Electone

EL-100

OWNER'S MANUAL

YAMAHA

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

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

⚠ WARNING

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

Power supply/Power cord

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

Do not open

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

Water warning

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

Fire warning

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

If you notice any abnormality

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

⚠ CAUTION

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

Power supply/Power cord

- When removing the electric plug from the instrument or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.
- Remove the electric plug from the outlet when the instrument is not to be used for extended periods of time, or during electrical storms.

- Do not connect the instrument to an electrical outlet using a multiple-connector. Doing so can result in lower sound quality, or possibly cause overheating in the outlet.

Assembly

- Read carefully the attached documentation explaining the assembly process. Failure to assemble the instrument in the proper sequence might result in damage to the instrument or even injury.

(1)B-7 1/2

Location

- Do not expose the instrument to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration or damage to the internal components.

- Do not use the instrument in the vicinity of a TV, radio, stereo equipment, mobile phone, or other electric devices. Otherwise, the instrument, TV, or radio may generate noise.

- Do not place the instrument in an unstable position where it might accidentally fall over.

- Before moving the instrument, remove all connected cables.

- Do not place the instrument against a wall (allow at least 3 cm/one-inch from the wall), since this can cause inadequate air circulation, and possibly result in the instrument overheating.

Connections

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

Maintenance

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

Handling caution

- Do not insert a finger or hand in any gaps on the instrument.

- Never insert or drop paper, metallic, or other objects into the gaps on the panel or keyboard. If this happens, turn off the power immediately and unplug the power cord from the AC outlet. Then have the instrument inspected by qualified Yamaha service personnel.

- Do not place vinyl, plastic or rubber objects on the instrument, since this might discolor the panel or keyboard.

- Do not rest your weight on, or place heavy objects on the instrument, and do not use excessive force on the buttons, switches or connectors.

- Do not operate the instrument for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss. If you experience any hearing loss or ringing in the ears, consult a physician.

Using the bench (If included)

- Do not place the bench in an unstable position where it might accidentally fall over.

- Do not play carelessly with or stand on the bench. Using it as a tool or step-ladder or for any other purpose might result in accident or injury.

- Only one person should sit on the bench at a time, in order to prevent the possibility of accident or injury.

- If the bench screws become loose due to extensive long-term use, tighten them periodically using the included tool.

Saving data

Saving and backing up your data

- All panel settings and Registration Memories are lost when you turn off the power to the instrument. If you want to keep the settings, save the data to a floppy disk (see page 67).

Backing up the floppy disk

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

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

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

Congratulations!

You are the proud owner of a fine electronic organ, Electone EL-100.

The Yamaha EL-100 Electone combines the most advanced AWM tone generation technology with state-of-the-art digital electronics and features to give you stunning sound quality with maximum musical enjoyment.

In order to make the most of the Electone and extensive performance potential, we urge you to read the manual thoroughly while trying out the various features described.

Keep the manual in a safe place for later reference.

Included Items

Owner's Manual
Music Stand
Dust Cover
Bench

> ⚠ Turning the Electone off erases all panel settings you have made. When the Electone is turned on, Basic Registration 1 is automatically selected.

GENERAL MIDI GM (General MIDI System Level 1) is an addition to the MIDI standard that ensures that any GM-compatible music data can be accurately played by any GM-compatible tone generator, regardless of maker.
The GM mark is affixed to all software and hardware products that support the General MIDI standard.

XG XG is a new MIDI format created by Yamaha that significantly improves and expands upon the General MIDI standard by providing a greater variety of high-quality voices plus considerably enhanced effect operation – while being fully compatible with GM.

Table of Contents

1   Quick Introductory Guide

2   Voice Sections

3   Voice Controls and Effects

4   Rhythm and Accompaniment

5   Registration Memory

6   Music Disk Recorder (M.D.R.)

7   Footswitches and Expression Pedal

8   Transpose and Pitch Controls

9   MIDI

10   Accessory Jacks and Controls

11   Appendix

Main Features

1 Astoundingly True-to-life Sounds

The new AWM (Advanced Wave Memory) tone generation technologies combined with authentic touch response make this Electone a truly expressive musical instrument.
You can enjoy playing a total of 173 AWM voices using the touch response function.

2 Wide Variety of High Quality Effects

Electone voices can also be enhanced with a full range of high-quality digital effects, ranging from Tremolo and Reverb to Flanger, Delay and Distortion. Stereo panning is independent of effect on/off status. (page 34)

3 Dynamic Rhythm Patterns and Programmable Percussion Sounds

The Rhythm section of the Electone features authentic drum and percussion sounds, used by expert rhythm programmers in creating a total of 66 rhythm patterns, ranging across all styles of music. (page 45)
The Keyboard Percussion function lets you play 120 different percussion sounds, each of which can be assigned onto any key. (page 56)

4 Convenient Registration Functions

The Basic Registrations let you instantly change the voices for playing any styles of music. (page 11)
Also, Registration Memory Function lets you set up and record your own Electone settings, and call up them in the middle of the performance. (page 67)

5 Versatile Functions of the Music Disk Recorder

The Electone also features a Music Disk Recorder (MDR) for recording your registrations and performances to a floppy disk. In addition, the MDR allows you to copy a song from a disk to another, duplicate a disk, and play commercially available XG song data. (page 73)

6 LCD for Systematic and Intuitive Operation

The systematic and intuitive LCD allows you to smoothly understand almost all the Electone operation.

Panel Layout

Music Stand

Upper Keyboard

Front Panel (pages 8-9)

Lower Keyboard

MIDI Jacks (page 104)

Jacks (page 104)

Right-Footswitch (page 69)

Left-Footswitch (page 97)

Speaker Unit

Expression Pedal (page 11)

Pedalboard

EL-100 Panel Layout

UPPER KEYBOARD VOICE
(page 17)

LEAD VOICE
(page 17)

PEDAL VOICE
(page 17)

DATA CONTROL
(page 14)

LCD Display
(page 13)

LOWER KEYBOARD
VOICE
(page 17)

REVERB
(page 40)

SUSTAIN
(page 41)

RHYTHM
(page 45)

KEYBOARD
PERCUSSION
(page 56)

TEMPO
(page 47)

BAR/BEAT
(page 47)

BAR/BEAT/TEMPO
(page 47)

RHYTHM
(page 46)

BASIC REGIST.
(page 11)

DISPLAY SELECT (page 15)

DISPLAY SELECT

VOICE DISPLAY · EFFECT SET · A.B.C. M.O.C.

A.B.C./M.O.C. Button (pages 52, 64)
EFFECT SET Button (page 34)
VOICE DISPLAY Button (page 20)

FOOT SW. · REGIST. SHIFT · PITCH MIDI · TREMOLO (FAST)

TREMOLO (FAST) Button (page 44)
PITCH/MIDI Button (pages 101, 102)
REGIST. SHIFT Button (page 69)
FOOT SW. Button (page 97)

PAGE (page 14)

M./TO DISK (page 67)

Registration Memory (page 67)

D. (Disable) (page 68)

DATA CONTROL

PAGE

DISPLAY SELECT
VOICE DISPLAY · EFFECT SET · A.B.C. M.O.C.

FOOT SW. · REGIST. SHIFT · PITCH MIDI · TREMOLO (FAST)

REGISTRATION MEMORY

M. / TO DISK   1 2 3 4 5 6 7 8   D.

MASTER VOLUME

s1圓Violin1
s1圓ContBs.1

MASTER VOLUME (page 11)

RECORD   PLAY
UPPER LOWER PEDAL CONTROL UPPER LOWER PEDAL CONTROL   SHIFT
SONG REPEAT   FROM — SONG COPY — TO   SONG DEL.
PAUSE STOP PLAY SONG SELECT RECORD CUSTOM PLAY
‖   ■   ▶   ◀◀ — TEMPO + ▶▶   ● FORMAT
MUSIC DISK RECORDER
01

MUSIC DISK RECORDER (page 73)

POWER

POWER (page 10)

Floppy Disk Slot

LED (Lamp in-use)   Eject

9

1   Getting Started

1 Plug the power cord in to an appropriate electrical outlet.

⚠

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

2 Turn on the Electone by pressing the POWER switch.

POWER
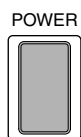
When you turn on the Electone, the following displays will appear one after the other on the LCD display:

```
        YAMAHA
        Electone
```

⬇

```
▉▉Strings1▉Violin1 ▉
▉▉Strings1▉▉ContBs.1
```
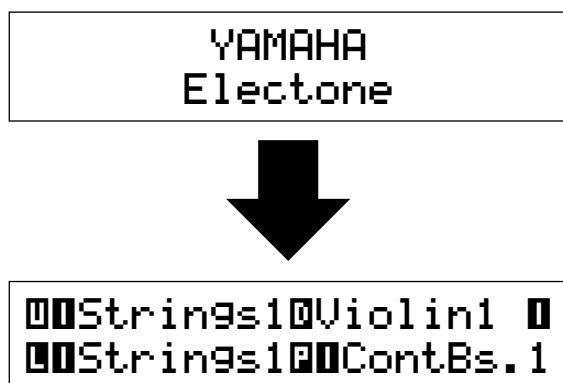
This last display, Voice Display, shows you the currently assigned voice settings for each voice section.

When the Electone is turned on, Basic Registration 1 is automatically selected.

3 Set the MASTER VOLUME control.
The MASTER VOLUME control is an overall control which affects the volume of the entire instrument.
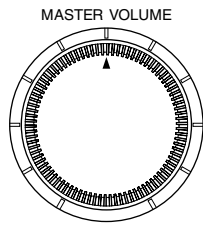
MASTER VOLUME

4 Press the Expression pedal down with your foot.
Once you have set the MASTER VOLUME control to a suitable level, you can use the Expression pedal to change the volume with your foot as you play.

Louder   **Softer**
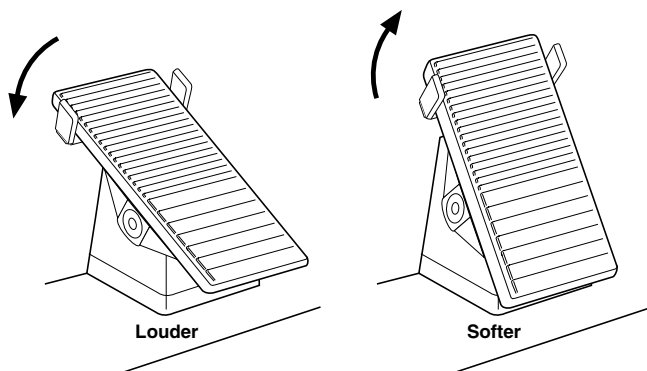
2 Basic Registrations

"Registration" indicates a panel setting including upper keyboard voices, lower keyboard voices, pedal voices, a rhythm and so on. The Basic Registration section has five factory preset registrations, each with a different set of voices for Upper/Lower keyboards and Pedalboard and each specially suited for playing in a different music style.

To select Basic Registrations:

Press the BASIC REGIST. buttons to select each Basic Registration.
When you turn the power on, the Electone automatically selects Basic Registration 1.

	Basic Registration 1	Basic Registration 2	Basic Registration 3	Basic Registration 4	Basic Registration 5
Upper Keyboard Voice	Strings 1	Brass 1	Flute 1	Cosmic 1	Synth. Brass 1
Lower Keyboard Voice	Strings 1	Horn1	Piano 1	Cosmic 2	Cosmic 3
Pedal Voice	Contra Bass1	Tuba	Contra Bass 1	Cosmic 2	Synth. Bass 1

BASIC REGIST.

NOTE:

Additional basic registrations are preset on the Registration Memory locations from 1 to 8. See page 67 for the details.

Turning the Electone off erases all panel settings you have made. When the Electone is turned on, Basic Registration 1 is automatically selected.

3 Basic Operation

Registration Set-up

Select the keyboard
to play

↓

Select the voice
(Voice Menu)

Select the rhythm
(Rhythm Menu)

↓ ↓

Finely adjust the voice
(Voice Condition)

Finely adjust the rhythm
(Rhythm Condition)

↓

Add effects
(Effect Set)

* The Controls and Effects may
  be applied differently depending
  on the selected type of Controls
  and Effects. See page 29 for
  more information.

↓

Add reverb

↓

Adjust the total volume
(Master Volume)

Setting Registration
Shift/Footswitch

Loading the
registration data

Saving the
registration data

↓

Playing Electone

Expression Pedal

Recording the performance →

Music Disk Recorder

← Playing back

4 LCD DISPLAY

This section introduces you the convenient control functions of the LCD display. The LCD display lets you see at a glance the current settings and provides easy-to-understand graphic representation of all parameters.

Selecting a voice/rhythm

1 Press the panel voice/rhythm button which you want to use (For example, press the STRINGS button in the Upper Keyboard Voice section).

UPPER KEYBOARD VOICE
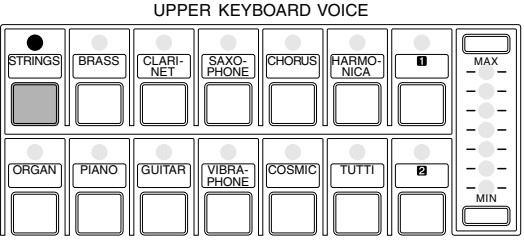
The following display will appear, showing all the available voices/ rhythms in the category (Strings Category in this case).


```
Strings1  Strings2
Pizz.Strs Syn.Strs1
```
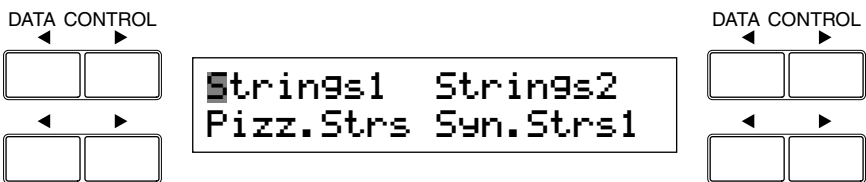
2 Press the Data Control button corresponding to the voice you want to play (Strings 2 in this case).


```
Strings1  Strings2
Pizz.Strs Syn.Strs1
```
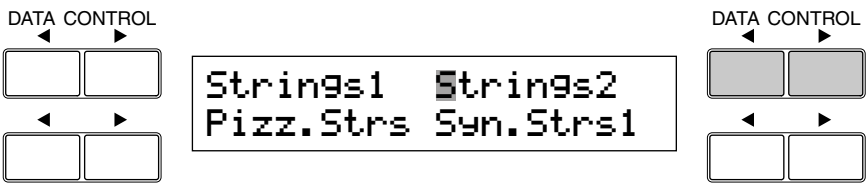
The first letter of the selected voice/rhythm will start blinking.
For more information on the Voice Menu list see page 23.

Function of the Data Control Buttons

DATA CONTROL ◄ ►

```
Strings1  Strings2
Pizz.Strs Syn.Strs1
```

DATA CONTROL ◄ ►

❶

❷

DATA CONTROL ◄ ►

```
VOL.:24    PAN:C   ▥1▤
           REVERB:24
```

DATA CONTROL ◄ ►

❷

DATA CONTROL ◄ ►

```
EFFECT:SYMPHONIC ▥1▤
■SYMPHONIC □CELESTE
```

DATA CONTROL ◄ ►

❸

❸

DATA CONTROL ◄ ►

```
<R.SHIFT>[INS][DEL]▤
T................
```

Cursor

DATA CONTROL ◄ ►

❹

❹
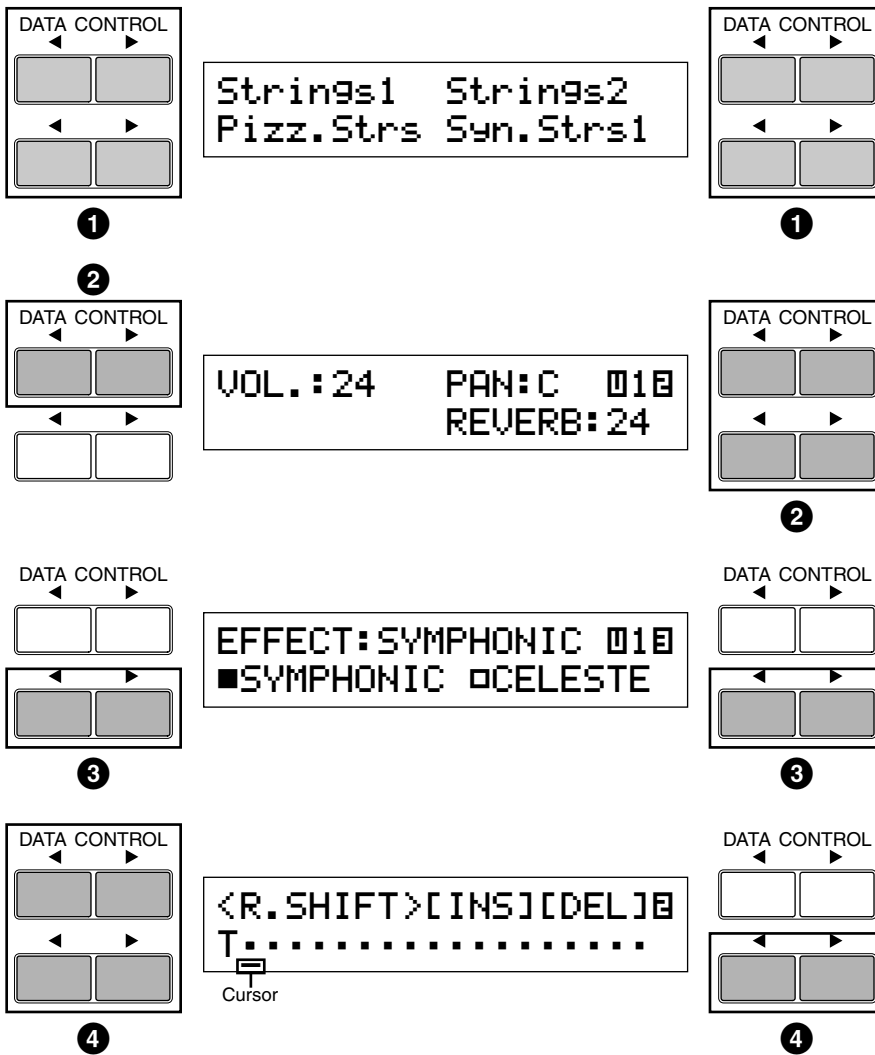
The Data Control buttons are used to select ❶ a voice/rhythm or function shown on the display. Each pair of buttons corresponding to the section of the display directly above it increases/decreases ❷ the value or chooses ❸ a setting/function. When you are setting the Registration Shift, each of them moves the cursor ❹ to the right/left.

Using Page Buttons

DATA CONTROL ◄ ►

pages

```
▥▤Strings1▥Violin1 ▣
▤▤Strings1▣▤ContBs.1
```

DATA CONTROL ◄ ►

PAGE ◄ ►

❺
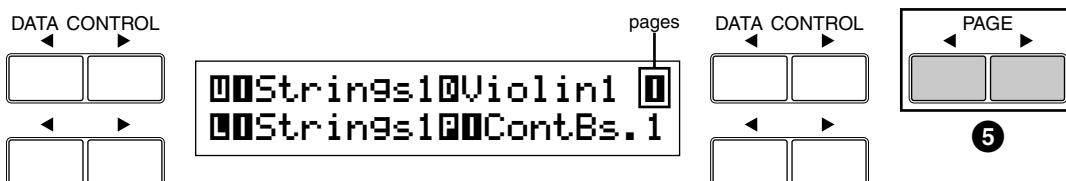
These buttons ❺ are used to select (when available) the various 'pages' of the display, the names of which appear at the top right of the LCD. Use Page ► to select the next page, and Page ◄ to select the previous page.

Summary of the LCD Operation

The following chart gives you a general view of the basic operations on the Electone.

1. To call up the LCD display

1) Pressing Panel Buttons

● Selecting voices or setting up the Voice Condition
● Selecting rhythms or setting up the Rhythm Condition
● Setting the Reverb effect
● Setting the Sustain
● Setting the User Keyboard Percussion

2) Pressing a Display Select button

● Displaying Voice Display (Manual Balance)
● Setting effects
● Setting A.B.C./M.O.C.
● Setting the Left-Footswitch
● Setting Registration Shift (Right-Footswitch)
● Setting Pitch and Transpose
● Setting MIDI
● Selecting and setting Tremolo/Chorus

LCD display

2. To Select Pages

Selecting the page you want to use with the Page buttons

3. To Actually Change the Settings

Using the Data Control buttons to:

● Select voices/rhythms/effects

● Turn on/off the Accompaniment and A.B.C. Memory

● Adjust Initial Touch and Reverb depth

● Move the pan position and cursor position
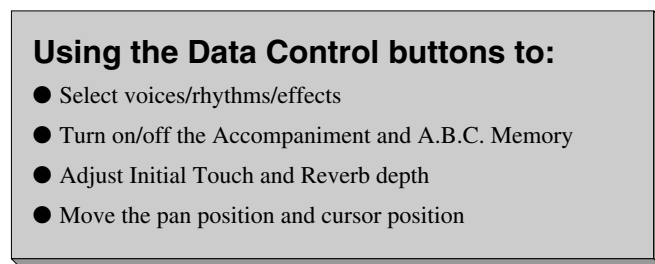
Language on the LCD

LCD display can be shown in two languages, English and Japanese.

How to select the language:

1. Press the VOICE DISPLAY button in the DISPLAY SELECT section.
The page 1 will be displayed.

```
                    DISPLAY SELECT
                  VOICE   EFFECT   A.B.C.
                 DISPLAY   SET     M.O.C.

                 FOOT    REGIST.  PITCH  TREMOLO
                 SW.     SHIFT    MIDI   (FAST)
DATA CONTROL                                        DATA CONTROL
  ◄    ►                                               ◄    ►

  ◄    ►        ▯▮Strings1▯Violin1 ▮                   ◄    ►
               ▮▯Strings1▯▮ContBs.1
```
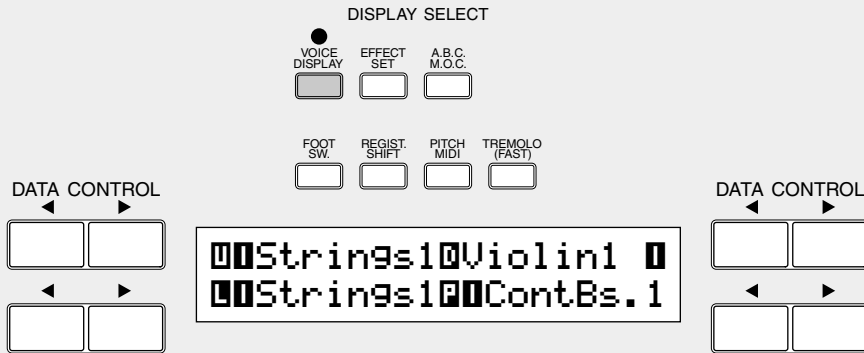
2. Press the PAGE button to select the page 3.

```
DATA CONTROL                                  DATA CONTROL        PAGE
  ◄    ►                                        ◄    ►          ◄    ►

  ◄    ►       〈ﾋｮｳｼﾞ/Display〉      日         ◄    ►
               ﾛﾆ ﾎﾝｺﾞ     ■English
```
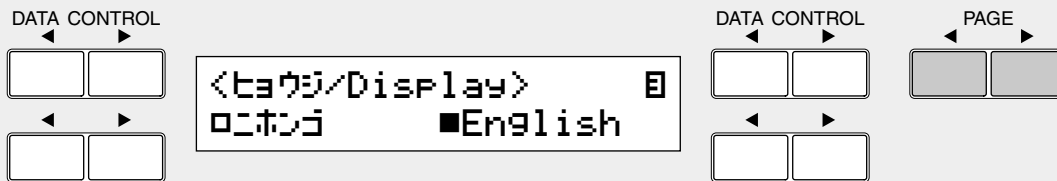
3. Pressing each pair of Page buttons at the bottom select the language: the
right ones select English and the left ones select Japanese.

```
DATA CONTROL                                  DATA CONTROL
  ◄    ►                                        ◄    ►

  ◄    ►       〈ﾋｮｳｼﾞ/Display〉      日         ◄    ►
               ﾛﾆ ﾎﾝｺﾞ     ■English
```

2 Voice Sections

The EL-100 features 173 different high quality AWM voices. Each of the AWM voices can be used on the Upper keyboard, Lower keyboard and Pedalboard. There are two voice sections for the Upper keyboard, one voice section for the Lower keyboard and Pedalboard, respectively.

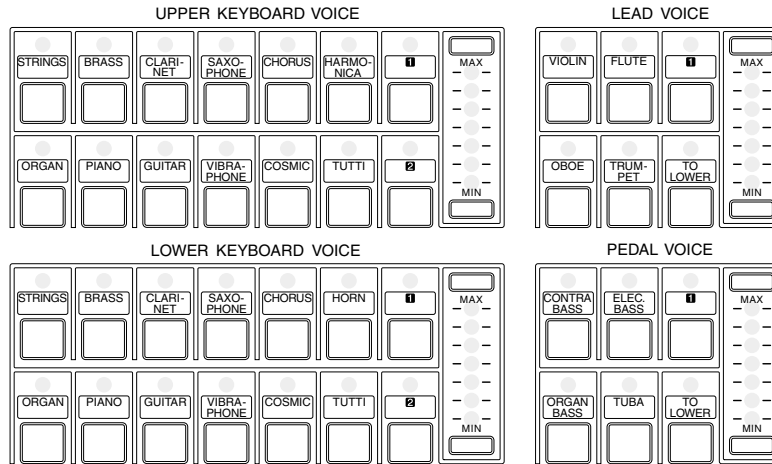Each voice section can, of course, have its own Voice Condition page(s), which allow you to finely set up voice and volume settings.

---

1 Voice Display

You can visually confirm the voice assignments to each keyboard.

Pressing the VOICE DISPLAY button in the DISPLAY SELECT section selects the Voice Display. (The Voice Display always appears when the Electone is turned on.)
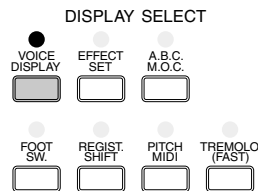
The Voice Display is configured with three pages. Each page can be selected using the Page buttons.

Page 1 and 2 show the currently assigned voice settings for each voice section, as well as the overall balance between the Upper and Lower voices.

(page 1)

(page 2)

DATA CONTROL   UPPER KEYBOARD VOICE 2   Volume Balance between UPPER and LOWER (Page 20)   DATA CONTROL   PAGE

```
UＢStrings1 M.BAL: 0Ｂ
LＢStrings1 PＢContBs.1
```

LOWER KEYBOARD VOICE 2   PEDAL VOICE 2

NOTE:

For more information on the volume balance between the Upper Keyboard and the Lower Keyboard see page 20.

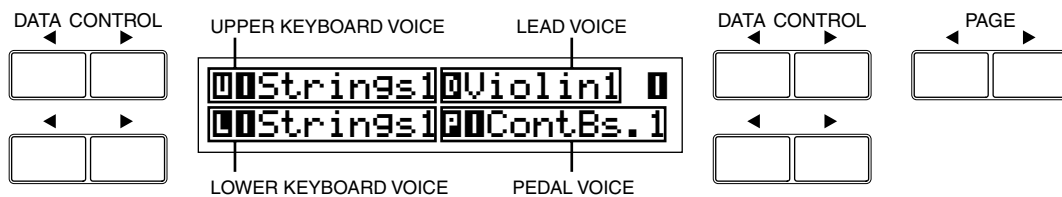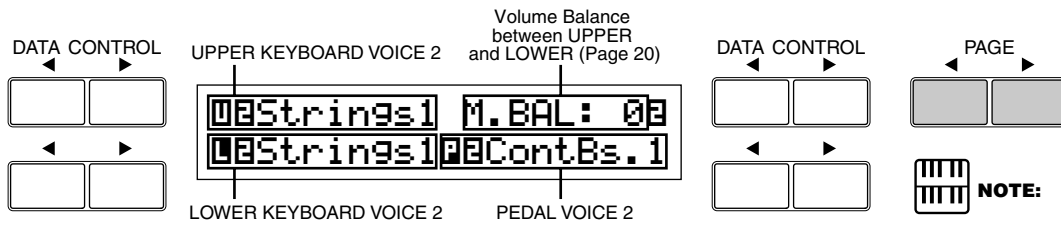In addition to the four panel voice groups such as Upper Keyboard Voice, Lower Keyboard Voice, Pedal Voice and Lead Voice, the EL-100 has three "hidden" voice groups, Upper Keyboard Voice 2, Lower Keyboard Voice 2, Pedal Voice 2. These three voice groups are displayed on page 2 of the Voice Display screen. This fact indicates the EL-100 owns the same voice group numbers as those of the upper models like EL-500. Accordingly, the EL-100 can play back the registrations created with the upper models like EL-500. You can change the settings of each "hidden" voice group as you do with the panel voice groups. See page 27 for the details.

You can select the language shown on the LCD display on page 3 of the Voice Display (page 16).

DATA CONTROL   DATA CONTROL   PAGE

```
<ﾋョｳｼﾞ/Display>      ⊟
ﾛﾆ ﾎﾝｺﾞ      ■English
```
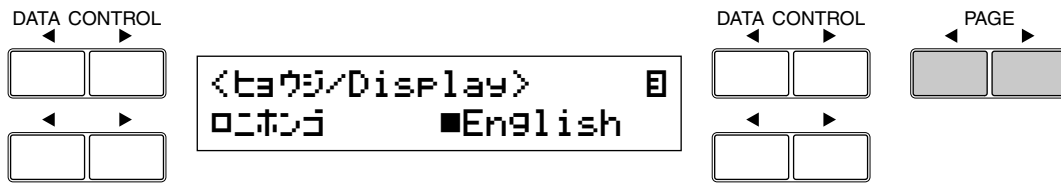
2 Selecting Voices from the Panel

Since selection of panel voices follows the same procedure throughout the various sections, instructions for only the Upper Keyboard Voice are given here.

1 Select a voice from the Upper Keyboard Voice section by pressing one of the Voice buttons in that section.
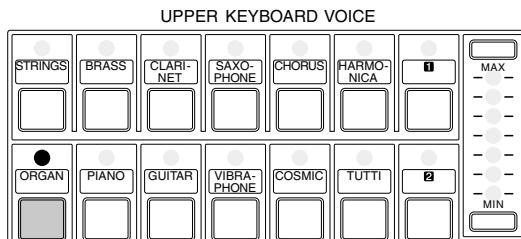
UPPER KEYBOARD VOICE

| STRINGS | BRASS | CLARI-NET | SAXO-PHONE | CHORUS | HARMO-NICA | 1 | MAX |
| ORGAN | PIANO | GUITAR | VIBRA-PHONE | COSMIC | TUTTI | 2 | MIN |

If, for example, you have selected the ORGAN voice, the following display (Voice Menu) will appear:

DATA CONTROL   DATA CONTROL

```
Ｏrgan1      JazzOrgan1
PopOrgan1  Accordion
```
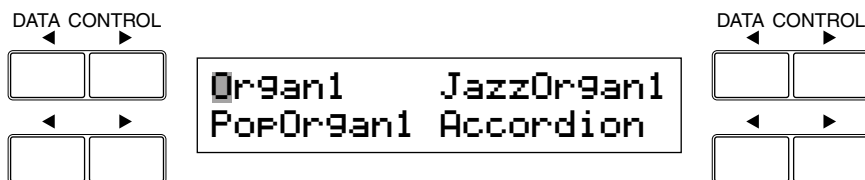
Notice that several different voice names are shown on this display. These are variations of the basic organ voice category.

2 Press one of the Data Control buttons that corresponds to the voice you wish to select. (Pop Organ 1, in this case)

DATA CONTROL ◄ ►   DATA CONTROL ◄ ►

```
Organ1     JazzOrgan1
PopOrgan1 Accordion
```
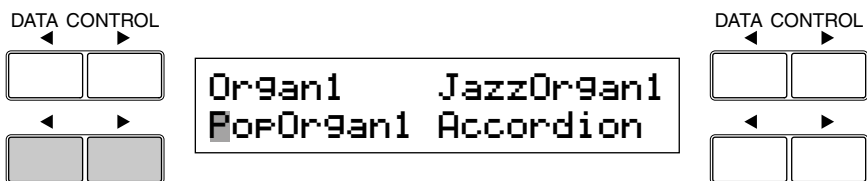
The first letter of the selected voice will start blinking. You have selected Pop Organ 1 for the Upper Keyboard Voice.

3 If you wish to, you can select voices from Lead Voice, Lower Keyboard Voice and Pedal Voice sections, following steps #1 and #2 above.

4 Set the volume for each voice section.
There are two volume controls:

Coarse:

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

UPPER KEYBOARD VOICE

| STRINGS | BRASS | CLARI-NET | SAXO-PHONE | CHORUS | HARMO-NICA | 1 | MAX |
| ORGAN | PIANO | GUITAR | VIBRA-PHONE | COSMIC | TUTTI | 2 | MIN |
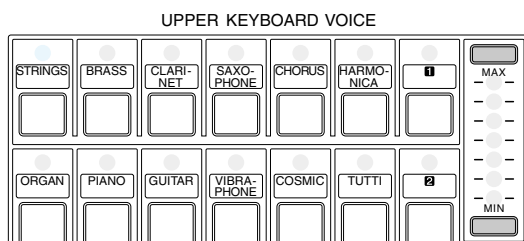
Fine:

Pressing the same panel voice button again (or the same Data Control button corresponding to the selected voice) calls up the Voice Condition display. Use the Page buttons to select page 2, which contains Volume setting.

DATA CONTROL ◄ ►   DATA CONTROL ◄ ►   PAGE ◄ ►

```
INIT.T: 8      01
          FEET:PRESET
```

Voice Sections

Use the top left side Data Control button pair to change the level of the desired voice. Fine volume settings, 0-24, are available.

DATA CONTROL
◄ ►

```
VOL.:24    PAN:C   018
           REVERB:24
```

DATA CONTROL
◄ ►

◄ ►

◄ ►

NOTE:

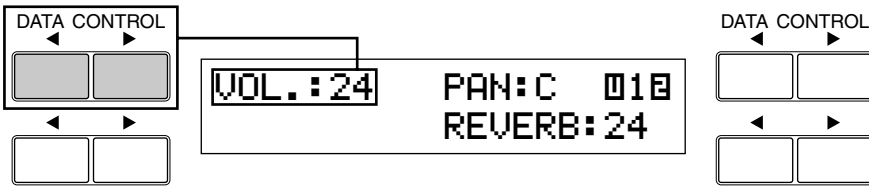Pressing a voice button once calls up that voice's Voice Menu display. Pressing it a second time calls up the Voice Condition display. Successive presses alternate between the two displays.


NOTE:

The Lead and Pedal Voices sound one note at a time; when you simultaneously press two or more keys, only the highest note will sound.

5 Now select voices for the Lower keyboard and Pedalboard as you did for the Upper keyboard above. Also set the volumes of the voices.

6 Adjust the volume balance between the Upper and Lower Voices with the Balance Control provided on the Voice Display.

To adjust the volume balance:

1. Press the VOICE DISPLAY button in the DISPLAY SELECT section. The Voice Display always appears when the Electone is turned on.

DISPLAY SELECT

● ●
VOICE   EFFECT   A.B.C.
DISPLAY   SET   M.O.C.

FOOT   REGIST.   PITCH   TREMOLO
SW.   SHIFT   MIDI   (FAST)
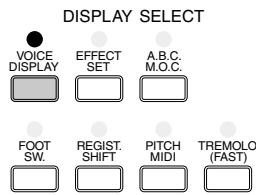
2. Select page 2 of the Voice Display using Page buttons at the right side of the LCD display.

DATA CONTROL
◄ ►

◄ ►

```
U Strings1 Violin1
L Strings1 P ContBs.1
```

DATA CONTROL
◄ ►

◄ ►

PAGE
◄ ►
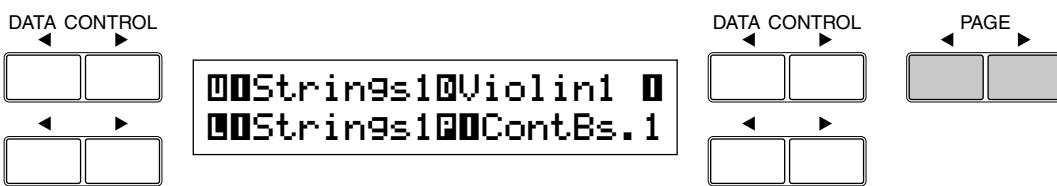
3. Adjust the balance with the corresponding Data Control buttons, at the top right side. The positive values increase the Upper Keyboard volume, while the negative values lower it, or increase the Lower Keyboard volume. Range: -6 - +6
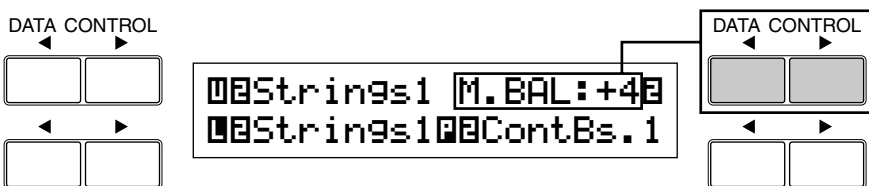
DATA CONTROL
◄ ►

◄ ►

```
U Strings1 M.BAL:+4
L Strings1 P ContBs.1
```

DATA CONTROL
◄ ►

◄ ►

NOTE:

Pressing this pair of Data Control buttons at the same time restores the balance to the center position.

About TO LOWER - Playing (Upper) Lead Voice and Pedal Voice from the Lower keyboard:

The Electone has a special 'To Lower' function that lets you assign Lead or Bass voices to the Lower keyboard. Simply press the TO LOWER button on the voice section you wish to assign, and that voice will be playable from the Lower keyboard.

⚠

When the TO LOWER button is turned on, the Lead voices and Pedal voices cannot be played on the Upper keyboard and Pedalboard, respectively.

LEAD VOICE

| VIOLIN | FLUTE | 1 | MAX |
| OBOE | TRUM-PET | TO LOWER | MIN |

PEDAL VOICE

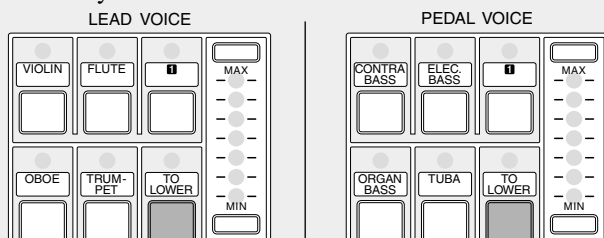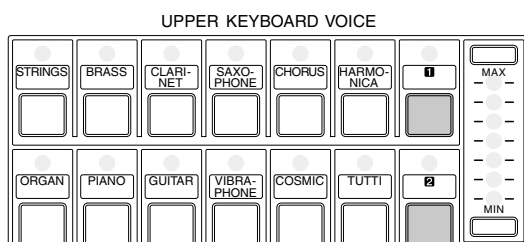| CONTRA BASS | ELEC. BASS | 1 | MAX |
| ORGAN BASS | TUBA | TO LOWER | MIN |

⚠

Turning the Electone off erases all panel settings you have made. When the Electone is turned on, Basic Registration 1 is automatically selected. If you have made panel settings you wish to keep, save them to the floppy disk before turning the Electone off. See page 68 for more information.

---

3 | Selecting Voices from the Dotted Buttons

The EL-100 has a wide variety of voices from which you can choose – far greater than what is immediately apparent from the front panel controls. You've already learned in the section above how to select the different voices that are available in the Voice Menu display of each panel voice.

The Electone also has dotted buttons in each voice section, giving you access to even more voices. These dotted buttons function as 'wild card' Voice Menu selectors; any internal voices can be selected from these buttons.

UPPER KEYBOARD VOICE

| STRINGS | BRASS | CLARI-NET | SAXO-PHONE | CHORUS | HARMO-NICA | 1 | MAX |
| ORGAN | PIANO | GUITAR | VIBRA-PHONE | COSMIC | TUTTI | 2 | MIN |

The dotted buttons have two basic uses:

● For playing any voice of the Voice Menus from any of the keyboards or Pedalboard. You can play on the Upper keyboard, for example, voices from the twenty-two Voice Menu pages (including User), and not be limited to only the twelve buttons (equivalent to twelve Voice Menu pages) that make up the Upper Voice section. Another advantage to this feature is that when the normally monophonic (one note) Lead and Pedal voices are assigned to the Upper or Lower keyboard Voice sections, they can be played polyphonically.

● For having three different voices from the same Voice Menu page available for selection in the same song. For example, you can assign one of the voices to a dotted button in the Upper Keyboard Voice section, the second voice to the other dotted button in the same section, and the third one on the Voice Menu.

To select voices from the dotted buttons:

1 Press one of the dotted buttons in any of the voice sections.
Select Honky Tonk piano, for example, to the Dotted button 1 in Upper Keyboard Voice.

UPPER KEYBOARD VOICE

| STRINGS | BRASS | CLARI-NET | SAXO-PHONE | CHORUS | HARMO-NICA | ● 1 | MAX |
| ORGAN | PIANO | GUITAR | VIBRA-PHONE | COSMIC | TUTTI | 2 | MIN |
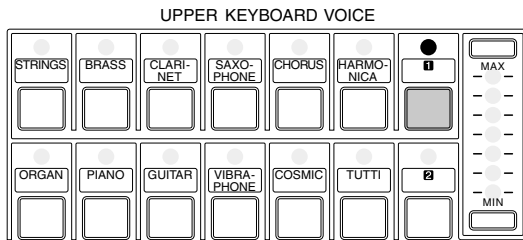
STRINGS, Voice Menu 1, appears.

DATA CONTROL ◄ ► ◄ ►

```
<STRINGS>        1
 01:Strings1
```

DATA CONTROL ◄ ► ◄ ►
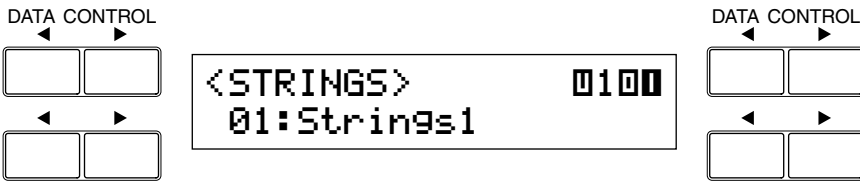
2 Select one of the pages with the Page buttons, and choose a Voice Menu. (PIANO, page 17, in this case)

DATA CONTROL ◄ ► ◄ ►

```
<PIANO>          1
 01:Piano1
```
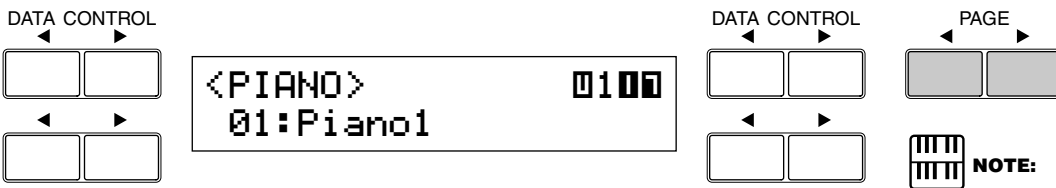
DATA CONTROL ◄ ► ◄ ►

PAGE ◄ ►

NOTE:

You can directly view and select Voice Menu pages by holding down one of the Dotted buttons and simultaneously pressing the desired voice buttons in succession.

3 Select 03: Honky Tonk piano voice using the Data Control buttons.

DATA CONTROL ◄ ► ◄ ►

```
<PIANO>          1
 03:Honky Tonk
```

DATA CONTROL ◄ ► ◄ ►
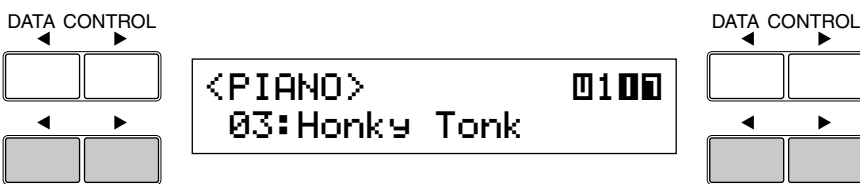
You have selected Honky Tonk for the Upper Keyboard Voice.

About User voices:

Page 22 is "User" area. Although EL-100 cannot exactly play back the user voices created with the upper models like EL-900, the automatic conversion function allows your EL-100 play back the voices fairly close to the original sounds. However, some voices may not be reproduced properly.

DATA CONTROL ◄ ► ◄ ►

```
<USER VOICE>     1
 01:******
```

DATA CONTROL ◄ ► ◄ ►

4 Voice Menus

The following chart lists the voices that are shown by pressing the panel voice buttons. The other voices that are only available when using the Dotted buttons are shown on pages 24 - 26.

STRINGS Upper/Lower

```
Strings1   Strings2
Pizz.Strs  Syn.Strs1
```

VIOLIN Lead

```
Violin1    Violin2
Cello      PizzViolin
```

CONTRABASS Pedal

```
ContBass1  ContBass2
Pizz.Bass  UprghtBass
```

BRASS Upper/Lower

```
Brass1     Brass2
Brass3     Syn.Brass1
```

HORN Lower

```
Horn1      Horn2
Horn3      Muted Horn
```

TRUMPET Lead

```
Trumpet1   Trumpet2
Trombone1  Muted Trp
```

TUBA Pedal

```
Tuba       Timpani
Timp.Roll
```

FLUTE Lead

```
Flute1     Piccolo
Recorder   Whistle
```

OBOE Lead

```
Oboe1      Oboe2
Bassoon1   EnglshHorn
```

CLARINET Upper/Lower

```
Clarinet1  Clarinet2
Bass Cla.  Syn.Cla.1
```

SAXOPHONE Upper/Lower

```
Saxophon1  Saxophon2
Sopra.Sax  Syn.Lead1
```

TUTTI Upper/Lower

```
Tutti1     Tutti2
Tutti3     Tutti4
```

CHORUS Upper/Lower

```
Chorus1    Chorus2
Chorus3    Vocal
```

HARMONICA Upper

```
Harmoni.1  Harmoni.2
```

ORGAN Upper/Lower

```
Organ1     JazzOrgan1
PopOrgan1  Accordion
```

ORGAN BASS Pedal

```
Org.Bass1  Org.Bass2
Org.Bass3  Org.Bass4
```

PIANO Upper/Lower

```
Piano1     E.Piano1
E.Piano2   Harpsi.
```

GUITAR Upper/Lower

```
Guitar1    Guitar2
ElecGtr.1  Harp
```

VIBRAPHONE Upper/Lower

```
Vibrphone  Glocken.
Marimba    Syn.Chime
```

ELECTRIC BASS Pedal

```
ElecBass1  ElecBass2
Syn.Bass1  Syn.Bass2
```

COSMIC Upper/Lower

```
Cosmic1    Cosmic2
Cosmic3    Cosmic4
```

USER VOICE Upper/Lower/Pedal

```
<USER VOICE>
 01:******
```

The details for each voice such as octave (feet) setting and effect on/off status are shown in the list on pages 24 - 26.

Details on All Voices

The voices not lead by a bullet indicate that they are only selectable using the Dotted buttons.

Page/Section	Voice Name	Preset Feet	Preset Effect	Comments
1. Upper/Lower **STRINGS**	● 01: Strings 1	8'	-	Large strings ensemble.
	● 02: Strings 2	8'	-	Relatively small strings ensemble for contemporary music.
	03: Strings 3	8'	-	Small strings ensemble.
	04: Strings 4	8'	-	Having specific harmonics for layering other voices.
	05: Strings 5	8'	-	For legato playing.
	06: Strings 6	8'	-	Strings with clarity. Appropriate for the fast passages.
	07: Strings 7	8'	-	Expressive full bodied strings with a slow attack.
	● 08: Pizz. Strings	8'	-	Pizzicato strings.
	09: Trem. Strings	8'	-	Tremolo strings.
	● 10: Synth. Strings 1	8'	Cele.	Synth. strings with softer attack.
	11: Synth. Strings 2	8'	Sym.	Bright synth. strings.
	12: Synth. Strings 3	8'	Cele	Softer Synth. strings.
2. Lead **VIOLIN**	● 01: Violin 1	8'	-	For multi purposes.
	● 02: Violin 2	8'	-	For solo with sharp attack.
	03: Violin 3	8'	-	Bright fidle for country music.
	04: Violin 4	8'	-	Darker synth. violin with wider dynamic range.
	05: Violin 5	8'	-	Violin with deep vibrato, also suited for chord playing.
	● 06: Pizz. Violin	8'	-	Pizzicato violin.
	● 07: Cello	8'	-	Cello with realistic rubbed string-instrument feel.
	08: Kokyu	8'	-	Ancient Chinese fiddle.
3. Pedal **CONTRABASS**	● 01: Contrabass 1	8'	-	Standard type.
	● 02: Contrabass 2	8'	-	True-to-life tight contrabass sounding in an octave unison.
	03: Contrabass 3	16'	-	Realistic contrabass solo.
	● 04: Pizz. Bass	8'	-	Pizzicato contrabass for classicals.
	● 05: Upright Bass	8'	-	For jazz.
4. Upper/Lower **BRASS**	● 01: Brass 1	8'	-	Trumpet and trombone ensemble for classicals.
	● 02: Brass 2	8'	-	For big band with brighter attack.
	● 03: Brass 3	8'	-	With strong impact. Can be used as orchestra hit.
	04: Brass 4	U16'/L8'	-	Trombone ensemble.
	05: Brass 5	8'	-	Tight octave brass for contemporary music.
	● 06: Synth. Brass 1	8'	-	Synth. brass with sharp attack. Used for Basic Regist. 5.
	07: Synth. Brass 2	8'	-	Analog type. Can be used as melody line.
	08: Synth. Brass 3	8'	-	Fat synth. brass.
5. Lower **HORN**	● 01: Horn 1	8'	-	Standard horn for classicals.
	● 02: Horn 2	8'	-	Horn unison solo. Alpenhorn.
	● 03: Horn 3	8'	-	For solo playing.
	04: Horn 4	8'	-	Impressive horn ensemble.
	● 05: Muted Horn	8'	-	Muted horn.
6. Lead **TRUMPET**	● 01: Trumpet 1	8'	-	Standard trumpet for classicals.
	● 02: Trumpet 2	8'	-	Jazz trumpet 1 with full-bodied sounds.
	03: Trumpet 3	8'	-	Sweet voice.
	04: Trumpet 4	8'	-	Jazz trumpet 2 with a peculiar attack.
	05: Trumpet 5	8'	-	Comical synth. trumpet.
	06: Trumpet 6	8'	-	Resonant trumpet solo.
	● 07: Muted Trp.	8'	-	Harmon mute.
	● 08: Trombone 1	U16'/L8'	-	For legato playing.
	09: Trombone 2	U16'/L8'	-	Bright trombone solo. For fast phrases.
	10: Muted Trb.	U16'/L8'	-	Cup mute.
	11: Flugel Horn	8'	-	Flugelhorn.
	12: Euphonium	U16/L8	-	Euphonium with softer sounds.
7. Pedal **TUBA**	● 01: Tuba	16'	-	Accentuated by touch.
	● 02: Timpani	8'	-	Standard timpani.
	● 03: Timpani Roll	8'	-	Typical timpani roll.
8. Lead **FLUTE**	● 01: Flute 1	8'	-	Standard flute solo.
	02: Flute 2	8'	-	For legato playing.
	● 03: Piccolo	4'	-	Standard piccolo.
	04: Yokobue	4'	-	Japanese pipe with clear sounds.
	● 05: Recorder	4'	-	Block floete.
	06: Ocarina	4'	-	Ocarina with simple but warm sounds.
	07: Pan Flute	8'	-	Pan Flute.
	08: Shakuhachi	8'	-	Japanese Shakuhachi with realistic breath noises.
	● 09: Whistle	4'	-	Whistle.

Page/Section	Voice Name	Preset		Comments
		Feet	Effect	
9. Lead **OBOE**	● 01: Oboe 1	8'	-	Softer oboe.
	● 02: Oboe 2	8'	-	Rounder tone with characteristic tonguing. For fast phrases.
	● 03: English Horn	8'	-	Cor Anglais.
	● 04: Bassoon 1	U16'/L8'	-	For legato playing.
	05: Bassoon 2	U16'/L8'	-	For staccato playing.
10. Upper/Lower **CLARINET**	● 01: Clarinet 1	8'	-	Standard clarinet.
	● 02: Clarinet 2	8'	-	Clarinet solo for jazz and contemporary.
	● 03: Bass Cla.	8'	-	Bass clarinet with fat and resonant sounds.
	● 04: Synth. Cla. 1	8'	-	Resonant synth. clarinet.
	05: Synth. Cla. 2	8'	-	Synth. reed with a unique attack sound.
11. Upper/Lower **SAXOPHONE**	● 01: Saxophone 1	U16'/L8'	-	Alto sax.
	● 02: Saxophone 2	U16'/L8'	-	Characteristic tenor sax with strong tonguing.
	● 03: Sopra. Sax.	8'	-	Standard soprano sax.
	04: Sax. Ens. 1	U16'/L8'	-	Softer sounds for classicals.
	05: Sax. Ens. 2	U16'/L8	-	Saxophone section for bigband.
	06: Synth. Sax.	8'	-	Wind synthesizer with thick sounds in the middle and lower range.
	● 07: Synth. Lead 1	8'	-	Softer analog synth. reed.
	08: Synth. Lead 2	8'	-	Clear synth. reed with a sharp attack.
	09: Synth. Lead 3	4'	-	Hoarse noise reed.
	10: Synth. Lead 4	8'	-	Digital synth. reed.
	11: Synth. Lead 5	8'	-	Synth. reed with thick fourth notes.
12. Upper/Lower **TUTTI**	● 01: Tutti 1	8'	-	Strings unison and wood winds ensemble.
	● 02: Tutti 2	8'	-	Strings unison and the brasses.
	● 03: Tutti 3	8'	-	The brasses for classicals and bands.
	● 04: Tutti 4	8'	-	Big band. Softer playing = sax only. Harder playing = 1 octave higher brasses added.
	05: Tutti 5	8'	-	Wood winds ensemble. Instruments vary depending on the register played.
	06: Tutti 6	8'	-	Wood winds quintet.
	07: Tutti 7	8'	-	Brass ensemble.
13. Upper/Lower **CHORUS**	● 01: Chorus 1	8'	-	Female "Ah".
	● 02: Chorus 2	8'	-	Male "Wh".
	● 03: Chorus 3	8'	-	Mixed chorus.
	04: Chorus 4	8'	-	Mixed chorus with beautiful resonance. Wh.
	05: Chorus 5	8'	-	Scat type vocal ensemble.
	● 06: Vocal	8'	-	Accentuated solo vocal, "Ah".
14. Upper **HARMONICA**	● 01: Harmonica 1	8'	-	Standard type with pitch modulated vibrato.
	● 02: Harmonica 2	8'	-	Solo harmonica with filter and amplitude modulated vibrato.
15. Upper/Lower **ORGAN**	● 01: Organ 1	8'	-	Small pipe organ. 8'.
	02: Organ 2	8'	-	Big pipe organ with full coupler.
	03: Organ 3	8'	-	Nasard stops. 8'+2 2/3'.
	04: Organ 4	8'	-	Harmonium.
	● 05: Jazz Organ 1	16'	Chor.	For solo playing. 16'+8'+5 1/3'.
	06: Jazz Organ 2	16'	Trem.	16'+8'+2'.
	07: Jazz Organ 3	16'	Trem.	For cluster playing. 16'+1 3/5'+1 1/3'+1'.
	08: Jazz Organ 4	16'	Chor.	Fat and noisy jazz organ.
	● 09: Pop Organ 1	8'	Chor.	Bright sounds for jazz. 8'+4'+2 2/3'.
	10: Pop Organ 2	8'	Chor.	For multi purposes.
	11: Theat. Organ 1	8'	Sym.	8'+4' with slower attack.
	12: Theat. Organ 2	8'	-	16'+8' with slower attack.
	● 13: Accordion	8'	-	Slower attack.
	14: Bandoneon	8'	-	Attack can be controlled by initial touch.
16. Pedal **ORGAN BASS**	● 01: Organ Bass 1	8'	-	Combination organ bass.
	● 02: Organ Bass 2	16'	-	Pipe organ bass 1. Standard type.
	● 03: Organ Bass 3	16'	-	For jazz. 16'.
	● 04: Organ Bass 4	16'	-	Pipe organ bass 2. Full coupler.
17. Upper/Lower **PIANO**	● 01: Piano 1	8'	-	For multi purposes.
	02: Piano 2	8'	-	Brighter sounds. CP80 type.
	03: Honkytonk	8'	-	Honky tonk piano.
	● 04: Elec. Piano 1	8'	Cele.	DX7 type.
	● 05: Elec. Piano 2	8'	Cele.	Old fashioned, full bodied electric piano.
	06: Elec. Piano 3	8'	-	Electric piano with clearly brilliant but deep sounds.
	● 07: Harpsichord	8'	-	Standard cembalo.
	08: Clavi.	16'	-	Funky clavi.
	09: Clavichord	8'	-	Clavichord with stable and grave sounds.

| Page/Section	Voice Name	Preset		Comments
		Feet	Effect	
18. Upper/Lower **GUITAR**	● 01: Guitar 1	U16'/L8'	-	Folk guitar. Steel string.
	● 02: Guitar 2	U16'/L8'	-	Acoustic jazz guitar. Tone varies depending on the touch.
	03: Guitar 3	U16'/L8'	-	Classic guitar. Suitable to backing for bossanova.
	04: 12Str. Guitar	U16/L8	-	12-string classic guitar with gorgeous sounds.
	05: Banjo	8'	-	For country and dixieland.
	06: Mandolin	8'	Cele.	Standard mandolin.
	07: Sitar	8'	-	Indian sitar with the different resonances between lower and mid./high ranges.
	08: Shamisen	8'	-	Japanese classical shamisen.
	● 09: Elec. Guitar 1	U16'/L8'	-	For backing.
	10: Elec. Guitar 2	U16'/L8'	-	For solo playing.
	11: Muted Guitar	U16'/L8'	-	Muted guitar.
	12: Dist. Guitar	U16'/L8'	-	Distorted guitar.
	● 13: Harp	8'	-	Grand harp.
	14: Steel Guitar	8'	-	Hawaiian guitar. Effective when used with the glide function.
	15: Koto	8'	-	Japanese Koto.
	16: Taisho Koto	4'	Cele.	Japanese Taisho Koto.
19. Upper/Lower **VIBRAPHONE**	● 01: Vibraphone	8'	-	Standard vibraphone.
	● 02: Glocken	4'	-	Glockenspiel.
	03: Celesta	4'	-	Celesta.
	04: Music Box	4'	-	Antique music box.
	● 05: Marimba	8'	-	Concert marimba.
	06: Xylophone	4'	-	Tone varies depending on the initial touch.
	07: Chime	4'	-	Chime.
	● 08: Synth. Chime	8'	Cele.	Starry chime.
	09: Steel Drum	8'	-	Steel Drum.
20. Pedal **ELECTRIC BASS**	● 01: Elec. Bass 1	8'	-	For multi purposes.
	● 02: Elec. Bass 2	16'	-	Slap bass.
	03: Elec. Bass 3	16'	-	Plucked bass with hard attack.
	04: Elec. Bass 4	16'	Cele.	Fretless bass, also suited for solo playing.
	● 05: Synth. Bass 1	16'	-	Sustained sounds.
	● 06: Synth. Bass 2	16'	-	With remarkable attack.
	07: Synth. Bass 3	16'	-	Tone varies depending on the touch.
21. Upper/Lower **COSMIC**	● 01: Cosmic 1	4'	-	Decay type. For multi purposes. UK in Basic Regist. 4.
	● 02: Cosmic 2	8'	-	The lower register of celesta. LK and PK in Basic Regist. 4.
	● 03: Cosmic 3	8'	-	Brass type.LK in Basic Regist. 5.
	● 04: Cosmic 4	8'	-	Decay type. With fantastic image.
	05: Cosmic 5	8'	-	Spacious sounds with feedback.
	06: Cosmic 6	8'	-	Synth. brass type.
	07: Cosmic 7	8'	-	Vocal type with feedback.
	08: Cosmic 8	8'	-	Distortion type with feedback.
	09: Cosmic 9	8'	-	Decay type with unique feedback.
	10: Cosmic 10	8'	-	Clear synth. pad.
	11: Cosmic 11	8'	-	Digital synth. pad.
	12: Cosmic 12	8'	-	Chorus type synth. pad.
	13: Cosmic 13	8'	-	Special sound effect with a slower attack. The sounds drastically changes.
	14: Cosmic 14	8'	-	Fantastic digital music box.
	15: Cosmic 15	8'	-	Ethnic synth. percussion.
	16: Cosmic 16	16'	-	Special sound effect with a complicated mixture of various sounds.

Some of the voices may be different from the ones on the upper models like EL-900 even if they have the same voice names.

To select the "hidden" voices
(Upper Keyboard Voice 2, Lower Keyboard Voice 2 and Pedal Voice 2):

You can call up the "hidden" voices on the LCD display and select them.
This function allows you to layer the voices on each keyboard to make the
sound thicker.

The procedure is explained with the selection of Upper Keyboard Voice 2,
as an example.

1. Press one of the voice buttons in the Upper Keyboard Voice section
while holding down the VOICE DISPLAY button in the DISPLAY
SELECT section.
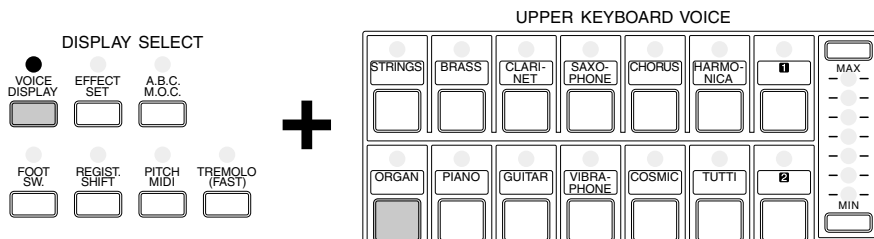
If, for example, you have selected the ORGAN voice, the following
display (Voice Menu) will appear:
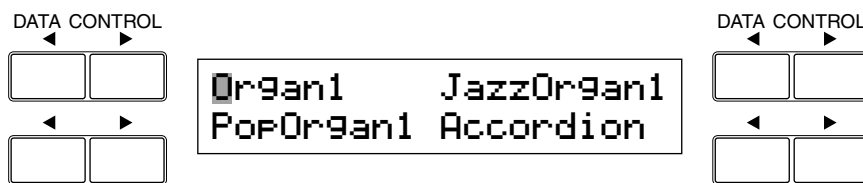
Notice that several different voice names are shown on this display.
These are variations of the basic organ category.

NOTE:

In this case the lamp on/off status in the
Upper Keyboard Voice section will not be
affected since you are dealing with the
Upper Keyboard Voice 2.

2. Press one of the Data Control buttons that corresponds to the voice you
wish to select. (Pop Organ 1, in this case)
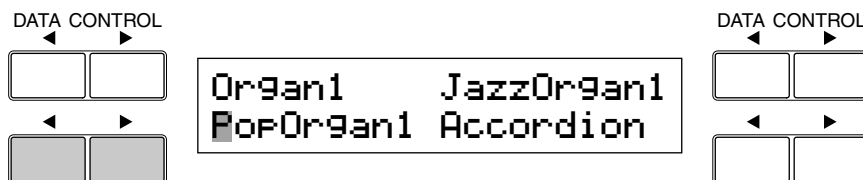
The first letter of the selected voice will start blinking. You have
selected Pop Organ 1 for the Upper Keyboard Voice 2.

3. Set the volume for the Upper Keyboard Voice 2.
Pressing the same Data Control button corresponding to the selected voice calls up the Voice Condition display. Use the Page buttons to select page 2, which contains Volume setting.

DATA CONTROL ◄ ► DATA CONTROL ◄ ► PAGE ◄ ►
◄ ►

```
INIT.T: 8      020
       FEET:PRESET
```

◄ ►

Use the top left side Data Control button pair to change the level of the desired voice.

DATA CONTROL ◄ ► DATA CONTROL ◄ ►
◄ ►

```
VOL.:24  PAN:C  020
         REVERB:24
```

◄ ►
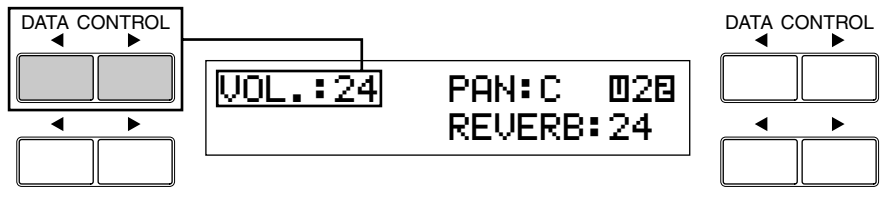
You can select the voices of Lower Keyboard Voice 2 and Pedal Voice 2 in the same manner.

NOTE:

Also, you can change the volume of the Upper Keyboard Voice 2 voices by pressing the Upper Keyboard Voice volume buttons on the panel while holding VOICE DISPLAY button.

NOTE:

The panel volume lamp position will not be affected even if you change the volume of Upper Keyboard Voice 2. The volume buttons on the panel are exclusive for the panel voice groups.

3 Voice Controls and Effects

The Electone is equipped with two general kinds of functions that can be used to change the sound of the voices: Voice Controls and Effects.

Certain effects may have been applied to some of the voices, but can be modified as you like. All built-in effects are digital.

The chart below shows the various voice controls and effects for the individual voice sections. Available functions are indicated by circles. The controls and effects are differently applied depending on those types: applied to each voice group, to each keyboard or to the entire system.

	Inital Touch	Feet	Volume	Pan	Reverb *2	Tremolo /Chorus *1	Sym- phonic/ Celeste	Delay	Flanger	Distortion	Vibrato	Lead Slide	Lead Tune	Sustain
Upper Keyboard Voice	○	○	○	○	○	○	○	○	○	○	○	—	—	○
Lower Keyboard Voice	○	○	○	○	○	○	○	○	○	○	○	—	—	○
Lead Voice	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Pedal Voice	—	○	○	○	○	○	○	○	○	○	○	—	—	○
Related Pages — Voice Condition Page 1	○	○	—	—	—	—	—	—	—	—	—	—	—	—
Voice Condition Page 2	—	—	○	○	○	—	—	—	—	—	—	—	—	—
Voice Condition Page 3	—	—	—	—	—	—	○	○	○	○	○	—	—	—
Voice Condition Page 4	—	—	—	—	—	—	—	—	—	—	○	—	—	—
Voice Condition Page 5 (Lead Voice only)	—	—	—	—	—	—	—	—	—	—	—	○	○	—
Effect Set Page	—	—	—	—	—	—	○	○	○	○	○	—	—	—
Reverb Page	—	—	—	—	○	—	—	—	—	—	—	—	—	—
Sustain Page	—	—	—	—	—	—	—	—	—	—	—	—	—	○
Tremolo Page	—	—	—	—	—	○	—	—	—	—	—	—	—	—

*1   Turning tremolo/chorus on/off and switching between tremolo and chorus are common to all voice sections.
*2   The total reverb depth and length are controlled on the reverb page, though the different reverb settings can be done for each voice section.

To change the settings and add the effects, display the appropriate page:

1. Selecting from Voice Condition Pages

2. Selecting from Effect Set Pages

3. Selecting from the Panel

1 Selecting from Voice Condition Pages

To call up the Voice Condition Pages:

Choose a voice on the panel, then press that voice's panel button again. The Voice Condition Choose a voice on page appears on the LCD display.
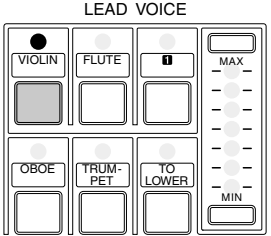
Each voice group's Voice Condition (except for Lead Voice) is configured with four pages. Voice Condition of the Lead Voice consists of five pages.

Voice Condition [PAGE 1]
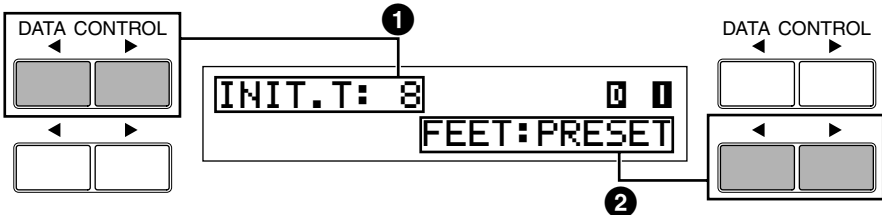
The included items are different between Pedal Voice group and the others (Only Feet setting is available with Pedal Voice group).

Pedalboard

❶ Initial Touch

Controls volume and timbre according to the velocity at which you strike the keys.
The harder you strike the keys, the greater the volume and the brighter the timbre will become. All voices are provided with this expressive function, making it possible to perfectly reproduce the subtle dynamic and tonal changes of actual instruments.
Higher settings make the change wider.

Range: 0 - 14

NOTE:

Minimum setting produces no effect at all.

❷ Feet

Determines the octave setting of the voice group. You can use a certain voice in the broader range.
PRESET is the original (factory) setting; 4' is the highest and 16' is the lowest.
2' setting is added to the Pedal Voice sections.

Voice Condition [PAGE 2]

Press the Page buttons to select PAGE 2.
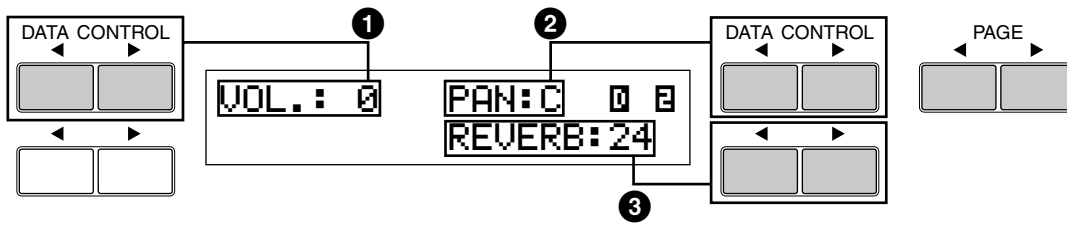
❶ Volume

Fine adjustment of the voice volume. See page 20 for more information.

Range: 0 - 24

❷ Panning

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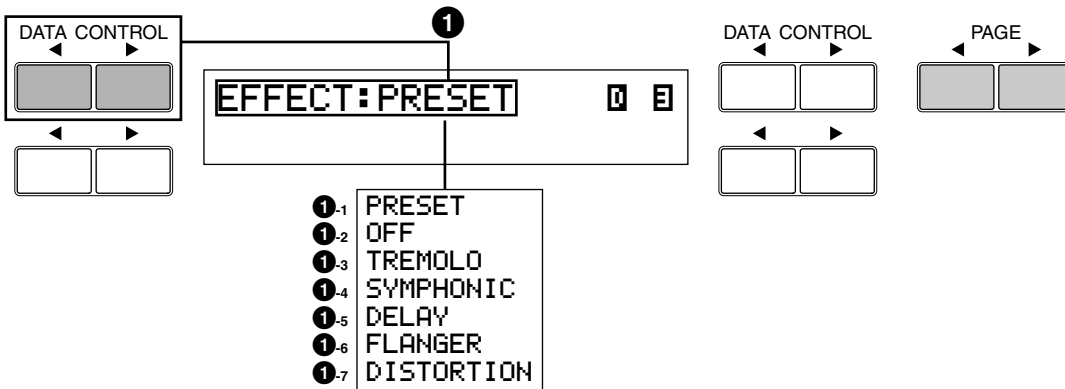Seven pan positions are available.

❸ Reverb

Determines the amount of reverb applied to each Voice section. When the panel
REVERB control is set to the minimum, the setting here will have no effect.
See page 40 for the details.

Range: 0 - 24

Voice Condition [PAGE 3]

Press the Page buttons to select PAGE 3.

❶ Effect

Determines the effect type applied to each voice section.

Each press of top left ▶ Data Control button selects Preset, Off, Tremolo, Symphonic, Delay, Flanger and Distortion, in order. Each press of top left ◀ Data Control button selects in the reversed order.

NOTE:

Effect can also be selected in the Effect Set page (page 34).

❶-1   Preset

Selects the original (factory) effect. When PRESET is selected, some of the voices have already got a certain type of effects.

❶-2   Off

Cancels the effect.

❶-3   Tremolo

Selects Tremolo/ Chorus. See page 42 for the details of the Tremolo/ Chorus setting.

❶-4   Symphonic

Selects Symphonic/ Celeste. See page 35 for the details of the Symphonic/ Celeste setting.

❶-5   Delay

Selects Delay. See page 36 for the details of the Delay setting.

❶-6   Flanger

Selects Flanger. See page 38 for the details of the Flanger setting.

❶-7   Distortion

Selects Distortion. See page 39 for the details of the Distortion setting.

Voice Condition [PAGE 4]

Press the Page buttons to select PAGE 4.

❶-1

DATA CONTROL
◄ ►

```
VIB:PRESET        0 4
```

DATA CONTROL
◄ ►

PAGE
◄ ►

◄ ►

◄ ►

DATA CONTROL
◄ ►

❶-3

```
VIB:USER DEPTH: 00 4
DELAY: 0 SPEED: 0
```

DATA CONTROL
◄ ►

◄ ►

◄ ►

❶-2   **❶-4**
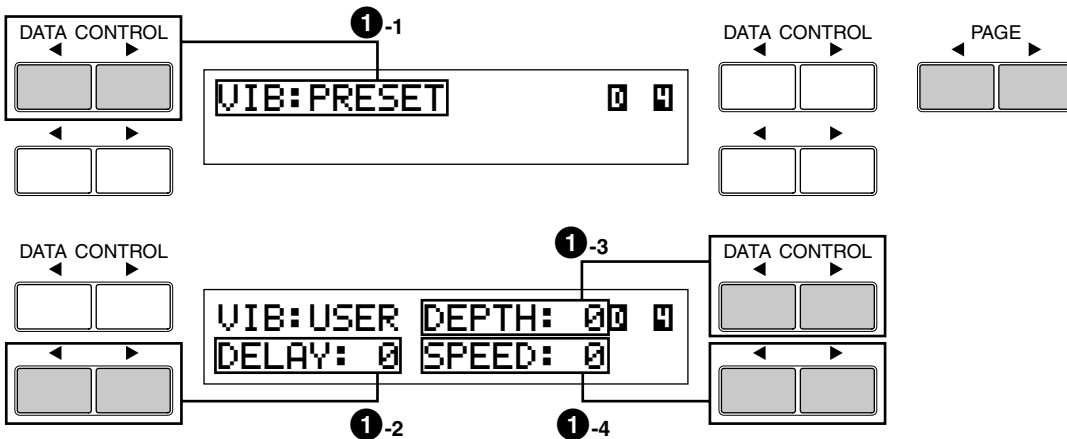
❶ Vibrato

Vibrato function vibrates the voices to create softer image. Applied to each voice group.

❶-1   PRESET/USER

Selects the original (factory) effect. When PRESET is selected, some of the voices have already got vibrato effect.

Selecting User allows you to access the Vibrato parameters to create your own vibrato setting.

❶-2   Delay

Determines the amount of time that elapses between the playing of a key and the start of the vibrato effect (see diagram). Higher settings increase the delay of the vibrato onset.

Range: 0 - 14

❶-3   Depth

Determines the intensity of the vibrato effect (see diagram). Higher settings result in a more pronounced vibrato.

Range: 0 - 14

❶-4   Speed

Determines the speed of the vibrato effect (see diagram).

Range: 0 - 14

NOTE:

The User vibrato may not be effective for some voices such as Harmonica2, Electric Piano1 and Synth. Chime.

NOTE:

The Vibrato parameters, Delay, Depth and Speed, are not displayed as long as Preset is selected.

Vibrato Control

Delay   Speed   Depth
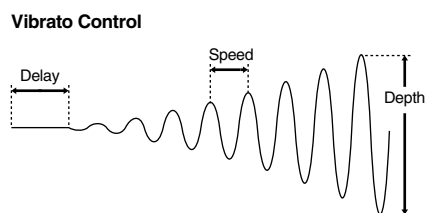
Press the Page buttons to select PAGE 5.
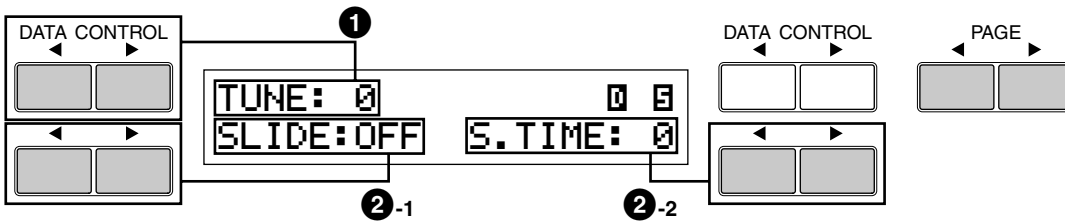
❶ Tune

Determines the pitch of the Lead voice. This control lets you detune the Lead voice relative to the other voices of the Electone, for producing a richer sound. The higher the value set, the higher the pitch.

Range: 0-24 (max. 28.88 cents; 1 step= Ca.1.2cents)

❷ Slide

Slide applies a portamento effect to notes played in legato. For example, if you play one note, then play another before completely releasing the first note, the pitch of the first note will 'slide' up or down to the second note. The Slide function is effective within a one-octave range.

❷-1   **On/Off**

Determines on/off status of the Slide effect.

❷-2   **Slide Time**

Determines the speed of the slide or portamento effect. The higher the value that is set, the slower the speed.

Range: 0 - 14

2 Selecting from Effect Set Page

To call up the Effect Set page:

Pressing the EFFECT SET button in the DISPLAY SELECT section calls up the Effect Set pages.
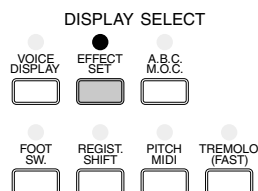
See page 32 for the information on Preset and Off.

The explanation on each effect is given here.

```
DATA CONTROL
   ◄    ►
[    ][    ]        ┌─────────────────────────┐
                   │ EFFECT:PRESET      U1   │
   ◄    ►          └─────────────────────────┘
[    ][    ]
                   ┌──────────────────┐
                   │ PRESET           │
                   │ OFF              │
                ❶  │ TREMOLO          │
                ❷  │ SYMPHONIC        │
                ❸  │ DELAY            │
                ❹  │ FLANGER          │
                ❺  │ DISTORTION       │
                   └──────────────────┘

DATA CONTROL          PAGE
   ◄    ►          ◄    ►
[    ][    ]       [    ][    ]

   ◄    ►
[    ][    ]
```
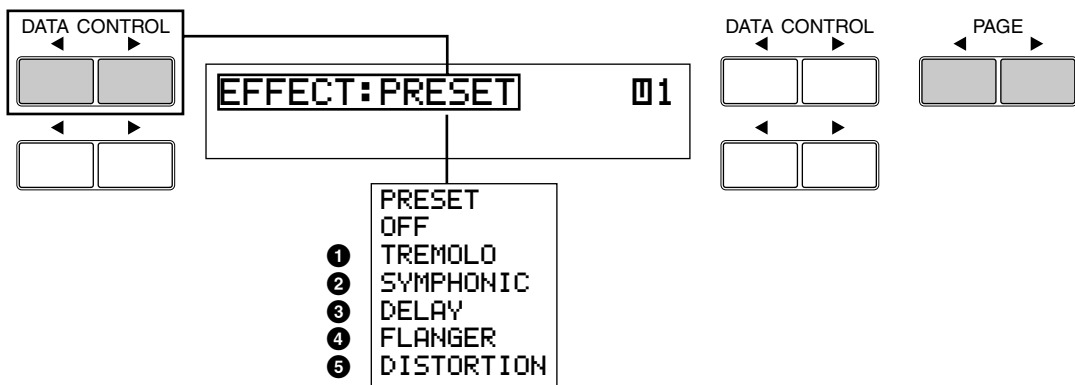
Selecting Voice Group

You can select the voice section to which the effect should be applied, by pressing the Page buttons. The acronyms indicate each voice group.

U1: Upper Keyboard Voice   U2: Upper Keyboard Voice 2
L1: Lower Keyboard Voice   L2: Lower Keyboard Voice 2
D: Lead Voice   P2: Pedalboard Voice 2
P1: Pedalboard Voice

❶ Tremolo/Chorus

See Tremolo section on page 42. Independently applied to each voice section.

❷ Symphonic/Celeste

Determines the type of the Symphonic effect, SYMPHONIC (Sym.) or CELESTE (Cele.).

Symphonic is a subtle echo effect that makes one voice sound like an ensemble. For example, a solo violin voice played through Symphonic would sound like many violins playing together.

SYMPHONIC simulates the effect of a large ensemble, while CELESTE creates the effect of a gradually expanding sound.

Press the appropriate Data Control button to turn on the desired effect. The solid (negative) box indicates the effect is turned on.

```
DATA CONTROL
   ◄    ►
[    ][    ]        ┌─────────────────────────────┐
                   │ EFFECT:SYMPHONIC     U1     │
   ◄    ►          │ ■SYMPHONIC  □CELESTE        │
[    ][    ]        └─────────────────────────────┘
                       ❷-1          ❷-2

DATA CONTROL
   ◄    ►
[    ][    ]

   ◄    ►
[    ][    ]
```

NOTE:

In the illustration at the left, Symphonic is selected and effective.
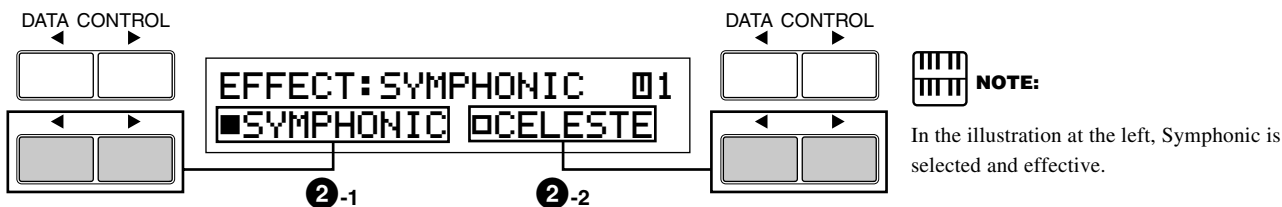
❷-1 Symphonic

Selects the Symphonic effect to the designated voice section.

❷-2 Celeste

Selects the Celeste effect to the designated voice section.

❸ Delay

Delay is a pronounced echo effect, with distinct delayed repeats of the original sound. Independently applied to each voice section.
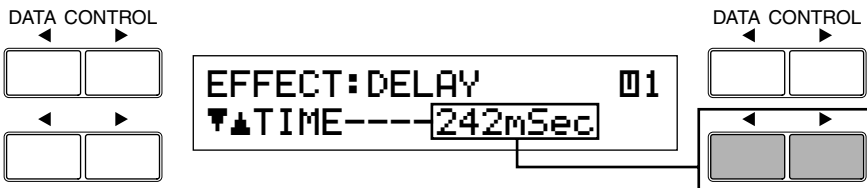
Delay Effect
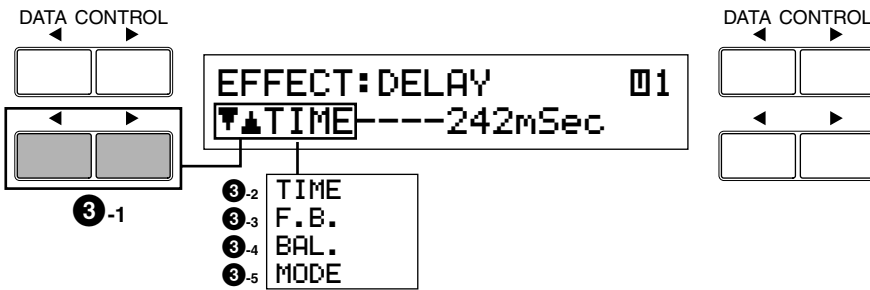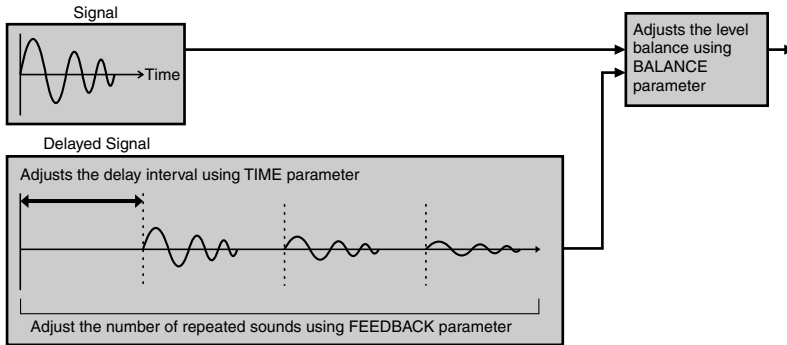
❸-1　Parameter Settings

The bottom left Data Control buttons select available Delay parameters. Available parameters are as follows:
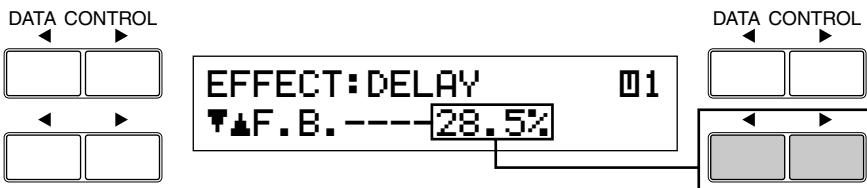
❸-2　Time

Determines the time between delayed repeats.
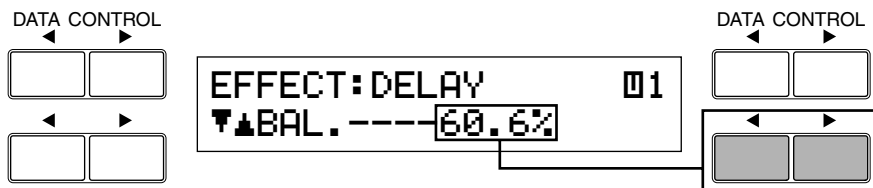

Range: 5mSec – 956mSec

❸-3　Feedback

Determines the number of delayed repeats.

Range: 0.2% - 46.9%

❸-4 Balance

Determines the volume of the delay effect, relative to the original
sound. Higher settings produce a louder delay.

DATA CONTROL
◄ ►

```
EFFECT:DELAY      ▥1
▼▲BAL.----60.6%
```

DATA CONTROL
◄ ►

◄ ►

Range: 0% - 100%

❸-5 Mode

Selects the delay type from Mono, ST (Stereo) 1, 2, 3.
Selecting one of the Stereo Delays produces more expanding image or
an image sounds move from right to left, or left to right.

DATA CONTROL
◄ ►

```
EFFECT:DELAY      ▥1
▼▲MODE----MONO
```

DATA CONTROL
◄ ►

◄ ►
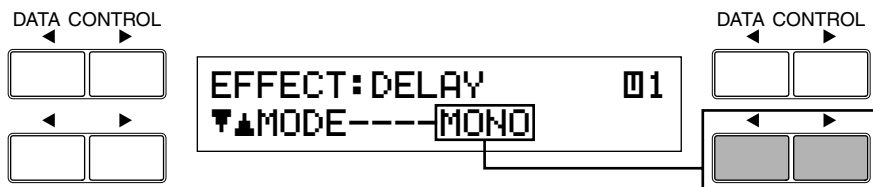
Range: Mono, ST1, ST2, ST3

Characteristics of Each Delay Type

Monaural
Normal monaural delay.

ST1
Multi delay with complicated reflections. Provides the most pronounced
effect.

ST2
Simple stereo delay. Feedback is 0 and the first reflection only. Special
effects can be obtained.

ST3
Adds thickness and brilliance to the monaural delay.

❹ **Flanger**

Flanger introduces a swirling, animated modulation effect to the sound.
Independently applied to each voice section.

Flanger Effect
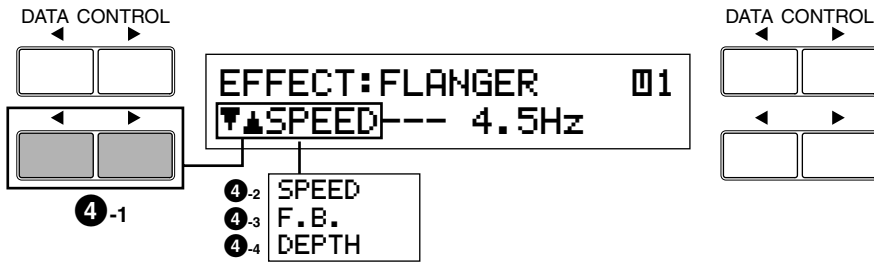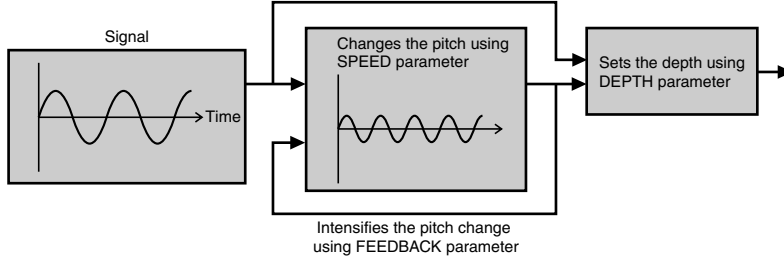
❹-1   Parameter Settings

The bottom left Data Control buttons select available Flanger
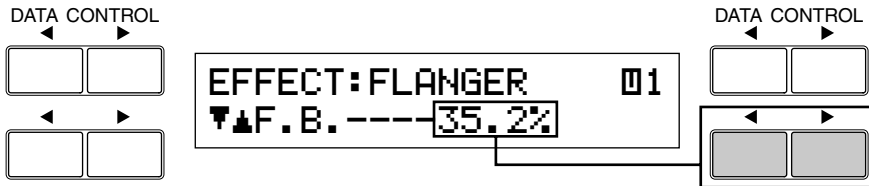parameters. Available parameters are as follows:

❹-2   Speed

Determines the speed of the modulation.

Range: 0Hz - 12.1Hz

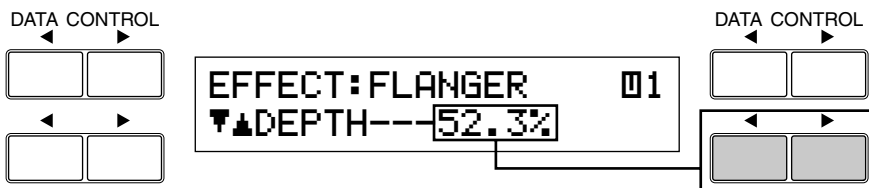**❹-3   Feedback**

Controls the brightness and the metallic sound of the effect.

Range: 0.6% - 94.0%

❹-4   Depth

Determines the intensity of the effect.

Range: 37.8% - 87.8%

❺ Distortion

Distortion adds a distorted image to the sounds usually found in electric guitars.
Independently applied to each voice section.

Distortion Effect
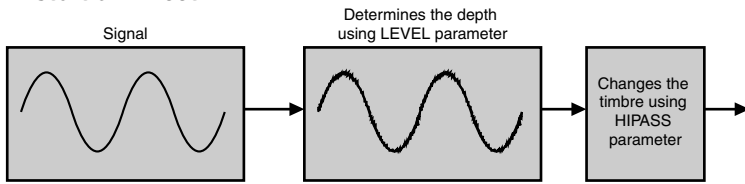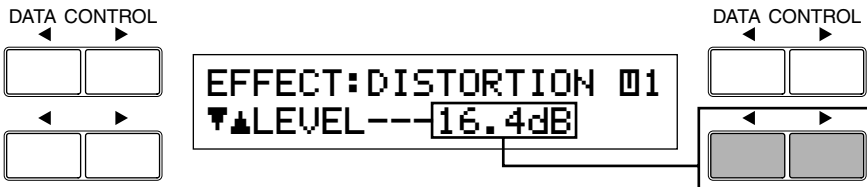
❺-1   Parameter Settings

The bottom left Data Control buttons select available Distortion
parameters. Available parameters are as follows:

❺-2   Level

Determines the depth of the distorted sounds.

Range: 0dB – 21.8dB

❺-3   High Pass

Changes the timbre of the distorted sounds.

Range: 20Hz - 1036Hz

3 Selecting from the Panel

**Reverb, Sustain and Tremolo/Chorus pages are called up by pressing the respective panel buttons.**

❶ Reverb

Reverb adds an echo-like effect to the sound, giving the impression of a performance in a large room or concert hall. Reverb effect can be applied to the entire system or to each voice section (page 31) independently. Also, Reverb can be applied to the rhythm and accompaniment independently.

Press one of the REVERB buttons, located to the left of the panel, to set the Reverb effect. The following display appears.
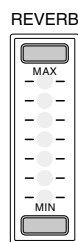
REVERB page
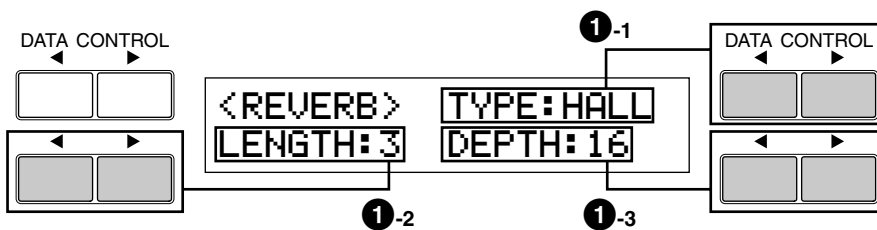
❶-1 **Type**

Determines the type of reverb effect: Room, Hall and Church. Each type simulates a different acoustic environment; Room is the smallest and Church the largest.

❶-2 **Length**

Determines the acoustic liveliness of the simulated room in the effect. Higher settings make the room more reverberant.

Range: 0 - 6

❶-3 **Depth**

Fine adjustment of the depth of reverberation or the level of the reflected sounds. Coarse reverb depth settings are made with the panel REVERB buttons.

Range: 0 - 24

NOTE:

When this parameter or the panel REVERB control is set to the minimum, the settings in each voice condition page (page 31) have no effect.
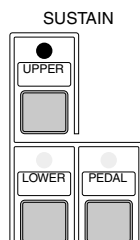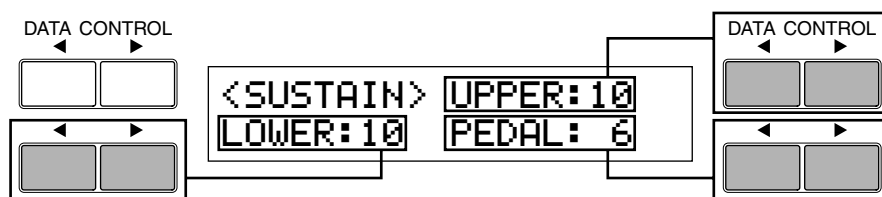
❷ Sustain

The Sustain effect, selectable for the Upper, Lower and Pedal voices, causes voices to gradually fade out when the keys are released. The sustain on/off and sustain length settings are independent for each keyboard, providing maximum expressive control.

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

The lamp of the button lights up to indicate that sustain is on. Press the button again to turn sustain off.

SUSTAIN Page

Upper/Lower/Pedal

Determines the length of sustain applied to each keyboard. The display shows the current sustain length values for each keyboard. The values here must be set high enough for the sustain effect to be noticeable.

Range: 0 - 12

NOTE:

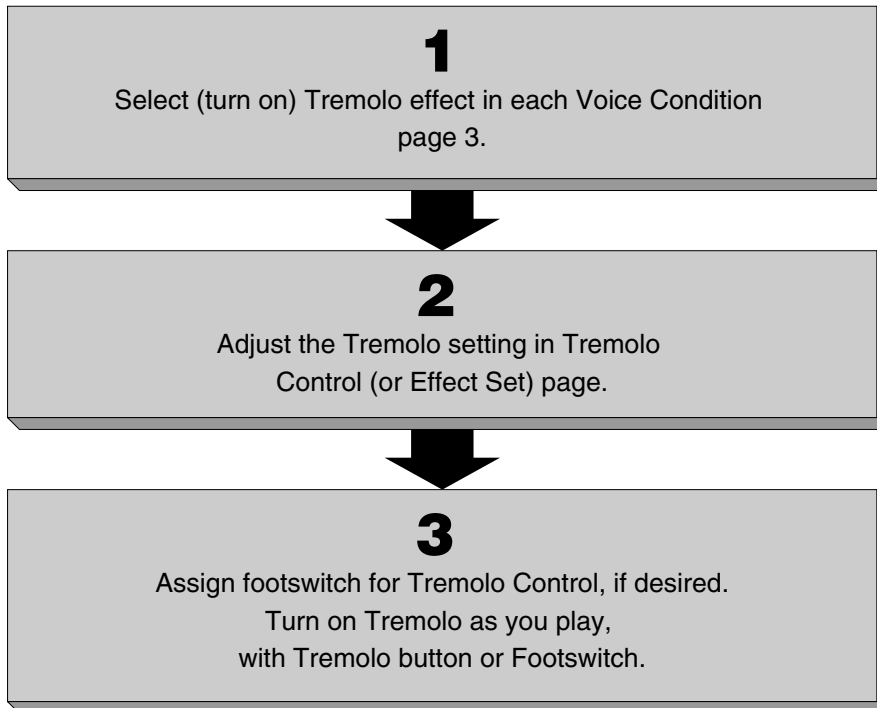Sustain cannot be applied to the Lead voices.

NOTE:

Remember that the SUSTAIN buttons are on/off switches. If you use them to simply check the sustain length values, you may unintentionally change the on/off status of the effect. Remember to check whether the sustain button lamps are on or off before you start to play.

❸ Tremolo/Chorus

Tremolo recreates the rich, swirling sound of the popular rotating speaker effect. Just as with a conventional rotating speaker, you can switch between slow and fast speeds. And like a motor-driven speaker, the characteristic tremolo effect gradually changes speed after it is switched. You can also adjust the maximum speed of the effect to suit your playing style. The Tremolo 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).

■ Tremolo Operation

For Panel Voices (Voice Menu)

1
Select (turn on) Tremolo effect in each Voice Condition
page 3.

2
Adjust the Tremolo setting in Tremolo
Control (or Effect Set) page.

3
Assign footswitch for Tremolo Control, if desired.
Turn on Tremolo as you play,
with Tremolo button or Footswitch.

1) Turning on the Tremolo effect (set to standby):

You cannot use the Tremolo effect only by turning on the TREMOLO (FAST)
button. First, you need to turn the effect on in the desired voice section(s).
Independently applied to each voice section.

Select (turn on) Tremolo

1 Press the desired voice button on the panel twice to display one of the
Voice Condition pages.

LEAD VOICE
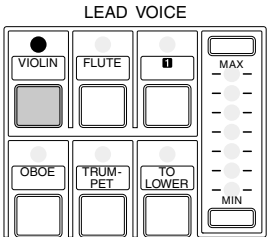
The Voice Condition page appears.

2 Select page 3 of the Voice Display using PAGE buttons at the right side
of the LCD display.

DATA CONTROL

DATA CONTROL   PAGE

EFFECT:PRESET

3 Select Tremolo to turn it on.

DATA CONTROL   DATA CONTROL
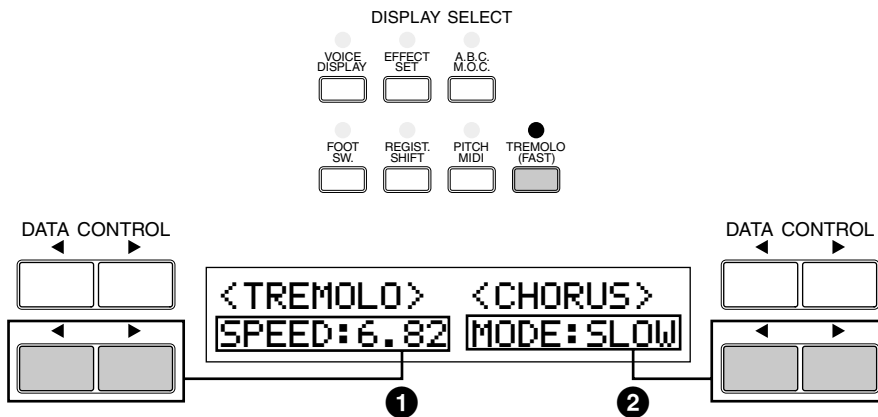
EFFECT:TREMOLO

2) Setting the Tremolo Effect

Tremolo setting made here are global; in other words, they are applied the same to all voices for which Tremolo has been turned on (set to standby).

To turn on the Tremolo effect and call up the Tremolo Control page:

Press the TREMOLO (FAST) button in the DISPLAY SELECT section.
The following display appears.

The lamp of the button lights up to indicate that Tremolo is on. Press the button again to turn Tremolo off and Chorus on (the LED turns off).

❶ Tremolo Speed

Determines the speed of the Tremolo (rapid rotation) effect.

Range: 4.75Hz – 7.77Hz

❷ Chorus Mode

Determines the effect applied when Tremolo is switched off: a slow chorus effect (SLOW) or STOP. Use the SLOW setting when you want to have a constant rotating speaker sound.

3) Realtime control of Tremolo effect

Once the Tremolo effect has been turned on and set, you can control the effect in real time from the panel or from the Left Footswitch (page 97). Simply press the TREMOLO (FAST) button in the DISPLAY SELECT section to turn the Tremolo effects on and off while you're playing. This button functions just like the fast/slow switch on an actual rotating speaker cabinet. When Tremolo is on, the rotation effect is fast; when off (Chorus), it is slow. The speed change is gradual, effectively simulating the slowing down and speeding up of a rotating speaker. You can also use the Left Footswitch to control the Tremolo effect in the same way, if the Footswitch has been properly assigned.
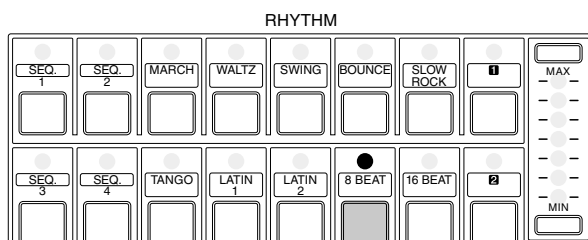
Rhythm and Accompaniment

The Rhythm features of the Electone use actual drum and percussion sampled sounds to automatically play various rhythms. Automatic Accompaniment functions are used with the rhythms, providing appropriate and completely automatic accompaniment to match the style of the selected rhythm. Moreover, the Electone has a Keyboard Percussion feature that allows you to play drum and percussion sounds from the Lower keyboard and Pedalboard.

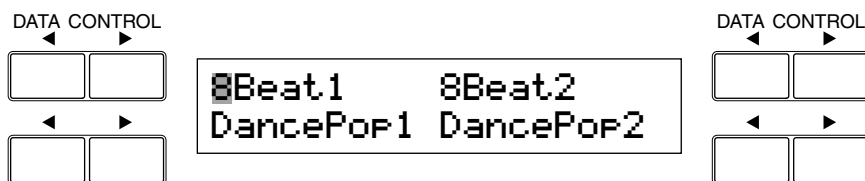## 1 Selecting Rhythms from the Panel

Ten different rhythm categories in various styles can be instantly selected from the front panel. The Electone has many more 'hidden' rhythms, however. A total of 66 rhythms are available, and can be selected by using the display.

### 1) To select and play a rhythm:

1 Press any of the RHYTHM buttons once.

RHYTHM

SEQ. 1 | SEQ. 2 | MARCH | WALTZ | SWING | BOUNCE | SLOW ROCK | 1 | MAX

SEQ. 3 | SEQ. 4 | TANGO | LATIN 1 | LATIN 2 | 8 BEAT | 16 BEAT | 2 | MIN

Designated Rhythm Menu page will be displayed.

DATA CONTROL
◀ ▶

◀ ▶

```
8Beat1    8Beat2
DancePop1 DancePop2
```

DATA CONTROL
◀ ▶

◀ ▶

The first letter of the currently selected rhythm will start blinking.

2 Press the Data Control button corresponding to the rhythm you wish to play, as you do with the voices.
The first letter of the selected rhythm will start blinking. Dance Pop 1 is selected here, for example.

DATA CONTROL
◀ ▶

◀ ▶

```
8Beat1    8Beat2
DancePop1 DancePop2
```

DATA CONTROL
◀ ▶

◀ ▶
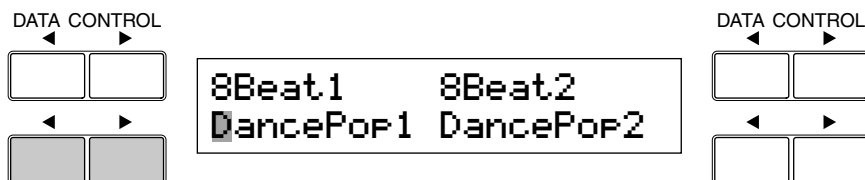
NOTE:

In addition to 10 different rhythm styles, four types of metronome sounds, simple metronome, two four, three four and four four, are assigned to the SEQ 1 – 4 buttons, respectively, as the defaults.
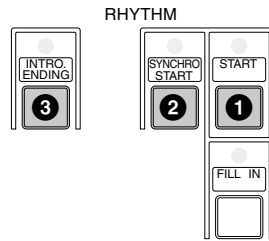
NOTE:

The chord/bass patterns matching with the designated rhythm will be selected automatically when the A.B.C. function is turned on. (Refer to the Auto Bass Chord section, page 52, for details on Auto Bass Chord and Memory.)

3 Turn the rhythm on.
You can use one of three buttons to turn on the rhythm:

RHYTHM

❶ **START**

This button does as its name indicates; the rhythm begins as soon as the button is pressed. To stop the rhythm, press this button again.

❷ **SYNCHRO START**

This button puts the rhythm in 'stand-by' status. The rhythm will start when you press a note on the Lower keyboard or Pedalboard.

❸ **INTRO. ENDING**

Pressing this button automatically adds a short introduction (of up to eight measures) before starting the actual rhythm.
First, press the INTRO. ENDING button, then the START or SYNCHRO START button to actually start the rhythm.

While the introduction is playing, the display shows the countdown to the first measure of the pattern. For example, if there is an eight-measure lead-in for a pattern in 4/4 time, the following display appears.
Pressing the INTRO. ENDING button again while the pattern is being played will automatically add an ending phrase before stopping the rhythm.

BAR / BEAT
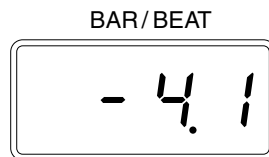
NOTE:

The Left Footswitch can also be used to turn the rhythm on and off in the middle of song. To assign the Footswitch for rhythm control, see page 98.

NOTE:

ABOUT SYNCHRO START:
Synchro Start functions quite differently when the Auto Bass Chord feature is turned on and the Accompaniment Memory is turned off. The rhythm starts when a key on the Lower keyboard is played, but then immediately stops when the key is released. To keep this from happening, turn the Memory function on. (Refer to the Auto Bass Chord section, page 52, for details on Auto Bass Chord and Memory.)


LEAD IN

Pressing the START button while holding down the INTRO. ENDING button automatically plays a special one-measure Lead In, with a click on each beat, to cue you in to the beginning of the song.

---

4 Set the volume using the panel rhythm volume button.
The controls have seven volume settings, from a minimum of 0, or no sound, to a maximum of full volume. Fine adjustments in the volume of the rhythm can also be made from the Rhythm Condition page (page 48).

RHYTHM

NOTE:

When the Electone is turned on, the Rhythm Volume is automatically set to 0.
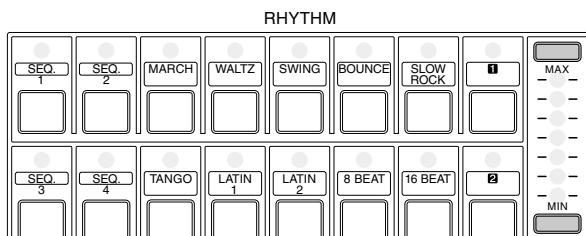
5 Set the rhythm tempo using the Tempo button in the rhythm section.

BAR / BEAT

| *1 2 0* |

❷
(TEMPO Display:
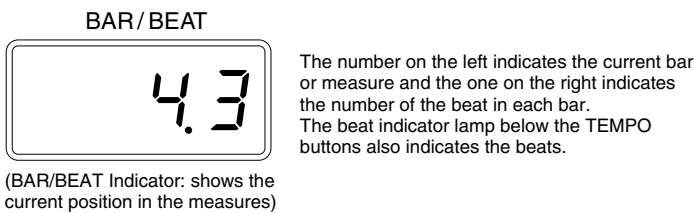shows current tempo)

▼ TEMPO ▲

❶

BAR / BEAT

❶ **TEMPO Button**

For adjusting the speed of the rhythm. Pressing the right button increases the tempo and pressing the left button decreases it.

❷ **TEMPO Display (BAR/BEAT Indicator)**

Shows the current tempo. (Displayed values are given in beats per minute, just as on a conventional metronome.)

Range: 40 - 240

When the rhythm begins playing, the TEMPO display changes function to a Bar/Beat indicator.

BAR / BEAT

| *4. 3* |

(BAR/BEAT Indicator: shows the
current position in the measures)

The number on the left indicates the current bar or measure and the one on the right indicates the number of the beat in each bar.
The beat indicator lamp below the TEMPO buttons also indicates the beats.

---

2) To use the Fill In patterns:

Fill In patterns are designed to be used as temporary and regular rhythmic breaks to spice up a repeating rhythm. Like the regular rhythms, all Fill In patterns have been designed to perfectly match the bass and chord parts of the Automatic Accompaniment feature.

1 Select and play a rhythm.

2 As you play the Electone along with the rhythm, occasionally press the FILL IN button.

RHYTHM

INTRO.
ENDING

SYNCHRO
START

START

●
FILL IN
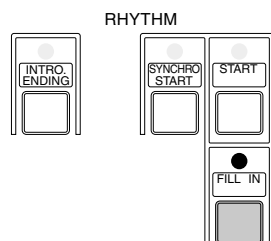
NOTE:

USING A FILL IN FOR THE START OF A SONG:
Fill In patterns can also be used as introductions; simply press the FILL IN button before starting the rhythm with the START or SYNCHRO START buttons.

NOTE:

PLAYING PARTIAL FILL IN PATTERNS:
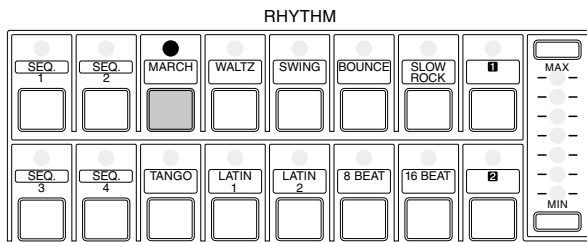You can also start Fill In patterns within a bar, in order to play only the final one or two beats of the Fill In pattern and create additional rhythmic interest. Since the Fill In feature is very sensitive to bar/beat boundaries, you should be very careful to 'play' the FILL IN button precisely on (or just slightly before) the beat that you want the Fill In pattern to begin.
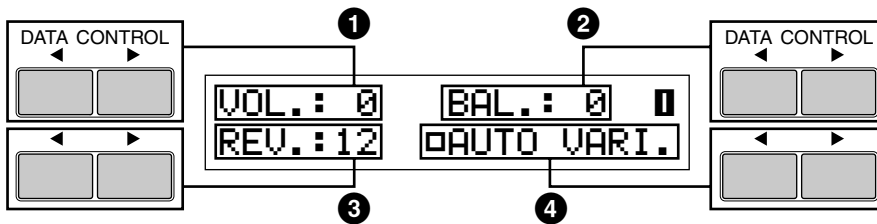
2 Rhythm Condition Pages

The Rhythm Condition includes the following two pages: the Rhythm Condition page used to adjust the rhythms and the Instrument page used to make up each drum/percussion instrument, each of which comprises the rhythms and is playable using the Keyboard Percussion function.

To select the Rhythm Condition page:

Choose a rhythm, and press that pattern's panel button again (or again press the Data Control button corresponding to the selected rhythm). (The button should be pressed only once if the Rhythm display has already been called up; otherwise press the button twice.)

RHYTHM

SEQ. 1 | SEQ. 2 | MARCH | WALTZ | SWING | BOUNCE | SLOW ROCK | ① | MAX

SEQ. 3 | SEQ. 4 | TANGO | LATIN 1 | LATIN 2 | 8 BEAT | 16 BEAT | ② | MIN

Rhythm Condition [PAGE 1]

DATA CONTROL ◄ ►

❶   ❷

DATA CONTROL ◄ ►

◄ ►

```
VOL.: 0    BAL.: 0   ▯
REV.:12    ▯AUTO VARI.
```

◄ ►

❸   ❹

❶ **Volume**

Fine Adjustment of rhythm/keyboard percussion volume.

Range: 0 - 24

❷ **BAL. (Balance)**

Determines the balance between two main sound types of the rhythms: the drum sounds and the cymbal sounds. Positive settings emphasize the cymbal sounds, while negative settings emphasize the drums.

Range: -6 - 0 - +6

NOTE:

Pressing this pair of Data Control buttons at the same time restores the balance to the center position.

❸ **Reverb**

Determines the amount of reverb applied to the rhythms and percussion sounds used in the rhythms. When the panel REVERB control is set to the minimum, the setting here will have no effect.

Range: 0 - 24

❹ **Auto Variation**

On/off switches of the Auto Variation function. Use the bottom right Data Control button to turn on the Auto Variation function (Solid box indicates the function is effective). The Auto Variation function lets you set pattern variations to be played automatically. When set to ON, Auto Variation automatically substitutes additional pattern variations to make the rhythm more interesting and complex.
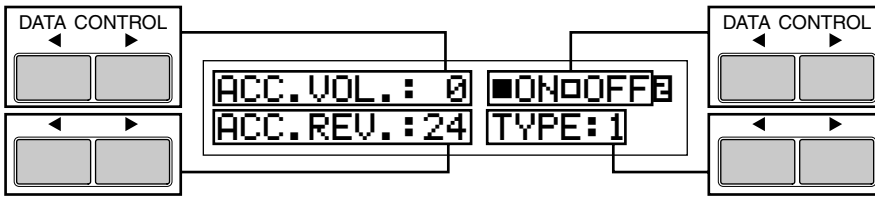
NOTE:

The Auto Variation function is not applied to some of the rhythms.

Rhythm Condition [PAGE 2]

DATA CONTROL ◄ ►

```
ACC.VOL.:  0  ■ON▢OFF②
ACC.REV.:24  TYPE:1
```
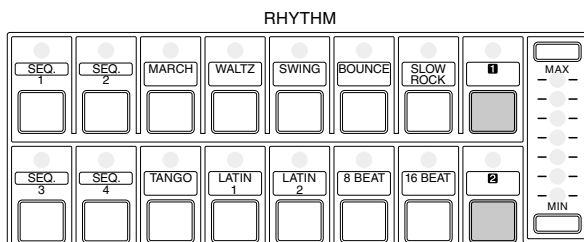
DATA CONTROL ◄ ►

◄ ►

◄ ►

The settings related to Accompaniment are available on this page. See page 54 for the details.
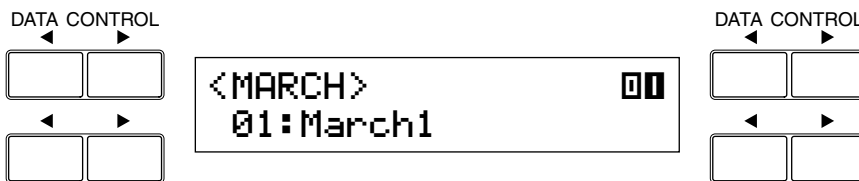
3 Dotted Buttons and User Rhythms

The Rhythm section also has, like the voice sections, dotted buttons from which rhythms can be selected. These dotted buttons function as 'wild card' rhythm selectors; any of the rhythms available from the panel buttons, the Rhythm Menus or User rhythms loaded from optional Pattern Disk can be selected from these buttons.

1) To select a rhythm from a dotted button:

1 Press one of the dotted buttons on the right side of the Rhythm section.

RHYTHM

| SEQ. 1 | SEQ. 2 | MARCH | WALTZ | SWING | BOUNCE | SLOW ROCK | **1** | MAX |
| SEQ. 3 | SEQ. 4 | TANGO | LATIN 1 | LATIN 2 | 8 BEAT | 16 BEAT | **2** | MIN |

MARCH, Rhythm Menu 1, appears.

DATA CONTROL ◄ ►

```
<MARCH>       0①
  01:March1
```

DATA CONTROL ◄ ►

◄ ►

◄ ►

2 Select one of the pages with the Page buttons, and choose a Rhythm Menu.

DATA CONTROL ◄ ►

```
<SWING>       0③
  01:Swing1
```

DATA CONTROL ◄ ►

PAGE ◄ ►

◄ ►

◄ ►
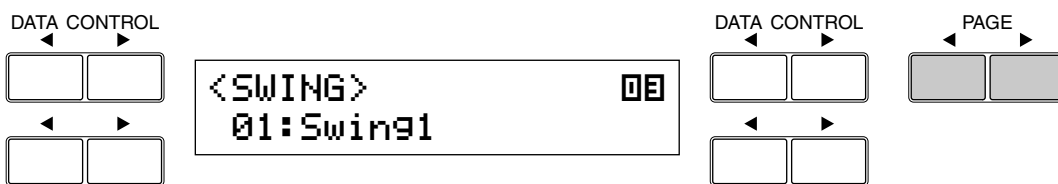
3 Select the desired rhythm using the Data Control buttons.

DATA CONTROL
◄ ►

DATA CONTROL
◄ ►

◄ ►

◄ ►

```
<SWING>            08
 07:JazzBallad
```
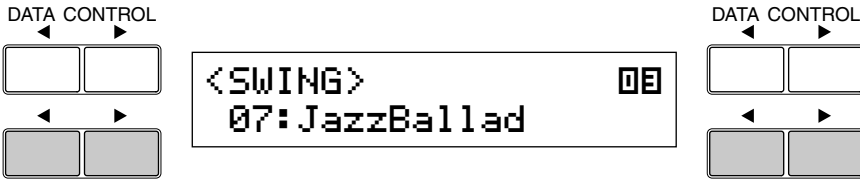
2) To call up the User rhythms:

You can call up the rhythms created by the other Electone that has Rhythm
Pattern Programming function and those on optional Pattern Disks.

1 Press Page buttons to select the User page.

DATA CONTROL
◄ ►

DATA CONTROL
◄ ►

PAGE
◄ ►

◄ ►

◄ ►

```
<USER RHYTHM>      00
 01:USER1-A
```
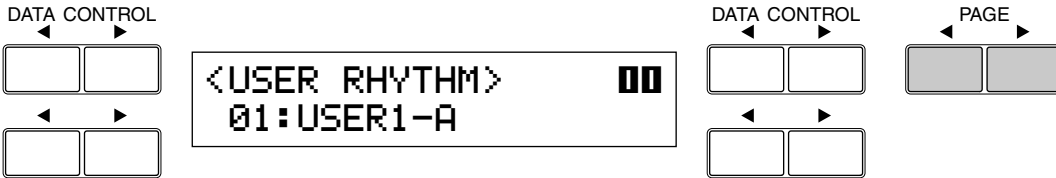
2 Press to select the User rhythm number and its Type.

DATA CONTROL
◄ ►

DATA CONTROL
◄ ►

◄ ►

◄ ►

```
<USER RHYTHM>      00
 04:USER1-D
```

4 Rhythm Menus

This chart lists all 66 of the rhythms available on the Electone.
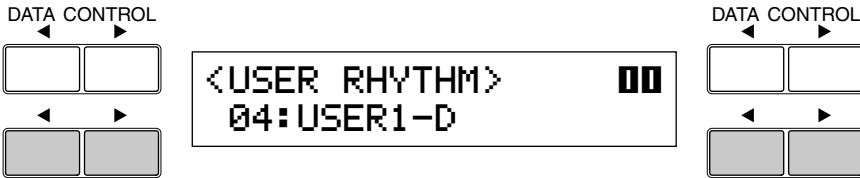
NOTE:

The Baroque on the March page is configured with accompaniment only; it does not contain any drum or percussion.

MARCH

```
March1     Polka1
Country1   Broadway
```

WALTZ

```
Waltz1     Waltz2
J.Waltz1   Bolero
```

SWING

```
Swing1     Swing2
J.Ballad   Dixieland1
```

BOUNCE

```
Bounce1    Bounce2
Reggae1    Reggae2
```

SLOW ROCK

```
SlowRock1 SlowRock2
SlowRock3
```

TANGO

```
Tango1     Tango2
Tango3
```

LATIN1

```
ChaCha     Rhumba
Beguine    Mambo
```

LATAN2

```
Samba1     Samba2
Bossa.1    Bossa.2
```

8 BEAT

```
8Beat1     8Beat2
DancePop1  DancePop2
```

16 BEAT

```
16Beat1    16Beat2
Funk1      Funk2
```

USER RHYTHM

```
<USER RHYTHM>
 01:USER1-A
```

The rhythms not lead by a bullet can be selectable only through the Dotted buttons.

Page	Category		LCD
01	MARCH	●	01:March1
			02:March2
			03:March3
		●	04:Polka1
			05:Polka2
		●	06:Country1
			07:Country2
		●	08:Broadway
			09:Baroque
02	WALTZ	●	01:Waltz1
		●	02:Waltz2
			03:Waltz3
			04:Waltz4
			05:Waltz5
		●	06:JazzWaltz1
			07:JazzWaltz2
			08:JazzWaltz3
		●	09:Bolero
03	SWING	●	01:Swing1
		●	02:Swing2
			03:Swing3
			04:Swing4
			05:Swing5
			06:Swing6
		●	07:JazzBallad
		●	08:Dixieland1
			09:Dixieland2
04	BOUNCE	●	01:Bounce1
		●	02:Bounce2
			03:Bounce3
		●	04:Reggae1
		●	05:Reggae2

Page	Category		LCD
05	SLOW ROCK	●	01:SlowRock1
		●	02:SlowRock2
		●	03:SlowRock3
06	TANGO	●	01:Tango1
		●	02:Tango2
		●	03:Tango3
07	LATIN1	●	01:ChaCha
		●	02:Rhumba
		●	03:Beguine
		●	04:Mambo
			05:Salsa
08	LATIN2	●	01:Samba1
		●	02:Samba2
			03:Samba3
		●	04:Bossanova1
		●	05:Bossanova2
			06:Bossanova3
09	8 BEAT	●	01:8Beat1
		●	02:8Beat2
			03:8Beat3
			04:8Beat4
			05:8Beat5
		●	06:DancePop1
		●	07:DancePop2
			08:DancePop3
			09:DancePop4
10	16 BEAT	●	01:16Beat1
		●	02:16Beat2
			03:16Beat3
			04:16Beat4
			05:16Beat5
		●	06:Funk1
		●	07:Funk2
			08:Funk3

Page	Category	LCD
11	USER RHYTHM	01:USER1-A
		02:USER1-B
		03:USER1-C
		04:USER1-D
		05:USER2-A
		06:USER2-B
		07:USER2-C
		08:USER2-D
		09:USER3-A
		10:USER3-B
		11:USER3-C
		12:USER3-D
		13:USER4-A
		14:USER4-B
		15:USER4-C
		16:USER4-D
		17:USER5-A
		18:USER5-B
		19:USER5-C
		20:USER5-D
		21:USER6-A
		22:USER6-B
		23:USER6-C
		24:USER6-D
		25:USER7-A
		26:USER7-B
		27:USER7-C
		28:USER7-D
		29:USER8-A
		30:USER8-B
		31:USER8-C
		32:USER8-D

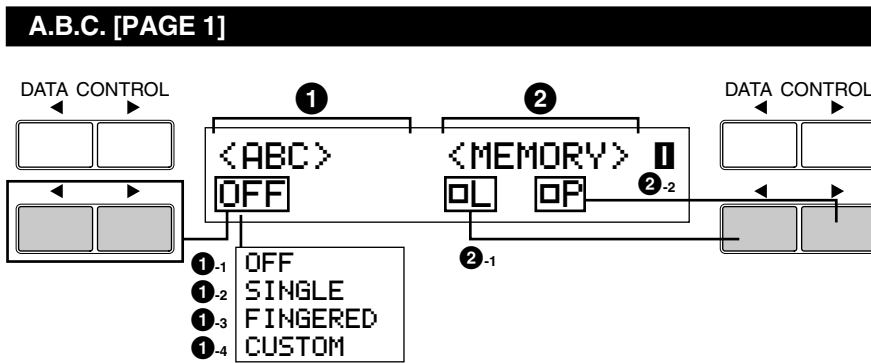# 5 Automatic Accompaniment - Auto Bass Chord (A.B.C.)

The Auto Bass Chord (A.B.C.) function works with the Rhythm section of the Electone to automatically produce chord and bass accompaniment as you play. There are three modes to obtain Automatic Accompaniment patterns.

To select the A.B.C. function:

Press the A.B.C./M.O.C. button in the DISPLAY SELECT section.

The following display appears.

A.B.C. [PAGE 1]
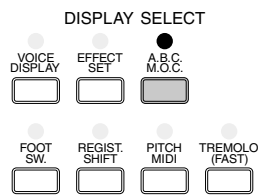
❶ **A.B.C. Type**

You can select one of three automatic accompaniment functions here. Each press of bottom left ▶ Data Control button selects Off, Single Finger, Fingered Chord and Custom A.B.C., in order. Each press of bottom left ◀ Data Control button selects in the reversed order.

❶-1 Off

Cancels the Auto Bass Chord function.

❶-2 Single Finger

Provides the fastest and easiest means to obtain many different chord/bass combinations, by simply using one, or at most, two or three fingers to play the chords.

❶-3 Fingered Chord

Automatically produces bass and chord accompaniment for chords played in the Lower keyboard. It allows you to use a wider range of chord types than in the Single Finger mode. In the Fingered Chord mode, you play all the notes of the chord while the Auto Bass Chord function automatically selects the appropriate bass pattern.

❶-4 Custom A.B.C.

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

❷ **Memory**

When you start a rhythm with this memory function on, A.B.C. automatic accompaniment keeps playing even after you release your fingers from the Lower keyboard.

❷-1 **Lower**

Use the bottom right ◀ Data Control button to turn on the Lower keyboard Memory function (Solid box indicates the function is effective). Selecting this keeps the chord accompaniment of the Lower Keyboard voices playing even after you release your fingers from the Lower keyboard.

❷-2 **PEDAL**

Use the bottom right ▶ Data Control button to turns on the Pedalboard Memory function (Solid box indicates the function is effective). Selecting this keeps the chord accompaniment of the Pedalboard voices playing even after you release your fingers from the Lower keyboard.

2) Chords Recognized in the Single Finger Mode

Major, minor, 7th and minor 7th chords can all be played in the Single Finger mode.
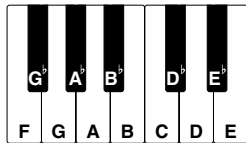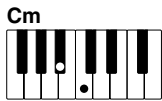

(Key of C)

C

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

Cm

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

C7

7th chords:
Simultaneously press the root and any one white key to the left of it.

Cm7

Minor 7th chords:
Simultaneously press the root as well as any black key and any white key to the left of it.

NOTE:

With Single Finger, the chord produced will sound in the same octave regardless of where it is played on the Lower keyboard.

NOTE:

PLAYING SINGLE FINGER CHORDS WITHOUT RHYTHM:
Auto Bass Chord is generally used with rhythms to create full rhythmic accompaniment, but it can also be used in the Single Finger mode to add full continuous chords to your performance without the use of the rhythm. Simply leave the rhythm off in Single Finger mode, and play Single Finger chords from the Lower keyboard.

NOTE:

If you forget to cancel the Single Finger or Fingered Chord accompaniment functions, single notes that you play will be sounded as continuous chords.
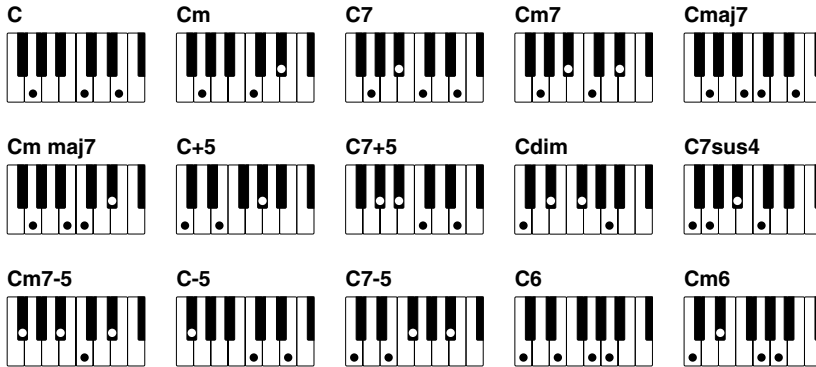
NOTE:

Minor, 7th and minor 7th chords with black key roots (such as B♭ or G♭) are played in the same way as those with white key roots.
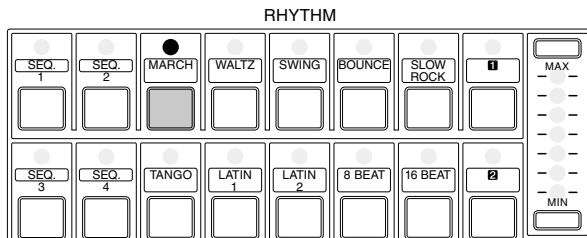
3) Chords Recognized in the Fingered Chord Mode

(Key of C)

C	Cm	C7	Cm7	Cmaj7

Cm maj7	C+5	C7+5	Cdim	C7sus4

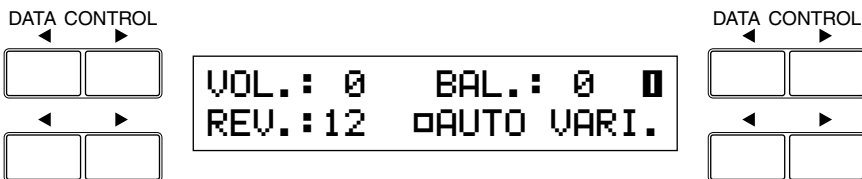| Cm7-5	C-5	C7-5	C6	Cm6

6 Accompaniment Controls

The Accompaniment function described in this section is independent of the A.B.C. accompaniment. When rhythms are used, A.B.C. provides rhythmical chords and bass, while the Accompaniment of this section provides arpeggiated chords and other instrumental embellishments. This control is selected from the Rhythm Menu and Rhythm Condition pages.
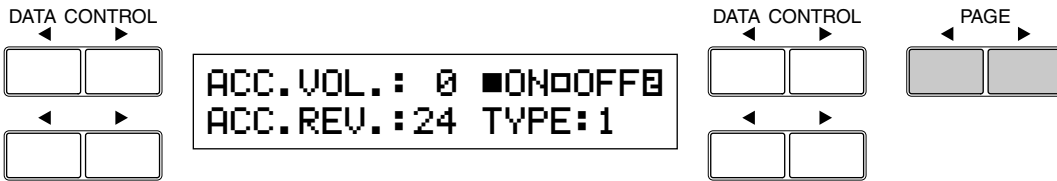
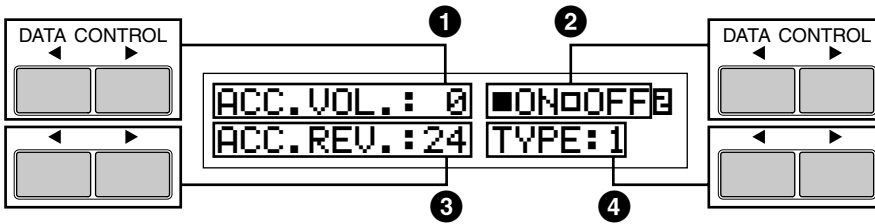1 Press any of the RHYTHM buttons twice.

Rhythm Condition page 1 appears.


```
VOL.: 0    BAL.: 0   ◼
REV.:12   ◻AUTO VARI.
```

2 Press the Page buttons to select PAGE 2.

DATA CONTROL
◄ ►

```
ACC.VOL.: 0 ■ON□OFF🔲
ACC.REV.:24 TYPE:1
```

◄ ►

DATA CONTROL
◄ ►

◄ ►

PAGE
◄ ►

Rhythm Condition [PAGE 2]

DATA CONTROL
◄ ►

❶ ❷

```
ACC.VOL.: 0  ■ON□OFF🔲
ACC.REV.:24  TYPE:1
```

❸ ❹

DATA CONTROL
◄ ►

◄ ►

◄ ►

❶ ACCOMPANIMENT

Determines the volume of the Accompaniment.

Range: 0 - 24

❷ On/Off

On/off switches of the Accompaniment function. Use the top right Data Control buttons to turn on/off the Accompaniment function.

❸ ACC. Reverb

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

Range: 0 - 24

❹ Type

Four types of accompaniment are available.
These settings provide various types of rhythmic and melodic accompaniment, and generally become more complex according to the type number.

3 Start the rhythm by pressing START button and play the Lower keyboard.
An appropriate accompaniment pattern, suited to the current rhythm and the chord played on the Lower keyboard, will be played automatically.

NOTE:

Even if the Accompaniment Type is changed, the Intro/Ending and Fill In patterns remain the same.
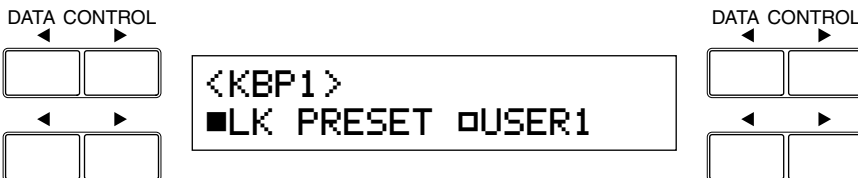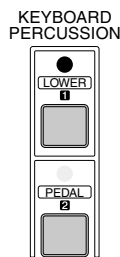
NOTE:

When the Electone is turned on, the Accompaniment Volume is automatically set to 0 (factory setting). Be sure to set the Accompaniment Volume to the appropriate value when using the Accompaniment function.

4

Rhythm and Accompaniment
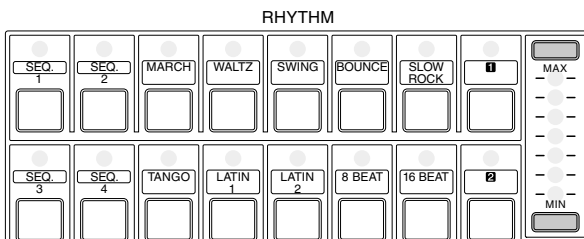
7 Preset/User Keyboard Percussion

The keyboard Percussion function features a total of 120 different drum and percussion sounds, playable from the keyboards and pedalboard. The Keyboard Percussion has two different modes, Preset and User. Preset Keyboard Percussion lets you play 43 different sounds from the Lower keyboard and Pedalboard, while the User Keyboard Percussion lets you freely assign the 120 available sounds to any key or pedal you wish.

1) To use the Preset Keyboard Percussion:

1 Turn off the Lower and/or Pedal voices by setting each voice's volume to MIN.

2 Turn on the Keyboard Percussion function by pressing the LOWER/1 and/or PEDAL/2 buttons in the KEYBOARD PERCUSSION section on the left side of the panel.

KEYBOARD
PERCUSSION

DATA CONTROL

◄ ►

◄ ►

〈KBP1〉
■LK PRESET ▢USER1

DATA CONTROL

◄ ►

◄ ►

3 Set the volume.
The volume of the percussion sounds is set together with that of the rhythm volume.

RHYTHM

| SEQ. 1 | SEQ. 2 | MARCH | WALTZ | SWING | BOUNCE | SLOW ROCK | 1 | MAX |
| SEQ. 3 | SEQ. 4 | TANGO | LATIN 1 | LATIN 2 | 8 BEAT | 16 BEAT | 2 | MIN |

4 Play some notes on the Lower keyboard and/or Pedalboard. The 43 percussion sounds have been assigned to the keyboards as shown in the chart below.

NOTE:

Pressing the KEYBOARD PERCUSSION button call up the Menu display. You can select from Preset (LK/PK preset) or User (one of the eight Users you created). LK Preset/PK Preset is selected as the defaults. If not, select the Preset.

Preset Percussion Assignments for the Lower Keyboard (43)
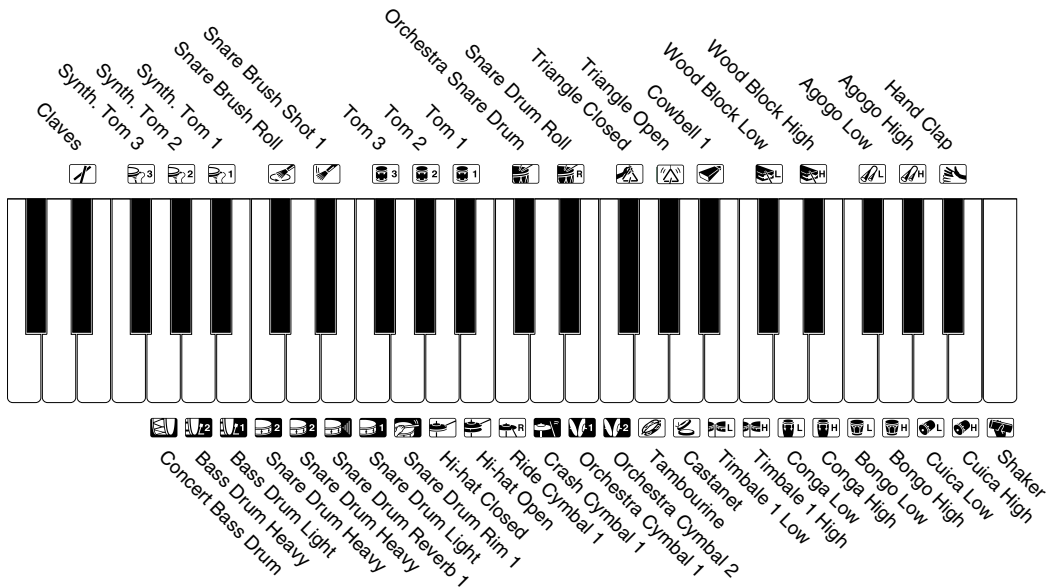
Preset Percussion Assignments for the Pedalboard (18)

NOTE:

You can rearrange the key assignments of the drum and percussion sounds using the following User Keyboard Percussion function.

4

Rhythm and Accompaniment

57

2) To use the User Keyboard Percussion:

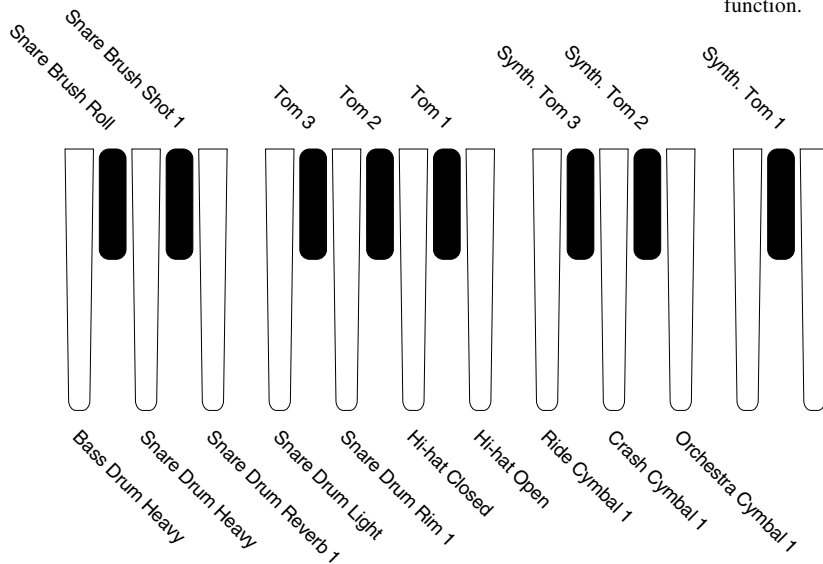A total of 120 different drum and percussion sounds can be assigned to any key or pedal, and your original setups can be saved to eight memory locations: User 1 through User 8. (For this example, use User1)

1 Turn on the Keyboard Percussion function by pressing the LOWER/1 button in the KEYBOARD PERCUSSION section.

KEYBOARD
PERCUSSION

```
<KBP1>
■LK PRESET □USER1
```

The Menu display appears on the LCD, and indicates that the LK (Lower Keyboard) PRESET is currently selected.

The Menu can be selected from LK PRESET and eight Users, USER 1 through USER 8.

When the PEDAL/2 button is used to call up the Menu display:

KEYBOARD
PERCUSSION

```
<KBP2>
■PK PRESET □USER1
```

The Menu can be selected from PK (Pedalboard) PRESET and eight Users, USER 1 through USER 8.

2 Select User 1 using the bottom right Data Control buttons. This means that you change the function of the Keyboard Percussion button from Preset to User. You have selected User 1 for the LOWER/1 button. When you select one of the Users, a Page number will be added to the top right side of the display.
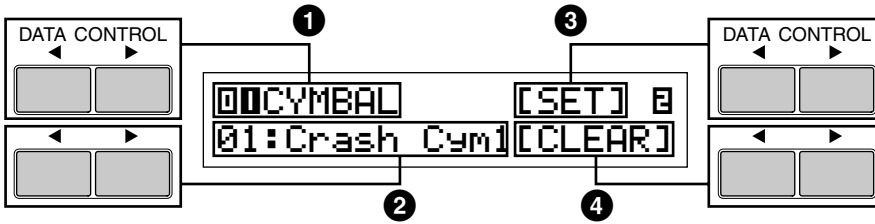
DATA CONTROL

◄ ►

◄ ►

```
<KBP1>      [COPY]  ❚
□LK PRESET ■USER1
```

DATA CONTROL

◄ ►

◄ ►

NOTE:

User 1 and User 2 contain the LK Preset data and PK Preset data, respectively, as the defaults.

3 Press the Page buttons to select PAGE 2.
The page 2 allows you to assign the instruments to each key/
pedalboard.

❶ Group

Lets you select the percussion group you want using the top left
Data Control buttons. The percussion groups are 12, 01 – 12. (Refer
to the User Keyboard Percussion Categories list below.)

❷ Instrument Names

The individual instruments are shown in the display and can be
selected with the appropriate Data Control buttons. (Refer to the
User Keyboard Percussion Categories list below.)

❸ Set

Assigns the selected instrument to the key you wish. (See the
following explanation in the step #4.)

❹ Clear

This function is used to erase User assignment for User 1.
CLEAR works in two ways: either to erase a single instrument, or to
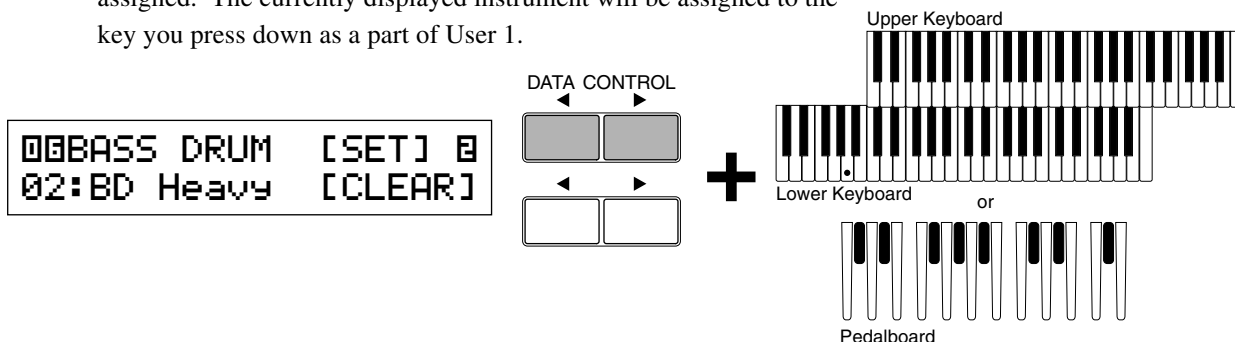erase all instruments. (See step #5 below.)

NOTE:

Playing back EL-100's MDR reproduces
the instrument condition set by EL-900/
700/500.

User Keyboard Percussion Categories

Category	LCD
01 CYMBAL	01:Crash Cym1
	02:Crash Cym2
	03:CrashCym M
	04:Ride Cym1
	05:Ride Cym2
	06:RideCymCup
	07:Orch.Cym1
	08:Orch.Cym2
	09:Orch.Cym M
	10:Cym March
	11:Cym BrShot
	12:Tam-Tam
02 HI-HAT	01:HH Open
	02:HH Close
	03:HH Pedal1
	04:HH Pedal2
	05:AnalogHH O
	06:AnalogHH C
03 SNARE DRUM	01:SD Light
	02:SD Heavy
	03:SD Rim1
	04:SD Rim2
	05:SD Accent1
	06:SD Accent2
	07:SD Reverb1
	08:SD Reverb2
	09:Synth.SD
	10:Orch.SD
	11:SD Roll
	12:Analog SD
04 SNARE BRUSH	01:SD BrShot1
	02:SD BrShot2
	03:SD BrRoll
05 TOM	01:Tom1
	02:Tom2
	03:Tom3
	04:Tom4
	05:TomBrShot1
	06:TomBrShot2
	07:TomBrShot3
	08:TomBrShot4
	09:Synth.Tom1
	10:Synth.Tom2
	11:Synth.Tom3
06 BASS DRUM	01:BD Light
	02:BD Heavy
	03:BD Attack
	04:Synth.BD
	05:BD March
	06:Concert BD
	07:Analog BD1
	08:Analog BD2
07 CONGA/BONGO	01:Conga High
	02:Conga Low
	03:Conga Slap
	04:Conga Muff
	05:CongaSlide
	06:Bongo High
	07:Bongo Low
	08:Bongo Slap
	09:Bongo Mute

Category	LCD
08 CUICA/SURDO	01:Cuica High
	02:Cuica Med.
	03:Cuica Low
	04:Tamborim O
	05:Tamborim M
	06:Surdo Open
	07:Surdo Mute
	08:Surdo Rim
	09:Surdo Muff
09 TIMBALE/COW	01:Timbale1 H
	02:Timbale1 L
	03:Timbale2 H
	04:Timbale2 L
	05:Timbale3 H
	06:Timbale3 L
	07:Timbale4 H
	08:Timbale 4 L
	09:Cowbell1
	10:Cowbell2
	11:Cowbell3
	12:Cowbell4
10 PERCUSSION1	01:Cabasa
	02:Shaker
	03:Maracas H
	04:Maracas L
	05:GuiroShort
	06:Guiro Long
	07:Wood High
	08:Wood Med.
	09:Wood Low
	10:Claves
	11:Castanet
	12:Vibraslap
11 PERCUSSION2	01:Agogo High
	02:Agogo Low
	03:Triangle O
	04:Triangle C
	05:Windbell1
	06:Windbell2
	07:Tambourine
	08:Pandeiro
	09:Bell
	10:Hand Claps
	11:Fingersnap
	12:Scratch
	13:Noise Per.
12 PERCUSSION3	01:Kotsuzumi1
	02:Kotsuzumi2
	03:Kotsuzumi3
	04:Kotsuzumi4
	05:Ohtsuzumi1
	06:Ohtsuzumi2
	07:Taiko1
	08:Taiko2
	09:Ohdaiko1
	10:Ohdaiko2
	11:Kakegoe1
	12:Kakegoe2
	13:Kakegoe3

4 To assign an instrument to a particular key or pedal:
Simultaneously hold down the Data Control button corresponding to
[Set] and press the key (or pedal) to which the instrument is to be
assigned. The currently displayed instrument will be assigned to the
key you press down as a part of User 1.

```
08BASS DRUM  [SET] 8
02:BD Heavy  [CLEAR]
```

DATA CONTROL
◄ ►
◄ ►

+

Upper Keyboard

Lower Keyboard   or

Pedalboard

Continue the operation above to build up your own User Keyboard
Percussion set.

5 If you want, you can erase the instrument assignment.

To erase one instrument:
Simultaneously hold down the Data Control button corresponding to
CLEAR and press the key (or pedal) corresponding to the instrument
you wish to erase.
(A short 'beep' sound indicates that the instrument has been erased.)

To erase all instruments:
1. Press, then release the Data Control button corresponding to
CLEAR. The following display appears, prompting confirmation of
the operation.

DATA CONTROL
◄ ►
◄ ►

```
Assign All Clear?
[CLEAR]   [CANCEL]
```

DATA CONTROL
◄ ►
◄ ►

2. Press any of the bottom left Data Control buttons (corresponding to
[Clear] in the display) to erase all data. When [Clear] is selected, a
'Completed' message momentarily appears on the display.
Press any of the bottom right Data Control buttons (corresponding
to [Cancel] in the display) to abort the operation.

NOTE:

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

NOTE:

Two User Keyboard Percussions currently
selected by LOWER/1 and PEDAL/2 are
playable if both buttons are on.

3) Other User Keyboard Percussion Functions

Additional operations in the User mode include copying of Lower/Pedal Preset Keyboard Percussion to one of the Users, and copying from one User location to another.

To copy the Lower Preset Keyboard Percussion to one of the Users:

The following operation allows you to copy the Lower Preset Keyboard Percussion to one of the Users. The copy operation is convenient for creating a slight modification from the Preset.
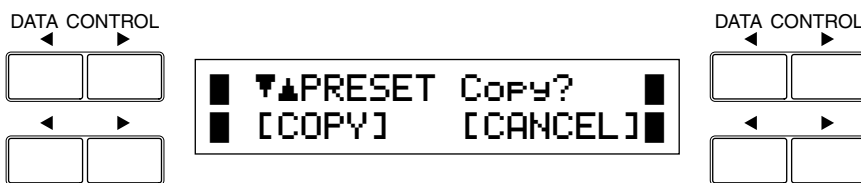
1. Turn on the Keyboard Percussion function by pressing the LOWER/ 1 button in the KEYBOARD PERCUSSION section.

2. Select the User number to which you want to copy using the bottom right Data Control buttons.

DATA CONTROL
◄ ►

DATA CONTROL
◄ ►

```
<KBP1>      [COPY]   ▯
▯LK PRESET ▪USER1
```

◄ ►

◄ ►

3. Press the top right Data Control buttons to select Copy function.

DATA CONTROL
◄ ►

DATA CONTROL
◄ ►

```
<KBP1>      [COPY]   ▯
▯LK PRESET ▪USER1
```

◄ ►

◄ ►

The following display appears:

DATA CONTROL
◄ ►

DATA CONTROL
◄ ►

```
▮ ▼▲PRESET Copy?    ▮
▮ [COPY]    [CANCEL]▮
```

◄ ►

◄ ►

**4.** Press top left Data Control buttons to select the copy source (in this case, Lower Preset Keyboard Percussion).

DATA CONTROL
◄ ►

DATA CONTROL
◄ ►

```
▮ ▼▲PRESET Copy?    ▮
▮ [COPY]    [CANCEL]▮
```

◄ ►

◄ ►

5. Press any of the bottom left Data Control buttons (corresponding to [Copy] in the display) to copy the data. When [Copy] is selected, a 'Completed' message momentarily appears on the display.
Press any of the bottom right Data Control buttons (corresponding to [Cancel] in the display) to abort the operation.

DATA CONTROL			DATA CONTROL

```
█    PRESET Copy    █
█    Completed!!    █
```

The Pedal Preset Keyboard Percussion (PK PRESET) can be copied in the same way.

DATA CONTROL			DATA CONTROL

```
<KBP2>
■PK PRESET □USER1
```
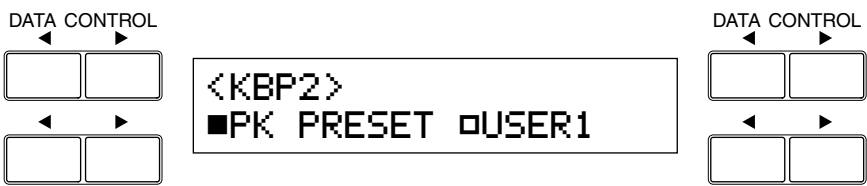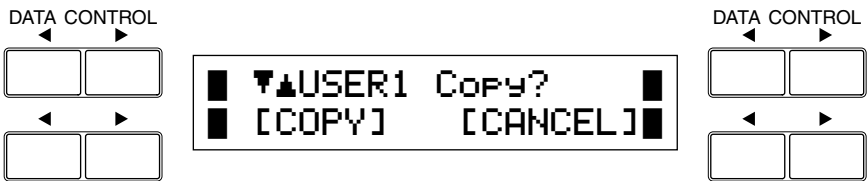
To copy from one User location to another:

1. Turn on the Keyboard Percussion function by pressing the LOWER/ 1 (or PEDAL/2) button in the KEYBOARD PERCUSSION section.

2. Select the User number to which you want to copy using the bottom right Data Control buttons.
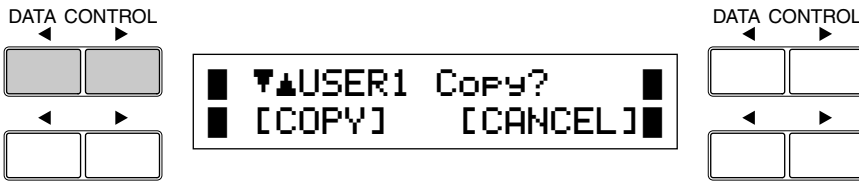
DATA CONTROL			DATA CONTROL

```
<KBP1>    [COPY]   █
□LK PRESET ■USER3
```

3. Press the top right Data Control buttons to select Copy function.

DATA CONTROL			DATA CONTROL

```
<KBP1>    [COPY]   █
□LK PRESET ■USER3
```

The following display appears:

DATA CONTROL			DATA CONTROL

```
█ ▼▲USER1 Copy?    █
█ [COPY]    [CANCEL]█
```

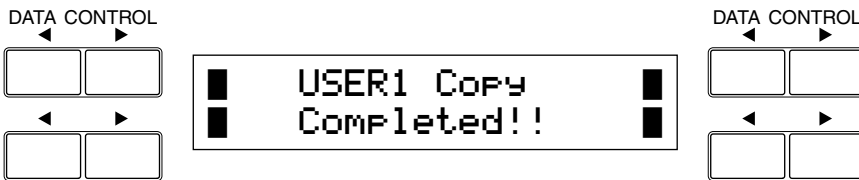**4.** Select the User number from which you want to copy using the top left Data Control buttons.


```
DATA CONTROL                                          DATA CONTROL
   ◄    ►                                                ◄    ►
┌────┬────┐   ┌─────────────────────────────┐         ┌────┬────┐
│    │    │   │ ▌ ▼▲USER1 Copy?           ▌ │         │    │    │
└────┴────┘   │ ▌ [COPY]      [CANCEL]▌    │         └────┴────┘
   ◄    ►     └─────────────────────────────┘            ◄    ►
┌────┬────┐                                            ┌────┬────┐
│    │    │                                            │    │    │
└────┴────┘                                            └────┴────┘
```

In this case, the destination User number will not be displayed as the source number, or selectable on the display.

5. Press any of the bottom left Data Control buttons (corresponding to [Copy] in the display) to copy the data. When [Copy] is selected, a 'Completed' message momentarily appears on the display.
Press any of the bottom right Data Control buttons (corresponding to [Cancel] in the display) to abort the operation.



```
DATA CONTROL                                          DATA CONTROL
   ◄    ►                                                ◄    ►
┌────┬────┐   ┌─────────────────────────────┐         ┌────┬────┐
│    │    │   │ ▌    USER1 Copy          ▌ │         │    │    │
└────┴────┘   │ ▌    Completed!!         ▌ │         └────┴────┘
   ◄    ►     └─────────────────────────────┘            ◄    ►
┌────┬────┐                                            ┌────┬────┐
│    │    │                                            │    │    │
└────┴────┘                                            └────┴────┘
```

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

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

To display the M.O.C. function, press A.B.C./M.O.C. button in the DISPLAY SELECT and then select the Page 2.

M.O.C. [PAGE 2]

DATA CONTROL
◄ ►

DATA CONTROL
◄ ►

◄ ►

```
<MOC>                    2
MODE:OFF
```

❶ ❷ OFF
❸ 1
❹ 2
❺ 3
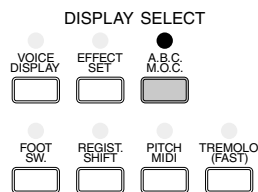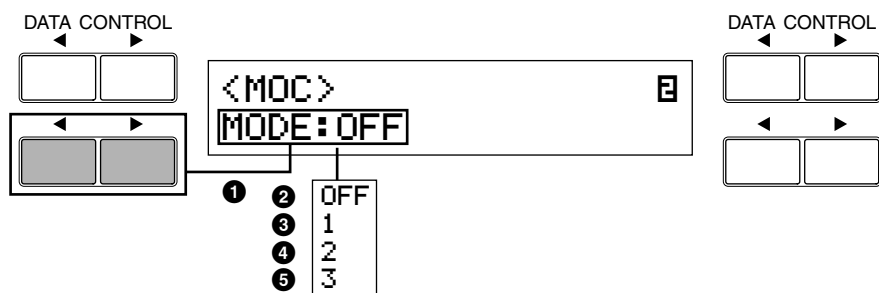
❶ **Mode**

You can select one of three automatic accompaniment functions here.
Each press of bottom left ► Data Control button selects Off, 1, 2 and 3, in
order. Each press of bottom left ◄ Data Control button selects in the
reversed order.

❷ **Off**

Cancels the Melody On Chord function.

❸ **1**

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

❹ **2**

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

❺ **3**

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

NOTE:

Melody On Chord applies only when the
Upper keyboard voice section's volume is
set to the appropriate value.

About the Rhythm Sequence

Rhythm Sequence is built up with various different rhythm patterns, and can be programmed by the other Electone such as EL-900.

The EL-100 doesn't have Rhythm Sequence function, but it can read and load the rhythm sequence data recorded on the MDR (a floppy disk) to its four SEQ buttons in the Rhythm section and play back them, as follows:

1. Insert the floppy disk containing rhythm sequence data into the EL-100's MDR slot. The rhythm sequence data is recorded as a part of registration data (explained on page 78).

2. Select the song number containing the registration data and press PLAY button on the MDR to load the data. The rhythm sequence data has been loaded to the Electone, or SEQ button(s).

3. Press the desired SEQ button. The SEQ button's lamp will be lit.
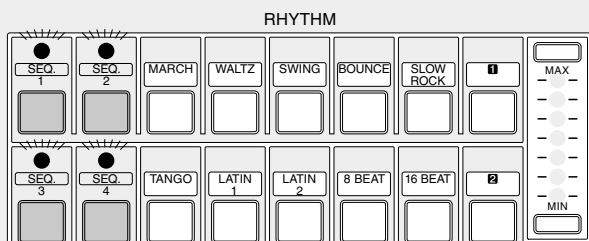
4. Turn the START button on and play the rhythm sequence(s).
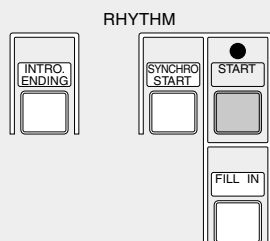
During the rhythm sequence playback, the rhythm name currently played back is displayed on the LCD.

NOTE:

You can have up to all four rhythm sequences play back automatically by pressing the SEQ buttons.

NOTE:

Four types of metronome sounds, simple metronome, two four, three four and four four, are assigned to the SEQ 1 – 4 buttons, respectively, as the defaults.

NOTE:

As soon as you load the sequence data using MDR, the default settings on each SEQ button, four types of metronome sounds, will be overwritten, or lost. Turning the power off resets the Electone to the defaults.
Also, pressing any of the BASIC REGIST. buttons generates a short beep sound and retrieves the metronome sounds.

5 Registration Memory

Registration Memory allows you to store virtually all the settings you make on the panel and LCD, providing a convenient way to instantly change all voice settings and rhythms while you're playing, with the simple touch of a single button on the Registration Memory panel.

REGISTRATION MEMORY

M. / TO DISK   1   2   3   4   5   6   7   8   D.
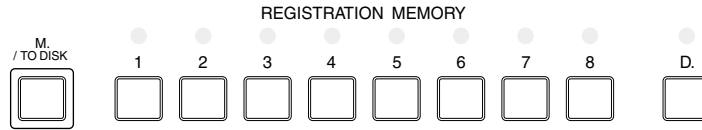
Functions and settings that cannot be memorized are:

● Reverb type
● Pan, Reverb, Tune and Volume settings for the instruments (Drum and percussion sounds)
● User Keyboard Percussion settings (except for User numbers currently assigned to the Lower/Pedal buttons)
● Registration Shift settings

● Pitch/Transpose settings
● User rhythm patterns in a Pattern Disk (except for User rhythm numbers currently assigned to the Dotted buttons)
● Rhythm Sequence
● MIDI settings

When turned on, various types of basic registrations are preset on the numbered buttons from 1 through 8.

No.	Name	No.	Name
1	Marching Band	5	Latin
2	Polka	6	2 Beat
3	8 Beat Ballad	7	Organ Ballad
4	Strings Waltz	8	Dance Pop

When you record your registration setting to one of the numbered buttons, the preset registration on that button will be overwritten and erased as a result.

NOTE:

When you turn off the Electone, your own registration setting(s) will be reset to the default, or erased. Turning the Electone back to on restores the preset registration settings (the defaults).
If you want to keep your own registration settings, you need to record them onto a floppy disk before turning the Electone off. Refer to page 68 for details on saving registration data to disk.

1 Storing Registrations

Newly created registrations you make can be stored to the Registration Memory panel buttons. All registrations in Registration Memory can also be saved to floppy disk for future recall.

1　After creating your original registration, decide which numbered button you wish to store.

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

REGISTRATION MEMORY

M. / TO DISK   1   2   3   4   5   6   7   8   D.
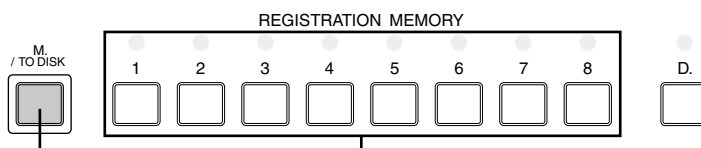
1. While holding down M button..　　2. ...Press desired numbered button.

When the registration is stored, the lamp above the numbered button flashes momentarily.

⚠

Be careful when turning off the power, since it erases all your existing data. Always save your important data to a floppy disk using M.D.R. (page 68) in advance.

NOTE:

Although the number of the Registration Memory buttons of EL-100 are limited to eight, from Registration Memory 1 through Registration Memory 8, the Registration Memory 9 through Registration Memory 16 can be accessible when using MDR playback and Registration Shift functions.

2 Selecting Registrations

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

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 and accompaniment patterns throughout all your registration changes, or make your own rhythm selections if you want to.

NOTE:

The settings, can be disabled, are:
■ Current rhythm pattern
■ Rhythm Condition
■ Tempo
■ A.B.C./M.O.C. settings

REGISTRATION MEMORY

M. / TO DISK   1   2   3   4   5   6   7   8   D.
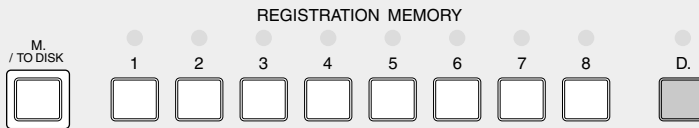
3 Saving the Registration Data to Disk

1   Insert a formatted disk into the disk slot under the Music Disk Recorder (M.D.R.). Make certain that the disk is either blank or has data you can erase. If the disk is new and unformatted, you will have to format it. Refer to the instructions how to format a disk (page 75).
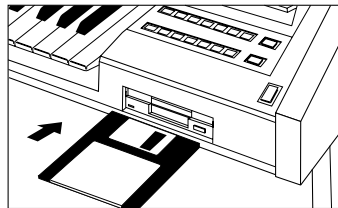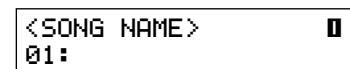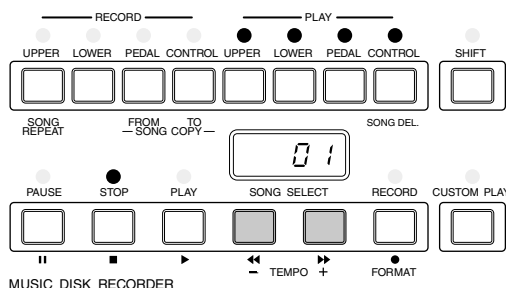
2   Select a song number on the M.D.R. using the SONG SELECT buttons. You can also select a song number shown on the display using the appropriate Data Control button and (if necessary) using Page buttons to display the appropriate page. A song name is displayed next to the song number that already contains data.

NOTE:

Song name may not be displayed depending on the Electone model created the data.

───RECORD───   ───PLAY───
UPPER LOWER PEDAL CONTROL UPPER LOWER PEDAL CONTROL   SHIFT

SONG   FROM   TO   SONG DEL.
REPEAT   ─SONG COPY─

                        01

PAUSE   STOP   PLAY   SONG SELECT   RECORD   CUSTOM PLAY

 ‖   ■   ►   ◄◄ TEMPO ►►   FORMAT
MUSIC DISK RECORDER   −   +

```
<SONG NAME>          ▯
01:
```

There are 40 songs (ten song numbers on the four pages), or memory locations, available on a single disk.

3   While holding down the RECORD button on the M.D.R., press the M (Memory) button in Registration Memory.
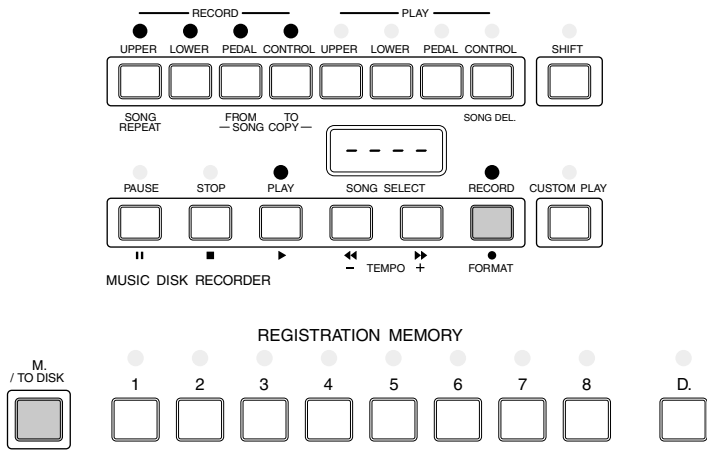

This operation saves all eight registrations in Registration Memory to one song. The other 39 available songs on the disk can be used for saving additional batches of 8 registrations.
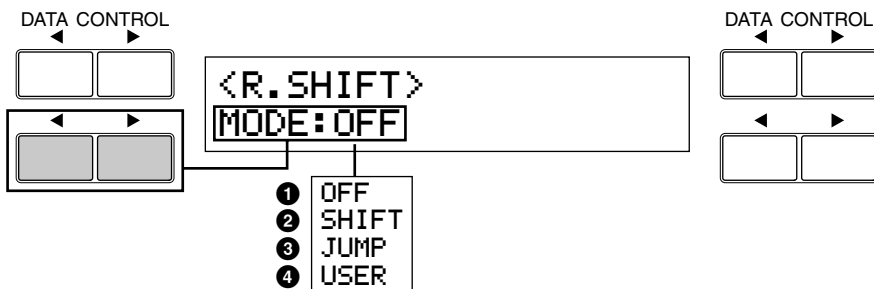
4 Registration Shift

The Registration Shift function allows you to change registrations, all the settings you make on the panel and LCD, without taking your hands from the keyboards. Using the Right Footswitch on the Expression Pedal, you can "jump" to a specified registration or step through the panel registrations in sequence, either in numeric order or in any order you specify.

Press the REGIST. SHIFT button in the DISPLAY SELECT section. REGIST. SHIFT page will be displayed.
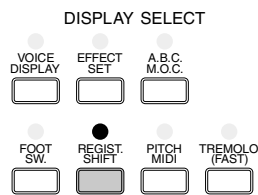
REGIST SHIFT Page

Select one of the modes using the bottom left Data Control buttons. Registration Shift has three modes: Shift, Jump and User.
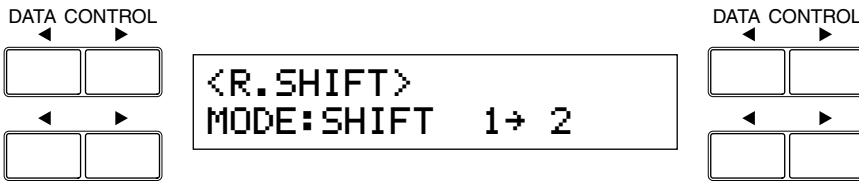
❶ Off

Turns off the Registration Shift assignment.

```
DATA CONTROL
  ◄     ►
┌───┐ ┌───┐     ┌─────────────────────┐
│   │ │   │     │ <R.SHIFT>           │
└───┘ └───┘     │ MODE:OFF            │
  ◄     ►        └─────────────────────┘
┌───┐ ┌───┐
│   │ │   │
└───┘ └───┘
```

```
DATA CONTROL
  ◄     ►
┌───┐ ┌───┐
│   │ │   │
└───┘ └───┘
  ◄     ►
┌───┐ ┌───┐
│   │ │   │
└───┘ └───┘
```

❷ Shift

Selects the Shift mode. In the Shift mode, each press of the Right Footswitch selects the Registration Memory presets in their numerical order. The numbered buttons light up as they are selected.

```
DATA CONTROL
  ◄     ►
┌───┐ ┌───┐     ┌─────────────────────┐
│   │ │   │     │ <R.SHIFT>           │
└───┘ └───┘     │ MODE:SHIFT   1→ 2   │
  ◄     ►        └─────────────────────┘
┌───┐ ┌───┐
│   │ │   │
└───┘ └───┘
```

```
DATA CONTROL
  ◄     ►
┌───┐ ┌───┐
│   │ │   │
└───┘ └───┘
  ◄     ►
┌───┐ ┌───┐
│   │ │   │
└───┘ └───┘
```

NOTE:

- Although the number of the Registration Memory buttons of EL-100 is limited to eight, from Registration Memory 1 through Registration Memory 8, you can select the other eight Registration Memory numbers, the Registration Memory 9 through Registration Memory 16.
- After the last preset is reached, the function "wraps around" to select the first preset again.
- The current registration number and the number next to it will be displayed.

❸ Jump

Selects the Jump mode. In the Jump mode, each press of the Right Footswitch selects a specified panel registration.

■ To set the Jump mode:

1. When you select the Jump mode, one of the registration numbers will be displayed at the right side of the display.

```
DATA CONTROL
  ◄     ►
┌───┐ ┌───┐     ┌─────────────────────┐
│   │ │   │     │ <R.SHIFT>           │
└───┘ └───┘     │ MODE:JUMP   REGIST: 1│
  ◄     ►        └─────────────────────┘
┌───┐ ┌───┐
│   │ │   │
└───┘ └───┘
```

```
DATA CONTROL
  ◄     ►
┌───┐ ┌───┐
│   │ │   │
└───┘ └───┘
  ◄     ►
┌───┐ ┌───┐
│▓▓▓│ │▓▓▓│
└───┘ └───┘
```

2. Select the registration number to which you want to jump using the bottom right Data Control buttons. Each press of the bottom right Data Control buttons selects next number.

**3.** Pressing the Right Footswitch jumps to select the designated panel registration.

NOTE:

Although the number of the Registration Memory buttons of EL-100 are limited to eight, from Registration Memory 1 through Registration Memory 8, you can select the other eight Registration Memory numbers, the Registration Memory 9 through Registration Memory 16.

❹ **User**

Selects the User mode. In the User mode, each press of the Right Footswitch selects registrations according to the order you specify.

1. When you select the User mode, the Shift End selector function, how the Registration Shift function acts when it reaches to the end, will be added to the right side of the display. Also, page number will be shown at the top right side.

DATA CONTROL
◄ ►

DATA CONTROL
◄ ►

```
<R.SHIFT>  <S.END> ▯
MODE:USER  STOP
```

◄ ►

```
STOP
TOP
NEXT SONG
```
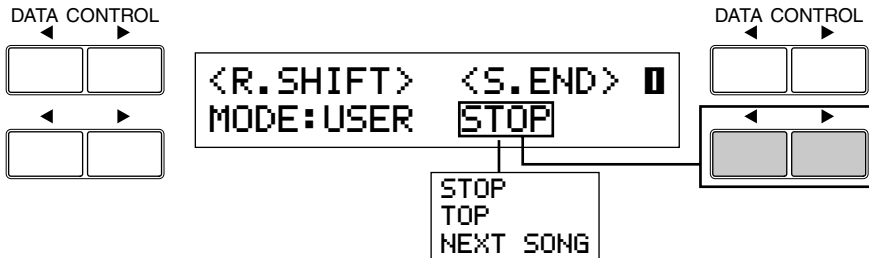
2. Select the Shift End type using the bottom right Data Control buttons. The following three types are available:

Stop: Selects the last registration and quits the operation.

Top: After reaching the last preset, then selects the first preset again and repeats the operation.

Next Song: After reaching the last preset, then automatically calls up the registration data of the next song. This function is handy for you to play a song containing more than 16 registrations. Recording the songs onto the M.D.R. using this function allows you to play back them successively.
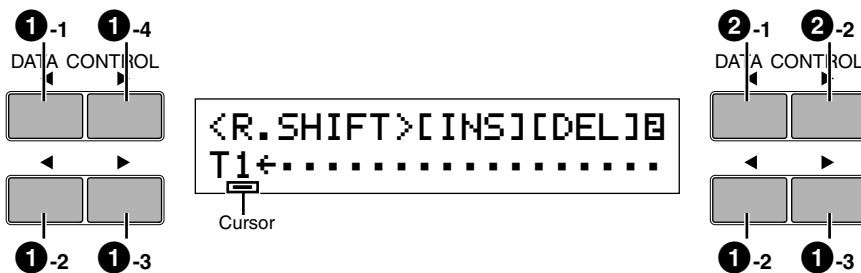
NOTE:
Always press the PLAY button to start the songs and activate the Next Song function on the M.D.R. The CUSTOM PLAY button will not cause to activate the Next Song function.

NOTE:
Using the Next Song function will not read the User rhythm patterns/sequences while playing back a rhythm.

3. Press the Page buttons to select Page 2. The following display appears. You can edit the registration shift settings of your own here.

❶-1 ❶-4
DATA CONTROL
◄

❷-1 ❷-2
DATA CONTROL
◄

◄ ►

```
<R.SHIFT>[INS][DEL]▯
T1←................
```
Cursor

◄ ►

❶-2 ❶-3

❶-2 ❶-3

❶ **POSITION (Cursor Controls)**

❶-1 **Moves the cursor to the first position.**
❶-2 **Moves the cursor one step to the left.**
❶-3 **Moves the cursor one step to the right.**
❶-4 **Moves the cursor to the last position.**

NOTE:
The cursor cannot be moved unless registration numbers have been entered.

NOTE:
The registration to which the cursor is currently positioned is set on the Electone. However, moving the cursor cannot activate the Shift End function.

NOTE:
Up to 80 steps can be memorized. Although the number of registrations shown in the display at a time is limited, the display scrolls to the right to show the currently entered registration number as you enter them.

NOTE:
The Shift End mark will automatically be put at the end of the registrations you entered.

♯	NEXT SONG
←	TOP
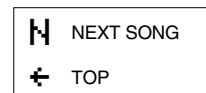
❷ Data (Data Controls)

The pair of the top right Data Control buttons is used to enter or delete registration numbers in the registration row. Move the cursor to the desired position and edit the registration data.

❷-1 [INS] Insert

For initially entering a registration or inserting a registration number just before the current cursor position.
First, move the cursor to the position at which you want to insert. Then press the desired Registration Memory button (the lamp above the selected button will light), and press the Data Control button corresponding to INS. The new registration number is inserted at the cursor position and all other numbers to the right of the cursor are moved to accommodate the new number.

❷-2 [DEL] Delete

For deleting a registration number at the current cursor position. To delete the unnecessary number, move the cursor to a numbered position and press the Data Control button corresponding to DEL.

Registration numbers cannot be entered beyond the Registration Shift function's capacity of 80. END will automatically be placed at the end of the registration shift setting. The following message momentarily appears when the 80 spaces have been filled: First delete unnecessary registrations, then perform the operation again.

DATA CONTROL
◄ ►

◄ ►

Data Full!

DATA CONTROL
◄ ►

◄ ►

Music Disk Recorder (M.D.R.)
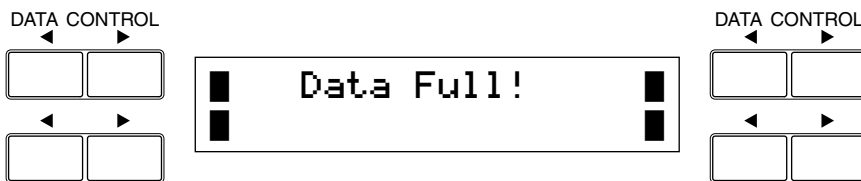
The Music Disk Recorder (M.D.R.) lets you store the registration data and load back to the Electone as well as record your performance and play back the data. Moreover, the M.D.R. allows you to execute song copy operation and play back commercially available XG song data.

1 Precautions on M.D.R.

Follow the important precautions below.

Compatible Disk Type

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

Inserting/Ejecting Floppy Disks

■ **To insert 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.

Floppy disk slot

LED (Lamp in-use)   Eject button
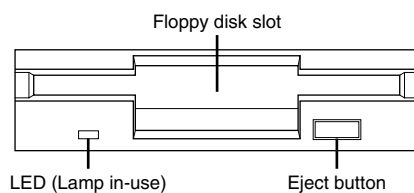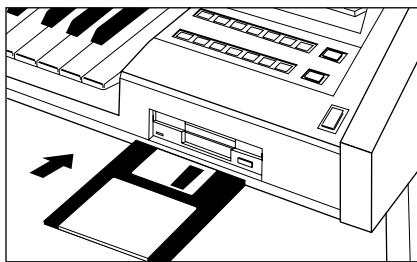
NOTE:

When the EL-100 is turned on, the LED below the floppy disk slot will be lit indicating that the M.D.R. is ready to use.

To eject a floppy disk:

⚠ Be sure to confirm that the lamp of STOP button on M.D.R. is turned off before ejecting a floppy disk from the slot. Never eject the floppy disk before the STOP lamp lights up.

Press the eject button slowly as far as it will go; the disk will automatically pop out. When the disk is fully ejected, carefully remove it by hand.

⚠ **Never attempt to remove the disk or turn the power off during recording, reading and playing back. Doing so can damage the disk and possibly the disk drive.**

⚠ If the eject button is pressed too quickly, or if it is not pressed in as far as it will go, the disk may not eject properly. The eject button may become stuck in a half-pressed position with the disk extending from the drive slot by only a few millimeters. If this happens, do not attempt to pull out the partially ejected disk, since using force in this situation can damage the disk drive mechanism or the floppy disk.

To remove a partially ejected disk, try pressing the eject button once again, or push the disk back into the slot and then repeat the eject procedure.

⚠ **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

● This instrument employs a precision read/write magnetic head. The magnetic head will pick up a layer of magnetic particles from the disks for an extended period of time. The stained magnetic head 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.

NOTE:

Ask your Yamaha dealer about the availability of proper head-cleaning disk.

About the Floppy Disks

■ To handle floppy disks with care:

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).If you attempt to modify the disk when the write-protect tab is set to "on" position, "Prot (Protected)" will appear on the LED display in the M.D.R. section indicating that the operation is not possible.

Also please check if the write-protect tab is set to "off" position when you record data.

Protect Off
(tab closed: unlocked)

Rear side

Shutter

Write-protect tab

Protect On
(tab open: locked)
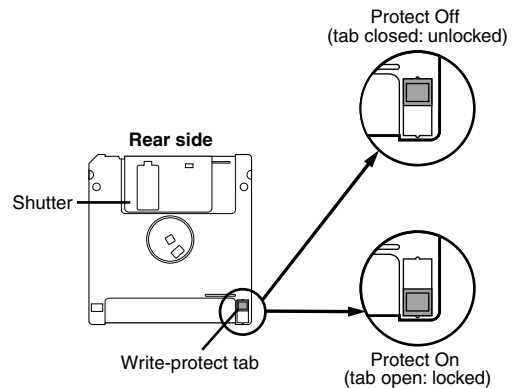
■ Data backup

Yamaha recommends that you keep two copies of important data on separate floppy disks by using this function. To make a backup disk use the Disk Copy function on page 92.

Improved Potentiality of the M.D.R.

The M.D.R. of the EL-100 begins reading all data as soon as you insert a disk into the floppy disk slot. Thus, inserting a disk causes to produce a sound (reading sound) indicating that the M.D.R. is in the reading process.

The improvement of the M.D.R. allows you to start song playback immediately, to be free from the reading sound during playback and to record the song playback using the several song numbers with the Next Song function.

NOTE:

Ejecting the disk will lose the data loaded from the disk except for the currently selected and played back song.

NOTE:

The time reading sound is produced is in proportion to the amount of data recorded in the disk. You can eject the disk whenever you are not using the M.D.R. and don't want to be bothered with the reading sound.

2 Formatting a Disk

Before recording, the disk must first be formatted.

1
Put the disk, label facing up, into the disk drive (floppy disk slot).
"Fort" will appear on the LED display indicating that the
inserted disk requires to be formatted.

2
While holding down the SHIFT button, press the FORMAT
button.
This step puts the format operation on stand-by, indicated by the
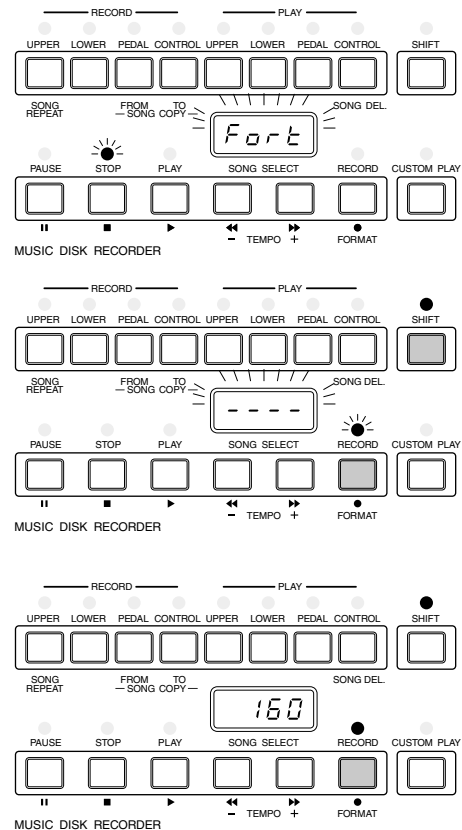dashes on the LED display and the flashing LED (lamp) above
the FORMAT button.

3
Press the FORMAT button again to begin formatting.
Formatting is engaged and the LED above the FORMAT button
stays lit.
The number "160" appears on the LED display and counts down
to "001" as the disk is being formatted. When formatting is
completed, operation returns to the original STOP status.
The following Song Name display appears after the operation.

```
<SONG NAME>          ▯
01:
```

The song number can be selected using SONG SELECT button
or the Data Control buttons on the bottom row. Up to 10 song
numbers can be selectable in a single page. The page numbers,
from 1 through 4, are also shown at the top right side of the
display. A total of 40 song locations are created. The song
names next to each song number are left blank and indicate that
each song number doesn't contain any data.

⚠️

Formatting a disk erases all the data in the disk and
makes it ready to record. The erased data by
formatting will be lost permanently. Check if the
disk contains your important data, or not, before
executing the operation.

About SHIFT Button

You will find the SHIFT button (printed in green) at the top right
side of the M.D.R. section. Some buttons in the M.D.R. section have
dual functions: the first function is printed in white above each
button; the second function is printed in green below each button.
The SHIFT button is used to select the second functions by pressing
each function button while holding down the SHIFT.

3 Recording

1) To record a song:

1 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.

2 Put a formatted disk into the disk slot.

3 Use the SONG SELECT (◀◀, ▶▶) buttons to select the song number for recording. You can also select the song number by pressing the Data Control buttons.

```
DATA CONTROL
  ◀   ▶

  ◀   ▶
```

```
<SONG NAME>        ▮
01:
```

```
DATA CONTROL
  ◀   ▶

  ◀   ▶
```

4 Press the RECORD button.
The RECORD lamp lights up and the PLAY and CUSTOM PLAY lamps begins blinking, indicating that the Music Disk Recorder is ready to record.
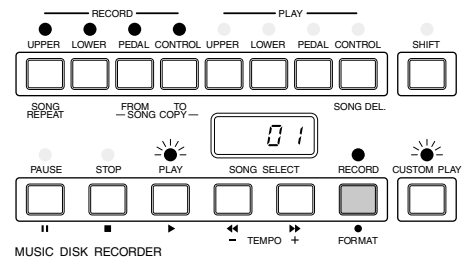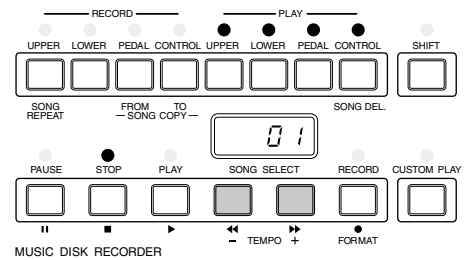
NOTE:

If the selected song number already contains recorded data, small bars ("--") appear at the left part of LED display and flash along with the song number, warning you that the selected song number already contains recorded data. If you want to execute recording operation over the song number, press the RECORD button again. If you don't want, select another song number for recording or press the STOP button to cancel recording.
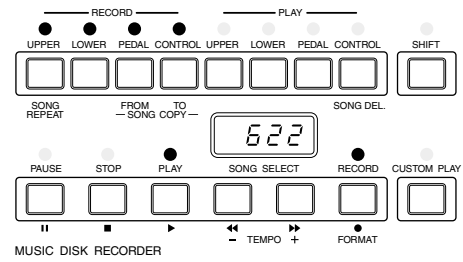
5 Press the PLAY button.
The PLAY lamp lights up and small bars flash across the LED display from left to right. This indicates M.D.R. is reading the registrations and other settings.

Music Disk Recorder

6
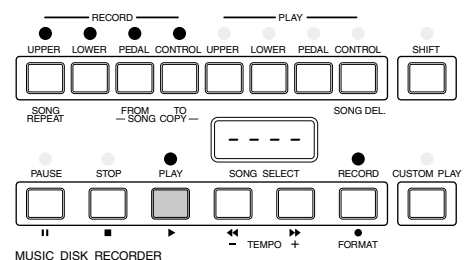
6 After numbers appear on the LED display of the M.D.R., begin playing.

Once the setup operation in step #5 is complete, a number will appear on the LED display indicating that you can begin recording your performance. The number also indicates the amount of memory left on the disk.

NOTE:

The short time it takes to set up for recording is recorded as well, causing a short pause before playback of the song.


If you make a mistake during recording:

1. Press the PLAY button while the M.D.R. is still running.
This stops the recording and returns you to the starting point of the song.
The letters "rE" (retry) appear on the left side of the LED display and the PLAY and CUSTOM PLAY LEDs start flashing, indicating that you can re-record the song.

2. Press PLAY again 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.

---
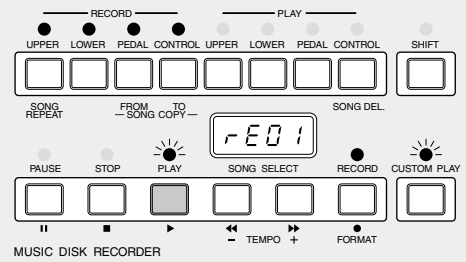
7 When you finish playing, press the STOP button.

After the small bars flash to draw a square on the LED to indicate the processing for stop, the STOP lamp lights up, indicating the recording process is finished.
The song number will be displayed on the LCD display, indicating that the number contains recorded data.

```
<SONG NAME>          ◼
01:SONG 1
```
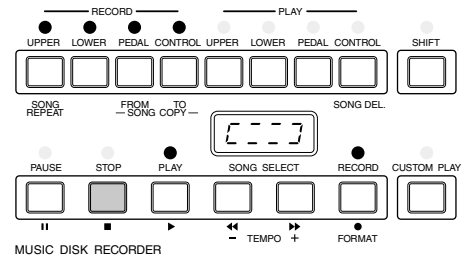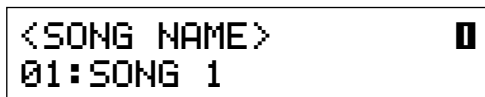

Indicates the M.D.R. is in the stop process.

⚠

Never eject the floppy disk before the STOP lamp lights up.

NOTE:

When the available memory reaches "008" or less, the numbers begin flashing to warn you. If this happens, stop recording before the display reaches "000."

8 To hear your newly recorded performance, press the PLAY button.

Play back will begin after a couple of seconds. For more information on playback and other playback-related functions, see page 84.

⚠

Never attempt to press the eject button or turn the power off during recording, reading and playing back. Doing so can damage the disk and possibly the disk drive. Be sure to remove the floppy disk from the disk drive before turning off the power.

6

Music Disk Recorder

Outline of M.D.R. Operation

Though the M.D.R. is as easy to operate as a cassette tape recorder, it is far move versatile. Since it records all Electone settings and control movements as well as the notes you play as digital data, it allows you much more flexibility and control than even the most sophisticated tape recorder. Basically, the M.D.R. independently records the following three types of data:

Registration data (including Bulk data)
All registrations stored to the Registration Memory numbered buttons as well as the registration currently set to the panel, are recorded at the beginning of a song, before the actual recording of your performance. Bulk data is also saved to the song with the Registration data. Bulk data includes: Registration Shift settings, and Rhythm Pattern (User rhythms) and Rhythm Sequence data.

Performance data
The M.D.R. records your performance on the keyboards and pedalboard of the Electone exactly as you play it, even recording the strength at which you play the keys and how hard you press them down while playing. The various types of performance data – Upper, Lower, Pedal and Lead – are recorded to independent "tracks," so that you can change any one of them without affecting the others.

Control data
All changes you make on the Electone during your performance are recorded in real time. These include registration changes, the use of the expression pedals and footswitches.

2) To record each part separately:

You can also record the parts of your performance independently; for example, first recording the chords and bass to the song (using the Lower and Pedalboard), and after that recording the melody (using the Upper Keyboard). This function also lets you record the lead voice, keyboard percussion and performance control data, such as registration changes and expression pedal operation, separately from the other parts of the song.

1 Set up the M.D.R. for recording, as you did in the section above. The first steps in recording parts separately are the same as for normal recording on page 76:

1. Memorize all the registrations needed for your performance to the Registration Memory numbered buttons, and set the registration that will be used at the beginning of the song.

2. Insert a formatted disk.

3. Select the song number to which you will record your performance.

4. Press the RECORD button to make the Music Disk Recorder ready to record.

2 Select the parts for recording.
Pressing the RECORD in the procedure **1**-**4.** above turns on the all parts' LEDs in the upper left row indicating that each part is ready to record.
Press the RECORD buttons for each part in the upper left row to turn off the parts you don't want to record. For this example, press RECORD/UPPER, the PLAY/UPPER lamp in the upper right row lights up.

- ■ **RECORD/UPPER**
  Records the performance data of the Upper keyboard when turned on. Recording is cancelled when turned off.

- ■ **RECORD/LOWER**
  Records the performance data of the Lower keyboard when turned on. Recording is cancelled when turned off.
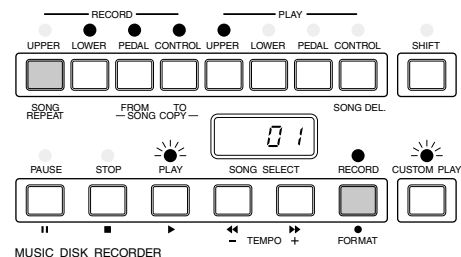
- ■ **RECORD/PEDAL**
  Records the performance data of the Pedalboard when turned on. Recording is cancelled when turned off.

- ■ **RECORD/CONTROL**
  Records the control data when turned on. Recording is cancelled when turned off.
  (See Outline of M.D.R. Operation on the previous page.)
  This example operation disables recording of the Upper part.

Separate recording for Lead Voice and/or Keyboard Percussion parts:

The Lead voice and the Keyboard Percussion can be recorded/played back separately although they are not shown on the M.D.R. panel.

### Separate recording for Lead Voice and/or Keyboard Percussion parts:

Hold down the SHIFT button and simultaneously press the appropriate button in the top row in the procedure #2 above. The two buttons (indicated in the illustration at the right) function as Lead Voice and Keyboard Percussion selectors in the record mode.

■ **RECORD/LEAD**

Records the performance data of the Lead voice when turned on. Recording is cancelled when turned off.

■ **RECORD/K.PERC.**

Records the performance data of the Keyboard Percussion when turned on. Recording is cancelled when turned off. Keyboard percussion can be recorded/played back independently from rhythm section.
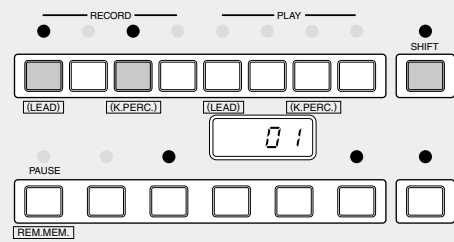
NOTE:

If you don't record the Lead Voice and Keyboard Percussion parts separately, the Lead part will be recorded as the Upper data and the Keyboard Percussion part will be recorded as the Lower/Pedal data.

3 Press the PLAY button, and start playing after numbers appear in the display. For this example, play the lower keyboard and pedalboard.

4 Press the STOP button when you are finished with your performance to stop recording.
Now that you've recorded the first parts of your performance. Press the RECORD button to set up recording of the next part, Upper part in this case.

5 Press the RECORD button.
In this case, the song (number) contains the performance data of the Lower and Pedal in addition to the registration and setup data. The small bars ("--") appear at the left part of LED display and flash along with the song number, warning you that the selected song number already contains recorded data.

6 Press the RECORD button again to record another part (Upper part).
The RECORD lamp lights up and the PLAY and CUSTOM PLAY lamps begins blinking, indicating that the Music Disk Recorder is ready to record.

7 Press the RECORD buttons for each part in the upper left row to turn off the parts you have already recorded.
In this case, press RECORD/LOWER, RECORD/PEDAL and RECORD/CONTROL to turn them off.

Music Disk Recorder

6
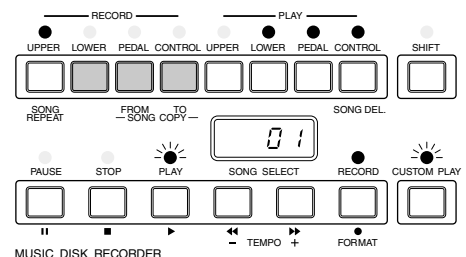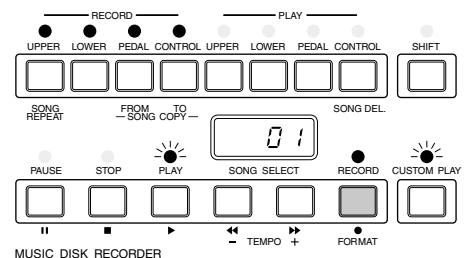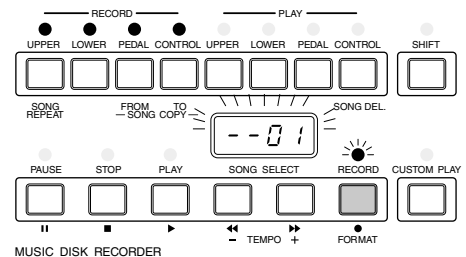
8 Press the CUSTOM PLAY button to start recording of the new part or parts (Upper part).

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 play 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.

Since registration data has already been recorded with the first parts of the song, recording begins immediately.

When the end of the recorded performance is reached, playback is automatically stopped and the STOP status is resumed.
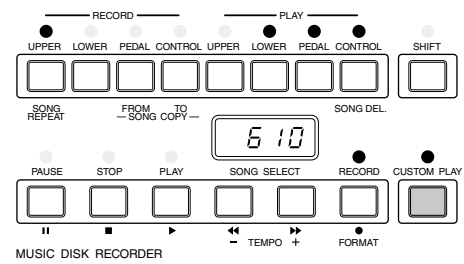
NOTE:

The CUSTOM PLAY button is used to record or play back the parts and data other than the registration data.

NOTE:

The length of a subsequently recorded part cannot exceed the length of the previously recorded parts. If you want to change the song length, first delete the existing song (see Song Delete on page 92) and record again.

Punch-in Recording

You can retry to change specified measure(s) or a specific part you don't want to use.

1. Press the PLAY button to start playback of the song containing the part you want to change.

2. Press the PAUSE button at the point you want to execute punch-in recording. The current song is stopped momentarily.

3. Press the RECORD button. The PLAY and CUSTOM PLAY lamps begins blinking, indicating that the Music Disk Recorder is ready to record.

4. Press the RECORD buttons for each part in the upper left row to turn off the parts you want to keep as they are. (Only the part you want to do punch-in recording should be turned on.)

5. Press the PLAY button to start punch-in recording. Play the specified range you want to change.

6. Press the STOP button to quit the Punch-in recording function as soon as you reach the end of the range.

6

Music Disk Recorder

4 Recording Registrations (and Bulk Data)

You can also record registrations by themselves, without recording a performance. Bulk data, including Registration Memory, Registration Shift settings, Rhythm Pattern (User rhythms), and Rhythm Sequence data, are also saved in the operation. There are two ways to record the registrations and bulk data:

[1]

1 On the Electone, set the registrations and all other data you want to record.

2 Select the song number to which you wish to record the registrations.

3 While holding down the RECORD button, press the M./TO DISK (Memory) button on the Registration Memory panel. Small bars flash across the LED display from left to right, indicating that the M.D.R. is reading the registrations and other settings. After recording, the M.D.R. is automatically stopped and returns to STOP status.
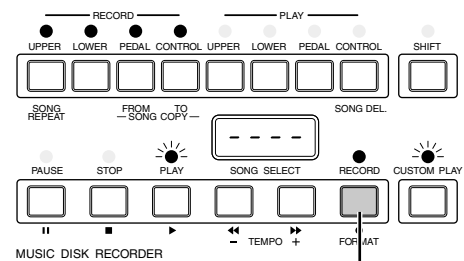
1. While holding down the RECORD button...

2. Press the M./TO DISK (Memory) button.
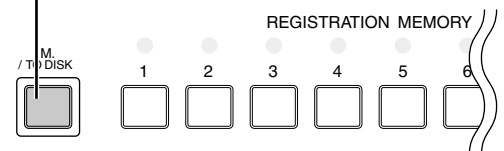
[2]

1 Set up the registrations and select the song number as you did in steps #1 and #2 above.

2 Press the RECORD button to make the M.D.R. ready to record.

3 Press the PLAY button to record the registrations, then press the STOP button as soon as you see the small bars flash across the LED display from left to right.
This is the same procedure as the one when you start recording. The small bars that flash across the display indicate that the M.D.R. is recording the registrations and being set up for normal recording; pressing the STOP button interrupts this process.
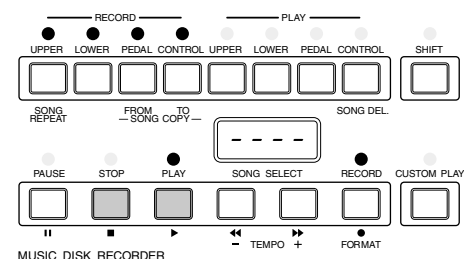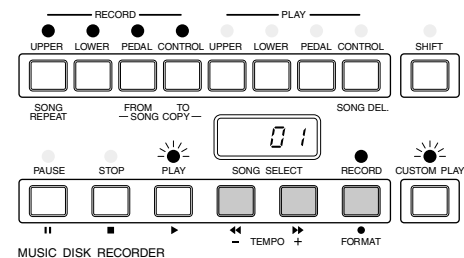
5 Recalling Recorded Registrations (and Bulk Data)

The registrations (and bulk data) recorded to song numbers in the above operation can be loaded back to the Electone by simply selecting the appropriate song number and pressing the PLAY button. When the operation has been completed, the M.D.R. returns to STOP status.

1 Insert the disk and select the song number you want to load back to the Eelectone.

2 Press the PLAY button.

Using More Than 8 Registrations

The M.D.R. makes it possible to use more than 8 registrations (8 Registration Memory locations) in a performance, — without having to alter the current panel settings. A disk can accommodate 40 song numbers and each song number can contain 8 registrations.

To play a performance using more than 16 different registrations:

1. First record the registrations you need into several song numbers on the M.D.R. before the performance. (You should also try to record them in the order that you'll use them, if possible.)

2. During the performance, after all 8 registrations from a certain song number have been used, select the next song number and press the PLAY button on the M.D.R. This replaces all 8 registrations in Registration Memory with the new ones from the selected song number.

3. By repeating the above steps, you can run through an entire performance without having to change the panel settings.

NOTE:

Selecting the Next Song in the User Registration Shift settings makes it possible to have the M.D.R. automatically read the 8 registrations in the next song number. See page 71 for more information.

---

6 Replacing Registrations

The M.D.R. also lets you change the registrations of an existing song without changing the performance data. The procedure is the same as that of Recording Registrations mentioned in the previous page.

7 Playback

You can play back your recorded performance by simply pressing the PLAY button. Registrations and other data will be recalled to the Electone.

1) To play back a song:

1 Select the number of the song you want to play back by using the SONG SELECT buttons. You can also select the song number by pressing the appropriate Data Control buttons.

```
<SONG NAME>          ▯
03:SONG 3
```
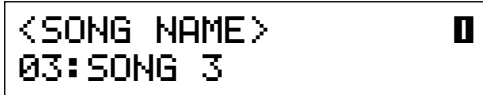
2 Press the PLAY button to begin playback of the song. The PLAY lamp lights up and small bars move across the display, indicating that the M.D.R. is resetting registrations on the Electone.

3 Playback starts automatically after reading the song data. The elapsed time will be displayed on the LED.
Playback automatically stops at the end of a song. You can, however, stop playback in the middle of a song by pressing the STOP button.
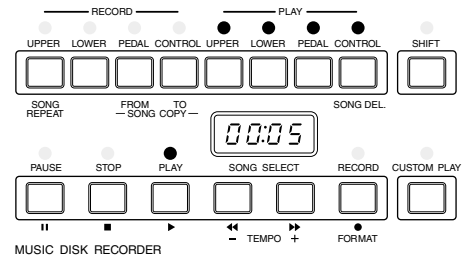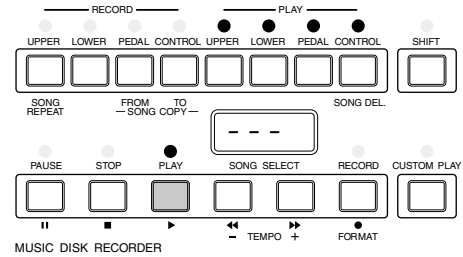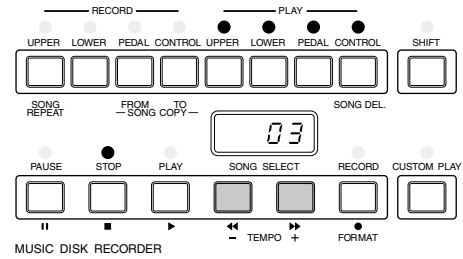
If you have recorded the Lead Voice/Keyboard Percussion part separately:

On the EL-100 the Lead/Keyboard Percussion part(s) you have recorded separately will automatically set to on when you start playback.

NOTE:

When you play back the data made with other Electone models such as EL-90/87 and which includes the separately recorded Lead/Keyboard Percussion part(s), Lead part will be off and Keyboard Percussion will be on as the defaults. (To turn on the Lead part, press PLAY/UPPER while holding down the SHIFT.)

---

2) To play back the selected part(s):

You can also play back the 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.

1 Select the number of the song to be played back.

2 Set the parts you wish to mute to off, by pressing the appropriate PLAY button in the upper right row. The LED of the selected part should be off.
Make sure to turn on the parts you wish to play back.
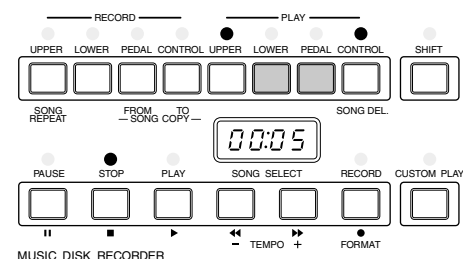
3 Press the PLAY button to begin playback of the song.
First the registration and other data are read, then playback of the performance starts (excepting the parts that were turned off in step #2).

4 Now perform your new part or parts over the playback parts.
When the end of the recorded performance is reached, playback is automatically stopped and the STOP status is resumed.

3) To repeat playback of a song or songs:

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

1 Select the song number you wish to play back.
If you wish to play back all songs on a disk, select the first song that will be played back. The others will follow in order.

2 Hold down the SHIFT button and simultaneously press the SONG REPEAT button.
The lamps above SHIFT and SONG REPEAT light up, and "ALL" appears on the LED display.

3 **To repeatedly playback all songs starting with the selected song:**
Press the PLAY button to begin playback of the song.
Playback will begin from the song selected and repeat indefinitely.

To repeatedly play back only the selected song:
1. Again hold down the SHIFT button and simultaneously press the SONG REPEAT button.
"SinG" appears on the LED display to indicate that a single song will be repeatedly played back.

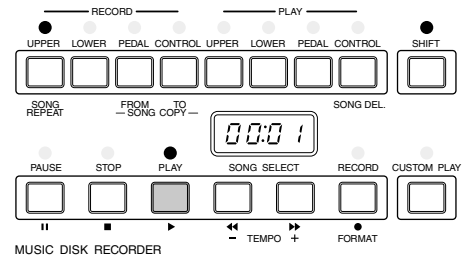**2.** Press the PLAY button to begin playback of the song.
Playback of the selected song will begin and repeat indefinitely.

To stop playback, press the STOP button.
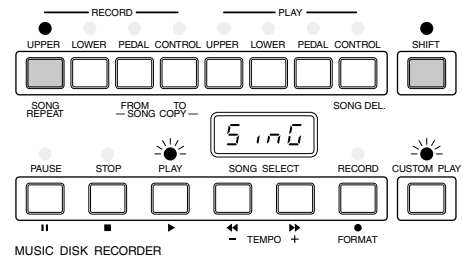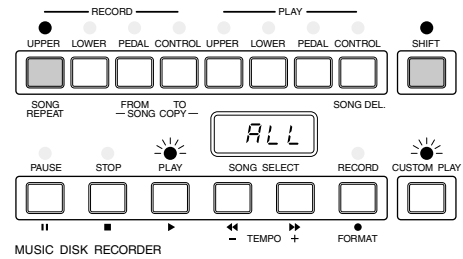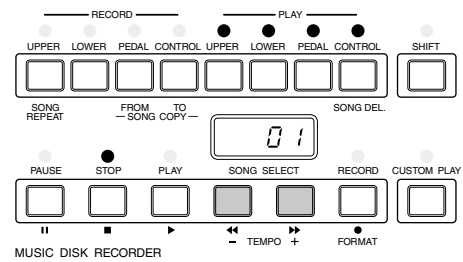
About XG

The EL-100 allows you to play back the commercially available XG song data using the M.D.R. Also, the XG Easy Converter function of the EL-100 lets you convert the data to the XG compatible data.

NOTE:

The XG song data created with EL-100 conforms to the SMF format 0 or 1.

Playing back the XG Song Data

This function is for playback only. You can practice a specific part of the XG song data by muting that part.

1. Insert the XG song disk into the floppy disk slot.
The following display appears.

NOTE:

Total amount of reverb value may be changed inadvertently while playing back XG Song Data.

Song Name Display


```
<SONG NAME> [PART]00
01:AMBIENT.MID
```
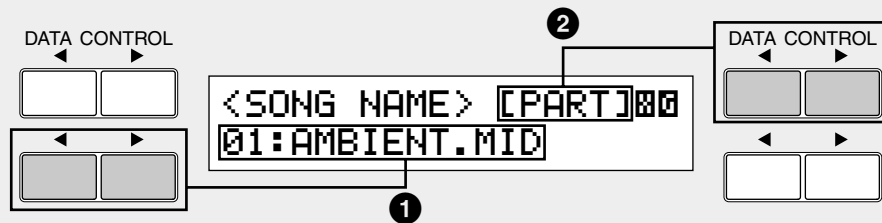
❶ Selects a song.

❷ Change the LCD to Part Display.

[XG] page will be added to the upper right side of the display.

The XG song data will be displayed on the XG page. You can store both the XG songs (on the XG page) and Electone songs (on pages 1 - 4) in a single disk.

2. Use the bottom left Data Control buttons ❶ to select a song you want to play back.

3. Press the PLAY button in the M.D.R. section to start song playback.

4. Use the top right Data Control buttons ❷ to change the LCD to part display.

❸ Selects a part. Range: 1 - 16, ALL (all parts)
  ❸-1 Select next part.
  ❸-2 Select previous part.

❹ Change the LCD to Song Name Display.

❺ Solo: Use the corresponding Data Control button to turn on/off the solo function. When solo is turned on all other parts will be muted automatically.

Part Display


```
PART:ALL      [NAME]00
□SOLO □MUTE   VOL.:24
```
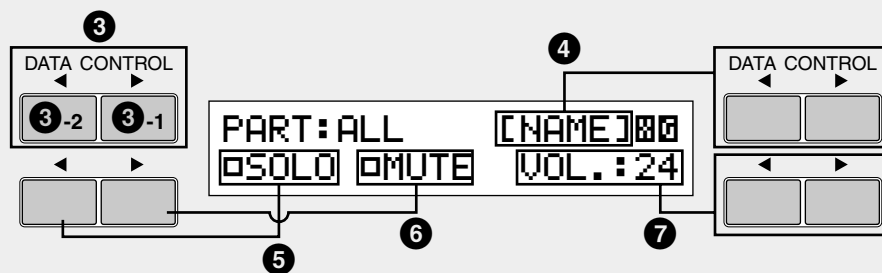
Use ❸ button to select a part, and press ❺ to engage the solo playback of the selected part, press ❻ to mute some parts or press ❼ buttons to adjust the volume of a specific part.

❻ Mute: Use the corresponding Data Control button to turn on/off the mute function.

❼ VOL. (VOLUME): Adjusts the volume of each part within the range, 0 - 24. If you have selected ALL, you can adjust overall volume.

6

Music Disk Recorder

XG Easy Converter

This function allows you to convert the EL-100 song data to the XG format data. You can then play back the data using XG devices and/or personal computer. Depending on the type of XG devices, sound may be different from the original data you created.

The contents to be converted:
Voice (Program) number, Volume, Feet (octave settings), Pan, Vibrato, Slide (for the Lead voices), Initial Touch, Effects (Tremolo and Delay), Reverb (except for Length), Sustain, Rhythm Patterns (except for Accompaniment), Expression, Registration, Registration Shift (except for Next Song)

To convert the EL-100 data to the XG song data:

1. Insert the disk containing the Electone data into the floppy disk slot.

2. Select the song to be converted to the XG data.

3. While holding down the top right Data Control buttons press the RECORD button in the M.D.R. section.
The following message appears to confirm the operation.

DATA CONTROL ◄ ► ◄ ►

```
■Confirm Conv.Data ■
■ [CONFIRM][CANCEL]■
```
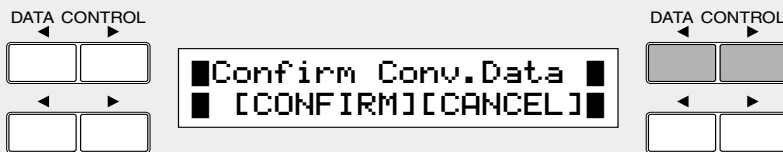
4. Press the Data Control buttons corresponding to [Confirm].
The M.D.R. starts playback of the selected song for you to decide whether you convert it to the XG data, or not. After finishing playback the following message appears.

```
■Conv.to XGSONG01? ■
■ [CONV.]   [CANCEL]■
```
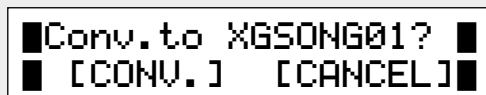
5. Press the Data Control buttons corresponding to [Convert].
After the process of the conversion the LCD returns to the original display.

```
<SONG NAME> [PART]00
01:XGSONG01.MID
```
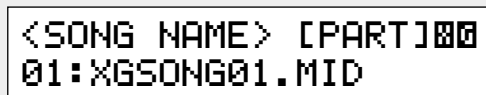
When the XG song data is newly created in the disk, XG page will be added to the top right side of the display. The converted song (XG data) will be stored on the XG page and the original song (Electone data) is left as is.

NOTE:
Confirm that the disk should contain enough amount of available memory before the conversion.

DATA CONTROL ◄ ► ◄ ►
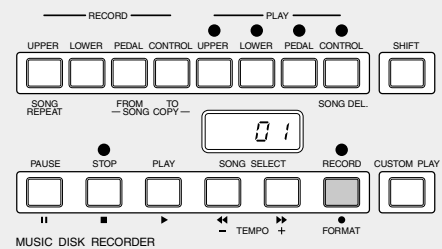
NOTE:
In this case the M.D.R. uses the XG tone generator built in the EL-100 to play back the data.

NOTE:
Select [Cancel] to abort the operation and return to the original display.

NOTE:
The converted XG song data may sound differently from the original data.

NOTE:
The converted data cannot be deleted.

8 Other Functions

1) Custom Play

If you want to play back the song without resetting the registrations and other data, press the CUSTOM PLAY button.
This displays the song time and starts playback immediately.
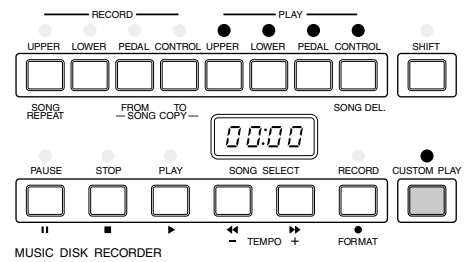
NOTE:

If you hold down the SHIFT and press CUSTOM PLAY or if you execute the following Read and Auto Increment function, all data, except for that of Rhythm Pattern Program, Rhythm Sequence and Keyboard Percussion assignment, will be loaded and played back. It is handy when you want to call up the registrations only.

2) Read and Auto Increment

Another method for calling up only registration data, besides that mentioned in the NOTE above.

Pressing the UPPER button in the RECORD section while M.D.R. is in the stop status calls up the registration data and automatically selects the next song number.
This method is more convenient than the one mentioned above since the M.D.R. automatically selects the next song number.
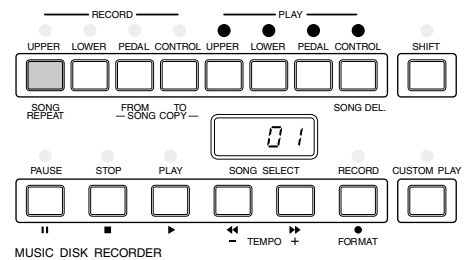
NOTE:

This function is not possible if the next song contains no registration data.

3) Pause

If you want to temporarily stop playback of the song or songs, press the PAUSE button.
To resume playback from the point at which the song was paused, press the PAUSE button again.

4) Fast Forward and Fast Reverse

During playback, these buttons function as fast forward and fast reverse buttons, much like those of a tape recorder.

Press SONG SELECT ▶▶ button to advance to a later point in the song or press SONG SELECT ◀◀ button to return to an earlier position. While either of these buttons is held down, playback stops and the song time is advanced or reversed accordingly.
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.

NOTE:

It may take some time to search the point at which you want to resume playback when you return to an earlier position using the fast reverse function.

NOTE:

Fast Forward and Fast Reverse operate at five times the normal playback speed.

5) Changing the Tempo

You can change the tempo of the song as the song is playing back.

While holding down the SHIFT button, press the TEMPO + or TEMPO - button.
Each press of the button slows down or speeds up the tempo by a small amount (not affecting the pitch).
Pressing TEMPO + causes the song faster and TEMPO – slower.
(The Tempo button on the Electone panel cannot be used to change the tempo on the Music Disk Recorder.)
To restore the original recording tempo of a song, hold down the SHIFT button and simultaneously press both TEMPO buttons.
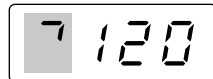
Indicates faster tempo
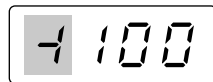
Indicates original tempo
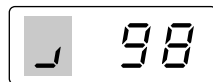
Indicates slower tempo
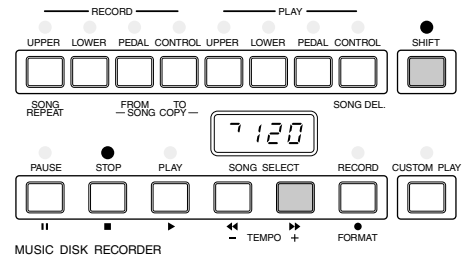
NOTE:

When tempo is changed, the LED display indicates the change as a percentage of the original recorded tempo (100). Values less than 100 indicate a slower tempo; values greater than 100 indicate a faster tempo.
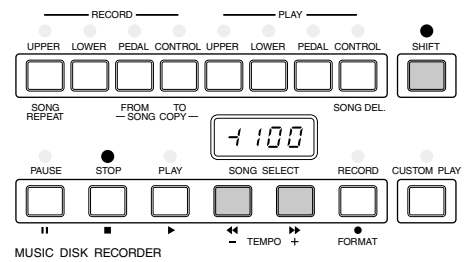
NOTE:

Tempo change remains in effect even when you change songs. If you have changed the tempo in one song, you should perform above step to restore the original tempo before playing another song. Turning the power switch off and on again also restores the original tempo.

6

Music Disk Recorder

6) Song Copy

This function lets you copy the data recorded at one song number to another song number. You can copy and exchange the data even between two different disks.

To use the Song Copy function within a disk:

1 Select the song number to be copied (source) with the SONG SELECT buttons.

2 While holding down the SHIFT button, press the SONG COPY FROM button.
The song number to be copied from appears at the left of the LED display.

3 Next, designate the destination song number. While holding down the SHIFT button, press the SONG COPY TO button. The M.D.R. automatically searches for an empty song number to copy the data to, and displays that number at the right side of the display. The RECORD lamp will start flashing indicating that the M.D.R. is ready to copy. If all songs numbers contain recorded data, "FULL" appears on the LED display. In this case, you should erase one of the songs on the disk by using the Song Delete function (page 92).

4 Use the SONG SELECT buttons to select a destination song number for copying. Follow this step if you wish to select a different destination song number than the one displayed.
The M.D.R. will display only those song numbers that have no data.

5 Press the RECORD button to execute the Song Copy function. The RECORD lamp stops flashing and remains lit, indicating that the Song Copy function is in process. The LED display shows the "size" of the song in numbers, and counts down as the data is being copied. When the display shows "000," the song has been completely copied.

NOTE:
This function is available with the Electone data only, not with the XG data.
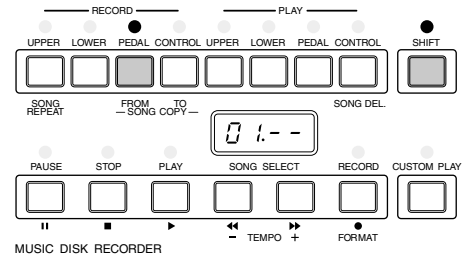
NOTE:
If the specified song number has no recorded data, the M.D.R. automatically searches for and selects the next song that contains recorded data.
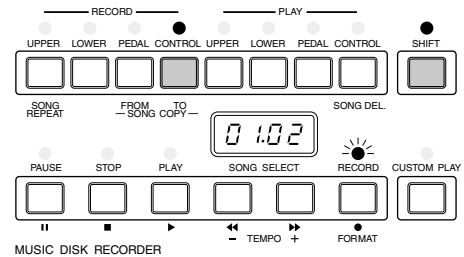
NOTE:
The message "FULL" may appear when the available memory is short.

NOTE:
If you want to abort the operation, press STOP button.

Music Disk Recorder

6
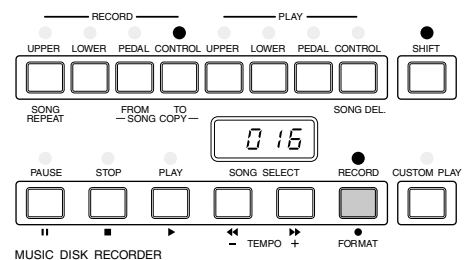
To use the Song Copy function between two different disks:

1 Insert the source disk that contains the song you want to copy from.

2 While holding down the SHIFT button, press the SONG COPY FROM button.
The song number to be copied from appears at the left of the LED display.

3 Use the SONG SELECT buttons to select a destination song number for copying.

 NOTE:

You can also use the Data Control buttons to select the song number.

4 Press the RECORD button.
The RECORD lamp lights up and the LED continues to indicate "00.--" as shown at the right.

5 Press the Eject button to take out the source disk.
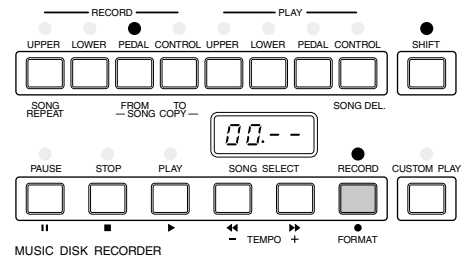
 NOTE:

The RECORD lamp remains lit. Although ejecting the disk while the RECORD lamp is lit is prohibited, you are allowed to eject the disk in this case.

6 Insert the destination disk to which you want to copy .

7 While holding down the SHIFT button, press the SONG COPY TO button.
The song number to be copied to appears at the right side of the LED display. The M.D.R. automatically searches for an empty song number to copy the data to.

8 Use the SONG SELECT buttons to select a destination song number for copying.

9 Press the RECORD button to execute the Song Copy function. The LED display shows the "size" of the song in numbers, and counts down as the data is being copied. When the display shows "0000," the song has been completely copied.

 NOTE:

An asterisk (*) is added to the end of the (destination) song's name to differentiate from the original (source) song.

6

Music Disk Recorder

7) Song Delete

You can delete a song on disk by performing this function.

1 Use the SONG SELECT buttons to select the number of the song you wish to delete.

2 While holding down the SHIFT button, press the SONG DEL. button.

The letters "dL" appear on the left side of the LED display, next to the selected song number. RECORD lamp flashes to indicate that the M.D.R. is ready to delete the song.
If you wish to, you can still select a different song number in this step by using the SONG SELECT buttons.

3 Press the RECORD button to execute the Song Delete function. The RECORD lamp stops flashing and remains lit, indicating that the Song Delete function has begun. When the Song Delete function is completed, the STOP status is automatically resumed.

8) Disk Copy

You can duplicate a floppy disk by copying the contents. Yamaha recommends that you keep two copies of important data on separate floppy disks by using this function.

1 Prepare the source disk and the formatted blank disk to be copied.

2 While holding down the SHIFT button, press the LOWER button in the RECORD part.
"In 1" appears on the LED display to indicate that the M.D.R. is ready to execute the Disk Copy.

NOTE:

If you want to abort the operation, press STOP button.

NOTE:

XG song data cannot be deleted.

The disk type of both source disk and destination disk must be the same. For example, use 2HD for the disk to be copied (destination) if the source disk is 2HD type.

Be sure to set the Write-protect tab (page 74) on the source disk to on. The message "Prot" may appear if you insert the source disk with the Write-protect tab "off." On the contrary, set the Write-protect tab on the destination disk to off. The message "Prot" may appear if you insert the destination disk with the Write-protect tab "on." In this case, the Disk Copy function cannot be executed.

6

Music Disk Recorder
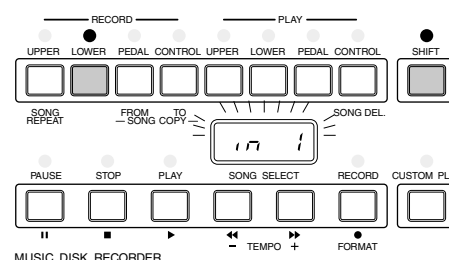
3 Insert the source disk into the disk slot.
The M.D.R. starts reading the data in the source disk.
"out 1" appears on the LED display.
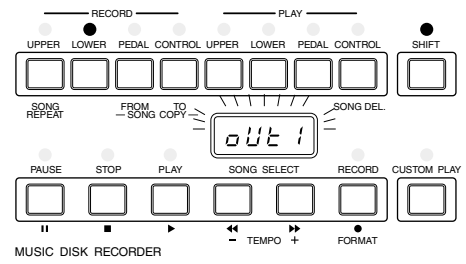
4 Press the eject button to take out the source disk.
"In 2" appears on the LED display to urge you to insert the destination disk.
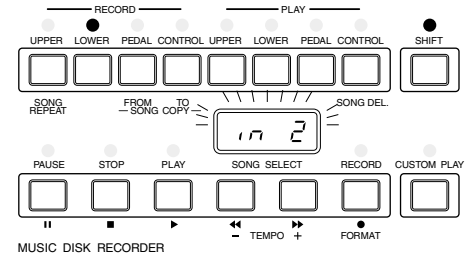
5 Insert the destination disk.
The number "160" appears on the LED display and counting down is initiated as the disk is being copied.

When finished, "End" will appear on the LED display for few seconds.
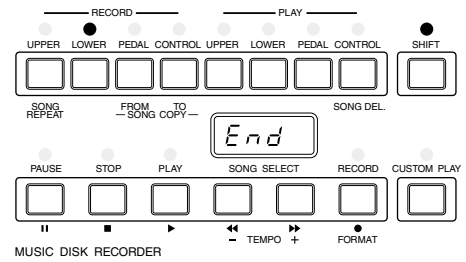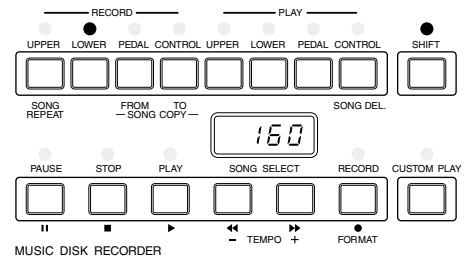
NOTE:

"Fort" or "bAd" may appear if an error occurs in the middle of the operation. If this happens, please retry formatting the destination disk and copying disk.

⚠️

Follow the M.D.R. direction to eject/insert the disks during the operation. Do not eject/insert the disks frivolously ignoring the M.D.R. direction. Doing so can damage the disk and possibly the disk drive.

6 Music Disk Recorder

9) Checking the Remaining Memory

You can check the amount of memory available for additional recording in a disk by pressing PAUSE button while holding down SHIFT button. The amount of available memory will be displayed on the LED.
The maximum amount of memory is ca.700 for 2DD disks and ca.1400 for 2HD disks.
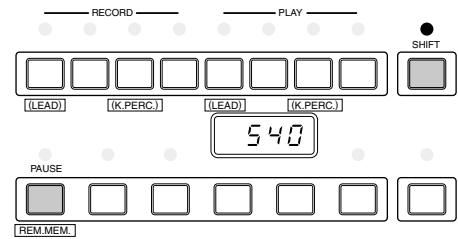
10) Pattern Disks

The M.D.R. also allows you to select rhythms from optional disks.

To load the patterns from a Pattern disk:

1
Insert the Pattern Disk into the disk slot under the Music Disk Recorder.
The pattern number and name from the Pattern Disk appears.

NOTE:

Refer to the pattern list included in the Pattern Disk for the information on each rhythm.

2
Select the rhythm you want to use using the appropriate Data Control buttons.

Jumps back 10 numbers   Jumps ahead 10 numbers

DATA CONTROL
◄ ►

Selects previous number   Selects next number

<PATTERN DISK>[SAVE]
01:Pop.R-1

Pattern Number   Pattern Name

Save

DATA CONTROL
◄ ►

◄ ►

Selects previous number   Selects next number
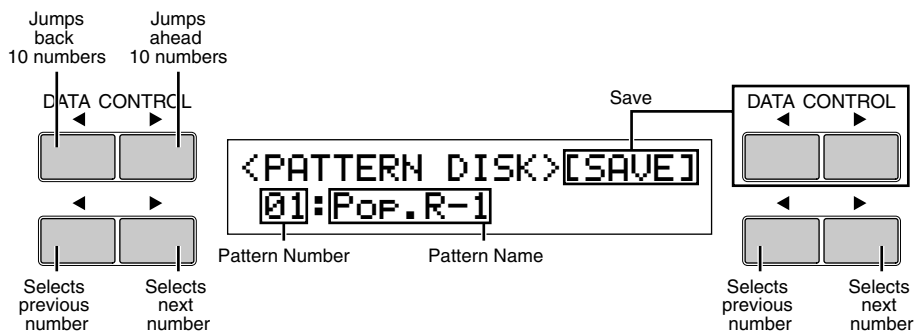
3
Start the rhythm to check the pattern to be called up.

4 If you want to save the current pattern to a User Rhythm space, select the "SAVE" with the corresponding Data Control buttons. The following display appears.

DATA CONTROL   Selects the destination (User Rhythm) number   DATA CONTROL
◀ ▶   ◀ ▶

■ ▼▲Save to [USER1-A]■
■ [SAVE]   [CANCEL]■

◀ ▶   ◀ ▶

Execute save
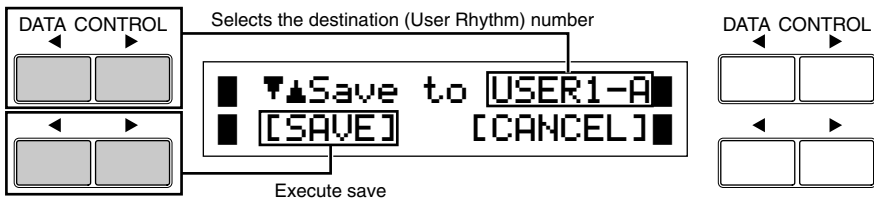
5 Select the User number to which you want to save using the top left Data Control buttons.

6 Press the Data Control buttons corresponding to [Save]. The rhythm is saved and loaded to the designated User Rhythm number.

NOTE:

Select [Cancel] to abort the operation and return to the original display.

NOTE:

See page 50 for the details to use the loaded User pattern.

6

Music Disk Recorder

---

11) Copy Protect

Some of the Disks available for the Electone are purposely protected from being copied or erased. You cannot save the data to another floppy disk.
If you try to load data from such a "copy-protected" disk to the Electone, a "Protected Disk" (PrXX*) message will appear on the LED display.
The data cannot be saved to the disk.
*XX: song number

Messages on the M.D.R. LED Display

Display	Description of the Messages
$InSt$	No disk is installed. Install a disk.
$Prot$	1) The installed disk is write-protected, so the Record, Song Copy, and Song Delete jobs cannot be performed. Set the disk's Write-protect tab (page 74) to OFF. 2) If you are using a copy-protected playback-only disk, this message may appear when you attempt the Record, Song Copy, or Song Delete operations. Cancel the operation. 3) When executing Disk Copy, set the Write-protect tab on the source disk to ON.
$Fort$	The installed disk is not formatted. Format the disk. (page 75)
$FULL$	1) The disk's memory capacity is full, so the Record or Song Copy operation cannot be performed. Use another formatted disk or delete unnecessary data. 2) All of the song numbers contain recorded data, so the Song Copy operation cannot be performed. Press the STOP button, then delete any unnecessary data.
$EPty$	None of the song numbers contain recorded data, so the Song Copy operation cannot be performed. Press the STOP button and abort the operation.
$-out$	An error occurred because the disk was removed during recording or playback. Press the STOP button, and replace the disk, then start the operation over again.
$diSc$	Incompatible disk has been inserted. Insert the appropriate disk.
$LotS$	Recording cannot be performed because too much data was received at one time. Press the STOP button and retry recording.
bAd	The disk is defective and cannot be formatted. Use another disk.
$Eror$	An error occurred during the transmission or reception of data. Press the STOP button and retry the operation over again.
$--$XX	You are trying to record to the song number that already contains recorded data. Stop the recording and select the other blank song number by pressing the SONG SELECT buttons. XX: song number
PrXX	When you insert the "copy-protected" disk to the Electone, this message will appear on the LED display. You cannot overwrite or save the changes. XX: song number
$oooo$	This message indicates that an incompatible disk is inserted in the Pattern Disk or Registration Menu Disk operation. Insert the appropriate disk.
_XX	An under line (_) before the song number indicates that it is XG song data. XX: song number
$2hd$ or $2dd$	You have inserted a wrong type disk as the destination disk in the Disk Copy operation. Use the same disk type as the source disk.

These foot-operated controls allow you to turn on and execute various performance functions without taking your hands from the keyboards.

1 Footswitch

The Electone has two Footswitches on the expression pedal that can be used to control various functions.
The Right Footswitch is used for the Registration Shift function. (See page 69 for the details of the Registration Shift function.)
The Left Footswitch can be set to control one of the following functions: Glide, Tremolo, rhythm controls.
Assignments of the functions to the Left Footswitch are made in the FOOTSWITCH pages.

Press the FOOT SW. button in the DISPLAY SELECT section.
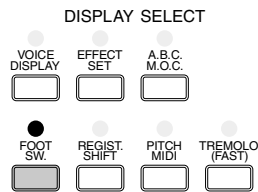
The following display appears.

Footswitch-Left Page
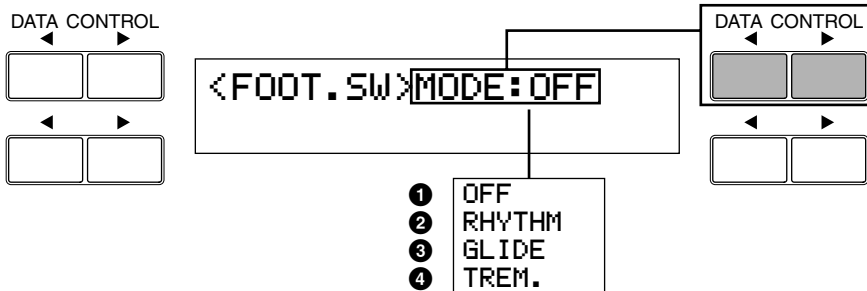
❶ Off

Cancels Left Footswitch control.

❷ Rhythms

Selection of Left Footswitch control over rhythm functions. When this is chosen, the following items appear at the bottom of the display:


```
<FOOT.SW>MODE:RHYTHM
■STOP  □ENDING  □FILL
```

❷-1   ❷-2   ❷-3
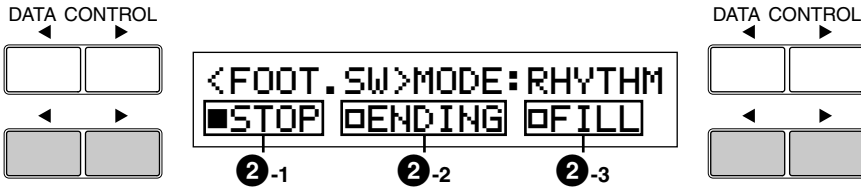
❷-1   Stop

Functions as an on/off switch for the rhythm or the rhythm sequence.

❷-2   Ending

Switches the rhythm to the Ending pattern, after which the rhythm is stopped.

❷-3   Fill In

Switches the rhythm to the Fill In pattern.

❸ Glide

Selection of Footswitch control over Glide.

Pressing the Footswitch immediately lowers the pitch of the selected voice or voices by a half step. And releasing it slowly returns the pitch to the original. When the Glide setting is chosen, the following display appears: Also, page number will be shown at the top right side. The Glide function is configured with three pages.

Footswitch – Glide Page 1


```
<FOOT.SW>MODE:GLIDE1
■UPPER1     ■UPPER2
```

❸-1   ❸-1

Footswitch – Glide Page 2


```
<FOOT.SW>MODE:GLIDE2
□LOWER1     □LOWER2
```

❸-1   ❸-1

Footswitch – Glide Page 3


```
<FOOT.SW>MODE:GLIDE3
■LEAD      TIME:2
```

❸-1   ❸-2
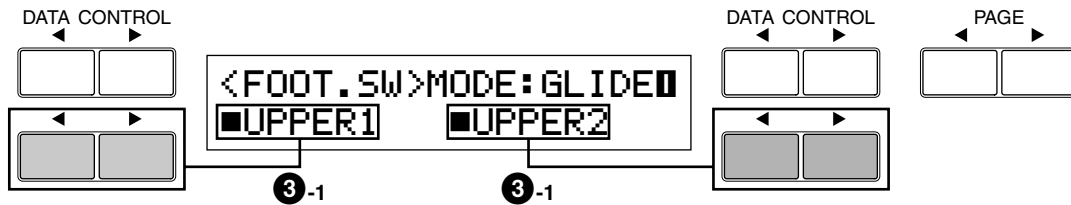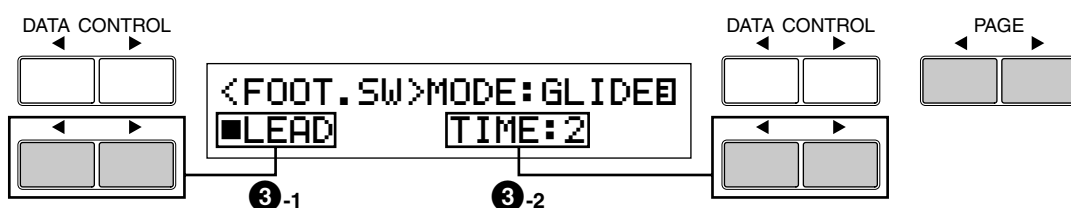
❸-1 Upper 1, 2, Lower 1, 2, Lead

The Glide function can be applied to any or all of the voice sections shown in the display. Select the desired voice section(s).

❸-2 Time

Determines the speed of the Glide function, or in other words, how gradually the pitch returns when the Footswitch is released. Higher settings produce slower pitch changes.

Range: 1-5

NOTE:

When the Glide function is applied, the Vibrato is not effective.

❹ Tremolo

Selection of Footswitch control over Tremolo.

Pressing the Footswitch turns the Tremolo effect on and off (Chorus), performing the same function as the TREMOLO (FAST) button in the DISPLAY SELECT section. (If you want to use this function, the tremolo settings must be set properly.)

```
DATA CONTROL                              DATA CONTROL
  ◄   ►                                     ◄   ►
┌───┬───┐   ┌────────────────────────┐   ┌───┬───┐
│   │   │   │ <FOOT.SW>MODE:TREM.     │   │▓▓▓│▓▓▓│
└───┴───┘   └────────────────────────┘   └───┴───┘
  ◄   ►                                     ◄   ►
┌───┬───┐                                 ┌───┬───┐
│   │   │                                 │   │   │
└───┴───┘                                 └───┴───┘
```
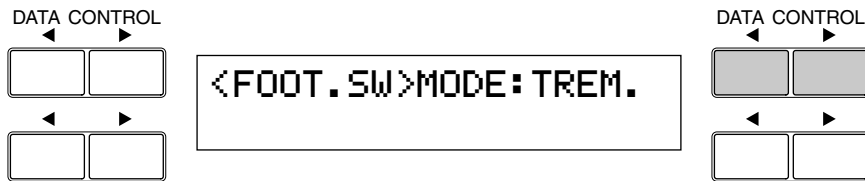
2 Expression Pedal

You can choose the function of the Expression Pedal from three settings.

1 Press the PITCH/MIDI button in the DISPLAY SELECT section.
Transpose/Pitch function, the first page, will be displayed.

DISPLAY SELECT

VOICE DISPLAY · EFFECT SET · A.B.C. M.O.C. · FOOT SW. · REGIST. SHIFT · PITCH MIDI · TREMOLO (FAST)
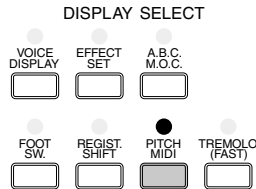
2 Select page 3 using Page buttons at the right side of the LCD display.
MIDI IN page will be displayed.

DATA CONTROL

```
<MIDI IN> LEAD:INT.8
SYNC:INT. EXP.:AUTO
```

DATA CONTROL   PAGE
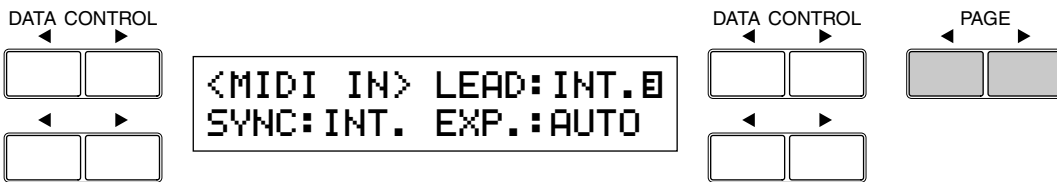
EXP. (Expression)

Determines the control of the expression pedal functions.

DATA CONTROL

```
<MIDI IN> LEAD:INT.8
SYNC:INT. EXP.:AUTO
```

DATA CONTROL

```
AUTO
INT.
EXT.
```
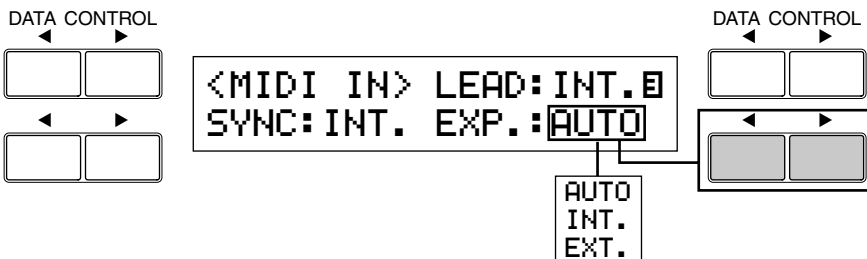
Ordinarily, this control is set to Auto.

However, when it is set to INT., the expression pedal lets you control Electone volume even during M.D.R. playback.

When set to EXT., another (external) Electone controls over the volume of the Electone.

8 Transpose and Pitch Controls

There are two pitch-related controls on the Electone: Transpose and Pitch. Transpose allows you to change the key of the instrument and Pitch lets you finely adjust the tuning. These features make it easy to change the key of a song to accommodate a vocalist's range or to precisely match the tuning of another instrument.

1 Press the PITCH/MIDI button in the DISPLAY SELECT section.
Transpose/Pitch function, the first page, will be displayed.

DISPLAY SELECT

VOICE DISPLAY   EFFECT SET   A.B.C. M.O.C.

FOOT SW.   REGIST. SHIFT   PITCH MIDI   TREMOLO (FAST)

Transpose/Pitch Page

DATA CONTROL ◄ ►   DATA CONTROL ◄ ►

◄ ►

```
<TRANSPOSE><PITCH> █
      0        A=440.0Hz
```

◄ ►

❶   ❷
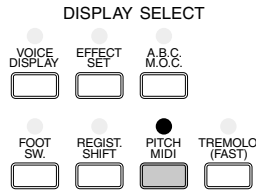
❶ **Transpose**

Determines the coarse pitch setting of all the voices, and is adjustable in half steps (semitones).

Range: -6 - +6 (one octave)

❷ **Pitch**

Determines the fine pitch setting of all the voices. The range is about a quarter of semitone.

Range: 438.8Hz – 444.5Hz

NOTE:

The default Pitch is 440.0Hz (=A3).

NOTE:

The pitch changes cannot be recorded to the Music Disk Recorder.

About the Pitch

Each voice is tuned with the temperament.

Cent

LEAD voice	+6.0
UK voice	+2.4
(UK voice 2)	+1.2
LK voice	0 (Standard 440Hz)
(LK voice 2)	–1.2
PK voice	–3.6

LEAD

UK

(UK2)

LK

(LK2)

PK

NOTE:
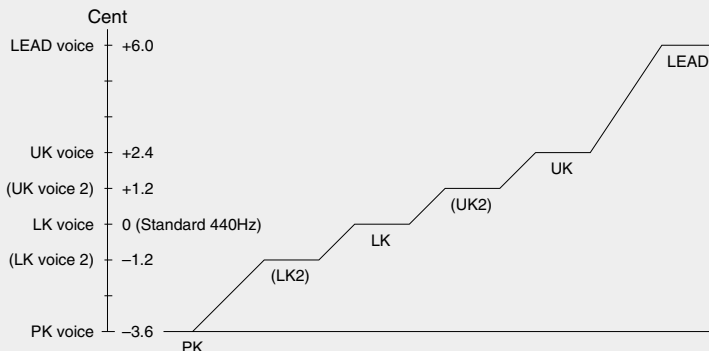
When matching the pitch with other instrument, use the Clarinet voice on the Lower keyboard.

MIDI (Musical Instrument Digital Interface) is a kind of communication system for electronic musical instruments. It is built into most every modern digital musical instrument and allows different instruments to "talk" to each other and control each other's functions. For example, the Upper keyboard of your Electone could be used to play sounds on a connected synthesizer. In another application, a rhythm machine can be programmed to play its rhythms in perfect synchronization with the tempo set on the Electone.
To use the MIDI functions you must, of course, have a second MIDI device (such as a synthesizer or rhythm machine), and a set of MIDI cables. For more information see page 105.

To select the MIDI page:

1 Press the PITCH/MIDI button in the DISPLAY SELECT section.

DISPLAY SELECT

| VOICE DISPLAY | EFFECT SET | A.B.C. M.O.C. |
| FOOT SW. | REGIST. SHIFT | PITCH MIDI | TREMOLO (FAST) |
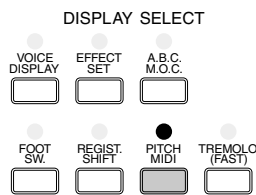
Transpose/Pitch function, the first page, will be displayed. The MIDI related settings are shown on the second and third pages.

2 Select pages 2 and 3 using Page buttons at the right side of the LCD display.

MIDI OUT Page

DATA CONTROL ◀ ▶

❷

DATA CONTROL ◀ ▶

PAGE ◀ ▶

◀ ▶

<MIDI OUT>LOWER: 2 [2]
UPPER: 1 PEDAL: 3

◀ ▶

❶   ❸
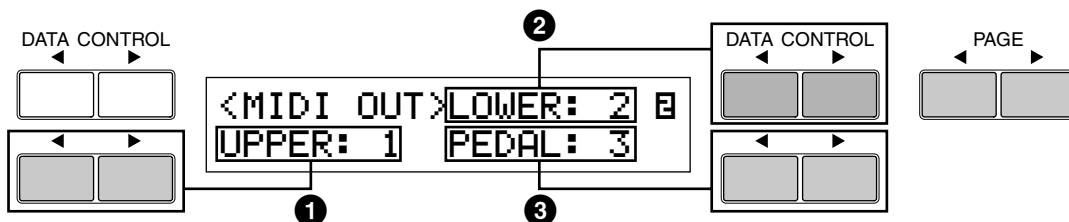
For setting the channels over which MIDI information will be transmitted. Any channel from 1 through 16 can be assigned to each keyboard, the Upper keyboard, the Lower keyboard and the Pedalboard. The note on/off messages on each keyboard will be sent through the channels set here.

❶ **Upper**

Selects the transmit channel for Upper keyboard from channels 1 - 16.

❷ **Lower**

Selects the transmit channel for Lower keyboard from channels 1 - 16.

❸ **Pedal**

Selects the transmit channel for Pedalboard from channels 1 - 16.
The MIDI receive channel of each connected MIDI device should match the numbers set here.

Receive Channels

When using another MIDI device to play the Electone's voices, you must set the MIDI transmit channel(s) of the connected device to match the receive channel(s) of the Electone.
The MIDI receive channels of the Electone are fixed to the following values:

Upper Keyboard: 1
Lower Keyboard: 2
Pedalboard: 3

MIDI IN Page

❶-1

DATA CONTROL
◄ ►

PAGE
◄ ►

```
<MIDI IN> LEAD:INT.B
SYNC:INT. EXP.:AUTO
```

◄ ►

❶-2
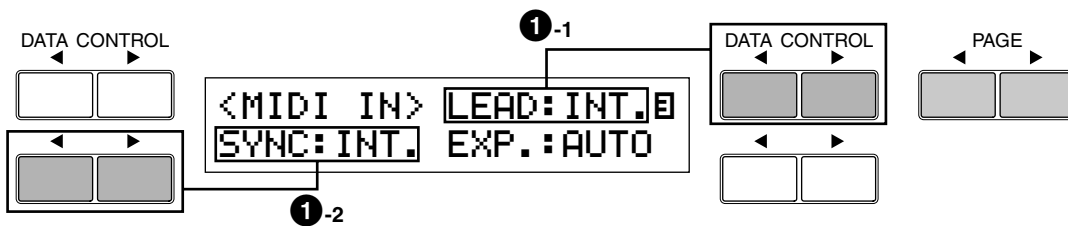
❶ Internal/External Controls

Switches between the Electone (INT.: Internal) and the connected device (EXT.: External) to control the displayed items.

❶-1 Lead

Determines Internal or External control of the Lead Voices. When set to Internal, Lead Voices are played from the Electone and the sounds from a connected MIDI instrument can be played via MIDI channel 1 (or channel 2, when the To Lower function is on). When set to External, the Lead Voices can only be played from the connected instrument via MIDI channel 4.

❶-2 Sync.

Determines the source of the timing control, for rhythm synchronization purposes. Setting this to Internal gives the Electone timing control over the connected rhythm machine. This also allows you to start and stop the rhythms of the connected rhythm machine from the Electone's panel controls. Setting this to External gives timing control to the connected rhythm machine.

NOTE:

Accompaniment pattern sounds cannot be controlled via MIDI.

NOTE:

For the information on EXP. See page 100.

9

MIDI

10 Accessory Jacks and Controls

On the underside of the Electone keyboard is a separate panel equipped with various input/output terminals and miscellaneous controls, the functions of which are described below.
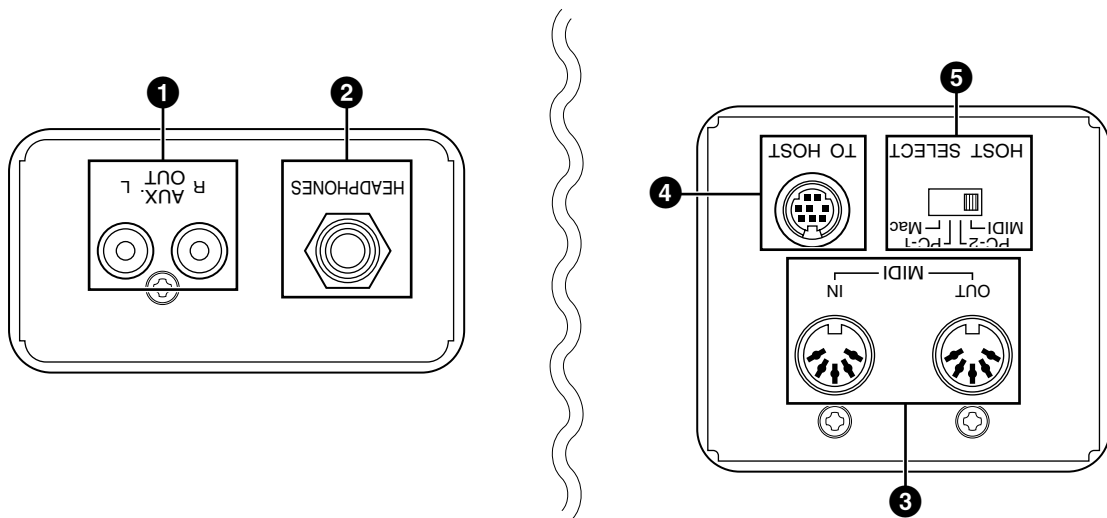
❶ AUX. OUT (RCA, L/R)
This pair of RCA jacks is for connection to an external amplifier/speaker.

❷ HEADPHONES (Phone)
For connection of a stereo headphone set. When headphones are connected to this jack, sound to the Electone's built-in speaker system is automatically cut off, allowing you to play without disturbing others.

❸ MIDI IN/OUT
For connecting external devices such as synthesizer and rhythm machine with MIDI cables. MIDI cables are required (page 106).

❹ TO HOST
This terminal can be connected to the serial port of a personal computer instead of using MIDI connection.

❺ HOST SELECT
When you have connected the Electone and the personal computer using the TO HOST terminal, you need to select the appropriate setting here depending on the computer used. (page 105)

NOTE:

See next page for the details of the connection using the TO HOST terminal.

MIDI

On the right underside of the Electone keyboard you will find the MIDI IN/
OUT jacks and TO HOST terminal.
MIDI is an acronym that stands for Musical Instrument Digital Interface,
which allows electronic musical instruments to communicate with each
other, by sending and receiving MIDI messages. If your Electone is
connected with external devices via these MIDI jacks (with a personal
computer via the TO HOST terminal) and appropriate MIDI settings are
done, you can play an external MIDI device such as synthesizer from your
Electone keyboard or your Electone can be played by an external device
such as sequencer (by a personal computer with a sequencing software
installed).
You need MIDI cable(s) when you exchange the data between Electone and
an external device. Or you need a serial cable when you connect Electone's
TO HOST to the computer serial port instead of using MIDI cables.
Also, to exchange the data between your Electone and connected MIDI
device you have to match the MIDI transmit/receive channels on both
devices. Receive channels of Electone are fixed as mentioned on page 103.
Accordingly, you need to match the transmit channels on the external
device to the fixed receive channels of Electone when you want to control
Electone by the external device. See page 102 for the detailed information
about the MIDI channel settings.

NOTE:

See page 107 for the information on the
MIDI message types.

Setting examples

Using the TO HOST terminal

Using a separately available Serial Cable allows you to directly connect them
(between the TO HOST terminal of your Electone and the Serial Port of the
personal computer). In this case you need to select one of the HOST SELECT
switches to match the computer type you use.
No additional MIDI setting is necessary.

NOTE:

MIDI jacks will be inactive when the TO
HOST terminal is currently used.

Windows 95/98/Me

HOST SELECT
PC-2 ┐ ┌ PC-1
MIDI ┐ │ │ ┌ Mac

8-pin MINI DIN to
D-SUB 9-pin Cable

TO HOST

EL-100

RS-232C
(DB9)

Windows 95/98/Me
(Computer)

NOTE:

For Windows users: To actually exchange
the data via the Serial Cable you need to
install the appropriate MIDI driver to your
personal computer in advance.

Macintosh

HOST SELECT
PC-2 ┐ ┌ PC-1
MIDI ┐ │ │ ┌ Mac

Macintosh Peripheral
Cable (M0197)

TO HOST

EL-100

Macintosh
(Computer)

NOTE:

Select the HOST SELECT switches as follows:
When you use MIDI connection: MIDI
When you use TO HOST connection with
Windows system: PC-2
When you use TO HOST connection with
Macintosh: Mac

NOTE:

If you use a PC with USB terminal, you
need to use USB interface.

Controls an external device using
the EL-100 (as a master)
EL-100
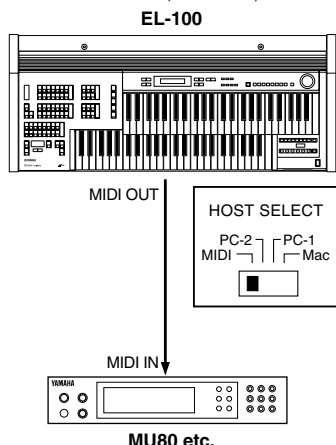
Controls the EL-100 using an external
device (as a slave)
EL-100
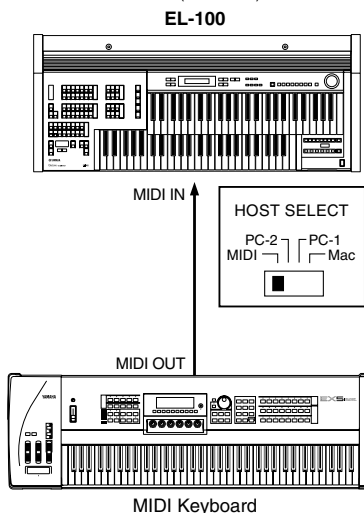
Exchanges the data between EL-100 and
an external device
EL-100

MIDI OUT

HOST SELECT

PC-2 ┐ ┌ PC-1
MIDI ┐ │ │ ┌ Mac
■

MIDI IN

MU80 etc.

MIDI IN

HOST SELECT

PC-2 ┐ ┌ PC-1
MIDI ┐ │ │ ┌ Mac
■

MIDI OUT

MIDI Keyboard

MIDI IN   MIDI OUT

HOST SELECT

PC-2 ┐ ┌ PC-1
MIDI ┐ │ │ ┌ Mac
■

MIDI OUT   MIDI IN

MIDI
Interface

PC
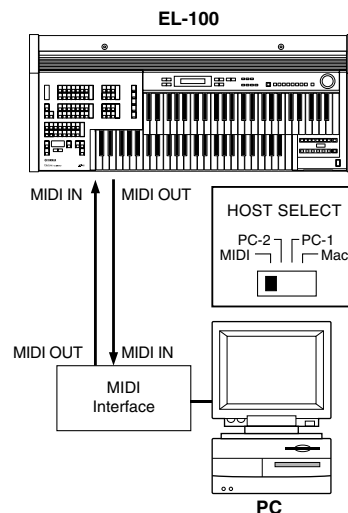
1 Control an external device using the EL-100

Using an external MIDI keyboard or MIDI tone generator

● Playing your Electone can cause the MIDI keyboard (or tone generator) to be played using its own voices, accomplishing thick sound layers. (The MIDI receive channels of the MIDI keyboard must match the transmit channels on your Electone.)

● Various messages including the values how far the expression pedal is pressed down and how hard you play the Electone keyboard can be transmitted as digital data. However, how the external device responds depends on the external device you have connected.

● The performance on your Electone can be recorded onto your PC using an appropriate sequencing software. (You need a sequencing software in this case.)

2 Control the EL-100 using an external device

Using an external MIDI keyboard

● Playing the external MIDI keyboard can cause your Electone to be played using Electone's voices. (The MIDI transmit channels of the MIDI keyboard must match the (fixed) receive channels on your Electone. The channels 1, 2 and 3 for the Upper, Lower and pedal voices, respectively.)

● Also, Keyboard Percussion on your Electone can be played by playing the external MIDI keyboard. (The MIDI transmit channels of the MIDI keyboard must be channel 15)

● The MIDI data played back by the external PC (using a sequencing software) can be played using Electone's voices. You can use the Electone as an XG tone generator for computer-based music production. See page 110 for the details to use the EL-100 as an XG tone generator.

NOTE:

You cannot use the M.D.R. and MIDI function at one time since the M.D.R. is also connected via MIDI internally.

The MIDI messages can be divided into two groups: the Channel Messages and System Messages. The Channel Messages are the data related to the performance on the keyboard for a specific channel. Each time you play the keyboard on the EL-100, the channel messages, which keys are played and how hard the keys are pressed, will be transmitted via a specific channel. The System Messages are the data that allows several MIDI devices communicate each other. Below is an explanation of the various types of MIDI messages which the EL-100 can receive/transmit.

Channel Messages

Channel Messages are the data related to the performance on the keyboard for a specific channel.

Key related messages
These are transmitted every time you play the keyboards on your Electone. Reversely, the Electone can be played using these data from an external keyboard.

Note On	Indicates which keys are played with the note numbers 0 through 127. The note range is C-2 (0) – G8 (127), C3=60.
Velocity	Indicates how hard the key is held. The range is 1 - 127.
Note Off	Generated when a key is released.

NOTE:

For more detailed information see MIDI Data Format on page 111 and MIDI Implementation Chart on page 120.

Program Change
The Program Change messages allow you to change voices in the middle of a song. With these messages you can change the registrations of the EL-100.

NOTE:

For more detailed information see MIDI Data Format on page 111 and MIDI Implementation Chart on page 120.

Control Change
The Control Change Messages let you select a voice bank, control volume, panning, modulation, portamento time, brightness and various other control parameters, through specific Control Change numbers.

NOTE:

For more detailed information on the Control Change messages available for the EL-100 see MIDI Data Format on page 111 and MIDI Implementation Chart on page 120.

11

Appendix

107

System Messages

System Exclusive Messages

System Exclusive messages are used to exchange the system and voice/registration data. These allow you to execute bulk dump operation, sending and receiving all the data of the EL-100 including registrations to and from an external device. This is especially useful for you to build up the library of the registration data in a device like a hard disk.

Examples of Exchanging the Data

Use the following examples to send (or receive) the registration data to (or from) a personal computer (a sequencing software).

First, you need to connect your EL-100 with a personal computer (a sequencing software) using a Serial Cable or a MIDI cable (page 105).

NOTE:

You also need a sequencing software, which has been properly installed in the personal computer, and which can send and receive system exclusive messages.

Send the Registration Data from the EL-100 to the Personal Computer (PC)

Preparation (Setting up registrations)

1 Set the Strings voice on the Upper Keyboard of the EL-100. Press STRINGS button on the Upper Keyboard Voice section, and select String 1 from the Strings Menu.

2 Store the registration to the Registration Memory button 1. While holding down the M. button Press the Registration Memory button 1.

Sending the Registration Data

3 Send the Request-to-Send all RAM message, "F0, 43, 70, 70, 10, F7" (Hexadecimal), from the sequencing software (PC) to the EL-100.

Once the EL-100 receives the Request-to-Send all RAM message, the EL-100 automatically sends all registration data in the all registration numbers to your PC.

You can store the registration data in a file on your PC.

NOTE:

Depending on the capacity of your sequencing software, you may need to divide the data into two and send them to the PC separately. If you want to divide, see page 114, "Data Code to Send" table. For example,
by changing the message from "F0,43,70,70,10,F7" (all data) to "F0,43,70,70,17,F7," the Electone will send the Keyboard Percussion Assignment data only.

Send the Registration Data from your PC to the EL-100 and Change the Registration Memory Buttons

Send the data stored in the PC back to your Electone. Also, select a Registration Memory button and then play the upper keyboard using PC.

Receiving the Registration Data

1 Send the Request-to-Receive all RAM message, "F0, 43, 70, 70, 20, F7" (Hexadecimal), from the sequencing software (PC) to the EL-100.

Once the EL-100 receives the Request-to-Receive all RAM message, it automatically receives all registration data and relocates them to the all registration numbers.

Selecting the Registration Memory Buttons

Sending the Program Change messages from the PC to your EL-100 makes it possible to change the registration on the Electone.

2 Send the Program Change message, "CF, 00" (Hexadecimal) to the EL-100.

Once the Program Change message is received, the EL-100 automatically turns the Registration Memory button 1 on.

Sending the Note-On Messages

3 Send the Note-On message, "90, 30, 7F" (Hexadecimal) to the EL-100.

EL-100 receives the note-on message and plays C2 key on the Upper keyboard. It plays String voice you have set in the previous step. Send the Note-Off message, "90, 30, 00" to the Electone.

All the above operations can also be done with the M.D.R. easily and efficiently. However, using the PC/ hard disk allows you to build up a large data library a single disk cannot deal with.

Use the EL-100 as an XG Tone Generator

You can also use the EL-100 as an XG tone generator since the EL-100 is compatible with the XG format. You can play back the commercially available XG song data with the Electone's M.D.R., and also play them using an external sequencer (or sequencing software) and the internal XG tone generator.

The internal tone generator section of the EL-100 is normally set to EL Mode for playing as an "Electone."

Sending an appropriate system exclusive message from the sequencing software (PC) to the EL-100 changes the mode to XG Mode, in which you can use the Electone as an XG tone generator.

1 Send the XG System On message, "F0, 43, 1N*, 4C, 00, 00, 7E, 00, F7" (Hexadecimal), from the sequencing software (PC) to the EL-100. *N: Device Number ("0" for the EL-100)

Once the XG System On message is received, the internal tone generator will be in the XG Mode allowing the EL-100 to receive all the MIDI messages defined by the XG format such as NRPN and Bank Select.

NOTE:

The M.D.R. lets you play back the commercially available XG song data and convert the Electone song data to XG data. For more information on XG song playback and data conversion functions, see page 86, 87.

NOTE:

When you create an XG song data using a sequencing software, be sure to insert the XG System On message at the beginning of the data. The internal tone generator mode automatically changes to XG when you start to play back the data.

NOTE:

The internal tone generator mode automatically changes to XG when you play back commercially available XG song data.

MIDI Data Format

1. Channel Messages

1.1 EL Mode

Code (Hexadecimal)	Function	Transmit	Receive	Remarks
8n,nn,00-7F	Note Off	×	1ch	UK
		×	2ch	LK
		×	3ch	PK
		×	(4ch)*	LEAD
		×	5-14ch	XG
		×	15ch	Keyboard Percussion
9n,nn,00	Note Off	(1ch)*	1ch	UK
9n,nn,01-7F	Note On	(2ch)*	2ch	LK
		(3ch)*	3ch	PK (note on transmit velocity=50H)
		×	(4ch)*	LEAD
		×	5-14ch	XG
		×	15ch	Keyboard Percussion
Bn,00,00-7F	Bank select	×	5-14ch	XG
Bn,20,00-7F				
Bn,01,00-7F	Modulation	×	5-14ch	XG
Bn,04,00-7F	2nd Expression	×	16ch	Control
		×	(4ch)*	LEAD
Bn,05,00-7F	Portamento Time	×	5-14ch	XG
Bn,06,00-7F	Data Entry	×	5-14ch	XG
Bn,26,00-7F				
Bn,07,00-7F	Volume	×	5-14ch	XG
Bn,0A,00-7F	Pan	×	5-14ch	XG
Bn,0B,00-7F	Expression	16ch	16ch	Control
			5-14ch	XG
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,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 Send Level	×	5-14ch	XG
Bn,60,00-7F	Data Increment	×	5-14ch	XG
Bn,61,00-7F	Data Decrement			
Bn,62,00-7F	NRPN LSB	×	5-14ch	XG
Bn,63,00-7F	NRPN MSB			
Bn,64,00-7F	RPN LSB	×	5-14ch	XG
Bn,65,00-7F	RPN MSB			
Bn,78,00	All Sounds 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			

Code (Hexadecimal)	Function	Transmit	Receive	Remarks
Cn,nn	Program Change	✕	1ch	UK
		✕	2ch	LK
		✕	3ch	PK
		✕	5-14ch	XG
		16ch	16ch	Control
Dn,00-7F	After Touch	✕	5-14ch	XG
En,00-7F,00-7F	Pitch Bend	✕	5-14ch	XG

* Can be changed in the MIDI settings.

1.2 XG Mode

Code (Hexadecimal)	Function	Transmit	Receive	Remarks
8n,nn,00-7F	Note Off	✕	1-16ch	
9n,nn,00	Note Off	(1ch)		UK
9n,nn,01-7F	Note On	(2ch)*		LK
		(3ch)*		PK (note on transmit velocity=50H)
			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	✕	✕	Control
		✕	✕	LEAD
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	1-16ch	Control
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,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 Send Level	✕	1-16ch	
Bn,60,00-7F	Data Increment	✕	1-16ch	
Bn,61,00-7F	Data Decrement			
Bn,62,00-7F	NRPN LSB	✕	1-16ch	
Bn,63,00-7F	NRPN MSB			
Bn,64,00-7F	RPN LSB	✕	1-16ch	
Bn,65,00-7F	RPN MSB			

Code (Hexadecimal)	Function	Transmit	Receive	Remarks
Bn,78,00	All Sounds Off	×	1-16ch	
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,00-7F	Program Change	16ch 1-16ch	Control	
Dn,00-7F	After Touch	×	1-16ch	
En,00-7F,00-7F	Pitch Bend	×	1-16ch	

* Can be changed in the MIDI settings.

2. Realtime Messages

Code (Hexadecimal)	Function	Transmit	Receive	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	Transmit	Receive
F0,7F,7F,04,01,SS,TT,F7	XG Master Volume	×	○
XN		×	○

Universal Non-Realtime Messages

Code (Hexadecimal)	Message	Transmit	Receive
F0,7E,7F,09,01,F7	GM ON	×	○
XN		×	○

XG Native

Code (Hexadecimal)	Message	Transmit	Receive
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	×	○
F0,43,1N,4C,00,00,7E,00,F7	XG System On	×	○

Electone/Single Keyboard Common Messages

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

Electone Exclusive

Code (Hexadecimal)	Message	Transmit	Receive
F0,43,70,70,00,...(Data)...F7	Bulk Dump Data	×	○
78		○	○
ID		×	○
F0,43,70,ID,00,F7	Model ID Data	○	×
F0,43,70,70,nn(*1),F7	Request-to-Send Data	×	○
78		×	○
ID		×	○
F0,43,70,70,nn(*2),F7	Request-to-Receive Data	×	○
78		×	○
ID		×	○
F0,43,70,70,30,F7	Request-to-Send Model ID data	×	○
F0,43,70,70,38,7F,F7	Bulk Dump Acknowledge	×	×
00	Bulk Dump Unacknowledge	○	×
F0,43,70,70,40,nn(*3),7F,F7	Switch On	○	○
00	Switch Off	○	○
F0,43,70,70,40,50,TL,TH,F7	Tempo	○	○
F0,43,70,78,41,cd,dd,F7(*4)	Panel Switch Events	○	○
F0,43,70,78,42,...(Data)...F7	Current Registration Data	○	○
F0,43,70,78,44...(Data)...(*5),F7	EL MIDI Parameters	○	○
F0,43,70,70,70,nn(*6),F7	External MDR	×	○
F0,43,70,70,73,F7	EL ON	×	○
F0,43,70,70,78,SC,NC,F7	Bar Signal	○	○

X : don't care　　N : Device Number("0" on EL-100)　　ID=4C

*1 Data Codes to Send

nn	Data
10	All RAM
11	Registrations
12	Rhythm Sequences
14,15	User Patterns
16	User Voices
17	Keyboard Percussion Assignments

*2 Data Codes to Receive

nn	Data
20	All RAM
21	Registrations
22	Rhythm Sequences
24,25	User Patterns
26	User Voices
27	Keyboard Percussion Assignments

*3 Switches

nn	Switch	Transmit	Receive
45	Left Footswitch	○	○
47	Knee Lever	×	○
48	Fill In	○	○
4B	Intro./Ending	○	○

*4 Switch Codes

Selectors

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
02	UK Voice 1	○	[00-0D]	○	[00-0D]	Switch Number
03	LK Voice 1	○	[00-0D]	○	[00-0D]	Switch Number
04	UK Voice 2	○	[00-01]	○	[00-0D]	Switch Number
05	LK Voice 2	○	[00-01]	○	[00-0D]	Switch Number
06	LEAD Voice	○	[00-04]	○	[00-04]	Switch Number
07	Pedal Voice 1	○	[00-04]	○	[00-04]	Switch Number
08	Pedal Voice 2	○	[00-04]	○	[00-04]	Switch Number
0B	Rhythm	○	[00-0B]	○	[00-0B]	Switch Number
0F	Registration Memory	×		○	[00-0F]	

Volume

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
12	UK Voice 1	○	[00-7F]	○	[00-7F]	Volume Data 00:MAX,7F:MIN
13	LK Voice 1	○	[00-7F]	○	[00-7F]	Volume Data; 00:MAX,7F:MIN
14	UK Voice 2	○	[00-7F]	○	[00-7F]	Volume Data; 00:MAX,7F:MIN
15	LK Voice 2	○	[00-7F]	○	[00-7F]	Volume Data; 00:MAX,7F:MIN
16	LEAD Voice	○	[00-7F]	○	[00-7F]	Volume Data; 00:MAX,7F:MIN
17	Pedal Voice 1	○	[00-7F]	○	[00-7F]	Volume Data; 00:MAX,7F:MIN
18	Pedal Voice 2	○	[00-7F]	○	[00-7F]	Volume Data; 00:MAX,7F:MIN
1A	Rhythm	○	[00-7F]	○	[00-7F]	Volume Data; 00:MAX,7F:MIN
1B	Reverb	○	[00-7F]	○	[00-7F]	Depth Data; 00:MAX,7F:MIN

To Lower

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
36	LEAD Voice	○	[00-01]	○	[00-01]	00:OFF,01:ON
37	Pedal Voice 1	○	[00-01]	○	[00-01]	00:OFF,01:ON
38	Pedal Voice 2	○	[00-01]	○	[00-01]	00:OFF,01:ON

Sustain

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
50	Upper Keyboard	○	[00-01]	○	[00-01]	00:OFF,01:ON
51	Lower Keyboard	○	[00-01]	○	[00-01]	00:OFF,01:ON
52	Pedalboard	○	[00-01]	○	[00-01]	00:OFF,01:ON

Keyboard Percussion

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
5B	Lower Keyboard	○	[00-01]	○	[00-01]	00:OFF,01:ON
5C	Pedal Board	○	[00-01]	○	[00-01]	00:OFF,01:ON

Disable

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
5F	Disable	○	[00-01]	○	[00-01]	00:OFF,01:ON

Tremolo

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
60	Tremolo	○	[00-01]	○	[00-01]	00:SLOW,01:FAST

Rhythm Sequence

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

*5 EL MIDI Parameters

Voice Section Parameters

Panel Voice Parameters

Address		Size	Data	Parameter	Data		Transmit	Tx Range	Receive	Rx Range	Remarks
00	00-04, 06, 07	00-0D	2	00-7F	Voice Assign Number H		○	[00-7F]	○	[00-7F]	
				00-7F	Voice Assign Number L		○	[00-0F]	○	[00-7F]	
00	00-04, 06, 07	10	1	00-0D	Voice Selector Number		×	[00-0D]	○	[00-0D]	
00	00-04, 06, 07	11	1	00-7F	Volume	00:MIN 7F:MAX	×	[00-7F]	○	[00-7F]	
00	00-04, 06, 07	12	1	00-7F	Reverb Send Level	00:MIN 7F:MAX	○	[00-7F]	○	[00-7F]	
00	00-04, 06, 07	14	1	00-04	Feet	00:Preset 01:16Feet 02:8Fee 03:4Feet 04:2Feet	○	[00] [01] [02] [03] [04]	○	[00][05-7F] [01] [02] [03] [04]	
00	00-04, 06, 07	15	1	00-7F	Pan	00:Right 40:Center 7F:Left	○	[0B] [1D] [2B] [40] [55] [63] [75]	○	[00-11] [12-25] [26-31] [32-4E] [4F-5A] [5B-6E] [6F-7F]	
00	00-04, 06, 07	16	1	00-7F	Initial Touch Sensitivity	00:MIN 7F:MAX	○	[00-7F]	○	[00-7F]	
00	00-04, 06, 07	19	1	00-01	User Vibrato	00:PRESET 01:USER	○	[00] [01]	○	[00] [01-7F]	
00	00-04, 06, 07	1A	1	02-1A	Vibrato Delay	00:Short 7F:Long	○	[02-1A]	○	[00-7F]	
00	00-04, 06, 07	1B	1	00-54	Vibrato Depth	00:MIN 7F:MAX	○	[00-54]	○	[00-7F]	
00	00-04, 06, 07	1C	1	3C-6C	Vibrato Speed	00:Slow 7F:Fast	○	[3C-6C]	○	[00-7F]	
00	04, 06, 07	1F	1	00-01	To Lower	00:OFF 01:ON	×	[00] [01]	○	[00] [01-7F]	
00	04	20	1	00-02	Slide	00:OFF 01:ON 02:KneeControl	○ ×	[00] [01]	○	[00] [01] [02]	
00	04	21	1	02-7F	Slide Speed	02:Slow 7F:Fast	○	[02-7F]	○	[00-7F]	
00	04	22	1	00-24	Detune	00:Normal 24:TuneUP	○	[00-24]	○	[00-7F]	
00	00-07 00, 01, 04, 06, 07	23	1	00-01	2nd Expression Pedal	00:OFF 01:ON	×	[00] [01]	○	[00] [01-7F]	
00	00-04	24	1	00-01	Glide	00:OFF 01:ON	○	[00] [01]	○	[00] [01-7F]	

Effect Parameters (Voice Sections)

Address			Size	Data	Parameter	Content		Transmit	Tx Range	Receive	Rx Range	Remarks
00-01	00-04, 06, 07	3F	1	00-05	Effect Select	00:Preset		○	[00]	○	[00][07-7F]	
						01:OFF			[01]		[01]	
						02:Tremolo			[02]		[02]	
						03:Symphonic			[03]		[03]	
						04:Delay			[04]		[04]	
						05:Flanger			[05]		[05]	
						06:Distortion			[06]		[06]	
00-01	00-04, 06, 07	40-42	1	00-7F	Reverb			×	[00-7F]	○	[00-7F]	
00-01	00-04, 06, 07	48-4A	1	00-7F	Tremolo			×	[00-7F]	○	[00-7F]	
00-01	00-04, 06, 07	50	1	00-7F	Symphonic			○	[00-7F]	○	[00-7F]	
00-01	00-04, 06, 07	58-5B	1,2	00-7F	Delay			○	[00-7F]	○	[00-7F]	
00-01	00-04, 06, 07	60-62	1	00-7F	Flanger			○	[00-7F]	○	[00-7F]	
00-01	00-04, 06, 07	68-69	1	00-7F	Distortion			○	[00-7F]	○	[00-7F]	

Keyboard Parameters
Sustain Parameters

Address			Size	Data	Parameter	Content	Transmit	Tx Range	Receive	Rx Range	Remarks
02	00-02	00	1	00-01	Sustain On/Off	00:OFF	×	[00]	○	[00]	
						01:ON		[01]		[01-7F]	
02	00-02	01	1	00-0C	Length	00:Short	○	[15-3D]	○	[00-7F]	
						0C:Long					

Keyboard Percussion Parameters

Address			Size	Data	Parameter	Content	Transmit	Tx Range	Receive	Rx Range	Remarks
02	01-02	10	1	00-01	Keyboard Percussion	00:OFF	×	[00]	○	[00]	
						01:ON		[01]		[01-7F]	
02	01-02	11	1	00-08	Modes	00:Preset	○	[00]	○	[00]	
						01-08:UserAssign1-8		[01-08]		[01-08]	

Effect Parameters (Keyboard)

Address			Size	Data	Parameter	Content	Transmit	Tx Range	Receive	Rx Range	Remarks
02	00-02	40-42	1		Reverb		×	[00-7F]	○	[00-7F]	
02	00-02	48-4A	1		Tremolo		×	[00-7F]	○	[00-7F]	
02	00-02	50	1		Symphonic		×	[00-7F]	○	[00-7F]	
02	00-02	58-5B	1,2		Delay		×	[00-7F]	○	[00-7F]	
02	00-02	60-62	1		Flanger		×	[00-7F]	○	[00-7F]	
02	00-02	68-69	1		Distortion		×	[00-7F]	○	[00-7F]	

Rhythm
Rhythm Parameters

Address			Size	Data	Parameter	Content	Transmit	Tx Range	Receive	Rx Range	Remarks
03	00	00-0B	1	00-65 67-98	Pattern Assign Number	Pattern Numbers	○	[00-62]	○	[00-62]	
03	00	10	1	00-0B	Pattern Select Number	Selector Switch Numbers	×	[00-0B]	○	[00-0B]	
03	00	11	1	00-7F	Volume	00:MIN	×	[00-7F]	○	[00-7F]	
						7F:MAX					
03	00	12	1	00-7F	Reverb Send Level	00:MIN	○	[00-7F]	○	[00-7F]	
						7F:MAX					
03	00	14	1	00-01	Auto Variation	00:OFF	○	[00]	○	[00]	
						01:ON		[01]		[01-7F]	
03	00	15	1	00-7F	Rhythm Balance	00:Cymbal	○	[00-7F]	○	[00-7F]	
						40:Center					
						7F:Drums					
03	00	16	1	00-01	2nd Expression Tempo Control	00:OFF	×	[00]	○	[00]	
						01:ON		[01]		[01-7F]	
03	00	17	1	00-03	Footswitch Rhythm Mode	00:OFF	○	[00]		[00][04-7F]	
						01:RhythmStop		[01]	○	[01]	
						02:Ending		[02]		[02]	
						03:FillIn		[03]		[03]	

Rhythm Sequence Parameters

	Address		Size	Data	Parameter	Content	Transmit	Tx Range	Receive	Rx Range	Remarks
03	01	00-03	1	00-01	Rhythm Sequence	00:OFF	×	[00]	○	[00]	
						01:ON		[01]		[01-7F]	

Accompaniment Parameters

	Address		Size	Data	Parameter	Content	Transmit	Tx Range	Receive	Rx Range	Remarks
03	02	10	1	00-03	Pattern Selector Number	00:Type1	○	[00]	○	[00]	
						01:Type2		[01]		[01]	
						02:Type3		[02]		[02]	
						03:Type4		[03]		[03]	
03	02	11	1	00-01	Volume Mute	00:OFF	○	[00]	○	[00]	
						01:MUTE		[01]		[01-7F]	
03	02	12	1	00-7F	Volume	00:MIN	○	[00-7F]	○	[00-7F]	
						7F:MAX					
03	02	13	1	00-7F	Reverb Send Level	00:MIN	○	[00-7F]	○	[00-7F]	
						7F:MAX					

A.B.C. Parameters

	Address		Size	Data	Parameter	Content	Transmit	Tx Range	Receive	Rx Range	Remarks
03	03	00	1	00-03	A.B.C. Mode	00:OFF	○	[00]	○	[00][04-7F]	
						01:SingleFinger		[01]		[01]	
						02:Fingerd		[02]		[02]	
						03:CustomABC		[03]		[03]	
03	03	01	1	00-01	Lower Memory	00:OFF	○	[00]	○	[00]	
						01:ON		[01]		[01-7F]	
03	03	02	1	00-01	Pedal Memory	00:OFF	○	[00]	○	[00]	
						01:ON		[01]		[01-7F]	

M.O.C. Parameters

	Address		Size	Data	Parameter	Content	Transmit	Tx Range	Receive	Rx Range	Remarks
03	04	00	1	00-03	M.O.C. Mode	00:OFF	○	[00]	○	[00][04-7F]	
						01:Close2Note		[01]		[01]	
						02:Close3Note		[02]		[02]	
						03:PassBOpen		[03]		[03]	
03	04	01	1	00-01	M.O.C. Knee Control	00:OFF	×		○	[00]	
						01:ON				[01-7F]	

Overall
System Parameters

Address			Size	Data	Parameter	Content	Transmit	Tx Range	Receive	Rx Range	Remarks
04	00	00	1	00-01	Disable	00:OFF	×	[00]	○	[00]	
						01:ON		[01]		[01-7F]	
04	00	02	1	3A-46	Transpose	3A:KeyDown	○	[3A]	○	[3A]	
						40:Normal		[40]		[40]	
						46:KeyUp		[46]		[46]	
04	00	03	1	00-0B	2nd Expression Range	01:100 ¢	×	[01-0C]	○	[01-0C]	
						0C:1200 ¢					
04	00	04	1	00-03	Footswitch Mode	00:OFF	○	[00]	○	[00][04-7F]	
						01:Rhythm		[01]		[01]	
						02:Glide		[02]		[02]	
						03:Tremolo		[03]		[03]	
04	00	05	1	3C-4F	Pitch	3C:PitchDown	○	[3C-4F]	○	[3C-4F]	
						40:Normal					
						4F:PitchUp					
04	00	06	1	00-04	Glide Speed	01:Slow	○	[04-1C]	○	[00-7F]	
						05:Fast					
04	00	07	1	34-4C	Manual Balance	34:Upper	○	[34-4C]	○	[00-7F]	
						40:Center					
						4C:Lower					
04	00	09	1	00-01	L.I.T.	00:Mode1	×	[00]	×	[00]	
						01:Mode2		[01]		[01]	
04	00	0A	1	00-01	Expression INT/EXT	00:Internal	×	[00]	○	[00][02-7F]	
						01:External		[01]		[01]	

Effect Parameters (Overall)

Address			Size	Data	Parameter	Content	Transmit	Tx Range	Receive	Rx Range	Remarks
04	00	40-42	1		Reverb		○	[00-7F]	○	[00-7F]	
04	00	48-4A	1		Tremolo		○	[00-7F]	○	[00-7F]	
04	00	50	1		Symphonic		×	[00-7F]	○	[00-7F]	
04	00	58-5B	1,2		Delay		×	[00-7F]	○	[00-7F]	
04	00	60-62	1		Flanger		×	[00-7F]	○	[00-7F]	
04	00	68-69	1		Distortion		×	[00-7F]	○	[00-7F]	

*6 External MDR

nn	Command	Transmit	Receive
01	Play Start	×	○
02	Play Stop	×	○
03	Record Start	×	○
04	Record Stop	×	○
09	Rhythm Pointer Reset	×	○

11

Appendix

119

MIDI Implementation Chart

YAMAHA [Electone-EL mode] / Model: EL-100

Date:15. Nov. 2001
Version: 1.00

Function		Transmit	Receive	Remarks
Basic Channel	Default Changed	1, 2, 3, 16 *1 1-16	1-3, 5-16 *2 4	
Mode	Default Messages Altered	Mode 3 ✕ ************************	Mode 3 ✕ ✕	
Note Number	 True Voice	36-96 *3 ************************	0-127 *4 	
Velocity	Note ON Note OFF	○ 9nH, v=1-127 ○ 9nH, v=0	○ 9nH, v=1-127 ○ 9nH, v=0, 8nH	Transmit with EL-100: fixed to 80.
After Touch	Key's Ch's	✕ ✕	✕ ○ *6	PK after touch with EL-100: not transmit.
Pitch Bend		✕	○ *6	
Control Change	0, 32 1, 5, 7, 10 4 6, 38 11 96, 97 64-67 71-74 84, 91, 93, 94 98-99, 100-101 120, 121	✕ ✕ ○ ✕ ○ *7 ✕ ✕ ✕ ✕ ✕ ✕	○ *6 ○ *6 ○ *7 ○ *6 ○ *6, 7 ○ *6 ○ *6 ○ *6 ○ *6 ○ *6 ○ *6	Bank Select 2nd Expression Pedal Data Entry Expression Pedal Data Entry SW Sound Controller NRPN, RPN
Program Change	 Range	○ *9 ************************	○ *10 	
System Exclusive		○	○	
System Common	Song Position Song Select Tune	✕ ✕ ✕	✕ ✕ ✕	
System Real Time	Clock Commands	○ ○	○ *8 ○	(FAH, FCH)
Aux Messages	Local ON/OFF All Notes OFF Active Sense Reset	✕ ✕ ○ ✕	✕ ○ (123-127) *6 ○ ✕	
Notes		*1 Ch 1: UK; Ch 2: LK; Ch 3: PK; Ch 16: Control *2 Ch 1: UK; Ch 2: LK; Ch 3: PK; Ch 4: LEAD 1; Chs 5 - 14: XG; Ch 15: Keyboard *3 UK: 48 - 96; LK: 36 - 84; PK: 36 - 55 *4 UK, LK, PK, LEAD 1: 36 - 96; XG: 0 - 127; Keyboard Percussion: 3 - 127 *5 UK: UK Horizontal Touch; LK: LK Horizontal Touch *6 XG only *7 Control only *8 External Mode only *9 Control: 0 - 15, 112 - 116 *10 UK, LK, PK, Control: 0 - 15, 112 - 116; XG: 0 - 127		

Mode 1 : OMNI ON, POLY   Mode 2 : OMNI ON, MONO   ○ : YES
Mode 3 : OMNI OFF, POLY   Mode 4 : OMNI OFF, MONO   ✕ : NO

Function		Transmit *11	Receive	Remarks
Basic Channel	Default	1, 2, 3, 16	1-16	
	Changed	1-16	1-16	
Mode	Default	Mode3	Mode 3	
	Messages	✕	✕	
	Altered	************************	✕	
Note Number		36-96	0-127	
	True Voice	************************		
Velocity	Note ON	○ 9nH, v=1-127	○ 9nH, v=1-127	Transmit with EL-100:
	Note OFF	○ 9nH, v=0	○ 9nH, v=0, 8nH	fixed to 80.
After Touch	Key's	✕	✕	
	Ch's	✕	○	
Pitch Bend		✕	○	
Control Change	0, 32	✕	○	Bank Select
	1, 5, 7, 10	✕	○	
	4	✕	✕	2nd Expression Pedal
	6, 38	✕	○	Data Entry
	11	○	○	Expression Pedal
	96, 97	✕	○	Data Entry SW
	64-67	✕	○	
	71-74	✕	○	Sound Controller
	84, 91, 93, 94	✕	○	
	98-99, 100-101	✕	○	NRPN, RPN
	120, 121	✕	○	
Program Change		○ 0-15, 112-116	○	
	Range	************************		
System Exclusive		○	○	
System Common	Song Position	✕	✕	
	Song Select	✕	✕	
	Tune	✕	✕	
System Real Time	Clock	○	✕	
	Commands	○	✕	
Aux Messages	Local ON/OFF	✕	✕	
	All Notes OFF	✕	○ (123-127)	
	Active Sense	○	○	
	Reset	✕	✕	
Notes		*11 The same as the one in the EL Mode		

Mode 1 : OMNI ON, POLY   Mode 2 : OMNI ON, MONO   ○ : YES
Mode 3 : OMNI OFF, POLY   Mode 4 : OMNI OFF, MONO   ✕ : NO

11

Appendix

■ Troubleshooting

Problem	Possible Cause and Solution
GENERAL OPERATION	
A cracking noise is sometimes heard.	Noise may be produced when either an electrical appliance is turned on or off, or an electric power tool (such as drill) is used in the proximity of the Electone. If this occurs, plug the Electone into an electrical outlet located as far as possible from the device that seems to be the source of the problem.
Interference from radio, TV, or other sources occurs.	This is caused by the proximity of a high-power broadcasting station, an amateur ham radio setup or a mobile phone.
Electone generates some noise.	A cell phone may be used in the proximity of Electone. Using a cell phone beside the Electone may cause a noise. Turn off the power of the cell phone.
Radio or TV generates some noise.	Locating a radio or TV close to the Electone causes to produce a noise from it. Relocate it farther from the Electone.
The sound of the Electone causes surrounding objects to resonate.	Because the Electone is capable of producing powerful bass sounds, resonance may be caused in surrounding objects, such as cabinets or glass windows. To avoid this, relocate the objects or lower the Electone's volume.
Some of the lamps in the DISPLAY SELECT section do not light.	The lamp of TREMOLO (FAST) button is lit when turned on. The others momentarily flash when the function is selected.
The sound is too small even when the volume is set to its maximum.	● The Master Volume may be set around the minimum position. Turn it clockwise. ● The Expression Pedal may not be pressed down. Press it down with your toe.
The Electone panel does not function normally or the content of the memorized data has changed.	This happens very rarely. Occasionally, power surges and spikes due to electrical storms or other reasons may cause the Electone to malfunction and/or alter the contents of memorized data. If this happens, turn the power off and turn it back to on.
Pressing a certain panel button doesn't open its related LCD display.	When the Pattern Disk is inserted in the M.D.R., the LCD will not change even if you press any buttons. Eject the Disk and press the desired button again.
VOICES/RHYTHMS	
Switching voices causes the volume to change, despite their having identical volume setting.	The volume of certain voices may seem lower than that of others. Adjust the balance of the sound with the volume control within the appropriate Voice Condition display.
The pitch seems to be higher on the Pedalboard and lower on the Upper and Lower keyboards.	You may feel it especially when playing piano voice. The temperament for the acoustic piano is tuned by listening to the overtones since the overtone configuration of the acoustic piano is so complicated that the actual notes in the higher and lower registers are difficult to be adjusted. On the contrary, the Electone voices including piano voice are tuned by actual notes. Thus, the tuning method itself in the higher and lower registers is different.
Some voices seems to contain crack or distorted noise.	You may feel it mainly with wind instrument voices. These are purposely built in effects, which can faithfully reproduce the characteristics of each instrument. You can enjoy more realistic sounds such as brass vibration and breath noise.
When too many keys are pressed, not all of the notes sound.	Total polyphonic capacity (notes sounding for both Upper and Lower Keyboards) is 10 notes. The notes exceeding this limit may not be produced.
Only a note will be produced when pressing two keys or more on the Pedalboard and/or Lead voice.	The Lead and Pedal voices are designed to sound one note at a time. When you simultaneously press two or more keys, only the highest note will sound.

11 Appendix

Problem	Possible Cause and Solution
VOICES/RHYTHMS	
The volume of Upper keyboard is louder than that of Lower keyboard, or vice versa.	Manual Balance is wrongly set to the either side, Upper or Lower. Open the Voice Display by pressing the VOICE DISPLAY button in the DISPLAY SELECT section, and select page 2 to display the Manual Balance. Then change the balance between Upper keyboard and Lower keyboard.
Pedalboard doesn't sound, even when its volume is properly set.	● One of the A.B.C. modes, Single Finger or Fingered Chord, is active. Set the A.B.C. mode to off on A.B.C. page. ● The TO LOWER button in the Pedal Voice is turned on. Turn them off.
When keys on the Lower keyboard or pedalboard are pressed, the sounds of percussion instruments are also heard.	Keyboard Percussion function is set to on. Turn the Keyboard Percussion off.
Even though a Dotted button's rhythm has been selected and started, the pattern does not sound.	Since the Dotted buttons contain User rhythms, no rhythm will sound if a Pattern Disk pattern has not been saved to the selected Dotted button.
EFFECT	
The Initial Touch function does not operate.	Initial Touch setting in the Voice Condition is not high enough to get the effect. Adjust the Initial Touch setting using the Voice Condition display.
The Reverb effect does not operate, even when Reverb parameters for the selected voice sections are increased.	The Reverb setting of the targeted voice group is set to 0. Raise the Reverb volume in the Voice Condition page 2 of the desired voice group.
The Tremolo effect cannot be heard, even when the TREMOLO (FAST) button in the DISPLAY SELECT section is on.	To get the Tremolo effect, you first need to select the Tremolo function in the Voice Condition page 3 or Effect Set page.
ACCOMPANIMENT	
The pitch in the Single Finger mode does not change, even when pressing different keys of the keyboard.	Single Finger mode will only produce notes when played within a fixed octave interval on the Lower keyboard. If notes with the same letter name are pressed outside of that range, the chords that are sounded will share the same pitch.
While an intro./Ending pattern is automatically playing, the Lower keyboard does not produce any sound, even when the keys are played.	Since the Accompaniment chords play automatically one after another, the Lower keyboard is designed not to produce any sound during the playback of an Intro./Ending pattern.
The Accompaniment cannot be heard even when an appropriate Accompaniment type is selected and the rhythm has been started.	The Accompaniment volume is set to 0 as the default. Be sure to raise the Accompaniment volume on the rhythm condition page.
The harmony notes of the Melody On Chord function cannot be heard.	The Upper keyboard has been set to sound only Lead voices. Raise the volume of Upper Keyboard voices (not Lead voice, in this case) high enough to get the effect.

Problem	Possible Cause and Solution
REGISTRATION MEMORY	
Certain functions have not been memorized to Registration Memory.	Some functions will not be memorized. (See page 67 for more information.)
An error occurs and the registration data is not recorded to M.D.R., when executing To Disk operation.	Your operation may be wrong or the Write-protect tab of the floppy disk is set to on.
A simple beep sound is produced when I press the Basic Regist. Button.	When the contents of the SEQ buttons are different from Electone's default settings (you may have loaded the sequence data from the upper models), pressing one of the Basic Regist. buttons restores the original data and give a simple beep sound to notify it.
MUSIC DISK RECORDER	
Recording or playback cannot be performed.	The PLAY or RECORD section buttons for selecting parts may be turned off. Turn on the appropriate PLAY or RECORD buttons.
A total of 40 songs cannot be recorded.	If some song numbers contain a large amount of recorded data, the disk may not have enough available memory left to record the normal maximum of 40 songs. Check the remaining memory.
Recording is stopped before the performance is finished, or the Song Copy function cannot be executed.	● The amount of recorded data on the disk is close to the maximum limit. Either use another disk or delete the data of any unnecessary song number. ● The length of a subsequently recorded part cannot exceed the length of the previously recorded parts. If you want to change the song length, first delete the existing song and record again.
The rhythm does not start at the beginning of a recording, or stops in the middle of the performance.	The M.D.R. is designed so that the rhythm cannot be started at the very beginning of a recording. If you wish to use the rhythm, start it after the available memory display appears on the M.D.R. display.
The notes of the recording are "stuck" and sound continuously.	During playback, you removed the disk by pressing the EJECT button. Whenever you wish to stop playback, always press the STOP button.

YAMAHA Electone
EL-100 ASSEMBLY INSTRUCTIONS

Carefully read these instructions BEFORE assembling the Electone.

■ Precautions

⚠ Be careful not to confuse parts, and be sure to install all parts in the correct direction by following the procedures given below.

⚠ Be sure to assemble the Electone with two or more people.

⚠ Don't use the screws other than the ones specified and included in this package. Use of incorrect screws can cause damage and malfunction.

⚠ Be sure to tighten up all screws upon completing assembly.

⚠ To disassemble, reverse the procedures.

You need a Phillips (+) screwdriver to assemble the Electone.

1. **Open the package, take out two cardboard pads from the both sides of the package, and place the main unit on top of the cardboard pads.**
   Position the pads not to directly contact the terminals equipped on the bottom of the main unit.

2. **Take out all parts from the package.**
   Please confirm that all parts shown in the illustration are provided.

Dust Cover

Music Stand

AC Power Cord

Main Unit

Sideboard (Left)

Sideboard (Right)

Speaker Unit

Grill Net (Attached to the Speaker Unit)

❶ Long/Black Screws (ø6X25mm): 4pcs.

❷ Long/Yellow Screws (ø5X25mm): 4pcs.

❸ Short/Black Screws (ø5X12mm): 8pcs.

Pedalboard Cord Cramps: 2pcs.

Screw caps: 4pcs.

Bench

Bench Board

Legs: 4pcs.
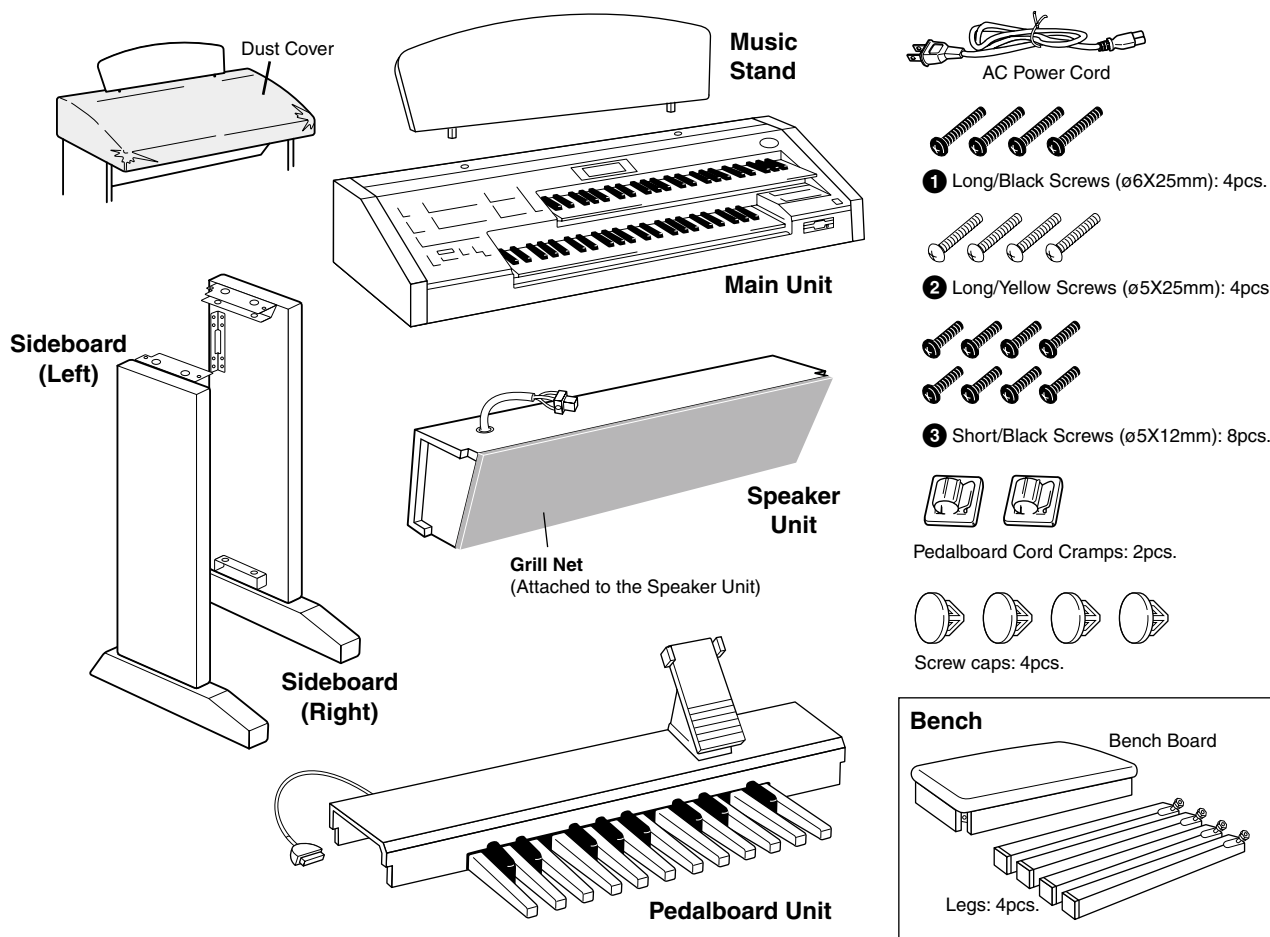
Pedalboard Unit

3. **Mount the Sideboards onto the Pedalboard unit.**
Be sure not to confuse the Right and Left Sideboards.

3-1 Raise the Pedalboard as shown in the illustration below.

3-2 Position each screw hole on both the Pedalboard and Sideboards as shown in the illustration and mount the Sideboards onto the Pedalboard using the 4 Short/black screws (2 screws on each Sideboard).

while pushing the Sideboard toward the Pedalboard…

3 Short/black screws
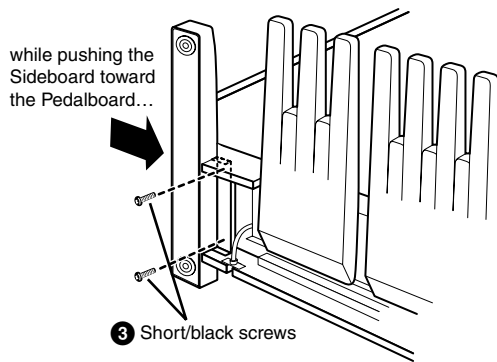
3-3 Stand the Pedalboard after securing the screws.

4. **Mount the Speaker Unit onto the Sideboards.**

4-1 Remove the Grill Net from the Speaker Unit.
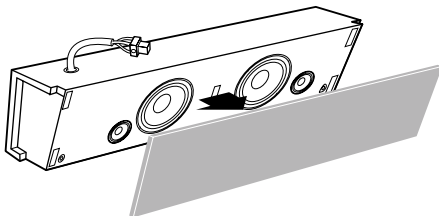
4-2 Hold the Speaker unit horizontally (by 2 people) and slide it, from the rear side, in place along the brackets.
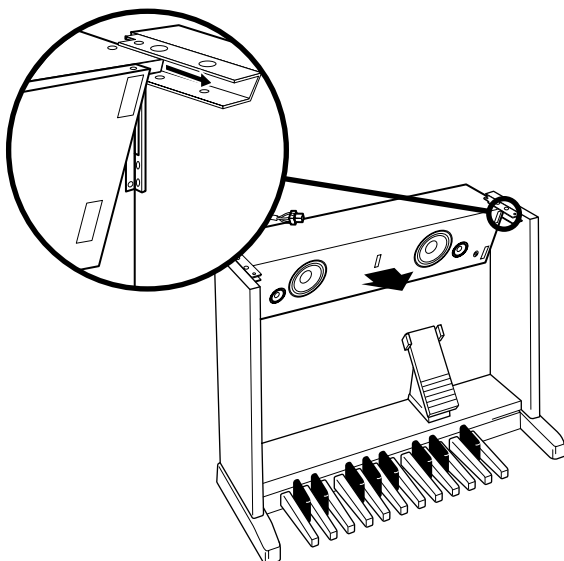
⚠ Take care not to drop the Speaker unit or to pinch your finger(s) between the Speaker unit and Sideboard.

4-2 While holding the Sideboard(s) to the Speaker unit, screw the 4 Short/black screws, from the rear side, to fasten it to the Sideboards. Cover 4 screw holes on the rear side with the 4 screw caps.

4-3 Also, use the 4 Long/yellow screws to secure it.

while pushing the Sideboard toward the Speaker unit...

2 Long/yellow screws

while pushing the Sideboard toward the Speaker unit...

3 Short/black screws

Screw caps

3 Short/black screws

Screw caps
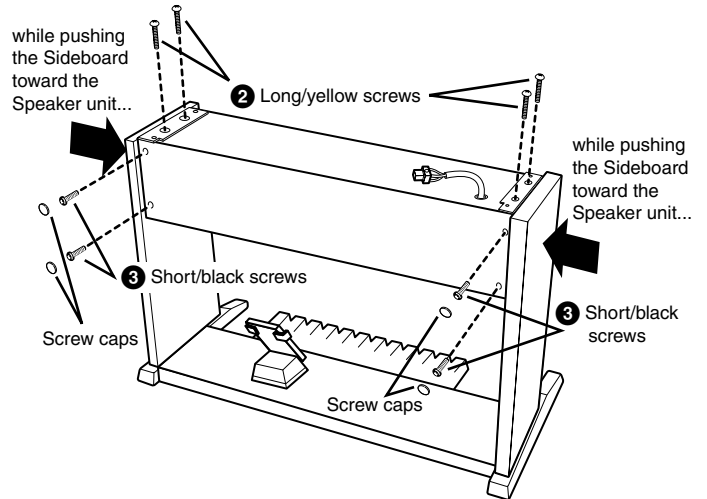
5. **Mount the Main Unit.**

5-1 As shown in the illustration, hold the Main unit horizontally (by 2 people), and place it on the rear side of the Speaker unit, then slide it to the front side.

Hook the guide screw, protruding from the bottom of the Main unit, here.
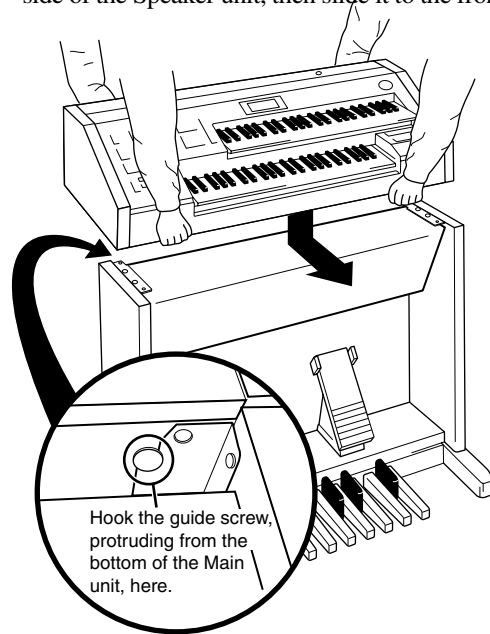
⚠ Make sure to center the main unit to produce equal clearance on the left and right sides.

⚠ Take care not to drop the Main unit or to pinch your finger(s) between the Speaker unit and Main unit.

5-2 Use the 4 Long/black screws to fasten the Main unit to the Sideboards as shown in the illustration.

① Long/black screws

① Long/black screws
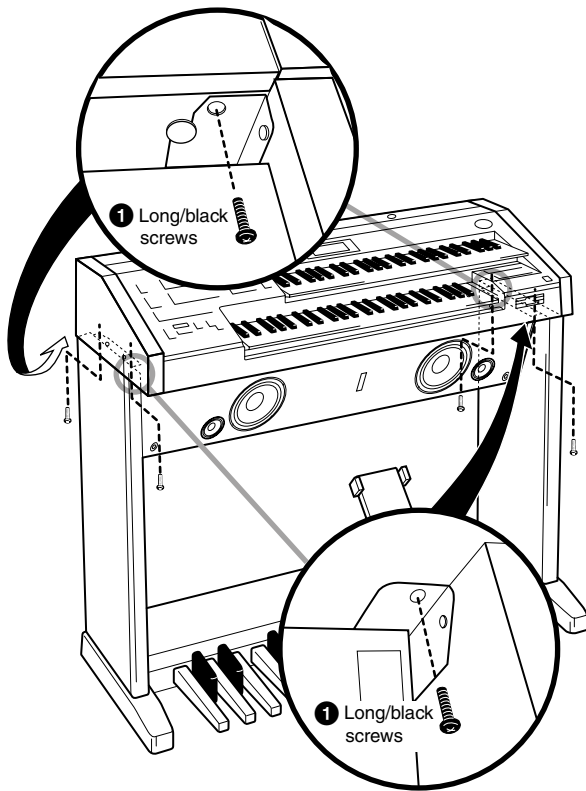
6. **Fit the Grill Net onto the Speaker.**
First, align the bottom line and then fix it.

Hook up the Grill Net by inserting the protrudents into the holes.
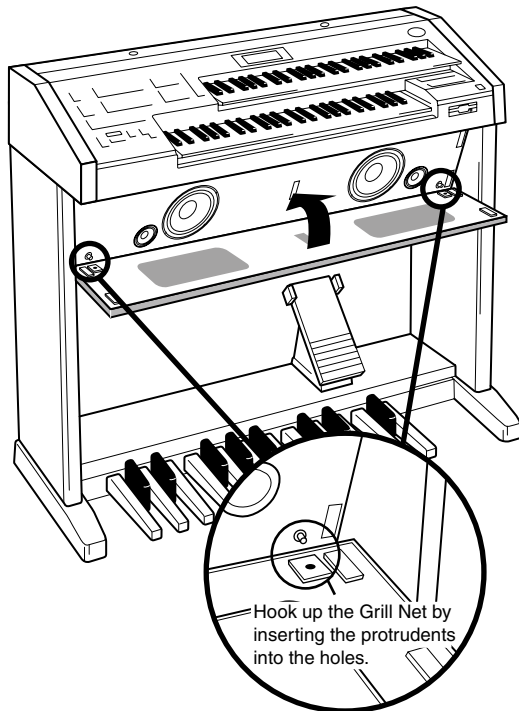
7. **Connect the Pedalboard cord and Speaker cord to the Main Unit.**
Make sure that the latches on each plug of the cords face to your side and that you connect them to each socket securely.

Speaker cord
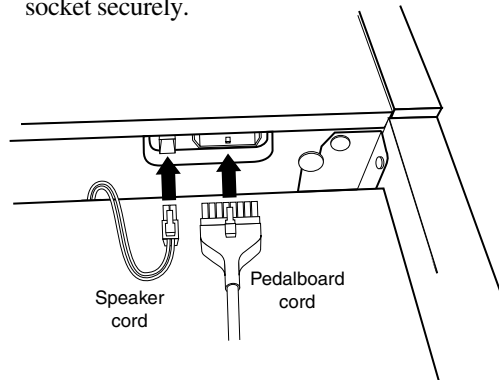
Pedalboard cord

8. **Fix the Pedalboard cord to the Sideboard using the Pedalboard cord Cramps.**

8-1 Stick the 2 Pedalboard cord cramps to the rear side of the Left Sideboard as shown in the illustration.
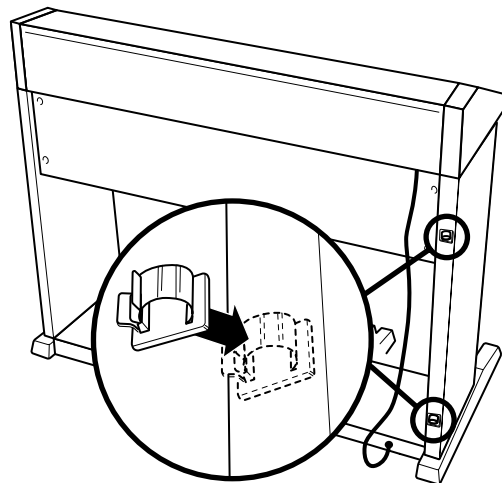
8-2 Fix the Pedalboard cord in the cramps.

Shut the cramp after inserting the cord.

11

Appendix

127
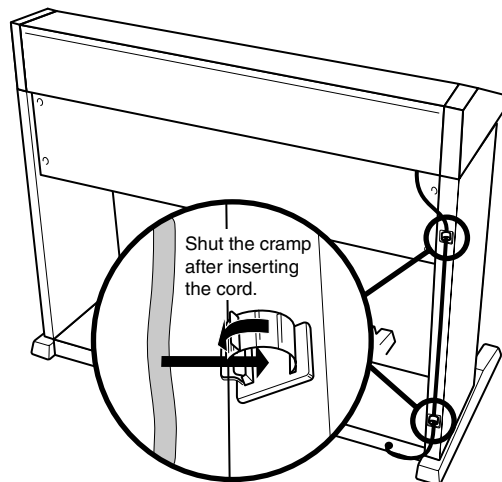
9. **Connect the AC Power Cord plug to the AC Inlet of the Main Unit.**
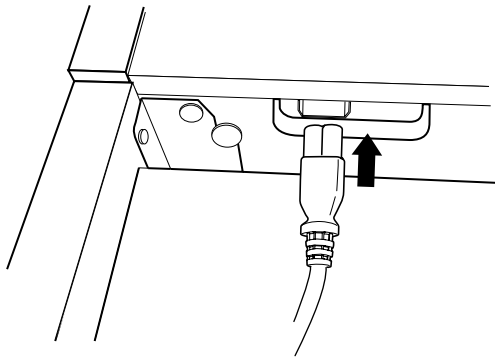
10. **Place the Music Stand.**
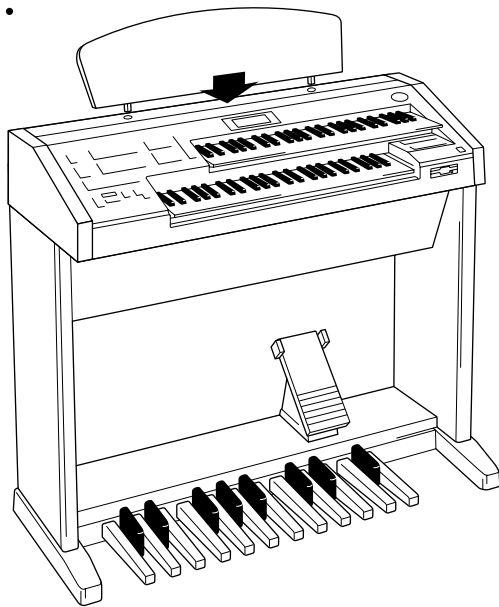
11. **Turn on the Electone's power switch and confirm that the Electone can be played, or that the assembly is successful.**

BENCH ASSEMBLY

Reverse the bench board and place one of the legs to the corner of the bench board, then tighten the nut using the included wrench. Be sure to put the washer between the leg and the bench board.
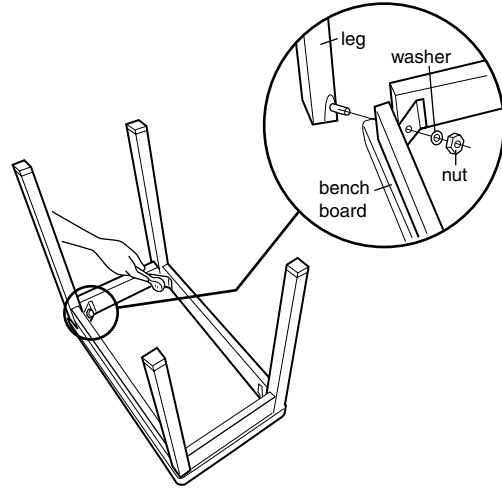
■ After completing the assembly, please check the following items.

• **Are there any parts left over?**
   ⇒ Review all assembly procedures.

• **Is the Electone clear of doors and other movable fixtures?**
   ⇒ Move the Electone to an appropriate location.

• **Does the Electone make a rattling noise when you shake it?**
   ⇒ Tighten all screws.

• **Can the Electone be turned on?**
   ⇒ Confirm that the AC power cord plug is securely connected to the Electone's AC Inlet and the other side of the cord is connected to an appropriate power outlet.

• **Does the Electone produce sounds?**
   ⇒ Confirm that the Speaker cord plug and the Pedalboard cord plug are securely connected to each socket on the Main unit.

If the Electone creaks or is otherwise unsteady when you play on the keyboard, refer to the assembly instructions and tighten all screws again.

EL-100 Specifications

KEYBOARD		Upper: 49 keys (C – C), Lower: 49 keys (C – C), Pedal: 20 keys (C – G)
Initial Touch		Upper 1, 2, Lead, Lower 1, 2, Pedal 1, 2 (Available only when it is played by external MIDI control)
VOICE	Tone Generation	AWM
	Upper Keyboard Voice Lower Keyboard Voice Upper Keyboard Voice 2 Lower Keyboard Voice 2	Strings 1, 2, 3, 4, 5, 6, 7, Pizz. Strings, Tremolo Strings, Synth. Strings 1, 2, 3; Brass 1, 2, 3, 4, 5, Synth. Brass 1, 2, 3; Clarinet 1, 2, Bass Clarinet, Synth. Clarinet 1, 2; Saxophone 1, 2, Soprano Sax., Sax. Ensemble 1, 2, Synth. Sax, Synth. Lead 1, 2, 3, 4, 5; Chorus 1, 2, 3, 4, 5, Vocal; Organ 1, 2, 3, 4, Jazz Organ 1, 2, 3, 4, Pop Organ 1, 2, Theatre Organ 1, 2, Accordion, Bandoneon; Piano 1, 2, Honky Tonk, Elec. Piano 1, 2, 3, Harpsichord, Clavi., Clavichord; Guitar 1, 2, 3, 12 String Guitar, Banjo, Mandolin, Sitar, Shamisen, Elec. Guitar 1, 2, Muted Guitar, Distortion Guitar, Harp, Steel Guitar, Koto, Taisho Koto; Vibraphone, Glockenspiel, Celesta, Music Box, Marimba, Xylophone, Chime, Synth. Chime, Steel Drum; Cosmic 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16; Tutti 1, 2, 3, 4, 5, 6, 7; [Upper] Harmonica 1, 2; [Lower] Horn 1, 2, 3, 4, Muted Horn; 2 Dotted Buttons; [Upper] 115 Voices; [Lower] 118 Voices; Volume Fine
	Lead Voice	Violin 1, 2, 3, 4, 5, Pizz. Violin, Cello, Kokyu; Flute 1, 2, Piccolo, Yokobue, Recorder, Ocarina, Pan Flute, Shakuhachi, Whistle; Oboe 1, 2, English Horn, Bassoon 1, 2; Trumpet 1, 2, 3, 4, 5, 6, Muted Trumpet, Trombone 1, 2, Muted Trombone, Flugel Horn, Euphonium; To Lower; Dotted Button; 34 Voices; Volume Fine
	Pedalboard Voice Pedalboard Voice 2	Contrabass 1, 2, 3, Pizz. Bass, Upright Bass; Elec. Bass 1, 2, 3, 4, Synth. Bass 1, 2, 3; Organ Bass 1, 2, 3, 4; Tuba, Timpani, Timpani Roll; To Lower; Dotted Button; 19 Voices; Volume Fine
	Voice Display	Upper 1, 2; Lower 1, 2; Lead; Pedal 1, 2; Manual Balance
EFFECT/ CONDITION	Digital Reverb	3 Types: Room, Hall, Church; Length; Depth; Volume: Upper 1, 2, Lower 1, 2, Lead, Pedal 1, 2, Accompaniment, Percussion
	Sustain	Upper, Lower, Pedal: Length
	Tremolo/Chorus	Upper 1, 2, Lower 1, 2, Lead, Pedal 1, 2, Tremolo (Fast): Speed; Chorus: Slow, Stop
	Symphonic/Celeste	Upper 1, 2, Lower 1, 2, Lead, Pedal 1, 2; Mode: Symphonic/Celeste
	Vibrato	Upper 1, 2, Lower 1, 2, Lead, Pedal 1, 2: Preset/User (Delay, Depth, Speed)
	Delay	Upper 1, 2, Lower 1, 2, Lead, Pedal 1, 2; Control: Time, Feedback, Balance; Mode: Mono, Stereo 1, 2, 3
	Flanger	Upper 1, 2, Lower 1, 2, Lead, Pedal 1, 2; Control: Speed, Feedback, Depth
	Distortion	Upper 1, 2, Lower 1, 2, Lead, Pedal 1, 2; Control: Level, Hi-pass
	Glide	Upper 1, 2, Lower 1, 2, Lead; Control: Time
	Lead Slide	On/Off; Control: Time
	Lead Tune	Tune Control
	Panning	Upper 1, 2, Lower 1, 2, Lead, Pedal 1, 2; (7 positions)
	Feet	Upper 1, 2, Lower 1, 2, Lead, Pedal 1, 2; Preset 2' (Pedal Voices only)/4'/8'/16'

RHYTHM	Rhythms	March 1, 2, 3, Polka 1, 2, Country 1, 2, Broadway, Baroque; Waltz 1, 2, 3, 4, 5, Jazz Waltz 1, 2, 3, Bolero; Swing 1, 2, 3, 4, 5, 6, Jazz Ballad, Dixieland 1, 2; Bounce 1, 2, 3, Reggae 1, 2; Slow Rock 1, 2, 3; Tango 1, 2, 3; Chacha, Rhumba, Beguine; Mambo, Salsa, Samba 1, 2, 3, Bossanova 1, 2, 3; 8Beat 1, 2, 3, 4, 5, Dance Pop 1, 2, 3, 4; 16Beat 1, 2, 3, 4, 5, Funk 1, 2, 3; User 1-8 (A-D); 2 Dotted Buttons; 66 Rhythms; Volume Fine
	Variations	Fill-In; Intro. Ending; Lead In; Auto Variation: On/Off
	Others	Start; Synchro Start; Tempo; Bar/Beat LED; Condition: Reverb, Balance, Volume
	Rhythm Sequence	On/Off, Sequence 1 - 4
KEYBOARD PERCUSSION		Lower, Pedal On/Off: Lower Preset, Pedal Preset, User 1- 8; Copy: LK Preset, PK Preset, User; Assign: 120 Instruments, Clear
ACCOMPANIMENT	Auto Bass Chord	Mode: Off; Single Finger; Fingered Chord; Custom A.B.C.; Memory: Lower, Pedal
	Accompaniments	Type 1, 2, 3, 4, All Off, Volume, Reverb
MELODY ON CHORD		Mode: Off, 1, 2, 3
BASIC REGISTRATION		1 - 5
REGISTRATION MEMORY		M./To Disk, 1 - 8; Disable Button; Registration shift
MUSIC DISK RECORDER		Play/Record: Upper, Lower, Pedal, Lead, Keyboard Percussion, Control; Pause, Stop, Fast Forward/Reverse, Song Select, Shift, Custom Play, Tempo; Format, Read & Auto Increment, Song Repeat; Song Delete; Song Copy: From/To; Disk Copy, Punch in Recording, XG Song Playback, XG Easy Converter, Song Name, Pattern Disk, Remaining Memory; LED Display; Eject
FOOT SWITCH	Left	Mode: Off; Rhythm (Stop, Ending, Fill-In); Glide (Upper 1, 2/Lower 1, 2/Lead; Time); Tremolo/Chorus
	Right	Regist. Shift Mode: Off, Shift, Jump, User (80 Positions; Cursor Controls: Data: Insert, Delete; Shift End: Stop, Top, Next Song)
TRANSPOSE/PITCH		Transpose: -6 - +6; Pitch: 438.8Hz - 444.5Hz
LCD DISPLAY		20 x 2 Character
LANGUAGE		English, Japanese
OTHER CONTROLS		Power On/Off; Exp. Pedal (Right/Left Footswitches); Pitch Control; Transpose; Master Volume; Display Select; Data Controls; Page; MIDI (Output: Upper, Lower, Pedal; Int./Ext.: Lead, Sync., Exp.)
OTHER FITTINGS		Dust Cover; Music Stand; Bench; Headphone Jack; Aux In/Out (RCA; R/L); MIDI In/Out; To Host; Host Select
OPTIONAL ACCESSORIES		Pattern Disk; HPE-170 Headphones; 3.5" Floppy Disks
SOUND SYSTEM	Power Amplifiers	40W (Stereo)
	Speakers	16cm x 2; 5cm x 2
DIMENSIONS (W x D x H)		112.3cm x 48.2cm x 92.5cm (111.1cm with Music Stand) [Bench] 59.5cm x 29.5cm x 58.0cm
WEIGHT		55.0kg [Bench] 6.2kg

Specifications and description in this Owner's Manual are information purposes only.
Yamaha Corp. reserves the right to change or modify products or specifications at any time without prior notice.
As specifications, equipment or options may not be the same in every locale, please check with Yamaha dealer.

Index

11

Appendix

11

For details of products, please contact your nearest Yamaha or the authorized distributor listed below.

CENTRAL & SOUTH AMERICA

MEXICO
Yamaha de Mexico S.A. De C.V.,
Departamento de ventas
Javier Rojo Gomez No.1149, Col. Gpe Del
Moral, Deleg. Iztapalapa, 09300 Mexico, D.F.
Tel: 686-00-33

BRAZIL
Yamaha Musical do Brasil LTDA.
Av. Reboucas 2636, Sao Paulo, Brasil
Tel: 011-853-1377

ARGENTINA
Yamaha de Panamá S.A.
Sucursal de Argentina
Viamonte 1145 Piso2-B 1053,
Buenos Aires, Argentina
Tel: 1-4371-7021

PANAMA AND OTHER LATIN
AMERICAN COUNTRIES/
CARIBBEAN COUNTRIES
Yamaha de Panamá S.A.
Torre Banco General, Piso 7, Urbanizacion
Marbella,
Calle 47 y Aquilino de la Guardia,
Ciudad de Panamá, Panamá
Tel: 507-269-5311

AFRICA

Yamaha Corporation,
Asia-Pacific Music Marketing Group
Nakazawa-cho 10-1, Hamamatsu, Japan 430-8650
Tel: 053-460-2312

MIDDLE EAST

* Except Turky and Cyprus

Yamaha Music Gulf FZE
LB21-128 Jebel Ali Freezone
P.O.Box 17328, Dubai, U.A.E.
Tel: 971-4-881-5868

ASIA

HONG KONG
Tom Lee Music Co., Ltd.
11/F., Silvercord Tower 1, 30 Canton Road,
Tsimshatsui, Kowloon, Hong Kong
Tel: 2737-7688

INDONESIA
PT. Yamaha Music Indonesia (Distributor)
PT. Nusantik
Gedung Yamaha Music Center, Jalan Jend. Gatot
Subroto Kav. 4, Jakarta 12930, Indonesia
Tel: 21-520-2577

KOREA
Yamaha Music Korea Ltd.
Tong-Yang Securities Bldg. 16F
23-8 Yoido-dong, Youngdungpo-ku, Seoul, Korea
Tel: 02-3770-0661

MALAYSIA
Yamaha Music Malaysia, Sdn., Bhd.
Lot 8, Jalan Perbandaran, 47301 Kelana Jaya,
Petaling Jaya, Selangor, Malaysia
Tel: 3-703-0900

PHILIPPINES
Yupangco Music Corporation
339 Gil J. Puyat Avenue, P.O. Box 885 MCPO,
Makati, Metro Manila, Philippines
Tel: 819-7551

SINGAPORE
Yamaha Music Asia Pte., Ltd.
11 Ubi Road #06-00, Meiban Industrial Building,
Singapore
Tel: 65-747-4374

TAIWAN
Yamaha KHS Music Co., Ltd.
10F, 150, Tun-Hwa Northroad,
Taipei, Taiwan, R.O.C.
Tel: 02-2713-8999

THAILAND
Siam Music Yamaha Co., Ltd.
121/60-61 RS Tower 17th Floor,
Ratchadaphisek RD., Dindaeng,
Bangkok 10320, Thailand
Tel: 02-641-2951

THE PEOPLE'S REPUBLIC OF CHINA
AND OTHER ASIAN COUNTRIES
Yamaha Corporation,
Asia-Pacific Music Marketing Group
Nakazawa-cho 10-1, Hamamatsu, Japan 430-8650
Tel: 053-460-2317

HEAD OFFICE
Yamaha Corporation, Asia-Pacific Music Marketing Group
Nakazawa-cho 10-1, Hamamatsu, Japan 430-8650
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