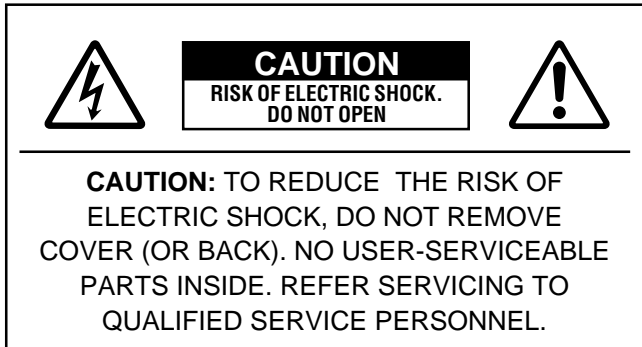


Electone
EL-200
OWNER'S MANUAL

SPECIAL MESSAGE SECTION

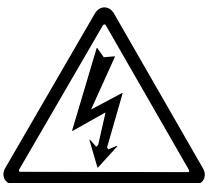
PRODUCT SAFETY MARKINGS: Yamaha electronic products may have either labels similar to the graphics shown below or molded / stamped facsimiles of these graphics on the enclosure. The explanation of these graphics appears on this page. Please observe all cautions indicated on this page and those indicated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



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.

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:

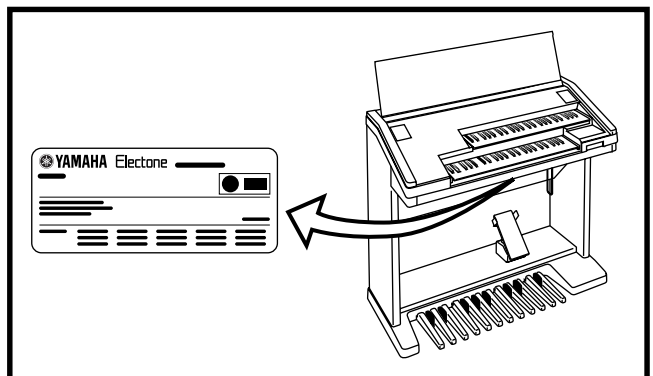
BATTERY NOTICE: This product MAY contain a small nonrechargeable battery which (if applicable) is soldered in place. The average life span of this type of battery is approximately five years. When replacement becomes necessary, contact a qualified service representative to perform the replacement.

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 manufacturer'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 _____

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

* Please keep these precautions in a safe place for future reference.



WARNING

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

- Do not open the instrument or attempt to disassemble the internal parts or modify them in any way. The instrument contains no user-serviceable parts. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified Yamaha service personnel.
- Do not expose the instrument to rain, use it near water or in damp or wet conditions, or place containers on it containing liquids which might spill into any openings.
- If the power cord or plug becomes frayed or damaged, or if there is a sudden loss of sound during use of the instrument, or if any unusual smells or smoke should appear to be caused by it, immediately turn off the power switch, disconnect the electric plug from the outlet, and have the instrument inspected by qualified Yamaha service personnel.
- Only use the voltage specified as correct for the instrument. The required voltage is printed on the name plate of the instrument.
- Before cleaning the instrument, always remove the electric plug from the outlet. Never insert or remove an electric plug with wet hands.
- Check the electric plug periodically and remove any dirt or dust which may have accumulated on it.



CAUTION

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

- Do not place the power cord near heat sources such as heaters or radiators, and do not excessively bend or otherwise damage the cord, place heavy objects on it, or place it in a position where anyone could walk on, trip over, or roll anything over it.
- When removing the electric plug from the instrument or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.
- Do not connect the instrument to an electrical outlet using a multiple-connector. Doing so can result in lower sound quality, or possibly cause overheating in the outlet.
- Remove the electric plug from the outlet when the instrument is not to be used for extended periods of time, or during electrical storms.
- Before connecting the instrument to other electronic components, turn off the power for all components. Before turning the power on or off for all components, set all volume levels to minimum. Also, be sure to set the volumes of all components at their minimum levels and gradually raise the volume controls while playing the instrument to set the desired listening level.
- Do not expose the instrument to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration or damage to the internal components.
- Do not use the instrument near other electrical products such as televisions, radios, or speakers, since this might cause interference which can affect proper operation of the other products.
- Do not place the instrument in an unstable position where it might accidentally fall over.
- Before moving the instrument, remove all connected cables.
- When cleaning the instrument, use a soft, dry cloth. Do not use paint thinners, solvents, cleaning fluids, or chemical-impregnated wiping cloths. Also, do not place vinyl, plastic or rubber objects on the instrument, since this might discolor the panel or keyboard.
- Do not rest your weight on, or place heavy objects on the instrument, and do not use excessive force on the buttons, switches or connectors.
- Take care that the key cover does not pinch your fingers, and do not insert a finger or hand in the key cover gap.
- Never insert or drop paper or metallic or other objects between the slits of the key cover and the keyboard. If this happens, immediately turn off the power and remove the electric plug from the outlet and have the instrument inspected by qualified Yamaha service personnel.
- Do not place the instrument against a wall (allow at least 3 cm/one-inch from the wall), since this can cause inadequate air circulation, and possibly result in the instrument overheating.
- Do not operate the instrument for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss. If you experience any hearing loss or ringing in the ears, consult a physician.

■ USING THE BENCH

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

■ SAVING USER DATA

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

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

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

Congratulations!

You are the proud owner of a fine electronic organ, Electone EL-200.

The Yamaha EL-200 Electone combines the most advanced AWM tone generation technology with state-of-the-art digital electronics and features to give you stunning sound quality with maximum musical enjoyment. Almost all functions are accessible through systematic and intuitive panel operations.

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

Even after reading through the manual, keep it in a safe place for later reference.

Included Items

Owner's Manual

Song Sheet

3.5" Floppy Disk

FUN TO PLAY ELECTONE Disk



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.



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



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

- The screen displays and illustrations as shown in this owner's manual are for instructional purposes only, and may appear somewhat different from those on your instrument.
- Copying of the commercially available music sequence data is strictly prohibited except for your personal use.
- The company names and product names in this Owner's manual are the trademarks or registered trademarks of their respective companies.

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1 Quick Introductory Guide

2 Voice Sections

3 Voice Controls and Effects

4 Rhythms

5 Registration Memory

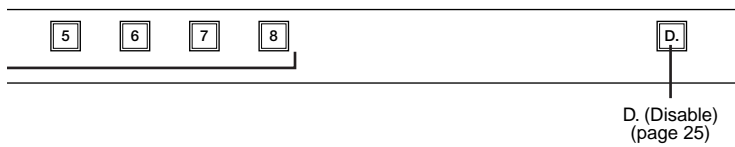
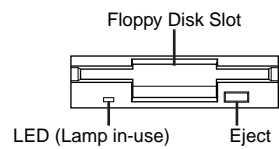
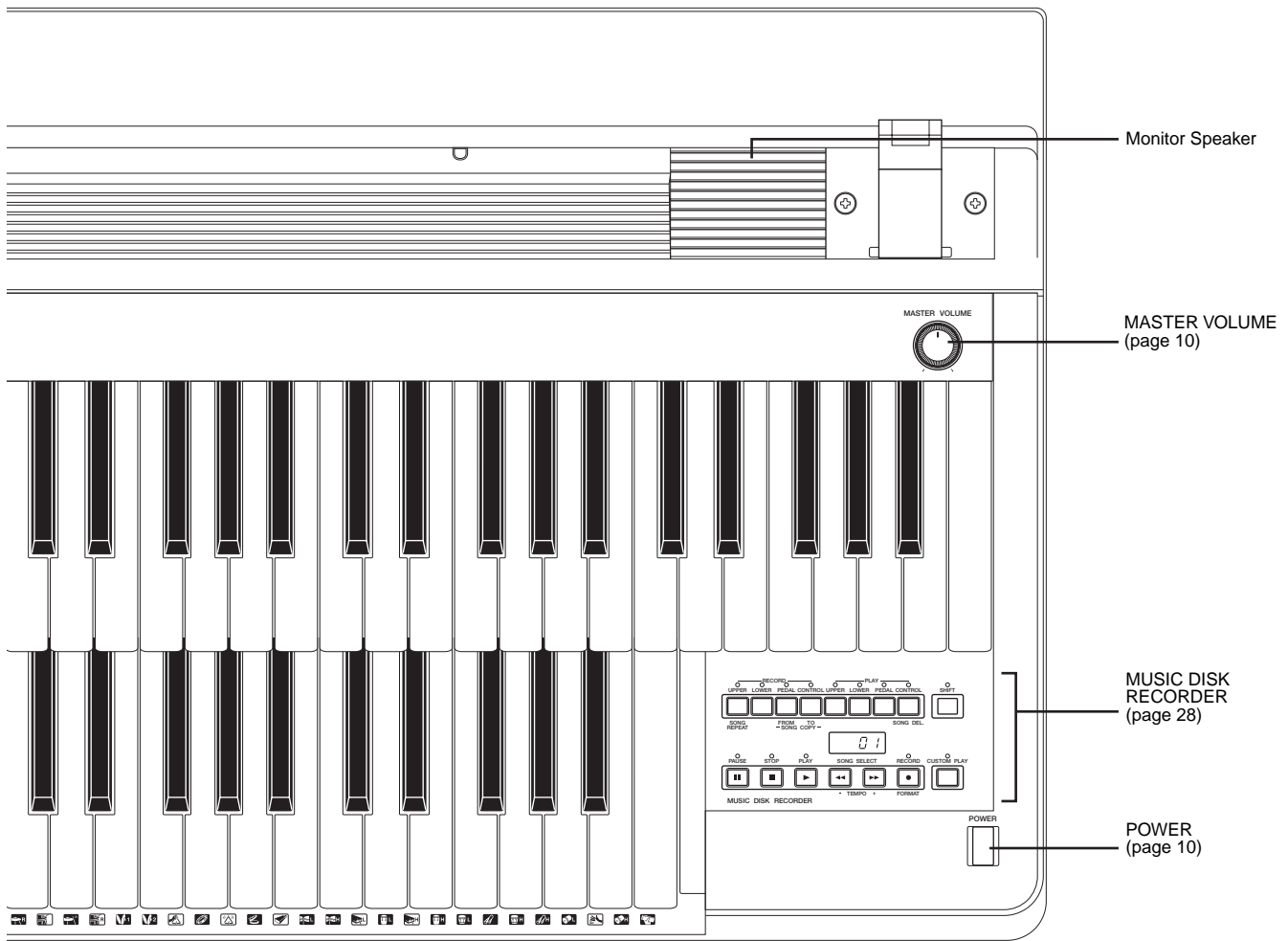
6 Music Disk Recorder (M.D.R.)

7 Footswitches, Knee Lever

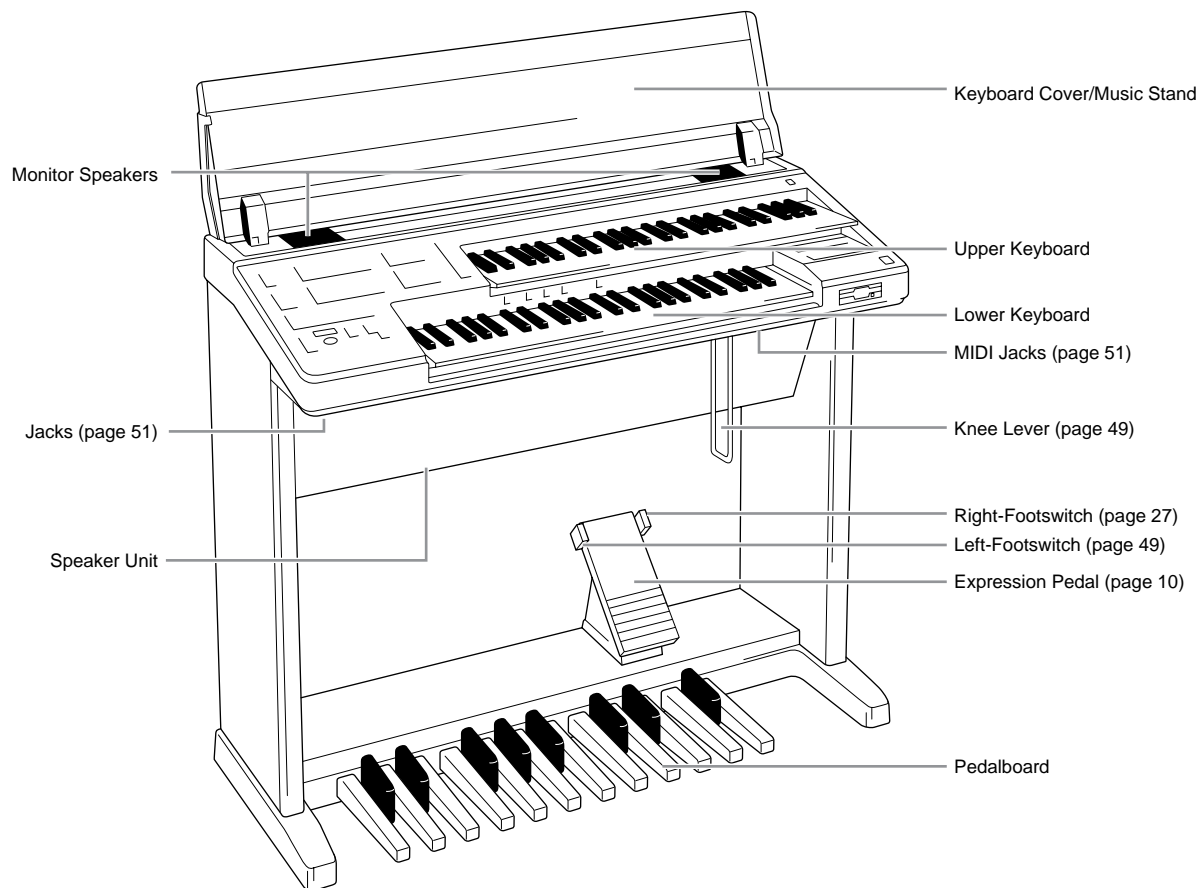
8 Accessory Jacks and Controls

9 Appendix

The Index on page 73 can be of your help in finding the functions and terms.



Others



Main Features

1 Astoundingly True-to-life Sounds

The new AWM (Advanced Wave Memory) and FM (Frequency Modulation) tone generation technologies make this Electone a truly lifelike musical instrument. You can enjoy playing a total of 21 AWM/FM voices using the touch response function.

2 Expressive Touch Tone

From fortissimo to pianissimo you can express strong emotion to subtle nuance of each instrument.

3 High Quality Digital Effects

Sophisticated digital Reverb lets you create resonant and wide dimension to each voice group. (page 17)

4 Dynamic Rhythm and Percussion sounds

The Rhythm section of the Electone features authentic drum and percussion sounds, used by expert rhythm programmers in creating a total of 10 various rhythm patterns. (page 18)
Keyboard Percussion function lets you play 43 different drum and percussion sounds. (page 22)

5 Convenient Registration Functions

5 Basic Registrations help you to set up a variety of registrations covering all music categories. (page 11)

6 Versatile Functions of the Music Disk Recorder

The Electone also features a Music Disk Recorder (MDR) for recording your registrations and performances to a floppy disk. In addition, the MDR allows you to copy a song from a disk to another, duplicate a disk, and play and save commercially available XG song data. (page 28)

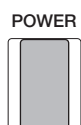
1 Getting Started

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



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

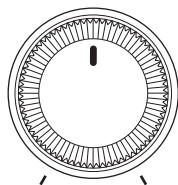
2 Turn on the Electone by pressing the POWER switch.



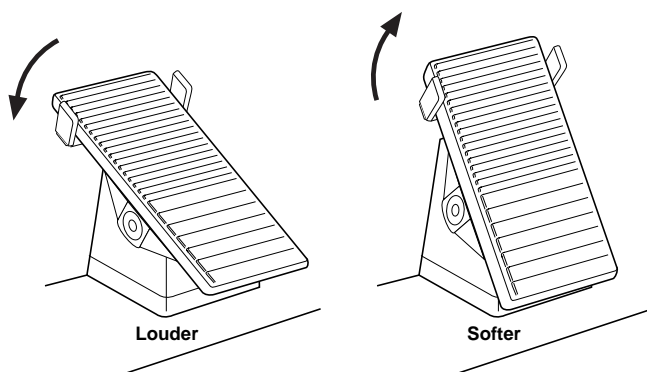
When the Electone is turned on, Basic Registration 1 is automatically selected.

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

MASTER VOLUME



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



2 Basic Registrations

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

To select Basic Registrations:

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

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



NOTE:

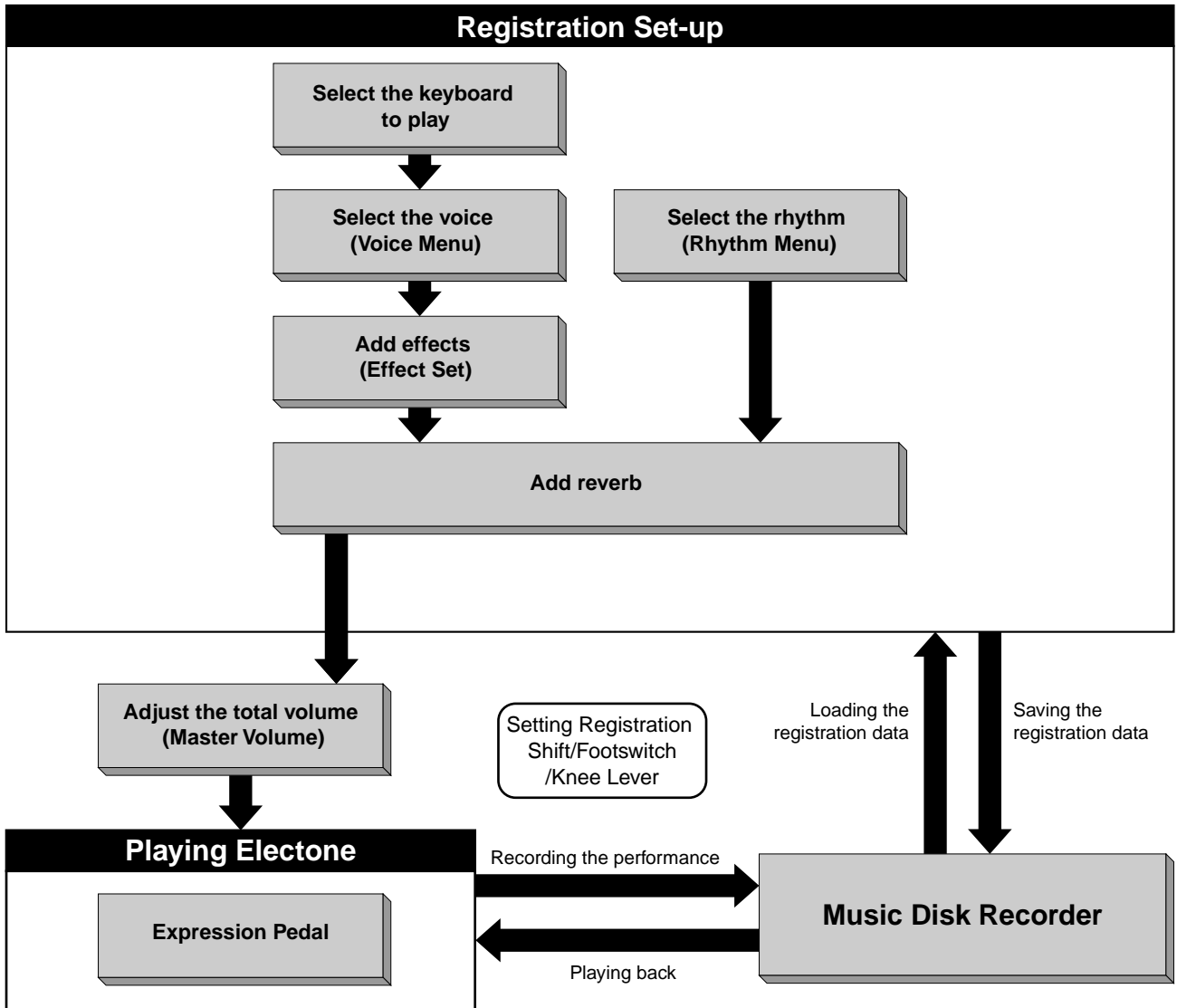
Some of the voices, hidden voices, cannot be accessible from the panel.

If you have made panel settings you wish to keep, save them to Registration Memory before turning the Electone off. (See page 25 for more information.)
 You can, however, restore the panel settings that were made before the Electone was last turned off. (See page 27 for more information.)



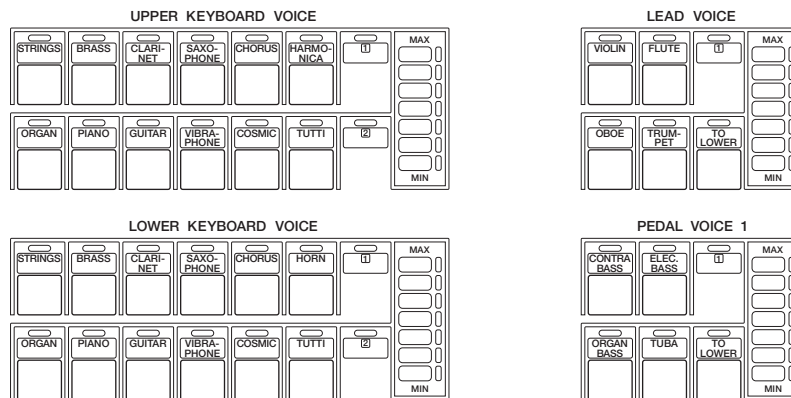
Turning the Electone off erases all panel settings you have made. When the Electone is turned on, Basic Registration 1 is automatically selected.

3 Basic Operation



2 Voice Sections

The EL-200 features 21 different high quality AWM/FM voices. All voices are divided in to four voice groups. There are two voice groups on the Upper keyboard, one each on the Lower keyboard and Pedalboard. Each voice section can, of course, have its own voice condition settings such as voice assignment and applying sustain effect.



Selecting Voices from the Panel

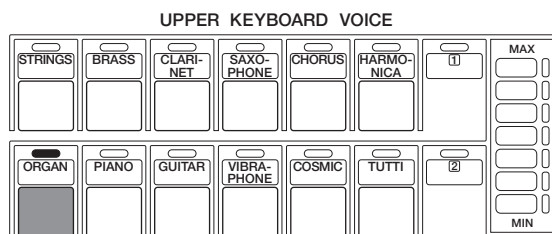
Selection of panel voices follows the same procedure throughout all four voice groups. The procedure is explained with the selection of Upper keyboard voice, as an example.

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



NOTE:

The lamps 1 and 2 at the right side of each voice section may be lit when you load the data created with one of the upper models, EL-900/700/500/400, or when you have selected the Basic Registration 3, 4 or 5. See page 47 for more information.



If, for example, you have pressed the ORGAN voice button, Organ voice is assigned to the Upper keyboard.

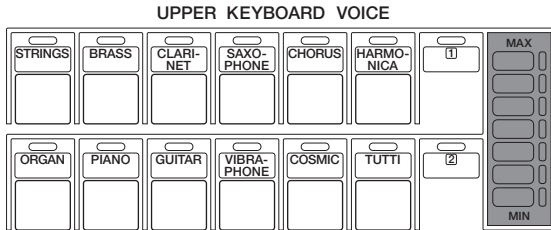
- 2 Now select voices for the Lead (Upper), Lower keyboard and Pedalboard as you did for the Upper Keyboard Voice above. Also set the volumes of the voices.

3

Set the volume for each voice section.

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.



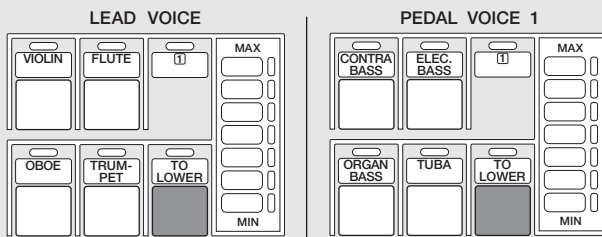
NOTE:

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

Adjust the volume balance between each voice group as you play the keyboards.

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

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



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



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. (See page 25 for more information.)

You can, however, restore the panel settings that were made before the Electone was last turned off. (See page 27 for more information.)

Details on All Voices

The following chart lists the available voices on the EL-200.

Voice Name	Voice Group	Preset		Comments
		Feet	Effect	
STRINGS	Upper/Lower	8'	-	Large strings ensemble.
VIOLIN	Lead	8'	-	For multi purposes.
CONTRABASS	Pedal	8'	-	Standard type.
BRASS	Upper/Lower	8'	-	Trumpet and Trombone ensemble. For classical music.
HORN	Lower	8'	-	Standard type. For classical.
TRUMPET	Lead	8'	-	Standard type. For classical music.
TUBA	Pedal	16'	-	TUBA Also suited for solo playing.
FLUTE	Lead	8'	-	Standard flute solo.
OBOE	Lead	8'	-	Softer oboe.
CLARINET	Upper/Lower	8'	-	Standard clarinet.
SAXOPHONE	Upper/Lower	U16'/L8'	-	Standard type. Alto sax.
TUTTI	Upper/Lower	8'	-	Strings unison and wood winds ensemble.
CHORUS	Upper/Lower	8'	-	Female "Ah".
HARMONICA	Upper	8'	-	Standard type.
ORGAN	Upper/Lower	8'	-	Small pipe organ. 8'.
ORGAN BASS	Pedal	8'	-	Combination organ bass.
PIANO	Upper/Lower	8'	-	For multi purposes.
GUITAR	Upper/Lower	U16'/L8'	-	Acoustic guitar. Steel string.
VIBRAPHONE	Upper/Lower	8'	-	Standard vibraphone.
ELECTRIC BASS	Pedal	8'	-	For multi purposes.
COSMIC	Upper/Lower	4'	-	Decay sounds for multi purposes. Used in the Basic Regist. 4; Upper Keyboard.



NOTE:

173 voices including the panel voices in the list are built in the EL-200 for playback. Accordingly, the EL-200 can correspond to the song data created with an upper model like EL-500/400 and reproduce it precisely. See page 16 for the information on the additional voices.

The Additional Voices

This table lists all the voices including panel voices that can be played back on the EL-200.

The voices not lead by a bullet indicate that they are only playable using the M.D.R. playback function.

Group	Voice Name	
Upper/Lower STRINGS	● Strings 1	
	Strings 2	
	Strings 3	
	Strings 4	
	Strings 5	
	Strings 6	
	Strings 7	
	Pizz. Strings	
	Trem. Strings	
	Synth. Strings 1	
	Synth. Strings 2	
	Synth. Strings 3	
	Lead VIOLIN	● Violin 1
		Violin 2
Violin 3		
Violin 4		
Violin 5		
Pizz. Violin		
Pedal CONTRABASS	● Contrabass 1	
	Contrabass 2	
	Contrabass 3	
	Pizz. Bass	
	Upright Bass	
Upper/Lower BRASS	● Brass 1	
	Brass 2	
	Brass 3	
	Brass 4	
	Brass 5	
	Synth. Brass 1	
	Synth. Brass 2	
	Synth. Brass 3	
Lower HORN	● Horn 1	
	Horn 2	
	Horn 3	
	Horn 4	
	Muted Horn	
Lead TRUMPET	● Trumpet 1	
	Trumpet 2	
	Trumpet 3	
	Trumpet 4	
	Trumpet 5	
	Trumpet 6	
	Muted Trp.	
	Trombone 1	
	Trombone 2	
	Muted Trb.	
	Flugel Horn	
	Euphonium	
	Pedal TUBA	● Tuba
Timpani		
Timpani Roll		
Lead FLUTE	● Flute 1	
	Flute 2	
	Piccolo	
	Yokobue	
	Recorder	
	Ocarina	
	Pan Flute	
	Shakuhachi	
	Whistle	
	Lead OBOE	● Oboe 1
Oboe 2		
English Horn		
Bassoon 1		
Bassoon 2		

Group	Voice Name	
Upper/Lower CLARINET	● Clarinet 1	
	Clarinet 2	
	Bass Cla.	
	Synth. Cla. 1	
	Synth. Cla. 2	
Upper/Lower SAXOPHONE	● Saxophone 1	
	Saxophone 2	
	Sopra. Sax.	
	Sax. Ens. 1	
	Sax. Ens. 2	
	Synth. Sax.	
	Synth. Lead 1	
	Synth. Lead 2	
	Synth. Lead 3	
	Synth. Lead 4	
	Synth. Lead 5	
Upper/Lower TUTTI	● Tutti 1	
	Tutti 2	
	Tutti 3	
	Tutti 4	
	Tutti 5	
	Tutti 6	
	Tutti 7	
Upper/Lower CHORUS	● Chorus 1	
	Chorus 2	
	Chorus 3	
	Chorus 4	
	Chorus 5	
	Vocal	
Upper HARMONICA	● Harmonica 1	
	Harmonica 2	
Upper/Lower ORGAN	● Organ 1	
	Organ 2	
	Organ 3	
	Organ 4	
	Jazz Organ 1	
	Jazz Organ 2	
	Jazz Organ 3	
	Jazz Organ 4	
	Pop Organ 1	
	Pop Organ 2	
	Theat. Organ 1	
	Theat. Organ 2	
	Accordion	
	Bandoneon	
	Pedal ORGAN BASS	● Organ Bass 1
		Organ Bass 2
		Organ Bass 3
Organ Bass 4		
Upper/Lower PIANO	● Piano 1	
	Piano 2	
	Honkytonk	
	Elec. Piano 1	
	Elec. Piano 2	
	Elec. Piano 3	
	Harpsichord	
	Clavi.	
Clavichord		

Group	Voice Name
Upper/Lower GUITAR	● Guitar 1
	Guitar 2
	Guitar 3
	12Str. Guitar
	Banjo
	Mandolin
	Sitar
	Shamisen
	Elec. Guitar 1
	Elec. Guitar 2
	Muted Guitar
	Dist. Guitar
	Harp
	Steel Guitar
	Koto
	Taisho Koto
Upper/Lower VIBRAPHONE	● Vibraphone
	Glocken
	Celesta
	Music Box
	Marimba
	Xylophone
	Chime
	Synth. Chime
	Steel Drum
Pedal ELECTRIC BASS	● Elec. Bass 1
	Elec. Bass 2
	Elec. Bass 3
	Elec. Bass 4
	Synth. Bass 1
Upper/Lower COSMIC	● Synth. Bass 2
	Synth. Bass 3
	● Cosmic 1
	Cosmic 2
	Cosmic 3
	Cosmic 4
	Cosmic 5
	Cosmic 6
	Cosmic 7
	Cosmic 8
	Cosmic 9
Cosmic 10	
Cosmic 11	
Cosmic 12	
Cosmic 13	
Cosmic 14	
Cosmic 15	
Cosmic 16	

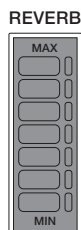
You can add Reverb and Sustain effects to your selected voices.

1 Reverb

Reverb adds an echo-like effect to the sound, giving the impression of a performance in a large room or concert hall. Reverb effect affects the entire system at one time.

You can control the amount of Reverb applied to the Electone by pressing one of the Reverb buttons.

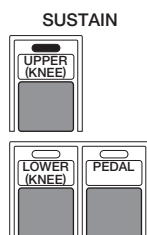
The controls have seven volume settings, from a minimum of 0, or no effect, to a maximum of full Reverb.



2 Sustain

The Sustain effect, selectable for the Upper, Lower and Pedal voices, causes voices to gradually fade out when the keys are released. Each keyboard can be turned on/off independently.

Pressing the Sustain buttons at the far left side of the panel lights up the lamps of the buttons, which indicate that sustain is on. Press the buttons again to turn sustain off.



NOTE:

Sustain cannot be applied to the Lead voices.



NOTE:

If Knee Lever control of the Upper or Lower sustain has been turned on (folded down), pressing the Upper or Lower buttons here will not add sustain unless the Knee Lever is pushed. (See page 49 for more information.)



NOTE:

Remember that the SUSTAIN buttons are on/off switches. Remember to check whether the sustain button lamps are on or off before you start to play.

4 Rhythms

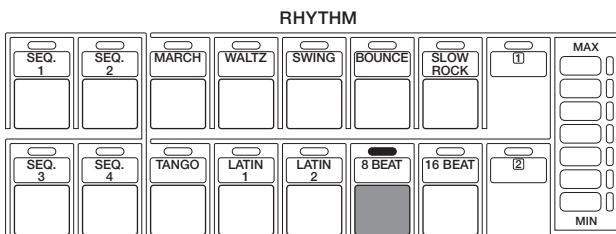
The Rhythm features of the Electone use actual drum and percussion sampled sounds to automatically play various rhythms. In addition, the Electone has a Keyboard Percussion feature that allows you to play drum and percussion sounds from the Lower keyboard and Pedalboard.

1 Selecting Rhythms from the Panel

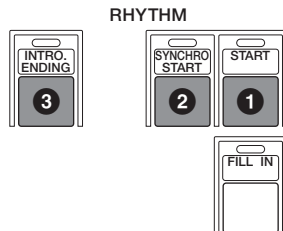
Ten different rhythms in various styles can be instantly selected from the front panel.

1) To select and play a rhythm:

1 Press to select any of the RHYTHM or METRONOME buttons.



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



1 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.

2 SYNCHRO START

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

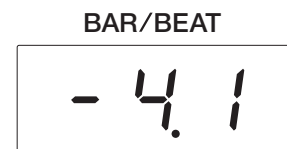
3 INTRO. ENDING

Pressing this button automatically adds a short introduction (of up to eight measures) before starting the actual rhythm.

First, press the INTRO. ENDING button, then the START or SYNCHRO START button to actually start the rhythm.

While the introduction is playing, the display shows the countdown to the first measure of the pattern as shown in the illustration.

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

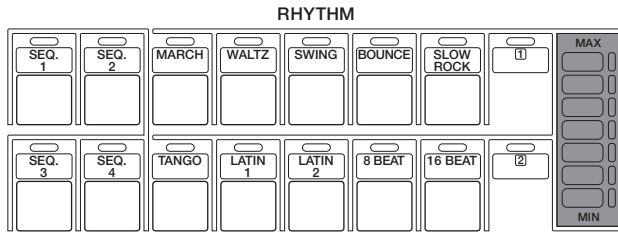


The Left Footswitch can also be used to turn the rhythm on and off in the middle of song. For more information on the Footswitch rhythm control, see page 49.

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.

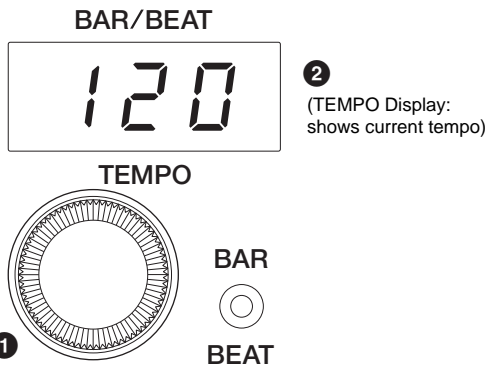
- 3** Set the volume using the panel rhythm volume button.
The controls have seven volume settings, from a minimum of 0, or no sound, to a maximum of full volume.



NOTE:

When the Electone is turned on, the Rhythm Volume is automatically set to 0.

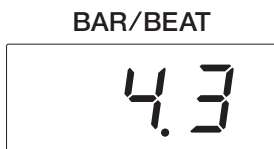
- 4** Set the rhythm tempo using the TEMPO dial.



- 1 TEMPO Dial**
For adjusting the speed of the rhythm. Turn the dial clockwise to increase the tempo, and counterclockwise to decrease it.
- 2 TEMPO Display (BAR/BEAT Indicator)**
Shows the current tempo. (Displayed values are given in beats per minute, just as on a conventional metronome.)

Range: 40 - 240

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



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

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



NOTE:

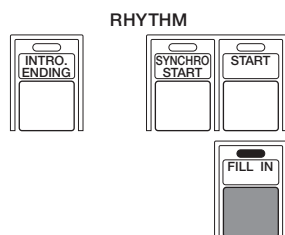
When you turn the TEMPO Dial even while the rhythm is playing, the display momentarily changes to show the current tempo.

2) To use the Fill In patterns:

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

1 Select and play a rhythm.

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



NOTE:

USING A FILL IN FOR THE START OF A SONG:

Fill In patterns can also be used as introductions; simply press the FILL IN button before starting the rhythm with the START or SYNCHRO START buttons.



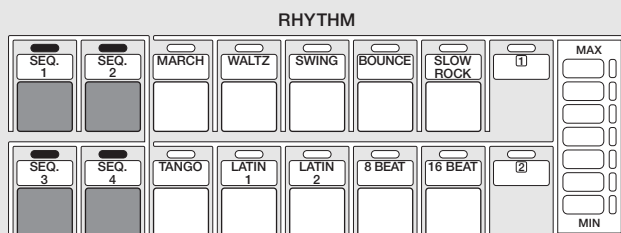
NOTE:

PLAYING PARTIAL FILL IN PATTERNS:

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

About Metronome Function

In addition to 10 different rhythm styles, four types of metronome sounds, simple metronome, two four, three four and four four, are assigned to the SEQ 1 – 4 buttons, respectively, as the defaults. You can use one of them by selecting a Metronome button and pressing the START button. Its tempo and volume can be adjusted as you do for the normal panel rhythms. Selecting any of the rhythm buttons changes the Metronome function to normal rhythm play.



NOTE: If you play back the song data containing rhythm sequences created with the other Electones, the sequence data will be loaded onto the four Metronome (SEQ.) buttons and they will function as SEQ. (Sequence) buttons. For more information see page 24.

If you want to restore the Metronome function, press one of the Basic Register Buttons.

2 Rhythms

This chart lists all 10 of the rhythms available on the Electone.

- March
- Waltz
- Swing
- Bounce
- Slow Rock
- Tango
- Latin 1
- Latin 2
- 8 Beat
- 16 Beat



NOTE:

66 voices including the panel voices are built in the EL-200 for playback. Accordingly, the EL-200 can correspond to the song data created with an upper model like EL-500/400 and reproduce it precisely. See the following table for the information on the additional rhythms.

The Additional Rhythms

This table lists all the rhythms including panel voices that can be played back on the EL-200.

The voices not lead by a bullet indicate that they are only playable using the M.D.R. playback function.

Category	Rhythm Name
MARCH	● March1
	March2
	March3
	Polka1
	Polka2
	Country1
	Country2
	Broadway
	Baroque
	WALTZ
Waltz2	
Waltz3	
Waltz4	
Waltz5	
JazzWaltz1	
JazzWaltz2	
JazzWaltz3	
Bolero	
SWING	
	Swing2
	Swing3
	Swing4
	Swing5
	Swing6
	JazzBallad
	Dixieland1
	Dixieland2
	BOUNCE
Bounce2	
Bounce3	
Reggae1	
Reggae2	

Category	Rhythm Name
SLOW ROCK	● SlowRock1
	SlowRock2
	SlowRock3
TANGO	● Tango1
	Tango2
	Tango3
LATIN1	● ChaCha
	Rhumba
	Beguine
	Mambo
	Salsa
LATIN2	● Samba1
	Samba2
	Samba3
	Bossanova1
	Bossanova2
	Bossanova3
8 BEAT	● 8Beat1
	8Beat2
	8Beat3
	8Beat4
	8Beat5
	DancePop1
	DancePop2
	DancePop3
	DancePop4
	16 BEAT
16Beat2	
16Beat3	
16Beat4	
16Beat5	
Funk1	
Funk2	
Funk3	

Category	Rhythm Name
USER RHYTHM	USER1-A
	USER1-B
	USER1-C
	USER1-D
	USER2-A
	USER2-B
	USER2-C
	USER2-D
	USER3-A
	USER3-B
	USER3-C
	USER3-D
	USER4-A
	USER4-B
	USER4-C
	USER4-D
	USER5-A
	USER5-B
	USER5-C
	USER5-D
USER6-A	
USER6-B	
USER6-C	
USER6-D	
USER7-A	
USER7-B	
USER7-C	
USER7-D	
USER8-A	
USER8-B	
USER8-C	
USER8-D	

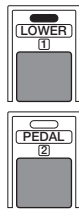
3 Keyboard Percussion

The keyboard Percussion function features a total of 43 different drum and percussion sounds, playable from the keyboards and pedalboard.

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

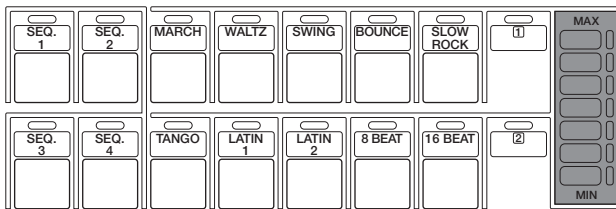
2 Turn on the Keyboard Percussion function by pressing the LOWER/1 or PEDAL/2 button in the KEYBOARD PERCUSSION section.

KEYBOARD PERCUSSION



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

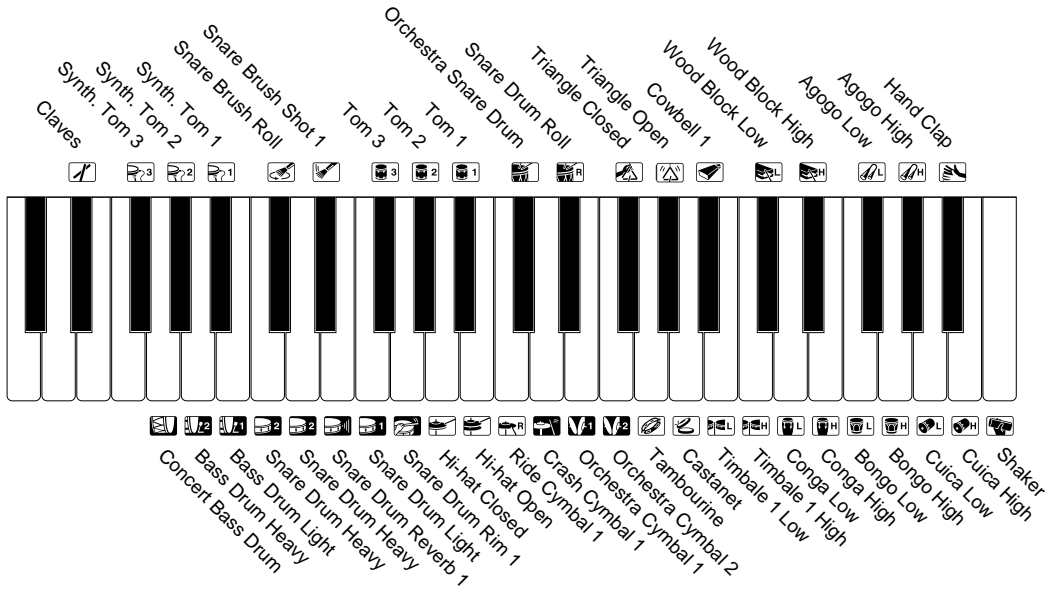
RHYTHM



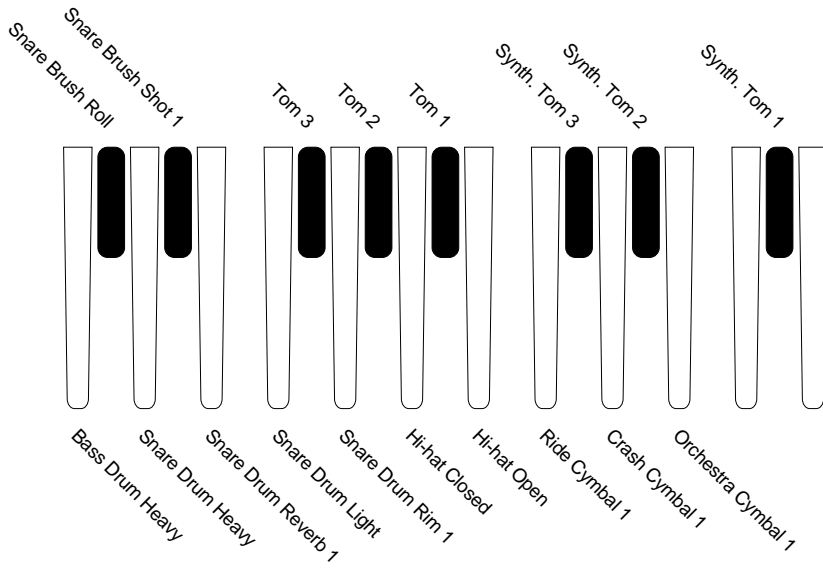
4 Play some instruments on the Lower keyboard and/or Pedalboard. The 43 percussion sounds have been assigned to the keyboards as shown in the illustration below.

Preset Keyboard Percussion

Percussion Assignments for the Lower Keyboard (43)



Percussion Assignments for the Pedalboard (18)

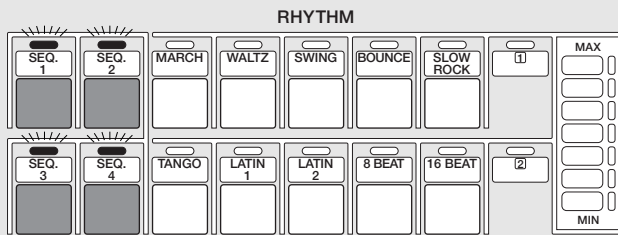


About the Rhythm Sequence

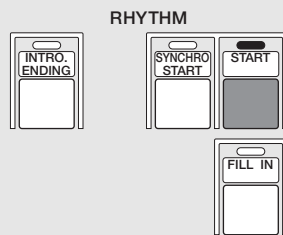
Rhythm Sequence is built up with various different rhythm patterns, and can be programmed by the other Electone such as EL-700 and EL-500.

The EL-200 doesn't have Rhythm Sequence function, but it can read and load the rhythm sequence data recorded on the MDR (a floppy disk) to its four Metronome (SEQ.) buttons in the Rhythm section and play back them, as follows:

1. Insert the floppy disk containing rhythm sequence data into the EL-200's MDR slot. The rhythm sequence data is recorded as a part of registration data (explained on page 33).
2. Select the song number containing the registration data and press PLAY button on the MDR to load the data. The rhythm sequence data has been loaded to the Electone, or Metronome (SEQ.) button(s).
3. Press one of the Metronome (SEQ.) buttons. The SEQ button's lamp will be lit.



4. Turn the START button on and play the rhythm sequence(s).



NOTE:

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



NOTE:

Four types of metronome sounds, simple metronome, two four, three four and four four, are assigned to the SEQ 1 – 4 buttons, respectively, as the defaults. (page 20)



NOTE:

As soon as you load the sequence data using MDR, the default settings on each SEQ button, four types of metronome sounds, will be overwritten, or lost. Pressing any of the BASIC REGIST buttons generates a short beep sound and retrieves the metronome sounds.

5 Registration Memory

Registration Memory allows you to store virtually all the settings you make on the panel, providing a convenient way to instantly change all voice settings and rhythms while you're playing, with the simple touch of a single button on the Registration Memory panel. The buttons are conveniently located between the Upper and Lower keyboards for easy access while playing.

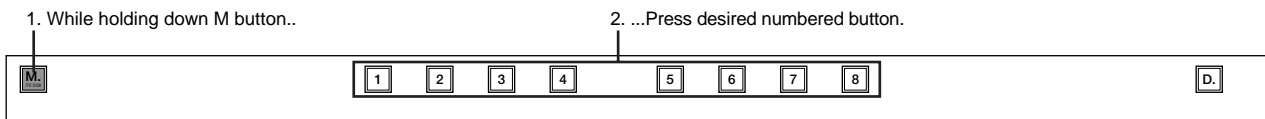
Almost all settings can be memorized.



1 Storing Registrations

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

- 1 After creating your original registration, decide which numbered button you wish to store.
- 2 While holding down the M (Memory) button in the Registration Memory section, press the numbered button to which you wish to save your registration.



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



NOTE:

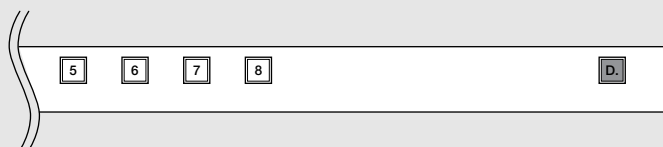
Eight memory locations are available; 1 through 8. Additional eight locations, 9 through 16, are accessible when playing back or using the data created with an upper model like EL-900/700/500.

2 Selecting Registrations

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

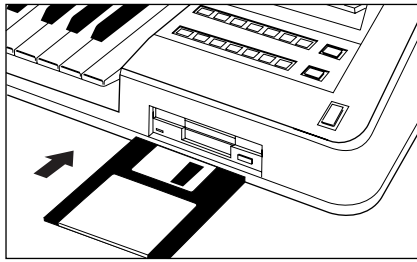
Using the D (Disable) button:

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



3 Saving the Registration Data to Disk

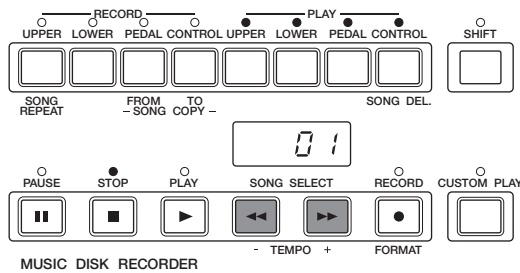
- 1 Insert a formatted disk into the disk slot under the Music Disk Recorder (M.D.R.). Make certain that the disk is either blank or has data you can erase. If the disk is new and unformatted, you will have to format it. Refer to the instructions how to format a disk (page 30).



NOTE:

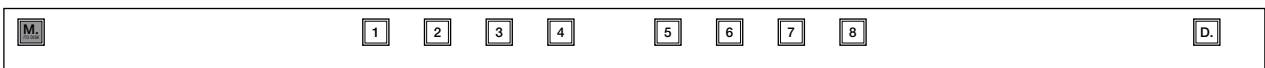
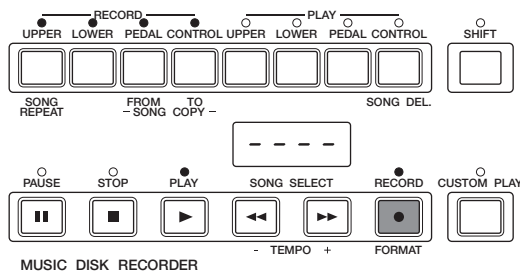
See pages 37 and 38 for the details on saving/recalling registrations to/from the M.D.R.

- 2 Select a song number on the M.D.R. using the SONG SELECT buttons.



There are 40 songs, or memory locations, available on a single disk.

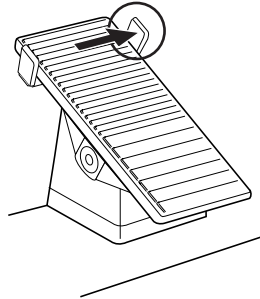
- 3 While holding down the RECORD button, press the M./TO DISK (Memory) button on the Registration Memory panel.



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

4 Registration Shift

The Registration Shift function allows you to change registrations, all the settings you make on the panel, without taking your hands from the keyboards. Each press of the Right Footswitch on the Expression pedal selects the registrations in numerical order.



NOTE:

- Although the number of the Registration Memory buttons of EL-200 is limited to eight, from Registration Memory 1 through Registration Memory 8, you can select the other eight Registration Memory numbers, the Registration Memory 9 through Registration Memory 16.
- After the last registration is reached, the function “wraps around” to select the first preset again.

Resetting the Electone to the Factory Preset (Power On Reset)

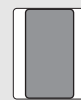
All current settings including Registration Memories can be deleted at once by using the Power On Reset function.

1. Turn off the power.
2. While holding the PEDAL/2 button in the Keyboard Percussion section, turn the power back on.

KEYBOARD
PERCUSSION



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. (page 28) in advance.

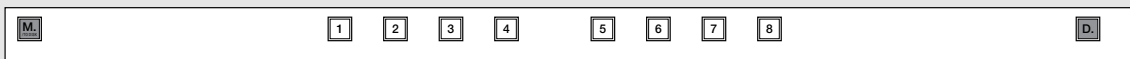
Restoring the Registrations Before Turning the Power off

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.

1. Turn on the power.
2. In doing this, first be careful NOT to press any panel buttons (excepting those in Basic Registration), then hold down the M (Memory) button in the Registration Memory section and press D (Disable) button.



The Electone restores the registration settings before turned off.

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

1 Precautions on M.D.R.

Follow the important precautions below.

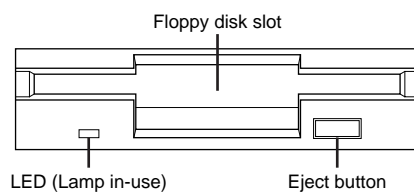
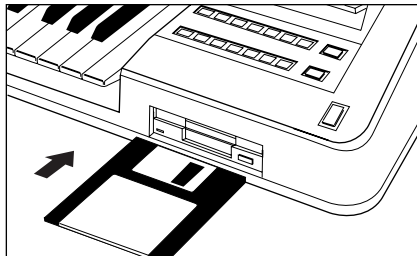
Compatible Disk Type

3.5" 2DD and 2HD type floppy disks can be used. A blank 2HD 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 slot. Carefully insert the disk into the slot, slowly pushing it all the way in until it clicks into place and the eject button pops out.



NOTE:

When the EL-200 is turned on, the LED below the floppy disk slot will be lit indicating that the M.D.R. is ready to use.

To eject a floppy disk:



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

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



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



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

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



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

Cleaning the Disk Drive Read/Write Head

- The M.D.R. employs precise magnetic head to read data. The magnetic head will pick up a layer of magnetic particles from the disks for an extended period of time. The stained magnetic head will eventually cause read and write errors.
- To maintain the disk drive in optimum working order Yamaha recommends that you use a commercially available dry-type head cleaning disk to clean the head about once a month.



NOTE:

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

About the Floppy Disks

■ To handle floppdisks 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.

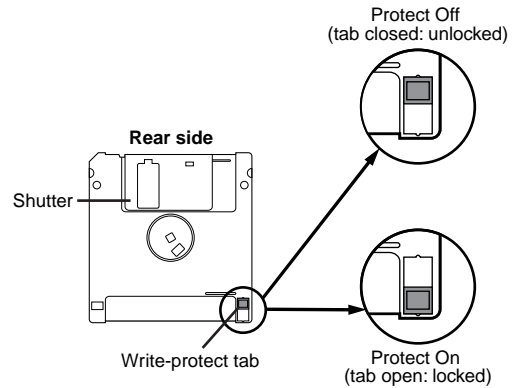


Do not attach anything other than the provided labels to a floppy disk. Also make sure that labels are attached in the proper location.

■ To protect your data (Write-protect):

To prevent accidental erasure of important data, slide the disk's write-protect tab to the "protect" position (tab open). If you attempt to modify the disk when the write-protect tab is set to "on" position, "Prot (Protected)" will appear on the LED display in the M.D.R. section indicating that the operation is not possible.

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



■ Data backup

Yamaha recommends that you keep two copies of important data on separate floppy disks using Disk copy function. To make a backup disk use the Disk Copy function on page 45.

Improved Potentiality of the M.D.R.

The M.D.R. of the EL-200 begins reading all data as soon as you insert a disk into the floppy disk slot. Thus, inserting a disk causes to produce a sound (reading sound) indicating that the M.D.R. is in the reading process.

You can start playback as soon as you insert the disk.



NOTE:

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



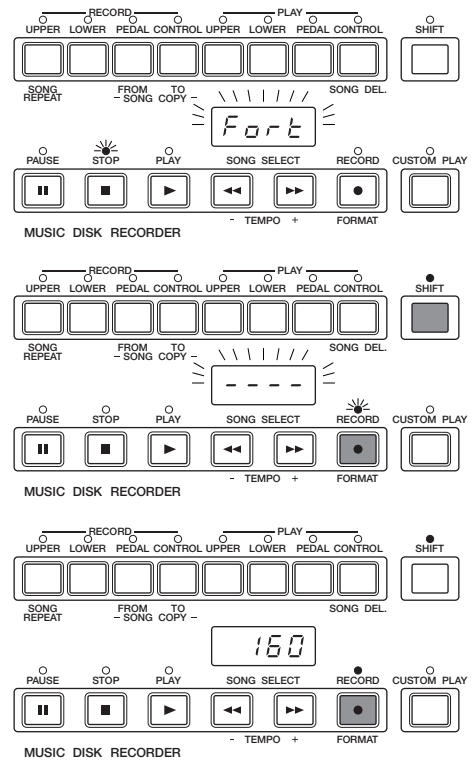
NOTE:

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

2 Formatting a Disk

Before recording, the disk must first be formatted.

- 1 Put the disk, label facing up, into the disk drive (floppy disk slot).
“Fort” will appear on the LED display indicating that the inserted disk requires to be formatted.
- 2 While holding down the SHIFT button, press the FORMAT button.
This step puts the format operation on stand-by, indicated by the dashes on the LED display and the flashing lamp above the FORMAT button.
- 3 Press the FORMAT button again to begin formatting.
Formatting is engaged and the LED above the FORMAT button stays lit.
The number “160” appears on the LED display and counts down to “001” as the disk is being formatted. When formatting is completed, operation returns to the original STOP status.



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

About SHIFT Button

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

3 Recording

1) To record a song:

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

2 Insert the formatted disk in to the disk slot.

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

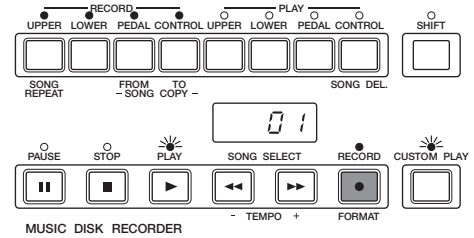
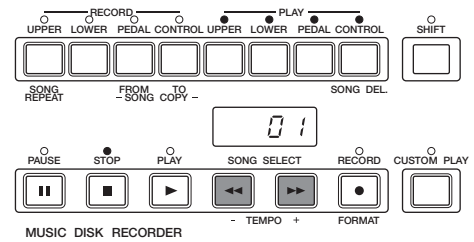
4 Press the RECORD button. The RECORD lamp lights up and the PLAY and CUSTOM PLAY lamps begins blinking, indicating that the Music Disk Recorder is ready to record.

5 Press the PLAY button. The PLAY lamp lights up and small bars flash across the LED display from left to right. This indicates M.D.R. is reading the registrations and other settings.



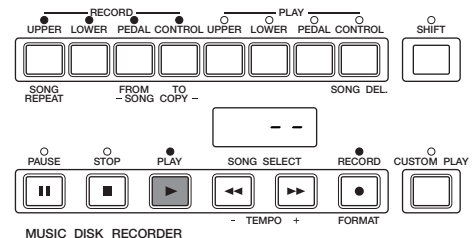
NOTE:

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. See page 46 for the information about the total amount of memory left on a floppy disk.



NOTE:

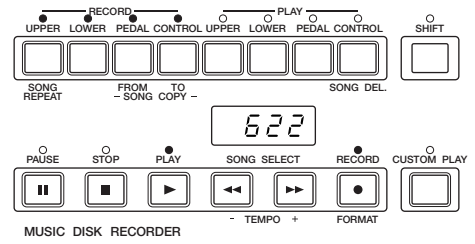
If the selected song number already contains recorded data, small bars ("--") appear at the left part of LED display and flash along with the song number, warning you that the selected song number already contains recorded data. If you want to execute recording operation over the song number, press the RECORD button again. If you don't want, select another song number for recording or press the STOP button to cancel recording.



6

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

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

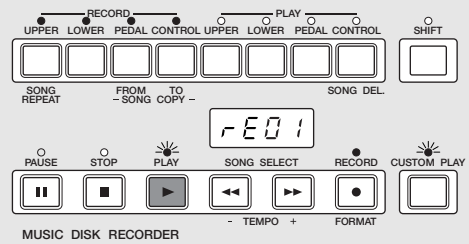


NOTE:

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

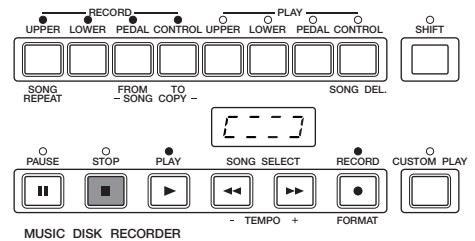
If you make a mistake during recording:

1. Press the PLAY button while the M.D.R. is still running. This stops the recording and returns you to the starting point of the song. The letters "rE" (retry) appear on the left side of the LED display and the PLAY and CUSTOM PLAY LEDs start flashing, indicating that you can re-record the song.
2. Press PLAY again to begin re-recording the song. Re-recording starts from the beginning of the song and replaces the previously recorded performance with the newly recorded performance.



7

When you finish playing, press the STOP button. After the small bars flash to draw a square on the LED to indicate the processing for stop, the STOP lamp lights up, indicating the recording process is finished.



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



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



NOTE:

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

8

To hear your newly recorded performance, press the PLAY button. Play back will begin after a couple of seconds. For more information on playback and other playback-related functions, see page 39.



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

Registration data (including Bulk data)

All registrations stored to the Registration Memory numbered buttons as well as the registration currently set to the panel, are recorded at the beginning of a song, before the actual recording of your performance.

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, Lead and Keyboard Percussion – are recorded to independent “tracks,” so that you can change any one of them without affecting the others.

Control data

All changes you make on the Electone during your performance are recorded in real time. These include registration changes, the use of the expression pedals, 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 (using the Upper Keyboard). This function also lets you record the lead voice, keyboard percussion and performance control data, such as registration changes and expression pedal operation, separately from the other parts of the song.

1 Set up the M.D.R. for recording, as you did in the section above. The first steps in recording parts separately are the same as for normal recording on page 31:

- 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 button in the procedure **1-4.** above turns on the all parts' LEDs in the upper left row indicating that each part is ready to record.

Press the RECORD buttons for each part in the upper left row to turn off the parts you don't want to record. For this example, press RECORD/UPPER, the PLAY/UPPER lamp in the upper right row lights up.

■ RECORD/UPPER

Records the performance data of the Upper keyboard when turned on. Recording is cancelled when turned off.

■ RECORD/LOWER

Records the performance data of the Lower keyboard when turned on. Recording is cancelled when turned off.

■ RECORD/PEDAL

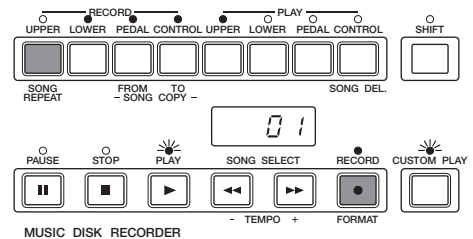
Records the performance data of the Pedalboard when turned on. Recording is cancelled when turned off.

■ RECORD/CONTROL

Records the control data when turned on. Recording is cancelled when turned off.

(see Outline of M.D.R. Operation on the previous page.)

This example operation disables recording of the Upper part.



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

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

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

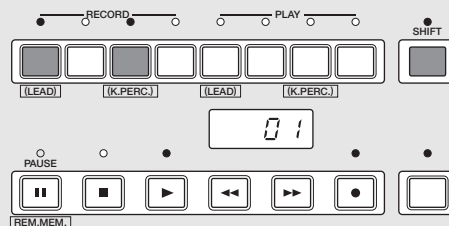
Hold down the SHIFT button and simultaneously press the appropriate button in the top row in the procedure #2 above. The two buttons (indicated in the illustration at the right) function as Lead Voice and Keyboard Percussion selectors in the record mode.

■ **RECORD/LEAD**

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

■ **RECORD/K.PERC**

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



NOTE:

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

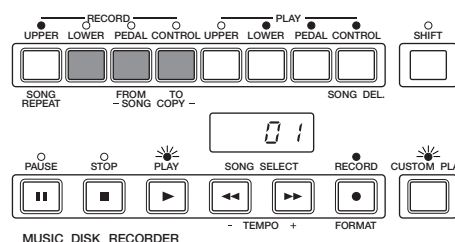
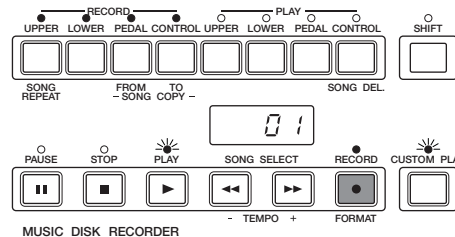
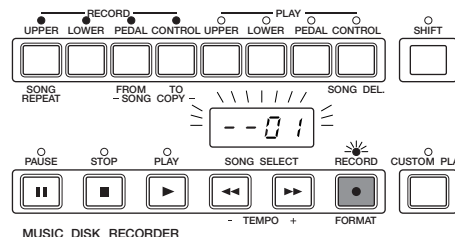
3 Press the PLAY button, and start playing after numbers appear in the display. For this example, play the lower keyboard and pedalboard.

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

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

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

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



8

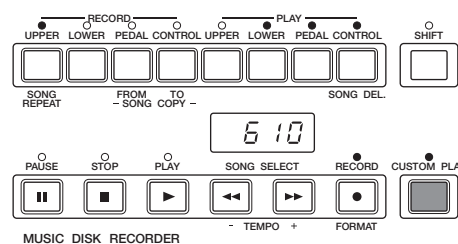
Press the CUSTOM PLAY button to start recording of the new part or parts (Upper part).

Playback of the previously recorded parts starts immediately.

The CUSTOM PLAY button is used here to record only the parts that have been selected for recording, and play back only those parts that have been selected for playback. While you listen to the parts being played back, start playing the melody on the Upper keyboard.

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

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



NOTE:

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



NOTE:

The length of a subsequently recorded part cannot exceed the length of the previously recorded parts. If you want to change the song length, first delete the existing song (see Song Delete on page 45) and record again.

Punch-in Recording

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

1. Press the PLAY button to start playback of the song containing the part you want to change.
2. Press the PAUSE button at the point you want to execute punch-in recording. The current song is stopped momentarily.
3. Press the RECORD button. The PLAY and CUSTOM PLAY lamps begins blinking, indicating that the Music Disk Recorder is ready to record.
4. Press the RECORD buttons for each part in the upper left row to turn off the parts you want to keep as they are. (Only the part you want to do punch-in recording should be turned on.)
5. Press the PLAY button to start punch-in recording. Play the specified range you want to change.
6. Press the STOP button to quit the Punch-in recording function as soon as you reach the end of the range.

4 Recording Registrations (and Bulk Data)

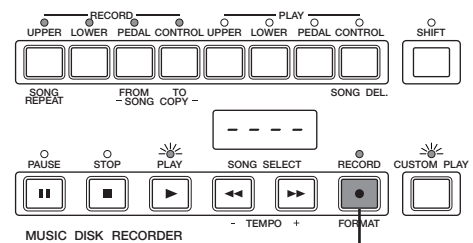
You can also record registrations by themselves, without recording a performance. Bulk data, including Registration Memory and Registration Shift settings, Rhythm Pattern (User rhythms) Rhythm Sequence data, and User voices, are also saved in the operation. There are two ways to record the registrations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

[1]

- 1 On the Electone, set the registrations and all other data you want to record.
- 2 Select the song number to which you wish to record the registrations.
- 3 While holding down the RECORD button, press the M./TO DISK (Memory) button on the Registration Memory panel. Small bars flash across the LED display from left to right, indicating that the M.D.R. is reading the registrations and other settings. After recording, the M.D.R. is automatically stopped and returns to STOP status.

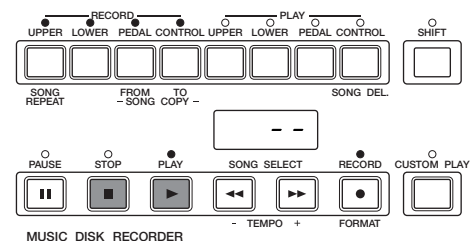
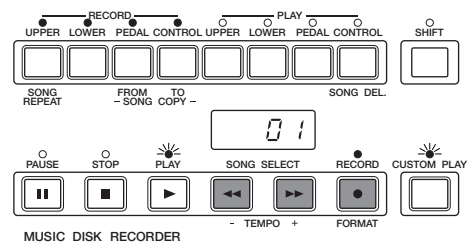
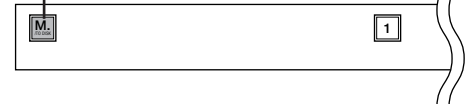
[2]

- 1 Set up the registrations and select the song number as you did in steps #1 and #2 above.
- 2 Press the RECORD button to make the M.D.R. ready to record.
- 3 Press the PLAY button to record the registrations, then press the STOP button as soon as you see the small bars flash across the LED display from left to right. This is the same procedure as the one when you start recording. The small bars that flash across the display indicate that the M.D.R. is recording the registrations and being set up for normal recording; pressing the STOP button interrupts this process.



1. While holding down the RECORD button...

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



5 Recalling Recorded Registrations (and Bulk Data)

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

- 1 Insert the disk and select the song number you want to load back to the Electone.
- 2 Press the **PLAY** button.

Using More Than 8 Registrations

The M.D.R. makes it possible to use more than 8 registrations (8 Registration Memory locations) in a performance. A disk can accommodate 40 song numbers and each song number can contain 8 registrations.

To play a performance using more than 8 different registrations:

1. First record the registrations you need into several song numbers on the M.D.R. before the performance. (You should also try to record them in the order that you'll use them, if possible.)
2. During the performance, after all 8 registrations from a certain song number have been used, select the next song number and press the **PLAY** button on the M.D.R. This replaces all 8 registrations in Registration Memory with the new ones from the selected song number.
3. By repeating the above steps, you can run through an entire performance without having to change the panel settings.

6 Replacing Registrations

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

7 Playback

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



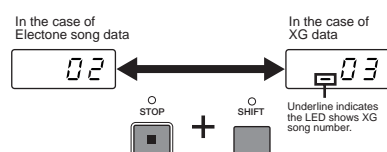
NOTE:

You can play back the commercially available XG song (SMF format 0 or 1).

If the disk contains normal Electone song data and XG data, it accommodates each data in the two different locations separately. If you insert the disk containing those two types data, you can access the location of normal Electone song data as the default.

However, you can exchange the location and access the XG data. In doing this, press the **STOP** button while holding down the **SHIFT** button.

Each press of the **STOP** button while holding down the **SHIFT** button alternately selects Electone song data and XG data.

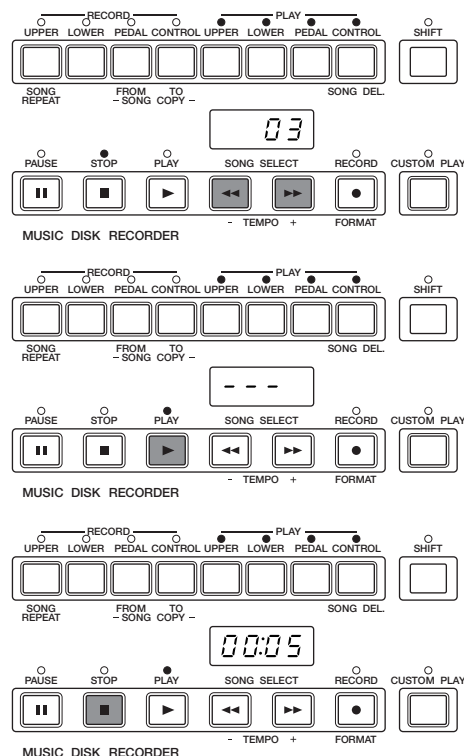


NOTE:

Although EL-200 itself doesn't have the detailed Registration Shift settings and sequence programming functions, you can load those data in EL-200 and use them using M.D.R. (See page 47 for more information).

1) To play back a song:

- 1 Select the number of the song you want 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 starts automatically after reading the song data. The elapsed time will be displayed on the LED. Playback automatically stops at the end of a song. You can, however, stop playback in the middle of a song by pressing the **STOP** button.



If you have recorded the Lead Voice/Keyboard Percussion part separately:

On the EL-200 the Lead/Keyboard Percussion part(s) you have recorded separately will automatically set to on when you start playback.



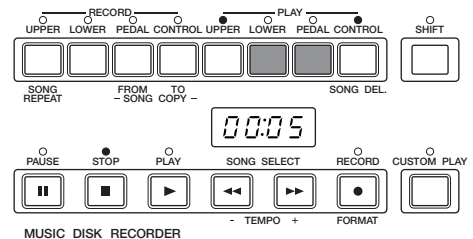
NOTE:

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

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

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

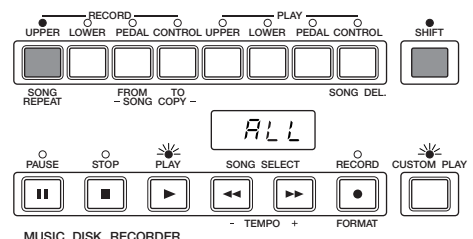
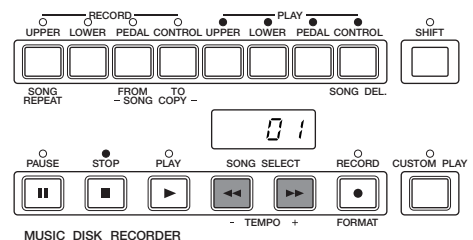
- 1 Select the number of the song to be played back.
- 2 Set the parts you wish to mute to off, by pressing the appropriate PLAY button in the upper right row. The LED of the selected part should be off.
Make sure to turn on the parts you wish to play back.
- 3 Press the PLAY button.
First the registration 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 number of the song to be played 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 While holding down the SHIFT button, 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 repeatedly play back only the selected song:

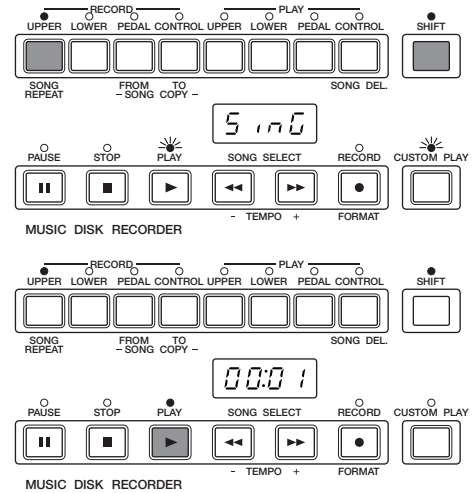
1. While holding down the SHIFT button, press the SONG REPEAT button again.

“SinG” appears on the LED display to indicate that a single song will be repeatedly played back.

2. Press the PLAY button.

Playback of the selected song will begin and repeat indefinitely.

To stop repeated playback, press the STOP button.

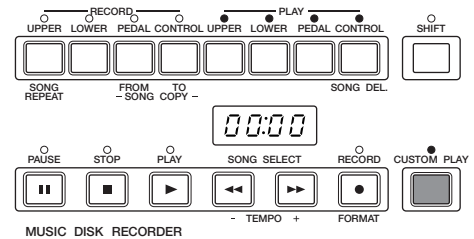


8 Other Functions

1) Custom Play

If you want to play back the song without resetting the registrations and other data, press the CUSTOM PLAY button.

This displays the song time and starts playback immediately.



NOTE:

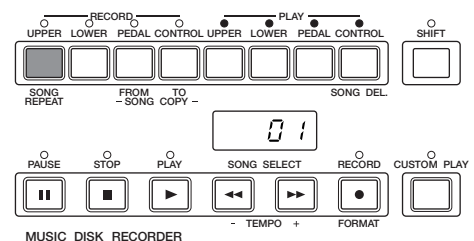
If you hold down the SHIFT and press CUSTOM PLAY or if you execute the following Read and Auto Increment function, all data, except for that of User rhythms, Rhythm Sequences, User voices and Keyboard Percussion assignments, will be loaded and played back. It is handy when you want to call up the registrations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

2) Read and Auto Increment

There is another method for calling up only registration data, besides that mentioned in the “NOTE” above.

Pressing the UPPER button in the RECORD section while M.D.R. is in the stop status calls up the registration data and automatically select the next song number.

This method is more convenient than the one mentioned above since the M.D.R. automatically selects the next song number.



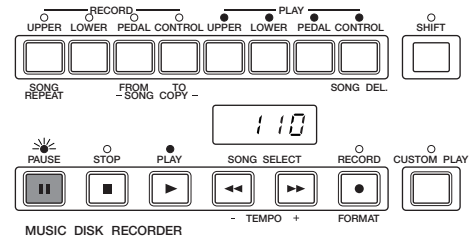
NOTE:

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

3) Pause

If you want to temporarily stop playback of the song or songs, press the PAUSE button.

To resume playback from the point at which the song was paused, press the PAUSE button again.



4) Fast Forward and Fast Reverse

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

Press SONG SELECT ►► button to advance to a later point in the song or press SONG SELECT ◀◀ button to return to an earlier position.

While either of these buttons is held down, playback stops and the song time is advanced or reversed accordingly.

Even when the button is released, playback is paused. To resume playback from the point you've advanced or reversed to, press the PLAY button.



NOTE:

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



NOTE:

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

5) Changing the Tempo

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

While holding down the SHIFT button, press the TEMPO - or TEMPO + button.

Each press of the button slows down or speeds up the tempo by a small amount (not affecting the pitch).

Pressing TEMPO + causes the song faster and TEMPO - slower.

(The Tempo dial on the Electone panel cannot be used to change the tempo on the Music Disk Recorder.)

To restore the original recording tempo of a song, hold down the SHIFT button and simultaneously press both TEMPO buttons.



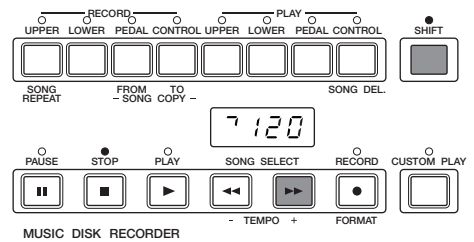
Indicates faster tempo



Indicates original tempo

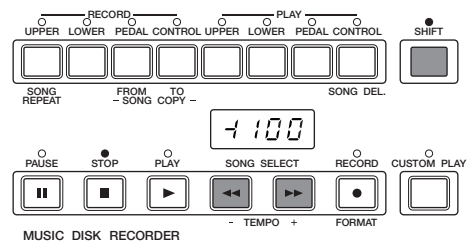


Indicates slower tempo



NOTE:

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



NOTE:

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

6) Song Copy

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

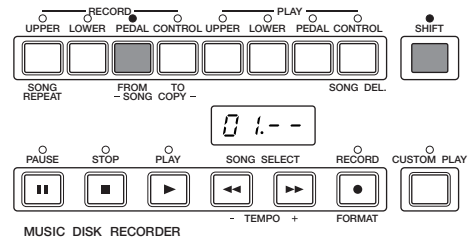
To use the Song Copy function within a disk:

- 1 Select the song number to be copied (source) with the SONG SELECT buttons.
- 2 While holding down the SHIFT button, press the SONG COPY FROM button. The song number to be copied from appears at the left of the LED display.
- 3 Next, designate the destination song number. While holding down the SHIFT button, press the SONG COPY TO button. The M.D.R. automatically searches for an empty song number to copy the data to, and displays that number at the right side of the display. The RECORD lamp will start flashing indicating that the M.D.R. is ready to copy. If all songs numbers contain recorded data, "FULL" appears on the LED display. In this case, you should erase one of the songs on the disk by using the Song Delete function. (Refer to the Song Delete function, see page 45.)
- 4 Use the SONG SELECT buttons to select a destination song number for copying. Follow this step if you wish to select a different destination song number than the one displayed. The M.D.R. will display only those song numbers that have no data.
- 5 Press the RECORD button to execute the Song Copy function. The RECORD lamp stops flashing and remains lit, indicating that the Song Copy function is in process. The LED display shows the "size" of the song in numbers, and counts down as the data is being copied. When the display shows "000," the song has been completely copied.



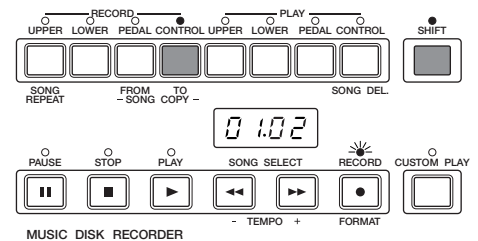
NOTE:

This function is available with the Electone data only, not with the XG data.



NOTE:

If the specified song number has no recorded data, the M.D.R. automatically searches for and selects the next song that contains recorded data.



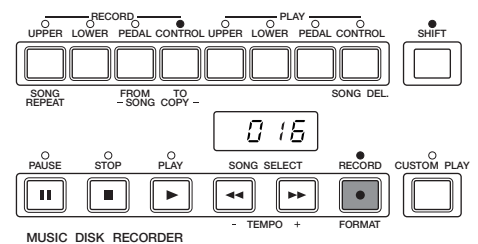
NOTE:

The message "FULL" may appear when the available memory is short.



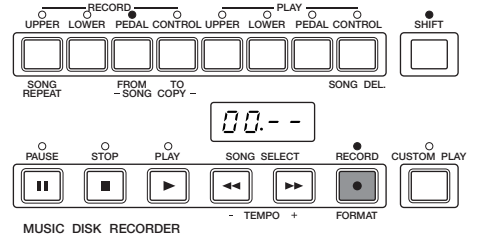
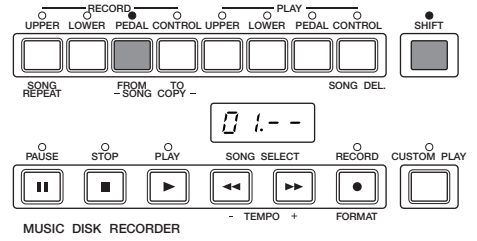
NOTE:

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



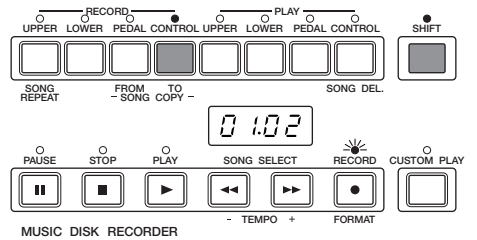
To use the Song Copy function between different disks:

- 1 Insert the source disk that contains the song you want to copy from.
- 2 While holding down the SHIFT button, press the SONG COPY FROM button.
The song number to be copied from appears at the left of the LED display.
- 3 Use the SONG SELECT buttons to select a destination song number for copying.
- 4 Press the RECORD button.
The RECORD lamp lights up and the LED continues to indicate "00.--" as shown at the right.
The RECORD lamp remains lit.
- 5 Press the Eject button to take out the source disk.
- 6 Insert the destination disk to which you want to copy.
- 7 While holding down the SHIFT button, press the SONG COPY TO button.
The song number to be copied to appears at the right side of the LED display. The M.D.R. automatically searches for an empty song number to copy the data to.
- 8 Use the SONG SELECT buttons to select a destination song number for copying.
- 9 Press the RECORD button.
The LED display shows the "size" of the song in numbers, and counts down as the data is being copied. When the display shows "0000," the song has been completely copied.



NOTE:

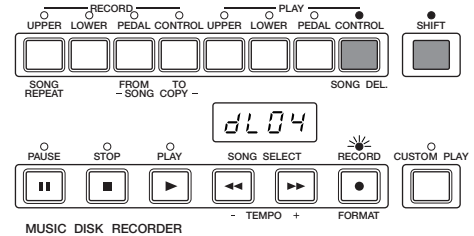
The RECORD lamp remains lit. Although ejecting the disk while the RECORD lamp is lit is prohibited, you are allowed to eject the disk in this case.



7) Song Delete

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

- 1 Use the SONG SELECT buttons to select the number of the song you wish to delete.
- 2 While holding down the SHIFT button, press the SONG DEL. button.
The letters “dL” appear on the left side of the LED display, next to the selected song number. RECORD lamp flashes to indicate that the M.D.R. is ready to delete the song.
If you wish to, you can still select a different song number in this step by using the SONG SELECT buttons.
- 3 Press the RECORD button to execute the Song Delete function. The RECORD lamp stops flashing and remains lit, indicating that the Song Delete function has begun. When the Song Delete function is completed, the STOP status is automatically resumed.



NOTE:

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

8) Disk Copy

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

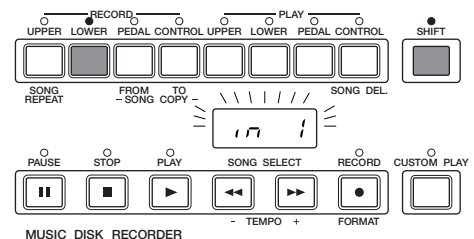
- 1 Prepare the source disk and the formatted blank disk to be copied.
- 2 While holding down the SHIFT button, press the LOWER button in the Record section.
“In 1” appears on the LED display to indicate that the M.D.R. is ready to execute the Disk Copy.



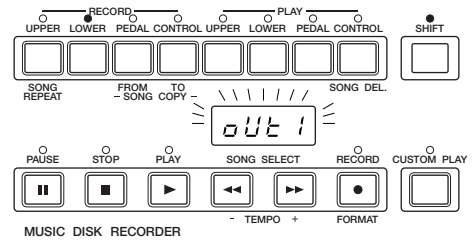
The disk type of both source disk and destination disk must be the same. For example, use 2HD for the disk to be copied (destination) if the source disk is 2HD type.



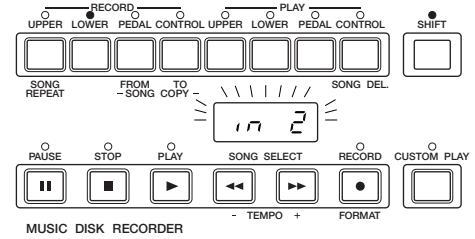
Be sure to set the Write-protect tab (page 29) on the source disk to ON. The message “Prot” may appear if you insert the source disk with the Write-protect tab “off.” On the contrary, set the Write-protect tab on the destination disk to off. The message “Prot” may appear if you insert the destination disk with the Write-protect tab “on.” In this case, the Disk Copy function cannot be executed.



- 3** Insert the source disk into the disk slot.
The M.D.R. starts reading the data in the source disk.
“out 1” appears on the LED display.

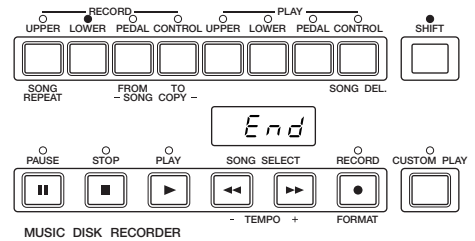
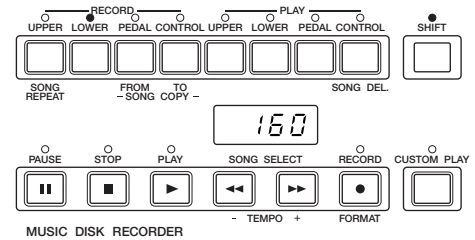


- 4** Press the eject button to take out the source disk.
“In 2” appears on the LED display to urge you to insert the destination disk.



- 5** Insert the destination disk.
The number “160” appears on the LED display and counting down is initiated as the disk is being copied.

When finished, “End” will appear on the LCD display for few seconds.



NOTE:

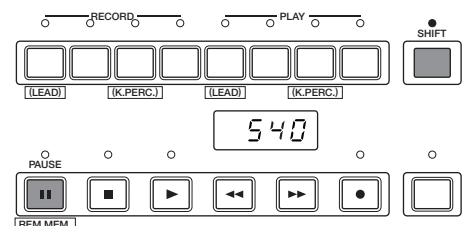
“Fort” or “bAd” may appear if an error occurs in the middle of the operation. If this happens, please retry formatting the destination disk and copying disk.



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

9) Checking the Remaining Memory

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



10) Copy Protect

Some of the Disks available for the Electone are purposely protected from being copied or erased. You cannot save the data to another floppy disk.

If you try to load data from such a “copy-protected” disk to the Electone, a “Protected Disk” (PrXX*) message will appear on the LED display.

The data cannot be saved to the disk.

*XX: song number

11) Loading the Data Created with an Upper Electone Model

The data created with an upper model such as EL-900/700/500/400 can be reproduced with EL-200 even if EL-200 itself doesn't have the functions on those models.

The functions EL-200 can reproduce are:

- 173 voices and User* voices
- Upper Keyboard Voice 1, 2, Lower Keyboard Voice 1, 2, Pedal Voice 1, 2 and Lead Voice
- 66 rhythms and User* rhythms
- Voice Control/Effect settings
 - Each Voice Group: Touch Tone, Feet, Pan, Brilliance, Symphonic/Celeste, Delay, Flanger, Distortion, Vibrato, Touch Vibrato, Reverb (Type*, Length, Depth), Sustain Length, Tremolo/Chorus
 - Lead Voice: Slide, Tune
- Rhythm Control (volume, amount of reverb on rhythms)
- User* Keyboard Percussion settings (instrument assignments)
- Pan, Pitch, Reverb settings* for each instrument (percussion sound)
- Rhythm Sequence*
- Registration Shift settings*
- Left Footswitch settings (Off, Rhythm, Glide, Tremolo)
- Knee Lever control (Lead Slide)
- Transpose setting

The item marked with an asterisk indicates that it cannot be memorized in a Registration setting.



NOTE:

If you want to restore the default settings (factory preset), execute Power On Reset (page 27) operation. If you want to restore only the Registration Memory function, press one of the Basic Regist. Buttons.

Messages on the M.D.R. LED Display

Display	Description of the Messages
<i>Inst</i>	No disk is installed. Install a disk.
<i>Prot</i>	1) The installed disk is write-protected, so the Record, Song Copy, and Song Delete jobs cannot be performed. Set the disk's Write-protect tab (page 29) to OFF. 2) If you are using a copy-protected playback-only disk, this message may appear when you attempt the Record, Song Copy, or Song Delete operations. Cancel the operation. 3) When executing Disk Copy, set the Write-protect tab on the source disk to "on."
<i>Formt</i>	The installed disk is not formatted. Format the disk. (page 30)
<i>FULL</i>	1) The disk's memory capacity is full, so the Record or Song Copy operation cannot be performed. Use another formatted disk or delete unnecessary data. 2) All of the song numbers contain recorded data. Press the STOP button, then delete any unnecessary data.
<i>Empty</i>	None of the song numbers contain recorded data, so the Song Copy operation cannot be performed. Press the STOP button and abort the operation.
<i>out</i>	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.
<i>disc</i>	Incompatible disk has been inserted. Insert an appropriate disk.
<i>lots</i>	Recording cannot be performed because too much data was received at one time. Press the STOP button and retry recording.
<i>bad</i>	The disk is defective and cannot be formatted. Use another disk.
<i>Error</i>	An error occurred during the transmission or reception of data. Press the STOP button and retry the operation over again.
<i>--XX</i>	You are trying to record to the song number that already contains recorded data. Stop the recording and select the other blank song number by pressing the SONG SELECT buttons. XX: song number
<i>PrXX</i>	When you insert the "copy-protected" disk to the Electone, this message will appear on the LED display. You cannot overwrite or save the changes. XX: song number
<i>oooo</i>	This message indicates that an incompatible disk is inserted in the Voice Disk, Pattern Disk or Registration Menu Disk operation. Insert an appropriate disk.
<i>_XX</i>	An under line (_) before the song number indicates that it is XG song data. XX: song number
<i>2hd</i> or <i>2dd</i>	You have inserted a wrong type disk as the destination disk in the Disk Copy operation. Use the same disk type as the source disk.

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

1 Footswitch

The Electone has two Footswitches on the main expression pedal that can be used to control Registration Shift and Rhythm On/Off functions. The **Right Footswitch** is used for the **Registration Shift** function. See page 27 for the details of the **Registration Shift** function.

The **Left Footswitch** is used for the **Rhythm On/Off** function.



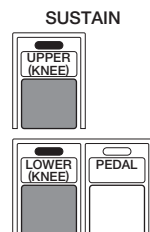
NOTE:

Even the User Registration Shift setting, not available on EL-200, created with an upper model such as EL-900/700/500/400 and loaded to EL-200 can be reproduced with EL-200's Registration Shift function. If you want to restore the original Registration Shift function, press one of the Basic Regist. Buttons.

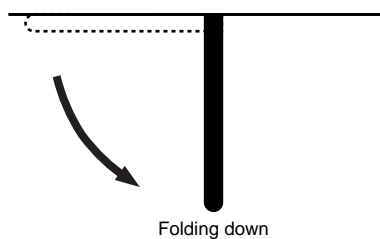
2 Knee Lever

The **Knee Lever**, located on the underside of the keyboard panel, can be used to turn on and off the **Sustain** effect.

- 1 Make sure that the Upper and/or Lower Sustain effect panel controls have been turned on; otherwise the Knee Lever will have no effect.



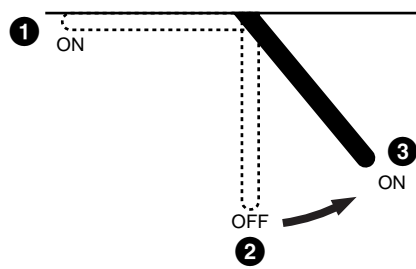
- 2 Fold the Knee Lever down.



3

Press the Knee Lever to the right with your knee when you want to have sustain.

Sustain effect is applied while the Knee Lever is pressed.



1 When the Knee Lever is folded up:

The sustain effect is on.

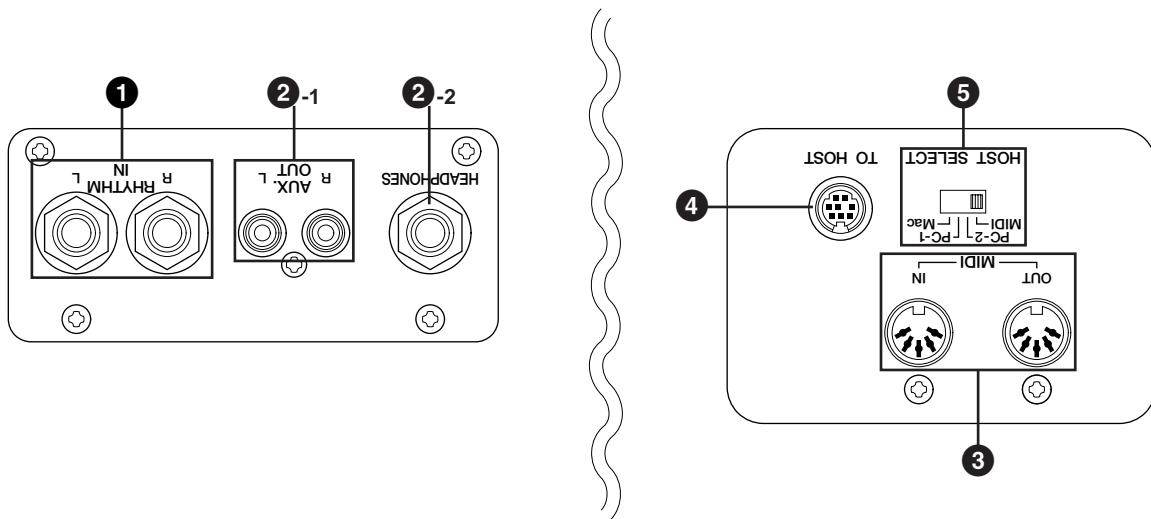
2 When the Knee Lever is vertical:

The sustain effect is cancelled.

3 When the Knee Lever is continuously pressed to the right:

The sustain effect is on.

Various input/output terminals and controls are equipped on the EL-200. On the underside of the Electone keyboard is a separate panel equipped with various input/output terminals and controls, the functions of which are described below.



1 Input Jack

RHYTHM IN (Phone, L/R)

This pair of phone jacks is 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 Electone's speaker system. The volume of the rhythm machine can be controlled by the Expression pedal of the Electone.

2 Output Jacks

2-1 AUX. OUT (RCA, L/R)

This pair of RCA jacks is for connection to an external amplifier/speaker.

2-2 HEADPHONES (Phone)

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

3 MIDI IN/OUT

For connecting external devices such as synthesizer and rhythm machine with MIDI cables. MIDI cables are required (page 53).

4 TO HOST

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

5 HOST SELECT

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



NOTE:

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

MIDI

On the right underside of the Electone keyboard you will find the MIDI IN/OUT jacks and TO HOST terminal.

MIDI is an acronym that stands for Musical Instrument Digital Interface, which allows electronic musical instruments to communicate with each other, by sending and receiving MIDI messages. If your Electone is connected with external devices via these MIDI jacks (with a personal computer via the TO HOST terminal) and appropriate MIDI settings are done, you can play an external MIDI device such as synthesizer from your Electone keyboard or your Electone can be played by an external device such as sequencer (by a personal computer with a sequencing software installed).

You need MIDI cable(s) when you exchange the data between Electone and an external device. Or you need a serial cable when you connect Electone's TO HOST to the computer serial port instead of using MIDI cables. Also, to exchange the data between your Electone and connected MIDI device you have to match the MIDI transmit/receive channels on both devices. Receive channels of Electone are fixed. Upper Keyboard: channel 1, Lower Keyboard: channel 2, Pedalboard: channel 3. Accordingly, you need to match the transmit channels on the external device to the fixed receive channels of Electone when you want to control Electone by the external device.



NOTE:

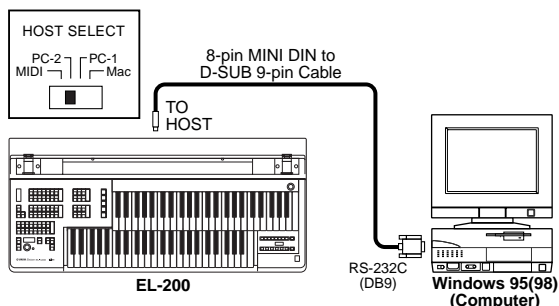
See page 54 for the information on the MIDI message types.

Setting examples

Using the TO HOST terminal

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

Windows 95/98



NOTE:

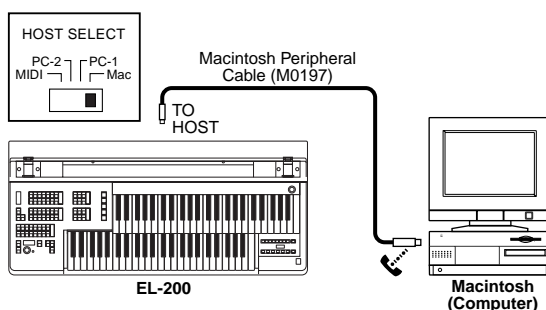
MIDI jacks will be inactive when the TO HOST terminal is currently used.



NOTE:

For Windows users: To actually exchange the data via the Serial Cable you need to install the appropriate MIDI driver to your personal computer in advance. Download the MIDI driver at the following web site <http://www.yamaha-xg.com/english/xg/index.html>.

Macintosh



NOTE:

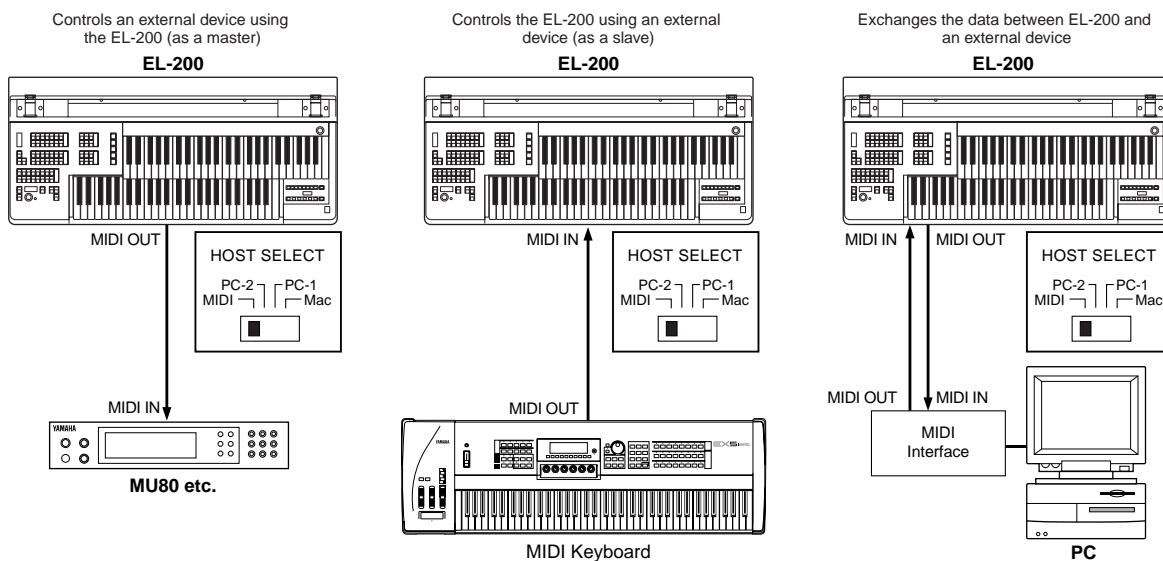
Select the HOST SELECT switches as follows:
 When you use MIDI connection: MIDI
 When you use TO HOST connection with Windows system: PC-2
 When you use TO HOST connection with Macintosh: Mac



NOTE:

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

Using MIDI IN/OUT jacks



1 Control an external device using the EL-200

Using an external MIDI keyboard or MIDI tone generator

- Playing your Electone can cause the MIDI keyboard (or tone generator) to be played using its own voices. You can produce thicker sound layers. (The MIDI receive channels of the MIDI keyboard must match the transmit channels on your Electone. The Electone performance data are transmitted through the channel 1 for Upper Keyboard, channel 2 for Lower Keyboard and channel 3 for Pedalboard.)
- Various messages including the values how far the expression pedal is pressed down and how hard you play the Electone keyboard can be transmitted as digital data. However, how the external device responds depends on the external device you have connected.
- The performance on your Electone can be recorded onto your PC using an appropriate sequencing software. (You need a sequencing software in this case.)

2 Control the EL-200 using an external device

Using an external MIDI keyboard

- Playing the external MIDI keyboard can cause your Electone to be played using Electone's voices. (The MIDI transmit channels of the MIDI keyboard must match the (fixed) receive channels on your Electone. The channels 1, 2 and 3 for the Upper, Lower and pedal voices, respectively.)
- Also, the Keyboard Percussion on your Electone can be played by playing the external MIDI keyboard. (The MIDI transmit channels of the MIDI keyboard must be channel 15.)
- The MIDI data played back by the external PC (using a sequencing software) can be played using Electone's voices. You can use the Electone as an XG tone generator for computer-based music production. See page 57 for the details to use the EL-200 as an XG tone generator.



NOTE:

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

The MIDI Messages of the EL-200

The MIDI messages can be divided into two groups: the Channel Messages and System Messages. The Channel Messages are the data related to the performance on the keyboard for a specific channel. Each time you play the keyboard on the EL-200, the channel messages, which keys are played and how hard the keys are pressed, will be transmitted via a specific channel. The System Messages are the data that allows several MIDI devices communicate each other. Below is an explanation of the various types of MIDI messages which the EL-200 can receive/transmit.

Channel Messages

Key related messages

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

Note On Generated when a key is played. The note range is C-2 (0) – G8 (127), C3=60.

Velocity Indicates how hard the key is held. The range is 1 - 127.

Note Off Generated when a key is released.



NOTE:

For more detailed information see MIDI Data Format on page 58 and MIDI Implementation Chart on page 68.

Program Change

The Program Change messages allow you to change voices in the middle of a song. With these messages you can change the registrations of the EL-200.



NOTE:

For more detailed information see MIDI Data Format on page 58 and MIDI Implementation Chart on page 68.

Control Change

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



NOTE:

For more detailed information on the Control Change messages available for the EL-200 see MIDI Data Format on page 58 and MIDI Implementation Chart on page 68.



NOTE:

You can exchange the Expression Pedal setting between Internal (Electone controls the Expression Pedal function) and External (an external device controls it, instead) by turning on the Electone while holding down the SHIFT button on the M.D.R. When it is set to Internal, the expression pedal lets you control Electone volume even during M.D.R. playback. Turning off the Electone restores the default setting.

System Messages

System Exclusive Messages

System Exclusive messages are used to exchange the system and voice/registration data. These allow you to execute bulk dump operation, sending and receiving all the data of the EL-200 including registrations to and from an external device. This is especially useful for you to build up the library of the registration data in a device like a hard disk.

Examples of Exchanging the Data

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

First, you need to connect your EL-200 with a personal computer (a sequencing software) using a Serial Cable or a MIDI cable. (See page 53 for more information.)



NOTE:

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

Send the Registration Data from the EL-200 to the Personal Computer (PC)

Preparation (Setting up registrations)

- 1 Set the Strings voice on the Upper Keyboard of the EL-200. Select the String voice by pressing the STRINGS button in the Upper Keyboard Voice.
- 2 Store the registration to the Registration Memory button 1. While holding down the M. button Press the Registration Memory button 1.

Sending the Registration Data

- 3 Send the Request-to-Send all RAM message, “F0, 43, 70, 70, 10, F7” (Hexadecimal), from the EL-200 to the sequencing software (PC).
Once the EL-200 receives the Request-to-Send all RAM message, the EL-200 automatically sends all registration data in the all registration numbers to your PC.
You can store the registration data in a file on your PC.



NOTE:

Depending on the capacity of your sequencing software, you may need to divide the data into two and send them to the PC separately. If you want to divide, see page 61, “Data Code to Send” table. For example, by changing the message from “F0,43,70,70,10,F7” (all data) to “F0,43,70,70,17,F7,” the Electone will send the Keyboard Percussion Assignment data only.

Send the Registration Data from your PC to the EL-200 and Change the Registration Memory Buttons

Send the data stored in the PC back to your Electone. Also select the registration and play the Upper keyboard on the Electone using a PC.

Receiving the Registration Data

1 Send the Request-to-Receive all RAM message, “F0, 43, 70, 70, 20, F7” and the stored registration data from the PC to EL-200.

Once the EL-200 receives the Request-to-Receive all RAM message, it automatically receives all registration data and relocates them to the all registration numbers.

Selecting the Registration Memory Button

Sending the Program Change messages from the PC to your EL-200 makes it possible to change the registration on the Electone.

2 Send the Program Change message, “CF, 00” from the PC to EL-200.

Once the Program Change message is received, the EL-200 automatically turns the Registration Memory button 1 on.

Sending the Note-On Messages

3 Send the Note-On message, “90, 30, 7F” from the PC to EL-200.

EL-200 receives the note-on message and plays C2 key on the Upper keyboard. It plays String voice you have set in the previous step.

Send the Note-Off message, “90, 30, 00” to the Electone.

All the above operations can also be done with the M.D.R. easily and efficiently. However, using the PC/ hard disk allows you to build up a large data library a single disk cannot deal with.

Use the EL-200 as an XG Tone Generator

You can also use the EL-200 as an XG tone generator since the EL-200 is compatible with the XG format. You can play back the commercially available XG song data with the Electone's M.D.R., and also play them using an external sequencer (or sequencing software) and the internal XG tone generator.

The internal tone generator section of the EL-200 is normally set to EL Mode for playing as an "Electone."

Sending an appropriate system exclusive message from the sequencing software (PC) to the EL-200 changes the mode to XG Mode, in which you can use the Electone as an XG tone generator.

1 Send the XG System On message, "F0, 43, 1N*, 4C, 00, 00, 7E, 00, F7" from the PC to EL-200.

*N: Device Number ("0" on EL-200)

Once the XG System On message is received, the internal tone generator will be in the XG Mode allowing the EL-200 to receive all the MIDI messages defined by the XG format such as NRPN and Bank Select.



NOTE:

The EL-200 allows you to play back the commercially available XG song data using the M.D.R. For more information on XG song playback, see page 39.



NOTE:

When you create an XG song data using a sequencing software, be sure to insert the XG System On message at the beginning of the data. The internal tone generator mode automatically changes to XG when you start to play back the data.



NOTE:

The internal tone generator mode automatically changes to XG when you play back commercially available XG song data.

MIDI Data Format

1. Channel Messages

1.1 EL Mode

Code (Hexadecimal)	Function	Transmit	Receive	Remarks
8n,nn,00-7F	Note Off	X X X X X X	1ch 2ch 3ch (4ch)* 5-14ch 15ch	UK LK PK LEAD XG Keyboard Percussion
9n,nn,00 9n,nn,01-7F	Note Off Note On	(1ch)* (2ch)* (3ch)* X X X	1ch 2ch 3ch (4ch)* 5-14ch 15ch	UK LK PK (note on transmit velocity=50H) LEAD XG Keyboard Percussion
Bn,00,00-7F Bn,20,00-7F	Bank select	X	5-14ch	XG
Bn,01,00-7F	Modulation	X	5-14ch	XG
Bn,04,00-7F	2nd Expression	X X	16ch (4ch)*	Control LEAD
Bn,05,00-7F	Portamento Time	X	5-14ch	XG
Bn,06,00-7F Bn,26,00-7F	Data Entry	X	5-14ch	XG
Bn,07,00-7F	Volume	X	5-14ch	XG
Bn,0A,00-7F	Pan	X	5-14ch	XG
Bn,0B,00-7F	Expression	16ch	16ch 5-14ch	Control XG
Bn,40,00-7F	Hold	X	5-14ch	XG
Bn,41,00-7F	Portamento	X	5-14ch	XG
Bn,42,00-7F	Sostenuto	X	5-14ch	XG
Bn,43,00-7F	Soft Pedal	X	5-14ch	XG
Bn,47,00-7F	Resonance	X	5-14ch	XG
Bn,48,00-7F	Release Time	X	5-14ch	XG
Bn,49,00-7F	Attack Time	X	5-14ch	XG
Bn,4A,00-7F	Brightness	X	5-14ch	XG
Bn,54,00-7F	Portamento Control	X	5-14ch	XG
Bn,5B,00-7F	Reverb Send Level	X	5-14ch	XG
Bn,5D,00-7F	Chorus Send Level	X	5-14ch	XG
Bn,5E,00-7F	Variation Send Level	X	5-14ch	XG
Bn,60,00-7F Bn,61,00-7F	Data Increment Data Decrement	X	5-14ch	XG
Bn,62,00-7F Bn,63,00-7F	NRPN LSB NRPN MSB	X	5-14ch	XG
Bn,64,00-7F Bn,65,00-7F	RPN LSB RPN MSB	X	5-14ch	XG
Bn,78,00 Bn,79,00 Bn,7B,00 Bn,7C,00 Bn,7D,00 Bn,7E,00 Bn,7F,00	All Sounds Off Reset All Controllers All Note Off Omni Off Omni On Mono Poly	X	5-14ch	XG

Code (Hexadecimal)	Function	Transmit	Receive	Remarks
Cn,nn	Program Change	×	1ch	UK
		×	2ch	LK
		×	3ch	PK
		×	5-14ch	XG
		16ch	16ch	Control
Dn,00-7F	After Touch	(1ch)*	1ch	UK
		(2ch)*	2ch	LK
		×	3ch	PK
			(4ch)*	LEAD
			5-14ch	XG
En,00-7F,00-7F	Pitch Bend	×	5-14ch	XG

* Can be changed in the MIDI settings.

1.2 XG Mode

Code (Hexadecimal)	Function	Transmit	Receive	Remarks
8n,nn,00-7F	Note Off	×	1-16ch	
9n,nn,00	Note Off	(1ch)		UK
9n,nn,01-7F	Note On	(2ch)* (3ch)*	1-16ch	LK PK (note on transmit velocity=50H)
Bn,00,00-7F	Bank select	×	1-16ch	
Bn,20,00-7F				
Bn,01,00-7F	Modulation	×	1-16ch	
Bn,04,00-7F	2nd Expression	×	×	Control LEAD
Bn,05,00-7F	Portamento Time	×	1-16ch	
Bn,06,00-7F	Data Entry	×	1-16ch	
Bn,26,00-7F				
Bn,07,00-7F	Volume	×	1-16ch	
Bn,0A,00-7F	Pan	×	1-16ch	
Bn,0B,00-7F	Expression	16ch	1-16ch	Control
Bn,40,00-7F	Hold	×	1-16ch	
Bn,41,00-7F	Portamento	×	1-16ch	
Bn,42,00-7F	Sostenuto	×	1-16ch	
Bn,43,00-7F	Soft Pedal	×	1-16ch	
Bn,47,00-7F	Resonance	×	1-16ch	
Bn,48,00-7F	Release Time	×	1-16ch	
Bn,49,00-7F	Attack Time	×	1-16ch	
Bn,4A,00-7F	Brightness	×	1-16ch	
Bn,54,00-7F	Portamento Control	×	1-16ch	
Bn,5B,00-7F	Reverb Send Level	×	1-16ch	
Bn,5D,00-7F	Chorus Send Level	×	1-16ch	
Bn,5E,00-7F	Variation Send Level	×	1-16ch	
Bn,60,00-7F	Data Increment	×	1-16ch	
Bn,61,00-7F	Data Decrement			
Bn,62,00-7F	NRPN LSB	×	1-16ch	
Bn,63,00-7F	NRPN MSB			
Bn,64,00-7F	RPN LSB	×	1-16ch	
Bn,65,00-7F	RPN MSB			

Code (Hexadecimal)	Function	Transmit	Receive	Remarks
Bn,78,00	All Sounds Off	×	1-16ch	
Bn,79,00	Reset All Controllers			
Bn,7B,00	All Note Off			
Bn,7C,00	Omni Off			
Bn,7D,00	Omni On			
Bn,7E,00	Mono			
Bn,7F,00	Poly			
Cn,00-7F	Program Change	16ch 1-16ch	Control	
Dn,00-7F	After Touch	(1ch)* (2ch)* ×	1-16ch	UK LK PK
En,00-7F,00-7F	Pitch Bend	×	1-16ch	

* Can be changed in the MIDI settings.

2. Realtime Messages

Code (Hexadecimal)	Function	Transmit	Receive	Remarks
F8	Clock	○	○*	
FA	Start	○	○	
FC	Stop	○	○	
FE	Active Sensing	○	○	
FF	Reset	×	×	

* Received only when in the Ext. mode

3. System Exclusive Messages

3.1 Format

Universal Realtime Messages

Code (Hexadecimal)	Message	Transmit	Receive
F0,7F,7F,04,01,SS,TT,F7 XN	XG Master Volume	×	○

Universal Non-Realtime Messages

Code (Hexadecimal)	Message	Transmit	Receive
F0,7E,7F,09,01,F7 XN	GM ON	×	○

XG Native

Code (Hexadecimal)	Message	Transmit	Receive
F0,43,1N,4C,AH,AM,AL,..data...,F7	XG Parameter Change	×	○
F0,43,0N,4C,BH,BL,AH,AM,AL,..data...,cc,F7	XG Bulk Dump	×	○
F0,43,1N,27,30,00,00,MM,LL,cc,F7	XG Master Tuning	×	○
F0,43,1N,4C,00,00,7E,00,F7	XG System On	×	○

Electone/Single Keyboard Common Messages

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

Electone Exclusive

Code (Hexadecimal)	Message	Transmit	Receive
F0,43,70,70,00,...(Data)...F7 78 ID	Bulk Dump Data	X O X	O O O
F0,43,70,ID,00,F7	Model ID Data	O	X
F0,43,70,70,nn(*1),F7 78 ID	Request-to-Send Data	X X X	O O O
F0,43,70,70,nn(*2),F7 78 ID	Request-to-Receive Data	X X X	O O O
F0,43,70,70,01,...(Data)...F7 78 ID	Request-to-Send Voice parameter data	X X X	O O O
F0,43,70,70,02,...(Data)...F7 78 ID	Request-to-Receive Voice parameter data	X X X	O O O
F0,43,70,70,30,F7	Request-to-Send Model ID data	X	O
F0,43,70,70,38,7F,F7 00	Bulk Dump Acknowledge Bulk Dump Unacknowledge	X O	X X
F0,43,70,70,40,nn(*3),7F,F7 00	Switch On Switch Off	O O	O O
F0,43,70,70,40,50,TL,TH,F7	Tempo	O	O
F0,43,70,78,41,cd,dd,F7(*4)	Panel Switch Events	O	O
F0,43,70,78,42,...(Data)...F7	Current Registration Data	O	O
F0,43,70,78,44,...(Data)...(*5),F7	EL MIDI Parameters	O	O
F0,43,70,70,70,nn(*6),F7	External MDR	X	O
F0,43,70,70,73,F7	EL ON	X	O
F0,43,70,70,78,SC,NC,F7	Bar Signal	O	O

X : don't care N : Device Number("0" on EL-200) ID=4A

*1 Data Codes to Send

nn	Data
10	All RAM
11	Registrations
12	Rhythm Sequences
14,15	User Patterns
16	User Voices
17	Keyboard Percussion Assignments

*2 Data Codes to Receive

nn	Data
20	All RAM
21	Registrations
22	Rhythm Sequences
24,25	User Patterns
26	User Voices
27	Keyboard Percussion Assignments

*3 Switches

nn	Switch	Transmit	Receive
45	Left Footswitch	O	O
47	Knee Lever	O	O
48	Fill In 1	O	O
4B	Intro./Ending	O	O

*4 Switch Codes

Selectors

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
02	UK Voice 1	○	[02-0D]	○	[00-0D]	Switch Number
03	LK Voice 1	○	[02-0D]	○	[00-0D]	Switch Number
04	UK Voice 2	×		○	[00-0D]	Switch Number
05	LK Voice 2	×		○	[00-0D]	Switch Number
06	LEAD Voice	○	[01-04]	○	[00-04]	Switch Number
07	Pedal Voice 1	○	[01-04]	○	[00-04]	Switch Number
08	Pedal Voice 2	×		○	[00-04]	Switch Number
0B	Rhythm	○	[02-0B]	○	[00-0B]	Switch Number
0F	Registration Memory	×		○	[00-0F]	

Volume

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
12	UK Voice 1	○	[00-7F]	○	[00-7F]	Volume Data 00:MAX,7F:MIN
13	LK Voice 1	○	[00-7F]	○	[00-7F]	Volume Data; 00:MAX,7F:MIN
14	UK Voice 2	×		○	[00-7F]	Volume Data; 00:MAX,7F:MIN
15	LK Voice 2	×		○	[00-7F]	Volume Data; 00:MAX,7F:MIN
16	LEAD Voice	○	[00-7F]	○	[00-7F]	Volume Data; 00:MAX,7F:MIN
17	Pedal Voice 1	○	[00-7F]	○	[00-7F]	Volume Data; 00:MAX,7F:MIN
18	Pedal Voice 2	×		○	[00-7F]	Volume Data; 00:MAX,7F:MIN
1A	Rhythm	○	[00-7F]	○	[00-7F]	Volume Data; 00:MAX,7F:MIN
1B	Reverb	○	[00-7F]	○	[00-7F]	Depth Data; 00:MAX,7F:MIN

To Lower

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
36	LEAD Voice	○	[00-01]	○	[00-01]	00:OFF,01:ON
37	Pedal Voice 1	○	[00-01]	○	[00-01]	00:OFF,01:ON
38	Pedal Voice 2	×		○	[00-01]	00:OFF,01:ON

Brilliance

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
42	UK Voice 1	×		○	[00-06]	00: Brilliant; 06: Mellow
43	LK Voice 1	×		○	[00-06]	00: Brilliant; 06: Mellow
44	UK Voice 2	×		○	[00-06]	00: Brilliant; 06: Mellow
45	LK Voice 2	×		○	[00-06]	00: Brilliant; 06: Mellow
46	LEAD Voice	×		○	[00-06]	00: Brilliant; 06: Mellow
47	Pedal Voice 1	×		○	[00-06]	00: Brilliant; 06: Mellow
48	UK Voice 2	×		○	[00-06]	00: Brilliant; 06: Mellow



Sustain

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
50	Upper Keyboard	○	[00-01]	○	[00-01]	00:OFF,01:ON
51	Lower Keyboard	○	[00-01]	○	[00-01]	00:OFF,01:ON
52	Pedalboard	○	[00-01]	○	[00-01]	00:OFF,01:ON

Keyboard Percussion

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
5B	Lower Keyboard	○	[00-01]	○	[00-01]	00:OFF,01:ON
5C	Pedal Board	○	[00-01]	○	[00-01]	00:OFF,01:ON

Disable

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
5F	Disable	○	[00-01]	○	[00-01]	00:OFF,01:ON

Tremolo

Code	Switch	Transmit	Tx Range	Receive	Rx Range	Remarks
60	Tremolo	○	[00-01]	○	[00-01]	00:SLOW,01:FAST

Rhythm Sequence

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

*5 EL MIDI Parameters

Voice Section Parameters

Panel Voice Parameters

Address		Size	Data	Parameter	Data	Transmit	Receive	Rx Range	Remarks
00	00-04, 06, 07	00-0D	2	00-7F	Voice Assign Number H		×	○	[00-7F]
				00-7F	Voice Assign Number L		×	○	[00-7F]
00	00-04, 06, 07	10	1	00-0D	Voice Selector Number		×	○	[00-0D]
00	00-04, 06, 07	11	1	00-7F	Volume	00:MIN 7F:MAX	×	○	[00-7F]
00	00-04, 06, 07	12	1	00-7F	Reverb Send Level	00:MIN 7F:MAX	×	○	[00-7F]
00	00-04, 06, 07	13	1	00-7F	Brilliance	00:Brilliant 40:Center 7F:Mellow	×	○	[00-0A] [0B-1F] [20-35] [36-4A] [4B-5F] [60-75] [76-7F]
00	00-04, 06, 07	14	1	00-04	Feet	00:Preset 01:16Feet 02:8Fee 03:4Feet 04:2Feet	×	○	[00][05-7F] [01] [02] [03] [04]
00	00-04, 06, 07	15	1	00-7F	Pan	00:Right 40:Center 7F:Left	×	○	[00-11] [12-25] [26-31] [32-4E] [4F-5A] [5B-6E] [6F-7F]
00	00-04, 06, 07	16	1	00-7F	Initial Touch Sensitivity	00:MIN 7F:MAX	×	○	[00-7F]
00	00-04, 06, 07	17	1	00-7F	After Touch Sensitivity	00:MIN 7F:MAX	×	○	[00-7F]
00	00-04, 06, 07	19	1	00-01	User Vibrato	00:PRESET 01:USER	×	○	[00] [01-7F]
00	00-04, 06, 07	1A	1	02-1A	Vibrato Delay	00:Short 7F:Long	×	○	[00-7F]
00	00-04, 06, 07	1B	1	00-54	Vibrato Depth	00:MIN 7F:MAX	×	○	[00-7F]
00	00-04, 06, 07	1C	1	3C-6C	Vibrato Speed	00:Slow 7F:Fast	×	○	[00-7F]
00	00-04, 06, 07	1E	1	00-7F	Touch Vibrato On/Off	00:OFF 01:ON	×	○	[00] [01-7F]
00	04, 06, 07	1F	1	00-01	To Lower	00:OFF 01:ON	×	○	[00] [01-7F]
00	04	20	1	00-02	Slide	00:OFF 01:ON 02:KneeControl	×	○	[00] [01] [02]
00	04	21	1	02-7F	Slide Speed	02:Slow 7F:Fast	×	○	[00-7F]
00	04	22	1	00-24	Detune	00:Normal 24:TuneUP	×	○	[00-7F]
00	00-07 00, 01, 04, 06, 07	23	1	00-01	2nd Expression Pedal	00:OFF 01:ON	×	○	[00] [01-7F]
00	00-04	24	1	00-01	Glide	00:OFF 01:ON	×	○	[00] [01-7F]

Effect Parameters (Voice Sections)

Address			Size	Data	Parameter	Content	Transmit	Receive	Rx Range	Remarks
00-01	00-04, 06, 07	3F	1	00-05	Effect Select	00:Preset 01:OFF 02:Tremolo 03:Symphonic 04:Delay 05:Flanger 06:Distortion	×	○	[00][07-7F] [01] [02] [03] [04] [05] [06]	
00-01	00-04, 06, 07	40-42	1	00-7F	Reverb		×	○	[00-7F]	
00-01	00-04, 06, 07	48-4A	1	00-7F	Tremolo		×	○	[00-7F]	
00-01	00-04, 06, 07	50	1	00-7F	Symphonic		×	○	[00-7F]	
00-01	00-04, 06, 07	58-5B	1,2	00-7F	Delay		×	○	[00-7F]	
00-01	00-04, 06, 07	60-62	1	00-7F	Flanger		×	○	[00-7F]	
00-01	00-04, 06, 07	68-69	1	00-7F	Distortion		×	○	[00-7F]	

Keyboard Parameters

Sustain Parameters

Address			Size	Data	Parameter	Content	Transmit	Receive	Rx Range	Remarks
02	00-02	00	1	00-01	Sustain On/Off	00:OFF 01:ON	×	○	[00] [01-7F]	
02	00-02	01	1	00-0C	Length	00:Short 0C:Long	×	○	[00-7F]	

Keyboard Percussion Parameters

Address			Size	Data	Parameter	Content	Transmit	Receive	Rx Range	Remarks
02	01-02	10	1	00-01	Keyboard Percussion	00:OFF 01:ON	×	○	[00] [01-7F]	
02	01-02	11	1	00-08	Modes	00:Preset 01-08:UserAssign1-8	×	○	[00] [01-08]	

Effect Parameters (Keyboard)

Address			Size	Data	Parameter	Content	Transmit	Receive	Rx Range	Remarks
02	00-02	40-42	1		Reverb		×	○	[00-7F]	
02	00-02	48-4A	1		Tremolo		×	○	[00-7F]	
02	00-02	50	1		Symphonic		×	○	[00-7F]	
02	00-02	58-5B	1,2		Delay		×	○	[00-7F]	
02	00-02	60-62	1		Flanger		×	○	[00-7F]	
02	00-02	68-69	1		Distortion		×	○	[00-7F]	

Rhythm

Rhythm Parameters

Address			Size	Data	Parameter	Content	Transmit	Receive	Rx Range	Remarks
03	00	00-0B	1	00-65 67-98	Pattern Assign Number	Pattern Numbers	×	○	[00-62]	
03	00	10	1	00-0B	Pattern Select Number	Selector Switch Numbers	×	○	[00-0B]	
03	00	11	1	00-7F	Volume	00:MIN 7F:MAX	×	○	[00-7F]	
03	00	12	1	00-7F	Reverb Send Level	00:MIN 7F:MAX	×	○	[00-7F]	
03	00	14	1	00-01	Auto Variation	00:OFF 01:ON	×	○	[00] [01-7F]	
03	00	15	1	00-7F	Rhythm Balance	00:Cymbal 40:Center 7F:Drums	×	○	[00-7F]	
03	00	16	1	00-01	2nd Expression Tempo Control	00:OFF 01:ON	×	○	[00] [01-7F]	
03	00	17	1	00-03	Footswitch Rhythm Mode	00:OFF 01:RhythmStop 02:Ending 03:FillIn	×	○	[00][04-7F] [01] [02] [03]	

Rhythm Sequence Parameters

Address			Size	Data	Parameter	Content	Transmit	Receive	Rx Range	Remarks
03	01	00-03	1	00-01	Rhythm Sequence	00:OFF 01:ON	×	○	[00] [01-7F]	

Accompaniment Parameters

Address			Size	Data	Parameter	Content	Transmit	Receive	Rx Range	Remarks
03	02	10	1	00-03	Pattern Selector Number	00:Type1 01:Type2 02:Type3 03:Type4	×	○	[00] [01] [02] [03]	
03	02	11	1	00-01	Volume Mute	00:OFF 01:MUTE	×	○	[00] [01-7F]	
03	02	12	1	00-7F	Volume	00:MIN 7F:MAX	×	○	[00-7F]	
03	02	13	1	00-7F	Reverb Send Level	00:MIN 7F:MAX	×	○	[00-7F]	

A.B.C. Parameters

Address			Size	Data	Parameter	Content	Transmit	Receive	Rx Range	Remarks
03	03	00	1	00-03	A.B.C. Mode	00:OFF 01:SingleFinger 02:Fingerd 03:CustomABC	×	○	[00][04-7F] [01] [02] [03]	
03	03	01	1	00-01	Lower Memory	00:OFF 01:ON	×	○	[00] [01-7F]	
03	03	02	1	00-01	Pedal Memory	00:OFF 01:ON	×	○	[00] [01-7F]	

M.O.C. Parameters

Address			Size	Data	Parameter	Content	Transmit	Receive	Rx Range	Remarks
03	04	00	1	00-03	M.O.C. Mode	00:OFF 01:Close2Note 02:Close3Note 03:PassBOpen	×	○	[00][04-7F] [01] [02] [03]	
03	04	01	1	00-01	M.O.C. Knee Control	00:OFF 01:ON	×	○	[00] [01-7F]	

Overall System Parameters

Address		Size	Data	Parameter	Content	Transmit	Receive	Rx Range	Remarks
04	00	00	1	00-01	Disable	00:OFF 01:ON	×	○	[00] [01-7F]
04	00	01	1	00-01	Flute Coupler Attack Mode	00:EachKey 01:FirstNewKey	×	○	[00] [01-7F]
04	00	02	1	3A-46	Transpose	3A:KeyDown 40:Normal 46:KeyUp	×	○	[3A] [40] [46]
04	00	03	1	00-0B	2nd Expression Range	01:100 ¢ 0C:1200 ¢	×	○	[01-0C]
04	00	04	1	00-03	Footswitch Mode	00:OFF 01:Rhythm 02:Glide 03:Tremolo	×	○	[00][04-7F] [01] [02] [03]
04	00	05	1	3C-4F	Pitch	3C:PitchDown 40:Normal 4F:PitchUp	×	○	[3C-4F]
04	00	06	1	00-04	Glide Speed	01:Slow 05:Fast	×	○	[00-7F]
04	00	07	1	34-4C	Manual Balance	34:Upper 40:Center 4C:Lower	×	○	[00-7F]
04	00	09	1	00-01	L.I.T.	00:Mode1 01:Mode2	×	×	[00] [01]
04	00	0A	1	00-01	Expression INT/EXT	00:Internal 01:External	×	○	[00][02-7F] [01]

Effect Parameters (Overall)

Address		Size	Data	Parameter	Content	Transmit	Receive	Rx Range	Remarks
04	00	40-42	1		Reverb	×	○	[00-7F]	
04	00	48-4A	1		Tremolo	×	○	[00-7F]	
04	00	50	1		Symphonic	×	○	[00-7F]	
04	00	58-5B	1,2		Delay	×	○	[00-7F]	
04	00	60-62	1		Flanger	×	○	[00-7F]	
04	00	68-69	1		Distortion	×	○	[00-7F]	

*6 External MDR

nn	Command	Transmit	Receive
01	Play Start	×	○
02	Play Stop	×	○
03	Record Start	×	○
04	Record Stop	×	○
09	Rhythm Pointer Reset	×	○

MIDI Implementation Chart

YAMAHA [Electone-EL mode] / Model: EL-200

Date: 1. Dec. 2000

Version: 1.00

Function		Transmit	Receive	Remarks
Basic Channel	Default Changed	1, 2, 3, 16 *1 1-16	1-3, 5-16 *2 4	
Mode	Default Messages Altered	Mode 3 X *****	Mode 3 X X	
Note Number	True Voice	36-96 *3 *****	0-127 *4	
Velocity	Note ON Note OFF	○ 9nH, v=1-127 ○ 9nH, v=0	○ 9nH, v=1-127 ○ 9nH, v=0, 8nH	Transmit with EL-200: fixed to 80.
After Touch	Key's Ch's	X ○	X ○	PK after touch with EL-200: not transmit.
Pitch Bend		X	○ *6	
Control Change	0, 32 1, 5, 7, 10 4 6, 38 11 96, 97 64-67 71-74 84, 91, 93, 94 98-99, 100-101 120, 121	X X ○ X ○ *7 X X X X X X X	○ *6 ○ *6 ○ *7 ○ *6 ○ *6, 7 ○ *6 ○ *6 ○ *6 ○ *6 ○ *6 ○ *6	Bank Select 2nd Expression Pedal Data Entry Expression Pedal Data Entry SW Sound Controller NRPN, RPN
Program Change	Range	○ *9 *****	○ *10	
System Exclusive		○	○	
System Common	Song Position Song Select Tune	X X X	X X X	
System Real Time	Clock Commands	○ ○	○ *8 ○	(FAH, FCH)
Aux Messages	Local ON/OFF All Notes OFF Active Sense Reset	X X ○ X	X ○ (123-127) *6 ○ X	
Notes		*1 Ch 1: UK; Ch 2: LK; Ch 3: PK; Ch 16: Control *2 Ch 1: UK; Ch 2: LK; Ch 3: PK; Ch 4: LEAD 1; Chs 5 - 14: XG; Ch 15: Keyboard *3 UK: 48 - 96; LK: 36 - 84; PK: 36 - 55 *4 UK, LK, PK, LEAD 1: 36 - 96; XG: 0 - 127; Keyboard Percussion: 3 - 127 *5 UK: UK Horizontal Touch; LK: LK Horizontal Touch *6 XG only *7 Control only *8 External Mode only *9 Control: 0 - 15, 112 - 116 *10 UK, LK, PK, Control: 0 - 15, 112 - 116; XG: 0 - 127		

Mode 1 : OMNI ON, POLY
Mode 3 : OMNI OFF, POLY

Mode 2 : OMNI ON, MONO
Mode 4 : OMNI OFF, MONO

○ : YES
X : NO

Function		Transmit *11	Receive	Remarks
Basic Channel	Default Changed	1, 2, 3, 16 1-16	1-16 1-16	
Mode	Default Messages Altered	Mode3 X *****	Mode 3 X X	
Note Number	True Voice	36-96 *****	0-127	
Velocity	Note ON Note OFF	○ 9nH, v=1-127 ○ 9nH, v=0	○ 9nH, v=1-127 ○ 9nH, v=0, 8nH	Transmit with EL-200: fixed to 80.
After Touch	Key's Ch's	X ○	X ○	
Pitch Bend		X	○	
Control Change	0, 32 1, 5, 7, 10 4 6, 38 11 96, 97 64-67 71-74 84, 91, 93, 94 98-99, 100-101 120, 121	X X X X ○ X X X X X X X X	○ ○ X ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	Bank Select Data Entry Expression Pedal Data Entry SW Sound Controller NRPN, RPN
Program Change	Range	○ 0-15, 112-116 *****	○	
System Exclusive		○	○	
System Common	Song Position Song Select Tune	X X X	X X X	
System Real Time	Clock Commands	○ ○	X X	
Aux Messages	Local ON/OFF All Notes OFF Active Sense Reset	X X ○ X	X ○ (123-127) ○ X	
Notes		*11 The same as the one in the EL Mode		

Mode 1 : OMNI ON, POLY
Mode 3 : OMNI OFF, POLY

Mode 2 : OMNI ON, MONO
Mode 4 : OMNI OFF, MONO

○ : YES
X : NO

Troubleshooting

Problem	Possible Cause and Solution
GENERAL OPERATION	
A cracking noise is sometimes heard.	Noise may be produced when either an electrical appliance is turned on or off, or an electric power tool (such as drill) is used in the proximity of the Electone. If this occurs, plug the Electone into an electrical outlet located as far as possible from the device that seems to be the source of the problem.
Interference from radio, TV, or other sources occurs.	This is caused by the proximity of a high-power broadcasting station, an amateur ham radio setup or a mobile phone.
Electone causes some noise.	A cell phone may be used in the proximity of Electone. Using a cell phone beside the Electone may cause a noise. Turn off the power of the cell phone.
Radio/ or TV generates some noise.	Locating a radio/ or TV close to the Electone causes to produce a noise from it. Relocate it farther from the Electone.
The sound of the Electone causes surrounding objects to resonate.	Because the Electone is capable of producing powerful bass sounds, resonance may be caused in surrounding objects, such as cabinets or glass windows. To avoid this, relocate the objects or lower the Electone's volume.
The sound is too small even when the volume is set to its maximum.	<ul style="list-style-type: none"> ● The Master Volume may be set around the minimum position. Turn it clockwise. ● The Expression Pedal may not be pressed down. Press it down with your toe.
The Electone panel does not function normally or the content of the memorized data has changed.	This happens very rarely. Occasionally, power surges and spikes due to electrical storms or other reasons may cause the Electone to malfunction and/or alter the contents of memorized data. In this case, turn off the power switch and then turn the power back to on while holding down the PEDAL/2 button in the Keyboard Percussion section (Power-On Reset).
VOICES/RHYTHMS	
The pitch seems to be higher on the Pedalboard and lower on the Upper and Lower keyboards.	You may feel it especially when playing piano voice. The temperament for the acoustic piano is adjusted by listening to the overtones since the overtone configuration of the piano voice is so complicated that the actual notes in the higher and lower registers are difficult to be adjusted. On the contrary, the Electone voices including piano voice are tuned by actual notes. Thus, the tuning method itself in the higher and lower registers is different.
Some voices seems to contain crack or distorted noise.	You may feel it mainly with wind instrument voices. These are purposely built in effects, which can faithfully reproduce the characteristics of each instrument. You can enjoy more realistic sounds such as brass vibration and breath noise.
When too many keys are pressed, not all of the notes sound.	Total polyphonic capacity (notes sounding for both Upper and Lower Keyboards) is 12 notes. The notes exceeding this limit may not be produced.
Only a note will be produced when pressing two keys or more on the Pedalboard and/or Lead voice.	The Lead and Pedal voices are designed to sound one note at a time. When you simultaneously press two or more keys, only the highest note will sound.
Sound is produced even when the volume is set to off on the specific keyboard.	The sound may not be adjustable when you play back the data created with an upper model and not controllable with EL-200.

Problem	Possible Cause and Solution
VOICES/RHYTHMS	
Pedalboard doesn't sound, even when its volume is properly set.	The TO LOWER button in the Pedal Voice is turned on. Turn it off.
When keys on the Lower keyboard or pedalboard are pressed, the sounds of percussion instruments are also heard.	Keyboard Percussion function is set to on. Turn the Keyboard Percussion off.
Reverb	
The Reverb effect does not operate, even when Reverb volume is increased.	The Reverb setting of the targeted voice group is set to 0. When you load the data of an upper model to EL-200 and the reverb volume for each voice group is set to 0. In that data, you cannot get Reverb effect.
Registration Memory	
Certain functions have not been memorized to Registration Memory.	The following functions will not be memorized: On/off functions such as Rhythm Start, Synchro Start, Fill-in, Intro./Ending. MDR select buttons. See page 47 for more information.
An error occurs and the registration data is not recorded to M.D.R., when executing To Disk operation.	Your operation may be wrong or the Write-protect tab of the floppy disk is set to on. Check your operation.
A simple beep sound is produced when I press the Basic Regist. Button.	When the contents of the SEQ buttons are different from Electone's default settings (you may have loaded the sequence data from the upper models), pressing one of the Basic Regist. buttons restores the original data and give a simple beep sound to notify it.
MUSIC DISK RECORDER	
Recording or playback cannot be performed.	The PLAY or RECORD section buttons for selecting parts may be turned off. Turn on the appropriate PLAY or RECORD buttons.
A total of 40 songs cannot be recorded.	If some song numbers contain a large amount of recorded data, the disk may not have enough available memory left to record the normal maximum of 40 songs. Check the remaining memory.
Recording is stopped before the performance is finished, or the Song Copy function cannot be executed.	<ul style="list-style-type: none"> ● The amount of recorded data on the disk is close to the maximum limit. Either use another disk or delete the data of any unnecessary song number. ● The length of a subsequently recorded part cannot exceed the length of the previously recorded parts. If you want to change the song length, first delete the existing song and record again.
The rhythm does not start at the beginning of a recording, or stops in the middle of the performance.	The M.D.R. is designed so that the rhythm cannot be started at the very beginning of a recording. If you wish to use the rhythm, start it after the available memory display appears on the M.D.R. display.
The notes of the recording are "stuck" and sound continuously.	During playback, you removed the disk by pressing the EJECT button. Press the STOP button and abort the operation. Whenever you wish to stop playback, always press the STOP button.

EL-200 Specifications

KEYBOARD		Upper: 49 keys (C – C), Lower: 49 keys (C – C), Pedal: 20 keys (C – G)
TOUCH TONE		Upper, Lead, Lower, Pedal (Available only when it is played by external MIDI control)
VOICE	Tone Generation	AWM & FM
	Upper Keyboard Voice Lower Keyboard Voice	Strings; Brass; Clarinet; Saxophone; Chorus; Organ; Piano; Guitar; Vibraphone; Cosmic; Tutti; [Upper] Harmonica; [Lower] Horn; Volume
	Lead Voice	Violin; Flute; Oboe; Trumpet; To Lower; Volume
	Pedalboard Voice	Contrabass; Elec. Bass; Organ Bass; Tuba; To Lower; Volume
EFFECT/ CONDITION	Digital Reverb	Depth
	Sustain	Upper (Knee), Lower (Knee), Pedal: On/Off
RHYTHM	Rhythms	March; Waltz; Swing; Bounce; Slow Rock; Tango; Latin 1; Latin 2; 8Beat; 16Beat; Volume
	Variations	Fill-In; Intro. Ending; Lead In; Auto Variation: On/Off
	Others	Start; Synchro Start; Tempo; Bar/Beat LED
	Rhythm Sequence	On/Off, Sequence 1 - 4
KEYBOARD PERCUSSION		Lower, Pedal On/Off
BASIC REGISTRATION		1 - 5
REGISTRATION MEMORY		M./To Disk, 1 - 8; Disable Button
MUSIC DISK RECORDER		Play/Record: Upper, Lower, Pedal, Lead, Keyboard Percussion, Control; Pause, Stop, Fast Forward/ Reverse, Song Select, Shift, Custom Play, Tempo; Format, Read & Auto Increment, Song Repeat; Song Delete; Song Copy: From/To; Disk Copy, Punch in Recording, XG Song Playback, Remaining Memory; LED Display; Eject
FOOT SWITCH	Left	Rhythm (Stop)
	Right	Regist. Shift
KNEE LEVER		On/Off: Sustain (Upper, Lower)
OTHER CONTROLS		Power On/Off; Exp. Pedal (Right/Left Footswitches); Master Volume
OTHER FITTINGS		3.5" Floppy Disk; Song Sheet; FUN TO PLAY ELECTONE Disk; Keyboard Cover/Music Stand; Headphone Jack; Rhythm In (Phone; R/L); Aux In/Out (RCA; R/L); MIDI In/Out; To Host; Host Select
OPTIONAL ACCESSORIES		HPE-170 Headphones; 3.5" Floppy Disks
SOUND SYSTEM	Power Amplifiers	35W (Stereo)
	Speakers	16cm; 5cm; Monitor x 2
DIMENSIONS (W x D x H)		107.7cm x 46.1cm x 94.7cm *With Keyboard Cover Closed
WEIGHT		53.5kg

Specifications and description in this Owner's Manual are information purposes only.
Yamaha Corp. reserves the right to change or modify products or specifications at any time without prior notice.
As specifications, equipment or options may not be the same in every locale, please check with Yamaha dealer.

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IMPORTANT NOTICE FOR THE UNITED KINGDOM

Connecting the Plug and Cord

IMPORTANT. The wires in this mains lead are coloured in accordance with the following code:

BLUE : NEUTRAL
BROWN : LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

Making sure that neither core is connected to the earth terminal of the three pin plug.

(2 wires)

- This applies only to products distributed by Yamaha-Kemble Music (U.K.) Ltd.

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