt you have heard the terms “acoustic instrument” and “digital instrument.” In the world today, these are the two main categories of instruments. Let’s consider a grand piano and a classical guitar as representative acoustic instruments. They are easy to understand. With the piano, you strike a key, and a hammer inside hits some strings and plays a note. With the guitar, you directly pluck a string and the note sounds. But how does a digital instrument go about playing a note?

Acoustic guitar note production



Pluck a string and the body resonates the sound.

Digital instrument note production



Based on playing information from the keyboard, a sampled note stored in the tone generator is played through the speakers.

As shown in the illustration above, in an electronic instrument the sampled note (previously recorded note) stored in the tone generator section (electronic circuit) is played based on information received from the keyboard, and output through the speakers. So then what is the information from the keyboard that becomes the basis for note production?

For example, let's say you play a "C" quarter note using the grand piano sound on the Electone keyboard. Unlike an acoustic instrument that puts out a resonated note, the electronic instrument puts out information from the keyboard such as "with what Voice," "with which key," "about how strong," "when was it pressed" and "when was it released." Then each piece of information is changed into a number value and sent to the tone generator. Using these numbers as a basis, the tone generator plays the stored sampled note.

Example of Keyboard Information

Voice number (with what Voice)	01 (grand piano)
Note number (with which key)	60 (C3)
Note on (when was it pressed)	Timing expressed numerically (quarter note)
Velocity (about how strong)	120 (strong)

As described above, your keyboard performance and panel operations such as Voice selection are handled as MIDI events. All rhythm-related data – including rhythm patterns, auto accompaniment patterns, Rhythm Sequences, etc. – also consist of MIDI messages.

MIDI (Musical Instrument Digital Interface) allows electronic musical instruments to communicate with each other, by sending and receiving compatible Note, Control Change, Program Change and various other types of MIDI data, or messages.

MIDI Messages of the Electone

MIDI messages can be divided into two groups: the Channel Messages and System Messages. Channel Messages consist of data related to the performance on the keyboard for a specific channel. System Messages consist of data that allows several MIDI devices to communicate with each other.

Channel Messages

Each time you play the keyboard on the Electone, channel messages (indicating which keys are played and how strongly) are transmitted via a specific channel. Similarly, the Electone can be played remotely when receiving this data from an external keyboard.

Note On: Indicates which keys are played with the note numbers 0 through 127. The reception note range is C-2 (0) – G8 (127), C3 = 60.

Note Off: Generated when a key is released.

Velocity: Indicates how strongly the key is played. The range is 1 – 127.

For more detailed information, see MIDI Data Format on page 217 and MIDI Implementation Chart on page 228.

• Program Change

Program Change messages allow you to change Voices in the middle of a song. With these messages you can change the Registrations of the Electone. For more detailed information, see MIDI Data Format on page 217 and MIDI Implementation Chart on page 228.

• Control Change

Control Change Messages let you select Voice banks, control the volume, panning, modulation, portamento time, brightness and various other sound parameters, through specific Control Change numbers.
For more detailed information on the Control Change messages available on the Electone, see MIDI Data Format on page 217 and MIDI Implementation Chart on page 228.

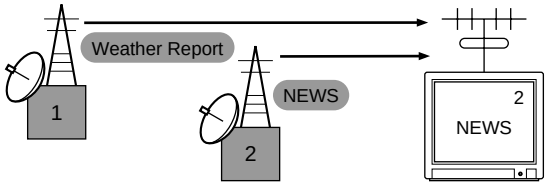
System Messages

• System Exclusive Messages

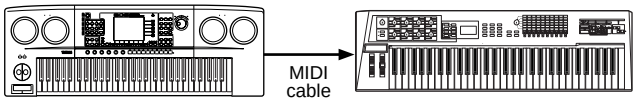
System Exclusive messages are used to exchange the system and Voice/Registration data.

MIDI Channels

MIDI data is assigned to one of sixteen MIDI channels. Using these channels, 1 – 16, the performance data for sixteen different instrument parts can be simultaneously sent over one MIDI cable.
Think of the MIDI channels as TV channels. Each TV station transmits its broadcasts over a specific channel. Your home TV set receives many different programs simultaneously from several TV stations and you select the appropriate channel to watch the desired program.



MIDI operates on the same basic principle. The transmitting instrument sends MIDI data on a specific MIDI channel (MIDI Transmit Channel) via a single MIDI cable to the receiving instrument. If the receiving instrument's MIDI channel (MIDI Receive Channel) matches the Transmit Channel, the receiving instrument will sound according to the data sent by the transmitting instrument.



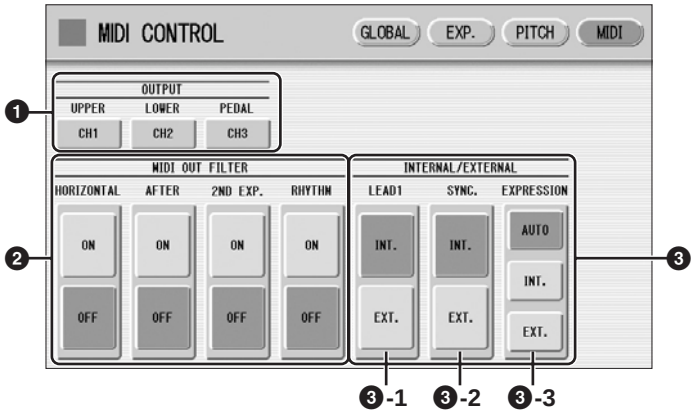
The receive channel of the Electone is fixed at channel 1 for the Upper Keyboard, channel 2 for the Lower Keyboard, and channel 3 for the Pedalboard. This means that when you are using another MIDI device to play the Electone's Voices, you must set the MIDI transmit channel(s) of the connected device to match the receive channel(s) of the Electone. You can select the transmit channel for each keyboard (Upper, Lower and Pedal) from channels 1 – 16. See page 213 for more information.

5 MIDI Control

When you connect your Electone with a second MIDI device (such as a synthesizer or computer), you can determine how the Electone controls that MIDI device, or how the Electone is controlled.

1 Press the [UTILITY] button in the panel to call up the Utility Display.

2 Press the [MIDI] button at the top right of the display to call up the MIDI Page.



❶ OUTPUT

For setting the channels over which MIDI information will be transmitted. Any channel from 1 through 16 can be assigned to each keyboard, the Upper keyboard, the Lower keyboard and the Pedalboard. The MIDI messages on each keyboard will be sent on the channels set here. You must set the transmit channel here to match the receive channel of the connected device.
Pressing each OUTPUT button calls up the channel selection pop-up menu. After you select the desired channel, the pop-up menu automatically closes.

❷ MIDI OUT FILTER

Deletes unnecessary MIDI data and keeps it from being transmitted from the Electone. After Touch and Rhythm start/stop are automatically filtered on the ELS-01.
In addition, Horizontal Touch and Second Expression are automatically filtered on the ELS-01C. Set the parameter for which you wish to disable transmission to ON.

❸ INTERNAL/EXTERNAL

Switches control over the displayed items between the Electone (INTERNAL) or the connected device (EXTERNAL).

❸ - 1 LEAD 1

Determines Internal or External control of the Lead Voices.

INT. (Internal): Lead Voice 1 is played from the Upper keyboard of the Electone. (If the To Lower function is on, it is played from Lower keyboard.)

EXT. (External): The Lead Voice 1 is played from the connected instrument via MIDI channel 4.

❸ - 2 SYNC.

Determines the source of the timing control, for rhythm synchronization purposes.

INT. (Internal): Pressing the Rhythm [START] or [SYNCHRO START] button on the panel controls connected devices, such as a sequencer.

EXT. (External): Starting the rhythm of the connected rhythm machine starts the rhythm of Electone.

❸ - 3 EXPRESSION

Determines the control of the expression pedal functions. Ordinarily, this control is set to AUTO.

AUTO: Internal and External is automatically switched.

INT. (Internal): You can manually control the expression pedal even during M.D.R. playback.

EXT. (External): While playing the M.D.R. or receiving MIDI messages, the expression pedal is invalid. (The volume is controlled by the recorded data in a SmartMedia card or received MIDI data.)

14 Appendix

Bench Assembly

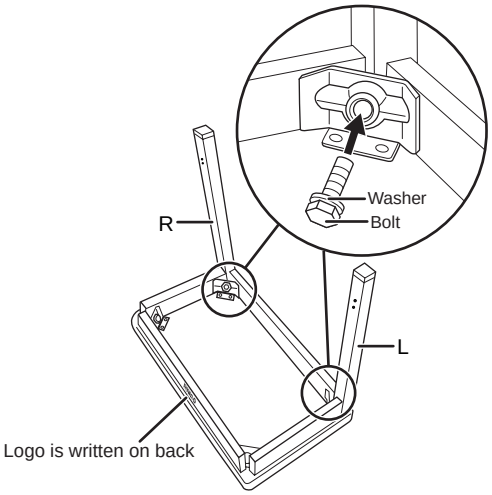
Have a Phillips-head (+) screwdriver ready.

Bench for the ELS-01

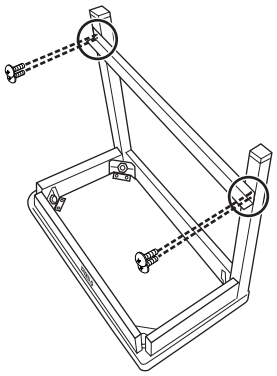
1 **Turn the bench board over and install two legs for the front side.**

Tighten the bolts using the included wrench (as shown).

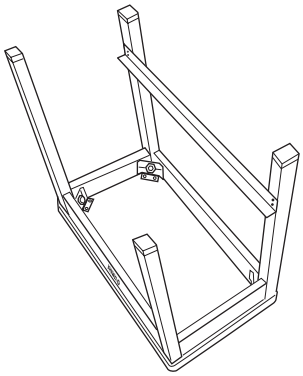
⚠ **Make sure to put washers between the bolts and the bench board.**



2 **Install the foot rest to the legs with the included four screws, using a screwdriver.**



3 **Install the two legs for the back side.**

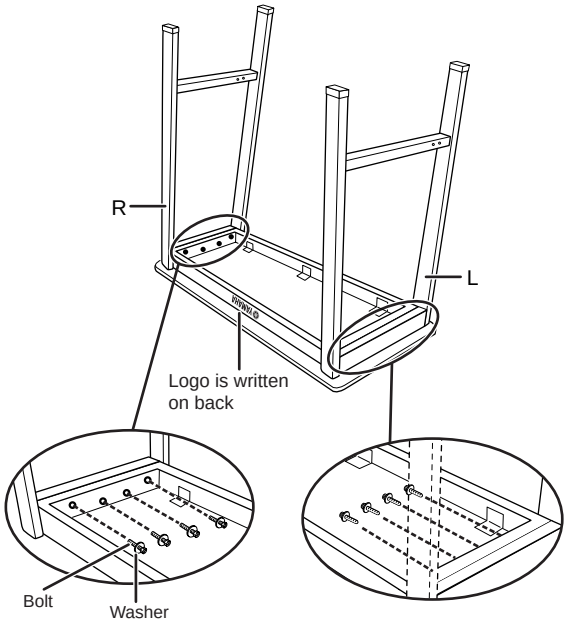


Bench for the ELS-01C

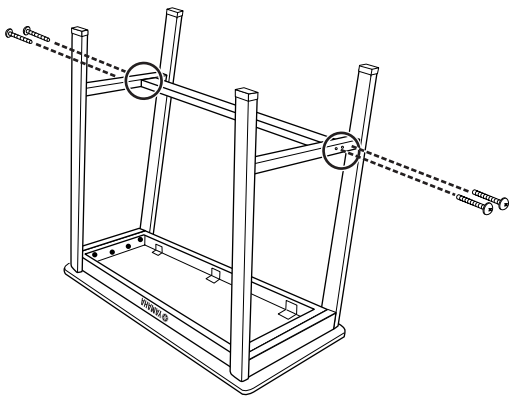
1 **Turn the bench board over and install the legs with the included eight screws.**

Tighten the screws using the included hexagonal wrench (as shown).

⚠ **Make sure to put washers between the screws and the bench board.**



2 **Install the foot rest to the legs with the included four screws, using a screwdriver.**

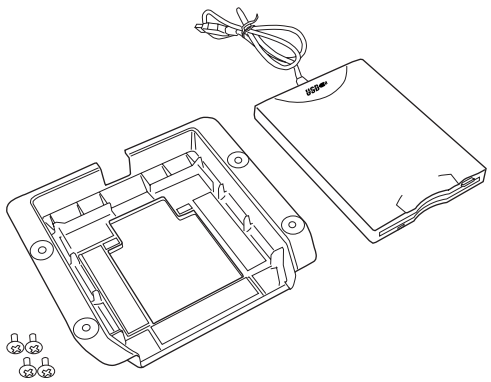


If the bench screws become loose due to extensive long-term use, tighten them periodically using the included tool and a screwdriver.

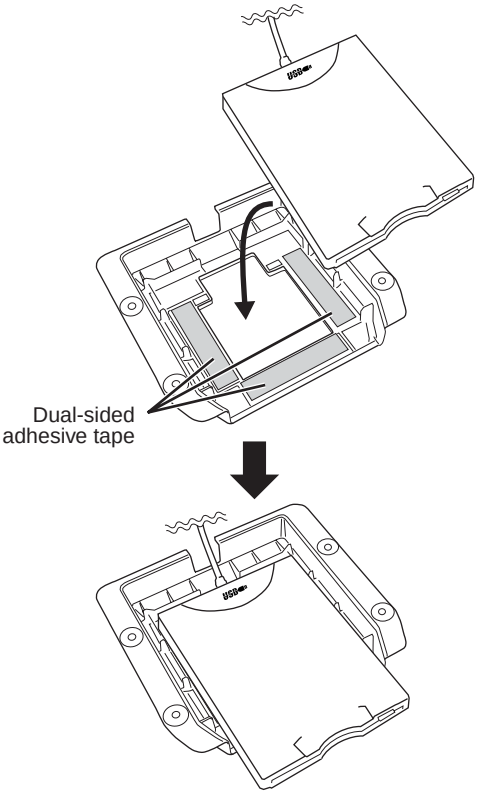
Installing Optional Hardware

Installing the Floppy Disk Drive

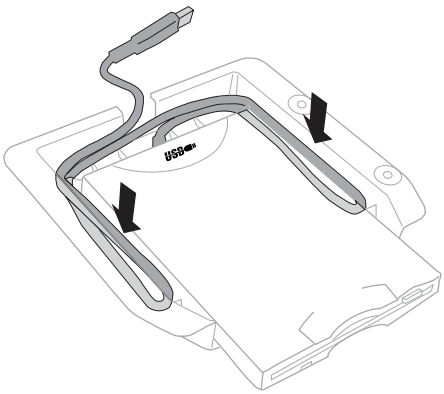
The optional UD-FD01 floppy disk drive can be installed to the bottom of the instrument by using the included floppy disk drive case and screws. Have a Phillips-head (+) screwdriver ready.



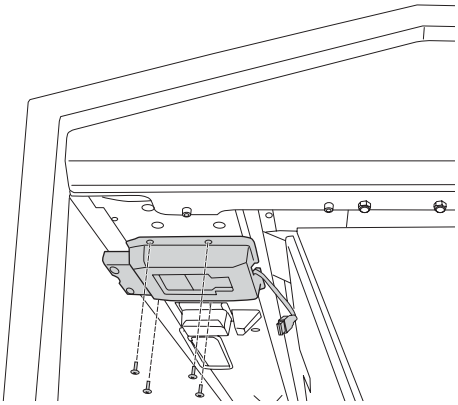
1 **Remove the three backing papers from the adhesive tape in the case, and fit the floppy disk drive into the case.**



2 **Fold the USB cable inside the case as shown.**



3 **Attach the drive and case assembly to the right underside of the instrument, using the included four screws (4 mm x 10 mm).**



4 **Connect the USB cable to the [USB TO DEVICE] terminal.**

MIDI Data Format

1. Channel Messages

1.1 EL Mode

"×" indicates "Not available."
"○" indicates "Available."

Code (Hexadecimal)	Function	Receive	Transmit	Remarks
8n, nn, 00-7F	Note Off	1ch 2ch 3ch (4ch)* 5-14ch 15ch	× × × × × ×	UK LK PEDAL LEAD 1 XG Keyboard Percussion
9n, nn, 00 9n, nn, 01-7F	Note Off Note On	1ch 2ch 3ch (4ch)* 5-14ch 15ch	(1ch)* (2ch)* (3ch)* × × ×	UK LK PEDAL LEAD 1 XG Keyboard Percussion
An, nn, 00-7F	Polyphonic After Touch	5-14ch	×	XG
Bn, 00, 00-7F Bn, 20, 00-7F	Bank select	5-14ch	×	XG
Bn, 01, 00-7F	Modulation	5-14ch	×	XG
Bn, 04, 00-7F	2nd Expression	16ch (4ch)*	16ch (4ch)**	Control LEAD 1 (ELS-01 not transmitted)
Bn, 05, 00-7F	Portamento Time	5-14ch	×	XG
Bn, 06, 00-7F Bn, 26, 00-7F	Data Entry	5-14ch	×	XG
Bn, 07, 00-7F	Volume	5-14ch	×	XG
Bn, 0A, 00-7F	Pan	5-14ch	×	XG
Bn, 0B, 00-7F	Expression	16ch 5-14ch	16ch	Control XG
Bn,10, 00-7F	VA After Touch	1ch	(1ch)*	UK (ELS-01C only)
Bn, 40, 00-7F	Hold	5-14ch	×	XG
Bn, 41, 00-7F	Portamento	5-14ch	×	XG
Bn, 42, 00-7F	Sostenuto	5-14ch	×	XG
Bn, 43, 00-7F	Soft Pedal	5-14ch	×	XG
Bn, 47, 00-7F	Resonance	5-14ch	×	XG
Bn, 48, 00-7F	Release Time	5-14ch	×	XG
Bn, 49, 00-7F	Attack Time	5-14ch	×	XG
Bn, 4A, 00-7F	Brightness	5-14ch	×	XG
Bn, 4B, 00-7F	Decay Time	5-14ch	×	XG
Bn, 4C, 00-7F	Vibrato Rate	5-14ch	×	XG
Bn, 4D, 00-7F	Vibrato Depth	5-14ch	×	XG
Bn, 4E, 00-7F	Vibrato Delay	5-14ch	×	XG
Bn, 54, 00-7F	Portamento Control	5-14ch	×	XG
Bn, 5B, 00-7F	Reverb Send Level	5-14ch	×	XG
Bn, 5D, 00-7F	Chorus Send Level	5-14ch	×	XG
Bn, 5E, 00-7F	Variation Effect Send Level	5-14ch	×	XG
Bn, 60, 00-7F Bn, 61, 00-7F	Data Increment Data Decrement	5-14ch	×	XG
Bn, 62, 00-7F Bn, 63, 00-7F	NRPN LSB NRPN MSB	5-14ch	×	XG
Bn, 64, 00-7F Bn, 65, 00-7F	RPN LSB RPN MSB	5-14ch	×	XG

Code (Hexadecimal)	Function	Receive	Transmit	Remarks
Bn, 78, 00 Bn, 79, 00 Bn, 7B, 00 Bn, 7C, 00 Bn, 7D, 00 Bn, 7E, 00 Bn, 7F, 00	All Sound Off Reset All Controllers All Note Off Omni Off Omni On Mono Poly	5-14ch	×	XG
Cn, nn	Program Change	5-14ch 16ch	× 16ch	XG Control
Dn, 00-7F	After Touch	1ch 2ch 3ch (4ch)* 5-14ch	(1ch)* (2ch)* (3ch)*	UK LK PEDAL LEAD 1 XG
En, 00-7F, 00-7F	Pitch Bend	1ch 2ch (4ch)* 5-14ch	(1ch)* (2ch)* ×	UK LK LEAD 1 XG

* Can be changed in the MIDI settings (page 213).

** Can be output when assigned to channel 4.

1.2 XG Mode

Code (Hexadecimal)	Function	Receive	Transmit	Remarks
8n, nn, 00-7F	Note Off	1-16ch	×	
9n, nn, 00 9n, nn, 01-7F	Note On Note Off	1-16ch	(1ch)* (2ch)* (3ch)*	UK LK PEDAL
An, nn, 00-7F	Polyphonic After Touch	1-16ch	×	
Bn, 00, 00-7F Bn, 20, 00-7F	Bank select	1-16ch	×	
Bn, 01, 00-7F	Modulation	1-16ch	×	
Bn, 04, 00-7F	2nd Expression	×	16ch (4ch)**	Control LEAD 1 (ELS-01C only)
Bn, 05, 00-7F	Portamento Time	1-16ch	×	
Bn, 06, 00-7F Bn, 26, 00-7F	Data Entry	1-16ch	×	
Bn, 07, 00-7F	Volume	1-16ch	×	
Bn, 0A, 00-7F	Pan	1-16ch	×	
Bn, 0B, 00-7F	Expression	1-16ch	16ch	Control
Bn,10, 00-7F	VA After Touch	×	(1ch)*	UK (ELS-01C only)
Bn, 40, 00-7F	Hold	1-16ch	×	
Bn, 41, 00-7F	Portamento	1-16ch	×	
Bn, 42, 00-7F	Sostenuto	1-16ch	×	
Bn, 43, 00-7F	Soft Pedal	1-16ch	×	
Bn, 47, 00-7F	Resonance	1-16ch	×	
Bn, 48, 00-7F	Release Time	1-16ch	×	
Bn, 49, 00-7F	Attack Time	1-16ch	×	
Bn, 4A, 00-7F	Brightness	1-16ch	×	
Bn, 4B, 00-7F	Decay Time	1-16ch	×	
Bn, 4C, 00-7F	Vibrato Rate	1-16ch	×	
Bn, 4D, 00-7F	Vibrato Depth	1-16ch	×	
Bn, 4E, 00-7F	Vibrato Delay	1-16ch	×	

Code (Hexadecimal)	Function	Receive	Transmit	Remarks
Bn, 54, 00-7F	Portamento Control	1-16ch	×	
Bn, 5B, 00-7F	Reverb Send Level	1-16ch	×	
Bn, 5D, 00-7F	Chorus Send Level	1-16ch	×	
Bn, 5E, 00-7F	Variation Effect Send Level	1-16ch	×	
Bn, 60, 00-7F Bn, 61, 00-7F	Data Increment Data Decrement	1-16ch	×	
Bn, 62, 00-7F Bn, 63, 00-7F	NRPN LSB NRPN MSB	1-16ch	×	
Bn, 64, 00-7F Bn, 65, 00-7F	RPN LSB RPN MSB	1-16ch	×	
Bn, 78, 00 Bn, 79, 00 Bn, 7B, 00 Bn, 7C, 00 Bn, 7D, 00 Bn, 7E, 00 Bn, 7F, 00	All Sound Off Reset All Controllers All Note Off Omni Off Omni On Mono Poly	1-16ch	×	
Cn, 00-7F	Program Change	1-16ch	16ch	Control
Dn, 00-7F	After Touch	1-16ch	(1ch)* (2ch)* (3ch)*	UK LK PEDAL
En, 00-7F, 00-7F	Pitch Bend	1-16ch	(1ch)* (2ch)* ×	UK LK

* Can be changed in the MIDI settings (page 213).
** Can be output when assigned to channel 4.

2. Realtime Messages

Code (Hexadecimal)	Function	Receive	Transmit	Remarks
F8	Clock	O*	O	
FA	Start	O	O	
FC	Stop	O	O	
FE	Active Sensing	O	O	
FF	Reset	×	×	

* Received only when in the Ext. mode

3. System Exclusive Messages

3.1 Format

Universal Realtime Messages

Code (Hexadecimal)	Message	Receive	Transmit
F0, 7F, 7F, 04, 01, SS, TT, F7 XN	GM2 Master Volume	O	×
F0, 7F, 7F, 04, 03, SS, TT, F7 XN	GM2 Master Fine Tuning	O	×
F0, 7F, 7F, 04, 04, 00, TT, F7 XN	GM2 Master Coarse Tuning	O	×
F0, 7F, 7F, 04, 05, 01, 01, 01, 01, 01, PP, VV, ..., F7 XN	GM2 Reverb Parameter	O	×
F0, 7F, 7F, 04, 05, 01, 01, 01, 01, 02, PP, VV, ..., F7 XN	GM2 Chorus Parameter	O	×

Code (Hexadecimal)	Message	Receive	Transmit
F0, 7F, 7F, 09, 01, 0n, PP, VV, ..., F7 XN	GM2 After Touch Parameter	O	×
F0, 7F, 7F, 09, 03, 0n, CC, PP, VV, ..., F7 XN	GM2 Control Change Parameter	O	×
F0, 7F, 7F, 0A, 01, 0n, KK, CC, PP, VV, ..., F7 XN	GM2 Key-Based Controller	O	×

Universal Non-Realtime Messages

Code (Hexadecimal)	Message	Receive	Transmit
F0, 7E, 7F, 09, 01, F7 XN	GM ON	O	×
F0, 7E, 7F, 09, 03, F7 XN	GM2 ON	O	×
F0, 7E, 7F, 09, 02, F7 XN	GM OFF	O	×
F0, 7E, 7F, 08, 08, JJ, GG, MM, ..data.., F7 XN	GM2 Scale/Octave Tuning	O	×

XG Native

Code (Hexadecimal)	Message	Receive	Transmit
F0, 43, 1N, 4C, AH, AM, AL, ..data.., F7	XG Parameter Change	O	×
F0, 43, 0N, 4C, BH, BL, AH, AM, AL, ..data.., cc, F7	XG Bulk Dump	O	×
F0, 43, 1N, 27, 30, 00, 00, MM, LL, cc, F7	XG Master Tuning	O	×

Clavinova Exclusive

Code (Hexadecimal)	Message	Receive	Transmit
F0, 43, 73, 01, 02, F7 03	Request for Internal Synch. Mode Request for External Synch. Mode	O O	× ×

Message Exclusive

Code (Hexadecimal)	Message	Receive	Transmit
F0, 43, 60, 7A, F7	Rhythm Start	O	×
F0, 43, 60, 7D, F7	Rhythm Stop	O	×

Electone Exclusive

Code (Hexadecimal)	Message	Receive	Transmit
F0, 43, 70, 70, 00, ..data.., F7 78 ID	Bulk Dump Data	O O O	× O ×
F0, 43, 70, ID, 00, F7	Model ID Data	×	O
F0, 43, 70, 70, 30, F7	Request-to-Send Model ID Data	O	×
F0, 43, 70, 70, 38, 7F, F7 00	Bulk Dump Acknowledge Bulk Dump Unacknowledge	× ×	× O
F0, 43, 70, 70, 40, nn(*1), 7F, F7 00	Switch ON Switch OFF	O O	O O
F0, 43, 70, 70, 40, 50, TL, TH, F7	Tempo	O	O
F0, 43, 70, 78, 41, cc, dd, F7(*2)	Panel Switch Events	O	O
F0, 43, 70, 78, 42, 3C, ..data.., F7	Current Registration Data	O	O
F0, 43, 70, 78, 44, ..data..(*3), F7	MIDI Parameters	O	O
F0, 43, 70, 70, 70, nn(*4), F7	MDR	O	×
F0, 43, 70, 70, 73, F7	EL ON	O	×
F0, 43, 70, 70, 78, 00, 00, F7	Bar Signal	×	O

×: don't care N: Device Number ("0" on ELS-01C/ELS-01) ID: Model ID (ELS-01C=4DH, ELS-01=4EH)

*1. Switches

nn	Switch	Receive	Transmit
45H	Left Footswitch	○	○
47H	Knee Lever	○	○
48H	Fill In	○	×
4BH	Intro/Ending	○	×
4DH	Solo Bar	○	○

*2. Panel Switch Events

MIDI Exclusive Format
F0, 43, 70, 78, 41, cc, dd, F7

Selectors

cc	Switch	dd				Remarks
Code		Receive	Rx Range	Transmit	Tx Range	
0F	Registration Memory [1-16]	○	[00-0F]	×	-	

Volume

cc	Switch	dd				Remarks
Code		Receive	Rx Range	Transmit	Tx Range	
12	Upper Keyboard Voice 1 Volume	○	[00-7F]	○	[00-7F]	Volume Data 00:MAX, 7F:MIN
13	Lower Keyboard Voice 1 Volume	○	[00-7F]	○	[00-7F]	Volume Data 00:MAX, 7F:MIN
14	Upper Keyboard Voice 2 Volume	○	[00-7F]	○	[00-7F]	Volume Data 00:MAX, 7F:MIN
15	Lower Keyboard Voice 2 Volume	○	[00-7F]	○	[00-7F]	Volume Data 00:MAX, 7F:MIN
16	Lead Voice 1 Volume	○	[00-7F]	○	[00-7F]	Volume Data 00:MAX, 7F:MIN
17	Pedal Voice 1 Volume	○	[00-7F]	○	[00-7F]	Volume Data 00:MAX, 7F:MIN
18	Pedal Voice 2 Volume	○	[00-7F]	○	[00-7F]	Volume Data 00:MAX, 7F:MIN
19	Lead Voice 2 Volume	○	[00-7F]	○	[00-7F]	Volume Data 00:MAX, 7F:MIN
1A	Percussion Volume	○	[00-7F]	○	[00-7F]	Volume Data 00:MAX, 7F:MIN
1B	Reverb Depth	○	[00-7F]	○	[00-7F]	Depth Data 00:MAX, 7F:MIN

Organ Flute Voice

cc	Switch	dd				Remarks
Code		Receive	Rx Range	Transmit	Tx Range	
30	Upper Organ Flute Voice [U. ORGAN FLUTES]	○	[00-01]	○	[00-01]	00:OFF, 01:ON
31	Lower Organ Flute Voice [L. ORGAN FLUTES]	○	[00-01]	○	[00-01]	00:OFF, 01:ON

To Lower

cc	Switch	dd				Remarks
Code		Receive	Rx Range	Transmit	Tx Range	
36	Lead Voice 1 To Lower [TO LOWER ▼]	○	[00-01]	○	[00-01]	00:OFF, 01:ON
37	Pedal Voice 1 To Lower [TO LOWER ▲]	○	[00-01]	○	[00-01]	00:OFF, 01:ON
38	Pedal Voice 2 To Lower [TO LOWER ▲]	○	[00-01]	○	[00-01]	00:OFF, 01:ON

Solo Mode

cc	Switch	dd				Remarks
Code		Receive	Rx Range	Transmit	Tx Range	
39	Lead Voice 2 Solo (Knee) [SOLO (KNEE)]	○	[00-01]	○	[00-01]	00:OFF, 01:ON

Brilliance

cc	Switch	dd				Remarks
Code		Receive	Rx Range	Transmit	Tx Range	
42	Upper Keyboard Voice 1 Brilliance	○	[00-06]	○	[00-06]	00:BRILLIANT, 06:MELLOW
43	Lower Keyboard Voice 1 Brilliance	○	[00-06]	○	[00-06]	00:BRILLIANT, 06:MELLOW
44	Upper Keyboard Voice 2 Brilliance	○	[00-06]	○	[00-06]	00:BRILLIANT, 06:MELLOW
45	Lower Keyboard Voice 2 Brilliance	○	[00-06]	○	[00-06]	00:BRILLIANT, 06:MELLOW
46	Lead Voice 1 Brilliance	○	[00-06]	○	[00-06]	00:BRILLIANT, 06:MELLOW
47	Pedal Voice 1 Brilliance	○	[00-06]	○	[00-06]	00:BRILLIANT, 06:MELLOW
48	Pedal Voice 2 Brilliance	○	[00-06]	○	[00-06]	00:BRILLIANT, 06:MELLOW
49	Lead Voice 2 Brilliance	○	[00-06]	○	[00-06]	00:BRILLIANT, 06:MELLOW

Sustain

cc	Switch	dd				Remarks
Code		Receive	Rx Range	Transmit	Tx Range	
50	Upper Sustain [UPPER (KNEE)]	○	[00-01]	○	[00-01]	00:OFF, 01:ON
51	Lower Sustain [LOWER (KNEE)]	○	[00-01]	○	[00-01]	00:OFF, 01:ON
52	Pedal Sustain [PEDAL]	○	[00-01]	○	[00-01]	00:OFF, 01:ON

Solo Bar

cc	Switch	dd				Remarks
Code		Receive	Rx Range	Transmit	Tx Range	
59	Solo Bar	○	[00-01]	×	-	00:OFF, 01:ON

Keyboard Percussion

cc	Switch	dd				Remarks
Code		Receive	Rx Range	Transmit	Tx Range	
5B	Keyboard Percussion [1]	○	[00-01]	○	[00-01]	00:OFF, 01:ON
5C	Keyboard Percussion [2]	○	[00-01]	○	[00-01]	00:OFF, 01:ON

Disable

cc	Switch	dd				Remarks
Code		Receive	Rx Range	Transmit	Tx Range	
5F	Disable [D.]	○	[00-01]	○	[00-01]	00:OFF, 01:ON

Rotary Speaker

cc	Switch	dd				Remarks
Code		Receive	Rx Range	Transmit	Tx Range	
60	Rotary Speaker Speed [ROTARY SP SPEED]	○	[00-01]	○	[00-01]	00:OFF, 01:ON

Rhythm Sequence

cc	Switch	dd				Remarks
Code		Receive	Rx Range	Transmit	Tx Range	
61	Sequence 1 [SEQ.1]	○	[00-01]	○	[00-01]	00:OFF, 01:ON
62	Sequence 2 [SEQ.2]	○	[00-01]	○	[00-01]	00:OFF, 01:ON
63	Sequence 3 [SEQ.3]	○	[00-01]	○	[00-01]	00:OFF, 01:ON
64	Sequence 4 [SEQ.4]	○	[00-01]	○	[00-01]	00:OFF, 01:ON

*3. MIDI Parameter

Voice Section Parameters

Panel Voice Parameters
(Address mm: 0 – 7 = UK1, UK2, LK1, LK2, LEAD 1, LEAD 2, PEDAL 1, PEDAL 2)

MIDI Exclusive Format
F0, 43, 70, 78, 44, hh, mm, ll, ..., F7

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
10	00-07	00-0D	5	00-7F 00-7F 00 00 00	Voice Assign Number	00-7F 00-7F 00 00 00	○	00-7F 00-7F 00 00 00	○	00-7F 00-7F 00 00 00
10	00-07	10	1	00-0D	Voice Selector Number	00-0D	○	00-0D	○	00-0D
10	00-07	11	1	00-7F	Volume	00:MIN 7F:MAX	○	00-7F	×	-
10	00-07	12	1	00-7F	Reverb (Send Level)	00:MIN 7F:MAX	○	00-7F	○	00-7F
10	00-07	13	1	00-7F	Brilliance	00:BRILLIANT 40:CENTER 7F:MELLOW	○	00-7F	×	-
10	00-07	14	1	00-04	Feet	00:PRESET 01:16' 02:8' 03:4' 04:2'	○	00-7F	○	00-04
10	00-07	15	1	00-7F	Pan	00:LEFT 40:CENTER 7F:RIGHT	○	00-7F	○	08-78
10	00-07	16	1	00-7F	Touch Tone Initial Touch	00:MIN 7F:MAX	○	00-7F	○	00-7F
10	00-07	17	1	00-7F	Touch Tone After Touch	00:MIN 7F:MAX	○	00-7F	○	00-7F
10	00-07	18	1	00-7F	Pitch After Touch	00:NARROW 7F:WIDE	○	00-7F	○	32-4E
10	00-07	19	1	00-7F	User Vibrato	00:PRESET 01:USER	○	00-7F	○	00-01
10	00-07	1A	1	00-7F	Vibrato Delay	00:SHORT 7F:LONG	○	00-7F	○	02-1A
10	00-07	1B	1	00-7F	Vibrato Depth	00:MIN 7F:MAX	○	00-7F	○	00-54
10	00-07	1C	1	00-7F	Vibrato Speed	00:SLOW 7F:FAST	○	00-7F	○	3C-6C
10	00-05	1D	1	00-7F	Pitch Horizontal Touch	00:NARROW 7F:WIDE	○	00-7F	○	00-7F
10	00-07	1E	1	00-7F	Touch Vibrato (On/Off)	00:OFF 7F:ON	○	00-7F	○	00-7F
10	04-07	1F	1	00-7F	TO LOWER▼/▲/SOLO (KNEE)	00:OFF 01:ON	○	00-7F	×	-
10	04-05	20	1	00-02	Slide (On/Knee Lever/Off)	00:OFF 01:ON 02:Knee Lever	○	00-02	○	00-02
10	04-05	21	1	00-7F	Slide Time	00:FAST 7F:SLOW	○	00-7F	○	02-7F
10	00-07	22	1	00-7F	Tune/Detune	00:Down 40:Center 7F:Up	○	00-7F	○	00-7F
10	00-01/ 04-07	23	1	00-7F	2nd Expression Pitch Bend	00:OFF 01:ON	○	00-7F	○	00-01
10	00-05	24	1	00-7F	Footswitch Glide Control	00:OFF 01:ON	○	00-7F	○	00-01
10	00-07	25	1	3A-46	Transpose	3A:KeyDown 40:Normal 46:KeyUp	○	3A-46	○	3A-46
10	06-07	28	1	00-7F	Poly (On/Off)	00:Mono 01:Poly	○	00-7F	○	00-01
10	05	29	1	00-7F	Priority (Last/Top)	00:TOP 01:LAST	○	00-7F	○	00-01
10	00-07	2A	1	00-7F	Volume Mute	00:Mute OFF 01:Mute ON	○	00-7F	○	00-01

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
10	00-07	40	3	00 00-7F 00-7F	Effect 1 Type MSB/LSB	00 00-7F 00-7F	○	00 00-7F 00-7F	○	00 00-7F 00-7F
10	00-07	41	2	0000-7F7F	Effect 1 Parameter 1 MSB/LSB	0000-7F7F	○	0000-7F7F	○	0000-7F7F
10	00-07	42	2	0000-7F7F	Effect 1 Parameter 2 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	43	2	0000-7F7F	Effect 1 Parameter 3 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	44	2	0000-7F7F	Effect 1 Parameter 4 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	45	2	0000-7F7F	Effect 1 Parameter 5 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	46	2	0000-7F7F	Effect 1 Parameter 6 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	47	2	0000-7F7F	Effect 1 Parameter 7 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	48	2	0000-7F7F	Effect 1 Parameter 8 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	49	2	0000-7F7F	Effect 1 Parameter 9 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	4A	2	0000-7F7F	Effect 1 Parameter 10 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	4B	2	0000-7F7F	Effect 1 Parameter 11	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	4C	2	0000-7F7F	Effect 1 Parameter 12	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	4D	2	0000-7F7F	Effect 1 Parameter 13	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	4E	2	0000-7F7F	Effect 1 Parameter 14	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	4F	2	0000-7F7F	Effect 1 Parameter 15	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	50	2	0000-7F7F	Effect 1 Parameter 16	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	51	3	00 00-7F 00-7F	Effect 2 Type MSB/LSB	00 00-7F 00-7F	○	00 00-7F 00-7F	○	00 00-7F 00-7F
10	00-07	52	2	0000-7F7F	Effect 2 Parameter 1 MSB/LSB	0000-7F7F	○	0000-7F7F	○	0000-7F7F
10	00-07	53	2	0000-7F7F	Effect 2 Parameter 2 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	54	2	0000-7F7F	Effect 2 Parameter 3 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	55	2	0000-7F7F	Effect 2 Parameter 4 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	56	2	0000-7F7F	Effect 2 Parameter 5 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	57	2	0000-7F7F	Effect 2 Parameter 6 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	58	2	0000-7F7F	Effect 2 Parameter 7 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	59	2	0000-7F7F	Effect 2 Parameter 8 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	5A	2	0000-7F7F	Effect 2 Parameter 9 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	5B	2	0000-7F7F	Effect 2 Parameter 10 MSB/LSB	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	5C	2	0000-7F7F	Effect 2 Parameter 11	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	5D	2	0000-7F7F	Effect 2 Parameter 12	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	5E	2	0000-7F7F	Effect 2 Parameter 13	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	5F	2	0000-7F7F	Effect 2 Parameter 14	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	60	2	0000-7F7F	Effect 2 Parameter 15	0000-7F7F		0000-7F7F		0000-7F7F
10	00-07	61	2	0000-7F7F	Effect 2 Parameter 16	0000-7F7F		0000-7F7F		0000-7F7F

Organ Flute Voice Parameters (Address mm: 0 – 1 = UK, LK)

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
11	00-01	00	1	00-7F	Footage 16'	00:MIN 7F:MAX	○	00-7F	○	00-7F
11	00-01	01	1	00-7F	Footage 8'	00:MIN 7F:MAX	○	00-7F	○	00-7F
11	00-01	02	1	00-7F	Footage 5-1/3'	00:MIN 7F:MAX	○	00-7F	○	00-7F
11	00-01	03	1	00-7F	Footage 4'	00:MIN 7F:MAX	○	00-7F	○	00-7F
11	00-01	04	1	00-7F	Footage 2-2/3'	00:MIN 7F:MAX	○	00-7F	○	00-7F
11	00-01	05	1	00-7F	Footage 2'	00:MIN 7F:MAX	○	00-7F	○	00-7F
11	00-01	06	1	00-7F	Footage 1-3/5'	00:MIN 7F:MAX	○	00-7F	○	00-7F
11	00-01	07	1	00-7F	Footage 1-1/3'	00:MIN 7F:MAX	○	00-7F	○	00-7F

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
11	00-01	08	1	00-7F	Footage 1'	00:MIN 7F:MAX	○	00-7F	○	00-7F
11	00-01	09	1	00-7F	Response	00:FAST 7F:SLOW	○	00-7F	○	00-7F
11	00-01	0A	1	00-7F	Attack 4'	00:MIN 7F:MAX	○	00-7F	○	00-7F
11	00-01	0B	1	00-7F	Attack 2-2/3'	00:MIN 7F:MAX	○	00-7F	○	00-7F
11	00-01	0C	1	00-7F	Attack 2'	00:MIN 7F:MAX	○	00-7F	○	00-7F
11	00-01	0D	1	00-7F	Attack Length	00:Short 7F:Long	○	00-7F	○	00-7F
11	00-01	10	1	00-7F	Organ Flutes (On/Off)	00:OFF 01:ON	○	00-7F	×	-
11	00-01	11	1	00-7F	Volume	00:MIN 7F:MAX	○	00-7F	○	00-7F
11	00-01	12	1	00-7F	Reverb (Send Level)	00:MIN 7F:MAX	○	00-7F	○	00-7F
11	00-01	13	1	00-7F	Type (Sine/Vintage)	00:Sine 01:Vintage	○	00-7F	○	00-01
11	00-01	40	3	00 00-7F 00-7F	Effect Type MSB/LSB	00 00-7F 00-7F	○	00 00-7F 00-7F	○	00 00-7F 00-7F

Keyboard Parameters

Sustain Parameters (Address mm: 0 – 2 = UK, LK, PEDAL)

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
12	00-02	00	1	00-7F	Sustain (On/Off)	00:OFF 01:ON	○	00-7F	×	-
12	00-02	01	1	00-7F	Length	00:Short 7F:Long	○	00-7F	○	15-3D

Keyboard Percussion Parameters (Address mm: 1 – 2 = K.B.P. [1], K.B.P. [2])

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
12	01-02	10	1	00-7F	Keyboard Percussion (On/Off)	00:OFF 01:ON	○	00-7F	×	-
12	01-02	11	1	00-08	Keyboard Percussion Menu	00:PRESET 01:USER 1 02:USER 2 03:USER 3 04:USER 4 05:USER 5 06:USER 6 07:USER 7 08:USER 8	○	00-08	○	00-08

Rhythm

Rhythm Parameters

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
13	00	00-0B	2	0000-7F7F	Rhythm Assign Number	0000-7F7F	○	00-7F 00-7F	○	00-7F 00-7F
13	00	10	1	00-0B	Rhythm Selector Number	00-0B	○	00-0B	○	00-0B
13	00	11	1	00-7F	Percussion Volume	00:MIN 7F:MAX	○	00-7F	×	-
13	00	12	1	00-7F	Percussion Reverb (Send Level)	00:MIN 7F:MAX	○	00-7F	○	00-7F
13	00	13	1	00-7F	2nd Expression Tempo Control (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	00	14	1	00-7F	Footswitch Rhythm Control	00:INTRO 1 01:INTRO 2 02:INTRO 3 08:MAIN A 09:MAIN B 0A:MAIN C 0B:MAIN D 18:BREAK 20:ENDING 1 21:ENDING 2 22:ENDING 3 7E:STOP 7F:OFF (INTRO 1 – STOP)	○	00-7F	○	00-7F
13	00	15	1	00-7F	Add Drum (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	00	16	1	00-7F	Main Drum (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	00	17	1	00-7F	Chord 1 (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	00	18	1	00-7F	Chord 2 (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	00	19	1	00-7F	Pad (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	00	1A	1	00-7F	Phrase 1 (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	00	1B	1	00-7F	Phrase 2 (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	00	1C	1	00-7F	Auto Fill (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01

Rhythm Sequence Parameters

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
13	01	00-03	1	00-7F	Sequence [SEQ.1] – [SEQ.4]	00:OFF 01:ON	○	00-7F	×	-

Accompaniment Parameters

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
13	02	11	1	00-7F	Accompaniment Volume	00:MIN 7F:MAX	○	00-7F	○	00-7F
13	02	12	1	00-7F	Accompaniment Reverb (Send Level)	00:MIN 7F:MAX	○	00-7F	○	00-7F

A.B.C. Function Parameters

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
13	03	00	1	00-7F	Auto Bass Chord Mode	00:OFF 01:Single Finger 02:Fingered 03:Custom A.B.C.	○	00-7F	○	00-03
13	03	01	1	00-7F	Lower Memory (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	03	02	1	00-7F	Pedal Memory (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01

M.O.C. Function Parameters

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
13	04	00	1	00-7F	Melody On Chord Mode	00:OFF 01:1 02:2 03:3	O	00-7F	O	00-03
13	04	01	1	00-7F	M.O.C. Knee Lever Control (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01

Section Parameters

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
13	05	00	1	00-7F	Intro 1 (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	05	01	1	00-7F	Intro 2 (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	05	02	1	00-7F	Intro 3 (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	05	08	1	00-7F	Main A (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	05	09	1	00-7F	Main B (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	05	0A	1	00-7F	Main C (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	05	0B	1	00-7F	Main D (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	05	18	1	00-7F	Break (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	05	20	1	00-7F	Ending 1 (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	05	21	1	00-7F	Ending 2 (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	05	22	1	00-7F	Ending 3 (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01

Keyboard Percussion Parameters

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
13	10	11	1	00-7F	Volume	00:MIN 7F:MAX	O	00-7F	O	00-7F
13	10	12	1	00-7F	Reverb (Send Level)	00:MIN 7F:MAX	O	00-7F	O	00-7F

Overall

System Parameters

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
14	00	00	1	00-7F	Disable (On/Off)	00:OFF 01:ON	O	00-7F	X	-
14	00	01	1	00-7F	Organ Flute Attack Mode	00:Each 01:First	O	00-7F	O	00-01
14	00	02	1	3A-46	Transpose	3A:KeyDown 40:Normal 46:KeyUp	O	3A-46	O	3A-46
14	00	03	1	01-0C	2nd Expression Range	01:100 C 0C:1200 C	O	01-0C	O	01-0C
14	00	04	1	00-7F	Footswitch Mode	00:OFF 01:Rhythm 02:Glide 03:Rotary Speaker	O	00-7F	O	00-03
14	00	05	1	00-7F	Pitch	00:PitchDown 40:Normal 7F:PitchUp	O	00-7F	O	00-7F
14	00	06	1	00-7F	Footswitch Glide Time	00:FAST 7F:SLOW	O	00-7F	O	04-1C

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
14	00	08	1	00-7F	MIDI Control Expression (INT/EXT)	00:Internal 01:External	○	00-7F	×	-
14	00	09	1	00-7F	MIDI Control Lead 1 (INT/EXT)	00:Internal 01:External	○	00-7F	×	-
14	00	0A	3	00-04 00-04 (00-03)* 00-0B	Registration Menu	00-04 00-04 (00-03) 00-0B	○	00-04 00-04 (00-03) 00-0B	○	00-04 00-04 (00-03) 00-0B

*ELS-01

Effect Parameters (Overall): Reverb

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
14	01	00	1	00-7F	Reverb Depth	00:MIN 7F:MAX	○	00-7F	×	-
14	01	01	1	00-7F	Reverb Time (Panel)	00:FAST 7F:SLOW	○	00-7F	○	00-45
14	01	02	3	00 00-7F 00-7F	Reverb Type (Panel)	00 00-7F 00-7F	○	00 00-7F 00-7F	○	00 00-7F 00-7F

Effect Parameters (Overall): Rhythm Reverb

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
14	02	01	1	00-7F	Reverb Time (Rhythm)	00:FAST 7F:SLOW	○	00-7F	○	00-45
14	02	02	3	00 00-7F 00-7F	Reverb Type (Rhythm)	00 00-7F 00-7F	○	00 00-7F 00-7F	○	00 00-7F 00-7F

Effect Parameters (Overall): Rotary Speaker

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
14	03	00	1	00-7F	Rotary Speaker Speed (On/Off)	00:OFF 01:ON	○	00-7F	×	-
14	03	01	1	00-7F	Rotary Speaker Speed Control Mode	00:STOP 01:SLOW	○	00-7F	○	00-01
14	03	02	2	0000- 007F	Rotary Speaker Speed Control Speed	0000:SLOW 007F:FAST	○	0000-007F	○	0040-007F

*4. MDR

nn	Command	Receive	Transmit
01H	Play Start	○	×
02H	Play Stop	○	×
03H	Record Start	○	×
04H	Record Stop	○	×
05H	Fast Forward Start	○	×
06H	Fast Forward Stop	○	×
09H	Rhythm Pointer Reset	○	×

MIDI Implementation Chart

YAMAHA [Electone-EL mode] / Model: ELS-01C/ELS-01

Date: 19-Sep-2003
Version: 1.00

Function		Transmitted	Recognized	Remarks
Basic	Default	1, 2, 3, 16 (*1)	1-3, 5-16 (*2)	
Channel	Changed	1-16	4	
Mode	Default	Mode 3	Mode 3	
	Messages	×	×	
	Altered	**********	×	
Note		36-96 (*3)	0-127 (*4)	
Number	:True Voice	**********		
Velocity	Note on	○ 9nH, v=1-127	○ 9nH, v=1-127	
	Note off	× 9nH, v=0	× 9nH, v=0 or 8nH	
After	Key's	×	○ (*6)	
Touch	Ch's	○	○	
Pitch Bend		○ (*5)	○	
Control Change	0, 32	×	○ (*6)	Bank Select
	1, 5, 7, 10	×	○ (*6)	
	4	○ (*7, *12)	○ (*7)	2nd Expression
	6, 38	×	○ (*6)	Data Entry
	11	○ (*7)	○ (*6, 7)	Expression
	16	○ (*8, *12)	○ (*8, *12)	VA After Touch
	96, 97	×	○ (*6)	Data Entry SW
	64-67	×	○ (*6)	
	71-78	×	○ (*6)	Sound Controller
	84, 91, 93, 94	×	○ (*6)	
	98-99, 100-101	×	○ (*6)	NRPN, RPN
Program		○ (*10)	○ (*11)	
Change	:True number	**********		
System Exclusive		○	○	
System	:Song Position	×	×	
Common	:Song Select	×	×	
	:Tune	×	×	
System	:Clock	○	○ (*9)	
Real Time	:Commands	○	○	(FAH, FCH)
Aux	:All Sound Off	×	○ (120) (*6)	
	:Reset All Cntrls	×	○ (121) (*6)	
Messages	:Local On/Off	×	×	
	:All Notes Off	×	○ (123-127) (*6)	
	:Active Sense	○	○	
	:Reset	×	×	
Notes		*1; 1ch: UK, 2ch: LK, 3ch: PEDAL, 16ch: CONTROL *2; 1ch: UK, 2ch: LK, 3ch: PEDAL, 4ch: LEAD1, 5-14ch: XG, 15ch: KEYBOARD PERCUSSION, 16ch: CONTROL *3; UK: 36-96, LK: 36-96, PEDAL: 36-60 *4; UK, LK, PEDAL, LEAD1: 36-96, XG: 0-127, PERCUSSION: 3-127 *5; UK: UK HorizontalTouch, LK: LK HorizontalTouch *6; XG only *7; CONTROL only *8; UK only *9; External Mode only *10; CONTROL: 0-15 *11; UK, LK, PEDAL, CONTROL: 0-15 XG: 0-127 *12; ELS-01C only		

Mode 1 : OMNI ON, POLY
Mode 2 : OMNI ON, MONO
Mode 3 : OMNI OFF, POLY
Mode 4 : OMNI OFF, MONO

○ : Yes
× : No

YAMAHA [Electone-XG mode] / Model: ELS-01C/ELS-01

Date: 19-Sep-2003
Version: 1.00

Function		Transmitted (*1)	Recognized	Remarks
Basic	Default	1, 2, 3, 16	1-16	
Channel	Changed	1-16	1-16	
Mode	Default	Mode3	Mode 3	
	Messages	×	×	
	Altered	**********	×	
Note		36-96	0-127	
Number	:True Voice	**********		
Velocity	Note on	○ 9nH, v=1-127	○ 9nH, v=1-127	
	Note off	× 9nH, v=0	× 9nH, v=0 or 8nH	
After	Key's	×	○	
Touch	Ch's	○	○	
Pitch Bend		○	○	
Control Change	0, 32	×	○	Bank Select
	1, 5, 7, 10	×	○	
	4	○ (*2)	×	2nd Expression
	6, 38	×	○	Data Entry
	11	○	○	Expression
	16	○ (*2)	×	VA After Touch
	96, 97	×	○	Data Entry SW
	64-67	×	○	
	71-78	×	○	Sound Controller
	84, 91, 93, 94	×	○	
	98-99, 100-101	×	○	NRPN, RPN
Program		○ 0-15	○	
Change	:True number	**********		
System Exclusive		○	○	
System	:Song Position	×	×	
Common	:Song Select	×	×	
	:Tune	×	×	
System	:Clock	○	×	
Real Time	:Commands	○	×	
Aux	:All Sound Off	×	○ (120)	
Messages	:Reset All Cntrls	×	○ (121)	
	:Local On/Off	×	×	
	:All Notes Off	×	○ (123-127)	
	:Active Sense	○	○	
	:Reset	×	×	
Notes		*1; Same as that in the EL mode *2; ELS-01C only		

Mode 1 : OMNI ON, POLY
Mode 2 : OMNI ON, MONO
Mode 3 : OMNI OFF, POLY
Mode 4 : OMNI OFF, MONO

○ : Yes
× : No

Troubleshooting

Problem	Possible Cause and Solution
GENERAL OPERATION	
The sound is not heard for about 10 seconds after turning the power on.	This is normal; the Electone takes a while to start up.
A cracking noise is sometimes heard.	Noise may be produced when either an electrical appliance is turned on or an electric power tool (such as drill) is used in the proximity of the Electone. If this occurs, plug the Electone into an electrical outlet located as far as possible from the device that seems to be the source of the problem.
Interference from radio, TV, or other sources occurs.	This is caused by the proximity of a high-power broadcasting station, an amateur ham radio setup or a mobile phone.
The sound of the Electone causes surrounding objects to resonate.	Because the Electone is capable of producing powerful bass sounds, resonance may be caused in surrounding objects, such as cabinets or glass windows. To avoid this, relocate the objects or lower the Electone's volume.
In the LCD display, there are some black points (unlit) or white points (always lit).	Unfortunately, this is a common characteristic of TFT-LCDs.
Some buttons on the panel do not respond.	The UPPER/LOWER ORGAN FLUTES and LEAD VOICE 2 buttons are invalid on the ELS-01. If you upgrade the ELS-01 to the ELS-01C, these buttons can be used.
Some of the LEDs in the DISPLAY SELECT section do not light.	The LEDs of on/off buttons (UPPER/LOWER ORGAN FLUTES, VOICE EDIT, RHYTHM PROGRAM, and ROTARY SP SPEED) are lit when those functions are turned on. The LEDs of other function's buttons momentarily light when the functions are selected.
The sound is too small even when the volume is set to its maximum.	• The Master Volume may be set around the minimum position. Turn it clockwise. • The Expression Pedal may not be pressed down. Press it down with your toe. • The POWER switch of the speaker may have been turned off. Turn it on. • (For the ELS-01C) The REAR SPEAKER switch may have been set to OFF. Switch it to ON.
The Electone panel does not function normally or the content of the memorized data has changed.	This happens very rarely. Occasionally, power surges and spikes due to electrical storms or other reasons may cause the Electone to malfunction and/or alter the contents of memorized data. If this happens, perform the Factory Set operation to reset the Electone (page 21).
VOICES/RHYTHMS	
The pitch may sound excessively high on the Pedalboard and low in the higher registers of the Lower and Upper keyboards.	This may occur when you compare the Electone's sounds with that of a piano. Because of the difference of the harmonics structure, the tuning system of the Electone is different from the piano in the higher and lower ranges.
Some of the Voices may contain cracking and/or noisy sounds.	You may find these mainly in the wind instrument Voices. These are purposely added effects to the Voices to reproduce the characteristics of the wind instruments such as the pipe vibrations, breath noises and squeaks.
When too many keys are pressed, not all of the notes sound.	Total polyphonic capacity (notes sounding for both Upper and Lower Keyboards) is 14 notes. When you turn the Pedal Polyphonic mode to on, the total is 14 for all keyboards, Upper, Lower and Pedalboard.
Only one sound is heard when two notes of the Lead or Pedal Voices are simultaneously played.	For practical performance reasons, the Electone has been designed so that only one note of the Lead or Pedal Voices can be played at a time. If you want, the pedal Voice can be set to polyphonic mode (page 40).
The Pedal Voices do not sound, even though the volume is properly set.	• The Single Finger or Fingered Chord mode of Auto Bass Chord is on. Turn off the mode in the display (page 62). • TO LOWER buttons in the Pedal Voice sections are turned on. Turn the function off (page 26).
When selecting a User button Voice or rhythm, the Voice or rhythm title at the top of the LCD does not match the selected Voice or rhythm.	The currently assigned Voice or rhythm is displayed at the top of the LCD, and remains until another Voice or rhythm has been selected.

Problem	Possible Cause and Solution
When keys are pressed, the sounds of percussion instruments are also heard.	The Keyboard Percussion function has been turned on. When not using the function, be sure to turn it off (page 65).
Even though a User button's rhythm has been selected and started, the pattern does not sound.	Since the User buttons contain User rhythms, no rhythm will sound if a pattern has not been saved to the selected User button.
EFFECTS	
The Touch Tone function does not operate.	Adjust the Touch Tone settings in the Voice Condition display (page 39).
The Reverb effect is not applied to the desired Voice sections, even when the REVERB button setting on the panel is increased.	Increase the Reverb depth for the desired Voice sections in Reverb Display Pages 2 – 4.
The Rotary Speaker effect cannot be heard, even when the [ROTARY SP SPEED] button in the DISPLAY SELECT section is on.	Rotary Speaker must be selected first in Voice Condition display Pages 3 and/or 4 (for panel Voices), or in the Organ Flute Voices ATTACK/VOLUME Page (for Organ Flute Voices).
ACCOMPANIMENT	
The pitch in the Single Finger mode does not change, even when pressing different keys of the keyboard.	Single Finger mode will only produce notes when played within a fixed octave interval on the Lower keyboard. If notes with the same letter name are pressed outside of that range, the chords that are sounded will share the same pitch.
While an Intro/Ending pattern is automatically playing, the Lower keyboard does not produce any sound, even when the keys are played.	Since the Accompaniment chords play automatically one after another, the Lower keyboard is designed not to produce any sound during the playback of an Intro/Ending pattern.
The Accompaniment cannot be heard even when an appropriate Accompaniment type is selected and the rhythm has been started.	• The Accompaniment volume may have been set to 0. Be sure to raise the Accompaniment volume in the Rhythm Condition display (page 62). • All Accompaniment parts may be set to off (mute). Set the desired part on (page 61).
The harmony notes of the Melody On Chord function cannot be heard.	The Upper keyboard has been set to sound only Lead Voices. Increase the volume of the Upper Keyboard Voices.
The bass phrase of the Auto Bass Cord cannot be heard.	The pedal polyphonic mode may be set to on. Turn it off in the Voice Condition display (page 40).
REGISTRATION MEMORY	
Certain functions have not been memorized to Registration Memory.	Some functions cannot be memorized. Refer to page 81.
VOICE EDITING	
The Voice Edit display cannot be called up even when the [VOICE EDIT] button is pressed.	The Voice Edit display cannot called up by pressing only the [VOICE EDIT] button. While holding down the [VOICE EDIT] button, press the desired Voice button.
During Voice editing, the specified Voice isn't heard, even when the keyboard is played.	• The Element is turned to mute or its level is set to minimum. Turn it to on or increase the volume. • You may have played keys outside the range of Note Limit. Play only keys within the Note Limit range.
An error message appears while the Voice name is entered.	Voice name capacity is 16 characters. Delete the unnecessary letters or spaces.
RHYTHM PROGRAM	
During use of the Rhythm Pattern Program, no sound is produced even when you play a certain percussion sound.	If percussion sounds have been recorded while memory is full, no subsequently selected instruments can be heard or recorded. If necessary, erase some of the less necessary percussion sounds and play again.
MUSIC DATA RECORDER	
Recording or playback cannot be performed.	• The part buttons in the Rec Standby display or Playing display may have been turned off. Turn the desired part to REC or PLAY. • The performance data is too large. The maximum limit for recording performance data is 1 MB. • The media is write-protected. Cancel the write-protect. • The media/folder may contain EL-format songs. You cannot record to the media/folder that contains EL-format songs. Create a new folder and record the song to it.

Problem	Possible Cause and Solution
Recording is stopped before the performance is finished.	• The amount of recorded data on the media is close to the maximum limit. Either use another media or delete the data of unnecessary songs. • When you overwrite the song, the length of a subsequently recorded part cannot exceed the length of the previously recorded parts. Delete the previously recorded song, then record again (page 120). • The performance data is too large. The maximum limit for recording performance data is 1 MB.
An error message appears while entering a folder name or song name.	• The song/folder name is too long. The capacity is 50 letters. • The song/folder name may be an invalid name. Refer to page 106. • The path name is too long. The capacity of the path name is 234 letters. Reduce the layer or shorten the song/folder name to shorten the path.
The rhythm does not start at the beginning of a recording, or stops in the middle of the performance.	The M.D.R. is designed so that the rhythm cannot be started at the very beginning of a recording. If you wish to use the rhythm, start it after the time indicator appears in the display.
The floppy disk cannot be formatted when you want to format an unformatted disk.	Recognizing an unformatted disk takes a few seconds after it is inserted. Wait about 30 seconds, then try to format again.
The notes of the recording are “stuck” and sound continuously.	During playback, you may have removed the SmartMedia card or floppy disk. Whenever you wish to stop playback, always press the [■] (Stop) button before removing the media.

Specifications

			Electone STAGEA ELS-01	Electone STAGEA ELS-01C
TONE GENERATION			AWM (4)	AWM (4) + VA + Organ Flutes
KEYBOARD			Upper: 49 keys (C – C), Lower: 49 keys (C – C), Pedal: 20 keys (C – G)	
	Keyboard Type		Standard (FS)	Custom (FSV)
	Initial Touch		Upper, Lower, Pedal	
	After Touch		Upper, Lower	Upper, Lower, Pedal
	Horizontal Touch		—	Upper, Lower
REGISTRATION	**Registration Menu**		240	300
	Registration Memory		M. (Memory), 1 – 16, D. (Disable)	
	Registration Shift		Shift, Jump, User (80)	
VOICE	**Voice Sections**		Upper 1, Upper 2, Lead 1, Lead 2, Lower 1, Lower 2, Pedal 1, Pedal 2	
	Voice Buttons	**Upper/Lower**	STRINGS, BRASS, WOODWIND, TUTTI, PAD, SYNTH, PIANO, ORGAN, PERCUSSION, GUITAR, CHOIR, WORLD, USER 1, USER 2	
		Lead	VIOLIN, SYNTH, FLUTE, TRUMPET, USER 1, TO LOWER (Lead 1), SOLO (Lead 2)	VIOLIN, SYNTH, FLUTE, TRUMPET, VA-ACOUSTIC, VA-VIRTUAL, VA-ELECTRONIC, VA-CUSTOM, USER 1, TO LOWER (Lead 1), SOLO (Lead 2)
		Pedal	CONTRABASS, ELEC. BASS, TIMPANI, SYNTH BASS, USER 1, TO LOWER	
	Preset Voice		415	509 (including VA Voices)
	User Voice		AWM: 16	AWM:16, VA: 6
	Organ Flute Voice		—	**Type:** Sine, Vintage **Footage:** 16', 5 1/3', 8', 4', 2 2/3', 2', 1 3/5', 1 1/3', 1' **Attack:** 4', 2 2/3', 2', Length, Response **Effect:** XG Rotary Sp, Rotary Sp 1 – 5, 2Way Rot Sp, Dual Rotsp 1 – 2, Dist+Rot Sp, Odrv+Rot Sp, Amp+Rot Sp, Dist+2Rot Sp, Odrv+2Rop Sp, Amp+2Rot Sp, OFF
	Rotary Speaker Control		2.69 – 39.7 Hz, Slow, Stop	
EFFECT/CONDITION	**Sustain**		Upper (Knee), Lower (Knee), Pedal	
	Reverb		**Type:** Hall 1 – 3, M, L, Room 1 – 4, S, M, L, Stage 1 – 2, Plate 1 – 2, White Room, Tunnel, Canyon, Basement, XG Hall 1 – 2, XG Room 1 – 3, XG Stage 1 – 2, XG Plate, GM Plate **Depth:** Upper 1 – 2, Lower 1 – 2, Lead 1 – 2, Pedal 1 – 2, Percussion, Accompaniment, Keyboard Percussion	**Type:** Hall 1 – 3, M, L, Room 1 – 4, S, M, L, Stage 1 – 2, Plate 1 – 2, White Room, Tunnel, Canyon, Basement, XG Hall 1 – 2, XG Room 1 – 3, XG Stage 1 – 2, XG Plate, GM Plate **Depth:** Upper 1 – 2, Lower 1 – 2, Lead 1 – 2, Pedal 1 – 2, Percussion, Accompaniment, Keyboard Percussion, Upper Organ Flute, Lower Organ Flute
	Effects		Reverb, Delay, ER/Karaoke, Chorus, Flanger, Phaser, Tremolo/Auto Pan, Rotary Speaker, Distortion, Distortion+, Wah, Dynamic, EQ/Enhancer, Pitch Change, Miscellaneous, Thru	
RHYTHM	**Rhythm Buttons**		MARCH, WALTZ, SWING & JAZZ, POPS, R&B, LATIN, WORLD MUSIC, BALLAD, ROCK, DANCE, USER 1, USER 2	
	Preset Rhythm Pattern		274	
	Parts		Main Drum, Add Drum	
	Sections		Intro 1 – 3, Ending 1 – 3, Main/Fill In A – D, Break, Auto Fill	
ACCOMPANIMENT	**Accompaniment Parts**		Chord 1, Chord 2, Pad, Phrase1, Phrase 2	
	Auto Bass Chord		OFF, Single Finger, Fingered Chord, Custom A.B.C. **Memory:** Lower, Pedal	
	Melody On Chord		OFF, 1, 2, 3, Knee	

			Electone STAGEA ELS-01	Electone STAGEA ELS-01C
PROGRAMS	**Voice Edit**		✓	
	Rhythm Pattern Program		✓	
	Rhythm Sequence Program		SEQ. 1 – 4 (Rhythm and Registration program)	
	Keyboard Percussion		Preset 1 – 2, User 1 – 8	
CONTROLS	**Footswitch**	**Left**	**Rhythm:** Stop, Break, Main A-D, Intro 1 – 3, Ending 1 – 3 **Glide:** Upper 1, 2, Lower 1, 2, Lead 1, 2, Glide Time **Rotary Speaker Speed**	
		Right	Registration Shift	
	Expression Pedal		✓	
	2nd Expression Pedal		Pitch Bend, Tempo (set only, not controlled)	Pitch Bend, Tempo
	Knee Lever		Sustain (Upper/Lower), M.O.C., Lead Slide, Solo (Lead 2)	
	Transpose		-6 – +6	
	Pitch		A = 427.2 – 452.6 Hz	
	MIDI Control		✓	
	Main Controls		POWER on/off, MASTER VOLUME	
	M.D.R.		**Song Select:** Stop, Play, Custom Play, Rec, Pause, Fast Forward, Rewind, Folder Select, Registration Edit, Tempo (50 – 200%) **Tools:** Repeat Setting, Change Song Name, Remaining Memory, Format, Song Copy, XG Song Copy, Song Delete, XG Song Delete, Convert ELS->EL, Convert EL->ELS, Convert To XG	
	Utility		Language (English/Japanese), Touch Panel Sound, LCD Brightness, Mic. (Reverb/Volume), Initialize	
	Display Select		VOICE DISPLAY, A.B.C./M.O.C., MDR, FOOTSWITCH, UTILITY, INTERNET, VOICE EDIT, RHYTHM PATTERN PROGRAM, RHYTHM SEQUENCE PROGRAM, ROTARY SP SPEED	VOICE DISPLAY, A.B.C./M.O.C., MDR, FOOTSWITCH, UTILITY, INTERNET, VOICE EDIT, RHYTHM PATTERN PROGRAM, RHYTHM SEQUENCE PROGRAM, U. ORGAN FLUTES, L. ORGAN FLUTES, ROTARY SP SPEED
OTHERS	**LCD Display**		800 x RGB x 480 dots	
	Sound System	**Power Amplifiers**	50W x 2	70W x 2
		Speakers	**Cone:** 13 cm x 2, 5 cm x 2 **Monitor speaker:** 6.6 cm x 2	**Cone:** 13 cm x 8 **Dome:** 2.5 cm x 4 **Monitor speaker:** 6.6 cm x 2
	Storage		SmartMedia card slot	SmartMedia card slot, Floppy disk slot
	Connectors		PHONES (2), AUX OUT: L/L+R (standard phone), L/R (Level Fixed, RCA), AUX IN: L/L+R (standard phone), MIDI IN/OUT, USB TO HOST, USB TO DEVICE, OPTICAL OUT, MIC./LINE IN (jack, switch, and volume control)	PHONES (2), AUX OUT: L/L+R (standard phone), L/R (Level Fixed, RCA), AUX IN: L/L+R (standard phone), MIDI IN/OUT, USB TO HOST, USB TO DEVICE (2), OPTICAL OUT, MIC./LINE IN (jack, switch, and volume control)
	Power Consumption		90W	105W
	Dimensions (W x D x H), Weight		1229 x 574 x 1017 (1276 with Music Rest) mm, 100.0 kg	1229 x 574 x 1017 (1276 with Music Rest) mm, 109.0 kg
		Bench	781 x 305 x 618 mm, 8.8 kg	915 x 365 x 618 mm, 12.1 kg
	Color		Silver Metallic	
	Supplied Accessories		Bench, Owner's Manual, Tutorial Guidebook, SmartMedia card	

Specifications and descriptions in this owner's manual are for information purposes only. Yamaha Corp. reserves the right to change or modify products or specifications at any time without prior notice. Since specifications, equipment or options may not be the same in every locale, please check with your Yamaha dealer.

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