YAMAHA

ELECTONE

OWNER'S
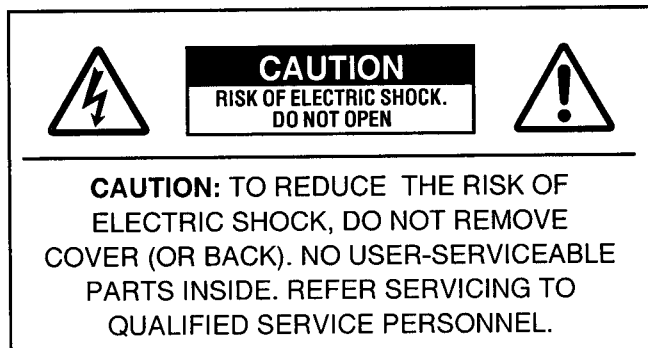
MANUAL

YAMAHA Electone
EL-27
OWNER'S MANUAL

SPECIAL MESSAGE SECTION

PRODUCT SAFETY MARKINGS: Yamaha electronic products may have either labels similar to the graphics shown below or molded / stamped facsimiles of these graphics on the enclosure. The explanation of these graphics appears on this page.
Please observe all cautions indicated on this page and those indicated in the safety instruction section.

⚠ | **CAUTION**
RISK OF ELECTRIC SHOCK.
DO NOT OPEN | ⚠

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

See the name plate for graphic symbol markings.

The exclamation point within the equilateral triangle is intended to alert the user to the present of important operating and maintenance (servicing) instructions in the literature accompanying the product.
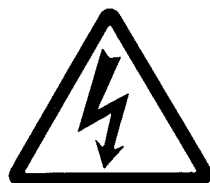
The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock.

IMPORTANT NOTICE: All Yamaha electronic products are tested and approved by an independent safety testing laboratory in order that you may be sure that when it is properly installed and used in its normal and customary manner, all foreseeable risks have been eliminated. DO NOT modify this unit or commission others to do so unless specifically authorized by Yamaha.
Product performance and/or safety standards may be diminished. Claims filed under the expressed warranty may be denied if the unit is/has been modified. Implied warranties may also be affected.

SPECIFICATIONS SUBJECT TO CHANGE: The information contained in this manual is believed to be correct at the time of printing. However, Yamaha reserves the right to change or modify any of the specifications without notice or obligation to update existing units.

92-469-①

ENVIRONMENTAL ISSUES: Yamaha strives to produce products that are both user safe and environmentally friendly.
We sincerely believe that our products and the production methods used to produce them, meet these goals. In keeping with both the letter and the spirit of the law, we want you to be aware of the following:

BATTERY NOTICE: This product MAY contain a small nonrechargeable battery which (if applicable) is soldered in place. The average life span of this type of battery is approximately five years. When replacement becomes necessary, contact a qualified service representative to perform the replacement.

WARNING: Do not attempt to recharge, disassemble, or incinerate this type of battery. Keep all batteries away from children. Dispose of used batteries promptly and as regulated by applicable laws. Note: In some areas, the servicer is required by law to return the defective parts. However, you do have the option of having the servicer dispose of these parts for you.

DISPOSAL NOTICE: Should this product become damaged beyond repair, or for some reason its useful life is considered to be at an end, please observe all local, state, and federal regulations that relate to the disposal of products that contain lead, batteries, plastics, etc.

NOTICE: Service charges incurred due to lack of knowledge relating to how a function or effect works (when the unit is operating as designed) are not covered by the manufacture's warranty, and are therefore the owner's responsibility.
Please study this manual carefully and consult your dealer before requesting service.

NAME PLATE LOCATION: The graphic below indicates the location of the name plate. The model number, serial number, power requirements, etc., are located on this plate. You should record the model number, serial number, and the date of purchase in the spaces provided below and retain this manual as a permanent record of your purchase.
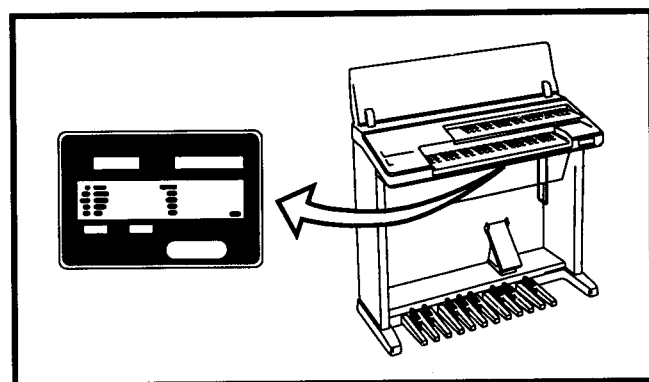
Model _____

Serial No. _____

Purchase Date _____

IMPORTANT SAFETY INSTRUCTIONS

INFORMATION RELATING TO PERSONAL INJURY, ELECTRICAL SHOCK, AND FIRE HAZARD POSSIBILITIES HAS BEEN INCLUDED IN THIS LIST.

WARNING- When using any electrical or electronic product, basic precautions should always be followed. These precautions include, but are not limited to, the following:

1. Read all Safety Instructions, Installation Instructions, Special Message Section items, and any Assembly Instructions found in this manual BEFORE making any connections, including connections to the main supply.

2. Main Power Supply Verification: 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 in your area, please contact your dealer for supply voltage verification and (if applicable) instructions. The required supply voltage is printed on the name plate. For name plate location, please refer to the graphic found in the Special Message Section of this manual.

3. This product may be equipped with a polarized plug (one blade wider than the other). If you are unable to insert the plug into the outlet, turn the plug over and try again. If the problem persists, contact an electrician to have the obsolete outlet replaced. DO NOT defeat the safety purpose of the plug.

4. Some electronic products utilize external power supplies or adapters. DO NOT connect this type of product to any power supply or adapter other than one described in the owners manual, on the name plate, or specifically recommended by Yamaha.

5. WARNING: Do not place this product or any other objects on the power cord or place it in a position where anyone could walk on, trip over, or roll anything over power or connecting cords of any kind. The use of an extension cord is not recommended! IF you must use an extension cord, the minimum wire size for a 25' cord (or less) is 18 AWG. NOTE: The smaller the AWG number,the larger the current handling capacity. For longer extension cords, consult a local electrician.

6. Ventilation: Electronic products, unless specifically designed for enclosed installations, should be placed in locations that do not interfere with proper ventilation. If instructions for enclosed installations are not provided,it must be assumed that unobstructed ventilation is required.

7. Temperature considerations: Electronic products should be installed in locations that do not significantly contribute to their operating temperature. Placement of this product close to heat sources such as; radiators, heat registers and other devices that produce heat should be avoided.

8. This product was NOT designed for use in wet/damp locations and should not be used near water or exposed to rain. Examples of wet /damp locations are; near a swimming pool, spa, tub, sink, or wet basement.

9. This product should be used only with the components supplied or; a cart ,rack, or stand that is recommended by the manufacturer . If a cart, rack, or stand is used, please observe all safety markings and instructions that accompany the accessory product.

10. The power supply cord (plug) should be disconnected from the outlet when electronic products are to be left unused for extended periods of time. Cords should also be disconnected when there is a high probability of lightening and/or electrical storm activity.

11. Care should be taken that objects do not fall and liquids are not spilled into the enclosure through any openings that may exist.

12. Electrical/electronic products should be serviced by a qualified service person when:
   a. The power supply cord has been damaged; or
   b. Objects have fallen, been inserted, or liquids have been spilled into the enclosure through openings; or
   c. The product has been exposed to rain; or
   d. The product does not operate, exhibits a marked change in performance; or
   e. The product has been dropped, or the enclosure of the product has been damaged.

13. Do not attempt to service this product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.

14. This product, either alone or in combination with an amplifier and headphones or speaker/s, may be capable of producing sound levels that could cause permanent hearing loss. DO NOT operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
**IMPORTANT:** The louder the sound, the shorter the time period before damage occurs.

15. Some Yamaha products may have benches and/or accessory mounting fixtures that are either supplied as a part of the product or as optional accessories. Some of these items are designed to be dealer assembled or installed. Please make sure that benches are stable and any optional fixtures (where applicable) are well secured BEFORE using. Benches supplied by Yamaha are designed for seating only. No other uses are recommended.

PLEASE KEEP THIS MANUAL

Panel Controls

Front Panel
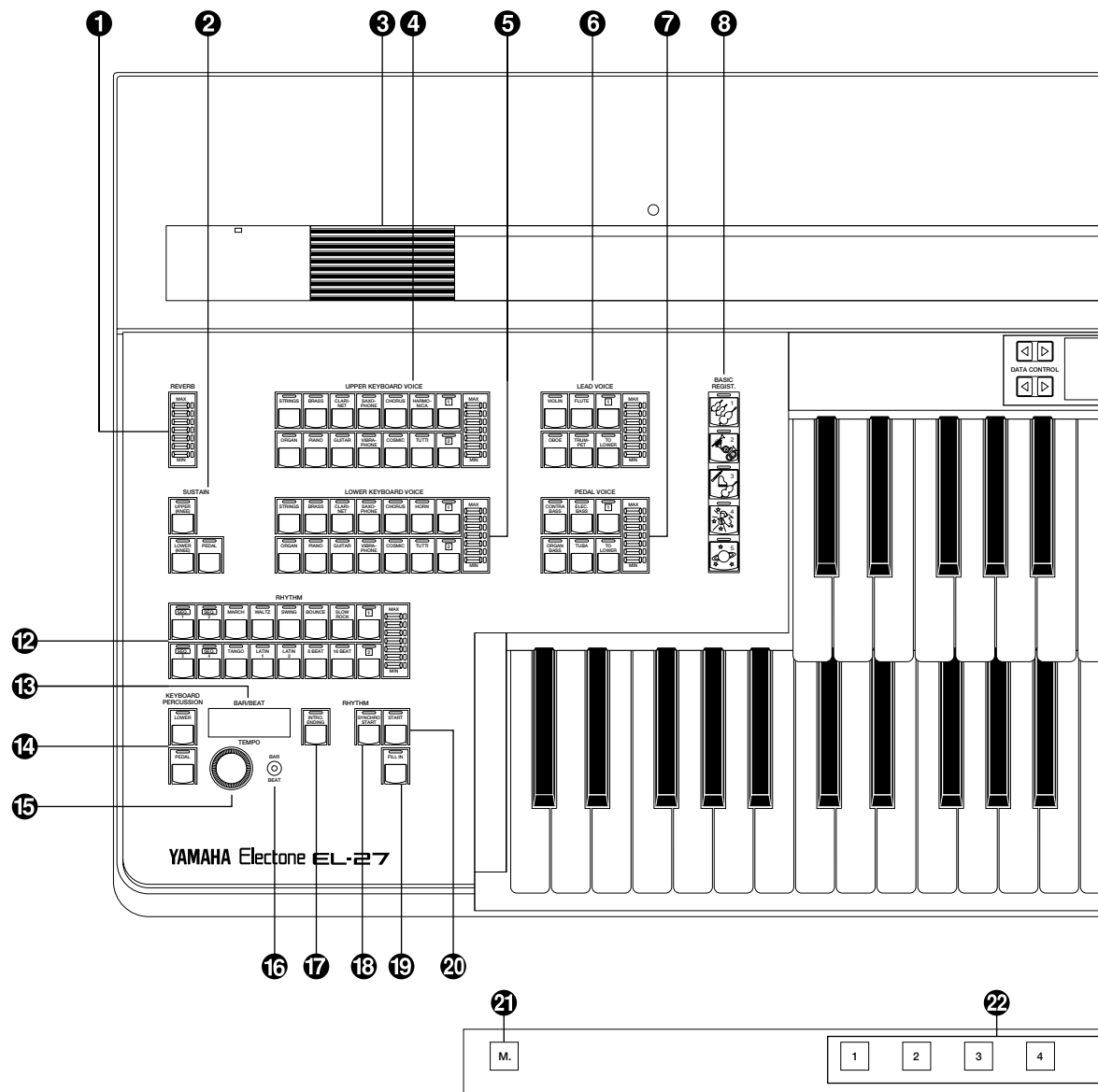
❶ **REVERB (See page 30.)**
Adjusts the Reverb effect for the entire sound.

❷ **SUSTAIN Buttons (See page 30.)**
Adds the Sustain effects each to Upper/Lower Keyboard and Pedalboard.

❸ **Monitor Speakers**
Built-in speakers for your monitoring.

❹ **UPPER KEYBOARD VOICE (See page 18.)**
Selects the Upper Keyboard voices and adjusts the volume.

❺ **LOWER KEYBOARD VOICE (See page 18.)**
Selects the Lower Keyboard voices and adjusts the volume.

❻ **LEAD VOICE (See page 18.)**
Selects the voices and adjusts the volume.

❼ **PEDAL VOICE (See page 18.)**
Selects the voices and adjusts the volume.

❽ **BASIC REGIST. (Basic Registration) Buttons (See page 8.)**
Selects the Basic Registrations.

❾ **LCD DISPLAY & DATA CONTROL Buttons (See page 4.)**

❿ **DISPLAY SELECT Section (See page 4.)**
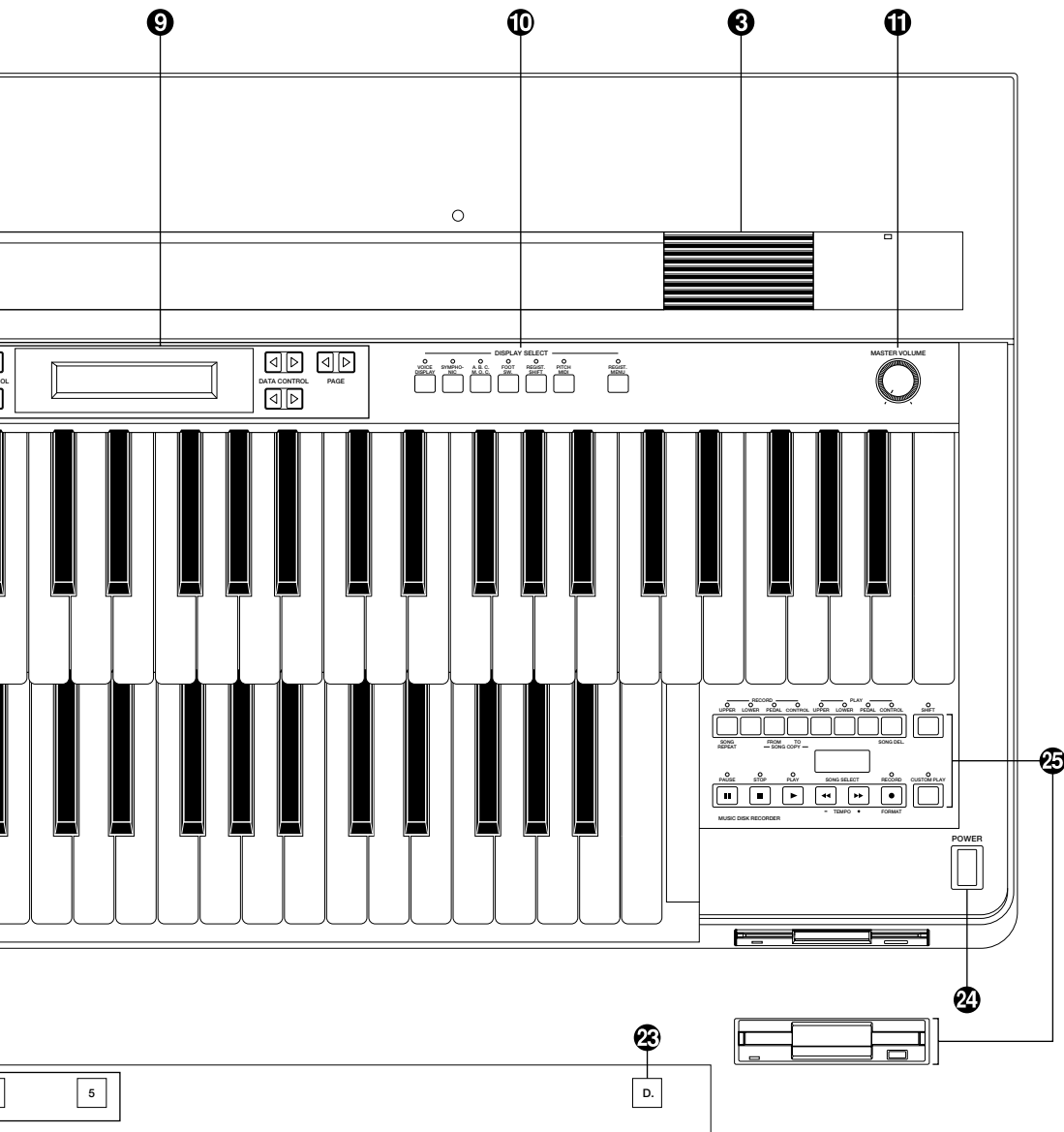Selects the various functions.

⓫ **MASTER VOLUME (See page 8.)**
Adjusts the entire volume.

⓬ **RHYTHM Section (See page 31.)**
Selects the rhythm patterns and adjusts the volume.

⓭ **BAR/BEAT   TEMPO Display (See page 32.)**
Displays the rhythm tempo or bar/beat.

Ⓐ DISPLAY SELECT

VOICE DISPLAY / SYMPHO-NIC / A. B. C. M. D. C. / FOOT SW. / REGIST. SHIFT / PITCH MIDI / REGIST. MENU.

DATA CONTROL   PAGE

MASTER VOLUME

RECORD   PLAY

UPPER LOWER PEDAL CONTROL UPPER LOWER PEDAL CONTROL   SHIFT

SONG REPEAT   FROM — TO — SONG COPY   SONG DEL.

PAUSE STOP PLAY SONG SELECT RECORD CUSTOM PLAY

▬ TEMPO ▬   FORMAT

MUSIC DISK RECORDER

POWER

D.

⓮ **KEYBOARD PERCUSSION Buttons (See page 43.)**
Used to play the percussion sounds on the Lower Keyboard or Pedalboard.

⓯ **TEMPO Dial (See page 33.)**
Adjusts the rhythm tempo.

⓰ **BAR /BEAT Indicator (See page 33.)**
Flashes to the first beat of every measure (or every beat).

⓱ **INTRO. ENDING Button (See page 32.)**
Used to add a short introduction before starting actual rhythm pattern or an ending pattern before stopping the rhythm.

⓲ **SYNCHRO START Button (See page 32.)**
Puts the rhythm pattern in "stand-by" and enables the Lower keyboard or Pedalboard to start the rhythm.

⓳ **FILL IN Button (See page 34.)**
Used to add a FIll-In pattern in the middle of rhythm playback.

⓴ **START Button (See page 32.)**
Used to start or stop the rhythm pattern.

㉑ **M. (Memory) Button (See page 47.)**
Used to store a Registration to the Registration Memory buttons.

㉒ **Registration Memory Buttons (See page 47.)**
Used to store a Registration to or call up the stored Registration from.

㉓ **D. (Disable) Button (See page 47.)**
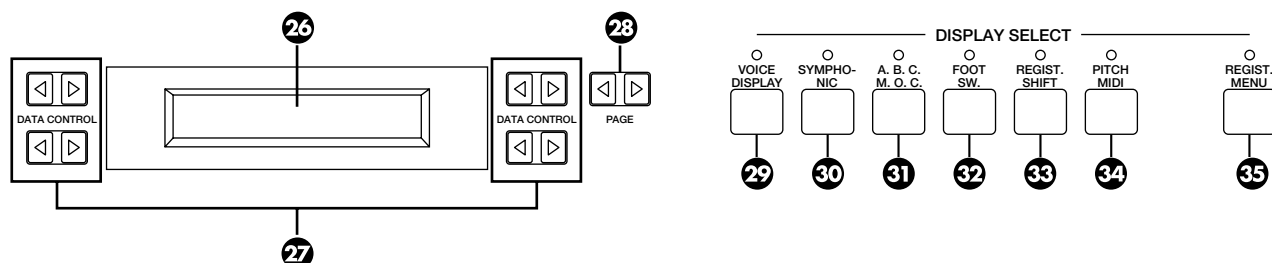Used to keep the same rhythm and accompaniment patterns throughout the registration changes.

㉔ **POWER Switch (See page 7.)**
Turns the EL-27 on/off.

㉕ **Music Disk Recorder (M.D.R.) (See page 55.)**
Used to record/play back your performance and save/load the registration data.

3

LCD Display/DISPLAY SELECT Section

㉖ LCD Display
Displays various information for you to play EL-27.

㉗ DATA CONTROL Buttons (See page 11.)
Selects the functions or sets the values.

㉘ PAGE Buttons (See page 10.)
Changes pages when a function has more than two pages.

㉙ VOICE DISPLAY Button (See page 18.)
Displays the currently assigned voices to each keyboard.

㉚ SYMPHONIC Button (See page 27.)
DIsplays the Symphonic page.

㉛ A.B.C./M.O.C. Button (See pages 40, 45.)
Selects the Auto Bass Chord page or Melody On Chord page.

㉜ FOOT SW. (Footswitch) Button (See page 51.)
Selects the (Left) Footswitch page.

㉝ REGIST. SHIFT (Registration Shift) Button (See page 48.)
Selects the Registration Shift function.

㉞ PITCH/MIDI Button (See pages 54, 75.)
Displays Transport/Pitch page or MIDI page.

㉟ REGIST. MENU Button (See page 10.)
Selects the Registration Menu pages.

Other Parts, Controls and Terminals
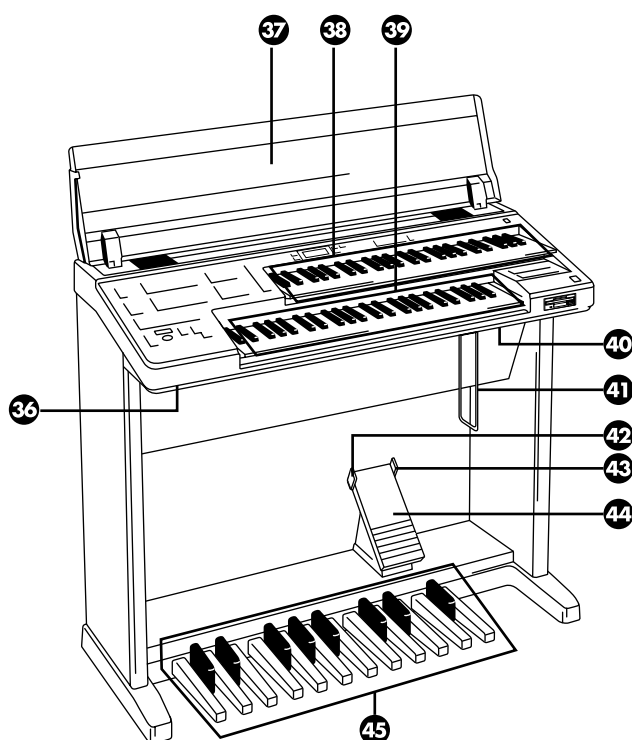
㊱ Accessory Jacks and Controls (See page 77.)

㊲ Keyboard Cover/Music Stand

㊳ Upper Keyboard

㊴ Lower Keyboard

㊵ MIDI Jacks (See page 75.)

㊶ Knee Lever (See page 52.)
Turns on and off the Sustain or M.O.C. effect with your right knee even while you are playing.

㊷ Left Footswitch (See page 51.)
Allows you to control the rhythm in the middle of performance.

㊸ Right Footswitch (See page 48.)
Allows you to control the Registration Shift function.

㊹ Expression Pedal (See page 8.)
Used to adjust the entire volume level in the middle of performance.

㊺ Pedalboard

4

Table of Contents

1 Quick Introductory Guide

2 Voice Sections

3 Voice Controls and Effects

4 Rhythm, Accompaniment and Percussion

5 Registration Memory

6 Footswitches and Knee Lever

7 Pitch Controls

8 Music Disk Recorder

9 MIDI Controls

10 Accessory Jacks and Controls

Main Features

Your Yamaha Electone is packed with many sophisticated functions. Yet it is amazingly easy to use. The main features are described here so that you can quickly understand the capabilities of your Electone.

Included among the main features are:

Astoundingly True-to-life Sounds

The new AWM (Advanced Wave Memory) and FM (Frequency Modulation) tone generation technologies, combined with authentic tone function, make the EL-27 a truly expressive musical instrument.

Wide Range of Voice Controls and Effects

Electone voices can also be enhanced with a variety of voice controls and effects, including octave settings, Touch Tone, Symphonic/Celesta, Vibrato, Reverb, and Sustain. (See page 24.)

Dynamic Rhythm Patterns

The Rhythm section of the EL-27 features authentic drum and percussion sounds, accompanied with convenient Accompaniment functions. (See page 31.)

A Keyboard Percussion function is also provided for playing the realistic percussion sounds from the Lower keyboard and Pedalboard. (See page 43.)

Wide Variety of Registration Menus

Your Electone also has convenient Registration Menus that allow you to instantly change all settings for the entire instrument in real time, as you play. (See page 10.)

Recording of Performances with the Music Disk Recorder

The Electone also features a Music Disk Recorder for recording your performances. The recording is completely digital and is stored to disk, which means that no matter how many times you play back the recording, it will always sound exactly the same as the original performance. (See page 55.)
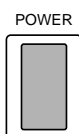
1 Quick Introductory Guide

No matter what your level of playing experience, we recommend that you take the time to go through this basic section. It shows you in the simplest possible manner how to start playing your Electone. The basic operations and functions that you learn in this section will also be important when you later use the Electone's more advanced features.
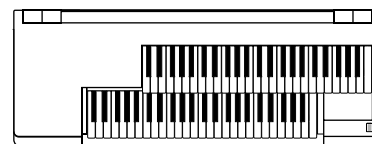
1. Getting Started

Once you've set up your Electone and plugged the power cord into an electrical outlet, you're ready to get started and play.
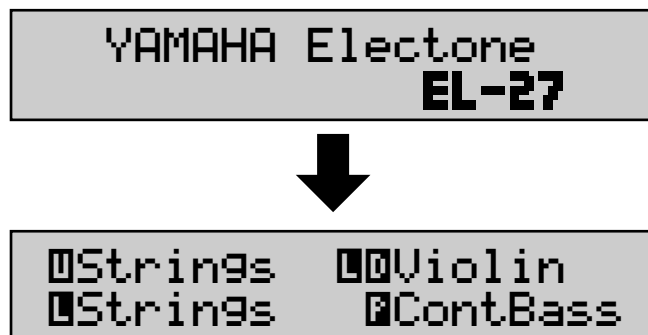
1. Turn on the Electone by pressing the POWER switch.

POWER

When you turn on the Electone, the following displays will appear in succession on the LCD:

```
YAMAHA Electone
            EL-27
```

↓

```
⊔Strings    ⌷Violin
⌊Strings    ⏃ContBass
```

This last display (Voice Display) shows the currently assigned voice settings for each voice section of the instrument, with the abbreviation for each voice section beside the voice name: Upper (⊔), Lower (⌊), Lead (⌷), and Pedalboard (⏃).

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 Registration Memory (see page 47.) before turning the Electone off. You can, however, restore the panel settings that were made before the Electone was last turned off. In doing this, first be careful NOT to press any panel buttons (excepting those in Basic Registration) after you turn the Electone back on. Then, to restore the previous settings, hold down the M. (Memory) button and press the D. (Disable) button.

2. Set the MASTER VOLUME control.

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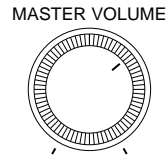
MASTER VOLUME

3. Press the Expression pedal down with your foot.

The Expression pedal also controls the entire volume of the Electone. 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.
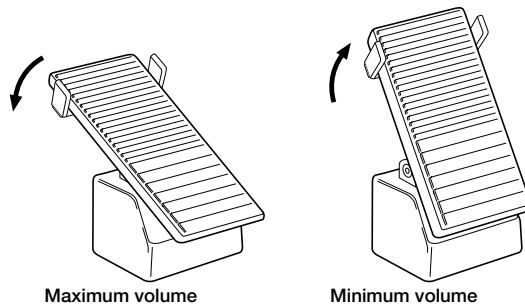
Maximum volume   Minimum volume

For now, press the pedal down slightly beyond the halfway point.

2. Playing Your Electone

The Electone includes convenient Registrations that let you completely and instantly change the voices and other settings for all of the keyboards, even as you play. Each registration is pre-programmed to be used for a specific music style or instrumental combination.

●Basic Registrations

The Basic Registration section has five factory preset registrations, each with a different set of voices for the Upper/Lower keyboards and Pedalboard and each specially suited for playing in a different music style.

When you turn the Electone on, the Electone automatically selects Basic Registration 1. If another registration has been selected (the lamp on the button will be lit), press the button for Basic Registration 1.

BASIC REGIST.

Now, try out the five Basic Registrations with the following music examples. Press the appropriate buttons to select the registrations. Each music example has been chosen to best suit its companion registration.

Basic Registration 1   **Skaters Waltzes** E. Waldteuful   Page 3 [13: Waltz-A]
Tempo=105

Basic Registration 2   **When the Saints Go Marchin' in** American Traditional Folk Song   Page 4 [1: Swing-B]
Tempo=160

Basic Registration 3   **Ave Maria** Gnauld   Page 5 [11: 16 Beat-A]
Tempo=74

Basic Registration 4   **Twinkle, Twinkle Little Star** French Traditional Folk Song   Page 5 [7: 8Beat-A]
Tempo=100

Basic Registration 5   **Overture "Orphee aux enfers"** J. Offenbach   Page 3 [9: March-A]
Tempo=120

The chart below lists the voices that have been set for the Upper/Lower keyboards and Pedalboard in each of the five Basic Registrations.

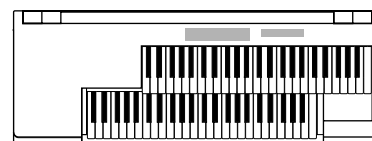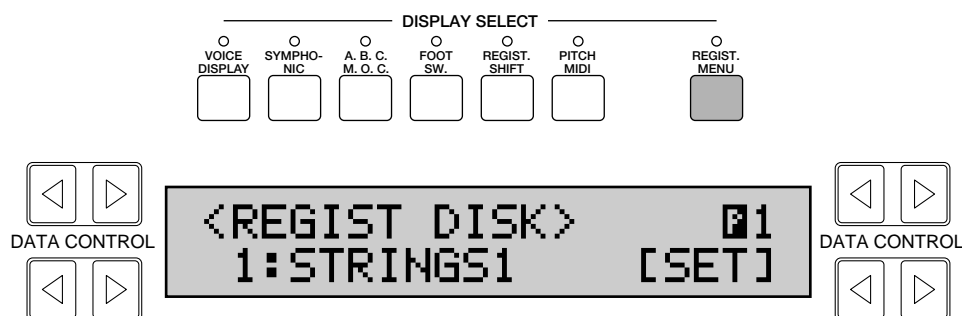|	Basic Registration 1	Basic Registration 2	Basic Registration 3	Basic Registration 4	Basic Registration 5
Upper Keyboard voice	Strings	Brass	Flute	Cosmic 1	Synth. Brass
Lower Keyboard voice	Strings	Horn	Piano	Cosmic 2	Cosmic 3
Pedal voice	Contrabass	Tuba	Contrabass	Cosmic 2	Synth. Bass

3. Registration Menu

In addition to the Basic Registrations, many more registrations are available on your Electone. Some of the registrations include voice and rhythm/accompaniment selections. With the variety of registrations available, you're certain to find the right registration that perfectly suits any style of music you play.

The EL-27 is equipped with a total of 80 specially programmed registrations, selected with the built-in Registration Menu button on the panel, as well as the 40 registrations selected from the included Registration Menu disk. Refer to the Registration Menu List on page 15.

To select a registration from the built-in Registration Menu:

For example, let's select an appropriate registration (Waltz-A) for the "Skaters Waltzes" (Basic Regisatrtion 1).

1. Press the REGIST. MENU button in the DISPLAY SELECT section.

DISPLAY SELECT

VOICE DISPLAY SYMPHO-NIC A. B. C. M. O. C. FOOT SW. REGIST. SHIFT PITCH MIDI REGIST. MENU

DATA CONTROL

```
<REGIST DISK>      P1
1:STRINGS1    [SET]
```

DATA CONTROL

2. From the display that appears, select the desired page. (In this case, select page 3.)

The top right PAGE buttons select the next or previous page.

DATA CONTROL

```
<REGIST DISK>      P3
CONTEMP. 1    [SET]
```

DATA CONTROL   PAGE

Selects next page.
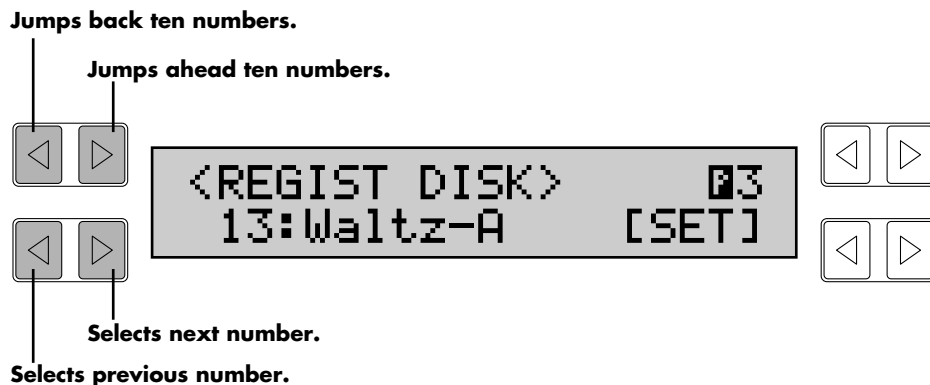
Selects previous page.

Some of the functions have more than two pages. Each press of the PAGE buttons (1q) increases the page number found in the top right in the display.

3. Press the bottom left DATA CONTROL buttons to select the registration you want to use. (In this case, select Waltz-A [No.13].)

The bottom left DATA CONTROL buttons step through the various selections, while the top left DATA CONTROL buttons are used to jump ahead or back by ten selections.

Jumps back ten numbers.

Jumps ahead ten numbers.

```
<REGIST DISK>      P3
13:Waltz-A    [SET]
```

Selects next number.

Selects previous number.

4. Finally, call up the selected registration by pressing the right DATA CONTROL buttons, selecting SET (Waltz-A [No.13] here, for example.).

The message "Completed...!!" will be instantly indicated in the display, meaning that the registration menu indicated in the display has been set.

```
<REGIST DISK>      P3
13:Waltz-A    [SET]
```

**Any button can be used to actually select the setting.**

The DATA CONTROL buttons are generally used to select voice and rhythms, and are also used as described above. The left button of a DATA CONTROL button pair is usually used in a "negative" fashion – for instance, to decrease a value, or select a previous setting or position. The right button is used in a "positive" fashion – to increase a value, or select the next setting or position.

To Start the Rhythm:

5. Once you've selected a registration, press the START button in the RHYTHM section.

This step starts up a rhythm pattern appropriate to the music style you have selected. (To turn the pattern off, press the START button again.)

RHYTHM

INTRO. ENDING

SYNCHRO START

START

FILL IN
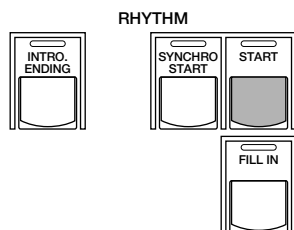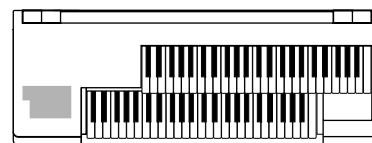
NOTE Some of the registrations in the Registration Menu section may not have assigned rhythm and automatic accompaniment patterns. See a chart included with this manual that provides a list of all the available music styles, along with the rhythm patterns used. (See page 15.)

You can also adjust the tempo of the rhythm to your liking by turning the TEMPO dial, as indicated in the illustration below. Turning the dial clockwise makes the tempo faster and counterclockwise makes slower.

BAR/BEAT

105

TEMPO

BAR
BEAT

Slower   Faster

To use Auto Bass Chord function:

The A.B.C. (Auto Bass Chord) automatic accompaniment feature of the Electone also plays an important role and is used in conjunction with the registrations and rhythm patterns. Like the rhythm patterns, A.B.C. patterns have been programmed to best match the selected registration in pages 3, 4 and 5 of the Registration Menu. They allow you to add sophisticated bass and chord accompaniment patterns that suit the music, simply by playing chords on the Lower keyboard.

6. Press the chord "C" on the Lower keyboard. (Try the chord shown in the illustration on the right.)

C

This function provides automatic accompaniment specially tailored for the music style in which you play. Notice that even after you release your fingers from the keyboard, the chord and accompaniment patterns continue to sound. For more details on A.B.C., see page 41.
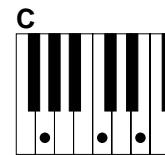
Now return to the first five written music examples in the Basic Registrations section above (see page 9). Select the registration indicated at the top right of the score (for example, "13: Waltz-A" in the first song). Refer back to the steps on selecting registrations above (see page 10.) if necessary.

7. Play the melody line as you did before with your right hand on the Upper keyboard. This time, however, use the A.B.C. automatic accompaniment by pressing the chords with your left hand. The keys you should press are indicated by the small diagrams just below the melody in the score.

G⁷
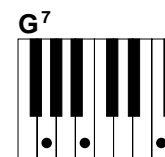
Now that you've heard what A.B.C. can do, try selecting other registrations from the Registration Menu. Use the A.B.C. function with these newly selected registrations as well, to get a better idea of the wide stylistic range of your Electone.
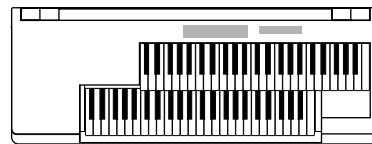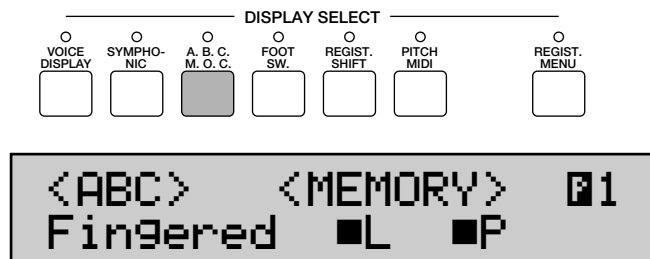
See how easy it is? And remember, you don't have to hold the key down to use the automatic accompaniment. Just press the key once and the automatic accompaniment will continue until you press the next key.

NOTE: If you have unintentionally changed the display by pressing a button on the panel, return to Step #1 above (pressing the REGIST. MENU button) to return to the Registration Menu.
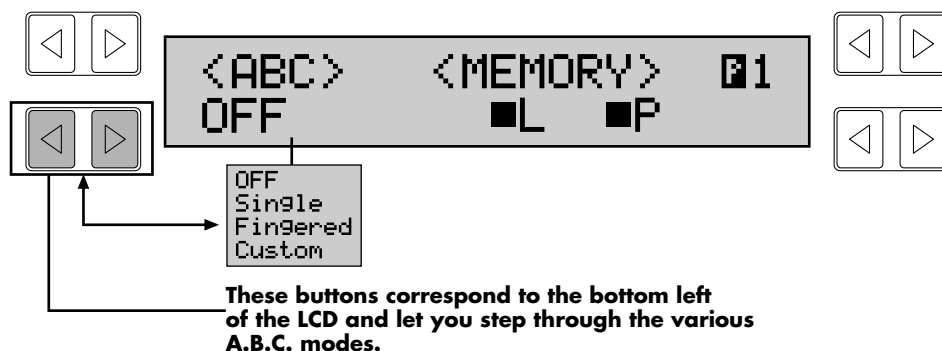
To cancel the A.B.C. Automatic Accompaniment:

You can, of course, cancel the automatic accompaniment patterns (Fingered mode) if you want to play the accompaniment by yourself on the Lower keyboard and Pedalboard.
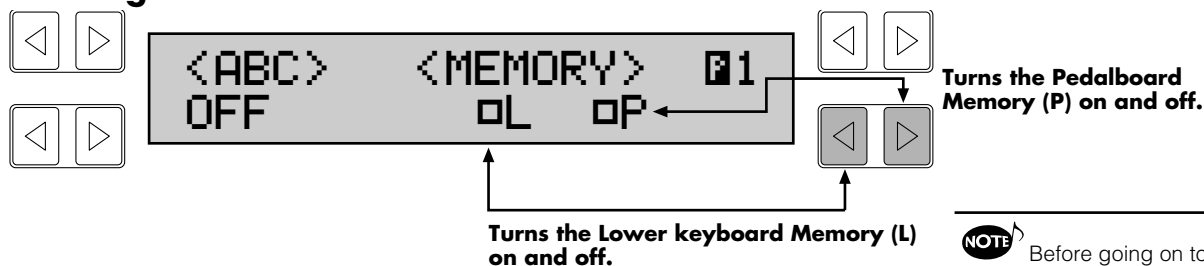
8. Press the A.B.C./M.O.C. button in the DISPLAY SELECT section, to the right of the LCD Display.

DISPLAY SELECT

VOICE DISPLAY SYMPHO-NIC A. B. C. M. O. C. FOOT SW. REGIST. SHIFT PITCH MIDI REGIST. MENU

```
<ABC>     <MEMORY>   P1
Fingered  ■L   ■P
```

9. Press one of the bottom left DATA CONTROL buttons repeatedly until "OFF" appears below ABC on the LCD.

```
<ABC>     <MEMORY>   P1
OFF              ■L   ■P
```

```
OFF
Single
Fingered
Custom
```

These buttons correspond to the bottom left of the LCD and let you step through the various A.B.C. modes.

10. Turn the Memory function off as well by using the bottom right DATA CONTROL buttons.

```
<ABC>     <MEMORY>   P1
OFF              □L   □P
```

Turns the Pedalboard Memory (P) on and off.

Turns the Lower keyboard Memory (L) on and off.

A solid or dark box on the LCD indicates that the function is on; an empty or outlined box indicates that the function is off. Make sure the boxes next to L (Lower) and P (Pedal) are both off, as shown in the example LCD above.

This short introductory section has shown you just a small portion of the vast potential of your Electone. Now that you know how to select among the Registrations and use the A.B.C. Automatic Accompaniment, take some time to explore the other registrations and their rhythm patterns. There's a great wealth of realistic voices, authentic orchestration and stylistically varied rhythms – all instantly available from the Registration Menus feature.

NOTE Before going on to explore the remaining sections of this manual, we suggest that you turn the A.B.C. automatic accompaniment and memory functions off. Otherwise, single notes played on the Lower keyboard will sound as full chords, and the Pedal voices will not sound when playing the Pedalboard. To keep this from happening, select the OFF setting in A.B.C. and press the buttons that correspond to LOWER and PEDAL in the display to turn memory off.

NOTE As in the operation described above, the DATA CONTROL buttons are also used simply to turn functions on and off.
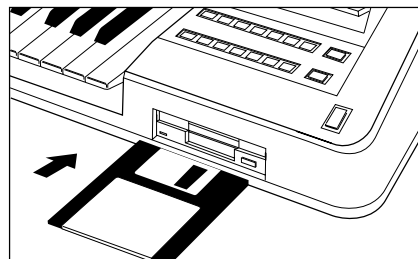
NOTE Press the Registration Menu buttons in the DISPLAY SELECT section to display the registration menu on the LCD.

To select the Registrations from the Registration Menu disk:

Included with your Electone is a Registration Menu Disk, containing 40 different menus.

1. Put the included Registration Menu Disk, facing the label up, into the Disk slot, located just under the Music Disk Recorder at the right side of the Electone.

Once you've securely inserted the disk into the slot, the LCD Display on the panel will automatically change to show the available registration menu.

2. Press the PAGE buttons in the right of the LCD to select the various menu "pages" of registrations available on the disk.

```
<REGIST DISK>        P4
  1:March        [SET]
```

PAGE

Selects next page.

Selects previous page.

3. Select one of the registrations shown on the LCD by pressing the DATA CONTROL button in the left bottom of the display.

```
<REGIST DISK>        P4
  3:Waltz        [SET]
```

Selects the next number.

Selects the previous number.

NOTE ♪ Up to 10 registration selections are shown on the LCD; no data is stored in the registration numbers from 11 through 16.

4. Press the DATA CONTROL buttons in the right of the LCD to call up the Registration you have selected.

The message "Completed...!!" momentarily appears, indicating that the menu has been selected.

```
<REGIST DISK>        P4
  3:Waltz        [SET]
```

Any button can be used to actually select the setting.

4. Registration Menu List

Built-in Registration Menu (80 Menus)

Page1

No.	LCD Display	Sound Image	Upper Keyboard Voice	Lead Voice	Lower Keyboard Voice	Pedal Voice
1	STRINGS1	Orchestra	Strings	Violin	Horn	Contrabass
2	STRINGS2	Pop Strings	Strings	Flute (4')	Strings	Pizzicato Bass
3	STRINGS3	Chamber Strings	Strings	Violin	Strings	Pizzicato Bass
4	STRINGS4	Solo Violin	-	Violin	Strings	Contrabass
5	STRINGS5	Pops Orchestra 1	Strings	Harpsichord	Strings	Elec. Bass
6	STRINGS6	Pizzicato Strings	Pizzicato Bass	Pizzicato Bass (4')	Pizzicato Bass	Pizzicato Bass
7	STRINGS7	Pops Orchestra 2	Strings	Trumpet	Brass	Pizzicato Bass
8	STRINGS8	Strings Ensemble	Strings	Strings (16')	Strings	Contrabass
9	BRASS1	Marching Band	Brass	Trombone	Brass	Tuba
10	BRASS2	Solo Trumpet	-	Trumpet	Horn	Tuba
11	BRASS3	Big Band 1	Brass	Saxophone	Trombone	Pizzicato Bass
12	BRASS4	Solo Trombone	-	Trombone	Saxophone	Pizzicato Bass
13	BRASS5	Big Band 2 (Saxophone Ensemble)	Saxophone	Saxophone (8')	Piano	Pizzicato Bass
14	BRASS6	Jazz Combo 1 (Trumpet)	-	Trumpet	Elec. Bass	Pizzicato Bass
15	BRASS7	Dixie Jazz	-	Clarinet	Piano	Pizzicato Bass
16	BRASS8	Fusion (Saxophone)		Saxophone	Elec. Piano	Elec. Bass

Page 2

No.	LCD Display	Sound Image	Upper Keyboard Voice	Lead Voice	Lower Keyboard Voice	Pedal Voice
1	LEAD1	Woodwind Ensemble	Oboe	Flute	Clarinet	Bassoon (8')
2	LEAD2	Solo Flute	-	Flute	Strings	Contrabass
3	LEAD3	Solo Oboe	-	Oboe	Strings	Contrabass
4	LEAD4	Polka	-	Clarinet	Harmonica	Pizzicato Bass
5	LEAD5	Fantasy 1	Cosmic 1	Flute (4')	Elec. Piano	Elec. Bass
6	LEAD6	Harmonica	-	Harmonica	Strings	Contrabass
7	LEAD7	Tango Band	Harmonica	Harmonica (16')	Piano	Pizzicato Bass
8	LEAD8	Jazz Organ	Jazz Organ	Jazz Organ (4')	Jazz Organ (8')	Organ Bass
9	DECAY1	Piano	Piano	-	Piano	Piano
10	DECAY2	Jazz Combo 2 (Vibraphone)	Vibraphone	-	Piano	Pizzicato Bass
11	DECAY3	Honky-tonk Piano	Piano	-	Piano	Piano
12	DECAY4	Jazz Guitar	Elec. Bass	Elec. Bass (16')	Strings	Elec. Bass
13	DECAY5	Marimba	Marimba	-	Piano	Pizzicato Bass
14	DECAY6	Fantasy 2	Vibraphone (4')	Flute (4')	Strings	Elec. Bass
15	DECAY7	Guitar	Guitar	Elec. Bass (16')	Strings	Contrabass
16	DECAY8	Oriental 1	Harpsichord	Harpsichord (16')	Strings	Elec. Bass

● The numbers in the parentheses indicate that the "feet" settings for the assigned voice are different from the default.

Page 3

No.	LCD Display	Sound Image	Upper Keyboard Voice	Lead Voice	Lower Keyboard Voice	Pedal Voice
1	CONTEMP.1	Wind Synth. 1	-	Cosmic 3	Elec. Piano	Elec. Bass (16')
2	CONTEMP.2	Synth. Brass	Synth. Brass	Synth. Bass (8')	Harpsichord	Elec. Bass (16')
3	CONTEMP.3	Wind Synth. 2	Oboe	Saxophone (8')	Piano	Elec. Bass (16')
4	CONTEMP.4	Synth.	Horn	Tuba (8')	Guitar	Elec. Bass
5	CONTEMP.5	Fantasy 3	Cosmic 1 (8')	Organ Bass (4')	Cosmic 1 (8')	Contrabass
6	CONTEMP.6	Fantasy 4	Cosmic 2	Cosmic 1	Chorus	Organ
7	CONTEMP.7	Piano + Synth.	Piano	Cosmic 1 (8')	Clarinet	Synth. Bass
8	CONTEMP.8	Oriental 2	Cosmic 2 (16')	Marimba	Contrabass	Horn (16')

No.	LCD Display	Rhythm (Tempo)	Accompaniment Type	Upper Keyboard Voice	Lead Voice	Pedal Voice
9	March-A	120	4	Brass	Trumpet	Tuba
10	March-B	110	1	Bassoon	Flute (4')	Pizzicato Bass (16')
11	Country	112	1	-	Harmonica	Pizzicato Bass (16')
12	Broadway	135	4	Trombone (8')	Trumpet	Pizzicato Bass
13	Waltz-A	105	4	Strings	Strings (16')	Pizzicato Bass (16')
14	Waltz-B	170	1	Strings	Violin	Pizzicato Bass
15	Jazz Waltz	140	4	Elec. Bass (16')	Flute (4')	Pizzicato Bass (16')
16	Swing-A	165	2	Saxophone	Saxophone (8')	Pizzicato Bass

Page 4

No.	LCD Display	Rhythm (Tempo)	Accompaniment Type	Upper Keyboard Voice	Lead Voice	Pedal Voice
1	Swing-B	160	3	Brass	Trumpet	Pizzicato Bass
2	Swing-C	138	1	-	Clarinet	Pizzicato Bass
3	Jazz Ballad	60	3	-	Trombone	Pizzicato Bass
4	Dixieland	108	4	-	Trumpet	Tuba
5	Bounce-A	123	2	Guitar	Elec. Bass (16')	Elec. Bass (16')
6	Bounce-B	130	4	-	Clarinet	Pizzicato Bass (16')
7	Reggae-A	132	4	Marimba	-	Elec. Bass (16')
8	Reggae-B	120	3	Elec. Piano	Synth. Bass	Elec. Bass (16')
9	Slow Rock-A	80	3	Guitar	Elec. Bass (16')	Elec. Bass (16')
10	Slow Rock-B	74	1	-	Trumpet	Elec. Bass (16')
11	Slow Rock-C	80	3	-	Saxophone	Elec. Bass (16')
12	Tango-A	120	1	Harmonica	Harmonica (16')	Pizzicato Bass (16')
13	Tango-B	120	1	Strings	Violin	Pizzicato Bass (16')
14	Tango-C	120	4	-	Violin	Pizzicato Bass (16')
15	ChaCha	126	4	Piano (16')	Piano (4')	Elec. Bass (16')
16	Rhumba	115	1	-	Trombone (8')	Elec. Bass (16')

Page 5

No.	LCD Display	Rhythm (Tempo)	Accompaniment Type	Upper Keyboard Voice	Lead Voice	Pedal Voice
1	Beguine	118	4	Strings	Flute (4')	Elec. Bass (16')
2	Mambo	100	4	Brass	Saxophone	Elec. Bass (16')
3	Samba-A	120	1	Saxophone	Trumpet	Elec. Bass (16')
4	Samba-B	120	4	Elec. Bass (16')	Flute	Elec. Bass (16')
5	Bossanova-A	103	1	-	Flute	Elec. Bass (16')
6	Bossanova-B	124	1	-	Saxophone	Elec. Bass (16')
7	8 Beat-A	100	3	Cosmic 2	Vibraphone (4')	Elec. Bass (16')
8	8 Beat-B	117	1	Elec. Piano	-	Elec. Bass (16')
9	8 Beat-C	152	1	Jazz Organ	-	Elec. Bass (16')
10	DancePop	130	4	Vibraphone (4')	Elec. Piano	Elec. Bass (16')
11	16 Beat-A	85	4	-	Flute	Elec. Bass (16')
12	16 Beat-B	124	1	Synth. Brass	Synth. Brass (16')	Elec. Bass (16')
13	16 Beat-C	112	1	Brass	Trumpet	Elec. Bass (16')
14	16 Beat Funk	118	4	Synth. Bass	Cosmic 3	Elec. Bass (16')

No.	LCD Display	Sound Image	Upper Keyboard Voice	Lead Voice	Lower Keyboard Voice	Pedal Voice
15	Wedding	Wedding	Organ	Organ (4')	Organ	Organ (16')
16	X'mas	X'mas	Vibraphone (4')	Cosmic 2	Strings	Contrabass

● For No.9 through 16 of Page 3, and Pages 4 and 5 above, settings are as follows: A.B.C.: "Fingered", Memory: "ON" to both Lower keyboard and Pedalboard.
● The numbers in the parentheses indicate that the "feet" settings for the assigned voice are different from the default.

Registration Menu Disk (40 Menus)

Page1

No.	LCD Display	Sound Image	Upper Keyboard Voice	Lead Voice	Lower Keyboard Voice	Pedal Voice
1	STRINGS1	Solo Violin	-	Violin	Strings	Contrabass
2	STRINGS2	Strings Ensemble	Strings	Strings	Horn	Pizzicato Bass
3	STRINGS3	Pop Strings 1	Strings	Vibraphone	Horn	Contrabass
4	STRINGS4	Pop Strings 2	Strings	Clarinet	Strings	Pizzicato Bass
5	STRINGS5	Symphonic Orchestra	Tutti 1	Tutti 2	Strings	Contrabass
6	BRASS1	Trumpet Ensemble	Brass	Trumpet	Brass	Tuba
7	BRASS2	Solo Trumpet	-	Trumpet	Trombone	Tuba
8	BRASS3	Solo Trombone	-	Trombone	Trombone	Tuba
9	BRASS4	Brass Ensemble	Trumpet	Trombone	Horn	Tuba
10	BRASS5	Big Band	Brass	Trombone	Saxophone	Pizzicato Bass

Page 2

No.	LCD Display	Sound Image	Upper Keyboard Voice	Lead Voice	Lower Keyboard Voice	Pedal Voice
1	LEAD1	Solo Flute 1	-	Flute	Strings	Contrabass
2	LEAD2	Solo Flute 2	-	Flute	Clarinet	Pizzicato Bass
3	LEAD3	Whistle	-	Flute	Pizzicato Bass	Pizzicato Bass
4	LEAD4	Flute Ensemble	Flute	Flute	Bassoon	Pizzicato Bass
5	LEAD5	Pop Flute	Vibraphone	Flute	Strings	Contrabass
6	LEAD6	Woodwind Ensemble 1	Bassoon	Flute	Clarinet	Pizzicato Bass
7	LEAD7	Solo Oboe	-	Oboe	Bassoon	Pizzicato Bass
8	LEAD8	Woodwind Ensemble 2	-	Clarinet	Bassoon	Clarinet
9	LEAD9	Solo Clarinet	Clarinet	-	Horn	Pizzicato Bass
10	LEAD10	Solo Saxophone	-	Saxophone	Strings	Contrabass

Page 3

No.	LCD Display	Sound Image	Upper Keyboard Voice	Lead Voice	Lower Keyboard Voice	Pedal Voice
1	DECAY1	Piano	Piano	-	Piano	Piano
2	DECAY2	Harpsichord	Harpsichord	-	Strings	Contrabass
3	DECAY3	Marimba	Marimba	-	Clarinet	Pizzicato Bass
4	DECAY4	Music Box	Vibraphone	-	Vibraphone	Vibraphone
5	DECAY5	Classical Guitar	Guitar	-	Strings	Pizzicato Bass
6	ORGAN1	Organ	Organ	-	Organ	Organ Bass
7	ORGAN2	Jazz Organ	Jazz Organ	-	Jazz Organ	Organ Bass
8	BANDONEON	Bandoneon	Harmonica	Harmonica	Strings	Pizzicato Bass
9	SYNTH1	Cosmic Sound 1	Cosmic 2	Cosmic 1	Chorus	Contrabass
10	SYNTH2	Cosmic Sound 2	Cosmic 3	Synth. Bass	Cosmic 3	Synth. Bass

Page4

No.	LCD Display	Rhythm (Tempo)	Accompaniment Type	Upper Keyboard Voice	Lead Voice	Pedal Voice
1	March	120	4	Brass	Trumpet	Tuba
2	Broadway	135	4	Trombone	Saxophone	Pizzicato Bass
3	Waltz	105	4	Strings	Strings	Pizzicato Bass
4	Swing	160	3	Brass	Trumpet	Pizzicato Bass
5	SlowRock	80	3	Guitar	Elec. Bass	Elec. Bass
6	Tango	127	3	Harmonica	Harmonica	Pizzicato Bass
7	Cha Cha	126	4	Piano	Piano	Elec. Bass
8	Samba	120	1	Saxophone	Trumpet	Elec. Bass
9	8 Beat	100	3	Cosmic 2	Vibraphone	Elec. Bass
10	16 Beat	74	4	Harmonica	Harmonica	Elec. Bass

● For Page 4 above, settings are as follows: A.B.C.: "Fingered", Memory: "ON" to both Lower keyboard and Pedalboard.

2 Voice Sections

**The following illustration shows the various available voice sections.**

UPPER KEYBOARD VOICE

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

LEAD VOICE

VIOLIN	FLUTE	1	MAX
OBOE	TRUM-PET	TO LOWER	MIN

LOWER KEYBOARD VOICE

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

PEDAL VOICE

CONTRA BASS	ELEC. BASS	1	MAX
ORGAN BASS	TUBA	TO LOWER	MIN
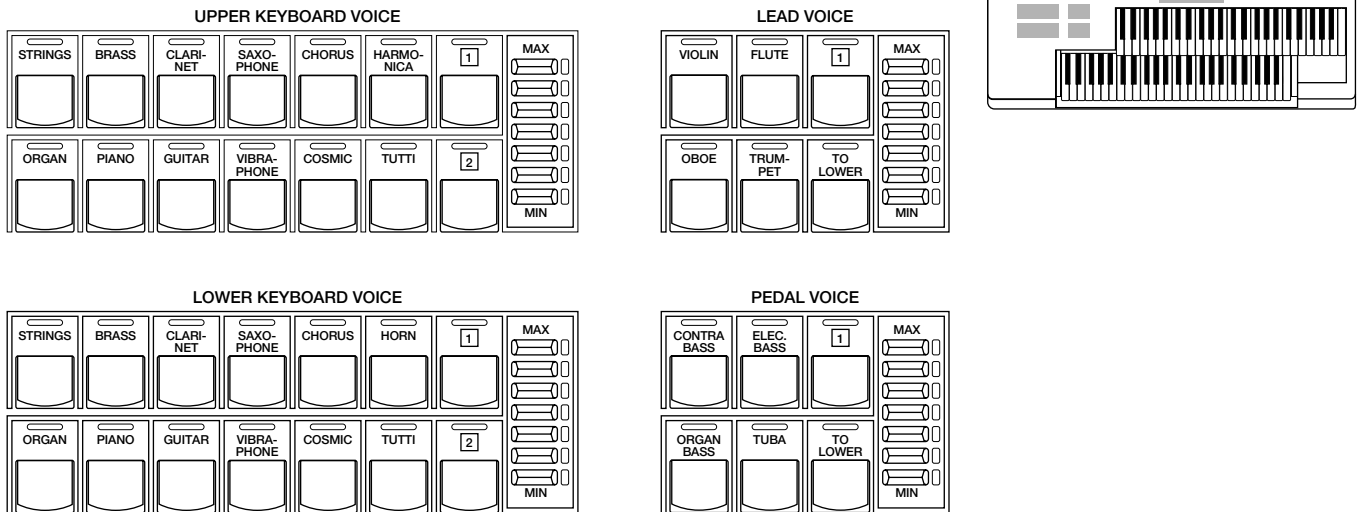
The Electone has four voice sections: Upper Keyboard Voice, Lead Voice, Lower Keyboard Voice, and Pedal Voice. All voices are playable from the Upper or Lower keyboards or Pedalboard, allowing you to create richly textured voice layers on a single keyboard.

1. Voice Display

You can see at-a-glance which voices are currently selected for each of the voice sections by calling up the Voice Display.

Press the VOICE DISPLAY button in the DISPLAY SELECT section.

DISPLAY SELECT

VOICE DISPLAY	SYMPHO-NIC	A. B. C. M. O. C.	FOOT SW.	REGIST. SHIFT	PITCH MIDI	REGIST. MENU
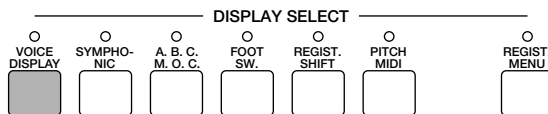
The Voice Display is indicated on the LCD.

```
⬛Strings  L◻Violin
⬛Strings  ◻ContBass
```

The Voice Display is automatically shown when the Electone is turned on.

2. Selecting Voices from the Panel

Since selection of panel voices follows the same procedure throughout the various voice sections, instructions for only the Upper Keyboard Voice section 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 |
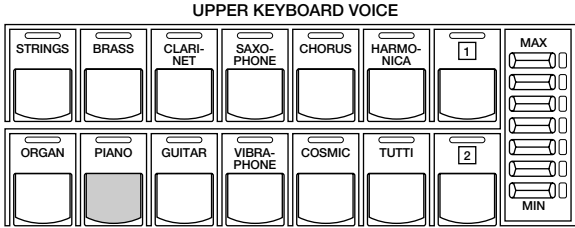
If, for example, you have selected the PIANO voice, the following display will appear:

```
Piano      E.Piano
Harpsi.
```
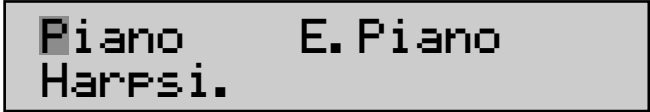
Notice that several different voice names are shown on this display.

These are variations of the basic Piano voice category.

2. Press one of the DATA CONTROL buttons that corresponds to the voice you wish to select.

The first character flashes to indicate the selected voice.

```
Piano      E.Piano
Harpsi.
```
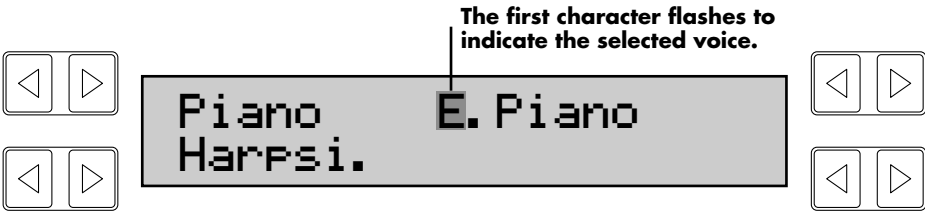
3. Set the volume for each voice section.

There are two volume controls: Coarse and Fine.

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.
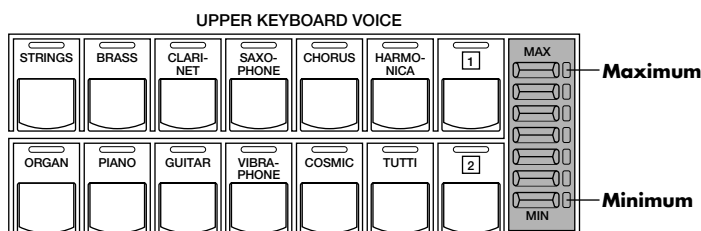
Fine:

Pressing the same panel voice button again calls up the Voice Condition display.

Use the DATA CONTROL buttons, in the bottom right of the LCD, that correspond to the Volume setting to change the level of the desired voice. The relative level is indicated by a numeric value (from 0 – 24).

> **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 (as shown in the illustration). Successive presses alternate between the two displays.


```
<UPPER>            P1
 TOUCH=4      VOL. =24
```

Pressing this button increases the value.

Pressing this button decreases the value.

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

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

PLAYING LEAD AND PEDAL VOICES FROM THE LOWER KEYBOARD:

The Electone has a special "To Lower" function that lets you assign Lead or Pedal 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.

●If the effect (vibrato, etc.) is set to the original Pedal Voices, the voices assigned to the Lower keyboards are playable with the effects as well.

●The Lead/Pedal Voice cannot be played on the Upper keyboard/ Pedalboard, if the Lead/Pedal Voice is assigned to the Lower keyboard.
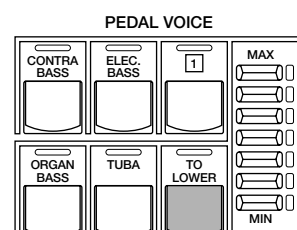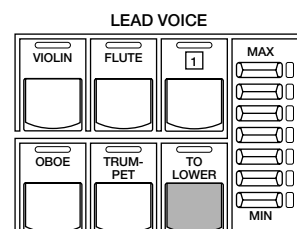
3. Selecting Additional Voices – Dotted Buttons and User Voices

The EL-27 Electone has a 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 convenient access to any voice.

Selecting Voices From the Dotted Buttons

Each voice section has one or two dotted buttons, found on the right side of each voice section. These dotted buttons function as "wild card" Voice Menu selectors; any internal voices can be selected from these buttons.

The dotted buttons have the following basic uses:

❶ **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. The opposite is also the case: Upper or Lower voices assigned to the Lead or Pedal sections will be monophonic.

❷ **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.

❸ **For storing voices from a Voice Disk.**

To select a voice from a dotted button:

1. Press one of the dotted buttons in any of the voice sections.

For example, let's select the E. Piano (Page 17: Piano) using the dotted button.

UPPER KEYBOARD VOICE

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

Dotted buttons
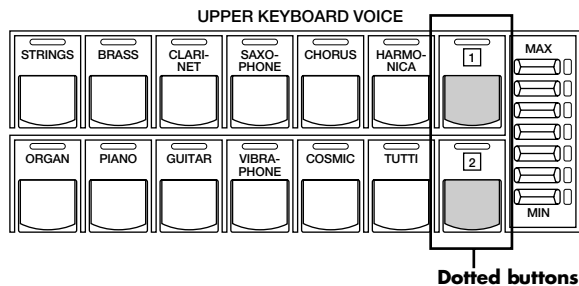
Page 1 (Strings) is displayed on the LCD.

```
Strings          P1
```

2. Select one of the pages with the PAGE buttons found in the right to the LCD display (Page 17: Piano).

Each voice group appears on the LCD display when the page has been selected.

```
Piano     E.Piano P17
Harpsi.
```
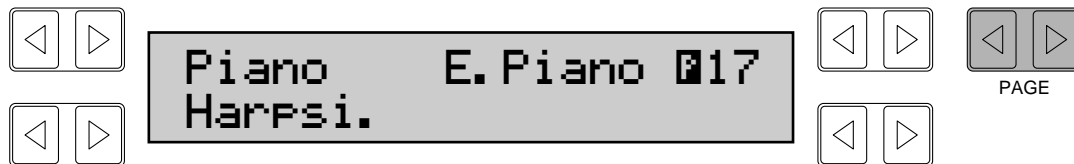
PAGE

3. Select a voice from the display (E. Piano).

```
Piano     E.Piano P17
Harpsi.
```

Select the USER page in the same manner as above when you wish to use a voice from a Voice Disk. (See page 72.)

```
USER 1   USER 2  PUS
USER 3   USER 4
```

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.

NOTE The first character of the selected voice's name flashes to indicate that the voice has been selected. As long as you do not select a voice, this indication will not appear.

When you turn off and turn on the Electone again, the voice is set to the Basic Registration 1. Be sure to store the selected voices (registration setting) to the Registration Memory before you turn off the Electone (see page 47).

4.Voice Menus

The following chart lists the voices available and their button/page assignment. The numbers shown in the list correspond to the page numbers shown in the display and are displayed only when pressing the dotted buttons.

Some of the voice names are abbreviated: e.g., ContBass for Contrabass.

STRINGS (Upper/Lower)

```
Strings              P1
```

VIOLIN (Lead)

```
Violin               P2
```

CONTRABASS (Pedal)

```
ContBass PizzBass P3
```

BRASS (Upper/Lower)

```
Brass     SynBrass P4
```

HORN (Lower)

```
Horn                 P5
```

TRUMPET (Lead)

```
Trumpet              P6
Trombone
```

TUBA (Pedal)

```
Tuba                 P7
```

FLUTE (Lead)

```
Flute                P8
```

OBOE (Lead)

```
Oboe      Bassoon  P9
```

CLARINET (Upper/Lower)

```
Clarinet            P10
```

SAXOPHONE (Upper/Lower)

```
Saxophon            P11
```

TUTTI (Upper/Lower)

```
Tutti1    Tutti2  P12
```

CHORUS (Upper/Lower)

```
Chorus              P13
```

HARMONICA (Upper)

```
Harmonic            P14
```

ORGAN (Upper/Lower)

```
Organ     JazzOrgnP15
```

ORGAN BASS (Pedal)

```
OrgBass             P16
```

PIANO (Upper/Lower)

```
Piano     E.Piano P17
Harpsi.
```

GUITAR (Upper/Lower)

```
Guitar              P18
```

VIBRAPHONE (Upper/Lower)

```
Vibrphon            P19
Marimba
```

ELACTRIC BASS (Pedal)

```
E.Bass              P20
SynBass
```

COSMIC (Upper/Lower)

```
Cosmic1   Cosmic2 P21
Cosmic3
```

```
USER 1    USER 2  PUS
USER 3    USER 4
```

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.

These are used to change various aspects of the voices, such as the volume or octave (footage) settings, or enhance the sound of the voices, such as with Reverb or Tremolo. They are divided into two groups: 1) The controls/effects selected on the Voice Condition pages. 2) The effects set by the panel buttons.

Each voice has been given certain factory-preset settings to best enhance its sound. However, you can also change the settings to suit your preferences by using the controls described in this section.

1. Selecting from the Voice Condition Pages

To select the Voice Condition pages for changing the settings:

Choose a voice on the panel, then press that voice's panel button twice; If the voice you want to select is already displayed on the LCD display, press once.

For the Lead Voice example shown below, press the VIOLIN button in the LEAD VOICE section twice.

LEAD VOICE

VIOLIN FLUTE 1 MAX

OBOE TRUM-PET TO LOWER MIN
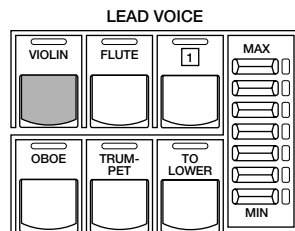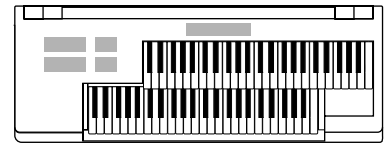
> **NOTE** The Pedal Condition display has only two pages: The Pedal voices do not have the Vibrato function.

Page 1 of the Voice Condition pages is displayed on the LCD display. Each of the Voice Conditions has page 1 through 4.

Voice Condition – Page 1

Lead Voice

```
<LEAD>          P1
TOUCH=4     VOL. =24
        ❶           ❷
```

PAGE

❶ **TOUCH (TOUCH TONE)**

See page 24.

❷ **VOL. (VOLUME)**

Fine adjustment of the voice volume. See page 20.

Voice Condition – Page 2

Press the PAGE buttons to select Page 2.

◁ ▷
◁ ▷

```
<LEAD>              P2
FEET=PRE.   SYM. =PRE.
```
❶   ❷

◁ ▷
◁ ▷

◁ ▷
PAGE

❶ **FEET**
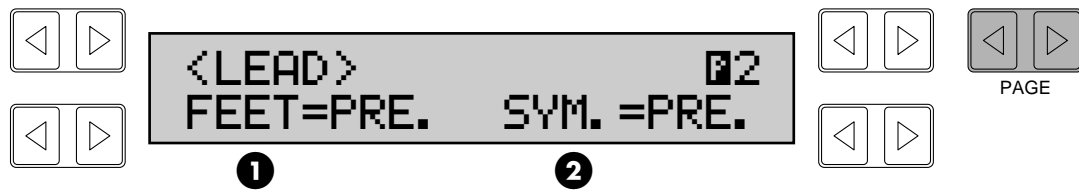
See page 26.

❷ **SYM. (SYMPHONIC)**

See page 27.

Voice Condition – Page 3

Press the PAGE buttons to select Page 3.

◁ ▷
◁ ▷

```
<LEAD>              P3
■USER VIB.
```

◁ ▷
◁ ▷

◁ ▷
PAGE
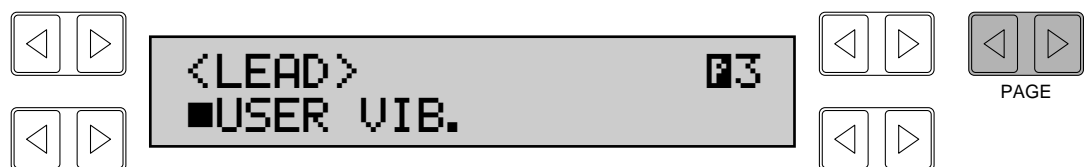
USER VIB. (User Vibrato)

See page 28.

Voice Condition – Page 4 (When USER VIB. is ON.)

Press the PAGE buttons to select Page 4.

Lead Voice

❶

◁ ▷
◁ ▷

```
<LEAD>VIB.  DELAY=0P4
DEPTH=0       SPEED=0
```
❷   ❸

◁ ▷
◁ ▷

◁ ▷
PAGE

Upper Keyboard Voice

◁ ▷
◁ ▷

```
<UPPER>VIB.         P4
DEPTH=0
```
❷

◁ ▷
◁ ▷

◁ ▷
PAGE
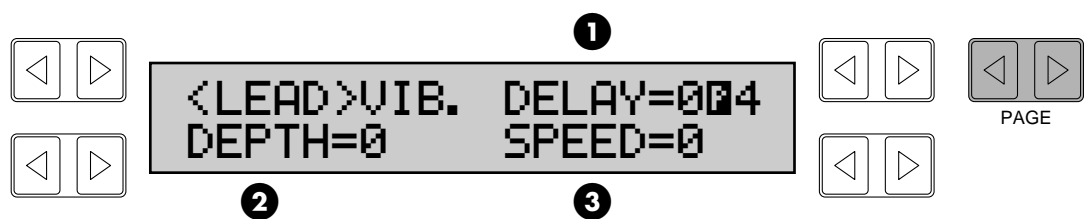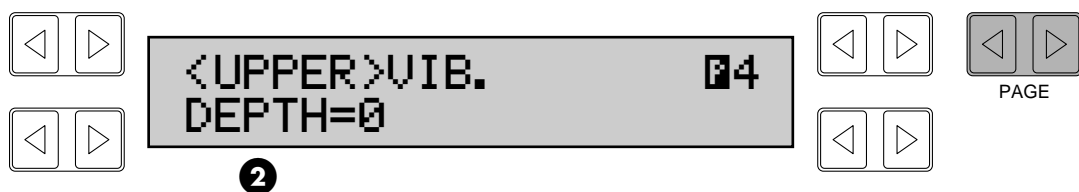
❶ **DELAY (Lead Voice only)**
See page 29.

❷ **DEPTH**
See page 29.

❸ **SPEED (Lead Voice only)**
See page 29.

NOTE ♪ The Vibrato function in Page 4 of the Lead Voice is different from the Upper/Lower Keyboard Voice.

Press the PAGE button to return to the Page 1.

Voice Condition - Page 1
●Touch Tone

The Touch Tone function gives you expressive control over the volume and timbre of a voice.

TOUCH (Touch Tone)

The depth of Touch Tone is switchable alternately to 1 (Shallow) or 4 (Deep) by pressing the DATA CONTROL button found in the bottom left to the LCD display. 4 is the factory setting.


```
<LEAD>                    P1
       TOUCH=4     VOL. =24
```

```
1
4
```

The Touch Tone cannot be applied to the pedal voices.

```
<PEDAL>                   P1
                  VOL. =10
```

Press the PAGE buttons to select the Page 2.

Voice Condition - Page 2
●Feet

FEET

Determines the octave setting of the voice. PRE. (Preset) is the original (factory) setting; 4' is the highest and 16' is the lowest.

Settings: PRE., 4', 8', 16'


```
<LEAD>                    P2
FEET=PRE.    SYM. =PRE.
```

```
PRE.
 4'
 8'
16'
```

Selects next setting.

Selects previous setting.

NOTE The Touch Tone function provides initial/after touch response over the voices, controlling volume and timbre according to the velocity at/after which you strike the keys.

PAGE

NOTE The set values 1 and 4 are the same as the ones found in the upper models, respectively.

NOTE The Touch Tone does not function to Organ Voice. The after touch does not function to the percussive voices (Piano, etc.).

NOTE By using different Feet settings in the Lower and Upper keyboards, you can duplicate the wide octave range of many instruments. For example, with both the Lower and Upper keyboards set to the Piano voice and Feet set to appropriate values, you can play the voice nearly over the full range of a grand piano.

PAGE

●Symphonic/Celeste

Symphonic simulates the effect of a large ensemble, while Celeste creates the effect of a gradually expanding sound.

Symphonic/Celeste function can be set separately to each of the voices.

1. Press the bottom right DATA CONTROL buttons to turn the SYM. (Symphonic) ON in the Voice Condition – Page 2.

```
<LEAD>          ⯅2
FEET=PRE.   SYM. =PRE.
```

PAGE

```
PRE.
OFF
ON
```

Selects next setting.

Selects previous setting.
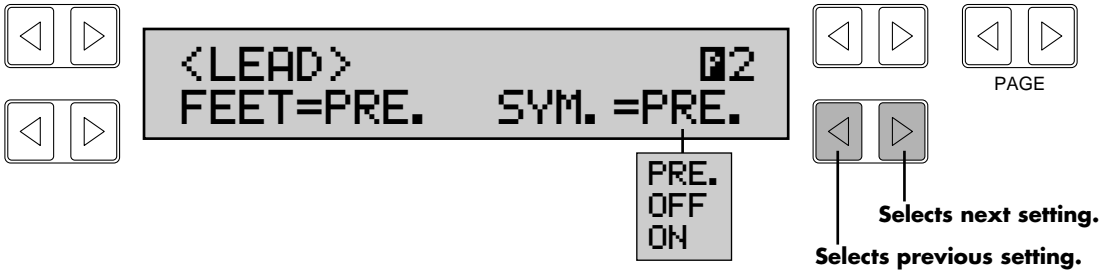
2. Press the SYMPHONIC button in the DISPLAY SELECT section to select either Symphonic or Celeste.

The Symphonic menu is displayed on the LCD display. Press the bottom DATA CONTROL buttons to switch between Symphonic and Celeste.

DISPLAY SELECT

VOICE DISPLAY | SYMPHO-NIC | A. B. C. M. O. C. | FOOT SW. | REGIST. SHIFT | PITCH MIDI | REGIST. MENU

```
<SYMPHONIC>
■Symphonic   □Celeste
```

Use these buttons to select Symphonic or Celeste.

NOTE Symphonic/Celeste can be selected by each voice, however, both of them cannot be applied at a time.
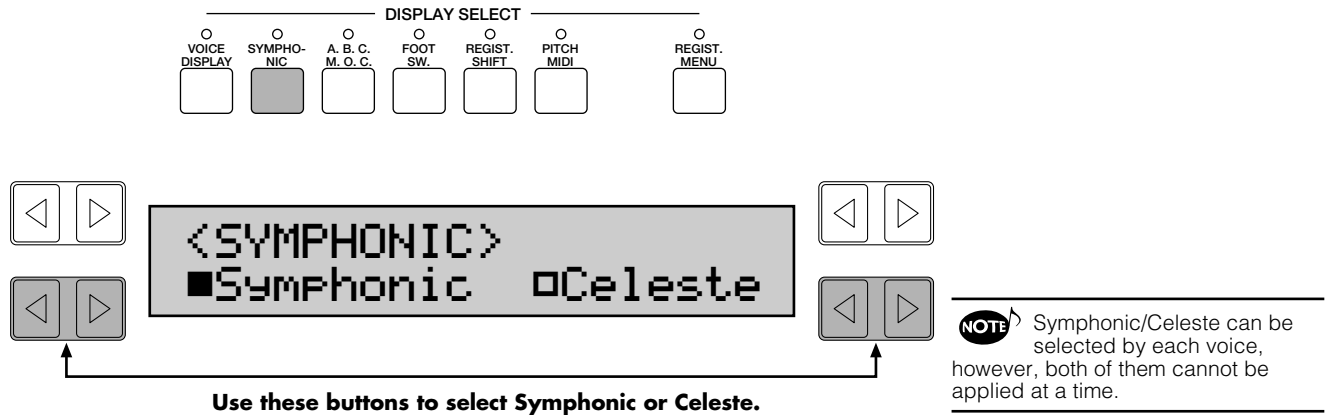
●Vibrato

Vibrato is an effect that periodically, or regularly, varies the pitch of a voice for a quavering sound. Used properly, it can make a voice sound richer and more natural.

Press the PAGE buttons to select page 3.

Voice Condition – Page 3

```
<LEAD>              P3
□USER VIB.
```
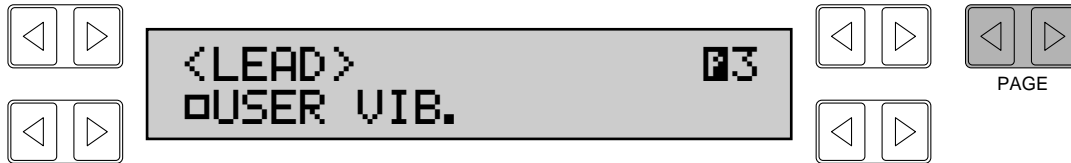
PAGE

1. Turn on USER VIB. (User Vibrato) in the Voice Condition – Page 3.

When this is turned on, you can adjust the vibrato settings: Delay, Depth and Speed for Lead voices, and Depth for Upper/Lower voices.
The Delay, Depth and Speed settings are set in the next page, Voice Condition – Page 4. The Delay, Depth and Speed settings are not displayed and cannot be adjusted unless USER VIB. has been turned on in this setting.

```
<LEAD>              P3
■USER VIB.
```

Press either of these buttons to turn on User Vibrato.
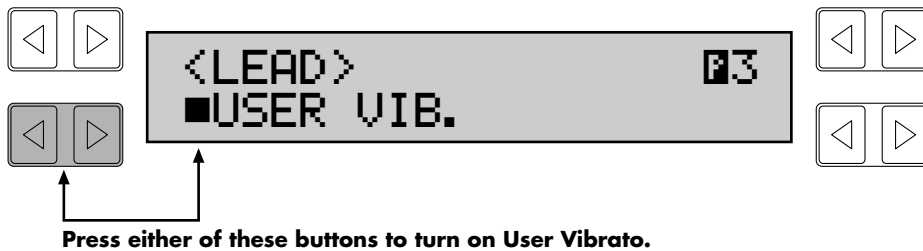
2. Call up the Voice Condition – Page 4 by pressing the PAGE buttons.

Voice Condition - Page 4

Lead Voice

❶

```
<LEAD>VIB.  DELAY=0P4
DEPTH=0     SPEED=0
```

❷   ❸

PAGE

Upper Keyboard Voice

```
◁ ▷          <LEAD>VIB          P4     ◁ ▷    ◁ ▷
                                              PAGE
◁ ▷          DEPTH=0                    ◁ ▷
                    ❷
```
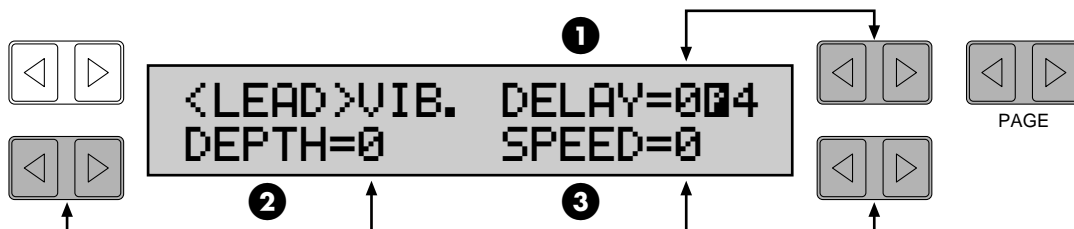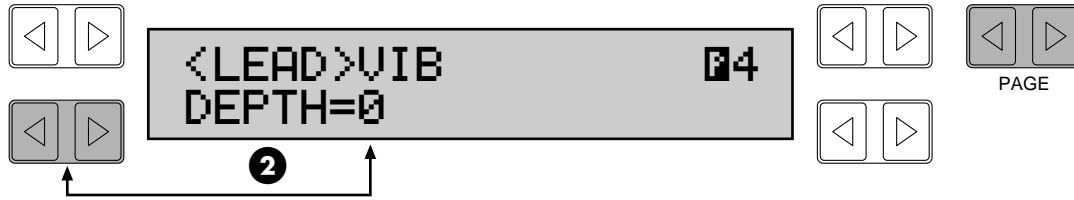
❶ Delay (Lead Voice only)

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 – 7

❷ Depth

Determines the intensity of the vibrato effect (see diagram). Higher settings result in a more pronounced vibrato. Range: 0 – 7

❸ Speed (Lead Voice only)

Determines the speed of the vibrato effect (see diagram). Range: 0 – 7

The following diagram graphically shows the vibrato effect and its related controls.

Vibrato Controls
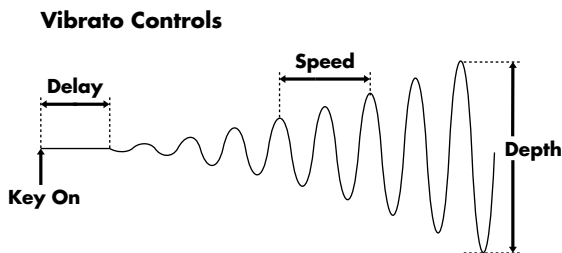
3. Select the setting of USER.VIB by using either of the PAGE buttons, as indicated in the illustration of Step #2.

If User Vibrato has not been turned on, the following display appears when Page 4 is selected.

```
<LEAD>VIB          P4
    PRESET VIBRATO
```

2. Selecting from the Panel Buttons

●Reverb

Reverb adds an echo-like effect to the sound, giving the impression of a performance in a large room or concert hall. The effect is applied equally and simultaneously to all voice sections.
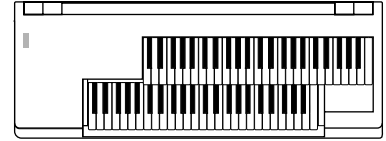
To adjust the reverb effect:

Press one of the REVERB buttons, located at the far left of the panel.

These controls determine the depth of the reverb effect. There are seven settings, from a minimum of 0, or no reverb, to the maximum.
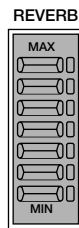
●Sustain

Sustain is selectable for the Upper, Lower and Pedal voices and makes the sound 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.
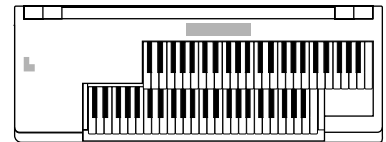
To add sustain to the voices and call up the Sustain Length page:

1. Press either of the buttons in the SUSTAIN section.

The lamp of the button pressed lights up to indicate that sustain is on.

Press the button again to turn sustain off.

The Sustain display appears on the LCD display.

<SUSTAIN> UPPER=10
LOWER=10   PEDAL=6

NOTE Sustain cannot be applied to the Lead voices.

NOTE If knee lever control of the Upper or Lower sustain has been turned on, pressing the Upper or Lower buttons here will not add sustain unless the knee lever is pushed. (See page 52.)

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.

When you turn off and turn on the Electone again, the voice is set to the Basic Registration 1. Be sure to store the selected voices (registration setting) to the Registration Memory before you turn off the Electone (see page 47.).

2. Determines the length of sustain applied to each voice section by using each of the DATA CONTROL buttons.

The display shows the current sustain length values for each voice section. Increasing values makes sustain more effectively. Range: 0 – 12.

4 Rhythm, Accompaniment and Percussion

The Rhythm features of the Electone use actual drum and percussion sampled sounds to automatically play various rhythm patterns. Automatic Accompaniment functions are used with the rhythm patterns, providing appropriate and completely automatic accompaniment to match the style of the rhythm pattern selected. 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 Rhythm Patterns from the Panel

Ten different rhythm menus in various styles can be instantly selected from the front panel. The Electone has additional "hidden" rhythm patterns, however. A total of 24 rhythm patterns are available, and can be selected by using combination of the RHYTHM buttons and the LCD display.

To select and play a rhythm pattern:

1. Choose a rhythm pattern by pressing one of the RHYTHM buttons on the panel.
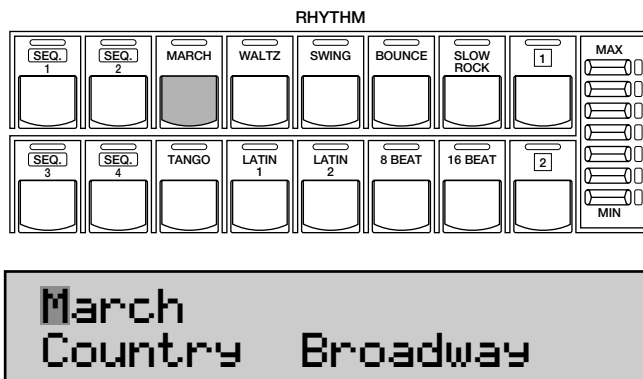
The first character of the selected rhythm pattern's name flashes on the LCD display. (Refer to the Rhythm Menu list on page 38 for selecting a rhythm pattern.)

2. Press the DATA CONTROL buttons to select a rhythm pattern from the Rhythm menu.

From the example display shown below, select Broadway.

Press either of these **DATA CONTROL** buttons that correspond to Broadway on the display.

3. Set the volume.

Press the VOLUME controls to the right of the RHYTHM buttons to set the desired level of the rhythm.

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 pattern can also be made from the Rhythm Condition page (see page 35.).

NOTE ♪ When the Electone is turned on, the rhythm volume is automatically set to 0.

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

❸   ❷   ❶

RHYTHM

| INTRO. ENDING | SYNCHRO START | START |

| | | FILL IN |
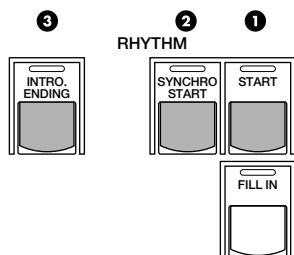
❶ START

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.

NOTE ♪ The left footswitch can also be used to turn the rhythm off and on in the middle of a song. (To assign the footswitch for rhythm control, see page 51.)

❷ SYNCHRO START

This button puts the rhythm pattern in "stand-by"; the rhythm will start when you press a note on the Lower keyboard or Pedalboard. To stop the rhythm, press this button again.

❸ INTRO. ENDING

INTRO.

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

While the introduction is playing, the TEMPO display shows the countdown to the first measure of the pattern.

NOTE ♪ ABOUT SYNCHRO START: The Synchro Start feature functions quite differently when Auto Bass Chord is turned on and Accompaniment Memory is turned off. The rhythm pattern 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 A.B.C. section, page 40, for details on Auto Bass Chord and Memory.)

NOTE ♪ The EL-27 does not sound by playing the Lower Keyboard while the introduction is played back.

BAR/BEAT

$$-8.1$$

TEMPO

BAR

BEAT

ENDING

Pressing the INTRO. ENDING button again while the pattern is being played will automatically add an ending phrase before stopping the rhythm.

> **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.

5. Set the tempo by turning the TEMPO dial below the RHYTHM section.

BAR/BEAT

120 ❷

TEMPO

BAR

○ ❸

BEAT

Slower   Faster

❶
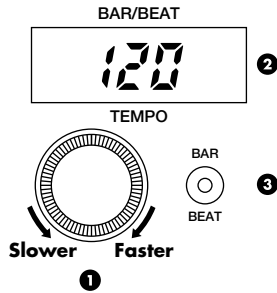
❶ TEMPO Dial

For adjusting the speed of the rhythm. Turn the dial clockwise to increase the tempo, and counter-clockwise to decrease it.

❷ TEMPO Display / BAR/BEAT Display

Shows the current tempo. (Displayed values are given in beats per minute, just as on a conventional metronome.) The tempo range is 40 to 240 beats per minute.

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

BAR/BEAT

4.3

TEMPO

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.

❸ BAR/BEAT Indicator

The BAR/BEAT indicator flashes to the first beat of every measure.

Fill In Patterns

Fill In patterns are designed to be used as temporary and regular rhythmic breaks to spice up a repeating rhythm pattern.

To use the Fill In patterns:

1. Select and play a rhythm pattern.

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

For best results, press the FILL IN button just at the beginning or the first beat of a measure.

RHYTHM

```
INTRO.          SYNCHRO   START
ENDING          START

                          FILL IN
```

2. Auto Variation and Rhythm Volume

These two settings are controlled from each rhythm's Rhythm Condition pages. There are three Rhythm Condition pages.

To select the Rhythm Condition pages:

Choose a rhythm pattern, and press that pattern's panel button again. (The button should be pressed only once if the Rhythm display has already been called up; otherwise press the button twice.)
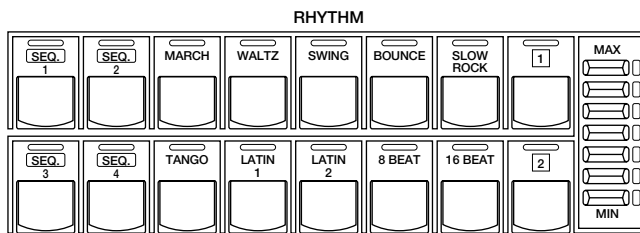
Rhythm Condition Page appears on the LCD as below.

Rhythm Condition – Page 1

These buttons turn the Auto Variation function on and off.

Increases the volume.

Decreases the volume.
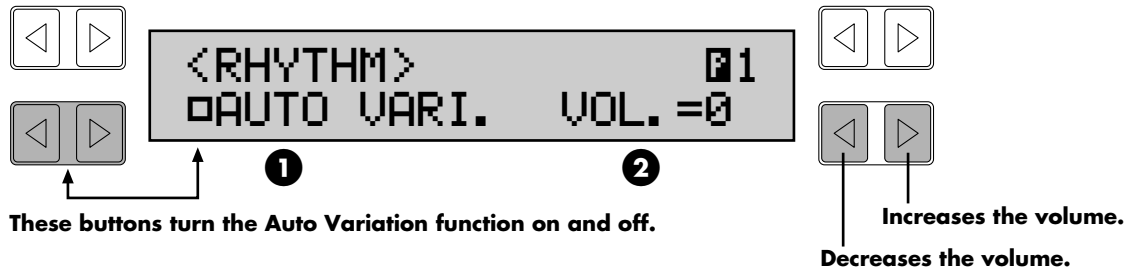
❶ AUTO VARI. (Auto Variation)

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.

❷ VOL. (Volume)

Fine adjustment of the overall volume of the rhythm patterns and Keyboard Percussion (see page 43 on the Keyboard Percussion.). Range: 0 – 24

3. Selecting Rhythms from the Dotted Buttons

The Rhythm section also has, like the voice sections, dotted buttons from which rhythm patterns can be selected. These dotted buttons function as "wild card" rhythm pattern selectors; any of the rhythm patterns available from the panel buttons or from the pattern displays can be selected from these buttons.

As with the Voice sections' dotted buttons, you can set two or three rhythm patterns from the same page to be selected from different buttons (one from the original Rhythm button, and the others from the dotted buttons).

To select a rhythm pattern from a dotted button:

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

Select the Dixie in the Swing Page for example.

Dotted buttons
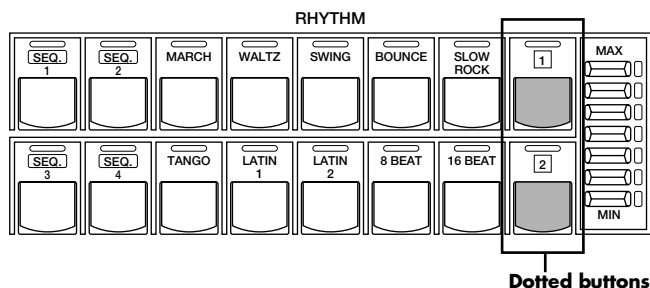
Page 1 of the RHYTHM menu appears on the display.
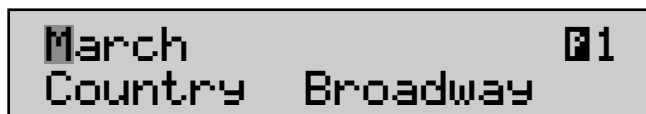
2. Select one of the pages with the PAGE buttons.
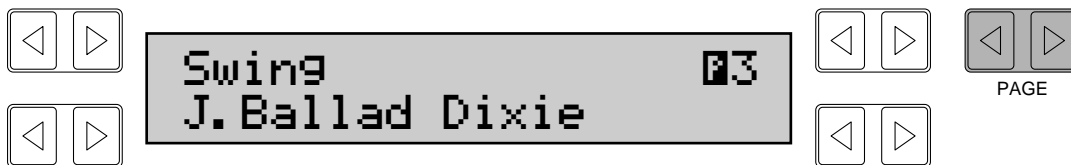
PAGE

3. Select one of the rhythms by pressing one of the appropriate (bottom right) DATA CONTROL buttons.

NOTE ♪ You can directly go to the Rhythm page by pressing the appropriate RHYTHM button while holding down the dotted buttons.

User Rhythm Pages:

You will find the User Rhythm Pages (8 in total) in the Rhythm Menu. You can call up and use the User Rhythm Patterns created with other Electones such as EL-37.

1. **First, create a user rhythm with the EL-37, register it in one of the user rhythm number, and record it as a part of the registration to a floppy disk.**

2. **Insert the floppy disk into the EL-27's M.D.R. slot. Call up the registration, to load the user rhythm to the corresponding user rhythm number.**

```
USER1-A USER1-B  ■U1
USER1-C USER1-D
```

3. **Select the user rhythm by using the dotted button.**

> **❶** When you turn off and turn on the Electone again, the voice is set to the Basic Registration 1. Be sure to store the selected voices (registration setting) to the Registration Memory before you turn off the Electone (see page 47.).

4. Rhythm Menus

This chart lists all 24 rhythm patterns available on the Electone. The numbers in the chart correspond to the page numbers shown in the display.

Some of the rhythm names are abbreviated (e.g., J. Waltz for Jazz Waltz).

```
March              P1
Country   Broadway
```

```
Cha-cha   Rhumba   P7
Beguine   Mambo
```

```
Waltz              P2
J.Waltz
```

```
Samba              P8
Bossa.
```

```
Swing              P3
J.Ballad Dixie
```

```
8Beat              P9
D.Pop
```

```
Bounce             P4
Reggae
```

```
16Beat             P10
Funk
```

```
S.Rock1   S.Rock2  P5
```

```
USER1-A   USER1-B  U1
USER1-C   USER1-D
```

⋮

```
Tango1    Tango2   P6
```

```
USER8-A   USER8-B  U8
USER8-C   USER8-D
```

5. Accompaniment Controls

The Accompaniment function here is independent of the A.B.C. accompaniment and works with the Rhythm section to automatically add arpeggiated chords and other instrumental embellishments. The Accompaniment controls include the setting of the Accompaniment type and its volume.

To select the Accompaniment controls in the Rhythm Condition pages:

1. Press any one of the RHYTHM buttons on the panel twice.
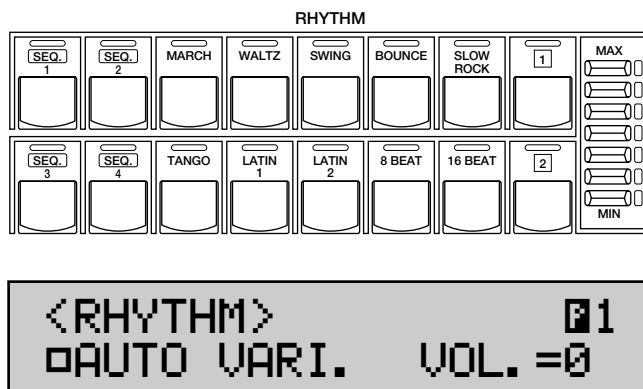
2. Once the Rhythm Condition Page 1 display has been called up, use the PAGE buttons to select Page 2.

Rhythm Condition – Page 2

Sets volume to minimum value.
Sets volume to maximum value.
Increases volume.
Decreases volume.
Select the Accompaniment type.
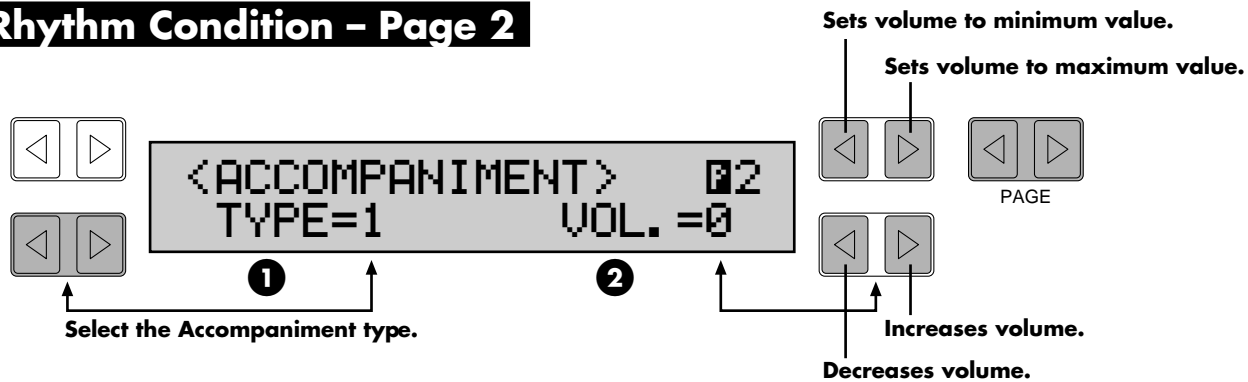
❶ TYPE=1, 2, 3, 4

These settings provide four different types of rhythmic and melodic accompaniment, and become more complex according to the type number (Type 1 is the simplest, Type 4 the most complex).

❷ VOL. (Volume)

Determines the volume of the Accompaniment. The Accompaniment can be turned off by setting this parameter to the minimum value. Range: 0 – 24

NOTE ♪ Even if the Accompaniment Type is changed, the Intro/Ending pattern remains the same.

NOTE ♪ When turning the Electone on, the Accompaniment volume is automatically set to 0. Be sure to set the Accompaniment volume to the appropriate value when using the Accompaniment function.

3. Turn on the rhythm by pressing the START button and play on the Lower Keyboard.

The rhythmic or arpeggiated chords will be automatically added to the original chords you play on the Lower keyboard.

6. Automatic Accompaniment – Auto Bass Chord

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. Depending on the feature or mode selected, you can play anything from a single note to a full chord on the Lower keyboard and hear complete, rhythmical bass and chord accompaniment.

There are three Auto Bass Chord modes – Single Finger, Fingered Chord and Custom A.B.C.– and they are selected from either Rhythm Condition Page 3 or the A.B.C./M.O.C. button (page) in the DISPLAY SELECT section.

To select the A.B.C. function:

1. **Press the A.B.C./M.O.C. button. (Or press any of the RHYTHM buttons twice to call up the Rhythm Condition pages, then use the PAGE buttons to select Page 3, the A.B.C./MEMORY page.)**

DISPLAY SELECT

| ○ VOICE DISPLAY | ○ SYMPHO-NIC | ○ A. B. C. M. O. C. | ○ FOOT SW. | ○ REGIST. SHIFT | ○ PITCH MIDI | ○ REGIST. MENU |
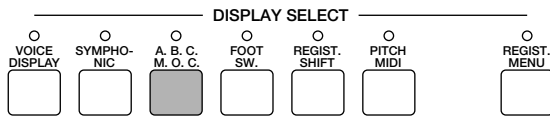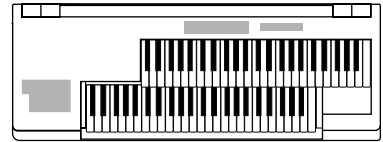
NOTE ♪ A.B.C. function for the Pedal voice does not work when the To Lower in the Pedal voice section is turned on.

```
<ABC>    <MEMORY>   P1
Fingered   ■L   □P
```

❶
```
OFF
Single
Fingered
Custom
```

❷

These buttons correspond to the bottom left of the LCD and let you step through the various A.B.C. modes.

Turns the Pedalboard Memory (P) on and off.

Turns the Lower keyboard Memory (L) on and off.

4 Rhythm, Accompaniment and Percussion
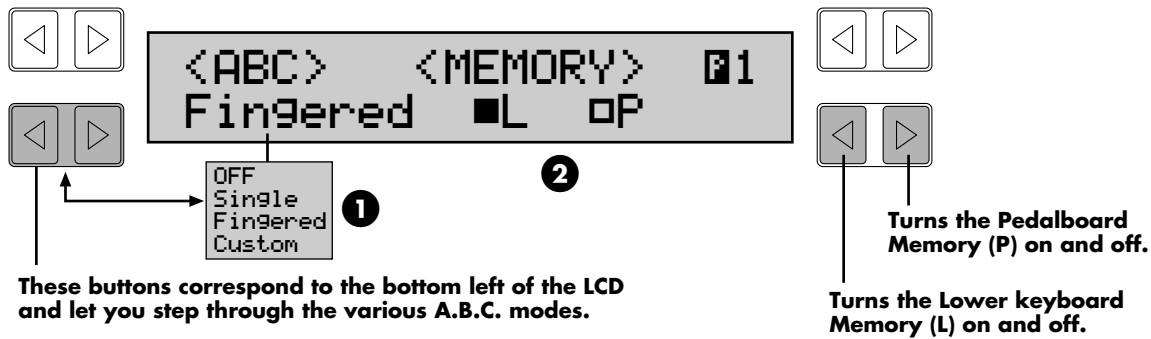
Auto Bass Chord

❶ **Mode: Off, Single, Fingered, Custom**

Off

Cancels the Auto Bass Chord function.

Single (Single Finger mode)

The Single Finger mode 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.

Refer to the chart in page 42, "Chords Recognized in the Single Finger Mode," for details on playing chords in this mode.

Fingered (Fingered Chord mode)

The Fingered Chord mode 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 and rhythmic accents.

Refer to the chart in page 42, "Chords Recognized in the Fingered Chord Mode," for details on playing chords in this mode.

Custom (Custom A.B.C. mode)

The Custom A.B.C. mode is a slight variation on the Fingered Chord mode. It allows you to determine what bass notes will be played in the accompaniment by playing a note on the Pedalboard along with the chords you play in the Lower keyboard. In this way, you have greater control over the actual notes of the accompaniment and the freedom to use a wider variety of chords and voicings, yet are still able to take advantage of the automatic accompaniment capabilities of the Auto Bass Chord feature.

> **NOTE** ♪ Pedalboard does not sound in the Single Finger or Fingered mode.

MEMORY

❷ **Memory**

The Memory function allows you to have the bass and chord accompaniment continue even after you release your fingers from the keyboard. Independent Memory settings are available for the Lower keyboard and Pedalboard, making it possible, for example, to have the bass continue with the rhythm while the chord accompaniment "rests." The Memory function can also be used independently from the A.B.C. feature.

The bottom right DATA CONTROL button pair is used to control the Memory function. The left button corresponds to the Lower keyboard, and the right button corresponds to the Pedalboard.

> **NOTE** ♪ When you start playing the rhythm using the SYNCRO START button with Auto Bass Chord ON and Memory OFF and release your fingers from the keyboard, the rhythm pattern also stops.

L (Lower)

When Lower is set to on (solid box), the chord accompaniment of the Lower Keyboard voices continues to play even after you release your fingers from the Lower keyboard.

> **NOTE** ♪ The Pedal Voice remains sounding even if you release your fingers from the keyboard in the Single Finger or Fingered Chord mode.

P (Pedal)

When Pedal is set to on (solid box), the bass accompaniment of the Pedalboard voices continues to play even after you release your fingers from the Lower keyboard.

Chords Recognized in the Single Finger Mode (Key of C)

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

Major chords:

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

C
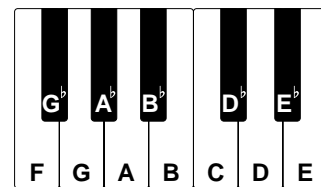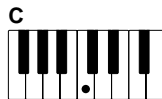
Minor chords:

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

Cm

7th chords:

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

C7

Minor 7th chords:

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

Cm7

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.

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

Chords Recognized in the Fingered Chord Mode (Key of C)

C Cm C7 Cm7 Cmaj7 Cm maj7 C+5 C7+5

Cm7-5 C-5 C7-5 C6 Cm6 Cdim C7sus4
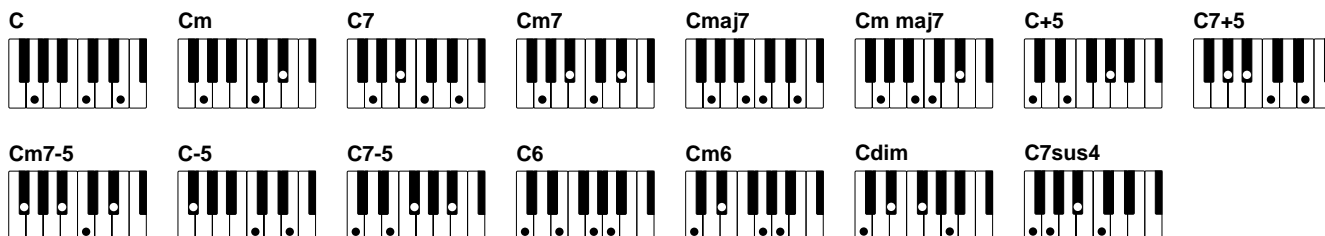
PLAYING SINGLE FINGER CHORDS WITHOUT RHYTHM:

Auto Bass Chord is generally used with rhythm patterns 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.

7. Keyboard Percussion

The various drum and percussion sounds (a total of 43 available) have been assigned to the Lower keyboard and pedalboard for you to play.

To play the Keyboard Percussion sounds :

1. Turn on the Keyboard Percussion function by pressing either or both the LOWER and PEDAL buttons in the KEYBOARD PERCUSSION section.
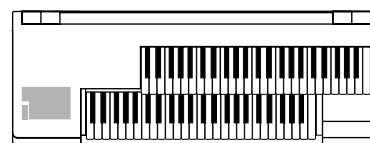
KEYBOARD
PERCUSSION
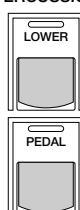
LOWER

PEDAL

2. Set the volume.

The volume of the percussion sounds is set together with that of the rhythm by using the VOLUME controls in the Rhythm section. Set the volume to the desired level.

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 |
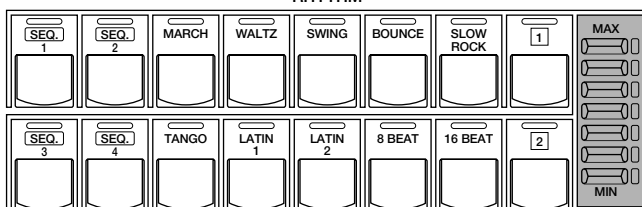
3. Turn off all the Lower and Pedal voices by setting each voice's volume to MIN.

4. Play some notes on the Lower keyboard and Pedalboard. The various percussion sounds have been assigned to the keyboards as shown in the charts on page 44.

Percussion Assignments for the Lower Keyboard

Top labels (left to right): Claves, Synth. Tom 3, Synth. Tom 2, Synth. Tom 1, Snare Brush Roll, Snare Brush Shot, Tom 3, Tom 2, Tom 1, Orchestra Snare Drum, Snare Drum Roll, Triangle Closed, Triangle Open, Cowbell, Wood Block Low, Wood Block High, Agogo Low, Agogo High, Hand Clap

Bottom labels (left to right): Concert Bass Drum, Bass Drum, Bass Drum Heavy, Snare Drum Light, Snare Drum Heavy, Snare Drum Reverb, Snare Drum Light, Snare Drum Heavy, Snare Drum Rim, Hi-hat Closed, Hi-hat Open, Ride Cymbal, Crash Cymbal, Orchestra Cymbal 1, Orchestra Cymbal 2, Tambourine, Castanet, Timbale Low, Timbale High, Conga High, Conga Low, Bongo High, Bongo Low, Cuica Low, Cuica High, Shaker

Percussion Assignments for the Pedalboard

Top labels (left to right): Snare Brush Roll, Snare Brush Shot, Tom 3, Tom 2, Tom 1, Synth. Tom 3, Synth. Tom 2, Synth. Tom 1

Bottom labels (left to right): Bass Drum Heavy, Snare Drum Heavy, Snare Drum Reverb, Snare Drum Light, Snare Drum Rim, Hi-hat Closed, Hi-hat Open, Ride Cymbal, Crash Cymbal, Orchestra Cymbal 1
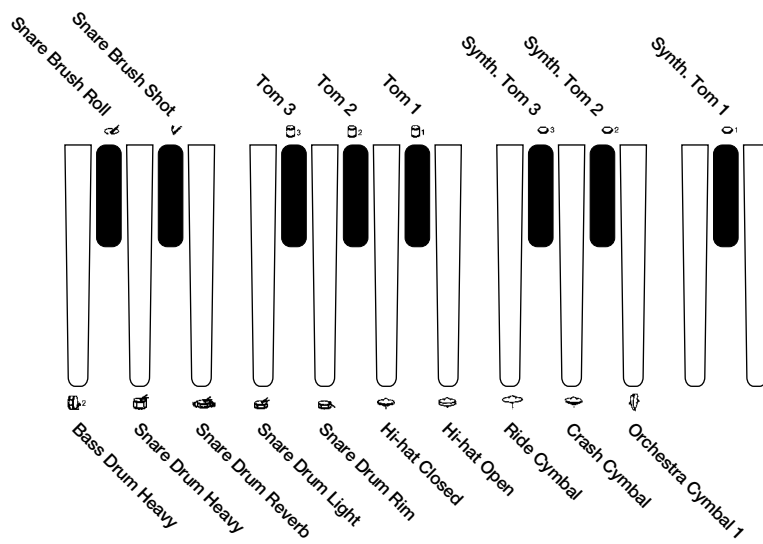
8. Melody On Chord

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 the A.B.C. Automatic Accompaniment.
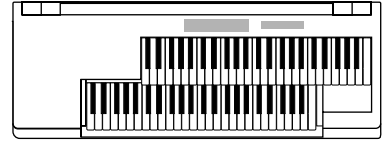
Melody On Chord has three different types, each providing a different set of harmonies to accompany the melody played. The Melody On Chord feature is selected from the A.B.C./M.O.C. page.

To select the M.O.C. function:

Press the A.B.C./M.O.C. button in the DISPLAY SELECT section and PAGE buttons to call up Page 2.

KNEE lever function on/off
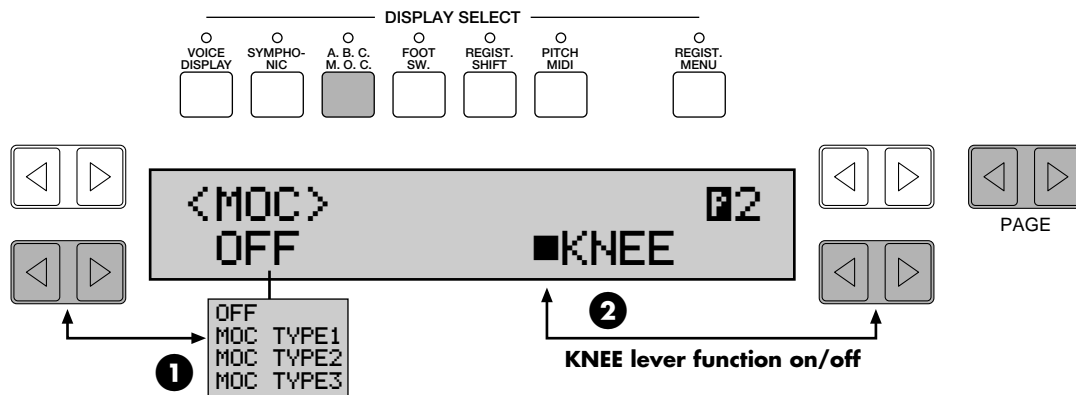
❶ Type

OFF

Cancels the Melody On Chord function.

M.O.C. Type 1

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

M.O.C. Type 2

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

M.O.C. Type 3

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

❷ KNEE

On/off switch for knee lever control over Melody On Chord operation. When this is on, pressing the knee lever to the right activates the Melody On Chord function. (Refer to Knee Lever Control, page 53.)

NOTE ♪ M.O.C. function does not work effectively when the Upper keyboard voice volume is too small; increase it.

NOTE ♪ M.O.C. function still works even when you release fingers from the Lower keyboard, if the rhythm is playing while the Lower Memory function is set to on.

About the User Rhythm Sequence:

The EL-27 can read the user rhythm sequence data created by the other Electones such as EL-37 and play back the sequence data.

To read and play back the rhythm sequence data:

1. Create the rhythm sequence data with the EL-37 and save them to a floppy disk as a part of the registration data.

2. Insert the floppy disk into the M.D.R. slot of the EL-27. Call up the registration, to load the data onto the SEQ.1-4 buttons of the EL-27.
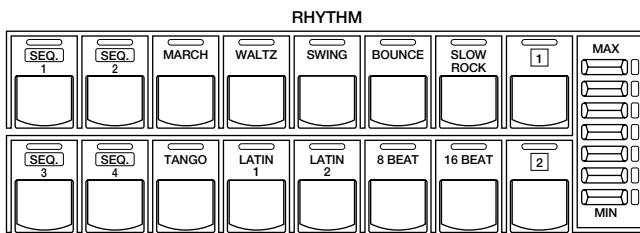
3. Press the appropriate SEQ. button.
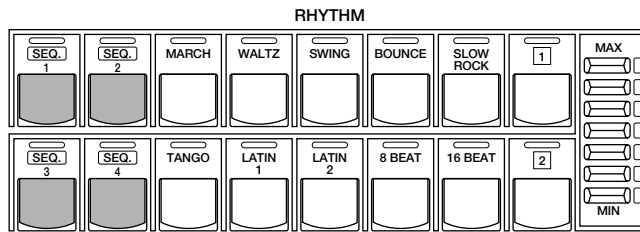
4. Press the START button to start playing back the rhythm sequences.
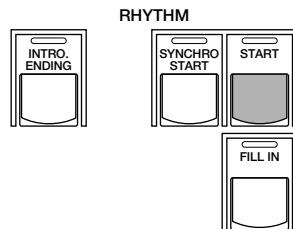
About the SEQ.1-4 buttons:
Each SEQ. button is assigned with the following rhythm patterns as the default.

SEQ.1	Metronome		SEQ.2	2/4 pattern
SEQ.3	3/4 pattern		SEQ.4	4/4 pattern

If you once read the external rhythm sequence data, the above settings for each SEQ. button will be overwritten and lost. If you want to return to the default setting, perform the Power On Reset operation described on page 49.

When you turn off and turn on the Electone again, the voice is set to the Basic Registration 1. Be sure to store the selected voices (registration setting) to the Registration Memory before you turn off the Electone (see page 47.).

5 Registration Memory

Registration Memory allows you to store virtually all the settings you make on the panel and with the 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.

Virtually all of the front panel settings and the functions and settings accessible from display pages, such as effects and accompaniment, can be memorized to Registration Memory.

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 disk for future recall.

To store registrations to the Registration Memory:

1. After creating your original registration, decide which numbered button (1–5) 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 store your registration.

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

> **NOTE** The following functions and settings cannot be memorized:
> ● Pitch/Transpose settings
> ● Registration Shift settings
> ● MIDI settings
> ● D. (Disable) button condition
> ● Rhythm playback condition
> ● SEQ. (Sequence) button condition

While holding down M. button...

| M. | | 1 | 2 | 3 | 4 | 5 | | D. |

...press desired numbered button.
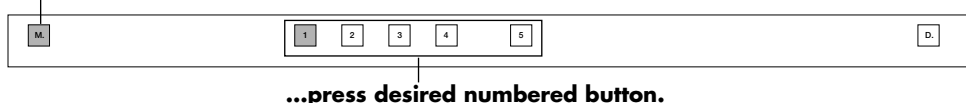
To select registrations from Registration Memory:

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.

| M. | | 1 | 2 | 3 | 4 | 5 | | D. |

> **NOTE** The following settings are disabled, or fixed by the D. (Disable) button:
> ● Rhythm pattern
> ● Rhythm condition (including the Rhythm Volume and Accompaniment)
> ● Tempo
> ● Accompaniment features (A.B.C./M.O.C.)

> **NOTE** When the Electone is turned on, the Basic Registration 1 is automatically selected, as well as the Disable function is canceled.

2. 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. By using the right footswitch on the expression pedal, you can step through the panel registrations in sequence.

To select the Registration Shift functions:

Right footswitch

1. Press the REGIST. SHIFT button in the DISPLAY SELECT section.

```
——————————— DISPLAY SELECT ———————————
  ○          ○        ○        ○        ○        ○                    ○
VOICE    SYMPHO-   A. B. C.   FOOT    REGIST.   PITCH             REGIST.
DISPLAY    NIC     M. O. C.   SW.     SHIFT     MIDI               MENU
```
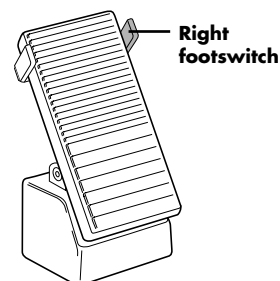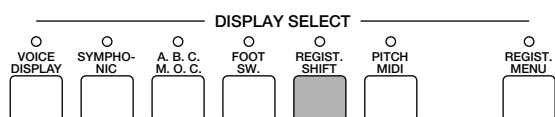
The REGIST SHIFT Page appears on the LCD.

2. Select SHIFT on the display by pressing any one of the bottom DATA CONTROL buttons.

```
◁ ▷                                              ◁ ▷

        <REGIST SHIFT>
◁ ▷     □OFF ■SHIFT   □USER                       ◁ ▷
           ❶      ❷         ❸
```
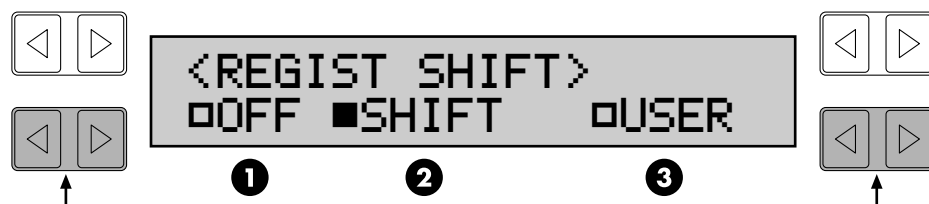
❶ OFF
Turns off the Registration function.

❷ SHIFT
Selects the SHIFT mode. Each press of the right footswitch selects the Registration Memory buttons in their numerical order. After the last preset is reached, the function "wraps around" to select the first button again.

3. Press the right footswitch.
Each press of the right footswitch selects the Registration Memory buttons in their numerical order.

About the User Registration shift:

The USER mode lets you use the User Registration Shift settings created by the other types of Electones, such as EL-37.

1. Create the User Registration Shift data with the EL-37 and save it to a floppy disk as a part of the registration data.

2. Insert the floppy disk into the M.D.R. slot of the EL-27. Call up the registration, to load the data to the USER.

3. Select USER in the Registration Shift Page.

In the USER mode, each press of the right footswitch selects registrations according to the predetermined order. The current position is indicated by the cursor, which can be moved along the registration row.

NOTE ♪ The registration numbers higher than 6, set by the other Electones, will be displayed by "X" to indicate the numbers are ineffective.

Moves the cursor to T (Top).
Moves the cursor to E (End).

Moves the cursor to T (Top).
Moves the cursor to E (End).

```
<REGIST SHIFT> ▮DISP
T12314545454541 ···E
```

Moves the cursor.
one step to the left.

Cursor

Moves the cursor.
one step to the right.
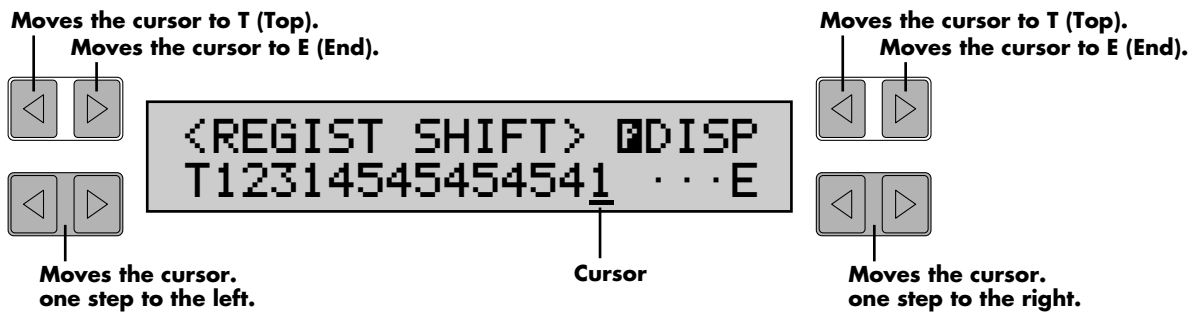
Resetting the Registration Memory Buttons (Power On Reset):

All current data including the registrations can be deleted at once by using the Power On Reset function.

To do this:

1. Turn off the Electone.

2. While holding down the top left DATA CONTROL button, turn the power back on.

POWER
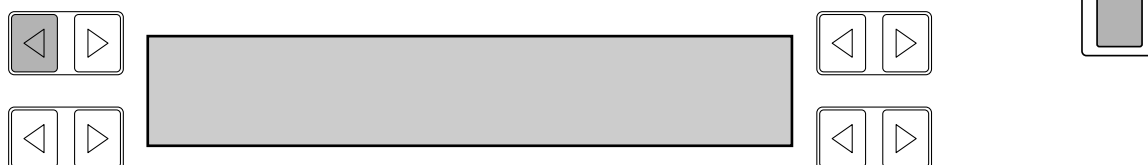
Be careful when using this operation, since it erases all your existing data.
Always save your important data to a floppy disk using M.D.R.(See page 58.)

Restoring the Panel Settings:

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 Registration Memory before turning the Electone off. You can, however, restore the panel settings that were made before the Electone was last turned off.

To do this:

1. Turn the Electone back on.

POWER
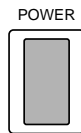
2. While being careful NOT to press any panel buttons (excepting those in Basic Registration), hold down the M. (Memory) button and press the D. (Disable) button.

| M. | | | | 1 | 2 | 3 | 4 | 5 | | D. |
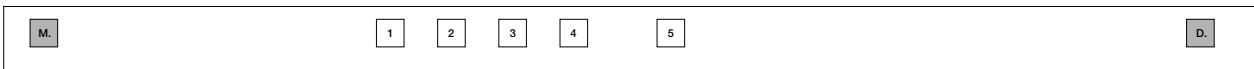
6 Footswitches and Knee Lever

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

Footswitch Control

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 functions (see page 48). The left footswitch can be set to control one of the following functions: Rhythm stop, rhythm ending, and rhythm Fill In. Assignments of the functions are made in the Footswitch pages.

Left footswitch

Right footswitch

To select the Footswitch pages:

Press the FOOT SW. button in the DISPLAY SELECT section.

DISPLAY SELECT

VOICE DISPLAY SYMPHO-NIC A. B. C. M. O. C. FOOT SW. REGIST. SHIFT PITCH MIDI REGIST. MENU
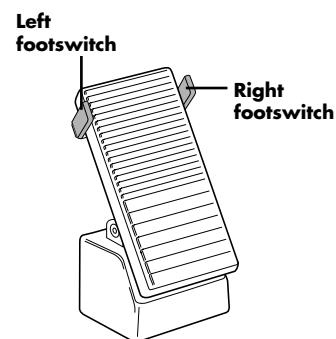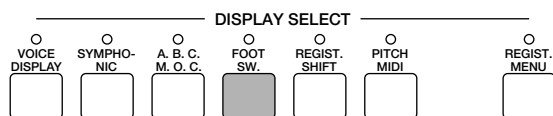
Use any of these top DATA CONTROL buttons to select the footswitch mode.

◁ ▷   `<FOOT SW>MODE:OFF`   ◁ ▷
◁ ▷   ◁ ▷

OFF
RHYTHM
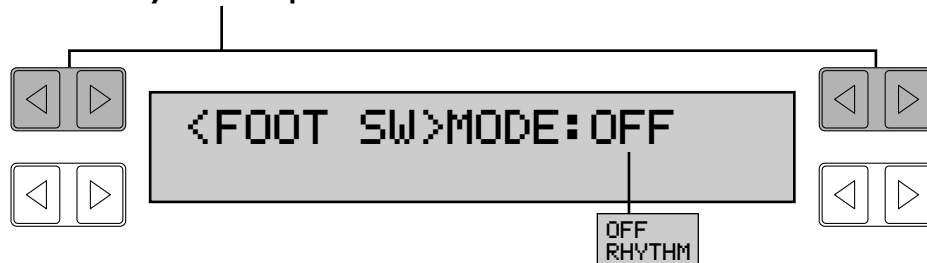
Two modes are available: OFF and RHYTHM. Select the desired mode with the top right or top left DATA CONTROL buttons.

Off

Cancels left footswitch control.

Rhythm Mode

Selection of left footswitch control over rhythm functions. When this is chosen, the following display appears:

Use any of these bottom DATA CONTROL buttons to select three settings, STOP, ENDING or FILL.
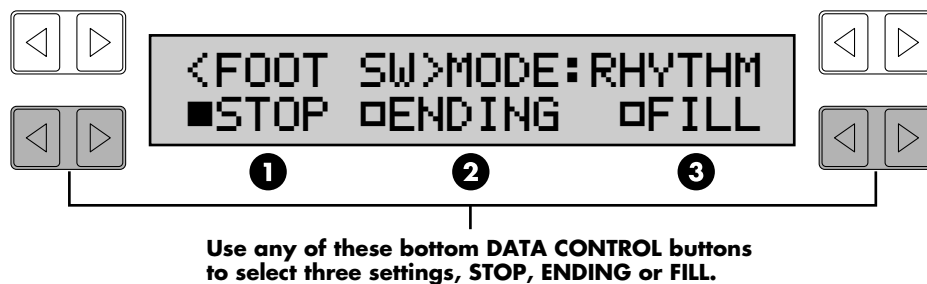
Select one of the three Rhythm Control functions from this display.

Pressing the left footswitch executes the corresponding function.

❶ STOP

Functions as an off/on switch for the rhythm pattern in the middle of rhythm playback.

❷ ENDING

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

❸ FILL (Fill In)

Switches the rhythm to the Fill In pattern.

Knee Lever

The knee lever, located on the underside of the keyboard panel, can be used to turn one of the following functions on and off: The Sustain effect or Melody On Chord.

●Sustain

To select knee lever control over Sustain:

1. Make sure that the Upper and/or Lower Sustain effect panel controls have been turned on; otherwise, the Knee Lever function will have no effect.
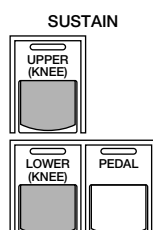
2. Fold the knee lever down.

3. Press the knee lever to the right with your knee when you want to have sustain.

When the knee lever is folded up:
The sustain effect is applied constantly, as long as the front panel sustain buttons are on.

When the knee lever is vertical:
The sustain effect is cancelled.

When the knee lever is continuously pressed to the right:
The sustain effect is on.
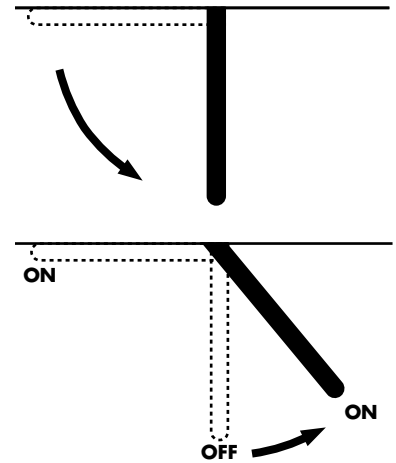
●Melody On Chord

To select knee lever control over Melody On Chord:

1. Press the A.B.C./M.O.C button in the DISPLAY SELECT section.
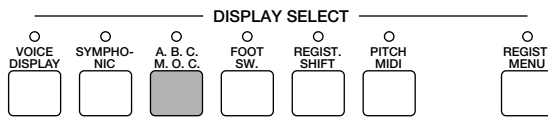
2. Select Page 2 (M.O.C.) by pressing the PAGE buttons, and select one of the modes, then set KNEE control to ON by pressing the bottom right DATA CONTROL buttons.


```
<MOC>              P2
  MOC TYPE1   ■KNEE
```

Set KNEE control to ON by pressing these DATA CONTROL buttons.
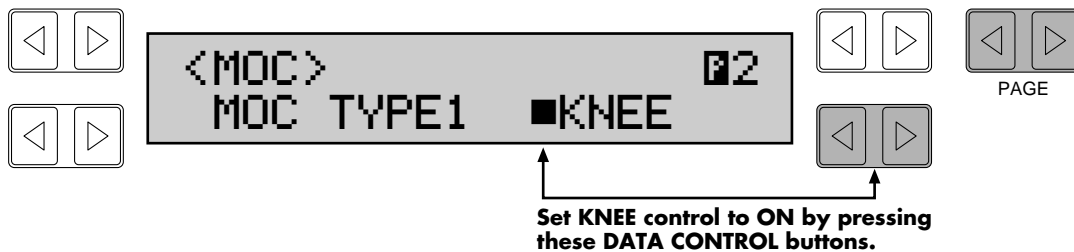
3. Press the knee lever to the right when you want to add the Melody On Chord feature.

NOTE ♪ If the KNEE is set to ON, the Melody On Chord cannot be applied without using the Knee Lever.

7 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. The Pitch controls are located on the TRANS. PITCH page.

To select the TRANS. PITCH page (Page 1):

Press the PITCH/MIDI button in the DISPLAY SELECT section.
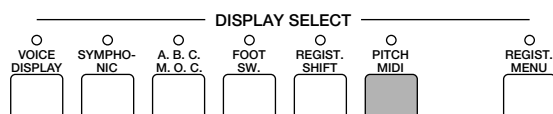
The display below appears on the LCD.

Increases the Transpose value.
Decreases the Transpose value.

Increases the Pitch value.
Decreases the Pitch value.

❶ TRANS. (Transpose)

Determines the coarse pitch setting of all the voices, and is adjustable in half-steps (semitones). Range: -6 – +6 (one octave)

> **NOTE** ♪ When you change the Pitch and turn the Electone off then on again, the Transpose/Pitch is reset to the factory setting value of 0/440.0 Hz.

❷ PITCH

Determines the fine pitch setting of all the voices. Range: 438.8 Hz – 444.5 Hz

8 Music Disk Recorder

The Music Disk Recorder (M.D.R.) is a sophisticated recording device built into the Electone that lets you record your performances and registration settings. The Music Disk Recorder not only records the notes you play; it also remembers the voices and rhythms you select, the front panel controls you change, as well as all expression pedal, footswitch and knee lever positions, to reproduce your performance exactly as you play it. Moreover, you can separately record different parts of your performance, building up a song part by part.

Precautions

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

Compatible Disk Type

3.5" 2DD and 2HD type floppy disks can be used. A blank 2DD floppy disk has been included with your Electone for you to record your performances.

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 insertion slot. Carefully insert the disk – shutter first – into the slot, slowly pushing it all the way in until it clicks into place and the eject button pops out.
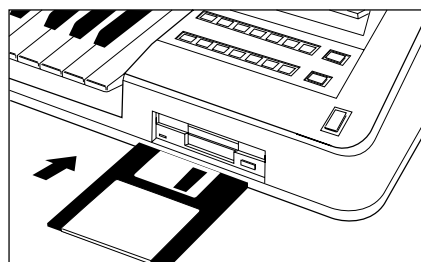
Floppy disk insertion slot

LED (Lamp in-use)   Eject button

■ **To eject a floppy disk:**

Before ejecting the disk, be sure to confirm that the M.D.R. is stopped (check if the LED above the STOP button in the M.D.R. section is lit and the LED below the disk slot is off).
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

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

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

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

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.

Protect Off
(tab closed: unlocked)

Rear side

Shutter

Write-protect tab

Protect On
(tab open: locked)
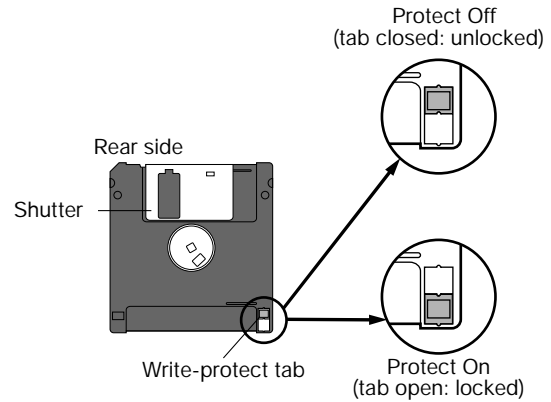
NOTE ♪ Be aware that the M.D.R. and the EL-27 are connected via MIDI In/Out jacks on the right underside of the Electone keyboard.
If you disconnect the cables from the MIDI In/Out jacks, the M.D.R. function will be disabled.

Formatting a Disk

Before recording a performance to your blank disk, the disk must first be formatted.

To format a disk:

1. Put the disk, label facing up, into the disk drive (insertion slot).

"Fort" will appear on the LED display indicating that the inserted disk reguires to be formatted.
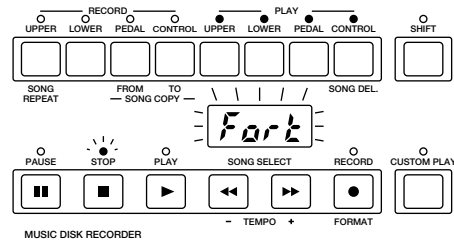
## 2. While holding down the SHIFT button, press the FORMAT button.

This step puts the format operation on stand-by, indicated by the dashes on the LED display and the flashing LED above the FORMAT button.
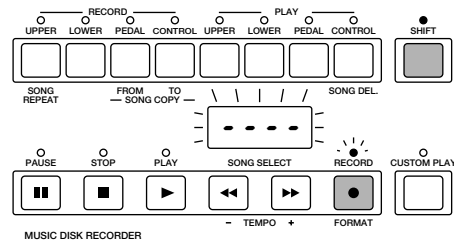
> ❗ If you format a disk that contains previously recorded data, all data on the disk will be erased. To avoid inadvertently formatting a disk after this step, press the STOP button.

3. Press the FORMAT button again to begin formatting.

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.
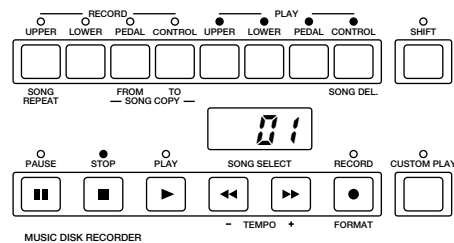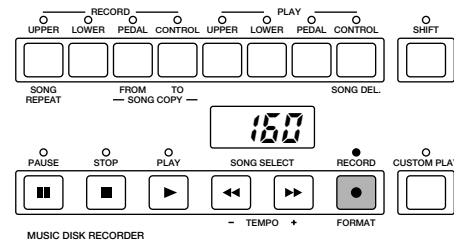
About SHIFT button:

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.

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.

NOTE When a disk is first inserted, song number 01 is automatically selected. The song numbers 01 through 40 are available and up to 40 songs can be stored on a disk. However, available song numbers may be reduced depending on the amount of the song data you have recorded.

3. Use the SONG SELECT (▶ ,◀◀) buttons to select the song number for recording.
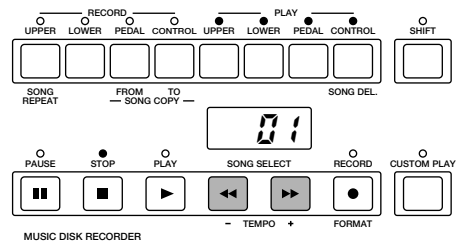
4. Press the RECORD button.

The RECORD lamp lights up and the PLAY and CUSTOM PLAY lamps begins blinking, indicating that the Music Disk Recorder is ready to record.
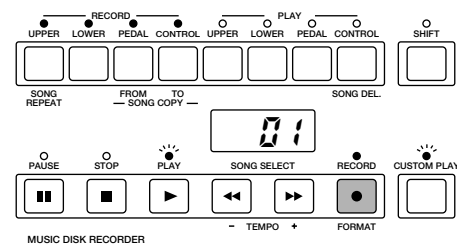
NOTE If the selected song number already contains recorded data, small bars ("--") appear at the left part of LED display and flash along with the song number, warning you that the selected song number already contains recorded data. If you want to execute recording operation over the song number, press 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, indicating that the M.D.R. is reading the registrations and other settings.
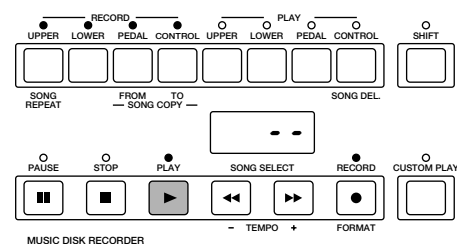
6. After numbers appear on the LED display of the M.D.R., begin playing.

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.

RECORD | PLAY
UPPER LOWER PEDAL CONTROL UPPER LOWER PEDAL CONTROL SHIFT

SONG REPEAT — FROM TO — SONG COPY — SONG DEL.

622

PAUSE STOP PLAY SONG SELECT RECORD CUSTOM PLAY
■■ ■ ▶ ◀◀ ▶▶ ●
— TEMPO + FORMAT
MUSIC DISK RECORDER
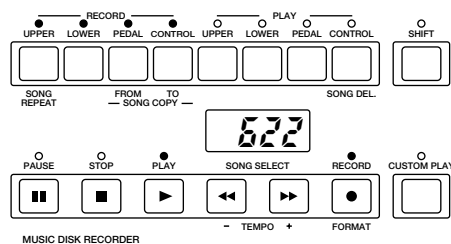
NOTE♪ The short time it takes to set up for recording is recorded as well, causing a short pause before playback of the song.

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.

RECORD | PLAY
UPPER LOWER PEDAL CONTROL UPPER LOWER PEDAL CONTROL SHIFT

SONG REPEAT — FROM TO — SONG COPY — SONG DEL.

rE01

PAUSE STOP PLAY SONG SELECT RECORD CUSTOM PLAY
■■ ■ ▶ ◀◀ ▶▶ ●
— TEMPO + FORMAT
MUSIC DISK RECORDER

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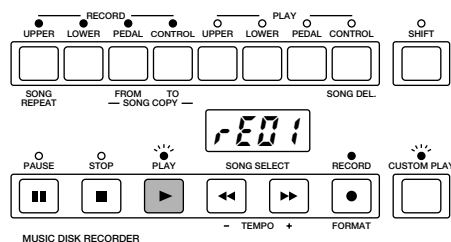
7. When you finish playing, press the STOP button.

After the small bars flash to draw a square on the LED display to indicate the processing for stop, both the RECORD and PLAY lamps go out, and recording is stopped.

RECORD | PLAY
UPPER LOWER PEDAL CONTROL UPPER LOWER PEDAL CONTROL SHIFT

SONG REPEAT — FROM TO — SONG COPY — SONG DEL.

01

PAUSE STOP PLAY SONG SELECT RECORD CUSTOM PLAY
■■ ■ ▶ ◀◀ ▶▶ ●
— TEMPO + FORMAT
MUSIC DISK RECORDER
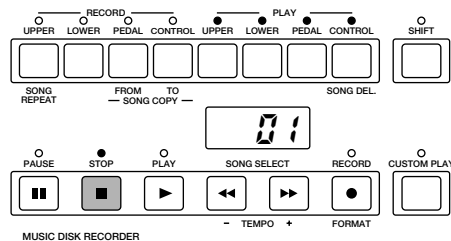
NOTE♪ When the available memory reaches "008" or less, the numbers begin flashing to warn you. If this happens, stop recording before the display reaches "000."

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

Playback will begin after a couple of seconds. For more information on playback and other playback-related functions, see page 65.

! Be sure to remove the floppy disk from the disk drive after the STOP lamp lights up.

⊘ 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.

> **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:
>
> **1)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, Rhythm Pattern (User rhythms), Rhythm Sequence data and User voices.
> **2)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.
> **3)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, footswitches and knee lever.

(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. This function also lets you record keyboard percussion and performance control data, such as registration changes and expression pedal operation, separately from the other parts of the song.

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 58:

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.
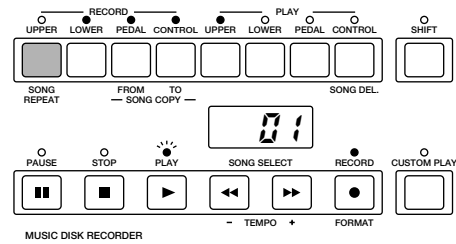
RECORD/UPPER – Records the performance data of the Upper keyboard when turned on.

RECORD/LOWER – Records the performance data of the Lower keyboard when turned on.

RECORD/PEDAL – Records the performance data of the Pedalboard when turned on.

RECORD/CONTROL – Records the Control data (see Outline of M.D.R. Operation above) when turned on.

The LED lamps above the buttons indicate the record status of the parts.

This example operation disables recording of the Upper part.

Separate recording for Keyboard Percussion part:
Hold down the SHIFT button and simultaneously press the RECORD/PEDAL button in the top row in the procedure #2. above. The shaded button (indicated in the illustration at right) functions as Keyboard Percussion selector in the record mode.
RECORD/K.PERC. – Records the performance data of Keyboard Percussion when turned on. (Keyboard Percussion can be recorded and played independent of the Rhythm patterns.)
Holding down the SHIFT button in the record condition lets you select these "hidden" functions. The lamps above each button will also change to indicate the status of SHIFT-selected parts.
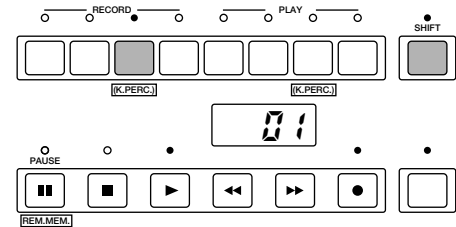
NOTE: If you don't record the Keyboard Percussion part separately, the Keyboard Percussion part will be recorded as the Lower/Pedal data.

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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.

5. Press the RECORD button to set up recording of the next part.

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.
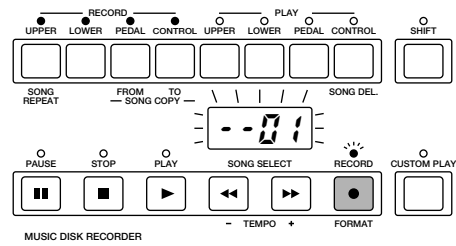
6. Press the RECORD button again to record another part. (Upper part.)

The RECORD lamp lights up and the PLAY and CUSTOM PLAY lamps begin blinking, indicating that the Music Disk Recorder is ready to record.
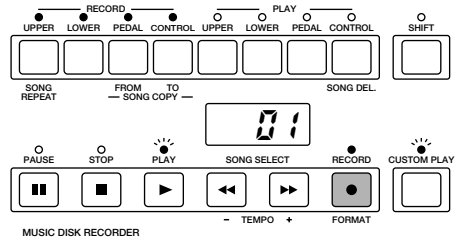
7. Press the RECORD buttons for each part in the upper left row to turn off the parts you have already recorded.

In this case, press RECORD/LOWER, RECORD/PEDAL and RECORD/CONTROL to turn off.
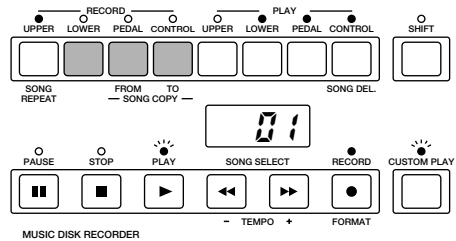
8. Press the CUSTOM PLAY button to start recording of the new part or parts. (Upper part.)

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

While you listen to the parts being played back, start playing the melody on the Upper keyboard.

When the end of the recorded performance is reached, playback is automatically stopped and the STOP status is resumed.
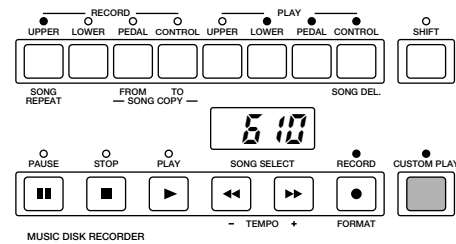
NOTE The CUSTOM PLAY button is used to play back the specified track(s).

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 71.) and record again.

Recording Registrations (and Bulk Data)

You can also record registrations by themselves, without recording a performance. Bulk data, including Registration Memory and Registration Shift settings, Rhythm Pattern (User rhythms) and Rhythm Sequence data, and User voices, is also saved in the operation.

To record only the registrations and bulk data:

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

2. **Select the song number to which you wish to record the registrations.**
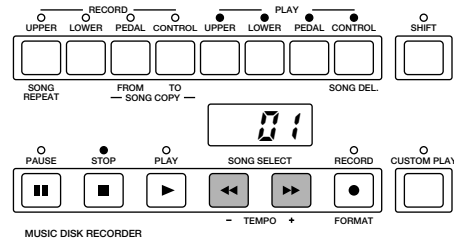
3. **Press the RECORD button.**
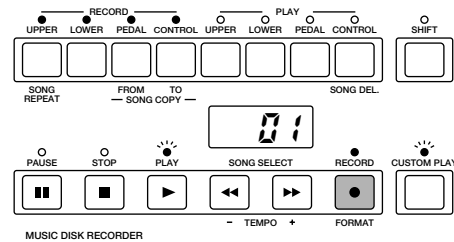
4. **Press the PLAY button to record the registrations, then press the STOP button as soon as you see the small bars flash across the LED display from left to right.**

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.
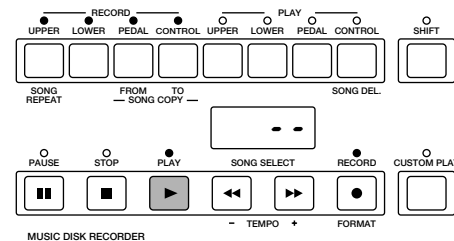
Recalling Recorded Registrations (and Bulk Data)

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.

The M.D.R. also makes it possible to use more than the 5 Registration Memory registrations in a performance – without having to alter the current panel settings. This would come in handy when performing several songs in succession that use more than 5 registrations.
To do this:

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 5 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 5 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.**

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.

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 wish to play back by using the SONG SELECT buttons.
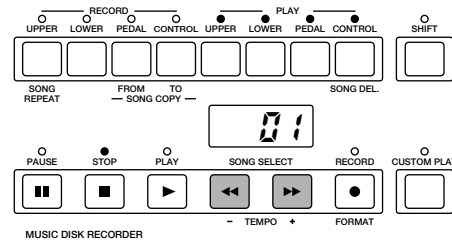
2. Press the PLAY button.

The PLAY lamp lights up and small bars move across the display, indicating that the M.D.R. is resetting registrations on the Electone.
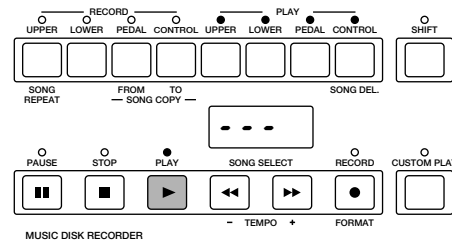
3. Playback of the song begins after the Electone data is reset and the song time is shown on the M.D.R.'s display.

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.
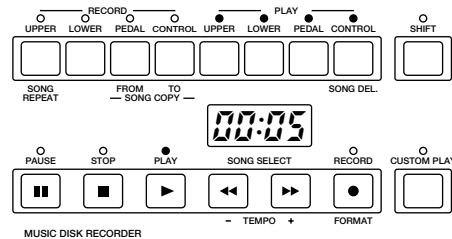
> Never turn off the power switch when a floppy disk is still engaged in the M.D.R. disk drive slot. Also do not press the Eject button during recording or playback.

(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.

To select specific parts for playback:

1. Select the number of the song to be played back.
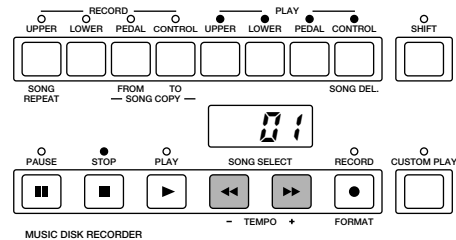
2. Set the parts you wish to mute to OFF, by pressing the appropriate PLAY button.
The LED of the selected part should be off.
Make sure to turn on the parts you wish to play back.
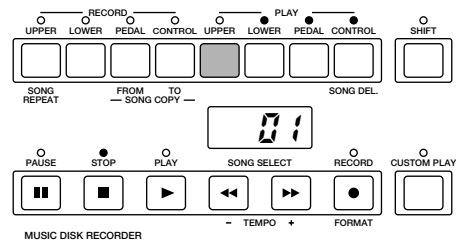
3. Press the PLAY button.
First the registration and other data are read, then playback of the performance starts (excepting the parts that were turned off in step #2).
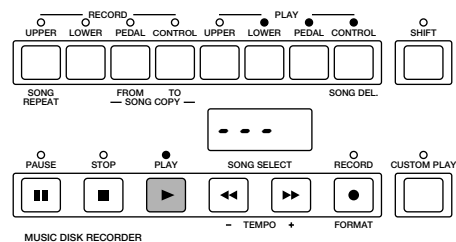
4. Now perform your new part or parts over the playback parts.
When the end of the recorded performance is reached, playback is automatically stopped and the STOP status is resumed.

(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.

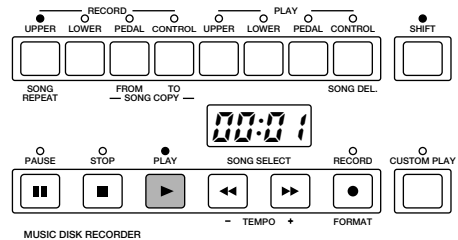## 2. Hold down the SHIFT button and simultaneously press the SONG REPEAT button.

The lamps above SHIFT and SONG REPEAT light up, and "ALL" appears on the LED display.
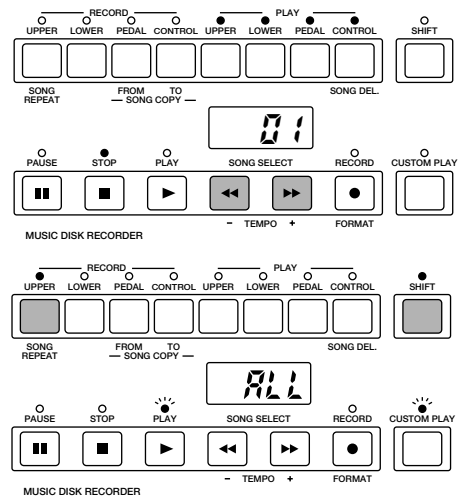
3. To repeatedly playback all songs starting with the selected song:

Press the PLAY button.

Playback will begin from the song selected and repeat indefinitely. To stop playback, press the STOP button.

3. To repeatedly playback only the selected song:

3.-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.

### 3.-2 Press the PLAY button to begin playback of the song.

Playback will begin from the song selected and repeat indefinitely. To stop playback, press the STOP button.
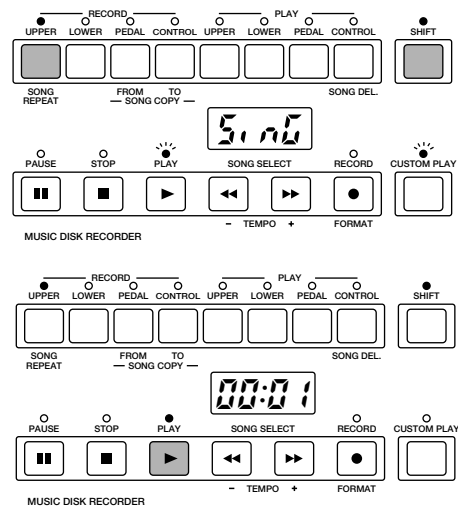
# Other Functions

(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.
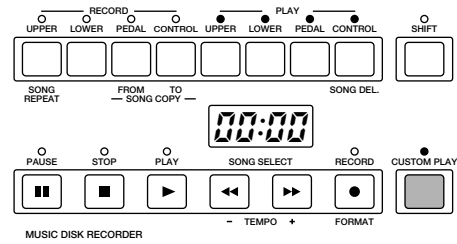
NOTE If you hold down the SHIFT and press CUSTOM PLAY, all data, except for that of Rhythm Pattern Program and Rhythm Sequence, will be loaded and played back.

(2) 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.
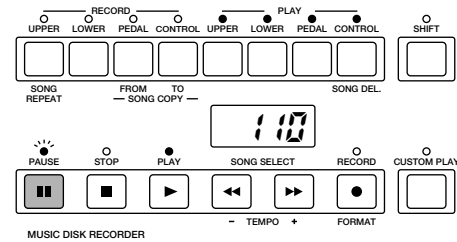
(3) Fast Forward and Fast Reverse

During playback, these buttons function as fast forward and fast reverse buttons, much like those of a tape recorder. Press [◄◄] to advance to a later point in the song or press [►] 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. Hold down the button until the desired song time is shown. When the button is released, playback is paused. To resume playback from the point you've advanced or reversed to, press the PLAY button.
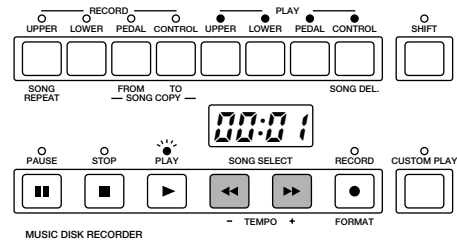

NOTE Fast Forward and Fast Reverse operate at five times the normal playback speed.

(4) Changing the Tempo

You can change the tempo of the song as the song is playing on the M.D.R. by holding down the SHIFT button and pressing the TEMPO + or TEMPO - button. (The Tempo dial on the Electone panel cannot be used to change the tempo on the Music Disk Recorder.)

Each press of the button slows down or speeds up the tempo by a small amount. Changing the tempo does not change the pitch of the music.

To restore the original recording tempo of a song, hold down the SHIFT button and simultaneously press both TEMPO buttons.
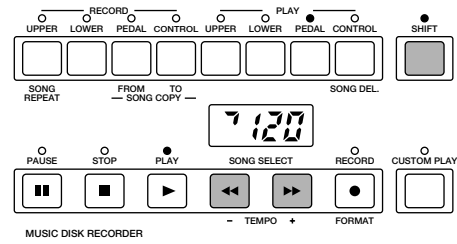
NOTE When tempo is changed, the LED display indicates the change as a percentage of the original recording tempo (100). Values less than 100 indicate a slower tempo; values greater than 100 indicate a faster tempo.
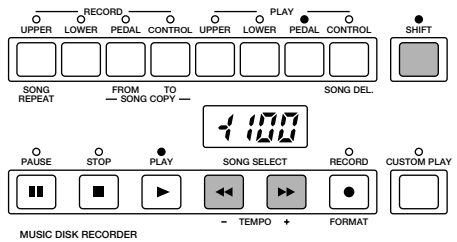

Indicates faster tempo

**Indicates original tempo**

Indicates slower tempo

NOTE Tempo changes remain in effect even through changes in song number. If you have changed the tempo in one song, you should perform the above step to restore the original tempo before playing another song. Turning the power switch off and on again also restores the original tempo.

(5) Song Copy

This function lets you copy the data recorded at one song number to another song number.

To use the Song Copy function:

1. Select the song number to be copied with the SONG SELECT buttons.
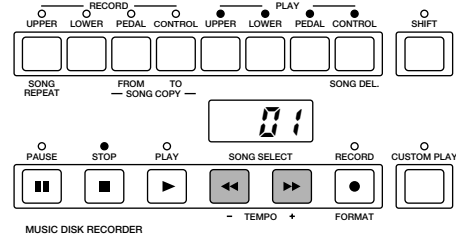
> **NOTE** ♪ If the specified song number has no recorded data, the M.D.R. automatically searches for and selects the next song that contains recorded data.

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.
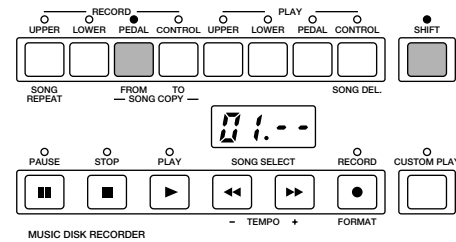
3. While holding down the SHIFT button, press the SONG COPY TO button.

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 (see page 71.).
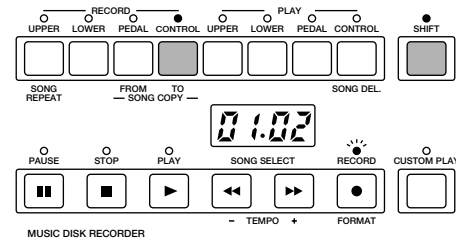
> **NOTE** ♪ The message "FULL" may appear when the available memory is short.

> **NOTE** ♪ If you want to abort the operation, press STOP button.

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.
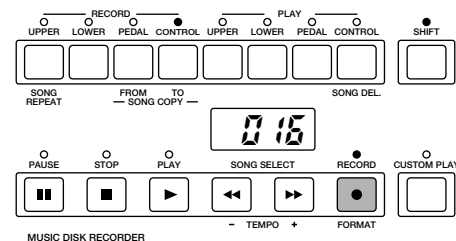
(6) Song Delete

You can delete a song on disk by performing this function.
To use Song Delete:

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

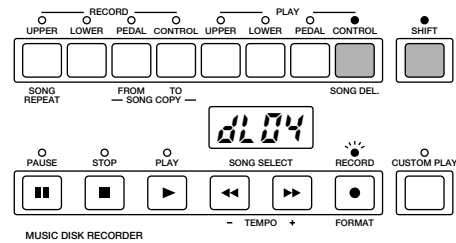## 2. While holding down the SHIFT button, press the SONG DEL. button.

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.

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

(7) Checking the Remaining Memory

While playback is stopped, you can check the amount of memory available for additional recording. To do this, simultaneously hold down the SHIFT button and the PAUSE button (indicated in the illustration at right as REM. MEM.: Remaining Memory). The maximum amount of memory is 620 for 2DD disks and 1240 for 2HD disks.
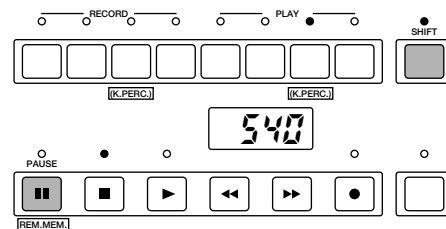
(8) Registration Menus and Voice Disks

The M.D.R. also allows you to select registrations and voices from disks. For more information about Registration Menus, see page 10; for more on Voice Disks, see page 72.

Voice Disk (Optional)

You can play these voices and save them to User memory for future recall.

To select voices from the disk and save them to User memory:

1. Insert the optional Voice Disk into the Disk slot under the Music Disk Recorder.

The following display appears, prompting you to select the voice group (Upper, Lower, Lead or Pedal).

```
<VOICE DISK>
Select a Group...!!
```

2. Press one of the panel voice buttons in the voice section in which you wish to use the new voice.

After you've pressed a panel voice button, the Voice Disk's voice name will appear on the LCD.

3. Select the desired voice by using the left DATA CONTROL buttons.

Pressing the bottom left buttons steps through the voice numbers; pressing the top left buttons jumps ten numbers back or forward. The name of each voice appears on the display with the number.

Refer to the list included with your Voice Disk for voice names and numbers. You can audition the voices as you select them by playing them on the appropriate keyboard.
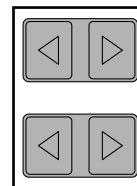
Jumps back ten numbers.

Jumps ahead ten numbers.

```
<VOICE DISK>
□□:□□□□□□□□□□  [SAVE]
```
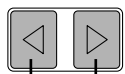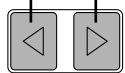
Voice number   **Voice name**

Selects next number.
Selects previous number.

Use these to save the voice (see next step).

# 4. To save the selected voice, press one of the right DATA CONTROL buttons corresponding to SAVE in the display.

The following display showing User voices 1– 4 appears.

5. Select the User number to which you wish to save the voice, and press the corresponding DATA CONTROL button.

```
To USER 1    USER 2
   USER 3    USER 4
```
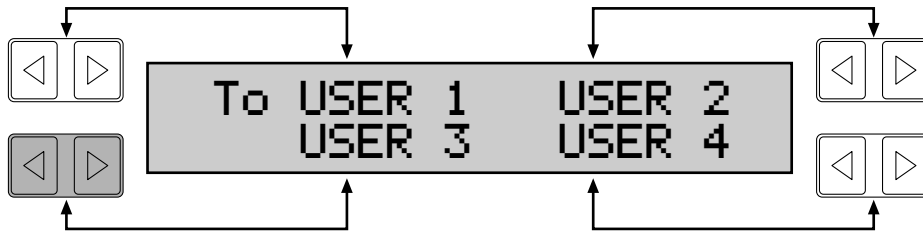
6. The following display appears, prompting you for confirmation of the operation. Select "OK" to actually assign the voice to the specific User number, or "CANCEL" to abort the operation.

When the voice has been assigned, a "Completed...!!" message appears.

```
Save To USER 3
[   OK   ]   [Cancel]
```

These select "OK"   These select "Cancel"
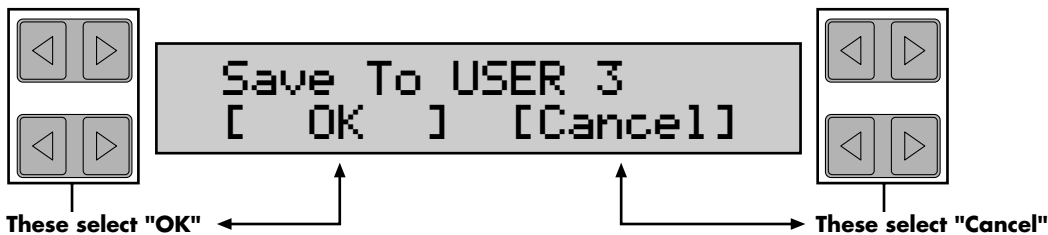
NOTE: If you eject the Voice Disk from the M.D.R., the voice you assigned will be lost from the User number.

(9) 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" (*Pr* xx) message will appear on the LED display. The data cannot be saved to the disk.

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 to OFF. (See page 56.) 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.
Fort	The installed disk is not formatted. Format the disk. (See page 57.)
FULL	1)The disk's memory capacity is full, so the Record or Song Copy operation cannot be performed. Use another formatted disk. 2)Data is already recorded at all song numbers, so the Song Copy operation cannot be performed. Press the STOP button, then delete any unnecessary songs.
EPty	None of the song numbers contain recorded data, so the Song Copy operation cannot be performed. Press the STOP button.
-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	The installed disk cannot be played back on the M.D.R.. Press the STOP button, then insert a compatible disk.
LotS	Recording cannot be performed because too much data was received at once. Press the STOP button.
bAd	The disk is defective and cannot be formatted. Press the STOP button, then insert another disk.
Eror	An error occurred during the transmission or reception of data. Press the STOP button.
- - XX *	You are trying to record to the song number which already contains recorded data. Select the other blank song number by pressing the SONG SELECT buttons. * "XX" indicates a song number (01 through 40).
Pr XX *	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" indicates a song number (01 through 40).
oooo	In the case of Voice Disk operation, an incompatible Voice Disk has been inserted. Check if the MIDI cables are properly connected.

9 MIDI Controls

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.

On the right underside of the Electone keyboard you will find the MIDI IN/OUT jacks. If your Electone is connected with external devices via these MIDI jacks 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.

Setting Examples
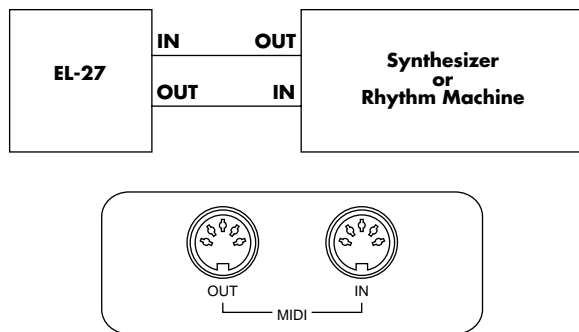
> **NOTE** ♪ See page 81 for more detailed information on the MIDI messages.

> **NOTE** ♪ MIDI IN/OUT jacks are occupied and connected to the built-in M.D.R.. You have to disconnect the MIDI cables extended from the M.D.R., when you use the MIDI IN/OUT jacks for an external device.

1. Using MIDI OUT jack

If a MIDI keyboard or tone generator is properly connected:

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 channel of the MIDI keyboard must match the transmit channel of 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, whether and how the external device responds or not depends on the external device you have connected.

2. Using MIDI IN jack

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

To select the MIDI pages:

Press the PITCH/MIDI button in the DISPLAY SELECT section, and select Page 2 and Page 3 with the PAGE buttons.

Page 2 – Output Channels

These select the MIDI transmit channel for Upper keyboard.

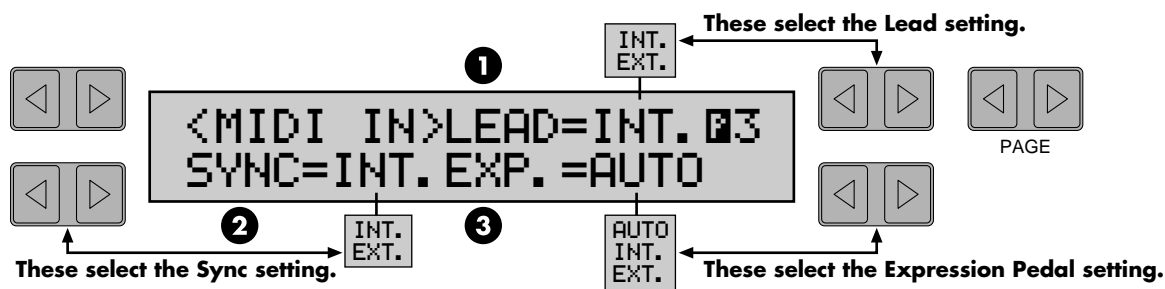These select the MIDI transmit channel for Lower keyboard.
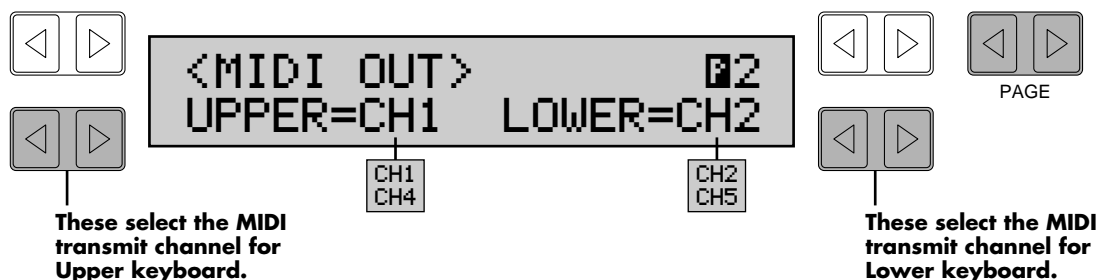
This determines the channels over which MIDI information will be transmitted. The Upper keyboard can be set to send over channels 1 or 4, while the Lower keyboard can send over 2 or 5. The Pedalboard automatically sends over channel 3. The MIDI receive channel of each connected MIDI device should match the numbers set here.

Page 3 – Internal/External Control

These select the Lead setting.

These select the Sync setting.

These select the Expression Pedal setting.

❶ 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.

❷ 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 rhythm patterns of the connected rhythm machine from the Electone's panel controls. Setting this to External gives timing control to the connected rhythm machine.

❸ EXP. (Expression)

Determines the control of the expression functions. Ordinarily, this control is set to AUTO. However, when it is set to INT., you can manually control the expression pedal during M.D.R. playback. When set to EXT., another (external) Electone can be used to control the expression pedal functions.
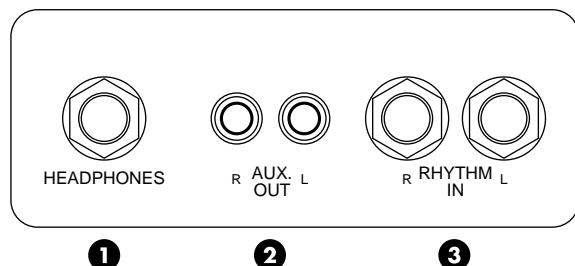
10 Accessory Jacks and Controls

On the left underside of the Electone keyboard is a separate panel equipped with several input/output terminals, the functions of which are described below.

❶ HEADPHONES

For connection of a stereo or monaural 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.

❷ AUX. OUT (Left and Right)

This set of stereo outputs (RCA pin jacks) is for connection to external amplification/speaker systems. Typically, they are for direct connection to a home audio system or cassette deck.

❸ RHYTHM IN (Left and Right)

This pair of phone jacks are for connection to an external rhythm machine. The sound of the connected device is mixed with the sound of the Electone and played through the speaker system. The volume of the rhythm machine can be controlled by the Expression pedal of the Electone.

Troubleshooting

Please note that the appearance of any of following phenomena does not indicate a mechanical failure of the Electone.

Problem	Possible Cause and Solution
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 or amateur ham radio setup.
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.
The Electone panel does not function normally or the content of the memorized data has changed.	This happens very rarely. Occasionally, power surges and spikes due to electrical storms or other reasons may cause the Electone to malfunction and/or alter the contents of memorized data. If this happens, perform the Power On Reset operation to reset the Electone. (See page 49.)
When too many keys are pressed, not all of the notes sound.	Total polyphonic capacity (notes sounding for both Upper and Lower Keyboards) is 11 notes.
The sound is too soft, despite the volume being set to the maximum.	Check all of the volume controls, making sure that they are set to suitable levels: the panel Volume controls for each voice section, the Master Volume dial, and the Expression Pedal.
Switching voices causes the volume to change, despite their having identical volume settings.	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.
When keys on the Lower keyboard or Pedalboard are pressed, the sounds of percussion instruments are also heard.	The Keyboard Percussion function has been turned on. When not using the function, be sure to turn it off. (See page 43.)
Only one sound is heard when two notes of the Lead or Pedal voices are simultaneously played.	For practical performance reasons, the Electone has been designed so that one note of the Lead or Pedal voices can be played at a time. If several keys are pressed at once, only the highest note will be sounded (high-note priority).

Problem	Possible Cause and Solution
The Pedal voices do not sound, even though the volume is properly set.	The Single Finger or Fingered Chord mode of Auto Bass Chord is on. Turn off the mode in the display. (See page 41.)
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.
The harmony notes of the Melody On Chord function cannot be heard.	The Upper keyboard has been set to sound only lead voices. Increase the volume of the Upper voices.
Certain functions have not been memorized to Registration Memory.	The following functions cannot be memomorized: Rhythm START, SYNCRO START, FIll in, all switches of Intro./ENDING, User Voice, User Rhythm, and REGIST. Shift.
Rhythm does not start.	● Check the volume level of the RYHTHM section. ● Any data may not be loaded into the SEQ. buttons. Load the data created with the other upper models such as the EL-37 into the SEQ. buttons.
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 large amount of recorded data, the disk may not have enogugh available memory left to record the normal maximum of 40 songs.
Recording is stopped before the performance is finished, or the Song Copy function cannot ber 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 unnecesary song number. (See page71.)
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 rhytm canonot be started at the very begining 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 contiousously.	During playback, you removerd the disk by pressing the EJECT button. Whenever you wish to stop playback, always press the STOP button.

Specifications

KEYBOARD	Keyboards	Upper: 49 keys (C–C), Lower: 49 keys (C–C), Pedal: 20 keys (C–G)		
	Touch Tone	Upper, Lead, Lower: Touch Setting 1, 4		
VOICE	Tone Generation	New AWM & FM		
	Upper Keyboard Voice	Strings; Organ, Jazz Organ; Brass, Synth. Brass; Piano, Elec. Piano, Harpsichord; Clarinet; Guitar;		
	Lower Keyboard Voice	Saxophone; Vibraphone, Marimba; Chorus; Cosmic 1, 2, 3; Tutti 1, 2;		
		[Upper] Harmonica; [Lower] Horn; User 1-4; (2 Dotted Buttons/21 Voices) ;Volume Fine		
	Lead Voice	Violin; Oboe, Bassoon; Flute; Trumpet, Trombone; User 1-4; (1Dotted Button/6 Voices)		
		To Lower; Volume Fine		
	Pedalboard Voice	Contrabass, Pizz. Bass; Organ Bass; Elec. Bass,		
		Synth. Bass; Tuba; User 1-4; (1 Dotted Button/6 Voices)		
		To Lower; Volume Fine		
	Voice Display	Upper, Lower, Lead, Pedal		
MELODY ON CHORD		Mode: Off, 1, 2, 3; Knee: On/Off		
EFFECT/CONDITION	Digital Reverb	Depth		
	Sustain	Upper (Knee), Lower (Knee), Pedal: On/Off		
	Symphonic/Celeste	Upper, Lead, Lower, Pedal; Mode: Symphonic/Celeste		
	Vibrato	Upper/Lower (Depth), Lead (Delay, Depth, Speed)		
	Feet	Upper, Lead, Lower, Pedal: Preset/4'/8'/16'		
RHYTHM	Rhythms	March, Country, Broadway; Waltz, Jazz Waltz; Swing, Jazz Ballad, Dixieland; Bounce,		
		Reggae; Slow Rock 1, 2; Cha-cha, Rhumba, Beguine, Mambo; Samba, Bossanova;		
		8Beat, Dance Pop; Tango 1, 2; 16Beat, 16Beat Funk; User 1-8 (A-D, Fill-In);		
		(2 Dotted Buttons; 24 Rhythms); Volume Fine		
	Variations	Fill-In; Intro. /Ending; Lead In; Auto Variation: On/Off		
	Rhythm Sequence	On/Off; Sequence 1-4 (playback only)		
	Others	Start; Synchro Start; Tempo Dial; Tempo; Bar/Beat LED		
KEYBOARD PERCUSSION		On/Off: Lower, Pedal; 43 Sounds		
ACCOMPANIMENT	Auto Bass Chord	Mode: Off; Single Finger; Fingered Chord; Custom ABC; Memory: Lower, Pedal		
	Accompaniments	Type 1, 2, 3, 4, Off		
REGISTRATION MEMORY		M. (Memory), 1-5; D. (Disable) Button; Mode: Off; Shift; User (Playback only)		
BASIC REGISTRATION		1 5		
REGISTRATION MENU		120 (Built-in: 80, Included disk: 40)		
MUSIC DISK RECORDER		Play/Record: Upper, Lower, Pedal, Keyboard Percussion, Control; Pause; Stop; Song Select; Song		
		Repeat; Song Delete; Song Copy: From/To; Tempo; Shift; Format; Custom Play;		
		Remaining Memory; LED Display; Eject		
FOOTSWITCH		[Left] Mode: Off; Rhythm (Stop, Ending, Fill-In); [Right] Regist. Shift Mode: Off, Shift, User		
KNEE LEVER		On/Off: Sustain (Upper, Lower); MOC		
OTHER CONTROLS		Power On/Off; Exp. Pedal (Depth); Pitch Control; Transpose; Master Volume; Display Select;		
		Data Controls; Page; MIDI (Output; Upper/Lower, Int./Ext.: Lead, Sync., Exp.)		
OTHER FITTINGS		Registration Menu Disk; 3.5 Floppy Disk; Matching Bench; Keyboard Cover/Music Stand;		
		MIDI IN/OUT jacks; Headphones Jack; Rhythm In jacks (Phone; R/L); Aux Out (RCA; R/L)		
OPTIONAL ACCESSORIES		Voice Disk; HPE-170 Headphones		
SOUND SYSTEM	Power Amplifiers	30W		
	Speakers	(2-way System) Woofer 20 cm × 1; Tweeter 5 cm × 1; Monitor × 2		
DIMENSIONS		106.5 cm × 46.0 cm × 94.7 cm (Width× Depth× Height) (With Keyboard Cover Closed)		
WEIGHT		53.0 kg		

MIDI Messages

■ Channel Messages

Code	Function	Transmit	Receive	Remarks
8n, nn*, 00-7F	Note OFF	×	CH 1	UK
		×	CH 2	LK
		×	CH 3	PK
		×	(CH 4)**	LEAD
		×	CH 15	Keyboard Percussion
9n, nn*, 00	Note OFF	CH 1	CH 1	UK
9n, nn*, 01-7F	ON	CH 2	CH 2	LK
		CH 3	CH 3	PK
		(CH 4)**	(CH 4)**	Transmit:UK,
				Receive: LEAD
		(CH 5)**	×	LK
		×	CH 15	Keyboard Percussion
BF, 0B, 00-7F	Expression Pedal	CH 16	CH 16	CONTROL
Cn, nn***	Program Change	×	CH 1	UK
		×	CH 2	LK
		×	CH 3	PK
		CH 16	CH 16	CONTROL
Dn, 00-07	After Touch	CH 1	CH 1	UK
		CH 2	CH 2	LK
		CH 3	CH 3	PK
		(CH 4)**	(CH 4)**	Transmit:UK
				Receive: LEAD

* Note No.
** Can be replaced by MIDI CONTROL function.
*** Regist No.

■ System Realtime Messages

Code	Function	Transmit	Receive	Remarks
F8	Clock			*
FA	Start			
FC	Stop			
FE	Active Sensing			

* Received only when in the Ext. mode

System Exclusive Messages

1. Electone Common Messages
■ Bulk Dump Related Messages

Code	Messages	Transmit	Receive
F0, 43, 70, 70, 00, ...(Data)*..., F7	Bulk Dump Data	×	
01	Request-to-Send Voice Parameter Data	×	
02	Request-to-Receive Voice Parameter Data	×	
F0, 43, 70, 70, 10, F7	Request-to-Send All RAM	×	
11	Request-to-Send Resistoration Data	×	
12	Request-to-Send R.S.P. Data	×	
14	Request-to-Send User Pattern Data	×	
15	Request-to-Send User Pattern Data	×	
16	Request-to-Send User Voice Data	×	
F0, 43, 70, 70, 20, F7	Request-to-Receive All RAM	×	
21	Request-to-Receive Resistoration Data	×	
22	Request-to-Receive R.S.P. Data	×	
24	Request-to-Receive User Pattern Data	×	
25	Request-to-Receive User Pattern Data	×	
26	Request-to-Receive User Voice Data	×	
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		×

(Data)* = Exclusive data

■ Control Change

Code	Messages	Transmit	Receive
F0, 43, 70, 70, 40, 45, 7F, F7	Left FT. SW. On		
00	Off		
F0, 43, 70, 70, 40, 47, 7F, F7	Knee Lever On		
00	Off		
F0, 43, 70, 70, 40, 48, 7F, F7	Fill-In On		
00	Off		
F0, 43, 70, 70, 40, 4B, 7F, F7	Intro./ENDING On		
00	Off		
F0, 43, 70, 70, 40, 50, Tl*, Th**, F7	Tempo		

*l = low byte, ** = high byte

■ MDR - Related Messages

Code	Messages	Transmit	Receive
F0, 43, 70, 70, 70, 01, F7	PLAY Start	×	
02	Stop	×	
03	RECORD Start	×	
04	Stop	×	
05	FF Start	×	
06	Stop	×	
09	Rhythm Pointer Reset*	×	
20	Disk Eject	×	
23	Insert Regist. Menu Disk	×	
24	Respond to Regist. Menu Disk		×
25	Insert Voice Menu Disk	×	
26	Respond to Voice Menu Disk		×
27,nn(Data No.),F7	Request-to-Send Menu Data		×
28,nn(Data Amount),F7	Voice Menu Data Amount	×	
2F,...(Data)...,F7	Regist. Menu Display Data	×	

In fast-reverse, the Rhythm Pointer Reset and fast-forward signals are transmitted.

■ Others

Code	Messages	Transmit	Receive
F0, 43, 70, 70, 78, SC, NC, F7	Bar Signal		

2. EL Series Common Messages

Code	Messages	Transmit	Receive
F0, 43, 70, 78, 00, ...(Data)*... , F7	Bulk Dump Data		
01	Request-to-Send Voice Parameter Data	×	
02	Request-to-Receive Voice Parameter Data	×	
F0, 43, 70, 78, 10, F7	Request-to-Send all RAM	×	
11	Request-to-Send Registration Data	×	
12	Request-to-Send R.S.P. Data	×	
14	Request-to-Send User Pattern Data	×	
15	Request-to-Send User Pattern Data	×	
16	Request-to-Send User Voice Data	×	
F0, 43, 70, 78, 20, F7	Request-to-Receive All RAM	×	
21	Request-to-Receive Registration Data	×	
22	Request-to-Receive R.S.P. Data	×	
24	Request-to-Receive User Pattern Data	×	
25	Request-to-Receive User Pattern Data	×	
26	Request-to-Receive User Voice Data	×	
F0, 43, 70, 78, 41, ...(Data)*... , F7	Panel Switch Event Data**		
F0, 43, 70, 78, 42, ...(Data)*... , F7	Current Registration Data		

(Data)* = Exclusive data

** Refer to the Switch Cord

3. Model-Specific Messages

Code		Messages	Transmit	Receive
F0, 43, 70, nn*,	00, F7	Model ID Data		×
	00, ...(Data)... , F7	Bulk Dump Data	×	
	01	Request-to-Send Voice Parameter Data	×	
	02	Request-to-Receive Voice Parameter Data	×	
F0, 43, 70, nn*,	10, F7	Request-to-Send All RAM	×	
	11	Request-to-Send Registration Data	×	
	12	Request-to-Send R.S.P. Data	×	
	14	Request-to-Send User Pattern Data	×	
	15	Request-to-Send User Pattern Data	×	
	16	Request-to-Send User Voice Data	×	
F0, 43, 70, nn*,	20, F7	Request-to-Receive All RAM Data	×	
	21	Request-to-Receive Registration Data	×	
	22	Request-to-Receive R.S.P. Data	×	
	24	Request-to-Receive User Pattern Data	×	
	25	Request-to-Receive User Pattern Data	×	
	26	Request-to-Receive User Voice Data	×	

"nn" =43 is the ID code of EL-20.

4. Electone/Single Keybord Common Messages

Code		Messages	Transmit	Receive
F0, 43, 73, 01,	02, F7	Request for Internal Synchronous Mode	×	
	03	Request for External Synchronous Mode	×	

● Switch Code

Functions	Switches	Code	Data	Remarks
Selector	UK Voices	02	00-0D	SW No.
	LK Voices	03	00-0D	SW No.
	LEAD	06	00-04	SW No.
	PK Voice	07	00-04	SW No.
	Rhythm	0B	00-0B	SW No.
Volume	UK Voices	12	00-7F	Volume data
	LK Voices	13	00-7F	Volume data
	LEAD	16	00-7F	Volume data
	PK Voice	17	00-7F	Volume data
	Rhythm	1A	00-7F	Volume data
	Reverb	1B	00-7F	Depth data
To Lower	LEAD	36	00-01	00=OFF 01=ON
	PK Voice	37	00-01	00=OFF 01=ON
Sustain	UK	50	00-01	00=OFF 01=ON
	LK	51	00-01	00=OFF 01=ON
	PK	52	00-01	00=OFF 01=ON
Keyboard Percussion	LK	5B	00-01	00=OFF 01=ON
	PK	5C	00-01	00=OFF 01=ON
Disable	—	5F	00-01	00=OFF 01=ON
Rhythm Sequence Program	1	61	00-01	00=OFF 01=ON
	2	62	00-01	00=OFF 01=ON
	3	63	00-01	00=OFF 01=ON
	4	64	00-01	00=OFF 01=ON

EL-27 MIDI Implementation Chart

Function		Transmit	Receive	Remarks
Basic Channel	Default Changed	1, 2, 3, 16 4, 5	1, 2, 3, 15, 16 4	***
Mode	Default Messages Altered	Mode 3 × ************************	Mode 3 × ×	
Note Number	 True Voice	36 - 96 * ************************	36 - 96 **	
Velocity	Note ON Note OFF	9nH, v=1-127 9nH, v=0	9nH, v=1-127 9nH, v=0, 8nH	
After Touch	Key's Ch's	× 	× 	
Pitch Bend		×	×	
Control Change	1 4 11 64	× × ×	× × (Received only in External mode) ×	Modulation Wheel 2nd Expression Pedal Expression Pedal Sustain
Program Change	 Range	0 - 4, 112-116 ************************	0 - 4, 112-116 ************************	
System Exclusive				Refer to MIDI Messages
System Common	Song Position Song Select Tune	× × ×	× × ×	
System Real Time	Clock Commands		(Received only in External mode)	(FAH, FCH)
Aux Messages	Local ON/OFF All Notes OFF Active Sense Reset	× × ×	× × ×	
Notes		* CH 1: 48–96, CH2: 36–84, CH3: 36–55 ** CH15: 36–127, Others: 36–96 *** CH1: UK, CH2: LK, CH3: PK, CH4: UK (Transmit), LEAD (Receive), CH5: LK, CH15: KEYBOARD PERCUSSION, CH16: CONTROL		

Mode 1: OMNI ON, POLY   Mode 2: OMNI ON, MONO   : YES
Mode 3: OMNI OFF, POLY   Mode 4: OMNI OFF, MONO   × : NO

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