YAMAHA

Electone STAGEA

ELS-01/01C/01X Version 1.7 New Functions

Yamaha has updated the firmware of ELS-01/01C/01X from Version 1.6 to Version 1.7. This version provides additional functions and has some changed LCDs.
This manual provides instructions for the new and updated functions.

Contents

Please replace the instructions in your Owner's Manual with the corresponding instructions in this manual. For the corresponding pages in your Owner's Manual, refer to "New/Updated Functions" on page 2 and "Other Changes" on page 4.

New/Updated Functions

This manual can be used with your ELS-01/01C/01X Owner's Manual. To fully understand the new or updated functions, simply replacing the relevant part of your Owner's Manual with the instructions in this manual.

1. M.D.R. Display/Score Display

The M.D.R. display has been changed significantly, giving you greater and more intuitive control over the songs and storage media

Chapter of the Owner's Manual	Corresponding pages
Chapter 7 Music Data Recorder (MDR)	Pages 5 – 40

The [SCORE] button has been added to the SONG Page, allowing you to display the score (notation) while recording/playing back a song.

Chapter of the Owner's Manual	Corresponding pages
New functions	Pages 32 – 33

2. Registration Memory Copy

The Regist Section Copy Page has been added to the Voice display.
A specific Registration saved to a registration number can be copied to another Registration number for each specific Voice section.

Chapter of the Owner's Manual	Corresponding pages
New function	Pages 41 – 42
Chapter 1 Quick Introductory Guide — 4. Voice Display	Pages 43 – 44

3. Rhythm Sequence Copy

The Sequence display has been changed.
A specific rhythm sequence can be copied to another sequence or added to the end of another rhythm sequence.

Chapter of the Owner's Manual	Corresponding page
New function	Page 45

4. Sustain Settings

The Sustain Length display has been changed. The sustain effect can now be set more precisely.
While in the previous versions sustain could be set for three Voices (Upper and Lower Keyboard and Pedalboard), version 1.7 allows settings for eight Voices (or six on the ELS-01).
If some Voices are set to HOLD, they will sound continuously even when the keys are released.

Chapter of the Owner's Manual	Corresponding page
Chapter 4 Voice Controls and Effects 2. Selecting from the panel — Sustain	Page 46

5. EFFECT Page for Organ Flutes

The EFFECT Page has been added to the Organ Flutes Display.
The ATTACK/VOLUME Page in the Organ Flutes Display has been changed.
The EFFECT Page allows you to set the rotary speaker effect for the Organ Flute Voice.

Chapter of the Owner's Manual	Corresponding pages
Chapter 3 Organ Flutes	Pages 47 – 49
Chapter 4 Voice Controls and Effects 2. Selecting from the panel — Rotary Speaker	Pages 50 – 51

6. Disable Mode

The GLOBAL Page in the Utility display has been changed.
The DISABLE MODE buttons have been added to allow you to select specific functions you want to prevent from changing when you select a different Registration Memory number.

Chapter of the Owner's Manual	Corresponding pages
Chapter 6 Registration Memory 2. Selecting Registrations	Pages 52 – 53

7. Voice Edit Display

The Voice Edit Display has been changed to give you more intuitive editing control over the Voices.

Chapter of the Owner's Manual	Corresponding pages
Chapter 8 Voice Edit 2. Editing a Voice — Editing an AWM Voice	Pages 54 – 59
Chapter 8 Voice Edit 2. Editing a Voice — Editing a VA Voice	Pages 59 – 60

8. MIDI Control Settings

The MIDI Page in the Utility display has been changed.
The MIDI Page now allows you to select the channels to which the MIDI information is transmitted for the Expression pedal and 2nd Expression pedal.

Chapter of the Owner's Manual	Corresponding pages
Chapter 13 Connections — 5 MIDI Control	Pages 61 – 62

Other Changes

●●

The Popup displays for an effect and reverb close automatically when you select items in the display, whereas in the previous versions you needed to press the [CLOSE] button after selecting items.

Chapter of the Owner's Manual	Corresponding pages
Relevant pages	—

To copy rhythms using Rhythm Programming functions, you will need to first select COPY FROM, then COPY TO.

Chapter of the Owner's Manual	Corresponding pages
Chapter 9 Rhythm Program Basic settings for the Rhythm Pattern: ❷ ASSEMBLE	Page 63
Chapter 9 Rhythm Program 2. Rhythm Pattern Program Creating Backing Patterns (Rhythmic Chord Function)	Page 64

Information on functions and settings that cannot be memorized on the Registration Memory has been updated.

Chapter of the Owner's Manual	Corresponding page
Chapter 6 Registration Memory Functions and setting that cannot be memorized	Page 65

Up to four USB flash memory devices can be now connected to the Electone.

Chapter of the Owner's Manual	Corresponding page
Chapter 13 Connections 2. Connection Examples — External Devices Connecting USB storage devices or USB-LAN adaptor	Page 66

The MIDI Data Format section has been updated.

Chapter of the Owner's Manual	Corresponding pages
Chapter 14 Appendix — MIDI Data Format	Pages 67 – 79

The Specifications section has been updated.

| Chapter of the Owner's Manual	Corresponding pages
Chapter 14 Appendix — Specifications	Pages 80 – 81

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, USB flash memory or other external media. If you install the optional floppy disk drive such as the UD-FD01 to the ELS-01, you can record your performances/settings to floppy disks. (The ELS-01C/01X 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.
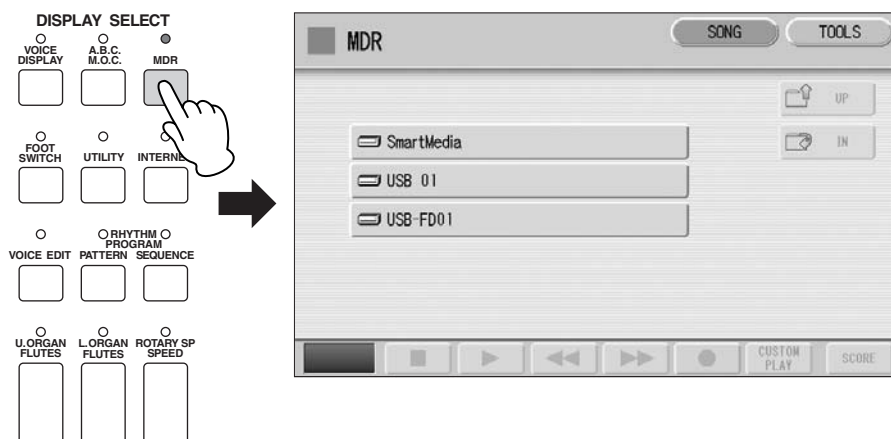

Pressing any button other than the [MDR] button while the M.D.R. display is open exits from the M.D.R. display. If you exit from the function inadvertently, simply press the [MDR] button again to recall the M.D.R. display.

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.

2 | Using the LCD Display

The M.D.R. display consists of two display pages: the SONG Page and the TOOLS Page. In the SONG Page, you can select a song, then play it back or record it. The TOOLS Page has a variety of song utility operations, such as copy, delete, rename, etc. Pressing the [SONG] or [TOOLS] button at the top right of the display switches between the SONG Page and the TOOLS Page.
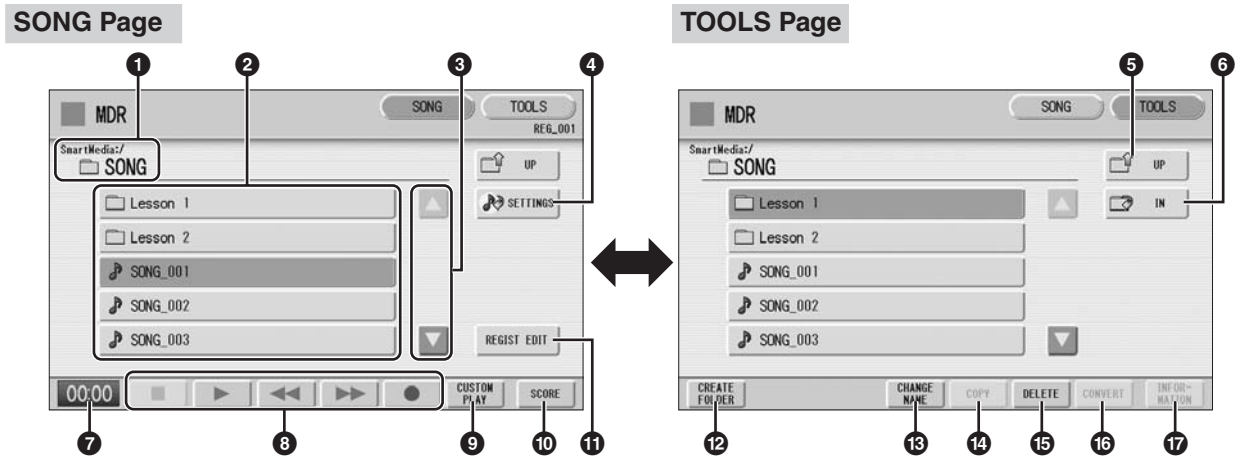
❶ Current Media/Folder

Displays the currently selected media and folder(s). The example display shows that data currently exists in the "SONG" folder. The display indication (e.g., "SmartMedia:/" above) shows the path of the media and the folders it contains. The left side of the indication (before ":/") shows the particular media and the right side shows the path with currently selected folder name at the end. For example, "SmartMedia:/Folder1/" indicates that the folder named "Folder1" contained in the SmartMedia card is selected.

❷ Media/Folder/Song List

Displays the media, folders or songs. Up to 120 folders can be displayed (5 folders at once).

❸ Scroll Buttons

If the Media/folder/Song List contains more than 5 media/folders/songs, you can scroll through the display with these buttons.

❹ SETTINGS

Displays/changes the settings for the currently selected song.

Reference Page

Setting a song (page 14)

❺ UP

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

❻ IN

Selects the next lower (or deeper) layer folder or media. For example, when "SmartMedia:/Folder1/" (Folder1 in the SmartMedia) is selected, pressing the [IN] button selects "SmartMedia:/Folder1/SONG/" (the SONG folder contained in Folder1 of the SmartMedia).

❼ Elapsed Time

Displays the elapsed time when recording/playing back a song (up to 99 min. 59 sec.).

❽ Song Control

Controls song recording, playback, etc.

Reference Pages

Recording Your Performance (page 15)

Playing Back a Song (page 27)

❾ CUSTOM PLAY

Records/plays back only the performance data of the selected songs. Using this button does not recall the Registration data.

❿ SCORE

Displays the selected song's score.

Reference Page

Displaying the Score (page 32)

⓫ REGIST EDIT

Displays the Regist (Registration) Edit Display for the selected song's Registration data.

Reference Pages

Saving Registrations as Registration Data (File) (page 21)

Recalling Recorded Registrations (page 25)

⓬ CREATE FOLDER

Creates a new folder in the Media/Folder/Song 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 a folder name is the same as that of the song name. See page 18.

⓭ CHANGE NAME

Changes the folder/song name.

Reference Page

Changing the Song Name (page 18)

⓮ COPY

Copies the selected song.

Reference Page

Song Copy (page 34)

⓯ DELETE

Deletes the selected folder/song.

Reference Page

Song Delete (page 36)

⓰ CONVERT

Converts the selected song for use on another Electone or other instruments, or converts songs recorded on another Electone for use on the ELS-01/01C/01X. Songs can be converted to XG format, EL format or ELS format.

Reference Pages

Converting to XG (page 38)

Converting ELS format to EL (page 39)

Converting EL format to ELS (page 39)

⓱ INFORMATION

Displays available memory when media is selected and displays information such as the title and composer when a song is selected. The information to be displayed depends on the songs.

Reference Pages

Checking the Remaining Memory (page 40)

About Protected Songs (page 26)

If media cannot be found:

1 **Press the** ⌖ UP **button until the button is grayed out.**
The Media List will be displayed. If there are more than five media selections, scroll through the display with the Scroll buttons (page 6) to display the desired media.

If songs cannot be found:

1 **Check the current media/folder (page 6).**

2 **If the desired song is stored in the currently displayed folder, use the Scroll buttons (page 6) to display the song.**
If the desired song is stored in a different folder, use the ⌖ UP **and** ⌖ IN **buttons to select the folder in which the desired song is stored.**

If you are not sure of the folder in which the desired song is stored, press ⌖ UP button a few times to display the Media List and check the folders in which the song is likely to be stored.

NOTE

If the message "Registration data will be initialized" is displayed when you select a folder, press [INITIALIZE] button (media is not initialized). The message will appear when recalling the protected song.

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 that performance data is contained in the song.
	Indicates an XG-compatible song.
	Indicates a Protected Original Song. See page 26 for details.
	Indicates a Protected Edit Song. See page 26 for details.

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 or USB flash memory, 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.
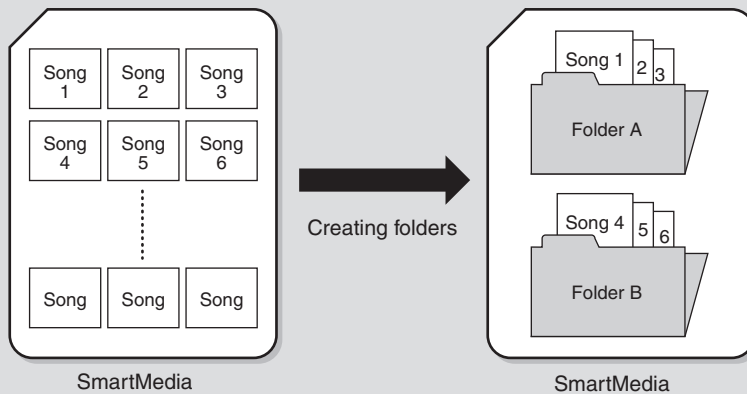
Songs:

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: .name) is automatically created in each folder for organization/maintenance of the folder contents. It does not appear on the Electone display.

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 12. 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.
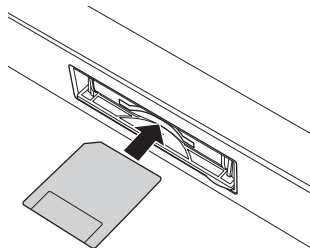
● Removing SmartMedia cards

• 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 your Owner's Manual.

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 12. 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.

3 | **Formatting External Media**

If you find that you are unable to use new, blank external media (such as SmartMedia cards, floppy disks or USB flash memory) 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, or connect the device to the USB DEVICE terminal.**

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

3 **Press the ⬆ UP button repeatedly if necessary until the button is grayed out.**

4 **Select the desired media you want to format.**

To format a SmartMedia card, select [SmartMedia]. To format a floppy disk, select [USB-FD01]. To format another media, select [USB 01].
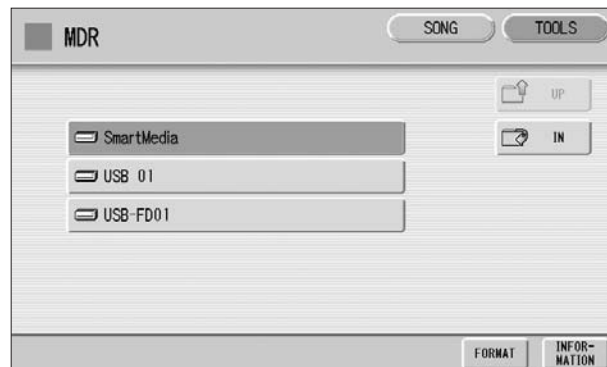
5 **Press the [FORMAT] button in the display.**

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

4 Selecting a Song

In the M.D.R. display, 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.

In the M.D.R. display, 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.

Currently selected media/folder
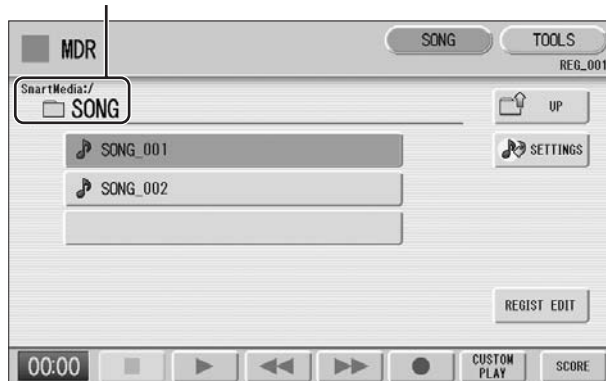
For information on selecting the desired media, see page 8.

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.

Song containing data

Blank song (containing no data)

Reference Pages

Changing the Song Name (page 18)

Song Icons (page 8)

About the [SETTINGS] button

Pressing the [⚙ SETTINGS] button calls up a display of the currently selected song, letting you confirm the tempo and parts that are played when playing the song.
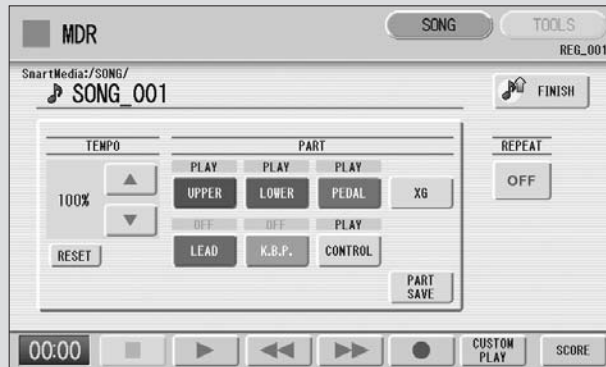
When playing back the song (by pressing the [▶] (Play) button), only those parts that are set to "PLAY" in the display actually play at the indicated tempo (over a range of 50% to 200% of the original tempo when recording). If the song contains no performance data, all parts are set to "OFF." Pressing the [PART SAVE] button saves each part playback setting (the tempo is not saved).

5 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.

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 13.
If you want to overwrite an existing song already containing performance data, you will need to delete it beforehand.

3 **Press the [SONG] button at the top right of the display to call up the SONG Page, then select the [●] (Record) button.**
The following display appears, indicating that you can record your performance.

4 **Press the [▶] (Play) button.**
An hourglass icon appears at the bottom left of the display, 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 M.D.R. display. The song to which your performance is recorded is automatically named "SONG_XXX" (XXX indicates song number). You can change the song name as desired. (For details, see page 18.)

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

NOTE
If a message appears indicating there is not enough free space in media, press the [CANCEL] button, then press the [■] (Stop) button to go back to the M.D.R. display. Delete any unnecessary songs if possible or insert new media. To continue recording your performance on media that does not have enough space, press the [CONTINUE] button.

⚠ **Do not remove the media from the Electone 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 [●] (Record) button while the song is still running.**
This automatically stops recording and returns you to the starting point of the song.
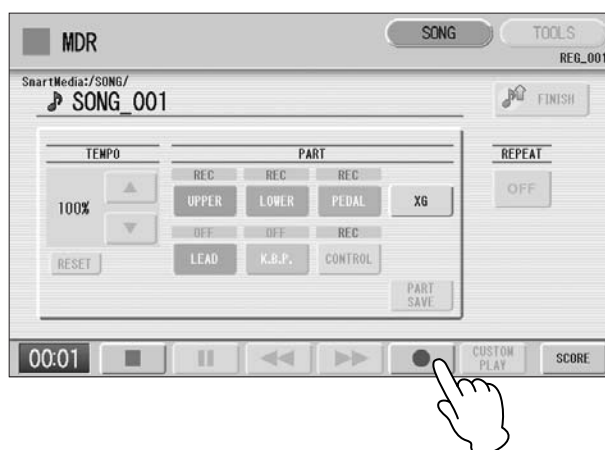
2 **Press the [▶] (Play) or [CUSTOM PLAY] button to begin re-recording the song.**
Re-recording starts from the beginning of the song and replaces the previously recorded performance with the newly recorded performance.

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 15 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.
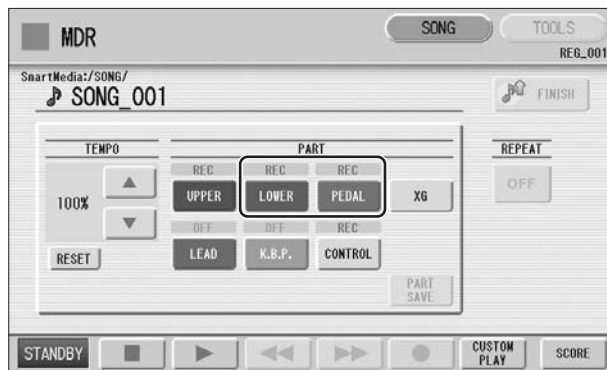
3 Press the [▶] (Play) button, and start playing after the hourglass icon disappears.

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 [OVERWRITE] 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 Change the playback tempo for the selected part.

The playback tempo can be set over a range of 50% to 200% of the original. The original recorded tempo is 100%; values less than 100% result in a slower tempo while values greater than 100% result in a faster tempo.

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

Playback of the previously recorded parts starts immediately.
The [CUSTOM PLAY] 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.

NOTE

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

Punch-in Recording

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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 13.

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.**

6 Changing the Song Name

NOTE

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

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.

1 **Select the song whose name you want to change.**
For details on selecting a song, see page 13.

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

3 **Press the [CHANGE NAME] button.**
The following display appears.
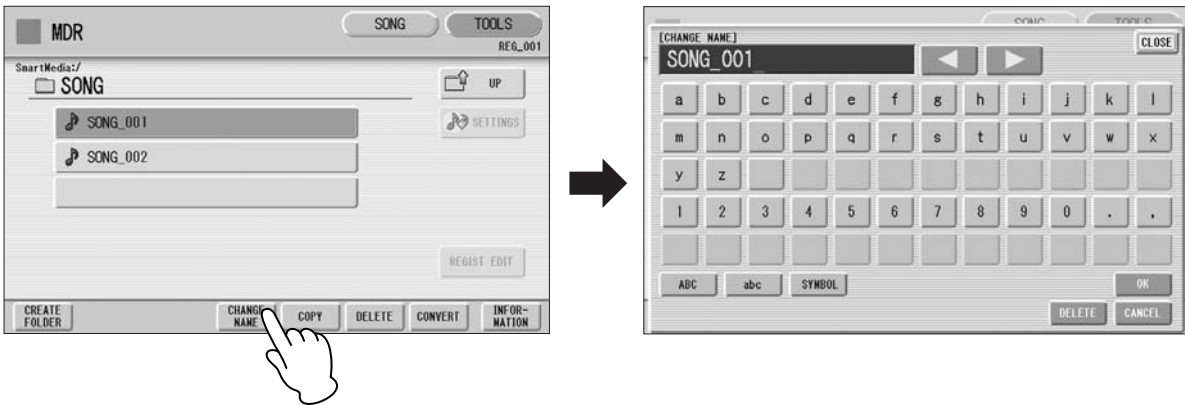
4 **Move the cursor to the desired point by using the [◀][▶] buttons in the display or the Data Control dial.**

Cursor

or

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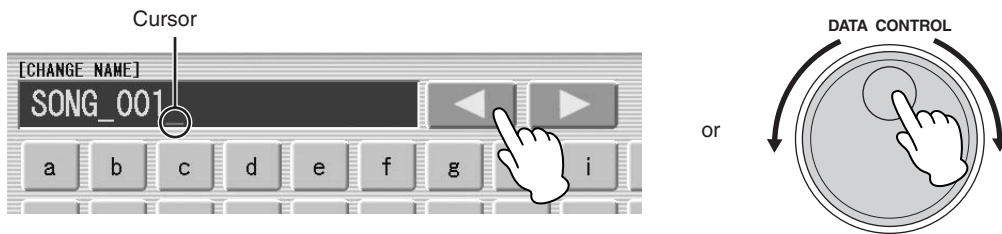
5 **Select the desired character type: alphabet, upper or lowercase, or symbol.**

⌨ **NOTE**

If you select Japanese as the Language in the Utility display, 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.
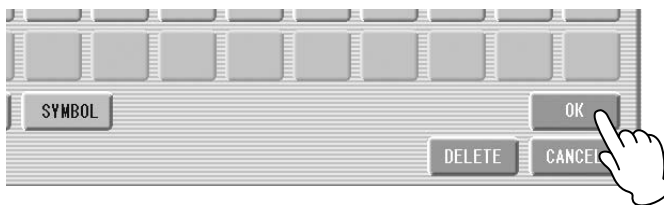
To delete the entered character:

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

Cursor

DATA CONTROL

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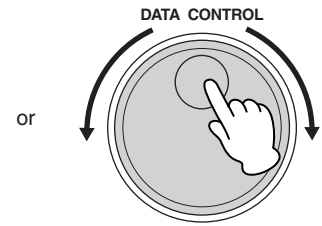
2 **Press the [DELETE] button at the bottom right in the display.**
The character is deleted.

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 once 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	SONG_xxx.C02	
SONG.NAM			

🎹 **NOTE**

Songs are ordered in the following sequence: symbol, number, alphabet, hiragana, kanji, other symbols. Names with an asterisk (*) at the top are exceptions to this rule.

7 | 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 13.

2 **Press the [REGIST EDIT] button in the display to call up the Regist (Registration) Edit Display.**

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

A message appears, indicating the Registration data is currently being saved. After the message disappears, exit from the Regist (Registration) 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 XXX" (XXX 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.

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

For details on selecting a song, see page 13.

2 **Press the [REGIST EDIT] button in the display to call up the Regist (Registration) Edit Display.**

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

3 **Press the lowest blank (empty) Registration button.**
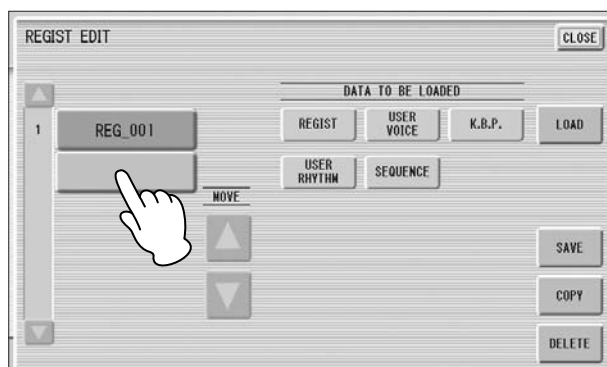
4 **Press the [SAVE] button.**
The Registration data will be added.
When you play back this song, the top Registration bank in this display will be loaded to the Electone. You can also change the order of the Registration bank. See page 23.

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 13.

2 **Press the [REGIST EDIT] button in the display to call up the Regist (Registration) Edit Display.**
The Registration bank which has been saved to the song is shown.

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

4 **Press the [SAVE] button.**
A message appears, prompting confirmation of overwriting the Registration bank. Select [OVERWRITE] to overwrite (replace), or select [CANCEL] to abort the operation.

Next Regist (Registration) 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 (Registration).
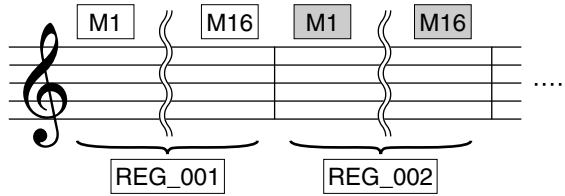
If you want to use the Next Regist (Registration) function, you'll have to make one of the following settings in advance:

- Set the Registration Shift mode to User, and select Next Regist (Registration) as the Shift End, in advance.
- Enter the Next Regist (Registration) data in the Registration Sequence.

 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 the Registration is being loaded.

 NOTE

If the Next Regist (Registration) function is used while the rhythm is being played back, the sequence data and User rhythm will not change.

1 **Save the desired Registrations to a song.**

For instructions on saving two or more Registration banks to a song, see page 21.

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

For details on selecting a song, see page 13.

3 **Press the [REGIST EDIT] button in the SONG Page to call up the Regist (Registration) 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.
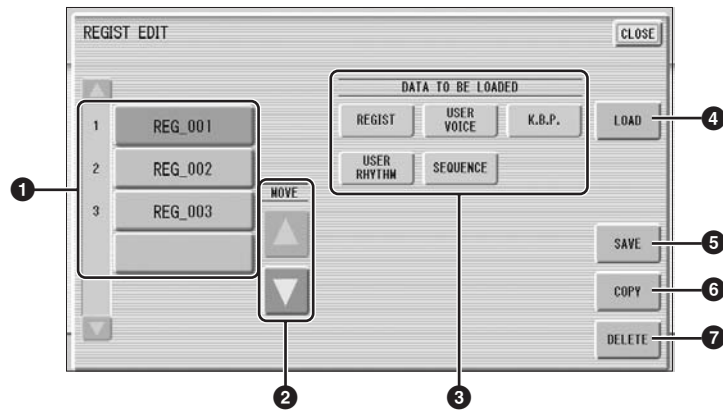
❶ Registration Data List

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 DATA TO BE LOADED

When loading the Registration bank to the panel, select the desired data you want to load. For more information, see page 25.

❹ LOAD

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

❺ 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.

❻ COPY

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

❼ DELETE

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

5   **Exit from the Regist (Registration) Edit Display by pressing the [CLOSE] button at the top right of the display.**

8 Recalling Recorded Registrations

Registrations (and bulk data) recorded to song numbers can be easily loaded back to the Electone by the following procedure. The M.D.R. independently recalls the following five types of data:

- REGIST
- USER VOICE
- K.B.P.
- USER RHYTHM
- SEQUENCE

You can select and recall the desired data independently.

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 13.

2 **Press [REGIST EDIT] button in the display to call up the Regist (Registration) Edit Display.**

3 **Select the Registration you want to load to the Electone.**
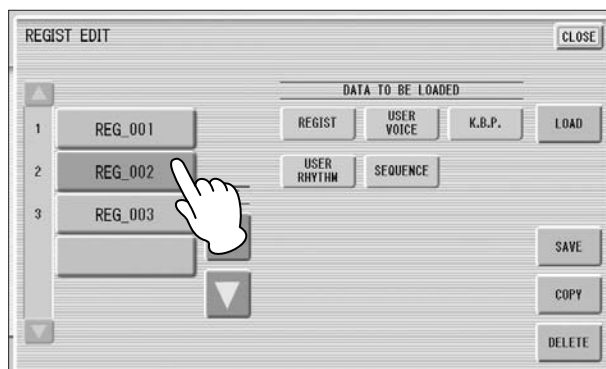
4 **Using the five "DATA TO BE LOADED" buttons, select the desired data you want to load.**
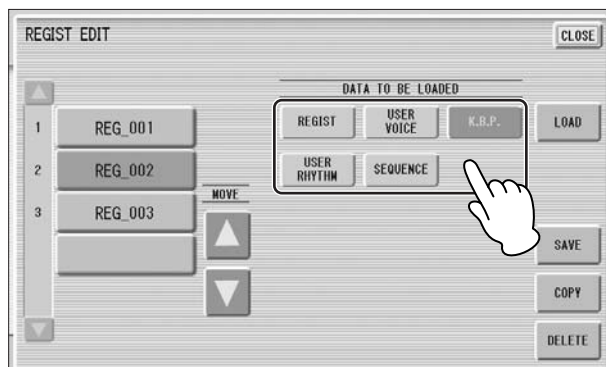
NOTE

When you load the Registration data by using the Next Regist function, all data will be loaded no matter which buttons you select here.

NOTE

If you load a Registration while a rhythm is playing, sequence data and User rhythms in the Registration data cannot be loaded.

5 **Press the [LOAD] button.**
A message appears, prompting confirmation of the operation. Press the [LOAD] button to load the Registration data.
Press [CANCEL] to cancel the operation.

6 **Exit from the Regist (Registration) Edit Display by pressing the [CLOSE] button at the top right of the display.**

When you select the protected song, the buttons (DATA TO BE LOADED) may be unavailable (grayed out). For example, combining a part of one protected song with another protected song is not allowed.

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." Protected songs can be saved to a SmartMedia card with ID or USB flash memory.
The protected song can be played back as well 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.

Folder

Protected Original Song

Copy

Protected Edit Song

You cannot edit this song

You can edit this song, only when this is in the folder that contains protected original song.
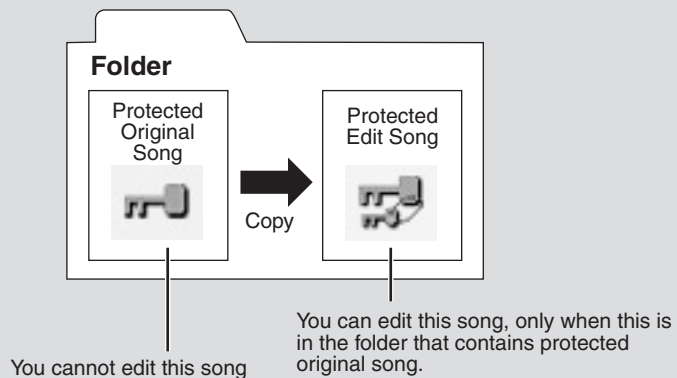
⚠ **To move the protected song in a SmartMedia card with a computer, you'll need to use the Musicsoft Downloader application. If you move the song without Musicsoft Downloader, the song cannot be played back. Musicsoft Downloader can be obtained at the following Internet address: http://music.yamaha.com/download/**

9 | Playing Back a Song

The M.D.R. enables you to play back commercially available XG-compatible song data and MIDI data created with a computer as well as songs recorded on the Electone itself.

1 **Select the song to be played back.**
For details on selecting a song, see page 13.

2 **Press the [▶] (Play) button in the display to load the Registration data.**
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 (Registration) Edit Display.
If the song contains no performance data, after loading the Registration data, the LCD returns to the SONG Page.

Reference Page

Next Regist Settings (Changing the order of the Registration data) (page 23)

3 **Playback starts automatically after reading the Registration data (the elapsed time is shown).**
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 28.
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.

Reference Page

About the [SETTINGS] button (page 14)

Custom Play

If you want to play back the song without resetting the Registrations, press the [CUSTOM PLAY] 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 PLAY] 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.

Reference Page

Setting a song (page 14)

To play back the selected part(s):

During playback or in the Settings Display, press each part button to turn the part you want to playback to "PLAY" and the part you want to mute to "OFF." Each pressing of a part button switches the status between PLAY and OFF. Pressing the [PART SAVE] button saves each part's playback status.
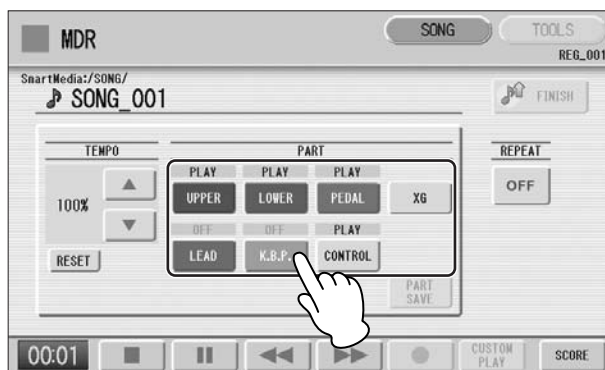
Reference Page

Converting to XG (page 38)

To play back the selected part(s) of XG-compatible song data:

Press the Part [XG] button while XG-compatible song data is being played back. The following XG Part Setup Display appears.
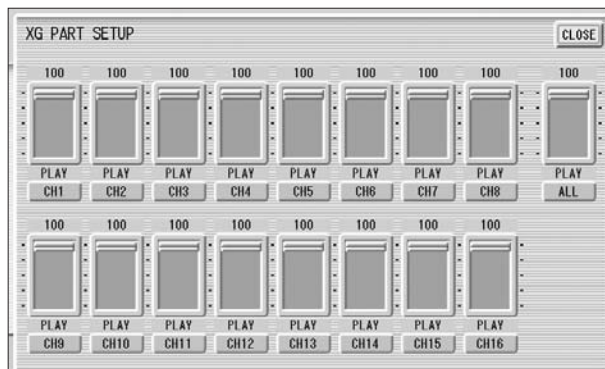
Press the appropriate channel buttons (e.g., the [CH1] button) to set each channel to playback or mute. Each pressing of a button switches the status: PLAY and OFF. Set a part to [PLAY] if you want to play it back and [OFF] if you do not.
The [ALL] button enables you to switch all channels to PLAY/OFF at once.

To set each channel's volume use the sliders. Each channel's volume can be adjusted between 0 and 100.
The [ALL] slider adjusts the overall volume.

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 PLAY] 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 [▶] (Play) button or [CUSTOM PLAY] 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.
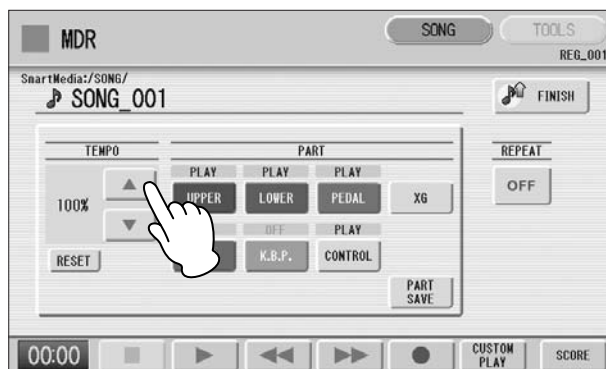
To reset the changed tempo:

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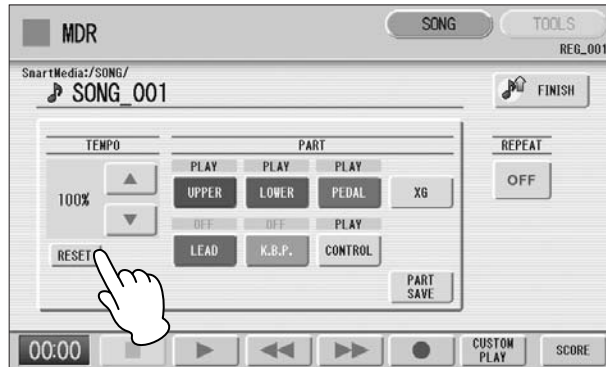
Repeat Playback

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 13.

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

3 **Press the [SETTINGS] button on the panel to call up the Settings Display.**
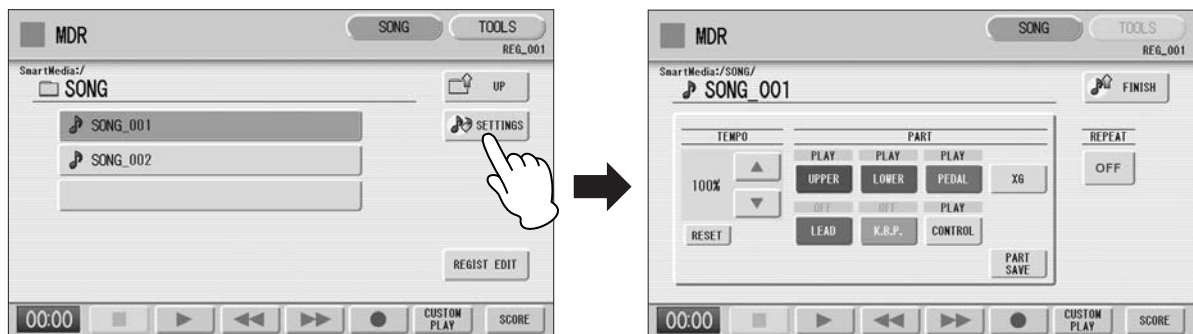
4 **Press the REPEAT button to select the repeat mode.**

Each press of the button switches the mode.

REPEAT button
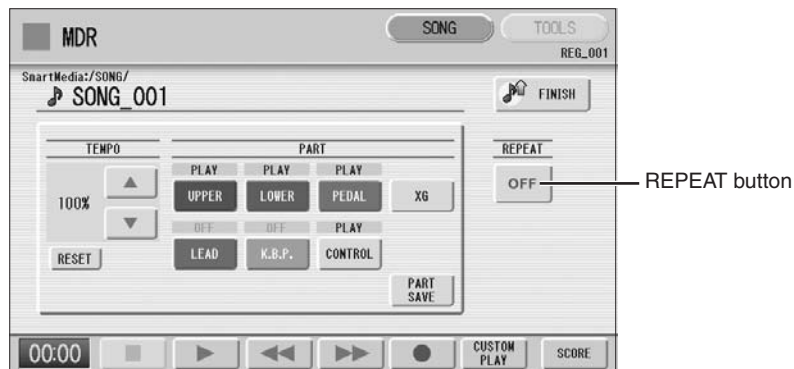
SINGLE

Repeats the currently selected song again and again.

ALL

Repeats all songs in the currently selected folder in order.

RANDOM

Repeats all songs in the currently selected folder randomly.

OFF **OFF**

Cancels repeat playback.

5 **Exit from the Settings Display by pressing the FINISH button at the top right of the display.**

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

10 Displaying the Score

The M.D.R. display can display a music notation (score) of the performance data recorded to media. You can change the size and the number of staffs to be displayed. While a song is being played back, the cursor moves according to the performance and the pages are automatically turned.

1 **Select the song containing performance data.**
For details on selecting a song, see page 13.

2 **Press the [SCORE] button in the display.**
The currently selected song score will be displayed.
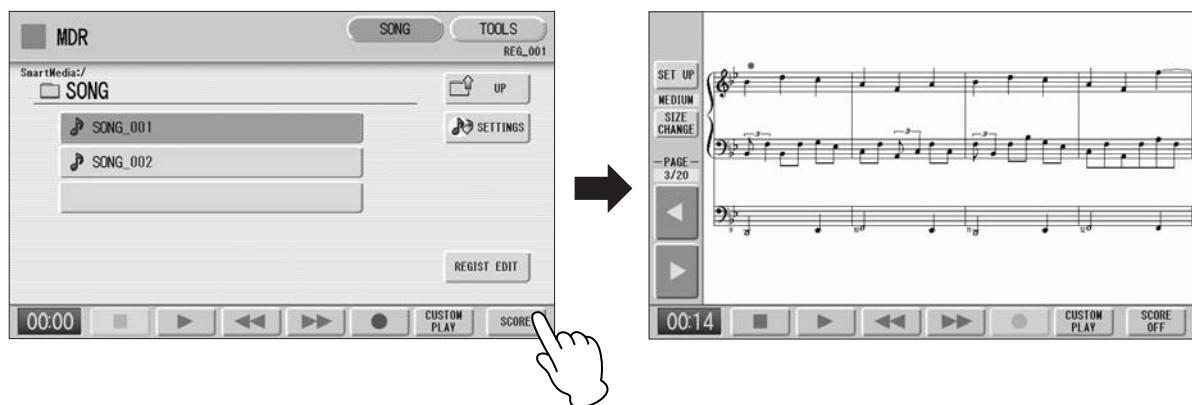
NOTE

The score size setting cannot be stored to a Registration Memory.

NOTE

Scores for protected songs cannot be displayed, excepting those songs that specifically allow score display.

3 **Press the [▶] (Play) button in the display to start playing back the song.**
As the song plays back, the cursor moves accordingly and the page is automatically turned at the appropriate point.

In this condition, pressing the [●] (Record) button in the display lets you record a song and have the score displayed for you.

The score size can be adjusted by pressing the [SIZE CHANGE] button in the display. Each press of the [SIZE CHANGE] button alternates the score size in the following sequence: normal, large, extra large, small, normal, and so on. Please note that the size cannot be changed while a song is being recorded.

4 **You can manually turn the page, by stopping playing back a song using the [■] (Stop) or [▌▌] (Pause) button, and then pressing the PAGE [◀] or [▶] buttons in the display.**
Pressing these buttons moves to the previous or next page. The PAGE [▶] button can be assigned to the left foot switch (page 33).

5 **To exit the score, press the [SCORE OFF] button in the display.**

Changing the score contents and settings

The Score Settings Display lets you choose the contents to be displayed. In this display, you can also assign the Next Page function to the left foot switch:

1 **Display the score.**

2 **Press the [SET UP] button in the display to call up the Score Settings Display.**

3 **Change the score settings**

To set whether a specific part is displayed or not in the score, press the appropriate [ON] or [OFF] buttons of each part. Please note that at least one of the upper keyboard, lower keyboard or pedalboard will be set to [ON].

Available settings for notes and how they will be displayed (NOTE) include [A, B, C] (conventional C-D-E indications), [FIXED DO] (solfeggio), [MOVABLE DO] (relative solfeggio) and [OFF].

For the CH SETTINGS, the upper keyboard, lower keyboard and pedalboard can be assigned to the channels with the [▲] or [▼] button. You can also use the Data Control dial to select channels after pressing the [▲] or [▼] button. Selecting [AUTO] automatically assigns parts to the channels according to the song data.

To set the QUANTIZE value use the [▲] or [▼] button. You can also use the Data Control dial to select channels after pressing the [▲] or [▼] button. The shorter the note value is selected, the more precisely the score is displayed.

Setting the NEXT PAGE L. Foot SW [ON] lets you turn the score to the next page with the left foot switch. You can also turn the score to the next page with the PAGE [▶] button in the display. If rhythm, glide and/or rotary speaker are assigned to the left foot switch and set on, both the assigned functions and the Next Page function work.

4 **Exit from the Score Settings Display by pressing the [CLOSE] button at the top right of the display.**

11 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.

> **Moving a Protected Song**
>
> A protected song can be copied within a folder, but it cannot be copied to another folder or media. If you specify another folder or media as the copy destination, a message appears prompting moving of the song—not copying. When the [MOVE] button is pressed, the protected original song and all protected edit songs which come from the same protected original song will be moved together. This effectively "moves" a protected song, but does not "copy" it.

To copy a song:
Insert the media that contains a song to be copied and the destination media.

- **To copy within one media**
  Insert the media that contains a song to be copied.

- **To copy between SmartMedia and USB flash memory**
  Insert both the SmartMedia card and USB flash memory.

- **To copy a song from USB flash memory to another**
  Insert both the USB flash memory that contains a song to be copied and the destination USB flash memory. If there are not enough terminals available, use a self-powered USB hub.

- **To copy a song from one SmartMedia card to another**
  See "To copy a song from one SmartMedia card to another" on page 35.

⎚ **NOTE**

For information on the compatible USB hubs, see the Yamaha website (http://music.yamaha.com/services/idc/USB.html).

1 **Select the song to be copied.**
For details on selecting a song, see page 13.

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

3 Press the [COPY] button in the display to call up the Copy To Display.
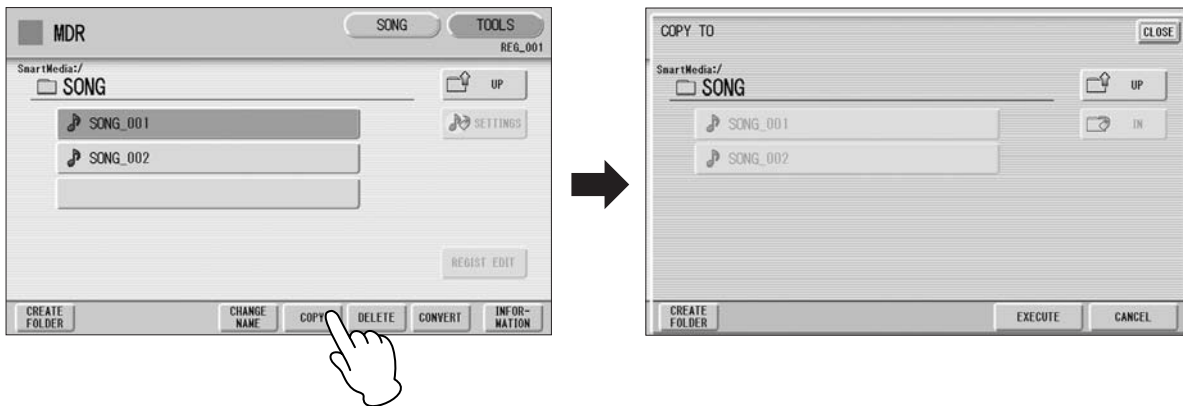
4 (If necessary) Change the destination.

For details on changing the destination, see page 13.

5 Press the [EXECUTE] button to execute the copy.

The song name in the destination is the same as the one of the source song. If you copy a song to a folder that contains a song whose name is the same as the source song, the copied song name will be "source song name_XXX" (XXX indicates song number). If you want to change the song name, see page 18. If you copy an XG-compatible song to another folder or media that contains a song with the same name as the source song, a message appears prompting confirmation of overwriting the song. Selecting [OVERWRITE] overwrites the XG-compatible song in the destination.

To copy a song from one SmartMedia card to another:

1 Follow the step 1 – 3 on page 34.

2 Press the [⬆ UP] button several times until the Media List is displayed.

3 Select "MEMORY" as the destination.

⚠ **Never attempt to eject the media or turn the power off during copying (or moving a protected song). Data may be lost.**

📖 **NOTE**

If you copy a protected song to the same folder as the source song, the copied song will be the protected edit song.

📖 **NOTE**

Even if only one USB TO DEVICE terminal is available, you can copy a song from one USB flash memory to another.

⚠

Never attempt to turn the power off during copying a protected song. Data may be lost.

4 **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.

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

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

7 **Select the destination.**
For details on specifying the destination, see page 13.

8 **Press the [EXECUTE] button to execute Song Copy. Select [OVERWRITE] to execute or [CANCEL] to abort the operation.**
The song is copied with the same name as the source song. If you copy a song to a folder that contains a song whose name is the same as the source song, the copied song name will be "source song name_XXX" (XXX indicates song number).
If you copy an XG-compatible song to another folder or media that contains a song with the same name as the source song, a message appears prompting confirmation of overwriting the song. Selecting [OVERWRITE] overwrites the XG-compatible song in the destination.
If you want to change the song name, see page 18.

Song Delete

● ●

You can delete the data of one song. You can specify for deletion only Registration data, only the performance data, or both of them (entire song). Also, only the songs created on the ELS-01/01C/01X and XG-compatible songs can be deleted. Songs created on the EL series instruments such as the EL-900 cannot be deleted.

1 **Select the song to be deleted.**
For details on selecting a song, see page 13.

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

3 **Press the [DELETE] button in the display.**
A message appears, prompting confirmation of the operation.
Confirm that the song to be deleted is shown in the display. If you want to change the song, press the [CANCEL] button and select the desired song.

4 **Press the button of the specific data you want to delete ("DELETE ALL," "DELETE REGIST" or "DELETE PERFORMANCE"). The selected data will be deleted.**

- **DELETE ALL:** Deletes the entire song.
- **DELETE REGIST:** Deletes only Registration data in the song.
- **DELETE PERFORMANCE:** Deletes only performance data in the song.

Pressing [CANCEL] aborts the operation.

When deleting folders, songs with only registration, songs with only performance data, protected songs or XG-compatible songs:
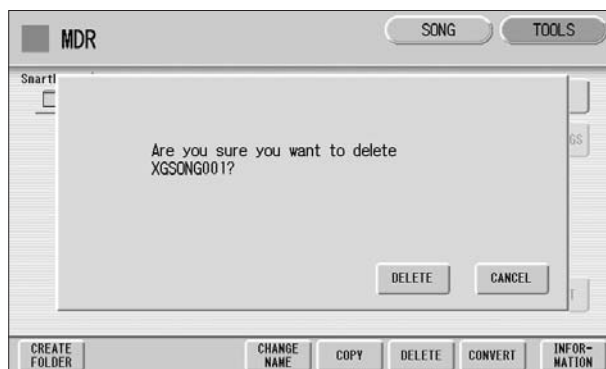
Select [DELETE] to actually delete the data, or select [CANCEL] to abort the operation.

Converting to XG

This function allows you to convert the ELS-01/01C/01X 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 **Select a song to be converted to XG.**
For details on selecting a song, see page 13.

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

3 **Press the [CONVERT] button.**
A message "Which do you want to select?" appears.
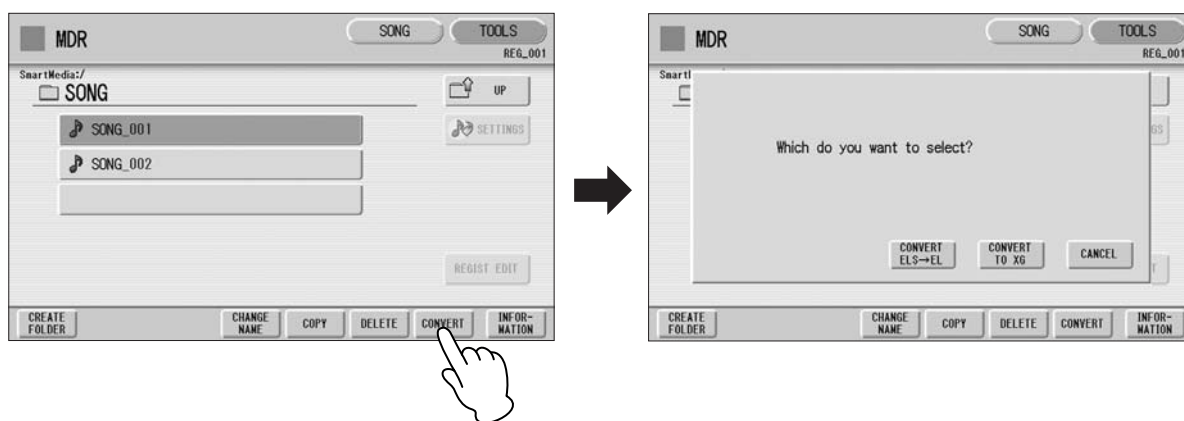
4 **Press the [CONVERT TO XG] button.**
The following display appears.
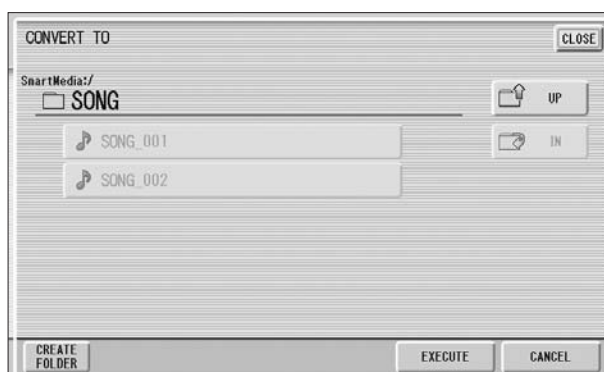
5 **(If necessary) Changes the destination to save the converted song.**
For details on changing the destination, see page 13.

NOTE

Playing the keyboard or pressing the panel controls during the confirmation of the conversion will be recorded to the converted XG-compatible song.

6 **Press the [EXECUTE] button.**
A message appears indicating that the converted data is being checked and the M.D.R. starts playback of the selected song. When playback is finished, the display returns to the previous display.

Converting ELS format to EL

You can convert songs created on the ELS-01/01C/01X 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 floppy disk drive such as UD-FD01.

Reference Page

About Protected Songs (page 26)

NOTE

User rhythms cannot be converted to EL format.

1 **Select the song to be converted to EL-series format.**
For details on selecting a song, see page 13.

2 **In the TOOLS Page, press the [CONVERT] button.**
A "Which do you want to select?" message appears.
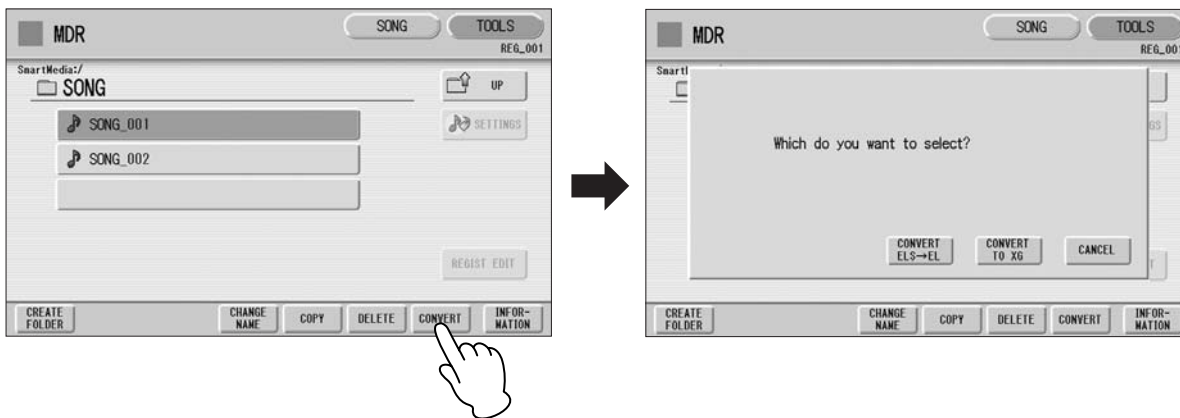
3 **Press the [CONVERT ELS → EL] button.**
If the source song contains two or more Registration banks, you'll need to make ready the same number of destination songs to save the converted data.

NOTE

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

4 **Insert the floppy disk, then press the [EXECUTE] button in the display.**
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/01X format, and save it to a SmartMedia card and USB flash memory. If you are using the ELS-01, you'll need to install the optional floppy disk drive such as UD-FD01. Depending on the original song, the sound or tempo of the converted song may differ from the original song, or the Next Song function of the original song may not be effective.

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 13.

NOTE

When converting a protected EL song to ELS format, make sure to use a SmartMedia card with ID or USB flash memory.

2 **In the TOOLS Page, press the [CONVERT] button.**
A message appears confirming if you want to convert from the EL format to the ELS format.
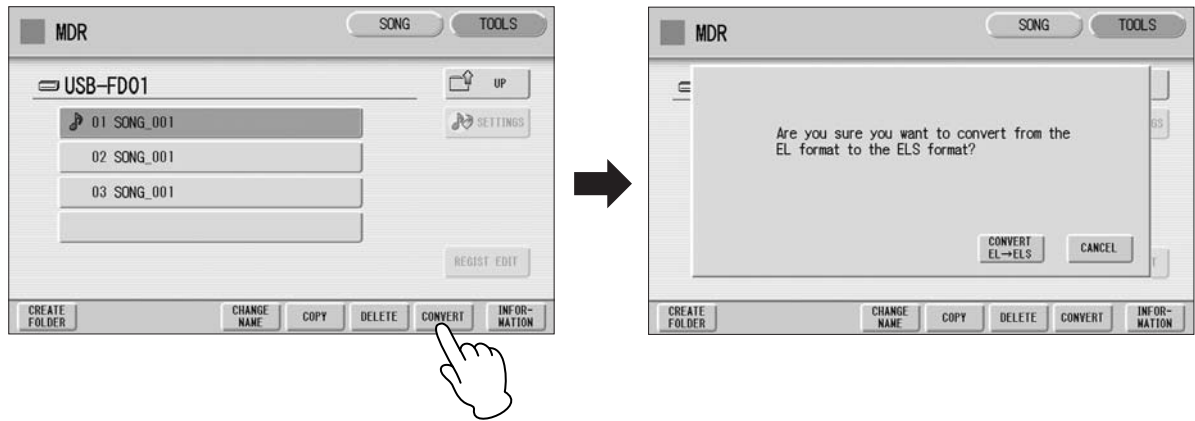
3 **Press the [CONVERT EL → ELS] button in the display, then specify the destination for the converted song.**
To use the converted song on the ELS-01/01C/01X, the destination must be SmartMedia or USB flash memory.

4 **Press the [EXECUTE] button in the display to start conversion.**
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 [INFORMATION] button. If media is selected, the remaining memory in the media is shown and if a song is selected, the song data capacity, title, composer, etc. are shown.

2 Registration Memory Copy
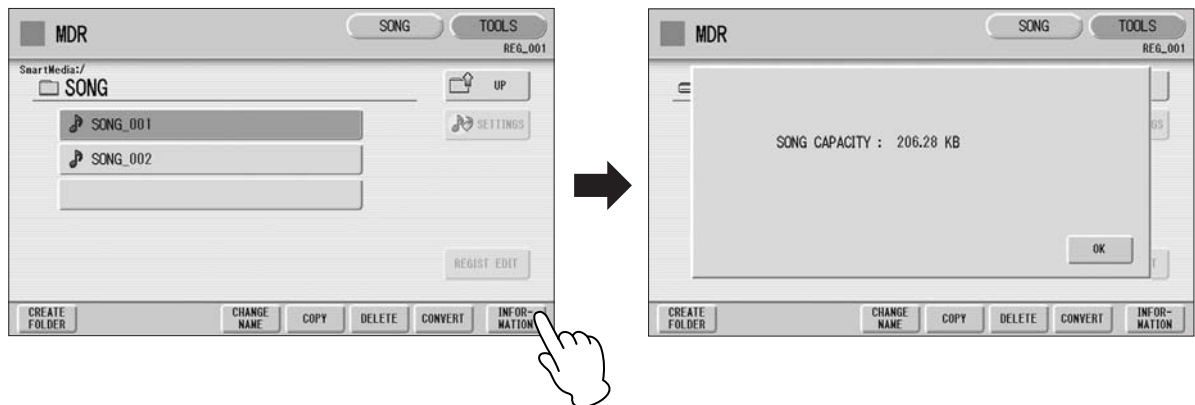
Copying Registrations

In the Voice Display, Page 3, you can copy a Registration stored to a specific Registration Memory number to another number on a specific section basis (Voices, rhythm, keyboard percussion). (The function is called Regist Section Copy.) This is useful, for example, when you want the upper keyboard Voice in Registration number 4 to be the same as in Registration number 1.

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

2 **Press the [3] button at the top right of the display to call up Page 3.**
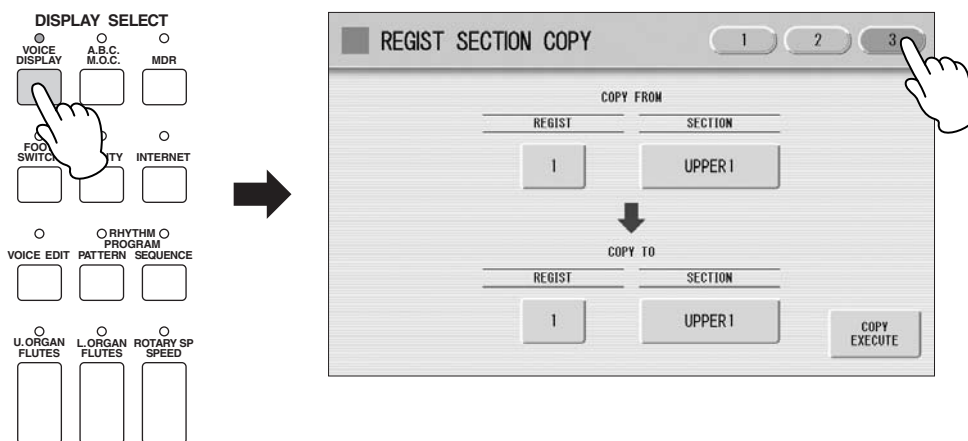
3 **Press the COPY FROM [REGIST] number button and select the Registration number that you wish to copy.**

To abort the operation press the [CLOSE] button.

Registration number
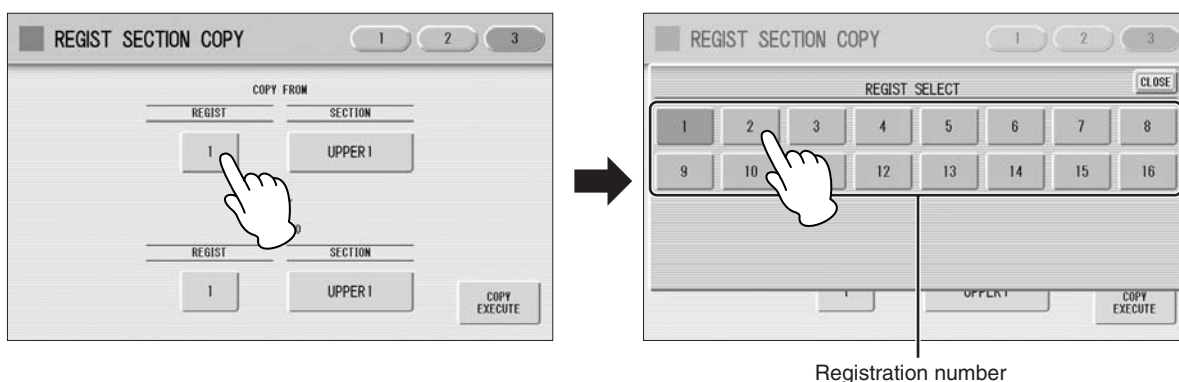
4 **Press the COPY FROM [SECTION] button and select the Regist Section that you wish to copy.**
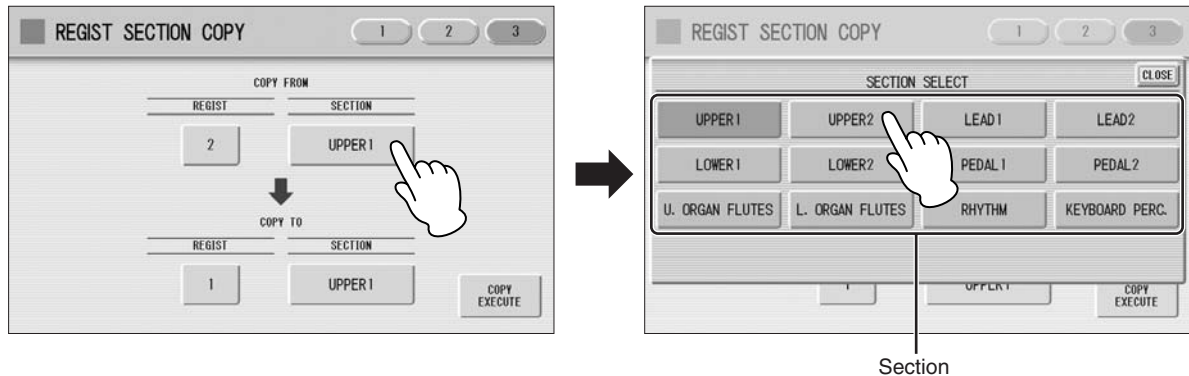
To abort the operation press the [CLOSE] button.

Section

5 **In the same way, select the COPY TO Registration number and Regist Section.**

The COPY TO Regist Section depends on the Regist Section selected for COPY FROM.

6 **Press the [COPY EXECUTE] button at the bottom right in the display.**

The following display appears, prompting confirmation of the operation.
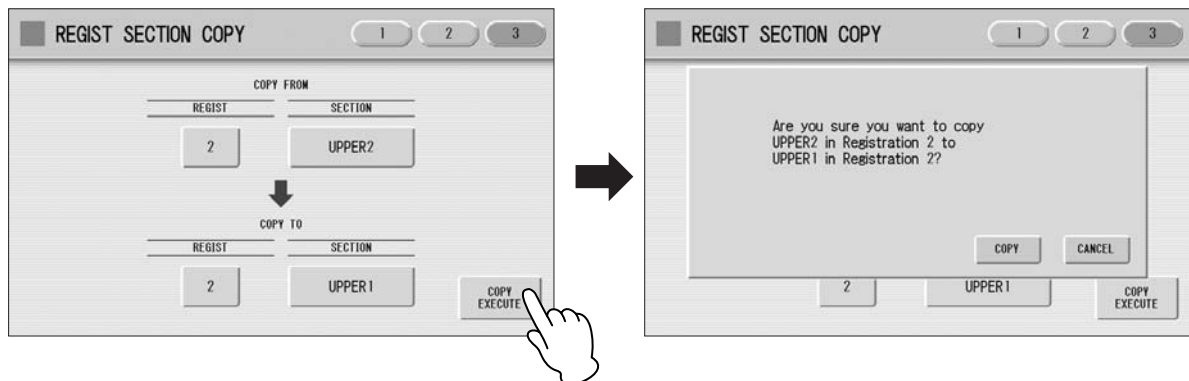
7 **Press the [COPY] button in the display to copy the Registration and a message momentarily appears in the display indicating that the Registration has been copied.**

Select [CANCEL] to abort the operation.

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. For details, see your Owner's Manual.

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.
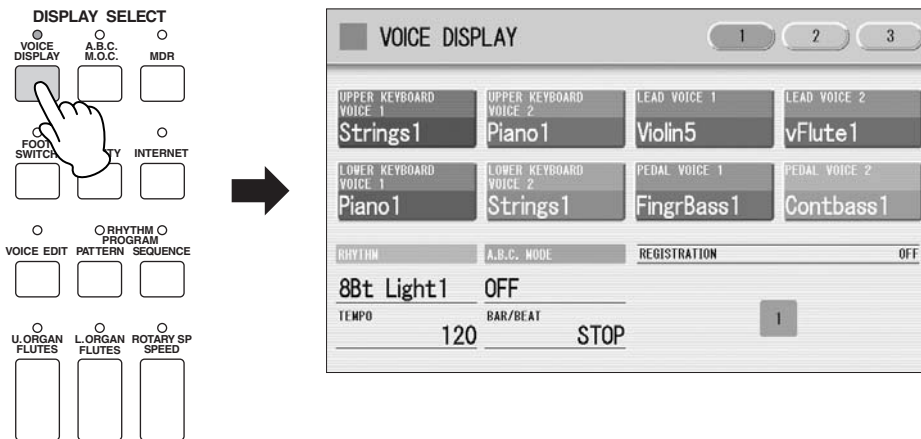
The Voice Display consists of three different pages that can be switched by pressing the [1], [2], or [3] button at the top right of the display.

Voice Display [Page 1]
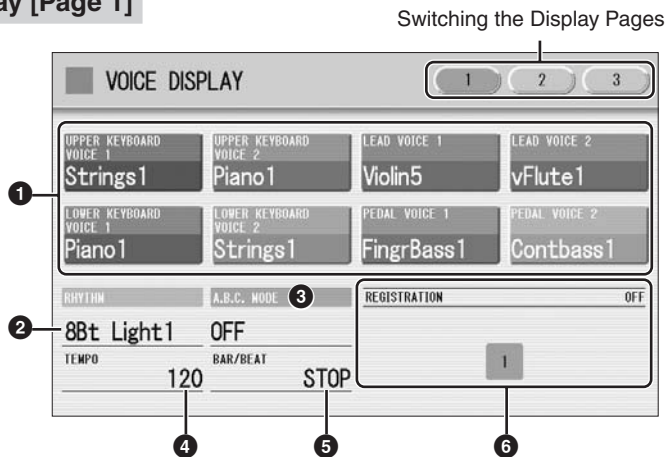
❶ Voice Sections

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).

❷ RHYTHM

Shows the currently selected rhythm.

❸ A.B.C. MODE

Shows the mode of the Auto Bass Chord.

❹ TEMPO

Shows the current rhythm tempo.

❺ BAR/BEAT

Shows the bar/beat when the rhythm is playing.

❻ REGISTRATION

Shows the current position of the Registration Shift.

Voice Display [Page 2]
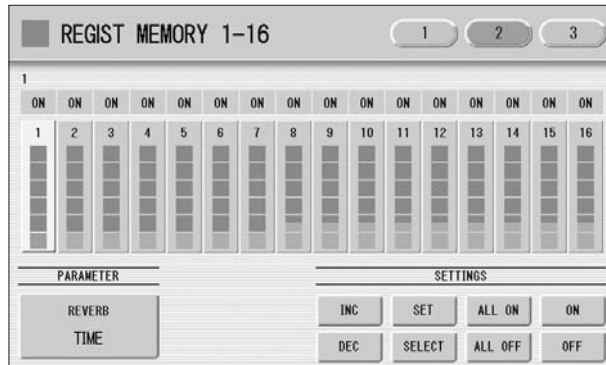
You can confirm the parameter values (for example, Reverb, Volume, Pan) for each Registration Memory simultaneously. Moreover, you can unify a specific parameter used in various Registration Memories at one time.

Voice Display [Page 3]
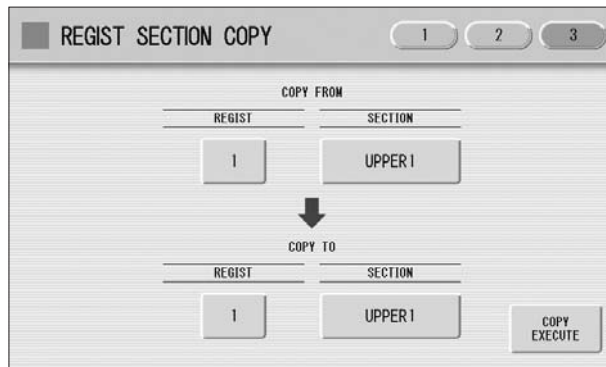
The Registrations stored to the Registration number can be copied to another Registration number for each individual section.

3 Rhythm Sequence Copy

Editing a Rhythm Sequence

You can copy a rhythm sequence stored on a sequence button to another button. You can also add a rhythm sequence to the end of another rhythm sequence.
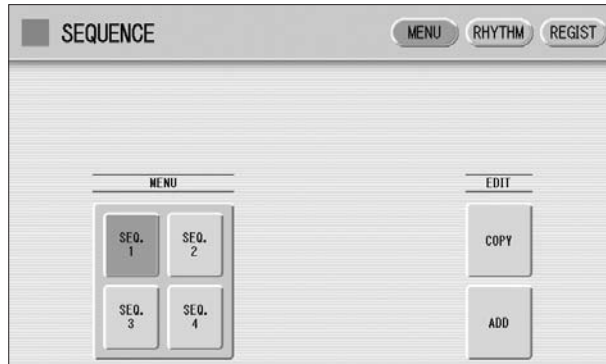
1 **Press the EDIT [COPY] or [ADD] button in the Sequence Menu page.**

The Copy From or Add From Display appears.

2 **Select the number of the desired rhythm sequence program to which you want to copy or to which you want to add.**

A message appears prompting confirmation of operation.

3 **Press the [COPY] or [ADD] button to copy or add the rhythm sequence.**

Press [CANCEL] to abort the operation.

NOTE

If you add a rhythm sequence to another rhythm sequence that has an ending at the end, the section will automatically change to MAIN A and the new sequence will be added after the MAIN A part.

4 Sustain Settings

Sustain

The sustain effect, selectable for each Voice, causes Voices to gradually fade out when the keys are released. The sustain on/off and sustain length settings are independent for each Voice, 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.

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

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.
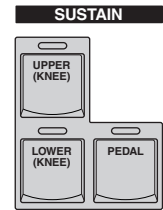
Sustain Length Display
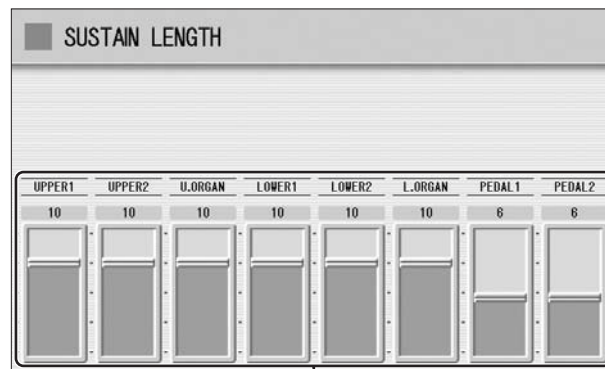
Set the sustain length here.

NOTE

If you change the Voice when the sustain length is set to HOLD and the keys are released, the Voice only changes after you play another key.

NOTE

The minimum setting results in no sustain.
Turning sustain off automatically resets the sustain length to be the default setting.

To adjust the sustain length value, use the display slider. If you set the highest value (HOLD), some Voices such as organ or synth will sound continuously even when the keys are released.

Range: 0 – 12, HOLD

5 EFFECT Page for Organ Flutes

The ELS-01C/01X 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 appears 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
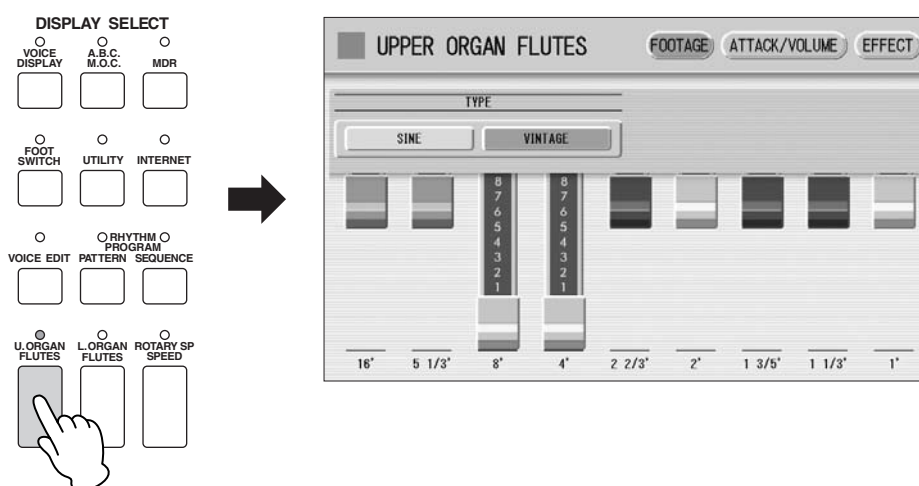
2 Select the wave type for the Organ Flute Voice.

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

3 Adjust the 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 at the top right of the display to adjust the volume.**

ATTACK/VOLUME Page
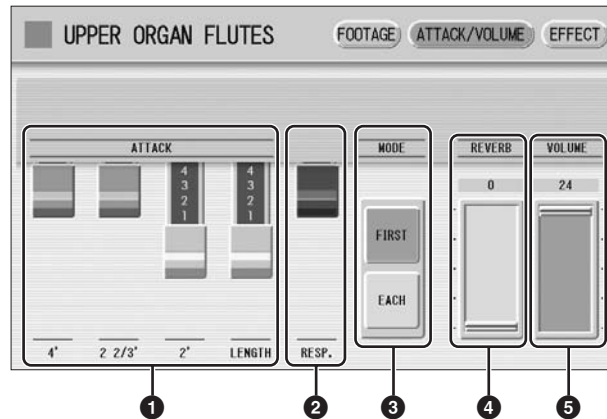
❶ ATTACK

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

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.

5 **Press the [EFFECT] button at the top right of the display for the Rotary Speaker settings.**

EFFECT Page
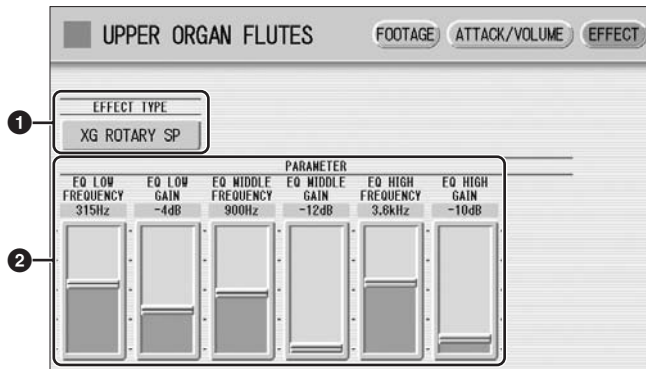
❶ EFFECT TYPE

Selects the Rotary Speaker (tremolo) effect type. Press the EFFECT TYPE button to calls up a list of the effect types. Select the desired type from the list.
To abort the operation, press the [CLOSE] button.

Reference Pages

Effect List
Rotary Speaker (page 50)
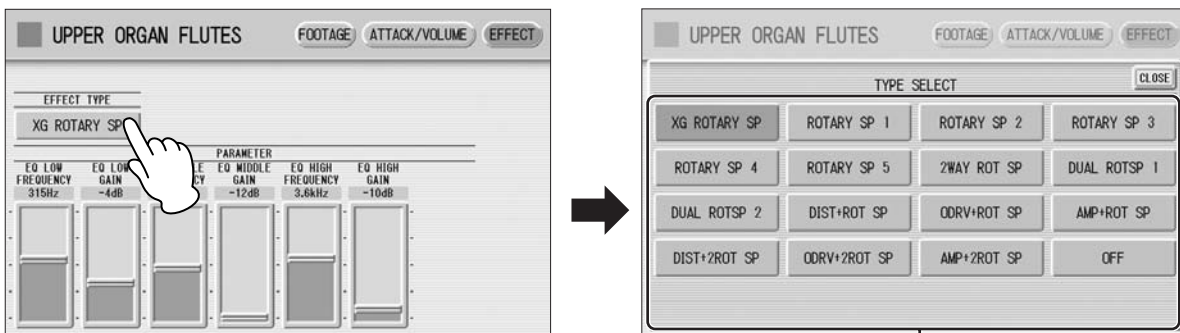
Select the desired effect type

❷ Effect Parameters

Effect parameters are displayed corresponding to the selected effect type.

6 **Press one of the Organ Flutes buttons (UPPER or LOWER) to cancel the Organ Flute function (the lamp above the button turns off).**

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.

Select "Rotary Speaker" here.
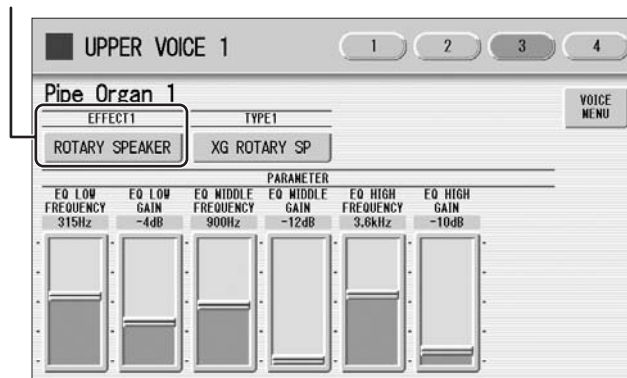
When you want to set Rotary Speaker for the Organ Flute Voice, select the effect type in the EFFECT Page. See page 49 for details.

Select an effect type other than [OFF].
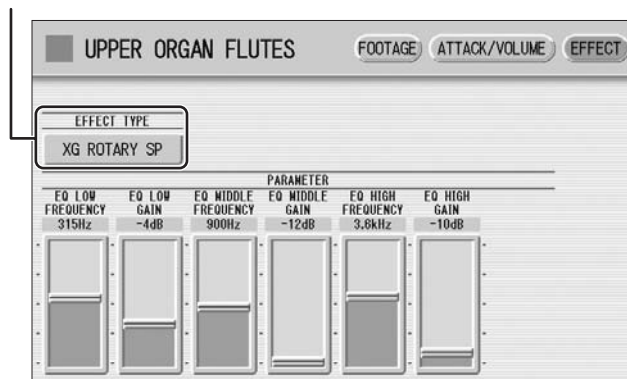
2 **Adjust the rotating speed and mode of the Rotary Speaker.**
Press the [ROTARY SP SPEED] button on the panel.
The Rotary Speaker Display appears. The settings in this display are common to all Voice sections.

Rotary Speaker Display
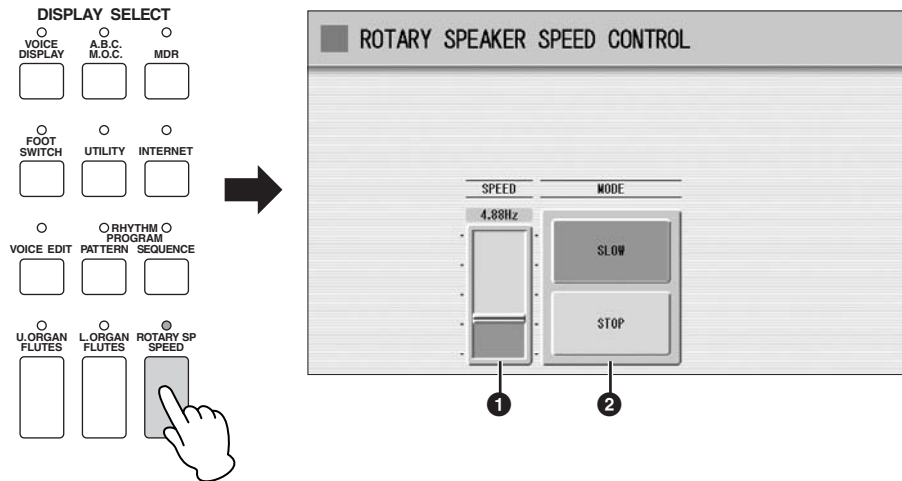
❶ SPEED

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

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.

6 Disable Mode

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 foot switch. This function is called "Registration Shift."

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

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.

Disable button

7   8   9   10   11   12   D.
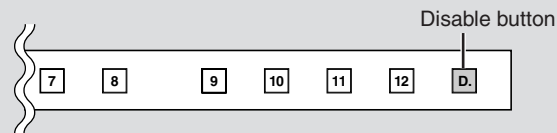
The particular settings that do not change when the [D.] (Disable) button is on depend on the Disable mode setting. For details on the Disable mode, see "Selecting Disable Mode" on page 53.

Selecting Disable Mode:

The Disable mode enables you to select what is to be disabled when the [D.] (Disable) button is on. There are two Disable modes: NORMAL (rhythm menu, tempo, etc. are disabled) and TEMPO (only tempo is disabled).

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

2 **Press the DISABLE MODE [NORMAL] or [TEMPO] button.**
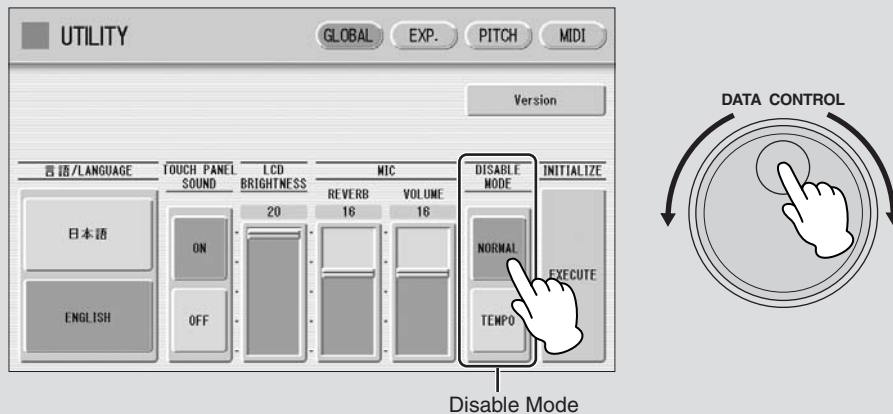
Disable Mode

NORMAL

When the Electone is set to the NORMAL mode and the [D.] (Disable) 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

TEMPO

When the Electone is set to the TEMPO mode and the [D.] (Disable) button is on, the rhythm tempo will not change, even when you change the Registration Memory number.

Voice Edit Display

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
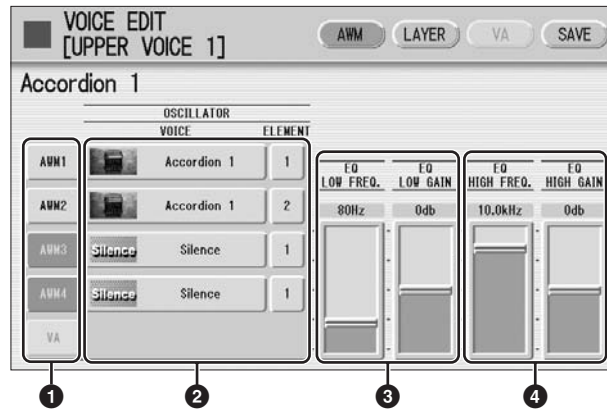
❶ Element On/Off switches

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 VOICE/ELEMENT

Indicates the Voice/Element currently being edited. For example, the screen above shows that Element 1 of Accordion 1 is assigned to AWM1, the Element 2 of Accordion 1 is assigned to AWM2 and no Voice is assigned to AWM3 and AWM4. 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 (usually Element 1). If you change Voice, the Element will automatically change to the first Element of the Voice (usually Element 1).

❸ 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.

❹ 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
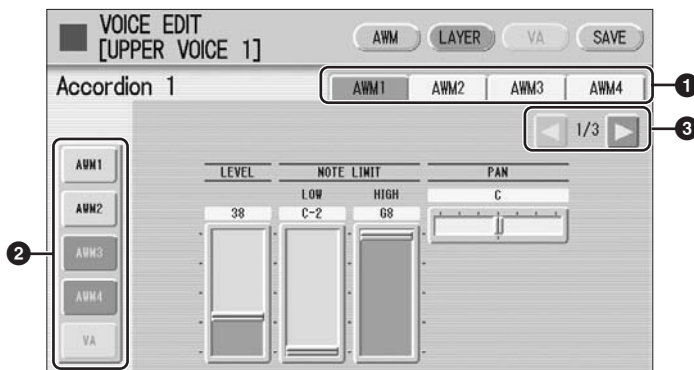
❶ Element select buttons
Select the Element you wish to edit.

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

These buttons switch the pages.
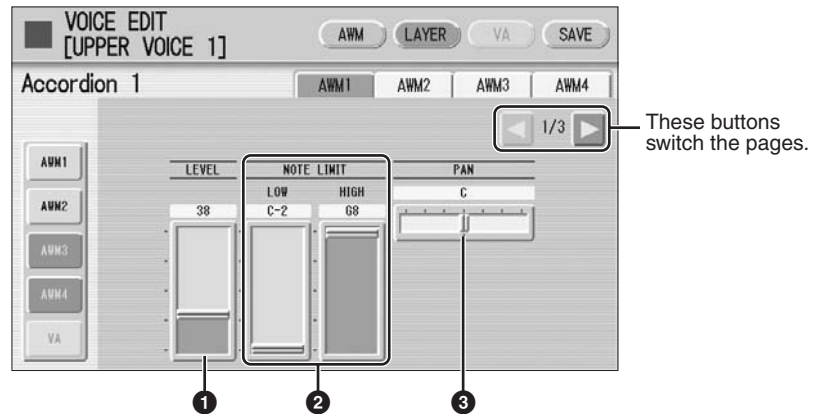
❶ LEVEL
Determines the output level of the Element.
Range: 0 – 127

❷ 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 – G-8

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

LAYER Page 2
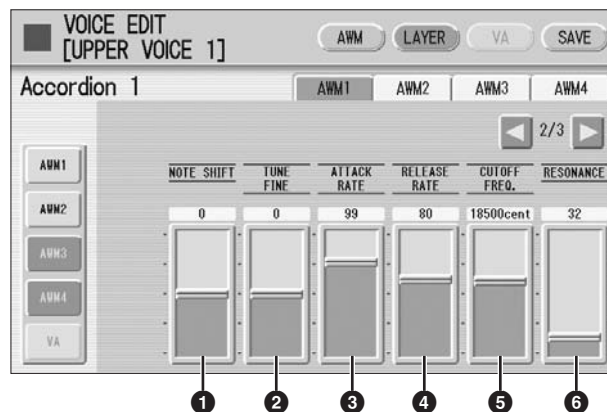
❶ NOTE SHIFT
Determines the pitch settings in semitones.
Range: -64 – +63

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

❸ ATTACK RATE

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

Reference Page

Envelope Parameters (page 60)

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.

These frequencies are passed by the filter.
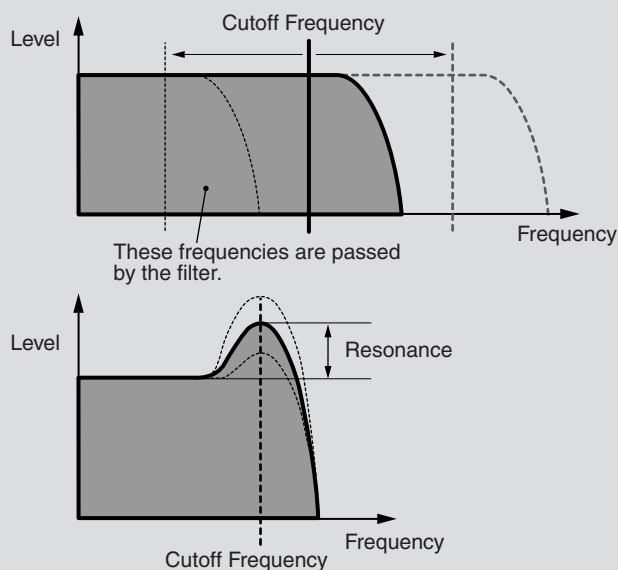
You can produce a relatively bright or darker sound by setting the cutoff frequency. Resonance is a parameter that boosts the level of the signal in the area of the cutoff frequency. By emphasizing the overtones in this area, this can produce a distinctive "peaky" tone.

LAYER Page 3
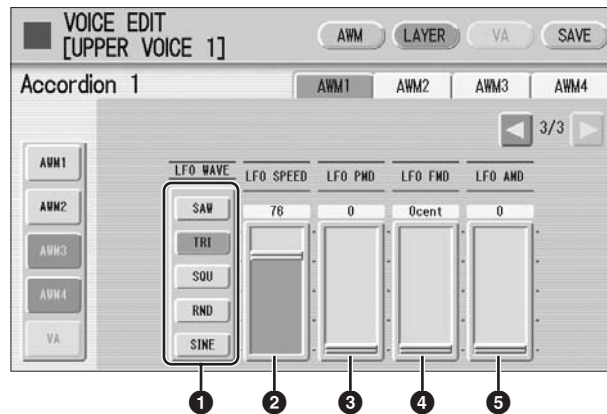
❶ LFO WAVE
Determines the LFO waveform used to vary the sound. For details, see page 59.

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

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.

saw

tri

squ

rnd

sine
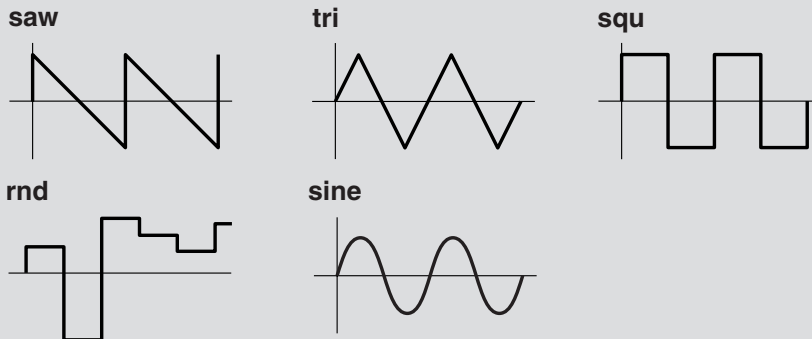
Editing a VA Voice (only for ELS-01C/01X)

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
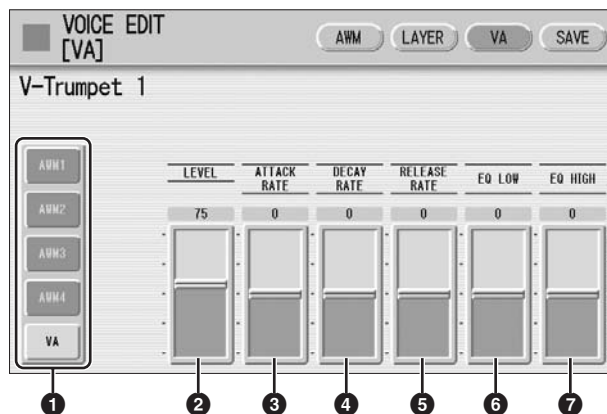
❶ Element On/Off switches

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 55.

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 55)

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 envelop 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-rated parameters.

MIDI Control Settings
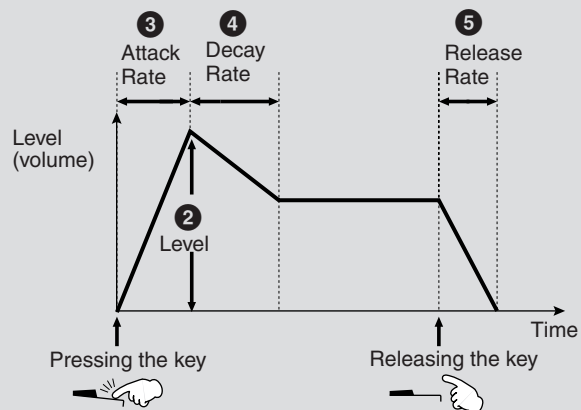
MIDI Control

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.**
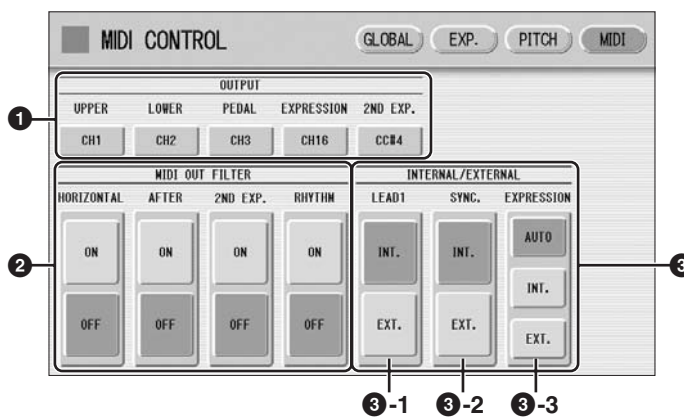
❶ OUTPUT

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), as well as the Expression pedal and 2nd Expression pedal. The MIDI messages for each keyboard and Expression pedal will be sent on the channels set here. You must set the transmit channel here to match the receive channel of the connected device. (The ELS-01 does not show the 2nd Expression pedal.)
Pressing each OUTPUT button calls up the channel selection pop-up menu.
After you select the desired channel, the pop-up menu automatically closes.

The Expression pedal and 2nd Expression pedal can be set to "OFF" (MIDI information will not be transmitted). On the 2nd Expression pedal, CC#4 by which MIDI information is output as Second Expression can be also set.

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/01X. Set the parameter for which you wish to disable transmission to ON.

NOTE
If you set Second Expression to on in the MIDI OUT FILTER parameters, the setting in the OUTPUT (❶) parameters will be disabled.

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.

To synchronize playback with an external MIDI device, you can use either the instrument's internal clock (int.) or MIDI clock signals from the external device (ext.).

INT. (Internal): The instrument uses its own internal clock.

EXT. (External): The instrument uses MIDI clock signals from the external device (MIDI).

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.)

Other Changes

Copy From/Copy To Display for Rhythm

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 copy source (Rhythm, Section, and Part)

Select the part for the copy destination

Press here to execute the copy
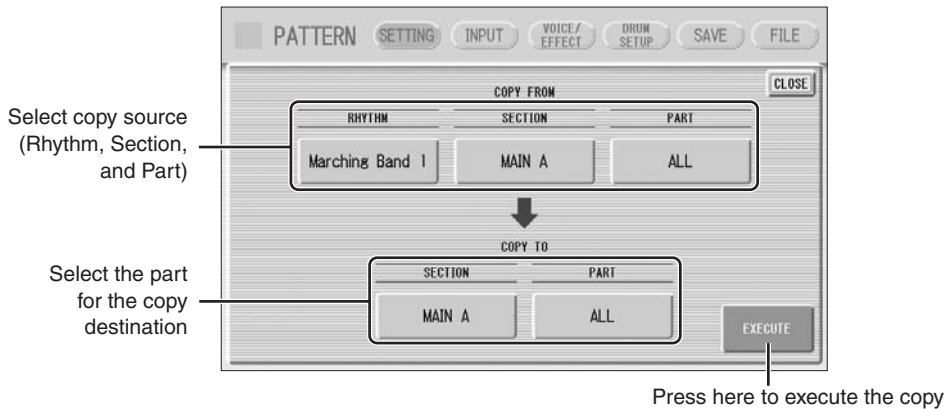
Select the copy source: Rhythm, Section and Part. Then select the destination. You can copy only one part, or all parts of a rhythm.

After setting the source and destination, press [EXECUTE]. Copy is executed and operation returns to the previous display.

You can also select a rhythm pattern currently being created as the COPY FROM RHYTHM.
To create a MAIN B section based on MAIN A, you can conveniently create that you create the MAIN A rhythm first and copy it to MAIN B, then edit the MAIN B rhythm.

To select the rhythm currently being created, select "Current Rhythm" on the 5th page of the "USER" category.

Creating Backing Patterns (Rhythmic Chord Function)

The Rhythm Pattern Program allows you to use one of the Electone's Accompaniment pattern 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.

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 FROM [PART] button, select the accompaniment part you want to copy.**

5 **Using the COPY TO [PART] button, select the desired accompaniment part (CHORD 1 or CHORD 2) to be used for the Rhythm Chord pattern.**

6 **Press the [EXECUTE] button to execute the copy.**

The desired accompaniment part (Rhythmic Chord pattern) has been copied.

Functions and settings that cannot be memorized:

Version 1.7 does not allow the following settings to be stored to a Registration Memory number.

The following settings cannot be stored to a Registration Memory number.
- Pitch
- MIDI Control settings
- Mic. Volume
- Mic. Reverb
- LCD related settings
- Internet Direct Connection settings
- Score related settings except Next Page

The following settings common to all Registration Memory numbers 1 – 16 and cannot be stored individually for each number.
- Transpose
- Attack mode in Organ Flute Voices
- Registration Shift
- Auto Fill setting
- Reverb type
- User Voices
- User rhythms
- User Keyboard Percussion
- Rhythm Sequences
- Disable setting
- Disable mode
- Next Page setting of score setting

Connecting USB storage devices or USB-LAN adaptor

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 adaptor for direct connection to the Internet.

Compatible USB devices

You can connect a single USB-LAN adaptor and up to four 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 adaptor 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/).

Reference Page

Formatting External Media (page 12)

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 three levels can be used; on the ELS-01C/01X, up to two levels can be used.

Precautions when using the USB TO DEVICE terminals

⚠
- Never plug/unplug the USB cable when the Electone is turned on. Doing so may result in the operation of the Electone "freezing" or hanging up.
- 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.

MIDI Data Format

1. Channel Messages

1.1 EL Mode

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/01X 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

Other Changes

Code (Hexadecimal)	Function	Receive	Transmit	Remarks
Bn, 78, 00	All Sound Off	5-14ch	✕	XG
Bn, 79, 00	Reset All Controllers			
Bn, 7B, 00	All Note Off			
Bn, 7C, 00	Omni Off			
Bn, 7D, 00	Omni On			
Bn, 7E, 00	Mono			
Bn, 7F, 00	Poly			
Cn, nn	Program Change	5-14ch	✕	XG
		16ch	16ch	Control
Dn, 00-7F	After Touch	1ch	(1ch)*	UK
		2ch	(2ch)*	LK
		3ch	(3ch)*	PEDAL
		(4ch)*		LEAD 1
		5-14ch		XG
En, 00-7F, 00-7F	Pitch Bend	1ch	(1ch)*	UK
		2ch	(2ch)*	LK
		(4ch)*	✕	LEAD 1
		✕	(1-16ch)*	2nd Expression (only ELS-01C/01X)
		5-14ch	✕	XG

* Can be changed in the MIDI settings (page 61).

** 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	Note On		(1ch)*	UK
9n, nn, 01-7F	Note Off		(2ch)*	LK
			(3ch)*	PEDAL
		1-16ch		
An, nn, 00-7F	Polyphonic After Touch	1-16ch	✕	
Bn, 00, 00-7F	Bank select	1-16ch	✕	
Bn, 20, 00-7F				
Bn, 01, 00-7F	Modulation		✕	
		1-16ch		
Bn, 04, 00-7F	2nd Expression	✕	16ch	Control
			(4ch)**	LEAD 1 (ELS-01C/01X only)
Bn, 05, 00-7F	Portamento Time	1-16ch	✕	
Bn, 06, 00-7F	Data Entry	1-16ch	✕	
Bn, 26, 00-7F				
Bn, 07, 00-7F	Volume	1-16ch	✕	
Bn, 0A, 00-7F	Pan	1-16ch	✕	
Bn, 0B, 00-7F	Expression		(16ch)*	Control
		1-16ch		
Bn,10, 00-7F	VA After Touch	✕	(1ch)*	UK (ELS-01C/01X 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	✕	

Code (Hexadecimal)	Function	Receive	Transmit	Remarks
Bn, 4D, 00-7F	Vibrato Depth	1-16ch	✕	
Bn, 4E, 00-7F	Vibrato Delay	1-16ch	✕	
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)* (1-16ch)* ✕	UK LK 2nd Expression (only ELS-01C/01X)

* Can be changed in the MIDI settings (page 61).
** Can be output when assigned to channel 4.

2. Realtime Messages

Code (Hexadecimal)	Function	Receive	Transmit	Remarks
F8	Clock	○*	○	
FA	Start	○	○	
FC	Stop	○	○	
FE	Active Sensing	○	○	
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	○	✕
F0, 7F, 7F, 04, 03, SS, TT, F7 XN	GM2 Master Fine Tuning	○	✕
F0, 7F, 7F, 04, 04, 00, TT, F7 XN	GM2 Master Coarse Tuning	○	✕

Other Changes

Code (Hexadecimal)	Message	Receive	Transmit
F0, 7F, 7F, 04, 05, 01, 01, 01, 01, 01, PP, VV, ..., F7 XN	GM2 Reverb Parameter	○	✕
F0, 7F, 7F, 04, 05, 01, 01, 01, 01, 02, PP, VV, ..., F7 XN	GM2 Chorus Parameter	○	✕
F0, 7F, 7F, 09, 01, 0n, PP, VV, ..., F7 XN	GM2 After Touch Parameter	○	✕
F0, 7F, 7F, 09, 03, 0n, CC, PP, VV, ..., F7 XN	GM2 Control Change Parameter	○	✕
F0, 7F, 7F, 0A, 01, 0n, KK, CC, PP, VV, ..., F7 XN	GM2 Key-Based Controller	○	✕

Universal Non-Realtime Messages

Code (Hexadecimal)	Message	Receive	Transmit
F0, 7E, 7F, 09, 01, F7 XN	GM ON	○	✕
F0, 7E, 7F, 09, 03, F7 XN	GM2 ON	○	✕
F0, 7E, 7F, 09, 02, F7 XN	GM OFF	○	✕
F0, 7E, 7F, 08, 08, JJ, GG, MM, ..data.., F7 XN	GM2 Scale/Octave Tuning	○	✕

XG Native

Code (Hexadecimal)	Message	Receive	Transmit
F0, 43, 1N, 4C, AH, AM, AL, ..data.., F7	XG Parameter Change	○	✕
F0, 43, 0N, 4C, BH, BL, AH, AM, AL, ..data.., cc, F7	XG Bulk Dump	○	✕
F0, 43, 1N, 27, 30, 00, 00, MM, LL, cc, F7	XG Master Tuning	○	✕

Clavinova Exclusive

Code (Hexadecimal)	Message	Receive	Transmit
F0, 43, 73, 01, 02, F7 03	Request for Internal Synch. Mode Request for External Synch. Mode	○ ○	✕ ✕

Message Exclusive

Code (Hexadecimal)	Message	Receive	Transmit
F0, 43, 60, 7A, F7	Rhythm Start	○	✕
F0, 43, 60, 7D, F7	Rhythm Stop	○	✕

Electone Exclusive

Code (Hexadecimal)	Message	Receive	Transmit
F0, 43, 70, ID, 00, F7	Model ID Data	✕	○
F0, 43, 70, 70, 30, F7	Request-to-Send Model ID Data	○	✕
F0, 43, 70, 70, 40, nn(*1), 7F, F7 00	Switch ON Switch OFF	○ ○	○ ○
F0, 43, 70, 70, 40, 50, TL, TH, F7	Tempo	○	○
F0, 43, 70, 78, 41, cc, dd, F7(*2)	Panel Switch Events	○	○
F0, 43, 70, 78, 42, 3C, ..data.., F7	Current Registration Data	○	○
F0, 43, 70, 78, 44, ..data..(*3), F7	MIDI Parameters	○	○
F0, 43, 70, 70, 70, nn(*4), F7	MDR	○	✕
F0, 43, 70, 70, 73, F7	EL ON	○	✕
F0, 43, 70, 70, 78, 00, 00, F7	Bar Signal	✕	○

✕: don't care   N: Device Number ("0" on ELS-01/01C/01X)   ID: Model ID (ELS-01C=4DH, ELS-01=4EH, ELS-01X=51H)

*1. Switches

nn	Switch	Receive	Transmit
45H	Left Footswitch	O	O
47H	Knee Lever	O	O

*2. Panel Switch Events

Selectors

MIDI Exclusive Format
F0, 43, 70, 78, 41, cc, dd, F7

cc	Switch	dd				Remarks
Code		Receive	Rx Range	Transmit	Tx Range	
0F	Registration Memory [1-16]	O	[00-0F]	×	-	

Volume

cc	Switch	dd				Remarks
Code		Receive	Rx Range	Transmit	Tx Range	
12	Upper Keyboard Voice 1 Volume	O	[00-7F]	O	[00-7F]	Volume Data 00:MAX, 7F:MIN
13	Lower Keyboard Voice 1 Volume	O	[00-7F]	O	[00-7F]	Volume Data 00:MAX, 7F:MIN
14	Upper Keyboard Voice 2 Volume	O	[00-7F]	O	[00-7F]	Volume Data 00:MAX, 7F:MIN
15	Lower Keyboard Voice 2 Volume	O	[00-7F]	O	[00-7F]	Volume Data 00:MAX, 7F:MIN
16	Lead Voice 1 Volume	O	[00-7F]	O	[00-7F]	Volume Data 00:MAX, 7F:MIN
17	Pedal Voice 1 Volume	O	[00-7F]	O	[00-7F]	Volume Data 00:MAX, 7F:MIN
18	Pedal Voice 2 Volume	O	[00-7F]	O	[00-7F]	Volume Data 00:MAX, 7F:MIN
19	Lead Voice 2 Volume	O	[00-7F]	O	[00-7F]	Volume Data 00:MAX, 7F:MIN
1A	Percussion Volume	O	[00-7F]	O	[00-7F]	Volume Data 00:MAX, 7F:MIN
1B	Reverb Depth	O	[00-7F]	O	[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]	O	[00-01]	O	[00-01]	00:OFF, 01:ON
31	Lower Organ Flute Voice [L. ORGAN FLUTES]	O	[00-01]	O	[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 ▼]	O	[00-01]	O	[00-01]	00:OFF, 01:ON
37	Pedal Voice 1 To Lower [TO LOWER ▲]	O	[00-01]	O	[00-01]	00:OFF, 01:ON
38	Pedal Voice 2 To Lower [TO LOWER ▲]	O	[00-01]	O	[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)]	O	[00-01]	O	[00-01]	00:OFF, 01:ON

Other Changes

Brilliance

cc Code	Switch	dd Receive	dd Rx Range	dd Transmit	dd Tx Range	Remarks
42	Upper Keyboard Voice 1 Brilliance	O	[00-06]	O	[00-06]	00:BRILLIANT, 06:MELLOW
43	Lower Keyboard Voice 1 Brilliance	O	[00-06]	O	[00-06]	00:BRILLIANT, 06:MELLOW
44	Upper Keyboard Voice 2 Brilliance	O	[00-06]	O	[00-06]	00:BRILLIANT, 06:MELLOW
45	Lower Keyboard Voice 2 Brilliance	O	[00-06]	O	[00-06]	00:BRILLIANT, 06:MELLOW
46	Lead Voice 1 Brilliance	O	[00-06]	O	[00-06]	00:BRILLIANT, 06:MELLOW
47	Pedal Voice 1 Brilliance	O	[00-06]	O	[00-06]	00:BRILLIANT, 06:MELLOW
48	Pedal Voice 2 Brilliance	O	[00-06]	O	[00-06]	00:BRILLIANT, 06:MELLOW
49	Lead Voice 2 Brilliance	O	[00-06]	O	[00-06]	00:BRILLIANT, 06:MELLOW

Sustain

cc Code	Switch	dd Receive	dd Rx Range	dd Transmit	dd Tx Range	Remarks
50	Upper Sustain [UPPER (KNEE)]	O	[00-01]	O	[00-01]	00:OFF, 01:ON
51	Lower Sustain [LOWER (KNEE)]	O	[00-01]	O	[00-01]	00:OFF, 01:ON
52	Pedal Sustain [PEDAL]	O	[00-01]	O	[00-01]	00:OFF, 01:ON

Solo Bar

cc Code	Switch	dd Receive	dd Rx Range	dd Transmit	dd Tx Range	Remarks
59	Solo Bar	O	[00-01]	X	-	00:OFF, 01:ON

Keyboard Percussion

cc Code	Switch	dd Receive	dd Rx Range	dd Transmit	dd Tx Range	Remarks
5B	Keyboard Percussion [1]	O	[00-01]	O	[00-01]	00:OFF, 01:ON
5C	Keyboard Percussion [2]	O	[00-01]	O	[00-01]	00:OFF, 01:ON

Disable

cc Code	Switch	dd Receive	dd Rx Range	dd Transmit	dd Tx Range	Remarks
5F	Disable [D.]	O	[00-01]	O	[00-01]	00:OFF, 01:ON

Rotary Speaker

cc Code	Switch	dd Receive	dd Rx Range	dd Transmit	dd Tx Range	Remarks
60	Rotary Speaker Speed [ROTARY SP SPEED]	O	[00-01]	O	[00-01]	00:OFF, 01:ON

Rhythm Sequence

cc Code	Switch	dd Receive	dd Rx Range	dd Transmit	dd Tx Range	Remarks
61	Sequence 1 [SEQ.1]	O	[00-01]	O	[00-01]	00:OFF, 01:ON
62	Sequence 2 [SEQ.2]	O	[00-01]	O	[00-01]	00:OFF, 01:ON
63	Sequence 3 [SEQ.3]	O	[00-01]	O	[00-01]	00:OFF, 01:ON
64	Sequence 4 [SEQ.4]	O	[00-01]	O	[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

Other Changes

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
10	00-07	63	1	00-7F	Sustain Length	7F:Hold 7E:Long 00:Short	○	00-7F	○	00-7F

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

Address			Size	Data	Parameter	Data	Receive	Rx Range	Transmit	Tx Range
hh	mm	ll								
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
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
11	00-01	41	2	0000-7F7F	Effect Parameter 1 MSB/LSB	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	42	2	0000-7F7F	Effect Parameter 2 MSB/LSB	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	43	2	0000-7F7F	Effect Parameter 3 MSB/LSB	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	44	2	0000-7F7F	Effect Parameter 4 MSB/LSB	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	45	2	0000-7F7F	Effect Parameter 5 MSB/LSB	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	46	2	0000-7F7F	Effect Parameter 6 MSB/LSB	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	47	2	0000-7F7F	Effect Parameter 7 MSB/LSB	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	48	2	0000-7F7F	Effect Parameter 8 MSB/LSB	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	49	2	0000-7F7F	Effect Parameter 9 MSB/LSB	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	4A	2	0000-7F7F	Effect Parameter 10 MSB/LSB	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	4B	2	0000-7F7F	Effect Parameter 11	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	4C	2	0000-7F7F	Effect Parameter 12	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	4D	2	0000-7F7F	Effect Parameter 13	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	4E	2	0000-7F7F	Effect Parameter 14	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	4F	2	0000-7F7F	Effect Parameter 15	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	50	2	0000-7F7F	Effect Parameter 16	0000-7F7F	○	0000-7F7F	○	0000-7F7F
11	00-01	63	1	00-7F	Sustain Length	7F:Hold 7E:Long 00:Short	○	00-7F	○	15-3D, 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	O	00-7F	X	-
12	00-02	01	1	00-7F	Length	00:Short 7F:Long	O	00-7F	X	-

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	O	00-7F	X	-
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	O	00-08	O	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	O	00-7F 00-7F	O	00-7F 00-7F
13	00	10	1	00-0B	Rhythm Selector Number	00-0B	O	00-0B	O	00-0B
13	00	11	1	00-7F	Percussion Volume	00:MIN 7F:MAX	O	00-7F	X	-
13	00	12	1	00-7F	Percussion Reverb (Send Level)	00:MIN 7F:MAX	O	00-7F	O	00-7F
13	00	13	1	00-7F	2nd Expression Tempo Control (On/Off)	00:OFF 01:ON	O	00-7F	O	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)
							O	00-7F	O	00-7F

13	00	15	1	00-7F	Add Drum (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	00	16	1	00-7F	Main Drum (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	00	17	1	00-7F	Chord 1 (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	00	18	1	00-7F	Chord 2 (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	00	19	1	00-7F	Pad (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	00	1A	1	00-7F	Phrase 1 (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	00	1B	1	00-7F	Phrase 2 (On/Off)	00:OFF 01:ON	O	00-7F	O	00-01
13	00	1C	1	00-7F	Auto Fill (On/Off)	00:OFF 01:ON	O	00-7F	O	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	○	00-7F	○	00-03
13	04	01	1	00-7F	M.O.C. Knee Lever Control (On/Off)	00:OFF 01:ON	○	00-7F	○	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	○	00-7F	○	00-01
13	05	01	1	00-7F	Intro 2 (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	05	02	1	00-7F	Intro 3 (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	05	08	1	00-7F	Main A (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	05	09	1	00-7F	Main B (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	05	0A	1	00-7F	Main C (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	05	0B	1	00-7F	Main D (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	05	18	1	00-7F	Break (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	05	20	1	00-7F	Ending 1 (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	05	21	1	00-7F	Ending 2 (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01
13	05	22	1	00-7F	Ending 3 (On/Off)	00:OFF 01:ON	○	00-7F	○	00-01

Other Changes

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	×	-
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
14	00	08	1	00-7F	MIDI Control Expression (INT/EXT)	00:Internal 01:External	O	00-7F	×	-
14	00	09	1	00-7F	MIDI Control Lead 1 (INT/EXT)	00:Internal 01:External	O	00-7F	×	-
14	00	0A	3	00-04 00-04 (00-03)* 00-0B	Registration Menu	00-04 00-04 (00-03) 00-0B	O	00-04 00-04 (00-03) 00-0B	O	00-04 00-04 (00-03) 00-0B
14	00	0B	1	00-01	Disable Mode	00:Normal 01:Tempo	O	00-01	O	00-01

*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	O	00-7F	×	-
14	01	01	1	00-7F	Reverb Time (Panel)	00:FAST 7F:SLOW	O	00-7F	O	00-45
14	01	02	3	00 00-7F 00-7F	Reverb Type (Panel)	00 00-7F 00-7F	O	00 00-7F 00-7F	O	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	O	00-7F	O	00-45
14	02	02	3	00 00-7F 00-7F	Reverb Type (Rhythm)	00 00-7F 00-7F	O	00 00-7F 00-7F	O	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	○	✕

Specifications

		Electone STAGEA ELS-01	Electone STAGEA ELS-01C	Electone STAGEA ELS-01X
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)		Upper: 61 keys (C – C), Lower: 61 keys (C – C), Pedal: 25 keys (C – C)
	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 1, 2 (KNEE), Lower 1, 2 (KNEE), Pedal 1,2		
	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	Electone STAGEA ELS-01X
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 1, 2/Lower 1, 2), 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.	Up, In, **Song Select:** Stop, Play, Pause, Rewind, Fast Forward, Record, Custom Play, Score, Setting (Tempo/Part), Registration Edit **Tools:** Create Folder, Change Song Name, Copy, Delete, Conversion (XG/EL/ELS format), Format, Information		
	Utility	Language (English/Japanese), Touch Panel Sound, LCD Brightness, Mic. (Reverb/Volume), Disable Mode (Normal/Tempo), 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)	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) Pedal unit: AUX OUT: L/R (Level Fixed, standard phone), L/R (XLR)
	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	1229 x 987 x 1017 (1276 with Music Rest) mm, 129.0 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		

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