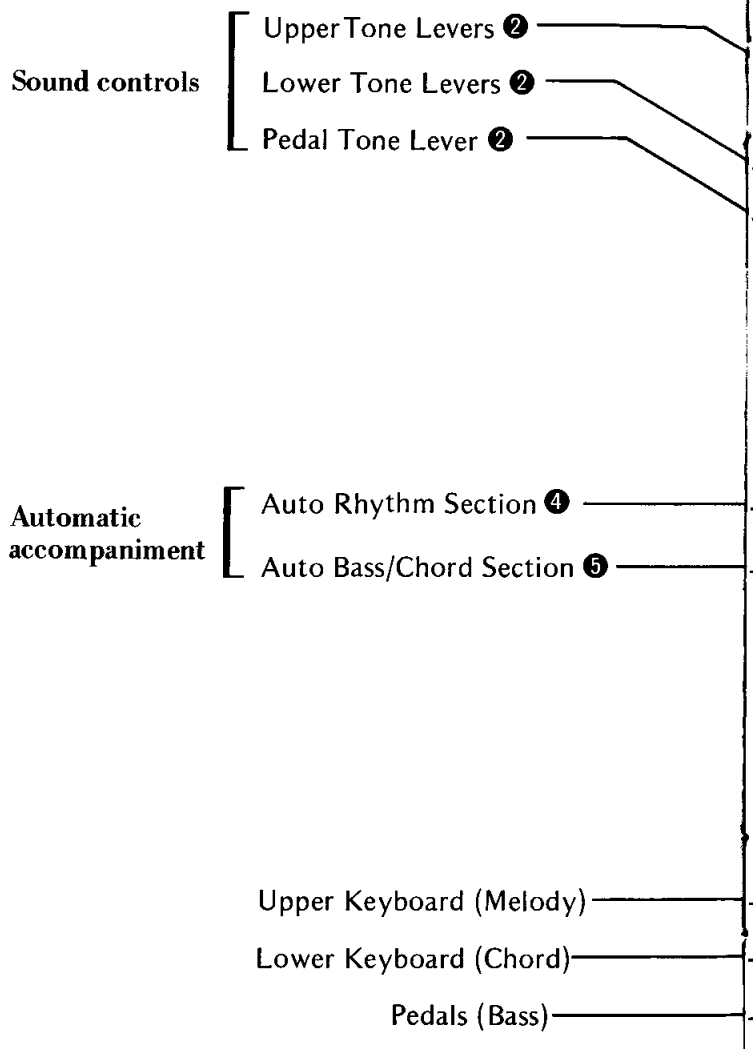
A-47

GUIDE TO YOUR YAMAHA ELECTONE

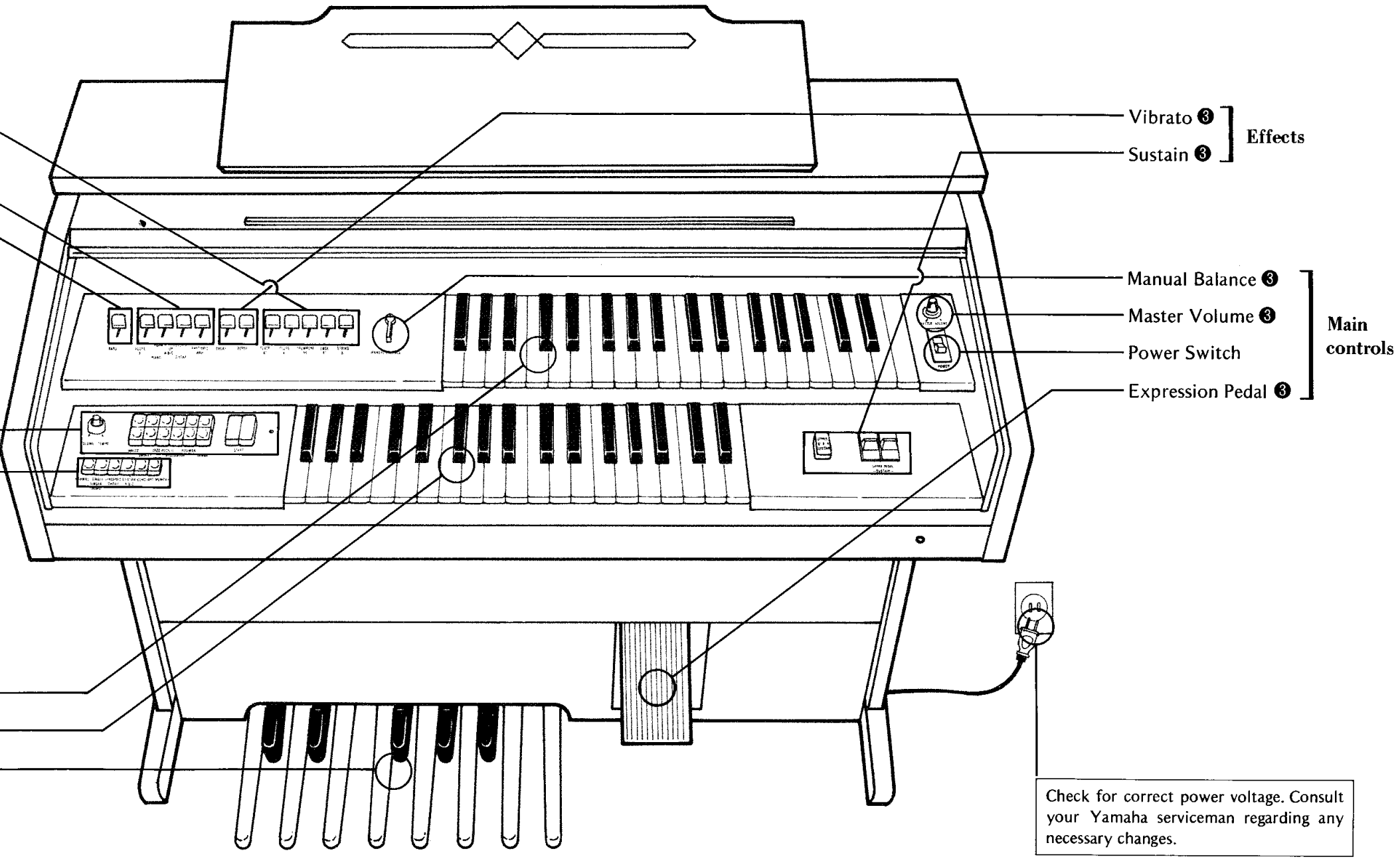
Welcome to the YAMAHA world of music.
You are now a member of the select group of proud YAMAHA Electone owners. We are confident that your selection of the Electone marks the beginning of a lifelong partnership in musical pleasure.
Please read this manual carefully to familiarize yourself with all of the unique features of this instrument and thus realize the Electone's full potential.

Contents

Your YAMAHA A-47 Electone



Organ



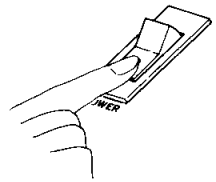
Check for correct power voltage. Consult your Yamaha serviceman regarding any necessary changes.

Preparation for Use

★ Insert the plug into the power outlet.

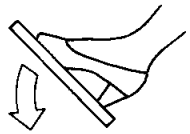
1 Turn on the Power Switch.

The power indicator lamp will now light.



2 Rotate the Master Volume control to the right (clockwise).

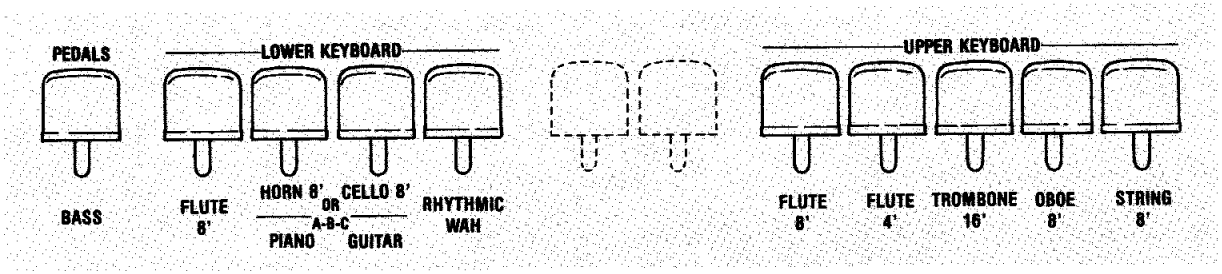
3 Use your right foot to depress the Expression Pedal slightly.



4 Move the Flute 8' lever toward you.

5 Depress the keys on the upper keyboard to produce a sound.

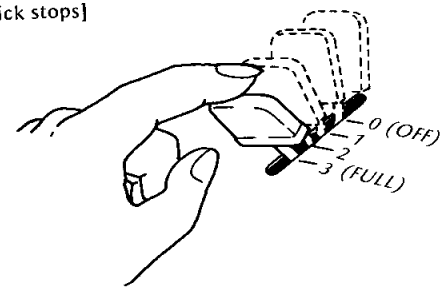
Tone Levers



There are tone levers to control various sounds of the keyboards and pedals. They are divided into three groups, the upper keyboard, the lower keyboard and pedals, so that different tones can be set for each.

Each lever can be controlled by two methods.
One is by continuously moving the lever from "off" to "full" to obtain the exact setting for that tone, thus balancing the overall tone setting with perfect precision.
The other method is to use the two easy-to-feel click stops, at the 1/3 and 2/3 positions of each lever. This enables you to obtain exactly the right tonal balance, mathematically speaking, without the need for calculation.

[Click stops]



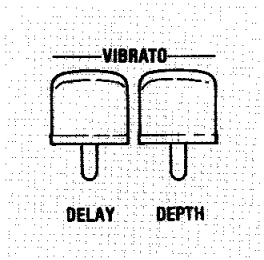
★ Coupler effect
16', 8', 4' indicate musical intervals. The Electone's musical scale is based on an 8' tone which corresponds to the musical intervals in the score.

Footage	Actual sound	Example of use
16'	Note one octave below	This enriches the sound.
8'	Interval identical to that of depressed keyboard	Basic sound.
4'	Note one octave above	This adds brightness, force.

For instance, when 16', 8', and 4' are struck simultaneously, three notes, each of a different octave, will be sounded at the same time despite the fact that only one key is depressed. (This is known as the coupler effect.)

★ Rhythmic Wah
When a rhythm is introduced and the key is depressed, the "wah" effect is produced in synchronization with the rhythm. By using this lever, a most interesting sound variation can be given to the lower keyboard.

Effects & Controls



Vibrato

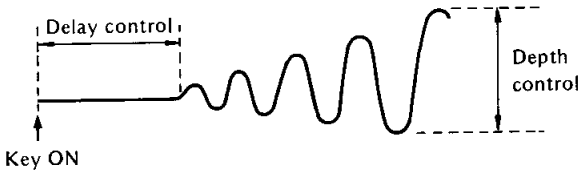
Vibrato is a waving of the tone. Violinists and cello players produce this effect frequently by an oscillating motion of the left hand. It enhances the emotional and tonal "feeling" of the instrument.

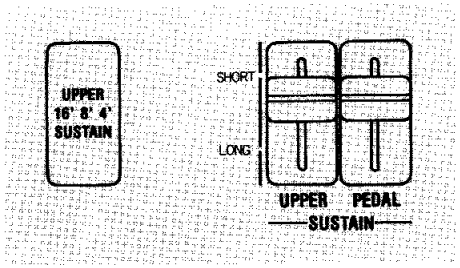
Depth

Vibrato effect can be produced by moving the lever toward you.
It provides continuous adjustment of the vibrato depth.

Delay Vibrato (Upper Keyboard only)

This lever regulates the length of time between the very beginning of the note sound and the moment when the actual vibrato cuts in. The more you pull the lever toward you, the longer it takes for the vibrato to introduce itself.





Sustain

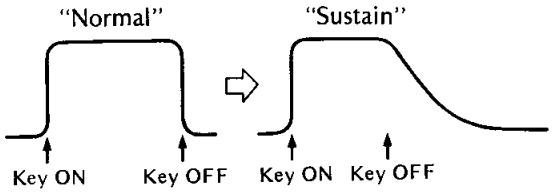
Sustaining is an effect which gives the sound a lingering resonance. With piano and other keyboard instruments, this resonance normally remains even after the keys have been released.

Upper Sustain

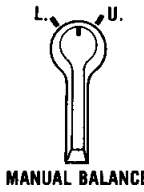
When the Upper 16' 8' 4' Sustain Tablet is switched on, a trailing note sound (natural fade-out) may be produced after a key is released on the upper keyboard. The Sustain effect can be lengthened by pulling the Upper Sustain Lever.

Pedal Sustain

Pulling this lever toward you produces a sustain effect in the notes played on the bass pedals. The time during which the sustain effect works can be continuously adjusted.



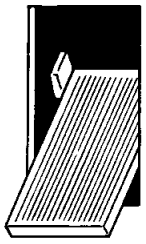
Manual Balance



This may be used to attain a balance between the volume of the upper keyboard and the volume of the lower keyboard.

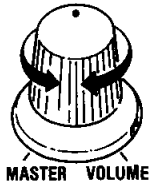
- The sound of the upper keyboard increases when the control is rotated clockwise.
- The sound of the lower keyboard increases when the control is rotated counterclockwise.

Expression Pedal



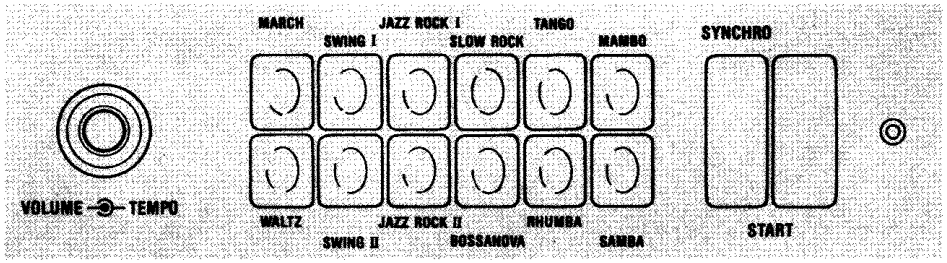
This affects the emotional mood of every passage by letting you vary the volume continuously with your right foot.
It works within the range set by the master volume control.

Master Volume



The master volume control adjusts the overall volume of the whole function of the Electone voices, rhythm section voice and auto bass chord.

Auto Rhythm Section



Rhythm selectors

This section provides a selection of 12 rhythms. By combining more than two of the buttons on the two rows, you can create more complex rhythms. However, the rhythms in the upper row have counterparts with those directly beneath in the lower row. Thus, a rhythm in the upper row is cancelled if you combine it with the one just below in the lower row.

Start, Synchro-Start switches

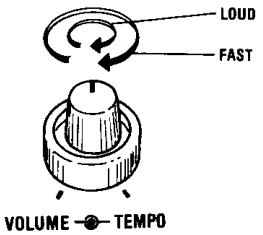
- Right-side Start switch: As soon as this is depressed, the rhythm starts from the first beat. The rhythm continues until the button is set to off.
- Left-side Synchro-Start switch: When this is kept in the depressed position, the rhythm starts from the first beat only when the lower or pedal keyboard keys are depressed.

Tempo control

The rhythm tempo can be adjusted with the Tempo knob, while you are playing or before you start by setting the rhythm volume and flicking the Start switch on.

Volume control

Use this to balance the volume of the rhythm section and the keyboards. The volume is then varied during playing by the expression pedal, just like that of the other tones.



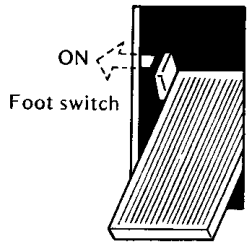
★ Tempo indicator lamp

The tempo indicator lamp lights in synchronization with every quarter note or bar of the rhythm. This is useful as a timing guide during play.

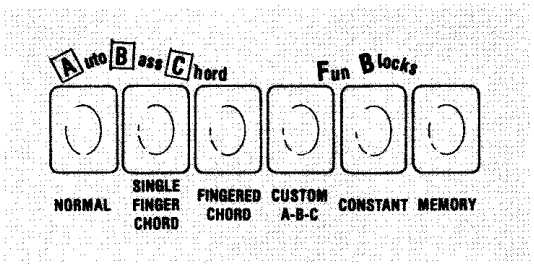
- When the Start switch is at on , the lamp lights in synchronization with the first beat of the rhythm of each bar.
- When the Synchro-Start switch is at on , the lamp lights at every quarter note if the rhythm has not started, and while the rhythm is starting, it lights in synchronization with the first beat of each bar.

★ Foot switch

Once the rhythm is on, push this switch once to instantly stop it, once again to restart. It lets you stop and restart the rhythm in the middle of a selection without using your hand.



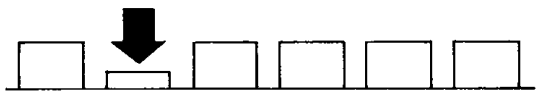
Auto Bass/Chord Section (Fun Blocks)



The Auto Bass/Chord is an automatic accompaniment function which is coupled to the rhythm pattern and gives chord accompaniment to the sound from the lower keyboard and to the sound from the pedal keyboard just by depressing the lower keyboard keys. The Single Finger Chord button permits automatic accompaniment with the touch of your finger. The Fingered Chord button allows sound from the lower keyboard to be made into the chords of your own personal preference. The Custom A-B-C button applies the Auto Bass/Chord effect to the lower keyboard and pedal keyboard sound separately.

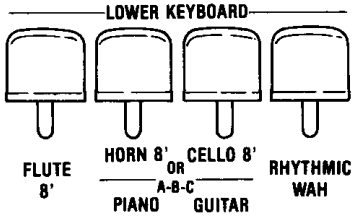
Single Finger Chord
(Accompaniment with one finger)

(1) Push the button for whatever rhythm you wish.
(2) Set the Rhythm Start switch on.
(3) Depress the Single Finger Chord button.

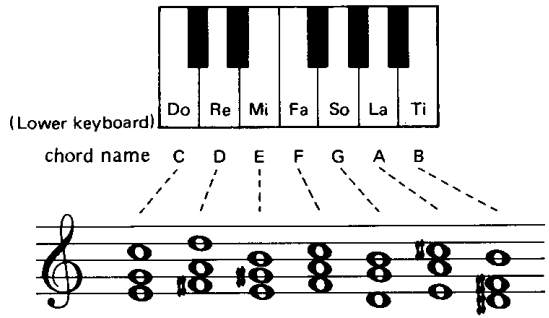


(4) Set the tone levers for the tone you want on the lower keyboard and pedals. Use one or more levers to adjust the Auto Bass Chord tone color and volume as in the normal way.

* When the Auto Bass/Chord section is used, the tone color of the lower keyboard's voices will change from Horn 8' to Piano and from Cello 8' to Guitar.



(5) Now, if you depress a C key on the lower keyboard, a C major chord and bass note will play in an alternating pattern which matches the rhythm pattern and tempo set. As long as the key is held down, the bass chord rhythm continues.

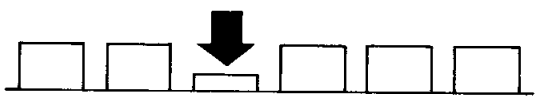


★ When the tone levers of the pedal keyboard are operated, automatic accompaniment is available with the pedal sound in accordance with the rhythm and chords detected by the lower keyboard, even when the pedal keys are not depressed.
When the pedal keyboard is not depressed, automatic accompaniment of the major chords is available in the Auto Bass/Chord mode. However, this can be changed to seventh chord, minor chord or minor-seventh chord.

- No pedal keyboard keys are depressed: Major chord
- White pedal keyboard key is depressed: Seventh chord
- Black pedal keyboard key is depressed: Minor chord
- White and black pedal keyboard keys are depressed simultaneously: Minor-seventh chord

Fingered Chord

(1) Push the button for whatever rhythm you wish.
(2) Set the Rhythm Start switch on.
(3) Depress the Fingered Chord button.



(4) Set the tone levers on the lower keyboard and pedals.
(5) Play a desired chord (major, minor, seventh, minor-seventh) on the lower keyboard.
Now as long as you hold that chord it will play according to the rhythm and tempo you have set. The correct pedal notes sound automatically for the chord you play on the lower keyboard.

Custom A-B-C

(1) Push the button for whatever rhythm you wish.
(2) Set the Rhythm Start switch on.
(3) Depress the Custom A-B-C button.

(4) Set the tone levers on the lower keyboard and pedals.
(5) Play a desired chord on the lower keyboard and also depress the pedal keyboard key. The lower keyboard chord and the pedal keyboard sound are isolated from each other, and so the auto chord sound automatically accompanies the chord, as created by depressing the lower keyboard keys, and the auto bass sound automatically accompanies the sound produced by the depressed pedal keyboard key.

Memory

This feature permits chords and or pedal notes to continue to play after the pedal or chord has been released.
The Memory button will function with the Single Finger Chord, the Fingered Chord, the Custom A-B-C, the Constant and the Normal buttons.

Constant

Set the Constant button and either the Single Finger Chord, the Fingered Chord or the Custom A-B-C button. Depress the desired key or chord on the Lower keyboard. As long as the keys are held down, the chord, as well as a pedal note will sound as if they were held down during normal play without any rhythm pattern. As soon as the key or keys are released the chord stops.

Normal

This button cancels the other Fun Blocks, returning the lower keyboard and the pedals to normal playing functions.

- **Single Finger Chord (Fingered Chord) (Custom A-B-C)/Memory**

Chord and Bass will alternate continuously, according to your preselected Rhythm pattern, until another Single Finger (or Fingered Chord) is selected.

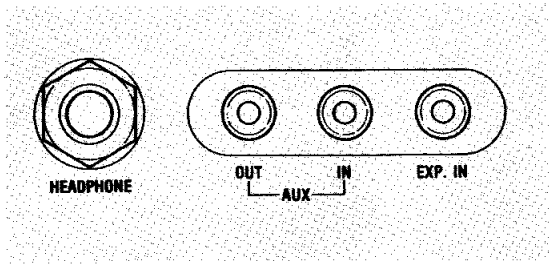
- **Single Finger Chord (Fingered Chord) (Custom A-B-C)/Constant/Memory**

Chord and Bass will play continuously with or without Auto Rhythm.

- **Normal/Memory**

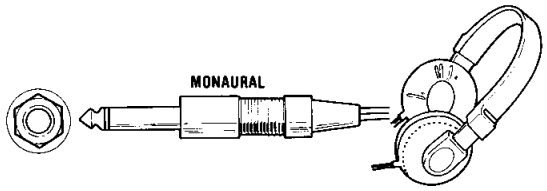
The chord notes can be played continuously on the lower keyboard as long as the Auto Rhythm is on.

To Obtain Maximum Enjoyment from Your A-47



Headphone Jack

Yamaha headphones (optional) can be plugged into the Headphone jack under the keyboard. With the headphone connected, the speakers are automatically shut off, allowing you to play or practice at any volume level without disturbing anyone.



EXP. IN

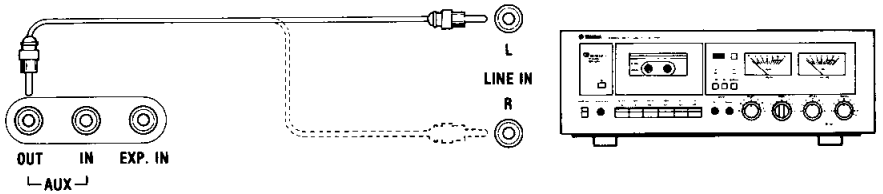
This jack will accept out side sound sources (Guitar, Synthesizer, etc.) and reproduce it through the Electone speakers.

Note: The output level of the sound source can be controlled by the expression pedal.
Impedance: Approx, 50 KΩ

AUX OUT

For recording, connect the AUX OUT jack with the tape deck's LINE IN jack. Control the recording levels on the tape deck.

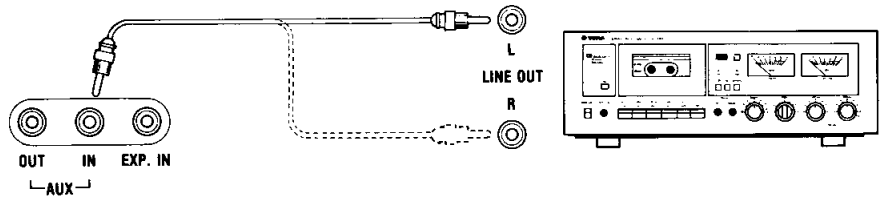
Note: Impedance: Approx, 500 Ω



AUX IN

For playback, connect the AUX IN jack with the tape deck's LINE OUT jack. Control the playback levels on the tape deck.

Note: These sound sources (tape recorder etc.) are not affected by the expression pedal.
Impedance: Approx, 20 KΩ



* Simultaneous connection of AUX OUT and AUX IN terminals with a tape recorder causes an oscillation. Therefore, connect only one at a time.

* These jacks were designed to accommodate the most commonly used impedance. Dramatic deviation from these specification will result in inadequate drive, distortion, noise and poor performance in general.

Care of Your A-47

Always treat your Electone with the same care you would any fine musical instrument. The following points are suggested to ensure the best performance of the Electone.

(1) Never touch the inside parts.

(2) Always turn the power switch OFF after playing.

(3) Clean the cabinet and keys of your Electone with a wet cloth using only a neutral cleanser. Never use such chemical solvents as thinner and alcohol.

(4) Don't put a vinyl product on your Electone since the external coating reacts chemically to vinyl.

(5) Keep the Electone in a position away from direct sunlight, excess humidity and heat to protect the cabinet finish and joints.

(6) Do not hit or scratch the cabinet with a hard object.

The Electone is not out of order If....

(1).... **the unit does not go on when the power switch is turned on.**
Check the following.
Is the AC plug fully inserted into the wall power outlet? Reinsert it to make sure. Is there power coming from that outlet?
If the outlet is live but the Electone does not work, unplug the cord and contact your Yamaha dealer.

(2).... **occasional unpleasant static occurs.**
In the majority of such cases, the cause can be traced to the turning on or off of refrigerators, washing machines, electric pumps or other household appliances.
Electrical faults in a neighboring outdoor neon sign may also be a cause.
If the cause is a fault in a neon or fluorescent lighting fixture, it should be repaired. When the cause cannot be determined, or in case of doubt, contact your Yamaha dealer.

(3).... **the Electone reproduces radio or TV signals.**
If there is a powerful transmitter such as a radio station in the vicinity this can occur. Contact your Yamaha dealer.

(4).... **the noises interfere with radio or TV reception.**
A high-frequency pulse is used for the sound source of the Electone, and it may adversely affect radio or TV reception. Therefore, play your Electone as far away as possible from radio and TV sets.

(5).... **pedal notes sound too high, upper keyboard's notes too low.**
This is especially noticeable when comparing the Electone and piano. Piano notes are combinations of harmonics which are influenced by the surroundings, while Electone harmonics are simpler (multiples of the fundamental tone) requiring the Electone to be adjusted in a different manner at the assembly stage.

(6).... **rattling (sympathetic vibration) occurs.**
All materials have critical resonance frequencies at which they vibrate. The Electone's continuous tones will naturally cause other objects (windows, objects on shelves, etc.) to vibrate.
Change the place of installation whenever such difficulty occurs.

Specifications

Keyboards
Upper: 37 keys f~f_3 (3 octaves)
Lower: 37 keys F~f_2 (3 octaves)
Pedals: 13 keys C1~C (1 octave)

Tone Levers
Upper: Flute 8' · 4', Trombone 16', Oboe 8', String 8'
Lower: Flute 8', Horn 8' (or Piano), Cello 8' (or Guitar), Rhythmic Wah
Pedals: Bass

Effect Levers
Vibrato Delay (Upper), Vibrato Depth

Effect Tablet
Upper 16' 8' 4' Sustain

Effect Controls
Upper Sustain, Pedal Sustain

Auto Rhythm Section
Rhythm Selectors:
March, Waltz, Swing I, Swing II, Jazz-Rock I, Jazz Rock II, Slow Rock, Bossanova, Tango, Rhumba, Mambo, Samba
Rhythm Controls: Rhythm Start, Rhythm Synchro-Start, Tempo, Volume, Tempo Indicator Lamp, Foot Switch

Auto Bass/Chord Section
Normal, Single Finger Chord, Fingered Chord, Custom A-B-C, Constant, Memory

Main Controls
Manual Balance, Master Volume, Expression Pedal, Power Switch

Other Fittings
Headphone Jack,
EXP. IN Jack (50 KΩ Imp.)
AUX IN Jack (20 KΩ Imp.)
AUX OUT Jack (500 Ω Imp.)
Power Indicator Lamp,
Music Rest, Matching Bench

Main Amp
30 W x 1 (8 ohms Imp.)

Speakers
30 cm (12") x 1, 5cm (2") x 1

Circuitry
Solid State (incl. LSIs and ICs)
Output Power: 35W (RMS)
Power Consumption:
See Electone nameplate
Power Source: 50/60 Hz AC

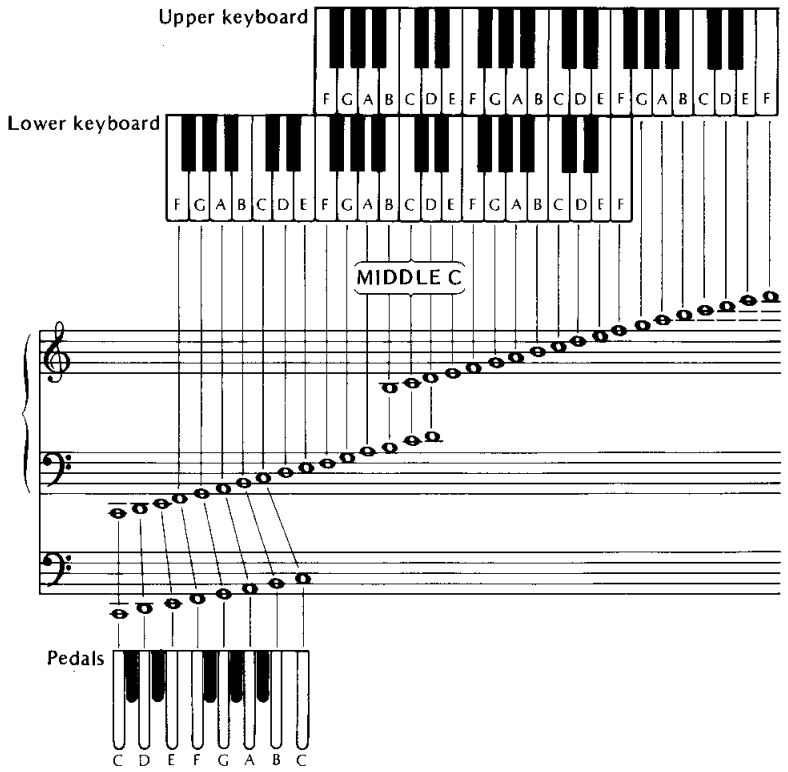
Dimensions
Width: 104,4 cm (41")
Depth: 55,5 cm (22")
Height: 94,3 cm (37")

Weight 53 kg (117 lbs.)

Finish Simulated American Walnut Grain

Specifications subject ot change without notice.

- **Keyboards and Pedals**



A maximum of seven sounds may be produced on both the upper and lower keyboard at one time, but only one sound may be produced at a time with the bass pedals.
Precedence is given to the higher note if two or more pedals are pressed simultaneously. This assures tonal clarity.

SINCE 1887 YAMAHA

NIPPON GAKKI CO., LTD. HAMAMATSU, JAPAN

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